

**INDEX OF SHEETS** 09-17-2021 LETTING ITEM 070

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**PLANS FOR PROPOSED**

**STP-B FUNDS**

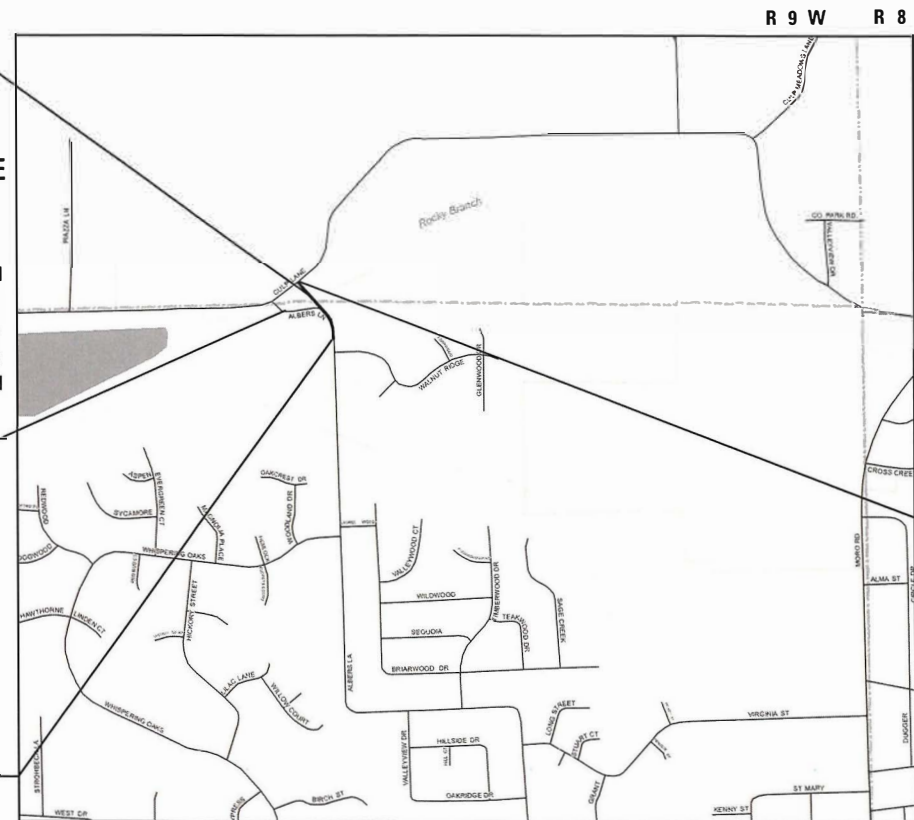
VILLAGE OF BETHALTO  
FRIEDEL BRIDGE IMPROVEMENTS  
MUN ROUTE 901 (ALBERS LN)  
MADISON COUNTY  
SECTION 17-00032-00-BR  
PROJECT NO. HT4N(978)  
JOB NO. C-98-017-21

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	1
		ILLINOIS	CONTRACT NO. 97758	



PR SN 060-6854  
 STRUCTURE STA. 15+92.0  
 PR ALBERS LN OVER ROCKY BRANCH  
 SINGLE SPAN PCC MULTI-BEAM BRIDGE  
 69'-6 1/4" BK TO BK INTEGRAL ABUTS.  
 36'-5" OUT TO OUT DECK, 20° SKEW

EX SN 060-3078  
 STRUCTURE STA. 18+44.2  
 EX ALBERS LN OVER ROCKY BRANCH  
 SINGLE SPAN RC THRU-GIRDER BRIDGE  
 40'-0" BK TO BK CLOSED ABUTS.  
 19'-3" OUT TO OUT DECK

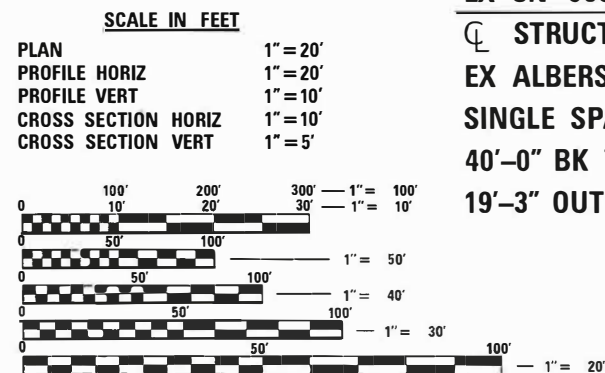


**LOCATION MAP**  
(NOT TO SCALE)

GROSS LENGTH = 630.7' = (0.119 MILES)  
 NET LENGTH = 630.7' = (0.119 MILES)

**DESIGN DESIGNATION**

ROADWAY CLASSIFICATION = LOCAL ROAD  
 DESIGN SPEED = 25 MPH  
 CURRENT ADT (2020) = 850  
 DESIGN YEAR ADT (2040) = 1250



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

END SECTION  
 STA. 17+28.7  
 END IMPROVEMENTS  
 STA. 17+40.7



*Bill Tindall* 4/26/21 Date  
 BILL TINDALL, P.E.  
 License Expires 11/30/2021

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

APPROVED: *Alan Winslow* 4-29-21 DATE  
 ALAN WINSLOW MAYOR OF BETHALTO

PASSED: *Kathy Blatz* May 18, 21 DATE  
 DISTRICT 8 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID  
 BASED ON LIMITED  
 REVIEW: *Kathy Blatz* May 18, 21 DATE  
 REGION 5 ENGINEER

**OATES ASSOCIATES**  
 ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115

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**GENERAL NOTES**

**UTILITIES**

1. ABOVE-GROUND UTILITY FACILITIES OR APPURTENANCES SHALL BE RELOCATED OR ADJUSTED BY THEIR RESPECTIVE OWNERS TO PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 1.5 FEET, MEASURED FROM THE FACE OF CURB TO THE NEAR EDGE OF THE OBJECT.
2. THE FOLLOWING UTILITY COMPANIES MAY HAVE FACILITIES LOCATED WITHIN THE LIMITS OF CONSTRUCTION WHICH MAY REQUIRE ADJUSTMENT, RELOCATION OR REMOVAL. REFER TO THE "STATUS OF UTILITIES TO BE ADJUSTED" SPECIAL PROVISION FOR ADDITIONAL INFORMATION.

AMEREN IP (ELECTRIC) 2600 NORTH CENTER MARYVILLE, IL 62062 (618) 346-1245	CHARTER COMMUNICATIONS (CABLE) 815 CHARTER COMMONS TOWN & COUNTRY, MO 63017 (314) 393-5028
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AT&T DISTRIBUTION (TELEPHONE) 203 GEOTHE STREET CALLINSVILLE, IL 62234 (618) 346-6499	VILLAGE OF BETHALTO (WATER & SEWER) 101 SOUTH PRAIRIE ST BETHALTO, IL 62010 (618) 920-8903
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AMEREN (ELECTRIC TRANSMISSION)  
1901 CHOUTEAU AVE  
ST. LOUIS, MO 63103  
(314) 621-3222

**GENERAL**

3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE LOCAL POSTMASTER FOR APPROVAL OF ALL TEMPORARY MAILBOX LOCATIONS. THE COST OF ALL MATERIALS REQUIRED AND ALL LABOR NECESSARY TO COMPLY WITH THIS PROVISION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO ORDERING MATERIALS AND COMMENCING CONSTRUCTION.
5. THE CONTRACTOR SHALL STAGE ALL WORK IN SUCH A WAY AS TO MAINTAIN INGRESS AND EGRESS TO ALL ABUTTING PROPERTIES AT ALL TIMES DURING CONSTRUCTION. AGGREGATE FOR TEMPORARY ACCESS WILL BE MEASURED FOR PAYMENT AS SPECIFIED IN THE CONTRACT.
6. THE CONTRACTOR SHALL CONFINE ALL OPERATIONS TO THE CONSTRUCTION LIMITS LINE SHOWN ON THE PLANS. ANY AREA DISTURBED BEYOND THESE LIMITS SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
7. THE CONTRACTOR SHALL FERTILIZE, SEED AND MULCH ALL EARTH SURFACES DISTURBED BY CONSTRUCTION. FERTILIZER, SEEDING AND MULCH WITHIN THE CONSTRUCTION LIMITS WILL BE PAID FOR AS PROVIDED IN THE CONTRACT. FERTILIZER, SEEDING AND MULCH OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT. SEE THE SEEDING SCHEDULE FOR ESTIMATED PLAN QUANTITIES.
8. WHERE TREE REMOVAL CONFLICTS WITH EXISTING UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CUT THE TREE OFF AT THE GROUND LINE AND GRIND THE STUMP AS DIRECTED BY THE ENGINEER. THE COST OF THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE FOR THE VARIOUS TREE REMOVAL ITEMS INCLUDED IN THE CONTRACT.
9. IF ASH TREES ARE TO BE REMOVED FROM THE PROJECT, THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS SPECIFIED BY THE ILLINOIS DEPARTMENT OF AGRICULTURE (IDOA) TO PREVENT THE SPREAD OF THE EMERALD ASH BORER. IDOA INFORMATION REGARDING ASH TREE REMOVAL CAN BE FOUND ON THE IDOA WEBSITE AT [WWW.AGR.STATE.IL.US/EAB](http://WWW.AGR.STATE.IL.US/EAB).

**EARTHWORK**

10. EARTH EXCAVATION INCLUDES THE REMOVAL OF THE EXISTING BITUMINOUS (OIL & CHIP) ROADWAY SURFACE AND AGGREGATE BASE. THE CONTRACTOR MAY INCORPORATE THESE MATERIALS INTO THE PROPOSED EMBANKMENT. SURPLUS AND/OR UNSUITABLE MATERIAL SHALL BE DISPOSED OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."
11. PRIOR TO STARTING EARTHWORK OPERATIONS IN AREAS THAT DO NOT REQUIRE EXCAVATION, THE EXISTING BITUMINOUS (OIL & CHIP) ROADWAY SURFACE SHALL BE SCARIFIED OR BROKEN BY MECHANICAL MEANS, REDUCING ALL PARTICLES TO A SIZE NOT LARGER THAN 4 INCHES IN THE LARGEST DIMENSION. THE COST OF THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.

**PAVING**

12. AT VARIOUS LOCATIONS, IT MAY BE NECESSARY TO TRANSITION PROPOSED COMBINATION CONCRETE CURB AND GUTTER TO MEET EXISTING CURBS, GUTTERS OR PROPOSED BRIDGE APPROACH SLAB AND CURB. THE MINIMUM LENGTH OF TRANSITIONAL COMBINATION CURB AND GUTTER SHALL BE 10 FEET, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

**DRAINAGE**

13. STORM SEWER INVERTS SHOWN ON THE PLANS HAVE BEEN CALCULATED TO THE CENTER OF THE STRUCTURE. THE STORM SEWER SLOPES SHOWN ON THE PLANS ARE THE PERCENT GRADE FROM CENTER TO CENTER OF STRUCTURE. THE LENGTH OF STORM SEWERS SHOWN ON THE PLANS IS THE DISTANCE FROM CENTER TO CENTER OF STRUCTURE. STORM SEWER WILL BE MEASURED AND PAID FOR AS SPECIFIED IN ARTICLES 550.09 AND 550.10 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION." FLARED END SECTIONS ARE LOCATED BY STATION, OFFSET, AND FLOWLINE ELEVATION AT THE FLARED END OF THE FLARED END SECTION.
14. STORM SEWERS AND CULVERTS MAY HAVE MINIMAL DEPTH BELOW THE MODIFIED SOIL LAYER. THE CONTRACTOR SHALL TAKE WHATEVER PRECAUTIONS ARE NECESSARY TO PROTECT THE PIPES FROM DAMAGE DURING THE SOIL MODIFICATION PROCESS. IN THE EVENT THAT PIPES ARE DAMAGED, THEY SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER. ALL COSTS INCURRED TO REPAIR OR REPLACE DAMAGED PIPES SHALL BE AT THE CONTRACTOR'S EXPENSE.
15. THE OFFSETS TO ALL INLETS AND MANHOLES ARE GIVEN TO THE CENTER OF THE OPENING AT THE BASE OF THE FRAME AND GRATE OR LID. CONCENTRIC DRAINAGE STRUCTURES WERE ASSUMED WHEN CALCULATING THESE DIMENSIONS.
16. ALL TYPE 3 FRAMES AND GRATES SHALL BE FURNISHED BY THE CONTRACTOR WITH OPEN CURB BOXES. SEE HIGHWAY STANDARD 604006 AND THE SPECIAL PROVISIONS FOR DETAILS.

**GRAVITY SANITARY SEWER**

17. ALL MATERIALS, INSTALLATION, AND TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, THE ILLINOIS DEPARTMENT OF PUBLIC HEALTH, THE ILLINOIS PLUMBING CODE, AND THE REQUIREMENTS OF THE VILLAGE OF BETHALTO.
18. PRIOR TO COMMENCEMENT OF ANY WORK, THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE PLANS WITH THE ACTUAL DIMENSIONS AND CONDITIONS OF THE SITE. THE GENERAL CONTRACTOR MUST VERIFY THE ENGINEER'S LINES AND GRADES. IF A DISCREPANCY OCCURS FROM WHAT IS SHOWN ON THE PLANS, STANDARD SPECIFICATIONS, AND/OR DETAILS, THE GENERAL CONTRACTOR SHALL NOTIFY THE ENGINEER AND SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE AFFECTED WORK. FAILING TO DO SO WILL BE CONSIDERED AS THE GENERAL CONTRACTOR HAVING PROCEEDED AT HIS OWN RISK AND EXPENSE.
19. ALL SANITARY AND SEWER PIPES SHALL BE PVC SDR-35 (OR SDR-26 IF GREATER THAN 14 FEET DEEP) MEETING THE REQUIREMENTS OF ASTM D-3034 WITH PIPE AND FITTINGS CONFORMING TO ASTM D-3034 AND HAVING AN INTEGRAL BELL, GASKETED JOINT CONFORMING TO ASTM D-3212.
20. SANITARY SEWER INVERTS SHOWN ON THE PLANS HAVE BEEN CALCULATED TO THE CENTER OF THE STRUCTURE. THE SANITARY SEWER SLOPES SHOWN ON THE PLANS IS THE PERCENT GRADE FROM CENTER TO CENTER OF STRUCTURE. THE LENGTH OF SANITARY SEWERS SHOWN ON THE PLANS IS THE DISTANCE FROM CENTER TO CENTER OF STRUCTURE.
21. BEDDING OF THE PIPE AND BACKFILL SHALL BE DONE IN ACCORDANCE WITH ASTM D2321-89 CLASS IB, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" AND AS SHOWN IN THE PLANS. GRANULAR TRENCH BACKFILL SHALL BE USED AS INDICATED ON THE PLANS AND WHEN THE EDGE OF ANY TRENCH IS WITHIN 2 FT OF ANY PAVEMENT, CURB, SIDEWALK, OR OTHER STRUCTURE. TRENCH BACKFILL SHALL BE COMPACTED WITH A ROLLER, VIBRATORY PLATE, OR OTHER COMPACTING DEVICE IN 12-INCH LIFTS.
22. ALL GRAVITY SANITARY SEWER PIPES AND STRUCTURES SHALL BE TESTED IN ACCORDANCE WITH ARTICLE 31-1.13 METHOD A, EXFILTRATION OF AIR UNDER PRESSURE, AND METHOD D, DEFLECTION FOR FLEXIBLE THERMOPLASTIC PIPE, OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS". GRAVITY SEWER PIPES SHALL BE TELEVISION INSPECTED BY THE VILLAGE OF BETHALTO PRIOR TO THE WORK BEING ACCEPTED. CONTRACTOR SHALL REPAIR OR REPLACE ANY LINE OR STRUCTURE WHICH FAILS ANY OF THE REQUIRED TESTS, AND RETEST. ALL TESTS SHALL BE WITNESSED BY THE ENGINEER AND THE VILLAGE OF BETHALTO. CONTRACTOR SHALL NOTIFY THE ENGINEER AND VILLAGE OF BETHALTO 48 HOURS IN ADVANCE OF ANY TESTING TO BE PERFORMED.

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, UTILITIES,  
HIGHWAY STANDARDS, & COMMITMENTS**

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

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	2
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				



SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
*		20100500	TREE REMOVAL, ACRES	ACRE	0.50
	*	20200100	EARTH EXCAVATION	CU YD	3,725
	*	20800150	TRENCH BACKFILL	CU YD	276
	*	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	721
		25000100	SEEDING, CLASS 1	ACRE	1.00
		25000400	NITROGEN FERTILIZER NUTRIENT	POUND	90
		25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	90
		25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	90
		25100115	MULCH, METHOD 2	ACRE	1.00
		25100630	EROSION CONTROL BLANKET	SQ YD	2,348
		28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	197
		28000305	TEMPORARY DITCH CHECKS	FOOT	54
		28000400	PERIMETER EROSION BARRIER	FOOT	913
		28000500	INLET AND PIPE PROTECTION	EACH	13
		28100105	STONE RIPRAP, CLASS A3	SQ YD	205

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
		28100109	STONE RIPRAP, CLASS A5	SQ YD	659
		28200200	FILTER FABRIC	SQ YD	864
		30200650	PROCESSING MODIFIED SOIL 12"	SQ YD	1,807
		30201700	PORTLAND CEMENT	TON	98
		31100100	SUBBASE GRANULAR MATERIAL, TYPE A	TON	872
		40200100	AGGREGATE SURFACE COURSE, TYPE A	TON	30
		40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	40
		40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	2,953
		40700100	BITUMINOUS MATERIALS (TACK COAT)	POUND	295
		40701801	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 6"	SQ YD	1,312
		42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	133
		42000700	HIGH-EARLY-STRENGTH PORTLAND CEMENT CONCRETE PAVEMENT 6"	SQ YD	309
		44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	278
		44000400	GUTTER REMOVAL	FOOT	177
		50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1

NOTES: SP - SEE PROJECT SPECIFIC SPECIAL PROVISION  
SI - SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	4
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
VILLAGE OF BETHALTO   ILLINOIS   FED. AID PROJECT				

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
		50105220	PIPE CULVERT REMOVAL	FOOT	84
		50200100	STRUCTURE EXCAVATION	CU YD	104
		50300225	CONCRETE STRUCTURES	CU YD	71.9
		50300255	CONCRETE SUPERSTRUCTURE	CU YD	120.6
		50300260	BRIDGE DECK GROOVING	SQ YD	372
		50300300	PROTECTIVE COAT	SQ YD	561
		50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	85.9
	*	50401305	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE BEAMS, IL27N	FOOT	397.5
		50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	66,950
	*	50900805	PEDESTRIAN RAILING	FOOT	100
	*	50901720	BICYCLE RAILING	FOOT	67
	*	50901750	PARAPET RAILING	FOOT	185
		51201600	FURNISHING STEEL PILES HP12X53	FOOT	285
		51202305	DRIVING PILES	FOOT	285
		51203600	TEST PILE STEEL HP12X53	EACH	2

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
		51204650	PILE SHOES	EACH	12
		51500100	NAME PLATES	EACH	1
		54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	4
		54248510	CONCRETE COLLAR	CU YD	0.4
	*	550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	362
		58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	115
		59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	69
		60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4
		60219540	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 24 FRAME AND GRATE	EACH	1
	*	60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	3
		60237470	INLETS, TYPE A, TYPE 24 FRAME AND GRATE	EACH	5
		60240328	INLETS, TYPE B, TYPE 24 FRAME AND GRATE	EACH	4
		60255500	MANHOLES TO BE ADJUSTED	EACH	1
		60600605	CONCRETE CURB, TYPE B	FOOT	80
		60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	910

NOTES: SP - SEE PROJECT SPECIFIC SPECIAL PROVISION  
SI - SPECIALTY ITEM

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	5
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
VILLAGE OF BETHALTO   ILLINOIS   FED. AID PROJECT				

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
*		63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	100
*		63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2
*		63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	2
*		63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	1
*		63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1
*		66400305	CHAIN LINK FENCE, 6'	FOOT	345
		67100100	MOBILIZATION	L SUM	1
		70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1,098
		70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	19
*		72000100	SIGN PANEL - TYPE 1	SQ FT	41
*		72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
*	*	72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	89
*		78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	1,098
*		78009024	MODIFIED URETHANE PAVEMENT MARKING - LINE 24"	FOOT	19
*		78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	11

SI	SP	CODE NO.	ITEM	UNIT	TOTAL QUANTITY
*		78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	4
*		78200010	BARRIER WALL REFLECTORS, TYPE B	EACH	4
*	*	X0323814	SANITARY SEWER REMOVAL, 18"	FOOT	123
	*	X0323859	DOWNSPOUT CONNECTION	EACH	3
*	*	X0326713	SANITARY SEWER CONNECTION	EACH	1
*	*	X0326744	PLUG PIPE PENETRATION	EACH	1
	*	X1500001	BITUMINOUS SURFACE TREATMENT, (PREVENTIVE MAINTENANCE)	SQ YD	340
*	*	X2300007	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	1
*	*	X2600012	REMOVE AND RELOCATE SIGN PANEL AND POLE ASSEMBLY	EACH	1
	*	X2800520	ABOVE GRADE INLET FILTERS	EACH	13
*	*	X6026055	SANITARY MANHOLE, SPECIAL	EACH	2
	*	X6026634	METER VAULTS TO BE ADJUSTED	EACH	2
*	*	X6310214	TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)	EACH	1
	*	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
	*	X7240300	SIGN REMOVAL	EACH	4

NOTES: SP - SEE PROJECT SPECIFIC SPECIAL PROVISION  
SI - SPECIALTY ITEM

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

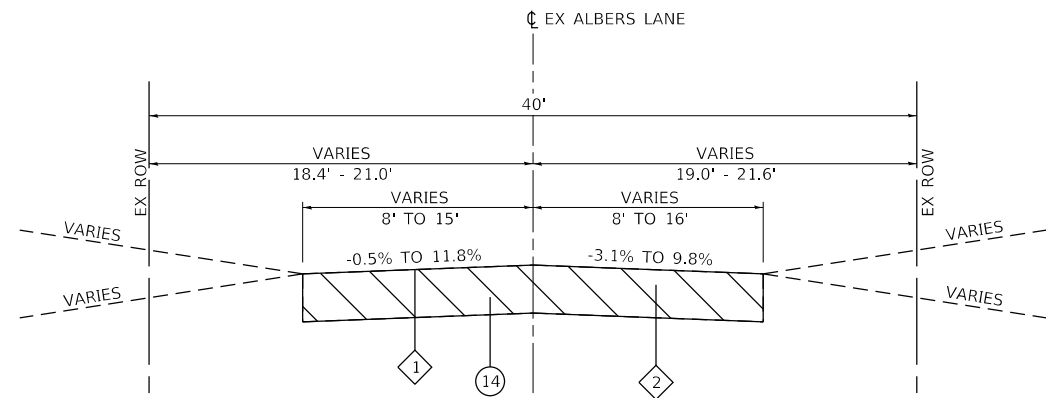
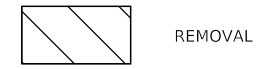
SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	6
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
VILLAGE OF BETHALTO   ILLINOIS   FED. AID PROJECT				



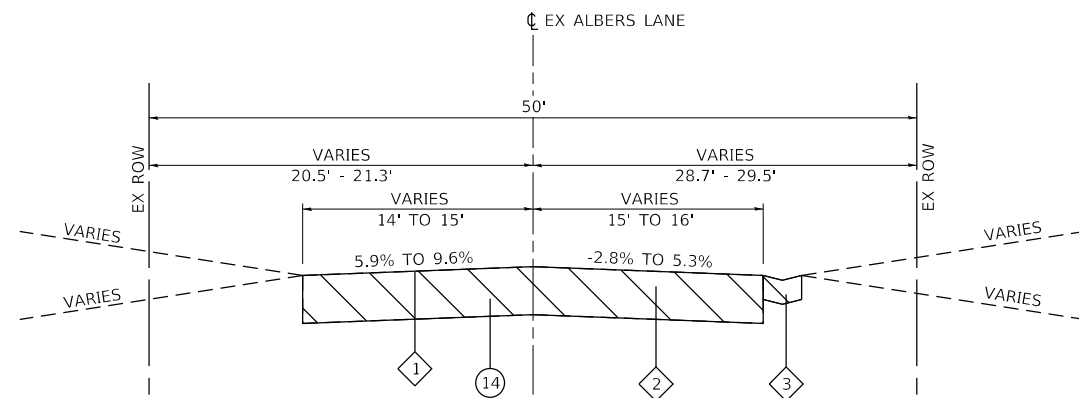
**TYPICAL SECTION LEGEND**

- ① EXISTING OIL & CHIP
- ② EXISTING AGG BASE COURSE
- ③ EXISTING CONCRETE GUTTER TO BE REMOVED
- ④ EXISTING CONCRETE DECK, 10"
- ⑤ PROPOSED SUBBASE GRANULAR MATERIAL TYPE A 8"
- ⑥ PROPOSED HMA PAVEMENT (FULL DEPTH) 6"
- ⑦ PROPOSED BITUMINOUS MATERIALS PRIME COAT
- ⑧ PROPOSED BITUMINOUS MATERIALS TACK COAT
- ⑨ PROPOSED COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.24
- ⑩ FUTURE PCC SIDEWALK
- ⑪ PROPOSED FURNISH AND PLACE TOPSOIL
- ⑫ PROPOSED MODIFIED SOIL
- ⑬ REMOVAL OF EXISTING STRUCTURE
- ⑭ EARTH EXCAVATION (SEE GENERAL NOTE 10)



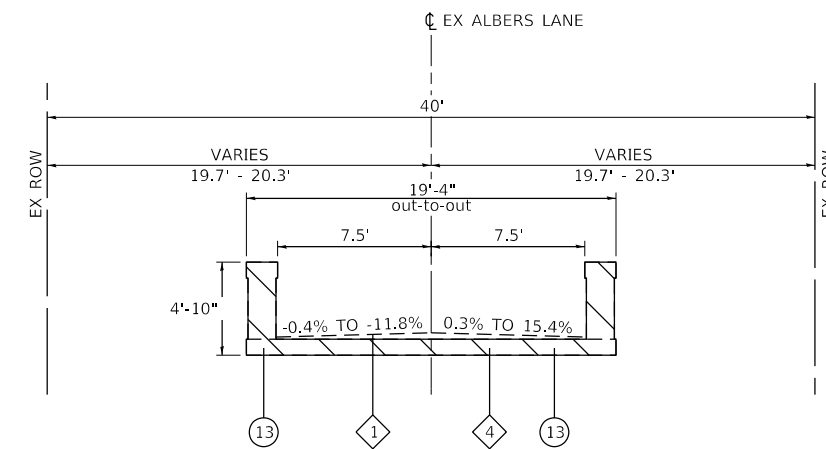
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INTERSECTION TRANSITION STA 18+56.6 TO STA 19+08.5  
 STA 13+24.1 TO STA 18+18.8



**EXISTING ALBERS LANE**

STA 11+10.0 TO 13+24.1  
 INTERSECTION TRANSITION STA 10+52.5 TO STA 11+10.0



**EXISTING SN 060-3078**

STRUCTURE STA 18+18.8 TO STA 18+56.6

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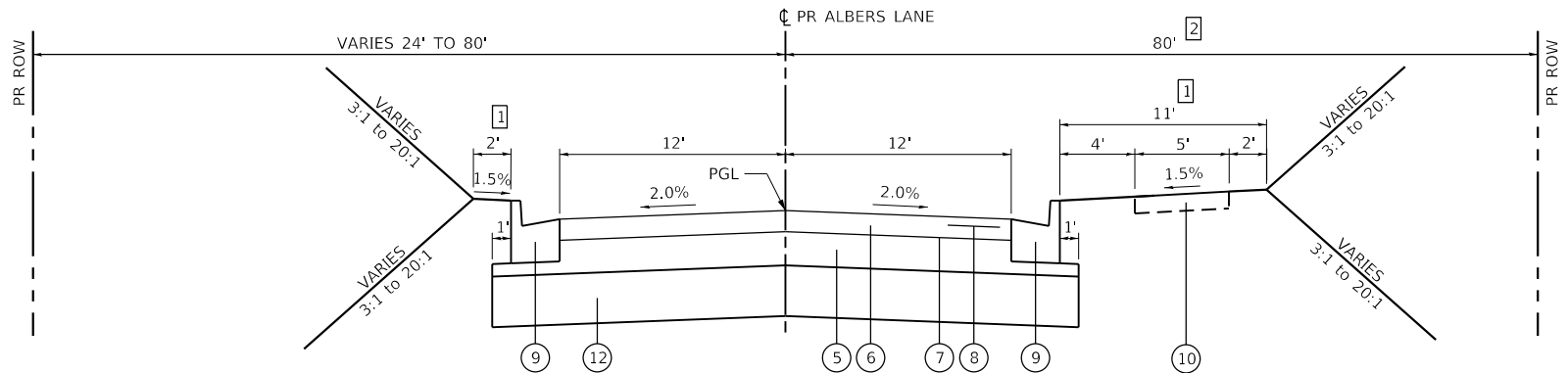
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>EXISTING TYPICAL SECTIONS</b>	
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STA. N/A	TO STA. N/A

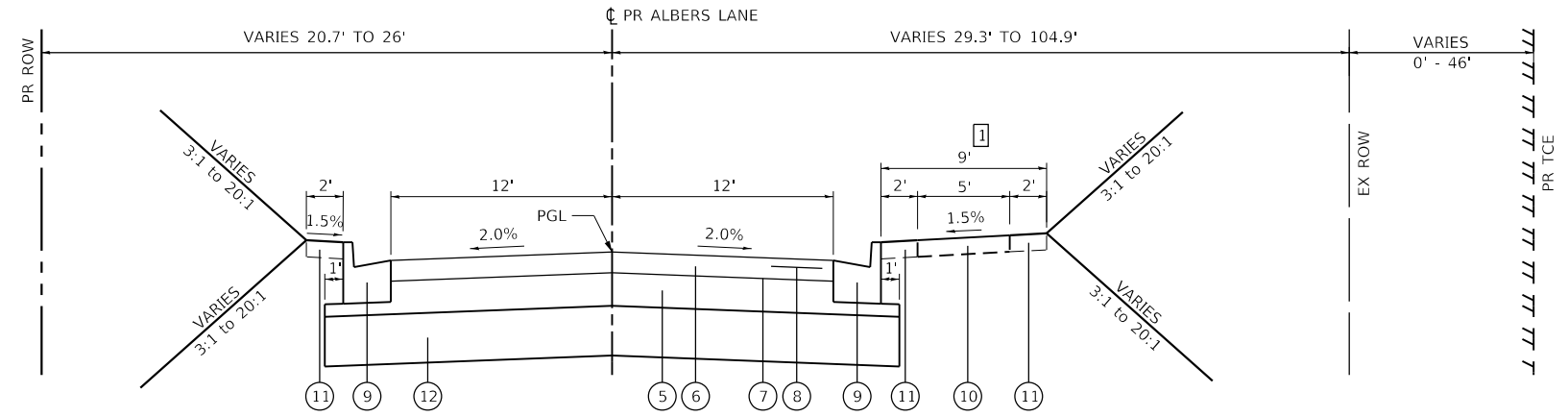
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901	17-00032-00-BR	MADISON	68	8
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				





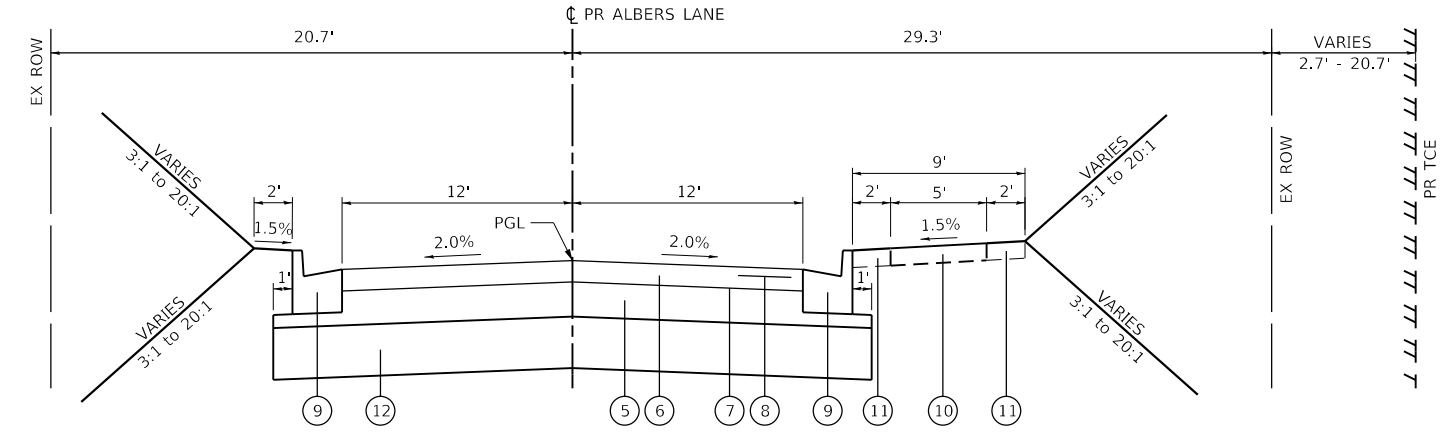
**PROPOSED ALBERS LANE**

INTERSECTION TRANSITION STA 16+80.9 TO STA 17+28.7  
 STA 16+76.8 TO STA 16+80.9  
 STRUCTURE OMISSION STA 15+08.9 TO STA 16+76.8  
 STA 13+91.0 TO STA 15+08.9



**PROPOSED ALBERS LANE**

STA 12+00.0 TO STA 13+91.0



**PROPOSED ALBERS LANE**

STA 11+60.8 TO STA 12+00.0  
 INTERSECTION TRANSITION STA 11+10.0 TO STA 11+60.8

**TYPICAL SECTION LEGEND**

- 1 EXISTING OIL & CHIP
- 2 EXISTING AGG BASE COURSE
- 3 EXISTING CONCRETE GUTTER
- 4 EXISTING CONCRETE DECK, 10"
- 5 PROPOSED SUBBASE GRANULAR MATERIAL TYPE A 8"
- 6 PROPOSED HMA PAVEMENT (FULL DEPTH) 6"
- 7 PROPOSED BITUMINOUS MATERIALS PRIME COAT
- 8 PROPOSED BITUMINOUS MATERIALS TACK COAT
- 9 PROPOSED COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.24
- 10 FUTURE PCC SIDEWALK
- 11 PROPOSED FURNISH AND PLACE TOPSOIL
- 12 PROPOSED MODIFIED SOIL
- 13 REMOVAL OF EXISTING STRUCTURE
- 14 PROPOSED GUTTER REMOVAL
- 15 EARTH EXCAVATION (O/C ROAD)

**TYPICAL SECTION NOTES**

- 1 WIDTH OF SHOULDER SHALL INCREASE AT A 6:1 TAPER TO PROVIDE A 4' WIDTH 10' BEFORE GUARDRAIL TERMINAL AND MAINTAIN 4' SHOULDER WIDTH BEHIND GUARDRAIL AS SHOWN IN HIGHWAY STANDARD 630301.  
  
 STA 13+79 TO STA 13+91, LEDGE WIDTH RT TRANSITIONS FROM 9' WIDE TO 11' WIDE.  
  
 STA 14+88 TO STA 15+00, LEDGE WIDTH LT TRANSITIONS FROM 2' WIDE TO 4' WIDE AND MAINTAINS 4' LEDGE WIDTH TO THE NORTH.  
  
 LEDGE WIDTH RT NARROWS AT BRIDGE APPROACH SLABS.
- 2 PR ROW BEGINS AT THE SECTION LINE BETWEEN T6N R9W S36 AND T5N R9W S01 (STA. 14+11.21).

**MIXTURES TABLE**

MIXTURE USE	SURFACE	BINDER
THICKNESS	2"	4"
AC/PG	PG 70-22	PG 70-22
RAP % (MAX)	SEE SPECIAL PROVISIONS	SEE SPECIAL PROVISIONS
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70
MIX COMPOSITION	IL-9.5	IL-19.0
FRICTION AGG	MIXTURE "C"	MIXTURE "C"
DENSITY TEST METHOD	CORES/NUCLEAR	CORES/NUCLEAR

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED  
 TYPICAL SECTIONS**

SCALE: NTS SHEET 2 OF 2 SHEETS STA. N/A TO STA. N/A

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	9
FRIEDEL BRIDGE IMPROVEMENTS		CONTRACT NO. 97758		
ILLINOIS FED. AID PROJECT				

### STORM & SANITARY SEWER SCHEDULE

STATION	STATION	OFFSET	TRENCH BACKFILL (CU YD)	PIPE CULVERT REMOV (FOOT)	PRC FLAR END SEC 12 (EACH)	CONCRETE COLLAR (CU YD)	STORM SEW CL A2 12 (FOOT)	CONC HDWL FOR P DRAIN (EACH)	MAN TA 4 DIA T24F&G (EACH)	INLETS TA T3F&G (EACH)	INLETS TA T24F&G (EACH)	INLETS TB T24F&G (EACH)	MAN ADJUST (EACH)	SAN SEW REMOV 18 (FOOT)	DOWNSPOUT CONNECTION (EACH)	SANITARY SEWER CONN (EACH)	PLUG PIPE PENETRATION (EACH)	SAN MANHOLE SPL (EACH)	SS 2 WAT MN 12 (FOOT)	SAN SEW 18 (FOOT)
PR ALBERS LN																				
11+90		LT/RT	6						1		1								26	
11+90	13+00	RT	39												2				114	
13+00		RT										1								
13+00	13+05	RT/LT	9				27													
13+05		LT										1								
13+05	14+10	LT	36				100													
13+05	14+10	RT													1					
13+36	13+84	RT		61																
14+10		RT/LT	6				26				1	1								
14+10	15+15	LT	31				105													
15+15		RT/LT	6				26				1	1								
15+15	15+39	LT	2				28													
15+18	15+24	RT				0.4								10				1		10
15+24	15+63	RT/LT	21					1					1					1		100
15+24	15+85	RT/LT	109					1						113		1	1			23
15+44		LT			1															
16+15		RT						1												
16+35		LT						1												
16+60	16+83	LT		23																
16+65		LT/RT	6				30				1									
16+65		LT	1		1		20													
16+69		LT									1									
16+83		RT			1															
16+89	17+14	RT	1																	25
16+98		LT			1															
17+04	17+29	LT	1																	25
17+11	17+15	RT	2																	17
17+11		RT								1										
17+15		RT								1										
17+29		LT								1										
TOTAL			276	84	4	0.4	362	4	1	3	5	4	1	123	3	1	1	2	207	133

### SEEDING SCHEDULE

STATION	STATION	OFFSET	TOPSOIL F & P 4 (SQ YD)	SEEDING CL 1 (ACRE)	NITROGEN FERT NUTR (NOTE 1) (POUND)	PHOSPHORUS FERT NUTR (NOTE 1) (POUND)	POTASSIUM FERT NUTR (NOTE 1) (POUND)	MULCH METHOD 2 (NOTE 2) (ACRE)
EX ALBERS LN								
15+55	18+18	CENTER		0.20	18	18	18	0.20
18+58	19+08	CENTER		0.07	6	6	6	0.07
PR ALBERS LN								
11+18	15+75	LT		0.22	20	20	20	0.22
11+38	12+00	RT	96	0.02	2	2	2	0.02
12+20	12+58	RT	100	0.03	2	2	2	0.03
12+67	13+54	RT	340	0.06	5	5	5	0.06
13+55	14+00	RT	185	0.04	4	4	4	0.04
14+00	15+45	RT		0.10	9	9	9	0.10
16+00	17+22	RT		0.15	14	14	14	0.15
16+32	17+40	LT		0.11	10	10	10	0.11
TOTAL			721	1.00	90	90	90	1.00

**SEEDING NOTES:**

- THE APPLICATION RATE FOR FERTILIZER NUTRIENTS IS 90 LBS/ACRE FOR ESTIMATION PURPOSES.
- THE APPLICATION RATE FOR MULCH METHOD 2 IS 2 TONS/ACRE FOR ESTIMATION PURPOSES.

### CURB & GUTTER SCHEDULE

STATION	STATION	OFFSET	GUTTER REM (FOOT)	CONC CURB TB (FOOT)	COMB CC&G TB6.24 (FOOT)
EX ALBERS LN					
11+48	13+22	RT	177		
PR ALBERS LN					
11+48	15+08	RT			370
11+50	15+08	LT			350
15+08	15+23	RT		15	
15+08	15+33	LT		24	
16+50	16+76	RT		26	
16+62	16+76	LT		15	
16+76	17+20	RT			114
16+76	17+30	LT			76
TOTAL			177	80	910

**CURB & GUTTER NOTES**

- THE GUTTER WIDTH TRANSITIONS SHOWN IN THE PLANS SHALL BE MEASURED FOR PAYMENT AS COMBINATION CURB AND GUTTER TYPE B-6.24.

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCHEDULES

SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	10
FRIEDEL BRIDGE IMPROVEMENTS		CONTRACT NO. 97758		
ILLINOIS		FED. AID PROJECT		

**PAVEMENT & ENTRANCE SCHEDULE**

STATION	STATION	OFFSET	PROCESS MOD SOIL 12 (SQ YD)	PORTLAND CEMENT (TON)	SUB GRAN MAT A (TON)	AGG SURF CSE A (TON)	AGGREGATE-TEMP ACCESS (TON)	BIT MATLS PR CT (NOTE 1) (POUND)	BIT MATLS TACK CT (NOTE 1) (POUND)	HMA PAVT FD 6 (SQ YD)	PVT CON PCC BR APP SL (SQ YD)	HES PCC PVT 6 (SQ YD)	DRIVE PAVEMENT REM (SQ YD)	BIT SURF TREATMNT-PM (SQ YD)
PR ALBERS LN														
11+10	11+50	LT/RT				10								81
11+50	15+08	LT/RT	1,245	67	554			2,154	215	957				
12+10		RT			16		5				79	67		
12+66		RT			22		5				101	79		
13+61		RT			28		10				129	132		
14+90		LT/RT					20							
15+08	15+34		56	3	26						60			
16+50	16+76		438	24	194						73			
16+76	17+36	LT/RT	68	4	32			799	80	355				
17+29	17+41	LT/RT					20							259
TOTAL			1,807	98	872	30	40	2,953	295	1,312	133	309	278	340

**PAVEMENT NOTES:**

- APPLICATION RATES USED FOR QUANTITY ESTIMATES ARE AS FOLLOWS:  
 BITUMINOUS MATERIALS PRIME COAT (AGG BASE): 0.25 LB/SQ FT  
 BITUMINOUS MATERIALS TACK COAT (HMA LIFTS): 0.025 LBS/SQ FT  
 HOT MIX ASPHALT: 0.056 TON/SQ YD/IN
- DEPRESSED CURB AND GUTTER THROUGH ENTRANCES SHALL BE MEASURED FOR PAYMENT AS COMBINATION CONCRETE CURB AND GUTTER, TYPE SPECIFIED.

**TREE REMOVAL SCHEDULE**

STATION	STATION	OFFSET	TREE REMOV ACRES
PR ALBERS LN			
14+04	14+92	LT	0.10
14+50	15+68	LT/RT	0.10
15+41	16+13	LT/RT	0.10
15+82	16+84	LT/RT	0.20
TOTAL			0.50

**SIGN SCHEDULE**

STATION	OFFSET	TYPE	DESCRIPTION	SIZE		SIGN PANEL T1 (SQ FT)	TELES STL SIN SUPPORT (FOOT)	REM & REL SN P&P ASSY (EACH)	SIGN REMOVAL (EACH)	
				IN	IN					
EX ALBERS LN										
17+74	LT	R2-1	SPEED LIMIT						1	
18+57	RT	R1-2	YIELD						1	
PR ALBERS LN										
11+94	RT	R2-1	SPEED LIMIT						1	
11+94	RT	R8-3a	NO PARKING						1	
11+95	RT	R2-1	25 MPH SPEED LIMIT	24	X	30	5	16		
11+95	RT	R8-3a	NO PARKING	24	X	30	5			
13+44	RT		CRIME WATCH					1		
15+48	LT	R2-1	25 MPH SPEED LIMIT	24	X	30	5	16		
15+48	LT	R8-3a	NO PARKING	24	X	30	5			
16+97	RT	R1-1	STOP	30	X	30	6	14		
17+02	RT	D3-1	CULP LN	18	X	9	1	13		
17+02	RT	D3-1	ALBERS LN	18	X	9	1			
17+14	RT	R2-1	35 MPH SPEED LIMIT	24	X	30	5	14		
17+63	RT	W1-7	TWO-DIRECTION LARGE ARROW	48	X	24	8	16		
TOTAL							41	89	1	4

**EROSION CONTROL SCHEDULE**

STATION	STATION	OFFSET	EROSION CONTR BLANKET (SQ YD)	TEMP EROS CONTR SEED (NOTE 1) (POUND)	TEMP DITCH CHECKS (FOOT)	PERIMETER EROS BAR (FOOT)	INLET & PIPE PROTECT (EACH)	ABOVE GRADE INLT FLTR (EACH)
EX ALBERS LN								
15+50	18+19	LT/RT		39		320		
18+58	19+09	LT/RT		13		143		
PR ALBERS LN								
11+18	15+75	LT		44				
11+38	12+00	RT		4				
11+44	13+02	LT				154		
11+50	15+67	LT	775					
11+90		LT/RT					2	2
12+20	12+58	RT		4				
12+67	13+54	RT	274	14				
13+00		RT					1	1
13+05		LT					1	1
13+55	14+00	RT		8				
13+55	15+67	RT	473					
14+00	15+45	RT		19				
14+10		LT/RT					2	2
14+50	15+53	RT				157		
15+15		LT/RT					2	2
15+36	16+05	LT			9	39		
15+96	17+20	RT	542					
15+98	16+16	RT				41		
16+00	17+22	RT		30				
16+06	16+90	RT			27			
16+33	17+17	LT	284					
16+32	17+40	LT		22	18			
16+35	16+81	LT				59		
16+68		LT/RT					2	2
17+11		RT					1	1
17+15		RT					1	1
17+29		LT					1	1
TOTAL			2,348	197	54	913	13	13

**EROSION CONTROL NOTES:**

- THE QUANTITY FOR TEMPORARY EROSION CONTROL SEEDING ASSUMES 2 SEPARATE APPLICATIONS AT A RATE OF 100 LBS/ACRE PER APPLICATION. THE CONTRACTOR SHALL APPLY AS NECESSARY AND AS DIRECTED BY THE ENGINEER.

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REVISED 06/23/2021  
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCHEDULES  
 SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	11
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	

ILLINOIS FED. AID PROJECT

### EARTHWORK SCHEDULE

STATION	STATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (NOTE 1)	EMBANKMENT (NOTE 2)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (NOTE 3)
		(CU YD)	(CU YD)	(CU YD)	(CU YD)
<b>EX ALBERS LN</b>					
15+55	18+18	160	120		120
18+58	19+08	50	40		40
<b>PR ALBERS LN</b>					
10+00	17+41	3,515	2,635	660	1,975
<b>TOTAL</b>		3,725			

**EARTHWORK NOTES:**

- ESTIMATED SHRINKAGE FACTOR = 25%.
- APPROXIMATE EMBANKMENT QUANTITY IS SHOWN FOR INFORMATION ONLY.
- APPROXIMATE EARTHWORK BALANCE IS SHOWN FOR INFORMATION ONLY.

### FENCE SCHEDULE

STATION	STATION	OFFSET	PEDESTRIAN RAIL	CH LK FENCE 6	FENCE REMOVAL
			(FOOT)	(FOOT)	(FOOT)
<b>EX ALBERS LN</b>					
12+11	18+19	LT			589
<b>PR ALBERS LN</b>					
12+11	15+64	LT		345	
15+00	15+51	RT	52		
16+18	16+65	RT	48		
<b>TOTAL</b>			100	345	589

### RIPRAP SCHEDULE

STATION	STATION	OFFSET	STONE RIPRAP CL A3	STONE RIPRAP CL A5	FILTER FABRIC
			(SQ YD)	(SQ YD)	(SQ YD)
<b>PR ALBERS LN</b>					
15+36	15+72	LT	35		35
15+42	16+40	CENTER		598	598
15+72	16+05	LT		15	15
15+96	16+40	RT		15	15
16+06	16+90	RT	94		94
16+33	16+60	LT		31	31
16+54	17+05	LT	76		76
<b>TOTAL</b>			205	659	864

### GUARDRAIL SCHEDULE

STATION	STATION	OFFSET	SPBGR TY A 6FT POSTS	TRAF BAR TERM T2	TRAF BAR TERM T5	TRAF BAR TERM T6	TR BAR TRM T1 SPL TAN	TERMINAL MARKER - DA	GRDRAIL REF TYPE A	BARR WALL REF TYPE B	TRAF BAR TERM T1	TRAF BAR TERM T6 SPL
			(FOOT)	(EACH)	(EACH)	(EACH)	(EACH)	(EACH)	(EACH)	(EACH)	(EACH)	(EACH)
<b>PR ALBERS LN</b>												
14+51	15+38	RT				1	1	1	1			
15+10	15+48	LT	12.5	1	1			1				
15+38	16+36	RT								2		
15+48	16+45	LT								2		
16+36	16+74	RT	12.5	1	1			1				
16+46	17+32	LT	75.0					1	3		1	1
<b>TOTAL</b>			100	2	2	1	1	4	4	4	1	1

### PAVEMENT MARKING SCHEDULE

STATION	STATION	OFFSET	COMMENT	TEMP PVT MK LINE 4	TEMP PVT MK LINE 24	MOD URETH PM LINE 4	MOD URETH PM LINE 24	RAISED REFL PAVT MKR
				(FOOT)	(FOOT)	(NOTE 1) (FOOT)	(NOTE 1) (FOOT)	(NOTE 2) (EACH)
<b>PR ALBERS LN</b>								
11+50	16+99	CENTER	YELLOW	1098		1,098		
11+51	13+91	CENTER	SPACED 40 FT					7
13+91	16+31	CENTER	SPACED 80 FT					3
16+97		RT	WHITE STOP BAR		19		19	
16+98		CENTER						1
<b>TOTAL</b>				1,098	19	1,098	19	11

**PAVEMENT MARKING NOTES:**

- SEE HIGHWAY STANDARD 780001 FOR PAVEMENT MARKING DETAILS.
- SEE HIGHWAY STANDARD 781001 FOR RAISED REFLECTIVE PAVEMENT MARKING STANDARDS.

### METER VAULT SCHEDULE

STATION	OFFSET	METER VAULTS ADJ
		(EACH)
<b>PR ALBERS LN</b>		
12+38	RT	1
12+96	RT	1
<b>TOTAL</b>		2

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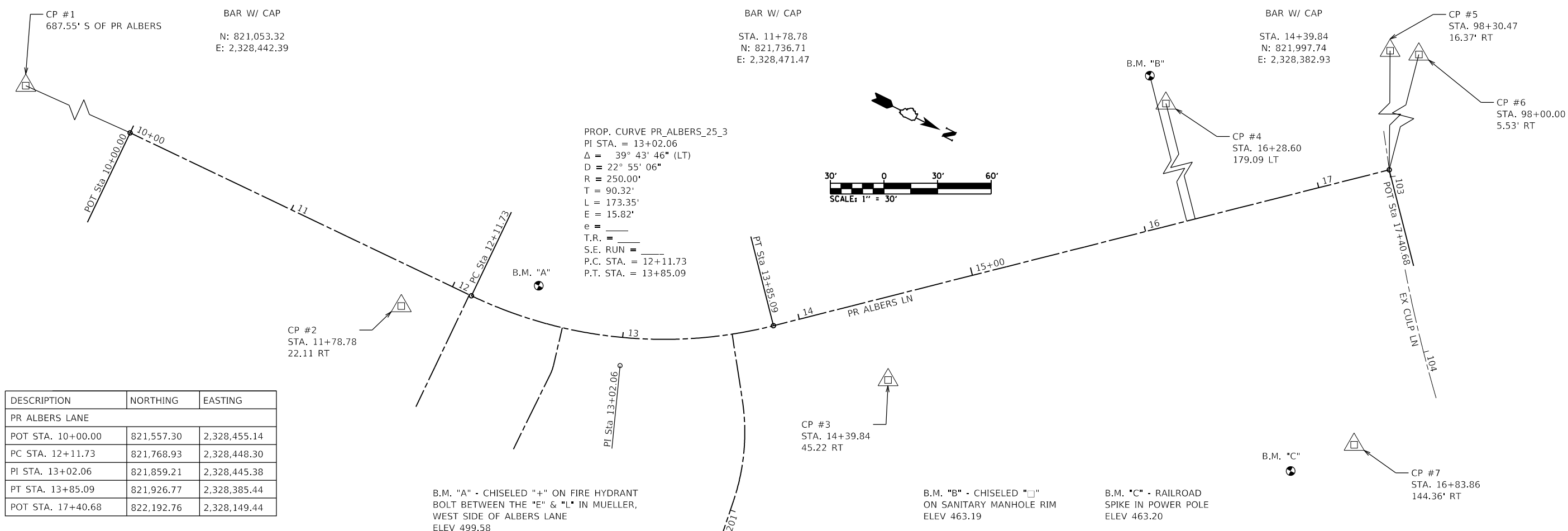
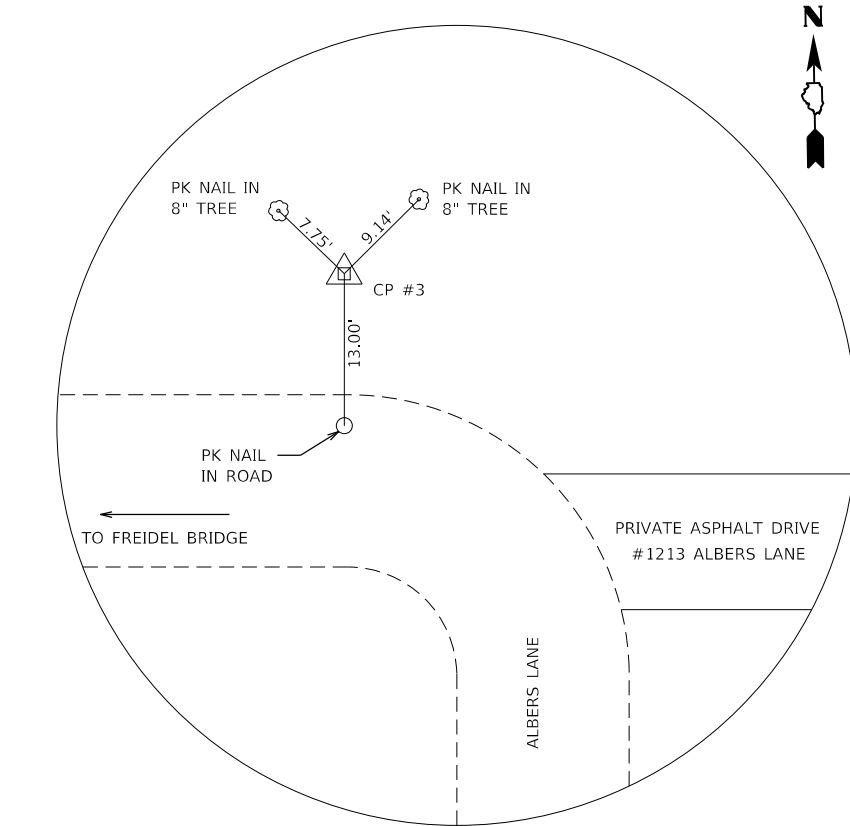
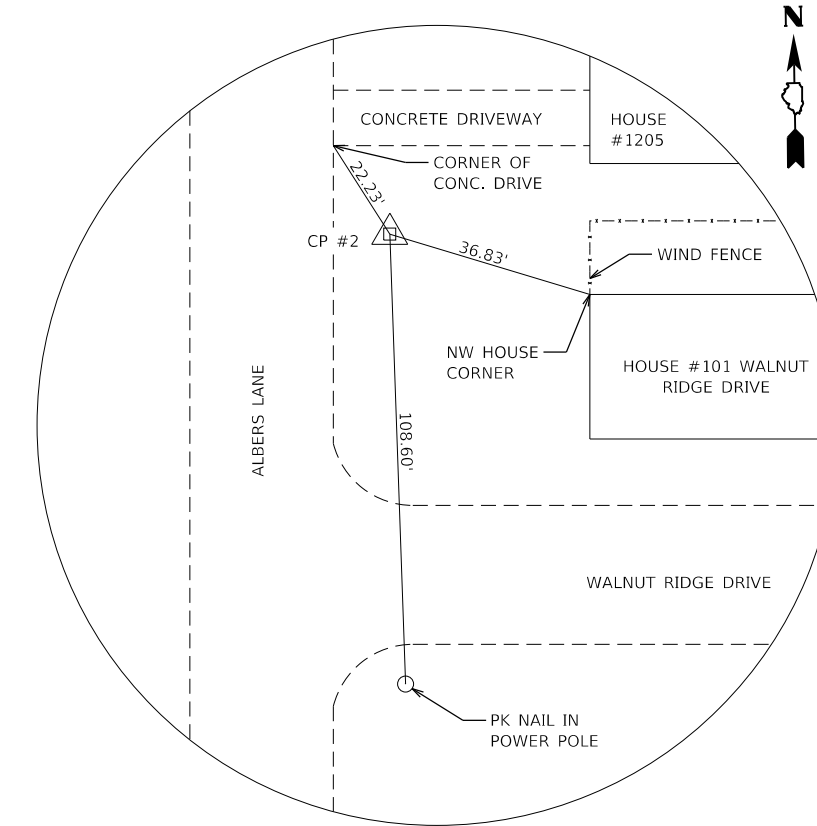
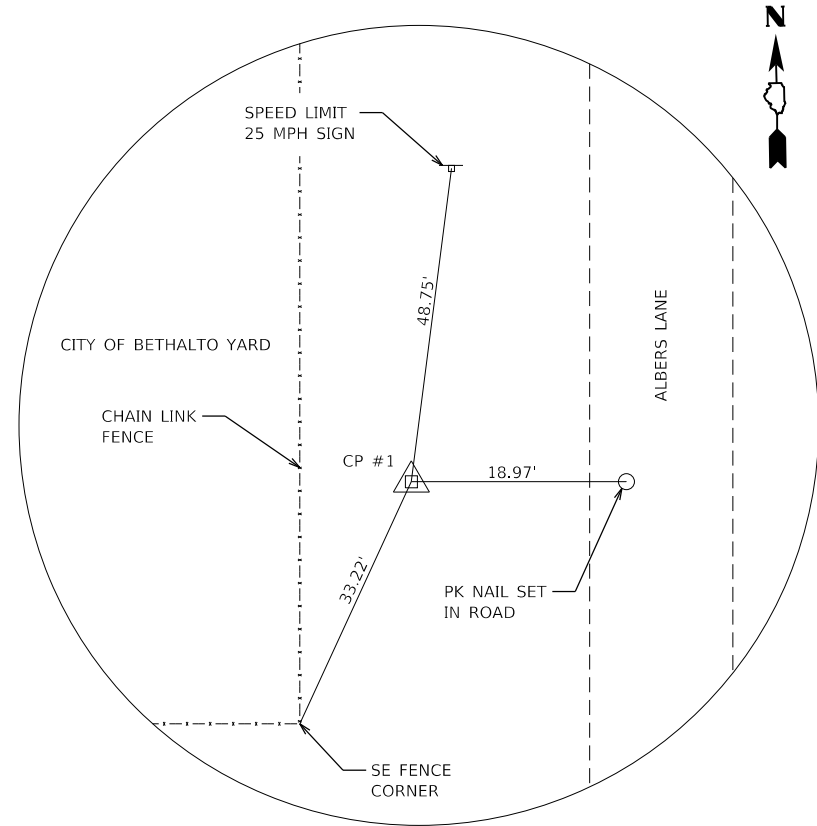
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

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

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	12
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				



DESCRIPTION	NORTHING	EASTING
PR ALBERS LANE		
POT STA. 10+00.00	821,557.30	2,328,455.14
PC STA. 12+11.73	821,768.93	2,328,448.30
PI STA. 13+02.06	821,859.21	2,328,445.38
PT STA. 13+85.09	821,926.77	2,328,385.44
POT STA. 17+40.68	822,192.76	2,328,149.44

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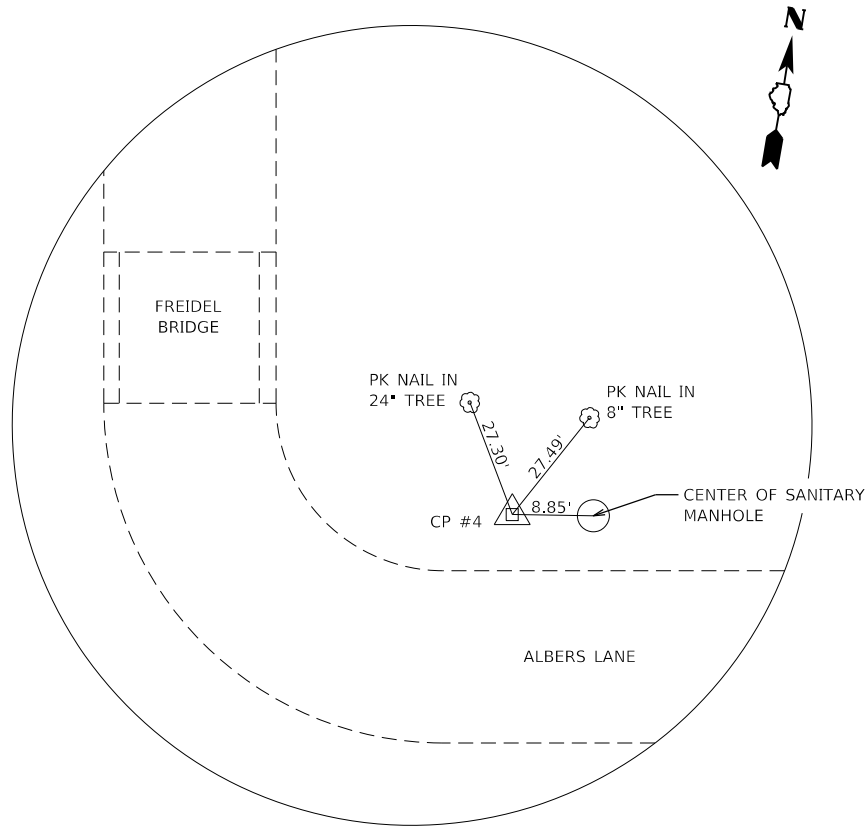
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ALIGNMENT TIES AND BENCHMARKS**

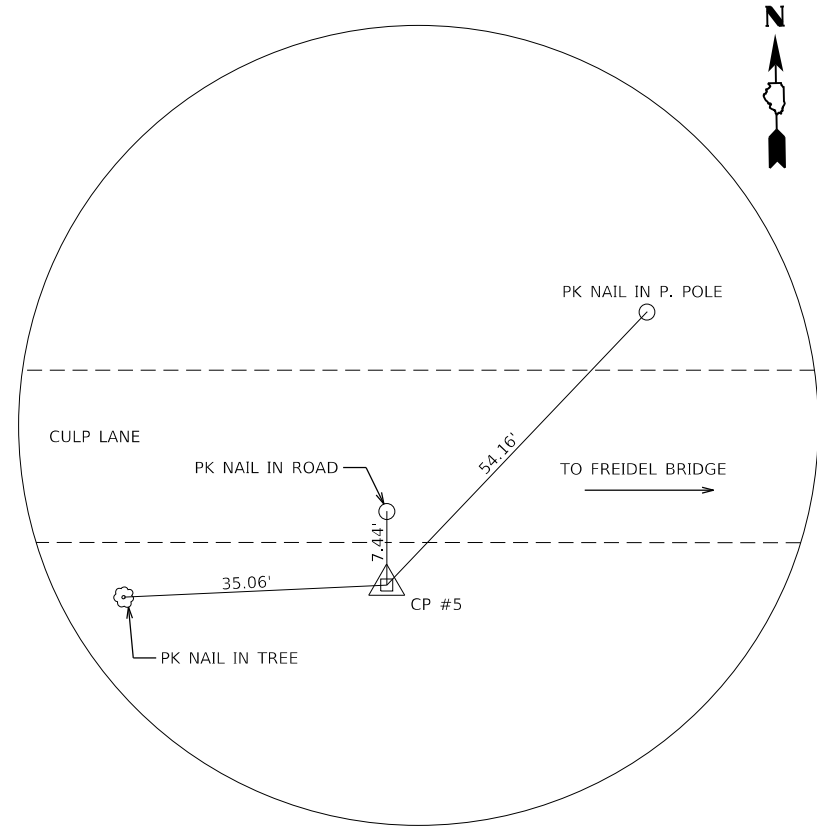
USER NAME = rylene.wirtjes	DESIGNED -	REVISED -
PLOT SCALE = 60.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 4/29/2021	CHECKED -	REVISED -
	DATE -	REVISED -

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

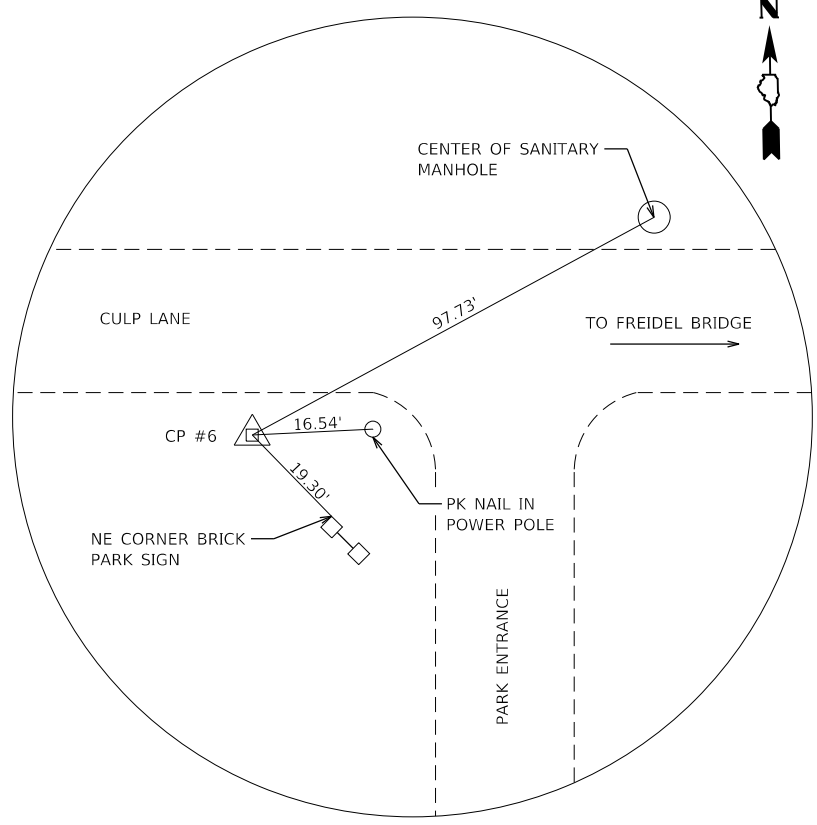
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901	17-00032-00-BR	MADISON	68	13
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				



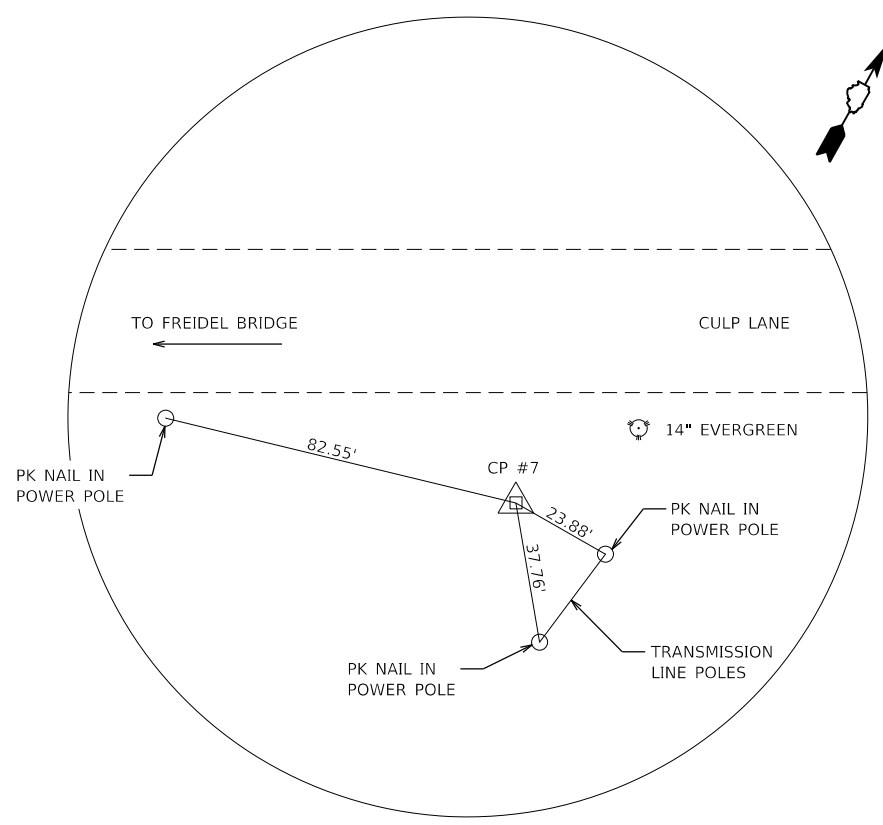
BAR W/ CAP  
 STA. 16+28.60  
 N: 821,990.06  
 E: 2,328,089.86



BAR W/ CAP  
 STA. 98+30.47  
 N: 821,984.43  
 E: 2,327,739.83



BAR W/ CAP  
 STA. 98+00.00  
 N: 821,972.59  
 E: 2,327,195.46



BAR W/ CAP  
 STA. 16+83.86  
 N: 822,246.07  
 E: 2,328,295.14

MODEL: Default  
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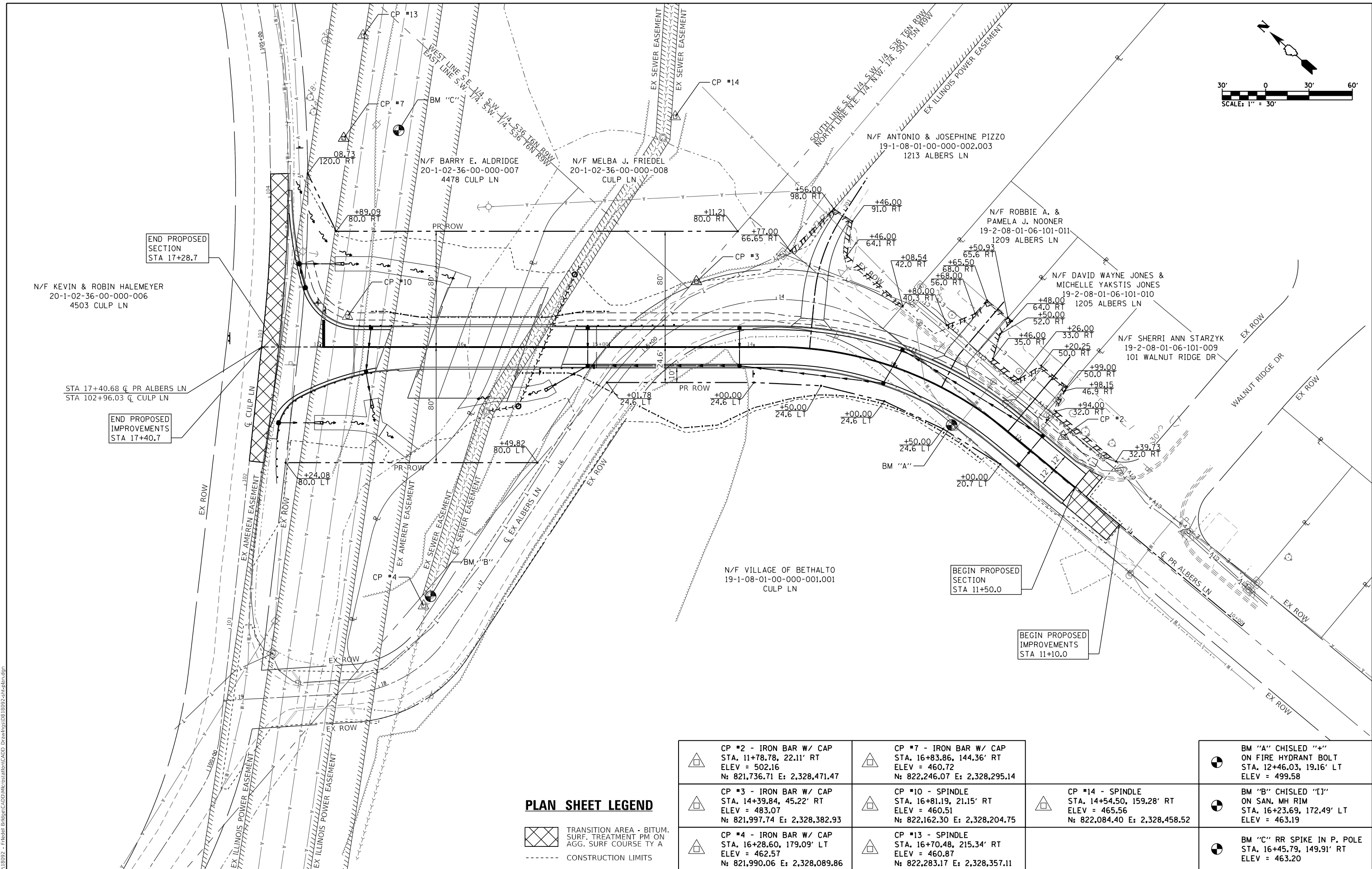
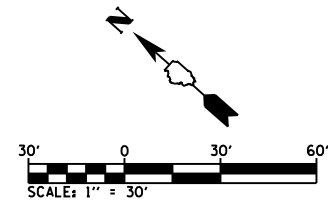
USER NAME = rylene.wirtjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 60.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/29/2021	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ALIGNMENT TIES AND BENCHMARKS**

SCALE: NTS SHEET 2 OF 2 SHEETS STA. N/A TO STA. N/A

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	14
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				



- TRANSITION AREA - BITUM. SURF. TREATMENT PM ON AGG. SURF. COURSE TY A
- CONSTRUCTION LIMITS

CP #2 - IRON BAR W/ CAP STA. 11+78.78, 22.11' RT ELEV = 502.16 N: 821,736.71 E: 2,328,471.47	CP #7 - IRON BAR W/ CAP STA. 16+83.86, 144.36' RT ELEV = 460.72 N: 822,246.07 E: 2,328,295.14	BM "A" CHISLED "+" ON FIRE HYDRANT BOLT STA. 12+46.03, 19.16' LT ELEV = 499.58
CP #3 - IRON BAR W/ CAP STA. 14+39.84, 45.22' RT ELEV = 483.07 N: 821,997.74 E: 2,328,382.93	CP #10 - SPINDLE STA. 16+81.19, 21.15' RT ELEV = 460.51 N: 822,162.30 E: 2,328,204.75	BM "B" CHISLED "I" ON SAN. MH RIM STA. 16+23.69, 172.49' LT ELEV = 463.19
CP #4 - IRON BAR W/ CAP STA. 16+28.60, 179.09' LT ELEV = 462.57 N: 821,990.06 E: 2,328,089.86	CP #13 - SPINDLE STA. 16+70.48, 215.34' RT ELEV = 460.87 N: 822,283.17 E: 2,328,357.11	BM "C" RR SPIKE IN P. POLE STA. 16+45.79, 149.91' RT ELEV = 463.20

USER NAME = rync.wirtjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 60.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 4/29/2021	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**



**OVERVIEW  
PLAN AND PROFILE SHEETS**

SCALE: 1" = 30' SHEET 1 OF 3 SHEETS STA. 10+00.0 TO STA. 17+40.7

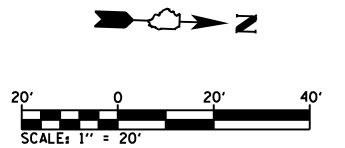
M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	15
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS / FED. AID PROJECT				

MODEL: Default  
FILE NAME: I:\18092 - FRIEDEL BRIDGE\CAD\Microstation\CADD\_Drawing\18092-001.dgn

**PLAN SHEET LEGEND**

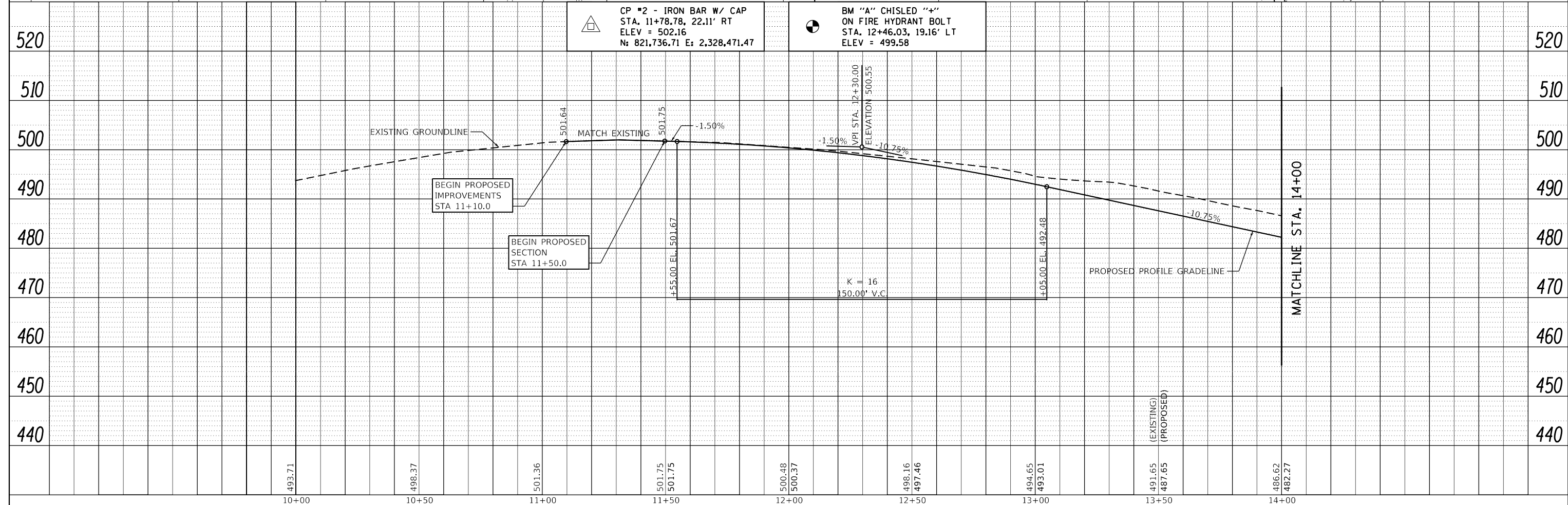
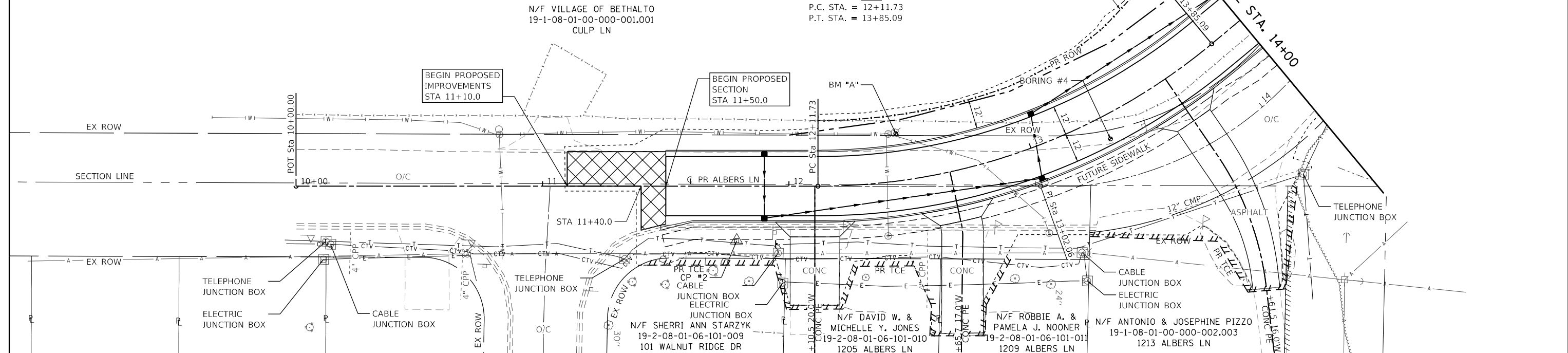
-  TRANSITION AREA - BITUM. SURF. TREATMENT PM ON AGG. SURF COURSE TY A
-  CONSTRUCTION LIMITS

PROP. CURVE PR ALBERS\_25\_3  
 PI STA. = 13+02.06  
 $\Delta = 39^\circ 43' 46"$  (LT)  
 $D = 22^\circ 55' 06"$   
 $R = 250.00'$   
 $T = 90.32'$   
 $L = 173.35'$   
 $E = 15.82'$   
 $e = \text{N.C.}$   
 $T.R. =$   
 $S.E. \text{ RUN} =$   
 $P.C. \text{ STA.} = 12+11.73$   
 $P.T. \text{ STA.} = 13+85.09$



PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATIONS	
	CHKD	
	NO.	



FILE NAME = DB18092-sht-plnprf.dgn	USER NAME = rymewirtjes	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE SHEETS</b>			M.U.N. RTE. 901	SECTION 17-00032-00-BR	COUNTY MADISON	TOTAL SHEETS 68	SHEET NO. 16
	PLOT TIME = 3:50:27 PM	DRAWN -	REVISED -		SCALE: 1" = 20'	SHEET 2	OF 3 SHEETS	STA. 10+00.0 TO STA. 14+00.0	FRIEDEL BRIDGE IMPROVEMENTS		CONTRACT NO. 97758	
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT							
	PLOT DATE = 4/29/2021	DATE -	REVISED -									





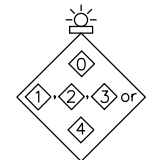




# NOTES

1. TYPE III BARRICADES AND ROAD CLOSURE SIGNS SHALL BE POSITIONED AS SHOWN IN ACCORDANCE WITH HIGHWAY STANDARD 701901 AND AS DIRECTED BY THE ENGINEER.
2. ALL TYPE III BARRICADES UTILIZED FOR ROAD CLOSURES SHALL HAVE A LOW INTENSITY FLASHING LIGHT MOUNTED ON TOP OF EACH BARRICADE.
3. TYPE A LOW INTENSITY FLASHING WARNING LIGHTS SHALL BE USED ON EACH SIGN IN ADVANCE OF THE WORK DURING HOURS OF DARKNESS.
4. ALL WARNING SIGNS SHALL BE A MINIMUM OF 48" X 48" AND HAVE A BLACK LEGEND AND BORDER ON A FLUORESCENT ORANGE REFLECTORIZED BACKGROUND.
5. LONGITUDINAL DISTANCES MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
6. EXACT LOCATION OF ALL WARNING SIGNS AND BARRICADES SHALL BE STAKED IN THE FIELD FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION.
7. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ENTRANCES AT ALL TIMES.
8. ALL RESIDENTS FRONTING THE PROJECT SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ROAD CLOSURES AFFECTING THEIR ACCESS.
9. DRAINAGE SHALL BE MAINTAINED AT ALL TIMES WHILE MAINTAINING EROSION CONTROL MEASURES.
10. PAVEMENT MARKING INSTALLATION SHOULD BE SCHEDULED TO BE COMPLETED ALL AT ONE TIME. INSTALLATION SHALL BE ACCORDING TO TRAFFIC CONTROL STANDARD 701311.
11. ALL MAINTENANCE AND CLEAN-UP FOR ROADWAYS UNDER TRAFFIC SHALL BE ACCORDING TO TRAFFIC CONTROL STANDARD 701301.
12. SIGNS SHOWN ON THIS SHEET ARE IN ADDITION TO THOSE REQUIRED BY TRAFFIC CONTROL STANDARDS.

# LEGEND

- ① ROAD CONSTRUCTION AHEAD W20-1(0)
  - ② ROAD CLOSED W20-3(0)
  - ③ ROAD CLOSED 500 FT W20-1(0)
  - ④ ROAD CLOSED AHEAD W20-3(0)
  - ⑤ WORKERS W21-I110(0)
  - ⑥ TYPE III BARRICADES W/ R-11-4-6030 (ROAD CLOSED) SIGNS AND TYPE A LOW INTENSITY FLASHING LIGHTS
  - ⑦ TYPE III BARRICADES STAGGERED W/ R-11-4-6030 (ROAD CLOSED TO THRU TRAFFIC) SIGNS AND TYPE A LOW INTENSITY FLASHING LIGHTS
  - ⑧ 24" x 24" 
  - ⑨ 24" x 24" 
  -  TYPE A LOW INTENSITY FLASHING LIGHT
  -  WORK ZONE
- 

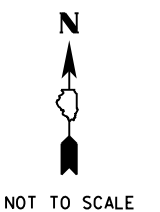
48" x 48"  
FLUORESCENT ORANGE

# SUGGESTED STAGE 1:

- MAINTAIN TRAFFIC ON EXISTING CULP LANE AND ALBERS LANE AT ALL TIMES USING TRAFFIC CONTROL STANDARDS 701001 AND 701006.
- CONSTRUCT DITCHES AND EMBANKMENTS FOR PROPOSED ALBERS LANE FROM STA 15+00 TO CULP LANE.
- RELOCATE SANITARY SEWER TO PROPOSED LOCATION UNDER ALBERS LANE AT STA 15+44. CONSTRUCT PROPOSED STORM SEWER, INLETS, AND FLARED END SECTIONS FOR PROPOSED ALBERS LANE AT STA 15+15 AND FROM STA 16+55 TO CULP LANE.
- CONSTRUCT BRIDGE OVER ROCKY BRANCH CREEK.
- CONSTRUCT PROPOSED ALBERS LANE AND ALL APPURTENANCES FROM STA 15+15 TO CULP LANE. CONSTRUCT THE PROPOSED INTERSECTION OF ALBERS LANE AND CULP LANE IN ACCORDANCE WITH TRAFFIC CONTROL STANDARDS 701201 AND 701301.



# STAGE 1 CONSTRUCTION



NOT TO SCALE

MODEL Stage 1  
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USER NAME = rylene.wiltjes	DESIGNED -	REVISED -
PLOT SCALE = 80.0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 4/29/2021	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

### SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL





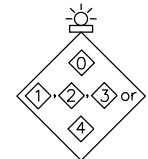
SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	18
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				

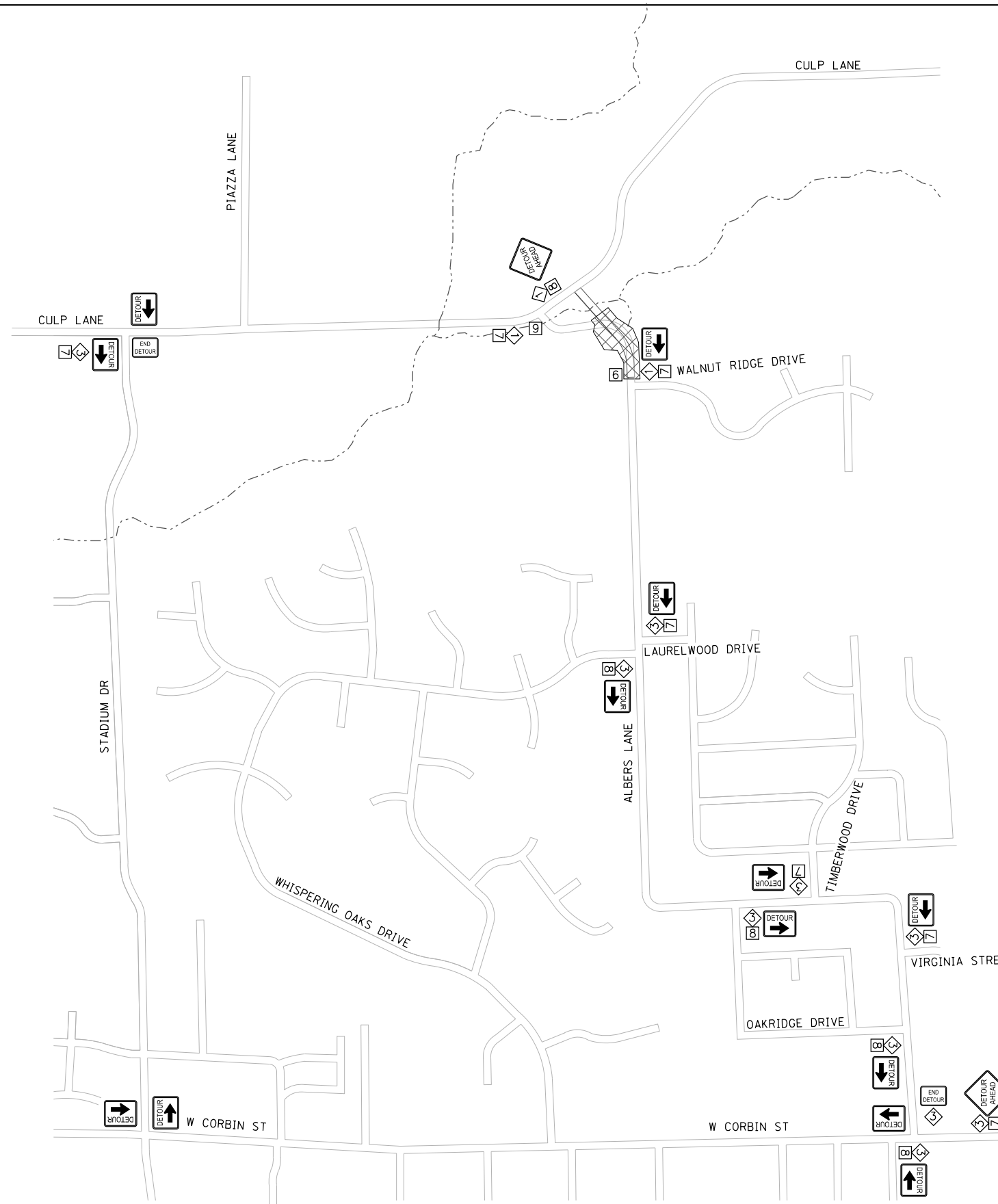
# NOTES

1. TYPE III BARRICADES AND ROAD CLOSURE SIGNS SHALL BE POSITIONED AS SHOWN IN ACCORDANCE WITH HIGHWAY STANDARD 701901 AND AS DIRECTED BY THE ENGINEER.
2. ALL TYPE III BARRICADES UTILIZED FOR ROAD CLOSURES SHALL HAVE A LOW INTENSITY FLASHING LIGHT MOUNTED ON TOP OF EACH BARRICADE.
3. TYPE A LOW INTENSITY FLASHING WARNING LIGHTS SHALL BE USED ON EACH SIGN IN ADVANCE OF THE WORK DURING HOURS OF DARKNESS.
4. ALL WARNING SIGNS SHALL BE A MINIMUM OF 48" X 48" AND HAVE A BLACK LEGEND AND BORDER ON A FLUORESCENT ORANGE REFLECTORIZED BACKGROUND.
5. LONGITUDINAL DISTANCES MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
6. EXACT LOCATION OF ALL WARNING SIGNS AND BARRICADES SHALL BE STAKED IN THE FIELD FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION.
7. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ENTRANCES AT ALL TIMES.
8. ALL RESIDENTS FRONTING THE PROJECT SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ROAD CLOSURES AFFECTING THEIR ACCESS.
9. DRAINAGE SHALL BE MAINTAINED AT ALL TIMES WHILE MAINTAINING EROSION CONTROL MEASURES.
10. PAVEMENT MARKING INSTALLATION SHOULD BE SCHEDULED TO BE COMPLETED ALL AT ONE TIME. INSTALLATION SHALL BE ACCORDING TO TRAFFIC CONTROL STANDARD 701311.
11. ALL MAINTENANCE AND CLEAN-UP FOR ROADWAYS UNDER TRAFFIC SHALL BE ACCORDING TO TRAFFIC CONTROL STANDARD 701301.
12. SIGNS SHOWN ON THIS SHEET ARE IN ADDITION TO THOSE REQUIRED BY TRAFFIC CONTROL STANDARDS.

# LEGEND

- ◇ ROAD CONSTRUCTION AHEAD W20-1(0)
  - ① ROAD CLOSED W20-3(0)
  - ② ROAD CLOSED 500 FT W20-1(0)
  - ③ ROAD CLOSED AHEAD W20-3(0)
  - ④ WORKERS W21-1110(0)
  - ⑤ TYPE III BARRICADES W/ R-11-4-6030 (ROAD CLOSED) SIGNS AND TYPE A LOW INTENSITY FLASHING LIGHTS
  - ⑥ TYPE III BARRICADES STAGGERED W/ R-11-4-6030 (ROAD CLOSED TO THRU TRAFFIC) SIGNS AND TYPE A LOW INTENSITY FLASHING LIGHTS
  - ⑦ 24" x 24" 
  - ⑧ 24" x 24" 
  -  TYPE A LOW INTENSITY FLASHING LIGHT
  -  WORK ZONE
- 

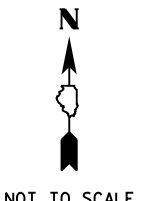
48" x 48"  
FLUORESCENT ORANGE



# SUGGESTED STAGE 2:

- ACCESS SHALL BE MAINTAINED AT ALL TIMES FOR RESIDENTS LOCATED WITHIN PROJECT LIMITS ALONG ALBERS LANE. THE AFFECTED SECTION OF ALBERS LANE MAY BE CLOSED TO THRU TRAFFIC USING B.L.R. 22-7.
- CONSTRUCT EMBANKMENTS FOR PROPOSED ALBERS LANE FROM STA 11+50 TO STA 15+00.
- CONSTRUCT PROPOSED STORM SEWER AND INLETS FROM STA STA 11+90 TO STA 15+15.
- CONSTRUCT PROPOSED ALBERS LANE AND ALL APURTENANCES FROM STA 11+50 TO 15+15. CONSTRUCT PRIVATE ENTRANCES AT STA 12+11, STA 12+66, AND STA 13+61.
- REMOVE EXISTING ALBERS LANE FROM STA 11+50 TO STA 15+15.
- VILLAGE OF BETHALTO TO FURNISH AND PLACE MESSAGE BOARDS TO ASSIST CLOSURE/DETOUR

STAGE 2 CONSTRUCTION



NOT TO SCALE

MODEL Stage 2  
FILE Name: 17-00032-00-18092 - Friedel Bridge CADD\Microstation\CADD - Drawings\03\18092-chn-ctadrlng.dgn



USER NAME = ryme,wiltjes	DESIGNED -	REVISED -
PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 4/29/2021	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**





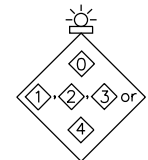
SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL			
SCALE:	SHEET 2	OF 3	SHEETS
	STA.		TO STA.

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	19
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				

# NOTES

1. TYPE III BARRICADES AND ROAD CLOSURE SIGNS SHALL BE POSITIONED AS SHOWN IN ACCORDANCE WITH HIGHWAY STANDARD 701901 AND AS DIRECTED BY THE ENGINEER.
2. ALL TYPE III BARRICADES UTILIZED FOR ROAD CLOSURES SHALL HAVE A LOW INTENSITY FLASHING LIGHT MOUNTED ON TOP OF EACH BARRICADE.
3. TYPE A LOW INTENSITY FLASHING WARNING LIGHTS SHALL BE USED ON EACH SIGN IN ADVANCE OF THE WORK DURING HOURS OF DARKNESS.
4. ALL WARNING SIGNS SHALL BE A MINIMUM OF 48" X 48" AND HAVE A BLACK LEGEND AND BORDER ON A FLUORESCENT ORANGE REFLECTORIZED BACKGROUND.
5. LONGITUDINAL DISTANCES MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
6. EXACT LOCATION OF ALL WARNING SIGNS AND BARRICADES SHALL BE STAKED IN THE FIELD FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION.
7. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ENTRANCES AT ALL TIMES.
8. ALL RESIDENTS FRONTING THE PROJECT SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ROAD CLOSURES AFFECTING THEIR ACCESS.
9. DRAINAGE SHALL BE MAINTAINED AT ALL TIMES WHILE MAINTAINING EROSION CONTROL MEASURES.
10. PAVEMENT MARKING INSTALLATION SHOULD BE SCHEDULED TO BE COMPLETED ALL AT ONE TIME. INSTALLATION SHALL BE ACCORDING TO TRAFFIC CONTROL STANDARD 701311.
11. ALL MAINTENANCE AND CLEAN-UP FOR ROADWAYS UNDER TRAFFIC SHALL BE ACCORDING TO TRAFFIC CONTROL STANDARD 701301.
12. SIGNS SHOWN ON THIS SHEET ARE IN ADDITION TO THOSE REQUIRED BY TRAFFIC CONTROL STANDARDS.

# LEGEND

- ① ROAD CONSTRUCTION AHEAD W20-1(0)
- ② ROAD CLOSED W20-3(0)
- ③ ROAD CLOSED 500 FT W20-1(0)
- ④ ROAD CLOSED AHEAD W20-3(0)
- ⑤ WORKERS W21-I110(0)
- ⑥ TYPE III BARRICADES W/ R-11-4-6030 (ROAD CLOSED) SIGNS AND TYPE A LOW INTENSITY FLASHING LIGHTS
- ⑦ TYPE III BARRICADES STAGGERED W/ R-11-4-6030 (ROAD CLOSED TO THRU TRAFFIC) SIGNS AND TYPE A LOW INTENSITY FLASHING LIGHTS
- ⑧ 24" x 24" 
- ⑨ 24" x 24" 
-  TYPE A LOW INTENSITY FLASHING LIGHT
-  WORK ZONE
-   
48" x 48"  
FLUORESCENT ORANGE

# SUGGESTED STAGE 3:

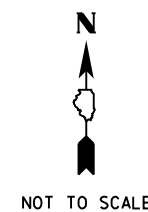
MAINTAIN TRAFFIC ON EXISTING CULP LANE AND PROPOSED ALBERS LANE AT ALL TIMES USING TRAFFIC CONTROL STANDARDS 701001 AND 701006.

USE TRAFFIC CONTROL STANDARDS 701201, 701301, AND B.L.R. 21-9.

REMOVE REMAINING SECTION OF EXISTING ALBERS LANE. REMOVE EXISTING BRIDGE OVER ROCKY BRANCH CREEK, CONCURRENTLY.



# STAGE 3 CONSTRUCTION



NOT TO SCALE

MODEL Stage 3  
FILE Name: I:\R18092 - Friedel Bridge\CADD\Microstation\CADD - Drawing\03\18092-sht-3a.dwg



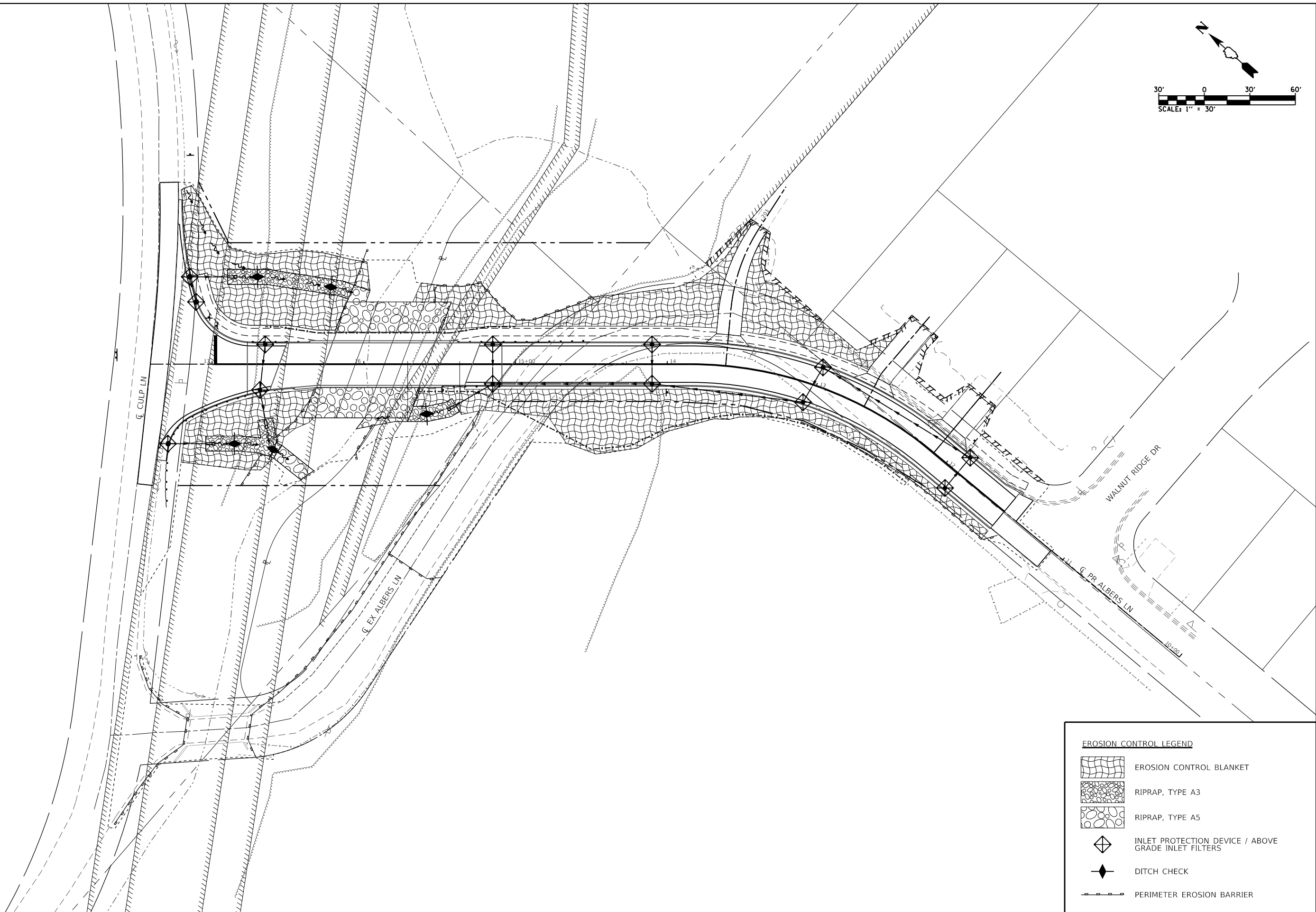
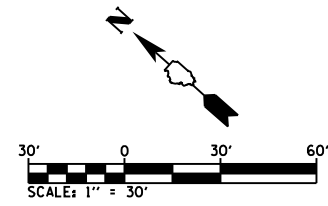
USER NAME = rylene.wiltjes	DESIGNED -	REVISED -
PLOT SCALE = 80.0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 4/29/2021	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

### SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL

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

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	20
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				



**EROSION CONTROL LEGEND**

	EROSION CONTROL BLANKET
	RIPRAP, TYPE A3
	RIPRAP, TYPE A5
	INLET PROTECTION DEVICE / ABOVE GRADE INLET FILTERS
	DITCH CHECK
	PERIMETER EROSION BARRIER

MODEL: Sheet 1 - Overview Sheet  
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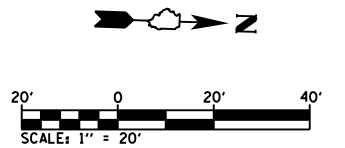
USER NAME = ryme,wilfjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 60.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/29/2021	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL PLAN**

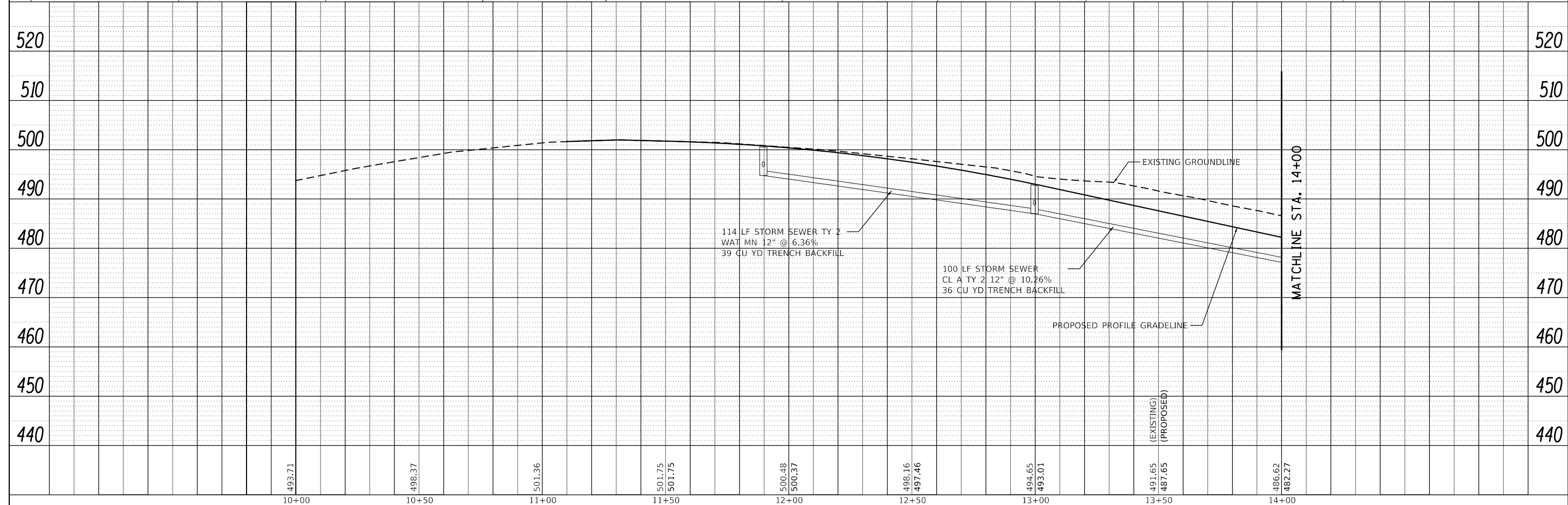
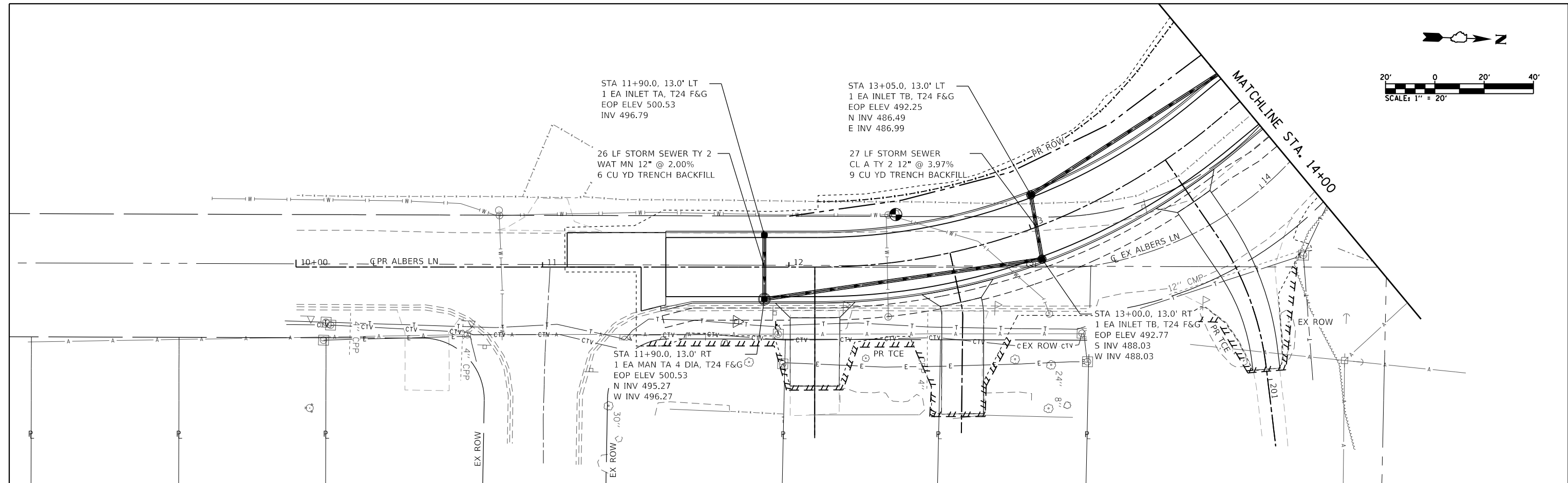
SCALE: 1" = 30'    SHEET 1    OF 1    SHEETS    STA. N/A    TO STA. N/A

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	21
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				



PLAN	SURVEYED	BY	DATE
	PLOTTED		
	ALIGNED		
	CHECKED		
	FILED		
	CADD FILE NAME		
	NO.		

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



FILE NAME = DB18092-sht-drainage.dgn	USER NAME = rymewirtjes	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DRAINAGE PLAN &amp; PROFILE</b>			M.U.N. RTE. 901	SECTION 17-00032-00-BR	COUNTY MADISON	TOTAL SHEETS 68	SHEET NO. 22
	PLOT TIME = 3:50:39 PM	DRAWN -	REVISED -		SCALE: 1" = 20'	SHEET NO. 1 OF 2 SHEETS	STA. 10+00.0 TO STA. 14+00.0	FRIEDEL BRIDGE IMPROVEMENTS		CONTRACT NO. 97758	ILLINOIS FED. AID PROJECT	
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -									
	PLOT DATE = 4/29/2021	DATE -	REVISED -									

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILED	
NOTE BOOK NO.	BY	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
NOTE BOOK NO.	BY	

STA 14+10.0, 13.0' LT  
1 EA INLET TB, T24 F&G  
EOP ELEV 480.96  
N&S INV 476.20  
E INV 476.70

26 LF STORM SEWER  
CL A TY 2 12" @ 2.00%  
6 CU YD TRENCH BACKFILL

STA 15+44.5, 30.0' LT  
1 EA PRC FLARED END SEC 12"  
INV 465.00

28 LF STORM SEWER  
CL A TY 2 12" @ 3.90%  
7 CU YD TRENCH BACKFILL

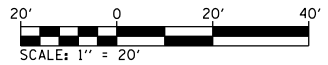
STA 16+65.0, 42.3' LT  
1 EA PRC FLARED END SEC 12"  
INV 456.72

20 LF STORM SEWER  
CL A TY 2 12" @ 2.00%  
4 CU YD TRENCH BACKFILL

STA 16+98.1, 52.4' LT  
1 EA PRC FLARED END SEC 12"  
INV 456.34

25 LF STORM SEWER TY 2  
WAT MN 12" @ 2.00%  
3 CU YD TRENCH BACKFILL

STA 17+29.0, 52.4' LT  
1 EA INLET TA, T3 F&G  
EOP ELEV 459.84  
INV 456.84



STA 14+10.0, 13.0' RT  
1 EA INLET TA, T24 F&G  
EOP ELEV 480.96  
INV 477.22

STA 15+15.0, 13.0' RT  
1 EA INLET TA, T24 F&G  
EOP ELEV 470.85  
INV 467.11

STA 16+65.0, 13.0' RT  
1 EA INLET TA, T24 F&G  
EOP ELEV 461.94  
INV 458.20

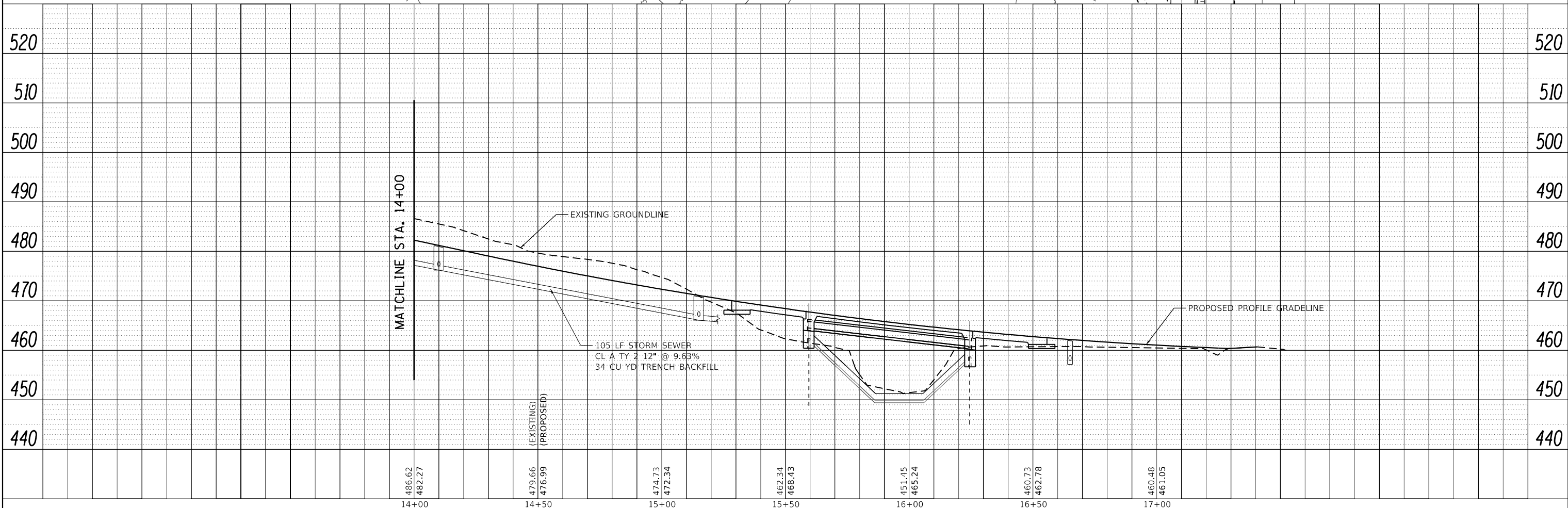
STA 16+83.8, 57.6' RT  
1 EA PRC FLARED END SEC 12"  
INV 456.47

STA 17+10.6, 41.0' RT  
1 EA INLET TA, T3 F&G  
EOP ELEV 460.06  
INV 457.31

17 LF STORM SEWER TY 2  
WAT MN 12" @ 2.00%  
3 CU YD TRENCH BACKFILL

STA 17+14.7, 57.6' RT  
1 EA INLET TA, T3 F&G  
EOP ELEV 459.97  
INV 456.97

25 LF STORM SEWER TY 2  
WAT MN 12" @ 2.00%  
3 CU YD TRENCH BACKFILL



FILE NAME = DB18092-sht-drainage.dgn

USER NAME = rymewirtjes  
PLOT TIME = 3:50:39 PM  
PLOT SCALE = 40.0000' / in.  
PLOT DATE = 4/29/2021

DESIGNED -  
DRAWN -  
CHECKED -  
DATE -

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

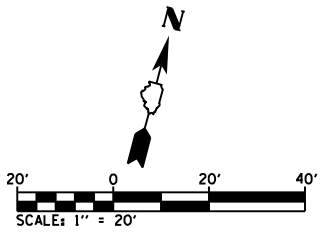
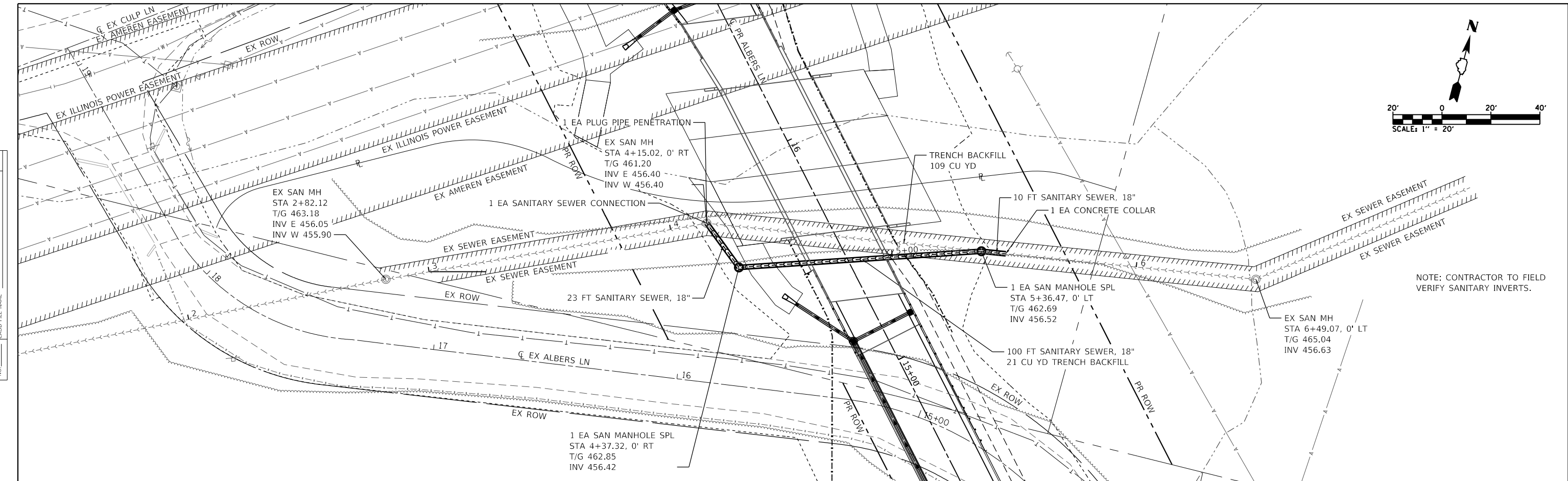
**DRAINAGE PLAN & PROFILE**

SCALE: 1" = 20' SHEET NO. 2 OF 2 SHEETS STA. 14+00.0 TO STA. 17+40.7

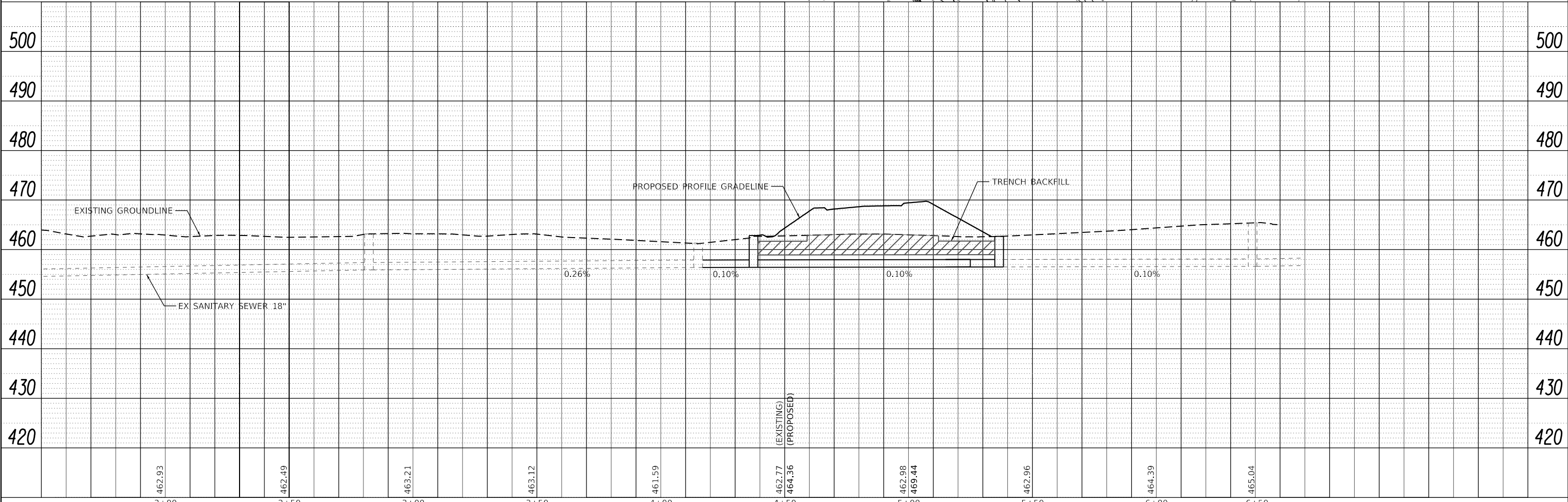
M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	23
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNMENT CHECKED	
	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	



NOTE: CONTRACTOR TO FIELD VERIFY SANITARY INVERTS.



MODEL: Default  
FILE NAME: H:\18095 - Friedel Bridge\CADD\Microstation\CADD Drawings\03\18095-210-Utilities.dgn

USER NAME = ryme,wiltjes	DESIGNED -	REVISED -
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PLOT DATE = 4/29/2021	DATE -	REVISED -

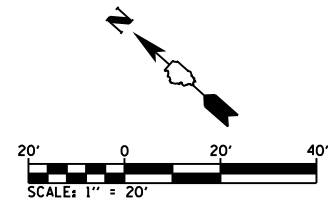
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**UTILITIES PLAN & PROFILE**

SCALE: 1" = 20'    SHEET 1 OF 1 SHEETS    STA.    TO STA.

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	24
FRIEDEL BRIDGE IMPROVEMENTS		CONTRACT NO. 97758		
ILLINOIS		FED. AID PROJECT		





PR W1-7  
48" X 24"



PR R2-1  
24" X 30"

PR STREET SIGN  
(2) D3-1



PR R1-1  
30" X 30"

PR SOLID WHITE 24" STOP BAR  
MODIFIED URETHANE

STA 16+98  
DOUBLE AMBER RAISED  
REFLECTIVE PAVEMENT MARKER

PR SOLID DOUBLE YELLOW 4" LINE  
MODIFIED URETHANE

STA 13+91 TO STA 16+31  
DOUBLE AMBER RAISED  
REFLECTIVE PAVEMENT  
MARKERS SPACED @ 80' O.C.



NO  
PARKING

PR R2-1  
24" X 30"  
PR R8-3a  
18" X 24"



NO  
PARKING

PR R2-1  
24" x 30"  
PR R8-3a  
18" X 24"

RELOCATE EX SIGN  
(CRIME WATCH SIGN)

REMOVE EX R2-1  
SPEED LIMIT SIGN  
REMOVE EX R8-3a  
NO PARKING SIGN

STA 11+51 TO STA 13+91  
DOUBLE AMBER RAISED  
REFLECTIVE PAVEMENT  
MARKERS SPACED @ 40' O.C.

REMOVE EX R2-1  
SPEED LIMIT SIGN

REMOVE EX R1-2  
YIELD SIGN

REMOVE EX R2-1  
SPEED LIMIT SIGN  
REMOVE EX R8-3a  
NO PARKING SIGN

104

103

102

101

19

17

+98.7

16

15+00

15+00

14

14

13

16

17

18

CL CULP LN

PR ALBERS LN

EX ALBERS LN

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PLOT DATE = 4/29/2021	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

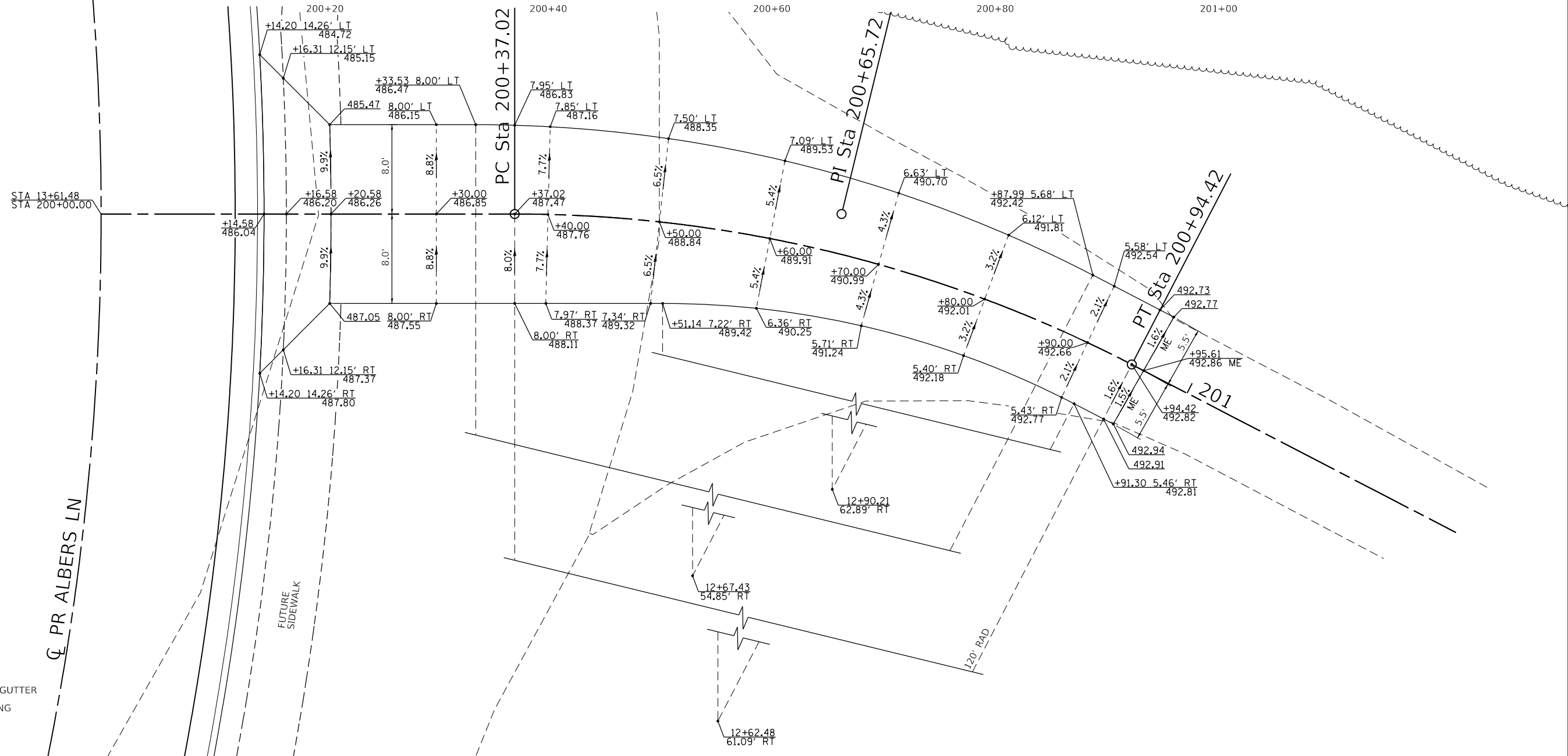
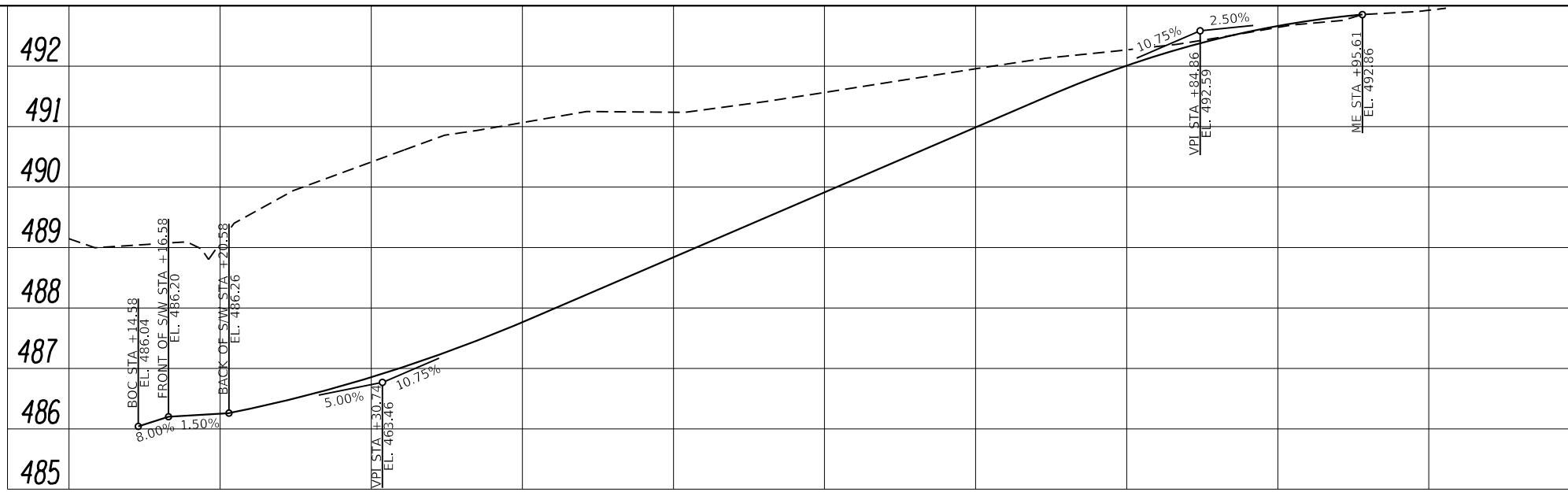
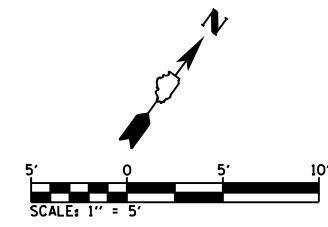
**PAVEMENT MARKING & SIGNAGE SHEET**

SCALE: 1" = 20' SHEET 1 OF 1 SHEETS STA. N/A TO STA. N/A

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	25
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				







**DETAIL LEGEND**

- XXX.XX PAVEMENT
- (XXX.XX) FLOWLINE OF GUTTER
- ME MATCH EXISTING

MODEL: B:\1713 Albers Ln - Friedel Bridge\CADD\Microstation\CADD - Drawing\03\18092-sht-intersec.dgn  
 FILE NAME: 18092 - Friedel Bridge\CADD\Microstation\CADD - Drawing\03\18092-sht-intersec.dgn

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	DRAWN -	REVISED -
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PLOT DATE = 4/29/2021	DATE -	REVISED -

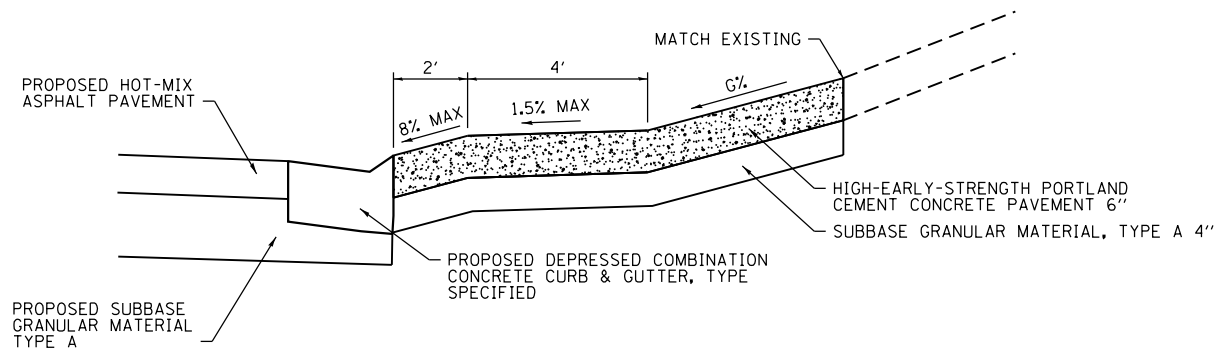
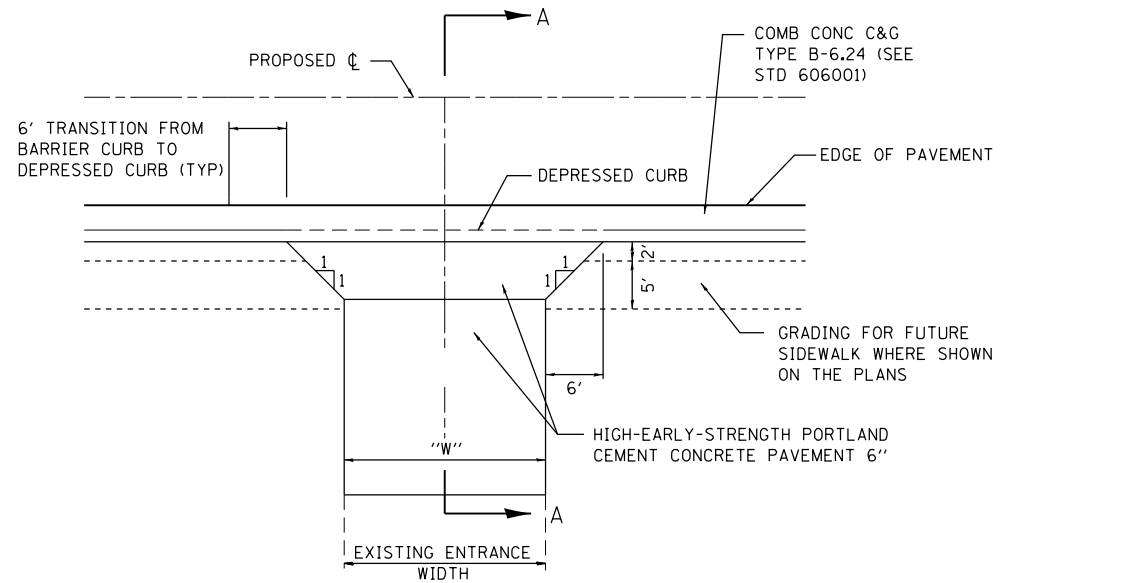
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**1213 ALBERS LANE**  
**INTERSECTION & ENTRANCE DETAILS**

SCALE: 1" = 5'    SHEET 2 OF 3 SHEETS    STA. N/A TO STA. N/A

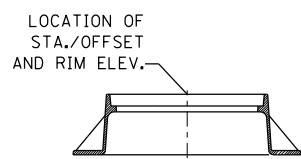
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901	17-00032-00-BR	MADISON	68	28
FRIEDEL BRIDGE IMPROVEMENTS		CONTRACT NO. 97758		
ILLINOIS FED. AID PROJECT				



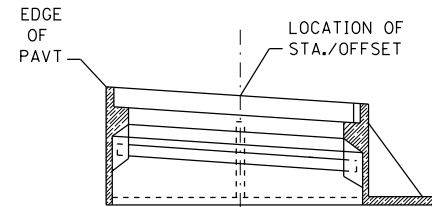


**SECTION A-A**

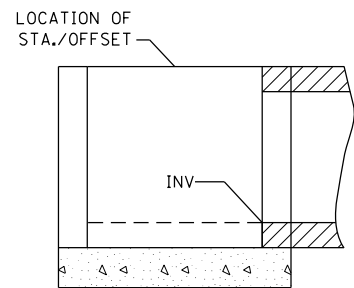
**PRIVATE ENTRANCE (P.E.)**



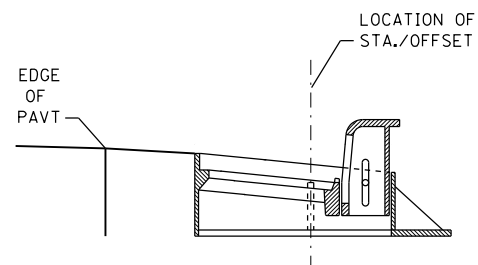
**TYPE 1 FRAME  
OPEN / CLOSED LID**



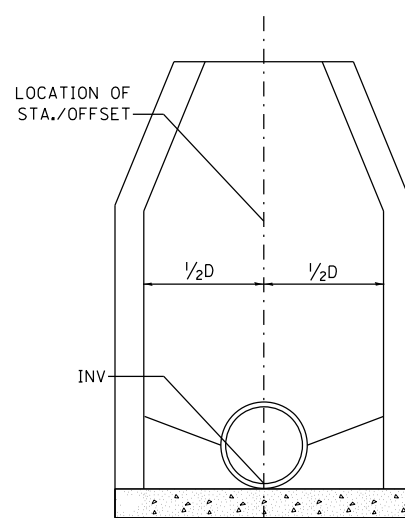
**FRAME AND GRATE TYPE 24**



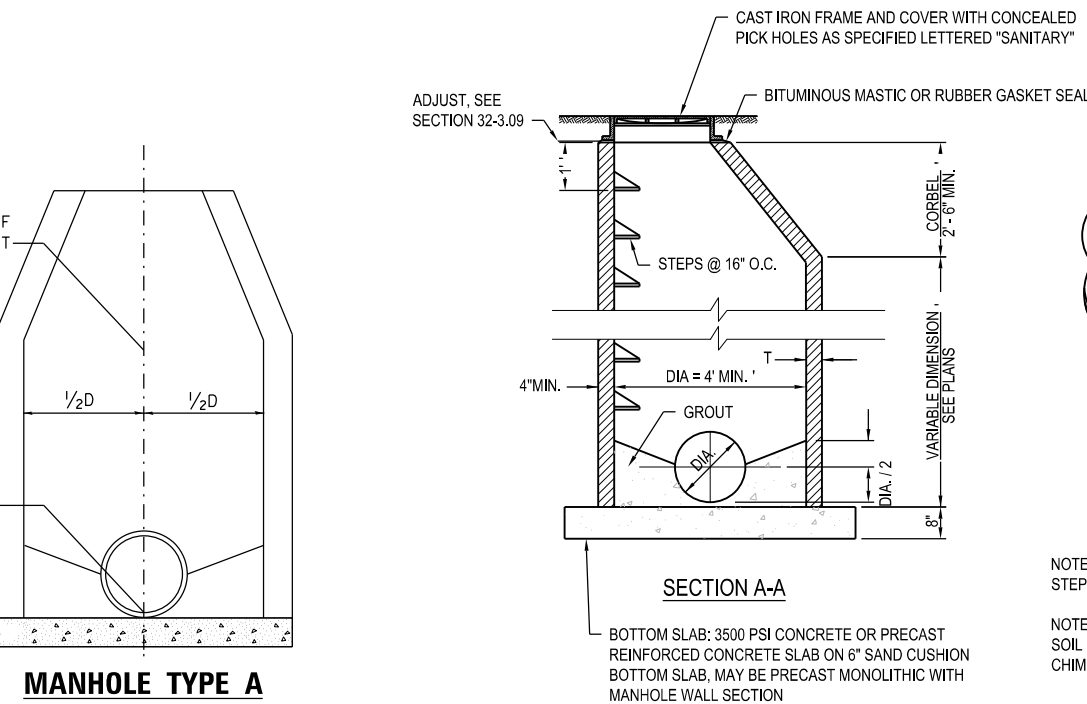
**INLET - TYPE A / B**



**FRAME AND GRATE TYPE 3**

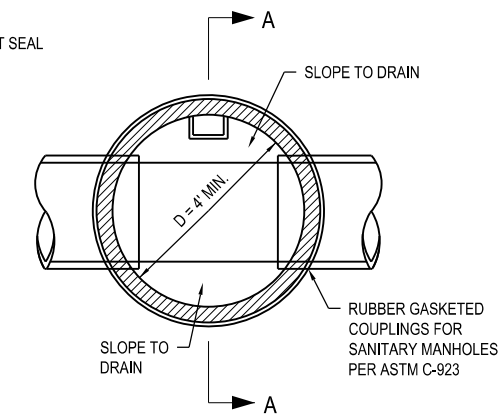


**MANHOLE TYPE A**



**SECTION A-A**

BOTTOM SLAB: 3500 PSI CONCRETE OR PRECAST REINFORCED CONCRETE SLAB ON 6" SAND CUSHION BOTTOM SLAB, MAY BE PRECAST MONOLITHIC WITH MANHOLE WALL SECTION



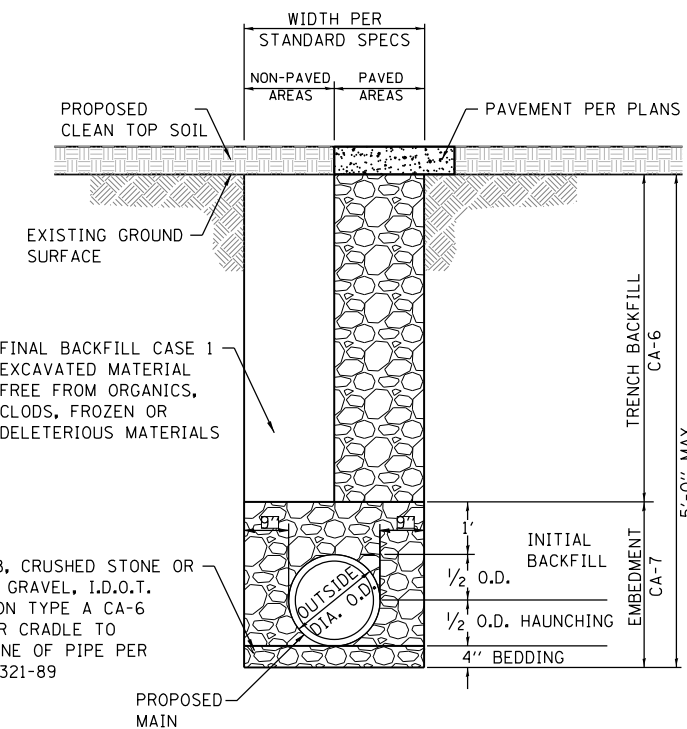
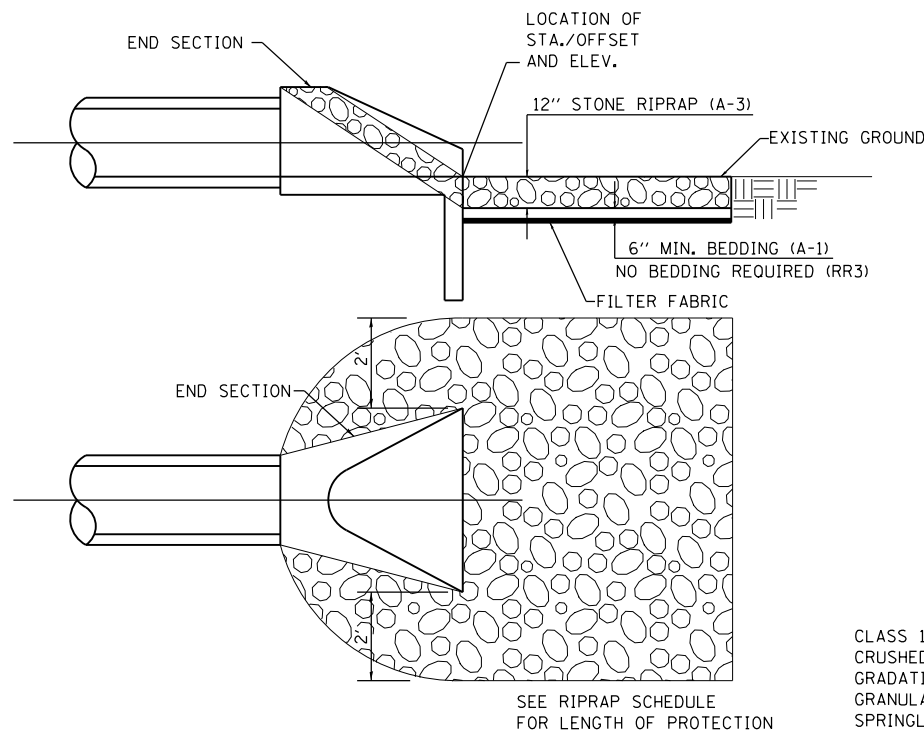
**SECTIONAL PLAN**

NOTE: STEPS REQUIRED, UNLESS DELETED BY SPECIAL PROVISIONS.

NOTE: SEPARATE SANITARY SEWER MANHOLES SUBJECT TO SATURATED SOIL CONDITIONS OR SURFACE SUBMERGENCE SHALL BE EQUIPPED WITH CHIMNEY SEALS AND WATER TIGHT MANHOLE COVERS.

**SANITARY MANHOLE, SPECIAL**

**TYPICAL RIPRAP DETAIL**



**SANITARY SEWER DETAIL**

MODEL: I\_Mfr  
FILE NAME: I:\18092 - FRIEDEL BRIDGE\CADD\Microstation\CADD - Drawings\18092-sht-construction\_details.dgn  
ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115



USER NAME = rylene.wirtjes  
DRAWN -  
PLOT SCALE = 40.0000 ' / in.  
CHECKED -  
DATE = 4/29/2021

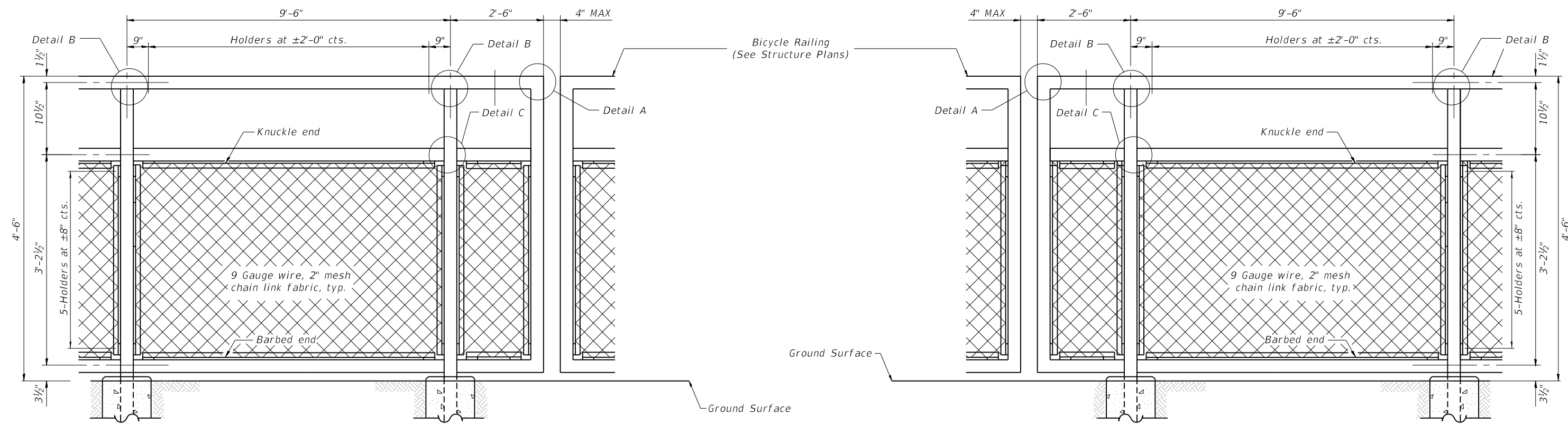
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DRAWN -  
CHECKED -  
DATE -  
REVISED -  
REVISED -  
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REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION DETAILS**

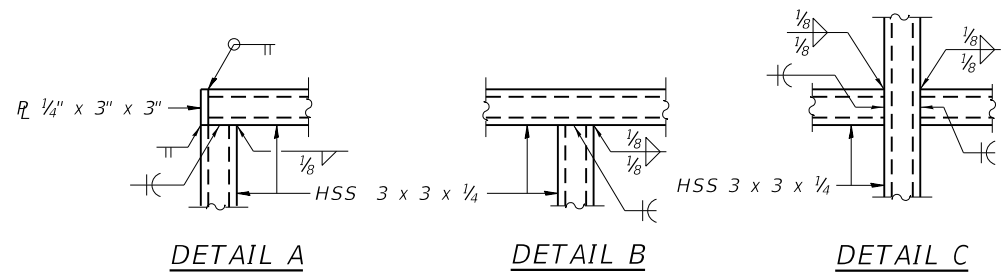
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M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	30
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				



PEDESTRIAN RAILING - SOUTH OF BRIDGE

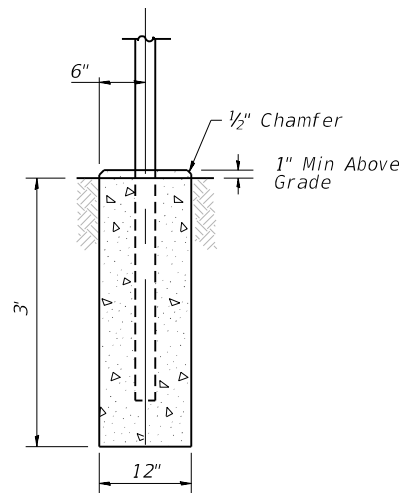
PEDESTRIAN RAILING - NORTH OF BRIDGE



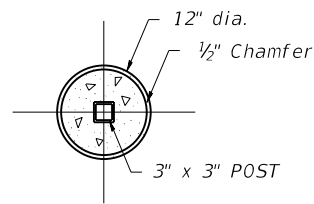
DETAIL A

DETAIL B

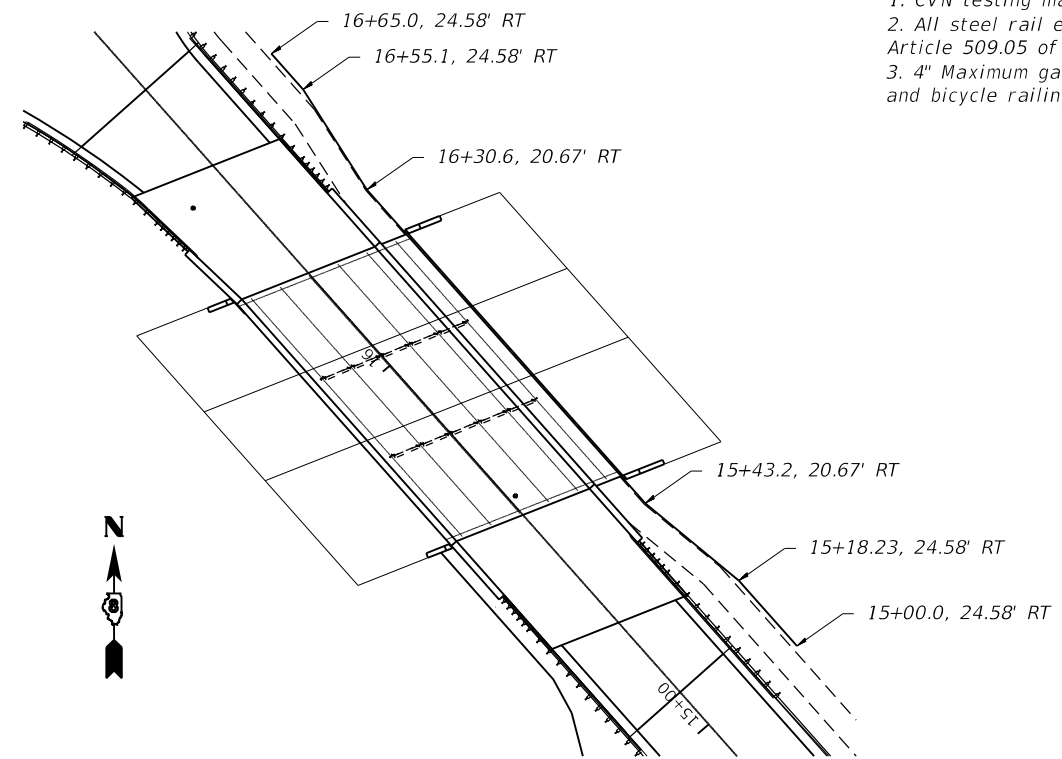
DETAIL C



POST SUPPORT FOUNDATION



TOP VIEW



PEDESTRIAN RAILING - PLAN VIEW

- Notes:
1. CVN testing may be omitted for the Pedestrian Railing
  2. All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
  3. 4" Maximum gap between ends of pedestrian railing and bicycle railing

MODEL: 2 - Pedestrian Railing  
 FILE NAME: 17-00032 - Friedel Bridge Construction  
 ILLINOIS DESIGN FIRM LICENSE NO.: 184.001115



USER NAME = rylene.wirtjes  
 PLOT SCALE = 40,0000' / in.  
 PLOT DATE = 4/29/2021

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

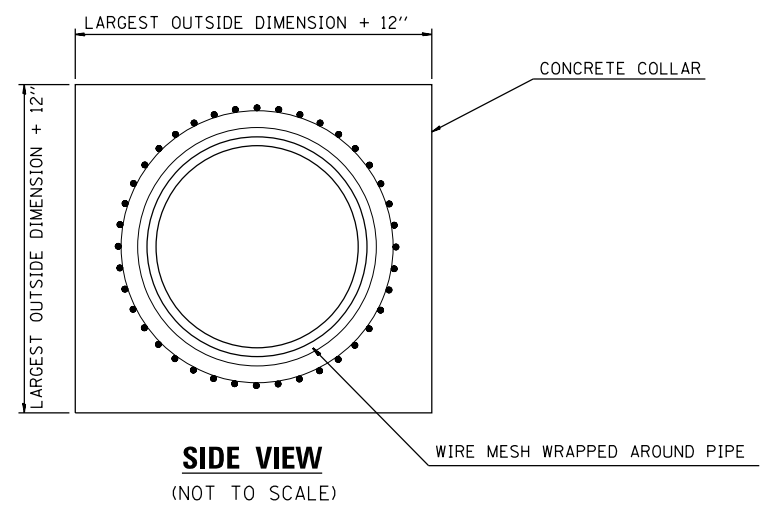
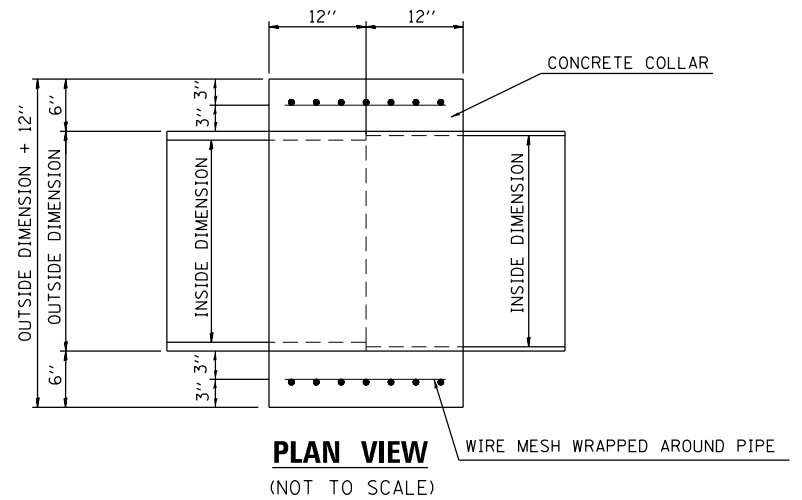
PEDESTRIAN RAILING  
CONSTRUCTION DETAILS

SCALE: NTS SHEET 2 OF 4 SHEETS STA. N/A TO STA. N/A

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	31
FRIEDEL BRIDGE IMPROVEMENTS		CONTRACT NO. 97758		
ILLINOIS FED. AID PROJECT				







- CONCRETE COLLAR NOTES:**
1. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
  2. WHEN CONCRETE COLLARS ARE USED TO CONNECT PIPES OF DIFFERENT OUTSIDE DIMENSIONS, THE CONCRETE COLLAR SHALL BE FORMED USING THE LARGEST OUTSIDE DIMENSION. (SEE END VIEW)
  3. WIRE MESH AS SHOWN IN DETAIL SHALL BE INCLUDED IN THE UNIT PRICE FOR CONCRETE COLLAR.

**Illinois Department of Transportation**  
Division of Highways  
soi engineering inc

## SOIL BORING LOG

Page 1 of 1  
Date 07/18/19

ROUTE Culp Lane DESCRIPTION Friedel Bridge LOGGED BY JT

SECTION 2017-00032-00-BR LOCATION Bathalto, SEC. 1, TWP. 5N, RNG. 9W

COUNTY Madison DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. \_\_\_\_\_  
Station 15+91.5

BORING NO. B-3  
Station 14+99  
Offset \_\_\_\_\_  
Ground Surface Elev. 474.7 ft

DEPTH H T	BULGE B S	UCS C S	MOISTURE M O I S T	Surface Water Elev. _____ ft
2				Stream Bed Elev. _____ ft
2	2.0		27	
2				
4	4.5		23	
7				
10				
15				
20				

Groundwater Elev.:  
First Encounter \_\_\_\_\_ ft  
Upon Completion \_\_\_\_\_ ft  
After \_\_\_\_\_ Hrs. \_\_\_\_\_ ft

6" OIL and CHIP  
CLAY: Brownish-gray, soft, moist, fill, A-7

Auger refusal at 6 feet.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

**Illinois Department of Transportation**  
Division of Highways  
soi engineering inc

## SOIL BORING LOG

Page 1 of 1  
Date 07/18/19

ROUTE Culp Lane DESCRIPTION Friedel Bridge LOGGED BY JT

SECTION 2017-00032-00-BR LOCATION Bathalto, SEC. 1, TWP. 5N, RNG. 9W

COUNTY Madison DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. \_\_\_\_\_  
Station 15+91.5

BORING NO. B-4  
Station 13+46  
Offset \_\_\_\_\_  
Ground Surface Elev. 492.3 ft

DEPTH H T	BULGE B S	UCS C S	MOISTURE M O I S T	Surface Water Elev. _____ ft
1	1.3		19	Stream Bed Elev. _____ ft
2				
2				
3	0.5		20	
4				
4	3.3		12	
6				
3				
4	>4.5		13	
7				
10				
5				
6	>4.5		13	
8				
5				
7	3.3		18	
15	50/5"			

Groundwater Elev.:  
First Encounter \_\_\_\_\_ ft  
Upon Completion \_\_\_\_\_ ft  
After \_\_\_\_\_ Hrs. \_\_\_\_\_ ft

6" CRUSHED ROCK and CINDERS  
CLAY: Brownish-gray, soft, moist, fill, A-7  
LOAM: Brown, sand is fine to coarse, soft, moist, A-7

Medium stiff

WEATHERED LIMESTONE  
Boring terminated at 15 ft.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

MODEL: 4, Bdrfns\_3\_and\_4, FILE NAME: 17-00032 - Friedel Bridge CAD/Microstation/CADD, Drawing: DB 18092-shc-construction\_details.dgn



USER NAME = rylene.wirtjes	DESIGNED -	REVISED -
PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -
PLOT DATE = 4/29/2021	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SOIL BORING LOGS CONSTRUCTION DETAILS</b>	
SCALE: NTS	SHEET 4 OF 4 SHEETS STA. N/A TO STA. N/A

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	33
FRIEDEL BRIDGE IMPROVEMENTS		CONTRACT NO. 97758		
ILLINOIS FED. AID PROJECT				

Benchmark: BM C - Railroad spike in power pole, Sta. 16+45.79, 149.91' RT, Elev. 463.20.

Existing Structure: SN 060-3078 was originally built in 1928. The back-to-back abutment length is approximately 40'-0" and the out-to-out deck width is approximately 19'-3". The structure consists of a single span cast-in-place reinforced concrete thru-girder superstructure supported on closed abutments with unknown foundation types. The structure is located approximately 260' downstream of the proposed structure. Structure to be removed and replaced.

Traffic Control: The proposed structure is located on a new alignment. The road will be closed during construction.

Salvage: None

**DESIGN SPECIFICATIONS**

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

**DESIGN STRESSES**

FIELD UNITS

$f'_c = 3,500$  psi  
 $f'_c = 4,000$  psi (Superstructure concrete)  
 $f_y = 60,000$  psi (Reinforcement)

FIELD UNITS

$f'_c = 8,500$  psi  
 $f'_{ci} = 6,500$  psi  
 $f_{pu} = 270,000$  psi (0.6  $\phi$  low-relax strands)  
 $f_{pbt} = 202,300$  psi (0.6  $\phi$  low-relax strands)

**LOADING HL-93**

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

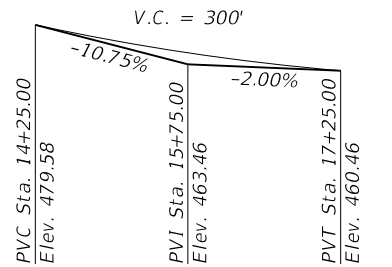
**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.15g  
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.36g  
 Soil Site Class = C

ROCKY BRANCH CREEK  
 BUILT 20\_\_ BY  
 VILLAGE OF BETHALTO  
 SEC. 17-00032-00-BR  
 STATION 15+92.00  
 STR. NO. 060-6854 LOADING HL-93

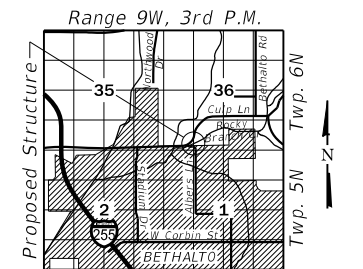
**NAME PLATE**

See Std. 515001



**PROFILE GRADE**

(Along  $\zeta$  Roadway)



**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION**

ALBERS LANE (MS-901)

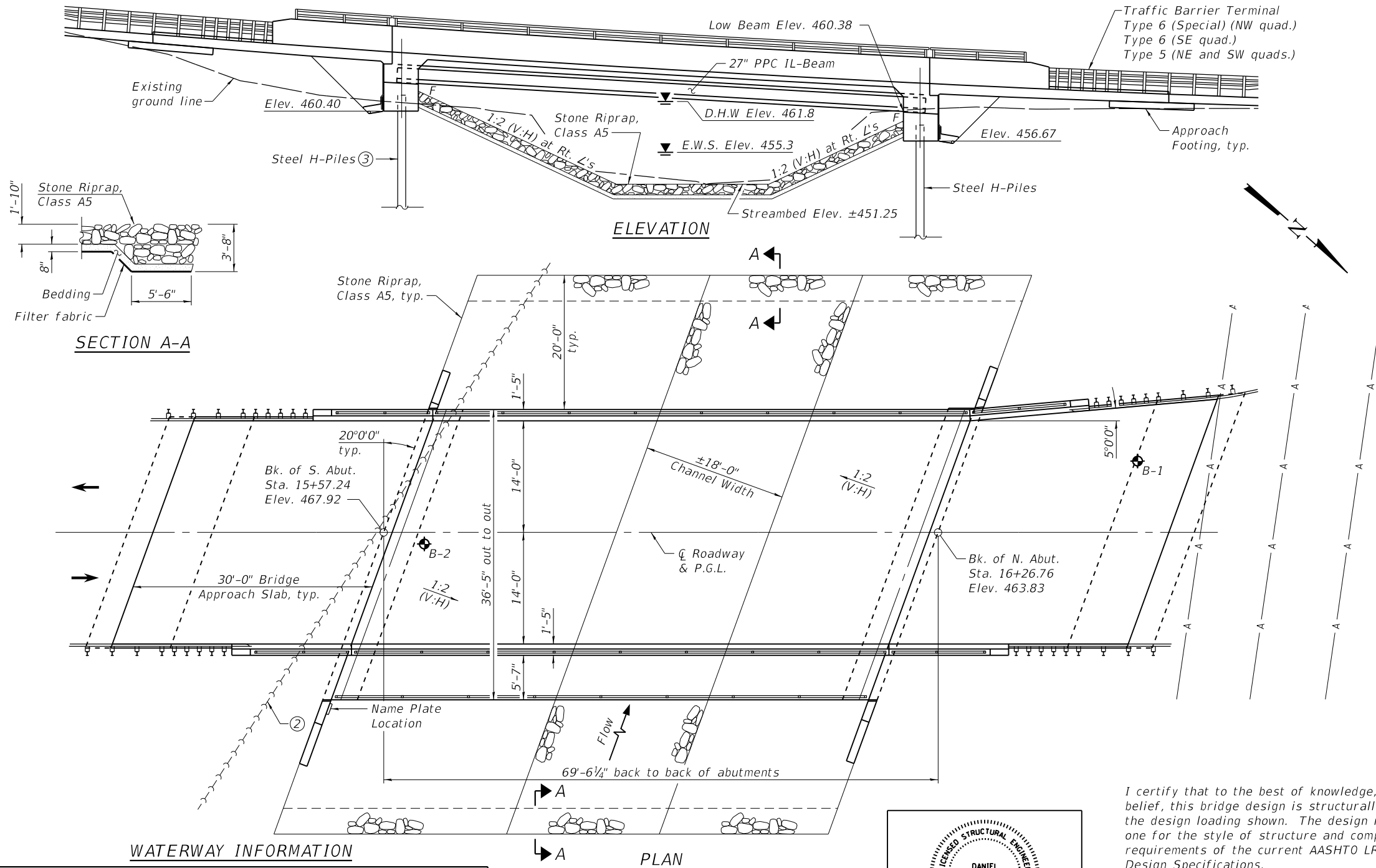
OVER ROCKY BRANCH CREEK

SEC. 17-00032-00-BR

MADISON COUNTY

STATION 15+92.00

STRUCTURE NO. 060-6854



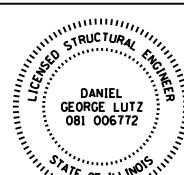
**WATERWAY INFORMATION**

Drainage Area = 8.4 sq. mi. Low Grade Elev. 460.4 at Sta. 12+77

Flood	Freq. Yr.	Q C.F.S.	Opening Ft <sup>2</sup>		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Overtopping	3	1,130	262	350	460.8	0.0	0.0	460.3	460.8
	10	1,950	286	375	461.4	0.0	0.0	461.0	461.4
Design	30	2,692	289	389	461.8	0.1	0.0	461.4	461.8
	50	3,000	289	395	461.9	0.1	0.1	461.5	462.0
Base	100	3,480	289	400	462.1	0.1	0.1	461.7	462.2
Max. Calc.	500	4,650	289	412	462.6	0.1	0.1	462.1	462.7

**DESIGN SCOUR ELEVATION TABLE**

Event / Limit	Design Scour Elevations (ft.)			
	State	S. Abut.	N. Abut.	Item 113 (1)
Q100	460.4	456.7		
Q200	460.4	456.7		
Design	460.4	456.7		8
Check	460.4	456.7		



DATE: 5/3/2021  
 EXPIRATION: 11/30/2022

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

Notes:

- Determined by rational analysis.
- Sanitary sewer line to be relocated. See Roadway Plans.
- Piles to be precored. See sheet 17 of 21.

FILE NAME: H:\P\18092 - Friedel Bridge\Bridges\Final Plans\Microstation\0606854-001-General Plan & Elevation.dgn



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

GENERAL PLAN & ELEVATION  
 STRUCTURE NO. 060-6854

SHEET 1 OF 21 SHEETS

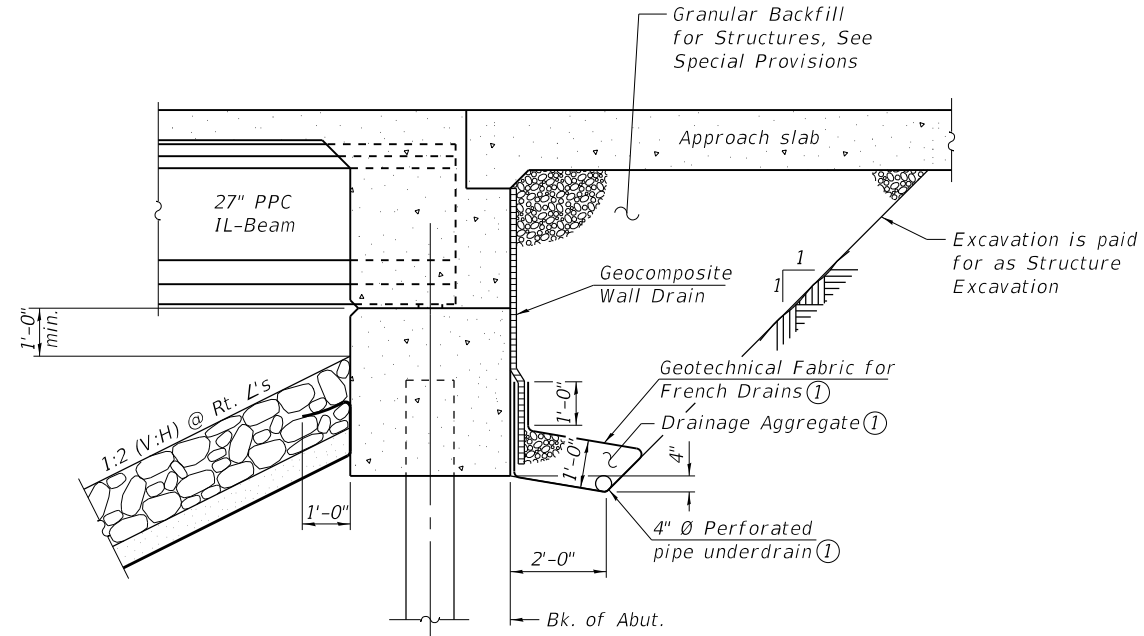
M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	34

CONTRACT NO. 97758  
 ILLINOIS FED. AID PROJECT

**GENERAL NOTES**

Reinforcement bars designated (E) shall be epoxy coated.

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



**SECTION THRU INTEGRAL ABUTMENT ②**  
(Horiz. dim. at Rt. L's)

**TOTAL BILL OF MATERIAL**

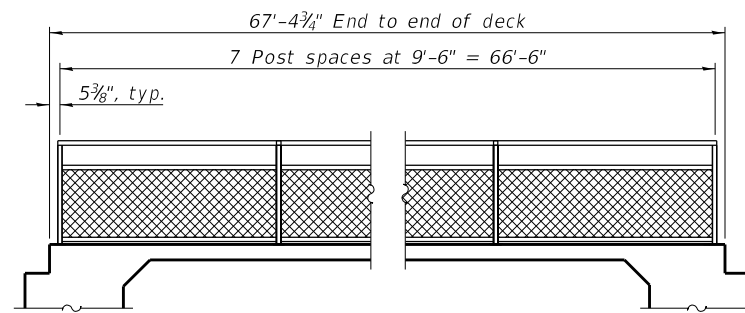
ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Sq. Yd.	-	598	598
Filter Fabric	Sq. Yd.	-	598	598
Removal of Existing Structures	Each	-	-	1
Structure Excavation	Cu. Yd.	-	104	104
Concrete Structures	Cu. Yd.	-	71.9	71.9
Concrete Superstructure	Cu. Yd.	120.6	-	120.6
Bridge Deck Grooving	Sq. Yd.	372	-	372
Protective Coat	Sq. Yd.	561	-	561
Concrete Superstructure (Approach Slab)	Cu. Yd.	85.9	-	85.9
Furnishing and Erecting Precast Prestressed Concrete Beams, 1L27N	Foot	397.5	-	397.5
Reinforcement Bars, Epoxy Coated	Pound	55,580	11,370	66,950
Bicycle Railing	Foot	67	-	67
Parapet Railing	Foot	185	-	185
Furnishing Steel Piles HP12x53	Foot	-	285	285
Driving Piles	Foot	-	285	285
Test Pile Steel HP12x53	Each	-	2	2
Pile Shoes	Each	-	12	12
Name Plates	Each	1	-	1
Granular Backfill for Structures	Cu. Yd.	-	115	115
Geocomposite Wall Drain	Sq. Yd.	-	69	69
Pipe Underdrains for Structures 4"	Foot	-	145	145

**INDEX OF SHEETS**

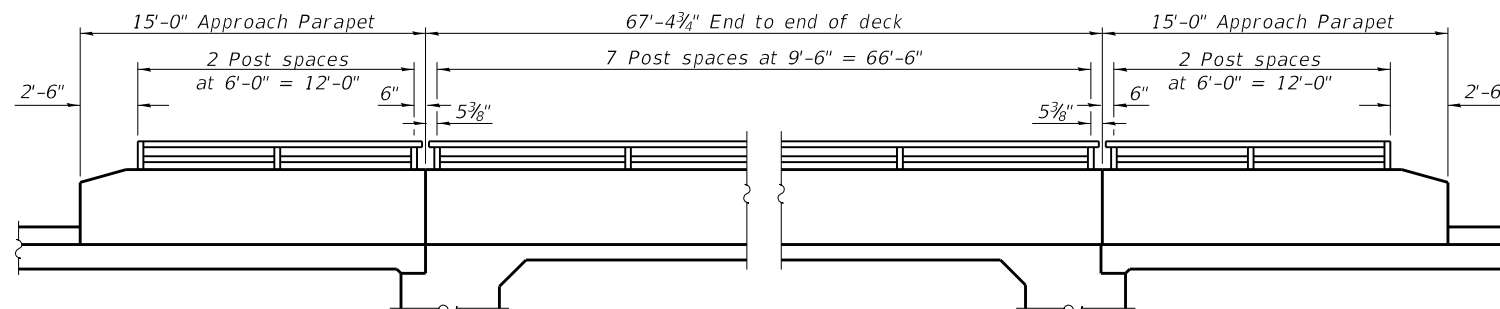
Sheet No.	Description
1	General Plan & Elevation
2	General Data
3-4	Top of Slab Elevations
5	Top of South Approach Slab Elevations
6	Top of North Approach Slab Elevations
7	Superstructure
8	Superstructure Details
9	Diaphragm Details
10-12	Bridge Approach Slab Details
13	Bicycle Railing
14	Framing Plan
15	1L27 Beam
16	1L27 Beam Details
17	South Abutment Details
18	North Abutment Details
19	HP Pile Details
20	Concrete Parapet Slipforming Option
21	Soil Boring Logs

Notes:

- ① Included in the cost of Pipe Underdrains for Structures 4", see Special Provisions.
- ② All drainage system components shall extend parallel to the abutment back wall until 2'-0" from the end of the wingwalls. Unperforated pipe shall outlet within the riprap on the abutment slope. The unperforated pipes shall drain into concrete headwalls in accordance with Article 601.05 of the Standard Specifications and Highway Standard 601101.



**BICYCLE RAILING ELEVATION**



**PARAPET RAILING ELEVATION**

FILE NAME: H:\PI\18092 - Friedel Bridge\Bridge\Final Plans\Microstation\0606854-002-General Data.dgn



USER NAME =	DESIGNED - MAM	REVISED -
PLOT SCALE =	CHECKED - KBC	REVISED -
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	CHECKED - KBC	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA  
STRUCTURE NO. 060-6854**

SHEET 2 OF 21 SHEETS

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	35
CONTRACT NO. 97758				
ILLINOIS FED. AID PROJECT				



GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	15+61.76	-12.42	467.36	467.36
☉ Brg. S. Abut.	15+64.02	-12.42	467.21	467.21
A	15+74.02	-12.42	466.56	466.62
B	15+84.02	-12.42	465.93	466.04
C	15+94.02	-12.42	465.33	465.46
D	16+04.02	-12.42	464.77	464.89
E	16+14.02	-12.42	464.23	464.31
F	16+24.02	-12.42	463.72	463.75
☉ Brg. N. Abut.	16+29.02	-12.42	463.47	463.47
Bk. of N. Abut.	16+31.28	-12.42	463.37	463.37

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	15+59.54	-6.33	467.63	467.63
☉ Brg. S. Abut.	15+61.81	-6.33	467.48	467.48
A	15+71.81	-6.33	466.82	466.88
B	15+81.81	-6.33	466.19	466.29
C	15+91.81	-6.33	465.58	465.71
D	16+01.81	-6.33	465.01	465.13
E	16+11.81	-6.33	464.47	464.55
F	16+21.81	-6.33	463.95	463.98
☉ Brg. N. Abut.	16+26.81	-6.33	463.70	463.70
Bk. of N. Abut.	16+29.07	-6.33	463.59	463.59

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	15+57.33	-0.25	467.91	467.91
☉ Brg. S. Abut.	15+59.59	-0.25	467.75	467.75
A	15+69.59	-0.25	467.08	467.15
B	15+79.59	-0.25	466.45	466.55
C	15+89.59	-0.25	465.84	465.97
D	15+99.59	-0.25	465.26	465.38
E	16+09.59	-0.25	464.71	464.79
F	16+19.59	-0.25	464.18	464.21
☉ Brg. N. Abut.	16+24.59	-0.25	463.93	463.93
Bk. of N. Abut.	16+26.85	-0.25	463.82	463.82

☉ ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	15+57.24	0	467.92	467.92
☉ Brg. S. Abut.	15+59.50	0	467.76	467.76
A	15+69.50	0	467.10	467.16
B	15+79.50	0	466.46	466.56
C	15+89.50	0	465.85	465.98
D	15+99.50	0	465.27	465.39
E	16+09.50	0	464.72	464.80
F	16+19.50	0	464.19	464.22
☉ Brg. N. Abut.	16+24.50	0	463.94	463.94
Bk. of N. Abut.	16+26.76	0	463.83	463.83

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	15+55.12	5.83	467.95	467.95
☉ Brg. S. Abut.	15+57.38	5.83	467.79	467.79
A	15+67.38	5.83	467.12	467.18
B	15+77.38	5.83	466.47	466.58
C	15+87.38	5.83	465.86	465.99
D	15+97.38	5.83	465.27	465.39
E	16+07.38	5.83	464.71	464.80
F	16+17.38	5.83	464.18	464.22
☉ Brg. N. Abut.	16+22.38	5.83	463.93	463.93
Bk. of N. Abut.	16+24.64	5.83	463.82	463.82

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	15+52.90	11.92	467.98	467.98
☉ Brg. S. Abut.	15+55.16	11.92	467.82	467.82
A	15+65.16	11.92	467.14	467.20
B	15+75.16	11.92	466.49	466.60
C	15+85.16	11.92	465.87	466.00
D	15+95.16	11.92	465.28	465.40
E	16+05.16	11.92	464.71	464.80
F	16+15.16	11.92	464.18	464.21
☉ Brg. N. Abut.	16+20.16	11.92	463.92	463.92
Bk. of N. Abut.	16+22.42	11.92	463.81	463.81

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	15+50.69	18.00	468.02	468.02
☉ Brg. S. Abut.	15+52.95	18.00	467.86	467.86
A	15+62.95	18.00	467.17	467.23
B	15+72.95	18.00	466.51	466.62
C	15+82.95	18.00	465.88	466.01
D	15+92.95	18.00	465.28	465.40
E	16+02.95	18.00	464.71	464.80
F	16+12.95	18.00	464.17	464.20
☉ Brg. N. Abut.	16+17.95	18.00	463.91	463.91
Bk. of N. Abut.	16+20.21	18.00	463.80	463.80

FILE NAME: H:\PI18092 - Friedel Bridge\Bridges\Final Plans\Microstation\0606854-004-Top of Slab Elevations.dgn



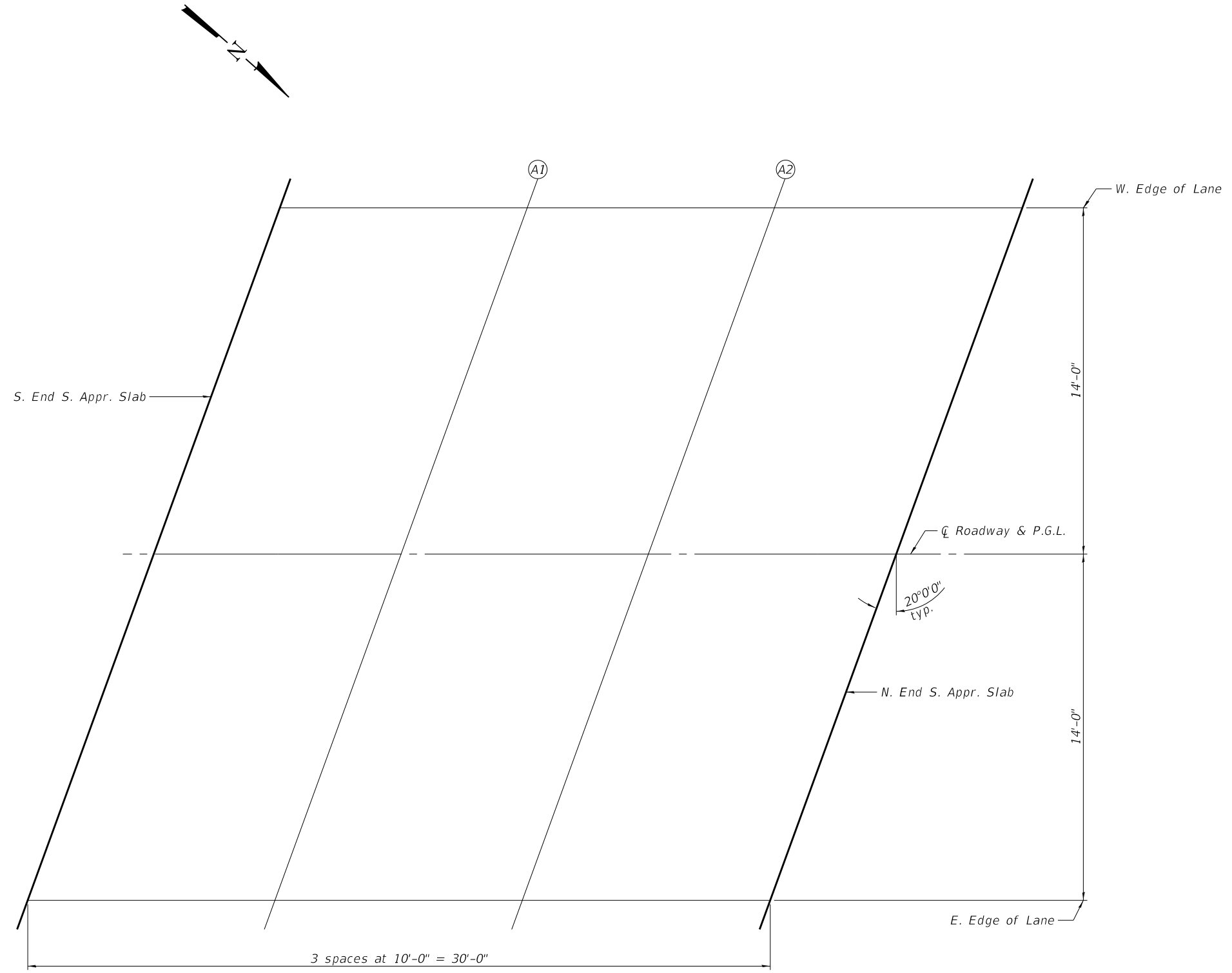
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	CHECKED - KBC	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 060-6854**

SHEET 4 OF 21 SHEETS

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	37
ILLINOIS FED. AID PROJECT			CONTRACT NO. 97758	



PLAN

W. EDGE OF LANE

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Slab	15+33.40	-14.00	469.37
A1	15+43.40	-14.00	468.62
A2	15+53.40	-14.00	467.91
N. End S. Appr. Slab	15+63.40	-14.00	467.22

Ø ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Slab	15+28.30	0.00	470.04
A1	15+38.30	0.00	469.28
A2	15+48.30	0.00	468.55
N. End S. Appr. Slab	15+58.30	0.00	467.85

E. EDGE OF LANE

Location	Station	Offset	Theoretical Grade Elevations
S. End S. Appr. Slab	15+23.21	14.00	470.15
A1	15+33.21	14.00	469.38
A2	15+43.21	14.00	468.63
N. End S. Appr. Slab	15+53.21	14.00	467.92

FILE NAME: H:\PI\18092 - Friedel Bridge\Bridges\Final Plans\Microstation\0606854-005-Top of South Approach Slab Elevations.dgn



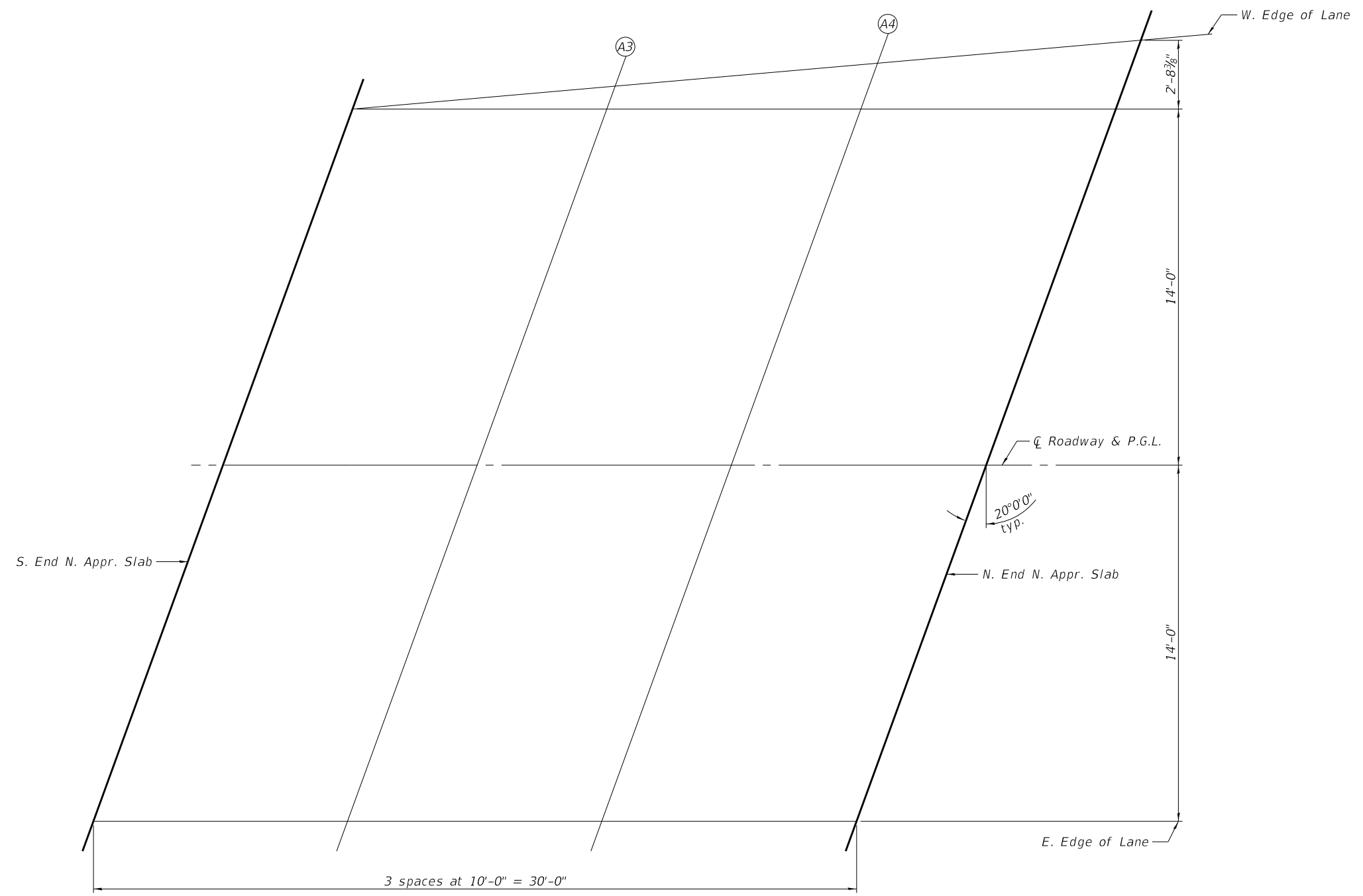
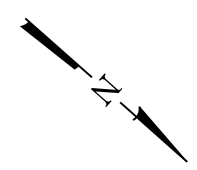
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PLOT DATE = 4/29/2021	CHECKED - KBC	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 060-6854

SHEET 5 OF 21 SHEETS

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	38
CONTRACT NO. 97758			ILLINOIS FED. AID PROJECT	



**PLAN**

**W. EDGE OF LANE**

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Slab	16+30.79	-14.00	463.36
A3	16+41.12	-14.90	462.87
A4	16+51.45	-15.80	462.40
N. End N. Appr. Slab	16+61.78	-16.70	461.97

**Centerline Roadway & P.G.L.**

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Slab	16+25.70	0.00	463.88
A3	16+35.70	0.00	463.41
A4	16+45.70	0.00	462.96
N. End N. Appr. Slab	16+55.70	0.00	462.55

**E. EDGE OF LANE**

Location	Station	Offset	Theoretical Grade Elevations
S. End N. Appr. Slab	16+20.60	14.00	463.86
A3	16+30.60	14.00	463.37
A4	16+40.60	14.00	462.91
N. End N. Appr. Slab	16+50.60	14.00	462.47

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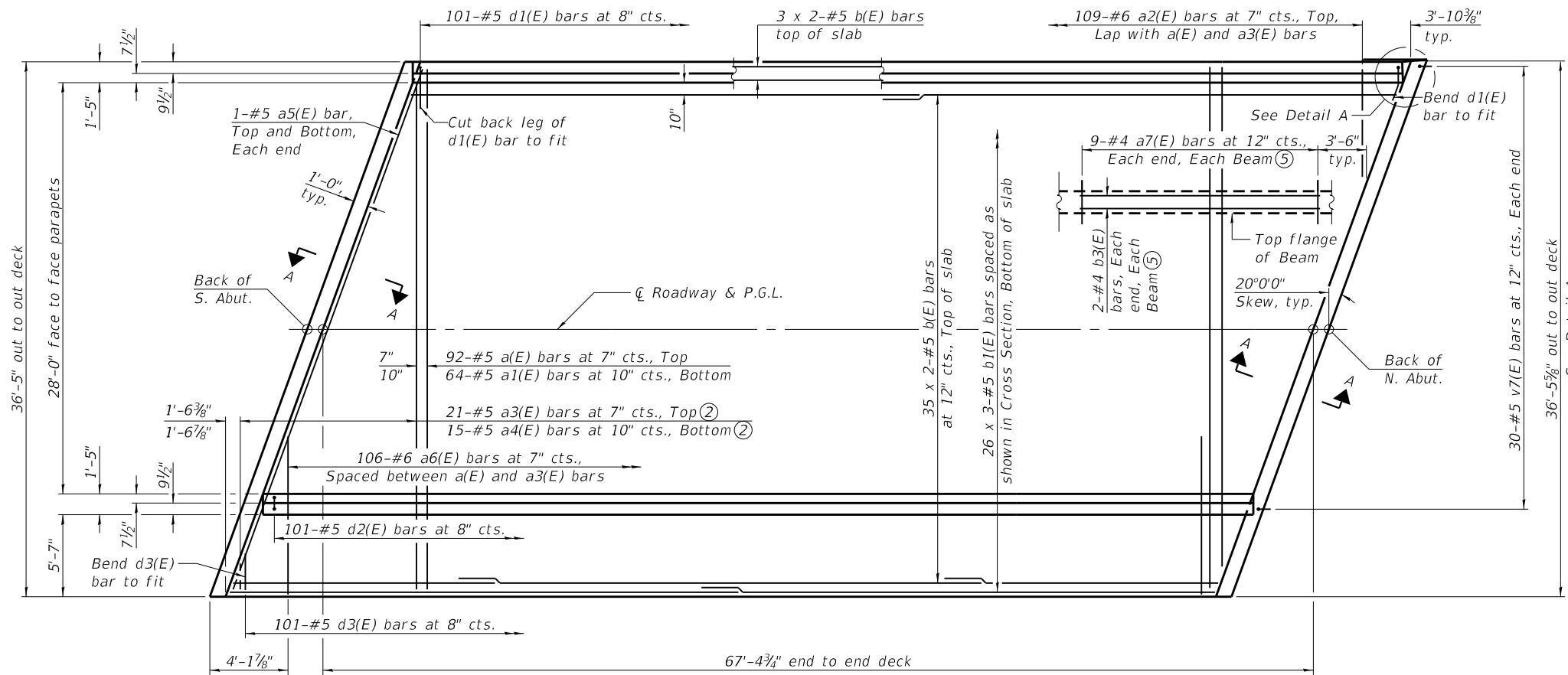


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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF NORTH APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 060-6854**

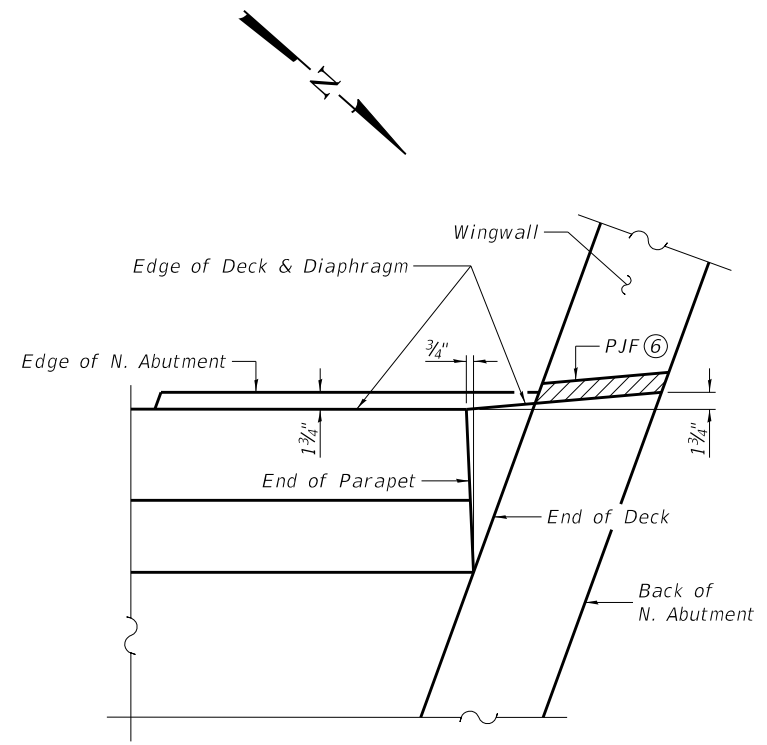
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901	17-00032-00-BR	MADISON	68	39
CONTRACT NO. 97758			ILLINOIS FED. AID PROJECT	



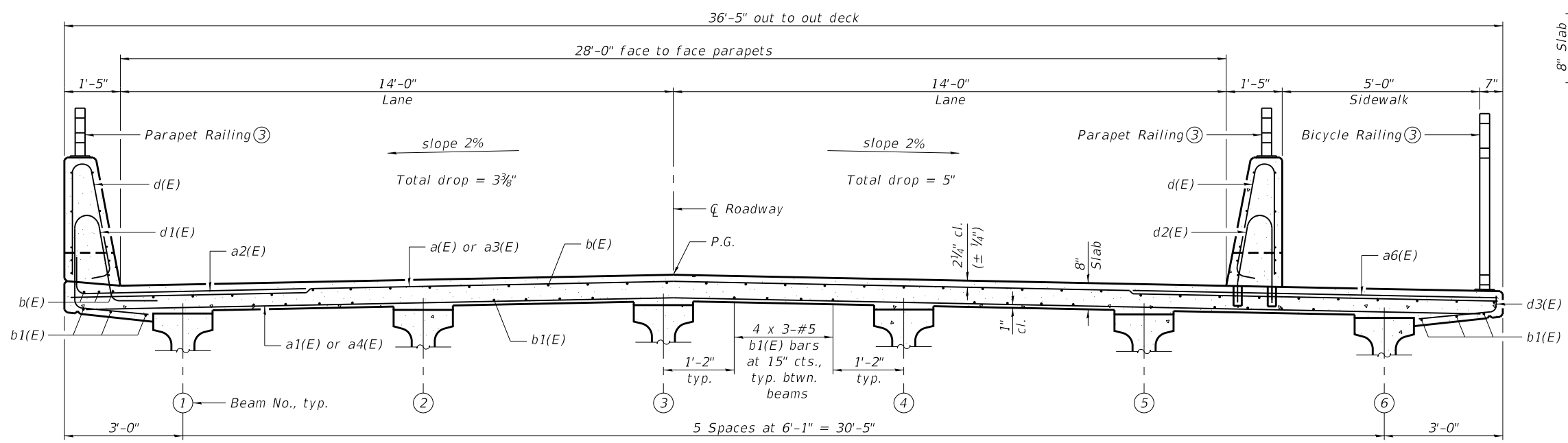
PLAN

MINIMUM BAR LAP

#5 bar = 3'-6"

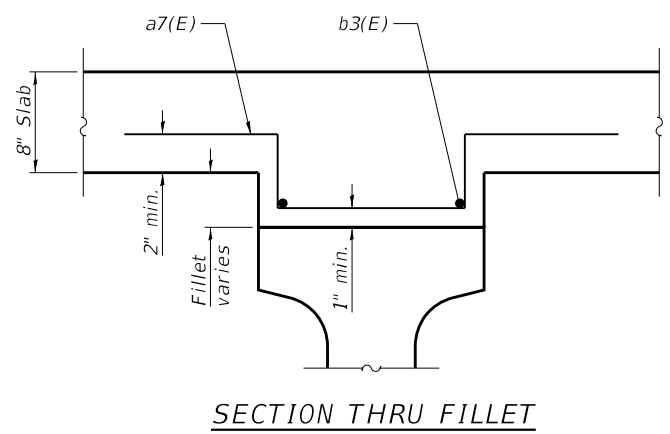


DETAIL A



CROSS SECTION

(Looking North)



SECTION THRU FILLET

- Notes:
- ① Bars indicated thus 26 x 3-#5 etc. indicates 26 lines of bars with 3 lengths per line.
  - ② See field cutting diagram on sheet 8 of 21.
  - ③ For Parapet Railing and Bicycle Railing details, See sheet 13 of 21.
  - ④ For superstructure details, bar details, parapet reinforcement, and Bill of Material, See sheet 8 of 21.
  - ⑤ See Section Thru Fillet
  - ⑥ See sheets 10 and 11 of 21 for P.J.F. details.
  - ⑦ See sheets 9 of 21 for Section A-A.

FILE NAME: H:\P18092 - Friedel Bridge\Bridges\Final Plans\Microstation\0606854-007-Superstructure.dgn



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PLOT SCALE =	CHECKED - KBC	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

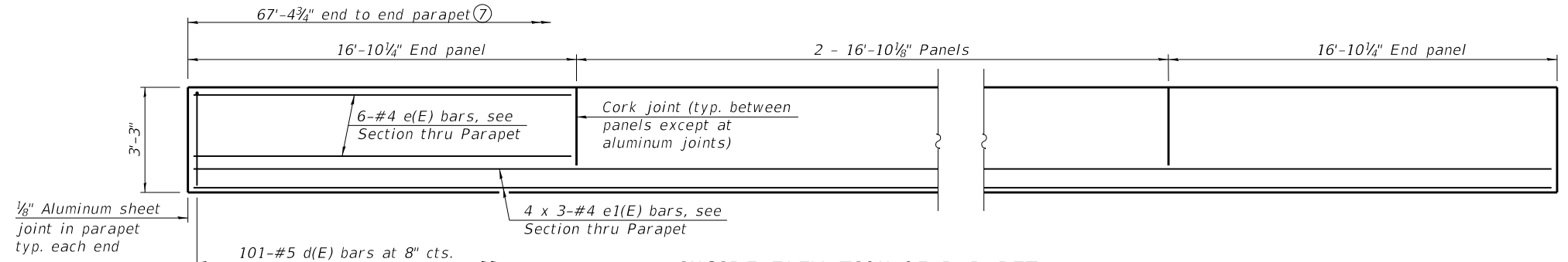
SUPERSTRUCTURE  
STRUCTURE NO. 060-6854

SHEET 7 OF 21 SHEETS

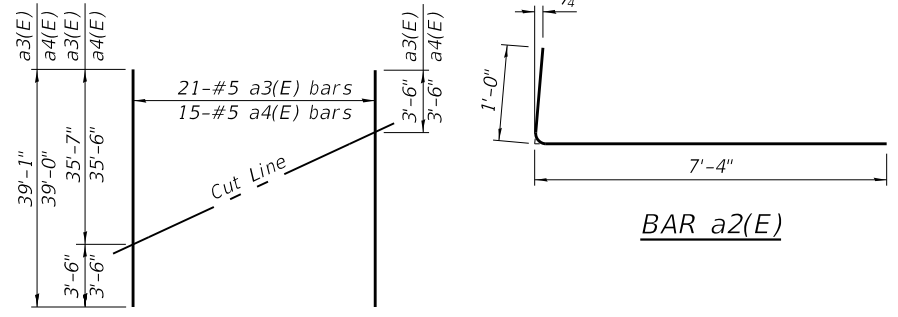
M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	40
CONTRACT NO. 97758				

ILLINOIS FED. AID PROJECT





INSIDE ELEVATION OF PARAPET

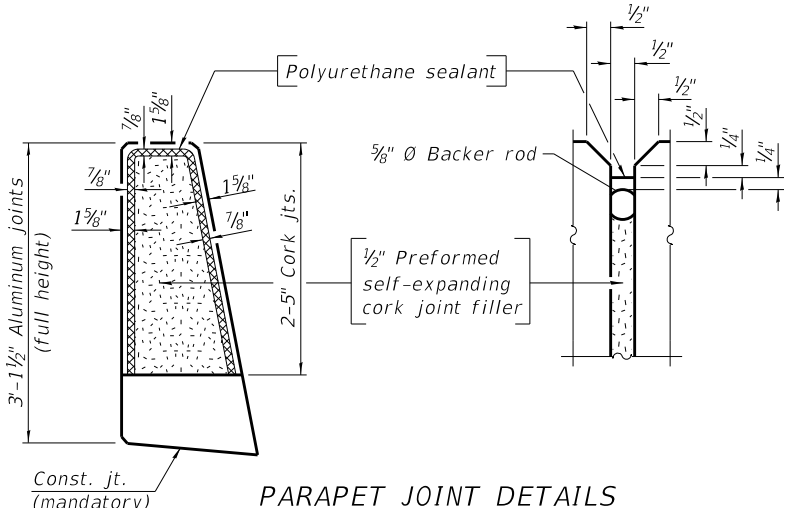


FIELD CUTTING DIAGRAM

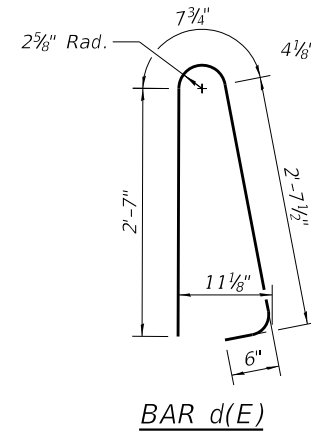
Order a3(E) and a4(E) bars full length. Cut as shown and use remainder of bars in opposite end of deck.

SUPERSTRUCTURE BILL OF MATERIAL

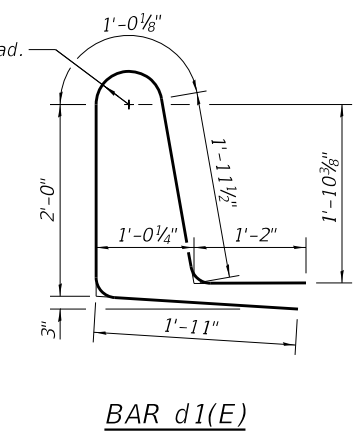
Bar	No.	Size	Length	Shape
a(E)	92	#5	36'-1"	
a1(E)	64	#5	35'-9"	
a2(E)	109	#6	8'-4"	
a3(E)	21	#5	39'-1"	
a4(E)	15	#5	39'-0"	
a5(E)	4	#5	38'-4"	
a6(E)	106	#6	10'-5"	
a7(E)	108	#4	3'-2"	
b(E)	76	#5	35'-4"	
b1(E)	78	#5	24'-8"	
b2(E)	24	#4	10'-0"	
d(E)	202	#5	6'-5"	
d1(E)	101	#5	8'-1"	
d2(E)	101	#5	5'-2"	
d3(E)	101	#5	2'-3"	
e(E)	48	#4	16'-5"	
e1(E)	24	#4	24'-0"	
m(E)	8	#6	38'-4"	
m1(E)	20	#6	5'-5"	
m2(E)	8	#6	2'-6"	
m3(E)	10	#6	3'-5"	
m4(E)	4	#6	1'-5"	
m5(E)	24	#5	4'-0"	
s4(E)	52	#5	8'-6"	
s5(E)	52	#5	9'-7"	
s6(E)	48	#5	7'-9"	
v7(E)	60	#5	3'-1"	
Concrete Superstructure		Cu. Yd.	112.8	
Reinforcement Bars, Epoxy Coated		Pound	21,960	



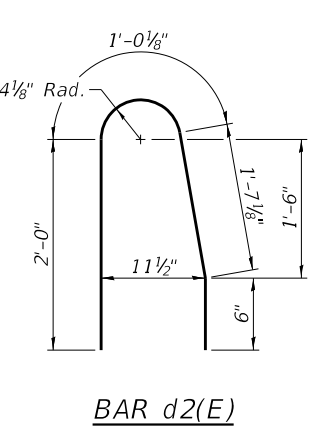
PARAPET JOINT DETAILS



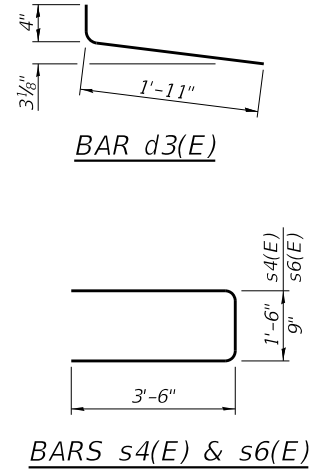
BAR d(E)



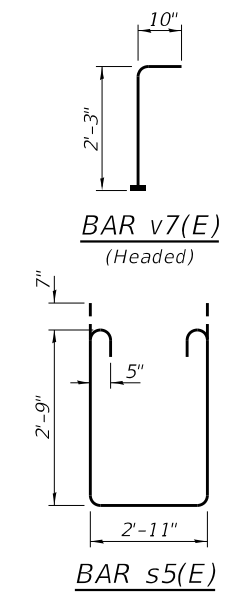
BAR d1(E)



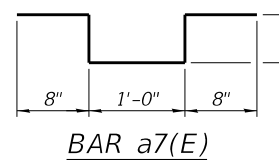
BAR d2(E)



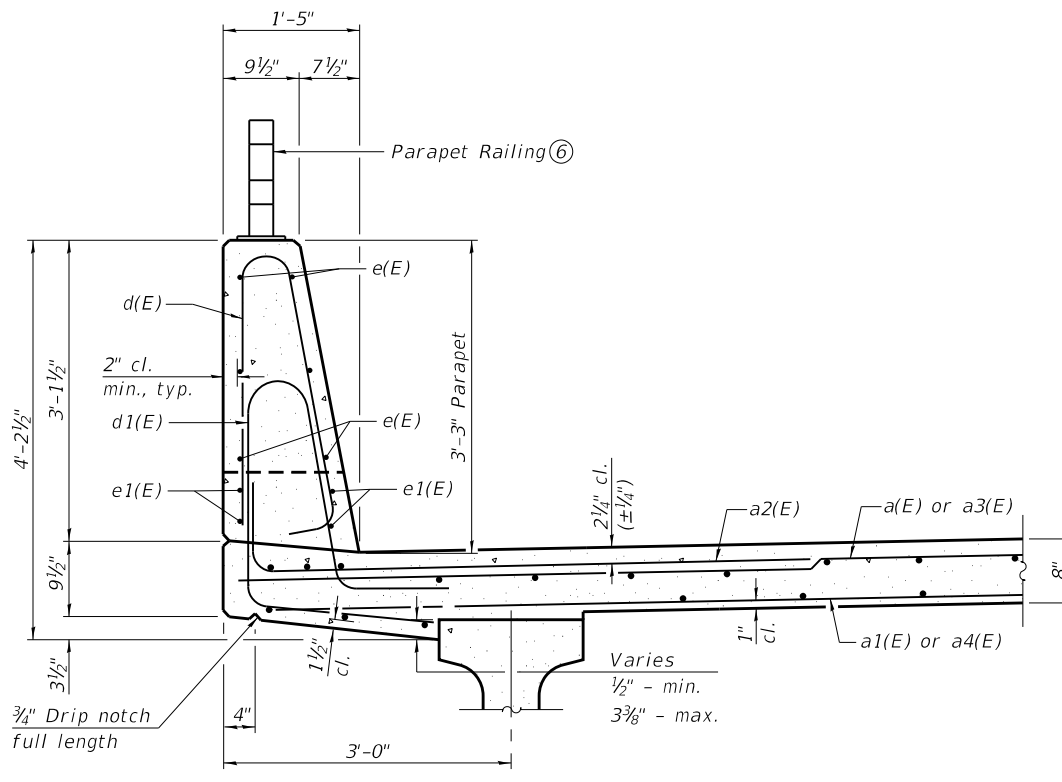
BARS s4(E) & s6(E)



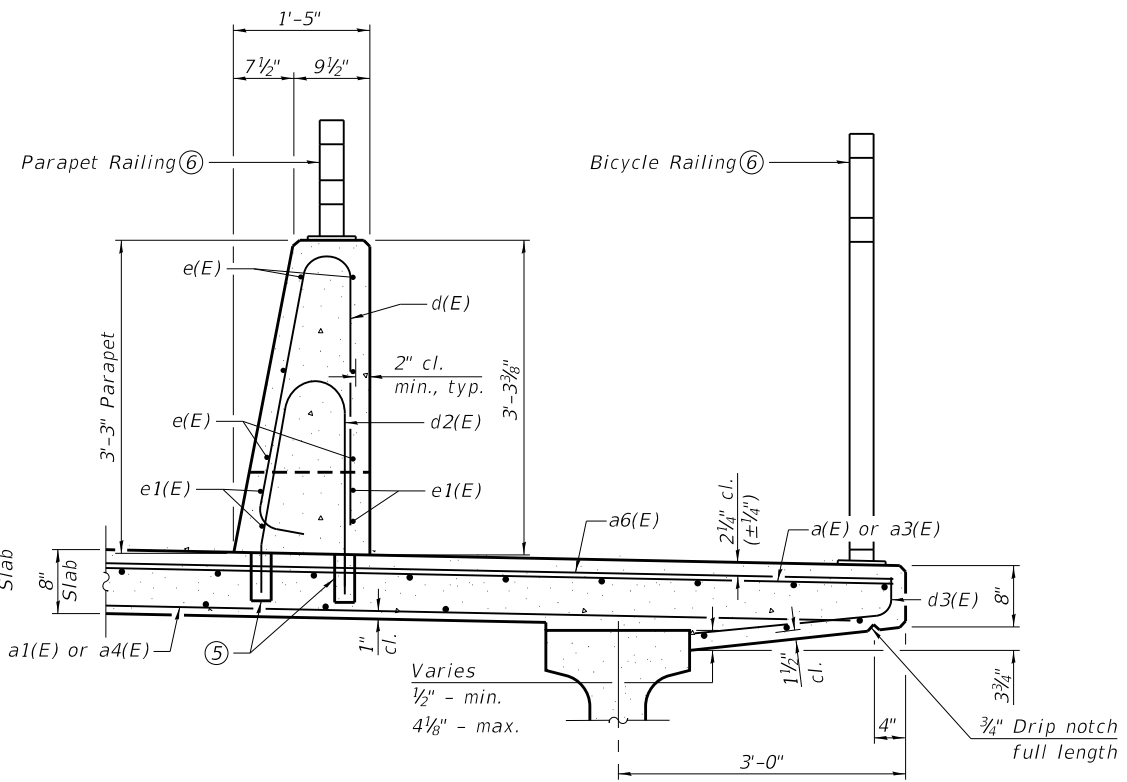
BAR v7(E)



BAR a7(E)



SECTION THRU WEST PARAPET



SECTION THRU EAST PARAPET

- 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 according to Article 1050.04 of the Standard Specifications and the color shall be gray.
  - Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
  - Bars indicated thus 4 x 3-#4 etc. indicates 4 line of bars with 3 lengths per line.
  - Core and set d2(E) bar according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacture's recommendations. Maximum depth of hole shall not exceed 6".
  - For Parapet Railing and Bicycle Railing details, See sheet 13 of 21.
  - Measured along back face.

FILE NAME: H:\P\18092 - Friedel Bridge\Bridges\Final Plans\Microstation\0606854-008-Superstructure\_Details.dgn



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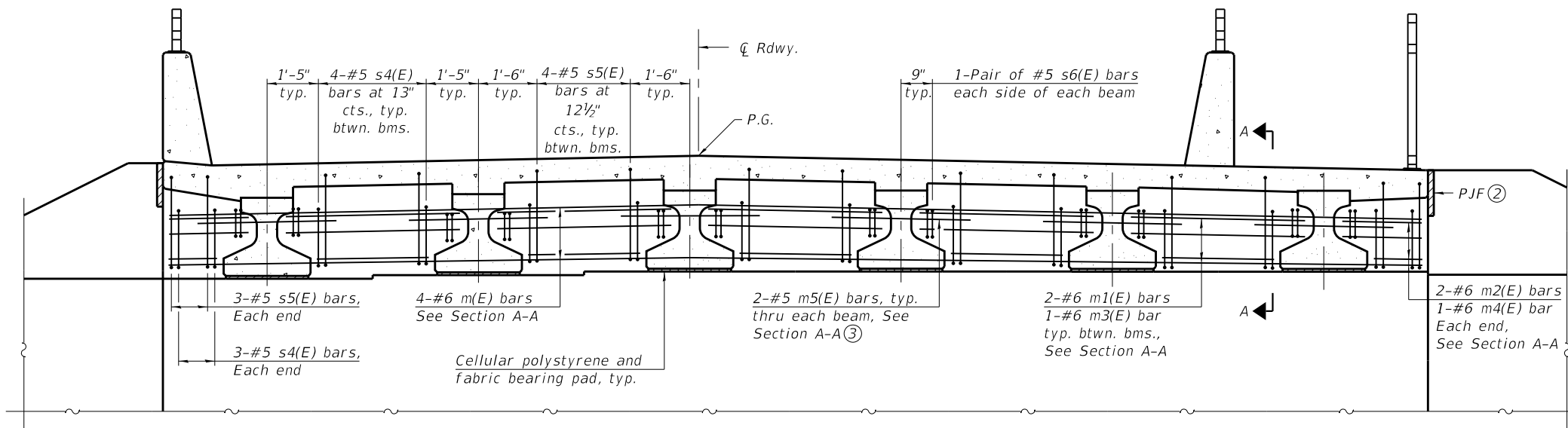
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 060-6854

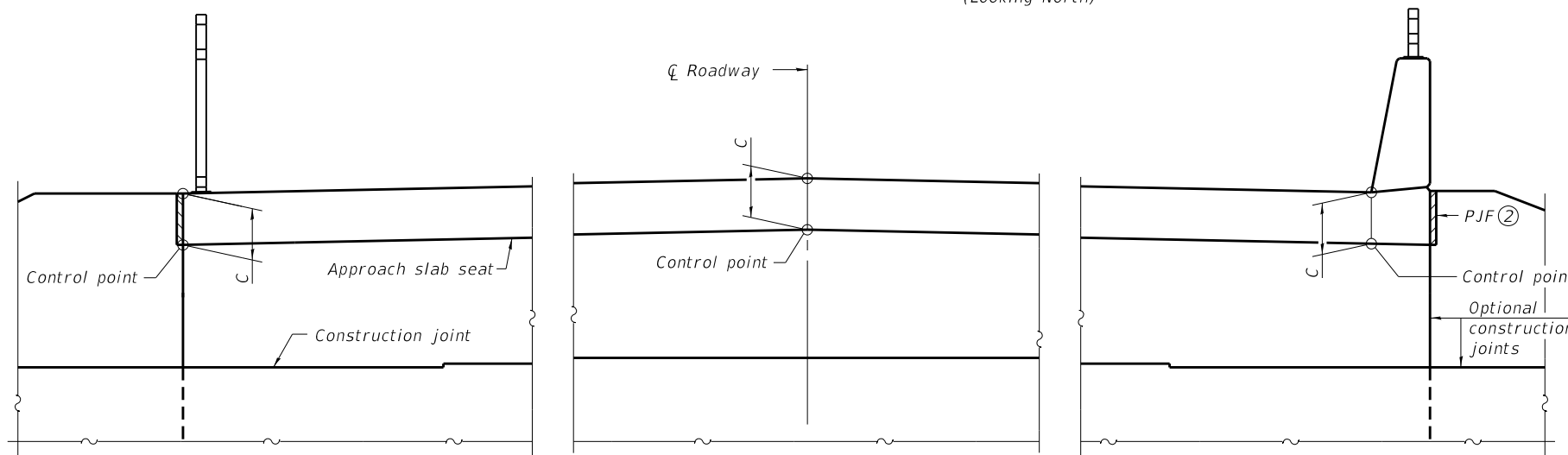
SHEET 8 OF 21 SHEETS

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	41
CONTRACT NO. 97758				

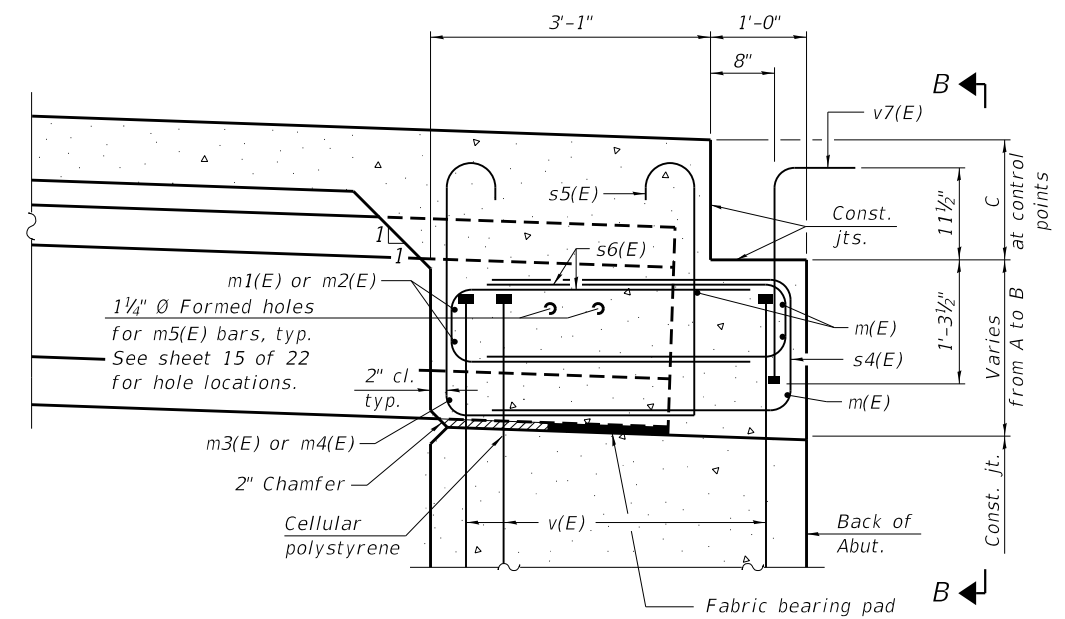
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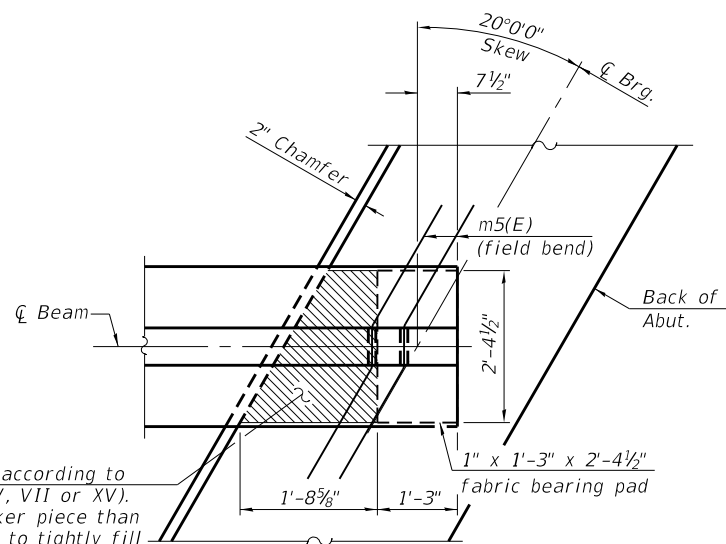
**DIAPHRAGM ELEVATION AT ABUTMENT**  
(Looking North)



**VIEW B-B**  
(Looking South)



**SECTION A-A**  
(at Rt. L's)



Cellular polystyrene according to ASTM C 578 (Types V, VII or XV). Provide slightly thicker piece than measured gap height to tightly fill the hatched area shown between abutment cap and bottom of beam.

**PLAN AT ABUTMENT**  
(Showing bottom flange of beam)

**DIMENSION TABLE**

Abutment	A	B	C
South	1'-10 1/2"	2'-1 3/4"	1'-3"
North	1'-11 5/8"	2'-2 1/2"	1'-3 3/4"

**CONTROL POINT ELEVATIONS**

Abutment	West Parapet	Center Roadway	East Edge of Deck
South	465.97	466.60	466.71
North	461.99	462.51	462.48

**Notes:**

- ① See sheet 8 of 21 for superstructure details and Bill of Material.
- ② See sheet 10 and 11 of 21 for P.J.F. details.
- ③ Secure bars such that they remain centered and level during pouring of the concrete.
- ④ The s4(E), s5(E) and s6(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
- ⑤ The approach slab seat shall have a constant slope determined from the control points shown.
- ⑥ Cost of cellular polystyrene is included with Concrete Superstructure.

FILE NAME: H:\PI\18092 - Friedel Bridge\Bridges\Final Plans\Microstation\0606854-009-Diaphragm Details.dgn



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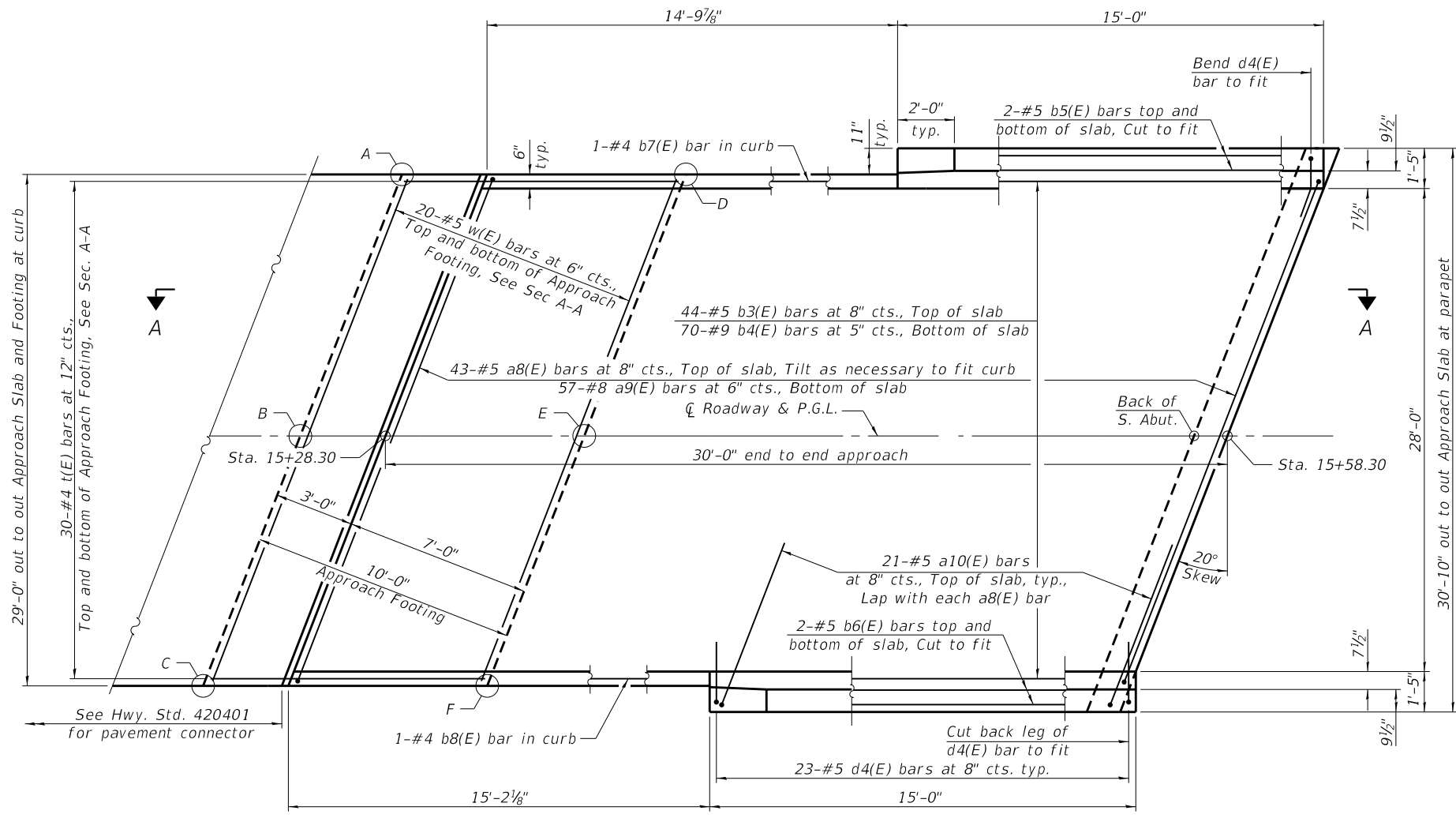
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DIAPHRAGM DETAILS**  
**STRUCTURE NO. 060-6854**

SHEET 9 OF 21 SHEETS

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	42
CONTRACT NO. 97758				

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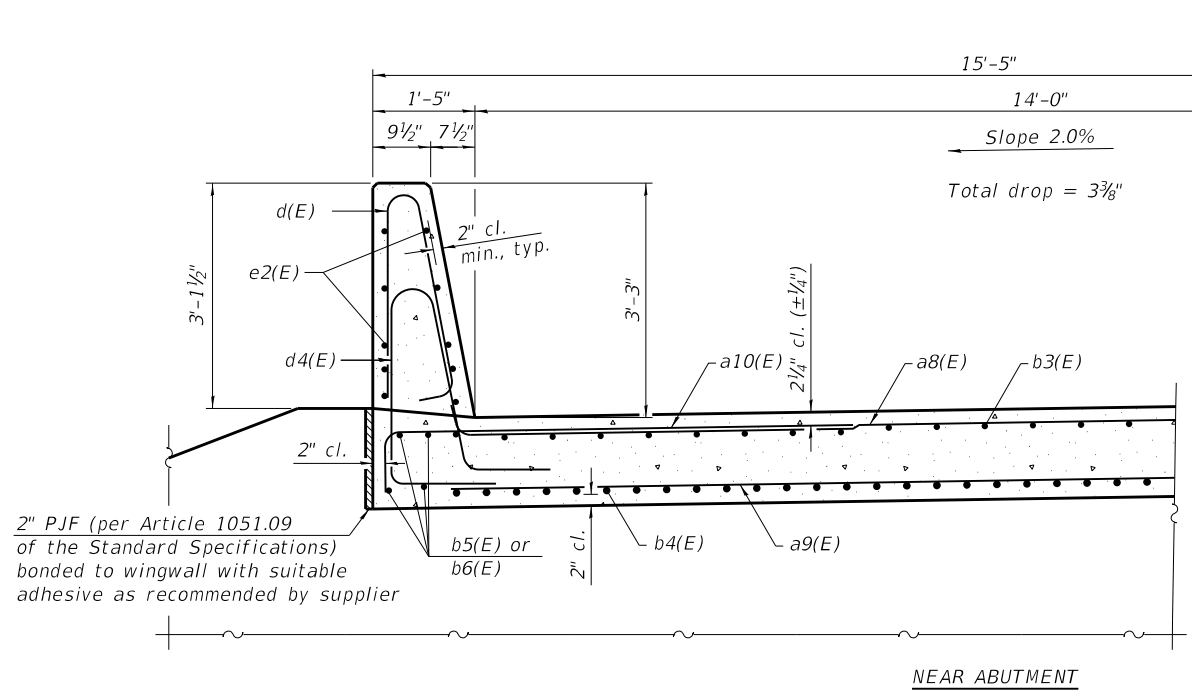


PLAN

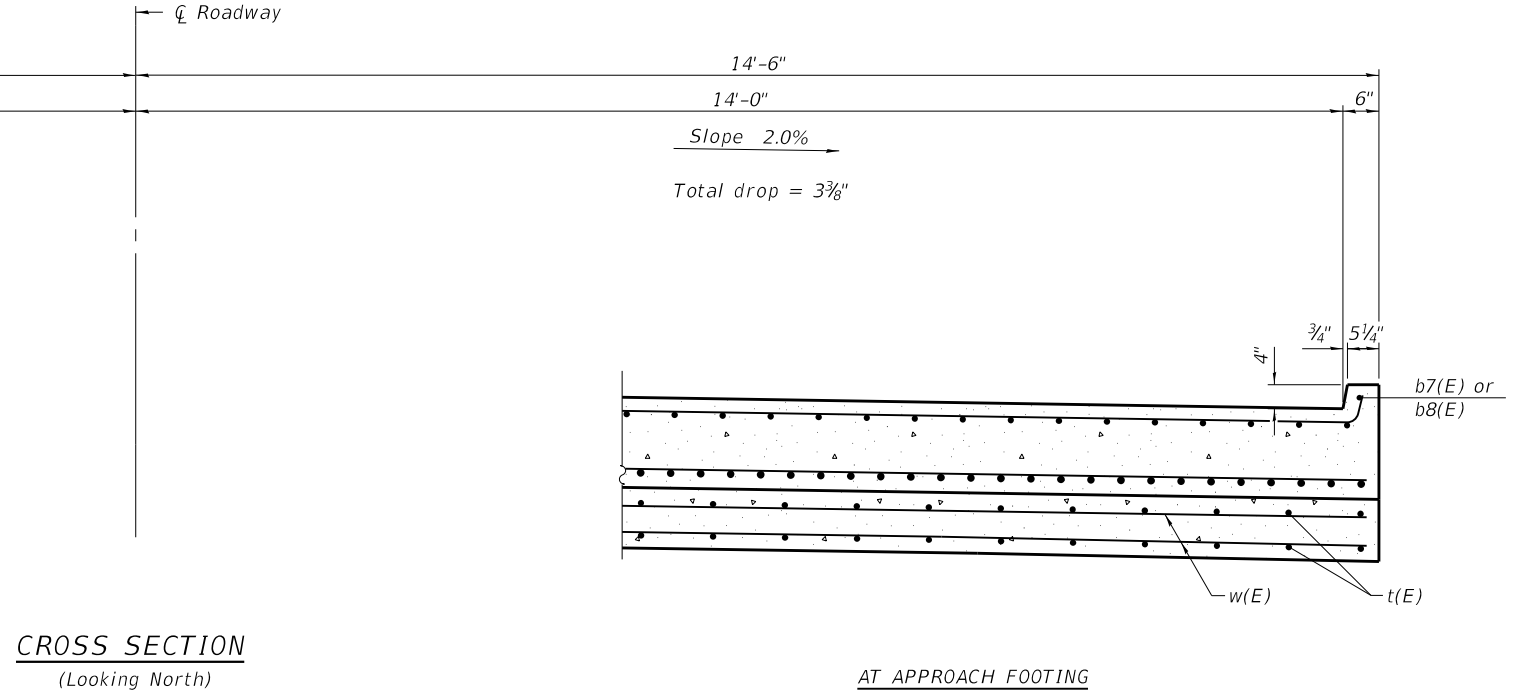
TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

Point	Top	Bottom
A	468.34	467.51
B	469.03	468.20
C	469.16	468.33
D	467.53	466.70
E	468.22	467.39
F	468.33	467.50

Notes:  
 ① For Section A-A, see sheet 12 of 21.



NEAR ABUTMENT



CROSS SECTION (Looking North)

AT APPROACH FOOTING

(Sheet 1 of 3)

FILE NAME: H:\P\18092 - Friedel Bridge\Bridge\Final Plans\Microstation\0606854-010-South Approach Slab Details.dgn



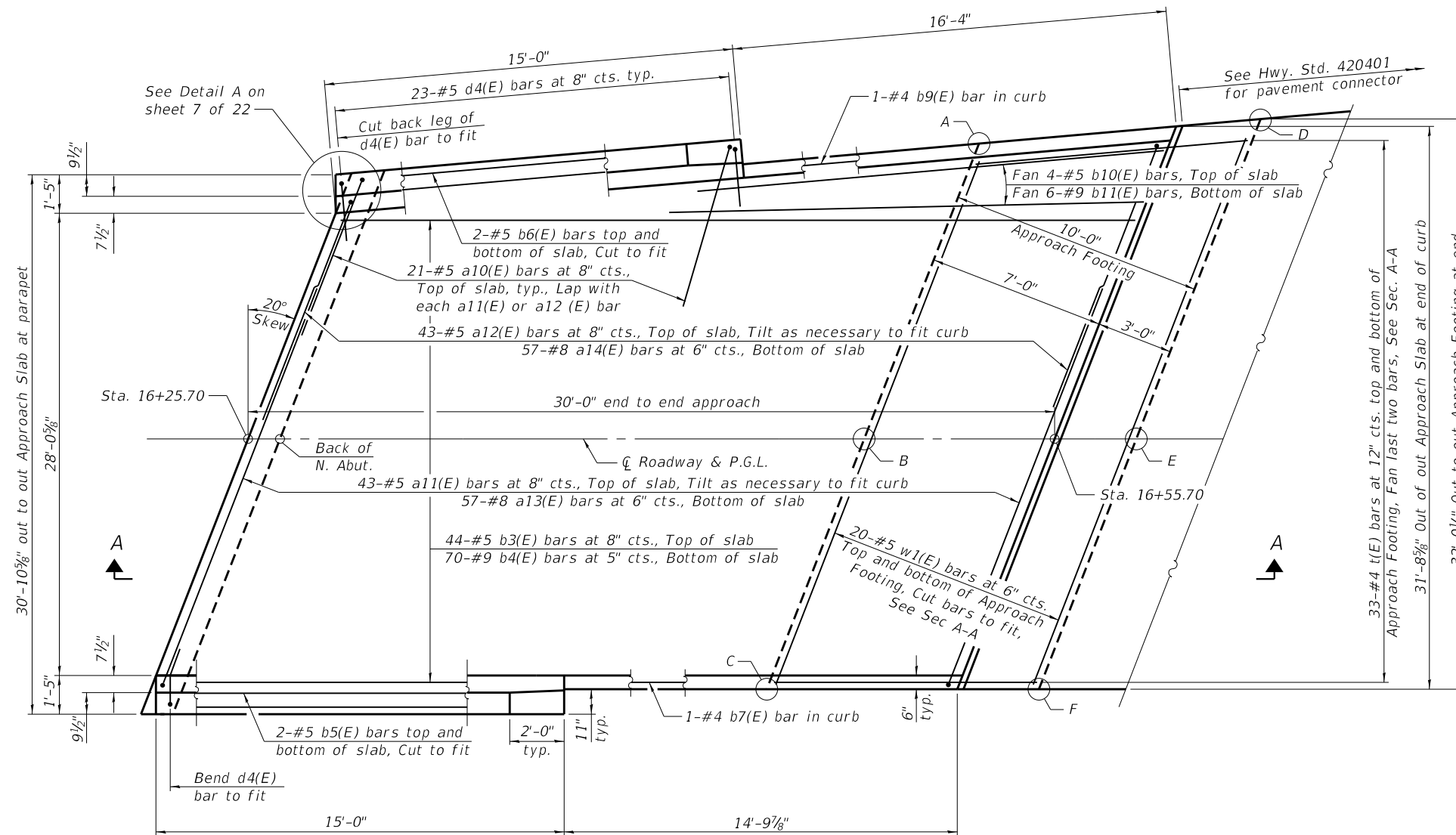
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SOUTH APPROACH SLAB DETAILS  
 STRUCTURE NO. 060-6854

SHEET 10 OF 21 SHEETS

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	43
CONTRACT NO. 97758				
ILLINOIS FED. AID PROJECT				

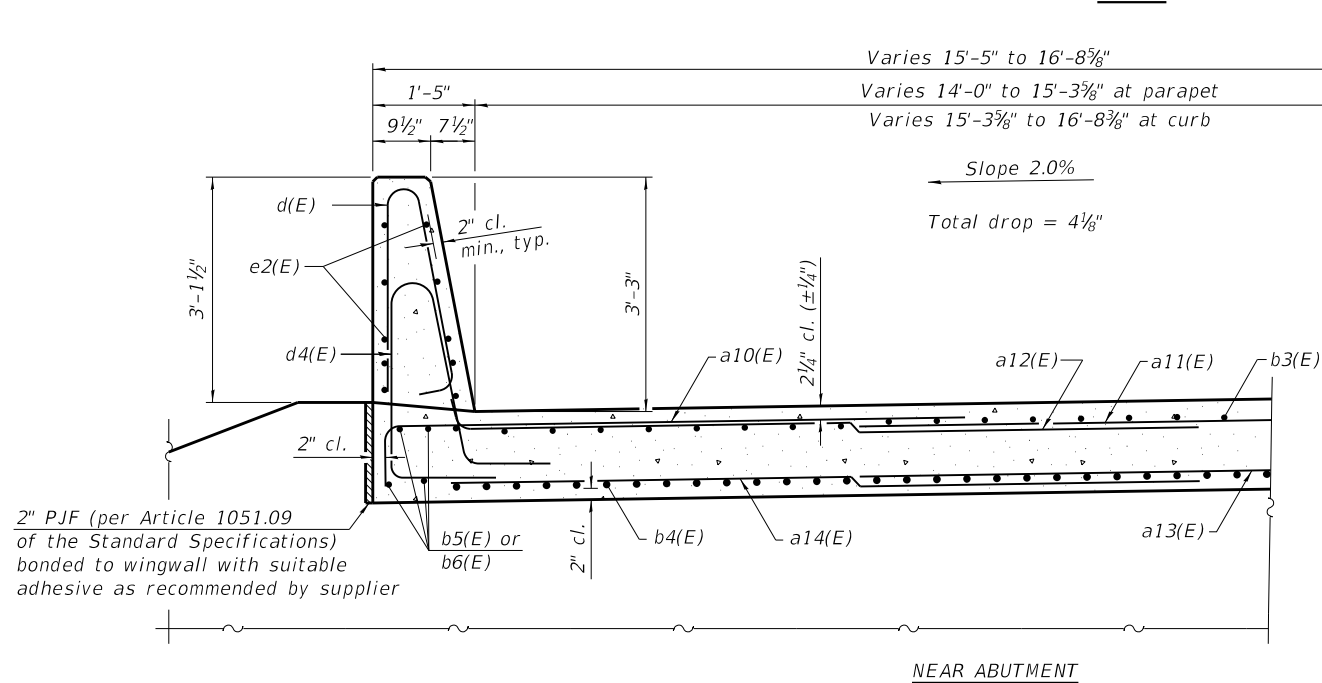


PLAN

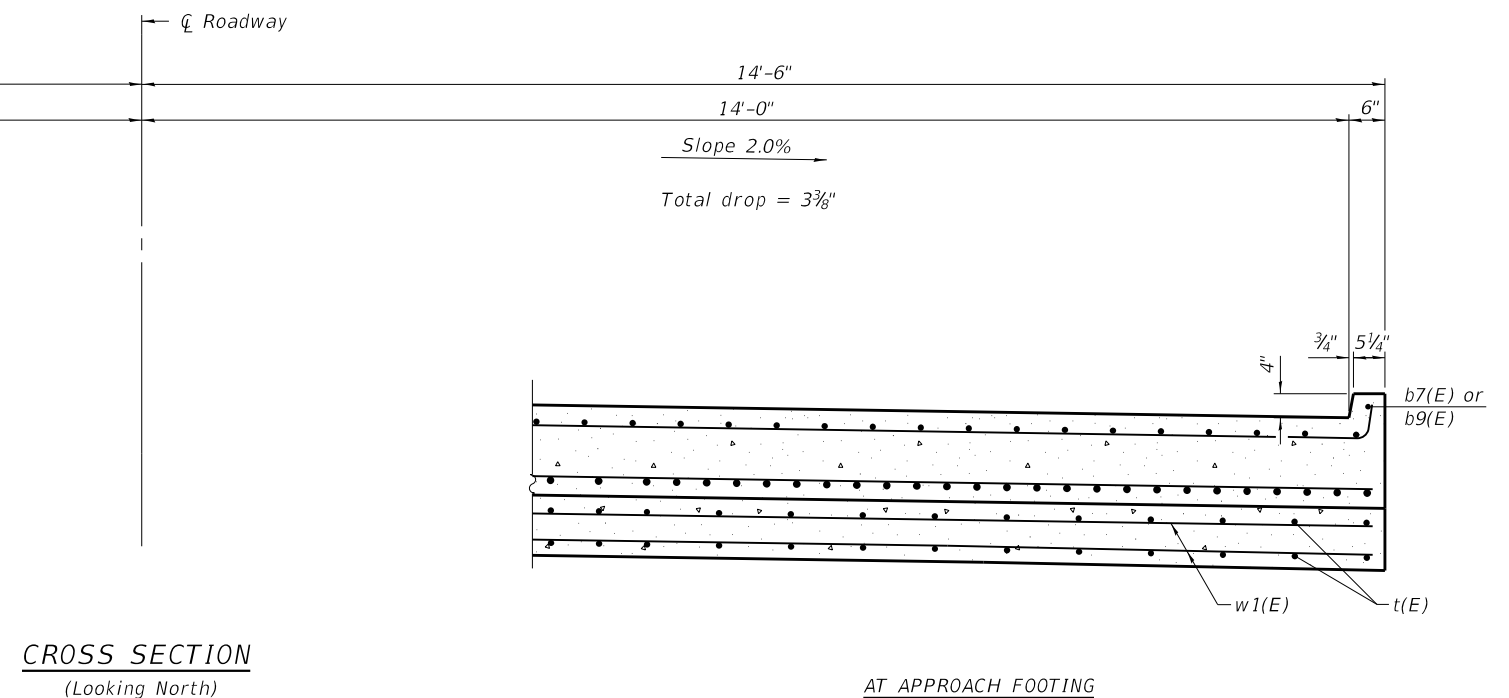
TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

Point	Top	Bottom
A	461.02	460.19
B	461.60	460.77
C	461.54	460.71
D	460.57	459.74
E	461.17	460.34
F	461.09	460.26

Note:  
 ① For Section A-A, see sheet 12 of 21.



NEAR ABUTMENT



CROSS SECTION (Looking North)

AT APPROACH FOOTING

(Sheet 2 of 3)

FILE NAME: H:\P\18092 - Friedel Bridge\Bridge\Final Plans\Microstation\0606854-011-North Approach Slab Details.dgn



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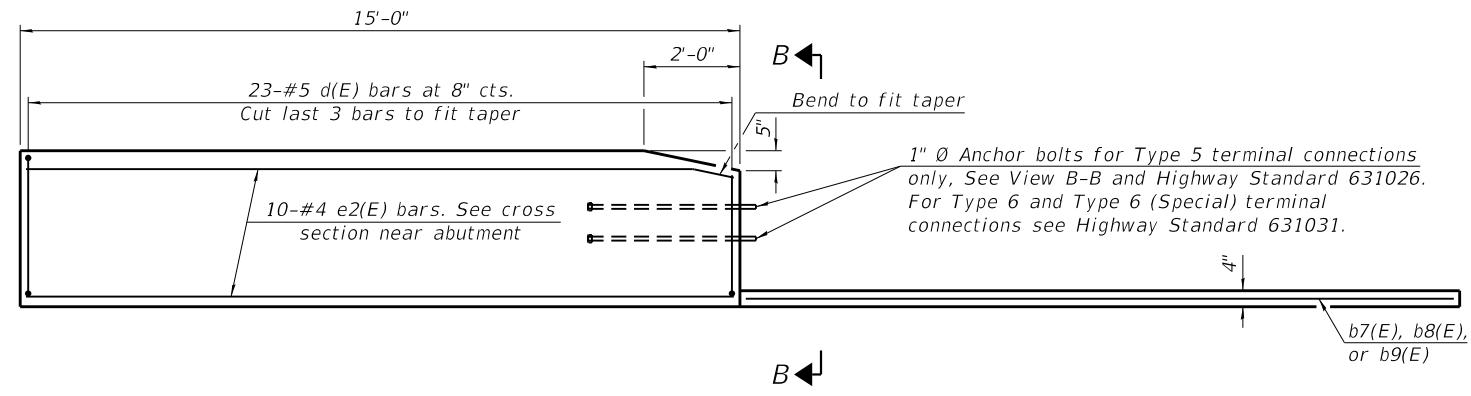
STATE OF ILLINOIS  
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NORTH APPROACH SLAB DETAILS  
 STRUCTURE NO. 060-6854

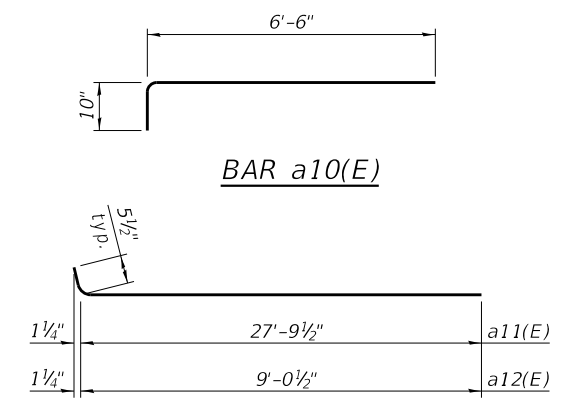
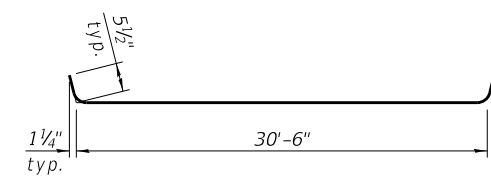
SHEET 11 OF 21 SHEETS

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	44
CONTRACT NO. 97758				

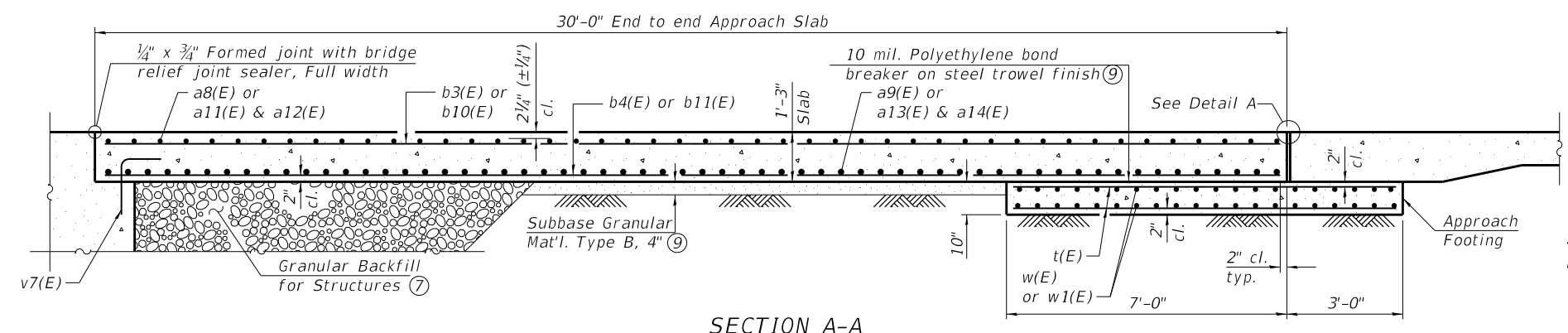
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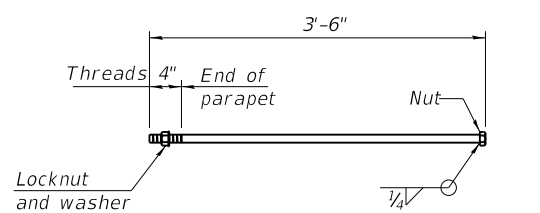
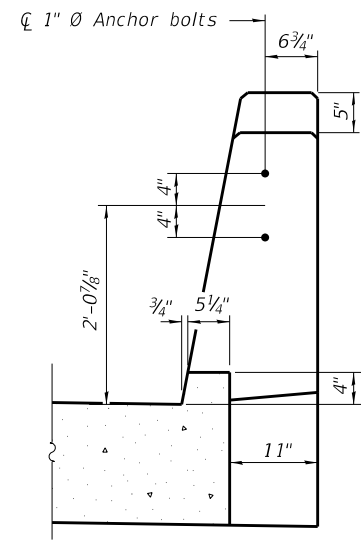
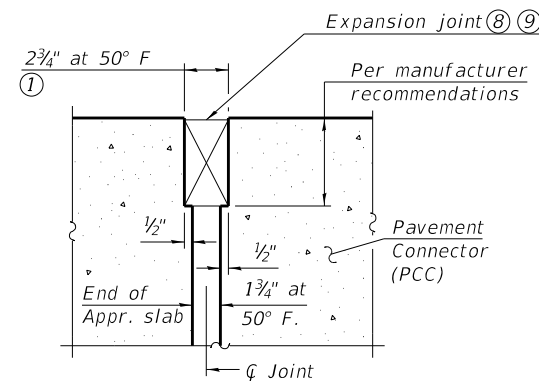
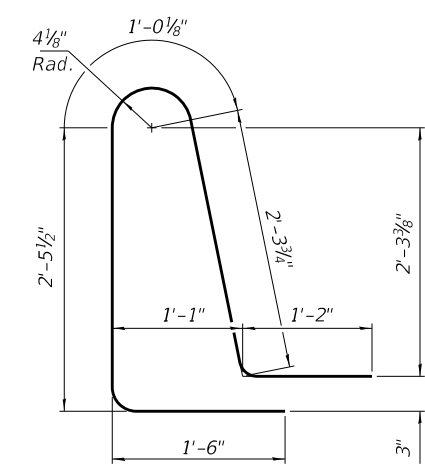
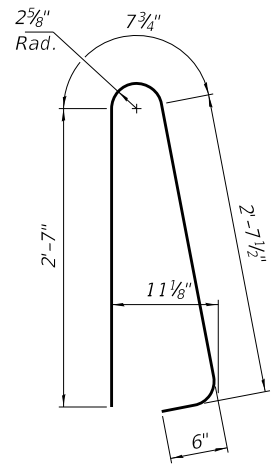
INSIDE ELEVATION OF PARAPET AND CURB



BARS a11(E) & a12(E)



SECTION A-A



TWO APPROACHES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a8(E)	43	#5	31'-5"	
a9(E)	57	#8	30'-6"	
a10(E)	84	#5	7'-4"	
a11(E)	43	#5	27'-11"	
a12(E)	43	#5	9'-6"	
a13(E)	57	#8	25'-9"	
a14(E)	57	#8	12'-5"	
b3(E)	88	#5	29'-8"	
b4(E)	140	#9	29'-8"	
b5(E)	8	#5	15'-1"	
b6(E)	8	#5	14'-2"	
b7(E)	2	#4	14'-6"	
b8(E)	1	#4	14'-9"	
b9(E)	1	#4	15'-10"	
b10(E)	4	#5	20'-0"	
b11(E)	6	#9	20'-0"	
d(E)	92	#5	6'-5"	
d4(E)	92	#5	8'-6"	
e2(E)	40	#4	14'-8"	
t(E)	126	#4	10'-3"	
w(E)	40	#5	30'-6"	
w1(E)	40	#5	33'-8"	
Concrete Structures			Cu. Yd.	19.9
Concrete Superstructure			Cu. Yd.	7.8
Concrete Superstructure (Approach Slab)			Cu. Yd.	85.9
Reinforcement Bars, Epoxy Coated			Pound	37,160

- Notes:
- The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
  - 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 21.
  - See Special Provision "Preformed Pavement Joint Seal." Recess 1/4" minimum. Run out to out of curb. An additional expansion joint shall be placed between curb ends to prevent passage of water.
  - Cost included with Concrete Superstructure (Approach Slab).
  - Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications.
  - Calculated weight of Reinforcement Bars, Epoxy Coated = 33,620 (Superstructure) 3,540 (Substructure)

(Sheet 3 of 3)

FILE NAME: H:\P\18092 - Friedel Bridge\Bridge\Final Plans\Microstation\0606854-012-Bridge Approach Slab Details.dgn



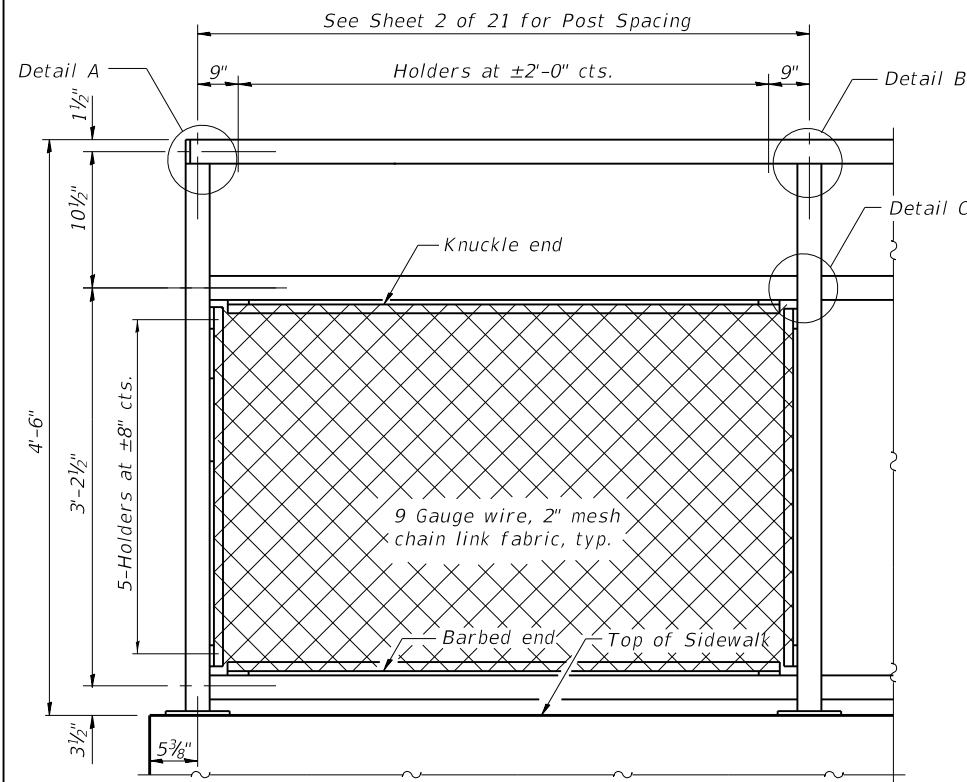
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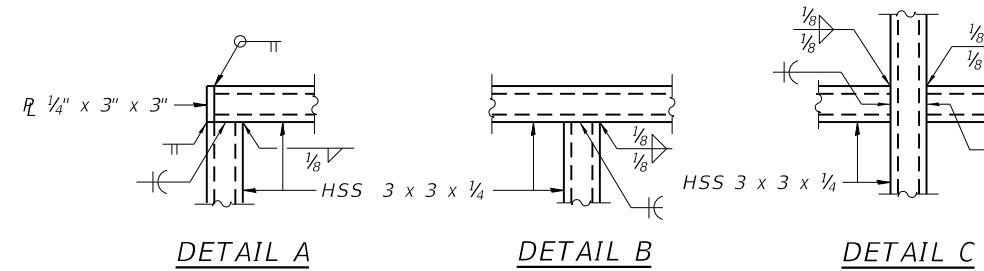
BRIDGE APPROACH SLAB DETAILS  
STRUCTURE NO. 068-6854

SHEET 12 OF 21 SHEETS

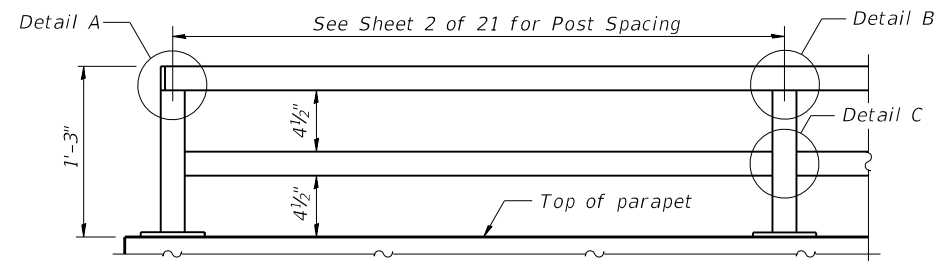
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CONTRACT NO. 97758				
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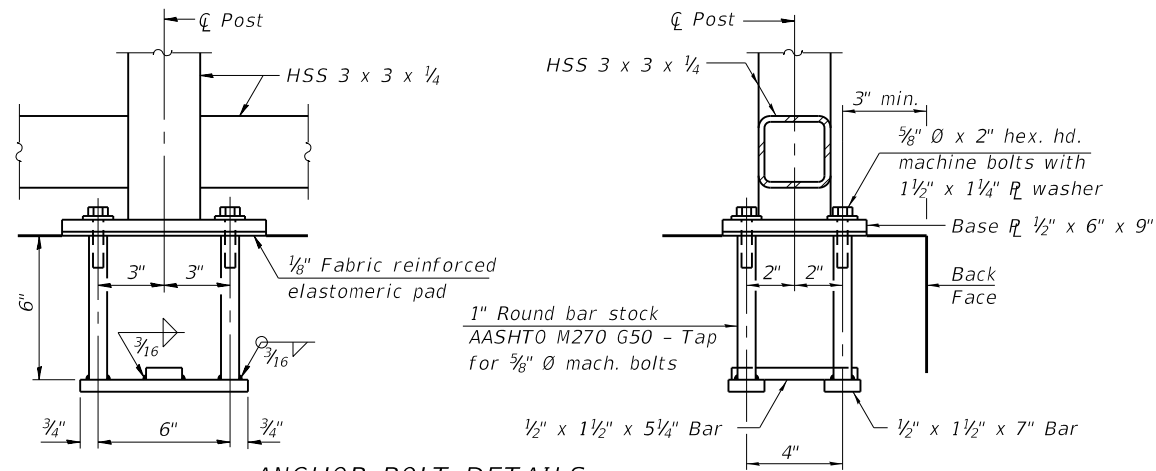
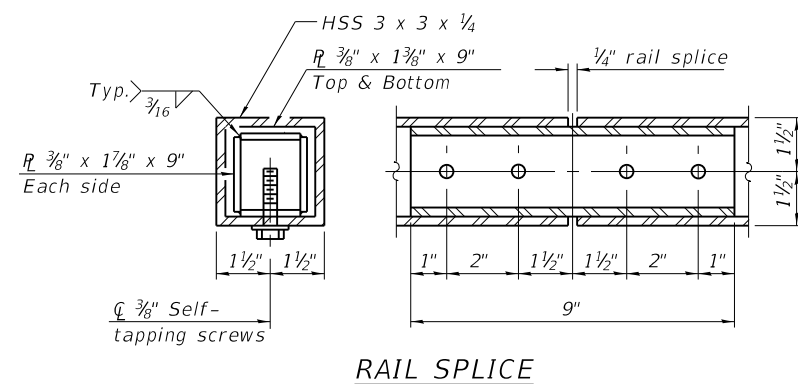
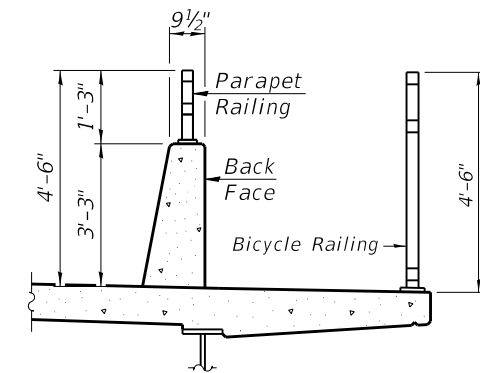
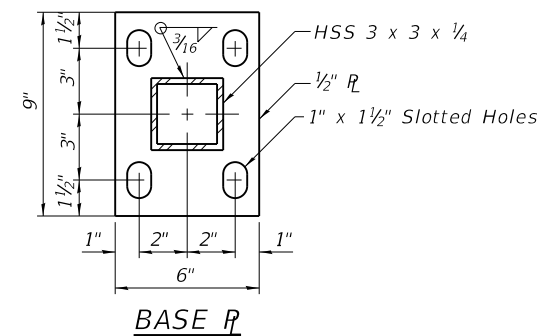
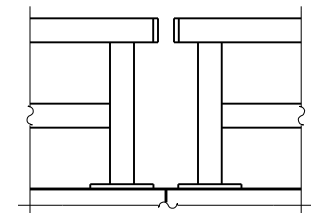
**BICYCLE RAILING**



- Notes:
- ① 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.
  - ② All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



**PARAPET RAILING  
ELEVATION**



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.

**BILL OF MATERIAL**

Item	Unit	Quantity
Bicycle Railing	Foot	67
Parapet Railing	Foot	185

FILE NAME: H:\P\18092 - Friedel Bridge\Bridges\Final Plans\Microstation\0606854-013-Bicycle Railing.dgn

R-29 1-14-2019



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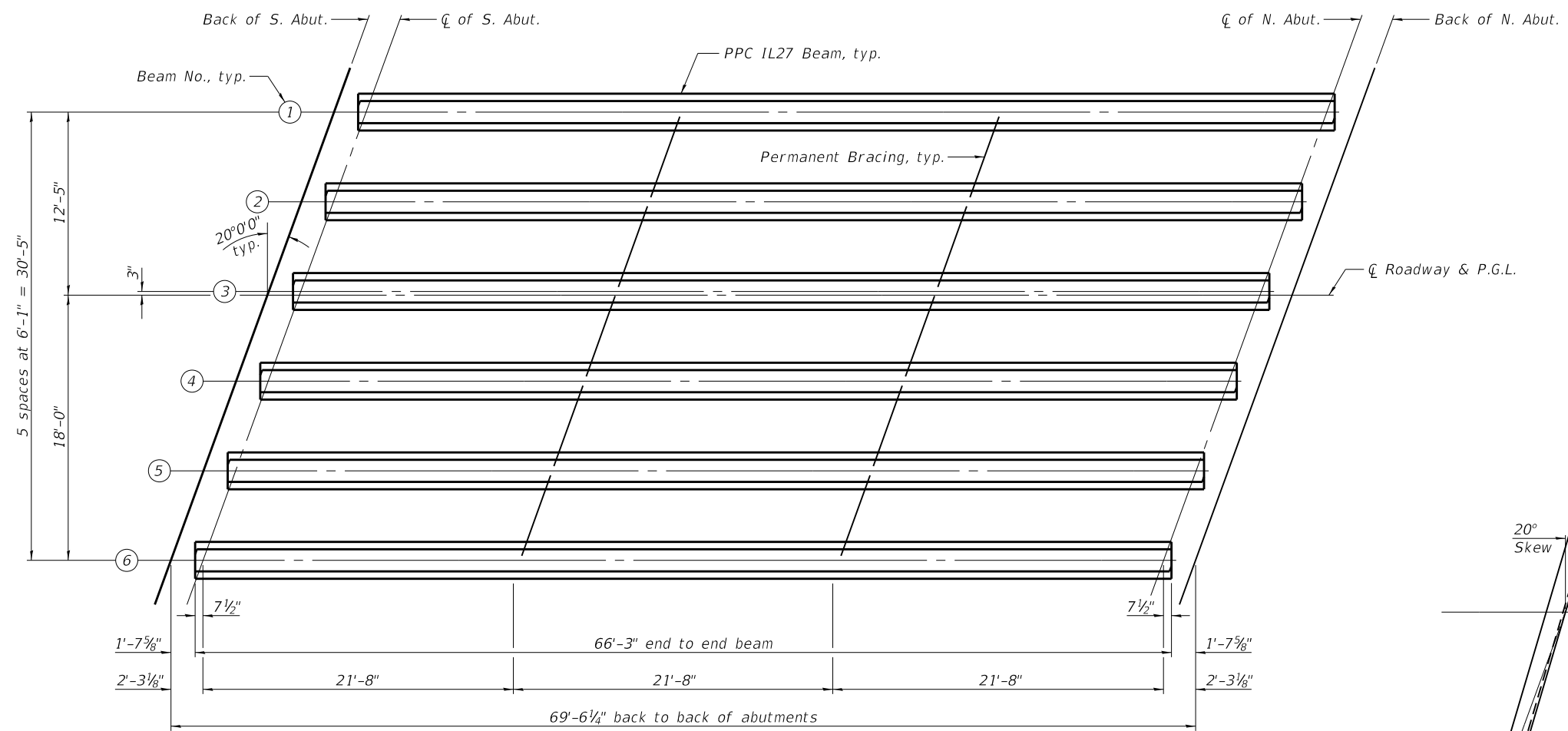
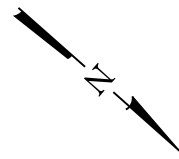
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BICYCLE RAILING  
STRUCTURE NO. 060-6854

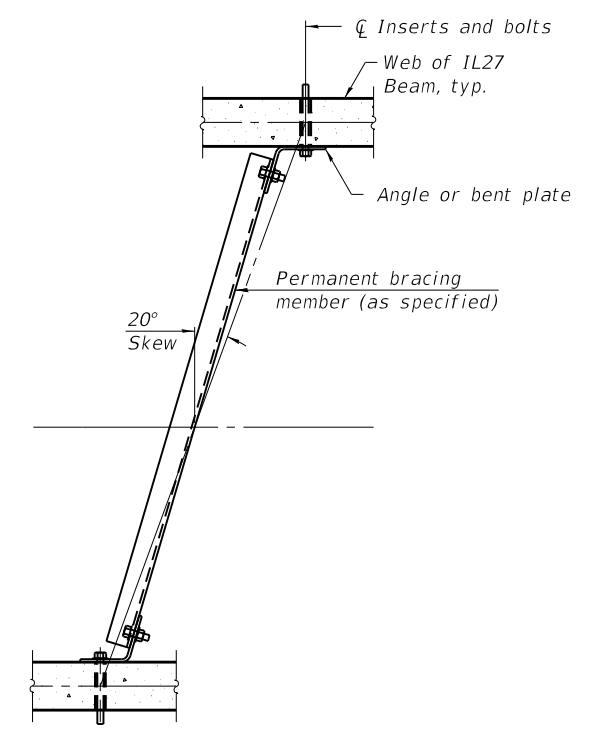
SHEET 13 OF 21 SHEETS

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	46
CONTRACT NO. 97758				

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**FRAMING PLAN**



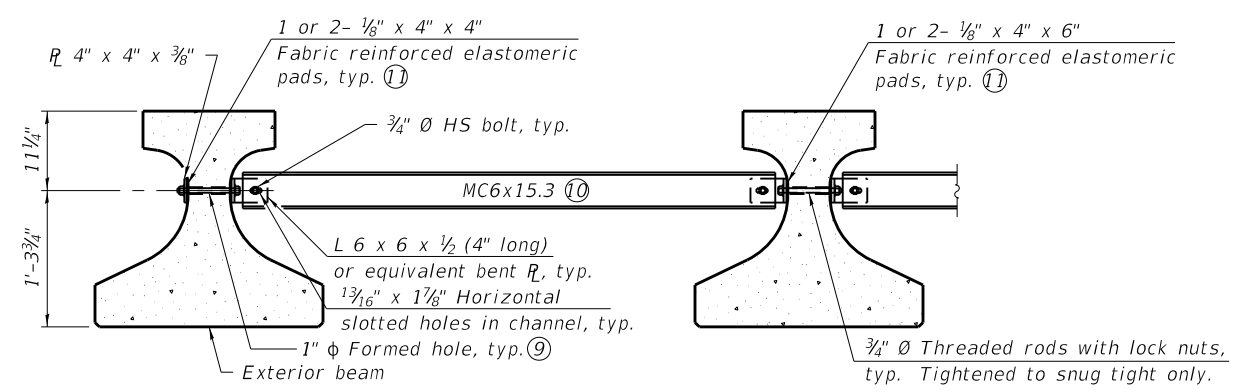
**PERMANENT BRACING PLAN**

INTERIOR BEAM MOMENT TABLE		
		0.5 Span
I	(in <sup>4</sup> )	33,879
I'	(in <sup>4</sup> )	125,304
Sb	(in <sup>3</sup> )	3,060
Sb'	(in <sup>3</sup> )	6,028
St	(in <sup>3</sup> )	2,127
St'	(in <sup>3</sup> )	20,167
DC1	(k/ft)	1.128
MDC1	(k)	595.8
DC2	(k/ft)	0.200
MDC2	(k)	105.6
DW	(k/ft)	0.280
MDW	(k)	147.9
LLDF	(k)	0.536
M <sub>L</sub> + I <sub>M</sub>	(k)	816.2

I: Non-composite moment of inertia of beam section (in.<sup>4</sup>).  
 I': Composite moment of inertia of beam section (in.<sup>4</sup>).  
 Sb: Non-composite section modulus for the bottom fiber of the prestressed beam (in.<sup>3</sup>).  
 Sb': Composite section modulus for the bottom fiber of the prestressed beam (in.<sup>3</sup>).  
 St: Non-composite section modulus for the top fiber of the prestressed beam (in.<sup>3</sup>).  
 St': Composite section modulus for the top fiber of the prestressed beam (in.<sup>3</sup>).  
 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.).  
 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<sub>L</sub> + I<sub>M</sub>: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).  
 LLDF: Live Load distribution factor for moment or shear.  
 OCF: Obtuse Correction factor for shear.

EXTERIOR BEAM REACTION TABLE		
		Abut.
LLDF		0.677
OCF		1.080
RDC1	(k)	36.6
RDC2	(k)	6.5
RDW	(k)	9.1
R <sub>L</sub>	(k)	60.3
R <sub>I<sub>M</sub></sub>	(k)	14.9
RTotal	(k)	127.4



**PERMANENT BRACING DETAILS**  
(10 Required)

- Notes:
- All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
  - Two hardened washers are required for each set of oversized holes.
  - All holes shall be 1 5/16" Ø unless otherwise noted. 3/16" x 3" x 3" plate washers are required over all slotted holes.
  - All bolts, threaded rods, and hardware shall be galvanized according to AASHTO M232.
  - Threaded rods shall be ASTM F 1554 Grade 55.
  - Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
  - Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete Beams.
  - Fabricator shall locate to miss strands within permissible tolerances.
  - Alternate MC6x18 channels are permitted to facilitate material acquisition.
  - Place pads as necessary to provide a flat mounting surface between the steel and concrete.

FILE NAME: H:\PI\18092 - Friedel Bridge\Bridges\Final Plans\Microstation\0606854-014-Framing\_Plan.dgn



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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

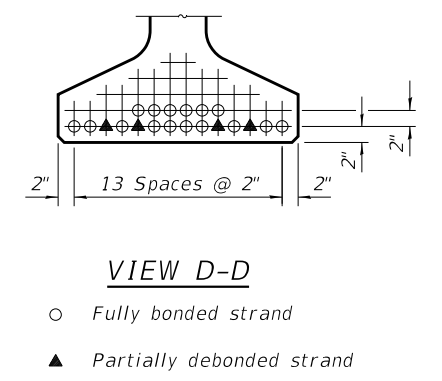
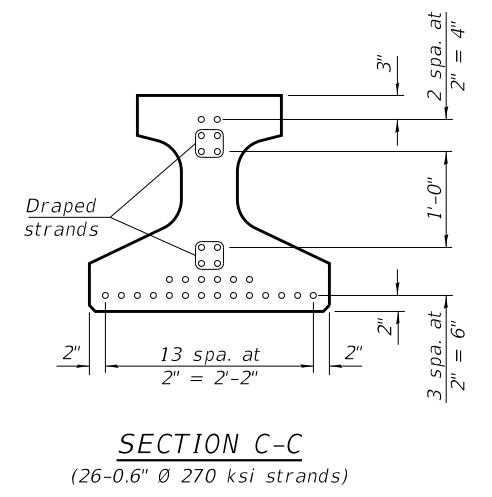
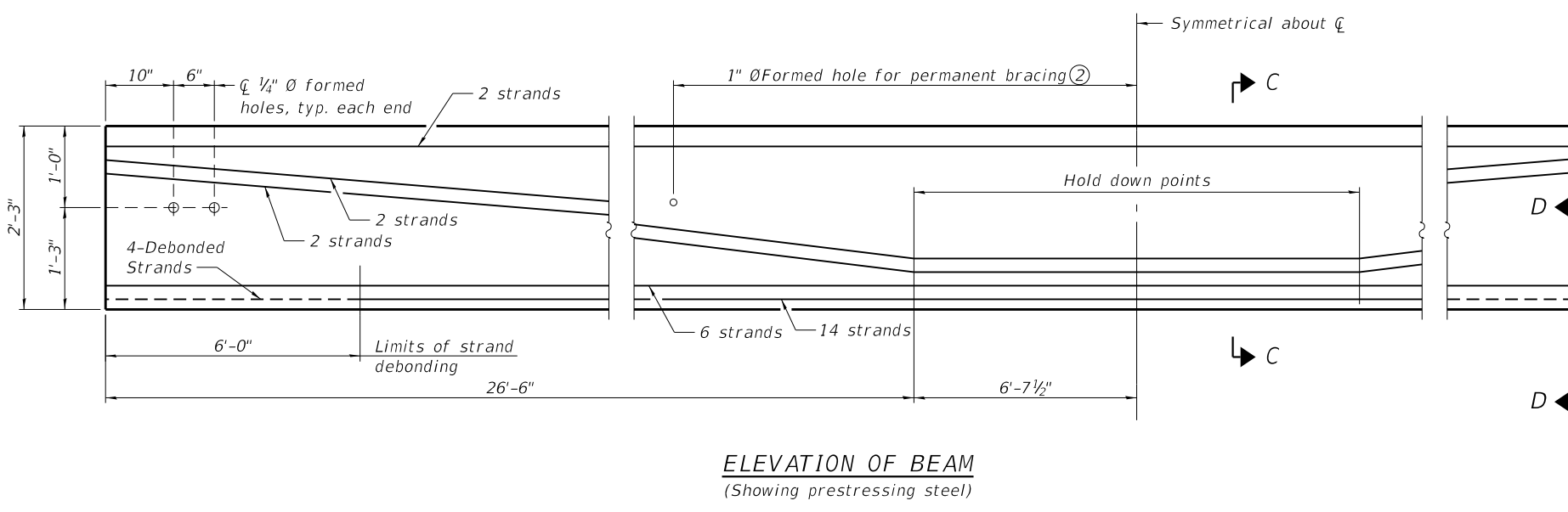
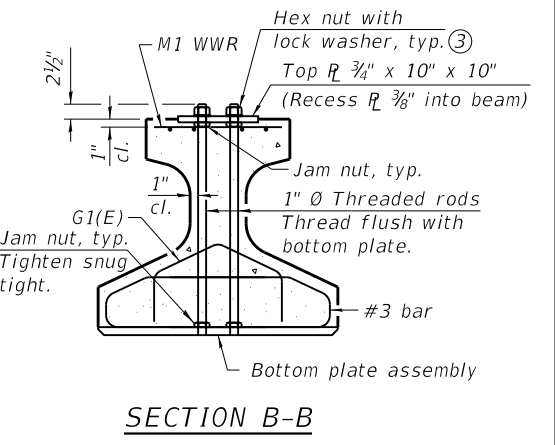
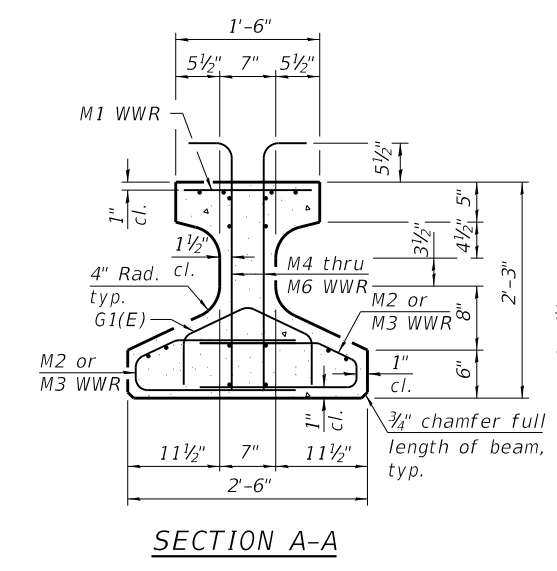
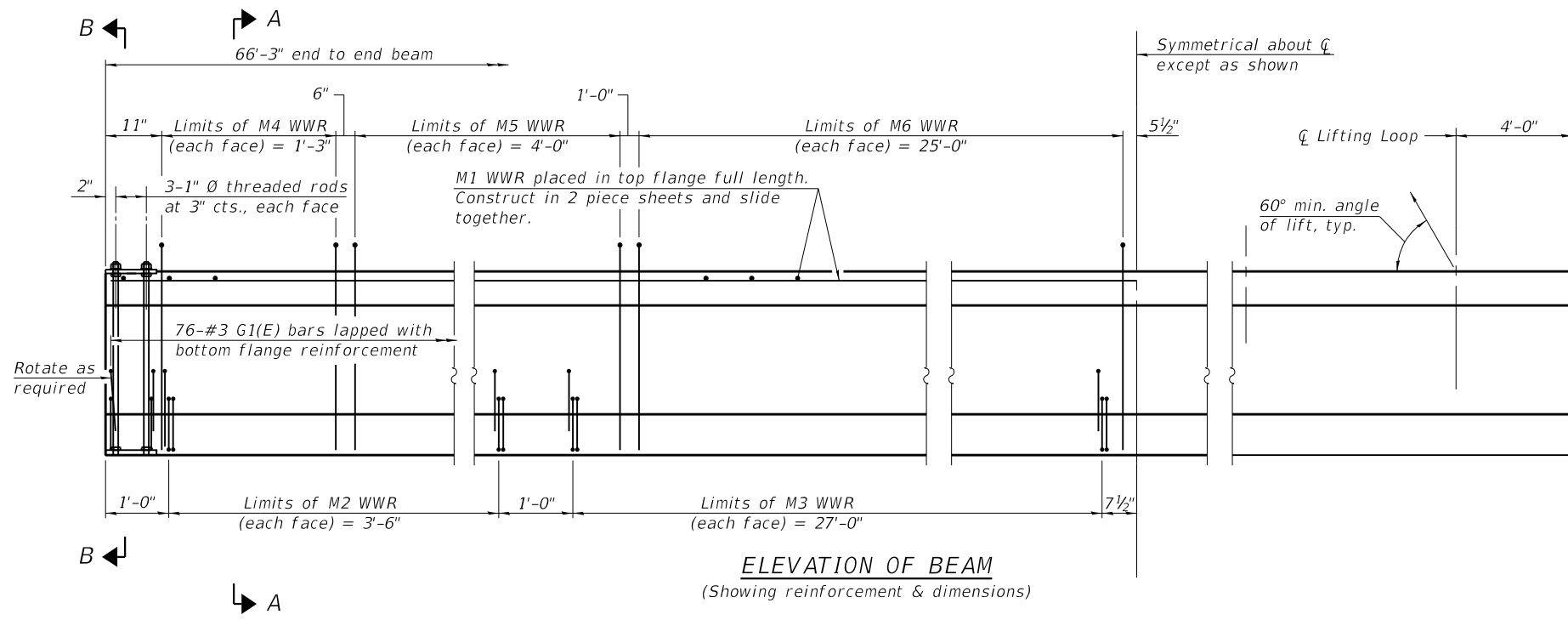
**FRAMING PLAN**  
**STRUCTURE NO. 060-6854**

SHEET 14 OF 21 SHEETS

M.U.N. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	47
CONTRACT NO. 97758				

ILLINOIS FED. AID PROJECT

FILE NAME: H:\P\18092 - Friedel Bridge\Bridge\Final Plans\Microstation\0606854-015-IL27 Beam.dgn



Notes:  
 ① See sheet 16 of 21 for additional details and Bill of Material.  
 ② For number and location of holes, see sheet 14 of 21.  
 ③ Only tighten sufficiently to compress lock washers.



USER NAME =	DESIGNED - MAM	REVISED -
PLOT SCALE =	CHECKED - KBC	REVISED -
PLOT DATE = 4/29/2021	DRAWN - MAM	REVISED -
	CHECKED - KBC	REVISED -

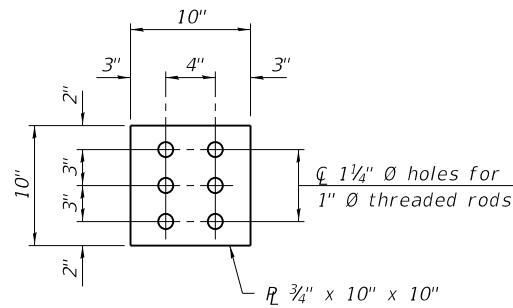
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**IL27 BEAM**  
**STRUCTURE NO. 060-6854**

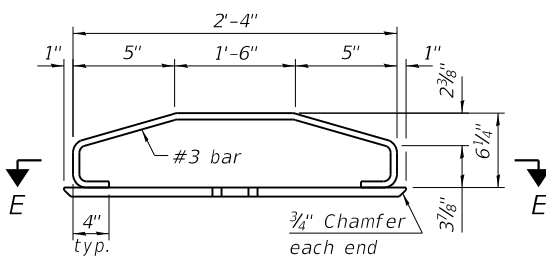
SHEET 15 OF 21 SHEETS

M.U.N. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	48
CONTRACT NO. 97758				
ILLINOIS FED. AID PROJECT				

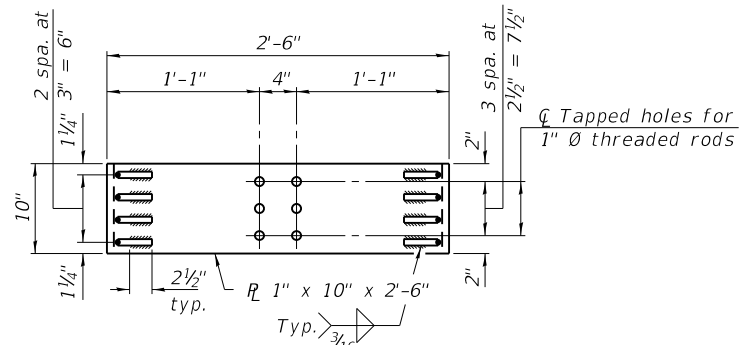




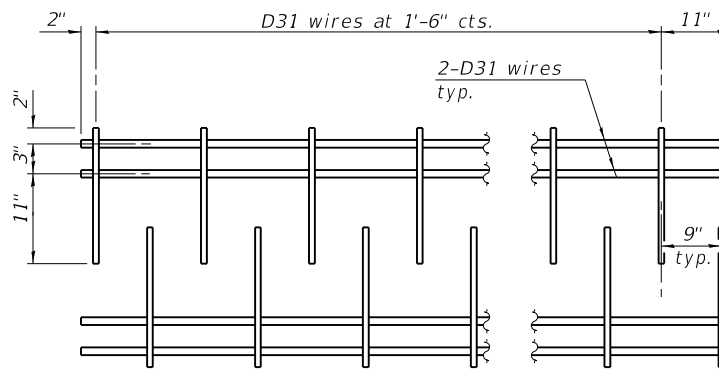
PLAN - TOP PLATE



ELEVATION - BOTTOM PLATE ASSEMBLY

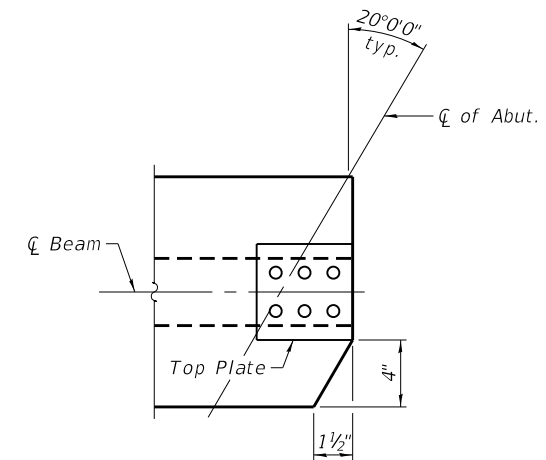


SECTION E-E

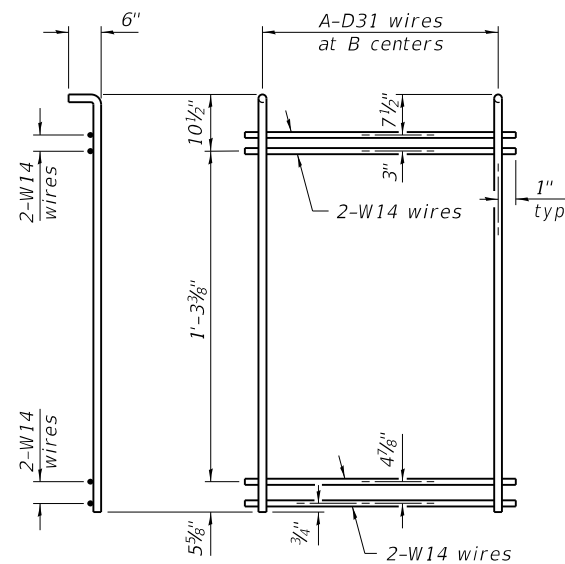


M1 WWR DETAIL

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



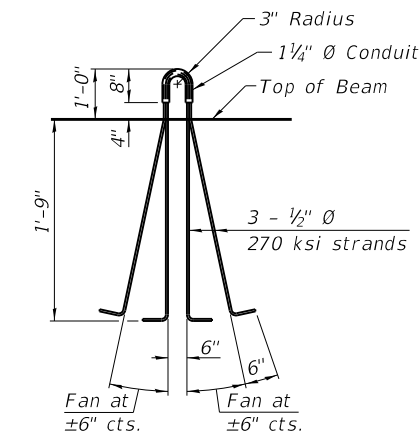
TOP FLANGE CLIP DETAIL  
(Do not clip bottom flange)



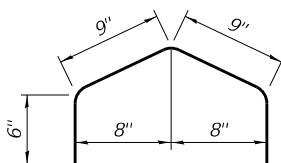
M4 THRU M6 WWR DETAIL  
(See Table of Dimensions)

WWR	A	B
M2	15	3"
M3	19	1'-6"
M4	6	3"
M5	9	6"
M6	26	1'-0"

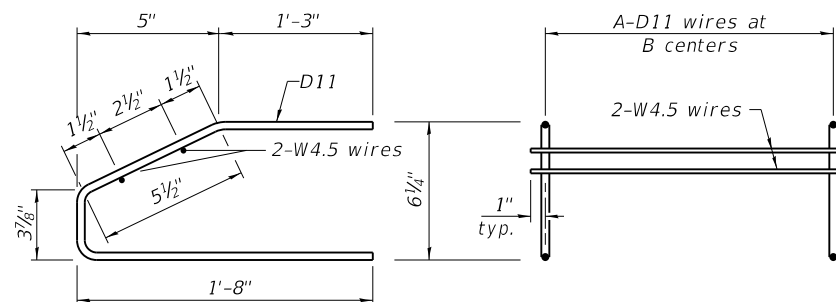
TABLE OF DIMENSIONS  
(WWR tables are based on Grade 60.)



LIFTING LOOP DETAIL



BAR G1(E)



M2 AND M3 WWR DETAIL  
(See Table of Dimensions)

Notes:

- 1 Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in.
- 2 The beams shall have a final concrete compressive strength,  $f'_c$ , of 8500 psi and a release concrete compressive strength,  $f'_{ci}$ , of 6500 psi.
- 3 A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.
- 4 The top and bottom plates shall be AASHTO M270 Grade 50.
- 5 The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111.
- 6 The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.
- 7 Threaded rods shall be ASTM F 1554 Grade 55.
- 8 Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating or ASTM A1060, Table 3 galvanized coating.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL27N	Foot	397.5

FILE NAME: H:\P\18092 - Friedel Bridge\Bridge\Final Plans\Microstation\0606854-016-IL27 Beam Details.dgn



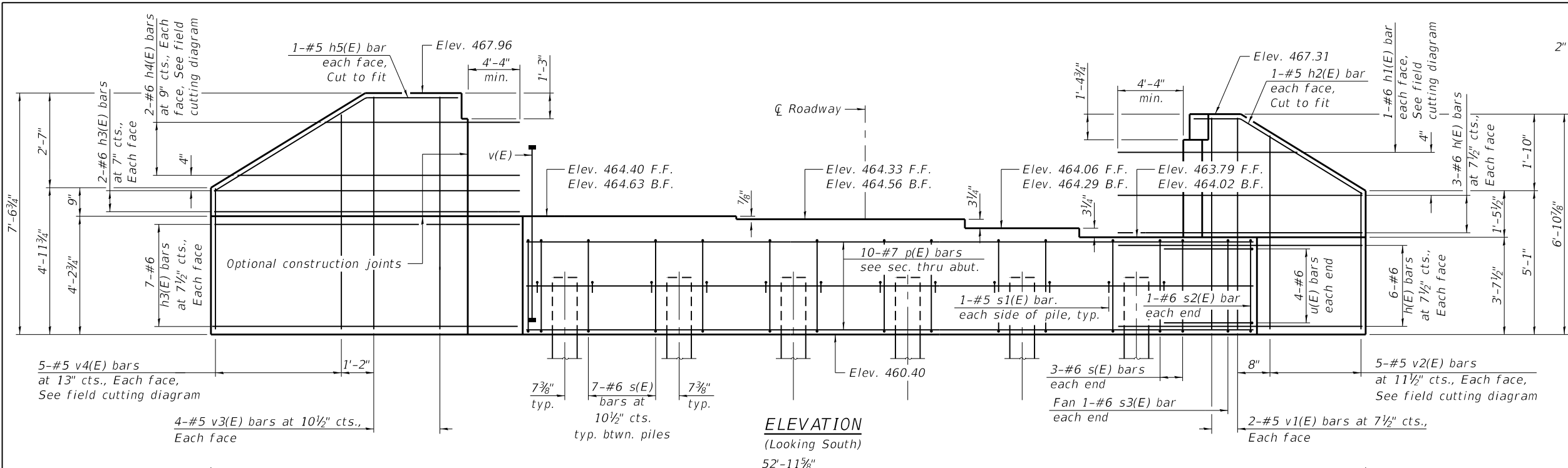
USER NAME =	DESIGNED - MAM	REVISED -
PLOT SCALE =	CHECKED - KBC	REVISED -
PLOT DATE = 4/29/2021	DRAWN - MAM	REVISED -
	CHECKED - KBC	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

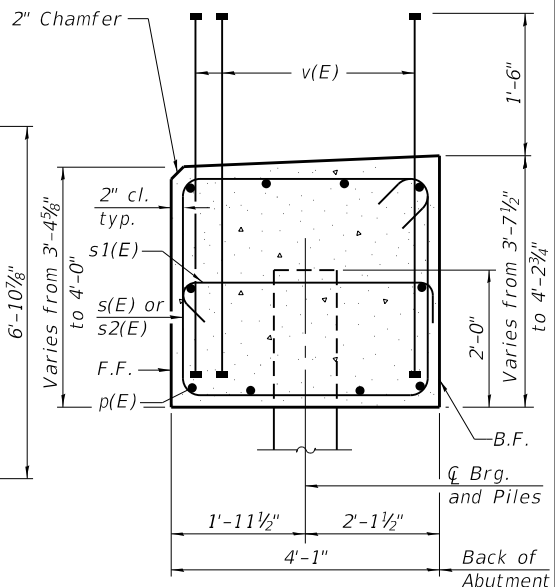
IL27 BEAM DETAILS  
STRUCTURE NO. 060-6854

SHEET 16 OF 21 SHEETS

M.U.N. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	49
CONTRACT NO. 97758				
ILLINOIS FED. AID PROJECT				



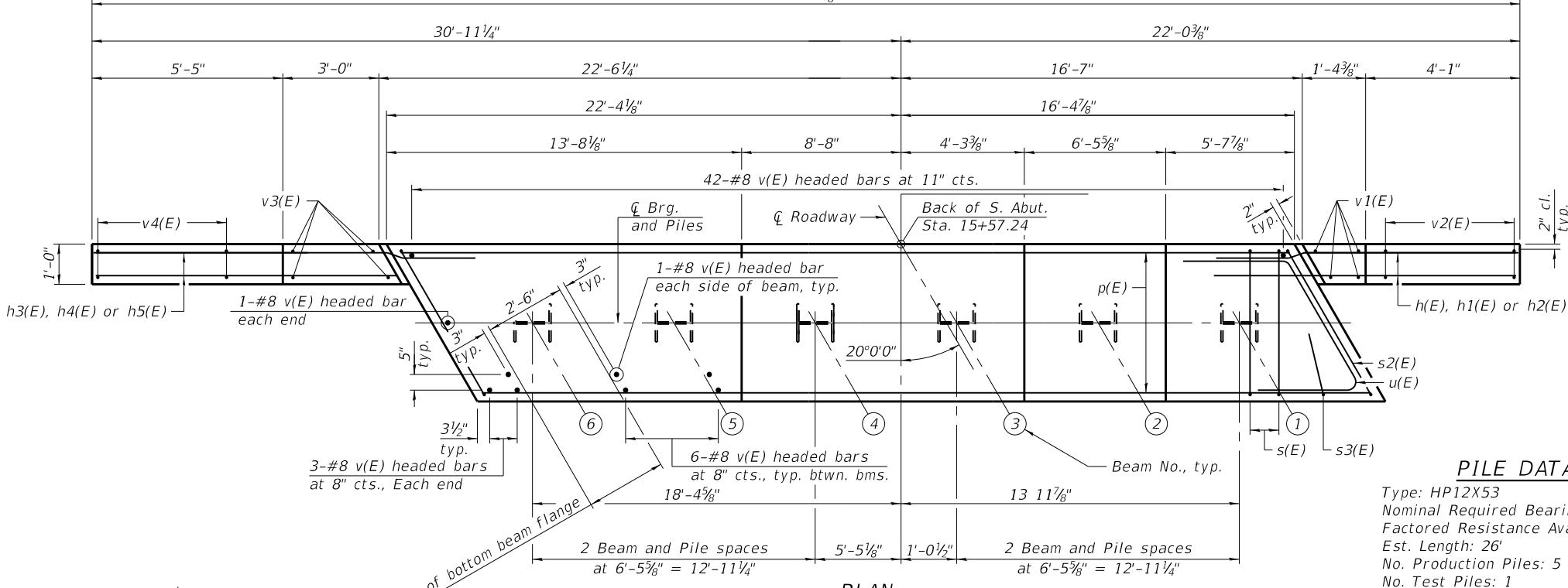
**ELEVATION**  
(Looking South)  
52'-11 5/8"



**SEC. THRU ABUT.**  
Dimensions at right angles to abutment.

**BILL OF MATERIAL**

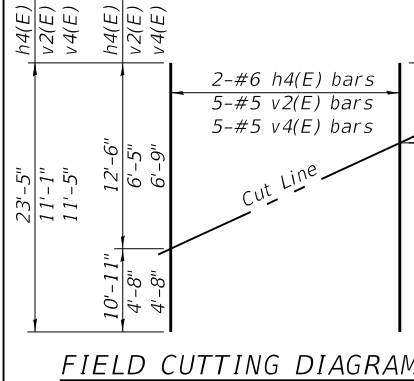
Bar	No.	Size	Length	Shape
h(E)	18	#6	10'-3"	
h1(E)	2	#6	9'-7"	
h2(E)	2	#5	5'-5"	
h3(E)	9	#6	13'-2"	
h4(E)	2	#6	23'-5"	
h5(E)	2	#5	8'-7"	
p(E)	10	#7	38'-5"	
s(E)	41	#6	14'-10"	
s1(E)	12	#5	4'-9"	
s2(E)	2	#6	15'-2"	
s3(E)	2	#6	10'-6"	
u(E)	8	#6	12'-6"	
v(E)	92	#8	4'-8"	
v1(E)	4	#5	6'-6"	
v2(E)	5	#5	11'-1"	
v3(E)	8	#5	7'-3"	
v4(E)	5	#5	11'-5"	
Structure Excavation		Cu. Yd.	21	
Concrete Structures		Cu. Yd.	26.4	
Reinforcement Bars, Epoxy Coated		Pound	3,920	
Furnishing Steel Piles, HP12x53		Foot	130	
Driving Piles		Foot	130	
Test Pile, Steel HP12x53		Each	1	
Pile Shoes		Each	6	



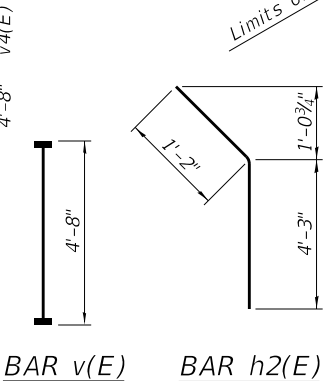
**PLAN**

**PILE DATA**

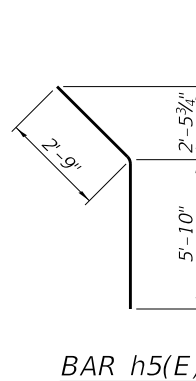
Type: HP12X53  
Nominal Required Bearing: 419 kip  
Factored Resistance Available: 230 kip  
Est. Length: 26'  
No. Production Piles: 5  
No. Test Piles: 1



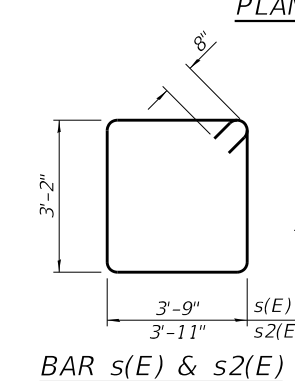
**FIELD CUTTING DIAGRAM**



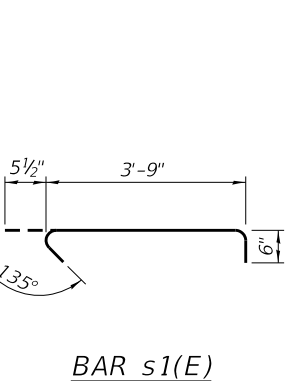
**BAR v(E)**  
(Headed)



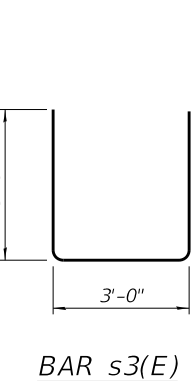
**BAR h2(E)**



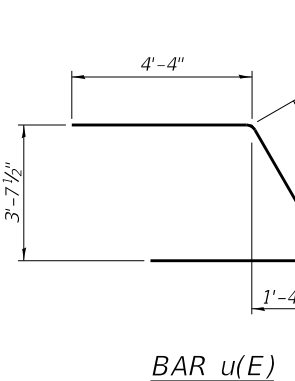
**BAR h5(E)**



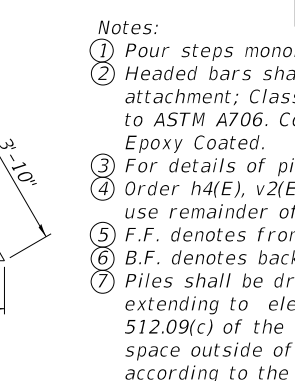
**BAR s(E) & s2(E)**



**BAR s1(E)**



**BAR s3(E)**



**BAR u(E)**

- Notes:
- ① Pour steps monolithically with cap.
  - ② Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
  - ③ For details of piles see sheet 19 of 21.
  - ④ Order h4(E), v2(E) and v4(E) full length. Cut as shown and use remainder of bars in opposite face.
  - ⑤ F.F. denotes front face.
  - ⑥ B.F. denotes back face.
  - ⑦ Piles shall be driven through 24" diameter precored holes extending to elevation 450.40 according to Article 512.09(c) of the Standard Specifications except the void space outside of the pile shall be filled with bentonite according to the manufacturer's recommendations to achieve a Qu of 1.5 tsf. Cost included in driving piles.

FILE NAME: H:\PI\18092 - Friedel Bridge\Bridge\Final Plans\Microstation\0606854-017-South Abutment Details.dgn



USER NAME =	DESIGNED - ETH	REVISED -
PLOT SCALE =	CHECKED - KBC	REVISED -
PLOT DATE = 4/29/2021	DRAWN - ETH	REVISED -
	CHECKED - KBC	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SOUTH ABUTMENT DETAILS**  
**STRUCTURE NO. 060-6854**

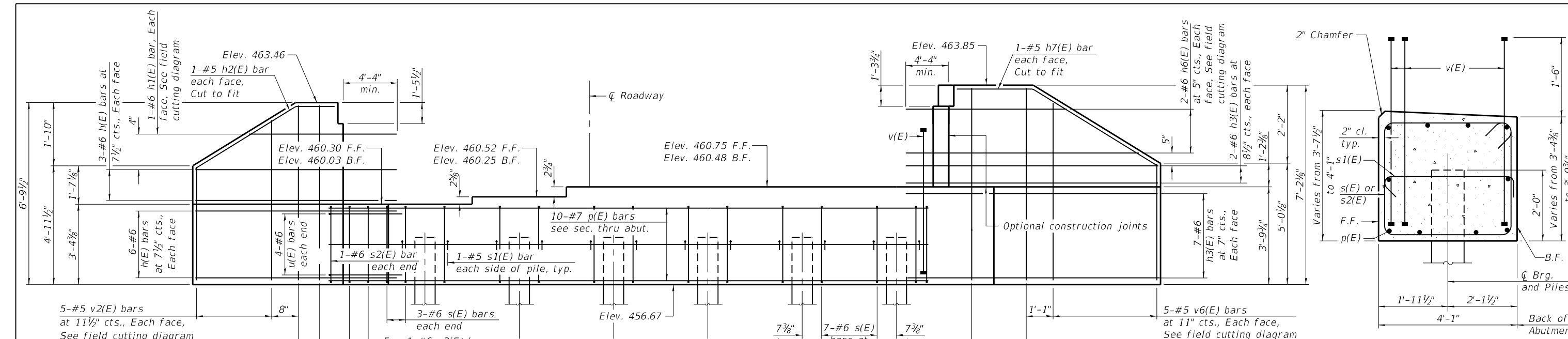
SHEET 17 OF 21 SHEETS

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	50

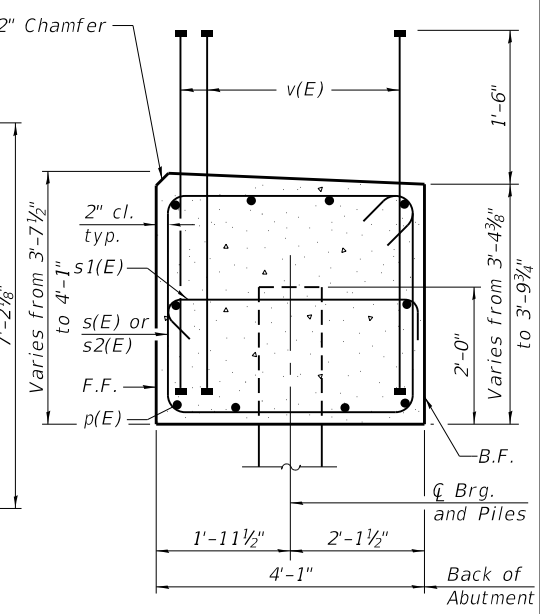
CONTRACT NO. 97758

ILLINOIS FED. AID PROJECT

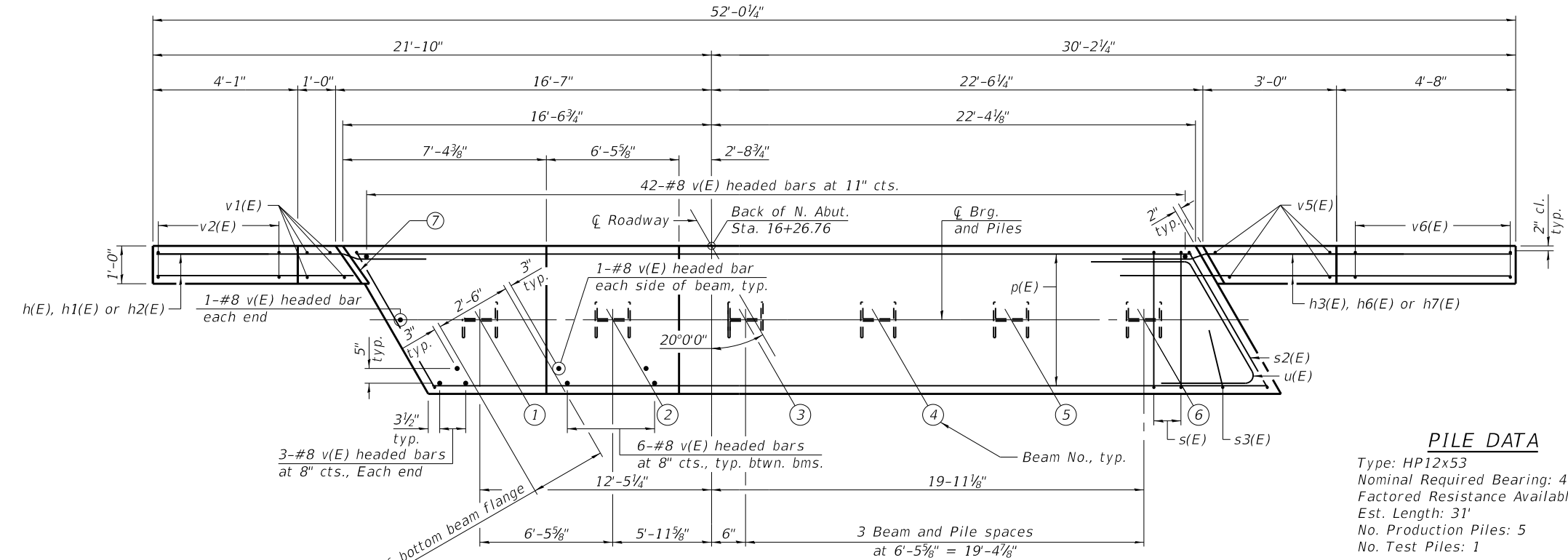
FILE NAME: H:\P18092 - Friedel Bridge\Bridges\Final Plans\Microstation\0606854-018-North Abutment Details.dgn



**ELEVATION**  
(Looking North)



**SEC. THRU ABUT.**  
Dimensions at right angles to abutment.

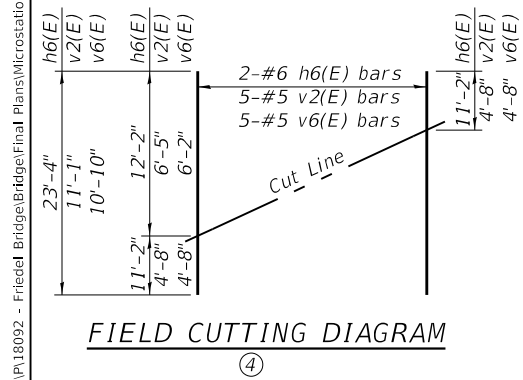


**PLAN**

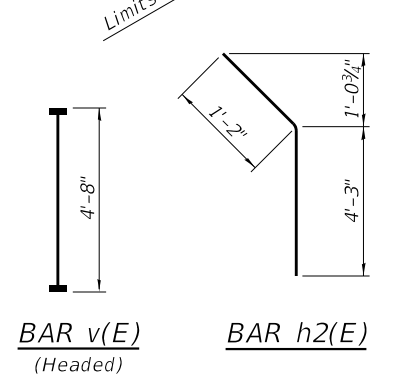
**PILE DATA**  
Type: HP12x53  
Nominal Required Bearing: 419 kip  
Factored Resistance Available: 230 kip  
Est. Length: 31'  
No. Production Piles: 5  
No. Test Piles: 1

**BILL OF MATERIAL**

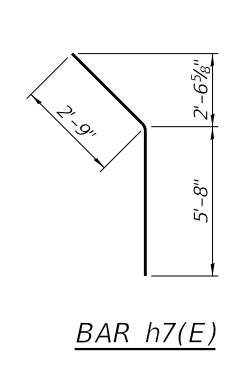
Bar	No.	Size	Length	Shape
h(E)	18	#6	10'-3"	—
h1(E)	2	#6	9'-7"	—
h2(E)	2	#5	5'-5"	—
h3(E)	9	#6	13'-2"	—
h6(E)	2	#6	23'-4"	—
h7(E)	2	#5	8'-5"	—
p(E)	10	#7	38'-5"	—
s(E)	41	#6	14'-10"	□
s1(E)	12	#5	4'-9"	□
s2(E)	2	#6	15'-2"	□
s3(E)	2	#6	10'-6"	□
u(E)	8	#6	12'-6"	└
v(E)	92	#8	4'-8"	└
v1(E)	4	#5	6'-6"	—
v2(E)	5	#5	11'-1"	—
v5(E)	8	#5	6'-10"	—
v6(E)	5	#5	10'-10"	—
Structure Excavation			Cu. Yd.	83
Concrete Structures			Cu. Yd.	25.6
Reinforcement Bars, Epoxy Coated			Pound	3,910
Furnishing Steel Piles, HP12x53			Foot	155
Driving Piles			Foot	155
Test Pile, Steel HP12x53			Each	1
Pile Shoes			Each	6



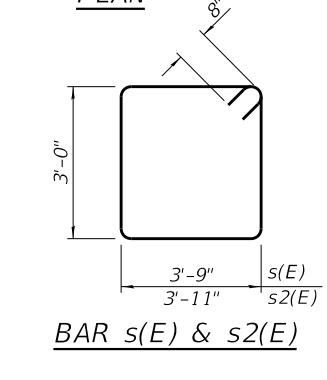
**FIELD CUTTING DIAGRAM**



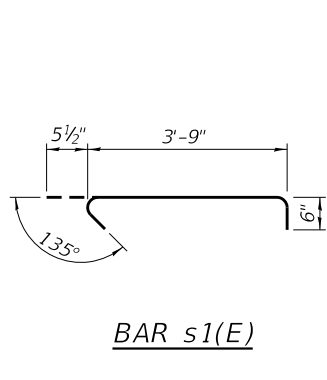
**BAR v(E)**  
(Headed)



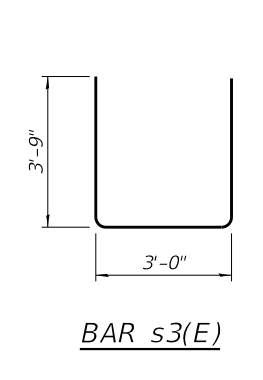
**BAR h2(E)**



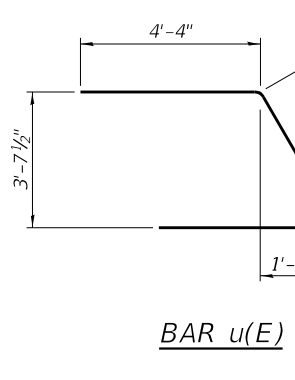
**BAR h7(E)**



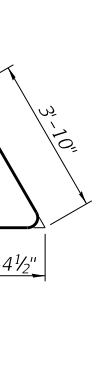
**BAR s(E) & s2(E)**



**BAR s1(E)**

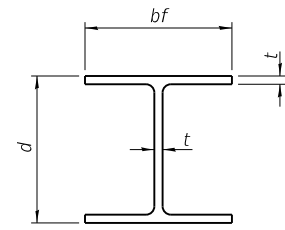


**BAR s3(E)**



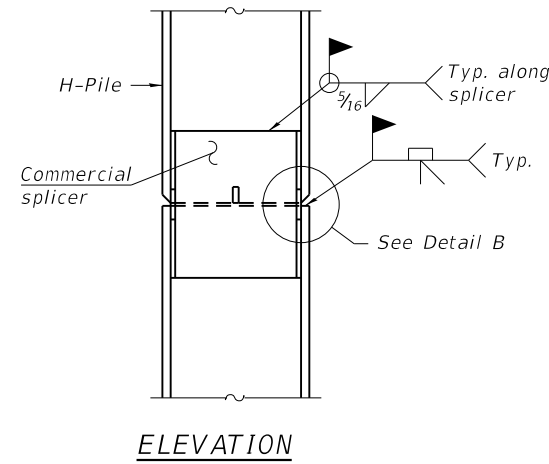
**BAR u(E)**

- Notes:**
- ① Pour steps monolithically with cap.
  - ② Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
  - ③ For details of piles see sheet 19 of 21.
  - ④ Order h6(E), v2(E) and v6(E) full length. Cut as shown and use remainder of bars in opposite wing.
  - ⑤ F.F. denotes front face.
  - ⑥ B.F. denotes back face.
  - ⑦ For treatment of wingwall see Detail A on sheet 7 of 21.

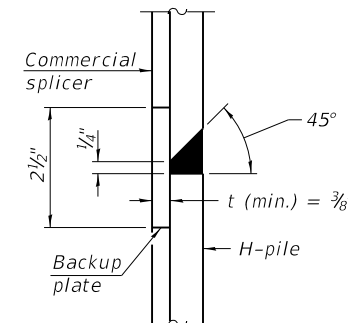


**STEEL PILE TABLE**

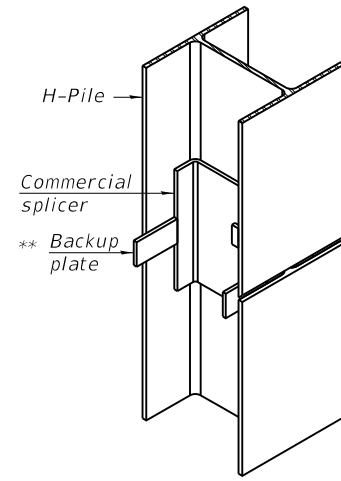
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 3/8"	14 3/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"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

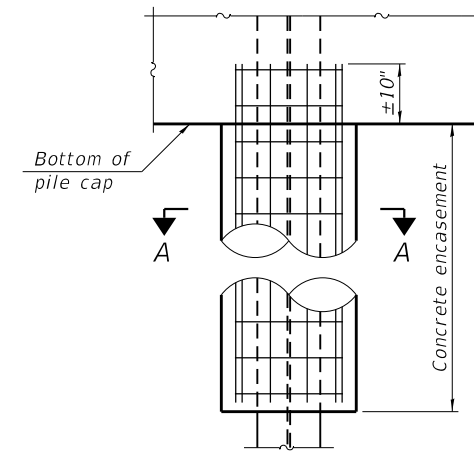


**DETAIL "B"**

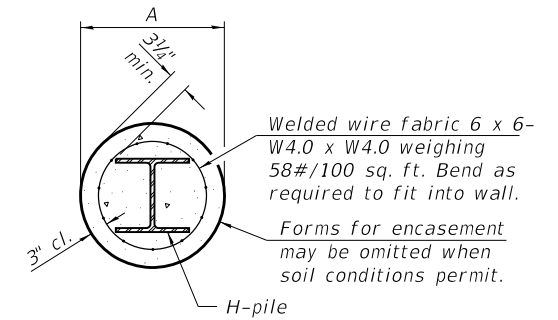


**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE**

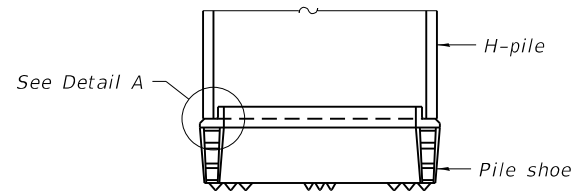


**ELEVATION**

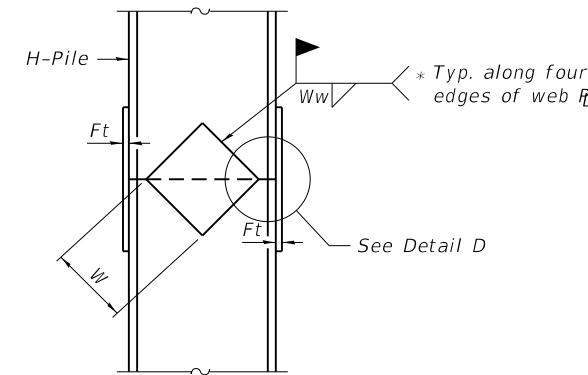


**SECTION A-A**

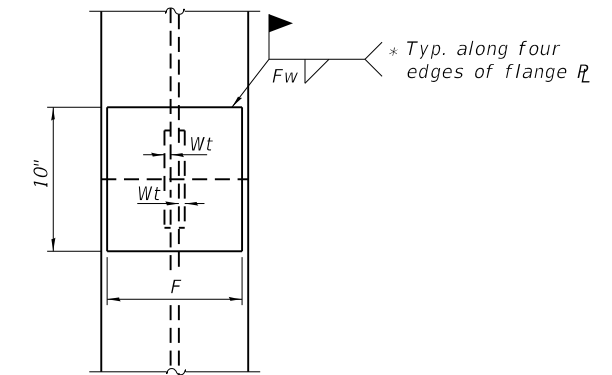
**INDIVIDUAL PILE CONCRETE ENCASUREMENT (when specified)**



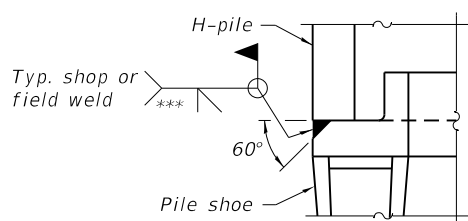
**ELEVATION**



**ELEVATION**

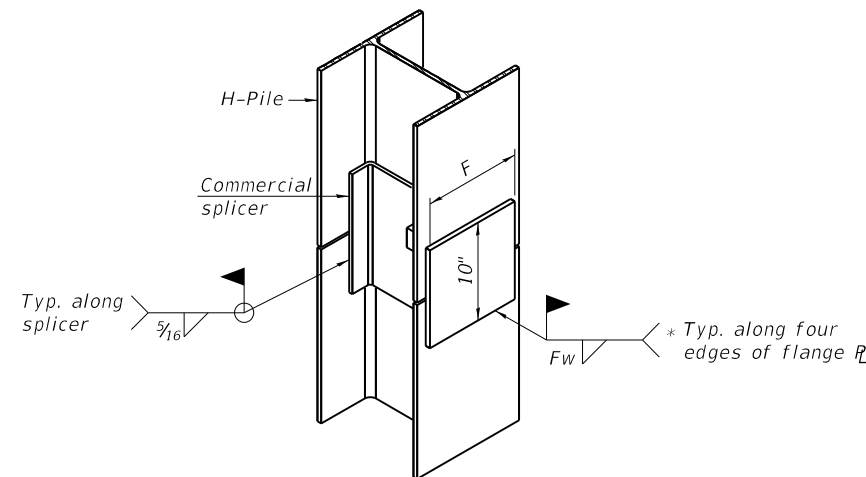


**END VIEW**



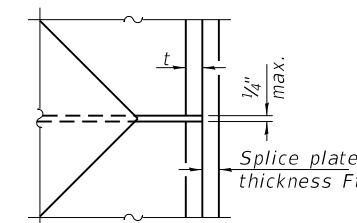
**DETAIL A**

**SHOE ATTACHMENT**



**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE ALTERNATE**



**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.

\* 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.).

F-HP 1-1-2020



USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 4/29/2021	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

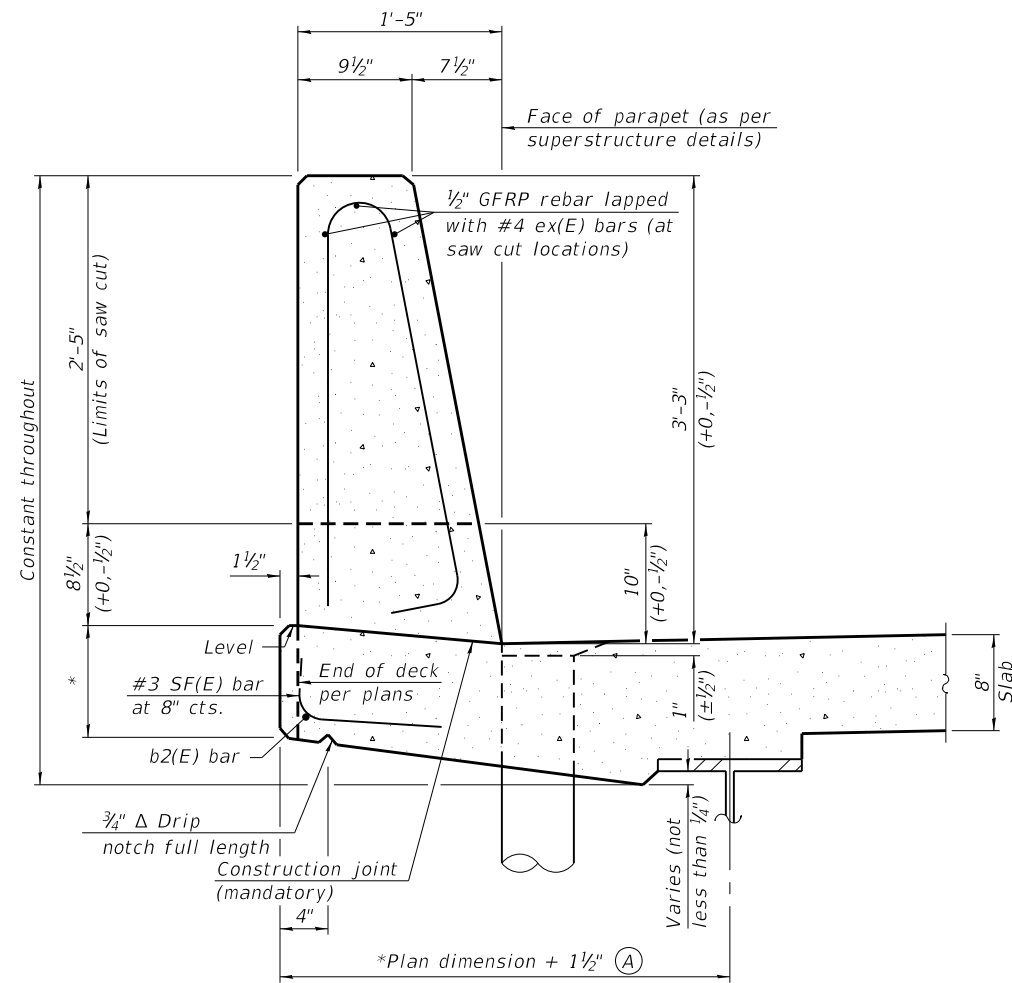
HP PILE DETAILS  
STRUCTURE NO. 060-6854

SHEET 19 OF 21 SHEETS

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	52
CONTRACT NO. 97758				

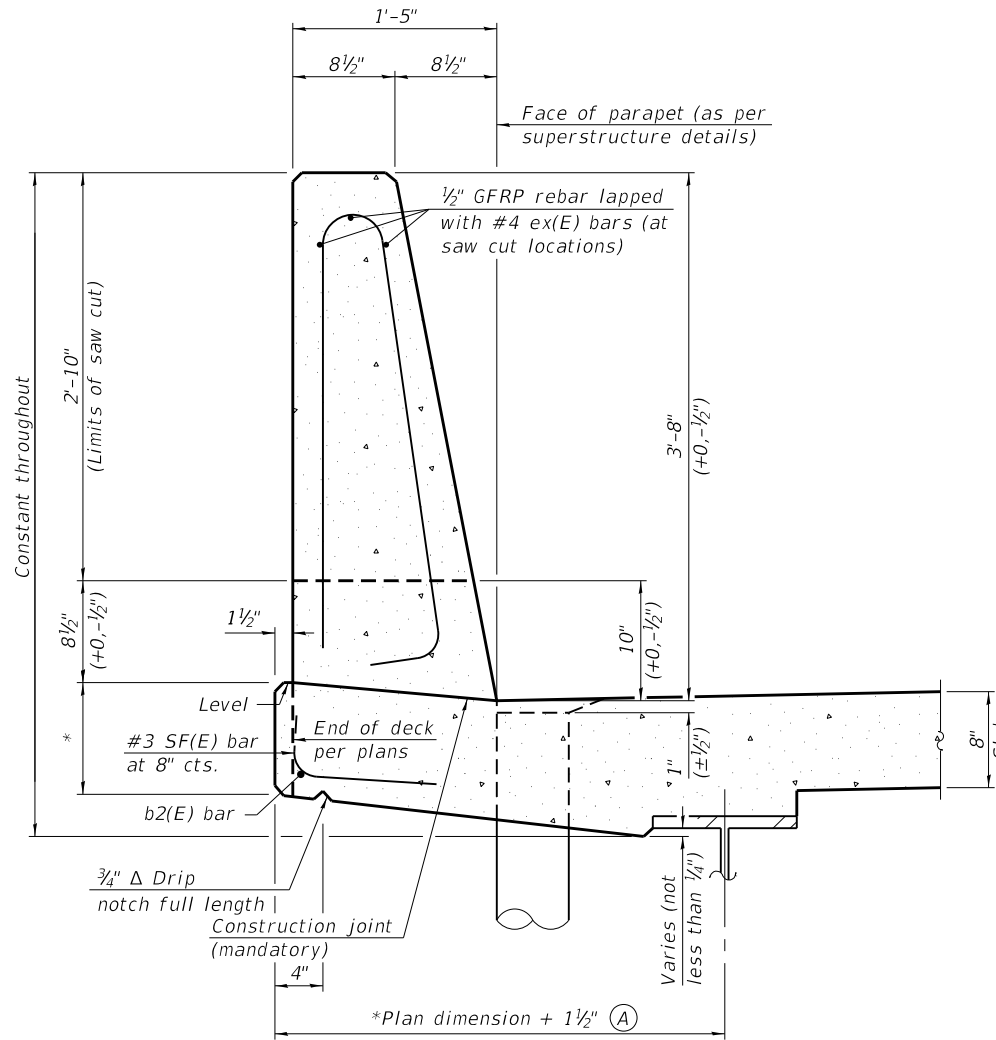
ILLINOIS FED. AID PROJECT

FILE NAME: H:\P\18092 - Friedel Bridge\Bridge\Final Plans\Microstation\0606854-019-HP Pile Details.dgn



**39" CONSTANT-SLOPE  
PARAPET SECTION**

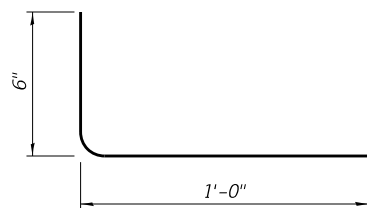
(Showing dimensions, d(E), and 1/2" Ø GFRP rebar)



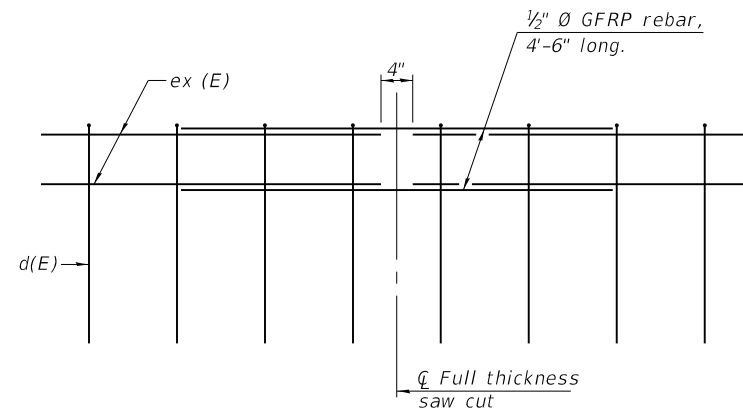
**44" CONSTANT-SLOPE  
PARAPET SECTION**

(Showing dimensions, d(E), and 1/2" Ø GFRP rebar)

\*See Superstructure Details.



**#3 (E) BAR**



**GFRP REBAR STIFFENING DETAIL**

(Place as shown in parapet section at each parapet joint location.)

Notes:

- ① All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 39" and 44" parapet.
- ② Place full depth aluminum sheets as shown on superstructure details.
- ③ Replace all cork joint filler locations with a full thickness saw cut.
- ④ Steel superstructure shown. Other superstructure types similar.

FILE NAME: H:\P\18092 - Friedel Bridge\Bridge\Final Plans\Microstation\0606854-020-Concrete Parapet Slipforming Option.dgn

SFP 39-44

1-1-2020



USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 4/29/2021	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONCRETE PARAPET SLIPFORMING OPTION  
STRUCTURE NO. 060-6854

SHEET 20 OF 21 SHEETS

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	53
CONTRACT NO. 97758				
ILLINOIS FED. AID PROJECT				



Illinois Department of Transportation  
Division of Highways  
scf engineering inc

### SOIL BORING LOG

Page 1 of 1

Date 07/18/19

ROUTE Culp Lane DESCRIPTION Friedel Bridge LOGGED BY JT

SECTION 2017-00032-00-BR LOCATION Bethalto, SEC. 1, TWP. 5N, RNG. 9W

COUNTY Madison DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T U R E	Surface Water Elev. Stream Bed Elev.	D E P T H	B L O W S	U C S	M O I S T U R E
BORING NO. Station Offset Ground Surface Elev.	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)
1" TOPSOIL SANDY LOAM: Brown, sand is fine, soft, moist, trace roots A-2	2					8		>4.5 HP	29
	2	NC				11			
	2					13			
	2					16		>4.5 HP	12
	1	NC				25			
	-5					29			
CLAY LOAM: Gray, sand is fine, soft, moist A-2	2		0.3 HP	24		28		>4.5 HP	16
	1					50/5"			
	2								
	1	<0.25 HP		26		50/5"		>4.5 HP	14
	-10								
	1	<0.25 HP		21		50/2"		>4.5 HP	11
	2								
	1	<0.25 HP		28					
	0								
	-15								
CLAY: Gray, medium stiff, moist, clayey shale, A-7	3		>4.5 HP	18					
	3								
	6								
Gray, hard	6		>4.5 HP	20					
	8								
	-20								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation  
Division of Highways  
scf engineering inc

### SOIL BORING LOG

Page 1 of 1

Date 07/18/19

ROUTE Culp Lane DESCRIPTION Friedel Bridge LOGGED BY JT

SECTION 2017-00032-00-BR LOCATION Bethalto, SEC. 1, TWP. 5N, RNG. 9W

COUNTY Madison DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T U R E	Surface Water Elev. Stream Bed Elev.	D E P T H	B L O W S	U C S	M O I S T U R E
BORING NO. Station Offset Ground Surface Elev.	(ft)	(/6")	(tsf)	(%)	ft	(ft)	(/6")	(tsf)	(%)
1" TOPSOIL CLAY: Tan and gray, medium stiff, moist, A-7	2					50/3"		>4.5 HP	7
	4	2.5 HP		25					
	6								
With iron staining	2					50/5"		>4.5 HP	8
	3	1.8 HP		22					
	-5								
	6								
	8	>4.5 HP		23					
	12								
CLAY: Gray, stiff, moist, clayey shale, A-7	4								
	6	2.8 HP		21					
	-10								
Tan, medium stiff	7								
	8	>4.5 HP		22					
	10								
Gray, very stiff	8		>4.5 HP	15					
	17								
	-15								
	18		>4.5 HP	14					
	27								
	41								
Clay: Maroon and gray, hard, shale, A-7	50/5"		>4.5 HP	8					
	-20								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

FILE NAME: H:\PI\18092 - Friedel Bridge\Bridg\Final Plans\Microstation\0606854-021-Soil Boring Logs.dgn



USER NAME =	DESIGNED -	REVISED -
CHECKED -	REVISIONS -	
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE = 4/29/2021	CHECKED -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS  
STRUCTURE NO. 060-6854

SHEET 21 OF 21 SHEETS

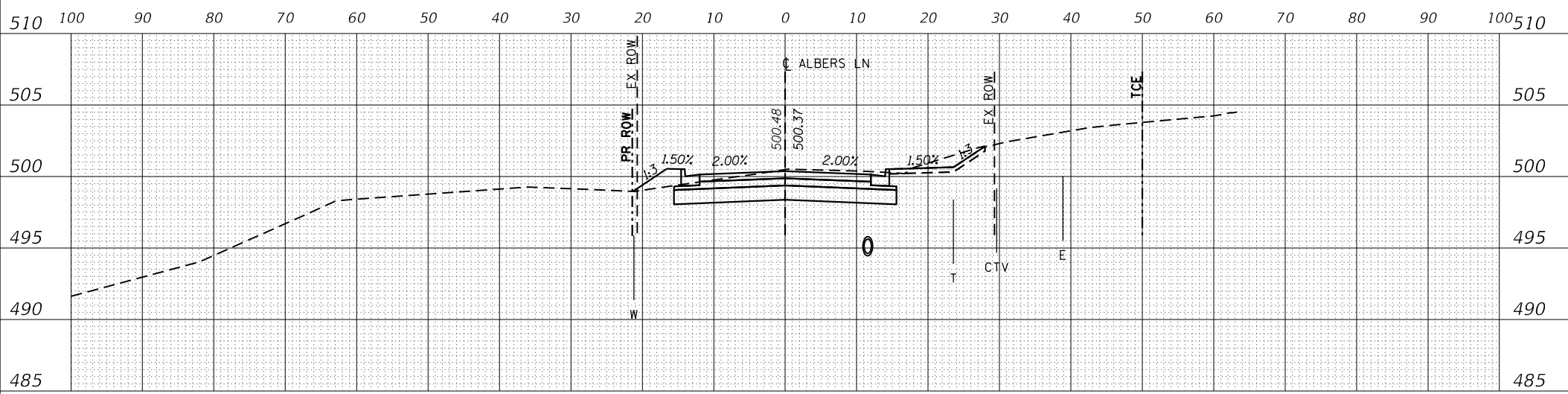
M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	54
CONTRACT NO. 97758				
ILLINOIS FED. AID PROJECT				







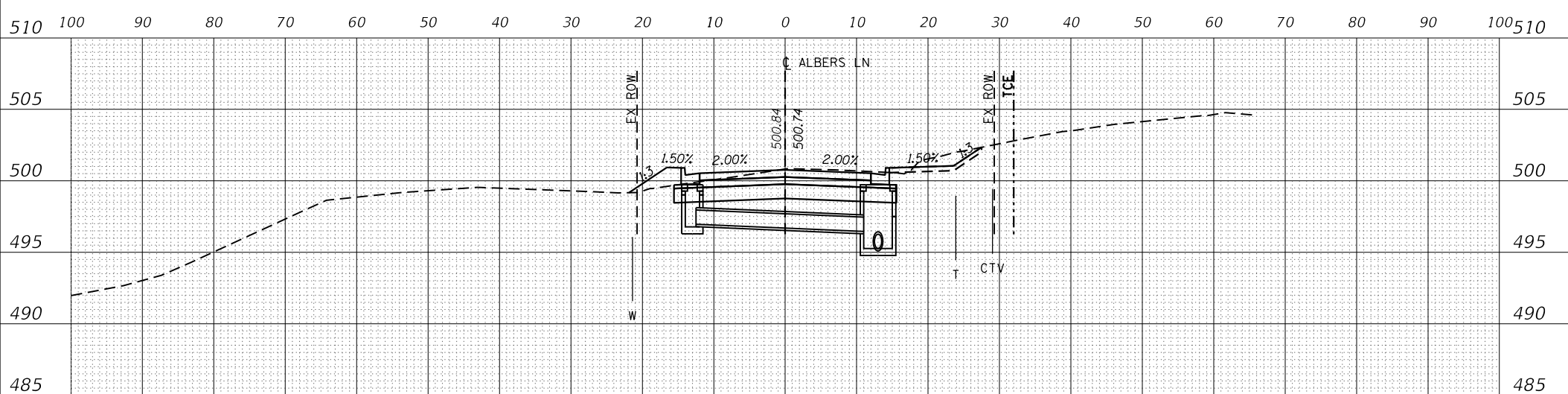
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	



C = 36 Sq. Ft.  
F = 5 Sq. Ft.

**12 + 00.00**

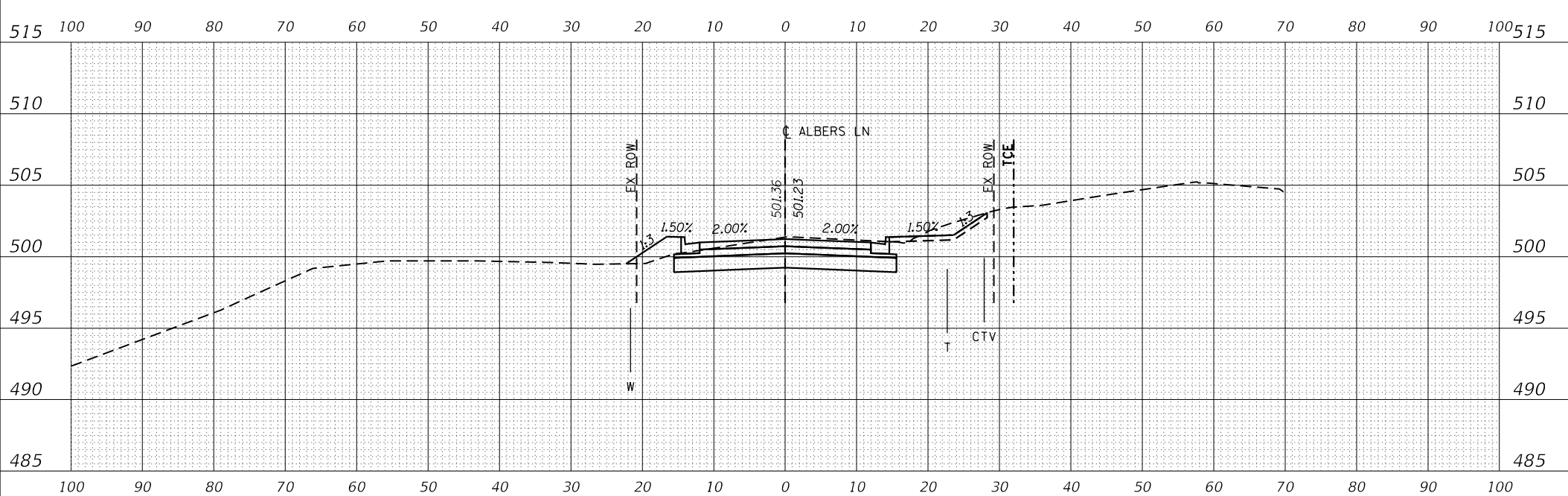
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



C = 35 Sq. Ft.  
F = 6 Sq. Ft.

**11 + 90.00**

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



C = 35 Sq. Ft.  
F = 7 Sq. Ft.

**11 + 75.00**

MODEL: P:\\_albers\_25 (Final)  
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USER NAME = ryne.witjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 4/29/2021	DATE -	REVISED -

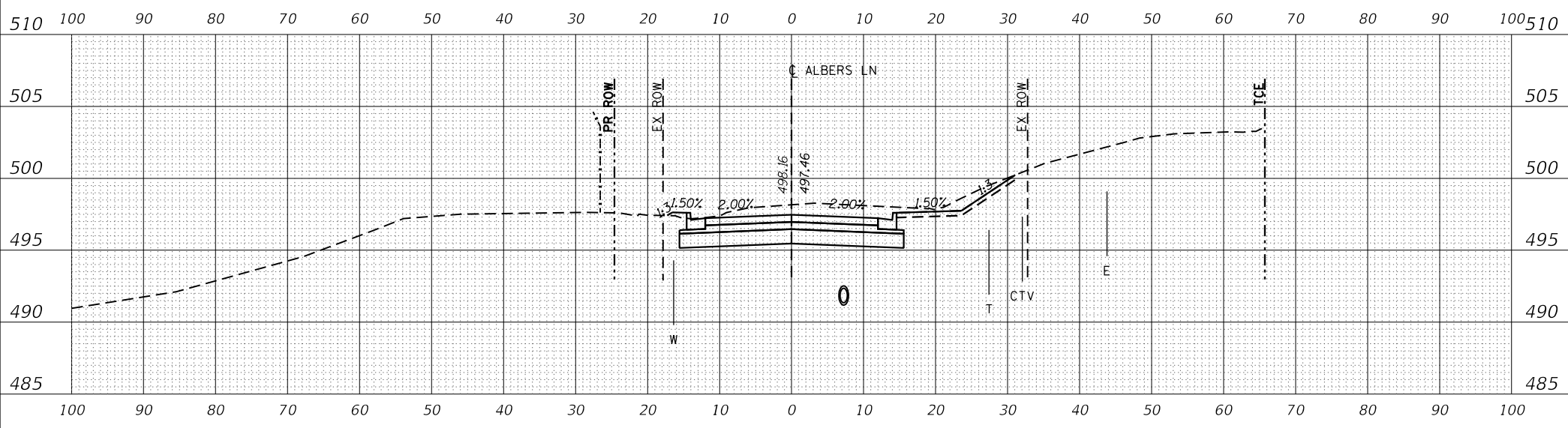
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ALBERS LANE  
CROSS SECTIONS**

SCALE: SHEET 3 OF 14 SHEETS STA. 11+75.00 TO STA 12+00.00

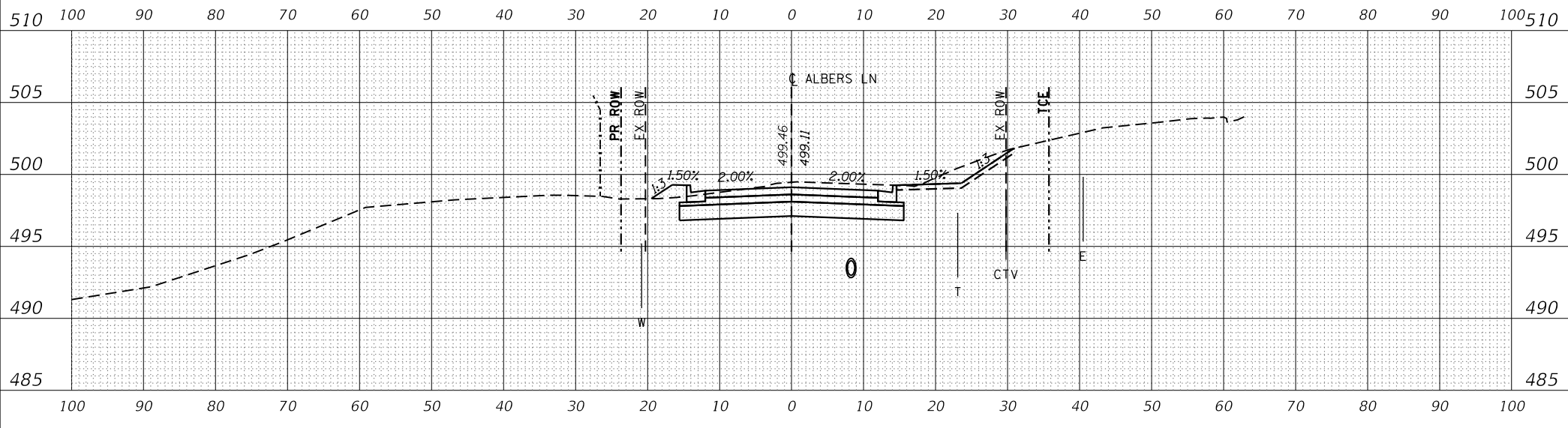
M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	57
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				

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



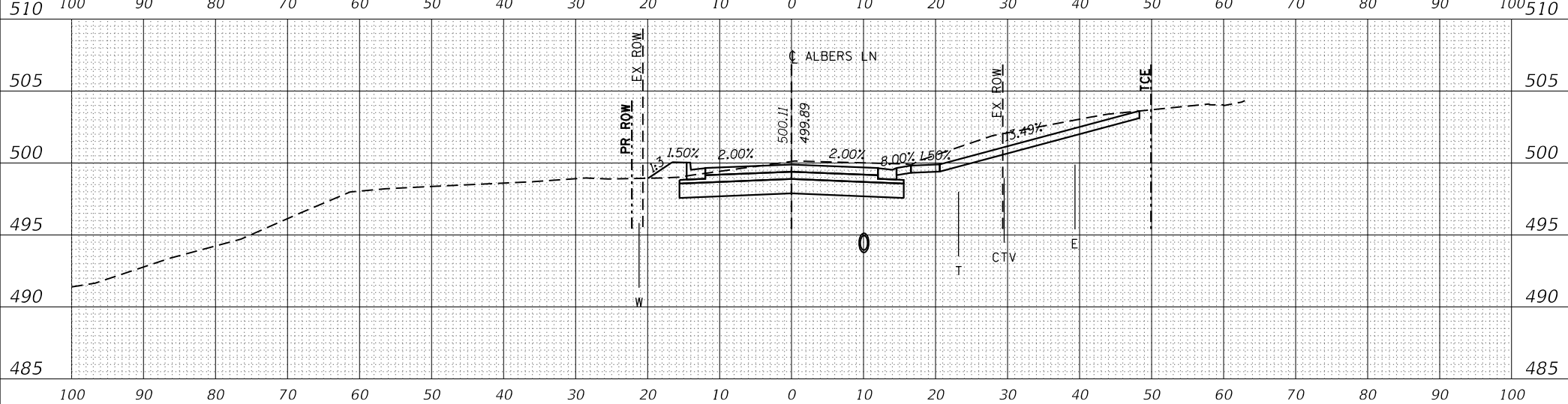
C = 60 Sq. Ft.  
F = 1 Sq. Ft.  
**12 + 50.00**

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



C = 48 Sq. Ft.  
F = 3 Sq. Ft.  
**12 + 25.00**

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



C = 70 Sq. Ft.  
F = 4 Sq. Ft.  
**12 + 10.50**  
**PE RT**  
**1205 ALBERS LN**

MODEL: Pl\_Albers\_25 (Final)  
FILE NAME: 17-00032-00-1897 - Friedel Bridge CADD\crosssections\CADD Drawings\031897-24-features.dgn

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PLOT DATE = 4/29/2021	DATE -	REVISED -

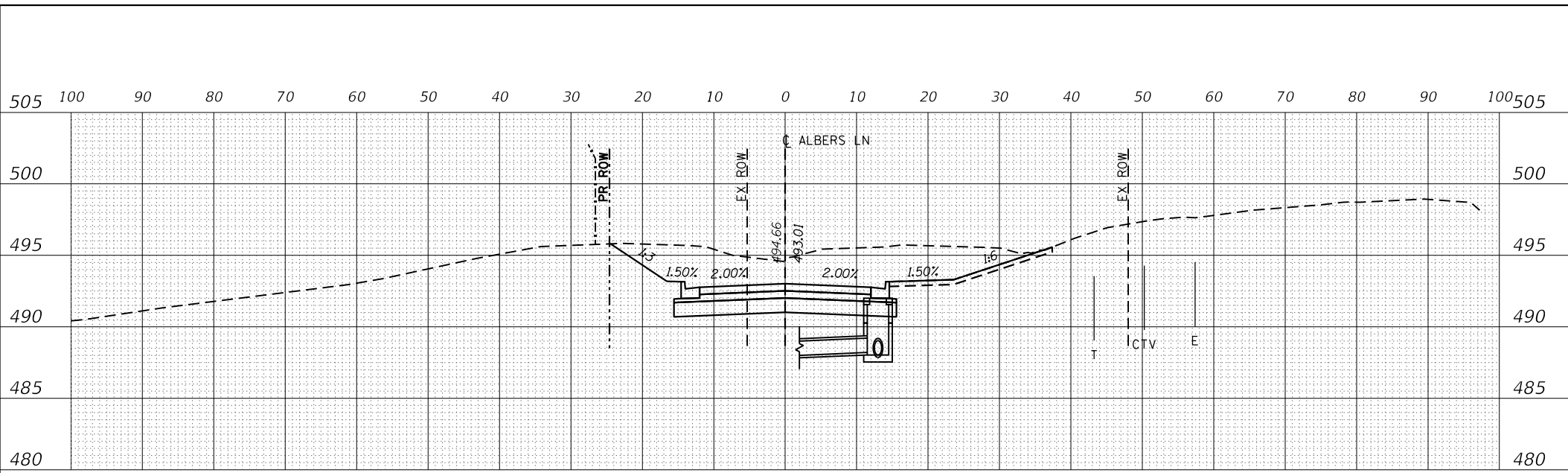
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**ALBERS LANE**  
**CROSS SECTIONS**

SCALE: SHEET 4 OF 14 SHEETS STA. 12+10.50 TO STA 12+50.00

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	58
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				

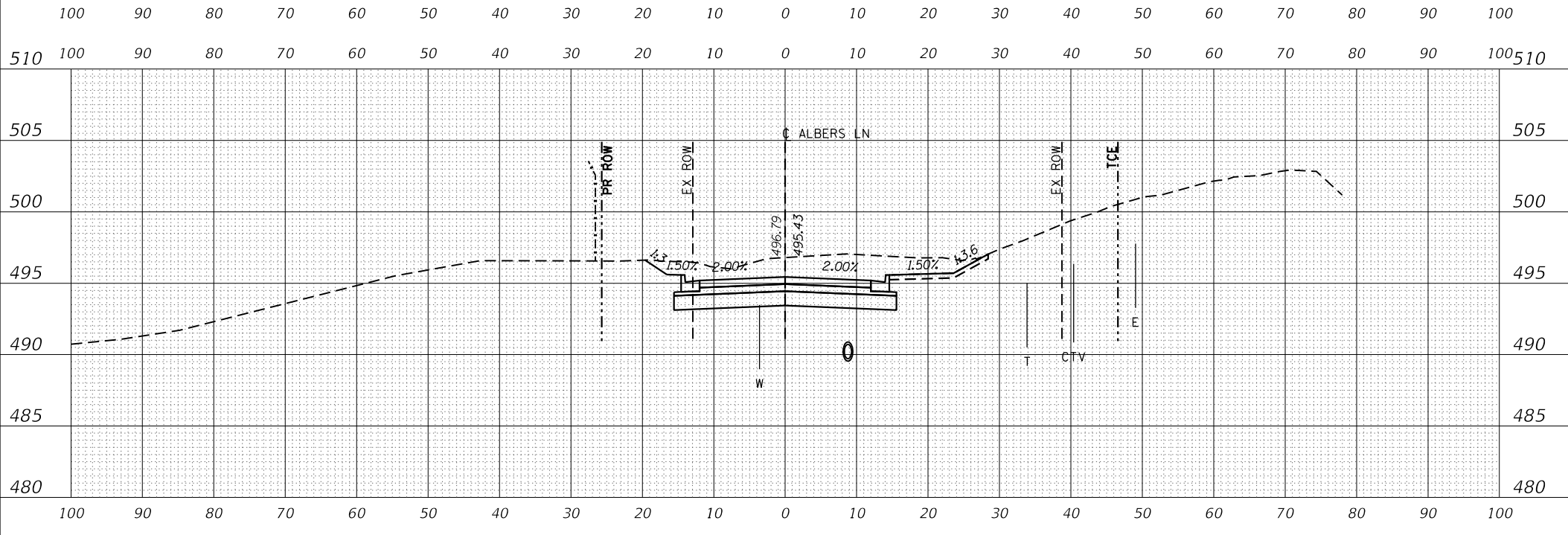
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	



C = 158 Sq. Ft.  
F = 0 Sq. Ft.

**13 + 00.00**

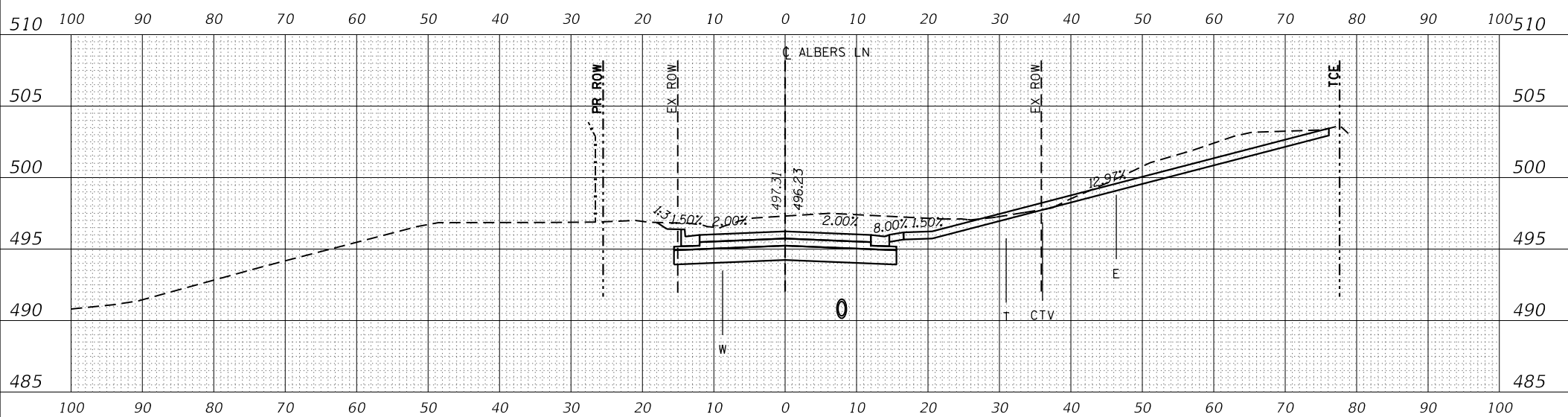
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



C = 90 Sq. Ft.  
F = 0 Sq. Ft.

**12 + 75.00**

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



C = 121 Sq. Ft.  
F = 0 Sq. Ft.

**12 + 65.74**

**PE RT  
1209 ALBERS LN**

USER NAME = rync.witjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 4/29/2021	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

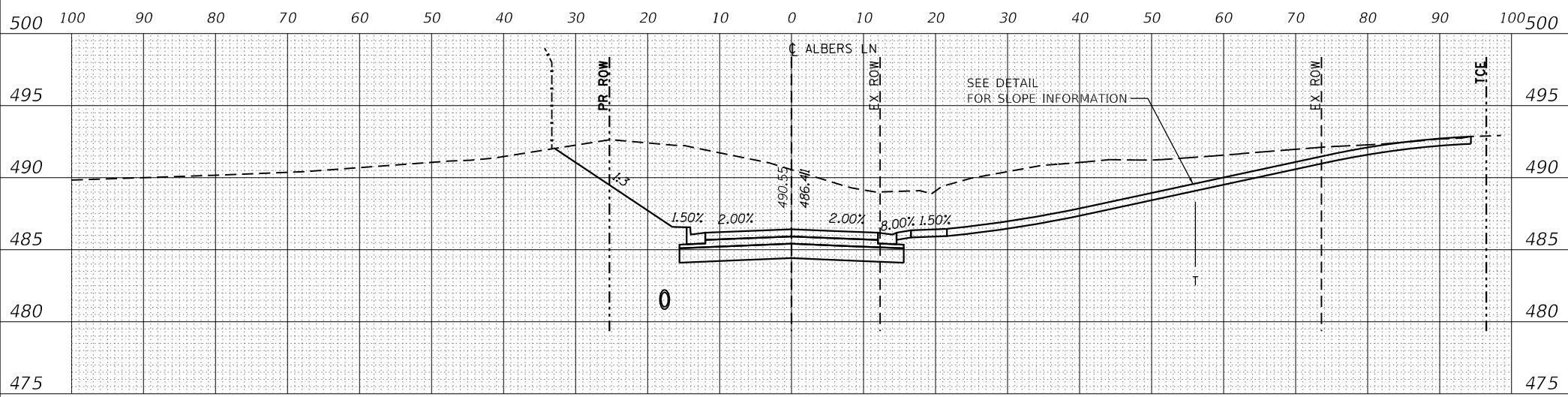
**ALBERS LANE  
CROSS SECTIONS**

SCALE: SHEET 5 OF 14 SHEETS STA. 12+65.74 TO STA 13+00.00

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	59
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS		FED. AID PROJECT		

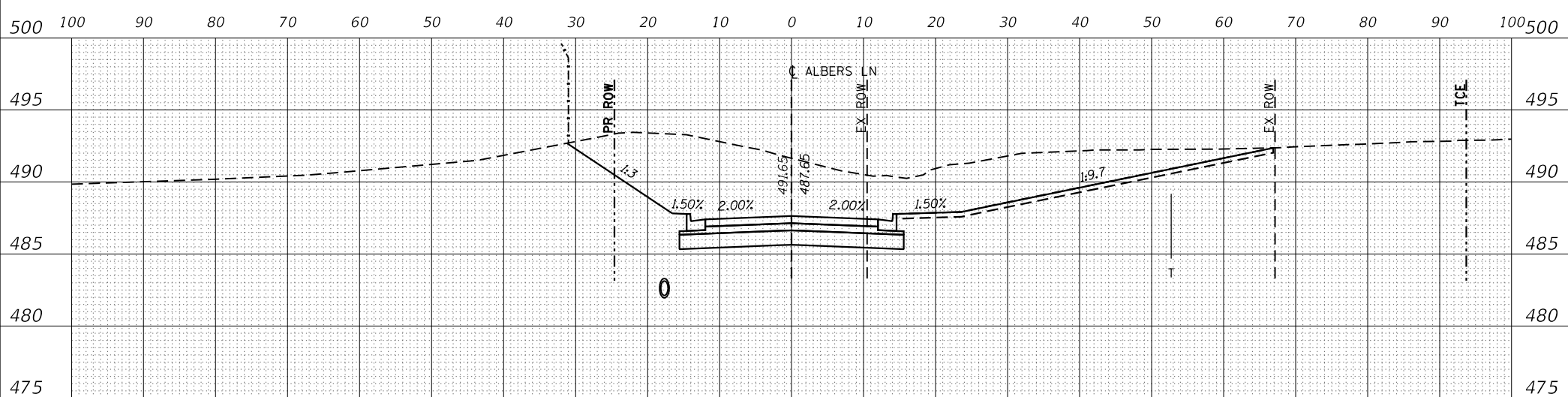
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FILE NAME: H181897 - Friedel Bridge CAD/Interstation/CADD Drawings/081897-2p-features.dgn

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



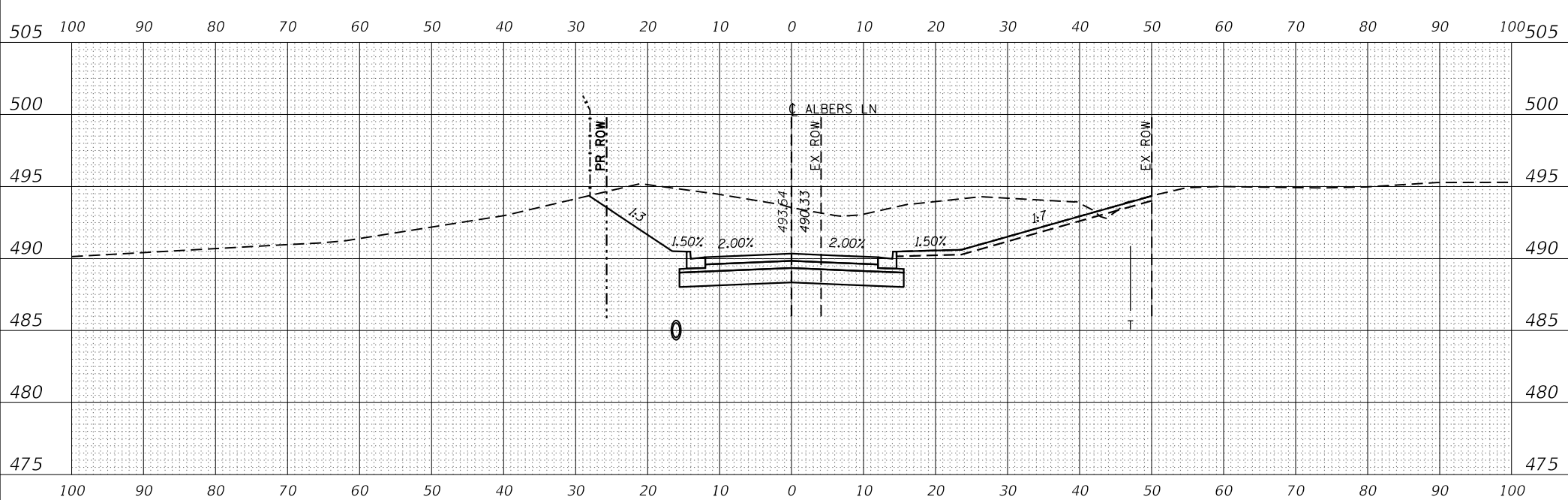
C = 400 Sq. Ft.  
 F = 0 Sq. Ft.  
**13 + 61.48**  
**PE RT**  
**1213 ALBERS LN**

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



C = 335 Sq. Ft.  
 F = 0 Sq. Ft.  
**13 + 50.00**

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



C = 250 Sq. Ft.  
 F = 1 Sq. Ft.  
**13 + 25.00**

MODEL: P:\\_Albers\_25 (Final)  
 FILE NAME: 13+1897 - Friedel Bridge\CADD\Microstation\CADD Drawings\031897-25-pe-featurs.dgn

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	DRAWN -	REVISED -
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PLOT DATE = 4/29/2021	DATE -	REVISED -

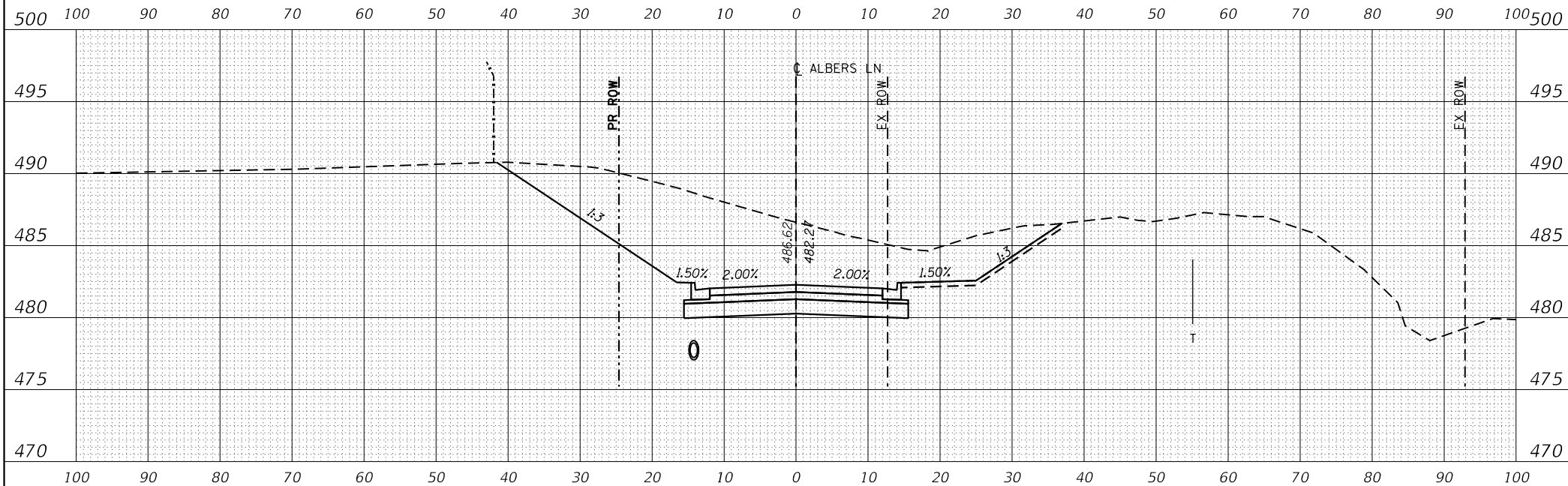
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SCALE:	SHEET 6	OF 14 SHEETS	STA. 13+25.00 TO STA 13+61.48
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**ALBERS LANE**  
**CROSS SECTIONS**

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	60
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS FED. AID PROJECT				

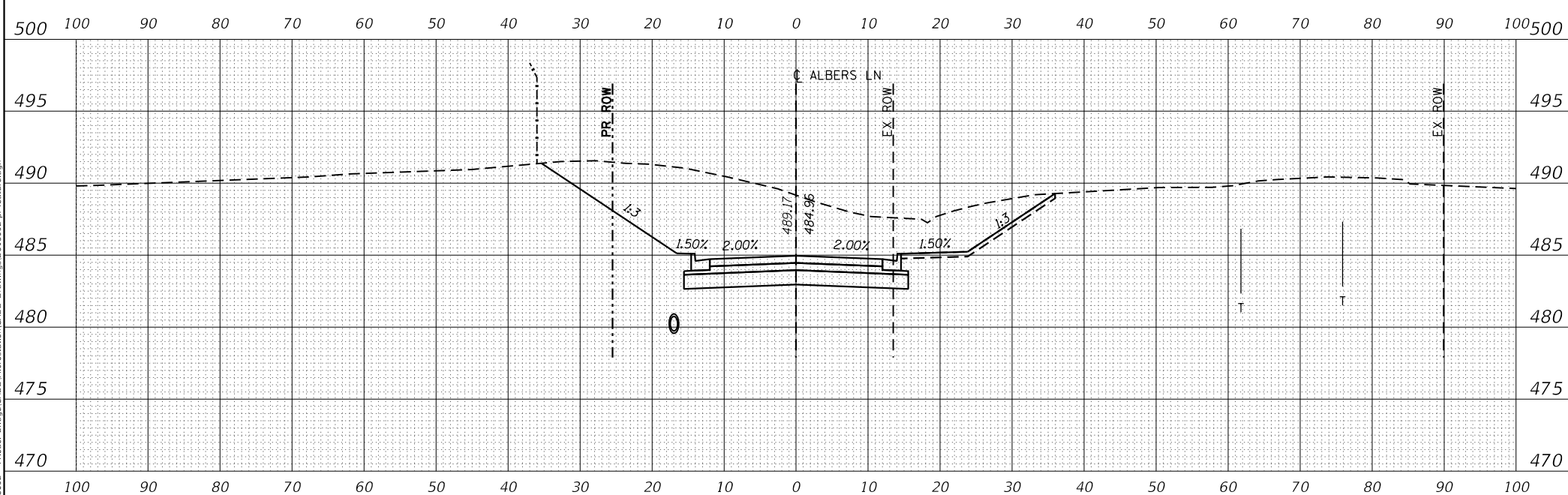
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



C = 319 Sq. Ft.  
F = 0 Sq. Ft.

**14 + 00.00**

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



C = 278 Sq. Ft.  
F = 0 Sq. Ft.

**13 + 75.00**

MODEL: Pl\_Albens\_25 (Final)  
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PLOT DATE = 4/29/2021	DATE -	REVISED -

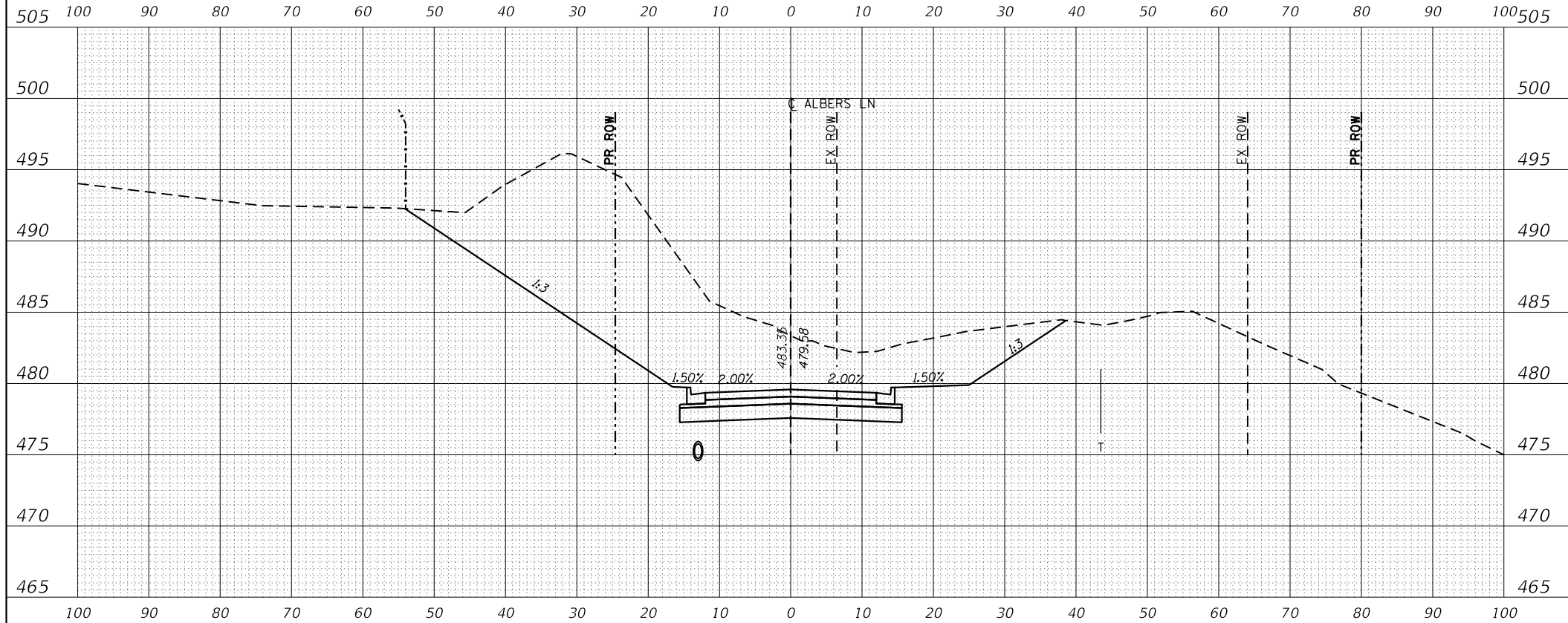
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ALBERS LANE  
CROSS SECTIONS**

SCALE: SHEET 7 OF 14 SHEETS STA. 13+75.00 TO STA 14+00.00

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	61
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS		FED. AID PROJECT		

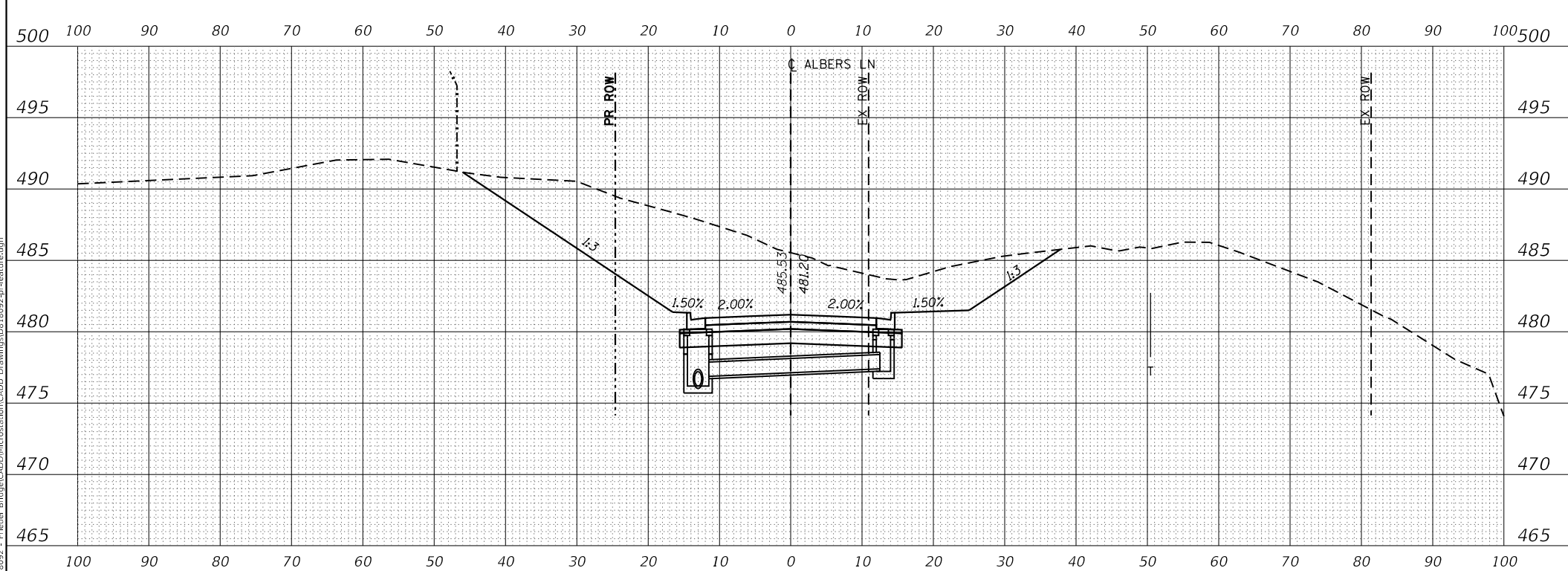
DATE	
BY	
FINAL SURVEY NO.	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	



C = 520 Sq. Ft.  
F = 0 Sq. Ft.

**14 + 25.00**

DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	



C = 343 Sq. Ft.  
F = 0 Sq. Ft.

**14 + 10.00**

MODEL: Pl\_albers\_25 (Final)  
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PLOT DATE = 4/29/2021	DATE -	REVISED -

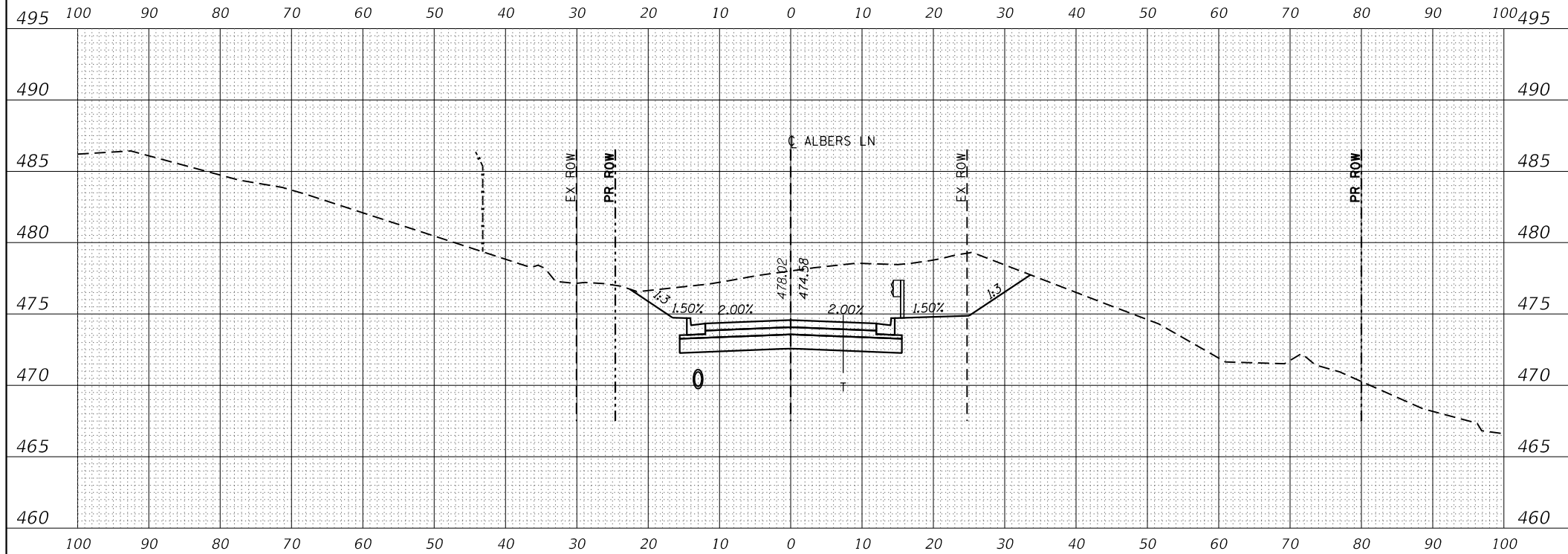
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ALBERS LANE  
CROSS SECTIONS**

SCALE: SHEET 8 OF 14 SHEETS STA. 14+10.00 TO STA 14+25.00

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	62
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
		ILLINOIS	FED. AID PROJECT	

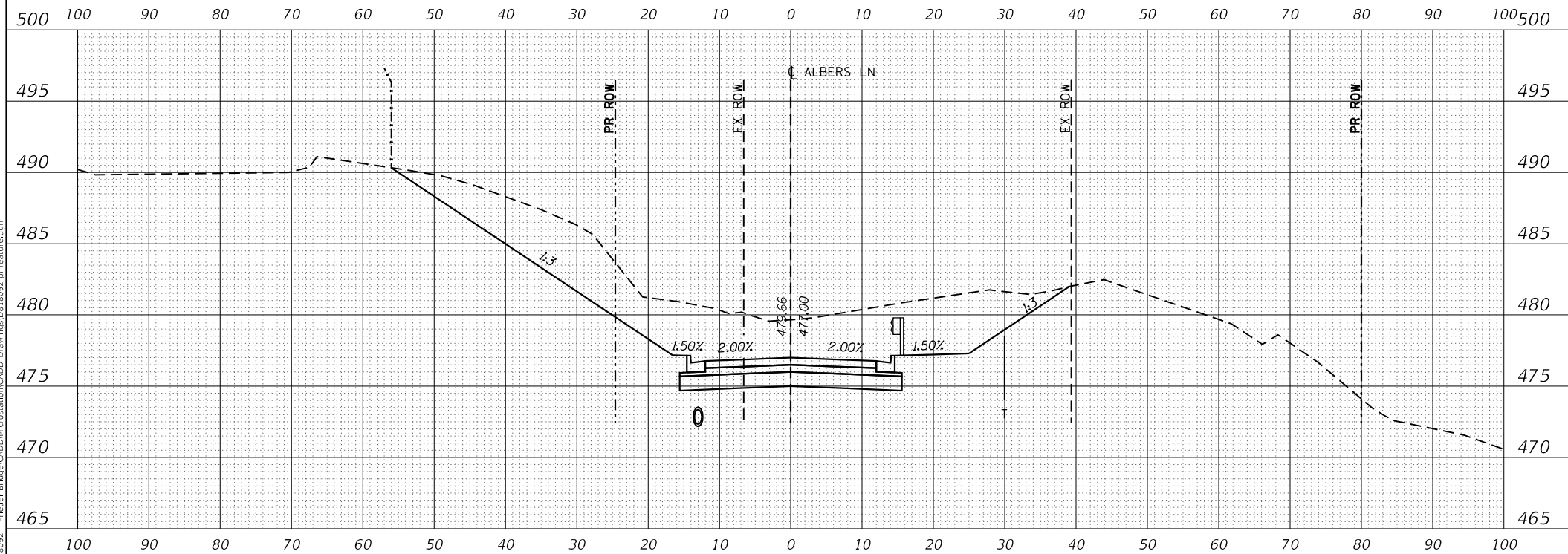
DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED



C = 203 Sq. Ft.  
F = 0 Sq. Ft.

**14 + 75.00**

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



C = 322 Sq. Ft.  
F = 0 Sq. Ft.

**14 + 50.00**

MODEL: Pl\_Albers\_25 (Final)  
FILE NAME: 17-00032-00-17-Friedel\_Bridge\_CADD\workspace\Bridges\17-00032-00-17-Friedel\_Bridge\_CADD\Drawings\17-00032-00-17-Friedel\_Bridge\_CADD.dwg

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PLOT DATE = 4/29/2021	DATE -	REVISED -

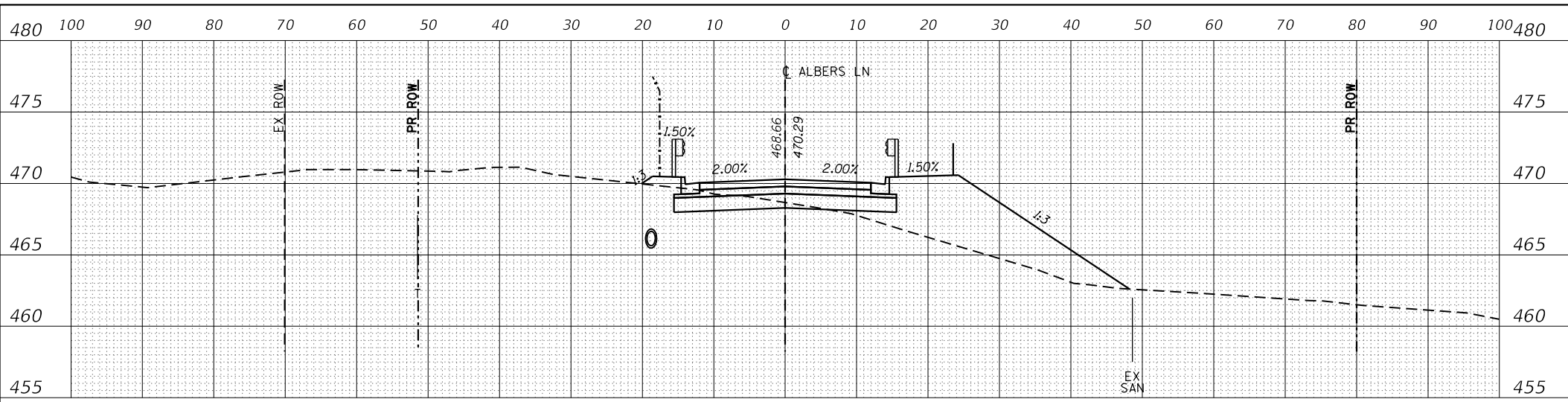
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ALBERS LANE  
CROSS SECTIONS**

SCALE: SHEET 9 OF 14 SHEETS STA. 14+50.00 TO STA 14+75.00

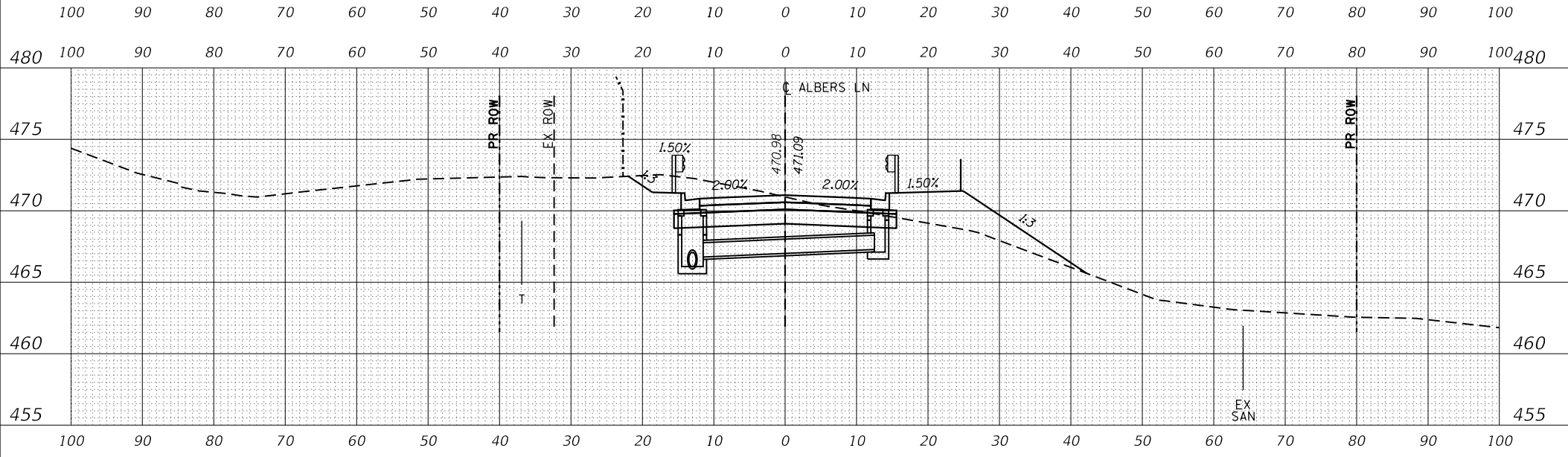
M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	63
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS		FED. AID PROJECT		

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



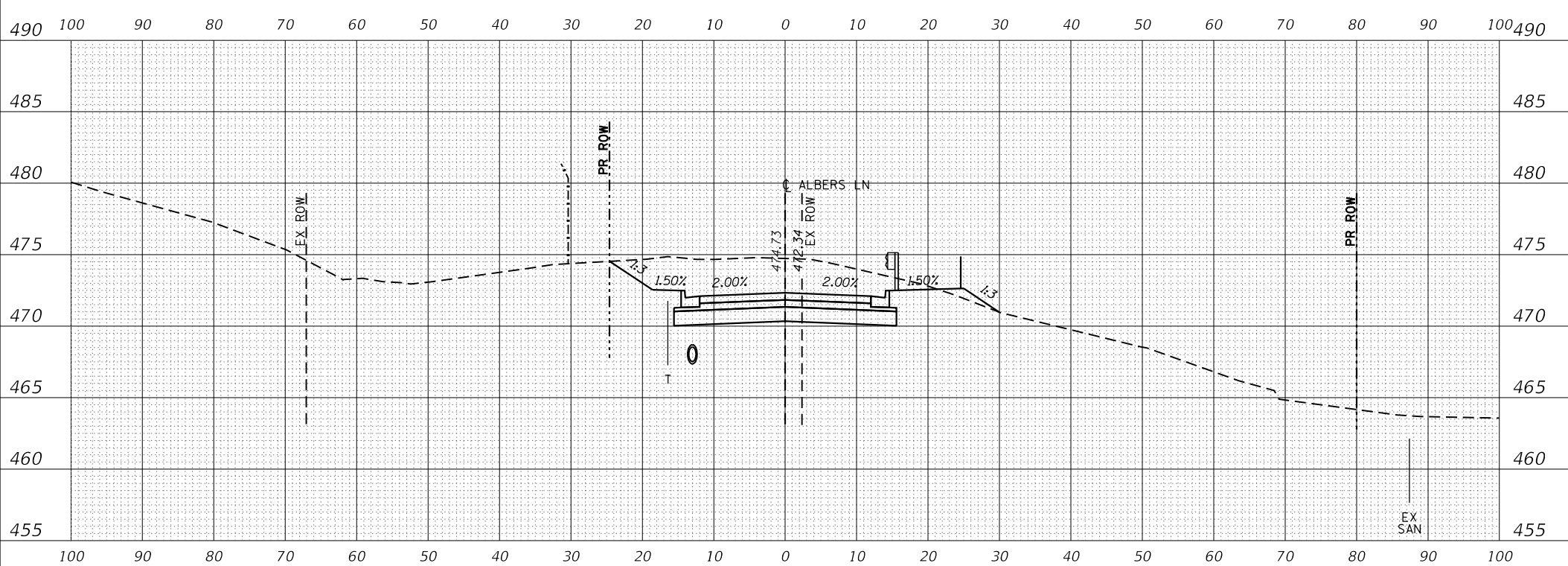
C = 3 Sq. Ft.  
 F = 128 Sq. Ft.  
**15 + 25.00**

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



C = 38 Sq. Ft.  
 F = 44 Sq. Ft.  
**15 + 15.00**

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



C = 116 Sq. Ft.  
 F = 3 Sq. Ft.  
**15 + 00.00**

MODEL: Pl\_Albers\_25 (Final)  
 FILE NAME: 17-1897 - Friedel Bridge CADD\Information\CADD Drawings\031897-24-featurs.dgn

USER NAME = rync.witjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 4/29/2021	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ALBERS LANE  
 CROSS SECTIONS**

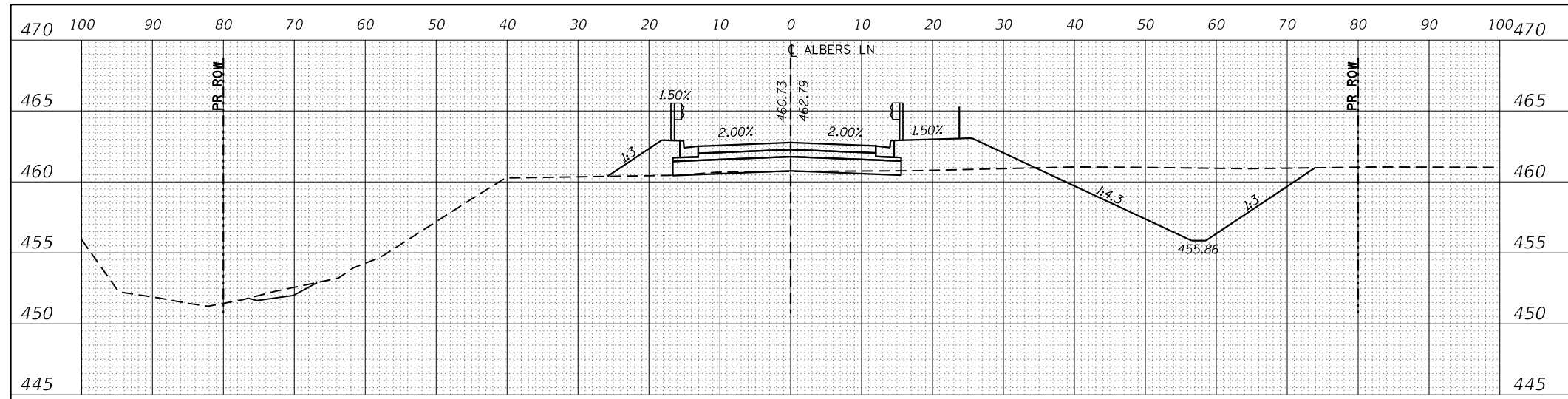
SCALE: SHEET 10 OF 14 SHEETS STA. 15+00.00 TO STA 15+25.00

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	64
FRIEDEL BRIDGE IMPROVEMENTS			CONTRACT NO. 97758	
ILLINOIS			FED. AID PROJECT	



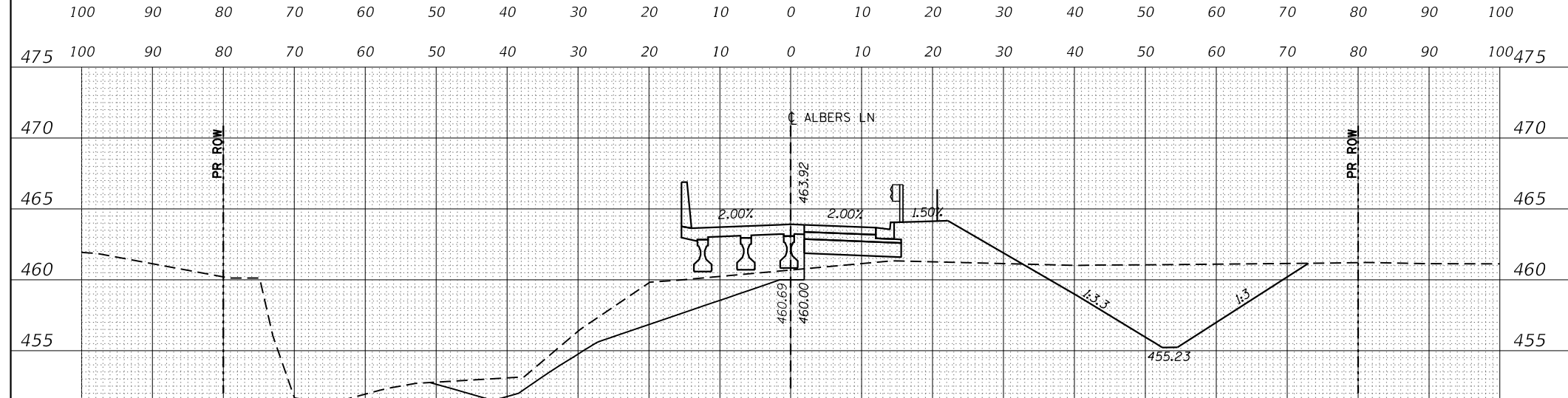


DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY NOTE BOOK NO.	



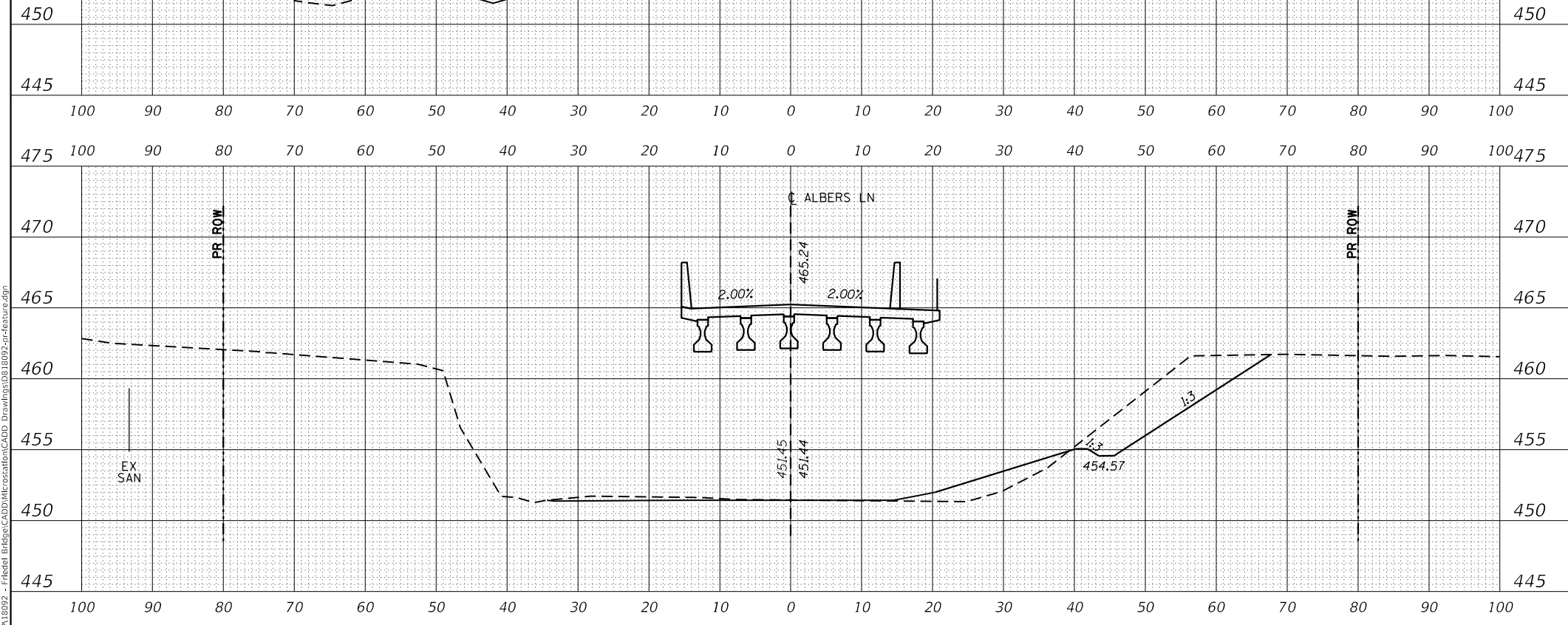
C = 110 Sq. Ft.  
F = 77 Sq. Ft.  
**16 + 50.00**

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



C = 201 Sq. Ft.  
F = 58 Sq. Ft.  
**16 + 25.00**

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



C = 69 Sq. Ft.  
F = 22 Sq. Ft.  
**16 + 00.00**

MODEL: P:\\_albers\_25 (Final)  
FILE NAME: 17-00032-00-BR - Friedel Bridge CAD\Drawings\17-00032-00-BR-Feature.dgn

USER NAME = rync.witjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 4/29/2021	DATE -	REVISED -

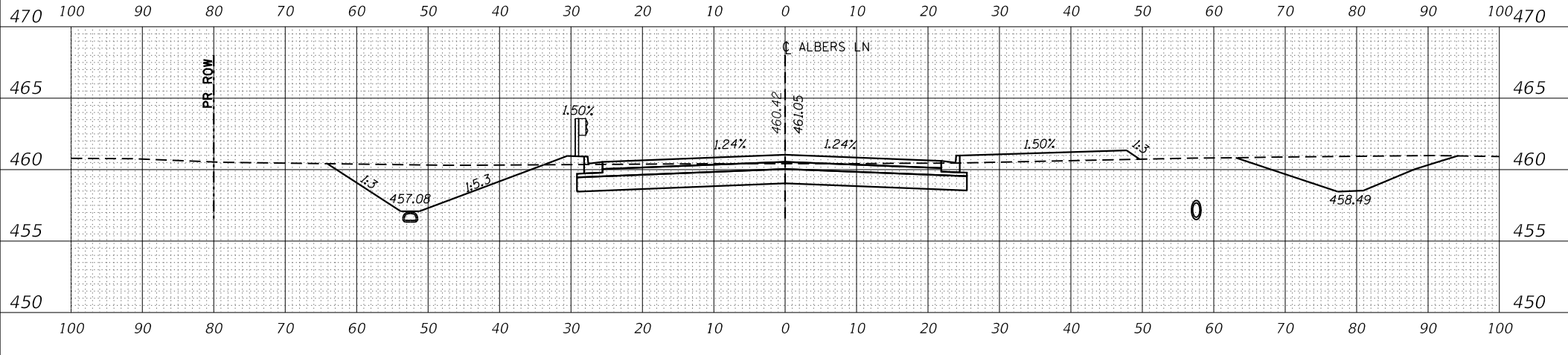
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ALBERS LANE  
CROSS SECTIONS**

SCALE: SHEET 12 OF 14 SHEETS STA. 16+00.00 TO STA 16+50.00

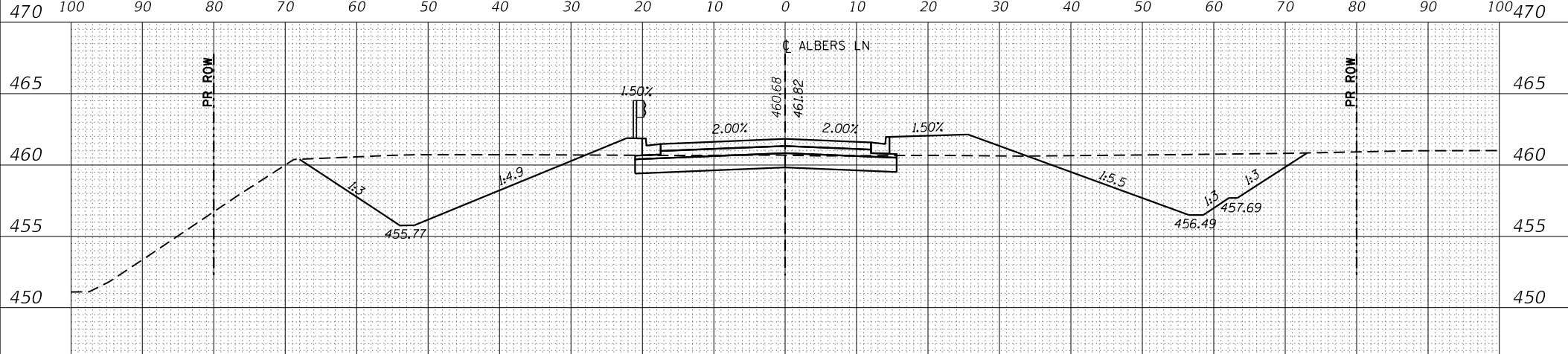
M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	66
FRIEDEL BRIDGE IMPROVEMENTS		CONTRACT NO. 97758		
ILLINOIS		FED. AID PROJECT		

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



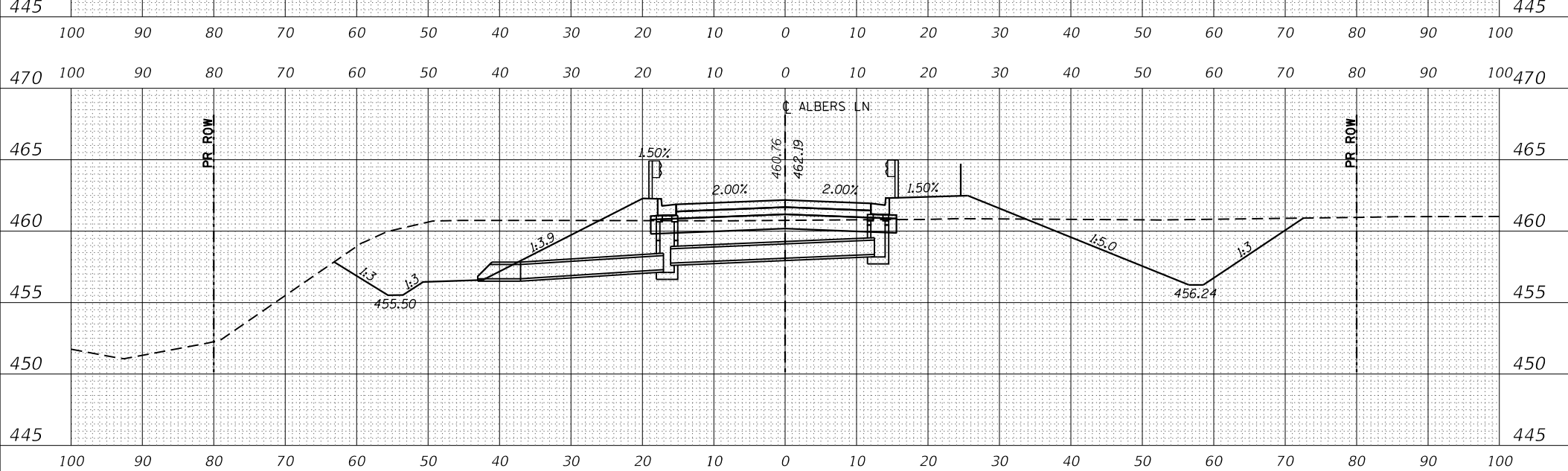
C = 128 Sq. Ft.  
F = 16 Sq. Ft.  
**17 + 00.00**

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



C = 195 Sq. Ft.  
F = 29 Sq. Ft.  
**16 + 75.00**

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



C = 202 Sq. Ft.  
F = 41 Sq. Ft.  
**16 + 65.00**

MODEL: Plc\_albers\_25 (Final)  
FILE NAME: 17-00032-00-16997 - Friedel Bridge CADD/Interstation CADD Drawings/03/16997-2p-feature.dgn

USER NAME = rync.witjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 4/29/2021	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ALBERS LANE  
CROSS SECTIONS**

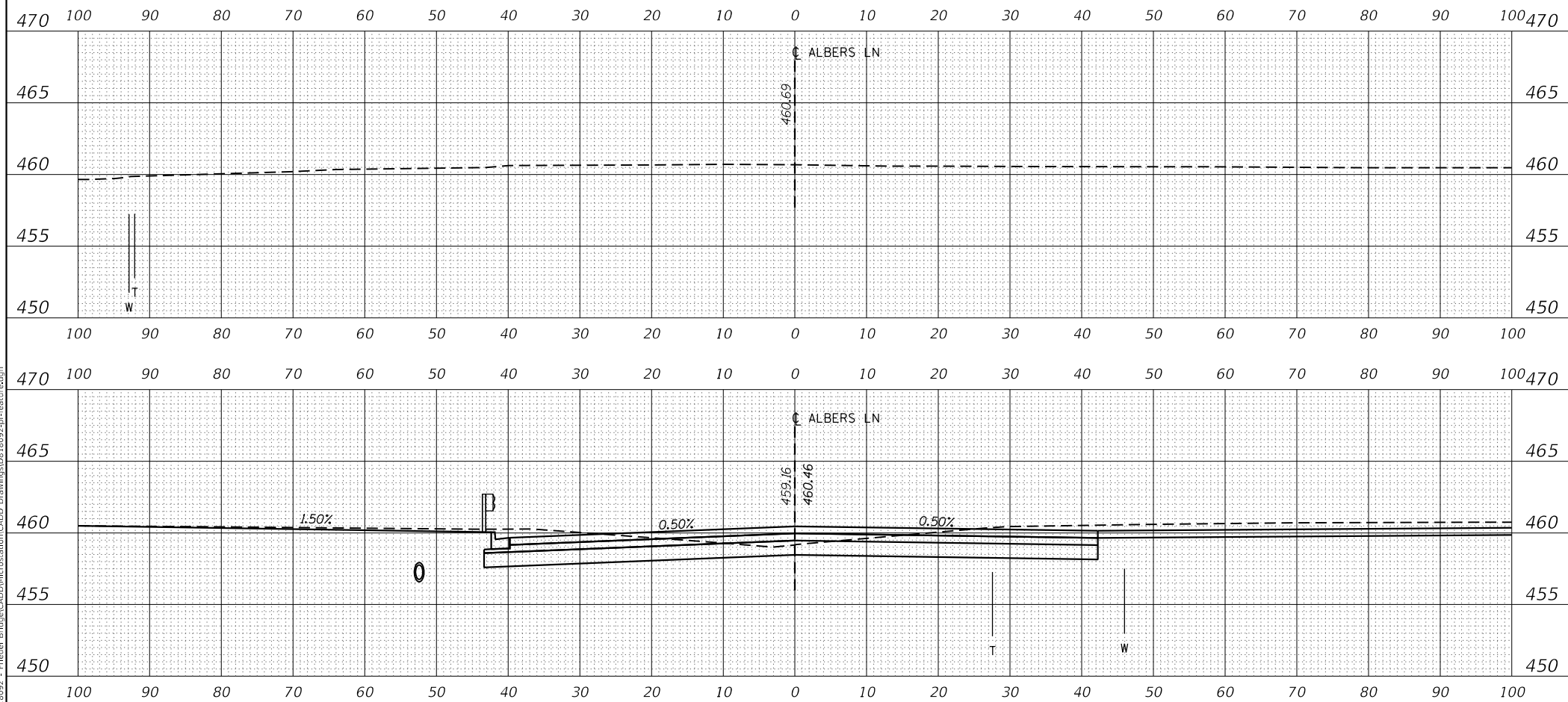
SCALE: SHEET 13 OF 14 SHEETS STA. 16+65.00 TO STA 17+00.00

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	67
FRIEDEL BRIDGE IMPROVEMENTS		CONTRACT NO. 97758		
ILLINOIS		FED. AID PROJECT		

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

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

MODEL: P:\\_Intern\_25 (Final)  
 FILE NAME: 17+18.97 - Friedel Bridge\CADD\Microstation\CADD Drawings\0318092-2\Fcbrtcr.dgn



C = 0 Sq. Ft.  
 F = 0 Sq. Ft.

**17 + 40.68**

C = 92 Sq. Ft.  
 F = 37 Sq. Ft.

**17 + 25.00**

USER NAME = rynec, wirtjes	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20,0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/29/2021	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ALBERS LANE  
 CROSS SECTIONS**

SCALE: SHEET 14 OF 14 SHEETS STA. 17+25.00 TO STA 17+40.68

M.U.N. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
901	17-00032-00-BR	MADISON	68	68
FRIEDEL BRIDGE IMPROVEMENTS		CONTRACT NO. 97758		
ILLINOIS		FED. AID PROJECT		