

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	1
		ILLINOIS	CONTRACT NO. 85731	

01-20-2023 LETTING ITEM 069

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**PLANS FOR FEDERAL AID
BRIDGE REPLACEMENT**

FAS ROUTE 0079
(MILLEDGEVILLE ROAD) OVER BUFFALO CREEK
SECTION 20-00326-00-BR
PROJECT HJF9(799)
OGLE COUNTY

C-92-049-21

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR INDEX OF HIGHWAY STANDARDS, SEE SHEET NO. 2

TRAFFIC DATA

FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR
POSTED SPEED LIMIT = 55 MPH
DESIGN SPEED LIMIT = 50 MPH
2022 ADT = 800
2042 ADT = 1,200

BRIDGE REPLACEMENT
BEGINS STA 385+38.00
ENDS STA 393+70.00
EXIST SN 071-3005
PROP SN 071-3348



SA
STRAND ASSOCIATES
1170 SOUTH HOBOLT ROAD
JOLIET, ILLINOIS 60431
815-744-4202
IDPR# 102 18A-001273

STRAND ASSOCIATES, INC.
NATHAN J. RICK, P.E., S.E.
THIS STAMP APPLIES TO
DRAWINGS NO. 16 TO 53
LICENSE NO. 081-007039

LICENSED PROFESSIONAL ENGINEER
NATHAN D. RICK
081-007039
STATE OF ILLINOIS

DATE: 11/9/22 EXP: 11-30-2024

STRAND ASSOCIATES, INC.
MATTHEW J. GAZDZIAK, P.E.
THIS STAMP APPLIES TO
DRAWINGS NO. 1 TO 15 AND
54 TO 62
LICENSE NO. 062.071644

LICENSED PROFESSIONAL ENGINEER
MATTHEW JOSEPH
GAZDZIAK
062.071644
STATE OF ILLINOIS

DATE: 11/9/2022 EXP: 11-30-2023

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

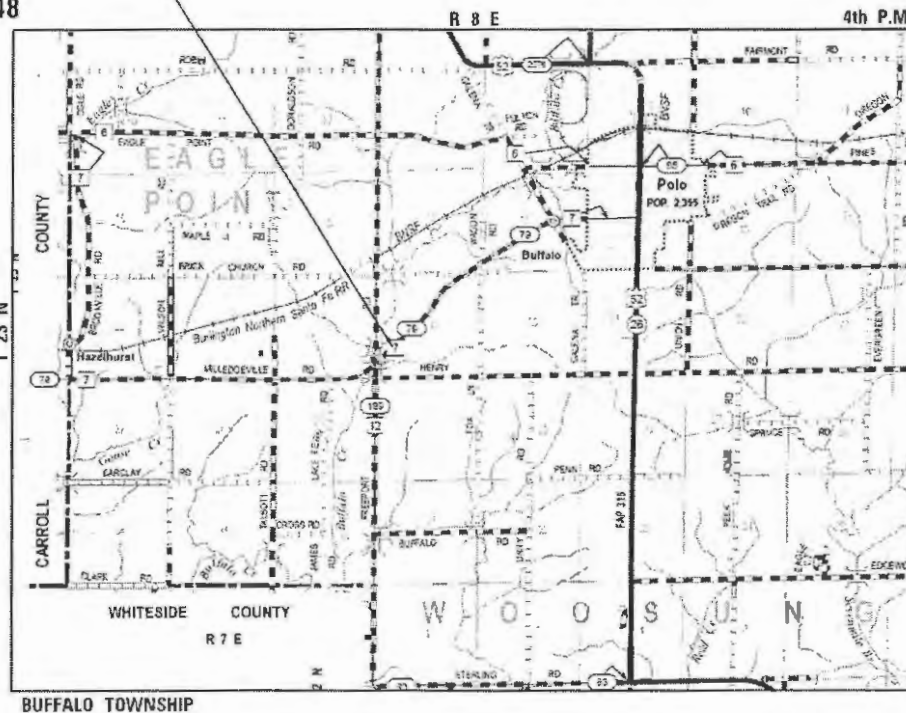
APPROVED NOVEMBER 4, 2022

PASSED 11/16/2022

RELEASING FOR BID BASED ON LIMITED REVIEW 11/16/2022

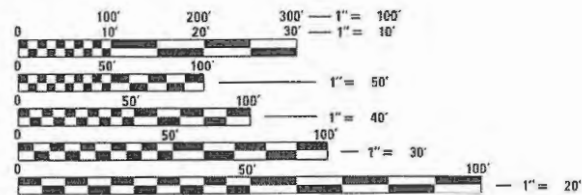
OGLE COUNTY ENGINEER
DISTRICT TWO ENGINEER OF LOCAL ROADS AND STREETS
REGION TWO ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS



GROSS LENGTH = 832 FT. = 0.16 MILE

NET LENGTH = 832 FT. = 0.16 MILE



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

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

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES, INDEX OF DRAWINGS, STANDARDS, AND COMMITMENTS
3 TO 7	SUMMARY OF QUANTITIES
8	TYPICAL SECTIONS
9	SCHEDULE OF QUANTITIES
10	ALIGNMENT, TIES, AND BENCHMARKS
11 TO 12	PLAN AND PROFILE DRAWINGS
13	SUGGESTED TRAFFIC CONTROL AND DETOUR PLAN
14	LANDSCAPING AND EROSION CONTROL NOTES
15	LANDSCAPING AND EROSION CONTROL DRAWINGS
16 TO 53	STRUCTURAL DRAWINGS
54 TO 55	DETAILS
56 TO 62	CROSS SECTIONS

IDOT HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMALS OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420406	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB
515001-04	NAME PLATE FOR BRIDGES
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-18	TRAFFIC BARRIER TERMINAL, TYPE 6
635001-02	DELINEATORS
701901-08	TRAFFIC CONTROL DEVICES
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
725001-01	OBJECT AND TERMINAL MARKERS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 22-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (TWO-LANE TWO WAY RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC)

COMMITMENTS

THERE ARE NO COMMITMENTS FOR THIS PROJECT.

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE DONE ACCORDING TO THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JAN. 1, 2022, THE DETAILS IN THESE PLANS, AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL PERFORM ALL CONSTRUCTION ACTIVITIES DURING DAYLIGHT HOURS.
- THE SCALE SHOWN ON THE DRAWINGS APPLIES ONLY TO FULL SIZE PLANS AND NOT TO THE REDUCED SIZE PLANS. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- EXISTING STRUCTURES (INCLUDING FOUNDATIONS, WELLS, CISTERN, WALLS, OR OTHER UNDERGROUND STRUCTURES) WITHIN THE RIGHT OF WAY SHALL BE REMOVED IN ACCORDANCE WITH ARTICLE 501.04 AND 501.05 OF THE STANDARD SPECIFICATIONS, WITHOUT ADDITIONAL COMPENSATION, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS IN ACCORDANCE WITH THE LANDSCAPING AND EROSION CONTROL DRAWINGS.
- THE FINAL TOP FOUR INCHES OF SOIL IN ANY AREA DISTURBED BY THE CONTRACTOR SHALL BE FERTILE, FRIABLE, NATURAL LOAM, SURFACE SOIL, REASONABLY FREE OF SUBSOIL, CLAY LUMPS, BRUSH WEEDS AND OTHER LITTER AND FREE OF ROOT STUMPS, STONES AND OTHER MATERIAL HARMFUL TO PLANT GROWTH. TOPSOIL MUST MEET REQUIREMENTS OF ARTICLE 1081.05.
- THE CONTRACTOR SHALL ENSURE ALL PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF WORK.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS, MONUMENTS AND RIGHT OF WAY PINS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. ANY PROPERTY MARKERS, SECTION OR SUBSECTION MONUMENTS UNLESS REFERENCED, DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN ACCESS TO FIELD, RESIDENTIAL, COMMERCIAL, AND AGRICULTURAL ENTRANCES AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION, DIRECTION AND MEANS/METHODS OF CONSTRUCTION.
- QUANTITIES AND ASSOCIATED PAY ITEMS FOR EARTHWORK, LANDSCAPE RESTORATION, AND EROSION CONTROL WERE DEVELOPED ACCORDING TO ONLY THE NECESSARY GRADING FOR THE PROJECT PROPOSED AS SHOWN IN THE CROSS SECTIONS. AREAS DISTURBED BEYOND THE SLOPE INTERCEPTS OR WITHIN THE LIMITS OF IMPROVEMENT SHALL HAVE EROSION CONTROL AND LANDSCAPING RESTORATION ACCORDING TO THE ADJACENT REQUIREMENTS SHOWN IN THE DRAWINGS. THE GROUND SHALL BE GRADED AND RESTORED TO MATCH THE EXISTING PRE-CONSTRUCTION CONDITIONS. ALL WORK DESCRIBED ABOVE THAT IS BEYOND THE SLOPE INTERCEPTS WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF THE VARIOUS ESTABLISHED PAY ITEMS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.
- DAMAGE TO PAVEMENT OR ANY OTHER PORTION OF THE ROADWAY NOT SPECIFIED TO BE REMOVED AND REPLACED SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I OR TYPE II BARRICADE USED. ONE (1) WEIGHTED SANDBAG SHALL BE PLACED ACROSS EACH BOTTOM RAIL.
- MATERIAL EXCAVATED FROM THE CHANNEL SHALL NOT BE RETURNED TO THE WATERWAY.
- GRADING AND SHAPING DITCHES WILL NOT BE PAID FOR SEPARATELY AND SHOULD BE INCLUDED IN THE COST OF EARTH EXCAVATION.
- REMOVAL OF TREES WITH A DIAMETER GREATER THAN 6" WILL BE COMPLETED BY THE OGLE COUNTY HIGHWAY DEPARTMENT IN ADVANCE OF CONSTRUCTION

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, INDEX OF DRAWINGS,
STANDARDS, AND COMMITMENTS**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.S	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	2
CONTRACT NO.			85731	
ILLINOIS		FED. AID PROJECT		

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1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200

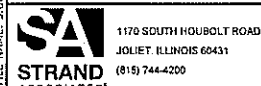
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PLOT DATE = 11/9/2022	DATE - 11/9/2022	REVISED -

BRIDGE REPLACEMENT
0010
80% FEDERAL
20% LOCAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	RURAL
* 20200100	EARTH EXCAVATION	CU YD	1,436	1,436
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	68	68
20300100	CHANNEL EXCAVATION	CU YD	2,090	2,090
* 20400800	FURNISHED EXCAVATION	CU YD	851	851
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	4,439	4,439
* 25000210	SEEDING, CLASS 2A	ACRE	1.0	1.0
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	83	83
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	83	83
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	83	83
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	4,439	4,439
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	92	92
28000305	TEMPORARY DITCH CHECKS	FOOT	60	60
28000400	PERIMETER EROSION BARRIER	FOOT	1,241	1,241
28001200	TEMPORARY HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	4,439	4,439
28100109	STONE RIPRAP, CLASS A5	SQ YD	1,174	1,174

* INDICATES SPECIAL PROVISION △ SPECIALTY ITEMS

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET 1 OF 5 SHEETS STA. TO STA.

F.A.S	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	3
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				

BRIDGE REPLACEMENT
0010

80% FEDERAL
20% LOCAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	RURAL
28200200	FILTER FABRIC	SQ YD	1,209	1,209
* 30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	68	68
* 30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	2,425	2,425
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	5,165	5,165
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1,046	1,046
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	28	28
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	503	503
40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	227	227
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SQ YD	302	302
44000100	PAVEMENT REMOVAL	SQ YD	2,028	2,028
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	117	117
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
50200100	STRUCTURE EXCAVATION	CU YD	1,148	1,148
50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1	1
50201102	COFFERDAM (TYPE 1) (LOCATION - 2)	EACH	1	1

* INDICATES SPECIAL PROVISION Δ SPECIALTY ITEMS

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	DATE - 11/9/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES			
SCALE:	SHEET 2	OF 5	SHEETS
	STA.	TO STA.	

F.A.S	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	4
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	

BRIDGE REPLACEMENT
0010
80% FEDERAL
20% LOCAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	RURAL
50300225	CONCRETE STRUCTURES	CU YD	531.7	531.7
50300255	CONCRETE SUPERSTRUCTURE	CU YD	356.2	356.2
50300260	BRIDGE DECK GROOVING	SQ YD	963	963
50300265	SEAL COAT CONCRETE	CU YD	82.6	82.6
50300300	PROTECTIVE COAT	SQ YD	1,221	1,221
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	105.3	105.3
50401315	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE BEAMS, IL36N	FOOT	1,078	1,078
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	187,220	187,220
51201600	FURNISHING STEEL PILES HP12X53	FOOT	1,710	1,710
51201800	FURNISHING STEEL PILES HP14X73	FOOT	1,224	1,224
51202305	DRIVING PILES	FOOT	2,934	2,934
51203600	TEST PILE STEEL HP12X53	EACH	2	2
51203800	TEST PILE STEEL HP14X73	EACH	2	2
51204650	PILE SHOES	EACH	76	76
51500100	NAME PLATES	EACH	1	1

* INDICATES SPECIAL PROVISION Δ SPECIALTY ITEMS

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PLOT SCALE = 40.0000' / 1"	DATE = 11/9/2022	REVISED =
PLOT DATE = 11/9/2022		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES			
SCALE:	SHEET 3	OF 5 SHEETS	STA. TO STA.

F.A.S	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	5
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				

BRIDGE REPLACEMENT
0010

80% FEDERAL
20% LOCAL

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	RURAL
* 52000110	PREFORMED JOINT STRIP SEAL	FOOT	140	140
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	24	24
52100520	ANCHOR BOLTS, 1"	EACH	24	24
52100540	ANCHOR BOLTS, 1 1/2"	EACH	24	24
* 58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	205	205
58700300	CONCRETE SEALER	SQ FT	1,420	1,420
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	121	121
60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	168	168
△ 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	550	550
△ 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4
△ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4
* 63200310	GUARDRAIL REMOVAL	FOOT	331	331
67100100	MOBILIZATION	L SUM	1	1
* 72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	1	1
72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	2	2

* INDICATES SPECIAL PROVISION △ SPECIALTY ITEMS

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PLOT DATE = 11/9/2022	DATE - 11/9/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET 4 OF 5 SHEETS STA. TO STA.

F.A.S	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 85731	

BRIDGE REPLACEMENT
0010
80% FEDERAL
20% LOCAL

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	RURAL
Δ	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4
Δ	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,892	1,892
Δ	78200006	GUARDRAIL REFLECTORS, TYPE B	EACH	12	12
*	X4811800	AGGREGATE SHOULDERS (SPECIAL)	SQ YD	401	401
*	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1
*	XX006821	CONCRETE TRUCK WASHOUT	L SUM	1	1
*	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1
*	Z0018002	DRAINAGE SCUPPERS, DS-11	EACH	4	4
*	Z0022800	FENCE REMOVAL	FOOT	37	37
#	Z0076600	TRAINEES	HOUR	1,000	1,000
#	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1,000	1,000

* INDICATES SPECIAL PROVISION Δ SPECIALTY ITEMS #0042

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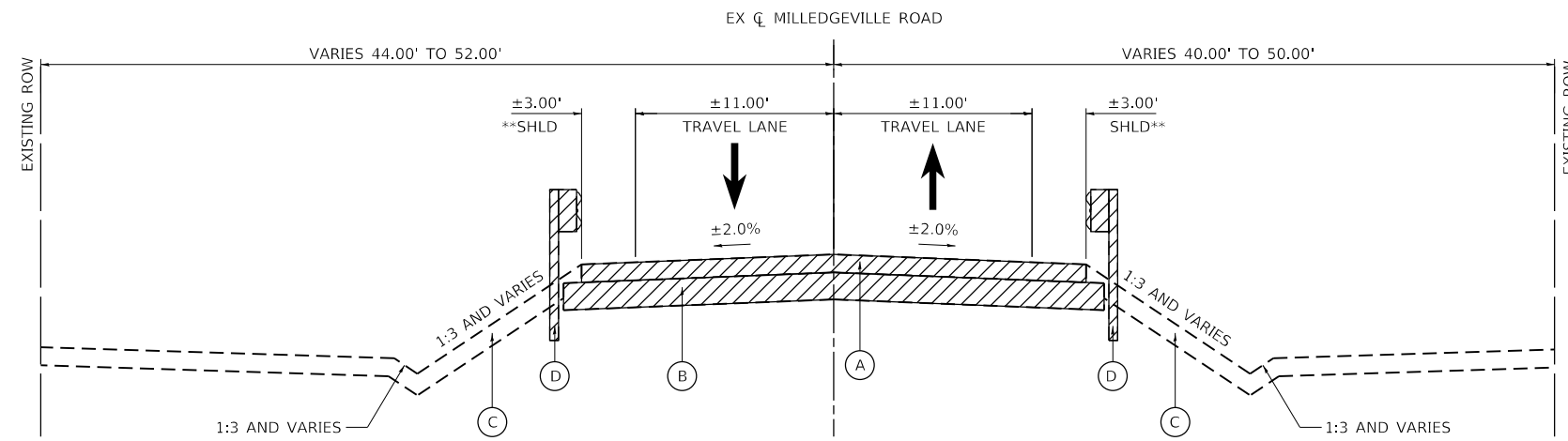


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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

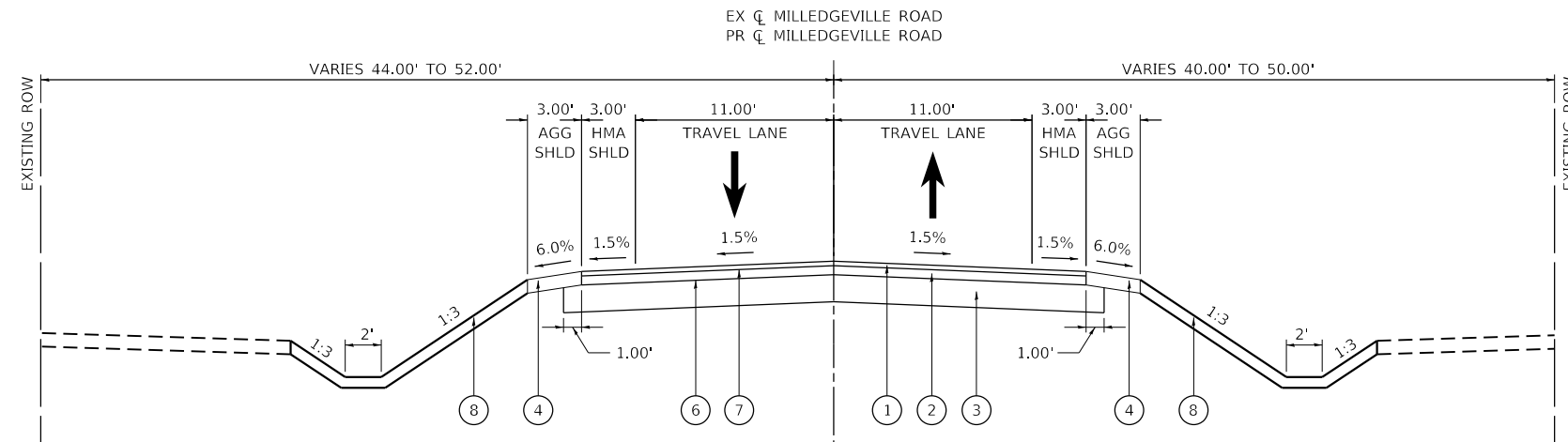
SUMMARY OF QUANTITIES			
SCALE:	SHEET 5	OF 5 SHEETS	STA. TO STA.

F.A.S	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	7
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				



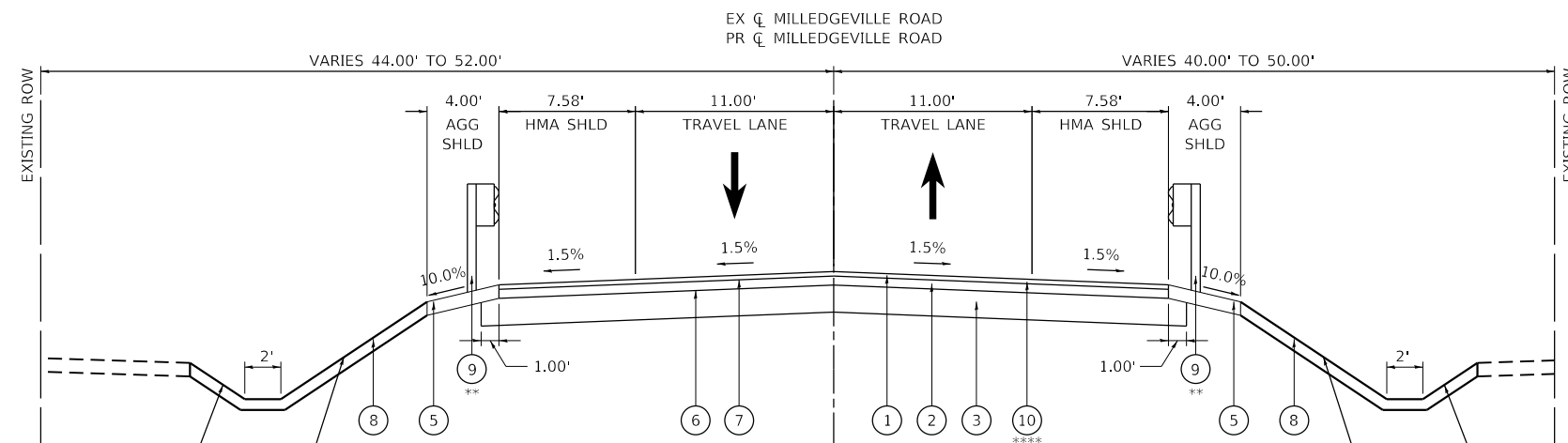
EXISTING TYPICAL SECTION

STA. 385+38.00 TO STA. 393+70.00
 *BRIDGE OMISSION FROM STA. 387+47.48 TO STA. 389+22.39
 **GUARDRAIL LOCATED OUTSIDE SHOULDER FROM STA. 386+22.61 TO STA. 390+01.66



PROPOSED TYPICAL SECTION

STA. 385+38.00 TO STA. 385+56.62
 STA. 393+43.25 TO STA. 393+70.00



PROPOSED TYPICAL SECTION

STA. 385+56.62 TO STA. 393+43.25
 * BRIDGE OMISSION FROM STA. 387+30.94 TO STA. 389+22.06
 ** SEE PLAN AND PROFILE DRAWINGS FOR GUARDRAIL LOCATIONS
 *** SEE CROSS SECTIONS FOR EMBANKMENT GRADING
 **** SEE PLAN AND PROFILE DRAWINGS FOR LOCATIONS OF PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB

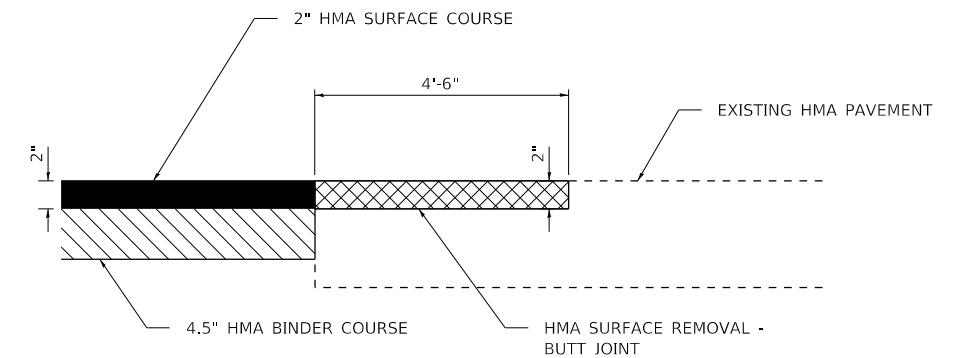
EXISTING LEGEND

- (A) HOT-MIX ASPHALT PAVEMENT 8" AND VARIES
- (B) SUBBASE STONE 6" AND VARIES
- (C) 12" TOPSOIL (ANTICIPATED)
- (D) GUARDRAIL
- [Hatched Box] REMOVAL ITEMS

PROPOSED LEGEND

- (1) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5 N50, 2"
- (2) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 4.5"
- (3) AGGREGATE SUBGRADE IMPROVEMENT, 12"
- (4) AGGREGATE SHOULDERS, TYPE B 6"
- (5) AGGREGATE SHOULDERS (SPECIAL), 6"
- (6) BITUMINOUS MATERIALS (PRIME COAT)
- (7) BITUMINOUS MATERIALS (TACK COAT)
- (8) TOPSOIL, SEEDING, NUTRIENTS, AND EROSION CONTROL BLANKET (SEE LANDSCAPING AND EROSION CONTROL DRAWINGS FOR MORE INFORMATION)
- (9) STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- (10) PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB

BUTT JOINT DETAIL



HOT-MIX ASPHALT MIXTURE REQUIREMENTS

	SURFACE	BINDER
PG	PG 58-28	PG 58-28
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION	IL 9.5	IL 19.0
FRICTION AGGREGATE	D	N/A
MIXTURE WEIGHT	112 LB / SQ YD. / IN.	N/A
QUALITY MANAGEMENT PROGRAM	QC/QA	QC/QA
SUBLOT SIZE	N/A	N/A
MATERIAL TRANSFER DEVICE	N/A	N/A

NOTES:

1. THE BINDER COURSE (4.5" TOTAL THICKNESS) SHALL BE PLACED IN TWO LIFTS.

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SA
 1170 SOUTH HOUBOLT ROAD
 JOLIET, ILLINOIS 60431
 (815) 744-4200
 ASSOCIATES*

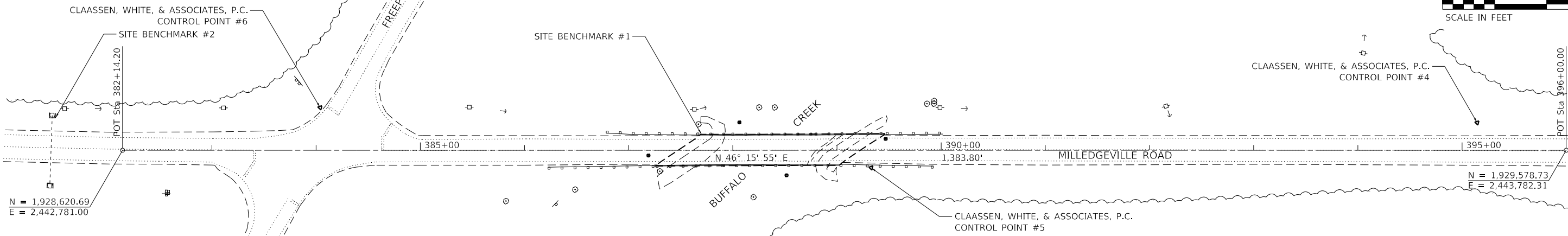
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	DATE - 11/9/2022	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS			
SCALE:	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.S	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	8
			CONTRACT NO. 85731	
ILLINOIS FED. AID PROJECT				

85731



SITE BENCHMARK #1

ELEVATION=767.876 (NAVD 88)
CUT SQUARE IN CONCRETE HEADWALL AT THE NORTHWEST CORNER OF A BRIDGE OVER BUFFALO CREEK ON MILLEDGEVILLE ROAD, EAST OF FREEPORT ROAD.

SITE BENCHMARK #2

ELEVATION=762.478 (NAVD 88)
CUT SQUARE ON THE EASTERLY END OF A CONCRETE HEADWALL ON THE NORTH SIDE OF MILLEDGEVILLE ROAD APPROXIMATELY 260' WESTERLY OF FREEPORT ROAD.

NOTES:

1. BEARINGS, DISTANCES, AND COORDINATES SHOWN HEREON REFERENCE THE ILLINOIS STATE PLANE COORDINATE SYSTEM, WEST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT).
2. ELEVATION SHOWN HEREON REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

CONTROL POINT #6

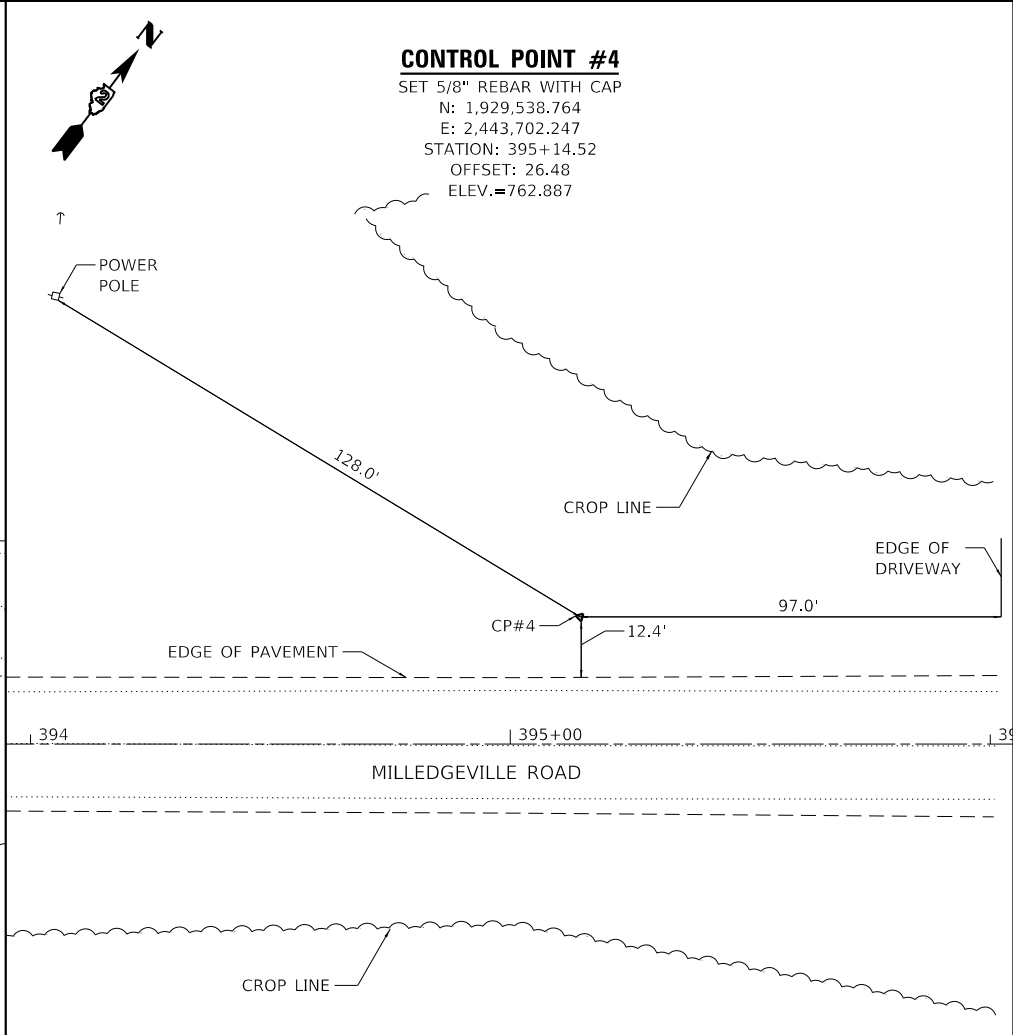
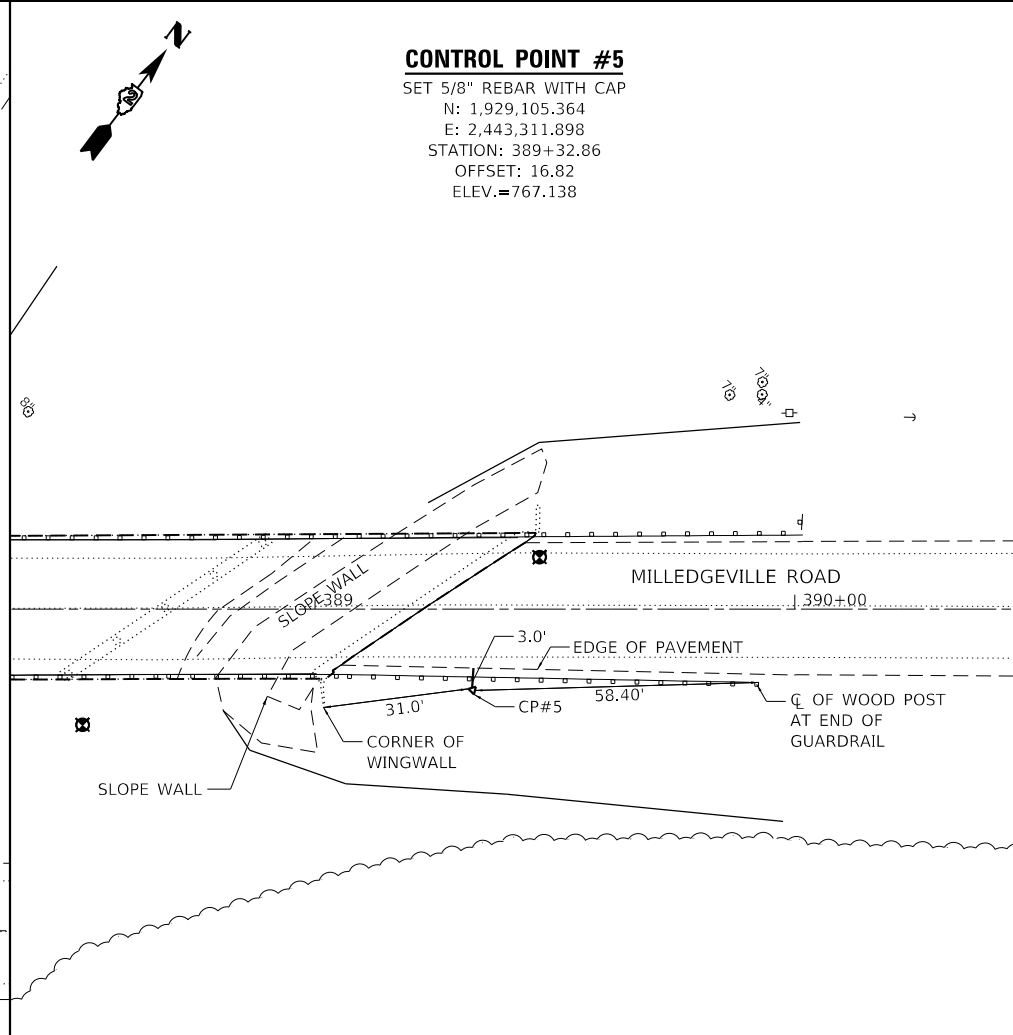
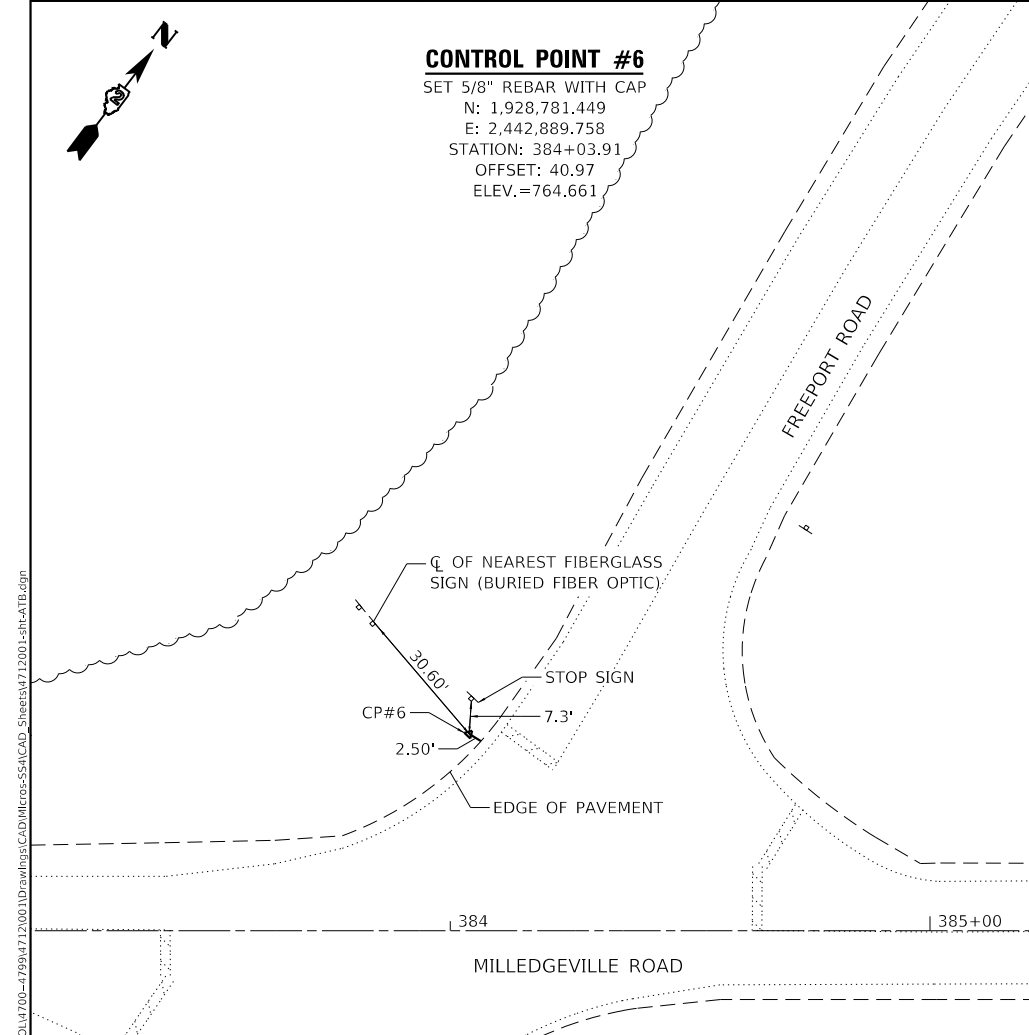
SET 5/8" REBAR WITH CAP
N: 1,928,781.449
E: 2,442,889.758
STATION: 384+03.91
OFFSET: 40.97
ELEV.=764.661

CONTROL POINT #5

SET 5/8" REBAR WITH CAP
N: 1,929,105.364
E: 2,443,311.898
STATION: 389+32.86
OFFSET: 16.82
ELEV.=767.138

CONTROL POINT #4

SET 5/8" REBAR WITH CAP
N: 1,929,538.764
E: 2,443,702.247
STATION: 395+14.52
OFFSET: 26.48
ELEV.=762.887



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SA STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200

USER NAME = MattG	DESIGNED - MIG	REVISED -
	DRAWN - CJH	REVISED -
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PLOT DATE = 11/9/2022	DATE - 11/9/2022	REVISED -

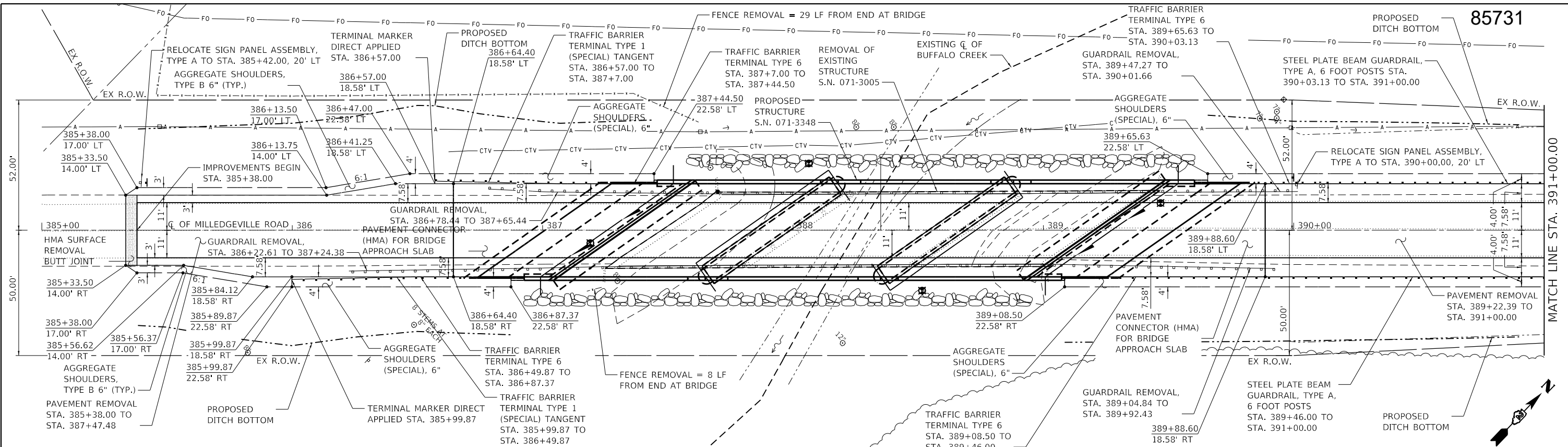
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ALIGNMENT, TIES, AND BENCHMARKS

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

F.A.S	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	10
				CONTRACT NO. 85731
				ILLINOIS FED. AID PROJECT

DATE	
BY	
PLAN	SURVEYED
	PLOTTED
	ALIGNED
	CHECKED
	STRUCTURE
	NOTATION
	REVISED
	NO.



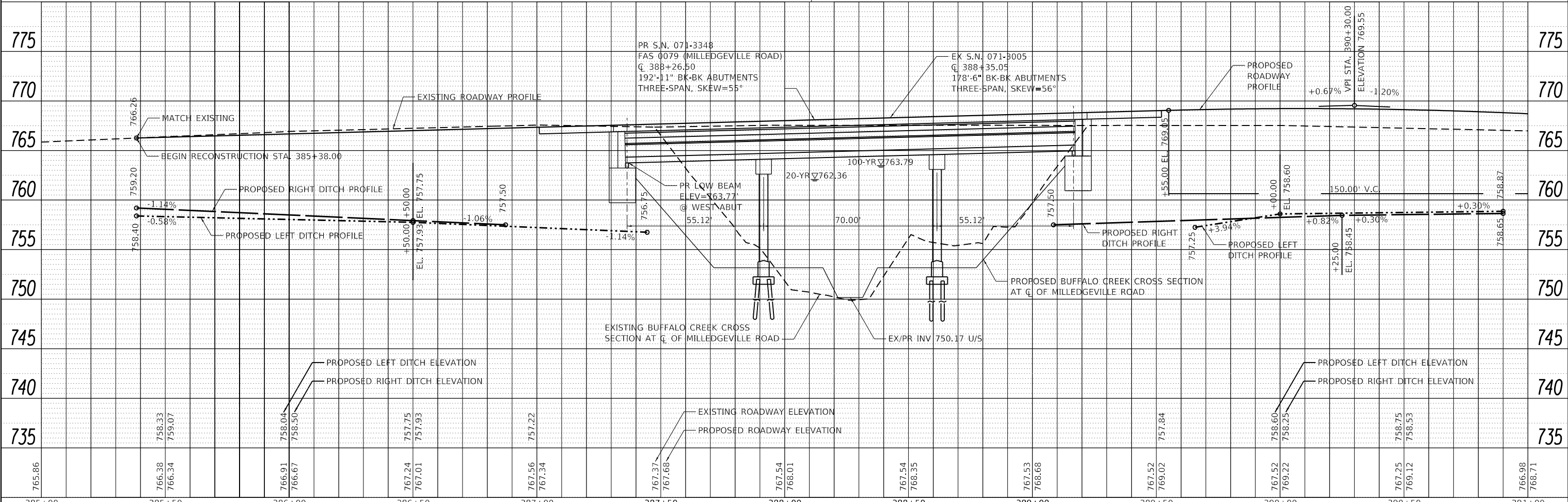
NOTE 1: HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50, 2" AND HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 4.5" ARE TO BE USED FOR BOTH ROADWAY AND PAVED SHOULDERS.

NOTE 2: PAINT PAVEMENT MARKING - LINE 4" ARE TO BE USED FOR BOTH EDGE OF TRAVELED WAY MARKINGS (SOLID WHITE) AND CENTERLINE MARKINGS (DASHED YELLOW, 10' MARKINGS WITH 30' GAPS)

NOTE 3: REMOVAL OF TREES WITH A DIAMETER GREATER THAN 6" WILL BE COMPLETED BY THE OGLE COUNTY HIGHWAY DEPARTMENT IN ADVANCE OF CONSTRUCTION.

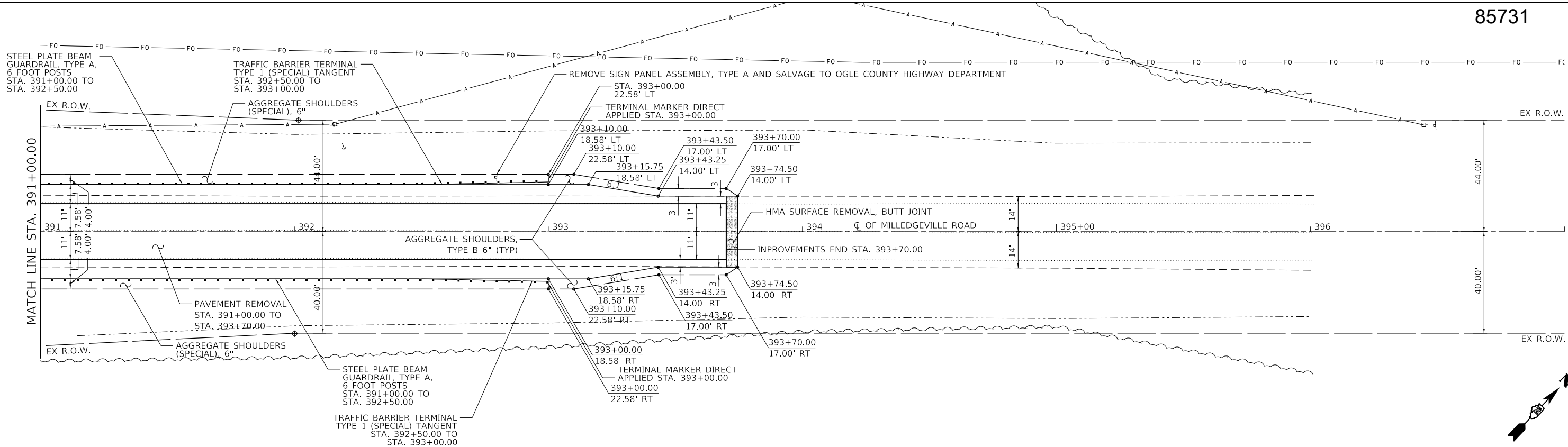


DATE	
BY	
PROFILE	SURVEYED
	PLOTTED
	GRADES
	CHECKED
	STRUCTURE
	NOTATION
	REVISED
	NO.



<p>1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200</p>	USER NAME = MattG DESIGNED - MIG DRAWN - DJW CHECKED - AJS PLOT DATE = 11/9/2022	REVISIONS REVISIONS REVISIONS REVISIONS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE DRAWINGS SCALE: 1"=20' SHEET 1 OF 2 SHEETS STA. 385+00.00 TO STA. 391+00.00	F.A.S. RTE. 0079 SECTION 20-00326-00-BR COUNTY OGLE TOTAL SHEETS 62 SHEET NO. 11 CONTRACT NO. 85731 ILLINOIS FED. AID PROJECT
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PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNMENT CHECKED	
	NOTE BOOK NO.	
	CADD FILE NAME	



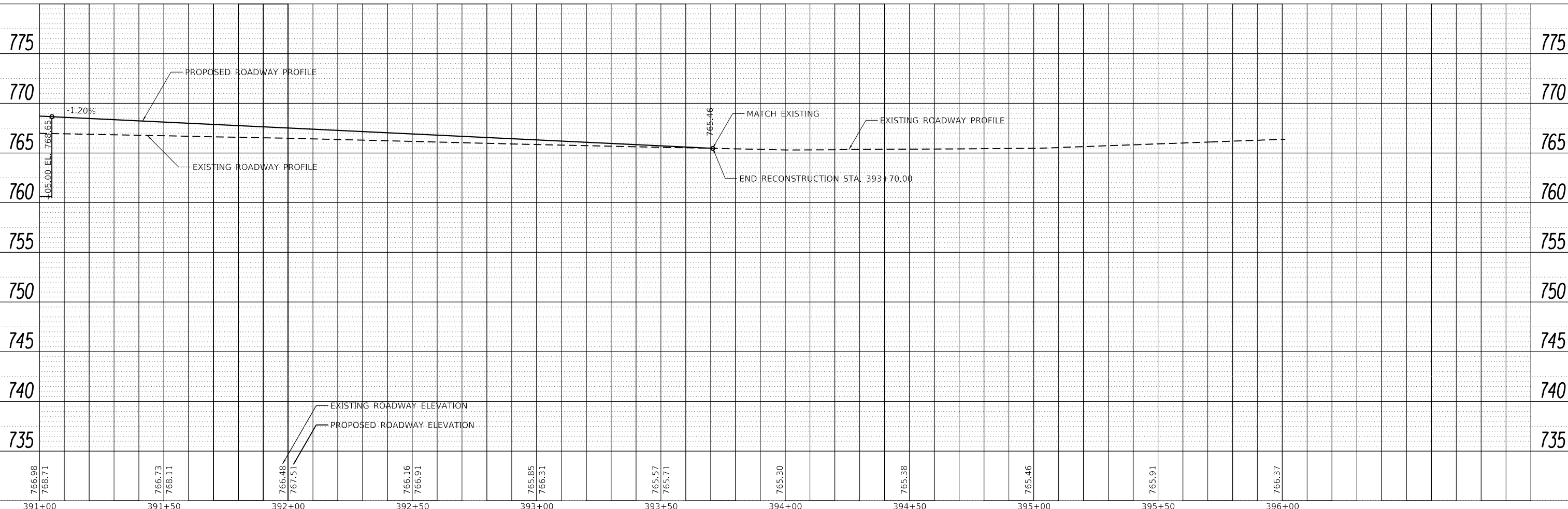
NOTE 1: HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50, 2" AND HOT -MIX ASPHALT BINDER COURSE, IL-19.0, N50, 4.5" ARE TO BE USED FOR BOTH ROADWAY AND PAVED SHOULDERS.

NOTE 2: PAINT PAVEMENT MARKING - LINE 4" ARE TO BE USED FOR BOTH EDGE OF TRAVELED WAY MARKINGS (SOLID WHITE) AND CENTERLINE MARKINGS (DASHED YELLOW, 10' MARKINGS WITH 30' GAPS)

NOTE 3: REMOVAL OF TREES WITH A DIAMETER GREATER THAN 6" WILL BE COMPLETED BY THE OGLE COUNTY HIGHWAY DEPARTMENT IN ADVANCE OF CONSTRUCTION.



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



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768.71	768.11	767.51	766.91	766.31	765.71	765.30	765.38	765.46	765.91	766.37
391+00	391+50	392+00	392+50	393+00	393+50	394+00	394+50	395+00	395+50	396+00

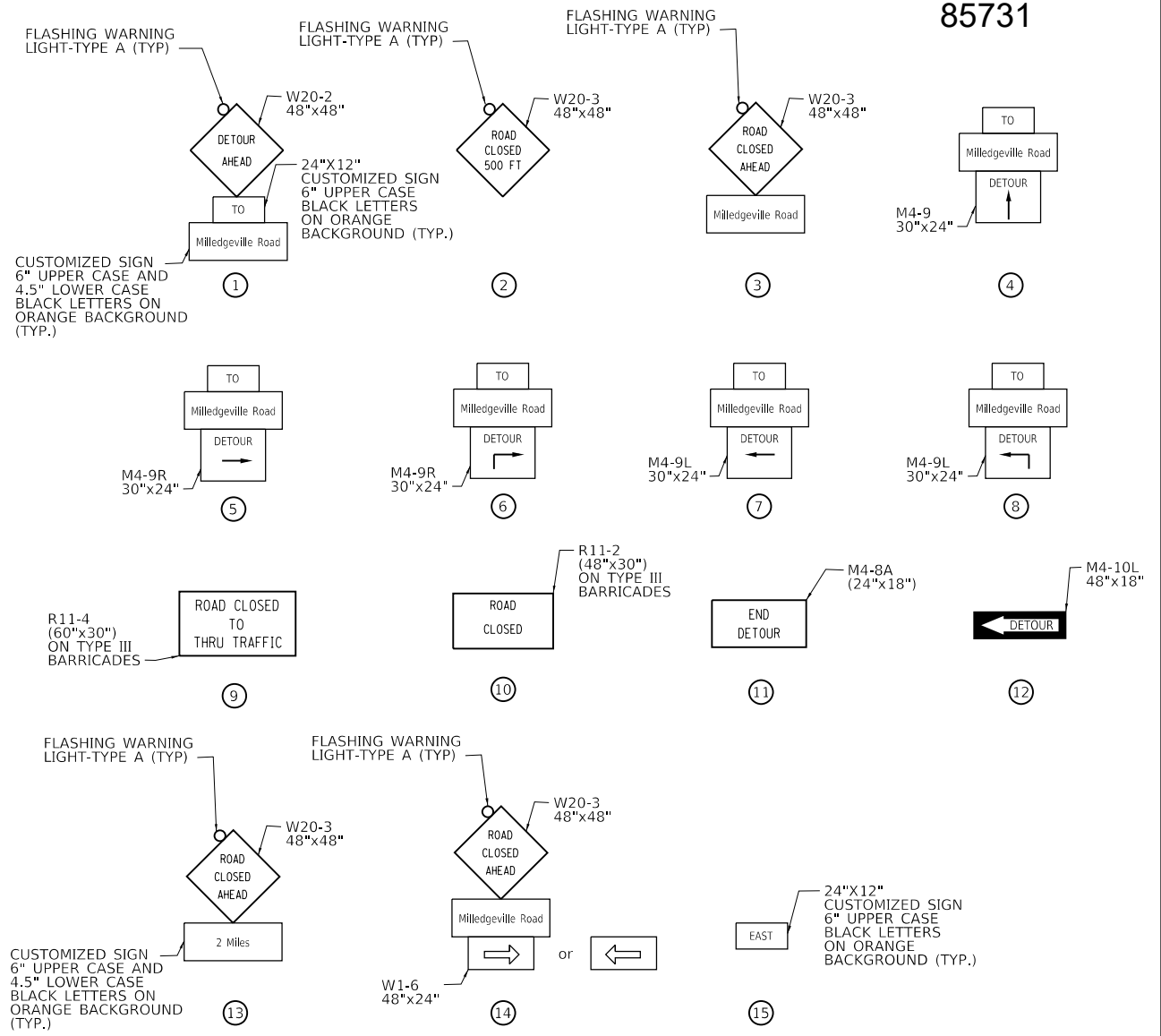
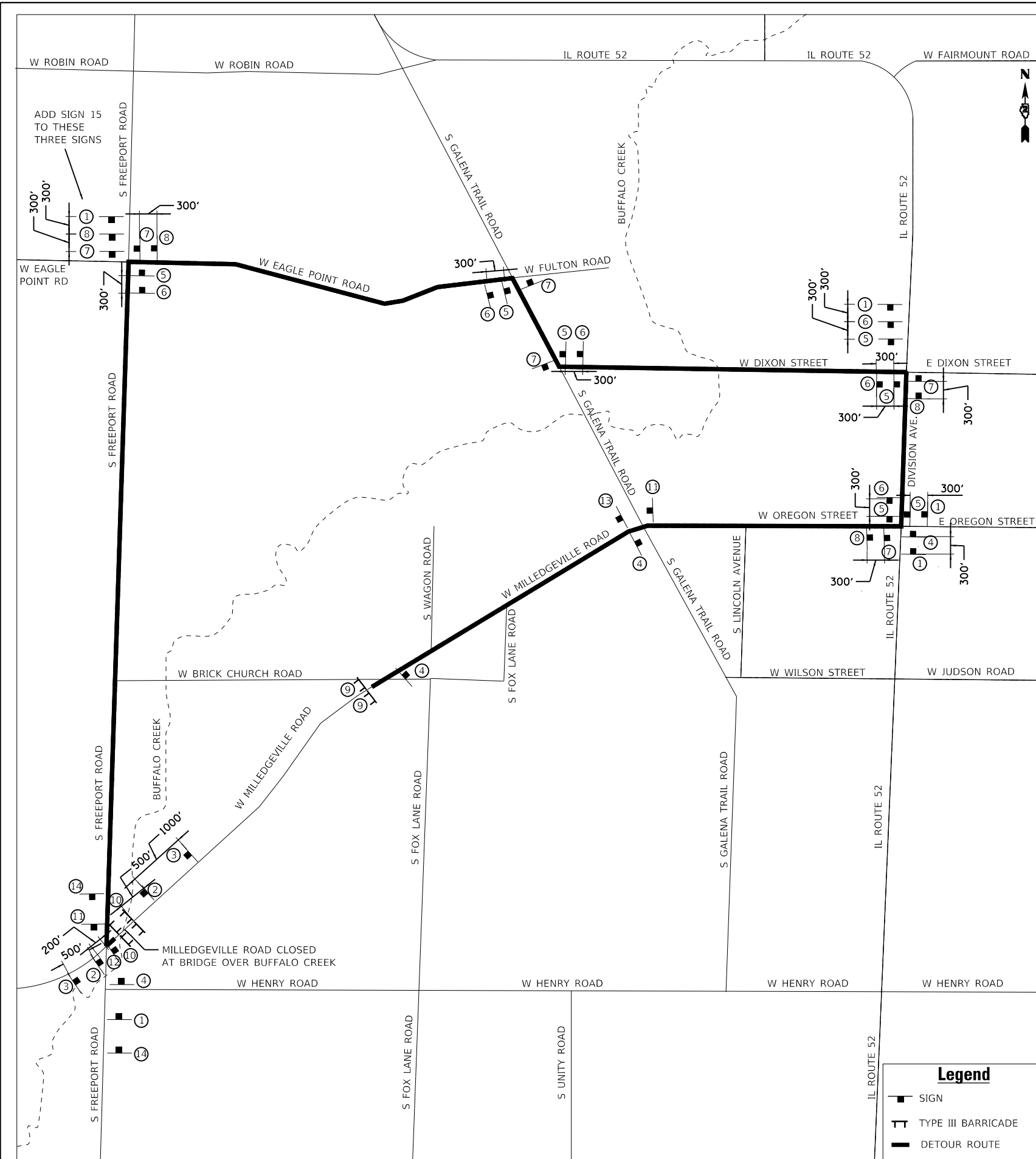
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE DRAWINGS

SCALE: 1"=20' SHEET 2 OF 2 SHEETS STA. 391+00.00 TO STA. 396+00.00

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	12
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				





MAINTENANCE OF TRAFFIC GENERAL NOTES

1. THE CONTRACTOR SHALL CONTACT THE ENGINEER AND THE FOLLOWING ENTITIES A MINIMUM OF 72 HOURS PRIOR TO PROVIDING THE DETOUR AND A MINIMUM OF 72 HOURS BEFORE THE DETOUR IS TO BE REMOVED:

- OGLE COUNTY HIGHWAY DEPARTMENT
JEREMY CIESIEL, COUNTY ENGINEER
815-732-2851
- CITY OF POLO
SYDNEY BARTELT, CITY CLERK
815-946-3514
- IDOT DISTRICT TWO
KEVIN HENSON
KEVIN.HENSON@ILLINOIS.GOV

Legend

- SIGN
- ▬ TYPE III BARRICADE
- ▬ DETOUR ROUTE

MODEL Dwg.dgn
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	DATE - 11/9/2022	REVISED -


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED TRAFFIC CONTROL AND DETOUR PLAN

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

F.A.S	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	13
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				

LEGEND

 SEEDING, CLASS 2A, AND HEAVY DUTY EROSION CONTROL BLANKET *

 TEMPORARY DITCH CHECK

 PERIMETER EROSION BARRIER

* ALL DISTURBED AREAS SCHEDULED FOR PERMANENT SEEDING RESTORATION SHALL ALSO RECEIVE TEMPORARY HEAVY DUTY EROSION CONTROL SEEDING AND TEMPORARY EROSION CONTROL BLANKET AS NEEDED DURING CONSTRUCTION PER SECTION 280 OF THE STATE OF ILLINOIS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

* ALL PERMANENT SEEDING RESTORATION SHALL BE PLACED ON 4 INCHES OF NEW TOPSOIL IN ACCORDANCE WITH SECTION 211 OF THE STATE OF ILLINOIS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

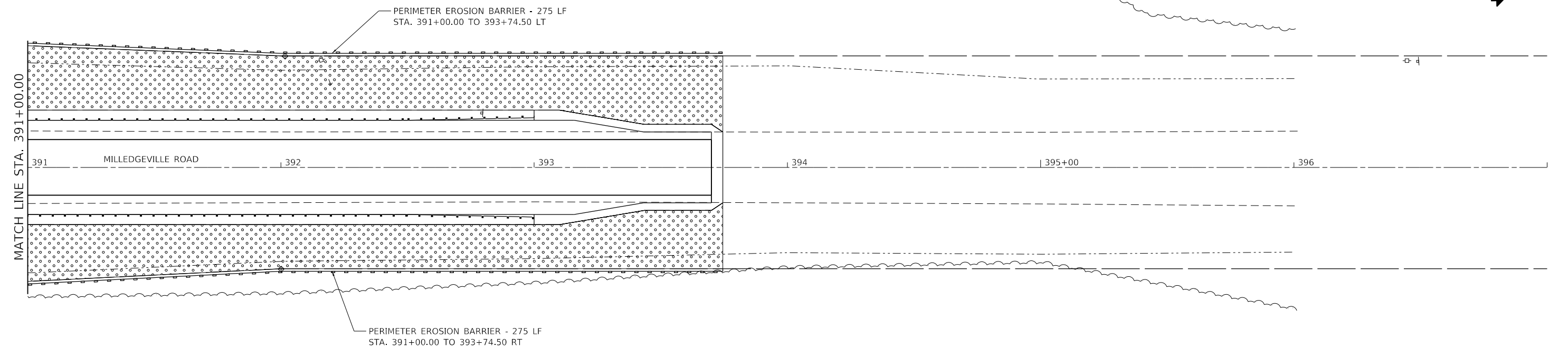
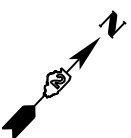
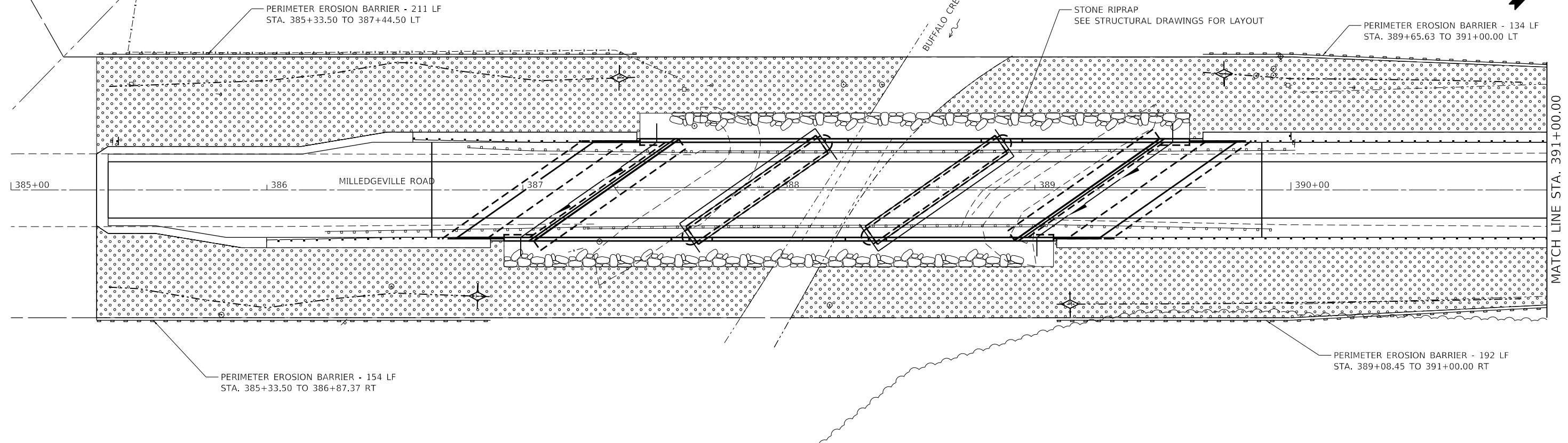
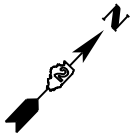
EROSION CONTROL AND LANDSCAPING GENERAL NOTES

1. REMOVAL OF TREES WITH A DIAMETER GREATER THAN 6" WILL BE COMPLETED BY THE OGLE COUNTY HIGHWAY DEPARTMENT IN ADVANCE OF CONSTRUCTION.
2. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED WITH 4" TOPSOIL AND SEEDING AS SHOWN ON THE DRAWINGS.
3. ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS SHALL BE PERMANENTLY STABILIZED.
4. TEMPORARY HEAVY DUTY EROSION CONTROL BLANKET SHALL BE USED ON ALL AREAS OF SOIL DISTURBANCES AND SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL, LATEST EDITION AND IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
5. EROSION CONTROL ITEMS ARE CONSIDERED TO BE HIGH PRIORITY ITEMS ON THIS CONTRACT. THE ENGINEER WILL IMPLEMENT ALL PROVISIONS OF THE SPECIFICATION NECESSARY TO ASSURE THAT EROSION CONTROL ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY MANNER. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES WHICH WILL POTENTIALLY CREATE ERODIBLE CONDITIONS.
6. PERIMETER EROSION BARRIER IS SHOWN OUTSIDE THE RIGHT-OF-WAY FOR CLARITY. PERIMETER EROSION BARRIER SHOULD BE PLACED 6" INSIDE THE RIGHT-OF-WAY IN THESE LOCATIONS.

ANTICIPATED CONSTRUCTION SEQUENCE

1. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL WITH PERIMETER EROSION BARRIER.
2. PERFORM BRUSH, BUSH, AND TREE (LESS THAN 6 INCH DIAMETER) REMOVAL, DEMOLITION, AND EARTHWORK NECESSARY FOR ROADWAY WIDENING.
3. PROVIDE TEMPORARY SEEDING AND TEMPORARY HEAVY DUTY EROSION CONTROL BLANKET ON ALL DISTURBED AREAS.
4. PERFORM TEMPORARY BYPASS AND DEWATERING OPERATIONS FOR IN-STREAM WORK ACCORDING TO CONTRACTOR'S APPROVED IN-STREAM WORK PLAN.
5. INSTALL REPLACEMENT STRUCTURE.
6. AFTER FINAL CONSTRUCTION OF ALL ROADWAY ITEMS, PERFORM FINAL LANDSCAPING AND EROSION CONTROL INSTALLATION. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL.

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SA STRAND ASSOCIATES
 1170 SOUTH HOUBOLT ROAD
 JOLIET, ILLINOIS 60431
 (815) 744-4200

USER NAME = MattG	DESIGNED - ACM	REVISED -
PLOT SCALE = 40,0000 ' / in.	DRAWN - ACM	REVISED -
PLOT DATE = 11/9/2022	CHECKED - AMS	REVISED -
	DATE - 11/9/2022	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

LANDSCAPING AND EROSION CONTROL DRAWINGS
 SCALE: 1"=20' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	15
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				

Benchmark: Elev. 767.88. Set cut square on top of concrete headwall at the NW corner of the Milledgeville Road bridge over Buffalo Creek.

Existing Structure: SN 071-3005 was built in 1938 as the Milledgeville Road over Buffalo Creek Bridge. The structure is a three-span bridge with W27x98 continuous steel superstructure supported on concrete pile bent abutments and piers on 16" to 18" precast concrete piles. In 1980, the outer 3'-3/4" of concrete deck was replaced on both sides with planar shoulder and steel guardrail railing. The structure is 178'-6" in length from back-to-back of abutments and 30'-4" wide out-to-out with 28'-0" of clear width. The structure is skewed forward and upstation facing north at 55°.

Traffic Control: The existing and proposed structure will be removed and reconstructed under full road closure. A posted detour route will be utilized to accommodate all traffic.

Salvage: None.

BUFFALO CREEK
BUILT 202X BY
OGLE COUNTY
SEC. 20-00326-00-BR
F.A.S. RTE. STA. 388+26.25
STR. NO. 071-3348
LOADING HL-93

NAME PLATE
(See Std. 515001)

DESIGN SPECIFICATIONS
2020 AASHTO LRFD Bridge Design
Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi (Substructure)
f'c = 4,000 psi (Superstructure)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50, HP Piles)

PRECAST PRESTRESSED UNITS

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

LOADING HL-93

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

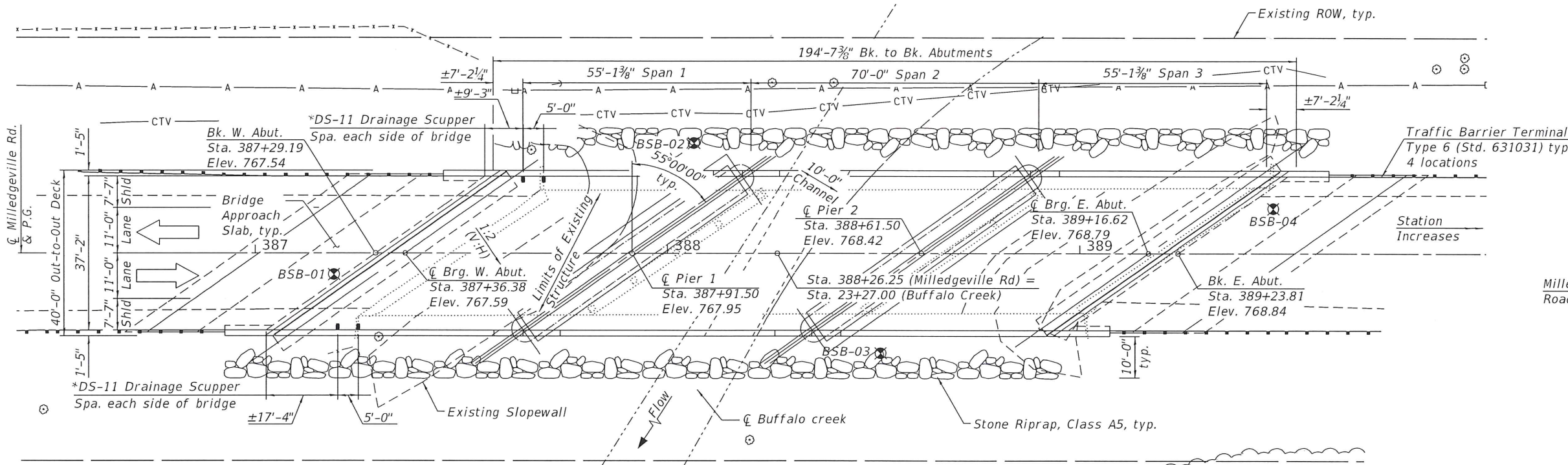
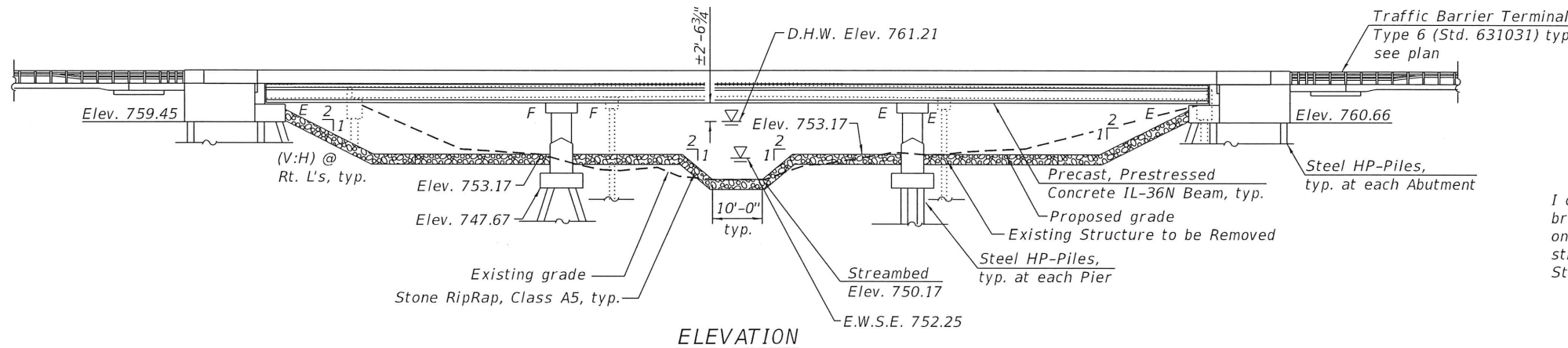
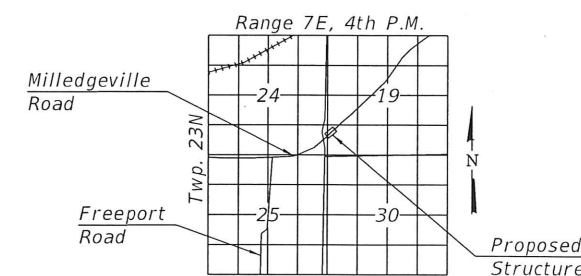
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.059g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.101g
Soil Site Class = C

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

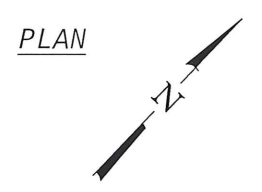


Date 11-09-2022
Elev. 11-2024



LEGEND

	Soil Boring
	Existing Aerial
	Existing R.O.W.
	Existing Cable
	Existing Fence



* Dimension taken from Bk. of Abut along inside face of Parapet.

MODEL: Page 1
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11/23/2022 9:11:30 AM



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CHECKED - NDR	REVISED -	
DRAWN - CJH	REVISED -	
CHECKED - 11/9/2022	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 071-3348
SHEET 1 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	16
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	

GENERAL NOTES

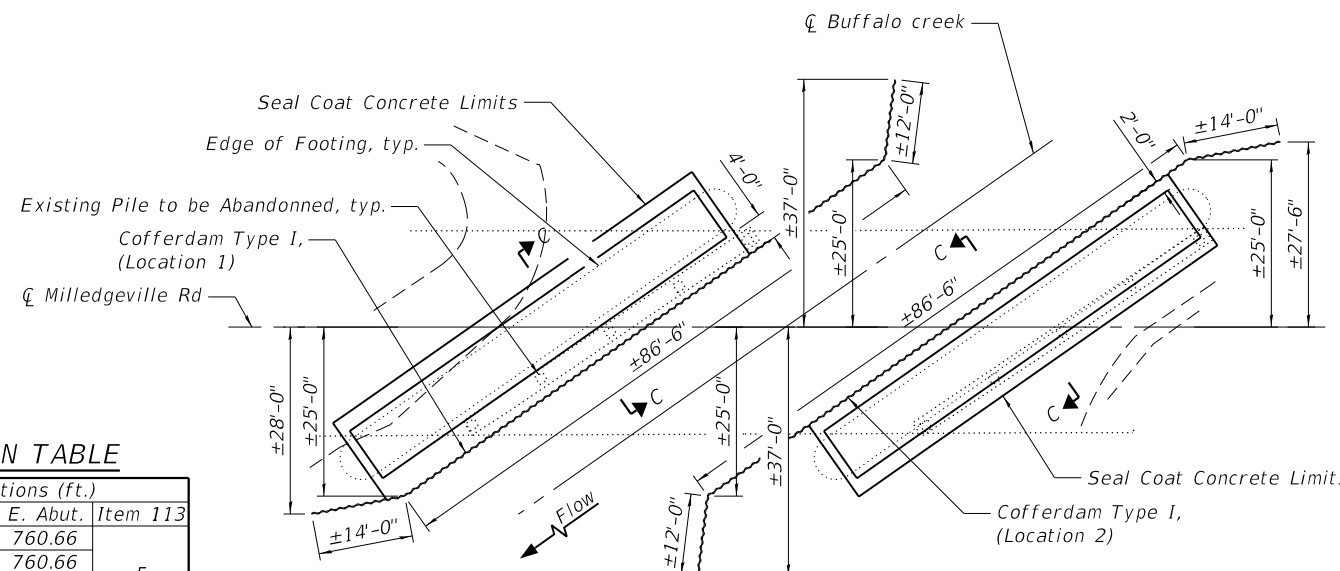
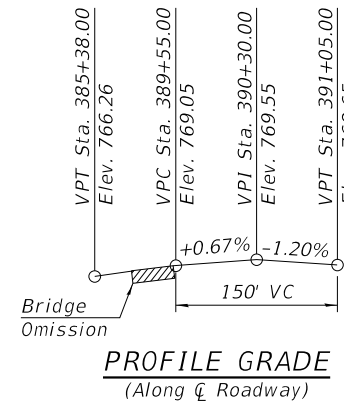
- Reinforcement bars designated (E) shall be epoxy coated.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Concrete Sealer shall be applied to the designated areas of the backwalls, bridge seats, and front faces of the abutments and pier caps.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- Seal coat thickness design is based on the Estimated Water Surface Elevation (EWSE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval (will need to get from Geotech) with the cofferdam design.
- The concrete for bridge decks finished according to Article 503.16(a) of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The machine used for finishing shall be set parallel to the skew for striking off and screeding the concrete.
- All (embedded and separate) bearing plates, side retainers, anchor bolts, nuts, washers, and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.
- H.S. bolts in bearing assembly shall be galvanized according to AASHTO M298 Class 50.

SCOPE OF WORK

- Completely remove existing superstructure and remove existing substructure to 1'-0" below the proposed channel grade.
- Construct new abutments supported on driven HP piles.
- Mitigate contraction scour and place stone rip rap in channel.
- Construct new piers supported on driven metal shell piles.
- Construct new fully composite superstructure with concrete bridge railing.
- Construct new Approach Slabs and guardrail end terminals.

INDEX OF SHEETS

S1	General Plan & Elevation
S2	General Notes & Total Bill of Materials
S3	Ex Cross Section / Substructure Removal
S4-S7	Top of Deck Slab Elevation
S8-S9	Approach Slab Elevations
S10	Deck Plan & Cross Section
S11	Deck & Parapet Details
S12	Concrete Parapet Slipforming Option
S13-S14	Approach Slab Plan
S15	Preformed Joint Strip Seal
S16	Drainage Scupper, DS-11
S17	Framing Plan
S18	Interior Moment & Reaction Tables
S19-S21	IL36N Beam Details
S22	Expansion Diaphragm Details
S23	Fixed Diaphragm Details
S24-S25	Expansion Bearing Details
S26-S27	Abutment Plan & Elevation
S28	Abutment Details
S29	Pier Plan & Elevation
S30	Pier Details
S31	Abutment Drainage Details / Riprap Layout
S32	HP Pile Details
S33-S34	Soil Borings
S35-S38	Existing Plans



DESIGN SCOUR ELEVATION TABLE

Event / Limit	Design Scour Elevations (ft.)					Item 113
	State	W. Abut.	Pier 1	Pier 2	E. Abut.	
Q100	759.45	743.79	743.79	743.79	760.66	5
Q200	759.45	743.72	743.72	743.72	760.66	
Design	759.45	743.79	743.79	743.79	760.66	
Check	759.45	743.72	743.72	743.72	760.66	

WATERWAY INFORMATION

Drainage Area = 17.33 sq. mi.		Existing Overtopping Elev. 764.98 @ Sta. 394+25.00		Proposed Overtopping Elev. 764.98 @ Sta. 394+25.00					
Flood	Freq. Yr.	Q C.F.S.	Opening Ft ²		Nat. Head - Ft.		Headwater El.		
			Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Ten-year	10	1,860	528	551	760.62	0.93	0.76	761.55	761.38
Design	20	2,496	594	616	761.21	1.25	1.05	762.46	762.26
Base	100	3,660	706	724	762.18	1.72	1.48	763.90	763.66
Scour Check	200	3,993	744	760	762.60	1.74	1.50	764.34	764.10
Max. Calc.	500	4,960	803	825	763.25	2.26	1.94	765.51	765.19

COFFERDAM

(See Section C-C on sheet 30 of 38)

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Channel Excavation	CU YD		2,090	2,090
Stone Riprap, Class A5	SQ YD		1,174	1,174
Filter Fabric	SQ YD		1,209	1,209
Removal of Existing Structures	EACH		1	1
Structure Excavation	CU YD		1,148	1,148
Cofferdam (Type 1) (Location - 1)	EACH		1	1
Cofferdam (Type 1) (Location - 2)	EACH		1	1
Concrete Structures	CU YD		531.7	531.7
Concrete Superstructure	CU YD	356.2		356.2
Bridge Deck Grooving	SQ YD	963		963
Seal Coat Concrete	CU YD		82.6	82.6
Protective Coat	SQ YD	1,221		1,221
Concrete Superstructure (Approach Slab)	CU YD	105.3		105.3
Furnishing and Erecting Precast Prestressed Concrete Beams, IL36N	FOOT	1,078		1,078
Reinforcement Bars, Epoxy Coated	POUND	125,200	62,020	187,220
Furnishing Steel Piles HP12X53	FOOT		1,710	1,710
Furnishing Steel Piles HP14X73	FOOT		1,224	1,224
Driving Piles	FOOT		2,934	2,934
Test Pile Steel HP12X53	EACH		2	2
Test Pile Steel HP14X73	EACH		2	2
Pile Shoes	EACH		76	76
Name Plates	EACH	1		1
Preformed Joint Strip Seal	FOOT	140		140
Elastomeric Bearing Assembly, Type I	EACH		24	24
Anchor Bolts, 1"	EACH		24	24
Anchor Bolts, 1 1/2"	EACH		24	24
Granular Backfill for Structures	CU YD		205	205
Concrete Sealer	SQ FT		1,420	1,420
Geocomposite Wall Drain	SQ YD		121	121
Pipe Underdrains for Structures 4"	FOOT		168	168
Drainage Scuppers, DS-11	EACH	4		4

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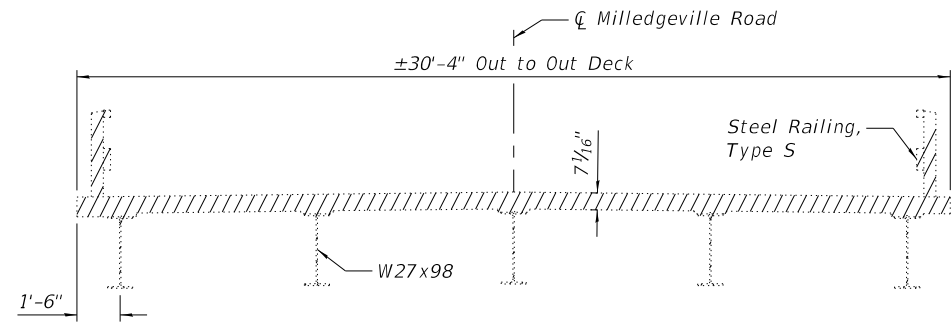
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

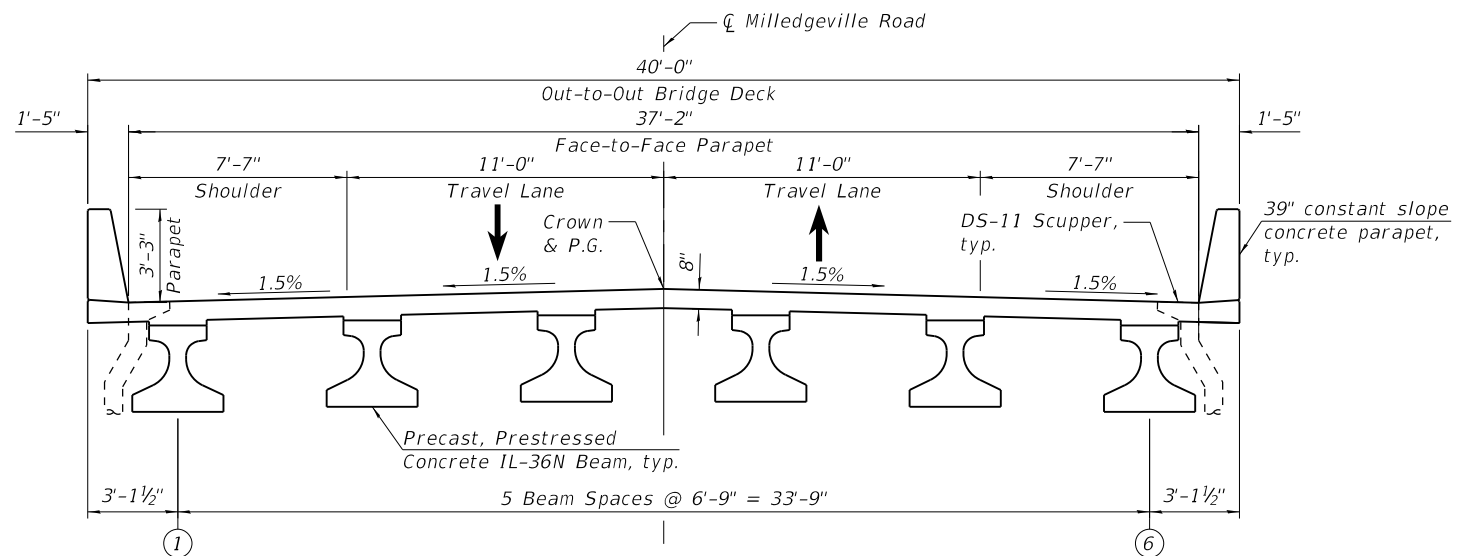
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STRUCTURE NO. 071-3348**

SHEET 2 OF 38 SHEETS

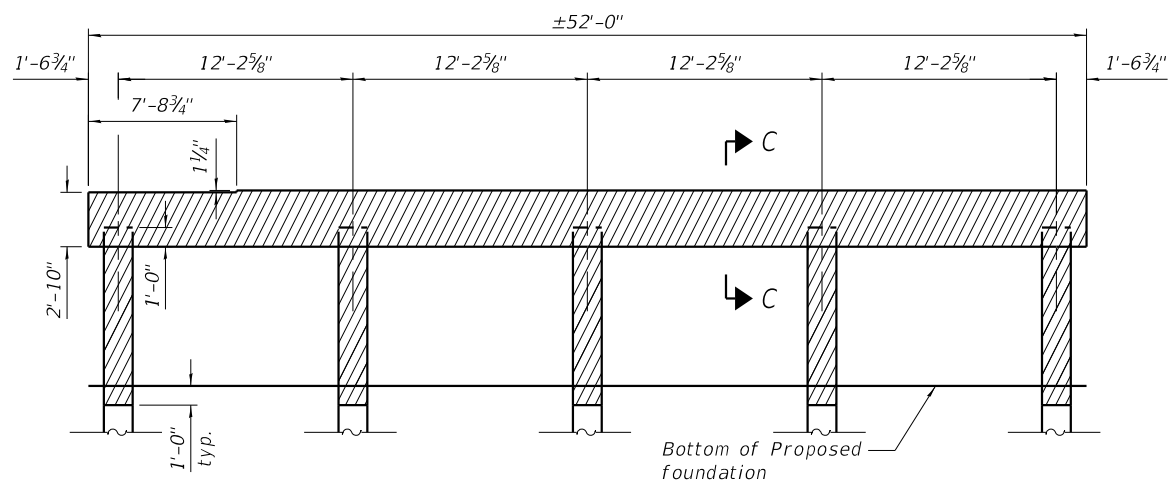
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CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	



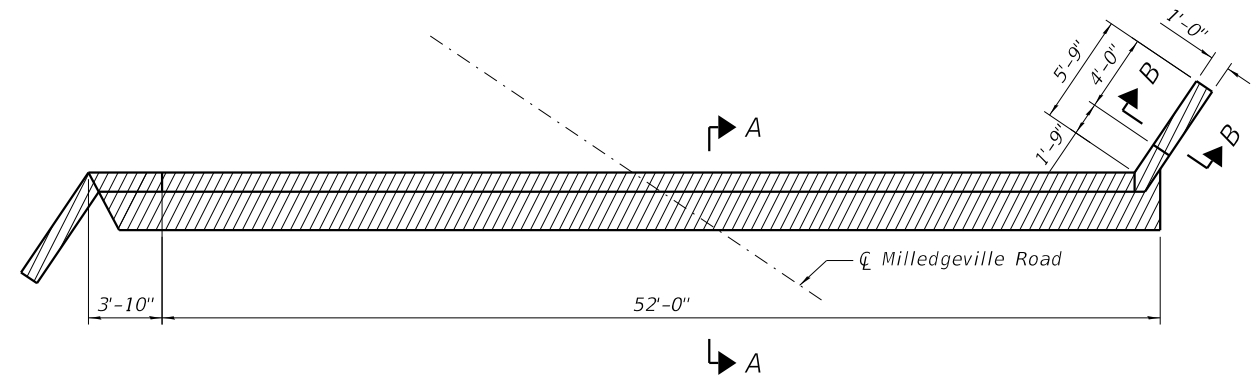
EXISTING CROSS SECTION



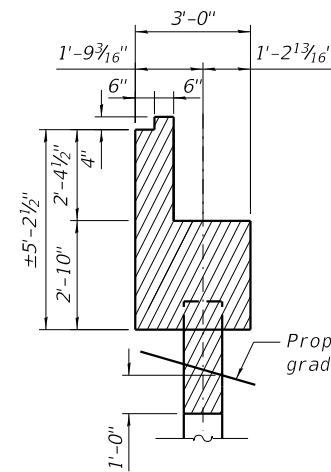
FINAL CROSS SECTION
(Looking up-station)



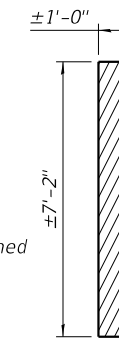
EXISTING PIER ELEVATION



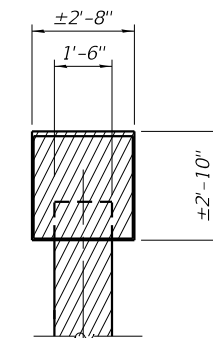
ABUTMENT



SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

Removal of existing structures

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal of Existing Structures	Each	1

Notes:
Completely remove existing superstructure and remove existing substructure to 1'-0" below the proposed channel grade.
See sheets 35 to 38 for existing structure drawings.

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IDFPR NO. 184-001273

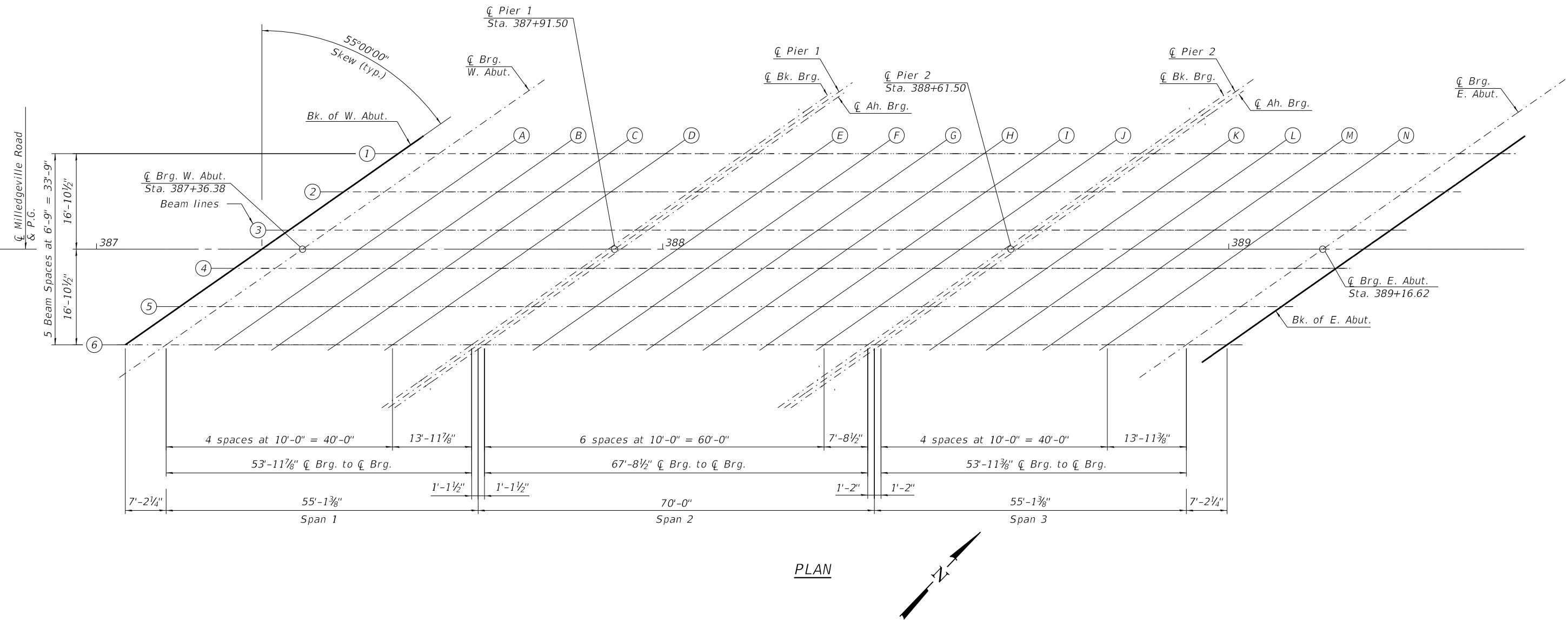
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DEPARTMENT OF TRANSPORTATION**

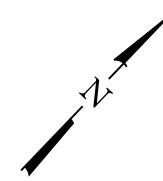
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STRUCTURE NO. 071-3348**

SHEET 3 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	18
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	



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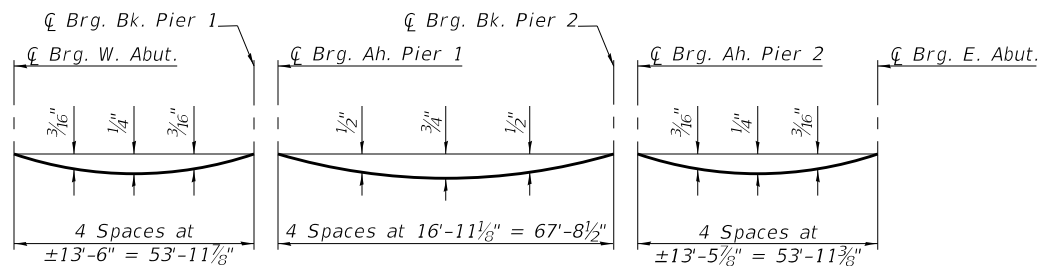
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK SLAB ELEVATION LAYOUT
 STRUCTURE NO. 071-3348**

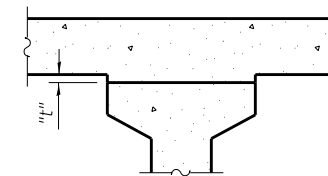
SHEET 4 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	19
ILLINOIS FED. AID PROJECT			CONTRACT NO. 85731	



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete, excluding beams).

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



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

FILLET HEIGHTS

BEAM 1

BEAM 2

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. of W. Abut.	387+53.29	-16.88	767.45	767.45
CL Brg. W. Abut.	387+60.48	-16.88	767.50	767.50
A	387+70.48	-16.88	767.56	767.63
B	387+80.48	-16.88	767.63	767.74
C	387+90.48	-16.88	767.70	767.81
D	388+00.48	-16.88	767.76	767.86
Bk. Brg. Pier 1	388+14.47	-16.88	767.86	767.86
CL Pier 1	388+15.60	-16.88	767.86	767.86
Ah. Brg. Pier 1	388+16.72	-16.88	767.87	767.87
E	388+26.72	-16.88	767.94	768.04
F	388+36.72	-16.88	768.01	768.16
G	388+46.72	-16.88	768.07	768.25
H	388+56.72	-16.88	768.14	768.32
I	388+66.72	-16.88	768.21	768.34
J	388+76.72	-16.88	768.27	768.35
Bk. Brg. Pier 2	388+84.43	-16.88	768.32	768.32
CL Pier 2	388+85.60	-16.88	768.33	768.33
Ah. Brg. Pier 2	388+86.76	-16.88	768.34	768.34
K	388+96.76	-16.88	768.41	768.48
L	389+06.76	-16.88	768.47	768.58
M	389+16.76	-16.88	768.54	768.65
N	389+26.76	-16.88	768.61	768.70
CL Brg. E. Abut.	389+40.71	-16.88	768.70	768.70
Bk. of E. Abut.	389+47.90	-16.88	768.75	768.75

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. of W. Abut.	387+43.65	-10.13	767.48	767.48
CL Brg. W. Abut.	387+50.84	-10.13	767.53	767.53
A	387+60.84	-10.13	767.60	767.67
B	387+70.84	-10.13	767.67	767.78
C	387+80.84	-10.13	767.73	767.85
D	387+90.84	-10.13	767.80	767.89
Bk. Brg. Pier 1	388+04.83	-10.13	767.89	767.89
CL Pier 1	388+05.96	-10.13	767.90	767.90
Ah. Brg. Pier 1	388+07.08	-10.13	767.91	767.91
E	388+17.08	-10.13	767.98	768.07
F	388+27.08	-10.13	768.04	768.20
G	388+37.08	-10.13	768.11	768.29
H	388+47.08	-10.13	768.18	768.35
I	388+57.08	-10.13	768.24	768.38
J	388+67.08	-10.13	768.31	768.38
Bk. Brg. Pier 2	388+74.79	-10.13	768.36	768.36
CL Pier 2	388+75.96	-10.13	768.37	768.37
Ah. Brg. Pier 2	388+77.12	-10.13	768.38	768.38
K	388+87.12	-10.13	768.44	768.52
L	388+97.12	-10.13	768.51	768.62
M	389+07.12	-10.13	768.58	768.69
N	389+17.12	-10.13	768.64	768.73
CL Brg. E. Abut.	389+31.07	-10.13	768.74	768.74
Bk. of E. Abut.	389+38.26	-10.13	768.79	768.79

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. of W. Abut.	387+34.01	-3.38	767.52	767.52
CL Brg. W. Abut.	387+41.20	-3.38	767.57	767.57
A	387+51.20	-3.38	767.64	767.70
B	387+61.20	-3.38	767.70	767.81
C	387+71.20	-3.38	767.77	767.88
D	387+81.20	-3.38	767.84	767.93
Bk. Brg. Pier 1	387+95.19	-3.38	767.93	767.93
CL Pier 1	387+96.32	-3.38	767.94	767.94
Ah. Brg. Pier 1	387+97.44	-3.38	767.95	767.95
E	388+07.44	-3.38	768.01	768.11
F	388+17.44	-3.38	768.08	768.23
G	388+27.44	-3.38	768.15	768.32
H	388+37.44	-3.38	768.21	768.39
I	388+47.44	-3.38	768.28	768.42
J	388+57.44	-3.38	768.35	768.42
Bk. Brg. Pier 2	388+65.15	-3.38	768.40	768.40
CL Pier 2	388+66.32	-3.38	768.41	768.41
Ah. Brg. Pier 2	388+67.48	-3.38	768.41	768.41
K	388+77.48	-3.38	768.48	768.56
L	388+87.48	-3.38	768.55	768.66
M	388+97.48	-3.38	768.61	768.73
N	389+07.48	-3.38	768.68	768.77
CL Brg. E. Abut.	389+21.43	-3.38	768.77	768.77
Bk. of E. Abut.	389+28.62	-3.38	768.82	768.82

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	CHECKED - 11/9/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (1 OF 3)/DEFLECTION DIAGRAMS
STRUCTURE NO. 071-3348

SHEET 5 OF 38 SHEETS

F.A.S. RTE. 079	SECTION 20-00326-00-BR	COUNTY OGLE	TOTAL SHEETS 62	SHEET NO. 20
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	

CENTERLINE OF MILLEDGEVILLE ROAD & P.G.

BEAM 4

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. of W. Abut.	387+29.19	0.00	767.54	767.54
CL Brg. W. Abut.	387+36.38	0.00	767.59	767.59
A	387+46.38	0.00	767.65	767.72
B	387+56.38	0.00	767.72	767.83
C	387+66.38	0.00	767.79	767.90
D	387+76.38	0.00	767.85	767.95
Bk. Brg. Pier 1	387+90.37	0.00	767.95	767.95
CL Pier 1	387+91.50	0.00	767.96	767.96
Ah. Brg. Pier 1	387+92.62	0.00	767.96	767.96
E	388+02.62	0.00	768.03	768.13
F	388+12.62	0.00	768.10	768.25
G	388+22.62	0.00	768.16	768.34
H	388+32.62	0.00	768.23	768.40
I	388+42.62	0.00	768.30	768.44
J	388+52.62	0.00	768.37	768.44
Bk. Brg. Pier 2	388+60.33	0.00	768.42	768.42
CL Pier 2	388+61.50	0.00	768.42	768.42
Ah. Brg. Pier 2	388+62.66	0.00	768.43	768.43
K	388+72.66	0.00	768.50	768.57
L	388+82.66	0.00	768.57	768.67
M	388+92.66	0.00	768.63	768.75
N	389+02.66	0.00	768.70	768.79
CL Brg. E. Abut.	389+16.61	0.00	768.79	768.79
Bk. of E. Abut.	389+23.80	0.00	768.84	768.84

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. of W. Abut.	387+24.37	3.38	767.46	767.46
CL Brg. W. Abut.	387+31.56	3.38	767.50	767.50
A	387+41.56	3.38	767.57	767.64
B	387+51.56	3.38	767.64	767.75
C	387+61.56	3.38	767.71	767.82
D	387+71.56	3.38	767.77	767.86
Bk. Brg. Pier 1	387+85.55	3.38	767.87	767.87
CL Pier 1	387+86.68	3.38	767.87	767.87
Ah. Brg. Pier 1	387+87.80	3.38	767.88	767.88
E	387+97.80	3.38	767.95	768.04
F	388+07.80	3.38	768.01	768.17
G	388+17.80	3.38	768.08	768.26
H	388+27.80	3.38	768.15	768.32
I	388+37.80	3.38	768.22	768.35
J	388+47.80	3.38	768.28	768.35
Bk. Brg. Pier 2	388+55.51	3.38	768.33	768.33
CL Pier 2	388+56.68	3.38	768.34	768.34
Ah. Brg. Pier 2	388+57.84	3.38	768.35	768.35
K	388+67.84	3.38	768.42	768.49
L	388+77.84	3.38	768.48	768.59
M	388+87.84	3.38	768.55	768.66
N	388+97.84	3.38	768.62	768.70
CL Brg. E. Abut.	389+11.79	3.38	768.71	768.71
Bk. of E. Abut.	389+18.98	3.38	768.76	768.76

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. of W. Abut.	387+14.73	10.13	767.29	767.29
CL Brg. W. Abut.	387+21.92	10.13	767.34	767.34
A	387+31.92	10.13	767.41	767.47
B	387+41.92	10.13	767.47	767.58
C	387+51.92	10.13	767.54	767.65
D	387+61.92	10.13	767.61	767.70
Bk. Brg. Pier 1	387+75.91	10.13	767.70	767.70
CL Pier 1	387+77.04	10.13	767.71	767.71
Ah. Brg. Pier 1	387+78.16	10.13	767.71	767.71
E	387+88.16	10.13	767.78	767.88
F	387+98.16	10.13	767.85	768.00
G	388+08.16	10.13	767.92	768.09
H	388+18.16	10.13	767.98	768.16
I	388+28.16	10.13	768.05	768.19
J	388+38.16	10.13	768.12	768.19
Bk. Brg. Pier 2	388+45.87	10.13	768.17	768.17
CL Pier 2	388+47.04	10.13	768.18	768.18
Ah. Brg. Pier 2	388+48.20	10.13	768.18	768.18
K	388+58.20	10.13	768.25	768.33
L	388+68.20	10.13	768.32	768.43
M	388+78.20	10.13	768.38	768.50
N	388+88.20	10.13	768.45	768.54
CL Brg. E. Abut.	389+02.15	10.13	768.54	768.54
Bk. of E. Abut.	389+09.34	10.13	768.59	768.59

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DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS (2 OF 3)/DEFLECTION DIAGRAMS
STRUCTURE NO. 071-3348**

SHEET 6 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	21
ILLINOIS FED. AID PROJECT			CONTRACT NO. 85731	

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflections
Bk. of W. Abut.	387+05.09	16.88	767.12	767.12
CL Brg. W. Abut.	387+12.28	16.88	767.17	767.17
A	387+22.28	16.88	767.24	767.31
B	387+32.28	16.88	767.31	767.42
C	387+42.28	16.88	767.37	767.49
D	387+52.28	16.88	767.44	767.53
Bk. Brg. Pier 1	387+66.27	16.88	767.53	767.53
CL Pier 1	387+67.40	16.88	767.54	767.54
Ah. Brg. Pier 1	387+68.52	16.88	767.55	767.55
E	387+78.52	16.88	767.62	767.71
F	387+88.52	16.88	767.68	767.84
G	387+98.52	16.88	767.75	767.93
H	388+08.52	16.88	767.82	767.99
I	388+18.52	16.88	767.88	768.02
J	388+28.52	16.88	767.95	768.02
Bk. Brg. Pier 2	388+36.23	16.88	768.00	768.00
CL Pier 2	388+37.40	16.88	768.01	768.01
Ah. Brg. Pier 2	388+38.56	16.88	768.02	768.02
K	388+48.56	16.88	768.08	768.16
L	388+58.56	16.88	768.15	768.26
M	388+68.56	16.88	768.22	768.33
N	388+78.56	16.88	768.29	768.37
CL Brg. E. Abut.	388+92.51	16.88	768.38	768.38
Bk. of E. Abut.	388+99.70	16.88	768.43	768.43

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (3 OF 3)/DEFLECTION DIAGRAMS
STRUCTURE NO. 071-3348

SHEET 7 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	22
CONTRACT NO. 85731				
ILLINOIS		FED. AID PROJECT		

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade
W. End West Appr. Slab	387+28.18	-19.08	767.25
A1	387+38.18	-19.08	767.31
A2	387+48.18	-18.54	767.39
E. End West Appr. Slab	387+58.18	-18.54	767.45

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade
W. End West Appr. Slab	387+16.64	-11.00	767.29
A1	387+26.64	-11.00	767.36
A2	387+36.64	-11.00	767.42
E. End West Appr. Slab	387+46.64	-11.00	767.49

CENTERLINE OF MILLEDGEVILLE RD & P.G.

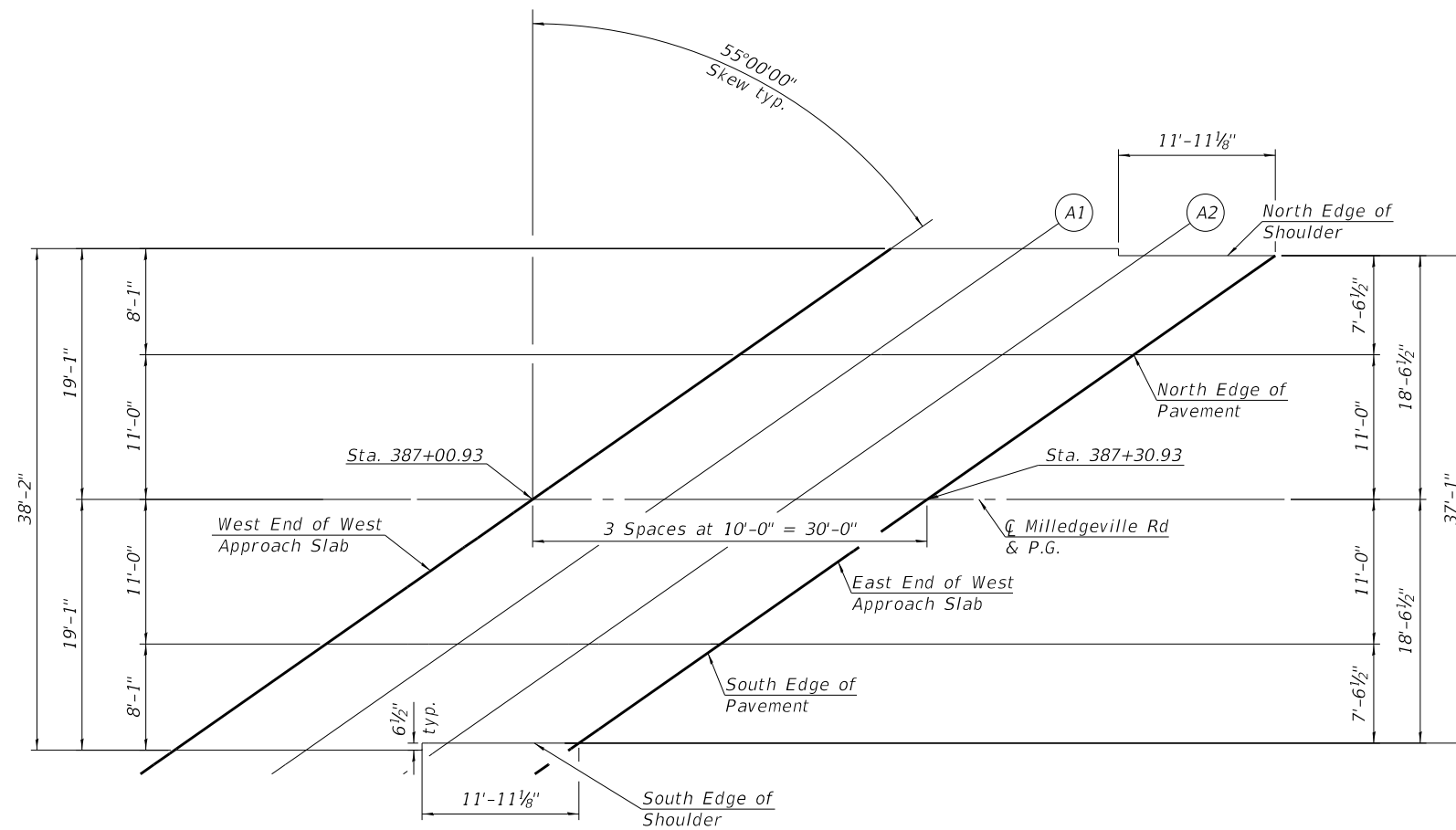
Location	Station	Offset	Theoretical Grade
W. End West Appr. Slab	387+00.93	0.00	767.35
A1	387+10.93	0.00	767.42
A2	387+20.93	0.00	767.48
E. End West Appr. Slab	387+30.93	0.00	767.55

SOUTH EDGE OF PAVEMENT

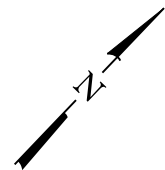
Location	Station	Offset	Theoretical Grade
W. End West Appr. Slab	386+85.22	11.00	767.08
A1	386+95.22	11.00	767.15
A2	387+05.22	11.00	767.21
E. End West Appr. Slab	387+15.22	11.00	767.28

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade
W. End West Appr. Slab	386+73.68	19.08	766.88
A1	386+83.68	19.08	766.95
A2	386+93.68	18.54	767.02
E. End West Appr. Slab	387+03.68	18.54	767.09



WEST APPROACH PLAN



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1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273	USER NAME =	DESIGNED - BRL/DWK	REVISED -
		CHECKED - NDR	REVISED -
	PLOT SCALE =	DRAWN - CIH	REVISED -
	PLOT DATE = 11/09/22	CHECKED - 11/9/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 071-3348

SHEET 8 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	23
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade
W. End East Appr. Slab	389+49.32	-18.54	768.73
A3	389+59.32	-18.54	768.80
A4	389+69.32	-19.08	768.85
E. End East Appr. Slab	389+79.32	-19.08	768.89

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade
W. End East Appr. Slab	389+37.78	-11.00	768.77
A3	389+47.78	-11.00	768.84
A4	389+57.78	-11.00	768.90
E. End East Appr. Slab	389+67.78	-11.00	768.96

CENTERLINE OF MILLEDGEVILLE RD. & P.G.

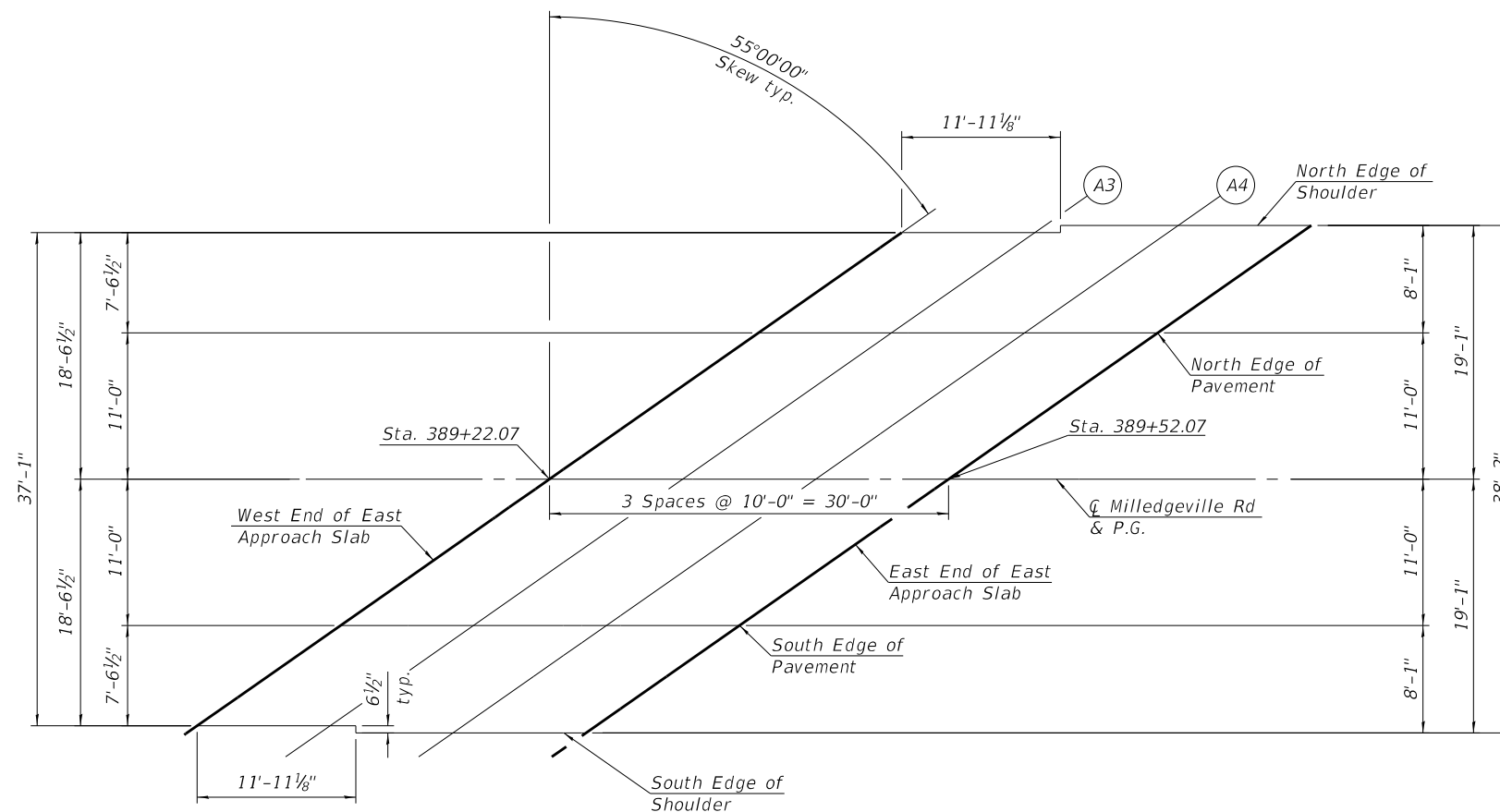
Location	Station	Offset	Theoretical Grade
W. End East Appr. Slab	389+22.07	0.00	768.83
A3	389+32.07	0.00	768.90
A4	389+42.07	0.00	768.96
E. End East Appr. Slab	389+52.07	0.00	769.03

SOUTH EDGE OF PAVEMENT

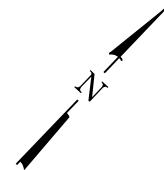
Location	Station	Offset	Theoretical Grade
W. End East Appr. Slab	389+06.36	11.00	768.56
A3	389+16.36	11.00	768.63
A4	389+26.36	11.00	768.69
E. End East Appr. Slab	389+36.36	11.00	768.76

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade
W. End East Appr. Slab	388+94.82	18.54	768.37
A3	389+04.82	18.54	768.43
A4	389+14.82	19.08	768.49
E. End East Appr. Slab	389+24.82	19.08	768.56



EAST APPROACH PLAN



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STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

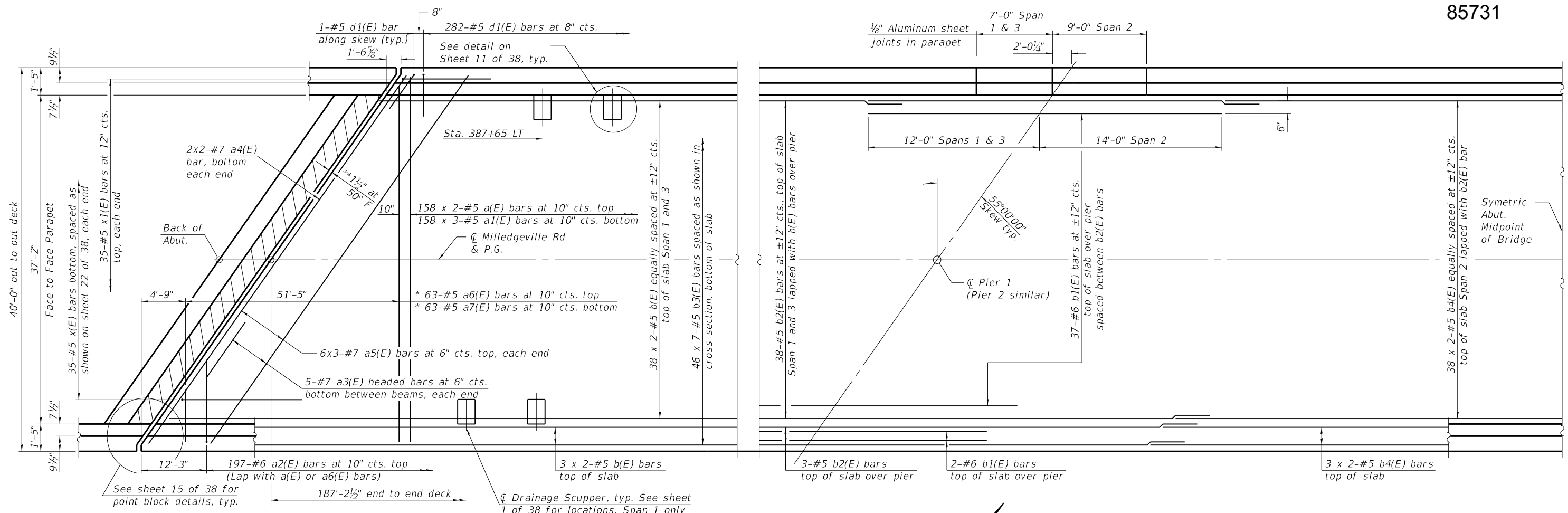
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PLOT DATE = 11/09/22	DRAWN - CIH	REVISED -
	CHECKED - 11/9/2022	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 071-3348**

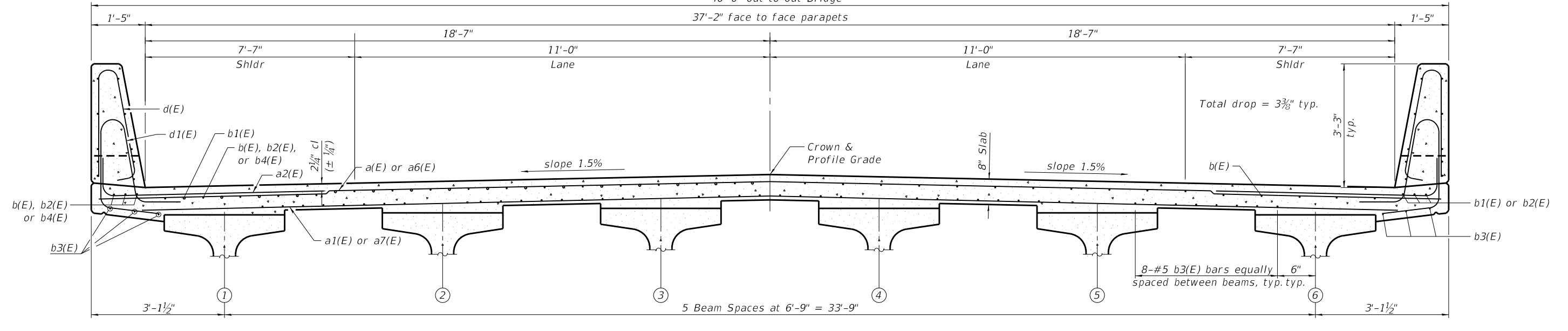
SHEET 9 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	24
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	



MINIMUM BAR LAP
 #5 bar = 3'-6"
 #7 bar = 4'-2"

Notes:
 * See Field Cutting Diagram on Sheet 11 of 38.
 ** Dimension showing concrete opening. For joint opening see sheet 15 of 38.
 See sheet 11 of 38 for superstructure details and Bill of Material.
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



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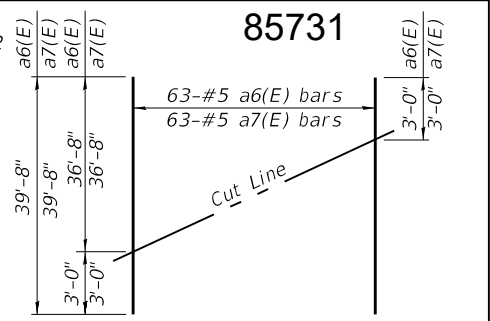
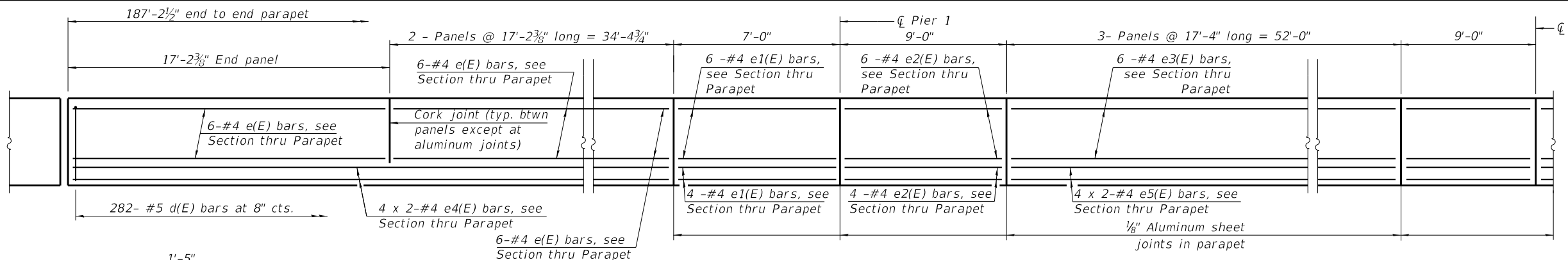
1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR No. 184-001273	USER NAME =	DESIGNED - BRL/DWK	REVISED -
	PLOT SCALE =	CHECKED - NDR	REVISED -
	PLOT DATE = 11/09/22	DRAWN - CIH	REVISED -
		CHECKED - 11/9/2022	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

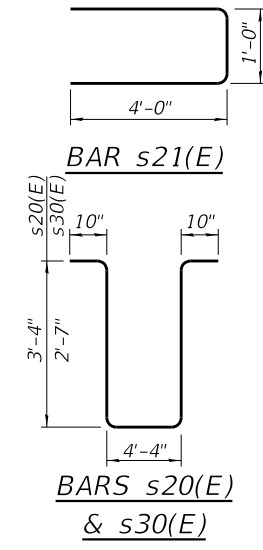
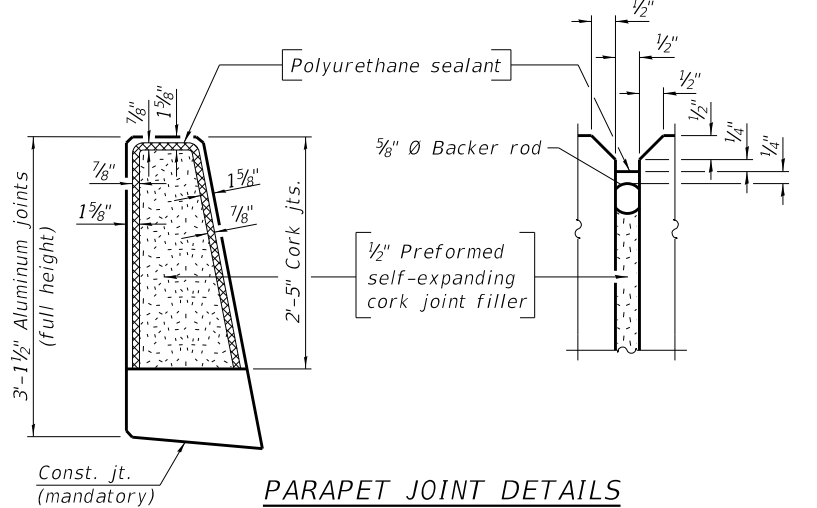
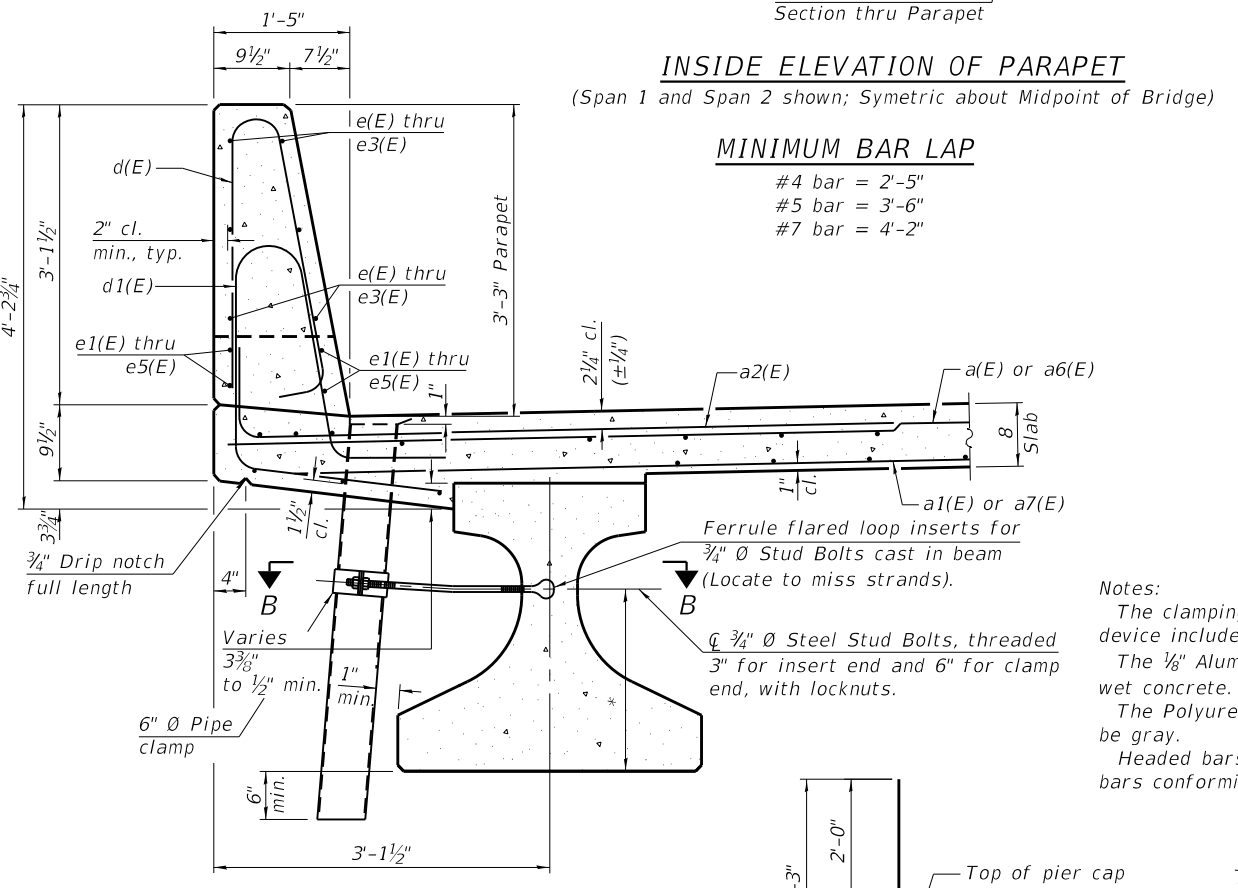
**DECK PLAN AND CROSS SECTION
 STRUCTURE NO. 071-3348**

SHEET 10 OF 38 SHEETS

F.A.S. RTE. 079	SECTION 20-00326-00-BR	COUNTY OGLE	TOTAL SHEETS 62	SHEET NO. 25
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				



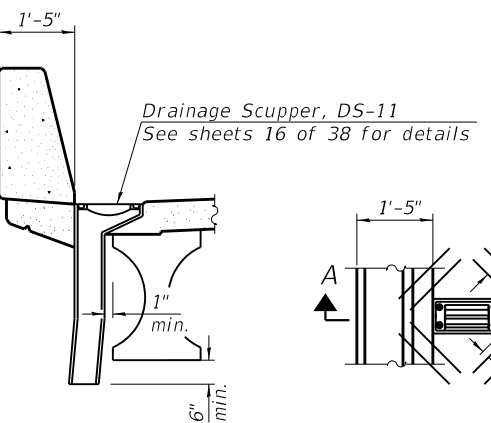
INSIDE ELEVATION OF PARAPET
(Span 1 and Span 2 shown; Symetric about Midpoint of Bridge)



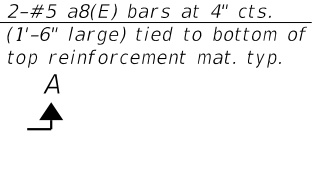
TOTAL DECK SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	316	#5	21'-7"	—
a1(E)	474	#5	15'-7"	—
a2(E)	422	#6	8'-4"	L
a3(E)	50	#7	10'-10"	—
a4(E)	8	#7	31'-5"	—
a5(E)	36	#7	22'-4"	—
a6(E)	63	#5	39'-8"	—
a7(E)	63	#5	39'-8"	—
a8(E)	32	#5	1'-6"	—
b(E)	176	#5	23'-6"	—
b1(E)	82	#6	26'-0"	—
b2(E)	88	#5	25'-0"	—
b3(E)	322	#5	29'-9"	—
b4(E)	88	#5	28'-0"	—
d(E)	564	#5	6'-5"	∩
d1(E)	568	#5	8'-1"	∩
e(E)	72	#4	16'-10"	—
e1(E)	40	#4	6'-8"	—
e2(E)	40	#4	8'-8"	—
e3(E)	36	#4	17'-0"	—
e4(E)	32	#4	26'-11"	—
e5(E)	16	#4	27'-1"	—
m20(E)	20	#6	3'-0"	—
m21(E)	40	#6	5'-1"	—
m22(E)	24	#5	4'-0"	—
m33(E)	10	#6	6'-10"	—
s20(E)	20	#5	12'-8"	U
s21(E)	40	#5	9'-0"	U
s30(E)	20	#5	11'-2"	U
v20(E)	30	#8	4'-2"	∩
x(E)	70	#5	12'-10"	∩
x1(E)	70	#5	4'-4"	∩
Concrete Superstructure		Cu. Yds.	349.2	
Bridge Deck Grooving		Sq. Yds.	731	
Protective Coat		Sq. Yds.	945	
Reinforcement Bars, Epoxy Coated		Pound	65,120	

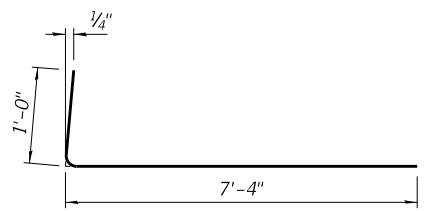
SECTION THRU PARAPET



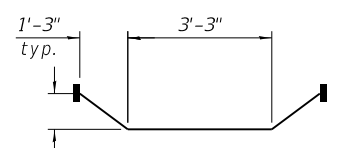
BAR v20(E) DOWEL BAR



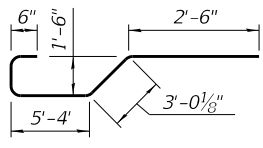
BAR a2(E)



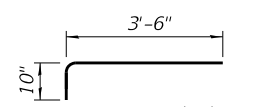
BAR m33(E) (Headed)



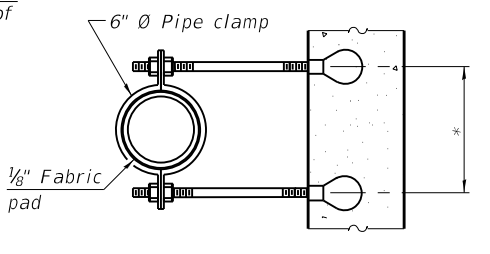
BAR x(E)



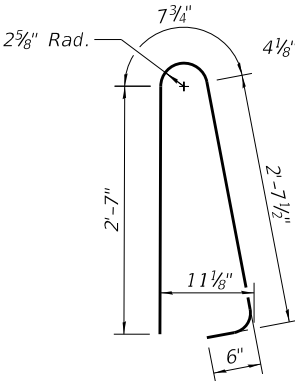
BAR x1(E)



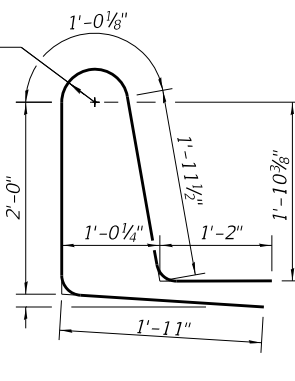
SECTION B-B



BAR d(E)



BAR d1(E)



Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK AND PARAPET DETAILS
STRUCTURE NO. 071-3348

SHEET 11 OF 38 SHEETS

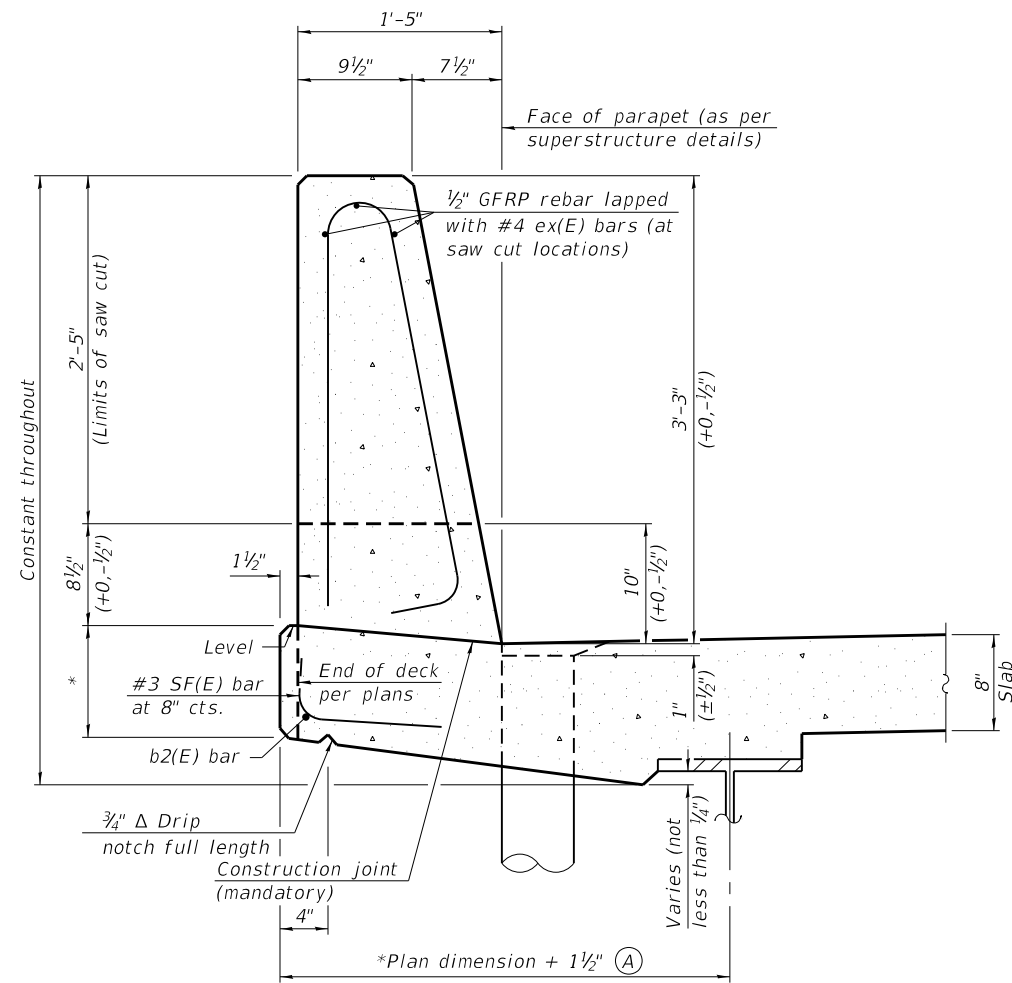
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	26
CONTRACT NO. 85731				
ILLINOIS				FED. AID PROJECT

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SA
1170 SOUTH HOBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

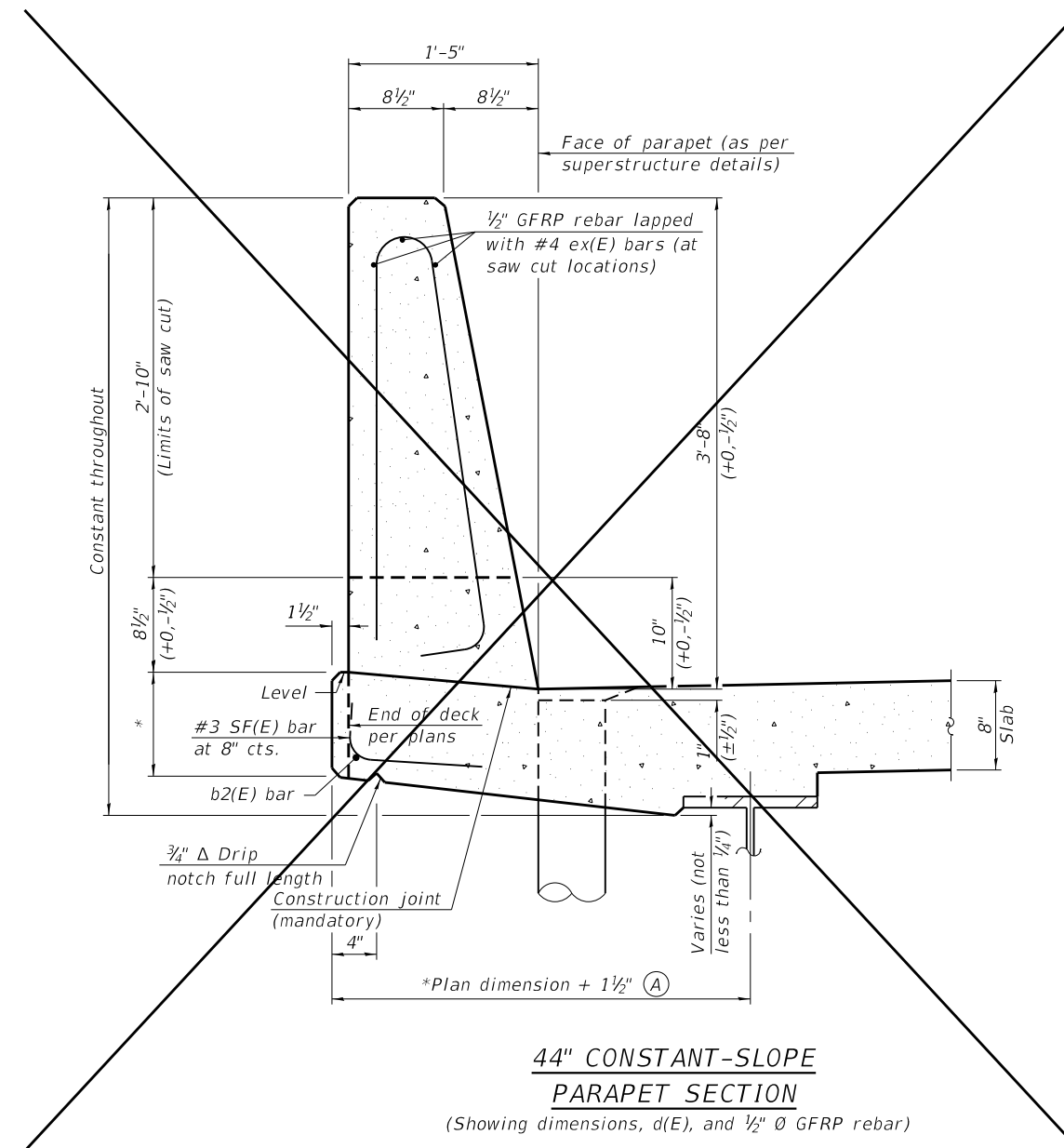
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=	- BRL/DWK	- NDR	=	= 11/09/22

Notes:
 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" parapets.
 Place full depth aluminum sheets as shown on superstructure details.
 Replace all cork joint filler locations with a full thickness saw cut.
 Steel superstructure shown. Other superstructure types similar.



**39" CONSTANT-SLOPE
 PARAPET SECTION**

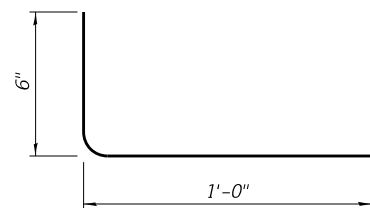
(Showing dimensions, d(E), and 1/2" Ø GFRP rebar)



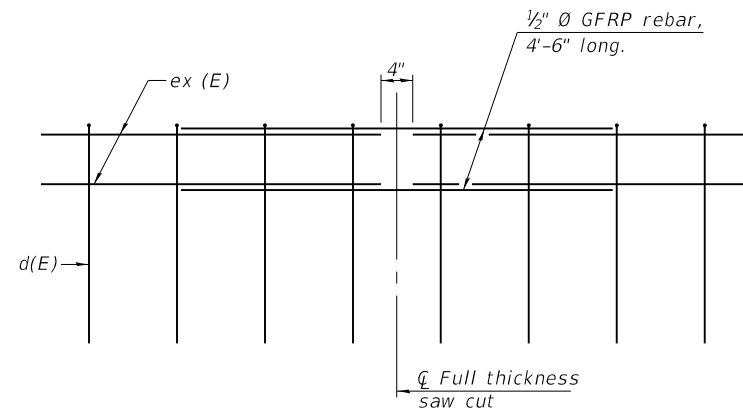
**44" CONSTANT-SLOPE
 PARAPET SECTION**

(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.)

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SFP 39-44

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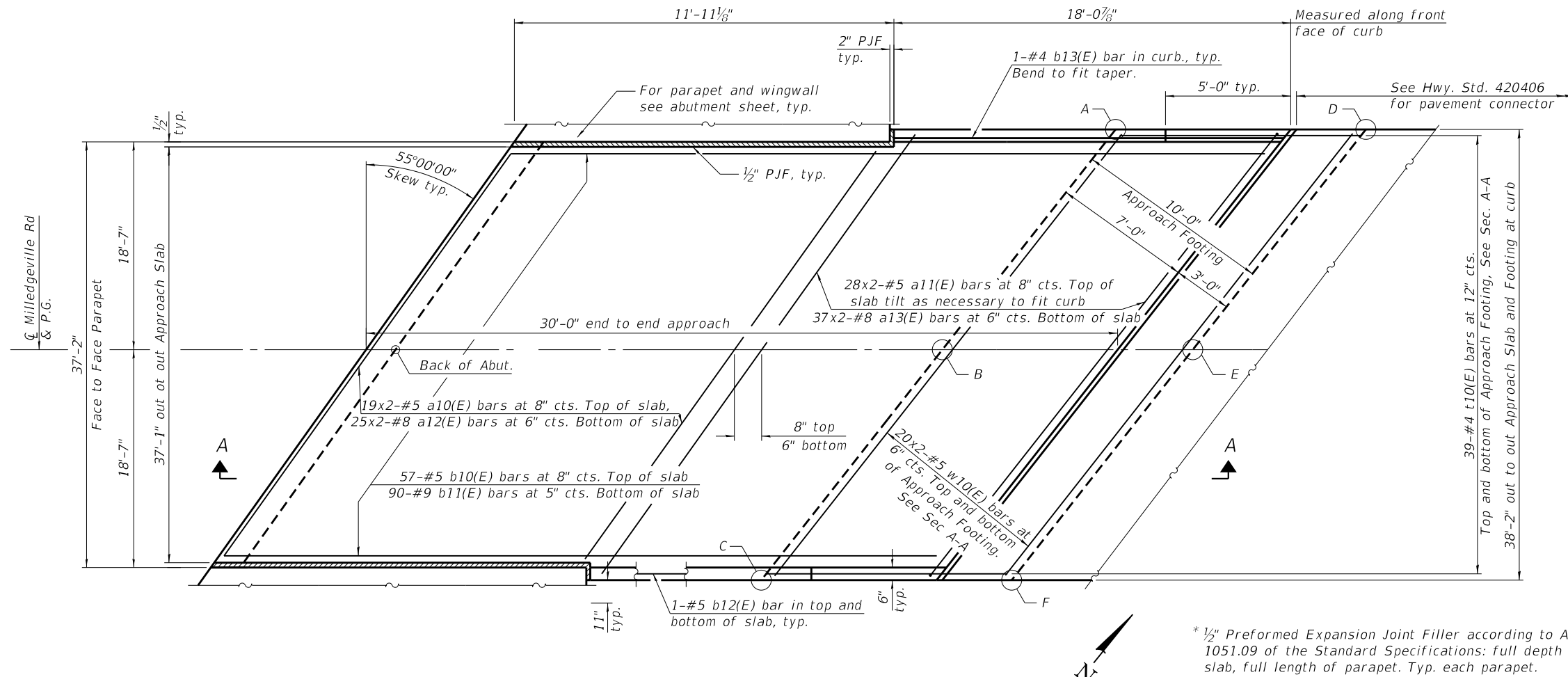
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PLOT DATE = 11/09/22	DRAWN - CIH	REVISED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CONCRETE PARAPET SLIPFORMING OPTION
 STRUCTURE NO. 071-3348**

SHEET 12 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	27
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				



TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

West Approach		East Approach	
Point	Elevation	Point	Elevation
A	766.08	A	767.58
B	766.18	B	767.70
C	765.71	C	767.23
D	765.96	D	767.66
E	766.06	E	767.81
F	765.60	F	767.35

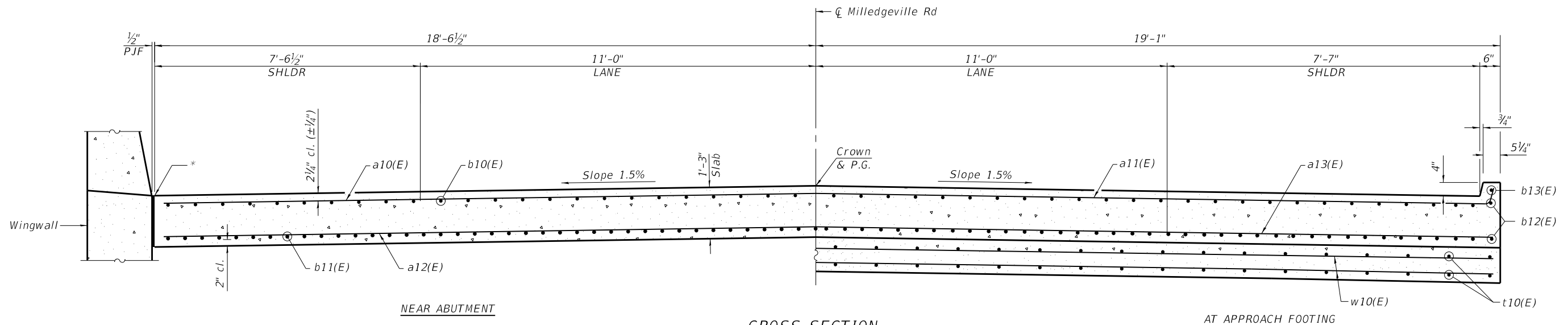
MINIMUM BAR LAP

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

* 1/2" Preformed Expansion Joint Filler according to Article 1051.09 of the Standard Specifications: full depth of slab, full length of parapet. Typ. each parapet.

PLAN

(East approach slab shown; West approach slab similar by 180° rotation)



CROSS SECTION

(Looking Upstation)

(Sheet 1 of 2)

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IDFPR NO. 184-001273

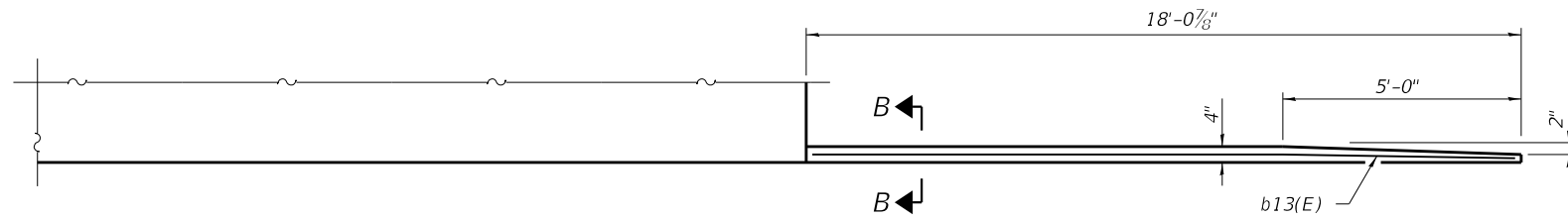
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	CHECKED - 11/9/2022	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**APPROACH SLAB PLAN (1 OF 2)
STRUCTURE NO. 071-3348**

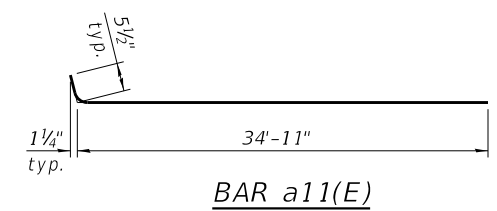
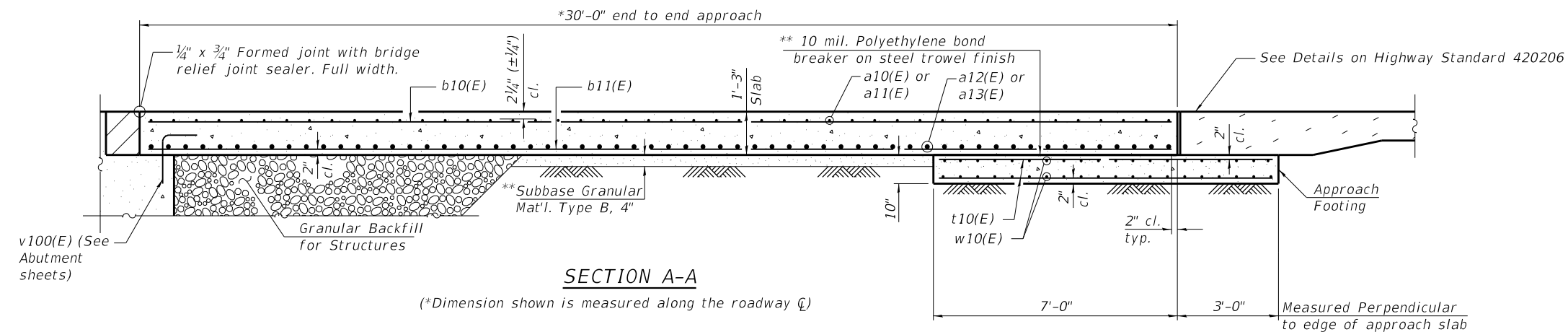
SHEET 13 OF 38 SHEETS

F.A.S. RTE. 079	SECTION 20-00326-00-BR	COUNTY OGLE	TOTAL SHEETS 62	SHEET NO. 28
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	



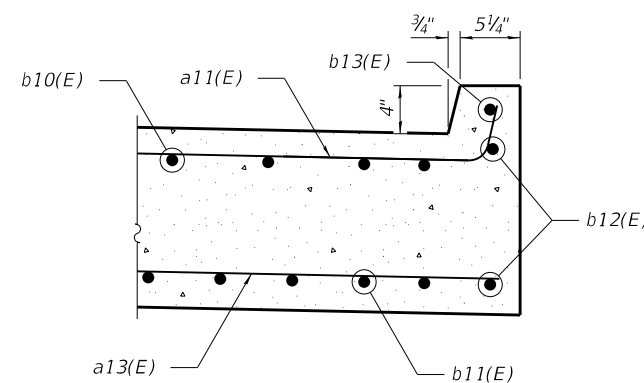
Notes:
 The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab). Approach footing concrete shall be paid for as Concrete Structures.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf. Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet 31 of 38.

INSIDE ELEVATION OF PARAPET AND CURB



TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	76	#5	33'-10"	—
a11(E)	112	#5	34'-11"	—
a12(E)	100	#8	35'-6"	—
a13(E)	148	#8	36'-5"	—
b10(E)	114	#5	29'-8"	—
b11(E)	180	#9	29'-8"	—
b12(E)	8	#5	17'-8"	—
b13(E)	4	#4	17'-8"	—
t10(E)	156	#4	17'-1"	—
w10(E)	160	#5	34'-8"	—
Concrete Structures			Cu. Yd.	23.6
Protective Coat			Sq. Yd.	276
Bridge Deck Grooving			Sq. Yd.	232
Concrete Superstructure (Approach Slab)			Cu. Yd.	105.3
Reinforcement Bars, Epoxy Coated			Pound	60,080



SECTION B-B

(Sheet 2 of 2)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROACH SLAB PLAN (2 OF 2)
STRUCTURE NO. 071-3348

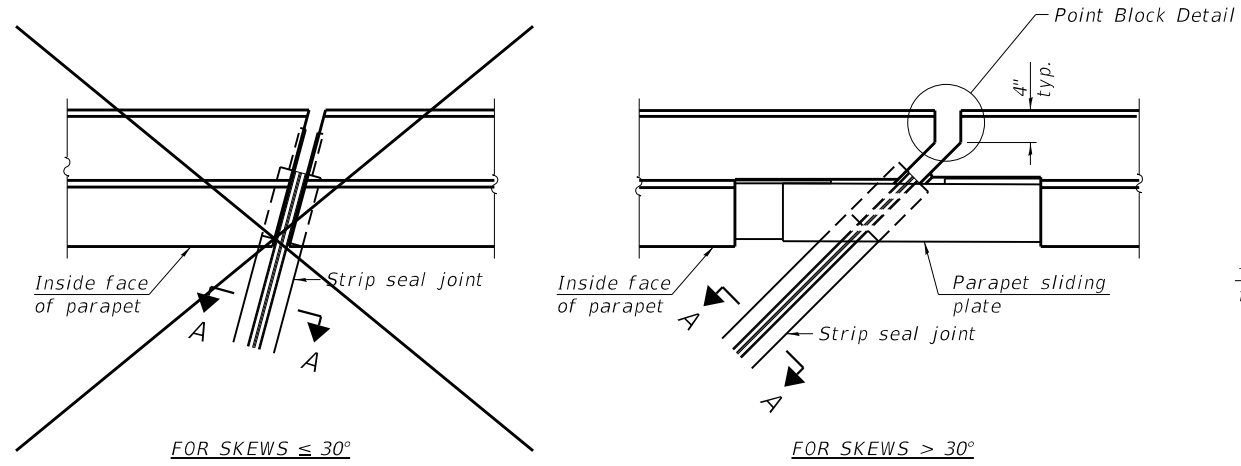
SHEET 14 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	29
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				

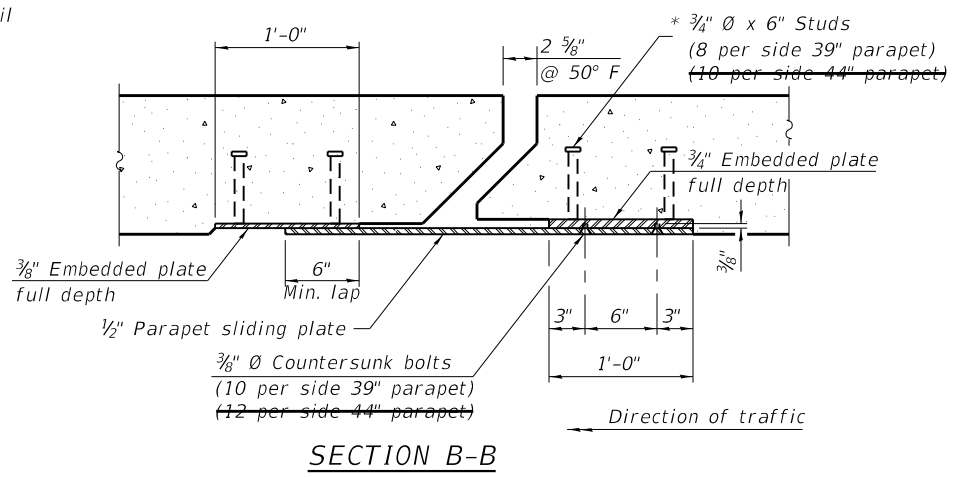
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USER NAME	DESIGNED	REVISIONS
=	- BRL/DWK	-
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PLOT SCALE =	DRAWN - CJH	REVISIONS -
PLOT DATE = 11/09/22	CHECKED - 11/9/2022	REVISIONS -

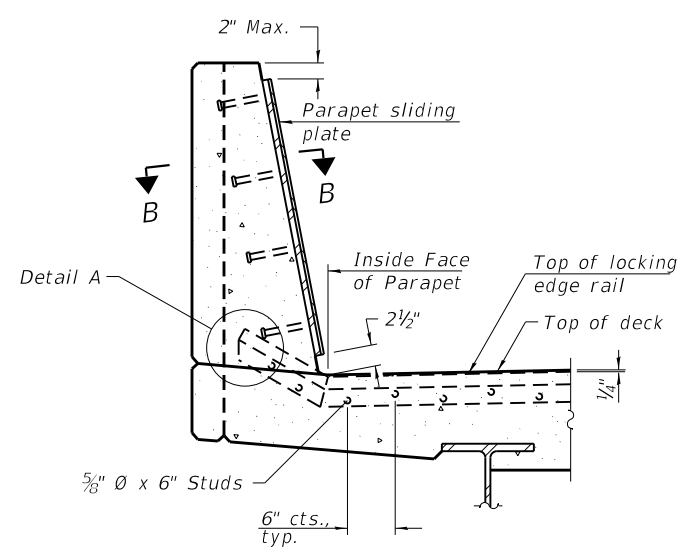
1170 SOUTH HOUBOLT ROAD
 JOLIET, ILLINOIS 60431
 (815) 744-4200
 STRAND ASSOCIATES* IDFPR NO. 184-001273



PLAN AT PARAPET

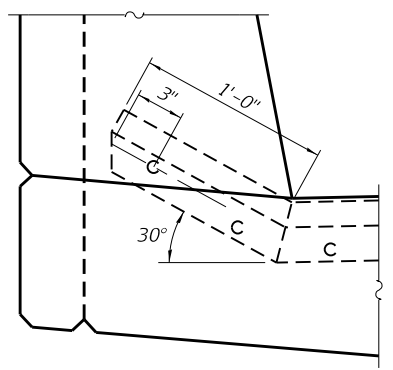


SECTION B-B

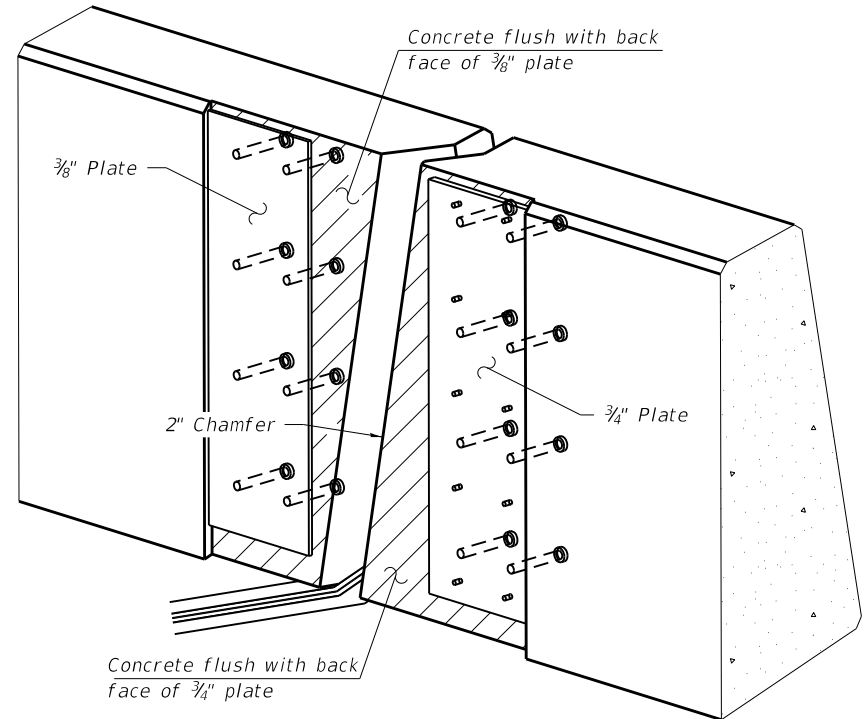


SECTION AT PARAPET

(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)

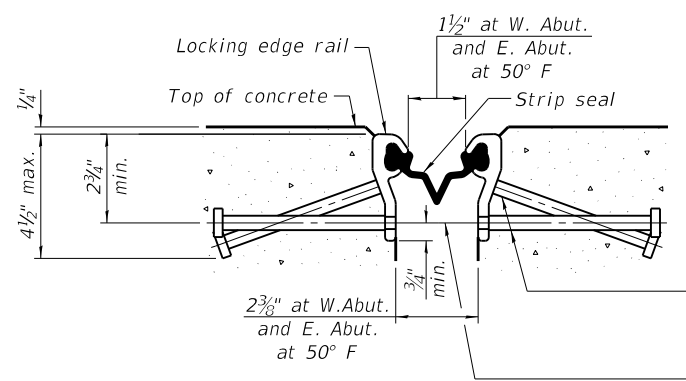


DETAIL A



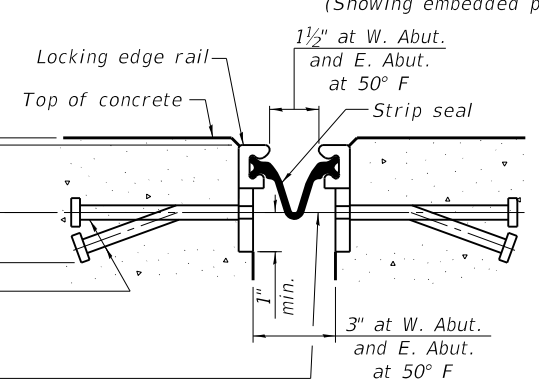
TRIMETRIC VIEW

(Showing embedded plates only)

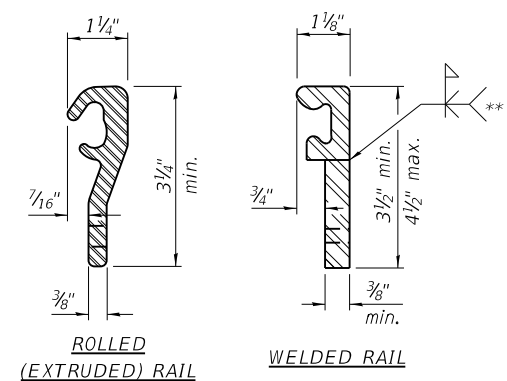


SHOWING ROLLED RAIL JOINT

* 3/8" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)
 3/8" Ø threaded rods in 7/16" Ø holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

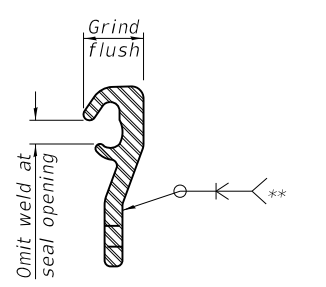


SHOWING WELDED RAIL JOINT



LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	140

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EJ-SS

1-1-2020



1170 SOUTH HOUBOLT ROAD
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 (815) 744-4200
 IDFPR NO. 184-001273

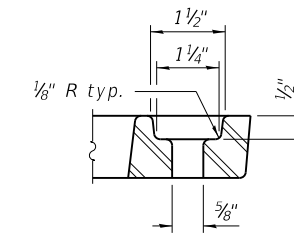
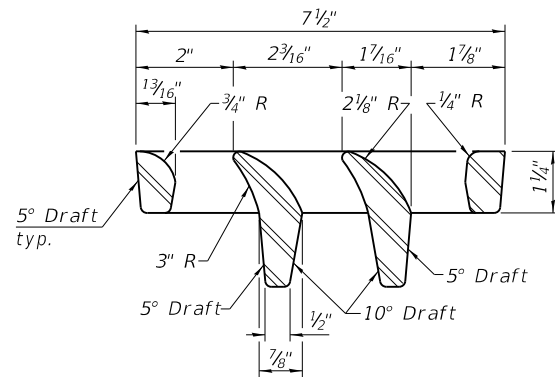
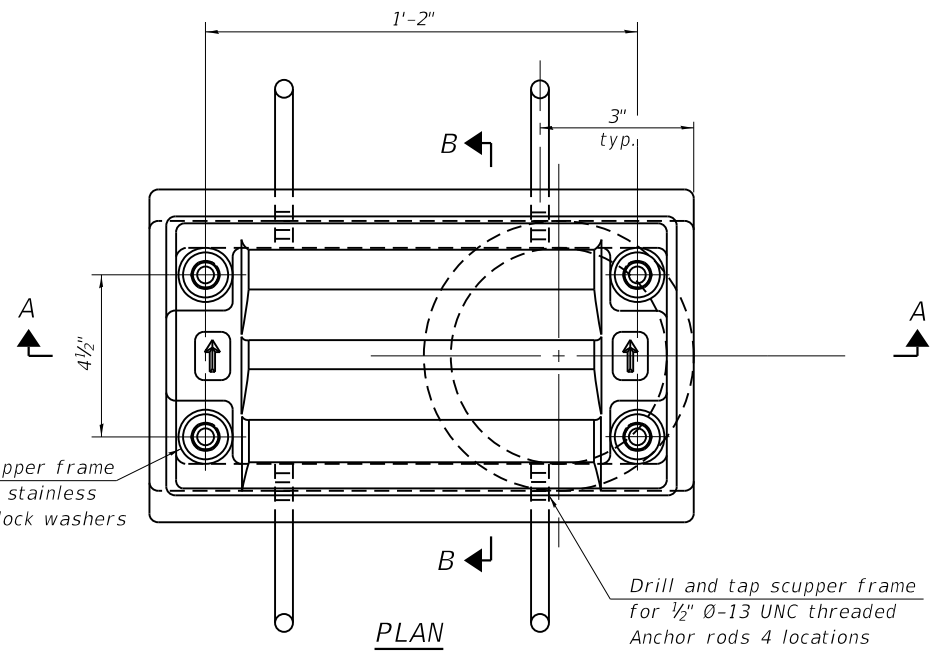
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PLOT SCALE =	CHECKED - NDR	REVISED -
PLOT DATE = 11/09/22	DRAWN - CIH	REVISED -
	CHECKED - 11/9/2022	REVISED -

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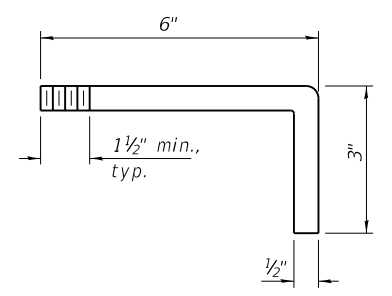
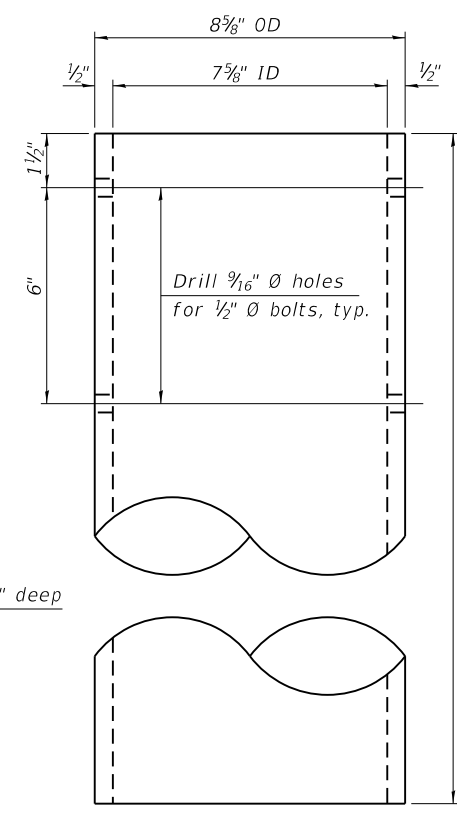
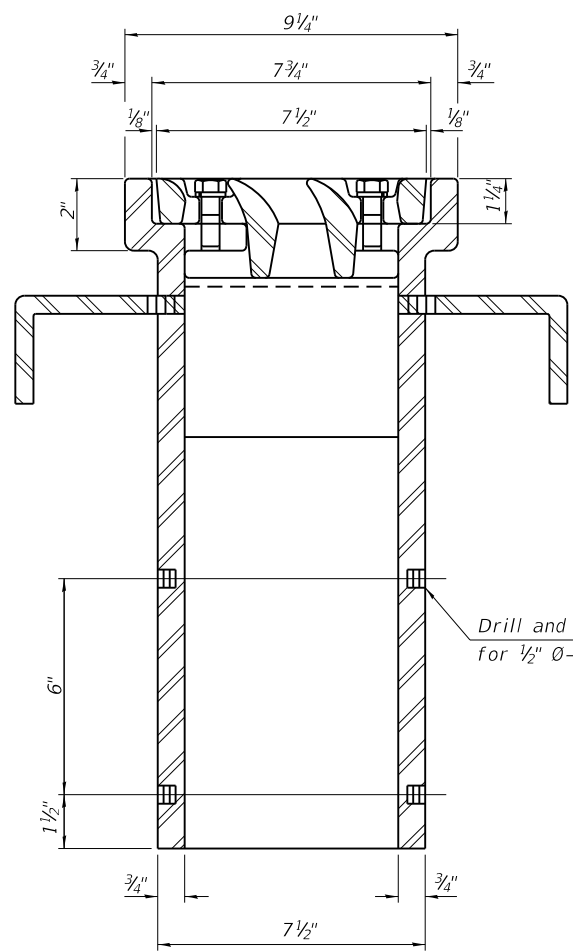
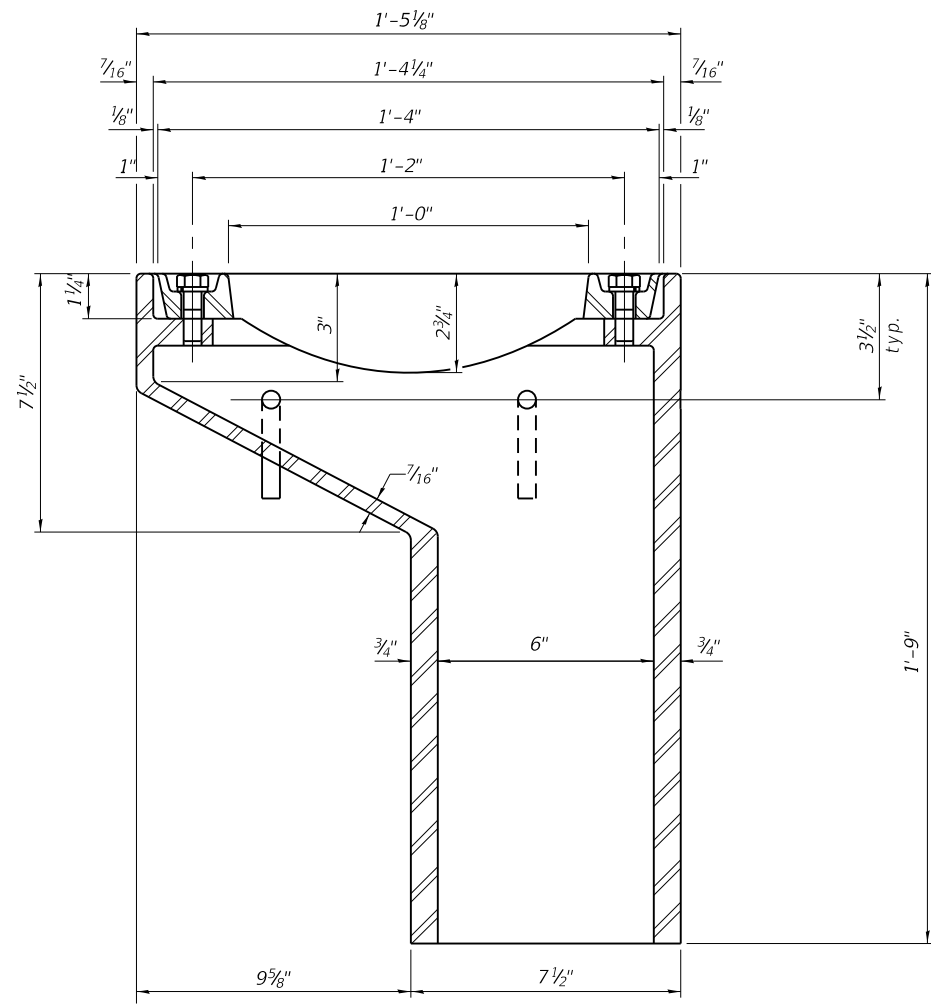
PREFORMED JOINT STRIP SEAL
 STRUCTURE NO. 071-3348

SHEET 15 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	30
CONTRACT NO. 85731				
ILLINOIS		FED. AID PROJECT		



Notes:
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M105, Class 35B and AASHTO M306.
 Bolts, anchor rods, nuts and washers shall be according to ASTM A307 and shall be galvanized according to AASHTO M232. As an alternate stainless steel may be used.
 Stainless steel hardware shall be according to Article 1006.29(d) of the Standard Specifications.
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frames and downspouts; however, the scupper grates shall remain cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.
 Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.
 As an alternate, fiberglass may be used for downspouts according to ASTM D2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. in lieu of the cast iron or structural steel.
 Exterior surfaces of downspouts and exterior exposed surfaces of the scupper frame below deck shall be treated as specified on sheet 11 of 38.
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
 Cost of the grate, frame, downspout, anchor rods, nuts and washers including complete installation of the scupper shall be paid for at the contract unit price for Drainage Scupper, DS-11.



See sheet 10 of 39 for scupper location relative to parapet.

Drill and tap 4 holes 1/2" deep for 1/2" Ø-13 UNC bolts.

DOWNSPOUT

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	4

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DS-11

1-1-2020



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DRAWN - CIH	REVISED -
CHECKED - 11/9/2022	REVISED -

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 DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-11
 STRUCTURE NO. 071-3348

SHEET 16 OF 38 SHEETS

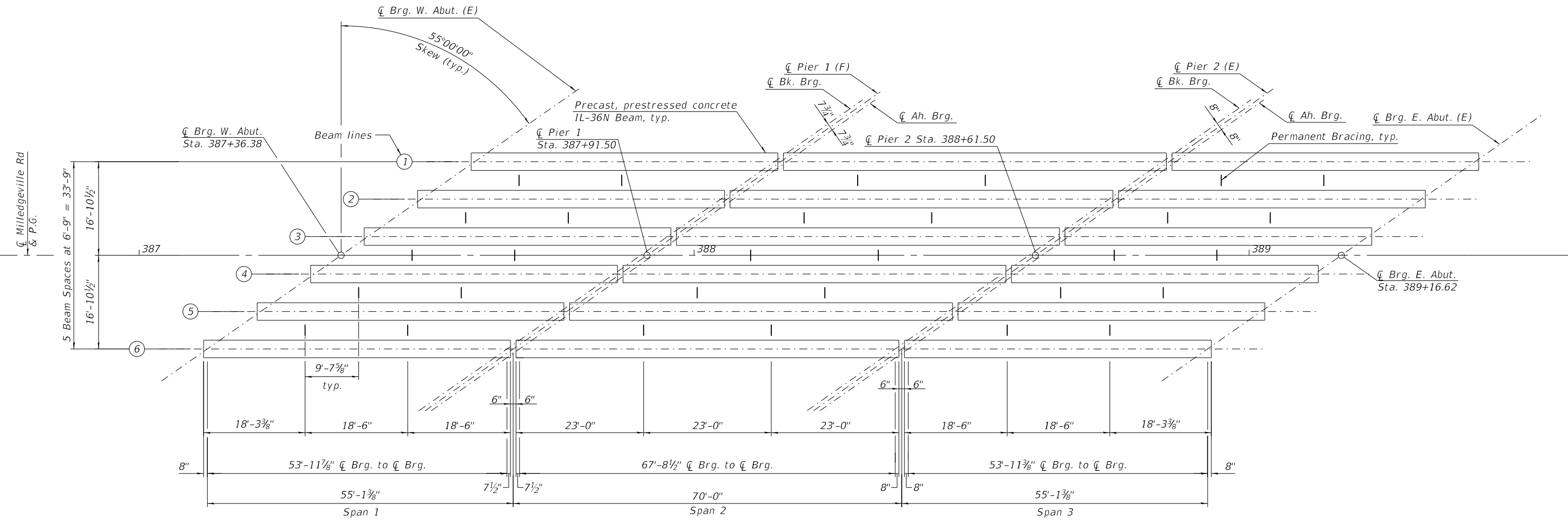
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CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	

LEGEND

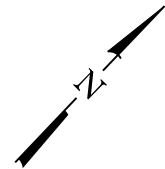
- (F) Fixed Bearing
- (E) Expansion Bearing
- AH. Ahead
- BK. Back

NOTES

All span and diaphragm dimensions are taken parallel or normal to ϕ of Milledgeville Road.
 For span 1 and 3 beam details, see sheet 19 of 38.
 For span 2 beam details, see sheet 20 of 38.
 For diaphragm details, see sheet 22 and 23 of 38.



FRAMING PLAN



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SA STRAND ASSOCIATES
 1170 SOUTH HOUBOLT ROAD
 JOLIET, ILLINOIS 60431
 (815) 744-4200
 IDFPR NO. 184-001273

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	CHECKED - 11/9/2022	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN
 STRUCTURE NO. 071-3348**

SHEET 17 OF 38 SHEETS

F.A.S. RTE. 079	SECTION 20-00326-00-BR	COUNTY OGLE	TOTAL SHEETS 62	SHEET NO. 32
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	

INTERIOR BEAM MOMENT TABLE

		0.4 Sp. 1 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
<i>I</i>	(in ⁴)	100,433	100,433	100,433
<i>I'</i>	(in ⁴)	296,361	296,361	296,361
<i>S_b</i>	(in ³)	6,832	6,832	6,832
<i>S_b'</i>	(in ³)	11,765	11,765	11,765
<i>S_t</i>	(in ³)	4,715	4,715	4,715
<i>S_t'</i>	(in ³)	27,415	27,415	27,415
<i>DC1</i>	(k/ft)	1.50	1.50	1.50
<i>MDC1</i>	(k)	524.0	0.0	858.5
<i>DC2</i>	(k/ft)	0.18	0.18	0.18
<i>MDC2</i>	(k)	39.5	64.4	35.9
<i>DW</i>	(k/ft)	0.31	0.31	0.31
<i>MDW</i>	(k)	69.9	114.0	63.5
<i>MLL+IM</i>	(k)	540.6	487.6	536.4

INTERIOR BEAM REACTION TABLE

		Abut.	Pier 1 Bk. Brg. Pier 2 Ah. Brg.	Pier 1 Ah. Brg. Pier 2 Bk. Brg.
<i>RDC1</i>	(k)	40.4	44.7	55.0
* <i>RDC2</i>	(k)	3.7	12.4	12.4
* <i>RDW</i>	(k)	6.6	21.9	21.9
* <i>RLL+IM</i>	(k)	84.3	130.0	130.0
<i>RTotal</i>	(k)	135.0	209.0	219.3

I: Non-composite moment of inertia of beam section (in.⁴).
I': Composite moment of inertia of beam section (in.⁴).
S_b: Non-composite section modulus for the bottom fiber of the prestressed beam (in.³).
S_b': Composite section modulus for the bottom fiber of the prestressed beam (in.³).
S_t: Non-composite section modulus for the top fiber of the prestressed beam (in.³).
S_t': Composite section modulus for the top fiber of the prestressed beam (in.³).
DC1: Un-factored non-composite dead load (kips/ft.).
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_L + IM: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

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

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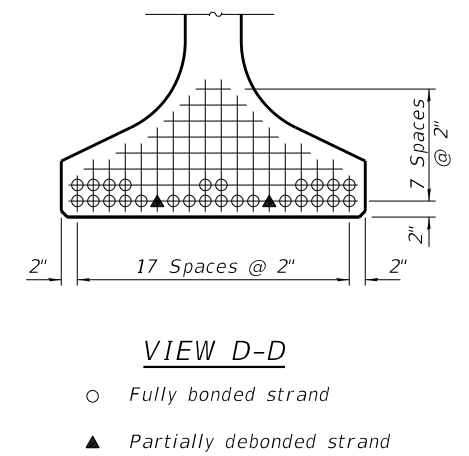
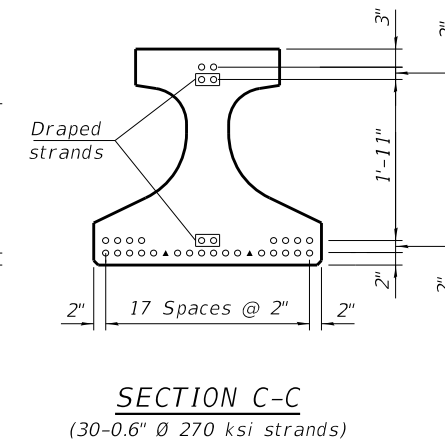
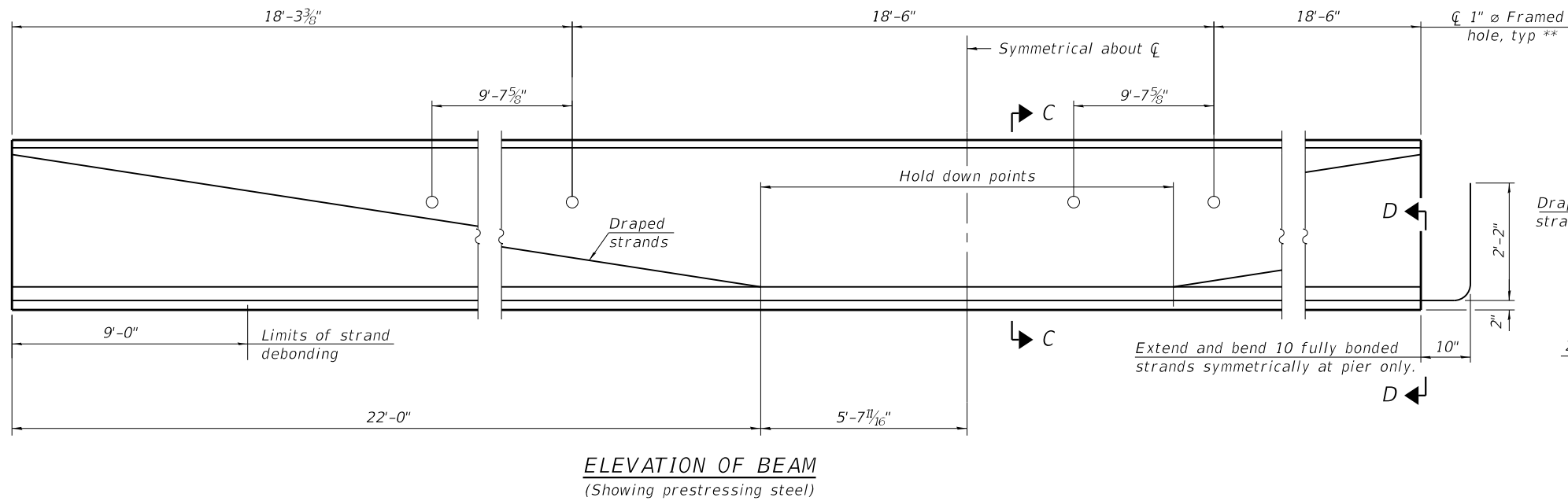
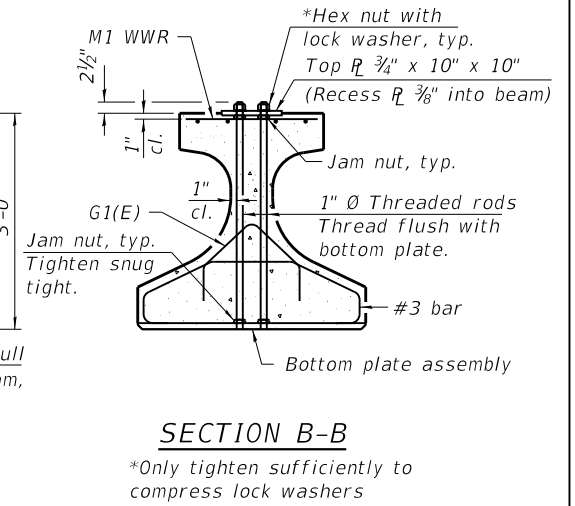
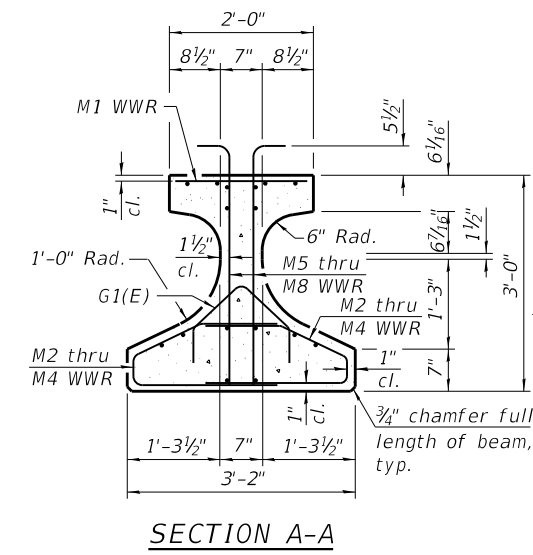
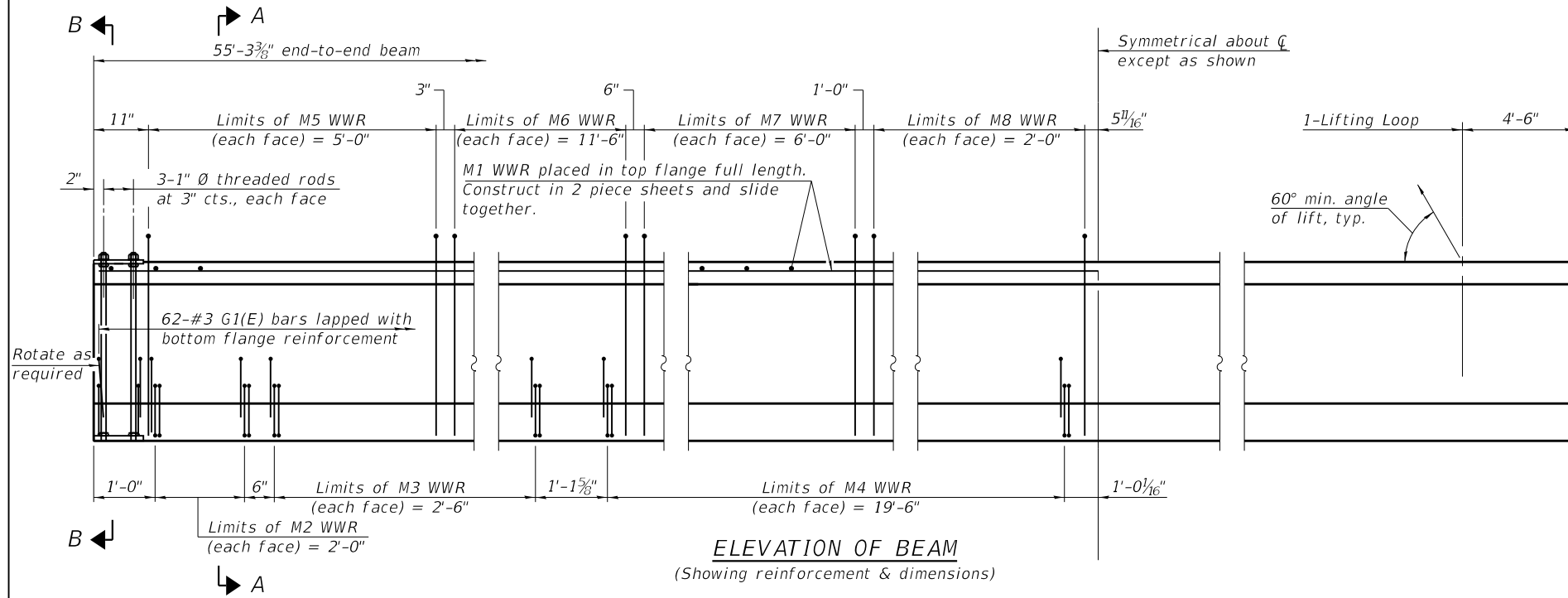
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

INTERIOR MOMENT AND REACTION TABLES
 STRUCTURE NO. 071-3348

SHEET 18 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	33
CONTRACT NO.			85731	
ILLINOIS		FED. AID PROJECT		



Note:
See sheet 21 of 38 for additional details and Bill of Material.
** only two 1"Ø formed holes required at Fascia Beams. See Framing plan.

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IL36-2438

8-13-2021



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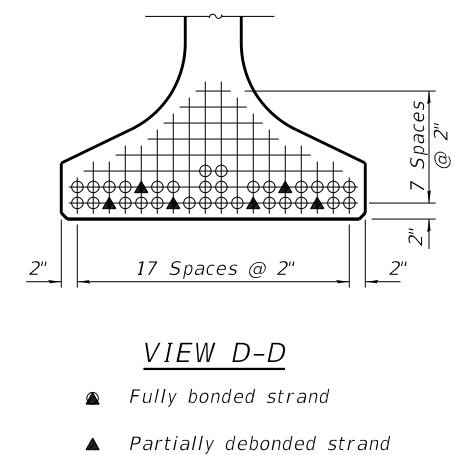
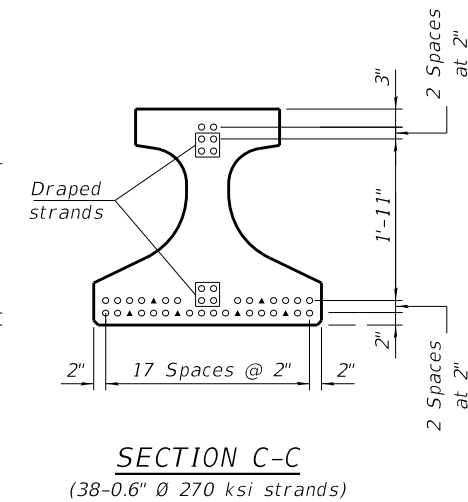
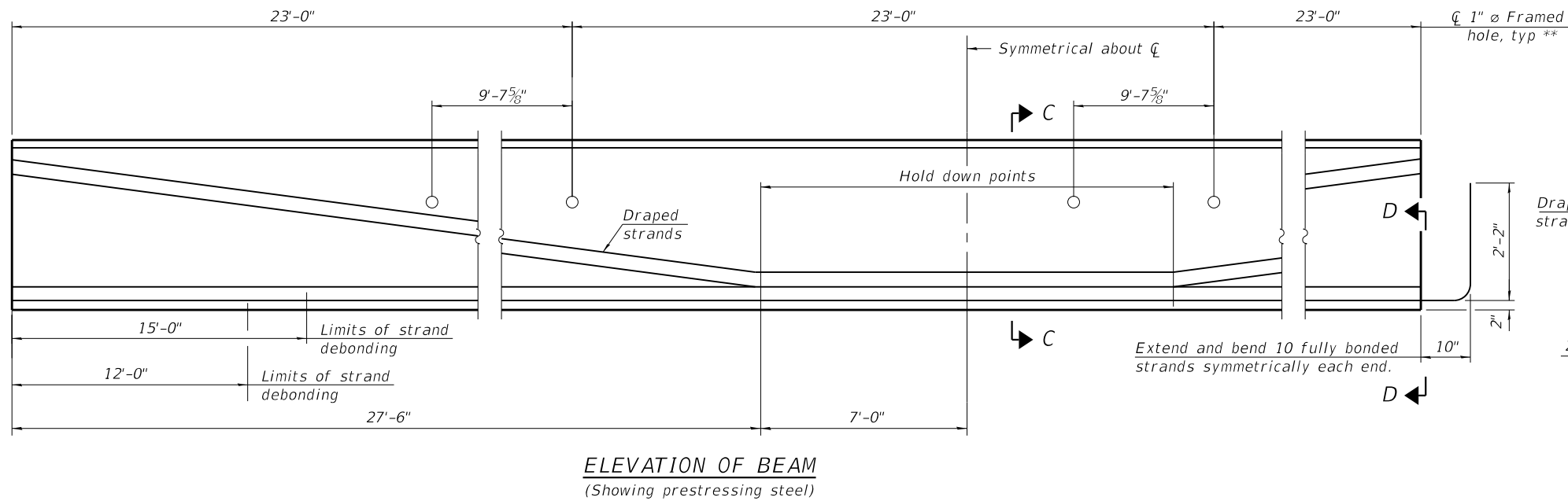
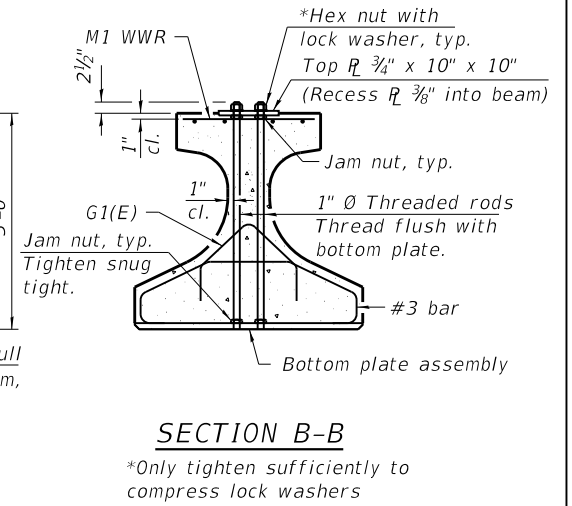
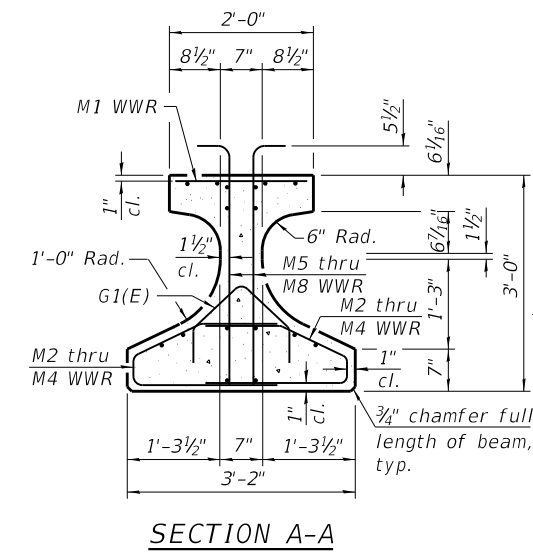
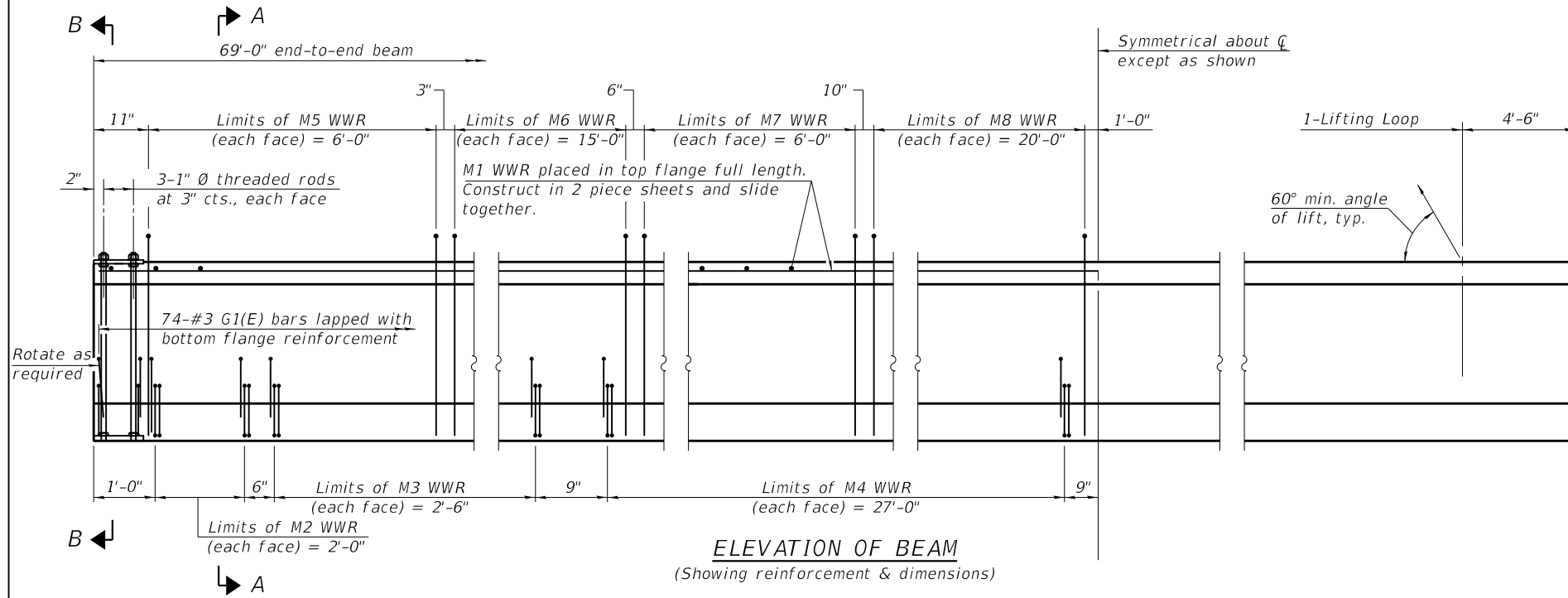
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	DRAWN - CIH	REVISED -
	CHECKED - 11/9/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL36N BEAM SPAN 1 & 3
STRUCTURE NO. 071-3348

SHEET 19 OF 38 SHEETS

F.A.S. RTE. 079	SECTION 20-00326-00-BR	COUNTY OGLE	TOTAL SHEETS 62	SHEET NO. 34
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				



Note:
See sheet 21 of 38 for additional details and Bill of Material.
** only two 1"Ø formed holes required at Fascia Beams. See Framing plan.

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IL36-2438

8-13-2021

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL36N BEAM SPAN 2
STRUCTURE NO. 071-3348**

SHEET 20 OF 38 SHEETS

F.A.S. RTE. 079	SECTION 20-00326-00-BR	COUNTY OGLE	TOTAL SHEETS 62	SHEET NO. 35
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				

NOTES

Inserts for 3/4" Ø threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be 1/2" and the nominal cross sectional area shall be 0.153 sq. in. The beams shall have a final concrete compressive strength, f'c, of 8000 psi and a release concrete compressive strength, f'ci, of 6500 psi. A minimum 2 1/2" Ø lifting pin shall be used to engage the lifting loops during handling. Bend the extended strands inward on the fascia beams to maintain 1 1/2" clearance inside the pier diaphragm. The top and bottom plates shall be AASHTO M270 Grade 50. The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232. Threaded rods shall be ASTM F 1554 Grade 55. Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating or ASTM A1060, Table 3 galvanized coating.

TABLE OF DIMENSIONS

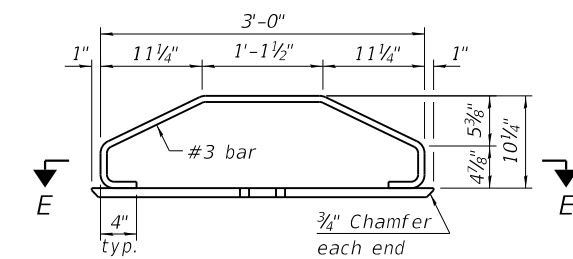
(The WWR designs assume grade 60. If necessary, this permits the fabricator to directly substitute grade 60 rebar as detailed in the Manual for Fabrication of Precast Prestressed Concrete Products.)

SPANS 1 & 3

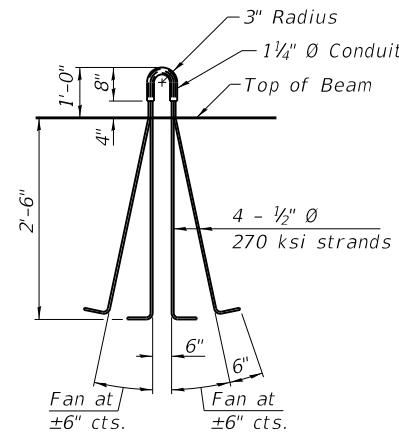
WWR	A	B
M2	9	3"
M3	6	6"
M4	13	1'-6"
M5	20	3"
M6	23	6"
M7	7	1'-0"
M8	2	2'-0"

SPAN 2

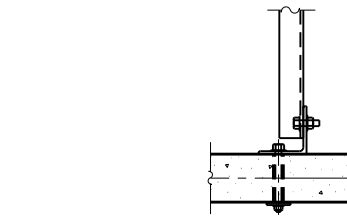
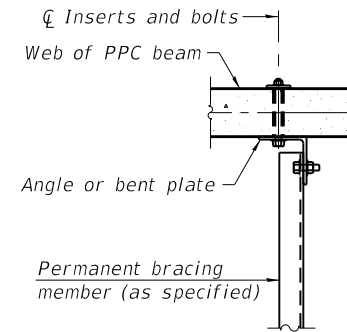
WWR	A	B
M2	9	3"
M3	6	6"
M4	19	1'-6"
M5	25	3"
M6	31	6"
M7	7	1'-0"
M8	3	2'-0"



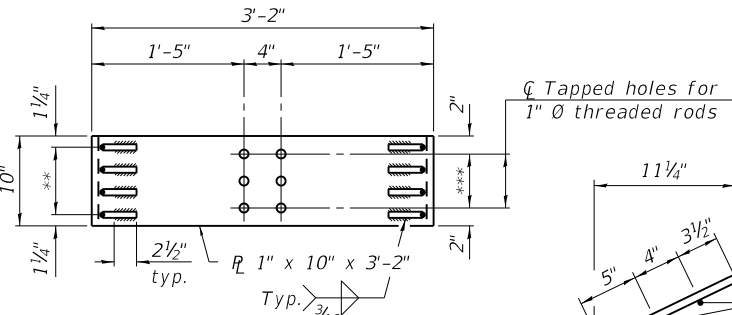
ELEVATION - BOTTOM PLATE ASSEMBLY



LIFTING LOOP DETAIL (1 Loop Each End)

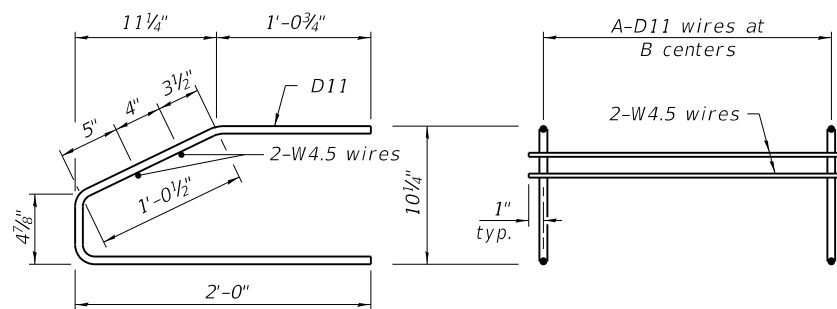


PLAN (When 90° bracing is specified)

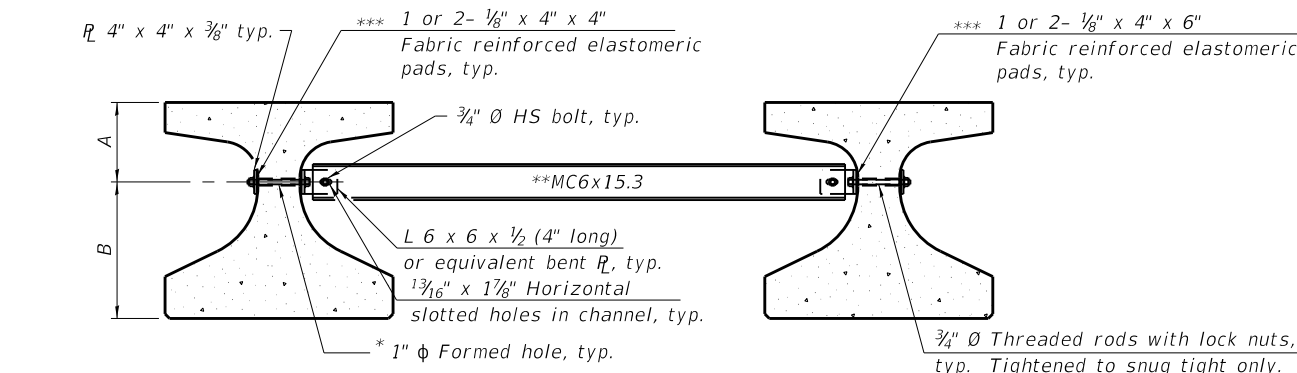


SECTION E-E

** 3 Spaces at 2 1/2" = 7 1/2"
*** 2 Spaces at 3" = 6"



M2 THRU M4 WWR DETAIL (See Table of Dimensions)



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 1/16" 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.

Beam	A	B
IL27	11 1/4"	1'-3 3/4"
IL36	1'-1 1/4"	1'-10 3/4"

- * Fabricator shall locate to miss strands within permissible tolerances.
- ** Alternate MC6x18 channels are permitted to facilitate material acquisition.
- *** Place pads as necessary to provide a flat mounting surface between the steel and concrete.

PERMANENT BRACING DETAILS FOR IL27 AND IL36 BEAMS

IL36-2438D

8-13-2021

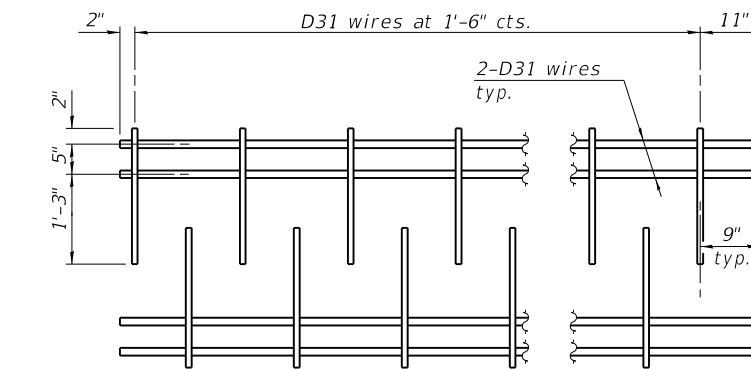
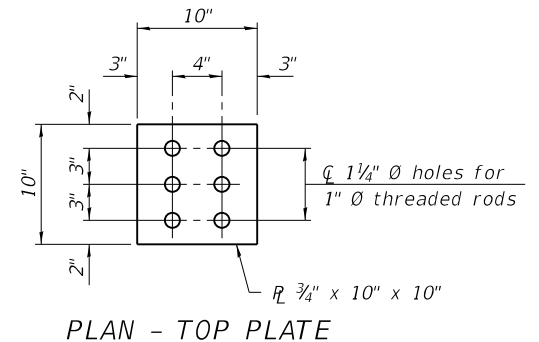
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

IL36N BEAM DETAILS STRUCTURE NO. 071-3348

SHEET 21 OF 38 SHEETS

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Beams, IL36N	Ft.	1,078

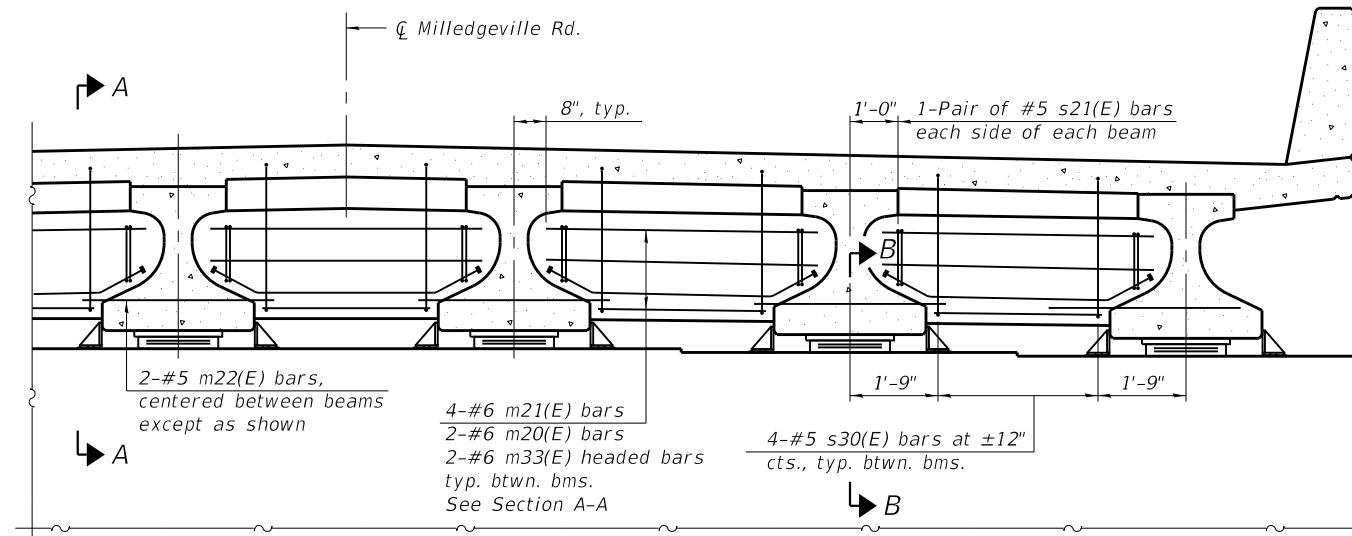
BILL OF MATERIAL



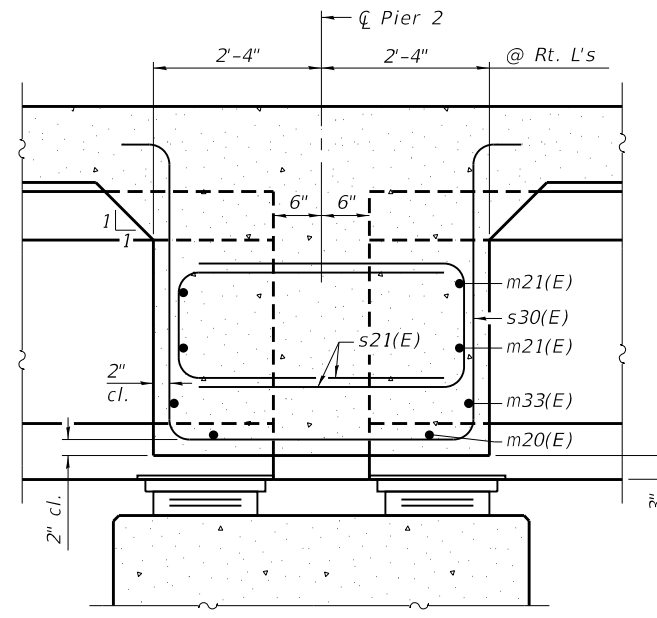
When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (5'-0" long) shall be used to splice the longitudinal D31 wires together (Min. Lap 2'-2").

USER NAME	DESIGNED	CHECKED	PLOT SCALE	PLOT DATE	REVISIONS
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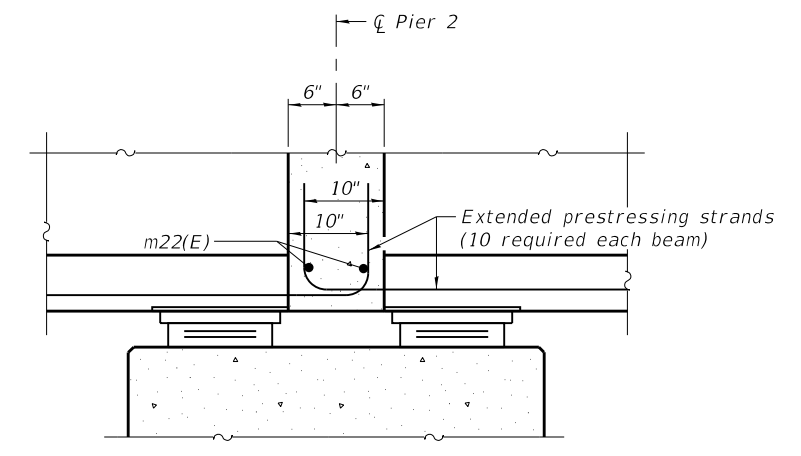
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	36
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				



EXPANSION DIAPHRAGM AT PIER 2



SECTION A-A

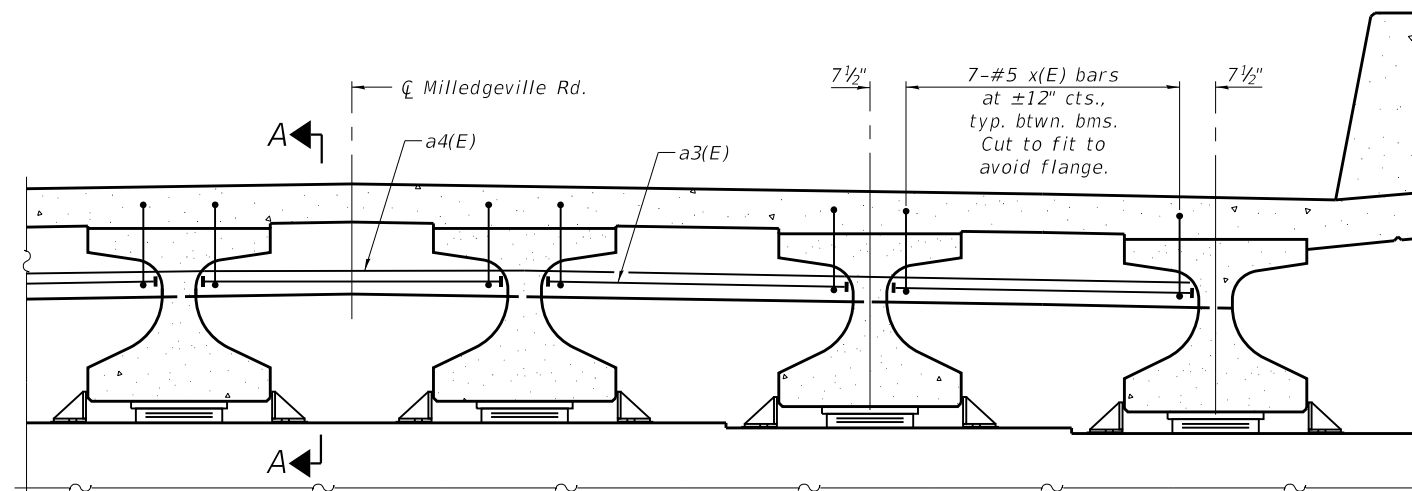


SECTION B-B

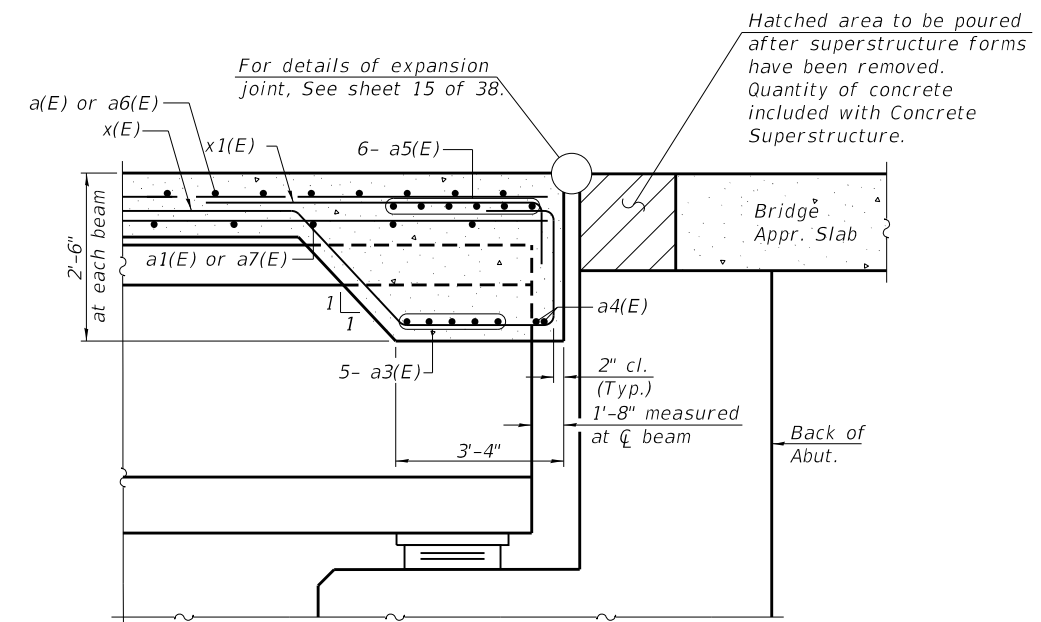
Notes:
 See sheet 11 of 38 for superstructure details and Bill of Material.
 The s30(E) and s21(E) bars shall be placed parallel to the beams.
 Spacing for these bars shall be at right angles to the beams.
 Horizontal dimensions for Section A-A and Section B-B are along \bar{c} of beam unless otherwise noted.

DEP-IL36N

6-15-2019



DIAPHRAGM AT ABUTMENT



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

Notes:
 See sheet 11 of 38 for superstructure details and Bill of Material.
 The x(E) and x1(E) bars shall be placed parallel to the beams.
 Spacing for these bars shall be at right angles to the beams.

DEA-IL36-LR

1-1-2020

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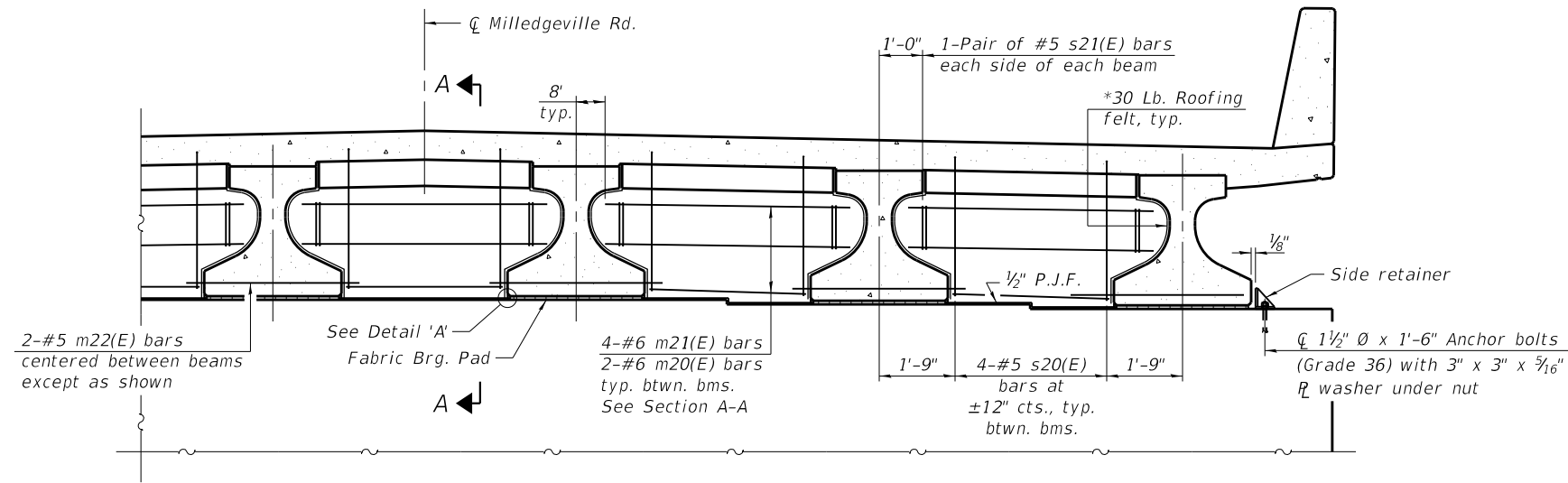
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	CHECKED - 11/9/2022	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXPANSION DIAPHRAGM DETAILS
 STRUCTURE NO. 071-3348

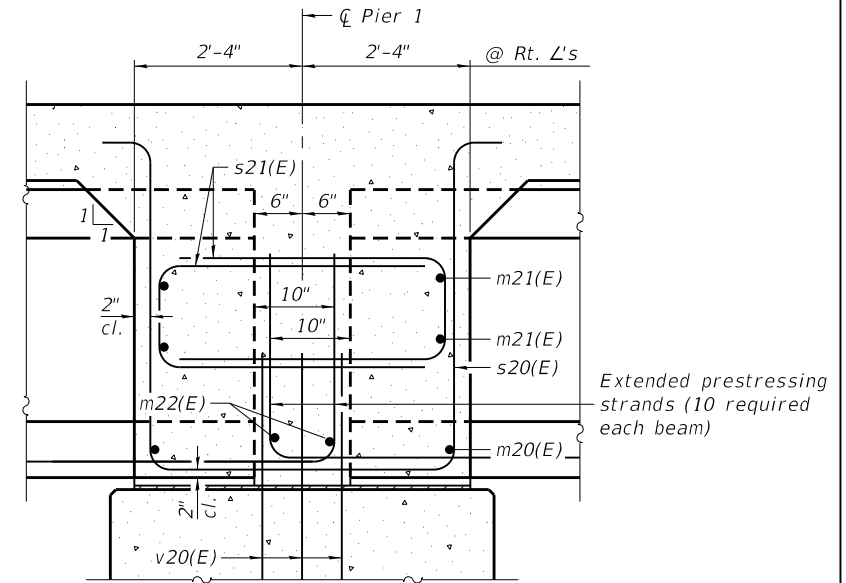
SHEET 22 OF 38 SHEETS

F.A.S. RTE. 079	SECTION 20-00326-00-BR	COUNTY OGLE	TOTAL SHEETS 62	SHEET NO. 37
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	



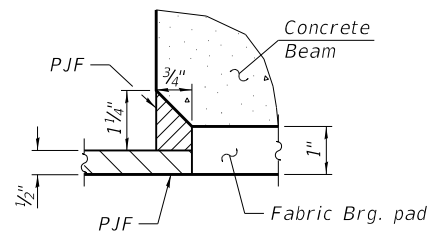
FIXED DIAPHRAGM AT PIER 1

*Bonded to sides of beams embedded into diaphragm.

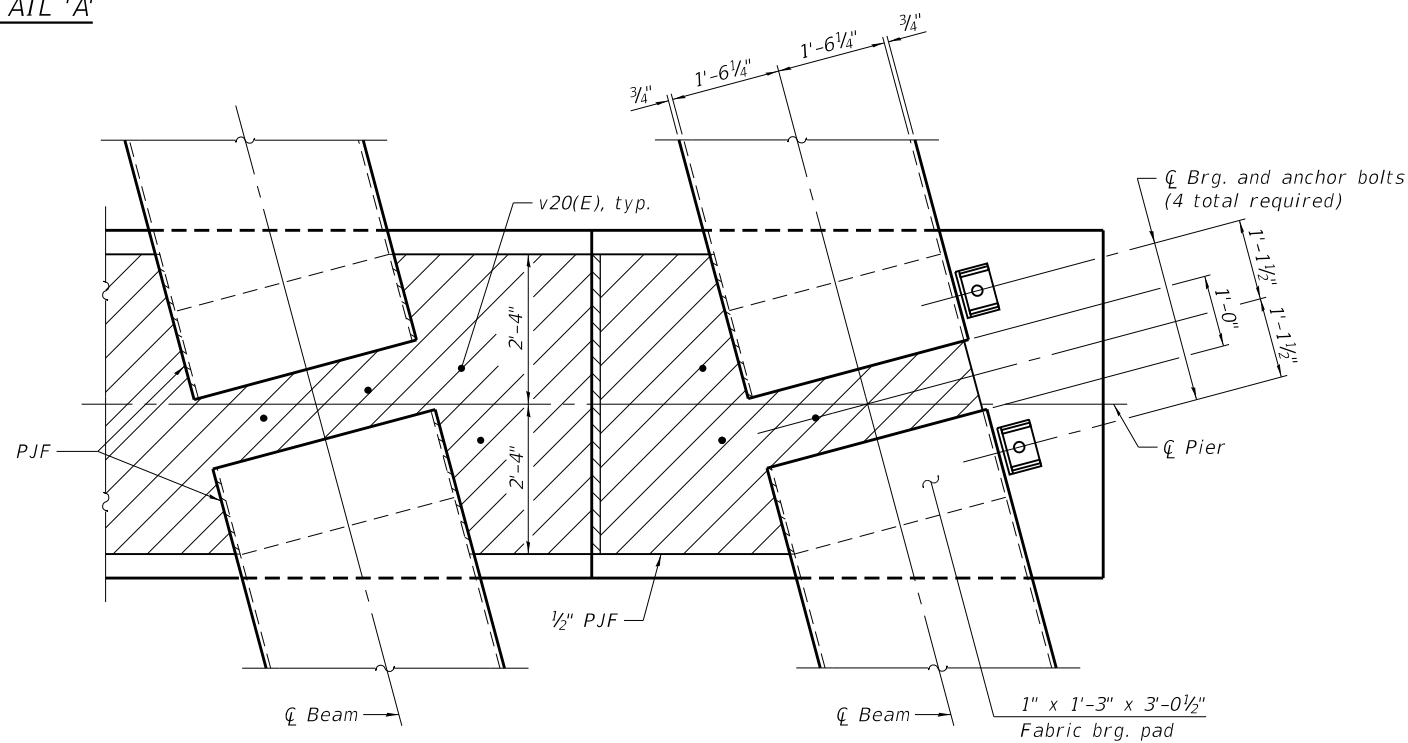


SECTION A-A

(Dimensions along \bar{C} of beam except as shown)

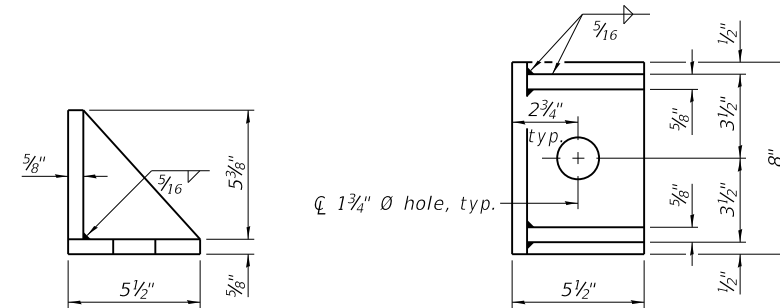


DETAIL 'A'



PLAN AT PIER

(Showing bearing pads and P.J.F. details)



SIDE RETAINER

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

Notes:

- See sheet 11 of 38 for superstructure details and Bill of Material.
- Cost of 30 Lb. roofing felt is included with Concrete Superstructure.
- Cost of side retainer and anchor bolts shall be included with Concrete Structures.
- The s20(E) and s21(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
- Anchor bolts and side retainers shall be according to Article 521.06 of the Standard Specifications. Side retainers shall be hot dip galvanized.
- Anchor bolts and side retainers shall be installed as each exterior beam is erected unless an equivalent temporary means of lateral restraint is used.

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6-15-2019



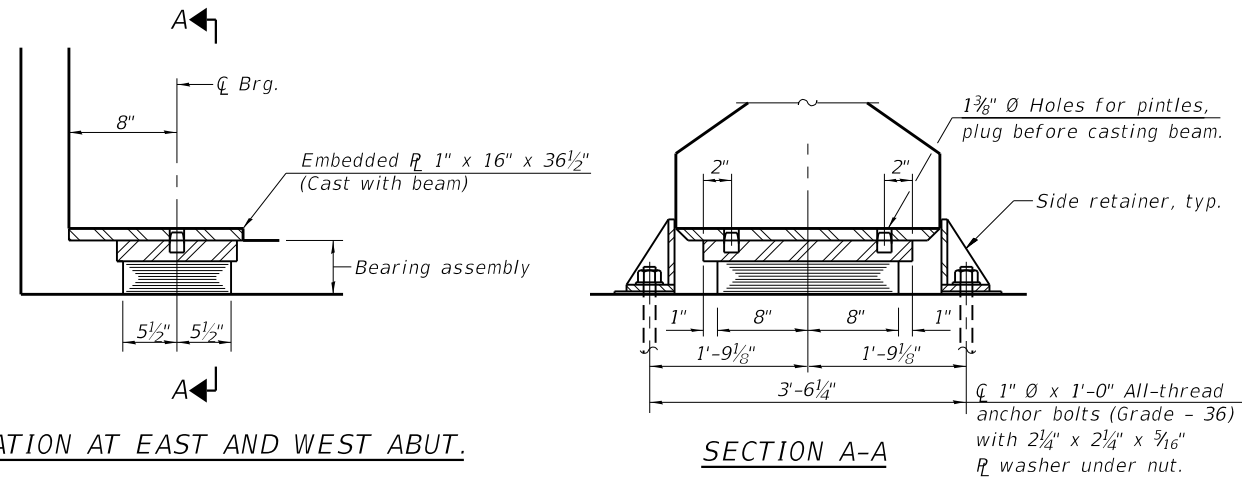
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	CHECKED - 11/9/2022	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FIXED DIAPHRAGM DETAILS
STRUCTURE NO. 071-3348**

SHEET 23 OF 38 SHEETS

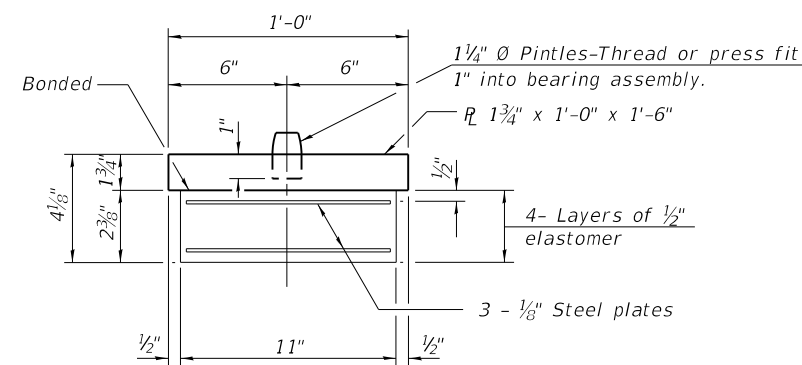
F.A.S. RTE. 079	SECTION 20-00326-00-BR	COUNTY OGLE	TOTAL SHEETS 62	SHEET NO. 38
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	



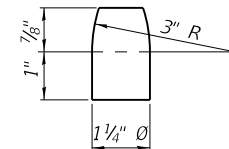
ELEVATION AT EAST AND WEST ABUT.

SECTION A-A

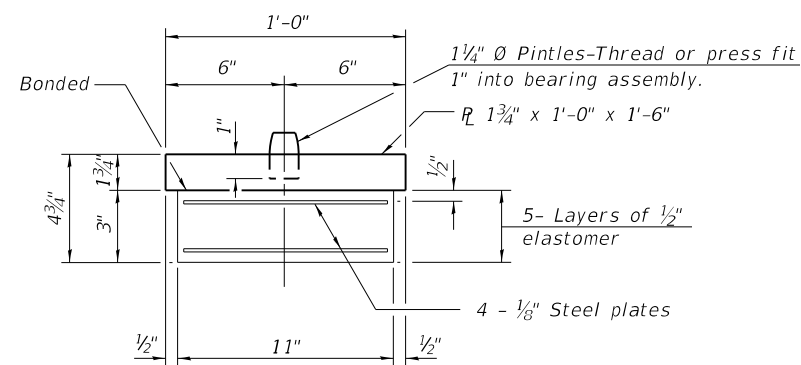
TYPE I ELASTOMERIC EXP. BRG.



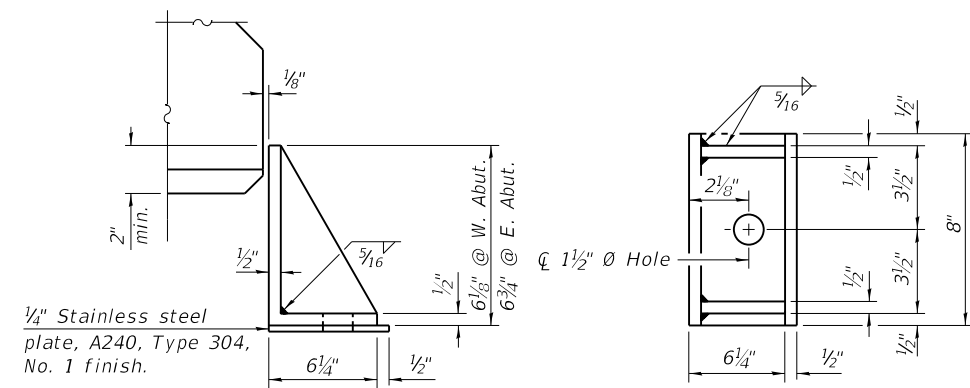
BEARING ASSEMBLY
(West Abutment)



PINTLE



BEARING ASSEMBLY
(East Abutment)



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

Notes:
Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
See sheet 21 of 38 for additional details of embedded plate.
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
All exposed bearing plates and side retainers shall be hot dip galvanized according to AASHTO M111.

BILL OF MATERIAL
EAST AND WEST ABUTMENT

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	12
Anchor Bolts, 1"	Each	24

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PI-2E-1

6-15-2019



1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

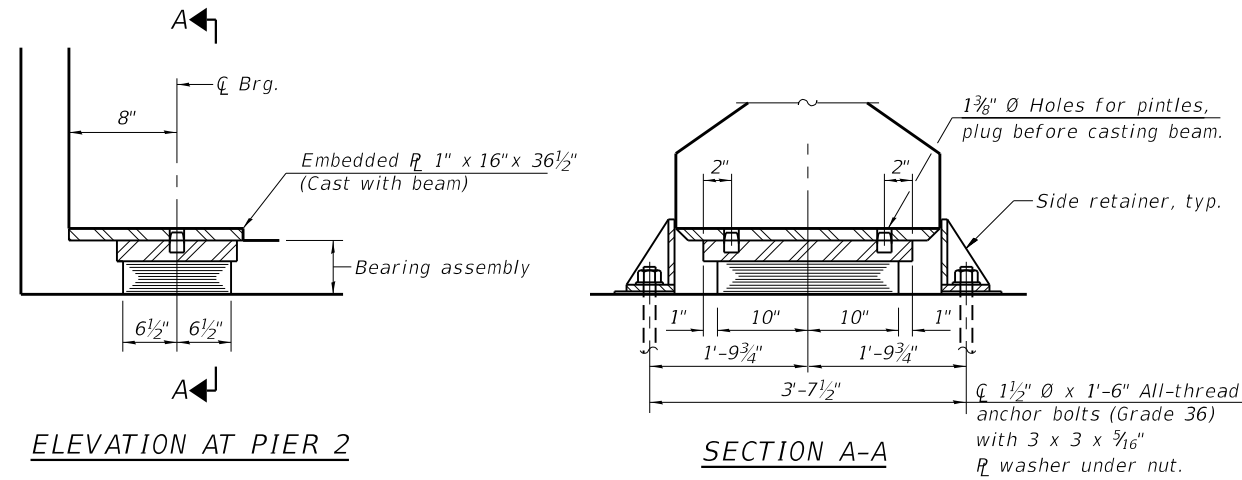
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

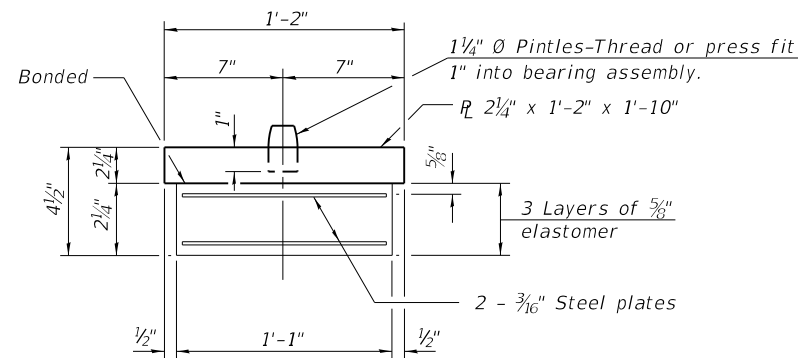
EXPANSION BEARING DETAILS AT ABUTMENTS
STRUCTURE NO. 071-3348

SHEET 24 OF 38 SHEETS

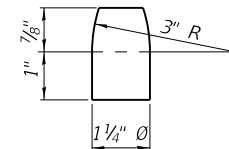
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	39
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	



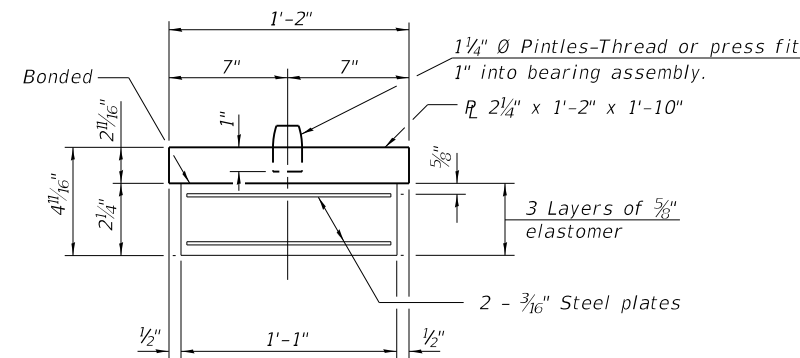
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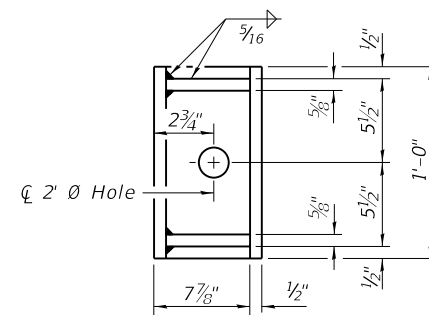
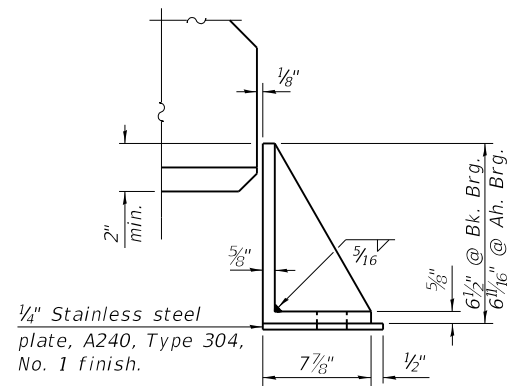
BEARING ASSEMBLY
(Bk. Bearing)



PINTLE



BEARING ASSEMBLY
(Ah. Bearing)



SIDE RETAINER

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

Notes:
 Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
 See sheet 21 of 38 for additional details of embedded plate.
 Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
 All exposed bearing plates and side retainers shall be hot dip galvanized according to AASHTO M111.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	12
Anchor Bolts, 1 1/2"	Each	24

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6-15-2019



1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

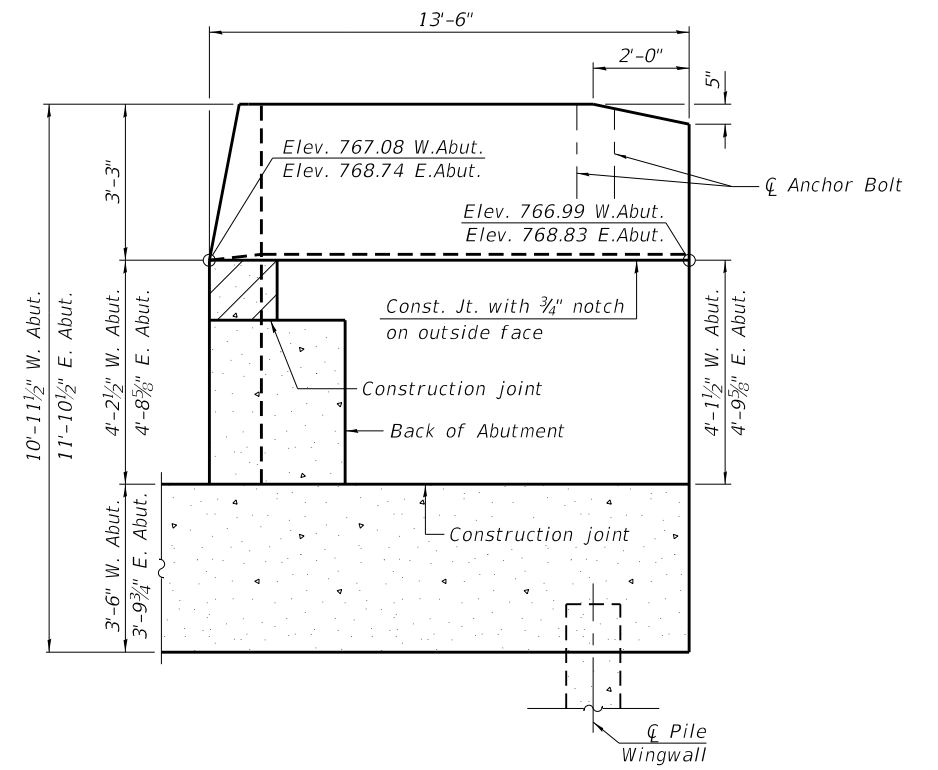
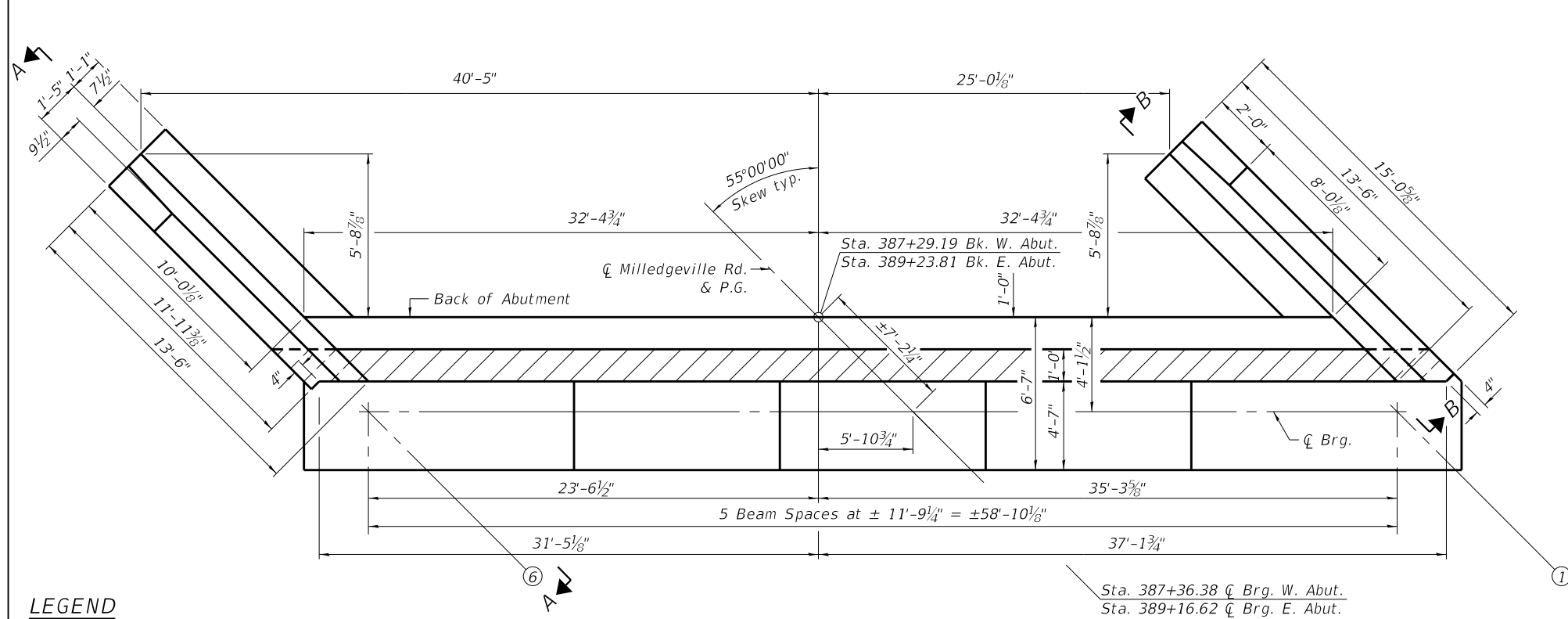
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXPANSION BEARING DETAILS PIER 2
STRUCTURE NO. 071-3348**

SHEET 25 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	40
CONTRACT NO.			85731	
ILLINOIS		FED. AID PROJECT		



LEGEND

- I HP Pile
- I Battered (3V:1H) HP Pile
- ⊕ Test Pile

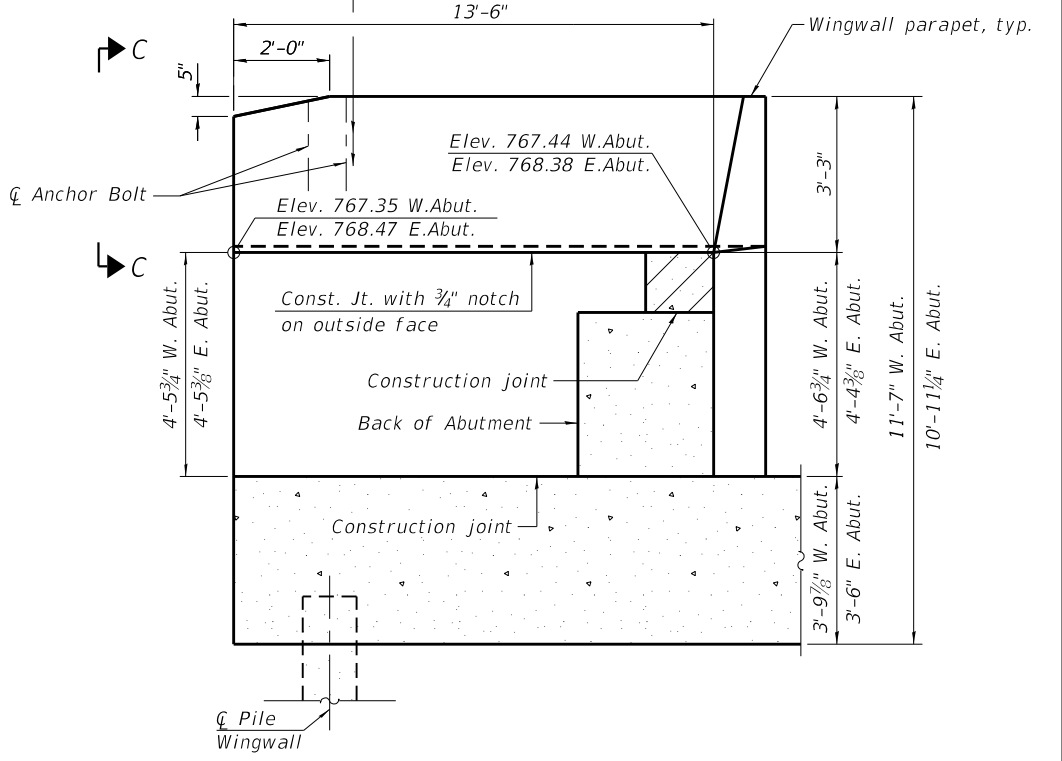
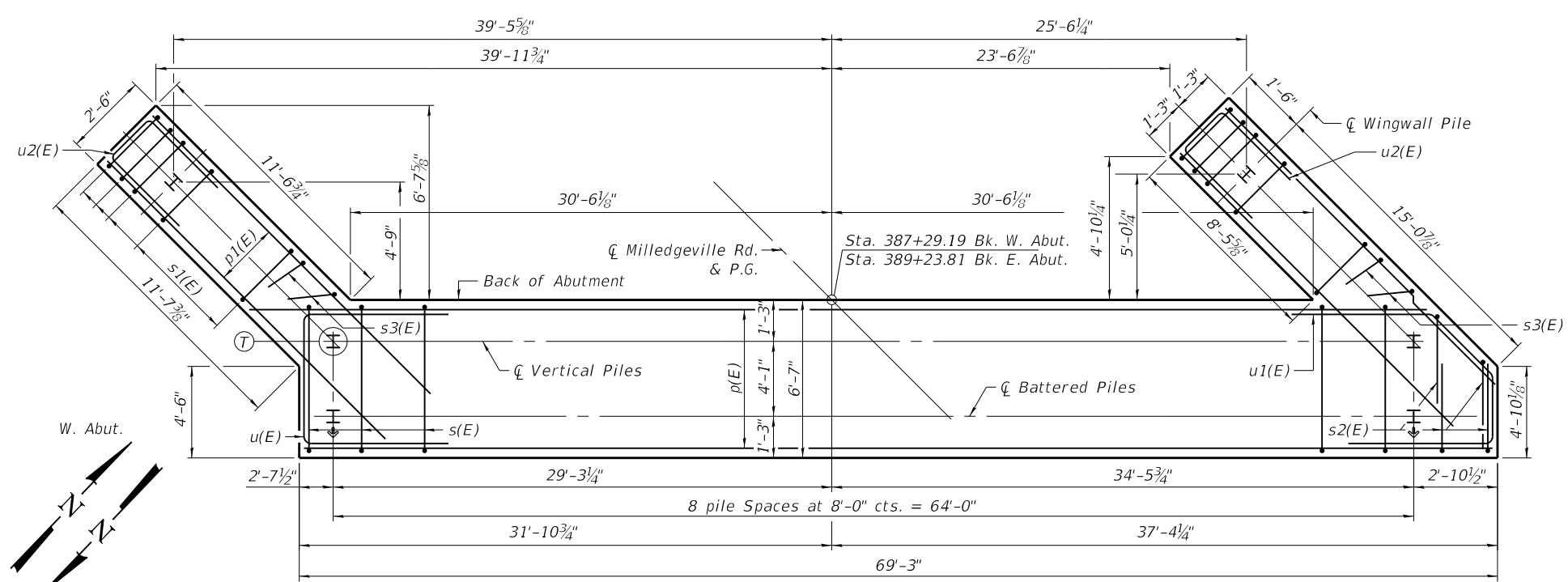
PLAN

(West Abut. Shown; East Abut. Similar by 180° Notation)

SECTION A-A

(Showing dimensions)

For Anchor bolts of Type 6 terminal connections, see Highway Standard 631031, typ.



PILE CAP PLAN

(West Abut. Shown; East Abut. Similar by 180° Notation)

SECTION B-B

(Showing dimensions)

(Sheet 1 of 3)

MODEL: Default
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12-30-2021



1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

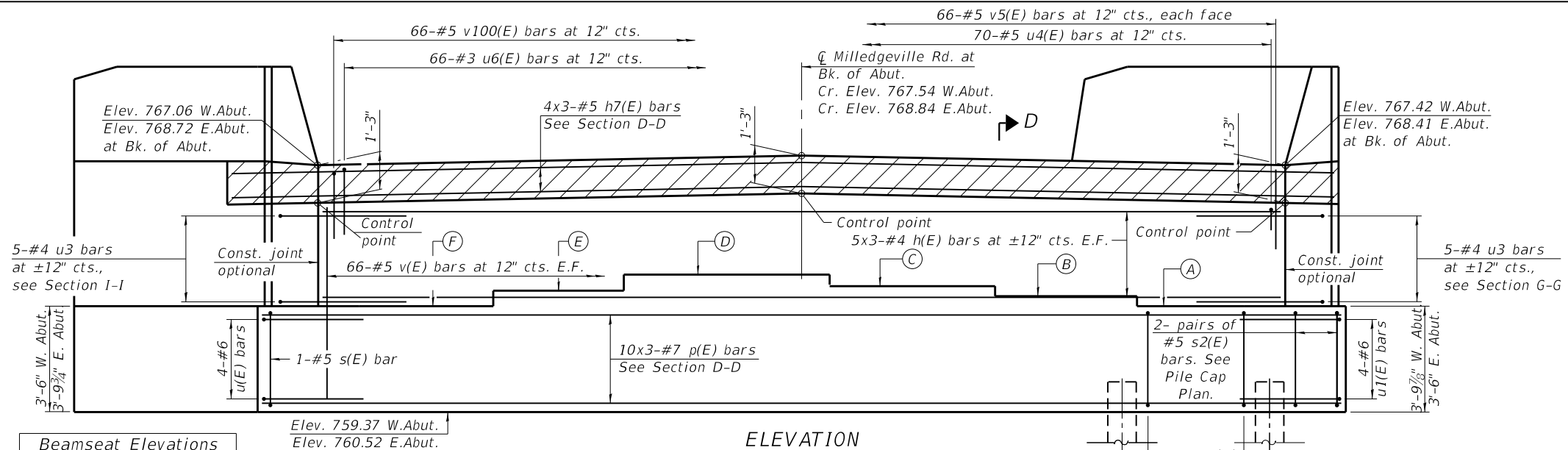
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ABUTMENT PLAN AND ELEVATION 1 OF 2
STRUCTURE NO. 071-3348**

SHEET 26 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	41
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				

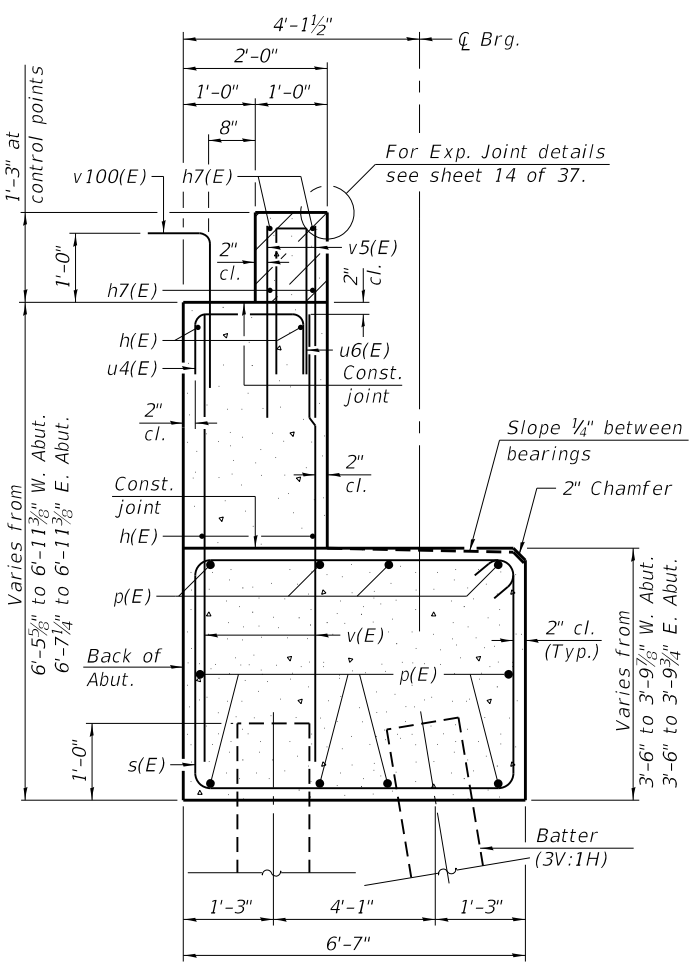


Beamseat Elevations

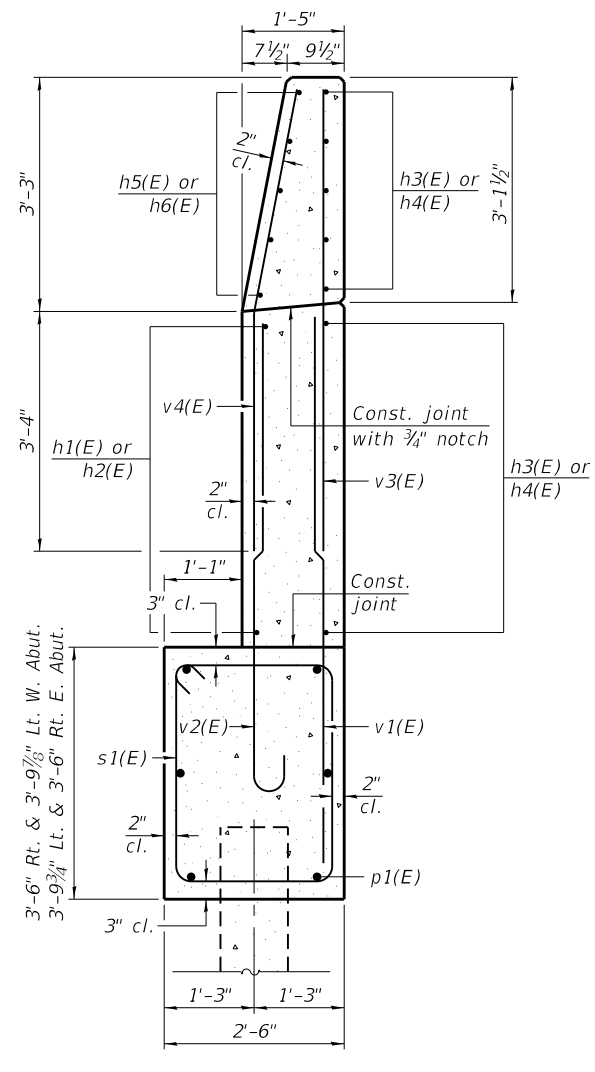
Pt.	W. Abut.	E. Abut.
A	763.19	764.35
B	763.23	764.38
C	763.27	764.42
D	763.20	764.36
E	763.04	764.19
F	762.87	764.02

Elev. 759.37 W.Abut.
Elev. 760.52 E.Abut.

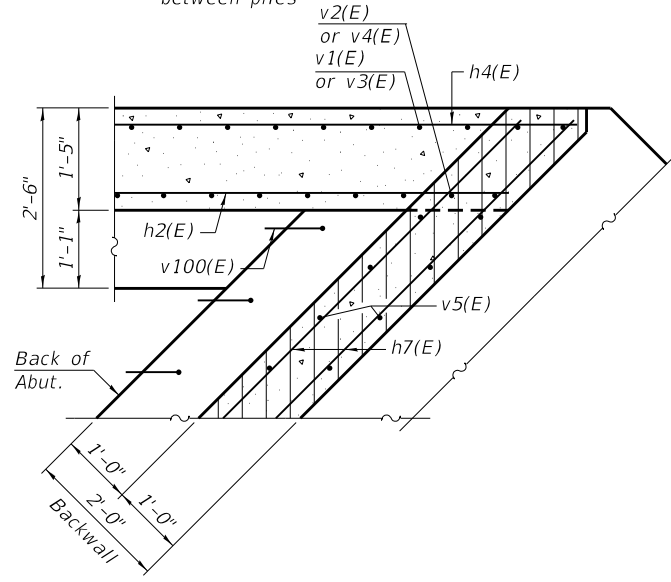
ELEVATION
(Looking West at Front Face W. Abut., E. Abut. Mirrored opposite hand)



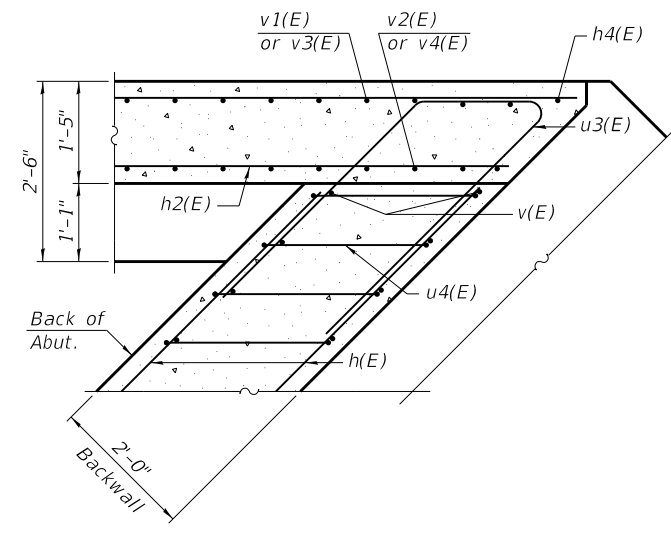
SECTION D-D
(At Rt. L's)



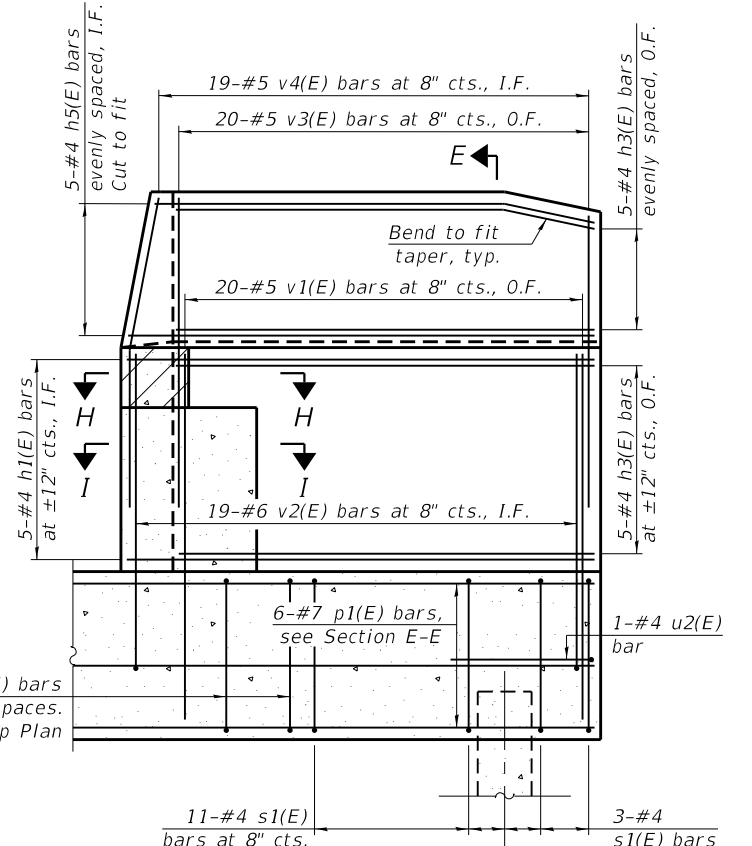
SECTION E-E
(At Rt. L's)



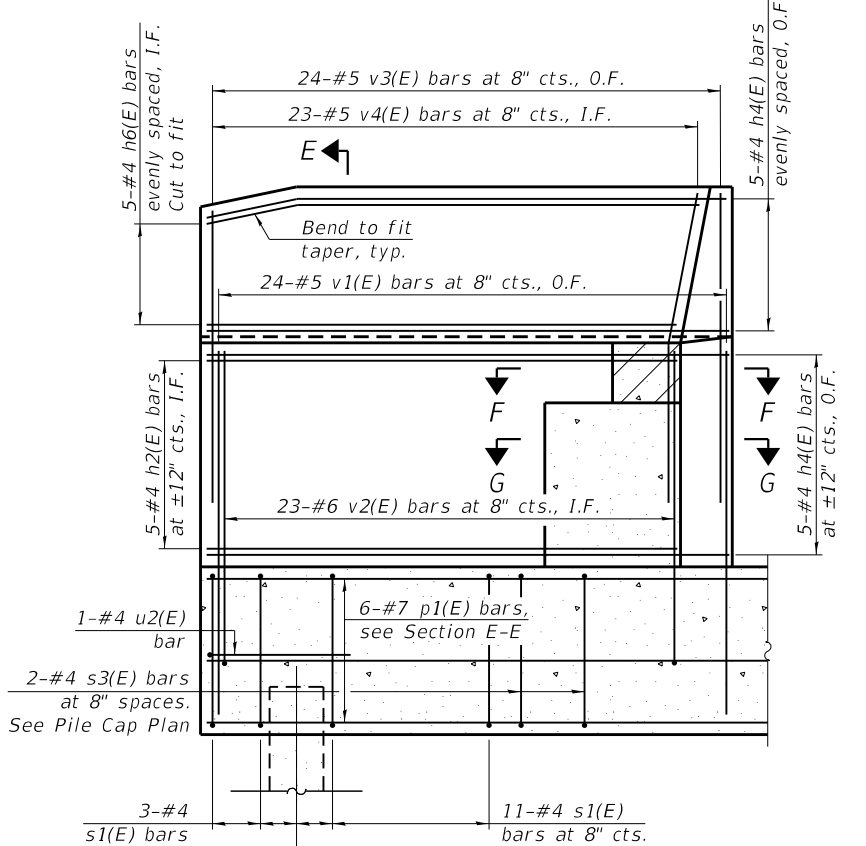
SECTION F-F



SECTION G-G



SECTION A-A E
(Showing reinforcement)



SECTION B-B
(Showing reinforcement)

AS-39CS-L>30 12-30-2021

(Sheet 2 of 3)

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STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
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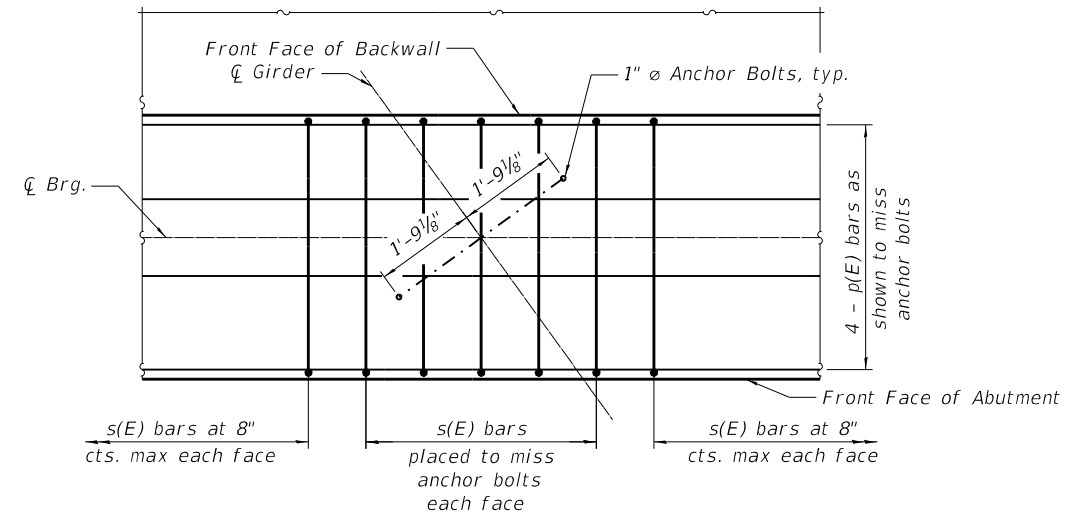
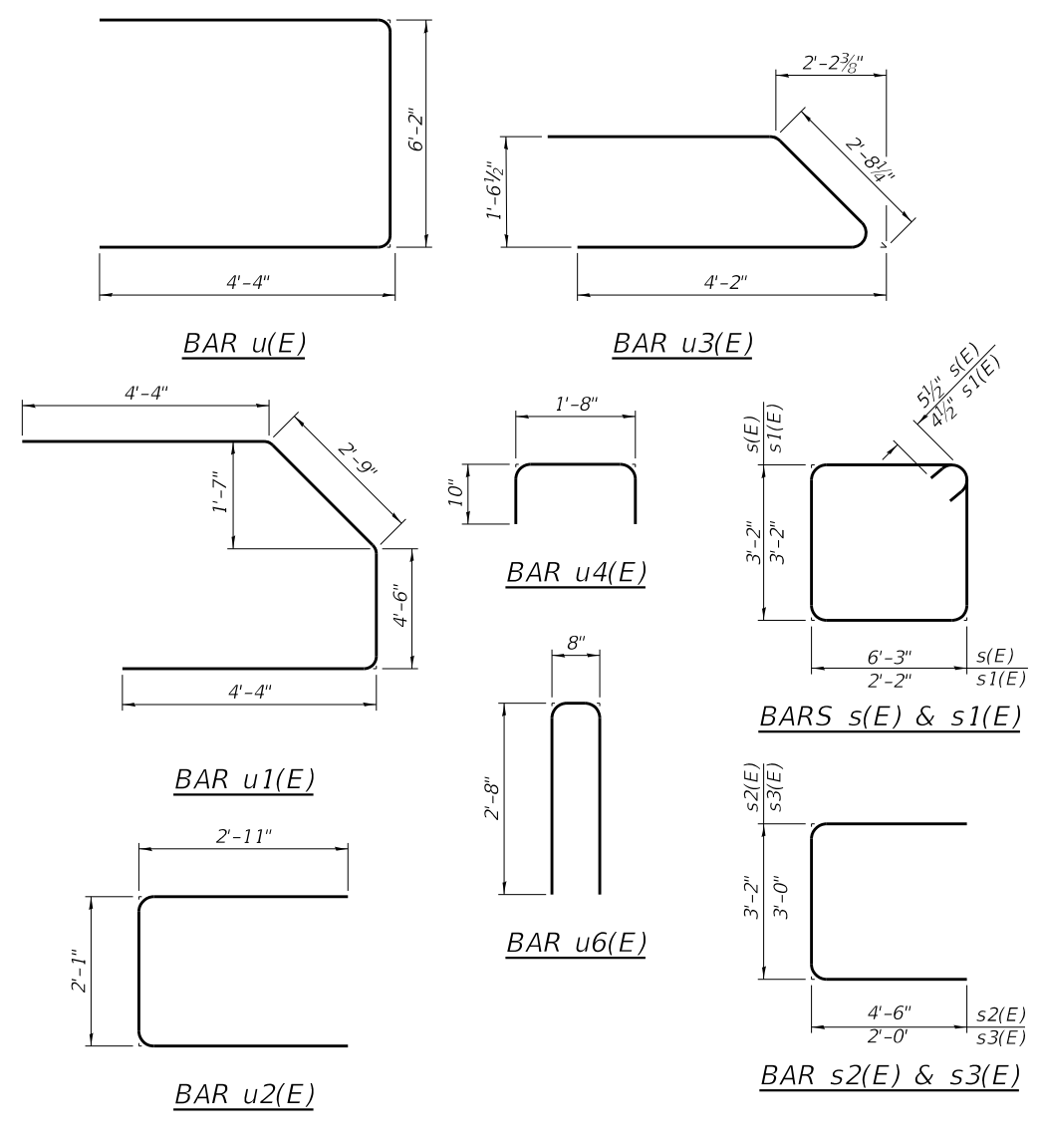
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT PLAN AND ELEVATION (2 OF 2)
STRUCTURE NO. 071-3348

SHEET 27 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	42
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				

Notes:
 Hatched area to be poured separately after superstructure falsework has been removed and after approach slab side formwork has been removed.
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles see sheet 32 of 38.
 The top of back wall and approach slab seat shall have a constant slope determined from the control points shown.
 Concrete Sealer shall be applied to the bearing seats and front faces of the hatched block, back wall, and abutment cap.

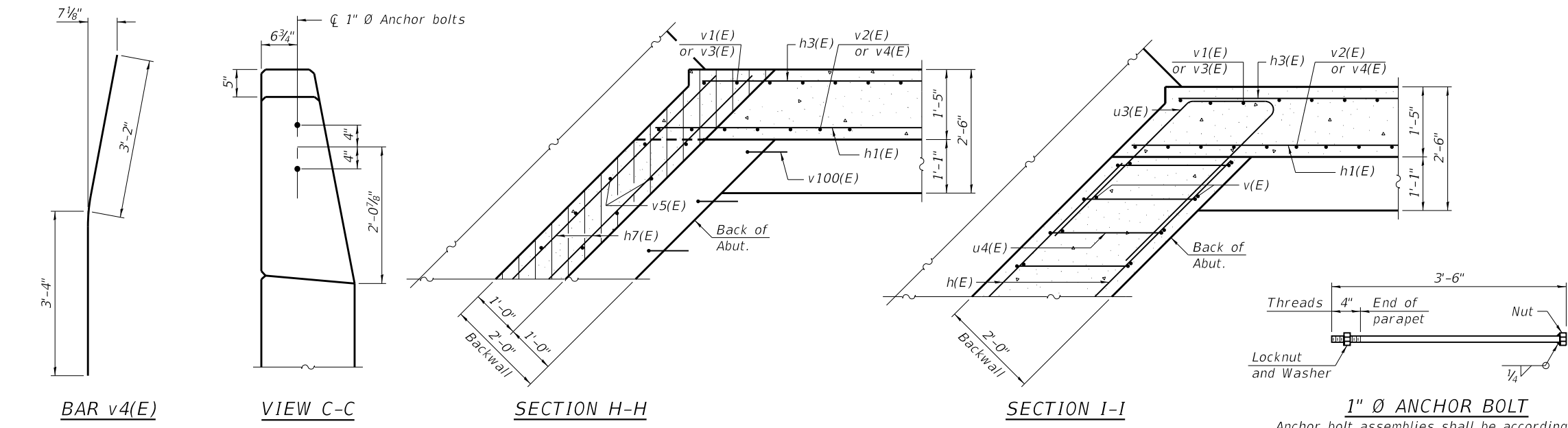


**TWO ABUTMENT
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	60	#4	24'-11"	—
h1(E)	10	#4	13'-2"	—
h2(E)	10	#4	13'-2"	—
h3(E)	20	#4	11'-8"	—
h4(E)	20	#4	14'-9"	—
h5(E)	10	#4	13'-2"	—
h6(E)	10	#4	13'-2"	—
h7(E)	24	#5	25'-8"	—
p(E)	60	#7	26'-4"	—
p1(E)	24	#7	14'-9"	—
s(E)	178	#5	19'-9"	□
s1(E)	56	#4	11'-1"	□
s2(E)	8	#5	12'-7"	C
s3(E)	8	#4	7'-1"	C
u(E)	8	#6	14'-10"	U
u1(E)	8	#6	15'-11"	U
u2(E)	4	#4	7'-11"	C
u3(E)	20	#4	11'-1"	U
u4(E)	140	#5	3'-4"	U
u6(E)	132	#3	6'-0"	U
v(E)	264	#5	6'-6"	—
v1(E)	88	#5	8'-0"	—
v2(E)	84	#6	7'-2"	U
v3(E)	88	#5	6'-6"	—
v4(E)	84	#5	6'-3"	—
v5(E)	264	#5	5'-2"	—
v100(E)	132	#5	5'-2"	L
Structure Excavation		Cu. Yd.	724	
Concrete Structures		Cu. Yd.	167.6	
Concrete Superstructures		Cu. Yd.	13.5	
Reinforcement Bars, Epoxy Coated		Pound	26,070	
Furnishing Steel Piles HP12x53		Foot	1,710	
Pile Shoes		Each	40	
Driving Piles		Foot	1,710	
Test Pile, HP 12x53		Each	2	
Concrete Sealer		Sq. Ft.	1,420	

PILE DATA-PER ABUTMENT
 Type: HP 12x53 with pile shoes
 Nominal Required Bearing: 418 Kips
 Factored Resistance Available: 230 Kips
 Est. Length: 45 ft
 No. Production Piles: 19 + 1 Test pile

MINIMUM BAR LAP
 #4 bar = 2'-7"
 #5 bar = 3'-9"
 #7 bar = 5'-0"



1" Ø ANCHOR BOLT
 Anchor bolt assemblies shall be according to Article 1006.09 of the Standard Specifications.
 Cost included with Concrete Superstructure.

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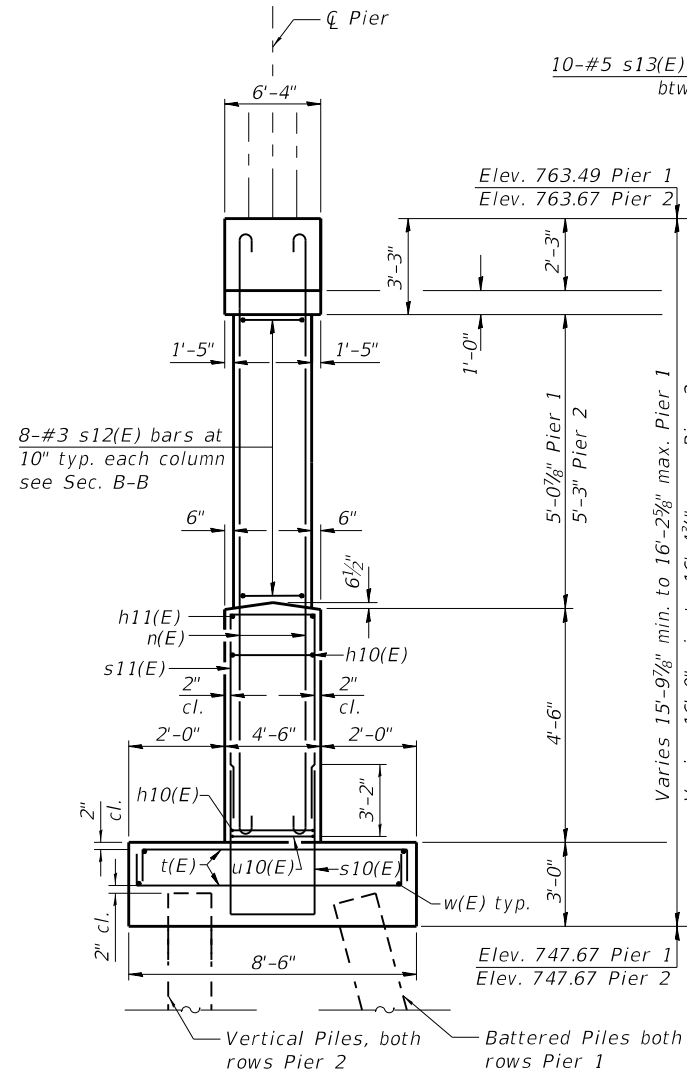
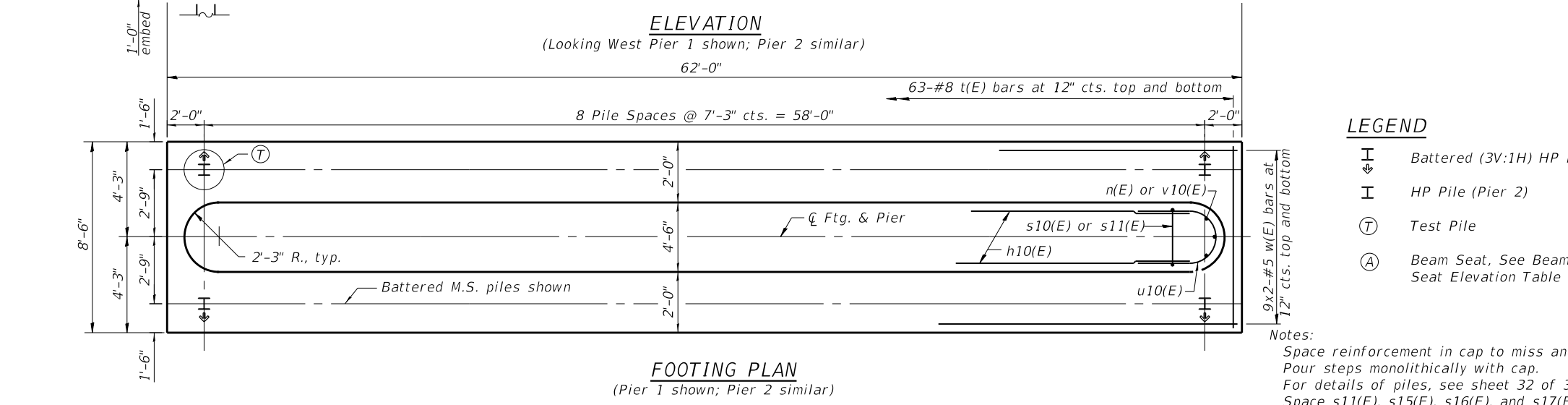
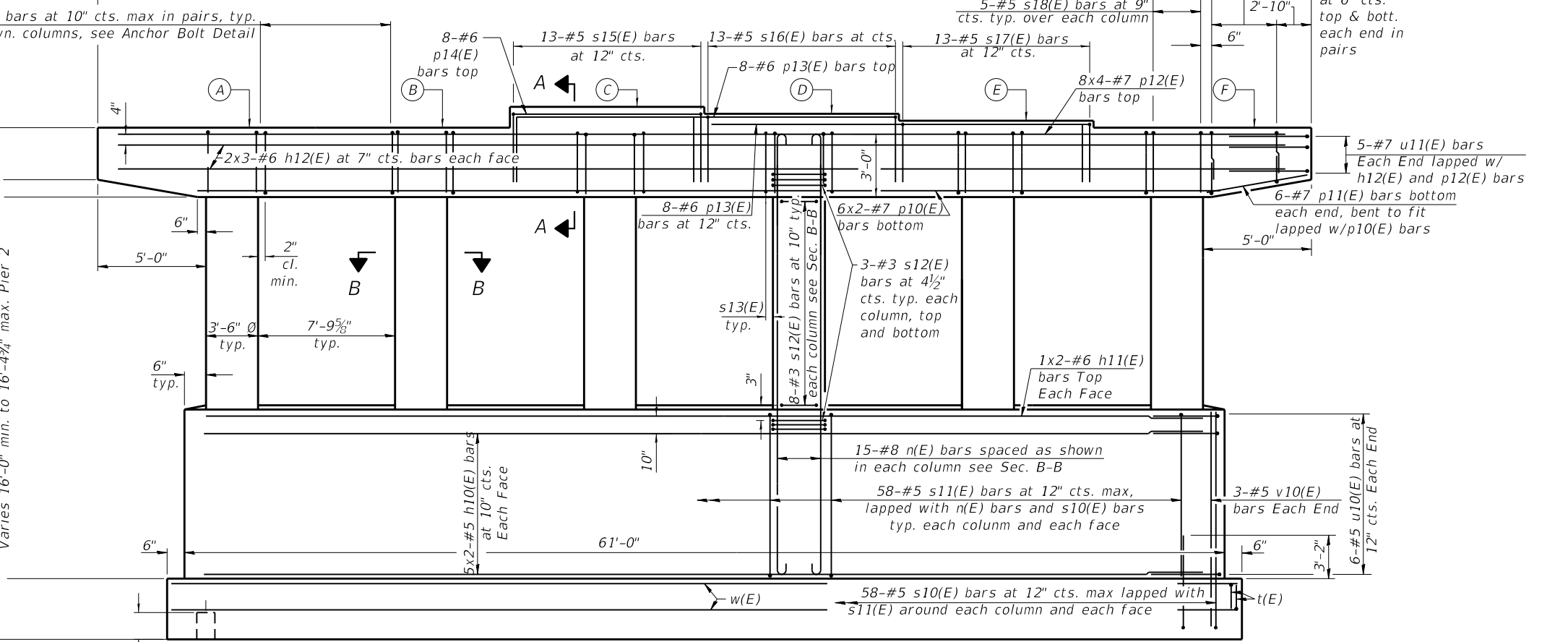
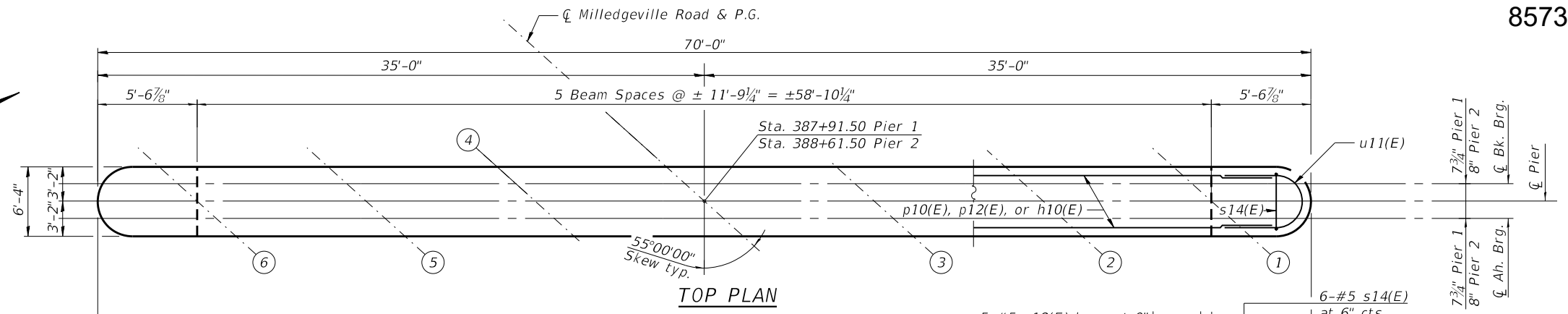
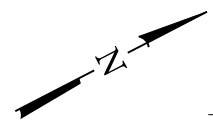
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	REVISIONS			
	REVISIONS			
	REVISIONS			

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**ABUTMENT DETAILS
 STRUCTURE NO. 071-3348**

SHEET 28 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	43
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				



Beamseat Elevations				
Location	Pier 1		Pier 2	
Pt.	BK BRG	AH BRG	BK BRG	AH BRG
A	763.81	763.81	763.99	763.99
B	763.85	763.85	764.03	764.03
C	763.89	763.89	764.06	764.06
D	763.82	763.82	764.00	764.00
E	763.66	763.66	763.83	763.83
F	763.49	763.49	763.67	763.67

- LEGEND**
- ⊕ Battered (3V:1H) HP Pile (Pier 1)
 - ⊔ HP Pile (Pier 2)
 - Ⓣ Test Pile
 - Ⓐ Beam Seat, See Beam Seat Elevation Table

Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet 32 of 39.
 Space s11(E), s15(E), s16(E), and s17(E) bars to miss columns.

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1170 SOUTH HOUBOLT ROAD
 JOLIET, ILLINOIS 60431
 (815) 744-4200
 IDFPR NO. 184-001273

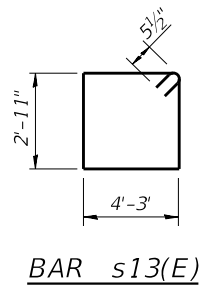
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 PLOT DATE = 11/09/22
 CHECKED - 11/9/2022
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PIER PLAN AND ELEVATION
 STRUCTURE NO. 071-3348**

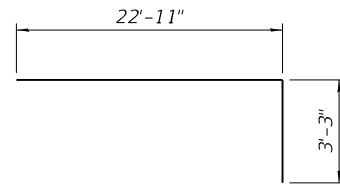
SHEET 29 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	44
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				

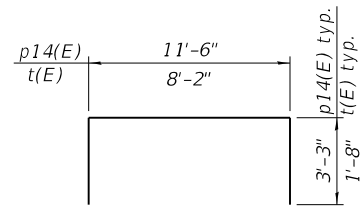


MINIMUM BAR LAP

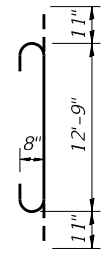
#5 bar = 3'-2"
#7 bar = 4'-5"



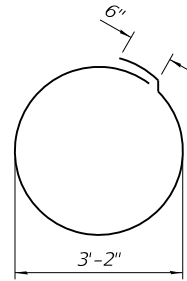
BAR p13(E)



BAR p14(E) AND t(E)



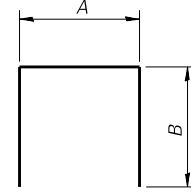
BAR n(E)



BAR s12(E)

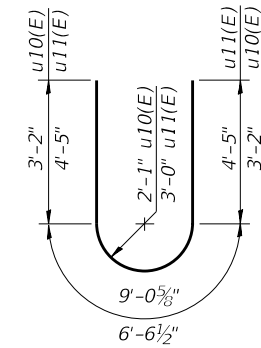
A & B DIMENSIONS

Bar	A	B
s10(E)	4'-2"	5'-1"
s11(E)	4'-2"	4'-2"
s14(E)	6'-0"	1'-11"
s15(E)	6'-0"	3'-5"
s16(E)	6'-0"	3'-7"
s17(E)	6'-0"	3'-8"
s18(E)	6'-0"	2'-11"

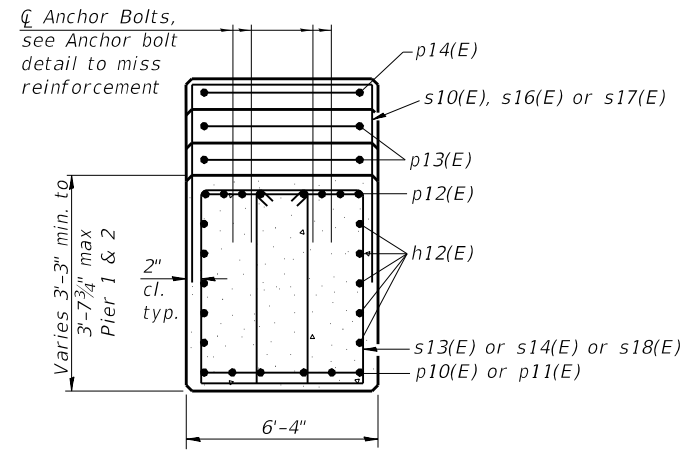


BARS s10(E), s11(E), s14(E), s15(E), s16(E), s17(E), AND s18(E)

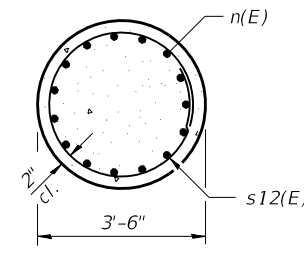
(See A & B Dimensions Table)



BAR u10(E) AND u11(E)



SEC. A-A



SEC. B-B

PILE DATA - PIER 1

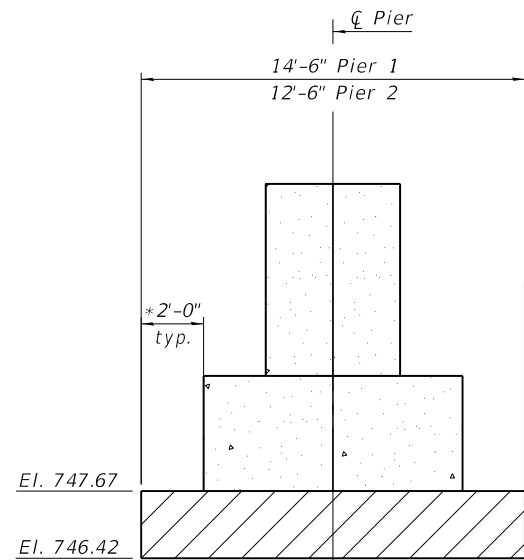
Type: HP 14x73 with pile shoes
Nominal Required Bearing: 578 Kips
Factored Resistance Available: 318 Kips
Est. Length: 35 ft
No. Production Piles: 17 piles + 1 test pile

PILE DATA - PIER 2

Type: HP 14x73 with pile shoes
Nominal Required Bearing: 578 Kips
Factored Resistance Available: 318 Kips
Est. Length: 37 ft
No. Production Piles: 17 piles + 1 test pile

TWO PIER BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10(E)	40	5	29'-10"	—
h11(E)	8	6	29'-10"	—
h12(E)	24	6	25'-4"	—
n(E)	180	8	14'-7"	U
p10(E)	24	7	32'-9"	—
p11(E)	24	7	9'-6"	—
p12(E)	64	7	20'-9"	—
p13(E)	32	6	26'-2"	—
p14(E)	16	6	14'-9"	—
s10(E)	116	5	14'-4"	U
s11(E)	116	5	12'-7"	U
s12(E)	168	3	10'-6"	○
s13(E)	200	5	15'-3"	□
s14(E)	48	5	9'-11"	U
s15(E)	26	5	12'-10"	U
s16(E)	26	5	13'-2"	U
s17(E)	26	5	13'-4"	U
s18(E)	60	5	11'-10"	U
t(E)	252	8	11'-6"	—
u10(E)	24	5	12'-11"	U
u11(E)	20	7	17'-11"	U
v10(E)	12	5	7'-0"	—
w(E)	72	5	33'-0"	—
Structure Excavation	Cu. Yd.		424.0	
Concrete Structures	Cu. Yd.		340.5	
Seal Coat Concrete	Cu. Yd.		82.6	
Reinforcement Bars, Epoxy Coated	Pound		35,950	
Furnishing Steel Piles HP14X73	Foot		1,224	
Driving Piles	Foot		1,224	
Test Pile Steel HP14X73	Each		2	



SECTION C-C

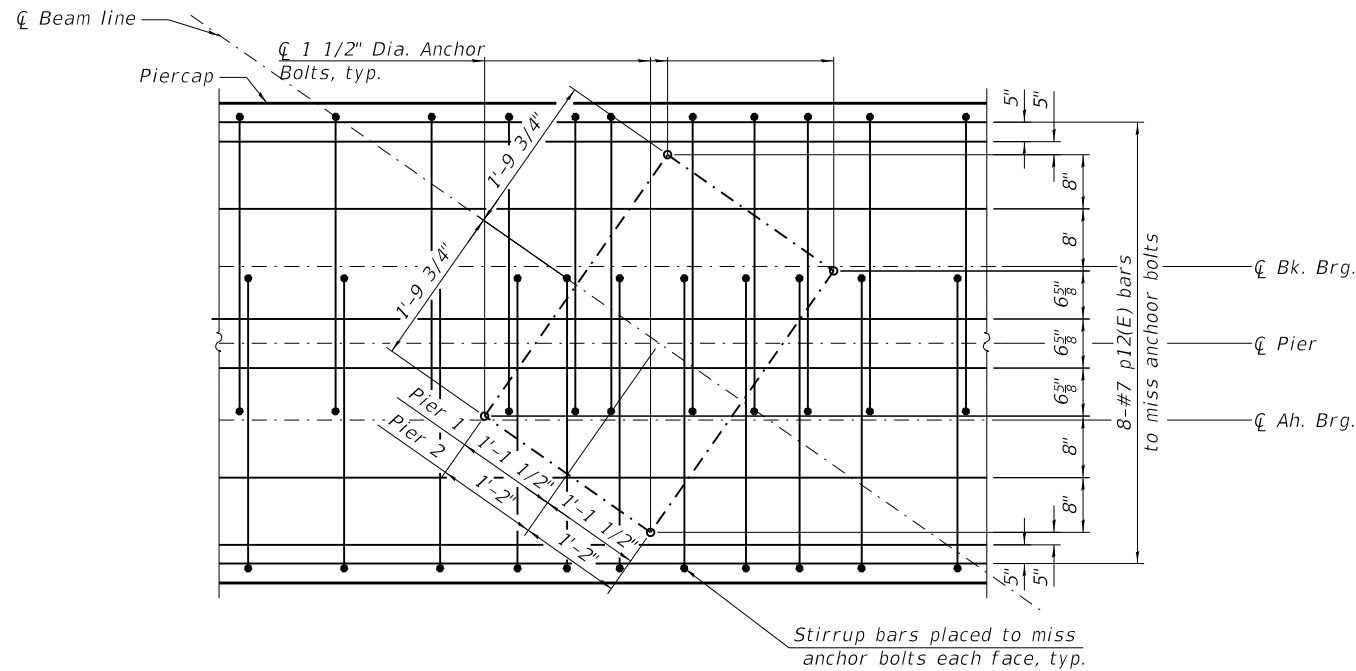
(Seal Coat Concrete is along footing length plus 2ft each end Hatched Area)

Top of Cofferdam
Elev. 752.75

E.W.S.E.
Elev. 752.25

Cofferdam (Type 1) (Location - 1) at Pier 1
Cofferdam (Type 1) (Location - 2) at Pier 2

*2'-0" typical beyond pier footing with exception at Pier 1 to Cofferdam Type 1, Location 1 as 4'-0".
** See General Note 7.



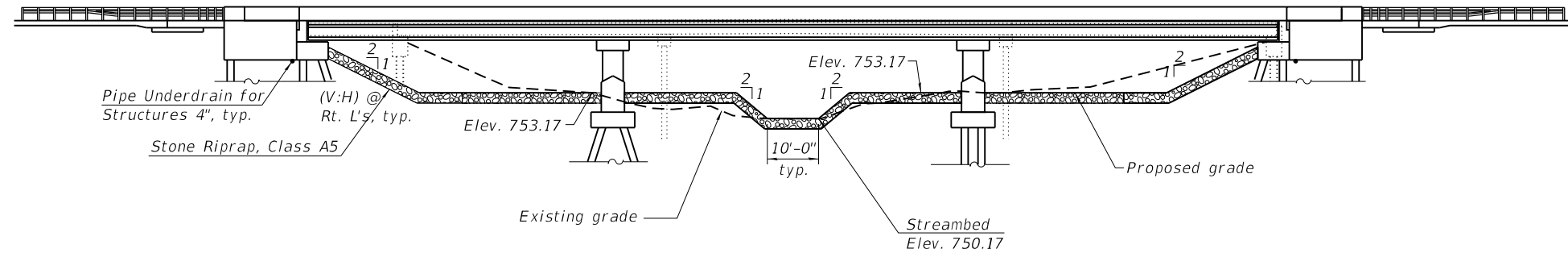
PIER ANCHOR BOLT DETAIL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER DETAILS
STRUCTURE NO. 071-3348

SHEET 30 OF 38 SHEETS

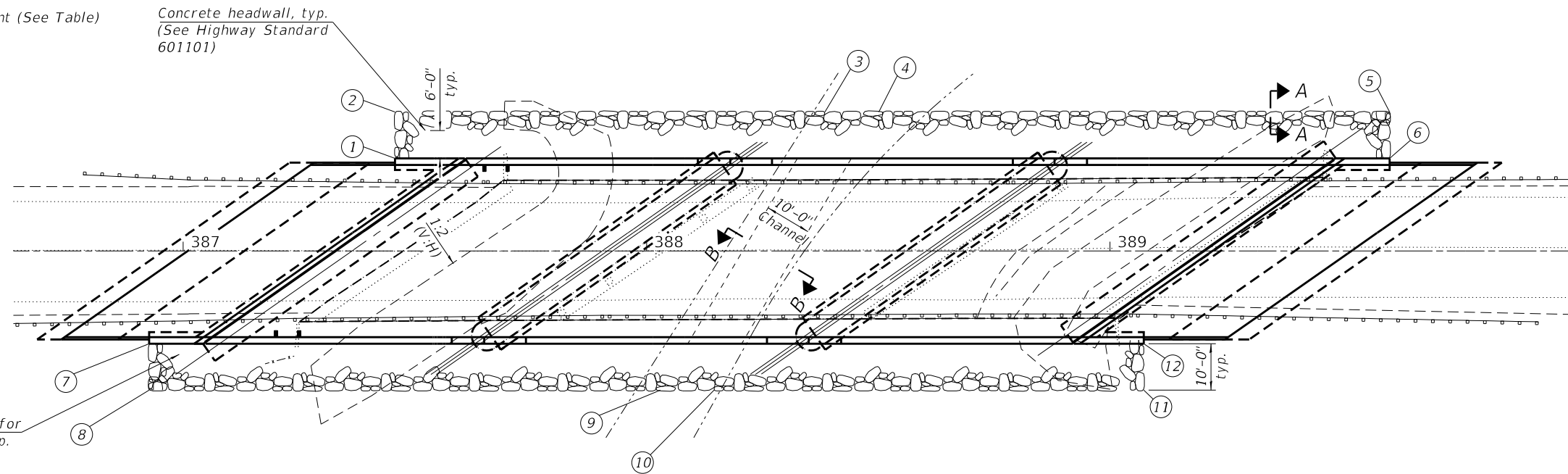
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	45
CONTRACT NO. 85731				
ILLINOIS		FED. AID PROJECT		



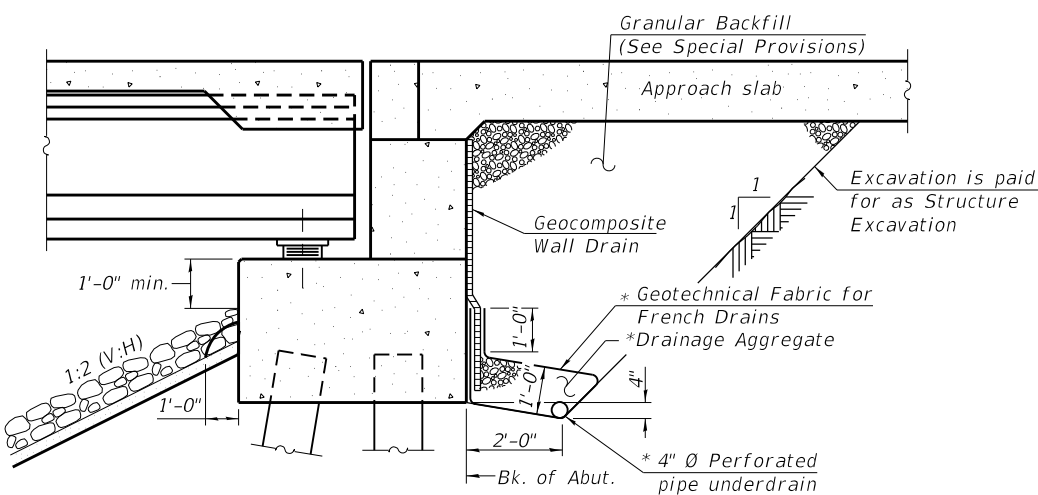
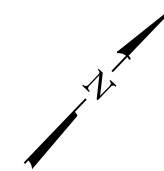
ELEVATION

LEGEND

- Stone Riprap, Class A5
- Pipe Underdrains for Structures 4"
- Stone Riprap, Class A5 Layout Point (See Table)

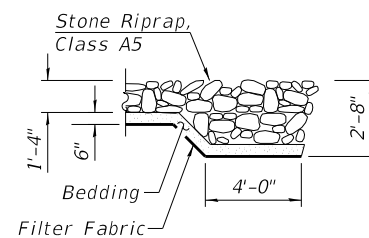


PLAN

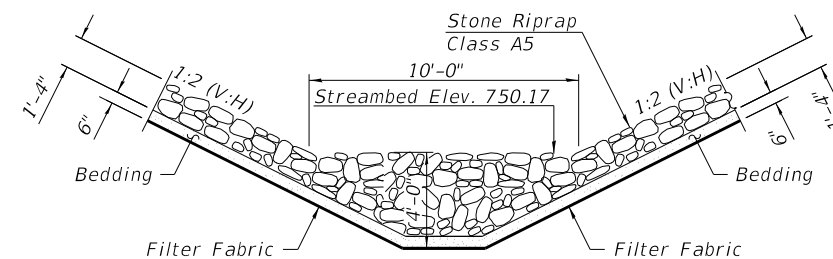


SECTION THRU PILE SUPPORTED
STUB ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures 4"



SECTION A-A



SECTION B-B

STONE RIPRAP,
CLASS A5 LAYOUT

Point #	Station	Offset	Elevation
1	387+45.72	20 LT	765.5
2	387+45.72	30 LT	762.08
3	388+38.48	30 LT	753.17
4	388+50.10	30 LT	753.17
5	389+60.36	30 LT	761.39
6	389+60.36	20 LT	765+63
7	386+92.64	20 RT	765+12
8	386+92.64	30 RT	761.54
9	388+02.96	30 RT	753.17
10	388+14.58	30 RT	753.17
11	389+07.28	30 RT	761.74
12	389+07.28	20 RT	765.49

BILL OF MATERIAL

Item	Unit	Total
Stone Riprap, Class A5	SQYD	1,174
Filter Fabric	SQYD	1,209
Pipe Underdrain for Structures 4"	FOOT	168

Note:
All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

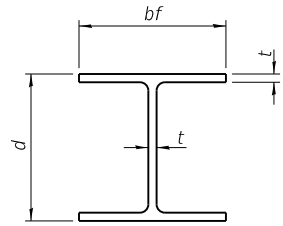
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DRAINAGE DETAILS / RIPRAP LAYOUT
STRUCTURE NO. 071-3348

SHEET 31 OF 38 SHEETS

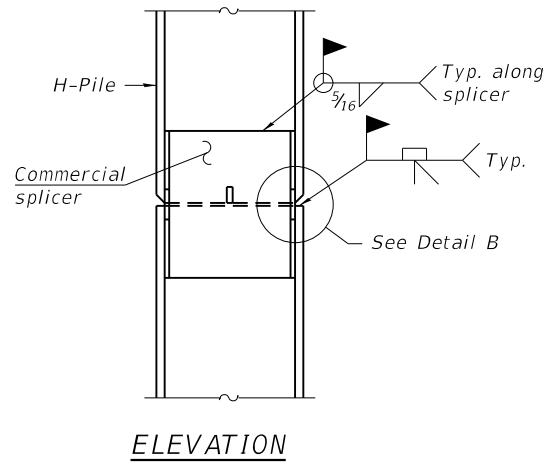
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	46
				CONTRACT NO. 85731
				ILLINOIS FED. AID PROJECT

USER NAME =	DESIGNED - BRL/DWK	REVISED -
PLOT SCALE =	CHECKED - NDR	REVISED -
PLOT DATE = 11/09/22	DRAWN - CIH	REVISED -
	CHECKED - 11/9/2022	REVISED -

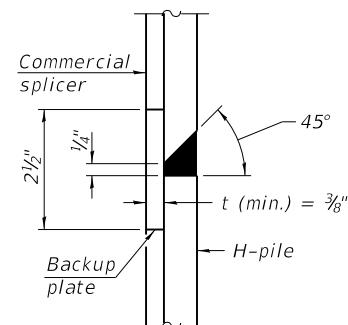


STEEL PILE TABLE

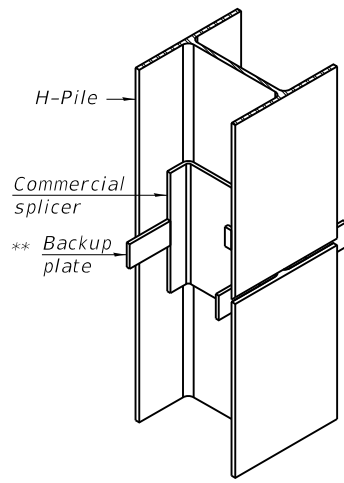
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 3/8"	14 3/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"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

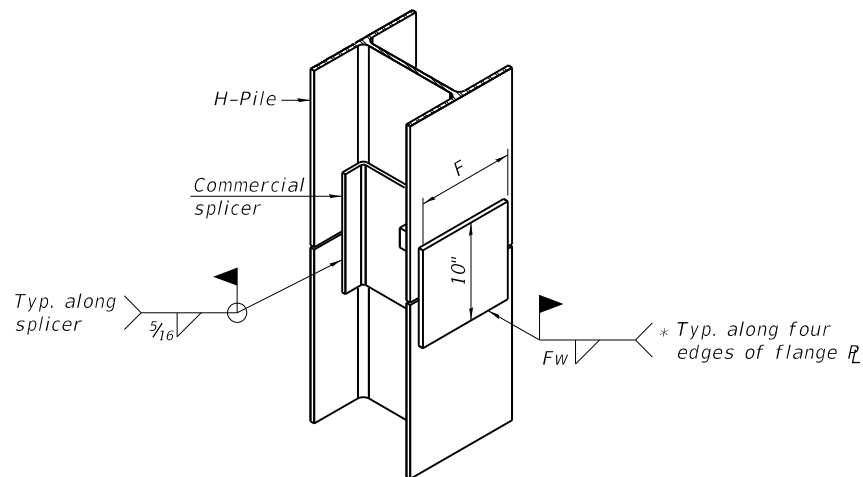


DETAIL "B"



ISOMETRIC VIEW

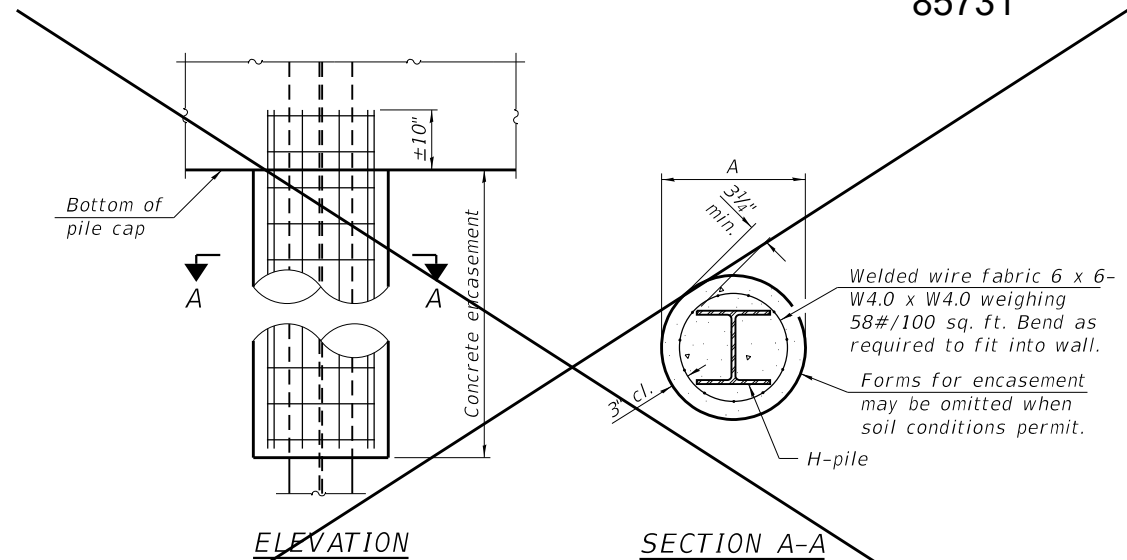
WELDED COMMERCIAL SPLICE



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

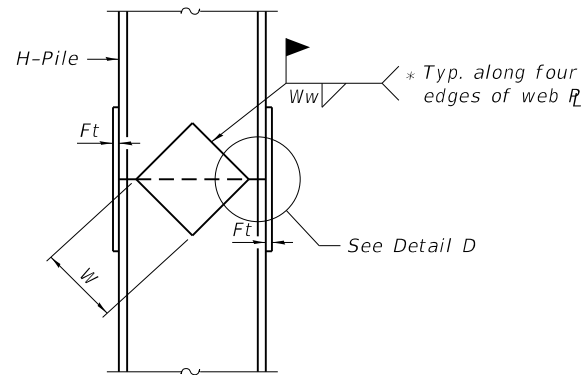
- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).



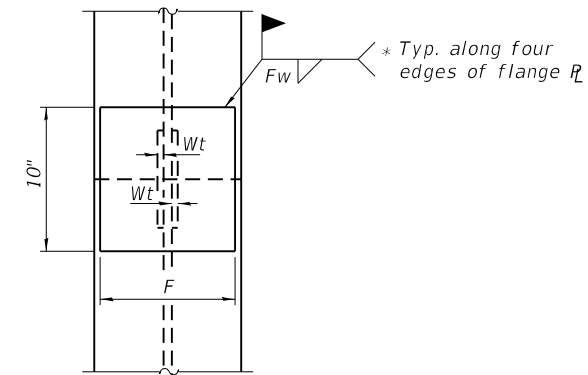
ELEVATION

SECTION A-A

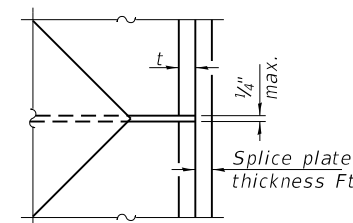
INDIVIDUAL PILE CONCRETE ENCASEMENT (when specified)



ELEVATION



END VIEW



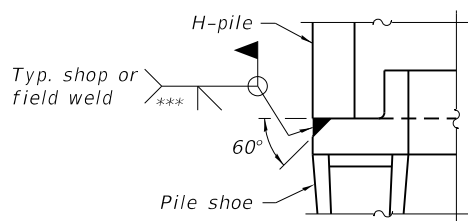
DETAIL D

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.

SHOE ATTACHMENT



DETAIL A

F-HP

1-1-2020

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11/9/2022 7:38:47 PM



USER NAME =	DESIGNED - BRL/DWK	REVISED -
PLOT SCALE =	CHECKED - NDR	REVISED -
PLOT DATE = 11/09/22	DRAWN - CIH	REVISED -
	CHECKED - 11/9/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 071-3348

SHEET 32 OF 38 SHEETS

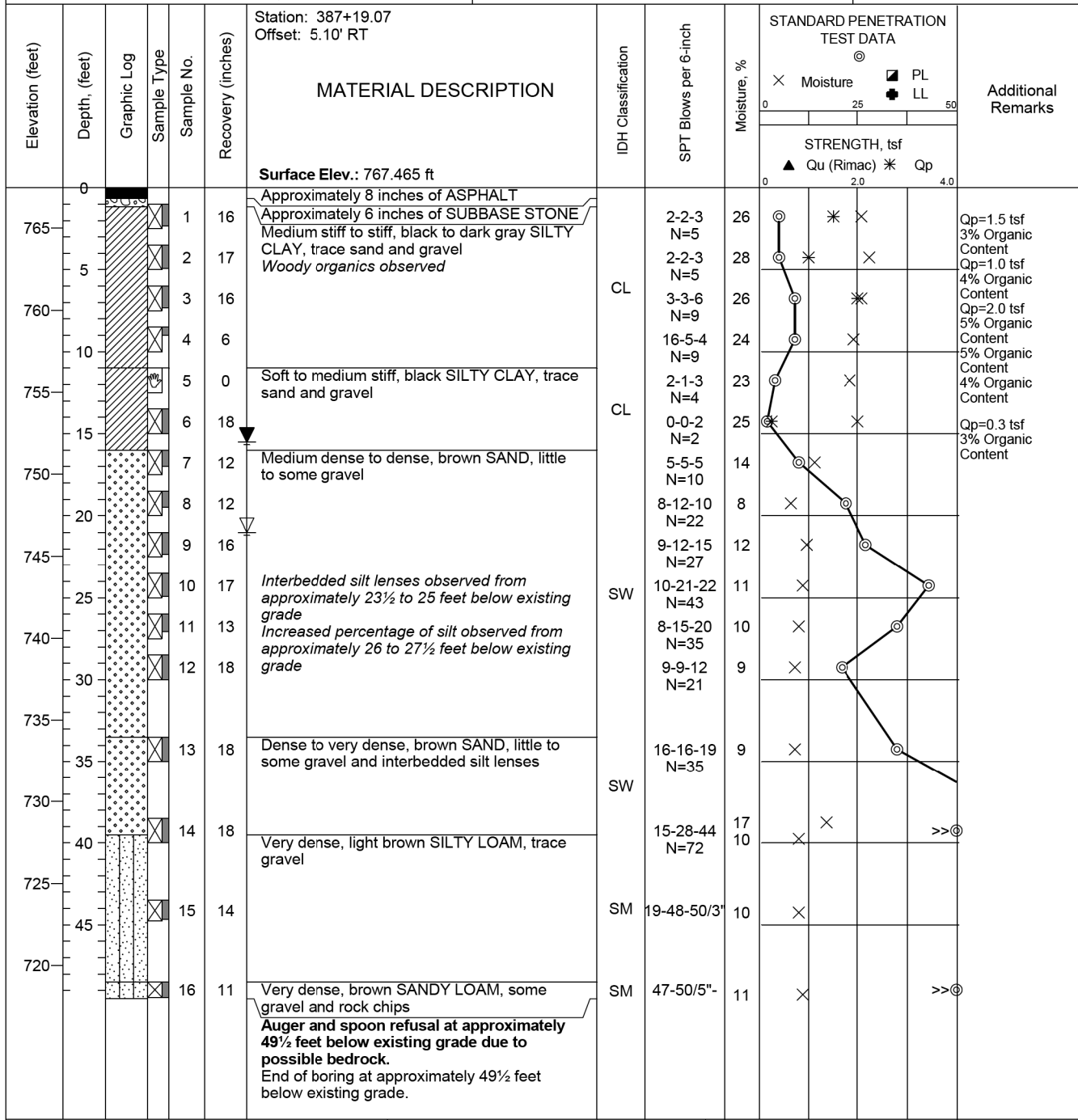
F.A.S. RTE. 079	SECTION 20-00326-00-BR	COUNTY OGLE	TOTAL SHEETS 62	SHEET NO. 47
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	

rubino ENGINEERING INC. Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING BSB-01

Sheet 1 of 1

Rubino Job No.: G20.155	Drilling Method: 3 1/4 Hollow Stem Auger	WATER LEVELS***
Project: Milledgeville Road Bridge Replacement	Sampling Method: Split Spoon	▽ While Drilling 21 ft
Location: Milledgeville Road over Buffalo Creek	Hammer Type: Automatic	▼ Upon Completion 15.5 ft
City, State: Ogle County, Illinois	Boring Location: West Abutment	▼ Delay N/A
Client: Strand Associates, Inc.		



Completion Depth: 49.5 ft	Sample Types: Pressuremeter, Auger Cutting, Split-Spoon, Rock Core	Latitude: 41.9615272 Longitude: -89.6277570 Drill Rig: Geoprobe 7822DT Remarks: EB lane of Milledgeville Road, 5 feet N from edge of pavement
Date Boring Started: 12/14/20		
Date Boring Completed: 12/14/20		
Logged By: J.I.		
Drilling Contractor: Rubino Engineering, Inc.		

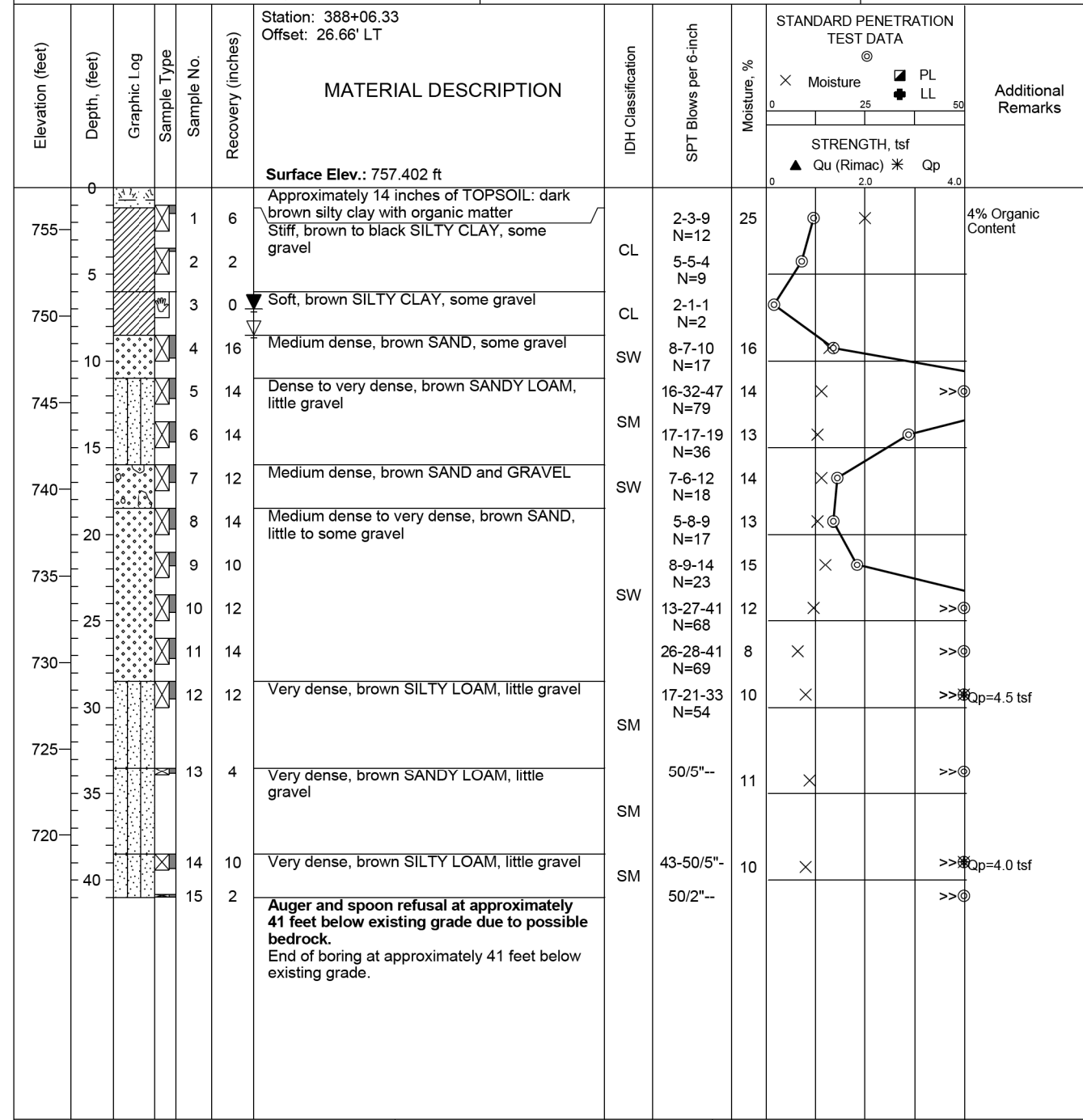
The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

rubino ENGINEERING INC. Rubino Engineering, Inc.
425 Shepard Drive
Elgin, IL 60123
Telephone: 847-931-1555
Fax: 847-931-1560

LOG OF BORING BSB-02

Sheet 1 of 1

Rubino Job No.: G20.155	Drilling Method: 3 1/4 Hollow Stem Auger	WATER LEVELS***
Project: Milledgeville Road Bridge Replacement	Sampling Method: Split Spoon	▽ While Drilling 8.5 ft
Location: Milledgeville Road over Buffalo Creek	Hammer Type: Automatic	▼ Upon Completion 7 ft
City, State: Ogle County, Illinois	Boring Location: West Center Pier	▼ Delay N/A
Client: Strand Associates, Inc.		



Completion Depth: 41.0 ft	Sample Types: Pressuremeter, Auger Cutting, Split-Spoon, Rock Core	Latitude: 41.961755 Longitude: -89.627604 Drill Rig: Geoprobe 7822DT Remarks: 11 feet N from western center pier
Date Boring Started: 12/15/20		
Date Boring Completed: 12/15/20		
Logged By: J.W.		
Drilling Contractor: Rubino Engineering, Inc.		

The stratification lines represent approximate boundaries. The transition may be gradual.
***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

MODEL: Default
FILE NAME: SA\01\1700-4799\4712\001\Drawings\CAD\Micro-554\CAD_Sheets\071-3348-XXXX-033-SBL.dgn

SA 1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
STRAND ASSOCIATES IDPFR NO. 184-001273

USER NAME =	DESIGNED - BRL/DWK	REVISED -
PLOT SCALE =	CHECKED - NDR	REVISED -
PLOT DATE = 11/09/22	DRAWN - CJH	REVISED -
	CHECKED - 11/9/2022	REVISED -

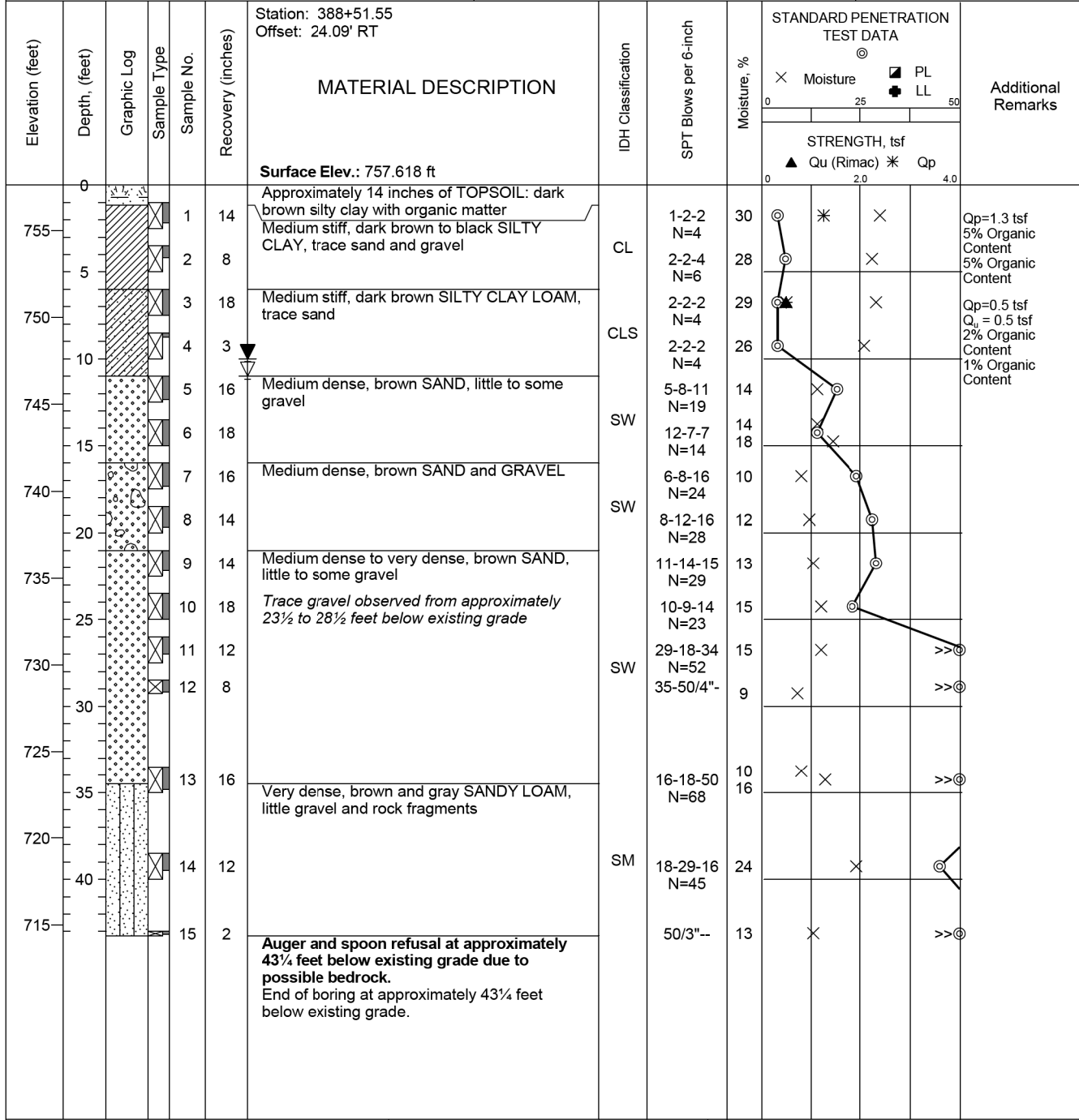
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 071-3348

SHEET 33 OF 38 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	48
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				

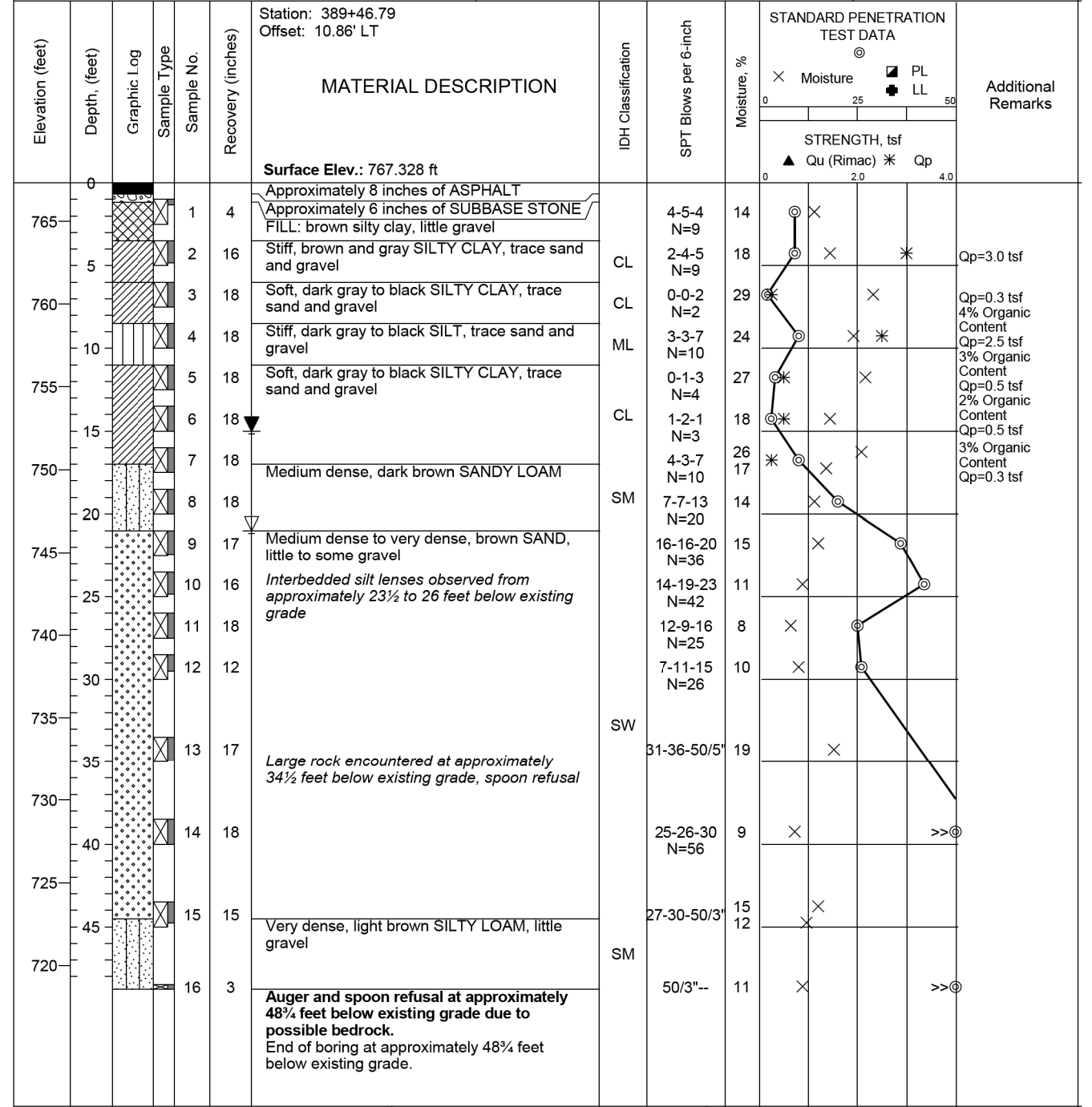
Rubino Job No.: G20.155	Drilling Method: 3 1/4 Hollow Stem Auger	WATER LEVELS***
Project: Milledgeville Road Bridge Replacement	Sampling Method: Split Spoon	▽ While Drilling 11 ft
Location: Milledgeville Road over Buffalo Creek	Hammer Type: Automatic	▼ Upon Completion 10 ft
City, State: Ogle County, Illinois	Boring Location: East Center Pier	▼ Delay N/A
Client: Strand Associates, Inc.		



Completion Depth: 43.3 ft	Sample Types: <input type="checkbox"/> Auger Cutting <input type="checkbox"/> Split-Spoon <input type="checkbox"/> Rock Core	Pressuremeter <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Hand Auger <input type="checkbox"/> No Recovery	Latitude: 41.961739 Longitude: -89.627355 Drill Rig: Geoprobe 7822DT Remarks: 15 feet S from eastern center pier
---------------------------	--	---	---

The stratification lines represent approximate boundaries. The transition may be gradual.
 ***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

Rubino Job No.: G20.155	Drilling Method: 3 1/4 Hollow Stem Auger	WATER LEVELS***
Project: Milledgeville Road Bridge Replacement	Sampling Method: Split Spoon	▽ While Drilling 21 ft
Location: Milledgeville Road over Buffalo Creek	Hammer Type: Automatic	▼ Upon Completion 15 ft
City, State: Ogle County, Illinois	Boring Location: East Abutment	▼ Delay N/A
Client: Strand Associates, Inc.		



Completion Depth: 48.8 ft	Sample Types: <input type="checkbox"/> Auger Cutting <input type="checkbox"/> Split-Spoon <input type="checkbox"/> Rock Core	Pressuremeter <input type="checkbox"/> Shelby Tube <input type="checkbox"/> Hand Auger <input type="checkbox"/> No Recovery	Latitude: 41.9619882 Longitude: -89.6271887 Drill Rig: Geoprobe 7822DT Remarks: WB lane of Milledgeville Road, 6 feet S from edge of pavement
---------------------------	--	---	--

The stratification lines represent approximate boundaries. The transition may be gradual.
 ***Please reference the geotechnical report text for specific groundwater / dewatering recommendations.

MODEL: Default
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PLOT SCALE =	CHECKED - NDR	REVISED -
PLOT DATE = 11/09/22	DRAWN - CJH	REVISED -
	CHECKED - 11/9/2022	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

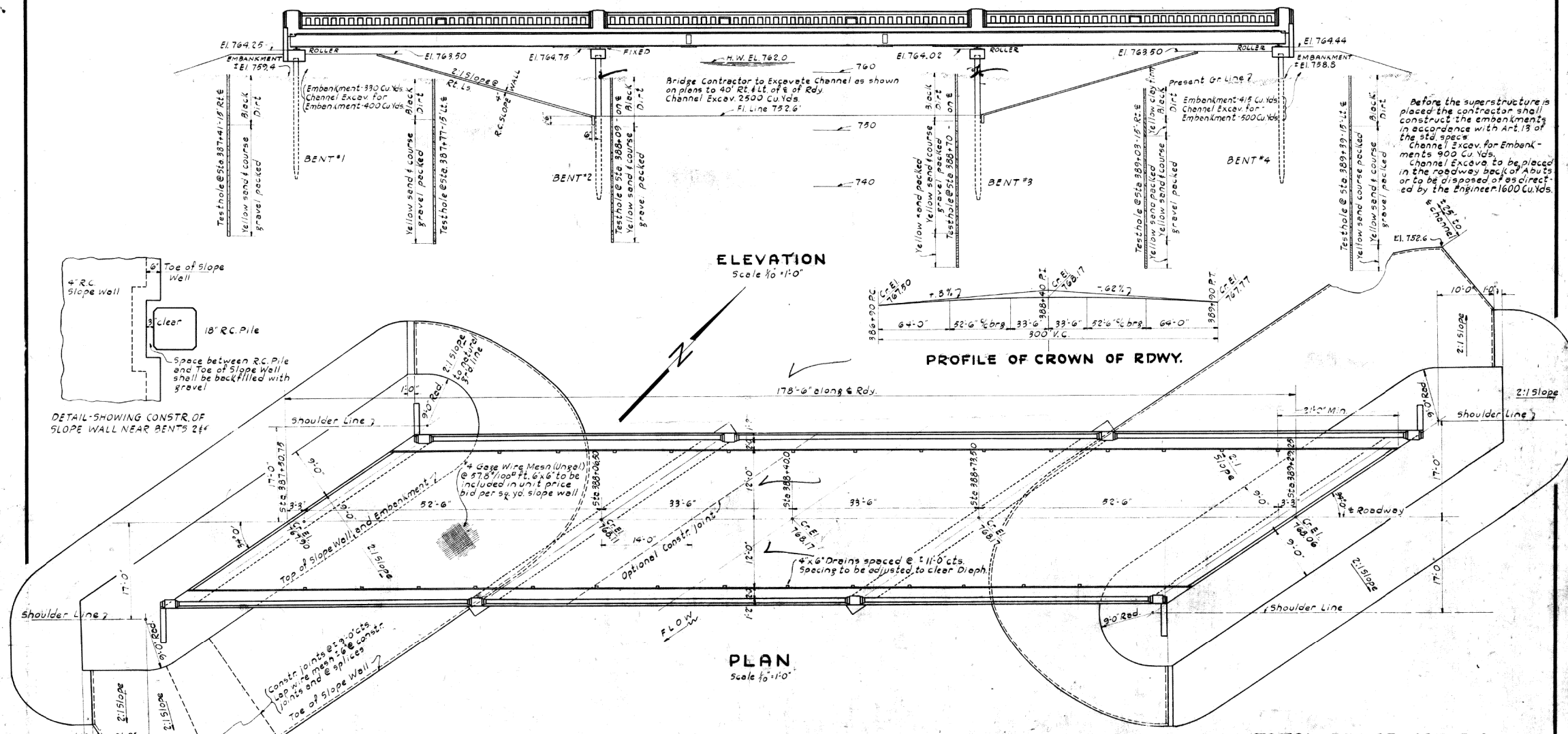
**SOIL BORINGS
STRUCTURE NO. 071-3348**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	49
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				

B.M. 5P 4 W. IN ROOT OF MAPLE IN SCHOOL YARD 180' RT STA 389+70 EL 759.45
 S.P. 1 W. IN ROOT OF ELM 78 LT STA 391+23 EL 760.89
 EXISTING STRUCTURE (CONCRETE SLAB ON T-BEAM) CUT STONE ABUTMENTS &
 WINGS/IRON HANDRAILS SHALL BE REMOVED BY BRIDGE CONTRACTOR
 AFTER COMPLETION OF PROPOSED BRIDGE

**STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BUILDINGS
 DIVISION OF HIGHWAYS**

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. /
54.RT. 7	10B	Ogle	31	27	4 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	R.A.S. 428-C		



DRAINAGE DATA
 Drainage Area 10,000 Acres
 Character rolling, clay, wooded & cultivated
 Constant "C" 0.5
 Area reqd by formula 508 sq ft.
 Opening provided below High Water 508 sq ft.

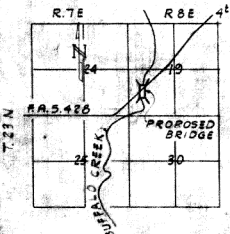
GENERAL NOTES

Class X Concrete shall be used thruout.
 Aggregate which is to be used in Handrail and handrail post must be absolutely free of chert, flint, limonite, lignite and soft limestone.
 Finish concrete floor according to Art. 57.3 (e) of the std. spec.
 Contractor shall pour the floor slab in one continuous operation or he shall pour the floor slab between the end of the bridge and the construction joint in one continuous operation.
 Rivets 3/4" Holes 1/2" unless otherwise noted.
 Tight fitting ribbed bolts may be used instead of field rivets. See Suppl. Spec's.
 Structural steel shall receive one shop coat of blue lead paint and 2-field coats of white lead paint. All paint to be furnished by the Department.
 All paint shall be applied with brushes, the use of a paint gun will not be permitted.

TOTAL BILL OF MATERIAL

ITEM	SUPER	SUB.	TOTAL	
Class X Concrete	Cu.Yds	149.8	77.1	226.9
Handrail Concrete	Cu.Yds	17.8		17.8
Reinforcement Bars	Lbs	34860	3640	38500
Structural Steel	Lbs	104050		104050
Name Plate	Each	1		1
Slope Wall	Sq.Yds		705	705
Pre Cast Conc. Piles (18"x18"x35'Lg)	Lin.Ft.		350	350
Channel Excav	Cu.Yds		2500	2500
Concrete Piles (16"x16"x25'Lg)	Lin.Ft.		250	250
Removal of Exist. Struct	Each		1	1
Test Pile 16"x16" Conc.	Each		1	1
Test Pile 18"x18" Conc.	Each		1	1

* Includes weight of rollers, bearing plates, lead plates and anchor bolts.



COMPUTED	<i>V.S. Young</i>	EXAMINED	<i>J.F. Kuntz</i>
CHECKED	<i>E. Shultz</i>	BRIDGE ENGINEER	
DRAWN	<i>V.S. Young</i>	PASSED	<i>[Signature]</i>
CHECKED	<i>E.S.</i>	ENGINEER OF DESIGN	
SPECIAL	ASSEMBLED	APPROVED	<i>[Signature]</i>
CHECKED		LEAD ENGINEER	

PROJECT 428-C-F.A.S.
S.A. RTE. 7 + SECTION 10-B
OGLE COUNTY
STATION 388+40

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SA STRAND ASSOCIATES
 1170 SOUTH HOUBOLT ROAD
 JOLIET, ILLINOIS 60431
 (815) 744-4200
 IDPFR No. 184-001273

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PLOT DATE = 11/09/22	DRAWN - CIH	REVISED -
	CHECKED - 11/9/2022	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

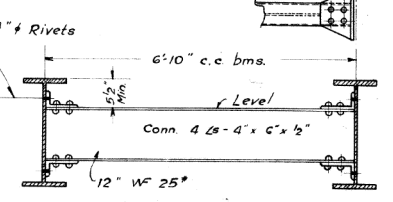
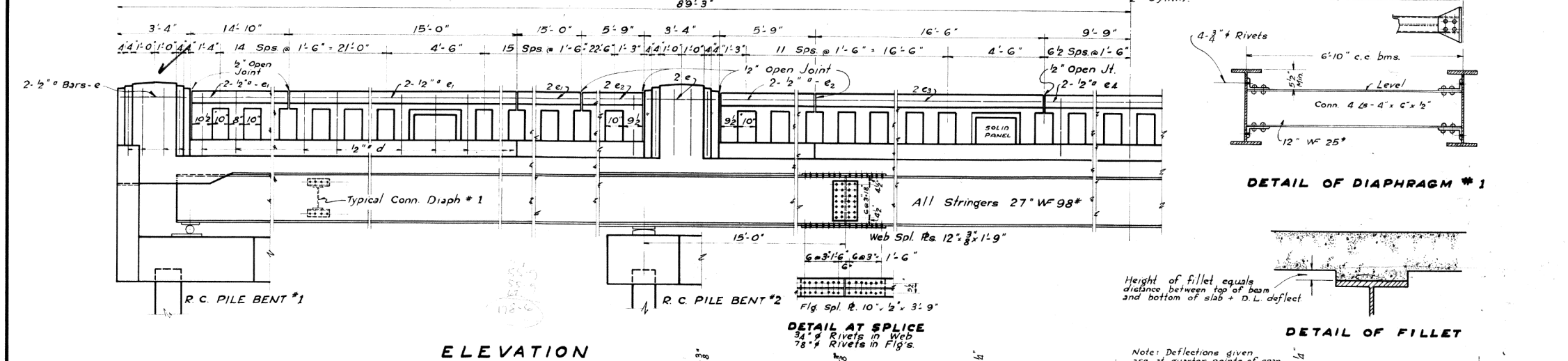
**EXISTING DRAWINGS
 STRUCTURE NO. 071-3348**

SHEET 35 OF 38 SHEETS

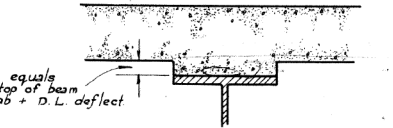
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	50
ILLINOIS			FED. AID PROJECT	
CONTRACT NO. 85731				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD ISSUE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.A. 7	10B	Ogle	31	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	F.A.S. 428-C	4 SHEETS



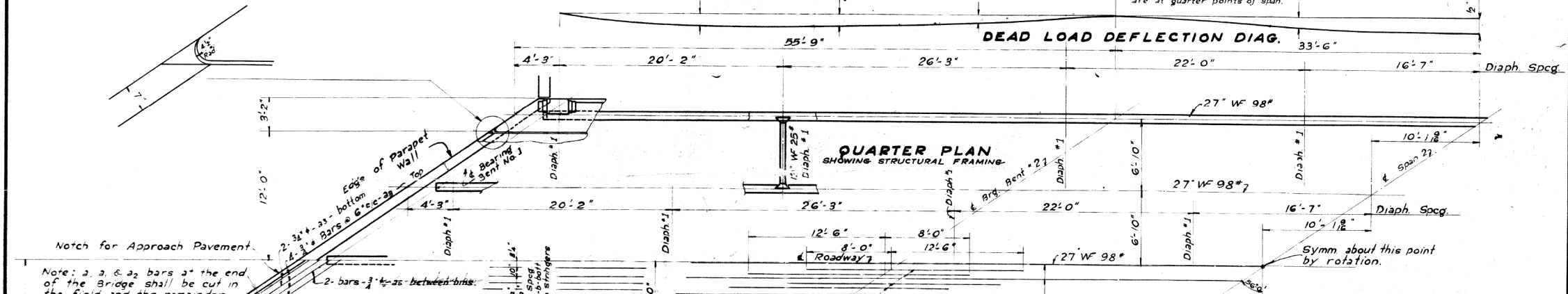
DETAIL OF DIAPHRAGM #1



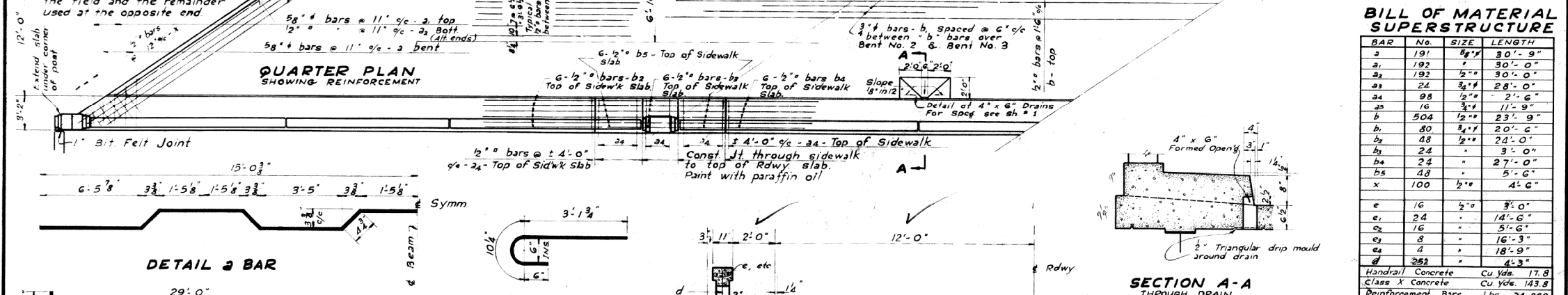
DETAIL OF FILLET

ELEVATION

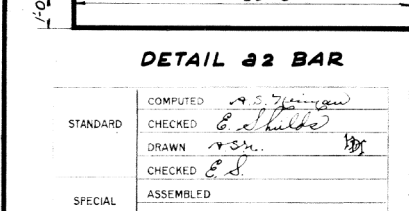
Note: Deflections given are at quarter points of span.



QUARTER PLAN SHOWING STRUCTURAL FRAMING

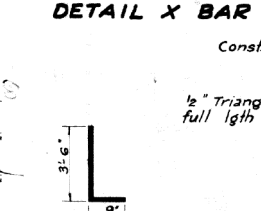


QUARTER PLAN SHOWING REINFORCEMENT



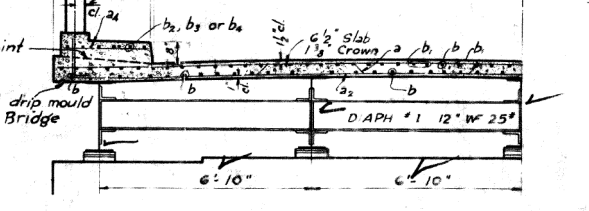
DETAIL a BAR

DETAIL a2 BAR

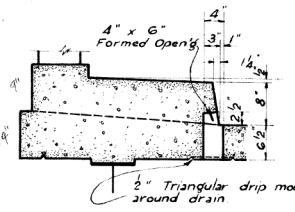


DETAIL X BAR

DETAIL d BAR



TYPICAL HALF SECTION THROUGH ROADWAY AT RIGHT ANGLES



SECTION A-A THROUGH DRAIN

BILL OF MATERIAL SUPERSTRUCTURE

BAR	No.	SIZE	LENGTH
a	191	5/8"	30'-9"
a1	192	"	30'-0"
a2	192	1/2"	30'-0"
a3	24	3/4"	28'-0"
a4	98	1/2"	2'-6"
a5	16	3/4"	11'-9"
b	504	1/2"	23'-9"
b1	80	3/4"	20'-6"
b2	48	1/2"	24'-0"
b3	24	"	3'-0"
b4	24	"	27'-0"
b5	48	"	5'-6"
x	100	1/2"	4'-6"
c	16	1/2"	3'-0"
e1	24	"	14'-6"
e2	16	"	5'-6"
e3	8	"	16'-3"
e4	4	"	18'-9"
d	252	"	4'-3"

Handrail Concrete	Cu Yds.	17.8
Class X Concrete	Cu Yds.	143.8
Reinforcement Bars	Lbs.	34,860
Structural Steel	Lbs.	104,050
Name Plate	Ea.	1

PROJECT 428-C-F.A.S.
S. A. RTE. 7 - SECTION 10-B
OGLE COUNTY
STA. 388 + 40

STANDARD	COMPUTED	EXAMINED
	CHECKED	
	DRAWN	
	CHECKED	
SPECIAL	ASSEMBLED	APPROVED
	CHECKED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 071-3348

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				

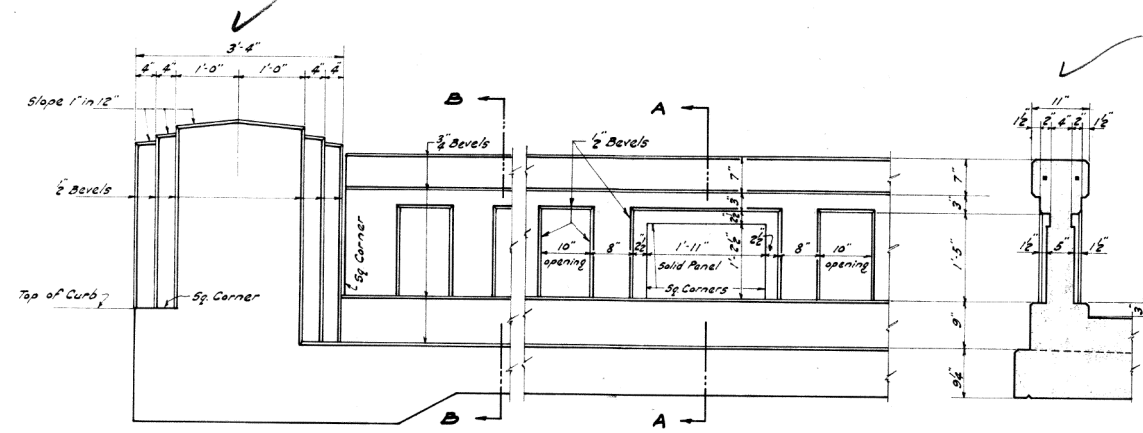
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1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR No. 184-001273

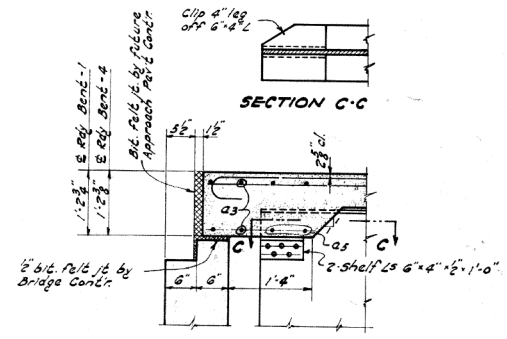
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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

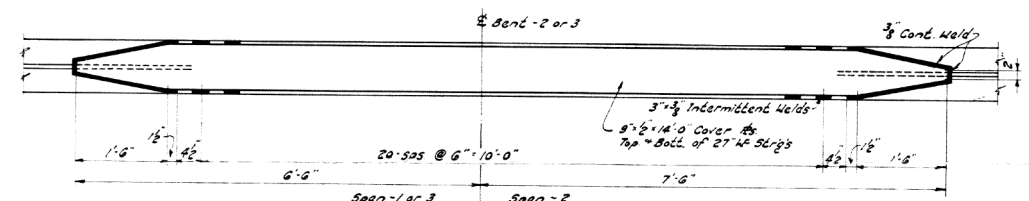
ROAD ISSUE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
13. A. RT. 7	10B	Ogle	31	29	4 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - F.A.S. 428C			



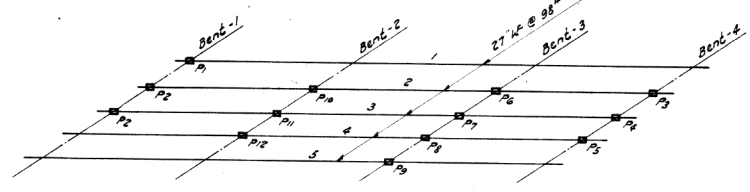
OUTSIDE ELEVATION OF RAIL



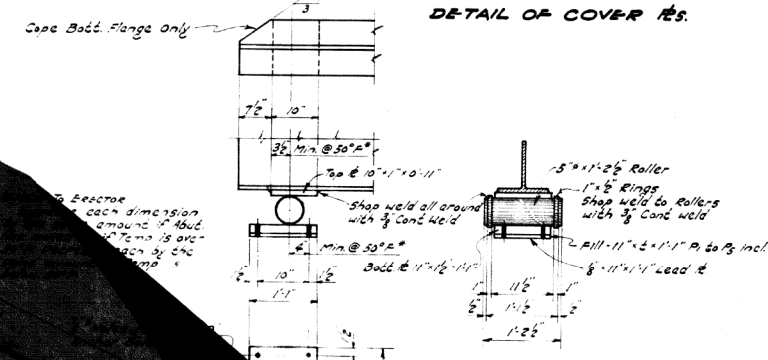
SECTION AT RT. 6 TO PARAPET WALL BENTS - 1 & 4



DETAIL OF COVER RS.

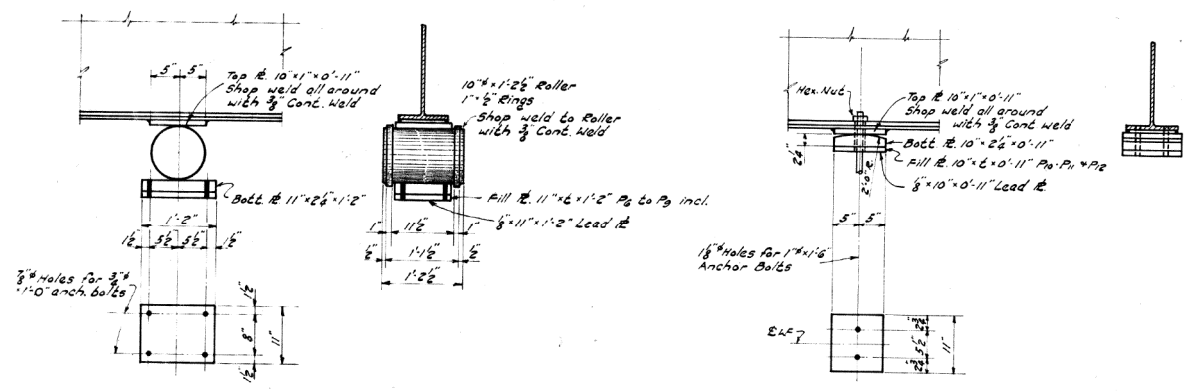


PLAN SHOWING LOCATION OF FILLER RS. UNDER BEARING RS.



DET. OF BEARING AT BENT-3

Mark	6
P1	3/8
P2	1/2
P3	5/8
P4	7/8
P5	1
P6	1 1/8
P7	1 1/4
P8	1 1/2
P9	1 3/4
P10	2
P11	2 1/4
P12	2 1/2



DET. OF BEARING AT BENT-2

NOTES -
All anchor bolts shall be cut off 6" above nut.
Lead Rs are included in weight of Structural Steel and shall be paid for as Structural Steel.
Wt of Rollers, Bearing Rs, Filler Rs, Lead Rs and Anchor Bolts - 5310 Lbs - included in Wt of Structural Steel.

PROJECT 428-C-F.A.S.
S.A. ROUTE-7 SEC. 10-B
OGLE COUNTY
STA. 388+40

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1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

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PLOT DATE = 11/09/22	DRAWN - CIH	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

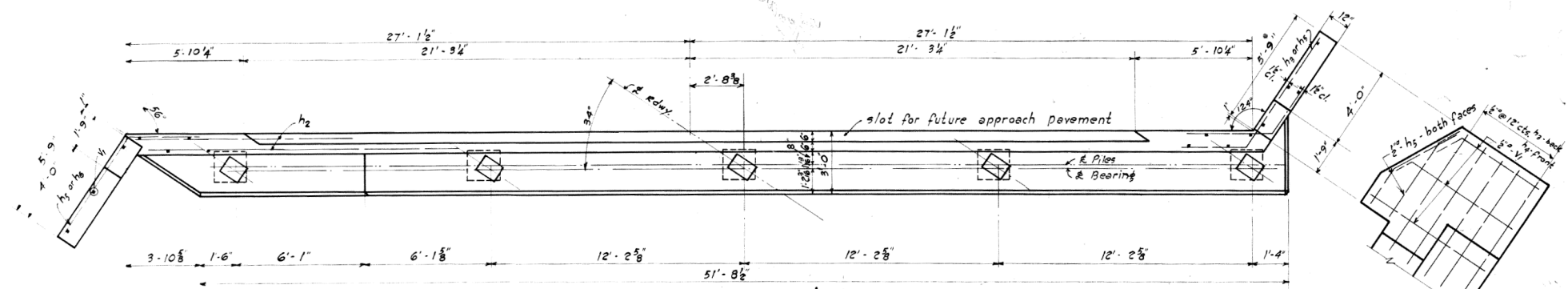
EXISTING DRAWINGS
STRUCTURE NO. 071-3348

SHEET 37 OF 38 SHEETS

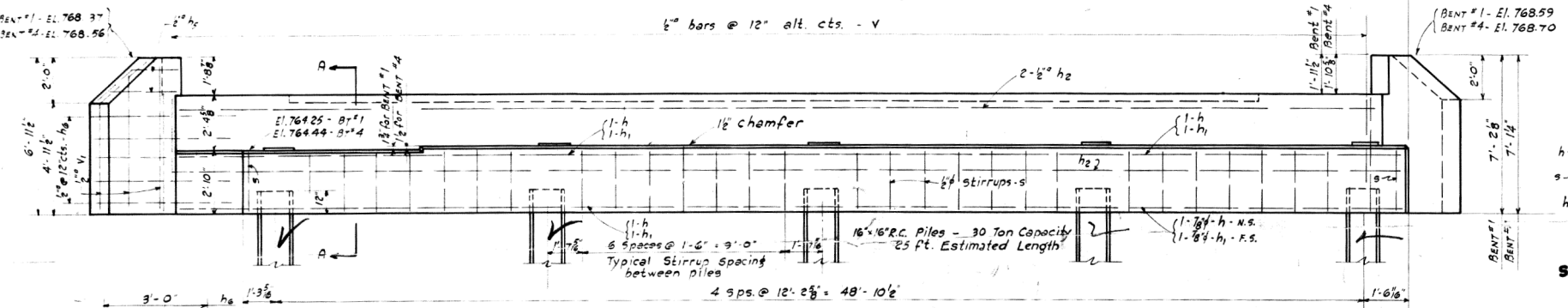
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CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

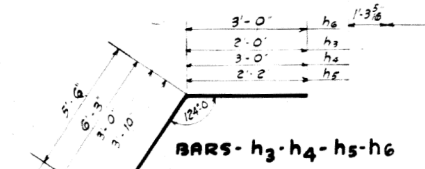
BOND SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
15.A.R.1	10B	09/6	31	30
SHEET NO. 4				
4 SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	FA 5428C	



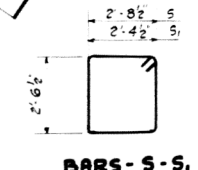
PLAN - BENTS 1 & 4



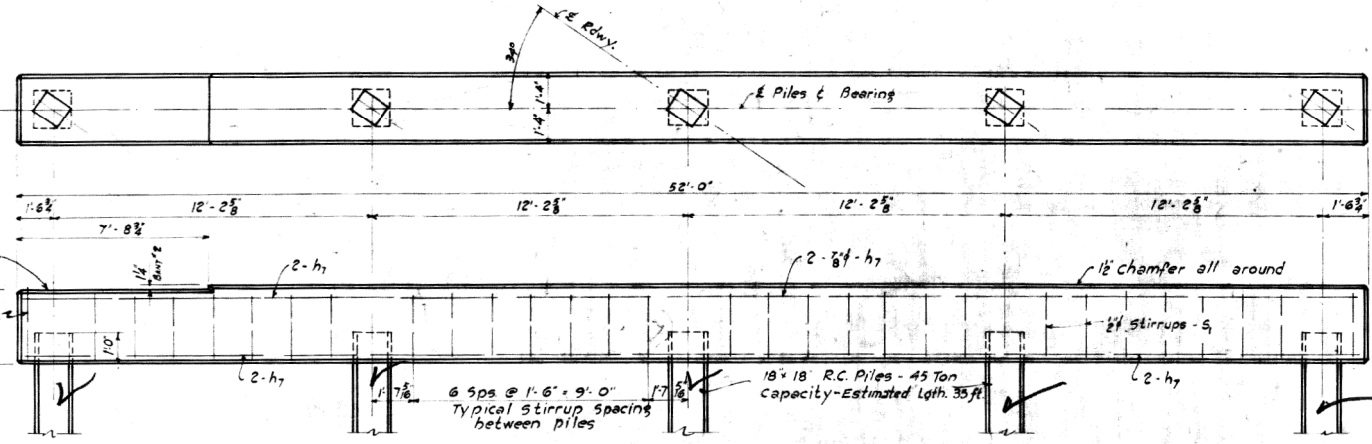
ELEVATION - BENT 1 - LOOKING WEST
ELEVATION - BENT 2 - LOOKING EAST



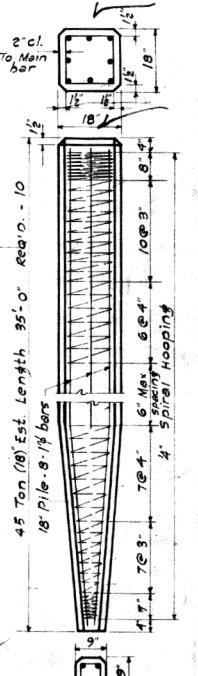
BARS - h₃-h₄-h₅-h₆



BARS - S-S₁



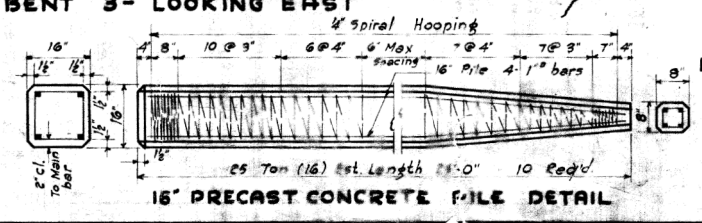
ELEVATION - BENT 2 - LOOKING WEST
ELEVATION - BENT 3 - LOOKING EAST



BILL OF MATERIAL
SUBSTRUCTURE

BAR	NO.	SIZE	LENGTH
h	8	3/4"	27'-0"
h ₁	8	"	29'-0"
h ₂	12	1/2"	28'-0"
h ₃	10	"	8'-3"
h ₄	10	"	6'-0"
h ₅	12	"	6'-0"
h ₆	10	"	8'-6"
h ₇	16	5/8"	27'-3"
V	110	1/2"	3'-6"
V ₁	14	"	6'-6"
S	60	1/2"	11'-6"
S ₁	60	"	10'-9"

Class X Concrete Cu. Yds 77.1
Reinforcement Bars Lbs. 3640
Precast Conc. Piles (16") Lin. Ft. 250
" " " (18") Lin. Ft. 350
Test Piles 16" Each 1
" " 18" Each 1



18" PRECAST CONCRETE PILE DETAIL

STANDARD	COMPUTED	EXAMINED
	CHECKED	DRAWN
	CHECKED	CHECKED
SPECIAL	ASSEMBLED	APPROVED
	CHECKED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWINGS
STRUCTURE NO. 071-3348

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
079	20-00326-00-BR	OGLE	62	53
CONTRACT NO. 85731				
ILLINOIS FED. AID PROJECT				

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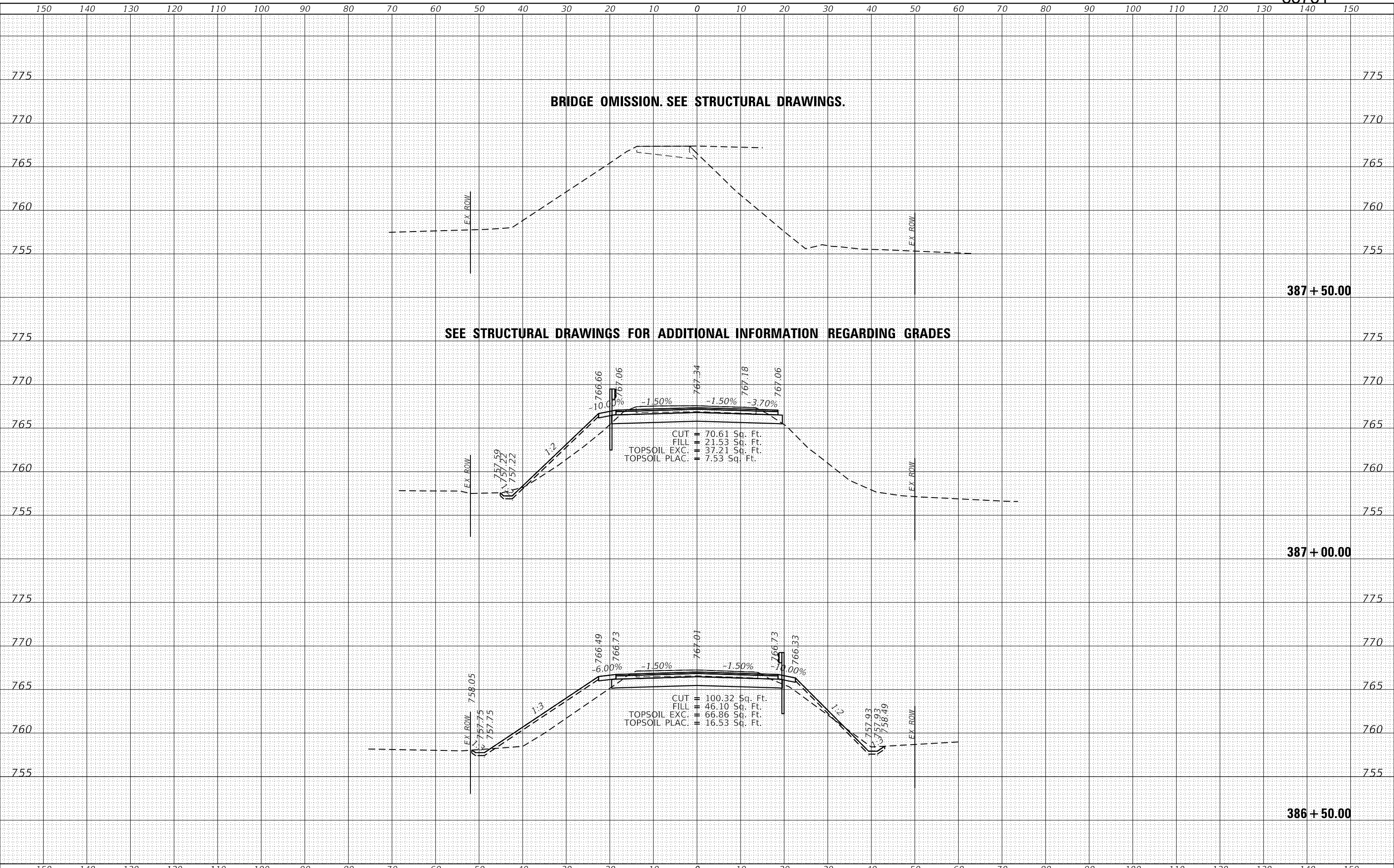
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR No. 184-001273

USER NAME =	DESIGNED - BRL/DWK	REVISED -
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	CHECKED - 11/9/2022	REVISED -

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

DATE	
BY	
SURVEYED	
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NOTE BOOK NO.	
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1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
STRAND ASSOCIATES*

USER NAME = MattG	DESIGNED - MIG	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

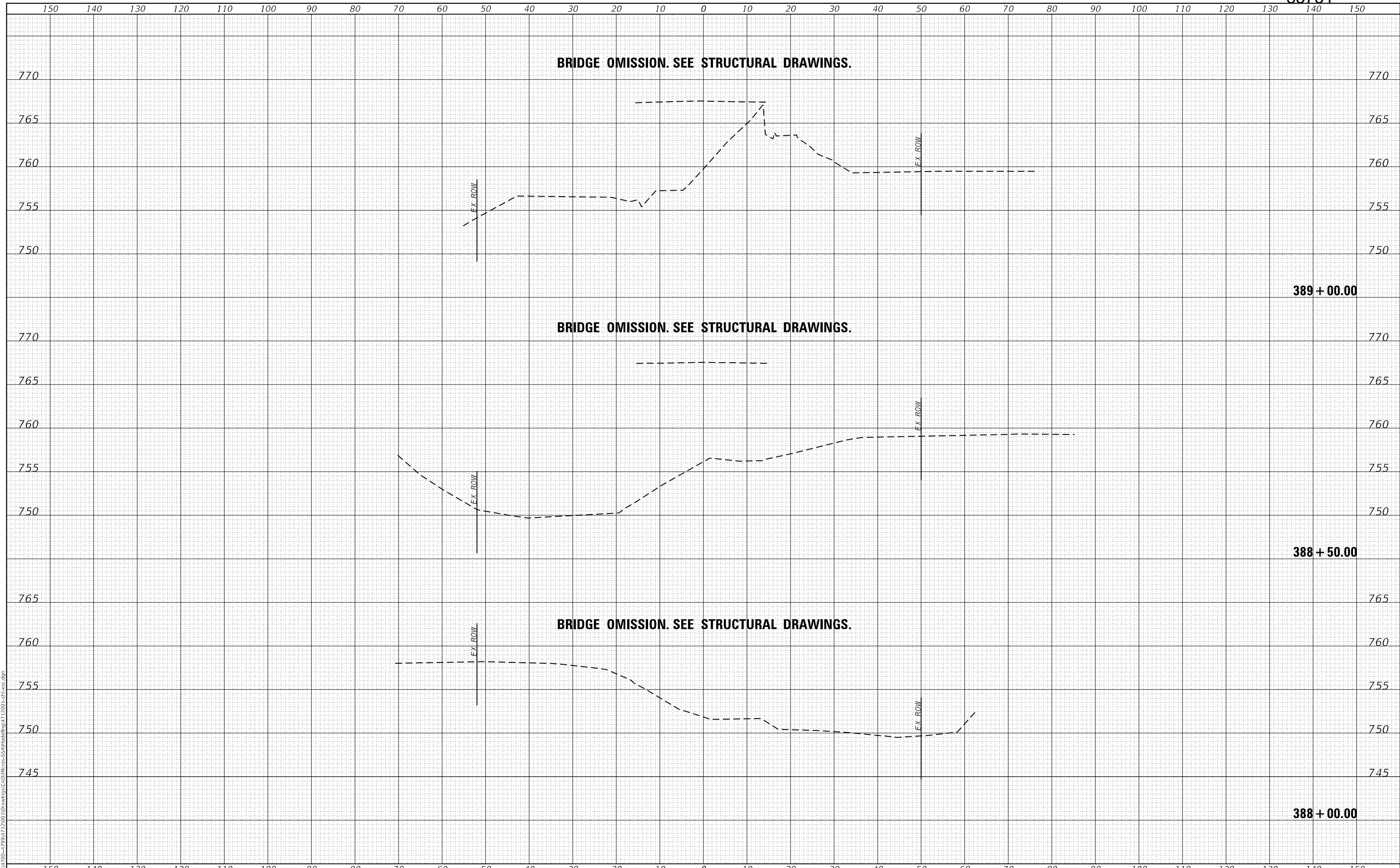
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F.A.S. RTE. 0079	SECTION 20-00326-00-BR	COUNTY OGLE	TOTAL SHEETS 62	SHEET NO. 57
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	

DATE	
BY	
SURVEYED	
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NOTE BOOK	
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DATE	
BY	
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STRAND ASSOCIATES*
 1170 SOUTH HOUBOLT ROAD
 JOLIET, ILLINOIS 60431
 (815) 744-4200

USER NAME = MattG	DESIGNED - MIG	REVISED -
	DRAWN - SRB	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - AJS	REVISED -
PLOT DATE = 11/9/2022	DATE - 11/9/2022	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

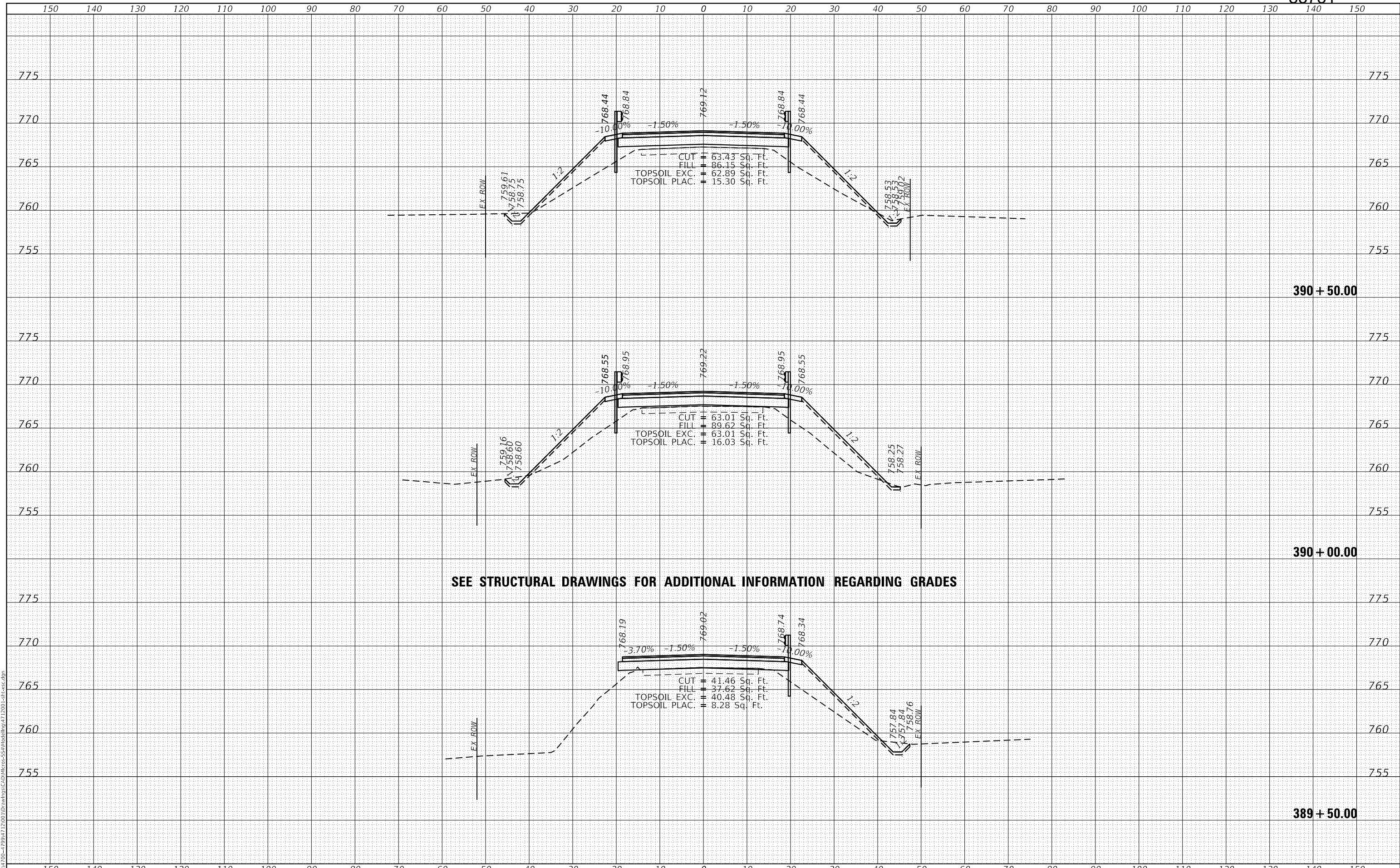
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	58
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	

DATE	
BY	
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NO.	TEMPLATE
	AREAS CHECKED

DATE	
BY	
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	AREAS CHECKED

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SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING GRADES



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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

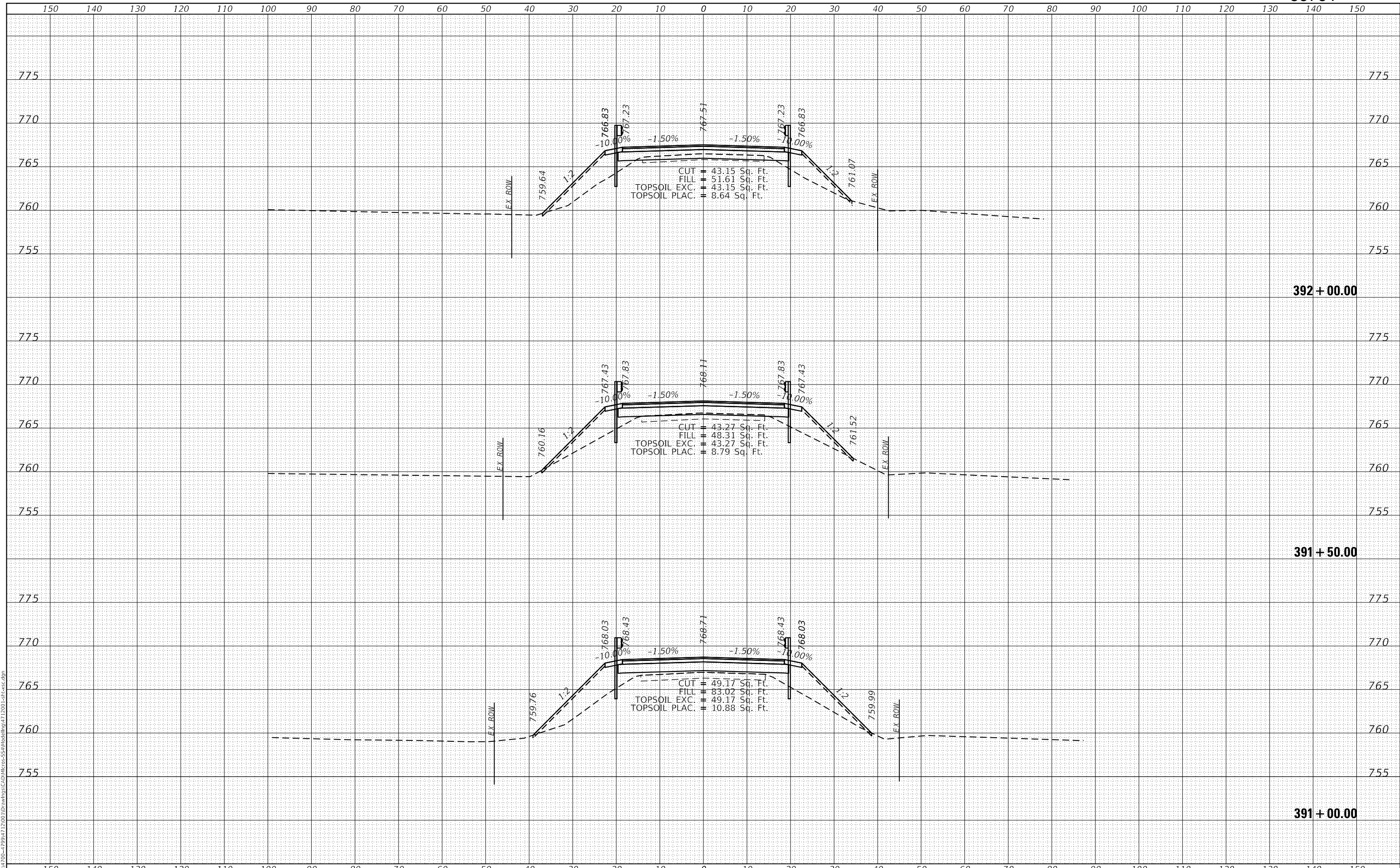
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	

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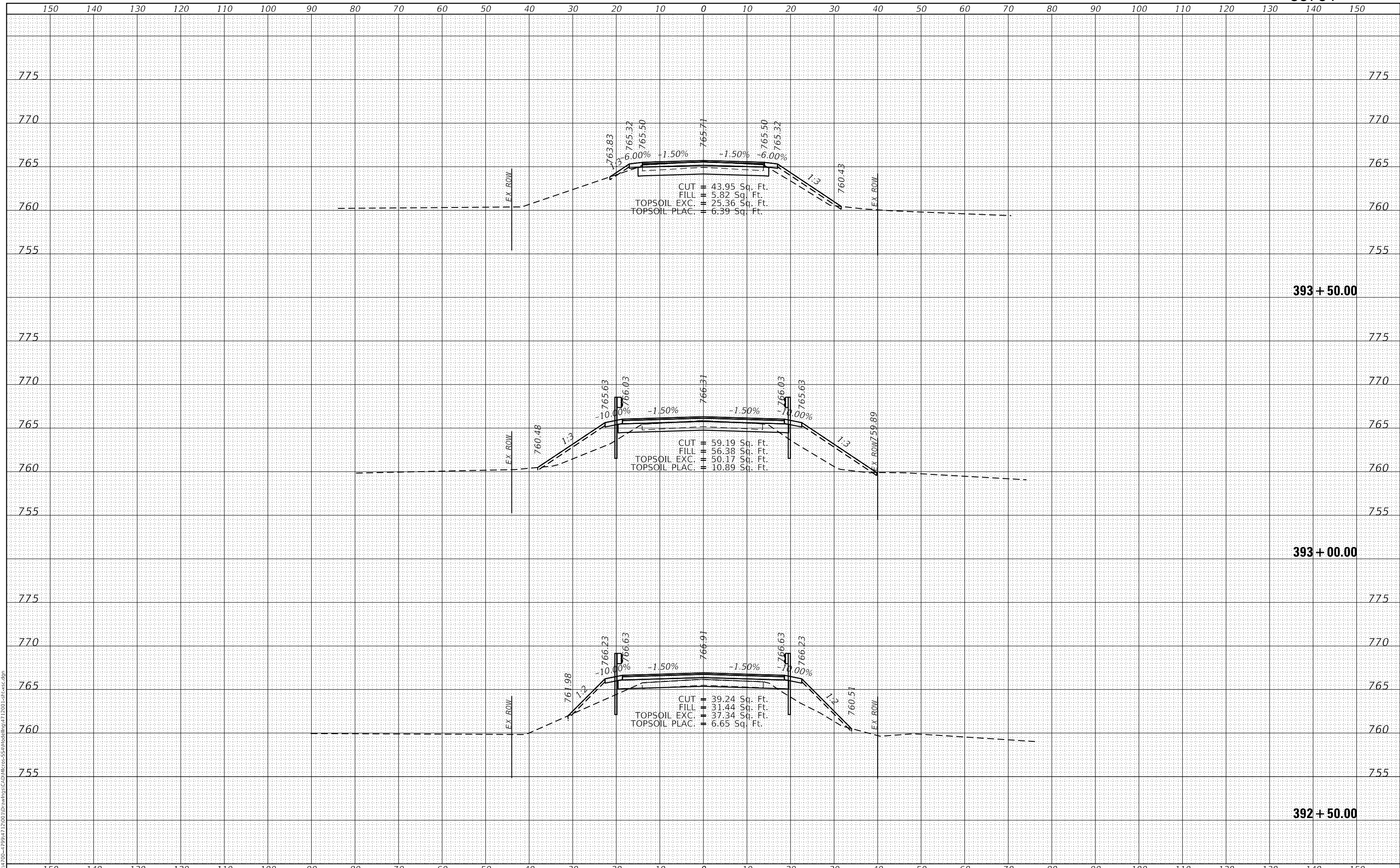
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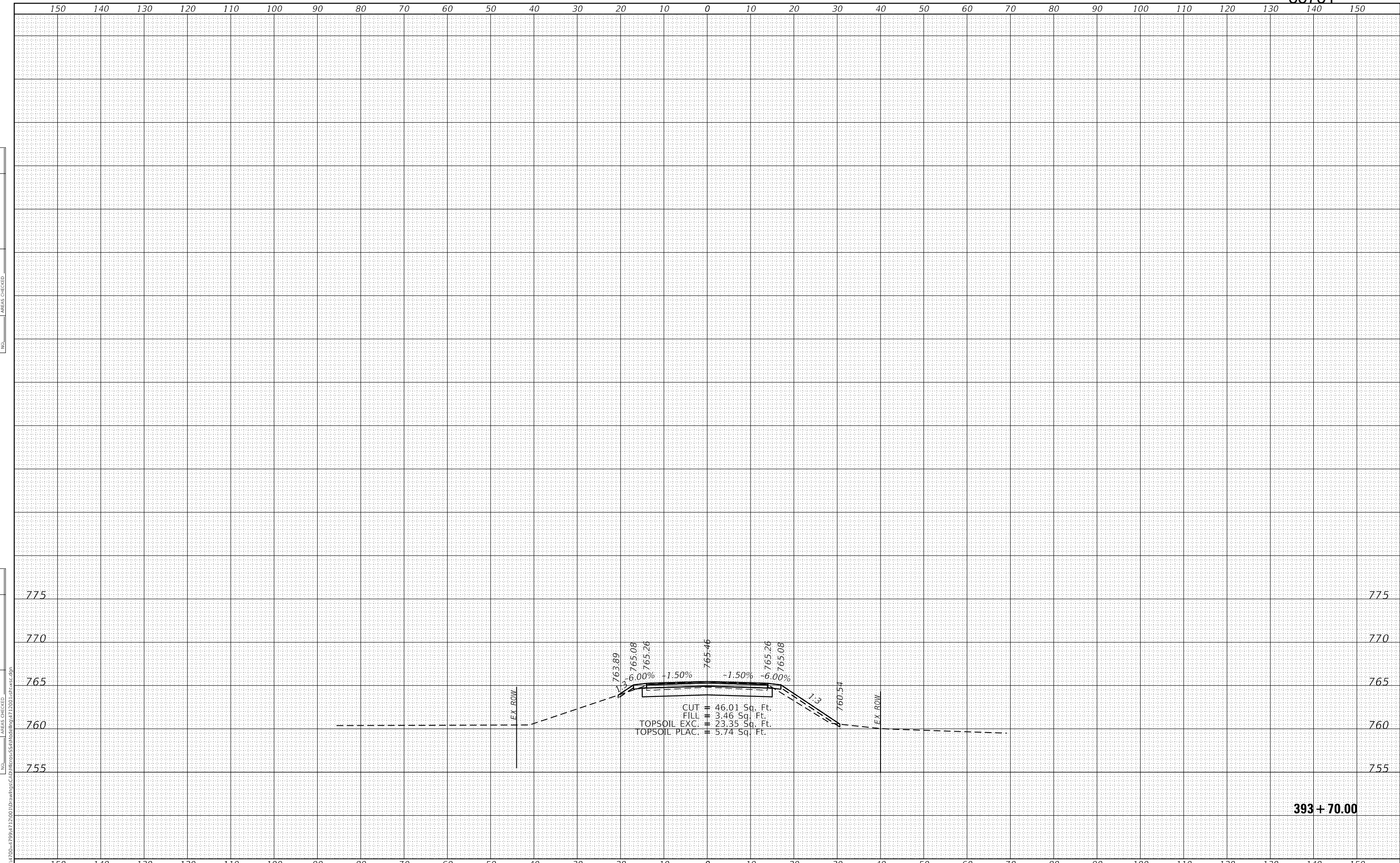
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NOTE BOOK	
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FINAL SURVEY NO.	SURVEYED	DATE
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AREAS CHECKED	TEMPLATE	
	AREAS CHECKED	

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NOTE BOOK	PLOTTED	BY
AREAS CHECKED	TEMPLATE	
	AREAS CHECKED	



393 + 70.00

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PLOT DATE = 11/9/2022	CHECKED - AJS	REvised -
	DATE - 11/9/2022	REvised -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: SHEET 7 OF 7 SHEETS STA. 393+70.00 TO STA. 393+70.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0079	20-00326-00-BR	OGLE	62	62
CONTRACT NO. 85731			ILLINOIS FED. AID PROJECT	