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- GENERAL NOTES AND COMMITMENTS

STANDARDS (IN PROPOSAL)

TEMPORARY EROSION CONTROL SYSTEMS

AREAS OF REINFORCEMENT BARS DECIMAL OF AN INCH AND OF A FOOT

NAME PLATE FOR BRIDGES

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

- ALIGNMENT, TIES, BENCHMARKS & ENTRANCE DETAILS
- SUMMARY OF QUANTITIES
- TYPICAL SECTIONS
- SCHEDULE OF QUANTITIES
- PLAN AND PROFILE
- 10 14 BRIDGE PLANS

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001001-02

001006

280001-07 515001-04

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15 - 33 CROSS SECTIONS

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED **BRIDGE REPLACEMENT** LOCAL FUNDS PROJECT

TR 251 (800 N. RD.) OVER TWO MILE SLOUGH TOLONO TOWNSHIP SECTION 19-29081-00-BR CHAMPAIGN COUNTY

701901-08 TRAFFIC CONTROL DEVICES TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

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.

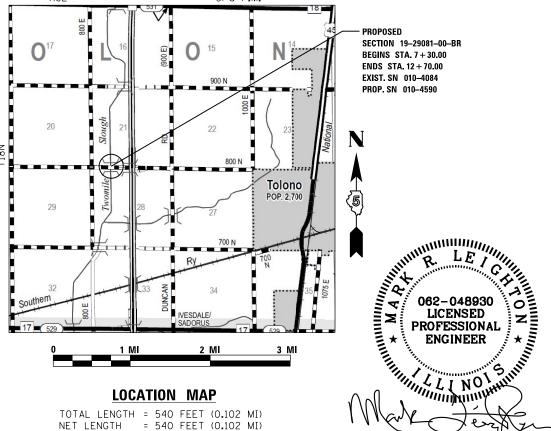
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

OR 811

PROJECT MANAGER: MARK R. LEIGHTON, P.E., P.L.S.

UTILITY COMPANIES:

EASTERN ILLINI ELECTRIC COOPERATIVE 330 W. OTTAWA PO BOX 96 PAXTON, IL 60957 CONTACT: BRIAN J. RONNA



3rd P.M.

NET LENGTH = 540 FEET (0.102 MI)

THE WORK CONSISTS OF REMOVING THE EXISTING BRIDGE (S.N. 0.11-4084) AND CONSTRUCTING A NEW STRUCTURE (S.N. 011-4590) AT STA. 10+00.00 WITH A SINGLE-SPAN PRESS BREAK TUB GIRDER BRIDGE. 0° SKEW, VARIABLE WIDTH TRANSITION APPROACHES AND OTHER COLLATERAL WORK.



FUNCTIONAL CLASSIFICATION - LOCAL ROAD ADT = 100ADTT = 15DESIGN SPEED = 30 MPH

APPROVED COUNTY ENGINEER APPROVED ROAD COMMISSIONER

engineers + planners + land surveyors

GENERAL NOTES

- 1. EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
- 2. ALL ELEVATIONS ARE BASED ON NAVD 88-DATUM.
- 3. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF CONTRACT ITEMS INVOLVED.
- 4. THE FOLLOWING APPLICATION RATES HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

TEMPORARY EROSION CONTROL SEEDING: 100 LB/ACRE

AGGREGATE BASE COURSE: 2.05 TONS/CU YD

BITUMINOUS MATERIALS (PRIME COAT): 0.25 LB/SQ FT

BITUMINOUS MATERIALS (COVER AND SEAL COAT): 0.25 LB/SQ FT

COVER COAT & SEAL COAT AGGREGATE: 23 LB/SQ YD

RIPRAP: 1.50 TONS/CU YD

- 5. THE CONTRACTOR'S OPERATIONS AND TEMPORARY STORAGE ACTIVITIES SHALL BE LIMITED TO THE WORK AREA AND/OR CONSTRUCTION LIMITS. ANY ADDITIONAL STAGING AREAS ADJACENT TO THE PROJECT AREA ARE SUBJECT TO PRIOR APPROVAL BY THE ENGINEER AND MUST NOT CONFLICT WITH EXISTING SIDE ROADS, INTERSECTIONS, DRIVEWAYS, OR DRAINAGE. ALL OPERATIONS SHALL BE SUBJECT TO REGULATORY REQUIREMENTS PERMITTED FOR THIS PROJECT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR COMPLIANCE WITH THE ABOVE REQUIREMENTS.
- 6. DISTURBED AREAS SHALL RECEIVE PERMANENT STABILIZATION WITHIN 7 DAYS OF COMPLETION OF CONSTRUCTION ACTIVITIES. TEMPORARY STABILIZATION OF WORK AREAS IS REQUIRED FOR ALL AREAS REMAINING UNDISTURBED FOR 14 DAYS, UNLESS WORK RESUMES PRIOR TO 21 DAYS. TEMPORARY STABILIZATION MUST BE APPROVED BY THE ENGINEER.
- 7. THE CONTRACTOR SHALL RELOCATE OR REMOVE AND REPLACE ALL SIGNS THAT INTERFERE WITH THE CONSTRUCTION OPERATIONS AND TEMPORARILY RESET ALL SUCH SIGNS DURING ALL STAGES OF CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE ENGINEER WILL DETERMINE THE PERMANENT LOCATION FOR EXISTING SIGNS TO BE RE-ERECTED.
- 8. CONTRACTOR SHALL FOLLOW CONSTRUCTION REQUIREMENTS OF SECTION 611 WHEN EXISTING FIELD TILE IS ENCOUNTERED. ALL FIELD TILES ENCOUNTERED SHALL BE CAREFULLY PRESERVED, REPAIRED AND CONNECTED TO THE PROPOSED DRAINAGE STRUCTURES, SEWERS OR DITCHES AS DIRECTED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE VARIOUS DRAINAGE ITEMS OR AS DIRECTED BY THE ENGINEER.
- 9. THE LOCATIONS OF EXISTING WATER MAINS, GAS MAINS, SEWERS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE, BUT THEY ARE NOT GUARANTEED. UNLESS ELEVATIONS ARE SHOWN. ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY THE UTILITY COMPANY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES AND BY FIELD INSPECTION.
- 10. EMBANKMENTS ON HILLSIDES OR SLOPES SHALL BE CONSTRUCTED ACCORDING TO ARTICLE 205.03.
- 11. THE EXISTING A-3 ROAD SURFACE AT ALL LOCATIONS WITHIN THE PROJECT LIMITS SHALL BE DISCED, PLOWED, SCARIFIED OR OTHERWISE BROKEN UP TO A DEPTH OF NOT LESS THAN 6 INCHES PRIOR TO THE INCORPORATION OF ADDITIONAL EMBANKMENT AS DIRECTED BY THE ENGINEER. THE COST SHALL BE INCLUDED WITH EARTH EXCAVATION.

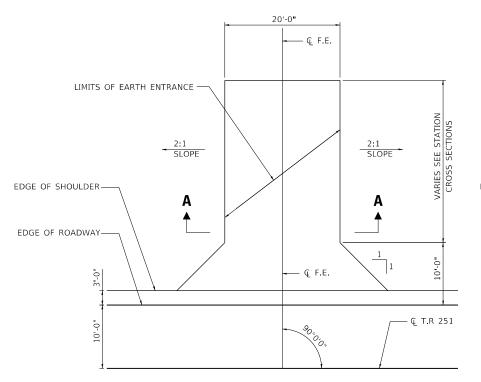
GENERAL NOTES

- 12. CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES PRIOR TO STARTING ANY OTHER CONSTRUCTION WORK AT SITE.
- 13. CONTRACTOR SHALL VERIFY THE LENGTH OF REQUIRED PIPE CULVERTS PRIOR TO ORDERING.
- 14. WHERE PERMANENT SURVEY MARKERS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE DISTURBED. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER AND AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THE LOCATION.
- 15. THE CONTRACTOR SHALL USE CARE IN ALL REMOVAL ACTIVITIES NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

COMMITMENTS

1. NO COMMITMENTS AT THIS TIME.

USER NAME = \$OPERATOR\$	DESIGNED	-	BJJ	REVISED
	CHECKED	-	MRL	REVISED
PLOT SCALE = 100:0.0000 ':" / in.	DRAWN	-	GSJ	REVISED
PLOT DATE = 8/25/2020	CHECKED	-	RKA	REVISED



EDGE OF SHOULDER B EDGE OF ROADWAY FIELD ENTRANCE LIMITS OF AGG. ENTRANCE NOLLY LIST STOPE STOPE POLITICAL STOPE STOPE STOPE POLITICAL STOPE STOPE STOPE POLITICAL STOPE S

N 1,212,573.322 E 990,713.752 SET %" BAR SET %" BAR CR800N CCR800N SET %" BAR IRON PIN SET %" BAR

IRON PIN

CONTROL POINT CLO01

STA. 4+99.15, 0.0' LT

SET %" BAR

SET %" BAR

CONTROL POINT CL002

5/8" PIN FOUND STA. 14+99.95, 0.0' LT N 1,212,557.285 E 991,714.425

- BENCH MARK 1

PT CL002 -

FIELD ENTRANCE

F.E. RT. STA. 8+41.00 F.E. LT. STA. 9+50.00 F.E. RT. STA. 10+55.00

10'-0"

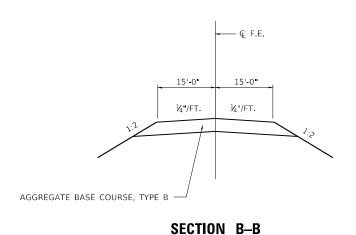
½"/FT.

EARTH SURFACE

– Ç F.E.

10'-0"

1/4"/FT.



F.E. LT. STA. 10+69.00

BENCH MARK 2

0 100 200 300 SCALE IN FEET

SECTION A-A

BM1 STA 9+76.41, 37.09' LT RR SPIKE SET IN SOUTH FACE OF 8" P.P. 43.3' NORTHWEST OF CENTER OF PROJECT BRIDGE ELEVATION = 688.96 BM2 STA 7+71.84, 23.32' LT RR SPIKE SET IN SOUTH FACE OF 8" P.P. 229' NORTHWEST OF CENTER OF PROJECT BRIDGE ELEVATION = 687.32 ALIGNMENT COORDINATES TR 251 (800 N. RD.)

Point CL001 N 1,212,573.322 E 990,713.752 Sta 4+99.15

Course from CL001 to CL002 S 89° 04' 54.6" E Dist 1,000.801

Point CL002 N 1,212,557.285 E 991,714.425 Sta 14+99.95

gn firm 84001036 whks engineers + planners + land surveyors

USER NAME = \$OPERATOR\$	DESIGNED	-	BJJ	REVISED
	CHECKED	-	MRL	REVISED
PLOT SCALE = 200.0000 ' / in.	DRAWN	-	GSJ	REVISED
PLOT DATE = 8/20/2020	CHECKED	-	RKA	REVISED

I	ALIGNMENT, TIES, BENCHMARKS AND ENTRANCE DETAILS	T.R RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ı	TR 251 OVER TWO MILE SLOUGH	251	19-29081-00-BR	CHAMPAIGN	33	3
l	THE ZJI OVER TWO WILL SECONI			CONTRACT	NO. XX	XXXX
ı	SCALE: 1"=100' SHEET 1 OF 1 SHEETS STA. 7+30.00 TO STA. 12+70.00		ILLINOIS FED. A	D PROJECT		$\overline{}$

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	NONE 0001 S.N. 010-4590
20200100	EARTH EXCAVATION	CU YD	82	82
20300100	CHANNEL EXCAVATION	CU YD	260	260
20400800	FURNISHED EXCAVATION	CU YD	821	821
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	84	84
28000305	TEMPORARY DITCH CHECKS	FOOT	16	16
28000303	TEMPORARI DITCH CHECKS	F001	10	10
28000500	INLET AND PIPE PROTECTION	EACH	4	4
35101400	AGGREGATE BASE COURSE, TYPE B	TON	511	511
48101200	AGGREGATE SHOULDERS, TYPE B	TON	181	181
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
50105220	PIPE CULVERT REMOVAL	FOOT	123	123
50200100	STRUCTURE EXCAVATION	CU YD	78	78
50300225	CONCRETE STRUCTURES	CU YD	25	25
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3030	3030
5 1200057	ELIDNICHING METAL CHELL DUEG 128 V 0.2508	FOOT	215	215
51200957	FURNISHING METAL SHELL PILES 12" X 0.250"	FOOT	315	315

engineers + planners + land surveyors

JSER NAME = \$OPERATOR\$	DESIGNED	-	BJJ	REVISED
	CHECKED	-	MRL	REVISED
PLOT SCALE = 100:0.0000 ':" / in.	DRAWN	-	GSJ	REVISED
PLOT DATE = 9/28/2020	CHECKED	-	RKA	REVISED

SUMMARY OF QUANTITIES									
	SUMMARY OF QUANTITIES TR 251 OVER TWO MILE SLOUGH								
SCALE: 1"=50'	SHEET 1	OF 2	SHEETS	STA. 7+30.00	TO STA. 12+70.00	├			

CONSTR. CODE

T.R RTE	SEC	TION		COUNTY	TOTAL SHEETS	SHEET NO.
251	19-2908	1-00-BR		CHAMPAIGN	33	4
				CONTRACT	NO. XX	XXXX
		ILLINOIS	FED. A	D PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	NONE 0001 S.N. 010-4590
110.	TI EIM	UNIT	QUANTITY	3.14. 010-4390
1202305	DRIVING PILES	FOOT	315	315
1203200	TEST PILE METAL SHELLS	EACH	1	1
51500100	NAME PLATES	EACH	1	1
42D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	40	40
642D0229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	46	46
9100100	GEOCOMPOSITE WALL DRAIN	SQ YD	40.1	40.1
9300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	56.7	56.7
0100955	PIPE DRAINS 15"	FOOT	40	40
2501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4
(2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.5	0.5
7011800	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1
(X004565	GROUTED RIPRAP	SQ YD	560	560
(X004566	CONCRETE CUT-OFF WALL	CU YD	5.3	5.3
	ERECTING SUPERSTRUCTURE	L SUM	1	1

my 1036 whks engineers + planners + land surveyors

USER NAME = \$OPERATOR\$	DESIGNED	-	BJJ	REVISED
	CHECKED	-	MRL	REVISED
PLOT SCALE = 100:0.0000 ':" / in.	DRAWN	-	GSJ	REVISED
PLOT DATE = 9/29/2020	CHECKED	-	RKA	REVISED

STAT	E OI	- ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

SCALE: 1"=50'

	SUN	/M/	ARY	OF QU	ANTITIES		T.R RTE
TR	251	ΛV	FR	TWO N	IILE SLOUGH		251
	231	01		1 000 10	HEE SECOGII		
SHEET 2		OF	2	SHEETS	STA 7+30.00	TO STA 12+70 00	

CONSTR. CODE

T.R RTE	SEC	TION		COUNTY	TOTAL SHEETS	SHEET NO.
251	19-2908	1-00-BR		CHAMPAIGN	33	5
				CONTRACT	NO. X	XXXX
		ILLINOIS	FED. A	D PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	NONE 0001 S.N. 010-4590
	MGS RAILING	FOOT	114	114
0012193	BRIDGE DECK THIN POLYMER OVERLAY 3/8"	SQ YD	169	169
0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	109	109

isign firm 184001036 whks engineers + planners + land surveyors

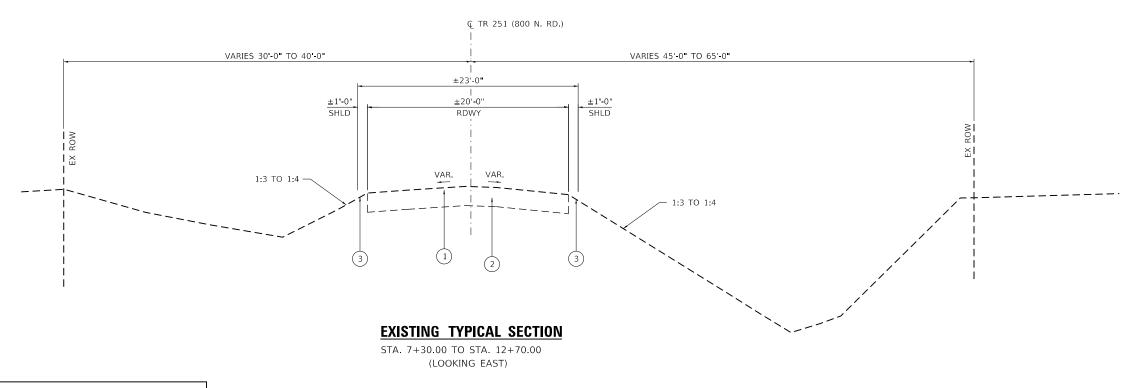
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

 SUMMARY OF QUANTITIES

 TR
 251 OVER
 TWO MILE SLOUGH

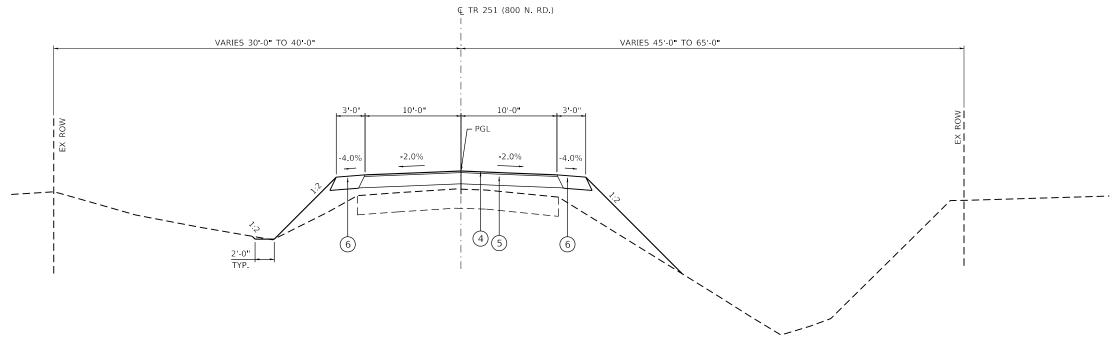
 SCALE: 1"=50'
 SHEET 2
 OF 2
 SHEETS
 STA. 7+30.00
 TO STA. 12+70.00

CONSTR. CODE



BRIDGE OMISSION:

STA. 9+71.50 TO STA. 10+28.50 (SN 010-4590)



SCALE: 1"=5"

LEGEND

- 1 EX OIL & CHIP
- 2 EX AGGREGATE BASE COURSE
- 3 EX EARTH SHOULDER
- PR A-3 SURFACE (BY OTHERS)
- PR AGGREGATE BASE COURSE, TYPE B (8")
- PR AGGREGATE SHOULDERS, TYPE B (8")

PROPOSED TYPICAL SECTION

STA. 7+80.00 TO STA. 12+20.00 (LOOKING EAST)

TRANSITION FROM PROPOSED ROADWAY TO THE EXISTING ROADWAY TO BE CONSTRUCTED FROM STA. 7+30.0 TO STA. 7+80.00 AND FROM STA. 12+20.00 TO STA. 12+70.00.

USER NAME = \$OPERATOR\$	DESIGNED	-	BJJ	REVISED
	CHECKED	-	MRL	REVISED
PLOT SCALE = 10.0000 / in	DRAWN	-	GSJ	REVISED
PLOT DATE = 8/20/2020	CHECKED	-	RKA	REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

TYPICAL	SECTIONS		T.R RTE	SECTION	
TR 251 OVER TO	WO MILE SLOUGH		251	19-29081-00-BR	С
IN 231 OVEN I	WO WILL SLOUGH				1
CUEET 1 OF 1	CHEETE CTA 7:30.00	TO CTA 12 70 00			

COUNTY SHEETS NO.

CHAMPAIGN 33 7 CONTRACT NO. XXXXX

	20200100	20300100	FOR INFORMATION	20400800	
			EXCAVATION TO BE		EARTHWORK
LOCATION	 EARTH	CHANNEL	USED IN EMBANKMENT	EMBANKMENT	BALANCE
LOCATION	EXCAVATION	EXCAVATION	(ADJUSTED FOR SHRINKAGE)	(FILL)	WASTE(+) AND
			(EXC. x 0.75)		SHORTAGE (-)
	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.
STA. 7+30.00 TO STA. 9+71.50	47		35	520	- 485
STA. 9+71.50 TO STA. 10+28.50		260	* 130		130
STA. 10+28.50 TO STA. 12+70.00	35		26	492	-466
TOTAL	82		191	1012	-821

EARTH EXCAVATION SHRINKAGE FACTOR = 25%

*CHANNEL EXCAVATION USED IN EMBANKMENT= 50%

28000250 TEMPORARY EROSION CONTROL SEEDING

TR 251						POUND
LT	9+30.00	TO	LT	9+71.50		18
LT	10+28.50	ТО	LT	12+70.00		18
RT	9+30.00	ТО	RT	9+71.50		27
RT	10+28.50	TO	RT	12+70.00		21
					TOTAL	84

48101200 AGGREGATE SHOULDERS, TYPE B

TR 251						TON
LT	7+30.00	TO	LT	9+71.50		45
LT	10+28.50	ТО	LT	12+70.00		44
RT	7+30.00	TO	RT	9+71.50		47
RT	10+28.50	TO	RT	12+70.00		45
					TOTAL	181

60100955 PIPE DRAINS 15"

001000			
TR 251			FOOT
LT	100+30.00		40
		TOTAL	40

28000305 TEMPORARY DITCH CHECKS

TR 251			FOOT
LT	8+25.00		8
LT	12+00.00		8
•		TOTAL	16

50105220 PIPE CULVERT REMOVAL

TR 251			FOOT
LT	9+50.00		52
LT	10+25.00		31
LT	10+50.00		40
		TOTAL	123

72501000 TERMINAL MARKER - DIRECT APPLIED

TR 251			EACH
LT/RT	9+71.50		2
LT/RT	10+28.50		2
		TOTAL	4

28000500 INLET AND PIPE PROTECTION

TR 251		EACH
LT 24.7' 9+30.00		1
LT 23' 10+90.00		1
RT 30' 8+24.00		1
RT 30' 10+64.00		1
	TOTAL	4

542D0223 PIPE CULVERTS, CLASS D, TYPE 1 18"

	· · · · · · · · · · · · · · · · · · ·			
TR 251				FOOT
LT	10+50.00			40
			TOTAL	40

X2501000 SEEDING, CLASS 2 (SPECIAL)

					ACRE
9+30.00	TO	LT	9+71.50		0.13
10+28.50	TO	LT	12+70.00		0.13
9+30.00	ТО	RT	9+71.50		0.13
10+28.50	ТО	RT	12+70.00		0.13
				TOTAL	0.50
1	10+28.50 9+30.00	10+28.50 TO 9+30.00 TO	10+28.50 TO LT 9+30.00 TO RT	10+28.50 TO LT 12+70.00 9+30.00 TO RT 9+71.50	10+28.50 TO LT 12+70.00 9+30.00 TO RT 9+71.50 10+28.50 TO RT 12+70.00

35101400 AGGREGATE BASE COURSE, TYPE B

TR 251						TON
CL	7+30.00	TO	CL	7+80.00		53
CL	7+80.00	TO	CL	9+71.50		201
CL	10+28.50	TO	CL	12+20.00		201
CL	12+20.00	TO	CL	12+70.00		56
					TOTAL	511

542D0229 PIPE CULVERTS, CLASS D, TYPE 1 24"

TR 251		FOOT
LT 9+50.00		46
	TOTAL	46

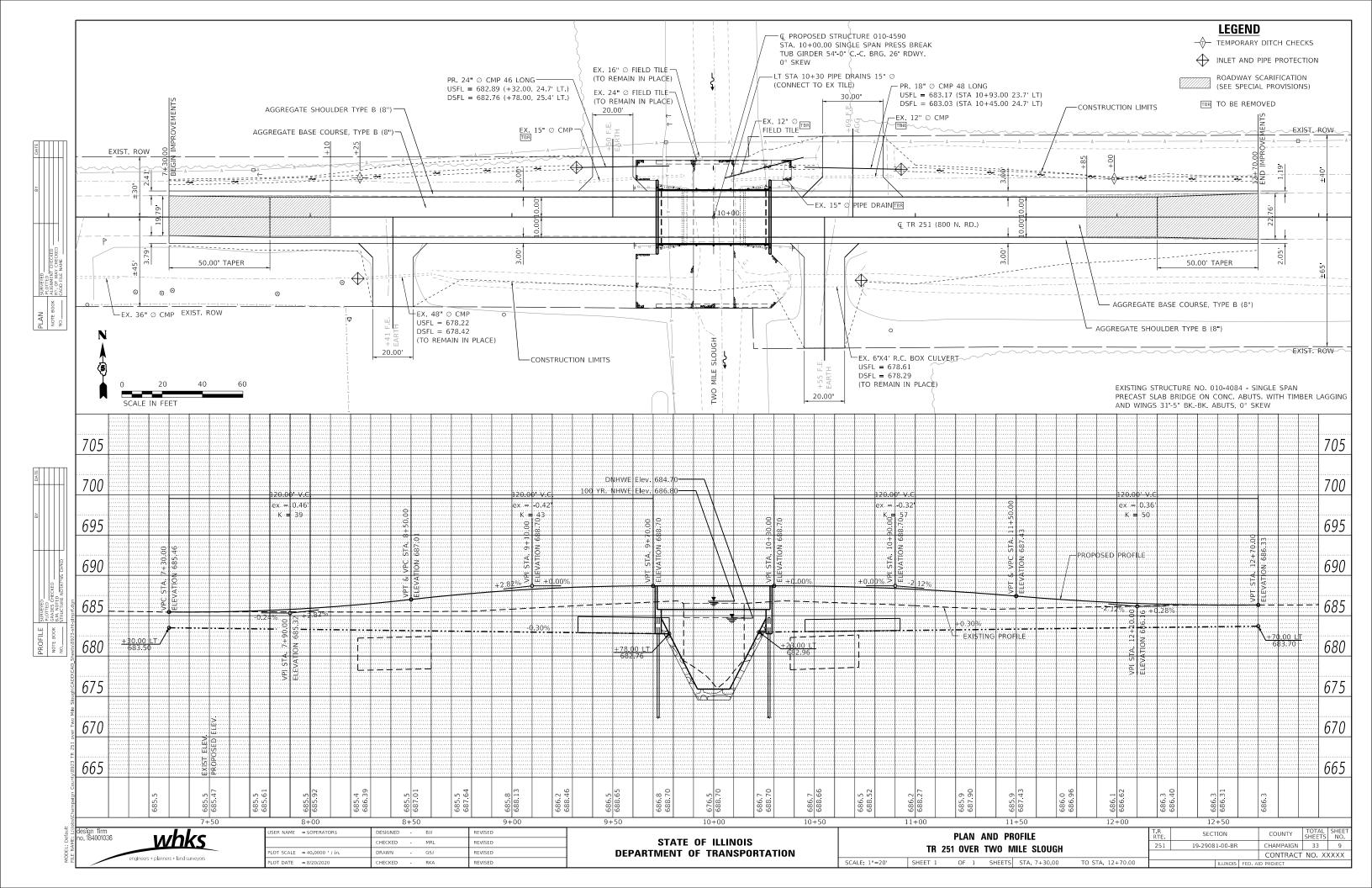
X7011800 TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21

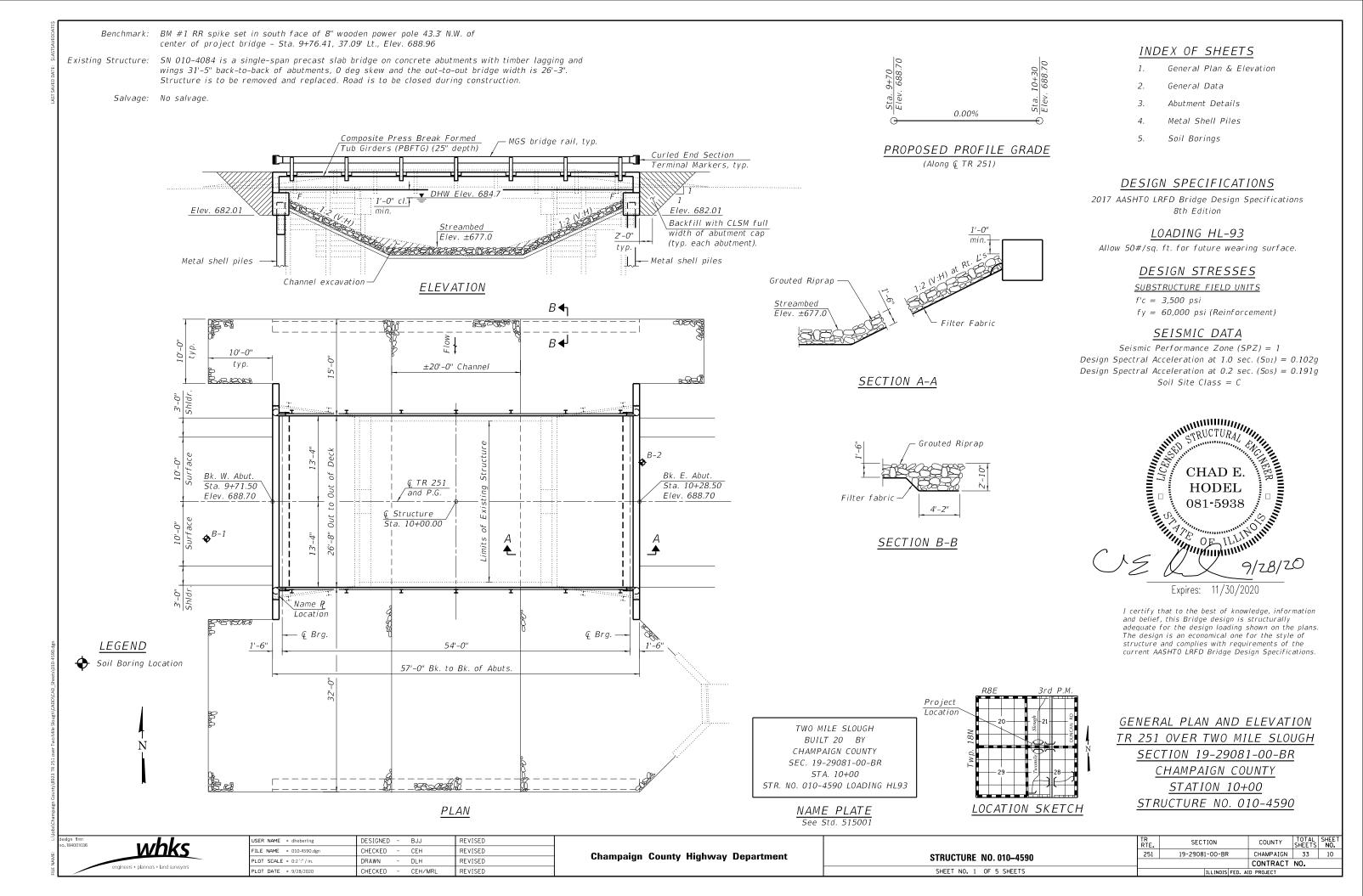
TR 251		L SUM
	TOTAL	1



SER NAME = \$OPERATOR\$	DESIGNED	-	BJJ	REVISED
	CHECKED	-	MRL	REVISED
LOT SCALE = 100:0.0000 ':" / in.	DRAWN	-	GSJ	REVISED
LOT DATE = 8/25/2020	CHECKED	-	RKA	REVISED

SCHEDULE OF QUANTITIES	T.R RTE	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
TR 251 OVER TWO MILE SLOUGH	251	19-29081-00-	BR	CHAMPAIGN	33	8
THE ZOT OVER TWO WHEE SECOND				CONTRACT	NO. X	XXXX
SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. TO STA.		ILLING	DIS FED. A	ID PROJECT		





information.

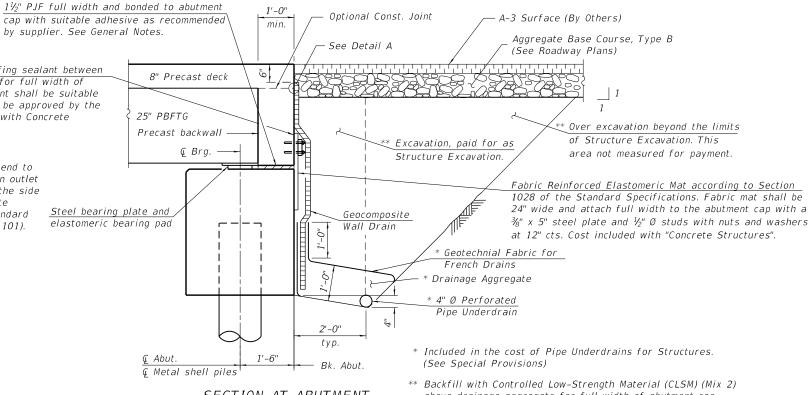
ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.		260	260
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		78	78
Concrete Structures	Cu. Yd.		25.0	25.0
Reinforcement Bars, Epoxy Coated	Pound		3030	3030
Furnishing Metal Shell Piles 12" x 0.250"	Foot		315	315
Driving Piles	Foot		315	315
Test Pile Metal Shells	Each		1	1
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq. Yd.		40.1	40.1
Controlled Low-Strength Material	Cu. Yd.		56.7	56.7
Bridge Deck Thin Polymer Overlay ⅔"	Sq. Yd.	169		169
Pipe Underdrains for Structures 4"	Foot		109	109
Grouted Riprap	Sq. Yd.		560	560
Erecting Superstructure	L. Sum	1		1
Furnishing Superstructure	L. Sum	1		1
Concrete Cut-Off Wall	Cu. Yd.		5.3	5.3
MGS Bridge Railing	Foot	114		114

**** By others. See General Notes.

Apply flexible waterproofing sealant between backwall and top of mat for full width of abutment cap. The sealant shall be suitable for use below grade and be approved by the Engineer. Cost included with Concrete Structures.

Note:

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



SECTION AT ABUTMENT

above drainage aggregate for full width of abutment cap.

(Dimensions are at Rt. L's)

3. The profile grade elevations shown are applicable to the top of the bridge deck prior to placement of the thin polymer overlay.

2. The prefabricated superstructure units are being fabricated and supplied by others (herein referred to as

Transportation (IDOT) Standard Specifications for Road and Bridge Construction except as mentioned herein.

GENERAL NOTES

1. All work shall be completed in accordance with the applicable sections of the Illinois Department of

the Fabricator) on an advanced contract. See special provisions and shop drawings for additional

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

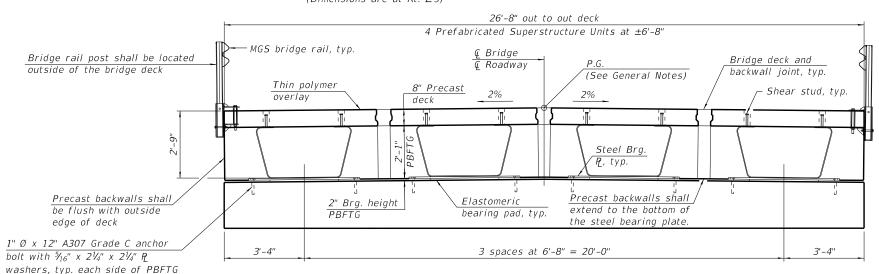
5. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

6. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ in. (0.01 ft). Adjustments shall be made either by grinding the surface or by shimming the bearings.

7. The indicated anchor bolt diameter, length, and material grade are minimums and may be increased as determined necessary by the Fabricator's SE. See Erecting Superstructure Special Provision for addition details

8. PJF shall conform to the material specifications of Article 1051.09 except the pressure indicated in Section 1051.09(a)(1) is limited to 15 psi max. The PJF along the abutment cap may be made up of layers of multiple thicknesses and should be lightly compressed by the backwall after the superstructure is set in place.

9. Controlled low strength material shall not be placed behind the abutments until the superstructure is in place.



SUPERSTRUCTURE CROSS SECTION

WATERWAY INFORMATION TABLE

Existing Low Grade Elevation: 685.44 ft. @ Sta. 8+20									
Drainage Area 5.56 sq. mi. Proposed Low Grade Elevation: 685.46 ft. @ Sta. 7+30									
Flood	Freq.	Q	Opening	g sq. ft.	Natural	Head	(ft.)	Headwa	ter Elev.
17000	Year	cfs	Existing	Proposed	H.W.E.	Existing	Proposed	Existing	Proposed
Design	15	980	195	295	684.7	0.4	0.1	685.1	684.8
Base	100	1600	195	348	686.8	0.8	0.6	687.6	687.4
Scour Chec	200	1840	195	348	687.5	0.5	0.6	688.0	688.1
Max. Calc.	500	2170	195	348	688.0	0.5	0.6	688.5	688.6

DESIGN SCOUR ELEVATION TABLE

Design Scou	Item 113	
W. Abut.	E. Abut.	
_	-	
_	-	o
682.0	682.0	O
682.0	682.0	
	W. Abut. - - 682.0	682.0 682.0

— Optional Const. Jt. If the Fabricator elects to use the optional construction joint between the slab and backwall, a flexible waterproofing sealant shall be provided as shown. The sealant shall be suitable for use below grade and shall be approved by the Engineer. A notch and backer rod shall be provided as specified by the sealant manufacturer. Cost included with Furnishing Superstructure.

DETAIL A

 Precast Panel		21/2 1 1 1 1 1 1 1 1 1	Reinf, Lap	Top of precast concrete panel Fill bridge deck joint with Closure Pour Material.
	Q E	Deck join	t —	Closure Pour Material. See Special Provisions.

BRIDGE DECK JOINT DETAIL

(Through © of bridge deck joint, typ.) Backwall joint details similar)

*** Joint dimensions to be determined by Fabricator. See Special Provisions.

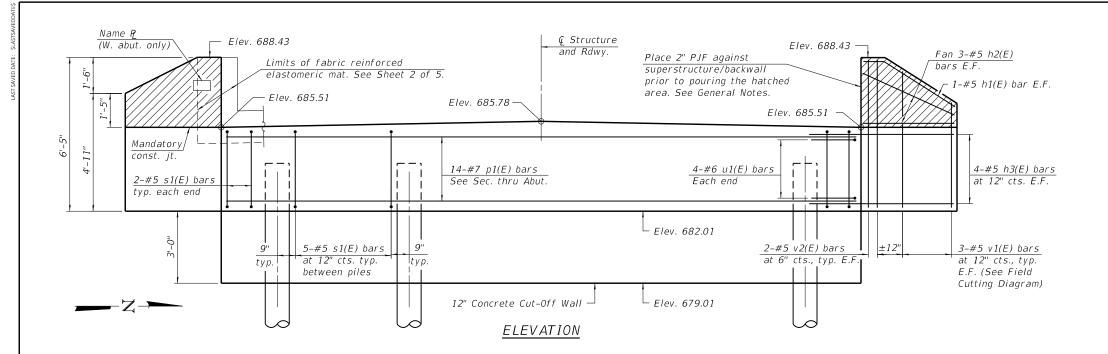


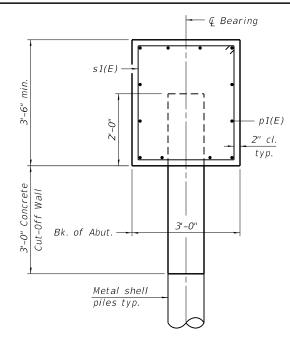
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FILE NAME = 010-4590.dgn	CHECKED - CEH	REVISED
PLOT SCALE = 0:2":"/in.	DRAWN - DLH	REVISED
PLOT DATE = 9/28/2020	CHECKED - CEH/MRL	REVISED

Champaign County Highway Department

GENERAL DATA								
STRUCTURE NO. 010-4590								
CHEET	NO 2	OF 5 SHEETS						

TR RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NQ.
251	19-29081-00-BR	CHAMPAIGN	33	11
		CONTRACT	NO.	
	TILINOIS FED AT	ID PROJECT		

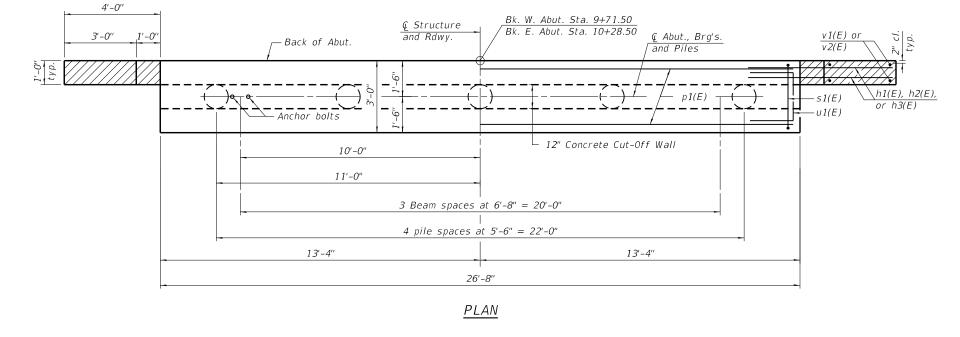




TYPICAL SECTION THRU ABUTMENT

BILL OF MATERIAL TWO ABUTMENTS

Bar	No.	Size	Length	Shape
h1(E)	8	#5	4'-1"	
h2(E)	24	#5	3'-8'	
h3(E)	32	#5	7'-7"	
p1(E)	28	#7	26'-4"	
7/5)	4.0		10, 7,,	
s1(E)	48	#5	12'-7"	L
u1(E)	16	#6	11'-6"	
v1(E)	12	#5	10'-8"	
v2(E)	16	#5	6'-1"	
				7.0
	ire Exca		Cu. Yd.	78
	te Struc		Cu. Yd.	25.0
	rcement Coated	Bars,	Pound	3,030
	hing Met 12" x 0.2		Foot	315
Driving			Foot	315
Test P	ile Meta	l Shell	Each	1
Controi Materia		-Strength	Cu. Yd.	56.7
Concre	te Cut-C	ff Wall	Cu. Yd.	5.3



Notes:

- 1. The hatched area shall be poured after the superstructure is in place.
- 2. For details of piles, see sheet 4 of 5.
- 3. See superstructure details for anchor bolt details.

SUPERSTRUCTURE ABUTMENT REACTION TABLE

Load	Reaction
Dead Load (DC)	25.0 k
Wearing Surface (DW)	12.0 k
Live Load (LL) Ext. Beam	58.3 k
Live Load (LL) Int. Beam	56.6 k

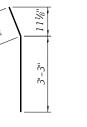
PILE DATA - W. ABUT.

Type: Metal Shell 12" Ø x 0.25" walls Nominal Required Bearing: 292 kips Factored Resistance Available: 161 kips Est. Length: 35 ft. No. Production Piles: 5

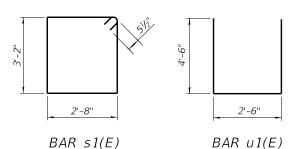
PILE DATA - E. ABUT.

Type: Metal Shell 12" Ø x 0.25" walls Nominal Required Bearing: 292 kips Factored Resistance Available: 161 kips Est. Length: 35 ft.

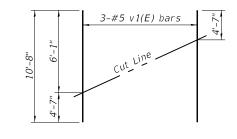
No. Production Piles: 4 No. Test Piles: 1



 $BAR \ h1(E)$



 $BAR \ u1(E)$



FIELD CUTTING DIAGRAM

Order v1(E) bars full length. Cut as shown and use remainder of bars in opposite face.



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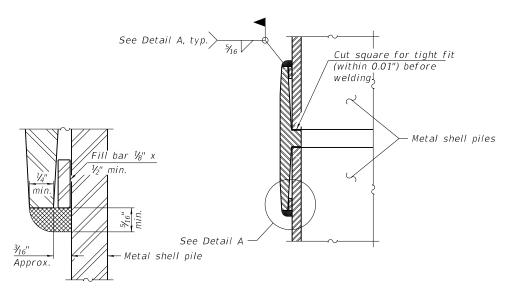
	ABL	JTI	VIEN	lΤ	S	
STRUC	ABUTMENTS UCTURE NO. 010–4590					
SHEET	NO.	3	OF	5	SHEETS	

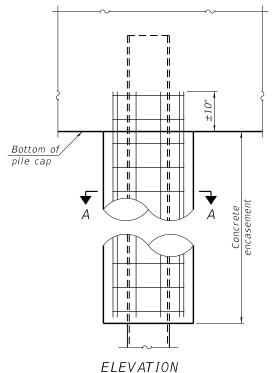
R TE.	SECTION	COUNTY	TOTAL SHEETS	SHE NO
251	19-29081-00-BR	CHAMPAIGN	33	12
		CONTRACT	NO.	
	ILLINOIS FED. A	ID PROJECT		

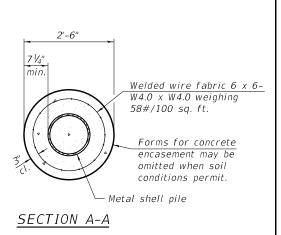


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd.³/ft.)
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470





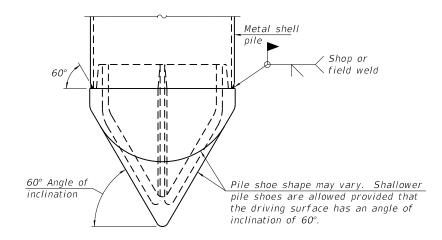


DETAIL A

Metal shell pile ¾" End plate Shop or field weld

 $s = t - \frac{1}{16}$ "

END PLATE ATTACHMENT



PILE SHOE ATTACHMENT

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

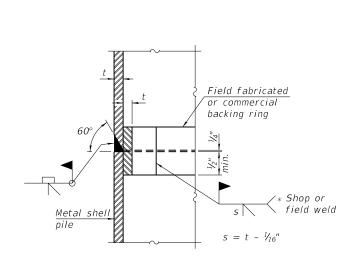
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WELDED COMMERCIAL SPLICE

Notes:

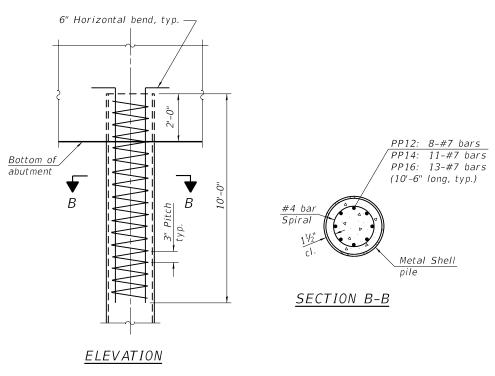
The $\frac{1}{8}$ " x $\frac{1}{2}$ " min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them. Pile segments shall be driven to solid contact with splicer before welding.

INDIVIDUAL PILE CONCRETE ENCASEMENT (When specified)



COMPLETE PENETRATION WELD SPLICE

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



REINFORCEMENT AT ABUTMENTS

(Omit when concrete encasement is specified)

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

F-MS

whks engineers + planners + land surveyors

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Champaign	County	Highway	Department

METAL SHELL PILE DETAILS	TR RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
METAL SHELL PILE DETAILS STRUCTURE NO. 010-4590	251	19-29081-00-BR	CHAMPAIGN	33	13
			CONTRACT	NO.	
SHEET NO. 4 OF 5 SHEETS		ILLINOIS FED A	D PROJECT		

BRIDGE FOUNDATION SOIL BORING LOG

MET Midwest Engineering and Testing, Inc.

TR 251 over Twomile Slough 19-29081-00BR Route: Section: County:

Champaign 010-4084 Structure No. Station: Offset: 99+62 6 ft. Rt.

Boring: Page: Date of Boring: Page 1 of 1 September 25, 2019 Zach Wilcoxen Drilled By: Checked By: MET Project No: Nick Wendling, P.E. 93105

Surface Water Elevation: 90.5 ft. Ground Water Elevation: when drilling: Dry	D E P	B L O			Center of Bridge : STA 100+00	D E P	B L O		
at completion: Dry	T	w	Ο	мс	Elevation 100.00	T	w	Q.,	МС
Ground Surface Elevation: 98.9 ft.		(6")	-				_		
4" Oil and Chip over 6" Crushed Stone	_	-	3.0P	16			(- /	()	(10)
	_					-	4		
	_					_	6	3.4B	13
Black and brown mixed	-	2				_	9		
silty CLAY (OH) - Fill	_	2	4.0P	22		30			
	_	_ 3				-		3.8B	14
	5					_	9		
Brown and gray silty CLAY (CL)	_	2	1.6B	25		_			.4B 13 .8B 14
2.0 m and gray only 22 m (22,	_	2			Gray silty CLAY (CL) with	_			
					sand and small gravel - Till	-			
Brown and gray silty	_	2	4.00						
CLAY (CL) with sand	_		1.08	21		35	10		
						_	12	3.6B	11
	10	3				-	14		
	_	5	3.4B	15		_			
Brown silty CLAY (CL) with	_	_ 5				_			
sand and small gravel - Till	_					_			
	_	5 7	4.5P	13		40 -			
	_	10				_	14	0.05	40
	15 _					_		6.6B	12
	_	8	4.50	42	END OF DODING @ FLEW 57.4#	_			
	_		4.5P	13	END OF BORING @ ELEV: 57.4 π.	-			
	_					_			
	_	6				00 E L O T W S Qu MC (ft.) (6") (tsf) (%)			
	Elevation: E								
	_	-/				_			
Gray silty CLAY (CL) with	20	-				_			
sand and small gravel - Till	_		3.2B	13		_			
	_	9				_			
	_					_			
	_	5	2 OB	12		E0 -			
	_		3.00	13		30			
	25 -					_			
	²³ _					_			
	_		3.0B	11		-			
N 01 1 1 1 2 1 1 7 1 1 7 1 1 7 1					. I Type Fellum -				
N - Standard Penetration Test (SPT) = MC- Moisture Content - Percent of dry			two blo	ow valu					
			uare f	oot (tsf			meter		

BRIDGE FOUNDATION SOIL BORING LOG

MET Midwest Engineering and Testing, Inc.

TR 251 over Twomile Slough 19-29081-00BR Route:

Section: Champaign 010-4084 County: Structure No. 100+30 Station: 6 ft. Lt. Offset:

Boring: Page: Date of Boring: Page 1 of 1 September 25, 2019 Zach Wilcoxen Drilled By: Checked By: MET Project No: Nick Wendling, P.E.

93105

Surface Water Elevation: 90.5 ft. Fround Water Elevation: when drilling: Dry tt completion: Dry round Surface Elevation: 100.1 ft.	D E P T H	B L O W S (6")	Q _u	MC	Center of Bridge : STA 100+00 Elevation 100.00	D E P T H (ft.)	B L O W S (6")	Q _u	MO
3.5" Oil and Chip		-	2.0P	(%) 26		(IL.) 	(6)	(tsi)	(%
over 5.5" Crushed Stone						_	5		_
	_					_	7	3.2B	12
Black and brown mixed	_	2				_	9		
silty CLAY (OH) - Fill	_	3 4	2.5P	28		30	6		
						_	8	4.0B	2
Brown and gray clayey	• <u> </u>	2				_	11		
SILT (ML) with sand	_	2	1.8B	22	Gray silty CLAY (CL) with	_			
					sand and small gravel - Till	_			
Brown and gray silty	_	1				35			
CLAY (CL) with sand	_	2	0.8B	23		35	8		┝
	10					_	9	5.6B	1:
Brown silty CLAY (CL) with sand and small gravel - Till	- 10	2				_	11		
	_	4 6	3.8B	14		-			
						_			
Sand and Sman graver - Till	_	4				 40			
	_	5 7	4.0B	13		40	15		-
	15					_	18 18	6.6B	1
	_	4 8	4.6B	12	END OF BORING @ ELEV: 58.6 ft.	_			
	_	9	4.00	12	END OF BORING @ ELEV. 30.0 II.	_			
	_					-			
	_	5 6	4.0B	12					
	_	8	1.00			 -			
Gray silty CLAY (CL) with	20					45 - - - -			
sand and small gravel - Till	_	5 5	3.6B	12		_			
	_	8	0.02			_			
	_					_			
	_	5 6	3.2B	11		50			
	_	8				_			
	25					_			
	_	5 6	3.4B	13		_			
	_	9	j J			-			

Qu- Unconfined Compressive Strength- tons per square foot (tsf)

P-Penetrometer

whks

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