

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES & GENERAL NOTES
3	SCHEDULE OF QUANTITIES
4	TYPICAL SECTIONS
5-6	PLAN & PROFILE
7	PAVEMENT MARKING PLAN
8-9	EROSION CONTROL PLAN
10-12	BRIDGE APPROACH PAVEMENT & CONNECTOR
13-14	APPROACH PAVEMENT ELEVATIONS
15-16	PAVED DITCH (SPECIAL)
17-19	TRAFFIC BARRIER, TYPE 6
20-21	TRAFFIC BARRIER TERMINAL, TYPE 1
22-39	BRIDGE PLANS

LIST OF STANDARD DRAWINGS

STANDARD NO.	DESCRIPTION
000001 - 06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001 - 07	TEMPORARY EROSION CONTROL SYSTEMS
515001 - 03	NAME PLATE FOR BRIDGES
630001 - 10	STEEL PLATE BEAM GUARDRAIL
630301 - 06	SHOULDER WIDENING FOR GUARDRAIL TERMINALS
631031 - 13	TRAFFIC BARRIER TERMINAL TYPE 6
635006 - 03	REFLECTOR AND TERMINAL MARKER PLACEMENT
701101 - 04	OFF ROAD OPERATIONS, MULTILANE, 15' TO 24' FROM PAVEMENT EDGE
701421 - 07	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS >= 45 MPH TO 55 MPH
701422 - 07	LANE CLOSURE, MULTILANE, FOR SPEEDS >= 45 MPH TO 55 MPH
701901 - 04	TRAFFIC CONTROL DEVICES
780001 - 05	TYPICAL PAVEMENT MARKINGS
BLR 21 - 9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION OF RURAL LOCAL HIGHWAYS
BLR 23 - 4	TRAFFIC BARRIER TERMINAL TYPE 1
606001 - 06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

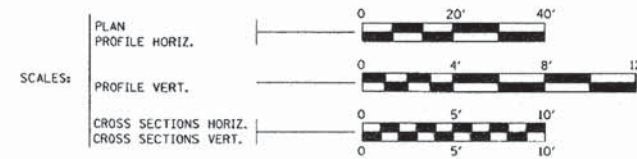
COMMITMENTS-NONE



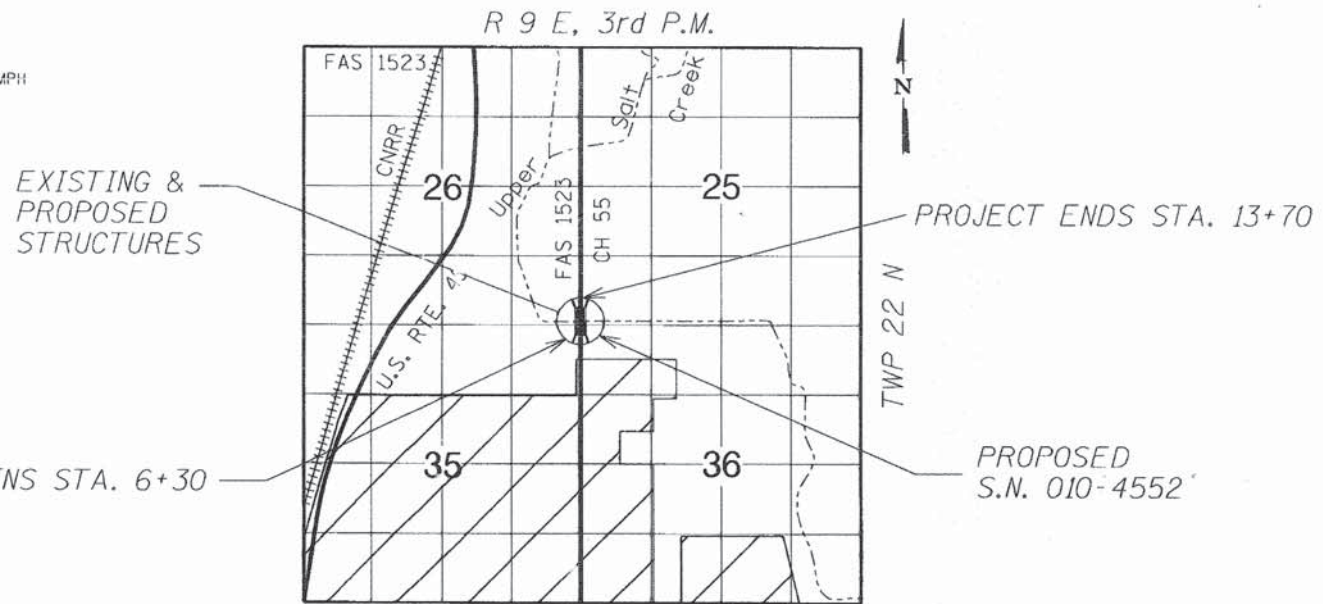
Jacob R. Wolf
 JACOB R. WOLF
 Illinois Licensed Professional Engineer Number 55444
 License Expires 11/30/2015

FOR JOINT UTILITY INFORMATION
 CALL TOLL FREE 1-800-892-0123

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION PLANS FOR PROPOSED BRIDGE REPLACEMENT



CHAMPAIGN COUNTY
 SECTION 10-00966-00-BR
 JOB NO. C-95-313-15
 FAS 1523/COUNTY HIGHWAY 55
 MAJOR BRIDGE FUNDS
 PROJECT NO. BRS-1523(102)



LOCATION MAP

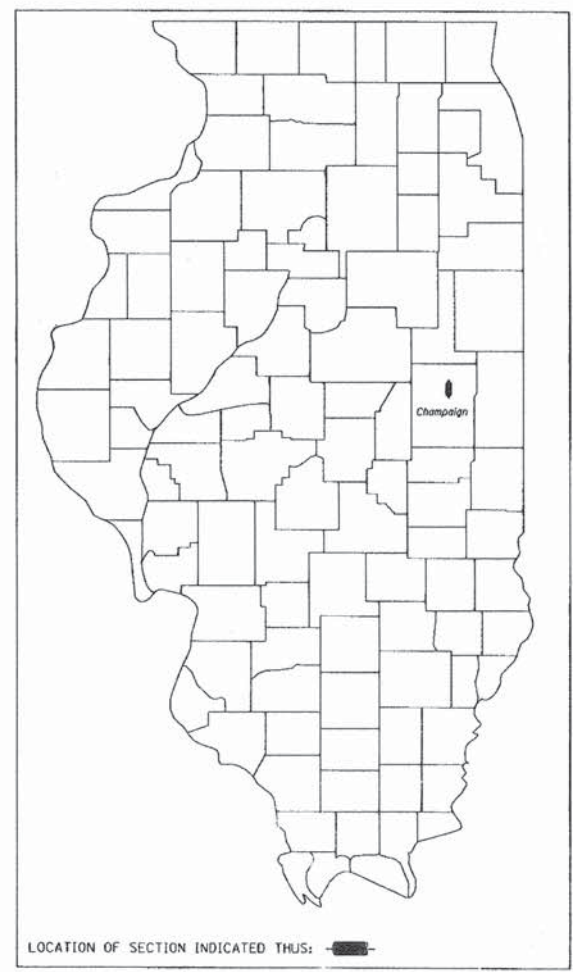
ADT = 2032 (CURRENT), 1750 (DESIGN)
 FUNCTIONAL CLASS = SUBURBAN ARTERIAL

NET LENGTH OF SECTION = 740 FEET = 0.140 MILES

Contract No. 91526

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET
FAS1523	#	Champaign	39	1
FED. ROAD DIST. NO. 7	BILLINGS	FED. AID PROJECT		

*10-00966-00-BR



APPROVED 7-22 2015
J. Blue
 JEFF BLUE, PE CHAMPAIGN COUNTY ENGINEER

PASSED AUGUST 5 2015
B. K. Cragg
 DISTRICT FIVE ENGINEER OF LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review August 5 2015
P. J. Jones
 DEPUTY DIRECTOR OF HIGHWAYS, REGION THREE ENGINEER

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION



ENGINEERING
 RESOURCE
 ASSOCIATES, INC.
 CONSULTING ENGINEERS, SCIENTISTS
 & SURVEYORS

3002 CROSSING COURT
 CHAMPAIGN, IL 61822
 PHONE (217) 351-6268
 FAX (217) 355-1902

SUMMARY OF QUANTITIES - SEC. 10-00966-00-BR

SECTION	COUNTY	TOTAL SHEETS	SHEET
FAS1523	CHAMPAIGN	39	2
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

* 10-00966-00-BR
Contract No. 91526

CODE	DESCRIPTION	UNIT	QUANTITY
20200100	Earth Excavation	Cu. Yd.	82
25000200	Seeding, Class 2	Acre	0.50
25000400	Nitrogen Fertilizer Nutrient	Pound	55
25000500	Phosphorus Fertilizer Nutrient	Pound	55
25000600	Potassium Fertilizer Nutrient	Pound	55
25100115	Mulch, Method 2	Acre	0.50
28000250	Temporary Erosion Control Seeding	Pound	50
28000305	Temporary Ditch Checks	Foot	40
28000400	Perimeter Erosion Barrier	Foot	776
28000500	Inlet & Pipe Protection	Each	3
31101200	Sub-base Granular Material, Type B 4"	Sq. Yd.	193
35100700	Aggregate Base Course, Type A, 8"	Sq. Yd.	62
40200800	Aggregate Surface Course, Type B	Tons	30
40600100	Bituminous Materials (Prime Coat)	Pound	1545
40603310	Hot Mix Asphalt Surface Course, Mix "C", N50	Tons	414
40600982	Hot-Mix Asphalt Surface Removal-Butt Joint	Sq. Yd.	3720
40603080	Hot-Mix Asphalt Binder Course, IL-19.0, N50	Tons	51
40600275	Portland Cement Concrete Sidewalk 4 inch	Sq. Ft.	800
42400410	Portland Cement Concrete Sidewalk 8 inch	Sq. Ft.	192
44000100	Pavement Removal	Sq. Yd.	352
44000300	Curb Removal	Foot	48
44000600	Sidewalk Removal	Sq. Ft.	872
50100100	Removal of Existing Structures	Each	1
50105220	Pipe Culvert Removal	Foot	70
50200100	Structure Excavation	Cu. Yd.	428
50300225	Concrete Structures	Cu. Yd.	158.6
50300255	Concrete Superstructures	Cu. Yd.	238.5
50300260	Bridge Deck Grooving	Sq. Yd.	817
50300300	Protective Coat	Sq. Yd.	970
50500105	Furnishing & Erecting Structural Steel	L. Sum	1
50500505	Stud Shear Connectors	Each	273
50800105	Reinforcement Bars	Pound	5600
50800205	Reinforcement Bars, Epoxy Coated	Pound	77600
Δ 50900805	Pedestrian Railing	Foot	168
Δ 50901050	Steel Railing, Type SM	Foot	160
51500100	Name Plates	Each	1
51201400	Furnishing Steel Piles HP10x42	Foot	1080
51202305	Driving Piles	Foot	1080
51203400	Test Pile Steel HP10x42	Each	2
51204650	Pile Shoes	Each	26
542C1063	Pipe Culverts, Class C, Type 2 18"	Foot	85
59100100	Geocomposite Wall Drain	Sq. Yd.	82.3
60600605	Concrete Curb Type B	Foot	10
X6061460	Paved Ditch (Special)	Foot	85
Δ 63100085	Traffic Barrier Terminal, Type 6	Each	2
Δ 63100167	Traffic Barrier Terminal, Type 1 (Special Tangent)	Each	2
67100100	Mobilization	L. Sum	1
X7010216	Traffic Control and Protection (Special)	L. Sum	1
Δ 78201000	Terminal Marker-Direct Applied	Each	2
X2070304	Porous Granular Embankment (Special)	Cu. Yd.	96
XX004565	Grouted Riprap	Sq. Yd.	513
XX004566	Concrete Cut-Off Wall	Cu. Yd.	12
Z0013798	Construction Layout	L. Sum	1
Z0046304	Pipe Underdrains For Structures 4"	Foot	170

Δ Specialty Items

GENERAL NOTES

- New Fasteners shall be AASHTO M164 Type 1, mechanically Galvanized Bolts. Bolts 7/8" dia. holes 15/16" dia., unless otherwise noted.
- Calculated weight of new Structural Steel = 283,330 lbs.
- All new structural steel shall be AASHTO M 270 Grade 50W, except where otherwise noted.
- No field welding is permitted.
- Reinforcement bars shall conform to the requirements of ASTM A706 Gr 60 (IL Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevation within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Structural steel shall only be painted for a distance equal to the depth of the embedment into the concrete cap plus 3 in. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel". The cost of painting & preparing shall be incidental to the cost of Furnishing & Erecting Structural Steel.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
- Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
- The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Formwork shall be removed prior to the placement of the bridge approach pavement.
- Portions of the guardrail near the bridge shall be vertically adjusted to connect the end of the Type SM Bridge Railing.
- The locations of existing utilities as shown on the plan are for information only, and are not guaranteed. It shall be the Contractor's responsibility to ascertain their exact location from the utility companies and by field inspection.
- See the Plan & Profile sheet for roadway and shoulder tapers.
- Effective July 1, 1999, all vertical control surveys being done by or for the department of transportation should use the NAVD 88 as the datum of reference for all elevations. If any questions, contact surveys unit.
- The Removal of Existing Structures pay item shall include the removal of the roadway bridge and the removal of the pedestrian bridge.

MIXTURE REQUIREMENTS TABLE

Location	CH 55	CH 55
Mixture Use	Surface	Binder
AC/PG	PG 64-22	PG 64-22
Design Air Voids	4.0% @ Ndes=50	4.0% @ Ndes=50
Mix Comp(Gradation)	IL 9.5	IL 19.0
Friction Aggregate	Mix C	N.A.
Mixture Weight	112	112
Quality Management Program	QC/OA	QC/OA
Sublot Size	N.A.	N.A.

UTILITIES
Call J.U.L.I.E. 1-800-892-0123
The Contractor shall coordinate the relocation of any utilities with the utility company where they conflict with the proposed improvements.



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35701 WEST AVENUE, SUITE 150 WARRENVILLE, ILLINOIS 60555
PHONE 630.393.3060, FAX 630.393.2152
10 S. RIVERSIDE PLAZA, SUITE 1800 CHICAGO, ILLINOIS 60606
PHONE 312.683.0110, FAX 321.474.6999

SUMMARY OF QUANTITIES

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET 2
DWG NO. 13028soq.dgn
DATE JUL 2015
PROJ NO. C13028

SCHEDULE OF QUANTITIES - SEC. 10-00966-00-BR

20200100

EARTH EXCAVATION	
LOCATION	CU. YDS.
Approach Pavement	40
Paved Ditches	28
Sidewalk	4
Field Entrances	10
TOTAL	82

31101200

SUB-BASE GRANULAR MATERIAL, TYPE B 4"	
LOCATION	SQ. YDS.
Bridge Approach Pavement	47
Bridge Approach Pavement Connectors	36
Sidewalk	110
TOTAL	193

35100700

AGGREGATE BASE COURSE, TYPE A, 8"	
LOCATION	TONS
Field Entrance STA. 8+61.75 RT	31
Field Entrance STA. 10+85.25 RT	31
TOTAL	62

40200800

AGGREGATE SURFACE COURSE, TYPE B	
LOCATION	TONS
Field Entrance STA. 8+61.75 RT	15
Field Entrance STA. 10+85.25 RT	15
TOTAL	30

40600275

BITUMINOUS MATERIALS (PRIME COAT)	
LOCATION	POUND
STA. 8+88.50 TO STA. 9+38.50	762
STA. 10+61.50 TO STA. 11+11.50	762
Field Entrances	20
TOTAL	1545

40603310

HOT MIX ASPHALT SURFACE COURSE "C", N50	
LOCATION	TONS
STA. 8+88.50 TO STA. 9+38.50	190
STA. 10+61.50 TO STA. 11+11.50	190
Field Entrance STA. 8+61.75 RT	17
Field Entrance STA. 10+82.25 RT	17
TOTAL	414

40600982

HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT	
LOCATION	SQ. YDS.
STA. 6+30.0 TO STA. 9+58.17	1860
STA. 10+41.87 TO STA. 13+70.0	1860
TOTAL	3720

40603080

HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	
LOCATION	TONS
Field Entrance STA. 8+61.75 RT	25.5
Field Entrance STA. 10+85.25 RT	25.5
TOTAL	51

42400100

PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	
LOCATION	SQ. FT.
STA. 8+74.00 TO STA. 9+59.00	401
STA. 10+41.00 TO STA. 10+71.00	180
STA. 10+95.00 TO STA. 11+50.00	211
TOTAL	800

42400410

PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH	
LOCATION	SQ. FT.
STA. 8+50.00 TO STA. 8+74.00	96
STA. 10+71.00 TO STA. 10+95.00	96
TOTAL	192

44000600

SIDEWALK REMOVAL	
LOCATION	SQ. FT.
STA. 8+50.00 TO STA. 9+59.00	436
STA. 10+41.00 TO STA. 11+50.00	436
TOTAL	872

44000300

CURB REMOVAL	
LOCATION	FOOT
STA. 8+45.00 TO STA. 8+69.00	24
STA. 10+63.00 TO STA. 11+05.00	24
TOTAL	48

44000100

PAVEMENT REMOVAL	
LOCATION	SQ. YD.
STA. 9+29.00 TO STA. 9+59.00	176
STA. 10+41.00 TO STA. 10+71.00	176
TOTAL	352

50105220

PIPE CULVERT REMOVAL	
LOCATION	FOOT
STA. 10+13.00 RT TO STA. 10+83.00 RT	70
TOTAL	70

50300260

BRIDGE DECK GROOVING	
LOCATION	SQ. YDS.
Bridge Approach Pavement	274
Bridge Approach Pavement Connector	69
Bridge	474
TOTAL	817

50300300

PROTECTIVE COAT	
LOCATION	SQ. YDS.
Bridge Approach Pavement	274
Bridge Approach Pavement Connector	69
Bridge	506
Paved Ditches	35
Pedestrian Bridge	86
TOTAL	970

542C1063

PIPE CULVERTS, CLASS C, TYPE 2 18"	
LOCATION	FOOT
STA. 10+13.00 RT TO STA. 10+98.00 RT	85
TOTAL	85

60600605

CONCRETE CURB TYPE B	
LOCATION	FOOT
STA. 8+19.00 TO STA. 9+29.00	10
TOTAL	10

63100085

TRAFFIC BARRIER TERMINAL, TYPE 6	
LOCATION	EACH
STA. 9+16.00 TO STA. 9+60.00 RT	1
STA. 10+40.00 TO STA. 10+84.00 LT	1
TOTAL	2

63100167

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL TANGENT)	
LOCATION	EACH
STA. 8+86.66 TO STA. 9+16.00 RT	1
STA. 10+84.00 TO STA. 11+13.00 LT	1
TOTAL	2



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PHONE 312.683.0110, FAX 312.474.6099

SCHEDULE OF QUANTITIES

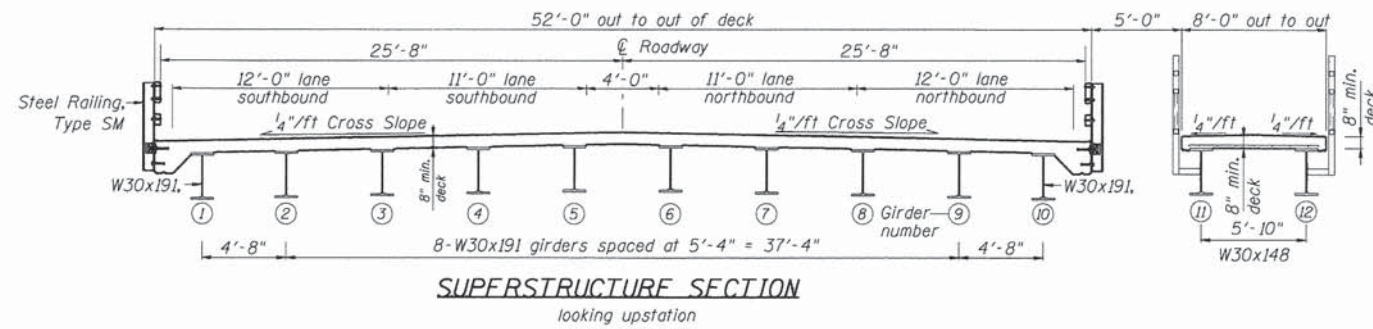
FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET 3

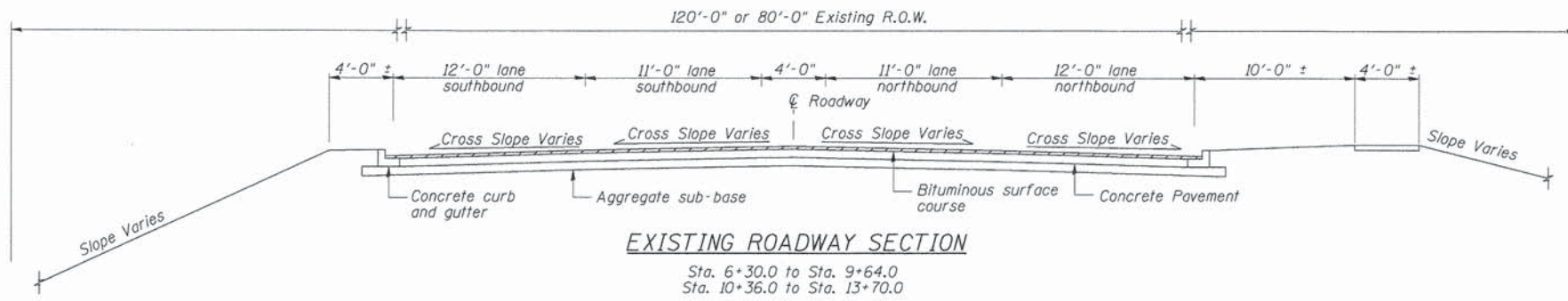
DWG NO. 13028soq.dgn
DATE JUL 2015
PROJ NO. C13028

SECTION	COUNTY	SHEET	SHEET
FAS1523	CHAMPAIGN	39	4
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

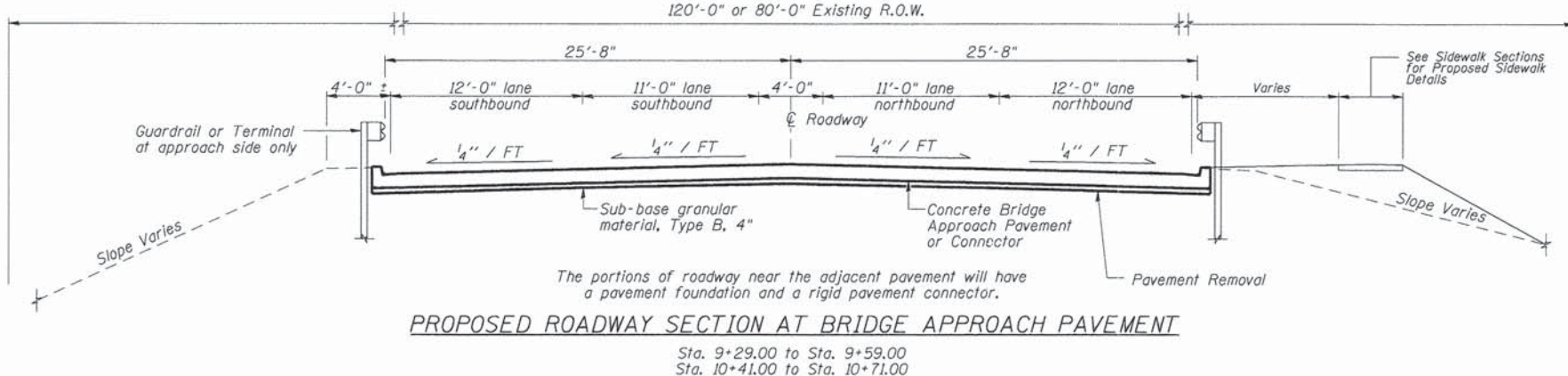
10-00966-00-BR
Contract No. 91526



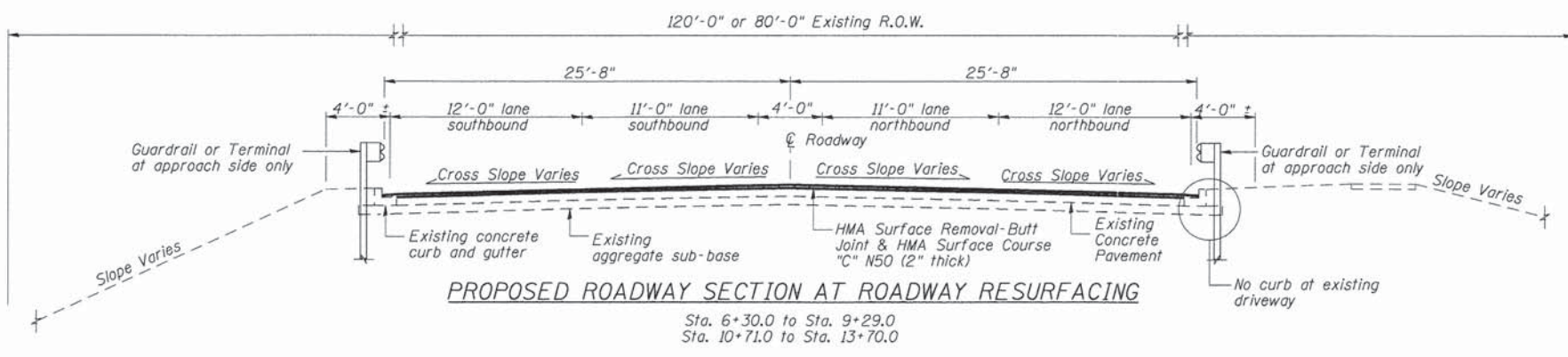
SUPERSTRUCTURE SECTION
looking upstation



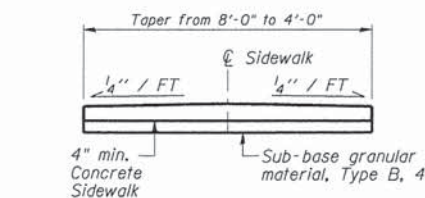
EXISTING ROADWAY SECTION
Sta. 6+30.0 to Sta. 9+64.0
Sta. 10+36.0 to Sta. 13+70.0



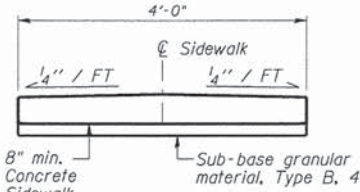
PROPOSED ROADWAY SECTION AT BRIDGE APPROACH PAVEMENT
Sta. 9+29.00 to Sta. 9+59.00
Sta. 10+41.00 to Sta. 10+71.00



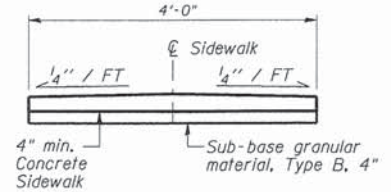
PROPOSED ROADWAY SECTION AT ROADWAY RESURFACING
Sta. 6+30.0 to Sta. 9+29.0
Sta. 10+71.0 to Sta. 13+70.0



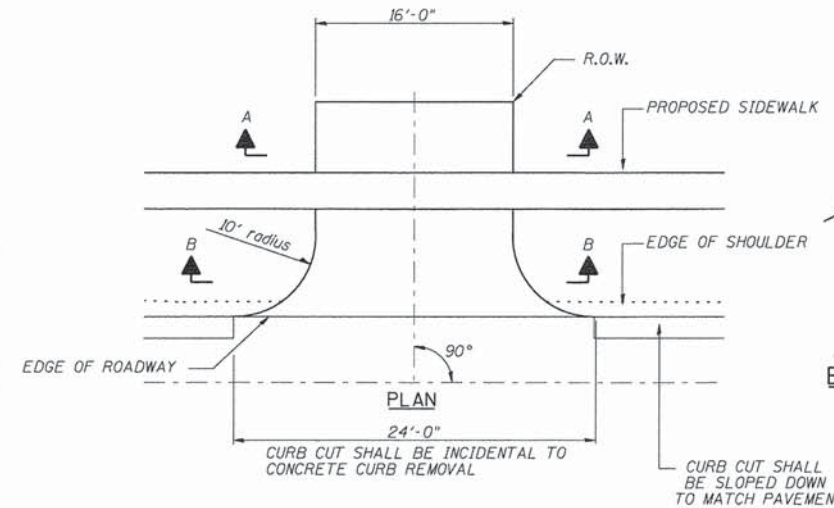
PROPOSED SIDEWALK SECTION AT TAPER
Sta. 9+29.00 to Sta. 9+59.00
Sta. 10+41.00 to Sta. 10+71.00



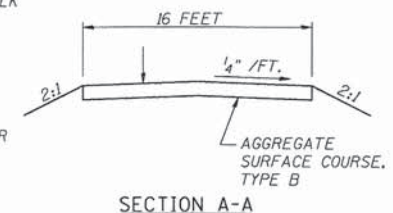
PROPOSED SIDEWALK SECTION AT FIELD ENTRANCE
Sta. 8+50.00 (Match Existing) to Sta. 8+74.00
Sta. 10+71.00 to Sta. 10+95.00



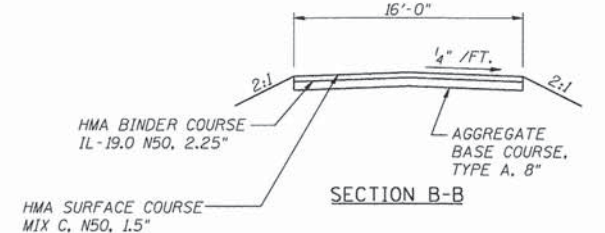
PROPOSED SIDEWALK SECTION
Sta. 8+74.00 to Sta. 9+29.00
Sta. 10+95.00 to Sta. 11+50 (Match Existing)



ENTRANCE DETAIL
FIELD ENT = STA. 8+61.75, RT
FIELD ENT = STA. 10+85.25, RT



ENTRANCE DETAIL-SECTION
FIELD ENT = STA. 8+61.75, RT
FIELD ENT = STA. 10+85.25, RT



ENTRANCE DETAIL-SECTION
FIELD ENT = STA. 8+61.75, RT
FIELD ENT = STA. 10+85.25, RT



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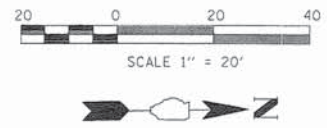
38701 WEST AVENUE, SUITE 150 WARRENVILLE, ILLINOIS 60555
PHONE 630.393.3060, FAX 630.393.2152
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TYPICAL SECTIONS
FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET 4
DWG NO. 13028soq.dgn
DATE JUL 2015
PROJ NO. C13028

BM #1 - R.R. Spike in post at STA 7+14, 31' RT., Elev. 100.54
 BM #2 - Chiseled "X" in SE Curb, Elev. 100.04
 BM #3 - R.R. Spike @ STA 11+43, 31' RT., Elev. 100.08

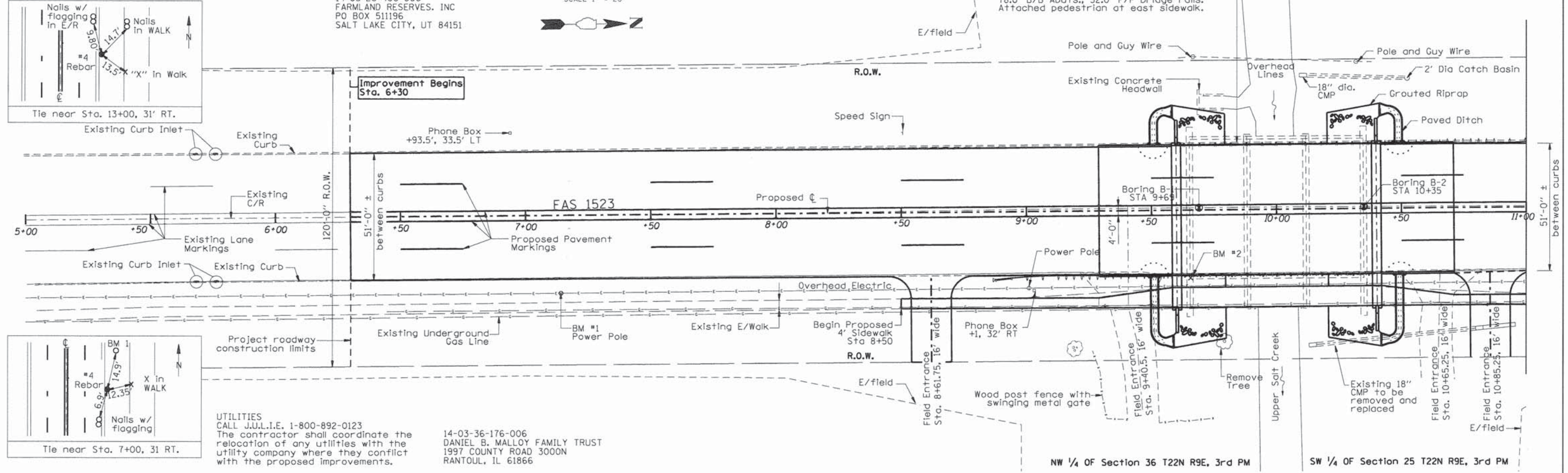
14-03-26-400-006
 FARMLAND RESERVES, INC
 PO BOX 511196
 SALT LAKE CITY, UT 84151



NE 1/4 OF NE 1/4, S35 T22N R9E, 3rd PM

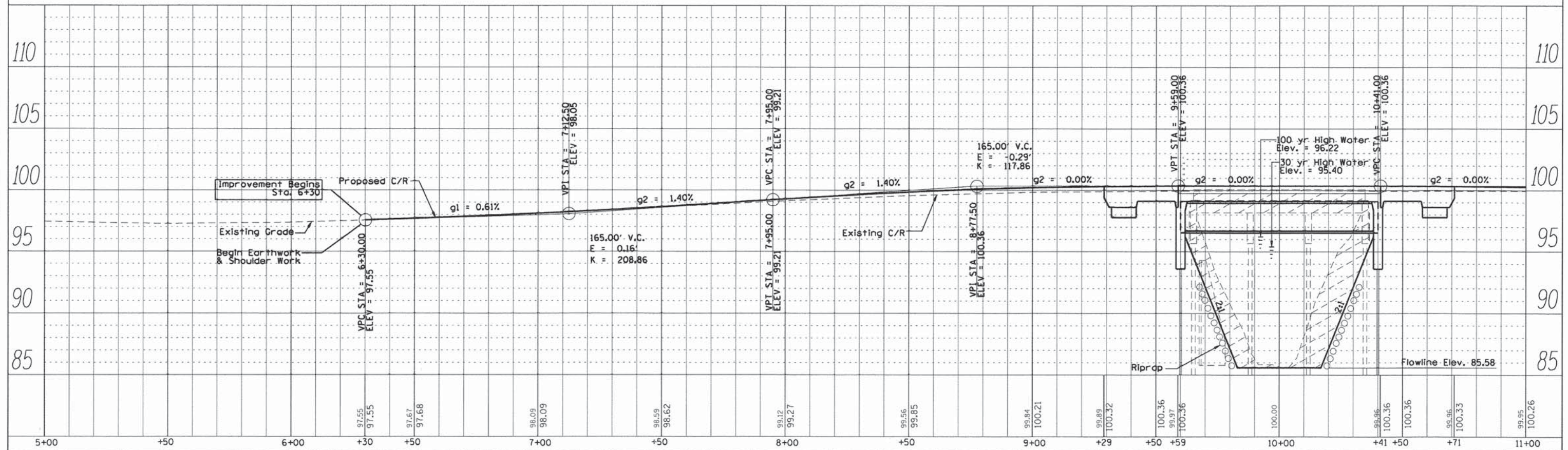
SE 1/4 OF Section 26 T22N R9E, 3rd PM

Proposed Structure, New SN, 010-4552
 Sta 10+00, single span steel girders with
 concrete deck & integral abutments,
 78.0' B/B Abuts., 52.0' F/F bridge rails.
 Attached pedestrian at east sidewalk.



DATE	
BY	
REVISIONS	
NO.	
DESCRIPTION	
DATE	
BY	
DESCRIPTION	
DATE	
BY	
DESCRIPTION	
DATE	
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DESCRIPTION	

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REVISIONS	
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DESCRIPTION	

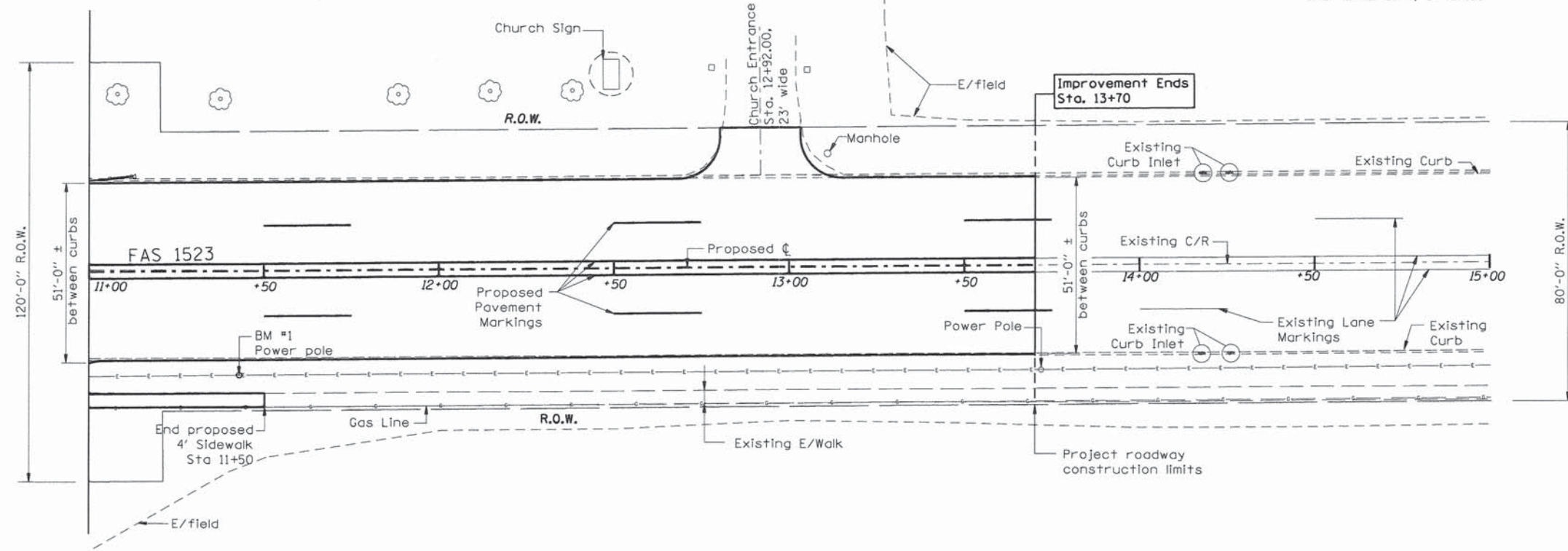


USER NAME *	DESIGNED - KJH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE		F.A. RTE. 1523	SECTION 10-00966-00-BR	COUNTY CHAMPAIGN	TOTAL SHEETS 39	SHEET NO. 5
PLOT SCALE *	CHECKED -	REVISED -		SCALE: 1" = 20' H	SHEET ___ OF ___ SHEETS	STA. 5+00 TO STA. 11+00	CONTRACT NO. 91526		ILLINOIS FED. AID PROJECT	
PLOT DATE *	DRAWN - CSS	REVISED -								
	CHECKED -	REVISED -								

14-03-26-400-003
RANTOUL CHRISTIAN CHRCH
3105 COUNTY ROAD 1700E
RANTOUL, IL 61866

SE 1/4 OF Section 26 T22N R9E, 3rd PM

14-03-26-400-006
FARMLAND RESERVES, INC
PO BOX 511196
SALT LAKE CITY, UT 84151



14-03-25-300-002
KRISTI ANN PFLUGMACHER
1254 COUNTY ROAD 3000N
RANTOUL, IL 61866

SW 1/4 OF Section 25 T22N R9E, 3rd PM

CHANNEL EXCAVATION

The Channel shall be excavated as shown with 2:1 slopes within the existing right-of-way. Suitable excavated materials may be used in embankments.

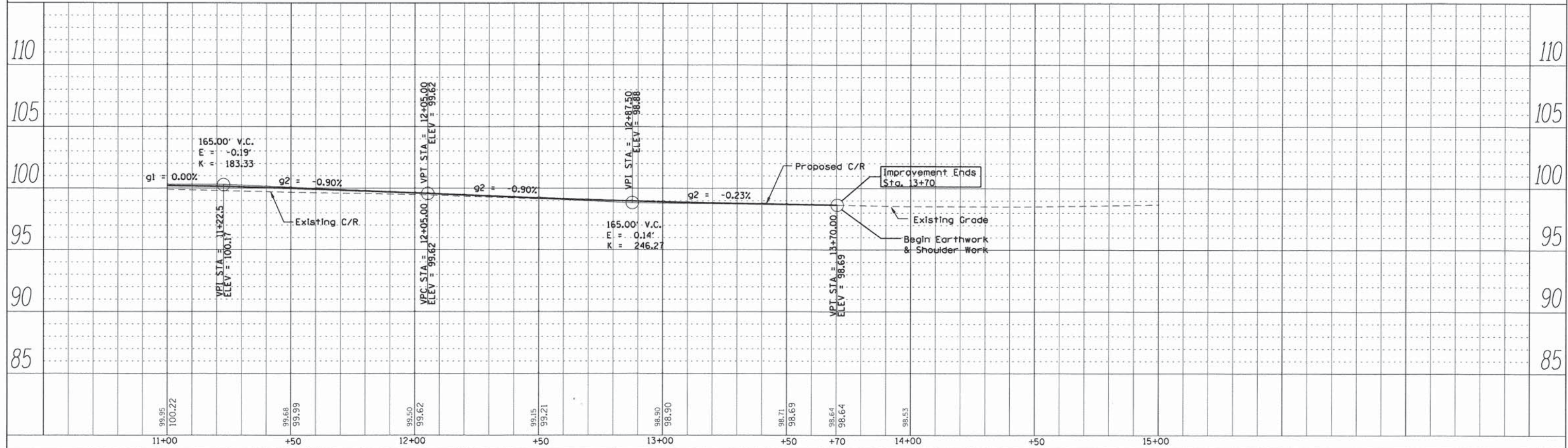
EXISTING STRUCTURE DESCRIPTION

Existing Structure: S.N. 010-3020. The existing structure has no skew, 72' long (B-B of abutments), 57' wide, PPC deck beam bridge. The superstructure rests on 2 pile supported concrete abutments and 2 pile supported concrete piers. There is an 8' wide steel girder and timber deck pedestrian structure 3'-4" from the bridge, utilizing the same substructures.

Removal of Existing Structure = 1 EACH

DATE	
BY	
SURVEYED	
ALIGNED	
CHECKED	
PT. OF WAY CHECKED	
NO. _____	
PLAN	
NOTE BOOK	
NO. _____	
FILE NAME	

DATE	
BY	
SURVEYED	
GRADES CHECKED	
B.M. NOTED	
STRUCTURE NOTATIONS C/R/D	
NO. _____	
PROFILE	
NOTE BOOK	
NO. _____	



USER NAME =	DESIGNED -	REVISED -
FLOT SCALE =	CHECKED -	REVISED -
FLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
SHEET 1 OF 2

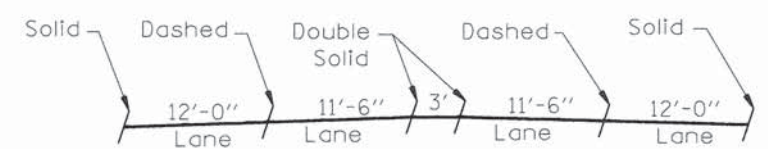
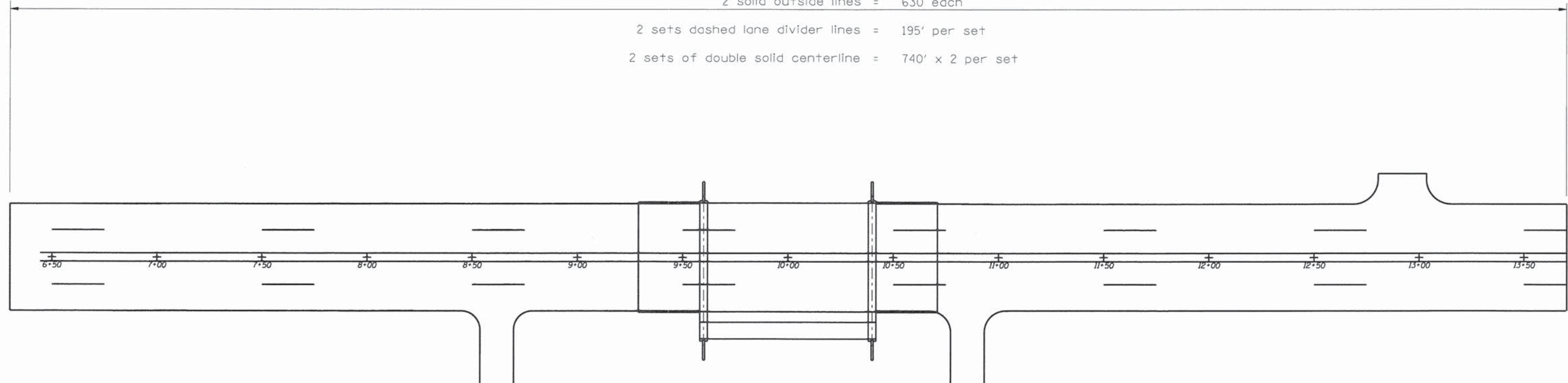
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F.A. RTE. 1523	SECTION 10-00966-00-BR	COUNTY CHAMPAIGN	TOTAL SHEETS 39	SHEET NO. 6
				CONTRACT NO. 91526
ILLINOIS FED. AID PROJECT				

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	7
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

* 10-00966-00-BR
Contract No. 91526

2 solid outside lines = 630 each
 2 sets dashed lane divider lines = 195' per set
 2 sets of double solid centerline = 740' x 2 per set



STRIPING CROSS SECTION

BILL OF MATERIAL

ITEM	UNIT	FOOT
Paint Pavement Marking - Line 4"		
(BY OTHERS)		



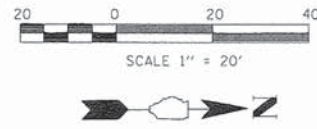
ENGINEERING RESOURCE ASSOCIATES, INC.
CONSULTING ENGINEERS, SCIENTISTS & SURVEYORS

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CHAMPAIGN, IL 61822
PHONE (217) 351-6268
FAX (217) 355-1902

• 35701 WEST AVENUE, SUITE 150 WARRENVILLE, ILLINOIS 60555
PHONE 630.393.3060, FAX 630.393.2152
• 10 S. RIVERSIDE PLAZA, SUITE 1800 CHICAGO, ILLINOIS 60606
PHONE 312.683.0110, FAX 312.474.6999

PAVEMENT MARKING
FAS 1523 (CH 55) OVER UPPER SALT FORK
SEC 10-00966-00-BR
CHAMPAIGN COUNTY

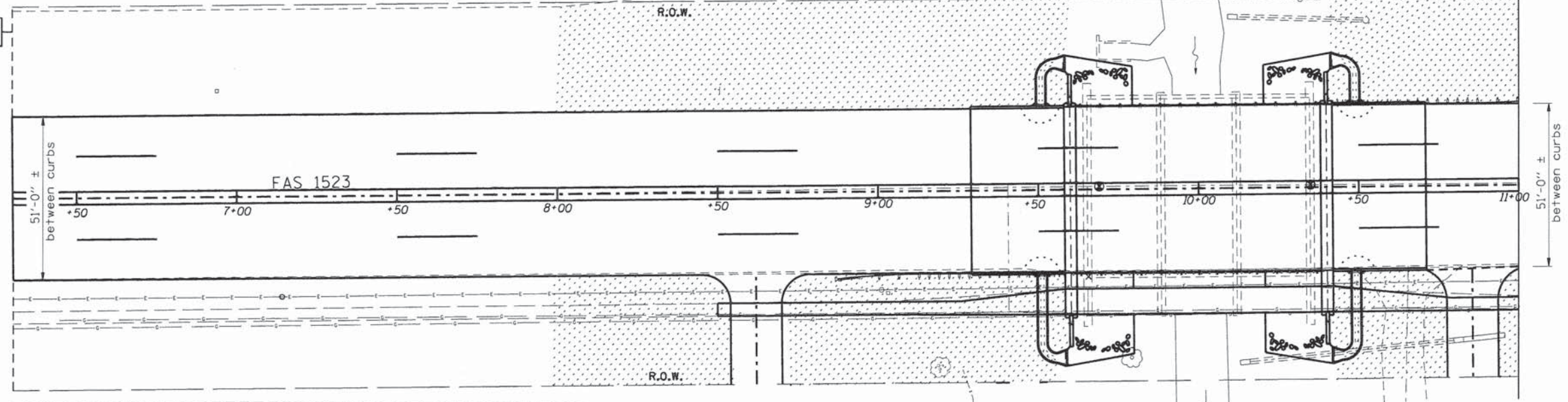
SHEET	7
DWG NO.	13028mark.dgn
DATE	JUL 2015
PROJ NO.	C13028



NE 1/4 OF NE 1/4, S35 T22N R9E, 3rd PM

SE 1/4 OF Section 26 T22N R9E, 3rd PM

Improvement Begins Sta. 6+30



NW 1/4 OF Section 36 T22N R9E, 3rd PM

SW 1/4 OF Section 25 T22N R9E, 3rd PM

EROSION CONTROL SEQUENCE

1. Placement of perimeter erosion control barrier prior to commencement of any work. See Standard 280001.
2. Construct a new field entrance.
3. Removal of the existing structure & pavement removal.
4. Earth excavation, structure excavation, & asphalt surface removal.
5. Construction of the substructure.
6. Placement of steel and concrete deck & concrete approach pavements.
7. Place grouted riprap.
8. Placement of bituminous surface, coarse.
9. Install guardrail and bridge rail.
10. Removal and proper clean up of the temporary erosion controls.
11. Placement of the permanent erosion controls.

PERMANENT EROSION CONTROL



Seeding, Cl. 2 with Fertilizer and Mulch

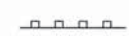
TEMPORARY EROSION CONTROL



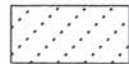
Temporary Ditch Check



Inlet & Pipe Protection



Perimeter Erosion Barrier



Temporary Erosion Control Seeding

25000400, 25000500, 25000600

NITROGEN FERTILIZER NUTRIENT;
POTASSIUM FERTILIZER NUTRIENT;
PHOSPHORUS FERTILIZER NUTRIENT

LOCATION	POUND
STA. 8+00.00 TO STA. 9+60.00 LT/RT	30
STA. 10+40.00 TO STA. 12+00.00 LT/RT	25
(110 LBS/ACRE) TOTAL	55

28000400

PERIMETER EROSION BARRIER

LOCATION	FOOT
STA. 8+00.00 TO STA. 9+60.00 LT/RT	388
STA. 10+40.00 TO STA. 12+00.00 LT/RT	388
TOTAL	776

25000200, 25100115

SEEDING CLASS 2;
MULCH METHOD 2

LOCATION	ACRE
STA. 8+00.00 TO STA. 9+60.00 LT/RT	0.30
STA. 10+40.00 TO STA. 12+00.00 LT/RT	0.20
TOTAL	0.50

28000500

INLET & PIPE PROTECTION

LOCATION	EACH
STA. 9+70.00 42' LT	1
STA. 10+50.00 52' LT	1
STA. 10+90.00 45' RT	1
TOTAL	3

NOTE: Turf and topsoil removal and disposal shall be incidental to Removal of Existing Structures.

BILL OF MATERIAL - EROSION CONTROL

ITEM	UNIT	QUANTITY
Seeding, Class 2	ACRE	0.50
Nitrogen Fertilizer Nutrient	POUND	55
Phosphorus Fertilizer Nutrient	POUND	55
Potassium Fertilizer Nutrient	POUND	55
Mulch, Method 2	ACRE	0.50
Temporary Erosion Control Seeding	POUND	50
Temporary Ditch Checks	EACH	40
Perimeter Erosion Barrier	FOOT	776
Inlet & Pipe Protection	EACH	3

28000305

TEMPORARY DITCH CHECKS

LOCATION	FOOT
STA. 9+50 LT	10
STA. 9+46 RT	10
STA. 10+58 LT	10
STA. 10+95 RT	10
TOTAL	40

28000250

TEMPORARY EROSION CONTROL SEEDING

LOCATION	POUND
STA. 8+00.00 TO STA. 9+60.00 LT/RT	30
STA. 10+40.00 TO STA. 12+00.00 LT/RT	20
(100 LBS/ACRE) TOTAL	50

USER NAME *	DESIGNED - KJH	REVISED -
	CHECKED -	REVISED -
PLOT SCALE *	DRAWN - CSS	REVISED -
PLOT DATE *	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
SHEET 1 OF 2

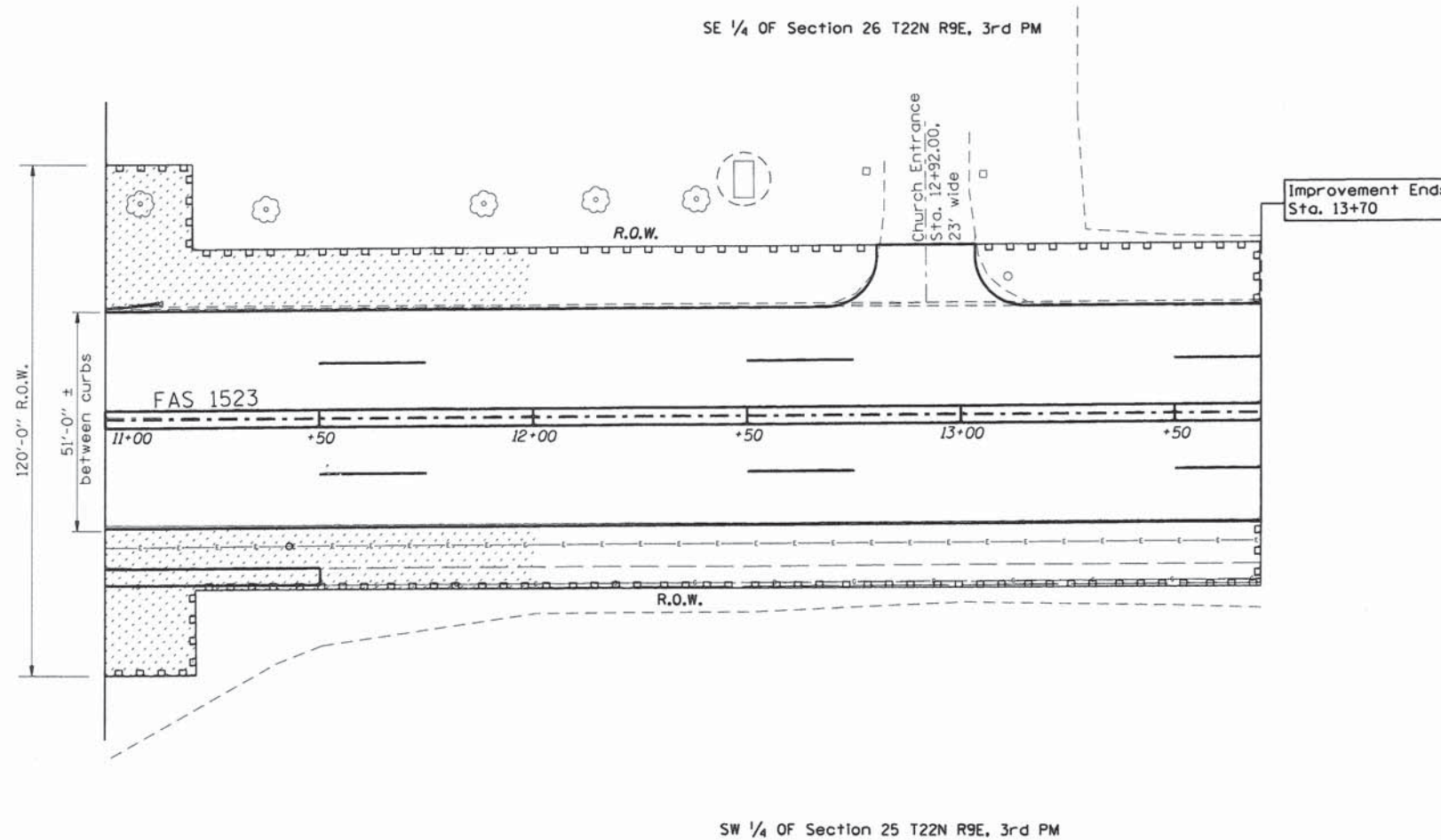
SCALE: 1" = 20' H SHEET 1 OF 2 SHEETS STA. 6+30 TO STA. 11+00

F.A. RTE.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1523	10-00966-00-BR	CHAMPAIGN	39	8
CONTRACT NO. 91526			ILLINOIS FED. AID PROJECT	



PLAN	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	RT. OF WAY CHECKED		
	NO. _____		
	ADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	BY NOTED		
	STRUCTURE NOTATIONS CHKD		
	NO. _____		



USER NAME =	DESIGNED -	REVISD -
	CHECKED -	REVISD -
PLOT SCALE =	DRAWN -	REVISD -
PLOT DATE =	CHECKED -	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

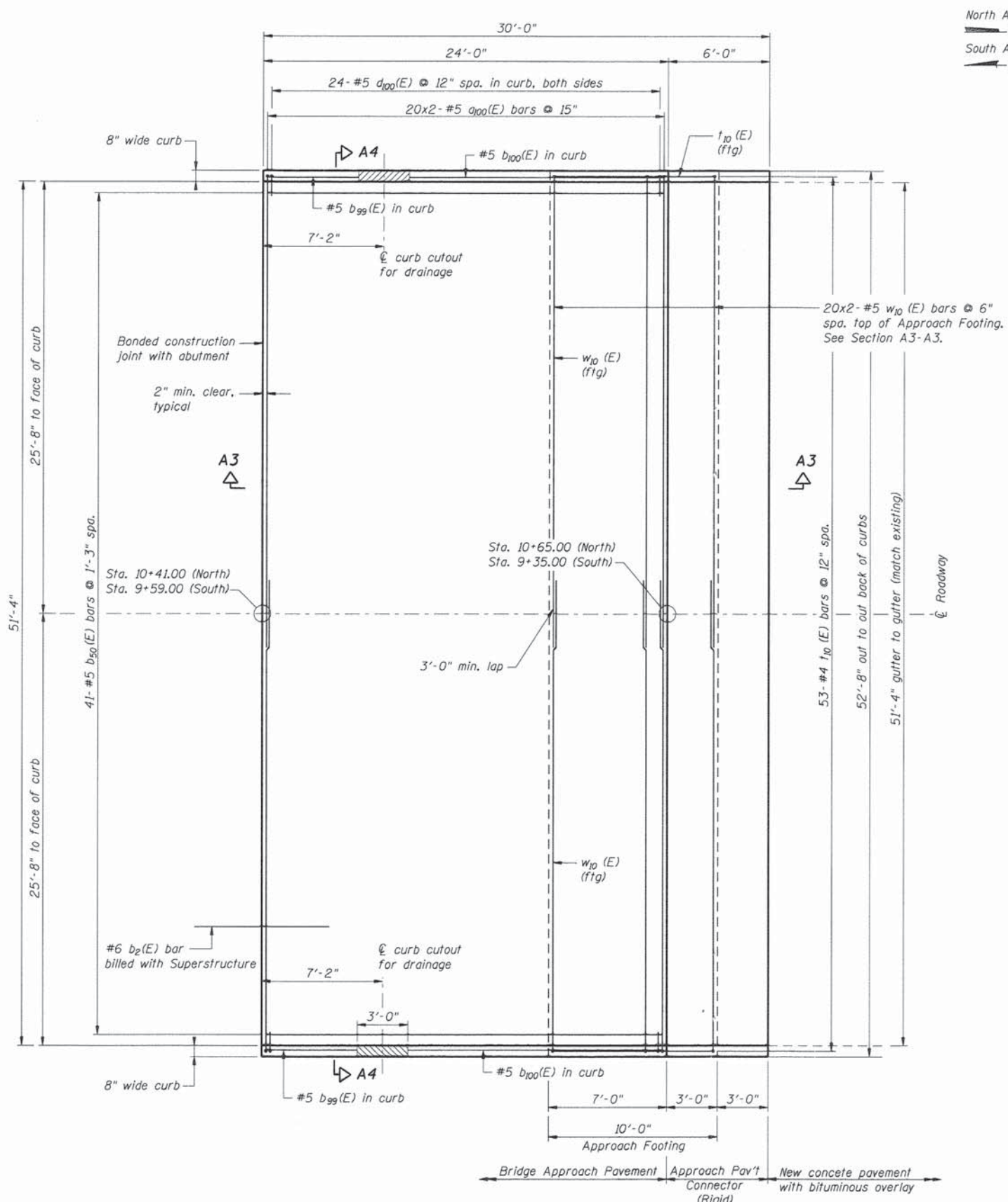
**EROSION CONTROL
SHEET 2 OF 2**

SCALE: 1" = 20' H SHEET 2 OF 2 SHEETS STA. 11+00 TO STA. 13+70

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1523	10-00966-00-BR	CHAMPAIGN	39	9
CONTRACT NO. 91526				
ILLINOIS FED. AID PROJECT				

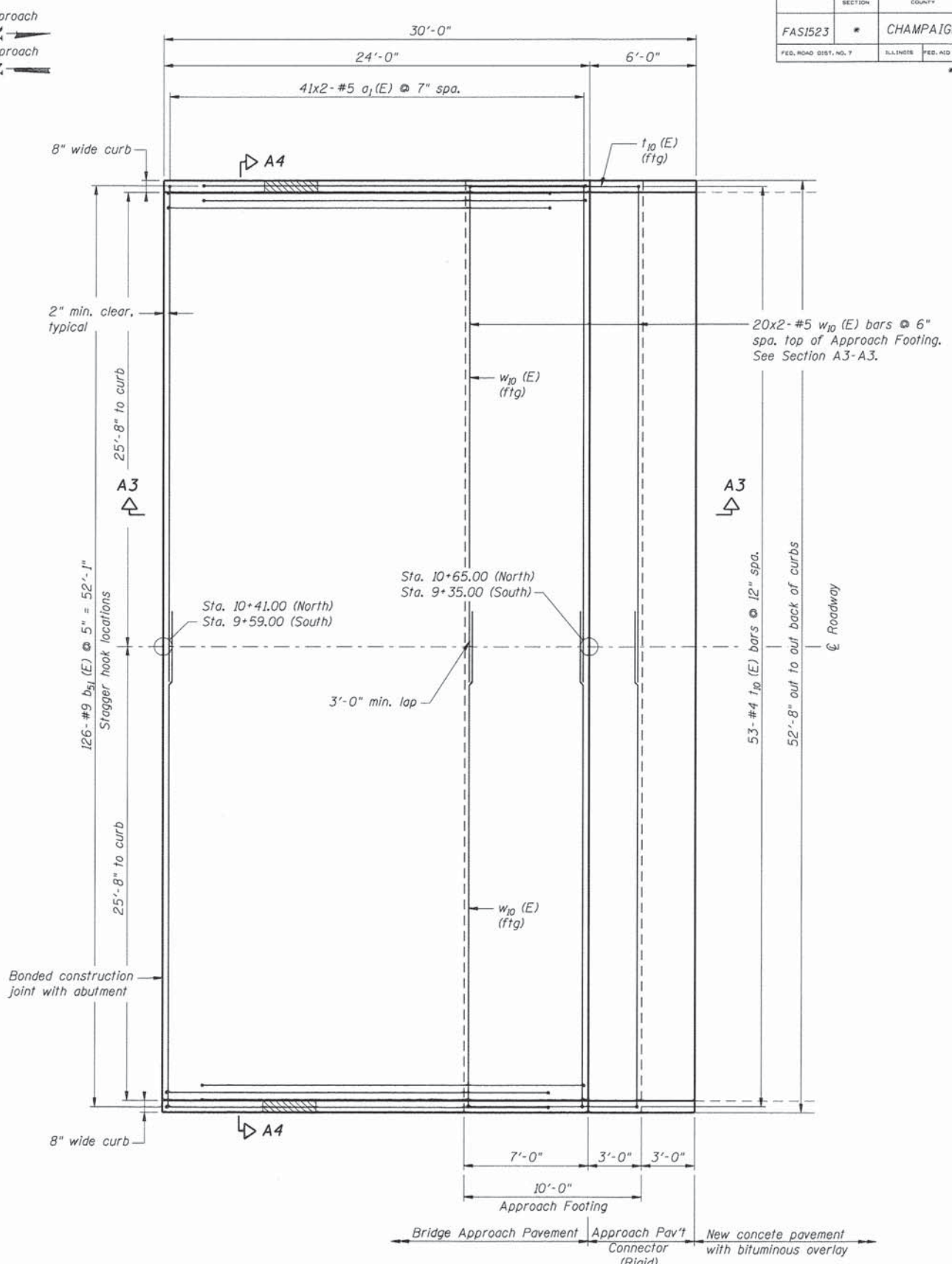
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

* 10-00966-00-BR



PLAN - TOP REINFORCEMENT

NOTE: d(E) bars in curb shall be placed to avoid curb cut out.



PLAN - BOTTOM REINFORCEMENT

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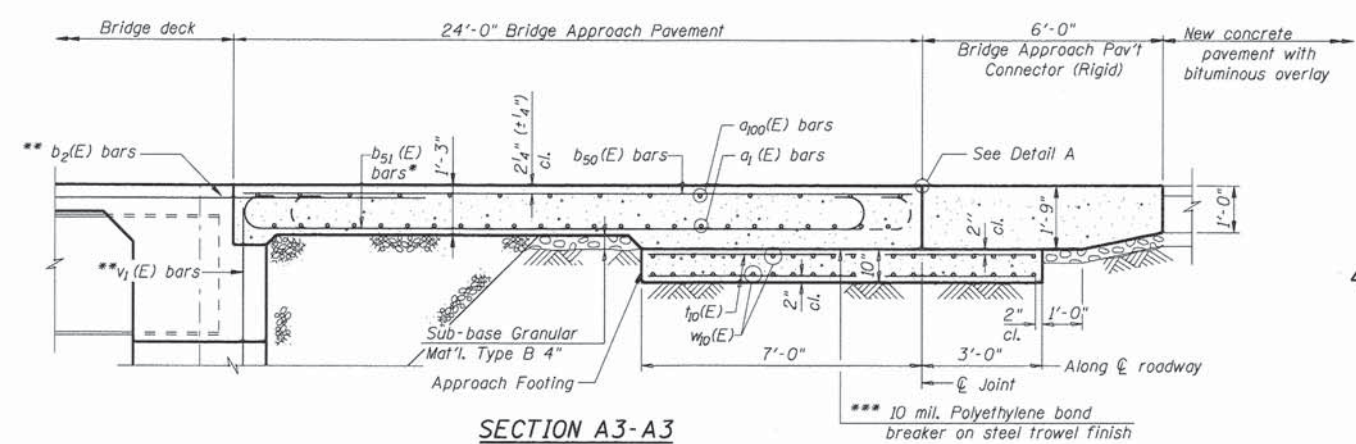
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 PHONE 312.683.0110, FAX 312.474.6099

BRIDGE APPROACH PAVEMENT (SHEET 1 OF 2)
 FAS 1523 (CH55) OVER UPPER SALT FORK
 CHAMPAIGN COUNTY
 SEC 10-00966-00-BR

SHEET 10
DWG NO. 13028appr.dgn
DATE JUL 2015
PROJ NO. C13028

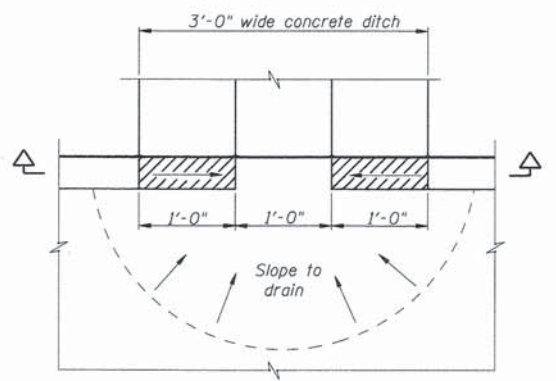
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

* 10-00966-00-BR

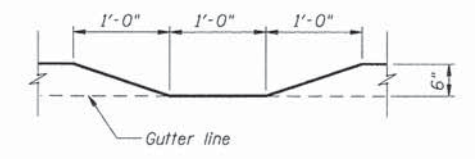


SECTION A3-A3

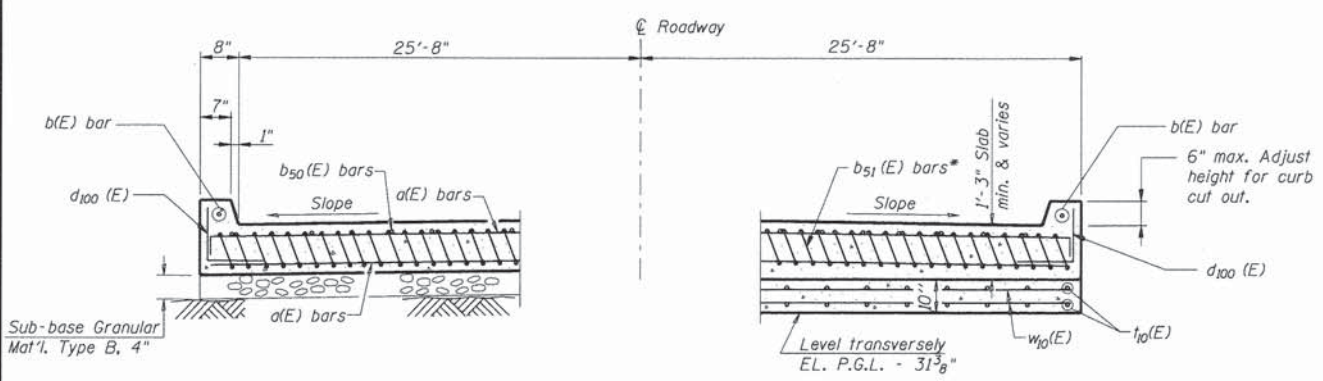
* Tilt hooked #9 b₅₁(E) bars as required to maintain clearance.
 ** b₂(E) and v₁(E) bar are billed with Superstructure.



CURB CUT-OUT DETAIL



CURB CUT-OUT SECTION

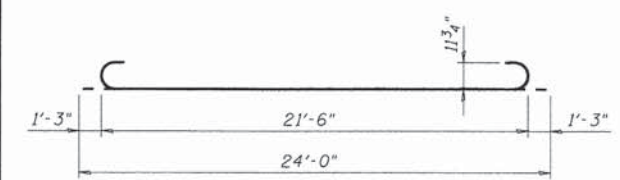


NEAR ABUTMENT

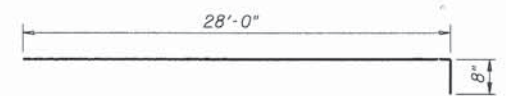
SECTION A4-A4

(See Plan for dimensions not shown)

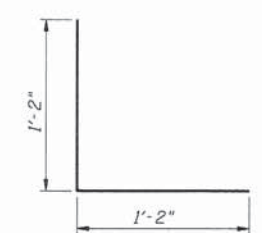
AT APPROACH FOOTING



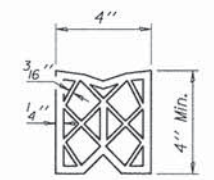
BAR b₅₀(E)



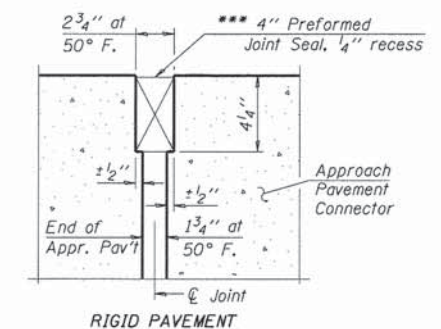
BAR a₁₀₀(E)



BAR d₁₀₀(E)



PREFORMED JOINT SEAL



RIGID PAVEMENT

DETAIL A

*** Cost included with Concrete Superstructure.

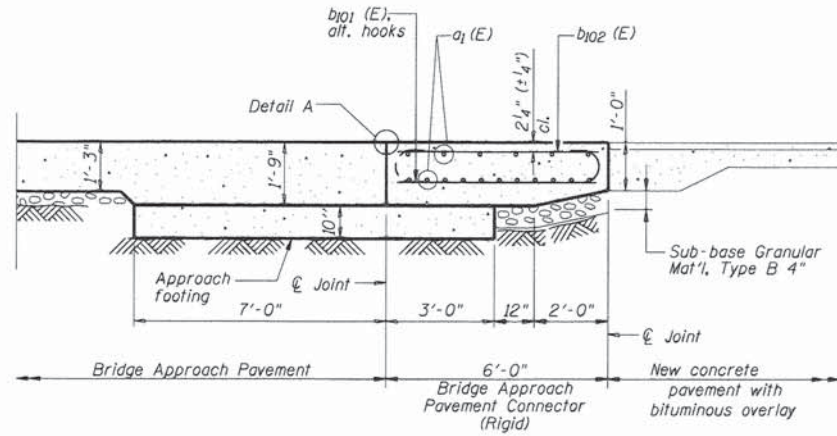
Bar	No.	Size	Length	Shape
a ₁ (E)	164	# 5	28'-0"	—
a ₁₀₀ (E)	80	# 5	28'-8"	—
b ₅₀ (E)	82	# 5	23'-6"	—
b ₅₁ (E)	252	# 9	24'-0"	⊂
b ₉₉ (E)	4	# 5	5'-2"	—
b ₁₀₀ (E)	4	# 5	14'-10"	—
d ₁₀₀ (E)	96	# 5	2'-4"	└
t ₁₀ (E)	212	# 4	9'-6"	—
w ₁₀ (E)	160	# 5	28'-0"	—

Item	Units	Quantity
Reinforcement Bars, Epoxy Coated	Lbs.	36090
Concrete Superstructure	Cu. Yds.	117
Concrete Structures	Cu. Yds.	16.4
Bridge Deck Grooving	Sq. Yd.	274
Protective Coat	Sq. Yd.	274
Sub-base Granular Mat'l, Type B 4"	Sq. Yd.	47
Earth Excavation	Cu. Yd.	40

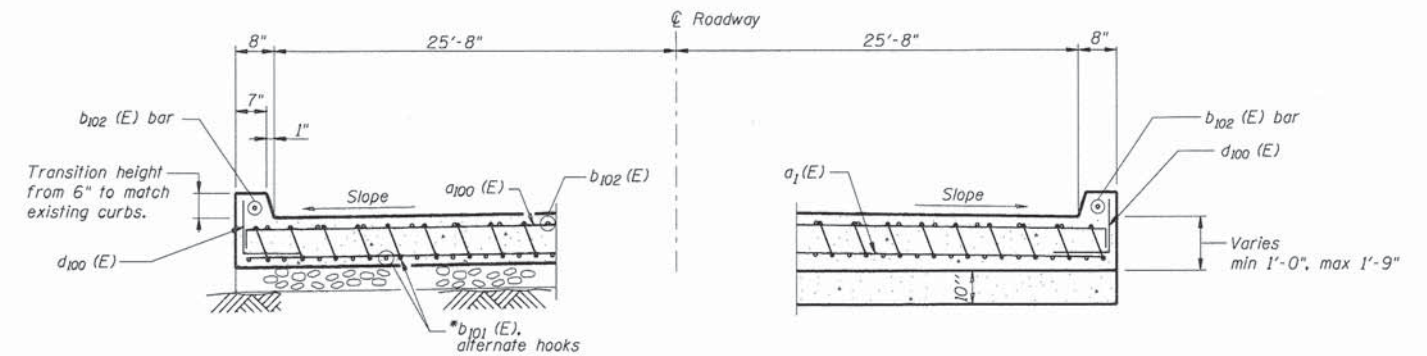
NOTES:
 Approach slab concrete shall be measured and paid for as Concrete Superstructures.
 Approach footing concrete shall be measured and paid for as Concrete Structures.
 Reinforcement bars designated (E) shall be epoxy coated.
 The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.

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BRIDGE APPROACH PAVEMENT (SHEET 2 OF 2)
 FAS 1523 (CH55) OVER UPPER SALT FORK
 CHAMPAIGN COUNTY
 SEC 10-00966-00-BR
 SHEET 11
 DWG NO. 13028appr.dgn
 DATE JUL 2015
 PROJ NO. C13028

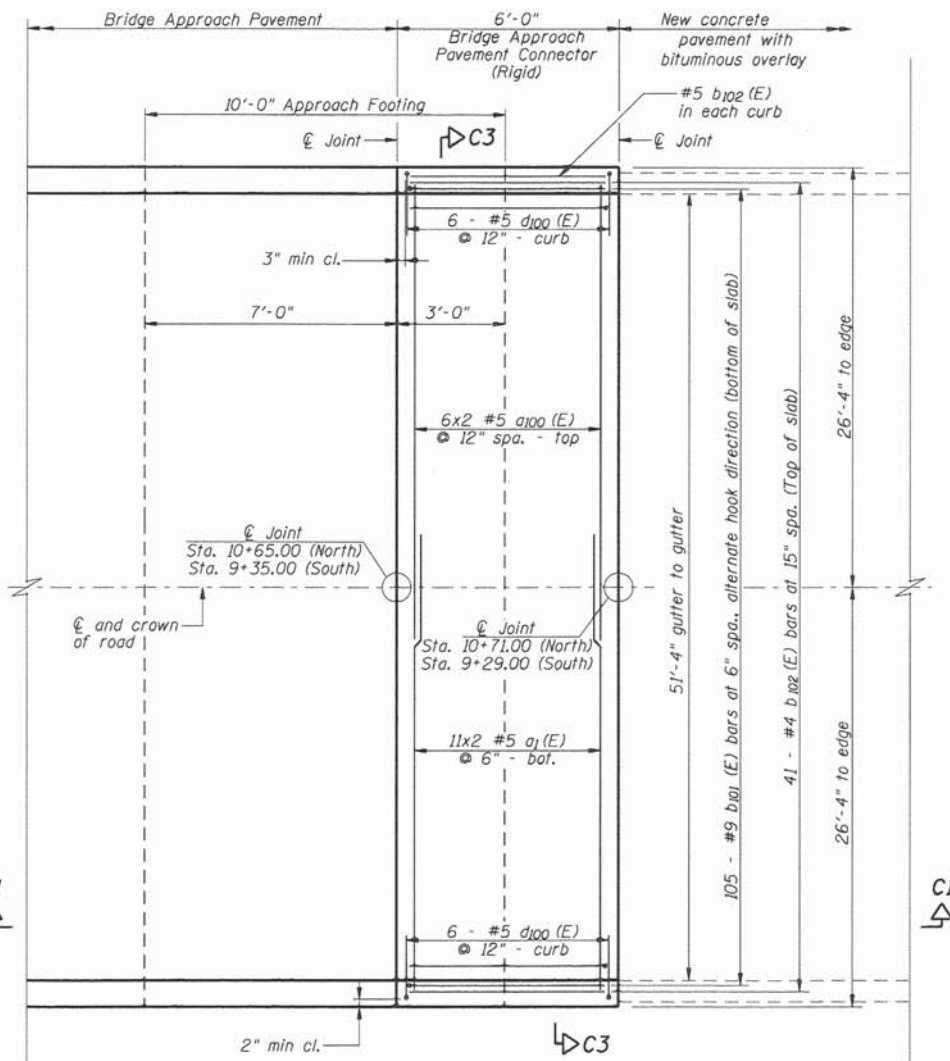


SECTION C1-C1

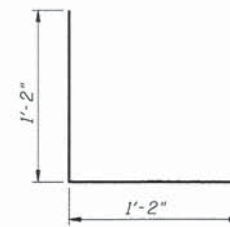
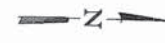


* Tilt hooked #9b101(E) bars as required to maintain clearance.

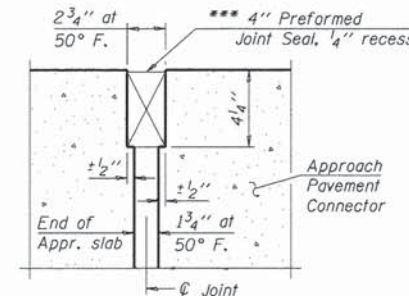
SECTION C3-C3



PLAN



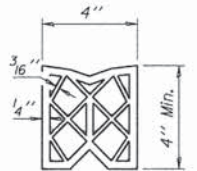
BAR d100(E)



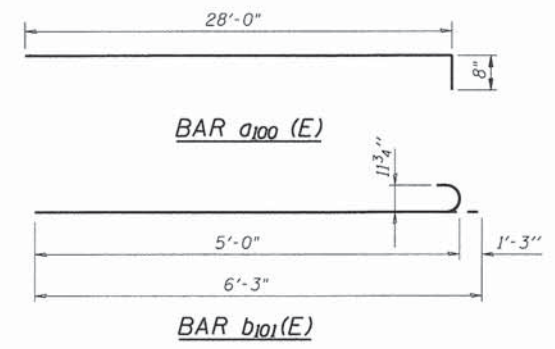
RIGID PAVEMENT

DETAIL A

*** Cost is incidental to Concrete Superstructure.



PREFORMED JOINT SEAL



BILL OF MATERIAL BOTH BRIDGE APPROACH PAVEMENT CONNECTOR (RIGID)

Bar	No.	Size	Length	Shape
a1(E)	44	# 5	28'-0"	—
a100(E)	24	# 5	28'-8"	U
b101(E)	210	# 9	6'-3"	—
b102(E)	82	# 4	5'-6"	—
d100(E)	24	#5	2'-4"	—
Reinforcement Bars, Epoxy Coated			Lbs.	6830
Concrete Structure			Cu. Yds.	38
Bridge Deck Grooving			Sq. Yds.	69
Protective Coat			Sq. Yds.	69
Sub-base Granular Mat'l Type B, 4"			Sq. Yds.	36



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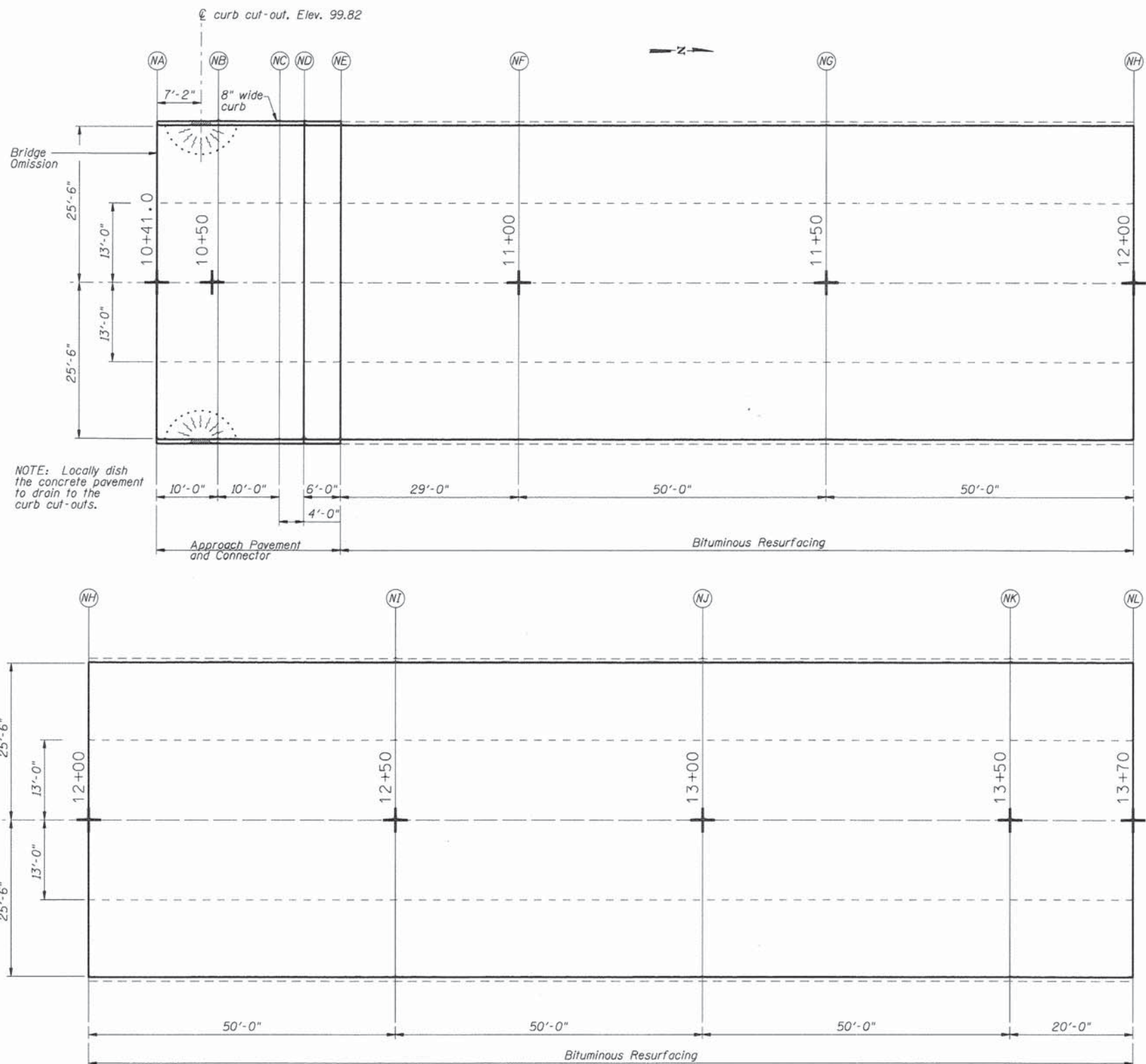
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BRIDGE APPROACH PAVEMENT CONNECTOR (RIGID)
FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET 12
DWG NO. 13028appr.dgn
DATE JUL 2015
PROJ NO. C13028

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

* 10-00966-00-BR
Contract No. 91526



**North Approach
West Curb Line**

Location	Station	Offset	Pavement Elevations
Line NA (Begin Resurfacing)	10+41	25.50' LT	99.83
Line NB (Approach Slab)	10+51	25.50' LT	99.82
Line NC (Approach Slab)	10+61	25.50' LT	99.81
Line ND (Begin Connector)	10+65	25.50' LT	99.81
Line NE (End Connector)	10+71	25.50' LT	99.80
Line NF (bituminous)	11+00	25.50' LT	99.73
Line NG (bituminous)	11+50	25.50' LT	99.50
Line NH (bituminous)	12+00	25.50' LT	99.13
Line NI (bituminous)	12+50	25.50' LT	98.73
Line NJ (bituminous)	13+00	25.50' LT	98.42
Line NK (bituminous)	13+50	25.50' LT	98.21
Line NL (End Resurfacing)	13+70	25.50' LT	99.16

*Elevation adjusted for sloping to curb cut-out.

**North Approach
13' West of C**

Location	Station	Offset	Pavement Elevations
Line NA (Begin Resurfacing)	10+41	13' LT	100.09
Line NB (Approach Slab)	10+51	13' LT	100.08
Line NC (Approach Slab)	10+61	13' LT	100.07
Line ND (Begin Connector)	10+65	13' LT	100.07
Line NE (End Connector)	10+71	13' LT	100.06
Line NF (bituminous)	11+00	13' LT	99.99
Line NG (bituminous)	11+50	13' LT	99.76
Line NH (bituminous)	12+00	13' LT	99.39
Line NI (bituminous)	12+50	13' LT	98.99
Line NJ (bituminous)	13+00	13' LT	98.68
Line NK (bituminous)	13+50	13' LT	98.47
Line NL (End Resurfacing)	13+70	13' LT	99.42

*Elevation adjusted for sloping to curb cut-out.

**North Approach
C Roadway**

Location	Station	Offset	Pavement Elevations
Line NA (Begin Resurfacing)	10+41	0.0'	100.36
Line NB (Approach Slab)	10+51	0.0'	100.35
Line NC (Approach Slab)	10+61	0.0'	100.34
Line ND (Begin Connector)	10+65	0.0'	100.34
Line NE (End Connector)	10+71	0.0'	100.33
Line NF (bituminous)	11+00	0.0'	100.26
Line NG (bituminous)	11+50	0.0'	100.03
Line NH (bituminous)	12+00	0.0'	99.66
Line NI (bituminous)	12+50	0.0'	99.26
Line NJ (bituminous)	13+00	0.0'	98.95
Line NK (bituminous)	13+50	0.0'	98.74
Line NL (End Resurfacing)	13+70	0.0'	99.69

*Elevation adjusted for sloping to curb cut-out.

**North Approach
13' East of C**

Location	Station	Offset	Pavement Elevations
Line NA (Begin Resurfacing)	10+41	13' LT	100.09
Line NB (Approach Slab)	10+51	13' LT	100.08
Line NC (Approach Slab)	10+61	13' LT	100.07
Line ND (Begin Connector)	10+65	13' LT	100.07
Line NE (End Connector)	10+71	13' LT	100.06
Line NF (bituminous)	11+00	13' LT	99.99
Line NG (bituminous)	11+50	13' LT	99.76
Line NH (bituminous)	12+00	13' LT	99.39
Line NI (bituminous)	12+50	13' LT	98.99
Line NJ (bituminous)	13+00	13' LT	98.68
Line NK (bituminous)	13+50	13' LT	98.47
Line NL (End Resurfacing)	13+70	13' LT	99.42

*Elevation adjusted for sloping to curb cut-out.

**North Approach
East Curb Line**

Location	Station	Offset	Pavement Elevations
Line NA (Begin Resurfacing)	10+41	25.50' LT	99.83
Line NB (Approach Slab)	10+51	25.50' LT	99.82
Line NC (Approach Slab)	10+61	25.50' LT	99.81
Line ND (Begin Connector)	10+65	25.50' LT	99.81
Line NE (End Connector)	10+71	25.50' LT	99.80
Line NF (bituminous)	11+00	25.50' LT	99.73
Line NG (bituminous)	11+50	25.50' LT	99.50
Line NH (bituminous)	12+00	25.50' LT	99.13
Line NI (bituminous)	12+50	25.50' LT	98.73
Line NJ (bituminous)	13+00	25.50' LT	98.42
Line NK (bituminous)	13+50	25.50' LT	98.21
Line NL (End Resurfacing)	13+70	25.50' LT	99.16

*Elevation adjusted for sloping to curb cut-out.



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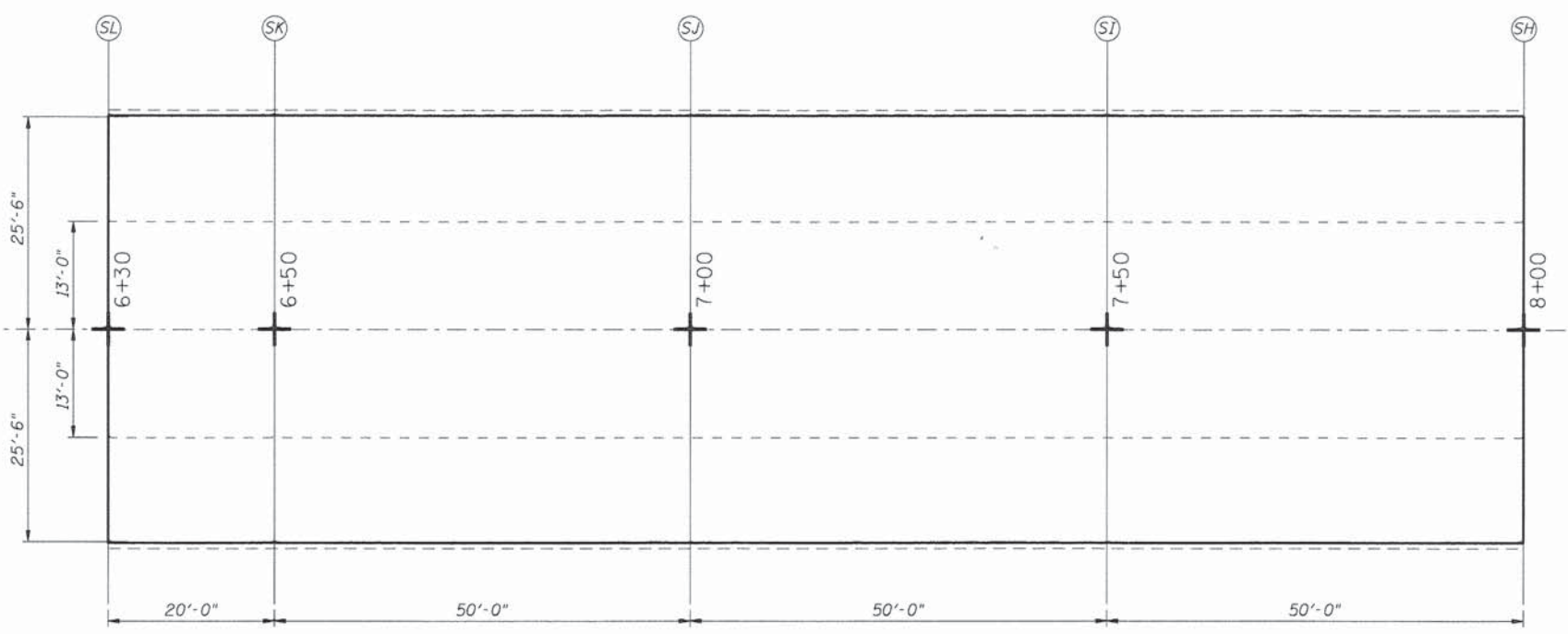
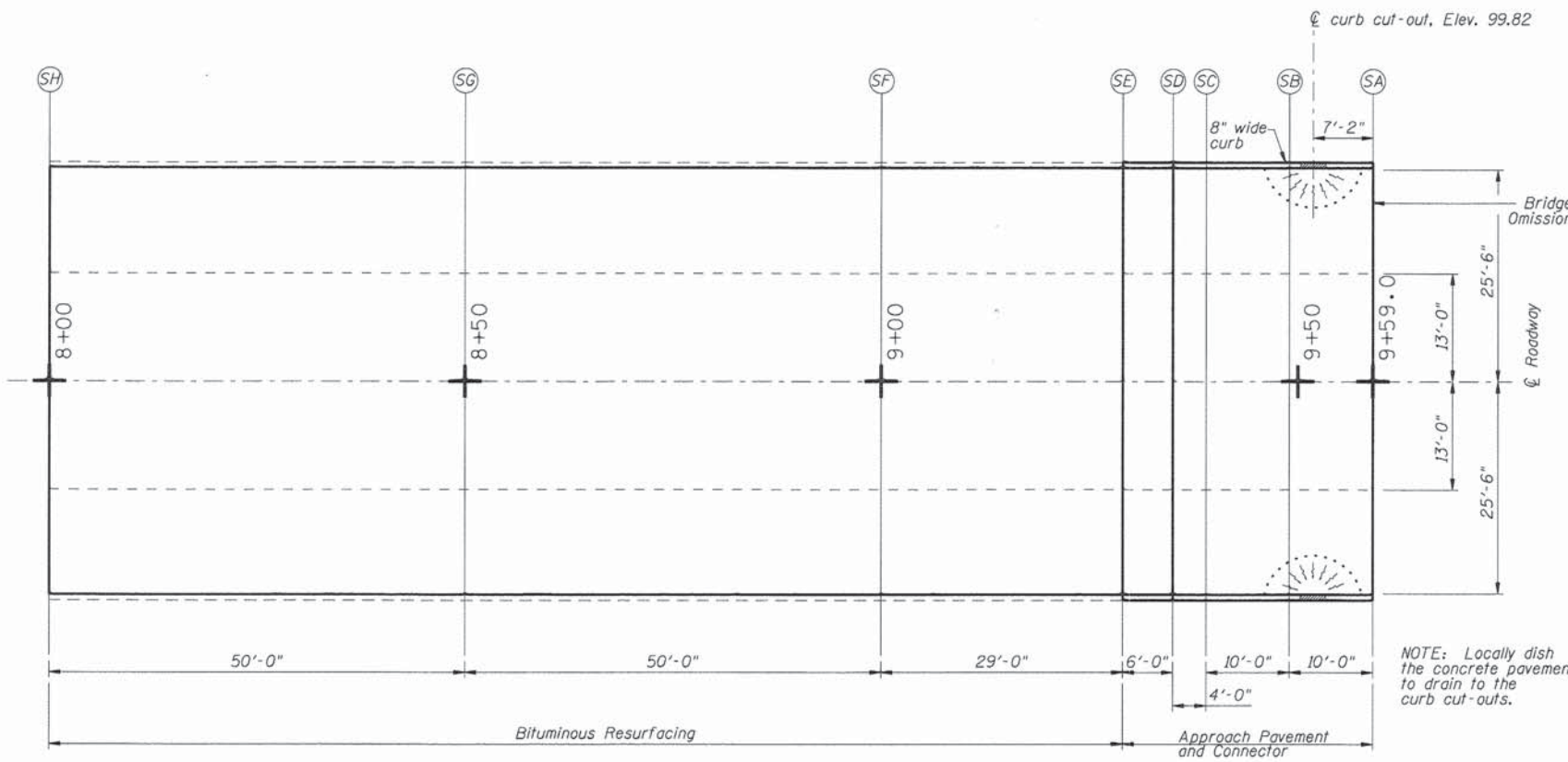
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PHONE 312.683.0110, FAX 312.474.6699

APPROACH ELEVATIONS (SHEET 1 OF 2)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET	13
DWG NO.	13028appr.dgn
DATE	JUL 2015
PROJ NO.	C13028



**South Approach
West Curb Line**

Location	Station	Offset	Pavement Elevations
Line SA (Begin Resurfacing)	9+59	25.50' LT	99.83
Line SB (Approach Slab)	9+49	25.50' LT	99.81
Line SC (Approach Slab)	9+39	25.50' LT	99.79
Line SD (Begin Connector)	9+35	25.50' LT	99.79
Line SE (End Connector)	9+29	25.50' LT	99.78
Line SF (bituminous)	9+00	25.50' LT	99.68
Line SG (bituminous)	8+50	25.50' LT	99.32
Line SH (bituminous)	8+00	25.50' LT	98.74
Line SI (bituminous)	7+50	25.50' LT	98.09
Line SJ (bituminous)	7+00	25.50' LT	97.56
Line SK (bituminous)	6+50	25.50' LT	97.15
Line SL (End Resurfacing)	6+30	25.50' LT	97.02

*Elevation adjusted for sloping to curb cut-out.

**South Approach
Roadway**

Location	Station	Offset	Pavement Elevations
Line SA (Begin Resurfacing)	9+59	0.0'	100.36
Line SB (Approach Slab)	9+49	0.0'	100.34
Line SC (Approach Slab)	9+39	0.0'	100.32
Line SD (Begin Connector)	9+35	0.0'	100.32
Line SE (End Connector)	9+29	0.0'	100.31
Line SF (bituminous)	9+00	0.0'	100.21
Line SG (bituminous)	8+50	0.0'	99.85
Line SH (bituminous)	8+00	0.0'	99.27
Line SI (bituminous)	7+50	0.0'	98.62
Line SJ (bituminous)	7+00	0.0'	98.09
Line SK (bituminous)	6+50	0.0'	97.68
Line SL (End Resurfacing)	6+30	0.0'	97.55

*Elevation adjusted for sloping to curb cut-out.

**South Approach
East Curb Line**

Location	Station	Offset	Pavement Elevations
Line SA (Begin Resurfacing)	9+59	25.50' LT	99.83
Line SB (Approach Slab)	9+49	25.50' LT	99.81
Line SC (Approach Slab)	9+39	25.50' LT	99.79
Line SD (Begin Connector)	9+35	25.50' LT	99.79
Line SE (End Connector)	9+29	25.50' LT	99.78
Line SF (bituminous)	9+00	25.50' LT	99.68
Line SG (bituminous)	8+50	25.50' LT	99.32
Line SH (bituminous)	8+00	25.50' LT	98.74
Line SI (bituminous)	7+50	25.50' LT	98.09
Line SJ (bituminous)	7+00	25.50' LT	97.56
Line SK (bituminous)	6+50	25.50' LT	97.15
Line SL (End Resurfacing)	6+30	25.50' LT	97.02

*Elevation adjusted for sloping to curb cut-out.

**South Approach
13' West of C**

Location	Station	Offset	Pavement Elevations
Line SA (Begin Resurfacing)	9+59	13' LT	100.09
Line SB (Approach Slab)	9+49	13' LT	100.07
Line SC (Approach Slab)	9+39	13' LT	100.05
Line SD (Begin Connector)	9+35	13' LT	100.05
Line SE (End Connector)	9+29	13' LT	100.04
Line SF (bituminous)	9+00	13' LT	99.94
Line SG (bituminous)	8+50	13' LT	99.58
Line SH (bituminous)	8+00	13' LT	99.00
Line SI (bituminous)	7+50	13' LT	98.35
Line SJ (bituminous)	7+00	13' LT	97.82
Line SK (bituminous)	6+50	13' LT	97.41
Line SL (End Resurfacing)	6+30	13' LT	97.28

*Elevation adjusted for sloping to curb cut-out.

**South Approach
13' East of C**

Location	Station	Offset	Pavement Elevations
Line SA (Begin Resurfacing)	9+59	13' LT	100.09
Line SB (Approach Slab)	9+49	13' LT	100.07
Line SC (Approach Slab)	9+39	13' LT	100.05
Line SD (Begin Connector)	9+35	13' LT	100.05
Line SE (End Connector)	9+29	13' LT	100.04
Line SF (bituminous)	9+00	13' LT	99.94
Line SG (bituminous)	8+50	13' LT	99.58
Line SH (bituminous)	8+00	13' LT	99.00
Line SI (bituminous)	7+50	13' LT	98.35
Line SJ (bituminous)	7+00	13' LT	97.82
Line SK (bituminous)	6+50	13' LT	97.41
Line SL (End Resurfacing)	6+30	13' LT	97.28

*Elevation adjusted for sloping to curb cut-out.



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APPROACH ELEVATIONS (SHEET 2 OF 2)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET 14

DWG NO. 13028appr.dgn

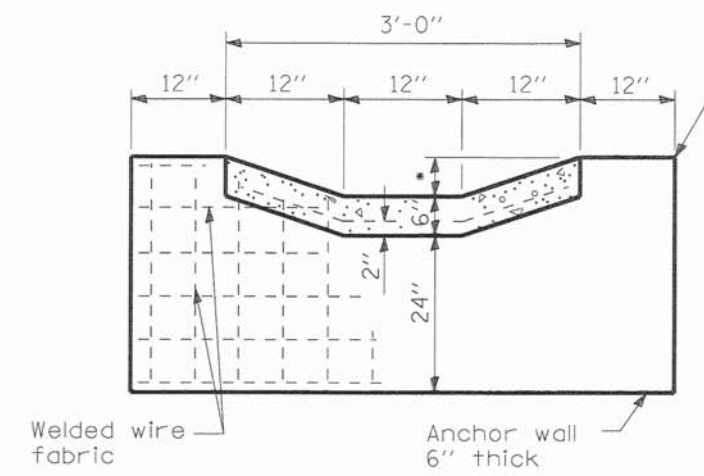
DATE JUL 2015

PROJ NO. C13028

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	* CHAMPAIGN	39	15

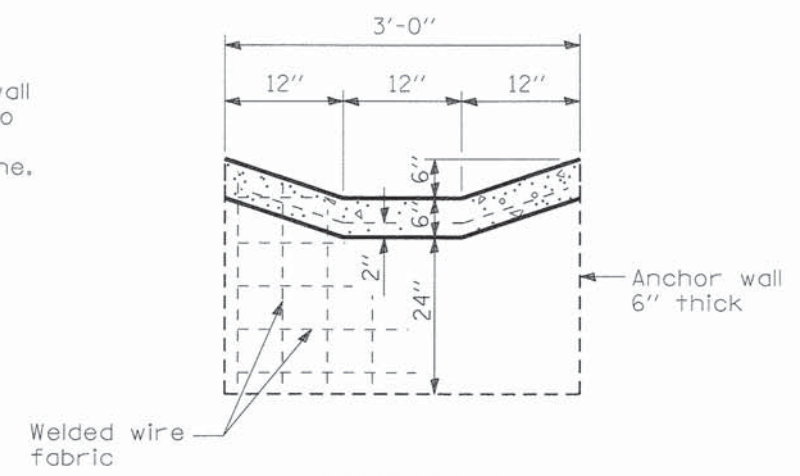
* 10-00966-00-BR
Contract No. 91526

* = Equal to curb height where abuts against the approach pavement. Transition to a height of 6 inches.



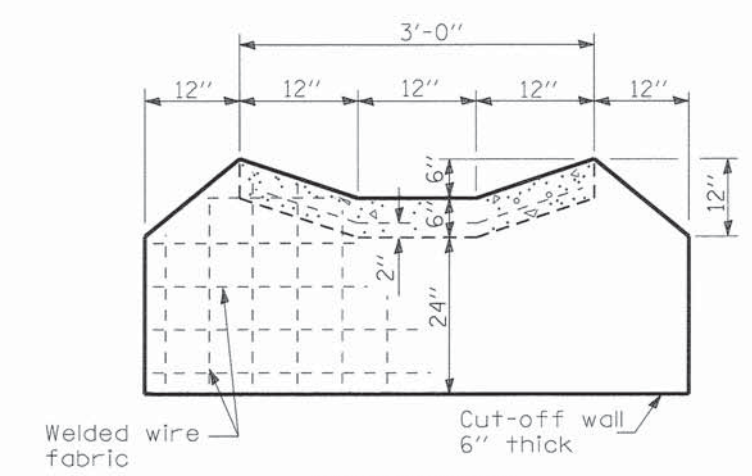
ELEVATION

PAVED DITCH - UPSTREAM END



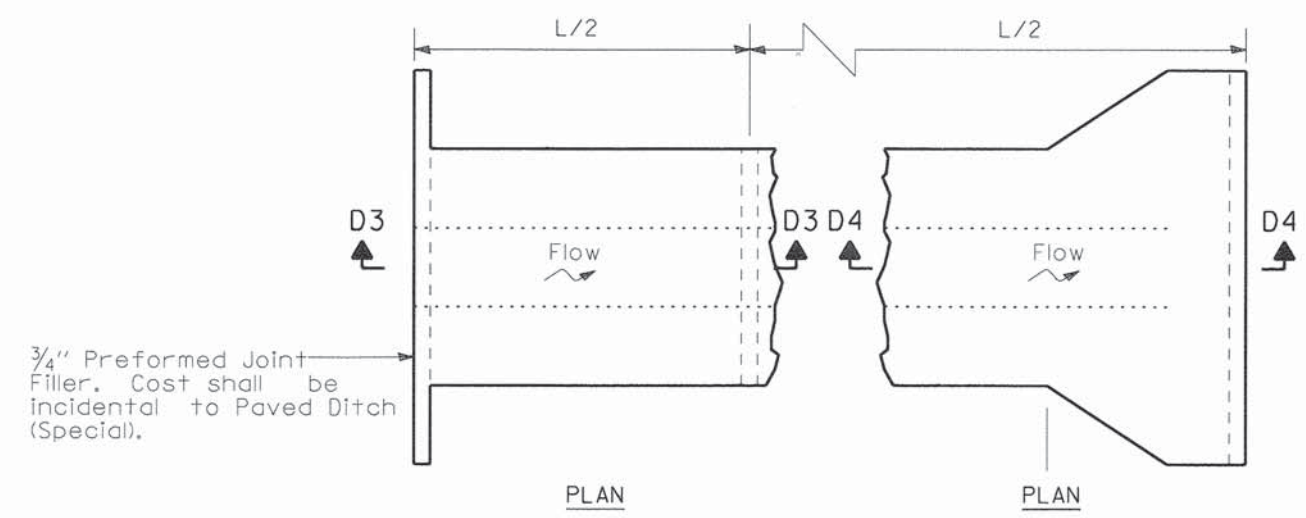
ELEVATION

PAVED DITCH



ELEVATION

PAVED DITCH - DOWNSTREAM END



PLAN

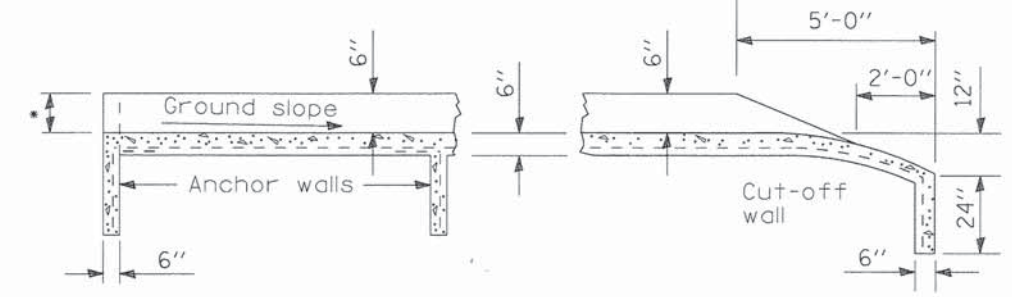
PLAN

PAVED DITCH - GENERAL NOTES

Approximate Concrete Areas:

- Paved Ditch (Special) = 0.17 Sq. Yds./Ft. wall
- Anchor Wall (upstream) = 1.39 Sq. Yds.
- Anchor Wall (at L/2) = 0.72 Sq. Yds.
- Cut-off Wall & Flare = 1.28 Sq. Yds.

The cost of concrete & welded wire fabric is incidental to the cost of "PAVED DITCH (SPECIAL)".



SECTION D3-D3

SECTION D4-D4

DETAIL OF UPSTREAM END

DETAIL OF DOWNSTREAM END

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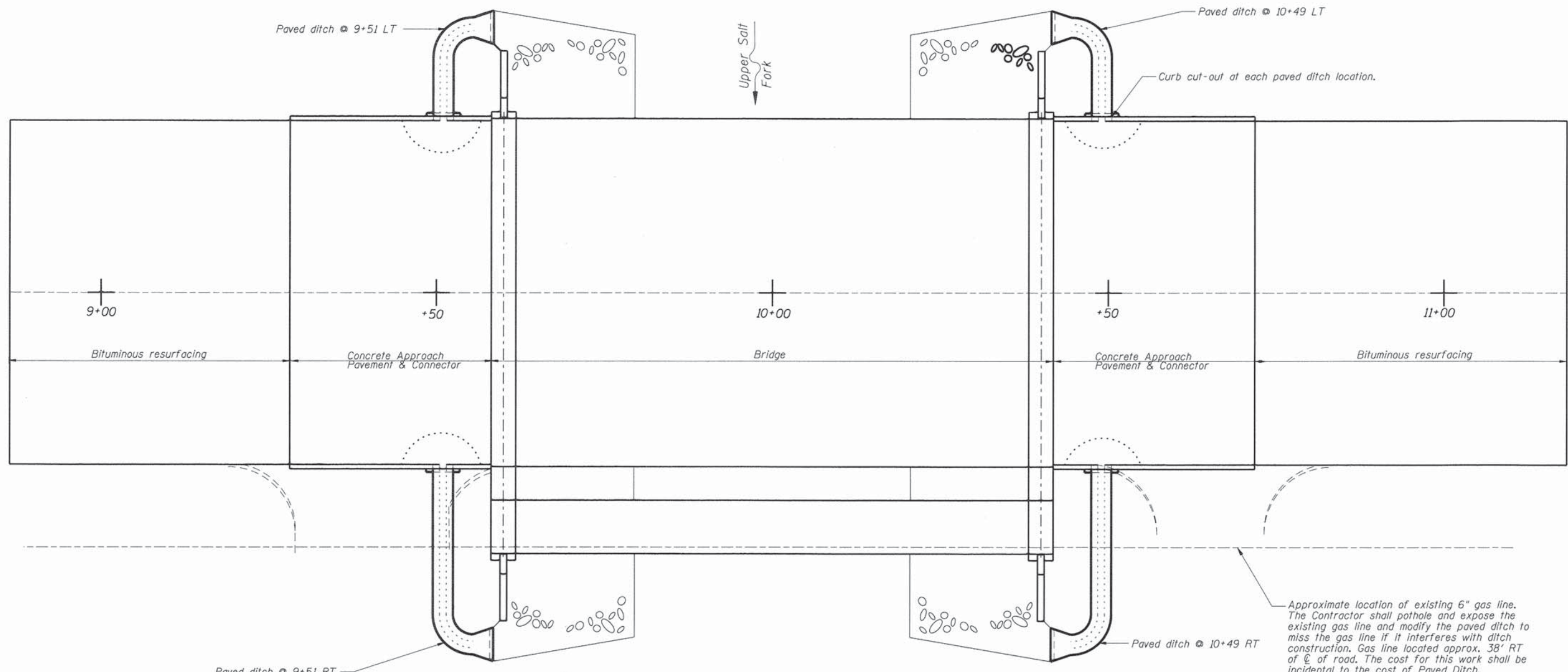
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PAVED DITCH (SPECIAL) (PAGE 1 OF 2)
FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET	15
DWG NO.	13028DTCH.dgn
DATE	JUL 2015
PROJ NO.	C13028

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

* 10-00966-00-BR
Contract No. 91526



PLAN

PAVED DITCH (SPECIAL)	
LOCATION	FOOT
Sta. 9+51 LT	16.0
Sta. 10+49 LT	16.0
Sta. 9+51 RT	26.5
Sta. 10+49 RT	26.5
TOTAL	85

EARTH EXCAVATION	
LOCATION	Cu. Yds.
Sta. 9+51 LT	6.1
Sta. 10+49 LT	6.1
Sta. 9+51 RT	7.9
Sta. 10+49 RT	7.9
TOTAL	28.0

PROTECTIVE COAT	
LOCATION	Sq. Yds.
Sta. 9+51 LT	6.5
Sta. 10+49 LT	6.5
Sta. 9+51 RT	10.8
Sta. 10+49 RT	10.8
TOTAL	34.6

BILL OF MATERIAL - PAVED DITCHES		
ITEM	UNIT	QUANTITY
Paved Ditch (Special)	Foot	85
Earth Excavation	Cu. Yds.	28.0
Protective Coat	Sq. Yds.	30.6



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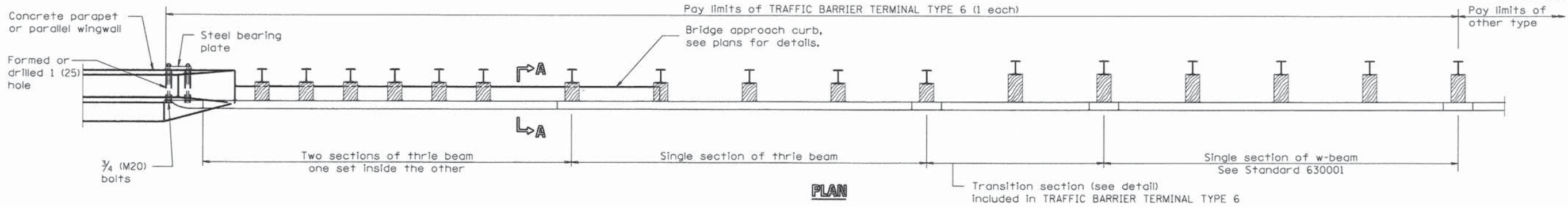
• 38701 WEST AVENUE, SUITE 150 WARRENVILLE, ILLINOIS 60555
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PAVED DITCH (SPECIAL) (SHEET 2 OF 2)
FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

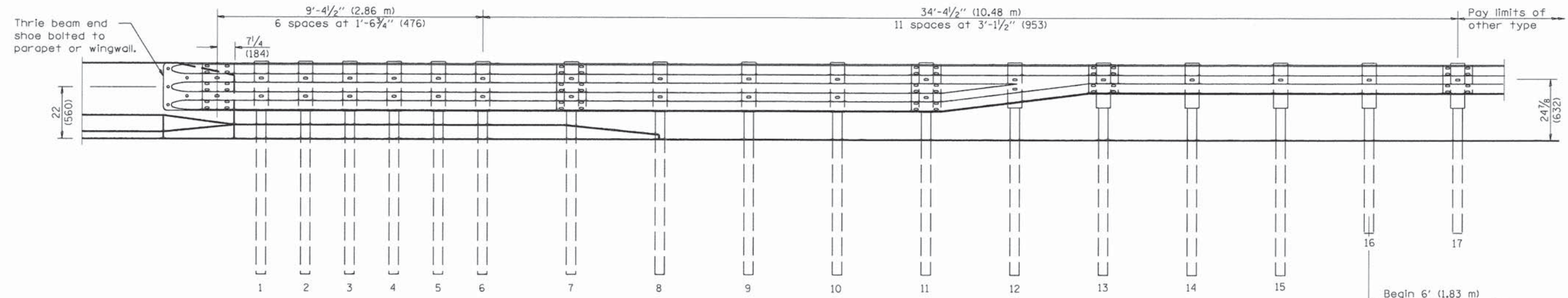
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DATE	JUL 2015
PROJ NO.	C13028

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	

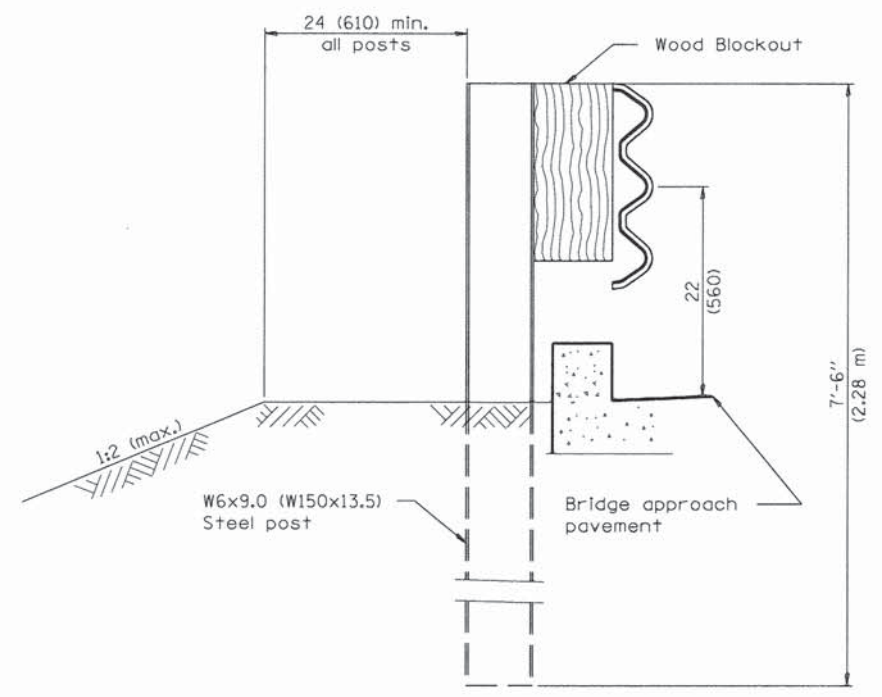
* 10-00966-00-BR
Contract No. 91526



PLAN



ELEVATION



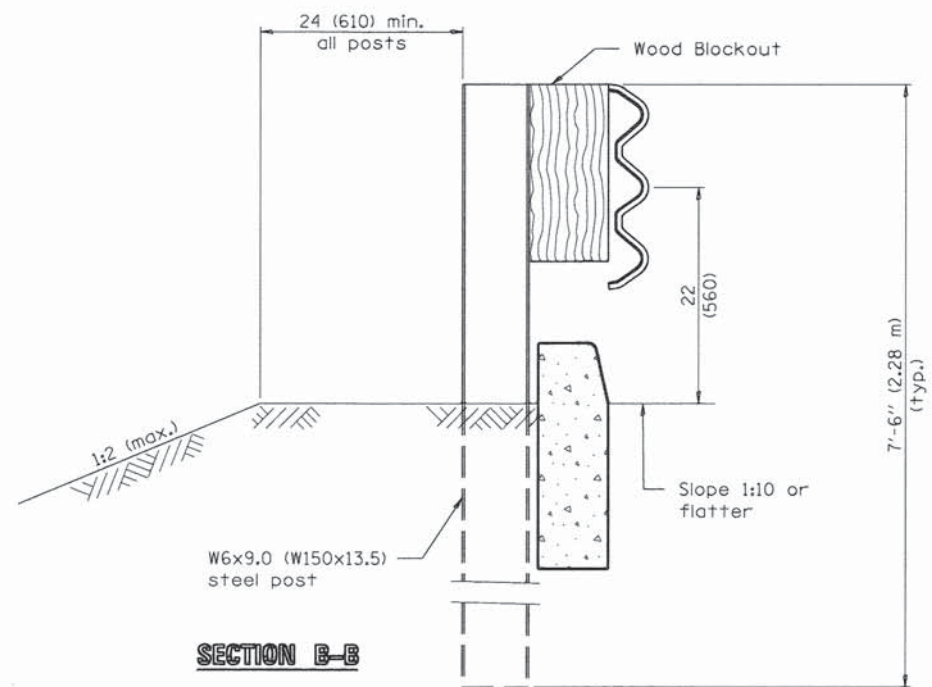
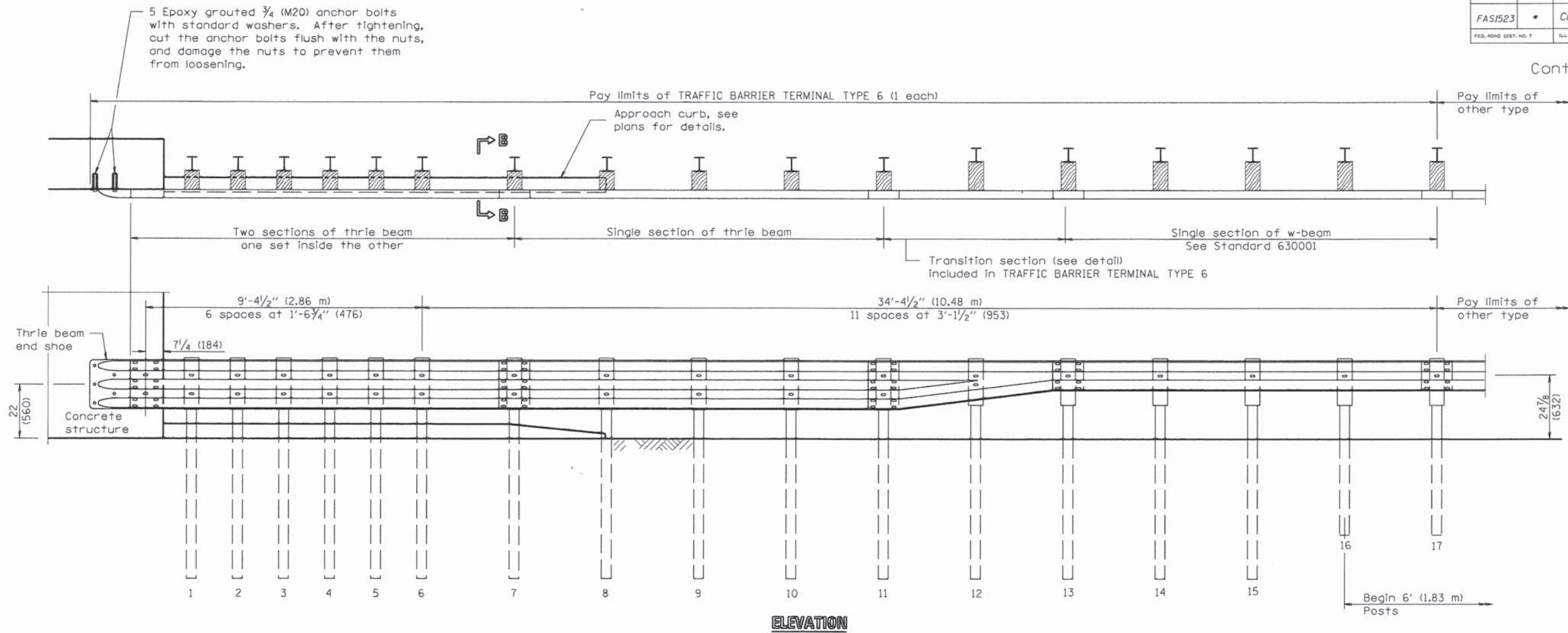
SECTION A-A

	ENGINEERING RESOURCE ASSOCIATES, INC. CONSULTING ENGINEERS, SCIENTISTS & SURVEYORS	3002 CROSSING COURT CHAMPAIGN, IL 61822 PHONE (217) 351-6268 FAX (217) 355-1902	• 35701 WEST AVENUE, SUITE 150 WARRENVILLE, ILLINOIS 60555 PHONE 630.393.3060, FAX 630.393.2152 • 10 S. RIVERSIDE PLAZA, SUITE 1800 CHICAGO, ILLINOIS 60606 PHONE 312.683.0110, FAX 312.474.6099
	TRAFFIC BARRIER TYPE 6 (SHEET 1 OF 3)		

FAS 1523 (CH55) OVER UPPER SALT FORK CHAMPAIGN COUNTY SEC 10-00966-00-BR		SHEET 17 DWG NO. 13028typ6.dgn DATE JUL 2015 PROJ NO. C13028
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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	* CHAMPAIGN	39	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

* 10-00966-00-BR
Contract No. 91526



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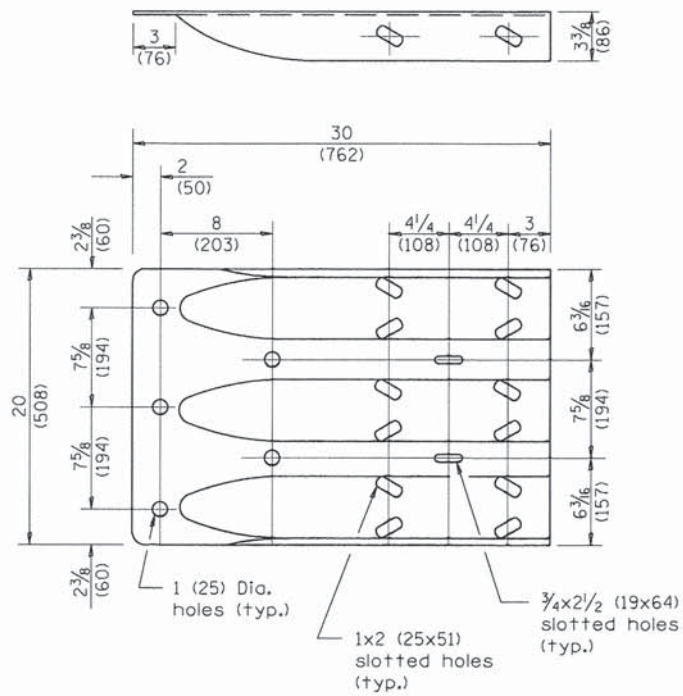
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TRAFFIC BARRIER TYPE 6 (SHEET 2 OF 3)
FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

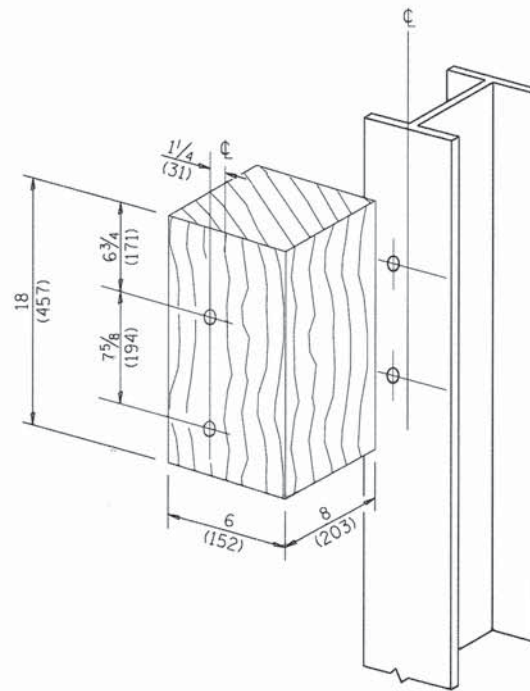
SHEET	18
DWG NO.	13028typ6.dgn
DATE	JUL 2015
PROJ NO.	C13028

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

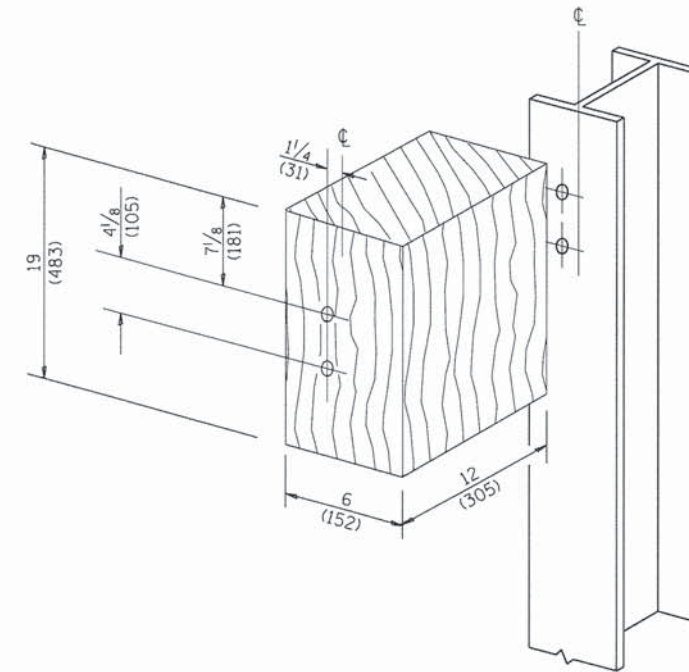
* 10-00966-00-BR
Contract No. 91526



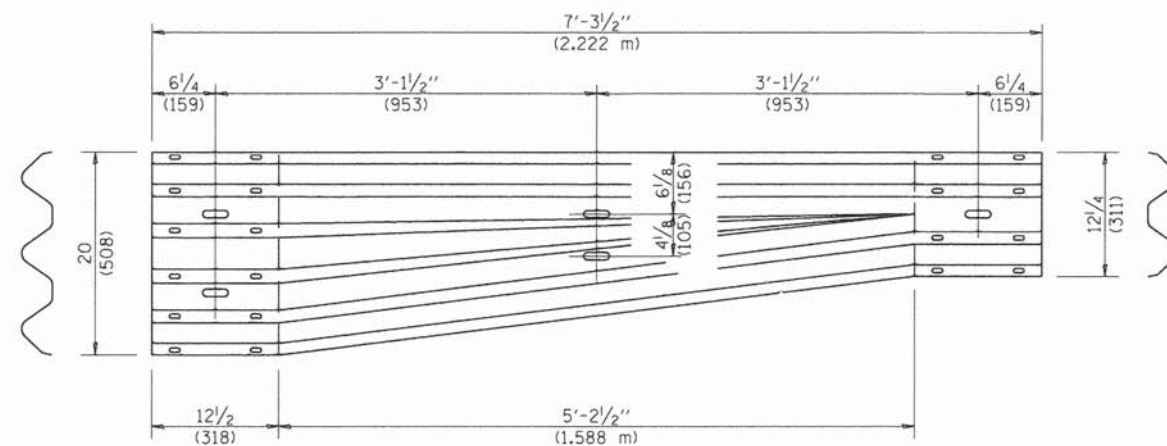
THREE BEAM END SHOE DETAIL



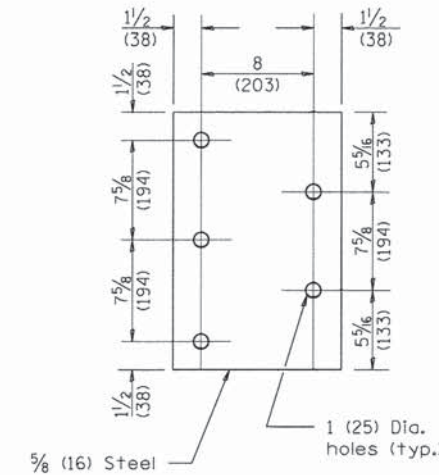
POSTS 1-11 WOOD BLOCKOUT DETAIL



POST 12 WOOD BLOCKOUT DETAIL
(See Standard 630001 for post 13-17 blockouts.)



TRANSITION SECTION
(10 gauge (3.4) rail element)



PARAPET STEEL BEARING PLATE DETAIL

(5 each individual 5x5x5/8 (125x125x16) steel plates with centered 1 (25) holes may be substituted for the plate shown.)



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TRAFFIC BARRIER TYPE 6 (SHEET 3 OF 3)

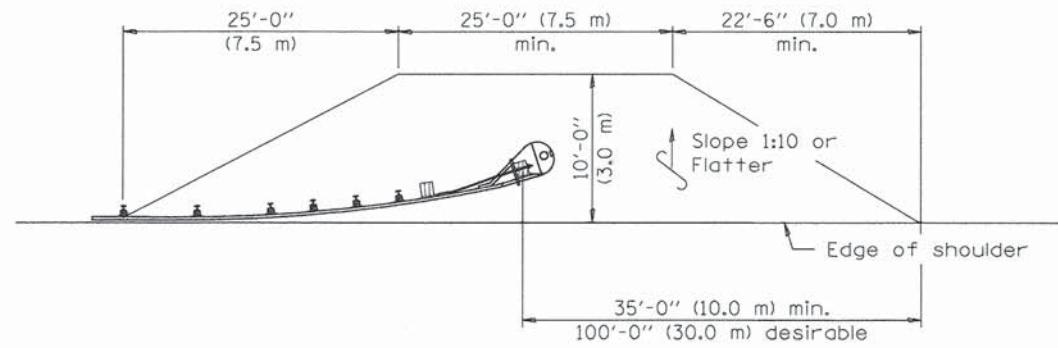
FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET 19
DWG NO. 13028typ6.dgn
DATE JUL 2015
PROJ NO. C13028

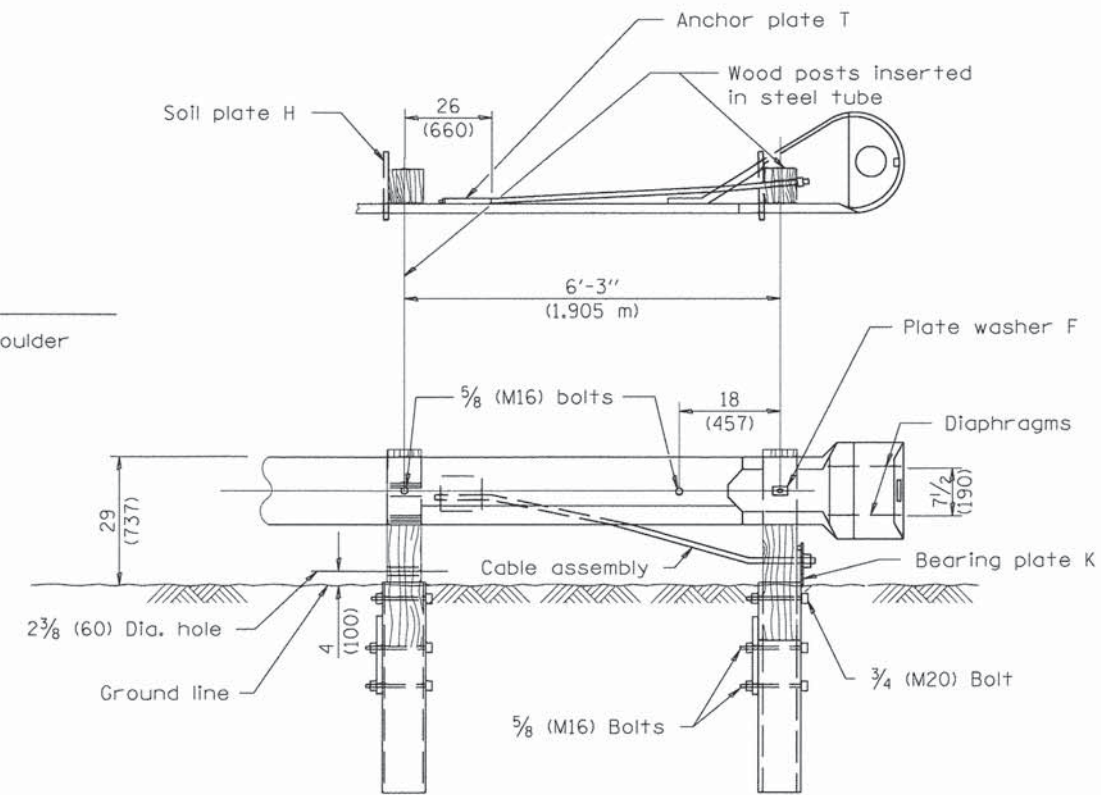
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	20
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	

* 10-00966-00-BR
Contract No. 91526

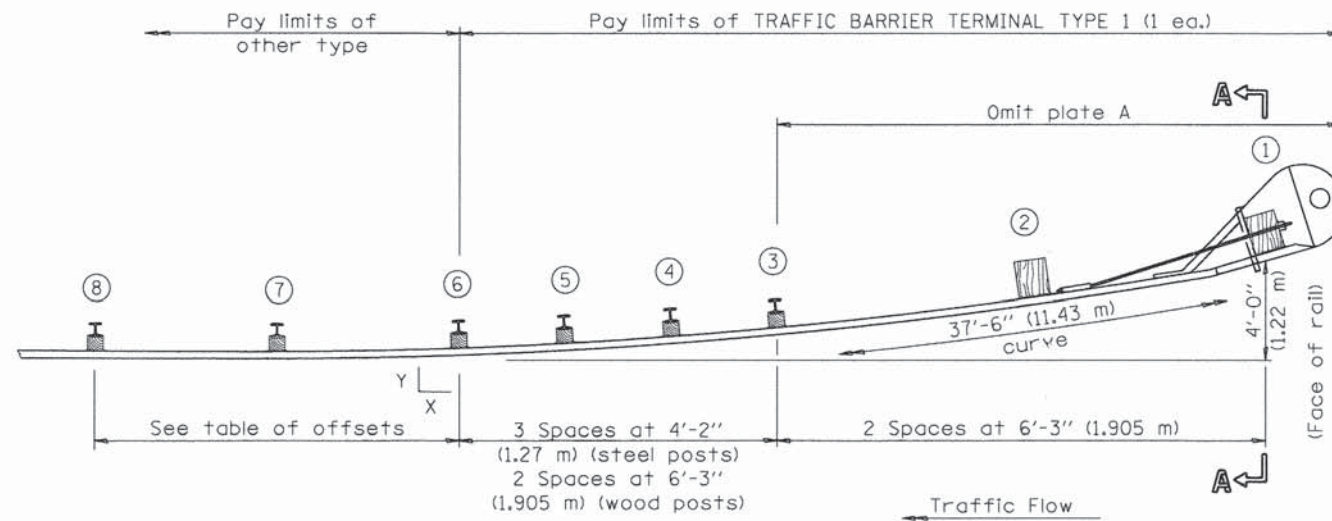
OFFSETS TO FACE OF RAIL		
Post	X ft (m)	Y ft (m)
①	37.22 (11.345)	4.0 (1.22)
②	31.09 (9.475)	2.79 (0.850)
③	24.92 (7.595)	1.79 (0.545)
④	20.79 (6.335)	1.25 (0.380)
⑤	16.64 (5.070)	0.80 (0.245)
⑥	12.49 (3.805)	0.45 (0.135)
⑦	6.25 (1.905)	0.11 (0.035)
⑧	0.00 (0.00)	0.00 (0.00)



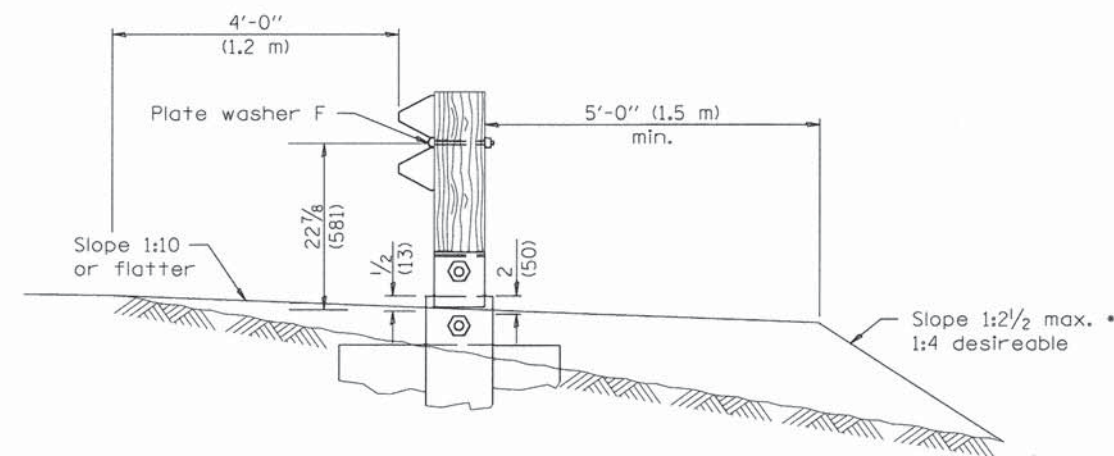
SHOULDER WIDENING TRANSITION



**WOOD BREAKAWAY POSTS
TUBULAR STEEL FOUNDATIONS**



PLAN



SECTION A-A

* If fill height exceeds 5'-0" (1.5 m) use 1:3 slope

GENERAL NOTES

See Standard B.L.R. 26 for details of guardrail not shown.

Posts at location 1 & 2 shall be wood breakaway posts. Posts other than 1 & 2 may be either standard wood posts or steel posts, at the option of the Contractor. If standard wood posts are used, one post shall be located midway between and in lieu of posts 4 & 5. The offset (Y) for this post shall be 12 (300).

A two-piece assembly may be substituted for the one piece nose shown above.

The bearing plate K shall be held in position by (2) two eightpenny nails driven into the post and bent over the top of the plate.

When this terminal is used with Standard 630001, the guardrail shall transition down to the height of the terminal prior to post 8.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in inches (millimeters) unless otherwise shown.



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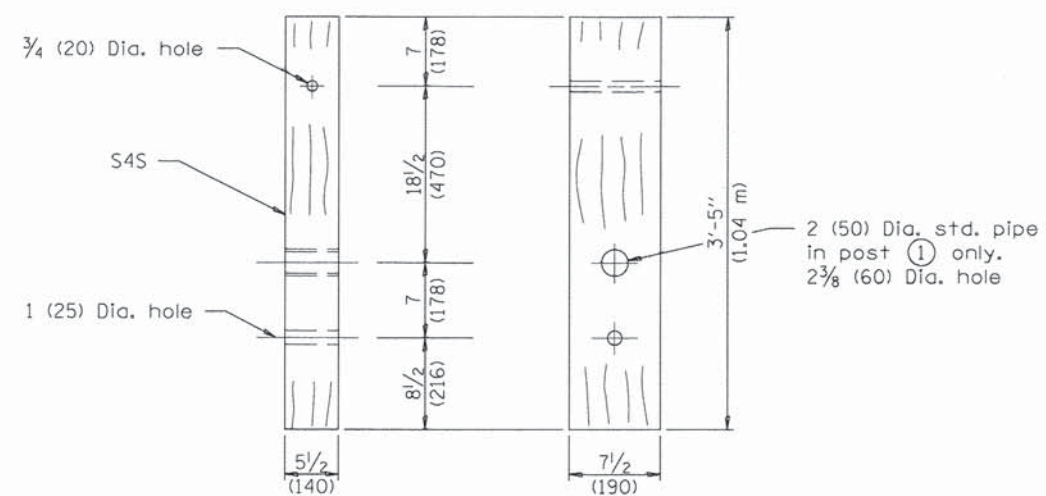
TRAFFIC BARRIER TERMINAL TYPE 1 (S. 1 OF 2)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

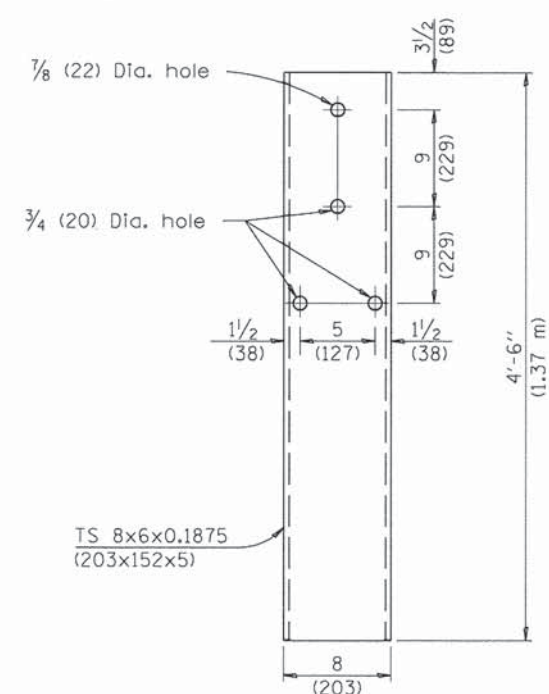
SHEET 20
DWG NO. 13028typ6.dgn
DATE JUL 2015
PROJ NO. C13028

SECTION	COUNTY	SHEET	SHEET
FAS1523	CHAMPAIGN	39	21
FED. RD. DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

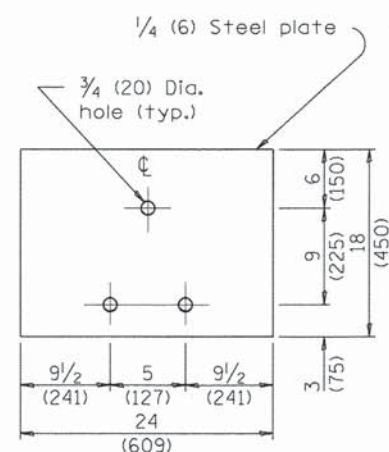
10-00966-00-BR
Contract No. 91526



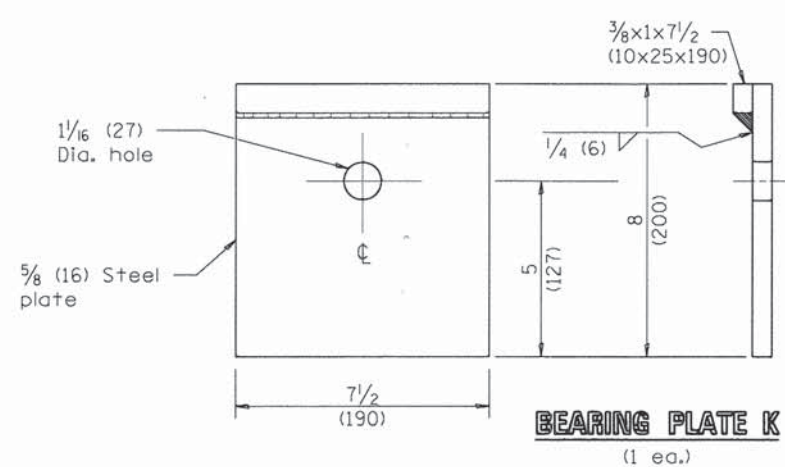
WOOD BREAKAWAY POST
(2 ea.)



STEEL TUBE
(2 ea.)



SOIL PLATE H
(2 ea.)



BEARING PLATE K
(1 ea.)

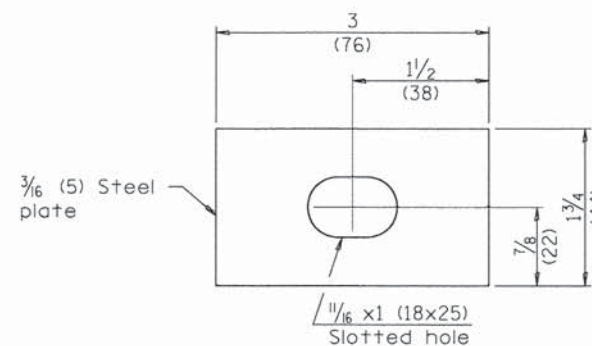
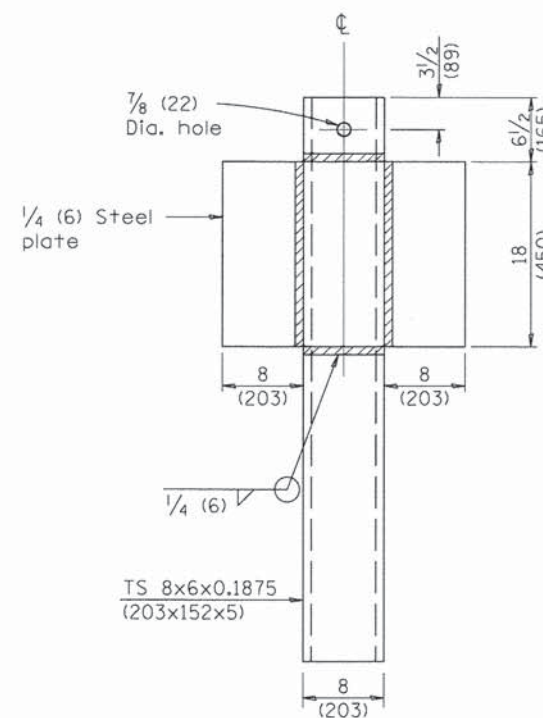
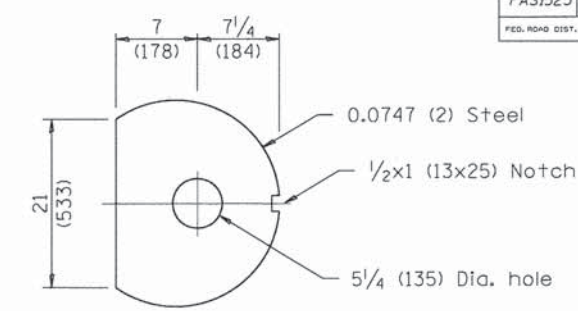


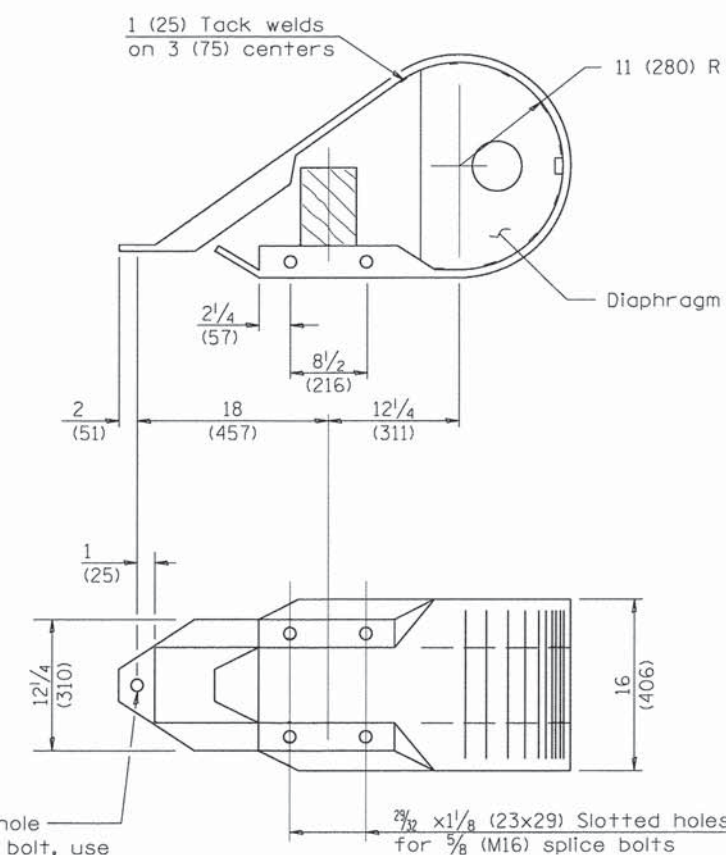
PLATE WASHER F
(1 ea.)



ALTERNATE SOIL PLATE CONNECTION



DIAPHRAGM
(2 ea.)



NOSE
(1 ea.)



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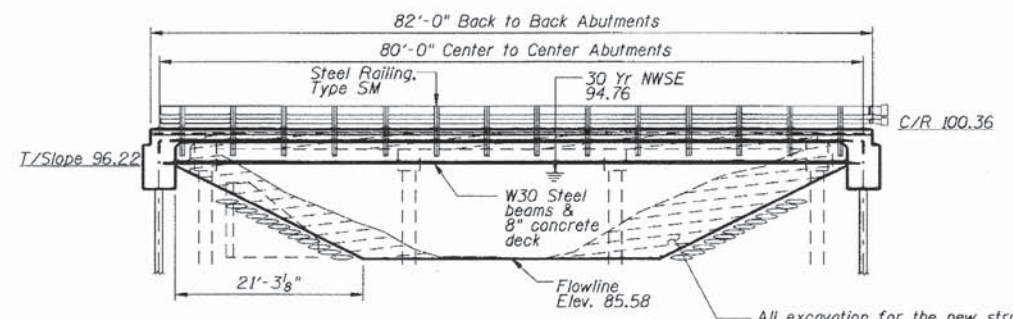
TRAFFIC BARRIER TERMINAL TYPE 1 (S. 2 OF 2)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET 21
DWG NO. 13028typ6.dgn
DATE JUL 2015
PROJ NO. C13028

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	#	CHAMPAIGN	39	22
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

* 10-00966-00-BR
Contract No. 91526



ELEVATION

All excavation for the new structure, B/B abutment as shown from ROW to ROW, will not be paid for separately, and, the cost of excavation, hauling excess material, and disposal of excess material, shall be included in the cost of removal of existing structures. No additional compensation will be allowed.

DESIGN SPECIFICATIONS

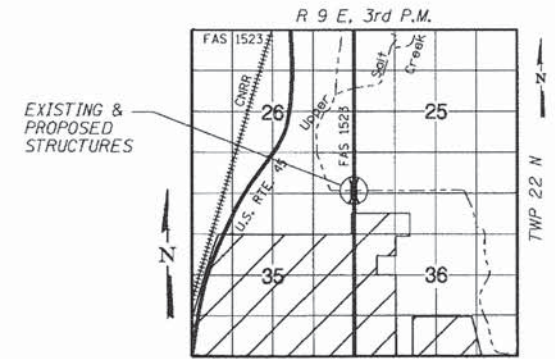
AASHTO LRFD (2007) and applicable Interims

DESIGN LOADING

HL-93
25 P.S.F Future Wearing Surface

DESIGN STRESSES

$f'_c = 3,500$ psi (Cast in Place Concrete)
 $f_y = 50,000$ psi (M270 Grades 50 & 50W)
 $f_y = 60,000$ psi (Reinforcement)



LOCATION SKETCH

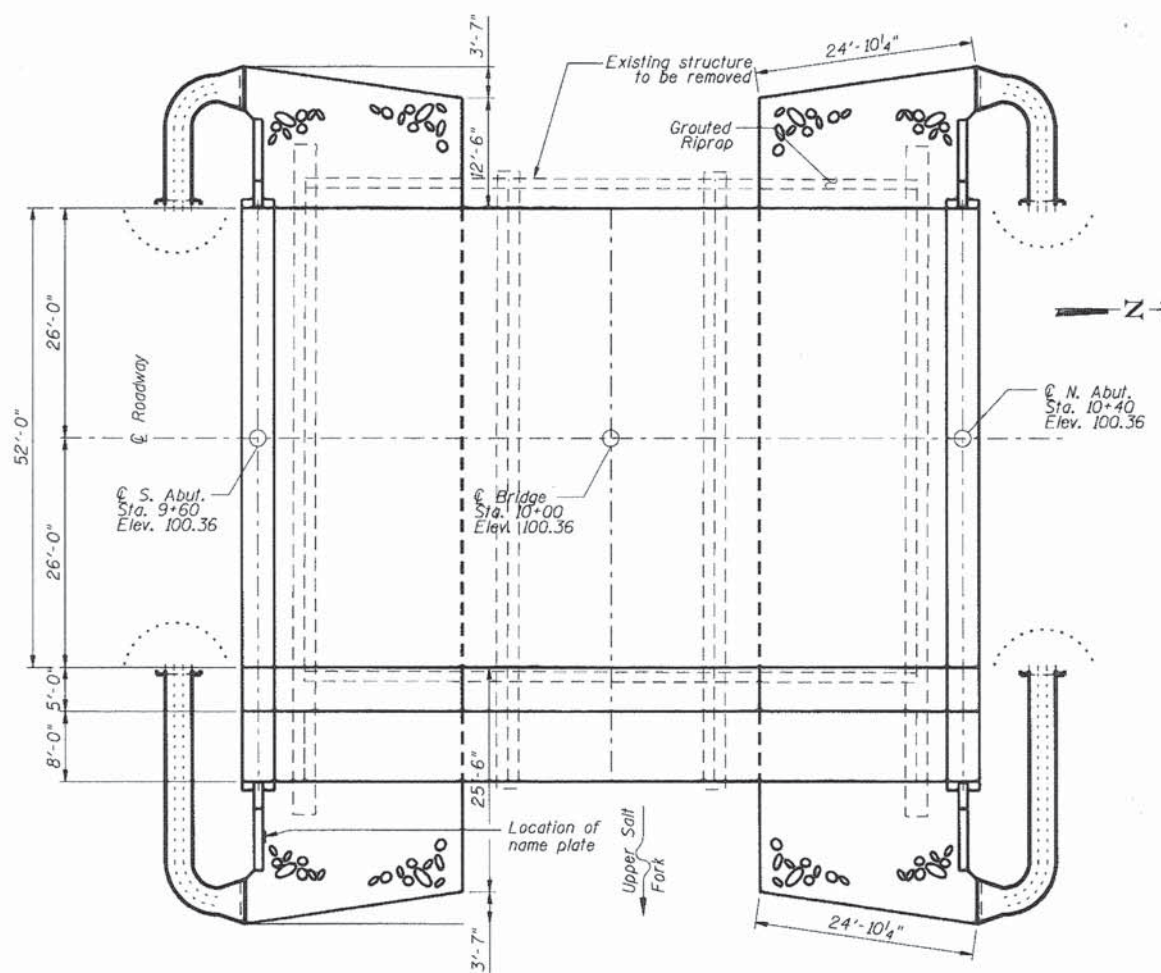
STRUCTURE NO. 010-4552
SEC. 10-00966-00-BR BUILT 20...
FAS 1523/CH 55
CHAMPAIGN COUNTY
LOADING HL 93

NAME PLATE

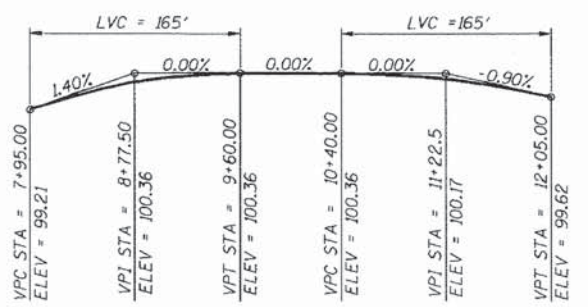
See Standard 515001

WATERWAY DATA

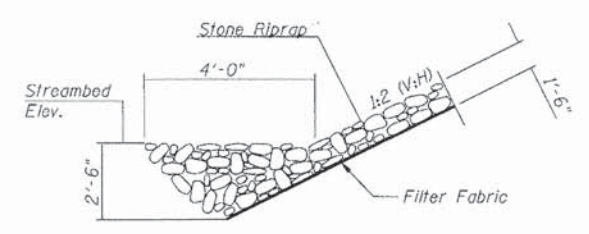
Drainage Area	9.3	Sq. Mi.
Existing Opening (30 Yr.)	303.6	Sq. Ft.
Required Opening (30 Yr.)	261.8	Sq. Ft.
Proposed Opening (30 Yr.)	524.15	Sq. Ft.
Design Discharge (30 Yr.)	1641	C.F.S.
Computed Discharge (100 Yr.)	2292	C.F.S.
30 Year Head	0.02	Ft.
100 Year Head	0.34	Ft.



PLAN



PROFILE GRADE



RIPRAP SECTION

GENERAL NOTES

- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- The Contractor shall drive 1 steel test pile in a permanent location at each abutment and each pier as directed by the Engineer before ordering the remainder of piles.
- Boring Data is shown only as as guide to bidders in estimating soil conditions which may be encountered during construction.
- Class S1 or MS Concrete shall be used in the abutments and piers.
- Class BS concrete shall be used for the bridge deck.



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

JOHN A. FRAUENHOFER
Illinois Licensed Structural Engineer Number 4192
License Expires 11/30/16

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.	-	96	96.0
Removal of Existing Structures	Each	1	-	1
Structure Excavation	Cu. Yd.	-	428	428
Concrete Structures	Cu. Yd.	-	158.6	158.6
Concrete Superstructures (bridge deck)	Cu. Yd.	238.5	-	238.5
Bridge Deck Grooving	Sq. Yd.	817	-	817
Protective Coat	Sq. Yd.	970	-	970
Furnishing & Erecting Structural Steel	L. Sum	1	-	1
Reinforcement Bars	Pound	-	5600	5600
Reinforcement Bars, Epoxy Coated	Pound	76900	700	77600
Steel Railing, Type SM	Foot	160	-	160
Name Plates	Each	-	1	1
Furnishing Steel Piles HPI0x42	Foot	-	1080	1080
Driving Piles	Foot	-	1080	1080
Test Pile Steel HPI0x42	Each	-	2	2
Pile Shoes	Each	-	26	26
Geocomposite Wall Drain	Sq. Yds.	-	82.3	82.3
Pipe Underdrains For Structures 4"	Foot	-	170	170
Grouted Riprap	Sq. Yd.	-	573	573
Concrete Cut-Off Wall	Cu. Yd.	-	12	12
Pedestrian Railing	Foot	168	-	168
Stud Shear Connector	Each	273	-	273

DSGN	C.S. Sedlacko				
DR	T.W. Wolf				
CHK	J.R. Wolf				
APVD	J.A. Frauenhoffer	NO.	DATE	REVISION	BY



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GENERAL PLAN AND ELEVATION		SHEET 22
FAS 1523 (CH55) OVER UPPER SALT FORK CHAMPAIGN COUNTY		DWG NO. 13028gpe.dgn
SEC 10-00966-00-BR		DATE JUL 2015
		PROJ. NO. C13028

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	*	CHAMPAIGN	39	23
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

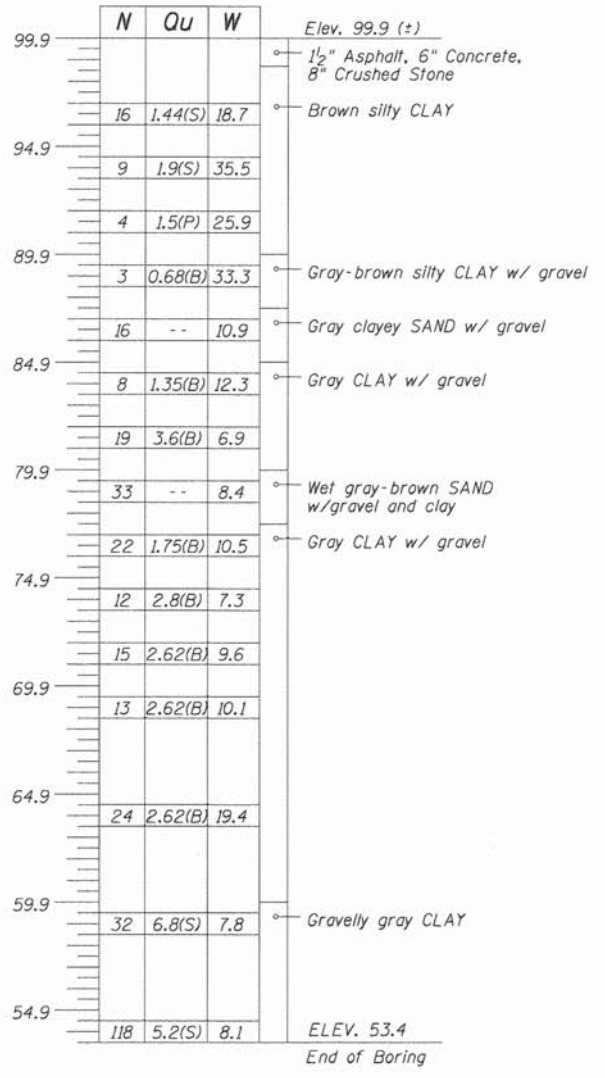
* 10-00966-00-BR
Contract No. 91526

BORING DATA

N - Standard Penetration Test - Blows per foot to drive 2" O.D. split spoon sampler 12" with 140 lb. hammer falling 30".
 Qu - Unconfined Compressive Strength - Tons/Sq. Ft.
 W - Water Content - Percentage of oven dry weight - %

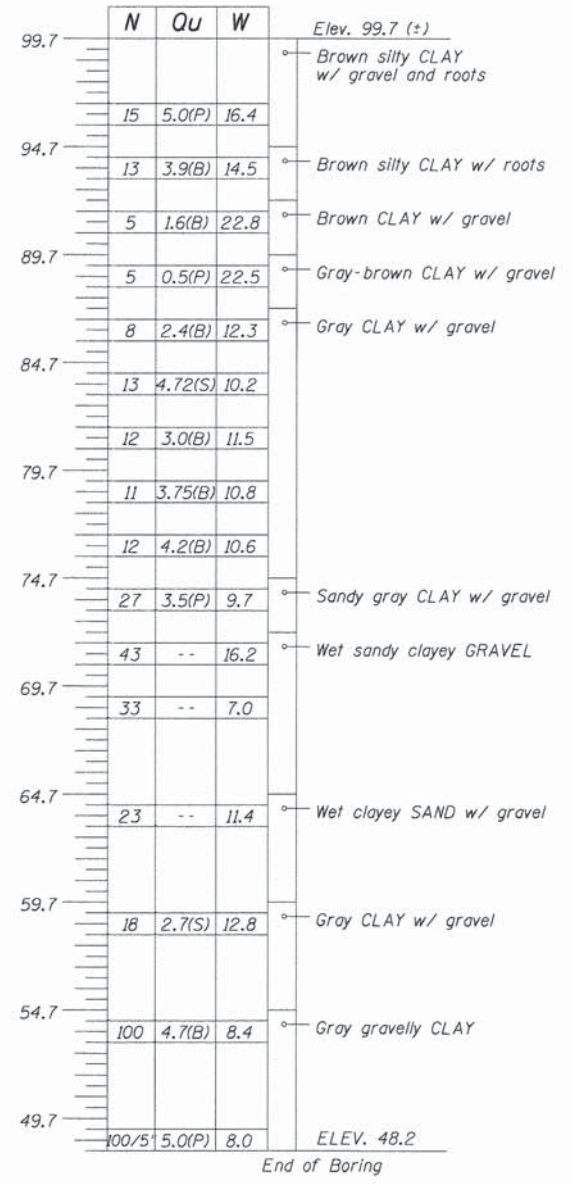
BORING B-1

Location: 15' South of Abut. 7' East of CL in road
 Elev. 99.9 (±)
 Water Level: N/A



BORING B-2

Location: 9' North of Abut. 30' Left of CL in grass.
 Elev. 99.7 (±)
 Water Level: 74.7 (±)



DESIGN	C.S. Sedlacko					
DR	C.S. Sedlacko					
CHK	J.R. Wolf					
APVD	J.R. Wolf	NO.	DATE	REVISION	BY	APVD



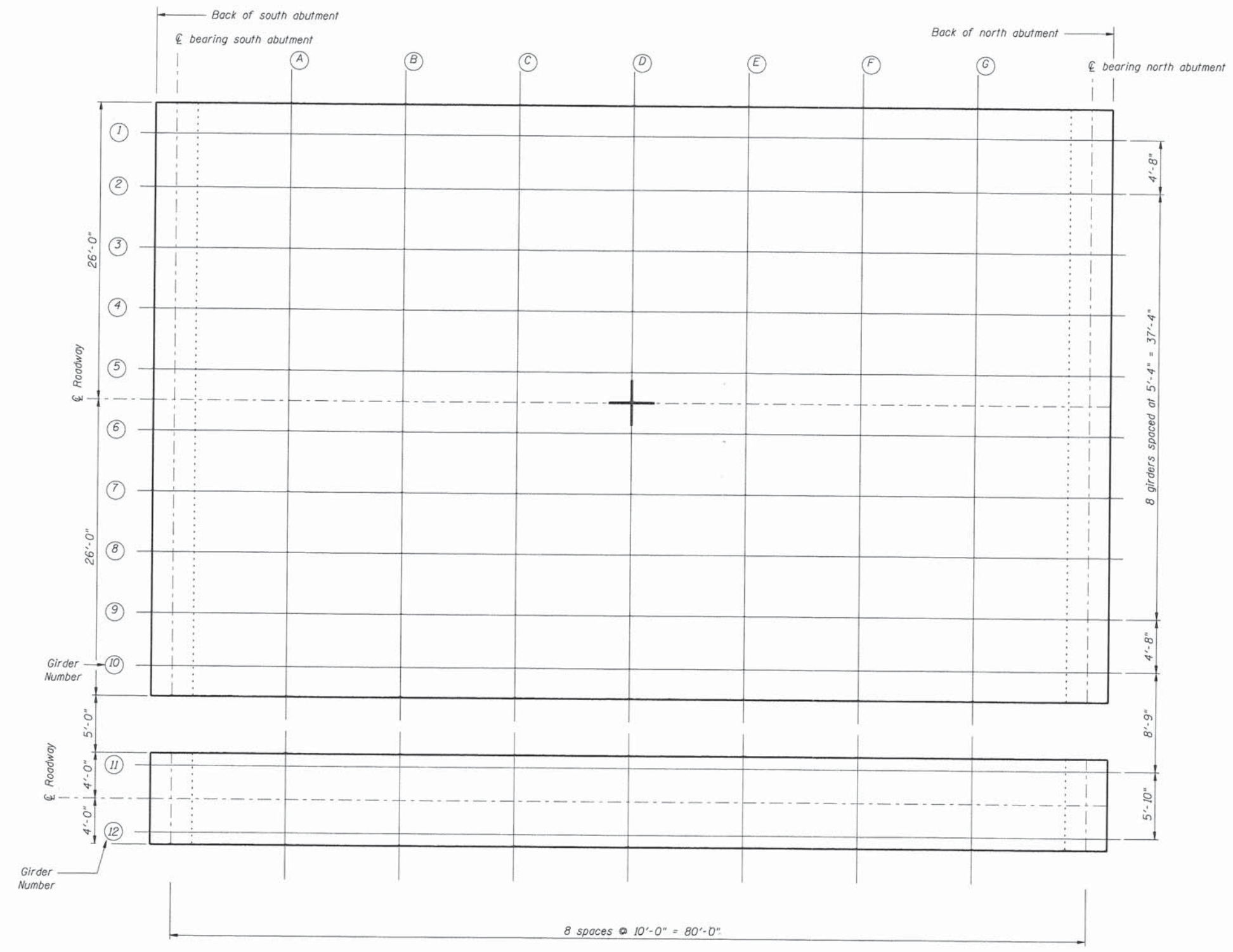
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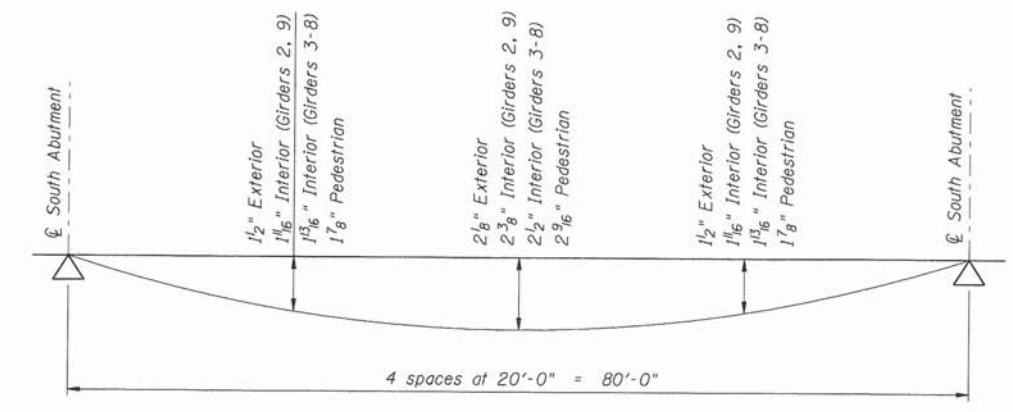
BORINGS		SHEET 23
FAS 1523 OVER UPPER SALT FORK SEC. 10-00966-00-BR CHAMPAIGN COUNTY		DWG NO. BORINGS.DGN
		DATE JUN 2015
		PROJ NO. C13028

SECTION	COUNTY	SHEET NO.	SHEET NO.
FAS1523	CHAMPAIGN	39	24
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

* 10-00966-00-BR
Contract No. 91526



DECK FRAMING PLAN



DEAD LOAD DEFLECTION DIAGRAM FOR GIRDERS
(Includes weight of concrete only.)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for Dead Load deflections as shown on sheets 25 and 26.



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TOP OF SLAB (SHEET 1 OF 3)
FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET	24
DWG NO.	13028tos.dgn
DATE	JUL 2015
PROJ NO.	C13028



W. Edge of Deck

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	26'-0" LT	99.818	99.818
CL bearing south abutment	9+61.83	26'-0" LT	99.818	99.827
Line A	9+70.00	26'-0" LT	99.818	99.866
Line B	9+80.00	26'-0" LT	99.818	99.907
Line C	9+90.00	26'-0" LT	99.818	99.933
Line D	10+00.00	26'-0" LT	99.818	99.943
Line E	10+10.00	26'-0" LT	99.818	99.933
Line F	10+20.00	26'-0" LT	99.818	99.907
Line G	10+30.00	26'-0" LT	99.818	99.866
CL bearing north abutment	10+38.17	26'-0" LT	99.818	99.827
Back of north abutment	10+40.00	26'-0" LT	99.818	99.818

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	24'-0" LT	99.860	99.860
CL bearing south abutment	9+61.83	24'-0" LT	99.860	99.869
Line A	9+70.00	24'-0" LT	99.860	99.908
Line B	9+80.00	24'-0" LT	99.860	99.949
Line C	9+90.00	24'-0" LT	99.860	99.975
Line D	10+00.00	24'-0" LT	99.860	99.985
Line E	10+10.00	24'-0" LT	99.860	99.975
Line F	10+20.00	24'-0" LT	99.860	99.949
Line G	10+30.00	24'-0" LT	99.860	99.908
CL bearing north abutment	10+38.17	24'-0" LT	99.860	99.869
Back of north abutment	10+40.00	24'-0" LT	99.860	99.860

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	18'-8" LT	99.971	99.971
CL bearing south abutment	9+61.83	18'-8" LT	99.971	99.982
Line A	9+70.00	18'-8" LT	99.971	100.027
Line B	9+80.00	18'-8" LT	99.971	100.074
Line C	9+90.00	18'-8" LT	99.971	100.104
Line D	10+00.00	18'-8" LT	99.971	100.115
Line E	10+10.00	18'-8" LT	99.971	100.104
Line F	10+20.00	18'-8" LT	99.971	100.074
Line G	10+30.00	18'-8" LT	99.971	100.027
CL bearing north abutment	10+38.17	18'-8" LT	99.971	99.982
Back of north abutment	10+40.00	18'-8" LT	99.971	99.971

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	13'-3" LT	100.082	100.082
CL bearing south abutment	9+61.83	13'-3" LT	100.082	100.093
Line A	9+70.00	13'-3" LT	100.082	100.142
Line B	9+80.00	13'-3" LT	100.082	100.191
Line C	9+90.00	13'-3" LT	100.082	100.224
Line D	10+00.00	13'-3" LT	100.082	100.235
Line E	10+10.00	13'-3" LT	100.082	100.224
Line F	10+20.00	13'-3" LT	100.082	100.191
Line G	10+30.00	13'-3" LT	100.082	100.142
CL bearing north abutment	10+38.17	13'-3" LT	100.082	100.093
Back of north abutment	10+40.00	13'-3" LT	100.082	100.082

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	8'-0" LT	100.193	100.193
CL bearing south abutment	9+61.83	8'-0" LT	100.193	100.204
Line A	9+70.00	8'-0" LT	100.193	100.253
Line B	9+80.00	8'-0" LT	100.193	100.302
Line C	9+90.00	8'-0" LT	100.193	100.335
Line D	10+00.00	8'-0" LT	100.193	100.346
Line E	10+10.00	8'-0" LT	100.193	100.335
Line F	10+20.00	8'-0" LT	100.193	100.302
Line G	10+30.00	8'-0" LT	100.193	100.253
CL bearing north abutment	10+38.17	8'-0" LT	100.193	100.204
Back of north abutment	10+40.00	8'-0" LT	100.193	100.193

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	2'-8" LT	100.304	100.304
CL bearing south abutment	9+61.83	2'-8" LT	100.304	100.315
Line A	9+70.00	2'-8" LT	100.304	100.364
Line B	9+80.00	2'-8" LT	100.304	100.413
Line C	9+90.00	2'-8" LT	100.304	100.446
Line D	10+00.00	2'-8" LT	100.304	100.457
Line E	10+10.00	2'-8" LT	100.304	100.446
Line F	10+20.00	2'-8" LT	100.304	100.413
Line G	10+30.00	2'-8" LT	100.304	100.364
CL bearing north abutment	10+38.17	2'-8" LT	100.304	100.315
Back of north abutment	10+40.00	2'-8" LT	100.304	100.304

P.G.L./CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	0'-0"	100.36	100.360
CL bearing south abutment	9+61.83	0'-0"	100.36	100.371
Line A	9+70.00	0'-0"	100.36	100.420
Line B	9+80.00	0'-0"	100.36	100.469
Line C	9+90.00	0'-0"	100.36	100.502
Line D	10+00.00	0'-0"	100.36	100.513
Line E	10+10.00	0'-0"	100.36	100.502
Line F	10+20.00	0'-0"	100.36	100.469
Line G	10+30.00	0'-0"	100.36	100.420
CL bearing north abutment	10+38.17	0'-0"	100.36	100.371
Back of north abutment	10+40.00	0'-0"	100.36	100.360

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	2'-8" RT	100.304	100.304
CL bearing south abutment	9+61.83	2'-8" RT	100.304	100.315
Line A	9+70.00	2'-8" RT	100.304	100.364
Line B	9+80.00	2'-8" RT	100.304	100.413
Line C	9+90.00	2'-8" RT	100.304	100.446
Line D	10+00.00	2'-8" RT	100.304	100.457
Line E	10+10.00	2'-8" RT	100.304	100.446
Line F	10+20.00	2'-8" RT	100.304	100.413
Line G	10+30.00	2'-8" RT	100.304	100.364
CL bearing north abutment	10+38.17	2'-8" RT	100.304	100.315
Back of north abutment	10+40.00	2'-8" RT	100.304	100.304

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	8'-0" RT	100.193	100.193
CL bearing south abutment	9+61.83	8'-0" RT	100.193	100.204
Line A	9+70.00	8'-0" RT	100.193	100.253
Line B	9+80.00	8'-0" RT	100.193	100.302
Line C	9+90.00	8'-0" RT	100.193	100.335
Line D	10+00.00	8'-0" RT	100.193	100.346
Line E	10+10.00	8'-0" RT	100.193	100.335
Line F	10+20.00	8'-0" RT	100.193	100.302
Line G	10+30.00	8'-0" RT	100.193	100.253
CL bearing north abutment	10+38.17	8'-0" RT	100.193	100.204
Back of north abutment	10+40.00	8'-0" RT	100.193	100.193



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TOP OF SLAB (SHEET 2 OF 3)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET 25

DWG NO. 13028Tos.dgn

DATE JUL 2015

PROJ NO. C13028



GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	13'-3" RT	100.082	100.082
CL bearing south abutment	9+61.83	13'-3" RT	100.082	100.093
Line A	9+70.00	13'-3" RT	100.082	100.142
Line B	9+80.00	13'-3" RT	100.082	100.191
Line C	9+90.00	13'-3" RT	100.082	100.224
Line D	10+00.00	13'-3" RT	100.082	100.235
Line E	10+10.00	13'-3" RT	100.082	100.224
Line F	10+20.00	13'-3" RT	100.082	100.191
Line G	10+30.00	13'-3" RT	100.082	100.142
CL bearing north abutment	10+38.17	13'-3" RT	100.082	100.093
Back of north abutment	10+40.00	13'-3" RT	100.082	100.082

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	18'-8" RT	99.971	99.971
CL bearing south abutment	9+61.83	18'-8" RT	99.971	99.982
Line A	9+70.00	18'-8" RT	99.971	100.027
Line B	9+80.00	18'-8" RT	99.971	100.074
Line C	9+90.00	18'-8" RT	99.971	100.104
Line D	10+00.00	18'-8" RT	99.971	100.115
Line E	10+10.00	18'-8" RT	99.971	100.104
Line F	10+20.00	18'-8" RT	99.971	100.074
Line G	10+30.00	18'-8" RT	99.971	100.027
CL bearing north abutment	10+38.17	18'-8" RT	99.971	99.982
Back of north abutment	10+40.00	18'-8" RT	99.971	99.971

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	24'-0" RT	99.860	99.860
CL bearing south abutment	9+61.83	24'-0" RT	99.860	99.869
Line A	9+70.00	24'-0" RT	99.860	99.908
Line B	9+80.00	24'-0" RT	99.860	99.949
Line C	9+90.00	24'-0" RT	99.860	99.975
Line D	10+00.00	24'-0" RT	99.860	99.985
Line E	10+10.00	24'-0" RT	99.860	99.975
Line F	10+20.00	24'-0" RT	99.860	99.949
Line G	10+30.00	24'-0" RT	99.860	99.908
CL bearing north abutment	10+38.17	24'-0" RT	99.860	99.869
Back of north abutment	10+40.00	24'-0" RT	99.860	99.860

E. Edge Of Deck

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	26'-0" RT	99.818	99.818
CL bearing south abutment	9+61.83	26'-0" RT	99.818	99.827
Line A	9+70.00	26'-0" RT	99.818	99.866
Line B	9+80.00	26'-0" RT	99.818	99.907
Line C	9+90.00	26'-0" RT	99.818	99.933
Line D	10+00.00	26'-0" RT	99.818	99.943
Line E	10+10.00	26'-0" RT	99.818	99.933
Line F	10+20.00	26'-0" RT	99.818	99.907
Line G	10+30.00	26'-0" RT	99.818	99.866
CL bearing north abutment	10+38.17	26'-0" RT	99.818	99.827
Back of north abutment	10+40.00	26'-0" RT	99.818	99.818

W. Edge of Pedestrian Deck

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	4'-0" LT	100.205	100.205
CL bearing south abutment	9+61.83	4'-0" LT	100.205	100.217
Line A	9+70.00	4'-0" LT	100.205	100.267
Line B	9+80.00	4'-0" LT	100.205	100.318
Line C	9+90.00	4'-0" LT	100.205	100.352
Line D	10+00.00	4'-0" LT	100.205	100.364
Line E	10+10.00	4'-0" LT	100.205	100.352
Line F	10+20.00	4'-0" LT	100.205	100.318
Line G	10+30.00	4'-0" LT	100.205	100.267
CL bearing north abutment	10+38.17	4'-0" LT	100.205	100.217
Back of north abutment	10+40.00	4'-0" LT	100.205	100.205

GIRDER 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	2'-11" LT	100.227	100.227
CL bearing south abutment	9+61.83	2'-11" LT	100.227	100.239
Line A	9+70.00	2'-11" LT	100.227	100.289
Line B	9+80.00	2'-11" LT	100.227	100.340
Line C	9+90.00	2'-11" LT	100.227	100.374
Line D	10+00.00	2'-11" LT	100.227	100.386
Line E	10+10.00	2'-11" LT	100.227	100.374
Line F	10+20.00	2'-11" LT	100.227	100.340
Line G	10+30.00	2'-11" LT	100.227	100.289
CL bearing north abutment	10+38.17	2'-11" LT	100.227	100.239
Back of north abutment	10+40.00	2'-11" LT	100.227	100.227

P.G.L./CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	0'-0"	100.288	100.288
CL bearing south abutment	9+61.83	0'-0"	100.288	100.300
Line A	9+70.00	0'-0"	100.288	100.350
Line B	9+80.00	0'-0"	100.288	100.401
Line C	9+90.00	0'-0"	100.288	100.435
Line D	10+00.00	0'-0"	100.288	100.447
Line E	10+10.00	0'-0"	100.288	100.435
Line F	10+20.00	0'-0"	100.288	100.401
Line G	10+30.00	0'-0"	100.288	100.350
CL bearing north abutment	10+38.17	0'-0"	100.288	100.300
Back of north abutment	10+40.00	0'-0"	100.288	100.288

GIRDER 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	2'-11" RT	100.227	100.227
CL bearing south abutment	9+61.83	2'-11" RT	100.227	100.239
Line A	9+70.00	2'-11" RT	100.227	100.289
Line B	9+80.00	2'-11" RT	100.227	100.340
Line C	9+90.00	2'-11" RT	100.227	100.374
Line D	10+00.00	2'-11" RT	100.227	100.386
Line E	10+10.00	2'-11" RT	100.227	100.374
Line F	10+20.00	2'-11" RT	100.227	100.340
Line G	10+30.00	2'-11" RT	100.227	100.289
CL bearing north abutment	10+38.17	2'-11" RT	100.227	100.239
Back of north abutment	10+40.00	2'-11" RT	100.227	100.227

E. Edge Of Pedestrian Deck

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of south abutment	9+60.00	4'-0" RT	100.205	100.205
CL bearing south abutment	9+61.83	4'-0" RT	100.205	100.217
Line A	9+70.00	4'-0" RT	100.205	100.267
Line B	9+80.00	4'-0" RT	100.205	100.318
Line C	9+90.00	4'-0" RT	100.205	100.352
Line D	10+00.00	4'-0" RT	100.205	100.364
Line E	10+10.00	4'-0" RT	100.205	100.352
Line F	10+20.00	4'-0" RT	100.205	100.318
Line G	10+30.00	4'-0" RT	100.205	100.267
CL bearing north abutment	10+38.17	4'-0" RT	100.205	100.217
Back of north abutment	10+40.00	4'-0" RT	100.205	100.205



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TOP OF SLAB (SHEET 3 OF 3)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET 26

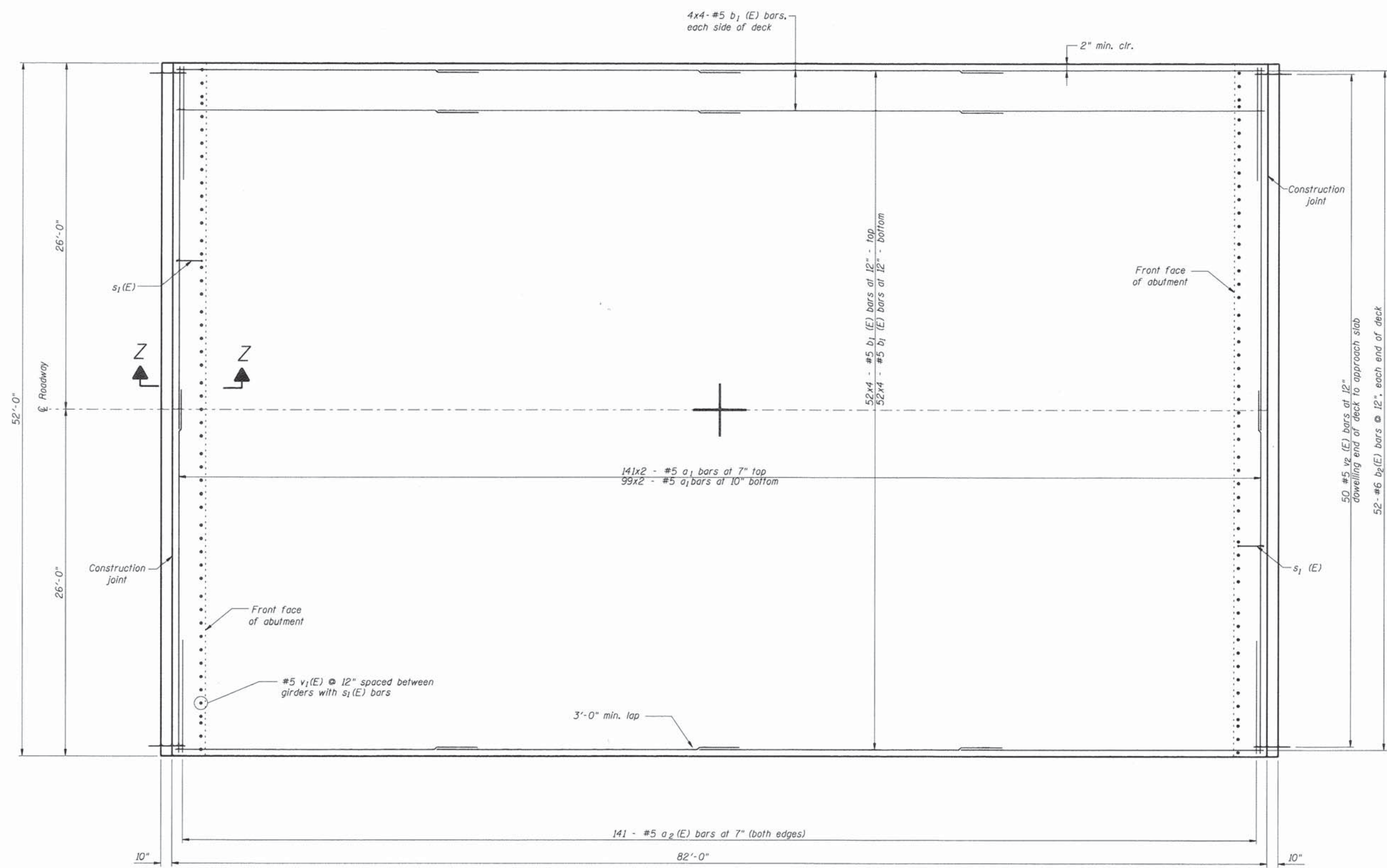
DWG NO. 130281os.dgn

DATE JUL 2015

PROJ NO. C13028

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	* CHAMPAIGN	39	27
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

* 10-00966-00-BR
Contract No. 91526



BILL OF MATERIAL SUPERSTRUCTURE

Bar	No.	Size	Length	Shape
a ₁ (E)	480	# 5	27'-3"	—
a ₂ (E)	282	# 5	8'-7"	✓
b ₁ (E)	448	# 5	22'-9"	—
b ₂ (E)	104	# 6	8'-0"	—
m ₁ (E)	16	# 6	36'-0"	—
m ₂ (E)	176	# 6	4'-6"	—
m ₃ (E)	8	# 6	8'-7"	—
s ₁ (E)	102	# 5	9'-2"	□
v ₁ (E)	102	# 5	6'-0"	—
Reinforcement Bars, Epoxy Coated			Lbs.	31820
Concrete Superstructure			Cu. Yds.	105.3
Bridge Deck Grooving			Sq. Yds.	474
Protective Coat			Sq. Yds.	506

The quantity for Concrete Superstructure includes the volume of the fillets.

DECK PLAN



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SUPERSTRUCTURE (SHEET 1 of 3)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET 27

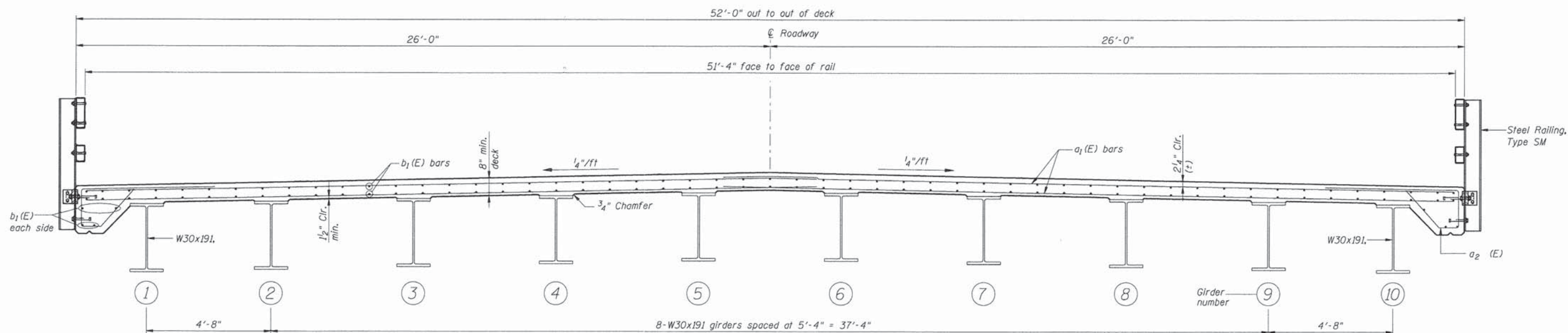
DWG NO. 13028sup.dgn

DATE JUL 2015

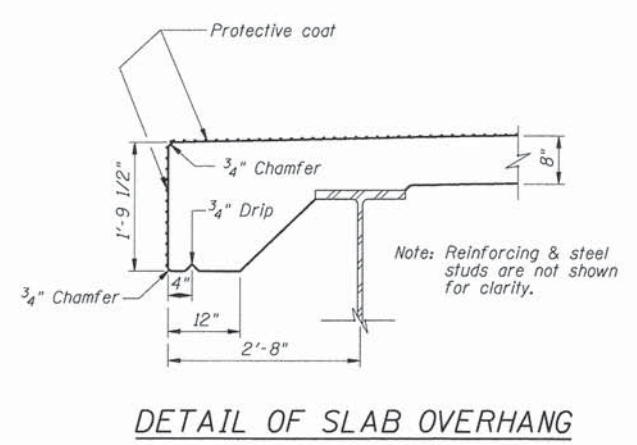
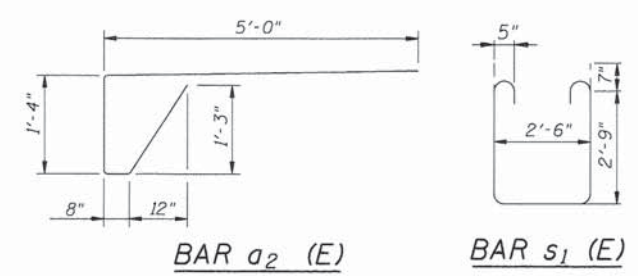
PROJ NO. C13028

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

10-00966-00-BR
Contract No. 91526



SUPERSTRUCTURE SECTION
looking upstation



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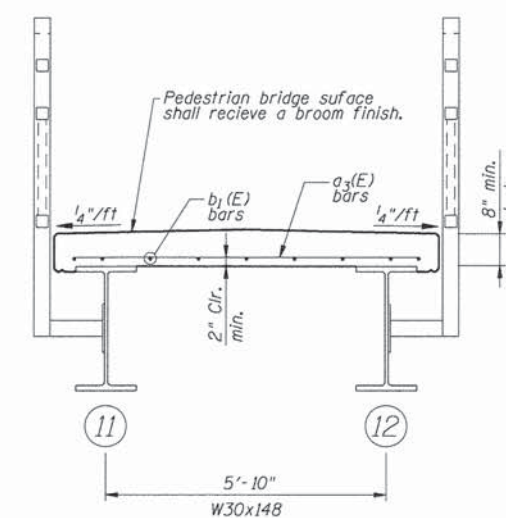
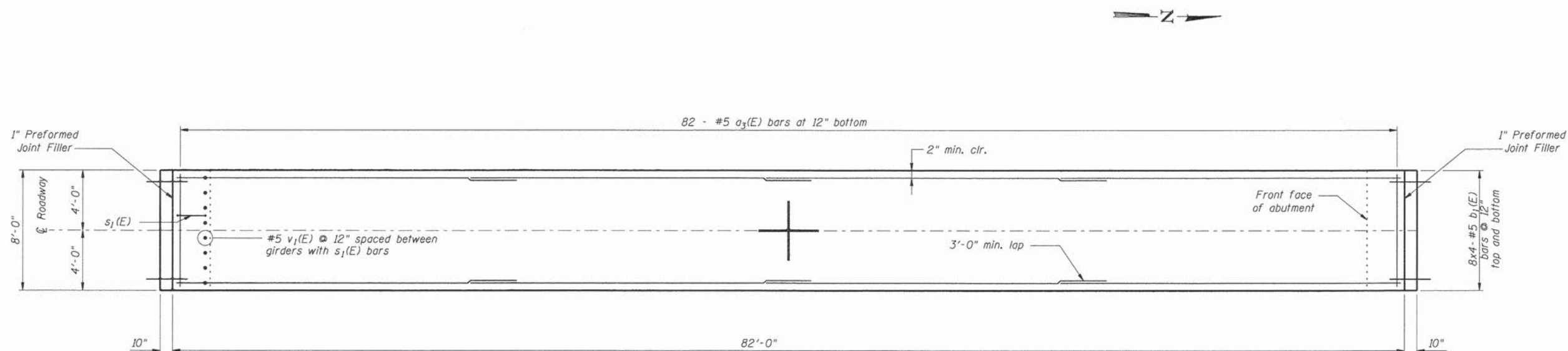
• 35701 WEST AVENUE, SUITE 150 WARRENVILLE, ILLINOIS 60555
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SUPERSTRUCTURE (SHEET 2 of 3)
FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET	28
DWG NO.	13028sup.dgn
DATE	JUL 2015
PROJ NO.	C13028

SECTION	COUNTY	SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

* 10-00966-00-BR
Contract No. 91526



SUPERSTRUCTURE SECTION
looking upstation

BILL OF MATERIAL SUPERSTRUCTURE				
Bar	No.	Size	Length	Shape
a ₃ (E)	82	# 5	7'-6"	—
b ₁ (E)	64	# 5	22'-9"	—
Reinforcement Bars, Epoxy Coated			Lbs.	2170
Concrete Superstructure			Cu. Yds.	16.2
Protective Coat			Sq. Yds.	86



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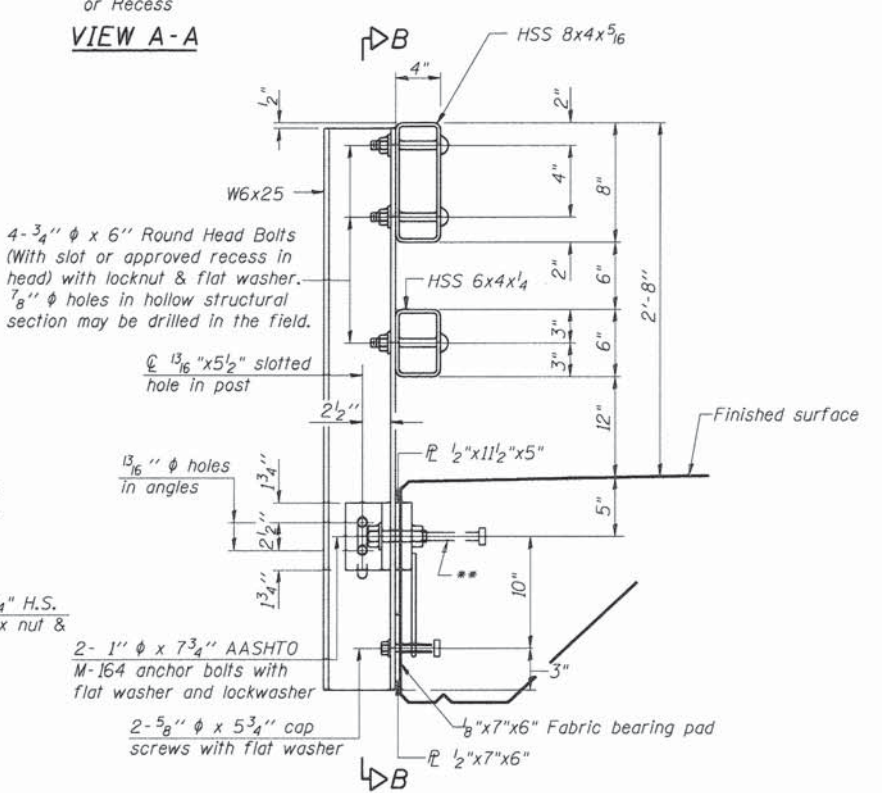
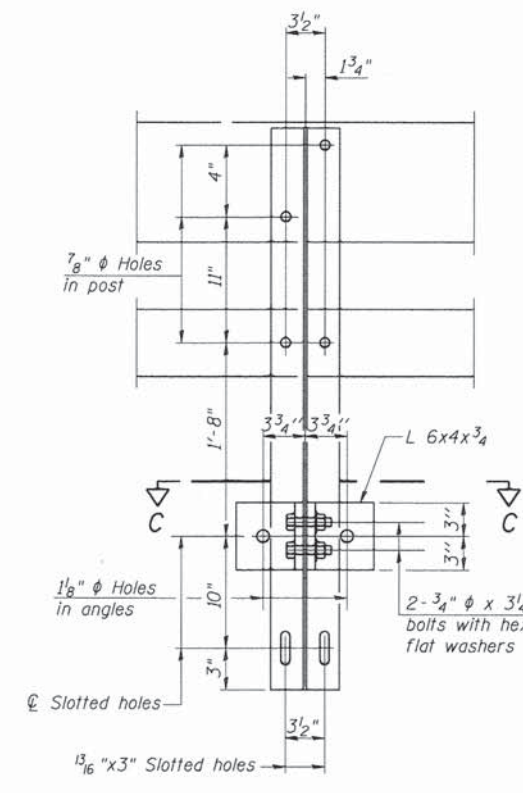
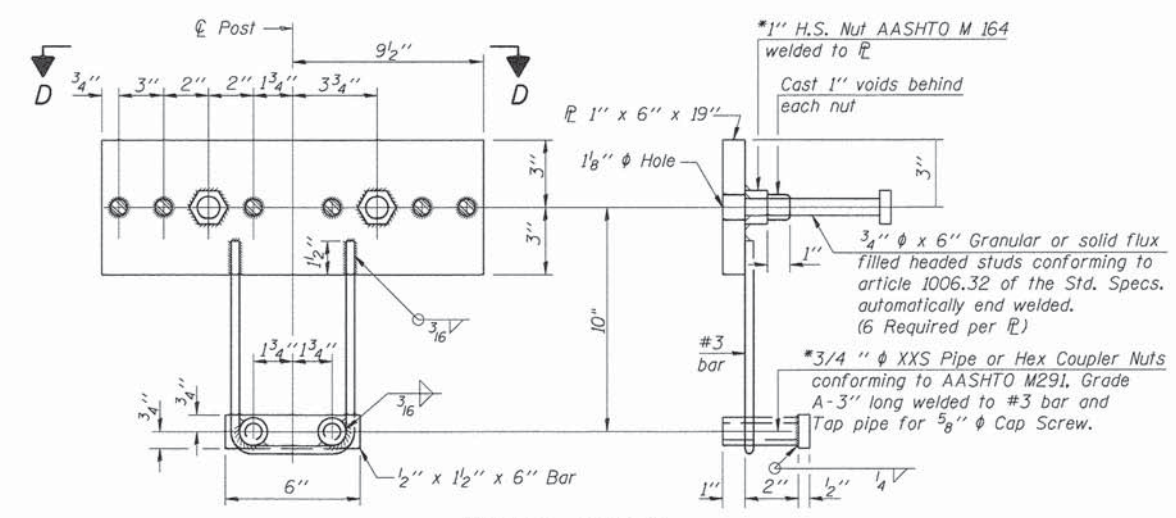
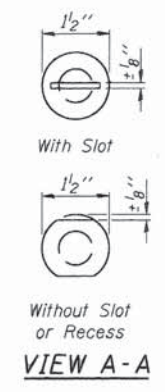
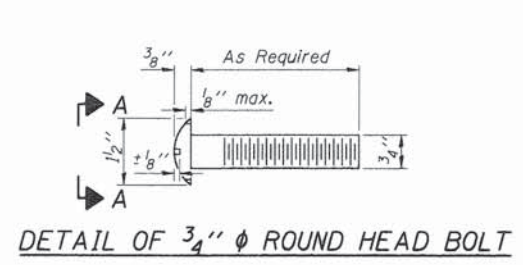
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SUPERSTRUCTURE (SHEET 3 of 3)
FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET 29
DWG NO. 13028sup.dgn
DATE JUL 2015
PROJ NO. C13028

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	30
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT-			

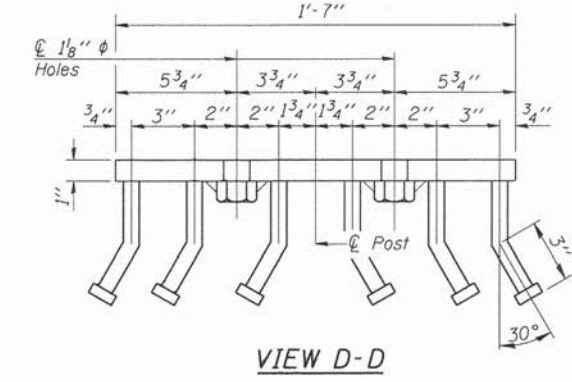
* 10-00966-00-BR
Contract No. 91526



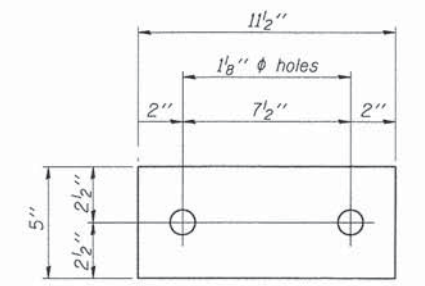
ANCHOR DEVICE
*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

SECTION B-B

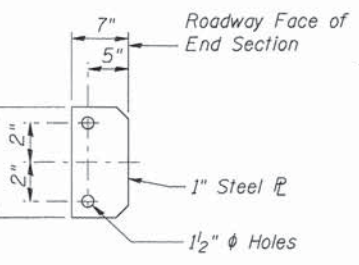
SECTION AT RAIL POST



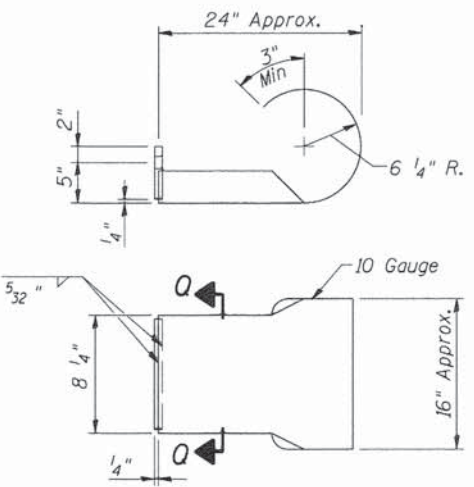
VIEW D-D



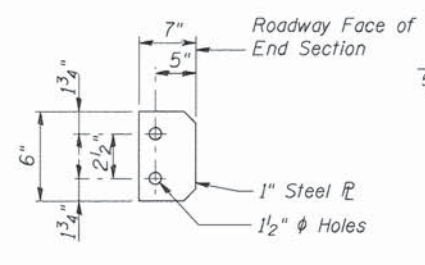
L 1/2" x 11 1/2" x 5"



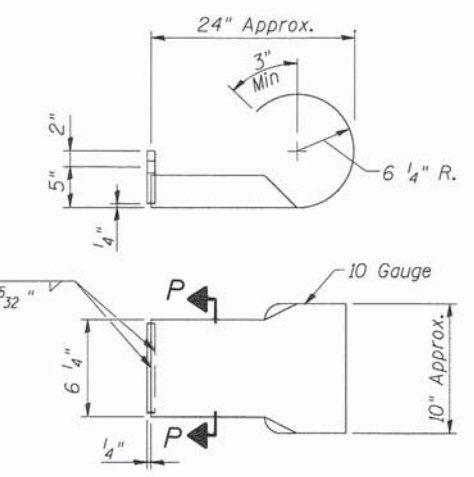
SECTION Q-Q



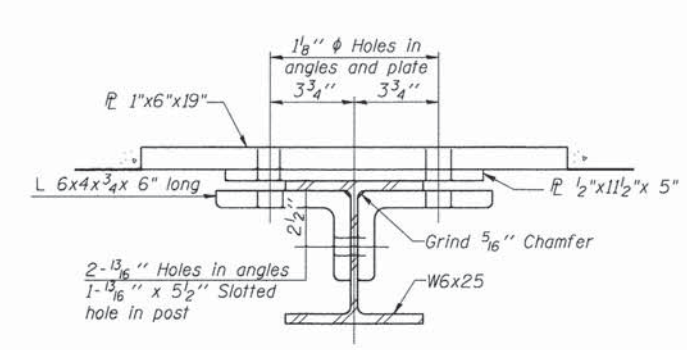
CURLLED END SECTION DETAIL FOR TOP BRIDGE RAIL



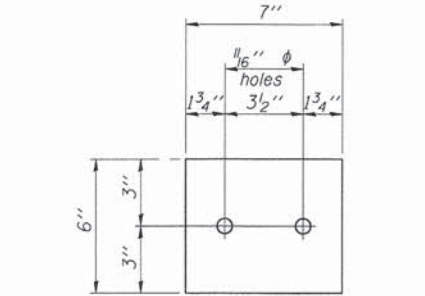
SECTION P-P



CURLLED END SECTION DETAIL FOR BOTTOM BRIDGE RAIL



SECTION C-C



L 1/2" x 7" x 6"

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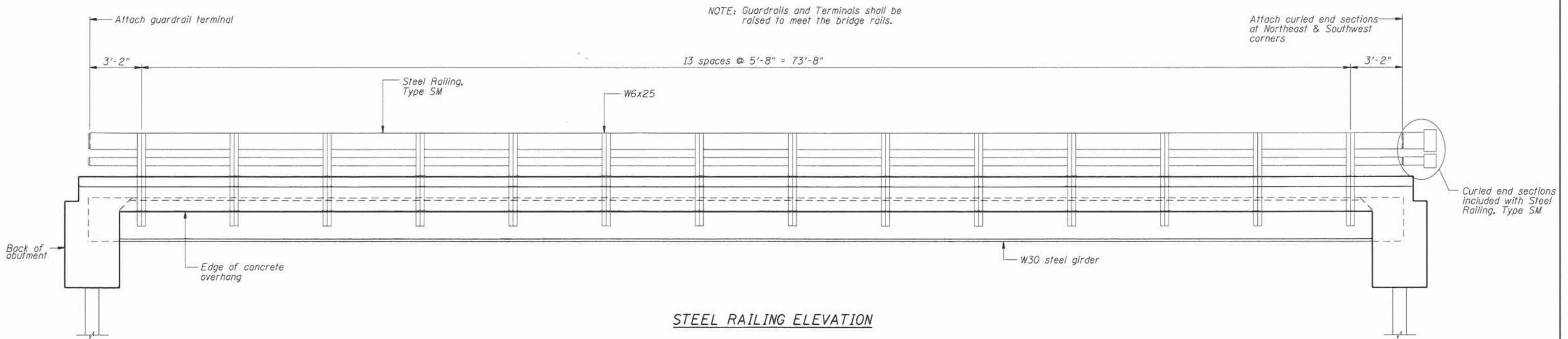
STEEL RAILING, TYPE SM (SHEET 1 OF 2)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

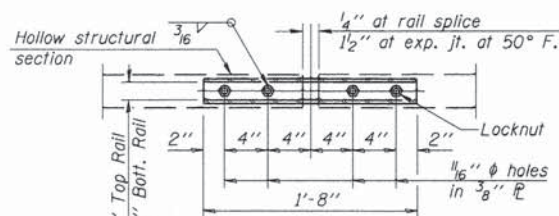
SHEET 30
DWG NO. 13028sm.dgn
DATE JUL 2015
PROJ NO. C13028

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

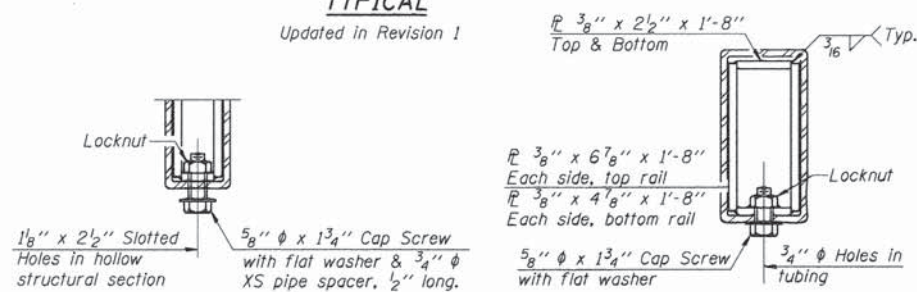
* 10-00966-00-BR
Contract No. 91526



STEEL RAILING ELEVATION



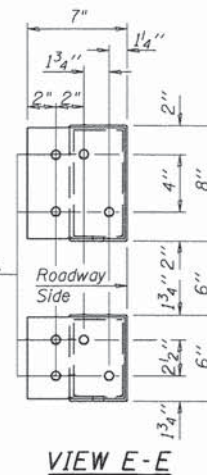
PLAN-BOTT. SPLICE TYPICAL
Updated in Revision 1



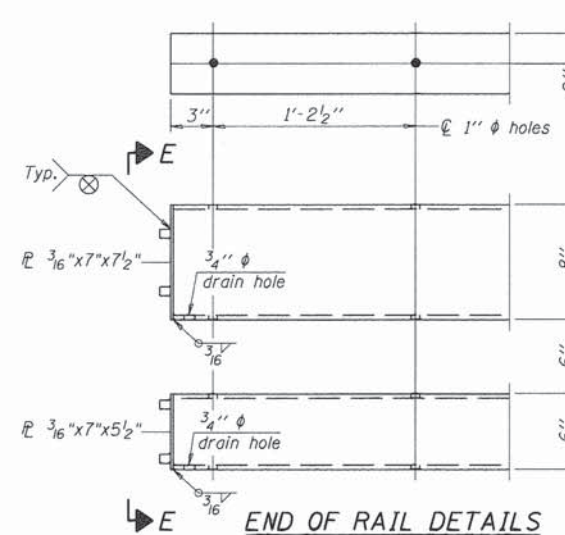
RAIL SPLICE CONNECTION AT EXPANSION JT.
Updated in Revision 1

SECTION AT RAIL SPLICE
Updated in Revision 1

4 - 5/8" reduced base welded studs.
Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032



VIEW E-E



END OF RAIL DETAILS

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	160

NOTES

- All field drilled holes shall be coated with an approved zinc rich paint before erection.
- For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.
- Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
- Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.
- ** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



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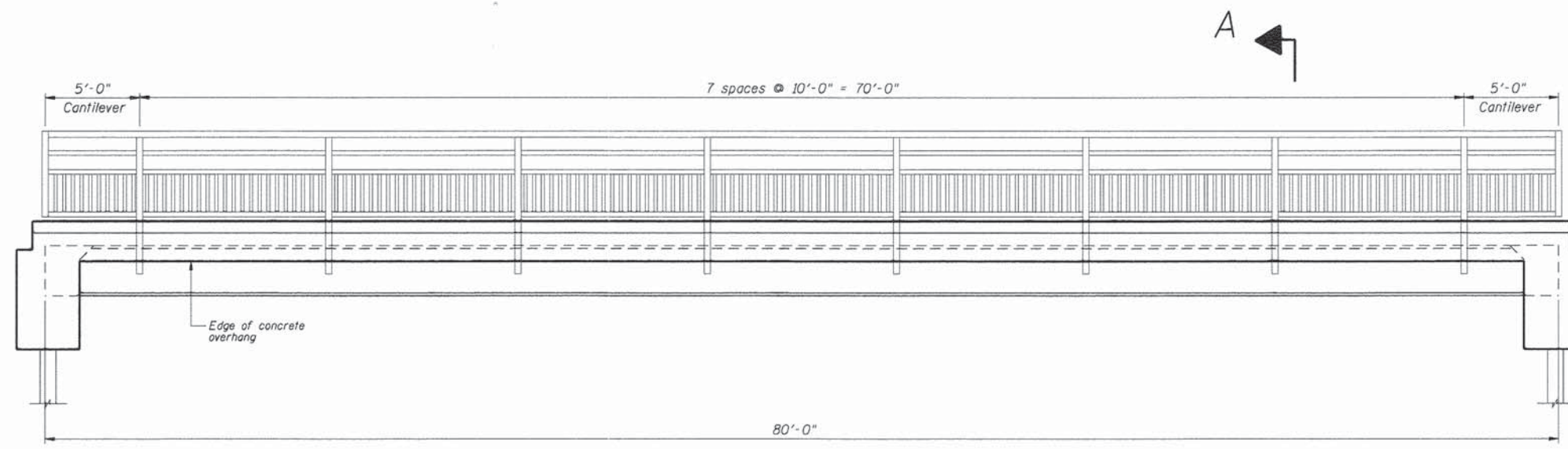
STEEL RAILING, TYPE SM (SHEET 2 OF 2)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

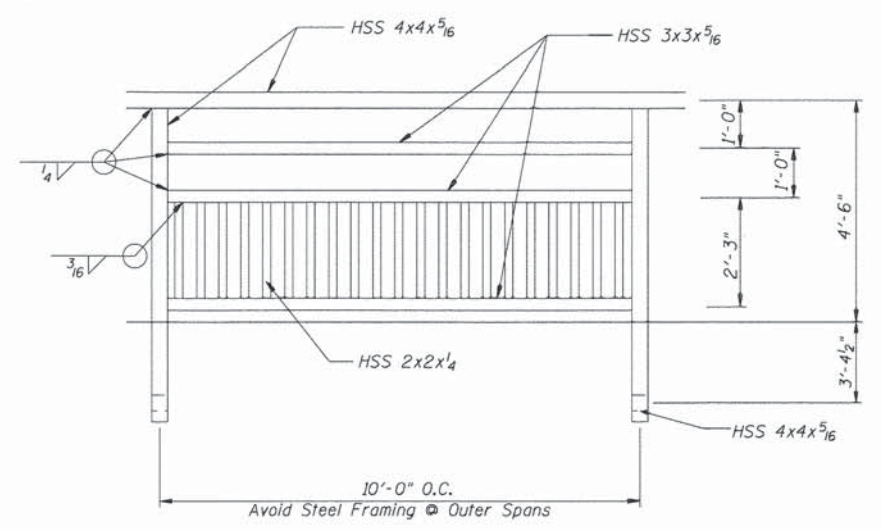
SHEET	31
DWG NO.	13028sm.dgn
DATE	JUL 2015
PROJ NO.	C13028

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	32
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

* 10-00966-00-BR

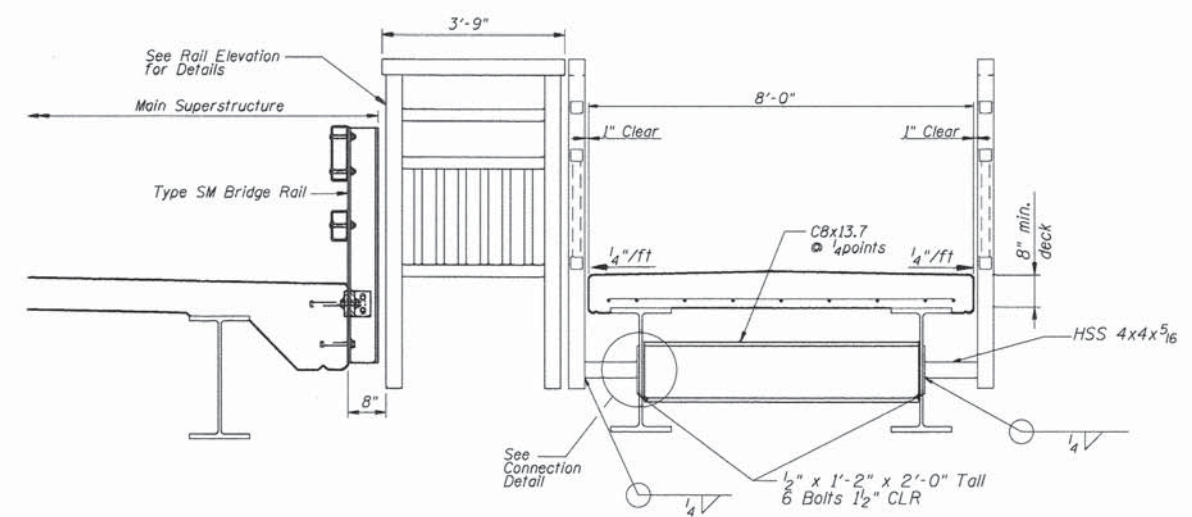


PEDESTRIAN RAILING



RAIL ELEVATION

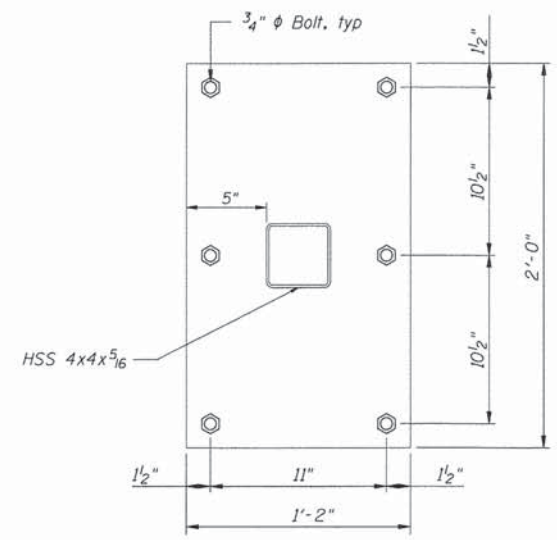
Scale: 3/16" = 1'-0"



SECTION A-A

Scale: 3/16" = 1'-0"

See Steel Framing Details for Channel to Girder Connection



CONNECTION DETAIL

Scale: 3/4" = 1'-0"

BILL OF MATERIAL

Item	Unit	Quantity
Pedestrian Railing	Foot	168



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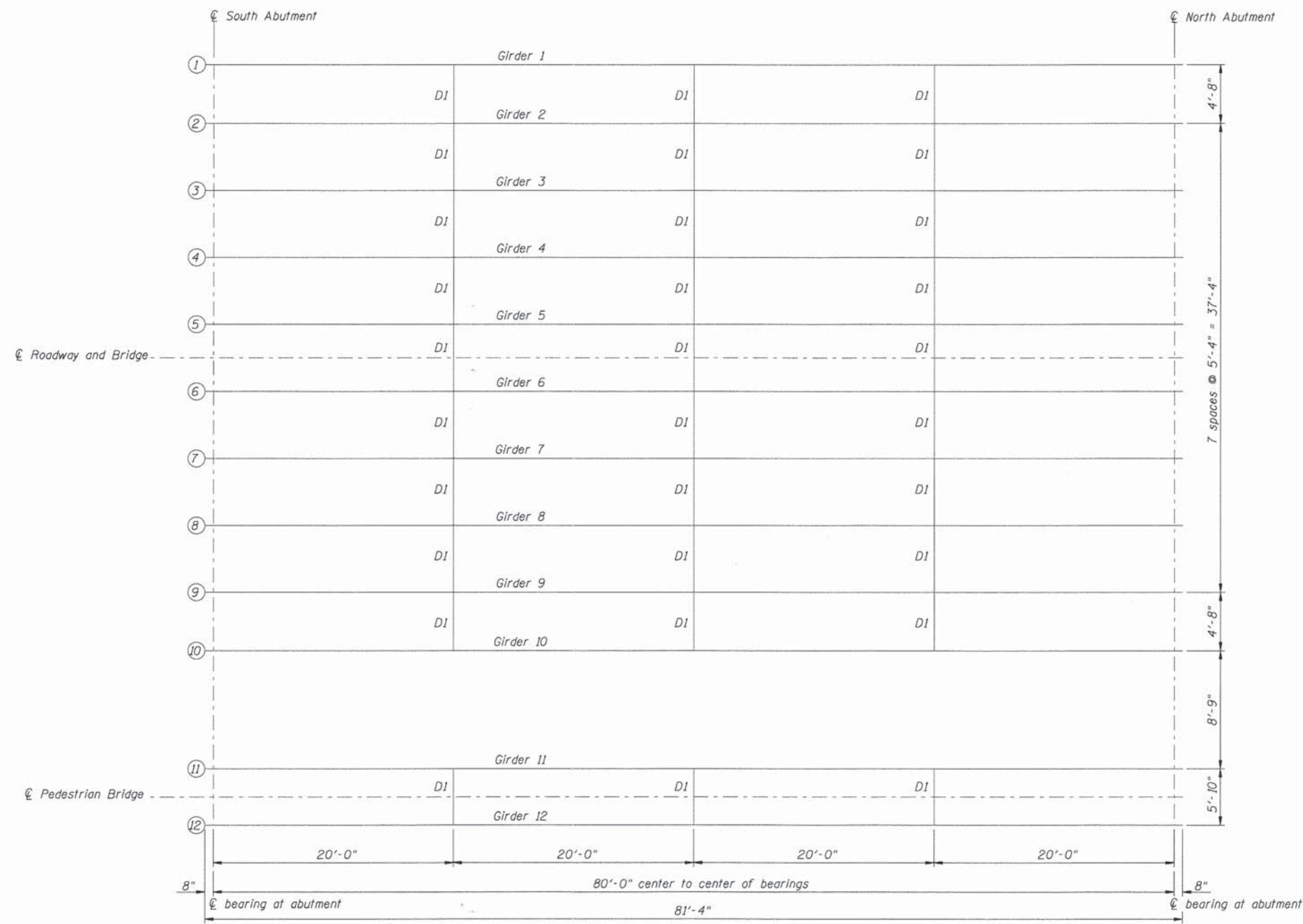
• 38701 WEST AVENUE, SUITE 150 WARRENVILLE, ILLINOIS 60555
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PEDESTRIAN BRIDGE RAILING
FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

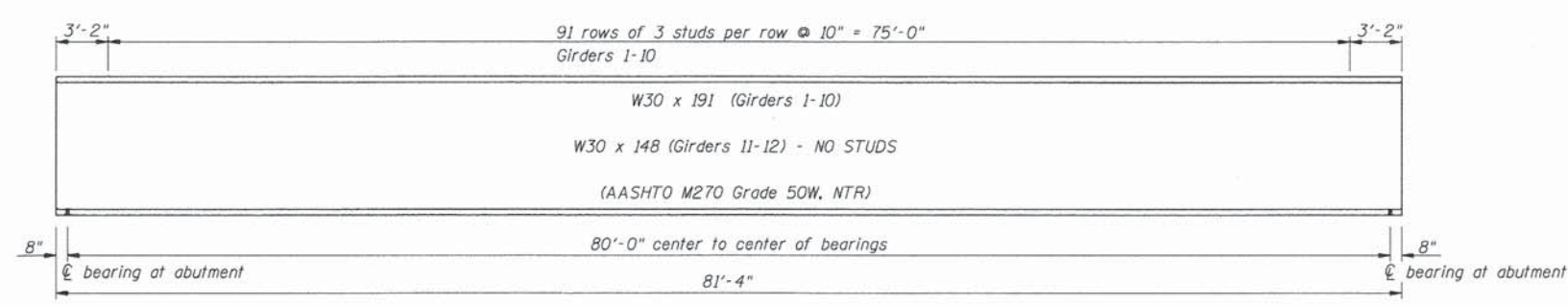
SHEET	32
DWG NO.	13028ped.dgn
DATE	JUL 2015
PROJ NO.	C13028

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	33
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

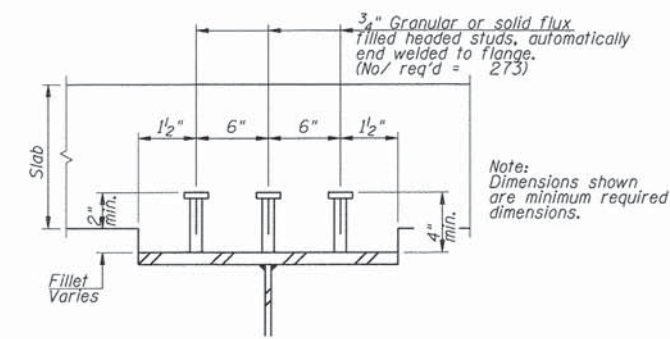
* 10-00966-00-BR
Contract No. 91526



FRAMING PLAN



ELEVATION OF GIRDERS



STANDARD FILLET SECTION

BILL OF MATERIAL

Item	Unit	Quantity
Stud Shear Connectors	Each	273



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STEEL FRAMING DETAILS (SHEET 1 of 2)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET	33
DWG NO.	13028stl.dgn
DATE	JUL 2015
PROJ NO.	C13028

	Abut.
R _{DC} (K)	30.7
R _{DW} (K)	12.0
R _ℓ (K)	54.4
R _{IM} (K)	12.9
R (Total) (K)	110.1

	Abut.
R _{DC} (K)	37.9
R _{DW} (K)	10.7
R _ℓ (K)	43.5
R _{IM} (K)	10.4
R (Total) (K)	102.5

	0.5 Span
I _s (in ⁴)	9200
S _s (in ³)	600
DC (K/ft.)	.790
DW (K/ft.)	.310
M _{dc} (K)	575
M _{dw} (K)	226
M (ℓ+IM) (K)	961.2
M _u (Strength I) (K)	2740
f _s DC (k.s.i.)	11.5
f _s DW (k.s.i.)	3.4
f _s (ℓ+IM) (k.s.i.)	14.4
f _s 1.75(ℓ+IM) (k.s.i.)	25.2
f _s (SERVICE II) (k.s.i.)	33.6
f _s (Total)(Strength I) (k.s.i.)	44.6
VR (K)	67.4

	0.5 Span
I _s (in ⁴)	9200
S _s (in ³)	600
DC (K/ft.)	0.975
DW (K/ft.)	0.275
M _{dc} (K)	710
M _{dw} (K)	200
M (ℓ+IM) (K)	961.2
M _u (Strength I) (K)	2860
f _s DC (k.s.i.)	14.1
f _s DW (k.s.i.)	3.0
f _s (ℓ+IM) (k.s.i.)	14.6
f _s 1.75(ℓ+IM) (k.s.i.)	25.5
f _s (SERVICE II) (k.s.i.)	36.2
f _s (Total)(Strength I) (k.s.i.)	47.8
VR (K)	58.6

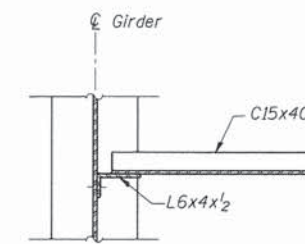
TOP OF GIRDER ELEVATIONS

Location	Station	Girder 1 Elevation	Girder 2 Elevation	Girder 3 Elevation	Girder 4 Elevation	Girder 5 Elevation	Girder 6 Elevation	Girder 7 Elevation	Girder 8 Elevation	Girder 9 Elevation	Girder 10 Elevation	Girder 11 Elevation	Girder 12 Elevation
ℓ bearing S. Abut	9+60.00	99.141	99.252	99.363	99.474	99.585	99.585	99.474	99.363	99.252	99.141	99.508	99.508
0.25 L	9+80.00	99.013	99.110	99.215	99.326	99.437	99.437	99.326	99.215	99.110	99.013	99.353	99.353
0.50 L	10+00.00	98.961	99.053	99.155	99.266	99.377	99.377	99.266	99.155	99.053	98.961	99.291	99.291
0.75 L	10+20.00	99.013	99.110	99.215	99.326	99.437	99.437	99.326	99.215	99.110	99.013	99.353	99.353
ℓ bearing N. Abut	10+40.00	99.141	99.252	99.363	99.474	99.585	99.585	99.474	99.363	99.252	99.141	99.508	99.508

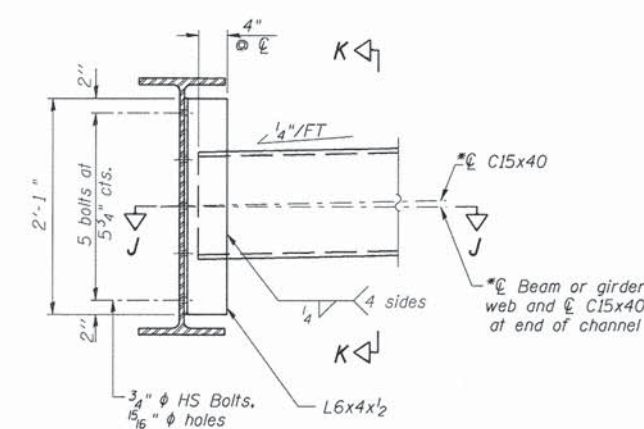
* Beam elevation include deflection from weight of concrete only.

DEFINITIONS

- I_s, S_s : The moment of inertia and section modulus of the steel section used in computing f_s (Total-Strength I & Service II) due to non-composite dead loads (in⁴ and in³)
- VR : Maximum un-factored shear range in span.
- DC : Un-factored non-composite dead load (kips/ft.)
- M_{dc} : Un-factored moment due to non-composite dead load (K)
- DW : Un-factored long-term composite (superimposed future wearing surface only) dead load (kip/ft.)
- M_{dw} : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (K)
- M (ℓ+IM) : Un-factored live load moment plus dynamic load allowance (impact) (K)
- M_u (Strength I) : Factored design moment (K).
[1.25M_{dc} + 1.5M_{dw} + 1.75M (ℓ+IM)]
- f_s (Service II) : Sum of stresses as computed from the moments below (ksi).
[M_{dc} + M_{dw} + 1.3M (ℓ+IM)]
- f_s (Total)(Strength I) : Sum of stresses as computed from the moments below on non compact section (ksi).
[1.25M_{dc} + 1.5M_{dw} + 1.75M (ℓ+IM)]

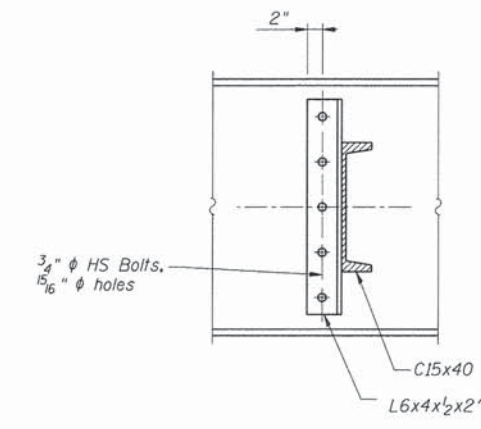


SECTION J-J



INTERIOR DIAPHRAGM DI

30 required



SECTION K-K

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



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STEEL FRAMING DETAILS (SHEET 2 of 2)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

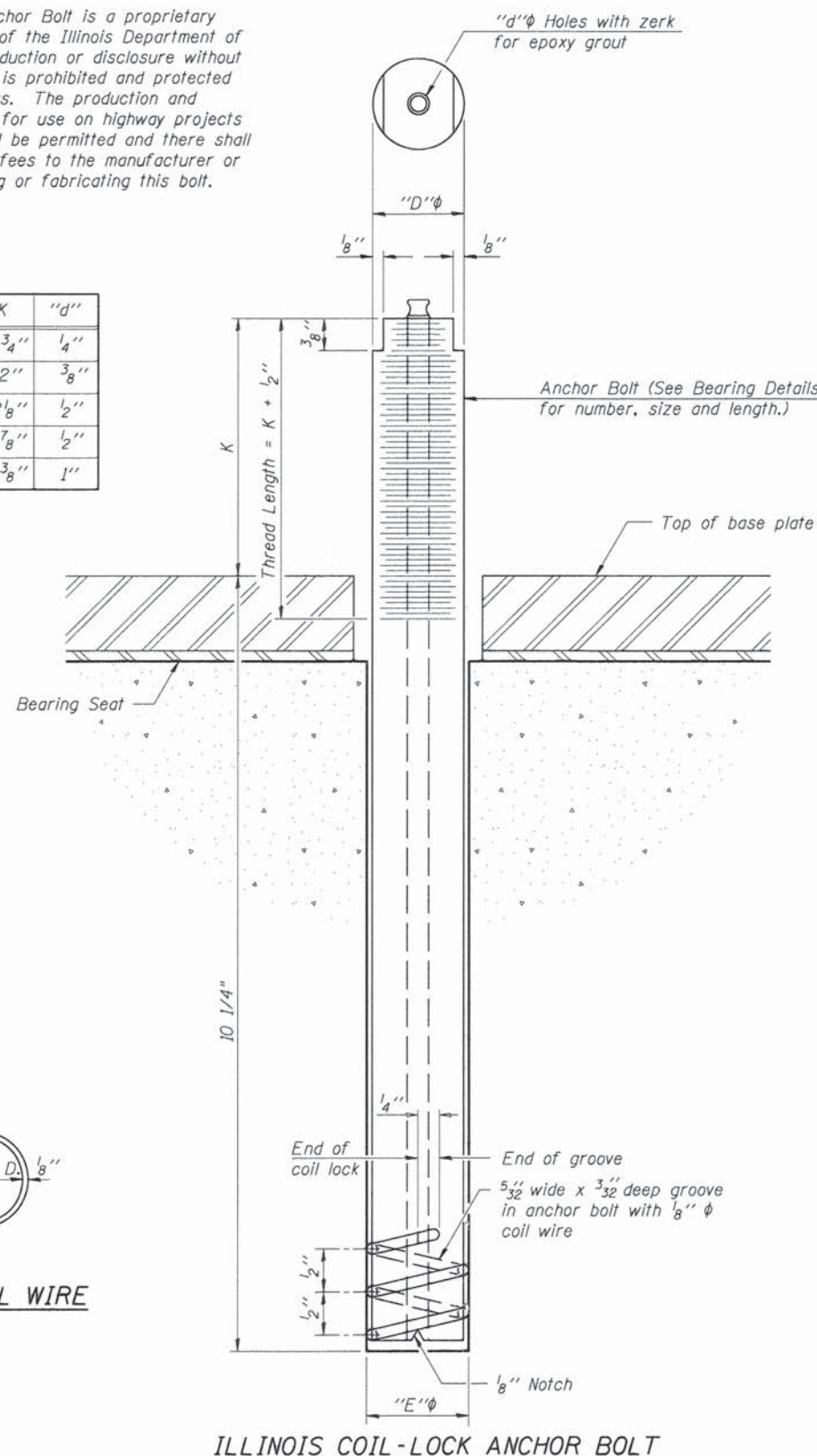
SHEET 34
DWG NO. 13028stl.dgn
DATE JUL 2015
PROJ NO. C13028

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	* CHAMPAIGN	39	35
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	

* 10-00966-00-BR
Contract No. 91526

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
1"	1 1/8"	1 3/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 3/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted. Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming. The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Furnishing & Erecting Structural Steel.

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers. The coil wire shall be made of any suitable soft steel wire. The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed. The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Anchor bolts may be ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105.



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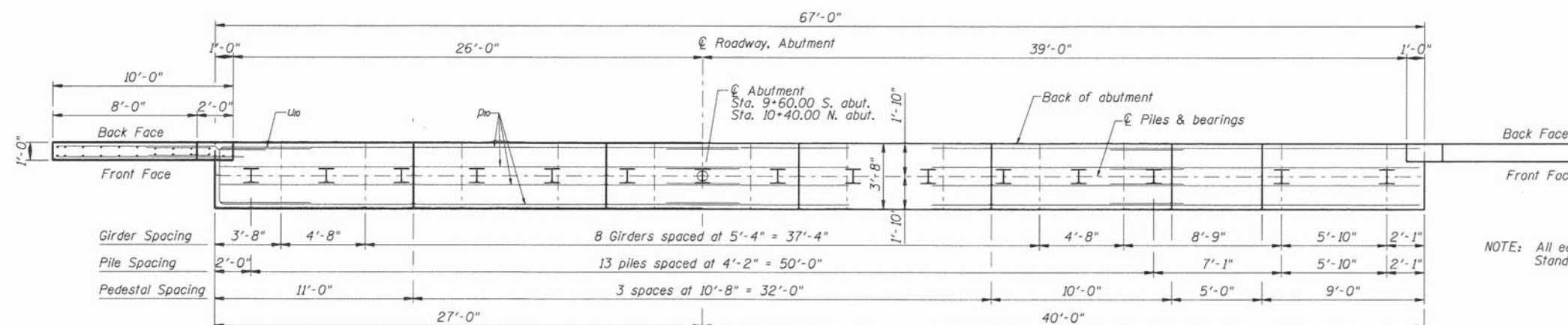
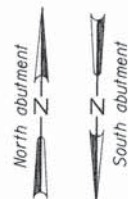
ANCHOR BOLT DETAIL

FAS 1523 (CH55) OVER UPPER SALT FORK CHAMPAIGN COUNTY SEC 10-00966-00-BR

SHEET 35
DWG NO. 13028anch.dgn
DATE JUL 2015
PROJ NO. C13028

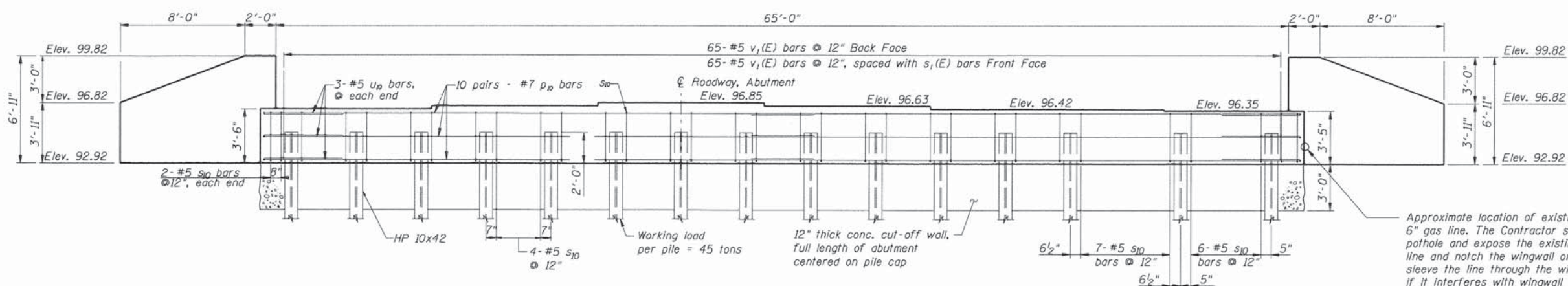
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	36
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:	

10-00966-00-BR
Contract No. 91526



NOTE: All edges shall have Standard $\frac{3}{4}$ " Chamfer.

PLAN
(Symmetrical about \bar{C} abut.)



Approximate location of existing 6" gas line. The Contractor shall pothole and expose the existing gas line and notch the wingwall or pipe sleeve the line through the wingwall if it interferes with wingwall construction. Gas line located approx. 38' RT of \bar{C} of road. The cost for this work shall be incidental to the cost of Concrete Structures.

ELEVATION



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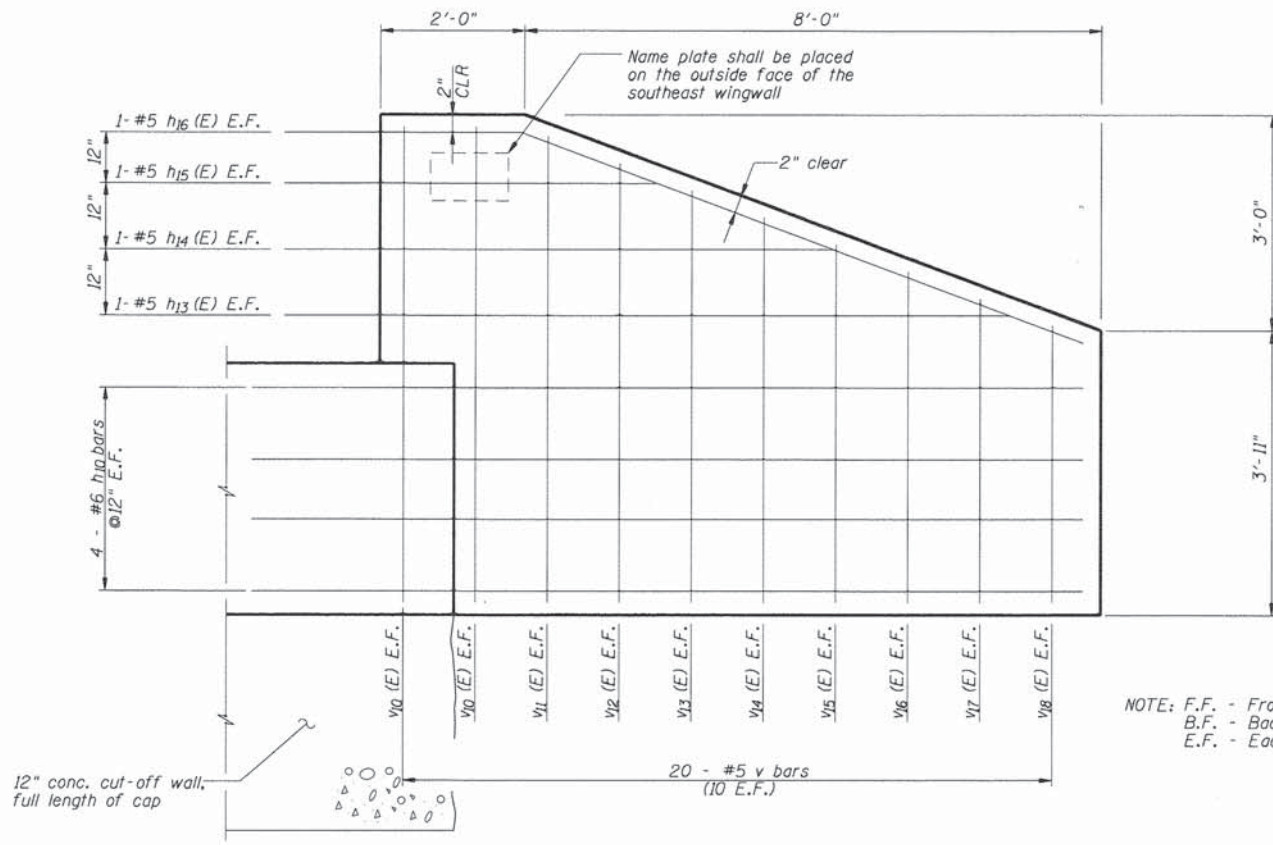
ABUTMENT DETAILS (SHEET 1 of 3)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

SHEET 36
DWG NO. 13028abut.dgn
DATE JUL 2015
PROJ NO. C13028

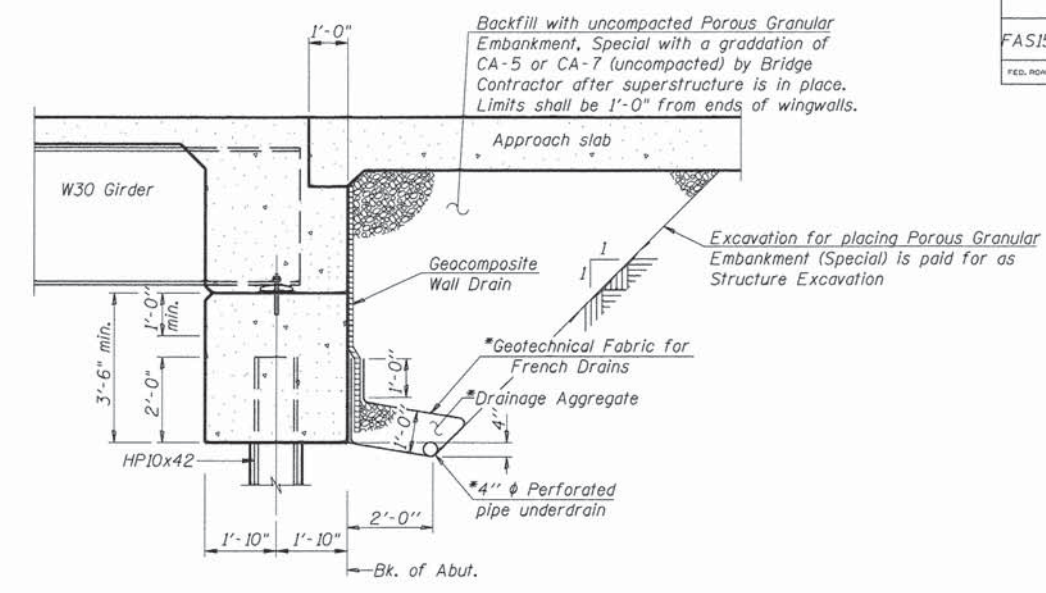
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	CHAMPAIGN	39	37
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	

* 10-00966-00-BR
Contract No. 91526



WING WALL ELEVATION

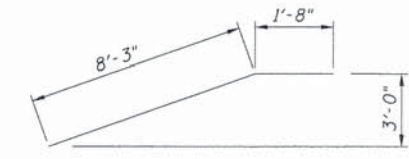
NOTE: F.F. - Front Face
B.F. - Back Face
E.F. - Each Face



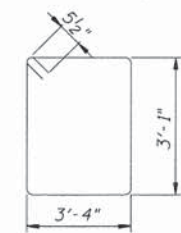
SECTION THRU INTEGRAL ABUTMENT

*Included in the cost of Pipe Underdrains for Structures 4"
(See Special Provisions)

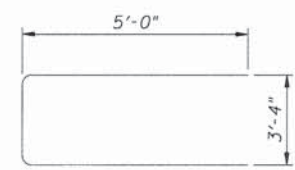
Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend, turn and exit the side slopes.



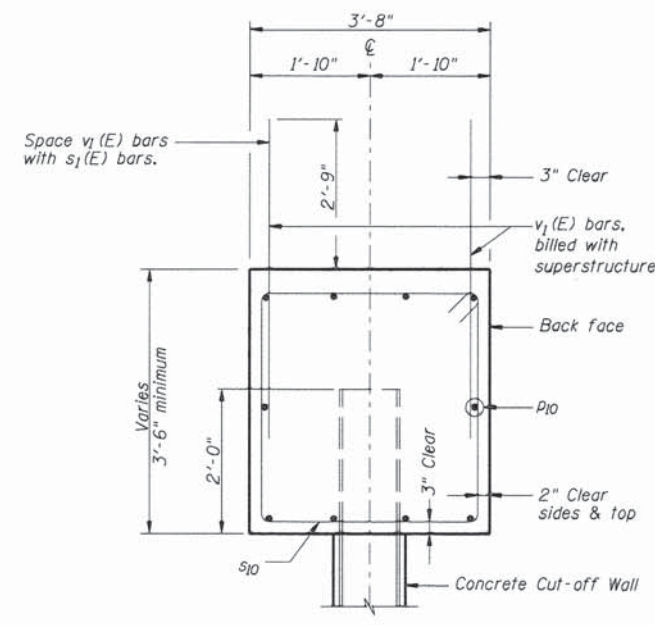
BAR h16



BAR s10



BAR u10



SECTION A
(Perpendicular to C of Abutment)

BILL OF MATERIAL - 2 ABUTS.

Bar	No.	Size	Length	Shape
h10	32	# 6	13'-0"	—
h13 (E)	8	# 5	9'-8"	—
h14 (E)	8	# 5	7'-0"	—
h15 (E)	8	# 5	4'-4"	—
h16 (E)	8	# 5	9'-11"	—
p10	40	# 7	36'-0"	—
s10	130	# 5	13'-9"	□
u10	12	# 5	13'-4"	□
v10 (E)	16	# 5	6'-7"	—
v11 (E)	8	# 5	6'-3"	—
v12 (E)	8	# 5	5'-11"	—
v13 (E)	8	# 5	5'-6"	—
v14 (E)	8	# 5	5'-2"	—
v15 (E)	8	# 5	4'-10"	—
v16 (E)	8	# 5	4'-5"	—
v17 (E)	8	# 5	4'-0"	—
v18 (E)	8	# 5	3'-8"	—
Concrete Structures		Cu. Yds.	104.2	
Reinforcement Bars		Lbs.	5600	
Reinforcement Bars, Epoxy Coated		Lbs.	700	
Test Pile, Steel HP10x42		Each	2	
Furnishing Steel Piles		Foot	1080	
Driving Piles		Foot	1080	
Metal Shoes		Each	26	
Name Plate		Each	1	
Concrete Cut-off Wall		Cu. Yds.	12	
Structure Excavation		Cu. Yds.	428	
Granular Backfill for Structures		Cu. Yds.	96.0	
Pipe Underdrains		Foot	170	
Geocomposite Wall Drain		Sq. Yds.	82.3	



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ABUTMENT DETAILS (SHEET 2 of 3)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

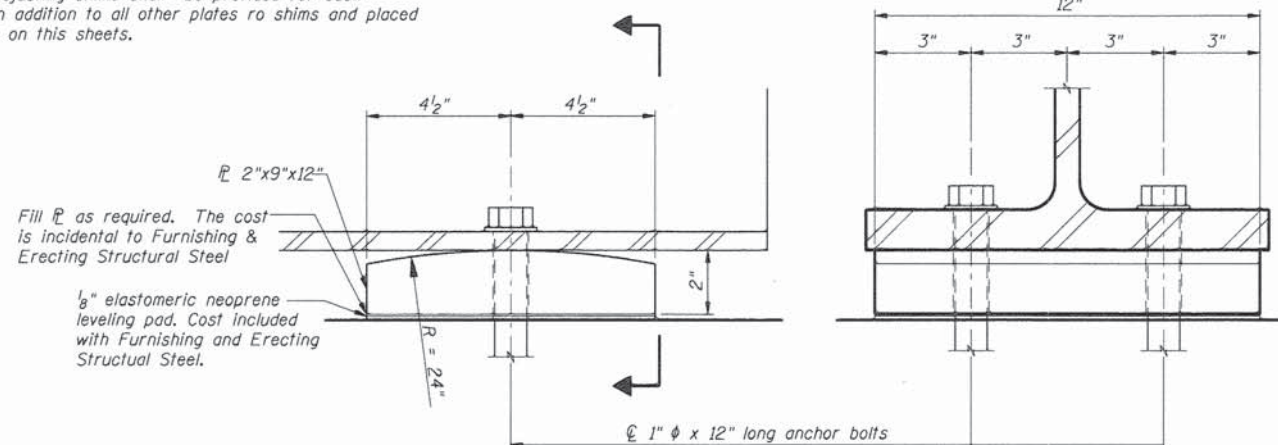
SHEET 37
DWG NO. 13028abut.dgn
DATE JUL 2015
PROJ NO. C13028

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS1523	* CHAMPAIGN	39	38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT*	

* 10-00966-00-BR
Contract No. 91526

NOTES:
Reinforcing Bars and Concrete in diaphragm are billed with the Superstructure.

Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on this sheets.

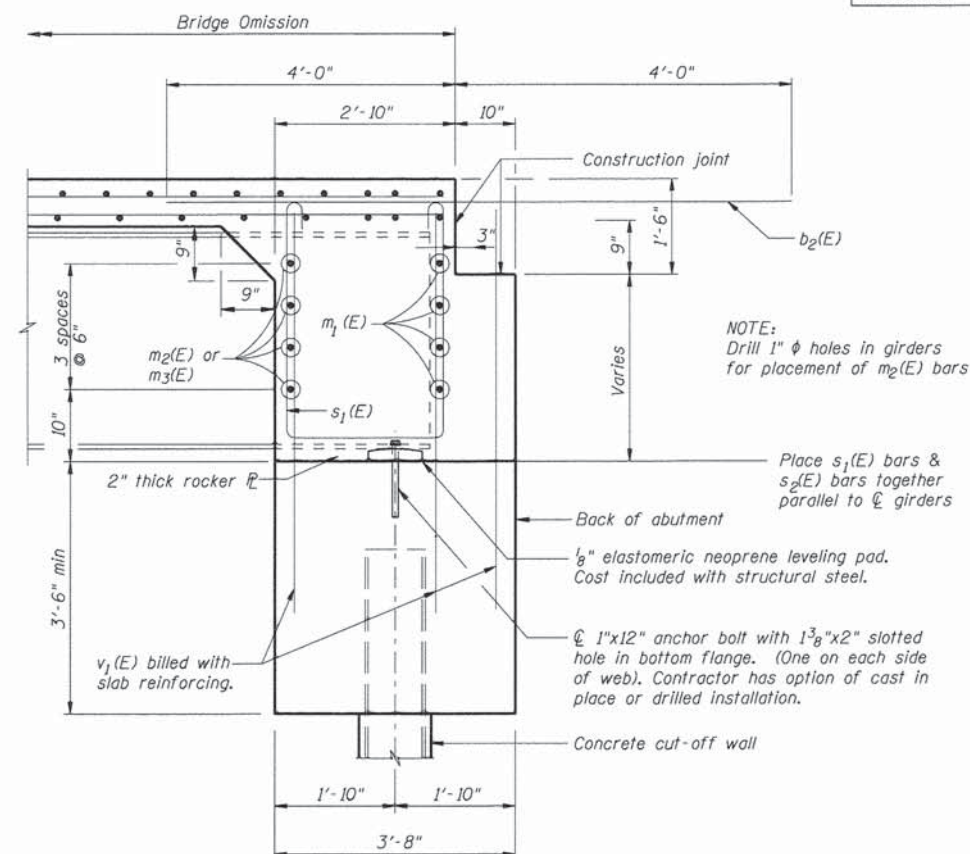


ELEVATION AT ABUTMENT

SECTION

ROCKER PLATE DETAIL

20 Plates, shims and pads, and 40 bolts required
Cost is incidental to Furnishing & Erecting Structural Steel.



SECTION Z-Z

(Perpendicular to \bar{C} of abutment)

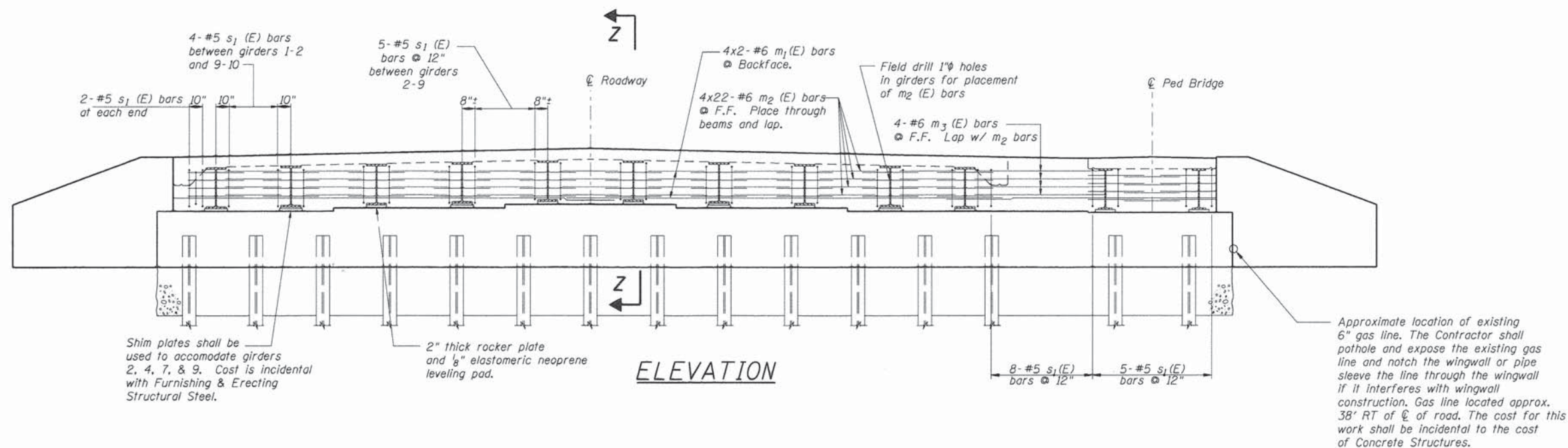
PILE DATA

Location: Abutments
Pile Type and Size: Steel HP 10x42
Nominal Required Bearing: 270 kips
Factored Resistance Available: 135 kips
Estimated Pile Length: 45'

No. of Production Piles:
12 @ North Abutment
12 @ South Abutment

No. of Test Piles:
1 @ North Abutment
1 @ South Abutment

Note: The Steel H-piles shall be according to ASSHTO M270 Grade 50.



ELEVATION

ABUTMENT DETAILS (SHEET 3 of 3)

FAS 1523 (CH55) OVER UPPER SALT FORK
CHAMPAIGN COUNTY
SEC 10-00966-00-BR

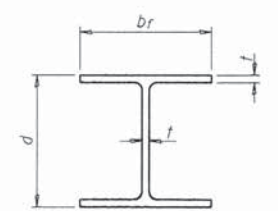
SHEET	38
DWG NO.	13028abut.dgn
DATE	JUL 2015
PROJ NO.	C13028



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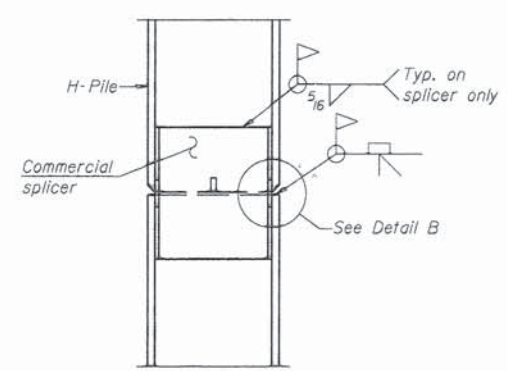
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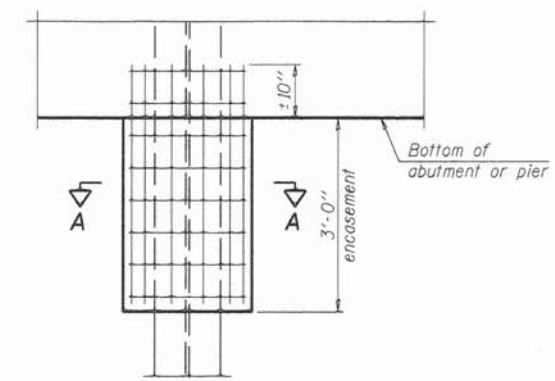


STEEL PILE TABLE

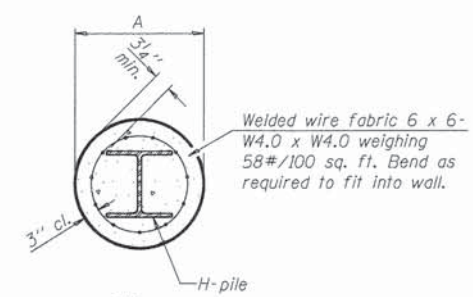
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11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



ELEVATION

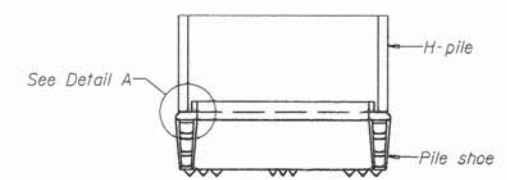


ELEVATION

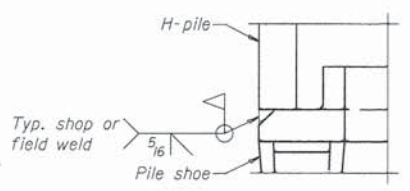


SECTION A-A

PILE ENCASEMENT

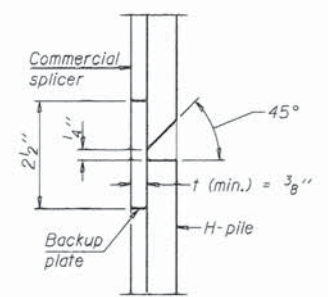


ELEVATION

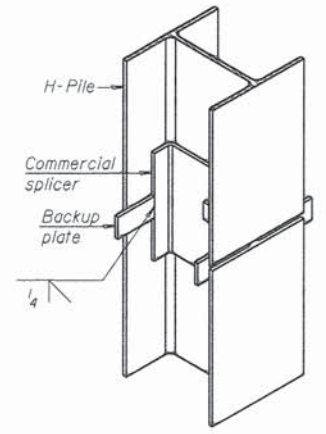


DETAIL A

H-PILE SHOE ATTACHMENT

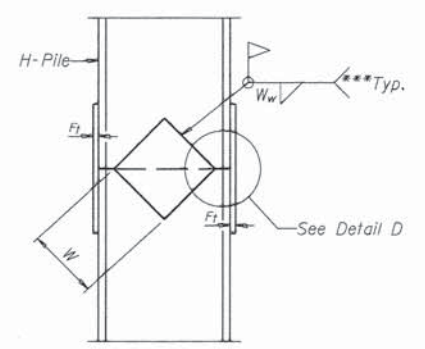


DETAIL "B"

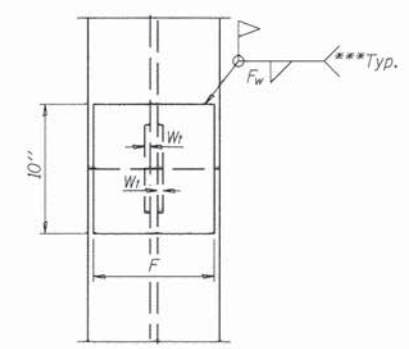


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



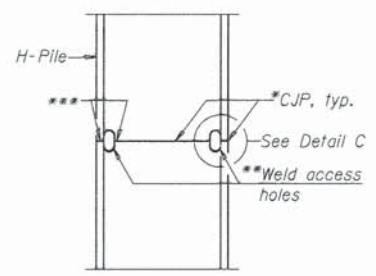
ELEVATION



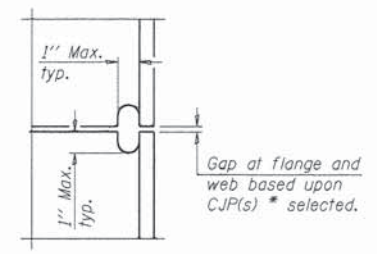
END VIEW

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"	1/16"	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"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	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"

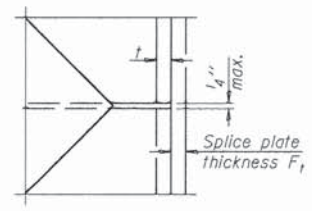


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

- * Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- ** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- *** Interrupt welds 1/4" from end of each pile.

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

