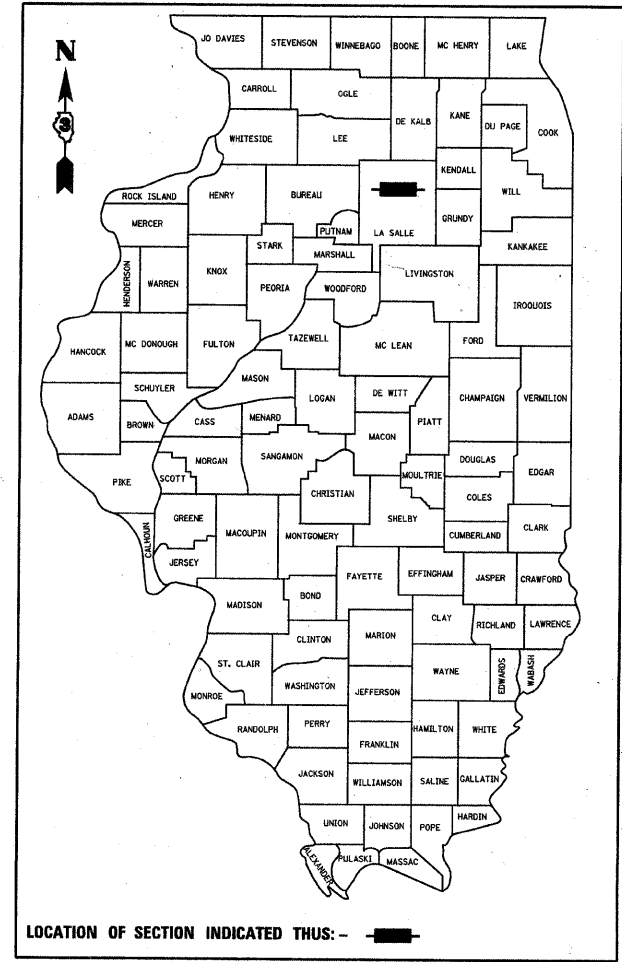


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3)BR-1	LASALLE	44	1

CONTRACT NO. 66619
P-93-029-99
D-93-037-00



RURAL MINOR ARTERIAL
ADT 2500 (2005)
PC = 2,000 SU = 325 MU = 175
DESIGN SPEED = 55 MPH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED January 26 2010
George Peterson
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 9 2010
Scott E. Stitt, P.E.
REGIONAL ENGINEER OF DESIGN AND ENVIRONMENT

March 9 2010
Christine M. Roeder
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

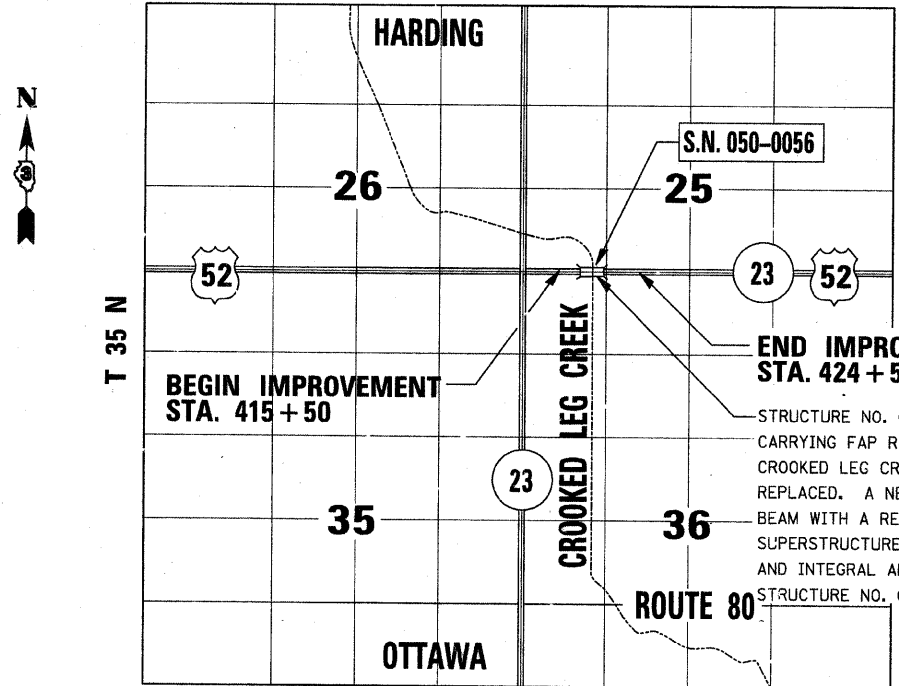
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTE 68 (US 52 & IL 23)
SECTION (3)BR-1

LASALLE COUNTY
C-93-024-06
BRIDGE REPLACEMENT AT CROOKED LEG CREEK

0.3 MILES EAST OF US 52 /IL 23 INTERSECTION



LOCATION MAP
SCALE: 1" = 1 MILE
GROSS LENGTH OF PROJECT = 900 FEET = 0.170 MI.
NET LENGTH OF PROJECT = 900 FEET = 0.170 MI.

INDEX OF SHEETS

- COVER SHEET, INDEX OF SHEETS & HIGHWAY STANDARDS
- GENERAL NOTES & COMMITMENTS
- SUMMARY OF QUANTITIES
- TYPICAL SECTIONS
- 6 SCHEDULE OF QUANTITIES
- ALIGNMENT TIES & BENCHMARKS
- 9 PLAN & PROFILE SHEETS
- TRAFFIC CONTROL STAGING PLAN
- 33D STRUCTURE PLAN
- 35 MISCELLANEOUS DETAILS
- 44 CROSS SECTIONS

HIGHWAY STANDARDS

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 280001-05 TEMPORARY EROSION CONTROL SYSTEMS
- 420401-08 BRIDGE APPROACH PAVEMENT
- 515001-03 NAME PLATE FOR BRIDGES
- 542401-01 METAL END SECTION FOR PIPE CULVERTS
- 630001-08 STEEL PLATE BEAM GUARDRAIL
- 630201-06 PCC/MA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
- 630301-05 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631031-08 TRAFFIC BARRIER TERMINAL, TYPE 6
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 701006-03 OFF-RD OPERATIONS, 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
- 701011-02 OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
- 701101-02 OFF-RD OPERATIONS, MULTILANE, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
- 701201-03 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
- 701206-02 LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS ≥ 45 MPH
- 701301-03 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701306-02 LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH
- 701311-03 LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
- 701321-10 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701901-01 TRAFFIC CONTROL DEVICES
- 704001-06 TEMPORARY CONCRETE BARRIER
- 780001-02 TYPICAL PAVEMENT MARKINGS
- 781001-03 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS _____

DISTRICT NO. 3 (815) 434-6131
PROJECT ENGINEER: JOE KANNEL
UNIT CHIEF: MICHELE LINDEMANN
CONTRACT NO. 66619

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



Ali A. Gharamti 6/19/08
ALI A. GHARAMTI DATE
ILLINOIS PROFESSIONAL ENGINEER NO. 062-046049
RENEWAL DATE: 11/30/2009

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3)BR-1	LASALLE	44	2
STA. N/A		TO STA. N/A		
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

CONTRACT NO. 66619

GENERAL NOTES

THE THICKNESS OF HOT-MIX ASPHALT MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT-MIX ASPHALT MIXTURE IS PLACED.

THE HOT-MIX ASPHALT SURFACE OF ALL MAILBOX TURNOUTS, PRIVATE ENTRANCES, COMMERCIAL ENTRANCES, AND SIDE ROADS SHALL BE MADE NEATLY, IN A WORKMANLIKE MANNER, AND SHALL ACCURATELY CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. IF REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SAW CUT THE HOT-MIX ASPHALT SURFACE TO CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. THIS WORK SHALL BE INCLUDED IN THE COST OF THE HOT-MIX ASPHALT SURFACE.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HOT-MIX ASPHALT LIFTS.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF FURNISHED EXCAVATION.

ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE REMOVED AND DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF FURNISHED EXCAVATION.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER AS TO THE EXACT LENGTH AND QUANTITY REQUIRED.

THE LOCATIONS OF EXISTING WATERMANS, GAS MAINS, SEWERS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE, BUT THEY ARE NOT GUARANTEED. ALL UTILITY LOCATIONS SHOWN ARE SUPPLIED BY THE UTILITY COMPANIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES AND BY FIELD INSPECTION.

ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
BITUMINOUS MATERIALS (PRIME COAT)	0.08	GAL / SQ YD
AGGREGATE PRIME COAT	0.002	TONS / SQ YD
HOT-MIX ASPHALT RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT /100 FT OF APPLICATION
MIX FOR CRACKS, JTS & FLGWYS	0.0003	TONS / SQ YD
LEVEL BINDER (HAND METHOD)	0.0005	TONS / SQ YD
SUPPLEMENTAL WATERING	3	GAL / SQ YD / APPLICATION

MEMBERS OF J.U.L.I.E. KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

AT&T
AMEREN

NON-MEMBERS OF J.U.L.I.E. KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

NONE KNOWN

COMMITMENTS

THE FOLLOWING COMMITMENTS HAVE BEEN ADOPTED FOR THIS PROJECT:

THE EXISTING TREES (7) LT. STA. 417+20 TO 417+92 WILL NOT BE DISTURBED.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

PREPARED BY: *Dud Bromil*
ACTING DISTRICT STUDIES & PLANS ENGINEER

DATE: _____

EXAMINED BY: *[Signature]*
DISTRICT CONSTRUCTION ENGINEER

[Signature]
DISTRICT MATERIALS ENGINEER

[Signature]
DISTRICT OPERATIONS ENGINEER

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & COMMITMENTS

SCALE: NONE
DATE: JUNE 20, 2008
DRAWN BY: DAC
CHECKED BY: AAG

SUMMARY OF QUANTITIES			100% STATE
CODE NO.	ITEM	CONSTRUCTION TYPE CODE	UNIT
		X-071-2A	SN 050-0240
20200100	EARTH EXCAVATION		CU YD 290
20400800	FURNISHED EXCAVATION		CU YD 1,040
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL		CU YD 126
25000210	SEEDING, CLASS 2A		ACRE 1.00
25000400	NITROGEN FERTILIZER NUTRIENT		POUND 90
25000500	PHOSPHORUS FERTILIZER NUTRIENT		POUND 90
25000600	POTASSIUM FERTILIZER NUTRIENT		POUND 90
25100115	MULCH, METHOD 2		ACRE 1.64
25100630	EROSION CONTROL BLANKET		SQ YD 1,862
28000250	TEMPORARY EROSION CONTROL SEEDING		POUND 100
28000305	TEMPORARY DITCH CHECKS		FOOT 200
28000400	PERIMETER EROSION BARRIER		FOOT 2,065
28100107	STONE RIPRAP, CLASS A4		SQ YD 702
28200200	FILTER FABRIC		SQ YD 702
35501316	HOT-MIX ASPHALT BASE COURSE, 8"		SQ YD 733
40200800	AGGREGATE SURFACE COURSE, TYPE B		TON 73.0
40600100	BITUMINOUS MATERIALS (PRIME COAT)		GALLON 562
40600300	AGGREGATE (PRIME COAT)		TON 14.0
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS		TON 0.7
40600525	LEVELING BINDER (HAND METHOD), N50		TON 1.8
40600625	LEVELING BINDER (MACHINE METHOD), N50		TON 148.0
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT		SQ YD 585
40600990	TEMPORARY RAMP		SQ YD 43.8
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50		TON 160.0
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50		TON 296.0
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING		TON 23
42001165	BRIDGE APPROACH PAVEMENT		SQ YD 240
42001300	PROTECTIVE COAT		SQ YD 240
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)		SQ YD 60
44000100	PAVEMENT REMOVAL		SQ YD 408
44000200	DRIVEWAY PAVEMENT REMOVAL		SQ YD 27
44004250	PAVED SHOULDER REMOVAL		SQ YD 220
48203021	HOT-MIX ASPHALT SHOULDERS, 6"		SQ YD 210
50100100	REMOVAL OF EXISTING STRUCTURES		EACH 1
X5018200	REMOVE EXISTING CULVERTS		EACH (3)
50200100	STRUCTURE EXCAVATION		CU YD 330
50300100	FLOOR DRAINS		EACH 12
50300225	CONCRETE STRUCTURES		CU YD 89.4
50300255	CONCRETE SUPERSTRUCTURE		CU YD 153.5
50300260	BRIDGE DECK GROOVING		SQ YD 456
50300280	CONCRETE ENCASMENT		CU YD 6.6
50300300	PROTECTIVE COAT		SQ YD 553
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL		L SUM 1

SUMMARY OF QUANTITIES			100% STATE
CODE NO.	ITEM	CONSTRUCTION TYPE CODE	UNIT
		X-071-2A	SN 050-0240
50500505	STUD SHEAR CONNECTORS		EACH 2,052
50800205	REINFORCEMENT BARS, EPOXY COATED		POUND 45,040
50800515	BAR SPLICERS		EACH 512
51200957	FURNISHING METAL SHELL PILES 12" X 0.250"		FOOT 1,282
51202305	DRIVING PILES		FOOT 1,282
51203200	TEST PILE METAL SHELLS		EACH 2
51500100	NAME PLATES		EACH 1
52100520	ANCHOR BOLTS, 1"		EACH 48
54200220	PIPE CULVERTS, CLASS D, TYPE 1 15"		FOOT 122
54213450	END SECTIONS 15"		EACH 6
59100100	GEOCOMPOSITE WALL DRAIN		SQ YD 66
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"		FOOT 182
63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, & FOOT POSTS		FOOT 450
63100085	TRAFFIC BARRIER TERMINAL, TYPE G		EACH 4
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT		EACH 4
63200310	GUARDRAIL REMOVAL		FOOT 412
67000400	ENGINEER'S FIELD OFFICE, TYPE A		CAL MO 8
67100100	MOBILIZATION		L SUM 1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321		EACH 1
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306		L SUM 1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS		EACH 1
70300100	SHORT-TERM PAVEMENT MARKING		FOOT 180
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"		FOOT 3,129
70301000	WORK ZONE PAVEMENT MARKING REMOVAL		SQ FT 30
70400100	TEMPORARY CONCRETE BARRIER		FOOT 466
70400200	RELOCATE TEMPORARY CONCRETE BARRIER		FOOT 320
78001110	PAINT PAVEMENT MARKING - LINE 4"		FOOT 3,129
78100100	RAISED REFLECTIVE PAVEMENT MARKER		EACH 10
78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)		EACH 3
78200410	GUARDRAIL MARKERS, TYPE A		EACH 16
78200520	BARRIER WALL MARKERS, TYPE B		EACH 8
78201000	TERMINAL MARKER - DIRECT APPLIED		EACH 4
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL		EACH 11
X0323988	TEMPORARY SOIL RETENTION SYSTEM		SQ FT 319
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION- LOCATION 1		EACH 1
X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION- LOCATION 2		EACH 1
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3		EACH 2
Z0030260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3		EACH 1
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3		EACH 2

* SPECIALTY ITEMS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3)BR-1	LASALLE	44	3
STA. N/A		TO STA. N/A		
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

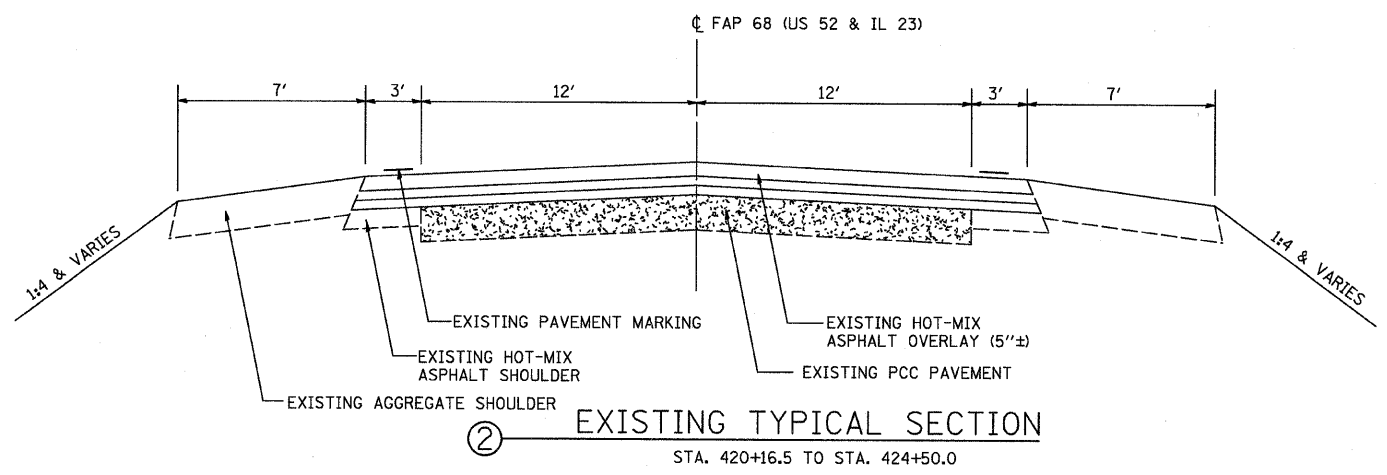
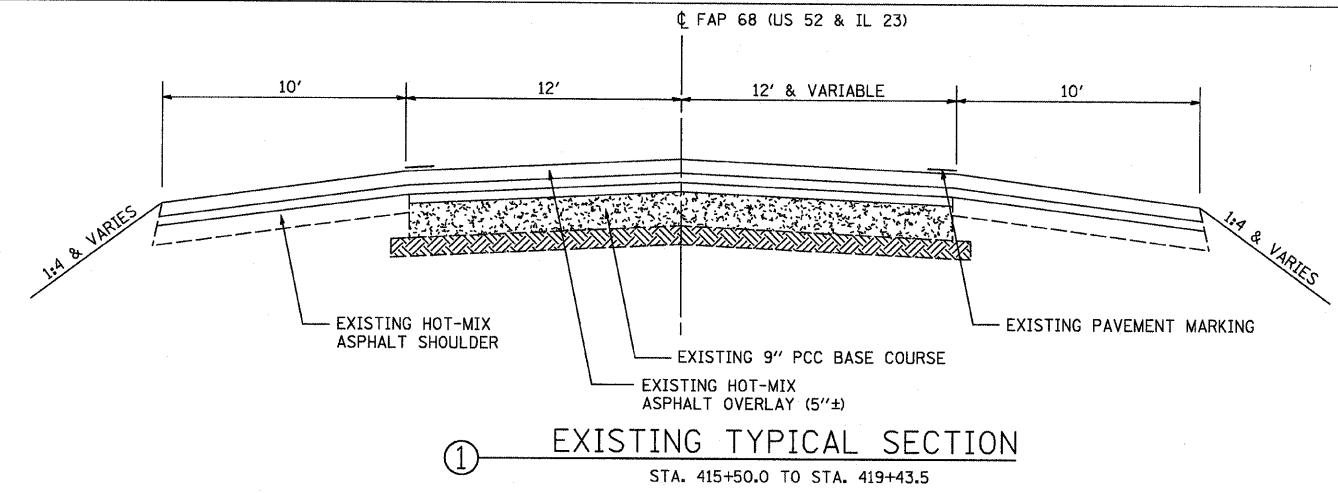
CONTRACT NO. 66619

REVISIONS		NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
 SCALE: NONE
 DATE: JUNE 20, 2008
 DRAWN BY SAS
 CHECKED BY AAG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3)BR-1	LASALLE	44	4
STA. N/A	TO STA. N/A			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

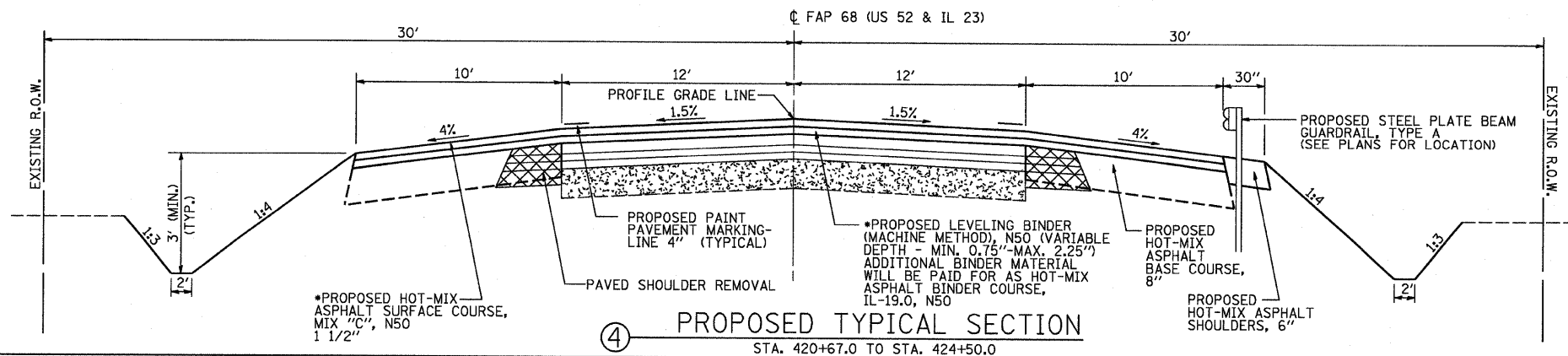
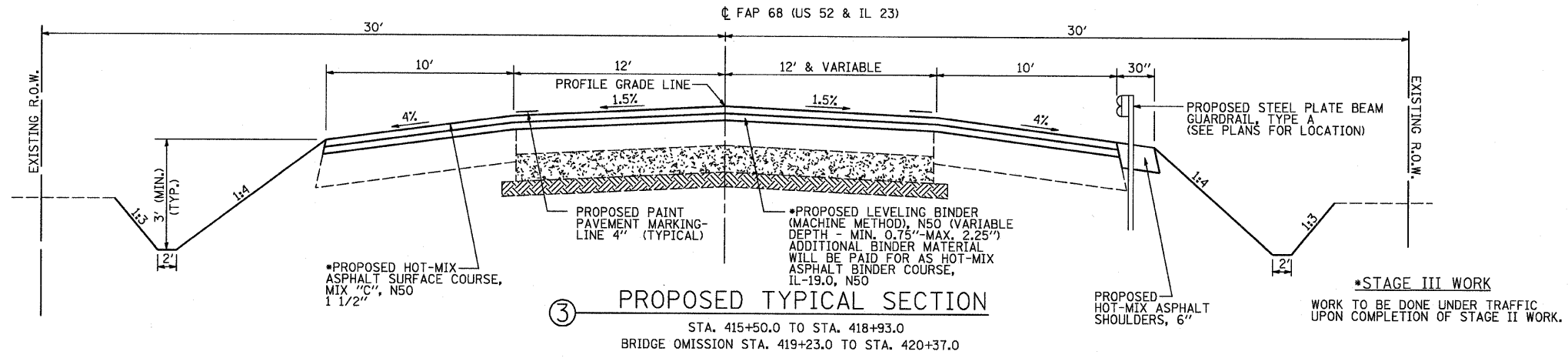
CONTRACT NO. 66619



MIXTURE USE	BASE COURSE	LEVEL BINDER	SURFACE
PG GRADE	PG58-22	PG64-22	PG64-22
MAX % RAP ALLOWABLE**	30%	25%	15%
DESIGN AIR VOIDS	2.0% @ N50	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION	IL 19.0	IL 9.5	IL 12.5 OR IL 9.5
FRICITION AGGREGATE			MIXTURE C
PLANT CONTROL LIMITS	NON CLASS I	CLASS I	CLASS I
DENSITY CONTROL METHOD	*	SATISFACTION OF THE ENGINEER	CORES/ NUCLEAR

* MATERIAL SHALL BE COMPACTED TO 93-97 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT THE BOTTOM LIFT SHALL BE COMPACTED TO A MINIMUM OF 92.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/QA SPECIFICATION.

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



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: NONE
DATE: JUNE 20, 2008

DRAWN BY DAC
CHECKED BY AAG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3)BR-1	LASALLE	44	5
STA. N/A TO STA. N/A		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

SCHEDULE OF QUANTITIES

CONTRACT NO. 66619

FURNISHED EXCAVATION

LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD
MAINLINE				
STA. 415+50 TO STA. 419+23 (BRIDGE)	166	124	380	-256
STA. 420+37 TO STA. 424+50	120	90	870	-780
TOTAL	286	214	1,250	-1,036
USE	290			-1,040

ASSUME SHRINKAGE FACTOR - 25% EARTH EXCAVATION PAY ITEMS

FURNISHED EXCAVATION 1,040 CU YD

SEEDING, CLASS 2A

- NITROGEN FERTILIZER NUTRIENT
- PHOSPHOROUS FERTILIZER NUTRIENT
- POTASSIUM FERTILIZER NUTRIENT
- MULCH, METHOD 2
- EROSION CONTROL BLANKET
- TEMPORARY EROSION CONTROL SEEDING

LOCATION	CLASS 2A	TEMPORARY EROSION CONTROL SEEDING	FERTILIZER NUTRIENT			MULCH, METHOD 2	EROSION CONTROL BLANKET
			NITROGEN	PHOSPHORUS	POTASSIUM		
	ACRE	POUND	POUND	POUND	POUND	ACRE	SQ YD
STA. 415+50 TO STA. 424+50	1.00	100	90	90	90	1.64	1,862
TOTAL	1.00	100	90	90	90	1.64	1,862

TEMPORARY DITCH CHECKS

LOCATION	FEET
415+60 LT.	10
416+00 RT.	10
416+40 LT.	10
417+00 LT.	10
417+40 RT.	10
417+85 LT.	10
418+30 RT.	10
418+65 LT.	10
418+90 RT.	10
416+60 RT.	10
419+70 LT.	10
419+95 RT.	10
420+65 LT.	10
420+65 RT.	10
421+60 LT.	10
421+60 RT.	10
422+30 RT.	10
422+80 LT.	10
423+10 RT.	10
424+00 RT.	10
TOTAL	200

PERIMETER EROSION BARRIER

LOCATION	FOOT
LT. STA. 415+25 TO STA. 419+50	510
RT. STA. 415+25 TO STA. 419+50	470
LT. STA. 420+10 TO STA. 424+70	540
RT. STA. 420+10 TO STA. 424+70	545
TOTAL	2,065

HOT-MIX ASPHALT BASE COURSE, 8"

LOCATION	SQ YD
LT. STA. 421+20.3 TO STA. 424+50.0	367
RT. STA. 421+21.0 TO STA. 424+50.0	366
TOTAL	733

AGGREGATE SURFACE COURSE, TYPE B

LOCATION	TON
RT. STA. 416+40.09, 25' F.E. (6" AGG.)	43.0
RT. STA. 422+84.35, 15' F.E. (6" AGG.)	30.0
TOTAL	73.0

BITUMINOUS MATERIALS (PRIME COAT)

LOCATION	GALLON
(BASED ON 2 COURSES)	
STA. 415+50 TO STA. 418+87	272
STA. 420+23 TO STA. 424+50	290
TOTAL	562

AGGREGATE (PRIME COAT)

LOCATION	TON
(BASED ON 2 COURSES)	
STA. 415+50 TO STA. 418+87	6.8
STA. 420+23 TO STA. 424+50	7.2
TOTAL	14.0

MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS

LOCATION	TON
LT. & RT. STA. 415+50 TO STA. 419+44	0.3
LT. & RT. STA. 420+16 TO STA. 424+50	0.4
TOTAL	0.7

LEVELING BINDER (HAND METHOD), N50

LOCATION	TON
STA. 415+50 TO STA. 418+87	0.9
STA. 420+73 TO STA. 424+50	0.9
TOTAL	1.8

LEVELING BINDER (MACHINE METHOD), N50

LOCATION	TON
STA. 415+50 TO STA. 418+87	72
STA. 420+73 TO STA. 424+50	76
TOTAL	148

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

LOCATION	SQ YD
STA. 415+50 TO STA. 416+10	324
STA. 423+90 TO STA. 424+50	261
TOTAL	585

TEMPORARY RAMP

LOCATION	SQ YD
STA. 415+50 TO STA. 415+55	27.1
STA. 424+45 TO STA. 424+50	16.7
TOTAL	43.8

HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50

LOCATION	TON
STA. 415+50 TO STA. 418+87	42
STA. 420+73 TO STA. 424+50	118
TOTAL	160

HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50

LOCATION	TON
STA. 415+50 TO STA. 418+87	143.0
STA. 420+73 TO STA. 424+50	153.0
TOTAL	296.0

INCIDENTAL HOT-MIX ASPHALT SURFACING

LOCATION	TON
LT. STA. 417+95.69, 14' P.E. (6")	23
TOTAL	23

BRIDGE APPROACH PAVEMENT

LOCATION	SQ YD
STA. 418+93 TO STA. 419+23	120
STA. 420+37 TO STA. 420+67	120
TOTAL	240

PROTECTIVE COAT

LOCATION	SQ YD
STA. 418+93 TO STA. 419+23	120
STA. 420+37 TO STA. 420+67	120
TOTAL	240

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)

LOCATION	SQ YD
STA. 418+87 TO STA. 418+93	30
STA. 420+67 TO STA. 420+73	30
TOTAL	60

PAVEMENT REMOVAL

LOCATION	SQ YD
STA. 418+93 TO STA. 419+44	203
STA. 420+16 TO STA. 420+67	205
TOTAL	408

DRIVEWAY PAVEMENT REMOVAL

LOCATION	SQ YD
LT. STA. 417+95.69	27
TOTAL	27

PAVED SHOULDER REMOVAL

LOCATION	SQ YD
LT. STA. 421+20.3 TO STA. 424+50.0	110
RT. STA. 421+21.0 TO STA. 424+50.0	110
TOTAL	220

HOT-MIX ASPHALT SHOULDERS, 6"

LOCATION	SQ YD
RT. STA. 416+62.2 TO STA. 419+23.0	56
LT. STA. 418+15.8 TO STA. 419+23.0	31
RT. STA. 420+37.0 TO STA. 422+44.1	48
LT. STA. 420+37.0 TO STA. 423+31.6	75
TOTAL	210

REMOVE EXISTING CULVERTS

LOCATION	EACH
RT. STA. 416+40	1
LT. STA. 417+96	1
RT. STA. 422+84	1
TOTAL	3

PIPE CULVERTS, CLASS D, TYPE 1 15"

LOCATION	FOOT
RT. 40' STA. 416+38.09	50
LT. 43' STA. 418+06.01	33
RT. 46' STA. 422+87.26	39
TOTAL	122

END SECTIONS 15"

LOCATION	EACH
RT. 39' STA. 416+13	1
RT. 41' STA. 416+67	1
LT. 40' STA. 417+89	1
LT. 46' STA. 418+26	1
RT. 46' STA. 422+65	1
RT. 46' STA. 423+08	1
TOTAL	6

STEEL PLATE BEAM GUARD RAIL, TYPE A

LOCATION	FOOT
RT. STA. 417+17.39 TO RT. STA. 418+92.39	175
LT. STA. 418+79.89 TO LT. STA. 418+92.39	12.5
LT. STA. 420+72.61 TO LT. STA. 422+47.61	175
RT. STA. 420+72.61 TO RT. STA. 422+10.11	87.5
TOTAL	450

TRAFFIC BARRIER TERMINAL, TYPE 6

LOCATION	EACH
LT. STA. 418+92.39 TO LT. STA. 419+25.50	1
RT. STA. 418+92.39 TO RT. STA. 419+25.50	1
LT. STA. 420+39.50 TO LT. STA. 420+72.61	1
RT. STA. 420+39.50 TO RT. STA. 420+72.61	1
TOTAL	4

TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) TANGENT

LOCATION	EACH
LT. STA. 418+29.89 TO LT. STA. 418+79.89	1
RT. STA. 416+67.39 TO RT. STA. 417+17.39	1
LT. STA. 422+47.61 TO LT. STA. 422+97.61	1
RT. STA. 421+60.11 TO RT. STA. 422+10.11	1
TOTAL	4

GUARDRAIL REMOVAL

LOCATION	FOOT
LT. STA. 418+41 TO STA. 419+43	103
RT. STA. 418+42 TO STA. 419+43	103
LT. STA. 420+16 TO STA. 421+19	103
RT. STA. 420+16 TO STA. 421+19	103
TOTAL	412

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		SCHEDULE OF QUANTITIES
		SCALE: NONE
		DRAWN BY DAC
		CHECKED BY AAG
		DATE: JUNE 20, 2008

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3)BR-1	LASALLE	44	6
STA. N/A		TO STA. N/A		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 66619

SCHEDULE OF QUANTITIES

<u>ENGINEER'S FIELD OFFICE, TYPE A</u>	
8 CAL MO	
<u>MOBILIZATION</u>	
1 LUMP SUM	
<u>TRAFFIC CONTROL AND PROTECTION, STANDARD 701321</u>	
1 EACH	
<u>TRAFFIC CONTROL AND PROTECTION, STANDARD 701306</u>	
1 LUMP SUM	
<u>TEMPORARY BRIDGE TRAFFIC SIGNALS</u>	
LOCATION	EACH
(SEE STAGE CONSTRUCTION DETAILS)	1
TOTAL	1
<u>SHORT-TERM PAVEMENT MARKING</u>	
LOCATION	FOOT
YELLOW (2 COURSES)	
(ONE 4' STRIPE PER 40' OF ROAD)	180
TOTAL	180
<u>TEMPORARY PAVEMENT MARKING - LINE 4"</u>	
LOCATION	FOOT
WHITE (LANE LINES)	
LT. STA. 415+50 TO STA. 424+50	900
RT. STA. 415+50 TO STA. 424+50	900
YELLOW (DOUBLE CENTERLINE)	
☉ STA. 415+50 TO STA. 420+56.7	1,014
YELLOW (SOLID)	
☉ STA. 420+56.7 TO STA. 422+71.7	215
YELLOW (SKIP-DASH)	
☉ STA. 420+56.7 TO STA. 424+50	100
TOTAL	3,129
<u>WORK ZONE PAVEMENT MARKING REMOVAL</u>	
LOCATION	SQ FT
REMOVE SHORT-TERM PAVEMENT MARKING	30
TOTAL	30
<u>TEMPORARY CONCRETE BARRIER</u>	
LOCATION	FOOT
(SEE STAGE CONSTRUCTION DETAILS)	
<u>STAGE I</u>	
STA. 418+42 TO STA. 421+62	320
<u>STAGE II</u>	
STA. 417+69 TO STA. 418+42	73
STA. 421+62 TO STA. 422+35	73
TOTAL	466
<u>RELOCATE TEMPORARY CONCRETE BARRIER</u>	
LOCATION	FOOT
(SEE STAGE CONSTRUCTION DETAILS)	
<u>STAGE II</u>	
STA. 418+42 TO STA. 421+62	320
TOTAL	320
<u>PAINT PAVEMENT MARKING - LINE 4"</u>	
LOCATION	FOOT
WHITE (LANE LINES)	
LT. STA. 415+50 TO STA. 424+50	900
RT. STA. 415+50 TO STA. 424+50	900
YELLOW (DOUBLE CENTERLINE)	
☉ STA. 415+50 TO STA. 420+56.7	1,014
YELLOW (SOLID)	
☉ STA. 420+56.7 TO STA. 422+71.7	215
YELLOW (SKIP-DASH)	
☉ STA. 420+56.7 TO STA. 424+50	100
TOTAL	3,129

<u>RAISED REFLECTIVE PAVEMENT MARKER</u>	
LOCATION	EACH
(BASED ON 1 MARKER EVERY 80')	
☉ STA. 415+50 TO ☉ STA. 418+93	5
☉ STA. 420+67 TO ☉ STA. 424+50	5
TOTAL	10

<u>RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)</u>	
LOCATION	EACH
(BASED ON 1 MARKER EVERY 80')	
☉ STA. 418+93 TO ☉ STA. 420+67	3
TOTAL	3

<u>GUARDRAIL MARKERS, TYPE A</u>	
(BASED ON 80' SPACING - MIN. 4)	
	MONO DIRECTIONAL SILVER
LOCATION	EACH
LT. STA. 418+29.89 TO LT. STA. 419+25.50	4
RT. STA. 416+67.39 TO RT. STA. 419+25.50	4
LT. STA. 420+39.50 TO LT. STA. 422+97.61	4
RT. STA. 420+39.50 TO RT. STA. 422+10.11	4
TOTAL	16

<u>BARRIER WALL MARKERS, TYPE B</u>	
(BASED ON 80' SPACING - MIN. 4)	
	MONO DIRECTIONAL SILVER
LOCATION	EACH
LT. STA. 419+25.50 TO LT. STA. 420+39.50	4
RT. STA. 419+25.50 TO RT. STA. 420+39.50	4
TOTAL	8

<u>TERMINAL MARKER - DIRECT APPLIED</u>	
LOCATION	EACH
STA. 418+29.89 LT	1
STA. 416+67.39 RT	1
STA. 422+97.61 LT	1
STA. 422+10.11 RT	1
TOTAL	4

<u>RAISED REFLECTIVE PAVEMENT MARKER REMOVAL</u>	
LOCATION	EACH
(BASED ON 1 MARKER EVERY 80')	
	11
TOTAL	11

<u>IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3</u>	
LOCATION	EACH
<u>STAGE I</u>	
LT. STA. 417+35	1
LT. STA. 421+62	1
TOTAL	2

<u>IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3</u>	
LOCATION	EACH
<u>STAGE I</u>	
LT. STA. 418+21	1
EACH	1

<u>IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3</u>	
LOCATION	EACH
<u>STAGE II</u>	
RT. STA. 417+19	1
RT. STA. 422+35	1
EACH	2

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

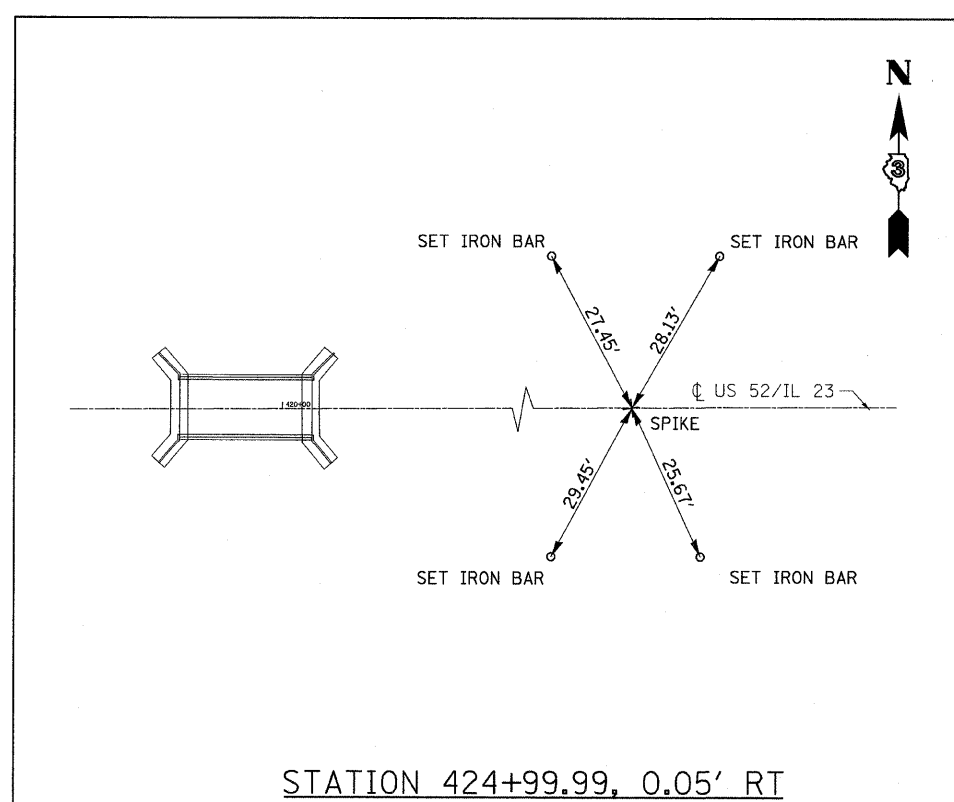
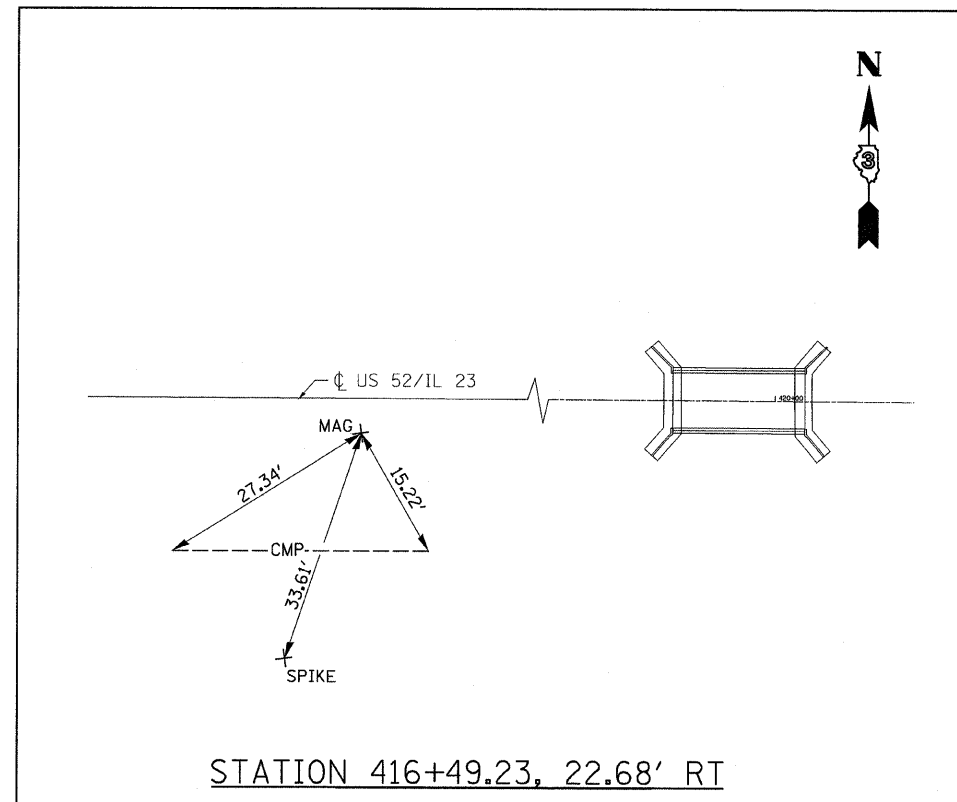
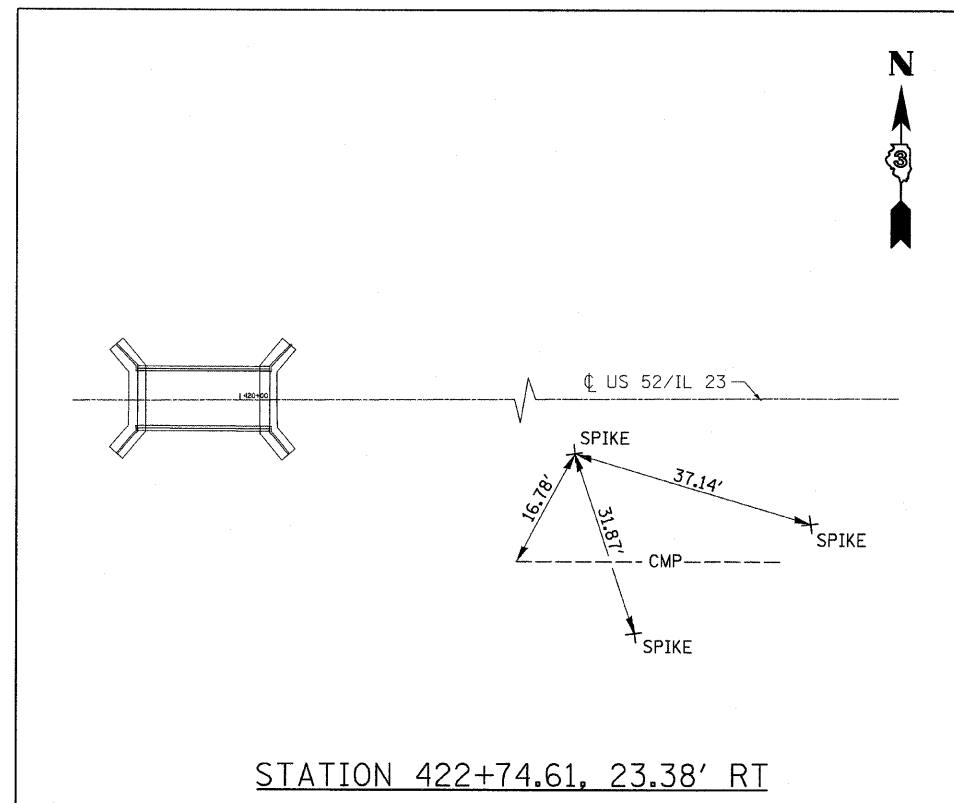
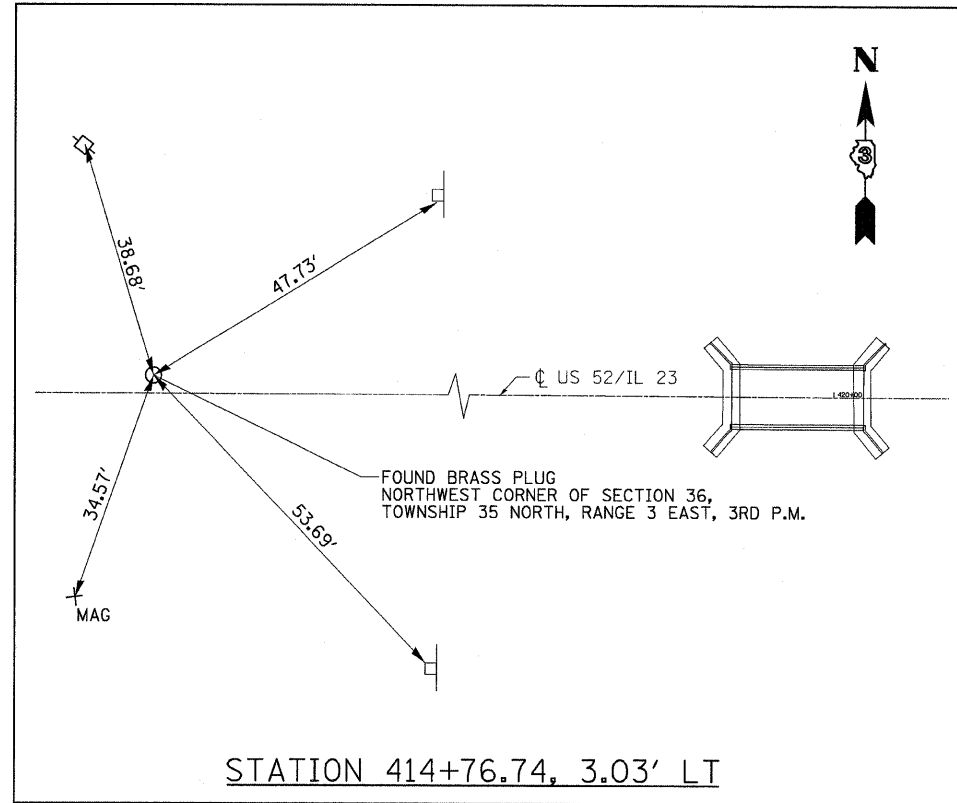
SCHEDULE OF QUANTITIES

SCALE: NONE
DATE: JUNE 20, 2008

DRAWN BY DAC
CHECKED BY AAG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3)BR-1	LASALLE	44	7
STA. N/A		TO STA. N/A		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 66619



BENCHMARKS:

- BRASS DISK
STA. 414+76.74, 3.03' LT
ELEV.=635.61
- CHISLED "□"
N.E. WINGWALL
STRUCTURE NO. 050-0056
ELEV.=633.31

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ALIGNMENT TIES AND BENCHMARKS

SCALE: NONE
DATE: JUNE 20, 2008

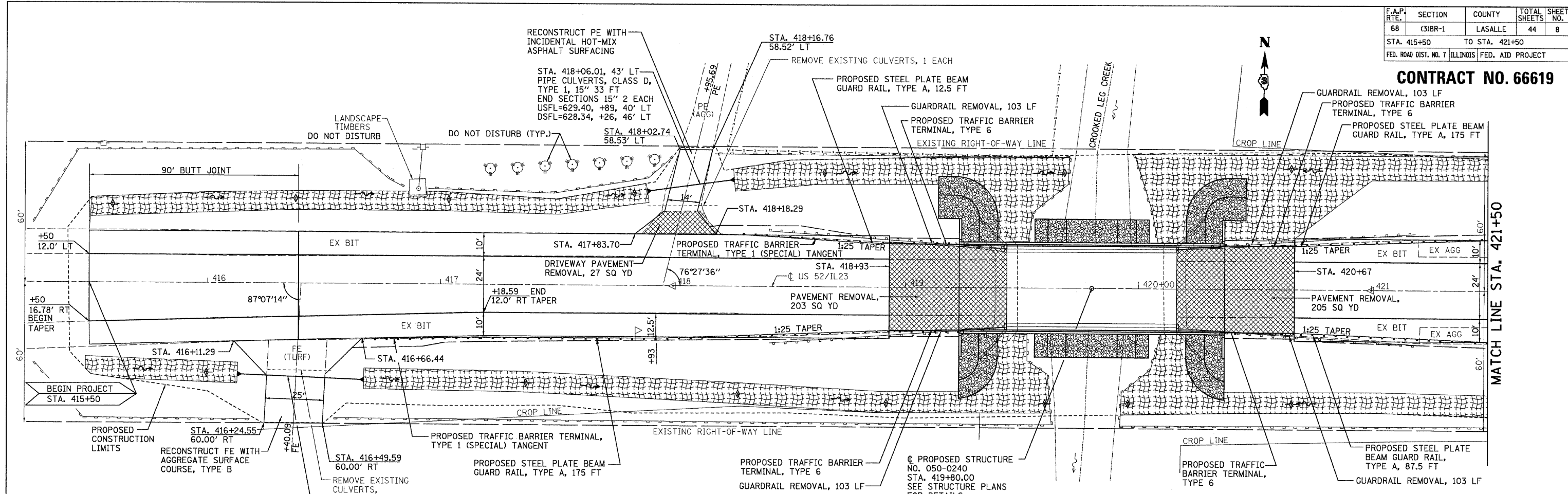
DRAWN BY: DAC
CHECKED BY: AAG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3)BR-1	LASALLE	44	8
STA. 415+50 TO STA. 421+50		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

CONTRACT NO. 66619

PLAN	SURVEYED	DATE
	BY	
	NOTED	
	CHECKED	
	FILED	

PROFILE	SURVEYED	DATE
	BY	
	NOTED	
	CHECKED	
	FILED	



BENCHMARK #1
BRASS DISK
STA. 414+76.74, 3.03' LT
ELEV.= 635.61

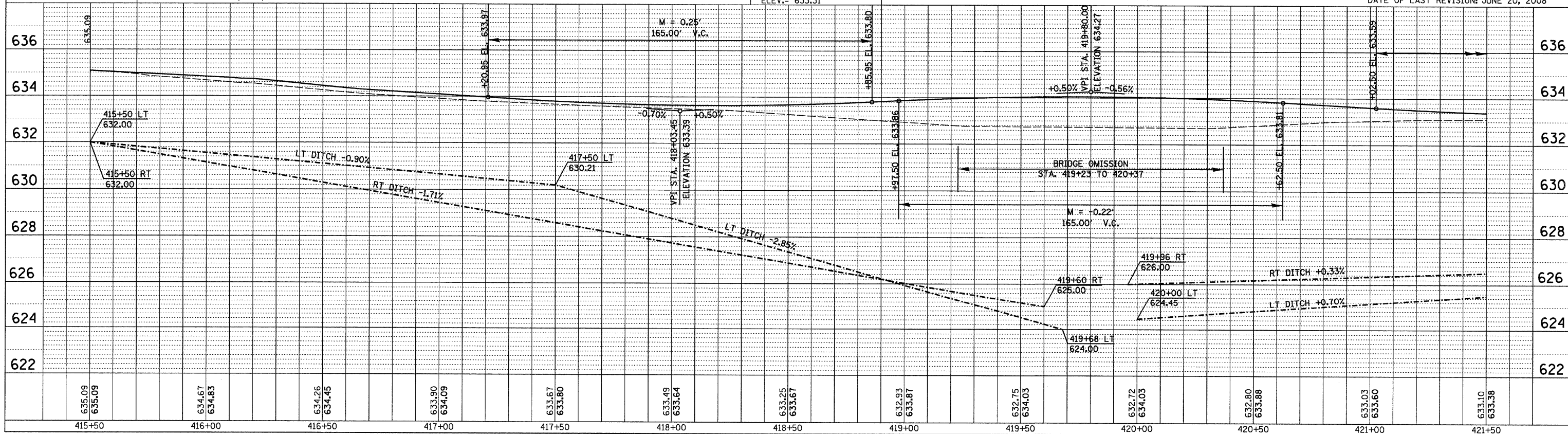
STA. 416+38.09, 40' RT
PIPE CULVERTS, CLASS D,
TYPE 1, 15" 50 FT
END SECTIONS 15" 2 EACH
USFL=630.89, +13, 39' RT
DSFL=629.96, +67, 41' RT

BENCHMARK #2
CHISLED SQUARE
N.E. WINGWALL
STRUCTURE NO. 050-0056
ELEV.= 633.31

LEGEND

- REMOVAL ITEMS (cross-hatched pattern)
- PERIMETER EROSION BARRIER (dashed line)
- STONE RIPRAP, CLASS A4 (stippled pattern)
- TEMPORARY DITCH CHECK (dotted pattern)
- EROSION CONTROL BLANKET (wavy line pattern)

SCALE: H: 20' V: 2'
DATE OF LAST REVISION: JUNE 20, 2008



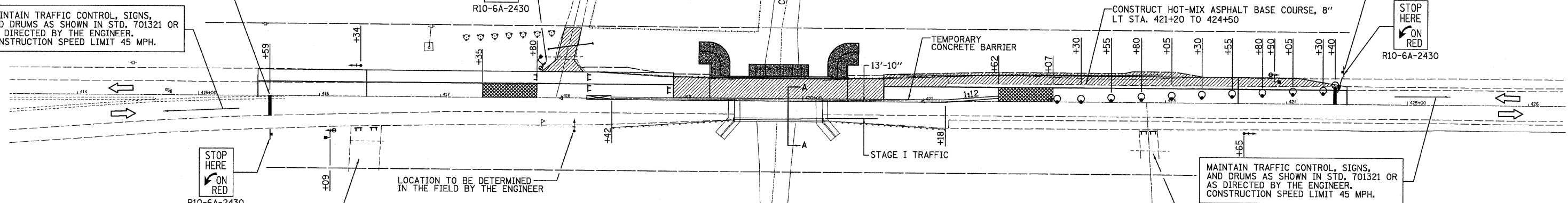
CONTRACT NO. 66619

STOP LINE - WHITE REFLECTORIZED PAVEMENT MARKING TAPE, 24" (TYP.)

MAINTAIN TRAFFIC CONTROL, SIGNS, AND DRUMS AS SHOWN IN STD. 701321 OR AS DIRECTED BY THE ENGINEER. CONSTRUCTION SPEED LIMIT 45 MPH.

STOP LINE - WHITE REFLECTORIZED PAVEMENT MARKING TAPE, 24" (TYP.)

STOP HERE ON RED R10-6A-2430

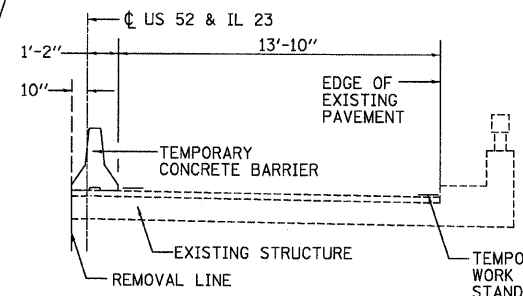


STOP HERE ON RED R10-6A-2430

CLOSE FIELD ENTRANCE DURING CONSTRUCTION

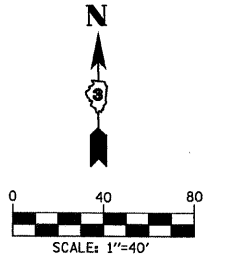
MAINTAIN TRAFFIC CONTROL, SIGNS, AND DRUMS AS SHOWN IN STD. 701321 OR AS DIRECTED BY THE ENGINEER. CONSTRUCTION SPEED LIMIT 45 MPH.

CLOSE FIELD ENTRANCE DURING CONSTRUCTION



STAGE I TRAFFIC

- STAGE I**
1. INSTALL TRAFFIC SIGNALS, SIGNS, ETC. ACCORDING TO DETAILS & TRAFFIC CONTROL STANDARD 701321, MAINTAINING ALL TRAFFIC ON EASTBOUND LANE.
 2. REMOVE STAGE I PORTION OF THE EXISTING BRIDGE STRUCTURE, GUARDRAIL, & PAVEMENT AS SHOWN ELSEWHERE ON PLANS. MAINTAIN ACCESS TO PRIVATE ENTRANCE, STA. 417+95.70.
 3. CONSTRUCT THE STAGE I PORTION OF THE PROPOSED STRUCTURE, BRIDGE APPROACH PAVEMENT, HOT-MIX ASPHALT BASE COURSE, LEVELING BINDER, GUARDRAIL, CULVERT PIPE AND PRIVATE ENTRANCE LOCATED ON THE WESTBOUND LANE AS SHOWN ELSEWHERE IN PLANS.
- STAGE II**
1. RELOCATE THE ATTENUATORS AS SHOWN IN DETAILS AND STANDARD 701321. RE-DIRECT TRAFFIC TO WESTBOUND LANE.
 2. REMOVE THE STAGE II PORTION OF THE EXISTING STRUCTURE, PAVEMENT, AND GUARDRAIL AS SHOWN ELSEWHERE IN PLANS.
 3. CONSTRUCT THE STAGE II PORTION OF THE PROPOSED STRUCTURE, BRIDGE APPROACH PAVEMENT, LEVELING BINDER, GUARDRAIL & FIELD ENTRANCES.
 4. REMOVE TRAFFIC SIGNALS, ETC. CALLED FOR IN STANDARD 701321.
- STAGE III**
1. UNDER APPROPRIATE TRAFFIC CONTROL STANDARDS, RE-SURFACE, STRIPE ROADWAY AND COMPLETE ALL REMAINING WORK AS SHOWN ELSEWHERE IN PLANS.



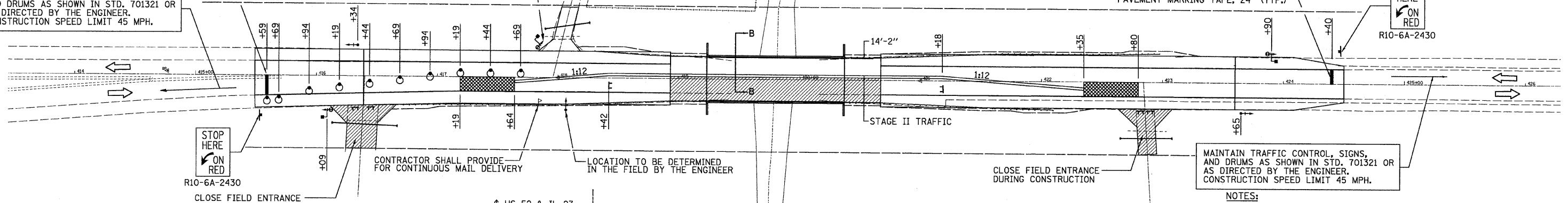
SEQUENCE OF OPERATIONS									
PHASE	A			B			C		
INTERVAL	1	2	3	4	5	6	7	8	9
EAST BOUND	G	Y	R	R	R	R	R	R	R
WEST BOUND	R	R	R	G	Y	R	R	R	R
ENTRANCE	R	R	R	R	R	R	G	Y	R

STOP LINE - WHITE REFLECTORIZED PAVEMENT MARKING TAPE, 24" (TYP.)

MAINTAIN TRAFFIC CONTROL, SIGNS, AND DRUMS AS SHOWN IN STD. 701321 OR AS DIRECTED BY THE ENGINEER. CONSTRUCTION SPEED LIMIT 45 MPH.

STOP LINE - WHITE REFLECTORIZED PAVEMENT MARKING TAPE, 24" (TYP.)

STOP HERE ON RED R10-6A-2430

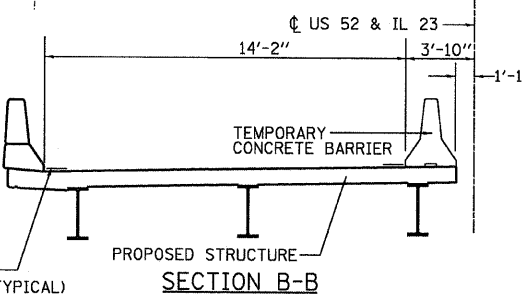


STOP HERE ON RED R10-6A-2430

CLOSE FIELD ENTRANCE DURING CONSTRUCTION

MAINTAIN TRAFFIC CONTROL, SIGNS, AND DRUMS AS SHOWN IN STD. 701321 OR AS DIRECTED BY THE ENGINEER. CONSTRUCTION SPEED LIMIT 45 MPH.

CLOSE FIELD ENTRANCE DURING CONSTRUCTION



STAGE II TRAFFIC

- LEGEND**
- IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3
 - DRUM WITH STEADY BURNING LIGHT
 - TRAFFIC SIGNAL W/ MICROWAVE DETECTOR W/ BACKPLATE
 - WORK ZONE
 - IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
 - SIGNAL HEAD W/ BACKPLATE
 - TYPE III BARRICADES

NOTES:

TRAFFIC CONTROL FOR STAGE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN. STANDARD 701321 AND THE SPECIAL PROVISIONS.

ALL DIMENSIONS ARE IN FEET AND TENTHS EXCEPT WHERE NOTED.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL STAGING PLAN

SCALE: 1" = 40'
DATE: JUNE 20, 2008
DRAWN BY: DAC
CHECKED BY: AAG

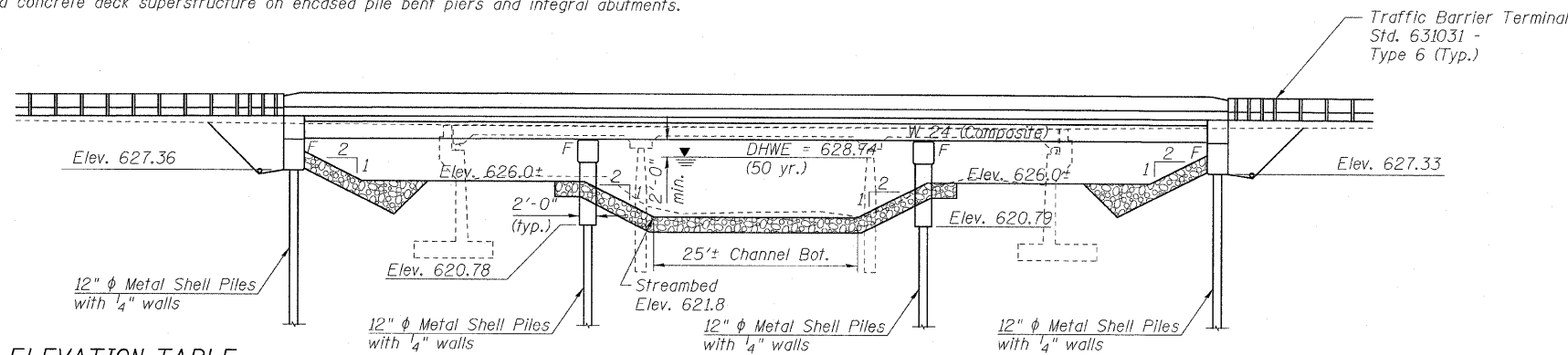
Benchmark: Top of Northeast wingwall of S.N. 050-0056 Sta. 420+17 19' left Elev. = 633.31

Existing Structure: S.N. 050-0056. Three span, continuous, 12" cast-in-place concrete slab bridge on precast pile bent piers and closed abutments. The overall length is 71' long and the overall width is 36'-4". Built in 1956 with 1.5" bituminous overlay added in 1998. The Contractor shall remove the existing structure in stages and replace it with a three span wide flange beam with a reinforced concrete deck superstructure on encased pile bent piers and integral abutments.

No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

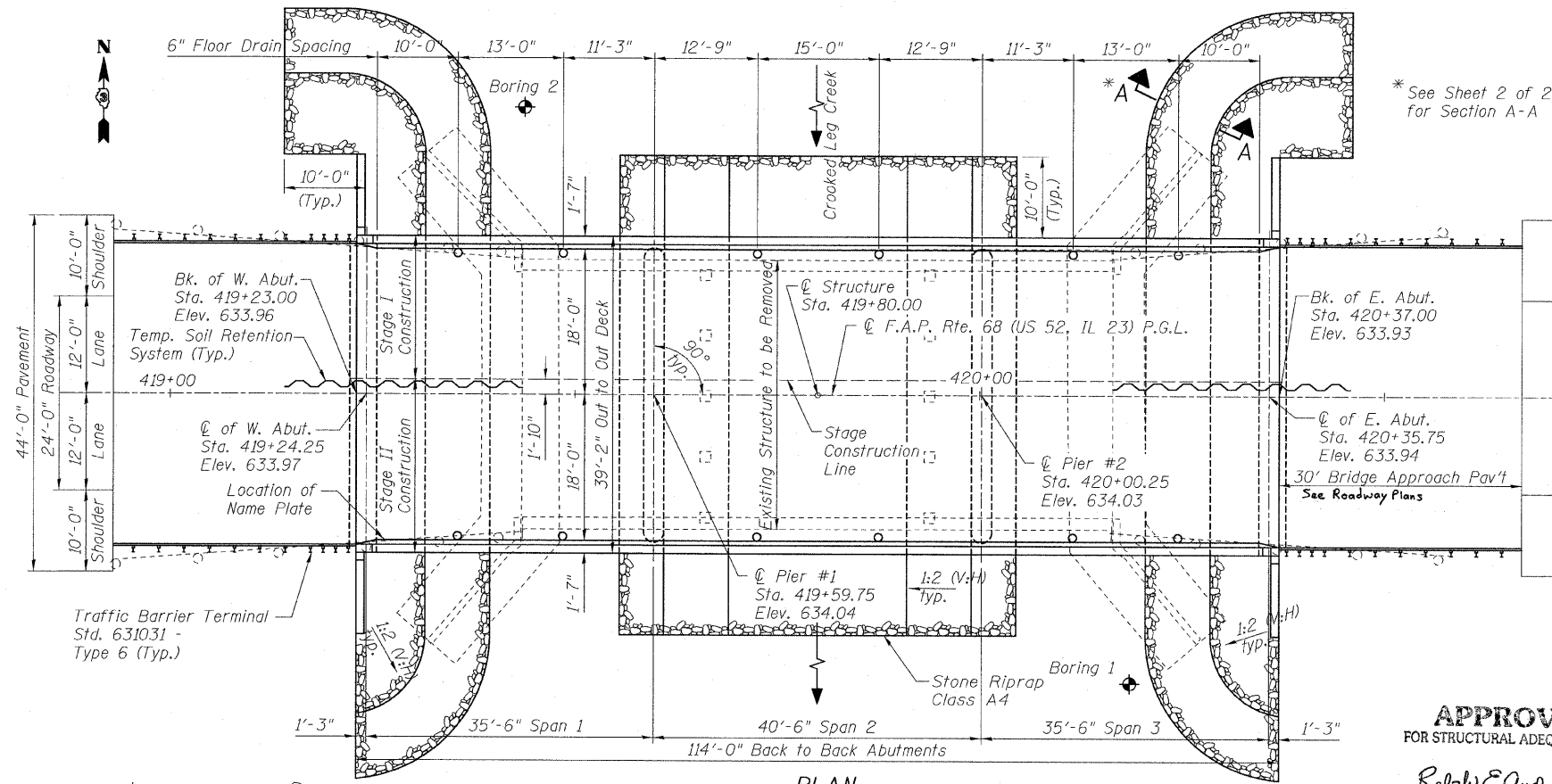
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1 OF 23 SHEETS
S.E. 1 F.A.	(3)BR-1	LASALLE	44	11	
FED. ROAD DIST. NO. 7		ALIGNMENT	FED. AID PROJECT-		CONTRACT NO. 66619



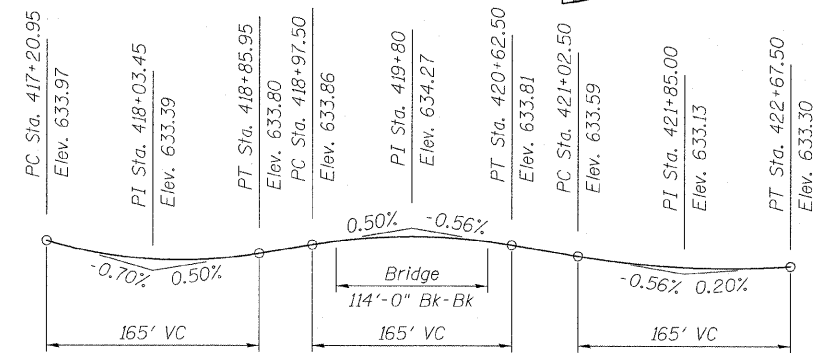
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	627.36	620.78	620.79	627.33

ELEVATION



PLAN

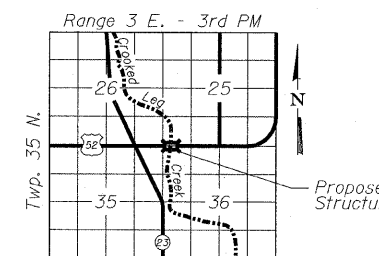


PROFILE GRADE
(Along C of Roadway)

WATERWAY INFORMATION

Drainage Area = 21.36 Sq. Mi. Low Grade Elev. 633.25 @ Sta. 422+24

Flood Yr.	Freq. C.F.S.	Q Exist.	Q Prop.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E. Exist.	Nat. H.W.E. Prop.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	1068	284.6	376.9	628.74	0.23	0.13	628.97	628.87		
Base	100	1197	298.1	397.7	628.94	0.29	0.17	629.23	629.11		
Overtopping											
Max. Calc.	500	1493	323.7	437.2	629.32	0.41	0.25	629.73	629.57		



LOCATION SKETCH

INDEX OF BRIDGE SHEETS

- 1 GENERAL PLAN AND ELEVATION
- 2 GENERAL NOTES & BILL OF MATERIAL
- 3 STAGE CONSTRUCTION DETAILS
- 4 TOP OF SLAB ELEVATIONS
- 5 TOP OF SLAB ELEVATIONS
- 6 TOP OF WEST APPROACH SLAB ELEVATIONS
- 7 TOP OF EAST APPROACH SLAB ELEVATIONS
- 8 SUPERSTRUCTURE
- 9 SUPERSTRUCTURE DETAILS
- 10 DIAPHRAGM DETAILS
- 11 BEARING DETAILS
- 12 FRAMING PLAN
- 13 FRAMING DETAILS
- 14 WEST ABUTMENT DETAILS
- 15 EAST ABUTMENT DETAILS
- 16 PIER 1 DETAILS
- 17 PIER 2 DETAILS
- 18 METAL SHELL PILE DETAILS
- 19 TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
- 20 BAR SPLICER ASSEMBLY DETAILS
- 21 CATILEVER FORMING BRACKETS FOR SUPERSTRUCTURES WITH W27 BEAMS AND SMALLER
- 22 BORING 1
- 23 BORING 2

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
2002 AASHTO 17th Edition

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (reinf.)
fy = 50,000 psi (M270 Grade 50W)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.038g
Site Coefficient (S) = 1.0

STATION 419+80.00
BUILT 20-- BY
STATE OF ILLINOIS
F.A.P. 68 SEC. (3)BR-1
LOADING HS20
STR. NO. 050-0240

NAME PLATE
See Std. 515001

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Robert E. Anderson, (P.E.)
ENGINEER OF BRIDGES AND STRUCTURES



Signature: *Ali A. Gharani*
Date: 6/19/08
Exp. Date: 11/30/08

McClure
Engineering
Associates, Inc.
1700 Kennedy Drive
East Moline, Illinois 61244
DESIGNED BY: daf CHECKED BY: ang DRAWN BY: daf
DATE: 1/18/08
Design Firm License: Illinois #184-000815

GENERAL PLAN AND ELEVATION
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2 OF 23 SHEETS
S. B. L. F. A.	(3)BR-1	LASALLE	44	12	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 66619		

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		126	126
Structure Excavation	Cu. Yd.		330	330
Concrete Structures	Cu. Yd.		89.4	89.4
Concrete Superstructure	Cu. Yd.	153.5		153.5
Protective Coat	Sq. Yd.	553		553
Furnishing and Erecting Structural Steel	L. Sum	1		1
Bridge Deck Grooving	Sq. Yd.	456		456
Reinforcement Bars, Epoxy Coated	Pound	36240	8800	45040
Furnishing Metal Shell Piles 12" x 0.250"	Foot		1282	1282
Driving Piles	Foot		1282	1282
Test Pile Metal Shells	Each		2	2
Floor Drains	Each	12		12
Name Plates	Each	1		1
Anchor Bolts, 1"	Each	48		48
Stone Riprap, Class A4	Sq. Yd.		702	702
Filter Fabric	Sq. Yd.		702	702
Removal of Existing Structures	Each	1		1
Temporary Soil Retention System	Sq. Ft.	319		319
Stud Shear Connectors	Each	2052		2052
Bar Splacers	Each	452	60	512
Geocomposite Wall Drain	Sq. Yd.		66	66
Pipe Underdrain for Structures, 4"	Foot		182	182
Underwater Structure Excavation Protection, Location 1	Each		1	1
Underwater Structure Excavation Protection, Location 2	Each		1	1
Concrete Encasement	Cu. Yd.		6.6	6.6

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts $\frac{7}{8}$ in. ϕ , holes $\frac{5}{16}$ in. ϕ , unless otherwise noted.

Calculated weight of Structural Steel = 55,730 lbs. (M270 Grade 50W)

All structural steel shall be AASHTO M 270 Grade 50W.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions

Reinforcement bars designated (E) shall be epoxy coated.

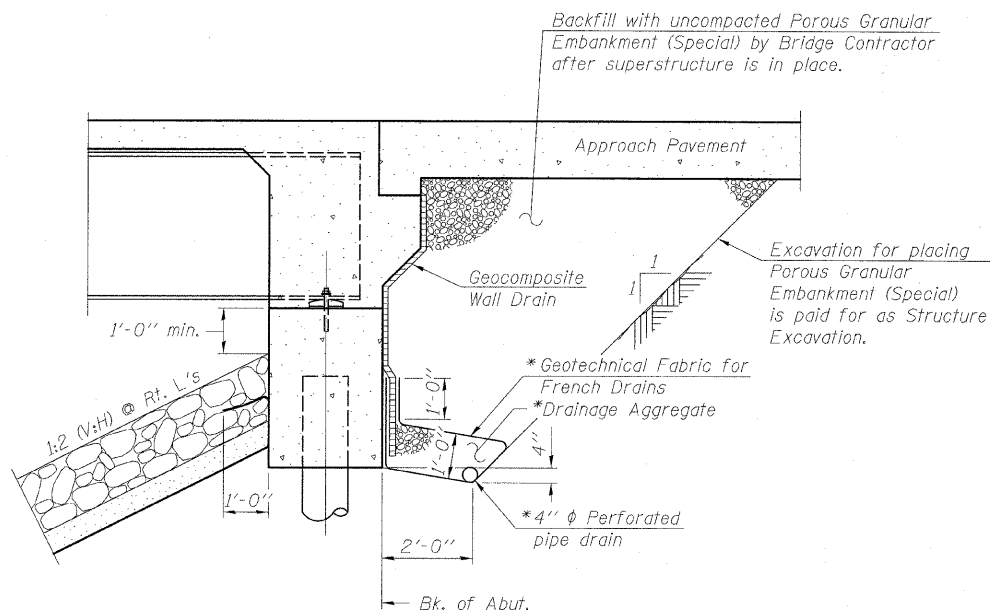
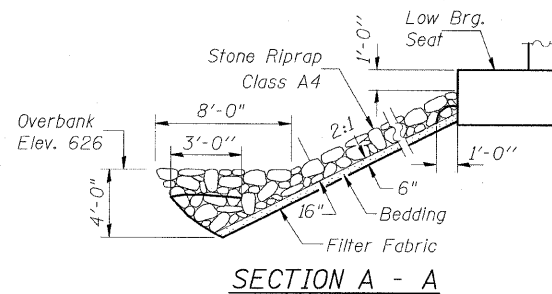
Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. 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".

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

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

Slipforming of the parapets is not allowed.



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

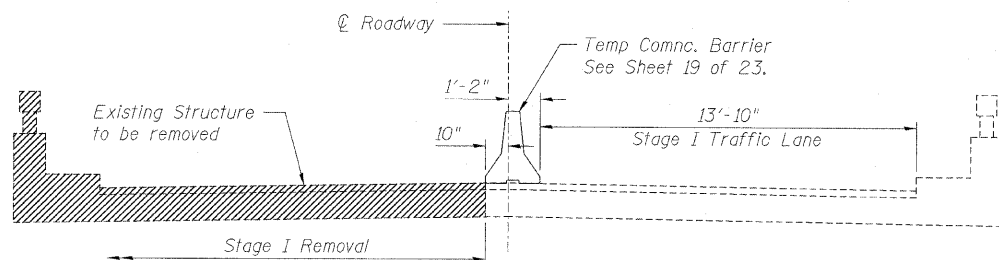
* Included in the cost of Pipe Underdrains for Structures.

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

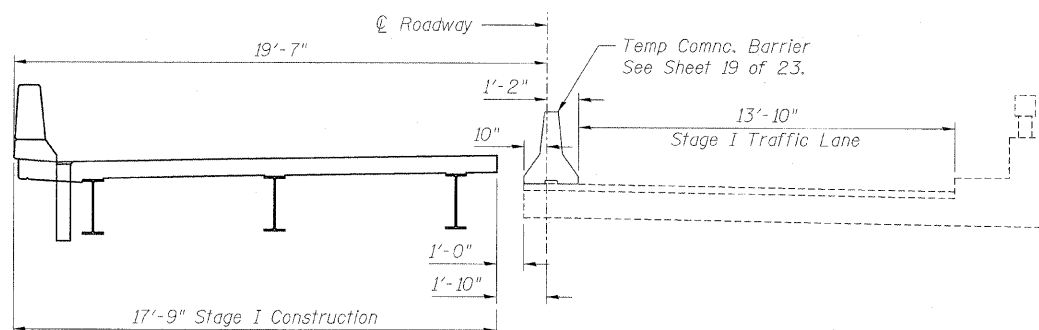
GENERAL NOTES & BILL OF MATERIAL
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

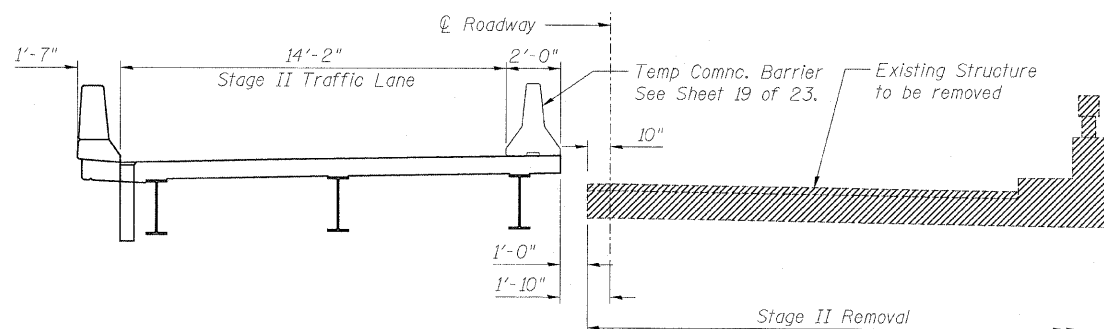
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3 OF 23 SHEETS
U.S. 52	(3) BR-1	LASALLE	44	13	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 66619		



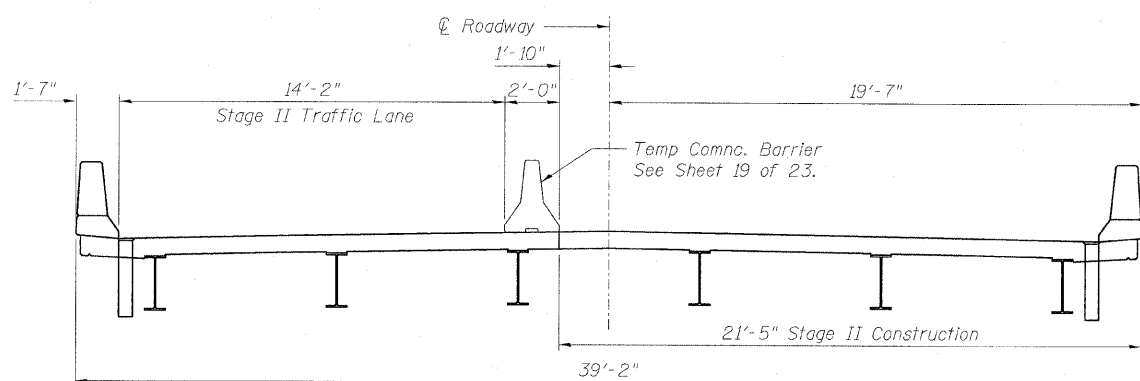
STAGE I REMOVAL
(All views Looking East)



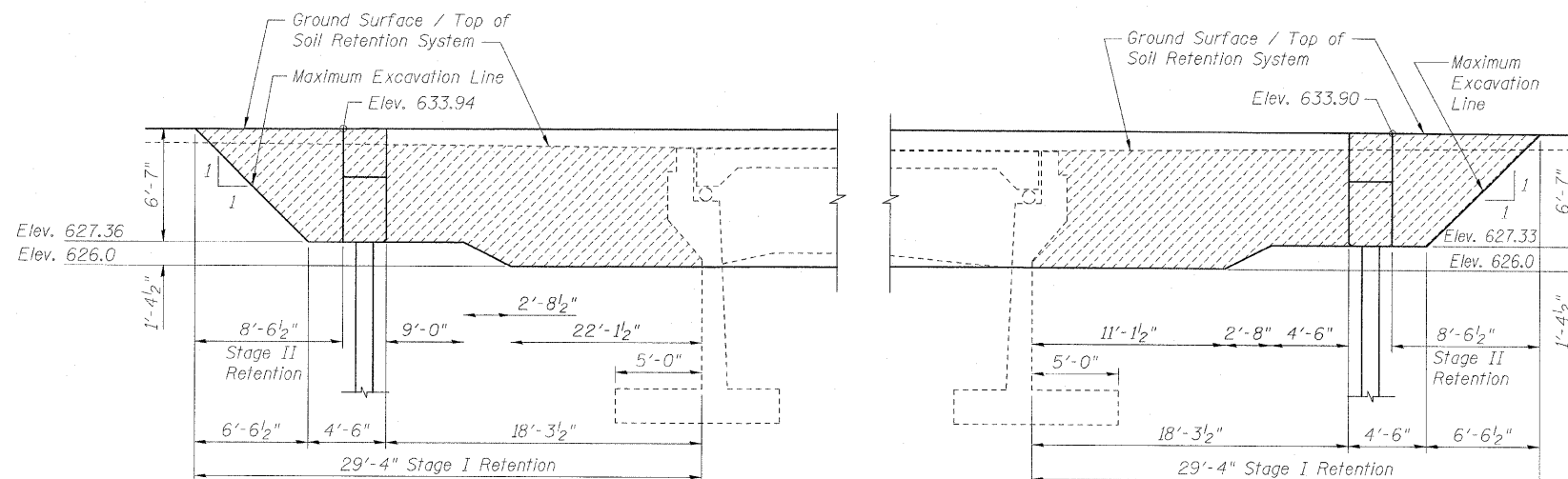
STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION



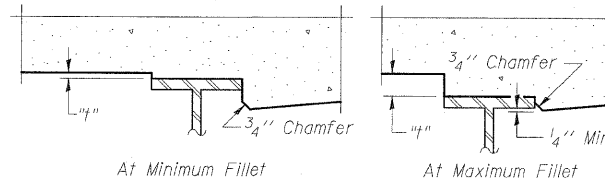
TEMPORARY SOIL RETENTION SYSTEM

Exposed Surface Area

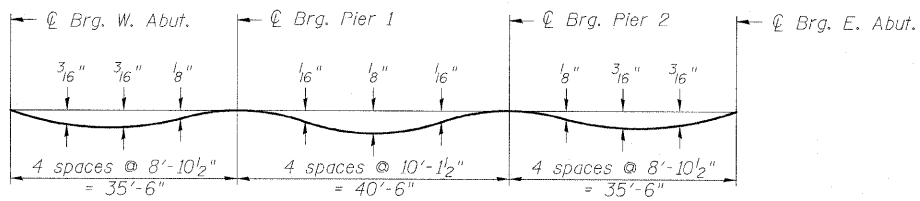
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

STAGE CONSTRUCTION DETAILS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 4 OF 23 SHEETS
S.D.L. F.A.	(3)BR-1	LASALLE	44	14	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	CONTRACT NO. 66619		



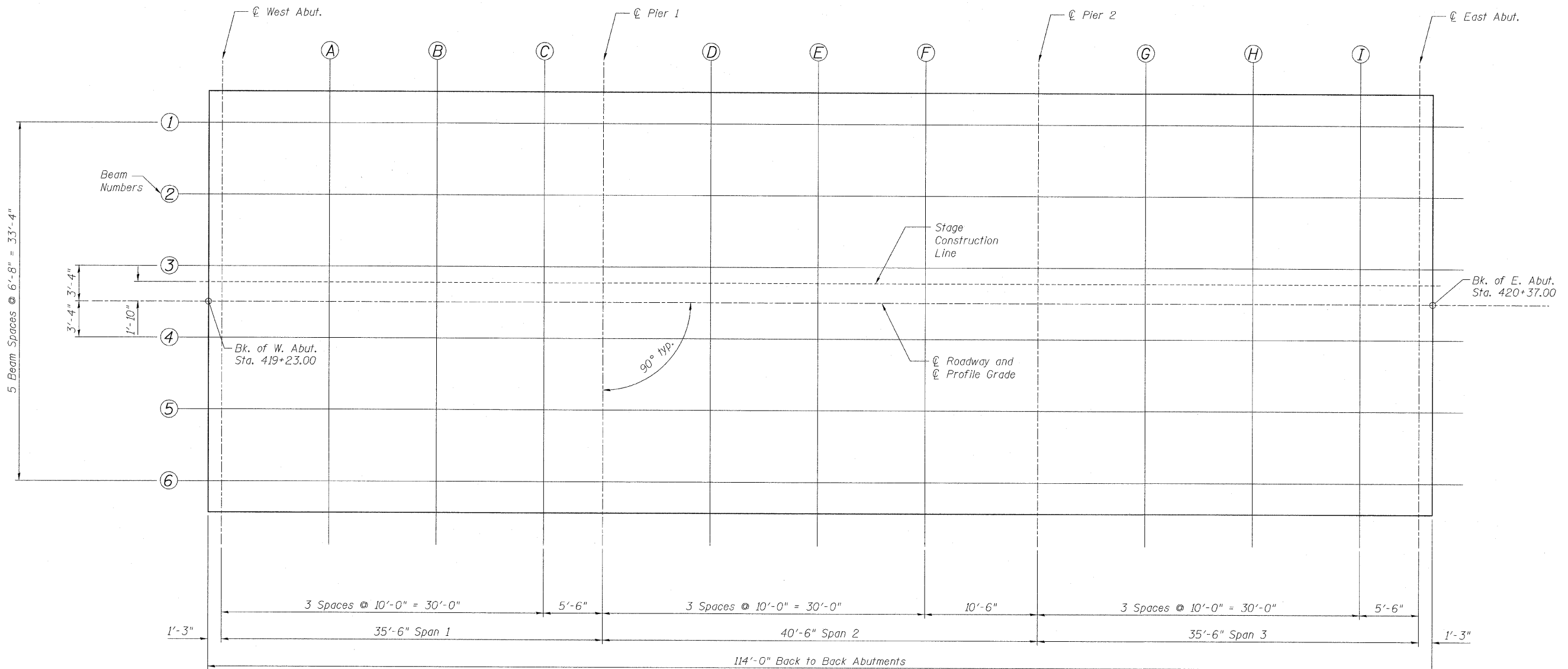
DEAD LOAD DEFLECTION DIAGRAM

(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 the following sheet.

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheet 5 of 19, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

See Sheet 5 to 23
for Elevation Tables.

TOP OF SLAB ELEVATIONS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A.	(3)BR-1	LASALLE	44	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

CONTRACT NO. 66619

SHEET NO. 5
OF 23 SHEETS

CENTERLINE OF ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut	419+23.00	0.00	633.96	633.96
☉ W. Abut	419+24.25	0.00	633.97	633.97
A	419+34.25	0.00	634.00	634.01
B	419+44.25	0.00	634.02	634.04
C	419+54.25	0.00	634.04	634.04
☉ Pier 1	419+59.75	0.00	634.04	634.04
D	419+69.75	0.00	634.05	634.06
E	419+79.75	0.00	634.05	634.06
F	419+89.75	0.00	634.05	634.05
☉ Pier 2	420+00.25	0.00	634.03	634.03
G	420+10.25	0.00	634.01	634.02
H	420+20.25	0.00	633.99	634.01
I	420+30.25	0.00	633.96	633.97
☉ E. Abut	420+35.75	0.00	633.94	633.94
Back E. Abut	420+37.00	0.00	633.93	633.93

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut	419+23.00	-16.67	633.68	633.68
☉ W. Abut	419+24.25	-16.67	633.68	633.68
A	419+34.25	-16.67	633.71	633.73
B	419+44.25	-16.67	633.74	633.75
C	419+54.25	-16.67	633.75	633.76
☉ Pier 1	419+59.75	-16.67	633.76	633.76
D	419+69.75	-16.67	633.77	633.77
E	419+79.75	-16.67	633.77	633.78
F	419+89.75	-16.67	633.76	633.77
☉ Pier 2	420+00.25	-16.67	633.75	633.75
G	420+10.25	-16.67	633.73	633.74
H	420+20.25	-16.67	633.70	633.72
I	420+30.25	-16.67	633.67	633.68
☉ E. Abut	420+35.75	-16.67	633.65	633.65
Back E. Abut	420+37.00	-16.67	633.65	633.65

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut	419+23.00	-10.00	633.81	633.81
☉ W. Abut	419+24.25	-10.00	633.81	633.81
A	419+34.25	-10.00	633.84	633.86
B	419+44.25	-10.00	633.87	633.88
C	419+54.25	-10.00	633.88	633.89
☉ Pier 1	419+59.75	-10.00	633.89	633.89
D	419+69.75	-10.00	633.90	633.90
E	419+79.75	-10.00	633.90	633.91
F	419+89.75	-10.00	633.89	633.90
☉ Pier 2	420+00.25	-10.00	633.88	633.88
G	420+10.25	-10.00	633.86	633.87
H	420+20.25	-10.00	633.83	633.85
I	420+30.25	-10.00	633.80	633.81
☉ E. Abut	420+35.75	-10.00	633.78	633.78
Back E. Abut	420+37.00	-10.00	633.77	633.77

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut	419+23.00	-3.33	633.91	633.91
☉ W. Abut	419+24.25	-3.33	633.92	633.92
A	419+34.25	-3.33	633.95	633.96
B	419+44.25	-3.33	633.97	633.99
C	419+54.25	-3.33	633.99	633.99
☉ Pier 1	419+59.75	-3.33	633.99	633.99
D	419+69.75	-3.33	634.00	634.01
E	419+79.75	-3.33	634.00	634.01
F	419+89.75	-3.33	633.99	634.00
☉ Pier 2	420+00.25	-3.33	633.98	633.98
G	420+10.25	-3.33	633.96	633.97
H	420+20.25	-3.33	633.94	633.95
I	420+30.25	-3.33	633.90	633.91
☉ E. Abut	420+35.75	-3.33	633.88	633.88
Back E. Abut	420+37.00	-3.33	633.88	633.88

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut	419+23.00	3.33	633.91	633.91
☉ W. Abut	419+24.25	3.33	633.92	633.92
A	419+34.25	3.33	633.95	633.96
B	419+44.25	3.33	633.97	633.99
C	419+54.25	3.33	633.99	633.99
☉ Pier 1	419+59.75	3.33	633.99	633.99
D	419+69.75	3.33	634.00	634.01
E	419+79.75	3.33	634.00	634.01
F	419+89.75	3.33	633.99	634.00
☉ Pier 2	420+00.25	3.33	633.98	633.98
G	420+10.25	3.33	633.96	633.97
H	420+20.25	3.33	633.94	633.95
I	420+30.25	3.33	633.90	633.91
☉ E. Abut	420+35.75	3.33	633.88	633.88
Back E. Abut	420+37.00	3.33	633.88	633.88

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut	419+23.00	10.00	633.81	633.81
☉ W. Abut	419+24.25	10.00	633.81	633.81
A	419+34.25	10.00	633.84	633.86
B	419+44.25	10.00	633.87	633.88
C	419+54.25	10.00	633.88	633.89
☉ Pier 1	419+59.75	10.00	633.89	633.89
D	419+69.75	10.00	633.90	633.90
E	419+79.75	10.00	633.90	633.91
F	419+89.75	10.00	633.89	633.90
☉ Pier 2	420+00.25	10.00	633.88	633.88
G	420+10.25	10.00	633.86	633.87
H	420+20.25	10.00	633.83	633.85
I	420+30.25	10.00	633.80	633.81
☉ E. Abut	420+35.75	10.00	633.78	633.78
Back E. Abut	420+37.00	10.00	633.77	633.77

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut	419+23.00	16.67	633.68	633.68
☉ W. Abut	419+24.25	16.67	633.68	633.68
A	419+34.25	16.67	633.71	633.73
B	419+44.25	16.67	633.74	633.75
C	419+54.25	16.67	633.75	633.76
☉ Pier 1	419+59.75	16.67	633.76	633.76
D	419+69.75	16.67	633.77	633.77
E	419+79.75	16.67	633.77	633.78
F	419+89.75	16.67	633.76	633.77
☉ Pier 2	420+00.25	16.67	633.75	633.75
G	420+10.25	16.67	633.73	633.74
H	420+20.25	16.67	633.70	633.72
I	420+30.25	16.67	633.67	633.68
☉ E. Abut	420+35.75	16.67	633.65	633.65
Back E. Abut	420+37.00	16.67	633.65	633.65

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut	419+23.00	-1.83	633.94	633.94
☉ W. Abut	419+24.25	-1.83	633.94	633.94
A	419+34.25	-1.83	633.97	633.99
B	419+44.25	-1.83	633.99	634.01
C	419+54.25	-1.83	634.01	634.01
☉ Pier 1	419+59.75	-1.83	634.02	634.02
D	419+69.75	-1.83	634.02	634.03
E	419+79.75	-1.83	634.02	634.03
F	419+89.75	-1.83	634.02	634.02
☉ Pier 2	420+00.25	-1.83	634.00	634.00
G	420+10.25	-1.83	633.98	633.99
H	420+20.25	-1.83	633.96	633.98
I	420+30.25	-1.83	633.93	633.94
☉ E. Abut	420+35.75	-1.83	633.91	633.91
Back E. Abut	420+37.00	-1.83	633.90	633.90

TOP OF SLAB ELEVATIONS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.L. F.A.	(3)BR-1	LASALLE	44	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
OF 23 SHEETS

CONTRACT NO. 66619

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End West Appr. Slab	418+93.00	-18.42	633.51
A	419+03.00	-18.42	633.56
B	419+13.00	-18.42	633.61
Back West Abutment	419+23.00	-18.24	633.64

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End West Appr. Slab	418+93.00	-12.00	633.65
A	419+03.00	-12.00	633.70
B	419+13.00	-12.00	633.74
Back West Abutment	419+23.00	-12.00	633.78

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
End West Appr. Slab	418+93.00	-1.83	633.81
A	419+03.00	-1.83	633.86
B	419+13.00	-1.83	633.90
Back West Abutment	419+23.00	-1.83	633.94

CENTERLINE OF ROADWAY & P.G.L.

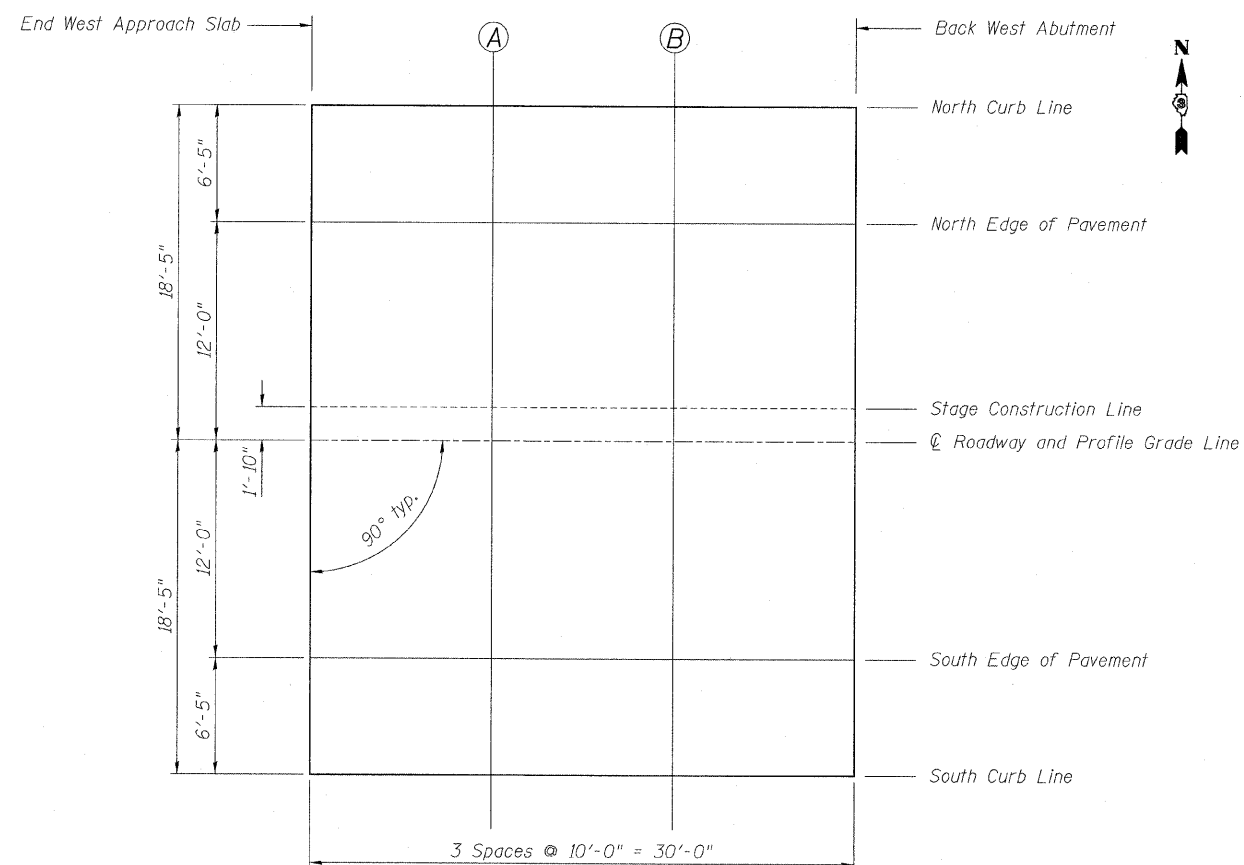
Location	Station	Offset	Theoretical Grade Elevations
End West Appr. Slab	418+93.00	0.00	633.84
A	419+03.00	0.00	633.88
B	419+13.00	0.00	633.93
Back West Abutment	419+23.00	0.00	633.96

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End West Appr. Slab	418+93.00	12.00	633.65
A	419+03.00	12.00	633.70
B	419+13.00	12.00	633.74
Back West Abutment	419+23.00	12.00	633.78

SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End West Appr. Slab	418+93.00	18.42	633.51
A	419+03.00	18.42	633.56
B	419+13.00	18.42	633.61
Back West Abutment	419+23.00	18.24	633.64



PLAN

TOP OF WEST APPROACH SLAB ELEVATIONS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7 OF 23 SHEETS
S.R.L. F.A.	(3)BR-1	LASALLE	44	17	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 66619		

NORTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back East Abutment	420+37.00	-18.42	633.61
A	420+47.00	-18.42	633.57
B	420+57.00	-18.42	633.52
End East Appr. Slab	420+67.00	-18.24	633.46

NORTH EDGE OF PAVEMENT

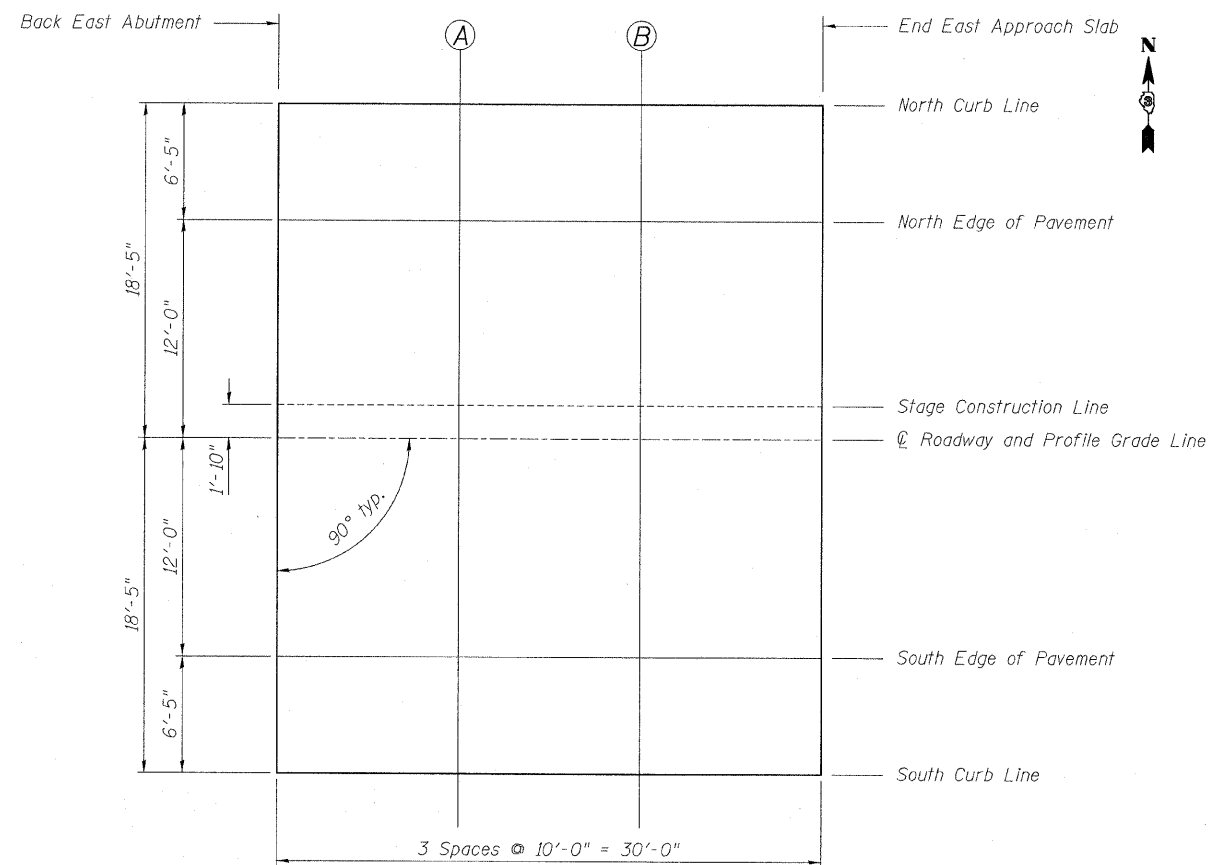
Location	Station	Offset	Theoretical Grade Elevations
Back East Abutment	420+37.00	-12.00	633.74
A	420+47.00	-12.00	633.70
B	420+57.00	-12.00	633.65
End East Appr. Slab	420+67.00	-12.00	633.60

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
Back East Abutment	420+37.00	-1.83	633.90
A	420+47.00	-1.83	633.86
B	420+57.00	-1.83	633.81
End East Appr. Slab	420+67.00	-1.83	633.75

CENTERLINE OF ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
Back East Abutment	420+37.00	0.00	633.93
A	420+47.00	0.00	633.89
B	420+57.00	0.00	633.84
End East Appr. Slab	420+67.00	0.00	633.78



PLAN

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Back East Abutment	420+37.00	12.00	633.74
A	420+47.00	12.00	633.70
B	420+57.00	12.00	633.65
End East Appr. Slab	420+67.00	12.00	633.60

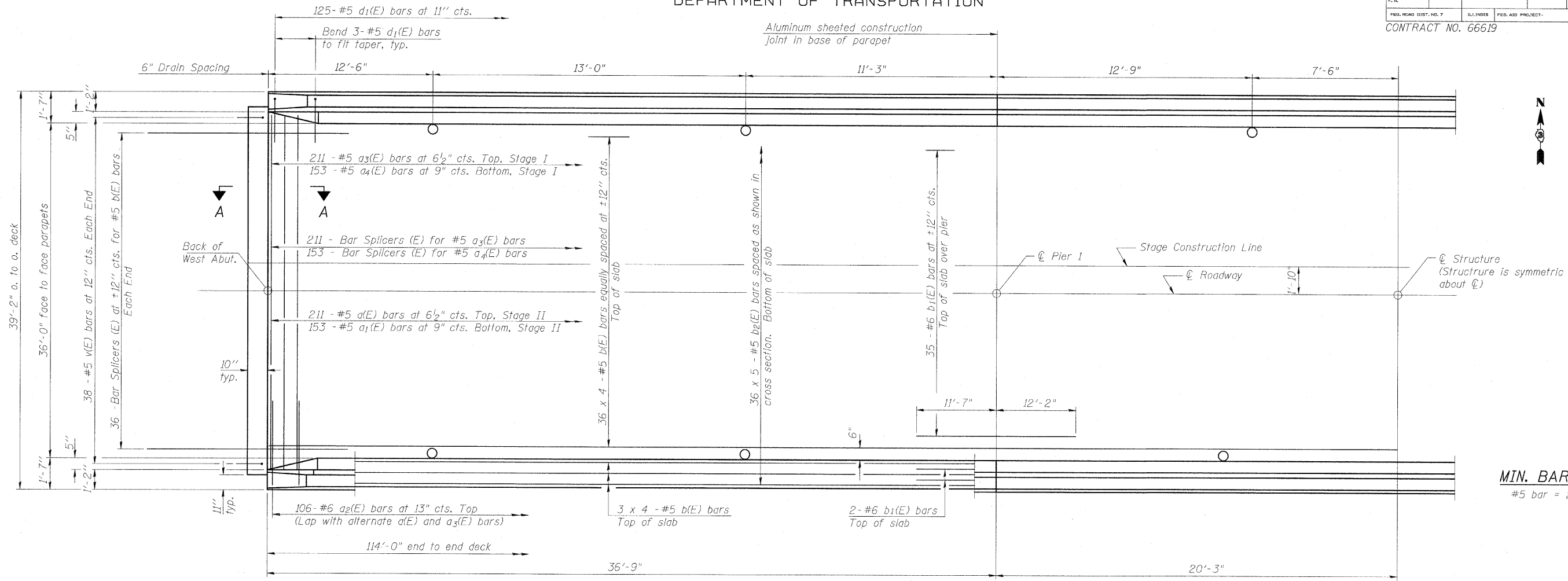
SOUTH CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Back East Abutment	420+37.00	18.42	633.61
A	420+47.00	18.42	633.57
B	420+57.00	18.42	633.52
End East Appr. Slab	420+67.00	18.24	633.46

TOP OF EAST APPROACH SLAB ELEVATIONS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

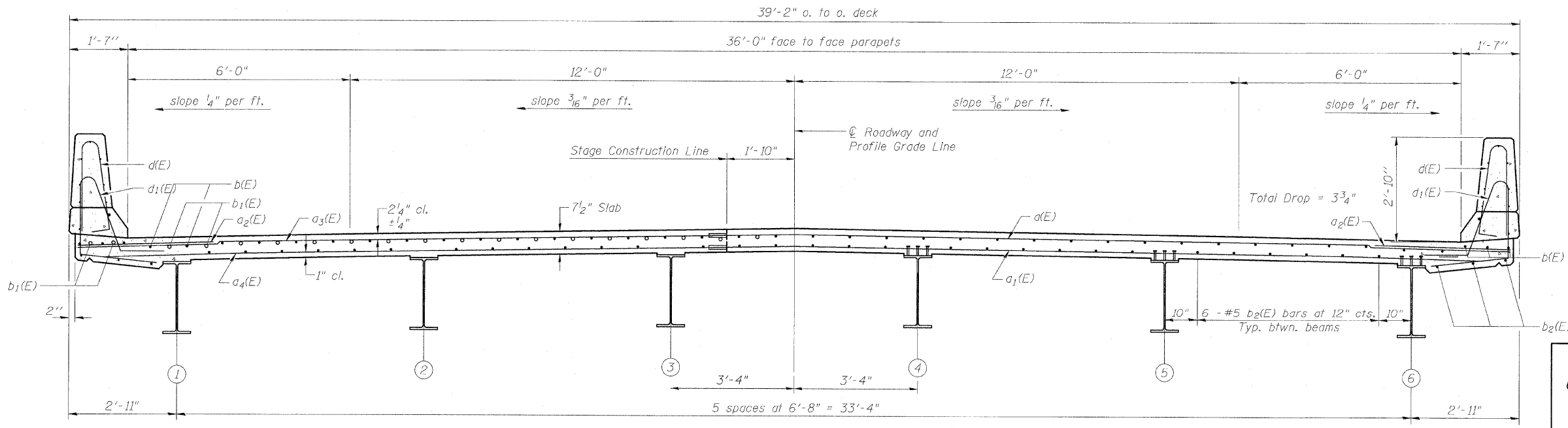
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 8 OF 23 SHEETS
S. S. I. F. A.	(3)BR-1	LASALLE	44	18	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 66619		



MIN. BAR LAP
#5 bar = 2'-2"

HALF PLAN



Notes:
See Sheet 9 of 23 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 9 of 23 for parapet reinforcement.
See Sheet 10 of 23 for Section A - A.
See Sheet 20 of 23 for Bar Splicer Details.

NEAR PIER

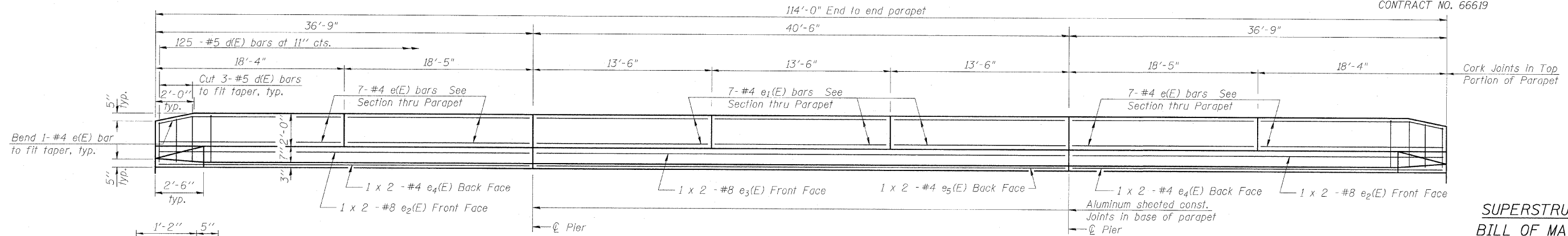
CROSS SECTION
(Looking East)

NEAR MIDSPAN

SUPERSTRUCTURE
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 9 OF 23 SHEETS
U.S. F.A.	(3)BR-1	LASALLE	44	19	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	CONTRACT NO. 66619		



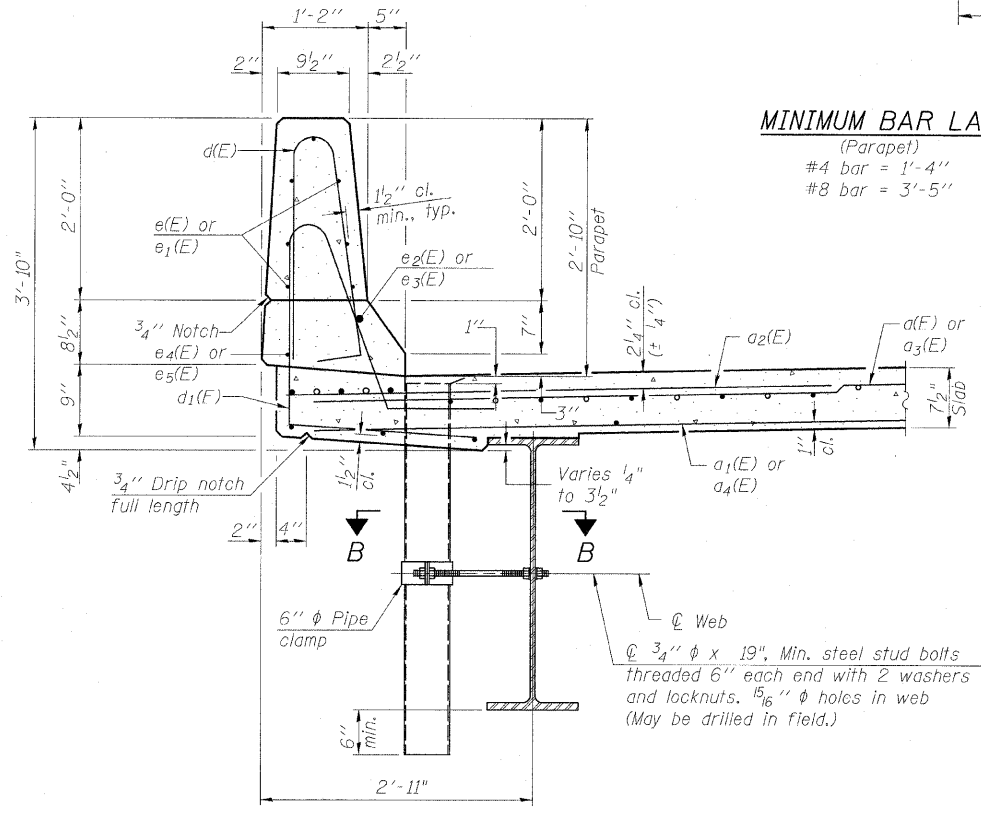
INSIDE ELEVATION OF PARAPET

SUPERSTRUCTURE
BILL OF MATERIAL

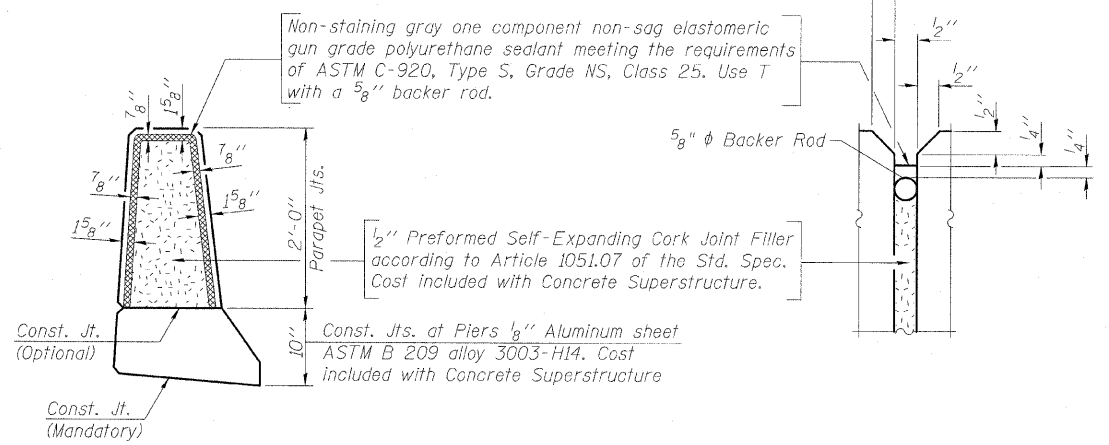
Bar No.	Size	Length	Shape
a(E)	211	#5	20'-10"
a ₁ (E)	153	#5	20'-3"
a ₂ (E)	212	#6	6'-0"
a ₃ (E)	211	#5	17'-3"
a ₄ (E)	153	#5	16'-7"
b(E)	168	#5	30'-0"
b ₁ (E)	78	#6	23'-9"
b ₂ (E)	180	#5	24'-6"
d(E)	250	#5	5'-7"
d ₁ (E)	250	#5	7'-9"
e(E)	56	#4	18'-0"
e ₁ (E)	42	#4	13'-2"
e ₂ (E)	8	#8	20'-6"
e ₃ (E)	4	#8	22'-4"
e ₄ (E)	8	#4	19'-2"
e ₅ (E)	4	#4	21'-1"
m(E)	4	#6	16'-8"
m ₁ (E)	6	#6	17'-5"
m ₂ (E)	12	#6	7'-8"
m ₃ (E)	8	#6	6'-4"
m ₄ (E)	4	#6	2'-7"
m ₅ (E)	4	#6	20'-3"
m ₆ (E)	6	#6	21'-0"
m ₇ (E)	12	#6	8'-10"
m ₈ (E)	2	#6	1'-4"
m ₉ (E)	2	#6	4'-8"
s(E)	82	#5	5'-8"
s ₁ (E)	72	#4	7'-10"
v(E)	76	#5	3'-0"
Reinforcement Bars, Epoxy Coated		Pound	36,240
Concrete Superstructure		Cu. Yds.	153.5

Bars indicated thus 1 x 2 - #5 etc. indicates 1 line of bars with 2 lengths per line.

MINIMUM BAR LAP
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"

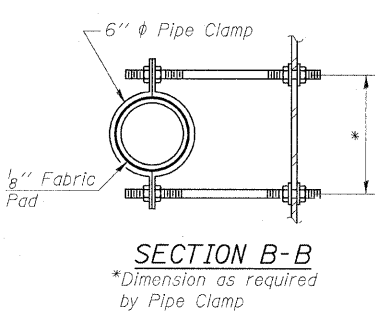


SECTION THRU PARAPET

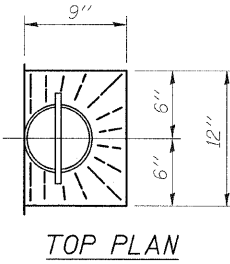


PARAPET JOINT DETAILS

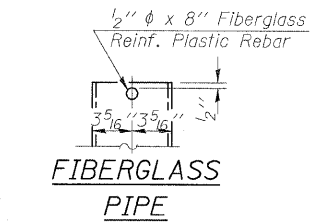
Notes:
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.



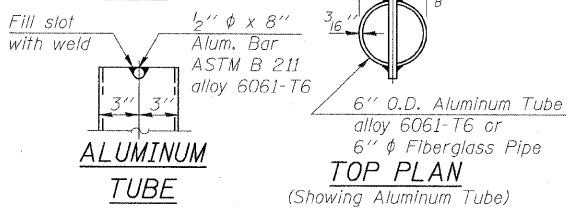
SECTION B-B
*Dimension as required by Pipe Clamp



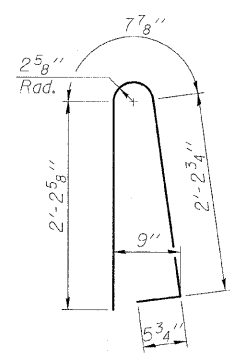
TOP PLAN



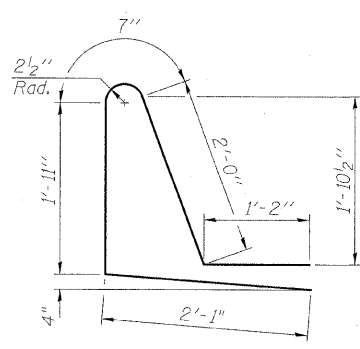
FIBERGLASS PIPE



ALUMINUM TUBE
(Showing Aluminum Tube)



BAR d(E)

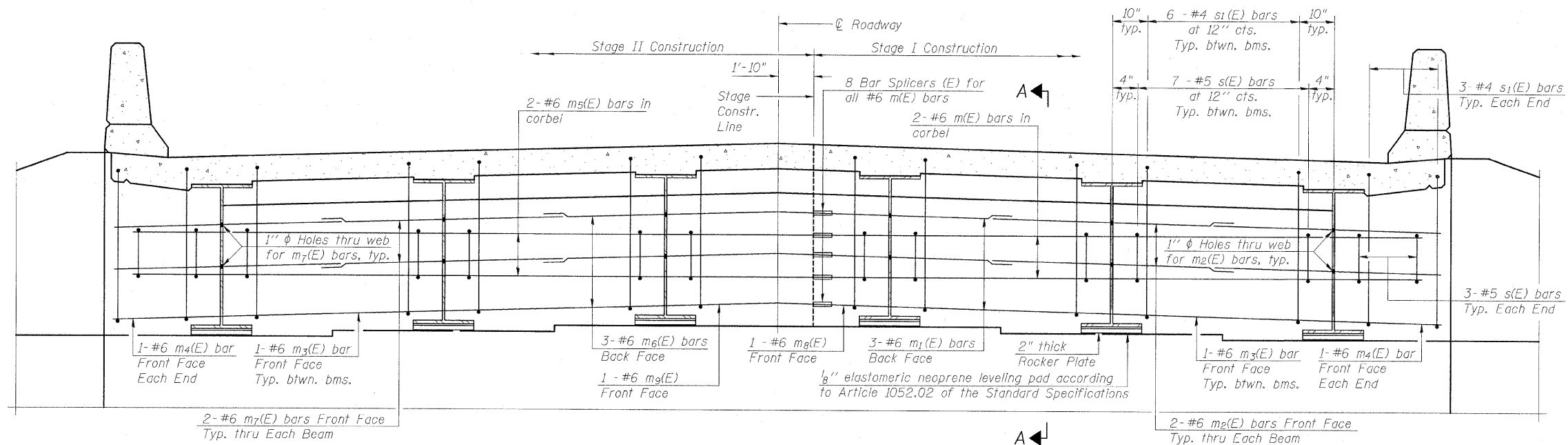


BAR d₁(E)

SUPERSTRUCTURE DETAILS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

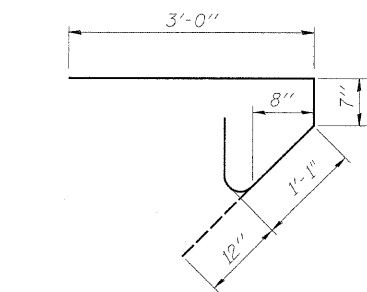
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10 OF 23 SHEETS
S. B. I. P. A.	(3)BR-1	LASALLE	44	20	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 66619		



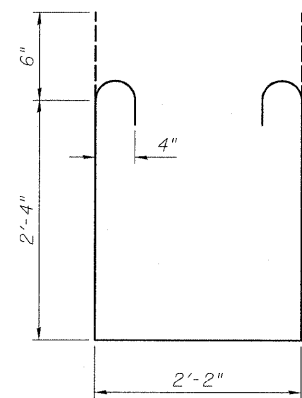
DIAPHRAGM ELEVATION AT ABUTMENT
(Looking West at West Abutment)

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 9 of 23.
Concrete in diaphragm is included with Concrete Superstructure on sheet 9 of 23.
The s(E) and s₁(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

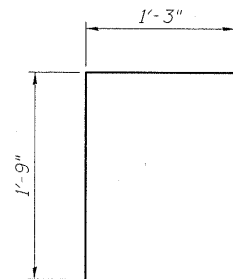
MIN. BAR LAP
#6 bar = 2'-9"



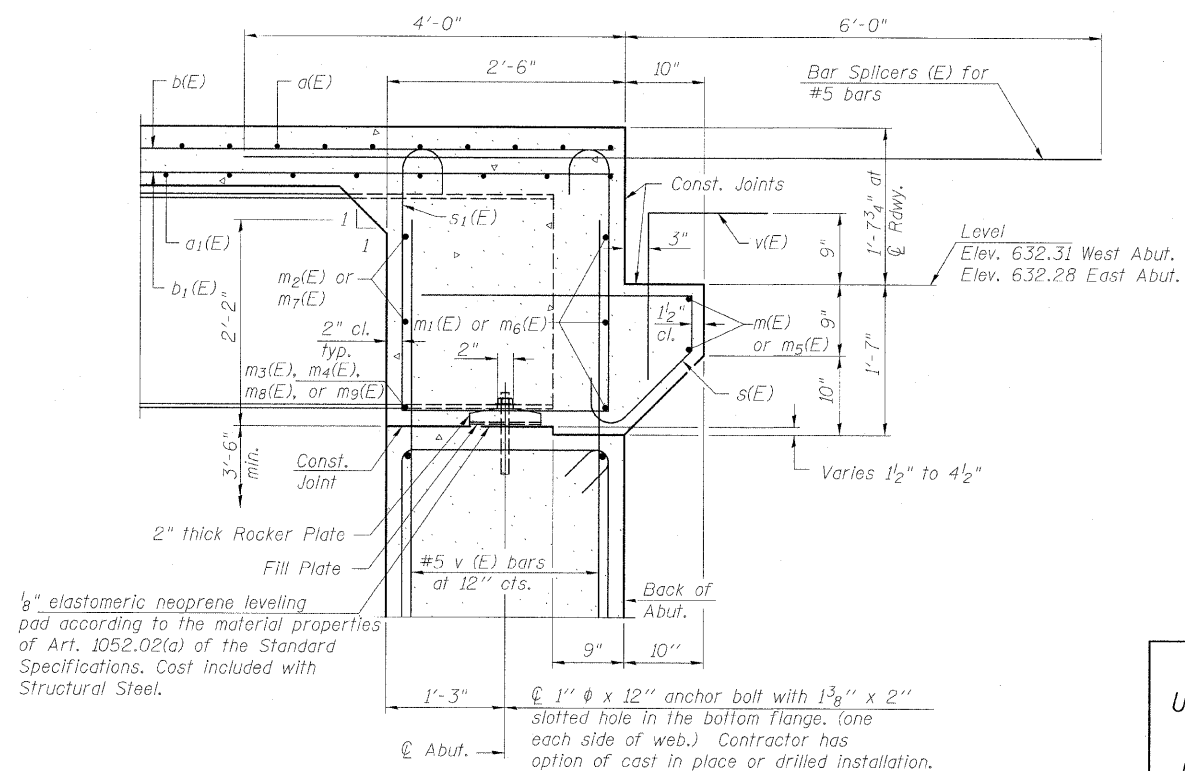
BAR s(E)



BAR s₁(E)



BAR v(E)

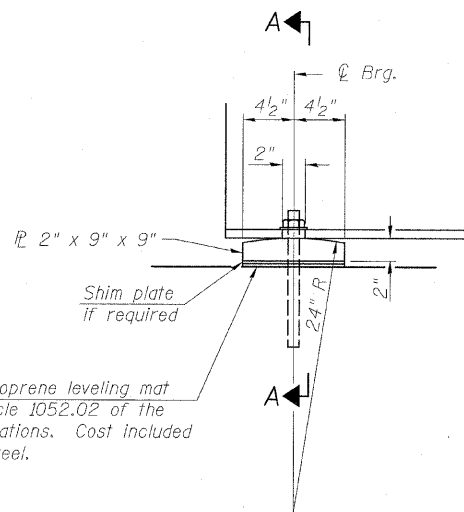


SECTION A-A

DIAPHRAGM DETAILS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

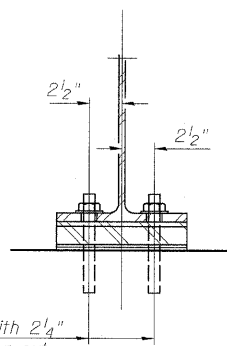
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 11 OF 23 SHEETS
S. R. I. F. A.	(3)BR-1	LASALLE	44	21	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 66619		



1/8" elastomeric neoprene leveling mat according to Article 1052.02 of the Standard Specifications. Cost included with Structural Steel.

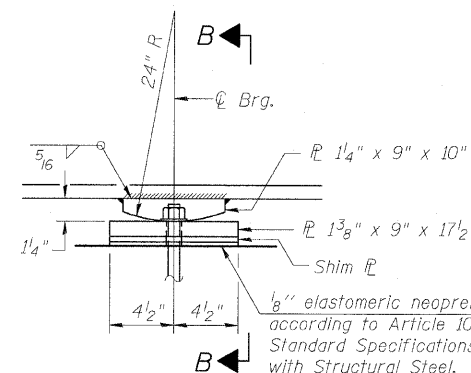
1" diameter x 12" anchor bolts with 2 1/4" x 2 1/4" x 5/16" steel washer under nut. 1 3/8" x 2" slotted hole in flange. 1/2" diameter holes in bearing plate. Contractor has the option of cast in place or drilled installation.

ELEVATION AT ABUTMENT



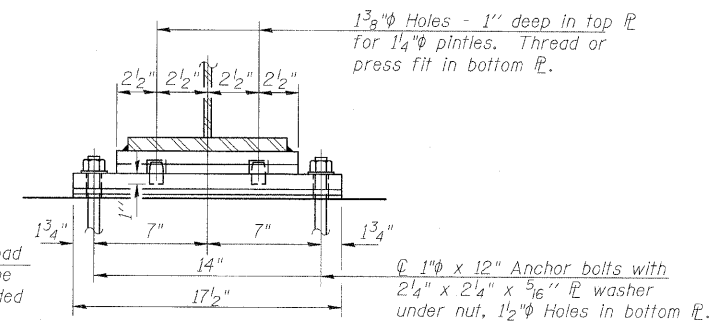
SECTION A-A

FIXED BEARING AT ABUTMENTS



1/8" elastomeric neoprene leveling pad according to Article 1052.02 of the Standard Specifications Cost included with Structural Steel.

ELEVATION AT PIER

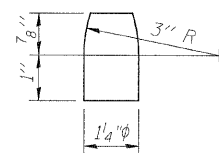


1 3/8" diameter Holes - 1" deep in top flange for 1/4" diameter pintles. Thread or press fit in bottom flange.

1" diameter x 12" Anchor bolts with 2 1/4" x 2 1/4" x 5/16" steel washer under nut, 1/2" diameter Holes in bottom flange.

SECTION B-B

FIXED BEARING AT PIERS



PINTLE

Notes:

Anchor bolts at fixed bearings may either be cast in place or installed in holes after the supported member is in place.

Anchor bolts shall be ASTM F1554 or AASHTO M314, Grade 55.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

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

BILL OF MATERIAL

Anchor Bolts, 1"	Each	48

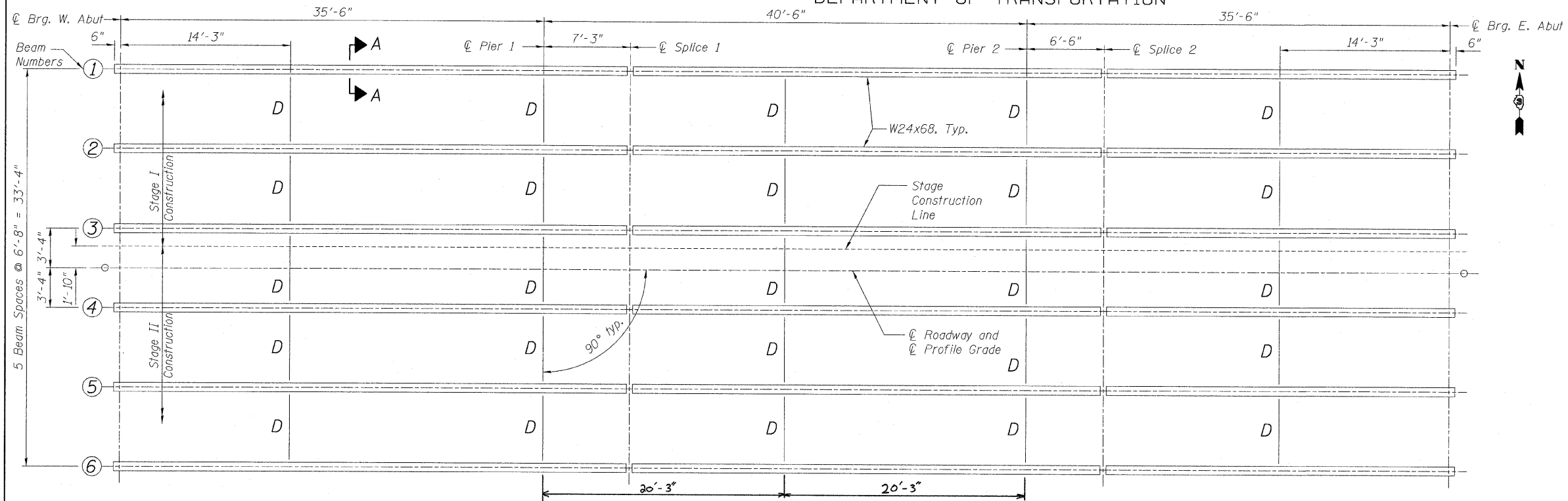
BEARING DETAILS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.S.L. F.A.	(3)BR-1	LASALLE	44	22
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

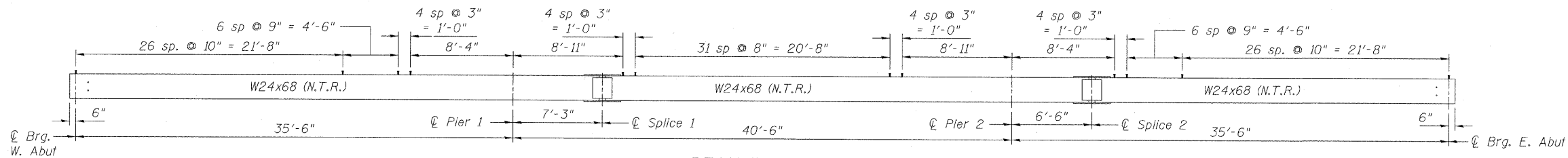
SHEET NO. 12
OF 23 SHEETS

CONTRACT NO. 66619



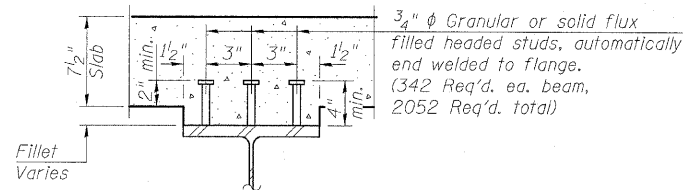
FRAMING PLAN

See Sheet 13 of 23 for Splice and Diaphragm Details



BEAM ELEVATION

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



SECTION A-A

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
© Brg. W. Abut.	633.02	633.14	633.25	633.25	633.14	633.02
Pier 1	633.07	633.19	633.30	633.30	633.19	633.07
Splice 1	633.04	633.16	633.27	633.27	633.16	633.04
Pier 2	633.08	633.20	633.31	633.31	633.20	633.08
Splice 2	632.99	633.11	633.22	633.22	633.11	632.99
© Brg. E. Abut.	632.99	633.11	633.22	633.22	633.11	632.99

TOP OF BEAM ELEVATIONS

For Fabrication only

		0.4 Sp. 1	Piers	0.5 Sp. 2
I_s	(in ⁴)	1830	1830	1830
I_c (n)	(in ⁴)	6153		6153
I_c (3n)	(in ⁴)	4675		4675
S_s	(in ³)	154	154	154
S_c (n)	(in ³)	254		254
S_c (3n)	(in ³)	230		230
Z	(in ³)			
\bar{D}	(k/ft.)	0.720	1.170	0.720
$M\bar{D}$	(k)	67.5	154.5	44.5
$s\bar{D}$	(k/ft.)	0.450		0.450
$Ms\bar{D}$	(k)	47.2		40.1
$M\bar{L}$	(k)	192	103	195
M (Imp)	(k)	58	31	58
$S_3[M\bar{L} + M$ (Imp)]	(k)	417	223	422
Ma	(k)	691	491	659
* Mu	(k)	1131		1283
$fs\bar{D}$ non-comp (k.s.i.)		5.3	12.1	3.5
$fs\bar{D}$ (comp) (k.s.i.)		2.5		2.1
$fsS_3(L + Imp)$ (k.s.i.)		19.7	17.4	19.9
fs (Overload) (k.s.i.)		27.5	29.5	25.5
** fs (Total) (k.s.i.)			38.4	
VR	(k)	43.5		36.8

	Abuts.	Piers
$R\bar{D}$	(k) 16.4	48.7
$R\bar{L}$	(k) 30.9	38.5
Imp.	(k) 9.3	11.5
R (Total)	(k) 56.6	98.7

* Compact section

** Braced non-compact section

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

I_c and S_c are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

I_c and S_c are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

Ma (Applied Moment) = $1.3[M\bar{D} + Ms\bar{D} + S_3(M\bar{L} + M$ (Imp))].

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to $M\bar{D} + Ms\bar{D} + S_3(M\bar{L} + M$ (Imp)).

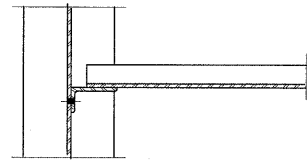
fs (Total) (Non-compact section) is the sum of the stresses due to $1.3[M\bar{D} + Ms\bar{D} + S_3(M\bar{L} + M$ (Imp))].

FRAMING PLAN
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

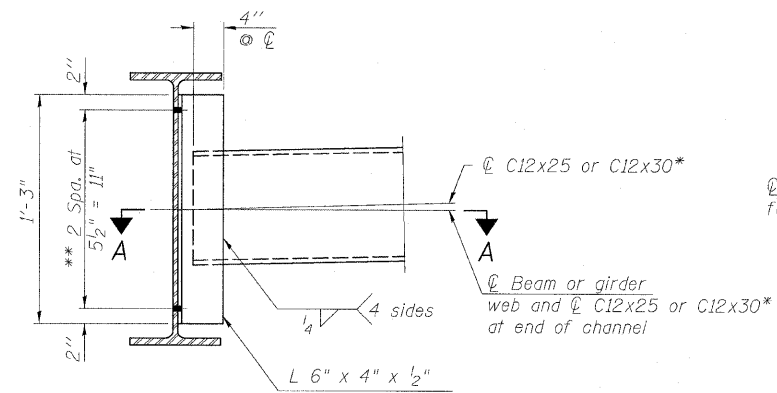
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13 OF 23 SHEETS
S. R. I. F. A.	(3) BR-1	LASALLE	44	23	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 66619		

All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.



SECTION A-A

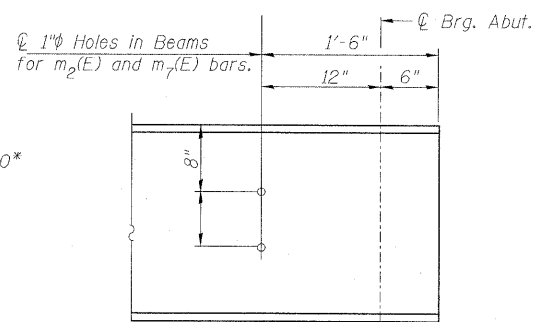


INTERIOR DIAPHRAGM D

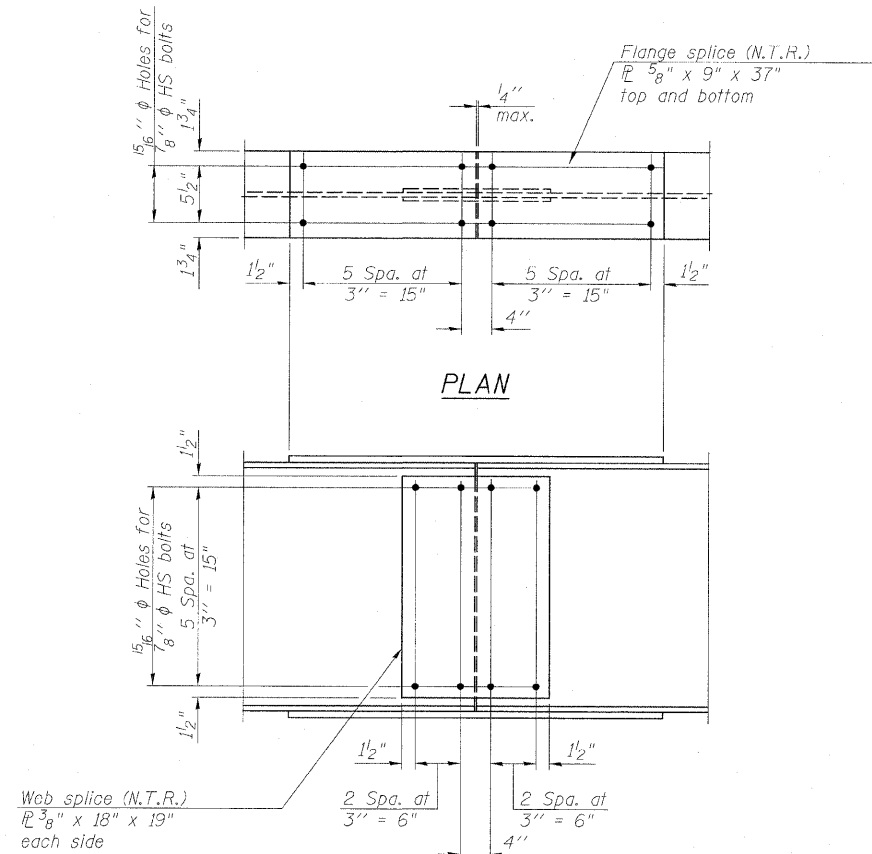
Note:

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.
- ** 3/4" ϕ HS bolts, 5/16" ϕ holes



TYP. END OF BEAM ELEVATION



ELEVATION

SPLICE DETAIL
(12 Required)

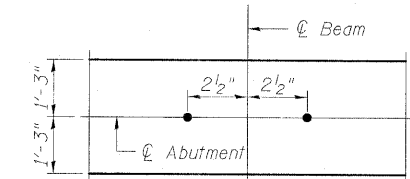
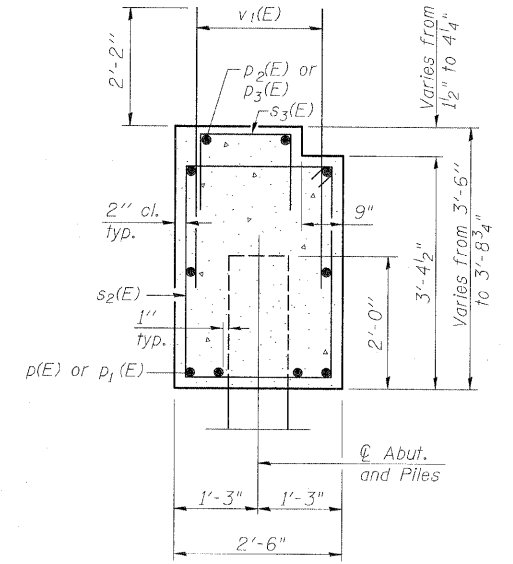
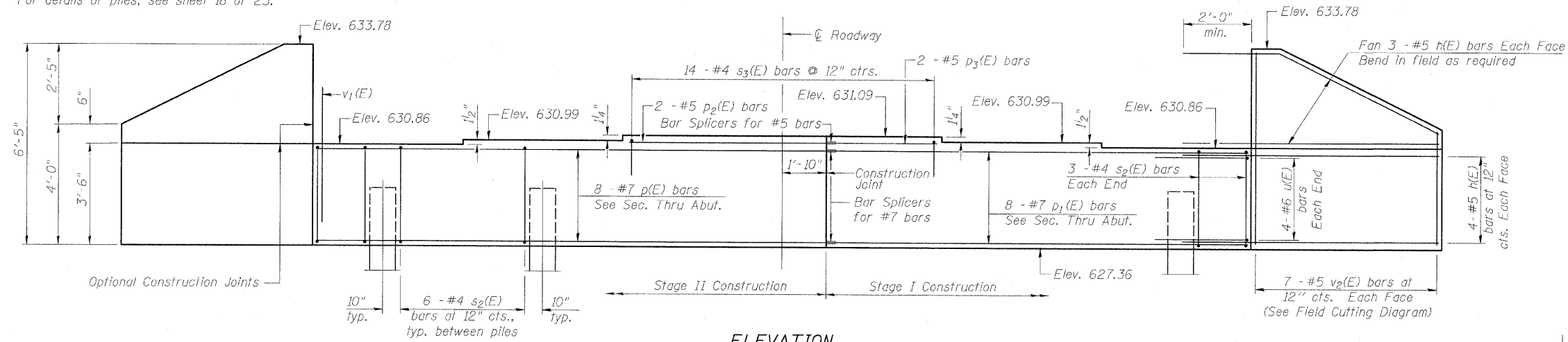
See Sheet 12 of 23 for N.T.R. note.

FRAMING DETAILS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

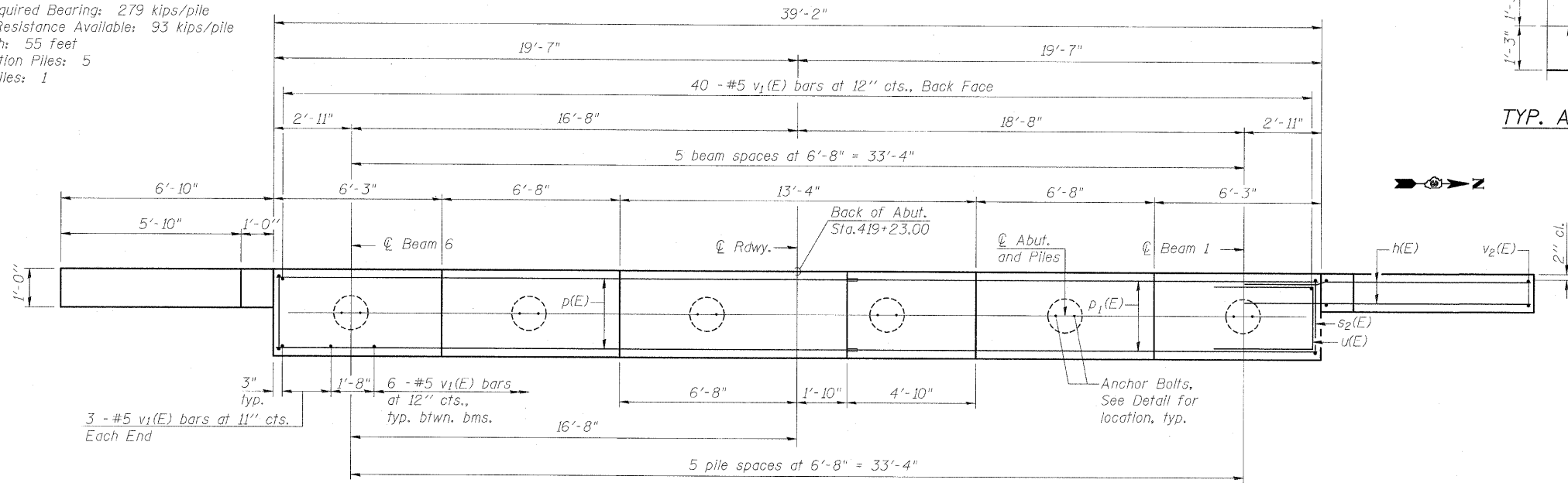
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 14 OF 23 SHEETS
S.S.I. P.A.	(3)BR-1	LASALLE	44	24	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 66619		

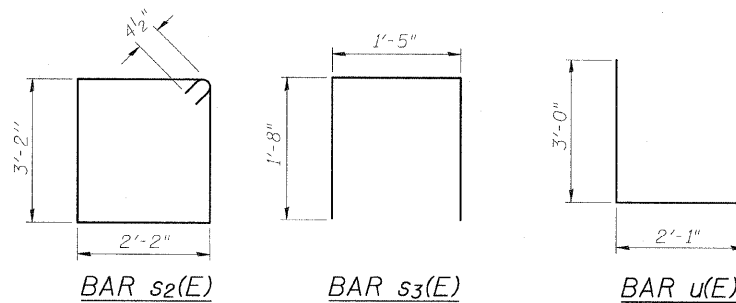
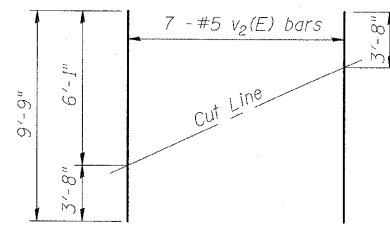
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 18 of 23.



PILE DATA
 Type: 12" Metal Shell w/ 0.25" walls
 Nominal Required Bearing: 279 kips/pile
 Allowable Resistance Available: 93 kips/pile
 Est. Length: 55 feet
 No. Production Piles: 5
 No. Test Piles: 1



Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	28	#5	9'-0"	—
p(E)	8	#7	21'-3"	—
p ₁ (E)	8	#7	17'-7"	—
p ₂ (E)	2	#5	8'-4"	—
p ₃ (E)	2	#5	4'-8"	—
s ₂ (E)	36	#4	11'-5"	□
s ₃ (E)	14	#4	4'-9"	□
u(E)	8	#7	8'-1"	—
v ₁ (E)	76	#5	4'-4"	—
v ₂ (E)	14	#5	9'-9"	—
Concrete Structures		Cu. Yd.	15.6	
Reinforcement Bars, Epoxy Coated		Pound	1860	
Structure Excavation		Cu. Yd.	115	
Furnishing Metal Shell Piles 12" x 0.250"		Foot	275	
Driving Piles		Foot	275	
Test Pile Metal Shells		Each	1	

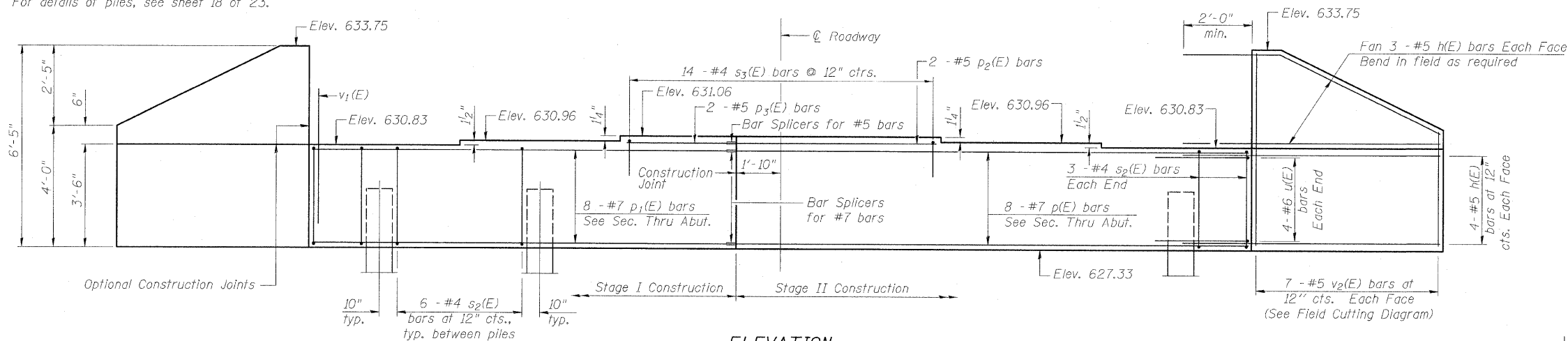
WEST ABUTMENT DETAILS
 US ROUTE 52 AND IL ROUTE 23 OVER
 CROOKED LEG CREEK
 F.A.P. ROUTE 68 SECTION (3) BR-1
 LASALLE COUNTY
 STATION 419+80.00
 STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 15 OF 23 SHEETS
U.S. I. F.A.	(3)BR-1	LASALLE	44	25	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 66619

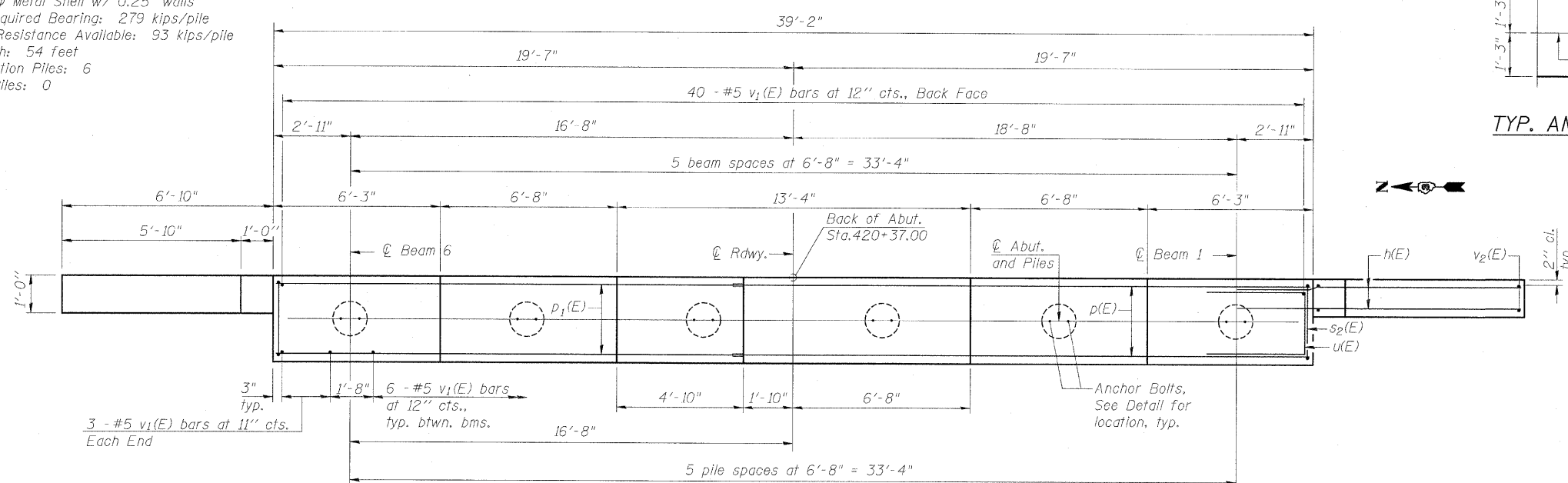
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 18 of 23.



ELEVATION
(Looking East)

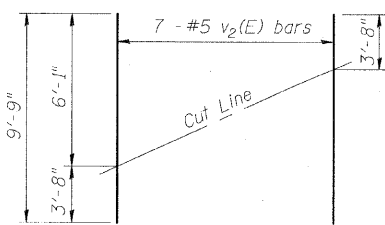
PILE DATA

Type: 12" Metal Shell w/ 0.25" walls
Nominal Required Bearing: 279 kips/pile
Allowable Resistance Available: 93 kips/pile
Est. Length: 54 feet
No. Production Piles: 6
No. Test Piles: 0



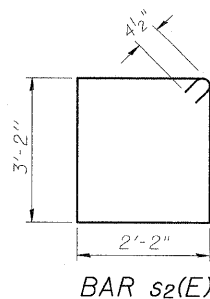
PLAN

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

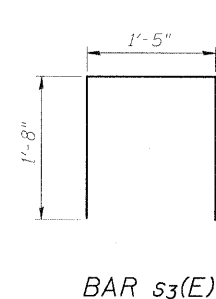


FIELD CUTTING DIAGRAM

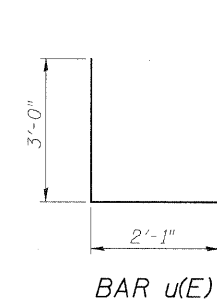
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



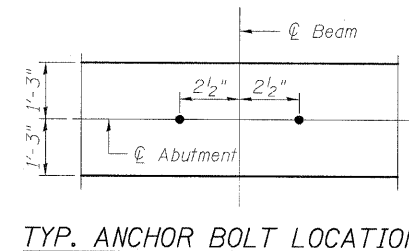
BAR s2(E)



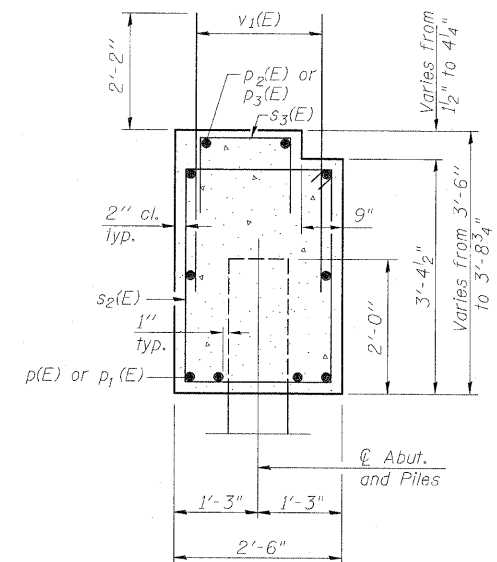
BAR s3(E)



BAR u(E)



TYP. ANCHOR BOLT LOCATION



SEC. THRU ABUT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	28	#5	9'-0"	—
p(E)	8	#7	21'-3"	—
p1(E)	8	#7	17'-7"	—
p2(E)	2	#5	8'-4"	—
p3(E)	2	#5	4'-8"	—
s2(E)	36	#4	11'-5"	□
s3(E)	14	#4	4'-9"	□
u(E)	8	#7	8'-1"	—
v1(E)	76	#5	4'-4"	—
v2(E)	14	#5	9'-9"	—
Concrete Structures		Cu. Yd.	15.6	
Reinforcement Bars, Epoxy Coated		Pound	1860	
Structure Excavation		Cu. Yd.	115	
Furnishing Metal Shell Piles 12" x 0.250"		Foot	324	
Driving Piles		Foot	324	

EAST ABUTMENT DETAILS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

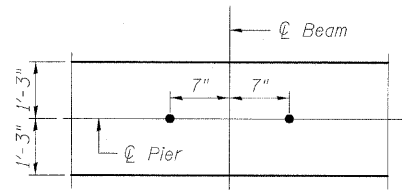
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 16 OF 23 SHEETS
U.S. F.A.	(3)BR-1	LASALLE	44	26	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	CONTRACT NO. 66619		

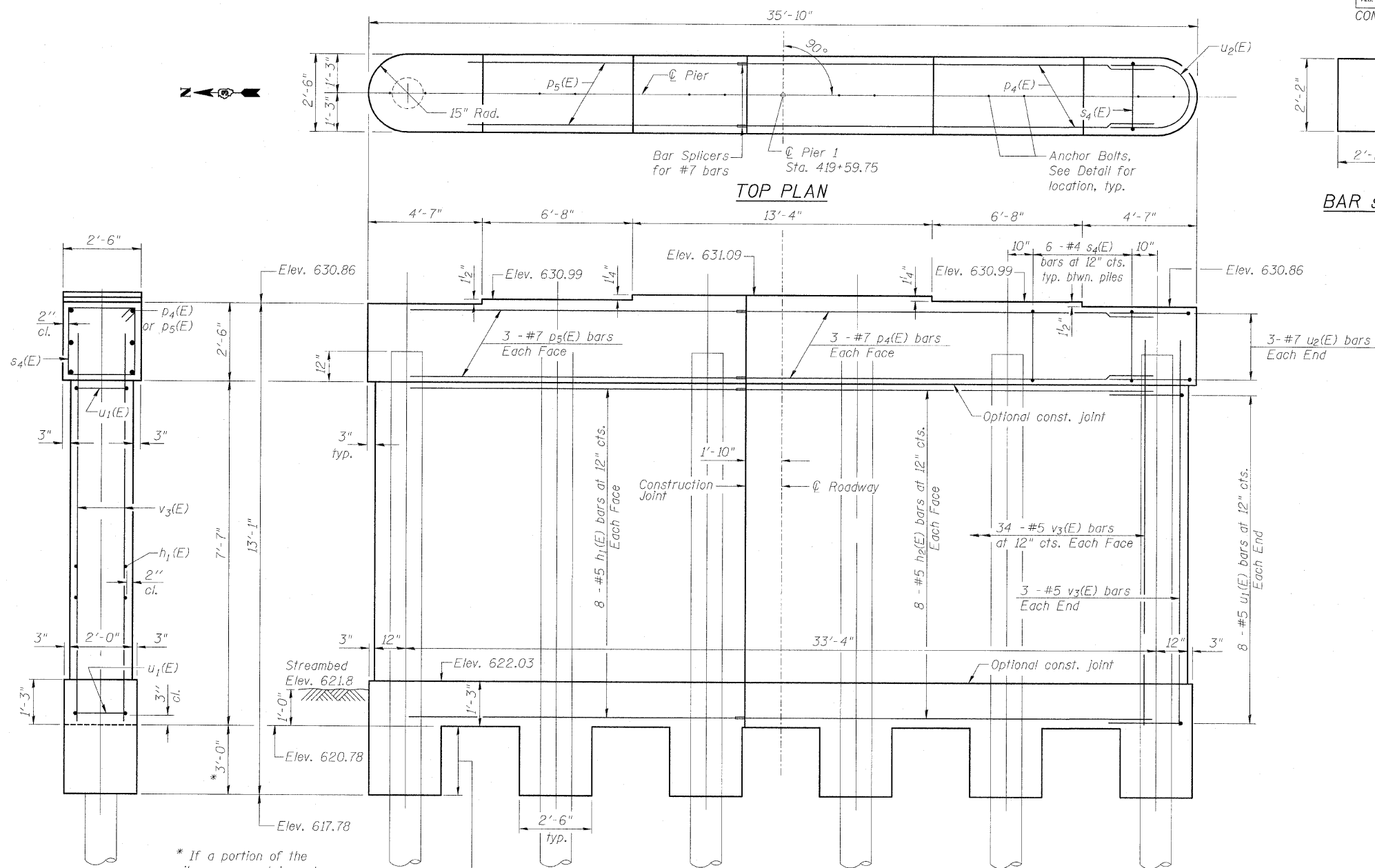
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 18 of 23.

PILE DATA

Type: 12" Metal Shell w/ 0.25" walls
Nominal Required Bearing: 327 kips/pile
Allowable Resistance Available: 109 kips/pile
Est. Length: 63 feet
No. Production Piles: 6
No. Test Piles: 0



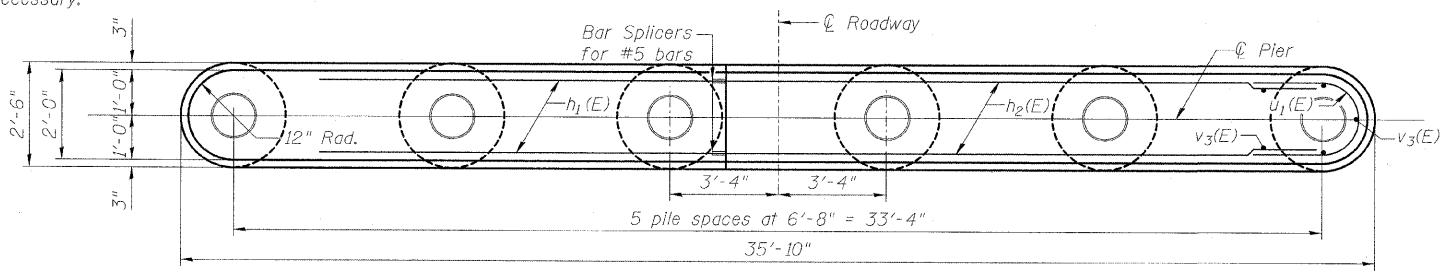
TYP. ANCHOR BOLT LOCATION



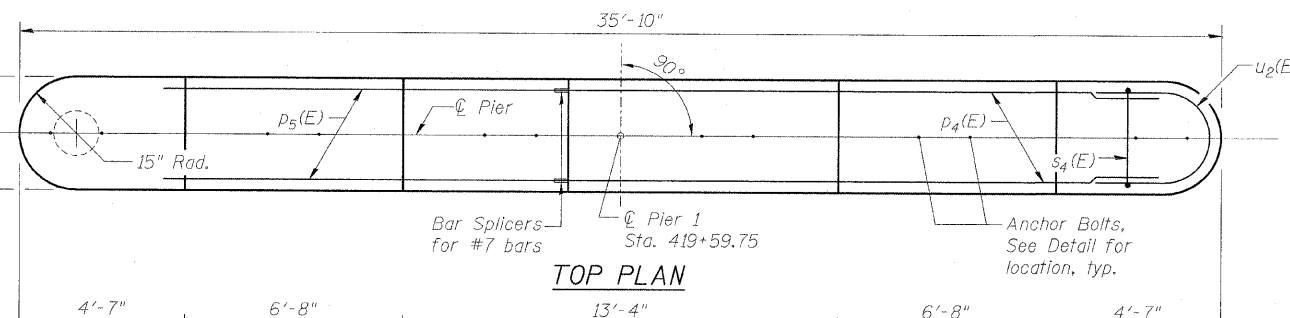
ELEVATION
(Looking East)

END VIEW

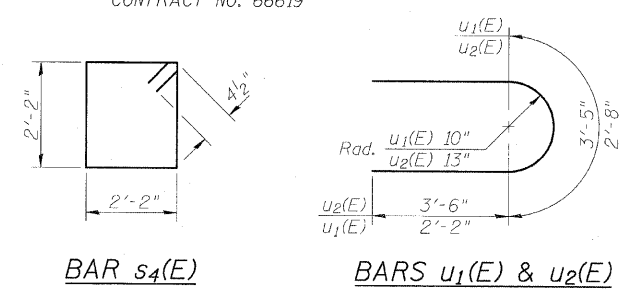
* If a portion of the pile encasement is under water, Concrete Encasement shall be tremmed under water into forms as necessary.



STEM PLAN

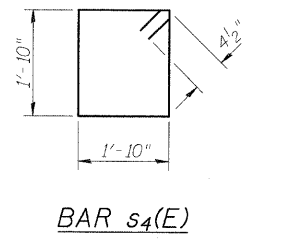


TOP PLAN



BAR s4(E)

BARS u1(E) & u2(E)



BAR s4(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	16	#5	14'-10"	—
h2(E)	16	#5	18'-6"	—
p4(E)	6	#7	18'-6"	—
p5(E)	6	#7	14'-10"	—
s4(E)	30	#4	9'-5"	□
s5(E)	42	#4	8'-1"	□
u1(E)	16	#5	7'-0"	U
u2(E)	6	#7	10'-5"	U
v3(E)	74	#5	9'-5"	—
v4(E)	48	#5	3'-9"	—
Concrete Structures		Cu. Yd.	29.1	
Reinforcement Bars, Epoxy Coated		Pound	2540	
Structure Excavation		Cu. Yd.	50	
Underwater Structure Excavation Protection, Location 1		Each	1	
Furnishing Metal Shell Piles 12" x 0.250"		Foot	378	
Driving Piles		Foot	378	
Concrete Encasement		Cu. Yd.	3.3	

PIER 1 DETAILS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

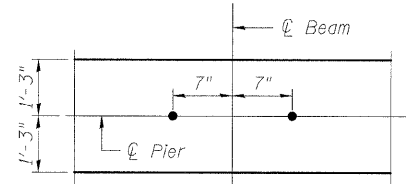
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 17 OF 23 SHEETS
S.B.L. F.A.	(3)BR-1	LASALLE	44	27	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 66619		

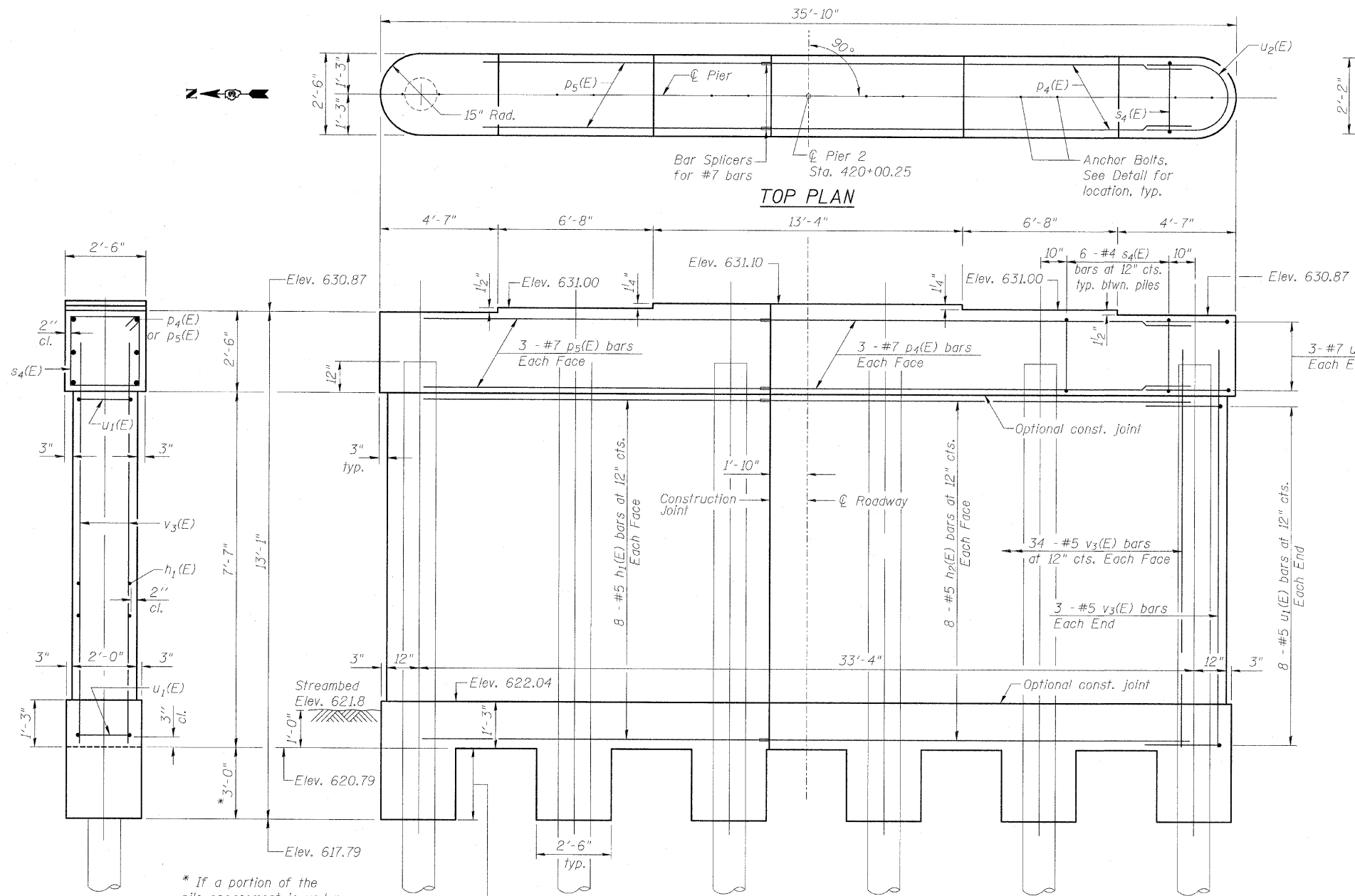
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 18 of 23.

PILE DATA

Type: 12" Metal Shell w/ 0.25" walls
Nominal Required Bearing: 327 kips/pile
Allowable Resistance Available: 109 kips/pile
Est. Length: 61 feet
No. Production Piles: 5
No. Test Piles: 1



TYP. ANCHOR BOLT LOCATION

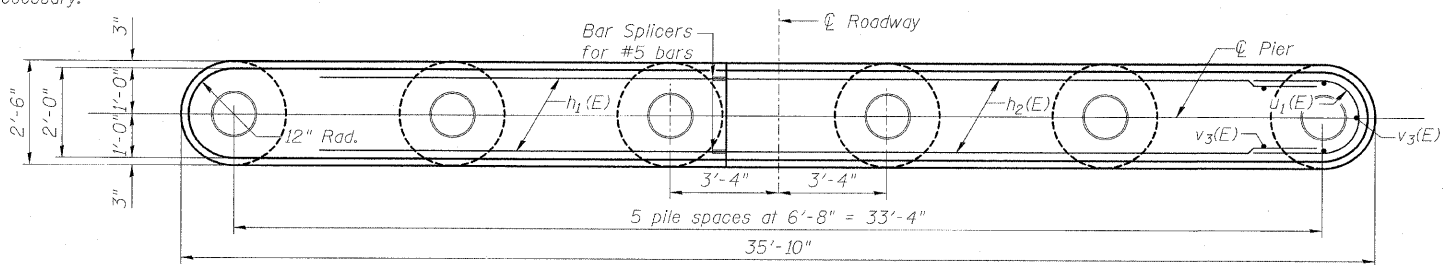


ELEVATION
(Looking East)

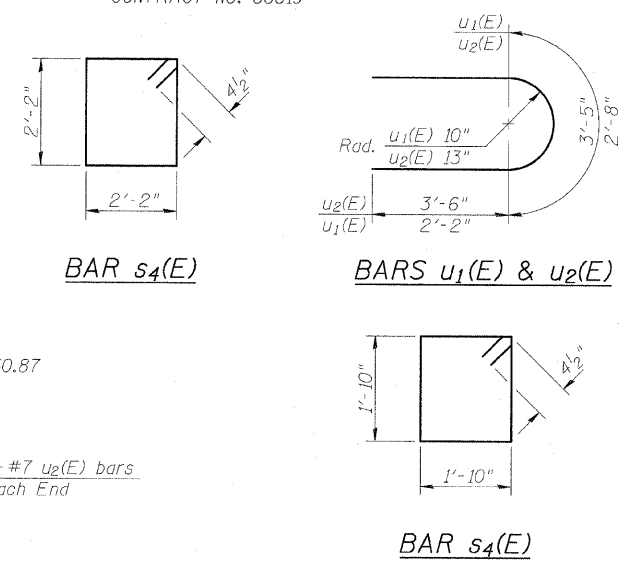
END VIEW

* If a portion of the pile encasement is under water, Concrete Encasement shall be tremmed under water into forms as necessary.

See Detail of Concrete Encasement at Piers. on Sheet 18 of 23



STEM PLAN



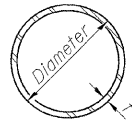
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h ₁ (E)	16	#5	14'-10"	—
h ₂ (E)	16	#5	18'-6"	—
p ₄ (E)	6	#7	18'-6"	—
p ₅ (E)	6	#7	14'-10"	—
s ₄ (E)	30	#4	9'-5"	□
s ₅ (E)	42	#4	8'-1"	□
u ₁ (E)	16	#5	7'-0"	U
u ₂ (E)	6	#7	10'-5"	U
v ₃ (E)	74	#5	9'-5"	—
v ₄ (E)	48	#5	3'-9"	—
Concrete Structures		Cu. Yd.	29.1	
Reinforcement Bars, Epoxy Coated		Pound	2540	
Structure Excavation		Cu. Yd.	50	
Underwater Structure Excavation Protection, Location 2		Each	1	
Furnishing Metal Shell Piles 12" x 0.250"		Foot	305	
Driving Piles		Foot	305	
Test Pile Metal Shells		Each	1	
Concrete Encasement		Cu. Yd.	3.3	

PIER 2 DETAILS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

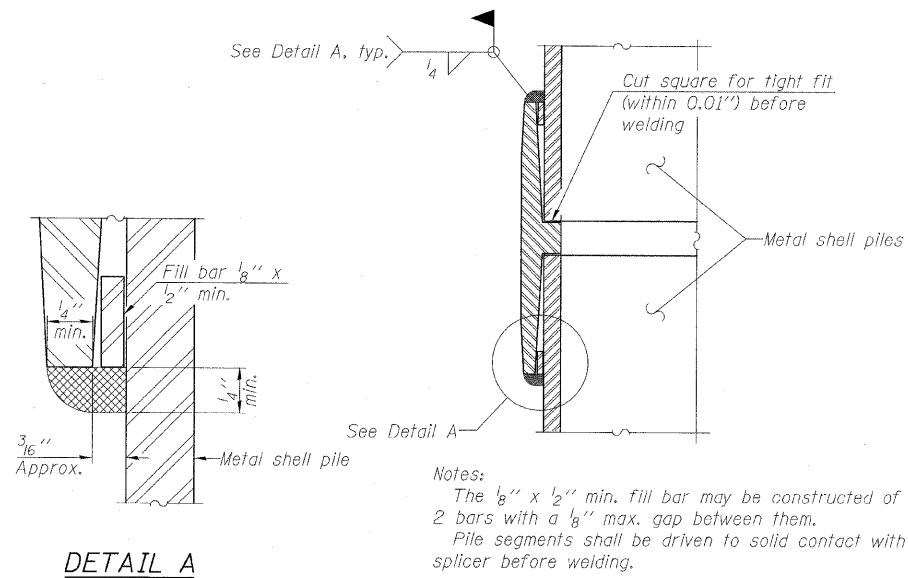
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 18 OF 23 SHEETS
S.B.L. F.A.	(3)BR-1	LASALLE	44	28	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 66619		



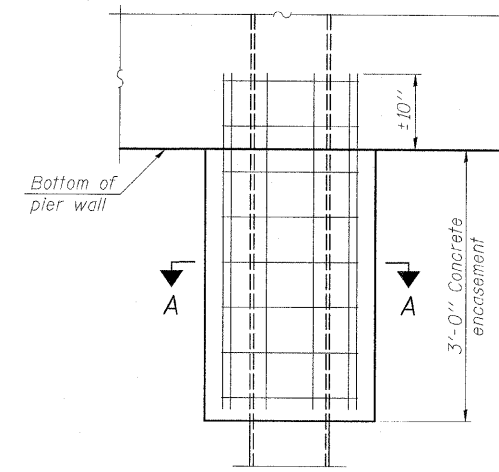
METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.170"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0360
PP14	0.312"	45.61	0.0361

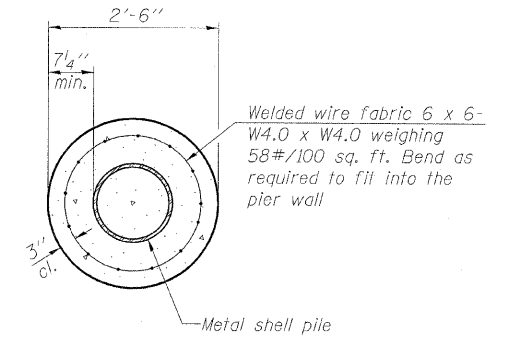


Notes:
The $\frac{1}{8}$ " x $\frac{1}{2}$ " min. fill bar may be constructed of 2 bars with a $\frac{1}{8}$ " max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



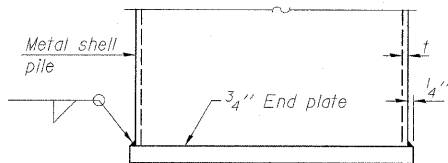
ELEVATION



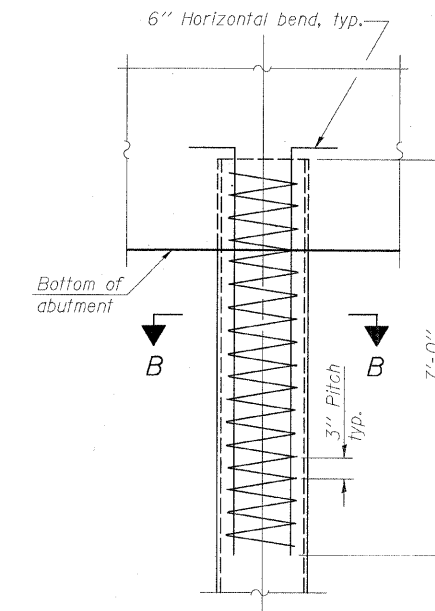
SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

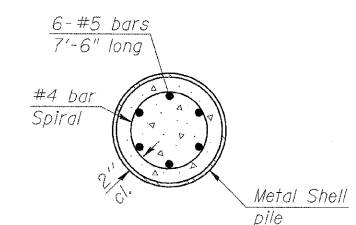
CONCRETE ENCASEMENT AT PIERS



END PLATE ATTACHMENT

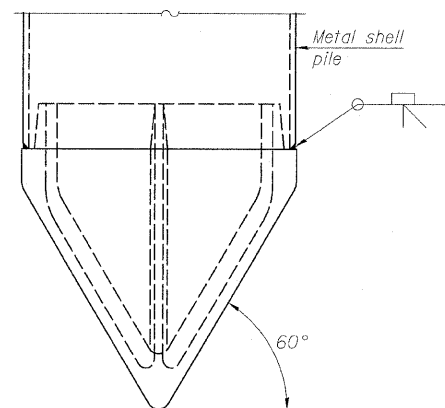


ELEVATION



SECTION B-B

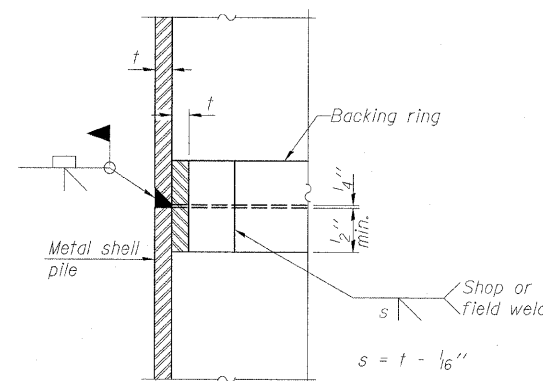
METAL SHELL REINFORCEMENT AT ABUTMENTS



METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.



COMPLETE PENETRATION WELD SPLICE

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

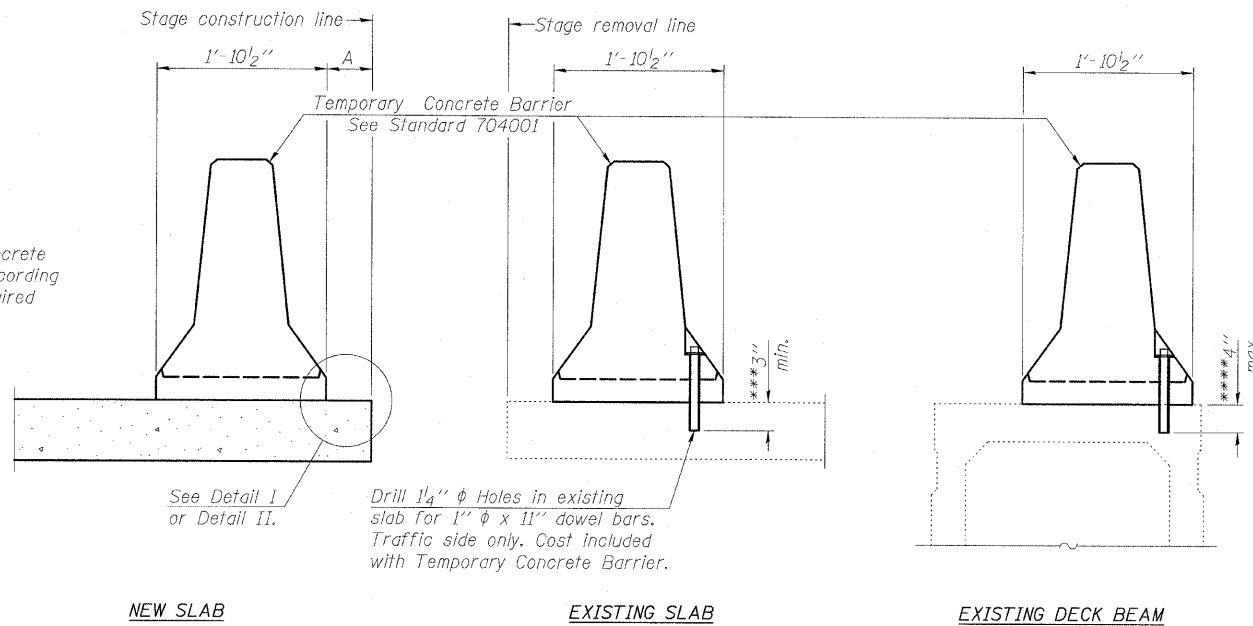
Note:
The metal shell piles shall be according to ASTM A 252 Grade 3.

METAL SHELL PILE DETAILS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 19 OF 23 SHEETS
S.B.L. F.A.	(3)BR-1	LASALLE	44	29	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 66619		

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

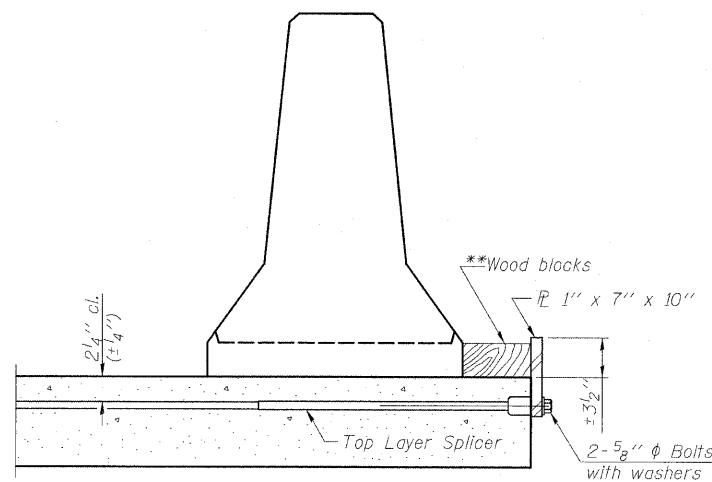
NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x 10" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

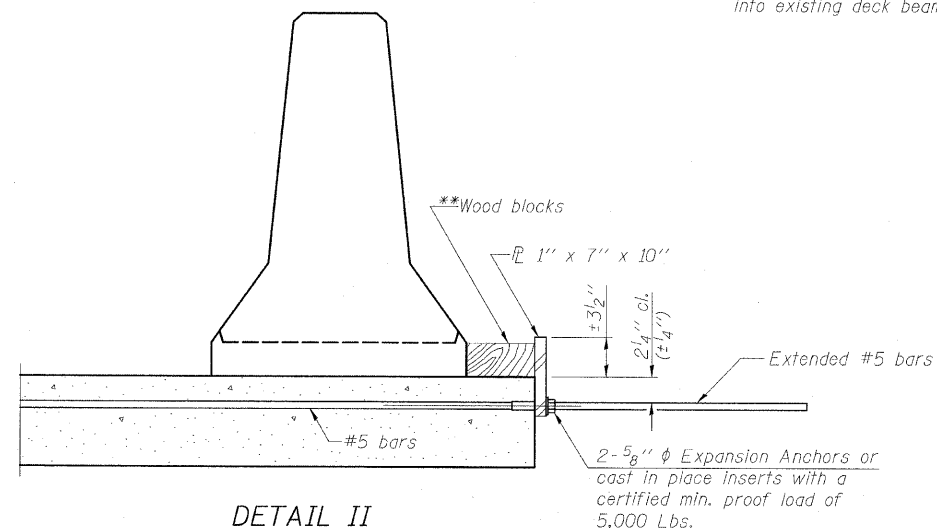
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x 10" steel \bar{L} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

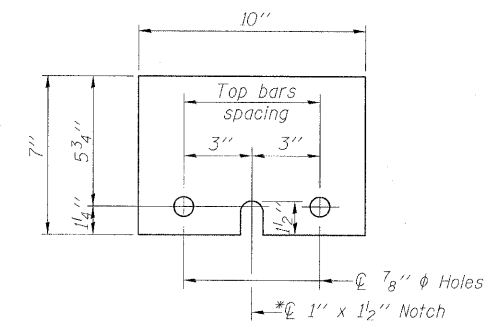
***Dimension shown is minimum required embedment into concrete.
If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.
***If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{L} 1" x 7" x 10"

* Required only with Detail II

**Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

**TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION**
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

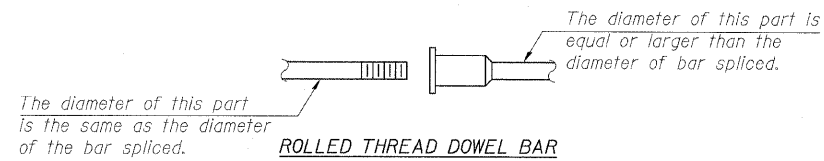
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 20 OF 23 SHEETS
S. B. L. F. A.	(3)BR-1	LASALLE	44	30	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 66619		

NOTES

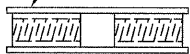
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_l$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_l$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_l = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

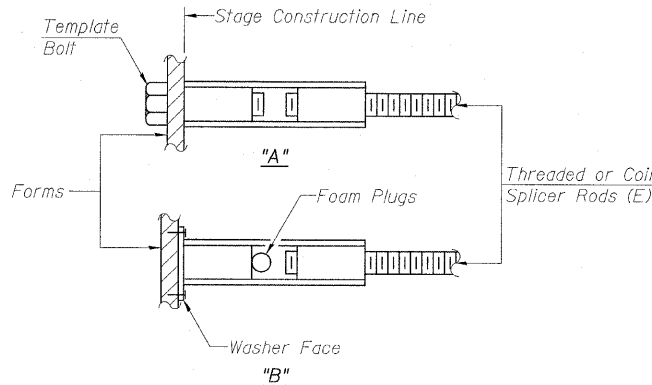


Wire Connector



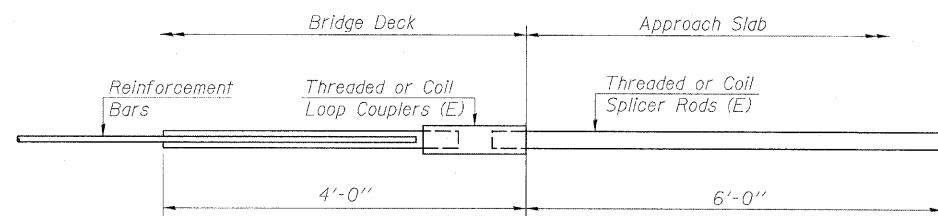
BAR SPLICER ASSEMBLY ALTERNATIVES

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



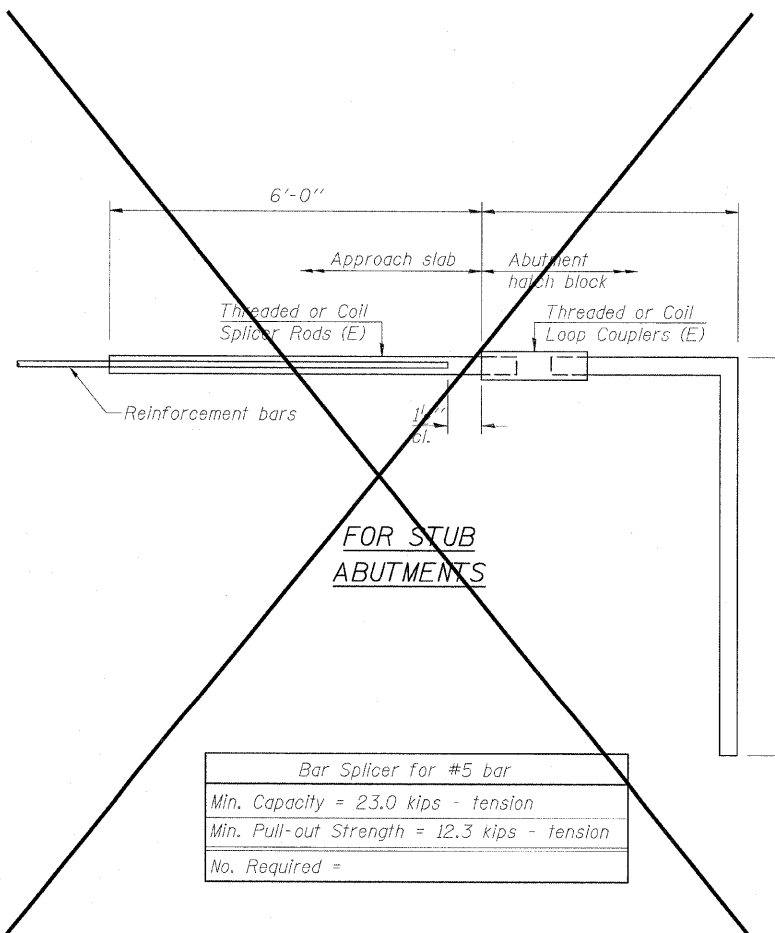
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



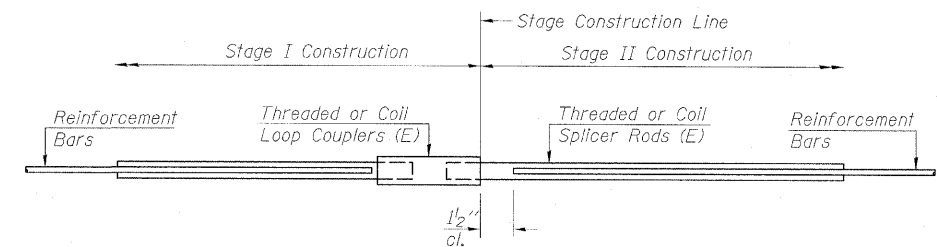
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 72



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



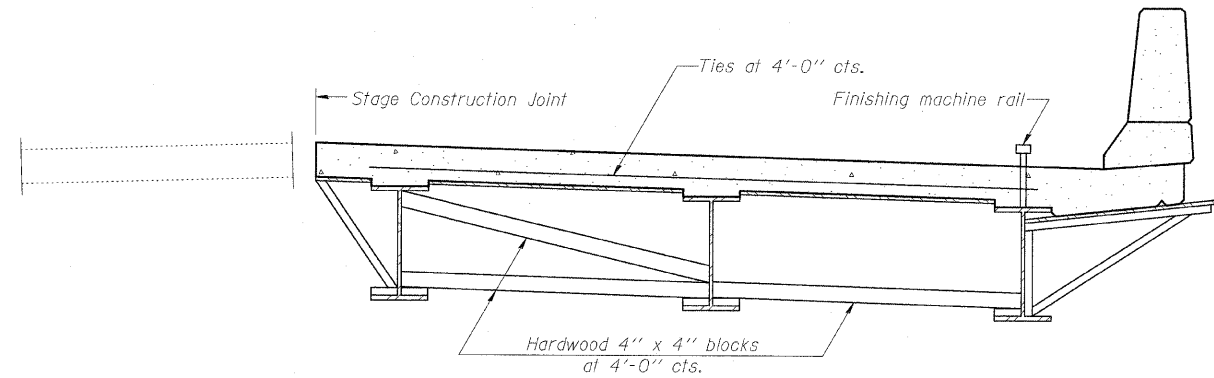
STANDARD

Bar Size	No. Assemblies Required	Location
#5	364	Deck
#6	16	End Diaphragms
#5	4	Abutments
#7	12	Abutments
#5	32	Piers
#7	12	Piers

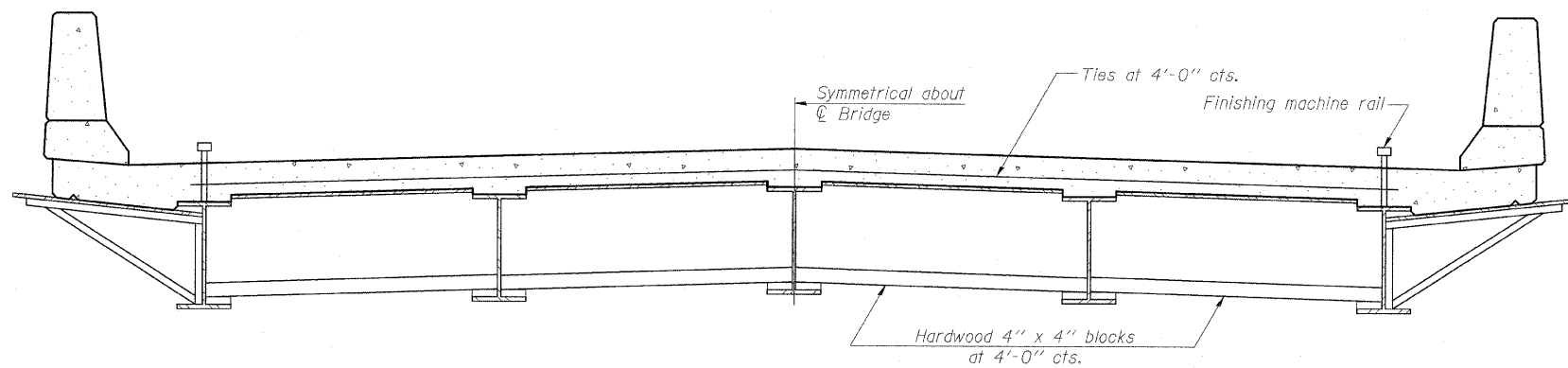
BAR SPLICER ASSEMBLY DETAILS
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 21 OF 23 SHEETS
S. R. I. F. A.	(3) BR-1	LASALLE	44	31	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 66619		



FORM BRACES FOR
STAGE CONSTRUCTION



FORM BRACES FOR
STANDARD CONSTRUCTION

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.
The finishing machine rails shall be placed on the top flange of the exterior beams.
The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.
For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.

CANTILEVER FORMING BRACKETS
FOR SUPERSTRUCTURES WITH
W27 BEAMS AND SMALLER
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SOIL BORING LOG

Page 1 of 2

Date 7/17/00

ROUTE FAP 68(US52/IL23) DESCRIPTION US 52 OVER CROOKED LEG CREEK NORTH OF OTTAWA LOGGED BY K.W.
SECTION (3)BR-1 LOCATION NW 1/4, SEC. 36, TWP. 35N, RNG. 3E, 3rd PM
COUNTY LASALLE DRILLING METHOD HOLLOW STEM AUGER HAMMER TYPE AUTOMATIC

STRUCT. NO.	Station	DEPTH (ft)	BLOWS (16")	UCS (tsf)	MOIST (%)	DESCRIPTION	DEPTH (ft)	BLOWS (16")	UCS (tsf)	MOIST (%)
050-0056	419+80					Surface Water Elev. _____ ft				
						Stream Bed Elev. _____ ft				
BORING NO. 2 WEST ABUT.						Groundwater Elev.: _____ ft				
						First Encounter _____ ft				
						Upon Completion _____ ft				
						After _____ Hrs.				
						Ground Surface Elev. _____ ft				
AUGER SAMPLE - Black SILTY CLAY						Stiff Gray SILTY CLAY LOAM TILL				
	624.72									
Very Stiff Black, Brown, & Dark Gray SILTY CLAY & SILTY CLAY TILL						Medium Gray SILT, Fine to Coarse SAND & Minor GRAVEL				
	622.72									
Very Soft Black SILTY CLAY LOAM with Fine GRAVEL Pebbles										
	621.22					Very Stiff Gray-Brown SILTY CLAY LOAM TILL				
Stiff Gray SILTY CLAY TILL										
	617.72									
Medium Gray SAND Subangular to Angular coarse GRAVEL with FREE WATER										
	615.72									
Very Stiff Gray SILTY LOAM TILL										
	610.22									
Very Stiff Gray SILTY CLAY LOAM TILL										
	607.72									
Loose gray SAND & Coarse GRAVEL										
	606.72									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 2 of 2

Date 7/17/00

ROUTE FAP 68(US52/IL23) DESCRIPTION US 52 OVER CROOKED LEG CREEK NORTH OF OTTAWA LOGGED BY K.W.
SECTION (3)BR-1 LOCATION NW 1/4, SEC. 36, TWP. 35N, RNG. 3E, 3rd PM
COUNTY LASALLE DRILLING METHOD HOLLOW STEM AUGER HAMMER TYPE AUTOMATIC

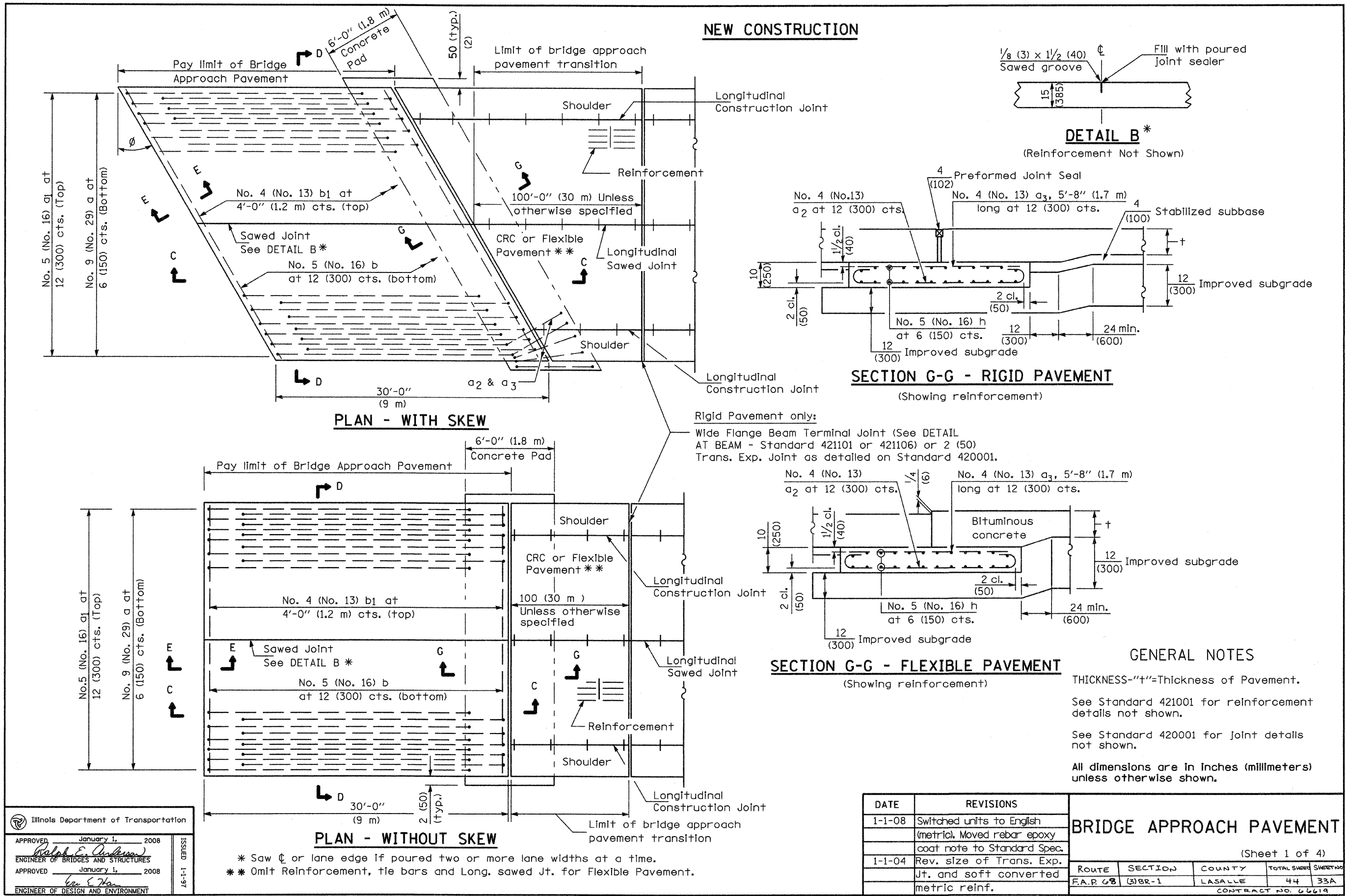
STRUCT. NO.	Station	DEPTH (ft)	BLOWS (16")	UCS (tsf)	MOIST (%)	DESCRIPTION	DEPTH (ft)	BLOWS (16")	UCS (tsf)	MOIST (%)
050-0056	419+80					Surface Water Elev. _____ ft				
						Stream Bed Elev. _____ ft				
BORING NO. 2 WEST ABUT.						Groundwater Elev.: _____ ft				
						First Encounter _____ ft				
						Upon Completion _____ ft				
						After _____ Hrs.				
						Ground Surface Elev. _____ ft				
Very Stiff Gray-Brown SILTY CLAY LOAM TILL (continued)						Hard Gray SILTY LOAM TILL (continued)				
	583.72					End of Boring				
Hard Gray SILTY CLAY TILL										
	581.22					Dense Gray Interlayered Medium SAND, Fine SAND, SILT, CLAY; ORGANICS & SHELL FRAGMENTS Present				
	577.72					Medium Gray Fine to Medium SAND & Minor GRAVEL (Well Graded-Rounded to Subangular)				
	576.22					Hard Greenish Gray CLAY				
	572.72					Dense Gray Weathered GRAVEL with Gray TILL				
	570.72					Hard Gray SILTY LOAM TILL				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

BORING 2

BORING 2
US ROUTE 52 AND IL ROUTE 23 OVER
CROOKED LEG CREEK
F.A.P. ROUTE 68 SECTION (3) BR-1
LASALLE COUNTY
STATION 419+80.00
STRUCTURE NUMBER 050-0240



Illinois Department of Transportation

APPROVED January 1, 2008
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

APPROVED January 1, 2008
Ken E. Han
ENGINEER OF DESIGN AND ENVIRONMENT

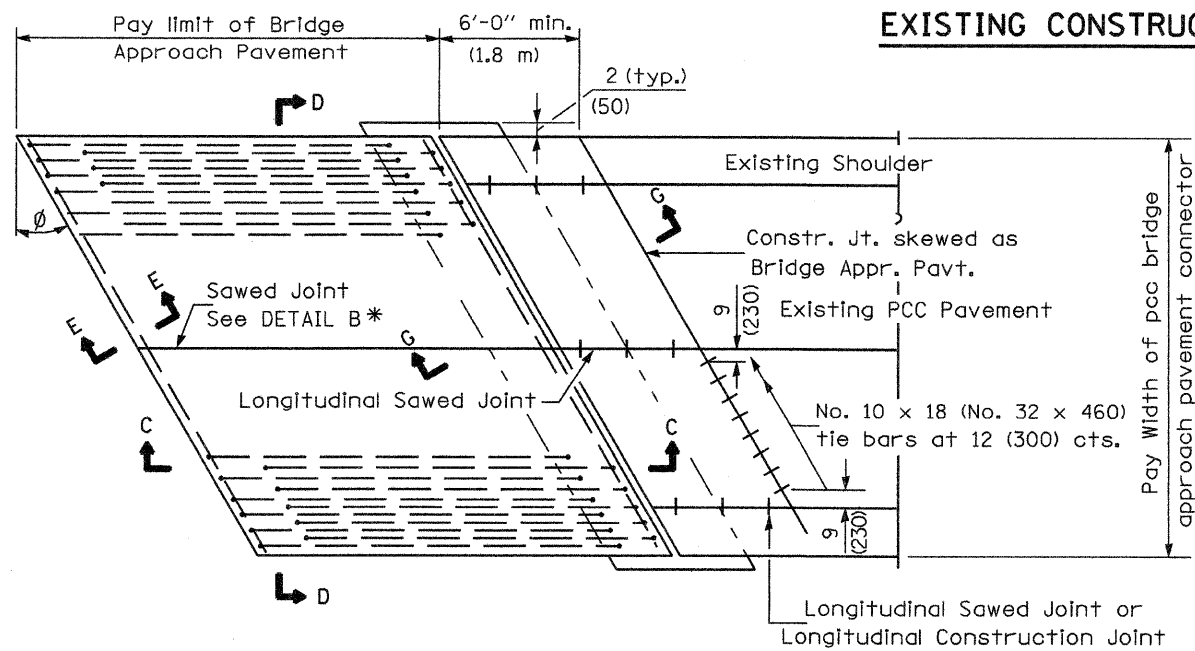
16-F-1 GENESIS

DATE	REVISIONS
1-1-08	Switched units to English (metric). Moved rebar epoxy coat note to Standard Spec.
1-1-04	Rev. size of Trans. Exp. Jt. and soft converted metric reinf.

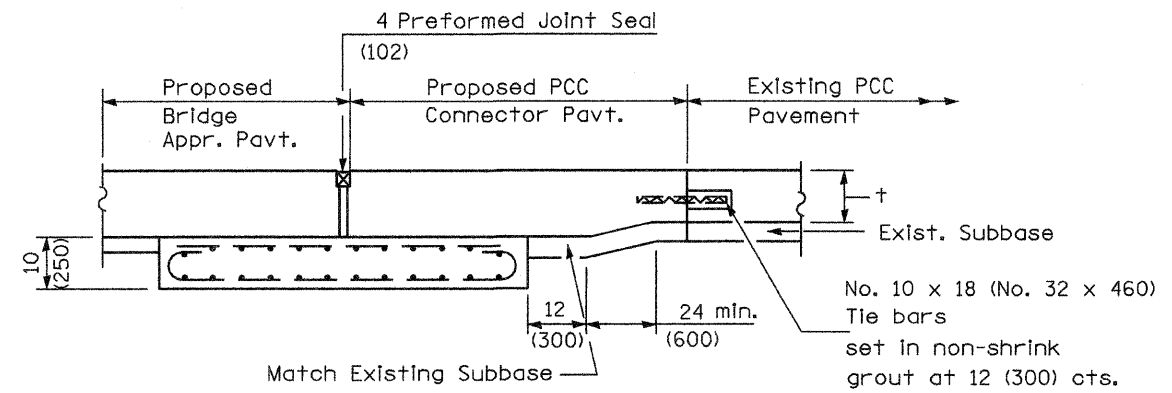
BRIDGE APPROACH PAVEMENT				
(Sheet 1 of 4)				
ROUTE	SECTION	COUNTY	TOTAL SHEET	SHEET NO.
F.A.P. 08	(3)BR-1	LASALLE	44	33A
CONTRACT NO. 06619				

* Saw ϕ or lane edge if poured two or more lane widths at a time.
** Omit Reinforcement, tie bars and Long. sawed Jt. for Flexible Pavement.

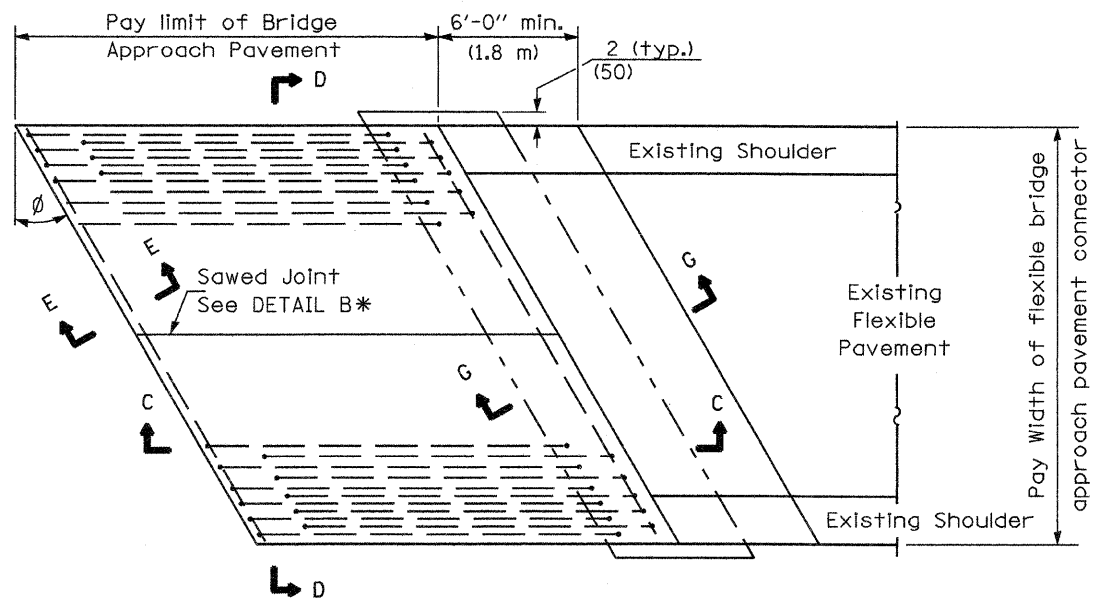
EXISTING CONSTRUCTION



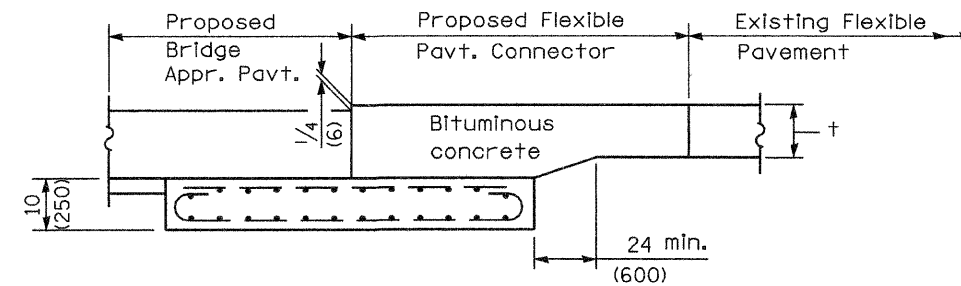
BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)



SECTION G-G - RIGID PAVEMENT



BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)



SECTION G-G - FLEXIBLE PAVEMENT

Illinois Department of Transportation

APPROVED January 1, 2008
Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES

ISSUED 1-1-07

APPROVED January 1, 2008
Ken E. Han
 ENGINEER OF DESIGN AND ENVIRONMENT

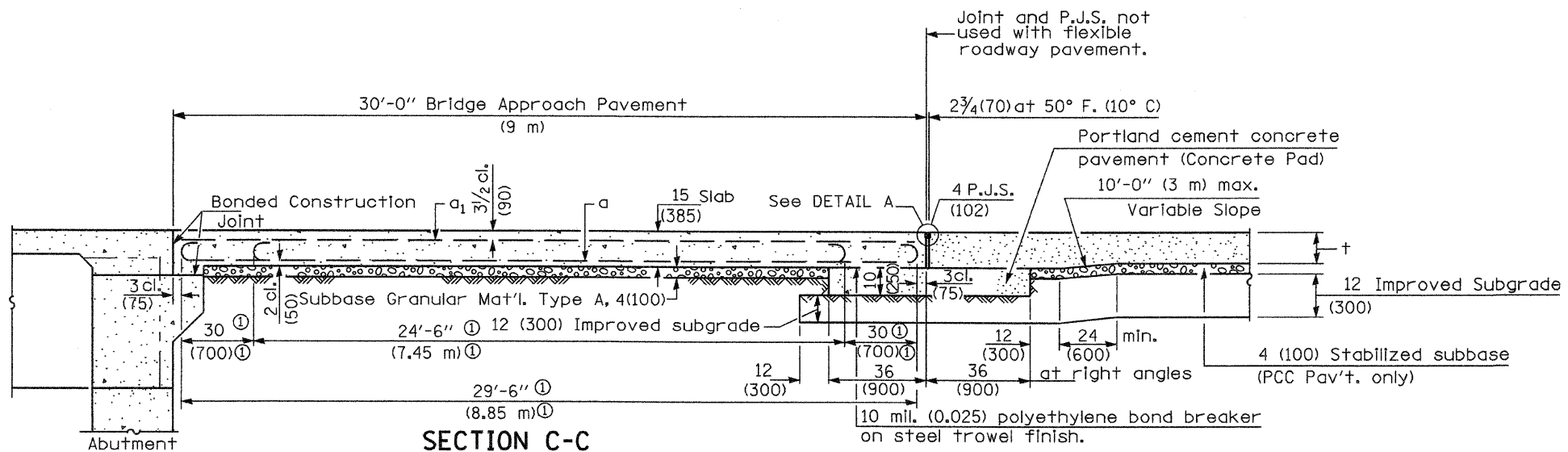
BRIDGE APPROACH PAVEMENT

(Sheet 2 of 4)

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 68	(3)BR-1	LASALLE	44	33B

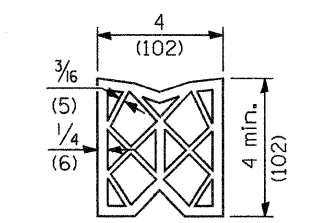
CONTRACT NO. 66619

1.5.8.11.1

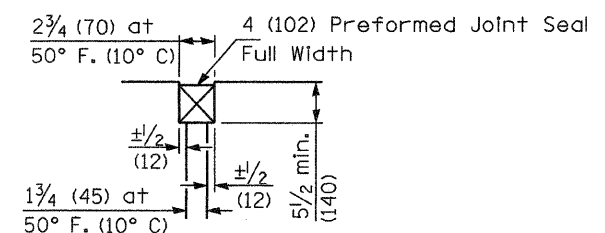


SECTION C-C

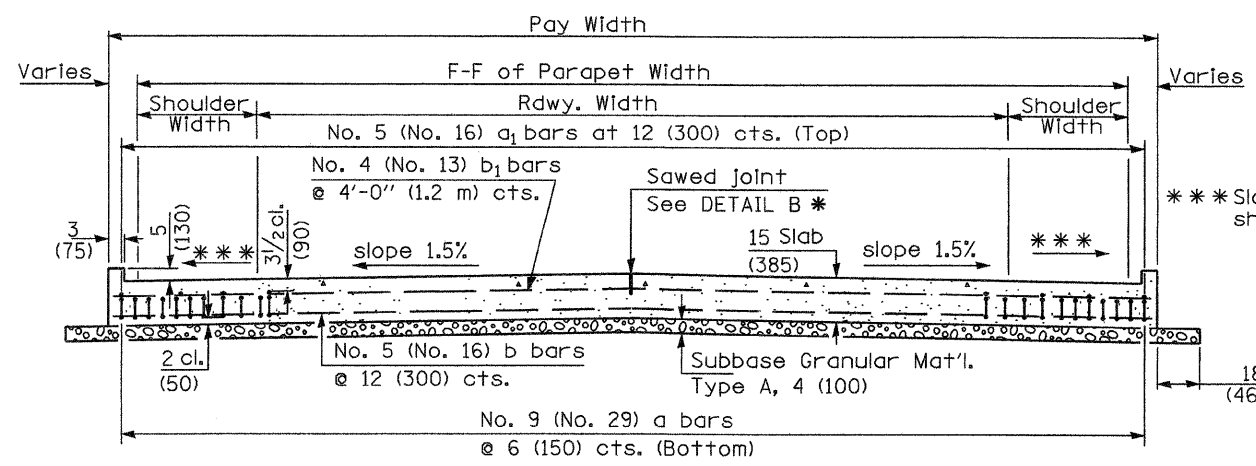
Ⓛ Stagger No. 9 (No. 29) a bars as shown on plan - full width



PREFORMED JOINT SEAL



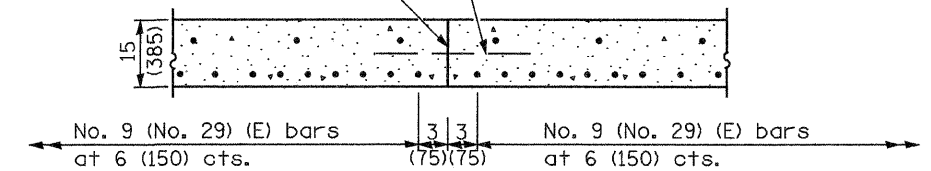
DETAIL A



SECTION D-D

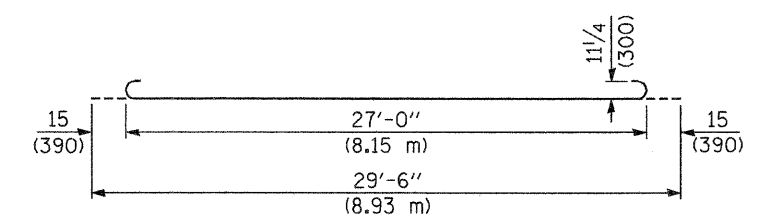
(See Plan for Dimensions not shown)

Longitudinal Construction Joint in accordance with details shown on Standard 420001.

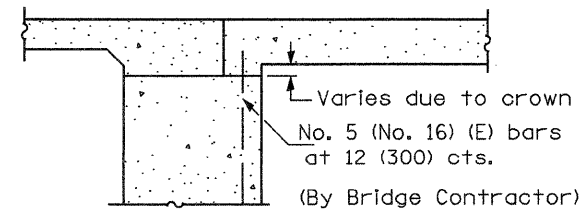


OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.

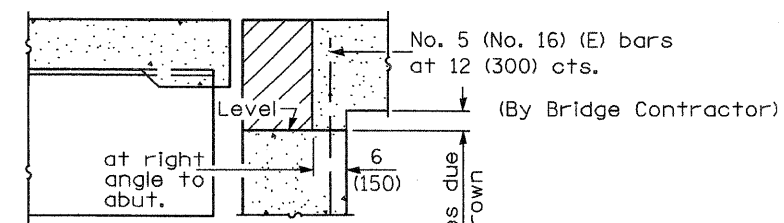


BAR a



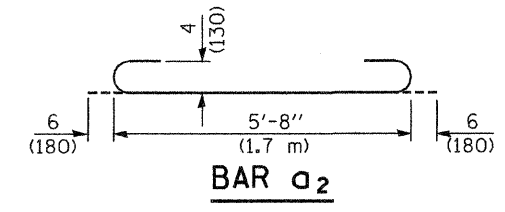
SECTION E-E

(Integral Abutments)



SECTION E-E

(Jointed Abutments)



BAR a2

DESIGN STRESSES
 fy = 60,000 p.s.i. (400 MPa)
 f'c = 3,500 p.s.i. (24 MPa)
 n = 8.5

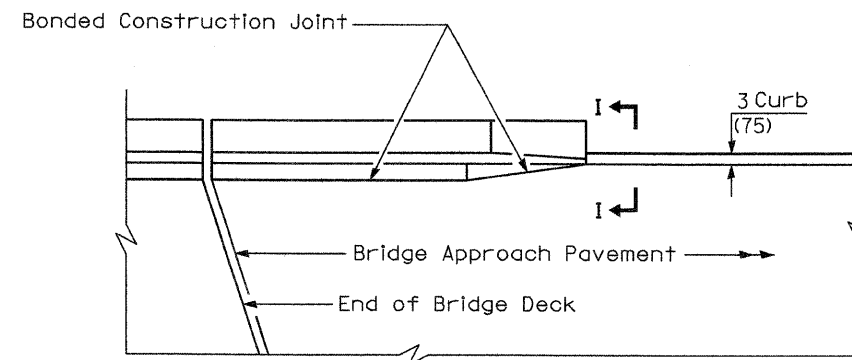
BRIDGE APPROACH PAVEMENT				
(Sheet 3 of 4)				
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 6B	(3)BR-1	LASALLE	44	33C
CONTRACT NO 66619				

Illinois Department of Transportation

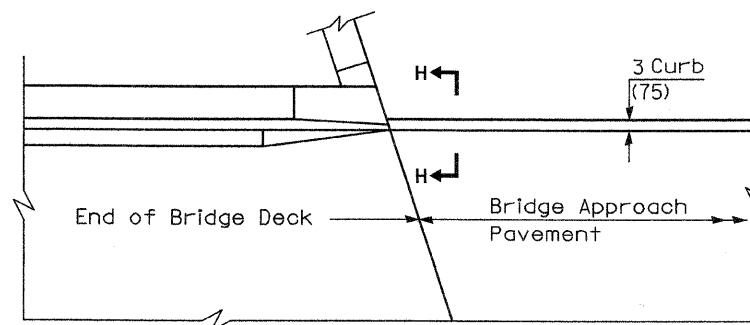
APPROVED January 1, 2008
Ralph E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES

APPROVED January 1, 2008
Ken E. Han
 ENGINEER OF DESIGN AND ENVIRONMENT

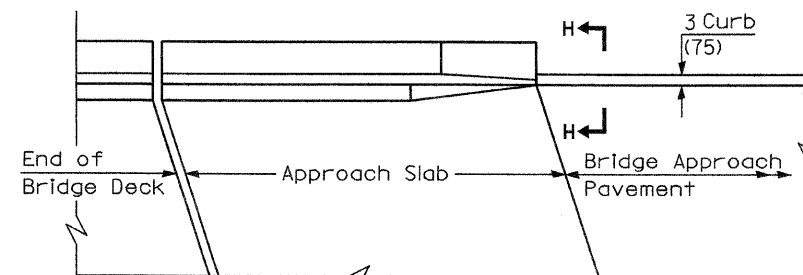
1/8-1-87



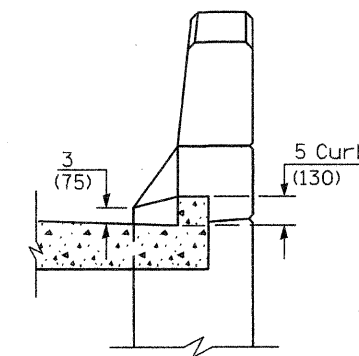
**PARAPET TO CURB TRANSITION
PILE BENT ABUTMENT**



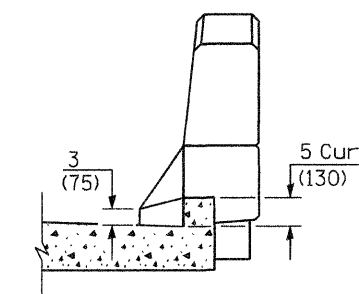
**PARAPET TO CURB TRANSITION
INTEGRAL ABUTMENT**



**PARAPET TO CURB TRANSITION
VAULTED ABUTMENT**



SECTION I - I



SECTION H - H

BRIDGE APPROACH PAVEMENT

(Sheet 4 of 4)

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 68	(3)BR-1	LASALLE	44	33D

CONTRACT NO. 66619

Illinois Department of Transportation

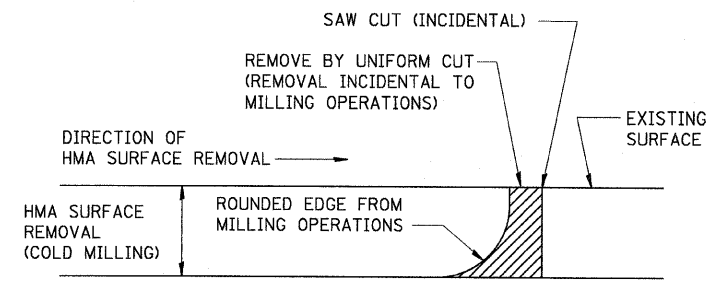
APPROVED January 1, 2008
Walsh E. Anderson
 ENGINEER OF BRIDGES AND STRUCTURES

ISSUED
 1/6-1-1 GENST

APPROVED January 1, 2008
Ken E. Han
 ENGINEER OF DESIGN AND ENVIRONMENT

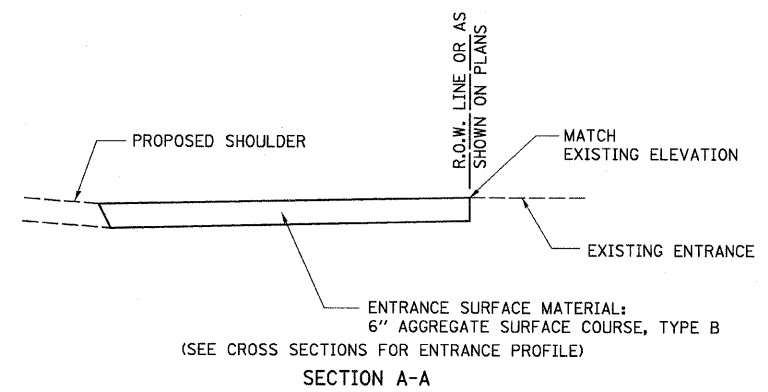
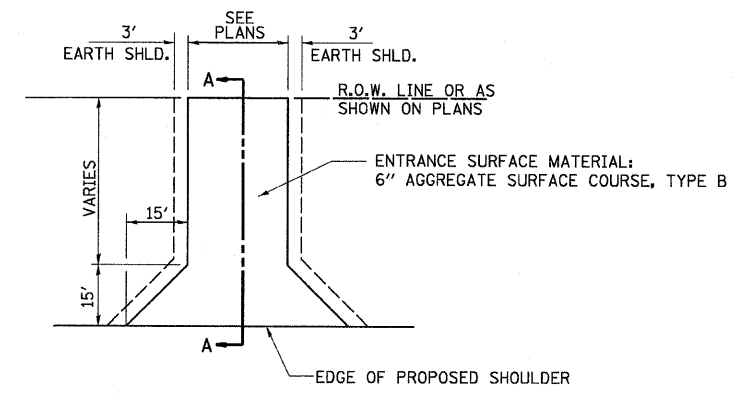
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3)BR-1	LASALLE	44	34
STA. N/A		TO STA. N/A		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 66619

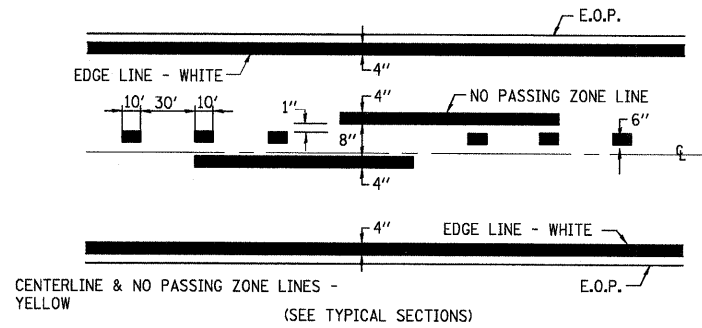


NOTE: WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL.

HOT-MIX ASPHALT DETAIL AT BUTT JOINTS



FIELD ENTRANCE DETAIL

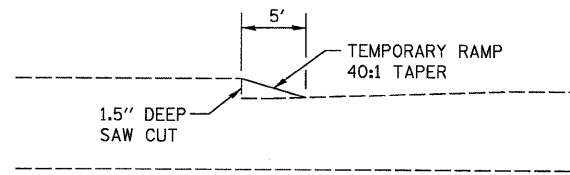


PAVEMENT MARKING

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		MISCELLANEOUS DETAILS
SCALE: NONE		DRAWN BY DAC
DATE: JUNE 20, 2008		CHECKED BY AAG

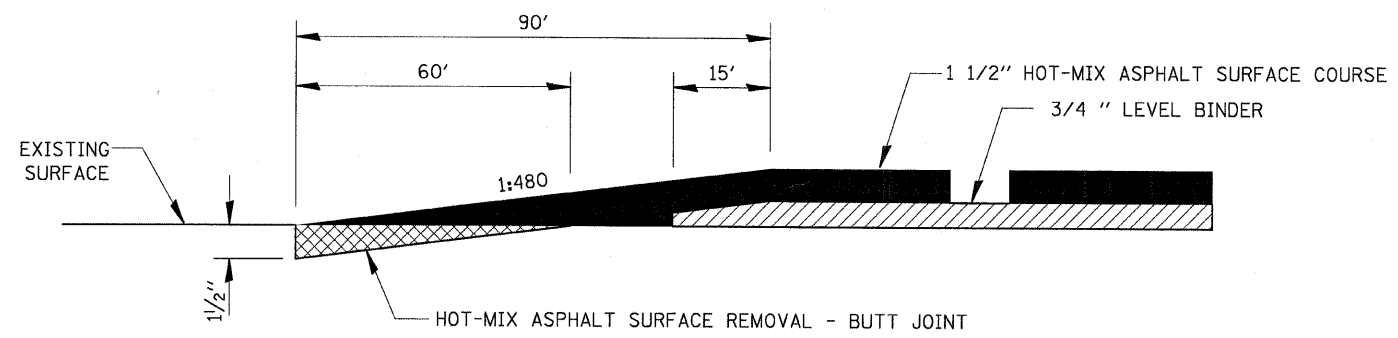
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68	(3)BR-1	LASALLE	44	35
STA. N/A	TO STA. N/A			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 66619



TEMPORARY RAMP DETAIL

STA. 415+50.0 TO STA. 415+55.0
STA. 424+45.0 TO STA. 424+50.0



BUTT JOINT DETAIL

STA. 415+50.0 TO STA. 416+40.0
STA. 423+60.0 TO STA. 424+50.0

- NOTES:
1. REFER TO ARTICLE 406.08 OF THE STANDARD SPECIFICATIONS.
 2. THE PAVEMENT SURFACE TO BE REMOVED IN THE DETAIL MAY BE HOT-MIX ASPHALT OR CONCRETE, REGARDLESS OF THE TYPE OF MATERIAL, THE WORK SHALL BE DONE IN ACCORDANCE WITH ARTICLE 440.04 OF THE STANDARD SPECIFICATIONS.
 3. HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQ YD FOR HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		MISCELLANEOUS DETAILS
SCALE: NONE		DRAWN BY DAC
DATE: JUNE 20, 2008		CHECKED BY AAG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3)BR-1	LASALLE	44	37
STA. 416+00.00 TO STA. 417+00.00				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DATE	BY

NO.	AREAS CHECKED

NO.	FINN SURVEY

NO.	NOTE BOOK

NO.	AREAS CHECKED

DATE	BY

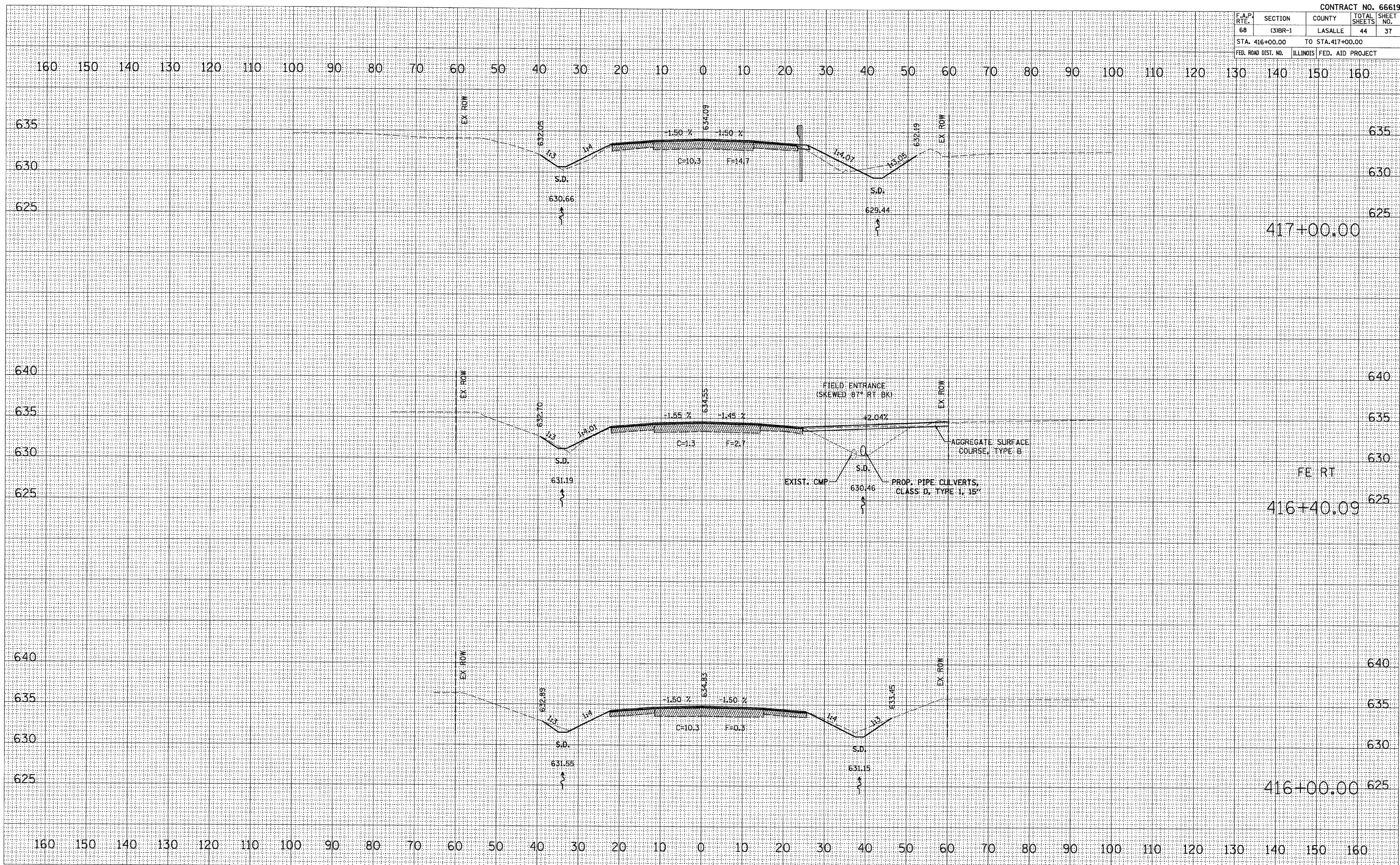
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NO.	ORIGINAL SURVEY

NO.	NOTE BOOK

NO.	AREAS CHECKED

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PLOT SCALE = #SCALE#
USER NAME = #USER#

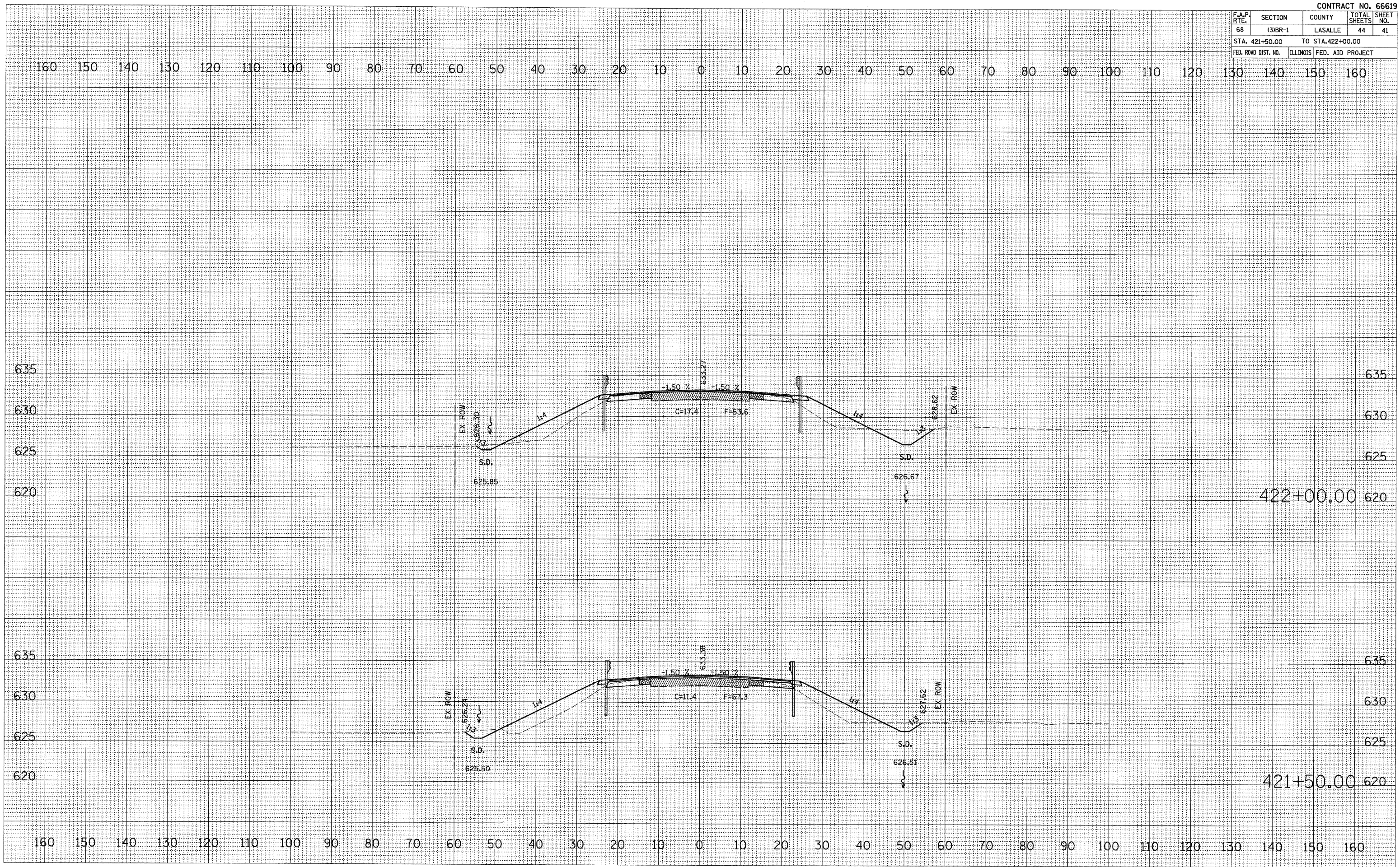


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3)BR-1	LASALLE	44	41
STA. 421+50.00		TO STA. 422+00.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

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

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

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F.A.6 RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3)BR-1	LASALLE	44	43
STA. 424+00.00		TO STA. 425+00.00		
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

BY	DATE

FINL SURVEY	DATE

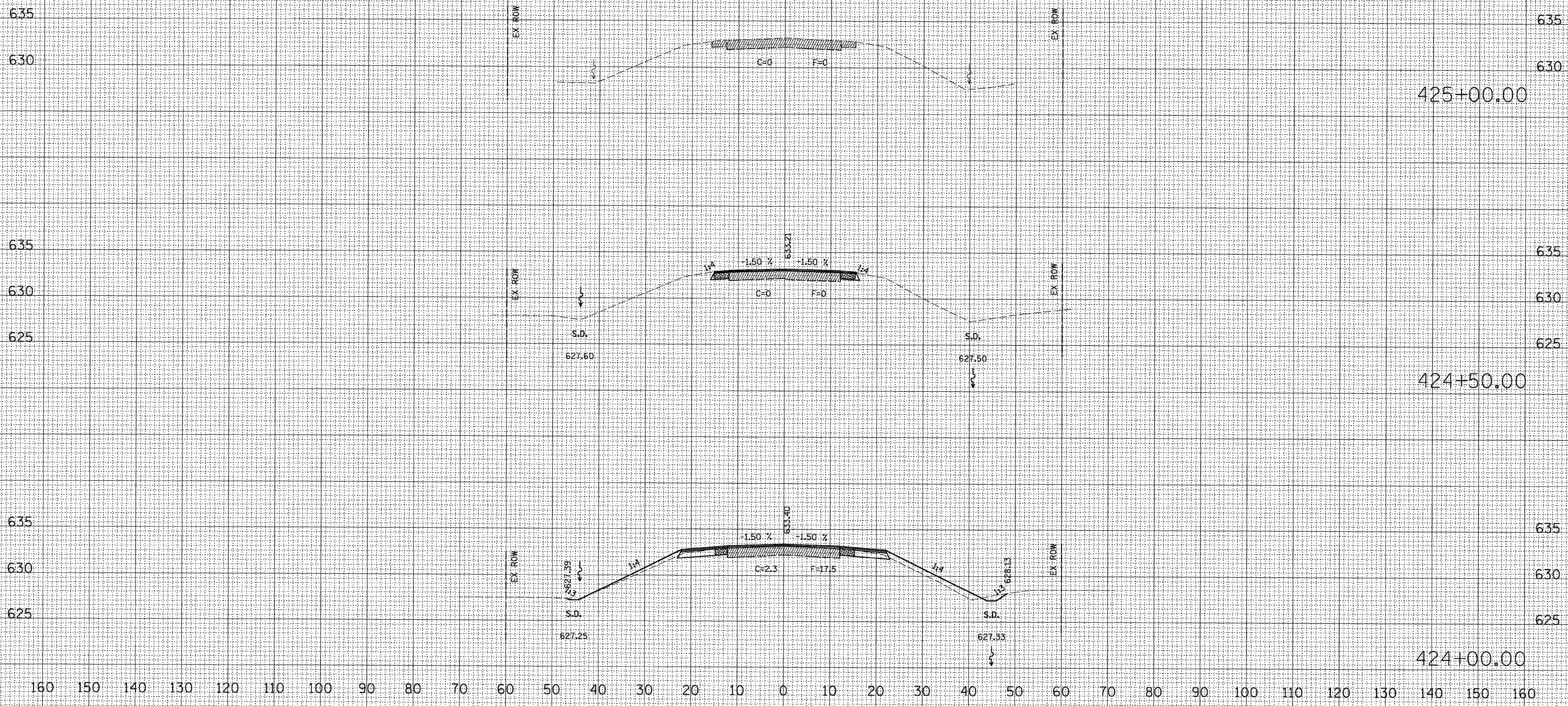
NO.	AREAS CHECKED

BY	DATE

ORIGINAL SURVEY	DATE

NO.	AREAS CHECKED

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PLOT SCALE = @SCALE*
USER NAME = @USER*



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	(3)BR-1	LASALLE	44	44
STA. 425+50.00		TO STA. 425+50.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

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

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

PLOT DATE = #DATE#
 PLOT SCALE = #SCALE#
 USER NAME = #USER#

