

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.I. 55	68-4B-1	MONTGOMERY	145	42
FED. AID DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #72A63

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts $\frac{3}{4}$ in. ϕ , holes $\frac{15}{16}$ in. ϕ , unless otherwise noted.

Calculated weight of structural steel = 102,150 lbs.

All structural steel shall be AASHTO M270 Grade 50W, except expansion joints which shall be AASHTO M270 Grade 36.

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. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Concrete Sealer shall be applied to the Abutment Seats, Backwall and Abutment Face.

Structural steel shall only be painted for a distance of 7 ft. each way from the deck joints. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

All exposed structural steel of the bearings shall be cleaned and shop painted 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.

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.

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

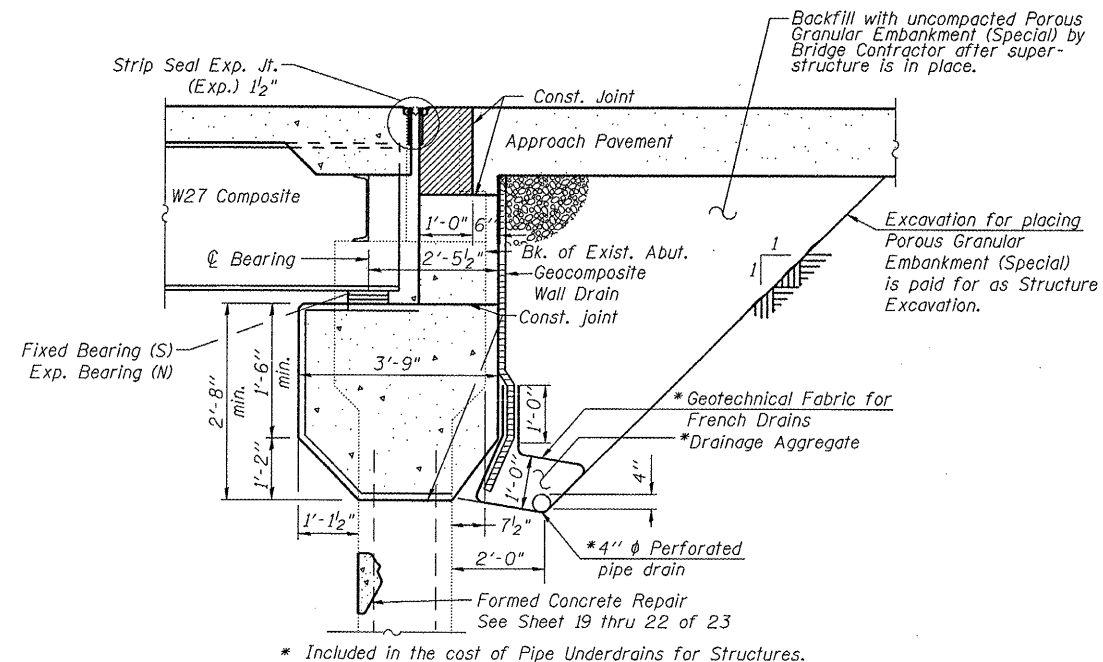
If the Contractor's procedures for existing beam removal or placement of new beams involves placement of heavy equipment on the existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Superstructures.

Slipforming of the parapets is not allowed.

Existing name plate shall be cleaned and relocated next to new name plate. Cost included with name plates.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		188	188
Stone Riprap, Class A4	Sq. Yd.		1332	1332
Filter Fabric	Sq. Yd.		1332	1332
Removal of Existing Superstructures	Each	2		2
Concrete Removal	Cu. Yd.		115	115
Structure Excavation	Cu. Yd.		193	193
Floor Drains	Each	12		12
Concrete Structures	Cu. Yd.		135	135
Concrete Superstructure	Cu. Yd.	154.9		154.9
Bridge Deck Grooving	Sq. Yd.	488		488
Protective Coat	Sq. Yd.	610		610
Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	2940		2940
Reinforcement Bars, Epoxy Coated	Pound	34290	18160	52450
Bar Splicers	Each	160		160
Name Plates	Each	2		2
Preformed Joint Strip Seal	Foot	232		232
Elastomeric Bearing Assembly Type I	Each	14		14
Anchor Bolts, 1"	Each	56		56
Geocomposite Wall Drain	Sq. Yd.		142	142
Pipe Underdrains for Structures 4"	Foot		511	511
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.		407	407
Asbestos Bearing Pad Removal	Each	56		56
Concrete Sealer	Sq. Ft.		2315	2315



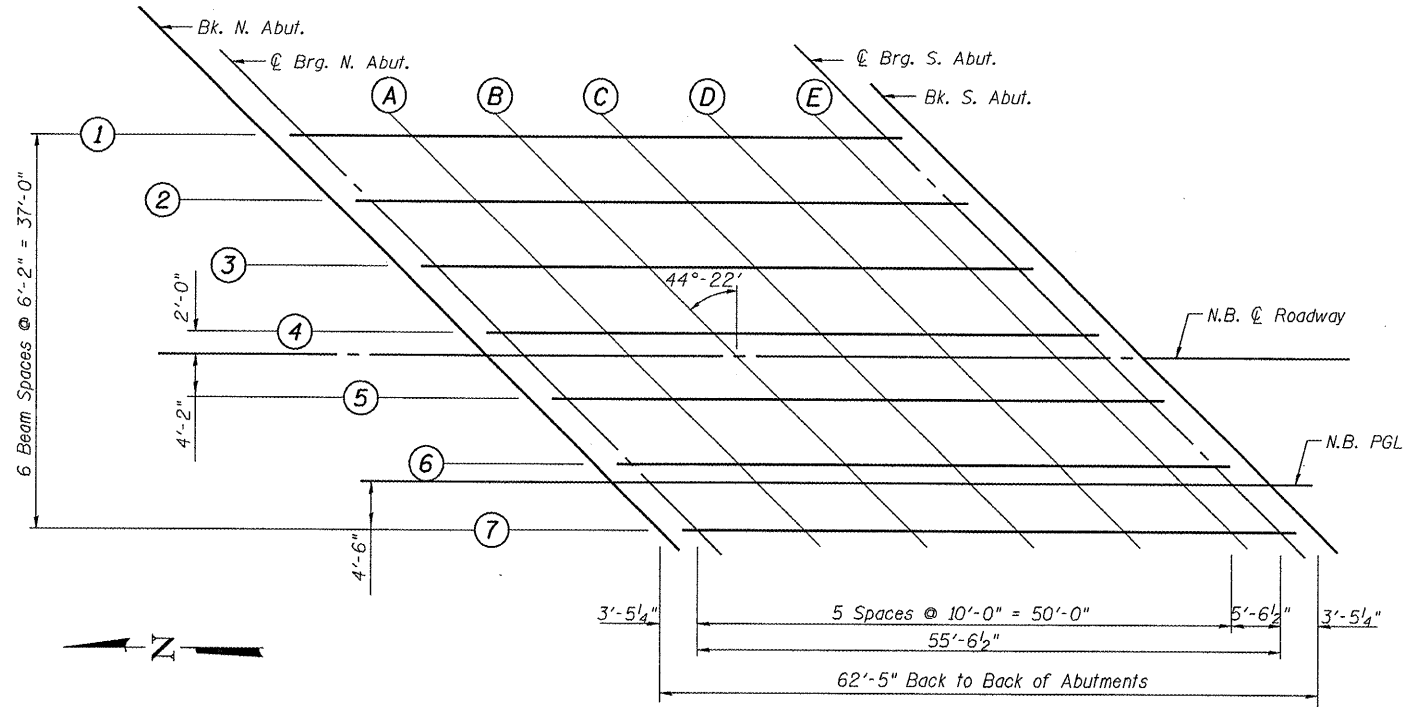
SECTION THRU CLOSED ABUTMENT

(Horiz. dim. @ Rt. L's)

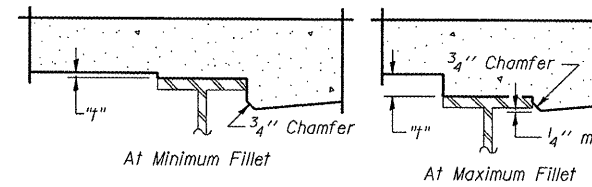
Note:

All drainage system components shall extend to 2'-0" from the end of each abutment wall onto retaining wall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. In the median the outlet pipe shall be capped and sealed. Cost included in Pipe Underdrains for Structures 4". (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.I. 55	68-4B-1	MONTGOMERY	145	43
FED. AID DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
Contract #72A63				

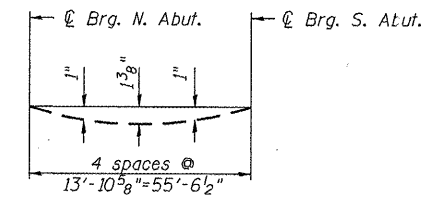


PLAN S.N. 068-0038



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 4 and 5 of 23, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

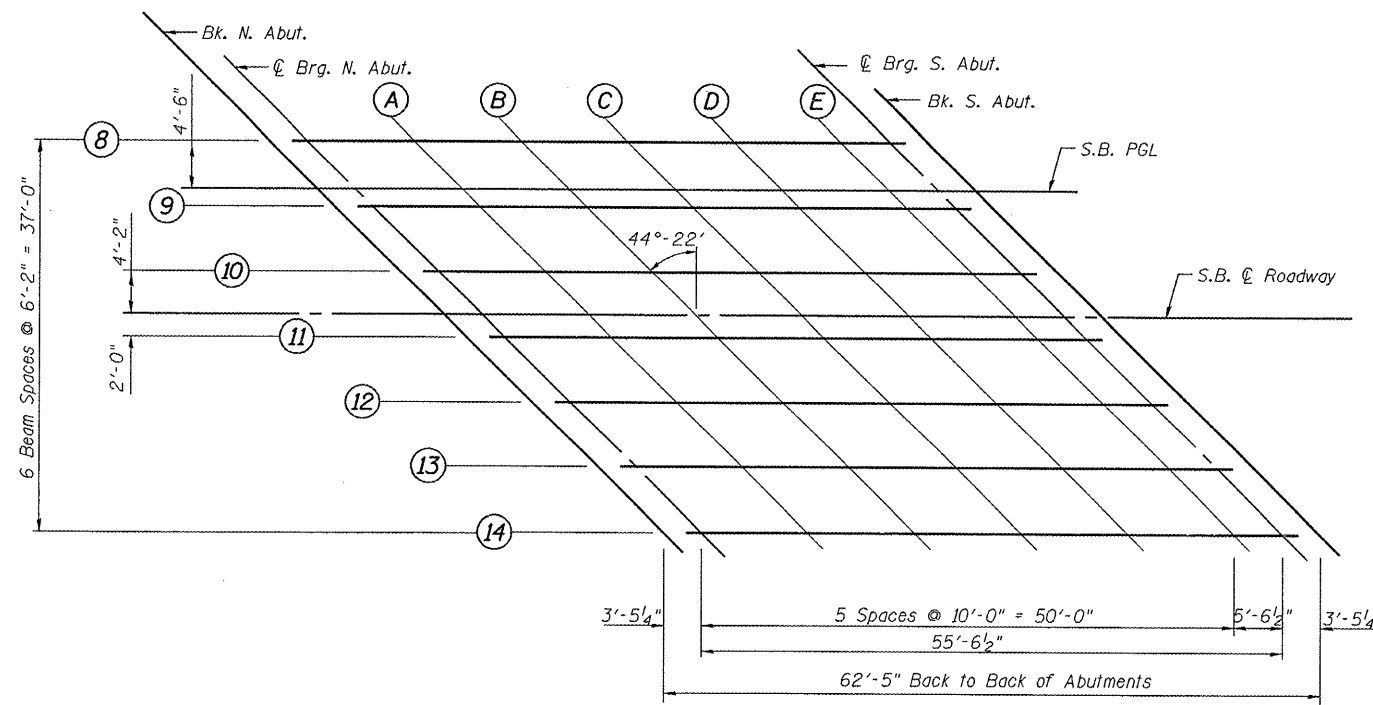


DEAD LOAD DEFLECTION DIAGRAM

(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 sheets 4 and 5 of 23.



PLAN S.N. 068-0039

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (1 OF 3)
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.

DATE: 04-08
 REVISED:

DRAWN BY: MLO
 CHECKED BY: PBB

Rev. 2-17-09

Contract #72A63

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1064+97.14	-20.50	630.75	630.75
☉ Brg. N. Abut	1065+00.58	-20.50	630.75	630.75
A	1065+10.58	-20.50	630.73	630.81
B	1065+20.58	-20.50	630.72	630.84
C	1065+30.58	-20.50	630.71	630.85
D	1065+40.58	-20.50	630.69	630.80
E	1065+50.58	-20.50	630.68	630.72
☉ Brg. S. Abut.	1065+56.12	-20.50	630.67	630.67
Bk. S. Abut.	1065+59.56	-20.50	630.67	630.67

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1065+03.17	-14.33'	630.87	630.87
☉ Brg. N. Abut	1065+06.61	-14.33'	630.87	630.87
A	1065+16.61	-14.33'	630.85	630.92
B	1065+26.61	-14.33'	630.84	630.96
C	1065+36.61	-14.33'	630.83	630.96
D	1065+46.61	-14.33'	630.81	630.91
E	1065+56.61	-14.33'	630.80	630.84
☉ Brg. S. Abut.	1065+62.15	-14.33'	630.79	630.79
Bk. S. Abut.	1065+65.59	-14.33'	630.79	630.79

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1065+09.20	-8.17'	630.97	630.97
☉ Brg. N. Abut	1065+12.64	-8.17'	630.97	630.97
A	1065+22.64	-8.17'	630.95	631.02
B	1065+32.64	-8.17'	630.94	631.06
C	1065+42.64	-8.17'	630.93	631.06
D	1065+52.64	-8.17'	630.91	631.01
E	1065+62.64	-8.17'	630.90	630.94
☉ Brg. S. Abut.	1065+68.18	-8.17'	630.89	630.89
Bk. S. Abut.	1065+71.62	-8.17'	630.89	630.89

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1065+15.23	-2.00'	631.06	631.06
☉ Brg. N. Abut	1065+18.67	-2.00'	631.06	631.06
A	1065+28.67	-2.00'	631.04	631.11
B	1065+38.67	-2.00'	631.03	631.15
C	1065+48.67	-2.00'	631.02	631.15
D	1065+58.67	-2.00'	631.00	631.10
E	1065+68.67	-2.00'	630.99	631.03
☉ Brg. S. Abut.	1065+74.21	-2.00'	630.98	630.98
Bk. S. Abut.	1065+77.65	-2.00'	630.98	630.98

N.B. ☉ ROADWAY & CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1065+17.19	-	631.09	631.09
☉ Brg. N. Abut	1065+20.63	-	631.09	631.09
A	1065+30.63	-	631.07	631.14
B	1065+40.63	-	631.06	631.18
C	1065+50.63	-	631.05	631.18
D	1065+60.63	-	631.03	631.13
E	1065+70.63	-	631.02	631.06
☉ Brg. S. Abut.	1065+76.17	-	631.01	631.01
Bk. S. Abut.	1065+79.61	-	631.01	631.01

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1065+21.27	4.17'	631.01	631.01
☉ Brg. N. Abut	1065+24.71	4.17'	631.01	631.01
A	1065+34.71	4.17'	630.99	631.06
B	1065+44.71	4.17'	630.98	631.10
C	1065+54.71	4.17'	630.97	631.11
D	1065+64.71	4.17'	630.95	631.06
E	1065+74.71	4.17'	630.94	630.98
☉ Brg. S. Abut.	1065+80.25	4.17'	630.93	630.93
Bk. S. Abut.	1065+83.69	4.17'	630.93	630.93

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1065+27.30	10.33'	630.91	630.91
☉ Brg. N. Abut	1065+30.74	10.33'	630.91	630.91
A	1065+40.74	10.33'	630.89	630.97
B	1065+50.74	10.33'	630.88	631.01
C	1065+60.74	10.33'	630.87	631.01
D	1065+70.74	10.33'	630.85	630.96
E	1065+80.74	10.33'	630.84	630.89
☉ Brg. S. Abut.	1065+86.28	10.33'	630.83	630.83
Bk. S. Abut.	1065+89.72	10.33'	630.83	630.83

N.B. PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1065+28.93	12.00'	630.88	630.88
☉ Brg. N. Abut	1065+32.37	12.00'	630.88	630.88
A	1065+42.37	12.00'	630.86	630.94
B	1065+52.37	12.00'	630.85	630.97
C	1065+62.37	12.00'	630.84	630.98
D	1065+72.37	12.00'	630.82	630.93
E	1065+82.37	12.00'	630.81	630.85
☉ Brg. S. Abut.	1065+87.91	12.00'	630.80	630.80
Bk. S. Abut.	1065+91.35	12.00'	630.80	630.80

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1065+33.33	16.50'	630.79	630.79
☉ Brg. N. Abut	1065+36.77	16.50'	630.79	630.79
A	1065+46.77	16.50'	630.77	630.84
B	1065+56.77	16.50'	630.76	630.88
C	1065+66.77	16.50'	630.75	630.88
D	1065+76.77	16.50'	630.73	630.83
E	1065+86.77	16.50'	630.72	630.76
☉ Brg. S. Abut.	1065+92.31	16.50'	630.71	630.71
Bk. S. Abut.	1065+95.75	16.50'	630.71	630.71

**TOP OF SLAB ELEVATIONS
(S.N. 068-0038 N.B.)**

Note: Offsets Provided from ☉ of Roadway

ILLINOIS DEPARTMENT OF TRANSPORTATION
TOP OF SLAB ELEVATIONS (2 OF 3)
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.

DATE: 04-08
REVISED:
DRAWN BY: MLO
CHECKED BY: PBB

Rev. 2-17-09

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1066+10.61	-16.50'	630.69	630.69
☉ Brg. N. Abut	1066+14.05	-16.50'	630.69	630.69
A	1066+24.05	-16.50'	630.67	630.74
B	1066+34.05	-16.50'	630.66	630.78
C	1066+44.05	-16.50'	630.65	630.78
D	1066+54.05	-16.50'	630.63	630.73
E	1066+64.05	-16.50'	630.62	630.66
☉ Brg. S. Abut.	1066+69.59	-16.50'	630.61	630.61
Bk. S. Abut.	1066+73.03	-16.50'	630.61	630.61

S.B. PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1066+15.01	-12.00'	630.77	630.77
☉ Brg. N. Abut	1066+18.45	-12.00'	630.77	630.77
A	1066+28.45	-12.00'	630.75	630.83
B	1066+38.45	-12.00'	630.74	630.86
C	1066+48.45	-12.00'	630.73	630.87
D	1066+58.45	-12.00'	630.71	630.82
E	1066+68.45	-12.00'	630.70	630.74
☉ Brg. S. Abut.	1066+73.99	-12.00'	630.69	630.69
Bk. S. Abut.	1066+77.43	-12.00'	630.69	630.69

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1066+16.64	-10.33'	630.80	630.80
☉ Brg. N. Abut	1066+20.08	-10.33'	630.80	630.80
A	1066+30.08	-10.33'	630.78	630.85
B	1066+40.08	-10.33'	630.77	630.89
C	1066+50.08	-10.33'	630.76	630.89
D	1066+60.08	-10.33'	630.74	630.84
E	1066+70.08	-10.33'	630.73	630.77
☉ Brg. S. Abut.	1066+75.62	-10.33'	630.72	630.72
Bk. S. Abut.	1066+79.06	-10.33'	630.72	630.72

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1066+22.67	-4.17'	630.88	630.88
☉ Brg. N. Abut	1066+26.11	-4.17'	630.88	630.88
A	1066+36.11	-4.17'	630.86	630.94
B	1066+46.11	-4.17'	630.85	630.97
C	1066+56.11	-4.17'	630.84	630.98
D	1066+66.11	-4.17'	630.82	630.93
E	1066+76.11	-4.17'	630.81	630.85
☉ Brg. S. Abut.	1066+81.55	-4.17'	630.80	630.80
Bk. S. Abut.	1066+85.09	-4.17'	630.80	630.80

S.B. ☉ ROADWAY & CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1066+26.75	-	630.95	630.95
☉ Brg. N. Abut	1066+30.19	-	630.95	630.95
A	1066+40.19	-	630.93	631.00
B	1066+50.19	-	630.92	631.04
C	1066+60.19	-	630.91	631.04
D	1066+70.19	-	630.89	630.99
E	1066+80.19	-	630.88	630.92
☉ Brg. S. Abut.	1066+85.73	-	630.87	630.87
Bk. S. Abut.	1066+89.17	-	630.87	630.87

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1066+28.71	2.00'	630.91	630.91
☉ Brg. N. Abut	1066+32.15	2.00'	630.91	630.91
A	1066+42.15	2.00'	630.89	630.97
B	1066+52.15	2.00'	630.88	631.01
C	1066+62.15	2.00'	630.87	631.01
D	1066+72.15	2.00'	630.85	630.96
E	1066+82.15	2.00'	630.84	630.89
☉ Brg. S. Abut.	1066+87.69	2.00'	630.83	630.83
Bk. S. Abut.	1066+91.13	2.00'	630.83	630.83

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1066+34.74	8.17'	630.81	630.81
☉ Brg. N. Abut	1066+38.18	8.17'	630.81	630.81
A	1066+48.18	8.17'	630.79	630.86
B	1066+58.18	8.17'	630.78	630.90
C	1066+68.18	8.17'	630.77	630.90
D	1066+78.18	8.17'	630.75	630.85
E	1066+88.18	8.17'	630.74	630.78
☉ Brg. S. Abut.	1066+93.72	8.17'	630.73	630.73
Bk. S. Abut.	1066+97.16	8.17'	630.73	630.73

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1066+40.77	14.33'	630.69	630.69
☉ Brg. N. Abut	1066+44.21	14.33'	630.69	630.69
A	1066+54.21	14.33'	630.67	630.74
B	1066+64.21	14.33'	630.66	630.78
C	1066+74.21	14.33'	630.65	630.78
D	1066+84.21	14.33'	630.63	630.73
E	1066+94.21	14.33'	630.62	630.66
☉ Brg. S. Abut.	1066+99.75	14.33'	630.61	630.61
Bk. S. Abut.	1067+03.19	14.33'	630.61	630.61

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	1066+46.80	20.50'	630.56	630.56
☉ Brg. N. Abut	1066+50.24	20.50'	630.56	630.56
A	1066+60.24	20.50'	630.54	630.61
B	1066+70.24	20.50'	630.53	630.65
C	1066+80.24	20.50'	630.52	630.66
D	1066+90.24	20.50'	630.50	630.61
E	1067+00.24	20.50'	630.49	630.53
☉ Brg. S. Abut.	1067+05.78	20.50'	630.48	630.48
Bk. S. Abut.	1067+09.22	20.50'	630.48	630.48

**TOP OF SLAB ELEVATIONS
(S.N. 068-0039 S.B.)**

Note: Offsets Provided from ☉ of Roadway

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (3 OF 3)

I 55 OVER MACOUPIN CREEK

F.A.I. ROUTE 55 - SEC. 68-4B-1

MONTGOMERY COUNTY

STATION 1066+03.18

STRUCTURE NO. 068-0038 N.B.

STRUCTURE NO. 068-0039 S.B.

DATE: 04-08
REVISED:

DRAWN BY: MLO
CHECKED BY: PBB

Rev. 2-17-09

Contract #72A63

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't	1064+66.37	-22.00'	630.75
A	1064+76.37	-22.00'	630.73
B	1064+86.37	-22.00'	630.72
S. End N. Appr. Pav't	1064+96.37	-22.00'	630.71
N. End S. Appr. Pav't	1065+57.39	-22.00'	630.63
C	1065+67.39	-22.00'	630.62
D	1065+77.39	-22.00'	630.61
S. End S. Appr. Pav't	1065+87.39	-22.00'	630.59

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't	1064+76.15	-12.00'	630.95
A	1064+86.15	-12.00'	630.93
B	1064+96.15	-12.00'	630.92
S. End N. Appr. Pav't	1065+06.15	-12.00'	630.91
N. End S. Appr. Pav't	1065+67.17	-12.00'	630.83
C	1065+77.17	-12.00'	630.82
D	1065+87.17	-12.00'	630.81
S. End S. Appr. Pav't	1065+97.17	-12.00'	630.79

☉ ROADWAY

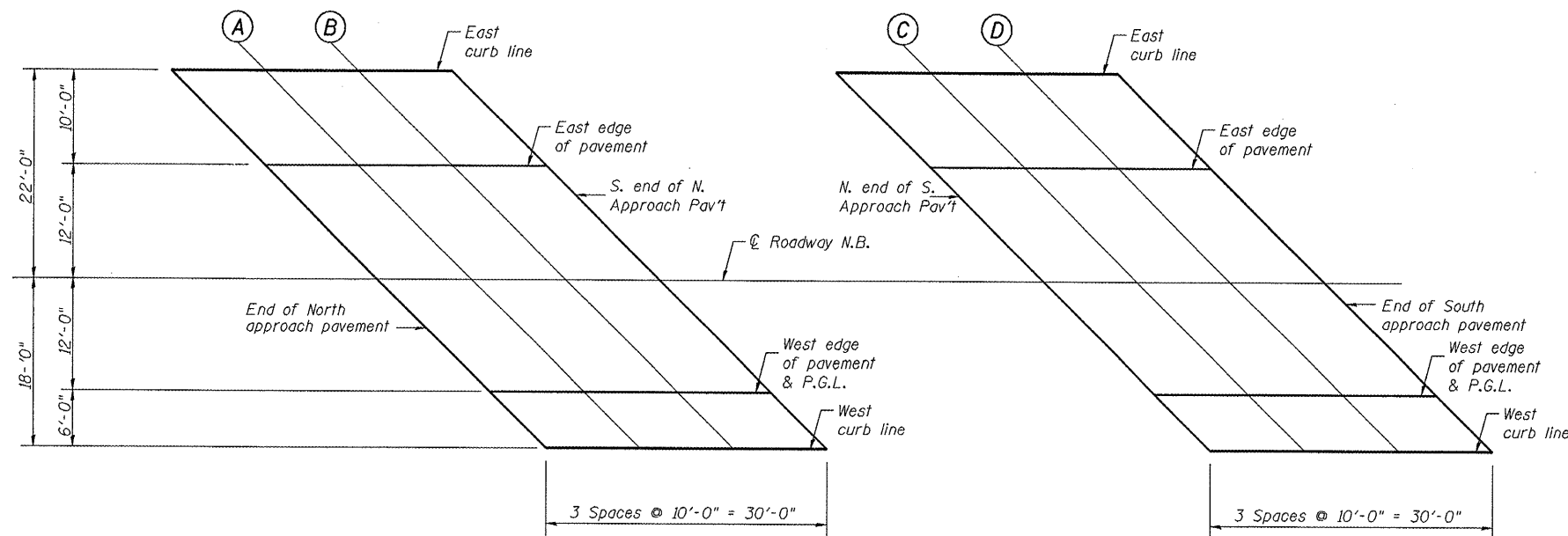
Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't	1064+87.89	-	631.13
A	1064+97.89	-	631.11
B	1065+07.89	-	631.10
S. End N. Appr. Pav't	1065+17.89	-	631.09
N. End S. Appr. Pav't	1065+78.91	-	631.01
C	1065+88.91	-	631.00
D	1065+98.91	-	630.99
S. End S. Appr. Pav't	1066+08.91	-	630.97

WEST EDGE OF PAVEMENT & PGL

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't	1064+99.63	12.00'	630.92
A	1065+09.63	12.00'	630.90
B	1065+19.63	12.00'	630.89
S. End N. Appr. Pav't	1065+29.63	12.00'	630.88
N. End S. Appr. Pav't	1065+90.65	12.00'	630.80
C	1066+00.65	12.00'	630.79
D	1066+10.65	12.00'	630.78
S. End S. Appr. Pav't	1066+20.65	12.00'	630.76

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't	1065+05.50	18.00'	630.79
A	1065+15.50	18.00'	630.77
B	1065+25.50	18.00'	630.76
S. End N. Appr. Pav't	1065+35.50	18.00'	630.75
N. End S. Appr. Pav't	1065+96.52	18.00'	630.67
C	1066+06.52	18.00'	630.66
D	1066+16.52	18.00'	630.65
S. End S. Appr. Pav't	1066+26.52	18.00'	630.63



TOP OF APPROACH SLAB ELEVATIONS
(S.N. 068-0038 N.B.)

Note: Offsets Provided from ☉ of Roadway

ILLINOIS DEPARTMENT OF TRANSPORTATION
TOP OF APPROACH ELEVATIONS (1 OF 2)
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.

DATE: 04-08
 REVISED:
 DRAWN BY: MLO
 CHECKED BY: PBB

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Contract #72A63

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't	1065+79.84	-18.00'	630.70
A	1065+89.84	-18.00'	630.68
B	1065+99.84	-18.00'	630.67
S. End N. Appr. Pav't	1066+09.84	-18.00'	630.66
N. End S. Appr. Pav't	1066+70.86	-18.00'	630.58
C	1066+80.86	-18.00'	630.57
D	1066+90.86	-18.00'	630.56
S. End S. Appr. Pav't	1067+00.86	-18.00'	630.54

EAST EDGE OF PAVEMENT & PGL

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't	1065+85.71	-12.00'	630.81
A	1065+95.71	-12.00'	630.79
B	1066+05.71	-12.00'	630.78
S. End N. Appr. Pav't	1066+15.71	-12.00'	630.77
N. End S. Appr. Pav't	1066+76.73	-12.00'	630.69
C	1066+86.73	-12.00'	630.68
D	1066+96.73	-12.00'	630.67
S. End S. Appr. Pav't	1067+06.73	-12.00'	630.65

☉ ROADWAY

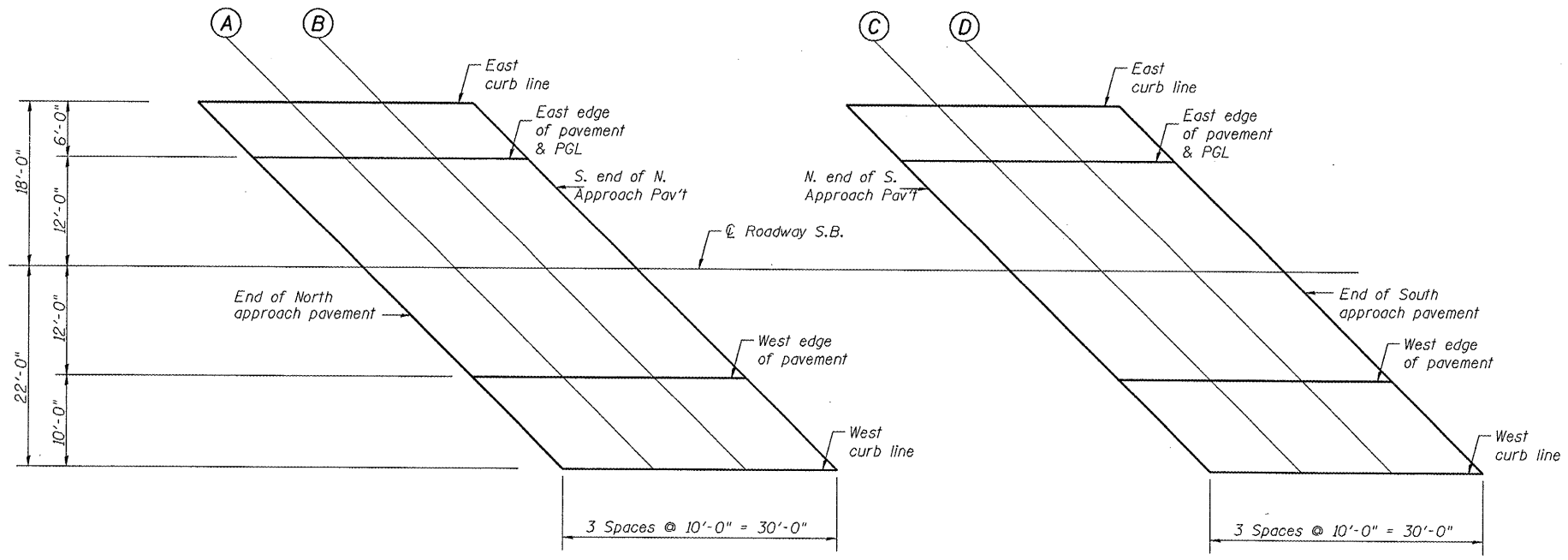
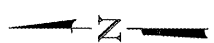
Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't	1065+97.45	-	630.99
A	1066+07.45	-	630.97
B	1066+17.45	-	630.96
S. End N. Appr. Pav't	1066+27.45	-	630.95
N. End S. Appr. Pav't	1066+88.47	-	630.87
C	1066+98.47	-	630.86
D	1067+08.47	-	630.85
S. End S. Appr. Pav't	1067+18.47	-	630.83

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't	1066+09.19	12.00'	630.78
A	1066+19.19	12.00'	630.76
B	1066+29.19	12.00'	630.75
S. End N. Appr. Pav't	1066+39.19	12.00'	630.74
N. End S. Appr. Pav't	1067+00.21	12.00'	630.66
C	1067+10.21	12.00'	630.65
D	1067+20.21	12.00'	630.64
S. End S. Appr. Pav't	1067+30.21	12.00'	630.62

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't	1066+18.97	22.00'	630.56
A	1066+28.97	22.00'	630.54
B	1066+38.97	22.00'	630.53
S. End N. Appr. Pav't	1066+48.97	22.00'	630.52
N. End S. Appr. Pav't	1067+09.99	22.00'	630.44
C	1067+19.99	22.00'	630.43
D	1067+29.99	22.00'	630.42
S. End S. Appr. Pav't	1067+39.99	22.00'	630.40



**TOP OF APPROACH SLAB ELEVATIONS
(S.N. 068-0039 S.B.)**

Note: Offsets Provided from ☉ of Roadway

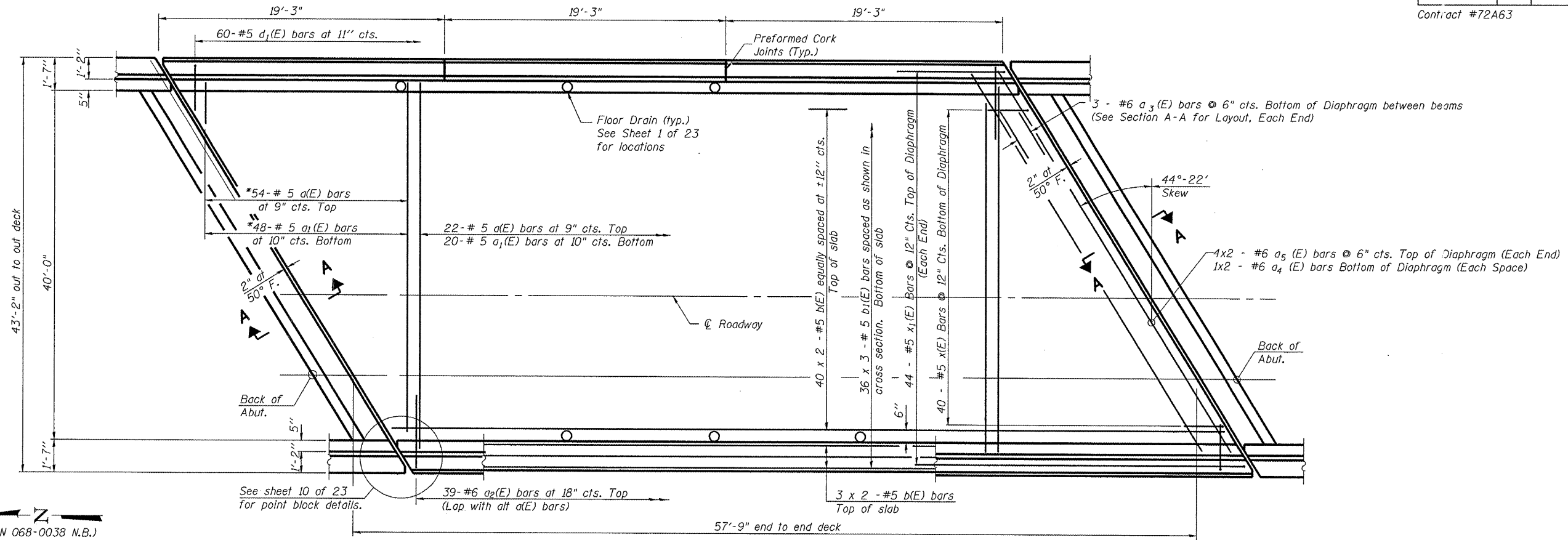
ILLINOIS DEPARTMENT OF TRANSPORTATION
TOP OF APPROACH ELEVATIONS (2 OF 2)
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.

DATE: 04-08
 REVISED:
 DRAWN BY: MLO
 CHECKED BY: PBB

Rev. 2-17-09

* Order a(E) & a₁(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

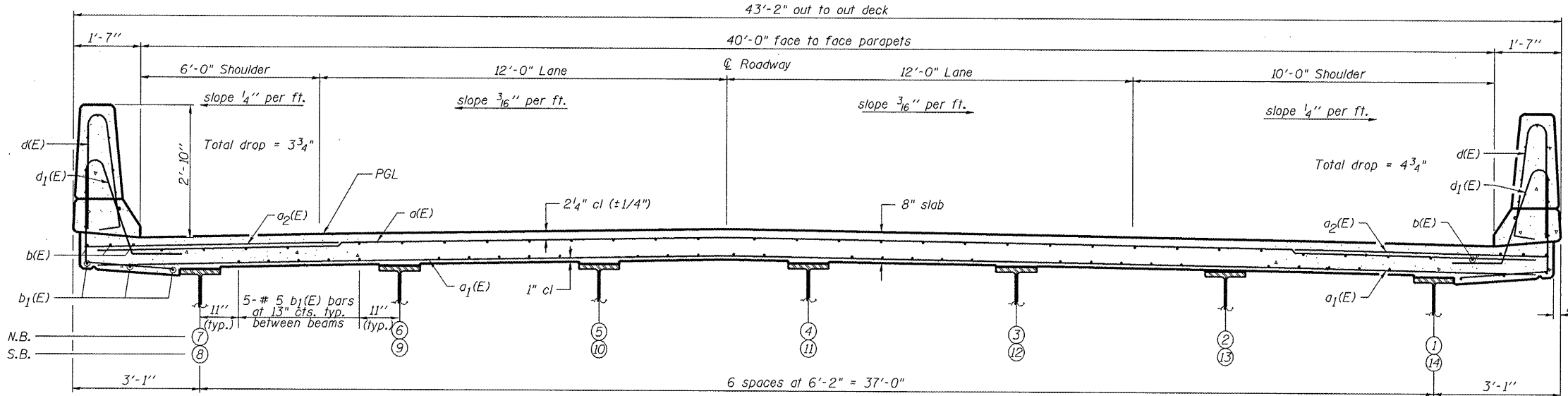
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	68-4B-1	MONTGOMERY	145	48
SHEET NO. 8				
23 SHEETS				
FED. RD. DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
Contract #72A63				



PLAN

(SN 068-0038 N.B. shown)
(SN 068-0039 S.B. similar)

Notes:
See Sheet 9 of 23 for superstructure details
and Bill of Material.
Bars indicated thus 40 x 2-#5 etc. indicates
40 lines of bars with 2 lengths per line.
See Sheet 9 of 23 for parapet reinforcement.



CROSS SECTION

(SN 068-0038 N.B. Looking North)
(SN 068-0039 S.B. Looking South)

MINIMUM BAR LAP

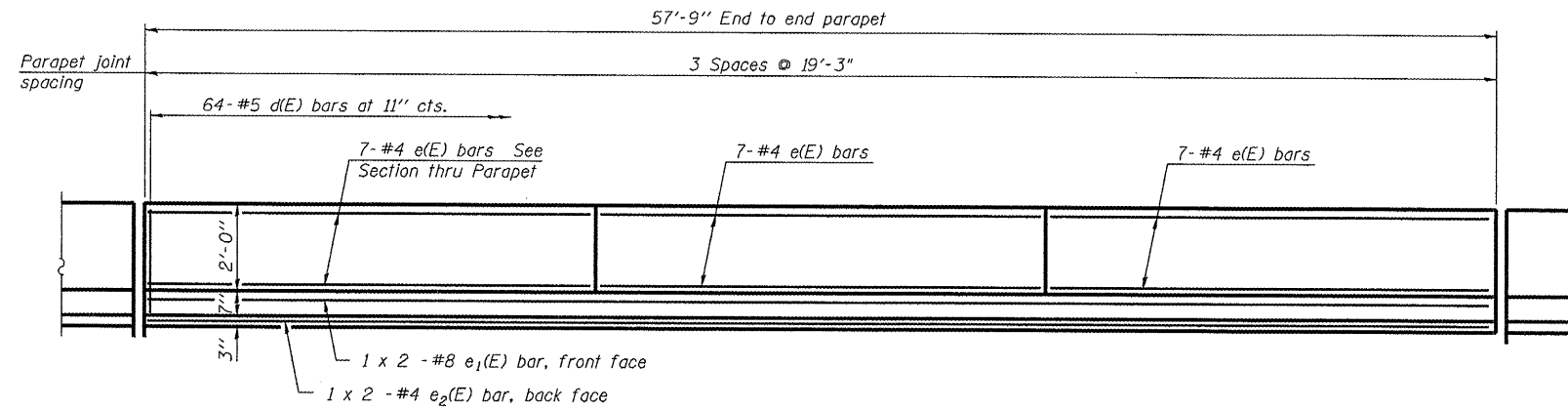
#5 bar = 1'-8"
#6 bar = 2'-7"

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.
DATE: 04-08
REVISED:
DRAWN BY: MLO
CHECKED BY: PBB

Rev. 2-17-09

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.I. 53	68-4B-1	MONTGOMERY	145	49
23 SHEETS				
FED. RD. DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

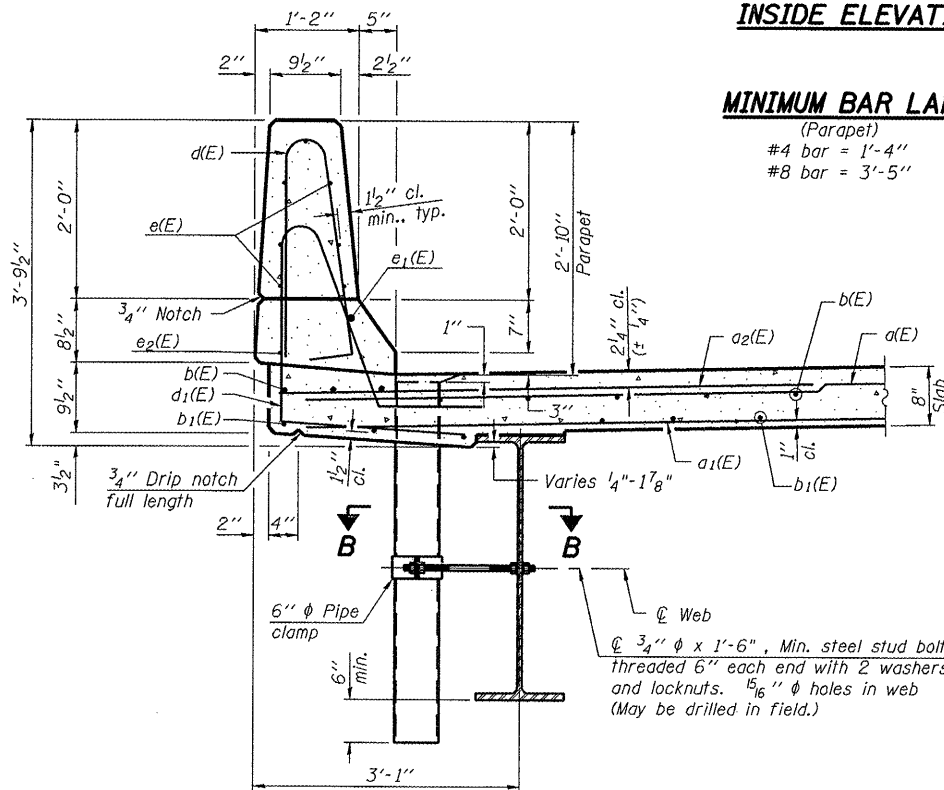
Contract #72A63



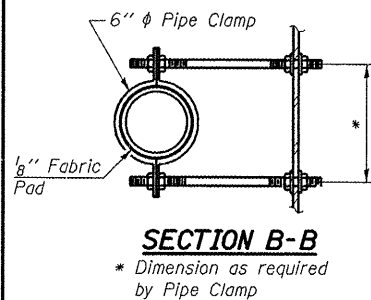
INSIDE ELEVATION OF PARAPET

MINIMUM BAR LAP

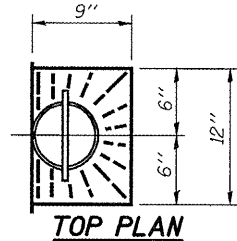
(Parapet)
 #4 bar = 1'-4"
 #8 bar = 3'-5"



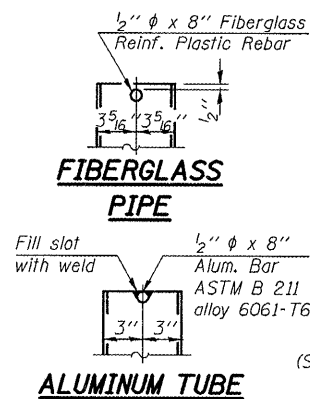
SECTION THRU PARAPET



SECTION B-B
 * Dimension as required by Pipe Clamp



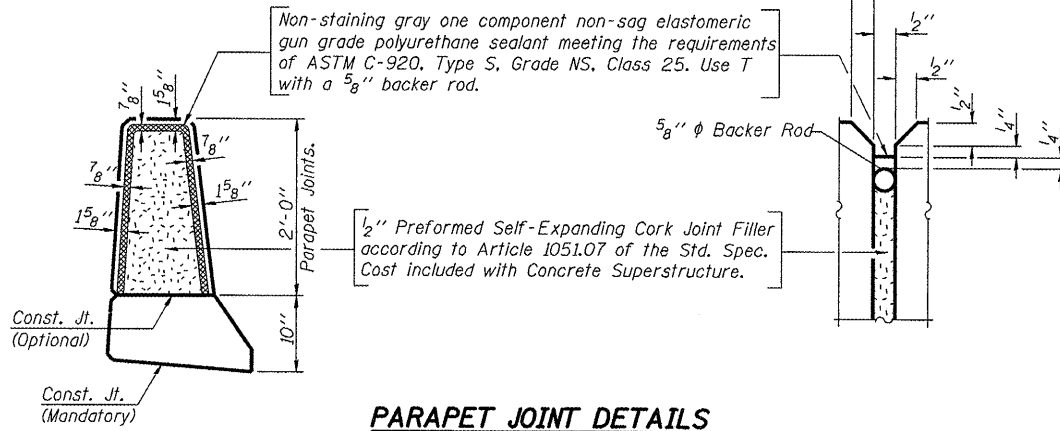
TOP PLAN



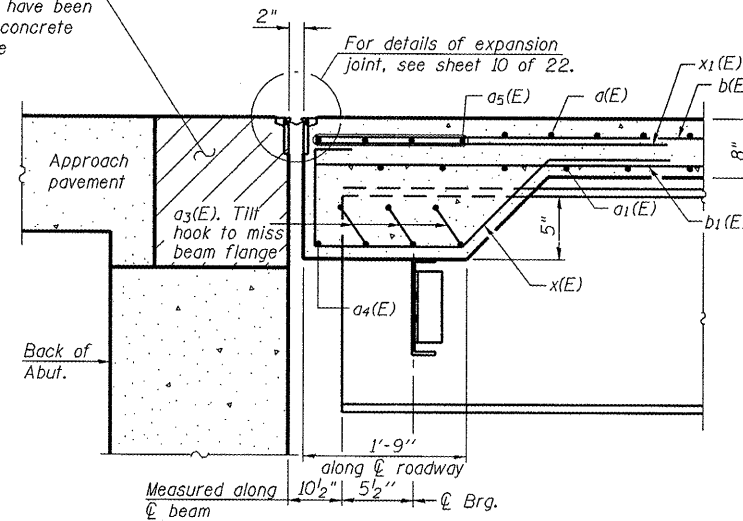
FIBERGLASS PIPE

ALUMINUM TUBE

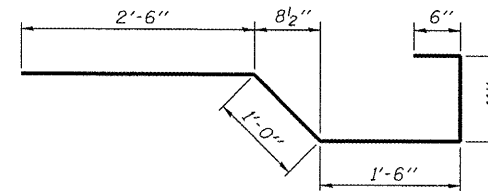
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.



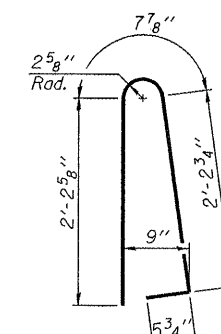
PARAPET JOINT DETAILS



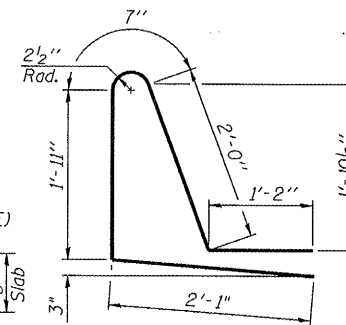
SECTION A-A



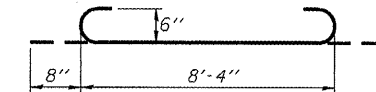
BAR x(E)



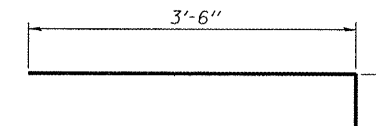
BAR d1(E)



BAR d1(E)



a3(E) BAR



BAR x1(E)

SUPERSTRUCTURE BILL OF MATERIAL (BOTH STRUCTURES)

Bar	No.	Size	Length	Shape
a(E)	152	#5	42'-2"	—
a1(E)	136	#5	42'-1"	—
a2(E)	156	#6	6'-0"	—
a3(E)	72	#6	9'-8"	—
a4(E)	8	#6	27'-0"	—
a5(E)	32	#6	31'-0"	—
b(E)	184	#5	29'-7"	—
b1(E)	216	#5	20'-3"	—
d(E)	256	#5	5'-7"	—
d1(E)	240	#5	7'-9"	—
e(E)	84	#4	18'-11"	—
e1(E)	8	#8	30'-6"	—
e2(E)	8	#4	29'-6"	—
x(E)	160	#5	6'-5"	—
x1(E)	176	#5	4'-1"	—
Reinforcement Bars, Epoxy Coated		Pound	34,290	
Concrete Superstructure		Cu. Yds.	154.9	
Floor Drains		Each	12	
Bridge Deck Grooving		Sq. Yd.	488	
Protective Coat		Sq. Yd.	610	

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

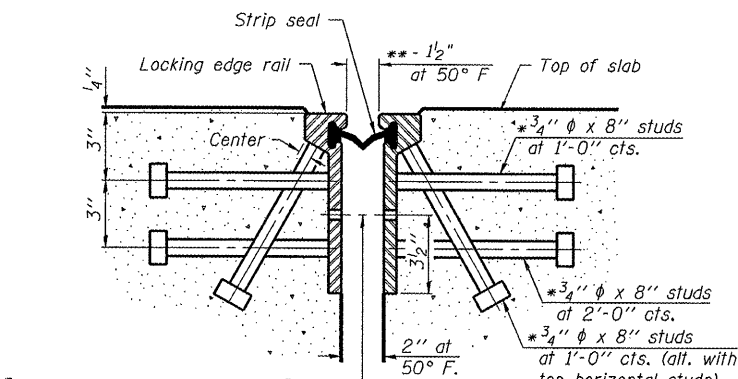
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.

DATE: 04-08
 REVISIONS:
 DRAWN BY: MLO
 CHECKED BY: PBB

Rev. 2-17-09

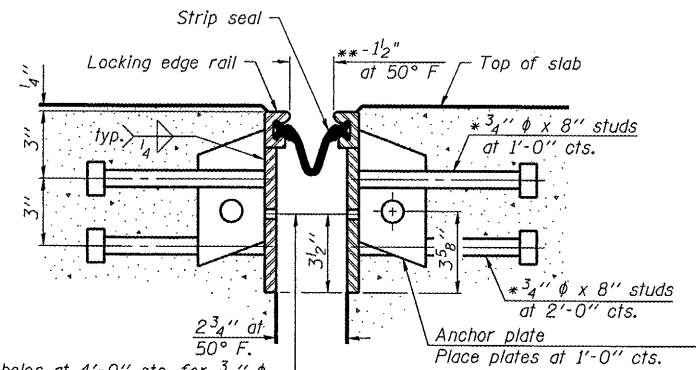
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

** When joint is fixed, dimension is set at 1 1/2".



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU ROLLED RAIL JOINT



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT

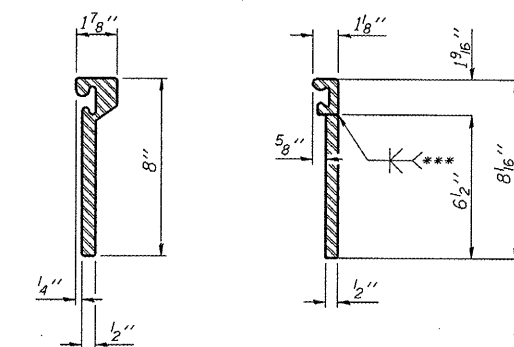
Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed. The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

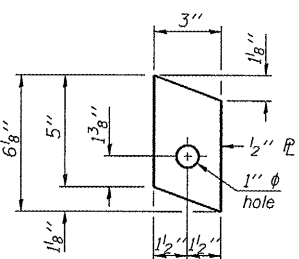


ROLLED (EXTRUDED) RAIL **WELDED RAIL**

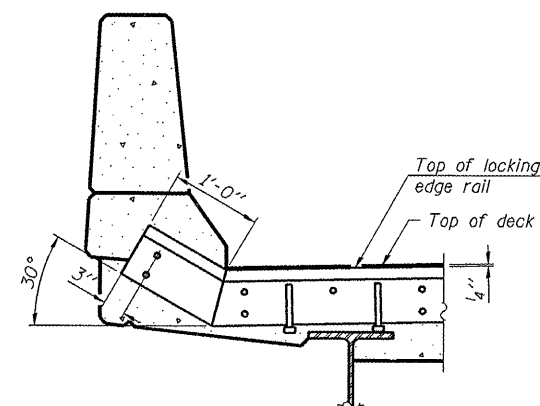
*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

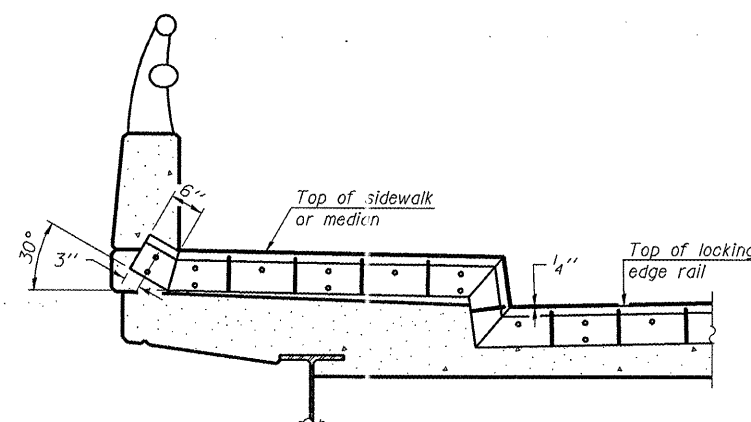
The inside of the locking edge rail groove shall be free of weld residue.



ANCHOR PLATE (for welded rail)



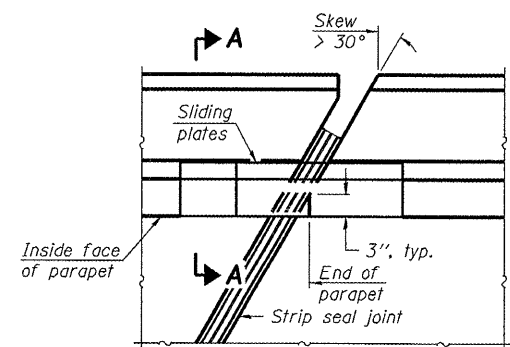
AT PARAPET



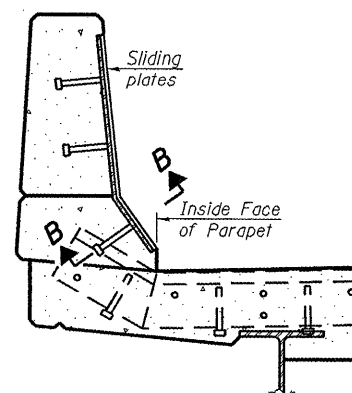
AT SIDEWALK OR MEDIAN

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

LOCKING EDGE RAILS



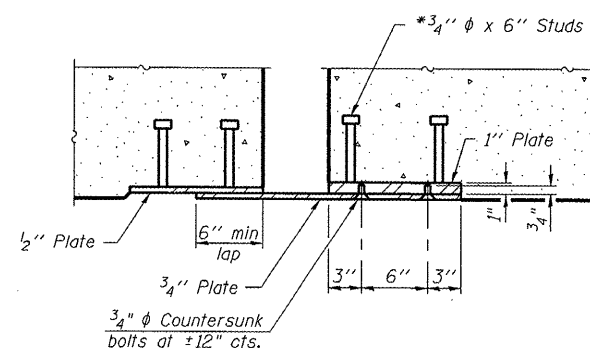
PLAN



SECTION A-A

POINT BLOCK DETAILS (for skews > 30°)

TYPICAL END TREATMENTS



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Prefomed Joint Strip Seal	Foot	232

ILLINOIS DEPARTMENT OF TRANSPORTATION

**EXPANSION JOINT DETAILS
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.**

DATE: 04-08
REVISED:

DRAWN BY: MLO
CHECKED BY: PBB

EJ-SSJ

11-1-06

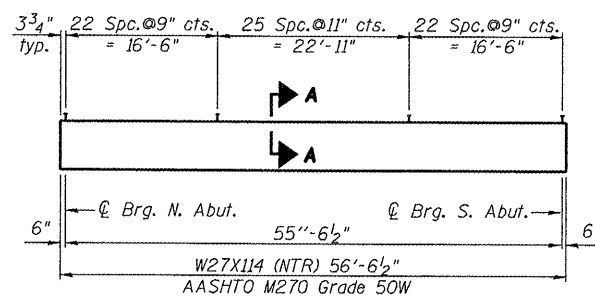
BLANK, WESSELINK, COOK & ASSOCIATES

ENGINEERS - CONSULTANTS

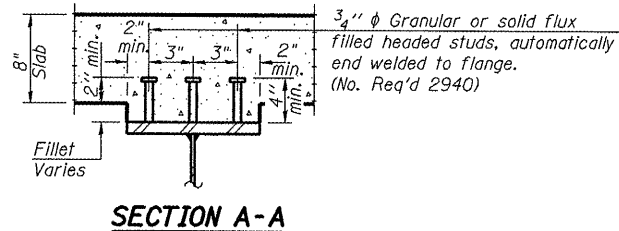
DECATUR, ILLINOIS

DESIGN FIRM NO. 184000894

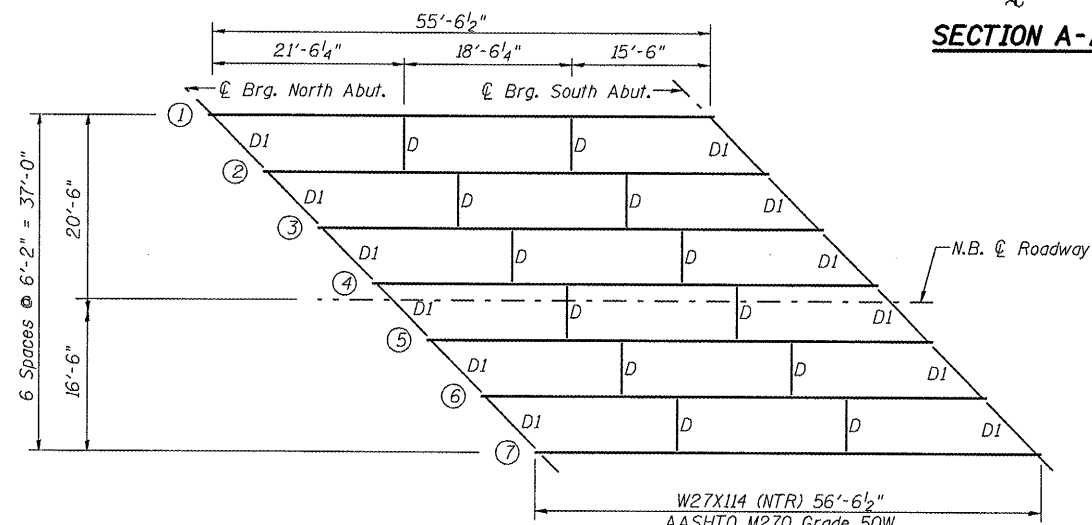
Rev. 2-17-09



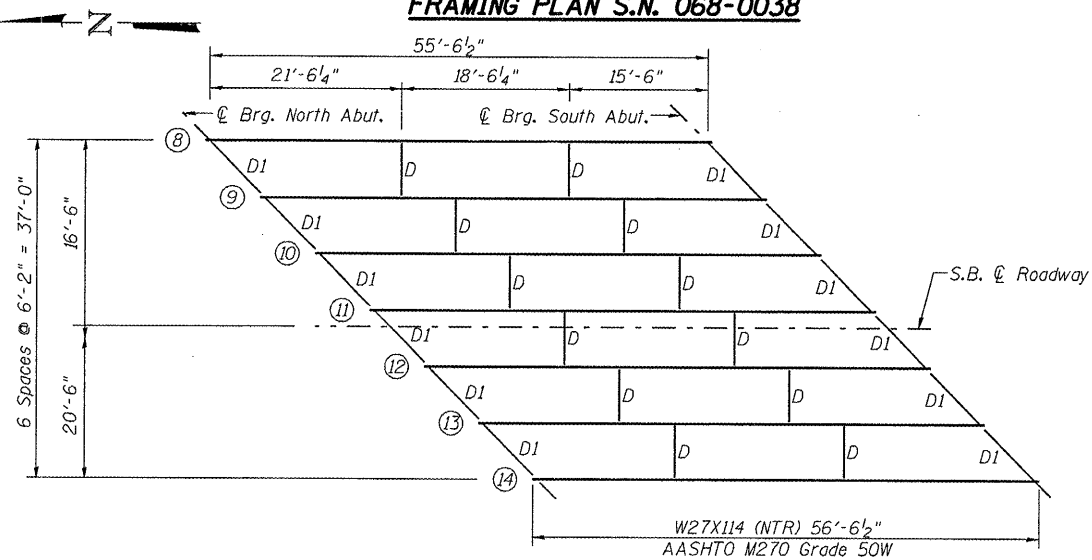
ELEVATION



SECTION A-A



FRAMING PLAN S.N. 068-0038



FRAMING PLAN S.N. 068-0039

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

0.5 Sp. 1	
I_s	(in ⁴) 4080
$I_c(n)$	(in ⁴) 11393
$I_c(3n)$	(in ⁴) 8346
S_s	(in ³) 299
$S_c(n)$	(in ³) 450
$S_c(3n)$	(in ³) 404
ϕ	(k/ft) 0.763
$M\phi$	(k) 296
$s\phi$	(k/ft) 0.414
$M_s\phi$	(k) 160
M_L	(k) 405
M_{imp}	(k) 112
$^{5/8} [M_L + M_{imp}]$	(k) 863
M_a	(k) 1714
M_u	(k) 2276
$f_s \phi$ non-comp	(ksi) 11.9
$f_s \phi$ (comp)	(ksi) 4.8
$f_s^{5/8} [M_L + M_{imp}]$	(ksi) 23.0
f_s (Overload)	(ksi) 39.7
VR	(k) 42.9

Abut.	
$R\phi$	(k) 32.8
R_L	(k) 33.3
Imp.	(k) 9.2
R_{Total}	(k) 75.3

* Compact section

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in⁴ and in³).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).

ϕ : Un-factored non-composite dead load (kips/ft.).

$M\phi$: Un-factored moment due to non-composite dead load (kip-ft.).

$s\phi$: Un-factored long-term composite (superimposed) dead load (kips/ft.).

$M_s\phi$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L : Un-factored live load moment (kip-ft.).

M_{imp} : Un-factored moment due to impact (kip-ft.).

M_a : Factored design moment (kip-ft.).

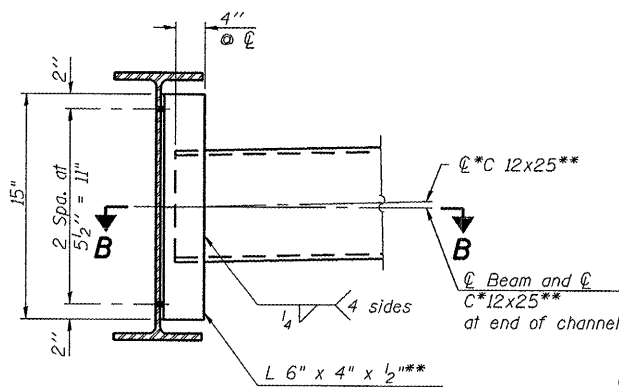
$1.3 [M\phi + M_s\phi + \frac{5}{3} (M_L + M_{imp})]$

M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1.

f_s (Overload): Sum of stresses as computed from the moments below (ksi).

$M\phi + M_s\phi + \frac{5}{3} (M_L + M_{imp})$

VR: Maximum + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

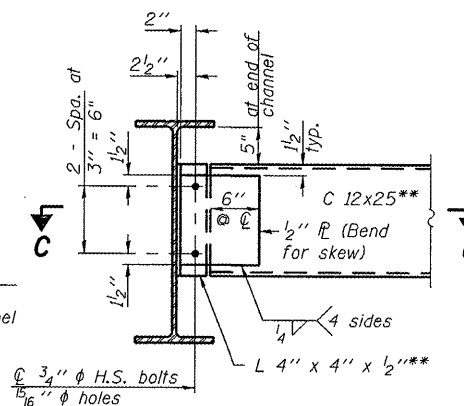


INTERIOR DIAPHRAGM-D
(24 Required)

Note:
Two hardened washers required for each set of oversized holes.

* Alternate C 12x30 Channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.
** AASHTO M270 Grade 50W

SECTION B-B



END DIAPHRAGM-D1
(24 Required)

Note:
Two hardened washers required for each set of oversized holes.

** AASHTO M270 Grade 50W

SECTION C-C

Rev. 2-17-09

	N. Abut.	S. Abut.
Beam 1	630.00	629.92
Beam 2	630.12	630.04
Beam 3	630.22	630.14
Beam 4	630.31	630.23
Beam 5	630.26	630.18
Beam 6	630.16	630.08
Beam 7	630.04	629.96
Beam 8	629.94	629.86
Beam 9	630.05	629.97
Beam 10	630.13	630.05
Beam 11	630.16	630.08
Beam 12	630.06	629.98
Beam 13	629.94	629.86
Beam 14	629.81	629.73

TOP OF BEAM ELEVATIONS
(For Fabrication use Only)

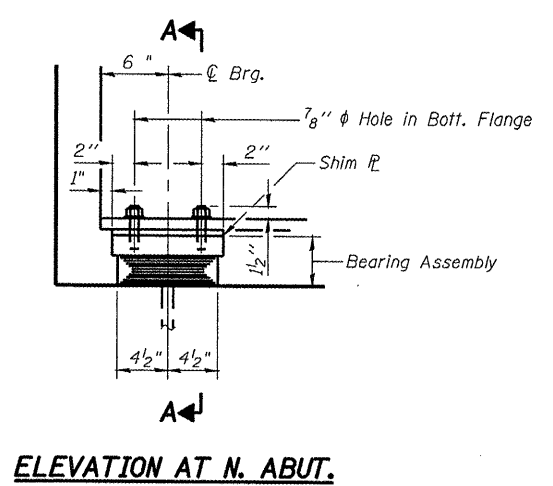
ILLINOIS DEPARTMENT OF TRANSPORTATION

FRAMING PLAN & STEEL DETAILS
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.

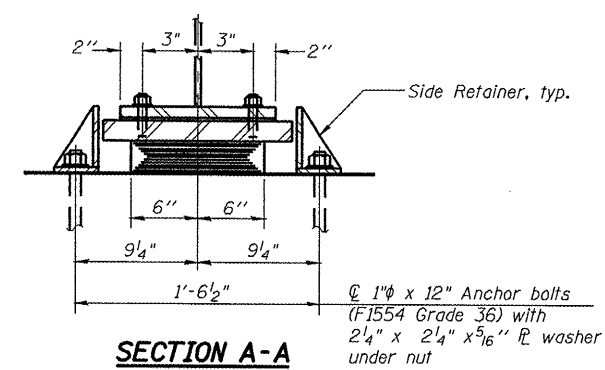
DATE: 04-08
REVISED:
DRAWN BY: MLO
CHECKED BY: PBB

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO. 12
F.A.I. 55	68-4B-1	MONTGOMERY	145	52	23 SHEETS
FED. AC. DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

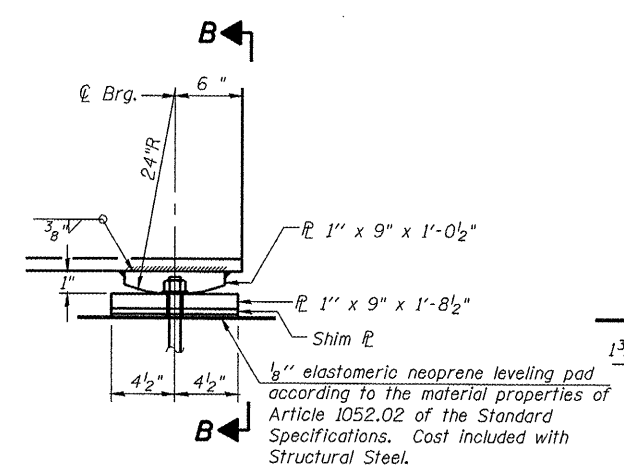
Contract #72A63



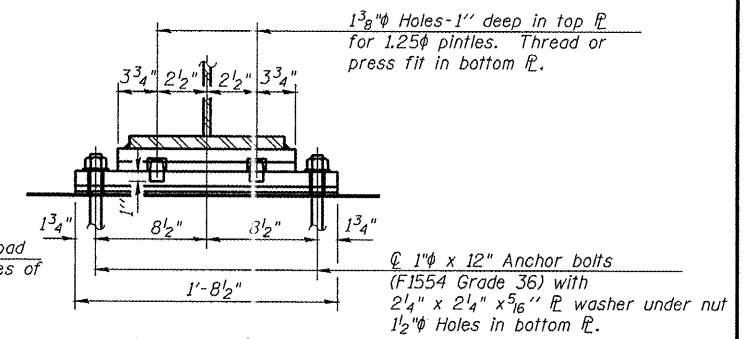
ELEVATION AT N. ABUT.



SECTION A-A

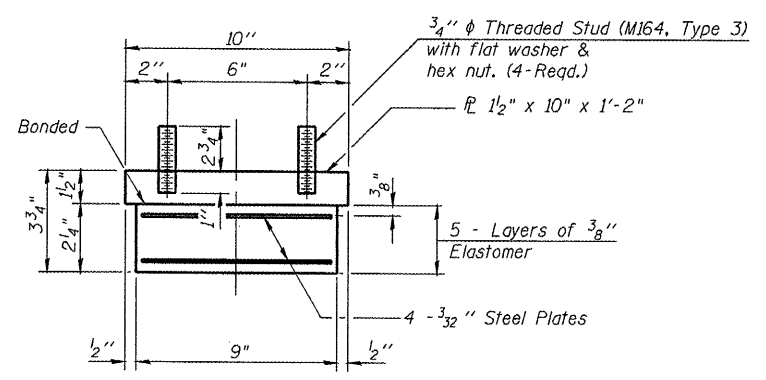


ELEVATION AT S. ABUT.



SECTION B-B

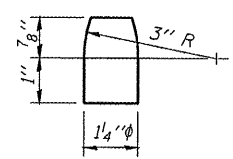
TYPE I ELASTOMERIC EXP. BRG.
(14 Required)



BEARING ASSEMBLY

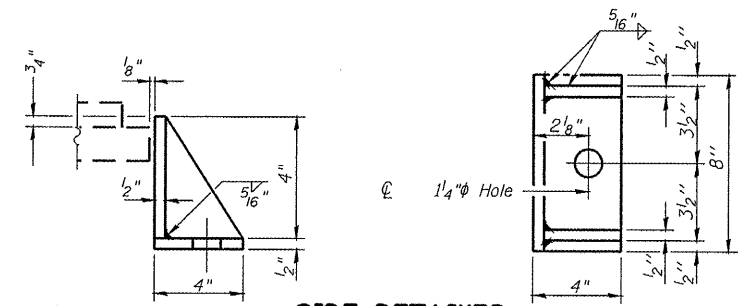
Note:
Shim plates shall not be placed under Bearing Assembly.

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
The structural steel plates of the bearing assembly shall conform to the requirements of AASHTO M270 Grade 50W.



PINTLE

FIXED BEARING



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

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	14
Anchor Bolts 1"	Each	56

ILLINOIS DEPARTMENT OF TRANSPORTATION
BEARING DETAILS
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.
DATE: 04-08
REVISED:
DRAWN BY: MLO
CHECKED BY: PBB

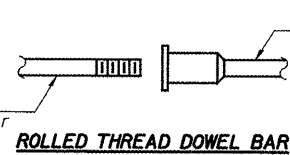
I-2-E1

11-1-06

Rev. 2-17-09

The diameter of this part is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

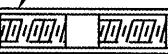


ROLLED THREAD DOWEL BAR



**** ONE PIECE**

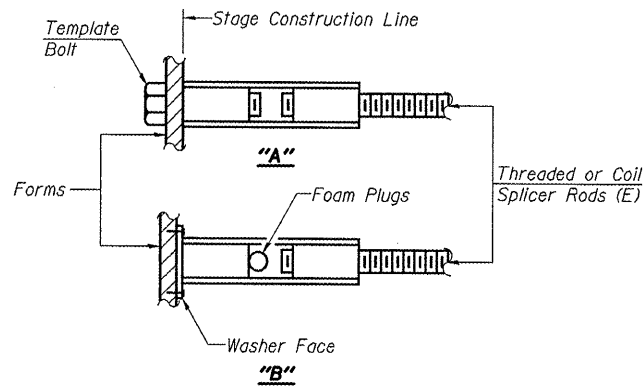
Wire Connector



WELDED SECTIONS

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.

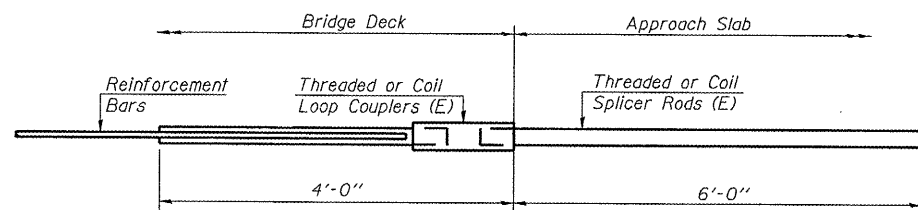
NOTES

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:

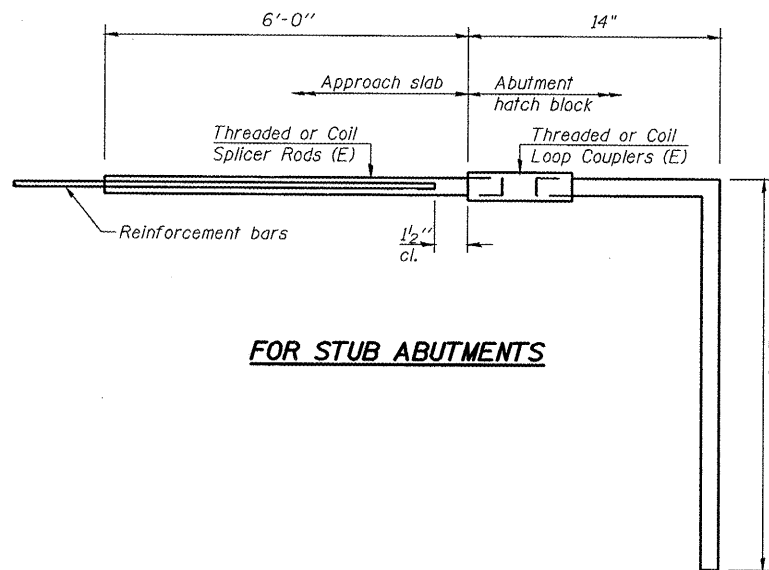
- ① Minimum Capacity = $1.25 \times f_y \times A_t$
 (Tension in kips)
- ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_t$
 (Tension in kips)

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

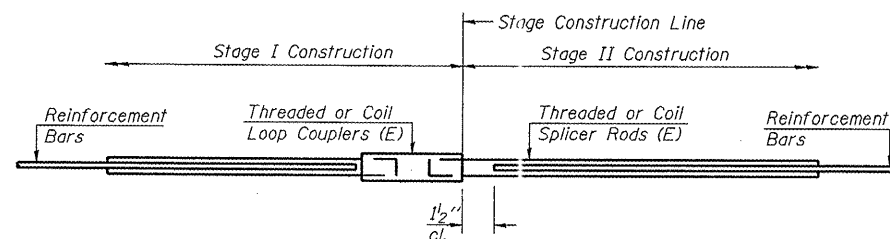
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS



FOR STUB ABUTMENTS



STANDARD

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

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 160

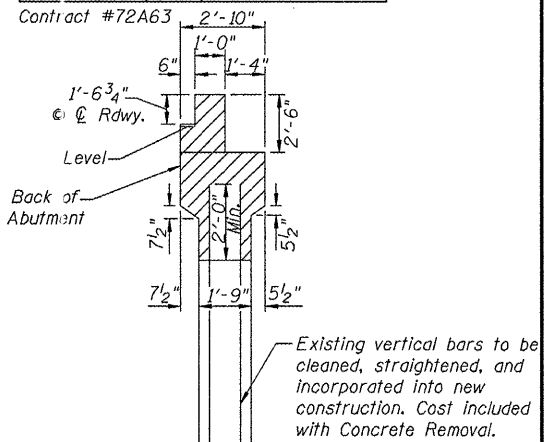
Bar Size	No. Assemblies Required	Location

ILLINOIS DEPARTMENT OF TRANSPORTATION

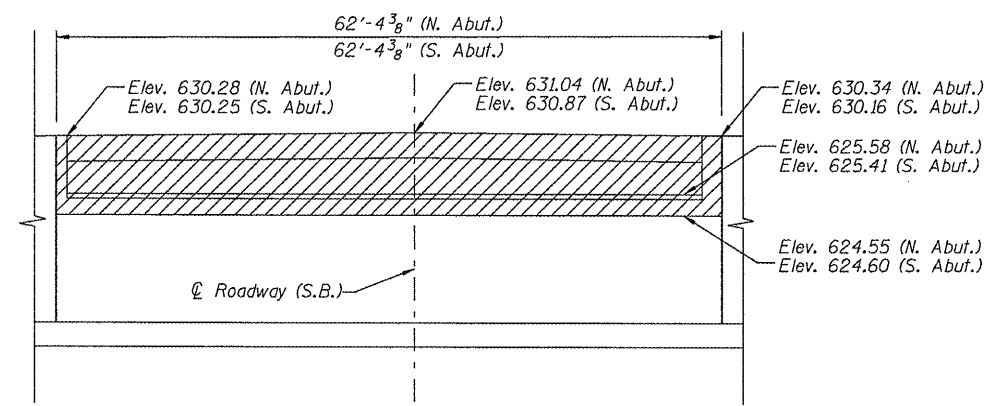
BAR SPLICER ASSEMBLY DETAILS
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.

DATE: 04-08
 REVISED:
 DRAWN BY: MLO
 CHECKED BY: PBB

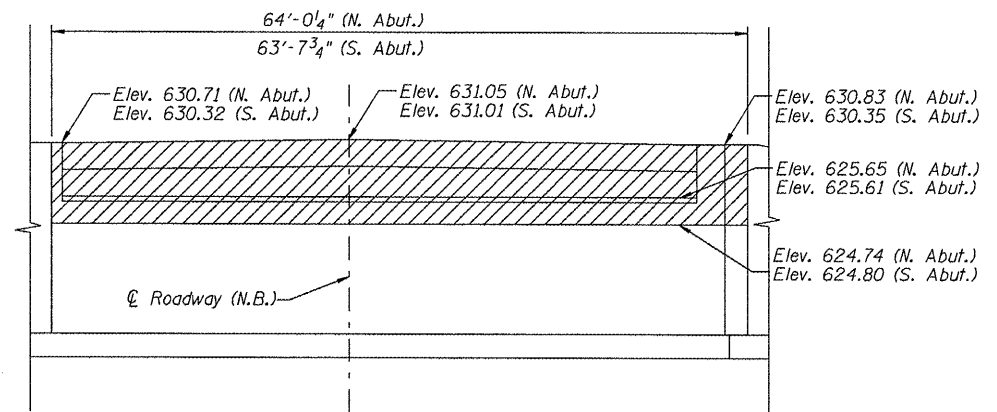
ROUTE NO.	SECTION	COUNTY	DATE	SHEET NO.	SHEET NO. 14
F.A.I. 51	68-4B-1	MONTGOMERY	145	54	23 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



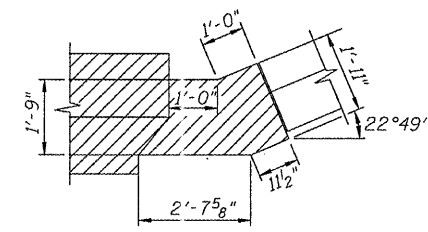
SECTION THRU ABUTMENT
(Horiz. Dim. at right L's)



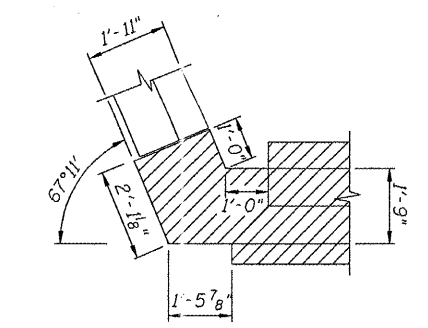
ELEVATION OF ABUTMENT (S.B. LANES)
(North Abument - Looking North, shown)
(South Abument - Looking South, similar/mirrored)



ELEVATION OF ABUTMENT (N.B. LANES)
(North Abument - Looking North, shown)
(South Abument - Looking South, similar/mirrored)

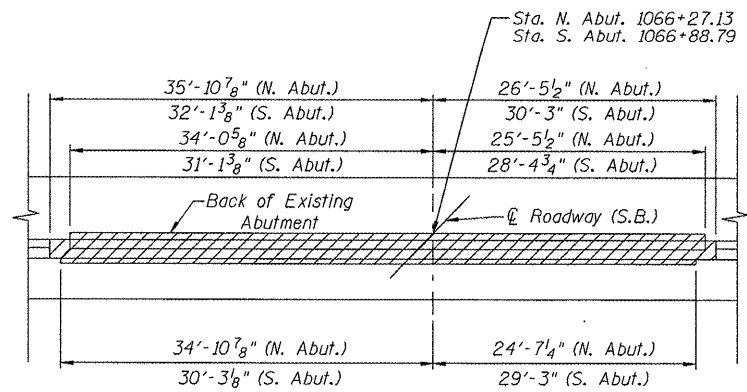


DETAIL A

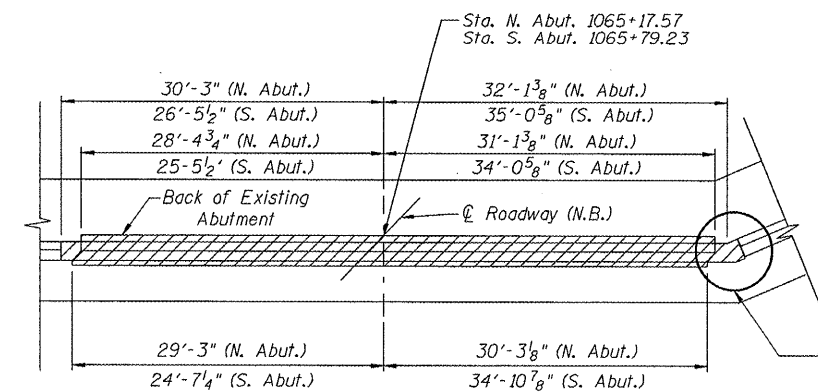


DETAIL B

LEGEND
Concrete Removal



PLAN VIEW (S.B. LANES)
(North Abument, shown)
(South Abument, similar/mirrored)



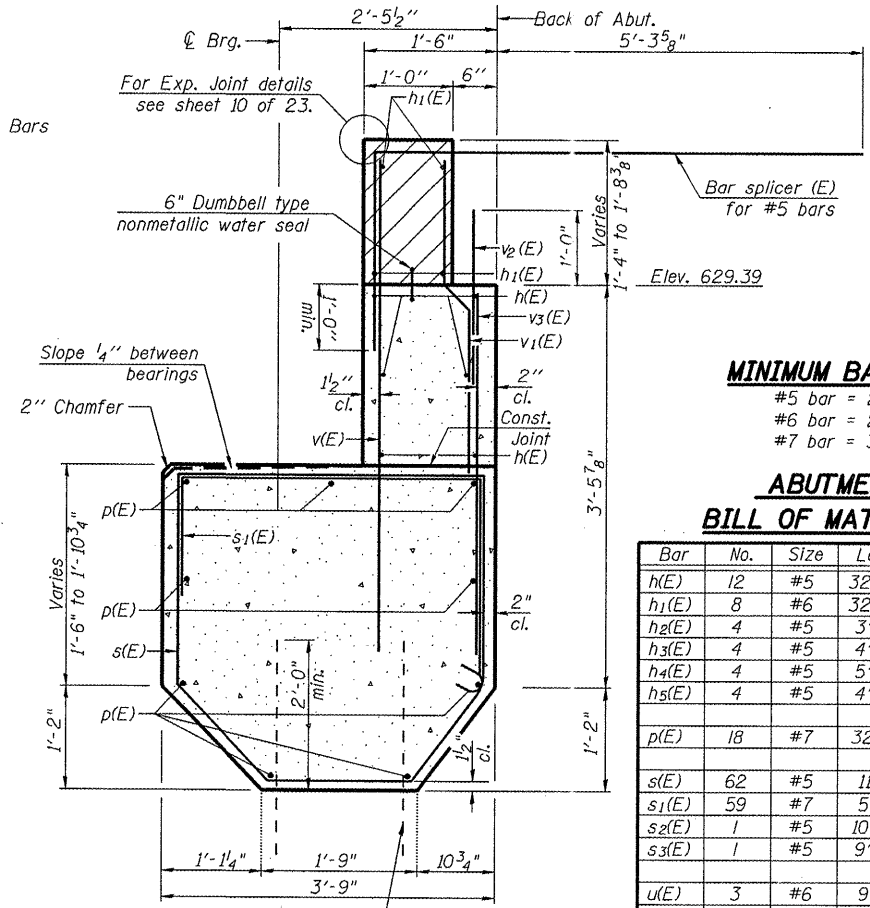
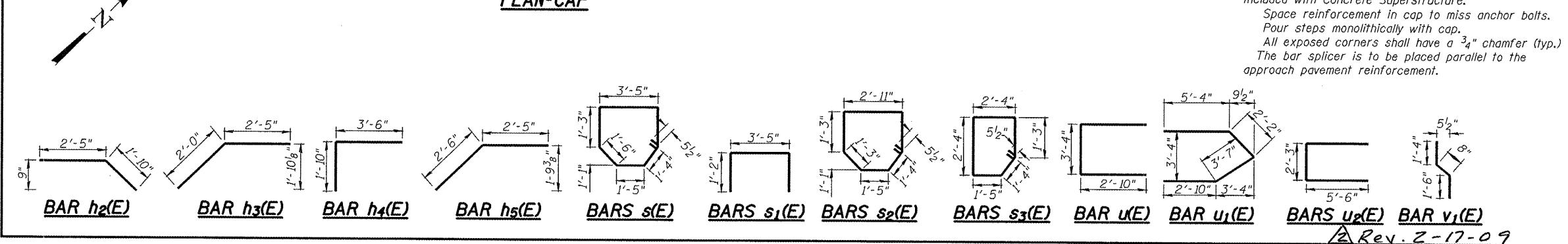
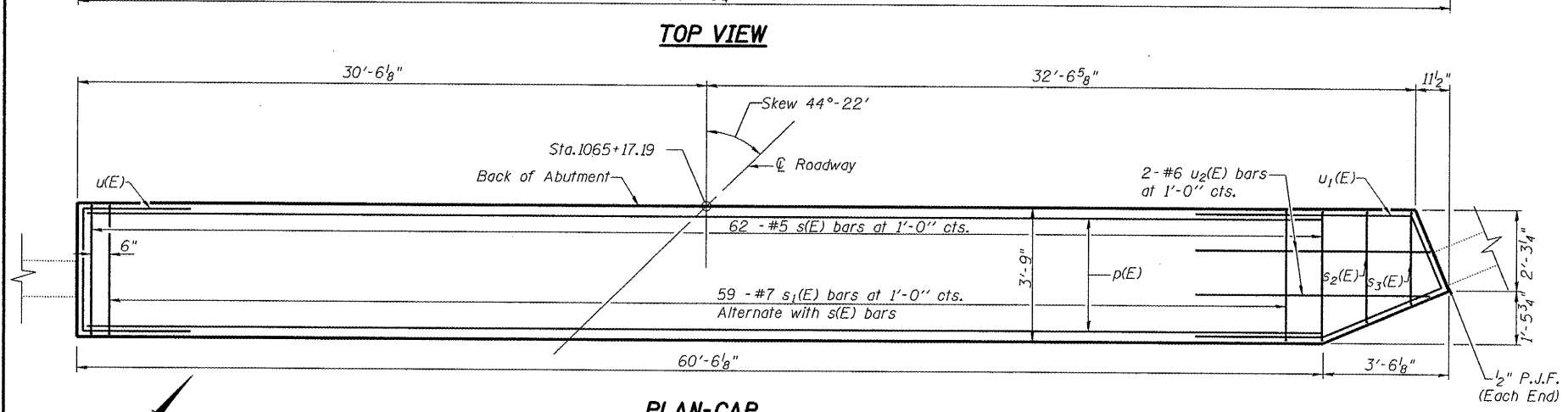
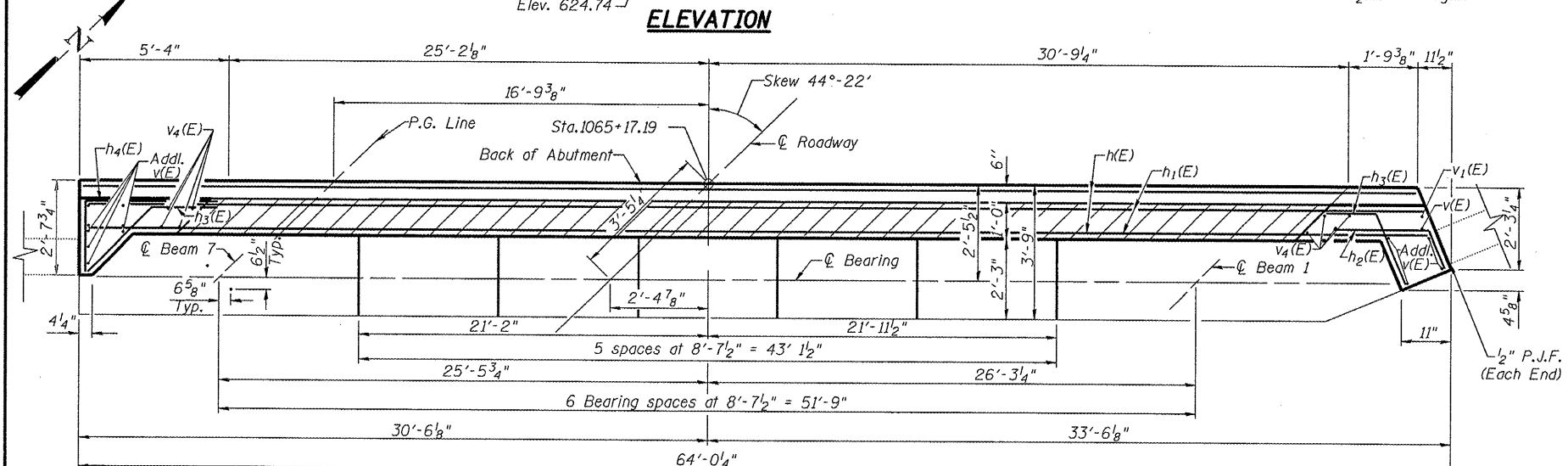
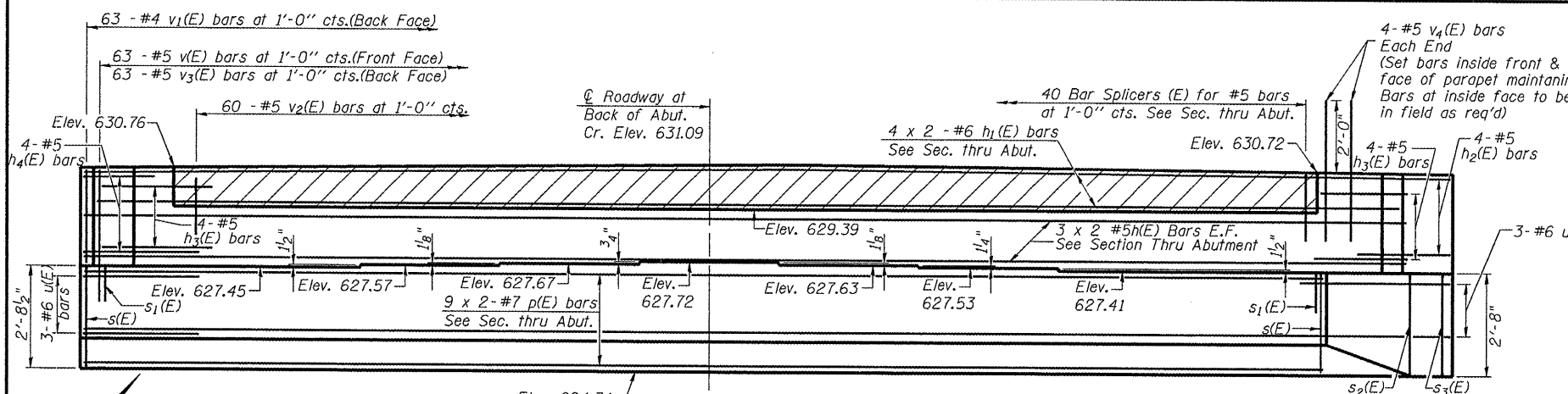
PLAN VIEW (N.B. LANES)
(North Abument, shown)
(South Abument, similar/mirrored)

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	115
Asbestos Bearing Pad Removal	Each	56

ILLINOIS DEPARTMENT OF TRANSPORTATION
CONCRETE REMOVAL DETAILS
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.
DATE: 04-08
REVISED:
DRAWN BY: MLO
CHECKED BY: PBB

Rev. 2-17-09



MINIMUM BAR LAP

#5 bar = 2'-5"
 #6 bar = 2'-10"
 #7 bar = 3'-10"

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#5	32'-7"	—
h1(E)	8	#6	32'-10"	—
h2(E)	4	#5	3'-3"	—
h3(E)	4	#5	4'-5"	—
h4(E)	4	#5	5'-4"	—
h5(E)	4	#5	4'-11"	—
p(E)	18	#7	32'-11"	—
s(E)	62	#5	11'-1"	D
s1(E)	59	#7	5'-9"	D
s2(E)	1	#5	10'-4"	D
s3(E)	1	#5	9'-7"	D
u(E)	3	#6	9'-0"	U
u1(E)	3	#6	13'-11"	U
u2(E)	2	#6	13'-3"	U
v(E)	71	#5	5'-4"	—
v1(E)	63	#4	3'-6"	—
v2(E)	60	#5	2'-0"	—
v3(E)	63	#5	3'-1"	—
v4(E)	8	#5	4'-0"	—
Structure Excavation			Cu. Yd.	50
Concrete Structures			Cu. Yd.	33
Reinforcement Bars, Epoxy Coated			Pound	4590
Bar Splicers			Each	40
Concrete Sealer			Sq. Ft.	584

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

SEC. THRU ABUT.

Notes:
 Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
 Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap.
 All exposed corners shall have a 3/4" chamfer (typ).
 The bar splicer is to be placed parallel to the approach pavement reinforcement.

ILLINOIS DEPARTMENT OF TRANSPORTATION

NORTHBOUND NORTH ABUTMENT DETAILS

I 55 OVER MACOUPIN CREEK

F.A.I. ROUTE 55 - SEC. 68-4B-1

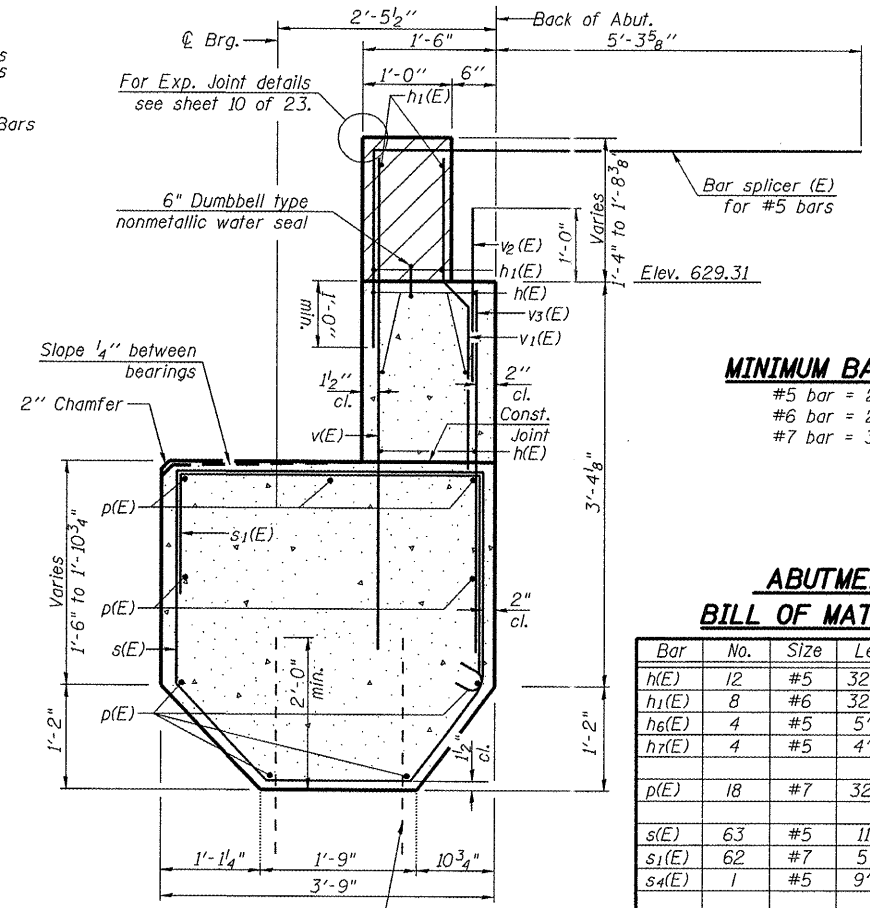
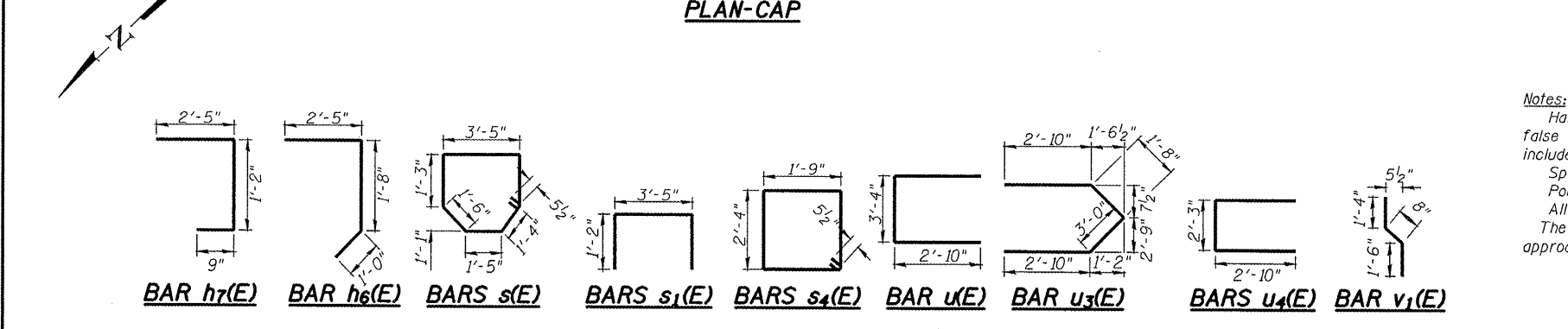
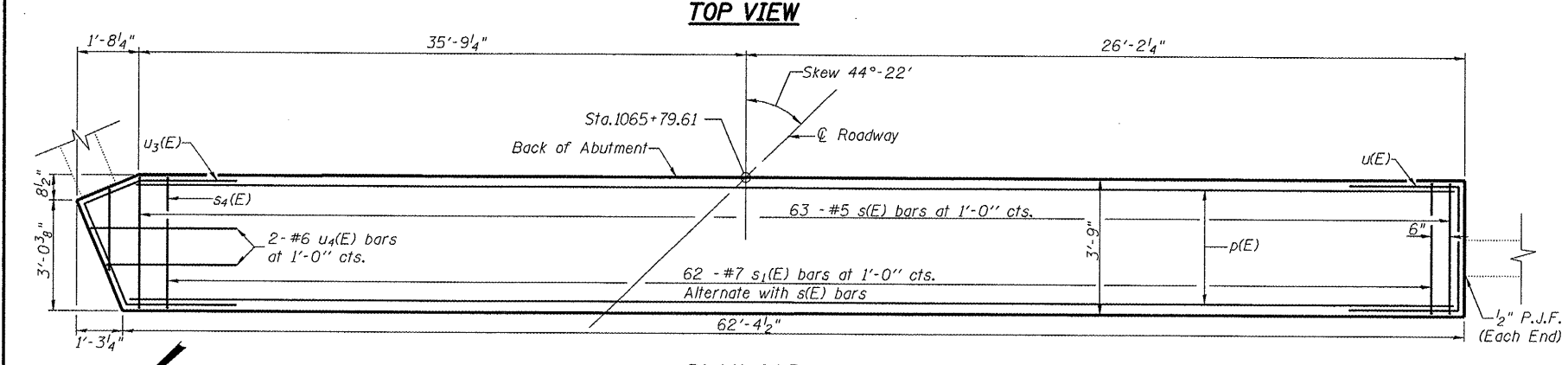
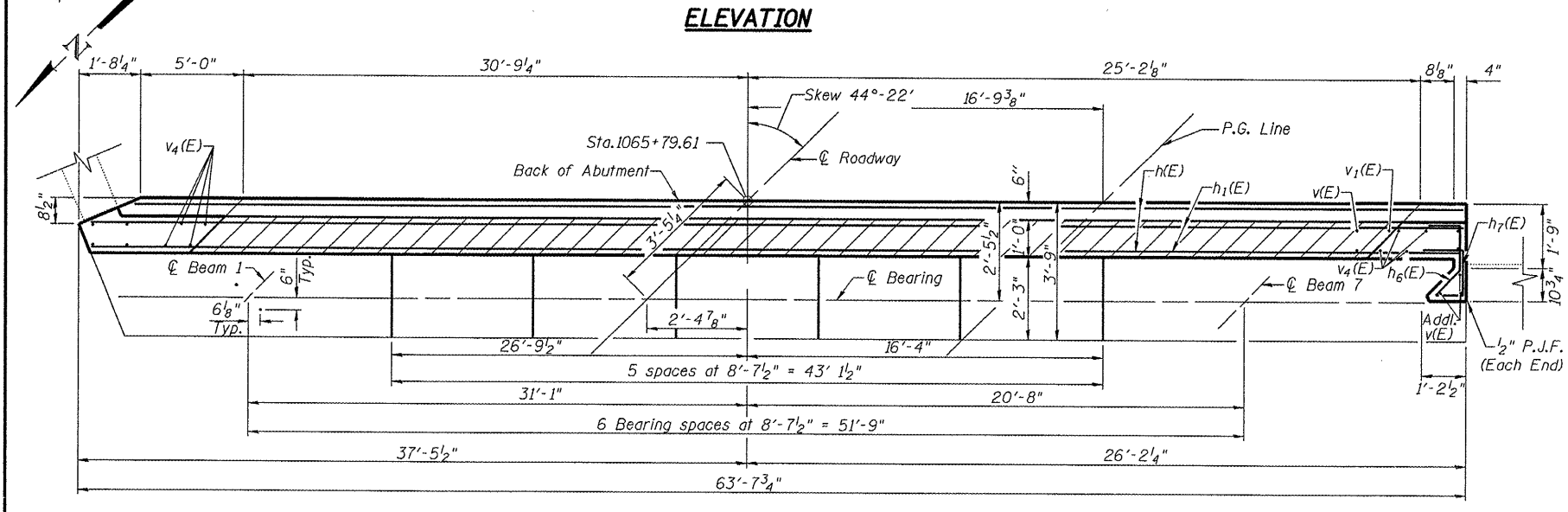
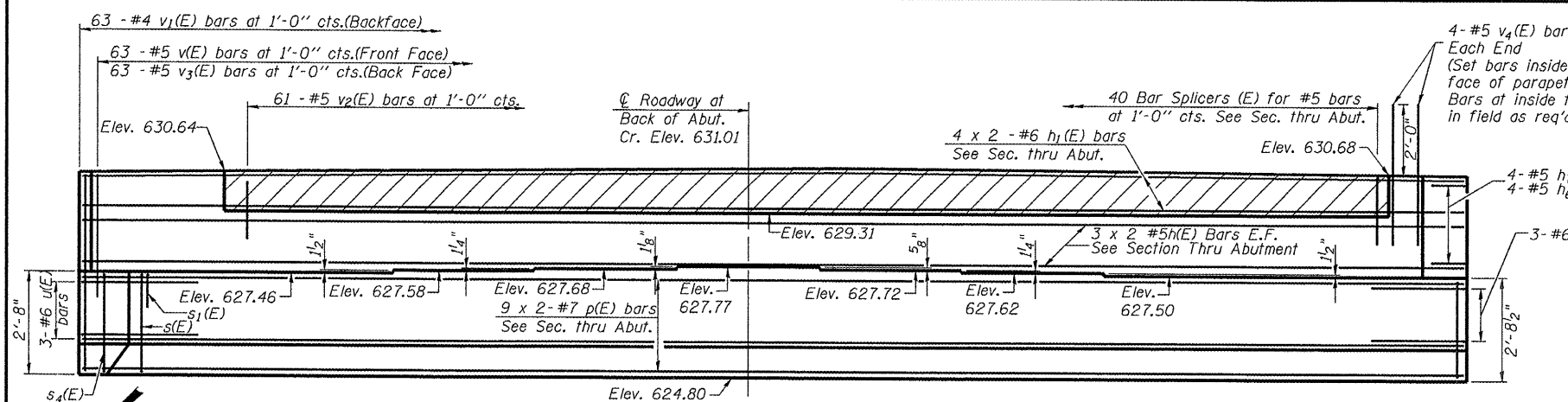
MONTGOMERY COUNTY

STATION 1066+03.18

STRUCTURE NO. 068-0038 N.B.

STRUCTURE NO. 068-0039 S.B.

DATE: 04-08
 REVISIONS:
 DRAWN BY: MLO
 CHECKED BY: PBB



MINIMUM BAR LAP
 #5 bar = 2'-5"
 #6 bar = 2'-10"
 #7 bar = 3'-10"

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#5	32'-7"	—
h1(E)	8	#6	32'-10"	—
h6(E)	4	#5	5'-1"	—
h7(E)	4	#5	4'-4"	—
p(E)	18	#7	32'-11"	—
s(E)	63	#5	11'-1"	—
s1(E)	62	#7	5'-9"	—
s4(E)	1	#5	9'-1"	—
u(E)	3	#6	9'-0"	—
u3(E)	3	#6	10'-4"	—
u4(E)	2	#6	7'-11"	—
v(E)	66	#5	5'-4"	—
v1(E)	63	#4	3'-6"	—
v2(E)	61	#5	2'-0"	—
v3(E)	63	#5	3'-1"	—
v4(E)	8	#5	4'-0"	—
Structure Excavation		Cu. Yd.	46	
Concrete Structures		Cu. Yd.	35.0	
Reinforcement Bars, Epoxy Coated		Pound	4530	
Bar Splicers		Each	40	
Concrete Sealer		Sq. Ft.	578	

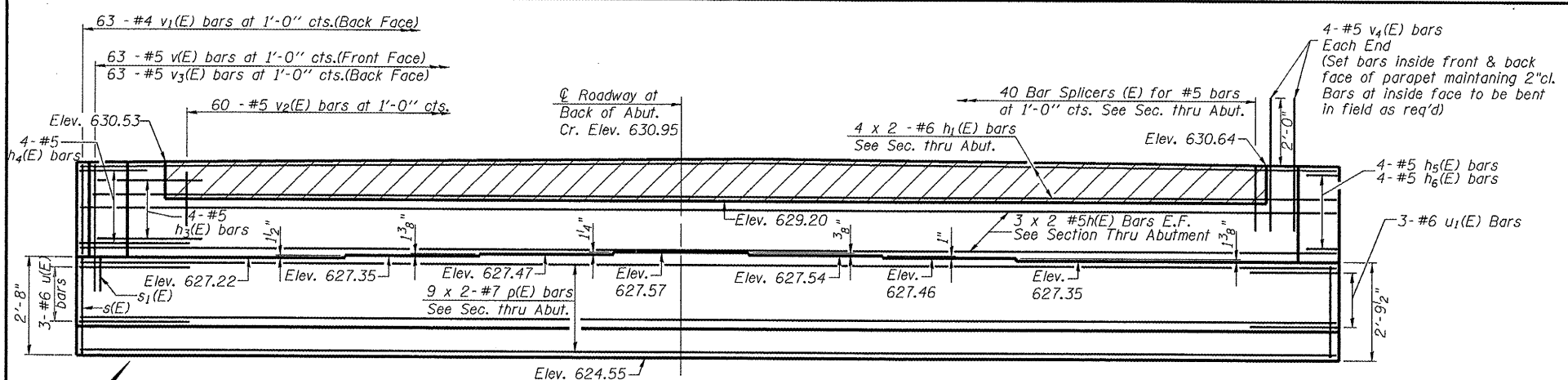
For details of Bar Splicers, see sheet 13 of 23.
 Bars indicated thus 9x2-#7 etc. Indicates 9 lines of bars with 2 lengths per line.

Notes:
 Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
 Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap.
 All exposed corners shall have a 3/4" chamfer (typ.)
 The bar splicer is to be placed parallel to the approach pavement reinforcement.

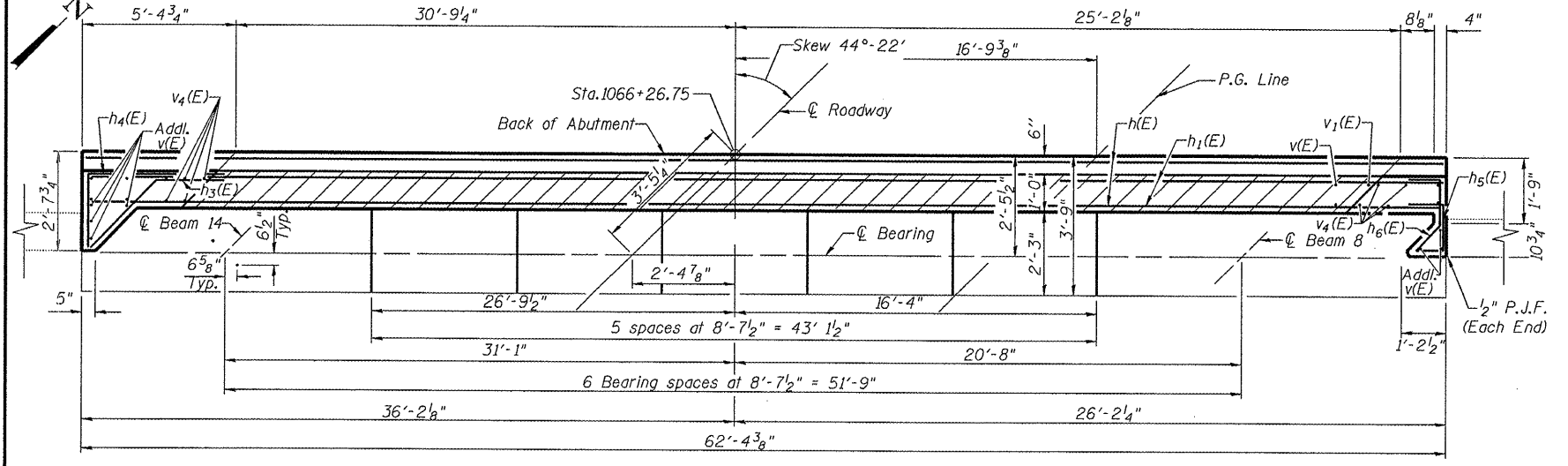
ILLINOIS DEPARTMENT OF TRANSPORTATION
NORTHBOUND SOUTH ABUTMENT DETAILS
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.

DATE: 04-08
 REVISED:
 DRAWN BY: MLO
 CHECKED BY: PBB

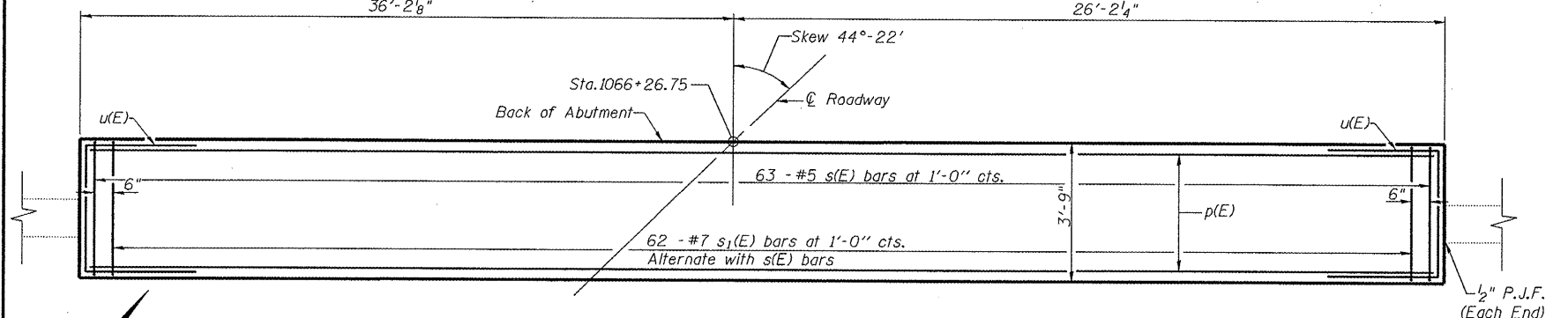
Rev. 2-17-09



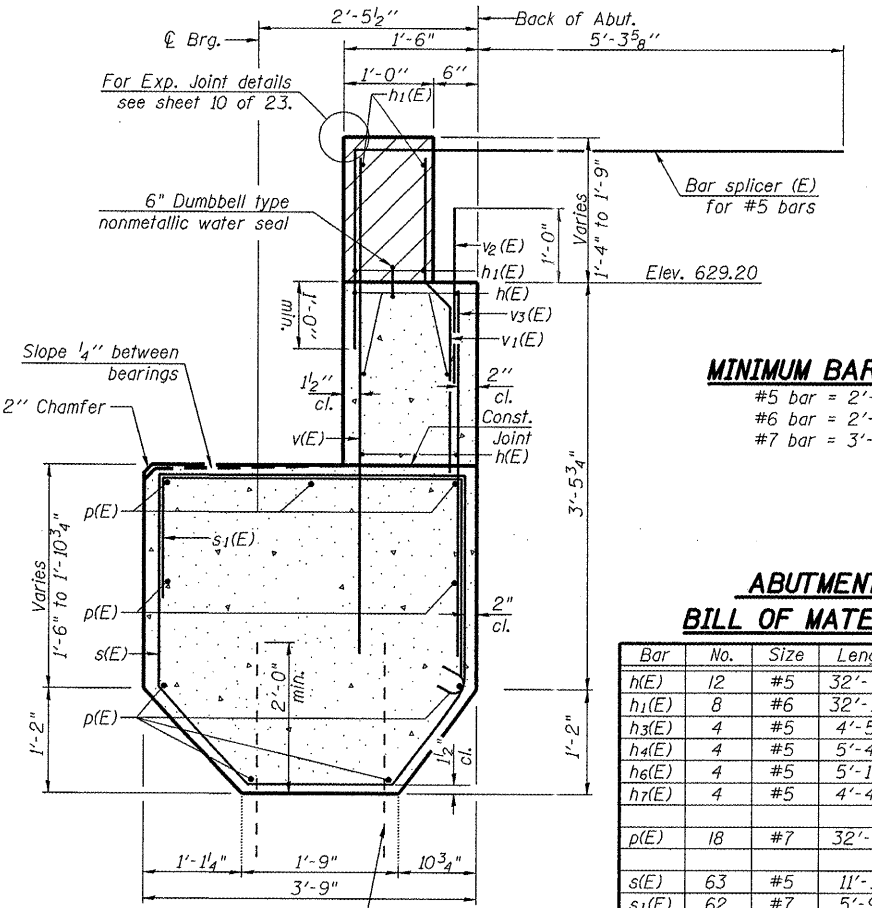
ELEVATION



TOP VIEW



PLAN-CAP



SEC. THRU ABUT.

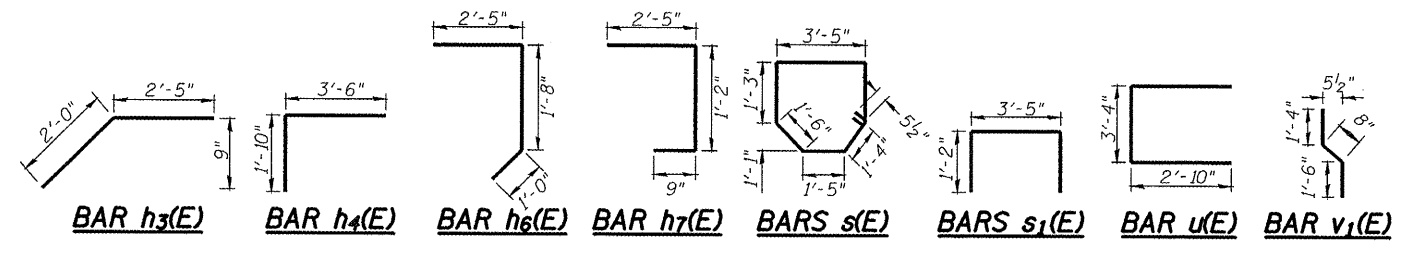
MINIMUM BAR LAP

- #5 bar = 2'-5"
- #6 bar = 2'-10"
- #7 bar = 3'-10"

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#5	32'-7"	
h1(E)	8	#6	32'-10"	
h3(E)	4	#5	4'-5"	
h4(E)	4	#5	5'-4"	
h6(E)	4	#5	5'-1"	
h7(E)	4	#5	4'-4"	
p(E)	18	#7	32'-11"	
s(E)	63	#5	11'-1"	
s1(E)	62	#7	5'-9"	
u(E)	6	#6	9'-0"	
v(E)	70	#5	5'-4"	
v1(E)	63	#4	3'-6"	
v2(E)	60	#5	2'-0"	
v3(E)	63	#5	3'-1"	
v4(E)	8	#5	4'-0"	
Structure Excavation		Cu. Yd.	50	
Concrete Structures		Cu. Yd.	32	
Reinforcement Bars, Epoxy Coated		Pound	4510	
Bar Splicers		Each	40	
Concrete Sealer		Sq. Ft.	583	

For details of Bar Splicers, see sheet 13 of 23.
Bars indicated thus 9x2-#7 etc. indicates 9 lines of bars with 2 lengths per line.



Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
All exposed corners shall have a 3/4" chamfer (typ.).
The bar splicer is to be placed parallel to the approach pavement reinforcement.

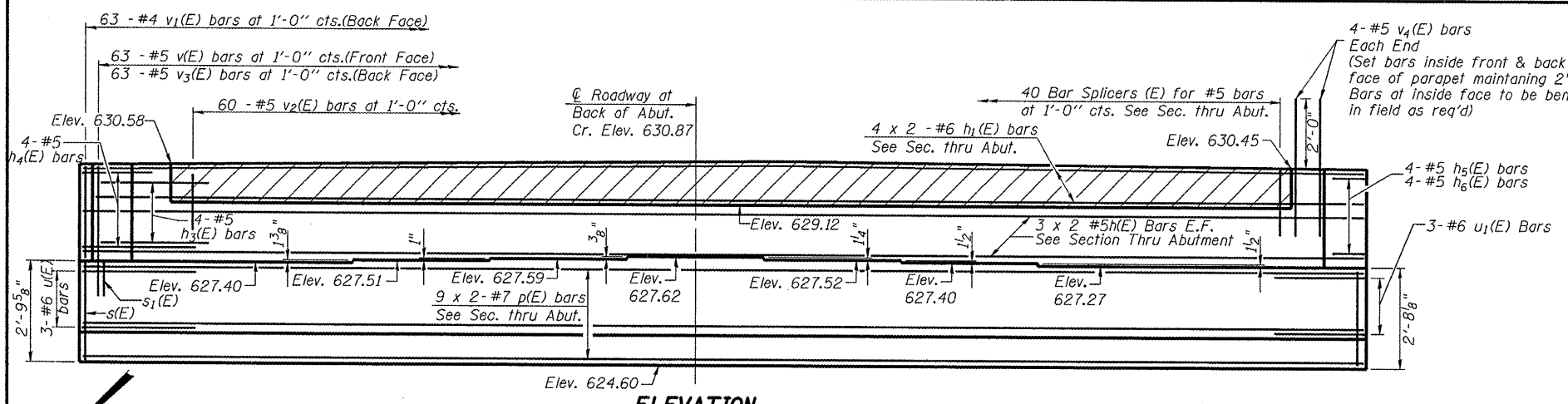
Rev. 2-17-09

ILLINOIS DEPARTMENT OF TRANSPORTATION

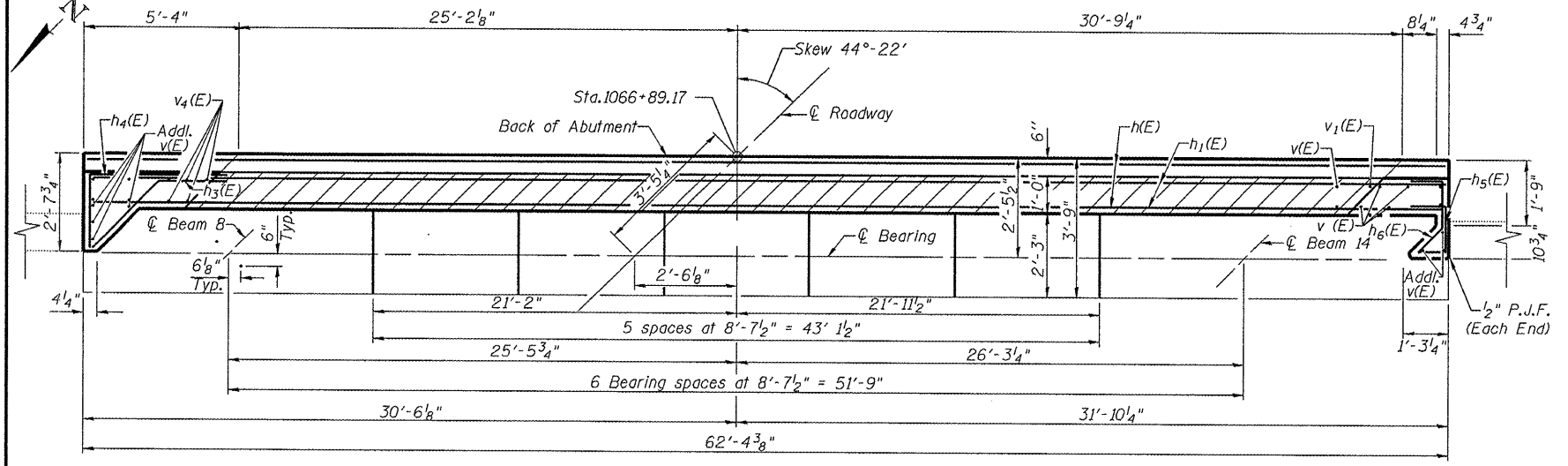
SOUTHBOUND NORTH ABUTMENT DETAILS
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.

DATE: 04-08
REVISED:

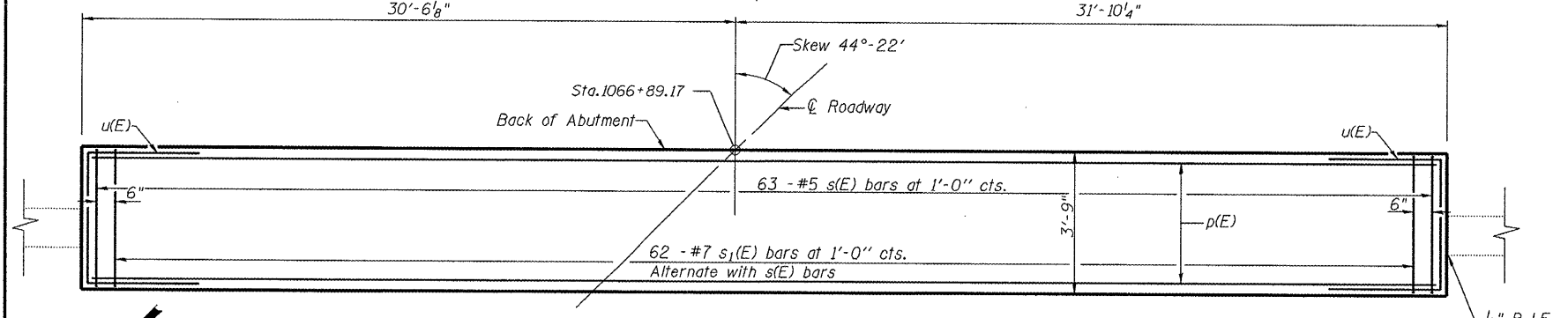
DRAWN BY: MLO
CHECKED BY: PBB



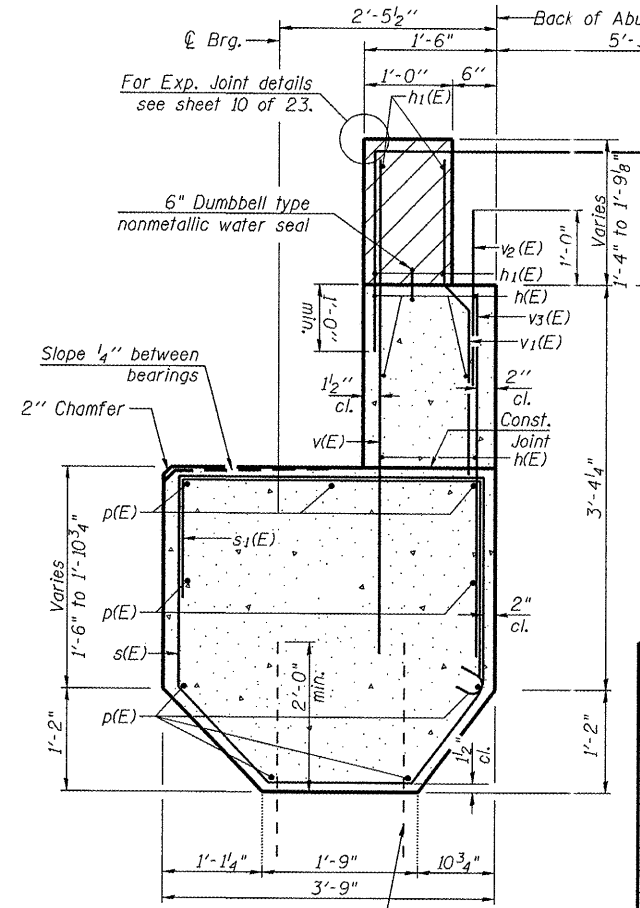
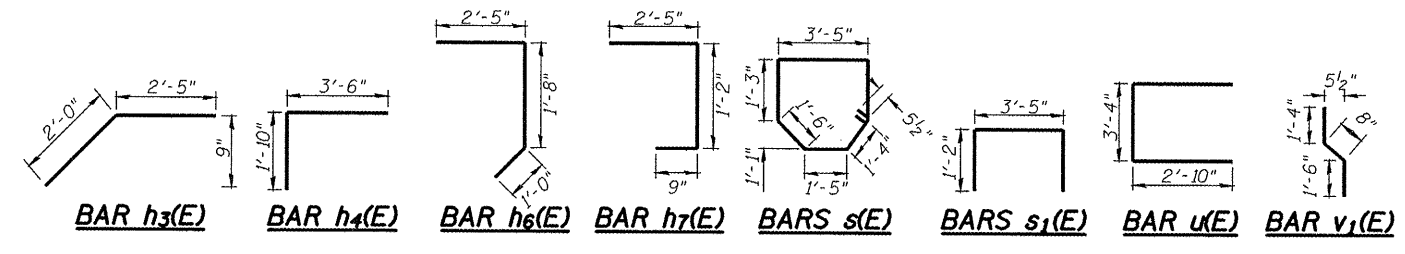
ELEVATION



TOP VIEW



PLAN-CAP



SEC. THRU ABUT.

MINIMUM BAR LAP
#5 bar = 2'-5"
#6 bar = 2'-10"
#7 bar = 3'-10"

ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#5	32'-7"	[Symbol]
h ₁ (E)	8	#6	32'-10"	[Symbol]
h ₃ (E)	4	#5	4'-5"	[Symbol]
h ₄ (E)	4	#5	5'-4"	[Symbol]
h ₆ (E)	4	#5	5'-1"	[Symbol]
h ₇ (E)	4	#5	4'-4"	[Symbol]
p(E)	18	#7	32'-11"	[Symbol]
s(E)	63	#5	11'-1"	[Symbol]
s ₁ (E)	62	#7	5'-9"	[Symbol]
u(E)	6	#6	9'-0"	[Symbol]
v(E)	70	#5	5'-4"	[Symbol]
v ₁ (E)	63	#4	3'-6"	[Symbol]
v ₂ (E)	60	#5	2'-0"	[Symbol]
v ₃ (E)	63	#5	3'-1"	[Symbol]
v ₄ (E)	8	#5	4'-0"	[Symbol]

Structure Excavation	Cu. Yd.	47
Concrete Structures	Cu. Yd.	35
Reinforcement Bars, Epoxy Coated	Pound	4530
Bar Splicers	Each	40
Concrete Sealer	Sq. Ft.	570

For details of Bar Splicers, see sheet 13 of 23.
Bars indicated thus 9x2 - #7 etc. indicates 9 lines of bars with 2 lengths per line.

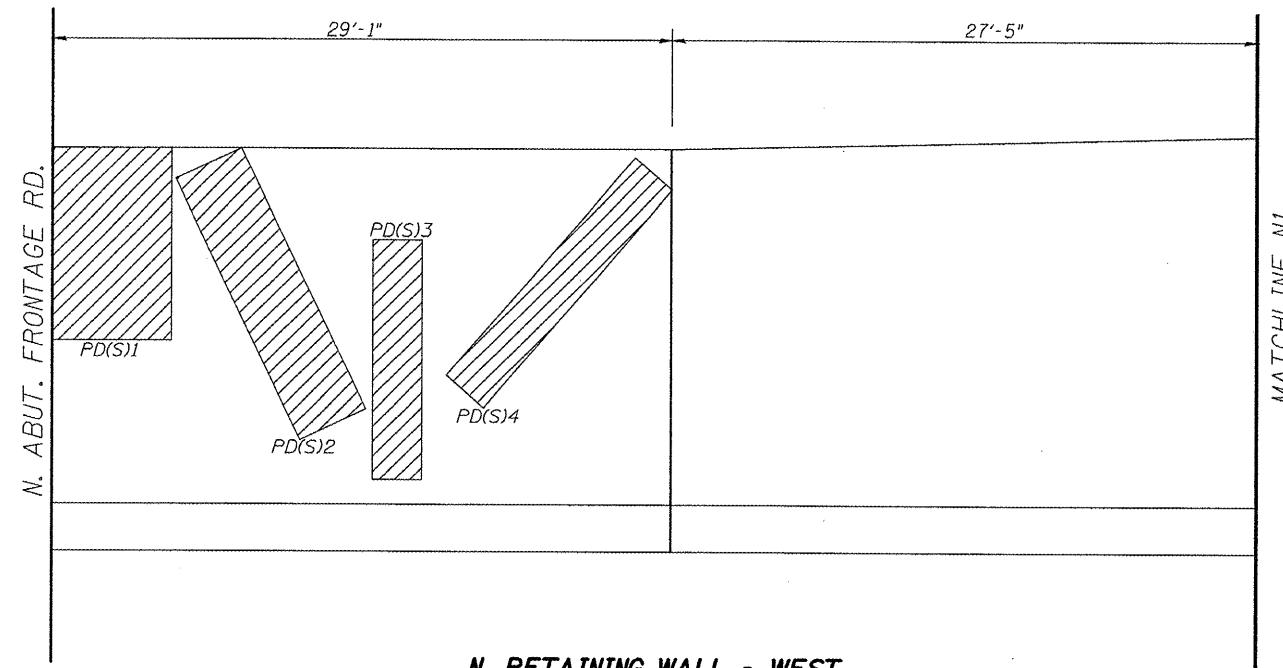
Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
All exposed corners shall have a 3/4" chamfer (typ.).
The bar splicer is to be placed parallel to the approach pavement reinforcement.

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOUTHBOUND SOUTH ABUTMENT DETAILS
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.
DATE: 04-08
REVISED:
DRAWN BY: MLO
CHECKED BY: PBB

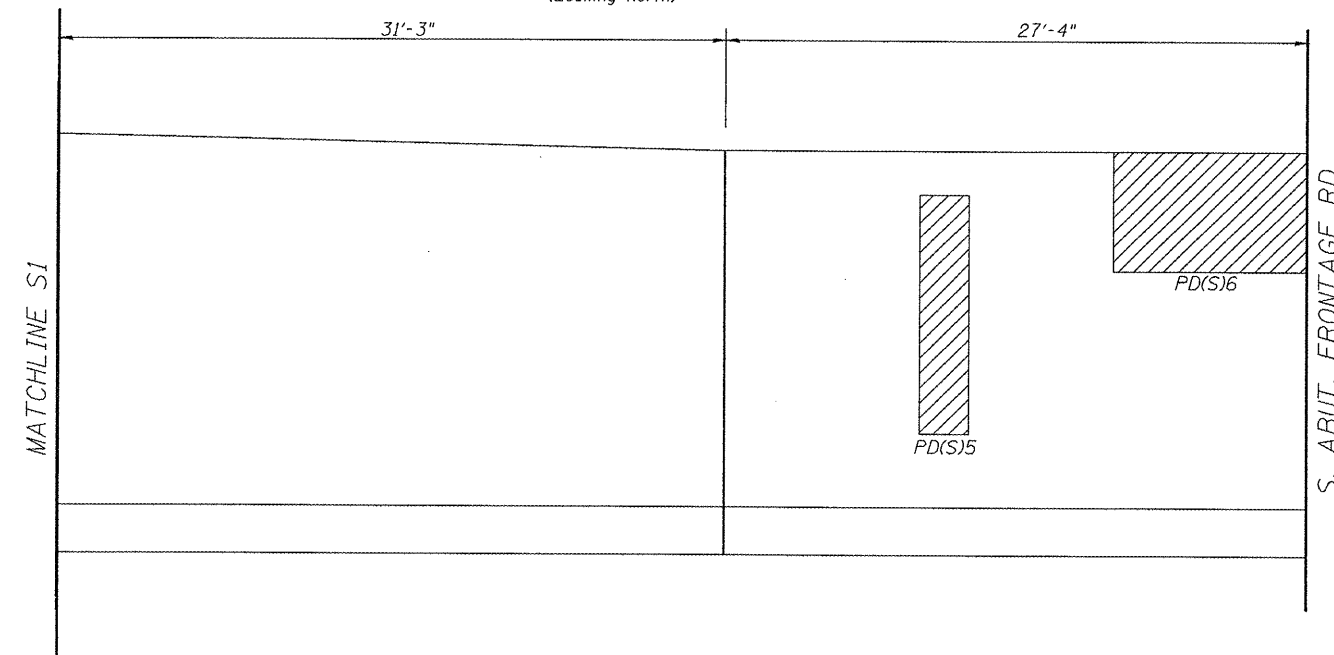
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
F.A.I. 53	68-4B-1	MONTGOMERY	145	59
FED. RD. DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #72A63

SHEET NO. 19
23 SHEETS



N. RETAINING WALL - WEST
(Looking North)



S. RETAINING WALL - WEST
(Looking South)


Structural Repair of Concrete
(Depth Equal to or Less than 5")

Patch	Length (Ft)	Width (Ft)	Area (Sq Ft)
PD(S)1	8	5	40
PD(S)2	12	3	36
PD(S)3	10	2	20
PD(S)4	12	2	24
PD(S)5	10	2	20
PD(S)6	5	8	40
PD(S)7	10	2	20
PD(S)8	15	3	45
PD(S)9	10	10	100
PD(S)10	6	2	12
PD(S)11	10	2	20
PD(S)12	10	3	30

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	407

LEGEND

 Structural Repair of Concrete
(Depth Equal To or Less Than 5")

Rev. 2-17-09

ILLINOIS DEPARTMENT OF TRANSPORTATION
ABUTMENT & RETAINING WALL
CONCRETE REPAIR SHEET 1 OF 4
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.

DATE: 04-08
REVISED:

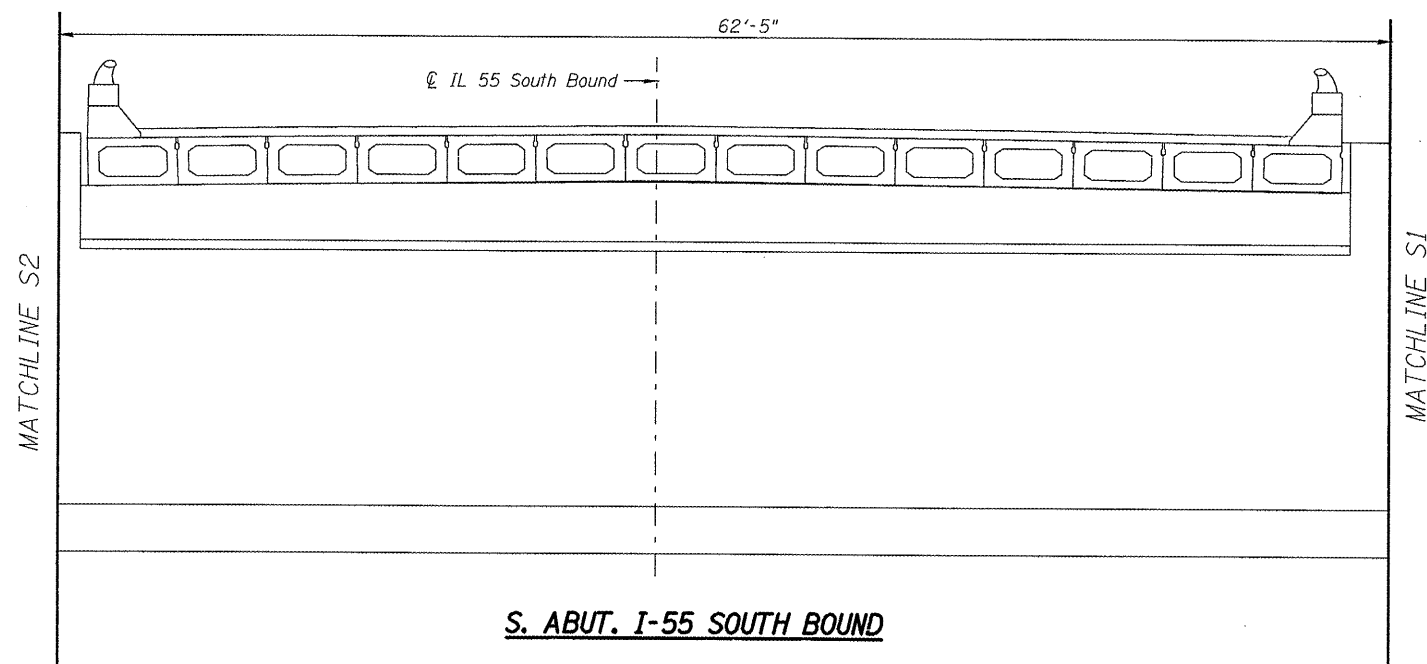
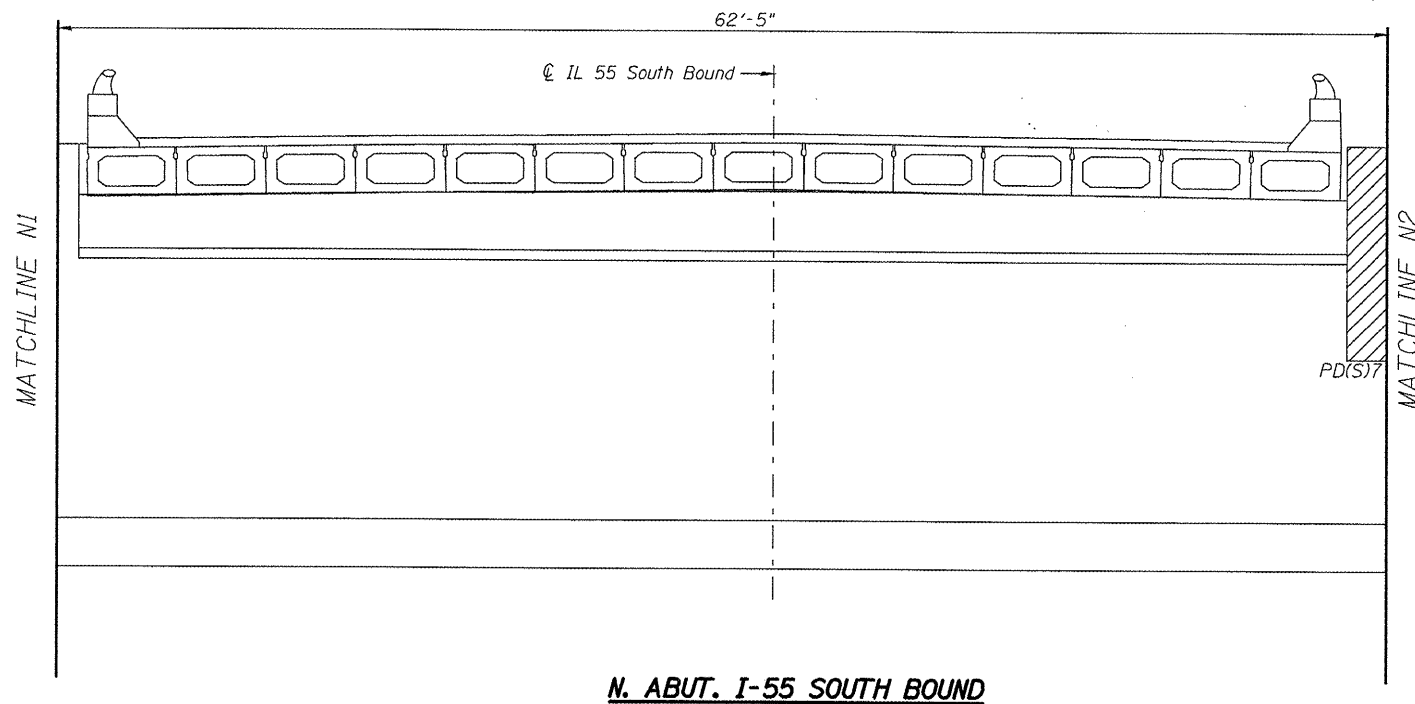
DRAWN BY: MLO
CHECKED BY: PBB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	68-4B-1	MONTGOMERY	145	60


SHEET NO. 20
23 SHEETS

Contract #72A63



LEGEND

 Structural Repair of Concrete
(Depth Equal To or Less Than 5')

 Rev. 2-17-09

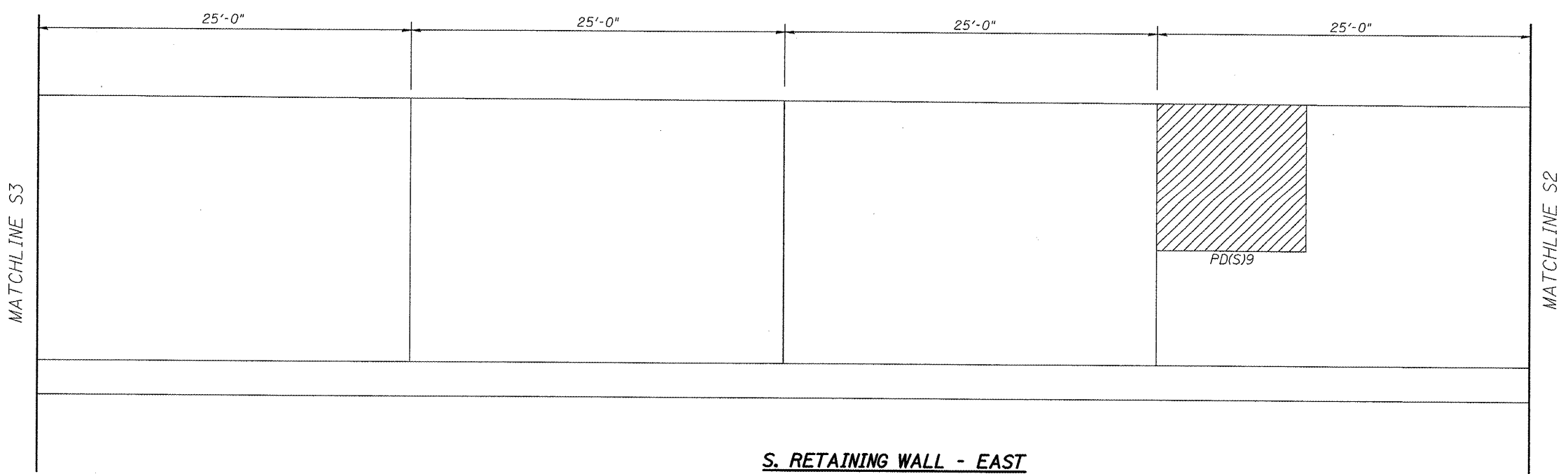
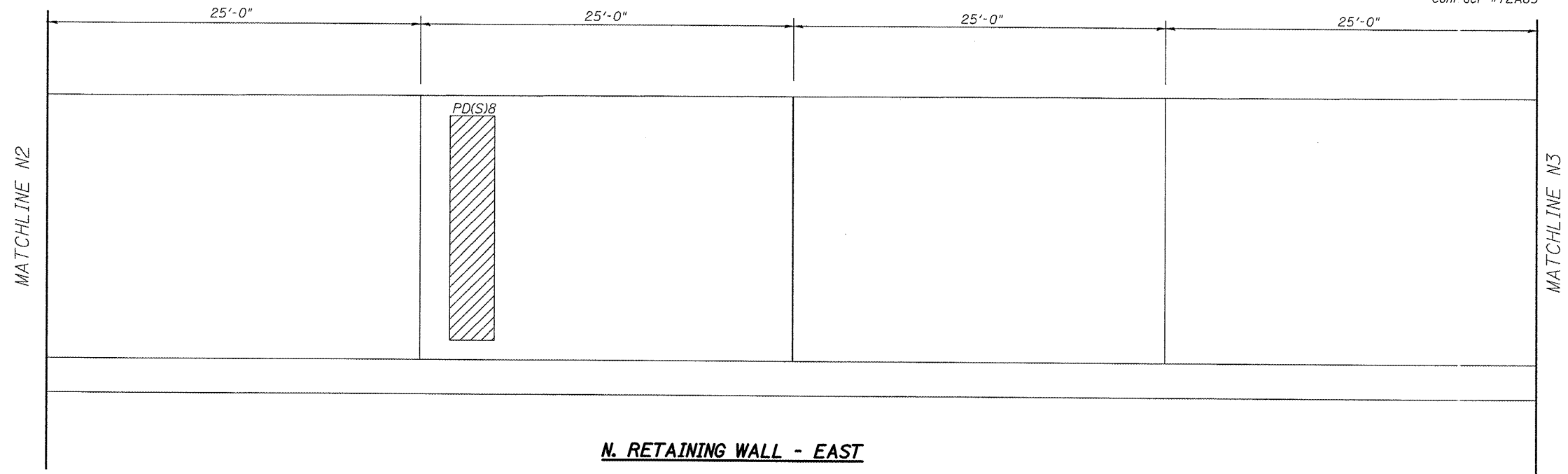
ILLINOIS DEPARTMENT OF TRANSPORTATION
ABUTMENT & RETAINING WALL
CONCRETE REPAIR SHEET 2 OF 4
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.

DATE: 04-08
REVISED:

DRAWN BY: MLO
CHECKED BY: PBB

ROUTE NO. F.A.I. 55	SECTION 68-4B-1	COUNTY MONTGOMERY	STATE 145	SHEET NO. 61	SHEET NO. 21 23 SHEETS
FED. NO. 10 DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract #72A63



LEGEND

Structural Repair of Concrete
(Depth Equal To or Less Than 5')

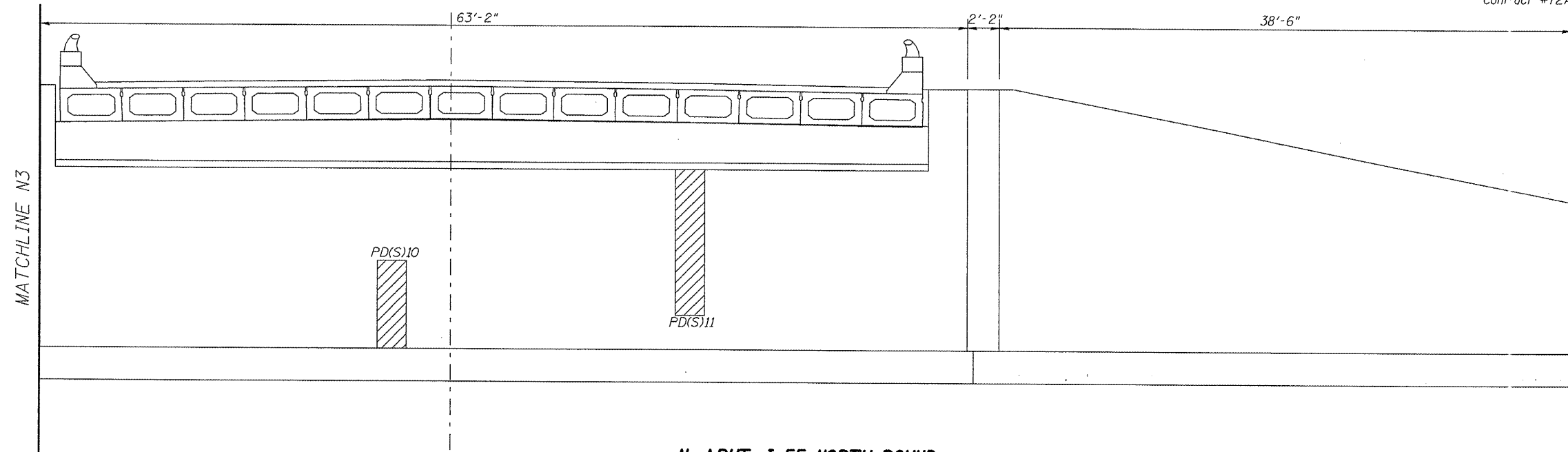
Rev. 2-17-09

ILLINOIS DEPARTMENT OF TRANSPORTATION
ABUTMENT & RETAINING WALL
CONCRETE REPAIR SHEET 3 OF 4
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.

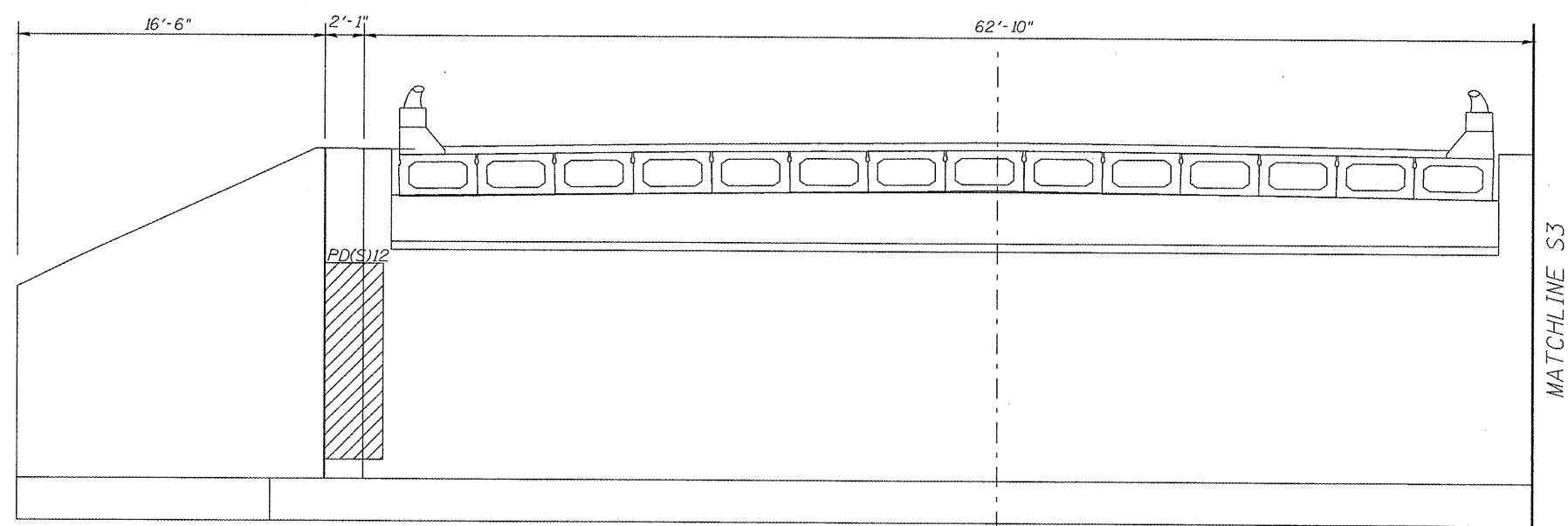
DATE: 04-08
 REVISIONS:
 DRAWN BY: MLO
 CHECKED BY: PBB

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.I. 55	68-4B-1	MONTGOMERY	145	62
FED. AID DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract #72A63





N. ABUT. I-55 NORTH BOUND



S. ABUT. I-55 NORTH BOUND

LEGEND

 Structural Repair of Concrete
(Depth Equal To or Less Than 5')

 Rev. 2-17-09

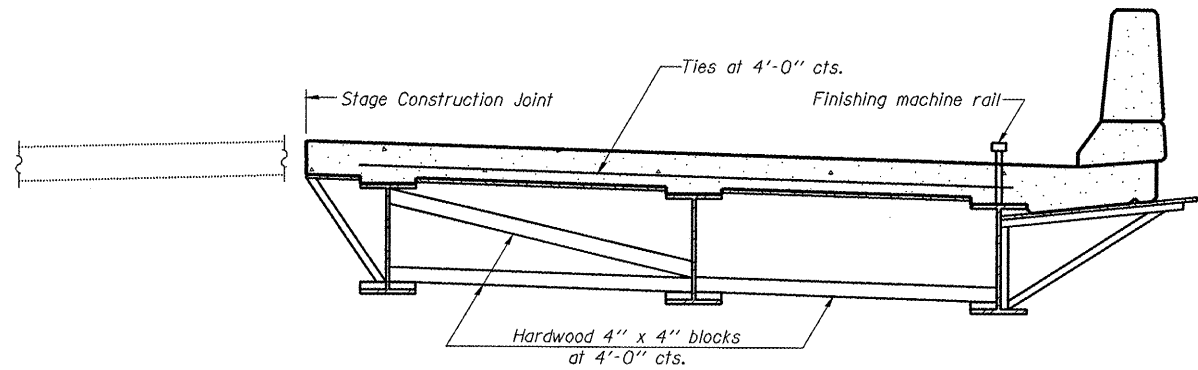
ILLINOIS DEPARTMENT OF TRANSPORTATION
ABUTMENT & RETAINING WALL
CONCRETE REPAIR SHEET 4 OF 4
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.

DATE: 04-08
 REVISED:
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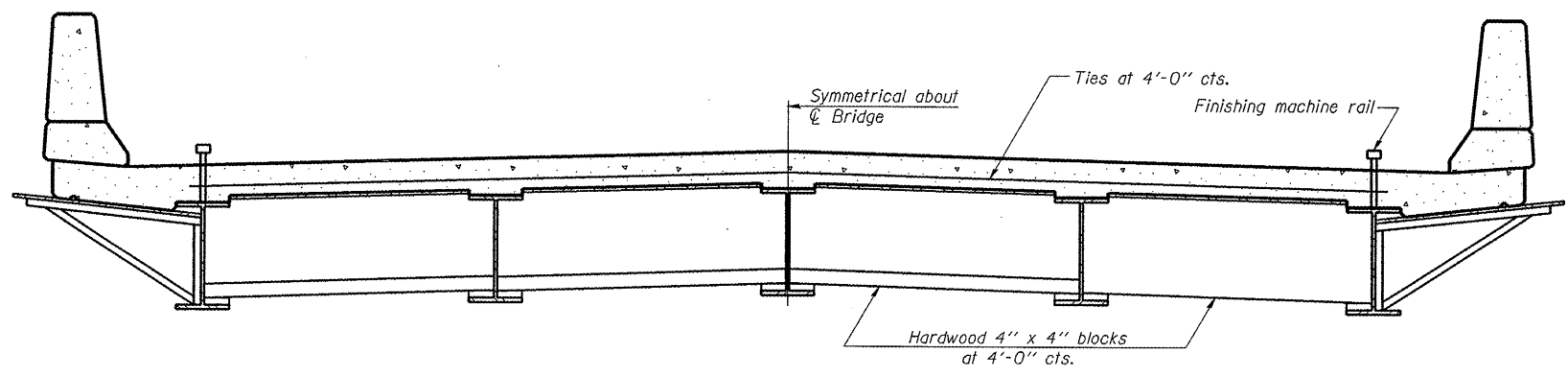
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 23
F.A.I. 55	68-4B-1	MONTGOMERY	145	63	23 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #72A63

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.



FORM BRACES FOR STAGE CONSTRUCTION



FORM BRACES FOR STANDARD CONSTRUCTION

ILLINOIS DEPARTMENT OF TRANSPORTATION
CANTILEVER FORMING BRACKET DETAIL
I 55 OVER MACOUPIN CREEK
F.A.I. ROUTE 55 - SEC. 68-4B-1
MONTGOMERY COUNTY
STATION 1066+03.18
STRUCTURE NO. 068-0038 N.B.
STRUCTURE NO. 068-0039 S.B.
 DATE: 04-08 DRAWN BY: MLO
 REVISED: CHECKED BY: PBB

Rev. 2-17-09