

64A88

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
251	5	Winnebago	36	1
* Section (DVB,5HB,1-2HB)M				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

# PLANS FOR PROPOSED BRIDGE WORK

F.A.P. ROUTES 303 & 738 (IL 251 & FOREST HILLS ROAD)  
SECTION (5VB,5HB,1-2HB)M  
WINNEBAGO COUNTY  
C-92-048-05

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- TRAFFIC CONTROL PLAN S.N. 101-0030 & S.N. 101-0032
- TRAFFIC CONTROL PLAN S.N. 101-0123

#### S.N. 101-0029 & S.N. 101-0030

- GENERAL PLAN & ELEVATION
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- DETAILS
- JOINT REPLACEMENT DETAILS
- CONTINUOUS SEAL TYPE NEOPRENE EXPANSION JOINTS

#### S.N. 101-0031 & S.N. 101-0032

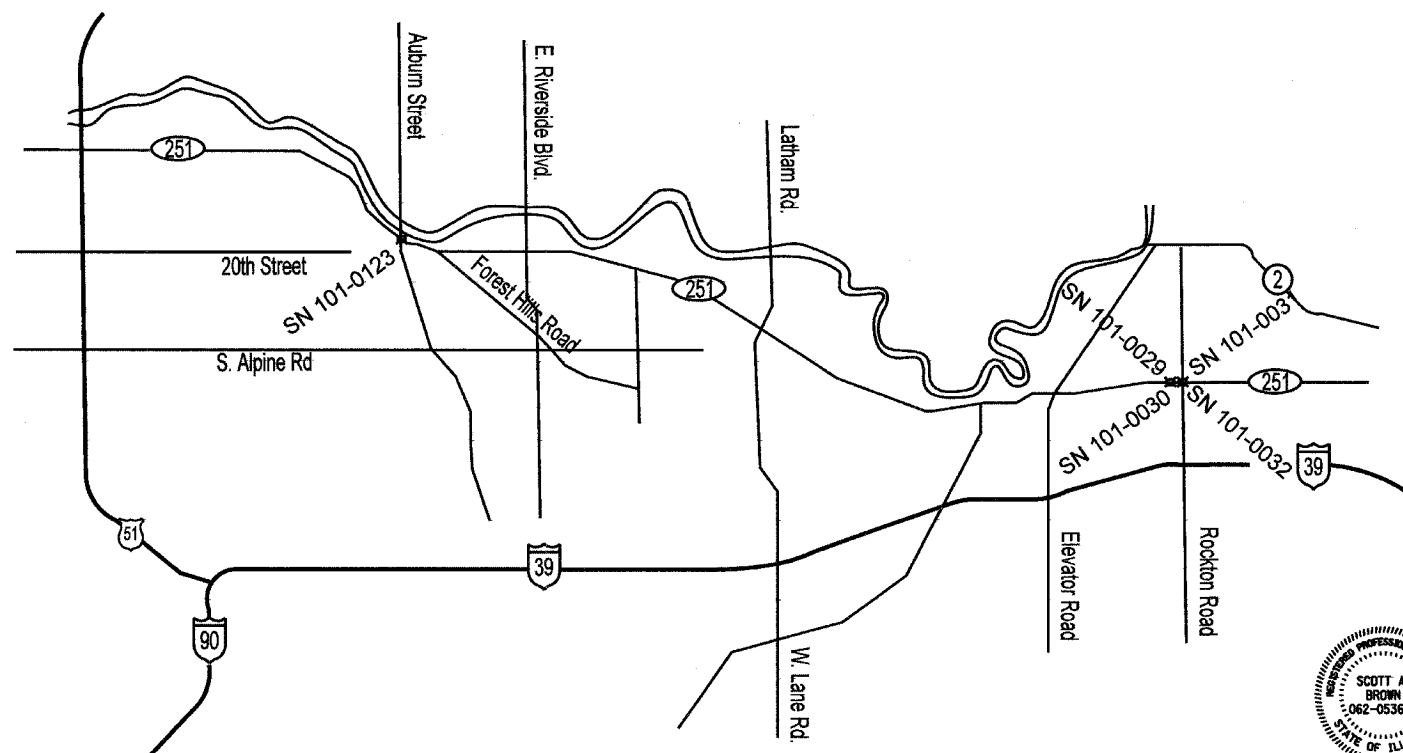
- GENERAL PLAN & ELEVATION
- DECK CROSS SECTIONS
- DECK PLANS
- DECK REPAIR PLANS
- JOINT RECONSTRUCTION PLAN
- ABUTMENT REPAIRS
- BAR SPLICER ASSEMBLY DETAILS
- BRIDGE JOINT SYSTEM - EXPANSION

#### S.N. 101-0123

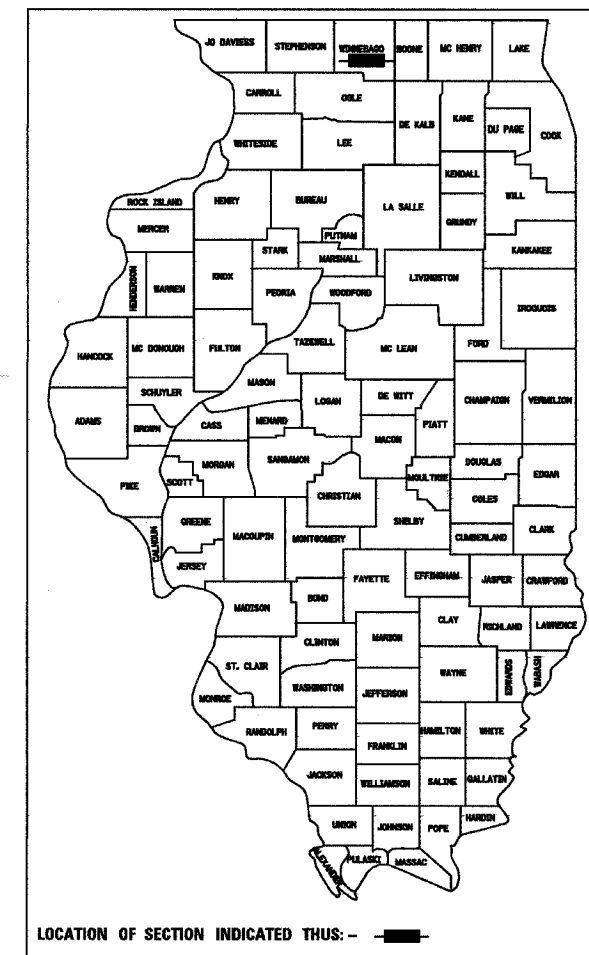
- GENERAL PLAN & ELEVATION
- DECK PLAN
- DECK REPAIR PLAN
- DECK CROSS SECTION & SCUPPER DETAILS
- JOINT DETAILS
- PARAPET DETAILS
- DRAINAGE SCUPPER, DS-12
- CONTINUOUS SEAL TYPE NEOPRENE EXPANSION JOINTS
- TEMPORARY CONCRETE BARRIER
- TRAFFIC SIGNAGE DETAILS

### HIGHWAY STANDARDS

- 70400-02 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 70402-05 LANE CLOSURE, FREEWAY/EXPRESSWAY WITH BARRIER
- 70426-02 LANE CLOSURE MULTILANE, INTERMITTENT OR MOVING OPERATIONS, FOR SPEEDS > OR = 45 MPH
- 702001-05 TRAFFIC CONTROL DEVICES
- 704001-02 TEMPORARY CONCRETE BARRIER
- 70411-03 LANE CLOSURE, MULTILANE, AT EXIT RAMP, FOR SPEEDS > OR = 45 MPH
- 729001 APPLICATIONS OF TYPE A & B METAL POSTS
- 780001-01 TYPICAL PAVEMENT MARKINGS
- 781001-02 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS



LOCATION MAP



Scott A. Brown 2/13/05  
DATE  
SCOTT A. BROWN  
DIXON, ILLINOIS  
ILLINOIS LICENSED PROFESSIONAL  
ENGINEER NO. 062-053649  
EXPIRES 11-30-2005

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED FEB 14 20 05

*Gregory L. Marts*  
DISTRICT ENGINEER

March 25, 20 05

*Mike Nene*  
ENGINEER OF DESIGN AND ENVIRONMENT

March 25 20 05

*Victor Mader*  
DIRECTOR, DIVISION OF HIGHWAYS

PLANS PREPARED BY:

**WENDLER ENGINEERING SERVICES**

DIXON, ILLINOIS  
SYCAMORE, ILLINOIS  
PRINCETON, ILLINOIS  
STERLING, ILLINOIS

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

CONTRACT NO. 64A88

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

6488

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.L. F.A.L.	*	Winnebago	36	2
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

\* Section (5VB, 5HB, 1-2HB)M

# GENERAL NOTES

See each structure for additional general notes.

The contractor is responsible for all utility contacts prior to construction. Call J.U.L.I.E. at 1-800-892-0123.

The contractor is responsible for obtaining existing structure plans for all structures prior to construction or ordering materials. Plans are available by written request through the Illinois Department of Transportation, District 2, Bureau of Operations, 819 Depot Avenue, Dixon, Illinois 61021.

All structures will retain the same structure number.

After approval of initial submittal of shop drawings, the contractor shall submit one set of shop drawings to Engineer of Materials, 126 Ash Street, Springfield, IL 62706, and eight (8) sets of shop drawings to be distributed to:

- District 2 District Engineer (1)
- Fabricator (1)
- Contractor (2)
- Resident Engineer (2)
- District 2 Bureau of Materials (2)

DESIGNED
CHECKED
DRAWN
CHECKED

GENERAL NOTES  
F.A.P. Route 303 & F.A.P. Route 738  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

# TOTAL SUMMARY OF QUANTITIES – BRIDGE REPAIRS & RESURFACING

ROUTE NO.	SECTION	COUNTY	SHEETS	"SET"
F.A.P. 188	*	Winnebago	36	3
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

\* Section (5VB,5HB,1-2HB)M  
CONTRACT NO. 64A88

CODE NUMBER	ITEM	SAFETY CODE		UNIT	URBAN SFTY-2A TOTALS	S.N. 101-029 & 101-0030	S.N 101-0031 & 101-0032	S.N. 101-0123	RESURFACING (See Sheet 4 of 36)
		SFTY - 2A	SFTY - 3N						
40300200	Bituminous Materials (Prime Coat)	•		Ton	2.37				2.37
40600980	Bituminous Surface Removal - Butt Joint	•		Sq. Yd.	1152				1152
44000006	Bituminous Surface Removal 1 1/2"	•		Sq. Yd.	2311				2667
44000910	Bituminous Concrete Removal (Deck)	•		Sq.Yd.	4290	2910	1380		
50102400	Concrete Removal	•		Cu.Yd.	65.9		40	25.9	
50300100	Floor Drains	•		Each	92	92			
50300150	Neoprene Expansion Joint 2"	•		Foot	239	176		63	
50300160	Neoprene Expansion Joint 4"	•		Foot	234	176		58	
50300255	Concrete Superstructure	•		Cu.Yd.	73.1		44.4	28.7	
50301245	Formed Concrete Repair (Depth Equal to or less than 5")	•		Sq.Ft.	1558	93	15	1450	
50800205	Reinforcement Bars, Epoxy Coated	•		Pound	18090		7660	10430	
59000100	Epoxy Crack Sealing	•		Foot	15		15		
67000400	Engineers Field Office, Type A	•		Cal. Mo.	3				
67100100	Mobilization	•		L. Sum	1				
* 70100305	Traffic Control and Protection, Standard 701400	•		L. Sum	1	1			
* 70100420	Traffic Control and Protection, Standard 701411	•		Each	1	1			
* 70100805	Traffic Control and Protection, Standard 701402	•		L. Sum	1	1			
70103815	Traffic Control Surveillance	•		Cal. Day	40				
* 70300220	Temporary Pavement Marking - Line 4"	•		Foot	7755	7755			
* 70301000	Work Zone Pavement Marking Removal	•		Sq.Ft.	5748	5748			
* 70400100	Temporary Concrete Barrier	•		Foot	2214	2214			
* 70400200	Relocate Temporary Concrete Barrier	•		Foot	2214	2214			
78007110	Permanent Pavement Marking - Line 4"	•		Foot	9950	9950			
* 78300105	Pavement Marking Removal	•		Foot	7935	7935		0	1476
* X0301280	Plug Existing Drains	•		Each	215	192		23	
X0321743	Silicone Joint Sealer, 1"	•		Foot	72		72		
X0320887	Polymer Concrete	•		Cu.Ft.	15.2		15.2		
X0322121	Sheet Waterproofing Membrane System	•		Sq.Yd.	5061	2910	1304	847	
* X0323078	Remove & Re-Erect Existing Bridge Rail	•		Foot	768		768		
X0323080	Drainage Scuppers, DS-12	•		Each	2			2	
X0323557	Bridge Joint System (Expansion), 1"	•		Foot	134		134		
X4066428	Bituminous Concrete Surface Course, Superpave, Mix "D", M90	•		Ton	857	327	150	95	285
* X7013015	Traffic Control for Road Closure	•		L. Sum	1			1	
Z0002600	Bar Splacers	•		Each	60		60		
* Z0016001	Deck Slab Repair (Full Depth, Type I)	•		Sq.Yd.	120	75	20	25	
* Z0016002	Deck Slab Repair (Full Depth, Type II)	•		Sq.Yd.	77	44	20	13	
* Z0016200	Deck Slab Repair (Partial)	•		Sq.Yd.	480	270	130	80	
* Z0030150	Impact Attenuators (Non-Redirective), Test Level 3	•	•	Each	2	2			
* Z0030350	Impact Attenuators, Relocate (Non-Redirective), Test Level 3	•	•	Each	2	2			
Z0047300	Protective Shield	•		Sq.Yd.	1080	360	480	240	
Z0048665	Railroad Protective Liability Insurance	•		L.Sum	1	1			

\* Specialty Items

**NOTES:**

The plan quantities for Deck Slab Repair (Partial and Full Depth) are estimated quantities from a deck survey provided by others. The areas shown on the deck repair plans for each structure are potential areas of Deck Slab Repair. The Deck Slab Repair quantities in Bills of Material are included as contingencies to be used as directed by the engineer during construction. The actual locations and quantity of Deck Slab Repair on all structures shall be determined by the resident engineer in the field after removal of the existing wearing surface. Actual repair locations shall be shown on the same as-built plans.

Traffic control quantities for SN 101-0031 are included with SN 101-0029.  
Traffic control quantities for SN 101-0032 are included with SN 101-0030.

REVISED  
4-13-05

SUMMARY OF QUANTITIES  
Forest Hills Road Ramp Over  
F.A.P. 303 & F.A.P. 738 (IL 251)  
SECTION (5VB,5HB,1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0123

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

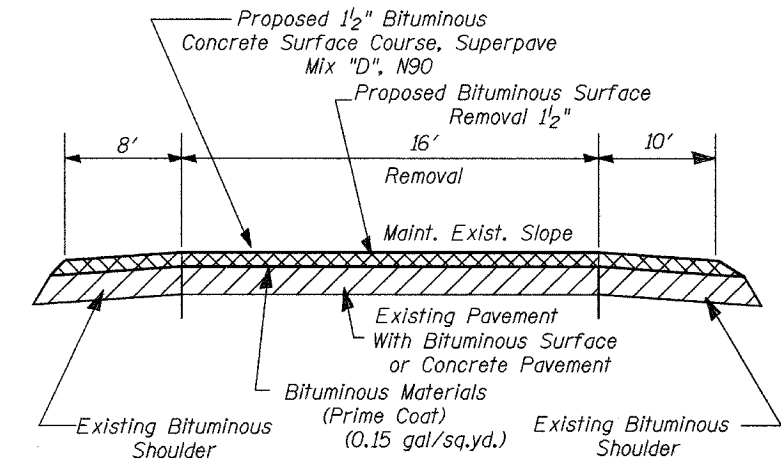
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P.	*	Winnebago	36	4
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

\* Section (5VB, 5HB, 1-2HB)M

**SCHEDULE OF BITUMINOUS WORK - SOUTHBOUND**

(FAP 303 & FAP 738 - IL RTE 251)

Location Station Location	Length (Feet)	Width (Feet)	Square Yards	Bit. Mat'l Prime (Ton)	Bituminous Surface Removal 1-1/2" (Sq. Yds.)	Bituminous Surface Removal - Butt Joint (Sq. Yds.)	Bit. Conc. Surf. Cse. Super "D" N90 (Ton)	Permanent Pavement Marking-Line 4" (Foot)
134+73 - 136+05	132	24	352	0.22	352		34	
<b>Bridge Number 0029</b>								
140+28 - 143+24	296	24	790	0.49	790		77	
<b>Bridge Number 0031</b>								
145+16 - 146+16	100	24	267	0.17	267		26	
484+86 - 486+86	200	34	756	0.47		576	74	738
<b>Bridge Number 0123</b>								
490+24 - 492+24	200	34	756	0.47		576	74	738
<b>Southbound Totals</b>	<b>928</b>		<b>2,921</b>	<b>1.82</b>	<b>1,409</b>	<b>1,152</b>	<b>173</b>	<b>1,476</b>



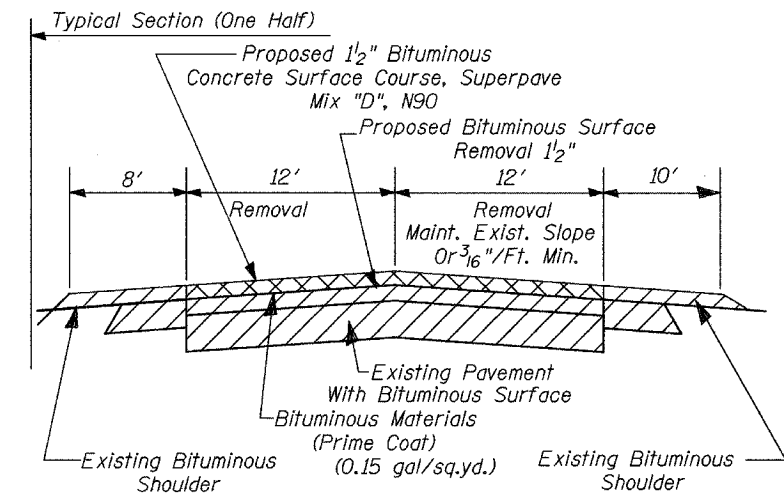
**TYPICAL SECTION - SN 101-0123**

Looking South

**SCHEDULE OF BITUMINOUS WORK - NORTHBOUND**

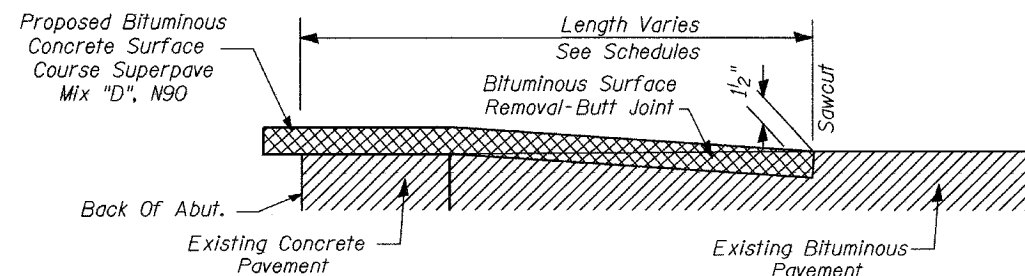
(FAP 303 & FAP 738 - IL RTE 251)

Location Station Location	Length (Feet)	Width (Feet)	Square Yards	Bit. Mat'l Prime (Ton)	Bituminous Surface Removal 1-1/2" (Sq. Yds.)	Bit. Conc. Surf. Cse. Super "D" N90 (Ton)
136+66 - 137+98	132	24	352	0.22	352	34
<b>Bridge Number 0030</b>						
142+20 - 143+23	103	24	275	0.17	275	27
<b>Bridge Number 0032</b>						
145+15 - 146+15	100	24	275	0.16	275	27
<b>Southbound Totals</b>	<b>335</b>		<b>902</b>	<b>0.55</b>	<b>902</b>	<b>88</b>



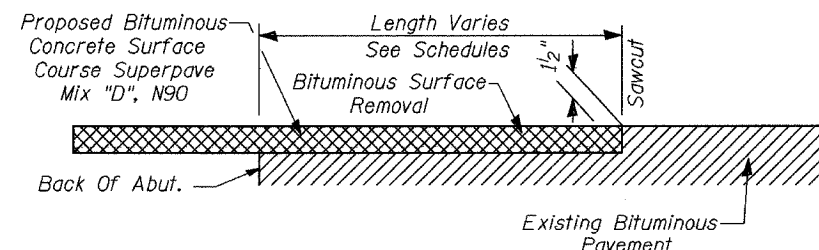
**TYPICAL SECTION - IL 251**

Looking South for Southbound  
Looking North for Northbound



**BUTT JOINT DETAIL - SN 101-0123**

Grinding of Bituminous Pavement  
for Butt Joint. Sawcuts are incidental  
to Bituminous Surface Removal.



**BUTT JOINT DETAIL - SN 101-029**

**THRU SN 101-0032**

Grinding of Bituminous Pavement  
for Butt Joint. Sawcuts are incidental  
to Bituminous Surface Removal.

**SCHEDULE OF BITUMINOUS WORK**  
**F.A.P. Route 303 & F.A.P. Route 738**  
**SECTION (5VB, 5HB, 1-2HB)M**  
**WINNEBAGO COUNTY**

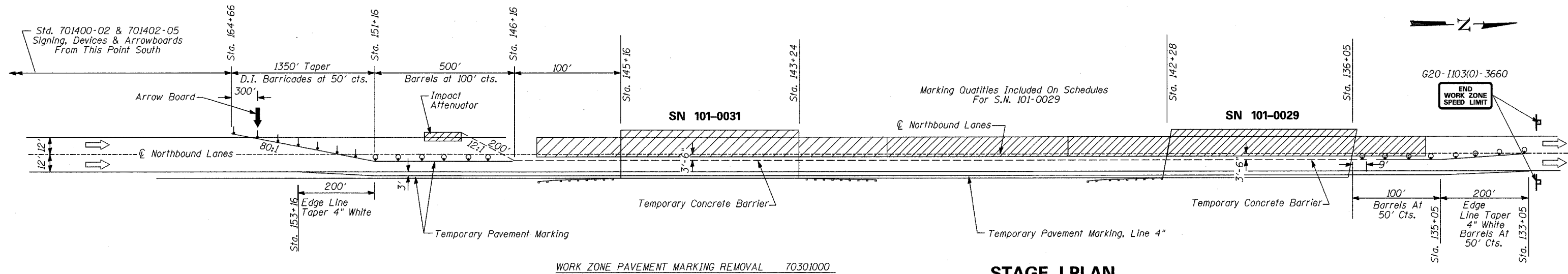
<b>TEMPORARY CONCRETE BARRIER</b> 70400100	<b>PAVEMENT MARKING REMOVAL</b> 78300105
Location: STA. 148+02 TO STA. 136+05	Location: RT. STA. 153+16 TO RT. STA. 133+05
Foot: 1197	Color: White
Total 1197 Foot	Foot: 2011
	Total 2011 Foot

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>IMPACT ATTENUATORS (NON-REDIRECTIVE), TEST LEVEL 3</b> Z0030150
Location: STA. 148+16
Each: 1
Total 1 Each

ROUTE NO.	SECTION	COUNTY	DATE	SHEET
S.R.L.	* WINNEBAGO	36	5	
F.A.L.				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

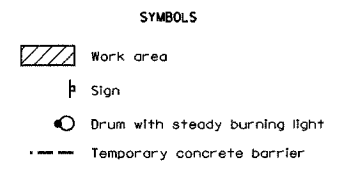
(5VB, 5HB, 1-2HB)M



<b>TEMPORARY PAVEMENT MARKING - LINE 4"</b> 70300220
Location: LT. STA. 164+66 TO STA. 133+05
Color: Yellow
Foot: 3161
Location: RT. STA. 153+16 TO RT. STA. 133+05
Color: White
Foot: 2011
Total 5172 Foot

<b>WORK ZONE PAVEMENT MARKING REMOVAL</b> 70301000
Location: LT. STA. 164+66 TO RT. STA. 146+16
Color: Yellow
Sq. Ft.: 617
Location: RT. STA. 153+16 TO RT. STA. 145+16
Color: White
Sq. Ft.: 267
Location: RT. STA. 143+24 TO RT. STA. 142+28
Color: White
Sq. Ft.: 32
Location: RT. STA. 136+05 TO RT. STA. 133+05
Color: White
Sq. Ft.: 100
Location: RT. STA. 135+96 TO STA. 133+05
Color: Yellow
Sq. Ft.: 97
Total 1113 Sq. Ft.

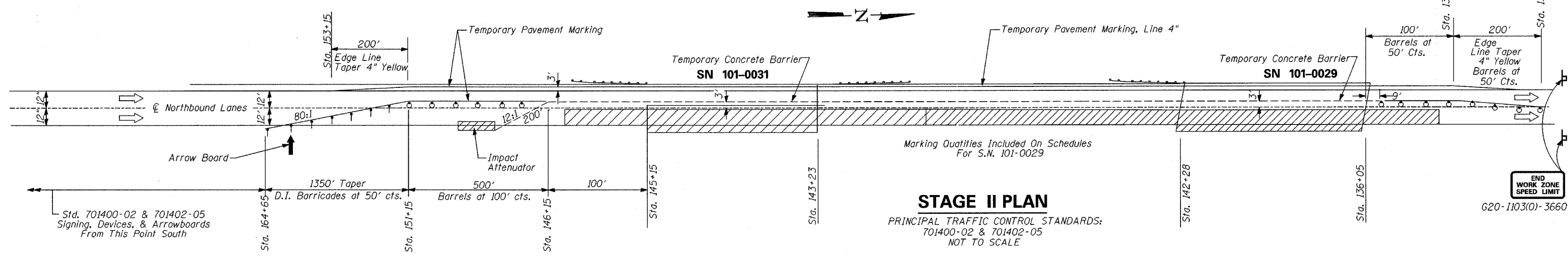
**STAGE I PLAN**  
PRINCIPAL TRAFFIC CONTROL STANDARDS:  
701400-02 & 701402-05  
NOT TO SCALE



<b>IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3</b> Z0030350
Location: STA. 148+16
Each: 1
Total 1 Each

<b>WORK ZONE PAVEMENT MARKING REMOVAL</b> 70301000
Location: LT. STA. 153+15 TO LT. STA. 133+05
Color: Yellow
Sq. Ft.: 670
Location: RT. STA. 164+65 TO STA. 133+05
Color: White
Sq. Ft.: 1053
Total 1723 Sq.Ft.

<b>RELOCATE TEMPORARY CONCRETE BARRIER</b> 70400200
Location: STA. 148+02 TO STA. 136+05
Foot: 1197
Total 1197 Foot



<b>PAVEMENT MARKING REMOVAL</b> 78300105
Location: LT. STA. 153+15 TO LT. STA. 133+05
Color: Yellow
Foot: 2010
Total 2010 Foot
<b>TEMPORARY PAVEMENT MARKING - LINE 4"</b> 70300220
Location: LT. STA. 153+15 TO LT. STA. 133+05
Color: Yellow
Foot: 2010
Location: RT. STA. 164+65 TO STA. 133+05
Color: White
Foot: 3160
Total 5170 Foot

<b>PERMANENT PAVEMENT MARKING - LINE 4"</b> 78007110
Location: LT. STA. 153+15 TO LT. STA. 133+05
Color: Yellow
Foot: 2010
Location: RT. STA. 153+16 TO RT. STA. 133+05
Color: White
Foot: 2011
Location: STA. 146+16 TO STA. 135+05
Color: White
Foot: 278
Total 4299 Foot

**STAGE II PLAN**  
PRINCIPAL TRAFFIC CONTROL STANDARDS:  
701400-02 & 701402-05  
NOT TO SCALE

DESIGNED
CHECKED
DRAWN
CHECKED

**TRAFFIC CONTROL PLAN**  
F.A.P. RTE. 303 & F.A.P. RTE 738  
(IL 251) OVER RAILROAD  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0029 & SN 101-0031

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	NO.
F.A.I. 188	*	Winnebago	36	6

TEMPORARY PAVEMENT MARKING - LINE 4" 70300220

Location	Color	Foot
LT. STA. 118+48 TO STA. 148+15	Yellow	2967
RT. STA. 129+98 TO RT. STA. 146+15	White	1617
		Total 4584 Foot

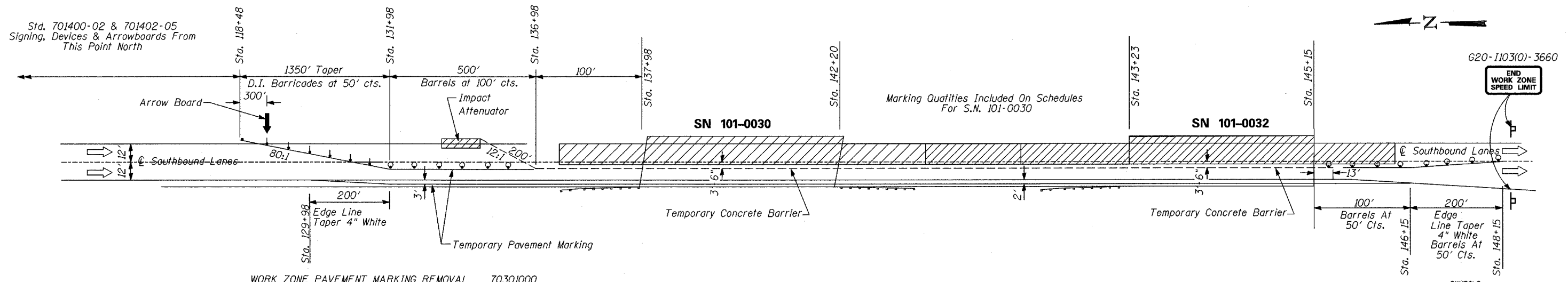
IMPACT ATTENUATORS (NON-REDIRECTIVE), TEST LEVEL 3 20030150

Location	Each
STA. 134+98	1
Total 1 Each	

PAVEMENT MARKING REMOVAL 78300105

Location	Color	Foot
RT. STA. 129+98 TO RT. STA. 146+15	White	1617
		Total 1617 Foot

\* (5VB, 5HB, 1-2HB)M



WORK ZONE PAVEMENT MARKING REMOVAL 70301000

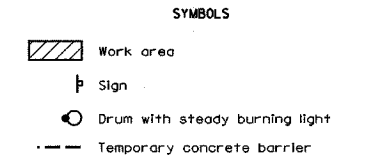
Location	Color	Sq. Ft.
LT. STA. 118+48 TO RT. STA. 136+98	Yellow	617
RT. STA. 129+98 TO RT. STA. 137+98	White	267
RT. STA. 142+20 TO RT. STA. 143+23	White	34
RT. STA. 145+15 TO RT. STA. 148+15	Yellow	100
RT. STA. 145+15 TO RT. STA. 146+15	White	33
		Total 1051 Sq. Ft.

STAGE I PLAN

PRINCIPAL TRAFFIC CONTROL STANDARDS:  
701400-02 & 701402-05  
NOT TO SCALE

TEMPORARY CONCRETE BARRIER 70400100

Location	Foot
STA. 134+98 TO STA. 145+15	1017
Total 1017 Foot	



IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 20030350

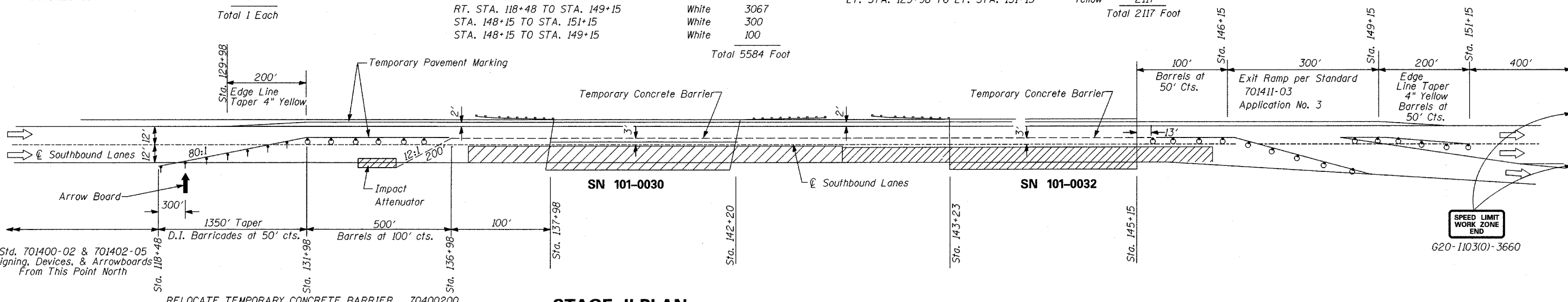
Location	Each
STA. 129+98	1
Total 1 Each	

TEMPORARY PAVEMENT MARKING - LINE 4" 70300220

Location	Color	Foot
LT. STA. 129+98 TO LT. STA. 151+15	Yellow	2117
RT. STA. 118+48 TO STA. 149+15	White	3067
STA. 148+15 TO STA. 151+15	White	300
STA. 148+15 TO STA. 149+15	White	100
		Total 5584 Foot

PAVEMENT MARKING REMOVAL 78300105

Location	Color	Foot
LT. STA. 129+98 TO LT. STA. 151+15	Yellow	2117
		Total 2117 Foot



RELOCATE TEMPORARY CONCRETE BARRIER 70400200

Location	Foot
STA. 134+98 TO STA. 145+15	1017
Total 1017 Foot	

STAGE II PLAN

PRINCIPAL TRAFFIC CONTROL STANDARDS:  
701400-02 & 701402-05  
NOT TO SCALE

PERMANENT PAVEMENT MARKING - LINE 4" 78007110

Location	Color	Foot
LT. STA. 129+98 TO LT. STA. 151+15	Yellow	2117
RT. STA. 129+98 TO RT. STA. 151+15	White	2117
STA. 136+98 TO STA. 151+15	White	1417
		Total 5651 Foot

WORK ZONE PAVEMENT MARKING REMOVAL 70301000

Location	Color	Sq. Ft.
LT. STA. 129+98 TO LT. STA. 151+15	Yellow	706
RT. STA. 118+48 TO STA. 149+15	White	1022
STA. 148+15 TO STA. 151+15	White	100
STA. 148+15 TO STA. 149+15	White	33
		Total 1861 Sq. Ft.

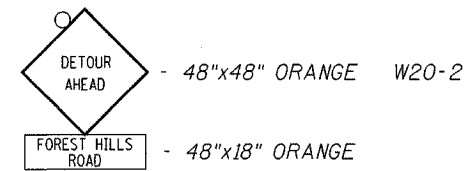
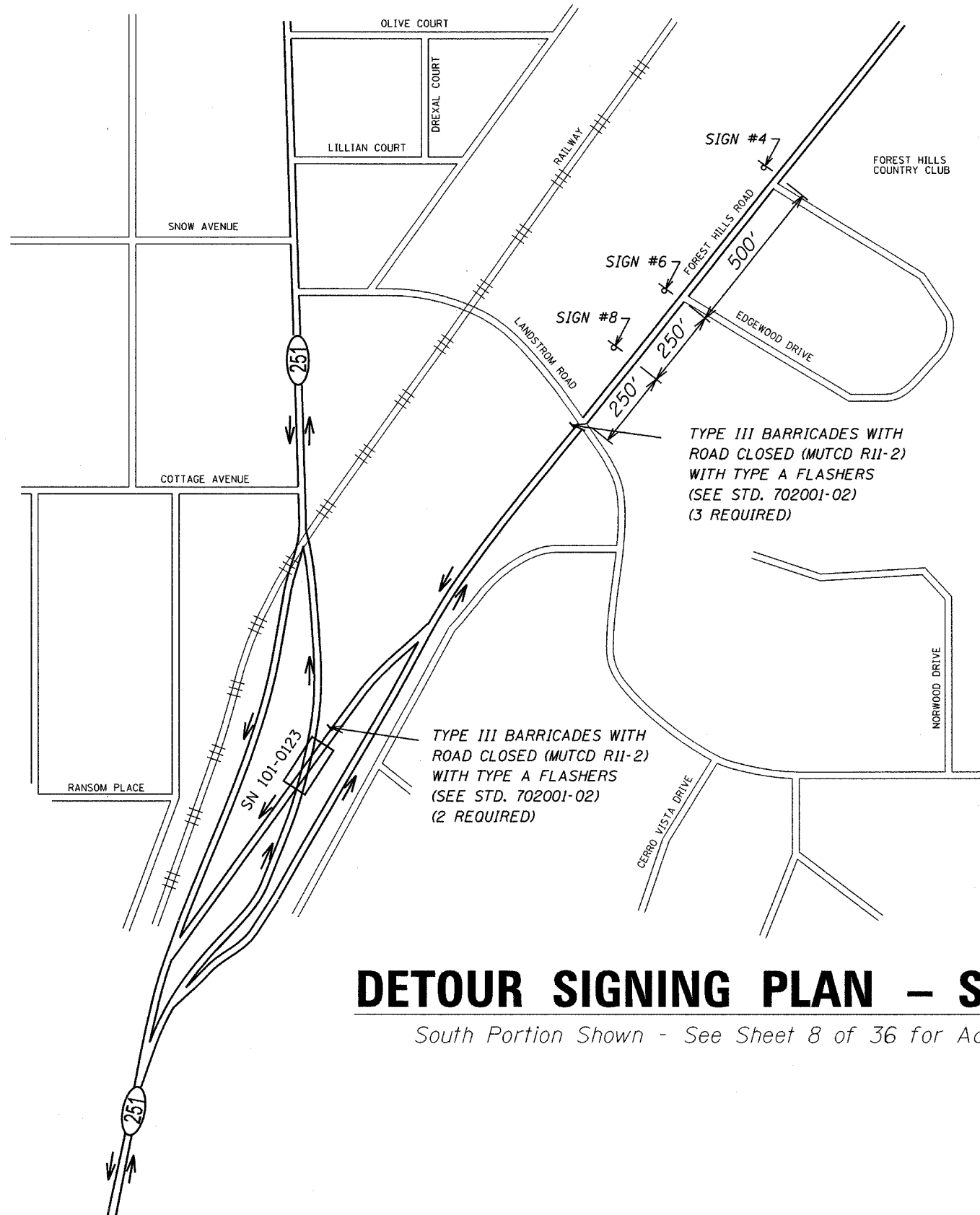
DESIGNED
CHECKED
DRAWN
CHECKED

TRAFFIC CONTROL PLAN  
F.A.I. RTE. 303 & F.A.P. RTE 738  
(IL 251) OVER RAILROAD  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0030 & SN 101-0032

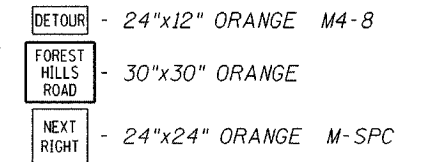
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
251	*	Winnebago	36	7
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

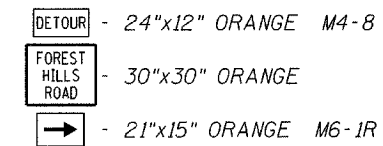
\* Section (5VB,5HB,1-2HB)M



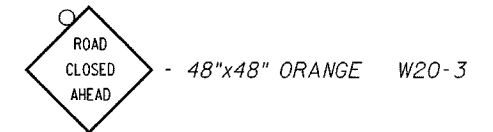
SIGN #1



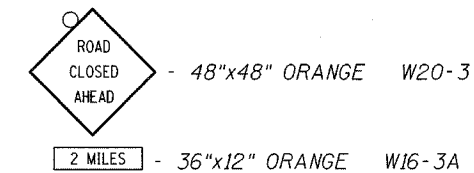
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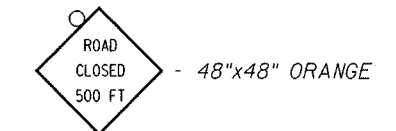
SIGN #3



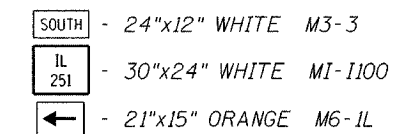
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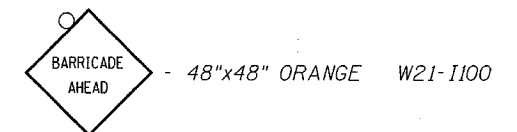
SIGN #5



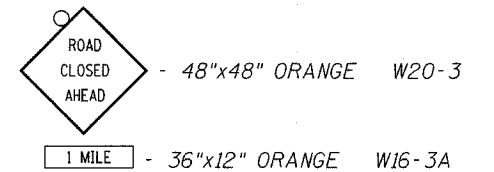
SIGN #6



SIGN #7



SIGN #8



SIGN #9

# DETOUR SIGNING PLAN - SN 101-0123

South Portion Shown - See Sheet 8 of 36 for Additional Signing

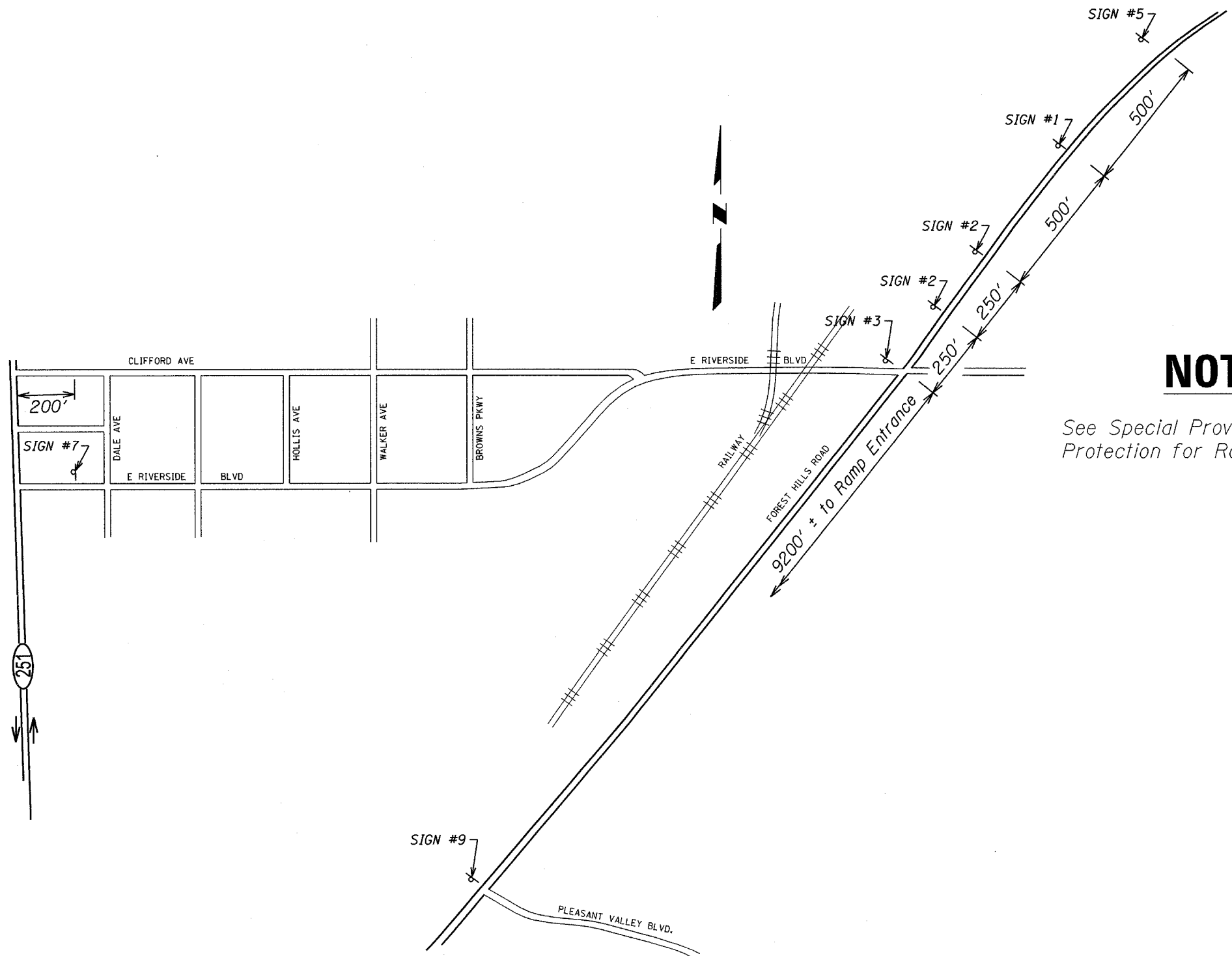
DESIGNED
CHECKED
DRAWN
CHECKED

TRAFFIC CONTROL PLAN  
 Forest Hills Road Ramp Over  
 F.A.P. 303 & F.A.P. 738 (IL 251)  
 SECTION (5VB,5HB,1-2HB)M  
 WINNEBAGO COUNTY  
 SN 101-0123

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	TOTAL SHEETS
251	*	Winnebago	36	8
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

\* Section (5VB,5HB,1-2HB)M



**NOTES**

See Special Provision for "Traffic Control and Protection for Road Closure" for additional requirements.

**DETOUR SIGNING PLAN - SN 101-0123**

North Portion Shown - See Sheet 7 of 36 for Additional Signing

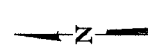
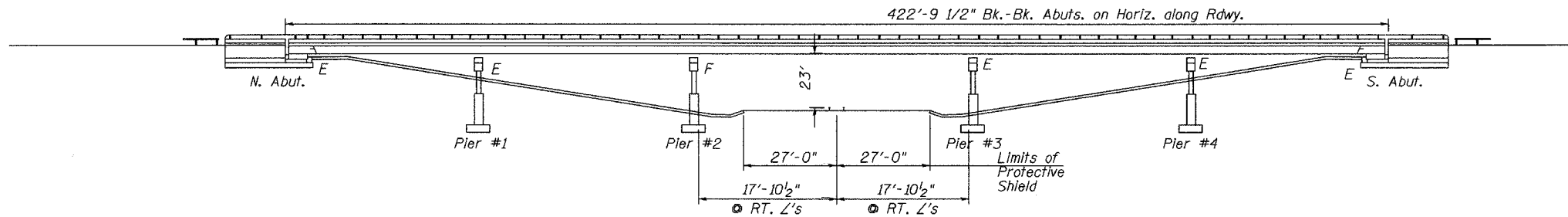
TRAFFIC CONTROL PLAN  
Forest Hills Road Ramp Over  
F.A.P. 303 & F.A.P. 738 (IL 251)  
SECTION (5VB,5HB,1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0123

DESIGNED
CHECKED
DRAWN
CHECKED

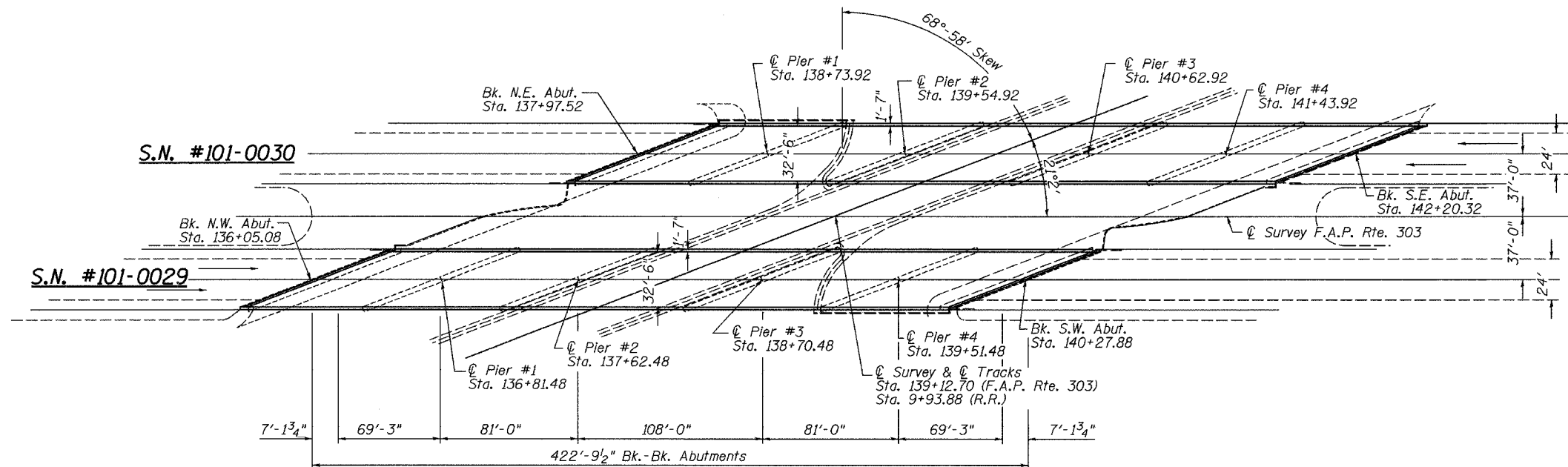


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.P.	*	Winnebago	36	9
SHEETS				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
* (5VB,5HB,1-2HB)M CONTRACT #64A88				



ELEVATION



PLAN

GENERAL NOTES

All new structural steel shall conform to AASHTO Classification M-270, Gr. 36 unless otherwise noted.

Reinforcement bars shall conform to the requirements of AASHTO M-31, or M-322, Grade 60.

Existing longitudinal reinforcement extending into the removed area shall be cleaned, straightened and incorporated into the new construction. Existing transverse reinforcement may be cut as shown and removed.

These structures will retain the same numbers 101-0029 & 101-0030.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the scope of work however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The existing structural steel coating contains lead. The contractor should take appropriate precautions to deal with the presence of lead on this project.

During construction operations, the Contractor shall provide temporary shielding 20 feet in width centered about the tracks of the railroad crossed. See Special Provisions.

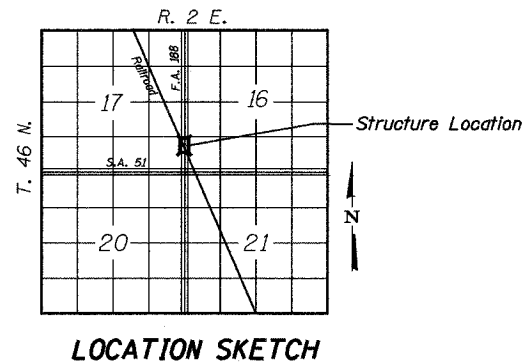
TOTAL BILL OF MATERIAL - 2 BRIDGES

ITEM	UNIT	TOTAL
Bituminous Concrete Removal (Deck)	Sq Yd	2910
Bituminous Concrete Surface Coarse, Superpave, Mix "D" N90	TON	327
Deck Slab Repair (Full Depth - Type 1)	Sq Yd	75
Deck Slab Repair (Full Depth - Type 2)	Sq Yd	44
Deck Slab Repair (Partial Depth)	Sq Yd	270
Protective Shield	Sq. Yd.	360
Plug Existing Deck Drains	Each	192
Floor Drains	Each	92
Neoprene Expansion Joint 2"	Foot	176
Neoprene Expansion Joint 4"	Foot	176
Railroad Protective Liability Insurance	L.Sum	1
Sheet Waterproofing Membrane System	Sq Yd	2910
Formed Concrete Repair (Depth Equal to or less than 5")	Sq Ft	93



Scott A. Brown 3/1/05  
LICENSE EXPIRES 11/30/2006

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

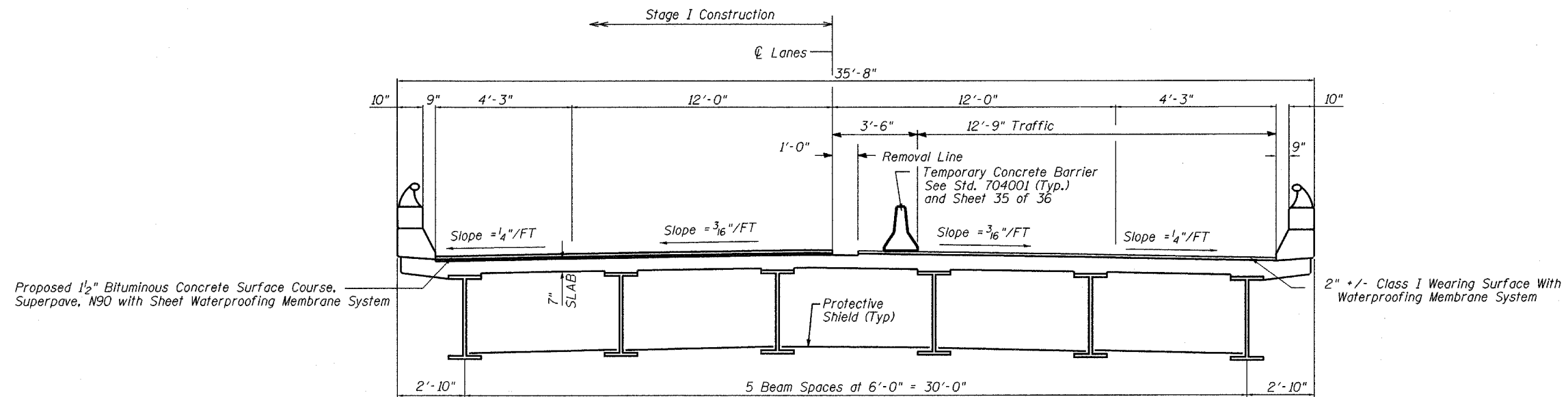


GENERAL PLAN AND ELEVATION  
F.A.P. Route 303 &  
FAP 738 (IL 251) OVER Railroad  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0029 & 101-0030

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

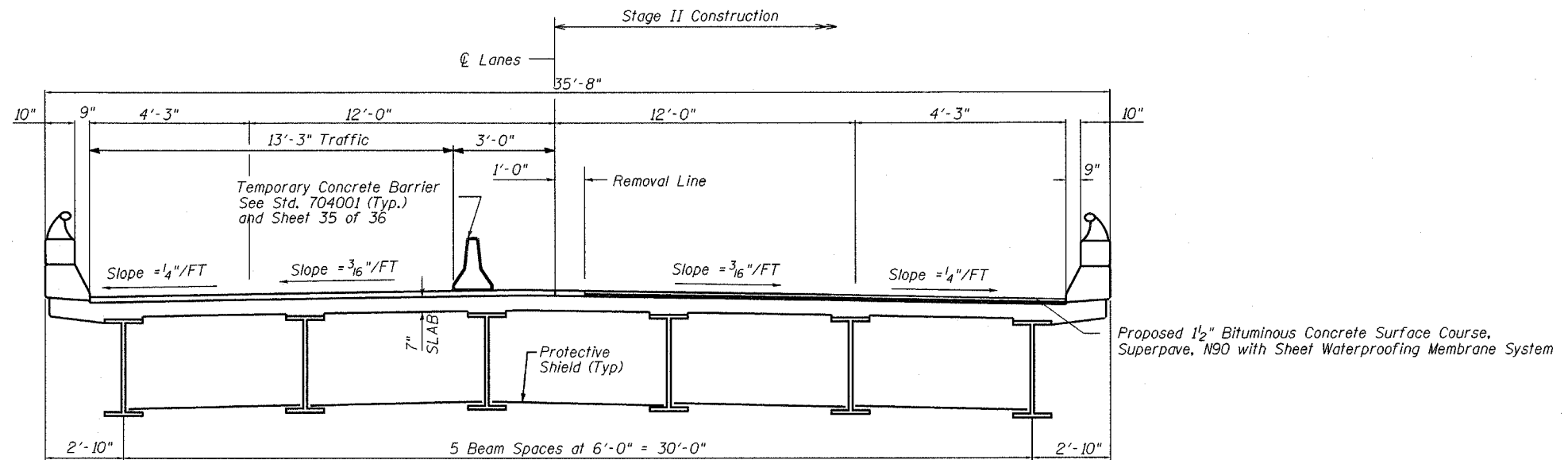
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. <u>2</u>
S.B.L. ---	*	Winnebago	36	10	<u>9</u> SHEETS
F.A.L. ---					
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT*			

\* (5VB, 5HB, 1-2HB)M CONTRACT #64A88



**DECK CROSS SECTION - STAGE I**

(Looking North SN 101-0030)  
(Looking South SN 101-0029)



**DECK CROSS SECTION - STAGE II**

(Looking North SN 101-0030)  
(Looking South SN 101-0029)

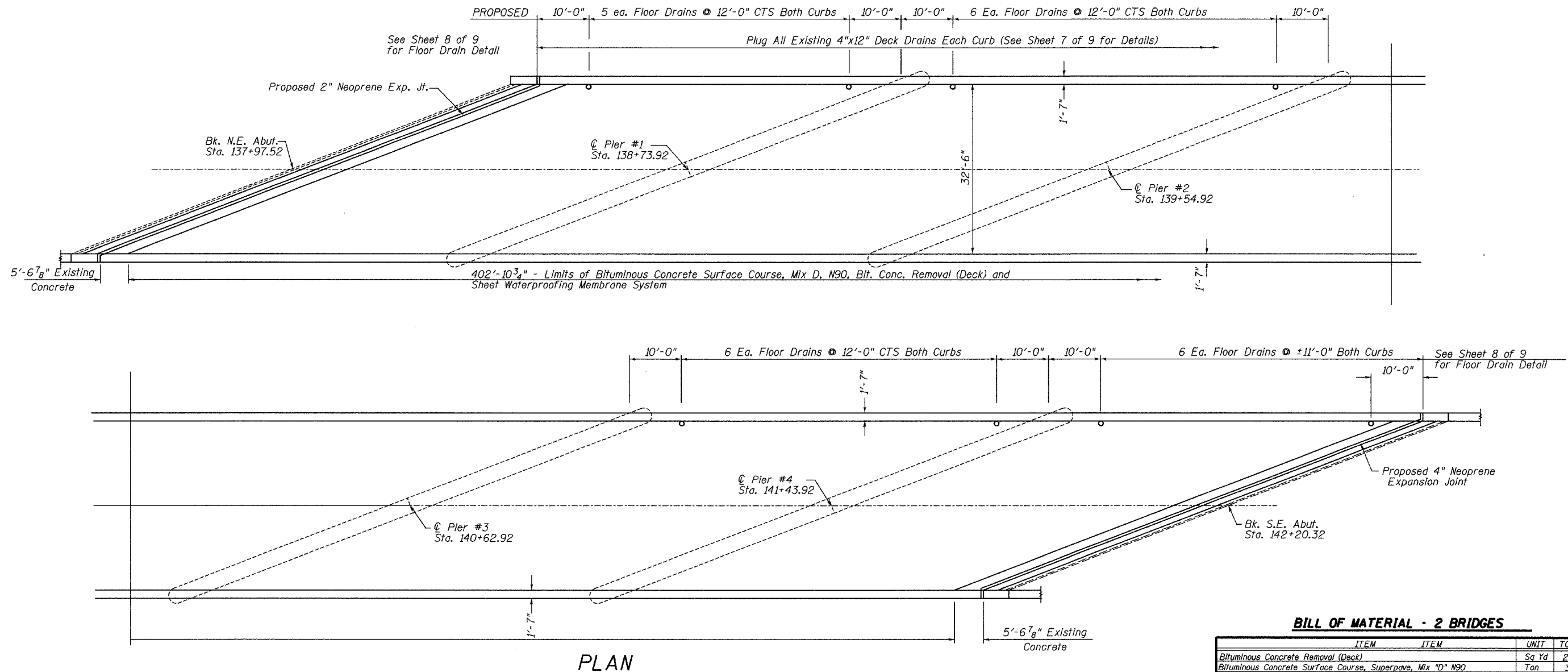
DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

DECK CROSS SECTION  
F.A. Route 303 &  
FAP 738 (IL 251) OVER Railroad  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0029 & 101-0030

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
S.B.L.	*	Winnebago	36	11	9 SHEETS
F.A.L.					
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

\* (5VB, 5HB, 1-2HB)M CONTRACT #64A88



**BILL OF MATERIAL - 2 BRIDGES**

ITEM	UNIT	TOTAL
Bituminous Concrete Removal (Deck)	Sq Yd	2910
Bituminous Concrete Surface Course, Superpave, Mix "D" N90	Ton	327
Sheet Waterproofing Membrane System	Sq. Yd.	2910
Protective Shield	Sq. Yd.	360
Plug Existing Deck Drains	Each	192
Floor Drains	Each	92

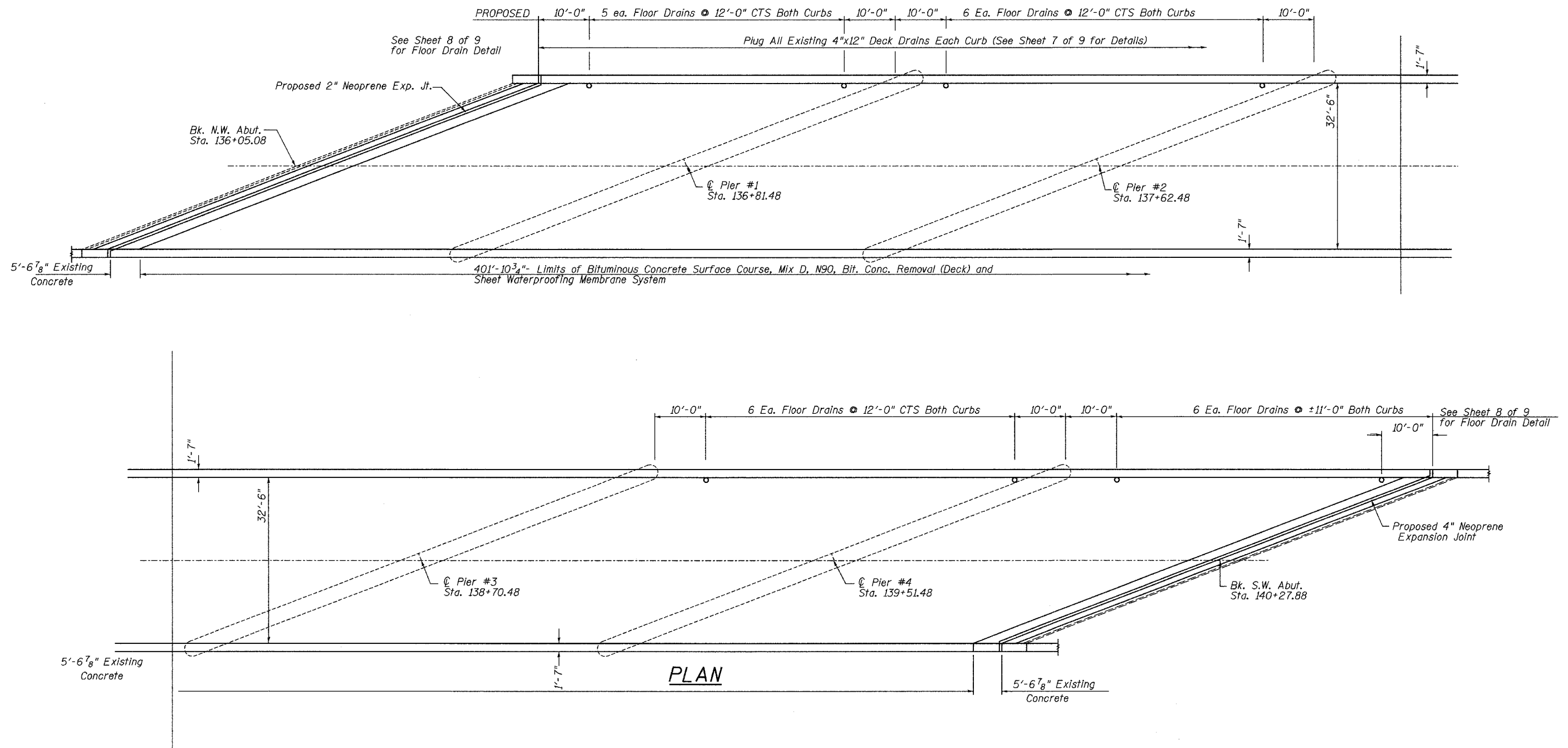
DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

DECK PLAN  
F.A.P. Route 303 &  
FAP 738 (IL 251) OVER Railroad  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0029

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
F.A.P. 738	*	Winnebago	36	12
SHEET NO. 4 9 SHEETS				

\* (5VB, 5HB, 1-2HB)M CONTRACT #64A88



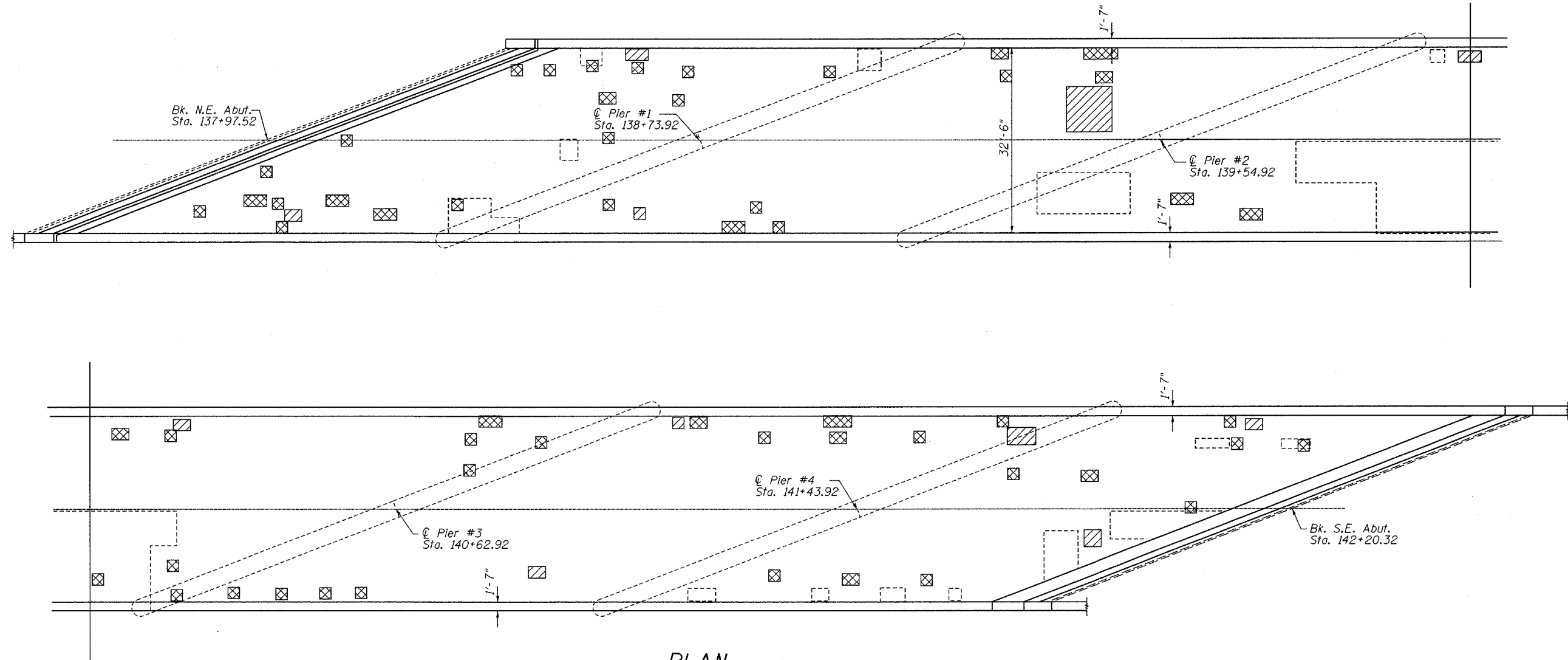
PLAN

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

DECK PLAN  
F.A.P. Route 303 &  
FAP 738 (IL 251) OVER Railroad  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0030

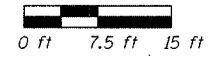
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
	*	Winnebago	36	13
SHEETS				
* (5VB, 5HB, 1-2HB)M CONTRACT #64A88				



**PLAN**

-  Deck Slab Repair (Partial)
-  Deck Slab Repair (Full Depth)
-  Existing Deck Slab Repair



**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Deck Slab Repair (Partial)	Sq. Yd.	110
Deck Slab Repair (Full Depth, Type 1)	Sq. Yd.	35
Deck Slab Repair (Full Depth, Type 2)	Sq. Yd.	22

Deck Survey Date: October 15, 2004

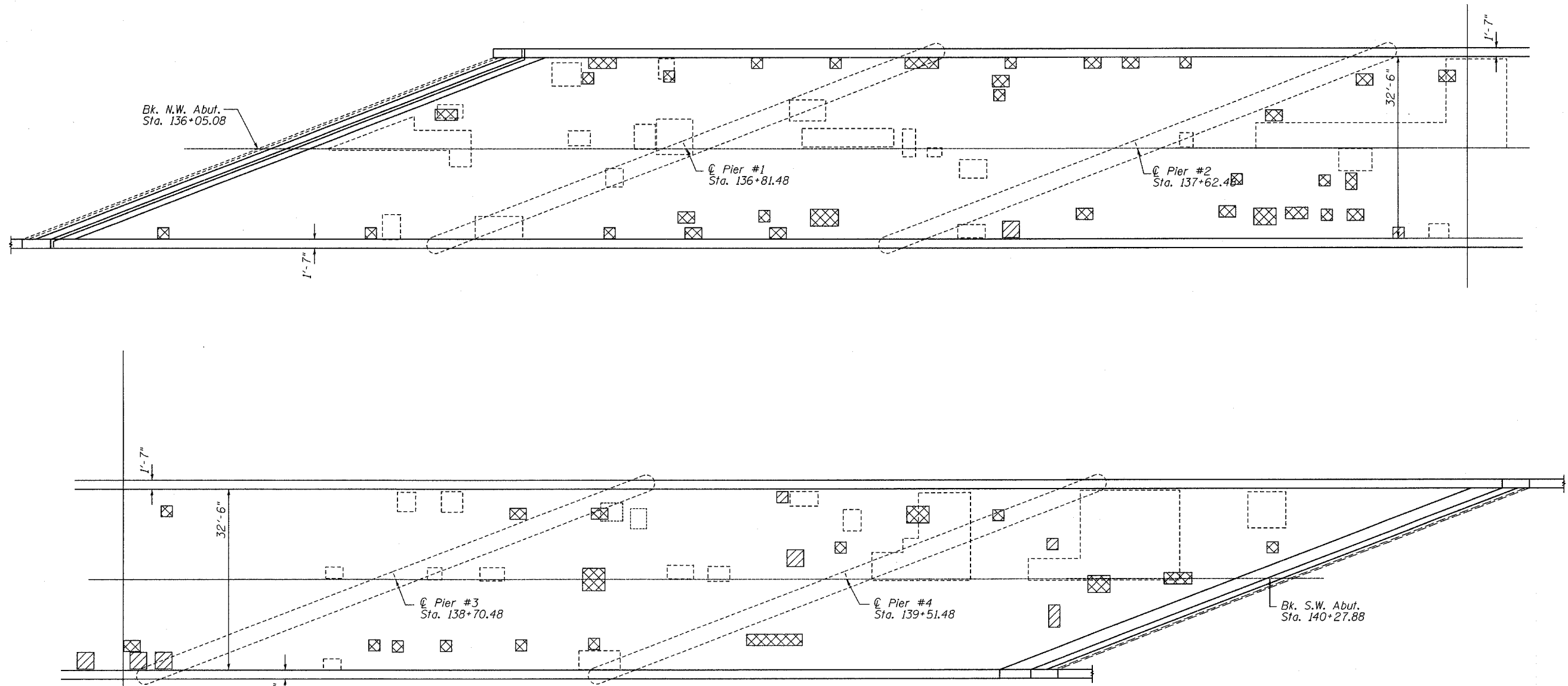
DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

**NOTES:**  
The plan quantities for Deck Slab Repair (Partial and Full Depth) are estimated quantities from a deck survey provided by others. The areas shown on the deck repair plans for each structure are potential areas of Deck Slab Repair. The Deck Slab Repair quantities in Bills of Material are included as contingencies to be used as directed by the engineer during construction. The actual locations and quantity of Deck Slab Repair on all structures shall be determined by the resident engineer in the field after removal of the existing wearing surface. Actual repair locations shall be shown on the same as-built plans.

**DECK REPAIR PLAN**  
F.A.P. Route 303 &  
FAB 738 (IL 251) OVER Railroad  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0029

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.P.	*	Winnebago	36	14
SHEETS				
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
* (5VB, 5HB, 1-2HB)M CONTRACT #64A88				



**PLAN**

- Deck Slab Repair (Partial)
- Deck Slab Repair (Full Depth)
- Existing Deck Slab Repair

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Deck Slab Repair (Partial)	Sq. Yd.	160
Deck Slab Repair (Full Depth, Type 1)	Sq. Yd.	40
Deck Slab Repair (Full Depth, Type 2)	Sq. Yd.	22

Deck Survey Date: October 15, 2004

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

**NOTES:**  
 The plan quantities for Deck Slab Repair (Partial and Full Depth) are estimated quantities from a deck survey provided by others. The areas shown on the deck repair plans for each structure are potential areas of Deck Slab Repair. The Deck Slab Repair quantities in Bills of Material are included as contingencies to be used as directed by the engineer during construction.  
 The actual locations and quantity of Deck Slab Repair on all structures shall be determined by the resident engineer in the field after removal of the existing wearing surface. Actual repair locations shall be shown on the same as-built plans.

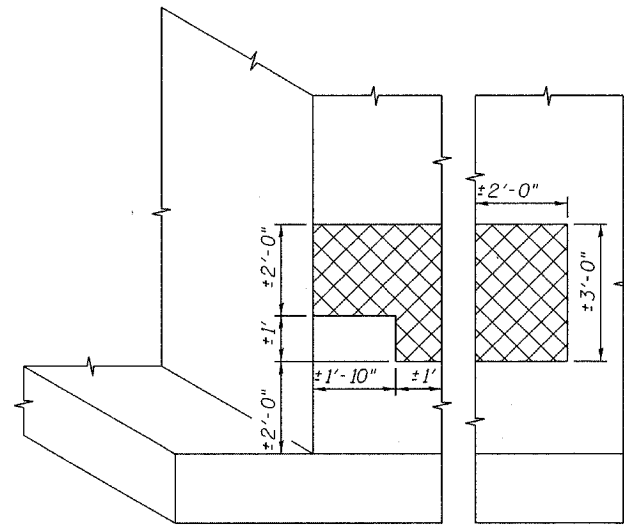
**DECK REPAIR PLAN**  
 F.A.P. Route 303 &  
 FAP 738 (IL 251) OVER Railroad  
 SECTION (5VB, 5HB, 1-2HB)M  
 WINNEBAGO COUNTY  
 SN 101-0030

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

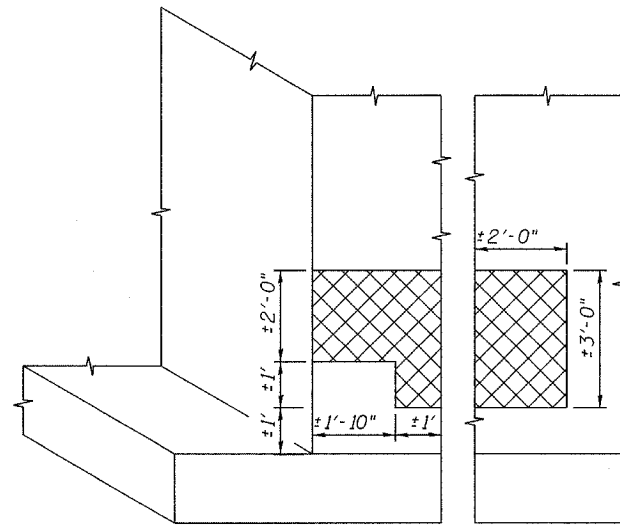
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 2
F.A.P.	*	Winnebago	36	15	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

\* (5VB, 5HB, 1-2HB)M CONTRACT #64A88

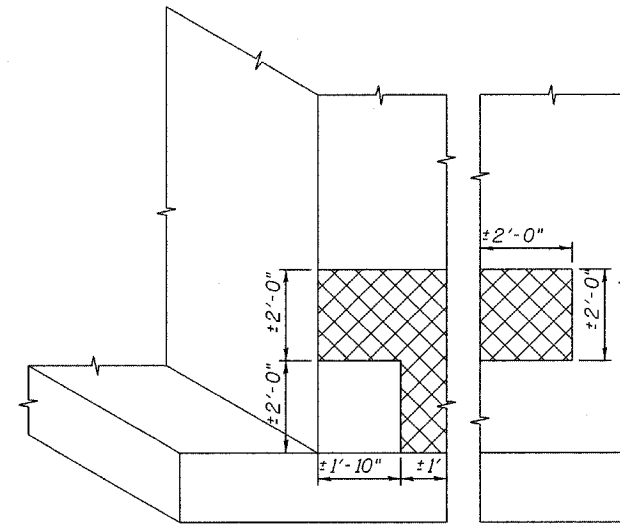
 Formed Conc. Rep. <5"



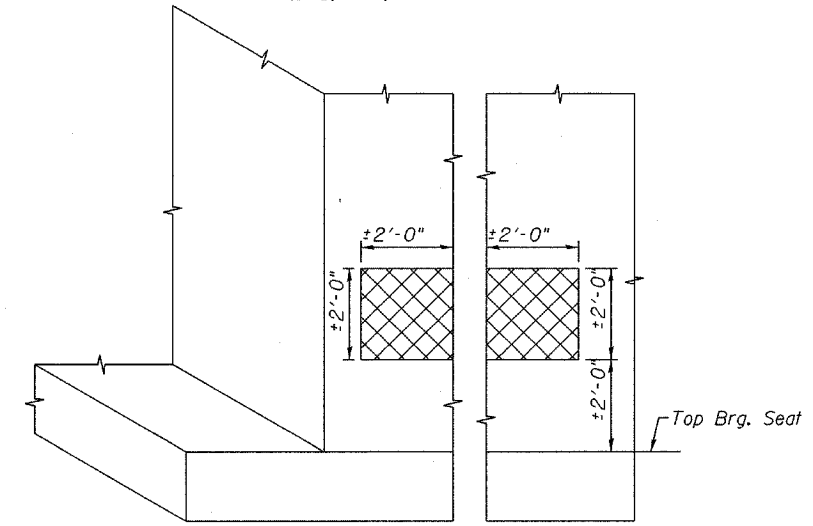
**W. END ABUT. BK. WALL**    **W. WING WALL**  
**S. ABUTMENT - CORNER ELEV.**  
**S.N. 101-0029**



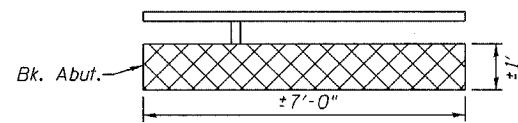
**E. END ABUT. BK. WALL**    **E. WING WALL**  
**S. ABUTMENT - CORNER ELEV.**  
**S.N. 101-0029**



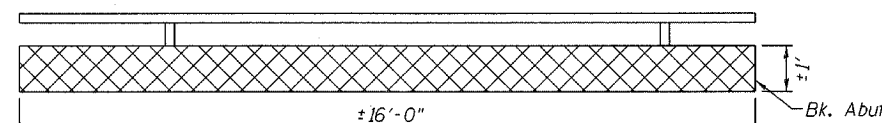
**E. END ABUT. BK. WALL**    **E. WING WALL**  
**N. ABUTMENT - CORNER ELEV.**  
**S.N. 101-0030**



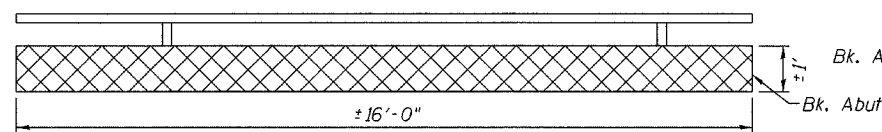
**W. END ABUT. BK. WALL**    **W. WING WALL**  
**N. ABUTMENT - CORNER ELEV.**  
**S.N. 101-0030**



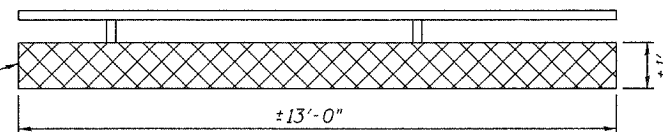
**E. PARAPET WALL - NO. ABUT.**  
**S.N. 101-0030**  
(LOOKING EAST)



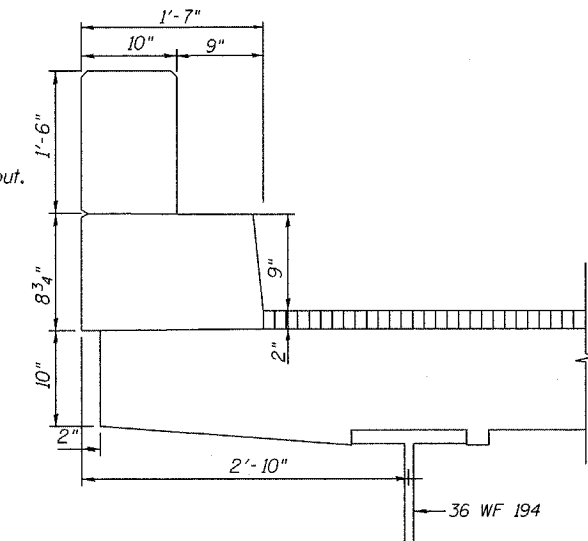
**E. PARAPET WALL - SO. ABUT.**  
**S.N. 101-0029**  
(LOOKING EAST)



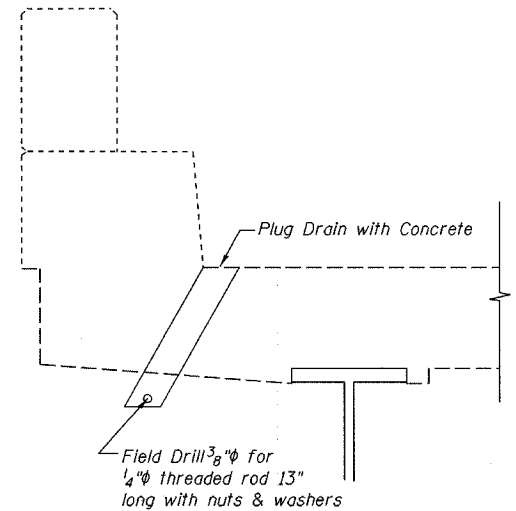
**W. PARAPET WALL - NO. ABUT.**  
**S.N. 101-0030**  
(LOOKING WEST)



**W. PARAPET WALL - SO. ABUT.**  
**S.N. 101-0029**  
(LOOKING WEST)



**TYPICAL SEC. THRU PARAPET**




**DRAIN ELIMINATION  
DETAIL**

(192 Ea. Required)

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Formed Concrete Repair (Depth equal to or Less than 5")	Sq. Ft.	93

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

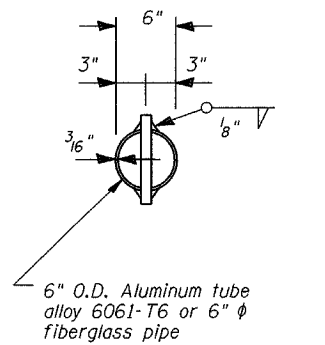
 Formed Conc. Rep. <5"

CONCRETE REPAIR DETAILS  
F.A.P. Route 303 &  
FAP 738 (IL 251) OVER Railroad  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0029 & 101-0030

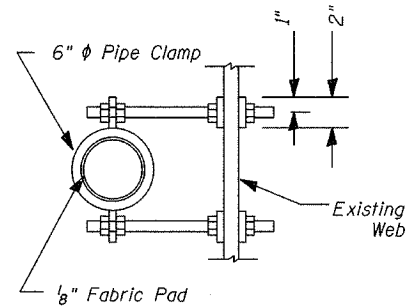
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. <u>8</u>
F.A.P.	*	Winnebago	36	16	<u>9</u> SHEETS
FED. ROAD DIST. NO. 7	ILL. HOSE	FED. AID PROJECT			

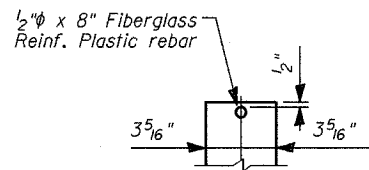
\* (5VB, 5HB, 1-2HB)M CONTRACT #64A88



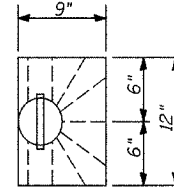
**TOP PLAN**  
(Showing Aluminum Tube)



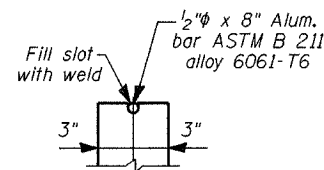
**SECTION A-A**



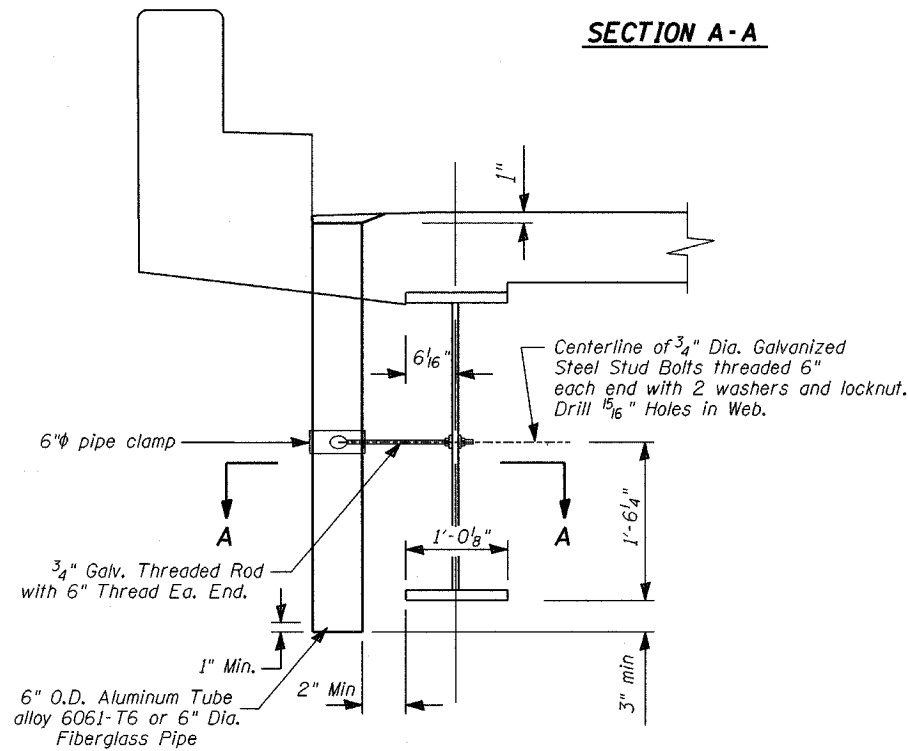
**FIBERGLASS PIPE**



**TOP PLAN**



**ALUMINUM TUBE**

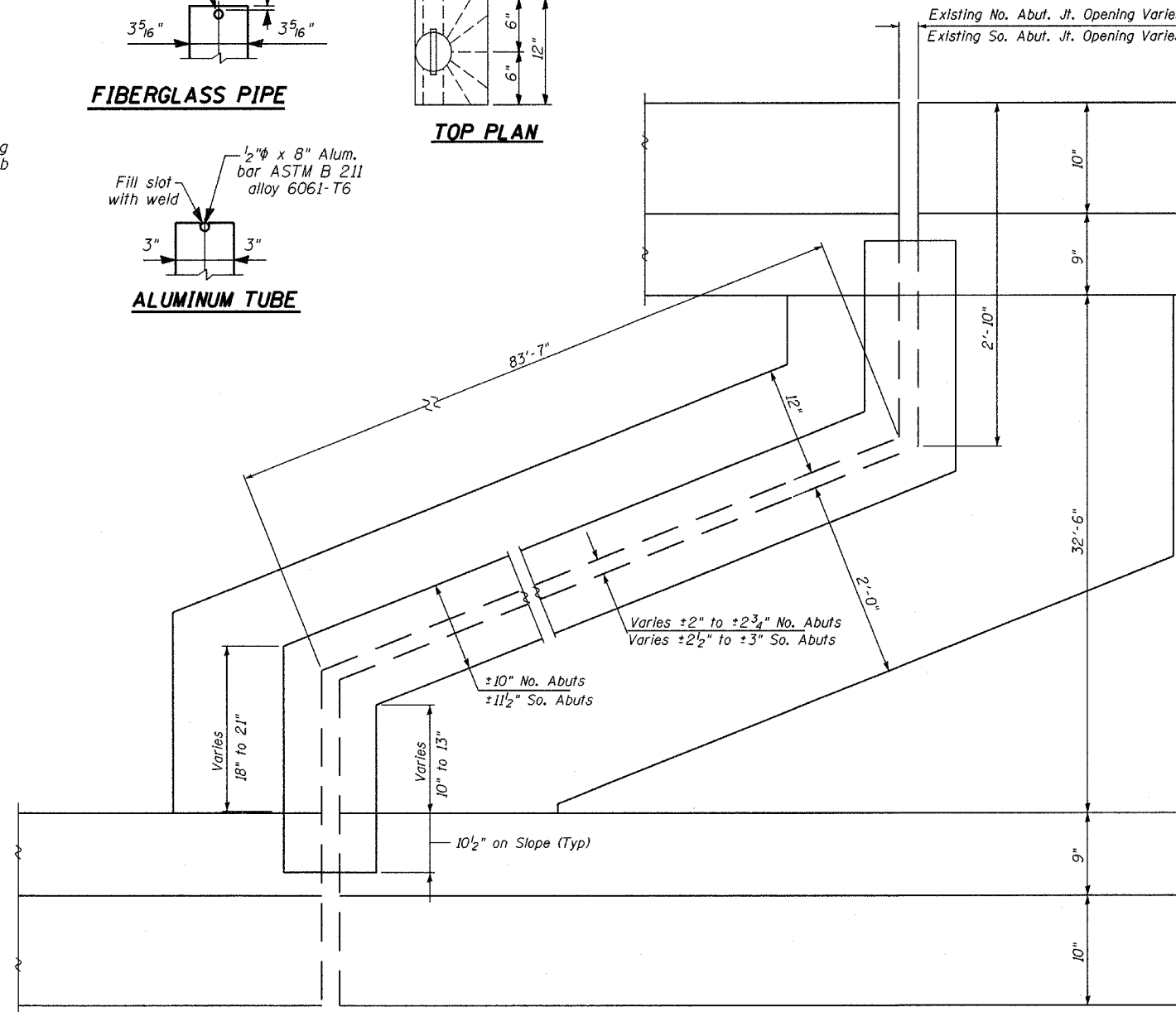


**FLOOR DRAIN REPLACEMENT**  
(92 Ea. Required)

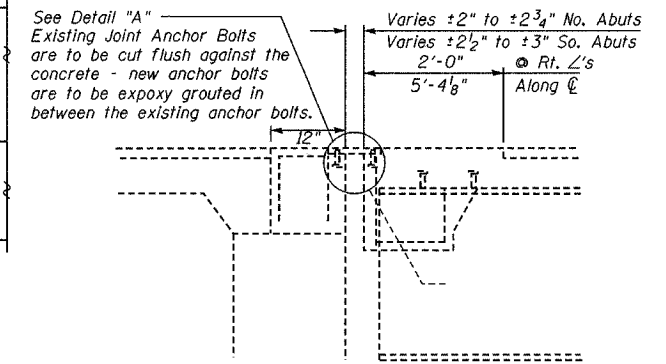
**Notes:**  
Fiberglass pipe shall conform to ASTM D 2996, with short - time rupture strength hoop tensile stress of 30,000 psi minimum.

The clamping device shall be galvanized in accordance with AASHTO M-232.

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

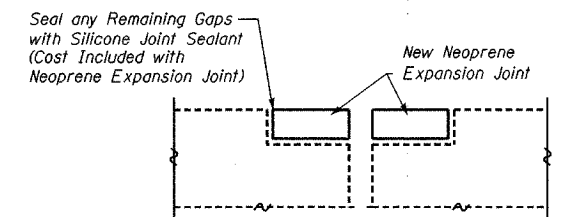


**EXISTING PARTIAL PLAN**



**TYPICAL SECTION THRU EXPANSION JOINT**

**Note:**  
When replacing a neoprene expansion joint, existing anchor bolts will need to be cut flush against the concrete & new anchor bolts will need to be epoxy grouted in between the existing anchor bolts. See sheet 9 of 9 for details.



**DETAIL "A"**

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Neoprene Expansion Joint 2"	Foot	176
Neoprene Expansion Joint 4"	Foot	176

FLOOR DRAIN AND  
JOINT REPLACEMENT DETAILS  
F.A.P. Route 303 &  
FAP 738 (IL 251) OVER RAILROAD  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0029 & 101-0030



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 9
	*	Winnebago	36	17	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

\* (5VB, 5HB, 1-2HB)M CONTRACT #64A88

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1 1/2" Min.
2 1/2"	2 1/2"	1 3/4" Min.
4"	3"	2 1/2" Min.

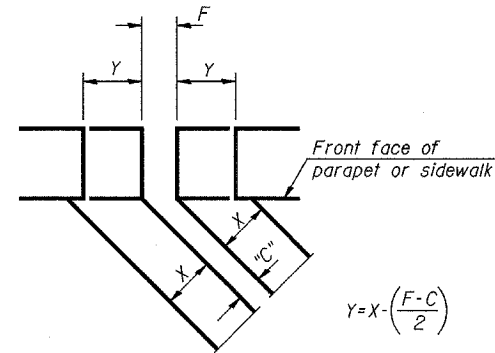
**INSTALLATION NOTES**

- Install continuous seal in roadway, parapet, curb, and sidewalk.
- Install anchor blocks as indicated.

Note A:  
Maximum spacing of anchor bolts shall be 12" centers.

**SKEW LIMITATIONS**

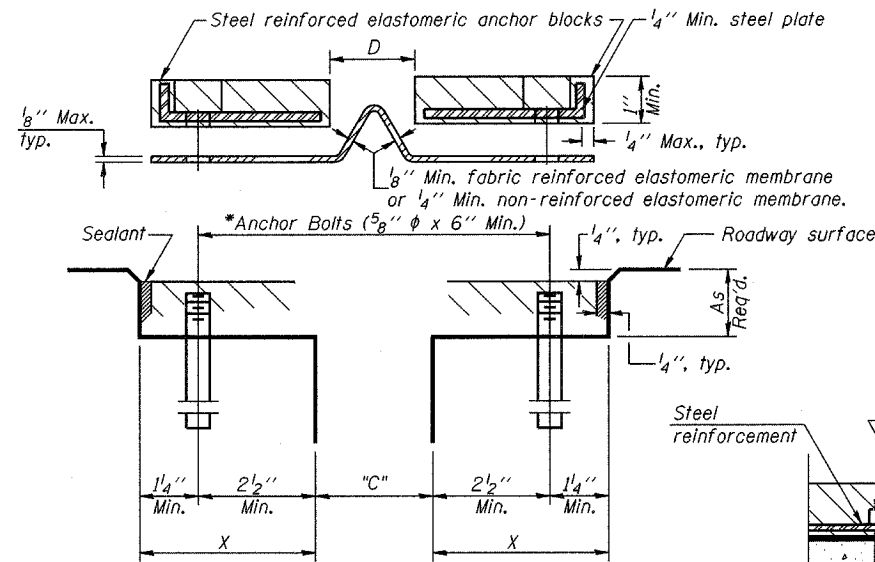
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews. For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



$$Y = X \cdot \left( \frac{F - C}{2} \right)$$

For dimension "F" see sheet #8 of 9

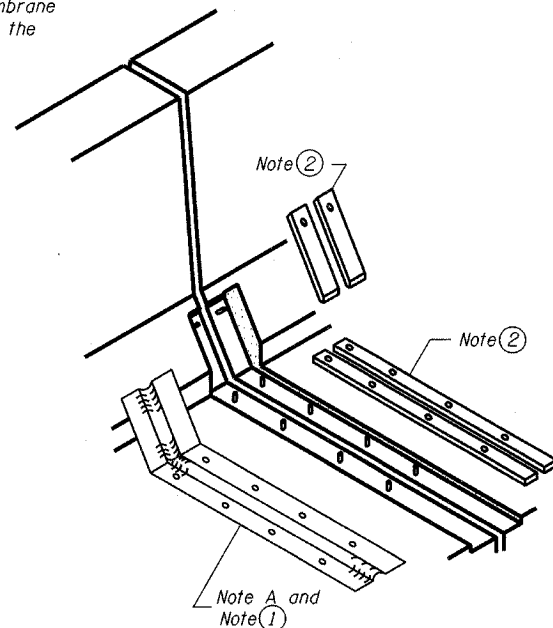
**FORMING BLOCKOUT SKETCH**



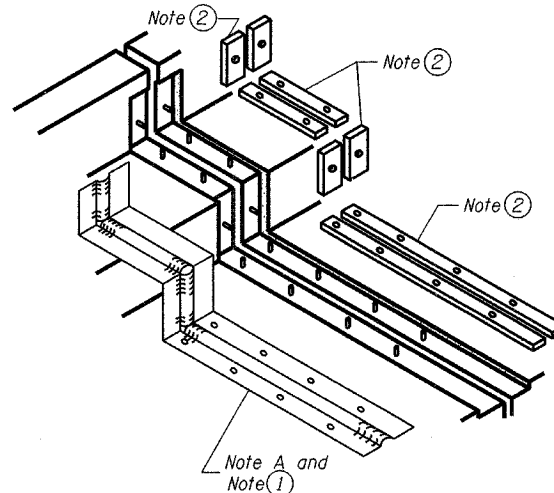
**CROSS SECTION**

\*Epoxy Grouted According to Section 584 of the Standard Specifications

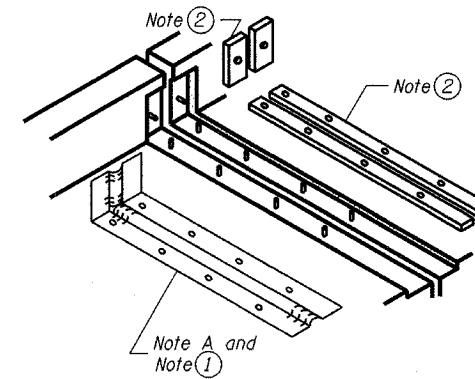
**ANCHOR BLOCK WITH ASPHALT SURFACE**



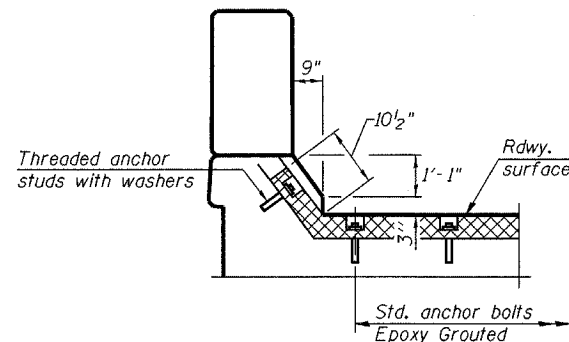
**AT PARAPET**



**AT SIDEWALK OR MEDIAN**



**AT WALL**



**AT PARAPET**

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

**GENERAL NOTES**

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.

The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

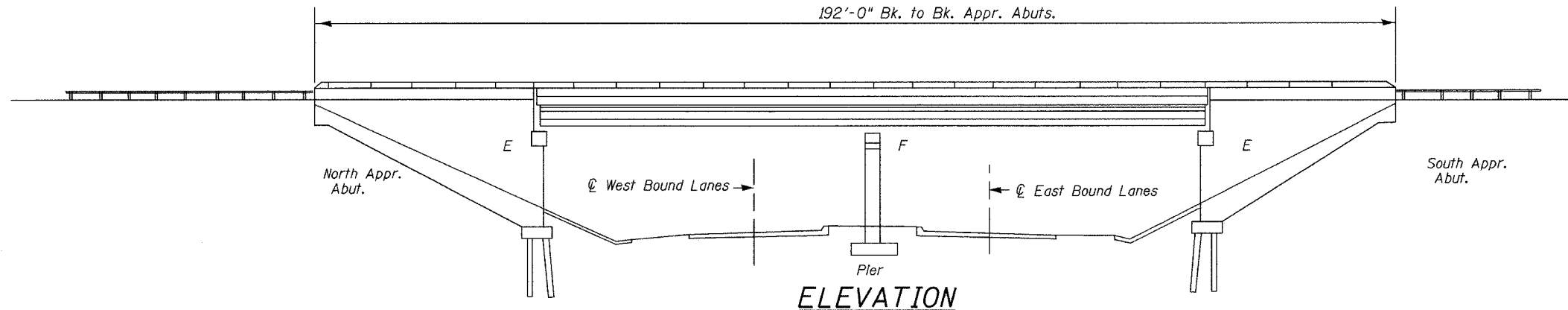
Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.

CONTINUOUS SEAL TYPE  
NEOPRENE EXPANSION JOINTS  
F.A.P. Route 303 & F.A.P. Route 738  
(IL 251) OVER Railroad  
SECTION (5VB,5HB,1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0029 & 101-0030

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
	*	Winnebago	36	18
SHEETS				
* (5VB, 5HB, 1-2HB)M CONTRACT #64A88				



**GENERAL NOTES**

All new structural steel shall conform to AASHTO Classification M-270, Gr. 36 unless otherwise noted.

Reinforcement bars shall conform to the requirements of AASHTO M-31, or M-322, Grade 60.

Prior to pouring the new concrete, all loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the bid item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to article 109.04 of the standard specifications.

Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost shall be included in the cost of "Concrete Removal".

Existing longitudinal reinforcement extending into the removed area shall be cleaned, straightened and incorporated into the new construction. Existing transverse reinforcement may be cut as shown and removed.

All new structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M 300, Type 1. Cost Included with Furnishing and Erecting Structural Steel.

During construction operations, the Contractor shall provide temporary shielding from shoulder to shoulder of the roadway crossed. See Special Provisions.

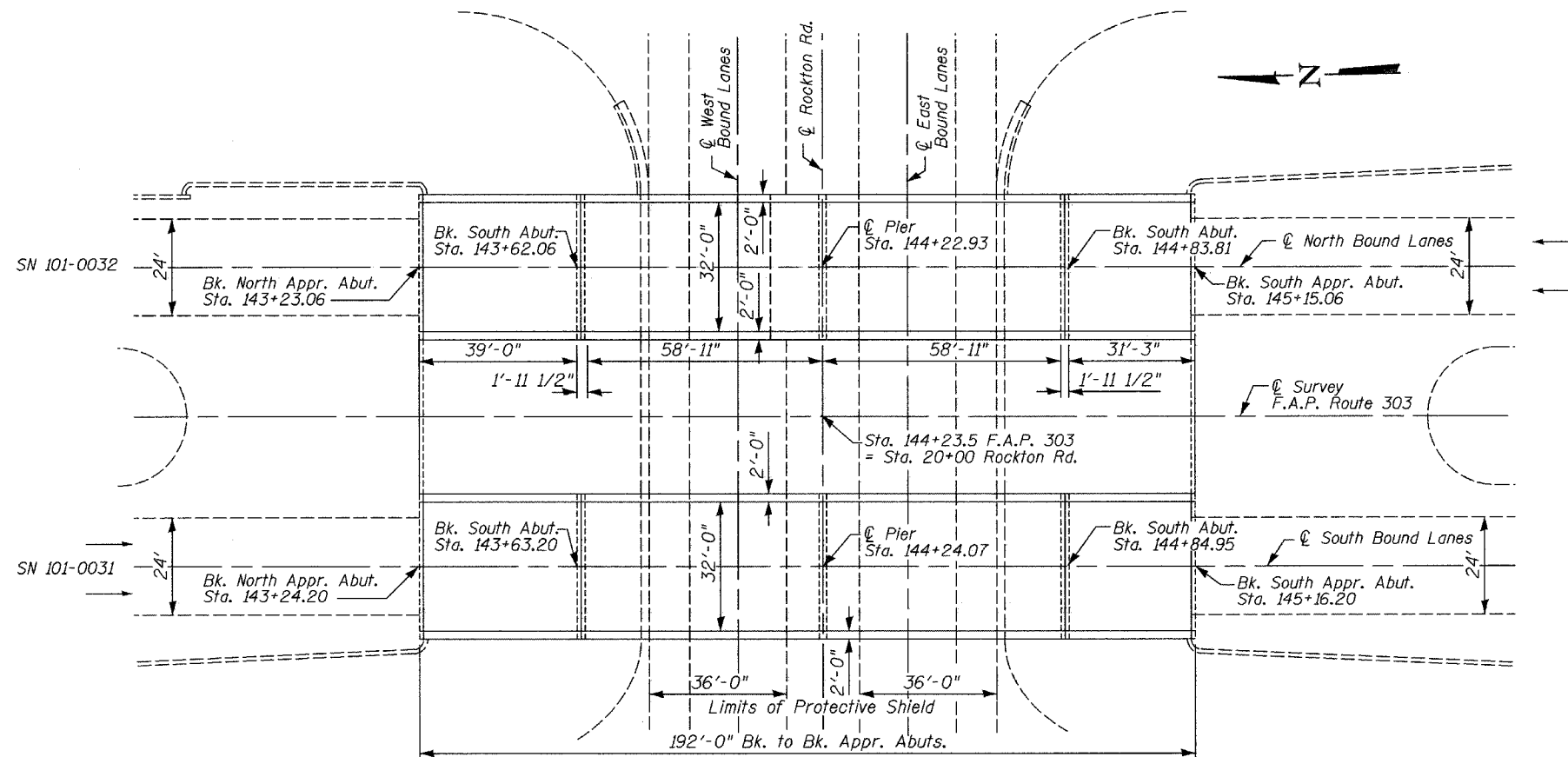
Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

These structures will retain the same numbers 101-0031 & 101-0032.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the scope of work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The existing structural steel coating contains lead. The contractor should take appropriate precautions to deal with the presence of lead on this project.

The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.

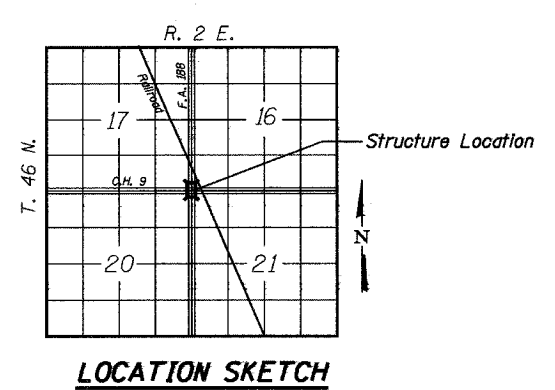


**PLAN TOTAL BILL OF MATERIAL - 2 BRIDGES**

ITEM	UNIT	TOTAL
Bituminous Concrete Removal (Deck)	Sq Yd	1380
Bituminous Concrete Surface Course, Superpave, Mix "D" N90	TON	150
Deck Slab Repair (Full Depth, Type 1)	Sq Yd	20
Deck Slab Repair (Full Depth, Type 2)	Sq Yd	20
Deck Slab Repair (Partial)	Sq Yd	130
Protective Shield	Sq. Yd.	480
Silicone Joint Sealer 1"	Foot	72
Concrete Removal	Cu Yd	40
Concrete Superstructure	Cu Yd	44.4
Reinforcement Bars, Epoxy Coated	Pound	7660
Remove and Re-erect Existing Bridge Rail	Foot	768
Bar Splicers	Each	60
Polymer Concrete	Cu Ft	15.2
Bridge Joint System Expansion 1"	Foot	134
Sheet Waterproofing Membrane System	Sq Yd	1304
Formed Concrete Repair (Depth Equal to or Less Than 5")	Sq Ft	15
Epoxy Crack Sealing	Foot	15



Scott A. Brown 3/10/2006  
LICENSE EXPIRES 11/30/2006

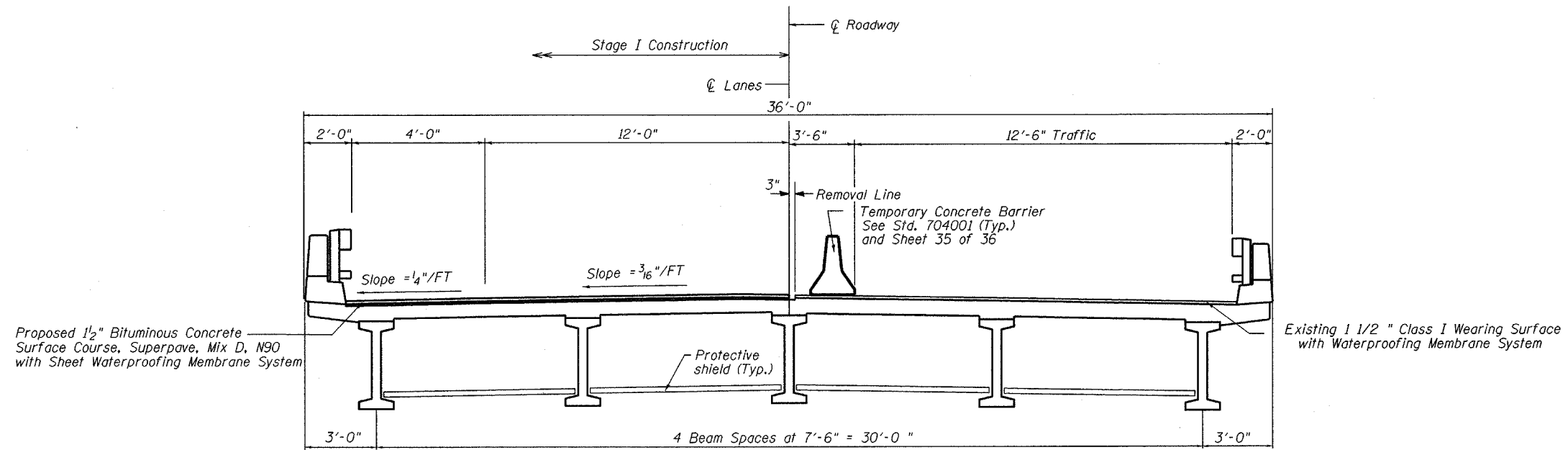


DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

**GENERAL PLAN AND ELEVATION**  
F.A.P. Route 303 & F.A.P. Route 738  
(IL 251) OVER Rockton Road  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0031 & 101-0032

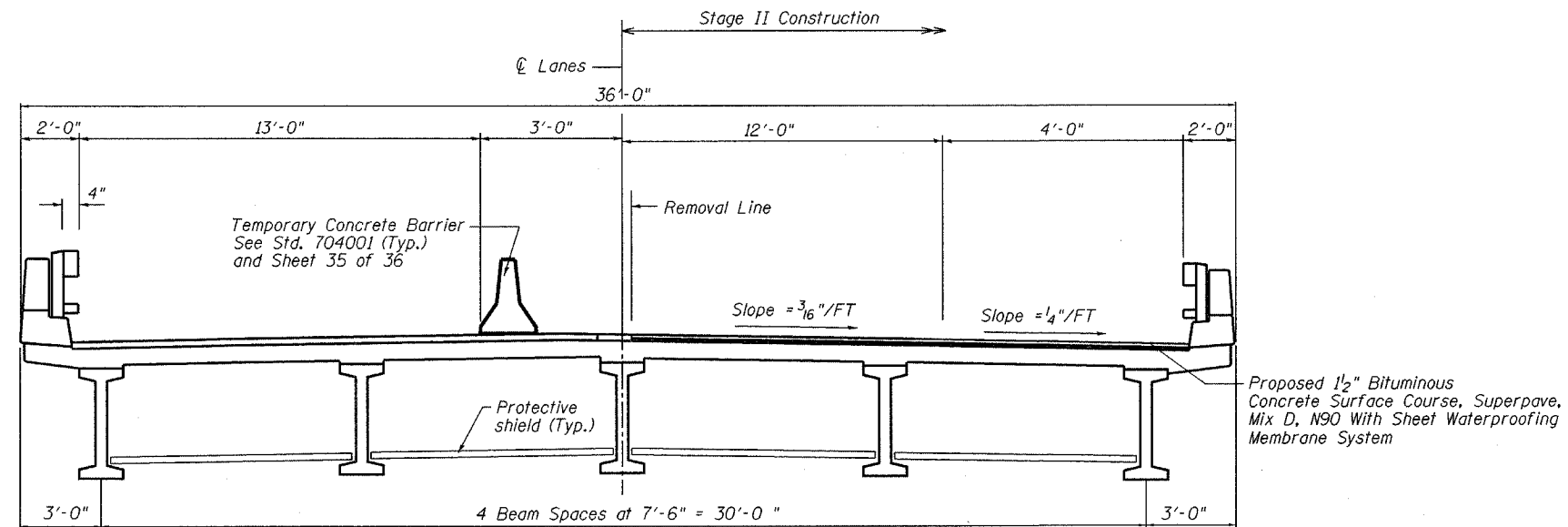
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2
F.A.L.	*	Winnebago	36	19	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	* (5VB, 5HB, 1-2HB)M CONTRACT #64A88		



**DECK CROSS SECTION - STAGE I**

(Looking South SN 101-0031)  
(Looking North SN 101-0032)



**DECK CROSS SECTION - STAGE II**

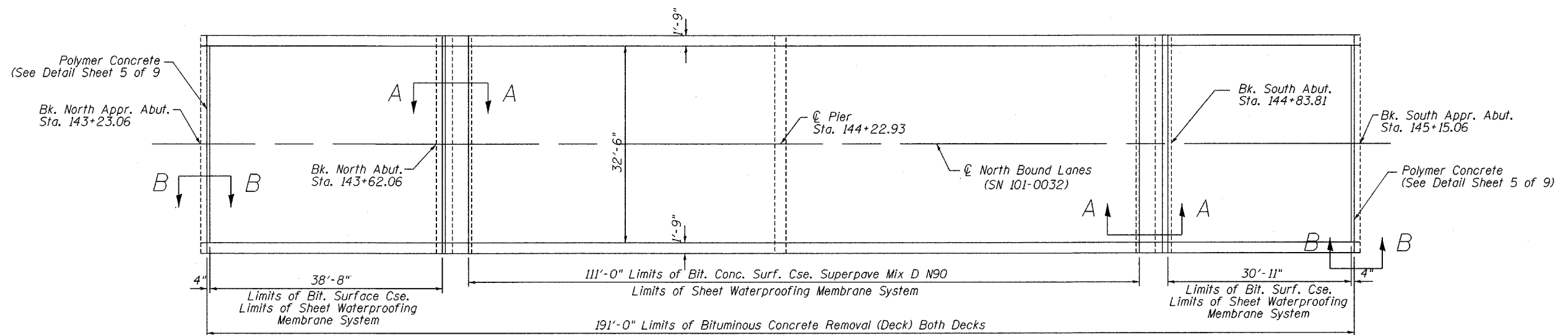
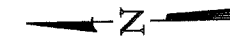
(Looking South SN 101-0031)  
(Looking North SN 101-0032)

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

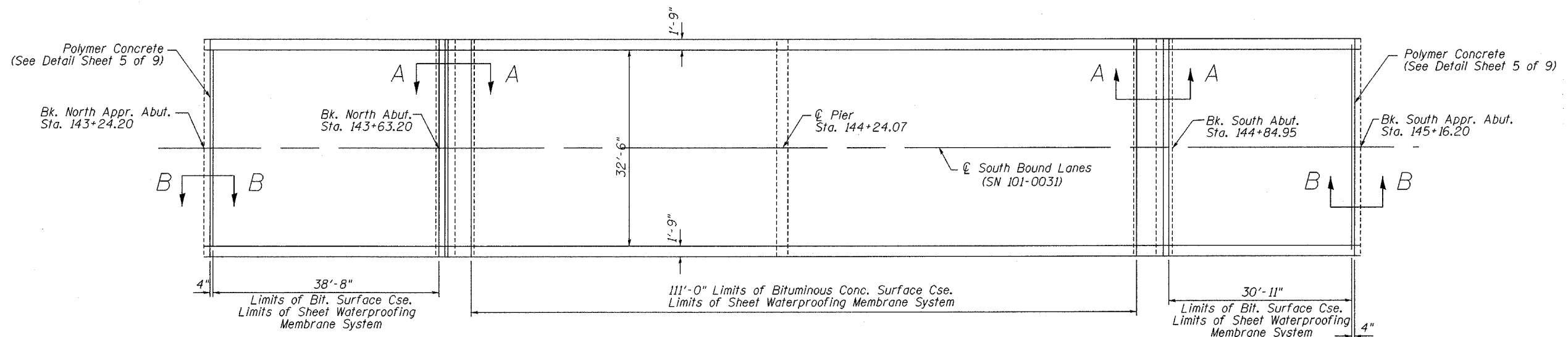
DECK CROSS SECTIONS  
F.A.P. Route 303 & F.A.P. Route 738  
(IL 251) OVER Rockton Road  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0031 & 101-0032

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
S.B.L.	F.A.P.	Winnebago	36	20	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	* (5VB, 5HB, 1-2HB)M CONTRACT #64A88		



PLAN - SN 101-0032



PLAN - SN 101-0031

BILL OF MATERIAL - 2 BRIDGES

Bar	No.	Size	Length	Shape	Item	Unit	Quantity
a(E)	80	#7	17'-8"	—	Reinforcement Bars, Epoxy Coated	Pound	7660
a <sub>1</sub> (E)	16	#6	17'-8"	—	Concrete Superstructure	Cu. Yd.	44.4
a <sub>2</sub> (E)	80	#6	6'-6"	—	Concrete Removal	Cu. Yd.	40
a <sub>3</sub> (E)	24	#5	17'-8"	—	Bituminous Concrete Removal (Deck)	Sq. Yd.	1380
d(E)	64	#6	3'-4"	—	Sheet Waterproofing Membrane System	Sq. Yd.	1304
d <sub>1</sub> (E)	64	#4	2'-6"	—	Bit. Conc. Surf. Cse., Superpave, Mix. "D", N90	Ton	150
c(E)	72	#4	4'-6"	—	Protective Shield	Sq. Yd.	480
x(E)	208	#6	7'-11"	—	Polymer Concrete	Cu. Ft.	15.2
					Silicone Joint Sealer	Foot	72
					Remove and Re-erect Existing Bridge Rail	Foot	768

Reinforcement bars designated (E) shall be epoxy coated.  
For bar placement, see sheet 5 of 9.

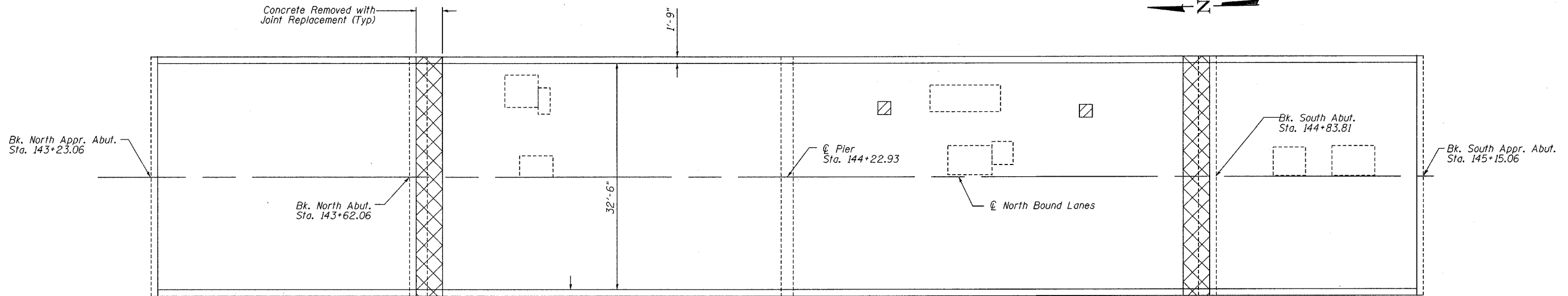
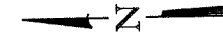
DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

DECK PLAN  
F.A.P. Route 303 & F.A.P. Route 738  
(IL 251) OVER Rockton Road  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0031 & 101-0032

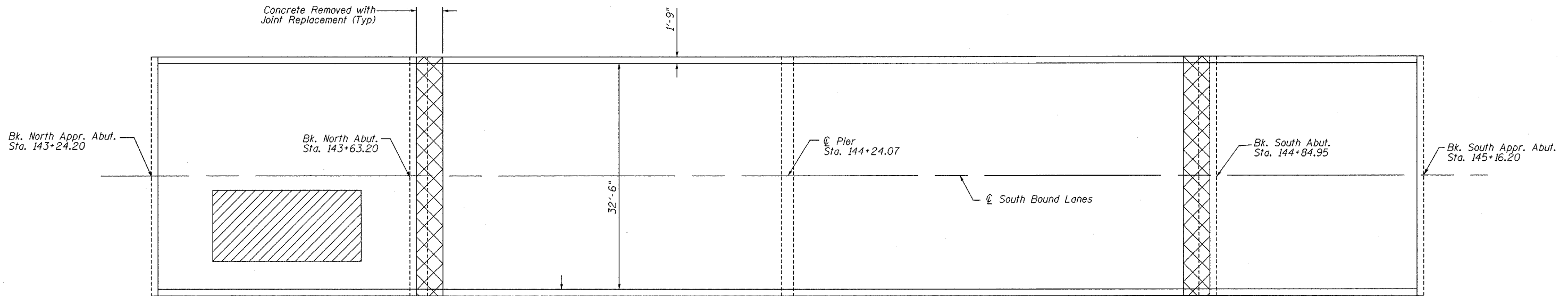
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
	*	Winnebago	36	21	9 SHEETS
FED. ROAD DIST. NO. 7	ILL. PROJ. NO.	FED. AID PROJECT			

\*(5VB, 5HB, 1-2HB)M CONTRACT #64A88



PLAN SN 101-0032





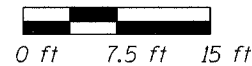
PLAN SN 101-0031

BILL OF MATERIAL - 2 BRIDGES

ITEM	UNIT	TOTAL
Deck Slab Repair (Partial)	Sq. Yd.	130
Deck Slab Repair (Full Depth, Type 1)	Sq. Yd.	20
Deck Slab Repair (Full Depth, Type 2)	Sq. Yd.	20

Deck Survey Date: October 15, 2004

-  Deck Slab Repair (Partial Depth)
-  Existing Deck Slab Repair



NOTES:

The plan quantities for Deck Slab Repair (Partial and Full Depth) are estimated quantities from a deck survey provided by others. The areas shown on the deck repair plans for each structure are potential areas of Deck Slab Repair. The Deck Slab Repair quantities in Bills of Material are included as contingencies to be used as directed by the engineer during construction. The actual locations and quantity of Deck Slab Repair on all structures shall be determined by the resident engineer in the field after removal of the existing wearing surface. Actual repair locations shall be shown on the same as-built plans.

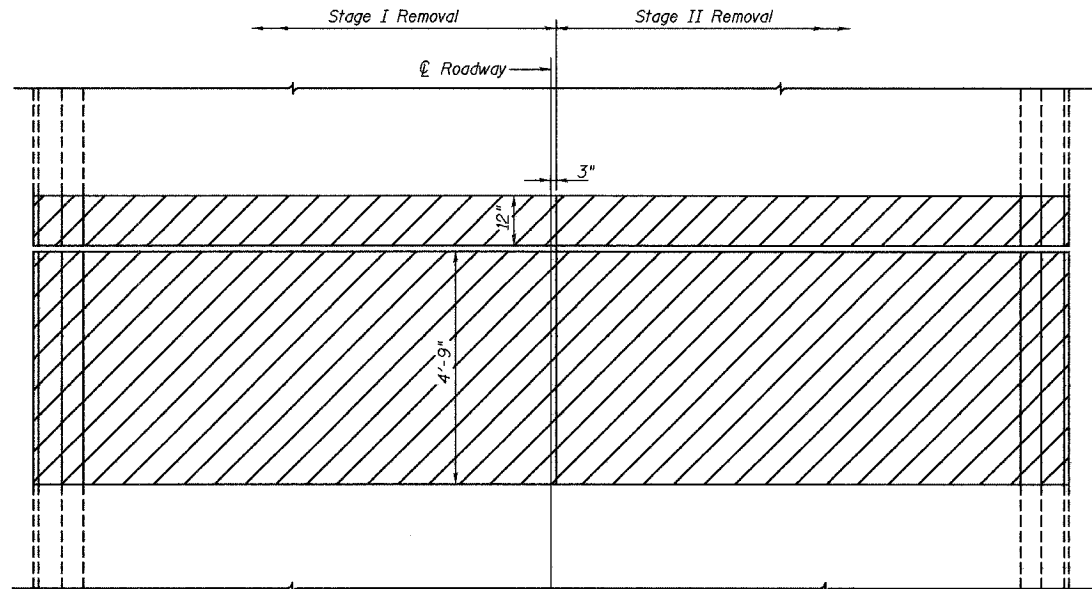
DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

DECK REPAIR PLAN  
F.A.P. Route 303 & F.A.P. Route 738  
(IL 251) OVER Rockton Road  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0031 & 101-0032

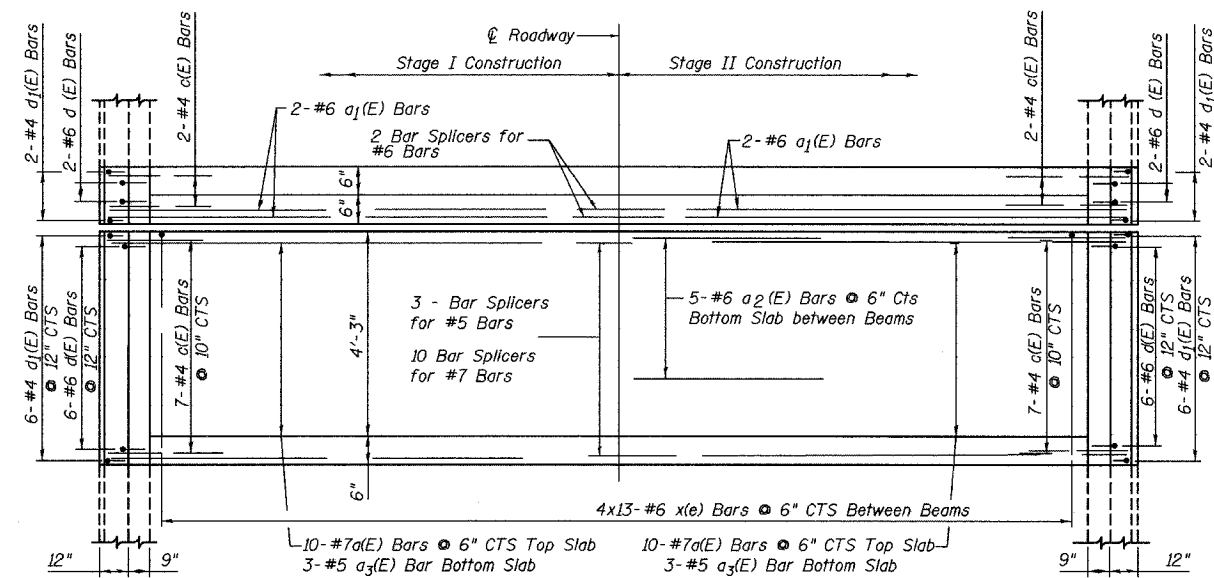
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5
S.B.I.	#	Winnebago	36	22	9 SHEETS
F.A.P.					
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

\*(5VB, 5HB, 1-2HB)M CONTRACT #64A88

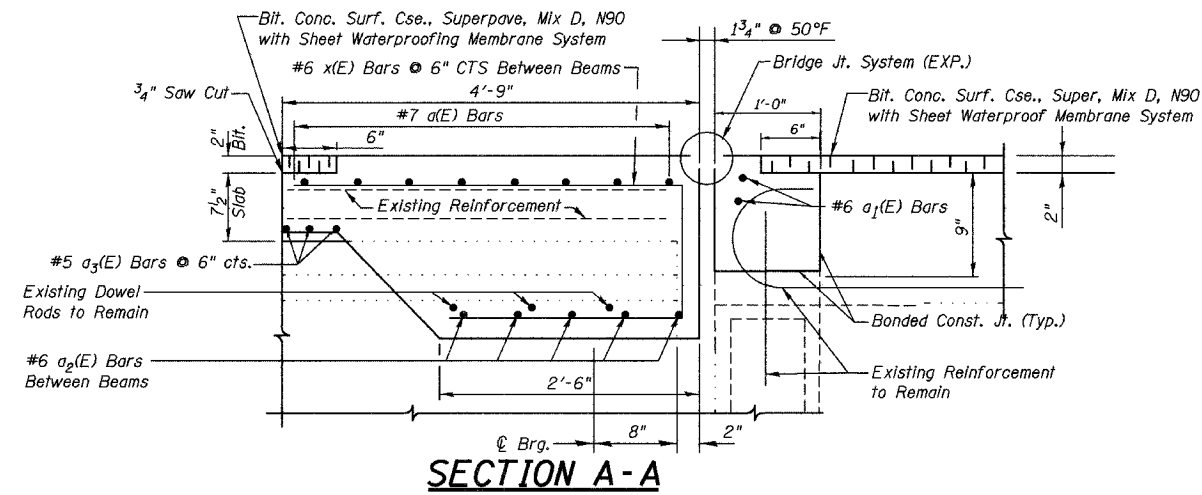


**EXISTING PARTIAL PLAN**

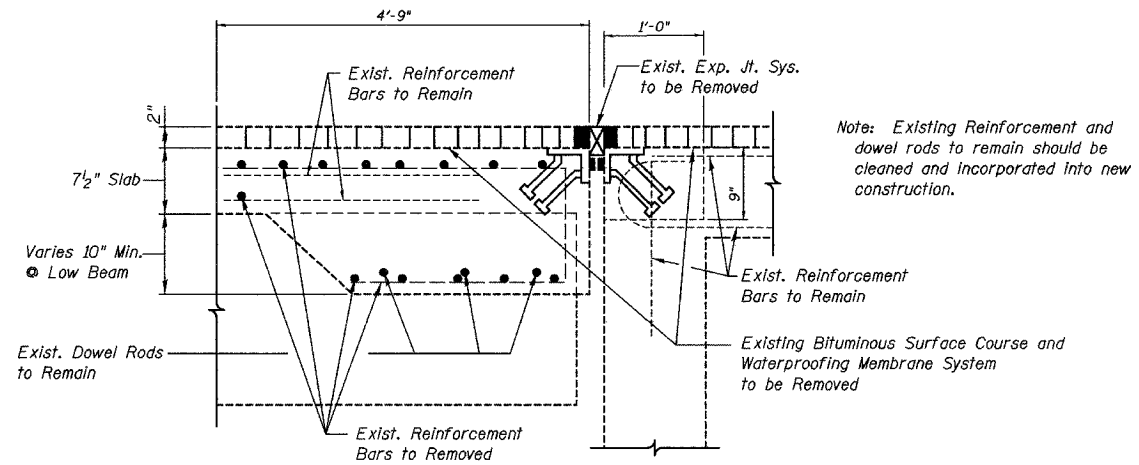


**PROPOSED PARTIAL PLAN**

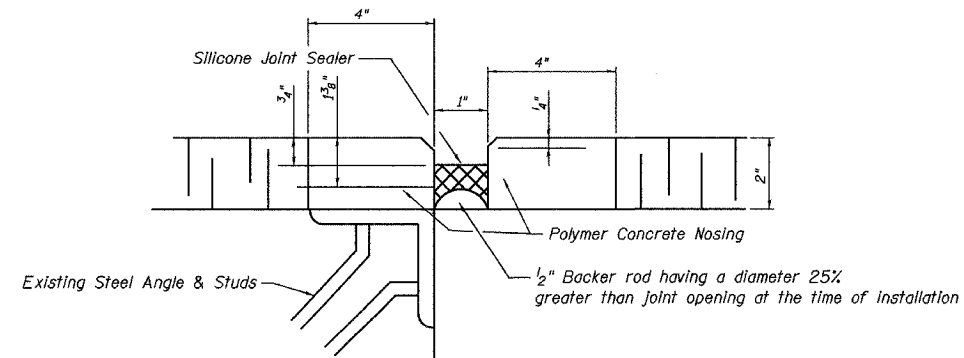
DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB



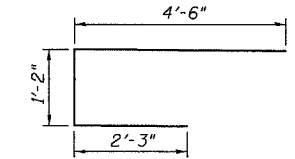
**SECTION A-A**



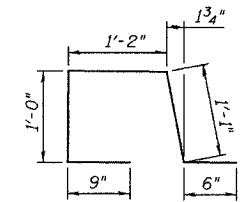
**EXIST. SECTION THRU JOINTS**



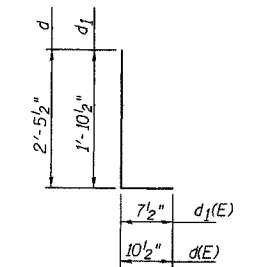
**SILICONE JOINT SEALER DETAIL  
AT APPR. ABUT.**



**#6 x(E) Bar**



**#4 c(E) Bar**



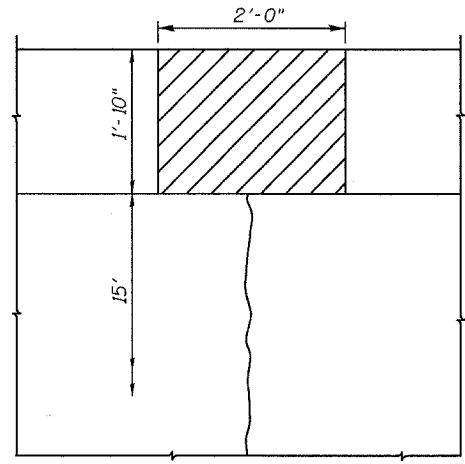
**#6 d(E) Bar  
#4 d1(E) Bar**

JOINT RECONSTRUCTION PLAN  
F.A.P. Route 303 & F.A.P. Route 738  
(IL 251) OVER Rockton Road  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0031 & 101-0032

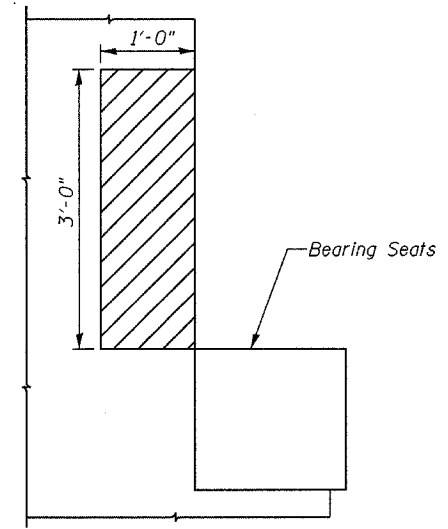
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
	*	Winnebago	36	23	9 SHEETS
FED. ROAD DIST. NO. 7					
ILLINOIS FED. AID PROJECT					

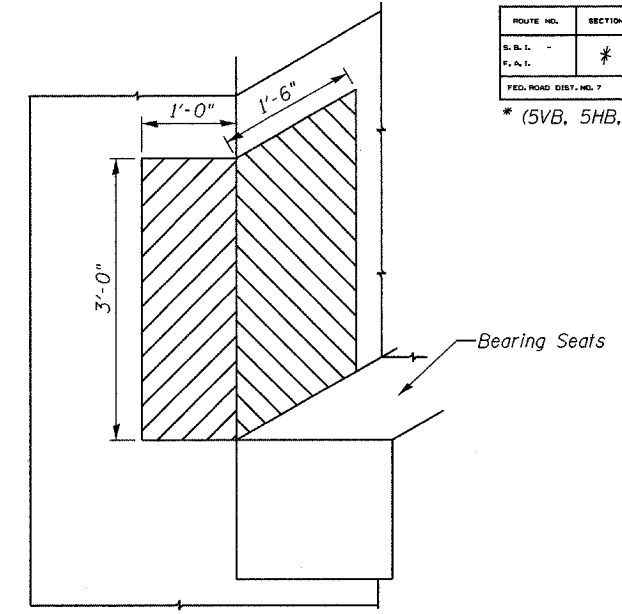
\* (5VB, 5HB, 1-2HB)M CONTRACT #64A88



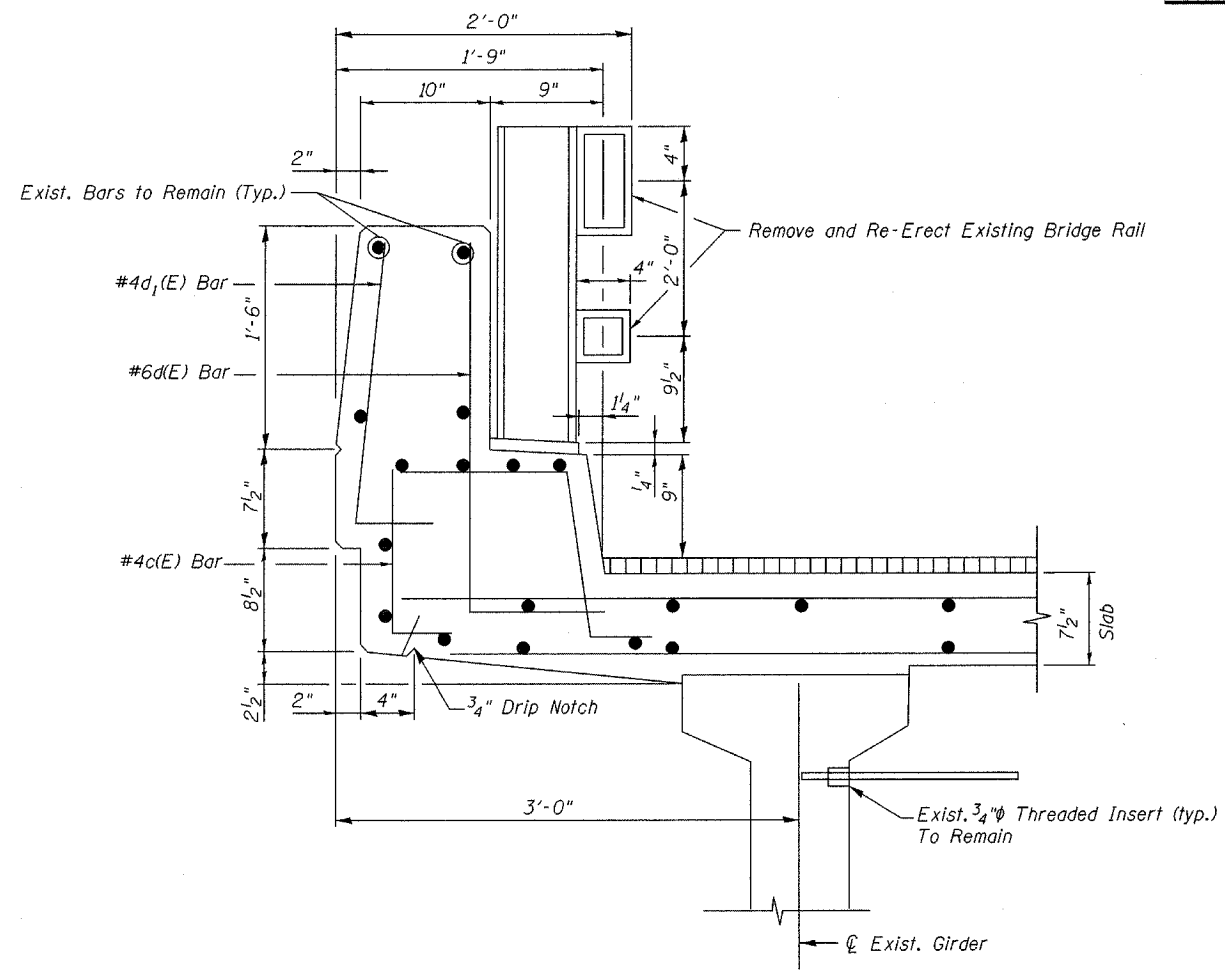
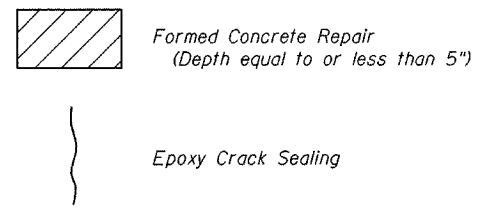
**ELEVATION - SOUTH ABUTMENT**  
**S.N. 101-0031**



**EAST WALL SOUTH ABUTMENT**  
**S.N. 101-0032**



**WEST WALL NORTH ABUTMENT**  
**S.N. 101-0032**



**TYP. SECTION THRU EXIST. PARAPET**

SHOWING STEEL RETROFIT RAIL  
(For Information Only)  
Note: Contractor must ensure that rails are properly marked before removal to ensure proper placement during re-erection.

**BILL OF MATERIAL**

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

ITEM	UNIT	TOTAL
Formed Concrete Repair (Depth Equal to or Less Than 5")	Sq. Ft.	15
Epoxy Crack Sealing	Foot	15

ABUTMENT REPAIRS  
F.A.P. Route 303 & F.A.P. Route 738  
(IL 251) OVER Rockton Road  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0031 & 101-0032

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. 7
F.A.P.	*	Winnebago	36	24	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

\* (5VB, 5HB, 1-2HB)M CONTRACT #64A88

**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 =  $1.25 \times f_y \times A_f$   
(Tension in kips)

② Minimum \*Pull-out Strength =  $1.25 \times f_{s_{allow}} \times A_f$   
(Tension in kips)

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.

$f_{s_{allow}}$  = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)

$A_f$  = 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	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

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



ROLLED THREAD DOWEL BAR



\*\* ONE PIECE

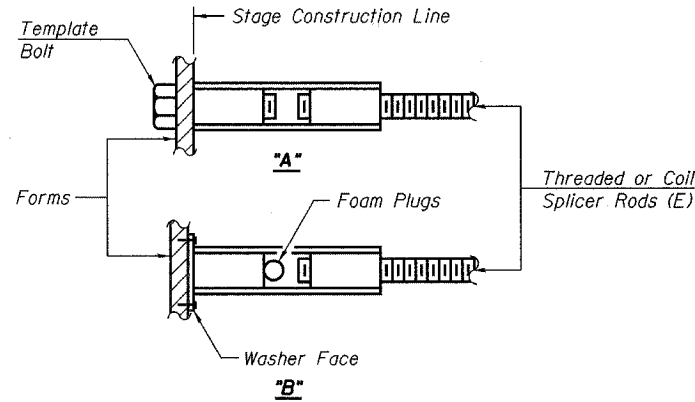
Wire Connector



WELDED SECTIONS

**BAR SPLICER ASSEMBLY ALTERNATIVES**

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

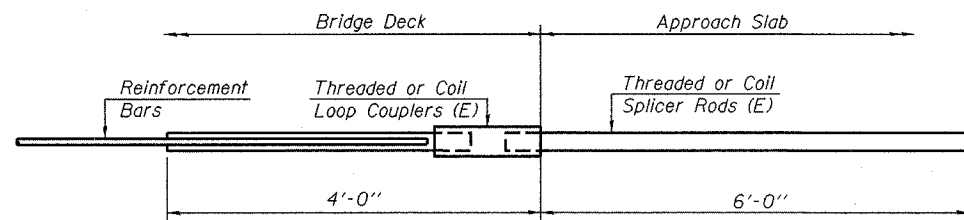


**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.

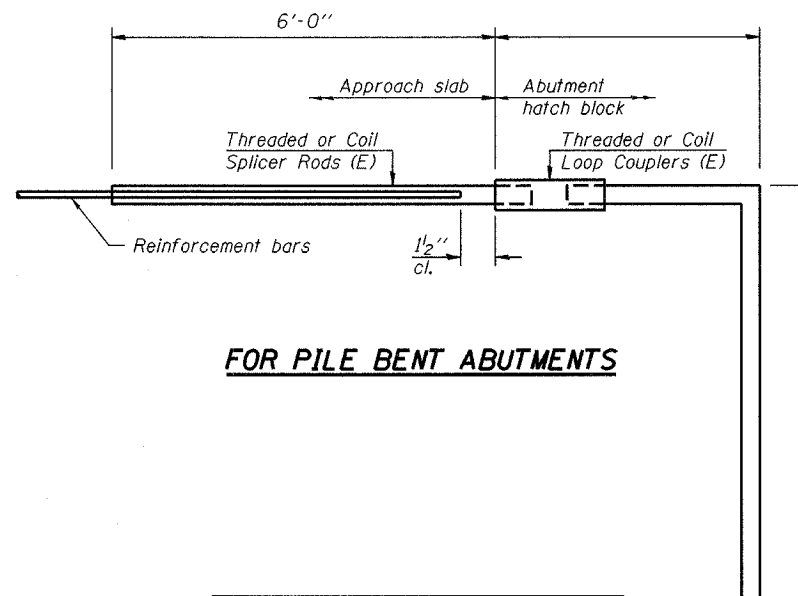
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



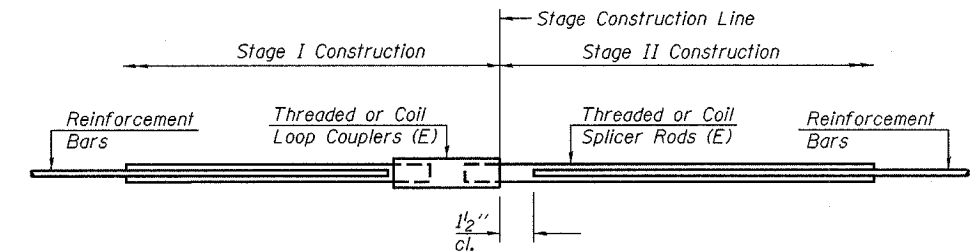
**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



**FOR PILE BENT ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



**STANDARD**

Bar Size	No. Assemblies Required	Location
6	8	Deck
7	40	Deck
5	12	Deck

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

BSD-1

10-22-04

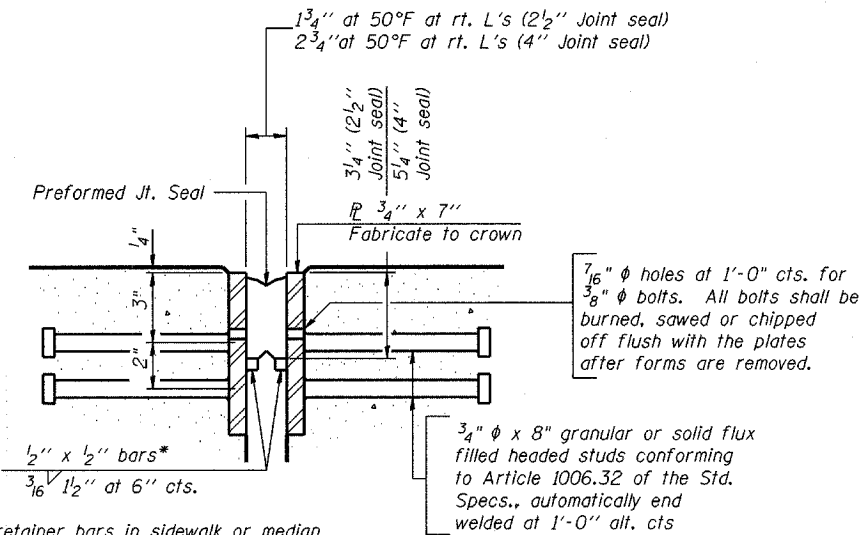
**BAR SPLICER ASSEMBLY DETAILS**  
F.A.P. Route 303 & F.A.P. Route 738  
(IL 251) OVER Rockton Road  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0031 & 101-0032



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 8
S.B.L.	*	Winnebago	36	25	9 SHEETS
F.A.L.					
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

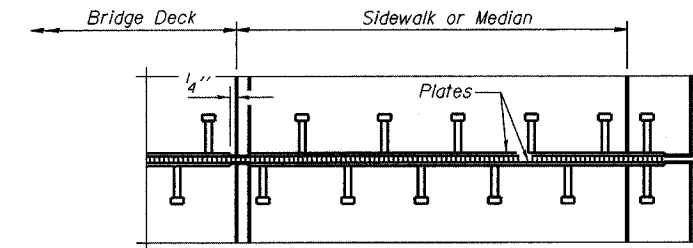
\*(5VB, 5HB, 1-2HB)M CONTRACT #64A88



Bridge Joint System (Expansion)		
Design Movement	Required Preformed Joint Seal Size	Required Strip Seal Rated movement
1"	2 1/2"	1"
1 5/8"	4"	2"

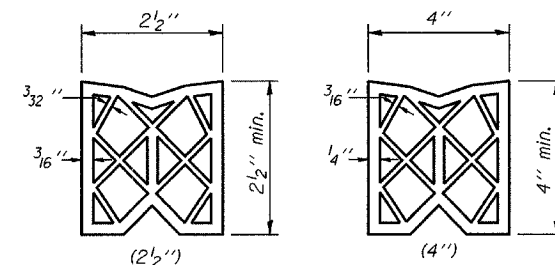
**GENERAL NOTES**

Furnish steel plates in segments of 20 feet maximum length. Maximum space between installed segments shall be 3/16". Seal space with silicone sealant suitable for structural steel.

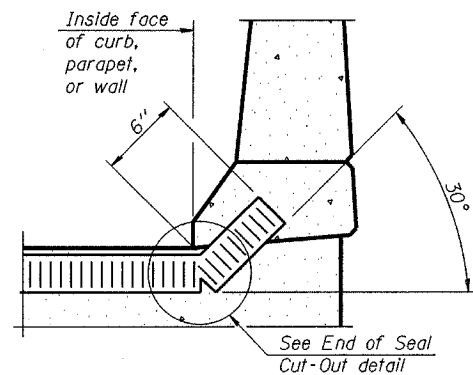


**PLAN AT SIDEWALK OR MEDIAN**

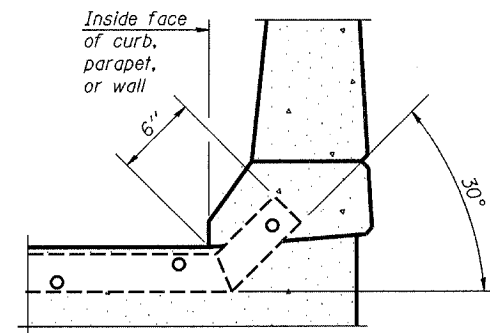
**SECTION THRU EXPANSION JOINT**  
(2 1/2 inch and 4 inch joint seals)



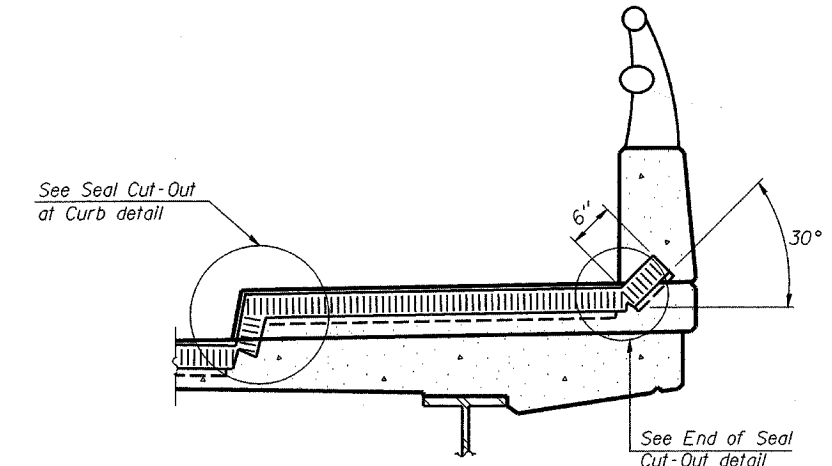
**PREFORMED JOINT SEAL**



**AT CURB, PARAPET, OR WALL**  
(Showing seal)



**AT CURB, PARAPET, OR WALL**  
(Showing plate)



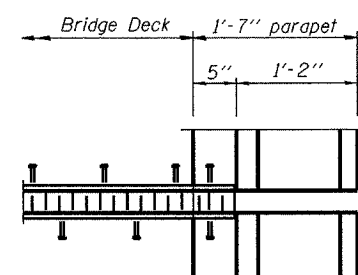
**AT SIDEWALK OR MEDIAN\***  
(Showing plate and seal)

**TYPICAL END TREATMENTS**

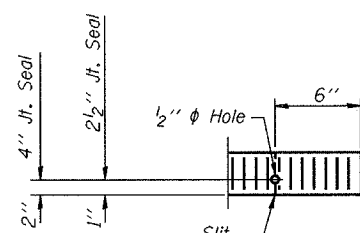
\* Shorter plates with a single row of studs at 12" centers may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

**BILL OF MATERIAL**

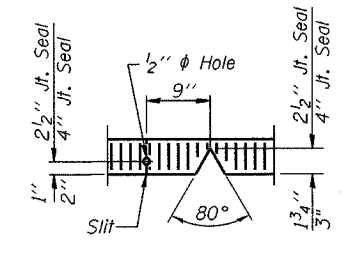
Item	Unit	Total
Bridge Joint System Expansion 1"	Foot	134



**PLAN AT PARAPET**



**END OF SEAL CUT-OUT**



**SEAL CUT-OUT AT CURB**

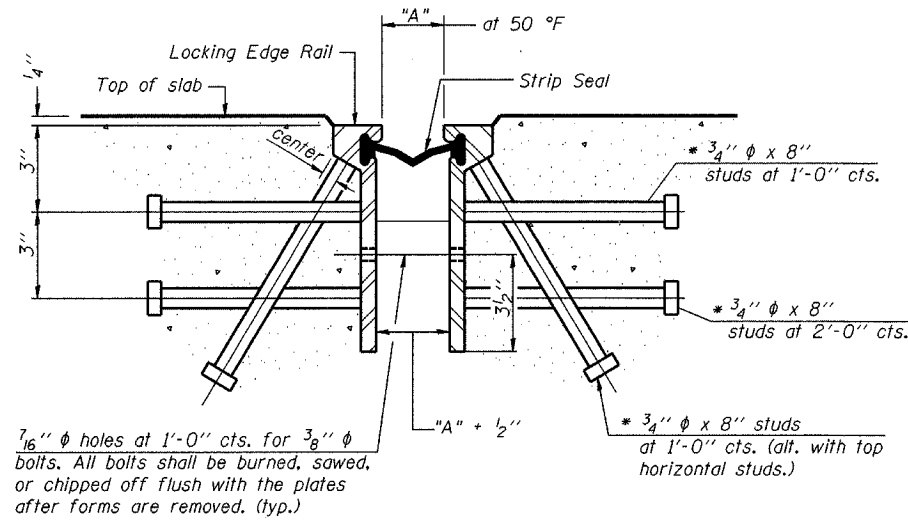
**BRIDGE JOINT SYSTEM - EXPANSION (PREFORMED JOINT SEAL)**  
F.A.P. Route 303 & F.A.P. Route 738 (IL 251) OVER Rockton Road SECTION (5VB, 5HB, 1-2HB)M WINNEBAGO COUNTY SN 101-0031 & 101-0032

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

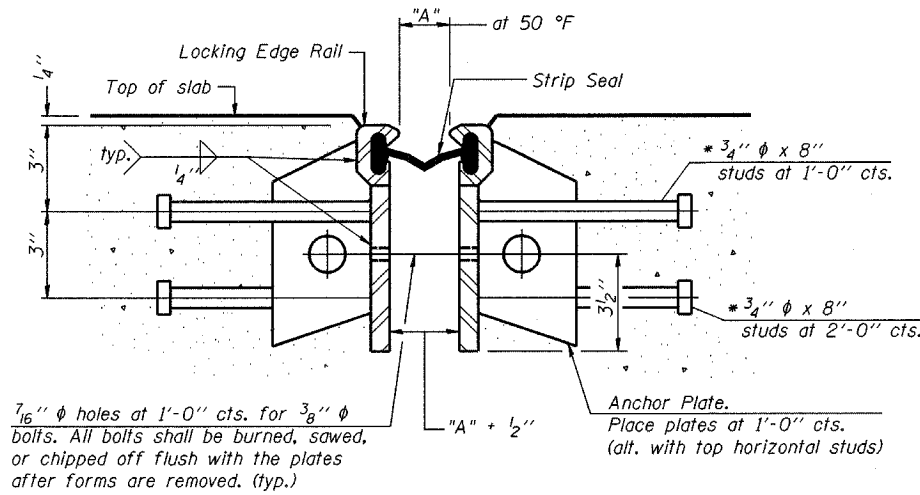
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	LENG	SHEET	SHEET NO. 9
F.A.P.	*	Winnebago	36	26	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

\* (5VB, 5HB, 1-2HB)M CONTRACT #64A88



Required Strip Seal rated movement	"A"
1"	1 1/8"
2"	1 3/4"



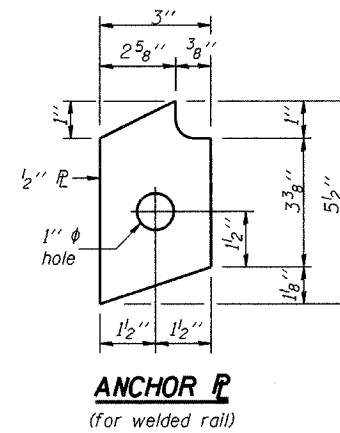
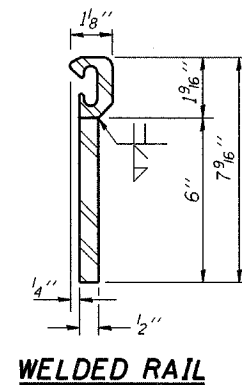
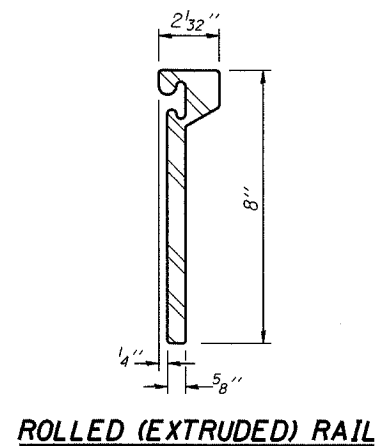
SECTION THRU ROLLED RAIL EXP. JOINT

SECTION THRU WELDED RAIL EXP. JOINT

GENERAL 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.  
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 preformed joint seal. If the contractor elects to use the alternate strip seal 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.

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

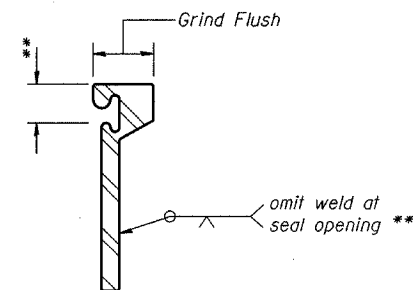


ROLLED (EXTRUDED) RAIL

WELDED RAIL

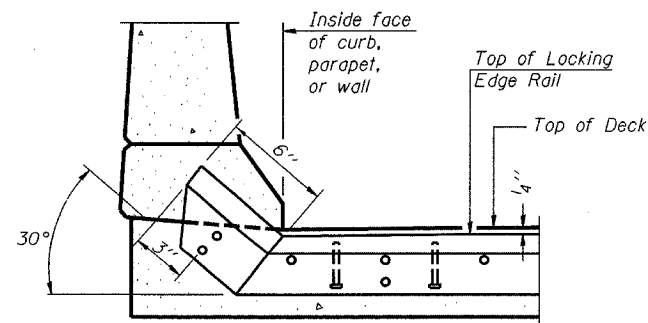
ANCHOR PLATE  
(for welded rail)

LOCKING EDGE RAILS

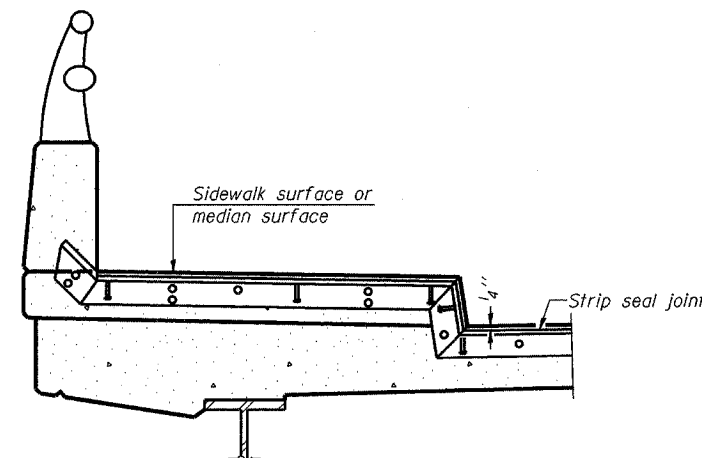


LOCKING EDGE RAIL SPLICE

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



AT CURB, PARAPET, OR WALL



AT SIDEWALK OR MEDIAN\*

TYPICAL END TREATMENTS

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

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

EJ-BJS

10-22-04

BRIDGE JOINT SYSTEM - EXPANSION  
(ALTERNATE-STRIP SEAL)  
F.A.P. Route 303 & F.A.P. Route 738  
(IL 251) OVER Rockton Road  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0031 & 101-0032

(Sheet 2 of 2)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
	*	Winnebago	36	27	8 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

\* Section (5VB,5HB,1-2HB)M Contract #64A88

**GENERAL NOTES**

All new structural steel shall conform to AASHTO Classification M-270, Gr. 36 unless otherwise noted.

Reinforcement bars shall conform to the requirements of AASHTO M-31, or M-322, Grade 60.

Prior to pouring the new concrete, all loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the bid item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to article 109.04 of the standard specifications.

Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost shall be included in the cost of "Concrete Removal".

Existing longitudinal reinforcement extending into the removed area shall be cleaned, straightened and incorporated into the new construction. Existing transverse reinforcement may be cut as shown and removed.

All new structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M 300, Type I. Cost included with Furnishing and Erecting Structural Steel.

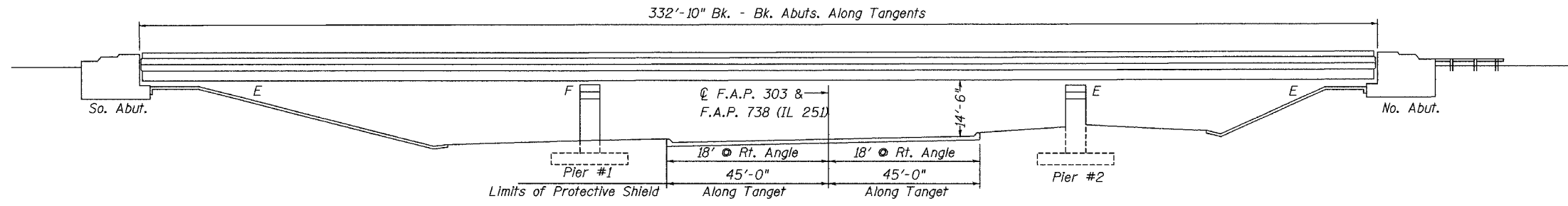
During construction operations, the Contractor shall provide temporary shielding from shoulder to shoulder of the roadway crossed. See Special Provisions.

Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

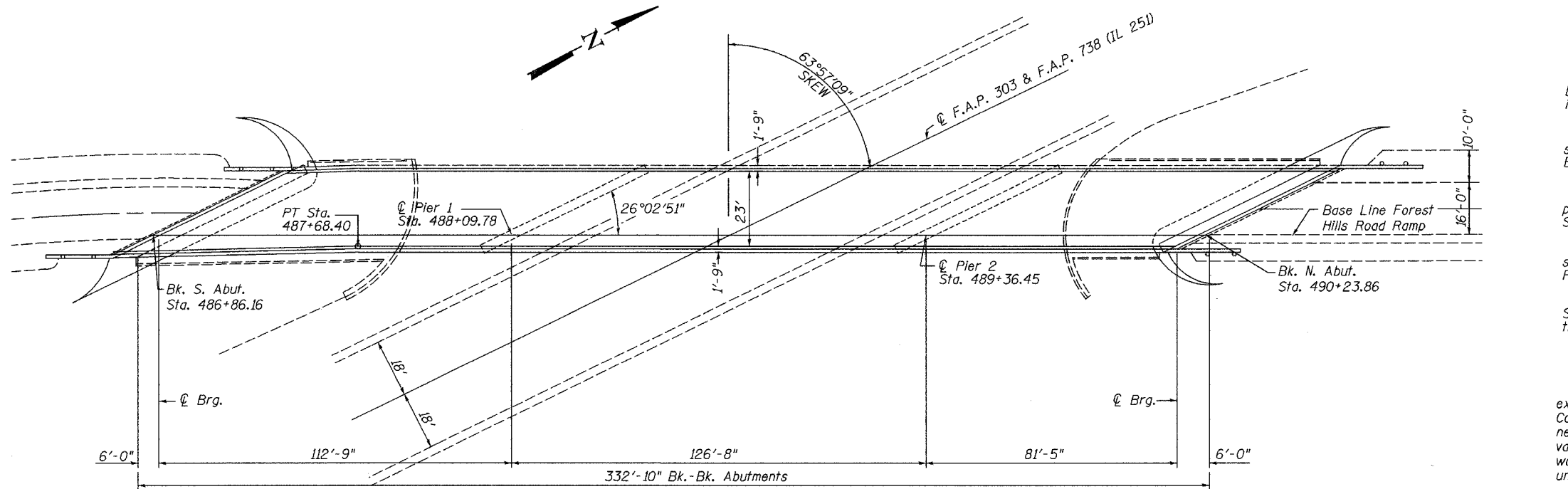
This structure will retain the same number 101-0123.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the scope of work; however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

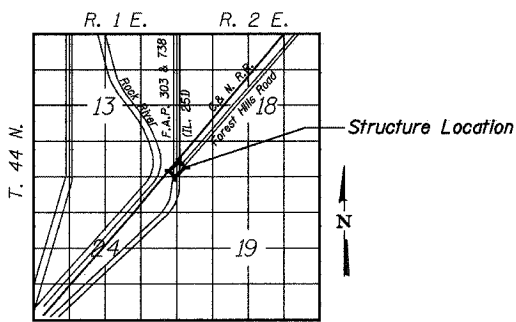
The existing structural steel coating contains lead. The contractor should take appropriate precautions to deal with the presence of lead on this project.



**ELEVATION**



**PLAN**



**LOCATION SKETCH**

**TOTAL BILL OF MATERIAL - 2 BRIDGES**

ITEM	UNIT	TOTAL
Bituminous Concrete Surface Coarse, Superpave, Mix "D" N90	TON	95
Deck Slab Repair (Full Depth, Type 1)	Sq Yd	25
Deck Slab Repair (Full Depth, Type 2)	Sq Yd	13
Deck Slab Repair (Partial Depth)	Sq Yd	80
Protective Shield	Sq. Yd.	240
Neoprene Expansion Joint, 2"	Foot	63
Neoprene Expansion Joint, 4"	Foot	58
Concrete Removal	Cu Yd	25.9
Concrete Superstructure	Cu Yd	28.7
Reinforcement Bars, Epoxy Coated	Pound	10430
Drainage Scupper - DS-12	Each	2
Sheet Waterproofing Membrane System	Sq Yd	847
Formed Concrete Repair (Depth Equal to or Less Than 5")	Sq Ft	1450
Plug Existing Deck Drains	Each	23

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB



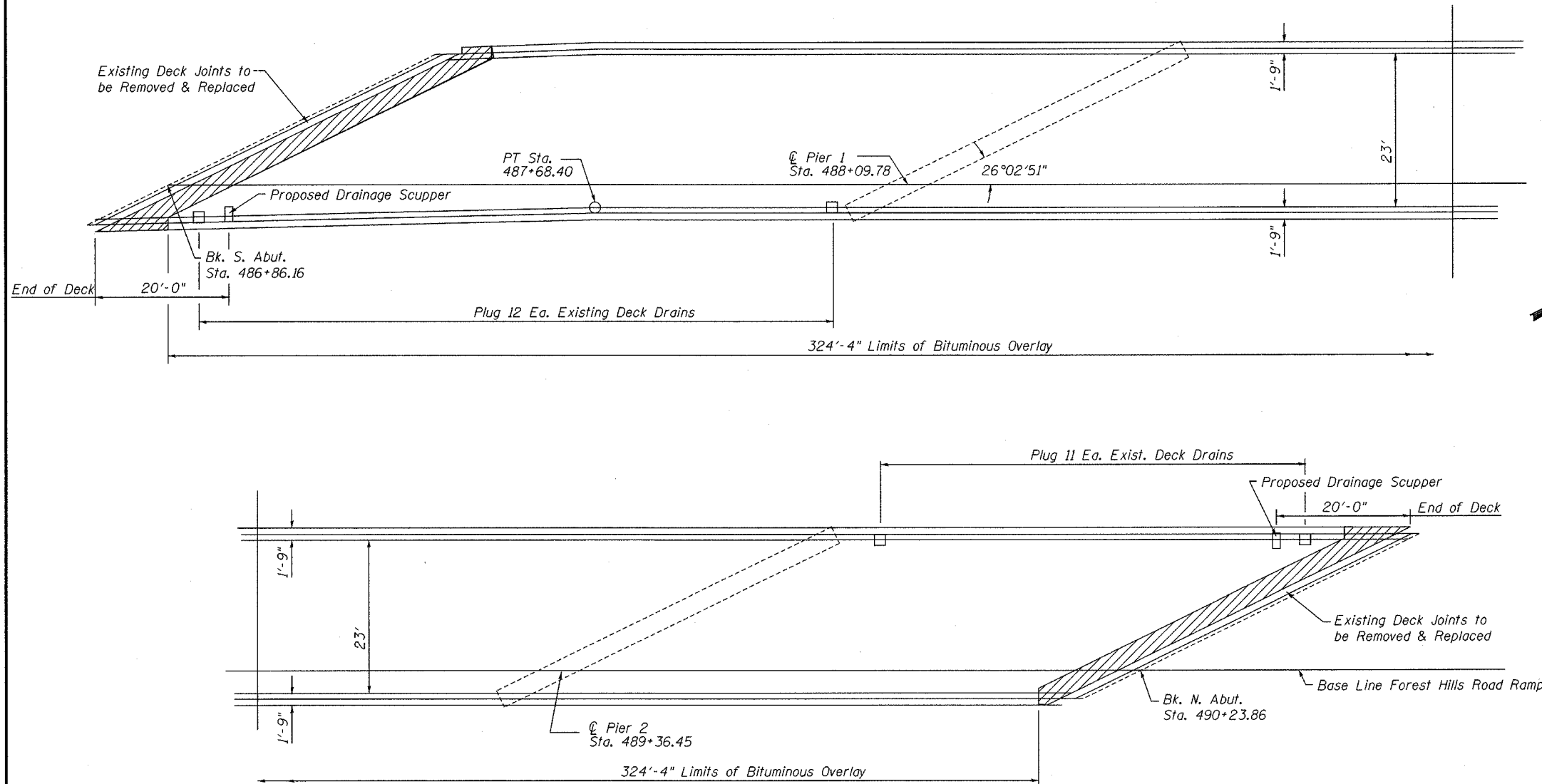
Scott Brown 03/01/05  
LICENSE EXPIRES 11/30/2006

GENERAL PLAN AND ELEVATION  
Forest Hills Road Ramp Over  
F.A.P. 303 & F.A.P. 738 (IL 251)  
SECTION (5VB,5HB,1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0123

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO. 2
S.R.L. 173	*	Winnebago	36	28	8 SHEETS
F.A.P.					
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

\* Section (5VB,5HB,1-2HB)M Contract #64A88



PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	28	#9	28'-10"	—
a <sub>1</sub> (E)	6	#9	16'-9"	—
a <sub>2</sub> (E)	16	#5	37'-2"	—
a <sub>3</sub> (E)	16	#5	31'-1"	—
a <sub>4</sub> (E)	8	#6	32'-5"	—
a <sub>5</sub> (E)	8	#6	29'-5"	—
a <sub>6</sub> (E)	16	#5	2'-0"	—
b(E)	10	#8	34'-0"	—
b <sub>1</sub> (E)	4	#8	32'-8"	—
b <sub>2</sub> (E)	6	#8	31'-3"	—
b <sub>3</sub> (E)	4	#8	19'-3"	—
b <sub>4</sub> (E)	4	#8	14'-9"	—
b <sub>5</sub> (E)	7	#5	32'-1"	—
b <sub>6</sub> (E)	4	#5	30'-7"	—
b <sub>7</sub> (E)	6	#5	29'-5"	—
b <sub>8</sub> (E)	4	#5	19'-3"	—
b <sub>9</sub> (E)	4	#5	14'-3"	—
d(E)	22	#4	3'-10"	—
d <sub>1</sub> (E)	8	#5	2'-6"	—
d <sub>2</sub> (E)	14	#5	3'-3"	—
d <sub>3</sub> (E)	641	#5	2'-0"	—
u(E)	208	#5	3'-7"	—
u <sub>1</sub> (E)	118	#5	3'-3"	—

Item	Unit	Quantity
Reinforcement Bars, Epoxy Coated	Pound	10430
Concrete Superstructure	Cu. Yd.	28.7
Concrete Removal	Cu. Yd.	25.9
Formed Concrete Repair (depth equal to or less than 5")	Sq. Ft.	1450
Sheet Waterproof Memb. System	Sq. Yd.	847
Bit. Conc. Surf. Cse., Superpave Mix. D, N90	Ton	95
Plug Existing Deck Drains	Each	23
Protective Shield	Sq. Yd.	240

Reinforcement bars designated (E) shall be epoxy coated.

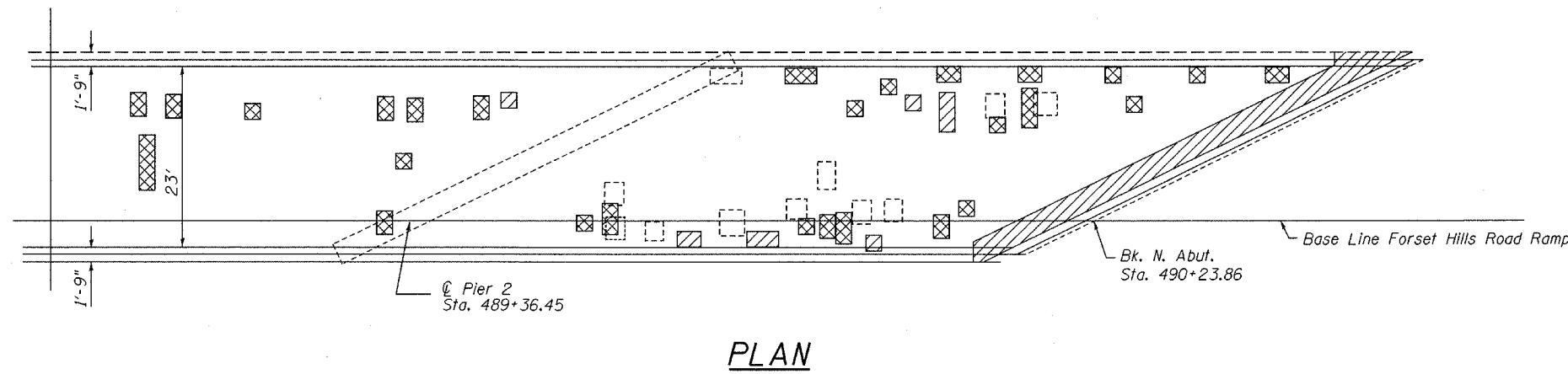
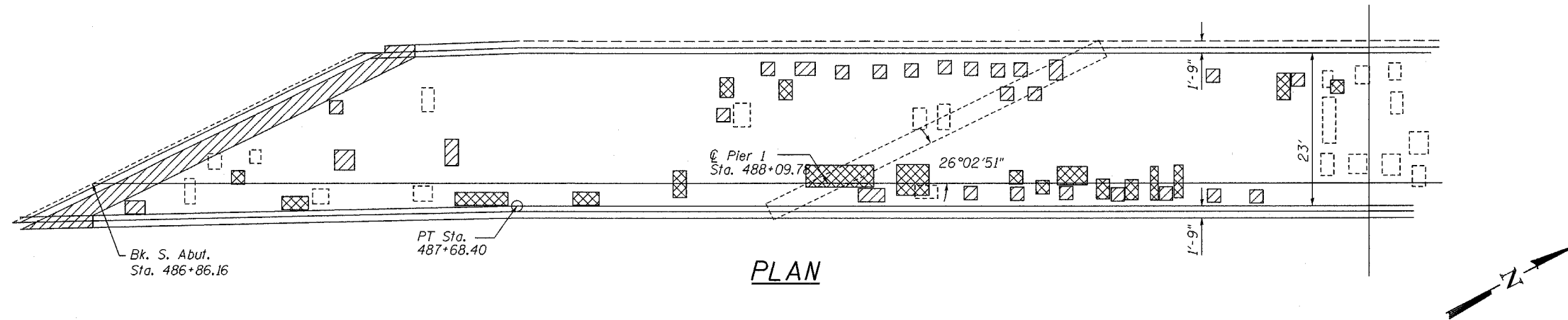
DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

DECK PLAN  
Forest Hills Road Ramp Over  
F.A.P. 303 & F.A.P. 738 (IL 251)  
SECTION (5VB,5HB,1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0123

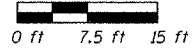
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. <u>3</u>
S.D.L.	*	Winnebago	36	29	<u>8</u> SHEETS
F.A.P.					
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

\* Section (5VB,5HB,1-2HB)M Contract #64A88



- Deck Slab Repair (Partial)
- Deck Slab Repair (Full Depth)
- Existing Deck Slab Repair



DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Deck Slab Repair (Partial)	Sq. Yd.	80
Deck Slab Repair (Full Depth, Type 1)	Sq. Yd.	25
Deck Slab Repair (Full Depth, Type 2)	Sq. Yd.	13

Deck Survey Date: October 15, 2004

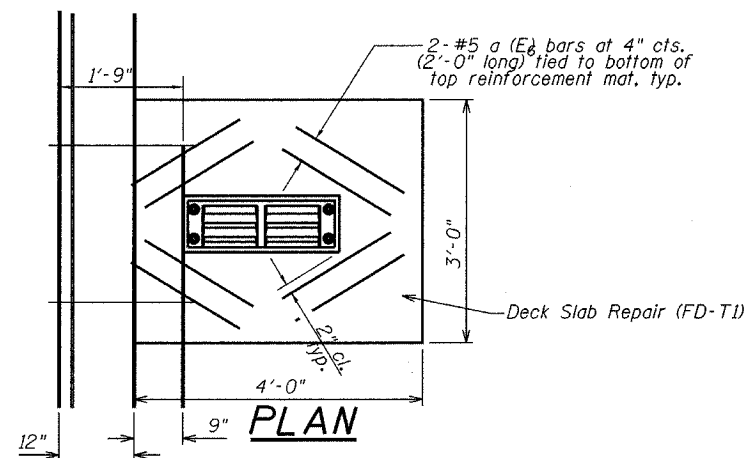
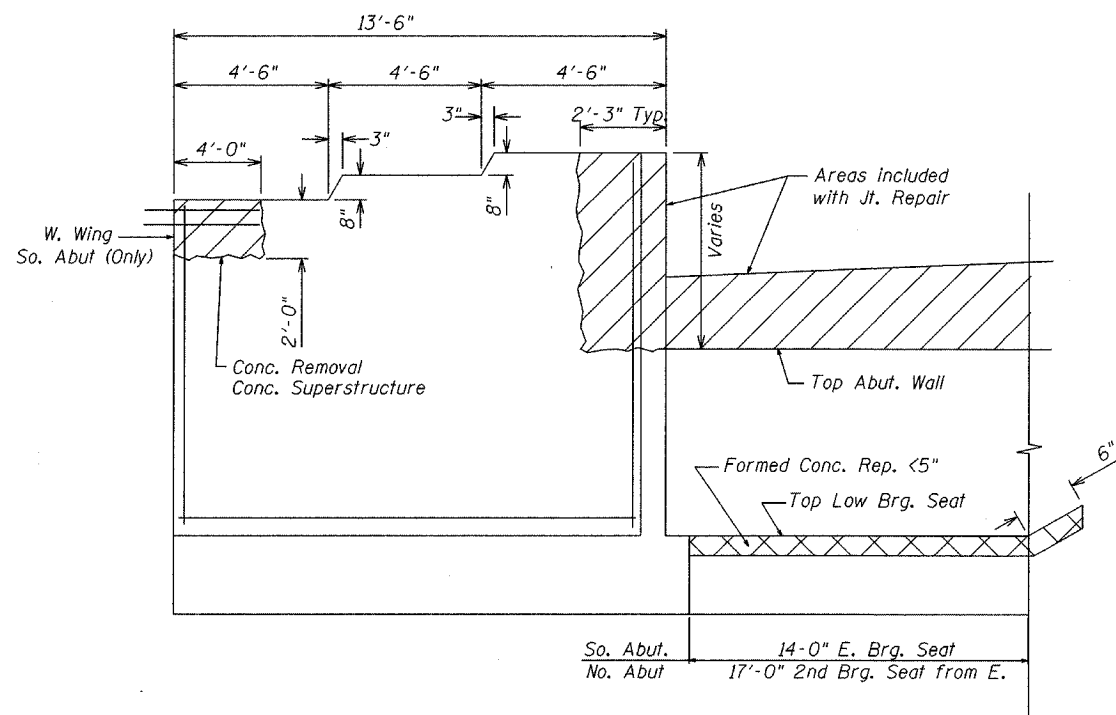
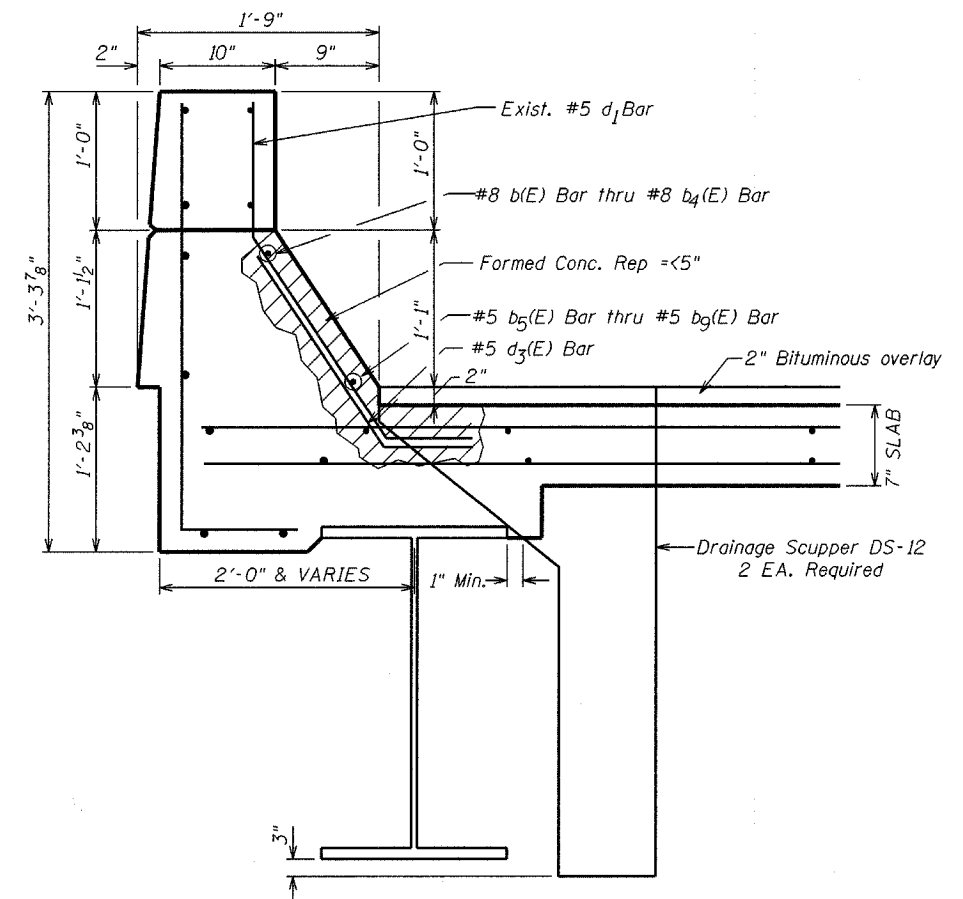
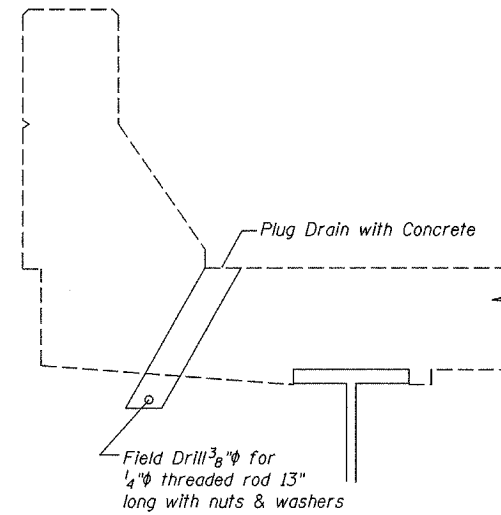
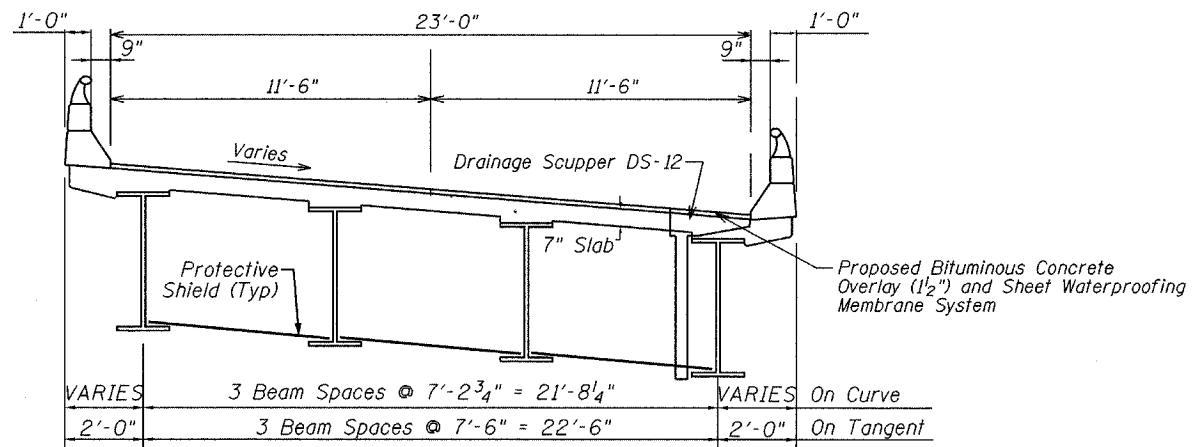
**NOTES:**  
The plan quantities for Deck Slab Repair (Partial and Full Depth) are estimated quantities from a deck survey provided by others. The areas shown on the deck repair plans for each structure are potential areas of Deck Slab Repair. The Deck Slab Repair quantities in Bills of Material are included as contingencies to be used as directed by the engineer during construction. The actual locations and quantity of Deck Slab Repair on all structures shall be determined by the resident engineer in the field. Actual repair locations shall be shown on the same as-built plans.

**DECK REPAIR PLAN**  
Forest Hills Road Ramp Over  
F.A.P. 303 & F.A.P. 738 (IL 251)  
SECTION (5VB,5HB,1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0123

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 4
S.B.I. 173	*	Winnebago	36	30	8 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

\* (5VB, 5HB, 1-2HB)M Contract #64A88

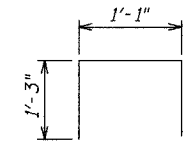
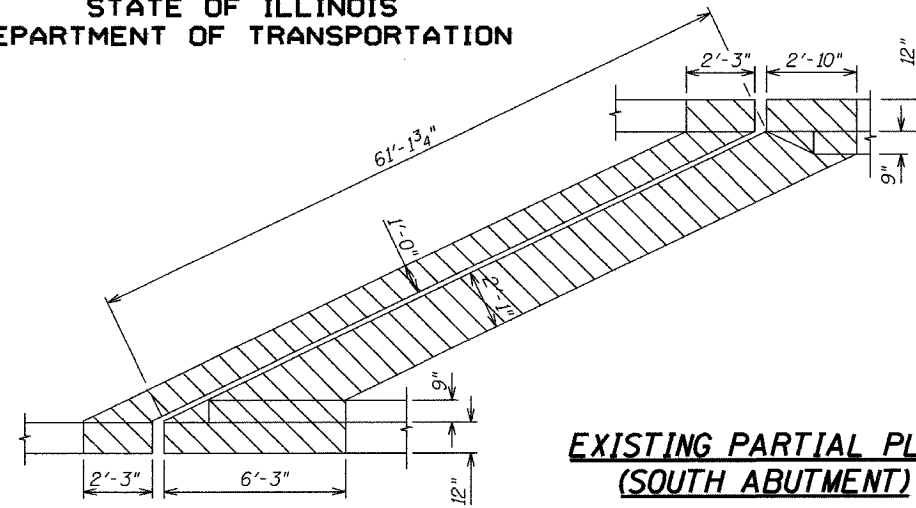
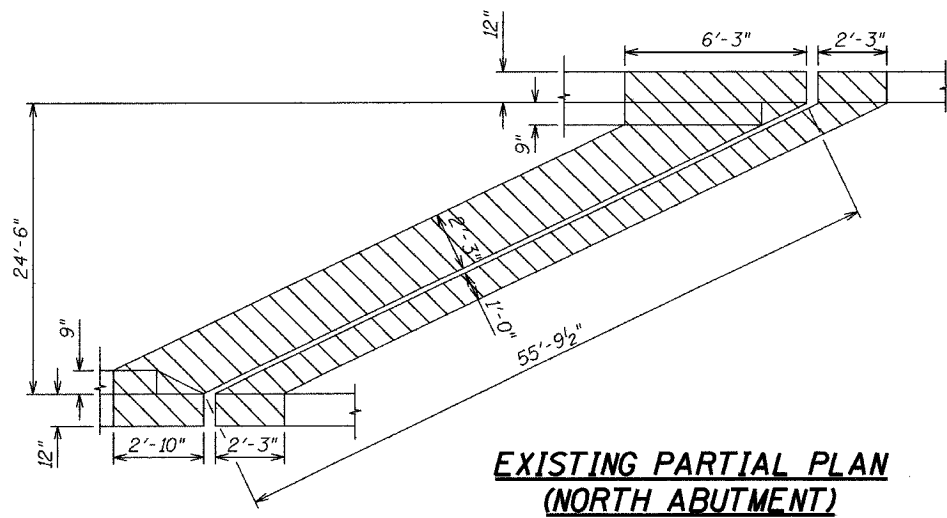


DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

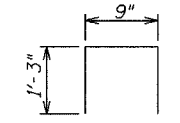
DECK CROSS SECTION &  
SCUPPER DETAILS  
S.B.I. Rte. 173 OVER  
F.A. Rte. 188  
SECTION D-2 JOINT REPAIRS 2004-1  
WINNEBAGO COUNTY  
SN 101-0123

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

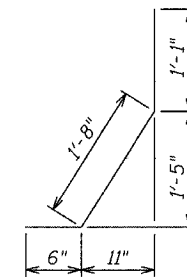
ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
F.A.P.	*	Winnebago	36	31
SHEETS				
* Section (5VB,5HB,1-2HB)M Contract #64A88				



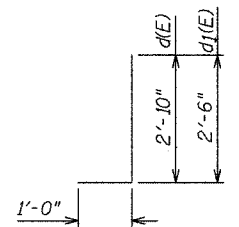
#5 u(E) Bar



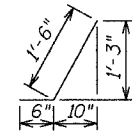
#5 u1(E) Bar



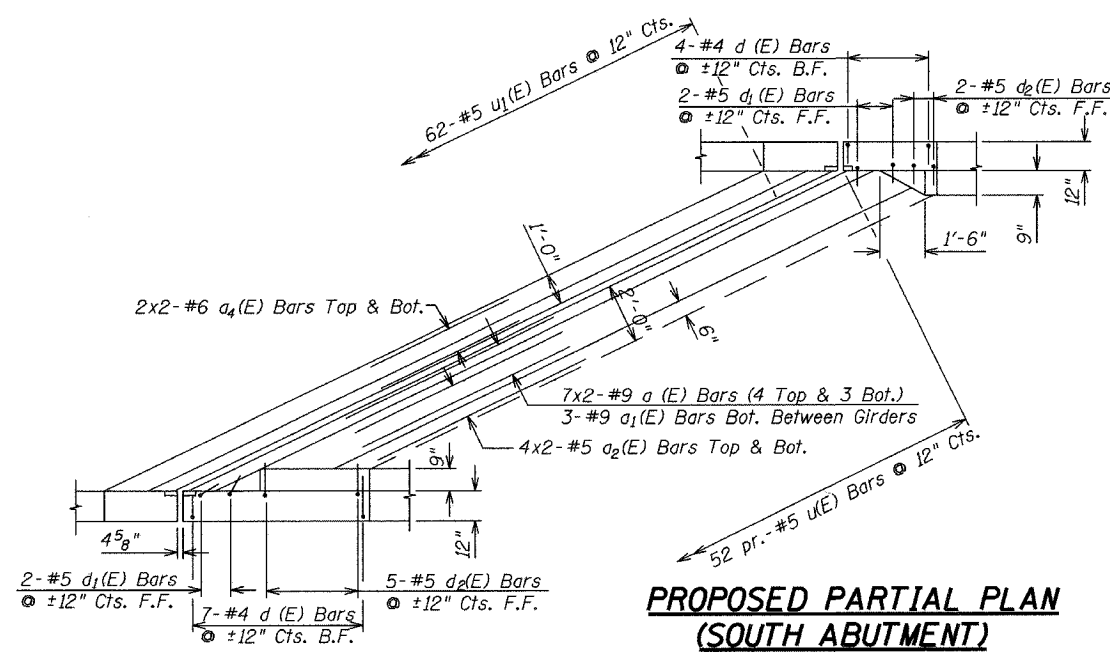
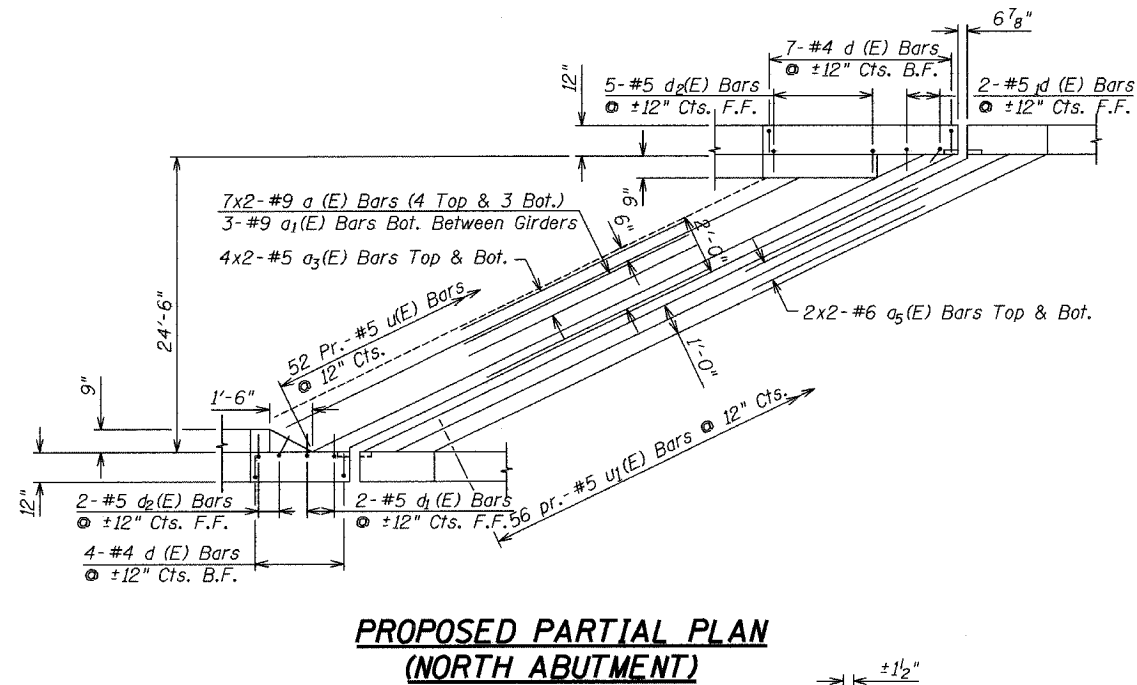
#5 d2(E) Bar



#4 d(E) Bar  
#5 d1(E) Bar

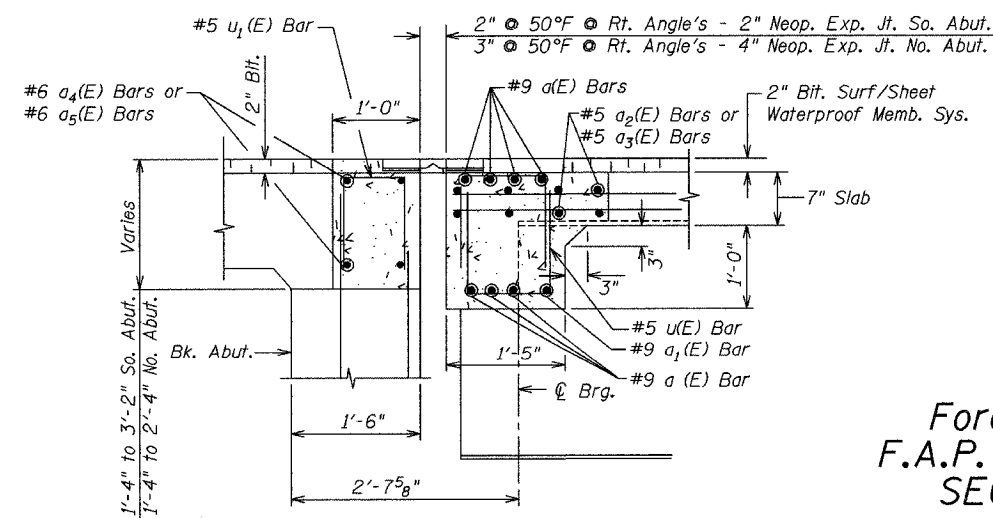
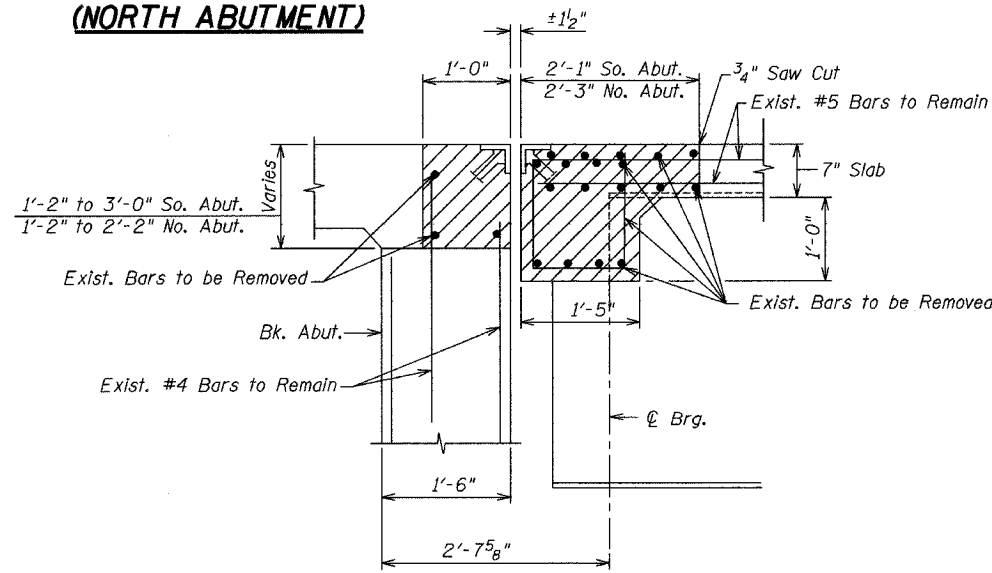


#5 d3(E) Bar



PROPOSED PARTIAL PLAN  
(NORTH ABUTMENT)

PROPOSED PARTIAL PLAN  
(SOUTH ABUTMENT)



Min. Bar Lap

#5	2'-5"
#6	2'-10"
#8	5'-1"
#9	6'-4"

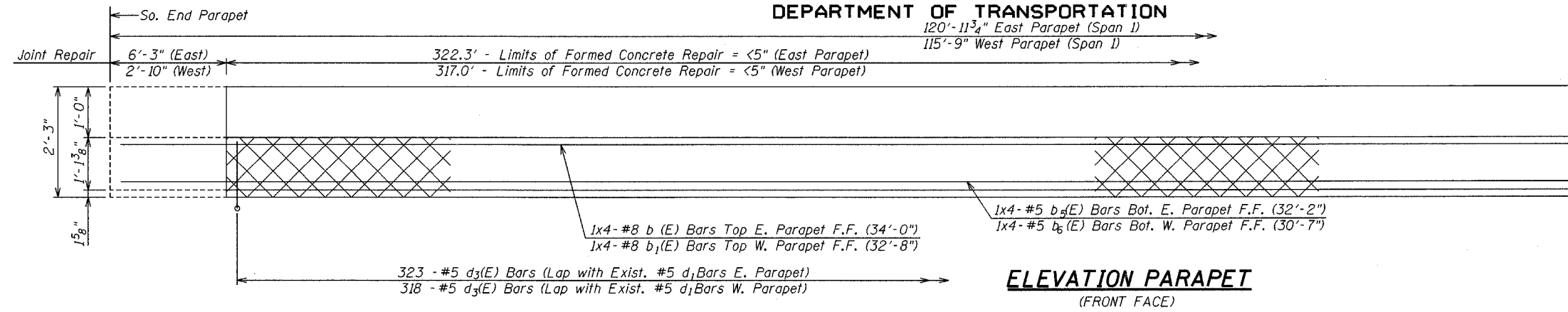
JOINT DETAILS  
Forest Hills Road Ramp Over  
F.A.P. 303 & F.A.P. 738 (IL 251)  
SECTION (5VB,5HB,1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0123

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

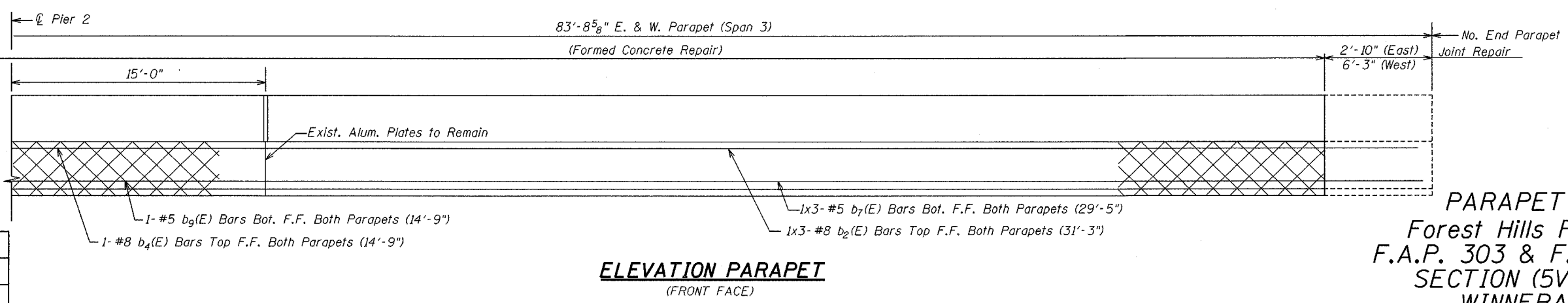
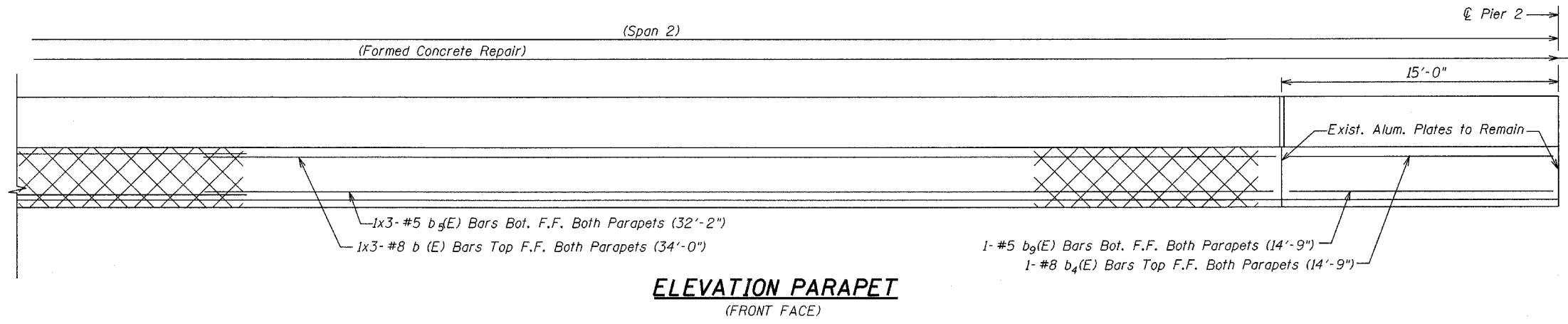
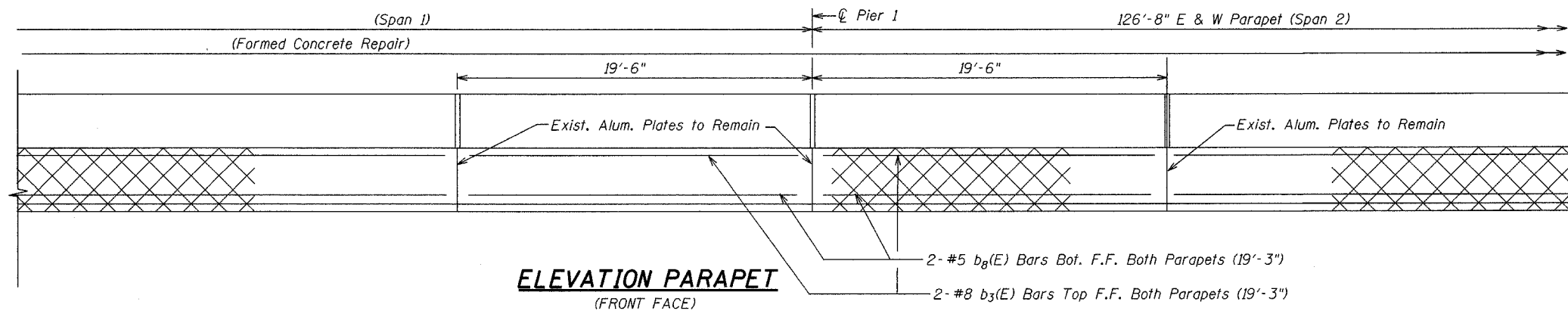
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6
F.A.P.	*	Winnebago	36	32	8 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

\* Section (5VB,5HB,1-2HB)M Contract #64A88



Formed Concrete Repair Depth less than 5"

Note:  
See sheet 3 of 8 for typical section thru parapet.



DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

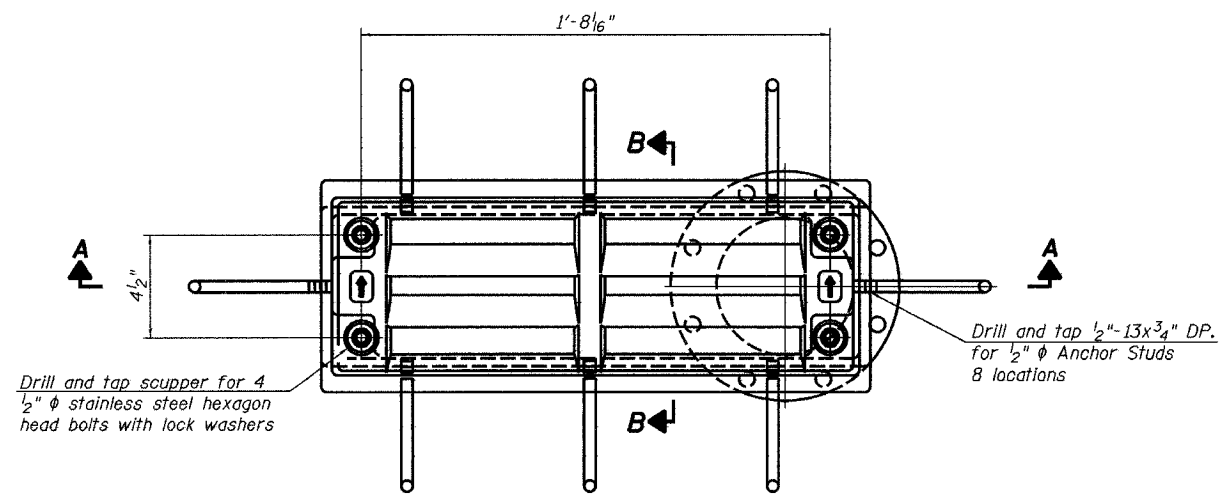
**PARAPET DETAILS**  
Forest Hills Road Ramp Over  
F.A.P. 303 & F.A.P. 738 (IL 251)  
SECTION (5VB,5HB,1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0123



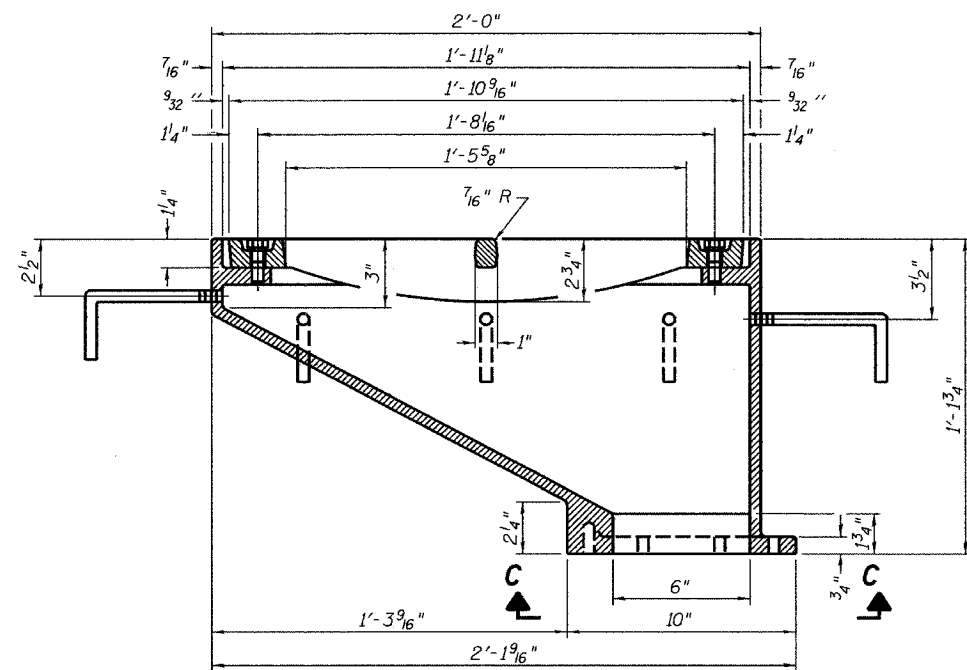
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO.
A.S.P. 173	*	Winnebago	36	33	8 SHEETS
F.A.P. 173					
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

\* Section (5VB,5HB,1-2HB)M Contract #64A88

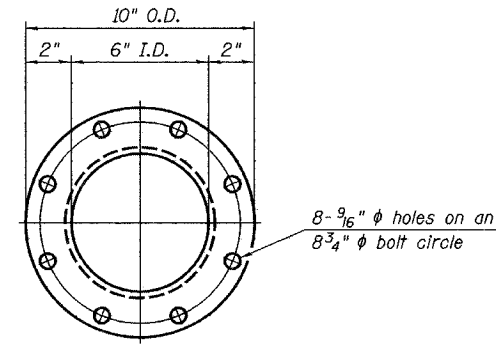


PLAN

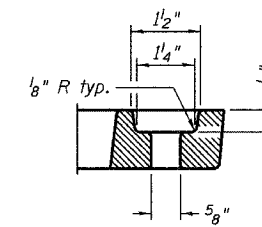


SECTION A-A

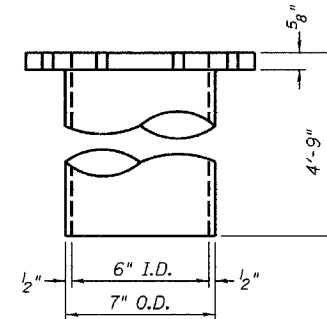
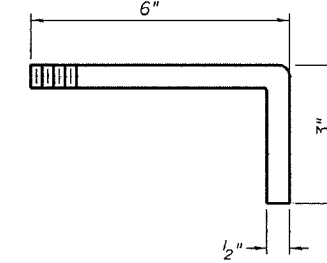
See sheet 4 of 8 for scupper location relative to parapet.



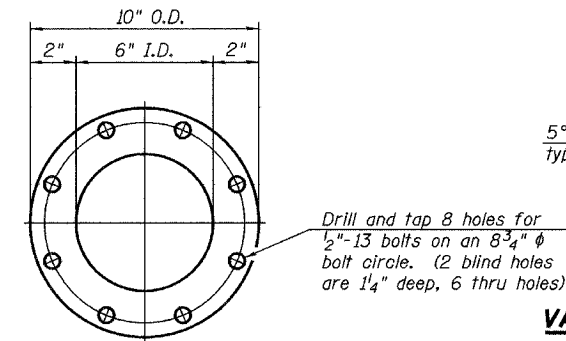
BOLT HOLE DETAIL



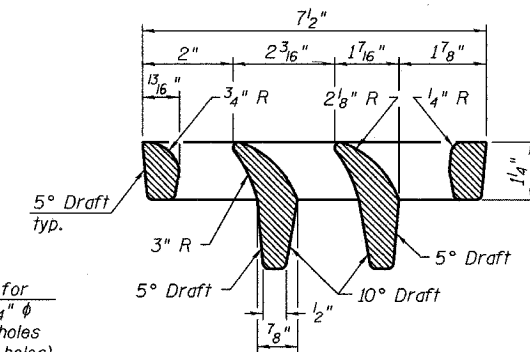
ANCHOR STUD DETAIL



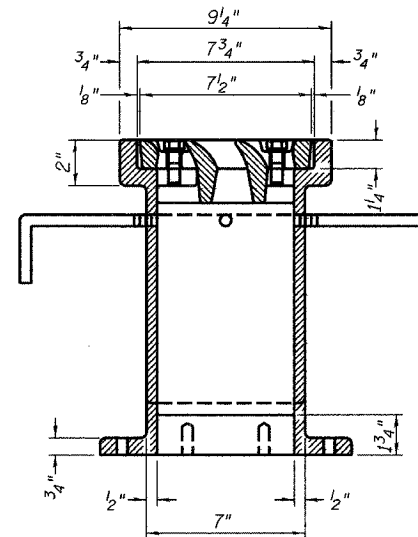
DOWNSPOUT



VIEW C-C



VANE GRATE DETAIL



SECTION B-B

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	2

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

DRAINAGE SCUPPER, DS-12  
Forest Hills Road Ramp Over  
F.A.P. 303 & F.A.P. 738 (IL 251)  
SECTION (5VB,5HB,1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0123

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	JOB SHEETS	SHEET NO.	SHEET NO. 8
S.B.L.	*	Winnebago	36	34	8 SHEETS
F.A.L.					

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT Contract #64A88

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1 1/2" Min.
2 1/2"	2 1/2"	1 3/4" Min.
4"	3"	2 1/2" Min.

**GENERAL NOTES**

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.

The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.

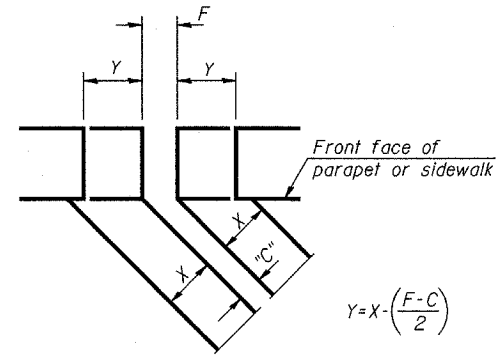
**INSTALLATION NOTES**

- Install continuous seal in roadway, parapet, curb, and sidewalk.
- Install anchor blocks as indicated.

Note A:  
Maximum spacing of anchor bolts shall be 12" centers.

**SKREW LIMITATIONS**

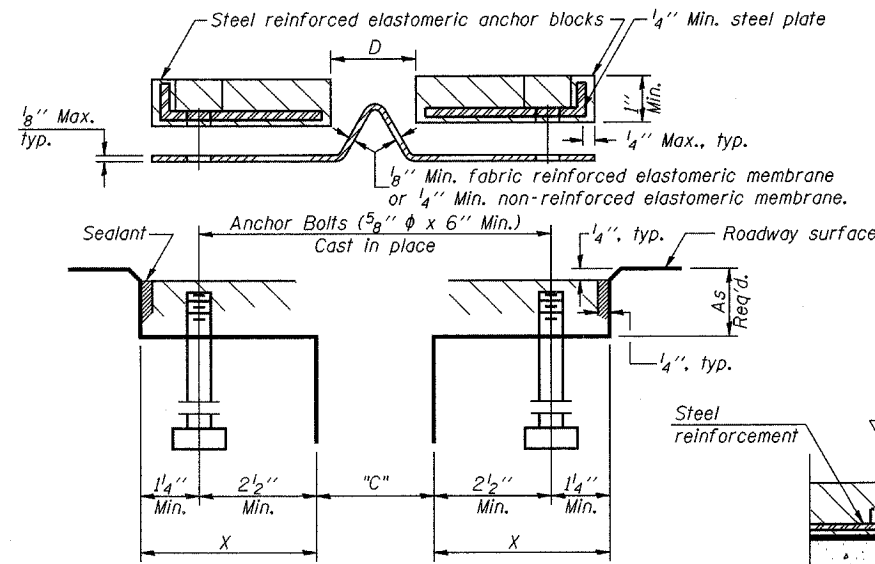
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews. For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



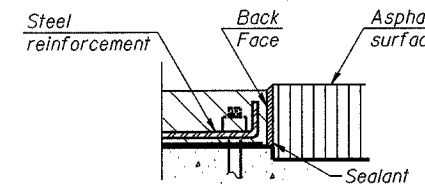
$$Y = X \cdot \left( \frac{F - C}{2} \right)$$

For dimension "F" see sheet #5

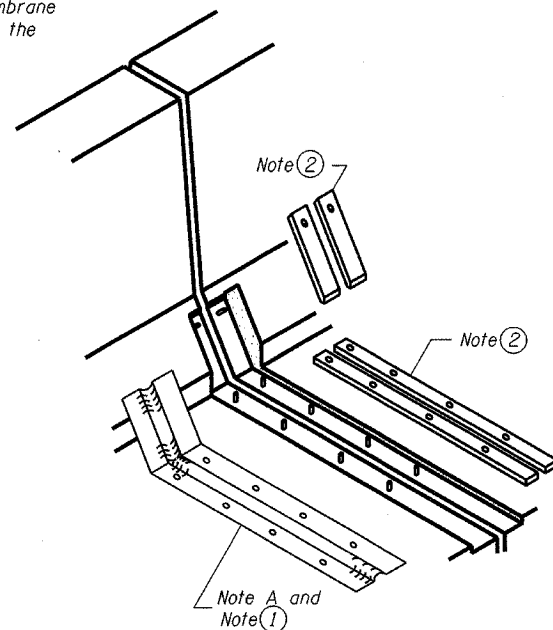
**FORMING BLOCKOUT SKETCH**



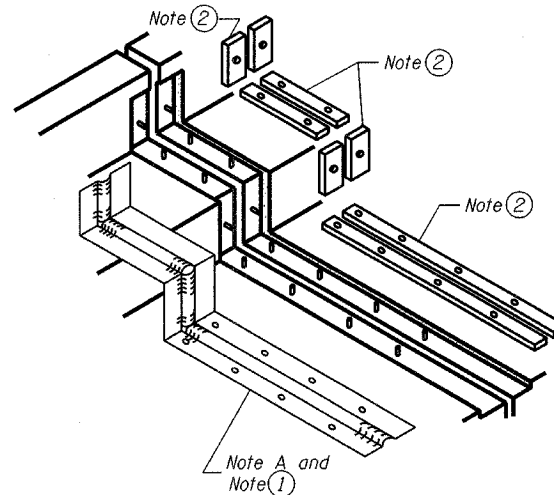
**CROSS SECTION**



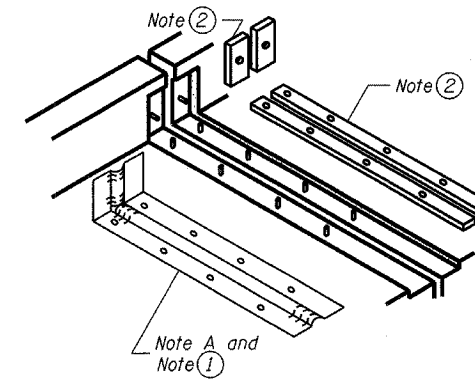
**ANCHOR BLOCK WITH ASPHALT SURFACE**



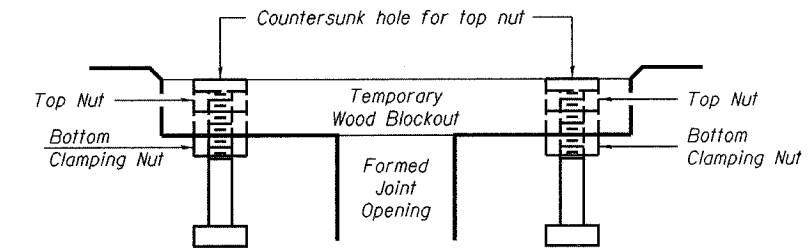
**AT PARAPET**



**AT SIDEWALK OR MEDIAN**



**AT WALL**



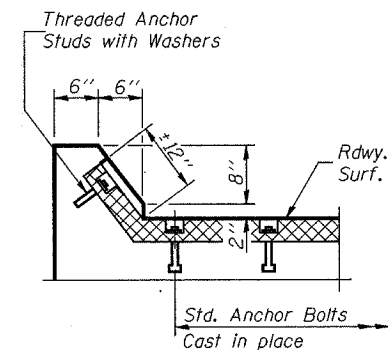
Note:  
Stud needs to be threaded lower to allow for use of clamping nut.

Anchor studs should be stainless

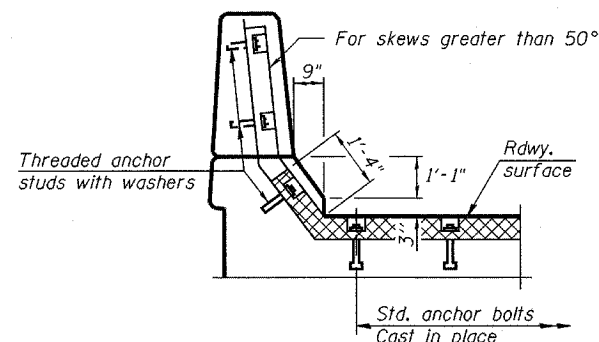
**RECOMMENDED BLOCKOUT DETAIL**

**BILL OF MATERIAL**

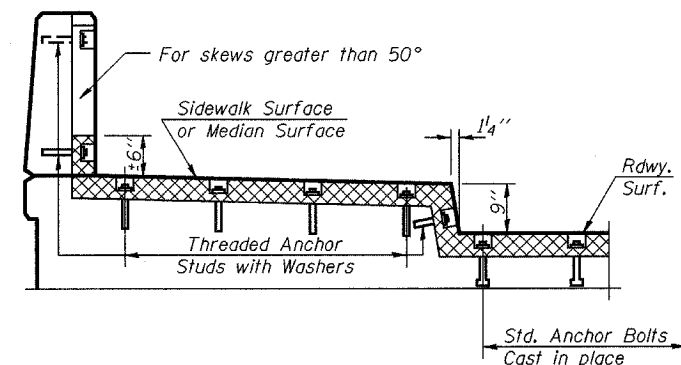
ITEM	UNIT	TOTAL
Neoprene Exp. Jt., 2"	Foot	63
Neoprene Exp. Jt., 4"	Foot	58



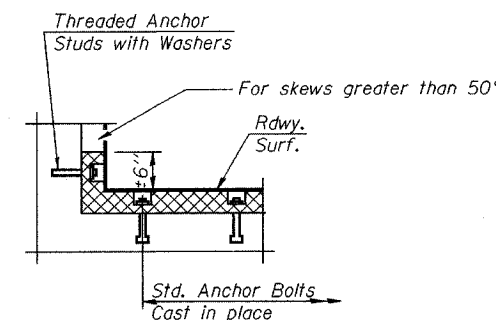
**AT CURB**



**AT PARAPET**



**AT SIDEWALK OR MEDIAN TYPICAL END TREATMENTS**



**AT WALL**

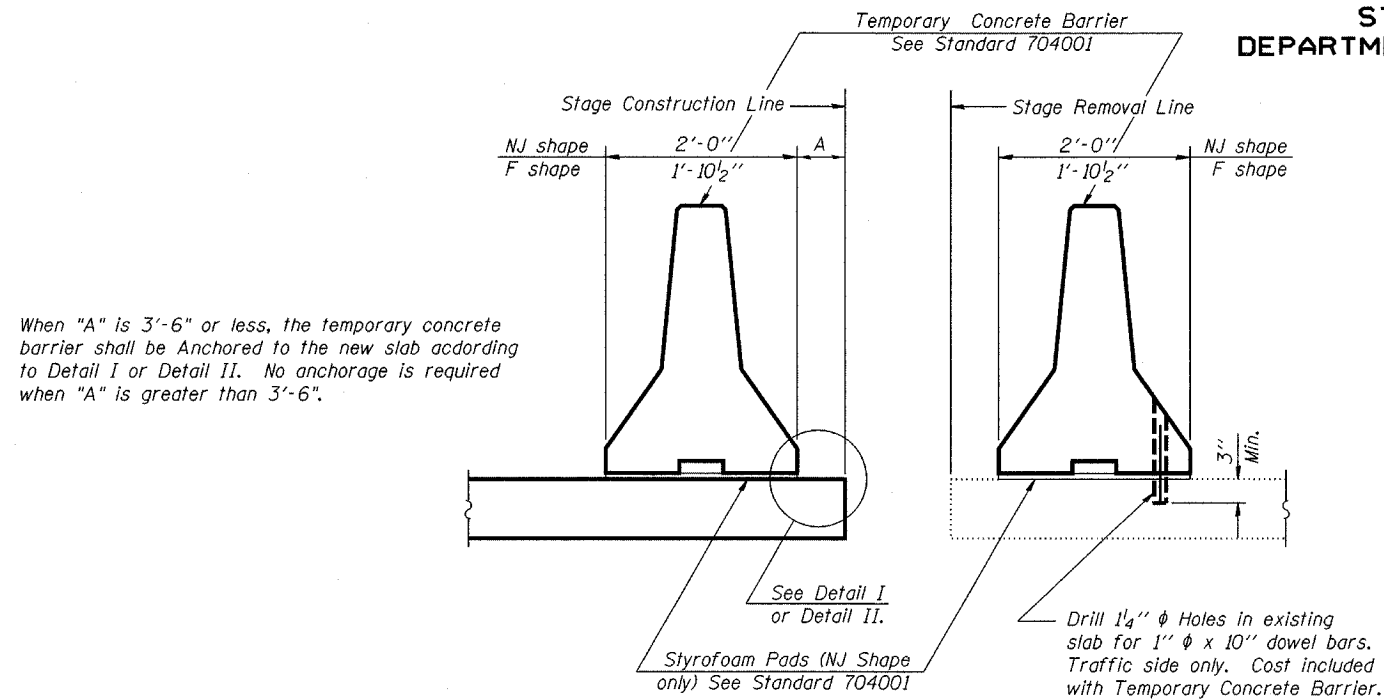
DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB

**CONTINUOUS SEAL TYPE NEOPRENE EXPANSION JOINTS**  
Forest Hills Road Ramp Over  
F.A.P. 303 & F.A.P. 738 (IL 251)  
SECTION (5VB,5HB,1-2HB)M  
WINNEBAGO COUNTY  
SN 101-0123

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.D.L. F.A.P.	*	Winnebago	36	35
FED. ROAD DIST. NO. 7		BLINDS	FED. AID PROJECT	

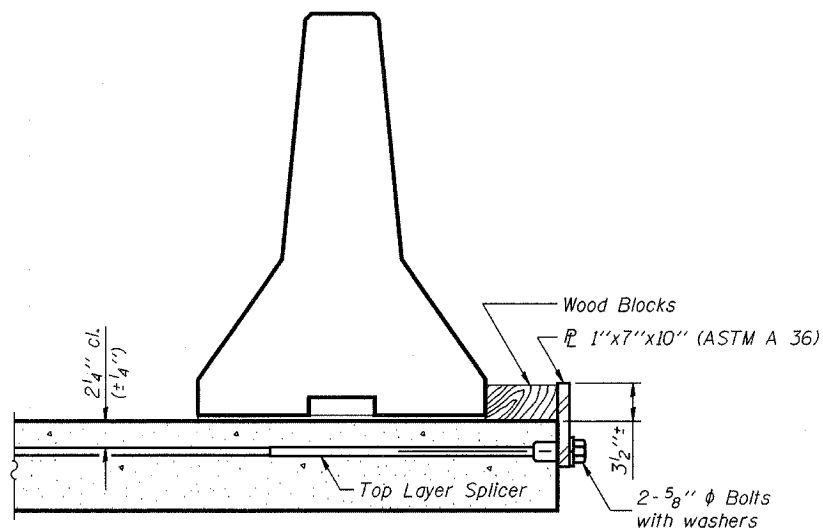
\* Section (5VB, 5HB, 1-2HB)M **LA88**



NEW SLAB

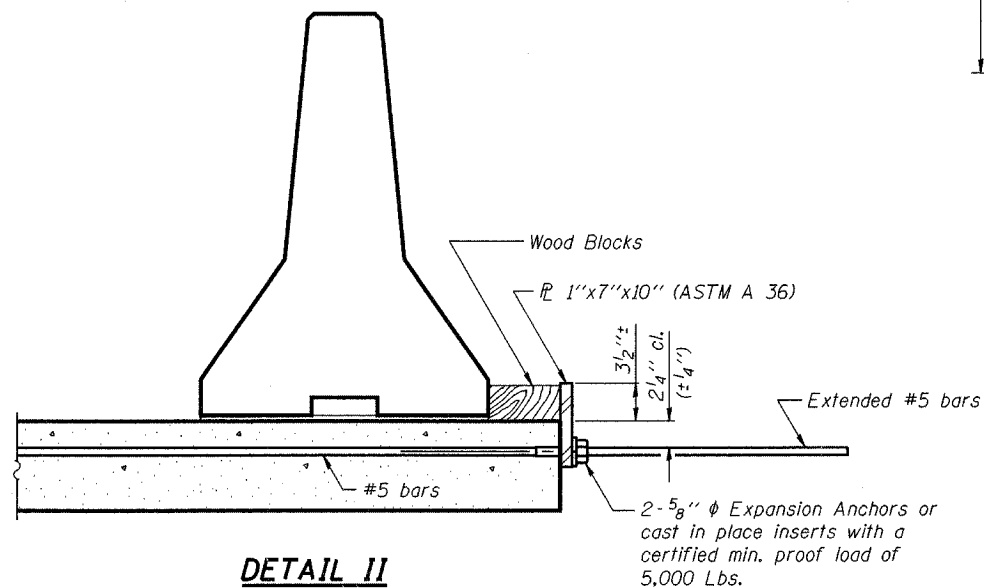
EXISTING SLAB

SECTIONS THRU SLAB



DETAIL I

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.

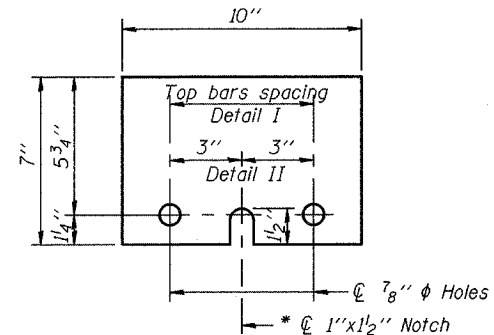


DETAIL II

The 1"x7"x10" 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.

NOTES

- Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1"x7"x10" steel  $\bar{L}$  to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.
  - Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1"x7"x10" steel  $\bar{L}$  to the concrete slab with 2-5/8"  $\phi$  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.



1" x 7" x 10"

\* Required only with Detail II

DESIGNED
CHECKED
DRAWN
CHECKED

R-27

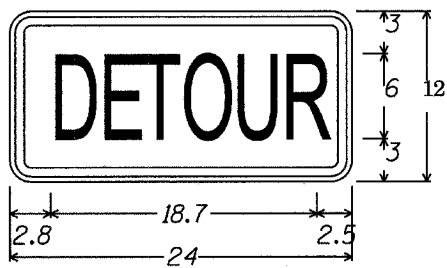
10-31-02

**TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION**  
F.A.P. Route 303 & F.A.P. Route 738  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY

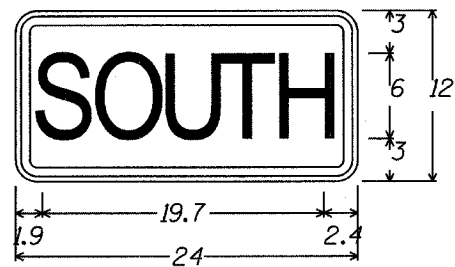
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	*	Winnebago	36	36
F.R.D.		ILLINOIS FED. AID PROJECT		

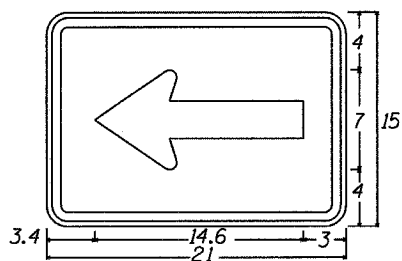
# (5VB, 5HB, 1-2HB)M CONTRACT #64A88



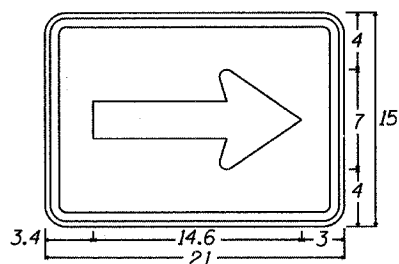
M4-8 STD;  
1.5" Radius, 0.6" Border, 0.4" Indent, Black on Orange;  
[DETOUR] B 80φ spacing;



M3-3 MIN & STD;  
1.5" Radius, 0.6" Border, 0.4" Indent, Black on White;  
[SOUTH] C 80φ spacing;

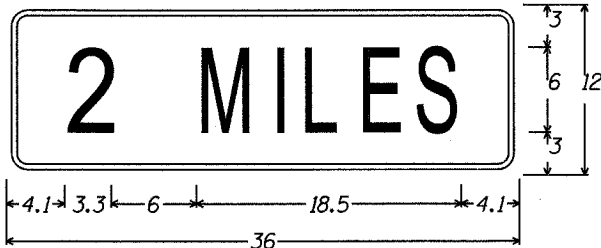


M6-1L;  
1.5" Radius, 0.6" Border, 0.4" Indent, Black on Orange;  
Standard Arrow Custom 14.6" X 7.0" 180L;



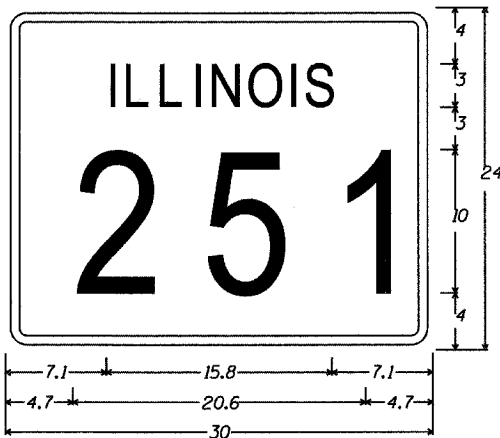
M6-1R;  
1.5" Radius, 0.6" Border, 0.4" Indent, Black on Orange;  
Standard Arrow Custom 14.6" X 7.0" 0L;

DESIGNED	SB, DP
CHECKED	SB
DRAWN	BH, BS
CHECKED	SB



1.5" Radius, 0.4" Border, 0.4" Indent, Black on Orange;  
[2 MILES] C;  
Table of letter and object lefts.

2	M	I	L	E	S
4.1	13.4	18.5	20.6	24.6	28.6



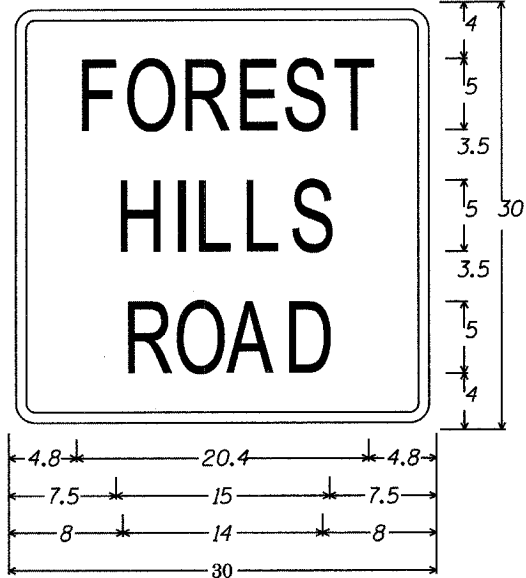
1.5" Radius, 0.6" Border, 0.4" Indent, Black on White;  
[ILLINOIS] D; [251] D;  
Table of letter and object lefts.

I	L	L	I	N	O	I	S
7.1	8.2	10.6	13.0	14.2	16.9	19.7	20.9
2	5	1					
4.7	13.8	22.9					



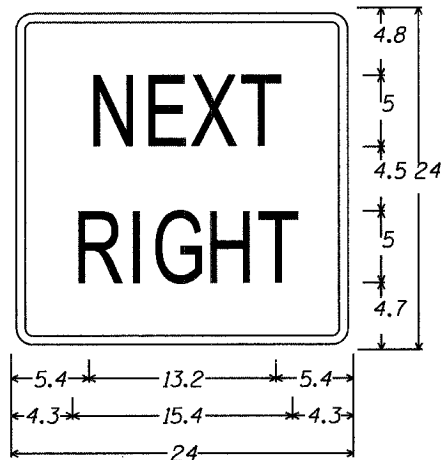
1.5" Radius, 0.4" Border, 0.4" Indent, Black on Orange;  
[FOREST HILLS] C; [ROAD] C;  
Table of letter and object lefts.

F	O	R	E	S	T	H	I	L	L	S
3.8	7.1	11.1	14.8	18.2	21.8	29.3	33.1	34.8	38.2	41.5
R	O	A	D							
17.0	20.6	24.3	28.3							



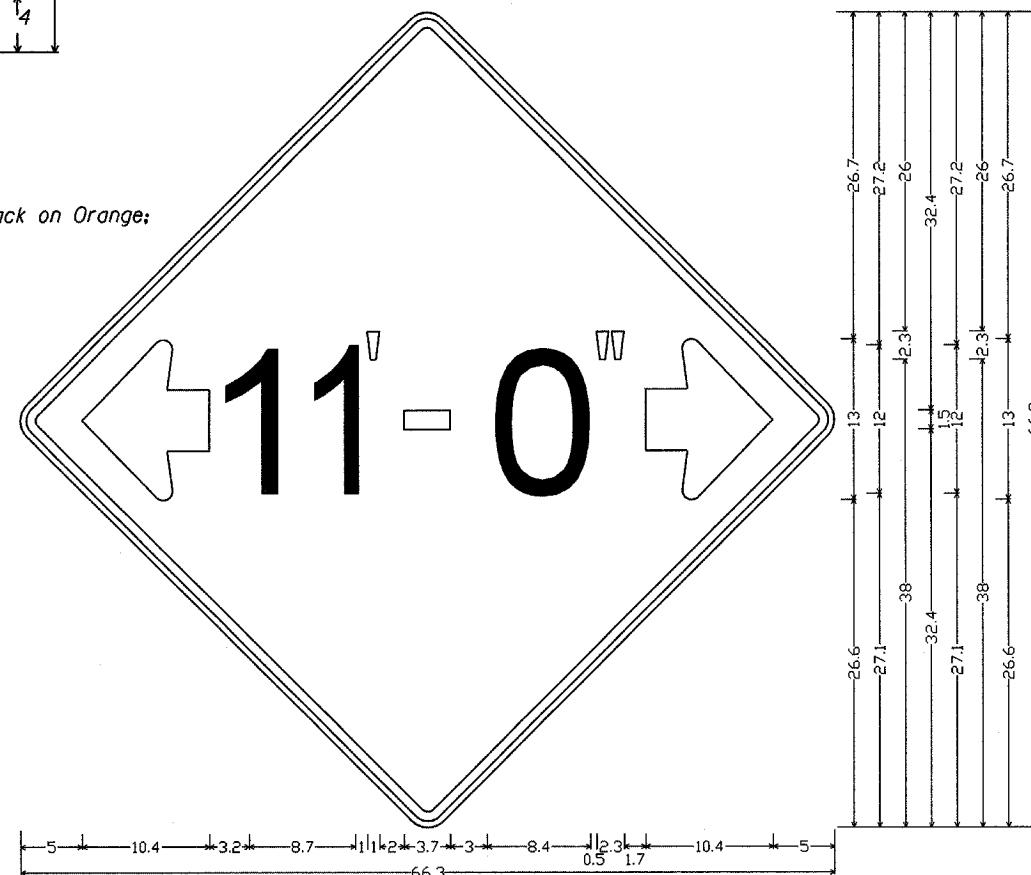
1.9" Radius, 0.8" Border, 0.5" Indent, Black on Orange;  
[FOREST] C; [HILLS] C; [ROAD] C;  
Table of letter and object lefts.

F	O	R	E	S	T
4.8	8.1	12.0	15.8	19.2	22.7
H	I	L	L	S	
7.5	11.3	13.1	16.4	19.7	
R	O	A	D		
8.0	11.6	15.3	19.3		



1.5" Radius, 0.6" Border, 0.4" Indent, Black on Orange;  
[NEXT] C; [RIGHT] C;  
Table of letter and object lefts.

N	E	X	T	
5.4	9.2	12.6	16.1	
R	I	G	H	T
4.3	8.1	9.8	13.6	17.2



W12-2 - Horizontal Clearance Sign; 48.0" across sides 1.9" Radius, 0.8" Border, 0.5" Indent, Black on Orange;  
Standard Arrow Custom 10.4" X 8.1" 180( Black; [11] D; [0] D; Standard Arrow Custom 10.4" X 8.1" 0;

TRAFFIC SIGNAGE DETAILS  
SECTION (5VB, 5HB, 1-2HB)M  
WINNEBAGO COUNTY