

66728

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	(6B-1)I	GRUNDY	29	1
FED. ROAD DIST. NO.		ILLINOIS		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.P ROUTE 846 (IL 53)
SECTION (6B-1)I

GRUNDY COUNTY
C-93-085-07
BRIDGE REPAIR

INDEX OF SHEETS

- 1. COVER SHEET
- 2 - 3. GENERAL NOTES
- 4 - 7. SUMMARY OF QUANTITIES
- 8. TYPICAL SECTION
- 9. STAGING - STAGE I
- 10. STAGING - STAGE II
- 11. WIDTH RESTRICTION SIGNING
- 12. PAVEMENT MARKING DETAILS
- 13. SOUTH APPROACH DETAILS
- 14. NORTH APPROACH DETAILS
- 15. PLAN AND ELEVATION
- 16. SUPERSTRUCTURE DETAILS
- 17. DECK DRAIN DETAILS
- 18. DECK SLAB REPAIR
- 19. CONCRETE REMOVAL
- 20. CONCRETE SUPERSTRUCTURE
- 21. BAR SPLICER ASSEMBLY
- 22. PREFORMED JOINT STRIP SEAL
- 23. FRAMING PLAN
- 24. STRUCTURAL STEEL DETAILS
- 25. ELASTOMERIC BEARING DETAILS
- 26 - 28. STRUCTURAL REPAIR OF CONCRETE
- 29. SLOPE WALL REPAIR

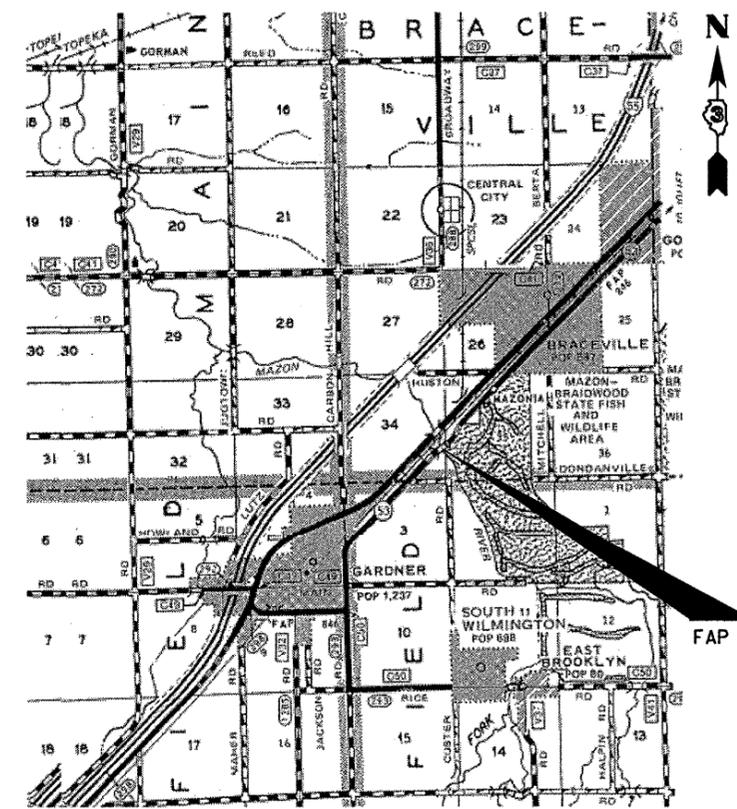
STANDARDS

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-01 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 482006-03 HMA SHOULDER ADJACENT TO RIGID PAVEMENT
- 630001-07 STEEL PLATE BEAM GUARDRAIL
- 631031-06 TRAFFIC BARRIER TERMINAL, TYPE 6
- 635006-02 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-01 REFLECTOR MARKER AND MOUNTING DETAILS
- 701001-01 OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 4.5 m (15') AWAY
- 701006-02 OFF-ROAD OPERATIONS 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
- 701011-01 OFF-ROAD MOVING OPERATIONS 2L, 2W, DAY ONLY
- 701201-02 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS P 45 MPH
- 701206-01 LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS P 45 MPH
- 701301-02 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-02 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
- 701316-03 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR, FOR SPEEDS P 45 MPH
- 701901 TRAFFIC CONTROL DEVICES

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

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

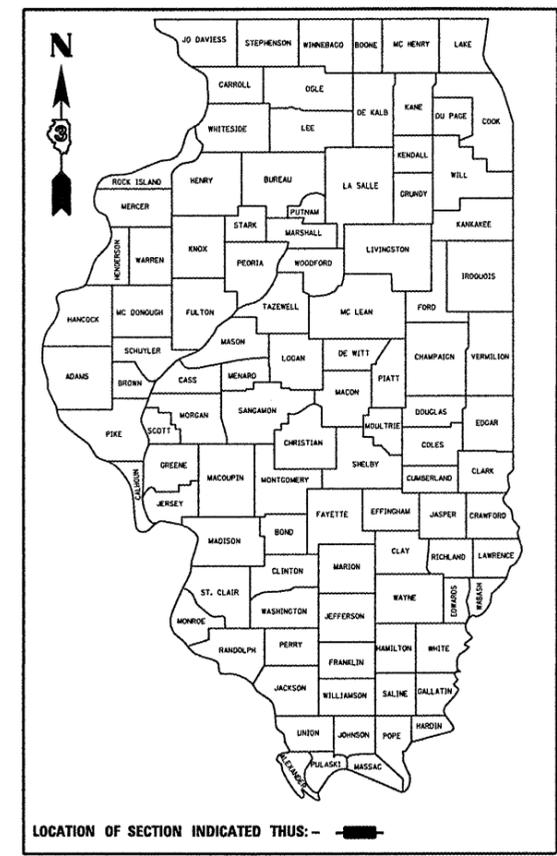
DISTRICT 3 NO. (815) 434-6131
PROJECT ENGINEER: JOE KANNEL
UNIT CHIEF: RON WOODSHANK
CONTRACT NO. 66728



PROJECT LOCATION
FAP 846 (IL 53) OVER THE MAZON RIVER
1.3 MILES NORTH OF GARDNER
S.N. 032-0023
STA. 157+96.16

LOCATION MAP
NOT TO SCALE
POINT LOCATION

D-93-002-07



FUNCTIONAL CLASSIFICATION
RURAL - MINOR ARTERIAL
F.A.P. ROUTE 846 (IL 53)
2005 ADT = 1600
P.V = 89.3% M.U. = 1.3% S.U. = 9.4%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
SUBMITTED 04/03 20 08
George Ryan
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
May 9, 20 08
Eric E. Harms
ENGINEER OF DESIGN AND ENVIRONMENT
May 9, 20 08
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY FURNISHED BASED UPON THE UNIT BID FOR THE WORK.

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

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE "JULIE" NUMBER IS 1-800-892-0123. A MINIMUM OF FORTY-EIGHT (48) HOURS ADVANCE NOTICE IS REQUIRED.

THE COST OF ANY SAW CUTS MADE TO COMPLETE THE WORK AS DESCRIBED IN PLAN DETAILS, UNLESS OTHERWISE NOTED SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED WITH THE VARIOUS PAY REMOVAL PAY ITEMS INVOLVED.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60 (IL MODIFIED). SEE SPECIAL PROVISIONS.

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

ALL STRUCTURAL STEEL SHALL BE AASHTO M 270 GRADE 50 EXCEPT EXPANSION JOINT PLATES AND ATTACHED BARS WHICH SHALL BE AASHTO M 270 GRADE 36.

JOINT OPENINGS SHALL BE ADJUSTED ACCORDING TO ARTICLE 520.04 OF THE STANDARD SPECIFICATIONS WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50° F.

EXISTING REINFORCEMENT BARS EXTENDING INTO REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

CALCULATED WEIGHT OF STRUCTURAL STEEL = 7010 POUNDS

DATE: 4-2-2008

PREPARED BY: *Rick Auweller*
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: *[Signature]*
DISTRICT CONSTRUCTION ENGINEER

Wayne L. Phillips
DISTRICT MATERIALS ENGINEER

Bruce A. Hooker
DISTRICT OPERATIONS ENGINEER

FILE NAME = c:\projects\main\09\cm385\details.dgn	USER NAME = woodshankr1	DESIGNED - RON WOODSHANK	REVISED - 03/21/2008
		DRAWN - RON WOODSHANK	REVISED - 03/21/2008
	PLOT SCALE = 41.3612' / IN.	CHECKED - ---	REVISED - ---
	PLOT DATE = Apr 02, 2008 - 11:04:27 AM	DATE - -----	REVISED - ---

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL NOTES

SCALE: _____ SHEET NO. 1 OF 2 SHEETS STA. 571+00.67 TO STA. 573+01.17

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	(6B-III)	GRUNDY	29	2
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 66728	

GENERAL NOTES

ALL CROSS FRAMES OR DIAPHRAGMS BETWEEN BEAMS OR GIRDERS SHALL BE INSTALLED WITH ERECTION PINS AND BOLTS IN ACCORDANCE WITH THE ERECTION PLAN APPROVED BY THE ENGINEER. INDIVIDUAL CROSS FRAMES OR DIAPHRAGMS AT SUPPORTS MY BE TEMPORARILY DISCONNECTED TO INSTALL BEARING ANCHOR RODS.

PRIOR TO POURING THE NEW CONCRETE DECK, ALL HEAVY OR LOOSE RUST, LOOSE MILL SCALE, AND OTHER LOOSE OR POTENTIALLY DETRIMENTAL FOREIGN MATERIAL SHALL BE REMOVED FROM SURFACES IN CONTACT WITH CONCRETE. TIGHTLY ADHERED PAINT MAY REMAIN UNLESS OTHERWISE NOTED. REMOVAL SHALL BE ACCOMPLISHED BY METHODS THAT WILL NOT DAMAGE THE STEEL. THE COST WILL BE INCLUDED IN THE PAY ITEM FOR "CONCRETE REMOVAL".

AS DIRECTED BY THE ENGINEER, EXISTING CONSTRUCTION ACCESSORIES WELDED TO THE TOP FLANGE OF BEAMS AND GIRDERS SHALL BE REMOVED. THE WELD AREAS SHALL BE GROUND FLUSH AND INSPECTED FOR CRACKS USING MAGNETIC PARTICLE TESTING (MT) OR DYE PENETRANT TESTING (PT) BY AN INDIVIDUAL ACCEPTABLE TO THE ENGINEER. ANY CRACKS THAT CAN NOT BE REMOVED BY GRINDING 1/4" DEEP SHALL BE IDENTIFIED AND REPORTED TO THE BUREAU OF BRIDGES AND STRUCTURES FOR FURTHER DISPOSITION. THE COST OF REMOVING WELDED ACCESSORIES, GRINDING AND INSPECTING WELD AREAS AND GRINDING CRACKS SHALL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

AREAS OF EXISTING STRUCTURAL STEEL WHICH WILL COME IN CONTACT WITH NEW STEEL SHALL BE CLEANED AND PAINTED ACCORDING TO THE SPECIAL PROVISION FOR "CLEANING AND PAINTING CONTACT SURFACE AREAS OF EXISTING STEEL STRUCTURE". COST SHALL BE INCLUDED WITH "STRUCTURAL STEEL REPAIR".

THE INORGANIC ZINC RICH/ WATERBORNE ACRYLIC PAINT SYSTEM SHALL BE USED FOR PAINTING OF NEW STRUCTURAL STEEL AND CONTACT SURFACES OF EXISTING STEEL EXCEPT WHERE OTHERWISE NOTED. THE ENTIRE SYSTEM SHALL BE SHOP APPLIED, WITH THE EXCEPTION THAT MASKED OFF CONNECTION SURFACES, FIELD INSTALLED FASTENERS AND DAMAGED AREAS SHALL BE TOUCHED UP IN THE FIELD. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR STEEL SURFACES SHALL BE GRAY, MUNSELL NO. 5B 7/1. THE COLOR OF THE FINAL FINISH COAT FOR THE EXTERIOR AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE, GREEN, MUNSELL NO. 7.5G 4/8.

THE CONTRACTOR WILL BE REQUIRED TO MARK ON THE TOP OF THE CONCRETE DECK THE LOCATIONS OF THE TOP FLANGE OF ALL STEEL BEAMS PRIOR TO ANY REMOVAL OF THE BRIDGE CONCRETE DECK. SAW CUTTING DIRECTLY OVER THE TOP OF BEAM FLANGES IS NOT PERMITTED.

NO FIELD WELDING IS PERMITTED EXCEPT AS SPECIFIED IN THE CONTRACT DOCUMENTS.

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 3/4" DIA. OPEN HOLES 13/16" DIA. UNLESS OTHERWISE NOTED.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER SUPPORTS.

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		DRAWN - RON WOODSHANK	REVISED - 03/21/2008
	PLOT SCALE = 41.3612' / IN.	CHECKED - ---	REVISED - ---
	PLOT DATE = Apr 02, 2008 - 08:26:53 AM	DATE - - - - -	REVISED - - - - -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES (CONT.)

SCALE: _____ SHEET NO. 2 OF 2 SHEETS STA. 571+00.67 TO STA. 573+01.17

F.A.P. RTE. 846	SECTION (6B-11)	COUNTY GRUNDY	TOTAL SHEETS 29	SHEET NO. 3
CONTRACT NO. 66728				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE: SFTY-2A

RURAL
100% STATE
TOTAL
QUANTITY

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	56
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	60
44000198	HOT-MIX ASPHALT SURFACE REMOVAL - VARIABLE DEPTH	SQ YD	712
48101200	AGGREGATE SHOULDERS, TYPE B	TON	10
50102400	CONCRETE REMOVAL	CU YD	13.6
50104650	SLOPE WALL REMOVAL	SQ YD	17
50300255	CONCRETE SUPERSTRUCTURE	CU YD	13.9
50300501	RUBBED FINISH (MODIFIED)	SQ FT	258
50300530	FLOOR DRAIN EXTENSION	EACH	20
50300550	PROTECTIVE COAT (SPECIAL)	SQ YD	1022
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3570
50500715	JACK AND REMOVE EXISTING BEARINGS	EACH	12
50501110	STRUCTURAL STEEL REMOVAL	POUND	1950

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		DRAWN - RON WOODSHANK	REVISED - 03/21/2008
		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: _____ SHEET NO. 1 OF 4 SHEETS STA. 571+00.67 TO STA. 573+01.17

F.A.P. RTE. 846	SECTION (6B-1)I	COUNTY GRUNDY	TOTAL SHEETS 29	SHEET NO. 4
CONTRACT NO. 66728				
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				

SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE:

SFTY-2A

RURAL
100% STATE
TOTAL
QUANTITY

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
50501130	STRUCTURAL STEEL REPAIR	POUND	3440
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1360
50800515	BAR SPLICERS	EACH	18
50900905	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	20
51100300	SLOPE WALL 6 INCH	SQ YD	17
52000110	PREFORMED JOINT STRIP SEAL	FOOT	96
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12
52100520	ANCHOR BOLTS, 1"	EACH	24
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	12
60600705	CONCRETE CURB, TYPE B (ABUTTING EXISTING PAVEMENT)	FOOT	132
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	300

* SPECIALTY ITEM

SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE: SFTY-2A

RURAL
100% STATE
TOTAL
QUANTITY

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	2
67100100	MOBILIZATION	L SUM	1
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	85
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	1692
* 78008230	POLYUREA PAVEMENT MARKING TYPE I - LINE 6"	FOOT	423
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	3
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
78300100	PAVEMENT MARKING REMOVAL	SQ FT	668
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	3

* SPECIALTY ITEM

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PLOT DATE = Apr 02, 2008 - 10:15:47 AM

DESIGNED - RON WOODSHANK	REVISED - 03/21/2008
DRAWN - RON WOODSHANK	REVISED - 03/21/2008
CHECKED - ---	REVISED - ---
DATE - -----	REVISED - ---

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: ----- SHEET NO. 3 OF 4 SHEETS STA. 571+00.67 TO STA. 573+01.17

F.A.P. RTE. 846	SECTION 6B-11	COUNTY GRUNDY	TOTAL SHEETS 29	SHEET NO. 6
CONTRACT NO. 66728				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE:

SFTY-2A

RURAL
100% STATE
TOTAL
QUANTITY

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
X0321468	PLUG EXISTING DECK DRAINS	EACH	44
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	519
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	24
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	161
Z0018905	DRILL AND GROUT BARS	EACH	36
Z0032470	JOINT SEALER	FOOT	78
Z0050400	REMOVE AND REPLACE ANCHOR BOLTS	EACH	1
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	1

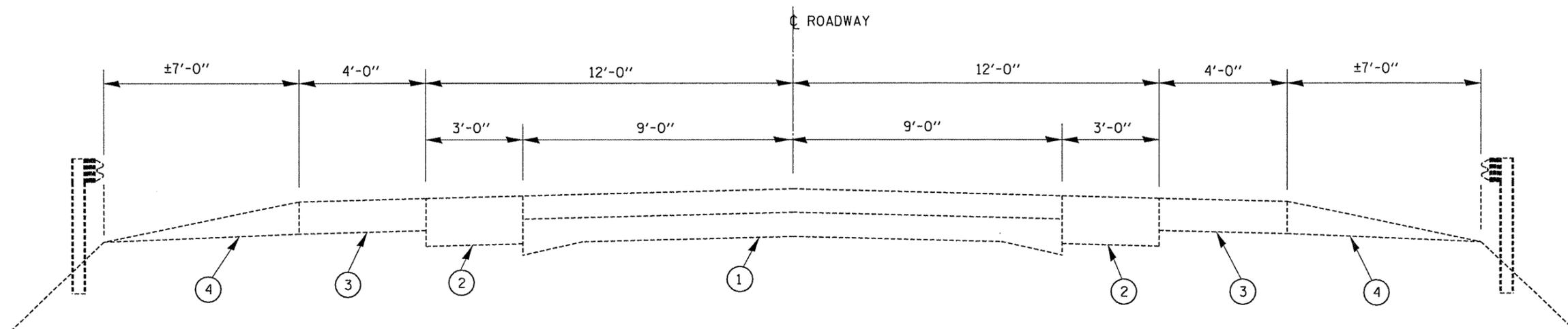
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: _____ SHEET NO. 4 OF 4 SHEETS STA. 571+00.67 TO STA. 573+01.17

F.A.P. RTE. 846	SECTION 16B-11	COUNTY GRUNDY	TOTAL SHEETS 29	SHEET NO. 7
CONTRACT NO. 66728				
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT				

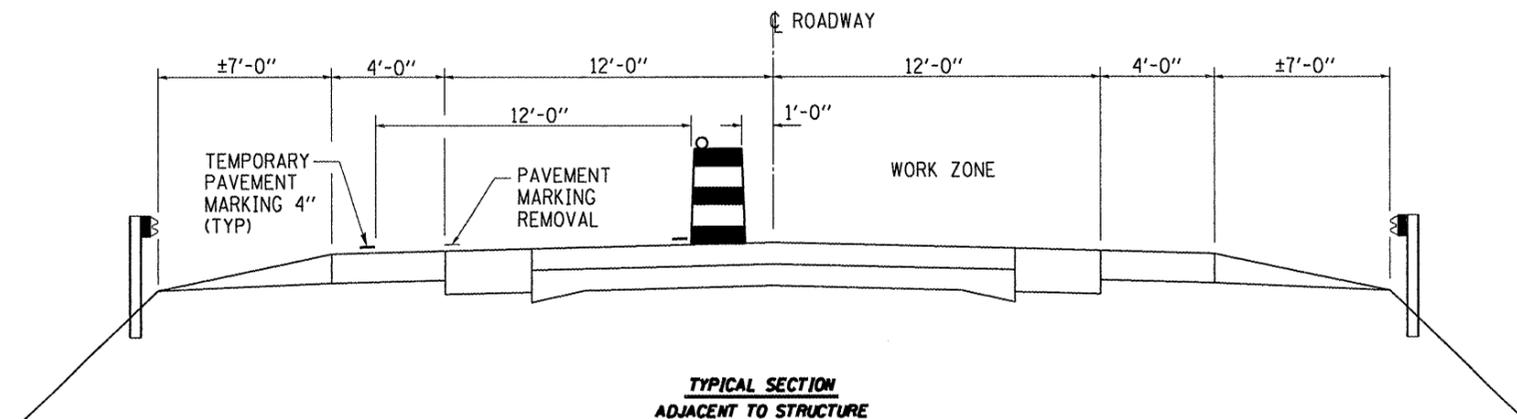


TYPICAL SECTION
ADJACENT TO STRUCTURE

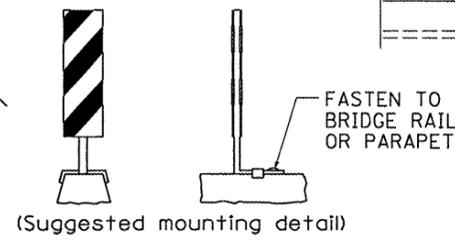
LENGEND

- ① EXISTING CONCRETE PAVEMENT WITH HOT-MIX ASPHALT OVERLAY
- ② HOT-MIX ASPHALT WIDENING 10"
- ③ HOT-MIX ASPHALT SHOULDER 8"
- ④ AGGREGATE SHOULDER

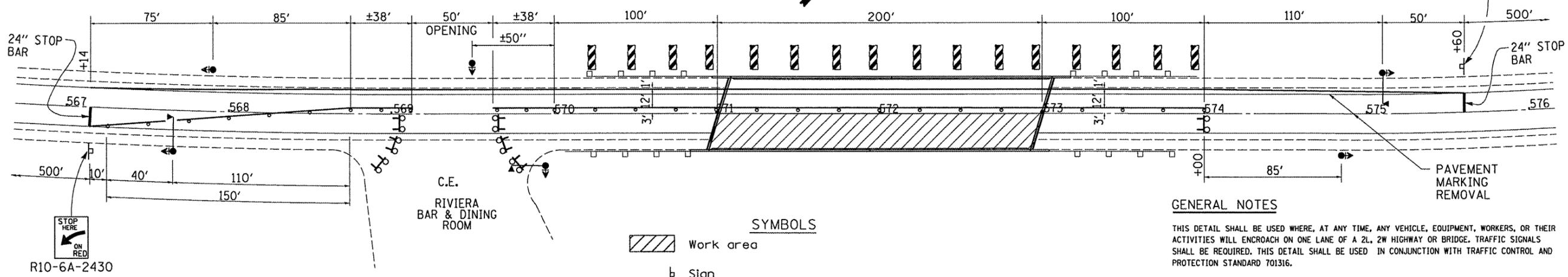
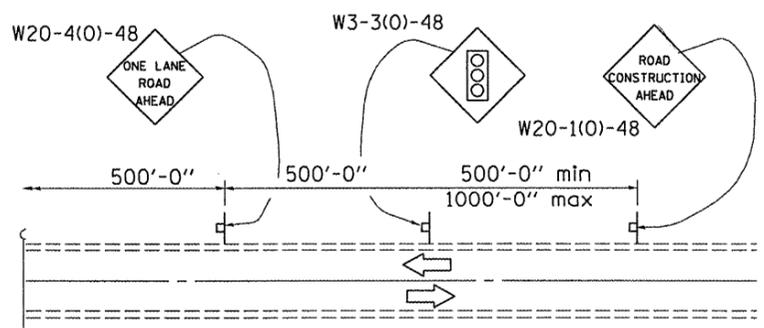
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	PLOT SCALE = 41.3612' / IN.	DRAWN - RON WOODSHANK	REVISED - 03/21/2008			846	(6B-11)	GRUNDY	29	8
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DATE -	REVISIED -	REVISIED -	REVISIED -		SCALE: -----	SHEET NO. 1 OF 1 SHEETS	STA. 571+00.67 TO STA. 573+01.17	FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT		



TYPICAL SECTION
ADJACENT TO STRUCTURE



VERTICAL PANELS



SYMBOLS

- Work area
- Sign
- Type III barricade with steady burning light
- Drum with steady burning light
- Traffic signal with backplate
- Double vertical panel
- Microwave Detector

GENERAL NOTES

THIS DETAIL SHALL BE USED WHERE, AT ANY TIME, ANY VEHICLE, EQUIPMENT, WORKERS, OR THEIR ACTIVITIES WILL ENCR OACH ON ONE LANE OF A 2L, 2W HIGHWAY OR BRIDGE. TRAFFIC SIGNALS SHALL BE REQUIRED. THIS DETAIL SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701316.

WHEN TRAFFIC SIGNALS ARE NOT IN OPERATION, FLAGGERS SHALL BE USED AND TRAFFIC CONTROL SHALL CONFORM TO TRAFFIC CONTROL AND PROTECTION STANDARDS 701201 OR 701206.

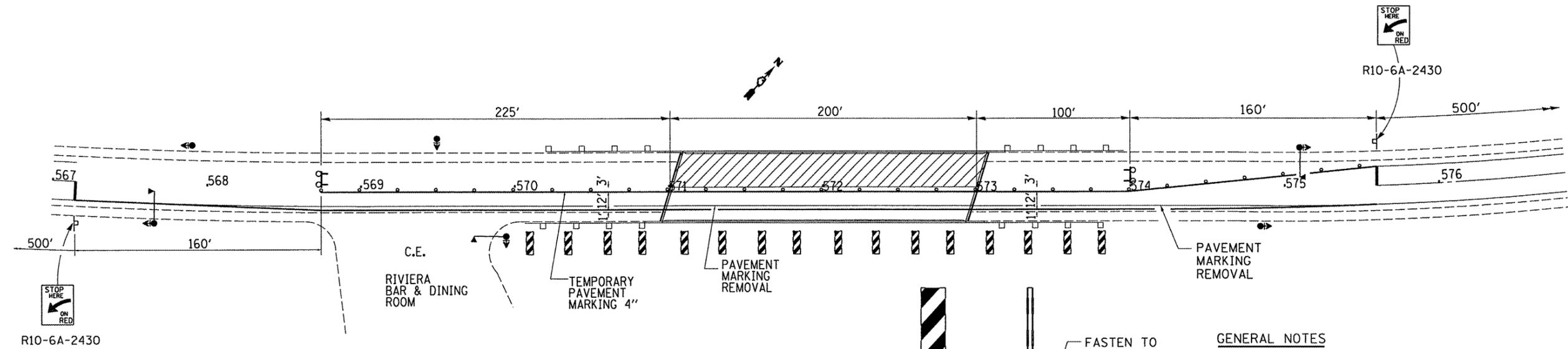
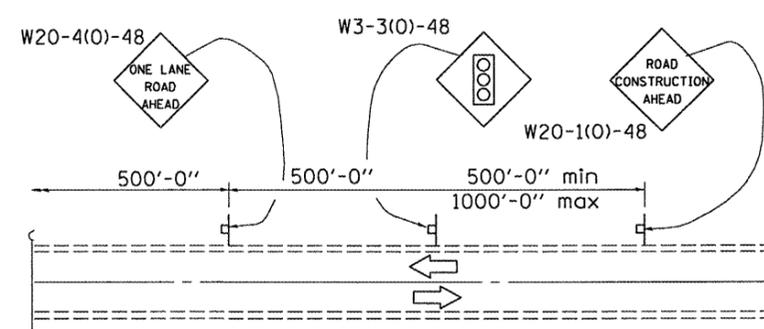
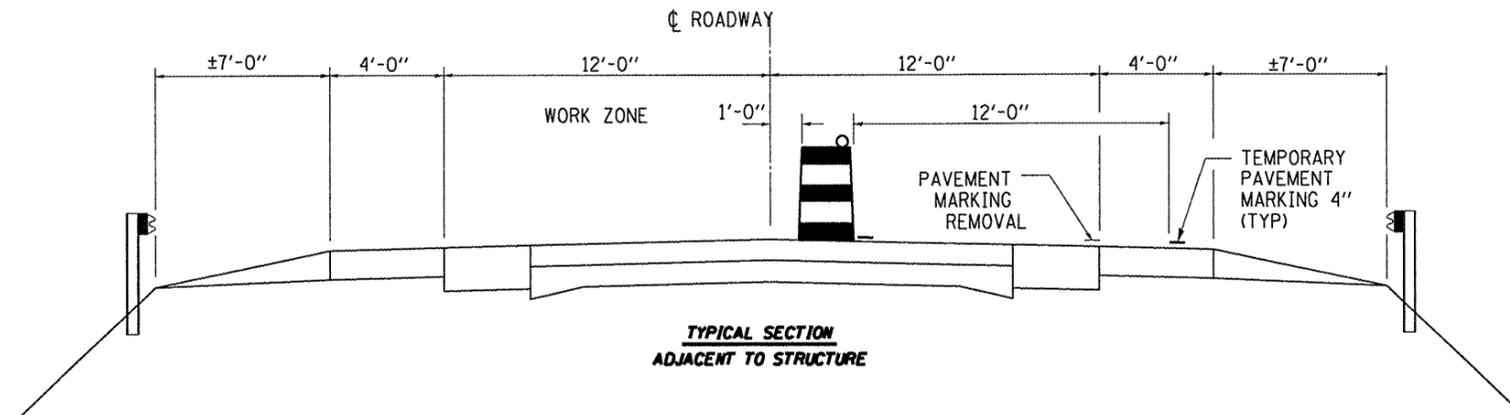
BIDIRECTIONAL LIGHTS SHALL BE USED AT NIGHT ALONG THE CENTERLINE WHERE THE WORK AREA IS SEPARATED FROM THE TRAVEL LANE USING DRUMS. MONO DIRECTIONAL LIGHTS SHALL BE USED AT NIGHT ON ALL OTHER DRUMS.

EXISTING OR TEMPORARY PAVEMENT MARKING SHALL BE ON BOTH SIDES OF THE OPEN LANE FROM STOP BAR TO STOP BAR. REQUIRED TEMPORARY PAVEMENT MARKING SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE TRAFFIC CONTROL AND PROTECTION, STANDARD 701316.

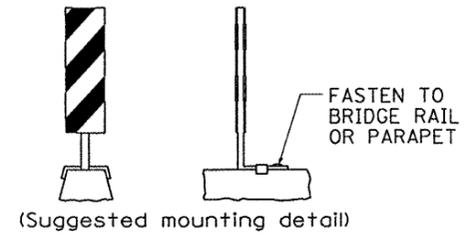
RELOCATION OF TRAFFIC CONTROL DEVICES FOR STAGING SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701316.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
PAVEMENT MARKING REMOVAL	SQ FT	387



- SYMBOLS**
- Work area
 - Sign
 - Type III barricade with steady burning light
 - Drum with steady burning light
 - Traffic signal with backplate
 - Double vertical panel
 - Microwave Detector



GENERAL NOTES

THIS DETAIL SHALL BE USED WHERE, AT ANY TIME, ANY VEHICLE, EQUIPMENT, WORKERS, OR THEIR ACTIVITIES WILL ENCR OACH ON ONE LANE OF A 2L, 2W HIGHWAY OR BRIDGE. TRAFFIC SIGNALS SHALL BE REQUIRED. THIS DETAIL SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701316.

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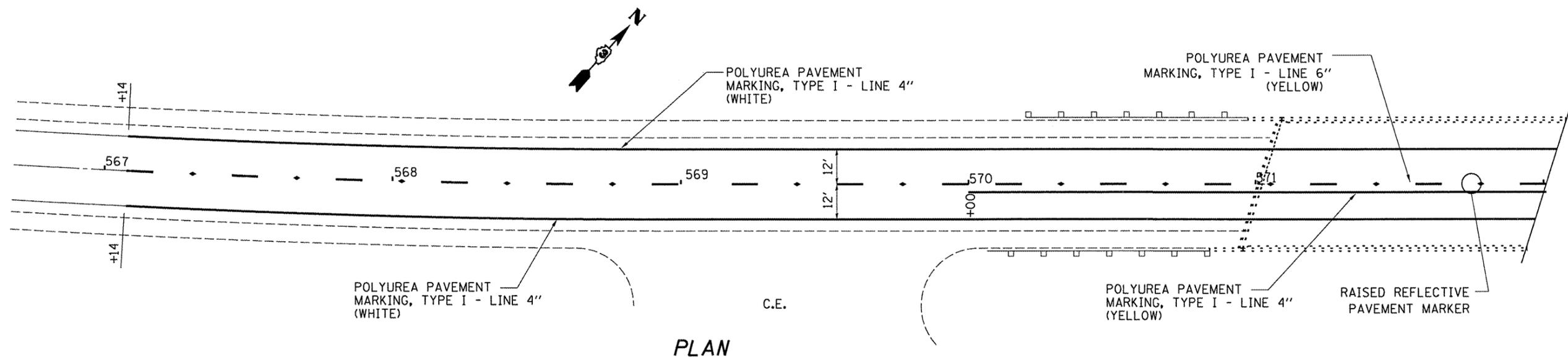
BIDIRECTIONAL LIGHTS SHALL BE USED AT NIGHT ALONG THE CENTERLINE WHERE THE WORK AREA IS SEPARATED FROM THE TRAVEL LANE USING DRUMS. MONO DIRECTIONAL LIGHTS SHALL BE USED AT NIGHT ON ALL OTHER DRUMS.

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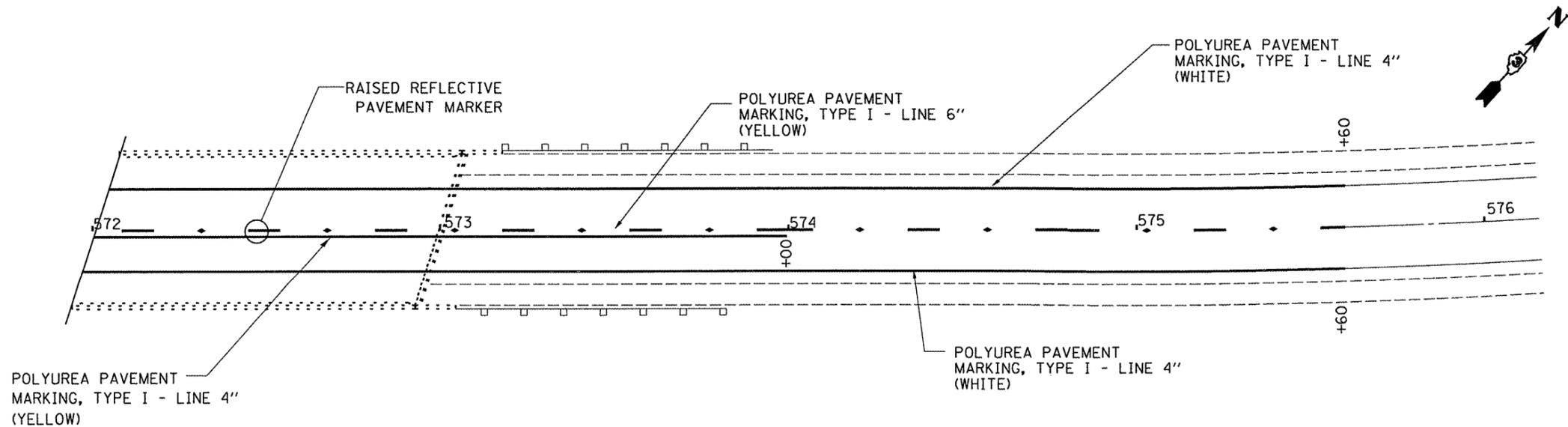
RELOCATION OF TRAFFIC CONTROL DEVICES FOR STAGING SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701316.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
PAVEMENT MARKING REMOVAL	FOOT	281



PLAN



PLAN

BILL OF MATERIAL

ITEM	UNIT	TOTAL
POLYUREA PAVEMENT MARKING, TYPE I - LINE 4"	FOOT	1692
POLYUREA PAVEMENT MARKING, TYPE I - LINE 6"	FOOT	423
RAISED REFLECTIVE PAVEMENT MARKER	EACH	3

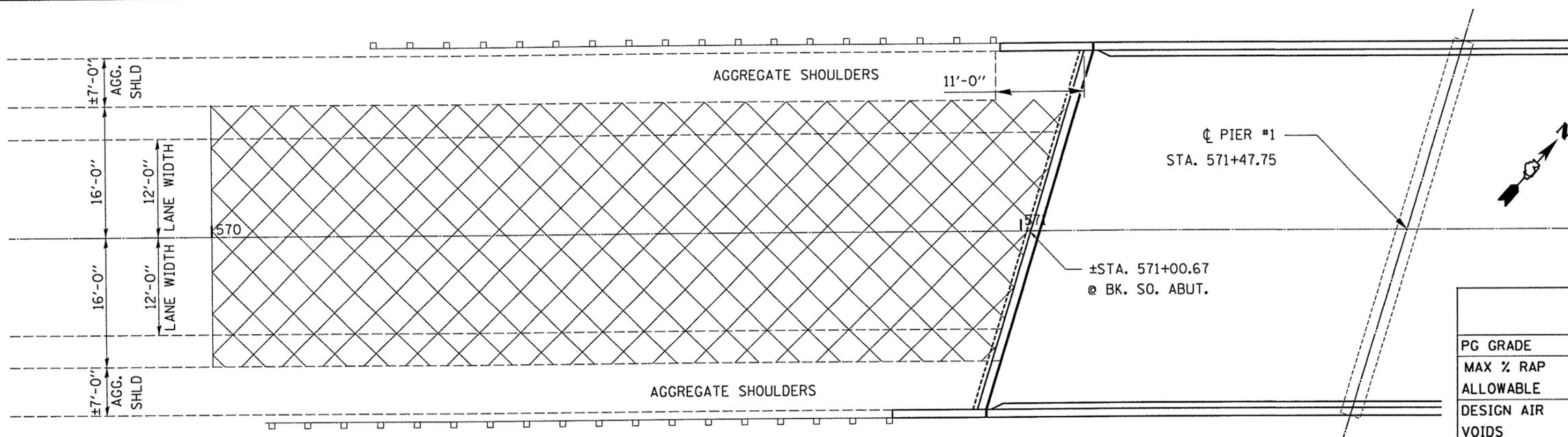
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		CHECKED -	REVISED -
		DATE -	REVISED -
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PLOT DATE = Apr 02, 2008 - 08:27:49 AM			

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING

SCALE: _____ SHEET NO. 1 OF 1 SHEETS STA. 571+00.67 TO STA. 573+01.17

F.A.P. RTE. 846	SECTION (6B-1)	COUNTY GRUNDY	TOTAL SHEETS 29	SHEET NO. 12
CONTRACT NO. 66728				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

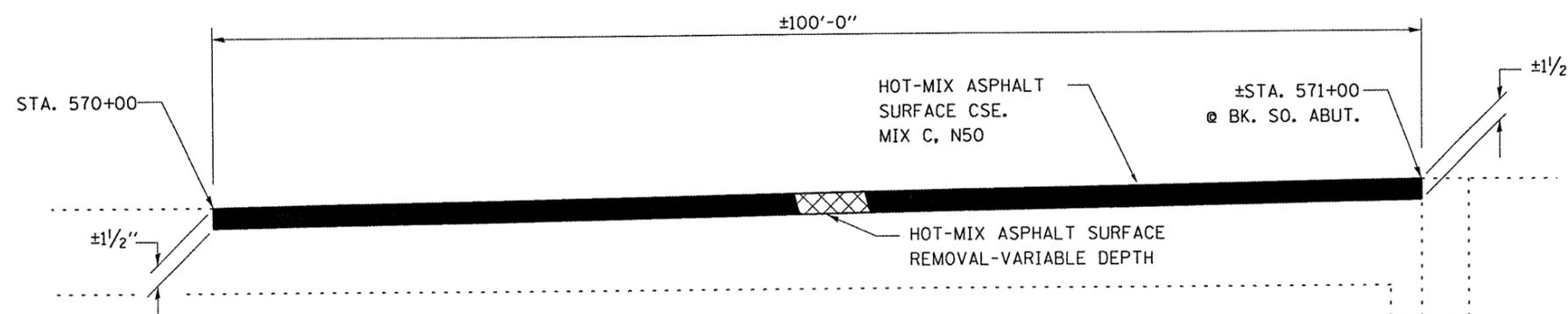


PLAN

HMA SURFACE	
PG GRADE	PG64-22
MAX % RAP ALLOWABLE	15%***
DESIGN AIR VOIDS	4.0% @ N50
MIXTURE COMPOSITION	IL 12.5 or IL 9.5
FRICTION	
AGGREGATE	MIXTURE C
DENSITY CONTROL METHOD	NUCLEAR/ CORES

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

••• SEE RAP SPECIAL PROVISION.



ELEVATION

BILL OF MATERIAL

ITEM	UNIT	TOTAL
HOT-MIX ASPHALT SURFACE REMOVAL-VARIABLE DEPTH	SQ YD	356
BITUMINOUS MATERIALS PRIME COAT	GAL	28
HOT-MIX ASPHALT SURFACE CSE. MIX C, N50	TON	30
RAISED REFLECTIVEPAVEMENT MARKER REMOVAL	TON	3

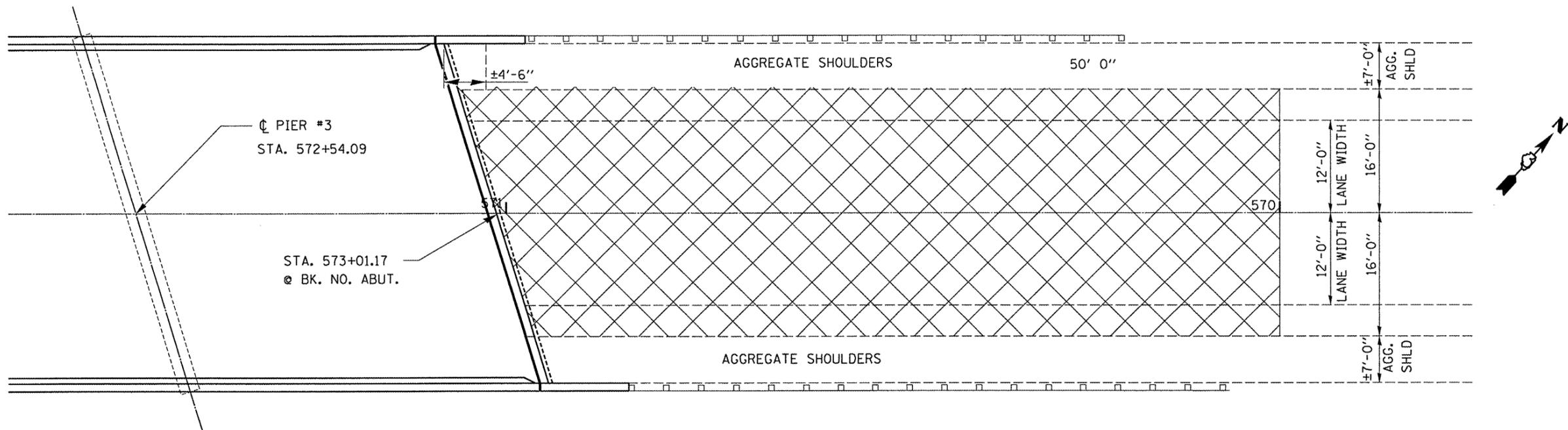
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		DATE - ---	REVISED - ---

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

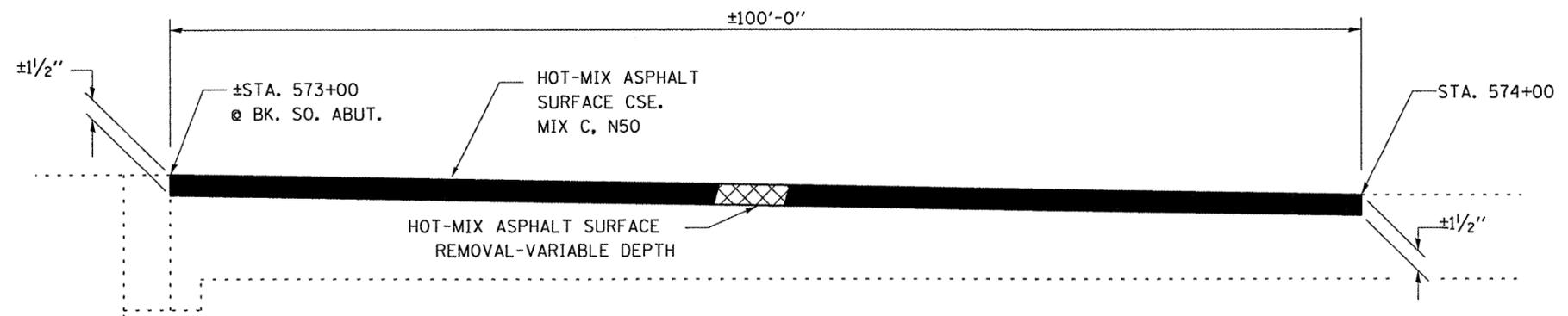
SO. APPROACH DETAILS

SCALE: SHEET NO. 1 OF 1 SHEETS STA. 571+00.67 TO STA. 573+01.17

F.A.P. RTE. 846	SECTION 16B-111	COUNTY GRUNDY	TOTAL SHEETS 29	SHEET NO. 13
CONTRACT NO. 66728				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



PLAN



ELEVATION

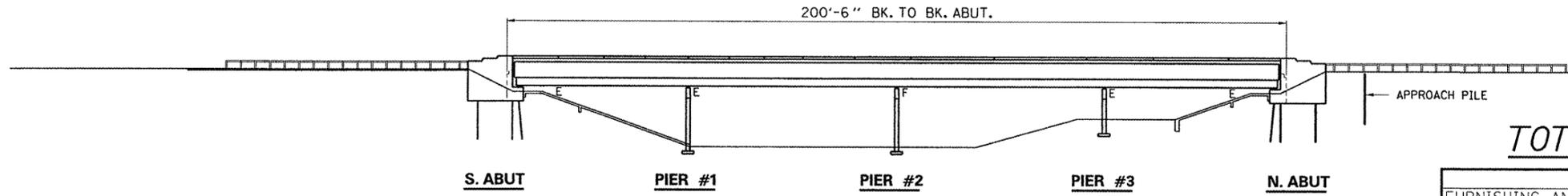
	HMA SURFACE
PG GRADE	PG64-22
MAX % RAP ALLOWABLE	15%***
DESIGN AIR VOIDS	4.0% @ N50
MIXTURE COMPOSITION	IL 12.5 or IL 9.5
FRICION	
AGGREGATE	MIXTURE C
DENSITY CONTROL METHOD	NUCLEAR/ CORES

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

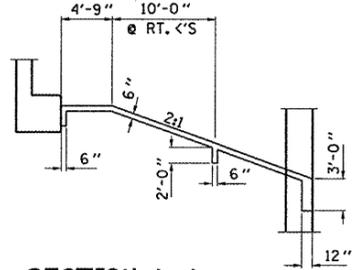
••• SEE RAP SPECIAL PROVISION.

BILL OF MATERIAL

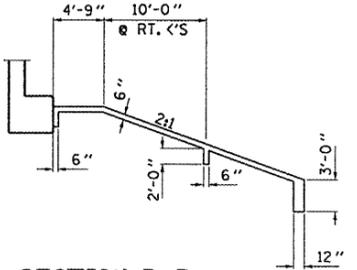
ITEM	UNIT	TOTAL
HOT-MIX ASPHALT SURFACE REMOVAL-VARIABLE DEPTH	SQ YD	356
BITUMINOUS MATERIALS PRIME COAT	GAL	28
HOT-MIX ASPHALT SURFACE CSE. MIX C, N50	TON	30



ELEVATION



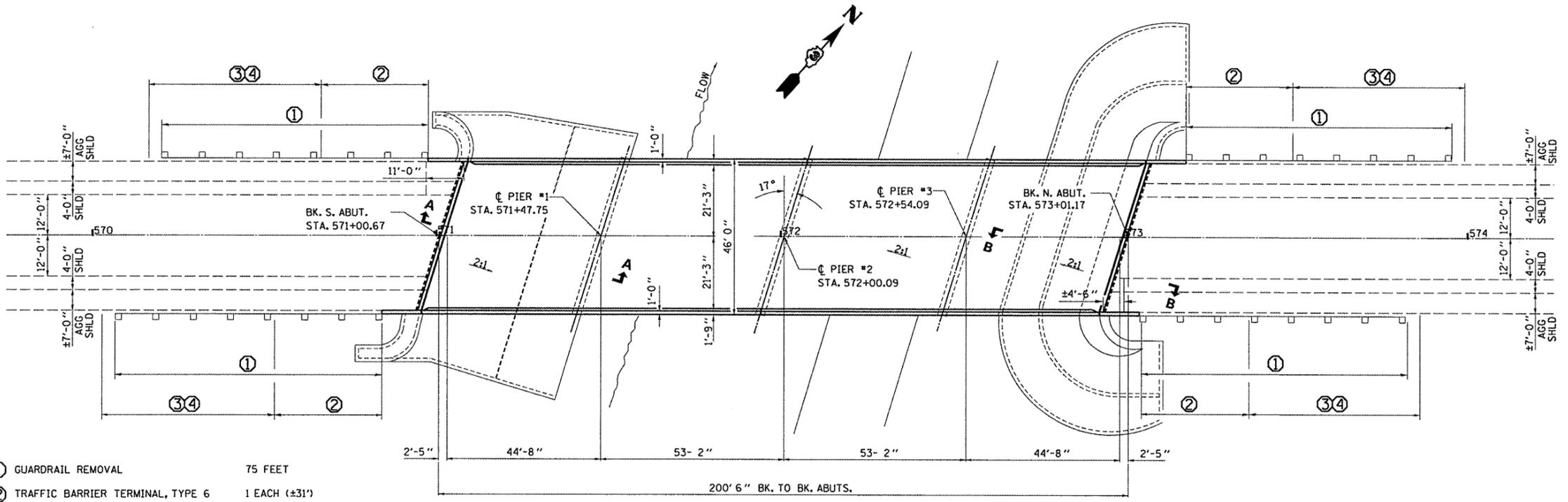
SECTION A-A



SECTION B-B

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3570
JACK AND REMOVE EXISTING BEARINGS	EACH	12
STRUCTURAL STEEL REMOVAL	POUND	1950
STRUCTURAL STEEL REPAIR	POUND	3440
PREFORMED JOINT STRIP SEAL	FOOT	96
ELASOMERIC BEARING ASSEMBLY, TYPE I	EACH	12
PLUG EXISTING DECK DRAINS	EACH	44
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5")	SQ FT	519
FLOOR DRAIN EXTENSIONS	EACH	20
DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	24
DECK SLAB REPAIR (PARTIAL DEPTH)	SQ YD	161
REMOVE AND REPLACE ANCHOR BOLTS	EACH	1
CONCRETE REMOVAL	CU YD	13.6
CONCRETE SUPERSTRUCTURE	CU YD	13.9
REINFORCEMENT BARS, EPOXY COATED	POUND	1360
BAR SPLICER	EACH	18
ANCHOR BOLTS, 1" Ø	EACH	24
RUBBED FINISH (MODIFIED)	SQ FT	258
TEMPORARY SHORING AND CRIBBING	EACH	1
SLOPE WALL REMOVAL	SQ YD	17
SLOPE WALL 6"	SQ YD	17
CONTROLLED LOW-STRENGTH MATERIAL	CU YD	12
DRILL AND GROUT BARS	EACH	36
JOINT SEALER	FOOT	78
PROTECTIVE COAT (SPECIAL)	SQ YD	1022
REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	20



PLAN

- ① GUARDRAIL REMOVAL 75 FEET
- ② TRAFFIC BARRIER TERMINAL, TYPE 6 1 EACH (±31')
- ③ TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT) 1 EACH (±50')
- ④ TERMINAL MARKER DIRECT APPLIED 1 EACH

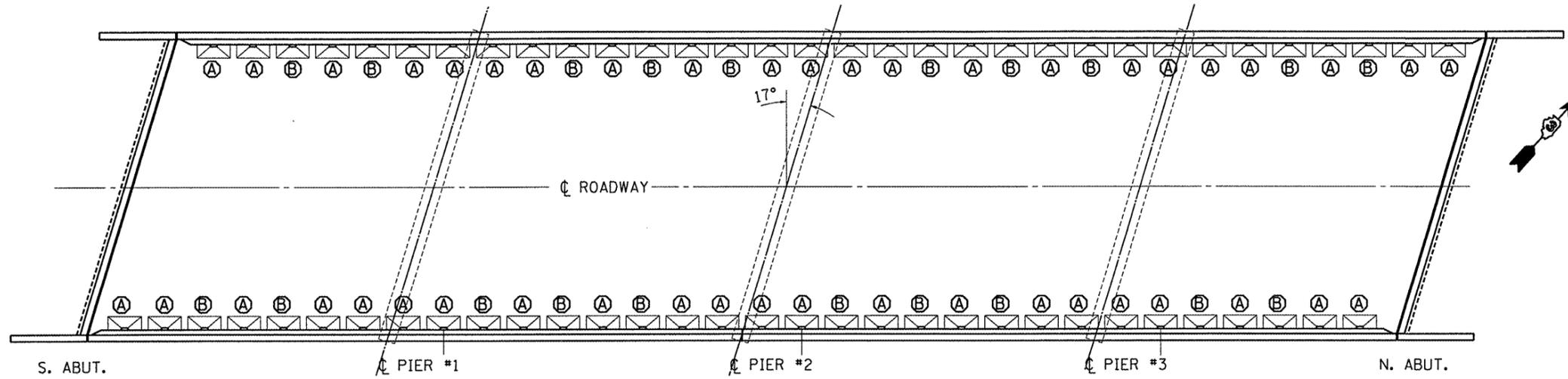
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION

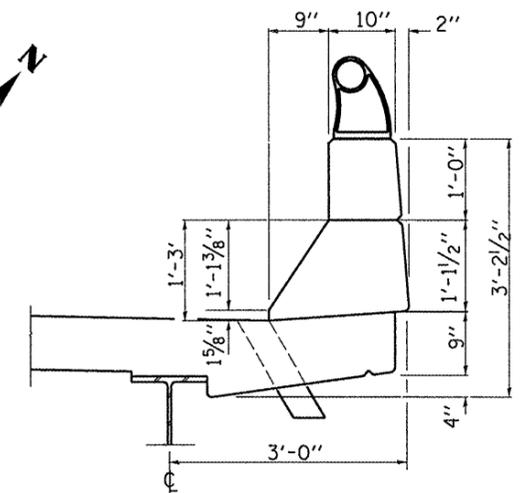
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F.A.P. RTE. 846	SECTION (6B-11)	COUNTY GRUNDY	TOTAL SHEETS 29	SHEET NO. 15
CONTRACT NO. 66728				
ILLINOIS FED. AID PROJECT				

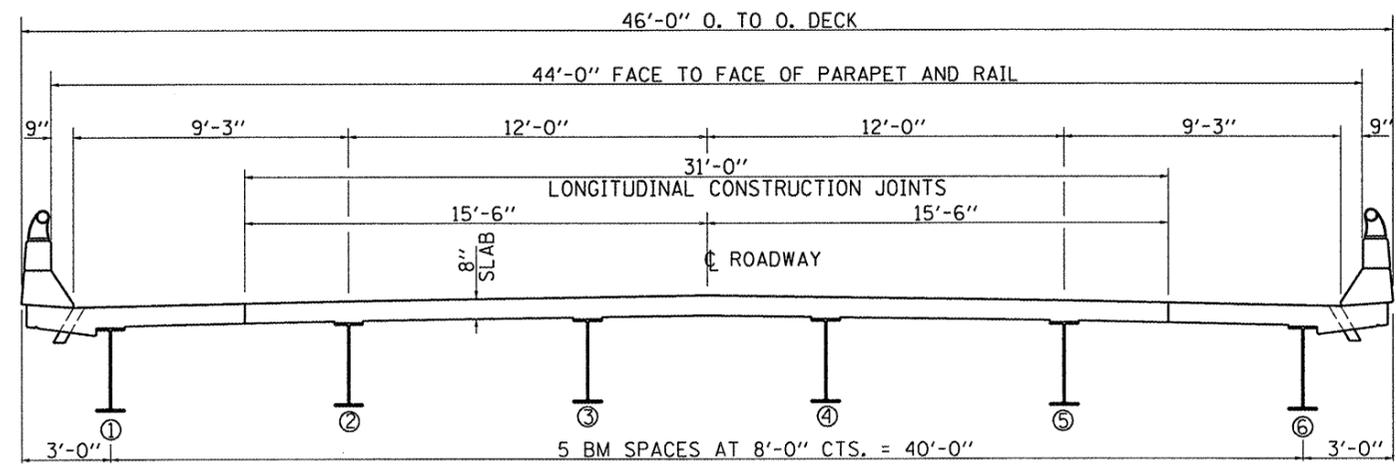


- (A) PLUG EXISTING DECK DRAIN
- (B) FLOOR DRAIN EXTENSIONS

PLAN

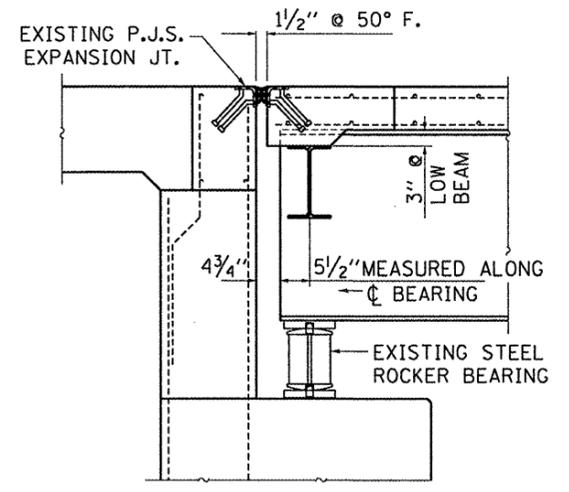


EXISTING CURB SECTION

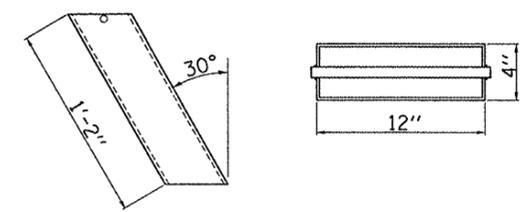


EXISTING CROSS SECTION

LOOKING NORTH



EXISTING SECTION AT ABUT.



FLOOR DRAIN

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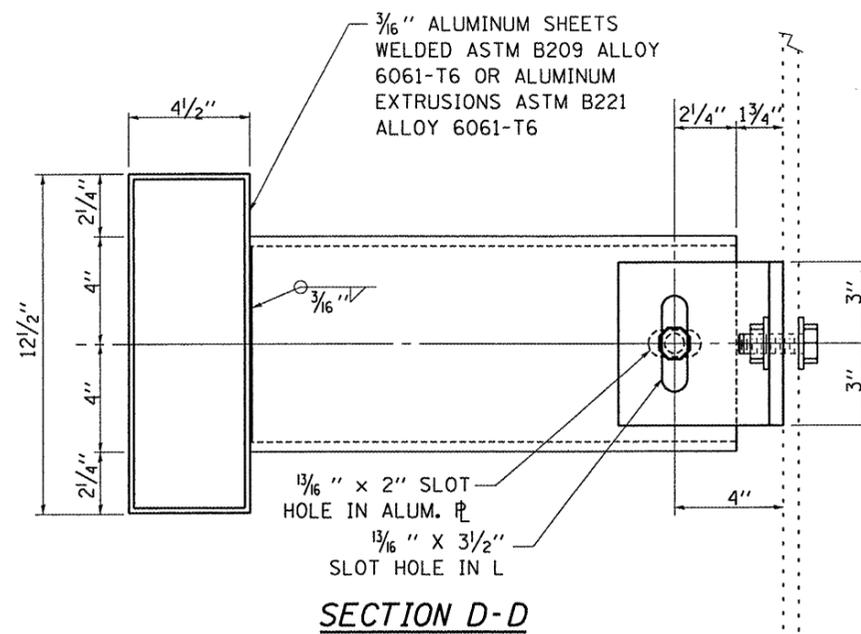
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

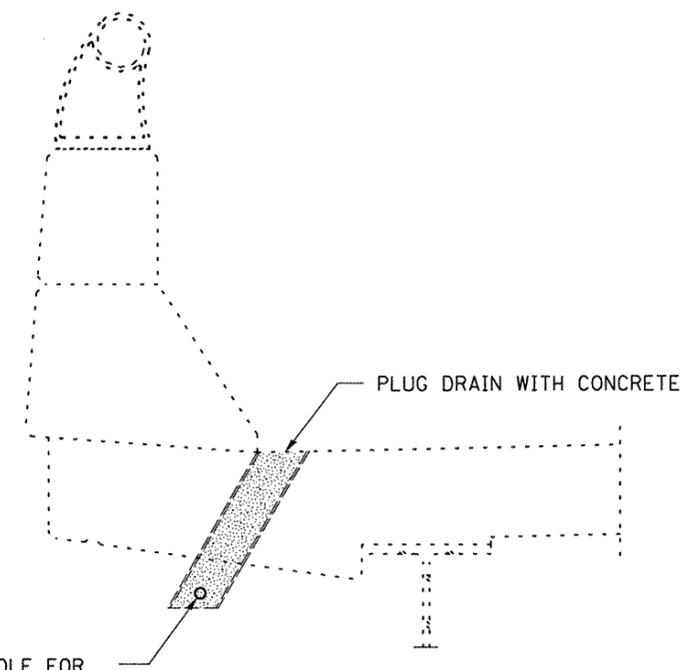
SUPERSTRUCTURE DETAILS

SCALE: SHEET NO. 1 OF 1 SHEETS STA. 571+00.67 TO STA. 573+01.17

F.A.P. RTE. 846	SECTION (6B-11)	COUNTY GRUNDY	TOTAL SHEETS 29	SHEET NO. 16
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 66728	



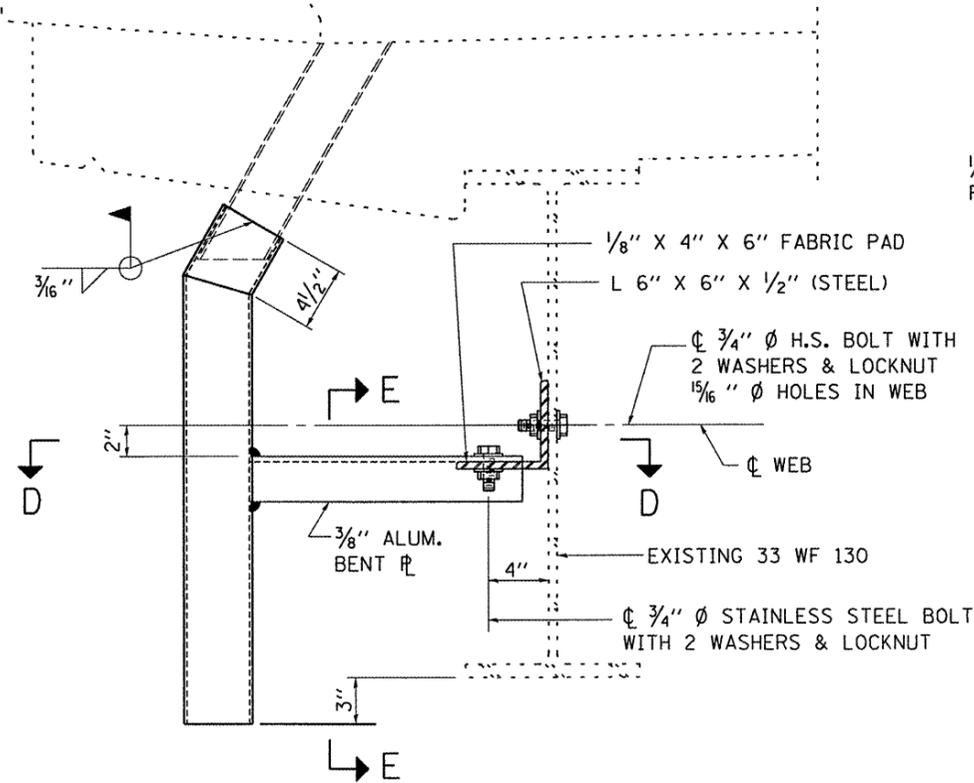
SECTION D-D



SECTION AT DRAIN

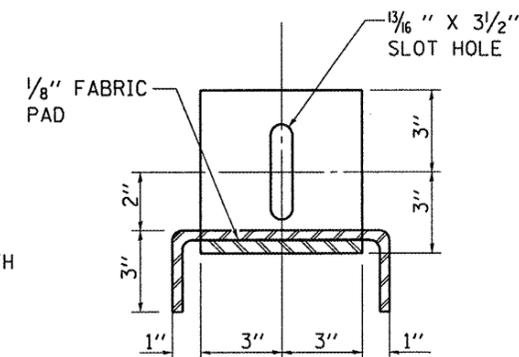
FIELD DRILL 3/8" Ø HOLE FOR 1/4" Ø THREADED ROD 13" LONG WITH NUTS AND WASHERS

DRAIN ELIMINATION DETAIL
PLUG



SECTION AT DRAIN

DRAIN EXTENSION

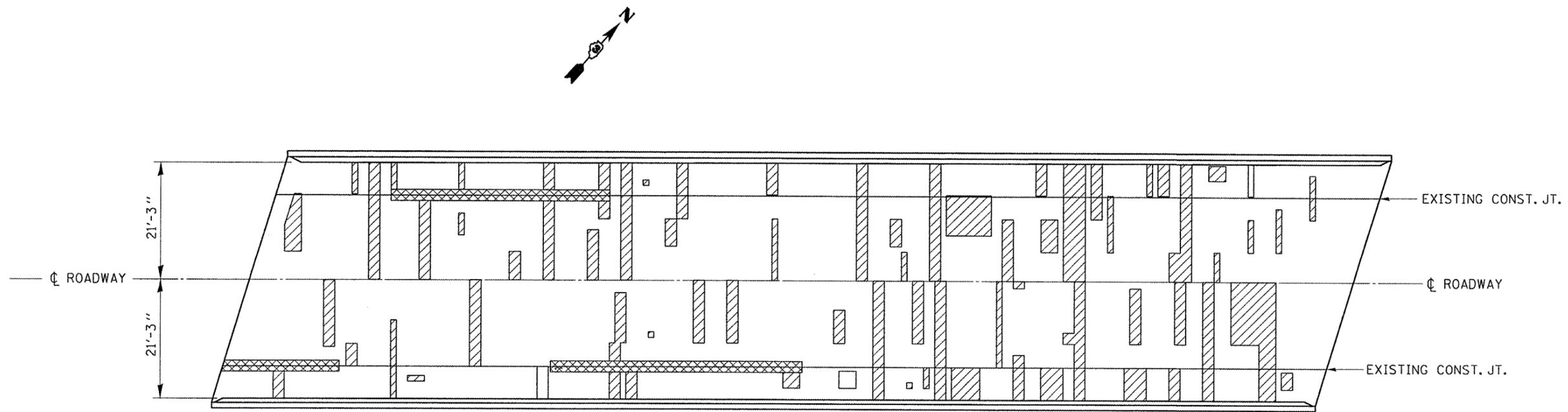


SECTION E-E

BILL OF MATERIAL

ITEM	UNIT	TOTAL
PLUG EXISTING	EACH	44
DECK DRAIN		
FLOOR DRAIN	EACH	20
EXTENSION		

NOTE:
THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING OF MATERIALS



PLAN
S.N. 032-0023

S.N. 032-0023

DECK PATCHING SURVEY

TOTAL DECK AREA = 930.7 SQ. YDS.

TOTAL ESTIMATED DECK SLAB REPAIR AREA = 185 SQ. YDS.

DATE OF SURVEY: 08/10/2007

NOTES

LENGTHS AND WIDTH OF REPAIR AREAS WERE MEASURED AS INDICATED ON THE PLAN DETAIL.

THE ENGINEER SHALL SOUND THE REPAIR AREAS AS INDICATED ON THE PLAN DETAILS TO DETERMINE EXACT LIMITS OF DECK SLAB REPAIR PRIOR TO THE CONTRACTOR BEGINNING DECK SLAB REPAIR OPERATIONS.

LEGEND

- DECK SLAB REPAIR (PARTIAL)
- DECK SLAB REPAIR (FULL DEPTH) TYPE II

BILL OF MATERIAL

ITEM	UNIT	TOTAL
DECK SLAB REPAIR (PARTIAL)	SQ YD	161
DECK SLAB REPAIR (FULL DEPTH) TYPE II	SQ YD	24

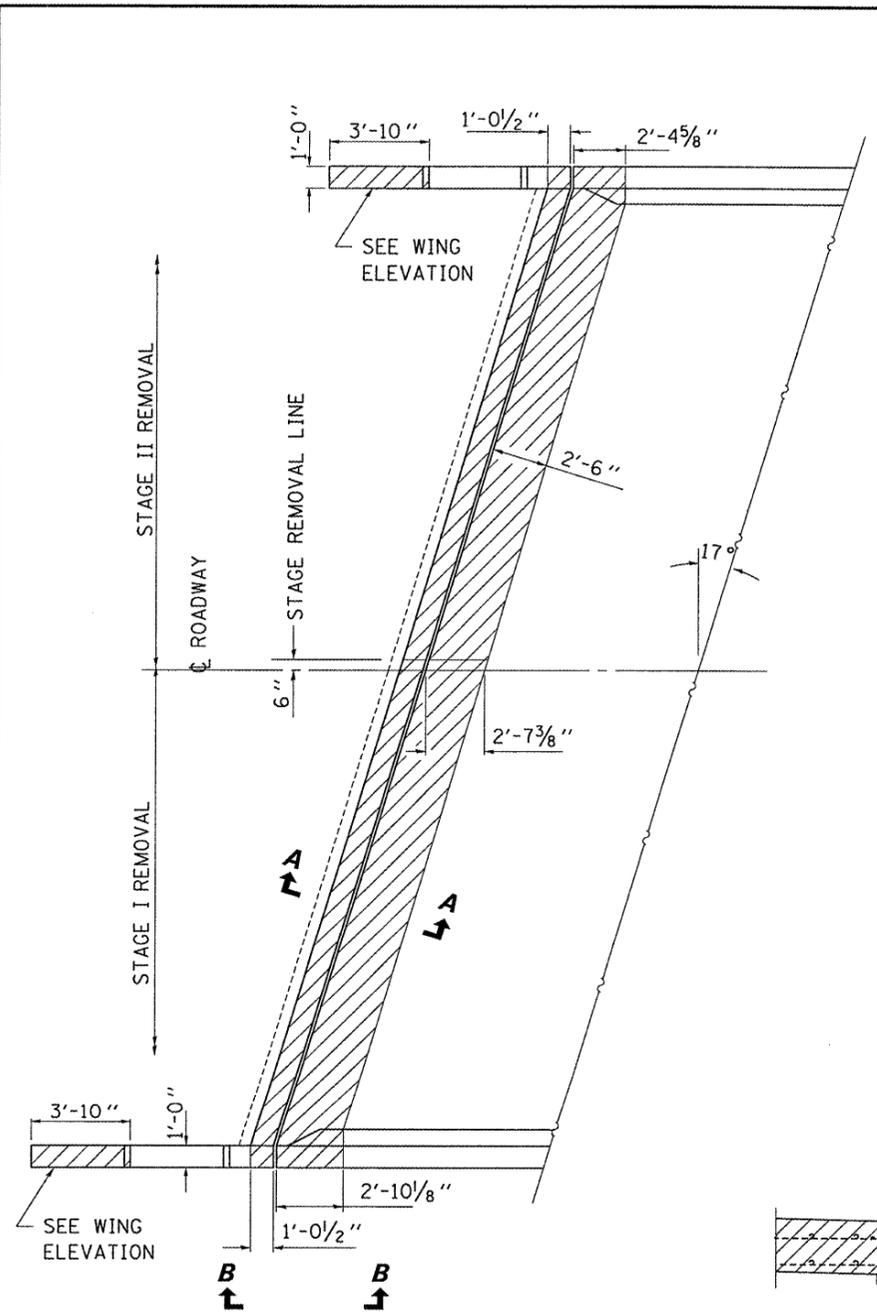
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DECK SLAB REPAIR

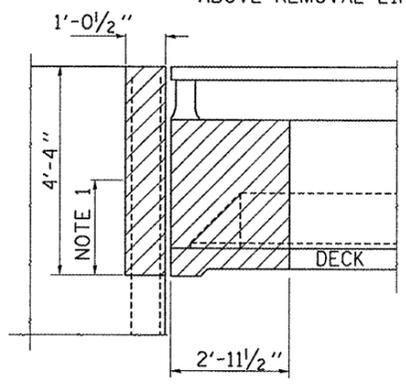
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FED. ROAD DIST. NO., ILLINOIS FED. AID PROJECT			CONTRACT NO. 66728	

SCALE: SHEET NO. 1 OF 1 SHEETS STA. 571+00.67 TO STA. 573+01.17

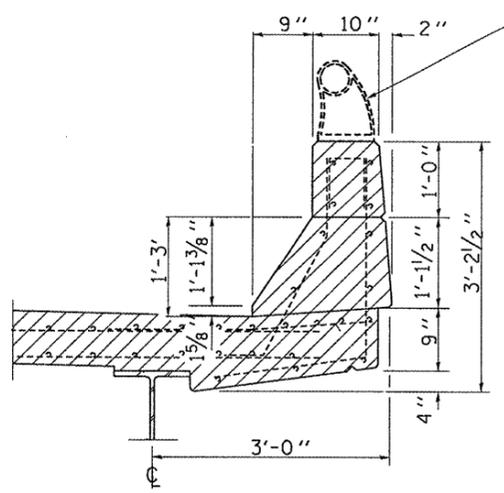


PLAN
SOUTH ABUT. SHOWN
NORTH ABUT. SIMILAR
THRU 180° ROTATION

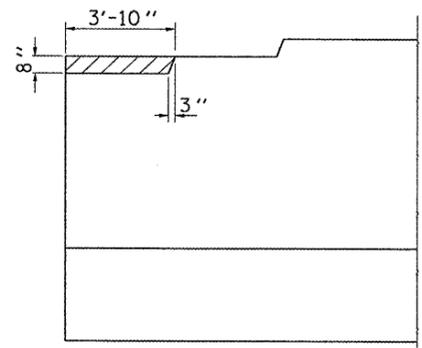
NOTE 1:
CUT EXISTING VERTICAL
REINFORCEMENT 2'-0"
ABOVE REMOVAL LINE



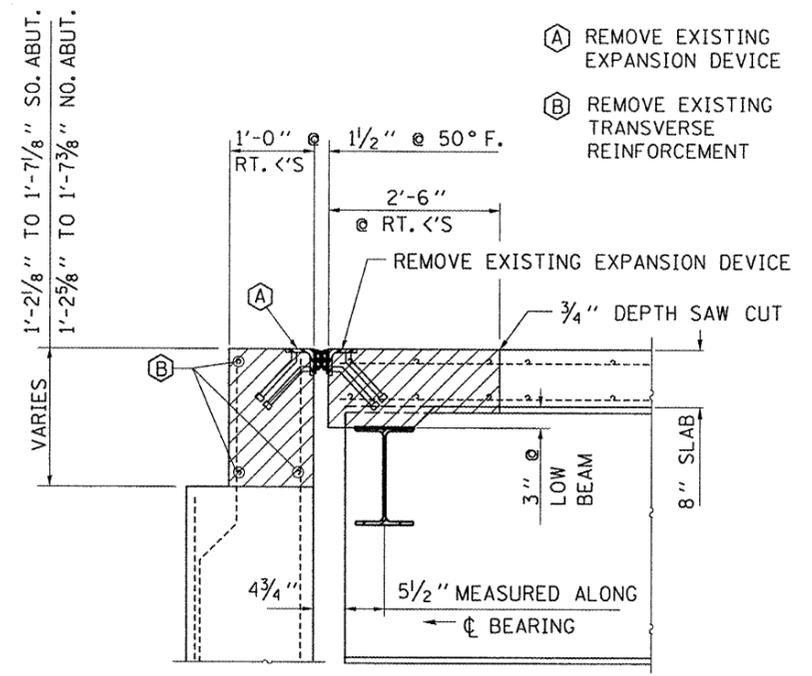
VIEW B-B
TYPICAL



CURB SECTION
TYPICAL



WING ELEVATION
TYPICAL



SECTION A-A

NOTES:
REMOVAL LIMITS SHALL BE SCORE CUT A MAXIMUM OF 3/4" INTO THE CONCRETE.
REMOVAL OF EXISTING EXPANSION DEVICE WILL BE INCLUDED IN THE COST OF "CONCRETE REMOVAL"
HATCHED AREAS INDICATE AREAS OF CONCRETE REMOVAL.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
CONCRETE REMOVAL	CU YD	13.6

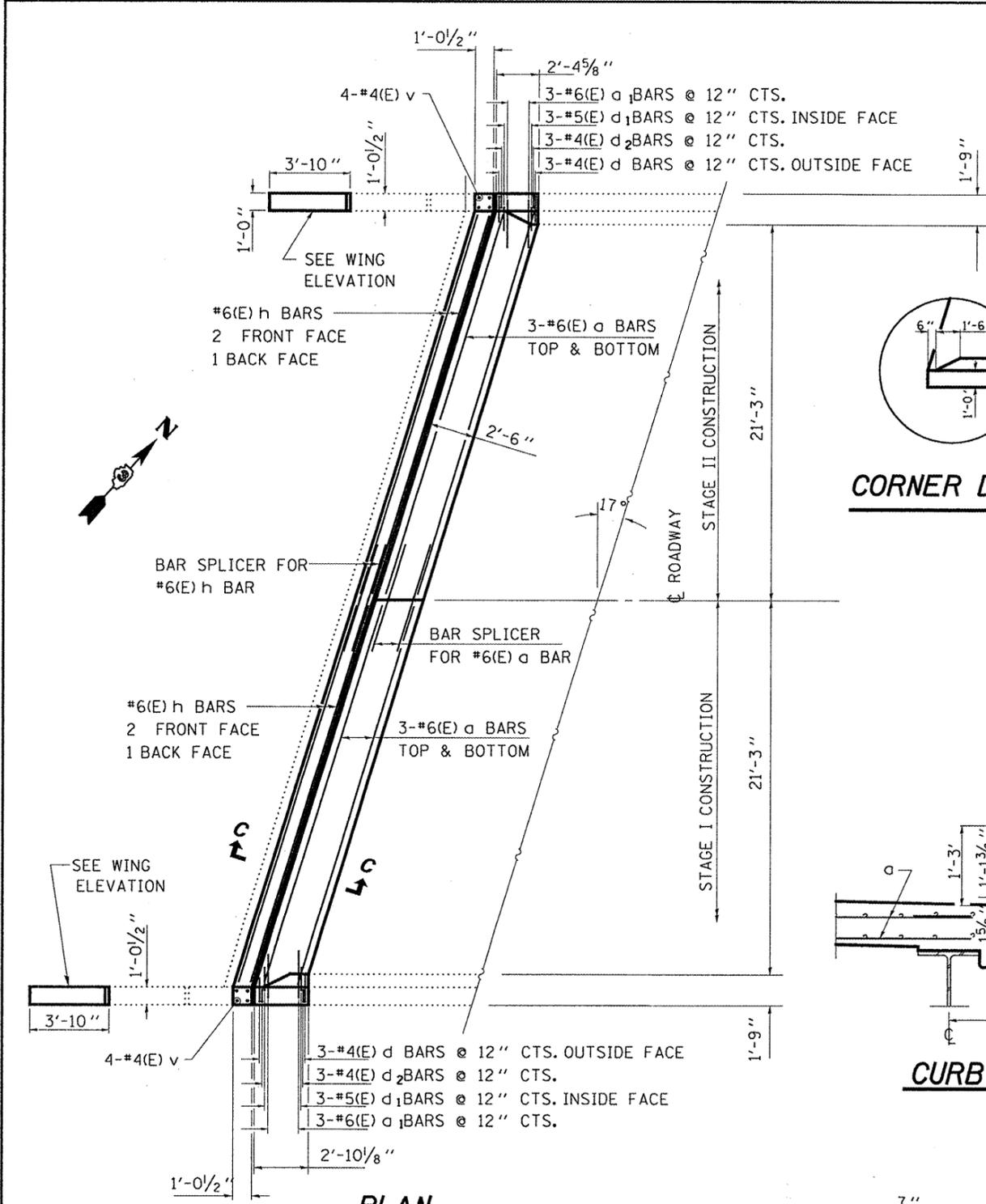
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

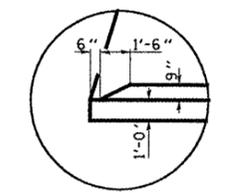
CONCRETE REMOVAL

SCALE: SHEET NO. 1 OF 1 SHEETS STA. 571+00.67 TO STA. 573+01.17

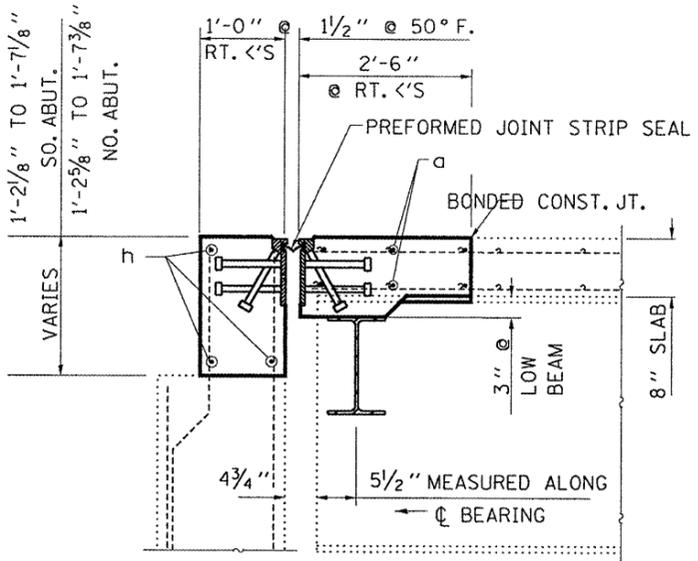
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FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 66728				



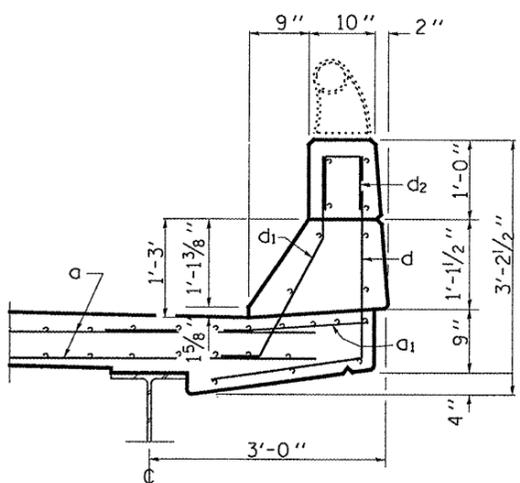
PLAN
SOUTH ABUT. SHOWN
NORTH ABUT. SIMILAR
THRU 180° ROTATION



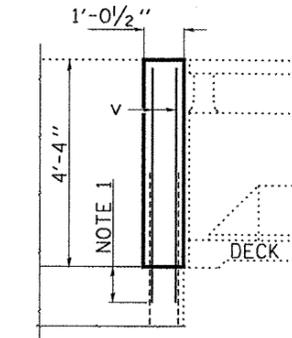
CORNER DETAIL



SECTION C-C

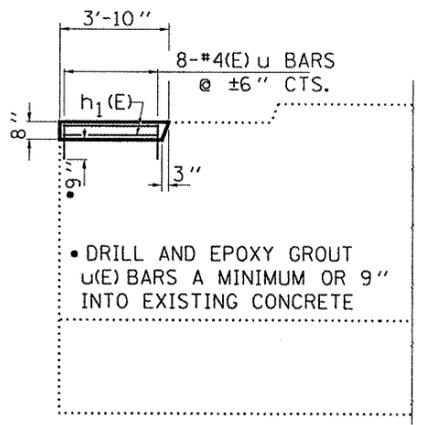


CURB SECTION



OUTSIDE FACE OF PARAPET

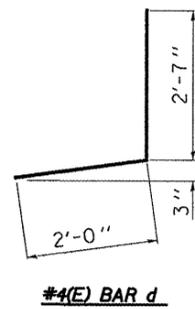
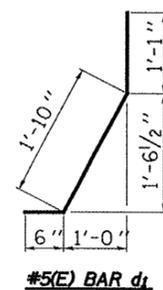
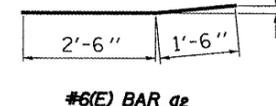
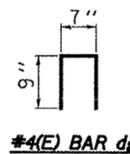
NOTE 1:
DRILL AND EPOXY GROUT v BARS A MIN. OF 9" INTO EXISTING CONCRETE, EACH CORNER



WING ELEVATION TYPICAL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	24	#6(E)	23'-0"	—
a1	12	#6(E)	4'-0"	—
d	12	#4(E)	4'-7"	┘
d1	12	#5(E)	3'-5"	┘
d2	12	#4(E)	2'-1"	┘
h	12	#6(E)	22'-9"	—
h1	16	#4(E)	3'-7"	—
u	32	#4(E)	3'-3"	▭
v	16	#4(E)	4'-0"	—
REINFORCEMENT BARS, EPOXY COATED			POUND	1360
CONCRETE SUPERSTRUCTURE			CU. YDS.	13.9



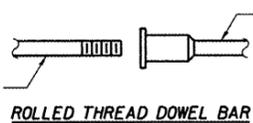
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	PLOT DATE = #DATE*	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE SUPERSTRUCTURE

F.A.P. RTE. 846	SECTION 16B-111	COUNTY GRUNDY	TOTAL SHEETS 29	SHEET NO. 20
CONTRACT NO. 66728			ILLINOIS FED. AID PROJECT	

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

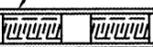


ROLLED THREAD DOWEL BAR



ONE PIECE

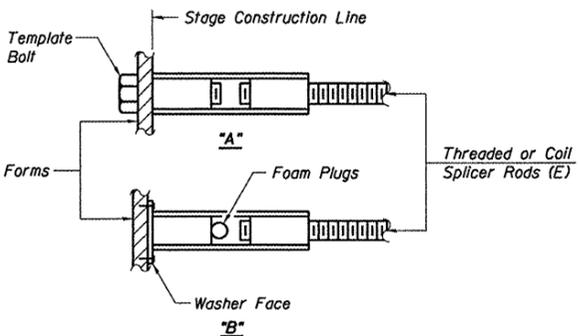
Wire Connector



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

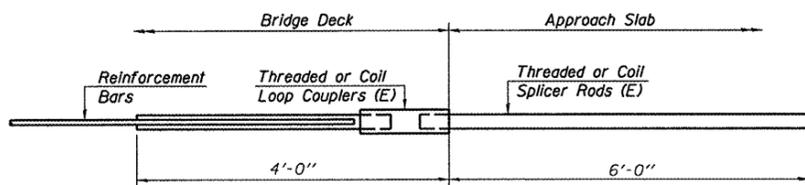
"A": Set bar splicer assembly by means of a template bolt.
 "B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.

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:

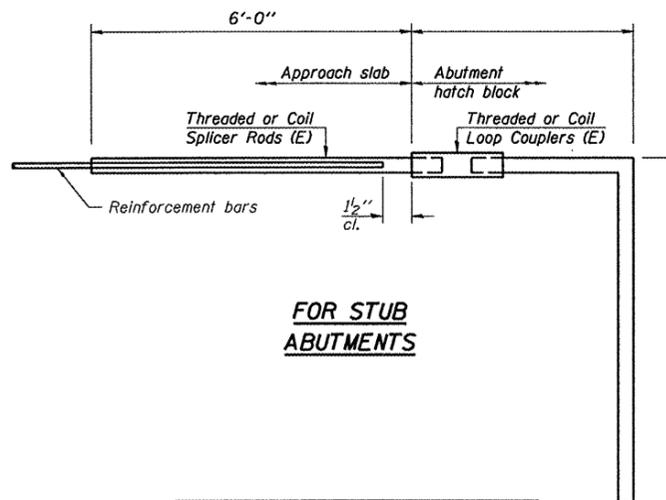
- ① Minimum Capacity = $1.25 \times f_y \times A_1$
 (Tension in kips)
 - ② Minimum Pull-out Strength = $0.66 \times f_y \times A_1$
 (Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_1 = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

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



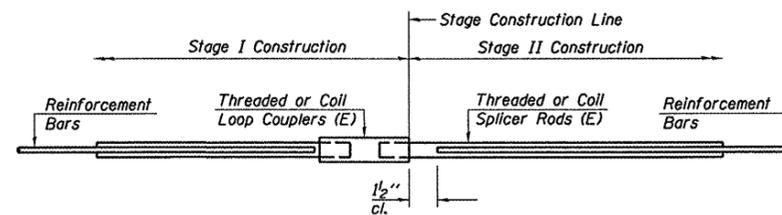
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#6	12	DECK
#6	6	ABUT.

FILE NAME =	USER NAME = woodshenr1	DESIGNED - RON WOODSHANK	REVISED - 03/21/2008
c:\projects\main\09\cm305\details.dgn		DRAWN - RON WOODSHANK	REVISED - 03/21/2008
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PLOT DATE = Apr 02, 2008 - 08:28:53 AM	DATE -		

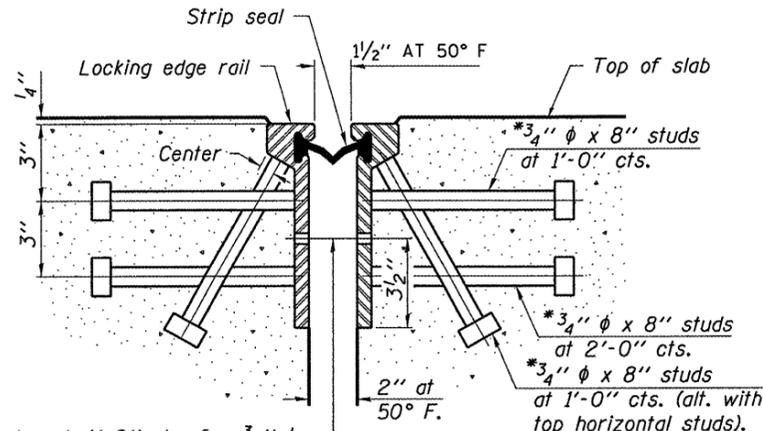
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY

SCALE: SHEET NO. 1 OF 1 SHEETS STA. 571+00.67 TO STA. 573+01.17

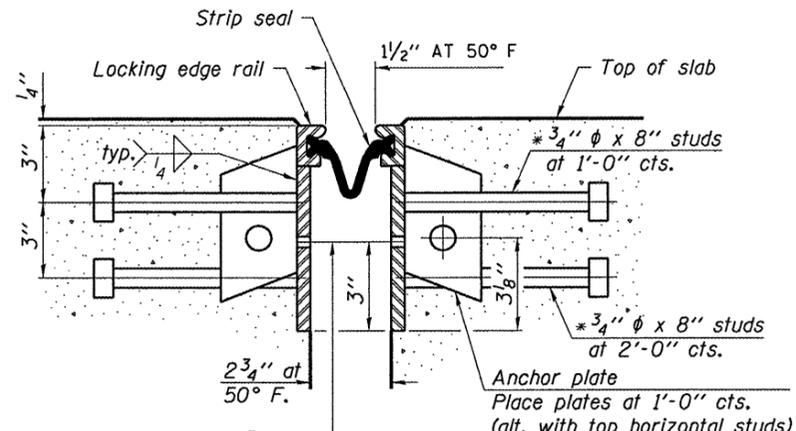
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	(6B-1)I	GRUNDY	29	21
CONTRACT NO. 66728			ILLINOIS FED. AID PROJECT	

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



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

**SECTION THRU
ROLLED RAIL JOINT**



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

**SECTION THRU
WELDED RAIL JOINT**

Notes:

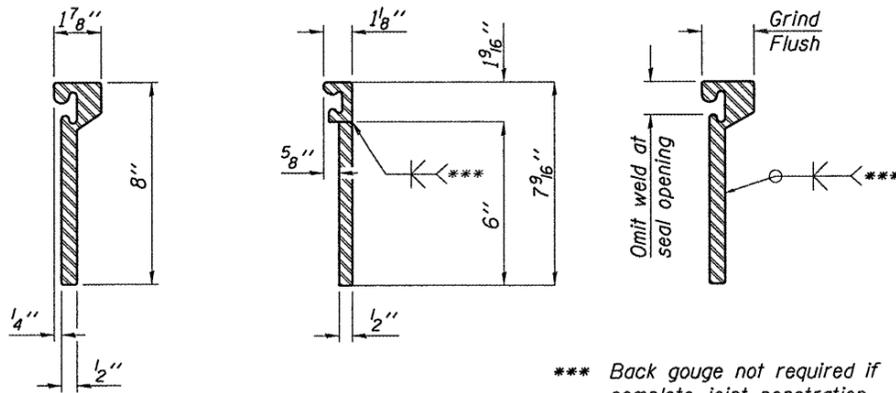
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of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

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

The manufacturer's recommended installation methods shall be followed.

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

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



**ROLLED
(EXTRUDED) RAIL**

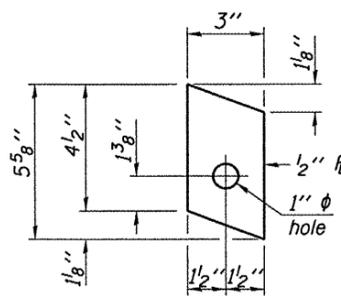
WELDED RAIL

**LOCKING EDGE
RAIL SPLICE**

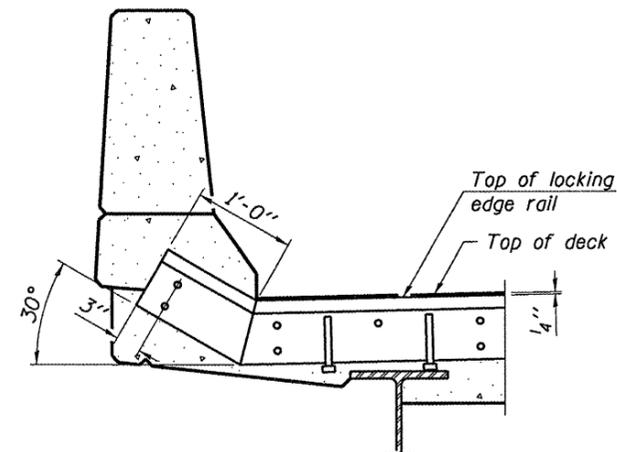
*** Back gouge not required if complete joint penetration is verified by mock-up.

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

LOCKING EDGE RAILS



**ANCHOR PLATE
(For welded rail)**



**TYPICAL END TREATMENT
AT PARAPET**

BILL OF MATERIAL

ITEM	UNIT	TOTAL
PREFORMED JOINT STRIP SEAL	FOOT	96

EJ-SSJ

9-3-07

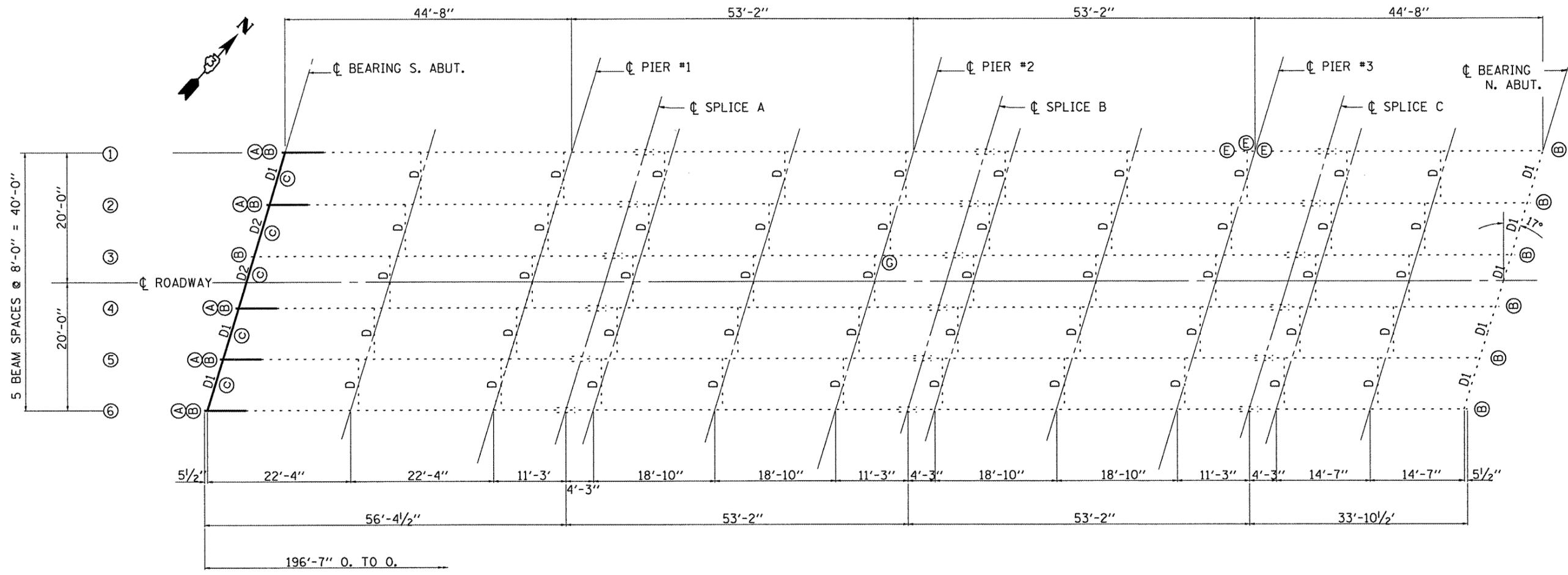
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	PLOT DATE = Apr 02, 2008 - 08:28:57 AM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL

SCALE: SHEET NO. 1 OF 1 SHEETS STA. 571+00.67 TO STA. 573+01.17

F.A.P. RTE. 846	SECTION (6B-11)	COUNTY GRUNDY	TOTAL SHEETS 29	SHEET NO. 22
CONTRACT NO. 66728				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



PLAN

LEGEND

- (A) PLATE EXISTING BEAM ENDS
- (B) REMOVE AND REPLACE BEARING
- (C) REMOVE AND REPLACE DIAPHRAM
- (E) TEMPORARY SHORING AND CRIBBING
- (G) ANCHOR BOLT REPAIR

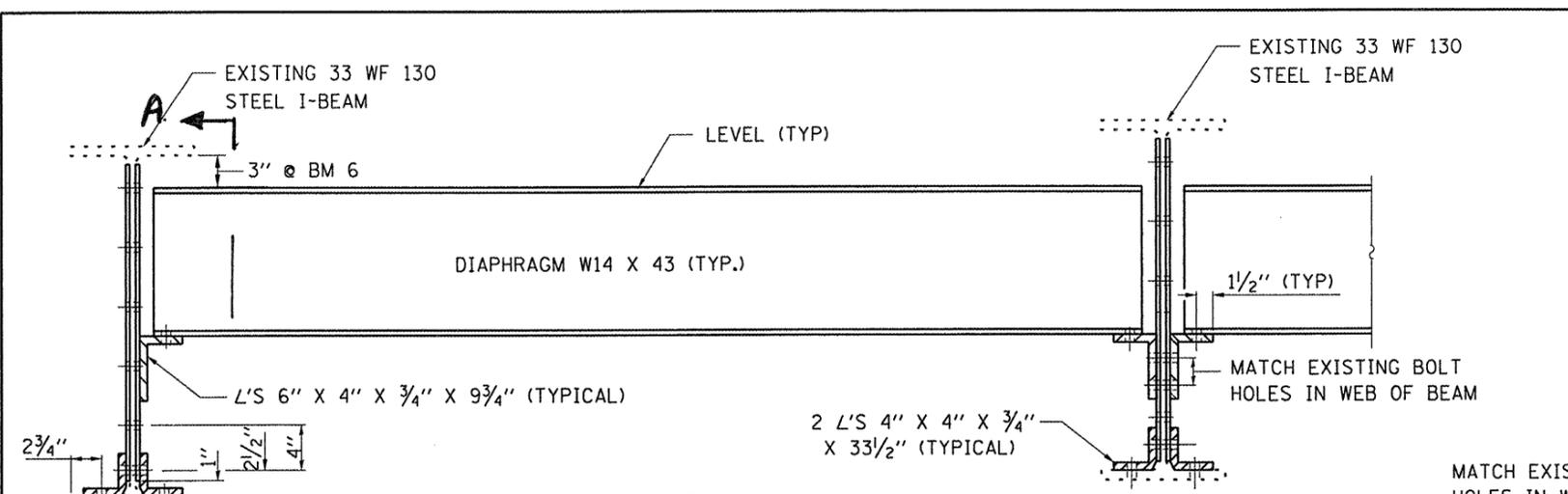
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

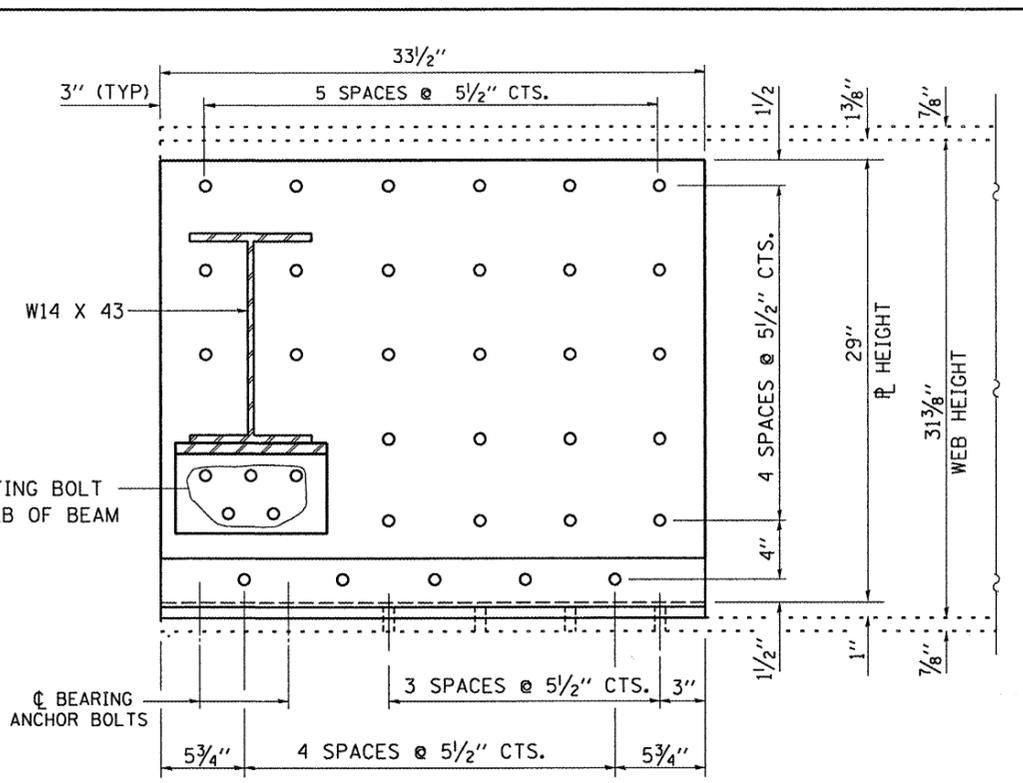
FRAMING PLAN

SCALE: _____ SHEET NO. 1 OF 1 SHEETS STA. 571+00.67 TO STA. 573+01.17

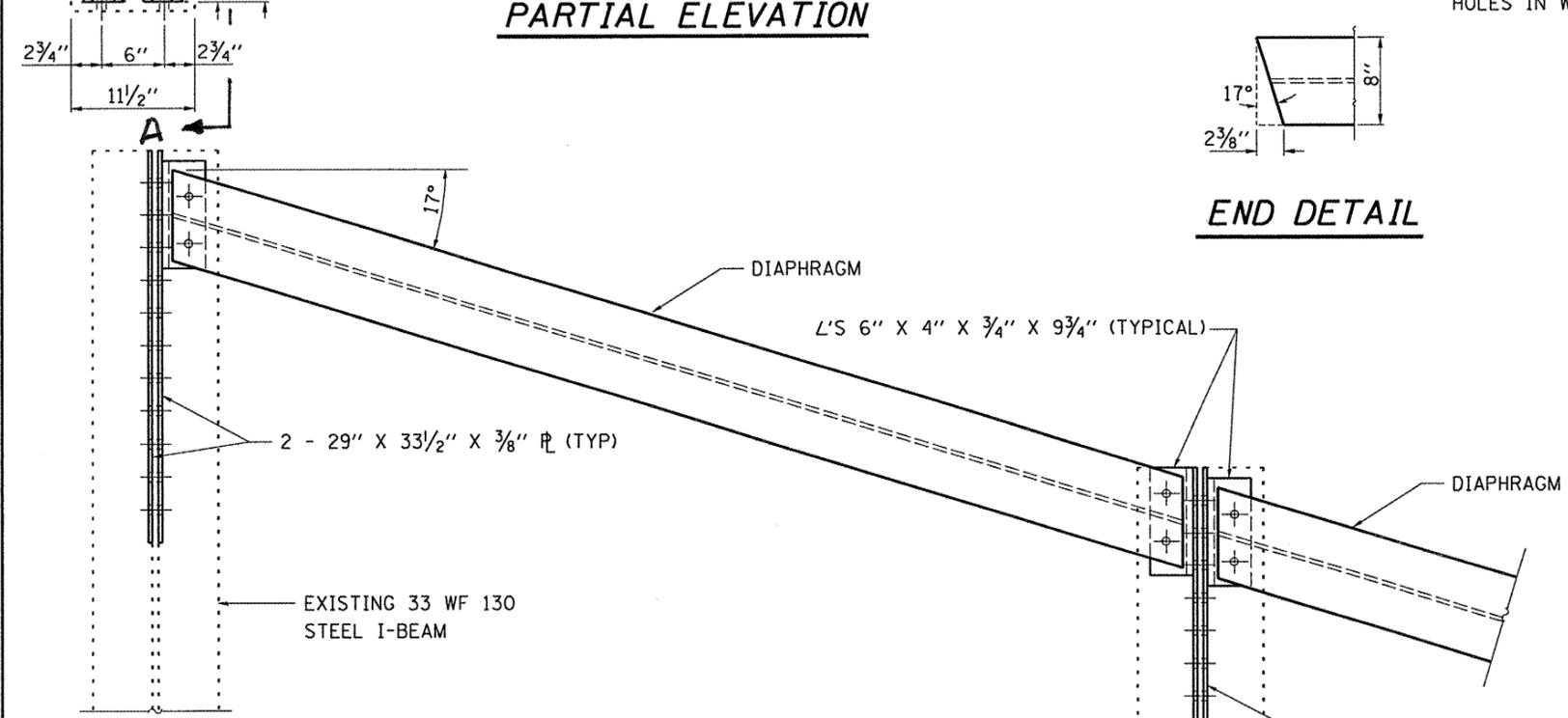
F.A.P. RTE. 846	SECTION 66B-1J1	COUNTY GRUNDY	TOTAL SHEETS 29	SHEET NO. 23
CONTRACT NO. 66728				
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				



PARTIAL ELEVATION



VIEW A-A



PARTIAL PLAN

DIAPHRAGM #6 SHOWN

	LENGTH
DIAPHRAGM D1	8'-1 ⁷ / ₈ "
DIAPHRAGM D2	8'-2 ¹ / ₄ "

NOTES:
 ALL BEAM ENDS AT THE SOUTH ABUTMENT SHALL BE PLATED WITH THE EXCEPTION OF BEAM #3.
 BEAM END PLATING SHALL NOT BE REQUIRED AT THE NORTH ABUTMENT.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
STRUCTURAL STEEL REPAIR	POUND	3440
STRUCTURAL STEEL REMOVAL	POUND	1950
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1950

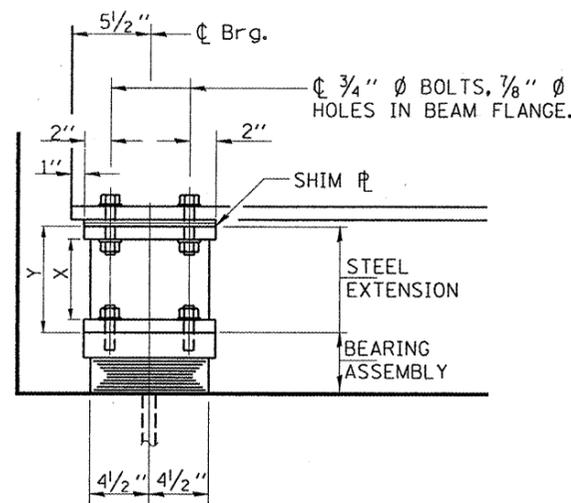
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

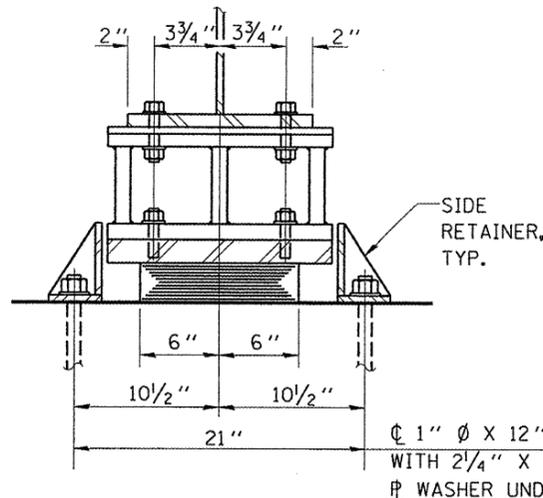
STRUCTURAL STEEL REPAIR

SCALE: SHEET NO. 1 OF 1 SHEETS STA. 571+00.67 TO STA. 573+01.17

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	(6B-1I)	GRUNDY	29	24
CONTRACT NO. 66728				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

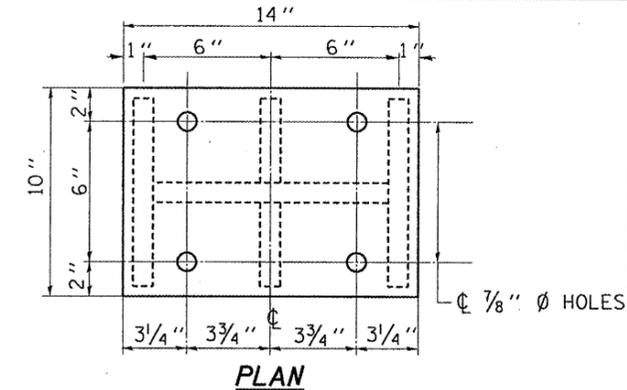


END ELEVATION AT ABUT.

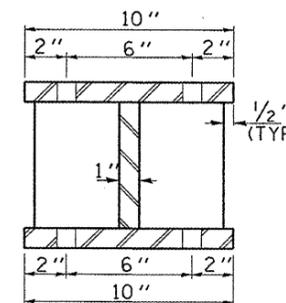


SIDE ELEVATION AT ABUT.

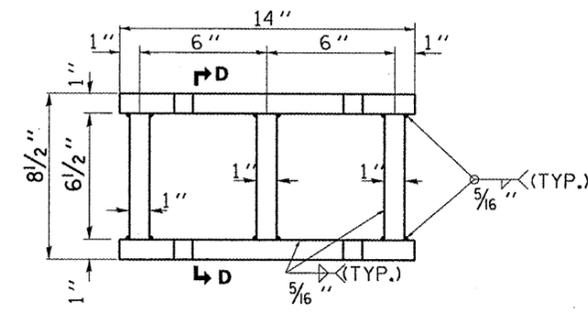
INTERIOR BEAM REACTION TABLE HS20 Loading		
		ABUTMENTS
R _D	(k)	22.05
R _L	(k)	39.27
R _{Imp}	(k)	11.39
R _{Total}	(k)	72.71



PLAN



SECTION D-D



ELEVATION

STEEL PEDESTAL

NOTES:
ANCHOR BOLTS SHALL BE ASTM F1554 ALL THREAD (OR AN ENGINEER-APPROVED ALTERNATE MATERIAL) OF THE GRADE(S) AND DIMENSION(S) SPECIFIED. ASTM A307 GRADE C ANCHOR BOLTS MAY BE USED IN LIEU OF ASTM F1554 GRADE 36 (F_y=36ksi). THE CORRESPONDING SPECIFIED GRADE OF AASHTO M314 ANCHOR BOLTS MAY BE USED IN LIEU OF ASTM F1554.

SIDE RETAINERS SHALL BE INCLUDED IN THE COST OF ELASTOMERIC BEARING ASSEMBLY, TYPE I.

DRILLED AND SET ANCHOR BOLTS SHALL BE INSTALLED ACCORDING TO ARTICLE 521.06 OF THE STANDARD SPECIFICATIONS.

DIAPHRAGM REMOVAL AND REINSTALLATION MAY BE REQUIRED TO FACILITATE DRILLING HOLES. COST INCLUDED WITH FURNISHING AND ERECTING STRUCTURAL STEEL.

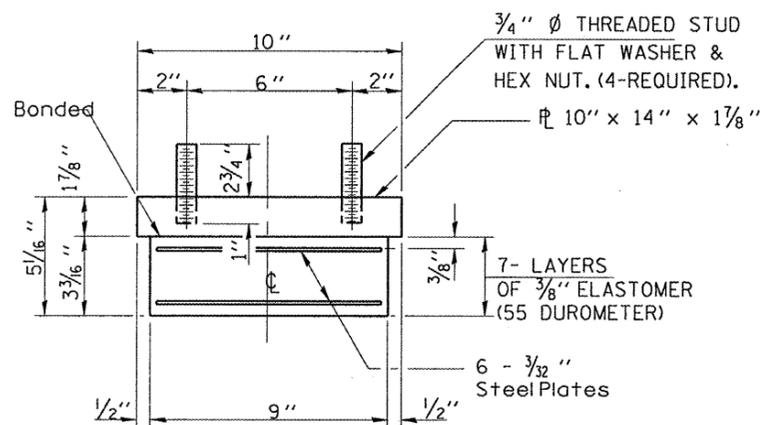
NEW STEEL EXTENSIONS, SHIM PLATES, AND CONNECTION BOLTS ARE INCLUDED WITH FURNISHING AND ERECTING STRUCTURAL STEEL.

PRIOR TO ORDERING AND MATERIALS, THE CONTRACTOR SHALL VERIFY IN THE FIELD ALL BEARING HEIGHT AND SHIM THICKNESS DIMENSIONS.

MINIMUM JACK CAPACITY = 40 TONS

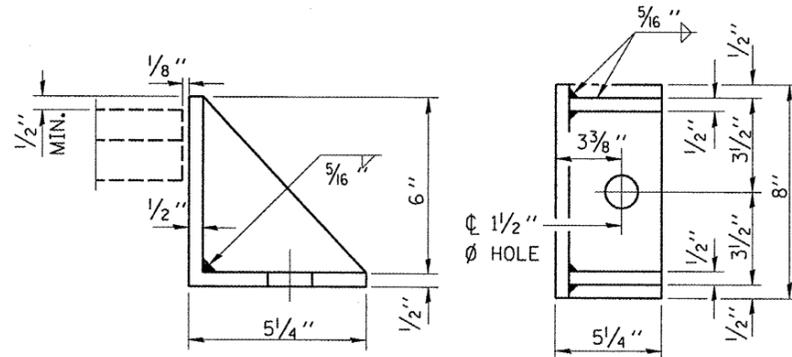
BILL OF MATERIAL

ITEM	UNIT	TOTAL
ELASTOMERIC BEARING ASSEMBLY TYPE I	Each	12
ANCHOR BOLTS 1" diameter	Each	24
REMOVE AND REPLACE ANCHOR BOLTS	Each	1
JACK AND REMOVE EXISTING BEARINGS	Each	12
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1620



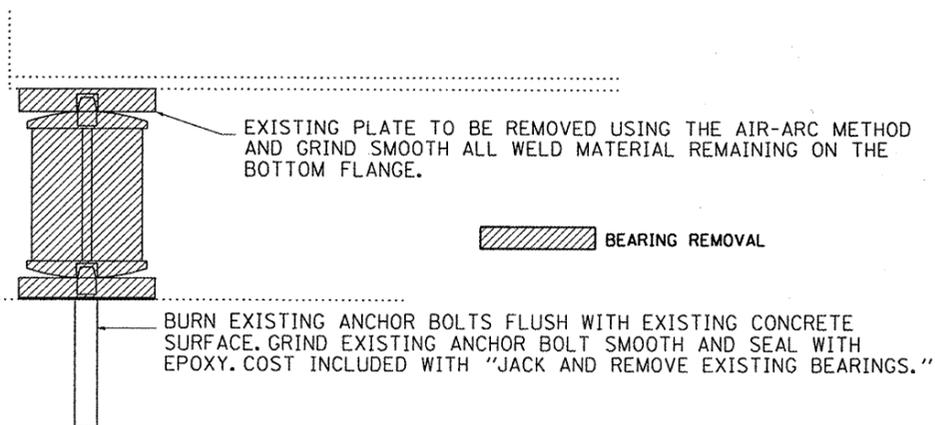
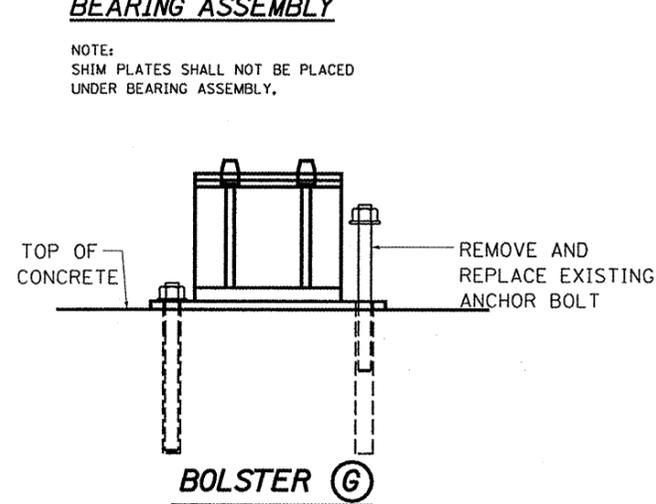
BEARING ASSEMBLY

NOTE:
SHIM PLATES SHALL NOT BE PLACED UNDER BEARING ASSEMBLY.



SIDE RETAINER

EQUIVALENT ROLLED ANGLE WITH STIFFENERS WILL BE ALLOWED IN LIEU OF WELDED PLATES.



EXISTING BEARING REMOVAL DETAIL AT ABUTMENTS

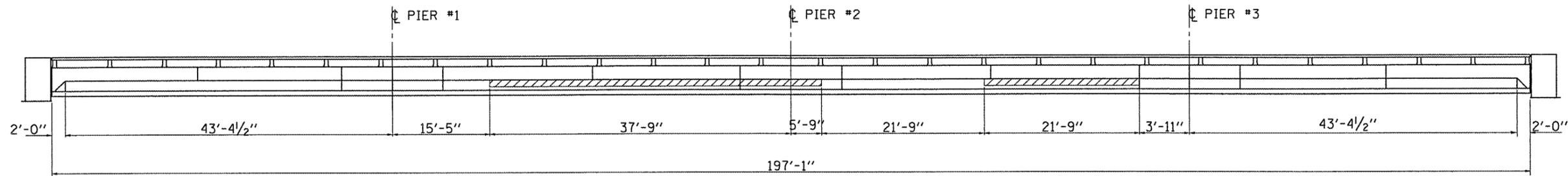
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELASTOMERIC BEARING

SCALE: SHEET NO. 1 OF 1 SHEETS STA. 571+00.67 TO STA. 573+01.17

F.A.P. RTE. 846	SECTION 46B-11I	COUNTY GRUNDY	TOTAL SHEETS 29	SHEET NO. 25
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 66728	



S. ABUT.

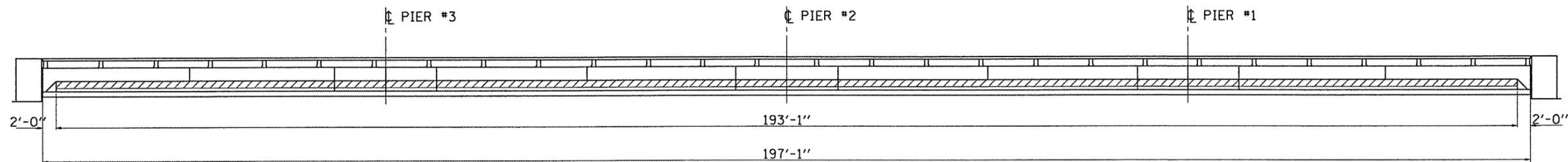
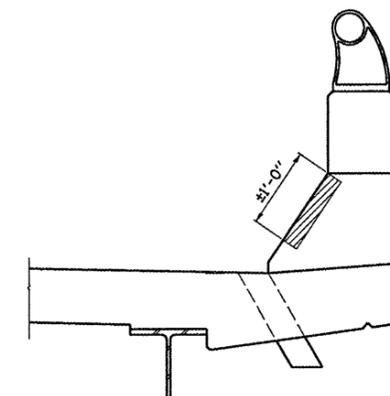
WEST PARAPET
INSIDE FACE

N. ABUT.



STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5")

NOTE: DIMENSIONS SHOWN ARE APPROXIMATE, THE ENGINEER SHALL SOUND THE REPAIR AREAS AS SHOWN TO DETERMINE EXACT LIMITS OF STRUCTURAL REPAIR OF CONCRETE.



N. ABUT.

EAST PARAPET
INSIDE FACE

S. ABUT.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5")	SQ FT	258
RUBBED FINISH (MODIFIED)	SQ FT	258

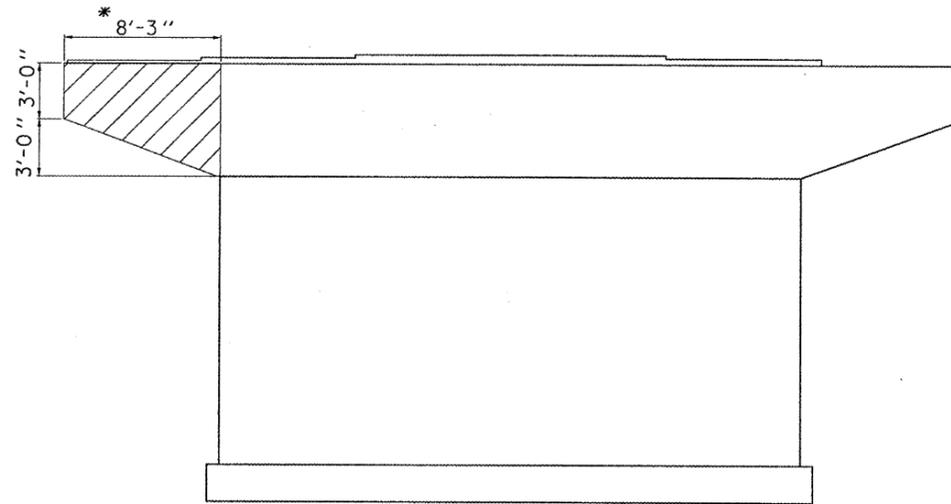
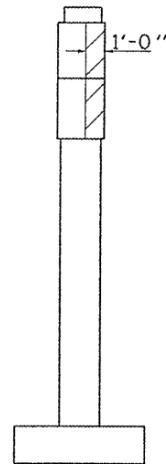
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

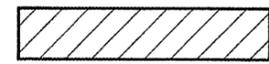
STRUCTURAL REPAIR OF CONCRETE

SCALE: _____ SHEET NO. 1 OF 3 SHEETS STA. 571+00.67 TO STA. 573+01.17

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
846	(6B-11)	GRUNDY	29	26
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 66728	



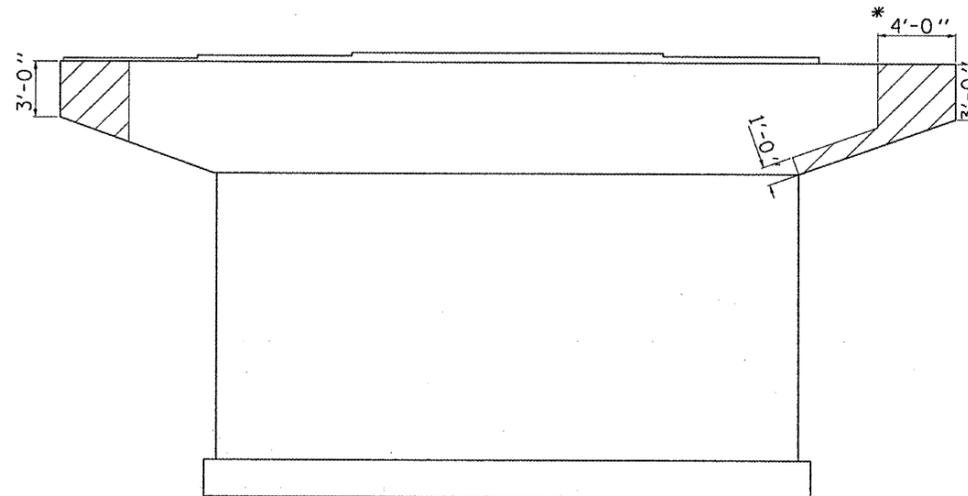
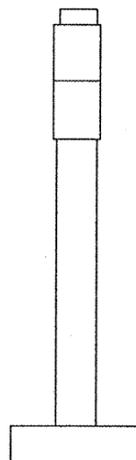
* TEMPORARY SHORING AND CRIBBING TO BE INSTALLED PRIOR TO START OF SUBSTRUCTURE WORK AT THIS LOCATION.



STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5")

PIER #3
SOUTH FACE

NOTE: DIMENSIONS SHOWN ARE APPROXIMATE, THE ENGINEER SHALL SOUND THE REPAIR AREAS AS SHOWN TO DETERMINE EXACT LIMITS OF STRUCTURAL REPAIR OF CONCRETE.



INTERIOR BEAM REACTION TABLE HS20 Loading		
PIER 3		
R D	(k)	71.20
R L	(k)	49.27
R Imp	(k)	14.29
R Total	(k)	134.76

BILL OF MATERIAL

ITEM	UNIT	TOTAL
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5")	SQ FT	71
TEMPORARY SHORING AND CRIBBING	EACH	1

PIER #3
NORTH FACE

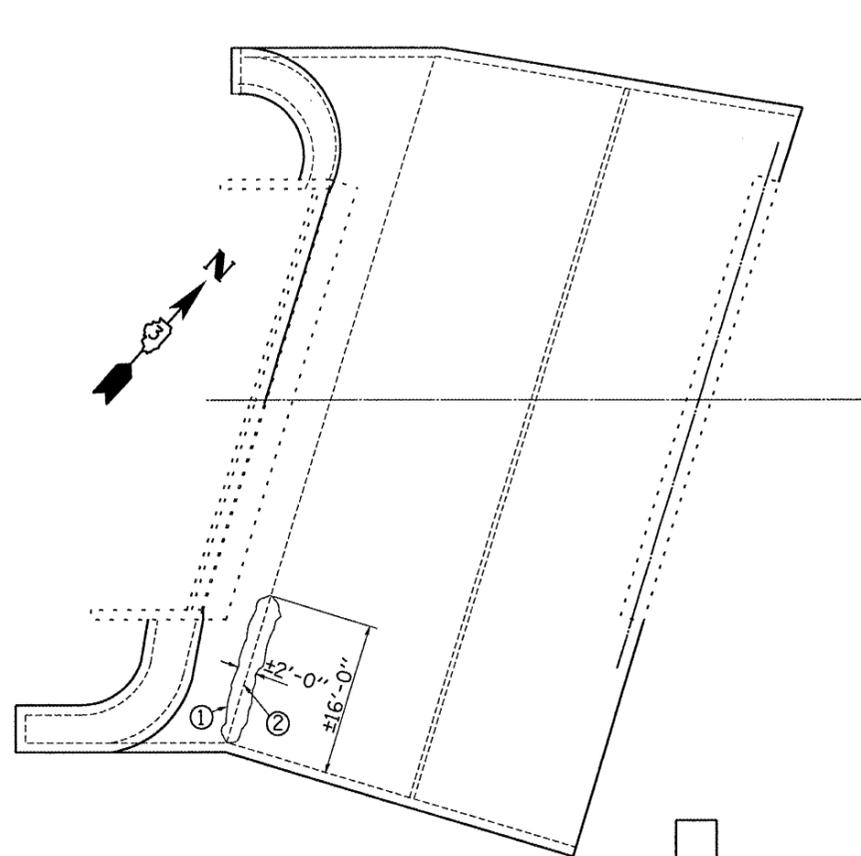
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL REPAIR OF CONCRETE

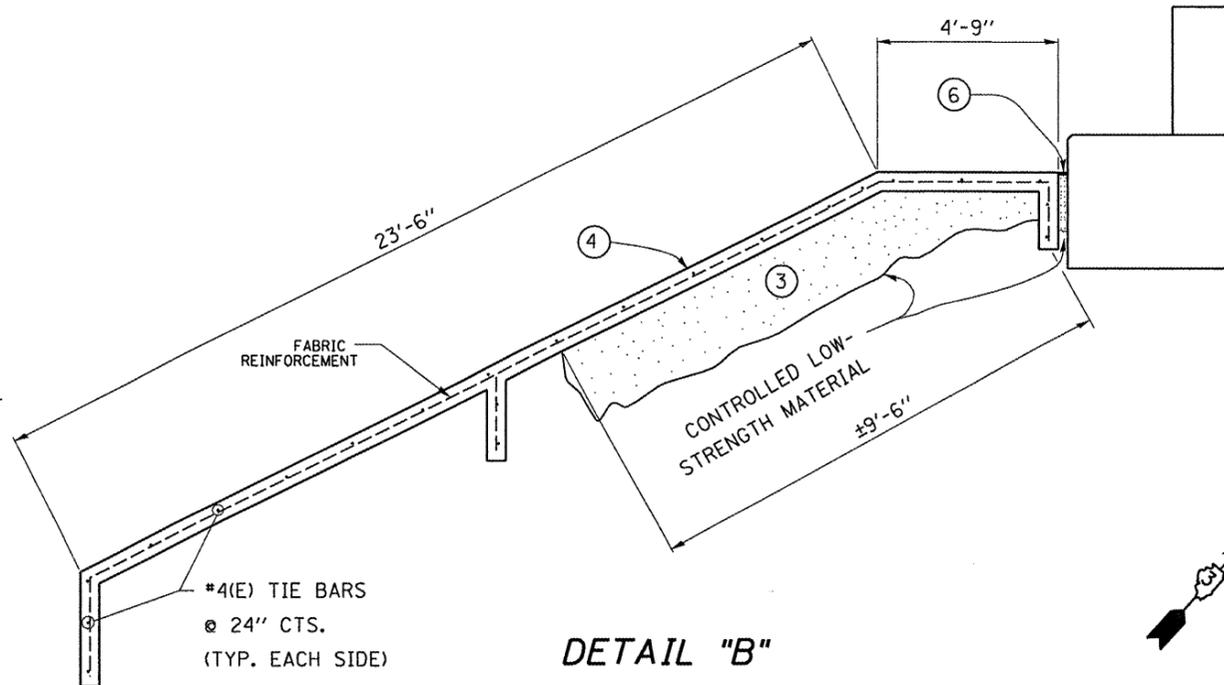
SCALE: SHEET NO. 3 OF 3 SHEETS STA. 571+00.67 TO STA. 573+01.17

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CONTRACT NO. 66728				
ILLINOIS FED. AID PROJECT				

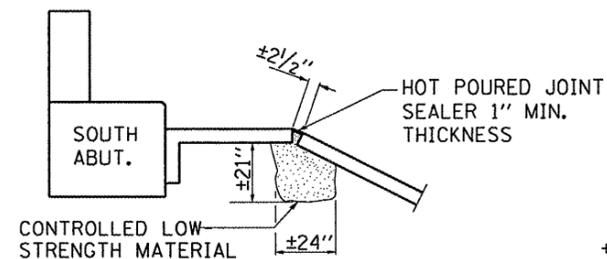


SOUTH ABUTMENT

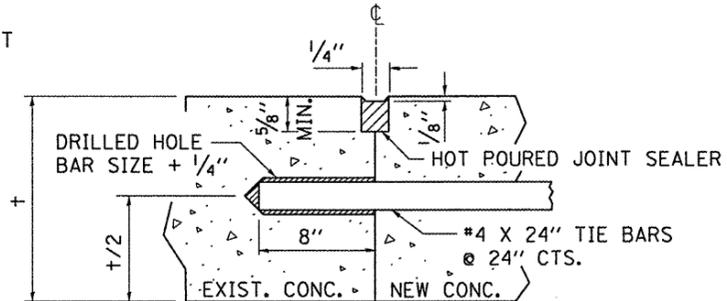
SEE DETAIL "A"



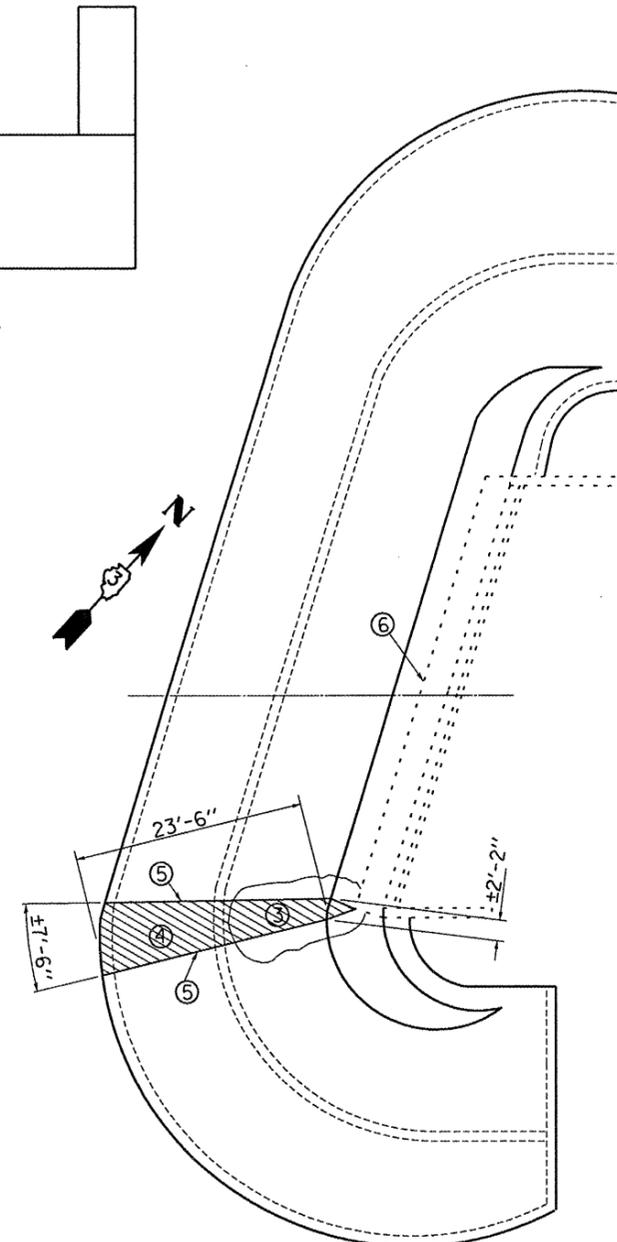
DETAIL "B"



DETAIL "A"



DETAIL "C"



NORTH ABUTMENT

LEGEND

- ① FILL VOID (±1'-9" DEPTH) WITH CONTROLLED LOW STRENGTH MATERIAL
- ② SEAL OPEN JOINT WITH APPROVED HOT POURED JOINT SEALER
- ③ FILL VOID (±2'-0" DEPTH) WITH CONTROLLED LOW STRENGTH MATERIAL
- ④ REMOVE AND REPLACE CONCRETE SLOPEWALL INCLUDING TOE WALLS
- ⑤ SEAL CONSTRUCTION JOINTS WITH APPROVED HOT POURED JOINT SEALER
- ⑥ FILL GAP BETWEEN SLOPEWALL AND ABUTMENT WITH CONTROLLED LOW STRENGTH MATERIAL AND SEAL WITH AN APPROVED HOT POURED JOINT SEALER (ENTIRE LENGTH OF ABUTMENT)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
SLOPE WALL REMOVAL	SQ YD	17
SLOPE WALL 6"	SQ YD	17
CONTROLLED LOW-STRENGTH MATERIAL	CU YD	12
DRILL AND GROUT BARS	Each	36
JOINT SEALER	FOOT	78

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PLOT DATE = Apr 02, 2008 - 08:29:40 AM	DATE -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPE WALL REPAIR

SCALE: SHEET NO. 1 OF 1 SHEETS STA. 571+00.67 TO STA. 573+01.17

F.A.P. RTE. 846	SECTION 16B-111	COUNTY GRUNDY	TOTAL SHEETS 29	SHEET NO. 29
CONTRACT NO. 66728				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				