

FOR INDEX OF SHEETS, SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

1. ILL. RTE. 53 (N.B.) OVER ILL. RTE. 62 SN-016-0378
 INCLUDES ONE 4 SPAN CONTINUOUS R.C. SLAB STRUCTURE WITH STEEL GIRDERS ON CONCRETE PIERS AND ABUTMENTS AT STA. 119+77.27
 2 SPANS AT 41'-3", 1 AT 38'-2" AND 1 AT 36'-8".
2. ILL. RTE. 53 (S.B.) OVER ILL. RTE. 62 SN-016-2133
 INCLUDES ONE 4 SPAN CONTINUOUS R.C. SLAB STRUCTURE WITH STEEL GIRDERS ON CONCRETE PIERS AND ABUTMENTS AT STA. 119+77.27
 2 SPANS AT 41'-3", 1 AT 38'-2" AND 1 AT 36'-8".
3. ILL. RTE. 53 OVER SALT CREEK SN-016-0377
 INCLUDES ONE 63'-3" SPAN CONTINUOUS R.C. SLAB STRUCTURE WITH PRESTRESSED CONCRETE BEAMS ON CONCRETE ABUTMENTS AT STA. 142+20
4. ILL. RTE. 53 (N.B.) OVER KIRCHOFF RD. SN-016-0376
 INCLUDES ONE 3 SPAN CONTINUOUS R.C. SLAB STRUCTURE WITH STEEL GIRDERS ON CONCRETE PIERS AND ABUTMENTS AT STA. 193+08.37
 2 SPANS AT 42'-9" AND 1 AT 110'-3".
5. ILL. RTE. 53 (S.B.) OVER KIRCHOFF RD. SN-016-1121
 INCLUDES ONE 3 SPAN CONTINUOUS R.C. SLAB STRUCTURE WITH STEEL GIRDERS ON CONCRETE PIERS AND ABUTMENTS AT STA. 193+08.37
 2 SPANS AT 42'-9" AND 1 AT 110'-3".
6. ILL. RTE. 53 (N.B.) OVER INDUSTRIAL AVE. SN-016-0375
 INCLUDES ONE 3 SPAN CONTINUOUS R.C. SLAB STRUCTURE WITH STEEL GIRDERS ON CONCRETE PIERS AND ABUTMENTS AT STA. 243+49.94
 2 SPANS AT 45'-2" AND 1 AT 59'-2".
7. ILL. RTE. 53 (S.B.) OVER INDUSTRIAL AVE. SN-016-1120
 INCLUDES ONE 3 SPAN CONTINUOUS R.C. SLAB STRUCTURE WITH STEEL GIRDERS ON CONCRETE PIERS AND ABUTMENTS AT STA. 243+49.94
 2 SPANS AT 45'-2" AND 1 AT 59'-2".

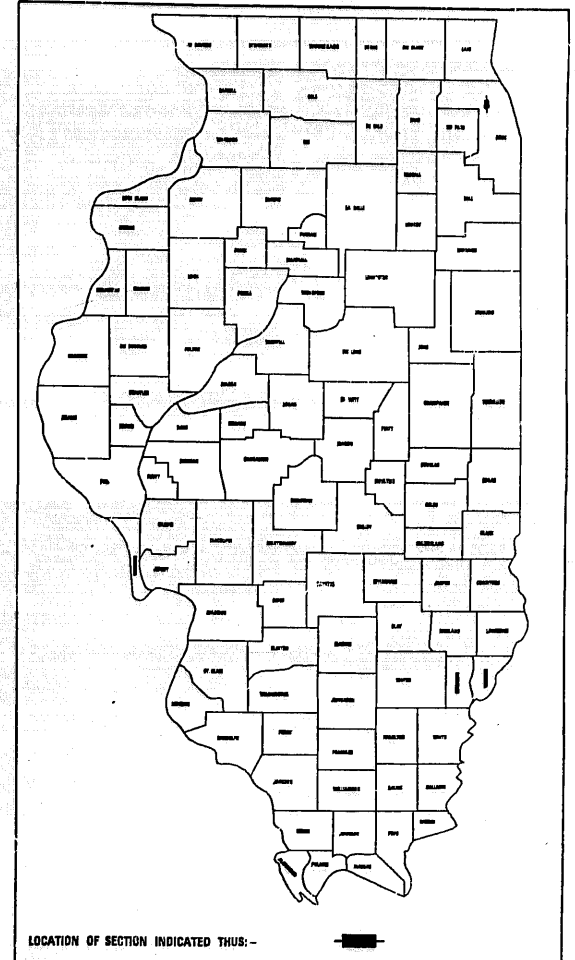
SCALES { PLAN
 PROFILE HORIZ.
 PROFILE VERT.
 CROSS SECTIONS

F.A. 342 (ILL. RTE. 53)
SECTION 531(1&2)RS-1(89) & 1989-107BR
ILL. RTE. 62 TO U.S. RTE. 14
RESURFACING AND BRIDGE DECK REHABILITATION
COOK COUNTY
C-91-255-90

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	*	COOK	271	1

* 93(1&2)RS-1(89) & 1989-107BR

D-91-475-89



DESIGN DESIGNATION
 9630(10) TRUNK 5.5(B-20)

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

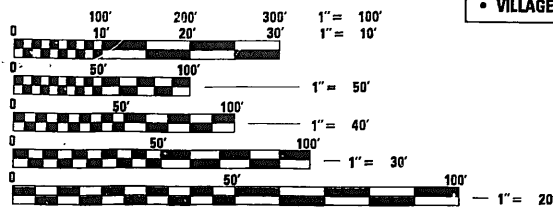
SUBMITTED January 2, 1991

EXAMINED Jan 30, 1991 *Harry D. Daulton*
MEMBER OF PLANS AND CONTRACTS

PASSED Jan 30, 1991

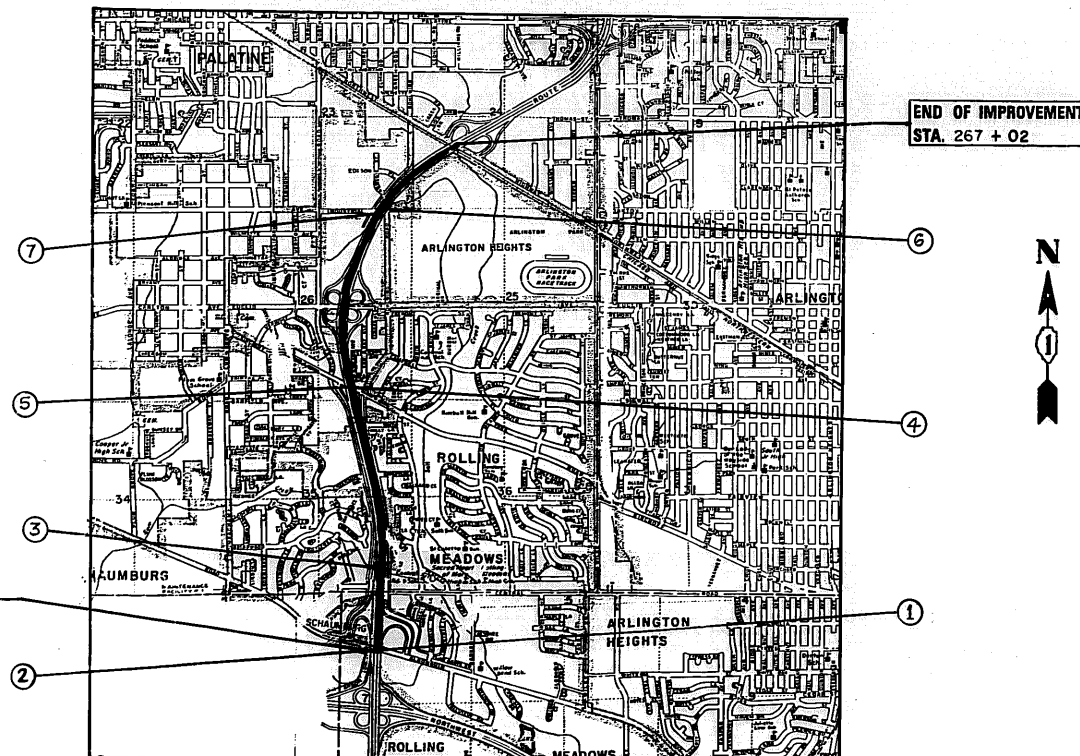
APPROVED Jan 30, 1991 *Joseph P. Daulton*
MEMBER OF STAFF

PRINTED BY AUTHORITY OF THE
 STATE OF ILLINOIS



PROJECT LOCATED IN:
 • VILLAGE OF ROLLING MEADOWS
 • VILLAGE OF ARLINGTON HEIGHTS

BEGINNING OF IMPROVEMENT
 STA. 116+00



END OF IMPROVEMENT
 STA. 267+02

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

CONTRACT NO. 80797

NET LENGTH OF IMPROVEMENT = 15,102 LIN. FT. = 2.860 MI.
 GROSS LENGTH OF IMPROVEMENT = 15,102 LIN. FT. = 2.850 MI.

FOR J.U.L.I.E. INFORMATION CALL 1-800-892-0123

F. A. P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	*	COOK	271	2
STA.	TO STA.			
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT		

*531(1/82)RS-1(89)E1989-107 BR

INDEX OF SHEETS

SHEET NO.	DESCRIPTION		
1	TITLE SHEET	⊗ 158-179	SURVEILLANCE
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3-7	SUMMARY OF QUANTITIES	* 181-185	APPROACH SLAB AND SHOULDER PAVEMENT DETAILS
8-11	TYPICAL CROSS SECTIONS	186	BRIDGE APPROACH SHOULDER PAVEMENT
12-24	PLAN - MAINLINE	187-193	BRIDGE PLANS - ALGONQUIN ROAD (NB)
25-34	PLAN - RAMPS	△ ± 194-200	BRIDGE PLANS - ALGONQUIN ROAD (SB)
35-38	BARRIER WALL DETAILS	201-208	BRIDGE PLANS - SALT CREEK
39	IMPACT ATTENUATOR & CORRUGATED BITUMINOUS SHOULDER DETAILS	209-215	BRIDGE PLANS - KIRCHOFF ROAD (NB)
40	EUCLID AVENUE RECONSTRUCTION PROFILE	216-222	BRIDGE PLANS - KIRCHOFF ROAD (SB)
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49-61	DRAINAGE AND UTILITIES - MAINLINE	229-234	BRIDGE PLANS - INDUSTRIAL AVENUE (SB)
62-66	DRAINAGE AND UTILITIES - RAMPS	235	NEOPRENE JOINT DETAIL
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69-77	TYPICAL CROSS SECTIONS - STAGING	237	BAR SPLICER DETAIL
78-92	SUGGESTED STAGES OF CONSTRUCTION	238-241	CROSS SECTIONS - UNDER EUCLID AVENUE
93	TEMPORARY INFORMATIONAL SIGNING - FOR STAGING	242-244	CROSS SECTIONS - COLLECTOR DISTRIBUTOR MEDIAN (NB)
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98	RAMP CLOSURES - DETAIL	263-264	CROSS SECTIONS - DITCH REGRADING
99	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	265-271	DISTRICT DETAILS
100	TRAFFIC CONTROL - SIDEROADS, INTERSECTIONS, AND DRIVEWAYS	⊗ INCLUDES 169A * INCLUDES 184A △ # INCLUDES 199A, 199B	
101-106	SIGN TRUSS PLAN AND DETAILS		
107	TEMPORARY INFORMATION SIGNING - SIGN TRUSS REMOVAL		
108-121	PAVEMENT MARKING		
122-148	TRAFFIC SIGNIN STRUCTURES		
149-157	ELECTRICAL PLAN AND DETAILS		

LIST OF STATE STANDARDS

STANDARD #	DESCRIPTION
2149-11	DELINEATORS
2213-4	FRAME AND LIDS, TYPE 1
2225-9	REINFORCEMENT FOR CONTINUOUSLY REINFORCED P.C.C. PAVEMENT
2228-4	METAL END SECTION FOR PIPE CULVERTS
2230-16	STEEL PLATE BEAM GUARDRAIL
2233-12	36' CONTINUOUSLY REINFORCED P.C.C. PAVEMENT
2237-11	B.A.M. SHOULDER DETAILS - ADJACENT TO RIGID PAVEMENT
2298-8	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2299-11	DESIGN OF TRAFFIC CONTROL DEVICES
2300-3	FLAGMAN TRAFFIC CONTROL SIGN
2307-6	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES SHORT-TIME OPERATION, DAY OR NIGHT
2308-5	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES RURAL, DAY OR NIGHT, MOVING OPERATIONS
2314-5	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES MULTILANE DIV. AND UNDIV., RURAL, DAY OR NIGHT
2316-12	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES MULTILANE DIV. AND UNDIV., RURAL, OVER ONE DAY
2323-11	PAVEMENT JOINTS
2324-7	BRIDGE APPROACH SHOULDER PAVEMENT
2326-3	TRAFFIC BARRIER TERMINAL, TYPE 10
2327-11	SUB-SURFACE DRAINS
2333-3	CONCRETE BARRIER
2336-4	TRAFFIC BARRIER TERMINAL, TYPE 1 AND 1A
2337-2	TRAFFIC BARRIER TERMINAL, TYPE 2
2338-2	TRAFFIC BARRIER TERMINAL, TYPE 3 & 3A
2340-4	TRAFFIC BARRIER TERMINAL, TYPE 5 & 5A
2341-3	TRAFFIC BARRIER TERMINAL, TYPE 6
2360-4	BRIDGE APPROACH PAVEMENT (50 FT.)
2362-3	CONCRETE HEADWALL FOR PIPE DRAINS
2381	TEMPORARY EROSION CONTROL SYSTEMS
2383-1	TEMPORARY CONCRETE BARRIER
2385	FRAME AND GRATE, TYPE 20
2386	FRAME AND GRATE, TYPE 21
2387	FRAMES AND GRATES, TYPE 22
2419	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES MULTILANE DIVIDED AND UNDIVIDED RURAL, DAY OR NIGHT OPERATIONS
2425-1	CLASS A PATCHES
2427-1	CLASS C AND D PATCHES
U-2	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
U-4	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
2429	CONCRETE SHOULDERS

PLAN NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR "DIGGER" (CHICAGO UTILITY ALERT NETWORK), (312)774-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED).

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF CHICAGO.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

THE REMOVAL OF GUARDRAIL TERMINAL SECTIONS SHALL BE INCLUDED IN THE UNIT PRICE PER LINEAL FOOT FOR STEEL PLATE BEAM GUARD RAIL REMOVAL.

BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH TYPE I OR TYPE II BARRICADE USED. (ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL).

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
INDEX OF SHEETS,
PLAN NOTES
AND
STATE STANDARDS

SCALE: VERT. _____
HORIZ. _____

DRAWN BY _____
CHECKED BY R.V. _____

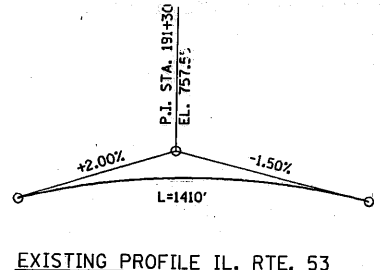
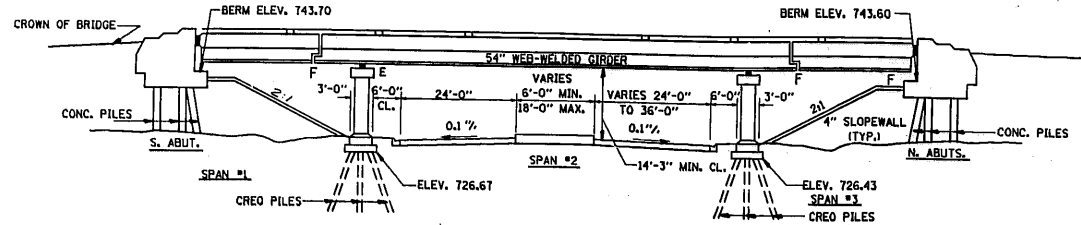
△ Rev 2.6.91

Rev

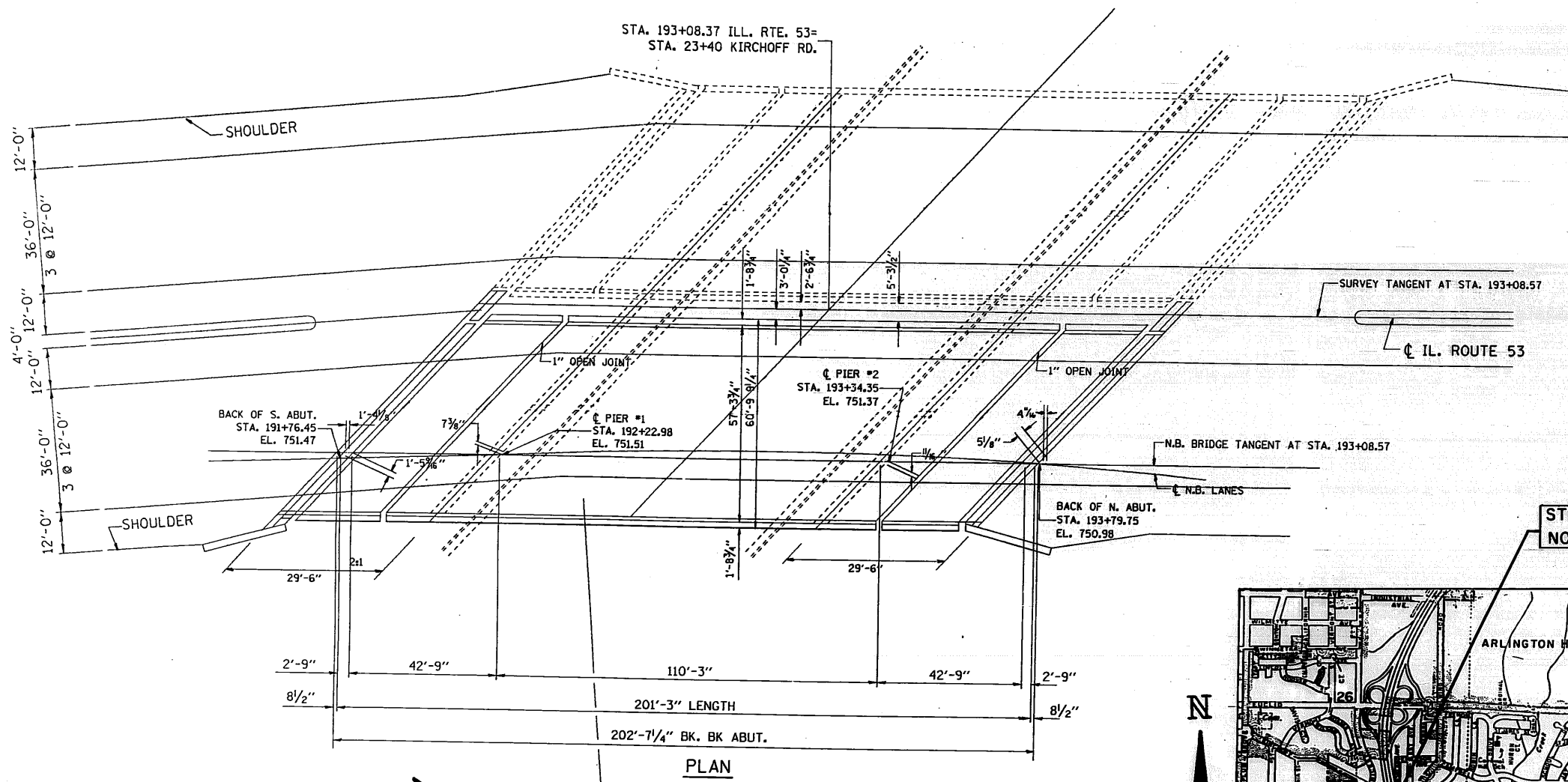


EXISTING BRIDGE DESCRIPTION
 THE BRIDGE CONSIST OF A 3 SPAN CONTINUOUS WELDED PLATE GIRDER STRUCTURE,
 HAVING 2 SPANS AT 42'-9" AND 1 SPAN AT 110'-3" THE 7-INCH THICK CONCRETE DECK
 HAS A BITUMINOUS CONCRETE OVERLAY. THE STRUCTURE REST ON OPEN R.C. ABUTMENTS
 AND R.C. PIERS

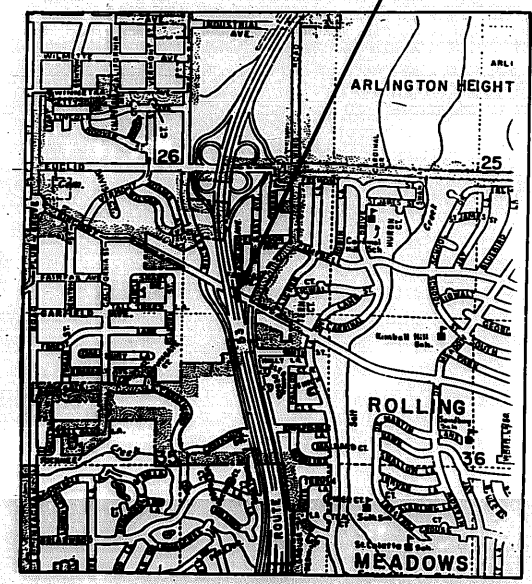
P.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	*	COOK	271	209
STA.		TO STA.		
P.D. ROAD DIST. NO.		BLANDY	P.D. AIR PROJECT	
* 531(1) & 21R5-1(89) & 1989-107BR				
SHEET 1 OF 7				



- INDEX OF SHEETS**
- 1) PLAN AND ELEVATION
 - 2) GENERAL NOTES AND SUMMARY OF QUANTITIES
 - 3) DECK DETAILS
 - 4) DELAMTECT AND BOTTOM DECK SURVEY
 - (5-6) JOINT RECONSTRUCTION DETAIL
 - 7) STAGING CROSS SECTION



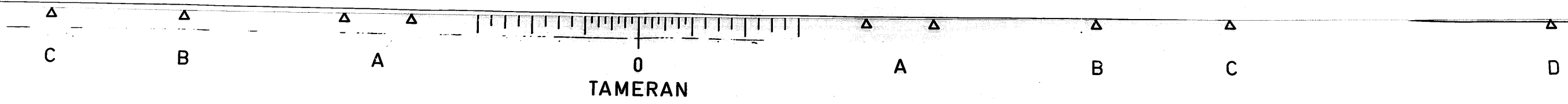
HORIZONTAL CURVE DATA
 $\Delta = 77^\circ 11' 38''$
 $D = 0^\circ 57' 17.8''$
 $R = 6000'$
 $T = 4789.21'$
 $L = 8083.72'$
 $E = 1677.02'$
 $S.E. = .02 \%$



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL. RTE. 53 @ KIRCHOFF RD. N.B.
 BRIDGE REHABILITATION
 STRUCTURE NO. 016-0376
 PLAN & ELEVATION
 SCALE: VERT. NONE
 HORIZ. NONE
 DATE 10/23/90
 DRAWN BY
 CHECKED BY

VI--BR3



NOTES:

1. The Zinc-silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted. The color of the vinyl finish coat shall be Munsell No. 7.5G 4/8.

2. All structural steel shall be AASHTO M 222 except expansion joint plates and attached bars which shall be AASHTO M 183.

3. Deck Repair Method II shall be used for this structure (See Spec. Prov.)

3. Expansion joint plates and attached bars shall be shop painted with the zinc-silicate primer.

4. AASHTO M 222 structural steel shall not be painted except, that for a distance of three times the depth of the beams or girders (but not exceeding 10 feet) each way from deck joints, the AASHTO M 222 structural steel shall be cleaned and given one coat of the zinc-silicate primer and a dark mason vinyl finish coat. The color of the finish coats shall be Munsell No. 2.5 YR 3/4 reddish brown. Both coats may be applied in the shop with spot painting only in the field.

5. The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 223 Grade 50 (AASHTO M 222).

6. Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

7. 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 the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

8. All accessible end areas of steel beams, exposed top of steel beams, end diaphragms, and bearings designated by the Engineer for painting shall be cleaned by Method I. The three coat lead and chromate free alkyd paint system shall be applied over all cleaned areas, except the exposed top of steel beams to be embedded in concrete shall receive only one coat of the primer of this system. The color of the final finish coat shall be INTERSTATE GREEN. This work will be paid for in accordance with Article 109.04 of the Standard Specifications.




TOTAL BILL OF MATERIALS

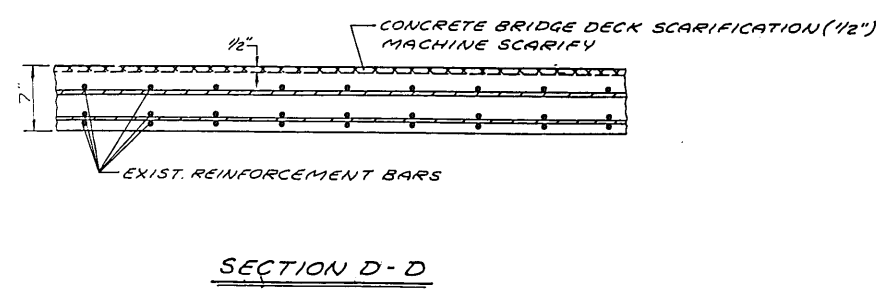
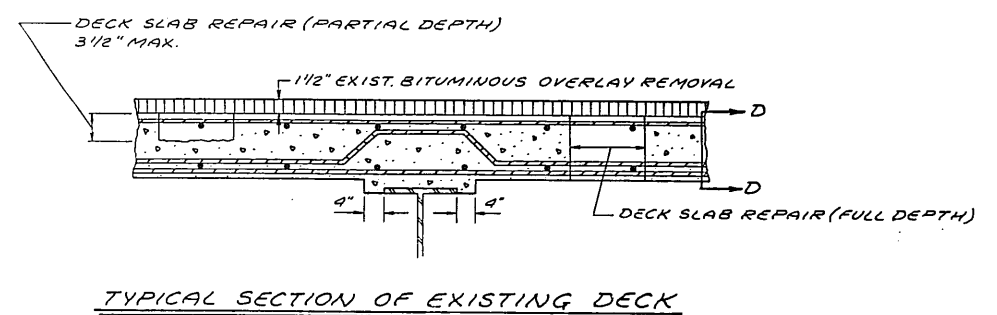
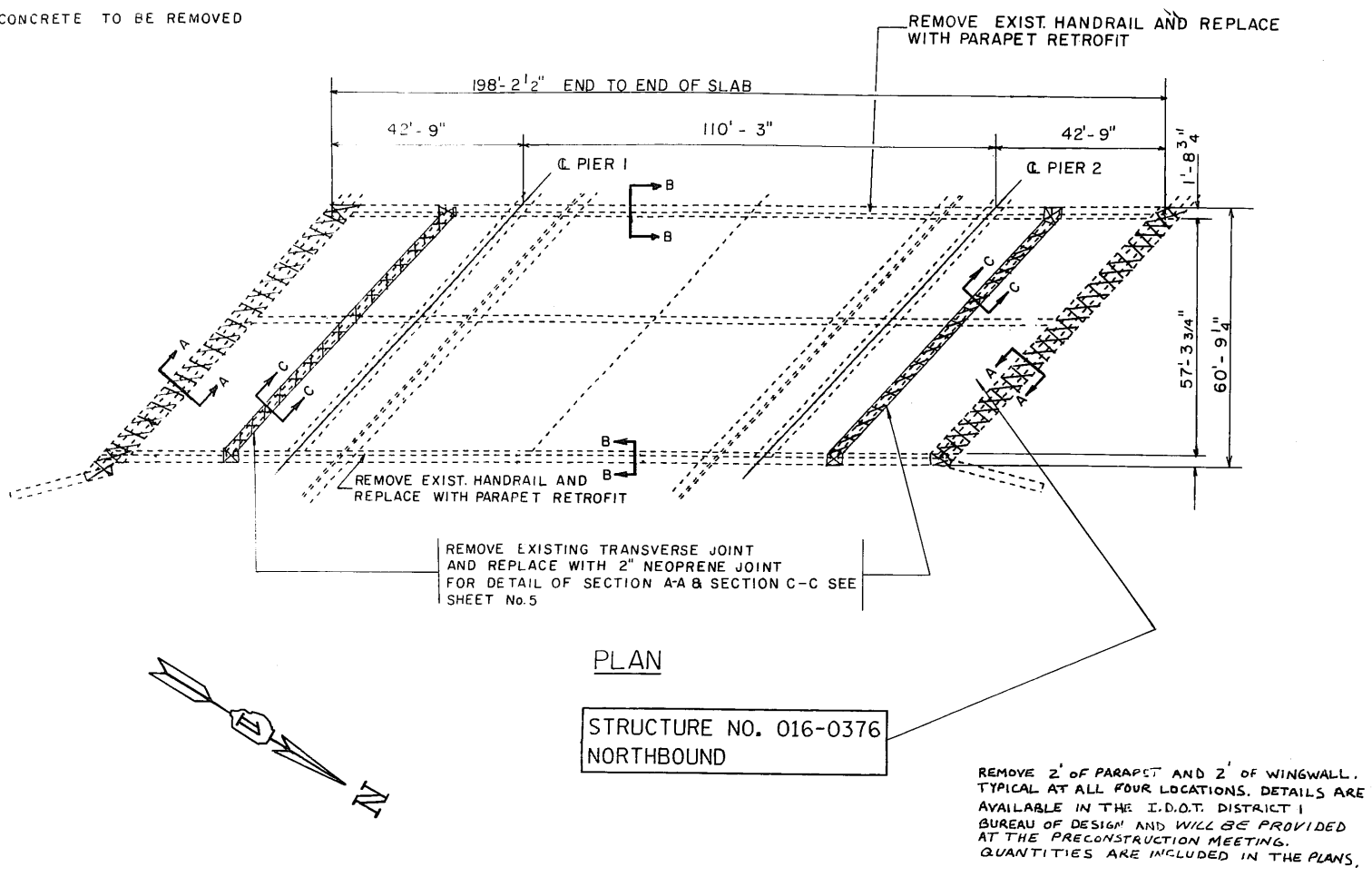
ITEM	UNIT	TOTAL
BITUMINOUS CONCRETE REMOVAL (DECK)	SQ. YD.	1262
CONCRETE BRIDGE DECK SCARIFICATION, 1/2"	SQ. YD.	1262
DECK SLAB REPAIR (PARTIAL DEPTH)	SQ. YD.	80
DECK SLAB REPAIR (FULL DEPTH)	SQ. YD.	10
CONCRETE REMOVAL, SPECIAL	CU. YD.	41.0
HANDRAIL REMOVAL	LIN. FT.	398
NEOPRENE JOINT, 2"	LIN. FT.	163
REINFORCEMENT BARS, EPOXY COATED	POUND	7232
CLASS X CONCRETE SUPERSTRUCTURE	CU. YD.	48.4
MICROSILICIA CONCRETE BRIDGE DECK OVERLAY, 2 1/2"	SQ. YD.	1262
PROTECTIVE COAT	SQ. YD.	1513
PROTECTIVE SHIELD	SQ. YD.	230
CONCRETE PARAPET RETROFIT	LIN. FT.	398
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	4347
SAWING PC CONCRETE PAVEMENT, 3/4"	LIN. FT.	724
PREFORMED JOINT SEALS, 1 3/4"	LIN. FT.	164

REVISIONS	
NAME	DATE

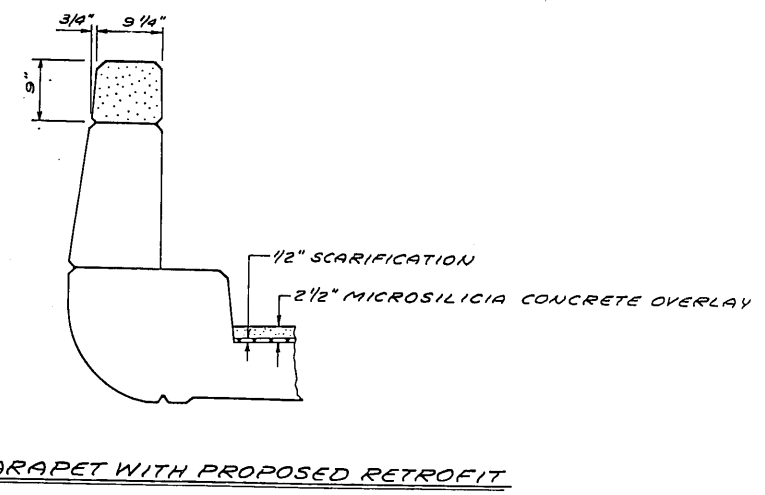
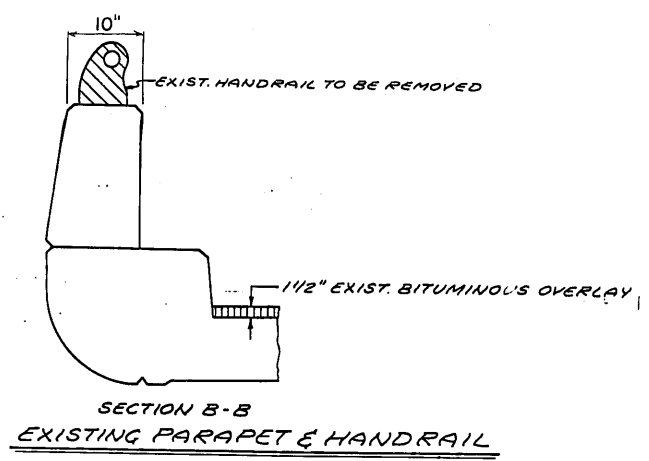
DEPARTMENT OF TRANSPORTATION
 IL. RTE. 53 @ KIRCHOFF RD.
 (NORTHBOUND LANES)
 GENERAL NOTES
 AND
 BILL OF MATERIALS
 DATE
 CHECKED BY RY



- LEGEND**
-  DECK SLAB REPAIR (PARTIAL DEPTH) SEE DELAMTEC SHEET No.4
 -  DECK SLAB REPAIR (FULL DEPTH) SEE BOTTOM DECK SURVEY SHEET No.4
 -  CONCRETE TO BE REMOVED



BILL OF MATERIALS		QUANTITIES	
ITEM	UNIT	TOTAL	
BITUMINOUS CONCRETE REMOVAL (DECK)	SQ. YD.	1262	
CONCRETE BRIDGE DECK SCARIFICATION, 1/2"	SQ. YD.	1262	
DECK SLAB REPAIR (PARTIAL DEPTH)	SQ. YD.	80	
DECK SLAB REPAIR (FULL DEPTH)	SQ. YD.	10	
MICROSILICIA CONCRETE BRIDGE DECK OVERLAY, 2 1/2"	SQ. YD.	1262	
PROTECTIVE COAT	SQ. YD.	1363	
PARAPET RETROFIT	SQ. YD.	230	
PARAPET RETROFIT	LIN. FT.	398	
HANDRAIL REMOVAL	LIN. FT.	398	



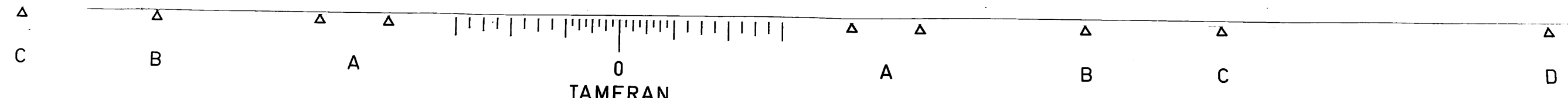
P.A. DIST.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	*	COOK	271	211
STA.	TO STA.			
FED. ROAD DIST. NO.	BLDG. NO.	FED. AID PROJECT		
* 531(1 & 2)RS-1(89) & 1989-107BR				
SHEET 3 OF 7				

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

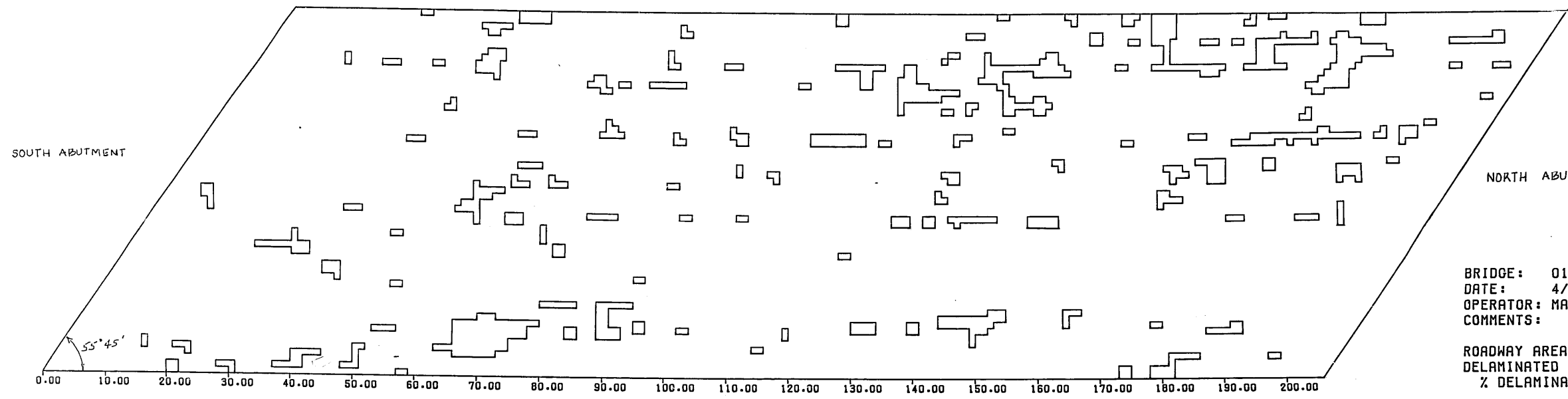
IL. RTE. 53 @ KIRCHOFF RD. N.B.
BRIDGE REHABILITATION
STRUCTURE NO. 016-0376
DECK DETAILS

SCALE: VERT. DRAWN BY
HORIZ. CHECKED BY
DATE 10/23/90



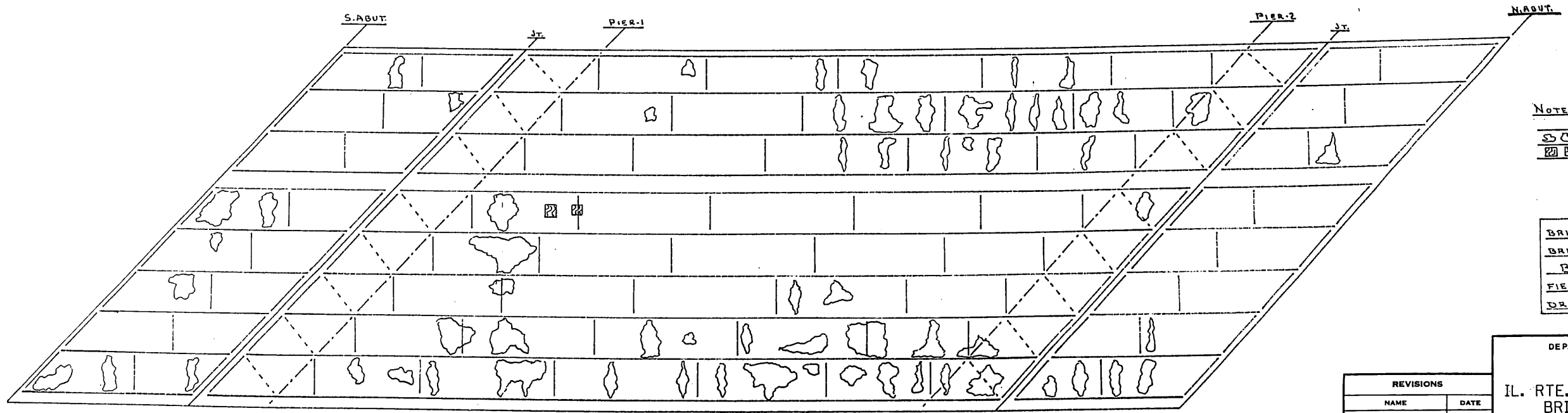
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	*	COOK	271	212
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

* 531(142)RS-1(89) 1989-107 BR
SHEET 4 OF 7



SCALE: HORIZONTAL 1" = 10'
VERTICAL 1" = 10'

BRIDGE: 016 0376
DATE: 4/30/90
OPERATOR: MATECHICK NB53/KIRCHOFF
COMMENTS:
ROADWAY AREA: 1262 SY
DELAMINATED AREA: 80 SY
% DELAMINATED: 6 %



NOTE:
- No SPALL AREAS
- LEACHING AREAS
- PLYWOOD FORMS

BRIDGE ILL 53 N.B. KIRCHOFF RD
BRIDGE No. 016-0376 '621
BOTTOM DECK SURVEY
FIELD DATA NM DATE 3/5/90
DRAWN BY NM DATE 3/14/90

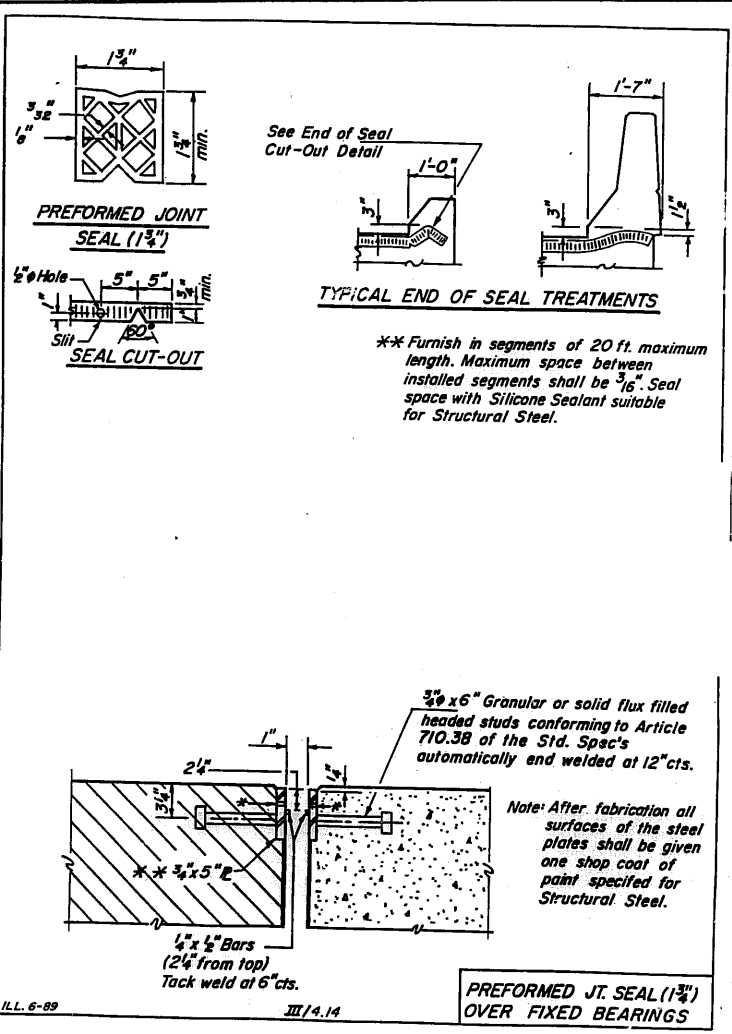
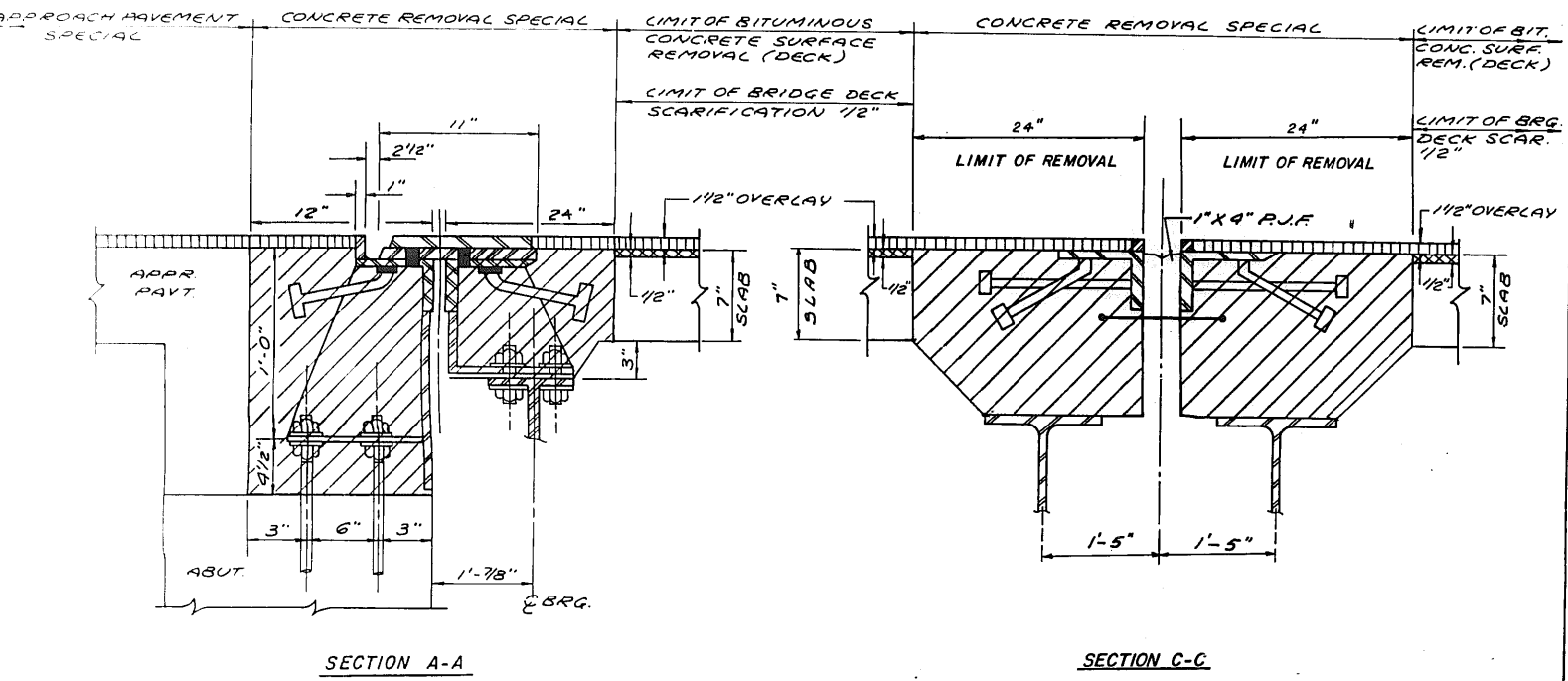
REVISIONS	
NAME	DATE

DEPARTMENT OF TRANSPORTATION
IL. RTE. 53 @ KIRCHOFF RD. N.B.
BRIDGE REHABILITATION
STRUCTURE NO. 016-0376
DELAMTECT AND
BOTTOM DECK SURVEY DATE
CHECKED BY



NOTES: EXISTING REINFORCEMENT BARS IN THE REMOVAL AREAS SHALL BE CLEANED BEFORE PLACEMENT OF NEW CLASS X CONCRETE. (COST TO BE INCIDENTAL TO "CLASS X CONCRETE").
REMOVAL OF EXISTING STRUCTURAL STEEL SHALL BE INCIDENTAL TO "CONCRETE REMOVAL SPECIAL".

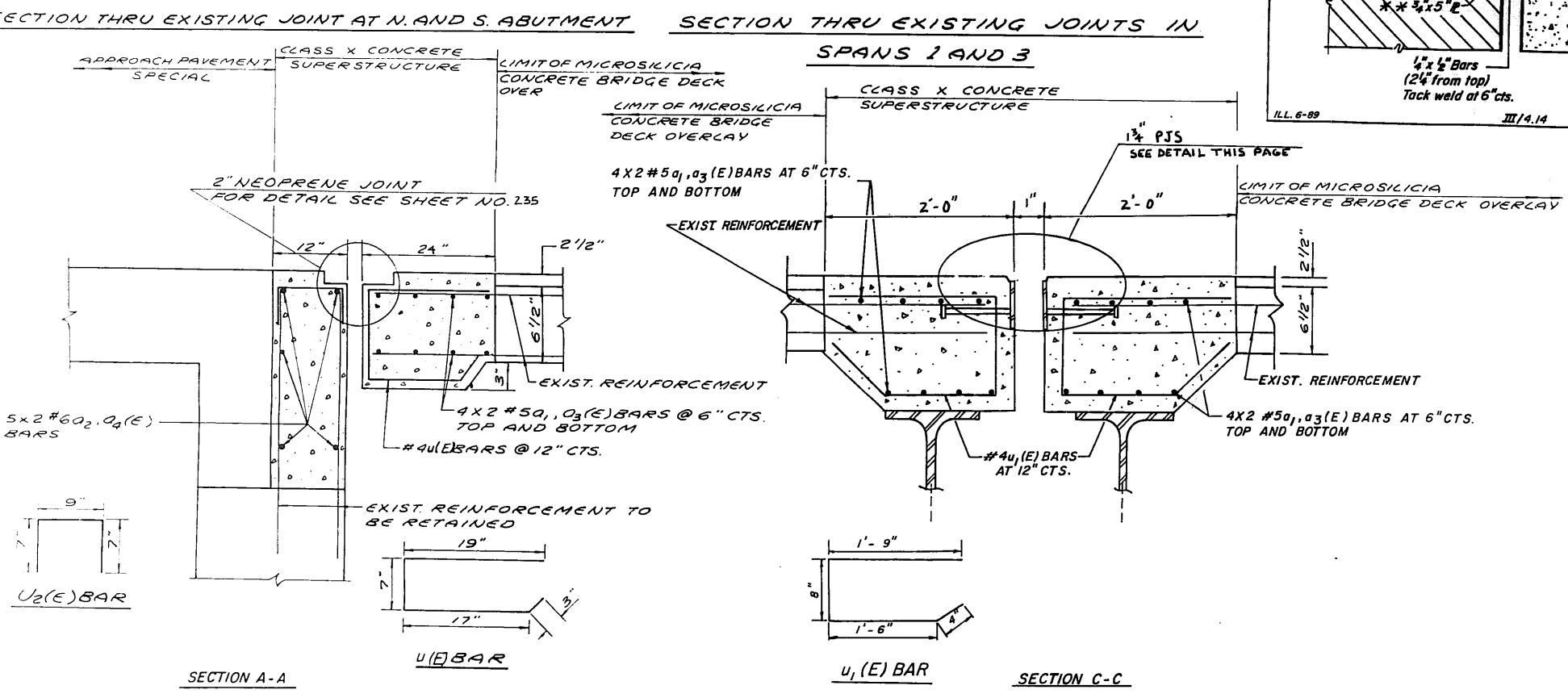
F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	*	COOK	271	213
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT
* 531 (1B2) RS - 1(89) B 1989 - 107BR				
BAR LIST				
SHEET 5 OF 7				



BAR NO.	SIZE	LENGTH	SHAPE
Q1(E)	#5	21'-3"	---
Q2(E)	#6	21'-5"	---
Q3(E)	#5	19'-4"	---
Q4(E)	#6	19'-6"	---
U(E)	#4	3'-10"	---
U1(E)	#4	4'-3"	---
U2(E)	#4	1'-11"	---

BILL OF MATERIALS

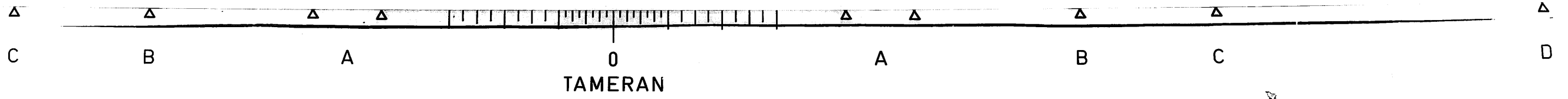
ITEM	UNIT	QUANTITY
CONCRETE REMOVAL, SPECIAL	CU. YD.	41.0
REINFORCEMENT BARS (EPOXY COATED)	POUND	7232
CLASS X CONCRETE SUPERSTRUCTURE	CU. YD.	48.4
SAWING P.C. CONCRETE PAVEMENT, 3/4"	LIN. FT.	724
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	4347
NEOPRENE JOINT, 2"	LIN. FT.	163
PROTECTIVE COAT	SQ. YD.	150
PREFORMED JOINT SEAL, (1 3/4")	LIN. FT.	164

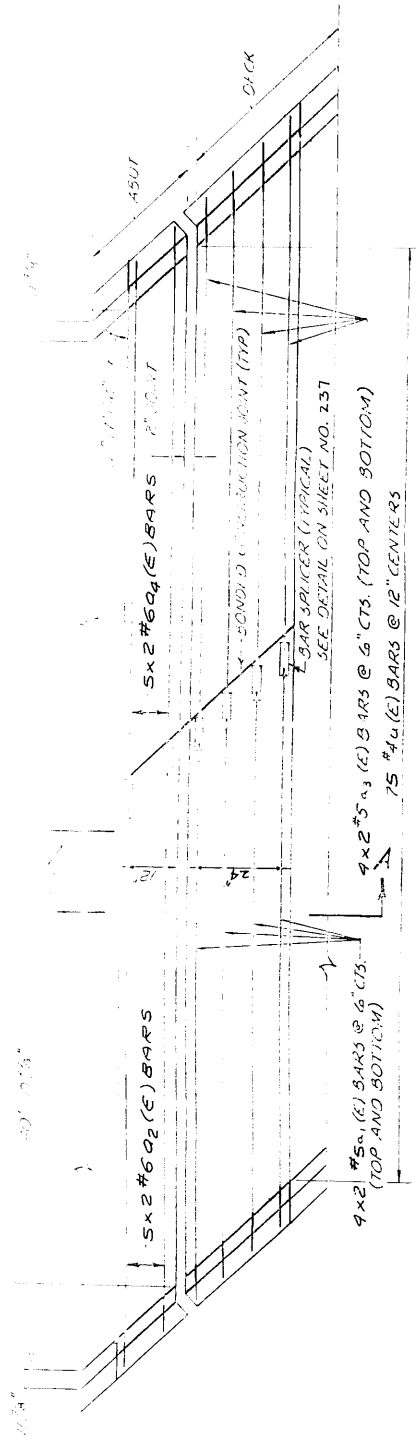


ILLINOIS DEPARTMENT OF TRANSPORTATION
12. RTE. 53 @ KIRCHOFF RD.
(NORTHBOUND)
STRUCTURE No. 016 - 0376
JOINT RECONSTRUCTION DETAIL

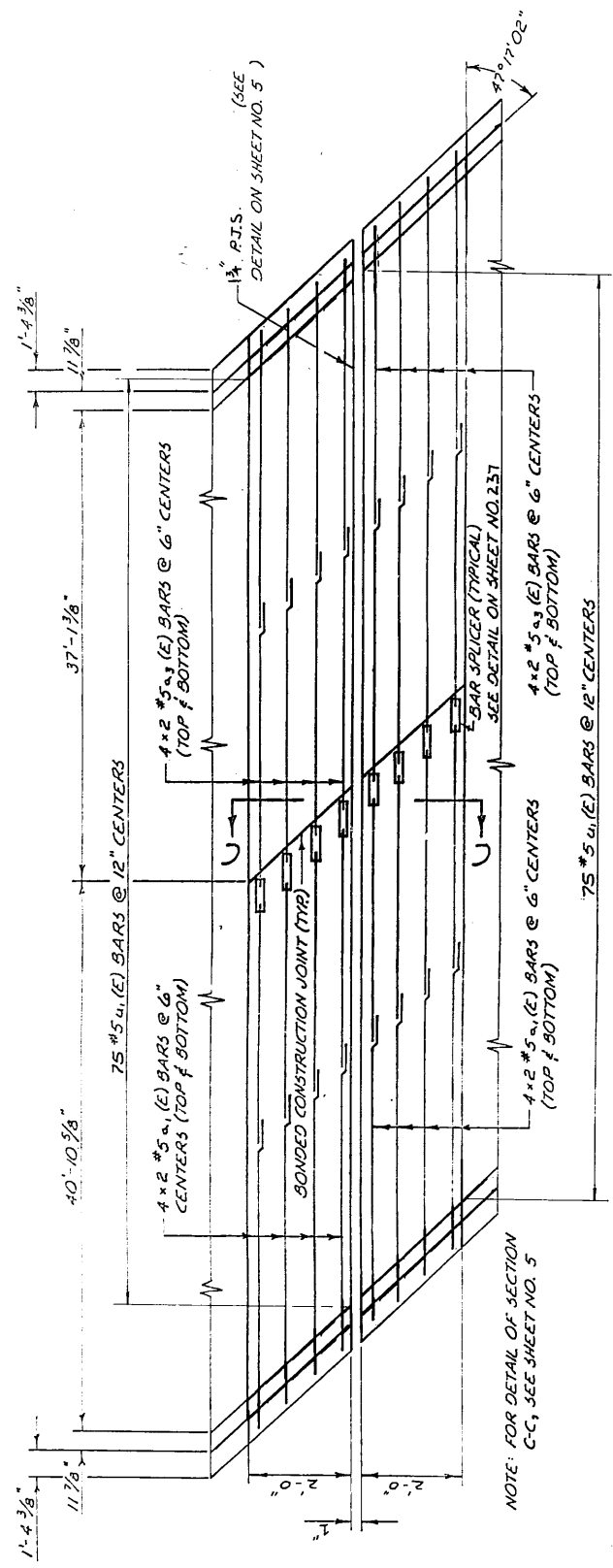
SCALE: VERT. NONE
HORIZ. DRAWN BY J.R.C.
DATE CHECKED BY J.R.C.

REVISIONS	
NAME	DATE

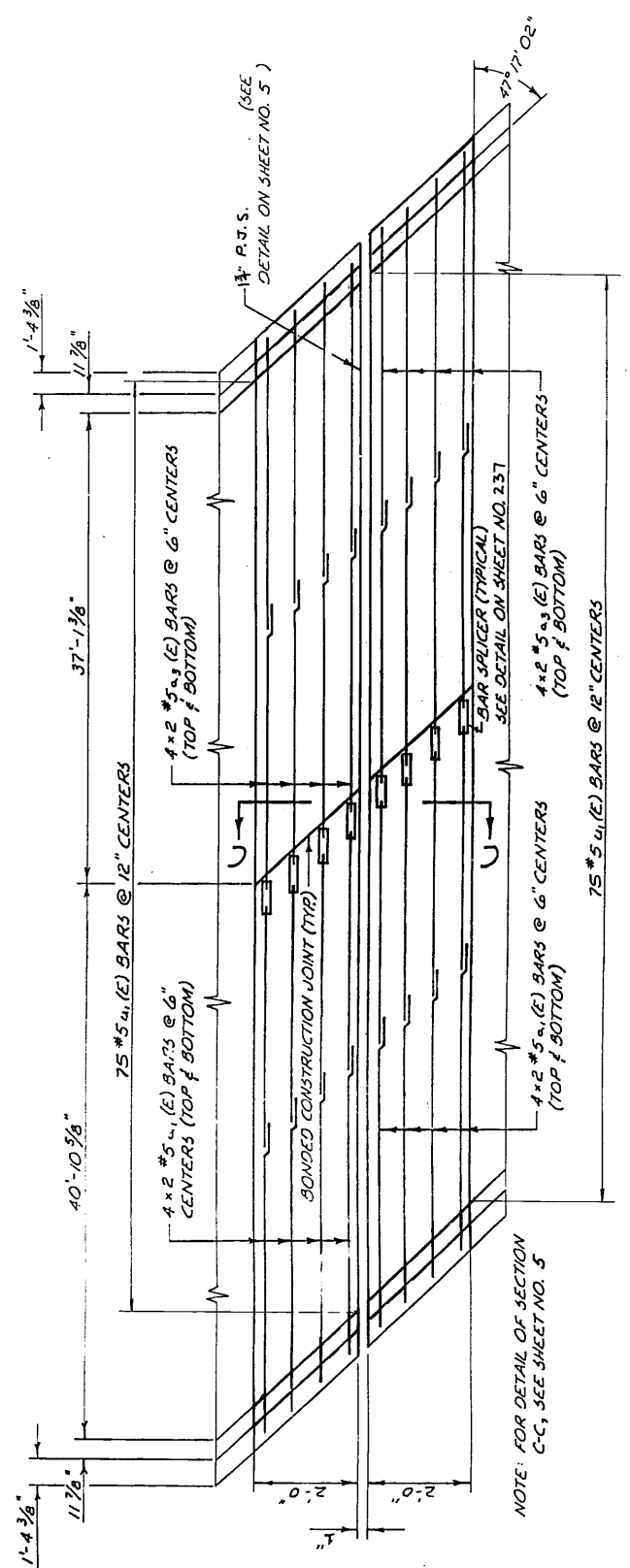




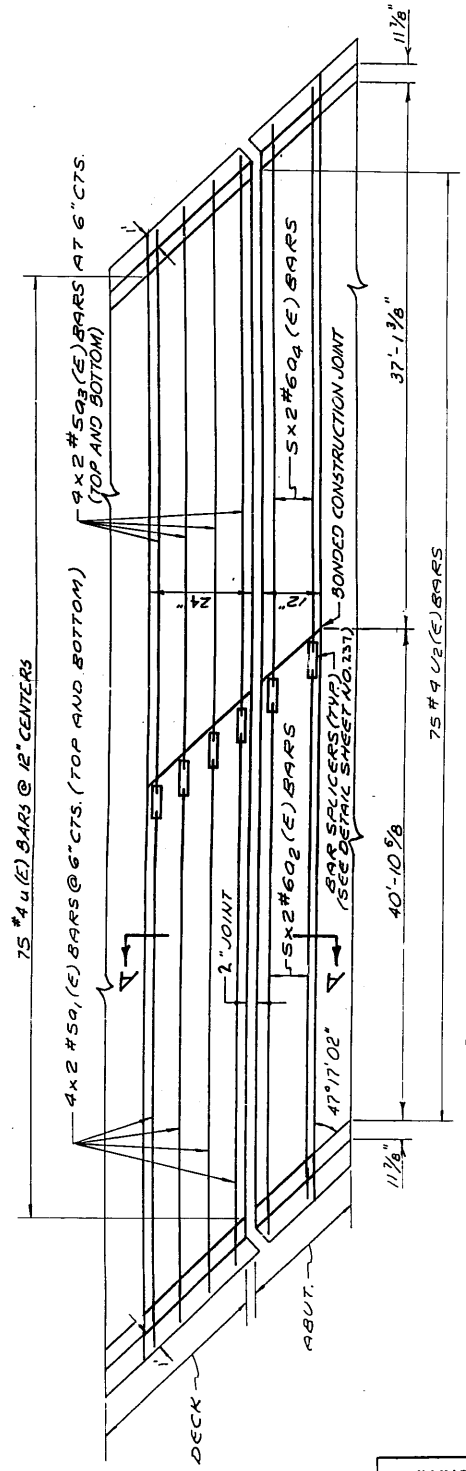
PLAN OF PROPOSED HINGE JOINT AT SOUTH ABUTMENT



PLAN OF PROPOSED HINGE JOINT AT SPAN 1

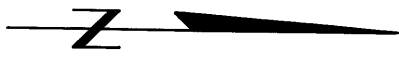


PLAN OF PROPOSED HINGE JOINT AT SPAN 3



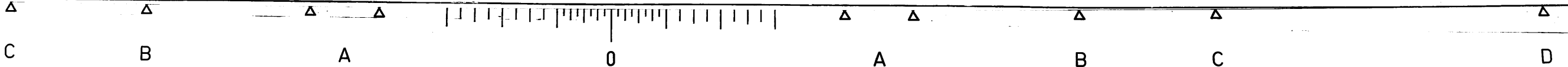
PLAN OF PROPOSED HINGE JOINT AT NORTH ABUTMENT

NOTE: SECTIONS A-A & C-C SHOWN ON PREVIOUS SHEET



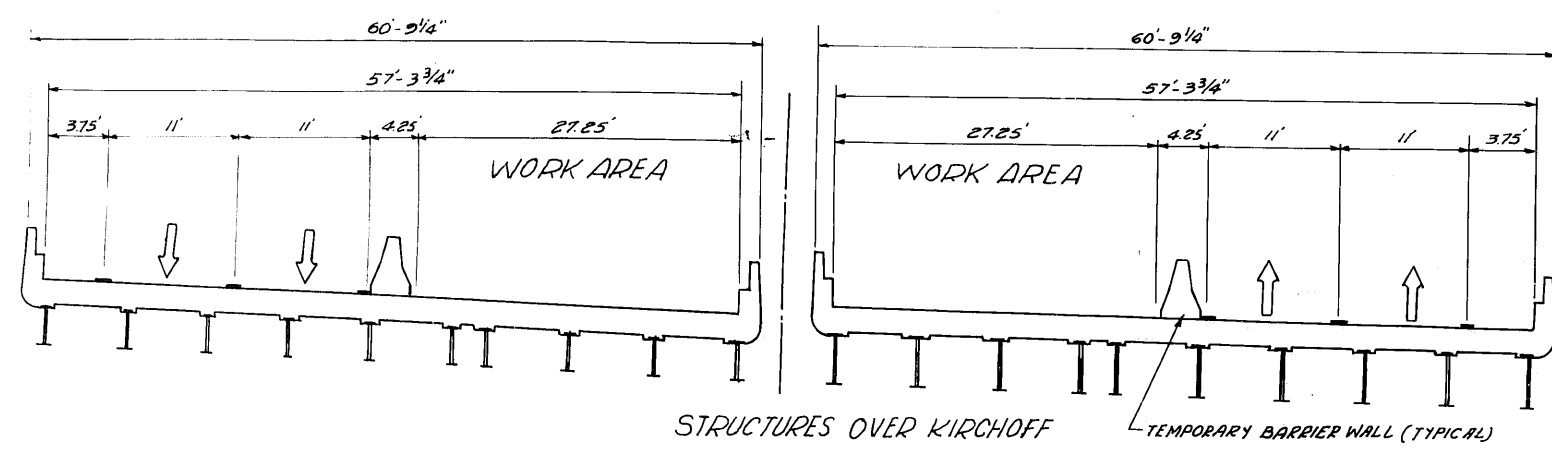
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
ILL. RTE. 53 @ KIRCHOFF RD. N.B.
BRIDGE REHABILITATION
STRUCTURE NO. 016-0376
JOINT RECONSTRUCTION
SCALE: NO SCALE
DRAWN BY: M.H.
DATE: NOVEMBER, 1990
CHECKED BY: R.Y.



FAP	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	*	COOK	271	215
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT

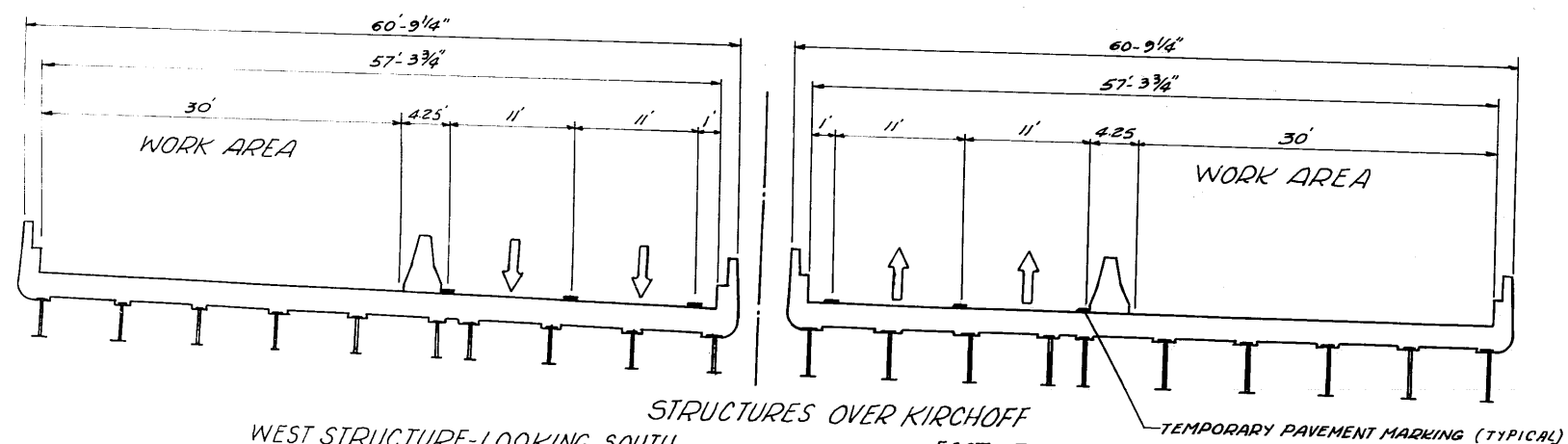
* 531 (1/2) AS-1 (89) & 1989-107 BR
SHEET 7 OF 7



WEST STRUCTURE-LOOKING SOUTH

EAST STRUCTURE-LOOKING NORTH
NORTHBOUND
STRUCTURE NO. 016-0376
STAGE-III

- STAGE II
- 1.) PLACE ALL TRAFFIC CONTROL AND REROUTE TRAFFIC TO OUTSIDE LANES
 - 2.) REMOVE EXISTING BRIDGE DECK BITUMINOUS OVERLAY 1 1/2"
 - 3.) SCARIFY BRIDGE DECK SLAB 1/2"
 - 4.) REMOVE EXISTING HANDRAIL AND REPLACE WITH A CONCRETE PARAPET RETROFIT
 - 5.) CONSTRUCT PARTIAL AND FULL DEPTH DECK SLAB REPAIRS
 - 6.) REMOVE EXISTING TRANSVERSE JOINTS
 - 7.) INSTALL PROPOSED PREFORMED JOINT SEAL OR NEOPRENE JOINTS
 - 8.) PLACE PROPOSED MICROSILICIA CONCRETE BRIDGE DECK OVERLAY 2 1/2"



WEST STRUCTURE-LOOKING SOUTH

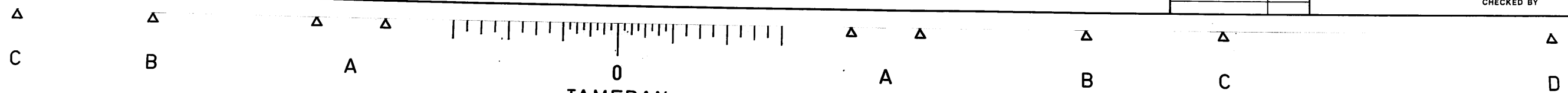
EAST STRUCTURE-LOOKING NORTH
NORTHBOUND
STRUCTURE NO. 016-0376
STAGE-II

- STAGE III
- 1.) RELOCATE ALL TRAFFIC CONTROL AND REROUTE TRAFFIC TO INSIDE LANES
 - 2.) REMOVE EXISTING BRIDGE DECK BITUMINOUS OVERLAY 1 1/2"
 - 3.) SCARIFY BRIDGE DECK SLAB 1/2"
 - 4.) REMOVE EXISTING HANDRAIL AND REPLACE WITH A CONCRETE PARAPET RETROFIT.
 - 5.) CONSTRUCT PARTIAL AND FULL DEPTH DECK SLAB REPAIRS
 - 6.) REMOVE EXISTING TRANSVERSE JOINTS
 - 7.) INSTALL PROPOSED PREFORMED JOINT SEAL OR NEOPRENE JOINTS
 - 8.) PLACE PROPOSED MICROSILICIA CONCRETE BRIDGE DECK OVERLAY 2 1/2"

REVISIONS	
NAME	DATE

DEPARTMENT OF TRANSPORTATION
ILLINOIS ROUTE-53
(NORTHBOUND)
TYPICAL STAGING CROSS SECTION
STRUCTURE OVER KIRCHOFF
STRUCTURE NO. 016-0376

DATE
CHECKED BY

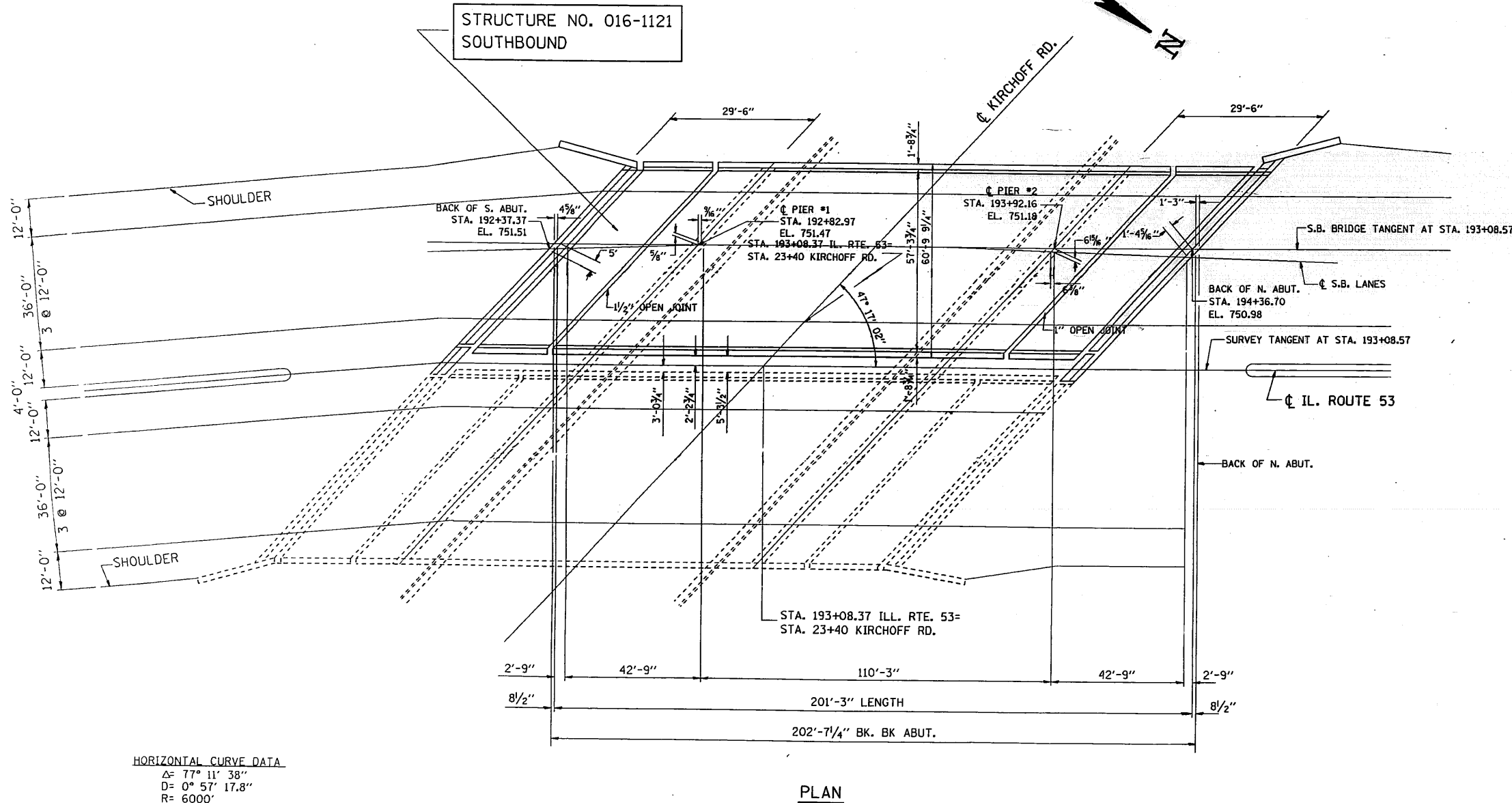
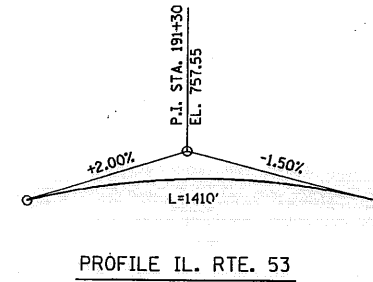
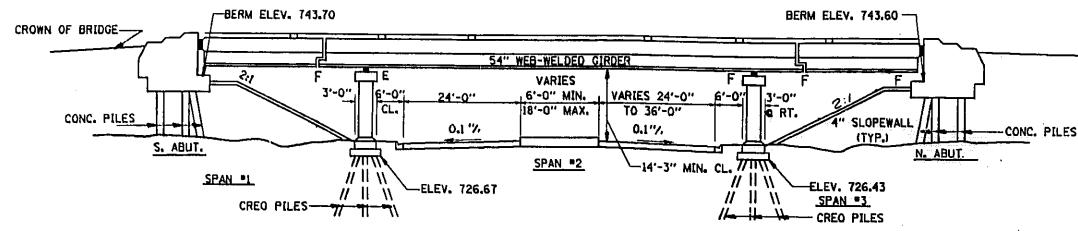


EXISTING BRIDGE DESCRIPTION
 THE BRIDGE CONSIST OF A 3 SPAN CONTINUOUS WELDED PLATE GIRDER STRUCTURE,
 HAVING 2 SPANS AT 42'-9" AND 1 SPAN AT 110'-3" THE 7-INCH THICK CONCRETE DECK
 HAS A BITUMINOUS CONCRETE OVERLAY. THE STRUCTURE REST ON OPEN R.C. ABUTMENTS
 AND R.C. PIERS

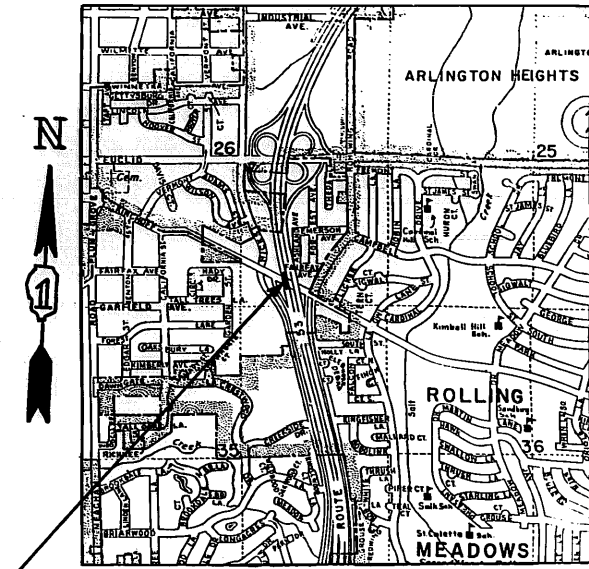
P.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	*	COOK	271	216
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* 531(1 & 2)RS-1(89) & 1989-107BR				
SHEET 1 OF 7				

INDEX OF SHEETS

- 1) PLAN AND ELEVATIONS
- 2) GENERAL NOTES AND SUMMARY OF QUANTITIES
- 3) DECK DETAILS
- 4) DELAMTECT AND BOTTOM DECK SURVEY
- (5-6) JOIN RECONSTRUCTION DETAILS
- 7) STAGING CROSS SECTION



HORIZONTAL CURVE DATA
 $\Delta = 77^\circ 11' 38''$
 $D = 0^\circ 57' 17.8''$
 $R = 6000'$
 $T = 4789.21'$
 $L = 8083.72'$
 $E = 1677.02'$
 $S.E. = .02 \%$



STRUCTURE NO. 016-1121 SOUTHBOUND

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL. RTE. 53 @ KIRCHOFF RD. S.B.
 BRIDGE REHABILITATION
 STRUCTURE NO. 016-1121
 PLAN & ELEVATION

SCALE: VERT. NONE
 HORIZ. NONE
 DATE 10/23/90

DRAWN BY
 CHECKED BY

F.A.P. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	*	COOK	271	217
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

* 531(142) RS-1(89) of 1989-107 BR
SHEET 2 OF 7

NOTES:

1. ~~The zinc-silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted. The color of the vinyl finish coat shall be Munsell No. 7.5G 4/B.~~

2. All structural steel shall be AASHTO M 222 except expansion joint plates and attached bars which shall be AASHTO M 183.

2A Deck Repair Method II shall be used for this structure (See Spec. Prov.)

3. Expansion joint plates and attached bars shall be shop painted with the zinc-silicate primer.

~~AASHTO M 222 structural steel shall not be painted except, that for a distance of three times the depth of the beams or girders (but not exceeding 10 feet) each way from deck joints, the AASHTO M 222 structural steel shall be cleaned and given one coat of the zinc-silicate primer and a dark maroon vinyl finish coat. The color of the finish coats shall be Munsell No. 2.5 1R 3/4 reddish brown. Both coats may be applied in the shop with spot painting only in the field.~~

5. The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 223 Grade 50 (AASHTO M 222).

6. Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

7. 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 the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

8. ~~All accessible end areas of steel beams, exposed top of steel beams, end diaphragms, and bearings designated by the Engineer for painting shall be cleaned by Method I. The three coat lead and chromate free alkyd paint system shall be applied over all cleaned areas, except the exposed top of steel beams to be embedded in concrete shall receive only one coat of the primer of this system. The color of the final finish coat shall be INTERSTATE GREEN. This work will be paid for in accordance with Article 109.04 of the Standard Specifications.~~

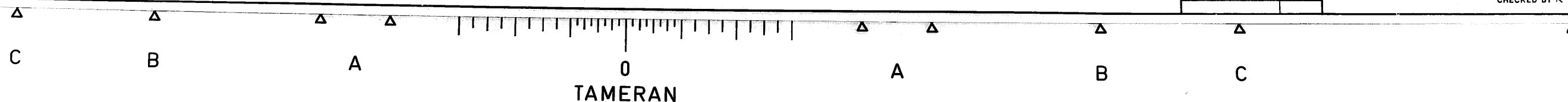
TOTAL BILL OF MATERIALS

ITEM	UNIT	TOTAL
BITUMINOUS CONCRETE REMOVAL (DECK)	SQ. YD.	1262
CONCRETE BRIDGE DECK SCARIFICATION, 1/2"	SQ. YD.	1262
DECK SLAB REPAIR (PARTIAL DEPTH)	SQ. YD.	80
DECK SLAB REPAIR (FULL DEPTH)	SQ. YD.	10
CONCRETE REMOVAL, SPECIAL	CU. YD.	41.0
HANDRAIL REMOVAL	LIN. FT.	398
NEOPRENE JOINT, 2"	LIN. FT.	163
REINFORCEMENT BARS, EPOXY COATED	POUND	7232
CLASS X CONCRETE SUPERSTRUCTURE	CU. YD.	48.4
MICROSILICIA CONCRETE BRIDGE DECK OVERLAY, 2 1/2"	SQ. YD.	1262
PROTECTIVE COAT	SQ. YD.	1513
PROTECTIVE SHIELD	SQ. YD.	230
CONCRETE PARAPET RETROFIT	LIN. FT.	398
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	4347
SAWING PC CONCRETE PAVEMENT, 3/4"	LIN. FT.	724
PREFORMED JOINT SEAL, 1 3/4"	LIN. FT.	164




REVISIONS	
NAME	DATE

DEPARTMENT OF TRANSPORTATION
IL. RTE. 53 @ KIRCHOFF RD.
(SOUTHBOUND LANES)
GENERAL NOTES
AND
BILL OF MATERIALS

DATE
CHECKED BY RY



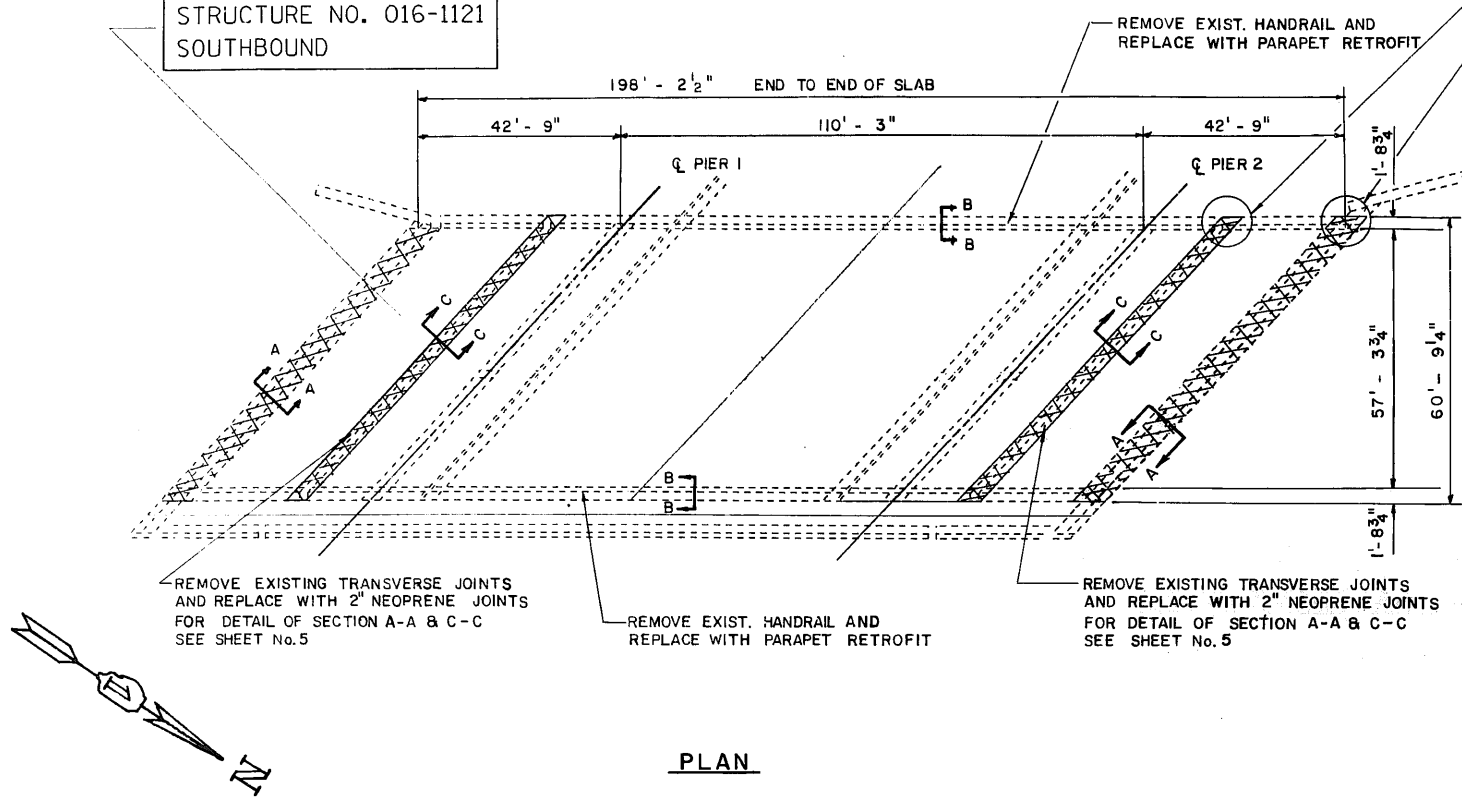
LEGEND

-  DECK SLAB REPAIR (PARTIAL DEPTH) SEE DELAMTEC SHEET No.4
-  DECK SLAB REPAIR (FULL DEPTH) SEE BOTTOM DECK SURVEY SHEET No.4
-  CONCRETE TO BE REMOVED

REMOVE 2' OF PARAPET AND 2' OF WINGWALL. TYPICAL AT ALL FOUR LOCATIONS. DETAILS ARE AVAILABLE IN THE I.D.O.T. DISTRICT 1 BUREAU OF DESIGN AND WILL BE PROVIDED AT THE PRECONSTRUCTION MEETING. QUANTITIES ARE INCLUDED IN THE PLANS.

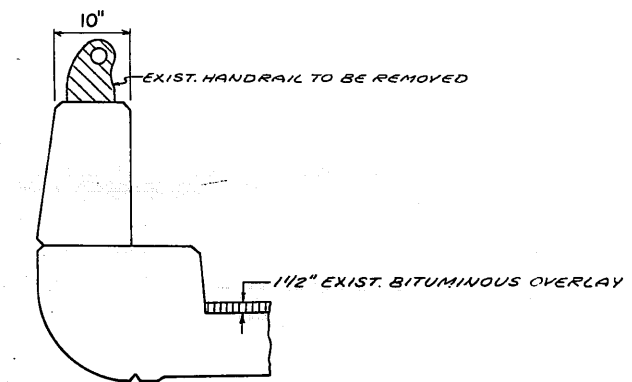
F.A.P. NO. 342	SECTION *	COUNTY COOK	TOTAL SHEETS 271	SHEET NO. 218
STA.	TO STA.		FED. AID PROJECT	
* 531(1 & 2)RS-1(89) & 1989-107BR				
SHEET 3 OF 7				

STRUCTURE NO. 016-1121
SOUTHBOUND

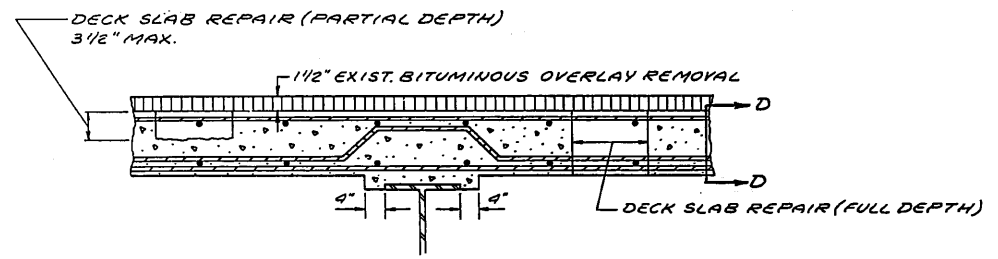


PLAN

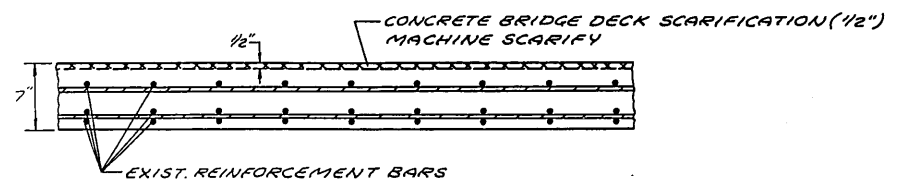
BILL OF MATERIALS			QUANTITIES
ITEM	UNIT		TOTAL
BITUMINOUS CONCRETE REMOVAL (DECK)	SQ. YD.		1262
CONCRETE BRIDGE DECK SCARIFICATION 1/2"	SQ. YD.		1262
DECK SLAB REPAIR (PARTIAL DEPTH)	SQ. YD.		77
DECK SLAB REPAIR (FULL DEPTH)	SQ. YD.		10
MICROSILICIA CONCRETE BRIDGE DECK OVERLAY, 2 1/2"	SQ. YD.		1262
PROTECTIVE COAT	SQ. YD.		1363
PROTECTIVE SHIELD	SQ. YD.		230
PARAPET RETROFIT	LIN. FT.		398
HANDRAIL REMOVAL	LIN. FT.		398



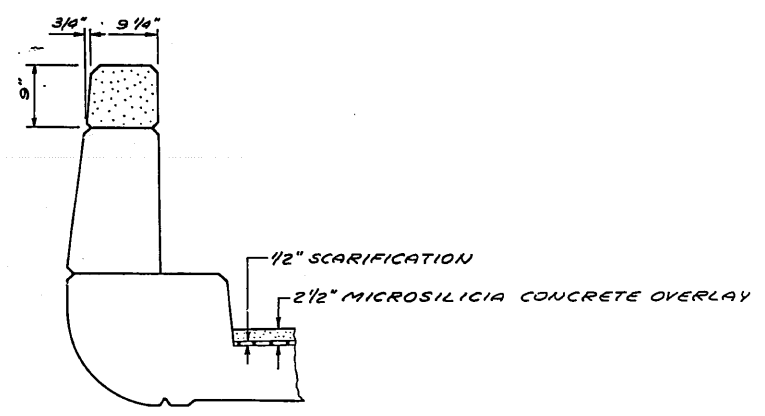
**SECTION B-B
EXISTING PARAPET & HANDRAIL**



TYPICAL SECTION OF EXISTING DECK



SECTION D-D



PARAPET WITH PROPOSED RETROFIT

REVISIONS	
NAME	DATE

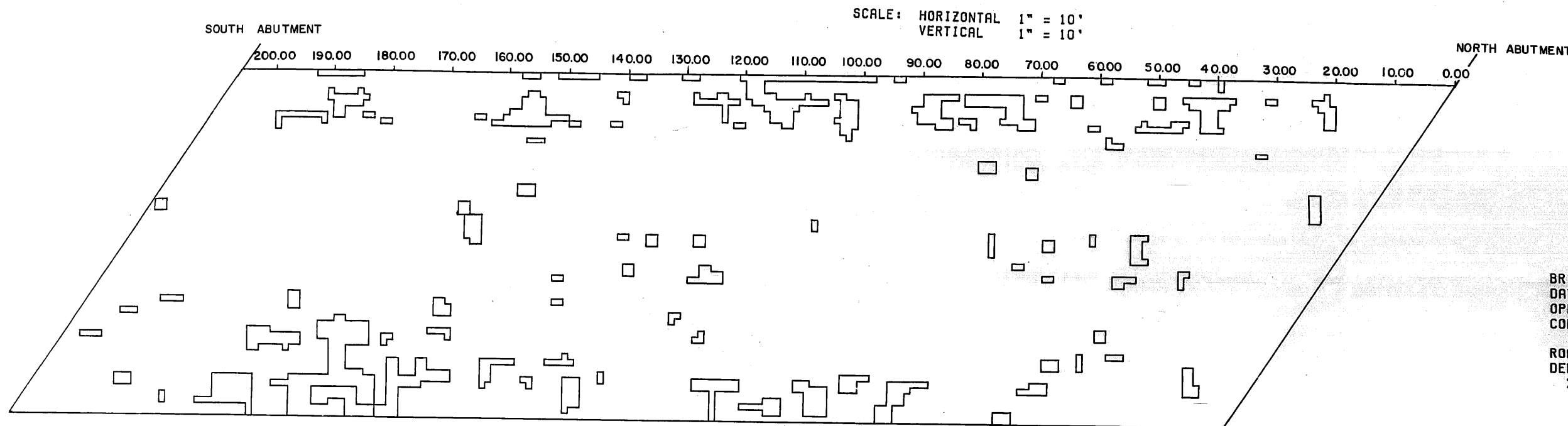
ILLINOIS DEPARTMENT OF TRANSPORTATION
IL. RTE. 53 @ KIRCHOFF RD. S.B.
BRIDGE REHABILITATION
STRUCTURE NO. 016-1121
DECK DETAILS

SCALE: VERT. DRAWN BY
 HORIZ. CHECKED BY
DATE 10/23/90



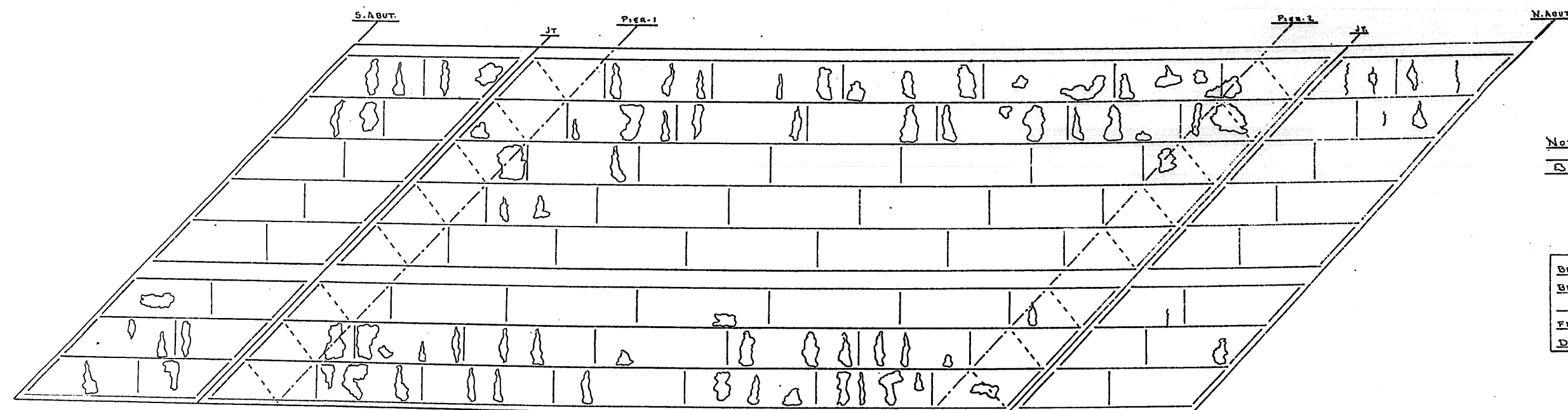
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	*	COOK	271	219
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT

* 531(162)R3-1(89) & 1989-107 BR
SHEET 4 OF 7



BRIDGE: 016 1121
DATE: 4/30/90
OPERATOR: MATECHICK SB53/KIRCHOFF
COMMENTS:

ROADWAY AREA: 1262 SY
DELAMINATED AREA: 77 SY
% DELAMINATED: 6 %

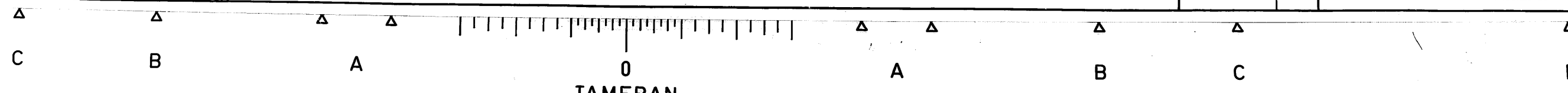


NOTE:
No SPALL AREAS
NO LEACHING AREAS

BRIDGE: ILL 53 S.B./KIRCHOFF RD
BRIDGE No. 016-1121 *L72
BOTTOM DECK SURVEY
FIELD DATA NM DATE 3/5/90
DRAWN BY NM DATE 3/14/90

REVISIONS	
NAME	DATE

DEPARTMENT OF TRANSPORTATION
IL. RTE. 53 @ KIRCHOFF RD. S.B.
BRIDGE REHABILITATION
STRUCTURE NO. 016-1121
DELAMTEC
BOTTOM DECK SURVEY
DATE
CHECKED BY

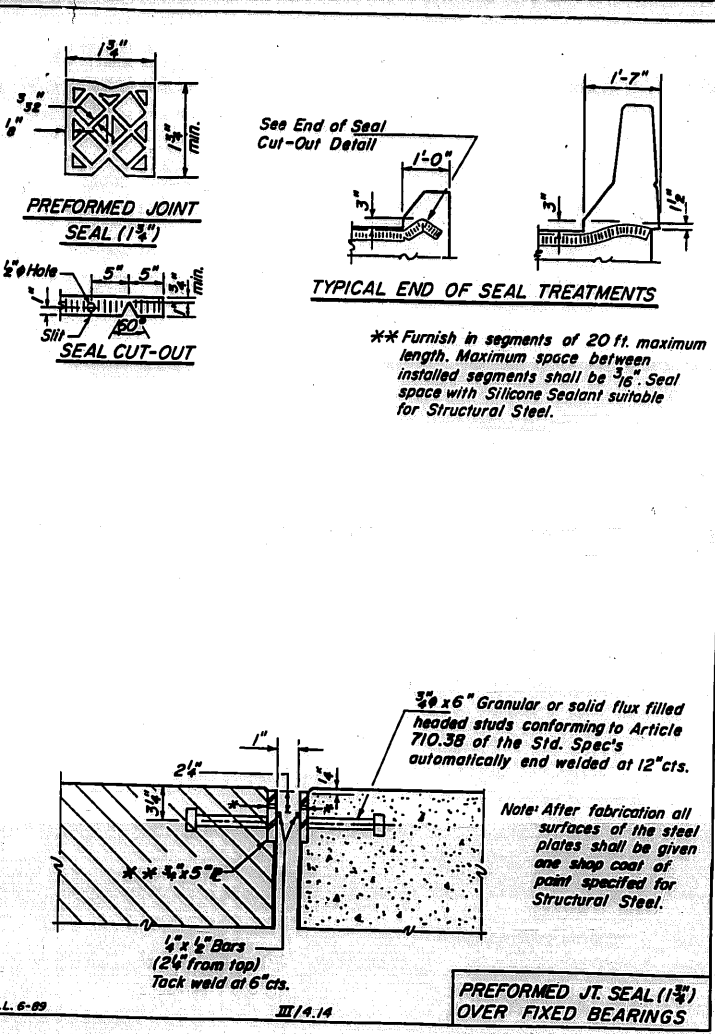
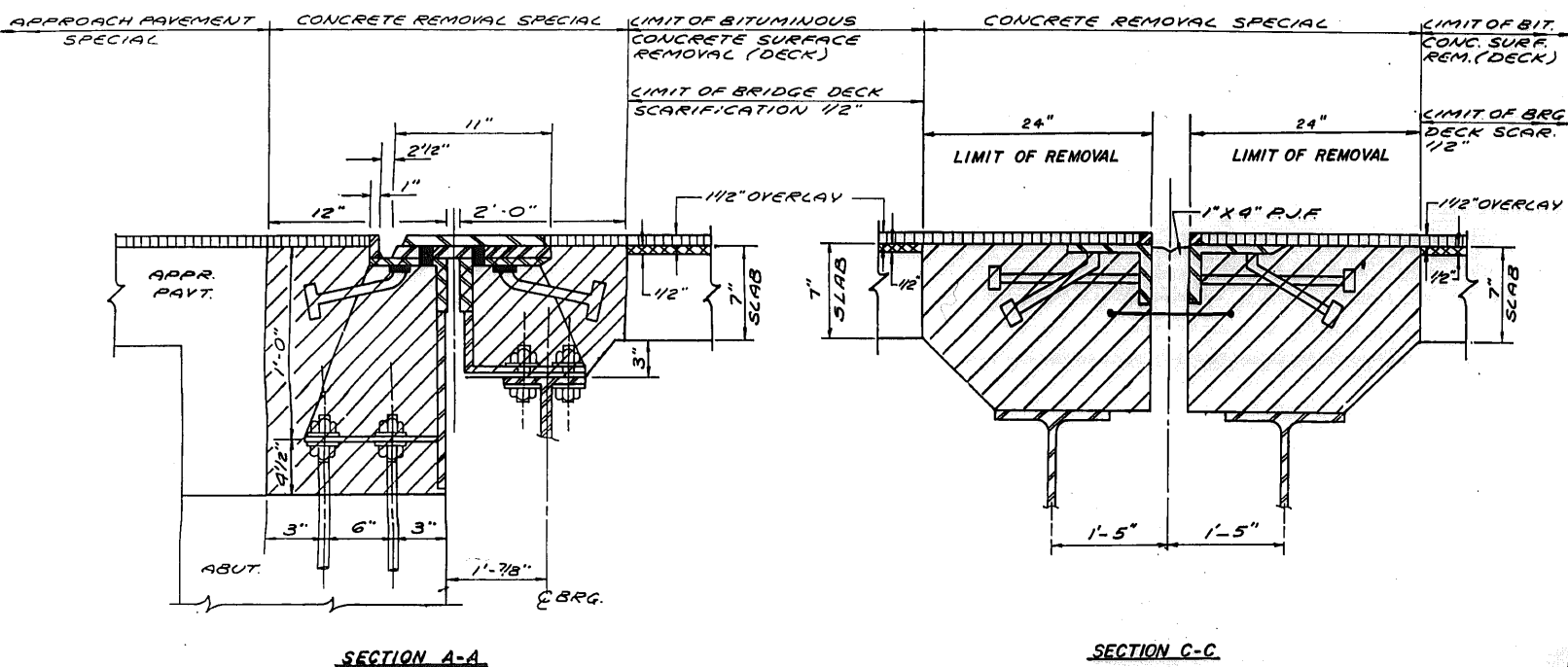


NOTES: EXISTING REINFORCEMENT BARS IN THE REMOVAL AREAS SHALL BE CLEANED BEFORE PLACEMENT OF NEW CLASS X CONCRETE. (COST TO BE INCIDENTAL TO "CLASS X CONCRETE"). REMOVAL OF EXISTING STRUCTURAL STEEL SHALL BE INCIDENTAL TO "CONCRETE REMOVAL SPECIAL".

BAR LIST SHEET 5 OF 7

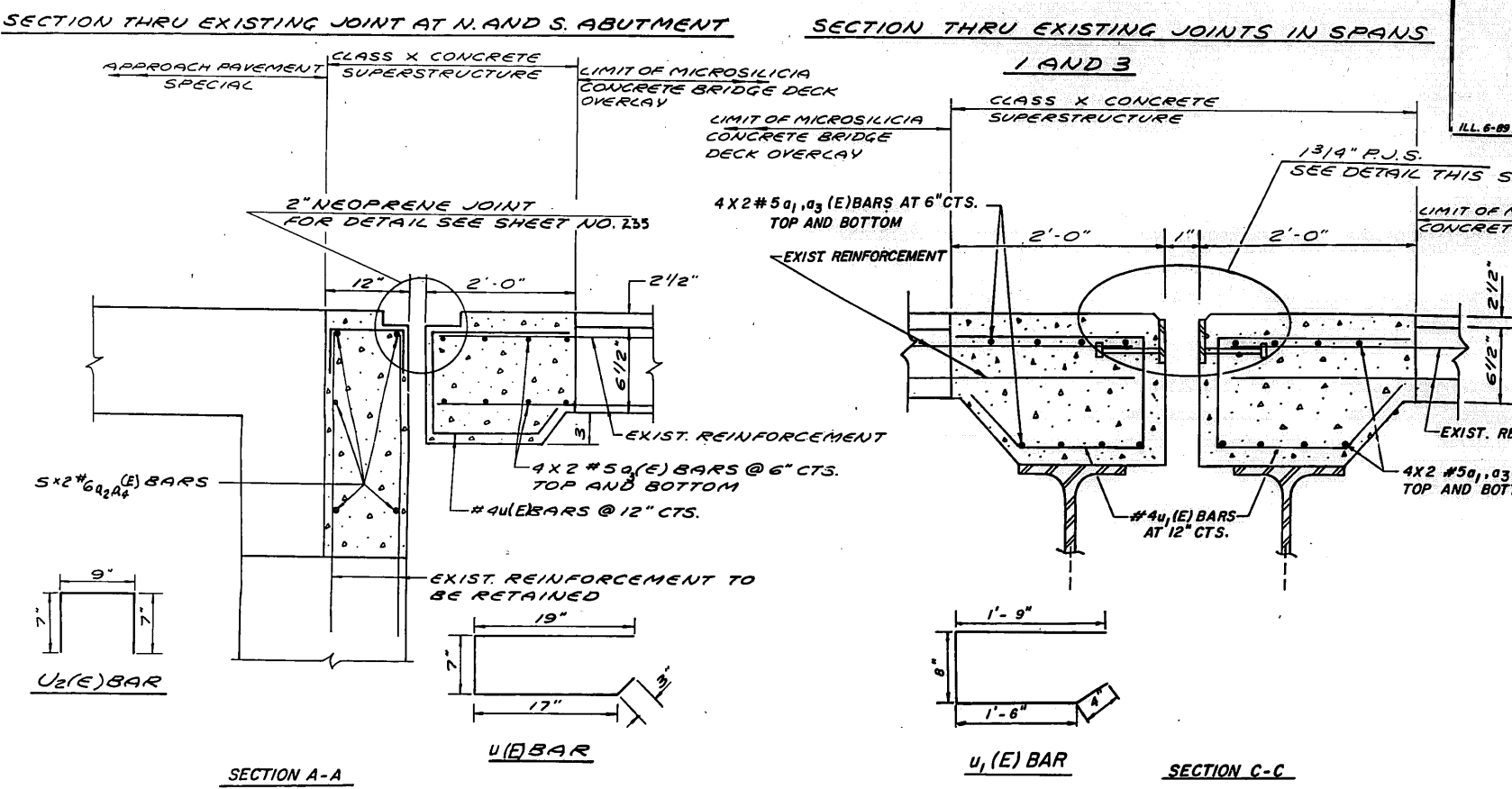
BAR NO.	SIZE	LENGTH	SHAPE
Q ₁ (E)	96 #5	21'-3"	—
Q ₂ (E)	20 #6	21'-5"	—
Q ₃ (E)	96 #5	19'-4"	—
Q ₄ (E)	20 #6	19'-6"	—
U(E)	150 #4	3'-10"	—
U ₁ (E)	300 #4	4'-3"	—
U ₂ (E)	150 #4	1'-11"	—

(E) - DENOTES EPOXY COATED



BILL OF MATERIALS

ITEM	UNIT	QUANTITY
CONCRETE REMOVAL, SPECIAL	CU. YD.	41.0
REINFORCEMENT BARS (EPOXY COATED)	POUND	7232
CLASS X CONCRETE SUPERSTRUCTURE	CU. YD.	48.4
SAWING P.C. CONCRETE PAVEMENT, 3/4"	LIN. FT.	724
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	4347
NEOPRENE JOINT, 2"	LIN. FT.	154
PROTECTIVE COAT	SQ. YD.	150
PREFORMED JOINT SEAL, 1 3/4"	LIN. FT.	163



SECTION THRU PROPOSED JOINT AT N. AND S. ABUTMENT

SECTION THRU PROPOSED JOINTS IN SPANS 1 & 3

REVISIONS	
NAME	DATE

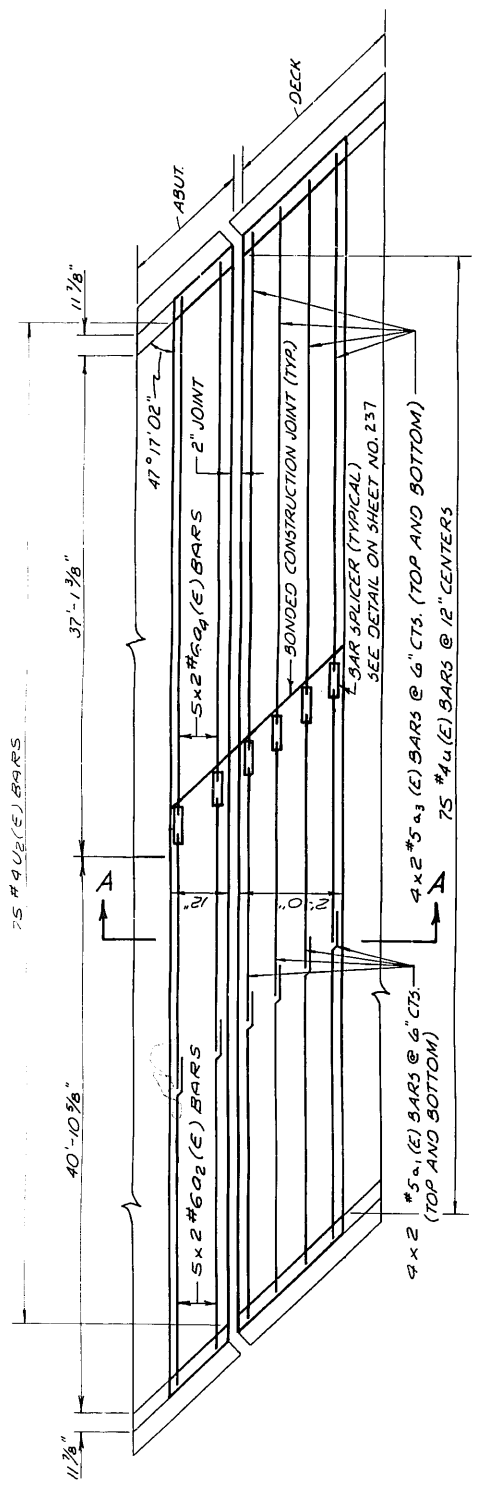
ILLINOIS DEPARTMENT OF TRANSPORTATION
 ILL. RTE. 53 @ KIRCHOFF RD
 (SOUTHBOUND)
 STRUCTURE No. 016-1121
 JOINT RECONSTRUCTION DETAIL

SCALE: VERT. NONE
 HORIZ. AS SHOWN

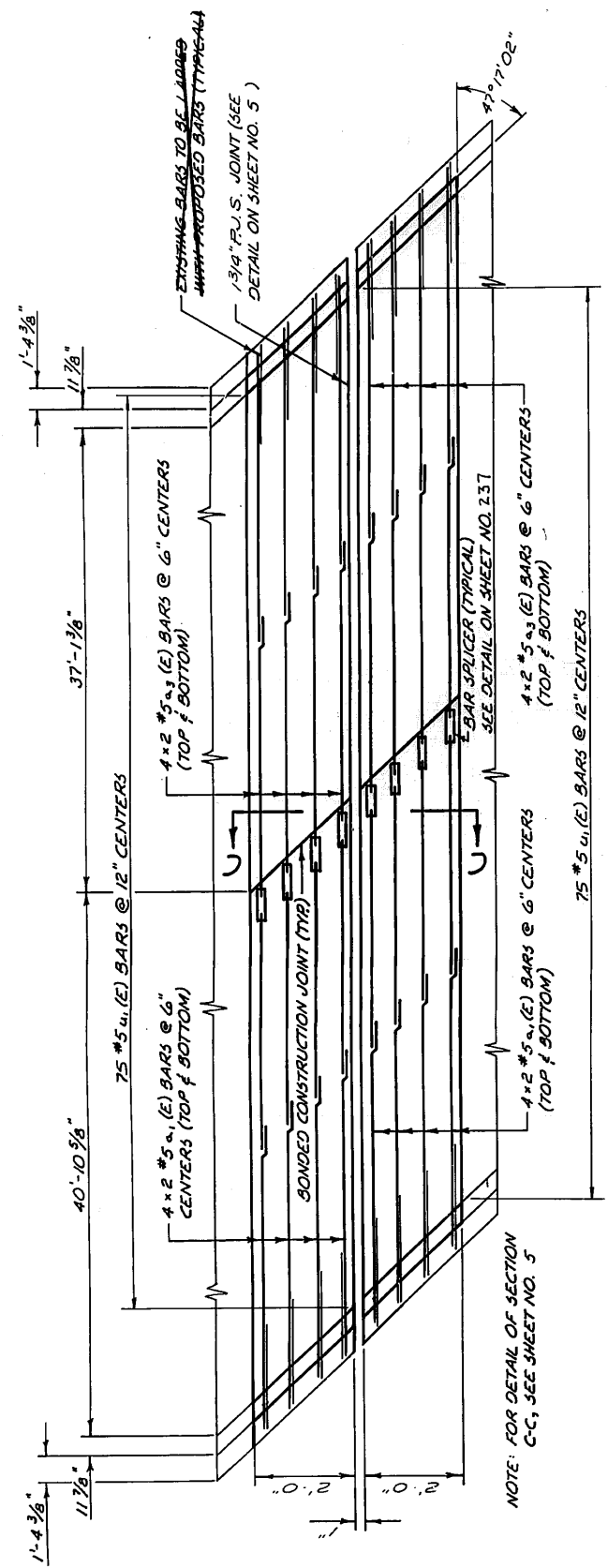
DATE: _____ DRAWN BY J.R.C.
 CHECKED BY _____

FILE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	*	COOK	271	221
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

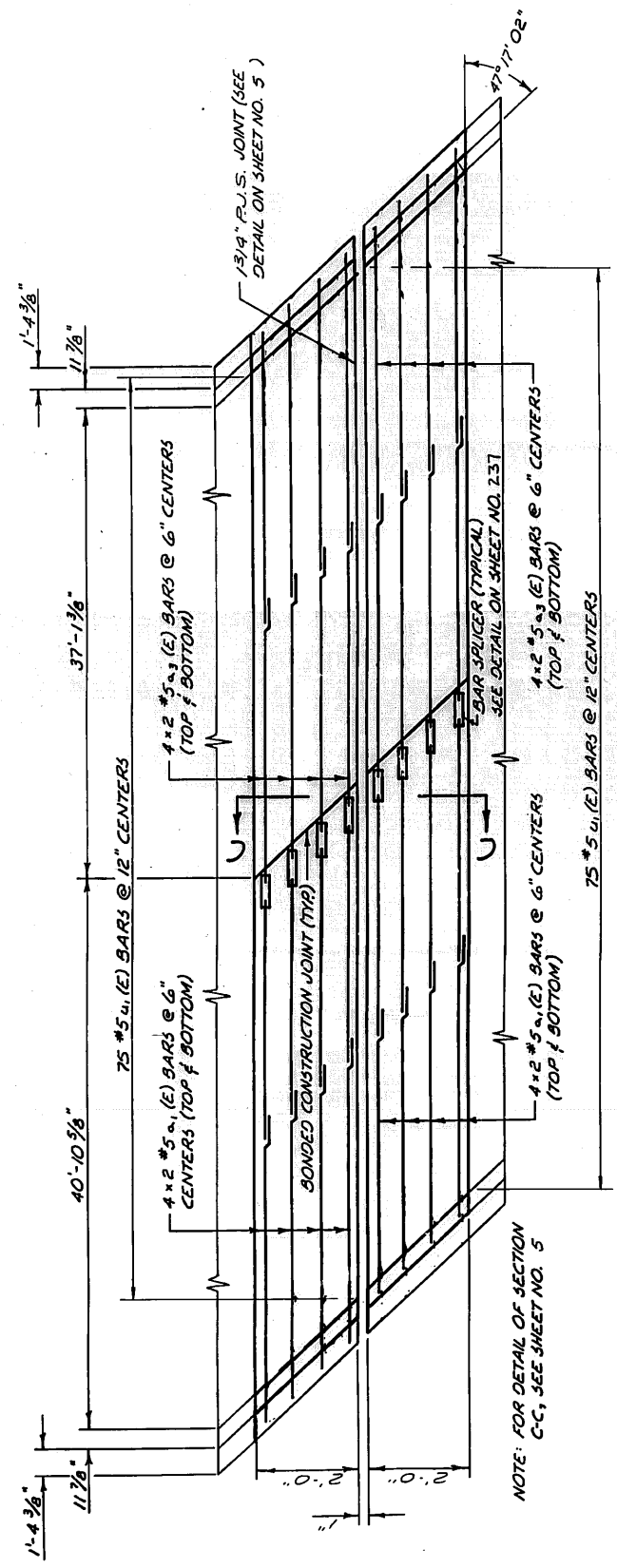
* 53(1&2)RS-1(89)1989-1078R
SHEET 6 OF 7



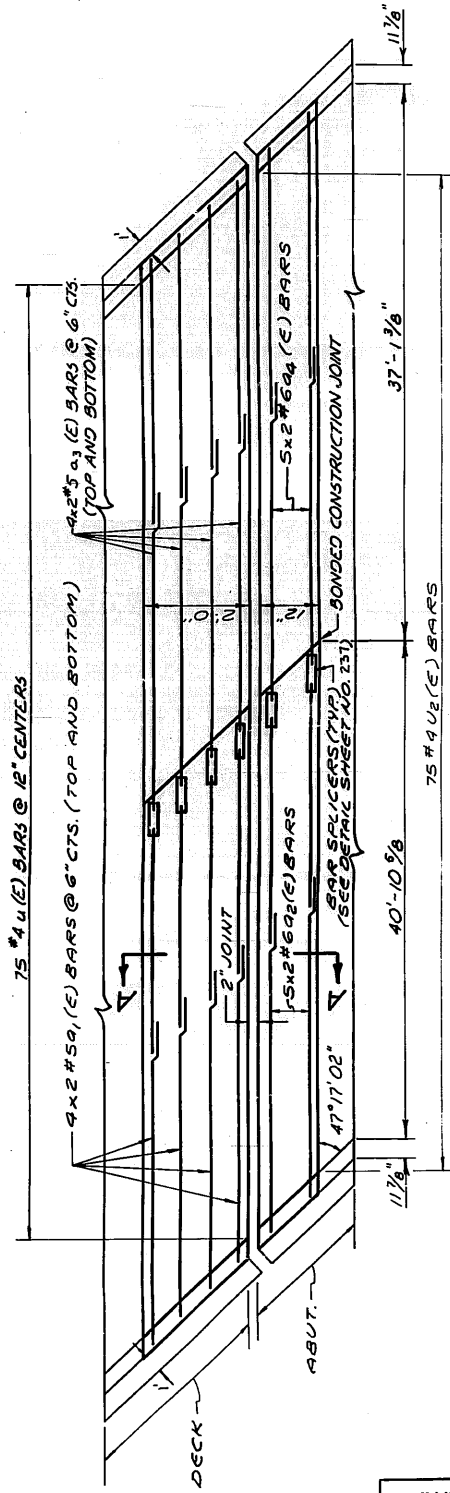
PLAN OF PROPOSED JOINT AT NORTH ABUTMENT



PLAN OF PROPOSED HINGE JOINT AT SPAN 3



PLAN OF PROPOSED HINGE JOINT AT SPAN 1



PLAN OF PROPOSED JOINT AT SOUTH ABUTMENT

NOTE: SECTIONS A-A & C-C SHOWN ON PREVIOUS SHEET



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
ILL. RTE. 53 @ KIRCHOFF RD. S.B.
BRIDGE REHABILITATION
STRUCTURE NO. 016-1121
JOINT RECONSTRUCTION
SCALE NO SCALE DRAWN BY M.H.
DATE NOVEMBER, 1990 CHECKED BY R.Y.