

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1631	2009-1231	COOK	12	1
		ILLINOIS	CONTRACT NO. 60J77	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**

FOR INDEX OF SHEETS, SEE SHEET NO. 2

DESIGN DESIGNATION

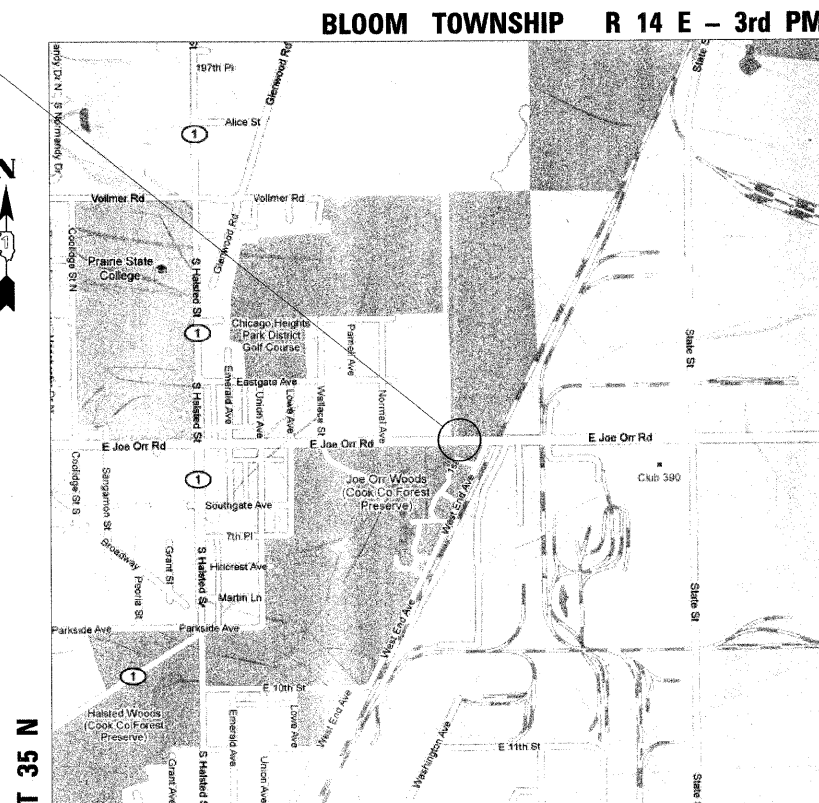
MINOR ARTERIAL (URBAN)
ADT 20,000 (2006)
SPEED LIMIT 40 MPH

IMPROVEMENT LOCATED IN
THE CITY OF CHICAGO HEIGHTS

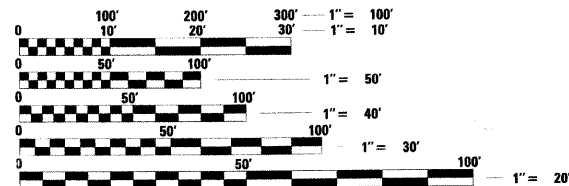
**FAU 1631 / JOE ORR ROAD
SECTION 2009-1231
OVER THORN CREEK (0.5 MI. E. OF IL 1)
BRIDGE DECK REPAIRS AND OVERLAY
PROJECT NUMBER: M-1631(001)
COOK COUNTY
C-91-267-10**



IMPROVEMENT LOCATION
JOE ORR ROAD OVER
THORN CREEK
STRUCTURE NO: 016-0919



BLOOM TOWNSHIP R 14 E - 3rd PM



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.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT MANAGER: MR. ISAAC KWARTENG (847) 705-4230
PROJECT ENGINEER: MR. ALIX BRICE (847) 705-4552

CONTRACT NO. 60J77

LOCATION MAP 0 1000' 2000'
GROSS AND NET LENGTH OF IMPROVEMENT = 144.9 FT. = 0.027 MILE



COLLINS ENGINEERS, INC.
JAMES M. HAMELKA
NO. 062-056236
EXPIRES 11-30-2011

COLLINS ENGINEERS
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000933

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
SUBMITTED FEBRUARY 1, 2010
Dianna M. O'Keefe DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER
March 19, 2010
Scott E. Stief, P.E. ACTING ENGINEER OF DESIGN AND ENVIRONMENT
March 19, 2010
Christina M. Reed, P.E. DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

CONSTR. TYPE CODE
STRUCTURE X081-2A
FEDERAL 80%
STATE 20%

INDEX OF SHEETS

- 1 Title Sheet
- 2 Index of Sheets, State Standards, General Notes and Summary of Quantities
- 3-4 Maintenance of Traffic Plans
- 5 Structure Plans SI-56
- 11 District One Standards Highway Standards

INDEX OF HIGHWAY STANDARDS

Standard No.	Description
09001-05	Standard Symbols, Abbreviations And Patterns
10101-02	Areas Of Reinforcement Rebars
40101-07	Pavement Joints
701301-03	Lane Closure, 2L, 2W, Short Time Operations
701306-02	Lane Closure, 2L, 2W, Slow Moving Operations, Day Only
701321	Lane Closure, 2L, 2W, Bridge Repair with Barrier
701501	Urban Lane Closure, 2L, 2W, Unidirectional
701502	Urban Lane Closure, 2L, 2W, Bidirectional Left Turn
701602	Urban Lane Closure, Multilane 2W, Bidirectional Left Turn
701606-04	Urban Lane Closure, Multilane 2W, with Mountable Median
701901-01	Traffic Control Devices
704001-06	Temporary Concrete Barrier
780001	Typical Pavement Markings
781001	Typical Applications Raised Reflective Pavement Markers

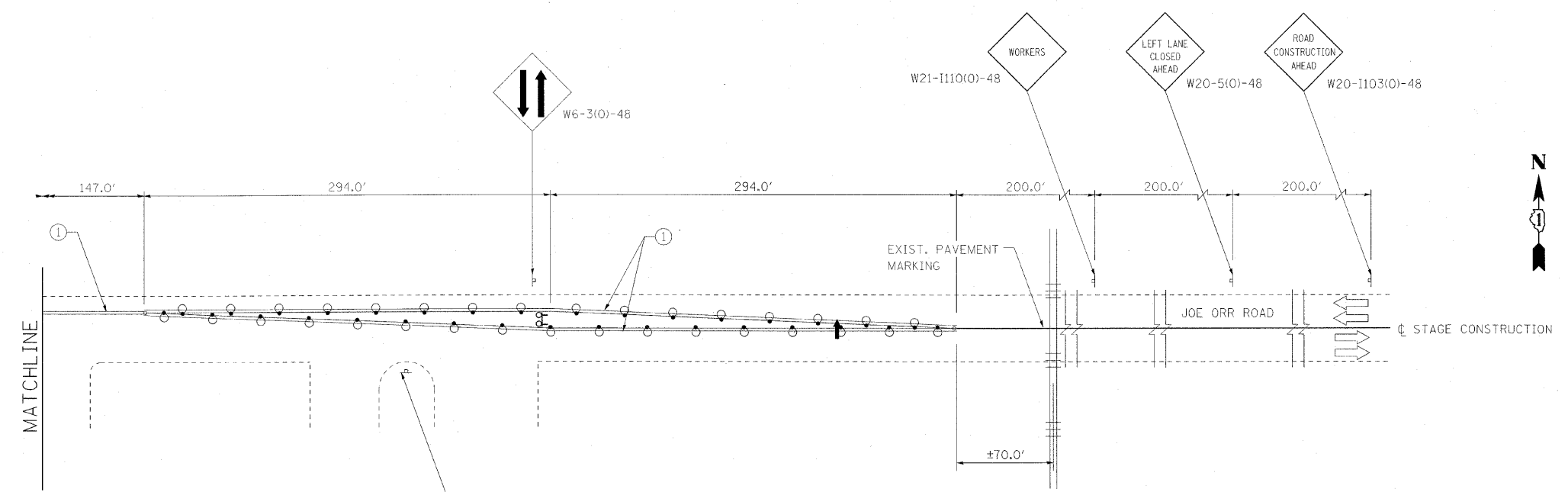
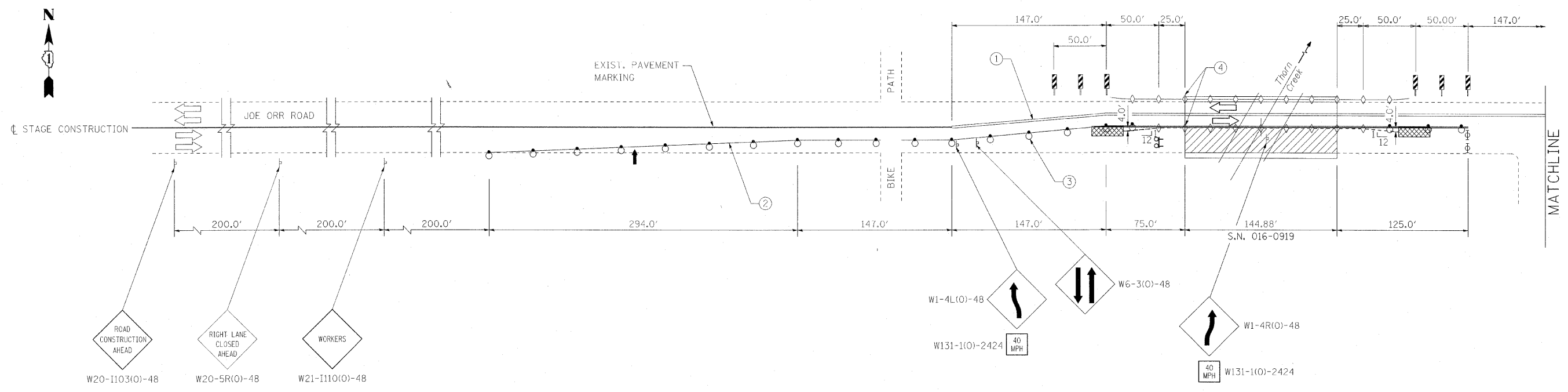
GENERAL NOTES

1. These plans have been prepared from notes received from IDOT Field Maintenance Engineers.
2. 10 ft (3 m) transitions shall be used to match proposed items of work to existing items in the field, unless otherwise shown. The transitions shall be paid for at the contract unit price for the proposed item of work specified.
3. Where 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.
4. The engineer shall be the sole judge concerning curing time for the various hot-mix asphalt lifts.
5. For stabilization, all Type III barricades shall require a minimum of four (4) sandbags per barricade.
6. The Resident Engineer must contact the Traffic Control Supervisor at (847)705-4470 at least 72 hours prior to installation of the temporary control devices.
7. The Resident Engineer shall contact the Area Traffic Field Engineer (Patrice Harris) at (708) 597-9800 at least two (2) weeks prior to the placement of permanent pavement markings.
8. All pavement markings and raised reflectors affected by the bridge repairs shall be repaired. Nominal quantities have been included in the contract for this work.
9. The Contractor will not be allowed to set up a yard or field office on State property without written permission from the Department.
10. Plans shall be scaled for construction purposes.
11. All dimensions and details relative to existing plans are subject to routine field verifications. The Contractor shall field verify existing dimensions and details affecting construction and make necessary adjustments prior to construction or procurement of materials. Such variations shall be cause for additional compensation for change in scope of the work. However, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
12. During construction operations, loose material deposits that obstruct the flow of water in draining the area shall be removed before the end of each work day. At the conclusion of construction operations, all drainage structures (new and existing) shall be free from all dirt and debris. This work will not be paid for separately but shall be considered incidental to the contract.
13. All Type I and Type II barricades shall have two (2) sandbags on the bottom rail.
14. The quantities for Hot-Mix Asphalt Surface Removal (Deck); Hot-Mix Asphalt Surface Removal, 1 1/2"; and Hot-Mix Asphalt Surface Course, Mix "D", N70 have been prepared assuming 1 1/2 inch thick hot-mix asphalt overlays. Removal and replacement of the entire thickness of existing overlay is required.
15. All raised reflective pavement markers (bridge) shall be low profile.
16. Before beginning any work, the Contractor shall retain and record for future reference, all existing pavement marking lines, symbols and letters (and raised reflective markers) in order that these locations can be re-established for striping. Exact locations of all pavement markings and raised reflective pavement markers shall be as directed by the Engineer.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ Ndes
Hot-Mix Asphalt Surface Course, Mix "D", N70 (IL 9.5mm)	4% @ 70 Gyr.

The unit weight used to calculate all HMA surface mixture quantities is 112 Lbs./sq. yd./in.

CODE	ITEM DESCRIPTION	UNIT	QUANTITY	URBAN
40603340	Hot-Mix Asphalt Surface Course, Mix "D", N70	Ton	44	44
42001300	Protective Coat	Sq.Yd.	287	287
44000155	Hot-Mix Asphalt Surface Removal, 1 1/2"	Sq.	518	518
44000915	Hot-Mix Asphalt Surface Removal (Deck)	Sq.Yd.	240	240
50300260	Bridge Deck Grooving	Sq.Yd.	231	231
67000400	Engineer's Field Office, Type A	CALMO	3	3
67100100	Mobilization	L SUM	1	1
70101800	Traffic Control and Protection, (Special)	L SUM	1	1
70301000	Work Zone Pavement Marking Removal	Sq. Yd.	2,700	2,700
70400100	Temporary Concrete Barrier		260	260
70400200	Relocate Temporary Concrete Barrier		260	260
* 78000200	Thermoplastic Pavement Marking - Line 4"		4,300	4,300
* 78008210	Polyurea Pavement Marking, Type I - Line 4"		110	110
* 78100100	Raised Reflective Pavement Marker		40	40
* 78100105	Raised Reflective Pavement Marker (Bridge)	Each	16	16
78100200	Temporary Raised Reflective Pavement Marker	Each	56	56
78300100	Pavement Marking Removal	Sq.Ft.	1,500	1,500
78300200	Raised Reflective Pavement Marker Removal	Each	56	56
X0320887	Polymer Concrete	Cu.Ft.	9.3	9.3
X0322185	Bridge Deck Latex Concrete Overlay, 2 1/4 Inches	Sq.Yd.	240	240
X0322256	Temporary Information Signing	SQFT	50	50
X0325305	Structural Repair of Concrete (Depth Equal To or Less Than 5 Inches)	SQFT	9	9
X0325775	Wet Reflective Temporary Tape, Type III, 4 Inch	Foot	8,000	8,000
X0326766	Clean & Reseal Relief Joint	Foot	198	198
Z0001800	Approach Slab Repairs (Partial Depth)	Sq.Yd.	46	46
Z0006204	Bridge Deck Hydro-Scarification 1/2"	Sq.Yd.	240	240
Z0016002	Deck Slab Repair (Full Depth, Type II)	Sq.Yd.	22	22
Z0030250	Impact Attenuators, Temporary (Non-Reflective), Test Level 3	Each	2	2
Z0030350	Impact Attenuators, Relocate (Non-Reflective), Test Level 3	Each	2	2
40600100	Bituminous Materials (Prime Coat)	Gallon	53	53
* Specialty Items				



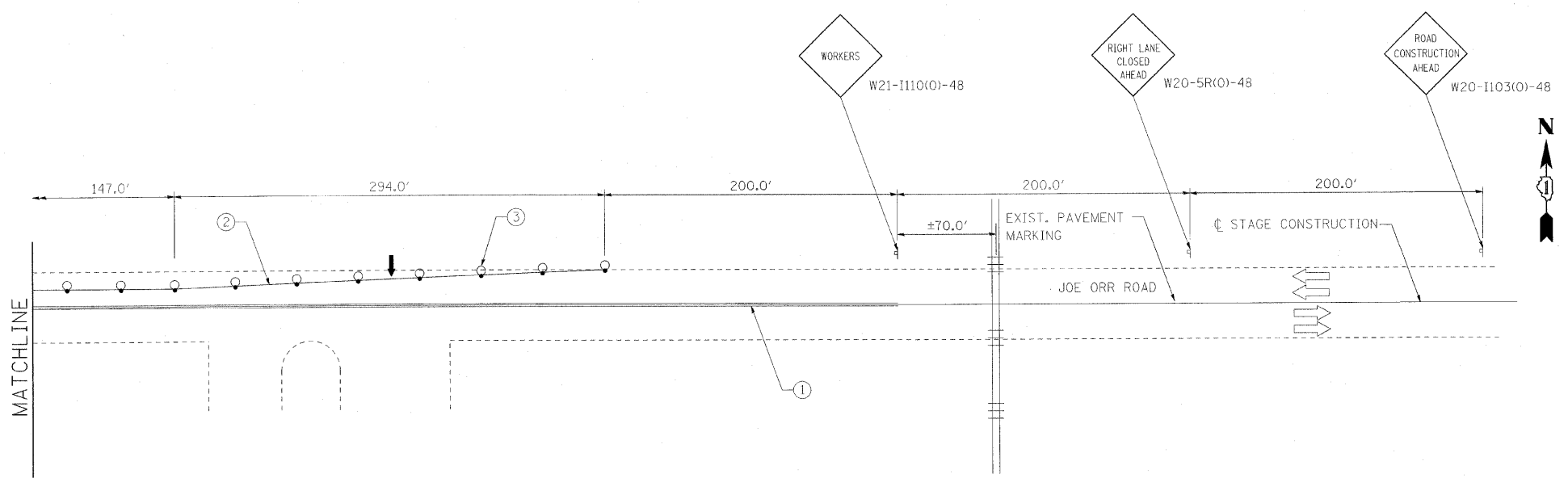
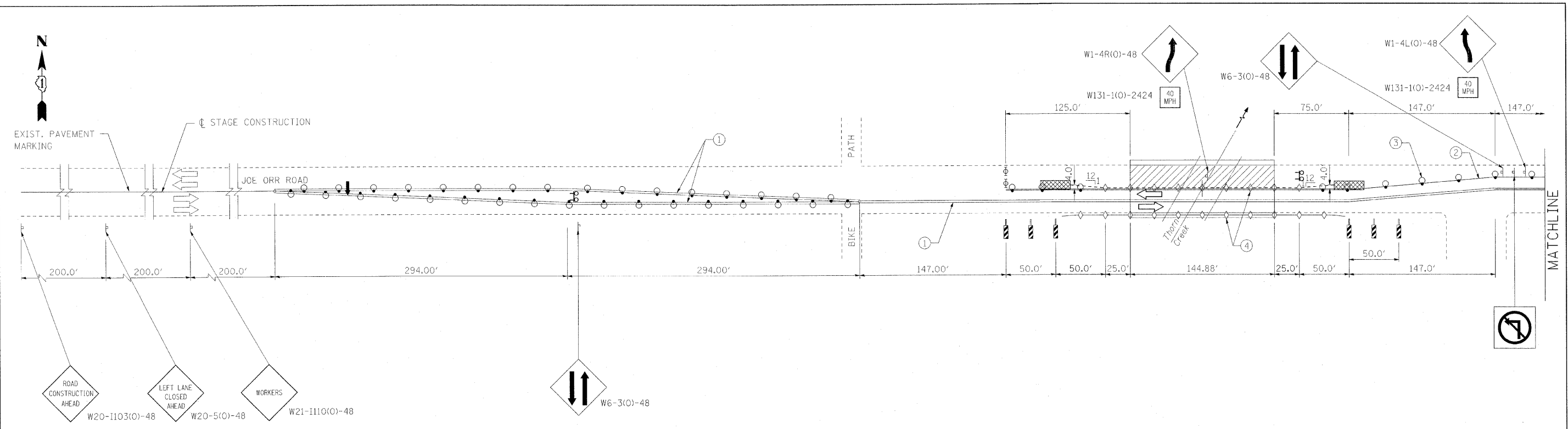
- PAVEMENT STRIPING LEGEND:**
- ① TEMPORARY PAVEMENT MARKING, 4 INCH WIDE DOUBLE YELLOW, AT 8 INCHES C-C
 - ② TEMPORARY PAVEMENT MARKING, 4 INCH WIDE SOLID WHITE
 - ③ DRUMS AT 6' CENTERS IN TAPER
 - ④ BARRIER WALL/GUARDRAILS MARKERS AT 25' CTS. SEE STANDARDS 704001 & 635011

- SYMBOL LEGEND:**
- ↑ ARROW BOARD
 - P SIGN ON PORTABLE OR PREEMINENT SUPPORT
 - ▨ WORK AREA
 - ⊕ BARRICADE OR DRUM WITH FLASHING LIGHT
 - ⊚ TYPE III BARRICADE WITH FLASHING LIGHTS
 - ▩ TEMPORARY IMPACT ATTENUATOR
 - DRUM WITH STEADY BURNING LIGHT
 - ▬ DOUBLE VERTICAL PANEL
 - TEMPORARY CONCRETE BARRIER
 - ◇ CRYSTAL BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER

- NOTES:**
1. MAINTENANCE OF TRAFFIC DEVICES TO BE INSTALLED IN ACCORDANCE WITH APPLICABLE PORTIONS OF STANDARDS 701321 AND 701606 AND DISTRICT ONE STANDARDS TC-11 AND TC-13. ADDITIONAL SIGNAGE MAY BE REQUIRED BY THE RESIDENT ENGINEER. THIS WORK AND SIGNAGE IS INCLUDED IN THE PAY ITEM FOR TRAFFIC CONTROL AND PROTECTION, (SPECIAL).
 2. TEMPORARY PAVEMENT MARKINGS WILL CONSIST OF WET REFLECTIVE TEMPORARY TAPE, TYPE III OF THE WIDTH AND COLOR SHOWN ON THE PLANS.
 3. EXISTING, CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK SHALL BE PAID FOR AS PAVEMENT MARKING REMOVAL.
 4. REMOVAL OF THE TEMPORARY PAVEMENT MARKINGS SHALL BE PAID FOR UNDER THE PAY ITEM WORK ZONE PAVEMENT MARKING REMOVAL.
 5. THE EXISTING PAVEMENT MARKINGS THAT HAVE BEEN REMOVED SHALL BE REPLACED IN-KIND. POLYUREA PAVEMENT MARKING, TYPE I WILL BE PLACED ON CONCRETE SURFACES. THERMOPLASTIC PAVEMENT MARKINGS WILL BE PLACED ON HMA SURFACES.



FILE NAME = D168J77-shr-staging.dgn	USER NAME = 100T(eng)	DESIGNED - J.M. HAMELKA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	JOE ORR BRIDGE OVER THORN CREEK SUGGESTED TRAFFIC CONTROL AND STAGING PLAN - STAGE I		F.A.U. RTE. = 1631	SECTION 2009-1231	COUNTY COOK	TOTAL SHEETS 12	SHEET NO. 3	
PLOT SCALE = 50.0000' / IN.		CHECKED - J.M. HAMELKA	REVISED -		SCALE: 1"=50'	SHEET NO. 1 OF 2 SHEETS	STA.	TO STA.		CONTRACT NO. 60J77		
PLOT DATE = 2/24/2010		DATE - JANUARY, 2010	REVISED -		ILLINOIS FED. AID PROJECT							



NOTE:
FOR ADDITIONAL REQUIREMENTS, NOTES,
AND LEGENDS REFER TO STAGING
PLAN - STAGE I.

FILE NAME = 0168177.sht staging.dgn	USER NAME = IDOT\engr	DESIGNED - J.M. HAMELKA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	JOE ORR BRIDGE OVER THORN CREEK SUGGESTED TRAFFIC CONTROL AND STAGING PLAN - STAGE II			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	PLOT SCALE = 50.0000' / 1"	DRAWN - P. HAINES	REVISED -		SCALE: 1"=50'	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.	1631	2009-1231	COOK	12	4	
	PLOT DATE = 2/24/2010	CHECKED - J.M. HAMELKA	REVISED -											
		DATE - JANUARY, 2010	REVISED -											
											CONTRACT NO. 60J77			
											ILLINOIS FED. AID PROJECT			

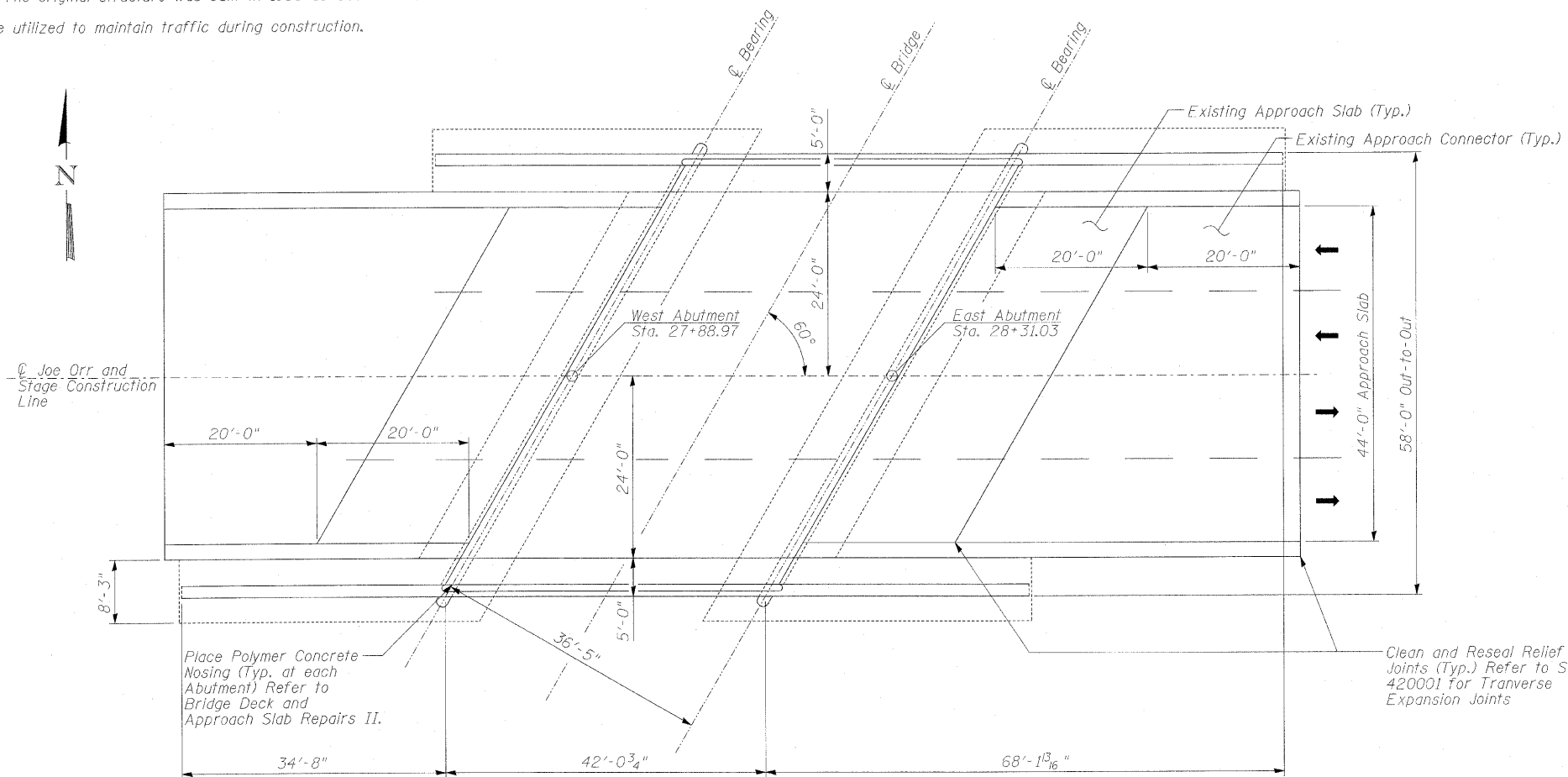
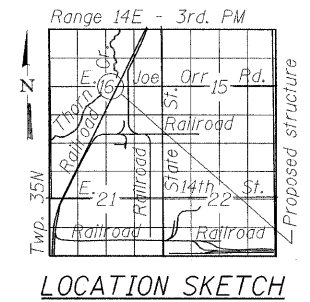
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Existing Structure:

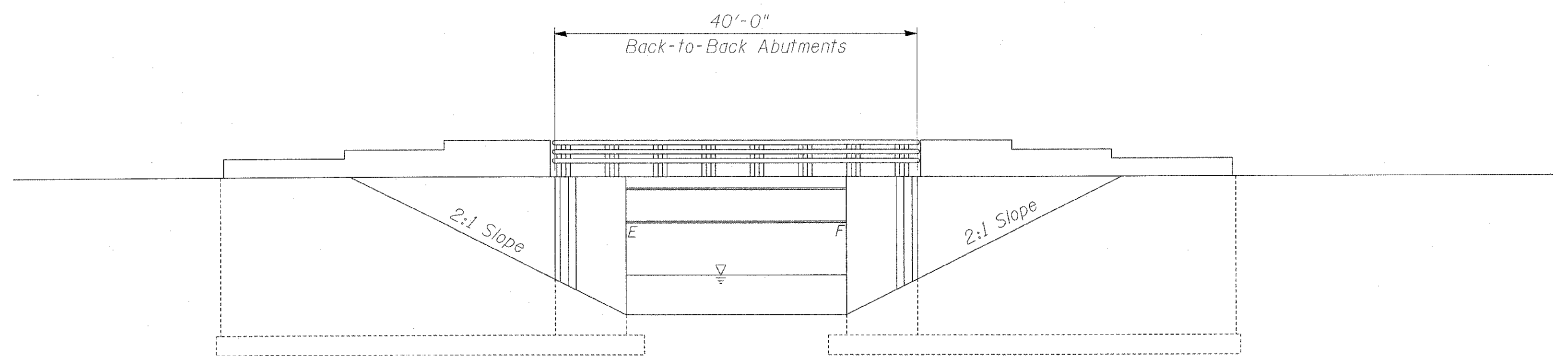
The existing structure is a single span steel beam bridge with a 7 inch reinforced concrete deck and a hot-mix asphalt overlay. The original structure was built in 1958 as Section 200-0505.1-M.F.T.

Staged construction shall be utilized to maintain traffic during construction.

No salvage.



PLAN



ELEVATION

DESIGN SPECIFICATIONS

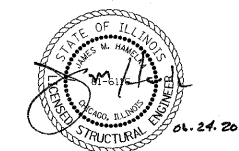
AASHTO Standard Specifications
for Highway Bridges, 17th Edition

DESIGN STRESSES

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi

SCOPE OF WORK

1. Bridge deck and approach overlay removal.
2. Bridge deck hydro-scarification.
3. Repair bridge deck.
4. Repair approach slabs.
5. Place new overlay.
6. Place Polymer Concrete nosing at joints at abutments.
7. Repair substructure.
8. Clean and reseal pavement relief joints.



COLLINS ENGINEERS, INC.
JAMES M. HAMELKA
NO. 81-6116
EXPIRES 11-30-2010

GENERAL PLAN AND ELEVATION
JOE ORR BRIDGE OVER THORN CREEK
COOK COUNTY
STRUCTURE NO. 016-0919

DESIGNED	JWK
CHECKED	JMH
DRAWN	TWR
CHECKED	JWK

EXAMINED	2010
PASSED	ENGINEER OF STRUCTURAL SERVICES
	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S1 OF S6 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1631	2009-1231	COOK	12	5
			CONTRACT NO. 60J77		
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

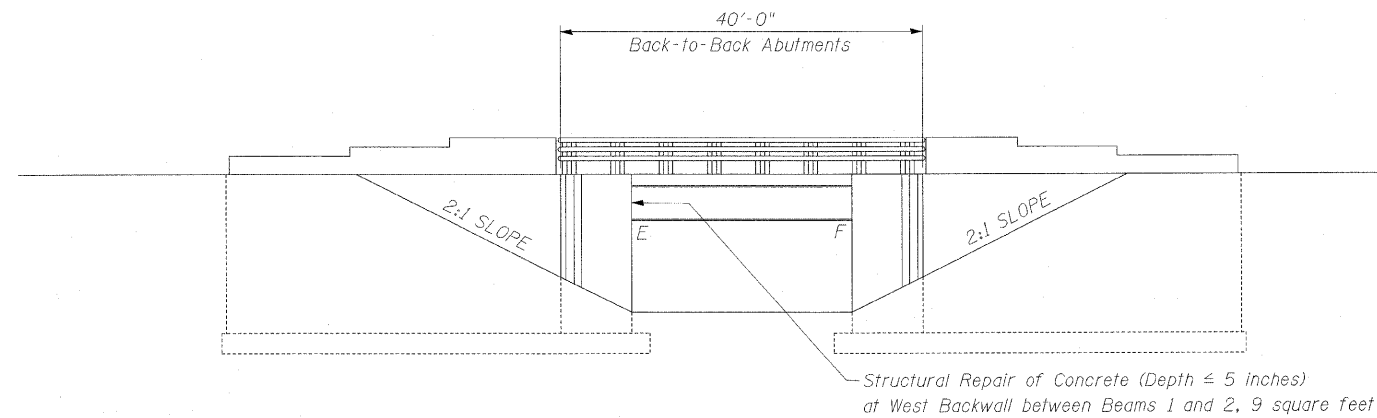
1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
2. Stage construction shall be utilized to maintain traffic during construction.
3. Protective Coat shall be applied only to the new Bridge Deck Latex Concrete Overlay and the concrete sidewalks located on the bridge.

INDEX OF SHEETS

- S1. General Plan and Elevation
- S2. General Notes, Bill of Materials and Index of Sheets
- S3. Stage Construction Details
- S4. Bridge Deck and Approach Slab Repairs I
- S5. Bridge Deck and Approach Slab Repairs II
- S6. Temporary Concrete Barrier

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structural repair of concrete (depth \leq 5 inches)	Sq. Ft.		9	9
Deck Slab Repair (Full Depth - Type II)	Sq. Yd.	22		22
Approach Slab Repair (Partial Depth)	Sq. Yd.	46		46
Protective Coat	Sq. Yd.	287		287
Bridge Deck Grooving	Sq. Yd.	231		231
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	240		240
Bridge Deck Latex Concrete Overlay 2 1/4"	Sq. Yd.	240		240
Bridge Deck Hydro-Scarification 1/2"	Sq. Yd.	240		240
Hot-Mix Asphalt Surface Course, Mix "D", N70	Ton	44		44
Hot-Mix Asphalt Surface Removal, 1 1/2"	Sq. Yd.	518		518
Polymer Concrete	Cu. Ft.	9.3		9.3
Clean and Reseal Relief Joint	Foot	198		198
Bituminous Materials (Prime Coat)	Gallon	53		53



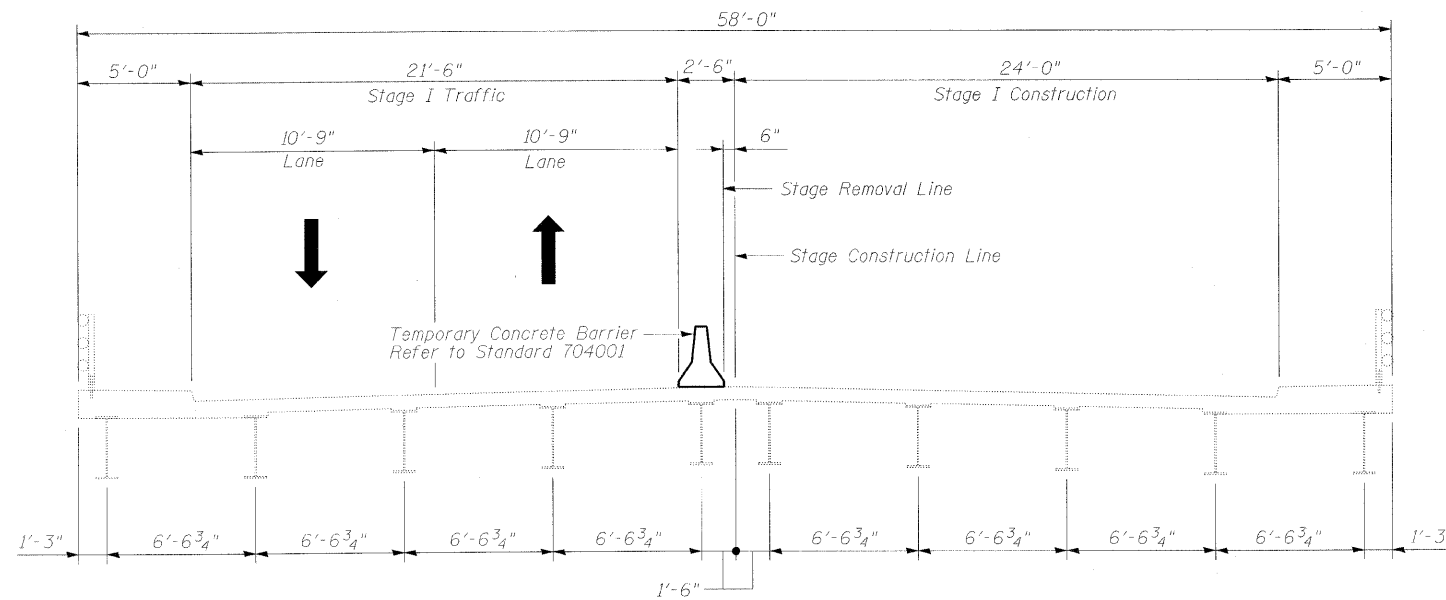
ELEVATION

GENERAL NOTES, BILL OF MATERIALS
AND INDEX OF SHEETS
STRUCTURE NO. 016-0919

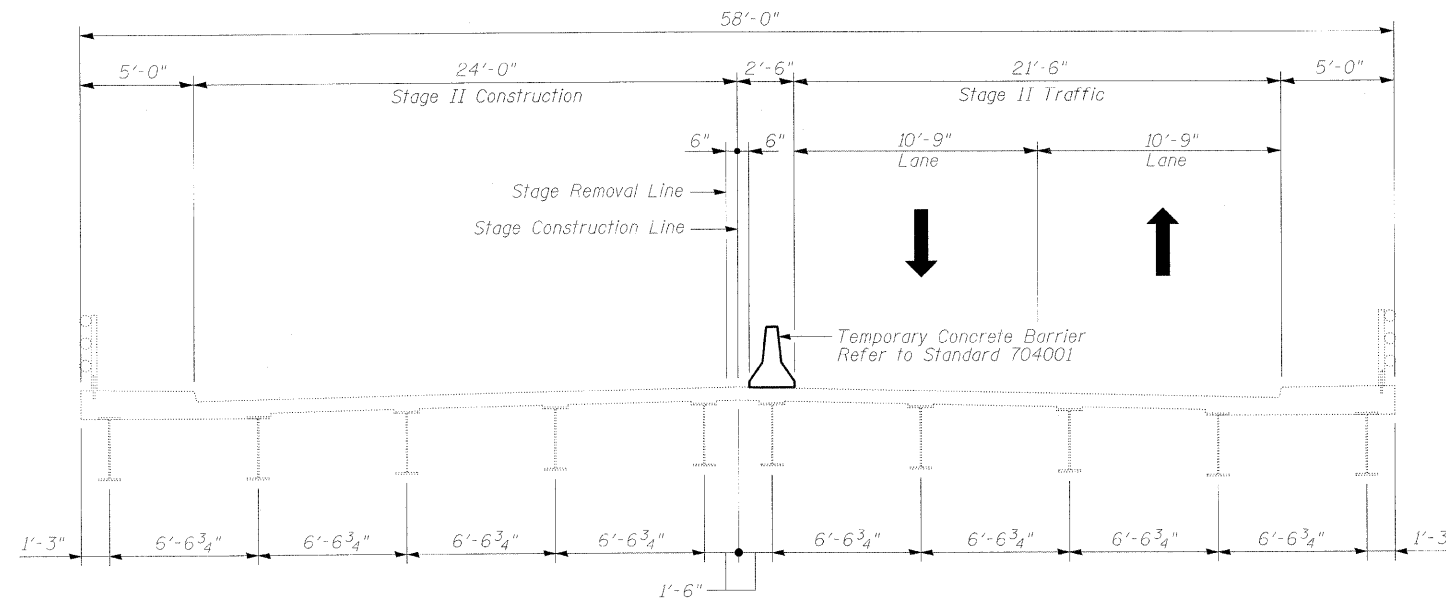
DESIGNED JWK	2010
CHECKED JMH	EXAMINED
DRAWN TWR	PASSED
CHECKED JWK	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S2	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
OF	1631	2009-123I	COOK	12	6
S6 SHEETS	CONTRACT NO. 60J77				
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STAGE I CROSS SECTION
LOOKING EAST



STAGE II CROSS SECTION
LOOKING EAST

Note:
For Quantity of Temporary Concrete Barrier refer to Summary of Quantities.

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 016-0919

DESIGNED <i>JWK</i>	January, 2010
CHECKED <i>JMH</i>	EXAMINED
DRAWN <i>TWR</i>	ENGINEER OF STRUCTURAL SERVICES
CHECKED <i>JMH</i>	PASSED
	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S3 OF S6 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1631	2009-1231	COOK	12	7
			CONTRACT NO. 60J77		
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

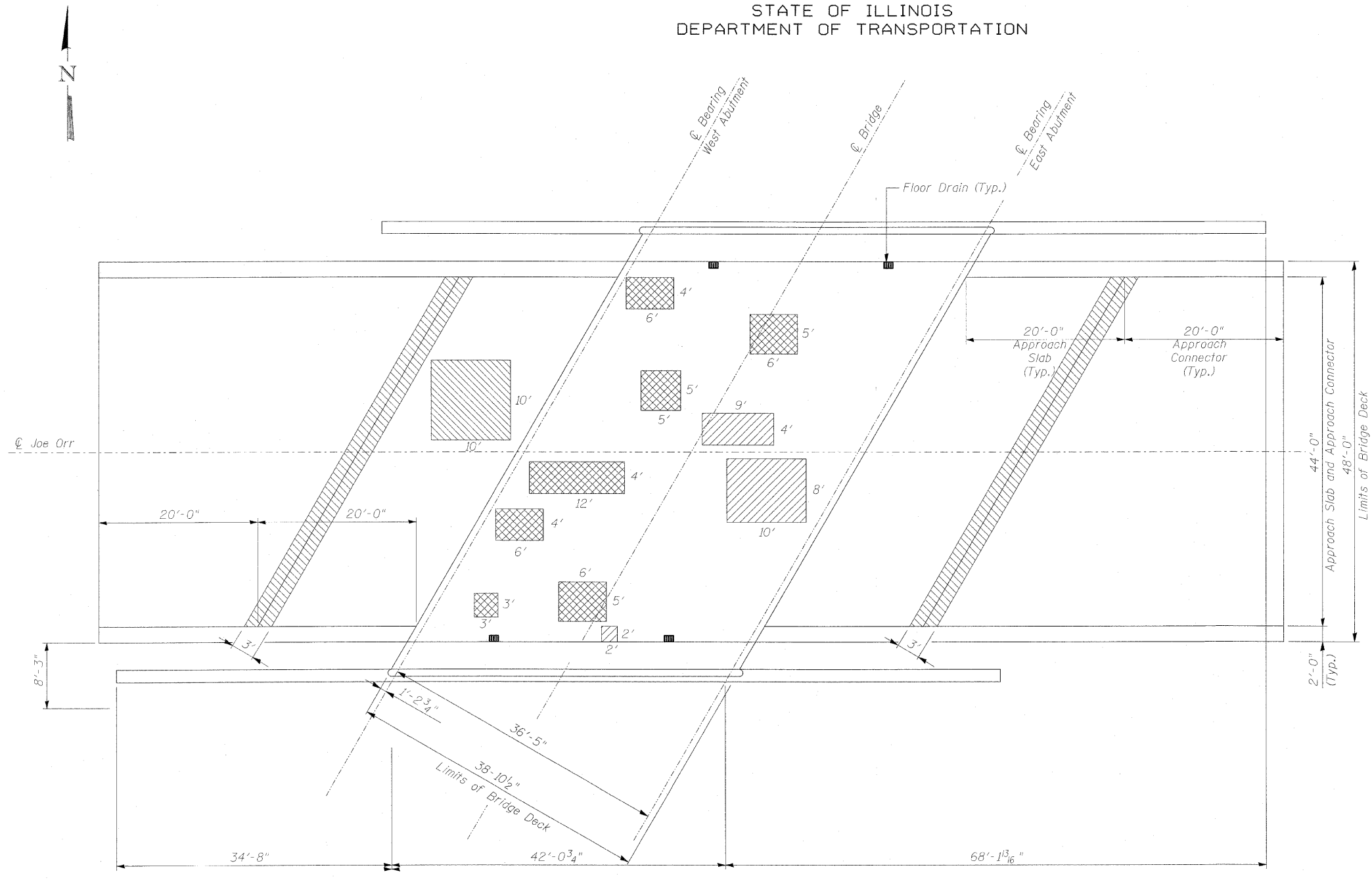
BILL OF MATERIAL

SYMBOL	ITEM	UNIT	QUANTITY
	Deck Slab Repair (Partial) Δ	Sq. Yd.	14
	Deck Slab Repair (Full Depth - Type II)	Sq. Yd.	22
	Approach Slab Repair (Partial Depth)	Sq. Yd.	46
	Protective Coat	Sq. Yd.	287
	Bridge Deck Grooving	Sq. Yd.	231
	Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	240
	Bridge Deck Latex Concrete Overlay 2 1/4"	Sq. Yd.	240
	Bridge Deck Hydro-Scarification 1/2"	Sq. Yd.	240
	Hot-Mix Asphalt Surface Course, Mix "D", N70	Ton	44
	Hot-Mix Asphalt Surface Removal, 1 1/2"	Sq. Yd.	518
	Bituminous Materials (Prime Coat)	Gallon	53

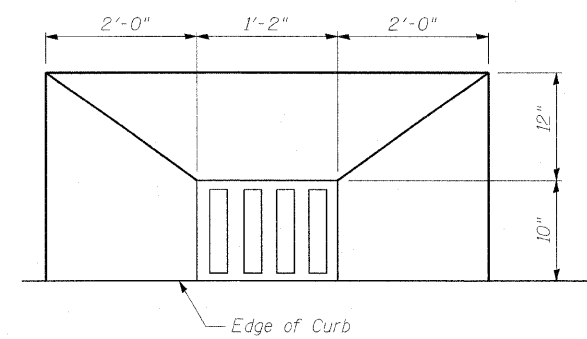
Δ For information only to assist the Contractor in bidding. See Special Provision for "Bridge Deck Latex Concrete Overlay."

Notes:

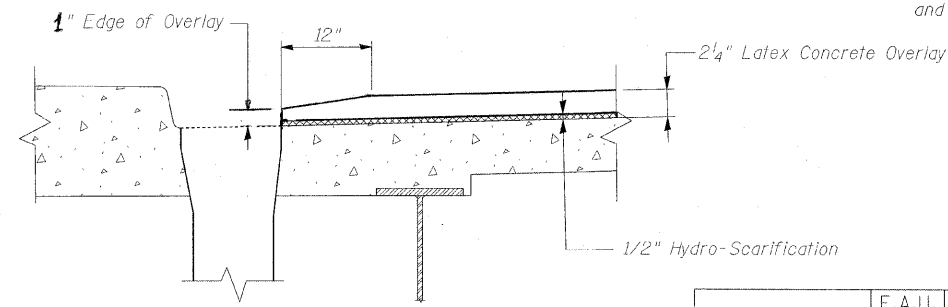
- Deck and approach slab repair areas are based on visual inspection completed in October 2009. Actual repair areas and locations shall be determined by the Engineer and shown on As-Built plans.
- Deck drains (downspouts, floor drains, and scuppers) shall be cleaned prior to placement of the Latex Concrete Overlay. Cost of cleaning the deck drains is included in Bridge Deck Hydro-Scarification, 1/2".
- Gaps caused by distress around floor drains shall be filled with epoxy as specified in Section 590 of the Standard Specification. Cost included with Bridge Deck Hydro-Scarification, 1/2".
- Hot-Mix Asphalt surface removal (deck), bridge deck hydro-scarification, bridge deck latex concrete overlay, protective coat and bridge deck grooving shall be performed over the limits of the bridge deck. The protective coat will also be applied to the bridge sidewalks. The item for Hot-Mix Asphalt surface removal (Deck) shall include removal of the full thickness of the existing overlay.
- Hot-Mix Asphalt Surface Removal, 1 1/2" Bituminous Materials (Prime Coat) and Hot-Mix Asphalt Surface Course, Mix "D", N70 shall be performed over the limits of the approach pavements and approach pavement connectors.



PLAN



PLAN AT FLOOR DRAIN



SECTION AT FLOOR DRAIN

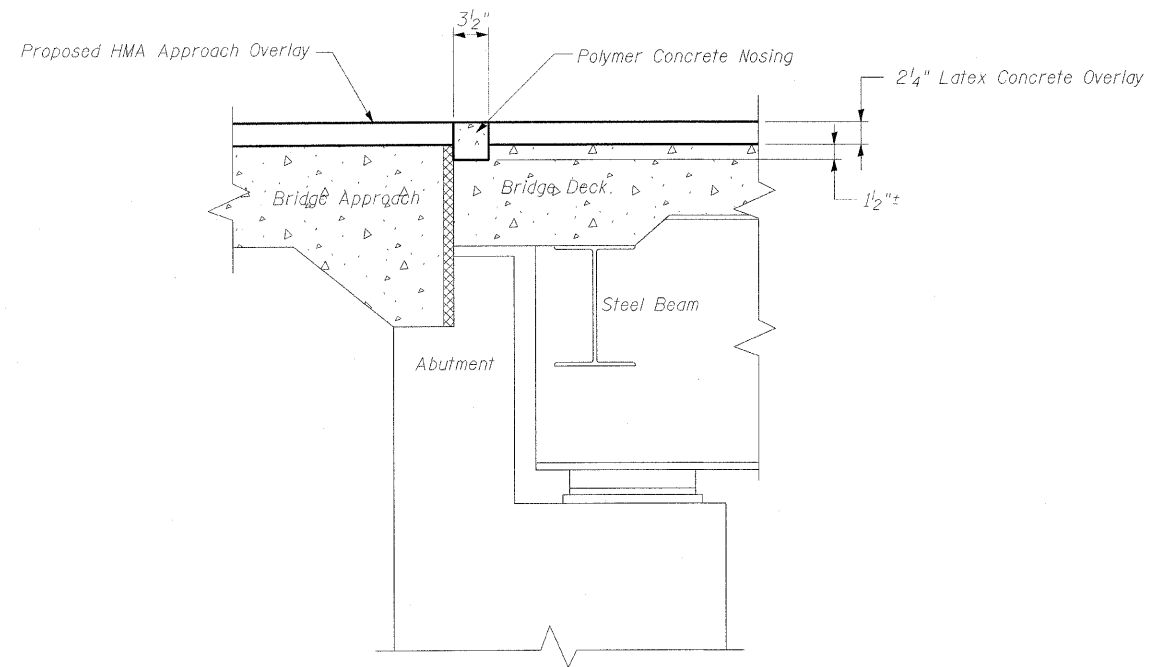
DESIGNED <u>JWK</u>	2010
CHECKED <u>JMH</u>	EXAMINED
DRAWN <u>TWR</u>	PASSED
CHECKED <u>JWK</u>	ENGINEER OF STRUCTURAL SERVICES
	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S4 OF S6 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1631	2009-1231	COOK	12	8
CONTRACT NO. 60J77					
ILLINOIS FED. AID PROJECT					

BRIDGE DECK AND
APPROACH SLAB REPAIRS I
STRUCTURE NO. 016-0919

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIAL



ITEM	UNIT	QUANTITY
Polymer Concrete	Cu. Ft.	9.3

CONCRETE NOSING DETAIL
AT BRIDGE ABUTMENTS

Notes: When the polymer concrete nosing is to be installed adjacent to a deck overlay, the nosing shall be installed after the overlay is placed.

Polymer Concrete must be placed in direct contact with the concrete deck. Removal of all HMA or other material that may be adhered to the Polymer Concrete contact areas is required. The cost for this work shall be included in the pay item for Polymer Concrete.

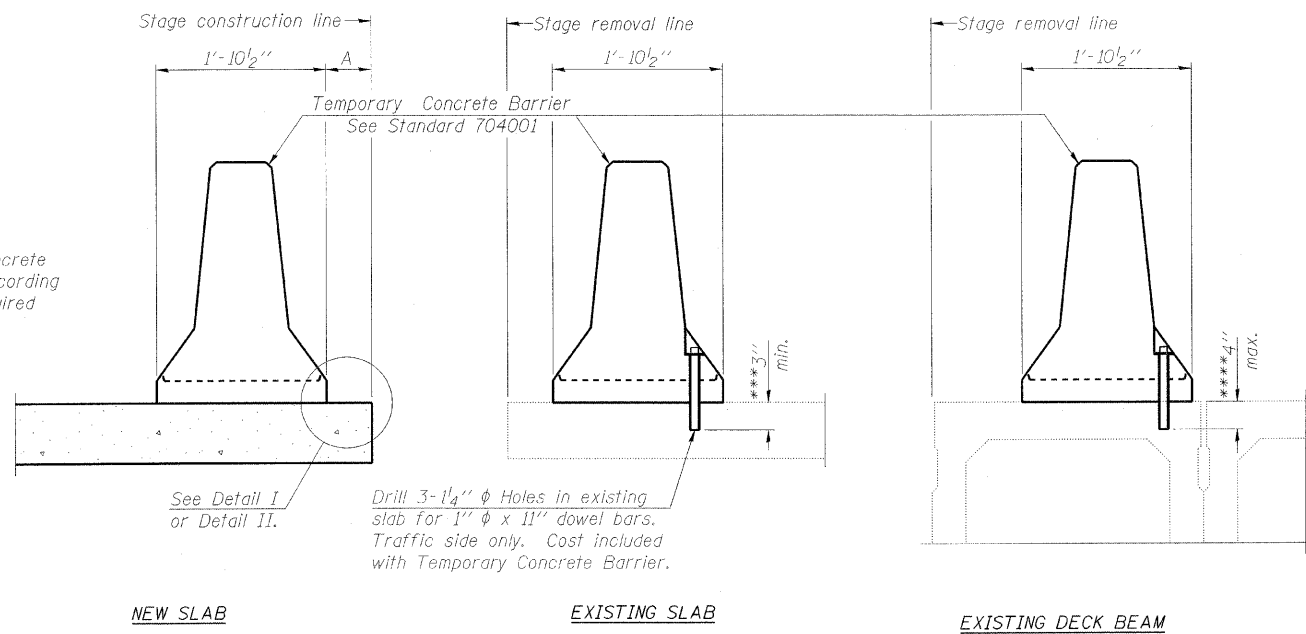
BRIDGE DECK AND
APPROACH SLAB REPAIRS II
STRUCTURE NO. 016-0919

DESIGNED <u>JWK</u>	<u>January, 2010</u>
CHECKED <u>JMH</u>	EXAMINED _____
DRAWN <u>TWR</u>	ENGINEER OF STRUCTURAL SERVICES
CHECKED <u>JWK</u>	PASSED _____
	ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. S5 OF S6 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1631	2009-123I	COOK	12	9
			CONTRACT NO. 60J77		
ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

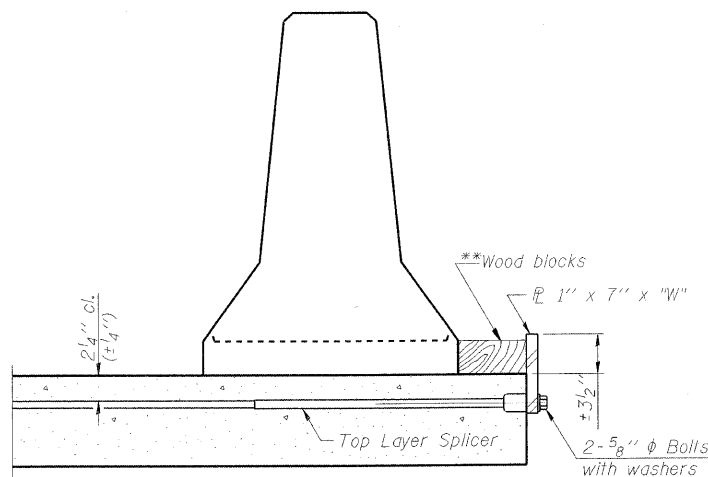
SECTIONS THRU SLAB OR DECK BEAM

NOTES

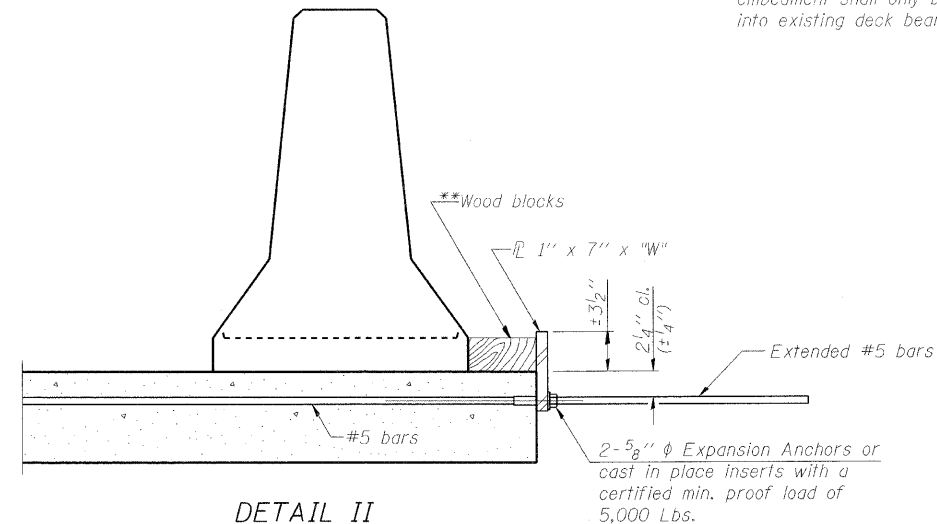
- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.
- Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{L} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

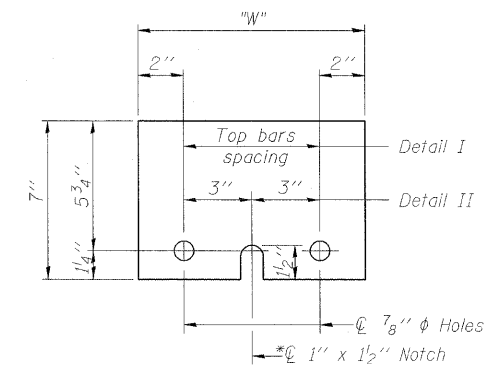
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



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

* Required only with Detail II

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

"W" = Top bars spacing + 4"

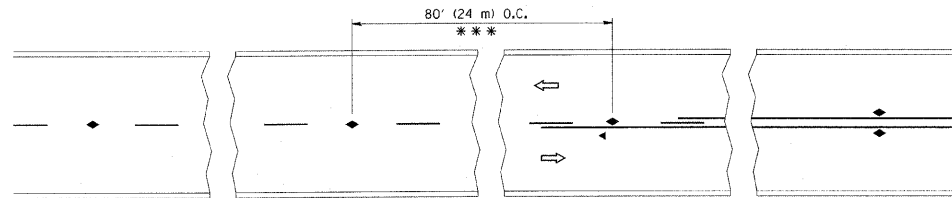
TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
STRUCTURE NO. 016-0919

DESIGNED JWK	January, 2010
CHECKED JMH	EXAMINED
DRAWN TWR	ENGINEER OF STRUCTURAL SERVICES
CHECKED JWK	PASSED
	ENGINEER OF BRIDGES AND STRUCTURES

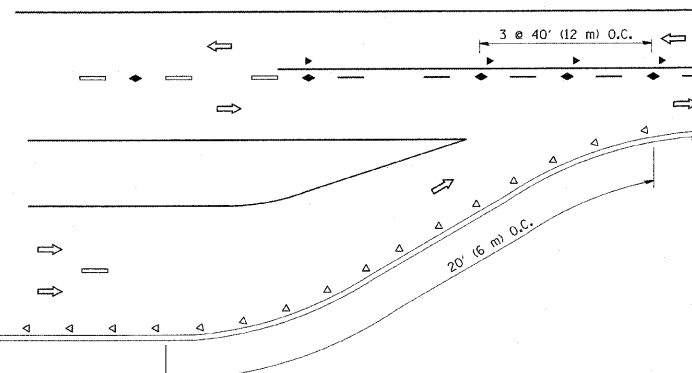
R-27

11-1-09

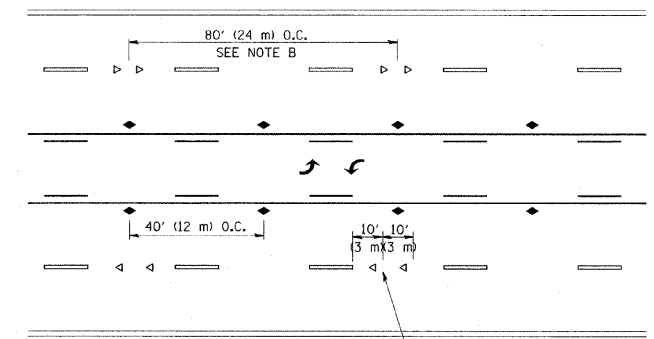
SHEET NO. S6	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
OF	1631	2009-123I	COOK	12	10
S6 SHEETS	CONTRACT NO. 60J77				
ILLINOIS FED. AID PROJECT					



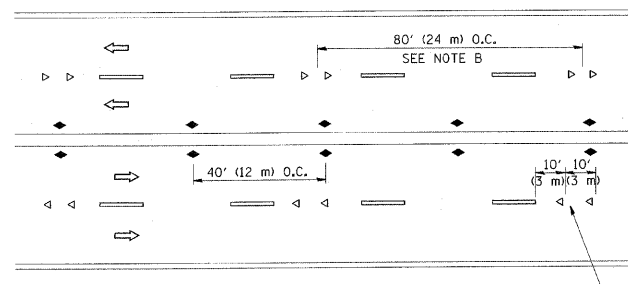
TWO-LANE/TWO-WAY



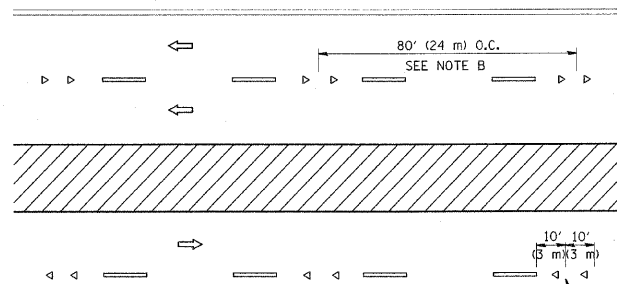
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

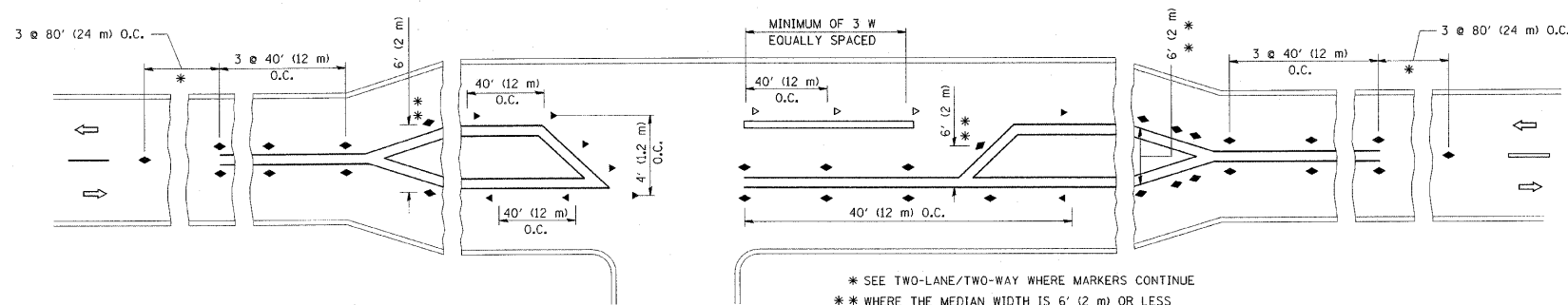
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = c:\pwork\pwork\drivakosgn\d0128315\1.dgn	USER NAME = drivakosgn	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - T. RAMMACHER 03-12-99		1631	2009-123I	COOK	12	11			
PLOT DATE = 9/9/2009	CHECKED -	REVISED - T. RAMMACHER 01-06-00	SCALE: NONE		SHEET NO. 1	OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 60J77			
	DATE -	REVISED - C. JUCIUS 09-09-09										
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT												

