

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
532	FAP 532 22 BRIDGE	WILL	21	1
		ILLINOIS	CONTRACT NO. 62R68	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT IS LOCATED IN THE VILLAGE OF ELWOOD

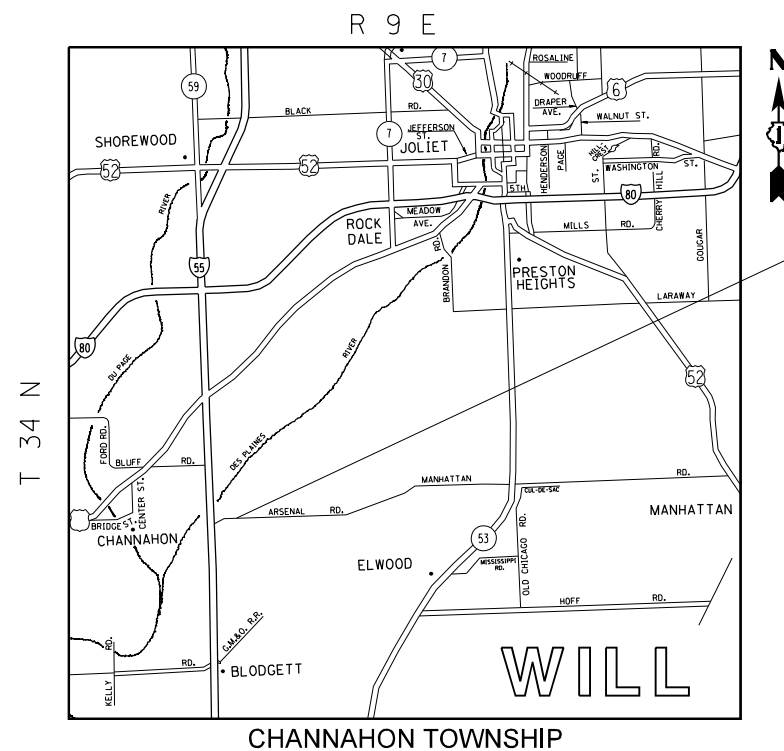
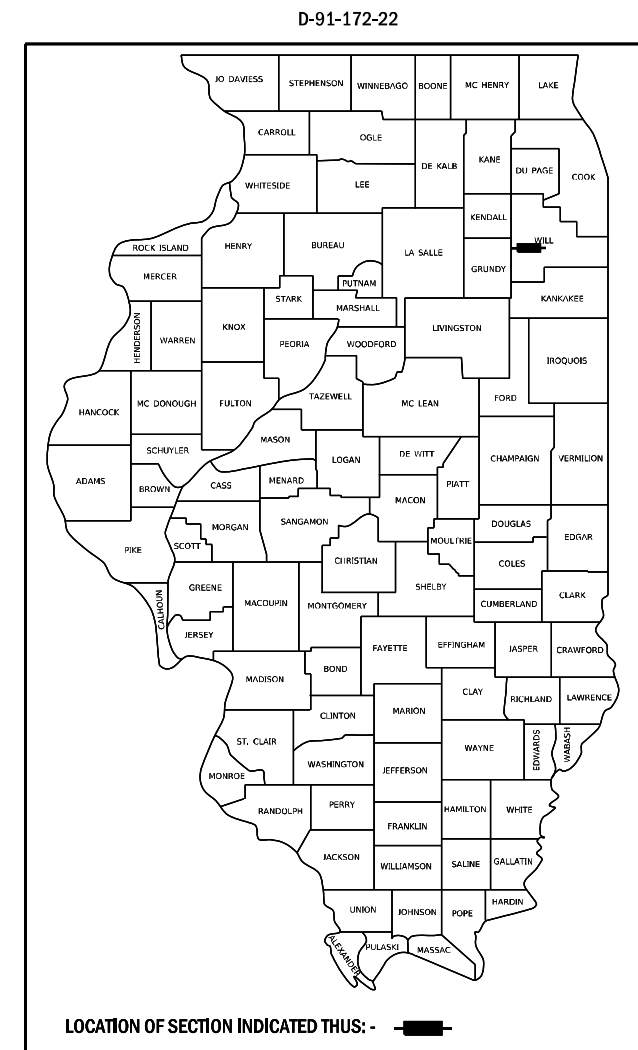
TRAFFIC DATA:

ARSENAL ROAD
2019 ADT = 13,300
POSTED SPEED LIMIT = 50MPH

FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR

**PROPOSED
HIGHWAY PLANS**
FAP ROUTE 532: ARSENAL ROAD
OVER BNSF RR & JACKSON CREEK
SECTION: FAP 532 22 BRIDGE
BRIDGE JOINT REPLACE/REPAIR

WILL COUNTY
C-91-218-22



IMPROVEMENT LOCATION:
ARSENAL ROAD OVER BNSF RR & JACKSON CREEK
SN: 099-3392

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

PROJECT ENGINEER: RODRIGO LEDEZMA (847) 705-4580
PROJECT MANAGER: J. ALAIN MIDY (847) 221-3056

CONTRACT NO. 62R68

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 18, 2022
Open Road I/OAB
REGIONAL ENGINEER

February 3, 2023 [Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

February 3, 2023 [Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

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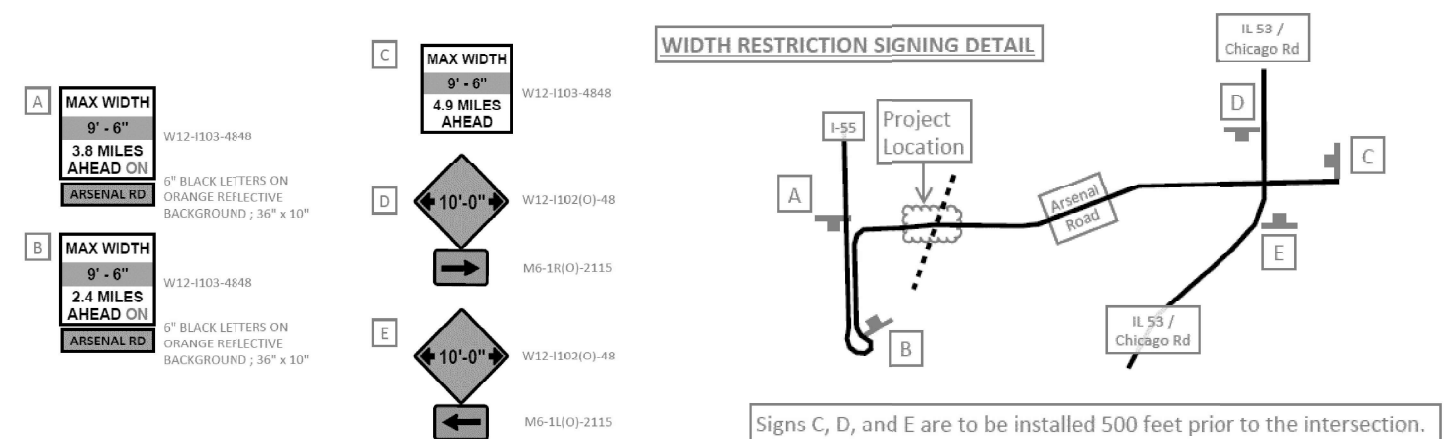
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2.	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES
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17.	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
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21.	ARTERIAL ROAD INFORMATION SIGN (TC-22)

STATE STANDARDS

STANDARD NO.	DESCRIPTION
635001-02	DELINEATORS
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-04	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY. FOR SPEEDS >=45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS DAY ONLY
701421-08	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS >= 45 MPH TO 55 MPH
701423-10	LANE CLOSURE, MULTILANE, WITH BARRIER, FOR SPEEDS >= 45 MPH TO 55 MPH
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS >=45 MPH
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
782006-01	GUARDRAIL AND BARRIER WALL REFLECTORS MOUNTING DETAILS

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF ELWOOD.
- 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 BASED AT THE UNIT PRICE BID FOR THE WORK.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV FOR ARTERIALS A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- THE ENGINEER SHALL CONTACT ERIC CAMPOS, AREA TRAFFIC FIELD ENGINEER, AT (847) 705-4412 A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
- THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO ENSURE THAT NO DEBRIS WILL ENDANGER OR INTERFERE WITH TRAFFIC ON THE RAILROAD BENEATH THE BRIDGE ACCORDING TO ARTICLE 107.12 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE APPROPRIATE PAY ITEM INVOLVED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- WHERE UNDERPASS LIGHTING IS PRESENT ON A STRUCTURE, THE CONTRACTOR SHALL ADJUST THE PROTECTIVE SHIELDING TO RIDE ABOVE THE EXISTING LIGHTING FIXTURES IN ORDER TO MAINTAIN THE EXISTING LEVEL OF LIGHTING ON THE ROADWAY UNDERNEATH. DETAILS SHALL BE APPROVED BY THE ENGINEER BEFORE INSTALLATION.
- ANY ADJUSTMENT DONE TO THE PROTECTIVE SHIELD SYSTEM MUST NOT CHANGE THE LOAD CARRYING CAPACITY OR CONTAINMENT SPECIFICATIONS AS INDICATED IN THE STD SPECS. COST OF ADJUSTING SHIELDING IS INCLUDED IN THE COST OF PROTECTIVE SHIELD.
- THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF MAINTENANCE BRIDGE INSPECTORS.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.



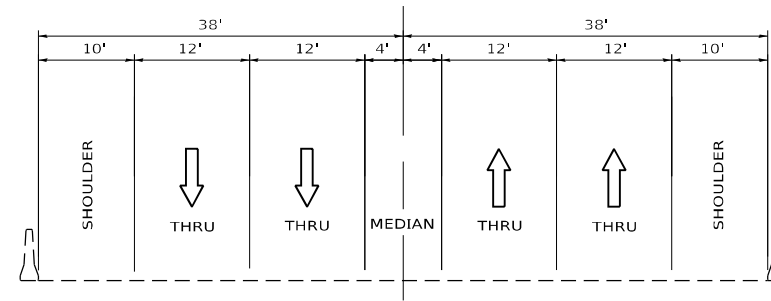
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	PLotted					SCALE:	SHEET 1	OF 1	SHEETS	STA.	TO STA.

SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		100% STATE 099-3392 0047				
50102400	CONCRETE REMOVAL	CU YD	10.4	10.4				
50157300	PROTECTIVE SHIELD	SO YD	176	176				
50300255	CONCRETE SUPERSTRUCTURE	CU YD	10.4	10.4				
50300300	PROTECTIVE COAT	SO YD	70	70				
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1450	1450				
50800515	BAR SPLICERS	EACH	14	14				
52000110	PREFORMED JOINT STRIP SEAL	FOOT	162	162				
64300370	IMPACT ATTENUATORS (FULLY REDIRECTIVE, WIDE), TEST LEVEL 3	EACH	2	2				
67100100	MOBILIZATION	L SUM	1	1				
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	60	60				
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	7680	7680				
70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	23040	23040				
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1125	1125				

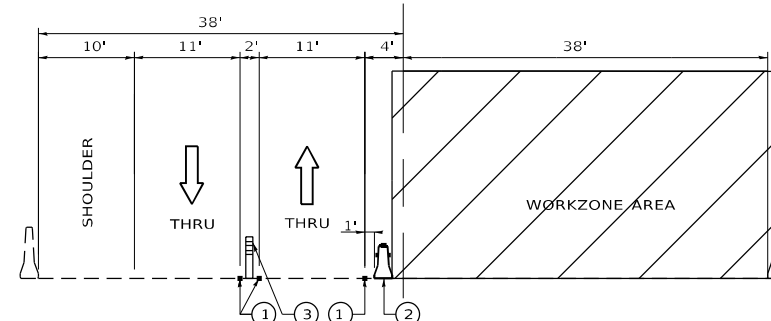
SUMMARY OF QUANTITIES			URBAN TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		100% STATE 099-3392 0047				
70400125	PINNING TEMPORARY CONCRETE BARRIER	EACH	25	25				
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1125	1125				
70600327	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, WIDE), TEST LEVEL 3	EACH	2	2				
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	2600	2600				
* 78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	350	350				
* 78100300	REPLACEMENT REFLECTOR	EACH	50	50				
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	50	50				
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SO FT	1350	1350				
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	6	6				
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1				
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	51.4	51.4				
	* SPECIALTY ITEM							

MAINTENANCE OF TRAFFIC GENERAL NOTES

1. THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT. HOWEVER, THE CONTRACTOR MAY IMPROVE OR MODIFY THE TRAFFIC CONTROL PLANS TO MEET CONSTRUCTION NEEDS BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
2. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS, SPECIAL PROVISIONS, APPLICABLE STATE STANDARDS, AND AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE THROUGH LANE IN EACH DIRECTION THROUGH OUT THE PROJECT AREA AT ALL TIMES.
4. ALL EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
5. THE CONTRACTOR SHALL PROVIDE, INSTALL, MAINTAIN AND REMOVE ALL SIGNS AND SIGN SUPPORTS REQUIRED FOR TRAFFIC CONTROL AND PROTECTION.
6. THE TRAFFIC CONTROL SUPERVISOR SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGE TO THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLANS.
7. THE CONTRACTOR SHALL CONTACT THE IDOT D1 TRAFFIC CONTROL SUPERVISOR AT (847) 705-4412 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.



**EXISTING TYPICAL SECTION
ARSENAL ROAD
(LOOKING EAST)**



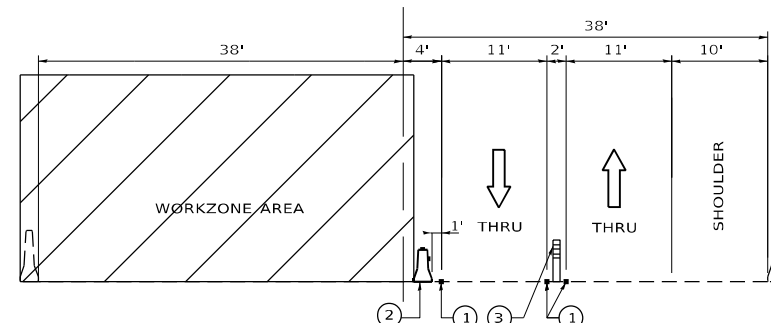
**STAGING I TYPICAL SECTION
ARSENAL ROAD
(LOOKING EAST)**

SUGGESTED STAGES OF CONSTRUCTION SEQUENCE

STAGE I
ESTABLISH TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH THE SUGGESTED MAINTENANCE OF TRAFFIC CONTROL PLANS. CONSTRUCT JOINT REPAIRS ON SOUTH HALF OF BRIDGE STRUCTURE JOINTS AND ALL INCIDENTAL AND COLLATERAL WORK NECESSARY TO COMPLETE THIS PORTION AS SHOWN ON THE PLANS AND AS DESCRIBED THEREIN.

STAGE II
ESTABLISH TRAFFIC CONTROL AND PROTECTION IN ACCORDANCE WITH THE SUGGESTED MAINTENANCE OF TRAFFIC CONTROL PLANS. CONSTRUCT JOINT REPAIRS ON NORTH HALF OF BRIDGE STRUCTURE JOINTS AND ALL INCIDENTAL AND COLLATERAL WORK NECESSARY TO COMPLETE THIS PORTION AS SHOWN ON THE PLANS AND AS DESCRIBED THEREIN.

POST-STAGE
INSTALL PERMANENT PAVEMENT MARKINGS AND REFLECTORS, PERFORM CLEAN UP AND PUNCH LIST ITEMS.



**STAGING II TYPICAL SECTION
ARSENAL ROAD
(LOOKING EAST)**

LEGEND

- ① PROP. TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE
- ② PROP. TEMPORARY CONCRETE BARRIER WITH TYPE C REFLECTORS PER HWY STD 704001 & 782006
- ③ PROP. TEMPORARY TUBULAR MARKERS (PAID AS PART AS TRAFFIC CONTROL AND PROTECTION (SPECIAL))

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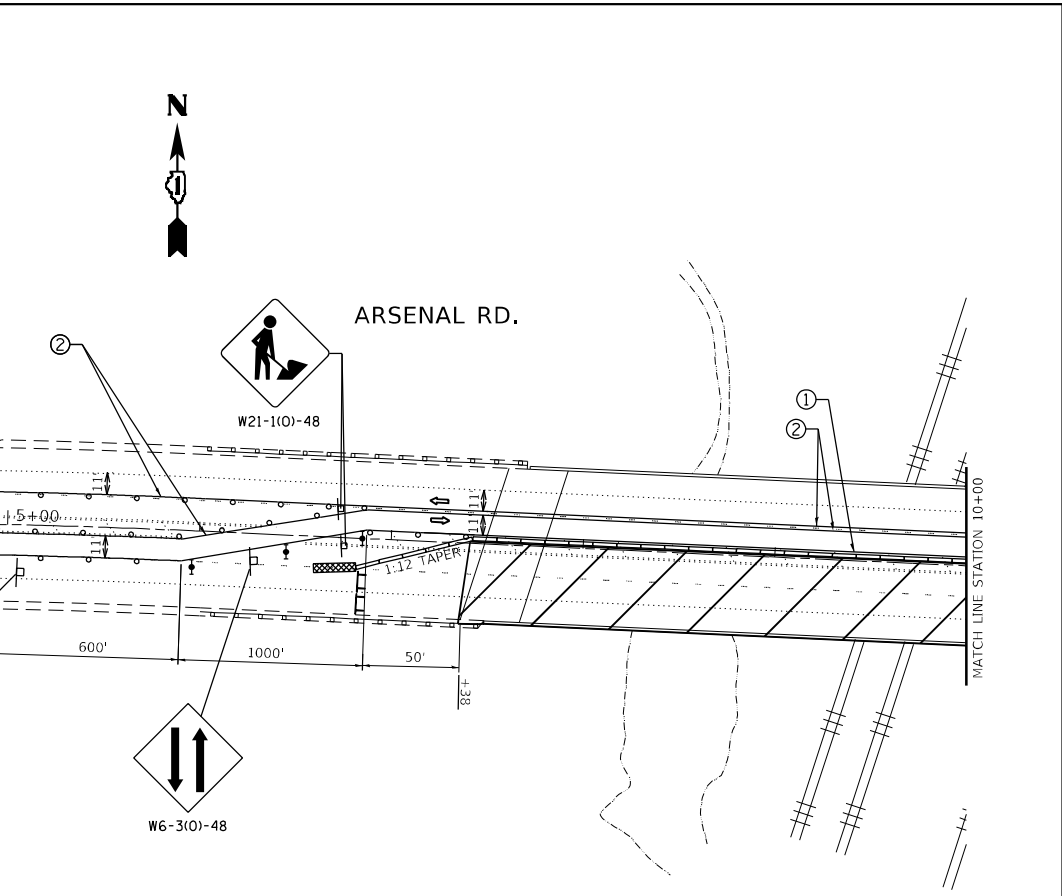
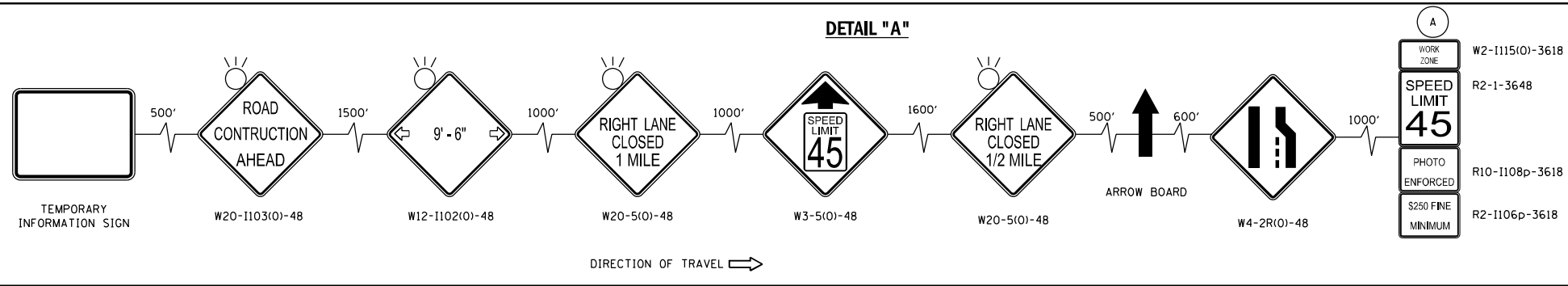
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGING TYPICAL
ARSENAL ROAD OVER BNSF & JACKSON CREEK**

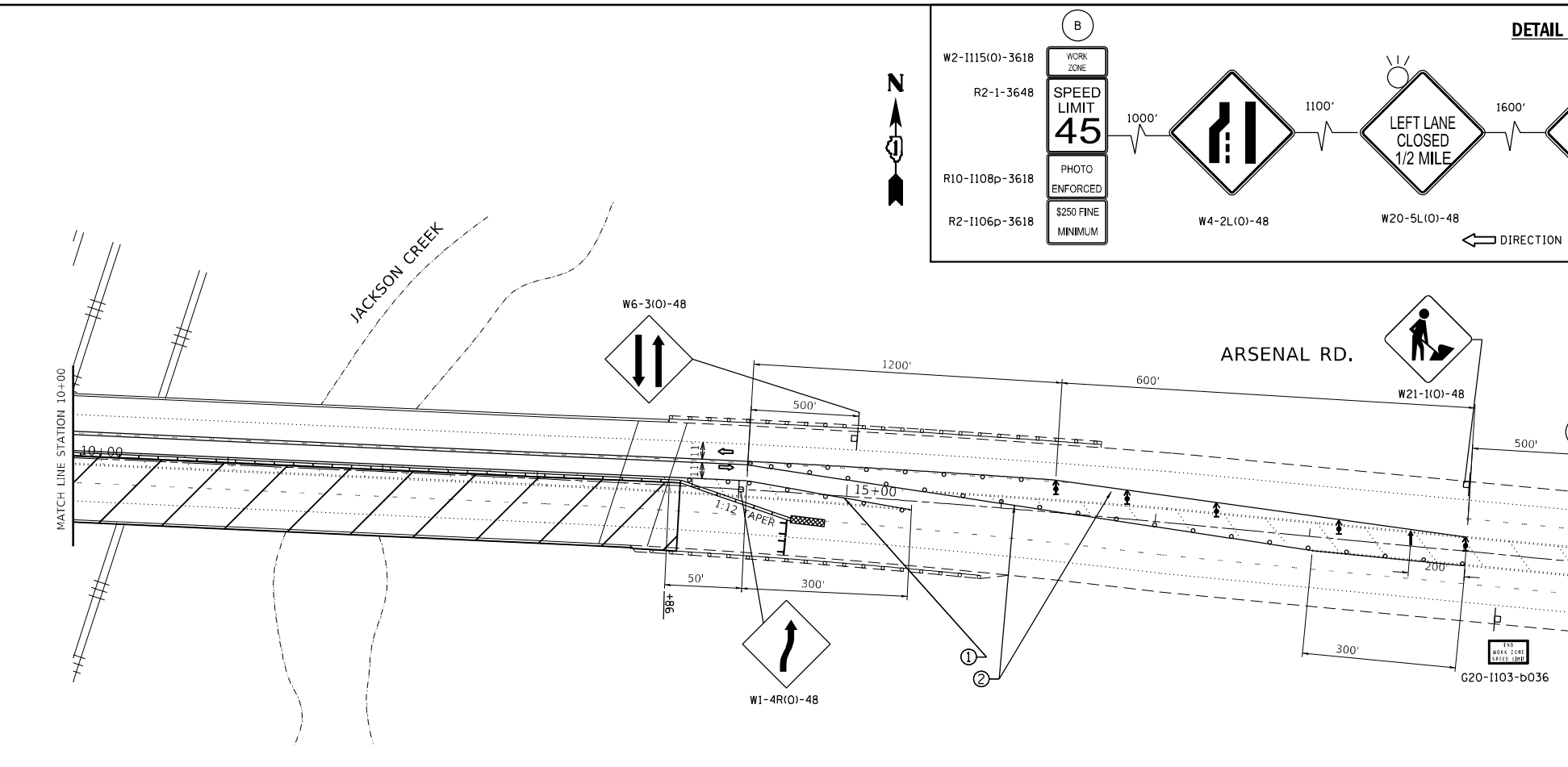
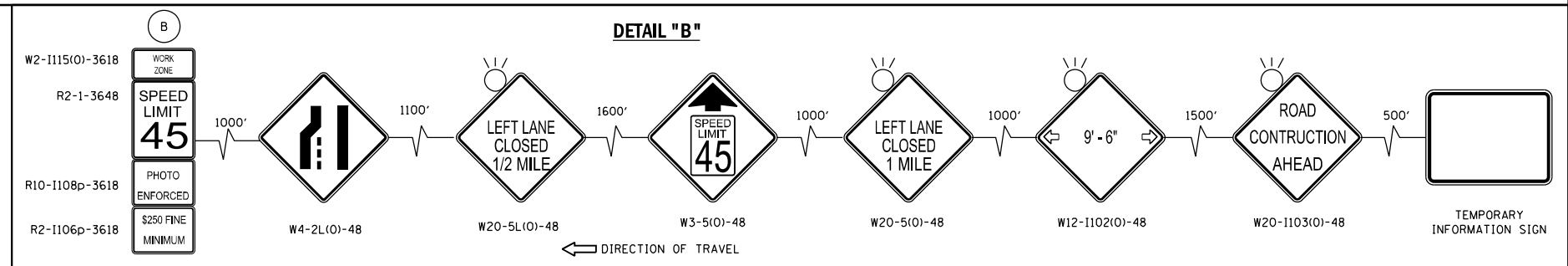
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
532	FAP 532 22 BRIDGE	WILL	21	4
			CONTRACT NO. 62R18	
		ILLINOIS FED. AID PROJECT		



TEMPORARY PAVEMENT MARKING LEGEND

- ① TEMPORARY PAVEMENT MARKING - LINE 4" - TAPE, TYPE IV, WHITE-RIGHT, 4" SOLID
- ② TEMPORARY PAVEMENT MARKING - LINE 4" - TAPE, TYPE IV, YELLOW-LEFT, 4" SOLID



SYMBOLS

- ↑ ARROW BOARD
- ▨ WORK AREA
- ⊥ SIGN
- ↑ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊥ TYPE III BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONO DIRECTIONAL FLASHING LIGHT
- ▭ TEMPORARY CONCRETE BARRIER
- ▨ IMPACT ATTENUATOR
- DRUMS WITH STEADY BURN MONODIRECTIONAL LIGHT

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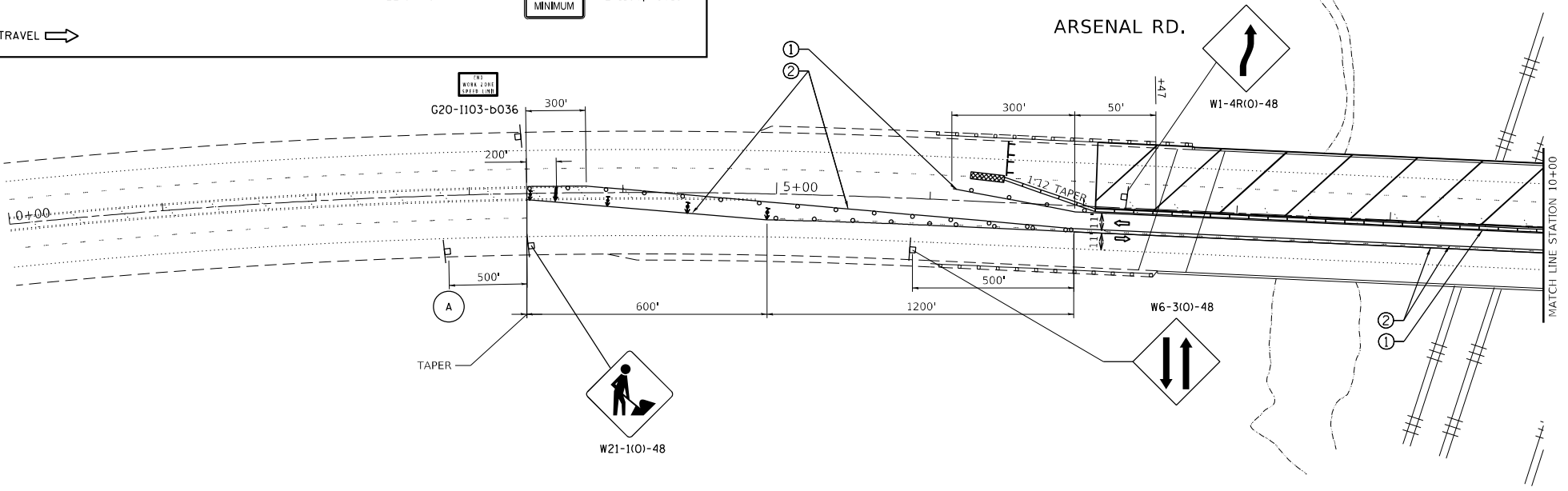
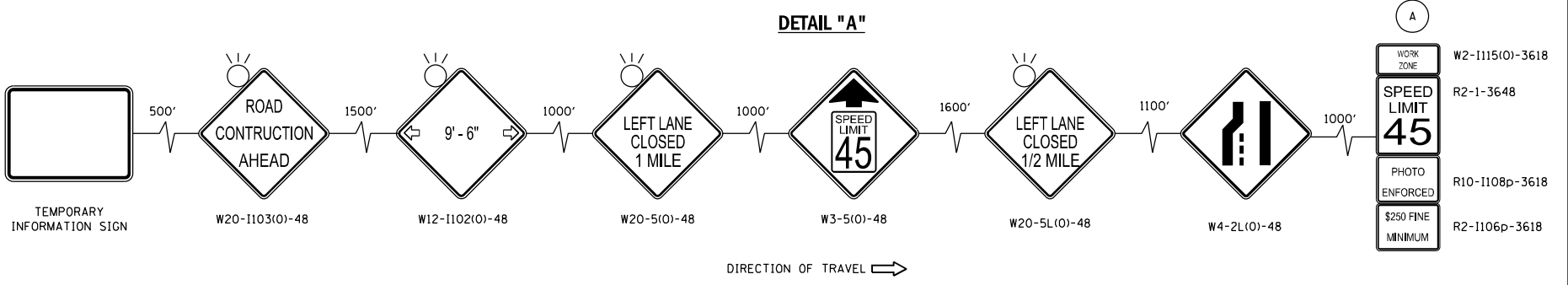
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	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUGGESTED MAINTENANCE OF TRAFFIC CONTROL PLAN STAGE I
ARSENAL ROAD OVER BNSF RR & JACKSON CREEK**

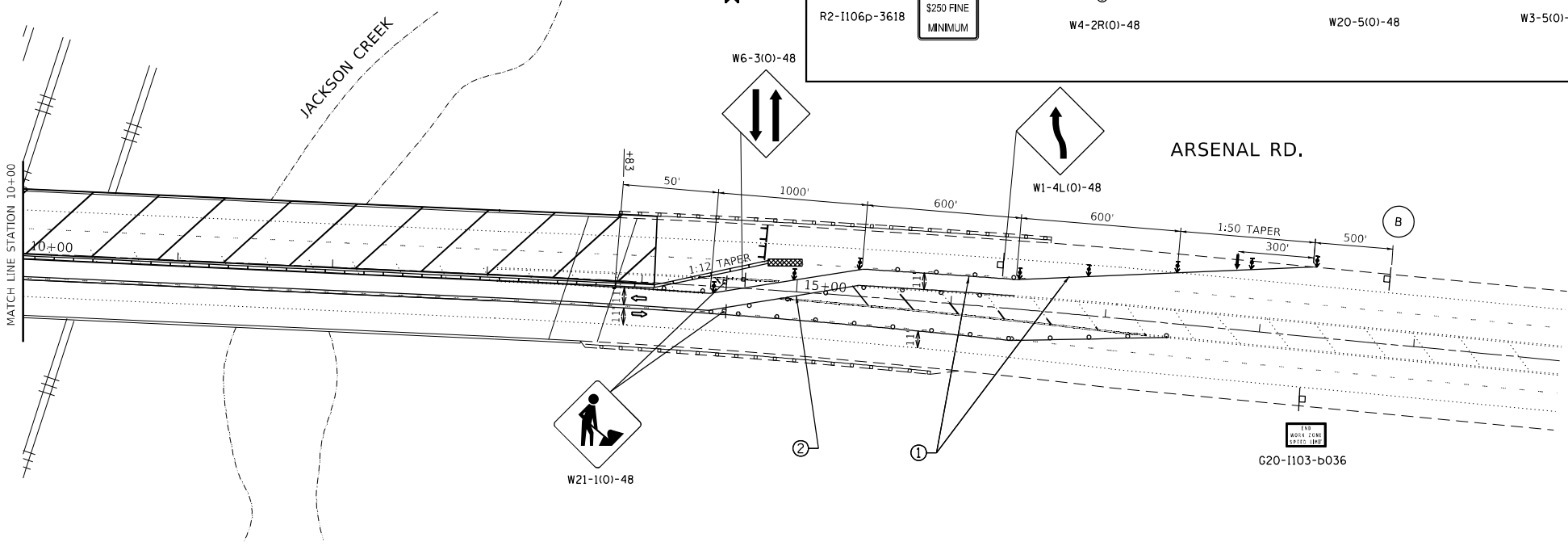
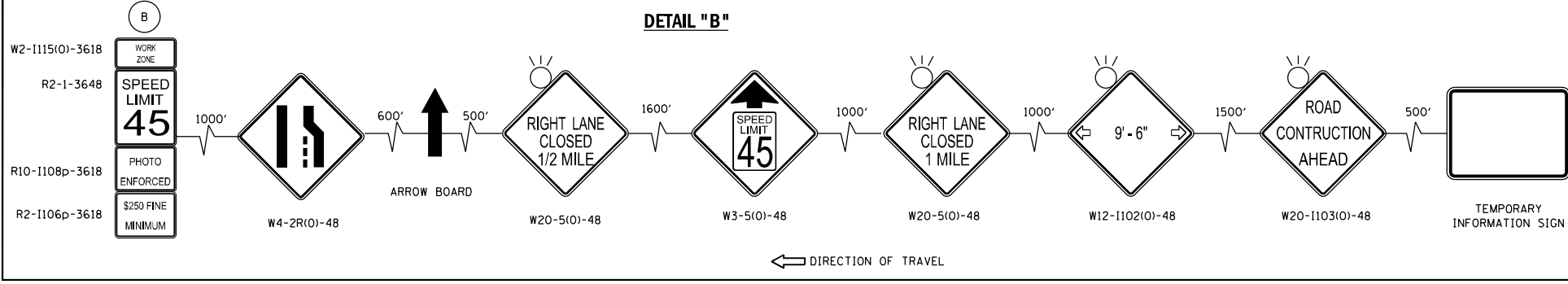
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
532	FAP 532 22 BRIDGE	WILL	21	5
CONTRACT NO. 62R68				
ILLINOIS FED. AID PROJECT				



TEMPORARY PAVEMENT MARKING LEGEND

- ① TEMPORARY PAVEMENT MARKING - LINE 4" - TAPE, TYPE IV, WHITE-RIGHT, 4" SOLID
- ② TEMPORARY PAVEMENT MARKING - LINE 4" - TAPE, TYPE IV, YELLOW-LEFT, 4" SOLID



SYMBOLS

- ↑ ARROW BOARD
- ▨ WORK AREA
- ⊥ SIGN
- ↑ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊥ TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- ⊥ TYPE III BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONO DIRECTIONAL FLASHING LIGHT
- ▬ TEMPORARY CONCRETE BARRIER
- ▨ IMPACT ATTENUATOR
- DRUMS WITH STEADY BURN MONODIRECTIONAL LIGHT

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DRAWN: Ivan Diaz
CHECKED: Ivan Diaz
DATE: 1/13/2023

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUGGESTED MAINTENANCE OF TRAFFIC CONTROL PLAN STAGE II
ARSENAL ROAD OVER BNSF RR & JACKSON CREEK**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
532	FAP 532 22 BRIDGE	WILL	21	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62R68	

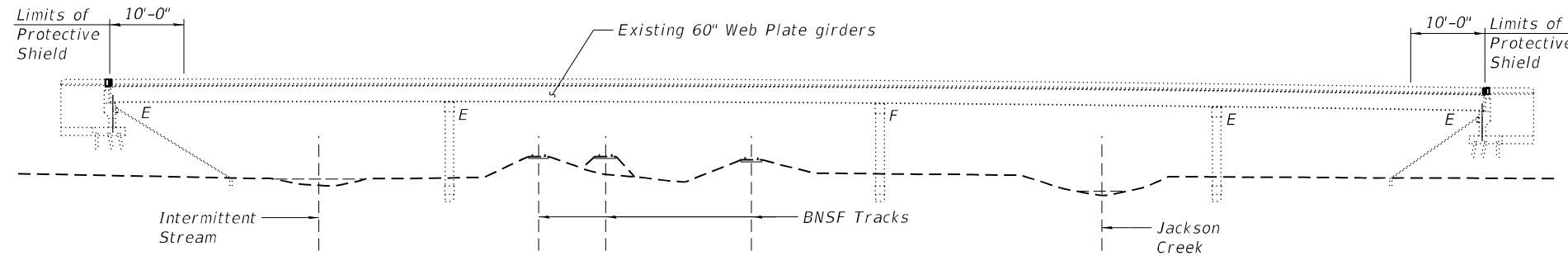
Existing Structure: SN 099-3392 built in 2005 as Arsenal Road (CH 17), Section 00-00117-19-GS at Sta. 1033+44.00. The structure is a four span bridge with 7½" deck on 60" web plate girder, measuring 572-1¾" back to back abutments, 79'-2" out to out deck with 15°36'38" left ahead skew. The concrete substructure units are comprised of closed abutments on H-pile supported footings and three multi-column piers with web walls, founded on drilled shafts. Stage construction shall be utilized to maintain one lane of traffic in each direction.

INDEX OF SHEETS

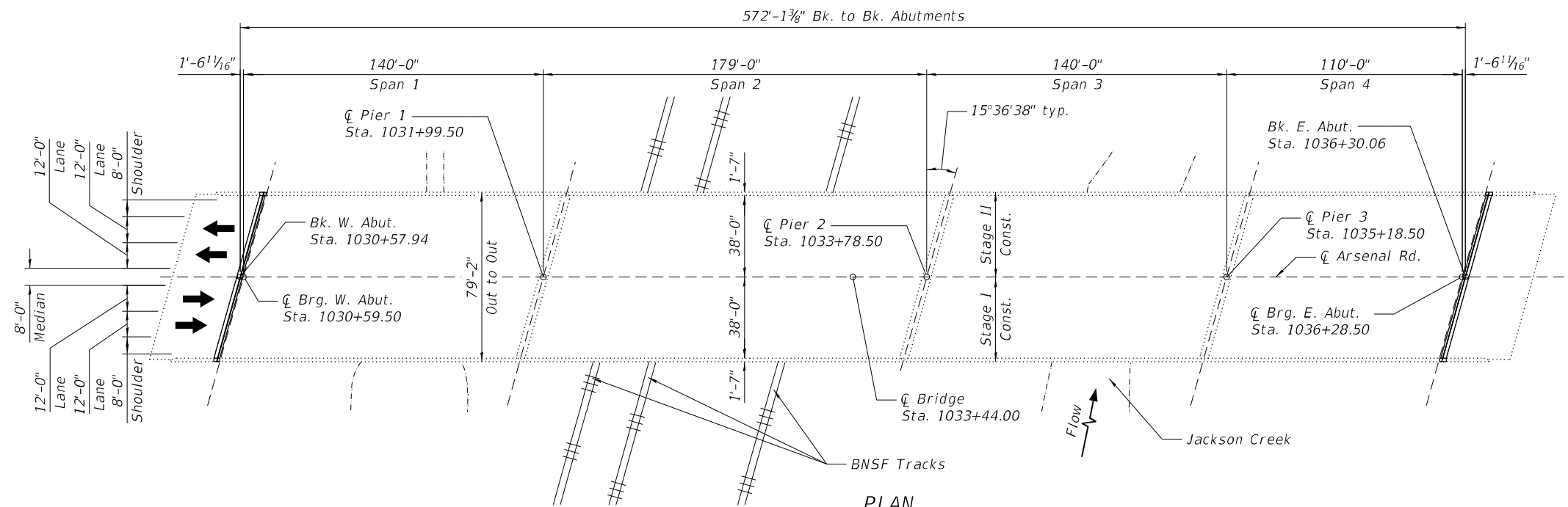
1. General Plan and Elevation
2. Stage Construction Details
- 3-5. Joint Replacement Details
6. Preformed Joint Strip Seal
7. Bar Splicer Assembly Details

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. 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.
3. Existing reinforcement bars extending into the 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.
4. Cost of removal and disposal of existing expansion joints shall be included in the cost of Concrete Removal.
5. Protective Coat shall be applied to the inside and top faces of new concrete adjacent to joints.
6. Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the concrete adjacent to joint is poured at an ambient temperature other than 50°F.
7. Expansion joints shall be fabricated to conform to the existing cross slope of the bridge.



ELEVATION



PLAN

DESIGN STRESSES

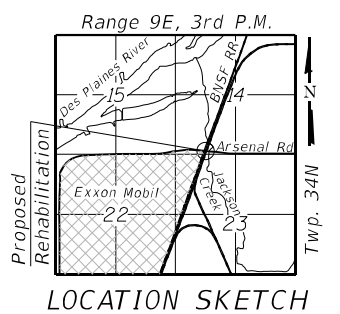
FIELD UNITS (New Construction)
 $f'_c = 4,000$ psi (Superstructure)
 $f_y = 60,000$ psi (Reinforcement)

DESIGN SPECIFICATIONS

(New Construction)
 2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS-20

(Original Construction)
 Allow 50psf for future wearing surface.



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	10.4	-	10.4
Protective Shield	Sq. Yd.	176	-	176
Concrete Superstructure	Cu. Yd.	10.4	-	10.4
Protective Coat	Sq. Yd.	45	-	45
Reinforcement Bars, Epoxy Coated	Pound	1,450	-	1,450
Bar Splicers	Each	14	-	14
Preformed Joint Strip Seal	Foot	162	-	162

SCOPE OF WORK

1. Remove portions of existing concrete deck and parapets as required to replace expansion joints at abutments.
2. Provide new strip seal expansion joints and adjacent superstructure concrete over abutments.
3. Apply protective coat to new parapet and deck concrete.



Michael T. Haley 12/12/2022
 Michael T. Haley Date
 Licensed Structural Engineer
 State of Illinois No. 081-005991
 Expires 11/30/2024

GENERAL PLAN AND ELEVATION
 ARSENAL ROAD (CH 17) OVER BNSF RAILWAY
 AND JACKSON CREEK
 FAP RTE. 532 SECTION 00-00117-19-GS
 WILL COUNTY
 STATION 1033+44.00
 STRUCTURE NO. 099-3392

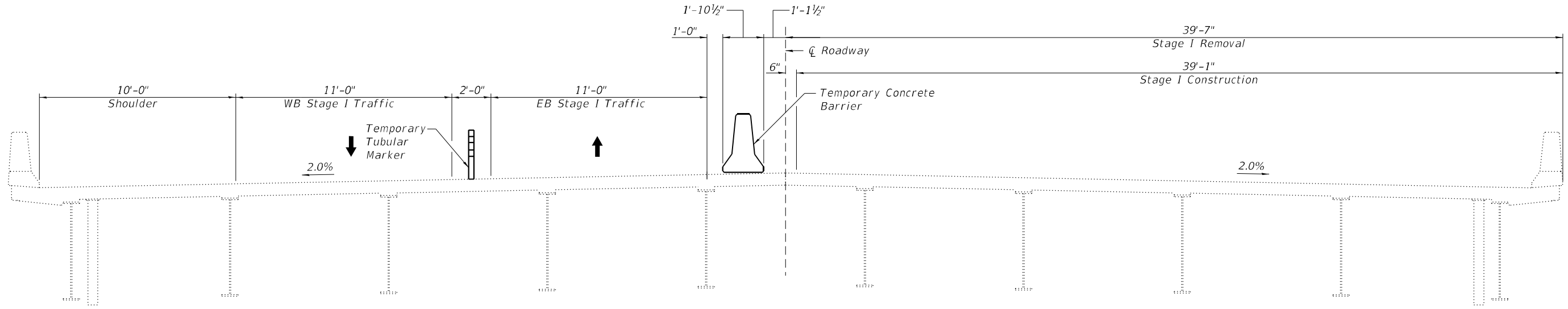
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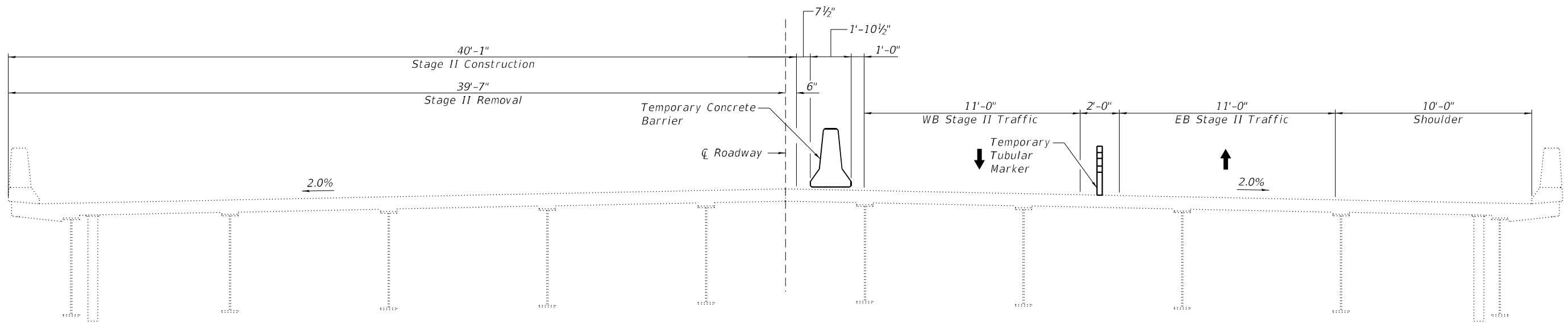
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SHEET 1 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
532	FAP 532 22 BRIDGE	WILL	21	7
CONTRACT NO. 62R68				
ILLINOIS FED. AID PROJECT				



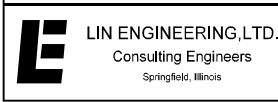
STAGE I REMOVAL AND CONSTRUCTION
(Looking East)



STAGE II REMOVAL AND CONSTRUCTION
(Looking East)

Notes:
See Roadway plans for Temporary Concrete Barrier quantities.
All transverse dimensions are measured at right angles to ζ roadway.

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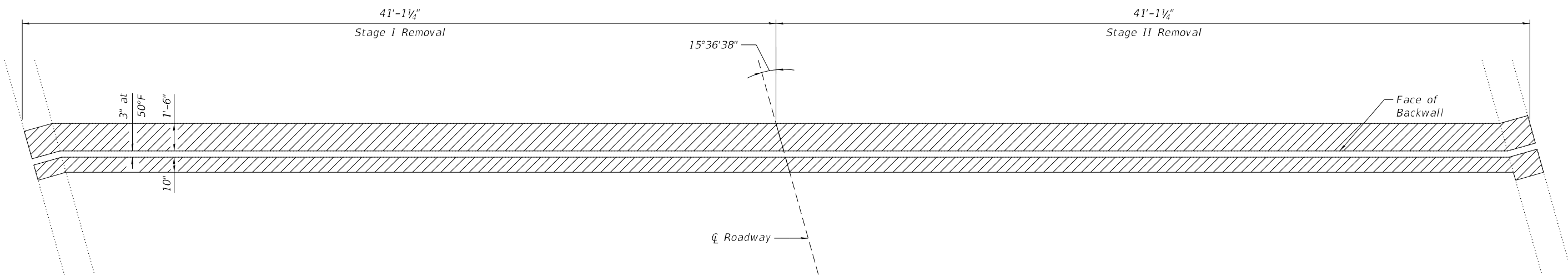
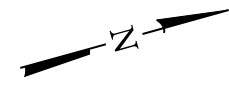
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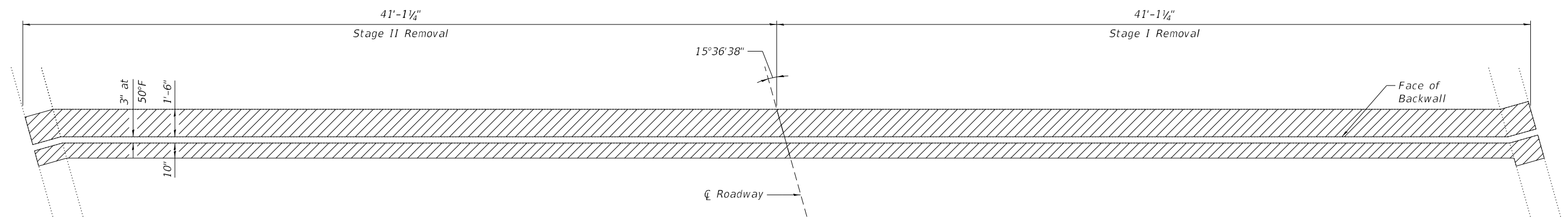
**STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 099-3392**

SHEET 2 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
532	FAP 532 22 BRIDGE	WILL	21	8
CONTRACT NO. 62R68				
		ILLINOIS	FED. AID PROJECT	



JOINT REMOVAL AT WEST ABUTMENT



JOINT REMOVAL AT EAST ABUTMENT

Notes:
 Hatched areas indicate limits of
 Concrete Removal.
 See Sheet 5 of 7 for Sections.

(Sheet 1 of 3)

MODEL: Default
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PLOT DATE = 1/20/2023	CHECKED - MTH	REVISED -

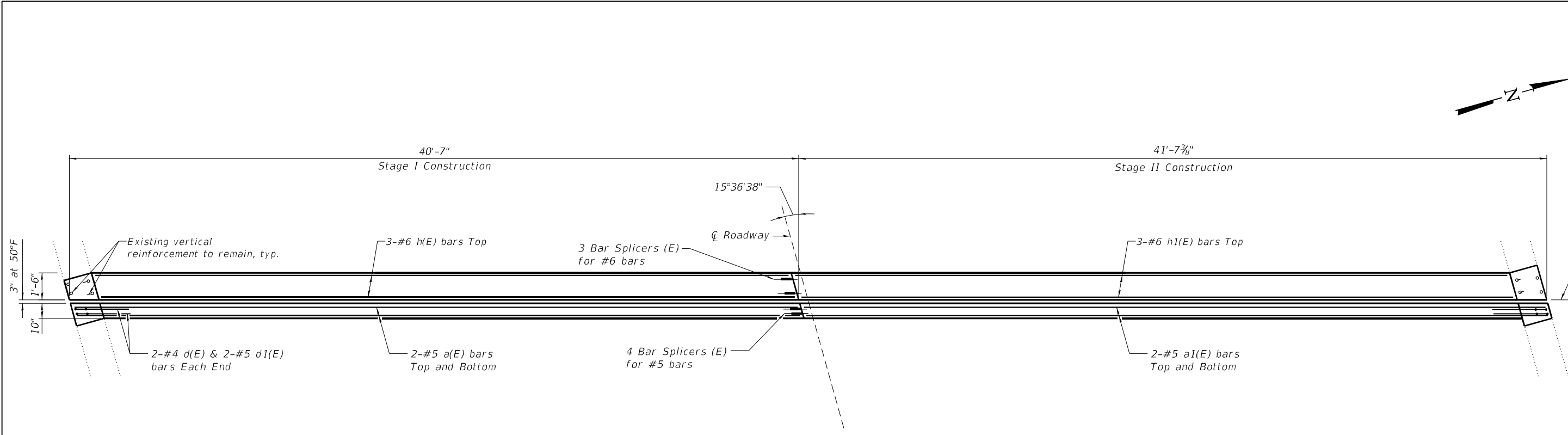
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**JOINT REPLACEMENT DETAILS
 STRUCTURE NO. 099-3392**

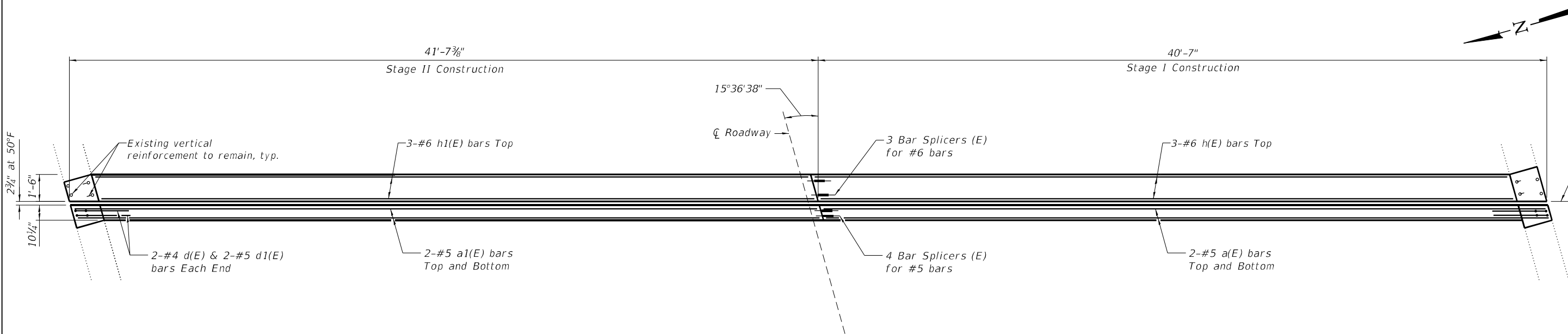
SHEET 3 OF 7 SHEETS

F.A.P. RTE. 532	SECTION FAP 532 22 BRIDGE	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 9
CONTRACT NO. 62R68				

ILLINOIS FED. AID PROJECT



JOINT REPLACEMENT AT WEST ABUTMENT



JOINT REPLACEMENT AT EAST ABUTMENT

(Sheet 2 of 3)

MODEL: Default
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 Consulting Engineers
 Springfield, Illinois

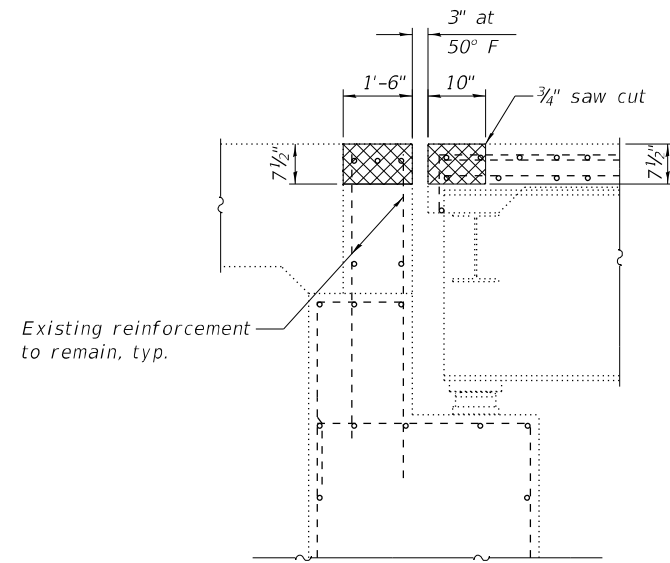
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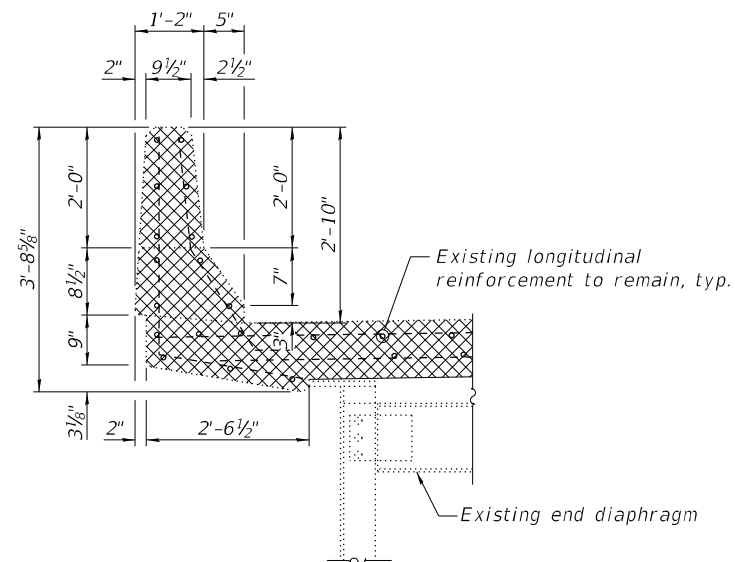
**JOINT REPLACEMENT DETAILS
 STRUCTURE NO. 099-3392**

SHEET 4 OF 7 SHEETS

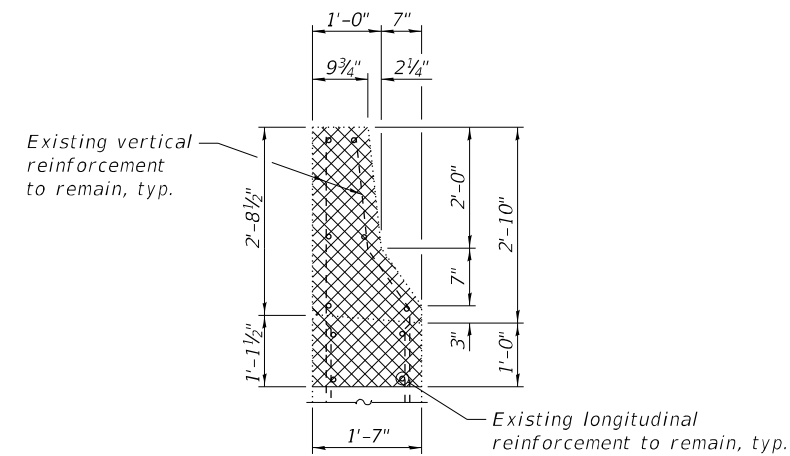
F.A.P. RTE. 532	SECTION FAP 532 22 BRIDGE	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 10
CONTRACT NO. 62R68				
		ILLINOIS	FED. AID PROJECT	



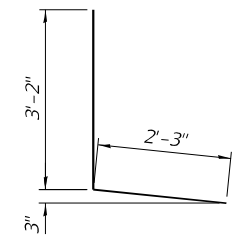
SECTION THRU JOINT AT ABUTMENTS
(Showing Removal; Dimensions at right angles)



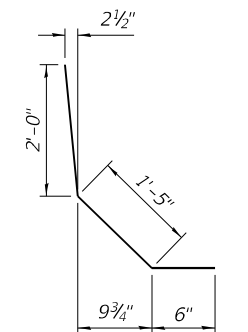
SECTION THRU DECK PARAPET AT JOINT
(Showing Removal)



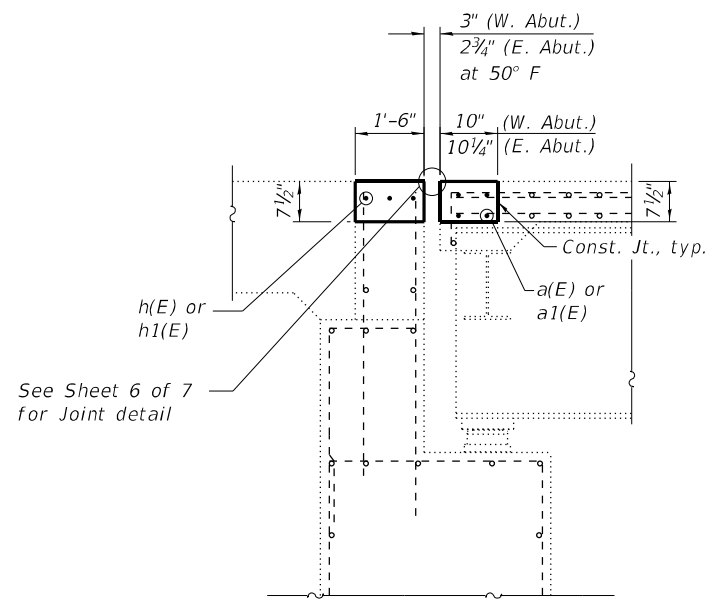
SECTION THRU WINGWALL PARAPET AT JOINT
(Showing Removal)



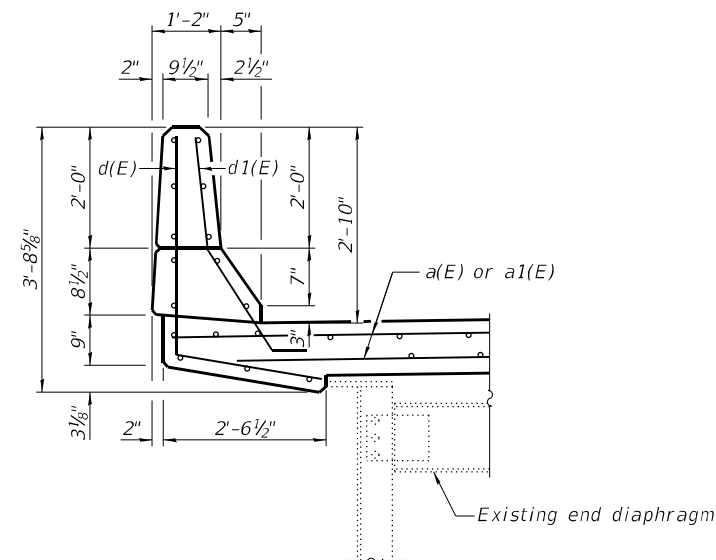
BAR d(E)



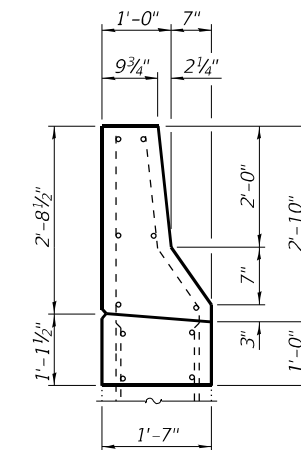
BAR d1(E)



SECTION THRU JOINT AT ABUTMENTS
(Showing Proposed; Dimensions at right angles)



SECTION THRU DECK PARAPET AT JOINT
(Showing Proposed)



SECTION THRU WINGWALL PARAPET AT JOINT
(Showing Proposed)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	8	#5	40'-3"	—
a1(E)	8	#5	41'-4"	—
d(E)	8	#4	5'-5"	L
d1(E)	8	#5	3'-11"	L
h(E)	6	#6	38'-7"	—
h1(E)	6	#6	39'-8"	—
Concrete Removal			Cu. Yd.	10.4
Concrete Superstructure			Cu. Yd.	10.4
Reinforcement Bars, Epoxy Coated			Pound	1,450

Note:
Cross-hatched areas indicate limits of Concrete Removal.

(Sheet 3 of 3)

MODEL: Default
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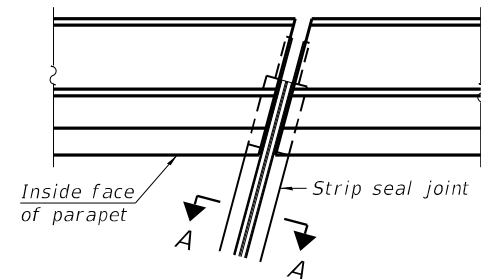
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PLOT DATE = 1/20/2023	CHECKED - MTH	REVISED -

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DEPARTMENT OF TRANSPORTATION**

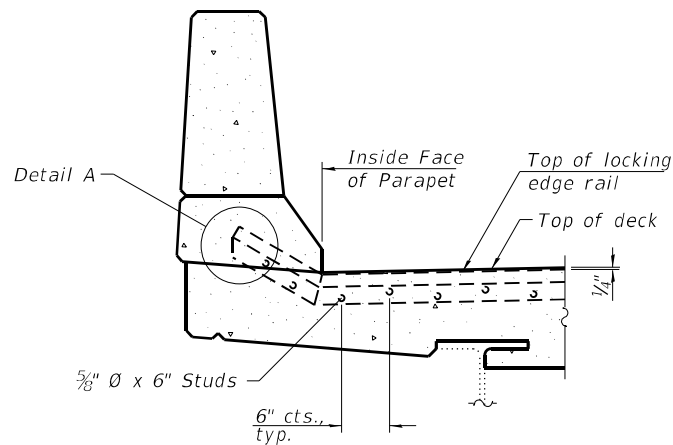
**JOINT REPLACEMENT DETAILS
STRUCTURE NO. 099-3392**

SHEET 5 OF 7 SHEETS

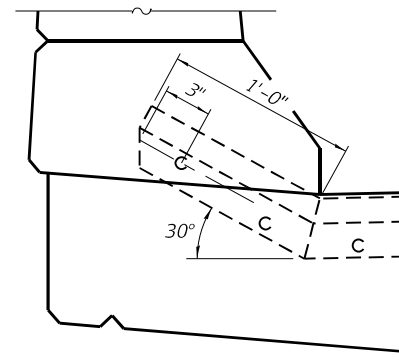
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
532	FAP 532 22 BRIDGE	WILL	21	11
CONTRACT NO. 62R68				
ILLINOIS FED. AID PROJECT				



PLAN AT PARAPET



SECTION AT PARAPET



DETAIL A

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 locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

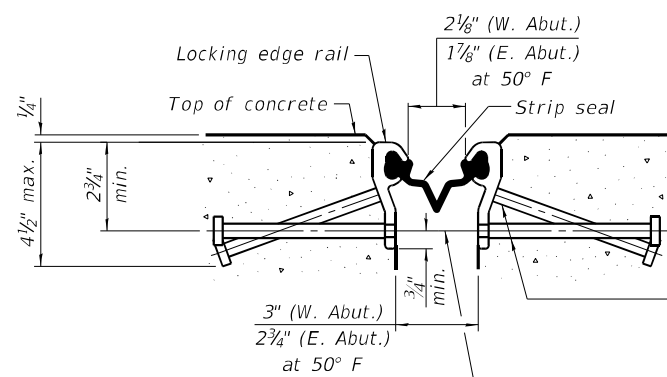
The manufacturer's recommended installation methods shall be followed.

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

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of anchorage studs included with Preformed Joint Strip Seal.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required.



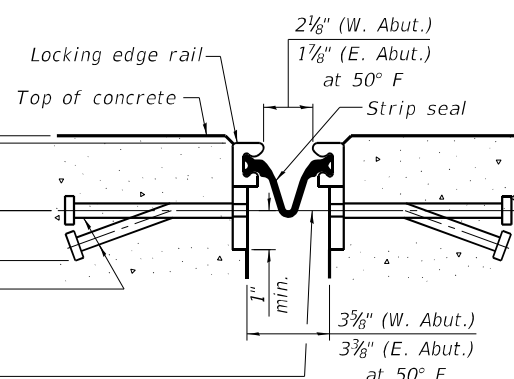
SHOWING ROLLED RAIL JOINT

* 5/8" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

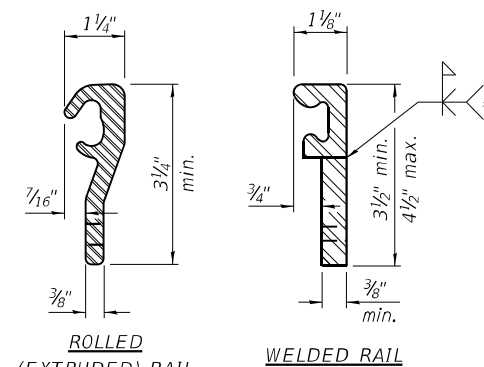
3/8" Ø threaded rods in 1/16" Ø holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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

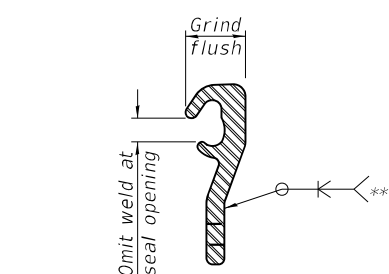


SHOWING WELDED RAIL JOINT



LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	162

MODEL: Default
FILE NAME: E:\1910-34\Struct\Final Design\CADD\Sheets\0993392-62R68-006-PreformedJointStripSeal.dgn

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Springfield, Illinois

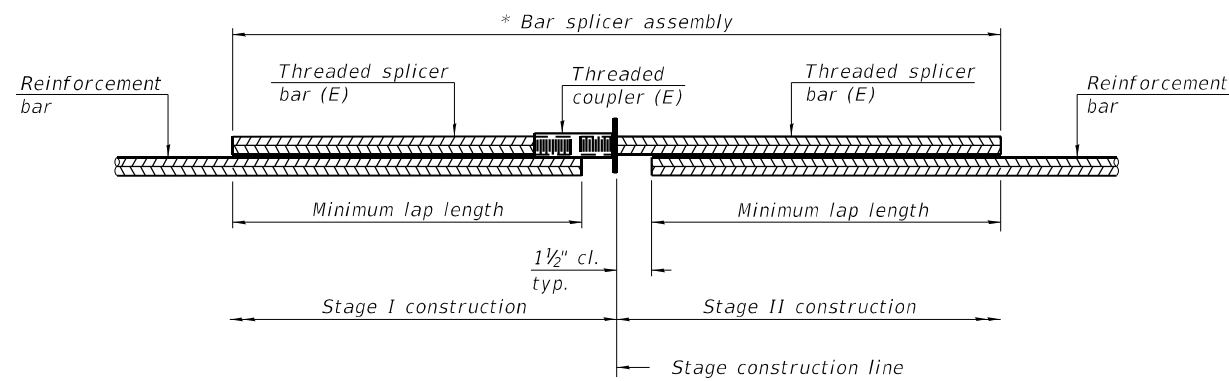
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PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 099-3392

SHEET 6 OF 7 SHEETS

F.A.P. RTE. 532	SECTION FAP 532 22 BRIDGE	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 12
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62R68	

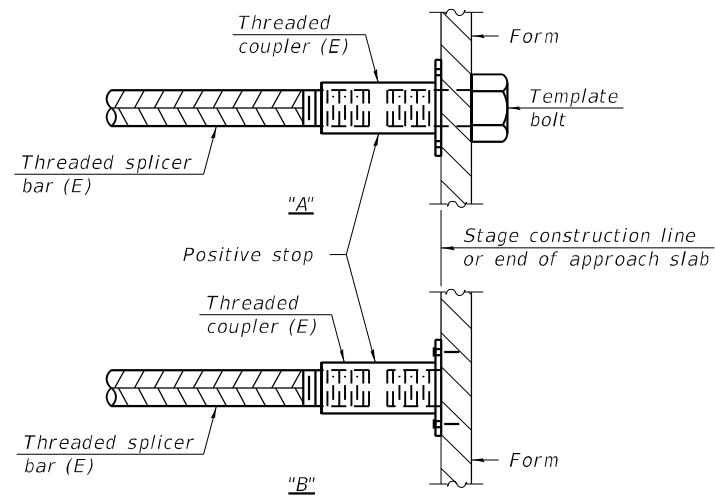


STANDARD BAR SPLICER ASSEMBLY PLAN
(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	8	3'-6"
Abutment	#6	6	3'-7"

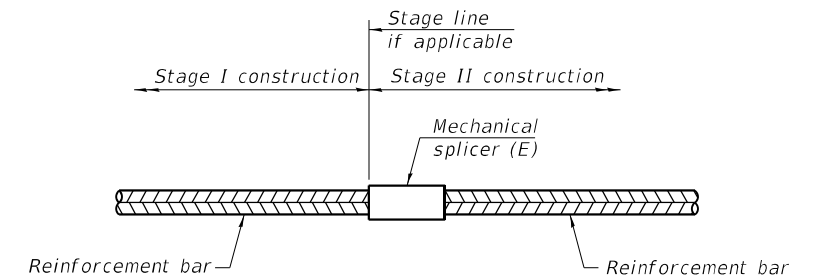


INSTALLATION AND SETTING METHODS

"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.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

MODEL: Default
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BSD-1

1-1-2020



USER NAME =	DESIGNED - NB	REVISED -
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PLOT DATE = 1/20/2023	CHECKED - MTH	REVISED -

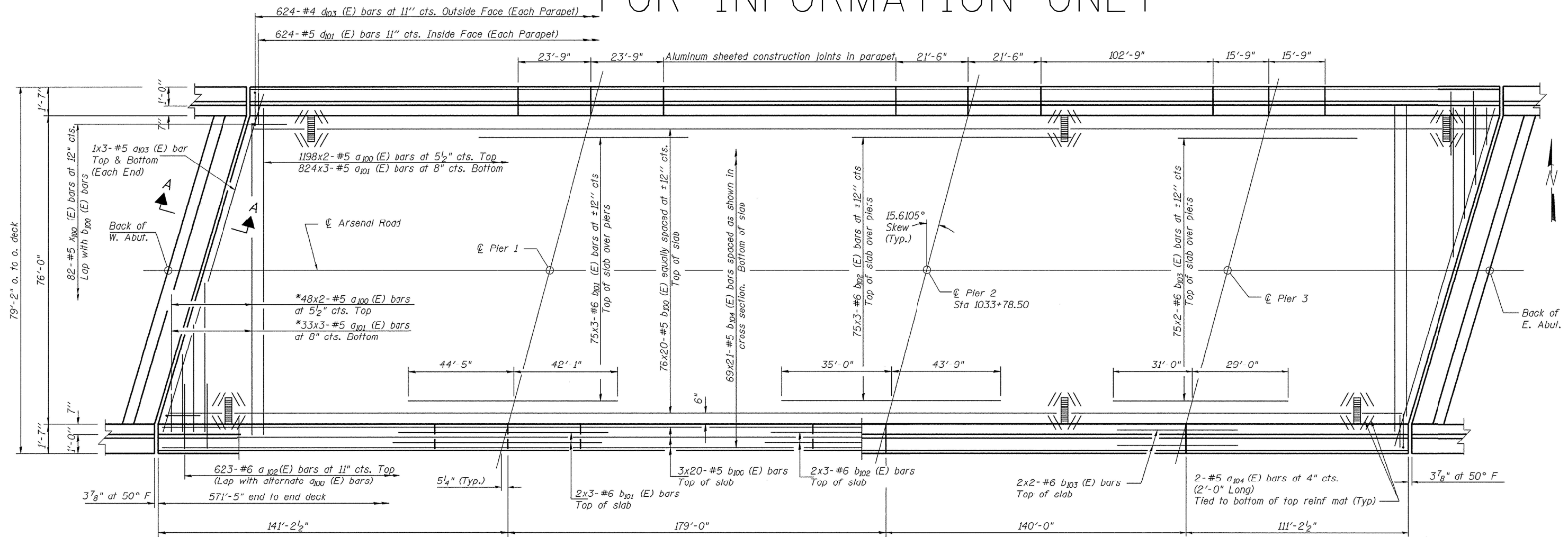
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICE DETAILS
STRUCTURE NO. 099-3392

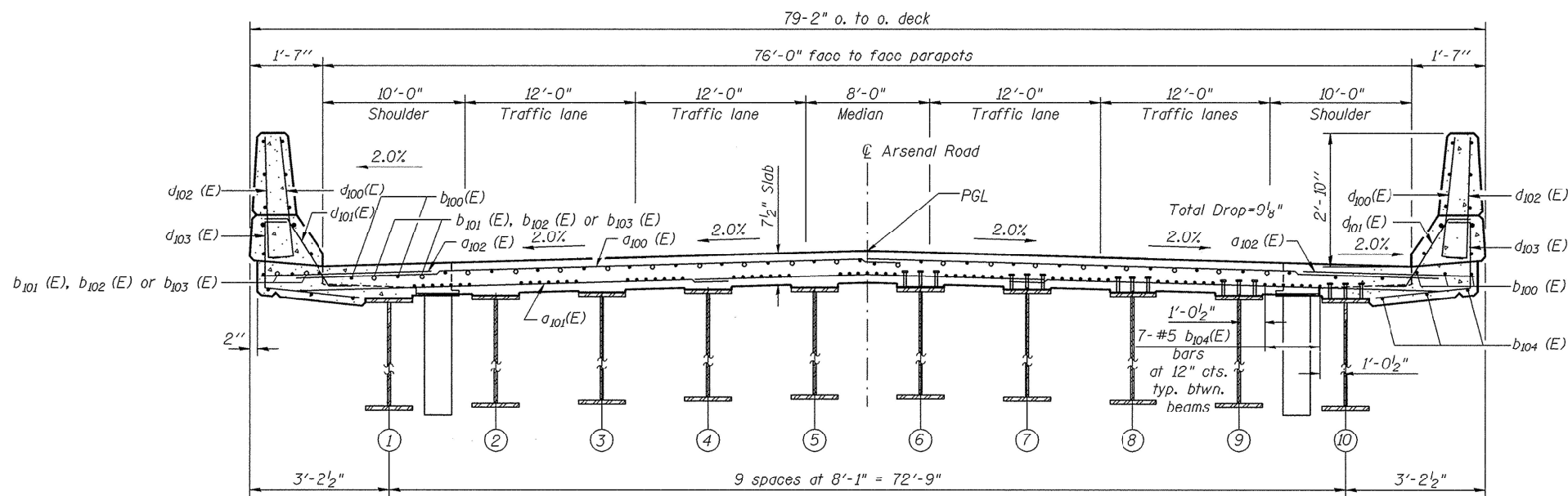
SHEET 7 OF 7 SHEETS

F.A.P. RTE. 532	SECTION FAP 532 22 BRIDGE	COUNTY WILL	TOTAL SHEETS 21	SHEET NO. 13
CONTRACT NO. 62R68				
ILLINOIS		FED. AID PROJECT		

FOR INFORMATION ONLY



DECK PLAN



Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

NEAR PIER

CROSS SECTION

NEAR MIDSPAN

(Looking East)

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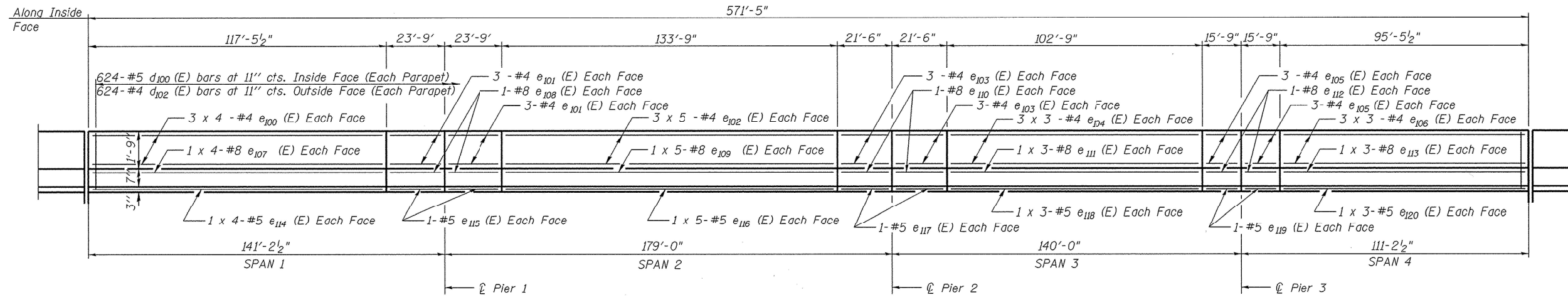
EXISTING DECK PLAN AND CROSS SECTION
 ARSENAL RD OVER BNSF RR & JACKSON CREEK

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	DATE -	REVISED -

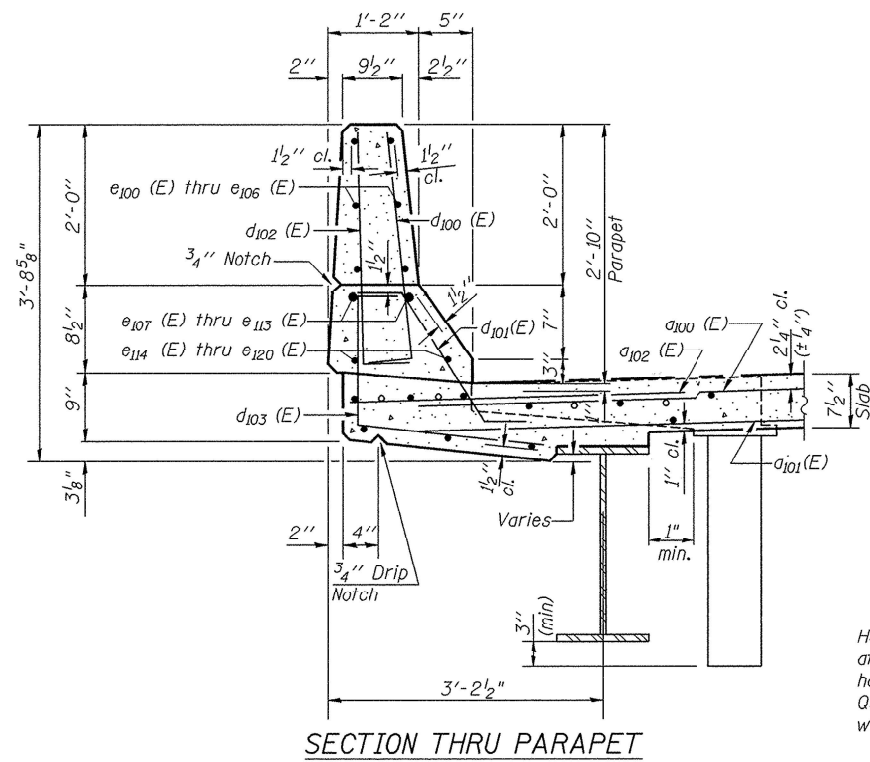
SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
532	FAP 532 22 BRIDGE	WILL	21	14
CONTRACT NO. 62R68				
ILLINOIS FED. AID PROJECT				

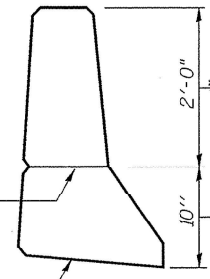
FOR INFORMATION ONLY



INSIDE ELEVATION OF PARAPET



SECTION THRU PARAPET



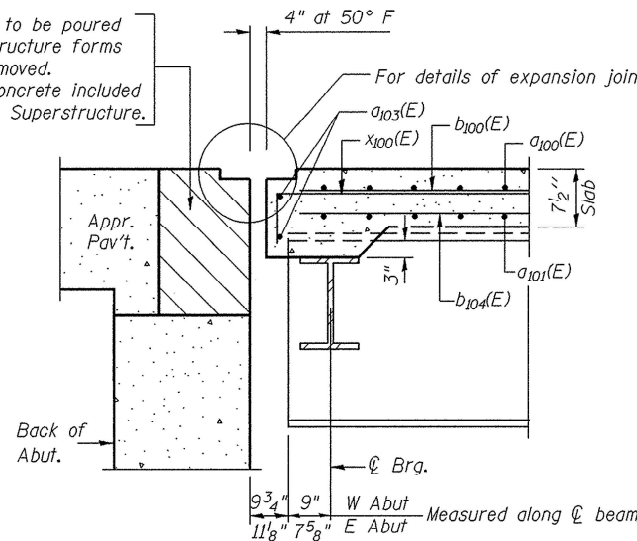
Const. Joints at Piers and locations as shown 1/8" Aluminum sheet ASTM B 209 alloy 3003-H14. Cost included with Concrete Superstructure

PARAPET JOINT DETAILS

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

4" at 50° F

For details of expansion joint, see sheet B11



SECTION A-A

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PROJECT: C:\pwworkspace\ben\projects\117222\CADD\Drawings\117222-22r-abut-details.dwg

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DRAWN -	REVISOR -	REVISION -
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PLOT DATE = 12/14/2022	DATE -	REVISION -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING JOINT DETAILS
ARSENAL RD OVER BNSF RR & JACKSON CREEK**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
532	FAP 532 22 BRIDGE	WILL	21	15
CONTRACT NO. 62R68				
ILLINOIS FED. AID PROJECT				

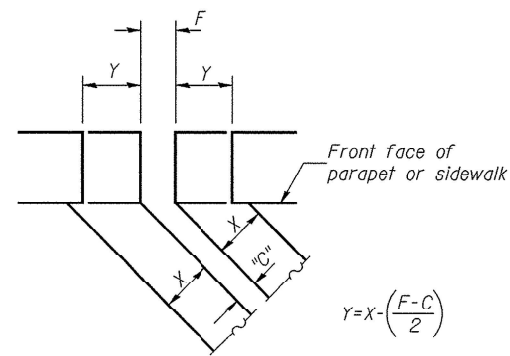
FOR INFORMATION ONLY

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

INSTALLATION NOTES

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

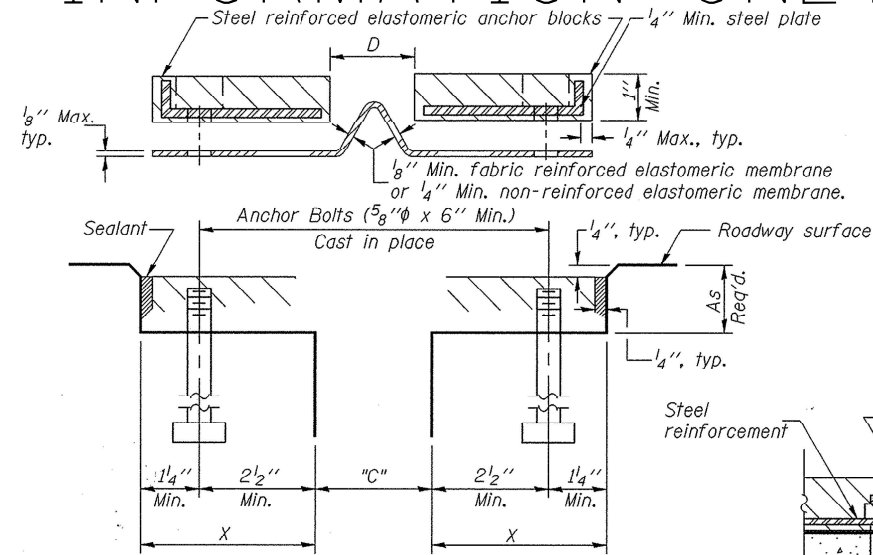
NOTE A: Maximum spacing of anchor bolts shall be 12" centers.



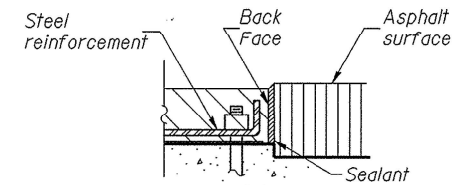
FORMING BLOCKOUT SKETCH

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

For dimension "F" see sheet B9



CROSS SECTION



ANCHOR BLOCK WITH ASPHALT SURFACE

GENERAL NOTES

Continuous Seal Neoprene Expansion Joint shall consist of molded lengths of elastomeric membrane.

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

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

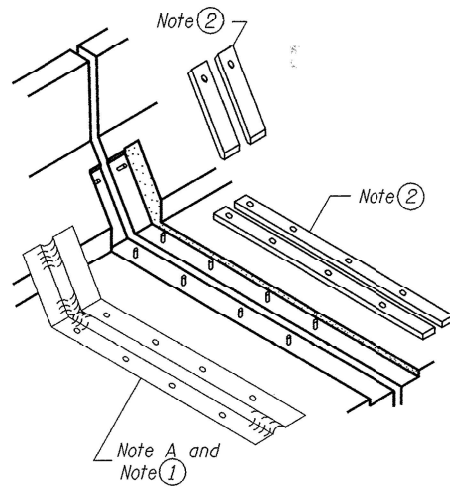
Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

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

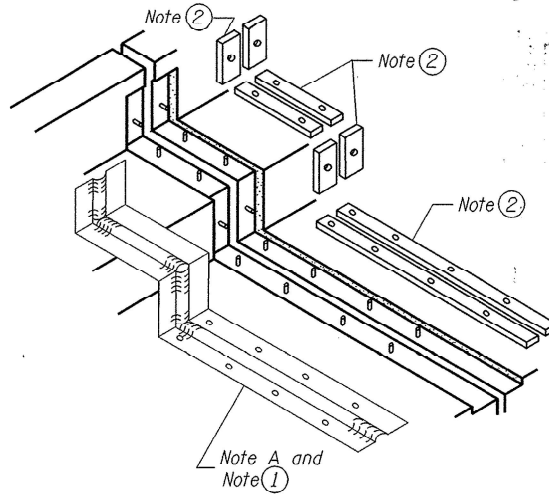
SKUEW LIMITATIONS

The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.

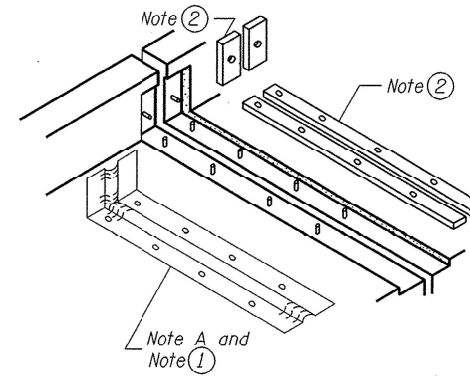
For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be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



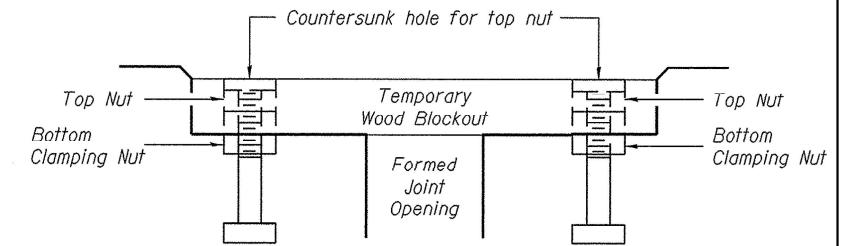
AT PARAPET



AT SIDEWALK OR MEDIAN

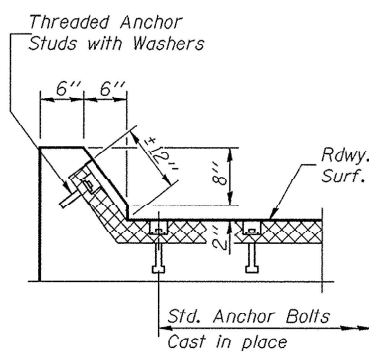


AT WALL

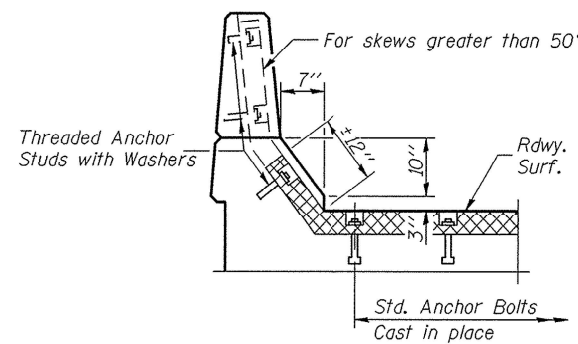


Note: Stud needs to be threaded lower to allow for use of clamping nut.

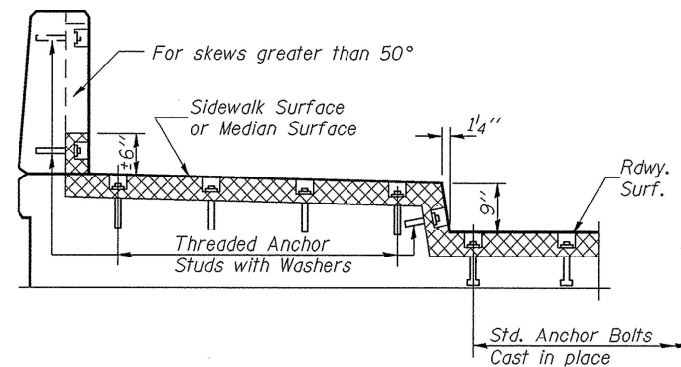
Anchor studs should be stainless
RECOMMENDED BLOCKOUT DETAIL



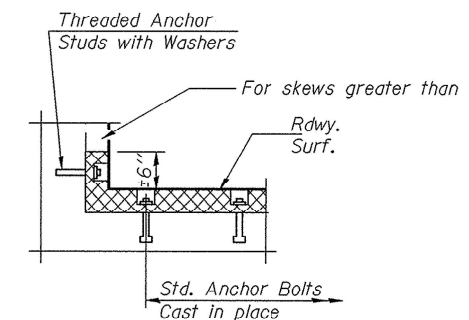
AT CURB



AT PARAPET



AT SIDEWALK OR MEDIAN
TYPICAL END TREATMENTS



AT WALL

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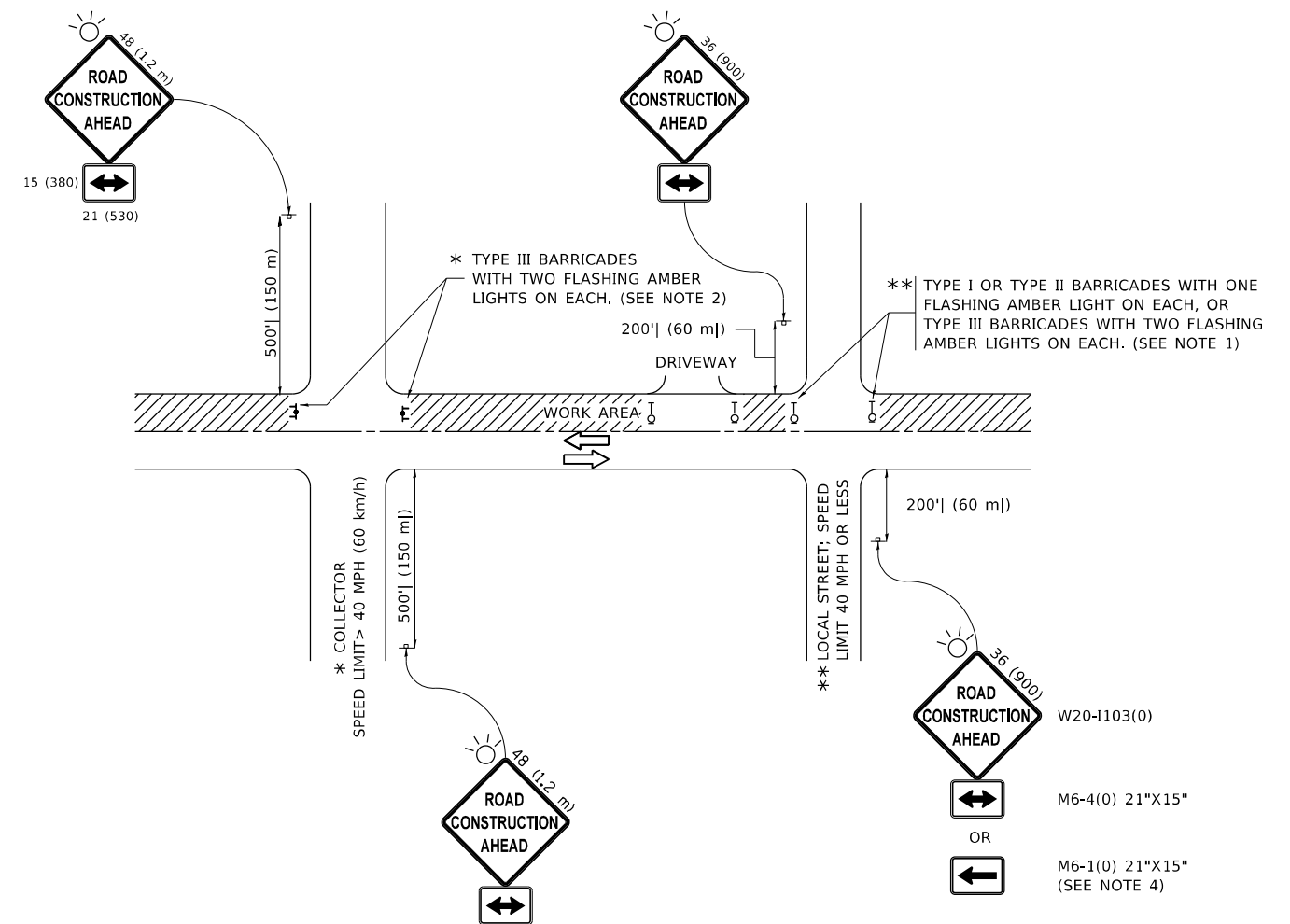
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	DRAWN -	REVISED -
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PLOT DATE = 12/14/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING EXPANSION JOINT DETAILS
ARSENAL RD OVER BNSF RR & JACKSON CREEK

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
532	FAP 532 22 BRIDGE	WILL	21	16
			CONTRACT NO. 62R68	
ILLINOIS FED. AID PROJECT				



NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

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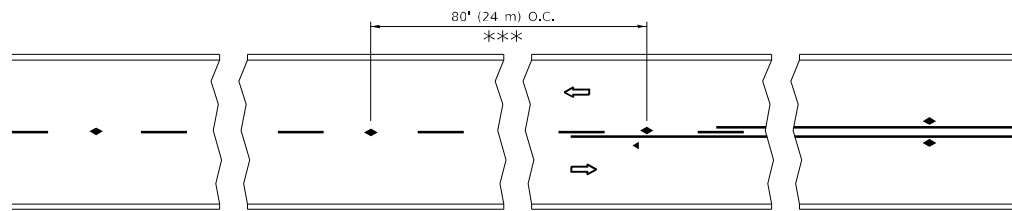
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	DRAWN -	REVISED - T. RAMMACHER 01-06-00
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13
PLOT DATE = 12/14/2022	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

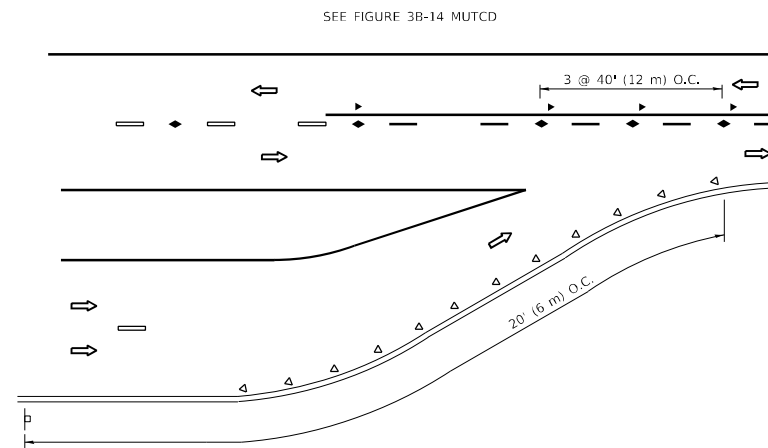
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-10			CONTRACT NO. 62R68	
ILLINOIS FED. AID PROJECT				

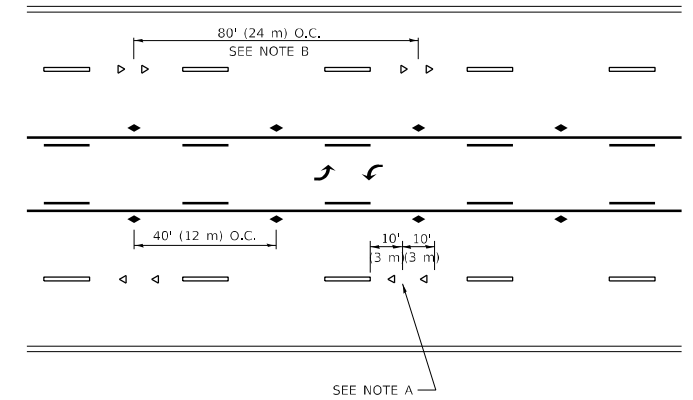


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

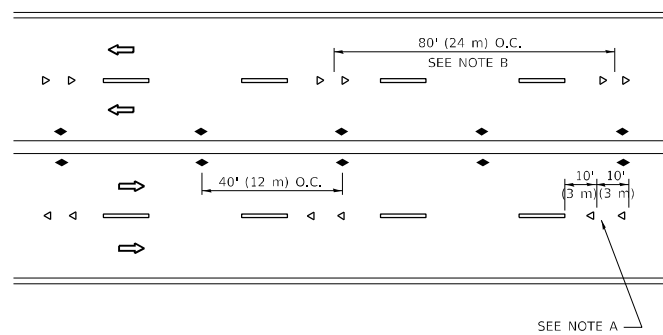
TWO-LANE/TWO-WAY



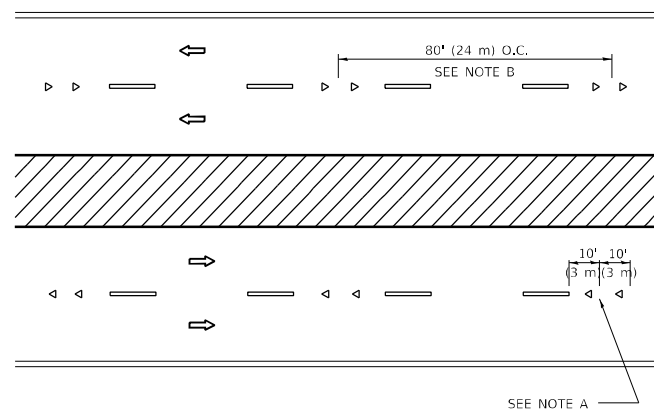
LANE REDUCTION TRANSITION



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.
4. MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

SYMBOLS

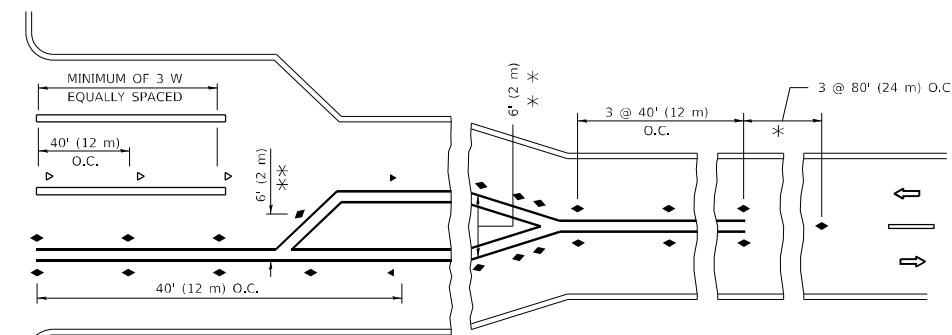
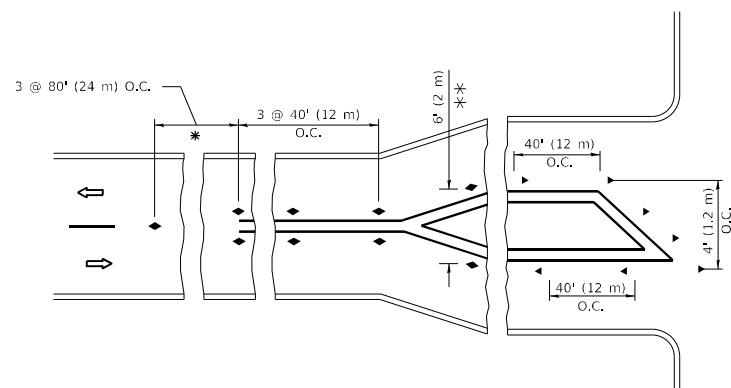
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

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 SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



TURN LANES

* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

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

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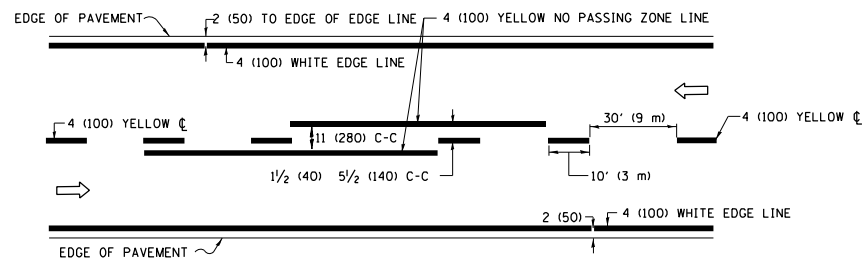
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PLOT DATE = 12/14/2022	CHECKED -	REVISED - C. JUCIUS 09-09-09
	DATE -	REVISED - C. JUCIUS 07-01-13

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

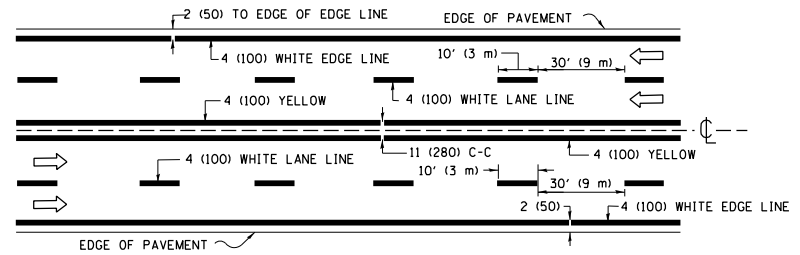
**TYPICAL APPLICATIONS
 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

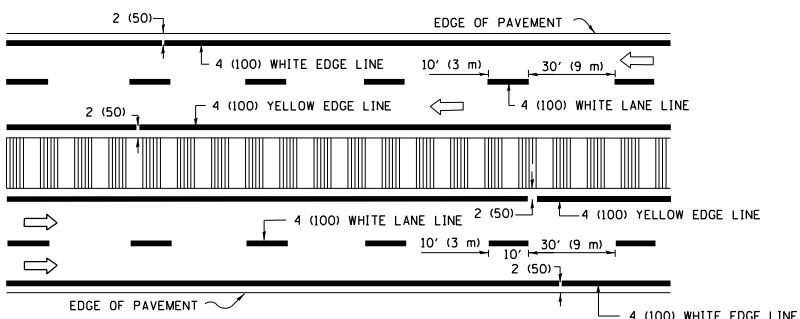
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TC-11			CONTRACT NO. 62R68	
ILLINOIS FED. AID PROJECT				



2-LANE ROADWAY

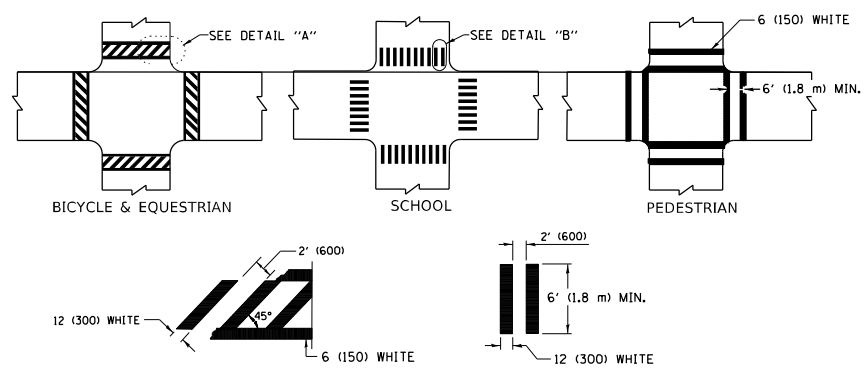


MULTI-LANE UNDIVIDED



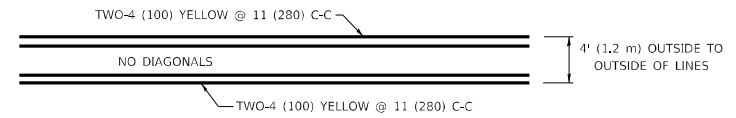
MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

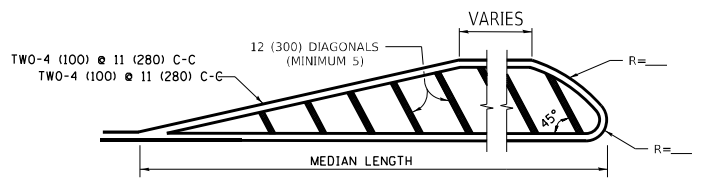


TYPICAL CROSSWALK MARKING

* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

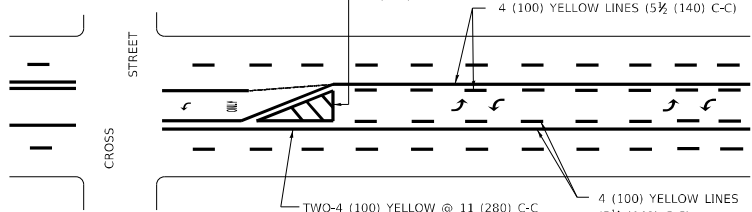


4' (1.2 m) WIDE MEDIANS ONLY



MEDIANS OVER 4' (1.2 m) WIDE

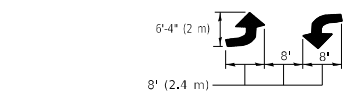
DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

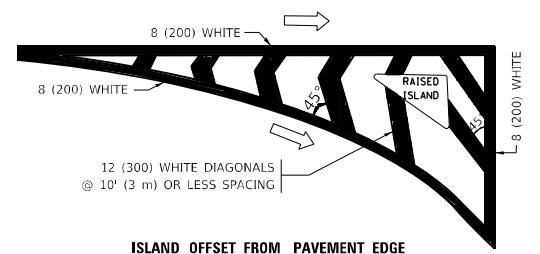
A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



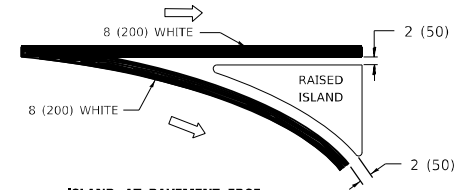
TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

FULL SIZE LETTERS 8" (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

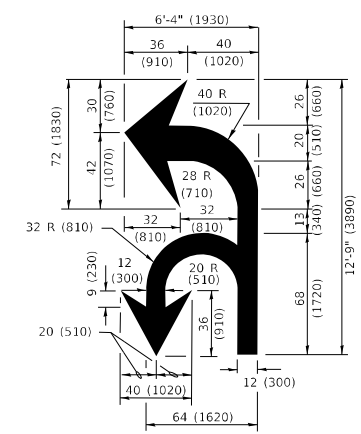


ISLAND OFFSET FROM PAVEMENT EDGE

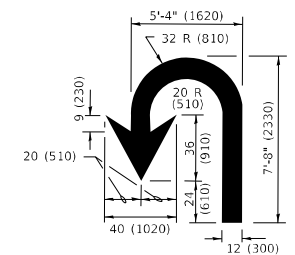


ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING



COMBINATION LEFT AND U-TURN



U-TURN

LANE REDUCTION TRANSITION
* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8" (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8" (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES: "RR" IS 8" (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C 30 MPH (50 km/h) TO 45MPH (70 km/h) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

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USER NAME	DESIGNED	REVISION
Ivan.Diaz	EVERS	C. JUCIUS 09-09-09
		C. JUCIUS 07-01-13
		C. JUCIUS 12-21-15
		C. JUCIUS 04-12-16

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
TYPICAL PAVEMENT MARKINGS**

SCALE: NONE	SHEET 1 OF 2 SHEETS	STA. TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
532	FAP 532 22 BRIDGE	WILL	21	19
TC-13		CONTRACT NO. 62R68		
ILLINOIS FED. AID PROJECT				

TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

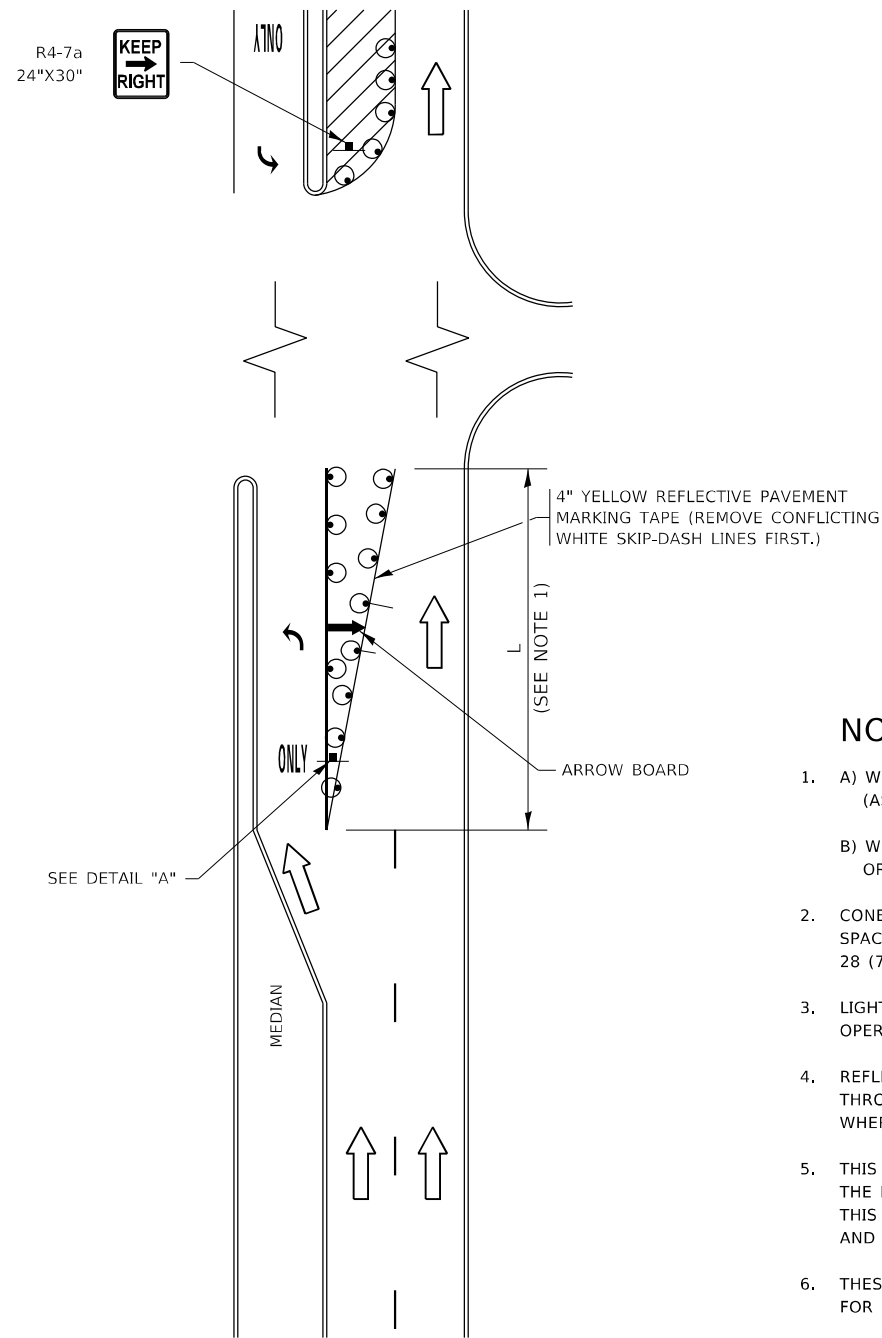


FIGURE 1

TURN BAY ENTRANCE WITHIN A LANE CLOSURE

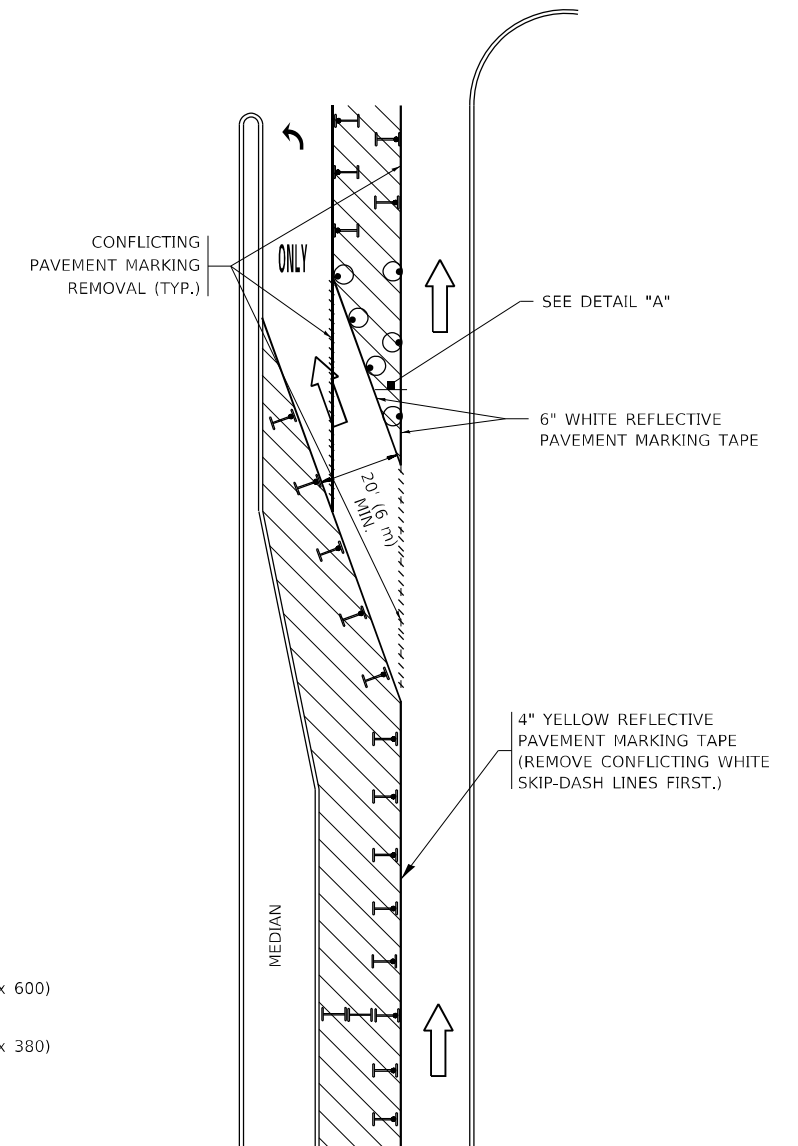


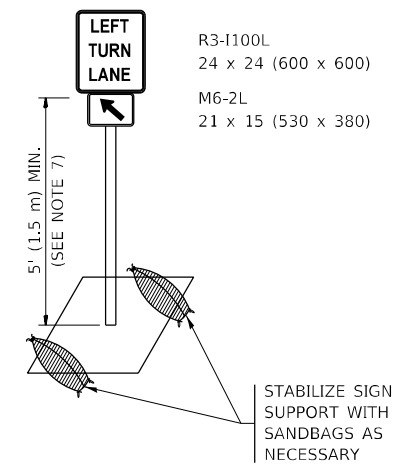
FIGURE 2

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- ARROW BOARD
- TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- SIGN ASSEMBLY
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

NOTES:

1. A) WHEN "L" IS ≤ THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.
 B) WHEN "L" IS > THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-1100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH REQUIREMENTS.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.



DETAIL A

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

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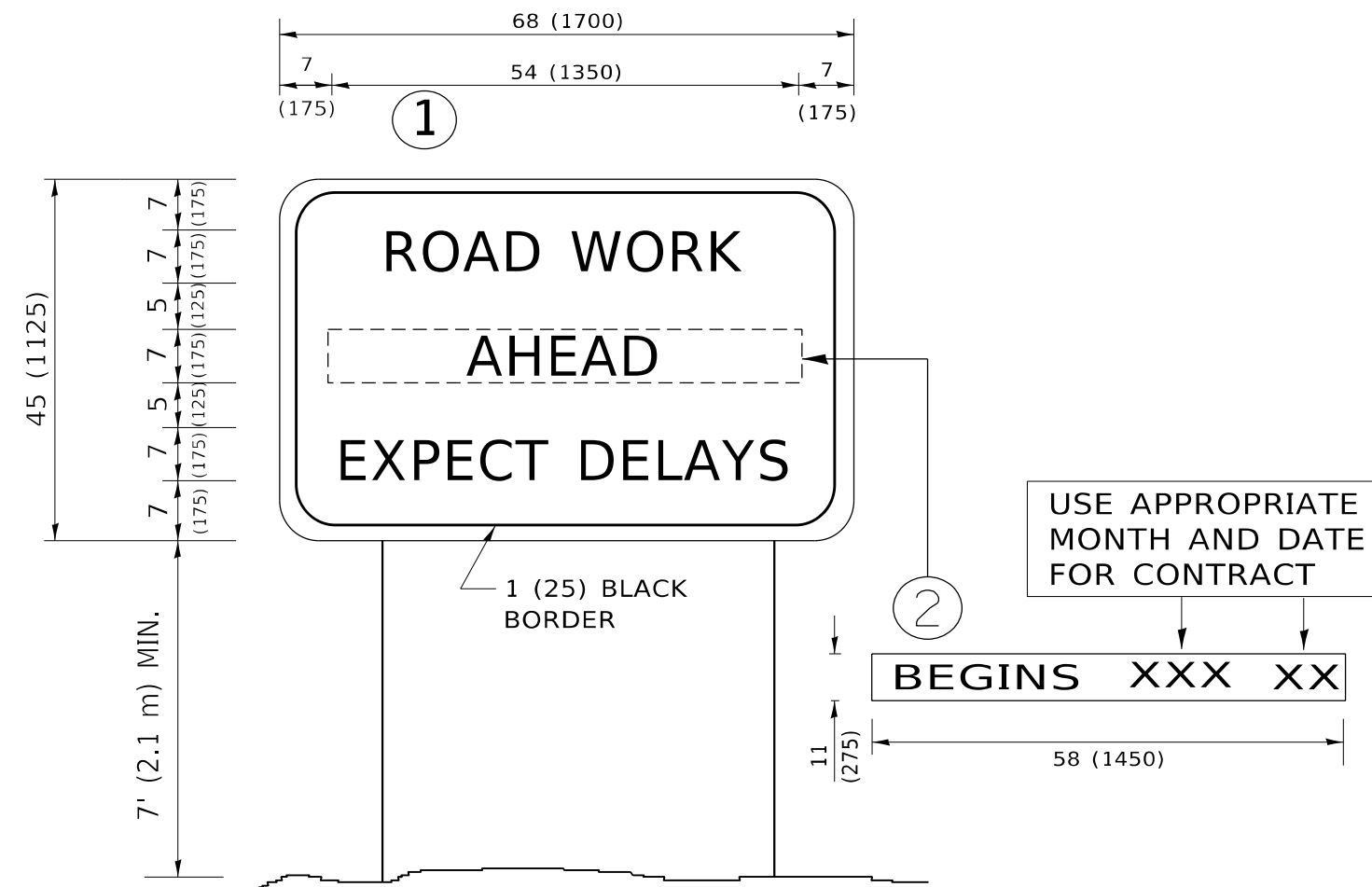
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DRAWN - A. HOUSEH 11-07-95	REVISED - A. SCHUETZE 07-01-13	
PLOT SCALE = 100,0000' / in.	CHECKED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16
PLOT DATE = 12/14/2022	DATE - T. RAMMACHER 01-06-00	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
532	FAP 532 22 BRIDGE	WILL	21	20
TC-14		CONTRACT NO. 62R68		
ILLINOIS FED. AID PROJECT				



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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	DRAWN -	REVISED - R. MIRS 12-11-97
PLOT SCALE = 100,0000 ' / in.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
PLOT DATE = 12/14/2022	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
532	FAP 532 22 BRIDGE	WILL	21	21
TC-22			CONTRACT NO. 62R68	
ILLINOIS FED. AID PROJECT				