4-25-08 Letting, Item 098

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAI 94	0101.2 A-I	COOK	18	1

CONTRACT NO. 60E14

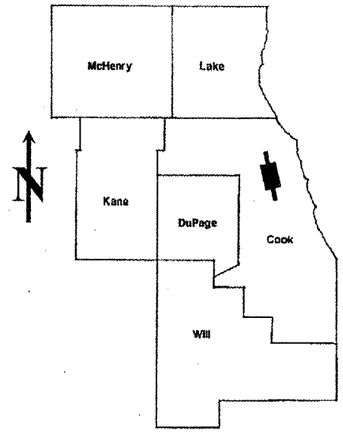
D-91-215-08

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DISTRICT ONE
PROPOSED HIGHWAY PLANS

FAI RTE 94: I-94 (EB) (EDENS EXPY) OVER I-90 (KENNEDY EXPY) & CTA
SECTION: 0101.2 A-I
BRIDGE JOINT REPAIRS
COOK COUNTY
C-91-215-08

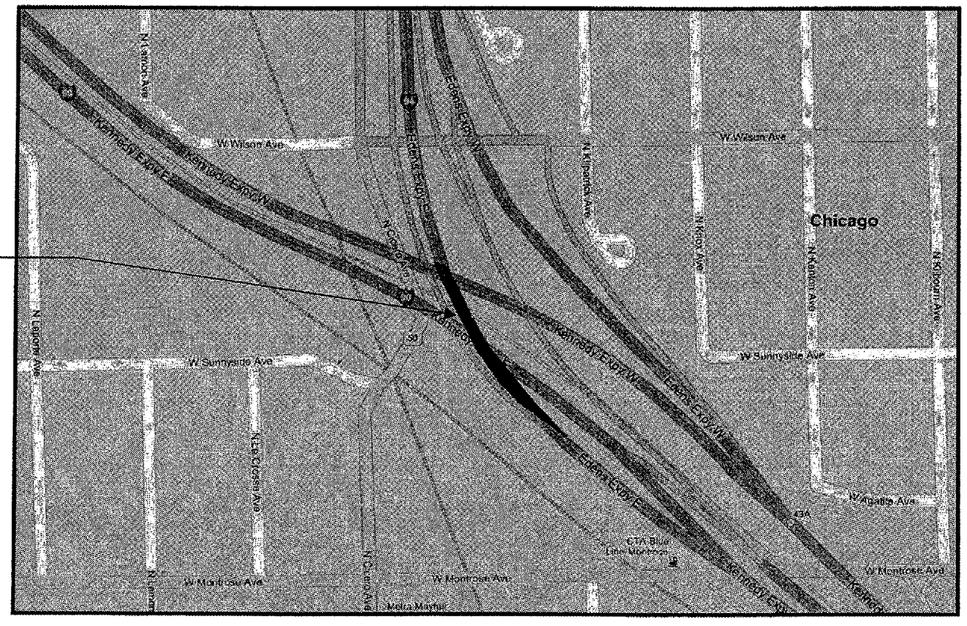
FOR INDEX OF SHEETS SEE SHEET 2

IMPROVEMENT IS LOCATED IN THE CITY OF CHICAGO



LOCATION OF IMPROVEMENT INDICATED THUS:

R 13 E



JEFFERSON TOWNSHIP

TRAFFIC DATA

SPEED LIMIT = 55 MPH
2005 ADT = 125,700

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED: FEBRUARY 20, 2008
Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
March 21, 2008
Eric E. Harm
Interim ENGINEER OF DESIGN AND ENVIRONMENT
March 21, 2008
Christine M. Reed
DIRECTOR, DIVISION OF HIGHWAYS

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

C.U.A.N.: CHICAGO UTILITY ALERT NETWORK (312) 744-7000

DISTRICT ONE – DESIGN – PLAN PREPARATION ENGINEER:
KEN ENG / ROBERT BORO (847) 705-4178

CONTRACT NO. 60E14

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAI 94	0101.2 A-I	COOK	18	2

CONTRACT 60E14

INDEX OF SHEETS

STATE STANDARDS

701400-02	APPROACH TO LANE CLOSURE, FREEWAY / EXPRESSWAY
701401-04	LANE CLOSURE, FREEWAY / EXPRESSWAY
701411-04	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP
701426-02	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS
701446	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
701901	TRAFFIC CONTROL DEVICES
704001-04	TEMPORARY CONCRETE BARRIER

ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS
STATE STANDARDS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAI 94	0101.2 A-I	COOK	18	3

CONTRACT 60C76

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "C.U.A.N." (CHICAGO UTILITY ALERT NETWORK) AT (312)744-7000 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 CONTRACT 62747 (EDENS RESURFACING & BRIDGE REPAIRS FROM LAWRENCE AVE TO OLD ORCHARD RD).

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

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

BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCES ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATION OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4151 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE ENGINEER SHALL CONTACT WALLY CZARNY, AREA TRAFFIC FIELD ENGINEER AT (773) 685-4342 TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKING.

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF MAINTENANCE BRIDGE INSPECTORS.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

CONCRETE SUPERSTRUCTURE SHALL HAVE A SEVEN DAY MINIMUM CURE.

ILLINOIS DEPARTMENT OF TRANSPORTATION

I-94 OVER I-90
GENERAL NOTES

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAI 94	0101.2 A-I	COOK	18	4

CONTRACT 60E14

SUMMARY OF QUANTITIES

URBAN
100% STATE

			CONSTRUCTION TYPE CODE SFTY-2A
CODE NUMBER	DESCRIPTION	UNIT	TOTAL QUANTITY
50102400	CONCRETE REMOVAL	CU YD	12.3
50300255	CONCRETE SUPERSTRUCTURE	CU YD	12.3
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2550
50800515	BAR SPLICERS	EACH	13
52000325	NEOPRENE EXPANSION JOINT 2 1/2 "	FOOT	147
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3
67100100	MOBILIZATION	L SUM	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	9000
70300530	PAVEMENT MARKING TAPE, TYPE III 5"	FOOT	725
70400100	TEMPORARY CONCRETE BARRIER	FOOT	675
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	675
* 78008210	POLYUREA PAVEMENT MARKING TYPE I – LINE 4"	FOOT	3256
* 78008220	POLYUREA PAVEMENT MARKING TYPE I – LINE 5"	FOOT	1080
* 78008240	POLYUREA PAVEMENT MARKING TYPE I – LINE 8"	FOOT	400
* 78008250	POLYUREA PAVEMENT MARKING TYPE I – LINE 12"	FOOT	400
* 78100300	REPLACEMENT REFLECTOR	EACH	76
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	136

* SPECIALTY ITEMS

ILLINOIS DEPARTMENT OF TRANSPORTATION

I-94 OVER I-90
SUMMARY OF QUANTITIES
SHEET 1 0F 2

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAI 94	0101.2 A-I	COOK	18	5

CONTRACT 60E14

SUMMARY OF QUANTITIES

URBAN
100% STATE

			CONSTRUCTION TYPE CODE SFTY-2A
CODE NUMBER	**DESCRIPTION**	**UNIT**	**TOTAL QUANTITY**
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1750
X0320887	POLYMER CONCRETE	CU FT	7.6
X0321744	SILICONE JOINT SEALER, 2"	FOOT	83
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1
X7013820	TRAFFIC CONTROL SURVEILLANCE, EXPRESSWAYS	CAL DA	35

Rev.

ILLINOIS DEPARTMENT OF TRANSPORTATION

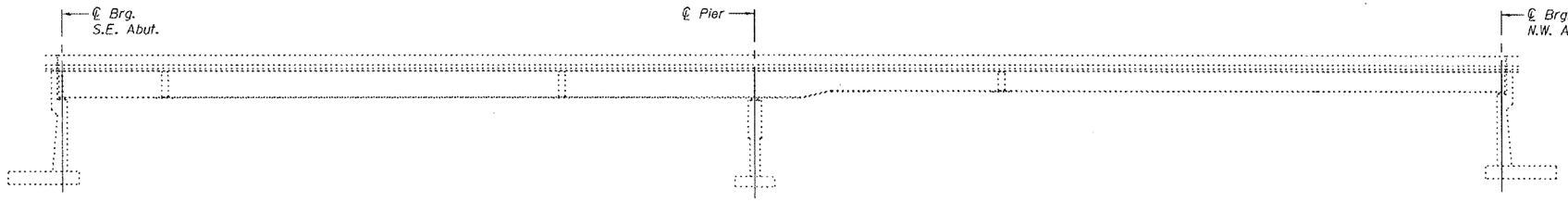
I-94 OVER I-90
SUMMARY OF QUANTITIES
SHEET 2 OF 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

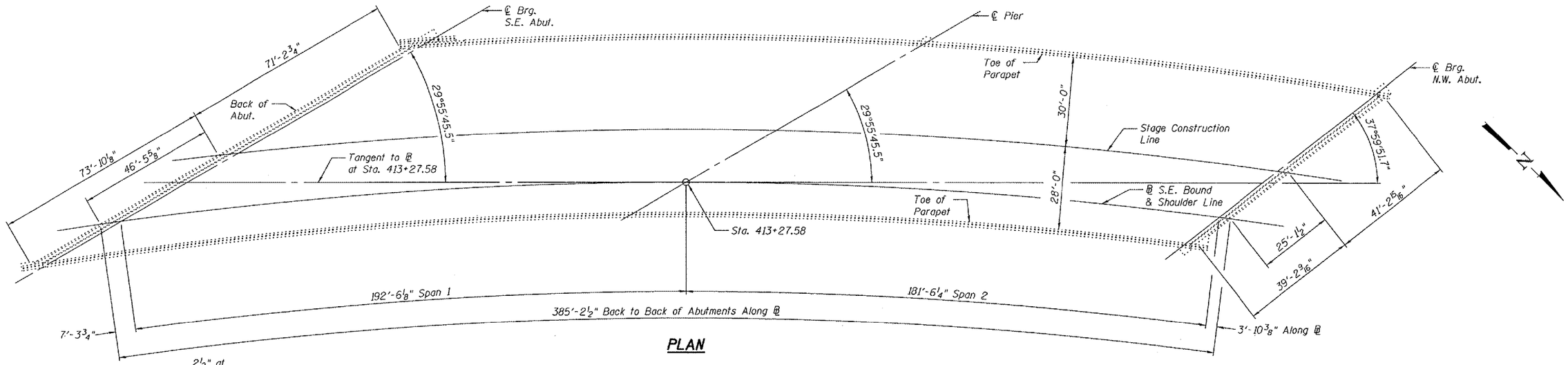
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		Cook	18	6
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
4 SHEETS

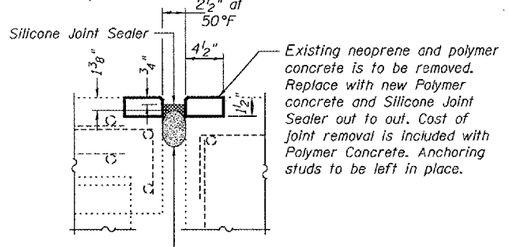
Contract Number: 60E14



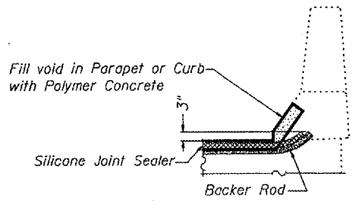
ELEVATION



PLAN



TYPICAL N.W. ABUTMENT JOINT SECTION



TYPICAL END OF SEAL TREATMENT

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	12.3
Concrete Superstructure	Cu. Yd.	12.3
Neoprene Expansion Joint 2 1/2"	Foot	147
Silicone Joint Sealer, 2"	Foot	83
Polymer Concrete	Cu. Ft.	7.6
Reinforcement Bars, Epoxy Coated	Pound	2,550
Bar Splicers	Each	13

DESIGNED Victor H. Veliz
CHECKED
DRAWN
CHECKED VHV AJB

March 10, 2008
EXAMINED
ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
RALPH E. ANDERSON
081-004625
SPRINGFIELD
LICENSED STRUCTURAL ENGINEER

Expires: November 30, 2008

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

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.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by an individual acceptable to the Engineer. Any cracks that can not be removed by grinding 1/4" inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.

PLAN AND ELEVATION
F.A.I. RT. 90/94
COOK COUNTY
SN 016-2574

SLT-91-001-08

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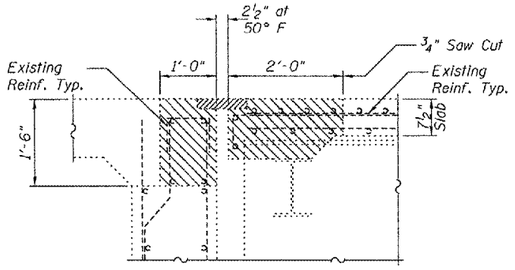
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		Cook	18	7
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2
4 SHEETS

Contract Number: 60E14

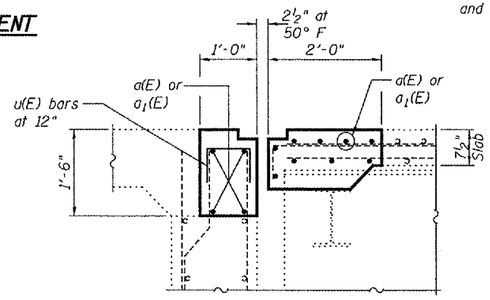


SECTION A-A
(Dim's at Rt. L's)

Notes:
Hatched area indicates area of concrete removal.

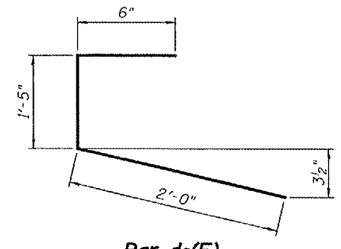
SOUTHEAST ABUTMENT REMOVAL PLAN

Bar d(E) and d_1(E)



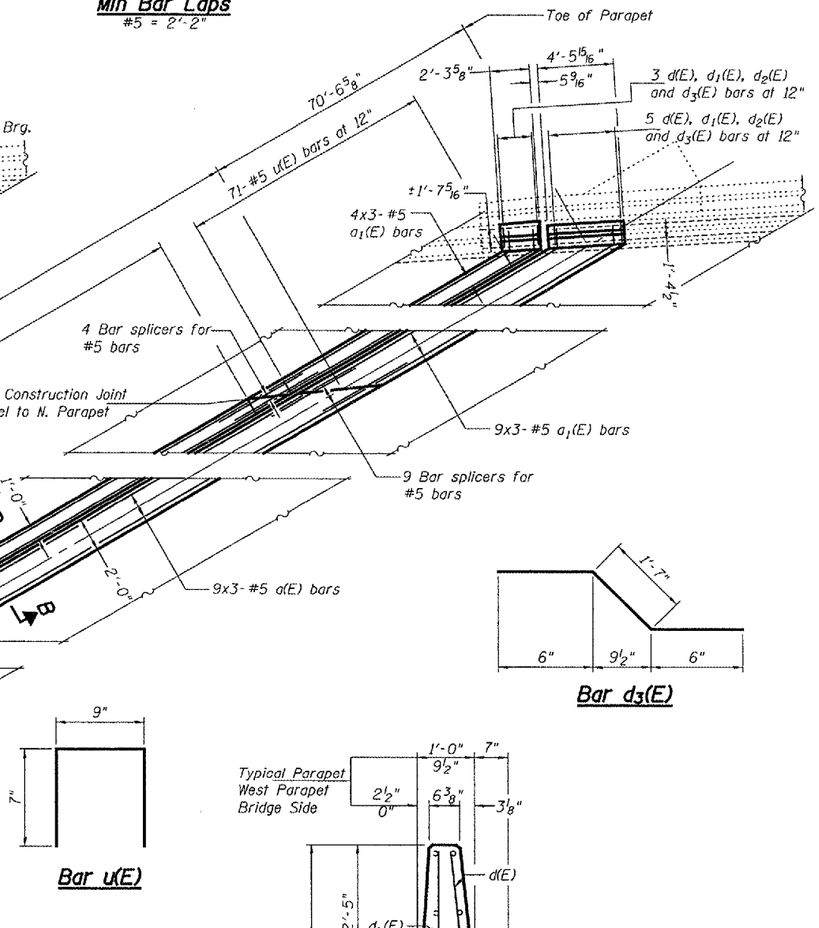
SECTION B-B
(Dim's at Rt. L's)

SOUTHEAST ABUTMENT PARTIAL PLAN



Bar d_2(E)

Min Bar Laps
#5 = 2'-2"



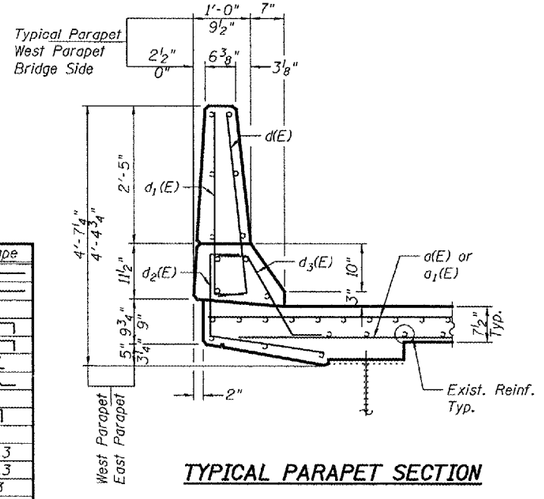
Bar d_3(E)

Bar u(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	39	#5	25'-9"	
a_1(E)	39	#5	24'-11"	
d(E)	17	#5	3'-8"	
d_1(E)	17	#4	3'-8"	
d_2(E)	17	#4	3'-11"	
d_3(E)	17	#5	2'-7"	
u(E)	144	#5	1'-11"	
Concrete Removal			Cu. Yd.	12.3
Concrete Superstructure			Cu. Yd.	12.3
Bar Splicers			Each	13
Reinforcement Bars, Epoxy Coated			Lbs.	2,550

Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.



TYPICAL PARAPET SECTION

DESIGNED	V.H.V.
CHECKED	A.J.B.
DRAWN	Drew Christopher
CHECKED	V.H.V. A.J.B.

March 10, 2008
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

JOINT DETAILS
F.A.I. RT. 90/94
COOK COUNTY
SN 016-2574

SLT-91-001-08

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Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1½" Min.
2½"	2½"	1¾" Min.
4"	3"	2½" Min.

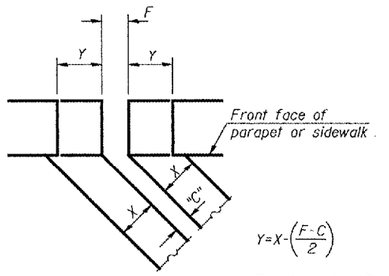
INSTALLATION NOTES

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

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

SKEW LIMITATIONS

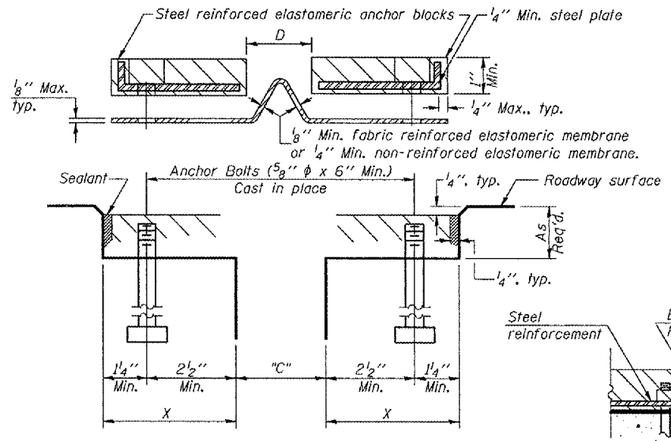
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.
For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1½" from centerline 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.



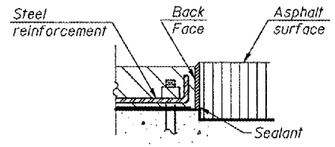
For dimension "F" see sheet #1 & 2.

FORMING BLOCKOUT SKETCH

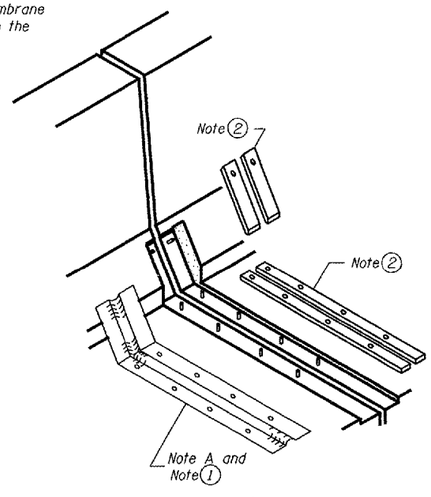
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



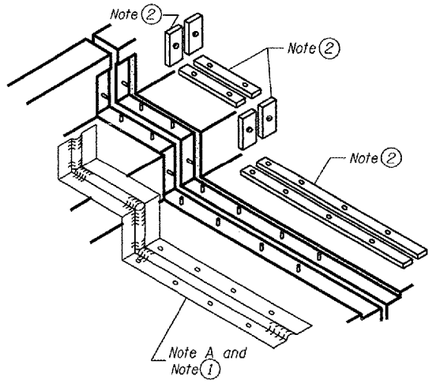
CROSS SECTION



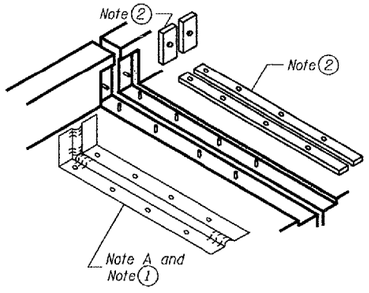
ANCHOR BLOCK WITH ASPHALT SURFACE



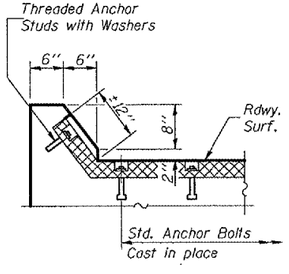
AT PARAPET



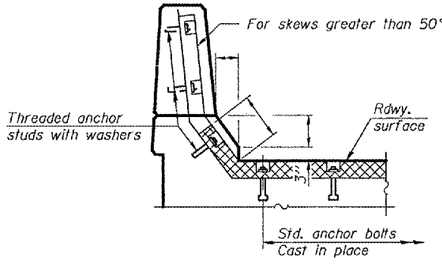
AT SIDEWALK OR MEDIAN



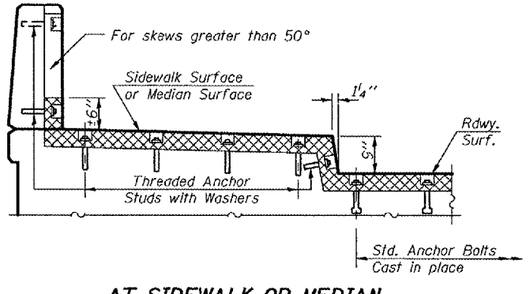
AT WALL



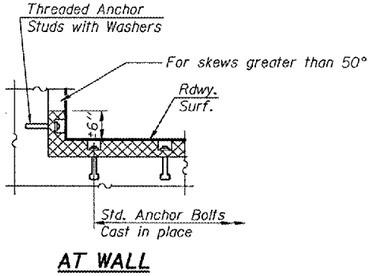
AT CURB



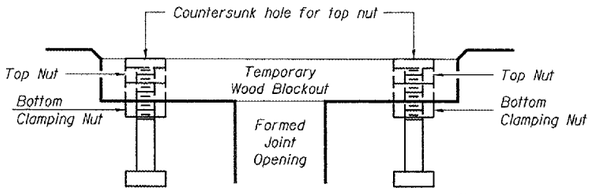
AT PARAPET



AT SIDEWALK OR MEDIAN TYPICAL END TREATMENTS



AT WALL



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

Anchor studs should be stainless

RECOMMENDED BLOCKOUT DETAIL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		Cook	18	8
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 3
4 SHEETS

Contract Number: 60E14

GENERAL NOTES

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

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

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

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

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

DESIGNED	V.H.V.
CHECKED	A.J.B.
DRAWN	Drew Christopher
CHECKED	V.H.V. A.J.B.

March 10, 2008
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

EJ-CS 10-22-04

SLT-91-001-08

JOINT DETAILS
F.A.I. RT. 90/94
COOK COUNTY
SN 016-2574

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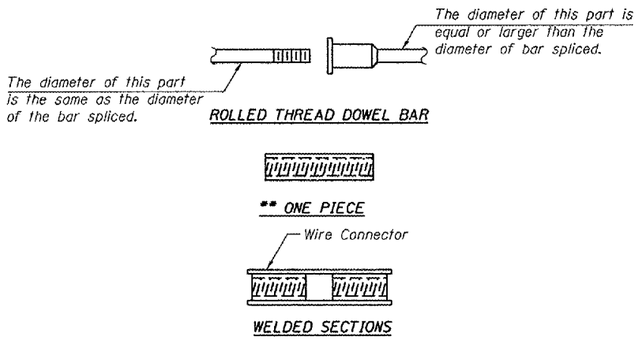
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		Cook	18	9
FED. ROAD DIST. NO. 9		ILLINOIS	FED. AID PROJECT-	

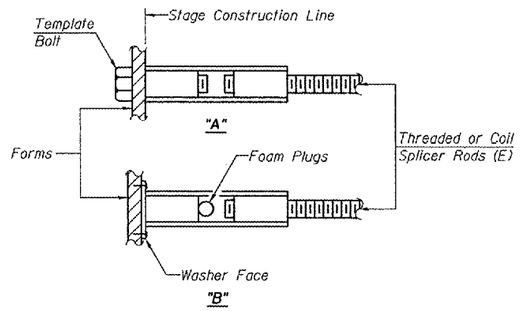
SHEET NO. 4
4 SHEETS

Contract Number: 60E14



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

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

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

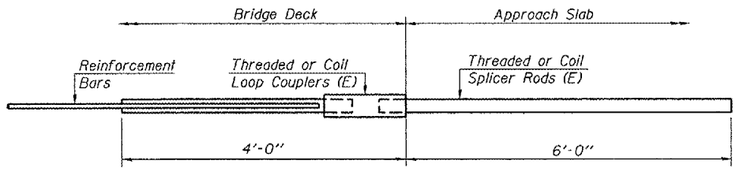
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

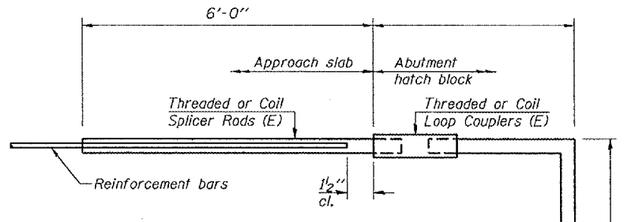
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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



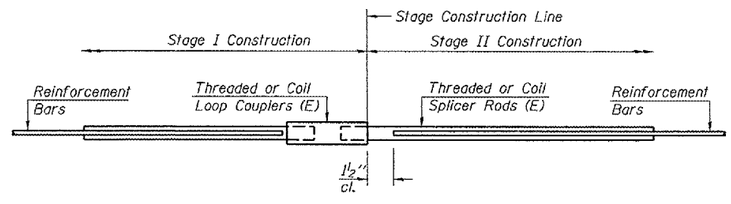
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#5	13	S.E. Abut.

DESIGNED	V.H.V.
CHECKED	A.J.B.
DRAWN	Drew Christopher
CHECKED	V.H.V. A.J.B.

March 10, 2008
EXAMINED D. Carl Peterson
ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 11-1-06

SLT-91-001-08

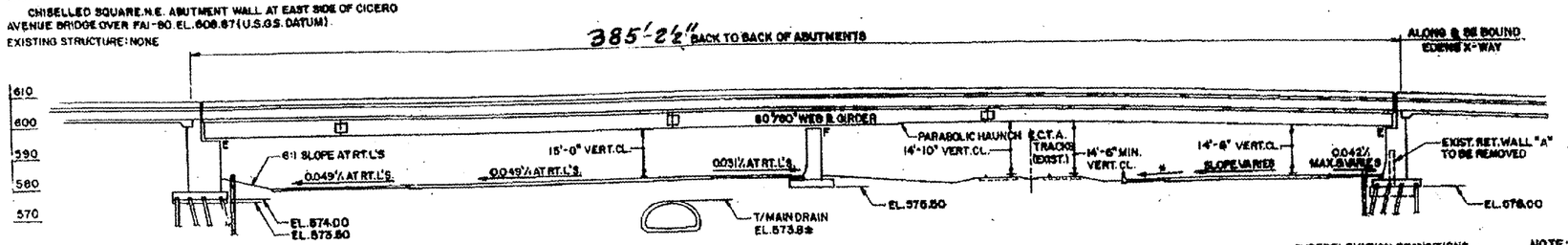
BAR SPLICER DETAILS
F.A.I. RT. 90/94
COOK COUNTY
SN 016-2574

...\projects\mac00034\0162574.dgn 3/10/2008 11:43:29 AM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAI 94	0101.2 A-1	COOK	18	10

CONTRACT 60E14

B.M.
CHISELLED SQUARE N.E. ABUTMENT WALL AT EAST SIDE OF CICERO AVENUE BRIDGE OVER FAI-90 EL. 608.67 (U.S.G.S. DATUM)
EXISTING STRUCTURE: NONE



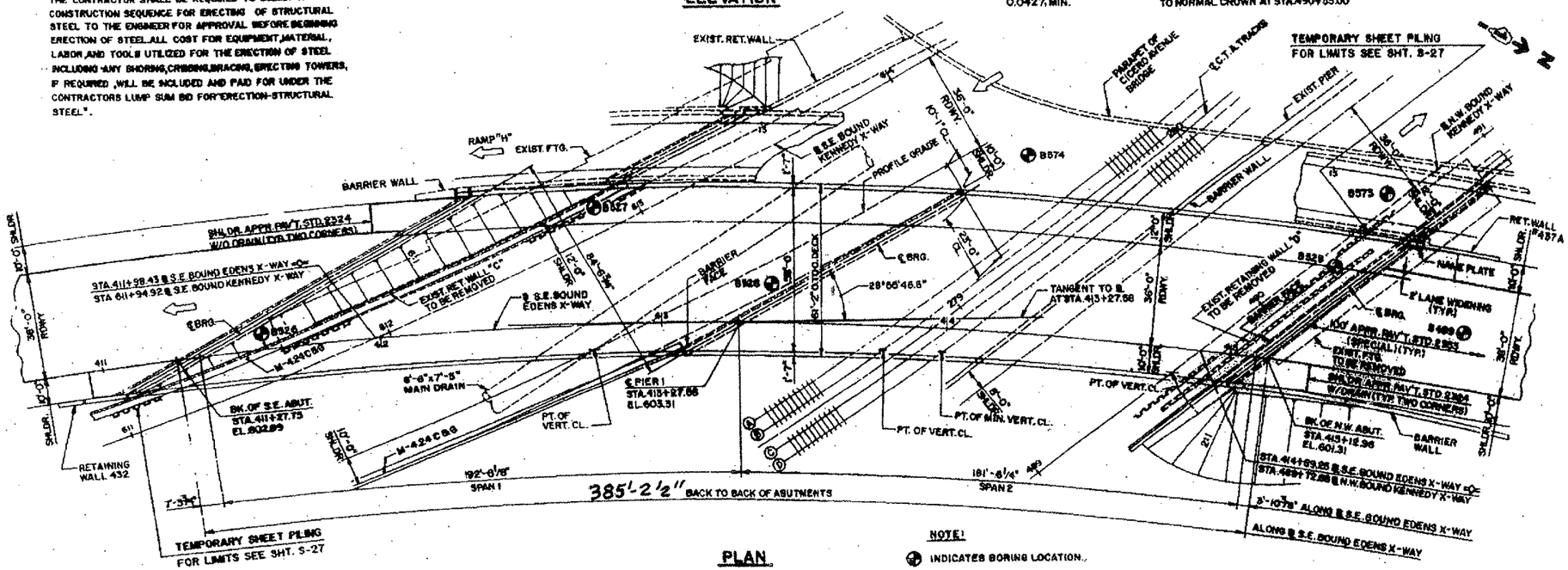
NOTE "A":
THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A CONSTRUCTION SEQUENCE FOR ERECTING OF STRUCTURAL STEEL TO THE ENGINEER FOR APPROVAL BEFORE BEGINNING ERECTION OF STEEL. ALL COST FOR EQUIPMENT, MATERIAL, LABOR AND TOOLS UTILIZED FOR THE ERECTION OF STEEL INCLUDING ANY SHORING, CRIBBING, BRACING, ERECTING TOWERS, IF REQUIRED, WILL BE INCLUDED AND PAID FOR UNDER THE CONTRACTORS LUMP SUM BID FOR "ERECTION-STRUCTURAL STEEL".

NOTE:
* 0.048½ MAX.
0.042½ MIN.

SUPERELEVATION TRANSITIONS
N.W. BOUND KENNEDY
FROM 0.048½ AT STA. 487+55.00
TO NORMAL CROWN AT STA. 490+55.00

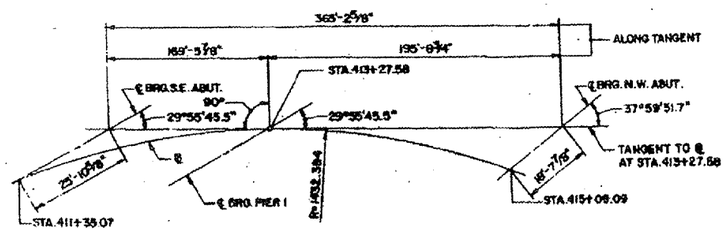
NOTE:
FOR BILL OF MATERIAL SEE SHT. S-2

ELEVATION



PLAN

NOTE:
● INDICATES BORING LOCATION.



OFFSET SKETCH

DESIGN SPECIFICATIONS:
AASHTO 1989 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES

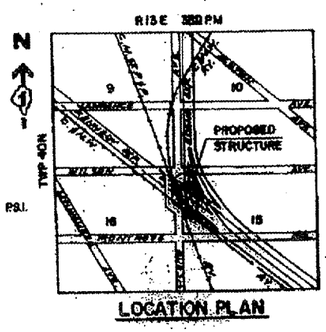
DESIGN LOADING:
H320+44, ALT. MILITARY LOADING AND 25 P.S.F. FUTURE WEARING SURFACE.

DESIGN STRESSES:

REINFORCED CONCRETE:
f'_c = COMPRESSIVE STRENGTH OF CONCRETE FOR DECK AND SUBSTRUCTURE = 3,500 P.S.I.
f_y = YIELD STRENGTH OF REINFORCING BARS (GRADE 60) = 60,000 P.S.I.

STRUCTURAL STEEL:
f_y = YIELD STRENGTH OF STRUCTURAL STEEL = 50,000 P.S.I.
" " " CROSS FRAMES = 36,000 P.S.I.

DESIGN METHOD:
LOAD FACTOR



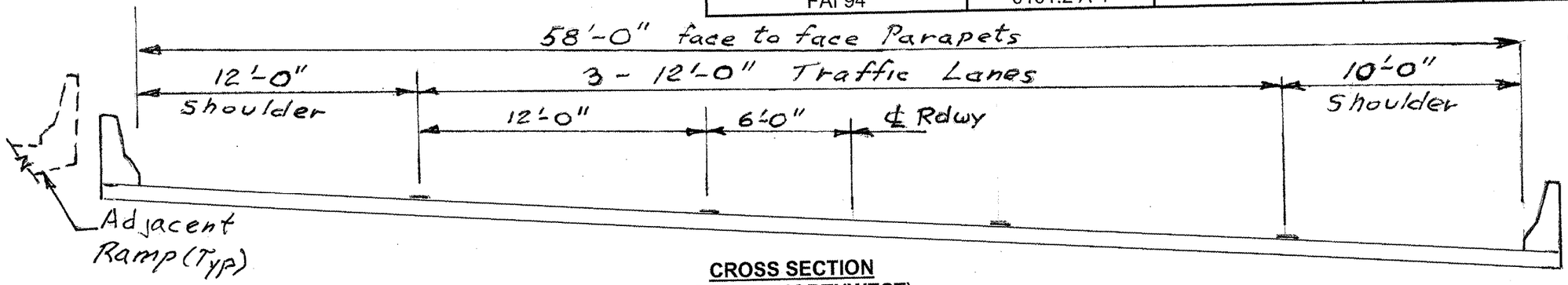
FOR INFORMATION ONLY

ILLINOIS DEPARTMENT OF TRANSPORTATION

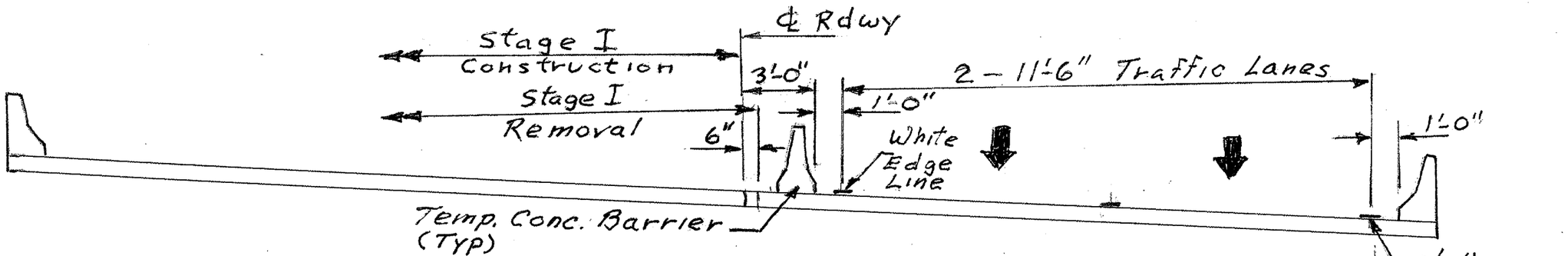
GENERAL PLAN AND ELEVATION
I-94 (EB) OVER I-90

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAI 94	0101.2 A-1	COOK	18	11

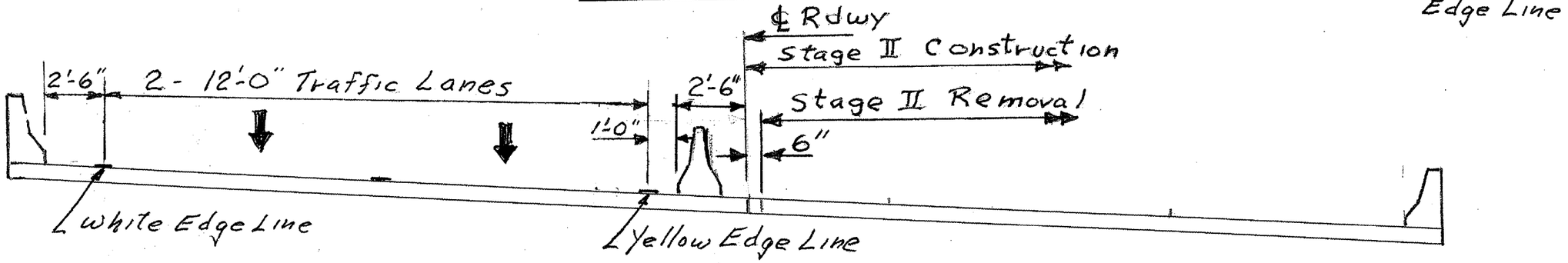
CONTRACT 60E14



CROSS SECTION
(LOOKING NORTHWEST)



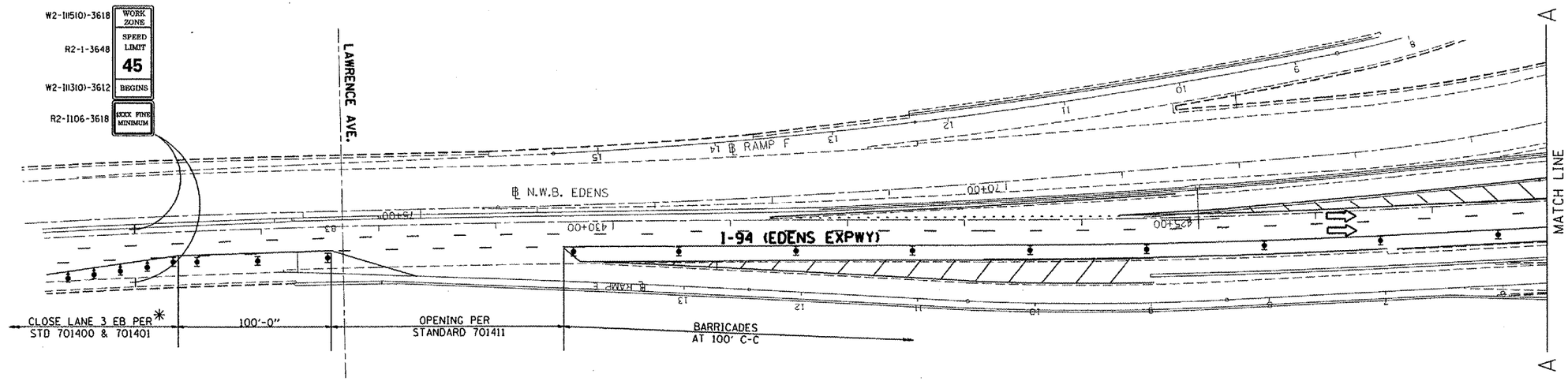
STAGE I CONSTRUCTION

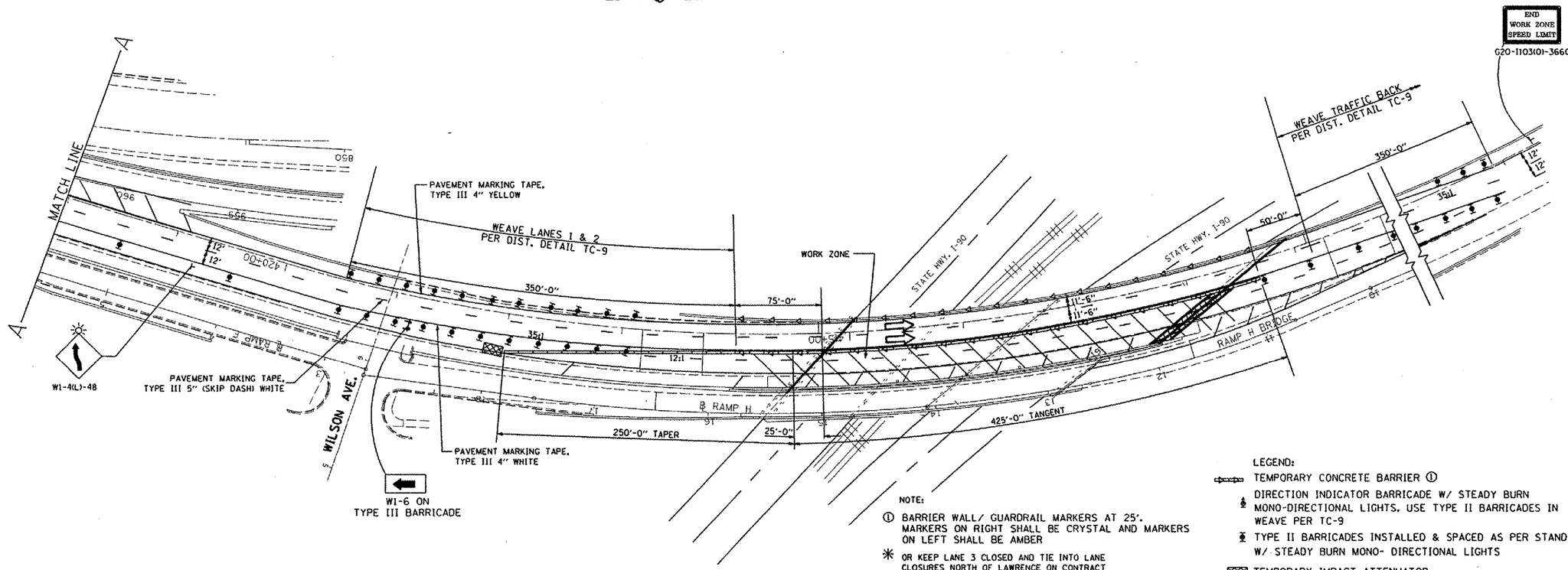


STAGE II CONSTRUCTION

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC STAGING CROSS SECTIONS





NOTE:

① BARRIER WALL/ GUARDRAIL MARKERS AT 25'. MARKERS ON RIGHT SHALL BE CRYSTAL AND MARKERS ON LEFT SHALL BE AMBER

✳ OR KEEP LANE 3 CLOSED AND TIE INTO LANE CLOSURES NORTH OF LAWRENCE ON CONTRACT 62747. USE DISTRICT WEAVE DETAIL TC-9, IF NECESSARY TO MATCH STAGED TRAFFIC OF CONTRACT 62747

LEGEND:

- TEMPORARY CONCRETE BARRIER ①
- DIRECTION INDICATOR BARRICADE W/ STEADY BURN MONO-DIRECTIONAL LIGHTS. USE TYPE II BARRICADES IN WEAVE PER TC-9
- TYPE II BARRICADES INSTALLED & SPACED AS PER STANDARD 701411 & TC-9 W/ STEADY BURN MONO- DIRECTIONAL LIGHTS
- TEMPORARY IMPACT ATTENUATOR

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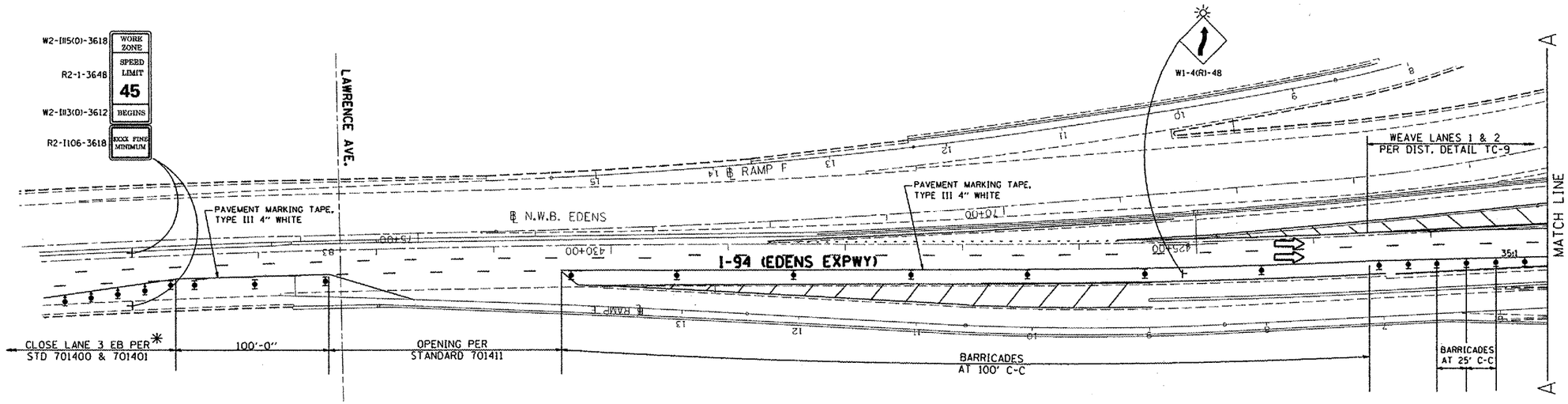
		DRAWN -	REVISED -
	PLOT SCALE = 183.1218 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/3/2008	DATE -	REVISED -

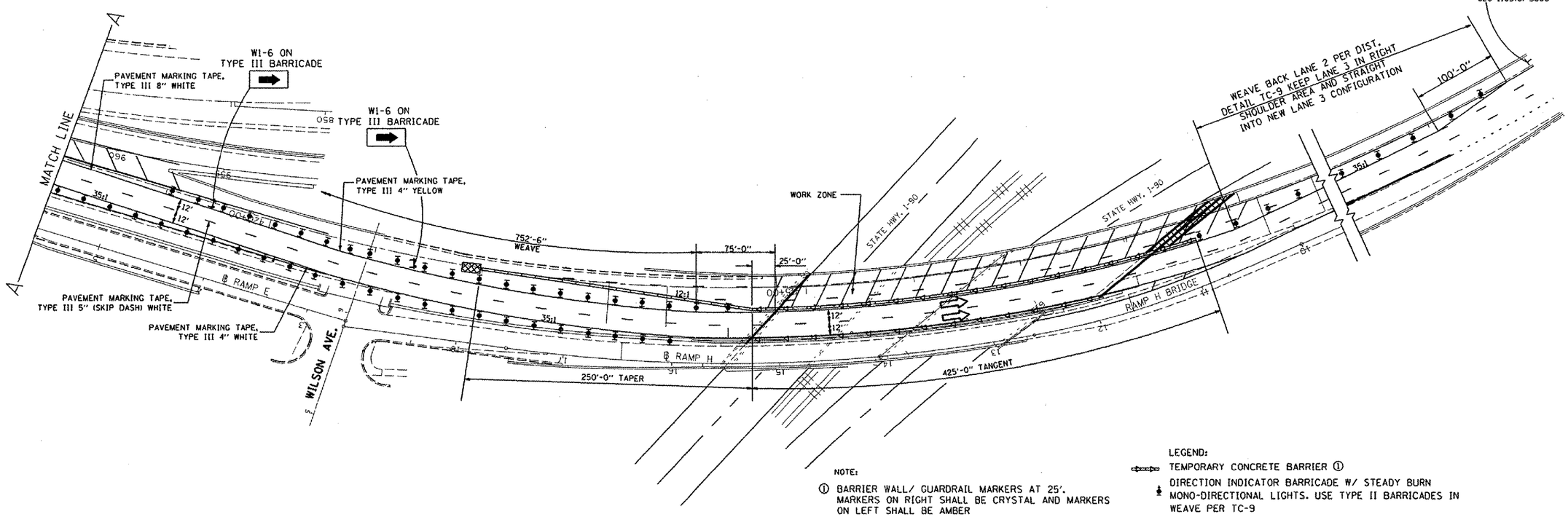
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC STAGING PLAN STAGE I

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	0101.2A-1	COOK	18	12
		CONTRACT NO. 60E14		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





END WORK ZONE SPEED LIMIT
G20-1103(0)-3660

NOTE:

① BARRIER WALL/ GUARDRAIL MARKERS AT 25'. MARKERS ON RIGHT SHALL BE CRYSTAL AND MARKERS ON LEFT SHALL BE AMBER

✳ OR KEEP LANE 3 CLOSED AND TIE INTO LANE CLOSURES NORTH OF LAWRENCE ON CONTRACT 62747. USE DISTRICT WEAVE DETAIL TC-9, IF NECESSARY TO MATCH STAGED TRAFFIC OF CONTRACT 62747

LEGEND:

- TEMPORARY CONCRETE BARRIER ①
- DIRECTION INDICATOR BARRICADE W/ STEADY BURN MONO-DIRECTIONAL LIGHTS. USE TYPE II BARRICADES IN WEAVE PER TC-9
- TYPE II BARRICADES INSTALLED & SPACED AS PER STANDARD 701411 & TC-9 W/ STEADY BURN MONO- DIRECTIONAL LIGHTS
- TEMPORARY IMPACT ATTENUATOR

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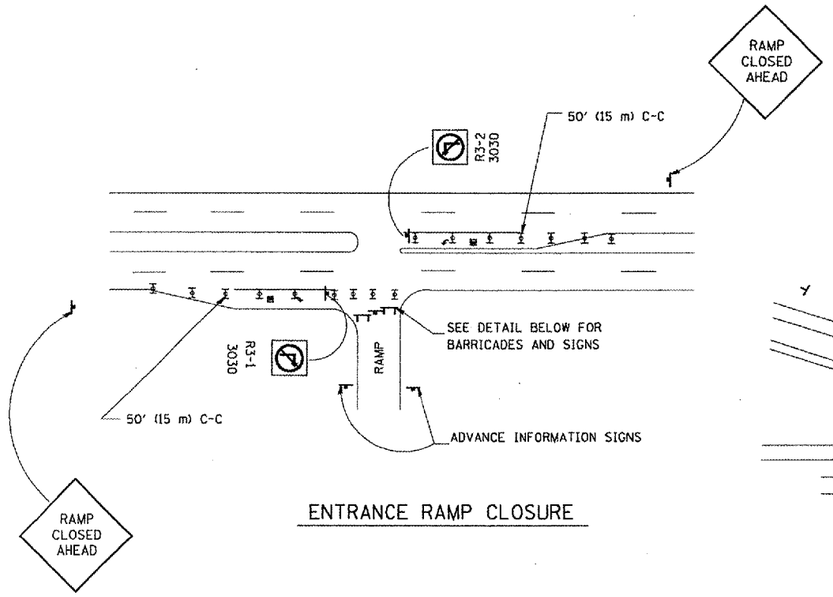
		DRAWN -	REVISED -
	PLOT SCALE = 100.1218 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/3/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

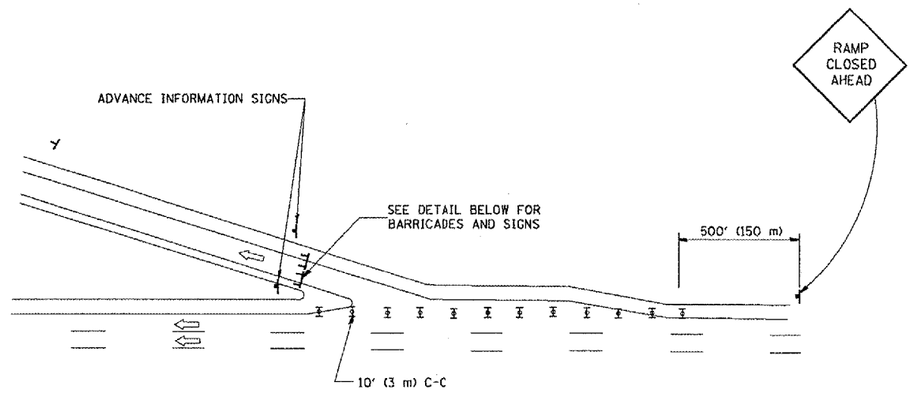
TRAFFIC STAGING PLAN STAGE II

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	0101.2A-1	COOK	18	13
		CONTRACT NO. 60814		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

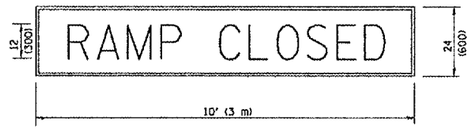


ENTRANCE RAMP CLOSURE



EXIT RAMP CLOSURE

RAMP CLOSURE ADVANCE WARNING SIGN

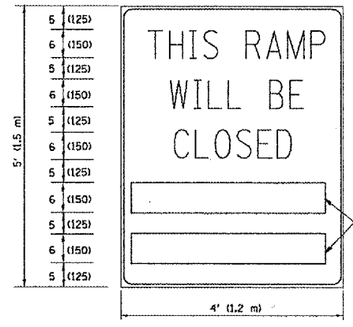


BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND

1 (25) BORDER

THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR THE CLOSED EXIT RAMPS.

RAMP CLOSURE ADVANCE INFORMATION SIGN

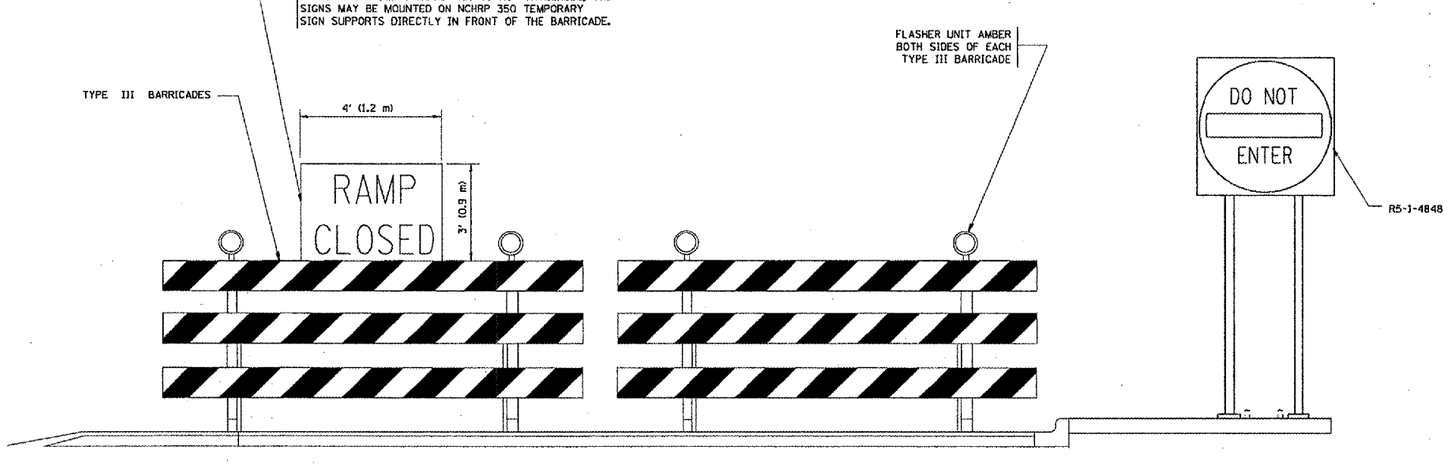


BLACK LEGEND ON WHITE REFLECTORIZED BACKGROUND

½ (12) BORDER

THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.



DETAIL FOR REQUIRED BARRICADES & SIGNS

GENERAL NOTES:

1. CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
2. STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
3. A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
4. ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
5. THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
7. THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY- FOUR 24 HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED TWENTY FOUR 24 HOURS IN LENGTH.

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

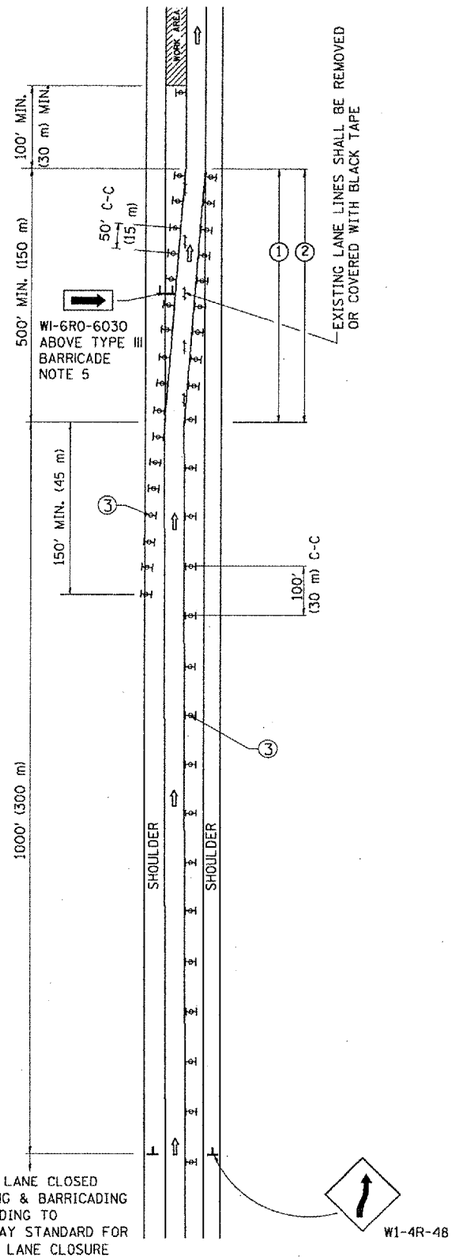
SYMBOLS

- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- TYPE III BARRICADE WITH FLASHING LIGHT

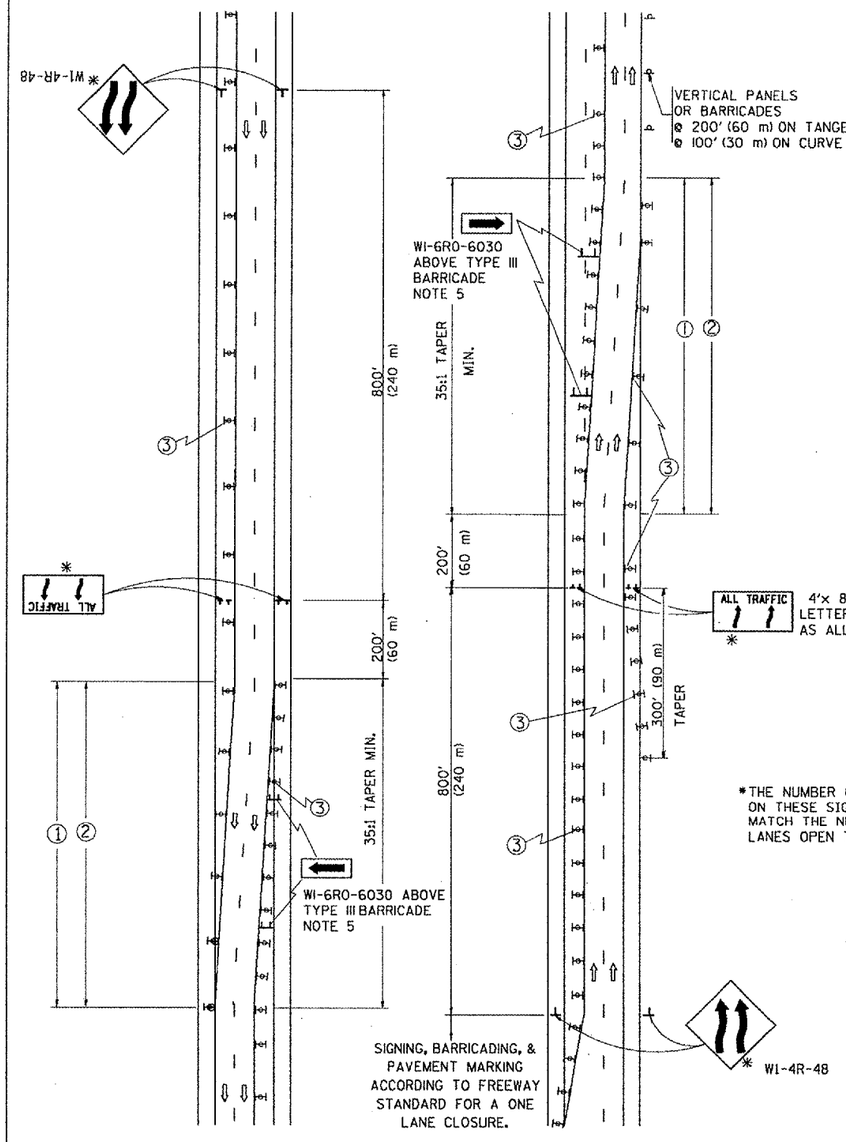
FILE NAME = W:\diststd\22x34\tc08.dgn	USER NAME = gaglianobt	DESIGNED - DWS	REVISED - DWS 12-94	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**FREEWAY ENTRANCE AND EXIST RAMP CLOSURE DETAILS**
		DRAWN -	REVISED - DWS/JAF 12-02		
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - JAF 02-06		
	PLOT DATE = 1/4/2020	DATE - 02-83	REVISED - SPB 01-07		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	0101.2A-1	COOK	18	14
	TC-08	CONTRACT NO. 60E19		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SINGLE LANE WEAVE



MULTI-LANE WEAVE



*THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC

ALL TRAFFIC — 4'x 8' (1.2 m x 2.4 m); 1 (25) BORDER; 10 (250) CAPITAL LETTERS BACKGROUND SHEETING SHALL BE THE SAME AS ALL DIAMOND SHAPED CONSTRUCTION SIGNS.

GENERAL NOTES

① EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED OR COVERED WITH BLACK TAPE. PAVEMENT MARKING REMOVAL OR BLACK TAPE SHALL NOT BE REQUIRED FOR LANE CLOSURES UNDER 24 HOURS IN DURATION.

② CONTINOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVE LANE LINES SHALL BE 10'-30' (3 m-9 m) SKIP DASH, WHITE.

③ PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.

④ ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.

⑤ IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS DIRECTLY IN FRONT OF THE BARRICADE.

⑥ IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.

SYMBOLS

- DIRECTION OF TRAFFIC
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONO-DIRECTIONAL STEADY BURNING LIGHT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = W:\diststd\22x34\tc09.dgn	USER NAME = gaglianobt	DESIGNED - DWS	REVISED - DWS 11-96
		DRAWN -	REVISED - JAF 01-03
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - JAF 02-06
	PLOT DATE = 1/4/2008	DATE - 02-87	REVISED - SPB 01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

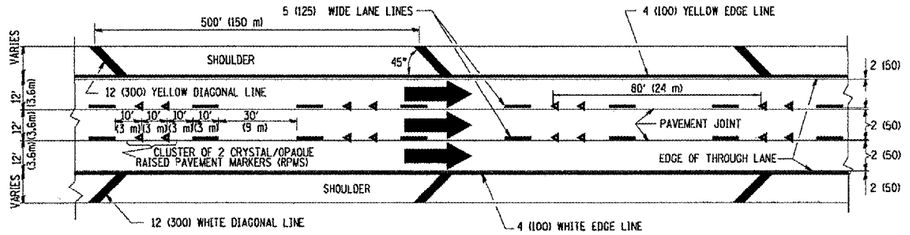
TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	0101, 2A-1	COOK	18	15
	TC-09	CONTRACT NO. 60E14		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH

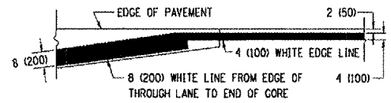
THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH



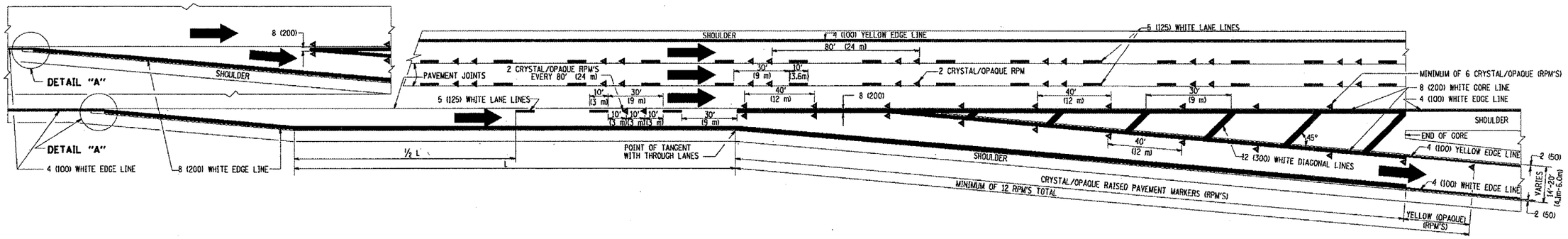
NOTES:

1. THERMO PLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR THE EDGE LINES, CORE LINES, AND DIAGONAL LINES ON BITUMINOUS PAVEMENT ONLY.
2. PREFORMED PLASTIC TYPE B PAVEMENT MARKING LINE SHALL BE USED FOR ALL LANE LINES ON BITUMINOUS PAVEMENT
3. POLYUREA PAVEMENT MARKING SHALL BE USED FOR ALL MARKINGS ON PCC

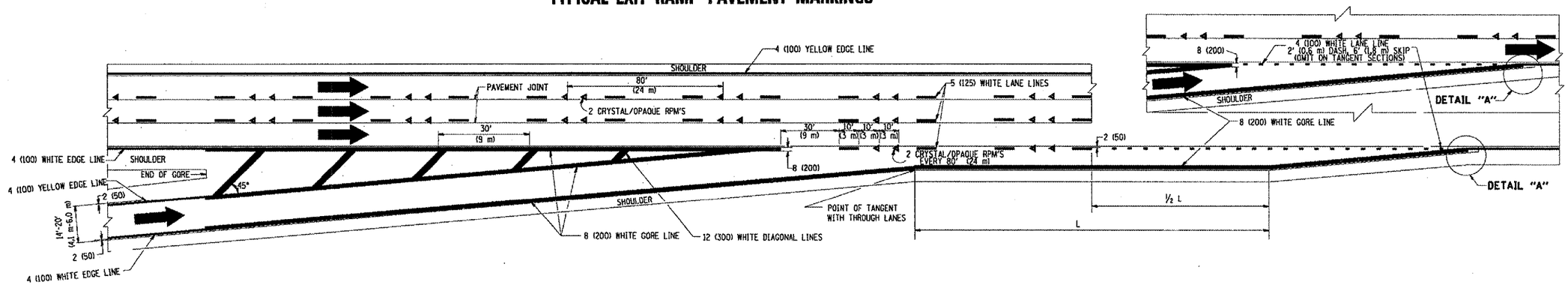
TYPICAL EDGE LINES & LANE LINES



DETAIL "A"



TYPICAL EXIT RAMP PAVEMENT MARKINGS



TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS

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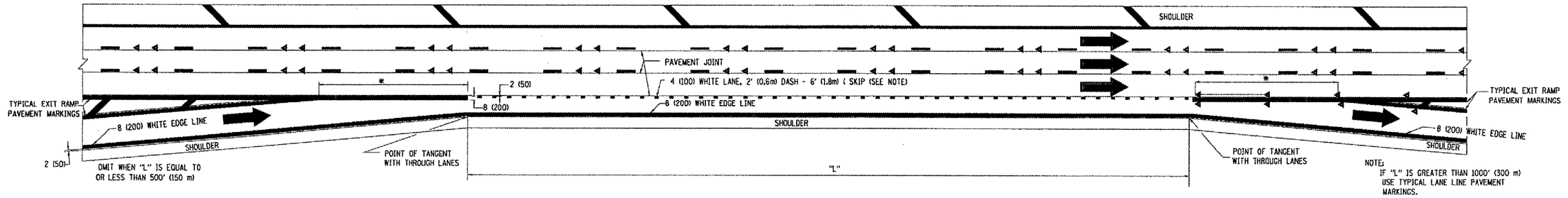
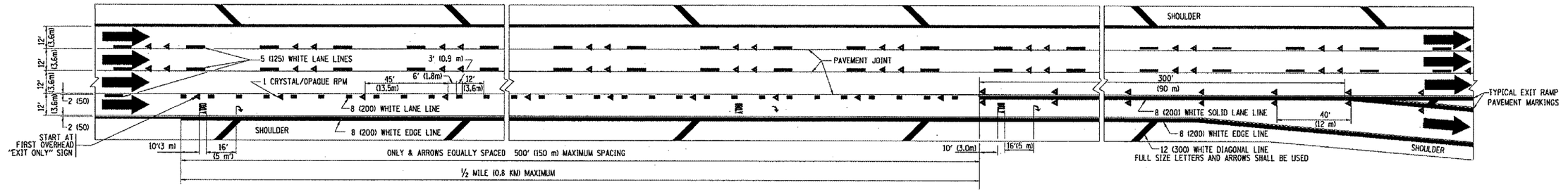
		DRAWN -	REVISED - D.W.S. 07-96		
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - J.A.F. 02-06		
	PLOT DATE = 1/4/2008	DATE - 01-90	REVISED - S.P.B. 01-07		SCALE: NONE | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

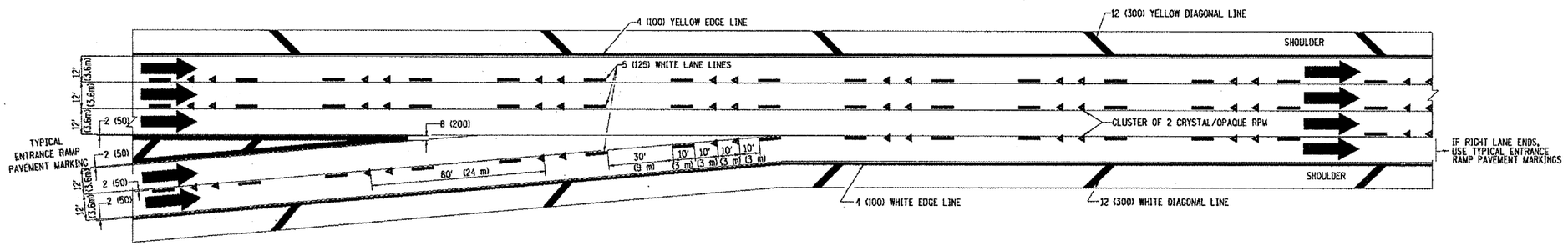
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	0101.2 A-1	Cook	18	16
	TC-12	CONTRACT NO. 60E14		
FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT				



TYPICAL ENTRANCE/EXIT RAMP COMBINATION PAVEMENT MARKINGS



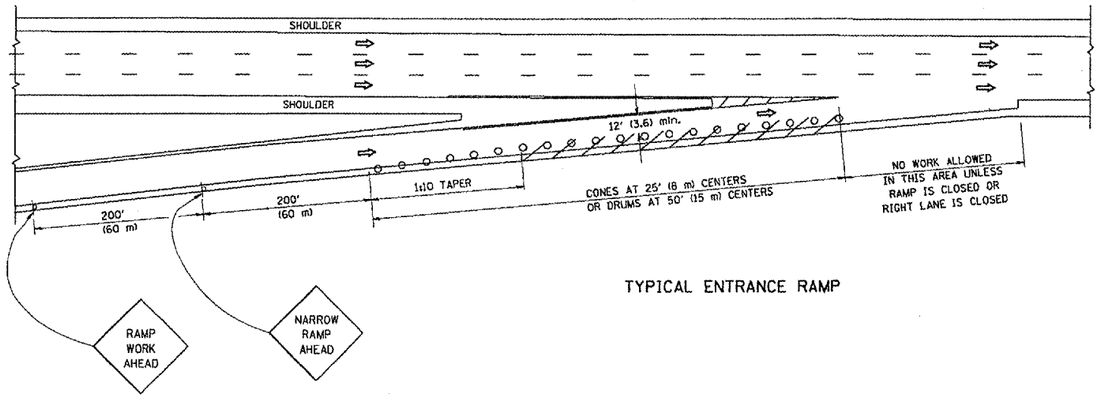
TYPICAL EXIT ONLY LANE PAVEMENT MARKINGS



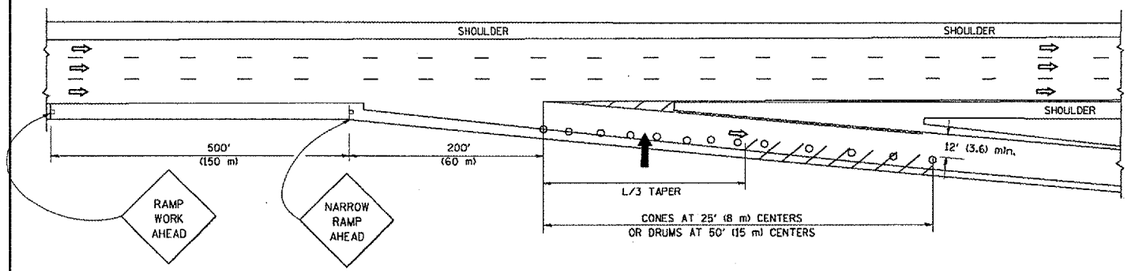
TYPICAL TWO LANE ENTRANCE RAMP PAVEMENT MARKINGS

FILE NAME = W:\diststd\22x34\tc12.dgn	USER NAME = gaglionabt	DESIGNED - D.W.S.	REVISED - A.H. 03-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - D.W.S. 07-96			94	0161,2A-1	Cook	18	17
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - J.A.F. 02-06				TC-12		CONTRACT NO. 60E14	
	PLOT DATE = 1/4/2008	DATE - 01-90	REVISED - S.P.B. 01-07		SCALE: NONE / SHEET NO. 1 OF 2 SHEETS / STA. / TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

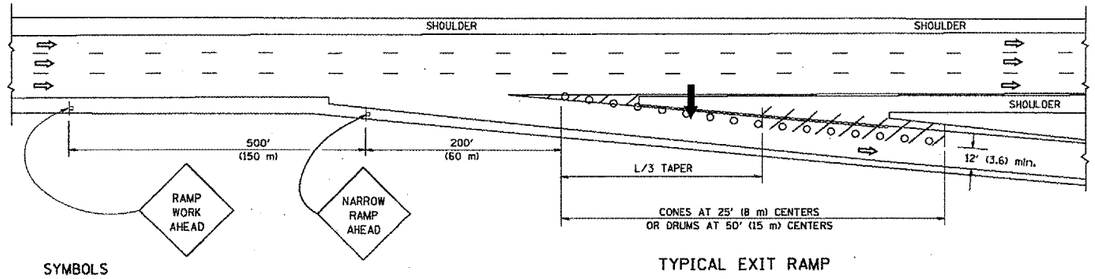
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

- ARROWBOARD
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

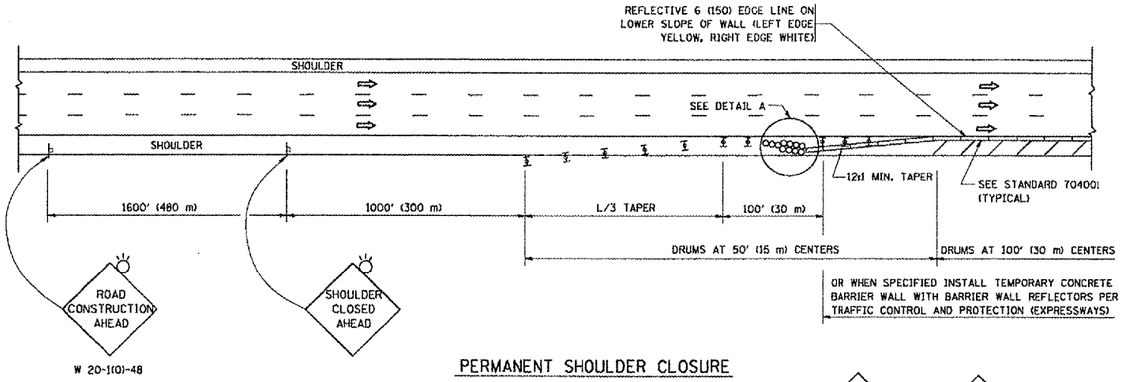
SPEED LIMIT	FORMULAS	
	METRIC	ENGLISH
45 mph (80 km/h) OR GREATER:	L=0.65(W)(S)	L=(W)(S)

W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)

2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
5. THE IMPACT ATTENTUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE "TRAFFIC BARRIER TERMINAL, TYPE III, TEMPORARY" DEVICE TO MEET NCHRP350 FOR POSTED SPEED.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
   a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
   b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.

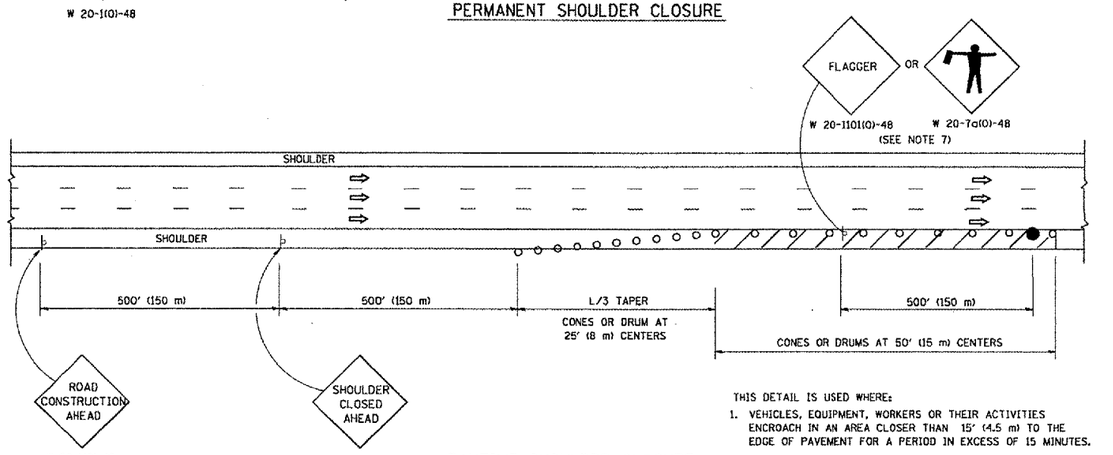
   THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

SHOULDER CLOSURE DETAILS



W 20-1(0)-48

PERMANENT SHOULDER CLOSURE

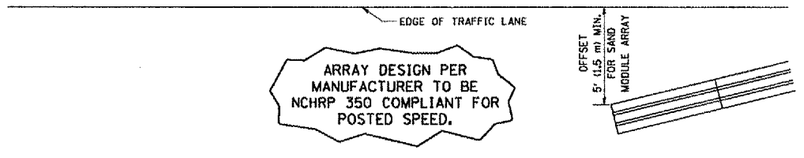


W 20-1(0)-48

THIS DETAIL IS USED WHERE:

1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

DAYTIME SHOULDER CLOSURE



DETAIL "A"
IMPACT ATTENTUATOR, TEMPORARY
(SEE NOTE 5)

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

FILE NAME = W:\diststd\22x34\tc17.dgn	USER NAME = gaglsenobt	DESIGNED -	REVISED - J.A.F. 12-02	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES
		DRAWN - D.W.S.	REVISED - 04-03		
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - J.A.F. 12-06		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.
	PLOT DATE = 1/4/2008	DATE - 11-96	REVISED - S.P.B. 01-07		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	6101,2A-1	COOK	18	18
	TC-17	CONTRACT NO. 60E14		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		