

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2017-046	COOK	38	1
ILLINOIS		CONTRACT NO. 62F78	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENTS ARE LOCATED IN THE CITY OF CHICAGO AND THE VILLAGE OF ROSEMONT

TRAFFIC DATA:

I-90/94 (KENNEDY EXPWY.)
2016 ADT = 281,900
POSTED SPEED LIMIT = 55MPH

ADDISON ST.
2014 ADT = 27,900
POSTED SPEED LIMIT = 30MPH

I-190
2016 ADT = 83,500
POSTED SPEED LIMIT = 55MPH

DES PLAINES RIVER RD.
2014 ADT = 31,500
POSTED SPEED LIMIT = 35MPH

IMPROVEMENT LOCATION 2 & 3:
2) I-190 (EB) AT DES PLAINES RIVER RD.
SN: 016-0511

3) I-190 (WB) AT DES PLAINES RIVER RD.
SN: 016-0512

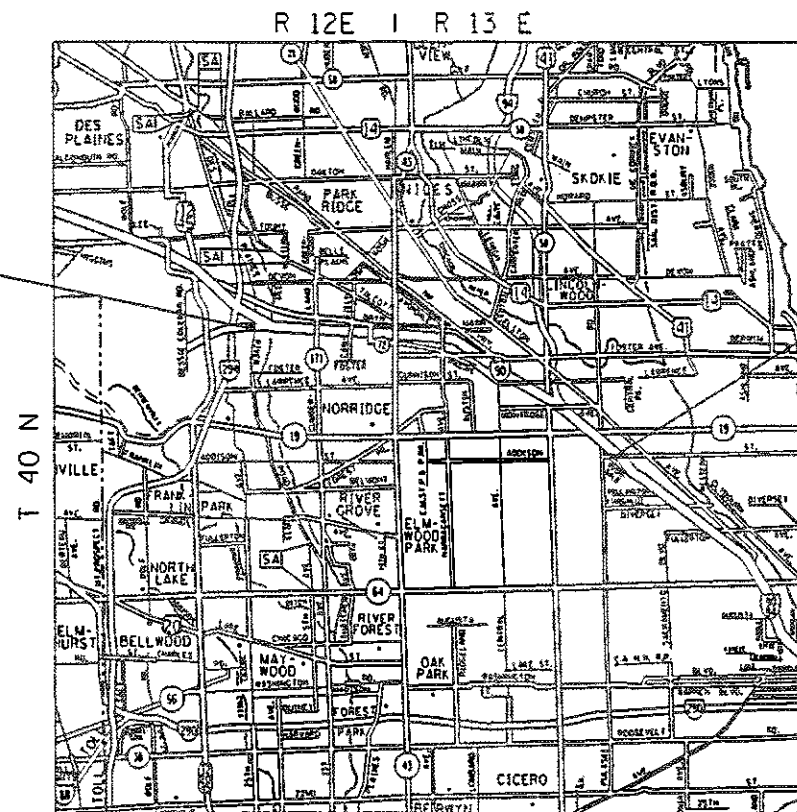
C.U.A.N.
CHICAGO UTILITY ALERT NETWORK
1-312-744-7000

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

PROJECT ENGINEER: J. ALAIN MIDY (847) 221-3056
PROJECT MANAGER: FAWAD AQUEEL (847) 705-4247

CONTRACT NO. 62F78

**PROPOSED
HIGHWAY PLANS**
1) FAI ROUTE 94: I-90/94 (KENNEDY EXPRESSWAY)
AT ADDISON ST.
2) FAI ROUTE 190: I-190 AT DES PLAINES RIVER RD.
SECTION: 2017-046I
CONCRETE REPAIRS
COOK COUNTY
C-91-049-18

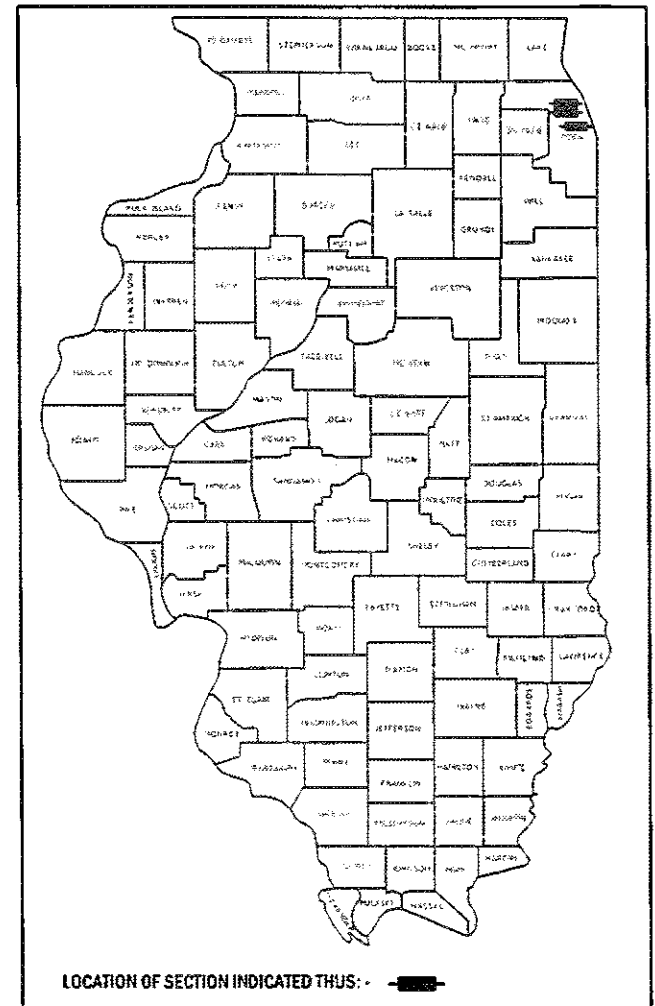


LEYDEN AND CHICAGO TOWNSHIPS



IMPROVEMENT LOCATION 1:
I-90/94 AT ADDISON ST.
SN: 016-0669

D-91-205-18



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED December 14, 2017
Anthony J. Quigley / *MS* REGIONAL ENGINEER
Nov 30 2017
James M. Addis / *PE* ENGINEER OF DESIGN AND ENVIRONMENT
Nov 30 2017
David J. [Signature] / *2* DIRECTOR OF PROGRAM DEVELOPMENT

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OF THE STATE OF ILLINOIS

INDEX OF SHEETS

1. TITLE SHEET
2. INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES
3. SUMMARY OF QUANTITIES
- 4-20. BRIDGE PLANS LOCATIOM 1 (SN 016-0669)
- 21-24. BRIDGE PLANS LOCATION 2 (SN 016-0511)
- 25-30. BRIDGE PLANS LOCATION 3 (SN 016-0512)
31. STAGING TYPICAL SECTIONS
32. TRAFFIC CONTROL PLAN
33. ENTRANCE AND EXIT RAMP CLOSURE DETAILS (TC-08)
34. SINGLE AND MULTI-LANE WEAVE (TC-09)
35. TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
36. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN) OPEN TO TRAFFIC (TC-14)
37. TRAFFIC CONTROL FOR SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES (TC-17)
38. ARTERIAL ROAD INFORMATION SIGN (TC-22)

STATE STANDARDS

STANDARD NO. DESCRIPTION

- 643001-02 SAND MODULE IMPACT ATTENUATORS
- 701101-05 OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24' FROM PAVEMENT EDGE
- 701106-02 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
- 701400-09 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-11 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701411-09 LANE CLOSURE, MULTI-LANE, TRAFFIC CONTROL AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >=45 MPH
- 701427-05 LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATIONS, FOR SPEEDS <= 40MPH
- 701428-01 TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
- 701446-09 TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701601-09 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
- 701801-06 SIDEWALK, CORNER OR CROSSWALK CLOSURE
- 701901-07 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 782006 GUARDRAIL & BARRIER WALL REFLECTOR MOUNTING DETAILS

GENERAL NOTES

1. 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.
2. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "C.U.A.N." AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.
3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, VILLAGE OF ROSEMONT AND THE CITY OF CHICAGO.
4. 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.
5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
6. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4151 FOR EXPRESSWAYS AND (847) 705-4470 FOR ARTERIALS A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
7. THE CONTRACTOR SHALL SUBMIT ALL DAILY LANES CLOSURES VIA WWW.IDOTLCS.COM AT LEAST 24 HOURS IN ADVANCE OF ALL DAILY LANE, RAMP AND SHOULDER CLOSURES.
8. THE CONTRACTOR SHALL REQUEST AND GAIN APPROVAL FROM THE ILLINOIS DEPARTMENT OF TRANSPORATION'S EXPRESSWAY TRAFFIC OPERATIONS ENGINEER AT (847) 705-4151 OR (847) 705 4155.
9. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
10. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHTTIME OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJACENT RESIDENTIAL AREAS.
11. THE ARTERIAL ROAD INFORMATION SIGN (TC-22) IS APPLICABLE ONLY TO ARTERIAL ROADS AND SHALL NOT BE APPLIED TO EXPRESSWAYS.
12. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS WHEN WORKING NEAR THE ABUTMENTS DUE TO ELECTRICAL JUNCTIONS BOXES AND ATTACHED CONDUITS.
13. SIDEWALK ON ONE SIDE OF THE ROAD SHALL REMAIN OPEN WHEN WORK IS BEING PERFORMED ON THE OPPOSITE SIDE.
14. THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF MAINTENANCE BRIDGE INSPECTORS.
15. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

URBAN

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT		0013 016-0669	0013 016-0511	0013 016-0512			
50300225	CONCRETE STRUCTURES	CU YD	14	14					
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2400	2400					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	1	1	1			
67100100	MOBILIZATION	LSUM	1	0.34	0.33	0.33			
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	LSUM	1		0.5	0.5			
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1		0.5	0.5			
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1					
70400100	TEMPORARY CONCRETE BARRIER	FOOT	350	350					
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2					
* 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	28	28					
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	LSUM	1	1					
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	25	25					

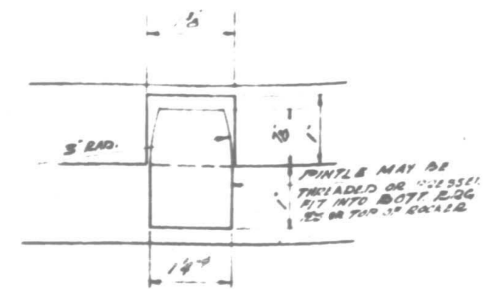
URBAN

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT		0013 016-0669	0013 016-0511	0013 016-0512			
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO FT	1236	1206		30			
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SO FT	788	740	20	28			
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	102.8		51.4	51.4			
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	LSUM	1	1					
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	14	9	1	4			
X0900048	EMBEDDED GALVANIC ANODES	LSUM	1	1					

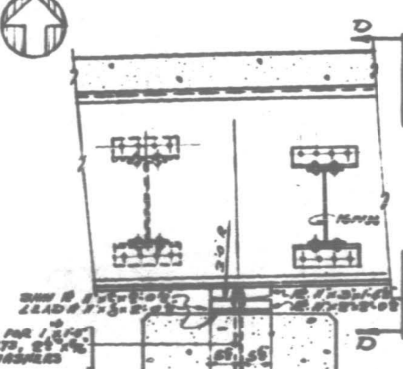
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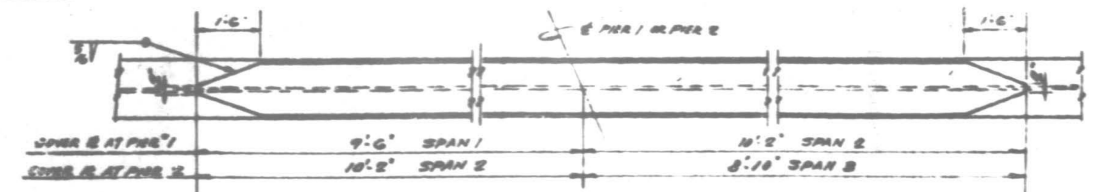


NOTE:
UNLESS OTHERWISE SPECIFIED ALL STEEL SHALL BE
STRUCTURAL STEEL (CARBON) A 57 M A 7-57.
ALL CONNECTIONS SHALL BE RIVETED EXCEPT AS
NOTED.
ALL RIVETS SHALL BE $\frac{3}{4}$ " IN DIAMETERS EXCEPT IN
BEAM FLANGE SPICES WHICH SHALL BE $\frac{5}{8}$ " IN DIAMETERS.
ALL HOLES FOR BEAM SPICES SHALL BE PUNCHED
AND DRILLED TO GOVERN SIZE WITH STRINGERS
POSITIONED FULL LENGTH IN THE SHOP IN PROPER
POSITION, WITH OR WITHOUT DIAPHRAGMS IN
PLACE. LEAVE ASSEMBLED FOR INSPECTION.
ALL ROLLER ROCKERS BEARING PLATES AND
ANCHOR BOLTS SHALL BE FABRICATED AND SET
IN PLACE IN WITHIN 48 HOURS OF THE
STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITIES
OF STRUCTURAL STEEL (CARBON) ESTIMATE
HEIGHT 26,110 LBS.
ANCHOR BOLTS SHALL BE SET BEFORE RIVETING
DIAPHRAGMS OVER PIERS AND ABUTMENTS.
THE CONTRACTOR FOR SECTION 00300 SHALL
FURNISH AND APPLY ONE SHOP COAT OF ZINC LEAD
PAINT.
FOR FIELD PAINT SEE SPECIAL PROVISIONS.
SHOP INSPECTION BY STATE OF ALABAMA.

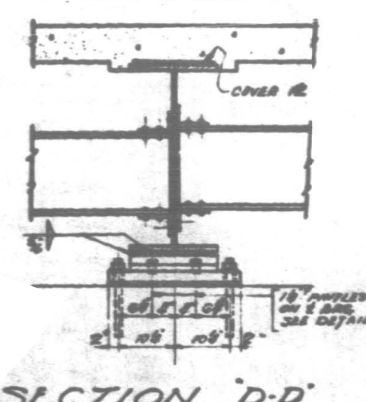


BEAM ELEVATIONS
ELEVATIONS ARE GIVEN TO TOPS OF BEAMS (FOR FABRICATION ONLY)

BEAN NO. LOCATION	1	2	3	4	5	6	7	8	9	10	11	12
W. BROS. WEST ADJUT.	15.187	15.220	15.427	15.434	15.088	15.947	15.723	16.009	15.976	15.928	15.873	15.947
E. FIELD SUNFACE 7	15.753	15.811	16.997	17.102	17.247	17.846	17.867	17.469	17.805	17.388	17.216	17.276
E. FIELD 1	17.048	17.089	17.002	17.454	17.466	17.698	17.707	17.697	17.619	17.523	17.608	17.652
E. FIELD SUNFACE 10.2	17.029	17.089	17.617	17.728	17.910	17.981	17.990	17.968	17.871	17.787	17.646	17.658
E. FIELD SUNFACE 10.3	17.695	17.695	17.628	17.947	18.052	18.098	18.088	18.031	17.907	17.768	17.618	17.601
E. FIELD 2	17.649	17.696	17.700	17.821	17.918	17.937	17.988	17.867	17.719	17.568	17.408	17.472
E. FIELD SUNFACE 10.4	17.635	17.610	17.612	17.711	17.790	17.883	17.789	17.705	17.666	17.387	17.215	17.193
E. BROS. EAST ADJUT.	16.613	16.688	16.617	16.688	16.730	16.713	16.687	16.677	16.608	16.518	16.487	16.570



COVER PLATES DETAILS



SECTION 'D-D'
SCALE 1" = 1'-0"

'E' DIMENSIONS

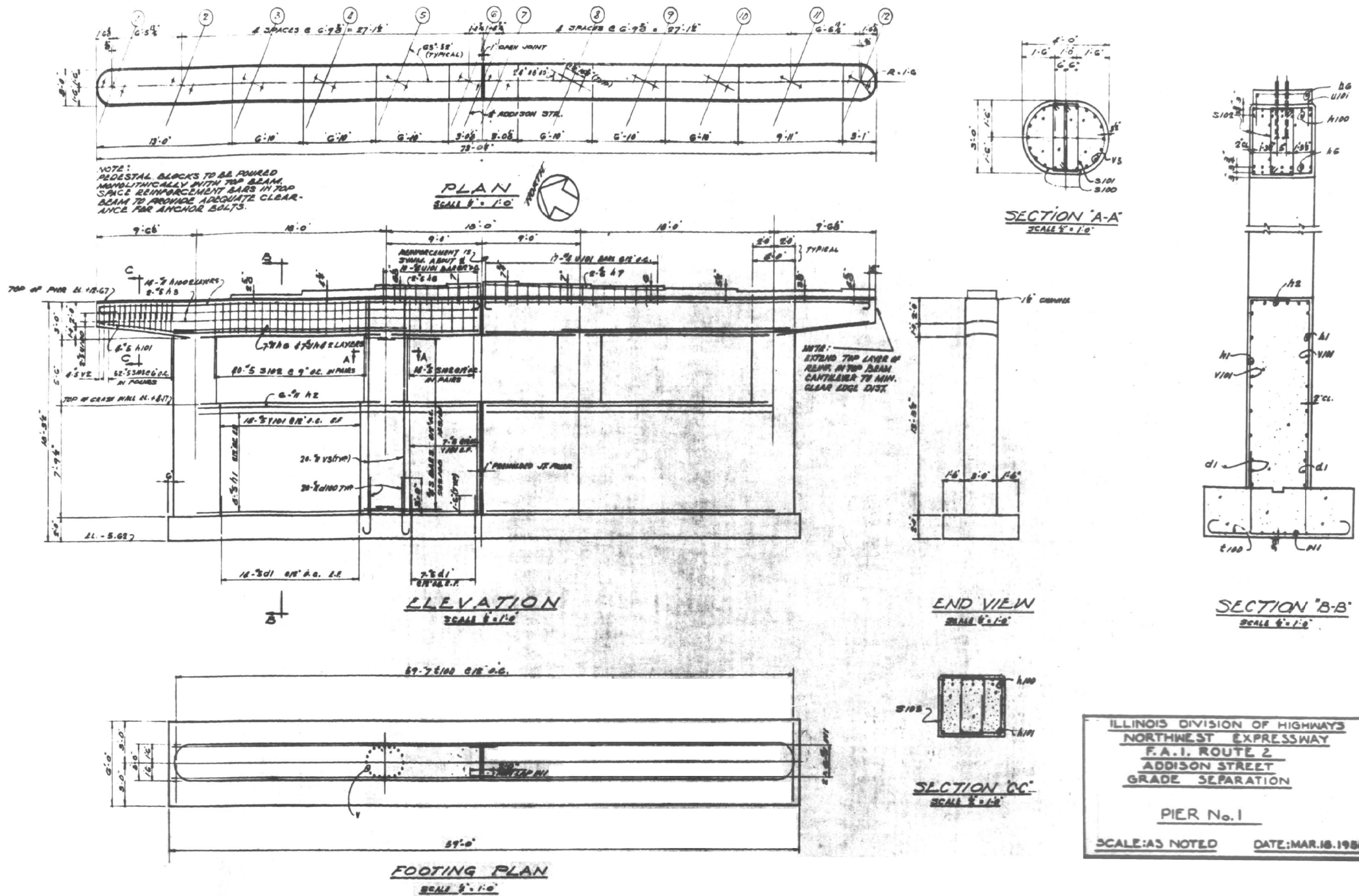
MEAN NO.	1	2	3	4	5	6	7	8	9	10	11	12
PART ADVF.	0	0	0	0	0	0	1/2	0	7/8	1/2	0	0
PUR NO. 1	0	1/2	0	0	0	1	0	1/2	1/2	0	1/2	0
PUR NO. 2	1/2	1/2	0	0	1/2	0	0	0	0	0	0	0
EAST ADVF.	1/2	1/2	0	0	1/2	0	0	0	0	0	0	0

ILLINOIS DIVISION OF HIGHWAYS
NORTHWEST EXPRESSWAY
F.A.I. ROUTE 2
ADDISON STREET
GRADE SEPARATION

STRUCTURAL STEEL PLAN

SCALE: AS NOTED DATE: MAR. 18, 1988.

FOR INFORMATION ONLY



ILLINOIS DIVISION OF HIGHWAYS
NORTHWEST EXPRESSWAY
F.A.I. ROUTE 2
ADDISON STREET
GRADE SEPARATION

PIER No. 1

SCALE: AS NOTED DATE: MAR. 18, 1958.

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USER NAME = diaza	DESIGNED -	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 10/27/2017	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOC.1) SN 016-0669: I-90/94 (KENNEDY EXPWY) AT ADDISON ST.			
WEST PIER			
SCALE:	SHEET 3	OF 17 SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	6
CONTRACT NO. 62F78				
ILLINOIS FED. AID PROJECT				

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ILLINOIS DIVISION OF HIGHWAYS
NORTHWEST EXPRESSWAY
P.A.1. ROUTE 2
ADDISON STREET
GRADE SEPARATION

PIER No. 2

SCALE: AS NOTED DATE: MAR. 18, 1958.

USER NAME = diaza	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 10/27/2017	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LOC.1) SN 016-0669: I-90/94 (KENNEDY EXPWY) AT ADDISON ST.
EAST PIER

SCALE:	SHEET 4	OF 17 SHEETS	STA.	TO STA.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	7
		CONTRACT NO. 62F78		
ILLINOIS		FED. AID PROJECT		

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NOTE: ALL EDGES SHALL HAVE STANDARD 3/4" CHAMFER EXCEPT AS NOTED.

TOP PLAN

ELEVATION (LOOKING EAST)

FOOTING PLAN

SECTION A-A

SECTION B-B

SECTION C-C

DETAIL "A"

DETAIL "B"

DETAIL "C"

DETAIL "D"

DETAIL "E"

DETAIL "F"

DETAIL "G"

DETAIL "H"

DETAIL "I"

DETAIL "J"

DETAIL "K"

DETAIL "L"

DETAIL "M"

DETAIL "N"

DETAIL "O"

DETAIL "P"

DETAIL "Q"

DETAIL "R"

DETAIL "S"

DETAIL "T"

DETAIL "U"

DETAIL "V"

DETAIL "W"

DETAIL "X"

DETAIL "Y"

DETAIL "Z"

DETAIL "AA"

DETAIL "AB"

DETAIL "AC"

DETAIL "AD"

DETAIL "AE"

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DETAIL "IX"

DETAIL "IY"

DETAIL "IZ"

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DETAIL "JD"

DETAIL "JE"

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DETAIL "JJ"

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DETAIL "JZ"

DETAIL "KA"

DETAIL "KB"

DETAIL "KC"

DETAIL "KD"

DETAIL "KE"

DETAIL "KF"

DETAIL "KG"

DETAIL "KH"

DETAIL "KI"

DETAIL "KJ"

DETAIL "KK"

DETAIL "KL"

DETAIL "KM"

A&B DIMENSION:		
BAR	A	B
s1(E)	2'-8"	6'-8"
s2(E)	2'-8"	2'-2"
s3(E)	2'-8"	2'-0"
s4(E)	2'-8"	2'-4"
s5(E)	2'-8"	1'-8"
p1(E)	11'-3"	1'-6"
p2(E)	11'-10"	1'-6"
p3(E)	12'-0"	1'-6"

BAR u_1 (E)

Dimensions: 3'-6" (width), 2'-6" (height).

BAR n_{11} (E)

Dimensions: 5'-5" (length), 10" (width), 1" (height), R1'-4" (radius), 4'-2" (radius).

BAR u_2 (E)

Dimensions: 7" (width), 6'-8" (length), 1" (height), 7" (width).

BAR 11 (E)

Dimensions: 1'-6" (width), 1'-6" (width), 2'-5" (height), 1'-6" (width), 3'-10" (length), R1'-2'-2" (radius), 1/8" (thickness).

BAR 2 (E)

REINFORCEMENT BARS DESIGNATED (E)
SHALL BE EPOXY COATED.

S-5

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE	KENNEDY EXPRESSWAY F.A.I. ROUTE 90/94 RECONSTRUCTION PROJECT
KIMBALL AVE. TO EDENS JUNCTION	
ADDISON STREET OVER F.A.I. ROUTE 90/94 PIER 2 WIDENING - WEST BOUND STA. 2+34.94 (ADDISON STREET)	

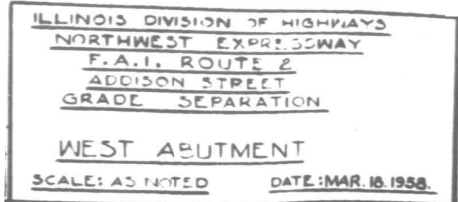
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**LOC.1) SN 016-0669: I-90/94 (KENNEDY EXPWY) AT ADDISON ST.
EAST PIER**

SCALE:	SHEET 5	OF 17 SHEETS	STA.	TO STA.
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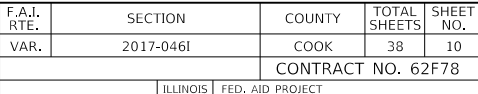
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-0461	COOK	38	8
		CONTRACT NO. 62F78		
ILLINOIS		FED. AID PROJECT		

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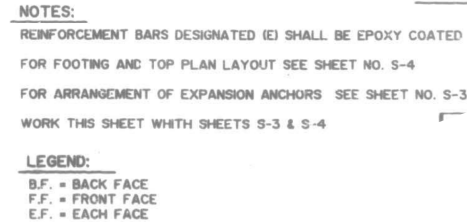


	CONTRACT NO. 62F78
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BAR	A	B
n1 (E)	11"	8'-1"
n2 (E)	10"	5'-2"
n3 (E)	7"	5'-11"
n4 (E)	7"	3'-11"
n5 (E)	8"	4'-4"
v13 (E)	7"	2'-8"
vi4 (E)	10"	8'-2"
vi5 (E)	10"	6'-2"

SEE CUTTING
DIAGRAMS

*0101(244), 0708-437, 0808-438, 0809-435, 0908-413HB,
1008-414HB, 1010, 1910(415HB, 416HB, 434) R-3

$$\frac{\text{BARS } h_4(E), h_7(E), h_{11}(E), v_3(E), v_7(E)}{8 \quad v_9(E)}$$

BAR h8 (E)

BAR h5(E)

BAR v 5 (E)

BAR v8(E)

BAR n6 (E)

CUTTING DIAGRAM
t1 (E), t2 (E) & t3 (E)

$$\frac{\text{BARS } n1(E), n2(E), n3(E)}{n4(E), n5(E), v13(E),}$$

$$v14(E) \& v15(E)$$

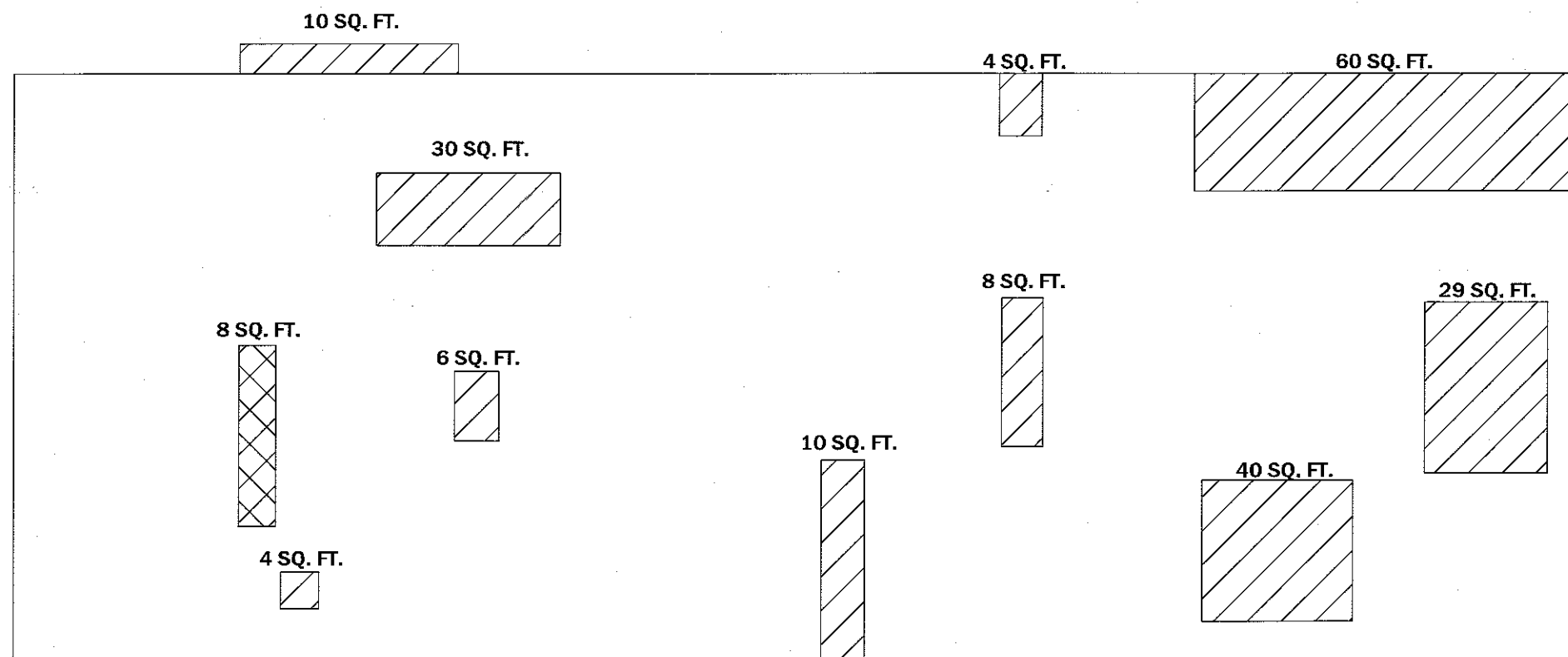
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE	KENNEDY EXPRESSWAY F.A.I. ROUTE 90/94 RECONSTRUCTION PROJECT
KIMBALL AVE. TO EDENS JUNCTION	
EAST ABUTMENT WIDENING ADDISON STREET OVER F.A.I. ROUTE 90/94 STA. 2+34.94 (ADDISON STREET)	

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	DRAWN -	REVISED -
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PLOT DATE = 10/27/2017	DATE -	REVISED -

**LOC.1) SN 016-0669: I-90/94 (KENNEDY EXPWY) AT ADDISON ST.
EAST ABUTMENT**

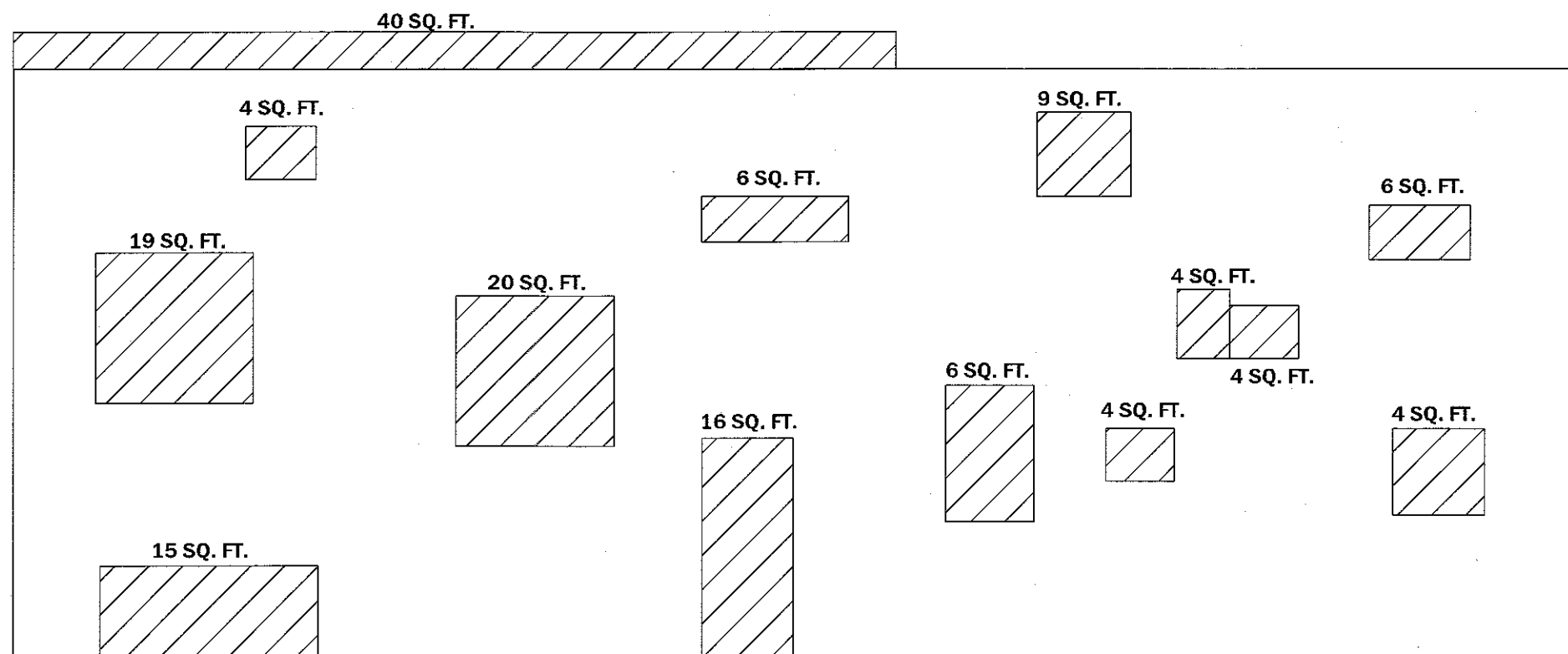
SCALE:	SHEET 8	OF 17 SHEETS	STA.	TO STA.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	11
		CONTRACT NO. 62F78		
ILLINOIS		FED. AID PROJECT		



EAST ABUTMENT (LOOKING EAST)

— **GROUND LINE**



WEST ABUTMENT (LOOKING WEST)

— **GROUND LINE**



Dr. Carl P. Ruppert 11/22/17
Expires 11/30/18

LEGEND



ABUTMENT REPAIRS BILL OF MATERIL(SN 016-0669)

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE ≤ 5 INCHES	SQ FT	358
STRUCTURAL REPAIR OF CONCRETE > 5 INCHES	SQ FT	8

USER NAME = diazia	DESIGNED - JLM	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - JSB	REVISED -
PLOT DATE = 10/27/2017	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LOC.1) SN 016-0669: I-90/94 (KENNEDY EXPWY) AT ADDISON ST.
EAST & WEST ABUTMENT

SCALE:	SHEET 9	OF 17 SHEETS	STA.	TO STA.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-0461	COOK	38	12
		CONTRACT NO. 62F78		
		ILLINOIS	FED. AID PROJECT	



- STRUCTURAL REPAIR OF CONCRETE $\leq 5"$

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE ≤ 5 INCHES	SQ FT	276

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PLOT DATE = 10/27/2017	DATE -	REVISED -

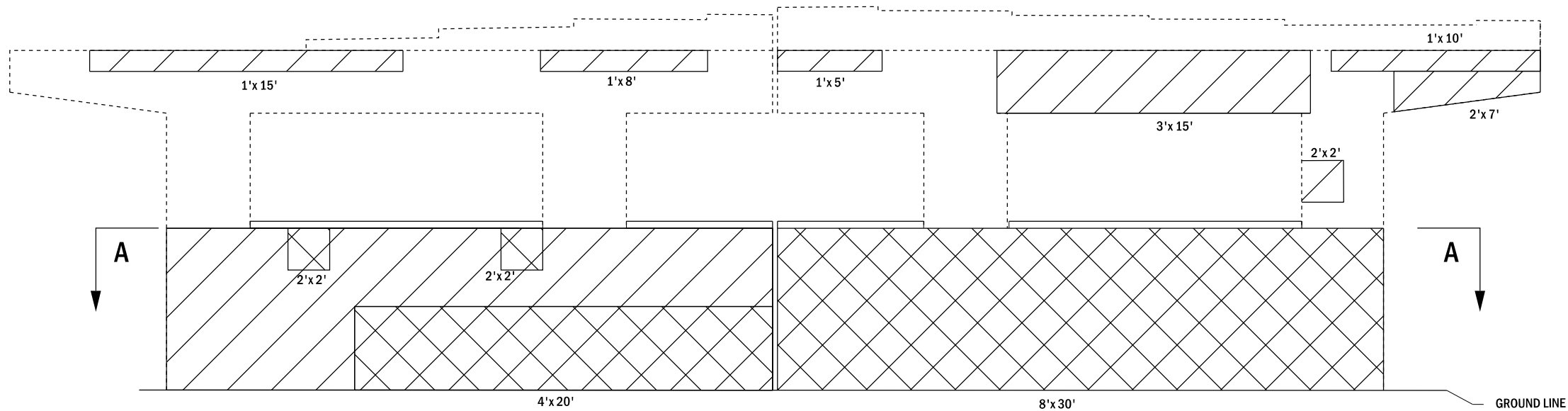
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**LOC.1) SN 016-0669: I-90/94 (KENNEDY EXPWY) AT ADDISON ST.
EAST PIER (PIER 2) STRUCTURAL REPAIR**

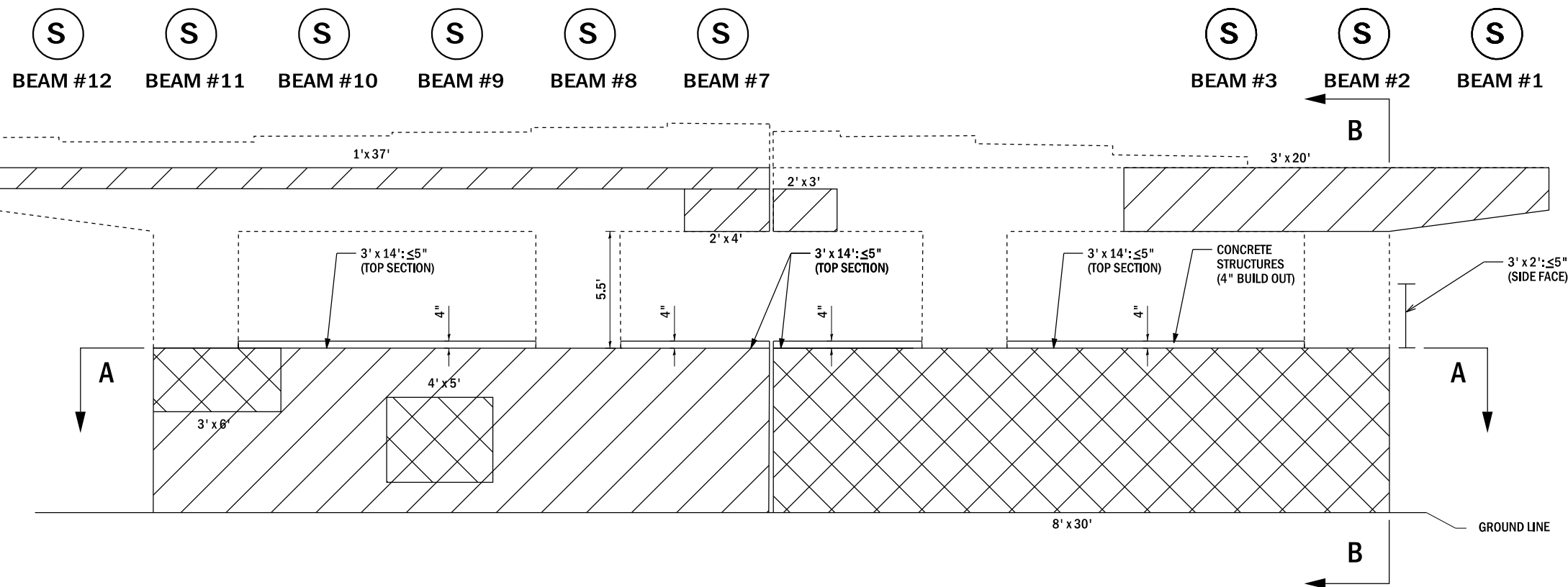
SCALE:	SHEET 10	OF 17	SHEETS	STA.	TO STA.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-0461	COOK	38	13
		CONTRACT NO. 62F78		
ILLINOIS		FED. AID PROJECT		

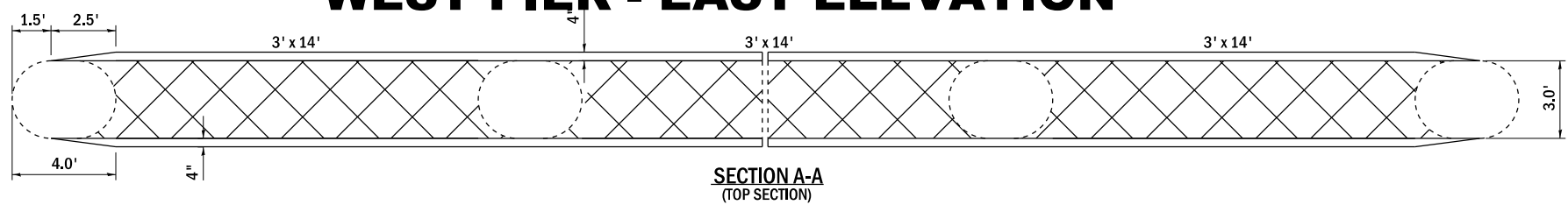
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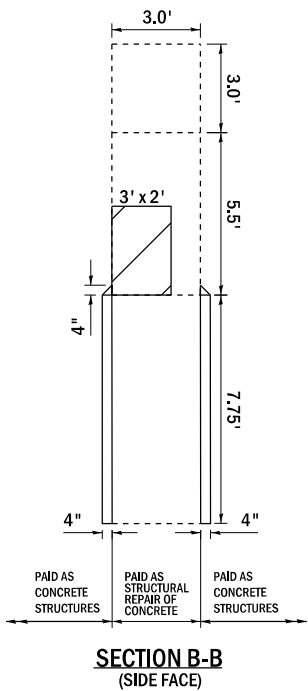
WEST PIER - WEST ELEVATION



WEST PIER - EAST ELEVATION






SECTION A-A
(TOP SECTION)



SECTION B-B
(SIDE FACE)

LEGEND

-  - SHORING
-  - STRUCTURAL REPAIR OF CONCRETE ≤ 5"
-  - STRUCTURAL REPAIR OF CONCRETE > 5"

REACTIONS SN 016-0669

INTERIOR GIRDER REACTION TABLE	
	WEST PIER (KIPS)
R DL (k)	116.3
R LL (k)	50.1
R IMP (k)	12.1
R (total) (k)	178.5

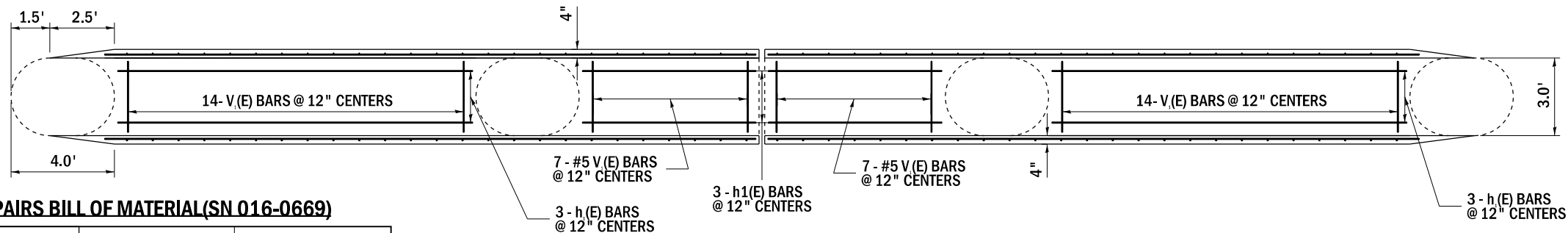
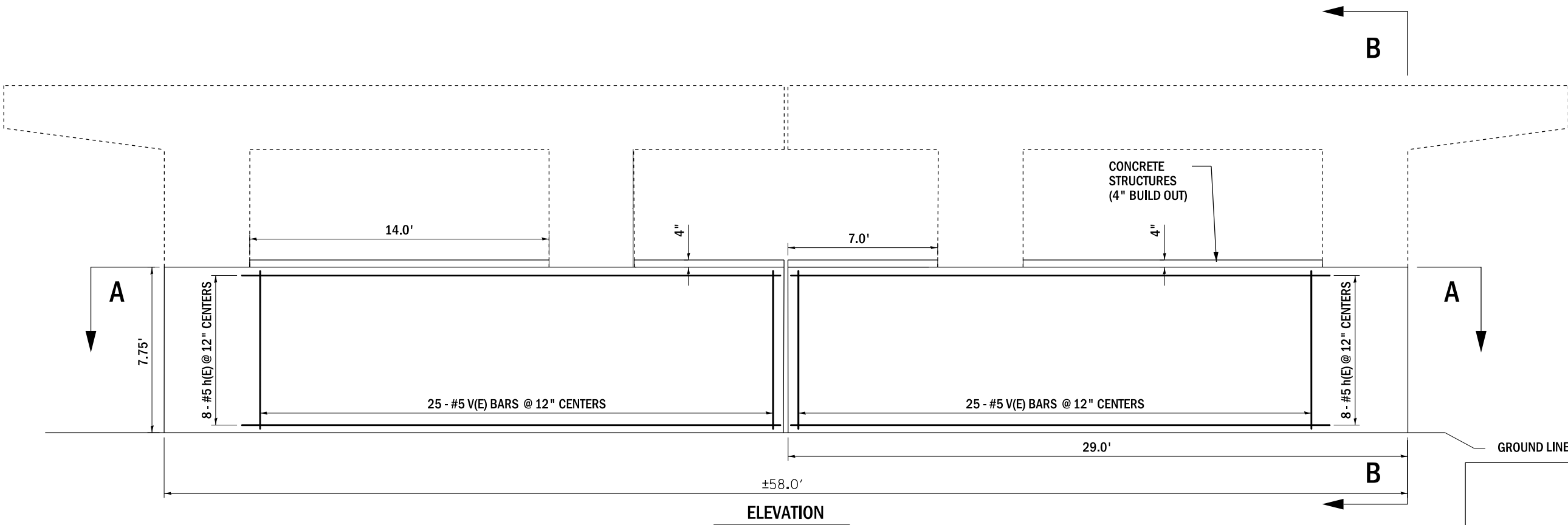
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOC.1) SN 016-0669: I-90/94 (KENNEDY EXPWY) AT ADDISON ST.
WEST PIER (PIER 1) STRUCTURAL REPAIR

SCALE: SHEET 11 OF 17 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	14
CONTRACT NO. 62F78				
ILLINOIS FED. AID PROJECT				

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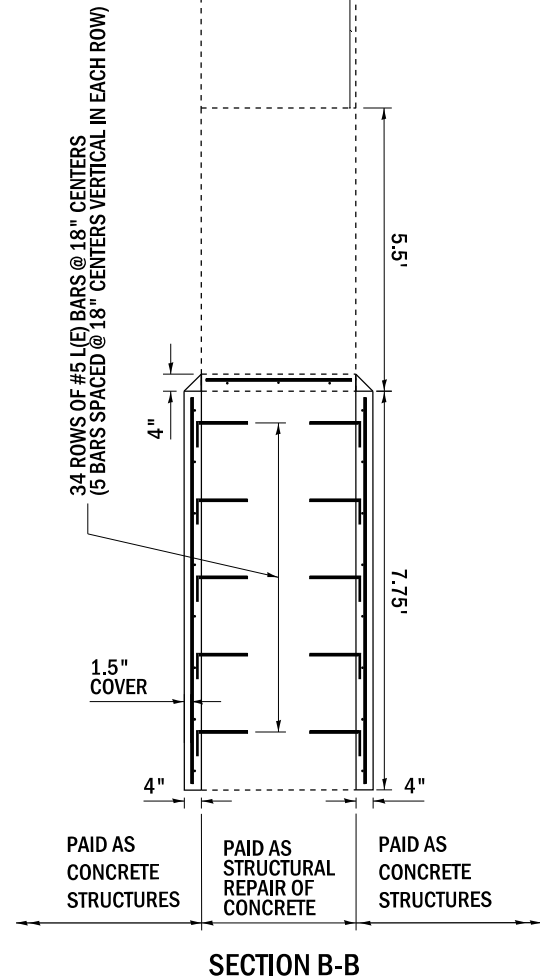
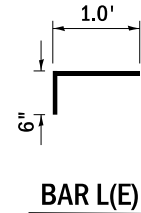


WEST PIER REPAIRS BILL OF MATERIAL(SN 016-0669)

BAR	NO.	SIZE	LENTH	SHAPE
L(E)	340	#5	1'-6"	
V(E)	100	#5	7'-5"	
V ₁ (E)	42	#5	2'-9"	
h(E)	32	#5	25'-2"	
h ₁ (E)	6	#5	13'-9"	
h ₂ (E)	6	#5	6'-8"	
ITEM			UNIT	QTY.
STRUCTURAL REPAIR OF CONCRETE ≤ 5 INCHES			SQ. FT.	572
STRUCTURAL REPAIR OF CONCRETE > 5 INCHES			SQ. FT.	732
TEMPORARY SHORING			EACH	9
CONCRETE STRUCTURES			CU. YD.	14
REINFORCEMENT BARS, (EPOXY COATED)			LBS.	2400

NOTES:

- #5 L(E) BARS SHALL BE EPOXY GROUTED ACCORDING TO ARTICLE 584 OF THE STANDARDS SPECIFICATIONS
- THE CONCRETE FOR THE STRUCTURAL REPAIR OF CONCRETE SHALL USE THE SAME MATERIAL AND BE POURED AT THE SAME TIME AS THE CONCRETE STRUCTURES. COST INCLUDED IN STRUCTURAL REPAIR OF CONCRETE.

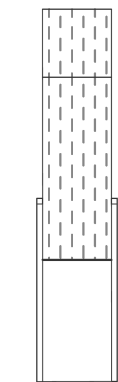
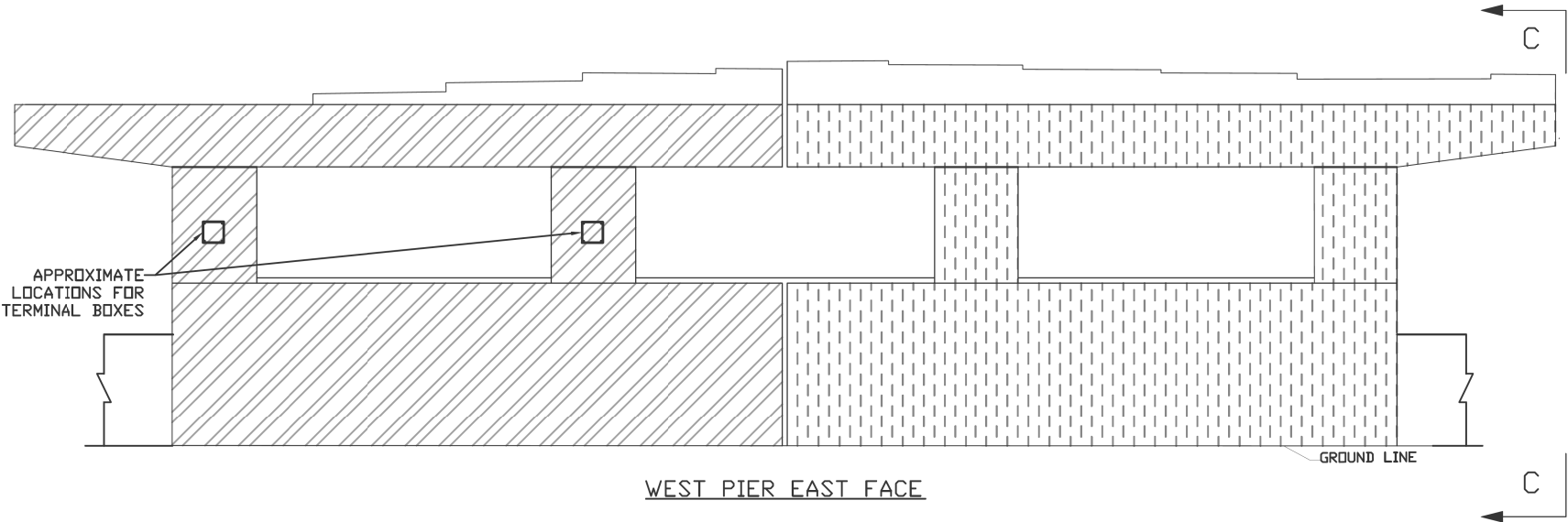


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LOC.1) SN 016-0669: I-90/94 (KENNEDY EXPWY) AT ADDISON ST.
WEST PIER REBAR**

SCALE: SHEET 12 OF 17 SHEETS STA. TO STA.

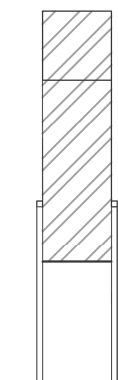
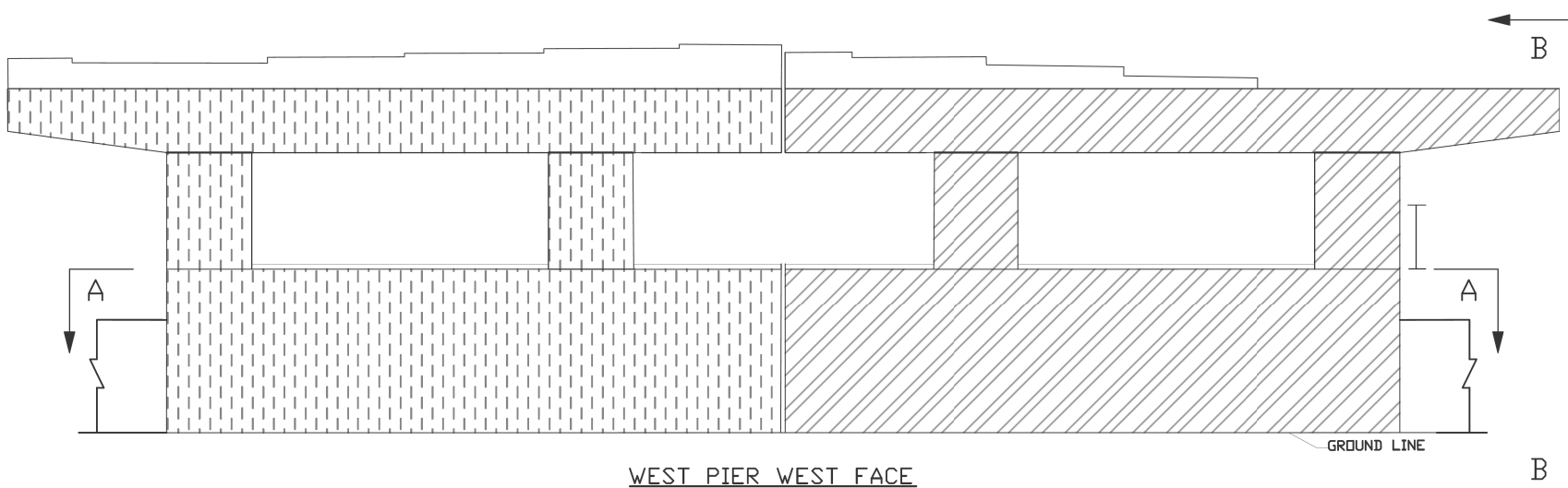
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-0461	COOK	38	15
CONTRACT NO. 62F78				
ILLINOIS FED. AID PROJECT				



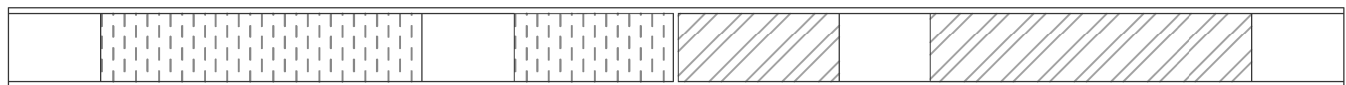
SECTION C-C

LEGEND

- MONITORED ANODES (W/INSULATED WIRES)
- DIRECTLY CONNECTED ANODES (BARE WIRES)



SECTION B-B
(SIDE FACE)



SECTION A-A
(TOP SECTION)

APPROXIMATE PROJECT QUANTITIES		
DESCRIPTION	LENGTH	QTY.
TERMINAL BOXES	N/A	2
REFERENCE CELLS	N/A	4
TEST CONNECTIONS	N/A	4
STRUCTURE CONNECTIONS	N/A	4
DAS ANODES W/INSULATED WIRES	5'-6"	40
DAS ANODES W/INSULATED WIRES	6'-6"	12
DAS ANODES W/BARE WIRES	5'-6"	40
DAS ANODES W/BARE WIRES	6'-6"	12
XP4 ANODES W/INSULATED WIRES	N/A	146
XP4 ANODES W/BARE WIRES	N/A	180

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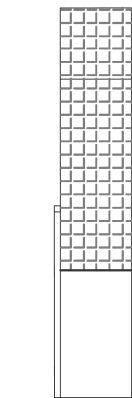
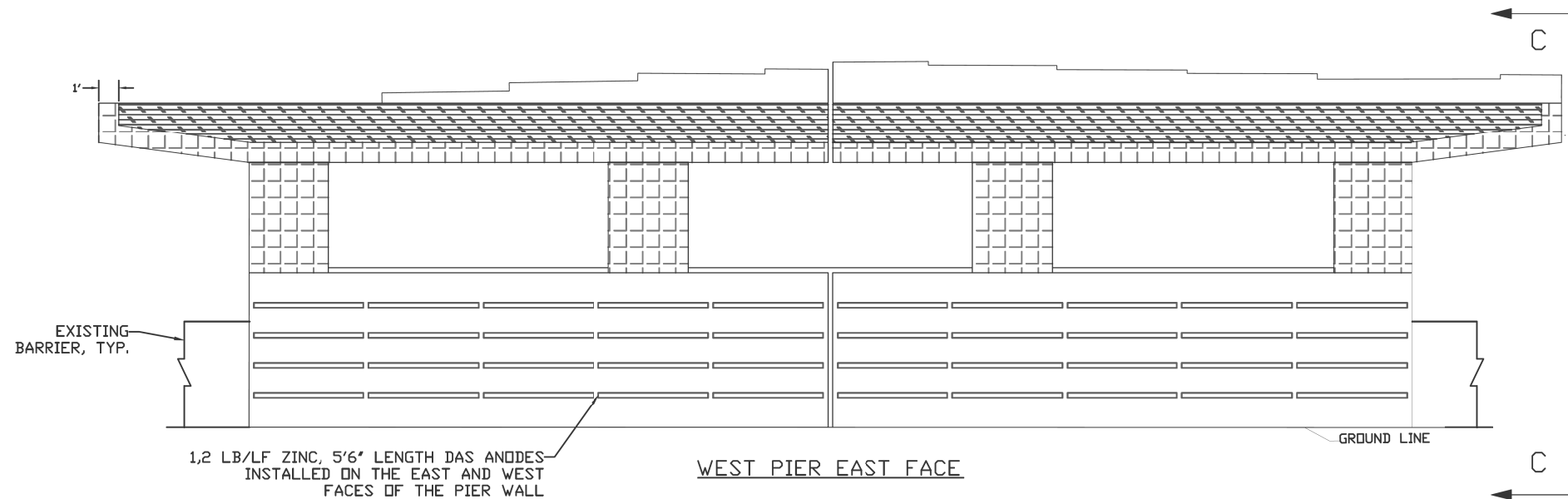
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOC.1) SN 016-0669: I-90/94 (KENNEDY EXPWY) AT ADDISON ST.
WEST PIER (PIER 1) ANODES

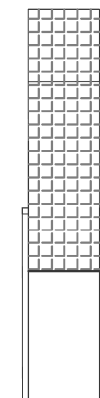
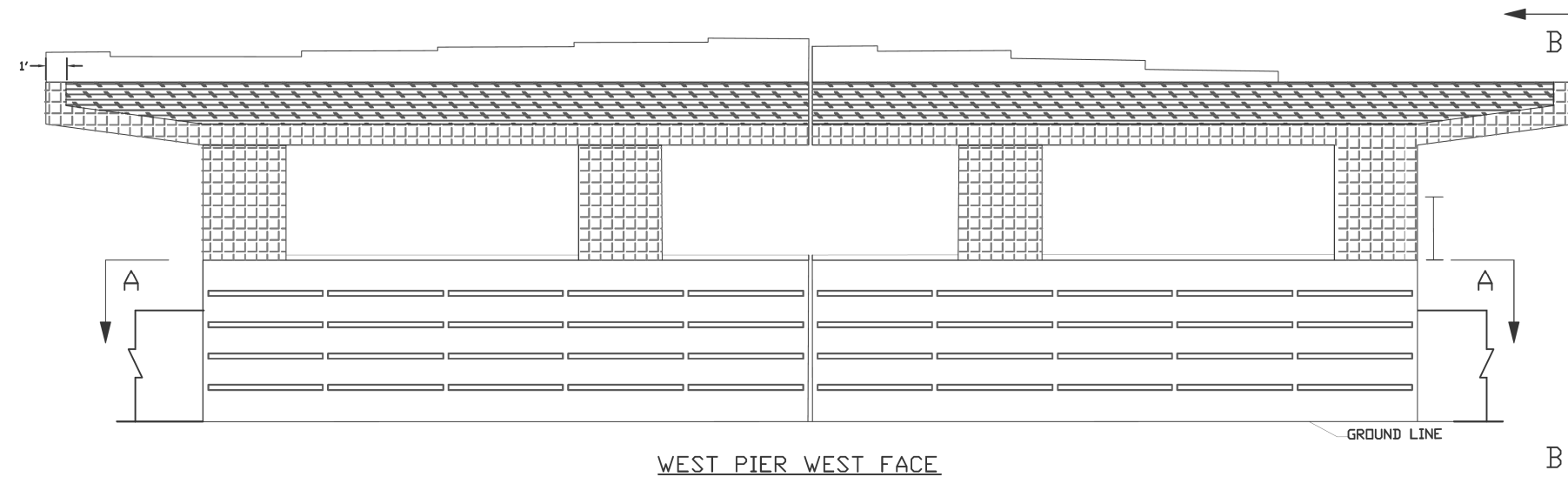
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	16
CONTRACT NO. 62F78				
ILLINOIS FED. AID PROJECT				

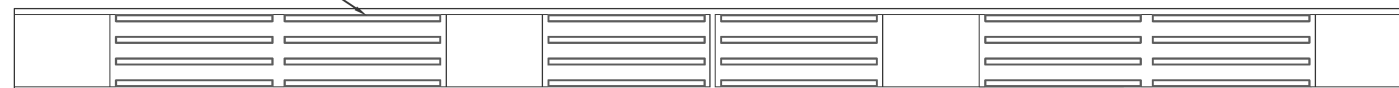


LEGEND

- XP4 ANODES INSTALLED AT 8" O.C. IN PATCH AREAS
- XP4 ANODES INSTALLED AT 16" O.C. IN PATCH AREAS



1.2 LB/LF ZINC, 6'6" LENGTH DAS ANODES INSTALLED ON THE TOP FACE OF THE PIER WALL

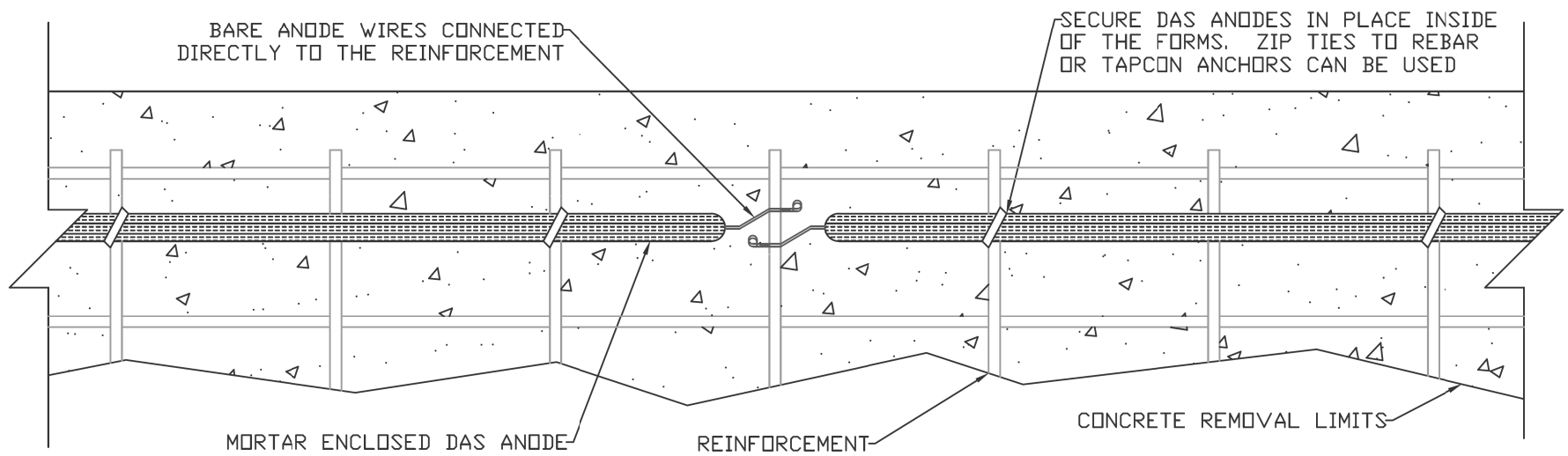


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

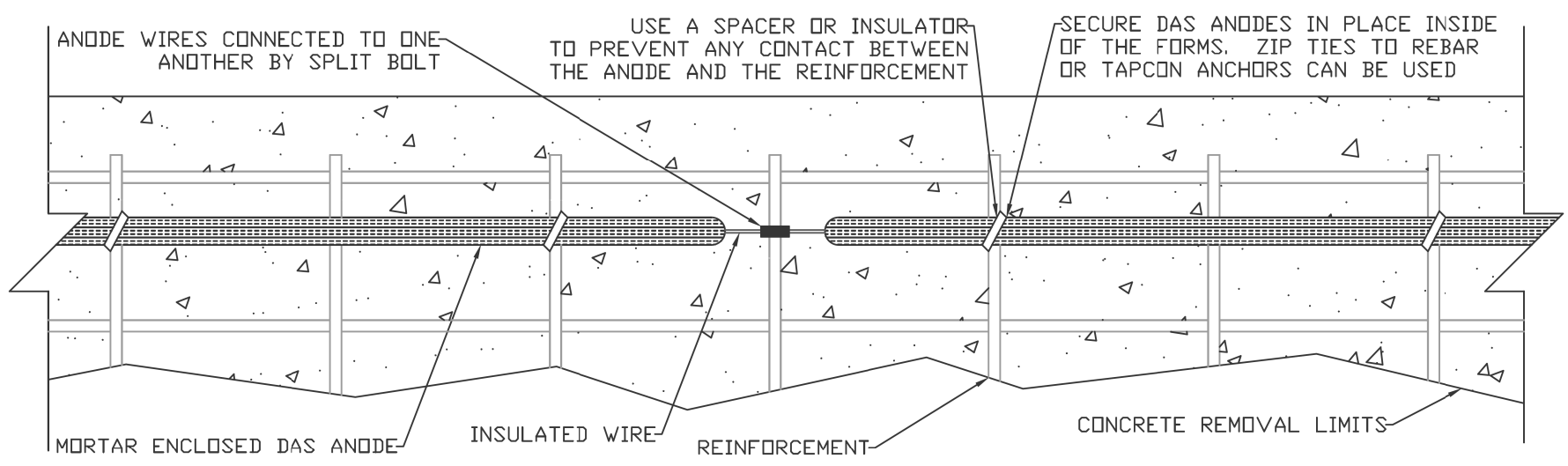
LOC.1) SN 016-0669: I-90/94 (KENNEDY EXPWY) AT ADDISON ST.
WEST PIER (PIER 1) ANODES

SCALE: SHEET 14 OF 17 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	17
CONTRACT NO. 62F78				
ILLINOIS FED. AID PROJECT				



DIRECT WIRED ANODE INSTALLATION DETAIL, TYP.



PRE-WIRED ANODE INSTALLATION DETAIL, TYP.

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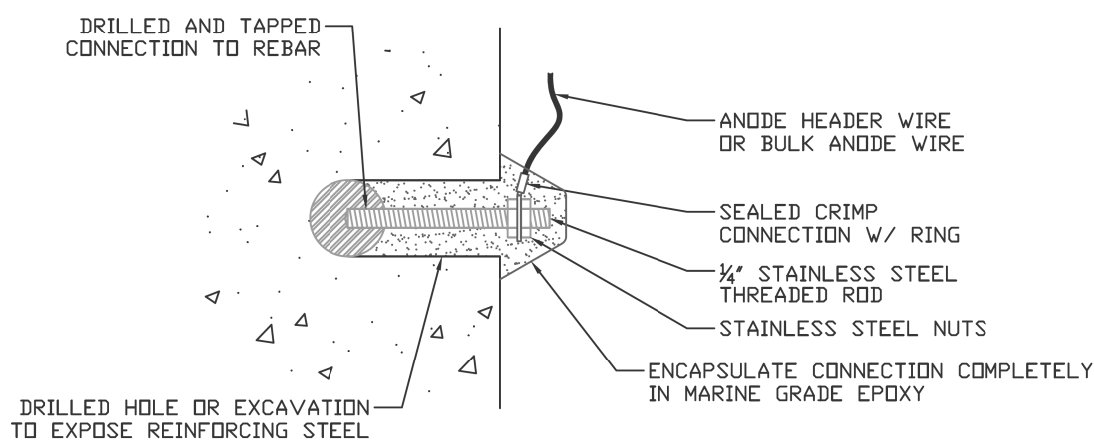
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

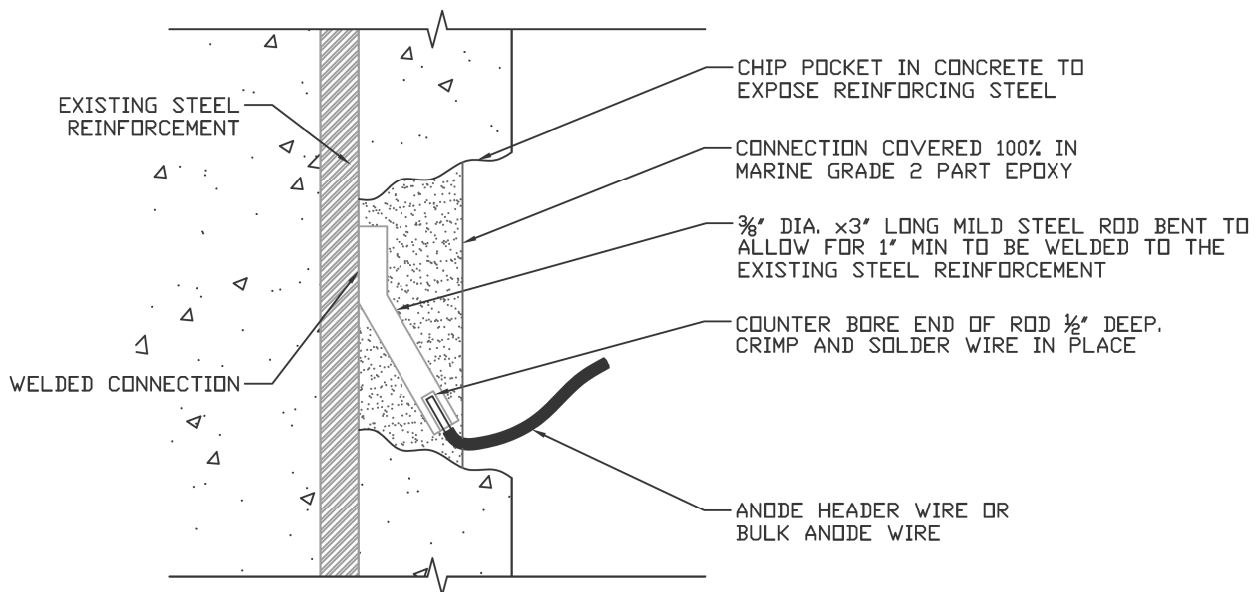
LOC.1) SN 016-0669: I-90/94 (KENNEDY EXPWY) AT ADDISON ST.
WEST PIER (PIER 1) ANODES

SCALE: SHEET 15 OF 17 SHEETS STA. TO STA.

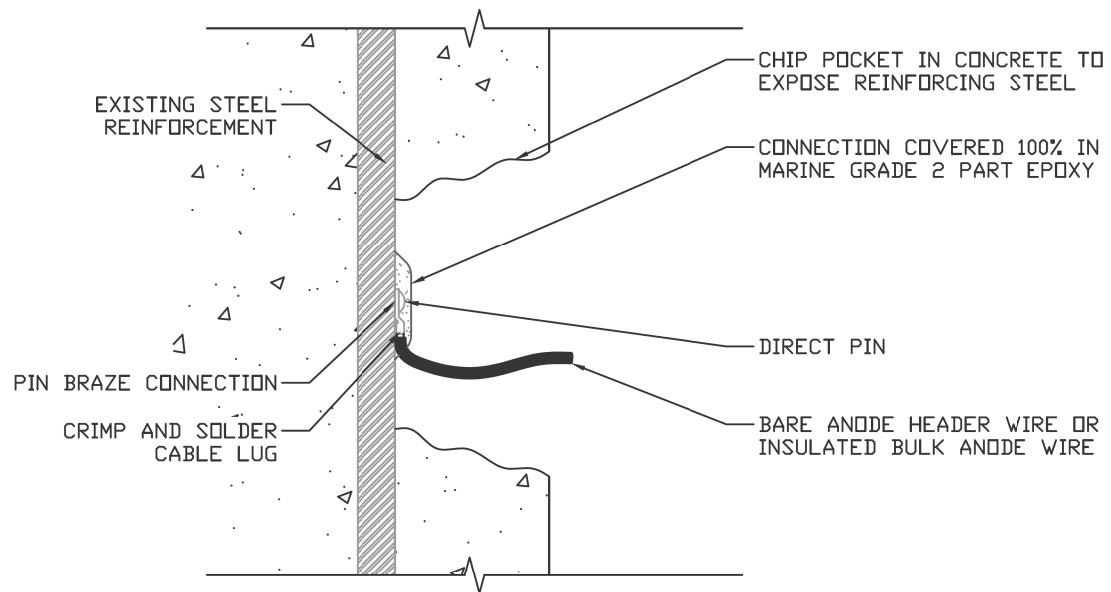
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	18
CONTRACT NO. 62F78				
ILLINOIS FED. AID PROJECT				



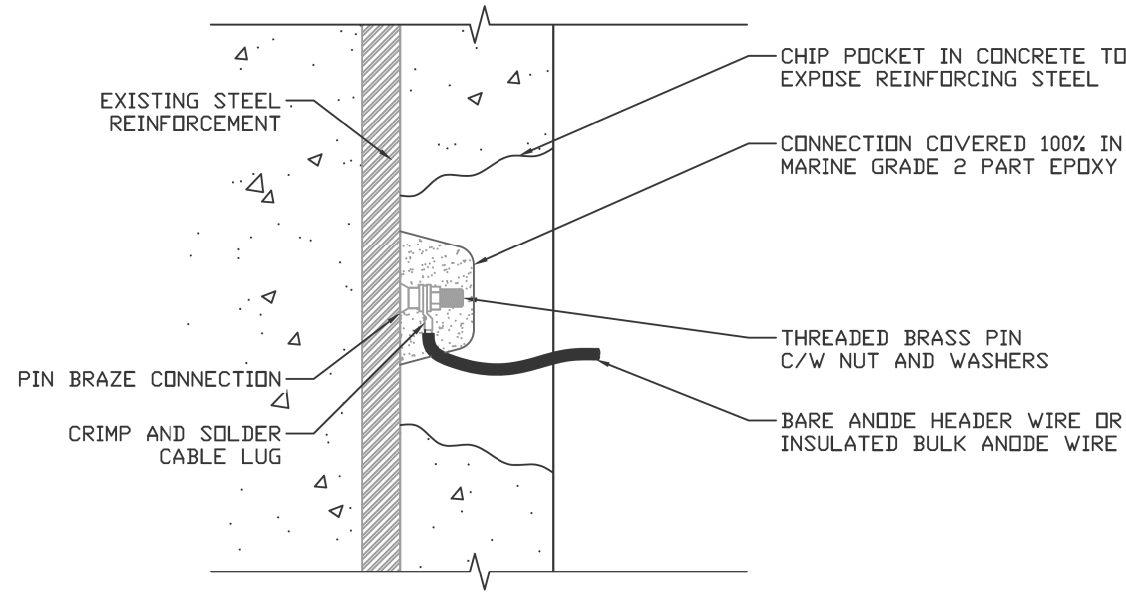
DRILL AND TAP CONNECTION



WELDED STUD CONNECTION



DIRECT PIN BRAZED CONNECTION



THREADED PIN BRAZED CONNECTION

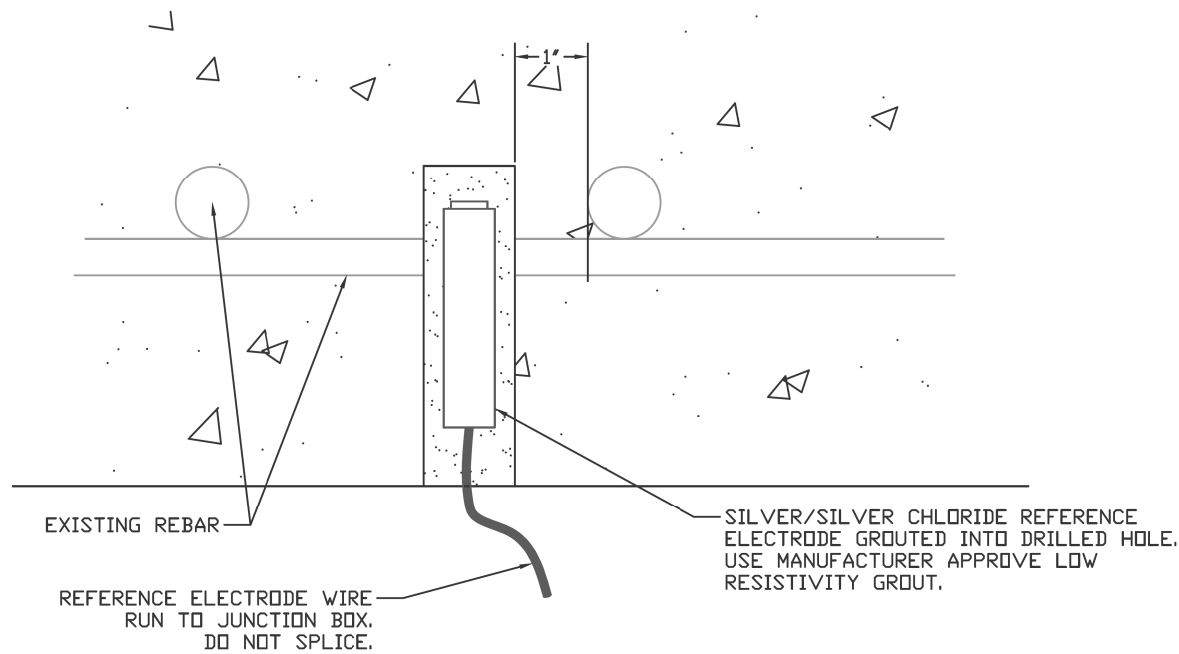
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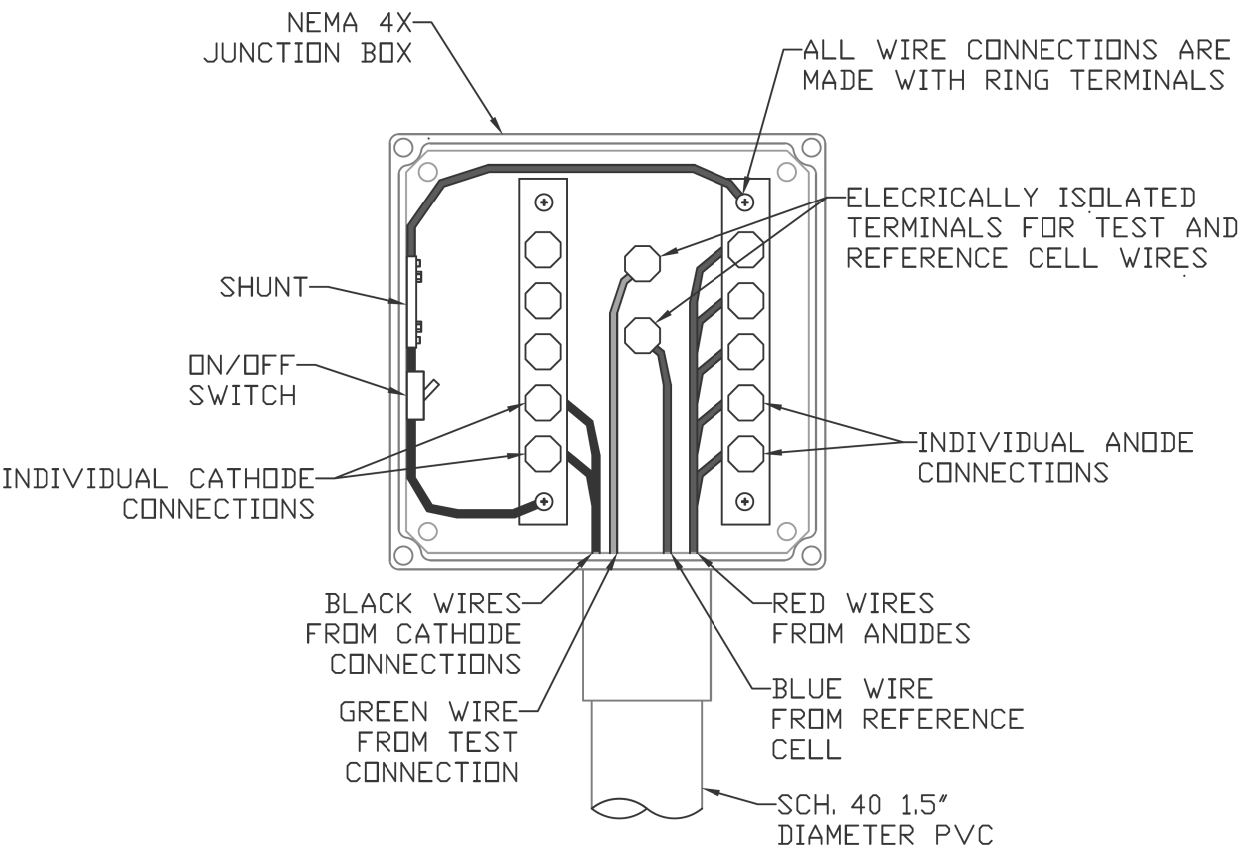
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOC.1) SN 016-0669: I-90/94 (KENNEDY EXPWY) AT ADDISON ST.			
WEST PIER (PIER 1) ANODES			
SCALE:	SHEET 16	OF 17 SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	19
CONTRACT NO. 62F78				
ILLINOIS FED. AID PROJECT				



REFERENCE CELL DETAIL TYP.



JUNCTION BOX DETAIL



PRODUCT SPECIFICATIONS & MEASUREMENTS
Max. Voltage: 50V max.
Connector Size: 1.6" deep x 2.9" wide x 1" tall
Wire Range: #14-10 Solid Copper;
#14-10 Steel Core Tracer Wire
Sealant Temperature Rating: -50°C to 200°C
(-58°F to 392°F)

SPLIT BOLT CONNECTION

MODEL: Default
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	USER NAME = diaza	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOC.1) SN 016-0669: I-90/94 (KENNEDY EXPWY) AT ADDISON ST. WEST PIER (PIER 1) ANODES		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -				VAR.	2017-046I	COOK	38	20
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	PLOT DATE = 10/27/2017	DATE -	REVISED -				ILLINOIS FED. AID PROJECT				
SCALE:		SHEET 17	OF 17	SHEETS	STA.	TO STA.					

NOTES:

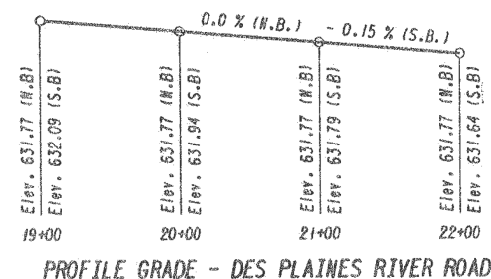
See Sheet 2 for	General Notes &
Total Bill of Material.	

BENCH MARK
Chiseled Square "□" on Northside of C.T.A. Bridge Pier Footing, Sta. 59+90, 71' Left (North) of @. Elevation = 633.98
Plan Datum = Original 1959 Bridge Plan Datum - 0.45 Feet

The improvement includes the repair and widening of the existing superstructure and substructure units. The existing structure, S.W. 016-0511, built in 1959 as FAI Route 173, section 267A-0202,F-15D, consists of four (4) simple-spans on 36" P.P.C. I Beams, 179'-8" back to back of abutments and 48'-0" out to out of deck. The improvement includes the repair and widening of the substructure units, removal of the concrete deck, installation of additional beams and construction of a new concrete deck. The widened structure will provide a 12'-0" shoulder on the South edge and a 6'-0" shoulder on the North edge of structure. Stage construction shall be used to maintain one lane of thru traffic and one (1) lane of merging traffic at all times. This contract includes removal of the concrete deck, erection of beams, and construction of a new concrete deck utilizing stage construction.

No Salvage

* Requires raising existing superstructure 1/2" min.



DESIGN SPECIFICATIONS:

A.A.S.H.T.O. 1983 with 1984 & 1985 Interviews
(New Const. Only)

DESIGN LOAD: HS20 & Alternate Loading

Allow 25 pounds per square foot for future wearing surface.

NEW DESIGN STRESSES:

Field Units

$f'_c = 3500 \text{ p.s.i.}$
 $f_y = 60,000 \text{ p.s.i. (Reinforcement)}$
 $f_y = 36,000 \text{ p.s.i. (Structural)}$

Precast Prestressed Units

$f_c^1 = 5,000 \text{ p.s.i.}$
 $f_c^1 = 4,000 \text{ p.s.i.}$
 $f_s^1 = 270,000 \text{ p.s.i. } (1/2" \text{ Dia. Strands})$
 $f_s^1 = 189,000 \text{ p.s.i. } (1/2" \text{ Dia. Strands})$

EXISTING DESIGN STRESSES:

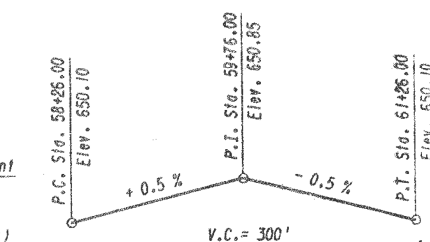
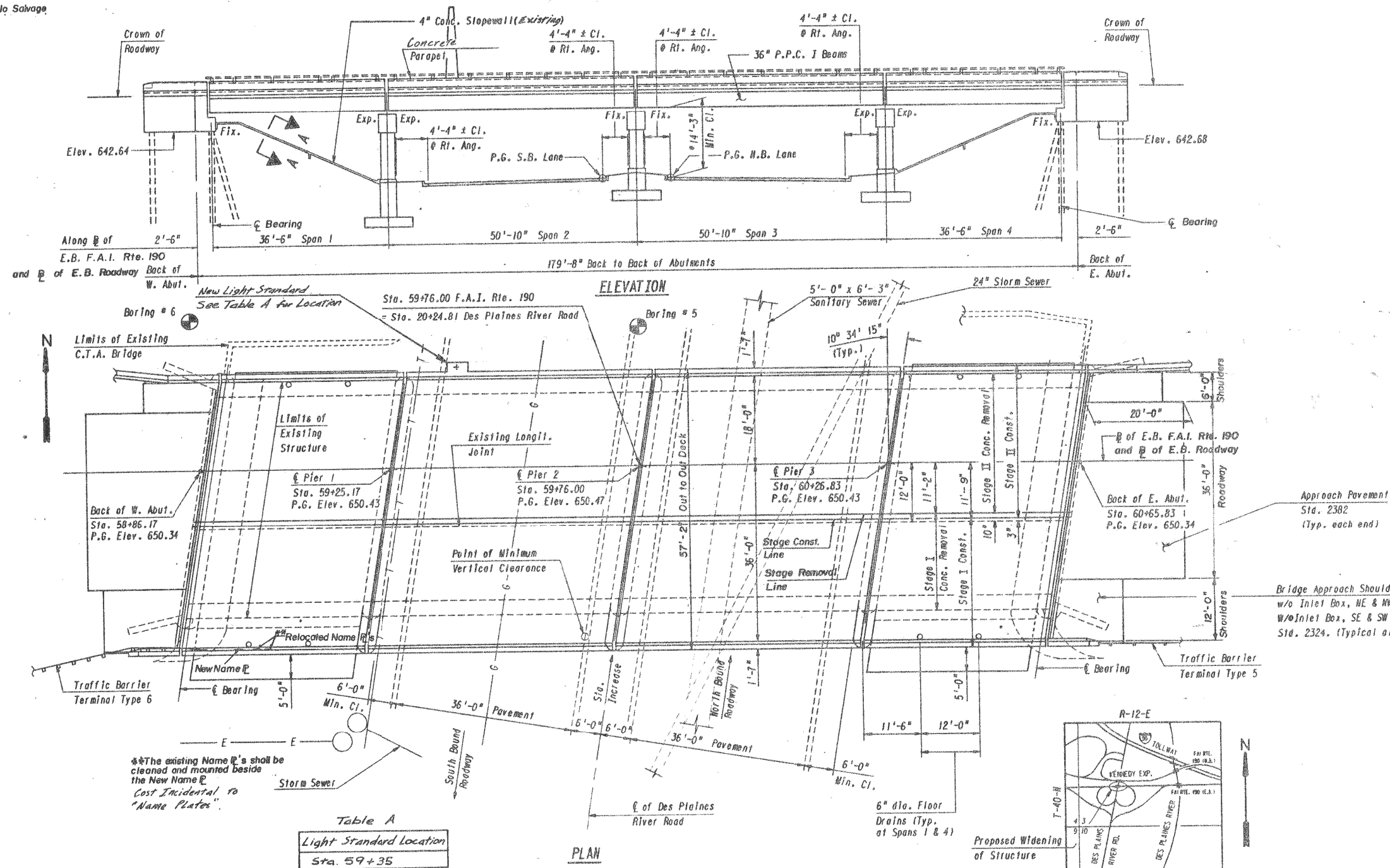
Field Units

$$f_c = 1,400 \text{ p.s.i.}$$

$$f_s = 20,000 \text{ p.s.i. (Reinforcement)}$$

Precast Prestressed Units

$f_c = 5,000 \text{ p.s.i.}$
 $f_{cl} = 4,000 \text{ p.s.i.}$
 $f_s = 248,000 \text{ p.s.i. (} 7/16" \text{ Dia. Strands)}$
 $f_{sl} = 173,600 \text{ p.s.i. (} 7/16" \text{ Dia. Strands)}$



PROFILE GRADE - F.A.I. RTE. 190 (E.B)

GENERAL PLAN & ELEVATION

STRUCTURE NO. 016 - 0511
F.A.I. ROUTE 190 (KENNEDY EXPRESSWAY)
EASTBOUND KENNEDY EXPRESSWAY (I-190) OVER
DES PLAINES RIVER ROAD

COOK COUNTY

USER NAME = dia2da	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/27/2017	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

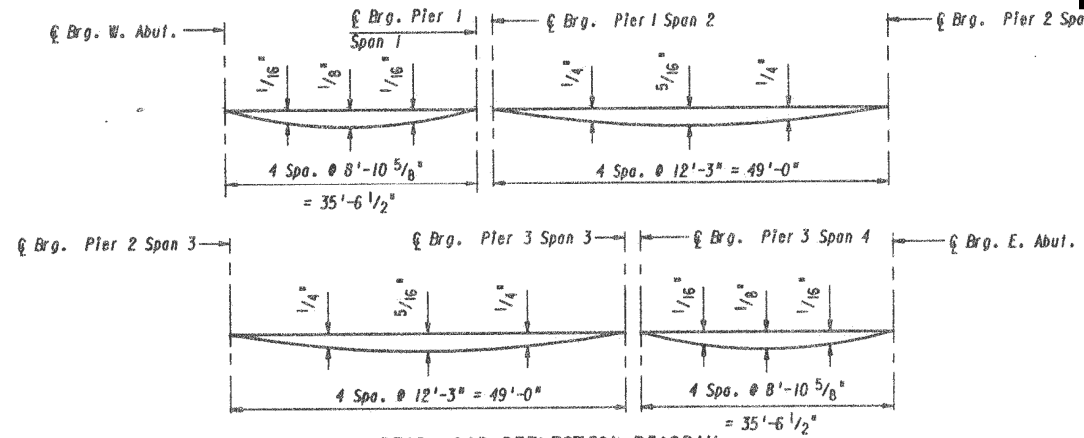
LOC.2) SN 016-0511
I-190 (EB) AT DESPLAINES RIVER RD.

SCALE:	SHEET 1	OF 4	SHEETS	STA.	TO STA.
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F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	21
		CONTRACT NO. 62F78		
ILLINOIS		FED. AID PROJECT		

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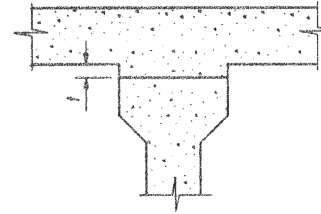
FOR INFORMATION ONLY



DEAD LOAD DEFLECTION DIAGRAM

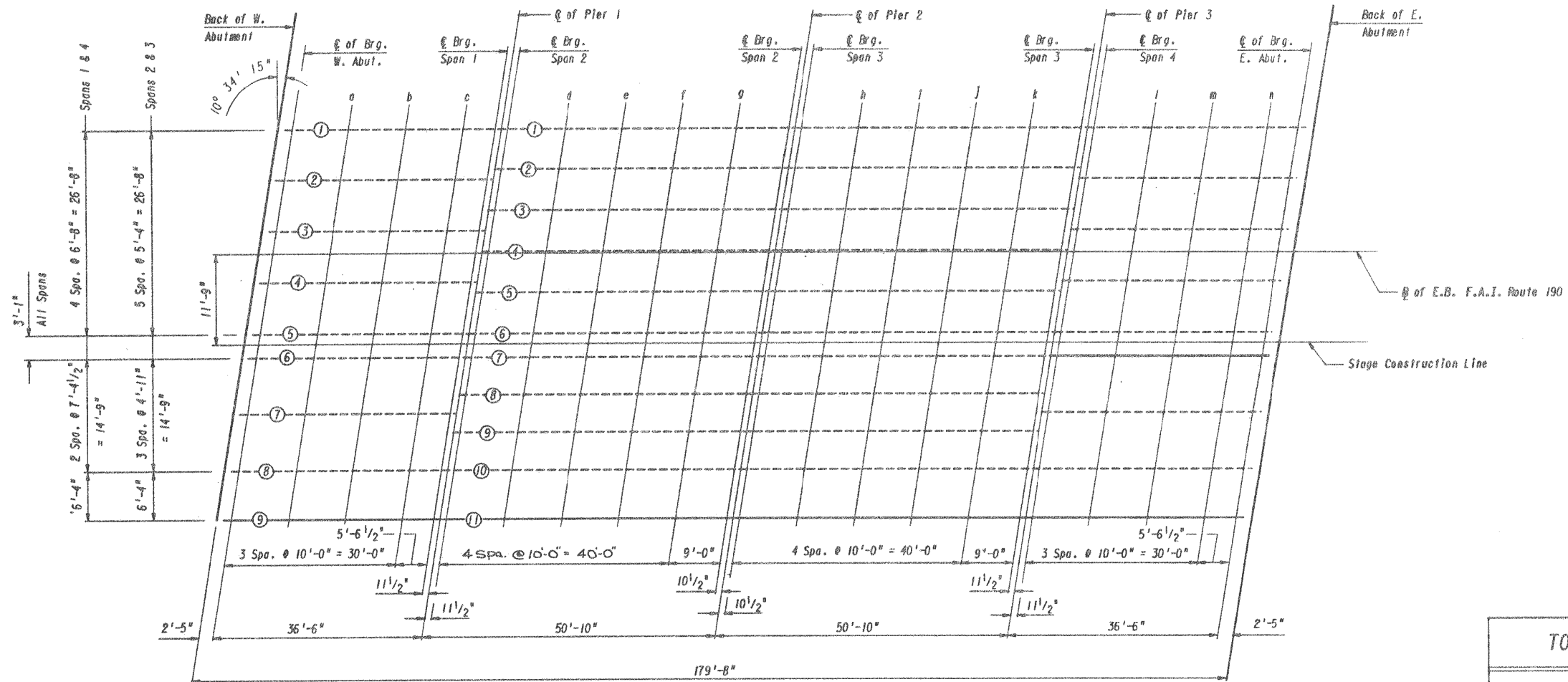
(Includes weight of concrete slab only)

Note: The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets 5, 6 & 7.



FILLET HEIGHTS

To determine "1": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" minus slab thickness, equals the fillet heights "1" above top flanges of beams.



PLAN

Note: Elevations are at top of concrete.

TOP OF SLAB ELEVATIONS

STRUCTURE NO. 016 - 0511
F.A.I. ROUTE 190 (KENNEDY EXPRESSWAY)
EASTBOUND KENNEDY EXPRESSWAY (I-190) OVER
DES PLAINES RIVER ROAD

COOK COUNTY

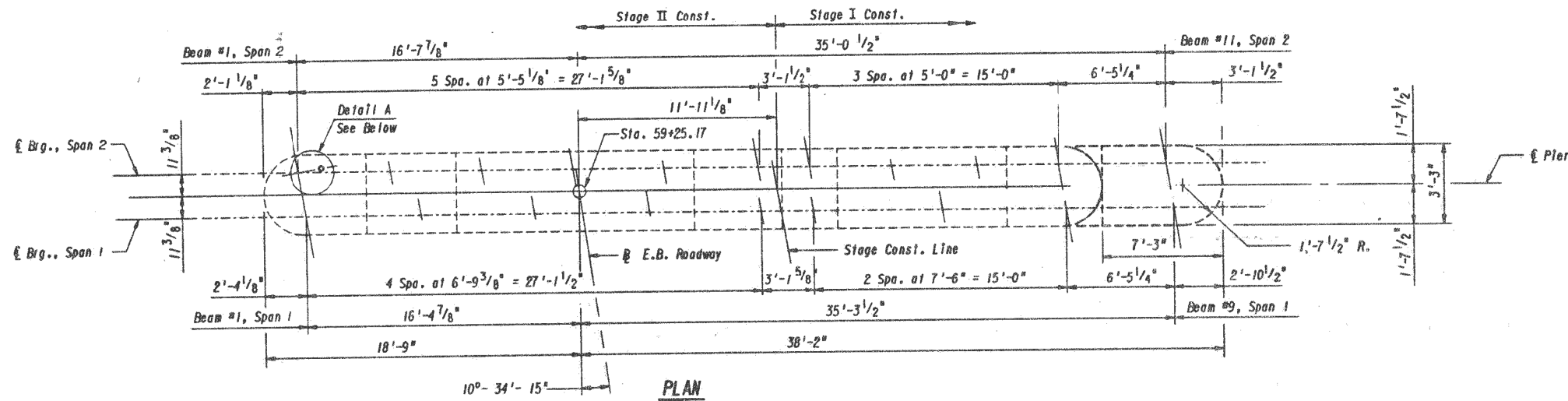
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

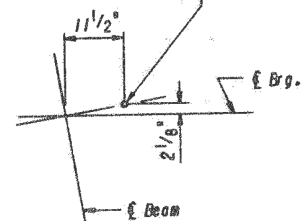
LOC.2) SN 016-0511
I-190 (EB) AT DESPLAINES RIVER RD.

SCALE:	SHEET 2	OF 4	SHEETS	STA.	TO STA.
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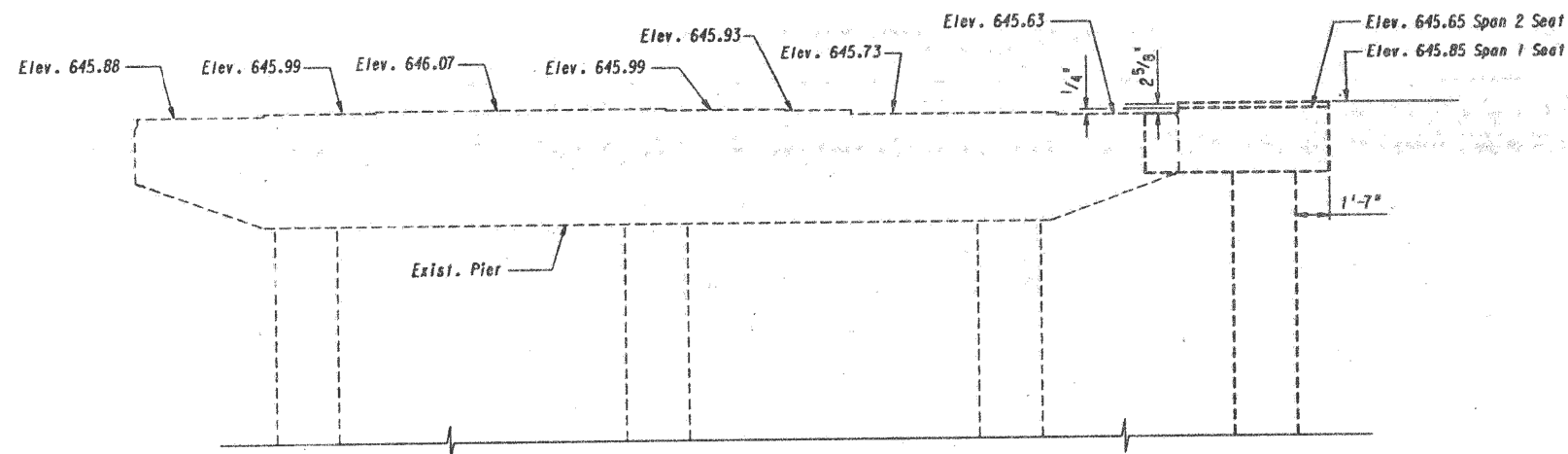
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	22
		CONTRACT NO. 62F78		
ILLINOIS		FED. AID PROJECT		



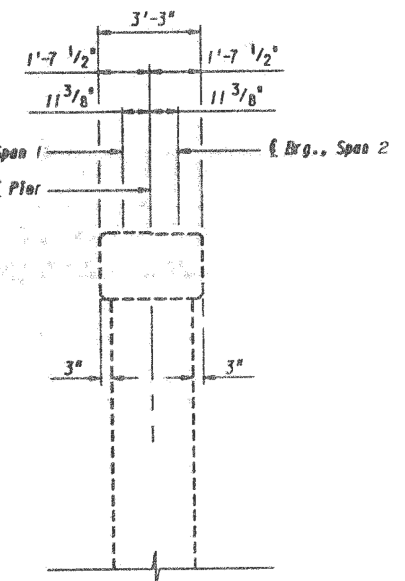
1" dia. Anchor Bolt (Typ.)
See Sheet 20 for Details.
Bolts are placed inside the
exterior beams only (4 req'd.)



DETAIL A
(Expansion Bearings)



ELEVATION
(Looking East)



END VIEW
(Looking North)

Note: All Exist. Elevations and Dimensions are Approximate.

PIER 1

STRUCTURE NO. 016 - 0511
F.A.I. ROUTE 190 (KENNEDY EXPRESSWAY)
EASTBOUND KENNEDY EXPRESSWAY (I-190) OVER
DES PLAINES RIVER ROAD

COOK COUNTY

USER NAME = diazia	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 10/27/2017	DATE -	REVISED -

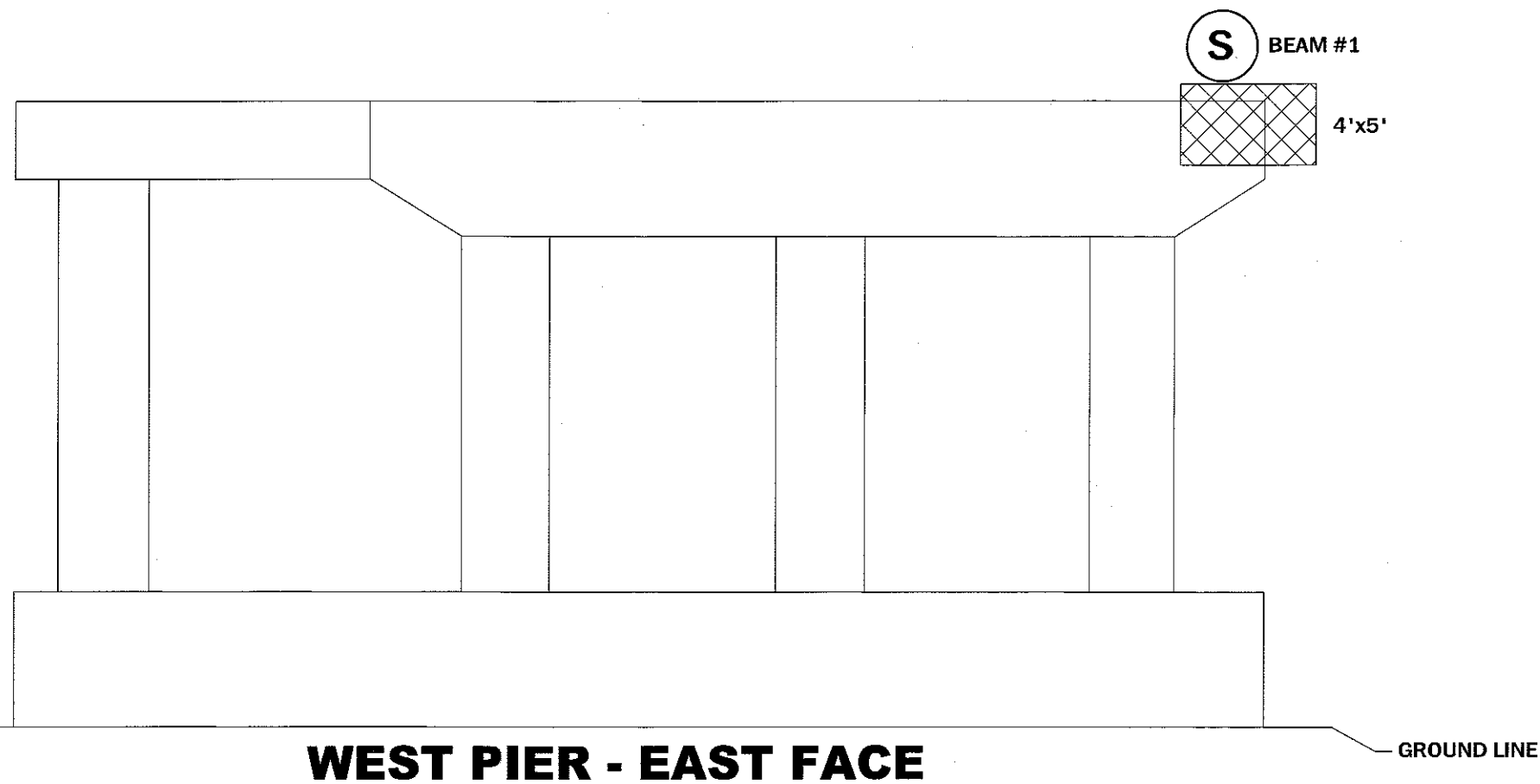
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LOC.2) SN 016-0511: I-190 (EB) AT DESPLAINES RIVER RD.
WEST PIER

SCALE:	SHEET 3	OF 4	SHEETS	STA.	TO STA.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	23
		CONTRACT NO. 62F78		
		ILLINOIS	FED. AID PROJECT	

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LEGEND



- SHORING



- STRUCTURAL REPAIR OF CONCRETE \leq 5"



- STRUCTURAL REPAIR OF CONCRETE $>$ 5"

WEST PIER REPAIRS BILL OF MATERIAL (SN 016-0511)

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE \leq 5 INCHES	SQ FT	0
STRUCTURAL REPAIR OF CONCRETE $>$ 5 INCHES	SQ FT	20
TEMPORARY SHORING	EACH	1

REACTIONS SN 016 - 0511

INTERIOR GIRDER REACTION TABLE	
WEST PIER - EAST FACE BEAM 1 (KIPS)	
R DL (k)	26.1
R LL (k)	28.3
R IMP (k)	8.1
R (total) (k)	62.5



David Carl Puzey 11/22/17
Expires 11/30/18

WEST PIER - EAST FACE

GROUND LINE

USER NAME = diazia	DESIGNED - <i>ILM</i>	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - <i>JSB</i>	REVISED -
PLOT DATE = 10/27/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOC.2) SN 016-0511: I-190 (EB) AT DESPLAINES RIVER RD.
WEST PIER (PIER 1)

SCALE: SHEET 4 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-0461	COOK	38	24
CONTRACT NO. 62F78				
ILLINOIS FED. AID PROJECT				

FOR INFORMATION ONLY

BENCH MARK

Chiseled Square "□" on Southside of C.T.A. Bridge Pier Footing, Sta. 61+48, 100' Right (South) of @ (F.A.I. 190), Elevation = 633.98
Plan Datum = Original 1959 Bridge Plan Datum - 0.45 Feet

DESCRIPTION OF IMPROVEMENT

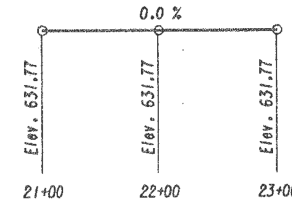
The existing structure, S.W. 016-0512, built in 1959 as FAI Route 173, section 267A-0202, F-15D, consists of four (4) simple-spans on 36" P.P.C. I. Beams, 175'-3" back to back of abutments and 48'-0" out to out of deck. The improvement includes the repair and widening of the substructure units, removal of the concrete deck, installation of additional beams and construction of a new concrete deck. The widened structure will provide a 12'-0" shoulder on the North edge and a 6'-0" shoulder on the South edge of structure. Stage construction shall be used to maintain one lane of thru traffic and one (1) lane of merging traffic at all times. This contract includes removal of the concrete deck, erection of beams, and construction of a new concrete deck utilizing stage construction.

No Salvage.

NOTES:

See Sheet 2 for General Notes &
Total Bill of Material.

* Requires raising existing superstructure $\frac{1}{2}$ min.



PROFILE GRADE - DES PLAINES RIVER ROAD
(North Bound & South Bound)

DESIGN DATA

DESIGN SPECIFICATIONS:

A.A.S.H.T.O. 1983 with 1984 & 1985 Interims
(New Const. Only)

DESIGN LOAD: HS20 & Alternate Loading

Allow 25 pounds per square foot for future wearing surface.

NEW DESIGN STRESSES:

Field Units

$f'_c = 3,500 \text{ p.s.i.}$
 $f_y = 60,000 \text{ p.s.i. (Reinforcement)}$
 $f_y = 36,000 \text{ p.s.i. (Structural)}$

Precast Prestressed Units

$f_c = 5,000 \text{ p.s.i.}$
 $f_{ci} = 4,000 \text{ p.s.i.}$
 $f_s = 270,000 \text{ p.s.i. } (1/2^{\text{nd}} \text{ Dia. Strands})$
 $f_{si} = 189,000 \text{ p.s.i. } (1/2^{\text{nd}} \text{ Dia. Strands})$

EXISTING DESIGN STRESSES:

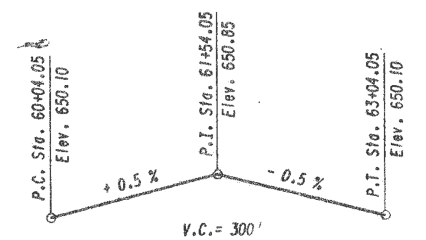
Field Units

$$f_c = 1400 \text{ p.s.i.}$$

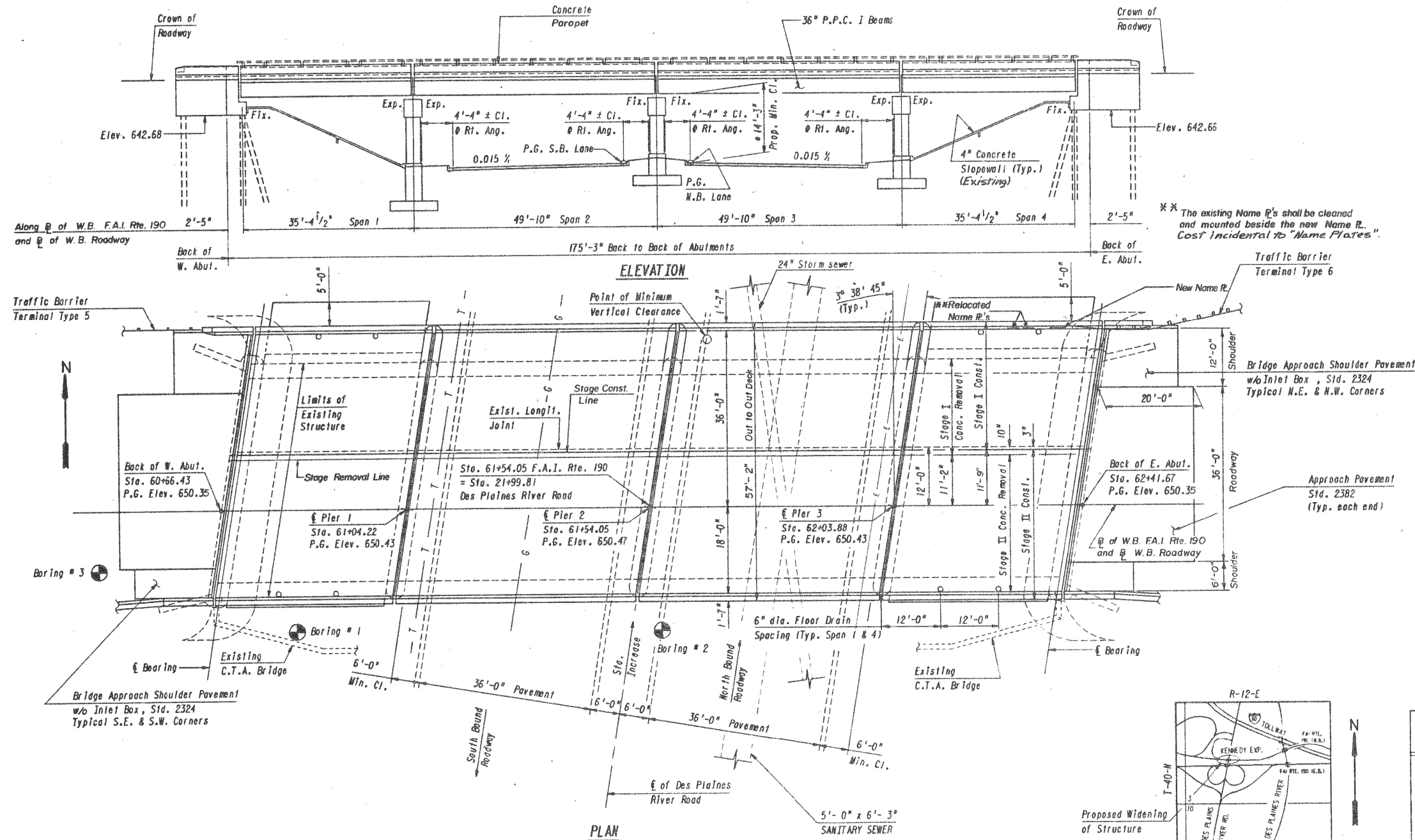
$$f_s = 20,000 \text{ p.s.i. (Reinforcement)}$$

Precast Prestressed Units

$f_c = 5,000 \text{ p.s.i.}$
 $f_{ct} = 4,000 \text{ p.s.i.}$
 $f_s = 248,000 \text{ p.s.i. } (7/16" \text{ Dia. Strands})$
 $f_{si} = 173,600 \text{ p.s.i. } (1/16" \text{ Dia. Strands})$



PROFILE GRADE - F.A.I. RTE. 190 (W.B.)



LAYOUT

GENERAL PLAN & ELEVATION

STRUCTURE NO. 016 - 0512
F.A.I. ROUTE 190 (KENNEDY EXPRESSWAY)
WESTBOUND KENNEDY EXPRESSWAY (I-190) OVER
DES PLAINES RIVER ROAD

COOK COUNTY

USER NAME = dia2da	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 10/27/2017	DATE -	REVISED -

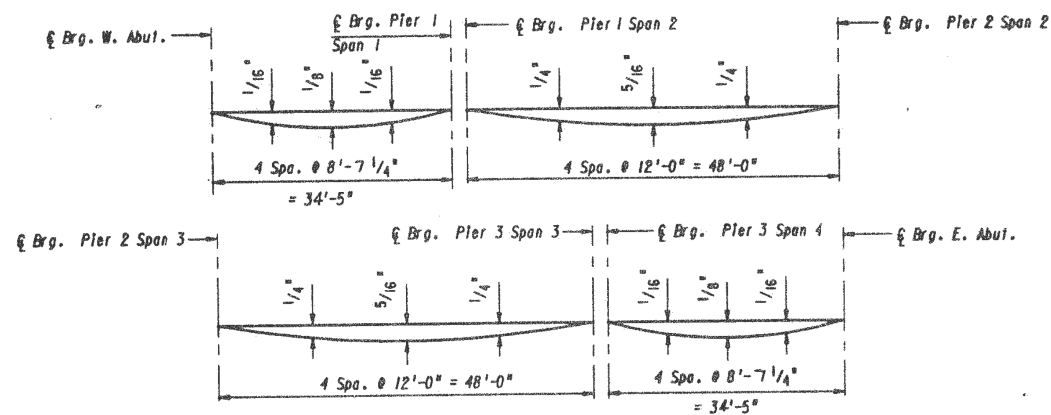
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LOC.3) SN 016-0512
I-190 (WB) AT DESPLAINES RIVER RD.

SCALE:	SHEET 1	OF 6	SHEETS	STA.	TO STA.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-0461	COOK	38	25
		CONTRACT NO. 62F78		
		ILLINOIS	FED. AID PROJECT	

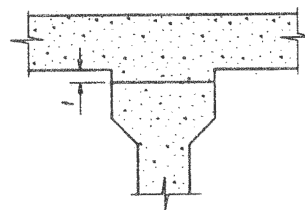
FOR INFORMATION ONLY



DEAD LOAD DEFLECTION DIAGRAM

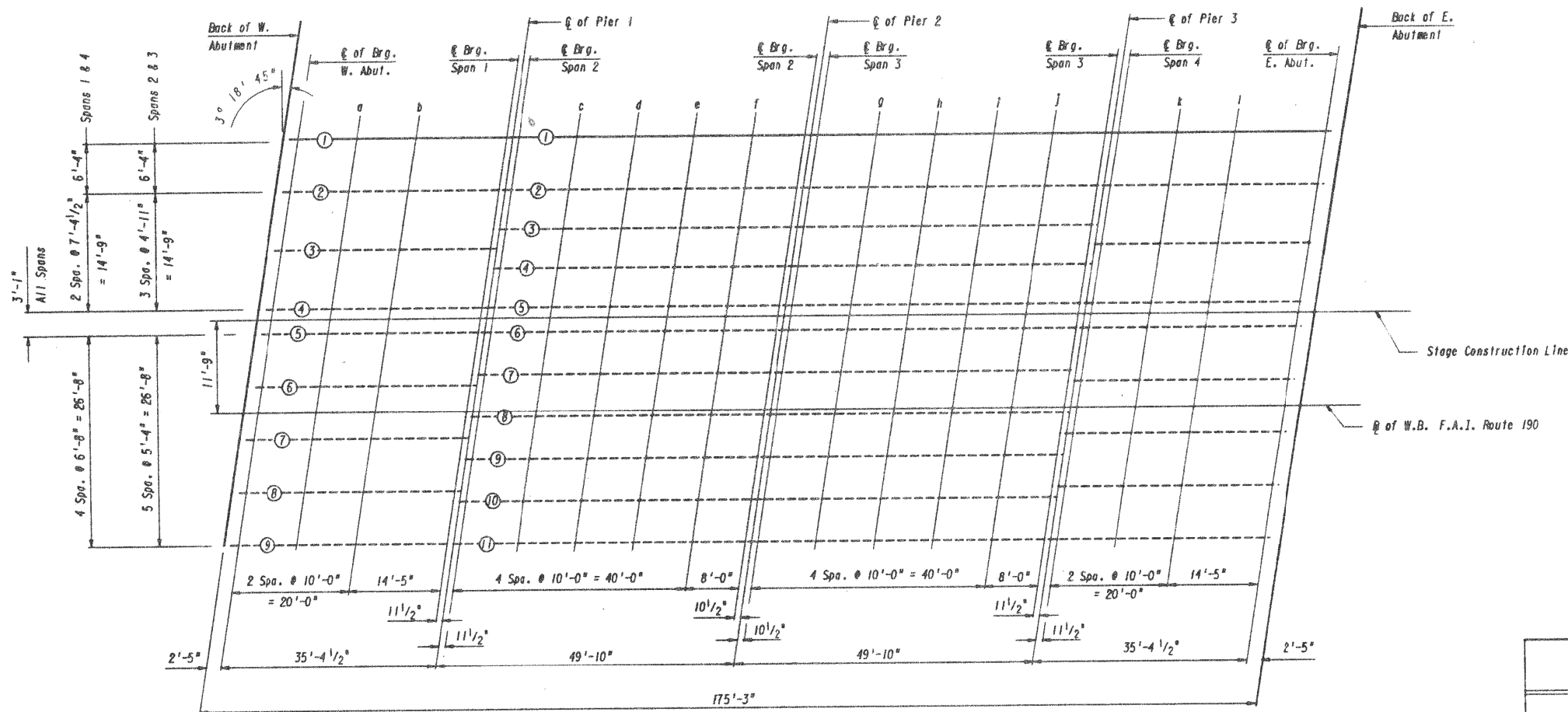
(Includes weight of concrete slab only)

Note: The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets 5, 6, & 7.



FILLET HEIGHTS

To determine "f": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown Below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" minus slab thickness, equals the fillet heights "f" above top flanges of beams.



PLAN

Note: Elevations are at top of concrete.

TOP OF SLAB ELEVATIONS

STRUCTURE NO. 016 - 0512
F.A.I. ROUTE 190 (KENNEDY EXPRESSWAY)
WESTBOUND KENNEDY EXPRESSWAY (I-190) OVER
DES PLAINES RIVER ROAD
SECTION 0101(2-6&9);0102.5;10202.2) & 1517(R-B5)
COOK COUNTY

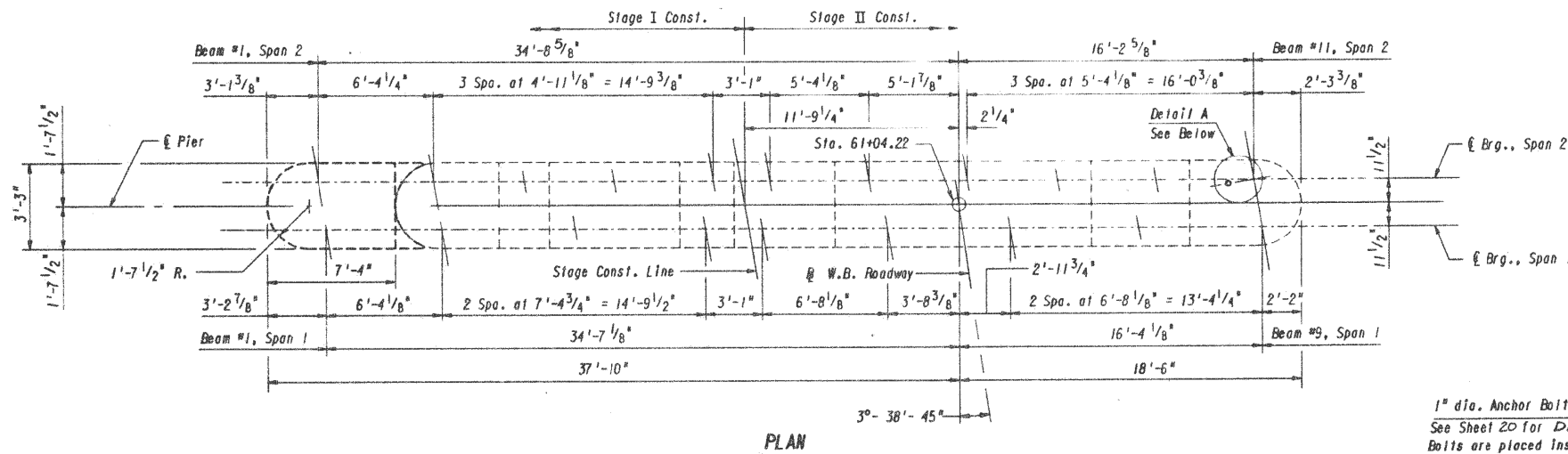
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOC.3) SN 016-0512
I-190 (WB) AT DESPLAINES RIVER RD.

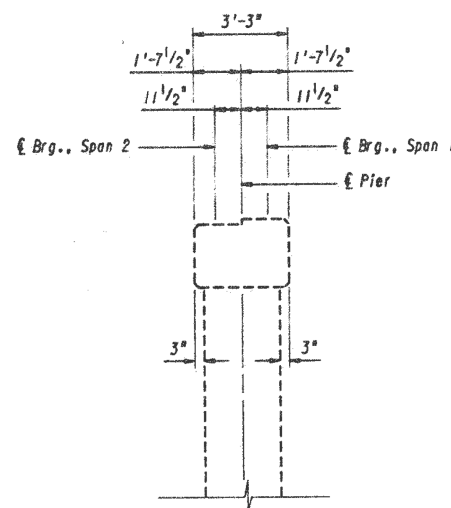
SCALE: SHEET 2 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	26
CONTRACT NO. 62F78				
ILLINOIS FED. AID PROJECT				

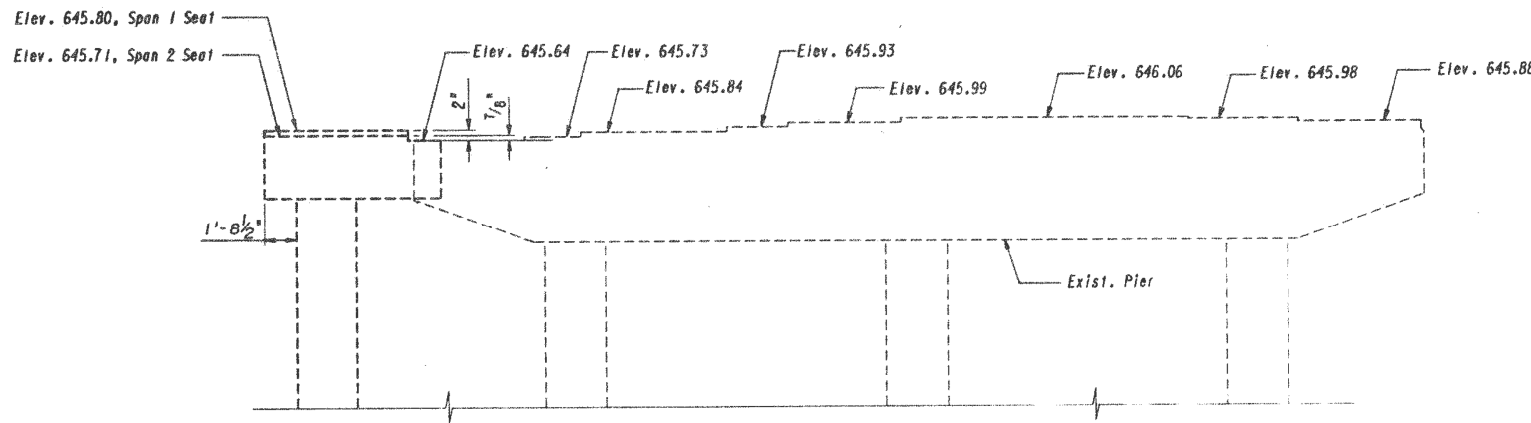
FOR INFORMATION ONLY



PLAN

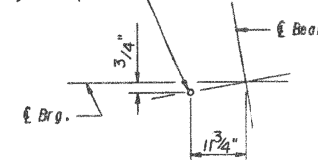


END VIEW
(Looking South)



ELEVATION
(Looking East)

1" dia. Anchor Bolt (Typ.)
See Sheet 20 for Details.
Bolts are placed inside the
exterior beams only (4 req'd.)



DETAIL A
(Expansion Bearing)

Note: All Exist. Elevations and Dimensions are Approximate.

PIER 1

STRUCTURE NO. 016 - 0512
F.A.I. ROUTE 190 (KENNEDY EXPRESSWAY)
WESTBOUND KENNEDY EXPRESSWAY (I-190) OVER
DES PLAINES RIVER ROAD
SECTION 010112-6&9;0102.5;10202.2) &1517(R-85)
COOK COUNTY

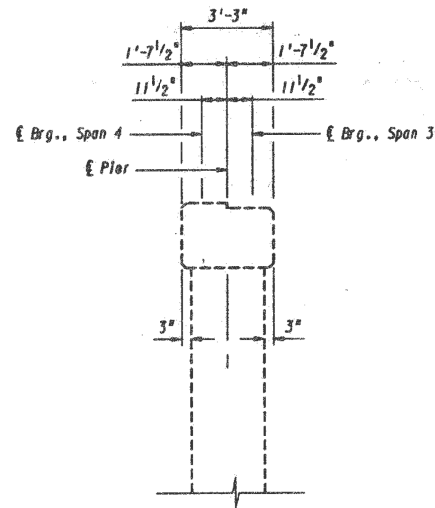
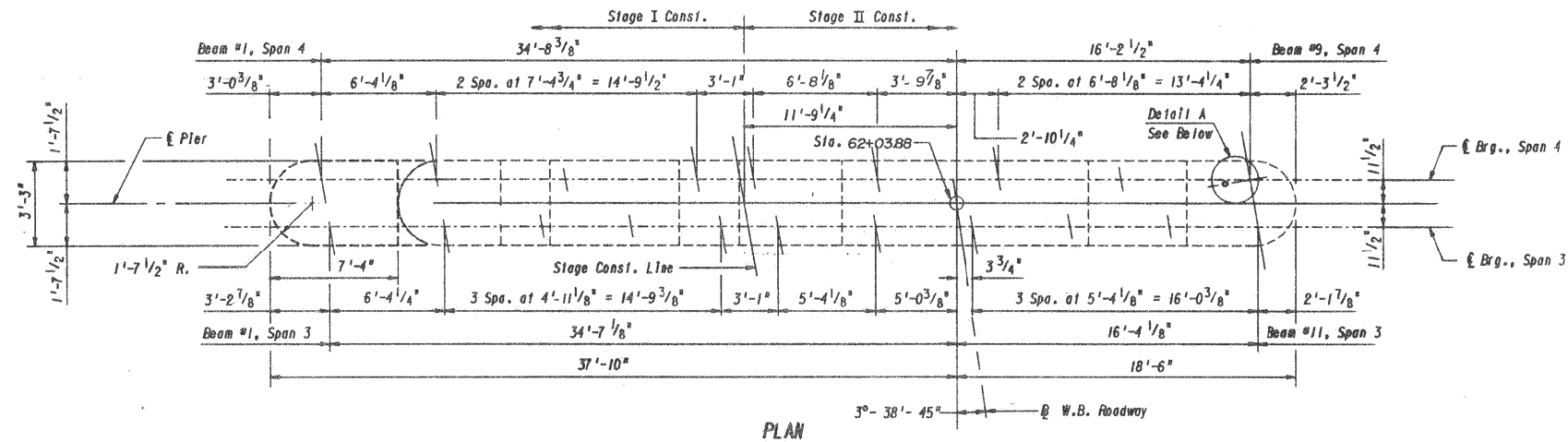
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOC.3) SN 016-0512: I-190 (WB) AT DESPLAINES RIVER RD.
WEST PIER

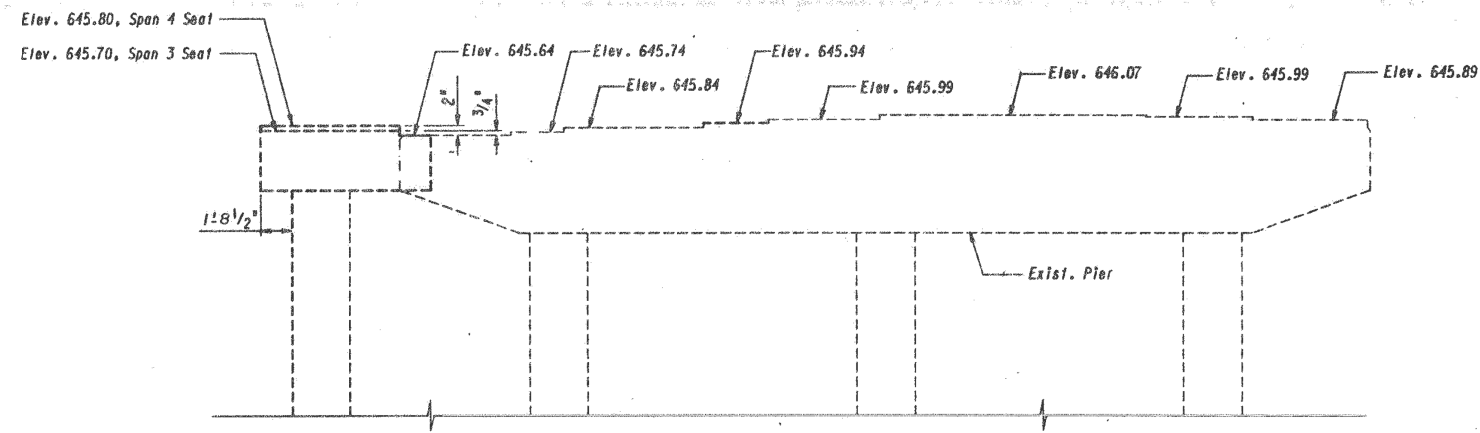
SCALE: SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	27
CONTRACT NO. 62F78				
ILLINOIS FED. AID PROJECT				

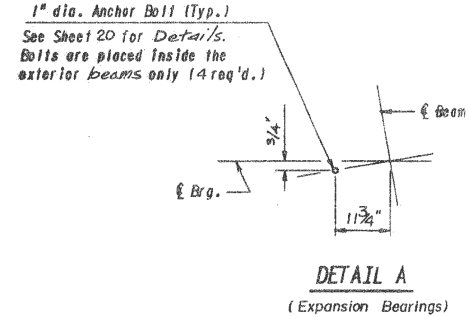
FOR INFORMATION ONLY



END VIEW
(Looking South)



ELEVATION
(Looking East)



Notes: All Exist. Elevations and Dimensions are Approximate.

PIER 3

STRUCTURE NO. 016 - 0512
F.A.I. ROUTE 190 (KENNEDY EXPRESSWAY)
WESTBOUND KENNEDY EXPRESSWAY (I-190) OVER
DES PLAINES RIVER ROAD
SECTION 010112-6&9;0102.5;1020212' & 15171R-85'
COOK COUNTY

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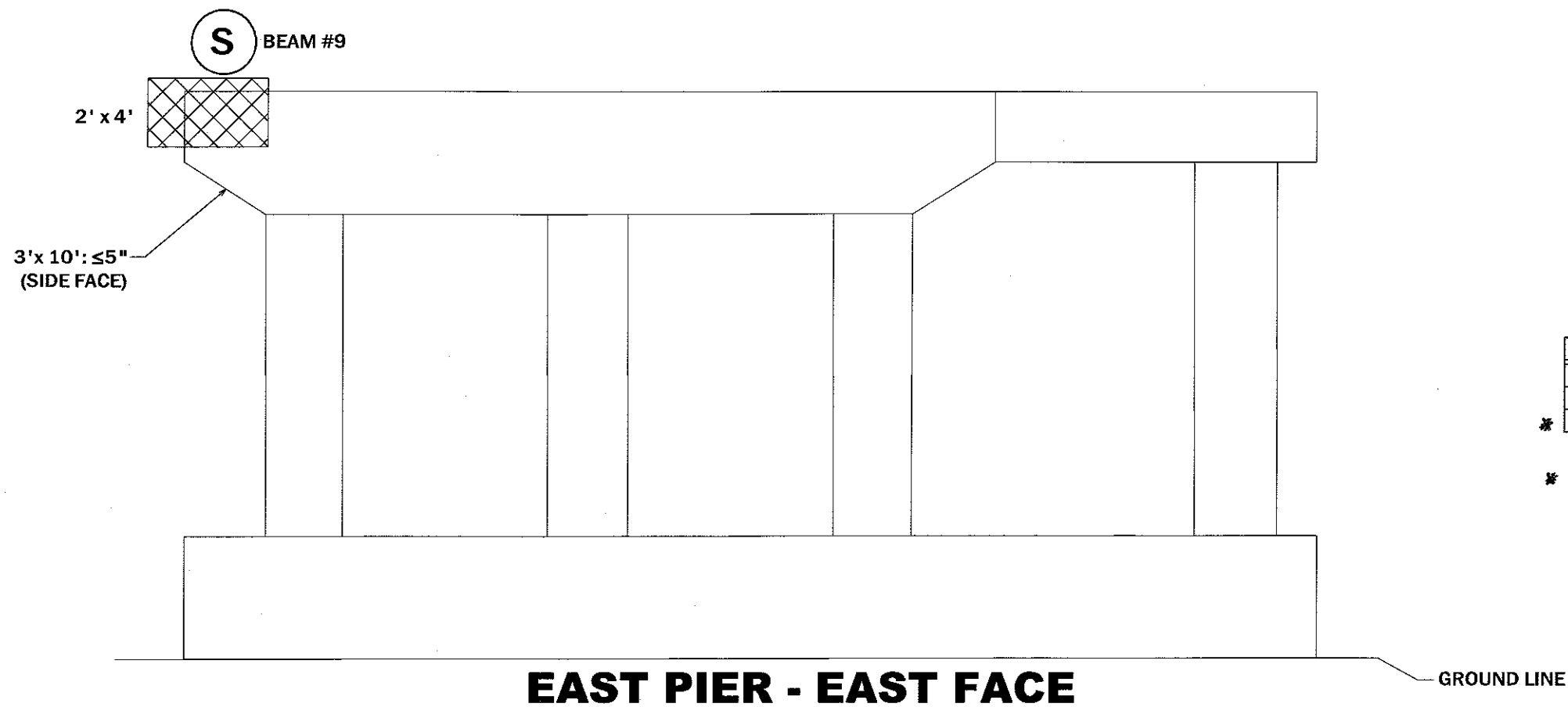
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOC.3) SN 016-0512: I-190 (WB) AT DESPLAINES RIVER RD.
EAST PIER




SCALE: SHEET 4 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	28
CONTRACT NO. 62F78				
ILLINOIS FED. AID PROJECT				

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LEGEND

-  - SHORING
-  - STRUCTURAL REPAIR OF CONCRETE ≤ 5"
-  - STRUCTURAL REPAIR OF CONCRETE > 5"

EAST PIER REPAIRS BILL OF MATERIAL(SN 016-0512)

ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE ≤ 5 INCHES	SQ FT	30
STRUCTURAL REPAIR OF CONCRETE > 5 INCHES	SQ FT	8
* TEMPORARY SHORING	EACH	1

* FOR REACTIONS SEE BEAM #11 SHEET 5 OF 6

EAST PIER - EAST FACE

GROUND LINE

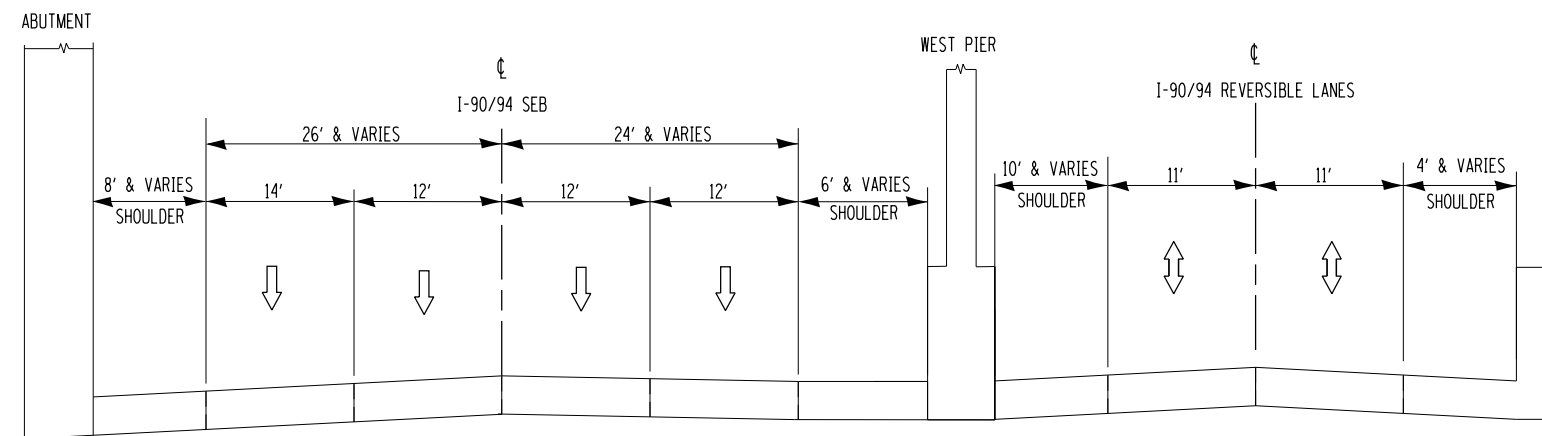
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

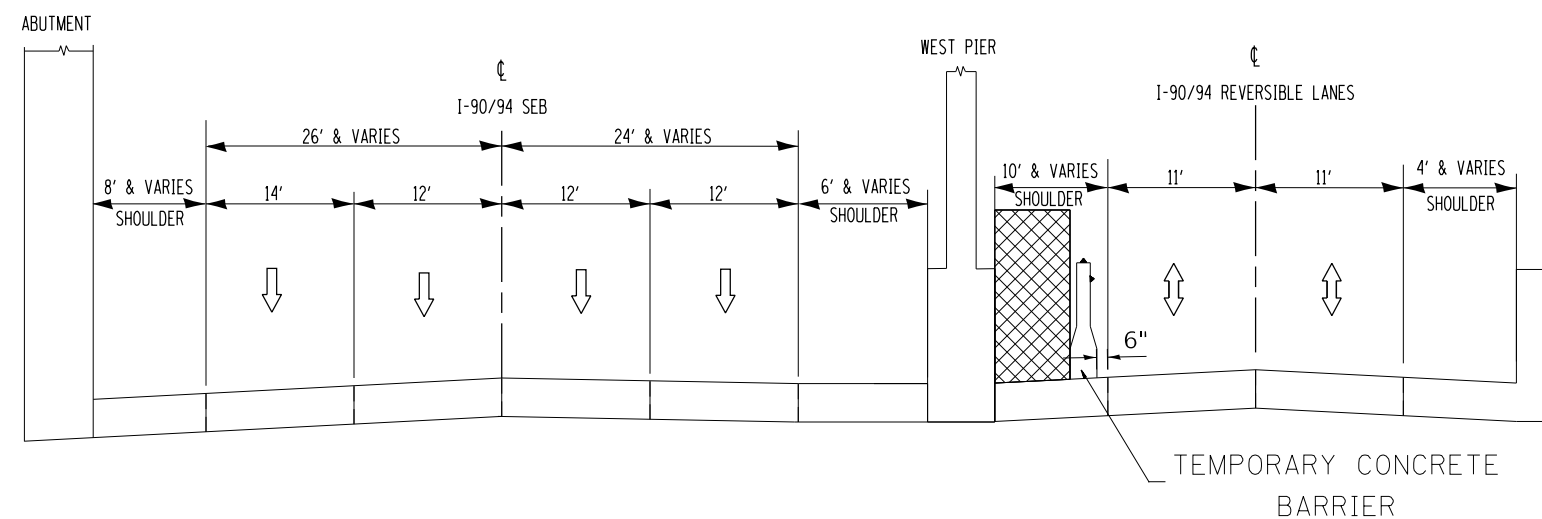
LOC.3) SN 016-0512: I-190 (WB) AT DESPLAINES RIVER RD.
EAST PIER (PIER 3)

SCALE: SHEET 6 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-0461	COOK	38	30
CONTRACT NO. 62F78				
ILLINOIS FED. AID PROJECT				



EXISTING TYPICAL CROSS SECTION
I-90/94 SEB & REVERSIBLE LANES AT ADDISON ST.



PROPOSED TYPICAL CROSS SECTION
I-90/94 SEB & REVERSIBLE LANES AT ADDISON ST.

LEGEND

 WORK ZONE

NOTE:

TEMPORARY CONCRETE WALL WITH CRYSTAL BI-DIRECTIONAL TYPE C REFLECTORS TOP AND SIDE AT 25 FOOT CENTERS.

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	DRAWN -	REVISED -
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PLOT DATE = 10/27/2017	DATE -	REVISED -



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOC.1) SN 016-0669 I-90/94 (KENNEDY EXPWY) AT ADDISON ST
EXISTING AND PROPOSED STAGING TYPICAL SECTIONS

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

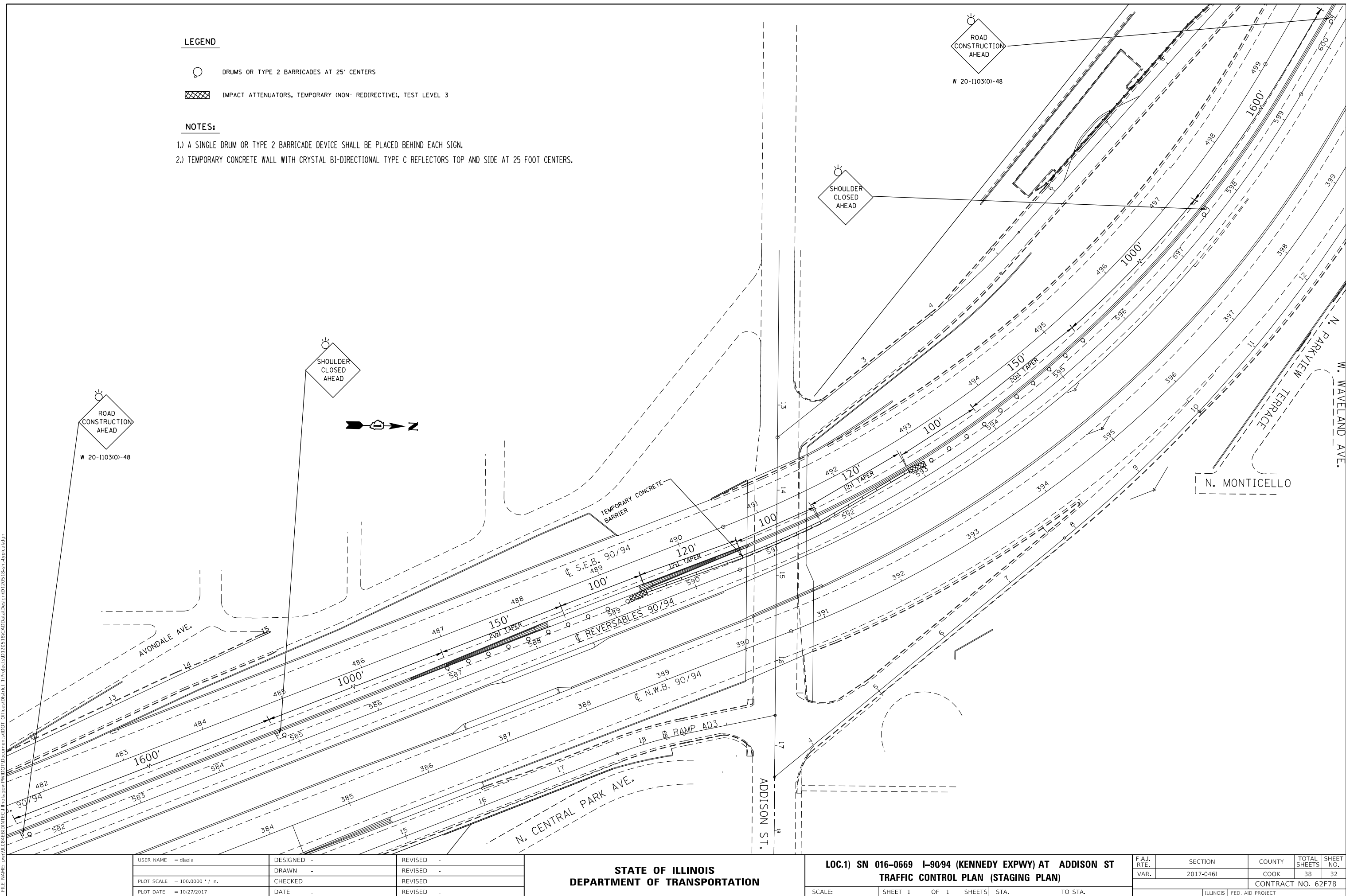
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VAR.	2017-046I	COOK	38	31
CONTRACT NO. 62F78				
ILLINOIS FED. AID PROJECT				

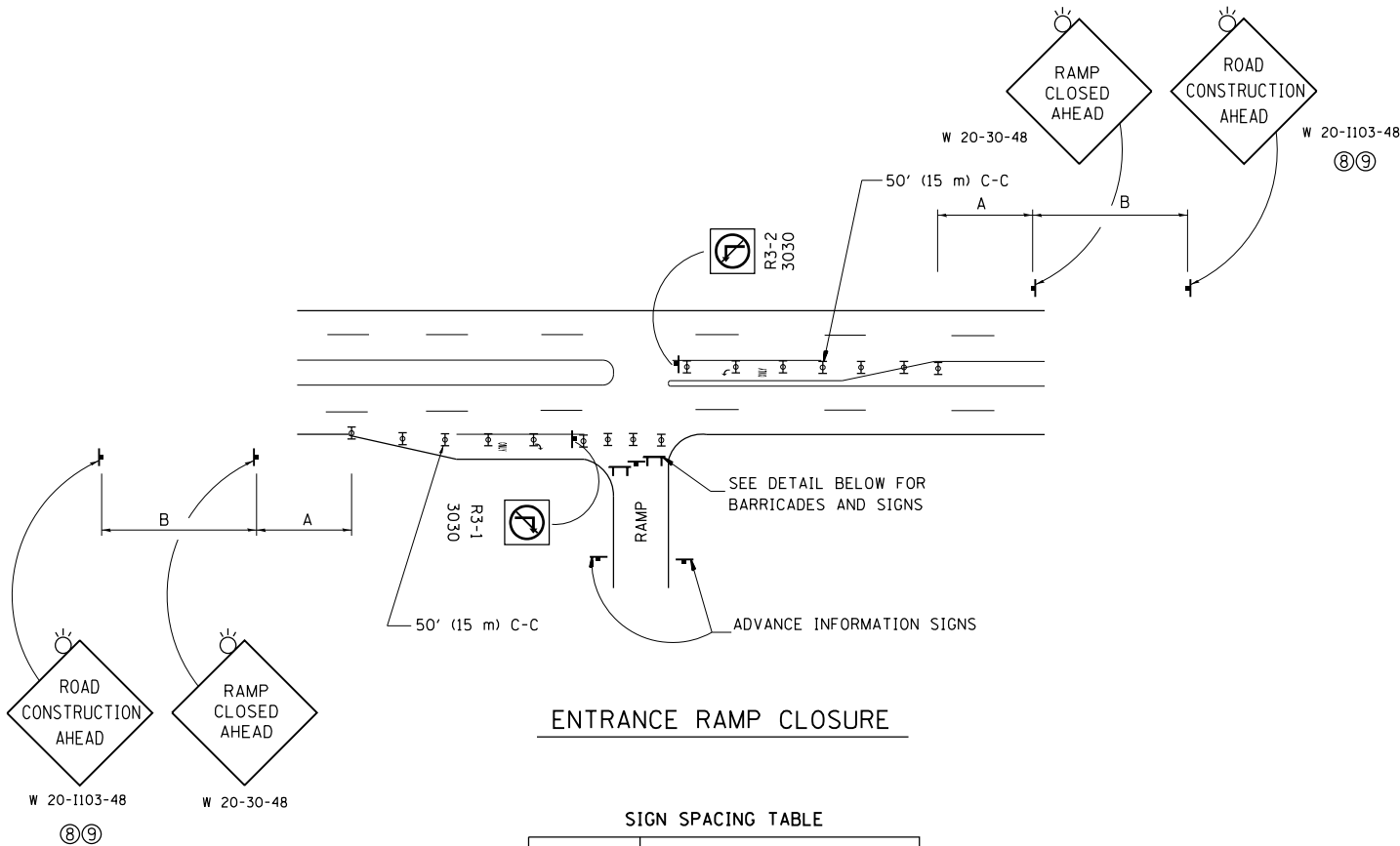
LEGEND

-  DRUMS OR TYPE 2 BARRICADES AT 25' CENTERS
-  IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3

NOTES:

- 1.) A SINGLE DRUM OR TYPE 2 BARRICADE DEVICE SHALL BE PLACED BEHIND EACH SIGN.
- 2.) TEMPORARY CONCRETE WALL WITH CRYSTAL BI-DIRECTIONAL TYPE C REFLECTORS TOP AND SIDE AT 25 FOOT CENTERS.

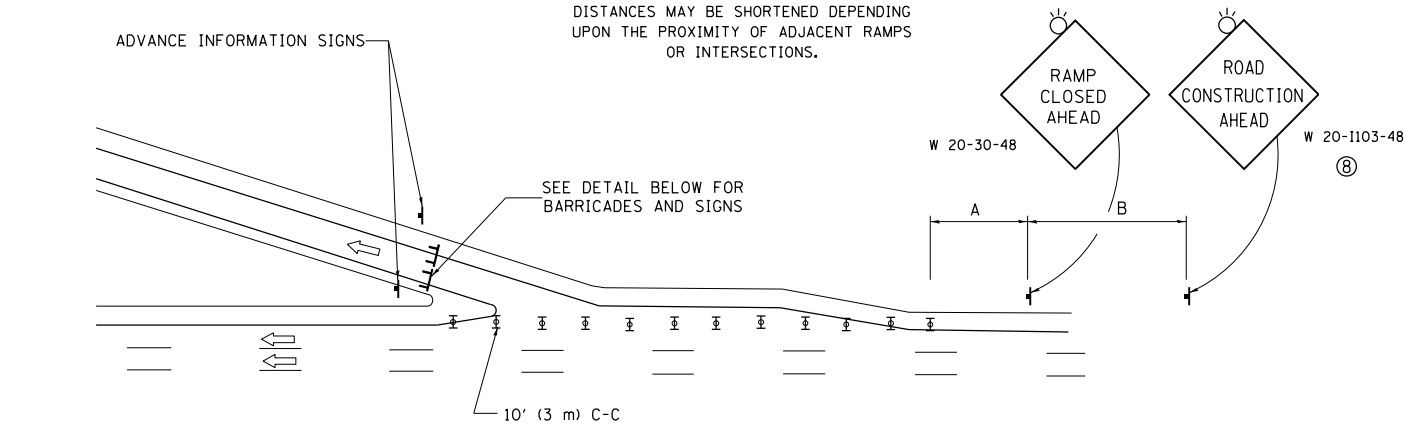




ENTRANCE RAMP CLOSURE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY <24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

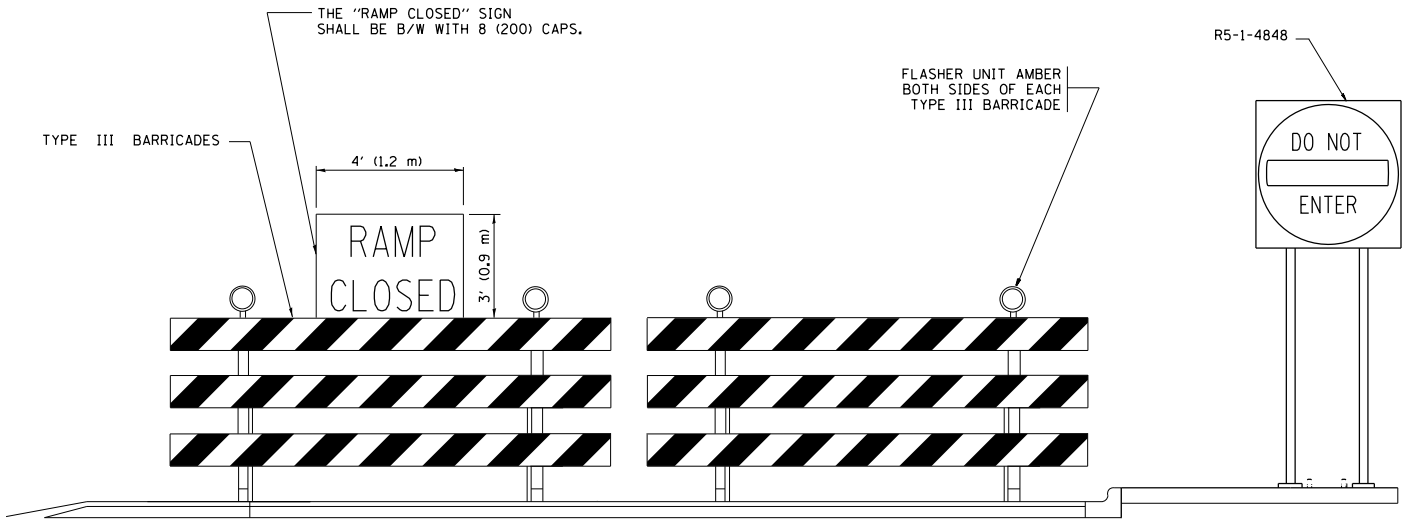
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



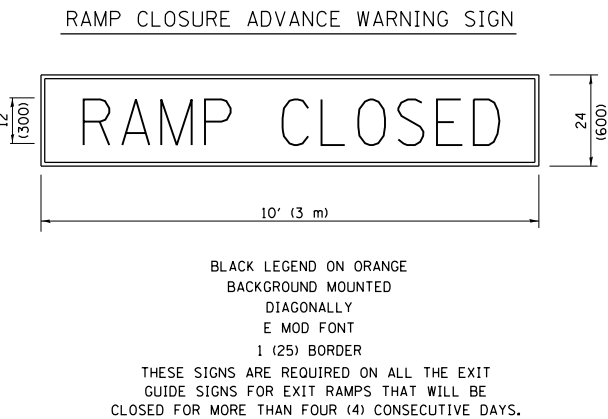
EXIT RAMP CLOSURE

SYMBOLS

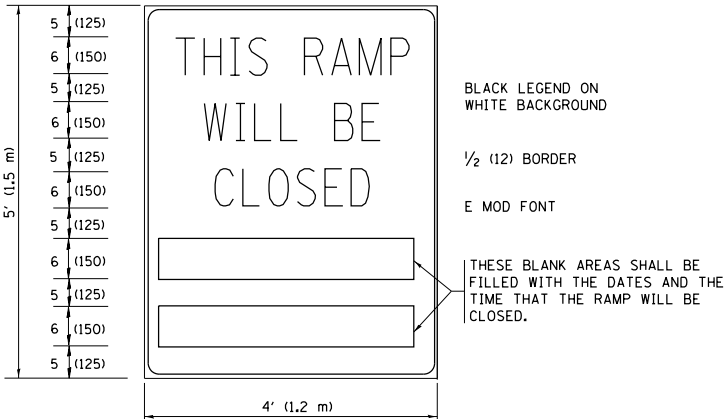
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- TYPE III BARRICADE WITH 2 FLASHING LIGHTS



DETAIL FOR REQUIRED BARRICADES & SIGNS



RAMP CLOSURE ADVANCE INFORMATION SIGN



THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.
THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

GENERAL NOTES:

- CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEDED BY A W20-7 FLAGGER WARNING SIGN.
- ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
- THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- 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 FOUR (4) DAYS IN LENGTH
- ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

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

FILE NAME =	USER NAME = diazo	DESIGNED - DWS	REVISED - JAF 02-06
p:\1\084EBID\INTEG\illinois.gov\PI\DOT\Documents\DOT Offices\District 1\Projects\DI2017\Design\DistStd.dgn		REVISED - SPB 01-07	
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - SPB 12-09
	PLOT DATE = 10/27/2017	DATE - 02-83	REVISED - MD 06-13

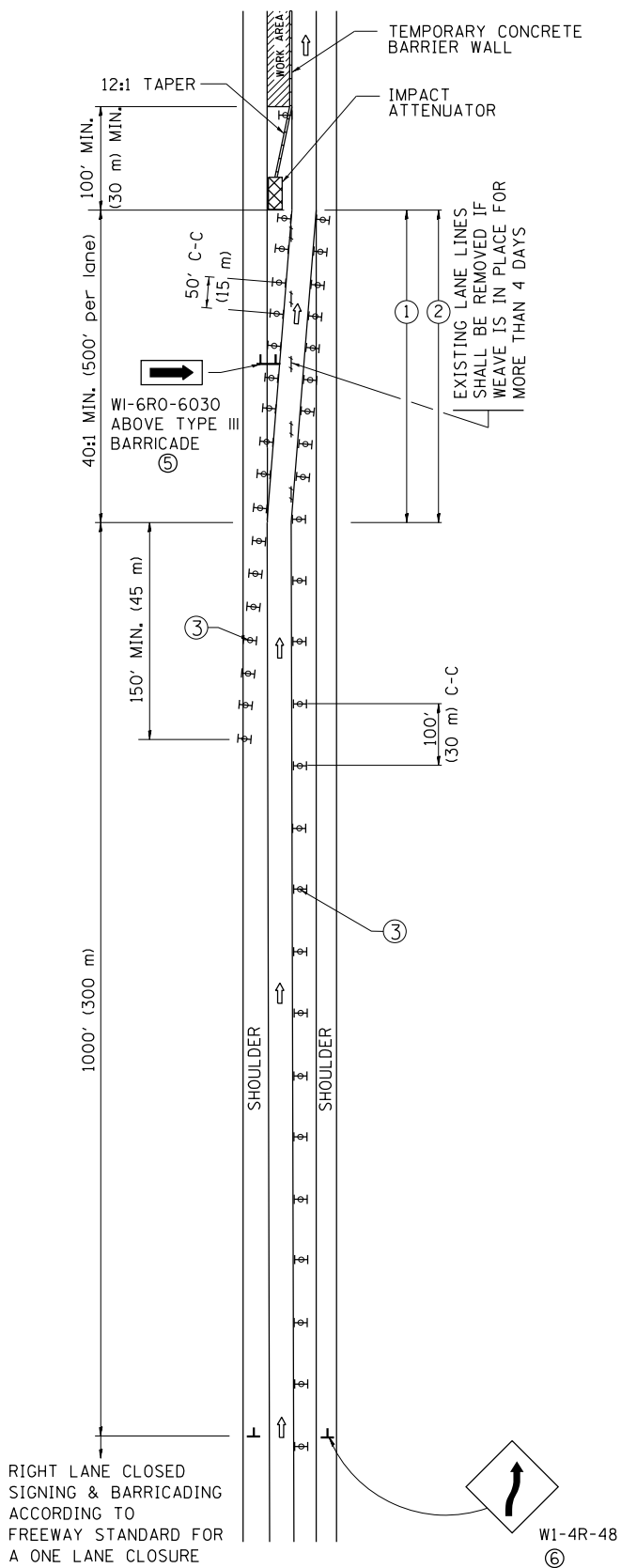
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ENTRANCE AND EXIT RAMP
CLOSURE DETAILS

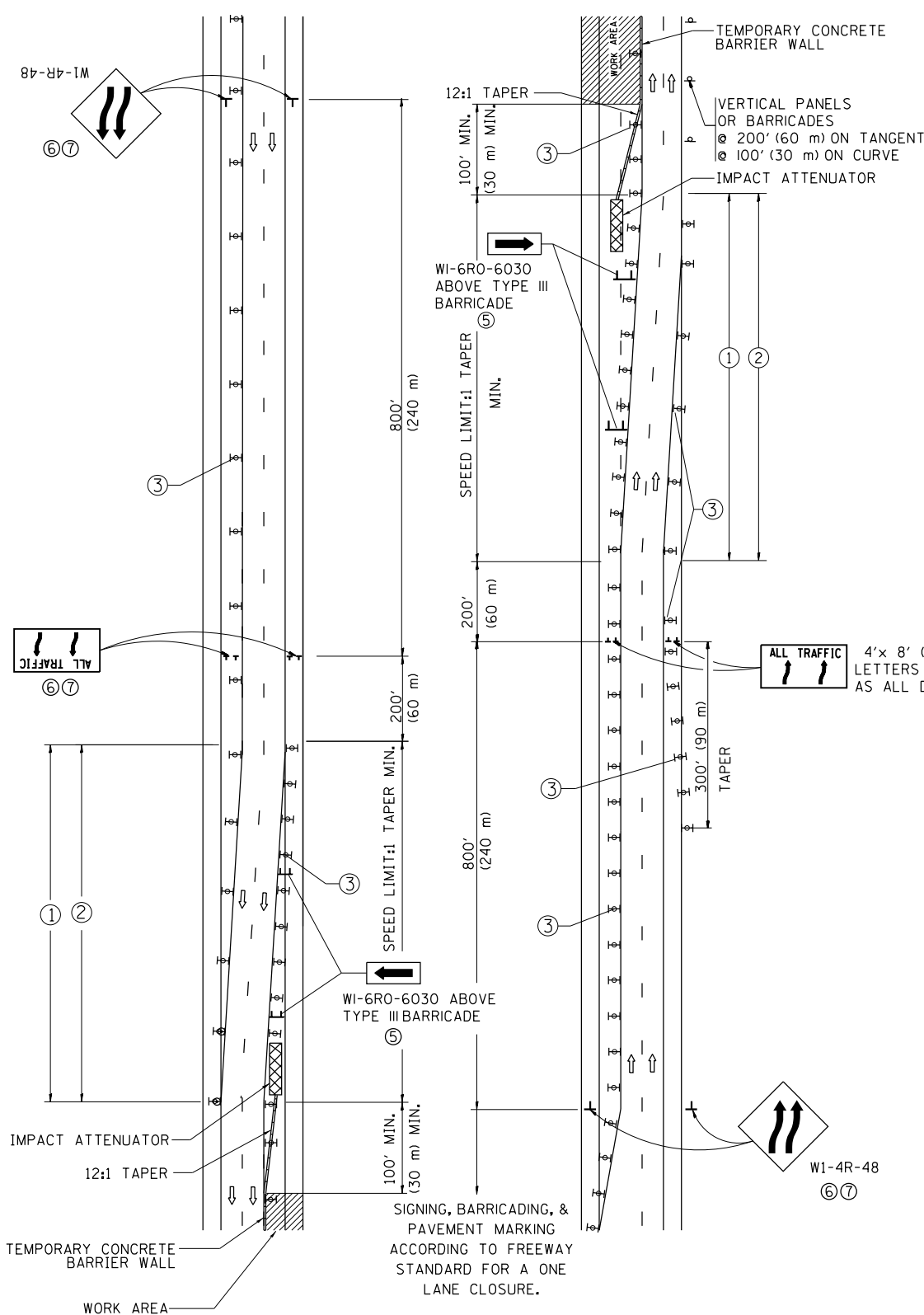
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-0461	COOK	38	33
TC-08		CONTRACT NO. 62F78		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SINGLE LANE WEAVE



MULTI-LANE WEAVE



GENERAL NOTES

- EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 4 DAYS IN DURATION.
- CONTINUOUS 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 WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- TYPE III BARRICADES MAY BE OMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. 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.
- WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.
- THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

SYMBOLS

- DIRECTION OF TRAFFIC
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER WALL
- IMPACT ATTENUATOR
- W1-4R-48
- W24-1-48

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = diazio	DESIGNED - DWS	REVISED - JAF 02-06	<div>STATE OF ILLINOIS</div> <div>DEPARTMENT OF TRANSPORTATION</div>	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBID\INTEG\Illinois.gov\PI\DOT\Documents\DOT Offices\District 1\Projects\DI205\BROWNS\Browns\Design\DistStd.dgn		REVISED - SPB 01-07	VAR.					2017-0461	COOK	38	34	
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - SPB 12-09					TC-09		CONTRACT NO. 62F 78		
	PLOT DATE = 10/27/2017	DATE - 02-87	REVISED - MD 06-13					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
					SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.		

TURN BAY ENTRANCE AT START
OF LANE CLOSURE TAPER

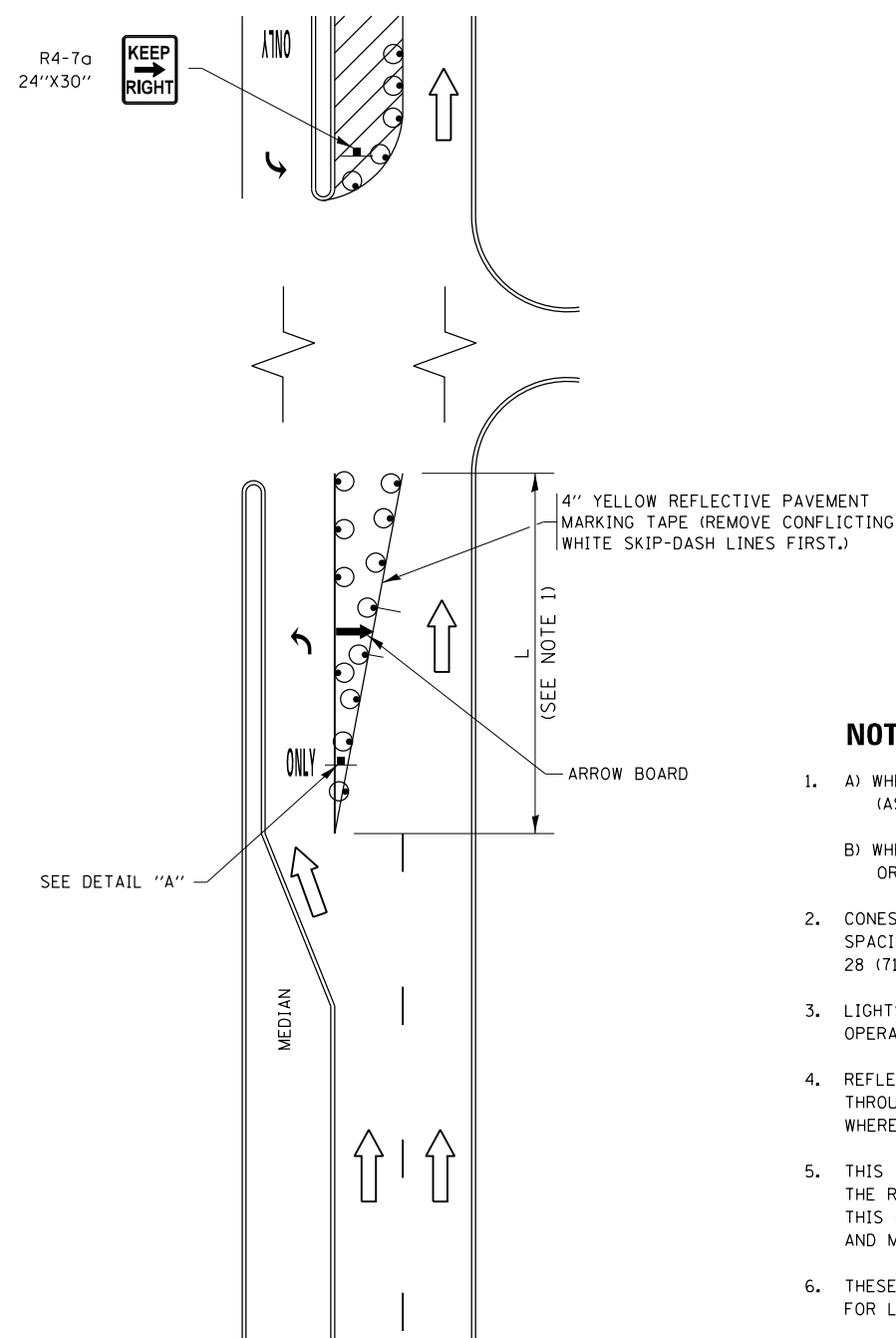
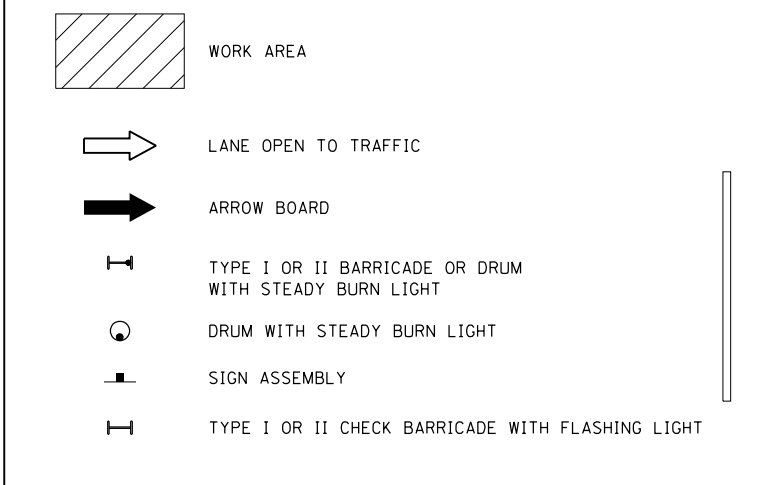


FIGURE 1

LEGEND



NOTES:

1. A) WHEN "L" IS \leq 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 PREQUIREMENTS.
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.

TURN BAY ENTRANCE
WITHIN A LANE CLOSURE

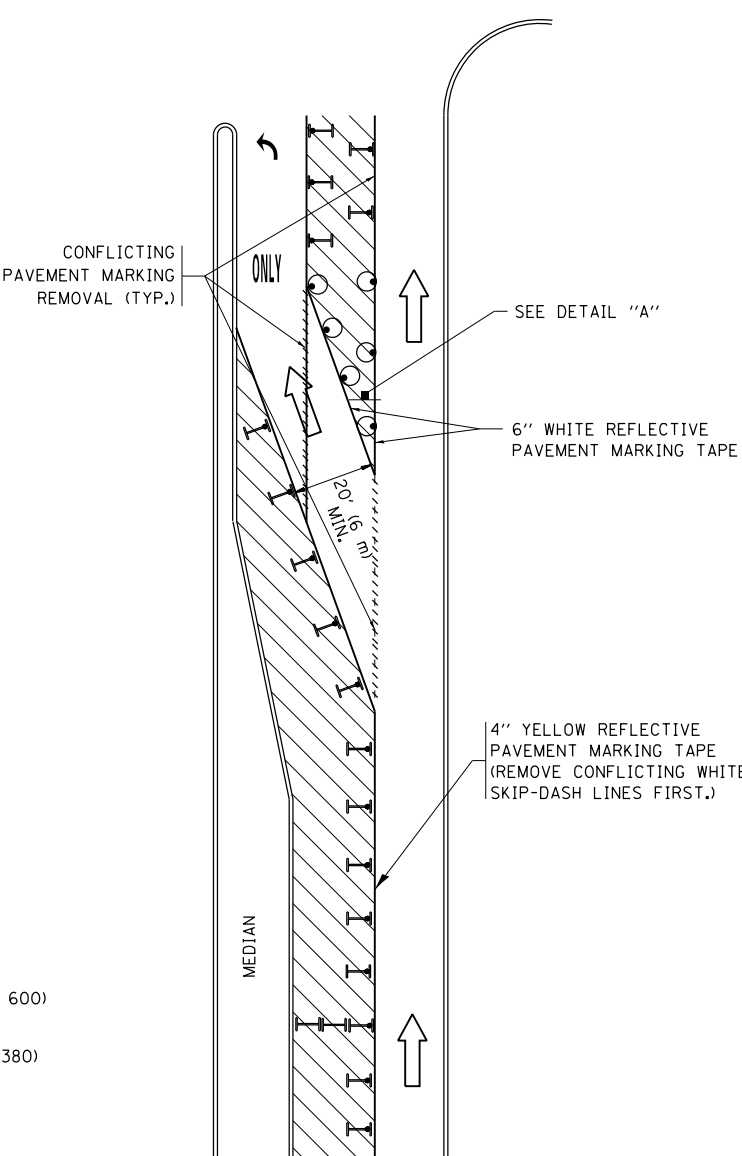
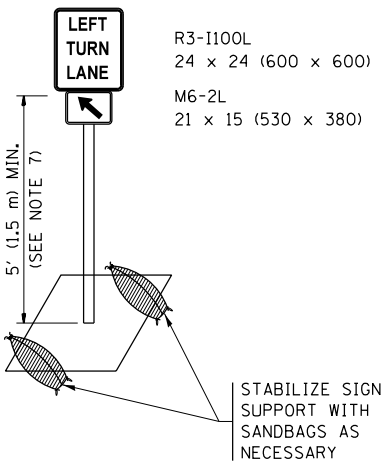


FIGURE 2

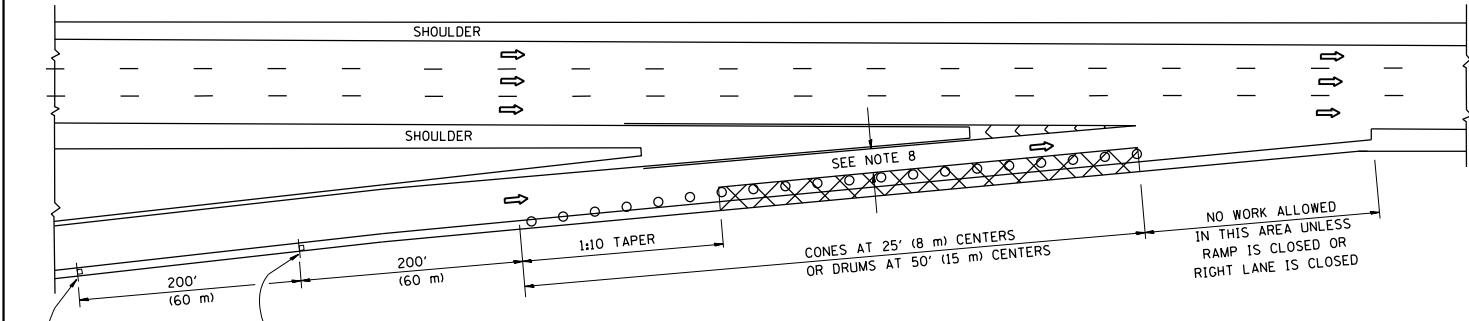


DETAIL A

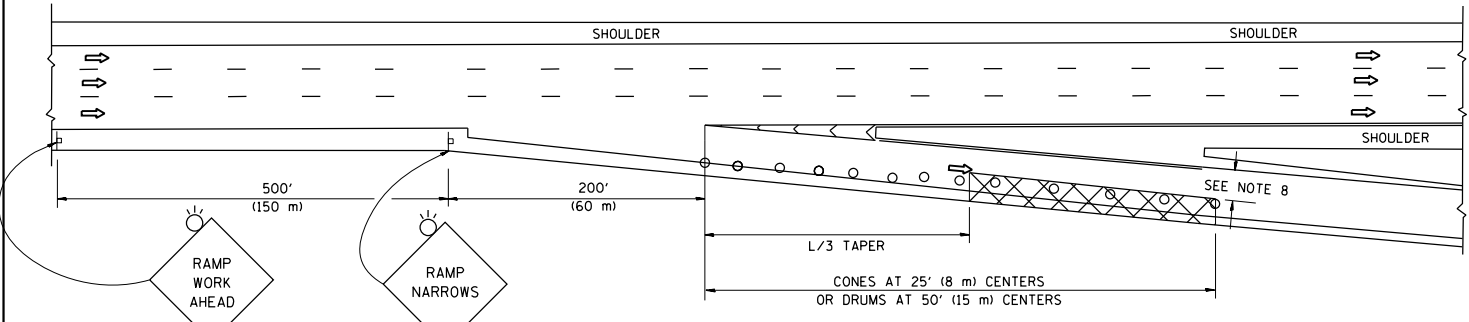
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME :	USER NAME = diazo	REVISED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09	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.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11084EBID\INTEG\Illinois.gov\PI\DOT\Documents\DOT Offices\District 1\Projects\DI2015\Design\House	REVISOR = A. HOUSEH 11-07-95	REVISED - A. SCHUETZE 07-01-13	REVISED - A. SCHUETZE 07-01-13									VAR.	2017-0461	COOK	38	36
PLOT SCALE = 100.0000' / in.	REVISED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16	REVISED - A. SCHUETZE 09-15-16									TC-14		CONTRACT NO. 62F78		
Default	PLOT DATE = 10/27/2017	REVISED - T. RAMMACHER 01-06-00	REVISED -									ILLINOIS FED. AID PROJECT				

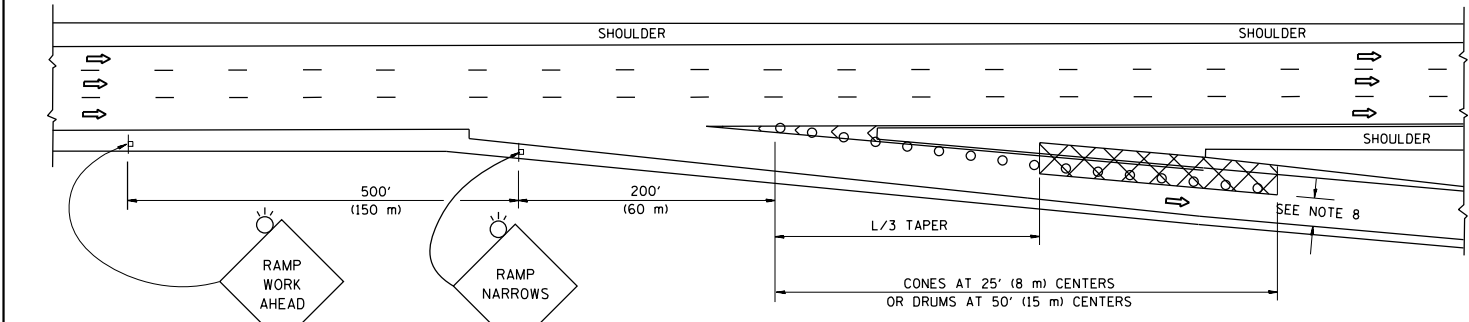
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

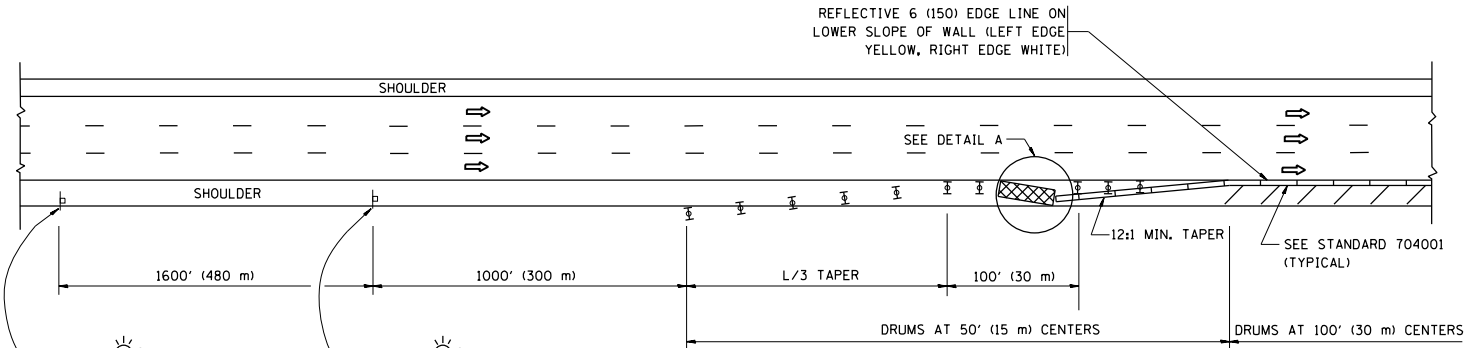
SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

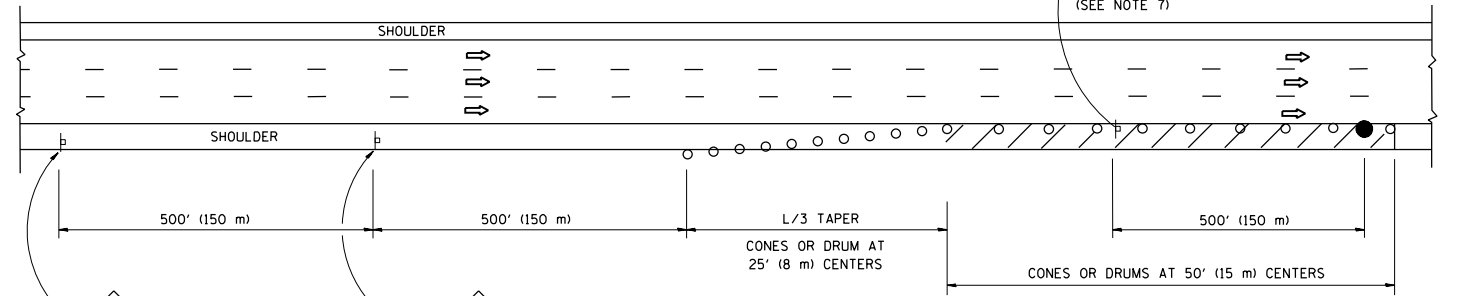
GENERAL NOTES

- THE "L" DISTANCE EQUALS:
SPEED LIMIT FORMULAS
45 mph (80 km/h) METRIC ENGLISH
OR GREATER: L=0.65(W)(S) L=(W)(S)
W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)
- PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS

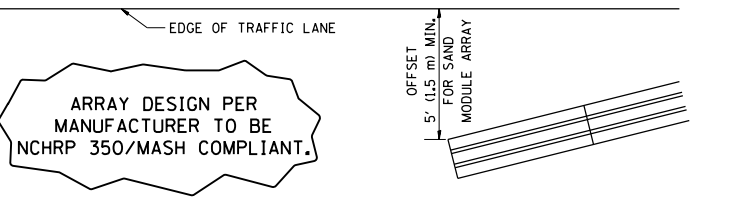


PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

- THIS DETAIL IS USED WHERE:
- 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.

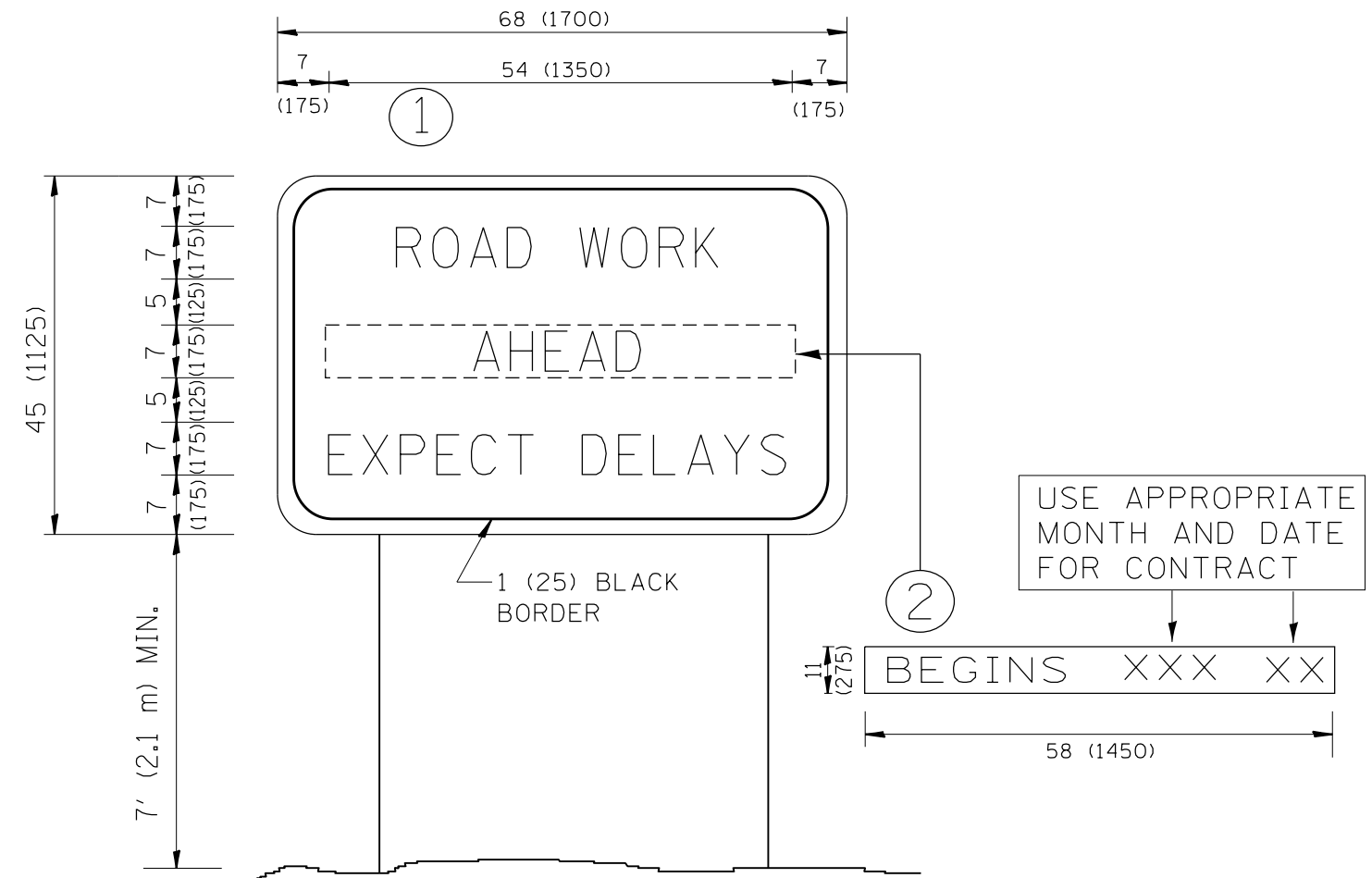


DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

- THE IMPACT ATTENUATOR, 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 NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
- 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.
- 12' MIN. WIDTH TANGENT SECTION
16' MIN. WIDTH CURVE SECTION.

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

FILE NAME =	USER NAME = diazo	DESIGNED -	REVISED - J.A.F. 12-06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11084EBID\INTEG\Illinois.gov\PI\DOT\Documents\DOT Offices\District 1\Projects\DI2015\Design\Design\DWG\Std.dgn		CHECKED -	REVISED - S.P.B. 01-07			VAR.	2017-0461	COOK	38	37
		DATE - 11-96	REVISED - S.P.B. 12-09				TC-17	CONTRACT NO. 62F78		
			REVISED - M.D. 06-13			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 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.

FILE NAME =	USER NAME = diazo	DESIGNED -	REVISED - R. MIRS 09-15-97
p:\11\084EBIDINTEG\Illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\DI2015\084EBIDINTEG\Design\DistStd.dgn			REVISED - R. MIRS 12-11-97
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 10/27/2017	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2017-046I	COOK	38	38
TC-22		CONTRACT NO. 62F78		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				