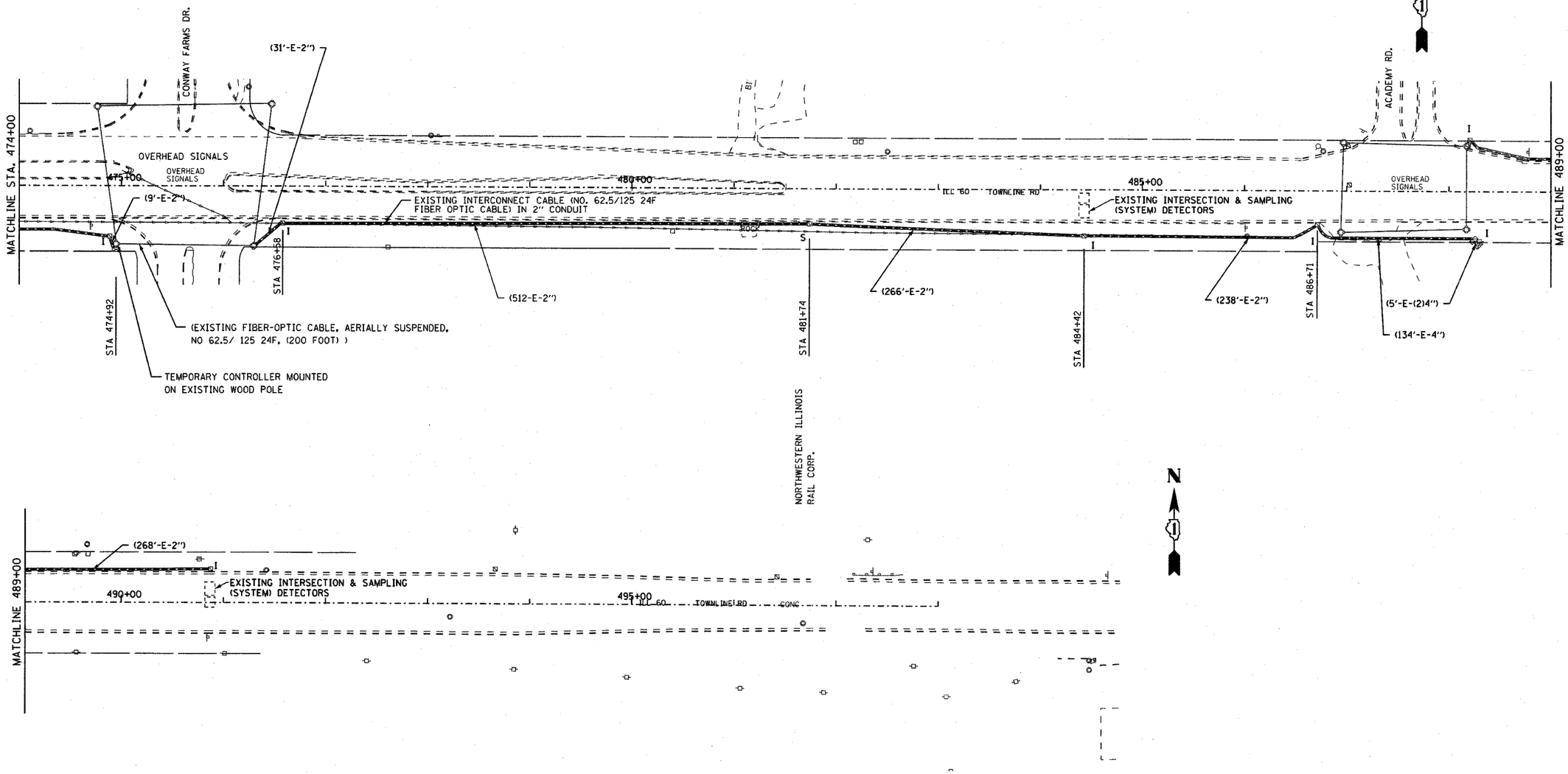
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	201
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



REVISIONS NAME	DATE

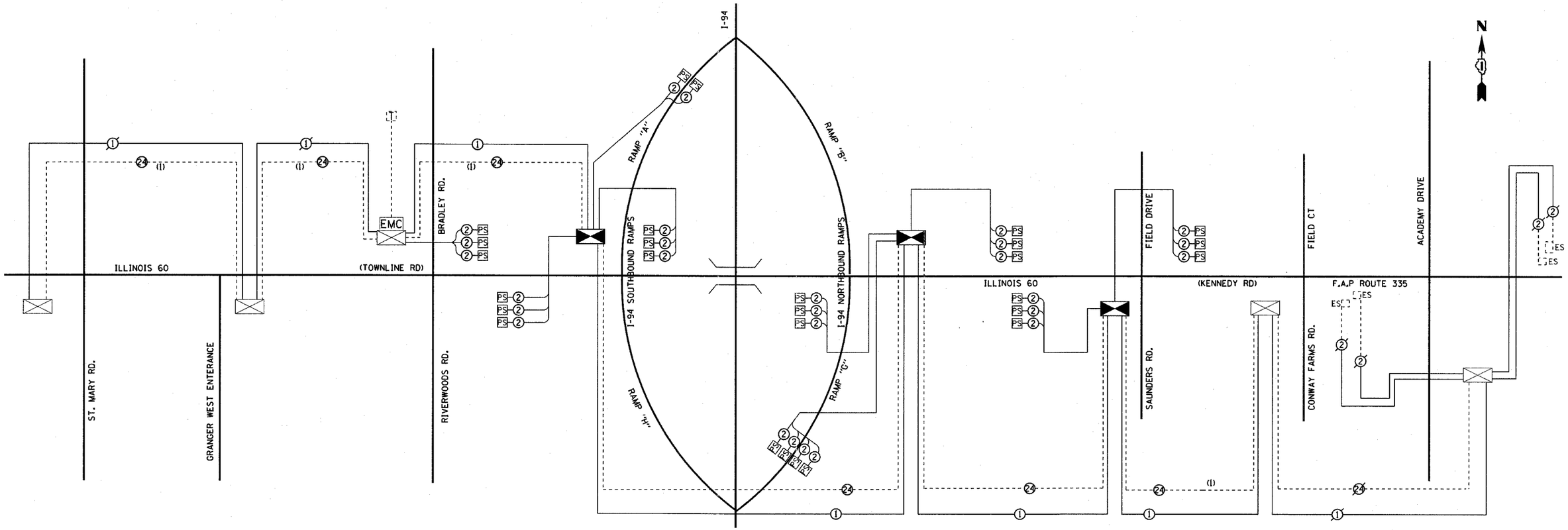
ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
ILL ROUTE 60
ST. MARY'S ROAD TO ACADEMY DRIVE
Sheet 4 of 4

S.N.	DESIGNED BY: JM
SCALE: 1" = 50'-0"	DRAWN BY: PK
DATE: MAY 8, 2007	CHECKED BY: CK

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	202
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTE:

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHAL BE "EAGLE" TO MATCH THE EXISTING SYSTEM.

INTERCONNECT SCHEMATIC LEGEND

	PROPOSED INTERSECTION CONTROLLER
	EXISTING INTERSECTION CONTROLLER
MMC	MASTER MASTER CONTROLLER
EMC	EXISTING MASTER CONTROLLER
MC	PROPOSED INTERSECTION CONTROLLER
	EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTOR
	PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTOR
P	EXISTING INTERSECTION DETECTOR AND PROPOSED SAMPLING (SYSTEM) DETECTOR
ES	EXISTING SAMPLING (SYSTEM) DETECTOR
PS	PROPOSED SAMPLING (SYSTEM) DETECTORS
24	PROPOSED INTERCONNECT CABLE - NO. 62.5/125 2 MM 12F & SM 12F - FIBER OPTIC CABLE
24	EXISTING INTERCONNECT CABLE - NO. 62.5/125 2 MM 12F & SM 12F - FIBER OPTIC CABLE
6	PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
6	EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
2	PROPOSED LOOP DETECTOR CABLE - 2/C TWISTED, SHIELDED
2	EXISTING LOOP DETECTOR CABLE - 2/C TWISTED, SHIELDED
1	PROPOSED TRACER CABLE NO. 14 1/C
1	EXISTING TRACER CABLE NO. 14 1/C
T	PROPOSED TELEPHONE CONNECTION
T	EXISTING TELEPHONE CONNECTION
(1)	EXISTING FIBER OPTIC CABLE (12F) TO BE REMOVED FROM CONDUIT

SCHEDULE OF INTERCONNECT QUANTITIES

1,754	FOOT CONDUIT IN TRENCH, 2" DIA. GALVANIZED STEEL
309	FOOT CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
2	EACH JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6"x6"x4"
3	EACH HANDHOLE
1,754	FOOT TRENCH AND BACKFILL FOR ELECTRICAL WORK
10,538	FOOT FIBER OPTIC CABLE IN CONDUIT NO 62.5/125, 24F
4,819	FOOT ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C
1	EACH DRILL EXISTING HANDHOLE
6,632	FOOT REMOVE ELECTRIC CABLE FROM CONDUIT
1	L SUM RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

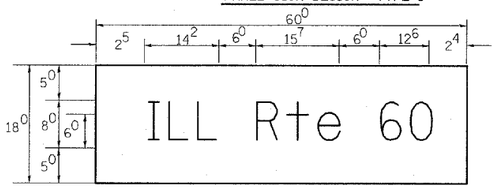
ILL ROUTE 60
INTERCONNECT SCHEMATIC
ST. MARY'S ROAD TO ACADEMY DRIVE
SCHEDULE OF QUANTITIES

S.N.	DESIGNED BY: JM
SCALE: NOT TO SCALE	DRAWN BY: PK
DATE: MAY 8, 2007	CHECKED BY: CK

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	203
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

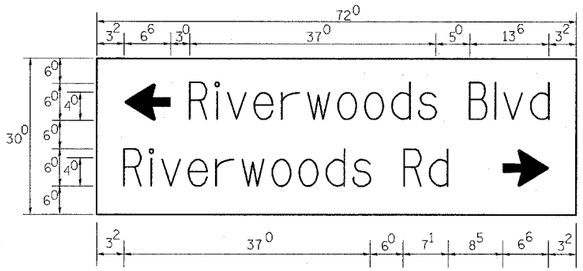
60801

PANEL SIGN DESIGN TYPE 1

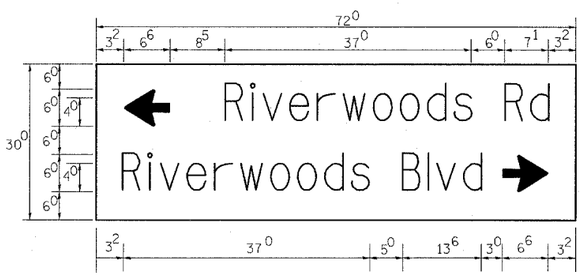


___ Sq. M. each
7.5 Sq. Ft. each
2 Required
Design Series D

NOTE: SIGN DIMENSIONS ARE IN ENGLISH UNITS



___ Sq. M. each
15 Sq. Ft. each
1 Required
Design Series C



___ Sq. M. each
15 Sq. Ft. each
1 Required
Design Series C

GENERAL NOTES

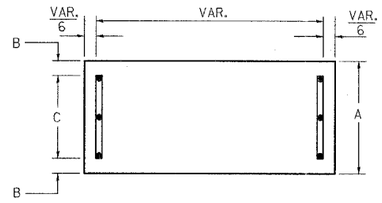
1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 834001, 834006 AND 834011, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 6'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
2. ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
3. THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6'-0".
4. ALL BORDERS SHALL BE ¾" WIDE AND CORNER RADIUS SHALL BE 2-1/4 ".
5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:
   - * A.K.T. CORPORATION, SCHAUMBURG, IL
   - * TUCKER COMPANY, INC., WAUWATOSA, WI
   - * AMERICAN FABRICATION CO., CHICAGO HEIGHTS, IL
   - * WESTERN TRAFFIC CONTROL INC., CICERO, IL

PARTS LISTING:

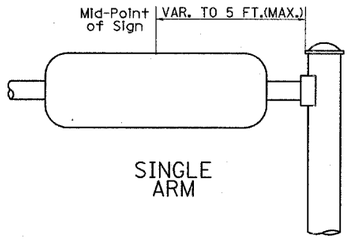
SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
SIGN SCREWS	¼" x 14 x 1" H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

SUPPORTING CHANNELS

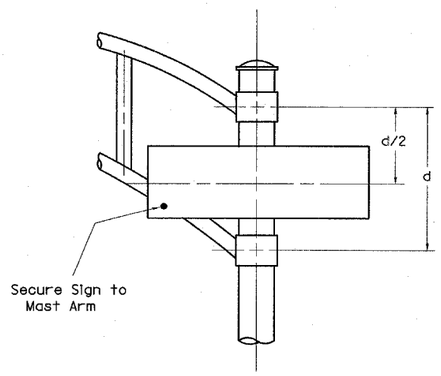


A	B	C
18"	2"	14"



SUPPORTING CHANNELS

A	B	C
18"	2"	12"
30"	2"	22"



SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM
Shall be used. See Note #5.

Upper Case To Lower Case
Spacing Chart 8-6 Inch Series "C & D"

EXAMPLE, 2 (3) DENOTES 3/8"

FIRST LETTER	SECOND LETTER: acdegoq		bhiklmnpru		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1^2	1^4	1^4	1^5	1^2	1^4	0^6	1^0	1^1	1^4	0^6	1^0	1^1	1^2	1^2	1^4
B	1^4	1^5	2^0	2^1	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4	1^2	1^4	1^6	1^7
C E G	1^4	1^5	2^0	2^1	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
D O Q R	1^4	1^5	2^0	2^1	1^4	1^5	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
F	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^6	1^0	0^6	1^0	0^6	1^0	1^1	1^2
H I M N	2^0	2^1	2^2	2^4	2^0	2^1	1^4	1^5	1^6	1^7	1^6	1^7	2^0	2^1	2^0	2^1
J U	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1
K L	1^1	1^2	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
P	1^2	1^4	1^4	1^5	1^2	1^4	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
S	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
T	1^1	1^2	1^6	1^7	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
V	0^6	1^0	1^4	1^5	1^1	1^2	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
Y	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^5	0^7	0^5	0^6	0^6	1^0	1^1	1^2
Z	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1

Lower Case To Lower Case
Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: acdegoq		bhiklmnpru		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
adhgljlmnqu	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^6	1^7
bfkops	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
c e	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
r	0^6	1^0	1^2	1^4	0^6	1^0	0^3	0^3	0^5	0^6	0^5	0^6	0^6	1^0	0^6	1^0
t z	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
v y	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2
w	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
x	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4

Number To Number
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND NUMBER: 0		1		2		3		4		5		6		7		8		9	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7
1	2^0	2^1	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	2^0	2^1	2^0	2^1	1^4	1^5	2^0	2^1	2^0	2^1
2 3 4	1^4	1^5	1^4	1^5	1^4	1^5	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^6	1^7	1^4	1^5
5	1^4	1^5	1^4	1^5	1^4	1^5	1^1	1^2	1^1	1^2	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
6	1^6	1^7	1^4	1^5	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
7	1^2	1^4	1^2	1^4	1^4	1^5	1^2	1^5	0^5	0^6	1^2	1^4	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4
8	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^4	1^5

UPPER AND LOWER CASE LETTER WIDTHS

LETTERS	6 INCH UPPER CASE LETTERS SERIES C	D	8 INCH UPPER CASE LETTERS SERIES C	D	LETTERS	6 INCH LOWER CASE LETTERS SERIES C	D
A	3^6	5^0	5^0	6^5	a	3^5	4^2
B	3^2	4^0	4^3	5^3	b	3^5	4^2
C	3^2	4^0	4^3	5^3	c	3^5	4^1
D	3^2	4^0	4^3	5^3	d	3^5	4^2
E	3^0	3^5	4^0	4^7	e	3^5	4^2
F	3^0	3^5	4^0	4^7	f	2^3	2^6
G	3^2	4^0	4^3	5^3	g	3^5	4^2
H	3^2	4^0	4^3	5^3	h	3^5	4^2
I	0^7	0^7	1^1	1^2	i	1^1	1^1
J	3^0	3^6	4^0	5^0	j	2^0	2^2
K	3^2	4^1	4^3	5^4	k	3^5	4^2
L	3^0	3^5	4^0	4^7	l	1^1	1^1
M	3^7	4^5	5^1	6^1	m	6^0	7^0
N	3^2	4^0	4^3	5^3	n	3^5	4^2
O	3^4	4^2	4^5	5^5	o	3^6	4^3
P	3^2	4^0	4^3	5^3	p	3^5	4^2
Q	3^4	4^2	4^5	5^5	q	3^5	4^2
R	3^2	4^0	4^3	5^3	r	2^6	3^2
S	3^2	4^0	4^3	5^3	s	3^6	4^2
T	3^0	3^5	4^0	4^7	t	2^7	3^2
U	3^2	4^0	4^3	5^3	u	3^5	4^2
V	3^5	4^4	4^7	6^0	v	4^2	4^7
W	4^4	5^2	6^0	7^0	w	5^5	6^4
X	3^4	4^0	4^5	5^3	x	4^4	5^1
Y	3^6	5^0	5^0	6^6	y	4^6	5^3
Z	3^2	4^0	4^3	5^3	z	3^6	4^3

NUMBER	6 INCH SERIES C	D	8 INCH SERIES C	D
1	1^2	1^4	1^5	2^0
2	3^2	4^0	4^3	5^3
3	3^2	4^0	4^3	5^3
4	3^5	4^3	4^7	5^7
5	3^2	4^0	4^3	5^3
6	3^2	4^0	4^3	5^3
7	3^2	4^0	4^3	5^3
8	3^2	4^0	4^3	5^3
9	3^2	4^0	4^3	5^3
0	3^4	4^2	4^5	5^5

REVISIONS NAME	DATE

TYLIN INTERNATIONAL

ILLINOIS DEPARTMENT OF TRANSPORTATION
ILLINOIS RTE 60 OVER I-94

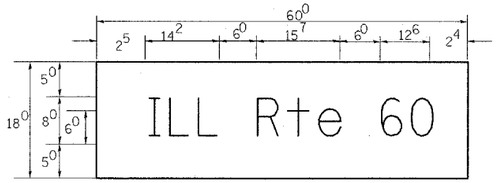
MAST ARM MOUNTED STREET NAME SIGNS
ILLINOIS RTE 60 &
RIVERWOODS ROAD/BLVD

SCALE: NONE
DRAWN BY: CBS
DATE: MAY 8, 2007
CHECKED BY: JDF

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	204
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

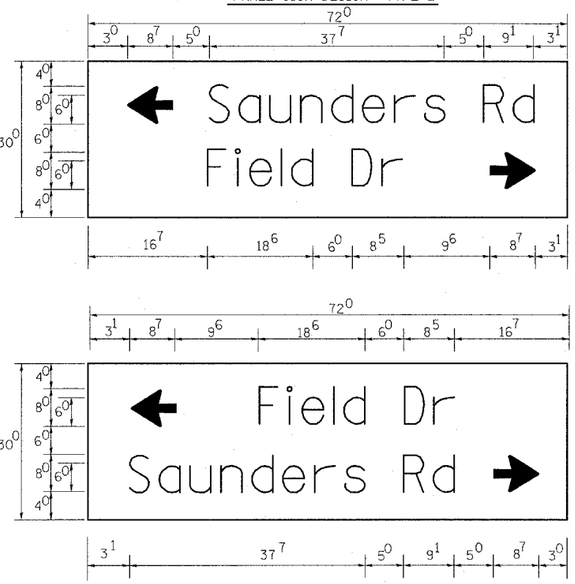
PANEL SIGN DESIGN TYPE 1



___ Sq. M. each
7.5 Sq. Ft. each
4 Required
Design Series D

NOTE: SIGN DIMENSIONS ARE IN ENGLISH UNITS

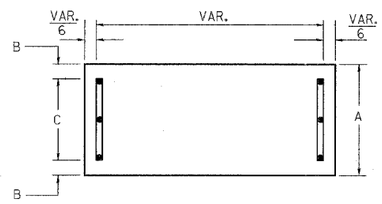
PANEL SIGN DESIGN TYPE 2



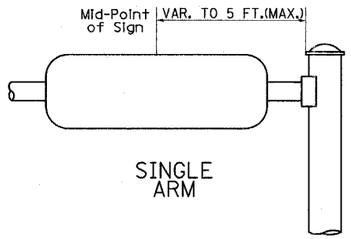
___ Sq. M. each
___ Sq. Ft. each
1 Required
Design Series D

___ Sq. M. each
___ Sq. Ft. each
1 Required
Design Series D

SUPPORTING CHANNELS

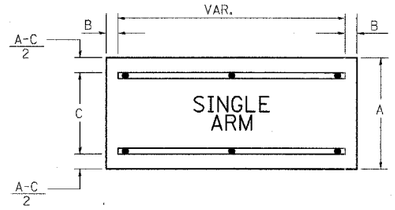


A	B	C
18″	2″	14″



SINGLE ARM

SUPPORTING CHANNELS



SINGLE ARM

A	B	C
18″	2″	12″
30″	2″	22″

GENERAL NOTES

1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 834001, 834006 AND 834011, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 6'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
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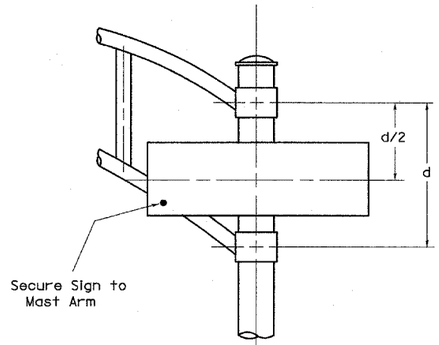
   - ✱ AMERICAN FABRICATION CO., CHICAGO HEIGHTS, IL
   - ✱ TUCKER COMPANY, INC., WAUWATOSA, WI
   - ✱ WESTERN TRAFFIC CONTROL INC., CICERO, IL

PARTS LISTING:

SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
SIGN SCREWS	¼" x 14 x 1" H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.



DUAL ARM

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM
Shall be used. See Note #5.

TY·LIN INTERNATIONAL

Upper Case To Lower Case
Spacing Chart 8-6 Inch Series "C & D"

EXAMPLE, 2 (3) DENOTES 3″/8

FIRST LETTER	SECOND LETTER: acdegoq		bhiklmnpru		fw		j		st		vy		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1^2	1^4	1^4	1^5	1^2	1^4	0^6	1^0	1^1	1^4	0^6	1^0	1^1	1^2	1^2	1^4
B	1^4	1^5	2^0	2^1	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4	1^2	1^4	1^6	1^7
C E G	1^4	1^5	2^0	2^1	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
D O Q R	1^4	1^5	2^0	2^1	1^4	1^5	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
F	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^6	1^0	0^6	1^0	0^6	1^0	1^1	1^2
H I M N	2^0	2^1	2^2	2^4	2^0	2^1	1^4	1^5	1^6	1^7	1^6	1^7	2^0	2^1	2^0	2^1
J U	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1
K L	1^1	1^2	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
P	1^2	1^4	1^4	1^5	1^2	1^4	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
S	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
T	1^1	1^2	1^6	1^7	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
V	0^6	1^0	1^4	1^5	1^1	1^2	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
Y	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^5	0^7	0^5	0^6	0^6	1^0	1^1	1^2
Z	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1

Lower Case To Lower Case
Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: acdegoq		bhiklmnpru		fw		j		st		vy		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
adhgljmnqu	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^6	1^7
bfkops	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
ce	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
r	0^6	1^0	1^2	1^4	0^6	1^0	0^3	0^3	0^5	0^6	0^5	0^6	0^6	1^0	0^6	1^0
tz	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
vy	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2
w	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
x	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4

Number To Number
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND NUMBER: 0		1		2		3		4		5		6		7		8		9	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7
1	2^0	2^1	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	2^0	2^1	2^0	2^1	1^4	1^5	2^0	2^1	2^0	2^1
2 3 4	1^4	1^5	1^4	1^5	1^4	1^5	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^6	1^7	1^4	1^5
5	1^4	1^5	1^4	1^5	1^4	1^5	1^1	1^2	1^1	1^2	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
6	1^6	1^7	1^4	1^5	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
7	1^2	1^4	1^2	1^4	1^4	1^5	1^2	1^5	0^5	0^6	1^2	1^4	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4
8	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^4	1^5

UPPER AND LOWER CASE LETTER WIDTHS

LETTERS	6 INCH UPPER CASE LETTERS SERIES C	D	8 INCH UPPER CASE LETTERS SERIES C	D	LETTERS	6 INCH LOWER CASE LETTERS SERIES C	D
A	3^6	5^0	5^0	6^5	a	3^5	4^2
B	3^2	4^0	4^3	5^3	b	3^5	4^2
C	3^2	4^0	4^3	5^3	c	3^5	4^1
D	3^2	4^0	4^3	5^3	d	3^5	4^2
E	3^0	3^5	4^0	4^7	e	3^5	4^2
F	3^0	3^5	4^0	4^7	f	2^3	2^6
G	3^2	4^0	4^3	5^3	g	3^5	4^2
H	3^2	4^0	4^3	5^3	h	3^5	4^2
I	0^7	0^7	1^1	1^2	i	1^1	1^1
J	3^0	3^6	4^0	5^0	j	2^0	2^2
K	3^2	4^1	4^3	5^4	k	3^5	4^2
L	3^0	3^5	4^0	4^7	l	1^1	1^1
M	3^7	4^5	5^1	6^1	m	6^0	7^0
N	3^2	4^0	4^3	5^3	n	3^5	4^2
O	3^4	4^2	4^5	5^5	o	3^6	4^3
P	3^2	4^0	4^3	5^3	p	3^5	4^2
Q	3^4	4^2	4^5	5^5	q	3^5	4^2
R	3^2	4^0	4^3	5^3	r	2^6	3^2
S	3^2	4^0	4^3	5^3	s	3^6	4^2
T	3^0	3^5	4^0	4^7	t	2^7	3^2
U	3^2	4^0	4^3	5^3	u	3^5	4^2
V	3^5	4^4	4^7	6^0	v	4^2	4^7
W	4^4	5^2	6^0	7^0	w	5^5	6^4
X	3^4	4^0	4^5	5^3	x	4^4	5^1
Y	3^6	5^0	5^0	6^6	y	4^6	5^3
Z	3^2	4^0	4^3	5^3	z	3^6	4^3

NUMBER	6 INCH SERIES C	D	8 INCH SERIES C	D
1	1^2	1^4	1^5	2^0
2	3^2	4^0	4^3	5^3
3	3^2	4^0	4^3	5^3
4	3^5	4^3	4^7	5^7
5	3^2	4^0	4^3	5^3
6	3^2	4^0	4^3	5^3
7	3^2	4^0	4^3	5^3
8	3^2	4^0	4^3	5^3
9	3^2	4^0	4^3	5^3
0	3^4	4^2	4^5	5^5

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

MAST ARM MOUNTED STREET NAME SIGNS
ILLINOIS RTE 60 &
SAUNDERS RD/FIELD DR

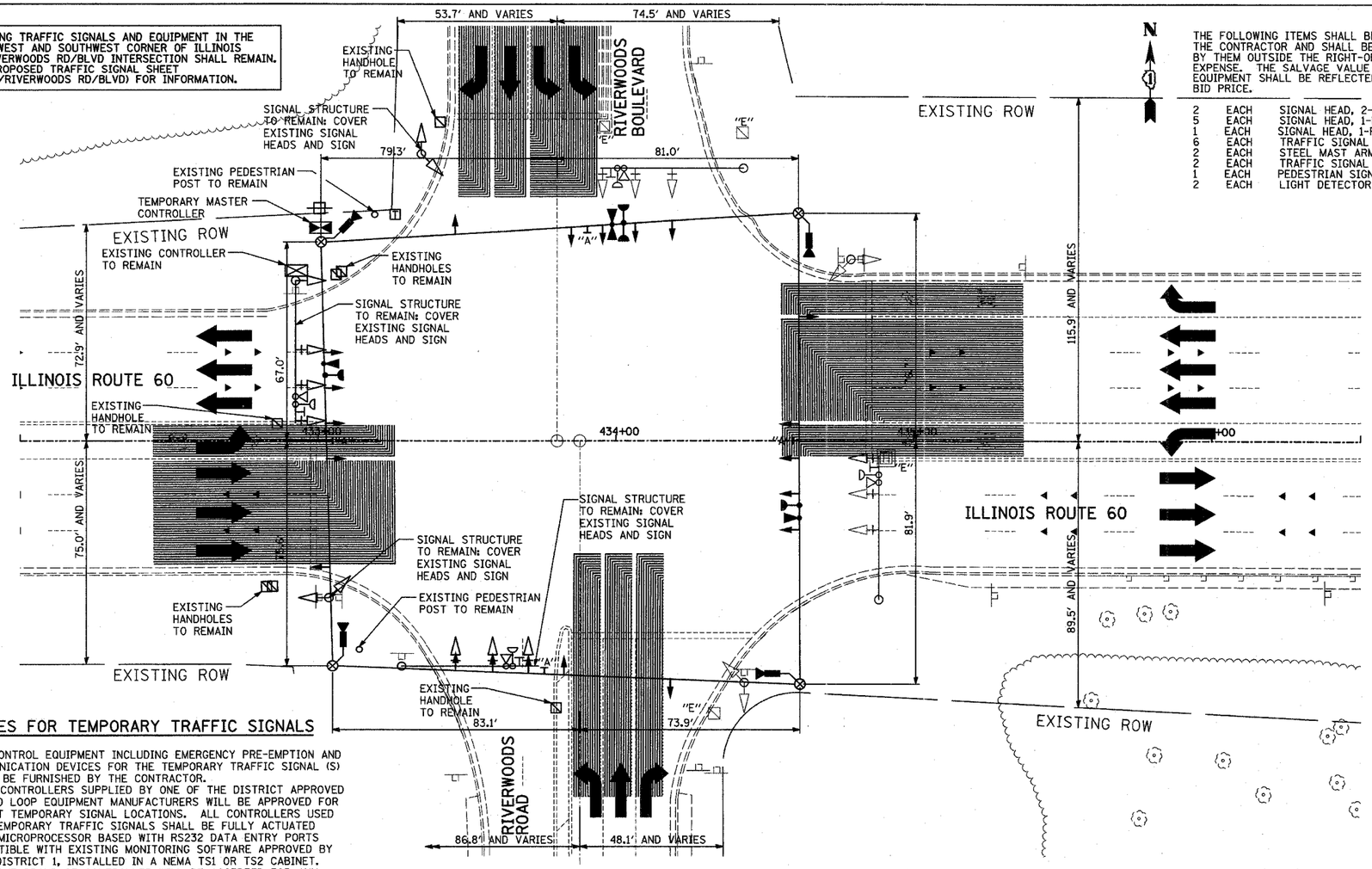
SCALE: NONE
DATE: MAY 8, 2007
DRAWN BY: CBS
CHECKED BY: JDF

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	205
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

p:\60245811-60\road\60rt_sht00.dgn

EXISTING TRAFFIC SIGNALS AND EQUIPMENT IN THE NORTHWEST AND SOUTHWEST CORNER OF ILLINOIS 60/RIVERWOODS RD/BLVD INTERSECTION SHALL REMAIN. SEE PROPOSED TRAFFIC SIGNAL SHEET (IL 60/RIVERWOODS RD/BLVD) FOR INFORMATION.



THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

2	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION, 5-SECTION
5	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
6	EACH	TRAFFIC SIGNAL BACKPLATE
2	EACH	STEEL MAST ARM AND POLE
2	EACH	TRAFFIC SIGNAL POST
1	EACH	PEDESTRIAN SIGNAL POST
2	EACH	LIGHT DETECTOR

NOTES:

1. THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.
2. THE LOCATIONS AND LENGTHS OF THE EXISTING SYSTEM ARE BASED ON PRE-BUILT PLANS AND TOPOGRAPHICAL INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE.
3. FOR INTERCONNECT BETWEEN ADJACENT TEMPORARY SIGNAL SYSTEMS SEE TEMPORARY INTERCONNECT SHEETS.

RESTORATION OF WORK AREA:

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE COST TO THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD. ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 250 AND 252 RESPECTIVELY.

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL (S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

"A" R10-5

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- VIDEO VECHICLE DETECTION
- PEDESTRIAN PUSHBUTTON DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- CT COMMON TRENCH
- UD UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED
- HANDHOLE
- HEAVY DUTY HANDHOLE
- VIDEO DETECTION ZONES

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- "E" EXISTING SERVICE INSTALLATION TO BE REMOVED
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- "E" EXISTING HEAVY DUTY HANDHOLE TO BE REMOVED
- EXISTING EMERGENCY VEHICLE SYSTEM DETECTOR TO BE REMOVED
- EXISTING EMERGENCY VEHICLE SYSTEM BEACON TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED

TY·LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT (PRE STAGE A & B)

IL RTE 60 & RIVERWOODS BLVD/RD

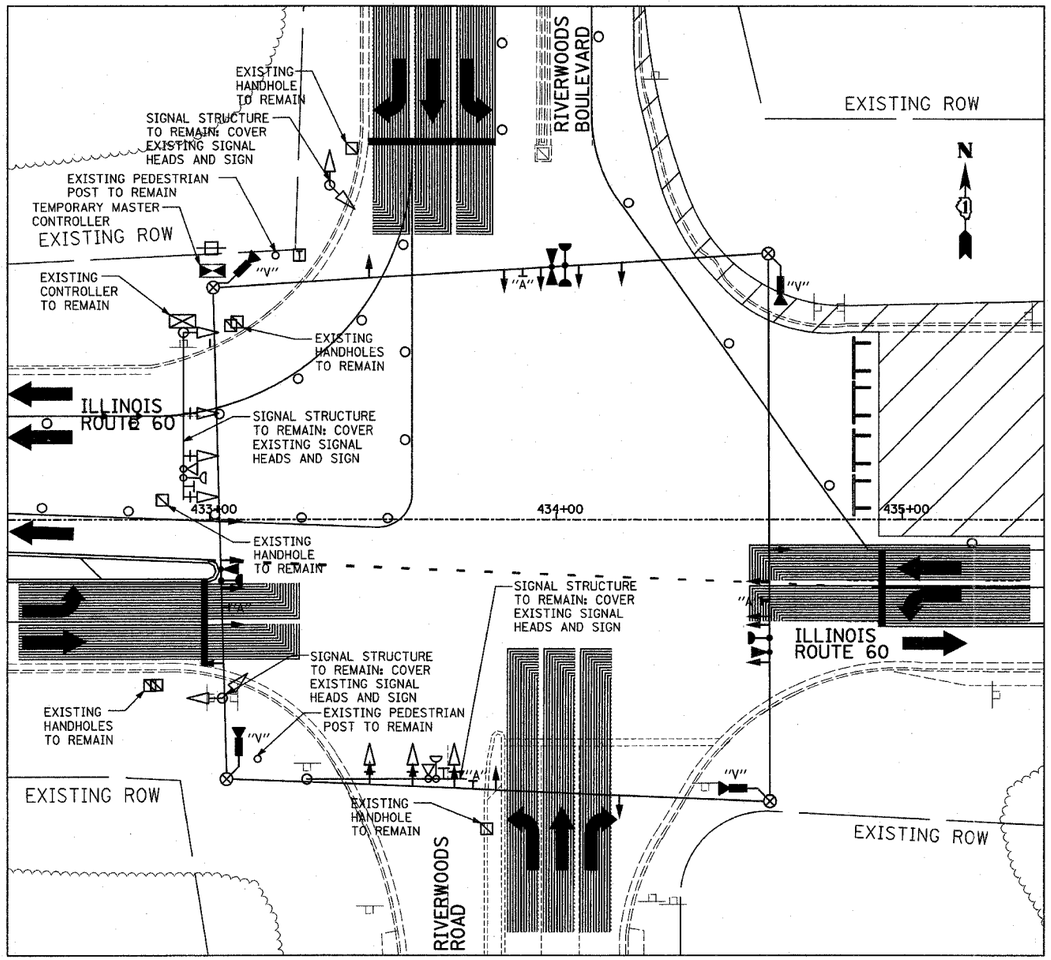
SCALE: 1"=20'-0" DRAWN BY: CBS

DATE: MAY 8, 2007 CHECKED BY: DMJ

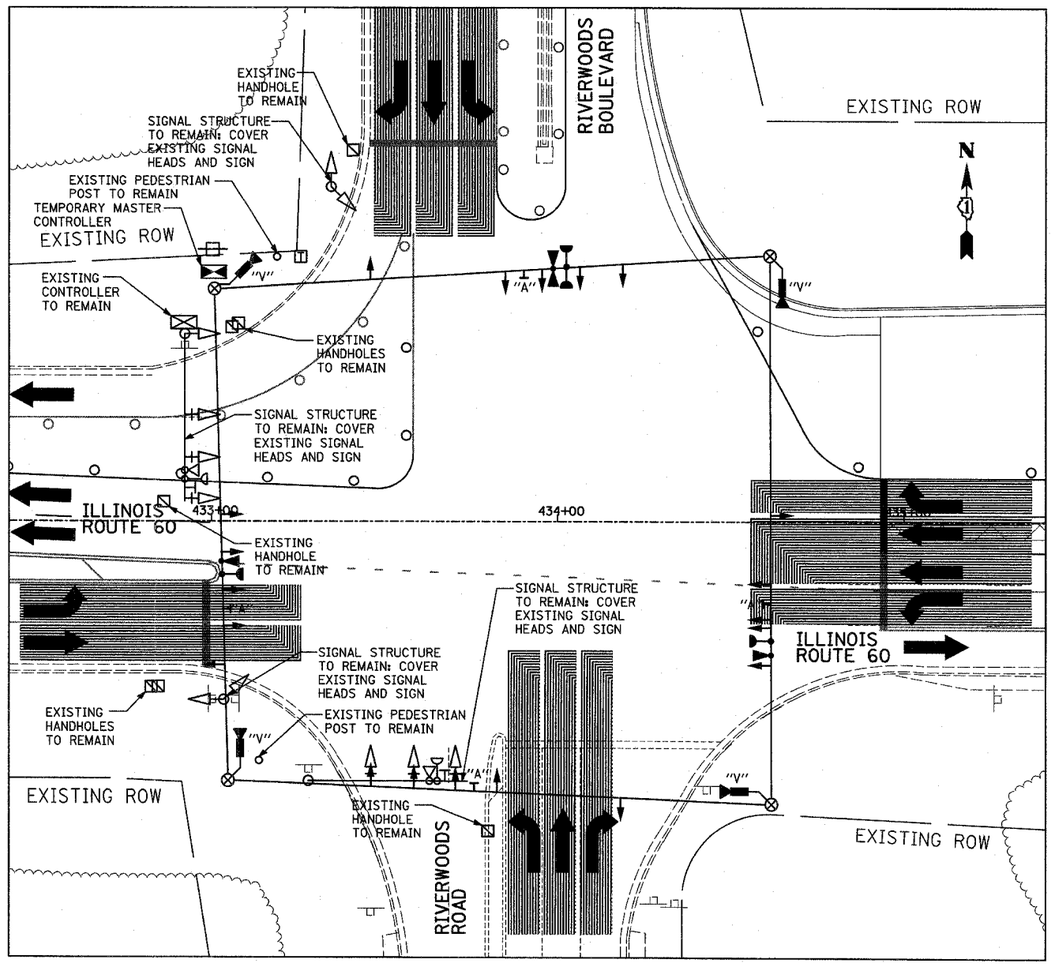
5/4/2007 11:49:31 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	206
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



STAGES 1 & 1A



STAGE 2

LEFT ON GREEN ARROW ONLY
"A" R10-5

TY·LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT (STAGES 1, 1A, & 2)

IL RTE 60 & RIVERWOODS BLVD/RD

SCALE: 1"=20'-0" DRAWN BY: CBS

DATE: MAY 8, 2007 CHECKED BY: DMJ

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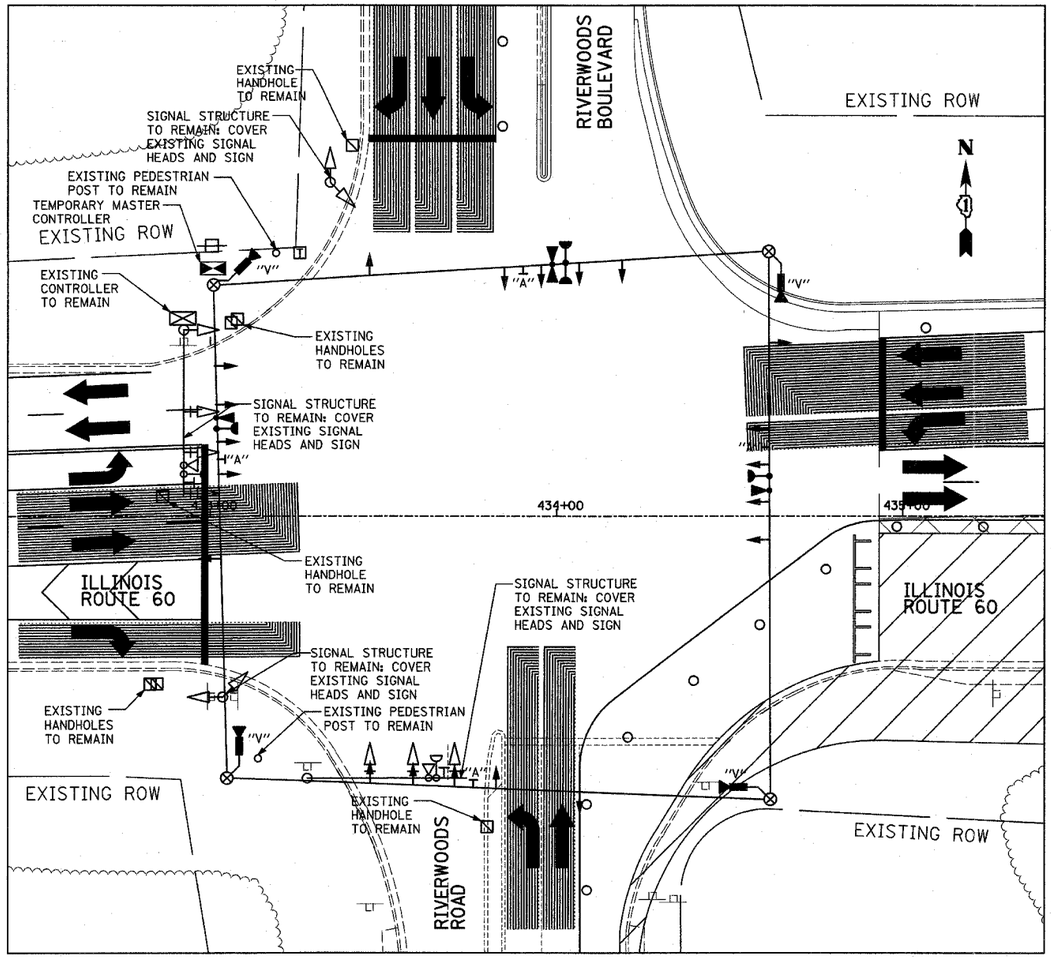
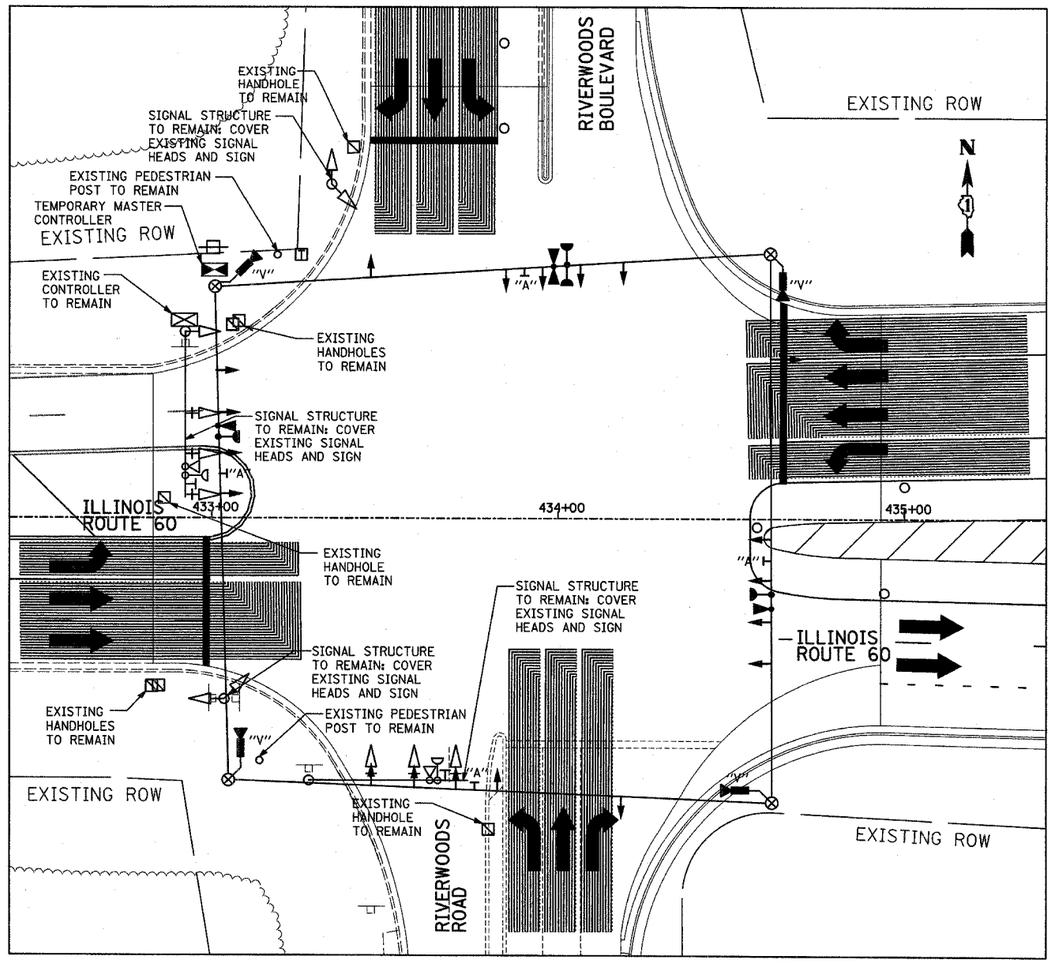
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	207
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



STAGES 3, 3A, & 4



STAGE 5

LEFT ON GREEN ARROW ONLY
"A" R10-5

TY·LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT (STAGES 3, 3A, 4, & 5)

IL RTE 60 & RIVERWOODS BLVD/RD

SCALE: 1"=20'-0" DRAWN BY: CBS

DATE: MAY 8, 2007 CHECKED BY: DMJ

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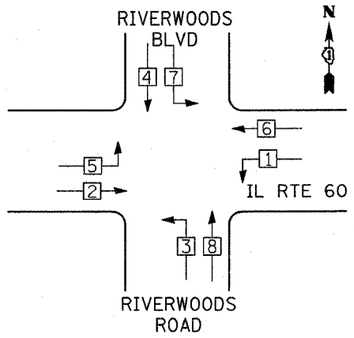
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	208
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

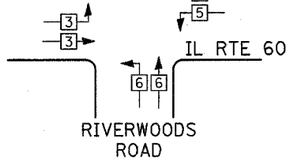
PHASE DESIGNATION DIAGRAM



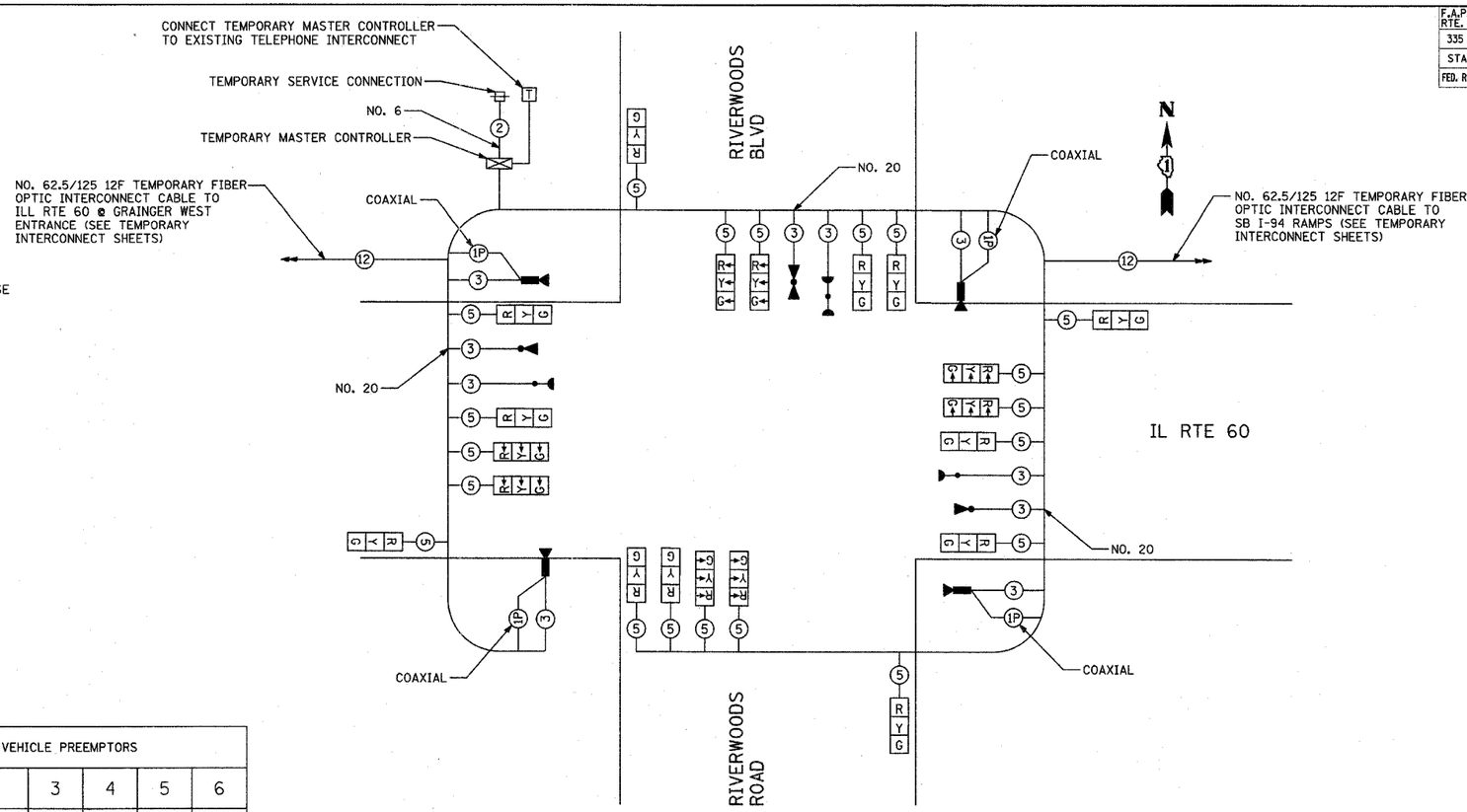
LEGEND

- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				



CABLE PLAN

TEMPORARY CABLE DIAGRAM LEGEND

- R — TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- (5) — INDICATES NUMBER OF CONDUCTORS. IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- PEDESTRIAN PUSHBUTTON DETECTOR
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- VIDEO VEHICLE DETECTION

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	810
(YELLOW)	12	135	25	0.25	405
(GREEN)	12	135	15	0.25	45
ARROW	24	135	12	0.10	324
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	0	252		0.05	0
FLASHER	0			0.05	0
ENERGY COSTS TO:				TOTAL =	1684.0

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: JOHN PRIBICH
PHONE: 630-437-2212
COMPANY: COMED

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
ILLINOIS RTE 60 OVER I-94

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM
STAGES 1, 1A, 2, 3, 3A, 4, & 5
IL RTE 60 & RIVERWOODS BLVD/RD

SCALE: NONE DRAWN BY: CBS
DATE: MAY 8, 2007 CHECKED BY: DMJ

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5/4/2007 11:49:45 AM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	209
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.

2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

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4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING TO MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPROGRAMMING THE VIDEO DETECTORS TO THE VIDEO DETECTION AREAS FOR EACH CONSTRUCTION STAGE AS INDICATED ON THE TEMPORARY SIGNAL PLANS, THE COST TO BE INCLUDED IN THE TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.

8. THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

   1 EACH CONTROLLER AND CABINET (COMPLETE)

9. THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT OF WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE

   9 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
   1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
   1 EACH SIGNAL HEAD, 2-FACE, 1-3-SECTION, 1-5-SECTION
   1 EACH SIGNAL HEAD, 2-FACE, 5-SECTION
   4 EACH TRAFFIC SIGNAL BACKPLATE
   2 EACH STEEL MAST ARM AND POLE
   7 EACH TRAFFIC SIGNAL POST
   1 EACH SERVICE INSTALLATIION, POLE MOUNT

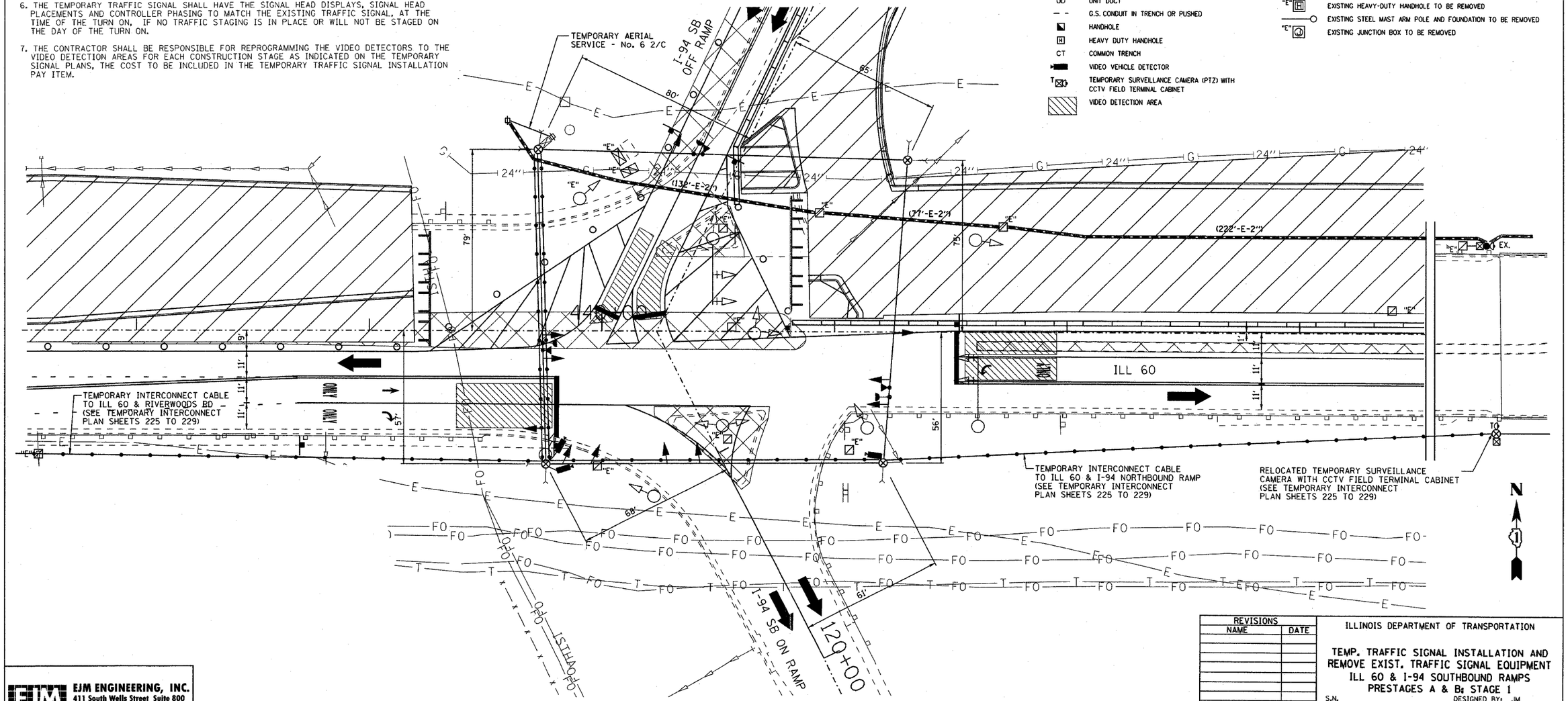
10. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM FOR ALL STAGES.

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 50 FOOT MINIMUM
- TEMPORARY WOOD POLE TO BE RELOCATED
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- PEDESTRIAN PUSHBUTTON DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD — UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED
- HANDHOLE
- H — HEAVY DUTY HANDHOLE
- CT — COMMON TRENCH
- VIDEO VEHICLE DETECTOR
- T — TEMPORARY SURVEILLANCE CAMERA (PTZ) WITH CCTV FIELD TERMINAL CABINET
- VIDEO DETECTION AREA

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- "E" — EXISTING SERVICE INTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" — EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" — EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- "E" — EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" — EXISTING JUNCTION BOX TO BE REMOVED



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMP. TRAFFIC SIGNAL INSTALLATION AND REMOVE EXIST. TRAFFIC SIGNAL EQUIPMENT ILL 60 & I-94 SOUTHBOUND RAMPS PRESTAGES A & B; STAGE 1

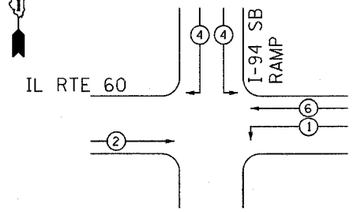
S.N.
SCALE: 1" = 20'
DATE: MAY 8, 2007
DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: CK

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	210
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

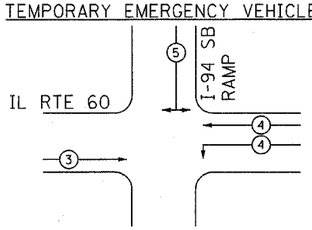
TEMPORARY PHASE DESIGNATION DIAGRAM



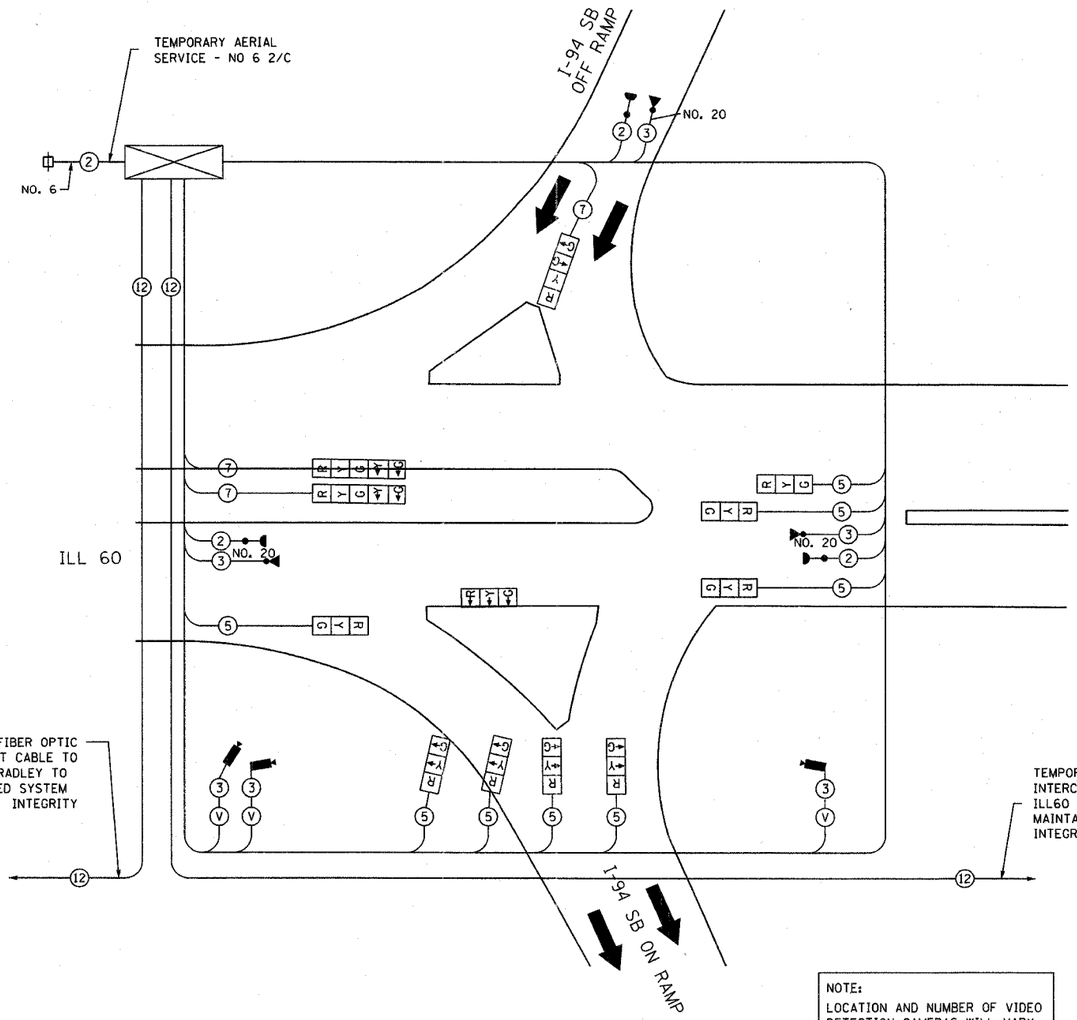
LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL OVERLAP
- PEDESTRIAN PHASE
- • NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	→	←	↓



TEMPORARY CABLE PLAN

TEMPORARY CABLE DIAGRAM LEGEND

- R — TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- (5) INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- PEDESTRIAN PUSHBUTTON DETECTOR
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- VIDEO VEHICLE DETECTOR
- (12) NO. 62.5/125 12F FIBER OPTIC CABLE
- (V) VIDEO DETECTOR CABLE AS RECOMMENDED BY VIDEO CAMERA MANUFACTURER

NOTE:
LOCATION AND NUMBER OF VIDEO DETECTION CAMERAS WILL VARY FROM STAGE TO STAGE

TEMPORARY TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIRMENTS ILL 60 & I-94 SOUTHBOUND RAMP					TOTAL
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE -LED.	% OPERATION	WATTAGE
SIGNAL (RED)	11		17	0.50	93.50
(YELLOW)	11		25	0.25	68.75
(GREEN)	12		15	0.25	45.00
ARROW	4		12	0.10	4.80
PED. SIGNAL				1.00	
CONTROLLER	1	100		1.00	100.00
FLASHER					
				TOTAL=	312.05

EXISTING SERVICE LOCATION
ENERGY COSTS TO:
ENERGY SUPPLY CONTACT: JOHN D. PRIBICH
PHONE: 630-437-2212
COMPANY: COMM. EDISON

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM
ILL 60 & I-94 SOUTHBOUND RAMPS
STAGES 1, 1A, 2, 3, 3A, 4

S.N.
SCALE: 1" = 20'
DATE: MAY 8, 2007
DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: CK

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	211
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

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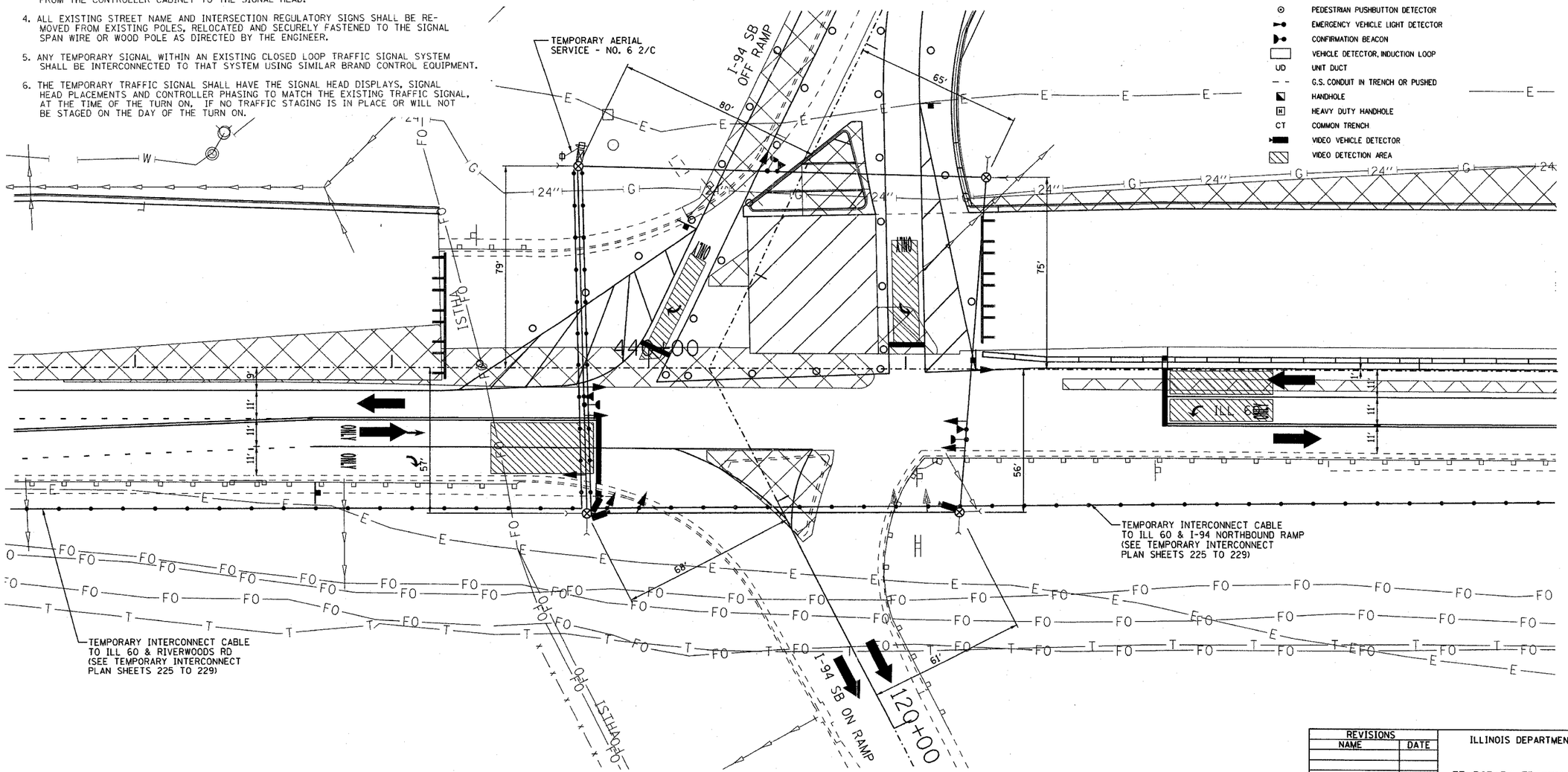

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
ILL 60 & I-94 SOUTHBOUND RAMPS
STAGE 1A

S.N.
SCALE: 1" = 20'
DATE: MAY 8, 2007
DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: CK

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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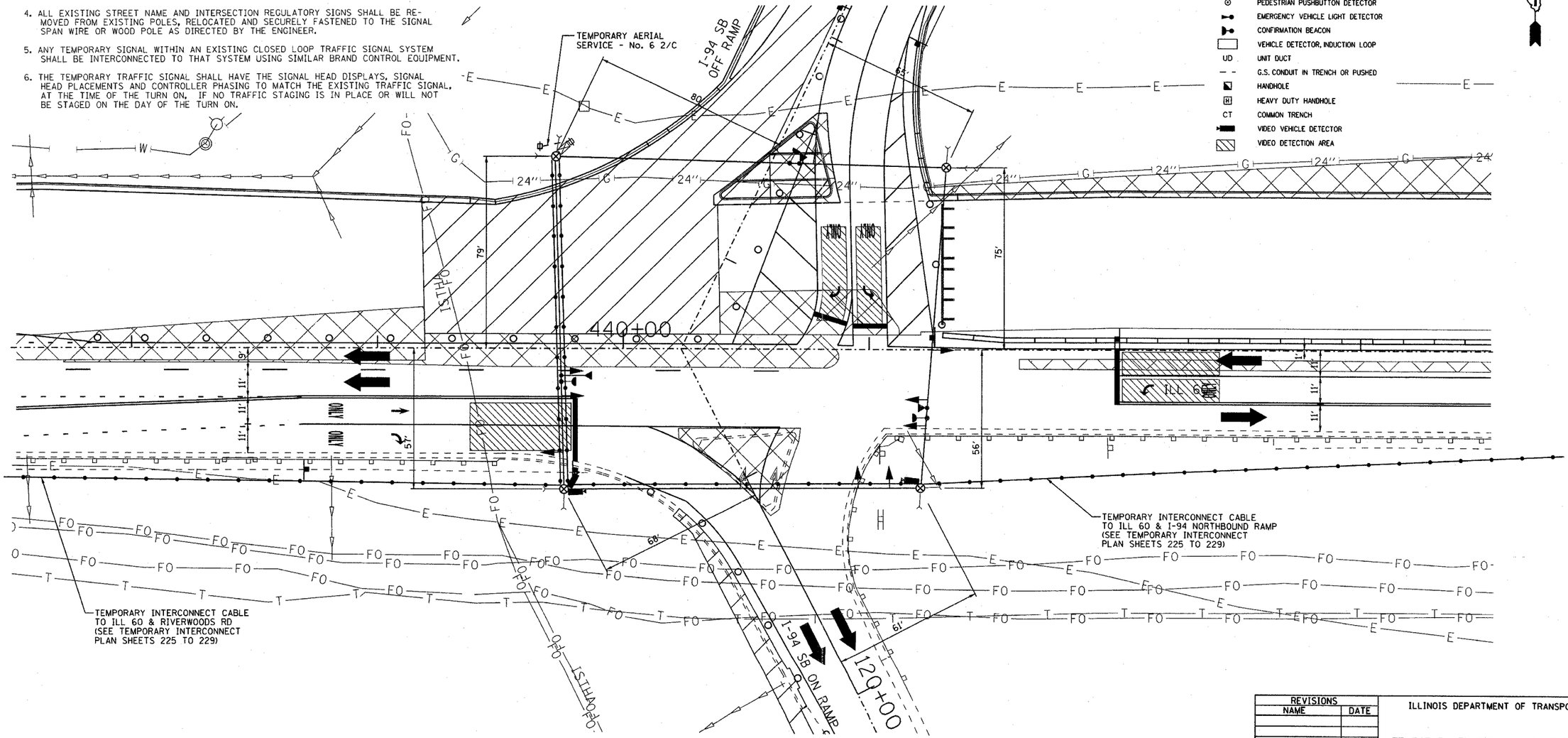

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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
ILL 60 & I-94 SOUTHBOUND RAMPS
STAGE 2

S.N.
SCALE: 1" = 20'
DATE: MAY 8, 2007

DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: CK

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

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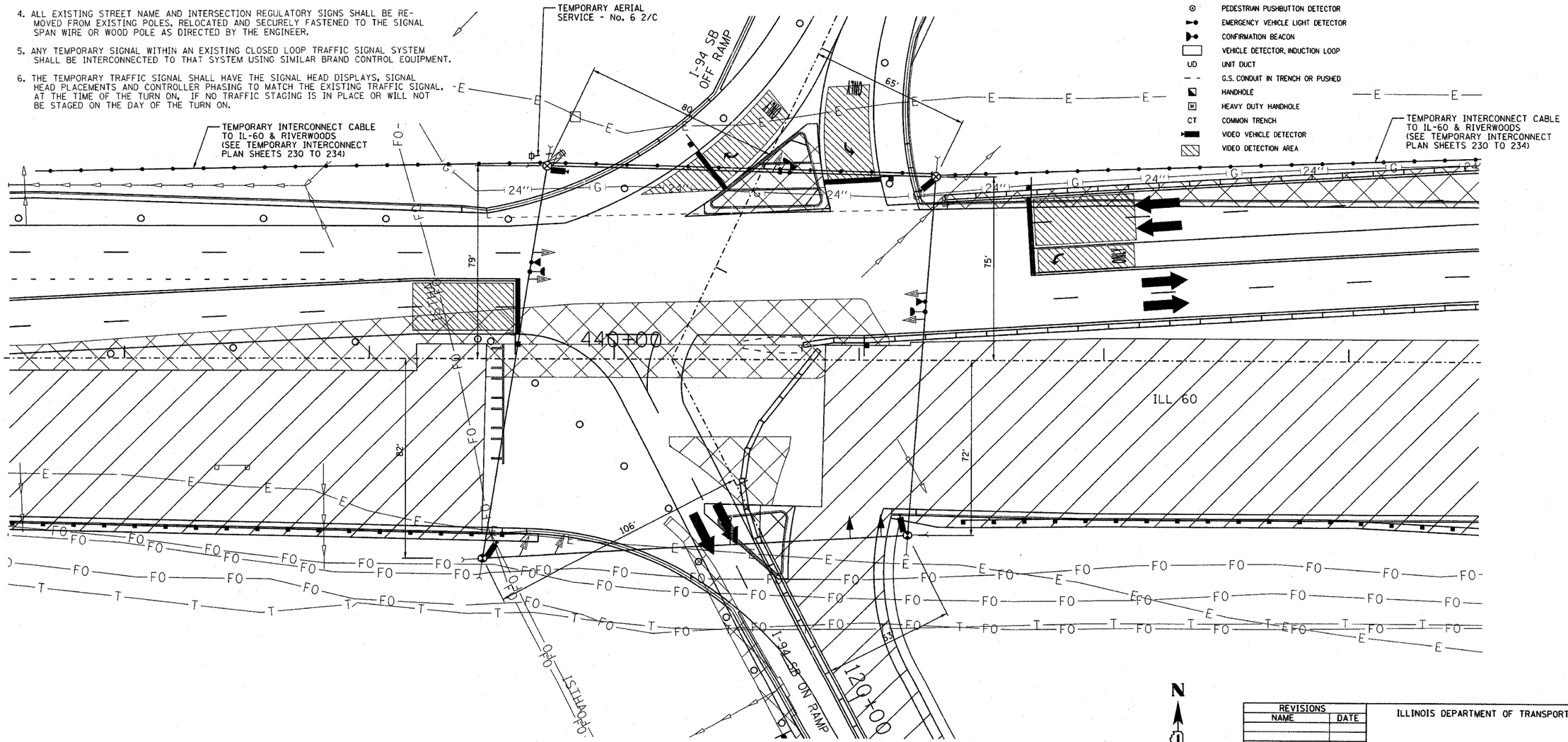

N

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
ILL 60 & SOUTHBOUND I-94 RAMPS
STAGES 3, 3A, & 4

S.N.
SCALE: 1" = 20'
DATE: MAY 8, 2007
DESIGNED BY: JM
DRAWN BY: PK
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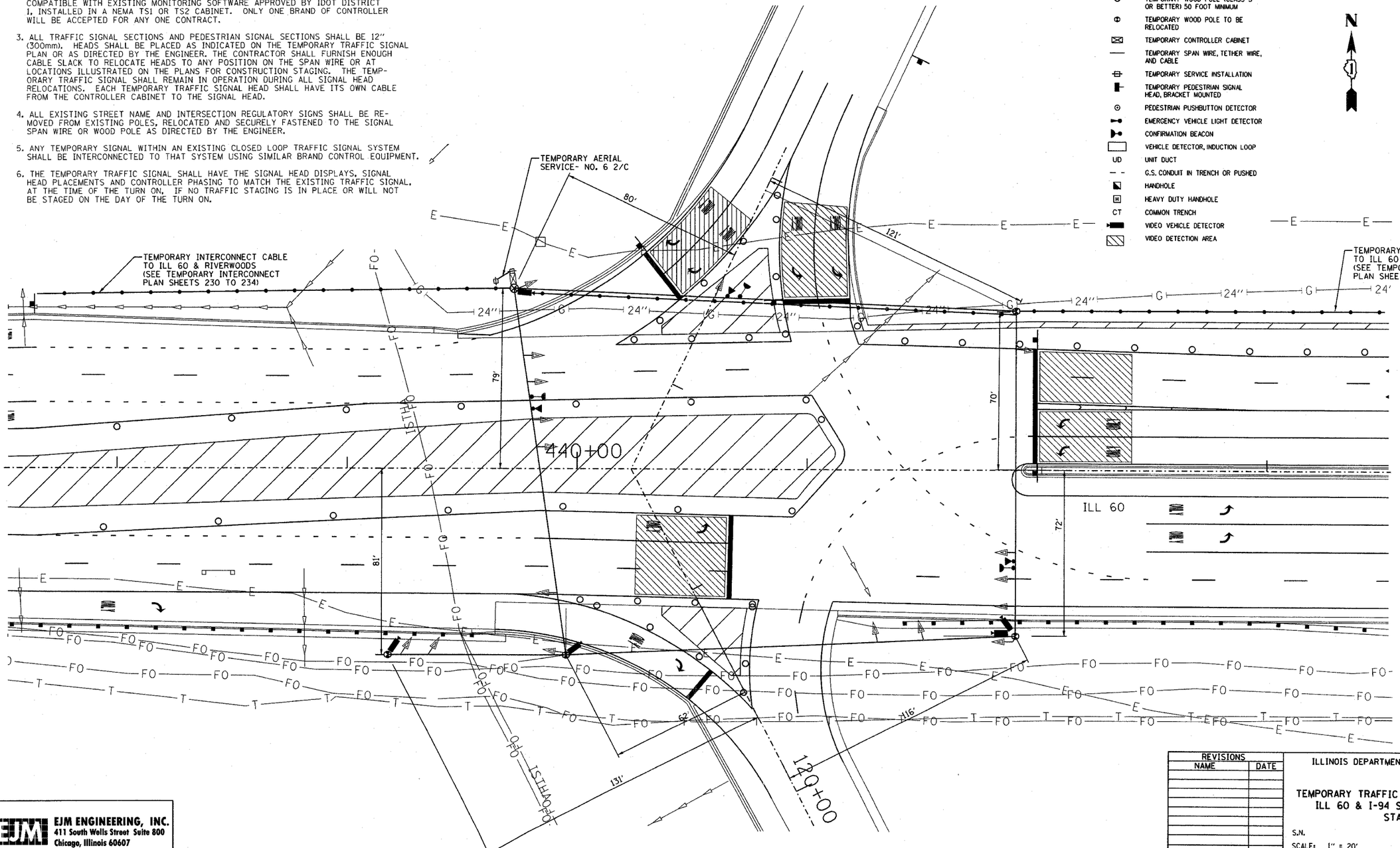
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPROGRAMMING THE VIDEO DETECTORS TO THE VIDEO DETECTION AREAS FOR EACH CONSTRUCTION STAGE AS INDICATED ON THE TEMPORARY SIGNAL PLANS. THE COST TO BE INCLUDED IN THE TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.
8. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM FOR ALL STAGES.

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 50 FOOT MINIMUM
- TEMPORARY WOOD POLE TO BE RELOCATED
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- PEDESTRIAN PUSHBUTTON DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD — UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED
- HANDHOLE
- H — HEAVY DUTY HANDHOLE
- CT — COMMON TRENCH
- VIDEO VEHICLE DETECTOR
- VIDEO DETECTION AREA



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
ILL 60 & I-94 SOUTHBOUND RAMPS
STAGE 5

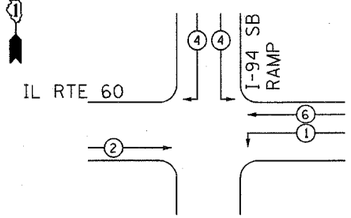
S.N.
SCALE: 1" = 20'
DATE: MAY 8, 2007
DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: CK

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	215
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

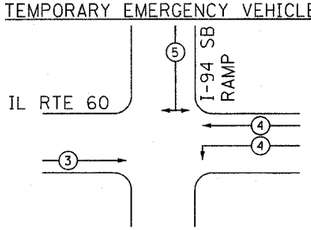
TEMPORARY PHASE DESIGNATION DIAGRAM



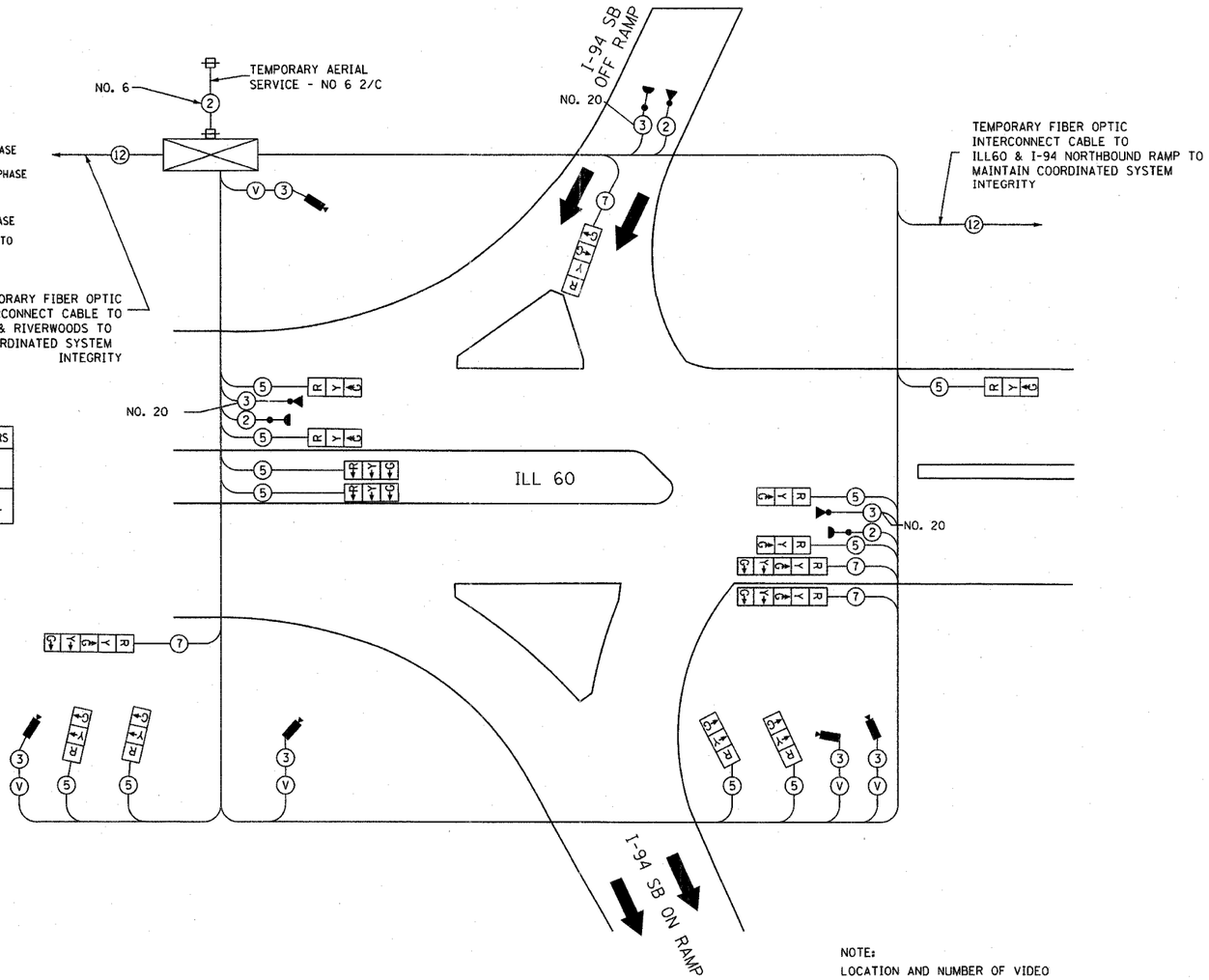
LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP (OL)
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	→	⇄	⊥



TEMPORARY CABLE PLAN

NOTE:
LOCATION AND NUMBER OF VIDEO DETECTION CAMERAS WILL VARY FROM STAGE TO STAGE

TEMPORARY CABLE DIAGRAM LEGEND

- R — TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- (5) — INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- PEDESTRIAN PUSHBUTTON DETECTOR
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- VIDEO VEHICLE DETECTOR
- (12) — NO. 62.5/125 12F FIBER OPTIC CABLE
- (V) — VIDEO DETECTOR CABLE AS RECOMMENDED BY VIDEO CAMERA MANUFACTURER

TEMPORARY TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIRMENTS ILL 60 & I-94 SOUTHBOUND RAMP					TOTAL
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED.	% OPERATION	WATTAGE
SIGNAL (RED)	15		17	0.50	127.50
(YELLOW)	15		25	0.25	93.75
(GREEN)	16		15	0.25	60.00
ARROW	6		12	0.10	7.20
PED. SIGNAL				1.00	
CONTROLLER	1	100		1.00	100.00
FLASHER					
				TOTAL=	388.45

EXISTING SERVICE LOCATION
ENERGY COSTS TO:
ENERGY SUPPLY CONTACT: JOHN D. PRIBICH
PHONE: 630-437-2212
COMPANY: COMM. EDISON

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM ILL 60 & I-94 SOUTHBOUND RAMPS STAGE 5

S.N.
SCALE: 1" = 20'
DATE: MAY 8, 2007

DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: CK

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	216
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.

2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING TO MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON. IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPROGRAMMING THE VIDEO DETECTORS TO THE VIDEO DETECTION AREAS FOR EACH CONSTRUCTION STAGE AS INDICATED ON THE TEMPORARY SIGNAL PLANS. THE COST TO BE INCLUDED IN THE TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.

8. THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

   1 EACH CONTROLLER AND CABINET (COMPLETE)

9. THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT OF WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE

   9 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
   2 EACH SIGNAL HEAD, 2-FACE, 1-3-SECTION, 1-5-SECTION
   4 EACH TRAFFIC SIGNAL BACKPLATE
   2 EACH STEEL MAST ARM AND POLE
   6 EACH TRAFFIC SIGNAL POST

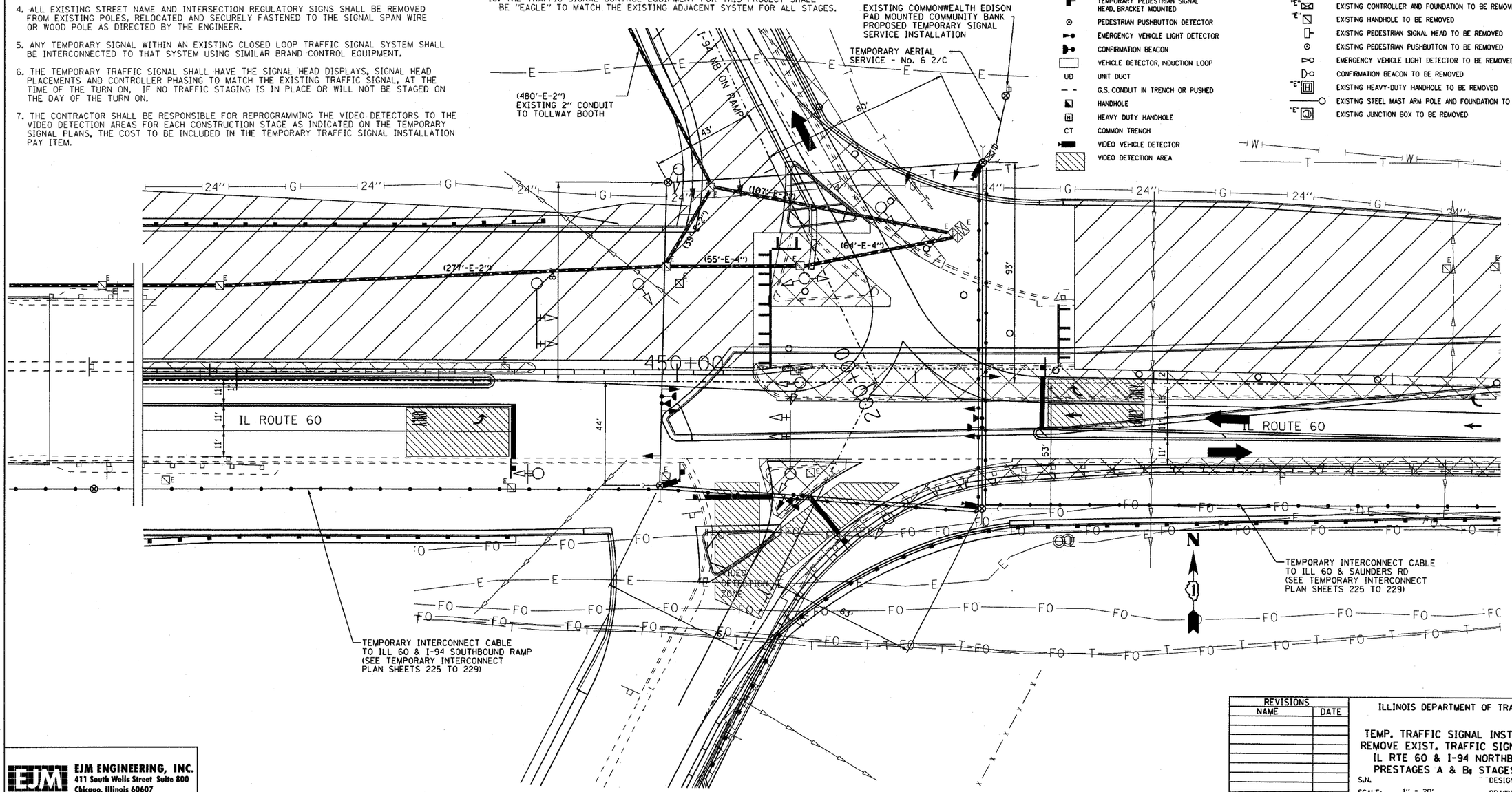
10. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM FOR ALL STAGES.

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 50 FOOT MINIMUM
- TEMPORARY WOOD POLE TO BE RELOCATED
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- PEDESTRIAN PUSHBUTTON DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD — UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED
- HANDHOLE
- H — HEAVY DUTY HANDHOLE
- CT — COMMON TRENCH
- VIDEO VEHICLE DETECTOR
- VIDEO DETECTION AREA

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- "E" — EXISTING SERVICE INTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" — EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" — EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EXISTING EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- "E" — EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" — EXISTING JUNCTION BOX TO BE REMOVED



EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

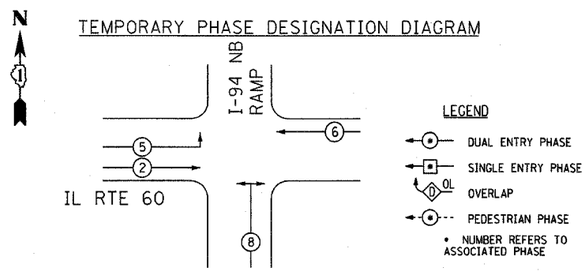
TEMP. TRAFFIC SIGNAL INSTALLATION AND REMOVE EXIST. TRAFFIC SIGNAL EQUIPMENT
IL RTE 60 & I-94 NORTHBOUND RAMPS
PRESTAGES A & B; STAGES 1, 1A, & 2

S.N.
SCALE: 1" = 20'
DATE: MAY 8, 2007
DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: GR

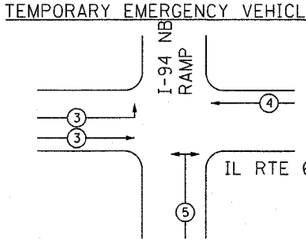
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	217
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

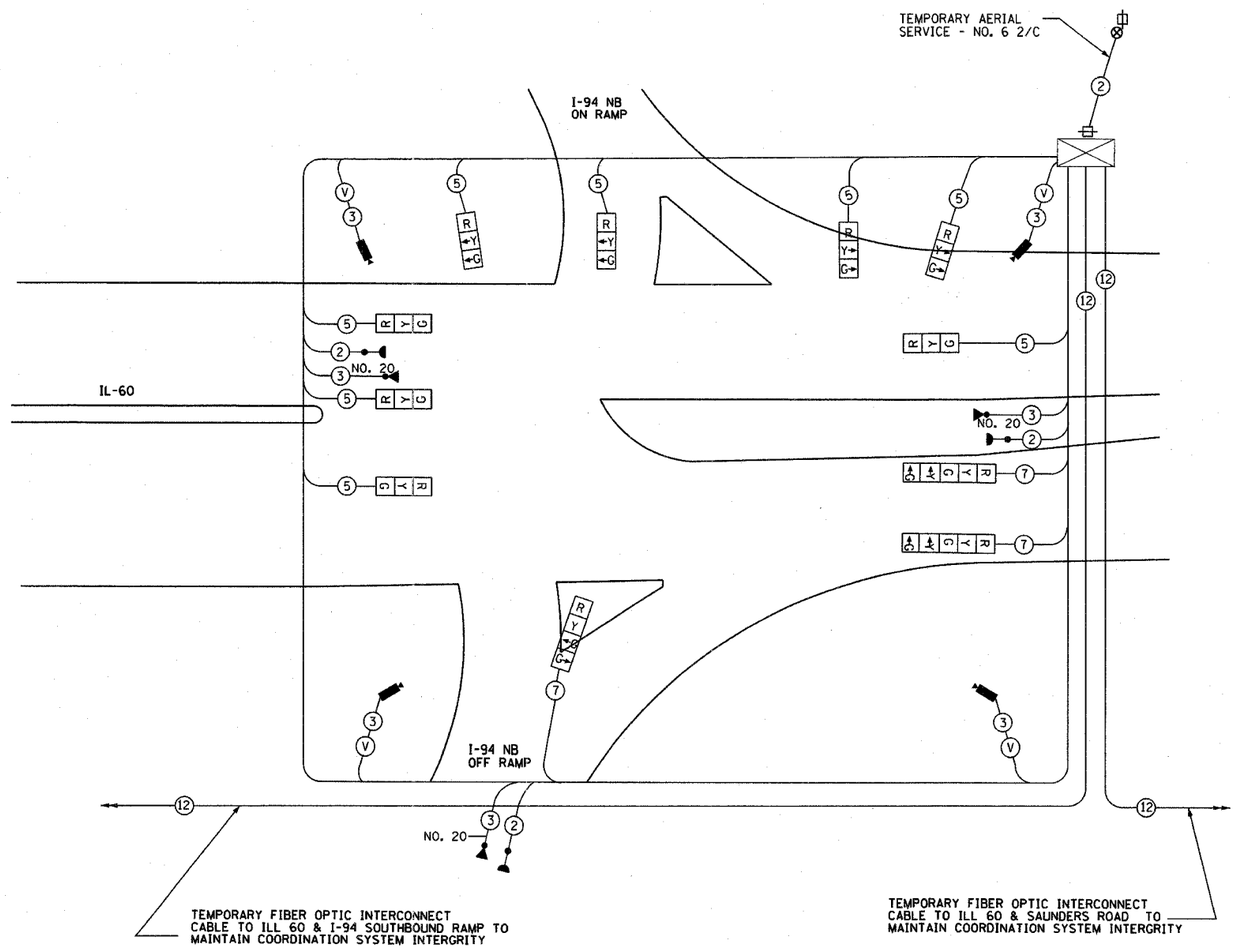
TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	⇄	←	⊤



TEMPORARY CABLE DIAGRAM LEGEND

- R — TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- (5) — INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- PEDESTRIAN PUSHBUTTON DETECTOR
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- VIDEO VEHICLE DETECTOR
- (12) — NO. 62.5/125 12F FIBER OPTIC CABLE
- (V) — VIDEO DETECTOR CABLE AS RECOMMENDED BY VIDEO CAMERA MANUFACTURER

TEMPORARY TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIRMENTS ILL 60 & I-94 NORTHBOUND RAMP					TOTAL
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED.	% OPERATION	WATTAGE
SIGNAL (RED)	11		17	0.50	93.50
(YELLOW)	11		25	0.25	68.75
(GREEN)	12		15	0.25	45.00
ARROW	4		12	0.10	4.80
PED. SIGNAL				1.00	
CONTROLLER	1	100		1.00	100.00
FLASHER					
				TOTAL=	312.05

EXISTING SERVICE LOCATION
ENERGY COSTS TO:
ENERGY SUPPLY CONTCT: JOHN D. PRIBICH
PHONE: 630-437-2212
COMPANY: COMM. EDISON

TEMPORARY CABLE PLAN

NOTE: LOCATION AND NUMBER OF VIDEO DETECTOR CAMERAS WILL VARY FROM STAGE TO STAGE.

REVISIONS NAME	DATE

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN
IL RTE 60 & I-94 NORTHBOUND RAMPS

S.N.	DESIGNED BY: JM
SCALE: NONE	DRAWN BY: PK
DATE: MAY 8, 2007	CHECKED BY: GR

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	218
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.

2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

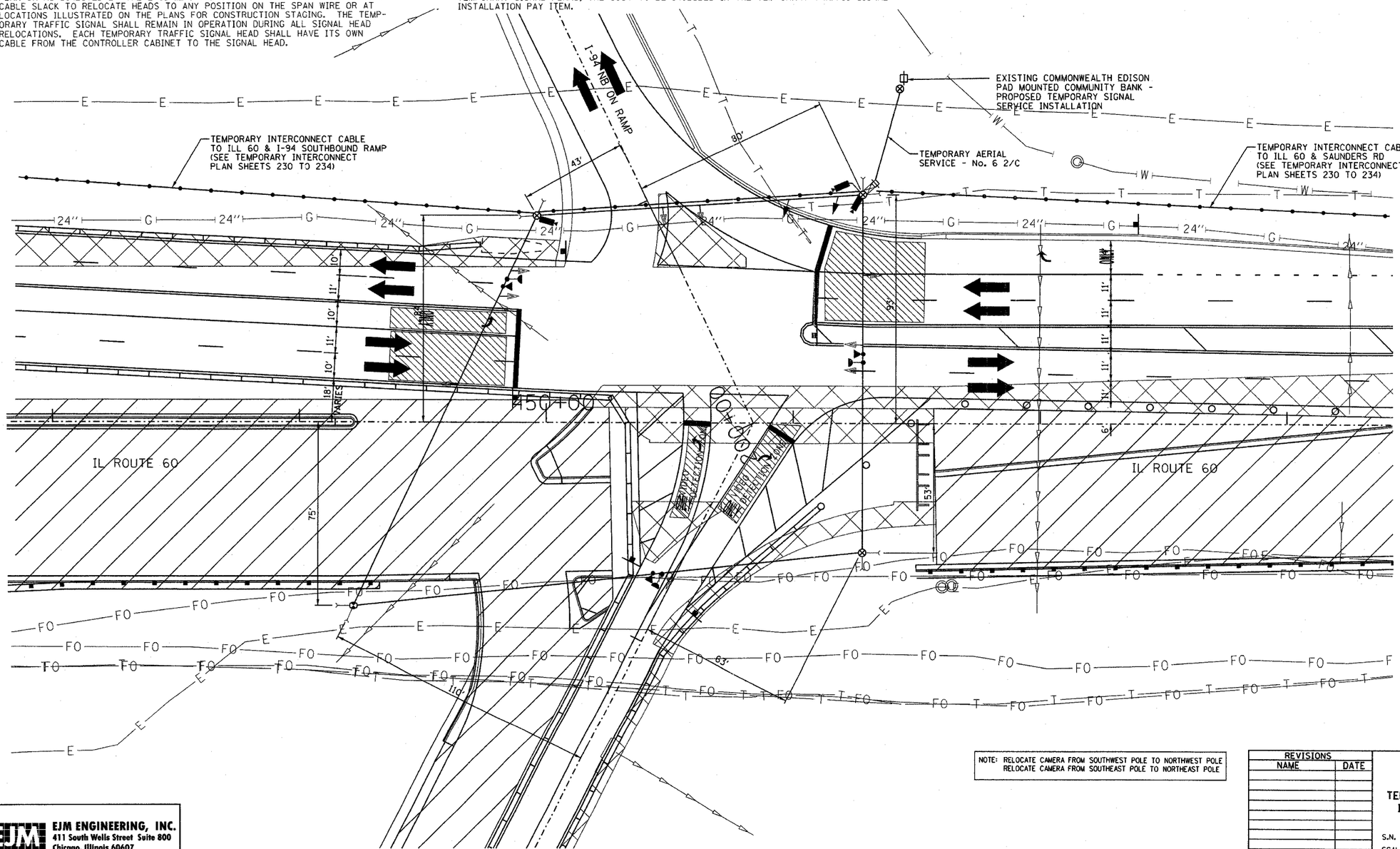
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON. IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPROGRAMMING THE VIDEO DETECTORS TO THE VIDEO DETECTION AREAS FOR EACH CONSTRUCTION STAGE AS INDICATED ON THE TEMPORARY SIGNAL PLANS. THE COST TO BE INCLUDED IN THE TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.



TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 50 FOOT MINIMUM
- TEMPORARY WOOD POLE TO BE RELOCATED
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- PEDESTRIAN PUSHBUTTON DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD — UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED
- HANDHOLE
- H — HEAVY DUTY HANDHOLE
- CT — COMMON TRENCH
- VIDEO VEHICLE DETECTOR
- VIDEO DETECTION AREA

NOTE: RELOCATE CAMERA FROM SOUTHWEST POLE TO NORTHWEST POLE
RELOCATE CAMERA FROM SOUTHEAST POLE TO NORTHEAST POLE

REVISIONS NAME	DATE

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION IL RTE 60 & I-94 NORTHBOUND RAMPS STAGE 3

S.N.
SCALE: 1" = 20'
DATE: MAY 8, 2007

DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: GR

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.

2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

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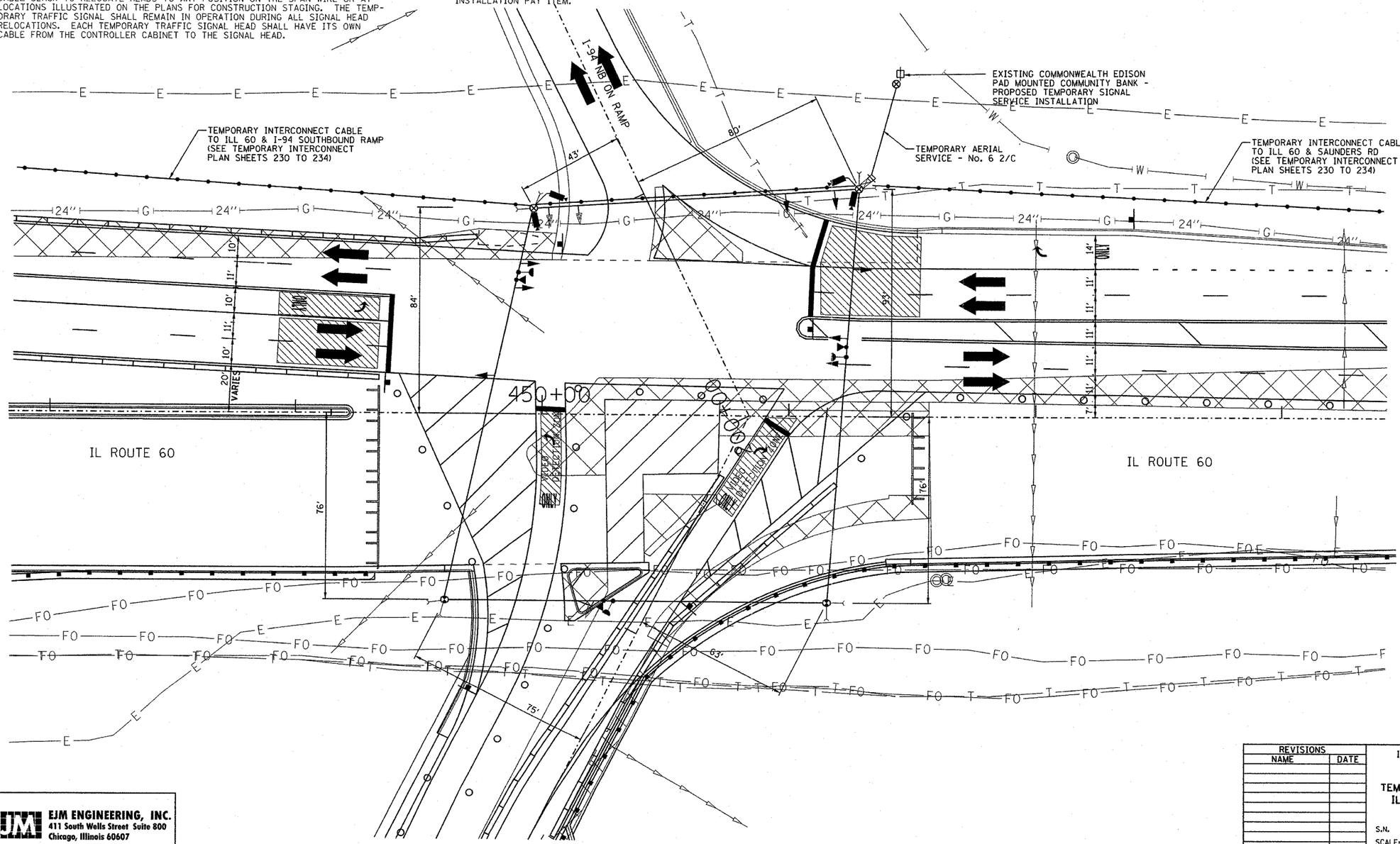
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	219
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 50 FOOT MINIMUM
- TEMPORARY WOOD POLE TO BE RELOCATED
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- PEDESTRIAN PUSHBUTTON DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD — UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED
- HANDHOLE
- H — HEAVY DUTY HANDHOLE
- CT — COMMON TRENCH
- VIDEO VEHICLE DETECTOR
- VIDEO DETECTION AREA

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION IL RTE 60 & I-94 NORTHBOUND RAMPS STAGE 3A

S.N.	DESIGNED BY: JM
SCALE: 1" = 20'	DRAWN BY: PK
DATE: MAY 8, 2007	CHECKED BY: GR

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.

2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

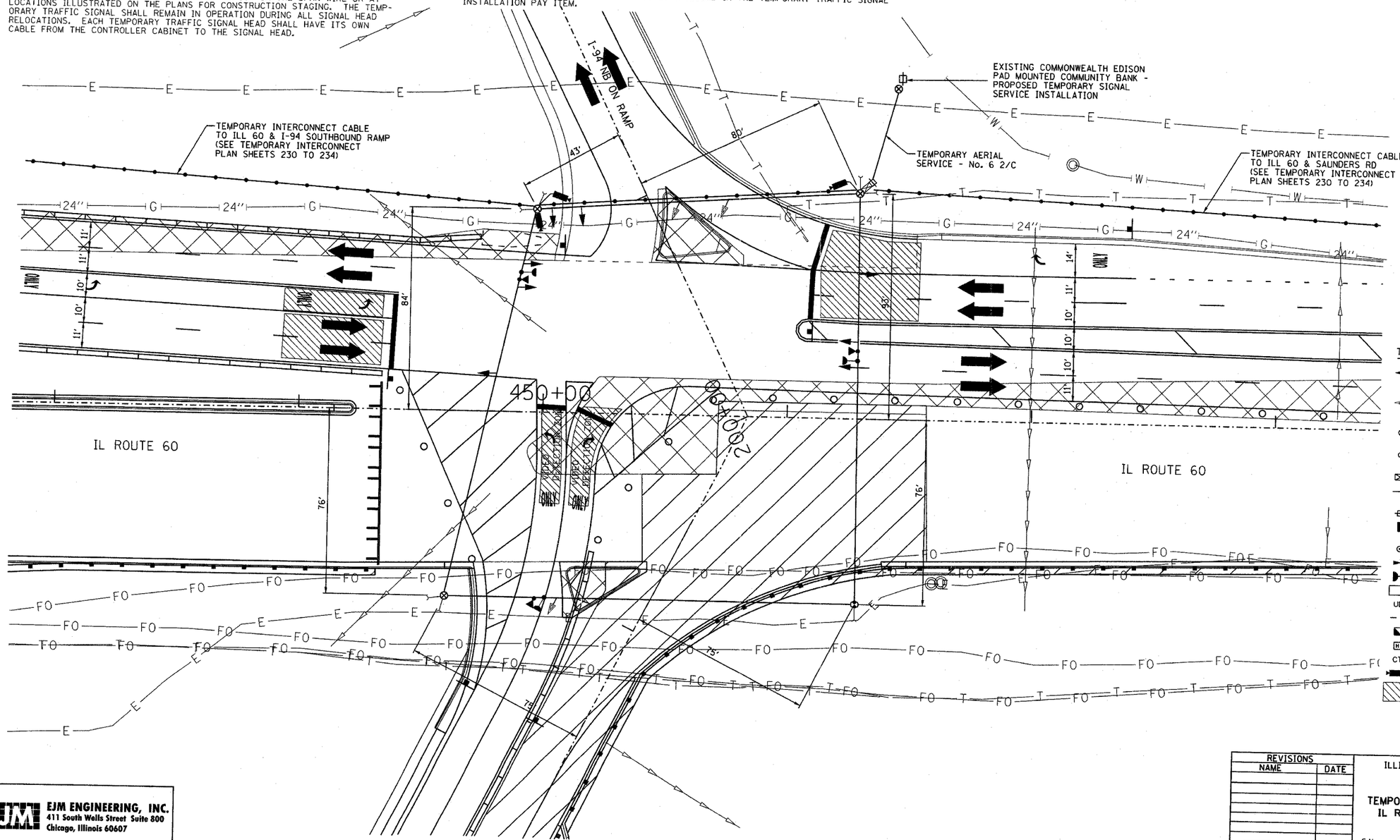
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON. IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPROGRAMMING THE VIDEO DETECTORS TO THE VIDEO DETECTION AREAS FOR EACH CONSTRUCTION STAGE AS INDICATED ON THE TEMPORARY SIGNAL PLANS, THE COST TO BE INCLUDED IN THE TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	220
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 50 FOOT MINIMUM
- TEMPORARY WOOD POLE TO BE RELOCATED
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- PEDESTRIAN PUSHBUTTON DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED
- HANDHOLE
- H HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- VIDEO VEHICLE DETECTOR
- VIDEO DETECTION AREA

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
IL RTE 60 & I-94 NORTHBOUND RAMPS
STAGE 4

S.N.
SCALE: 1" = 20'
DATE: MAY 8, 2007

DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: GR

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.

2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1. INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE RE-MOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

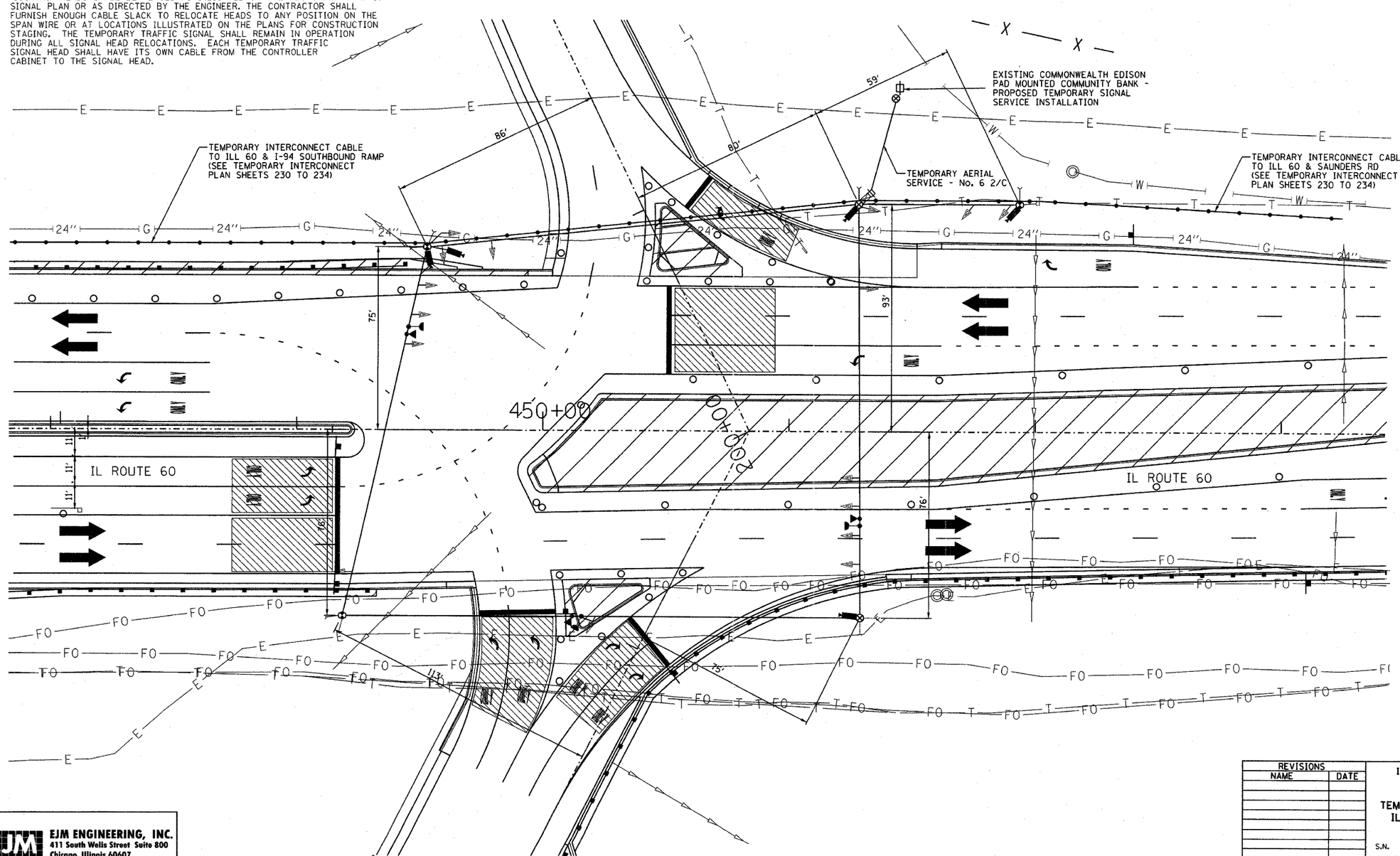
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON. IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPROGRAMMING THE VIDEO DETECTORS TO THE VIDEO DETECTION AREAS FOR EACH CONSTRUCTION STAGE AS INDICATED ON THE TEMPORARY SIGNAL PLANS, THE COST TO BE INCLUDED IN THE TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.

8. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM FOR ALL STAGES.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	221
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



N

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD, SPAN WIRE MOUNTED, SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 50 FOOT MINIMUM
- TEMPORARY WOOD POLE TO BE RELOCATED
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- PEDESTRIAN PUSHBUTTON DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD — UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED
- HANDHOLE
- H — HEAVY DUTY HANDHOLE
- CT — COMMON TRENCH
- VIDEO VEHICLE DETECTOR
- VIDEO DETECTION AREA

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
IL RTE 60 & I-94 NORTHBOUND RAMPS
STAGE 5

S.N.
SCALE: 1" = 20'
DATE: MAY 8, 2007

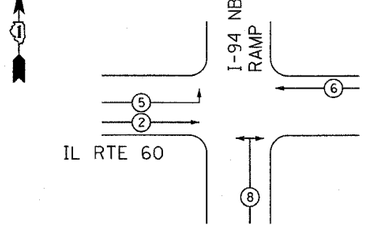
DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: GR

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	222
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

N

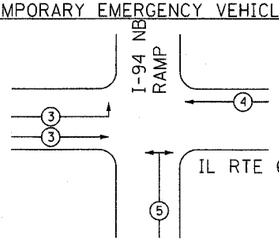
TEMPORARY PHASE DESIGNATION DIAGRAM



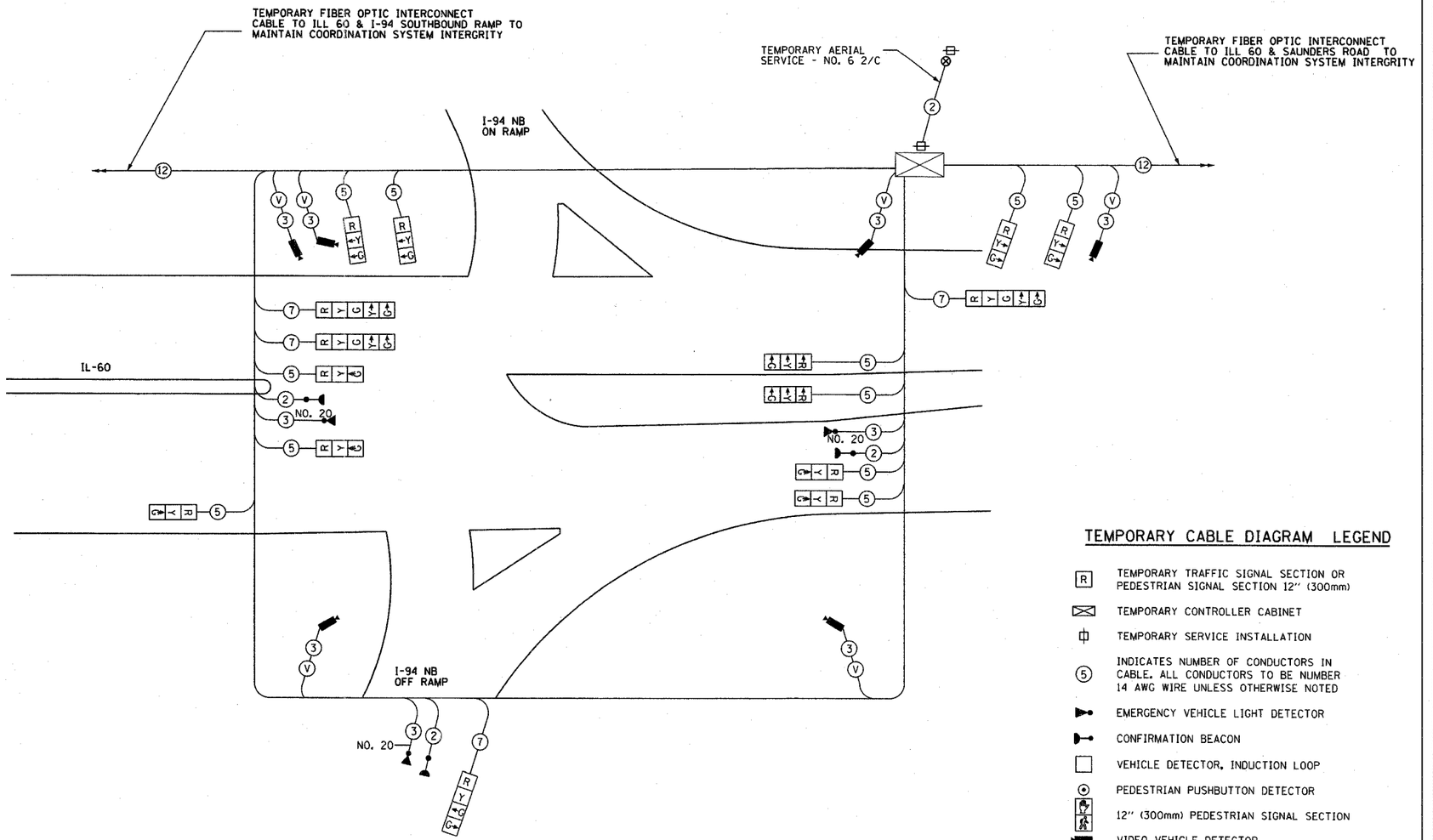
LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL OVERLAP
- PEDESTRIAN PHASE
- • NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT			



TEMPORARY CABLE PLAN

NOTE: LOCATION AND NUMBER OF VIDEO DETECTOR CAMERAS WILL VARY FROM STAGE TO STAGE.

TEMPORARY CABLE DIAGRAM LEGEND

- R — TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- (5) — INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- PEDESTRIAN PUSHBUTTON DETECTOR
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- VIDEO VEHICLE DETECTOR
- (12) — NO. 62.5/125 12F FIBER OPTIC CABLE
- (V) — VIDEO DETECTOR CABLE AS RECOMMENDED BY VIDEO CAMERA MANUFACTURER

TEMPORARY TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIRMENTS ILL 60 & I-94 NORTHBOUND RAMP					TOTAL
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED.	% OPERATION	WATTAGE
SIGNAL (RED)	15		17	0.50	127.50
(YELLOW)	15		25	0.25	93.75
(GREEN)	16		15	0.25	60.00
ARROW	6		12	0.10	7.20
PED. SIGNAL				1.00	
CONTROLLER	1		100	1.00	100.00
LUMINAIRES					
FLASHER					
				TOTAL=	388.45

EXISTING SERVICE LOCATION
ENERGY COSTS TO:
ENERGY SUPPLY CONTCT: JOHN D. PRIBICH
PHONE: 630-437-2212
COMPANY: COMM. EDISON

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM IL RTE 60 & I-94 NORTHBOUND RAMPS STAGE 5

S.N.	DESIGNED BY: JM
SCALE: NONE	DRAWN BY: PK
DATE: MAY 8, 2007	CHECKED BY: GR

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
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4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
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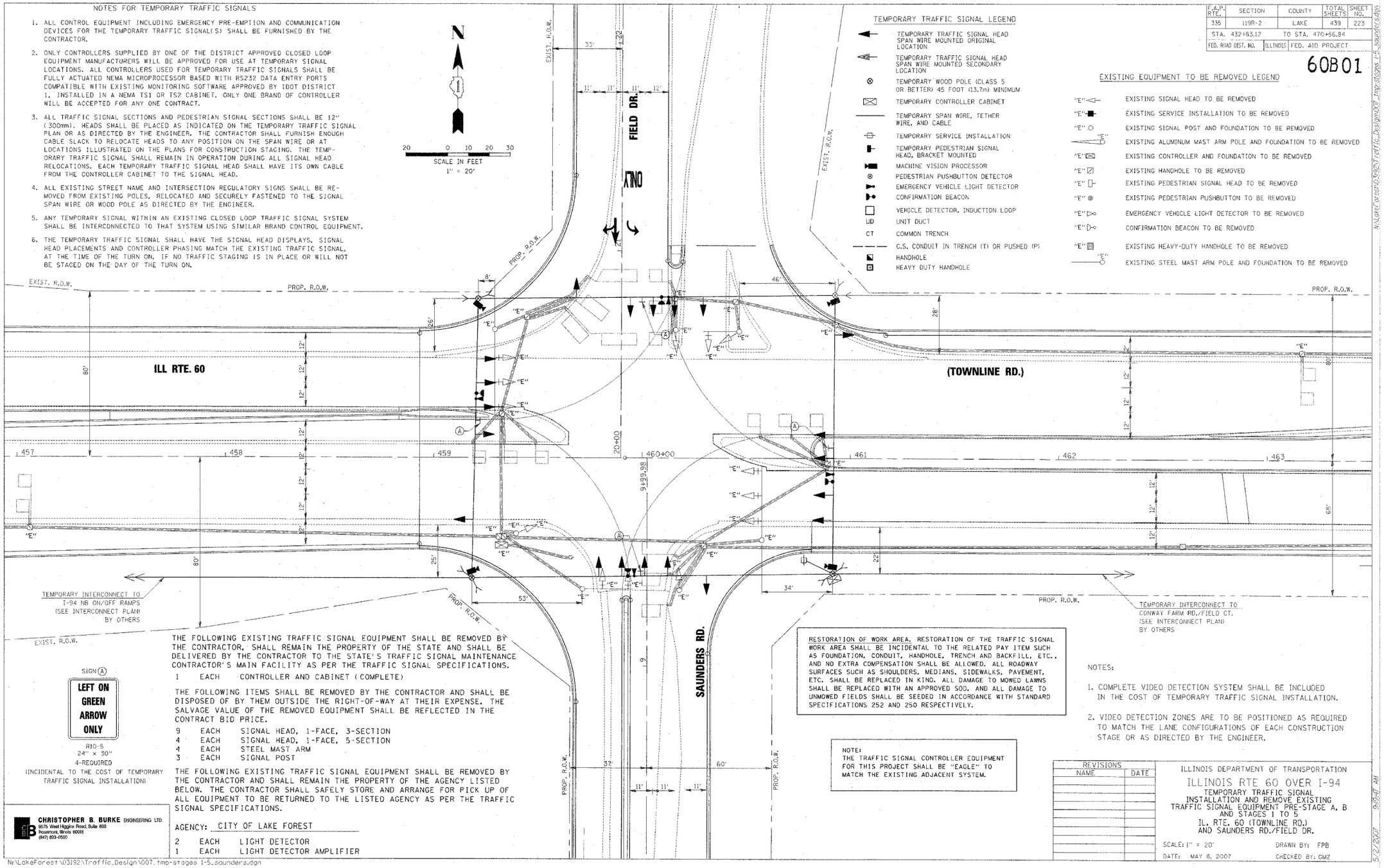

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- MACHINE VISION PROCESSOR
- PEDESTRIAN PUSHBUTTON DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD — UNIT DUCT
- CT — COMMON TRENCH
- C.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- HANDHOLE
- HEAVY DUTY HANDHOLE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	223
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- "E" — EXISTING SIGNAL HEAD TO BE REMOVED
- "E" — EXISTING SERVICE INSTALLATION TO BE REMOVED
- "E" — EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- "E" — EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" — EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" — EXISTING HANDHOLE TO BE REMOVED
- "E" — EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- "E" — EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- "E" — EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" — CONFIRMATION BEACON TO BE REMOVED
- "E" — EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- "E" — EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

SIGN (A)

LEFT ON GREEN ARROW ONLY

R10-5
24" x 30"
4-REQUIRED
(INCIDENTAL TO THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION)

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CONTROLLER AND CABINET (COMPLETE)

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

9 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
4 EACH STEEL MAST ARM
3 EACH SIGNAL POST

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: CITY OF LAKE FOREST

2 EACH LIGHT DETECTOR
1 EACH LIGHT DETECTOR AMPLIFIER

CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

NOTES:

1. COMPLETE VIDEO DETECTION SYSTEM SHALL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.
2. VIDEO DETECTION ZONES ARE TO BE POSITIONED AS REQUIRED TO MATCH THE LANE CONFIGURATIONS OF EACH CONSTRUCTION STAGE OR AS DIRECTED BY THE ENGINEER.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PRE-STAGE A, B AND STAGES 1 TO 5
IL. RTE. 60 (TOWNLINE RD.) AND SAUNDERS RD./FIELD DR.

SCALE: 1" = 20' DRAWN BY: FPB
DATE: MAY 8, 2007 CHECKED BY: GMZ

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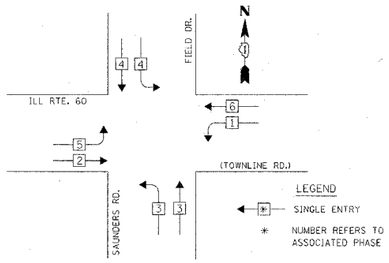
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	224
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60801

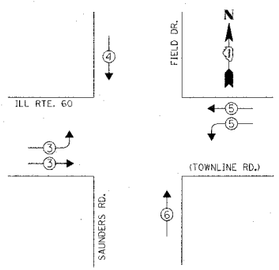
TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

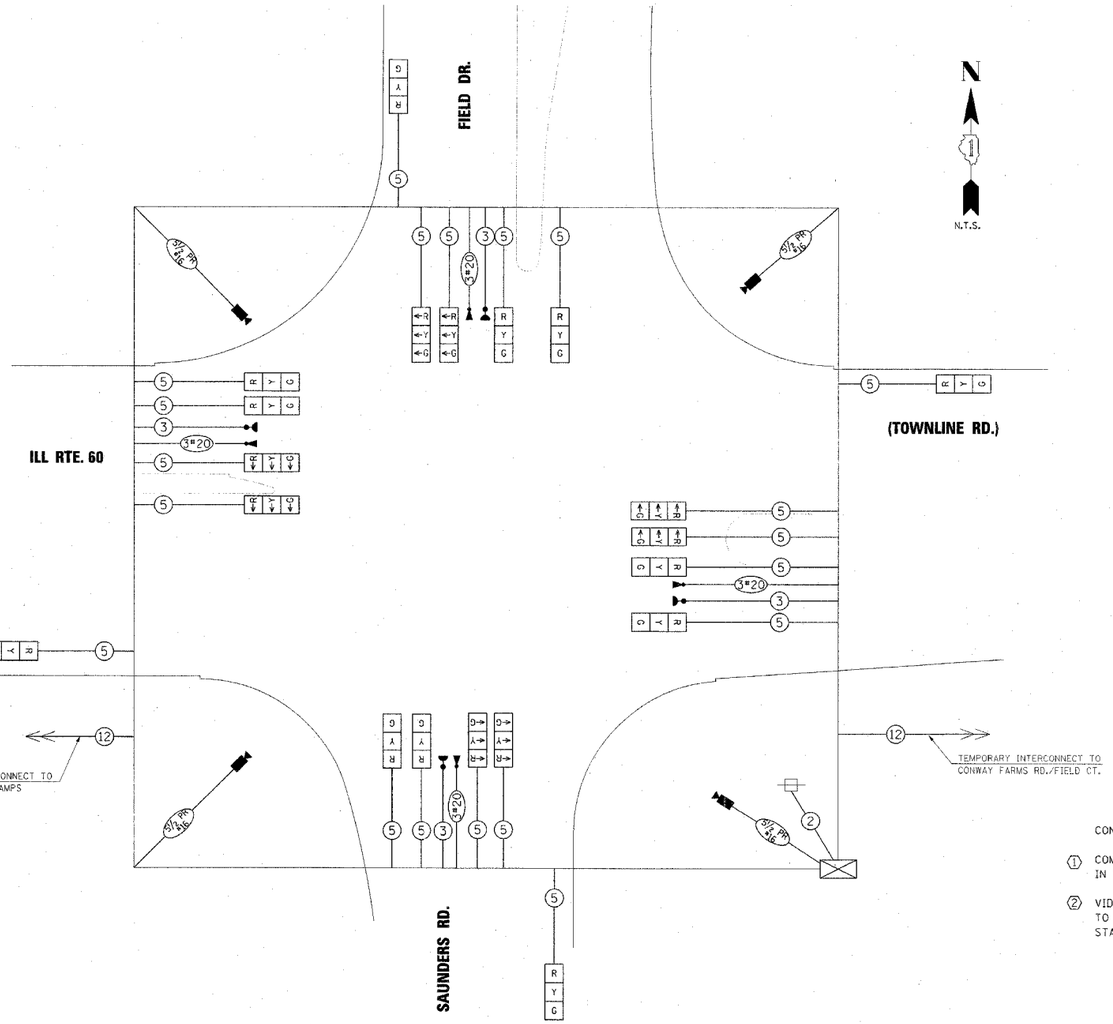
PRE-STAGE A & B
STAGES 1 TO 5

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



PRE-STAGE A & B
STAGES 1 TO 5

TEMPORARY EMERGENCY VEHICLE PREEMPTOR				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				



TEMPORARY CABLE DIAGRAM LEGEND

- R — TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- (5) — INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- PEDESTRIAN PUSHBUTTON DETECTOR
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- MACHINE VISION PROCESSOR

CONSTRUCTION NOTES:

(1) COMPLETE VIDEO DETECTION SYSTEM SHALL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.

(2) VIDEO DETECTION ZONES ARE TO BE POSITIONED AS REQUIRED TO MATCH THE LANE CONFIGURATIONS OF EACH CONSTRUCTION STAGE OR AS DIRECTED BY THE ENGINEER.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	X ½ OPERATION	
SIGNAL (RED)	20		17	0.50	170.00
(YELLOW)	20		25	0.25	125.00
(GREEN)	20		15	0.25	75.00
ARROW	-		12	0.10	
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
FLASHER	-			0.50	
ENERGY COSTS TO:			TOTAL =		470.00

FOUNDATION (DEPTH)	FT.	(m)
TYPE A - POST	4	(1.2)
D - CONTROLLER	4	(1.2)
C - M. ARM POLE		
24" (600mm)	10	(3.0)
30" (750mm)	15	(4.6)

CABLE SLACK	FT.	(m)
HANDHOLE	6.5	(2.0)
DOUBLE HANDHOLE	13	(4.0)
SIGNAL POST	2	(1.0)
CONTROLLER CAB.	1	(0.5)
FIBER OPTIC	13	(4.0)
ELECTRIC SERVICE	1	(0.5)
GROUND CABLE	1	(0.5)

VERTICAL	FT.	(m)
ALL FOUNDATIONS	3.5	(1.0)
MAST ARM (L) POLE	20'+L-2=	
	(6m+L-0.6m)=	
BRACKET MOUNTED	13	(4.0)
PED. PUSHBUTTON	4	(1.2)
ELECTRIC SERVICE	13.5	(4.1)
SERVICE TO GROUND	13.5	(4.1)
POST MOUNTED	6	(1.8)

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: DOTTIE PROSEN
PHONE: 847-816-5496
COMPANY: COMMONWEALTH EDISON

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE
PRE-STAGE A, B AND STAGES 1 TO 5

IL. RTE. 60 (TOWNLINE RD.) AND SAUNDERS RD./FIELD DR.

SCALE: N.T.S. DRAWN BY: FCP

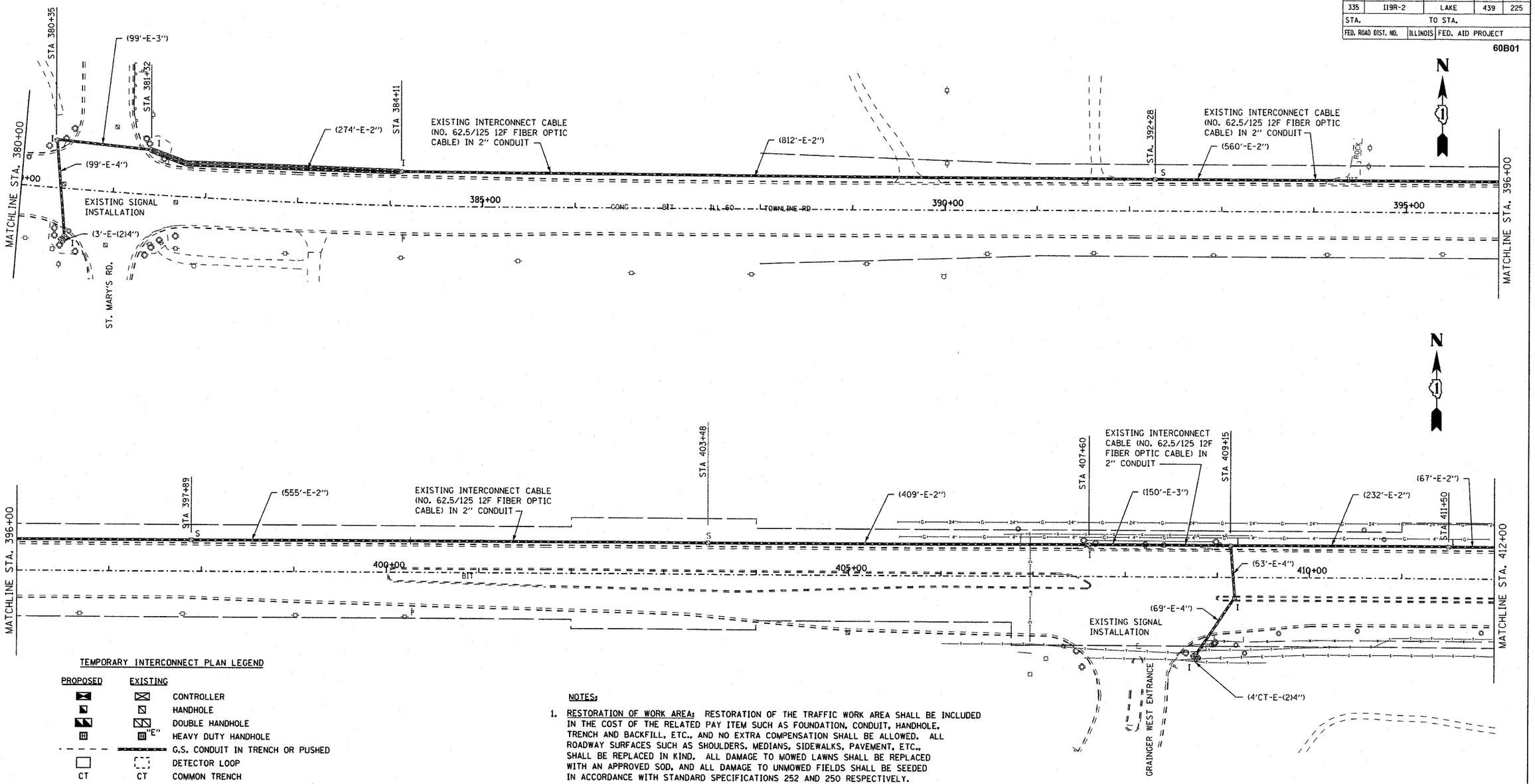
DATE: MAY 8, 2007 CHECKED BY: CMZ

5/22/2007 9:20:01 AM

N:\LakeForest\03192\Traffic_Design\008.tcb-stages 1-5_saunders.dgn

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	225
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



TEMPORARY INTERCONNECT PLAN LEGEND

PROPOSED	EXISTING	
▣	⊠	CONTROLLER
◪	◪	HANDHOLE
◪◪	◪◪	DOUBLE HANDHOLE
▥	▥ "E"	HEAVY DUTY HANDHOLE
- - - -	———	G.S. CONDUIT IN TRENCH OR PUSHED
▭	⬚	DETECTOR LOOP
CT	CT	COMMON TRENCH
UD	UD	UNIT DUCT
S	S	SYSTEM
IP	I	INTERSECTION
	☎	TELEPHONE
	⊗	TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 50 FOOT MIN.
——•——		TEMPORARY OPTIC FIBER 12F INTERCONNECT CABLE (AERIALLY SUSPENDED)
——•——		TEMPORARY FIBER OPTIC 24F DATA CABLE (AERIALLY SUSPENDED)
——•——		TEMPORARY 2/C #4 AND 1/C #6 ELECTRICAL SERVICE WIRE (AERIALLY SUSPENDED)
◑		SURVEILLANCE CAMERA TO BE RELOCATED
⊠		CCTV FIELD TERMINAL CABINET TO BE RELOCATED

NOTES:

1. RESTORATION OF WORK AREAS: RESTORATION OF THE TRAFFIC WORK AREA SHALL BE INCLUDED IN THE COST OF THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC., SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.
2. USE EXISTING FIBER OPTIC 12F CABLE FOR TEMPORARY INTERCONNECT - FROM ST. MARY'S ROAD CONTROLLER CABINET TO RIVERWOODS ROAD CONTROLLER CABINET. ALL STAGES.
3. ALL ITEMS REQUIRED FOR TEMPORARY INTERCONNECT PLAN ARE INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.
4. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE " EAGLE " TO MATCH THE EXISTING ADJACENT SYSTEM.
5. TRAFFIC SIGNAL SYSTEM TIMING AND COORDINATION PROGRAM ADJUSTMENTS WILL BE REQUIRED FOR EACH CONSTRUCTION STAGE AT EACH TEMPORARY SIGNAL INTERSECTION AND WILL BE INCLUDED IN THE TEMPORARY TRAFFIC SIGNAL TIMINGS PAY ITEM.

REVISIONS NAME	DATE

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

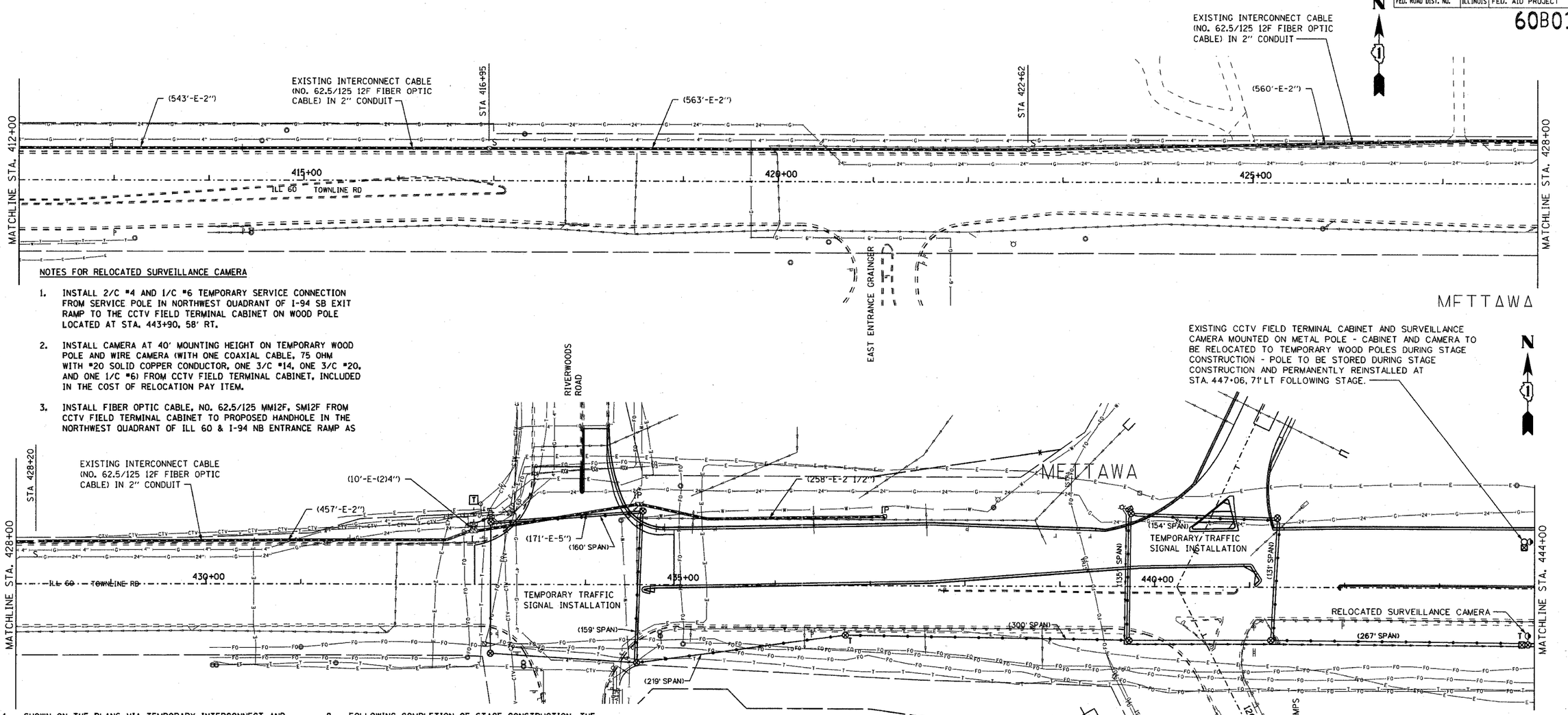
ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT PLAN
ILL ROUTE 60
ST. MARY'S ROAD TO ACADEMY DRIVE
STAGES 1, 1A, 2

S.N.
SCALE: 1" = 50'-0"
DATE: MAY 8, 2007
DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: GR

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	226
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



TEMPORARY SURVEILLANCE CAMERA WIRING DIAGRAM

NOTES FOR RELOCATED SURVEILLANCE CAMERA

1. INSTALL 2/C #4 AND 1/C #6 TEMPORARY SERVICE CONNECTION FROM SERVICE POLE IN NORTHWEST QUADRANT OF I-94 SB EXIT RAMP TO THE CCTV FIELD TERMINAL CABINET ON WOOD POLE LOCATED AT STA. 443+90, 58' RT.
2. INSTALL CAMERA AT 40' MOUNTING HEIGHT ON TEMPORARY WOOD POLE AND WIRE CAMERA (WITH ONE COAXIAL CABLE, 75 OHM WITH #20 SOLID COPPER CONDUCTOR, ONE 3/C #14, ONE 3/C #20, AND ONE 1/C #6) FROM CCTV FIELD TERMINAL CABINET, INCLUDED IN THE COST OF RELOCATION PAY ITEM.
3. INSTALL FIBER OPTIC CABLE, NO. 62.5/125 MM12F, SM12F FROM CCTV FIELD TERMINAL CABINET TO PROPOSED HANDHOLE IN THE NORTHWEST QUADRANT OF ILL 60 & I-94 NB ENTRANCE RAMP AS SHOWN ON THE PLANS VIA TEMPORARY INTERCONNECT AND TEMPORARY TRAFFIC SIGNAL WOOD POLES. TEMPORARY CONNECT TO EXISTING FIBER OPTIC CABLE VIDEO FEED IN HANDHOLE.
4. CONNECT TEMPORARY FIBER OPTIC CABLE TO EXISTING 24 FIBER OPTIC CABLE IN PROPOSED HANDHOLE WHICH GOES TO TOLLWAY PLAZA BOOTH ON NORTHBOUND ENTRANCE RAMP.
5. ALL TEMPORARY AERIAL SERVICE AND FIBER OPTIC CABLE SHALL BE SUPPORTED BY TETHER WIRE, INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL PAY ITEM.
6. ALL TEMPORARY CABLE TO BE INCLUDED IN THE COST OF RELOCATE EXISTING SURVEILLANCE CAMERA, CABINET, AND POLE.
7. FOLLOWING COMPLETION OF STAGE CONSTRUCTION, THE EXISTING FIBER OPTIC 24F CABLE FROM TEMPORARY LOCATED SURVEILLANCE CAMERA TO TOLLWAY PLAZA BOOTH SHALL BE REMOVED TO FACILITATE REPLACEMENT WITH A NEW FIBER OPTIC CABLE TO TOLLWAY PLAZA BOOTH.
8. USE EXISTING FIBER OPTIC 12F CABLE FOR TEMPORARY INTERCONNECT - FROM ST. MARY'S ROAD CONTROLLER CABINET TO RIVERWOODS ROAD CONTROLLER CABINET. ALL STAGES.

Ⓒ COAXIAL CABLE, 75 OHM WITH #20 AWG SOLID COPPER CONDUCTOR
㉔ FIBER OPTIC CABLE, NO. 65.2/125, MM12F, SM12F, AND TRACER NO. 14 1/C

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

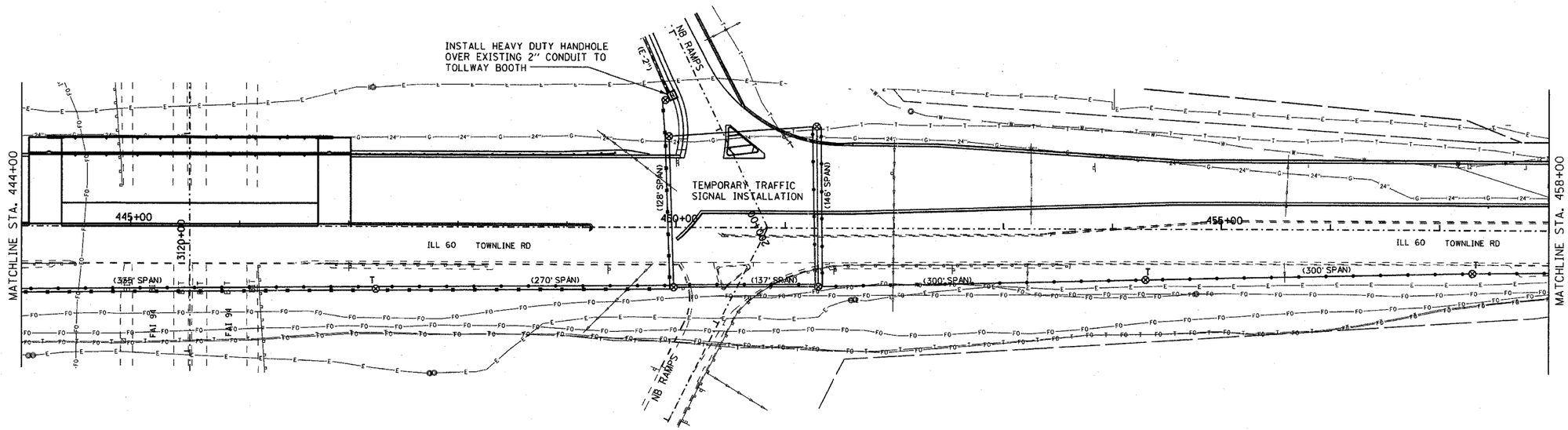
REVISIONS NAME	DATE

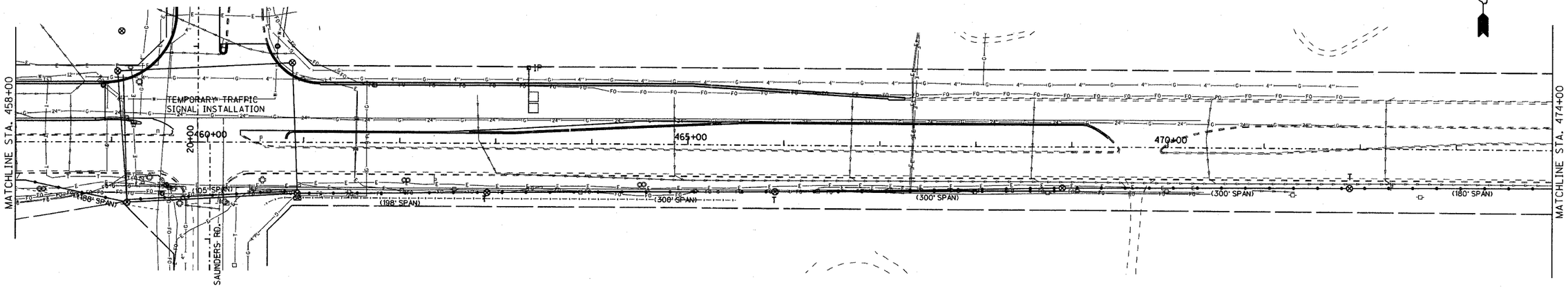
ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY INTERCONNECT PLAN
TEMP. SURVEILLANCE CAMERA INSTALL.
ILL ROUTE 60
ST. MARY'S ROAD TO ACADEMY DRIVE
STAGES 1, 1A, 2

S.N.
SCALE: 1" = 50'-0"
DATE: MAY 8, 2007
DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: GR

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	227
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01





EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

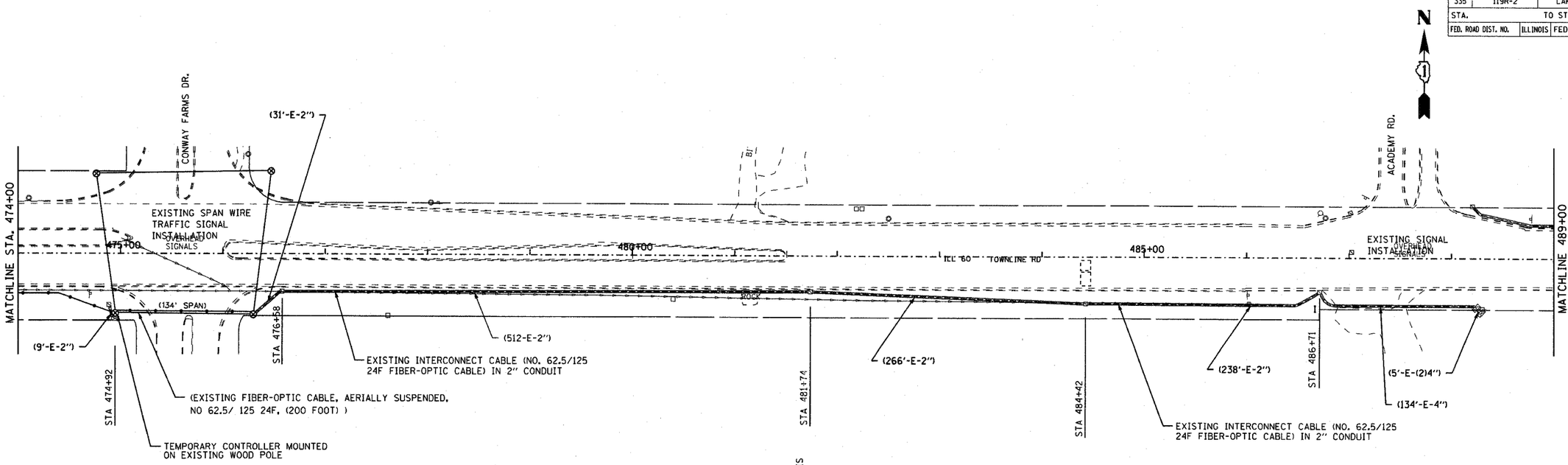
TEMPORARY INTERCONNECT PLAN
ILL ROUTE 60
ST. MARY'S ROAD TO ACADEMY DRIVE
STAGES 1, 1A & 2

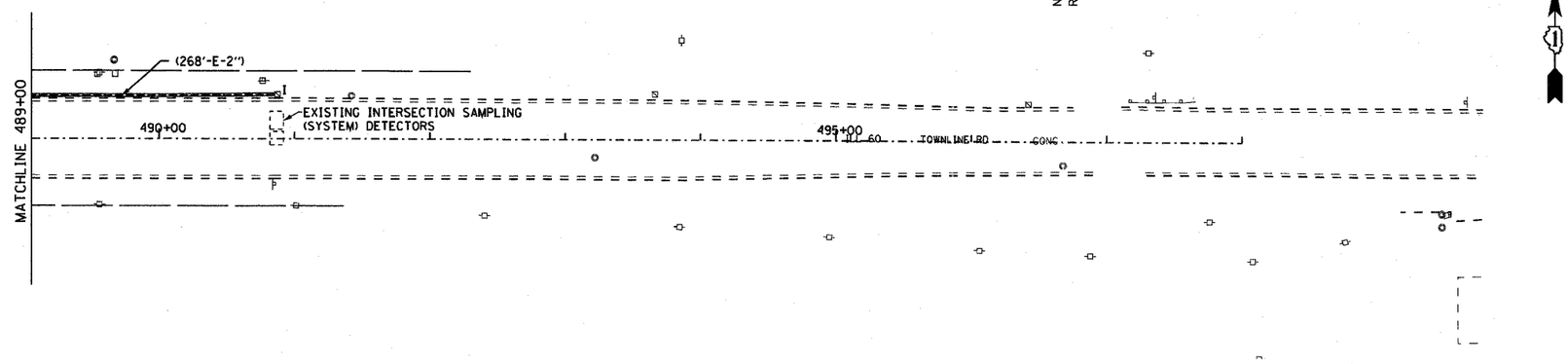
S.N.
SCALE: 1" = 50'-0"
DATE: MAY 8, 2007

DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: GR

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	228
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01





NOTES:
1. USE EXISTING FIBER OPTIC 24F CABLE FOR TEMPORARY INTERCONNECT - FROM CONWAY FARMS DRIVE CONTROLLER CABINET TO ACADAMY ROAD CONTROLLER CABINET. ALL STAGES.

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

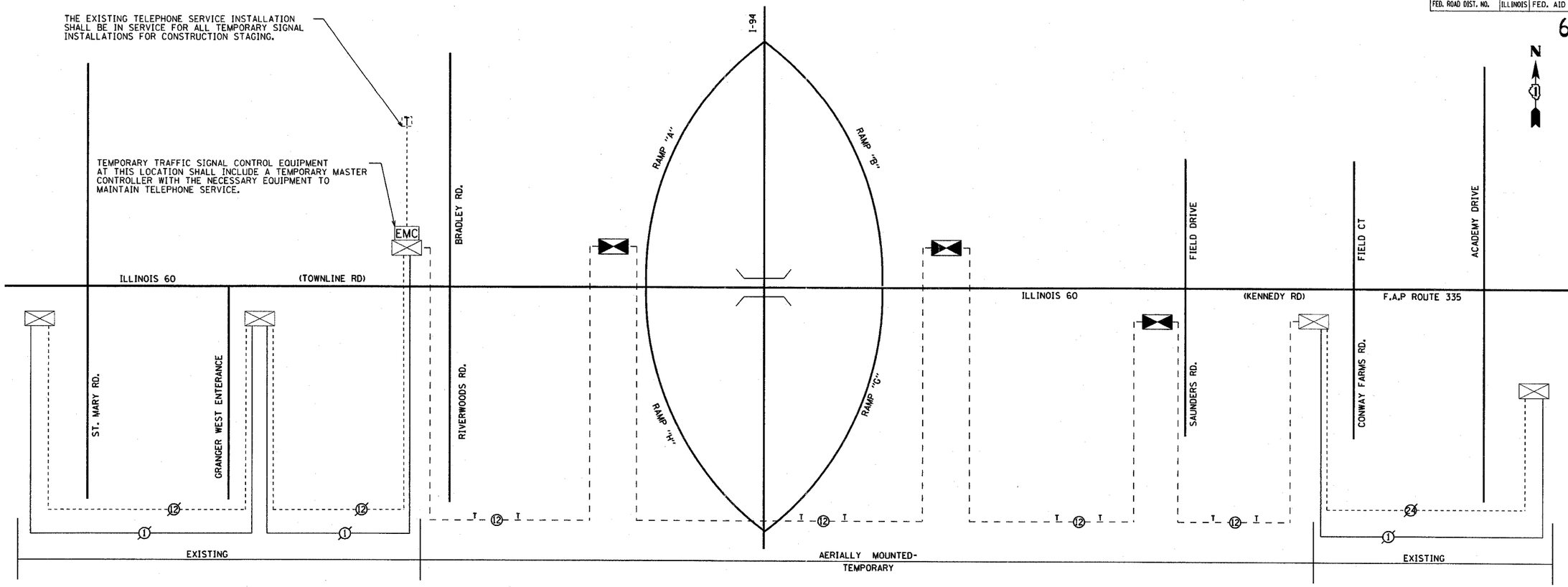
TEMPORARY INTERCONNECT PLAN
ILL ROUTE 60
ST. MARY'S ROAD TO ACADEMY DRIVE
STAGES 1, 1A, 2

S.N.
SCALE: 1" = 50'-0"
DATE: MAY 8, 2007

DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: GR

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	229
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



TEMPORARY INTERCONNECT SCHEMATIC LEGEND

	PROPOSED INTERSECTION CONTROLLER	(12)	PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F - FIBER OPTIC CABLE
	EXISTING INTERSECTION CONTROLLER	(12)	EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F - FIBER OPTIC CABLE
MMC	MASTER MASTER CONTROLLER		
EMC	EXISTING MASTER CONTROLLER	(6)	PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
MC	PROPOSED INTERSECTION CONTROLLER	(6)	EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
	EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTOR	I (12) I	PROPOSED TEMPORARY INTERCONNECT CABLE - NO. 62.5/125 12F SPAN WIRE MOUNTED FIBER OPTIC CABLE
	PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTOR	(2)	PROPOSED LOOP DETECTOR CABLE - 2/C TWISTED, SHIELDED
P	EXISTING INTERSECTION DETECTOR AND PROPOSED SAMPLING (SYSTEM) DETECTOR	(2)	EXISTING LOOP DETECTOR CABLE - 2/C TWISTED, SHIELDED
ES	EXISTING SAMPLING (SYSTEM) DETECTOR	(1)	PROPOSED TRACER CABLE NO. 14 1/C
PS	PROPOSED SAMPLING (SYSTEM) DETECTORS	(1)	EXISTING TRACER CABLE NO. 14 1/C
(24)	PROPOSED INTERCONNECT CABLE - NO. 62.5/125 2 MM 12F & SM 12F - FIBER OPTIC CABLE	T	PROPOSED TELEPHONE CONNECTION
(24)	EXISTING INTERCONNECT CABLE - NO. 62.5/125 2 MM 12F & SM 12F - FIBER OPTIC CABLE	T	EXISTING TELEPHONE CONNECTION

NOTES:
1. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING SYSTEM.

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

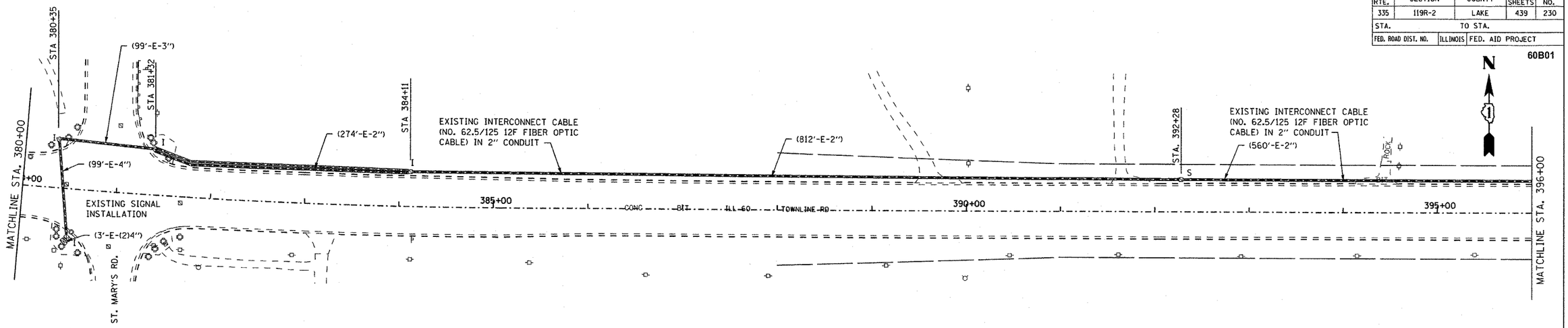
TEMPORARY INTERCONNECT PLAN
SCHEMATIC DRAWING
ILL ROUTE 60
ST. MARY'S ROAD TO ACADEMY DRIVE
STAGES 1, 1A, 2

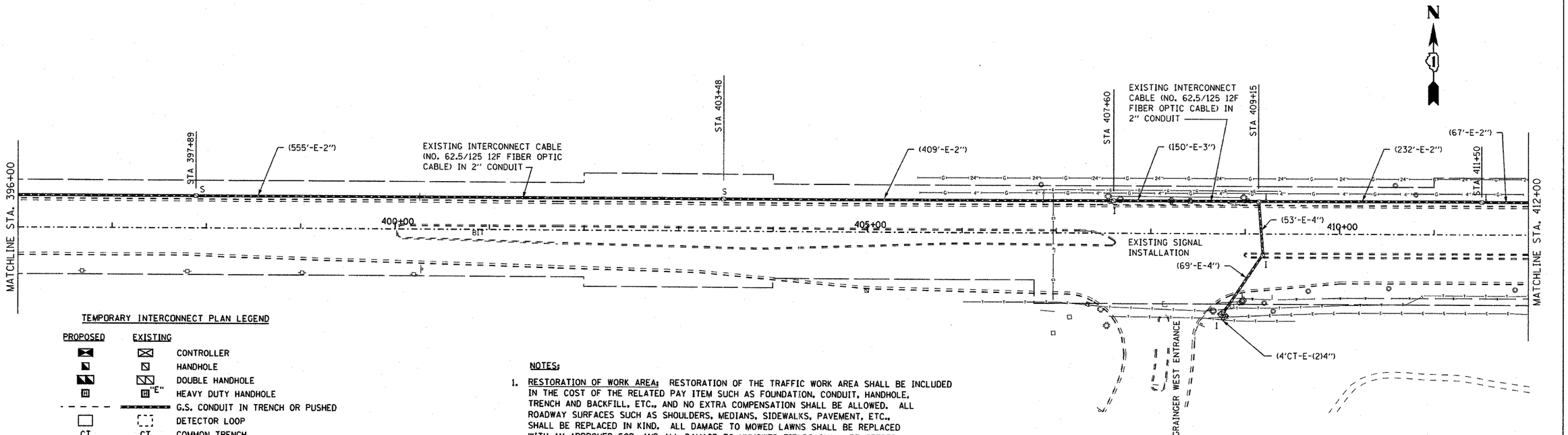
S.N.
SCALE: NOT TO SCALE
DATE: MAY 8, 2007

DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: GR

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	230
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01





TEMPORARY INTERCONNECT PLAN LEGEND

PROPOSED	EXISTING	
		CONTROLLER
		HANDHOLE
		DOUBLE HANDHOLE
	"E"	HEAVY DUTY HANDHOLE
		G.S. CONDUIT IN TRENCH OR PUSHED
		DETECTOR LOOP
CT	CT	COMMON TRENCH
UD	UD	UNIT DUCT
S	S	SYSTEM
IP	I	INTERSECTION
		TELEPHONE
		TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 50 FOOT MIN.
		TEMPORARY OPTIC FIBER 12F INTERCONNECT CABLE (AERIALLY SUSPENDED)
		TEMPORARY FIBER OPTIC 24F DATA CABLE (AERIALLY SUSPENDED)
		TEMPORARY 2/C #4 AND 1/C #6 ELECTRICAL SERVICE WIRE (AERIALLY SUSPENDED)
		SURVEILLANCE CAMERA TO BE RELOCATED
		CCTV FIELD TERMINAL CABINET TO BE RELOCATED

NOTES:

1. RESTORATION OF WORK AREA: RESTORATION OF THE TRAFFIC WORK AREA SHALL BE INCLUDED IN THE COST OF THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC., SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.
2. USE EXISTING FIBER OPTIC 12F CABLE FOR TEMPORARY INTERCONNECT - FROM ST. MARY'S ROAD CONTROLLER CABINET TO RIVERWOODS ROAD CONTROLLER CABINET. ALL STAGES.
3. ALL ITEMS REQUIRED FOR TEMPORARY INTERCONNECT PLAN ARE INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.
4. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE " EAGLE " TO MATCH THE EXISTING ADJACENT SYSTEM.
5. TRAFFIC SIGNAL SYSTEM TIMING AND COORDINATION PROGRAM ADJUSTMENTS WILL BE REQUIRED FOR EACH CONSTRUCTION STAGE AT EACH TEMPORARY SIGNAL INTERSECTION AND WILL BE INCLUDED IN THE TEMPORARY TRAFFIC SIGNAL TIMINGS PAY ITEM.

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

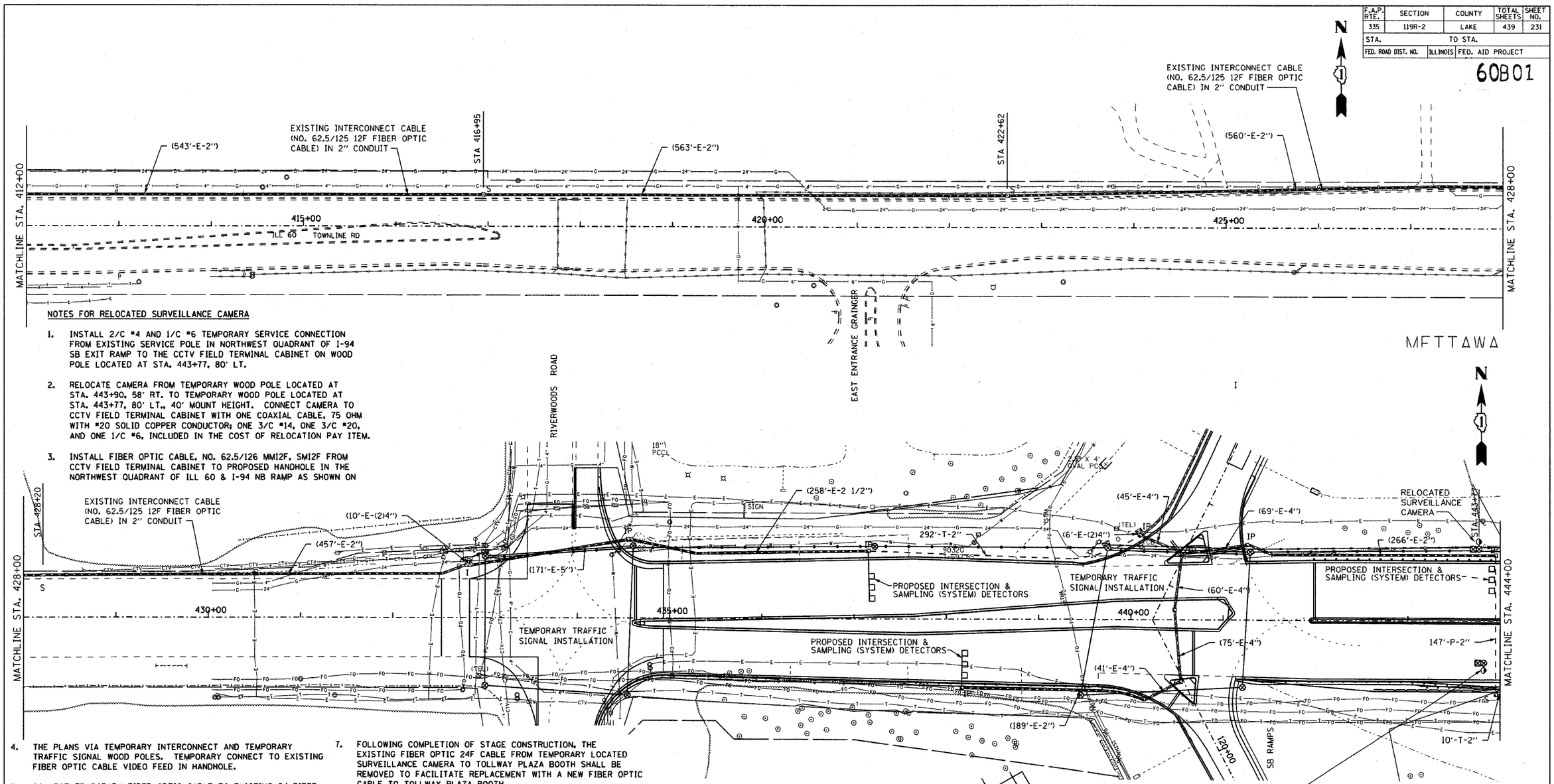
ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT PLAN
ILL ROUTE 60
ST. MARY'S ROAD TO ACADEMY DRIVE
STAGES 3, 3A, 4, 5

S.N.	DESIGNED BY: JM
SCALE: 1" = 50'-0"	DRAWN BY: PK
DATE: MAY 8, 2007	CHECKED BY: CK

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	231
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



NOTES FOR RELOCATED SURVEILLANCE CAMERA

1. INSTALL 2/C #4 AND 1/C #6 TEMPORARY SERVICE CONNECTION FROM EXISTING SERVICE POLE IN NORTHWEST QUADRANT OF I-94 SB EXIT RAMP TO THE CCTV FIELD TERMINAL CABINET ON WOOD POLE LOCATED AT STA. 443+77, 80' LT.

2. RELOCATE CAMERA FROM TEMPORARY WOOD POLE LOCATED AT STA. 443+90, 58' RT. TO TEMPORARY WOOD POLE LOCATED AT STA. 443+77, 80' LT., 40' MOUNT HEIGHT. CONNECT CAMERA TO CCTV FIELD TERMINAL CABINET WITH ONE COAXIAL CABLE, 75 OHM WITH #20 SOLID COPPER CONDUCTOR; ONE 3/C #14, ONE 3/C #20, AND ONE 1/C #6, INCLUDED IN THE COST OF RELOCATION PAY ITEM.

3. INSTALL FIBER OPTIC CABLE, NO. 62.5/126 MM12F, SM12F FROM CCTV FIELD TERMINAL CABINET TO PROPOSED HANDHOLE IN THE NORTHWEST QUADRANT OF ILL 60 & I-94 NB RAMP AS SHOWN ON

4. THE PLANS VIA TEMPORARY INTERCONNECT AND TEMPORARY TRAFFIC SIGNAL WOOD POLES. TEMPORARY CONNECT TO EXISTING FIBER OPTIC CABLE VIDEO FEED IN HANDHOLE.

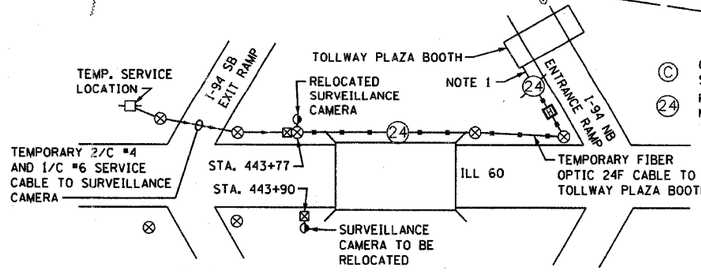
5. CONNECT TEMPORARY FIBER OPTIC CABLE TO EXISTING 24 FIBER OPTIC CABLE IN PROPOSED HANDHOLE WHICH GOES TO TOLLWAY PLAZA BOOTH ON NORTHBOUND ENTRANCE RAMP.

6. ALL TEMPORARY AERIAL SERVICE AND FIBER OPTIC CABLE SHALL BE SUPPORTED BY TETHER WIRE, INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL PAY ITEM.

7. ALL TEMPORARY CABLE TO BE INCLUDED IN THE COST OF RELOCATE EXISTING SURVEILLANCE CAMERA, CABINET, AND POLE.

7. FOLLOWING COMPLETION OF STAGE CONSTRUCTION, THE EXISTING FIBER OPTIC 24F CABLE FROM TEMPORARY LOCATED SURVEILLANCE CAMERA TO TOLLWAY PLAZA BOOTH SHALL BE REMOVED TO FACILITATE REPLACEMENT WITH A NEW FIBER OPTIC CABLE TO TOLLWAY PLAZA BOOTH.

8. USE EXISTING FIBER OPTIC 12F CABLE FOR TEMPORARY INTERCONNECT - FROM ST. MARY'S ROAD CONTROLLER CABINET TO RIVERWOODS ROAD CONTROLLER CABINET. ALL STAGES.



TEMPORARY SURVEILLANCE CAMERA WIRING DIAGRAM

© COAXIAL CABLE, 75 OHM WITH #20 AWG SOLID COPPER CONDUTCTOR

(24) FIBER OPTIC CABLE, NO. 65.2/125, MM12F, SM12F, AND TRACER NO. 14 1/C

EXISTING TEMPORARY LOCATED SURVEILLANCE CAMERA (TPZ) WITH CCTV FIELD TERMINAL CABINET - RELOCATE TO TEMPORARY WOOD POLE ON NORTH SIDE OF ROADWAY, STA. 443+44, 80' RT.

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

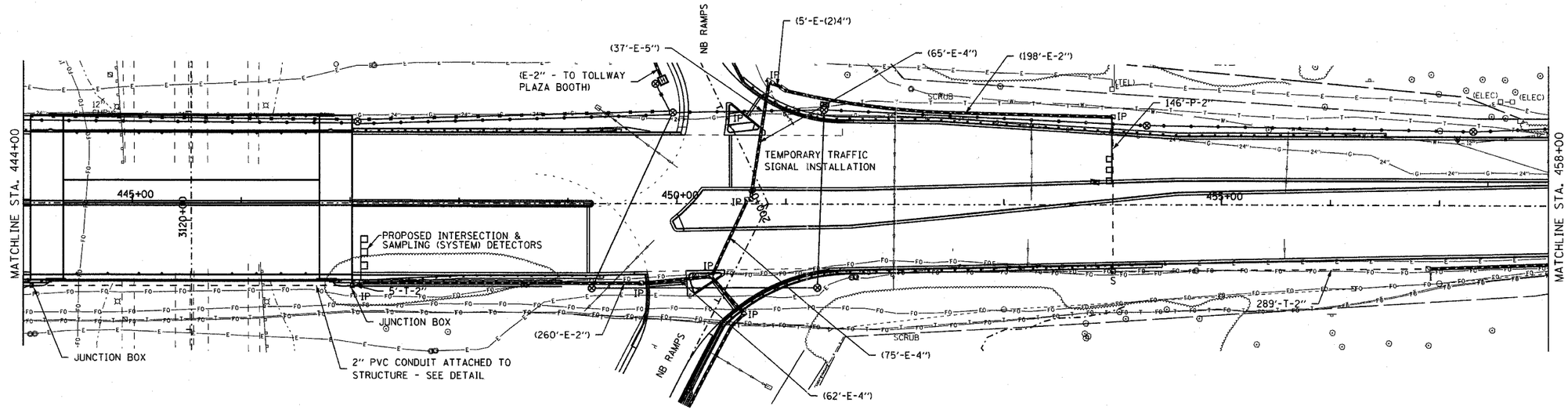
ILLINOIS DEPARTMENT OF TRANSPORTATION

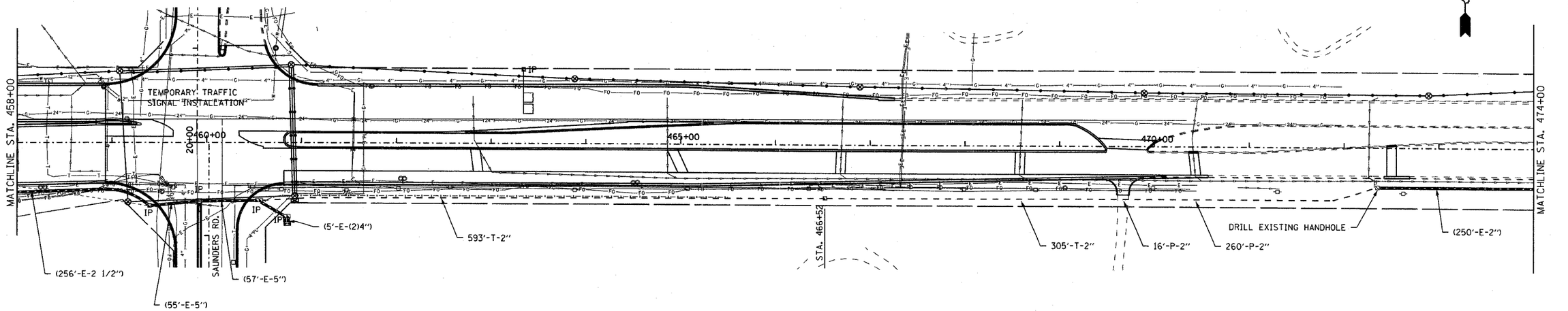
TEMPORARY INTERCONNECT PLAN
STAGES 3, 3A, 4, 5
TEMP. SURVEILLANCE CAMERA INSTALLATION
STAGES 3, 3A, 4, 5
ST. MARY'S ROAD TO ACADEMY DRIVE

S.N.
SCALE: 1" = 50'-0"
DATE: MAY 8, 2007
DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: CK

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	232
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01





REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

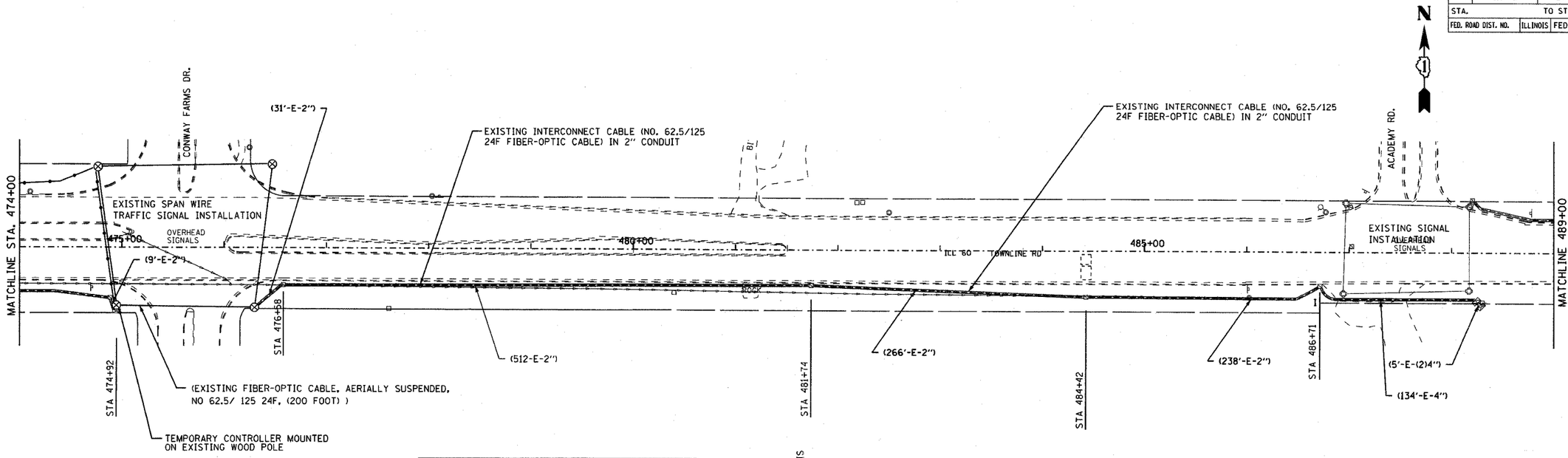
TEMPORARY INTERCONNECT PLAN
STAGES 3, 3, 4, 5
TEMP. SURVEILLANCE CAMERA INSTALLATION
STAGES 3, 3A, 4, 5
ST. MARY'S ROAD TO ACADEMY DRIVE

S.N.
SCALE: 1" = 50'-0"
DATE: MAY 8, 2007
DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: CK

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

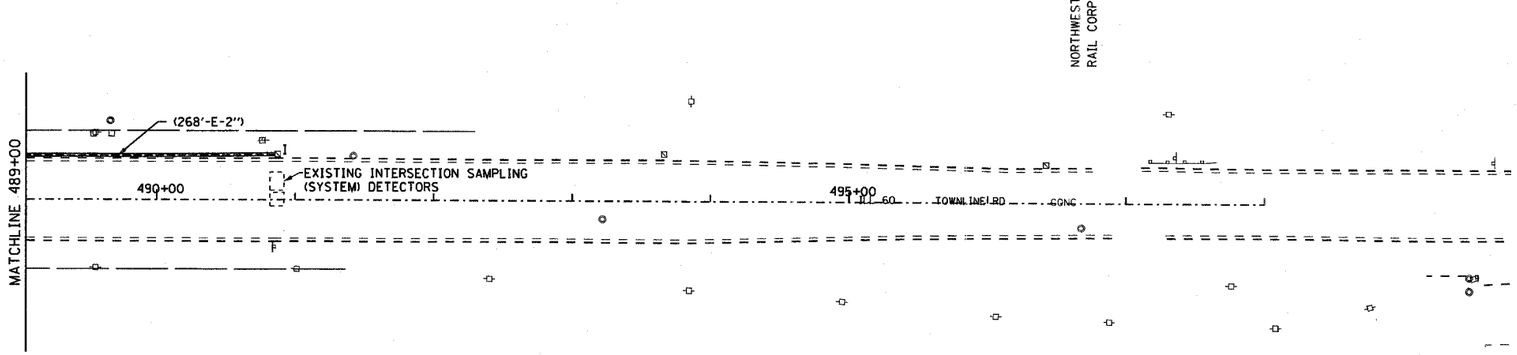
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	233
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



USE EXISTING FIBER OPTIC 12F CABLE FOR TEMPORARY INTERCONNECT - FROM ST. MARY'S ROAD CONTROLLER CABINET TO RIVERWOODS ROAD CONTROLLER CABINET. ALL STAGES.

NORTHWESTERN ILLINOIS RAIL CORP.



EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

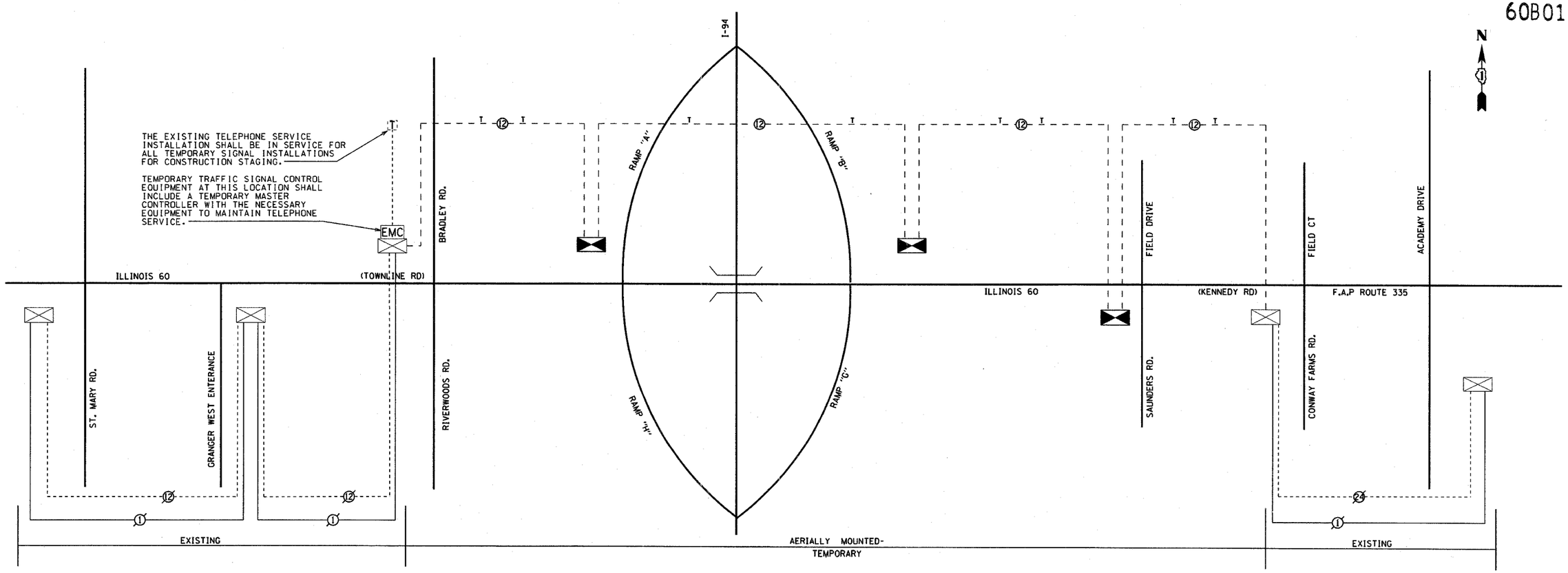
TEMPORARY INTERCONNECT PLAN
ILL ROUTE 60
ST. MARY'S ROAD TO ACADEMY DRIVE
STAGES 3, 3A, 4, 5

S.N.
SCALE: 1" = 50'-0"
DATE: MAY 8, 2007

DESIGNED BY: JM
DRAWN BY: PK
CHECKED BY: CK

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	234
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

60B01



TEMPORARY INTERCONNECT SCHEMATIC LEGEND

PROPOSED INTERSECTION CONTROLLER	PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F - FIBER OPTIC CABLE
EXISTING INTERSECTION CONTROLLER	EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F - FIBER OPTIC CABLE
MMC MASTER MASTER CONTROLLER	PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
EMC EXISTING MASTER CONTROLLER	EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
MC PROPOSED INTERSECTION CONTROLLER	PROPOSED TEMPORARY INTERCONNECT CABLE - NO. 62.5/125 12F SPAN WIRE MOUNTED FIBER OPTIC CABLE
EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTOR	PROPOSED LOOP DETECTOR CABLE - 2/C TWISTED, SHIELDED
PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTOR	EXISTING LOOP DETECTOR CABLE - 2/C TWISTED, SHIELDED
P EXISTING INTERSECTION DETECTOR AND PROPOSED SAMPLING (SYSTEM) DETECTOR	PROPOSED TRACER CABLE NO. 14 1/C
ES EXISTING SAMPLING (SYSTEM) DETECTOR	EXISTING TRACER CABLE NO. 14 1/C
PS PROPOSED SAMPLING (SYSTEM) DETECTORS	T PROPOSED TELEPHONE CONNECTION
PROPOSED INTERCONNECT CABLE - NO. 62.5/125 2 MM 12F & SM 12F - FIBER OPTIC CABLE	T EXISTING TELEPHONE CONNECTION
EXISTING INTERCONNECT CABLE - NO. 62.5/125 2 MM 12F & SM 12F - FIBER OPTIC CABLE	

NOTES:
1. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING SYSTEM.

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT PLAN SCHEMATIC DRAWING ILL ROUTE 60 ST. MARY'S ROAD TO ACADEMY DRIVE STAGES 3, 3A, 4 & 5

S.N.	DESIGNED BY: JM
SCALE: NOT TO SCALE	DRAWN BY: PK
DATE: MAY 8, 2007	CHECKED BY: CK

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	235
STA.	-------	TO STA.	-------	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60801

NOTES:

1. THE ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST IDOT STANDARDS, NATIONAL ELECTRICAL CODE AS WELL AS THE NATIONAL ELECTRICAL SAFETY CODE.
2. COORDINATE THE INSTALLATION OF TEMPORARY AND PERMANENT ROADWAY LIGHTING WITH THE CONSTRUCTION STAGING.
3. FOR POLE AND LUMINAIRE DETAILS, REFER TO ELECTRICAL PLANS AND SPECIFICATIONS.
4. COORDINATE THE INSTALLATION OF ROADWAY LIGHTING AND UNDERGROUND WORK WITH THE OTHER TRADES.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE EXISTING AND PROPOSED LIGHTING DURING CONSTRUCTION, AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
6. ALL REMOVED ISTHA POLES ARE TO BE RETURNED TO THE M-06 GARAGE, MARENGO-HAMPSHIRE EXIT ON I-90. AN A-14 WILL BE NEEDED WITH THE AMOUNTS. CONTRACTOR IS TO CALL MARK DALKA AT 630-399-0748 OR THE GARAGE x3506 PRIOR TO DELIVERY TO SET UP ASSISTANCE WITH UNLOADING MATERIAL.

LEGEND

IDOT ITEMS (IL-60)

- ①: PROPOSED 47.5' M.H. LIGHT POLE WITH 400W M-C-III TYPE LUMINAIRE AND 8' DAVIT ARM
- ②: PROPOSED 47.5' M.H. LIGHT POLE WITH 400W M-C-III TYPE LUMINAIRE AND 12' DAVIT ARM
- (E): EXISTING PRIVATE ROADWAY LIGHTING UNIT TO REMAIN
- (RR): RELOCATED PRIVATE ROADWAY LIGHTING UNIT
- PROPOSED 47.5' M.H. LIGHT POLE WITH 400W M-C-III TYPE LUMINAIRE AND 12' DAVIT ARM MOUNTED ON PARAPET WALL
- PROPOSED TRAFFIC SIGNAL POST WITH 12' MAST ARM AND 400W M-C-III TYPE LUMINAIRE MOUNTED AT 47.5' (SEE TRAFFIC SIGNAL PLANS FOR EXACT POST LOCATION)
- PROPOSED 240/480V LIGHTING CONTROLLER, SINGLE PHASE, 60 HZ
- PROPOSED POLE MOUNTED ELECTRICAL SERVICE
- [J]: PROPOSED JUNCTION BOX, EMBEDDED IN STRUCTURE, 12"x12"x6"
- PROPOSED GROUND ROD, 5/8" DIAMETER X 10 FT.
- PROPOSED 2" CONDUIT, PUSHED WITH 3#6 & 1#8 GROUND IN 1" UD
- PROPOSED UNIT DUCT IN TRENCH, SIZE AS NOTED
- PROPOSED CONDUIT EMBEDDED IN STRUCTURE, SIZE AS NOTED
- RGS: RIGID GALVANIZED STEEL
- ATS: CONDUIT ATTACHED TO STRUCTURE
- EIS: CONDUIT EMBEDDED IN STRUCTURE
- EIC: CONDUIT ENCASED IN CONCRETE
- UD: UNIT DUCT, 1", WITH 3#6 & 1#8 GROUND, UNLESS OTHERWISE NOTED
- EOP: EDGE OF TRAVELLED PAVEMENT

ISTHA ITEMS (RAMPS & UNDERPASS)

- EXISTING TOLLWAY LIGHT POLE TO REMAIN. 50' LIGHT POLE WITH 400W M-C-II TYPE LUMINAIRE WITH 15' MAST ARM
- R: EXISTING TOLLWAY LIGHT POLE TO BE REMOVED, SEE NOTE 6
- T: TEMPORARY WOOD POLE. 60' WOOD POLE (TEMP WP)
- T: TEMPORARY LIGHT POLE WITH 400W LUMINAIRE AND 15' MAST ARM, SIZE AS NOTED
- -A/C-: PROPOSED AERIAL CABLE, 4-1/C #6 WITH MESSENGER WIRE, UNLESS OTHERWISE NOTED
- EXISTING ISTHA LIGHTING CONTROLLER
- T: TEMPORARY ISTHA LIGHTING CONTROLLER
- PROPOSED 150W UNDERPASS LUMINAIRE

SUMMARY OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	IDOT QUANTITY	ISTHA QUANTITY	TOTAL QUANTITY
80400100	ELECTRIC SERVICE INSTALLATION	EACH	2	1	3
80700140	GROUND ROD, 5'8" DIA. X 10 FT.	EACH	37	-	37
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	60	-	60
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	1240	-	1240
81304100	JUNCTION BOX EMBEDDED IN STRUCTURE, 12" x 12" x 6"	EACH	4	-	4
81302000	JUNCTION BOX, CAST IRON, ATTACHED TO STRUCTURE, 4" X 4" X 3"	EACH	-	12	12
81302300	JUNCTION BOX, CAST IRON, ATTACHED TO STRUCTURE, 12" X 8" X 6"	EACH	-	2	2
81603170	UNIT DUCT, 600V, 3-1/C NO.6, 1/C NO.8 GROUND, (EPR-TYPE RHW), 1" DIA. POLYETHYLENE	FOOT	9180	-	9180
81603195	UNIT DUCT, 600V, 3-1/C NO.2, 1/C NO.2 GROUND, (EPR-TYPE RHW), 1 1/4" DIA. POLYETHYLENE	FOOT	60	-	60
81700110	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW), 1/C NO. 10	FOOT	-	3000	3000
81700115	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW), 1/C NO. 8	FOOT	-	125	125
81700225	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW), 2-1/C NO. 6	FOOT	-	250	250
81800300	AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE	FOOT	-	75	75
81800415	AERIAL CABLE, 4-1/C NO. 6 WITH MESSENGER WIRE	FOOT	-	9185	9185
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	7665	-	7665
82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	42	16	58
83050730	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 8 FT. DAVIT ARM	EACH	14	-	14
83050805	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 12 FT. DAVIT ARM	EACH	26	-	26
83057435	LIGHT POLE, WOOD, 80 FOOT, CLASS 3, WITH 15FT MAST ARM	EACH	-	4	4
83600300	LIGHT POLE FOUNDATION, 30" DIAMETER	FOOT	296	-	296
83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	36	-	36
84200500	REMOVAL OF EXISTING LIGHITNG UNIT, SALVAGE	EACH	-	14	14
84200800	POLE FOUNDATION, REMOVED	EACH	1	14	15
84400105	RELOCATE EXISTING LIGHTING UNIT	EACH	1	-	1
84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	-	1	1
84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	-	1	1
84500130	REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	-	1	1
JS811001 •	CONDUIT ATTACHED TO STRUCTURE, 3/4" DIA. GALVANIZED STEEL, PVC COATED	FOOT	-	20	20
JS811002 •	CONDUIT ATTACHED TO STRUCTURE, 1" DIA. GALVANIZED STEEL, PVC COATED	FOOT	-	720	720
JS811003 •	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA. GALVANIZED STEEL, PVC COATED	FOOT	-	125	125
JT821002•	UNDERPASS LUMINAIRE, 150 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	-	12	12
JS830030•	TEMPORARY WOOD POLE, 60 FT., CLASS 4	EACH	-	7	7
JS830034•	TEMPORARY WOOD POLE, 70 FT., CLASS 3, 15 FT. MAST ARM	EACH	-	12	12
JS846001•	MAINTAIN LIGHTING SYSTEM	L. SUM	-	1	1
X0322695	MAST ARM, STEEL, STREET LIGHTING, 12 FT.	EACH	2	-	2
X0323792	LIGHTING CONTROLLER, SINGLE DOOR, CONSOLE TYPE	EACH	2	-	2
XX002113	TEMPORARY LIGHTING CONTROLLER	EACH	-	1	1
XX006767	LIQUIDTIGHT FLEXIBLE METAL CONDUIT, 3/4"	FOOT	-	20	20

• ISTHA PAY ITEM

LIST OF IDOT STANDARD DRAWINGS

877011 - STEEL COMBINATION MAST ARM ASSEMBLY AND POLE

LIST OF IDOT DISTRICT ONE STANDARD DRAWINGS

- BE215 - LIGHTING CONTROLLER SINGLE DOOR
- BE220 - ELECTRIC SERVICE INSTALLATION AERIAL, REMOTE DISCONNECT
- BE301 - LIGHT POLE FOUNDATION, CONCRETE, <=35 FT. M.H. (15" B.C.)
- BE330 - LIGHT POLE FOUNDATION ON CONCRETE PARAPET WALL
- BE410 - LIGHT POLE, ALUMINUM, DAVIT TYPE, 47.5 FT. M.H.
- BE701 - LUMINAIRE SAFETY CABLE ASSEMBLY
- BE702 - MISCELLANEOUS DETAILS, SHEET A - CABLE SPLICE, POLE WIRING, TRENCH DETAIL

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

SHEET EL-01 OF 13

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

PROPOSED ROADWAY LIGHTING PLAN

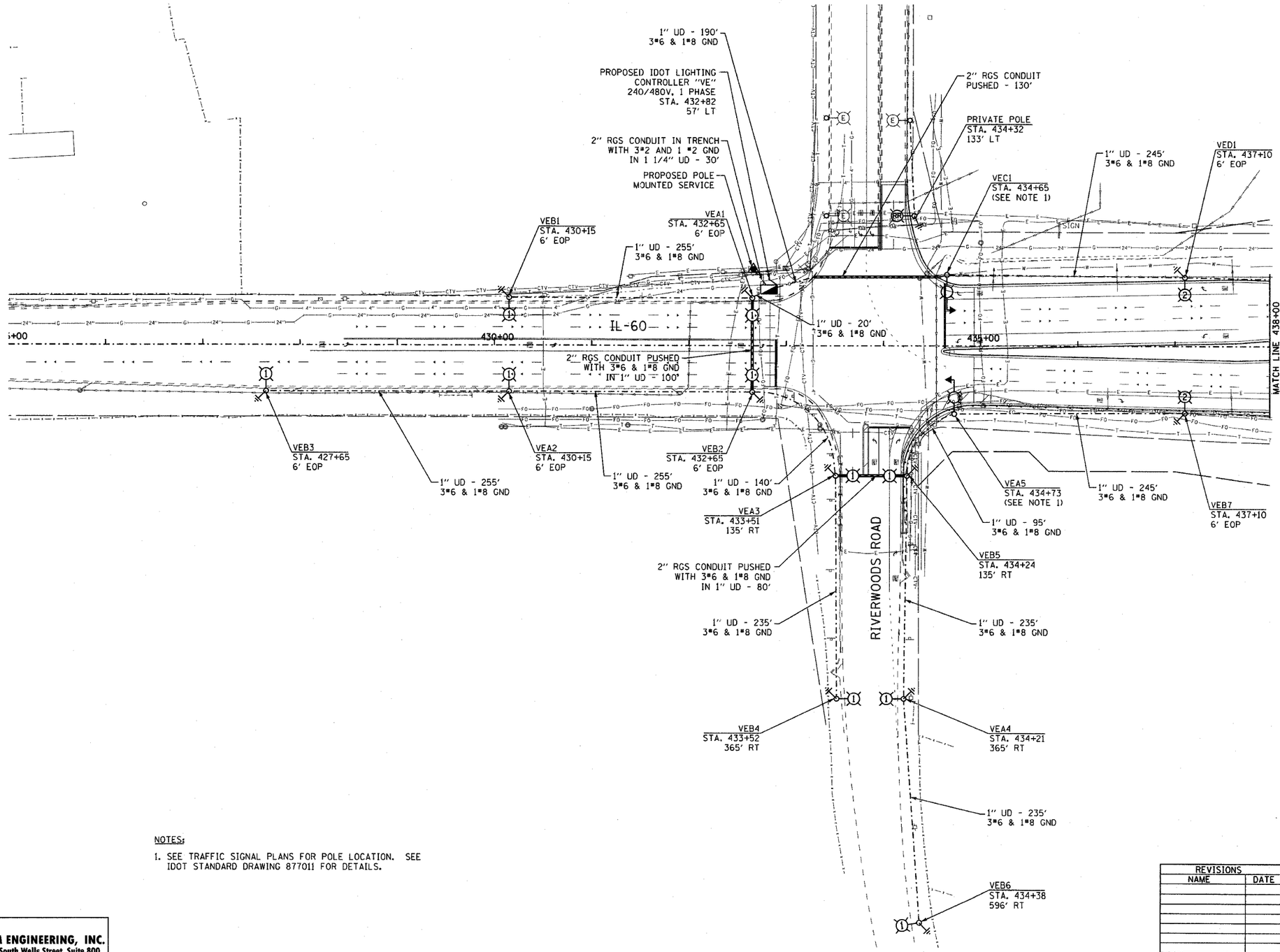
GENERAL NOTES, LEGEND AND QUANTITIES

S.N. _____ DESIGNED BY: JDM
SCALE: NONE DRAWN BY: JDM
DATE: MAY 8, 2007 CHECKED BY: RES

$FILES $TIMES $DATES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	236
STA.	425+00	TO STA.	438+00	
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

60B01



NOTES:

1. SEE TRAFFIC SIGNAL PLANS FOR POLE LOCATION. SEE IDOT STANDARD DRAWING 877011 FOR DETAILS.

SHEET EL-02 OF 13

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

PROPOSED ROADWAY LIGHTING PLAN

STA. 425+00 TO STA. 438+00

S.N. _____ DESIGNED BY: JDM

SCALE: 1"=50'-0" DRAWN BY: JDM

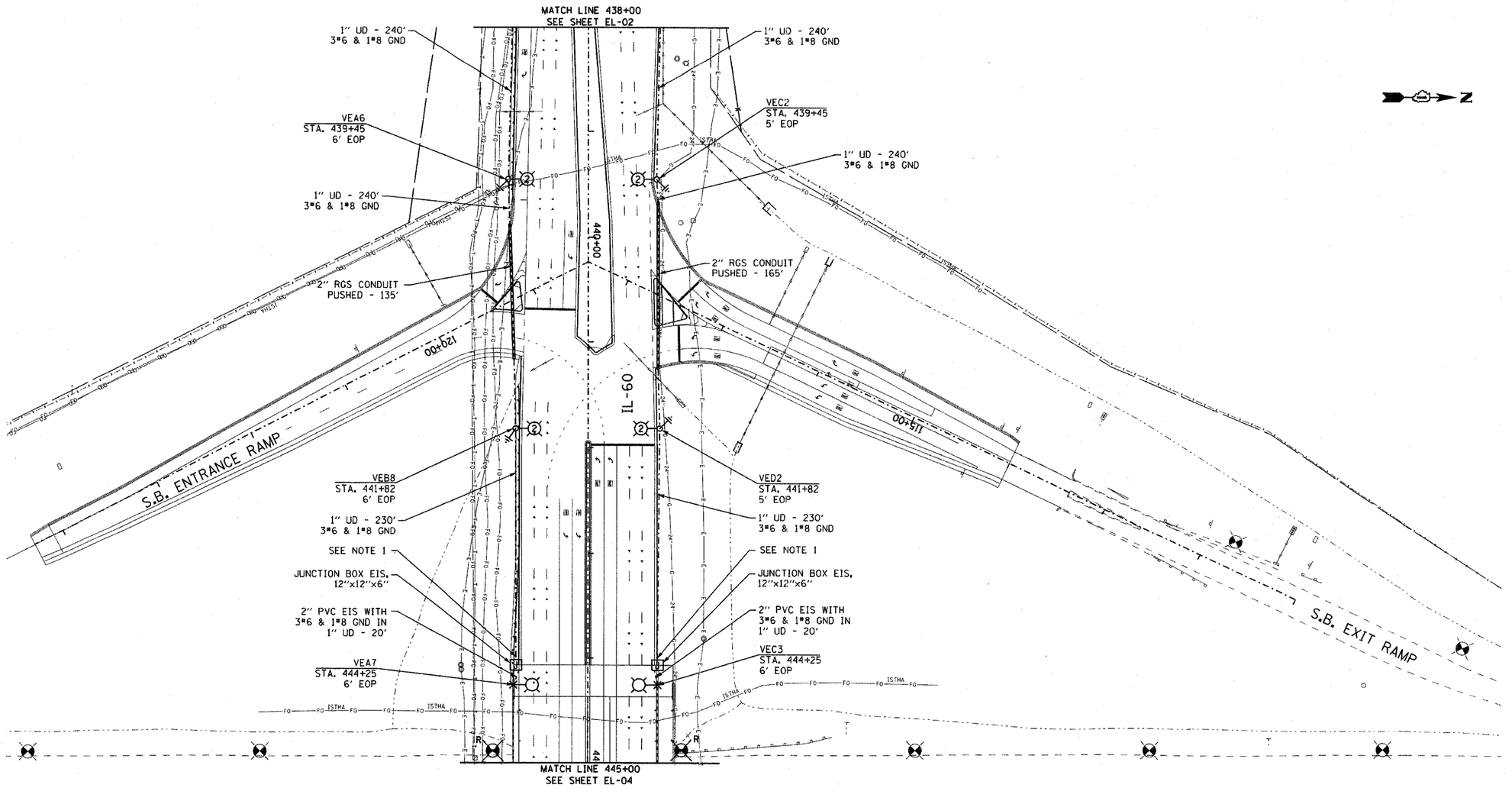
DATE: MAY 8, 2007 CHECKED BY: RES

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

$FILE$ $TIME$ $DATE$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	237
STA.	438+00	TO STA.	445+00	
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

60B01



NOTES:

1. SEE STRUCTURAL DRAWINGS FOR ALL CONDUIT EMBEDDED IN BRIDGE STRUCTURE.
2. FOR TEMPORARY RAMP LIGHTING, SEE SHEET EL-08. FOR PERMANENT RAMP LIGHTING, REFER TO ISTHA CONTRACT I-07-5221 LIGHTING PLANS. CALL MANAR NASHIF AT 630-241-6800 IF NECESSARY.

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

SHEET EL-03 OF 13

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

PROPOSED ROADWAY LIGHTING PLAN

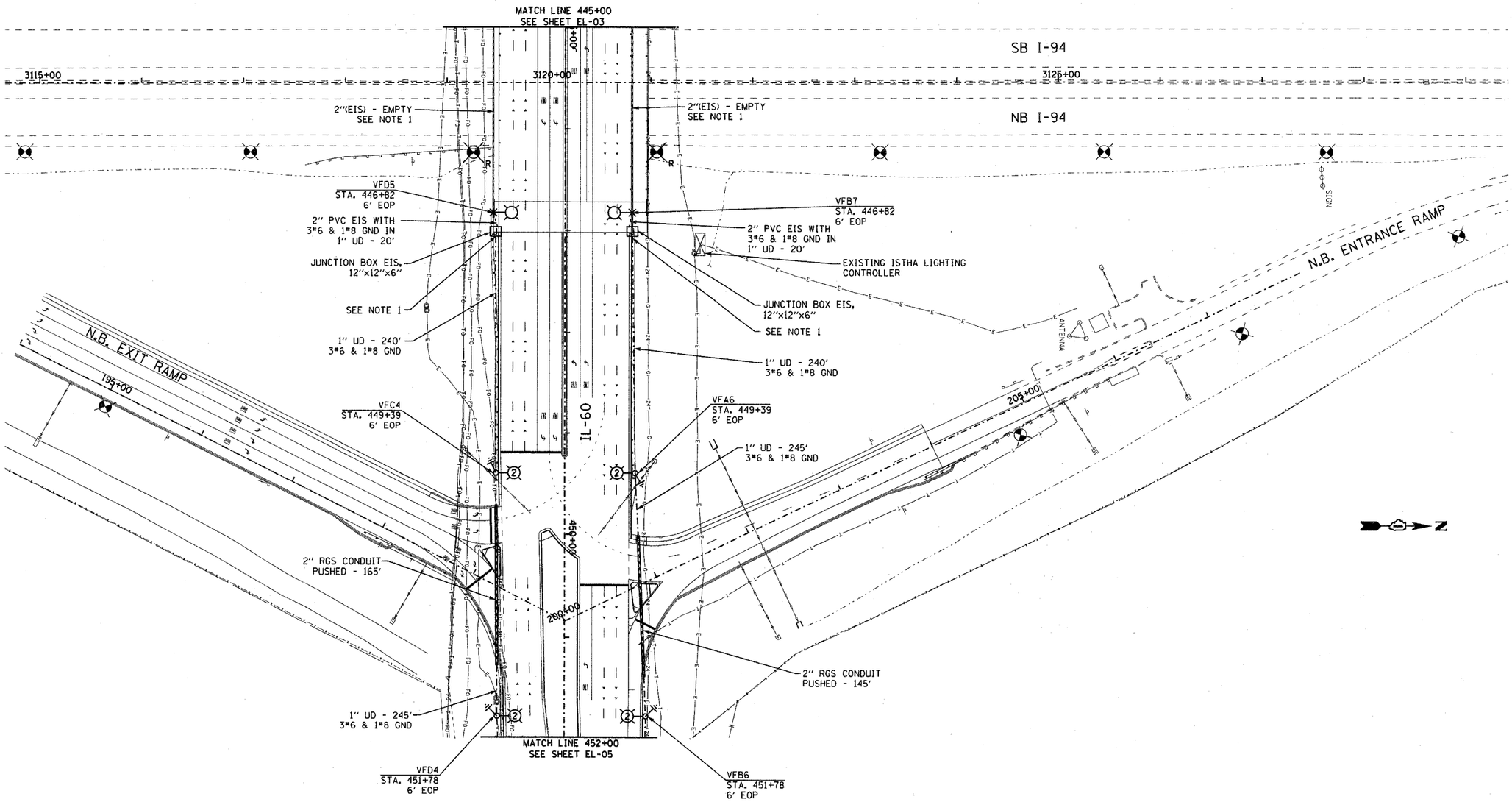
STA. 438+00 TO STA. 445+00

S.N. _____ DESIGNED BY: JDM
SCALE: 1"=50'-0" DRAWN BY: JDM
DATE: MAY 8, 2007 CHECKED BY: RES

$TIME$
$DATE$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	238
STA.	445+00	TO STA.	452+00	
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

60B01



NOTES:

1. SEE STRUCTURAL DRAWINGS FOR ALL CONDUIT EMBEDDED IN BRIDGE STRUCTURE.
2. FOR TEMPORARY RAMP LIGHTING, SEE SHEET EL-09. FOR PERMANENT RAMP LIGHTING, REFER TO ISTHA CONTRACT I-07-5221 LIGHTING PLANS. CALL MANAR NASHIF AT 630-241-6800 IF NECESSARY.

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

SHEET EL-04 OF 13

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

PROPOSED ROADWAY LIGHTING PLAN

STA. 445+00 TO STA. 452+00

S.N. _____
SCALE: 1"=50'-0"
DATE: MAY 8, 2007
DESIGNED BY: JDM
DRAWN BY: JDM
CHECKED BY: RES

$FILE$
$TIME$
$DATE$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	239
STA.	452+00	TO STA.	465+00	
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

60801

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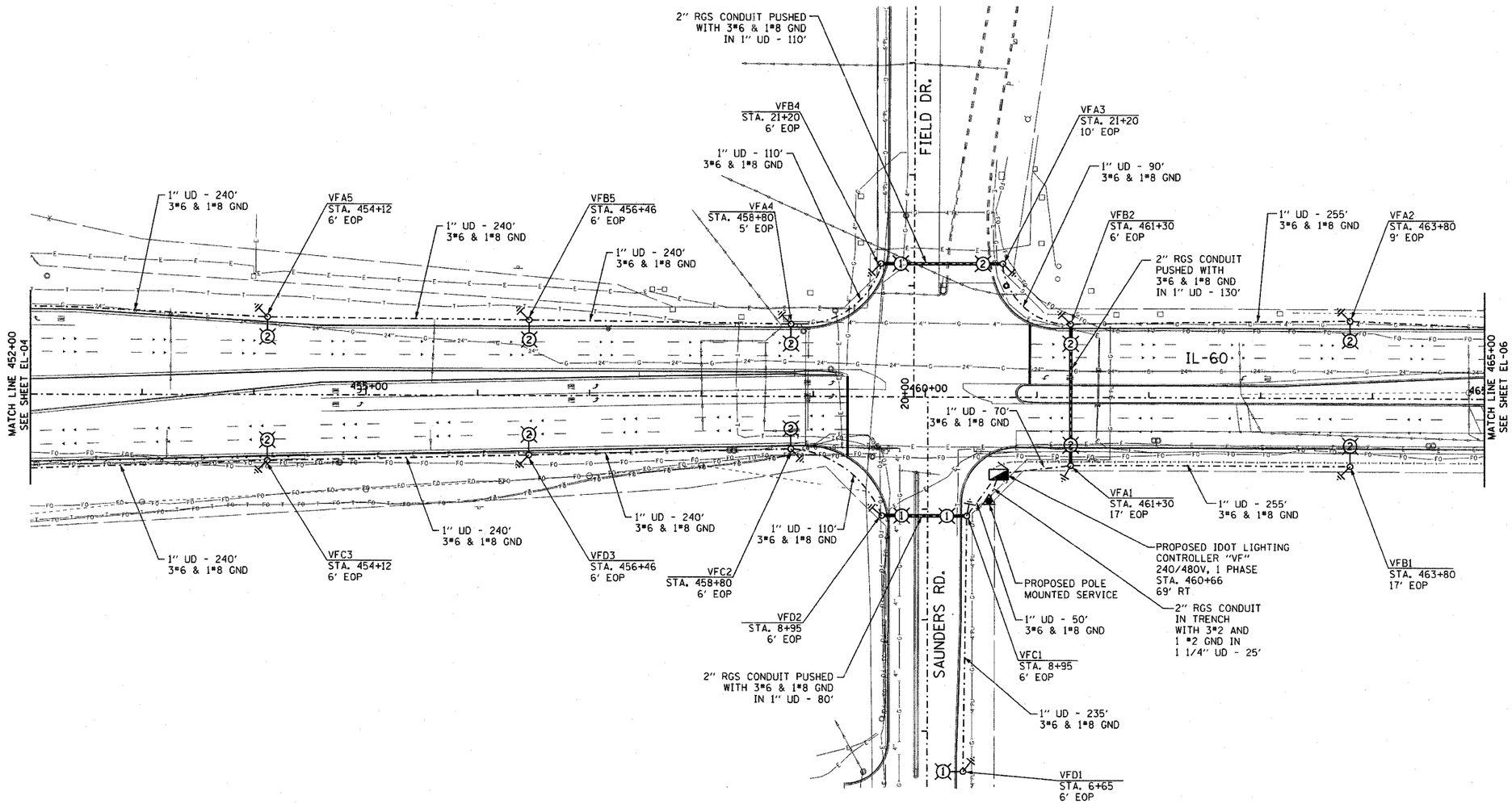


SHEET EL-05 OF 13

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

PROPOSED ROADWAY LIGHTING PLAN

STA. 452+00 TO STA. 465+00

S.N. _____ DESIGNED BY: JDM

SCALE: 1"=50'-0" DRAWN BY: JDM

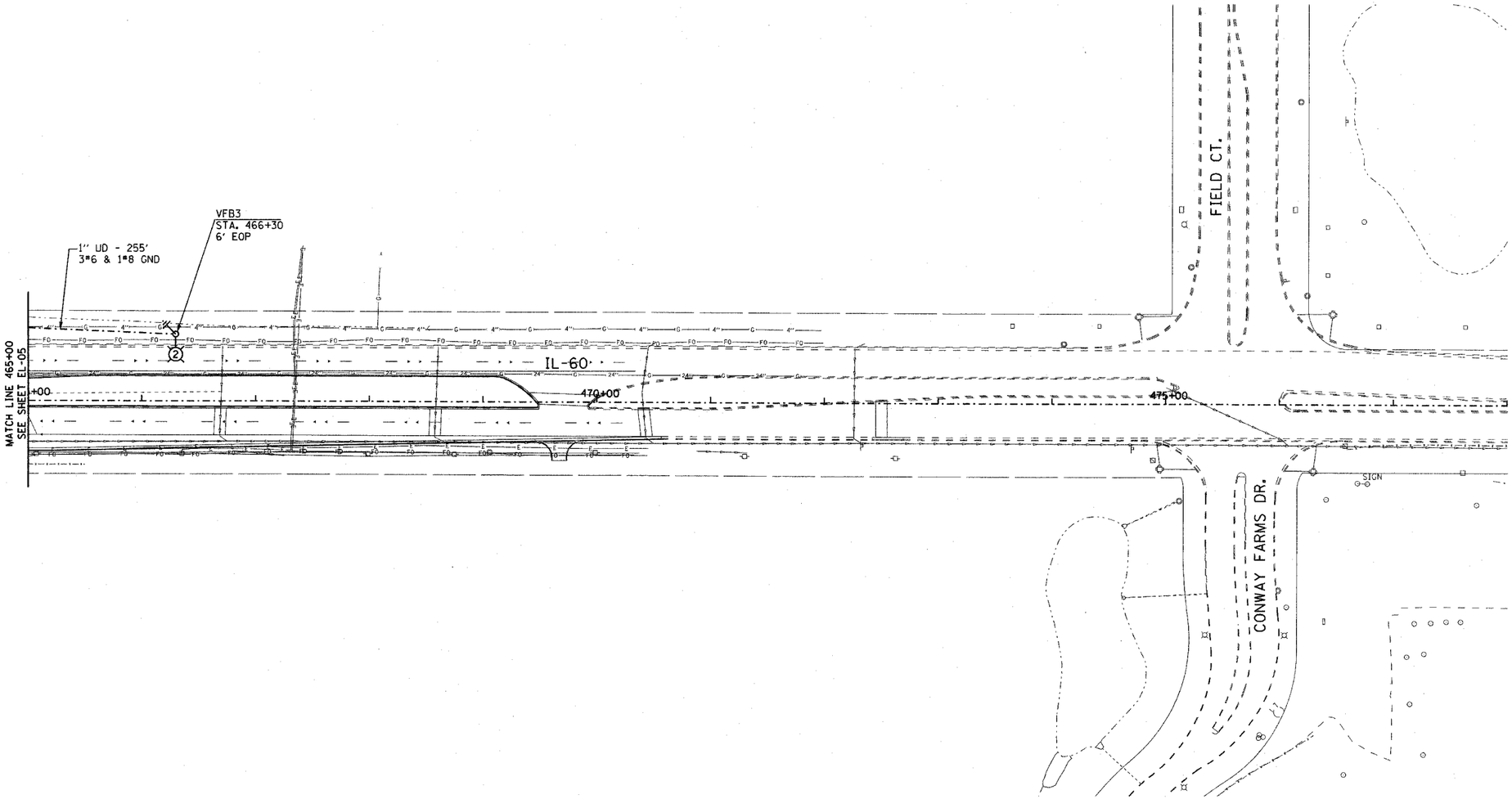
DATE: MAY 8, 2007 CHECKED BY: RES

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

$DATE$ $TIME$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	240
STA.	465+00	TO STA.	478+00	
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

60B01



SHEET EL-06 OF 13

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

PROPOSED ROADWAY LIGHTING PLAN

STA. 465+00 TO STA. 478+00

S.N. _____ DESIGNED BY: JDM

SCALE: 1"=50'-0" DRAWN BY: JDM

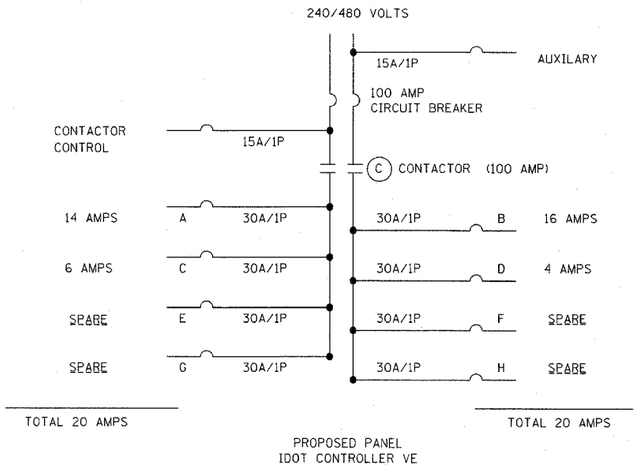
DATE: MAY 8, 2007 CHECKED BY: RES

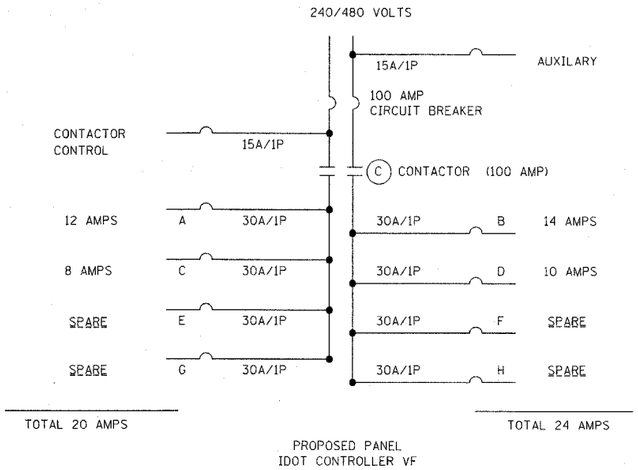
EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

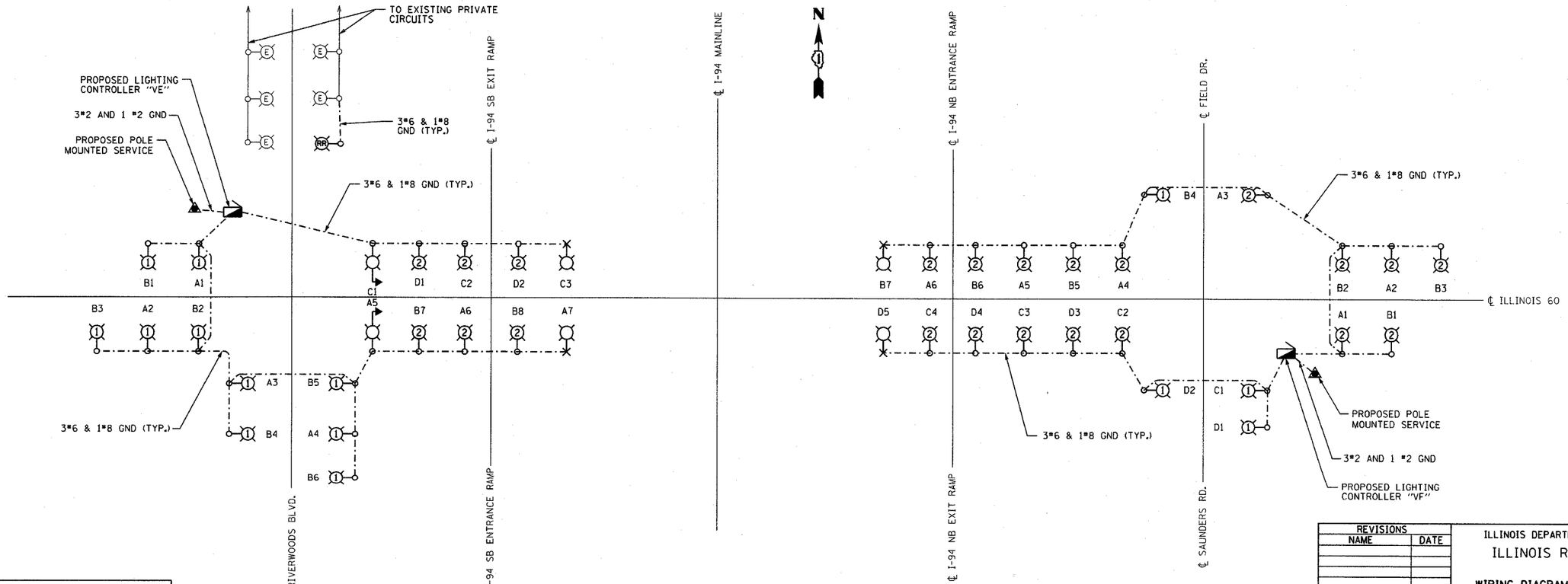
$FILE$ $TIME$ $DATE$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	241
STA.	---------	TO STA.	---------	
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

60801







SHEET EL-07 OF 13

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

WIRING DIAGRAMS & LOAD TABULATIONS

S.N. _____ DESIGNED BY: JDM

SCALE: NONE DRAWN BY: JDM

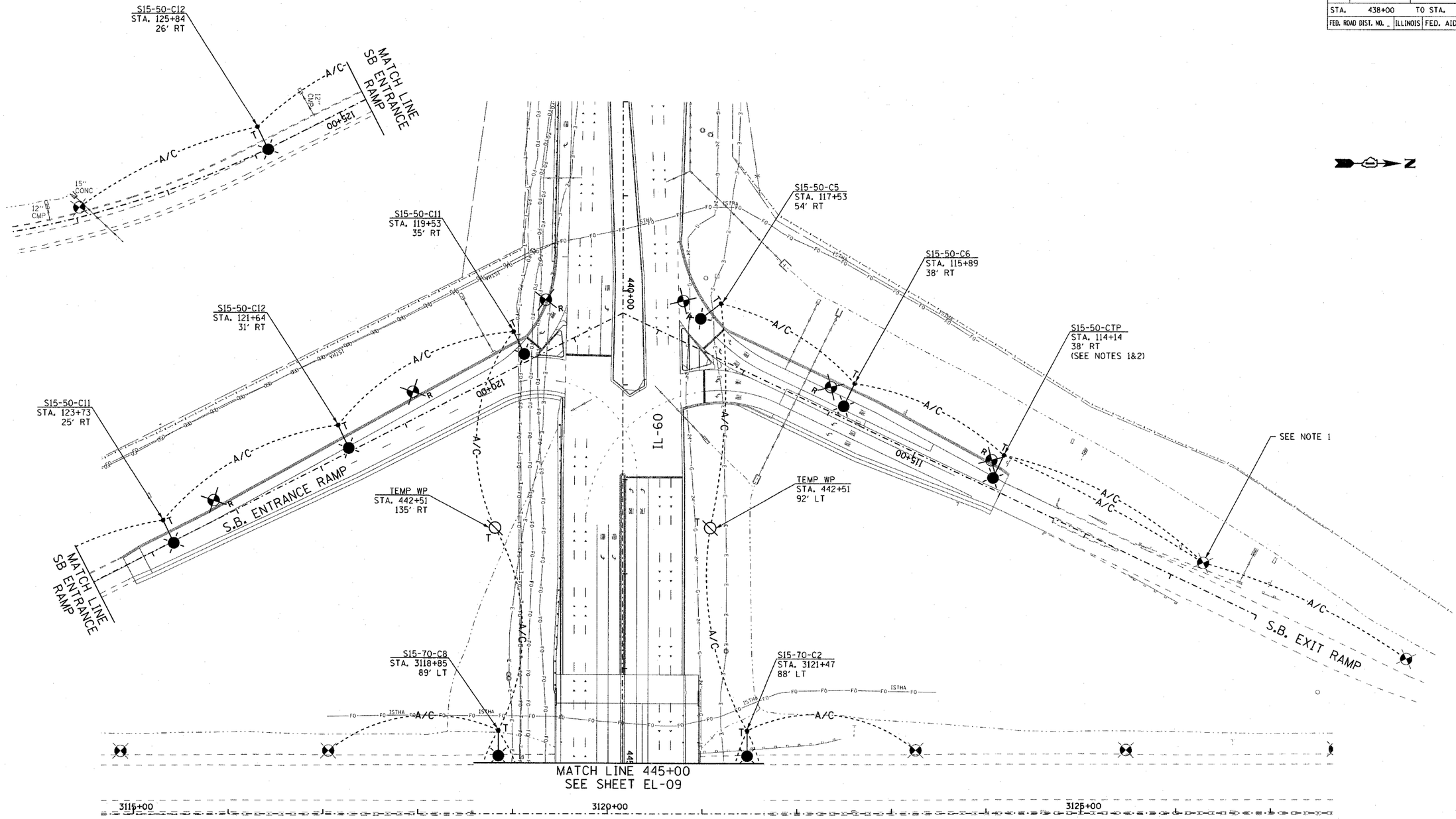
DATE: MAY 8, 2007 CHECKED BY: RES

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

$DATE$ $TIME$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	242
STA.	438+00	TO STA.	445+00	
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

60B01



NOTES:

1. ATTACH AERIAL CABLE TO LIGHT POLE BUT DO NOT CONNECT AERIAL CABLE TO LIGHT POLE CIRCUITRY. ANY DAMAGE CAUSED BY CONNECTING THIS CIRCUIT WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
2. CONNECT POLE TO EXISTING TOLL PLAZA CIRCUITRY FROM THE NORTH.

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

SHEET EL-08 OF 13

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

TEMPORARY ROADWAY LIGHTING PLAN

I-94 SOUTHBOUND RAMPS

S.N. _____ DESIGNED BY: JDM

SCALE: 1"=50'-0" DRAWN BY: JDM

DATE: MAY 8, 2007 CHECKED BY: RES

$FILES $DATES $TIMES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	243
STA. 445+00		TO STA. 452+00		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

60B01

MATCH LINE 445+00
SEE SHEET EL-08

3115+00
3120+00
3125+00
I-94
IL-60
N.B. EXIT RAMP
N.B. ENTRANCE RAMP
195+00
200+00
205+00
455+00
A/C
ANTENNA

S15-70-C7
STA. 3118+85
88' RT

S15-70-C1
STA. 3121+47
88' RT

SEE SHEETS EL-10 & EL-11 FOR UNDERPASS LIGHTING PLANS

EXISTING ISTHA LIGHTING CONTROLLER TO BE REMOVED ONCE TEMPORARY CONTROLLER IS OPERATIONAL

PROPOSED POLE MOUNTED TEMPORARY LIGHTING CONTROLLER
STA. 447+83
215' LT

3-1/C #2 WITH MESSENGER WIRE

TEMP WP
STA. 447+65
110' RT

TEMP WP
STA. 447+65
93' LT

TEMP WP
STA. 202+79
62' LT

TEMP WP
STA. 44+25
129' RT

PROPOSED POLE MOUNTED SERVICE
STA. 448+37
181' LT

SEE NOTE 1

SEE NOTE 1

S15-50-C9
STA. 196+53
23' RT

S15-50-C10
STA. 198+03
23' RT

S15-50-C9
STA. 199+26
49' RT

S15-50-C3
STA. 202+71
41' RT

S15-50-C4
STA. 200+79
64' RT

N

NOTES:

1. ATTACH AERIAL CABLE TO LIGHT POLE BUT DO NOT CONNECT AERIAL CABLE TO LIGHT POLE CIRCUITRY. ANY DAMAGE CAUSED BY CONNECTING THIS CIRCUIT WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

SHEET EL-09 OF 13

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

TEMPORARY ROADWAY LIGHTING PLAN

I-94 NORTHBOUND RAMPS

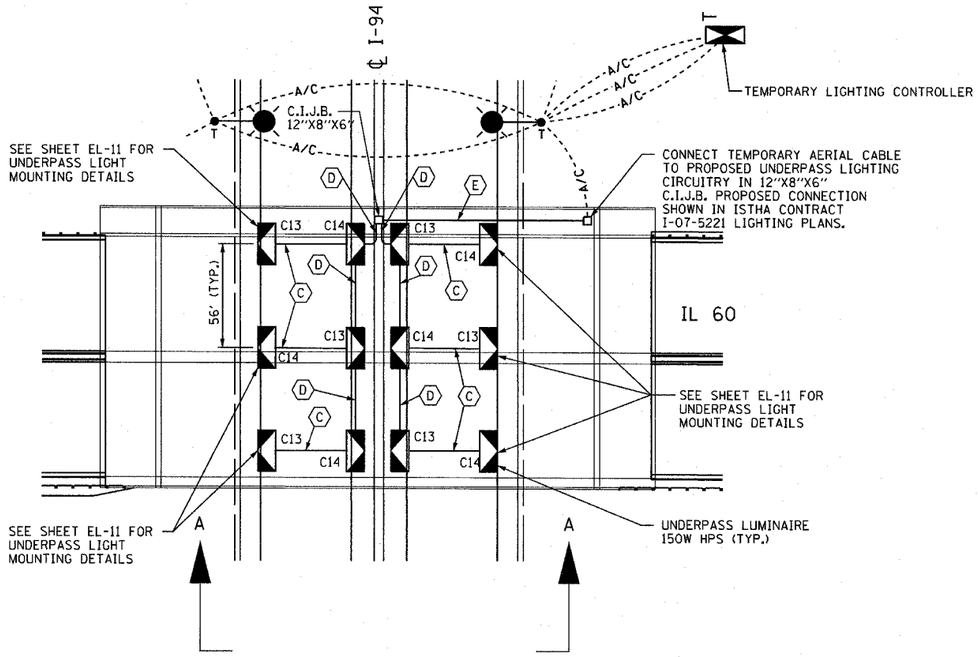
S.N. _____
SCALE: 1"=50'-0"
DATE: MAY 8, 2007

DESIGNED BY: JDM
DRAWN BY: JDM
CHECKED BY: RES

$TIME$
$DATE$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	244
STA.	---------	TO STA.	---------	
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

60B01



PLAN
NOT TO SCALE

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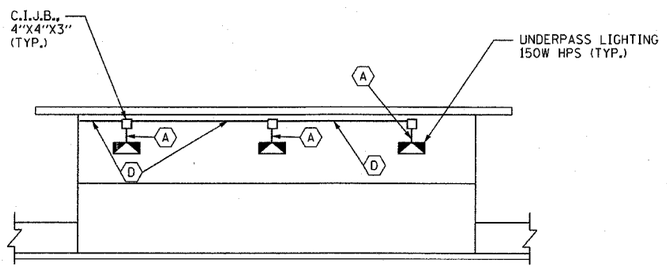
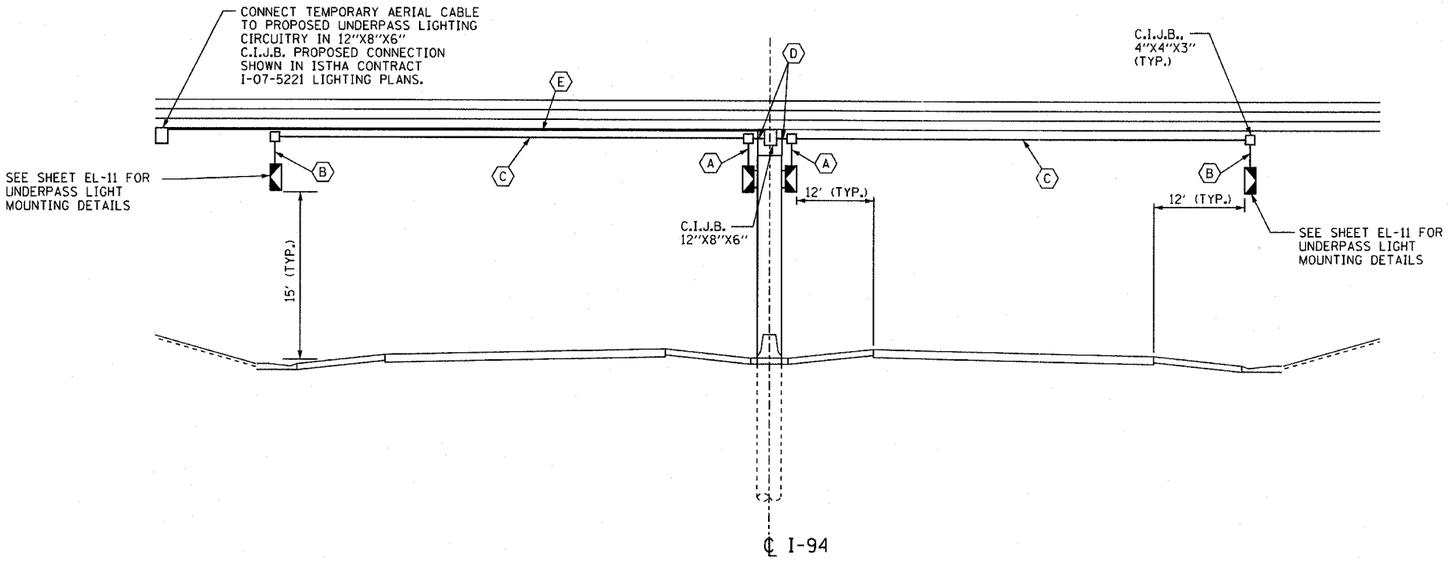


ELEVATION OF PIER
NOT TO SCALE

CABLE GROUPING LEGEND

- (A) ¾" PVC COATED RGS CONDUIT, 2 #10 AND 1 #10 GROUND (ALL 600V TYPE XHHW) ATTACHED TO STRUCTURE
- (B) ¾" LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT, 2 #10 AND 1 #10 GROUND (ALL 600V TYPE XHHW)
- (C) 1" PVC COATED RGS CONDUIT, 2 #10 AND 1 #10 GROUND (ALL 600V TYPE XHHW) ATTACHED TO STRUCTURE
- (D) 1" PVC COATED RGS CONDUIT, 4 #10 AND 1 #10 GROUND (ALL 600V TYPE XHHW) ATTACHED TO STRUCTURE
- (E) 1 ½" PVC COATED RGS CONDUIT, 4 #6 AND 1 #8 GROUND (ALL 600V TYPE XHHW) ATTACHED TO STRUCTURE



SECTION A-A
LOOKING NORTH
NOT TO SCALE

NOTES:

1. PVC COATED CONDUIT CLAMP AND CLAMP BACK ON 5'-0" CENTERS. (TYPICAL) ATTACH WITH EXPANSION ANCHORS (MIN. 2" LONG) EXPANSION ANCHORS SHALL BE HOT DIPPED GALVANIZED AS MADE BY PARABOLT KWIK-BOLT, WEJ-IT OR APPROVED EQUAL.
2. EXPANSION FITTINGS AT WALL JOINTS SHALL BE O.Z. GEDNEY TYPE DX EXPANSION-DEFLECTION FITTINGS OR APPROVED EQUAL ALLOWING A MOVEMENT OF ¾" IN ALL DIRECTIONS AND A DEFLECTION OF 30° FROM NORMAL IN ALL DIRECTIONS.
3. LUMINAIRES SHALL BE SURFACE MOUNTED TO WALL WITH UNISTRUT P5500 STAINLESS STEEL CHANNELS (12 GAUGE) OR APPROVED EQUAL TO PROVIDE A MINIMUM CLEARANCE OF 2" BETWEEN THE BACK OF LUMINAIRE AND THE FACE OF THE WALL.
4. ALIGN CENTERLINE OF 56' LUMINAIRE SPACING AT CENTERLINE OF ILLINOIS 60 OVERPASS.

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

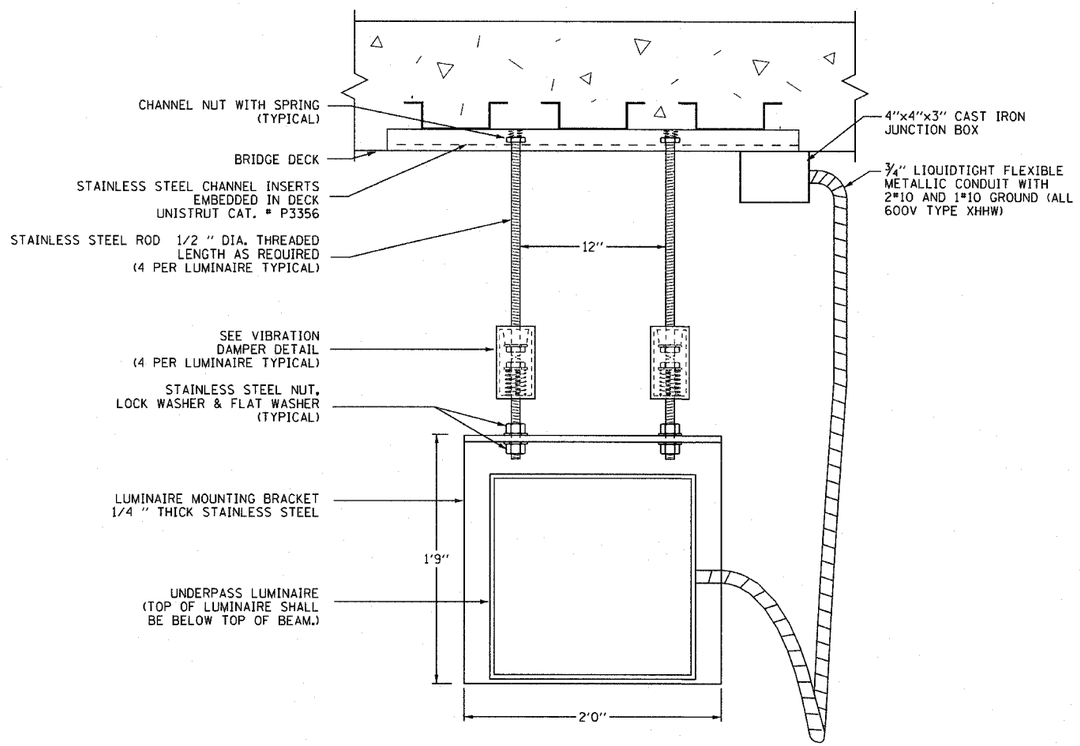
UNDERPASS LIGHTING PLAN

S.N. _____	DESIGNED BY: JDM
SCALE: NONE	DRAWN BY: JDM
DATE: MAY 8, 2007	CHECKED BY: RES

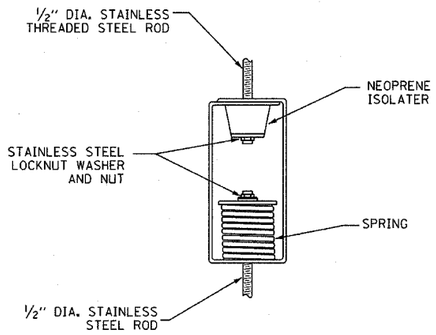
$FILE$
$TIME$
$DATE$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	245
STA.	-------	TO STA.	-------	
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

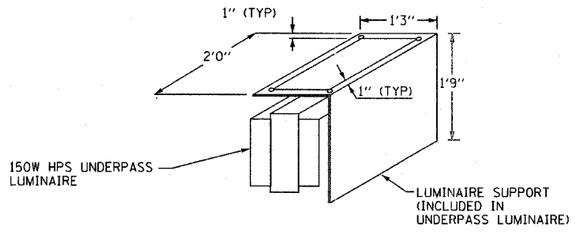
60B01



SECTION A-A
NOT TO SCALE



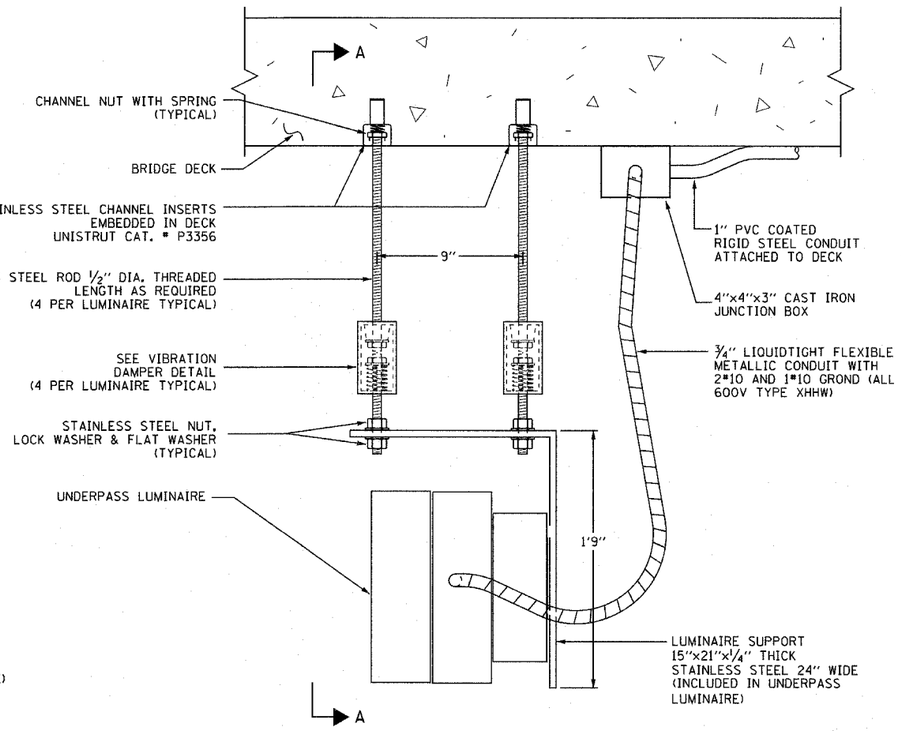
VIBRATION DAMPER DETAIL
NOT TO SCALE



LUMINAIRE SUPPORT DETAIL
NOT TO SCALE

NOTES:

1. COORDINATE THE CHANNEL INSERT LOCATION WITH THE BRIDGE PLANS.
2. ALL OF THE LUMINAIRE SUPPORTING HARDWARE SHALL BE STAINLESS STEEL.
3. ALL OF THE UNDERPASS MOUNTING AND SUPPORTING HARDWARE, MATERIALS AND LABOR, INCLUDING STAINLESS STEEL RODS, MOUNTING BRACKETS, VIBRATION DAMPERS, CONCRETE INSERTS, NUTS, WASHERS, ETC. SHALL BE INCLUDED IN THE UNDERPASS LUMINAIRE ITEM.



UNDERPASS LIGHT MOUNTED TO UNDERDECK DETAIL
NOT TO SCALE

SHEET EL-11 OF 13

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

UNDERPASS LIGHTING DETAILS

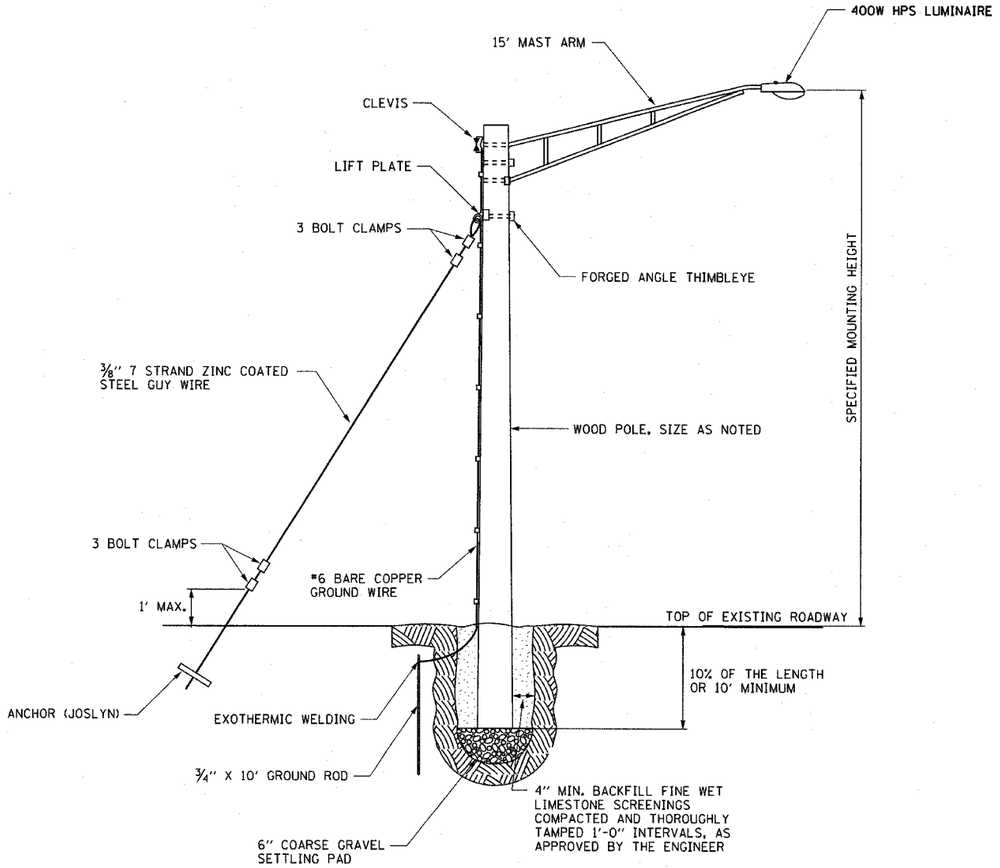
S.N. _____ DESIGNED BY: JDM
SCALE: NONE DRAWN BY: JDM
DATE: MAY 8, 2007 CHECKED BY: RES

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

$TIME$
$DATE$

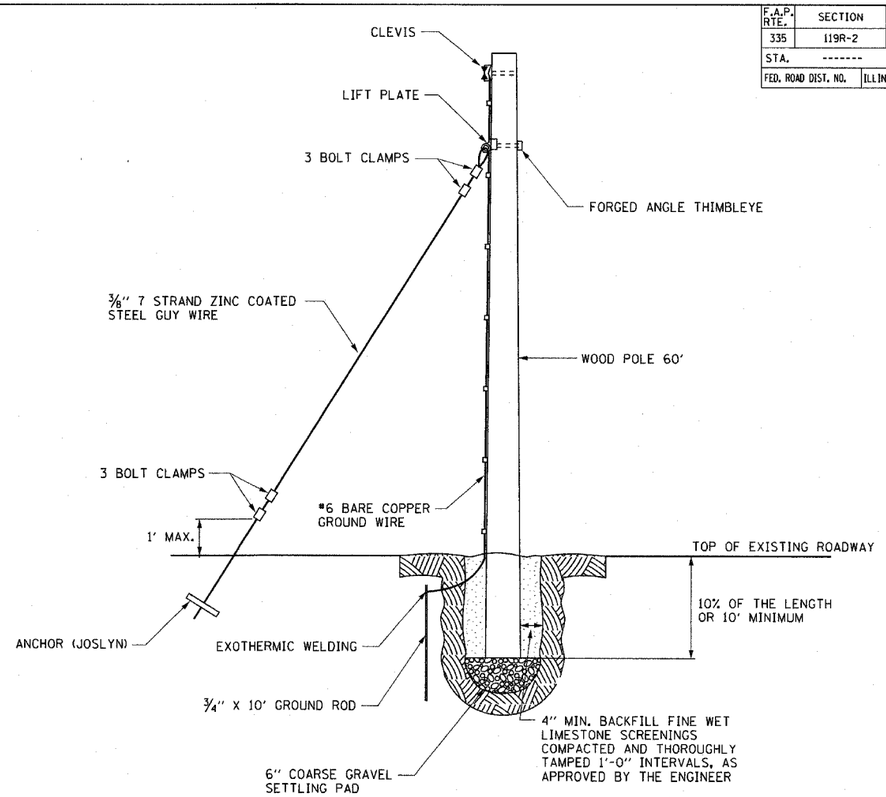
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	246
STA.	-------	TO STA.	--------	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



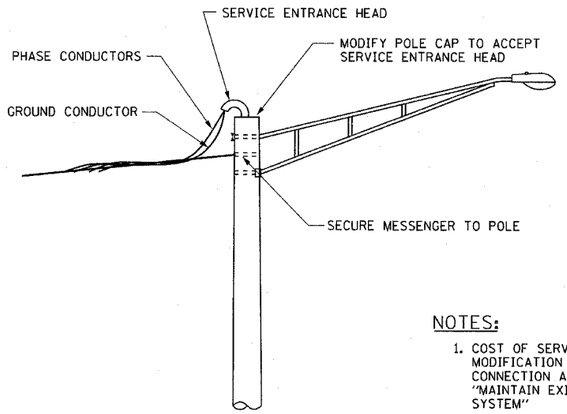
TEMPORARY LIGHT POLE DETAIL

NOT TO SCALE



TEMPORARY WOOD POLE DETAIL

NOT TO SCALE

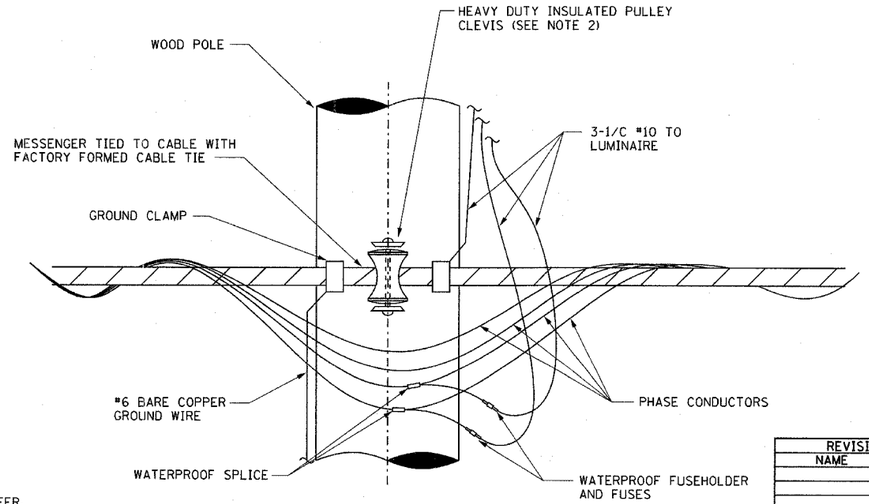


TEMPORARY POWER FEED
TO EXISTING ALUMINUM POLE

NOT TO SCALE

NOTES:

1. COST OF SERVICE ENTRANCE HEAD, MODIFICATION OF POLE CAP AND CONNECTION ARE INCLUDED IN "MAINTAIN EXISTING LIGHTING SYSTEM"
2. WITH THE APPROVAL OF THE ENGINEER, A SECONDARY CABLE SPREADER SECURED TO THE POLE MAY BE USED IN CONJUNCTION WITH THE QUADRUPLEX IN LIEU OF THE HEAVY DUTY INSULATED PULLEY CLEVIS.



TEMPORARY LIGHT POLE
CABLE ATTACHMENT DETAIL

NOT TO SCALE

EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

SHEET EL-12 OF 13

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

TEMPORARY INSTALLATION DETAILS

S.N. -------
SCALE: NONE
DATE: MAY 8, 2007

DESIGNED BY: JDM
DRAWN BY: JDM
CHECKED BY: RES

$DATE$ $TIME$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	247
STA.	-------	TO STA.	-------	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

240 VOLTS 240 VOLTS

150 AMP CIRCUIT BREAKER

CONTACTOR CONTROL		15A/2P	15A/2P		SPARE
		C CONTACTOR (150 AMP)			
2400 WATTS	1	30A/2P	30A/2P	2	2400 WATTS
2400 WATTS	3	30A/2P	30A/2P	4	2400 WATTS
3120 WATTS	5	30A/2P	30A/2P	6	3120 WATTS
2400 WATTS	7	30A/2P	30A/2P	8	2400 WATTS
4080 WATTS	9	30A/2P	30A/2P	10	3600 WATTS
2880 WATTS	11	30A/2P	30A/2P	12	2880 WATTS
1080 WATTS	13	30A/2P	30A/2P	14	1080 WATTS
SPARE	15	30A/2P	30A/2P	16	SPARE

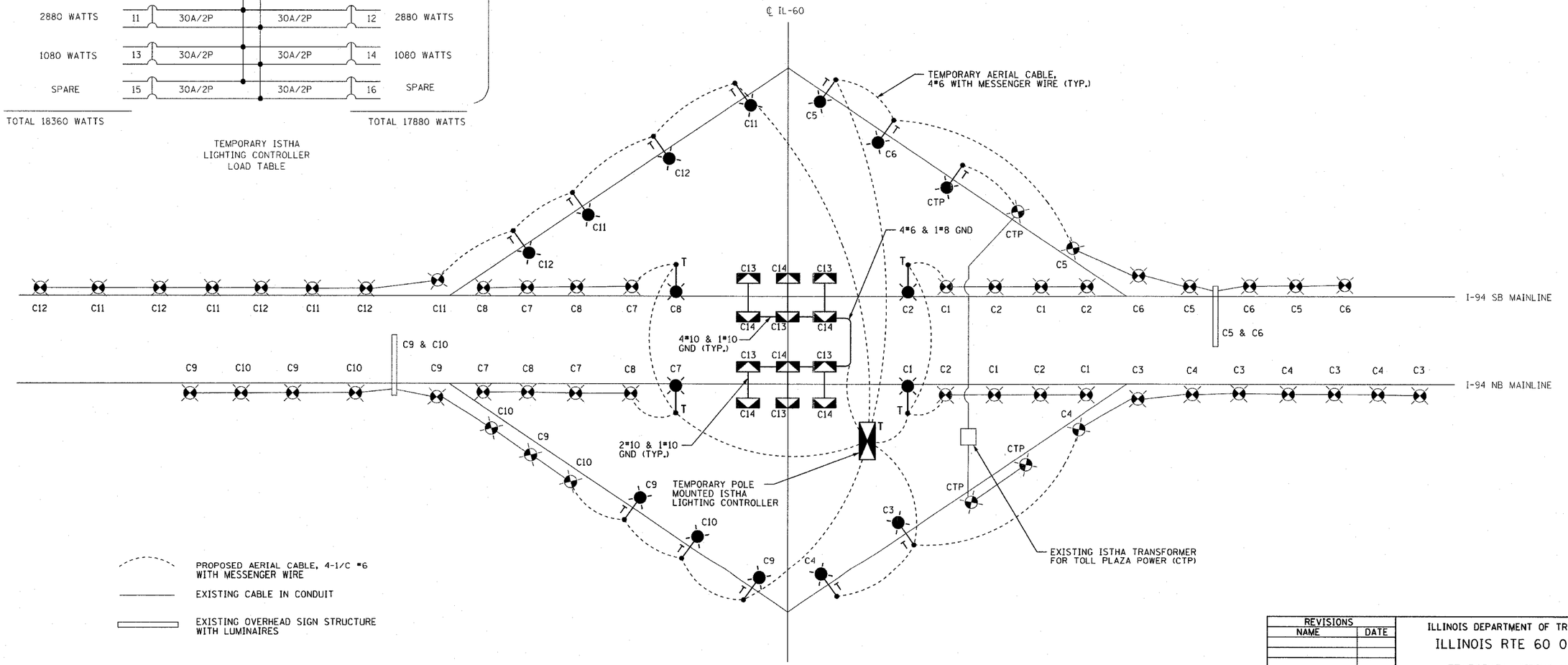
} SECTION "A"

} SECTION "B"

TOTAL 18360 WATTS

TOTAL 17880 WATTS

TEMPORARY ISTHA LIGHTING CONTROLLER LOAD TABLE



PROPOSED AERIAL CABLE, 4-1/C #6 WITH MESSENGER WIRE

EXISTING CABLE IN CONDUIT

EXISTING OVERHEAD SIGN STRUCTURE WITH LUMINAIRES

SHEET EL-13 OF 13

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS RTE 60 OVER I-94

TEMPORARY WIRING DIAGRAM AND LOAD TABLE

S.N. --------
SCALE: NONE
DATE: MAY 8, 2007

DESIGNED BY: JDM
DRAWN BY: JDM
CHECKED BY: RES

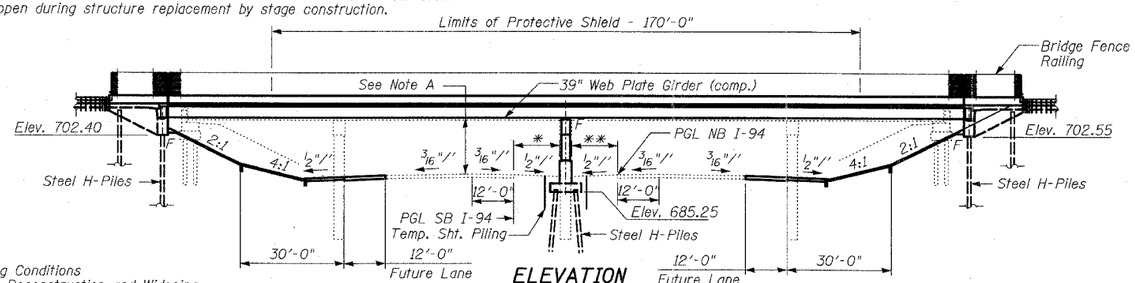
EJM ENGINEERING, INC.
411 South Wells Street Suite 800
Chicago, Illinois 60607

$TIME$
$DATE$

Benchmark: BM #203 - Set Square on S.E. corner of S.E. end of south handrail of Illinois Route 60 Bridge over I-94. Sta. 446+76.89 (℄ IL 60) Offset 35.70' Right, Elev. 713.54

Existing Structure: Existing Structure Number 049-9902 built in 1958 as S.B.I. Route 59A by the Illinois State Toll Highway Commission is a 4-span continuous PPC I-Beam structure with an out-to-out deck width of 64'-4" and overall length of 222'-2" bk. to bk. abutments. The substructure consists of concrete pile-supported abutments and PPC cylindrical pile bent piers. The structure was widened in 1988 to 71'-6" out-to-out deck. The road shall be kept open during structure replacement by stage construction.

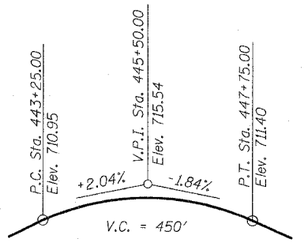
Salvage: None



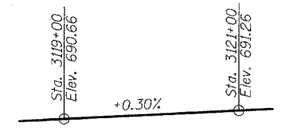
ELEVATION

* Varies 13'-0 3/8" to 13'-6"
** Varies 13'-0" to 13'-5 5/8"

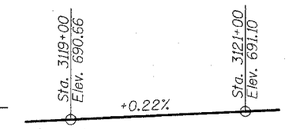
Note A:
16'-8 1/4" Minimum Vertical Clearance for Existing Conditions
16'-6 1/4" Minimum Vertical Clearance after I-94 Reconstruction and Widening



PROFILE GRADE - IL RTE. 60



PROFILE GRADE - I-94
(Along PGL - Proposed)



PROFILE GRADE - I-94
(Along PGL - Existing)

STATE OF ILLINOIS
PHILLIP D. FREY
081-004826
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

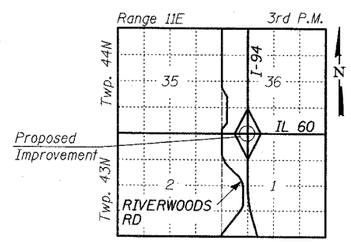
Signed Phillip D. Frey
Phillip D. Frey, S.E. IL Lic. No. 081-004826
Expires 11-30-2008.
Date 5-8-07
for drawings S-1 thru S-53

DESIGN SPECIFICATIONS
2002 AASHTO

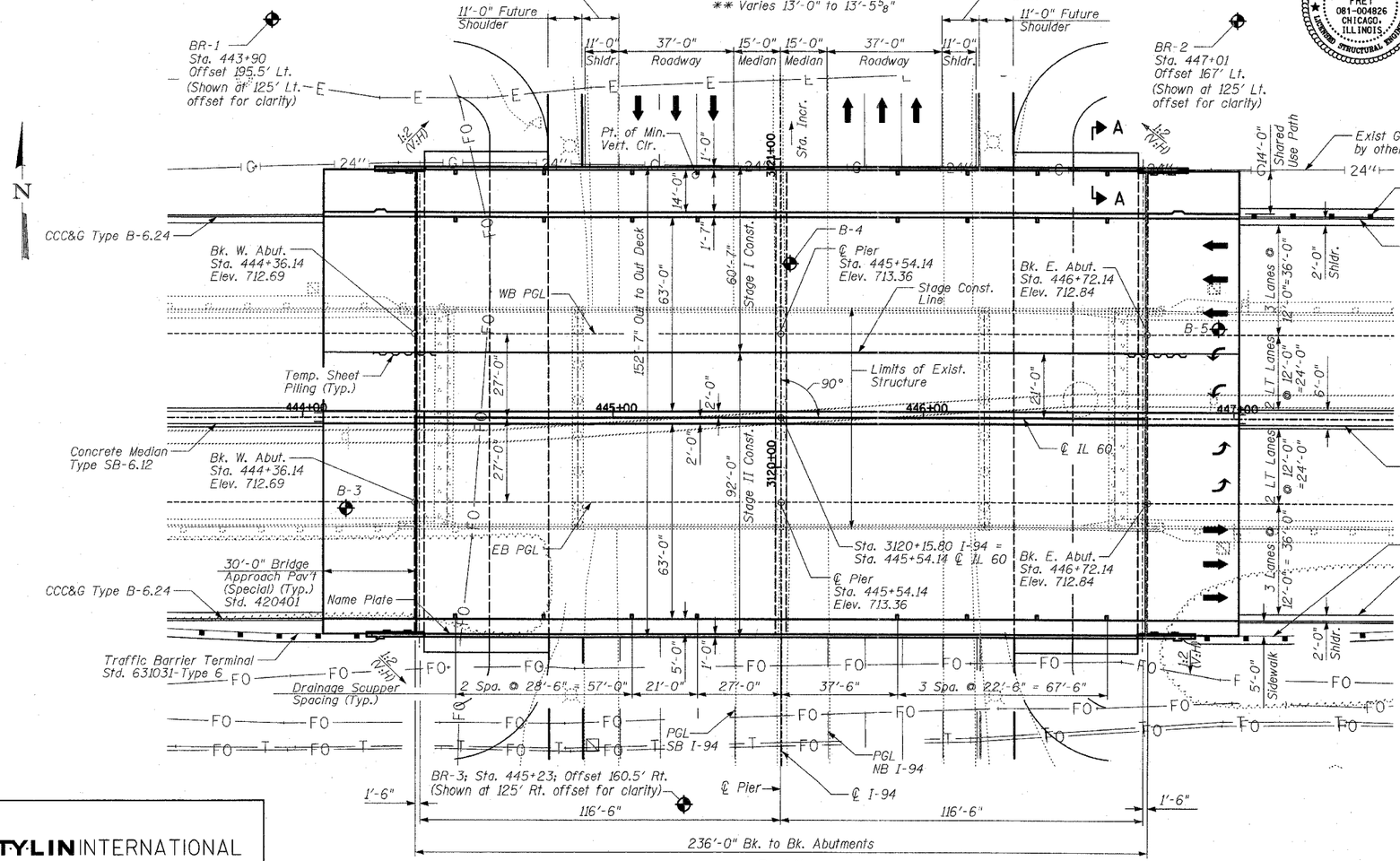
LOADING HS20-44
Allow 50 psf for future wearing surface

DESIGN STRESSES
FIELD UNITS
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (M270 Grade 50)

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035g
Site Coefficient (S) = 1.0



LOCATION SKETCH



PLAN

TY·LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007
DESIGNED BY: SP
DRAWN BY: SP
CHECKED BY: PF

SHEET S-1 OF S-53

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	248
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

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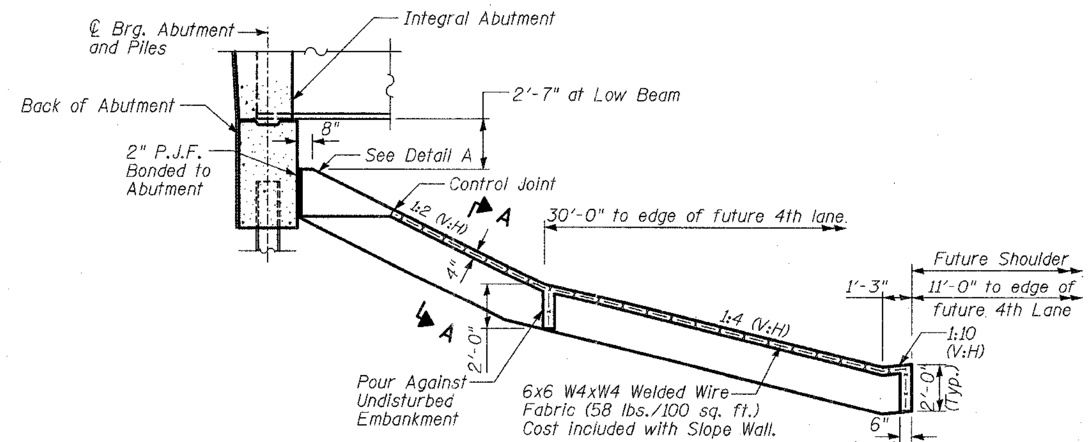
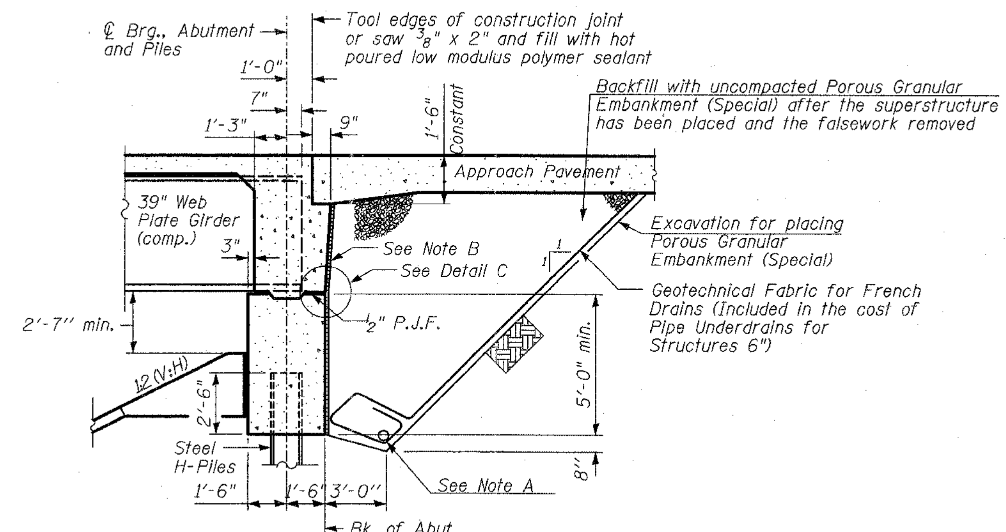
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	249
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts 7/8 in. φ, holes 15/16 in. φ, unless otherwise noted.
2. Calculated weight of Structural Steel =
   Grade 50 = 1,141,360 lbs.
   Grade 36 = 82,930 lbs.
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
7. 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.
8. Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
9. Concrete Sealer shall be applied to all exposed surfaces of the Pier.
10. The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. the entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8. See Special Provision for "Cleaning and Painting New Metal Structures".
11. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
12. The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
13. Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.
14. The Protective Shield shall extend as shown on Sheet S-1, and as a minimum 2' beyond the existing and proposed edge of Deck. As a minimum 1,426 Sq. Yd. will be required to remove the existing structure and 2,958 Sq. Yd. will be required for construction of the proposed structure.
15. The cost of removal of existing Concrete Slopewall shall be included in "Removal of Existing Structures".
16. The excavation required to place the concrete slopewall has been included in the quantity of Structure Excavation.
17. The existing substructure shall be removed in accordance with Article 501.04 of the Standard Specifications. The existing 36" φ Precast Prestressed Concrete Piles shall be filled with CA-6 or as approved by the Engineer. The cost shall be included in 'Removal of Existing Structures."



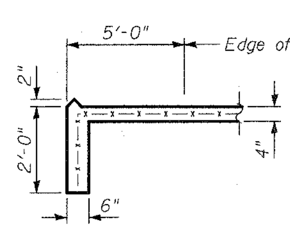
SECTION THRU SLOPEWALL



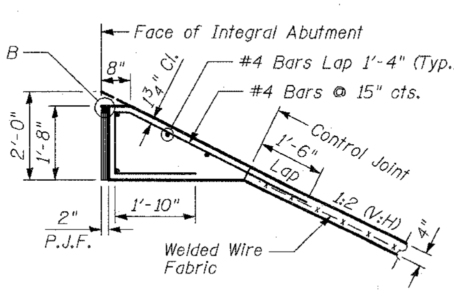
SECTION THRU INTEGRAL ABUTMENT

Note A:
A 6" φ perforated drain pipe shall be situated at the bottom of an approximate 2'x2' area of Porous Granular Embankment (Special). The 2'x2' area shall be wrapped completely in geotechnical fabric for french drains. Extend pipe parallel with the cap until intersecting the sideslope. Pipes shall drain onto concrete headwalls (Article 601.05 of the Std. Specifications & Highway Std. 601101).

Note B:
1" Thick Styrofoam and Geocomposite Wall Drain. The cost of the Styrofoam shall be included in the cost of Geocomposite Wall Drain.

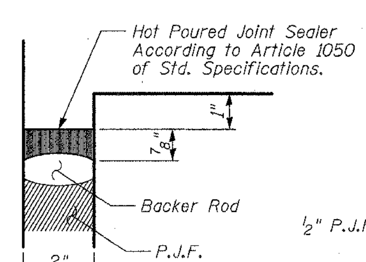


SECTION A-A

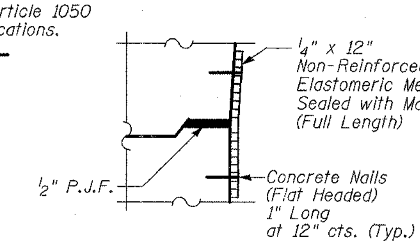


DETAIL A

Reinforcement bars in the concrete slopewall shall be included in the unit price of "Slopewall 4 Inch"



DETAIL B



DETAIL C

Note:
The cost of elastomeric membrane, mastic & concrete nails is included in the cost of Concrete Structures.

TOTAL BILL OF MATERIAL

60B01

Item	Unit	Super.	Sub.	Total
POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD		734	734
REMOVAL OF EXISTING STRUCTURES	EACH			1
PROTECTIVE SHIELD	SQ YD	4,384		4,384
STRUCTURE EXCAVATION	CU YD		2,719	2,719
CONCRETE STRUCTURES	CU YD		608	608
CONCRETE SUPERSTRUCTURE	CU YD	1,154		1,154
BRIDGE DECK GROOVING	SQ YD	3,186		3,186
CONCRETE ENCASEMENT	CU YD		32	32
PROTECTIVE COAT	SQ YD	5,362		5,362
FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1
STUD SHEAR CONNECTORS	EACH	13,860		13,860
REINFORCEMENT BARS, EPOXY COATED	POUND	234,780	75,320	310,100
BAR SPLICERS	EACH	1704	82	1786
BRIDGE FENCE RAILING	FOOT	529		529
PARAPET RAILING	FOOT	295		295
SLOPEWALL 4 INCH	SQ YD		1,554	1,554
FURNISHING STEEL PILES HP14X73	FOOT		7,022	7,022
DRIVING PILES	FOOT		7,022	7,022
TEST PILE STEEL HP14X73	EACH		3	3
PILE SHOES	EACH		130	130
TEMPORARY SHEET PILING	SQ FT		3,670	3,670
NAME PLATES	EACH	1		1
ANCHOR BOLTS, 1 1/2"	EACH	44		44
CONCRETE SEALER	SQ FT		4,730	4,730
GEOCOMPOSITE WALL DRAIN	SQ YD		286	286
PIPE UNDERDRAIN FOR STRUCTURES 6"	FOOT		379	379
CONDUIT EMBEDDED IN STRUCTURE, 2"DIA, GALVANIZED STEEL	FOOT	825		825
CONDUIT EMBEDDED IN STRUCTURE, 4" DIA., PVC	FOOT	150.7		150.7
DRAINAGE SCUPPERS, DS11	EACH	24		24
PERMANENT STEEL SHEET PILING	SQ FT		528	528
PVC DRAIN PIPE (8 IN.)	FOOT		454	454

INDEX OF SHEETS

STATION 445+54.14
BUILT BY
STATE OF ILLINOIS
F.A.P. RTE. 335 SECTION 119R-2
LOADING HS20
STRUCTURE NO. 049-2012

NAME PLATE

See Std. 515001

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GEN NOTES, SHT INDEX, BILL OF MATERIAL
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: SP
SCALE: DRAWN BY: SNB
DATE: MAY 8, 2007 CHECKED BY: PF

TY·LIN INTERNATIONAL

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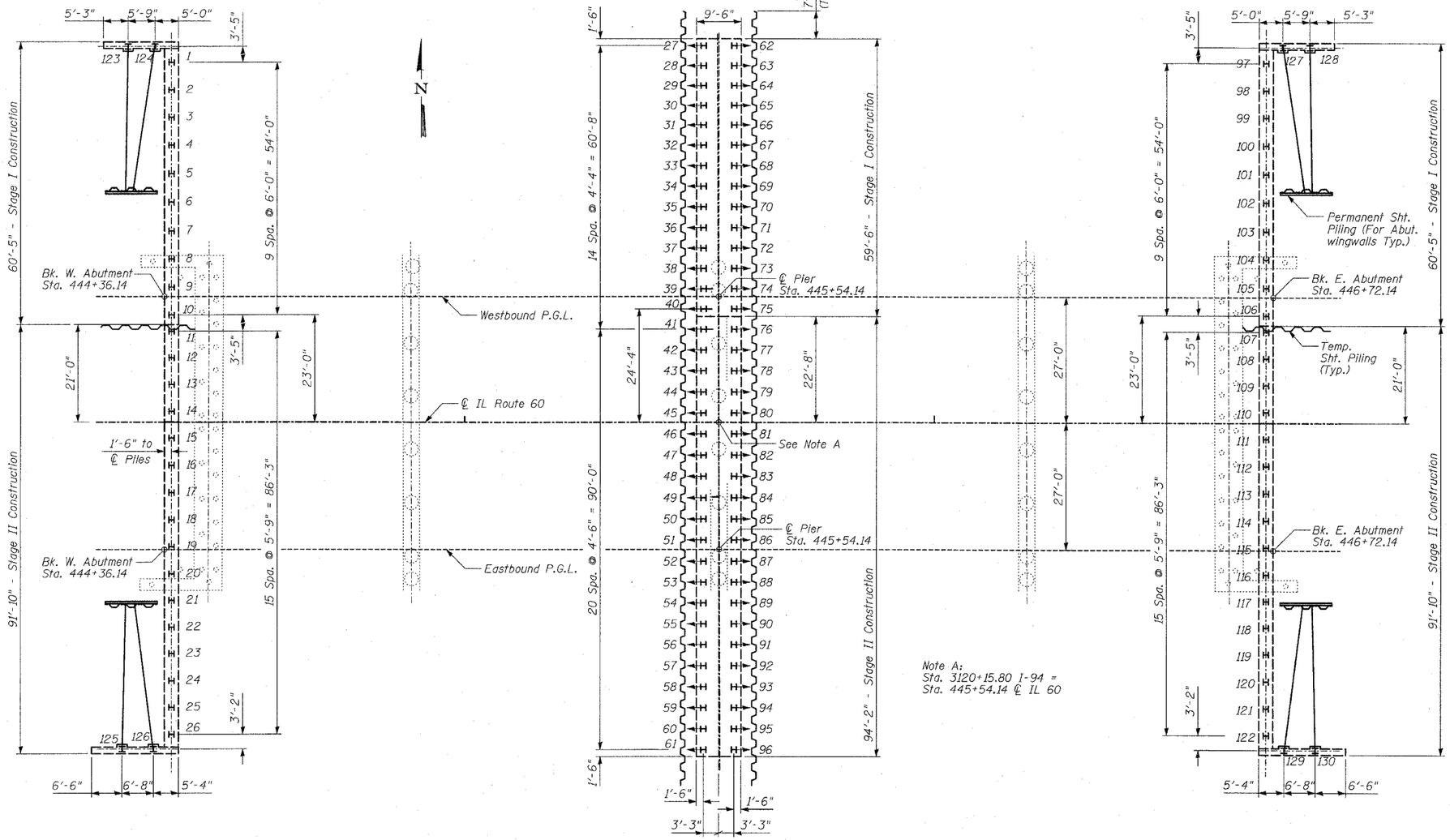
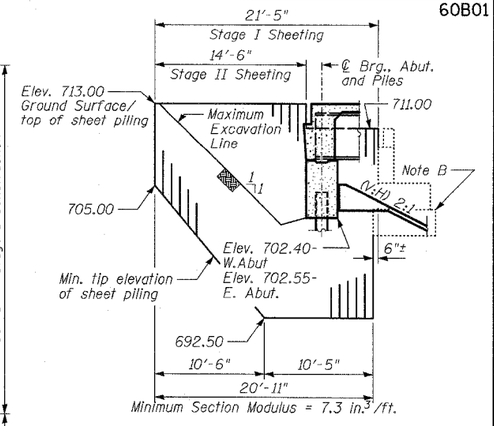
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	250
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



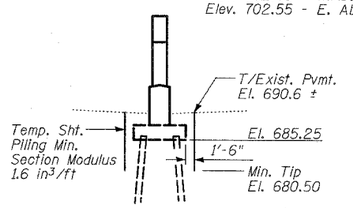
SUBSTRUCTURE LAYOUT



TEMPORARY SHEET PILING-ABUT.

(West Abutment shown; East Abutment opposite hand)

Note B:
Elev. 702.40 - W.Abut;
Elev. 702.55 - E. Abut.



TEMPORARY SHEET PILING-PIER

SHEET PILING NOTES:

1. Hard driving may be encountered during the sheet piling installation. The Contractor shall provide the appropriate driving equipment for the site conditions indicated on the boring logs.
2. If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculatons will be required for review and acceptance by the Engineer.
3. At the Abutment Location, the Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

LEGEND

- Existing Structure
- Proposed Structure
- Proposed Battered Pile 2:12 (H:V)
- Proposed Pile
- Temp. Sheet Piling

SHEET S-3 OF S-53

REVISIONS NAME	DATE

TY·LIN INTERNATIONAL

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE LAYOUT

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: SP
DRAWN BY: SNB
CHECKED BY: PDF
SCALE:
DATE: MAY 8, 2007

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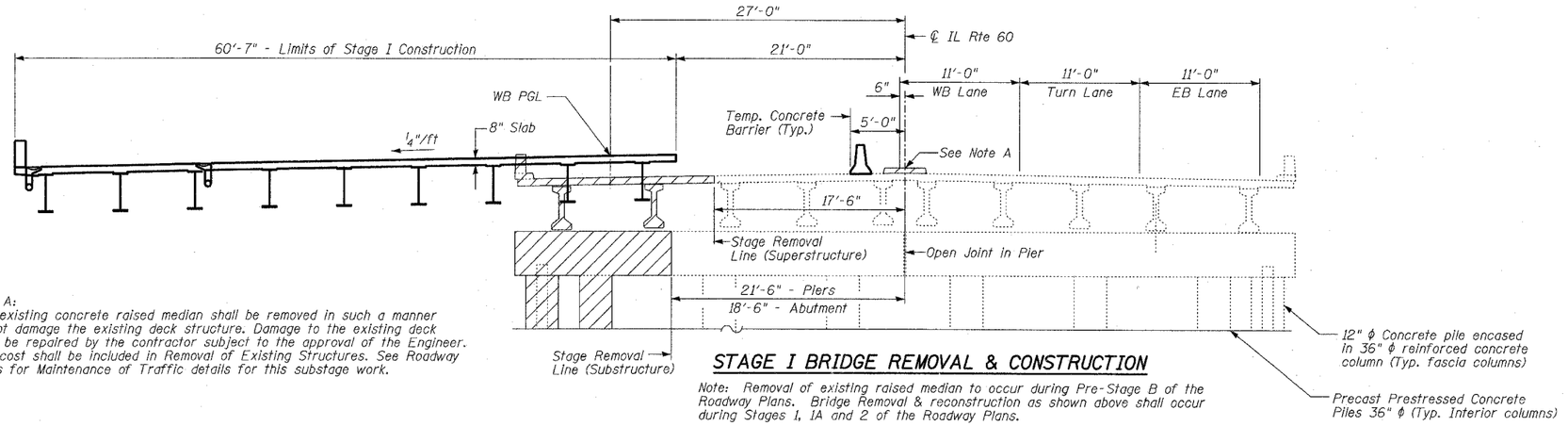
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	251
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

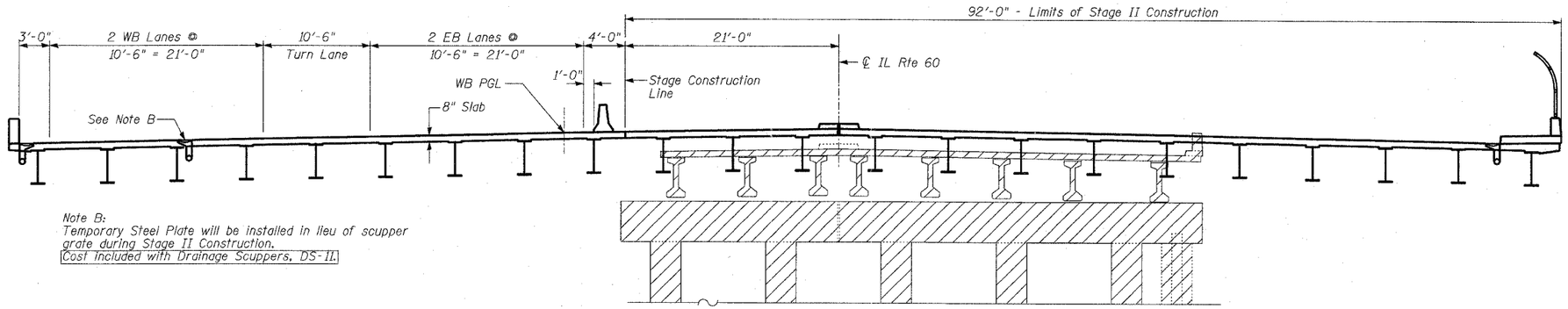
60B01



Note A:
The existing concrete raised median shall be removed in such a manner to not damage the existing deck structure. Damage to the existing deck shall be repaired by the contractor subject to the approval of the Engineer. The cost shall be included in Removal of Existing Structures. See Roadway Plans for Maintenance of Traffic details for this substage work.

STAGE I BRIDGE REMOVAL & CONSTRUCTION

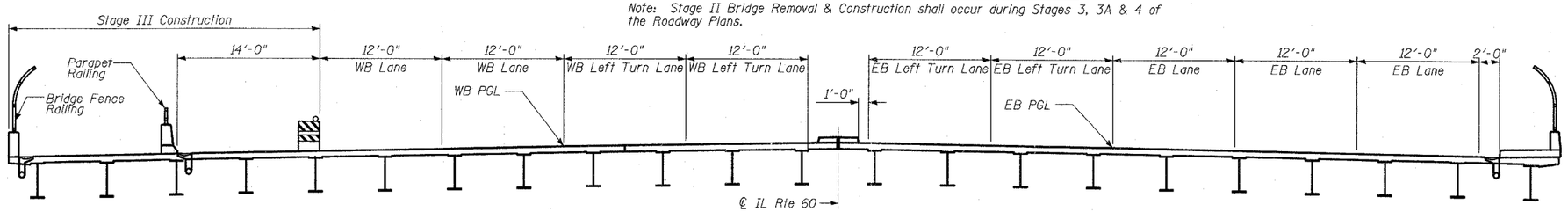
Note: Removal of existing raised median to occur during Pre-Stage B of the Roadway Plans. Bridge Removal & reconstruction as shown above shall occur during Stages 1, 1A and 2 of the Roadway Plans.



Note B:
Temporary Steel Plate will be installed in lieu of scupper grate during Stage II Construction.
Cost included with Drainage Scuppers, DS-11.

STAGE II BRIDGE REMOVAL & CONSTRUCTION

Note: Stage II Bridge Removal & Construction shall occur during Stages 3, 3A & 4 of the Roadway Plans.



STAGE III BRIDGE CONSTRUCTION

Note: Stage III Bridge Construction shall occur during Stage 5 of the Roadway Plans.

Stage III Note:

Work to be performed during Stage III Construction consists of placement of the F-Shape concrete parapet and parapet railing along with the installation of the bridge fence railing on the north fascia barrier.

LEGEND

Indicates Concrete Removal

TY·LIN INTERNATIONAL

SHEET S-4 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007

DESIGNED BY: SP
DRAWN BY: SP
CHECKED BY: PF

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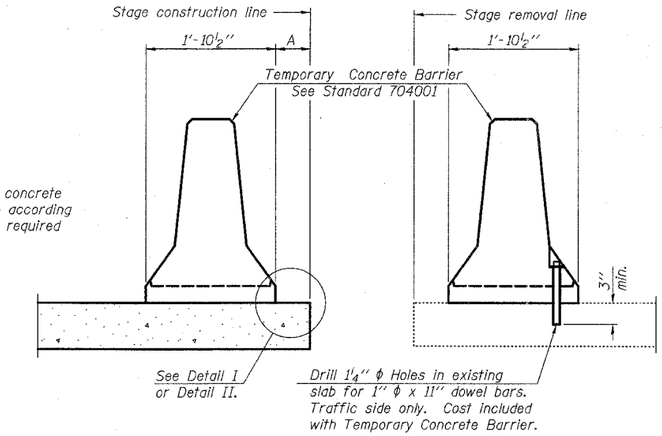
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	252
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

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



NEW SLAB EXISTING SLAB

SECTIONS THRU SLAB

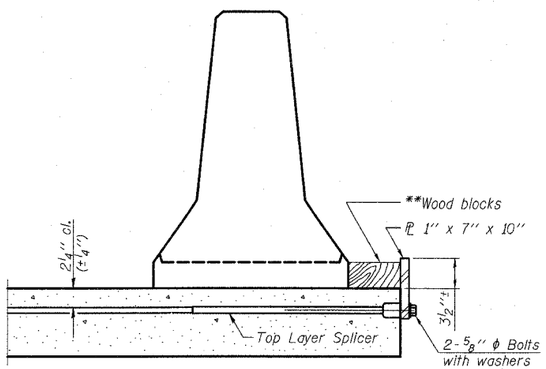
NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-$\frac{5}{8}$" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

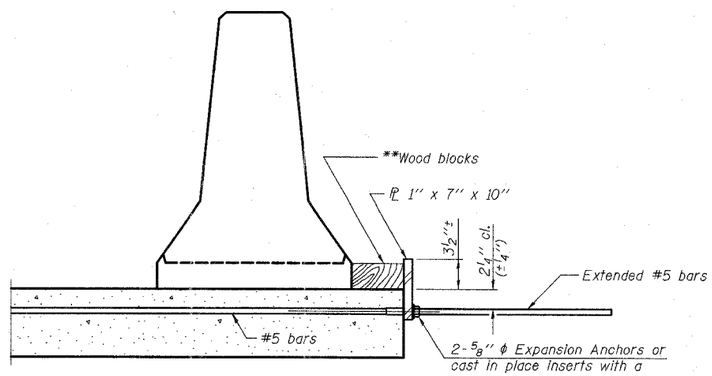
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℙ to the concrete slab with 2-$\frac{5}{8}$" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

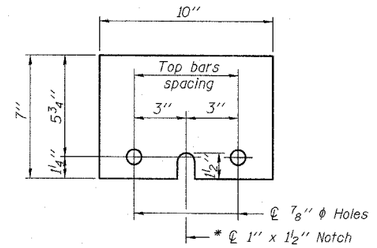
The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



DETAIL I



DETAIL II



STEEL RETAINER ℙ 1" x 7" x 10"

* Required only with Detail II

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

SHEET S-5 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: SNB
DRAWN BY: SNB
CHECKED BY: SP
SCALE:
DATE: MAY 8, 2007

TY·LIN INTERNATIONAL

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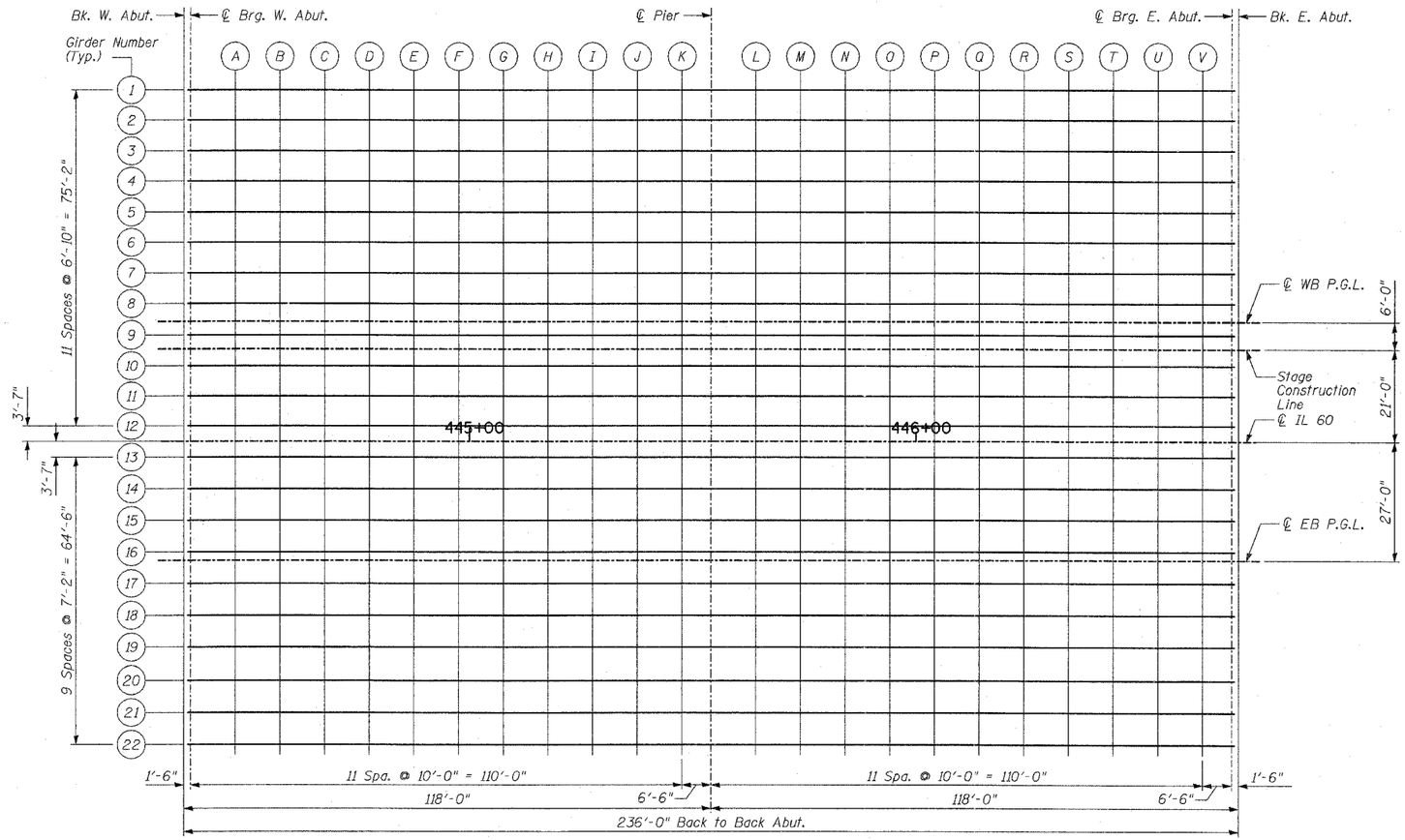
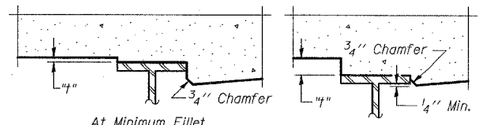
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	253
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

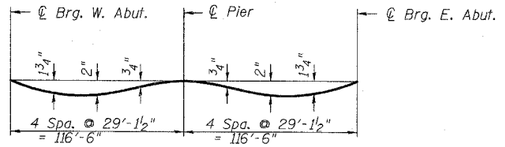


PLAN



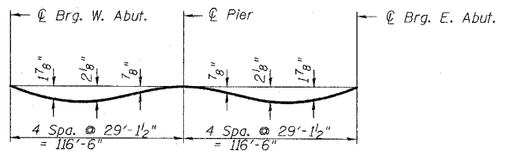
To determine "t": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on the following sheet, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

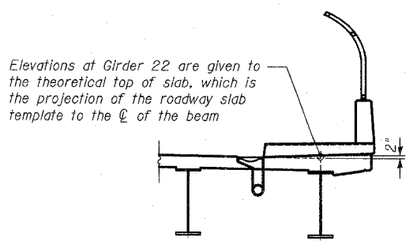
(Girders 1-12 and 22)
(Includes weight of concrete only.)



DEAD LOAD DEFLECTION DIAGRAM

(Girders 13-21)
(Includes weight of concrete 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.



LOCATION OF ELEVATIONS AT BEAM 22

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SHEET S-6 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - LAYOUT

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007
DESIGNED BY: PL
DRAWN BY: PL
CHECKED BY: SP

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	254
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-78.75	711.61	711.61
℄ Brg. West Abut	444+37.64	-78.75	711.62	711.62
A	444+47.64	-78.75	711.73	711.78
B	444+57.64	-78.75	711.82	711.93
C	444+67.64	-78.75	711.90	712.05
D	444+77.64	-78.75	711.98	712.15
E	444+87.64	-78.75	712.05	712.22
F	444+97.64	-78.75	712.11	712.27
G	445+07.64	-78.75	712.16	712.29
H	445+17.64	-78.75	712.20	712.30
I	445+27.64	-78.75	712.24	712.29
J	445+37.64	-78.75	712.26	712.28
K	445+47.64	-78.75	712.28	712.28
℄ Pier	445+54.14	-78.75	712.28	712.28
L	445+64.14	-78.75	712.28	712.29
M	445+74.14	-78.75	712.28	712.31
N	445+84.14	-78.75	712.26	712.33
O	445+94.14	-78.75	712.24	712.35
P	446+04.14	-78.75	712.21	712.35
Q	446+14.14	-78.75	712.17	712.33
R	446+24.14	-78.75	712.12	712.29
S	446+34.14	-78.75	712.06	712.22
T	446+44.14	-78.75	711.99	712.13
U	446+54.14	-78.75	711.92	712.01
V	446+64.14	-78.75	711.83	711.87
℄ Brg. East Abut	446+70.64	-78.75	711.77	711.77
Bk. of East Abut	446+72.14	-78.75	711.76	711.76

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-71.92	711.75	711.75
℄ Brg. West Abut	444+37.64	-71.92	711.77	711.77
A	444+47.64	-71.92	711.87	711.93
B	444+57.64	-71.92	711.96	712.07
C	444+67.64	-71.92	712.05	712.19
D	444+77.64	-71.92	712.12	712.29
E	444+87.64	-71.92	712.19	712.36
F	444+97.64	-71.92	712.25	712.41
G	445+07.64	-71.92	712.30	712.43
H	445+17.64	-71.92	712.34	712.44
I	445+27.64	-71.92	712.38	712.43
J	445+37.64	-71.92	712.40	712.43
K	445+47.64	-71.92	712.42	712.42
℄ Pier	445+54.14	-71.92	712.43	712.43
L	445+64.14	-71.92	712.43	712.44
M	445+74.14	-71.92	712.42	712.46
N	445+84.14	-71.92	712.41	712.47
O	445+94.14	-71.92	712.38	712.49
P	446+04.14	-71.92	712.35	712.49
Q	446+14.14	-71.92	712.31	712.47
R	446+24.14	-71.92	712.26	712.43
S	446+34.14	-71.92	712.20	712.36
T	446+44.14	-71.92	712.13	712.27
U	446+54.14	-71.92	712.06	712.15
V	446+64.14	-71.92	711.97	712.01
℄ Brg. East Abut	446+70.64	-71.92	711.91	711.91
Bk. of East Abut	446+72.14	-71.92	711.90	711.90

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-65.08	711.89	711.89
℄ Brg. West Abut	444+37.64	-65.08	711.91	711.91
A	444+47.64	-65.08	712.01	712.07
B	444+57.64	-65.08	712.10	712.21
C	444+67.64	-65.08	712.19	712.34
D	444+77.64	-65.08	712.27	712.43
E	444+87.64	-65.08	712.33	712.51
F	444+97.64	-65.08	712.39	712.55
G	445+07.64	-65.08	712.44	712.58
H	445+17.64	-65.08	712.49	712.58
I	445+27.64	-65.08	712.52	712.58
J	445+37.64	-65.08	712.55	712.57
K	445+47.64	-65.08	712.56	712.57
℄ Pier	445+54.14	-65.08	712.57	712.57
L	445+64.14	-65.08	712.57	712.58
M	445+74.14	-65.08	712.56	712.60
N	445+84.14	-65.08	712.55	712.62
O	445+94.14	-65.08	712.52	712.63
P	446+04.14	-65.08	712.49	712.63
Q	446+14.14	-65.08	712.45	712.62
R	446+24.14	-65.08	712.40	712.57
S	446+34.14	-65.08	712.34	712.51
T	446+44.14	-65.08	712.28	712.41
U	446+54.14	-65.08	712.20	712.29
V	446+64.14	-65.08	712.12	712.15
℄ Brg. East Abut	446+70.64	-65.08	712.06	712.06
Bk. of East Abut	446+72.14	-65.08	712.04	712.04

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-58.25	712.03	712.03
℄ Brg. West Abut	444+37.64	-58.25	712.05	712.05
A	444+47.64	-58.25	712.15	712.21
B	444+57.64	-58.25	712.25	712.36
C	444+67.64	-58.25	712.33	712.48
D	444+77.64	-58.25	712.41	712.58
E	444+87.64	-58.25	712.48	712.65
F	444+97.64	-58.25	712.54	712.69
G	445+07.64	-58.25	712.59	712.72
H	445+17.64	-58.25	712.63	712.72
I	445+27.64	-58.25	712.66	712.72
J	445+37.64	-58.25	712.69	712.71
K	445+47.64	-58.25	712.70	712.71
℄ Pier	445+54.14	-58.25	712.71	712.71
L	445+64.14	-58.25	712.71	712.72
M	445+74.14	-58.25	712.71	712.74
N	445+84.14	-58.25	712.69	712.76
O	445+94.14	-58.25	712.67	712.77
P	446+04.14	-58.25	712.63	712.78
Q	446+14.14	-58.25	712.59	712.76
R	446+24.14	-58.25	712.54	712.72
S	446+34.14	-58.25	712.49	712.65
T	446+44.14	-58.25	712.42	712.55
U	446+54.14	-58.25	712.34	712.44
V	446+64.14	-58.25	712.26	712.30
℄ Brg. East Abut	446+70.64	-58.25	712.20	712.20
Bk. of East Abut	446+72.14	-58.25	712.19	712.19

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-51.42	712.18	712.18
℄ Brg. West Abut	444+37.64	-51.42	712.19	712.19
A	444+47.64	-51.42	712.29	712.35
B	444+57.64	-51.42	712.39	712.50
C	444+67.64	-51.42	712.47	712.62
D	444+77.64	-51.42	712.55	712.72
E	444+87.64	-51.42	712.62	712.79
F	444+97.64	-51.42	712.68	712.84
G	445+07.64	-51.42	712.73	712.86
H	445+17.64	-51.42	712.77	712.87
I	445+27.64	-51.42	712.80	712.86
J	445+37.64	-51.42	712.83	712.85
K	445+47.64	-51.42	712.85	712.85
℄ Pier	445+54.14	-51.42	712.85	712.85
L	445+64.14	-51.42	712.85	712.86
M	445+74.14	-51.42	712.85	712.88
N	445+84.14	-51.42	712.83	712.90
O	445+94.14	-51.42	712.81	712.92
P	446+04.14	-51.42	712.78	712.92
Q	446+14.14	-51.42	712.74	712.90
R	446+24.14	-51.42	712.69	712.86
S	446+34.14	-51.42	712.63	712.79
T	446+44.14	-51.42	712.56	712.70
U	446+54.14	-51.42	712.49	712.58
V	446+64.14	-51.42	712.40	712.44
℄ Brg. East Abut	446+70.64	-51.42	712.34	712.34
Bk. of East Abut	446+72.14	-51.42	712.33	712.33

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REVISIONS	
NAME	DATE

SHEET S-7 OF S-53

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - I

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007

DESIGNED BY: PL
DRAWN BY: PL
CHECKED BY: SP

05/03/2007 04:30:04 PM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	255
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-44.58	712.32	712.32
℄ Brg. West Abut	444+37.64	-44.58	712.33	712.33
A	444+47.64	-44.58	712.44	712.50
B	444+57.64	-44.58	712.53	712.64
C	444+67.64	-44.58	712.62	712.76
D	444+77.64	-44.58	712.69	712.86
E	444+87.64	-44.58	712.76	712.93
F	444+97.64	-44.58	712.82	712.98
G	445+07.64	-44.58	712.87	713.00
H	445+17.64	-44.58	712.91	713.01
I	445+27.64	-44.58	712.95	713.00
J	445+37.64	-44.58	712.97	713.00
K	445+47.64	-44.58	712.99	712.99
℄ Pier	445+54.14	-44.58	712.99	712.99
L	445+64.14	-44.58	713.00	713.01
M	445+74.14	-44.58	712.99	713.02
N	445+84.14	-44.58	712.98	713.04
O	445+94.14	-44.58	712.95	713.06
P	446+04.14	-44.58	712.92	713.06
Q	446+14.14	-44.58	712.88	713.04
R	446+24.14	-44.58	712.83	713.00
S	446+34.14	-44.58	712.77	712.93
T	446+44.14	-44.58	712.70	712.84
U	446+54.14	-44.58	712.63	712.72
V	446+64.14	-44.58	712.54	712.58
℄ Brg. East Abut	446+70.64	-44.58	712.48	712.48
Bk. of East Abut	446+72.14	-44.58	712.47	712.47

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-37.75	712.46	712.46
℄ Brg. West Abut	444+37.64	-37.75	712.48	712.48
A	444+47.64	-37.75	712.58	712.64
B	444+57.64	-37.75	712.67	712.78
C	444+67.64	-37.75	712.76	712.91
D	444+77.64	-37.75	712.84	713.00
E	444+87.64	-37.75	712.90	713.07
F	444+97.64	-37.75	712.96	713.12
G	445+07.64	-37.75	713.01	713.14
H	445+17.64	-37.75	713.06	713.15
I	445+27.64	-37.75	713.09	713.15
J	445+37.64	-37.75	713.11	713.14
K	445+47.64	-37.75	713.13	713.14
℄ Pier	445+54.14	-37.75	713.14	713.14
L	445+64.14	-37.75	713.14	713.15
M	445+74.14	-37.75	713.13	713.17
N	445+84.14	-37.75	713.12	713.19
O	445+94.14	-37.75	713.09	713.20
P	446+04.14	-37.75	713.06	713.20
Q	446+14.14	-37.75	713.02	713.18
R	446+24.14	-37.75	712.97	713.14
S	446+34.14	-37.75	712.91	713.07
T	446+44.14	-37.75	712.85	712.98
U	446+54.14	-37.75	712.77	712.86
V	446+64.14	-37.75	712.69	712.72
℄ Brg. East Abut	446+70.64	-37.75	712.63	712.63
Bk. of East Abut	446+72.14	-37.75	712.61	712.61

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-30.92	712.60	712.60
℄ Brg. West Abut	444+37.64	-30.92	712.62	712.62
A	444+47.64	-30.92	712.72	712.78
B	444+57.64	-30.92	712.82	712.93
C	444+67.64	-30.92	712.90	713.05
D	444+77.64	-30.92	712.98	713.15
E	444+87.64	-30.92	713.05	713.22
F	444+97.64	-30.92	713.11	713.26
G	445+07.64	-30.92	713.16	713.29
H	445+17.64	-30.92	713.20	713.29
I	445+27.64	-30.92	713.23	713.29
J	445+37.64	-30.92	713.26	713.28
K	445+47.64	-30.92	713.27	713.28
℄ Pier	445+54.14	-30.92	713.28	713.28
L	445+64.14	-30.92	713.28	713.29
M	445+74.14	-30.92	713.27	713.31
N	445+84.14	-30.92	713.26	713.33
O	445+94.14	-30.92	713.24	713.34
P	446+04.14	-30.92	713.20	713.35
Q	446+14.14	-30.92	713.16	713.33
R	446+24.14	-30.92	713.11	713.29
S	446+34.14	-30.92	713.05	713.22
T	446+44.14	-30.92	712.99	713.12
U	446+54.14	-30.92	712.91	713.01
V	446+64.14	-30.92	712.83	712.87
℄ Brg. East Abut	446+70.64	-30.92	712.77	712.77
Bk. of East Abut	446+72.14	-30.92	712.75	712.75

WB P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-27.00	712.68	712.68
℄ Brg. West Abut	444+37.64	-27.00	712.70	712.70
A	444+47.64	-27.00	712.80	712.86
B	444+57.64	-27.00	712.90	713.01
C	444+67.64	-27.00	712.98	713.13
D	444+77.64	-27.00	713.06	713.23
E	444+87.64	-27.00	713.13	713.30
F	444+97.64	-27.00	713.19	713.35
G	445+07.64	-27.00	713.24	713.37
H	445+17.64	-27.00	713.28	713.37
I	445+27.64	-27.00	713.31	713.37
J	445+37.64	-27.00	713.34	713.36
K	445+47.64	-27.00	713.35	713.36
℄ Pier	445+54.14	-27.00	713.36	713.36
L	445+64.14	-27.00	713.36	713.37
M	445+74.14	-27.00	713.36	713.39
N	445+84.14	-27.00	713.34	713.41
O	445+94.14	-27.00	713.32	713.43
P	446+04.14	-27.00	713.29	713.43
Q	446+14.14	-27.00	713.24	713.41
R	446+24.14	-27.00	713.19	713.37
S	446+34.14	-27.00	713.14	713.30
T	446+44.14	-27.00	713.07	713.20
U	446+54.14	-27.00	712.99	713.09
V	446+64.14	-27.00	712.91	712.95
℄ Brg. East Abut	446+70.64	-27.00	712.85	712.85
Bk. of East Abut	446+72.14	-27.00	712.84	712.84

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-24.08	712.73	712.73
℄ Brg. West Abut	444+37.64	-24.08	712.75	712.75
A	444+47.64	-24.08	712.85	712.91
B	444+57.64	-24.08	712.94	713.05
C	444+67.64	-24.08	713.03	713.17
D	444+77.64	-24.08	713.10	713.27
E	444+87.64	-24.08	713.17	713.34
F	444+97.64	-24.08	713.23	713.39
G	445+07.64	-24.08	713.28	713.41
H	445+17.64	-24.08	713.33	713.42
I	445+27.64	-24.08	713.36	713.42
J	445+37.64	-24.08	713.38	713.41
K	445+47.64	-24.08	713.40	713.41
℄ Pier	445+54.14	-24.08	713.41	713.41
L	445+64.14	-24.08	713.41	713.42
M	445+74.14	-24.08	713.40	713.44
N	445+84.14	-24.08	713.39	713.46
O	445+94.14	-24.08	713.36	713.47
P	446+04.14	-24.08	713.33	713.47
Q	446+14.14	-24.08	713.29	713.45
R	446+24.14	-24.08	713.24	713.41
S	446+34.14	-24.08	713.18	713.34
T	446+44.14	-24.08	713.12	713.25
U	446+54.14	-24.08	713.04	713.13
V	446+64.14	-24.08	712.96	712.99
℄ Brg. East Abut	446+70.64	-24.08	712.90	712.90
Bk. of East Abut	446+72.14	-24.08	712.88	712.88

T·Y·LIN INTERNATIONAL

REVISIONS	
NAME	DATE

SHEET S-8 OF S-53

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - II

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: PL

SCALE: DRAWN BY: PL

DATE: MAY 8, 2007 CHECKED BY: SP

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	256
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-21.00	712.78	712.78
℄ Brg. West Abut	444+37.64	-21.00	712.79	712.79
A	444+47.64	-21.00	712.90	712.96
B	444+57.64	-21.00	712.99	713.10
C	444+67.64	-21.00	713.08	713.22
D	444+77.64	-21.00	713.15	713.32
E	444+87.64	-21.00	713.22	713.39
F	444+97.64	-21.00	713.28	713.44
G	445+07.64	-21.00	713.33	713.46
H	445+17.64	-21.00	713.37	713.47
I	445+27.64	-21.00	713.41	713.46
J	445+37.64	-21.00	713.43	713.46
K	445+47.64	-21.00	713.45	713.45
℄ Pier	445+54.14	-21.00	713.45	713.45
L	445+64.14	-21.00	713.46	713.47
M	445+74.14	-21.00	713.45	713.48
N	445+84.14	-21.00	713.44	713.50
O	445+94.14	-21.00	713.41	713.52
P	446+04.14	-21.00	713.38	713.52
Q	446+14.14	-21.00	713.34	713.50
R	446+24.14	-21.00	713.29	713.46
S	446+34.14	-21.00	713.23	713.39
T	446+44.14	-21.00	713.16	713.30
U	446+54.14	-21.00	713.09	713.18
V	446+64.14	-21.00	713.00	713.04
℄ Brg. East Abut	446+70.64	-21.00	712.94	712.94
Bk. of East Abut	446+72.14	-21.00	712.93	712.93

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-17.25	712.84	712.84
℄ Brg. West Abut	444+37.64	-17.25	712.85	712.85
A	444+47.64	-17.25	712.96	713.01
B	444+57.64	-17.25	713.05	713.16
C	444+67.64	-17.25	713.14	713.28
D	444+77.64	-17.25	713.21	713.38
E	444+87.64	-17.25	713.28	713.45
F	444+97.64	-17.25	713.34	713.50
G	445+07.64	-17.25	713.39	713.52
H	445+17.64	-17.25	713.43	713.53
I	445+27.64	-17.25	713.47	713.52
J	445+37.64	-17.25	713.49	713.52
K	445+47.64	-17.25	713.51	713.51
℄ Pier	445+54.14	-17.25	713.51	713.51
L	445+64.14	-17.25	713.52	713.53
M	445+74.14	-17.25	713.51	713.54
N	445+84.14	-17.25	713.49	713.56
O	445+94.14	-17.25	713.47	713.58
P	446+04.14	-17.25	713.44	713.58
Q	446+14.14	-17.25	713.40	713.56
R	446+24.14	-17.25	713.35	713.52
S	446+34.14	-17.25	713.29	713.45
T	446+44.14	-17.25	713.22	713.36
U	446+54.14	-17.25	713.15	713.24
V	446+64.14	-17.25	713.06	713.10
℄ Brg. East Abut	446+70.64	-17.25	713.00	713.00
Bk. of East Abut	446+72.14	-17.25	712.99	712.99

GIRDER 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-10.42	712.94	712.94
℄ Brg. West Abut	444+37.64	-10.42	712.96	712.96
A	444+47.64	-10.42	713.06	713.12
B	444+57.64	-10.42	713.16	713.27
C	444+67.64	-10.42	713.24	713.39
D	444+77.64	-10.42	713.32	713.49
E	444+87.64	-10.42	713.39	713.56
F	444+97.64	-10.42	713.45	713.60
G	445+07.64	-10.42	713.50	713.63
H	445+17.64	-10.42	713.54	713.63
I	445+27.64	-10.42	713.57	713.63
J	445+37.64	-10.42	713.60	713.62
K	445+47.64	-10.42	713.61	713.62
℄ Pier	445+54.14	-10.42	713.62	713.62
L	445+64.14	-10.42	713.62	713.63
M	445+74.14	-10.42	713.62	713.65
N	445+84.14	-10.42	713.60	713.67
O	445+94.14	-10.42	713.58	713.68
P	446+04.14	-10.42	713.54	713.69
Q	446+14.14	-10.42	713.50	713.67
R	446+24.14	-10.42	713.45	713.63
S	446+34.14	-10.42	713.40	713.56
T	446+44.14	-10.42	713.33	713.46
U	446+54.14	-10.42	713.25	713.35
V	446+64.14	-10.42	713.17	713.21
℄ Brg. East Abut	446+70.64	-10.42	713.11	713.11
Bk. of East Abut	446+72.14	-10.42	713.10	713.10

GIRDER 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	-3.58	713.05	713.05
℄ Brg. West Abut	444+37.64	-3.58	713.07	713.07
A	444+47.64	-3.58	713.17	713.23
B	444+57.64	-3.58	713.26	713.37
C	444+67.64	-3.58	713.35	713.50
D	444+77.64	-3.58	713.43	713.59
E	444+87.64	-3.58	713.49	713.66
F	444+97.64	-3.58	713.55	713.71
G	445+07.64	-3.58	713.60	713.73
H	445+17.64	-3.58	713.65	713.74
I	445+27.64	-3.58	713.68	713.74
J	445+37.64	-3.58	713.70	713.73
K	445+47.64	-3.58	713.72	713.73
℄ Pier	445+54.14	-3.58	713.73	713.73
L	445+64.14	-3.58	713.73	713.74
M	445+74.14	-3.58	713.72	713.76
N	445+84.14	-3.58	713.71	713.78
O	445+94.14	-3.58	713.68	713.79
P	446+04.14	-3.58	713.65	713.79
Q	446+14.14	-3.58	713.61	713.77
R	446+24.14	-3.58	713.56	713.73
S	446+34.14	-3.58	713.50	713.66
T	446+44.14	-3.58	713.44	713.57
U	446+54.14	-3.58	713.36	713.45
V	446+64.14	-3.58	713.28	713.31
℄ Brg. East Abut	446+70.64	-3.58	713.22	713.22
Bk. of East Abut	446+72.14	-3.58	713.20	713.20

℄ IL 60

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	0.00	713.11	713.11
℄ Brg. West Abut	444+37.64	0.00	713.12	713.12
A	444+47.64	0.00	713.23	713.29
B	444+57.64	0.00	713.32	713.44
C	444+67.64	0.00	713.40	713.57
D	444+77.64	0.00	713.48	713.67
E	444+87.64	0.00	713.55	713.74
F	444+97.64	0.00	713.61	713.79
G	445+07.64	0.00	713.66	713.81
H	445+17.64	0.00	713.70	713.81
I	445+27.64	0.00	713.74	713.80
J	445+37.64	0.00	713.76	713.79
K	445+47.64	0.00	713.78	713.78
℄ Pier	445+54.14	0.00	713.78	713.78
L	445+64.14	0.00	713.78	713.80
M	445+74.14	0.00	713.78	713.82
N	445+84.14	0.00	713.76	713.84
O	445+94.14	0.00	713.74	713.86
P	446+04.14	0.00	713.71	713.87
Q	446+14.14	0.00	713.67	713.85
R	446+24.14	0.00	713.62	713.81
S	446+34.14	0.00	713.56	713.74
T	446+44.14	0.00	713.49	713.64
U	446+54.14	0.00	713.42	713.52
V	446+64.14	0.00	713.33	713.37
℄ Brg. East Abut	446+70.64	0.00	713.27	713.27
Bk. of East Abut	446+72.14	0.00	713.26	713.26

TYLIN INTERNATIONAL

SHEET S-9 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - III

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:

DATE: MAY 8, 2007

DESIGNED BY: PL

DRAWN BY: PL

CHECKED BY: SP

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	257
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

GIRDER 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	3.58	713.05	713.05
℄ Brg. West Abut	444+37.64	3.58	713.07	713.07
A	444+47.64	3.58	713.17	713.23
B	444+57.64	3.58	713.26	713.39
C	444+67.64	3.58	713.35	713.51
D	444+77.64	3.58	713.43	713.61
E	444+87.64	3.58	713.49	713.68
F	444+97.64	3.58	713.55	713.73
G	445+07.64	3.58	713.60	713.75
H	445+17.64	3.58	713.65	713.75
I	445+27.64	3.58	713.68	713.74
J	445+37.64	3.58	713.70	713.73
K	445+47.64	3.58	713.72	713.73
℄ Pier	445+54.14	3.58	713.73	713.73
L	445+64.14	3.58	713.73	713.74
M	445+74.14	3.58	713.72	713.76
N	445+84.14	3.58	713.71	713.78
O	445+94.14	3.58	713.68	713.80
P	446+04.14	3.58	713.65	713.81
Q	446+14.14	3.58	713.61	713.79
R	446+24.14	3.58	713.56	713.75
S	446+34.14	3.58	713.50	713.68
T	446+44.14	3.58	713.44	713.59
U	446+54.14	3.58	713.36	713.46
V	446+64.14	3.58	713.28	713.32
℄ Brg. East Abut	446+70.64	3.58	713.22	713.22
Bk. of East Abut	446+72.14	3.58	713.20	713.20

GIRDER 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	10.75	712.94	712.94
℄ Brg. West Abut	444+37.64	10.75	712.95	712.95
A	444+47.64	10.75	713.06	713.12
B	444+57.64	10.75	713.15	713.27
C	444+67.64	10.75	713.24	713.40
D	444+77.64	10.75	713.31	713.50
E	444+87.64	10.75	713.38	713.57
F	444+97.64	10.75	713.44	713.62
G	445+07.64	10.75	713.49	713.64
H	445+17.64	10.75	713.53	713.64
I	445+27.64	10.75	713.57	713.63
J	445+37.64	10.75	713.59	713.62
K	445+47.64	10.75	713.61	713.61
℄ Pier	445+54.14	10.75	713.61	713.61
L	445+64.14	10.75	713.62	713.63
M	445+74.14	10.75	713.61	713.65
N	445+84.14	10.75	713.60	713.67
O	445+94.14	10.75	713.57	713.69
P	446+04.14	10.75	713.54	713.70
Q	446+14.14	10.75	713.50	713.68
R	446+24.14	10.75	713.45	713.64
S	446+34.14	10.75	713.39	713.57
T	446+44.14	10.75	713.32	713.47
U	446+54.14	10.75	713.25	713.35
V	446+64.14	10.75	713.16	713.21
℄ Brg. East Abut	446+70.64	10.75	713.10	713.10
Bk. of East Abut	446+72.14	10.75	713.09	713.09

GIRDER 15

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	17.92	712.83	712.83
℄ Brg. West Abut	444+37.64	17.92	712.84	712.84
A	444+47.64	17.92	712.95	713.01
B	444+57.64	17.92	713.04	713.16
C	444+67.64	17.92	713.12	713.29
D	444+77.64	17.92	713.20	713.39
E	444+87.64	17.92	713.27	713.46
F	444+97.64	17.92	713.33	713.51
G	445+07.64	17.92	713.38	713.53
H	445+17.64	17.92	713.42	713.53
I	445+27.64	17.92	713.46	713.52
J	445+37.64	17.92	713.48	713.51
K	445+47.64	17.92	713.50	713.50
℄ Pier	445+54.14	17.92	713.50	713.50
L	445+64.14	17.92	713.50	713.52
M	445+74.14	17.92	713.50	713.54
N	445+84.14	17.92	713.48	713.56
O	445+94.14	17.92	713.46	713.58
P	446+04.14	17.92	713.43	713.59
Q	446+14.14	17.92	713.39	713.57
R	446+24.14	17.92	713.34	713.53
S	446+34.14	17.92	713.28	713.46
T	446+44.14	17.92	713.21	713.36
U	446+54.14	17.92	713.14	713.24
V	446+64.14	17.92	713.05	713.09
℄ Brg. East Abut	446+70.64	17.92	712.99	712.99
Bk. of East Abut	446+72.14	17.92	712.98	712.98

GIRDER 16

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	25.08	712.71	712.71
℄ Brg. West Abut	444+37.64	25.08	712.73	712.73
A	444+47.64	25.08	712.83	712.90
B	444+57.64	25.08	712.93	713.05
C	444+67.64	25.08	713.01	713.18
D	444+77.64	25.08	713.09	713.28
E	444+87.64	25.08	713.16	713.35
F	444+97.64	25.08	713.22	713.39
G	445+07.64	25.08	713.27	713.41
H	445+17.64	25.08	713.31	713.42
I	445+27.64	25.08	713.34	713.41
J	445+37.64	25.08	713.37	713.40
K	445+47.64	25.08	713.38	713.39
℄ Pier	445+54.14	25.08	713.39	713.39
L	445+64.14	25.08	713.39	713.40
M	445+74.14	25.08	713.39	713.42
N	445+84.14	25.08	713.37	713.45
O	445+94.14	25.08	713.35	713.47
P	446+04.14	25.08	713.32	713.47
Q	446+14.14	25.08	713.27	713.46
R	446+24.14	25.08	713.22	713.42
S	446+34.14	25.08	713.17	713.35
T	446+44.14	25.08	713.10	713.25
U	446+54.14	25.08	713.02	713.13
V	446+64.14	25.08	712.94	712.98
℄ Brg. East Abut	446+70.64	25.08	712.88	712.88
Bk. of East Abut	446+72.14	25.08	712.87	712.87

EB P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	27.00	712.68	712.68
℄ Brg. West Abut	444+37.64	27.00	712.70	712.70
A	444+47.64	27.00	712.80	712.87
B	444+57.64	27.00	712.90	713.02
C	444+67.64	27.00	712.98	713.15
D	444+77.64	27.00	713.06	713.25
E	444+87.64	27.00	713.13	713.32
F	444+97.64	27.00	713.19	713.36
G	445+07.64	27.00	713.24	713.38
H	445+17.64	27.00	713.28	713.39
I	445+27.64	27.00	713.31	713.38
J	445+37.64	27.00	713.34	713.37
K	445+47.64	27.00	713.35	713.36
℄ Pier	445+54.14	27.00	713.36	713.36
L	445+64.14	27.00	713.36	713.37
M	445+74.14	27.00	713.36	713.39
N	445+84.14	27.00	713.34	713.42
O	445+94.14	27.00	713.32	713.44
P	446+04.14	27.00	713.29	713.44
Q	446+14.14	27.00	713.24	713.43
R	446+24.14	27.00	713.19	713.39
S	446+34.14	27.00	713.14	713.32
T	446+44.14	27.00	713.07	713.22
U	446+54.14	27.00	712.99	713.10
V	446+64.14	27.00	712.91	712.95
℄ Brg. East Abut	446+70.64	27.00	712.85	712.85
Bk. of East Abut	446+72.14	27.00	712.84	712.84

TYLIN INTERNATIONAL

SHEET S-10 OF S-53

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - IV

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE: DESIGNED BY: PL

DRAWN BY: PL

DATE: MAY 8, 2007 CHECKED BY: SP

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	258
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

GIRDER 17

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	32.25	712.58	712.58
℄ Brg. West Abut	444+37.64	32.25	712.59	712.59
A	444+47.64	32.25	712.69	712.76
B	444+57.64	32.25	712.79	712.91
C	444+67.64	32.25	712.87	713.04
D	444+77.64	32.25	712.95	713.14
E	444+87.64	32.25	713.02	713.21
F	444+97.64	32.25	713.08	713.25
G	445+07.64	32.25	713.13	713.27
H	445+17.64	32.25	713.17	713.28
I	445+27.64	32.25	713.20	713.27
J	445+37.64	32.25	713.23	713.26
K	445+47.64	32.25	713.25	713.25
℄ Pier	445+54.14	32.25	713.25	713.25
L	445+64.14	32.25	713.25	713.26
M	445+74.14	32.25	713.25	713.29
N	445+84.14	32.25	713.23	713.31
O	445+94.14	32.25	713.21	713.33
P	446+04.14	32.25	713.18	713.33
Q	446+14.14	32.25	713.13	713.32
R	446+24.14	32.25	713.09	713.28
S	446+34.14	32.25	713.03	713.21
T	446+44.14	32.25	712.96	713.11
U	446+54.14	32.25	712.88	712.99
V	446+64.14	32.25	712.80	712.84
℄ Brg. East Abut	446+70.64	32.25	712.74	712.74
Bk. of East Abut	446+72.14	32.25	712.73	712.73

GIRDER 18

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	39.42	712.43	712.43
℄ Brg. West Abut	444+37.64	39.42	712.44	712.44
A	444+47.64	39.42	712.54	712.61
B	444+57.64	39.42	712.64	712.76
C	444+67.64	39.42	712.72	712.89
D	444+77.64	39.42	712.80	712.99
E	444+87.64	39.42	712.87	713.06
F	444+97.64	39.42	712.93	713.11
G	445+07.64	39.42	712.98	713.13
H	445+17.64	39.42	713.02	713.13
I	445+27.64	39.42	713.05	713.12
J	445+37.64	39.42	713.08	713.11
K	445+47.64	39.42	713.10	713.10
℄ Pier	445+54.14	39.42	713.10	713.10
L	445+64.14	39.42	713.10	713.12
M	445+74.14	39.42	713.10	713.14
N	445+84.14	39.42	713.08	713.16
O	445+94.14	39.42	713.06	713.18
P	446+04.14	39.42	713.03	713.19
Q	446+14.14	39.42	712.99	713.17
R	446+24.14	39.42	712.94	713.13
S	446+34.14	39.42	712.88	713.06
T	446+44.14	39.42	712.81	712.96
U	446+54.14	39.42	712.74	712.84
V	446+64.14	39.42	712.65	712.69
℄ Brg. East Abut	446+70.64	39.42	712.59	712.59
Bk. of East Abut	446+72.14	39.42	712.58	712.58

GIRDER 19

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	46.58	712.28	712.28
℄ Brg. West Abut	444+37.64	46.58	712.29	712.29
A	444+47.64	46.58	712.40	712.46
B	444+57.64	46.58	712.49	712.61
C	444+67.64	46.58	712.57	712.74
D	444+77.64	46.58	712.65	712.84
E	444+87.64	46.58	712.72	712.91
F	444+97.64	46.58	712.78	712.96
G	445+07.64	46.58	712.83	712.98
H	445+17.64	46.58	712.87	712.98
I	445+27.64	46.58	712.91	712.97
J	445+37.64	46.58	712.93	712.96
K	445+47.64	46.58	712.95	712.95
℄ Pier	445+54.14	46.58	712.95	712.95
L	445+64.14	46.58	712.96	712.97
M	445+74.14	46.58	712.95	712.99
N	445+84.14	46.58	712.93	713.01
O	445+94.14	46.58	712.91	713.03
P	446+04.14	46.58	712.88	713.04
Q	446+14.14	46.58	712.84	713.02
R	446+24.14	46.58	712.79	712.98
S	446+34.14	46.58	712.73	712.91
T	446+44.14	46.58	712.66	712.81
U	446+54.14	46.58	712.59	712.69
V	446+64.14	46.58	712.50	712.54
℄ Brg. East Abut	446+70.64	46.58	712.44	712.44
Bk. of East Abut	446+72.14	46.58	712.43	712.43

GIRDER 20

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	53.75	712.13	712.13
℄ Brg. West Abut	444+37.64	53.75	712.14	712.14
A	444+47.64	53.75	712.25	712.31
B	444+57.64	53.75	712.34	712.46
C	444+67.64	53.75	712.43	712.59
D	444+77.64	53.75	712.50	712.69
E	444+87.64	53.75	712.57	712.76
F	444+97.64	53.75	712.63	712.81
G	445+07.64	53.75	712.68	712.83
H	445+17.64	53.75	712.72	712.83
I	445+27.64	53.75	712.76	712.82
J	445+37.64	53.75	712.78	712.81
K	445+47.64	53.75	712.80	712.80
℄ Pier	445+54.14	53.75	712.80	712.80
L	445+64.14	53.75	712.81	712.82
M	445+74.14	53.75	712.80	712.84
N	445+84.14	53.75	712.78	712.86
O	445+94.14	53.75	712.76	712.88
P	446+04.14	53.75	712.73	712.89
Q	446+14.14	53.75	712.69	712.87
R	446+24.14	53.75	712.64	712.83
S	446+34.14	53.75	712.58	712.76
T	446+44.14	53.75	712.51	712.66
U	446+54.14	53.75	712.44	712.54
V	446+64.14	53.75	712.35	712.39
℄ Brg. East Abut	446+70.64	53.75	712.29	712.29
Bk. of East Abut	446+72.14	53.75	712.28	712.28

GIRDER 21

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	60.92	711.98	711.98
℄ Brg. West Abut	444+37.64	60.92	711.99	711.99
A	444+47.64	60.92	712.10	712.16
B	444+57.64	60.92	712.19	712.31
C	444+67.64	60.92	712.28	712.44
D	444+77.64	60.92	712.35	712.54
E	444+87.64	60.92	712.42	712.61
F	444+97.64	60.92	712.48	712.66
G	445+07.64	60.92	712.53	712.68
H	445+17.64	60.92	712.57	712.68
I	445+27.64	60.92	712.61	712.67
J	445+37.64	60.92	712.63	712.66
K	445+47.64	60.92	712.65	712.65
℄ Pier	445+54.14	60.92	712.65	712.65
L	445+64.14	60.92	712.66	712.67
M	445+74.14	60.92	712.65	712.69
N	445+84.14	60.92	712.63	712.71
O	445+94.14	60.92	712.61	712.73
P	446+04.14	60.92	712.58	712.74
Q	446+14.14	60.92	712.54	712.72
R	446+24.14	60.92	712.49	712.68
S	446+34.14	60.92	712.43	712.61
T	446+44.14	60.92	712.36	712.51
U	446+54.14	60.92	712.29	712.39
V	446+64.14	60.92	712.20	712.25
℄ Brg. East Abut	446+70.64	60.92	712.14	712.14
Bk. of East Abut	446+72.14	60.92	712.13	712.13

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SHEET S-11 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - V

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: PL

SCALE: DRAWN BY: PL

DATE: MAY 8, 2007 CHECKED BY: SP

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GIRDER 22

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of West Abut	444+36.14	68.08	711.83	711.83
℄ Brg. West Abut	444+37.64	68.08	711.84	711.84
A	444+47.64	68.08	711.95	712.01
B	444+57.64	68.08	712.04	712.15
C	444+67.64	68.08	712.13	712.27
D	444+77.64	68.08	712.20	712.37
E	444+87.64	68.08	712.27	712.44
F	444+97.64	68.08	712.33	712.49
G	445+07.64	68.08	712.38	712.51
H	445+17.64	68.08	712.42	712.52
I	445+27.64	68.08	712.46	712.51
J	445+37.64	68.08	712.48	712.51
K	445+47.64	68.08	712.50	712.50
℄ Pier	445+54.14	68.08	712.50	712.50
L	445+64.14	68.08	712.51	712.52
M	445+74.14	68.08	712.50	712.53
N	445+84.14	68.08	712.49	712.55
O	445+94.14	68.08	712.46	712.57
P	446+04.14	68.08	712.43	712.57
Q	446+14.14	68.08	712.39	712.55
R	446+24.14	68.08	712.34	712.51
S	446+34.14	68.08	712.28	712.44
T	446+44.14	68.08	712.21	712.35
U	446+54.14	68.08	712.14	712.23
V	446+64.14	68.08	712.05	712.09
℄ Brg. East Abut	446+70.64	68.08	711.99	711.99
Bk. of East Abut	446+72.14	68.08	711.98	711.98

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SHEET S-12 OF S-53

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - VI

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: PL
SCALE: DRAWN BY: PL
DATE: MAY 8, 2007 CHECKED BY: SP

TYLIN INTERNATIONAL

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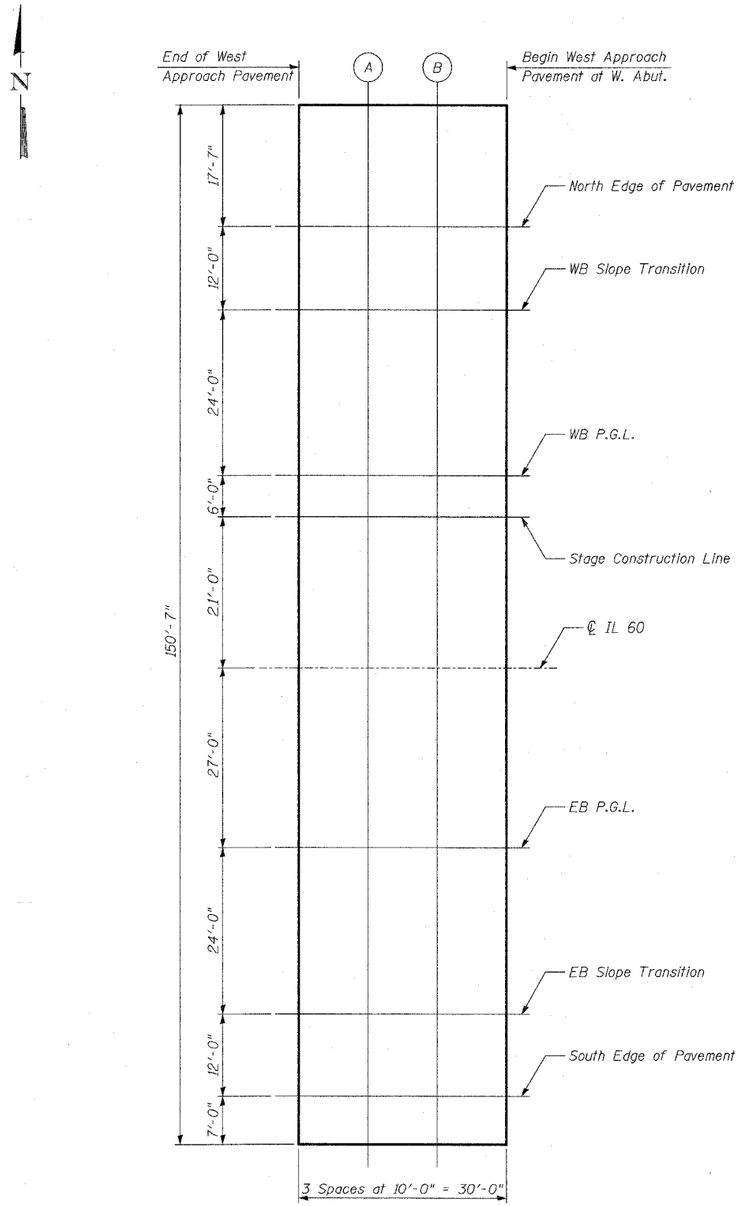
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	260
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



PLAN

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pav't	444+06.64	-63.00	711.52
A	444+16.64	-63.00	711.68
B	444+26.64	-63.00	711.83
Begin W. Appr. Pav't	444+36.64	-63.00	711.94

℄ IL 60

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pav't	444+06.64	0.00	712.75
A	444+16.64	0.00	712.88
B	444+26.64	0.00	713.00
Begin W. Appr. Pav't	444+36.64	0.00	713.11

WB SLOPE TRANSITION

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pav't	444+06.64	-51.00	711.83
A	444+16.64	-51.00	711.96
B	444+26.64	-51.00	712.08
Begin W. Appr. Pav't	444+36.64	-51.00	712.19

EB P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pav't	444+06.64	27.00	712.33
A	444+16.64	27.00	712.46
B	444+26.64	27.00	712.58
Begin W. Appr. Pav't	444+36.64	27.00	712.69

WB P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pav't	444+06.64	-27.00	712.33
A	444+16.64	-27.00	712.46
B	444+26.64	-27.00	712.58
Begin W. Appr. Pav't	444+36.64	-27.00	712.69

EB SLOPE TRANSITION

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pav't	444+06.64	51.00	711.83
A	444+16.64	51.00	711.96
B	444+26.64	51.00	712.08
Begin W. Appr. Pav't	444+36.64	51.00	712.19

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pav't	444+06.64	-21.00	712.42
A	444+16.64	-21.00	712.55
B	444+26.64	-21.00	712.67
Begin W. Appr. Pav't	444+36.64	-21.00	712.78

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End W. Appr. Pav't	444+06.64	63.00	711.52
A	444+16.64	63.00	711.69
B	444+26.64	63.00	711.83
Begin W. Appr. Pav't	444+36.64	63.00	711.94

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH PAVEMENT ELEVATIONS

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:

DATE: MAY 8, 2007

DESIGNED BY: PL

DRAWN BY: PL

CHECKED BY: SP

TY·LIN INTERNATIONAL

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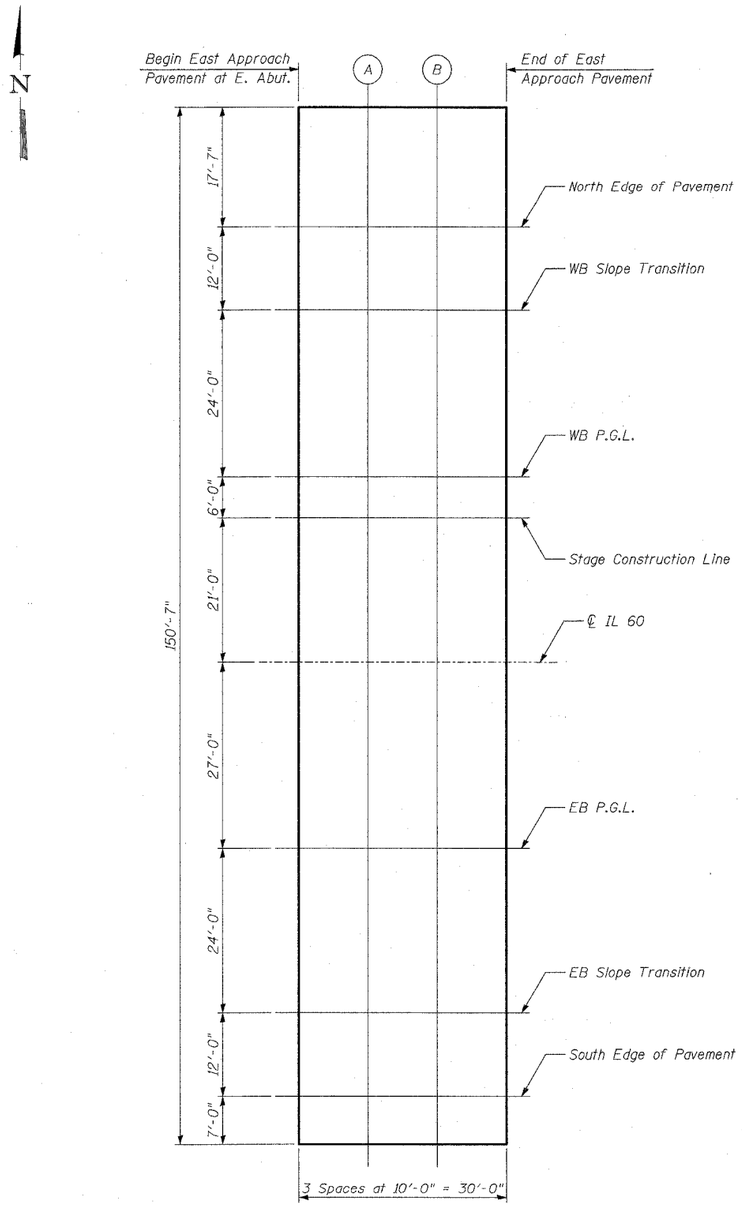
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	261
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



PLAN

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Begin E. Appr. Pav't	446+71.64	-63.00	712.09
A	446+81.64	-63.00	711.99
B	446+91.64	-63.00	711.86
End E. Appr. Pav't	447+01.64	-63.00	711.71

℄ IL 60

Location	Station	Offset	Theoretical Grade Elevations
Begin E. Appr. Pav't	446+71.64	0.00	713.26
A	446+81.64	0.00	713.16
B	446+91.64	0.00	713.06
End E. Appr. Pav't	447+01.64	0.00	712.94

WB SLOPE TRANSITION

Location	Station	Offset	Theoretical Grade Elevations
Begin E. Appr. Pav't	446+71.64	-51.00	712.34
A	446+81.64	-51.00	712.24
B	446+91.64	-51.00	712.13
End E. Appr. Pav't	447+01.64	-51.00	712.02

EB P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
Begin E. Appr. Pav't	446+71.64	27.00	712.84
A	446+81.64	27.00	712.74
B	446+91.64	27.00	712.63
End E. Appr. Pav't	447+01.64	27.00	712.52

WB P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
Begin E. Appr. Pav't	446+71.64	-27.00	712.84
A	446+81.64	-27.00	712.74
B	446+91.64	-27.00	712.63
End E. Appr. Pav't	447+01.64	-27.00	712.52

EB SLOPE TRANSITION

Location	Station	Offset	Theoretical Grade Elevations
Begin E. Appr. Pav't	446+71.64	51.00	712.34
A	446+81.64	51.00	712.24
B	446+91.64	51.00	712.13
End E. Appr. Pav't	447+01.64	51.00	712.02

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
Begin E. Appr. Pav't	446+71.64	-21.00	712.94
A	446+81.64	-21.00	712.84
B	446+91.64	-21.00	712.73
End E. Appr. Pav't	447+01.64	-21.00	712.61

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Begin E. Appr. Pav't	446+71.64	63.00	712.09
A	446+81.64	63.00	711.99
B	446+91.64	63.00	711.87
End E. Appr. Pav't	447+01.64	63.00	711.71

SHEET S-14 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH PAVEMENT ELEVATIONS

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: PL

SCALE: DRAWN BY: PL

DATE: MAY 8, 2007 CHECKED BY: SP

TY·LIN INTERNATIONAL

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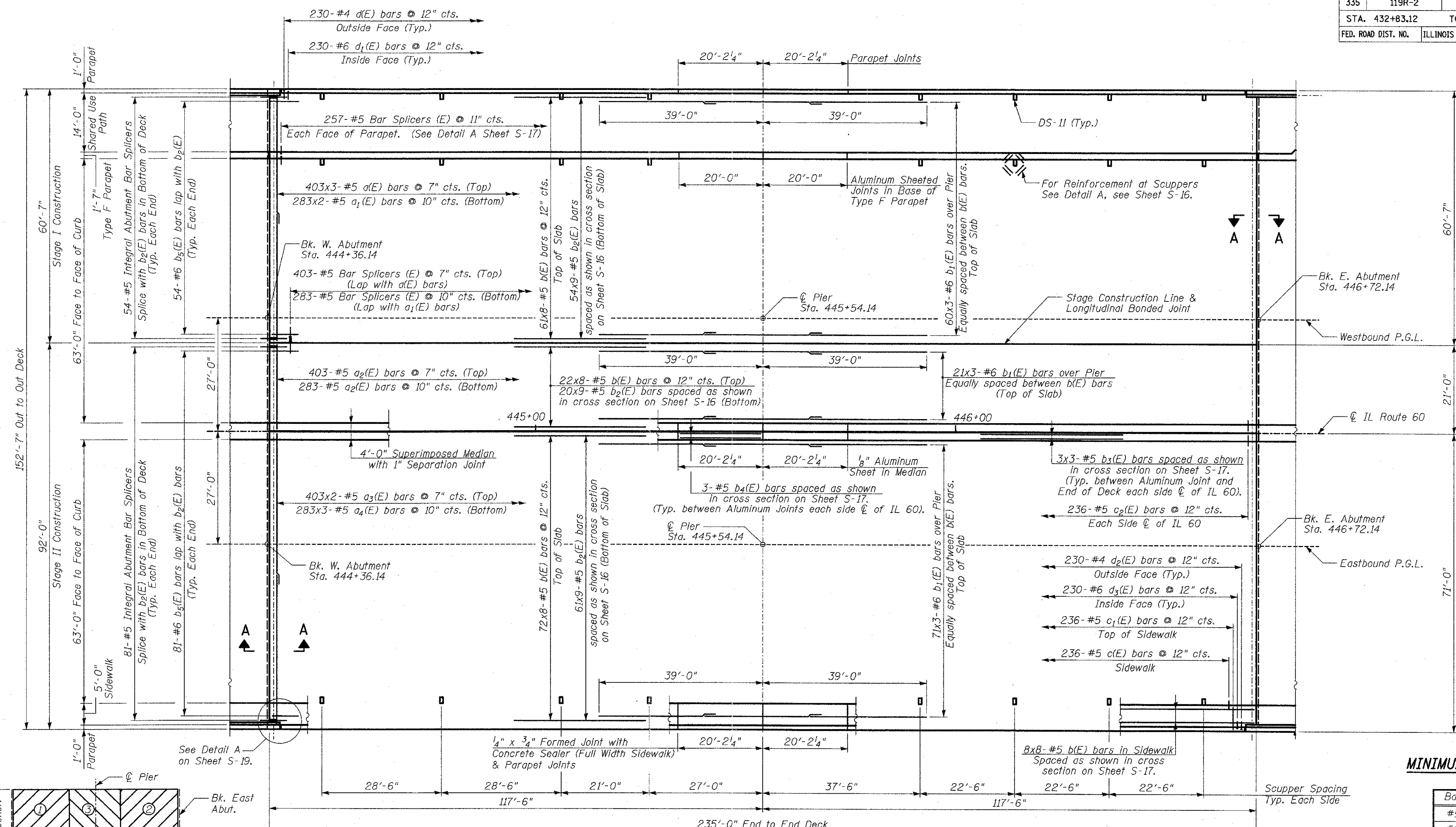
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	262
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

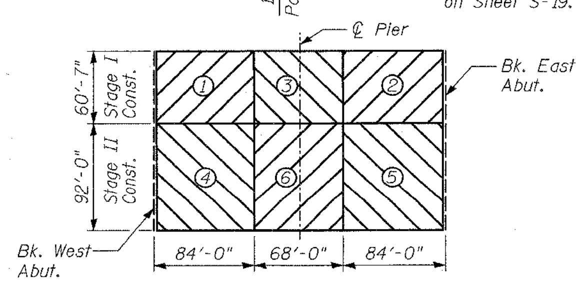


PLAN

MINIMUM BAR LAPS

(Deck)

Bar	Lap
#5	2'-2"
#6	2'-7"



POURING SEQUENCE

NOTES

1. For Additional Superstructure Details, see Sheets S-16 to S-22.
2. For Bill of Material, see Sheet S-17.
3. For Section A-A see Sheet S-20.
4. Bars indicated thus: 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. Cut Longitudinal Bars to clear Drainage Scuppers.
6. For Bar Splicer Details, see Sheet S-38.
7. For Parapet Reinforcement, see Sheets S-18 and S-19.
8. When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:
   1. At least 72 hours shall have elapsed from the end of the previous pour.
   2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

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SHEET S-15 OF S-53

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DECK PLAN

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:

DATE: MAY 8, 2007

DESIGNED BY: SNB

DRAWN BY: SNB

CHECKED BY: SP

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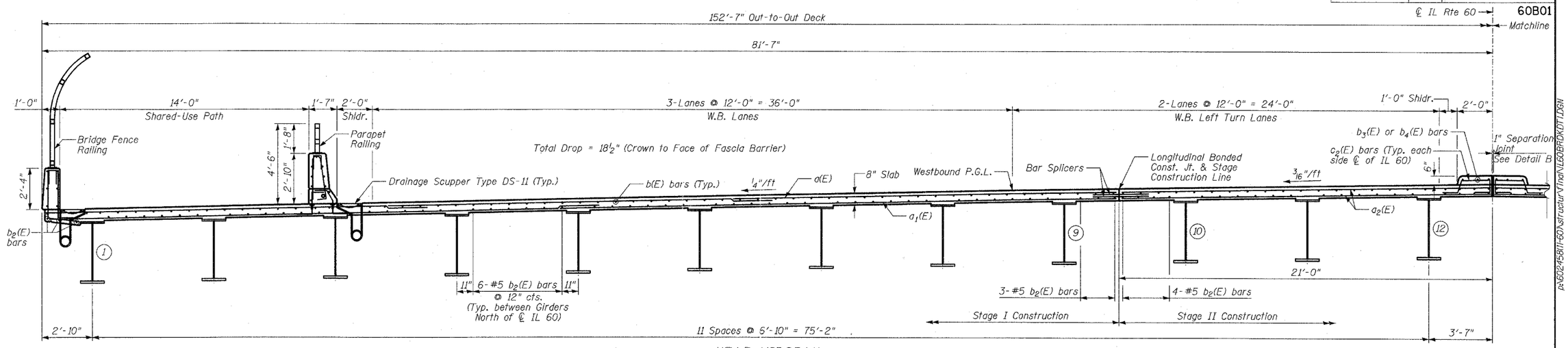
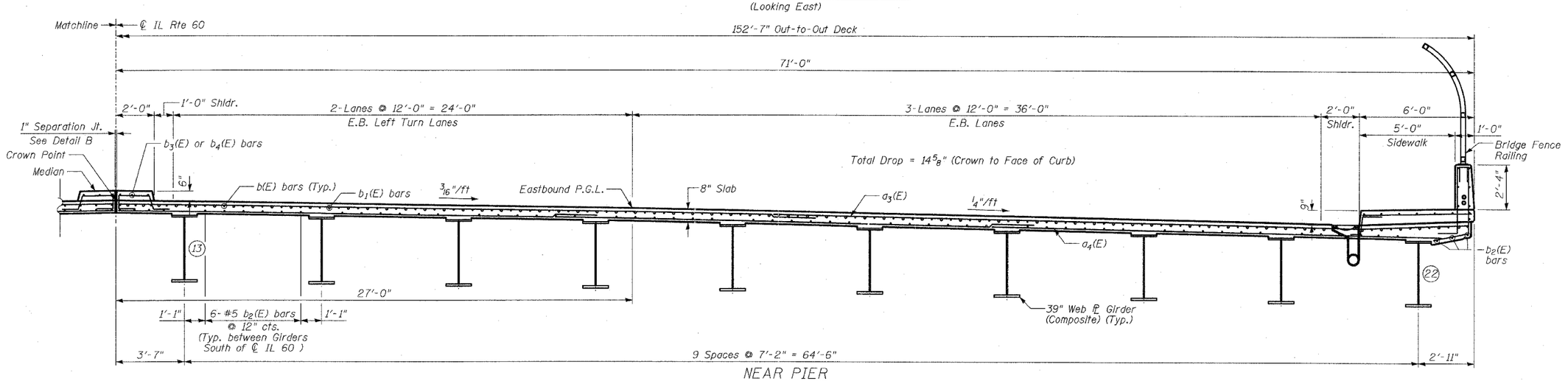
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	263
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NEAR MIDSPAN

WESTBOUND SECTION THRU DECK

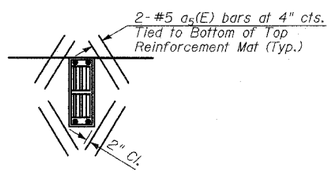
(Looking East)



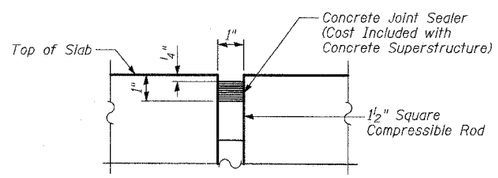
NEAR PIER

EASTBOUND SECTION THRU DECK

(Looking East)



DETAIL A



DETAIL B

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SHEET S-16 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DECK CROSS SECTION

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007
DESIGNED BY: SNB
DRAWN BY: SNB
CHECKED BY: SP

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	264
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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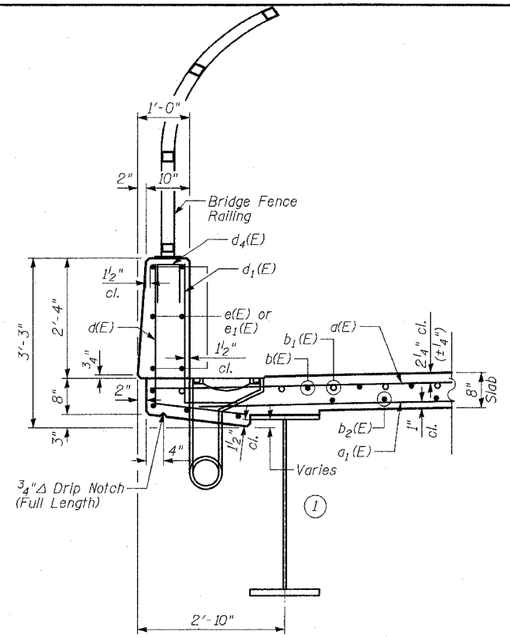
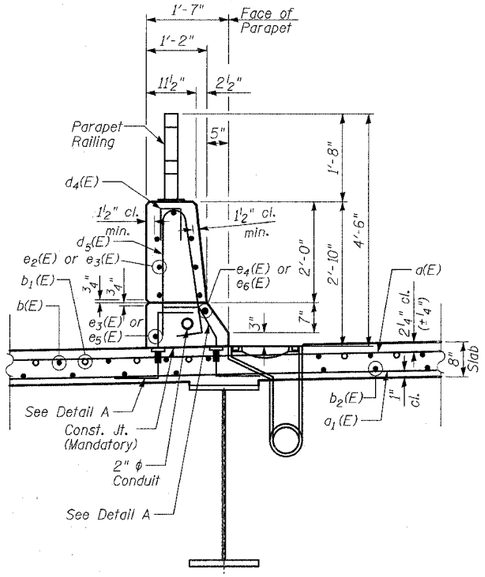


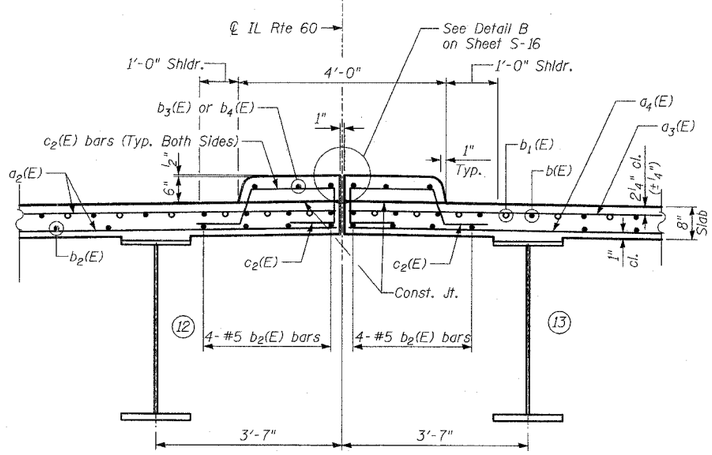
SECTION THRU NORTH FASCIA

(Looking East)



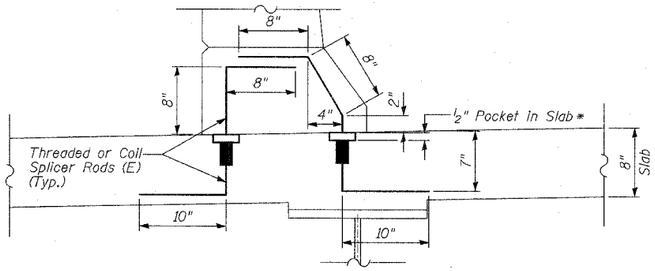
SECTION THRU TYPE F PARAPET

(Looking East)



SECTION THRU MEDIAN

(Looking East)



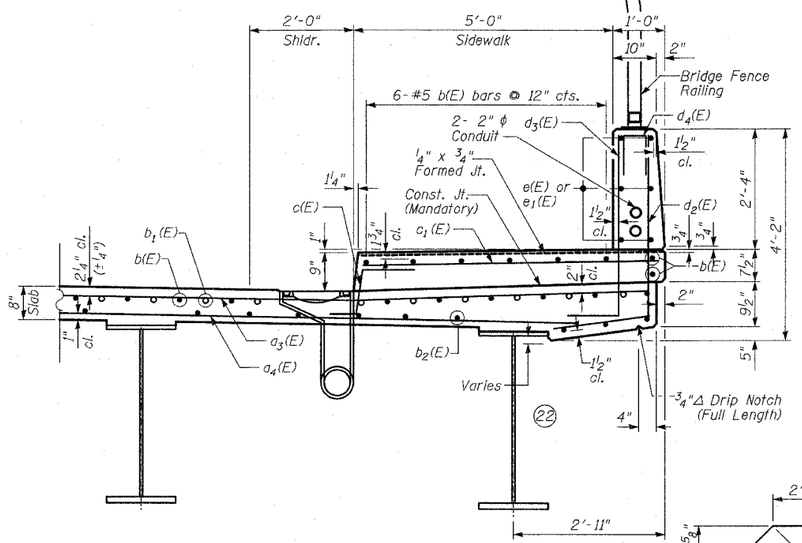
DETAIL A

*During Stage II Construction attach ⅝" ϕ galvanized hex bolts to couplers. Cost of bolts included in Bar Splicers.

Located in F-Shape parapet (257 required each side = 514 total)
See Sheet S-38 for Minimum Capacity and Pull Out Strength Required.

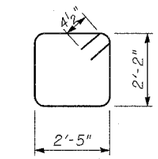
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	1209	#5	21'-7"	
a_1(E)	566	#5	31'-3"	
a_2(E)	686	#5	20'-7"	
a_3(E)	806	#5	36'-5"	
a_4(E)	849	#5	25'-0"	
a_5(E)	192	#5	2'-0"	
b(E)	1304	#5	31'-3"	
b_1(E)	456	#6	27'-9"	
b_2(E)	1215	#5	28'-1"	
b_3(E)	36	#5	33'-10"	
b_4(E)	12	#5	19'-10"	
b_5(E)	270	#6	5'-4"	
c(E)	236	#5	2'-5"	
c_1(E)	236	#5	5'-8"	
c_2(E)	472	#5	4'-9"	
d(E)	230	#4	4'-5"	
d_1(E)	230	#6	3'-8"	
d_2(E)	230	#4	5'-3"	
d_3(E)	230	#6	4'-5"	
d_4(E)	156	#4	2'-0"	
d_5(E)	257	#5	5'-7"	
e(E)	120	#4	18'-7"	
e_1(E)	24	#4	19'-10"	
e_2(E)	70	#4	19'-2"	
e_3(E)	16	#4	19'-8"	
e_4(E)	6	#8	34'-8"	
e_5(E)	6	#4	33'-4"	
e_6(E)	2	#8	19'-8"	
m(E)	120	#6	6'-8"	
m_1(E)	12	#6	4'-2"	
m_2(E)	84	#6	6'-6"	
m_3(E)	72	#6	6'-1"	
m_4(E)	16	#6	31'-0"	
m_5(E)	8	#6	20'-7"	
m_6(E)	16	#6	36'-3"	
s_2(E)	262	#4	9'-11"	

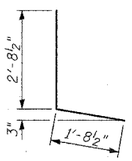


SECTION THRU SIDEWALK

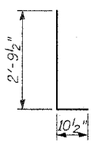
(Looking East)



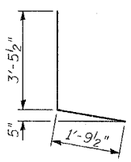
BAR s_2(E)



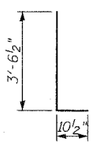
BAR d (E)



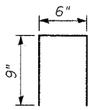
BAR d_1(E)



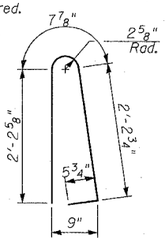
BAR d_2(E)



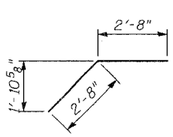
BAR d_3(E)



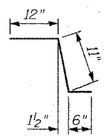
BAR d_4(E)



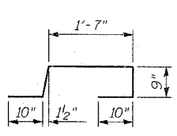
BAR d_5(E)



BAR b_5(E)



BAR c (E)



BAR c_2(E)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Superstructure	CU YD	1154
Reinforcement Bars, Epoxy Coated	POUND	234,780
Bridge Deck Grooving	SQ YD	3186
Protective Coat	SQ YD	4311
Bar Splicers	EACH	1486

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SHEET S-17 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DECK DETAILS, BAR LIST & BILL OF MAT'L

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007

DESIGNED BY: DE
DRAWN BY: DE
CHECKED BY: SP

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	265
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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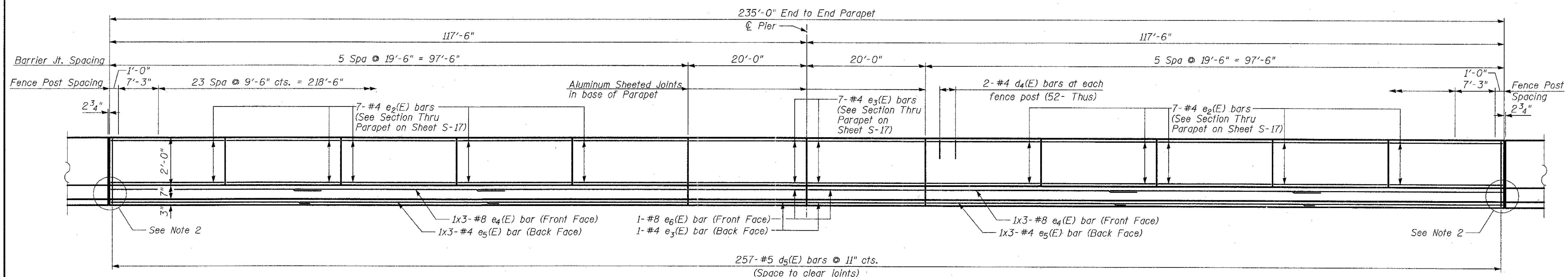
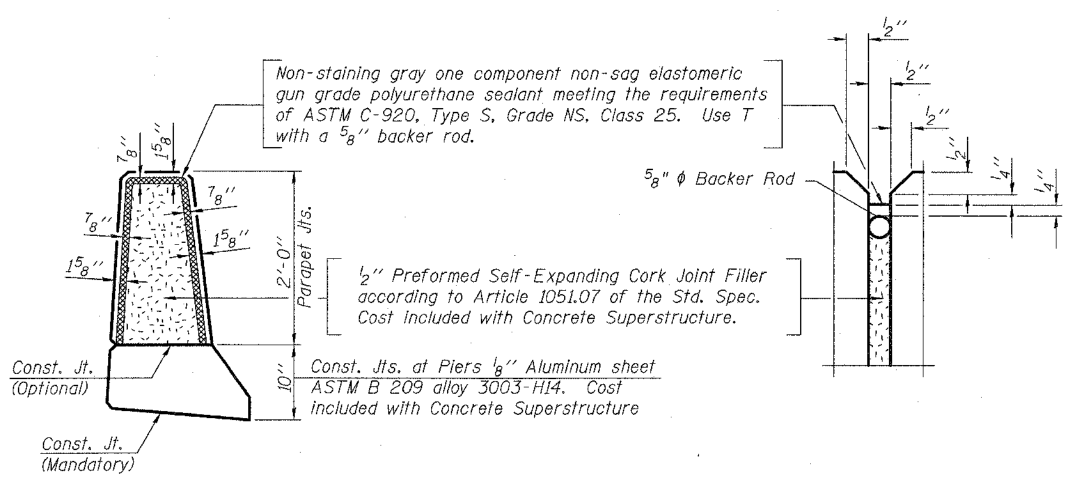


INSIDE ELEVATION OF TYPE F PARAPET



PARAPET JOINT DETAILS

NOTES:

1. Bars indicated thus 1x3-#4 etc. indicates 1 line of bars with 3 lengths per line.
2. Provide expansion coupling per Section 812 of the Standard Specifications for embedded conduits.

MINIMUM BAR LAPS

(Parapet)

Bar	Lap
#4	1'-4"
#8	3'-5"

SHEET S-18 OF S-53

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPE F CONCRETE PARAPET ELEVATION
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: DE
DRAWN BY: DE
CHECKED BY: SP
SCALE:
DATE: MAY 8, 2007

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	266
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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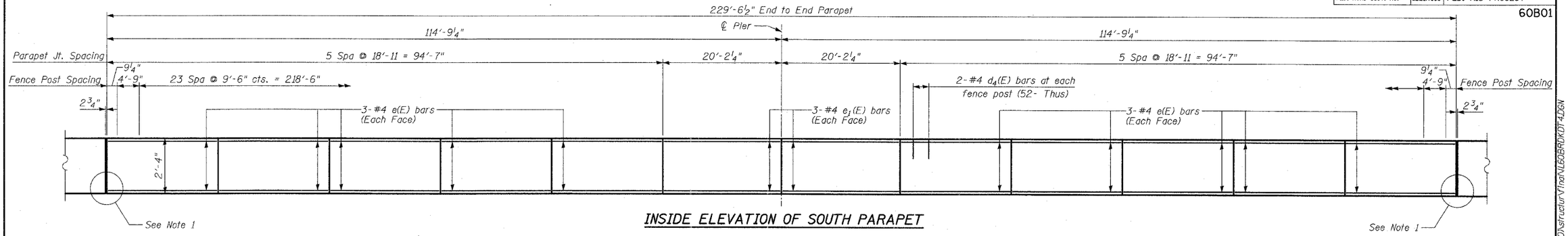
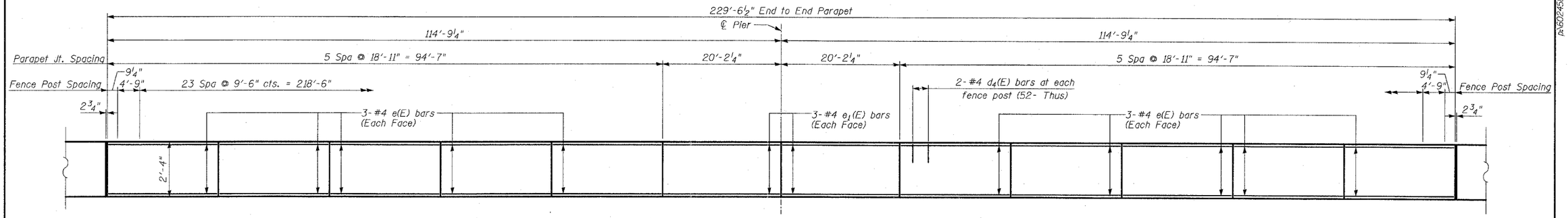
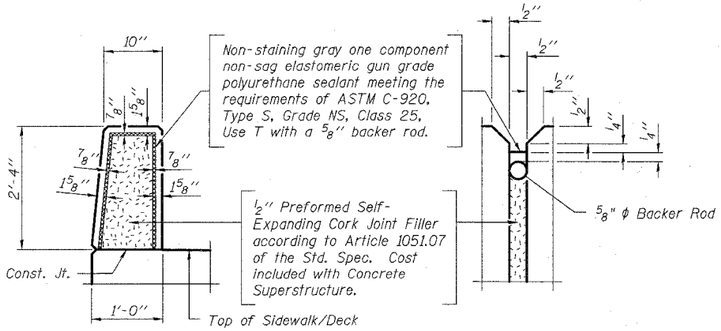


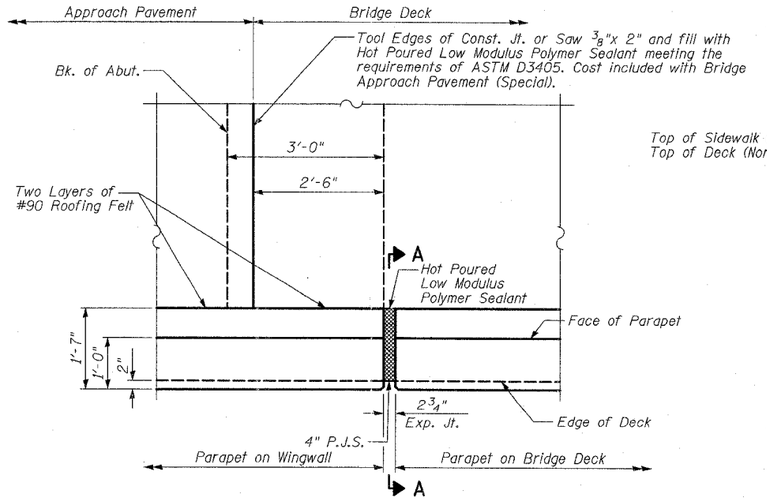
INSIDE ELEVATION OF SOUTH PARAPET



INSIDE ELEVATION OF NORTH PARAPET

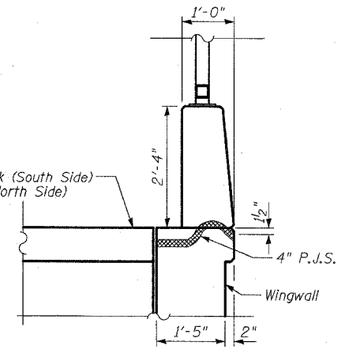


PARAPET JOINT DETAILS

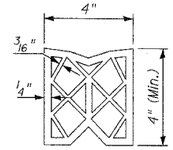


DETAIL A

South West Corner Shown
(Other Corners Similar)



SECTION A-A



PREFORMED JOINT SEALER

Cost of Preformed Joint Sealer to be included with Concrete Superstructure.

NOTE:

1. Provide expansion coupling per Section 812 of the Standard Specifications for embedded conduits.

SHEET S-19 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIDEWALK PARAPET ELEVATIONS

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:

DATE: MAY 8, 2007

DESIGNED BY: DE

DRAWN BY: DE

CHECKED BY: SP

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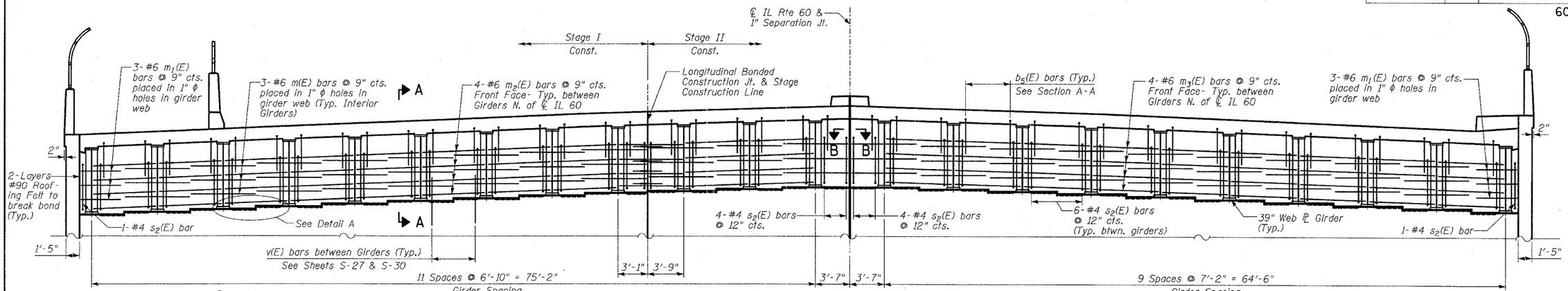
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	267
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

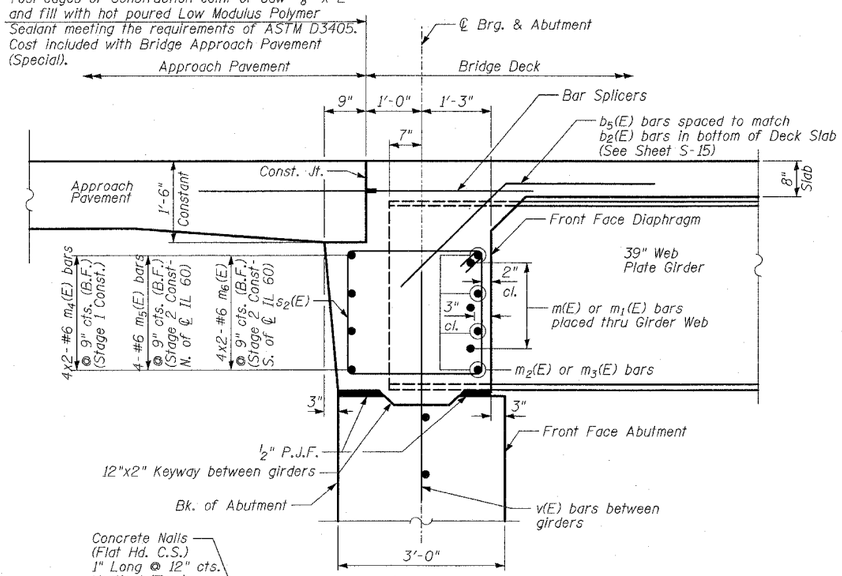
60B01



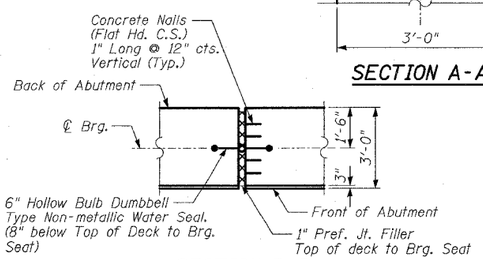
DIAPHRAGM ELEVATION AT EAST ABUTMENT

(West Abutment Opposite Hand)

Tool edges of Construction Joint or saw $\frac{3}{8}$" x 2" and fill with hot poured Low Modulus Polymer Sealant meeting the requirements of ASTM D3405. Cost included with Bridge Approach Pavement (Special).

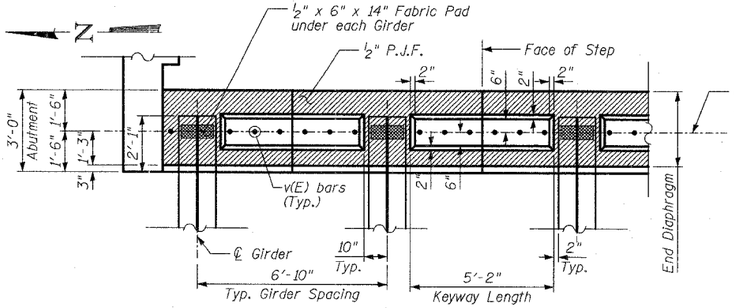


SECTION A-A



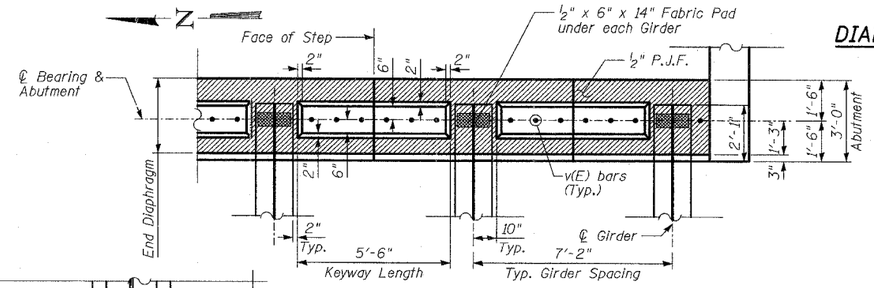
SECTION B-B

Cost of Water Seal included in the cost of Concrete Structures.



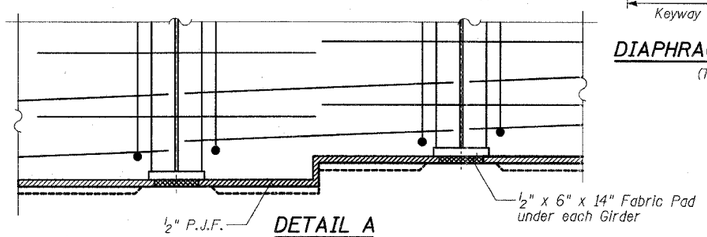
DIAPHRAGM PLAN AT ABUTMENT

(Typ. North of ℄ IL 60)



DIAPHRAGM PLAN AT ABUTMENT

(Typ. South of ℄ IL 60)

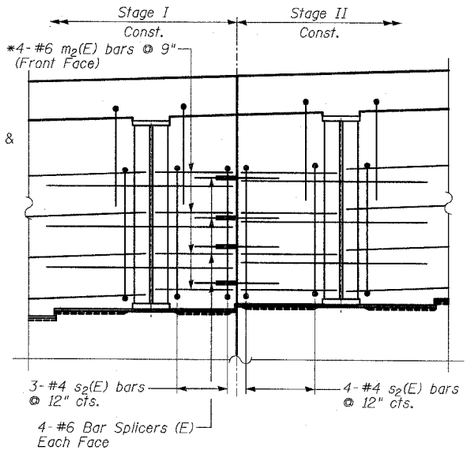


DETAIL A

MINIMUM BAR LAPS

(Diaphragms)

Bar	Lap
#6	2'-9"



DIAPHRAGM ELEVATION AT STAGE CONSTRUCTION LINE

*Order bars m_2(E) full length and cut to fit. Use the remainder in Stage II Construction. Connect using #6 Bar Splicers.

NOTES:

1. Reinforcement bars in Diaphragm are billed with Superstructure on Sheet S-17.
2. Concrete in Diaphragm is included with Concrete Superstructure on Sheet S-17.
3. Bars indicated thus 4x2-#6 etc. indicates 4 lines of bars with 2 lengths per line.

SHEET S-20 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTEGRAL ABUT. DIAPHRAGM DETAILS

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

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CHECKED BY: SP

TYLIN INTERNATIONAL

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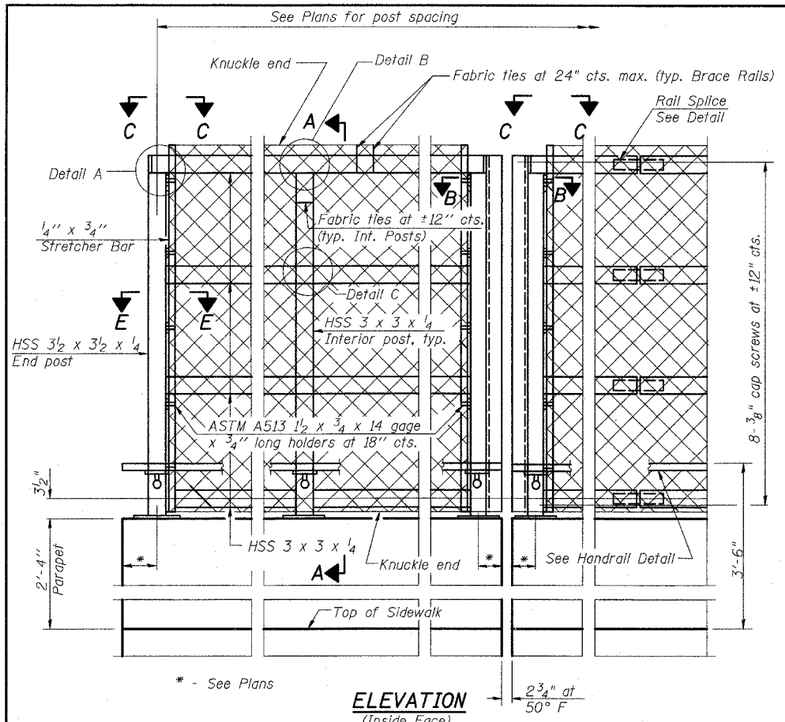
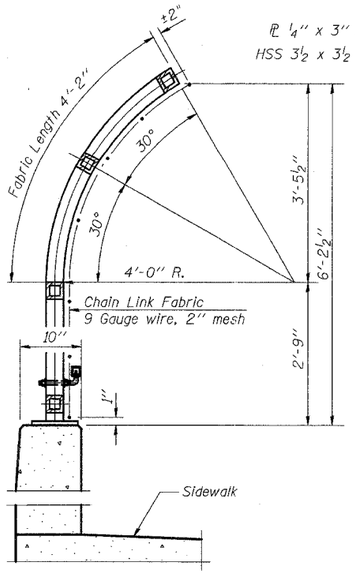
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	268
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

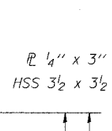
60B01



ELEVATION
(Inside Face)

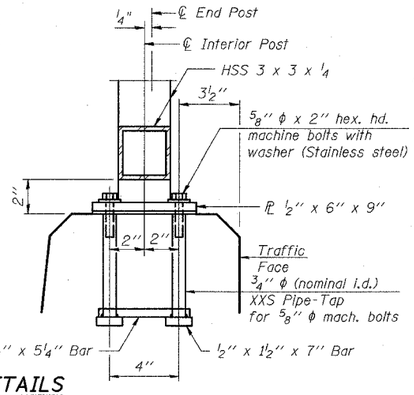


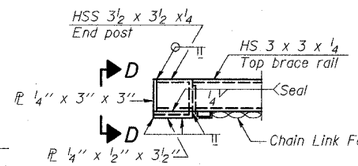
SECTION A-A



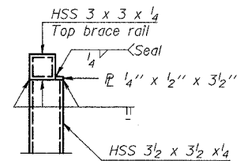
ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

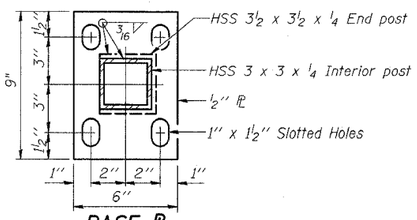




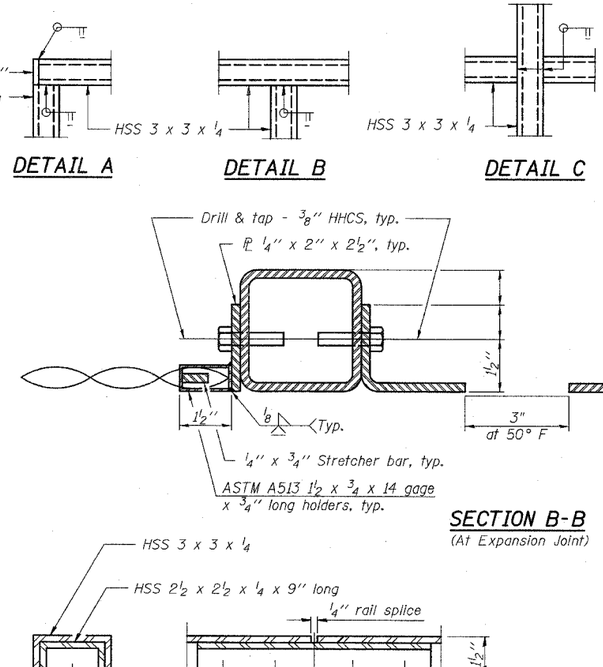
VIEW C-C



VIEW D-D



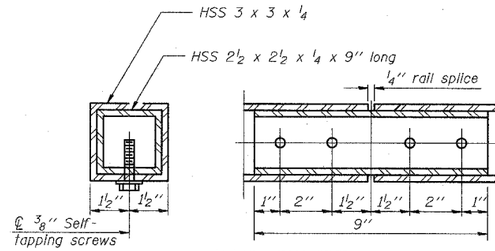
BASE ℄



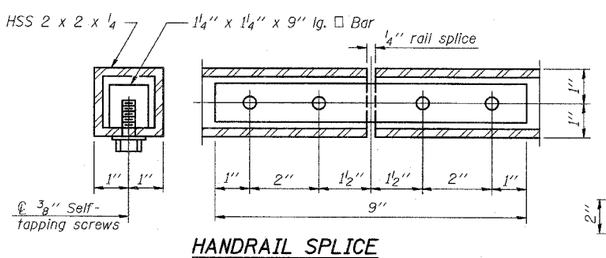
SECTION B-B
(At Expansion Joint)

NOTES:

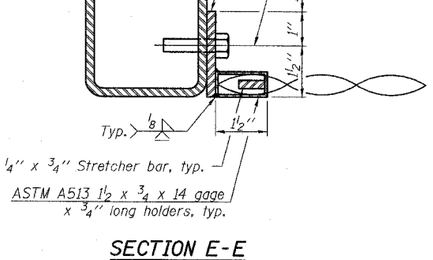
1. *All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.*



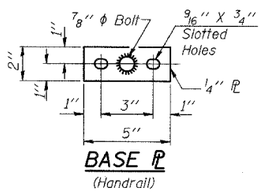
RAIL SPLICE



HANDRAIL SPLICE



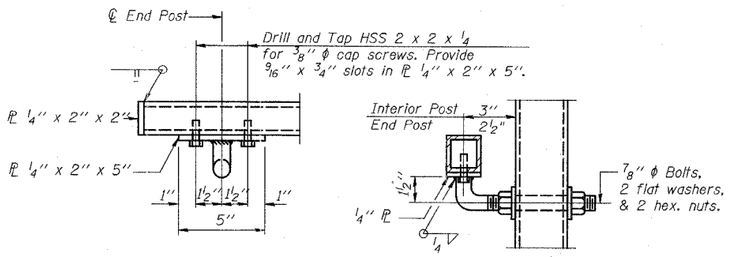
SECTION E-E



BASE ℄
(Handrail)

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing	Foot	529



HANDRAIL DETAIL

SHEET S-21 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BRIDGE FENCE RAILING DETAILS

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007

DESIGNED BY: DE
DRAWN BY: DE
CHECKED BY: SP

TY·LIN INTERNATIONAL

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	269
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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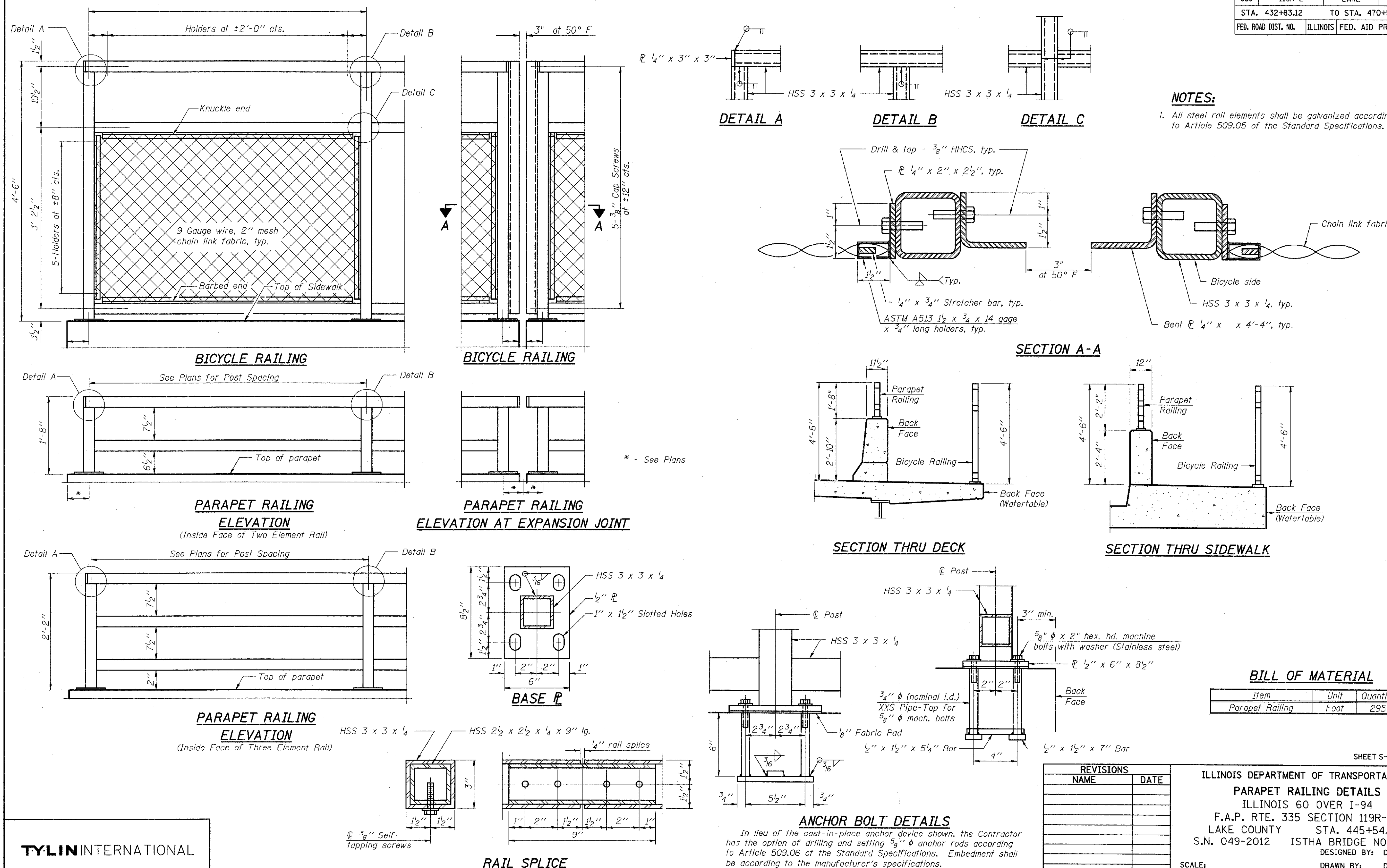

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" φ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

NOTES:

1. All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Parapet Railing	Foot	295

SHEET S-22 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PARAPET RAILING DETAILS

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007
DESIGNED BY: DE
DRAWN BY: DE
CHECKED BY: SP

TYLIN INTERNATIONAL

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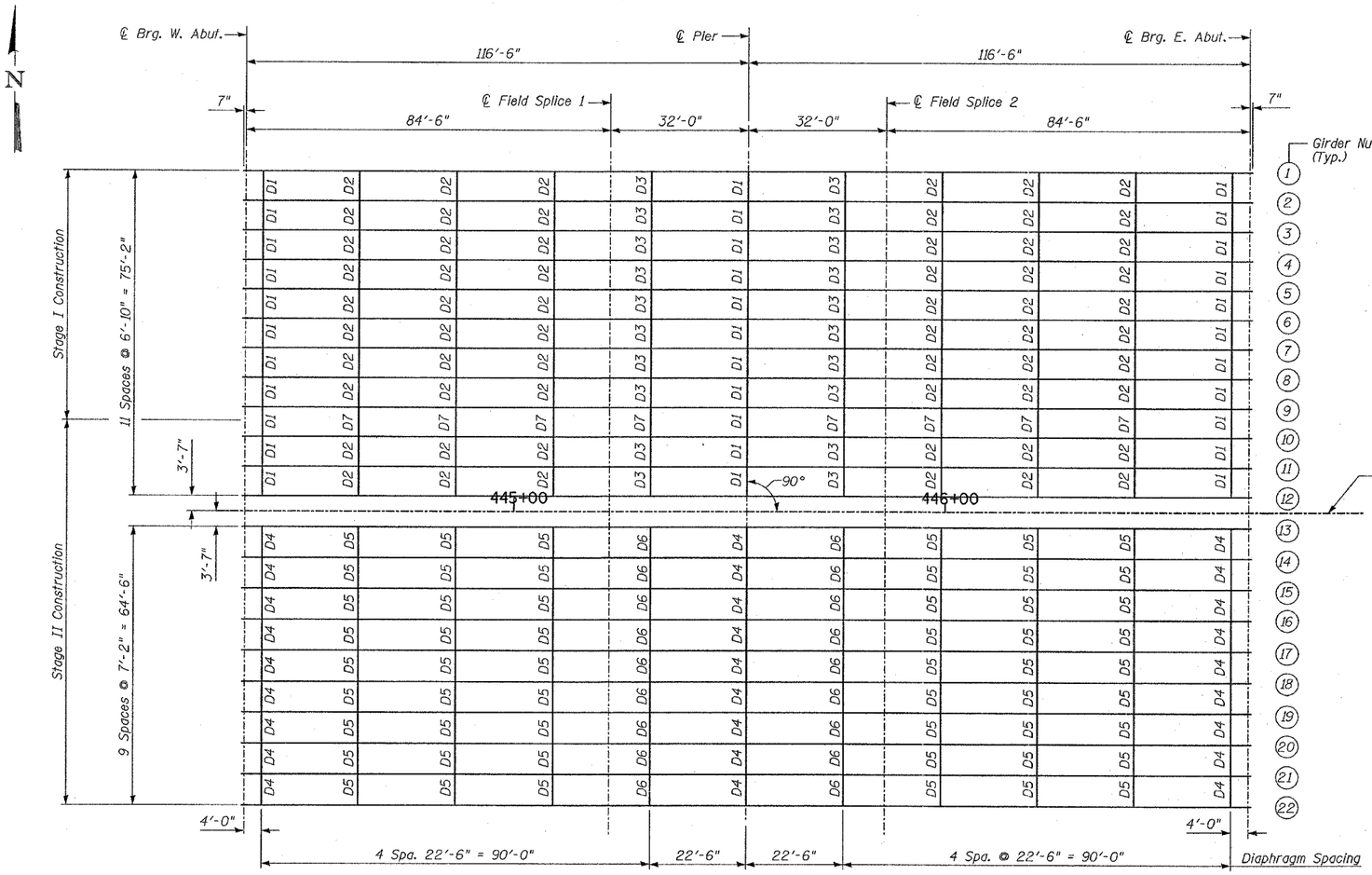
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	270
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



FRAMING PLAN

INTERIOR GIRDER MOMENT TABLE			
		0.4 Sp. 1 or 0.6 Sp. 2	Pier
I_s	(in^4)	16,853	33,130
$I_c(n)$	(in^4)	39,143	
$I_c(3n)$	(in^4)	28,873	
S_s	(in^3)	875	1,523
$S_c(n)$	(in^3)	1,139	
$S_c(3n)$	(in^3)	1,051	
Z	(in^3)	-	-
$\mathcal{D}$	(k/')	0.996	1.596
$M_{\mathcal{D}}$	('k)	798	2,732
$s_{\mathcal{D}}$	(k/')	0.47	
$M_{s\mathcal{D}}$	('k)	439	
M_L	('k)	982	915
M_{Imp}	('k)	196	183
$S_3[M_L + Imp]$	('k)	1,963	1,830
M_a	('k)	4,160	5,931
M_u	('k)	4,385	-
f_s $\mathcal{D}$ non-comp	(ksi)	10.9	21.5
f_s $\mathcal{D}$ (comp)	(ksi)	5.0	
f_s $S_3[M_L + M_{Imp}]$	(ksi)	20.7	14.4
f_s (Overload)	(ksi)	36.6	35.9
f_s (Total)	(ksi)	47.6	46.7
VR	(k)	56.8	

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.^{4} and in.^{3}).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in.^{4} and in.^{3}).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in.^{4} and in.^{3}).

Z: Plastic Section Modulus of the steel section in non-composite areas (in.^{3}).

$\mathcal{D}$: Un-factored non-composite dead load (kips/ft.).

$M_{\mathcal{D}}$: Un-factored moment due to non-composite dead load (kip-ft.).

$s_{\mathcal{D}}$: Un-factored long-term composite (superimposed) dead load (kips/ft.)

$M_{s\mathcal{D}}$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L: Un-factored live load moment (kip-ft.).

M_{Imp}: Un-factored moment due to impact (kip-ft.).

M_a: Factored design moment (kip-ft.).
$1.3\ [M_{\mathcal{D}} + M_{s\mathcal{D}} + \frac{5}{3}(M_L + M_{Imp})]$

M_u: Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

f_s (Overload): Sum of stresses as computed from the moments below (ksi).
$M_{\mathcal{D}} + M_{s\mathcal{D}} + \frac{5}{3}(M_L + M_{Imp})$

f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.3\ [M_{\mathcal{D}} + M_{s\mathcal{D}} + \frac{5}{3}(M_L + M_{Imp})]$

VR: Maximum L + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

INTERIOR GIRDER REACTION TABLE			
		Abut.	Pier
$R_{\mathcal{D}}$	(k)	59.7	217.4
R_L	(k)	42.5	76.7
Imp.	(k)	8.5	10.7
R_{Total}	(k)	110.7	304.8

NOTES

All structural steel for girders and splice plates shall conform to the requirements of AASHTO M270, Grade 50. All other structural steel shall conform to the requirements of AASHTO M270, Grade 36.

Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins or bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Furnishing and Erecting Structural Steel	L SUM	1
Stud Shear Connectors	Each	13,860

TYLIN INTERNATIONAL

SHEET S-23 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FRAMING PLAN

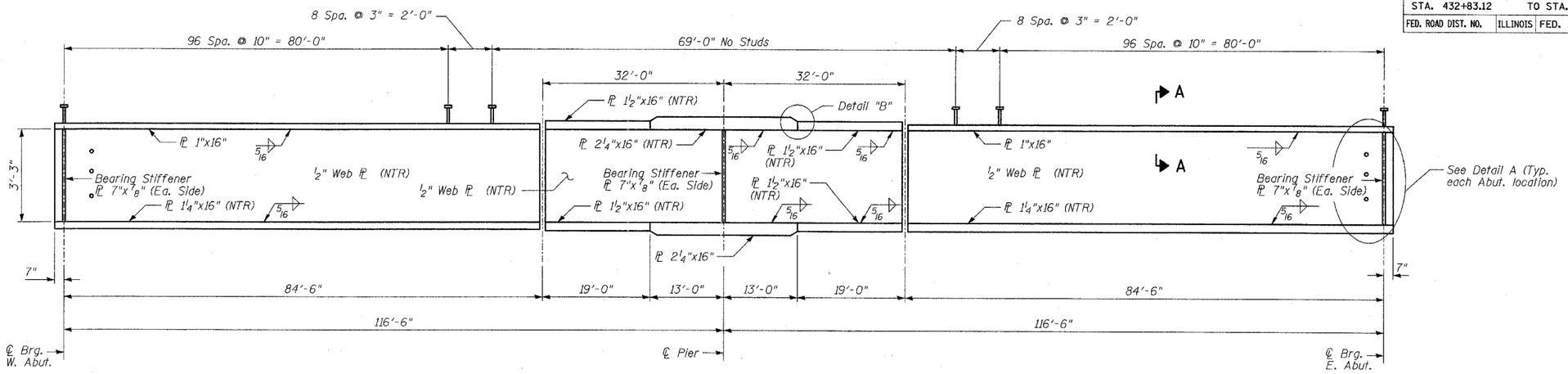
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007
DESIGNED BY: SP
DRAWN BY: SP
CHECKED BY: PDF

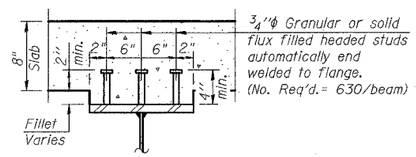
$FILE$
$TIME$
$DATE$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	271
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

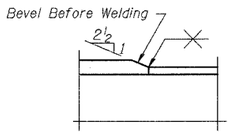
60B01



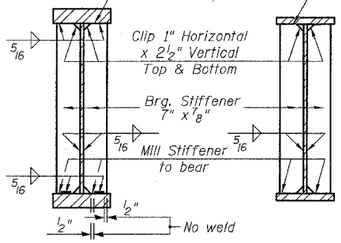
GIRDER ELEVATION



SECTION A-A

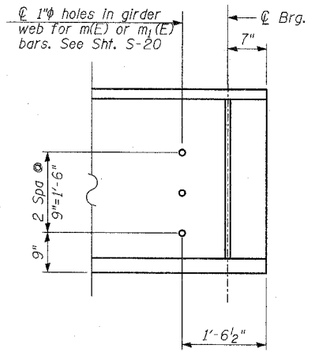


DETAIL "B"



SECTION AT PIER

SECTION AT ABUTMENT

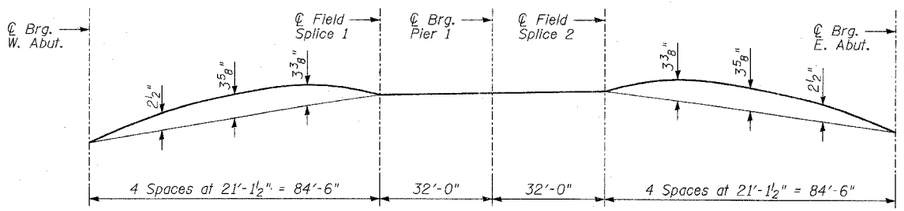


DETAIL A

TOP OF WEB ELEVATIONS

For Fabrication Only.

Beam	℄ Brg. W. Abut.	℄ Field Splice 1	℄ Brg. Pier 1	℄ Field Splice 2	℄ Brg. E. Abut.
1	710.81	711.34	711.37	711.39	710.96
2	710.95	711.49	711.51	711.53	711.10
3	711.09	711.63	711.65	711.67	711.24
4	711.24	711.77	711.79	711.82	711.39
5	711.38	711.91	711.94	711.96	711.53
6	711.52	712.06	712.08	712.10	711.67
7	711.66	712.20	712.22	712.24	711.81
8	711.81	712.34	712.36	712.38	711.96
9	711.93	712.47	712.49	712.51	712.08
10	712.04	712.57	712.60	712.62	712.19
11	712.15	712.68	712.70	712.73	712.30
12	712.25	712.79	712.81	712.83	712.40
13	712.25	712.79	712.81	712.83	712.40
14	712.14	712.68	712.70	712.72	712.29
15	712.03	712.56	712.59	712.61	712.18
16	711.92	712.45	712.47	712.50	712.07
17	711.78	712.31	712.33	712.36	711.93
18	711.63	712.16	712.19	712.21	711.78
19	711.48	712.01	712.04	712.06	711.63
20	711.33	711.87	711.89	711.91	711.48
21	711.18	711.72	711.74	711.76	711.33
22	711.03	711.57	711.59	711.61	711.18



CAMBER DIAGRAM

TYLIN INTERNATIONAL

SHEET S-24 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GIRDER ELEVATIONS & DETAILS

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: SP

SCALE: DRAWN BY: SP

DATE: MAY 8, 2007 CHECKED BY: PDF

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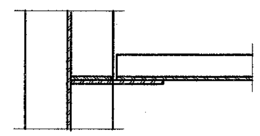
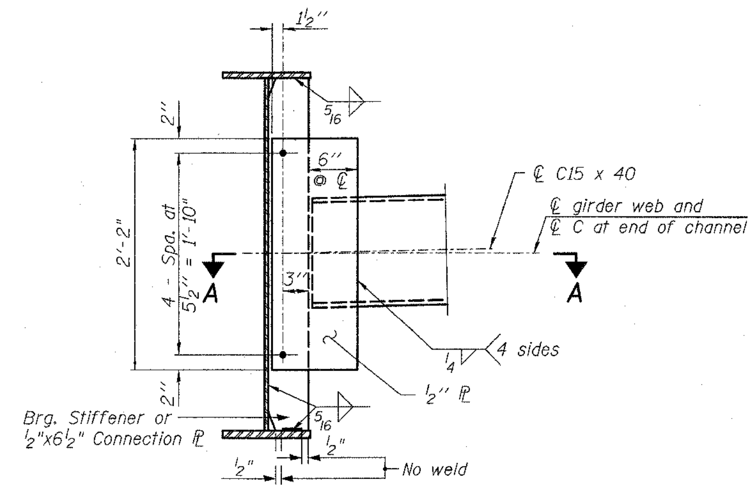
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	272
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



SECTION A-A

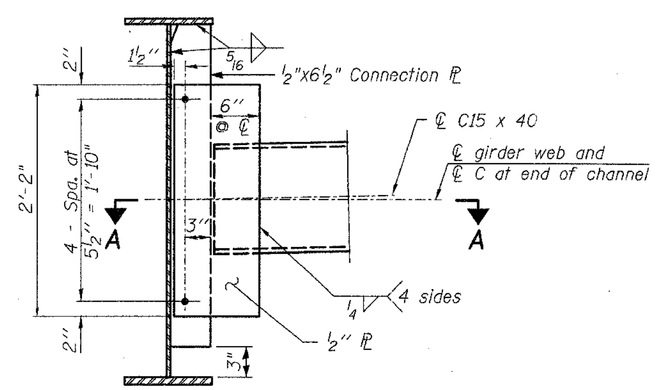


DIAPHRAGM D1, D4

33 Required D1
27 Required D4

Note:
Two hardened washers required for each set of oversized holes.

Fasteners shall be ¾" ϕ HS bolts, 15/16" ϕ holes

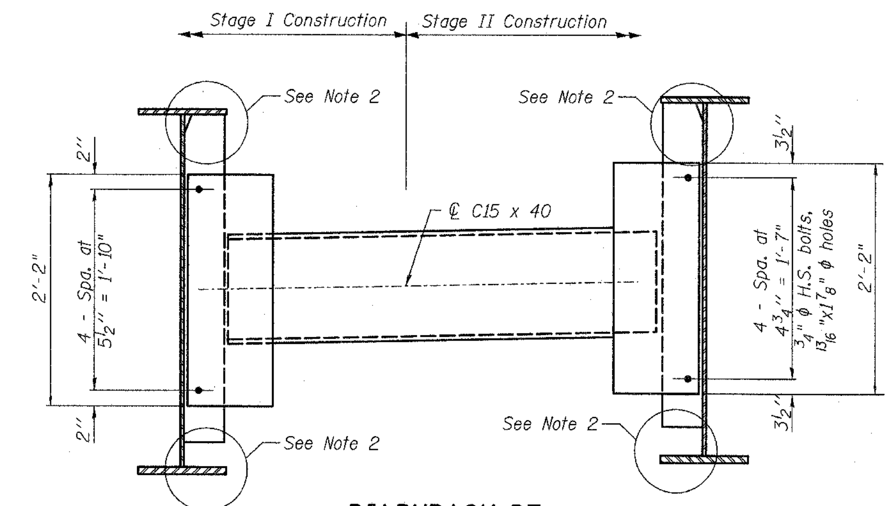


DIAPHRAGM D2, D5

60 Required D2
54 Required D5

Note:
Two hardened washers required for each set of oversized holes.

Fasteners shall be ¾" ϕ HS bolts, 15/16" ϕ holes

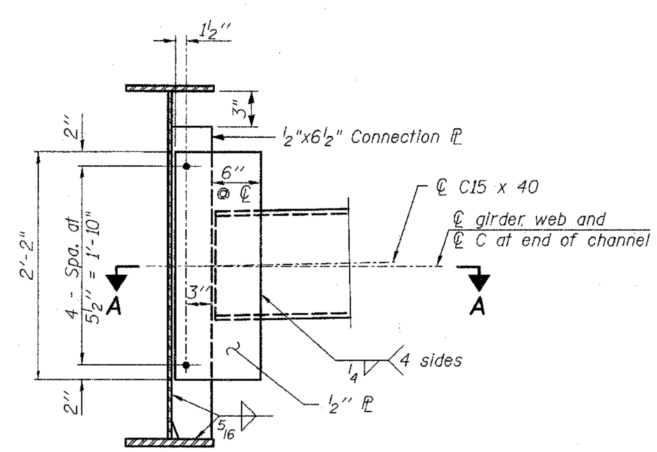


DIAPHRAGM D7

8 Required

Notes:

1. All details and notes similar to Diaphragm D2 or D3, except as noted.
2. Diaphragm D7 that is placed transversely in-line with Diaphragm D2 shall be detailed similar to D2. Diaphragm D7 that is placed transversely in-line with Diaphragm D3 shall be detailed similar to D3.
3. Bolts in slots shall be finger tight until Stage II deck pour is complete.
4. Slots shall be positioned such that under no concrete load, bolts are at low end of slot and finish near opposite end of slot under deck load.



DIAPHRAGM D3, D6

20 Required D3
18 Required D6

Note:
Two hardened washers required for each set of oversized holes.

Fasteners shall be ¾" ϕ HS bolts, 15/16" ϕ holes

TYLIN INTERNATIONAL

SHEET S-25 OF S-53

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: SP
DRAWN BY: SNB
CHECKED BY: PDF
SCALE:
DATE: MAY 8, 2007

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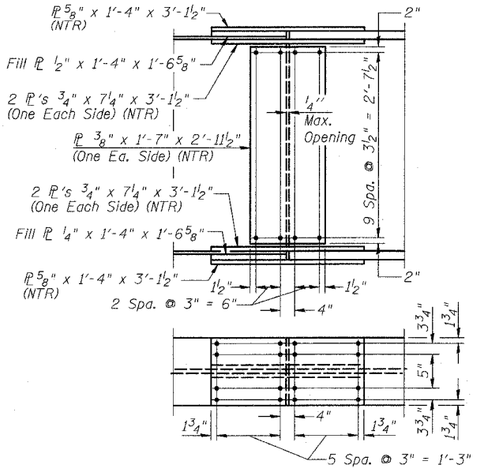
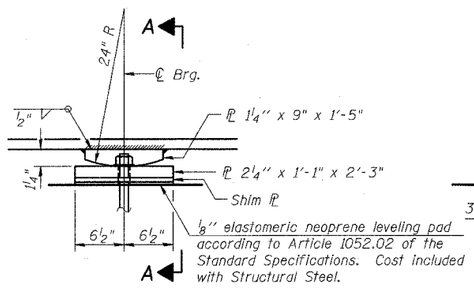
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	273
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

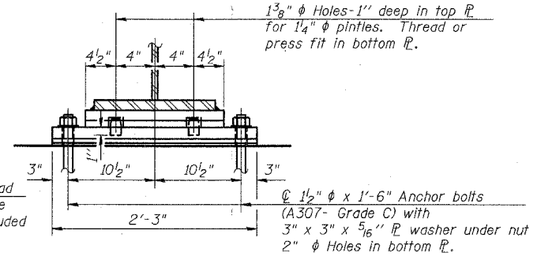


FIELD SPLICE DETAIL

(44 Required)

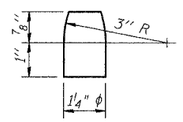


ELEVATION AT PIER



SECTION A-A

FIXED BEARING



PINTLE

NOTES FOR FIXED BEARINGS:

1. The structural steel plates of the bearing assembly shall conform to the requirements of AASHTO M270 Grade 50.
2. Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
3. Bearing plates, side retainers, anchor bolts, nuts, washers, and pintles shall be galvanized according to AASHTO M111 or M232.
4. H.S. Bolts in bearing assembly shall be galvanized according to AASHTO M298 Class 50.
5. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
6. Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
7. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts 1 1/2" ϕ	Each	44

SHEET S-26 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FIELD SPLICE & BEARING DETAILS

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: SP,PL

SCALE: DRAWN BY: SNB

DATE: MAY 8, 2007 CHECKED BY: PDF

TYLIN INTERNATIONAL

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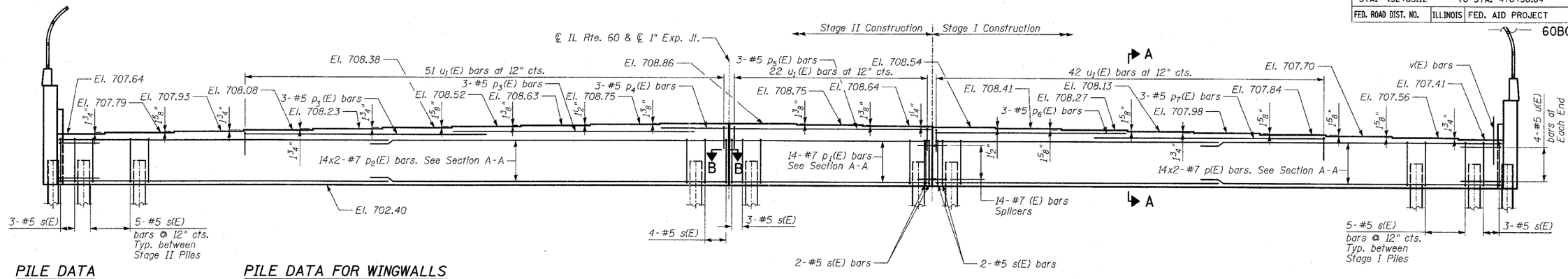
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	274
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



ELEVATION

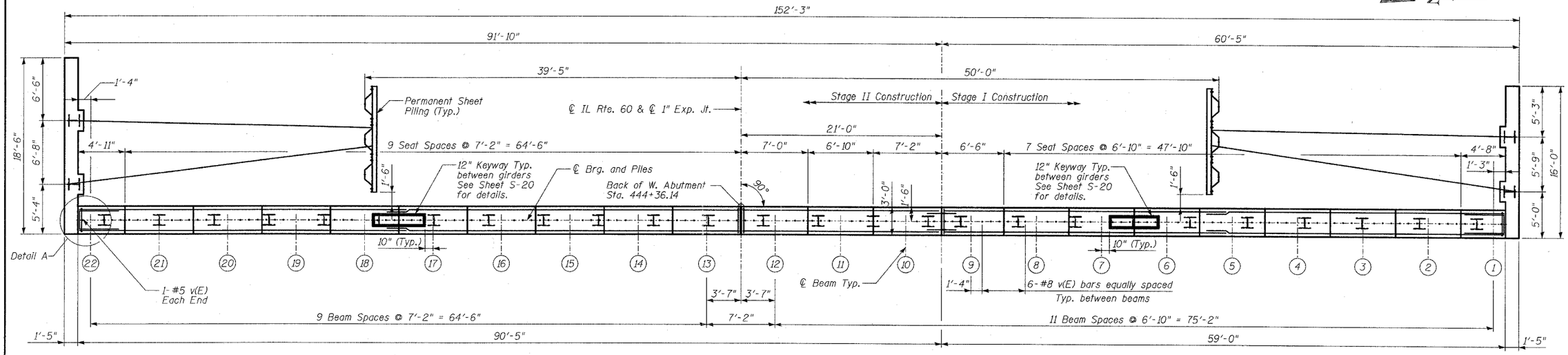
(Looking West)

PILE DATA

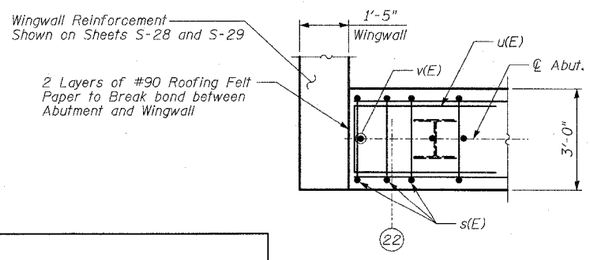
Type: Steel HP 14x73
Nominal Required Bearing: 480 Kips
Allowable Resistance Available: 160 Kips
Estimated Length: 52'-6" Ft
No. Production Piles: 25
No. Test Piles: 1

PILE DATA FOR WINGWALLS

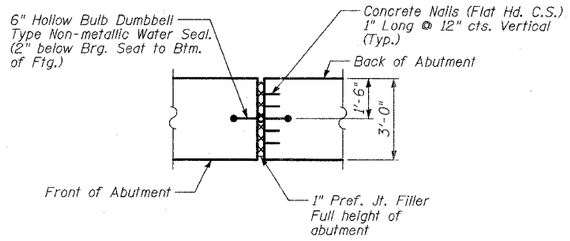
Type: Steel HP 14x73
Nominal Required Bearing: 480 Kips
Allowable Resistance Available: 160 Kips
Estimated Length: 52'-0" Ft
No. Production Piles: 4
No. Test Piles: 0



PLAN



DETAIL A



SECTION B-B

Cost of Water Seal included in the cost of Concrete Structures.

MINIMUM BAR LAPS

(Abutments)

Bar	Lap
#5	2'-2"
#7	4'-10"

NOTES

1. Pour steps monolithically with cap.
2. For Pile Layout and Spacing See Sheet S-3.
3. See Sheet S-29 for Section A-A.
4. V(E) bars shall be cast in place and not mucked-in after the pile cap is placed.
5. See Sheet S-20 for Keyway details.

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

SHEET S-27 OF S-53

ILLINOIS DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007

DESIGNED BY: TB
DRAWN BY: TB
CHECKED BY: SP

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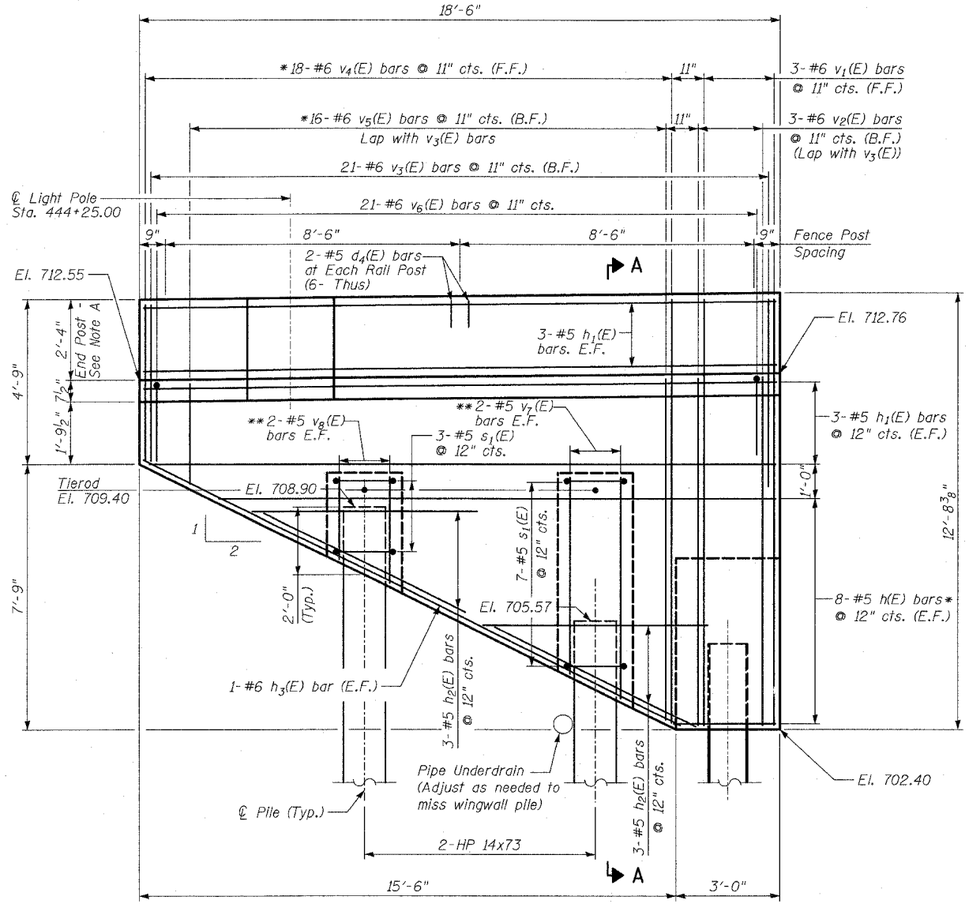
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	275
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

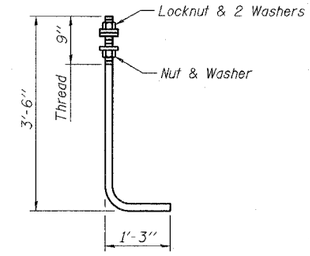


SOUTH WINGWALL ELEVATION

(Looking North)

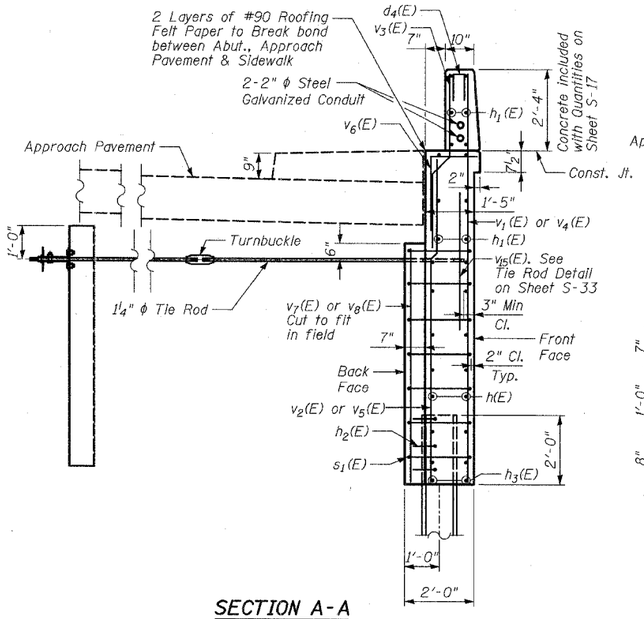
* See Field Cutting Diagram
** Cut to Fit

Note A:
End Post shall be poured after Bridge Parapet is in place. Form top surface to match Parapet grade.

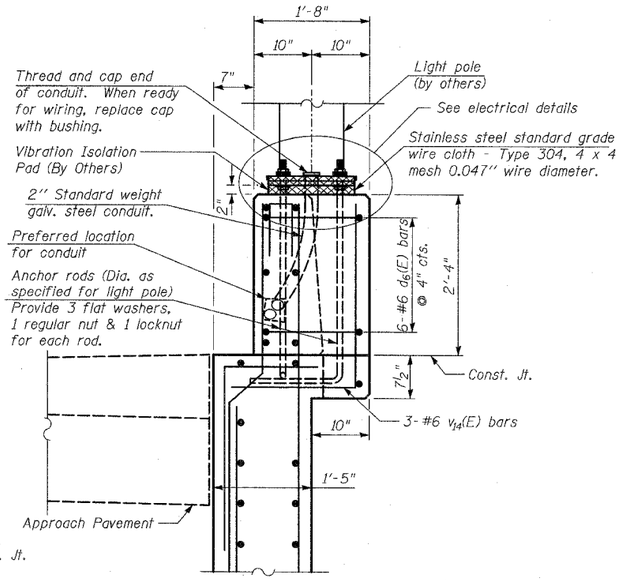


ANCHOR ROD

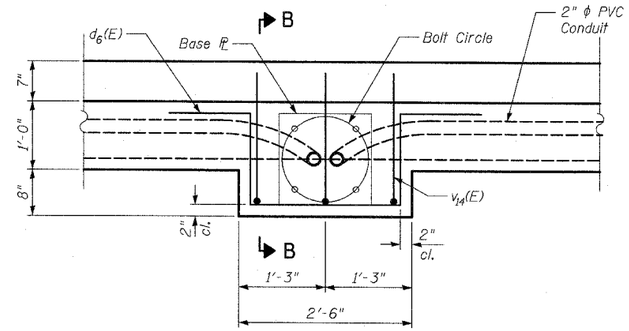
Diameter as specified for light poles. (ASTM F 1554 Grade 105)



SECTION A-A



SECTION B-B



LIGHT POLE PLAN

LEGEND

E.F. - Denotes Each Face.
B.F. - Denotes Back Face.
F.F. - Denotes Front Face.

NOTES

1. Quantity of Concrete in End Post included with Concrete Superstructure on Sheet S-17.
2. For Details on Bar Splicers, See Sheet S-38.
3. For Details on Piles and Concrete Encasement. See Sheet S-39. Concrete Encasement shall be used on each Abutment and Wingwall Pile.

TY·LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT DETAILS - I

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007
DESIGNED BY: TB
DRAWN BY: TB
CHECKED BY: SP

SHEET S-28 OF S-53

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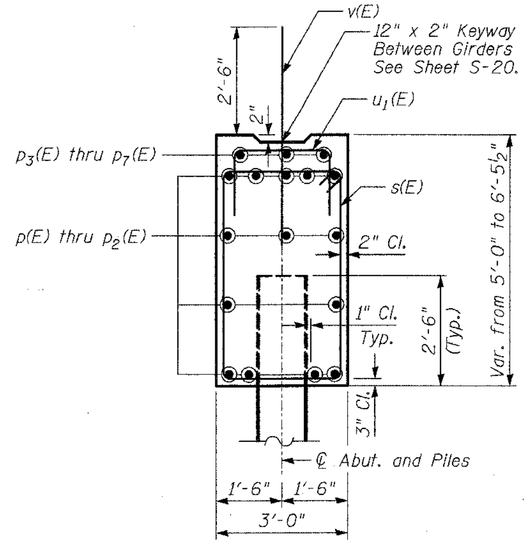
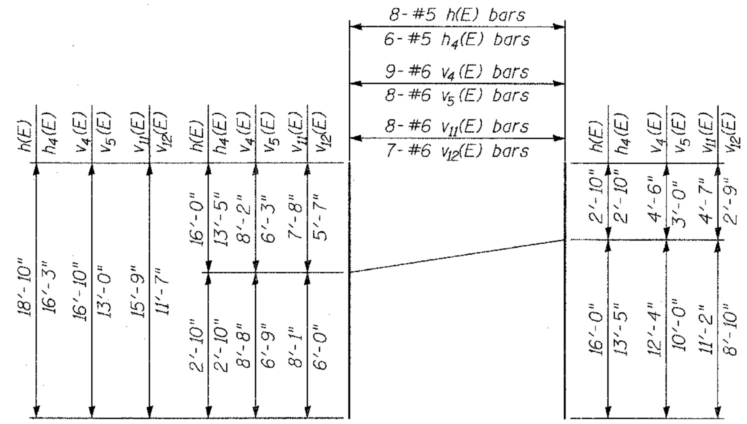
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	276
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

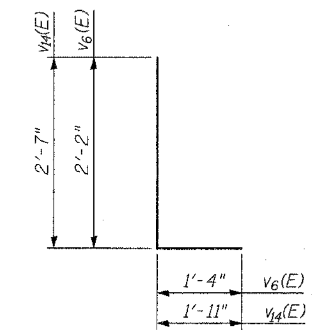


SECTION A-A

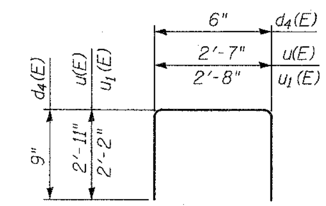


FIELD CUTTING DIAGRAM

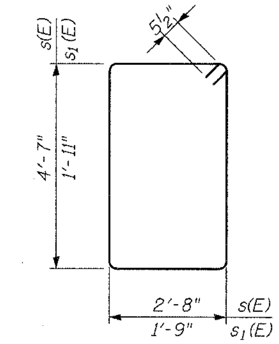
Order all bars full length.
Cut h(E) and h_4(E) bars as shown and use remainder of bars in opposite face.
Cut v_4(E), v_5(E), v_{11}(E) & v_{12}(E) bars as shown and use remainder of bars in opposite end.



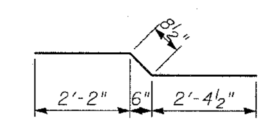
BARS v_6(E) & v_{14}(E)



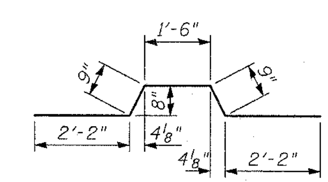
BARS u(E), u_1(E) & d_4(E)



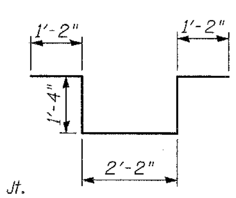
BARS s(E) & s_1(E)



BAR v_3(E)



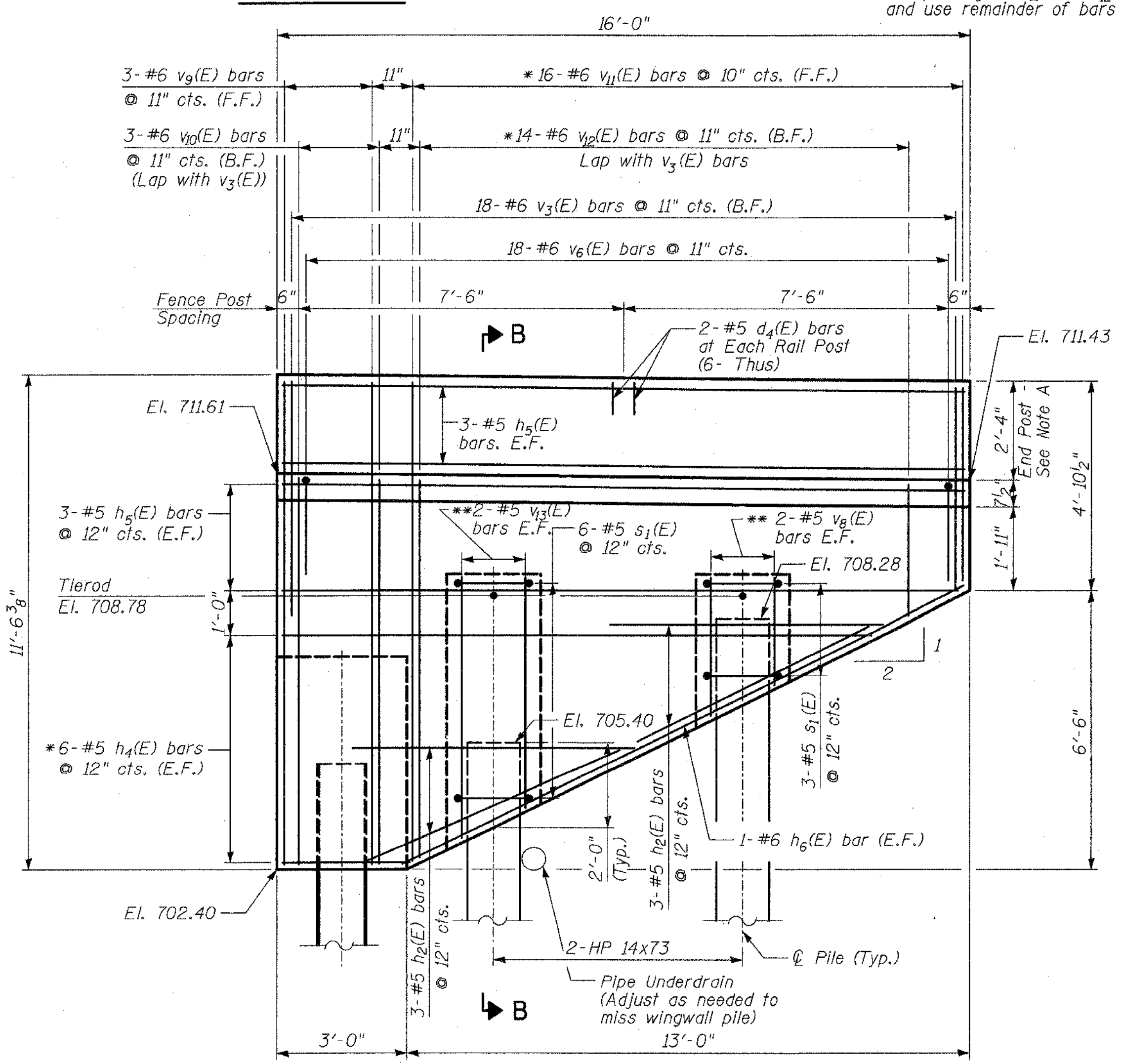
BAR h_2(E)



BAR d_6(E)

BILL OF MATERIAL

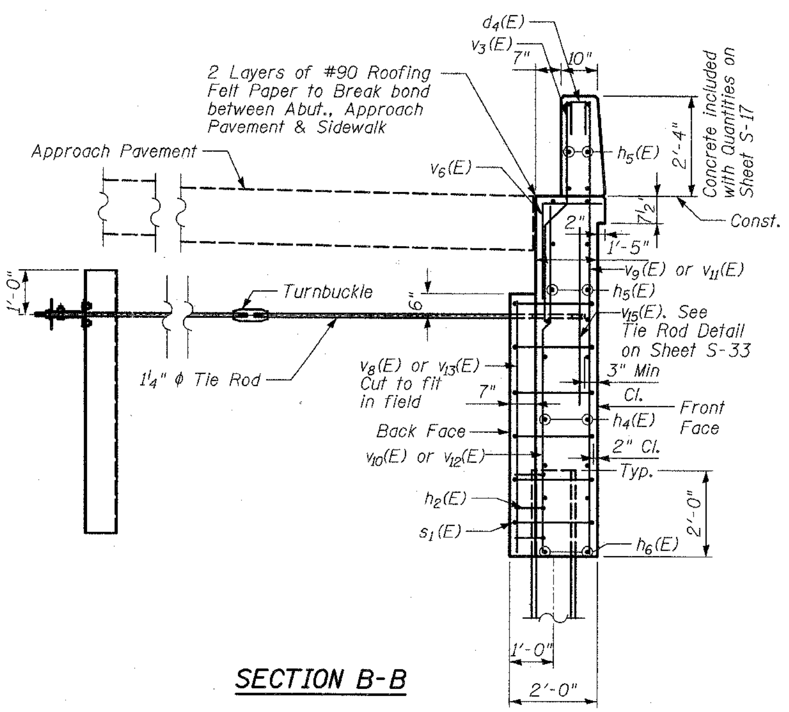
Bar	No.	Size	Length	Shape
d_4(E)	12	#5	2'-0"	
d_6(E)	6	#6	7'-2"	
h(E)	8	#5	18'-10"	
h_1(E)	12	#5	18'-2"	
h_2(E)	12	#5	7'-4"	
h_3(E)	2	#6	17'-3"	
h_4(E)	6	#5	16'-3"	
h_5(E)	12	#5	15'-8"	
h_6(E)	2	#6	14'-6"	
p(E)	28	#7	31'-9"	
p_1(E)	14	#7	20'-8"	
p_2(E)	28	#7	37'-0"	
p_3(E)	6	#5	23'-8"	
p_4(E)	3	#5	7'-0"	
p_5(E)	3	#5	20'-8"	
p_6(E)	3	#5	20'-0"	
p_7(E)	3	#5	22'-8"	
s(E)	132	#5	15'-5"	
s_1(E)	19	#5	8'-3"	
u(E)	4	#5	8'-5"	
u_2(E)	115	#5	7'-0"	
v(E)	128	#8	5'-0"	
v_1(E)	3	#6	12'-4"	
v_2(E)	3	#6	10'-0"	
v_3(E)	39	#6	5'-3"	
v_4(E)	9	#6	16'-10"	
v_5(E)	8	#6	13'-0"	
v_6(E)	39	#6	3'-6"	
v_7(E)	4	#5	6'-4"	
v_8(E)	8	#5	3'-0"	
v_9(E)	3	#6	11'-2"	
v_{10}(E)	3	#6	8'-10"	
v_{11}(E)	8	#6	15'-9"	
v_{12}(E)	7	#6	11'-7"	
v_{13}(E)	4	#5	5'-10"	
v_{14}(E)	3	#6	4'-6"	
v_{15}(E)	4	#10	4'-0"	
Porous Granular Embankment, Special			Cu Yd	367
Structure Excavation			Cu Yd	188
Concrete Structures			Cu Yd	112
Reinforcement Bars, Epoxy Coated			Pound	12,290
Furnishing Steel Piles, HP14x73			Foot	1,529
Driving Piles			Foot	1,529
Test Pile Steel HP14x73			Each	1
Pile Shoes			Each	30
Geocomposite Wall Drain			Sq Yd	143
Bar Splicers			Each	14
Permanent Steel Sheet Piling			Sq Ft	264
Concrete Encasement			Cu Yd	16



NORTH WINGWALL ELEVATION

(Looking South)
* See Field Cutting Diagram
** Cut to Fit

Note A:
End Post shall be poured after Bridge Parapet is in place. Form top surface to match Parapet grade.



SECTION B-B

LEGEND

E.F. - Denotes Each Face.

B.F. - Denotes Back Face.

F.F. - Denotes Front Face.

NOTES

1. Quantity of Concrete in End Post included with Concrete Superstructure on Sheet S-17.
2. For Details on Bar Splicers, See Sheet S-38.
3. For Details on Piles and Concrete Encasement. See Sheet S-39. Concrete Encasement shall be used on each Abutment and Wingwall Pile.

SHEET S-29 OF S-53

REVISIONS NAME	DATE

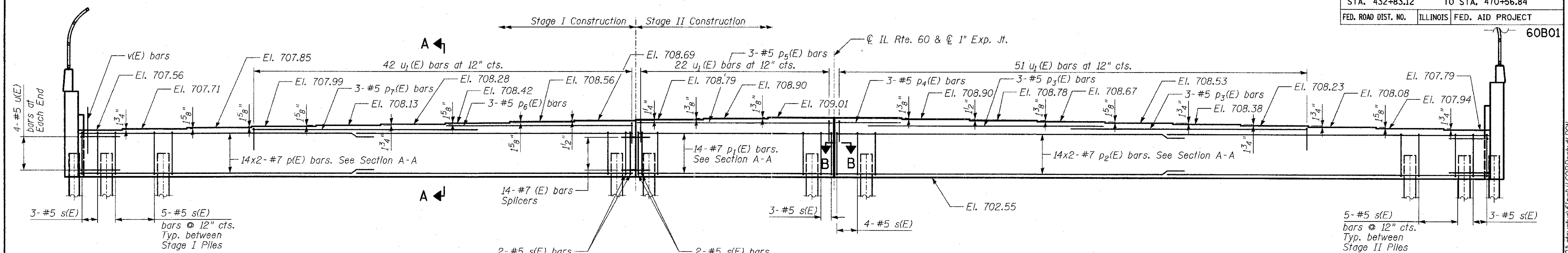
TYLIN INTERNATIONAL

ILLINOIS DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT DETAILS - II

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

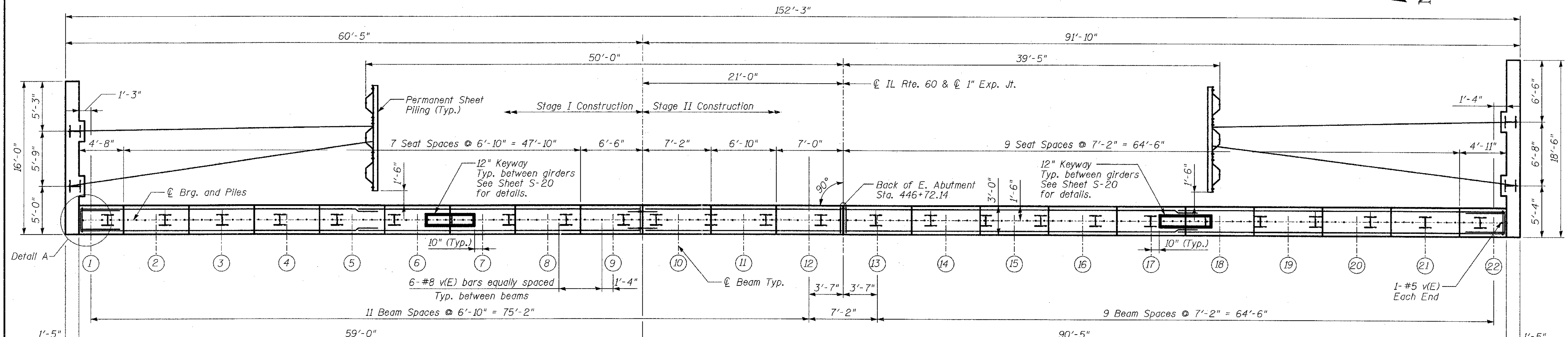
SCALE:
DATE: MAY 8, 2007
DESIGNED BY: TB
DRAWN BY: TB
CHECKED BY: SP



ELEVATION
(Looking East)

PILE DATA
Type: Steel HP 14x73
Nominal Required Bearing: 480 Kips
Allowable Resistance Available: 160 Kips
Estimated Length: 56'-6" Ft
No. Production Piles: 25
No. Test Piles: 1

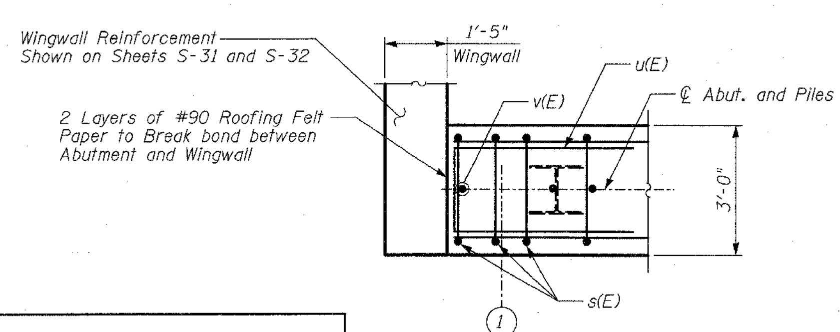
PILE DATA FOR WINGWALLS
Type: Steel HP 14x73
Nominal Required Bearing: 480 Kips
Allowable Resistance Available: 160 Kips
Estimated Length: 56'-0" Ft
No. Production Piles: 4
No. Test Piles: 0



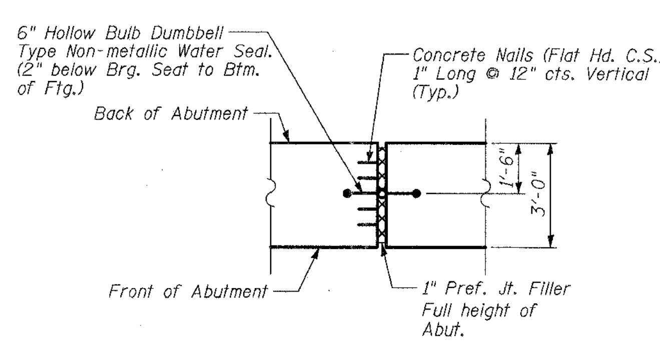
PLAN

MINIMUM BAR LAPS
(Abutments)

Bar	Lap
#5	2'-2"
#7	4'-10"



DETAIL A



SECTION B-B
Cost of Water Seal included in the cost of Concrete Structures.

NOTES
1. Pour steps monolithically with cap.
2. For Pile Layout and Spacing See Sheet S-3.
3. See Sheet S-32 for Section A-A.
4. V(E) bars shall be cast in place and not mucked-in after the pile cap is placed.
5. See Sheet S-20 for Keyway details.

REVISIONS NAME	DATE

TY·LIN INTERNATIONAL

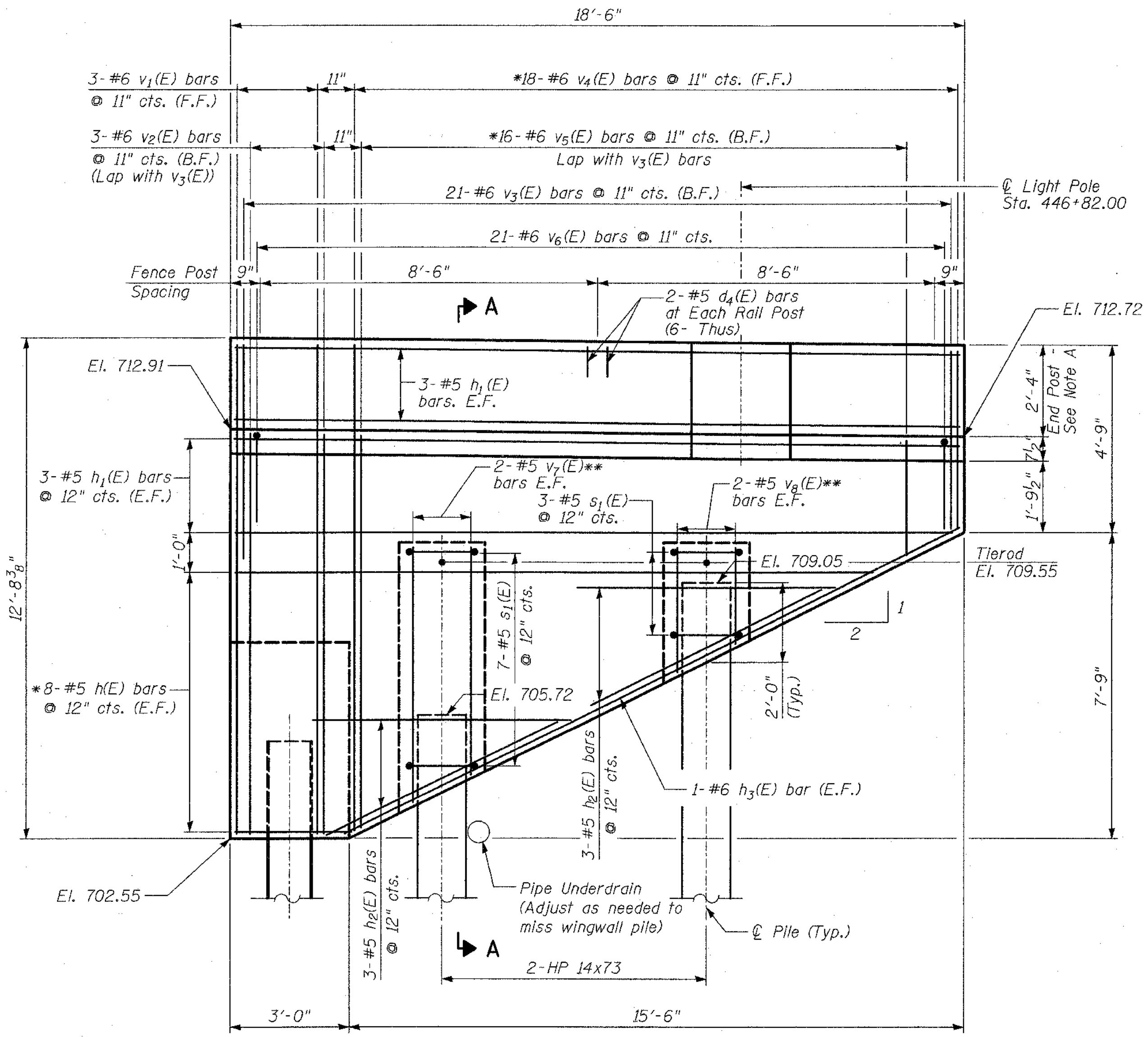
SHEET S-30 OF S-53

ILLINOIS DEPARTMENT OF TRANSPORTATION
EAST ABUTMENT
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: TB
SCALE:
DRAWN BY: TB
DATE: MAY 8, 2007
CHECKED BY: SP

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	278
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

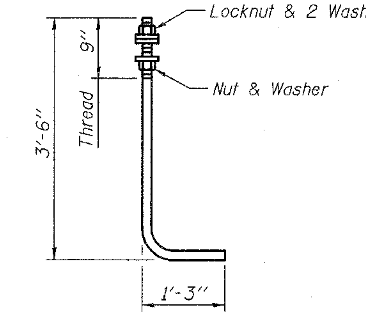


SOUTH WINGWALL ELEVATION

(Looking North)

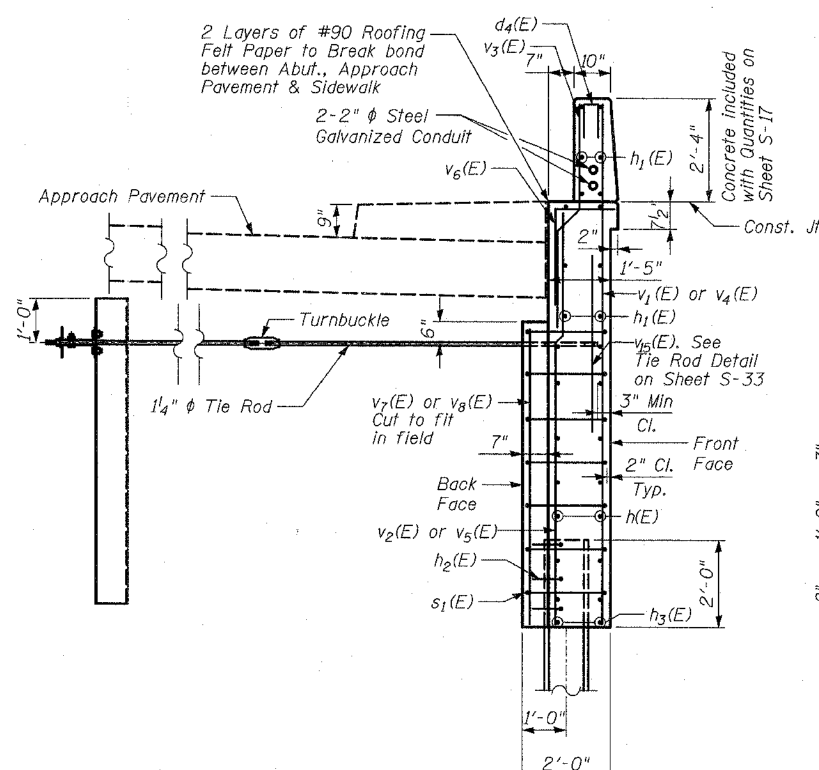
* See Field Cutting Diagram
** Cut to Fit

Note A:
End Post shall be poured after Bridge Parapet is in place. Form top surface to match Parapet grade.

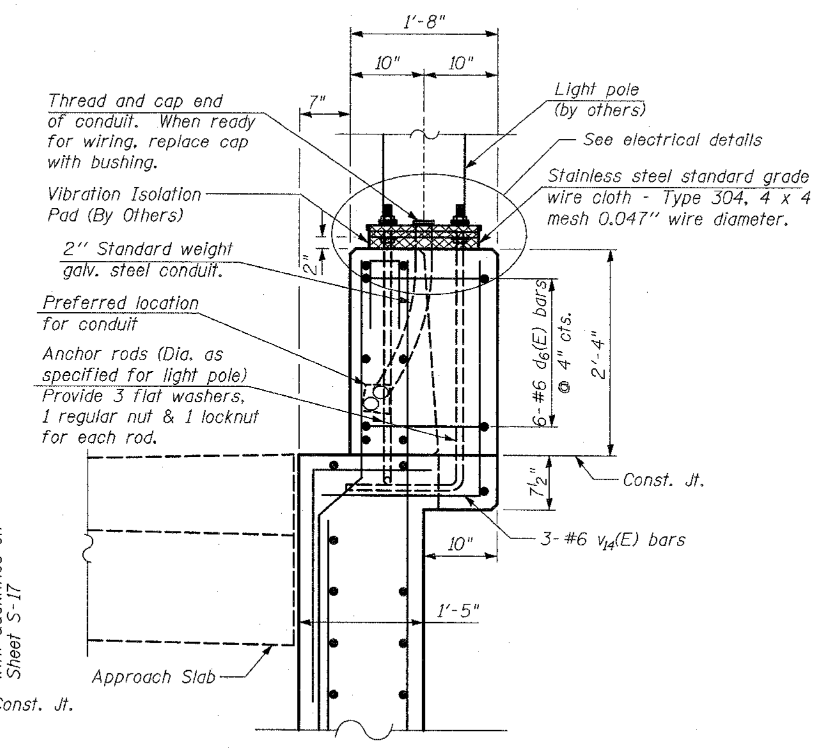


ANCHOR ROD

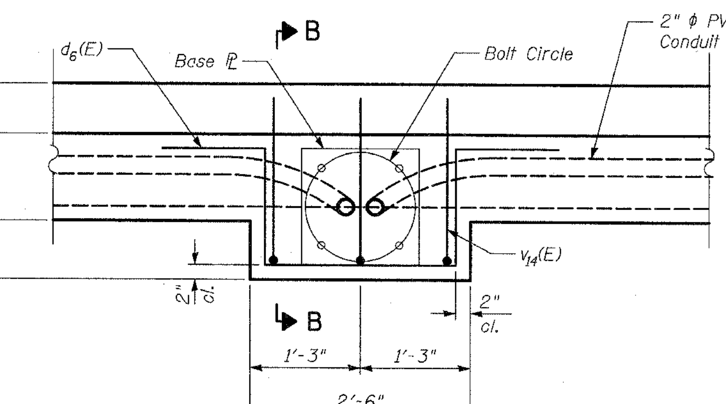
Diameter as specified for light poles. (ASTM F 1554 Grade 105)



SECTION A-A



SECTION B-B



LIGHT POLE PLAN

LEGEND

E.F. - Denotes Each Face.

B.F. - Denotes Back Face.

F.F. - Denotes Front Face.

NOTES

1. Quantity of Concrete in End Post included with Concrete Superstructure on Sheet S-17.
2. For Details on Bar Splicers, See Sheet S-38.
3. For Details on Piles and Concrete Encasement, See Sheet S-39. Concrete Encasement shall be used on each Abutment and Wingwall Pile.

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

SHEET S-31 OF S-53

ILLINOIS DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT DETAILS - I

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: TB
SCALE: DRAWN BY: TB
DATE: MAY 8, 2007 CHECKED BY: SP

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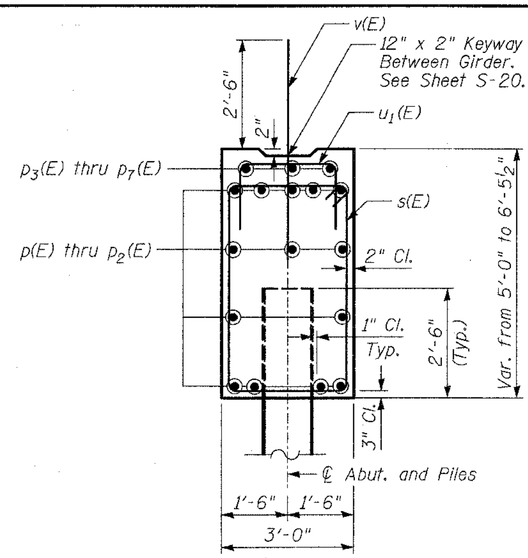
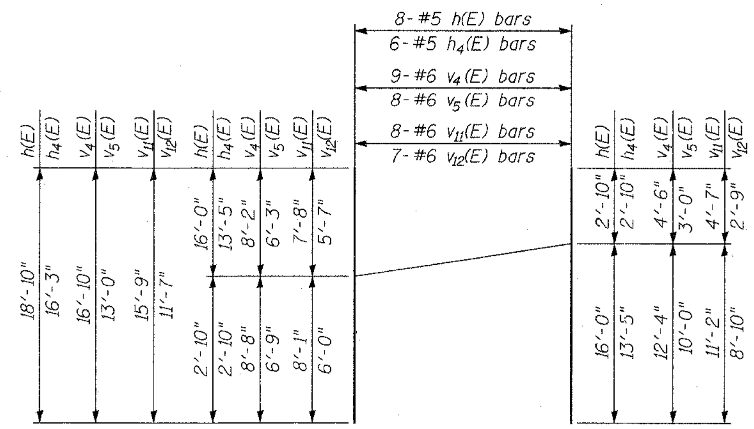
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	279
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

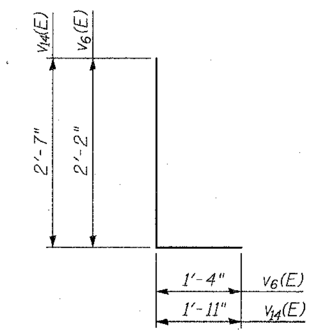


SECTION A-A

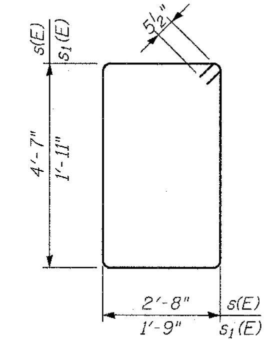


FIELD CUTTING DIAGRAM

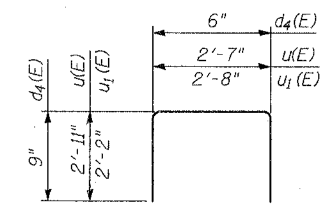
Order all bars full length.
Cut h(E) and h_4(E) bars as shown and use remainder of bars in opposite face.
Cut v_4(E), v_5(E), v_{11}(E) & v_{12}(E) bars as shown and use remainder of bars in opposite end.



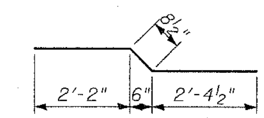
BARS v_6(E) & v_{14}(E)



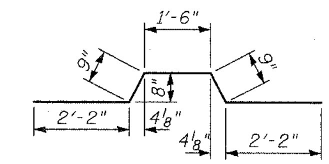
BARS s(E) & s_1(E)



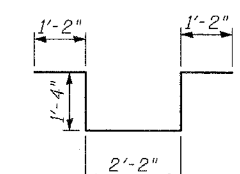
BARS u(E), u_1(E) & d_4(E)



BAR v_3(E)



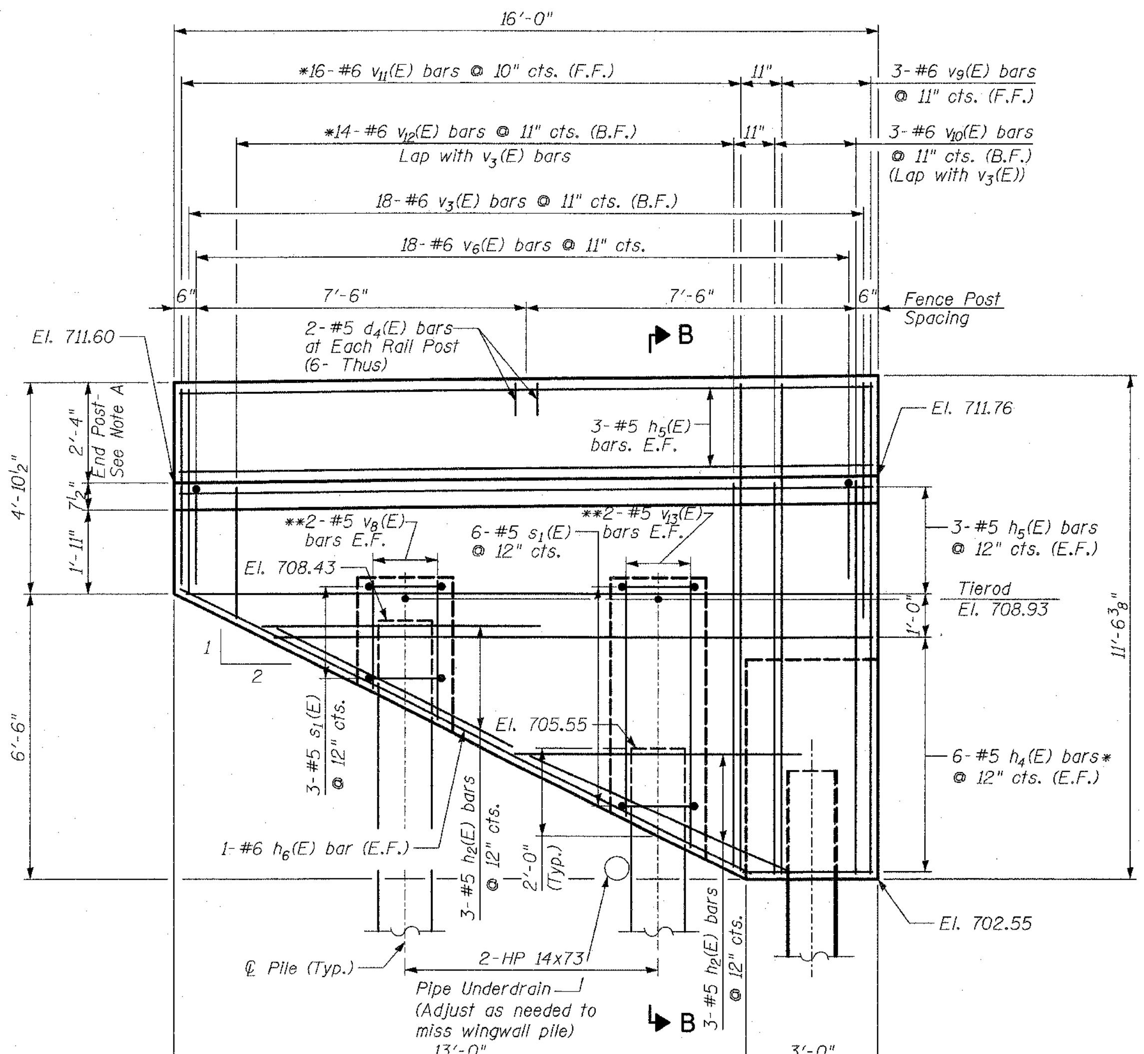
BAR h_2(E)



BAR d_6(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d_4(E)	12	#5	2'-0"	
d_6(E)	6	#6	7'-2"	
h(E)	8	#5	18'-10"	
h_1(E)	12	#5	18'-2"	
h_2(E)	12	#5	7'-4"	
h_3(E)	2	#6	17'-3"	
h_4(E)	6	#5	16'-3"	
h_5(E)	12	#5	15'-8"	
h_6(E)	2	#6	14'-6"	
p(E)	28	#7	31'-9"	
p_1(E)	14	#7	20'-8"	
p_2(E)	28	#7	37'-0"	
p_3(E)	6	#5	23'-8"	
p_4(E)	3	#5	7'-0"	
p_5(E)	3	#5	20'-8"	
p_6(E)	3	#5	20'-0"	
p_7(E)	3	#5	22'-8"	
s(E)	132	#5	15'-5"	
s_1(E)	19	#5	8'-3"	
u(E)	4	#5	8'-5"	
u_2(E)	115	#5	7'-0"	
v(E)	128	#8	5'-0"	
v_1(E)	3	#6	12'-4"	
v_2(E)	3	#6	10'-0"	
v_3(E)	39	#6	5'-3"	
v_4(E)	9	#6	16'-10"	
v_5(E)	8	#6	13'-0"	
v_6(E)	39	#6	3'-6"	
v_7(E)	4	#5	6'-4"	
v_8(E)	8	#5	3'-0"	
v_9(E)	3	#6	11'-2"	
v_{10}(E)	3	#6	8'-10"	
v_{11}(E)	8	#6	15'-9"	
v_{12}(E)	7	#6	11'-7"	
v_{13}(E)	4	#5	5'-10"	
v_{14}(E)	3	#6	4'-6"	
v_{15}(E)	4	#10	4'-0"	
Porous Granular Embankment, Special			Cu Yd	367
Structure Excavation			Cu Yd	174
Concrete Structures			Cu Yd	112
Reinforcement Bars, Epoxy Coated			Pound	12,290
Furnishing Steel Piles, HP14x73			Foot	1,629
Driving Piles			Foot	1,629
Test Pile Steel HP14x73			Each	1
Pile Shoes			Each	30
Geocomposite Wall Drain			Sq Yd	143
Bar Splicers			Each	14
Permanent Steel Sheet Piling			Sq Ft	264
Concrete Encasement			Cu Yd	16

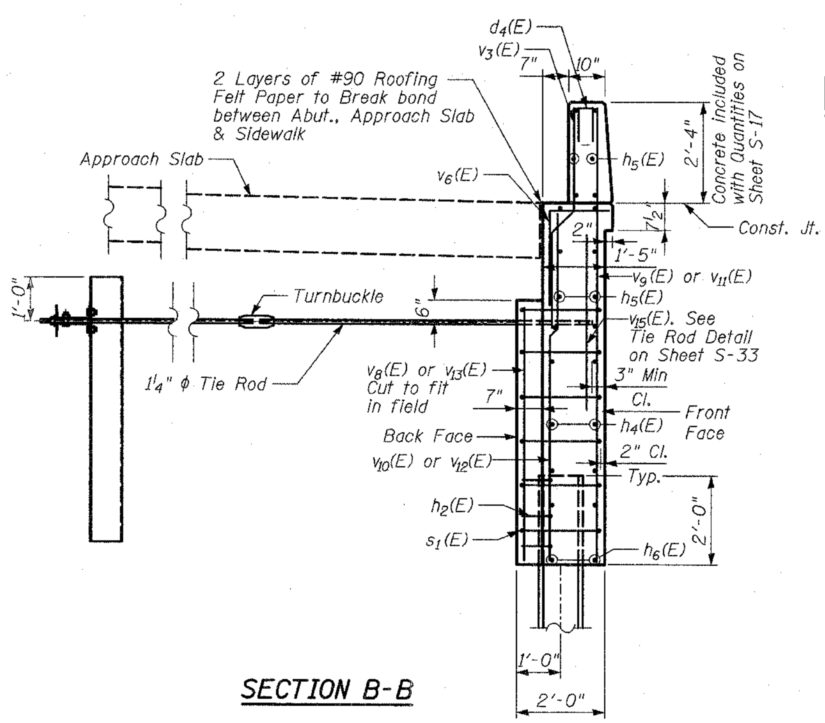


NORTH WINGWALL ELEVATION

(Looking South)

* See Field Cutting Diagram
** Cut to Fit

Note A:
End Post shall be poured after Bridge Parapet is in place. Form top surface to match Parapet grade.



SECTION B-B

LEGEND

E.F. - Denotes Each Face.
B.F. - Denotes Back Face.
F.F. - Denotes Front Face.

NOTES

1. Quantity of Concrete in End Post included with Concrete Superstructure on Sheet S-17.
2. For Details on Bar Splicers, See Sheet S-38.
3. For Details on Piles and Concrete Encasement, See Sheet S-39. Concrete Encasement shall be used on each Abutment and Wingwall Pile.

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

SHEET S-32 OF S-53

ILLINOIS DEPARTMENT OF TRANSPORTATION
EAST ABUTMENT DETAILS - II
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: TB
SCALE: DRAWN BY: TB
DATE: MAY 8, 2007 CHECKED BY: SP

05/03/2007 04:30:48 PM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	280
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

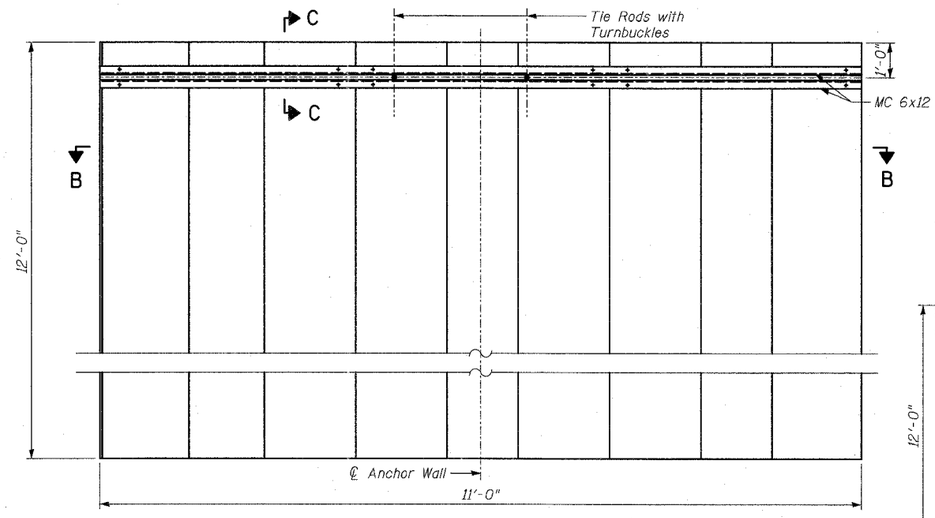
NOTES:

1. Tie Rods shall conform to the requirements of AASHTO M 183. Turnbuckles shall be dropped forged and conform to the requirements of AASHTO M 102 (ASTM A 668) Class C. The structural steel, tie rods and turnbuckles shall be hot-dipped galvanized in accordance with AASHTO M 232 (ASTM A.153).
2. The nuts and bolts at the end of the tie rods shall conform to the requirements of AASHTO M 164 (ASTM A 325). The nuts and bolts shall be hot-dipped galvanized in accordance with AASHTO M 232 (ASTM A 153).
3. The tape to be wrapped around tie rods shall be "Tapecoat-CT" or an approved equal.
4. The cost of Furnishing and Installing the tie rods and associated hardware shall be included in the cost of "Permanent Sheet Piling".

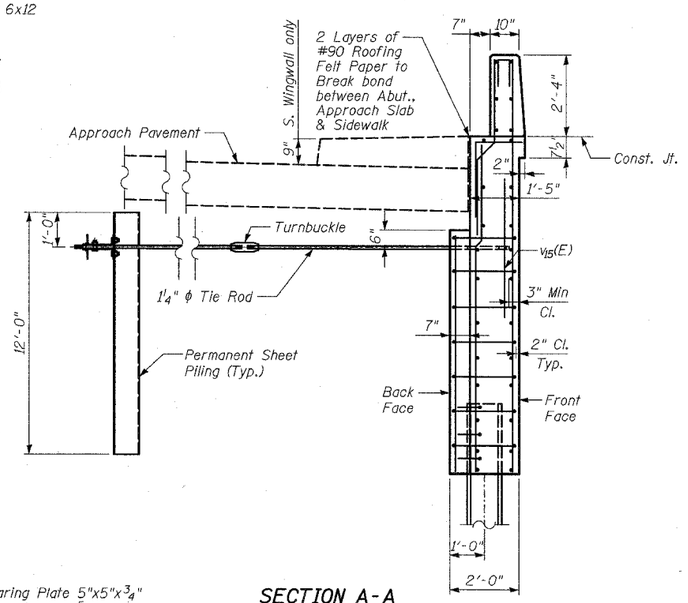
CONSTRUCTION SEQUENCE

The tie rods shall be installed in the following sequence unless an alternate sequence is submitted by the Contractor and approved by the Engineer:

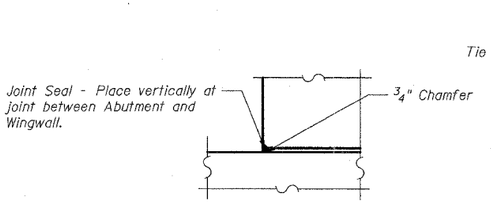
1. After the superstructure is in place and formwork has been removed, drive sheet piling 4' minimum into existing ground at locations shown in the plans. The sheet lengths shown in the plans are the minimum required, however the Engineer may elect to increase depth based on existing field conditions. Care shall be taken not to drive the sheets through the pipe underdrain.
2. Place Porous Granular Embankment (Special) behind the abutments in the vicinity of the sheet piling to six inches below the tie rod elevation. The Porous Granular Embankment (Special) shall be placed level in front and back of the sheet for approximately 10 feet minimum before sloping down at a 1 to 1 slope to the bottom of the wingwall elevation. At locations where excavation is necessary to install the tie rods, excavate to 6" below the tie rod elevation.
3. Install wales, tie rods, and turnbuckles. Tighten turnbuckles until tie rod is lightly tensioned. Tensioning should not pull the wingwall reinforcement out of vertical or horizontal alignment. Shim tie rod near middle at support sheet piling.
4. Form, pour, and cure the concrete in the wingwalls.
5. After forms have been removed, backfill on outside of wingwalls to approximate final grade. Place porous granular backfill on the inside of the wingwall to an elevation six inched below the tie rod elevation using care not to place directly on the tie rod.
6. Tighten turnbuckles until sheet piling is aligned. Tension tie rod to a snug fit, back off and re-tighten to a snug fit plus one-quarter turn. Set the threads of the tie rod after the final tightening.
7. Clean, wrap, and protect the tie rod, turnbuckle, and wale anchorage connections in accordance with the tape manufacturer's recommendations.
8. Complete backfill on inside of wingwalls, using care to work fill material around the tie rods. Do not permit mechanical compaction equipment to cross the tie rods until a minimum of one foot of protective backfill has been placed and compacted by alternate methods.



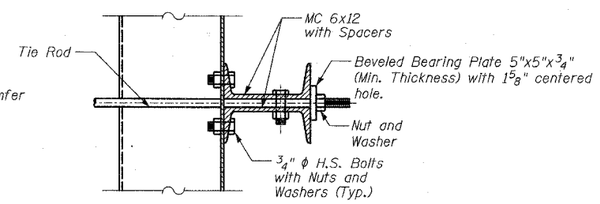
ANCHOR WALL ELEVATION



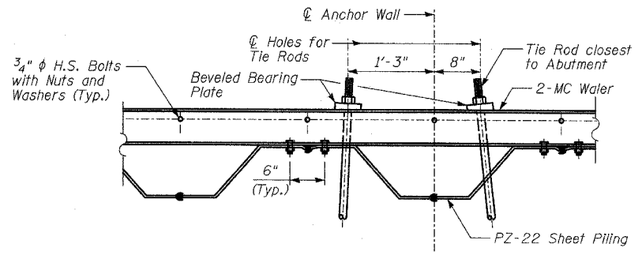
SECTION A-A



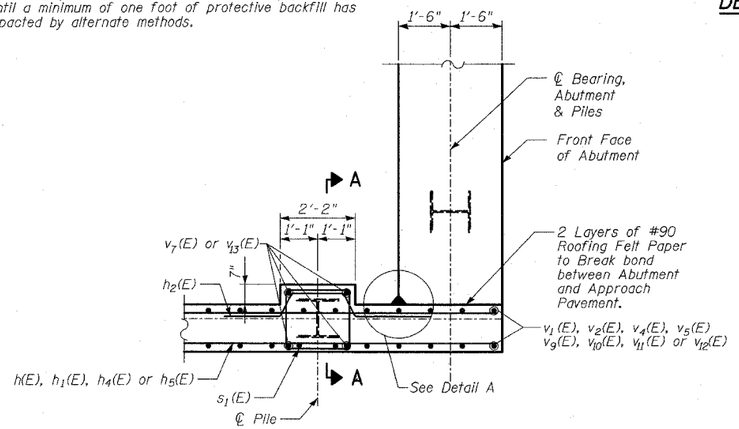
DETAIL A



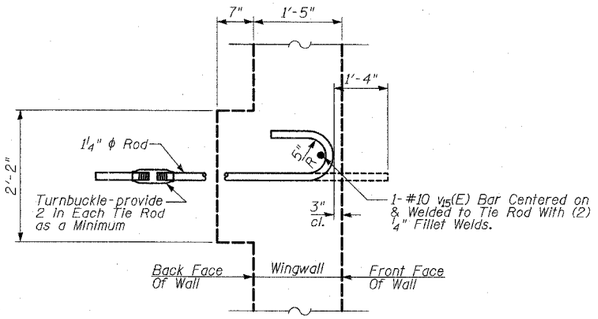
SECTION C-C



SECTION B-B



WINGWALL - PLAN



TIE ROD DETAILS - PLAN VIEW

SHEET S-33 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ABUTMENT MISCELLANEOUS DETAILS

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007

DESIGNED BY: TB
DRAWN BY: TB
CHECKED BY: SP

TYLIN INTERNATIONAL

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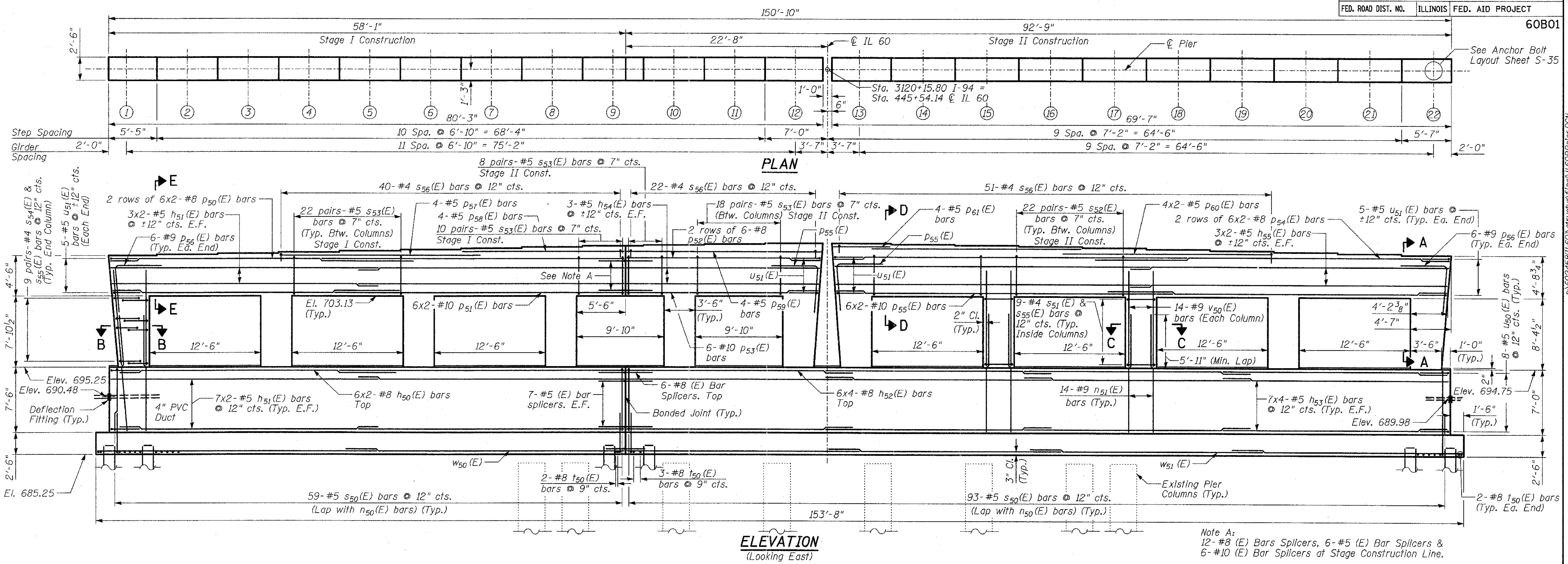
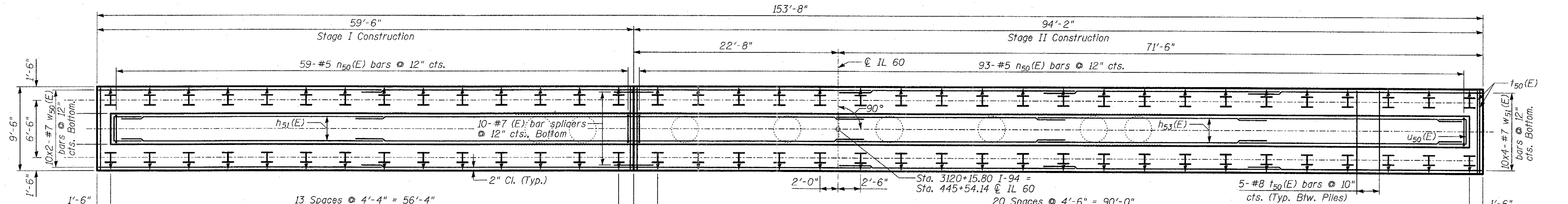
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	281
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01





PILE DATA

Type: Steel HP 14x73
Nominal Required Bearing: 480 Kips
Allowable Resistance Available: 160 Kips
Estimated Length: 56'-0"
No. Production Piles: 69
No. Test Piles: 1

SEAT ELEVATIONS

BEAM #	1	2	3	4	5	6	7	8	9	10	11	12
ELEVATION	707.63	707.77	707.91	708.05	708.20	708.34	708.48	708.62	708.75	708.86	708.96	709.07
STEP HT.	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	

BEAM #	13	14	15	16	17	18	19	20	21	22
ELEVATION	709.07	708.96	708.85	708.73	708.60	708.45	708.30	708.15	708.00	707.85
STEP HT.	1 3/8"	1 3/8"	1 3/8"	1 5/8"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	

MINIMUM BAR LAPS

Bar	Lap
#5	2'-2"
#7	3'-5"
#8	6'-4"
#10	7'-3"

Typical unless noted otherwise

NOTES:

1. For Sections A-A thru E-E, see Sheet S-35.
2. Bars indicated thus: 10 x 3 #7 etc. indicates 10 lines of bars with 3 lengths per line.
3. For Bar Splicer Details, see Sheet S-38.
4. Space reinforcement in cap to miss anchor bolts.
5. Pour steps monolithically with cap.

SHEET S-34 OF S-53

REVISIONS NAME	DATE

TY·LIN INTERNATIONAL

ILLINOIS DEPARTMENT OF TRANSPORTATION

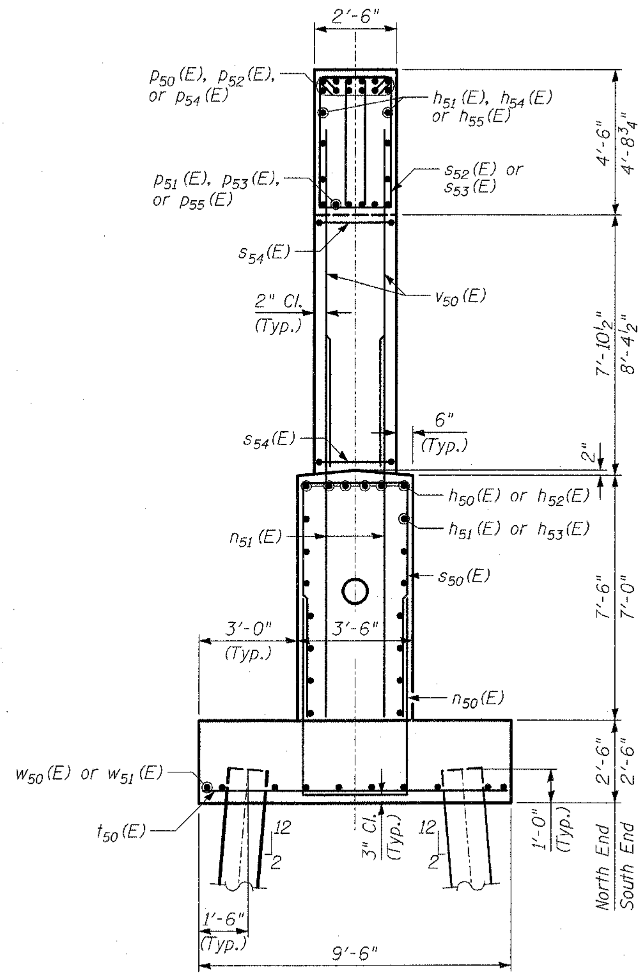
PIER
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007
DESIGNED BY: MI
DRAWN BY: SNB
CHECKED BY: SP

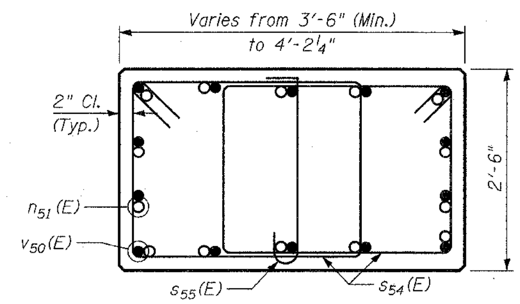
05/03/2007 04:30:51 PM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	282
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

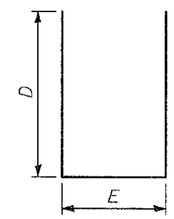
60B01



END VIEW

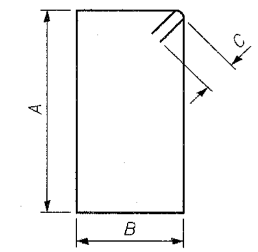


SECTION B-B



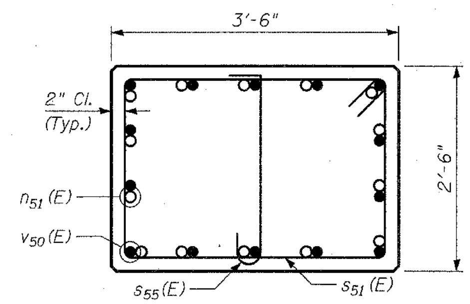
BARS n_{50}(E), s_{50}(E), s_{56}(E), u_{50}(E) & u_{51}(E)

Bar	D	E
n_{50} (E)	4'-5"	3'-2"
s_{50} (E)	7'-2"	3'-2"
s_{56} (E)	2'-5"	2'-2"
u_{50} (E)	3'-0"	3'-1"
u_{51} (E)	3'-0"	2'-0"

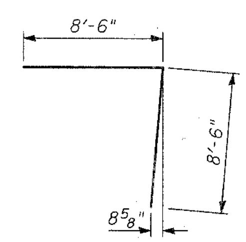


BARS s_{51}(E) THRU s_{54}(E)

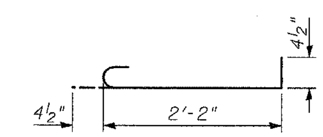
Bar	A	B	C
s_{51} (E)	2'-2"	3'-2"	4½"
s_{52} (E)	4'-4"	1'-4"	5½"
s_{53} (E)	4'-2"	1'-4"	5½"
s_{54} (E)	2'-2"	2'-7"	4½"



SECTION C-C



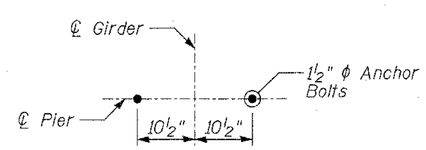
BAR p_{56}(E)



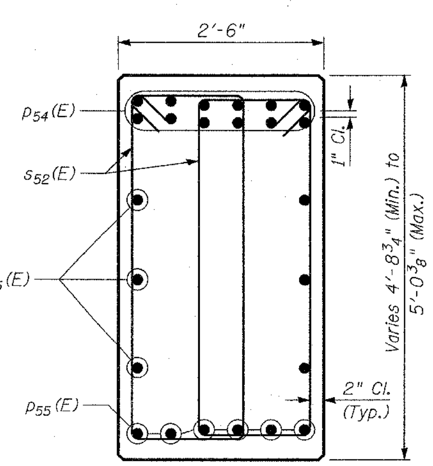
BAR s_{55}(E)

BILL OF MATERIAL

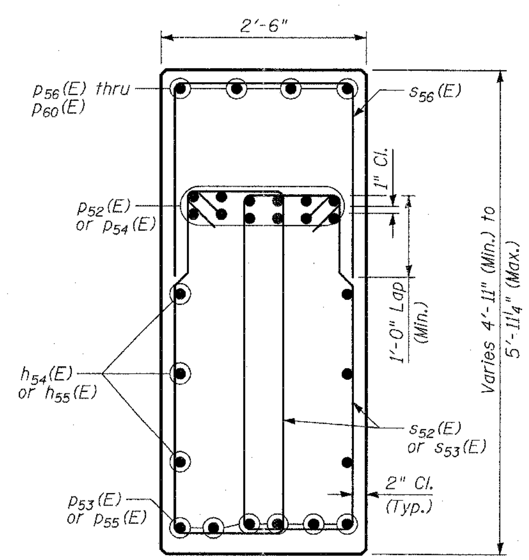
Bar	No.	Size	Length	Shape
h_{50}(E)	12	#8	32'-0"	——
h_{51}(E)	40	#5	30'-0"	——
h_{52}(E)	24	#8	27'-10"	——
h_{53}(E)	56	#5	24'-9"	——
h_{54}(E)	6	#5	21'-6"	——
h_{55}(E)	12	#5	35'-5"	——
n_{50}(E)	152	#5	12'-0"	⊓
n_{51}(E)	154	#9	13'-4"	——
p_{50}(E)	24	#8	34'-0"	——
p_{51}(E)	12	#10	32'-2"	——
p_{52}(E)	12	#8	21'-6"	——
p_{53}(E)	12	#10	21'-6"	——
p_{54}(E)	24	#8	39'-7"	——
p_{55}(E)	12	#10	37'-9"	——
p_{56}(E)	24	#9	17'-0"	ㄱ
p_{57}(E)	4	#5	22'-6"	——
p_{58}(E)	4	#5	18'-2"	——
p_{59}(E)	4	#5	21'-9"	——
p_{60}(E)	8	#5	23'-6"	——
p_{61}(E)	4	#5	6'-3"	——
s_{50}(E)	152	#5	17'-6"	⊓
s_{51}(E)	63	#4	11'-5"	□
s_{52}(E)	176	#5	12'-3"	□
s_{53}(E)	204	#5	11'-11"	□
s_{54}(E)	32	#4	10'-3"	□
s_{55}(E)	103	#4	2'-11"	⊔
s_{56}(E)	113	#4	7'-0"	⊓
t_{50}(E)	174	#8	9'-2"	——
u_{50}(E)	16	#5	9'-1"	⊓
u_{51}(E)	20	#5	8'-0"	⊓
v_{50}(E)	154	#9	11'-9"	——
w_{50}(E)	30	#7	31'-4"	——
w_{51}(E)	40	#7	26'-1"	——
Structure Excavation			Cu Yd	411
Concrete Structures			Cu Yd	384
Reinforcement Bars, Epoxy Coated			Pound	50,740
Furnishing Steel Piles, HP14x73			Foot	3,864
Driving Piles			Foot	3,864
Test Pile Steel HP14x73			Each	1
Pile Shoes			Each	70
Concrete Sealer			Sq Ft	4730
Bar Splicers			Each	54
Conduit Embedded in Structure, 4' Dia., PVC			Foot	150.7



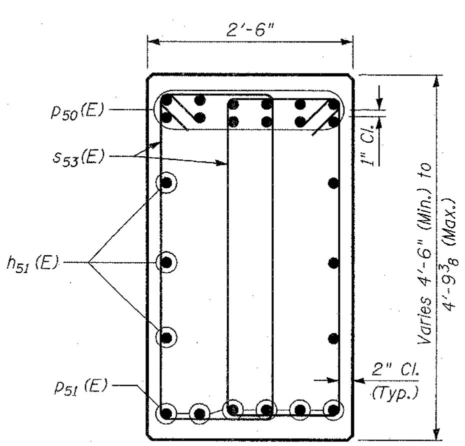
ANCHOR BOLT LAYOUT



SECTION A-A



SECTION D-D



SECTION E-E

TY·LIN INTERNATIONAL

SHEET S-35 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PIER DETAILS

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: MI
SCALE: DRAWN BY: SNB
DATE: MAY 8, 2007 CHECKED BY: MI

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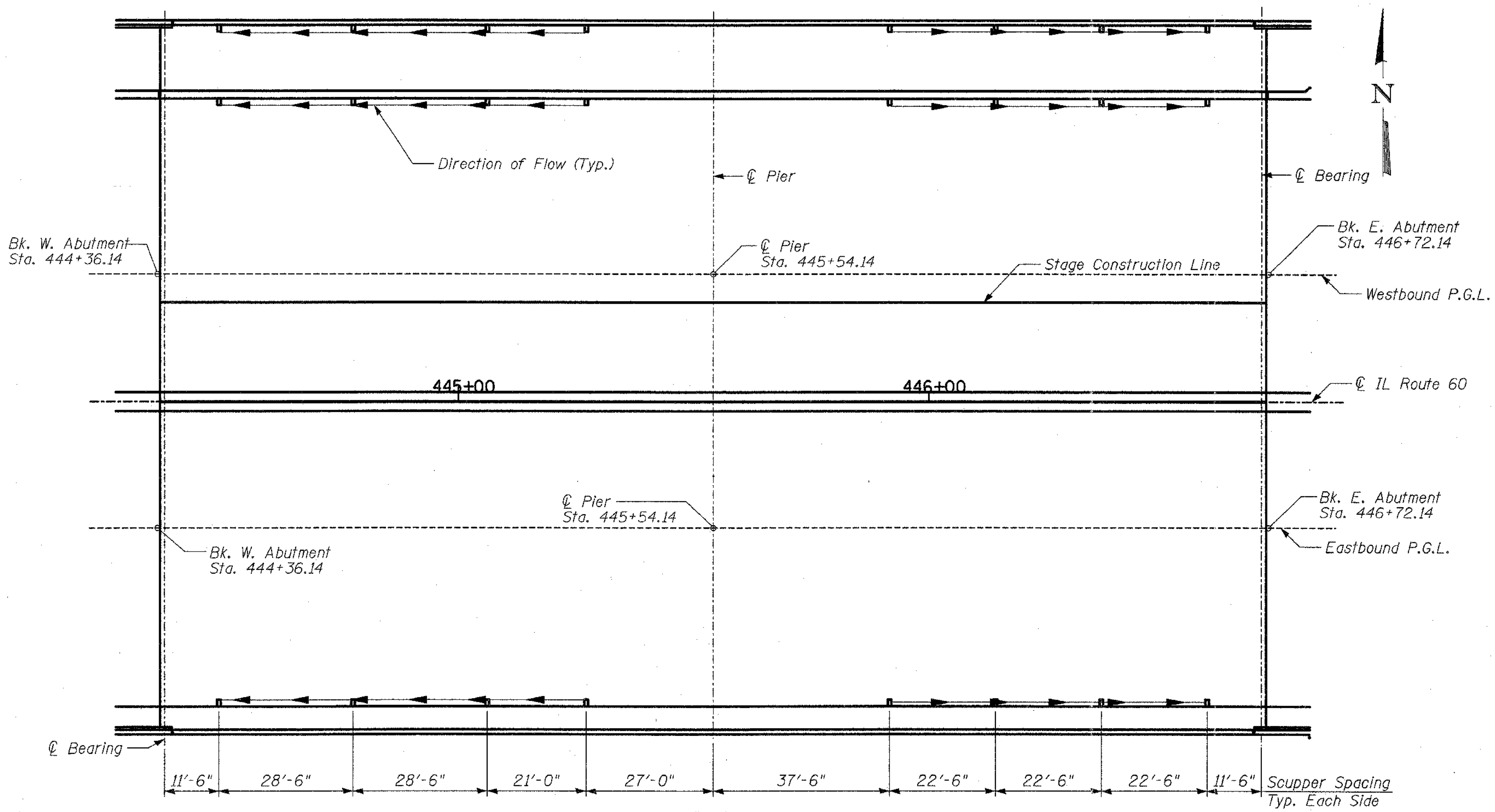
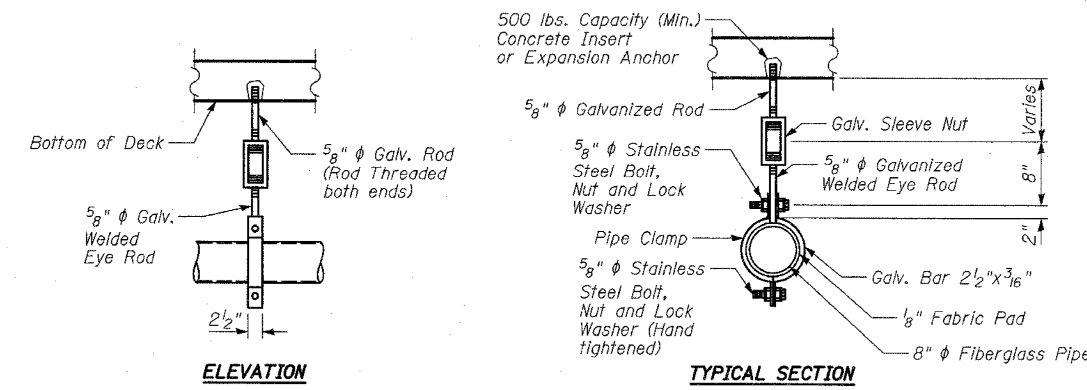
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	283
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

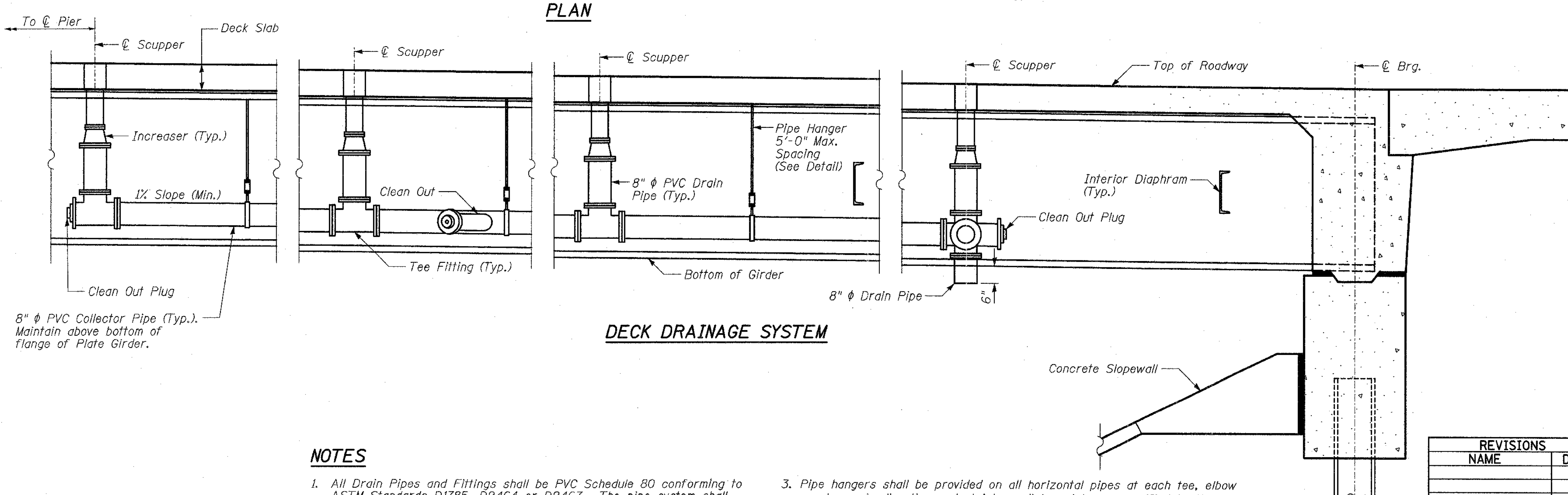
60B01



PLAN



PIPE HANGER DETAIL



DECK DRAINAGE SYSTEM

BILL OF MATERIAL

ITEM	UNIT	TOTAL
PVC Drain Pipe (8 in.)	Foot	454

NOTES

1. All Drain Pipes and Fittings shall be PVC Schedule 80 conforming to ASTM Standards D1785, D2464 or D2467. The pipe system shall be painted, top coat color shall be light gray for the interior piping and for the pipes outside the north fascia beam Interstate Green, Munsell No. 7.5G 4/8.
2. All Pipe Hangers, Supports and Hardware shal be hot-dipped galvanized in accordance with AASHTO M232 (ASTM A153). All bolts, nuts and washers shall be stainless steel.
3. Pipe hangers shall be provided on all horizontal pipes at each tee, elbow or change in direction and at intermediate points as specified by the manufacturer, but not to exceed 5'-0" on centers. Pipe hangers shall have a load capacity of not less than 500 lbs.

T·Y·LIN INTERNATIONAL

SHEET S-36 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DRAINAGE SYSTEM

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: SNB
SCALE: DRAWN BY: SNB
DATE: MAY 8, 2007 CHECKED BY: SP

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	284
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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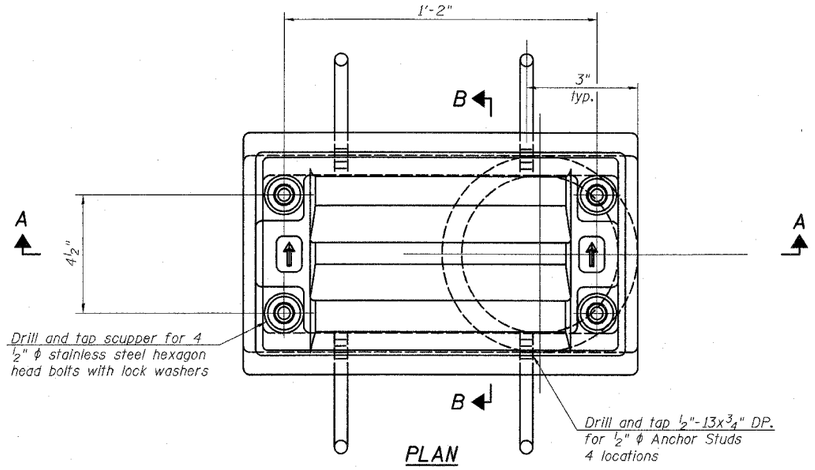
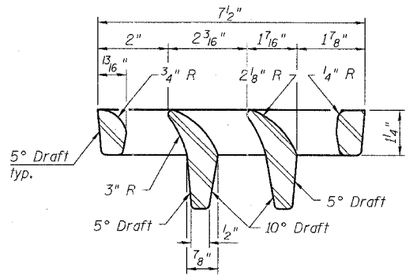
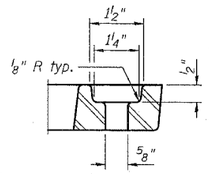


PLAN



VANE GRATE DETAIL



BOLT HOLE DETAIL

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

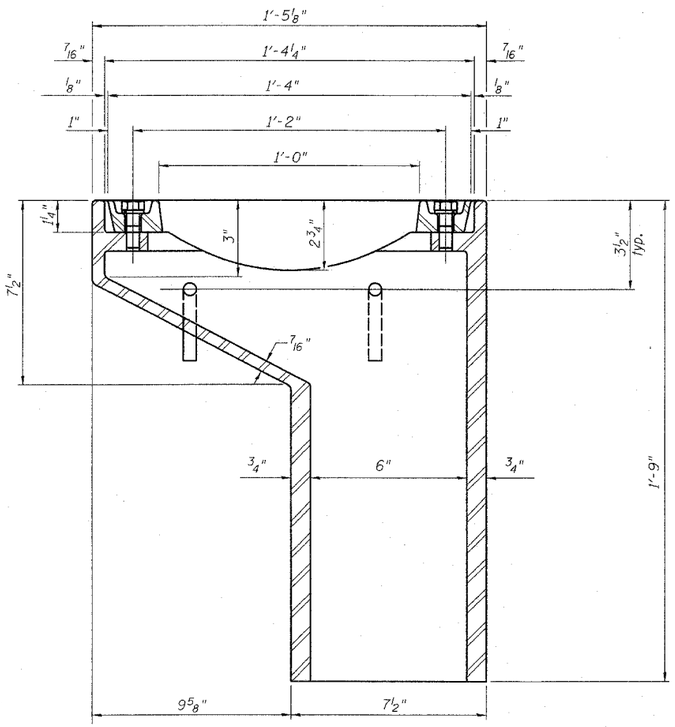
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

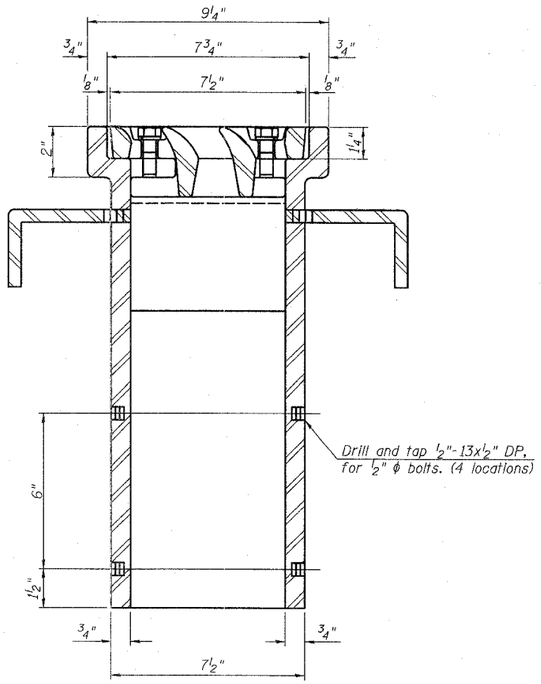
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

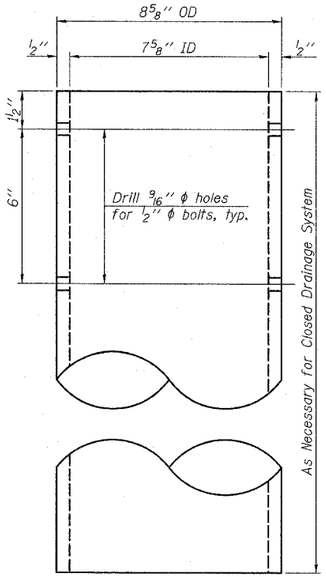
Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



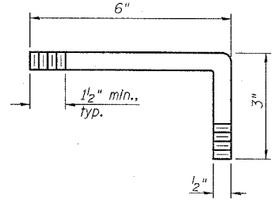
SECTION A-A



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	24

Note B:
Temporary Steel Plate will be installed in lieu of scupper grate during Stage II Construction.
Cost included with Drainage Scuppers, DS-11.

SHEET S-37 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-11

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: SP

SCALE: DRAWN BY: SP

DATE: MAY 8, 2007 CHECKED BY: PF

TY·LIN INTERNATIONAL

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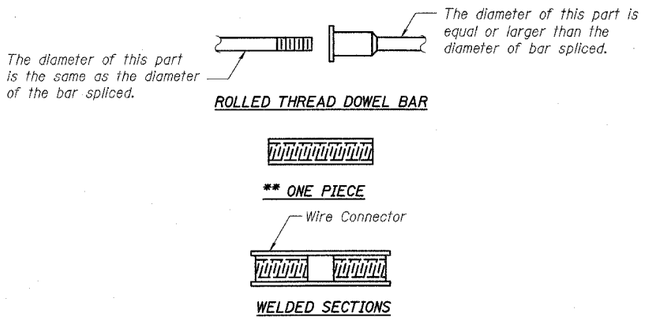
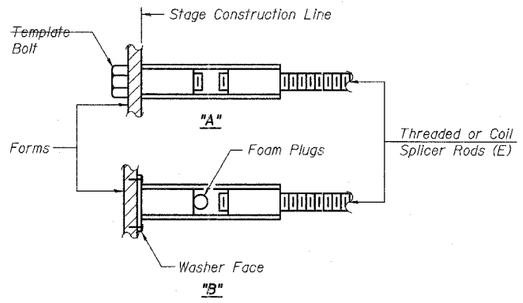
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	285
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



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.

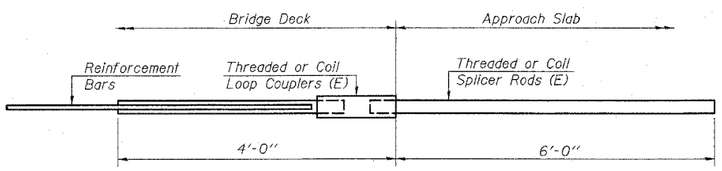
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

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

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

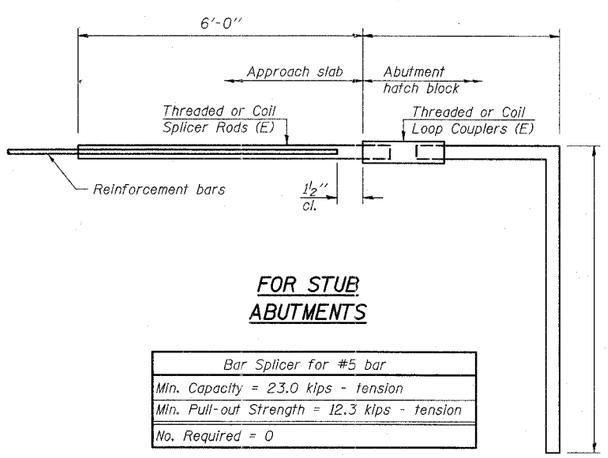
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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



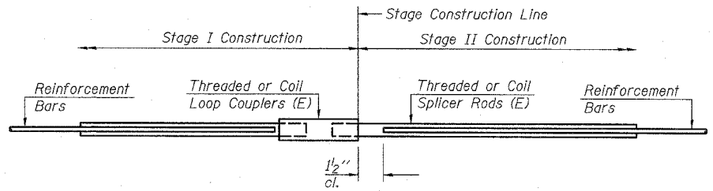
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 270



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



STANDARD

Bar Size	No. Assemblies Required	Location
#5	1,438	Deck, Integral Abut., Pier, Approach Pavement
#6	16	Diaphragm
#7	38	Abutments, Pier
#8	18	Pier
#10	6	Pier

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SHEET S-38 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BAR SPLICER ASSEMBLY DETAILS
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007
DESIGNED BY: DE
DRAWN BY: DE
CHECKED BY: SP

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	286
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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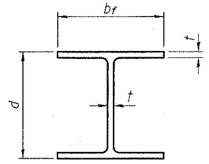
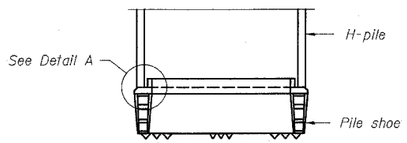
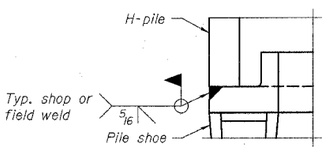


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

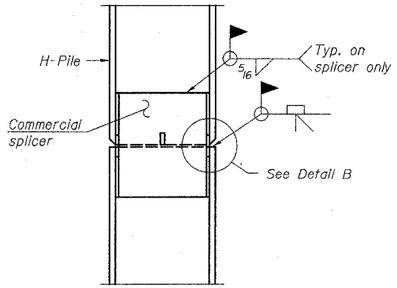


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



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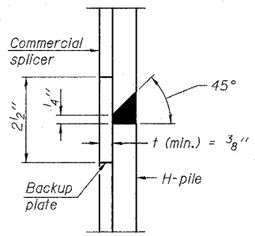
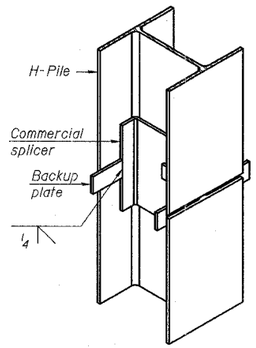
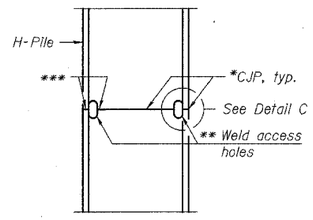


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



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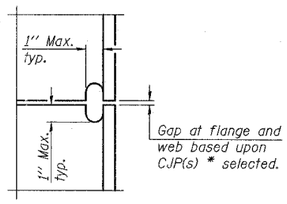


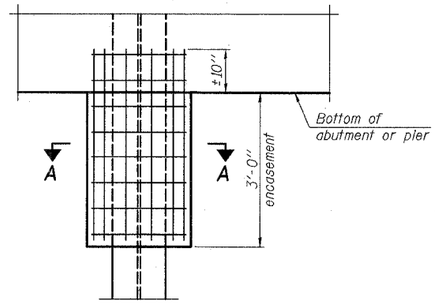
DETAIL C

COMPLETE PENETRATION WELD SPLICE

* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

*** Interrupt welds 1/4" from end of each pile.



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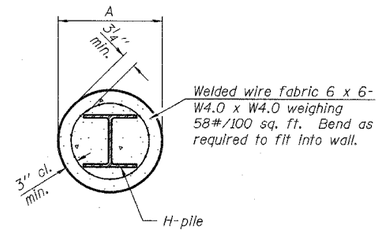
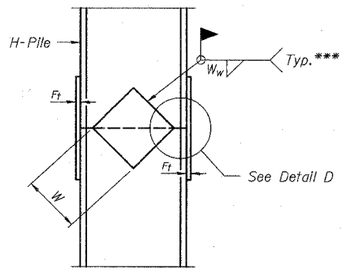


SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

PILE ENCASEMENT



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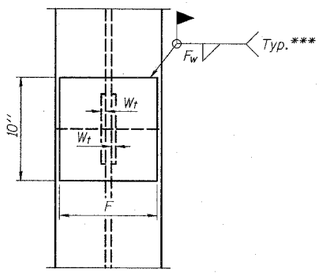
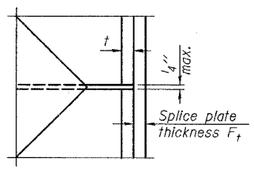


END VIEW



DETAIL D

Designation	F	F_t	F_w	W	W_t	W_w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

SHEET S-39 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STEEL H-PILE DETAILS

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: SNB
SCALE: DRAWN BY: SNB
DATE: MAY 8, 2007 CHECKED BY: SP

TYLIN INTERNATIONAL

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	287
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

Geo Services Inc.
Geotechnical, Environmental & Civil Engineering
805 Aurora Corporate Center Drive Suite 284
Naperville, Illinois 60563
(630) 355-2936

SOIL BORING LOG

PAGE 1 of 3
DATE September 7-8, 2006
LOGGED BY RJ
GSI JOB No. 06119

ROUTE F.A.P. 335 (Il. Route 60) DESCRIPTION Illinois Route 60 Bridge Widening and Reconstruction over I-94
SECTION 119R-2 LOCATION T43N R11E Ø1NW-T43N R11E Ø2NE, Vernon Township
COUNTY Lake DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE D-50 Auto Hammer
STRUCT. NO. SN-049-2012
Station 432+83.16 to 470+54.86
BORING NO. BR-1
Station: 443+90
Offset: 195.5' Left
Ground Surface Elev. 691.3

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 674.3
Upon Completion n/a
After ____ Hrs.

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	
691.3				TOPSOIL-dark brown to black
	6			
	6			
	14	6.Ø+P	22	SANDY LOAM-gray-medium dense (A-2-4)
	4			
-5	6	-	20	CLAY-brown & gray-hard (A-6)
	10			
	3			
	5			
	9	6.Ø+P	17	
663.3				
	2			
	6			
-1Ø	13	6.Ø+P	18	
68Ø.3				
	6			SILTY LOAM-brown & gray-medium dense (A-4)
	11			
	14	NP	21	
678.3				
	5			
	7			CLAY LOAM-gray-very stiff (A-6)
-15	11	2.5P	9	
675.3				
	4			
	8			SILT-brown & gray-medium dense (A-4) ▼
	12	NP	19	
673.3				
	5			SANDY LOAM-gray-medium dense (A-2-4)
-2Ø	8	NP	12	
	16			

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	
	3			
	3			
	7	NP	15	
	3			
-25	7			
	9	NP	14	
	4			
	5			
	9	NP	12	
	5		110	
	6			
-3Ø	11	1.75B	20	CLAY-gray-stiff to very stiff (A-6)
	6			
	5		119	
	7			
-35	12	2.3B	16	
	4			
	3			
	4			
-4Ø	15	3.25P	16	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

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SOIL BORING LOG

PAGE 2 of 3
DATE September 7-8, 2006
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ROUTE F.A.P. 335 (Il. Route 60) DESCRIPTION Illinois Route 60 Bridge Widening and Reconstruction over I-94
SECTION 119R-2 LOCATION T43N R11E Ø1NW-T43N R11E Ø2NE, Vernon Township
COUNTY Lake DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE D-50 Auto Hammer
STRUCT. NO. SN-049-2012
Station 432+83.16 to 470+54.86
BORING NO. BR-1
Station: 443+90
Offset: 195.5' Left
Ground Surface Elev. 691.3

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 674.3
Upon Completion n/a
After ____ Hrs.

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	
	6			CLAY-gray-stiff to very stiff (A-6)
-45	7	1.5P	16	
	8			
	5		125	
	10			
-5Ø	17	2.7B	20	
	6		114	
	9			
-55	13	3.3B	18	CLAY to CLAY LOAM-gray-hard (A-6)
	6		125	
	9			
-6Ø	16	2.8B	13	

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	
	8			CLAY-gray-stiff to very stiff (A-6)
-65	11	3.25P	13	
	16			
624.3				
	25			
	24			
-7Ø	27	2.25P	17	
	25			
	26			
-75	33	6.Ø+P	9	CLAY to CLAY LOAM-gray-hard (A-6)
	7		125	
	17			
-8Ø	35	5.8B	13	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SHEET S-40 OF S-53

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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORINGS - I
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407
DESIGNED BY: SNB
SCALE: DRAWN BY: SNB
DATE: MAY 8, 2007 CHECKED BY: SP

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	288
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

SOIL BORING LOG

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 305-2536

PAGE 3 of 3
DATE September 7-8, 2006
LOGGED BY RJ
GSI JOB No. 06119

ROUTE F.A.P. 335 (Il. Route 60) DESCRIPTION Illinois Route 60 Bridge Widening and Reconstruction over I-94
SECTION 119R-2 LOCATION T43N R11E 01NW-T43N R11E 02NE, Vernon Township
COUNTY Lake DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE D-50 Auto Hammer

STRUCT. NO. SN-049-2012
Station 432+83.16 to 470+54.86
BORING NO. BR-1
Station: 443+90
Offset: 195.5' Left
Ground Surface Elev. 691.3

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 674.3 ▼
Upon Completion n/a ▽
After ____ Hrs. ____

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
CLAY to CLAY LOAM-gray-hard (A-6)		10		
		16		
606.3	-85	34	6.0+P	12
End Of Boring @ -85.0' Hollow Stem Augers D-50 Automatic Hammer				
	-90			
	-95			
	-100			
	-105			
	-110			
	-115			
	-120			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SOIL BORING LOG

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court, Suite 204
Naperville, Illinois 60565
(630) 305-2536

PAGE 1 of 2
DATE September 6-7, 2006
LOGGED BY RJ
GSI JOB No. 06119

ROUTE F.A.P. 335 (Il. Route 60) DESCRIPTION Illinois Route 60 Bridge Widening and Reconstruction over I-94
SECTION 119R-2 LOCATION T43N R11E 01NW-T43N R11E 02NE, Vernon Township
COUNTY Lake DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE D-50 Auto Hammer

STRUCT. NO. SN-049-2012
Station 432+83.16 to 470+54.86
BORING NO. BR-2
Station: 447+01
Offset: 167' Left
Ground Surface Elev. 690.1

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 681.1 ▼
Upon Completion n/a ▽
After ____ Hrs. ____

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL-dark brown to black				
689.1				
		5		
		8		
		12	6.0+P	12
CLAY to CLAY LOAM-brown & gray-stiff to hard (A-6)		3		
		4		
	-5	6	1.5P	22
		3		
		5		
		8	3.5P	19
▼		3		
		4		
	-10	5	4.4P	25
		6		
		13		
		26	3.0P	16
677.1				
CLAY-gray-stiff to very stiff (A-6)		5		*119*
		8		
	-15	14	2.7B	15
		5		*117*
		7		
		10	3.5B	17
		4		
		5		
	-20	12	2.75P	17
CLAY-gray-stiff to very stiff (A-6)		6		*112*
		6		
		7	1.8B	19
		4		*109*
		5		
	-25	10	1.7B	20
		3		*111*
		5		
		9	1.8B	19
		4		*110*
		5		
	-30	9	2.0B	20
		4		*112*
		5		
	-35	10	2.2B	19
		4		*114*
		7		
	-40	14	3.9B	18

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SHEET S-41 OF S-53

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORINGS - II
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: SNB
SCALE: DRAWN BY: SNB
DATE: MAY 8, 2007 CHECKED BY: SP

TY·LIN INTERNATIONAL

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	289
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 American Corporate Center Suite 204
Naperville, Illinois 60563
(630) 355-2936

SOIL BORING LOG

PAGE 2 of 2
DATE September 6-7, 2006
LOGGED BY RJ
GSI JOB No. 06119

ROUTE F.A.P. 335 (Il. Route 60) DESCRIPTION Illinois Route 60 Bridge Widening and Reconstruction over I-94
SECTION 119R-2 LOCATION T43N R11E 01NW-T43N R11E 02NE, Vernon Township
COUNTY Lake DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE D-50 Auto Hammer
STRUCT. NO. SN-049-2012
Station 432+83.16 to 470+54.86
BORING NO. BR-2
Station: 447+01
Offset: 167' Left
Ground Surface Elev. 692.1

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 681.1
Upon Completion n/a
After ___ Hrs.

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				CLAY-gray-stiff to very stiff (A-6)
	4		113	
-45	7 12	2.75B	18	
			115	
-50	4 7 12	3.9B	17	
			120	
-55	5 6 50/2"	1.8B	15	Note: Possible cobbles/boulders
633.1				
	7			Fine SAND-gray-medium dense (A-3)
-60	9 6	NP	20	
				Fine SAND-gray-medium dense (A-3)
628.1				
	5		124	
-65	10 11	4.0P	14	CLAY-gray-stiff to hard (A-6)
	15			
-70	23 39	6.0+P	10	
	18			
-75	25 50/5"	-	15	
				End Of Boring @ -80.0' Hollow Stem Augers D-50 Automatic Hammer
610.1				
-80	7 11 23	6.0+P	11	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 American Corporate Center Suite 204
Naperville, Illinois 60563
(630) 355-2936

SOIL BORING LOG

PAGE 1 of 2
DATE August 21, 2006
LOGGED BY RJ
GSI JOB No. 06119

ROUTE F.A.P. 335 (Il. Route 60) DESCRIPTION Illinois Route 60 Bridge Widening and Reconstruction over I-94
SECTION 119R-2 LOCATION T43N R11E 01NW-T43N R11E 02NE, Vernon Township
COUNTY Lake DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME-75 Auto Hammer
STRUCT. NO. SN-049-2012
Station 432+83.16 to 470+54.86
BORING NO. BR-3
Station: 445+23
Offset: 160.5' Right
Ground Surface Elev. 690.0

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter Dry to 670.0
Upon Completion n/a
After ___ Hrs.

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				8.0" ASPHALT
689.3				
	9			SAND & GRAVEL-brown medium dense (Fill)
687.5	11 4	NP	5	
	4		113	CLAY-brown & gray-very stiff to hard (A-6)
-5	5 5	4.0B	18	
	2			
	5 6	2.25P	17	
	2			
-10	2 3	-	20	
	2		114	
	5 7	3.6B	17	
677.0				
	3		116	CLAY-gray-stiff to hard (A-6)
-15	8 12	4.0B	16	
	3		122	
	6 10	4.9B	16	
	3		117	
-20	6 8	2.7B	17	
				CLAY-gray-stiff to hard (A-6)
	3		122	
-25	5 7	1.7B	20	
	4		119	
-25	4 7	2.1B	20	
	2			
	4 6	1.0P	20	
	2		117	
-30	3 6	1.7P	19	
	4		120	
-35	7 9	2.1P	22	
653.0				
	3			SILTY LOAM-gray-medium dense (A-4)
-40	5 6	NP	15	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample . VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SHEET S-42 OF S-53

TY·LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORINGS - III
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407
SCALE:
DATE: MAY 8, 2007
DESIGNED BY: SNB
DRAWN BY: SNB
CHECKED BY: SP

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	290
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amherst Court Suite 204
Naperville, Illinois 60565
(630) 355-2838

SOIL BORING LOG

PAGE 2 of 2
DATE August 21, 2006
LOGGED BY RJ
GSI JOB No. 06119

ROUTE F.A.P. 335 (Il. Route 60) DESCRIPTION Illinois Route 60 Bridge Widening and Reconstruction over I-94

SECTION 119R-2 LOCATION T43N R11E 01NW-T43N R11E 02NE, Vernon Township

COUNTY Lake DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME-75 Auto Hammer

STRUCT. NO. SN-049-2012
Station 432+83.16 to 470+54.86
BORING NO. BR-3
Station: 445+23
Offset: 160.5' Right
Ground Surface Elev. 690.0

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter Dry to 670.0
Upon Completion n/a
After ___ Hrs. ___

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY LOAM-gray-medium dense (A-4)				
648.0				
CLAY-gray-stiff to very stiff (A-6)		5		119
		7		
	-45	11	1.9B	19
		5		121
		7		
	-50	11	1.5B	20
		6		
		11		
	-55	17	2.75P	13
633.0				
SILTY LOAM-gray-dense to very dense (A-4)		6		
		9		
	-60	37		NR

Description	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SILTY LOAM-gray-dense to very dense (A-4)		4		
		19		
	-65	17	NP	14
		33		
Note: Possible cobbles/boulders		50		
	-70	50/5"	NP	15
618.0				
CLAY-gray-hard (A-6)		17		
		31		
	-75	32	6.0+P	11
End Of Boring @ -80.0'		14		
Hollow Stem Augers to -20.0'		20		
Rotary Drilling to Completion				
CME-75 Automatic Hammer 610.0	-80	33	6.0+P	12

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

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SHEET S-43 OF S-53

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORINGS - IV
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: SNB
DRAWN BY: SNB
CHECKED BY: SP
SCALE:
DATE: MAY 8, 2007

T.Y.LIN INTERNATIONAL

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	291
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

Illinois Department of Transportation

Bridge Foundation Boring Log

Sh. 1 of 2 Sh.

P-91-285-79
PROJECT _____ BRIDGE Route 60 over the Tri-State Tollway Date March 19, 1985
ROUTE FAU 1246 Bored By D. Grow
SEC. _____ STA. _____ Checked By _____
COUNTY Lake

Boring No. 3
Station 444+14
Offset 29'Rt. of C.L.

Surface Water El. _____
Groundwater El. at Completion _____
After 24 Hours 678.5

Elevation	N	Qu t/s.f.	w (%)	
Ground Surface 710.5	0			
Concrete 709.5				
Road Gravel 708.0				
Very Stiff, Brown Silty Clay (Fill)	2	B		
	3 3	2.3	17	
	-5 3	B		
	4 6	2.9	16	
	4	B		
	6 6	3.1	17	
	-10 4	B		
698.5	6 6	3.1	16	
Hard, Brown Silty Clay (Fill)	8	B		
696.0	7 8	5.4	16	
Very Stiff, Brown Silty Clay (Fill)	-15 6	B		
	6 7	2.5	21	
	3	B		
	5 8	2.9	20	
690.5	-20 4	B		
Hard, Gray Silty Clay (Till)	6 8	6.2	17	
688.5				

Elevation	N	Qu t/s.f.	w (%)	
Very Stiff, Gray Silty Clay (Till)	4	B		
	6 9	2.9	15	
685.5	-25 4	B		
Hard, Brown Silty Clay (Till)	10 12	5.2	16	
	6	B		
	12 15	9.3	19	
681.0				
Very Stiff, Brown Silty Clay (Till)	-30 4	S(15)%		
	8 10	3.3	19	
677.5	5	B		
Stiff, Gray Sandy Clay (Till)	7 7	1.7	17	
	-35 2	B		
	4 6	1.7	12	
672.5	2	B		
Stiff, Gray Clay (Till)	3 4	2.0	20	
	-40 3	B		
	4 6	1.6	19	
668.0	2	B		
Very Stiff, Gray Clay (Till)	5 6	2.5	19	
	-45			

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

BD 137 (Rev. 4-78)

FORM NO. B. D. 127 REV. 9-00

Sh. 2 of 2 Sh.

BRIDGE FOUNDATION BORING LOG

FAU 1246
Section
P-91-285-79
Lake County Boring 3 Cont.

Elevation	N	Qu t/s.f.	w (%)	
Very Stiff, Gray Clay (Till) with 6" Seam of Sandy Loam	-45 2	B		
	5 5	2.1	19	
663.5				
	1	B		
	4 4	1.7	19	
	-50 1	B		
	4 5	1.4	14	
	2	B		
	6 6	1.2	15	
	-55 3	B		
	6 8	1.2	13	
652.5	6	B		
Hard, Gray Silty Clay (Till)	8 11	4.2	T8	
	-60 9	B		
649.0	10 12	4.8	18	
End of Boring				
	-65			
	-70			

Elevation	N	Qu t/s.f.	w (%)
-75			
-80			
-85			
-90			
-95			

SHEET S-44 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORINGS - V
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407
DESIGNED BY: SNB
SCALE: DRAWN BY: SNB
DATE: MAY 8, 2007 CHECKED BY: SP

TY·LIN INTERNATIONAL

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	292
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

Illinois Department of Transportation

Bridge Foundation Boring Log

SN 049-9902

Sh. 1 of 2 Sh.

PROJECT P-91-285-79 BRIDGE Route 60 @ Tri-State Date March 26, 1985

ROUTE FAU-1246 Tollway Bored By D. Grow

SEC. ______ STA. ______ Checked By ______

COUNTY Lake

Boring No. 4
Station 445+57
Offset 50'Lt. of C.L.

Surface Water El. ______
Groundwater El. at Completion ______
After ______ Hours ______

Ground Surface 690.5

Description	Elevation	Depth	N	Qu t/s.f.	w (%)
4" Bituminous underlain by Wet Road Gravel	690.5	0			
			5, 10, 7		
Hard, Brown Silty Clay (Till)	685.5	-5	4, 6, 8	B, 6.2	16
Stiff, Gray & Brown Silty Clay (Mottled)	683.0		4, 4, 5	B, 1.4	19
Very Stiff, Gray & Brown Silty Clay (Till) (Mottled)	680.5	-10	4, 5, 10	B, 3.7	21
Gray			5, 8, 9	B, 2.7	17
		-15	3, 5, 5	B, 2.5	29
Medium, Brown, Wet Sandy Loam with Clay Seams	672.5		8, 11, 10		
Stiff, Gray Clay (Till)	670.5	-20	4, 4, 4	B, 1.8	15
			3, 4, 5	B, 1.6	20
		-25	3, 5, 6	B, 1.9	20
Very Stiff, Gray Clay (Till)	662.5		3, 5, 6	B, 2.3	19
		-30	4, 5, 6	B, 2.0	20
Stiff, Gray Clay (Till)	658.5		5, 5, 5	B, 1.4	18
		-35	1, 1, 3	B, 1.2	23
			3, 3, 4	B, 1.1	18
Very Stiff, Gray Silty Clay (Till)	651.0	-40	4, 8, 11	B, 3.5	21
		-45			

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

BD 137 (Rev. 4-78)

FORM NO. B. D. 137 REV. 5-66

Sh. 2 of 2 Sh.

BRIDGE FOUNDATION BORING LOG

FAU-1246
Section
P-91-285-79
Lake County Boring 4 Cont.

Description	Elevation	Depth	N	Qu t/s.f.	w (%)
Very Stiff, Gray Silty Clay (Till)		-45	5, 8, 8	B, 3.1	18
		-50	6, 8, 10	B, 2.9	17
		-55	5, 8, 12	B, 3.3	19
		-60	3, 7, 9	B, 2.3	13
End of Boring	629.0				
		-65			
		-70			
		-75			
		-80			
		-85			
		-90			
		-95			

SHEET S-45 OF S-53

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORINGS - VI
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: SNB
DRAWN BY: SNB
CHECKED BY: SP
SCALE:
DATE: MAY 8, 2007

TYLIN INTERNATIONAL

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	293
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

Illinois Department of Transportation

Bridge Foundation Boring Log

P-91-285-79 — Sh. 1 of 2 Sh.

PROJECT ______ BRIDGE Route 60 over the Tri-State Tollway — Date March 21, 1985

ROUTE FAU-1246 — Bored By D. Grow

SEC. ______ STA. ______ — Checked By ______

COUNTY Lake

Boring No. 5
Station 446+95
Offset 29'Lt of C.L.

Surface Water El. ______
Groundwater El. at Completion 675.6
After ____ Hours ______

Description	Elevation	Depth	N	Qu t/s.f.	w (%)
Ground Surface	710.6	0			
Concrete underlain by Roadstone	707.1		1 2 3		
Very Stiff, Brown Silty Clay (Fill)		-5	3 5 6	B 2.9	17
	702.1		3 3 7	B 2.1	19
Medium, Gray Course Sand	701.1				
Very Stiff, Brown Silty Clay (Fill)	698.6	-10	3 6 7	B 3.7	16
Hard, Brown Silty Clay (Fill)	695.6	-15	4 6 7	B 5.8	17
Very Stiff, Brown Silty Clay (Fill)			3 6 6	S(20)% 2.9	17
			2 5 7	S(20)% 2.3	23
	688.6	-20	2 7 9	B 3.9	15
Hard, Brown Silty Clay (Till)			3 6 10	B 4.7	16
		-25	7 9 10	S(15)% 4.6	23
Poor Recovery - Cobble?			20 22 22		
		-30	5 9 11	S(15)% 7.8	16
	676.1		5 10 11	B 8.1	16
Very Stiff, Gray Silty Clay (Till)	674.6	-35	3 7 9	B 3.7	16
Medium, Brown, Wet Sandy Loam and Gravel	672.6				
Stiff, Gray Silty Clay (Till) with Sand Lenses	670.6		4 7 7	B 1.6	20
Medium, Brown, Wet Sand with some Clay Lenses	668.6	-40	3 6 6		
Stiff, Gray Clay (Till)			3 5 6	B 1.9	18
		-45			

N-Standard Penetration Test- Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

BD 137 (Rev. 4-78)

FORM NO. B. D. 137 REV. 9-66

BRIDGE FOUNDATION BORING LOG

Sh. 2 of 2 Sh.

FAU 1246
Section
P-91-285-79
Lake County Boring 5 Cont.

Description	Elevation	Depth	N	Qu t/s.f.	w (%)
Stiff, Gray Clay (Till)	663.6	-45	2 4 6	B 1.9	20
Very Stiff, Gray Clay (Till)	661.1		3 4 6	B 2.7	19
Stiff, Gray Clay (Till)	659.1	-50	3 4 4	B 1.6	18
End of Boring					
		-55			
		-60			
		-65			
		-70			
		-75			
		-80			
		-85			
		-90			
		-95			

SHEET S-46 OF S-53

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORINGS - VII
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE: — DESIGNED BY: SNB
DATE: MAY 8, 2007 — DRAWN BY: SNB — CHECKED BY: SP

TYLININTERNATIONAL

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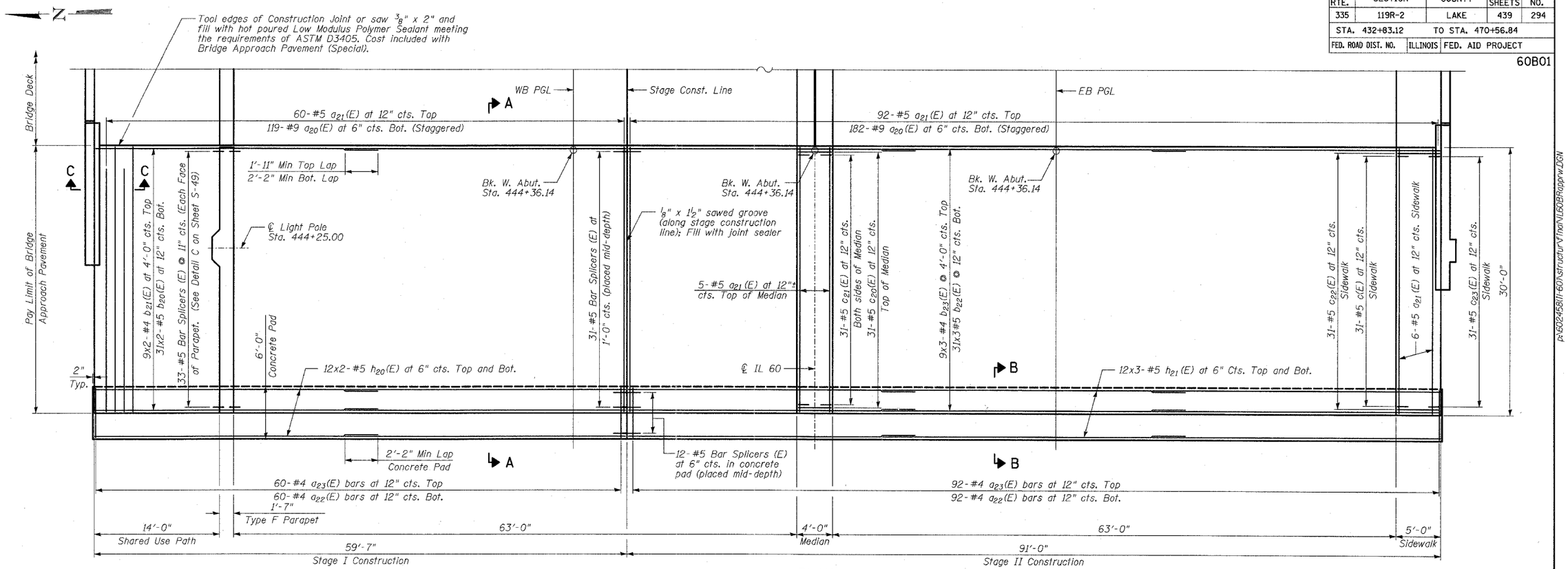
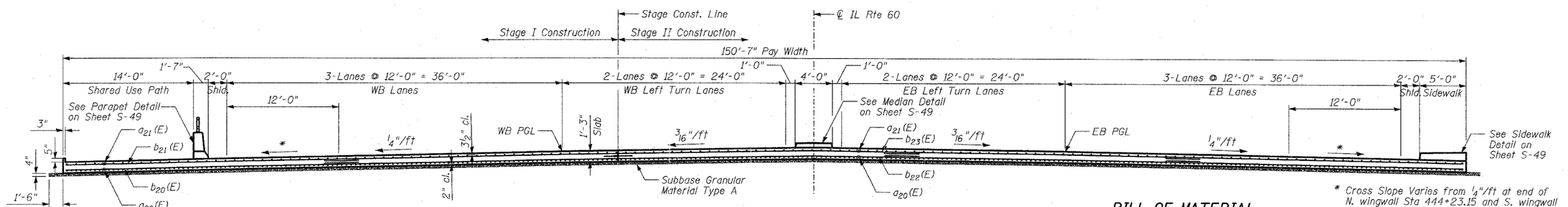
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	294
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



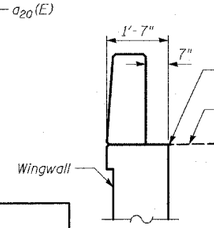
PLAN



* Cross Slope Varies from 1/4"/ft at end of N. wingwall Sta 444+23.15 and S. wingwall Sta. 444+20.65 to 2.5% at end of approach pavement at concrete pad.

CROSS SECTION THRU APPROACH PAVEMENT

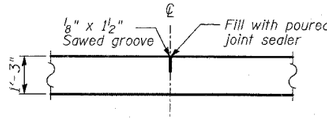
(Looking East)



SECTION C-C

NOTES:

1. With the approval of the Engineer, the contractor will be permitted to reduce the paving widths by substituting a Longitudinal Construction Joint with tie bars, as shown in Standard 420401, in lieu of the Specified Sawed Longitudinal Joint.
2. The Contractor shall provide the details shown in Detail B at the ℄ on IL Rte. 60 and at a lane edge if pavement is poured two or more lanes at a time.
3. Bars indicated thus 31x2-#5 indicates 31 lines of bars with 2 lengths per line.
4. The cost of tie bars, expansion joint, preformed joint seal, polyethylene bond breaker, reinforcement bars, sidewalk, median, the concrete pad (including reinforcement), 4" granular subbase and excavation shall be included in the cost of Bridge Approach Pavement (Special).
5. See Sheet S-49 for Sections A-A and B-B.



DETAIL B

(Reinforcement Not Shown)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Bridge Approach Pavement, (Special)	SQ YD	502

SHEET S-47 OF S-53

REVISIONS NAME	DATE

TY·LIN INTERNATIONAL

ILLINOIS DEPARTMENT OF TRANSPORTATION

WEST APPROACH PAVEMENT LAYOUT

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:

DATE: MAY 8, 2007

DESIGNED BY: PL

DRAWN BY: PL

CHECKED BY: SP

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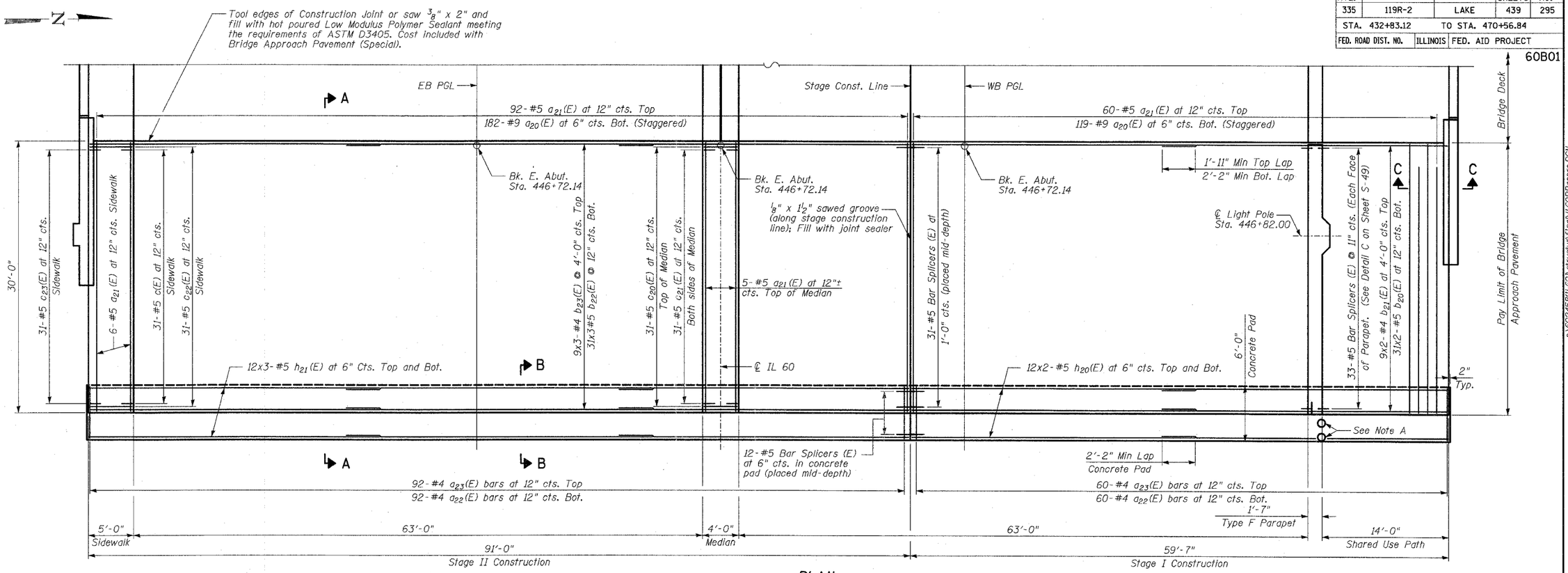
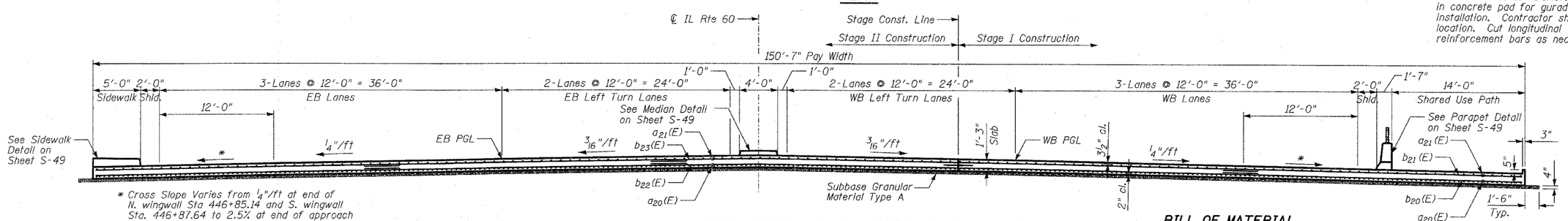
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	295
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01



PLAN

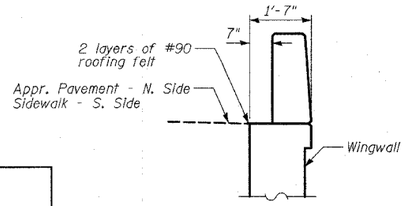
Note A: Provide 10" diameter blockouts in concrete pad for guardrail post installation. Contractor shall verify location. Cut longitudinal reinforcement bars as necessary.



* Cross Slope Varies from 1/4"/ft at end of N. wingwall Sta 446+85.14 and S. wingwall Sta. 446+87.64 to 2.5% at end of approach pavement at concrete pad.

CROSS SECTION THRU APPROACH PAVEMENT

(Looking West)



SECTION C-C

NOTES:

1. With the approval of the Engineer, the contractor will be permitted to reduce the paving widths by substituting a Longitudinal Construction Joint with tie bars, as shown in Standard 420401, in lieu of the Specified Sawed Longitudinal Joint.
2. The Contractor shall provide the details shown in Detail B at the ℄ on IL Rte. 60 and at a lane edge if pavement is poured two or more lanes at a time.
3. Bars indicated thus 31x2-#5 indicates 31 lines of bars with 2 lengths per line.
4. The cost of tie bars, expansion joint, preformed joint seal, polyethylene bond breaker, reinforcement bars, sidewalk, median, the concrete pad (including reinforcement), 4" granular subbase and excavation shall be included in the cost of Bridge Approach Pavement (Special).
5. See Sheet S-49 for Sections A-A and B-B.

DETAIL B

(Reinforcement Not Shown)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Bridge Approach Pavement, (Special)	SQ YD	502

SHEET S-48 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

EAST APPROACH PAVEMENT LAYOUT

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: PL
DRAWN BY: PL
CHECKED BY: SP
SCALE:
DATE: MAY 8, 2007

TY·LIN INTERNATIONAL

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	296
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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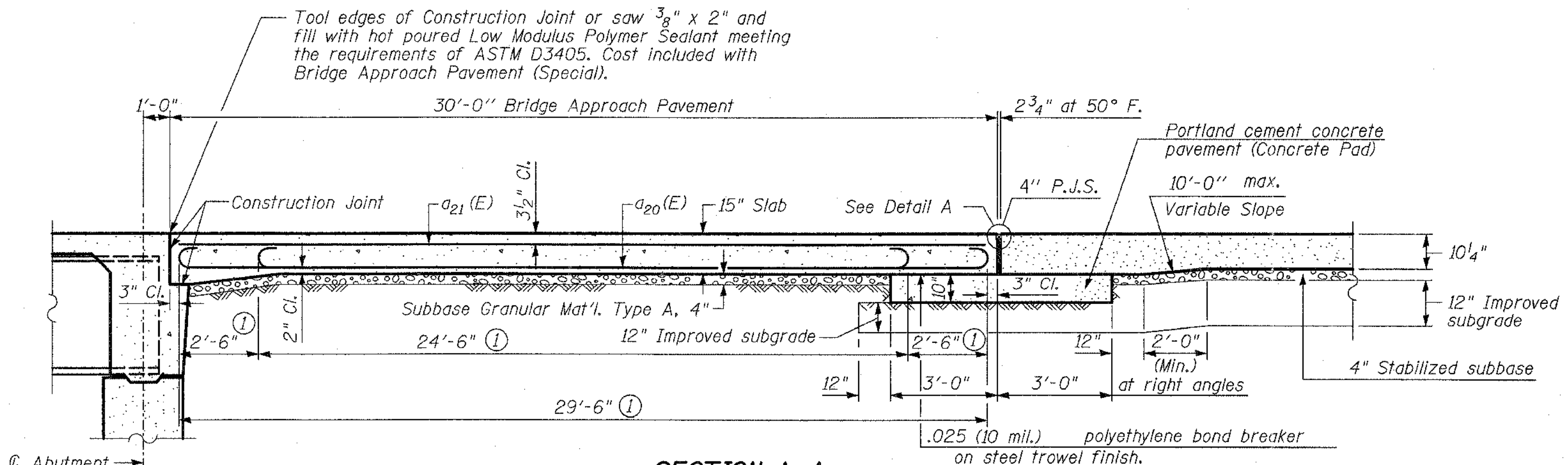
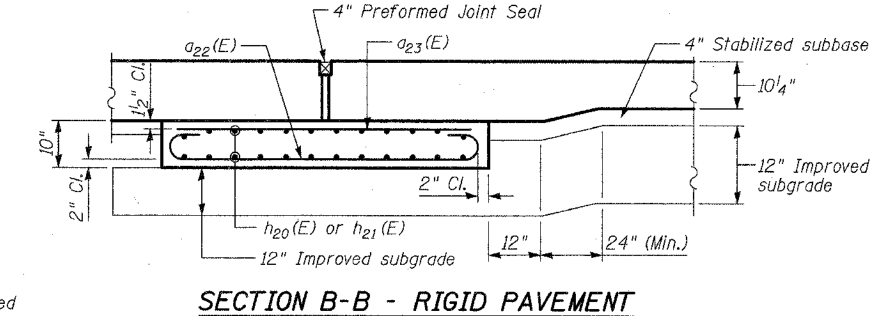


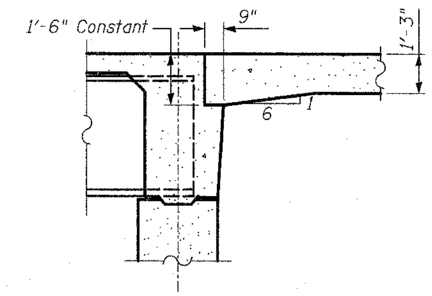
SECTION A-A

① Stagger a_{20}(E) bars as shown on plan - full width

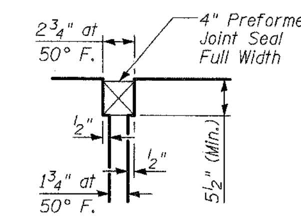


SECTION B-B - RIGID PAVEMENT

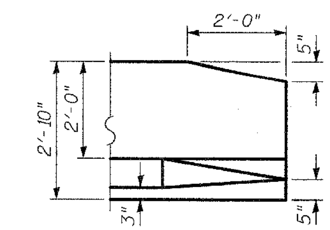
(Showing reinforcement)



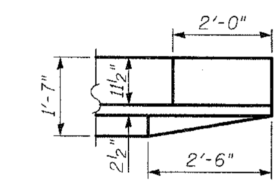
SECTION AT INTEGRAL ABUTMENT



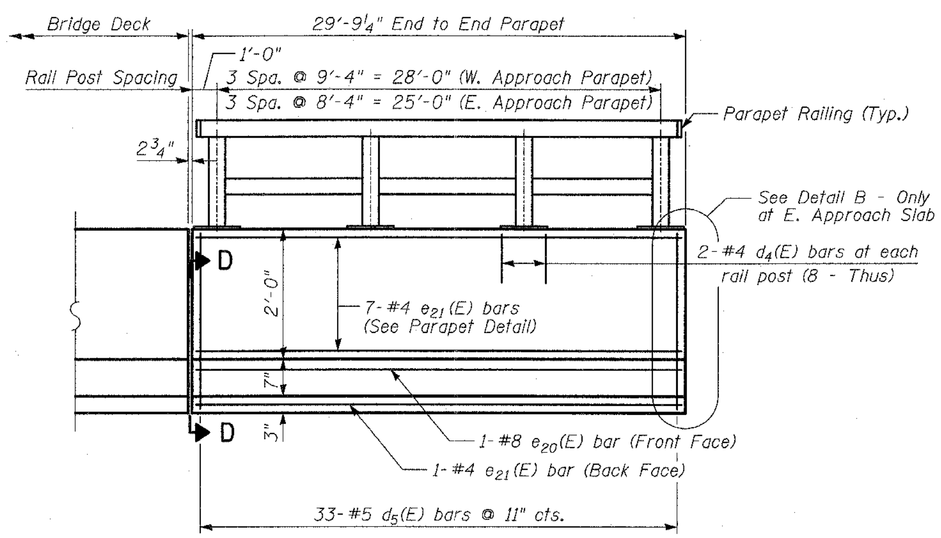
DETAIL A



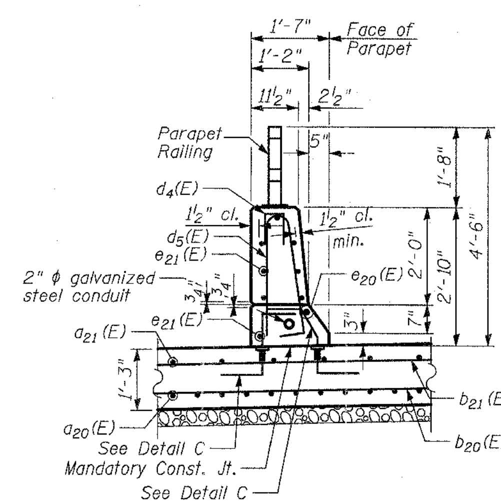
DETAIL B



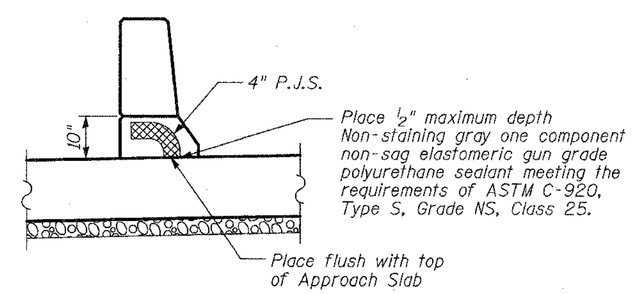
PLAN



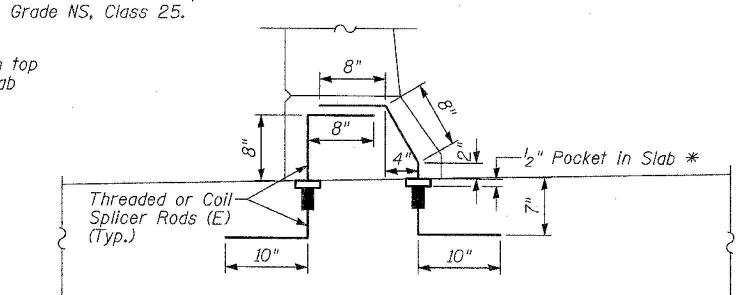
INSIDE ELEVATION OF TYPE F PARAPET



TYPE F PARAPET DETAIL



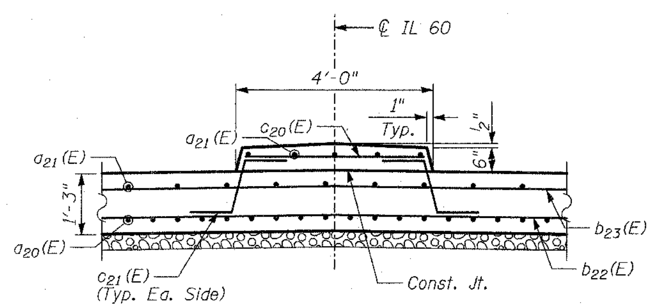
SECTION D-D



DETAIL C

*During Stage II Construction attach 5/8" ϕ galvanized hex bolts to couplers. Cost of bolts included in Bar Splicers.

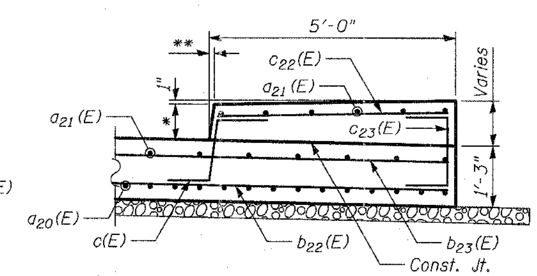
Located in F-Shape parapet (33 required each side both approaches = 132 total)
See Sheet S-38 for Minimum Capacity and Pull Out Strength Required.



MEDIAN DETAIL

Median Notes:

Transition median from detail above to match Type SB-6.12 at end of Approach Pavement.

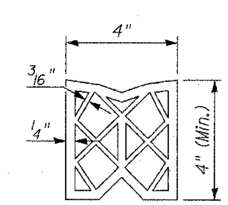


SIDEWALK DETAIL

Sidewalk Notes:

* Vary sidewalk thickness. Thickness is 9" from abutment to end of wingwall and varies from 9" at end of wingwall to 6" at end of approach pavement.

** Vary dimension. 1 1/4" from end of abutments to end wingwall. Varies 1 1/4" at end of wingwall to match B-6.12 Curb and Gutter at end of approach pavement.



PREFORMED JOINT SEAL

SHEET S-49 OF S-53

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

APPROACH PAVEMENT DETAILS - I

ILLINOIS 60 OVER I-94

F.A.P. RTE. 335 SECTION 119R-2

LAKE COUNTY STA. 445+54.14

S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: PL

SCALE:

DRAWN BY: SNB

DATE: MAY 8, 2007

CHECKED BY: SP

TY·LIN INTERNATIONAL

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	297
STA. 432+83.12		TO STA. 470+56.84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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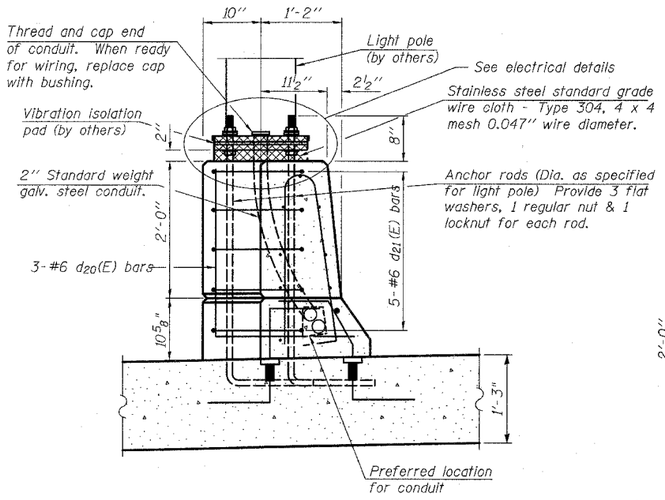
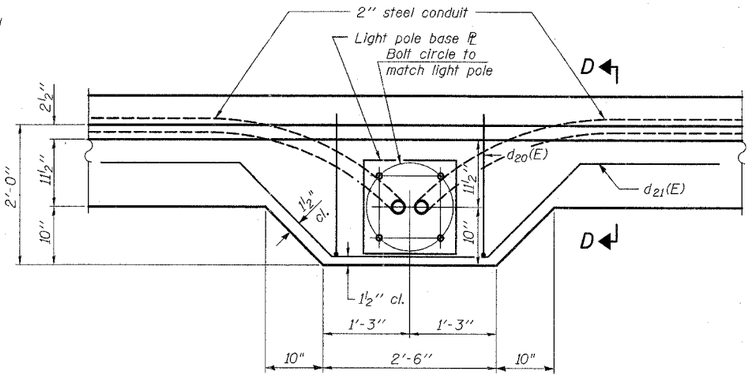
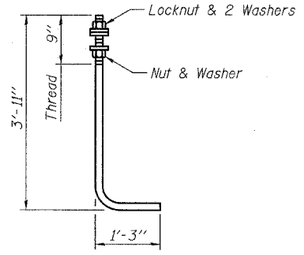


SECTION D-D



PLAN

Note:
Cost of anchor rods and conduit is included with Concrete Superstructure.



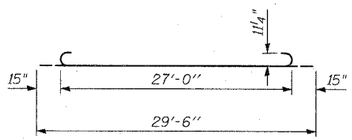
ANCHOR ROD

Diameter as specified for light poles.
(ASTM F 1554 Grade 105)

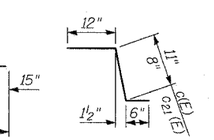
BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	$a_{20}(E)$	602	#9	29'-6"	
	$a_{21}(E)$	326	#5	29'-6"	
	$a_{22}(E)$	304	#4	6'-8"	
	$a_{23}(E)$	304	#4	5'-8"	
	$b_{20}(E)$	124	#5	30'-8"	
	$b_{21}(E)$	36	#4	30'-6"	
	$b_{22}(E)$	186	#5	31'-8"	
	$b_{23}(E)$	54	#4	31'-6"	
	$c(E)$	62	#5	2'-5"	
	$c_{20}(E)$	62	#5	3'-5"	
	$c_{21}(E)$	62	#5	2'-2"	
	$c_{22}(E)$	62	#5	4'-8"	
	$c_{23}(E)$	62	#5	3'-8"	
	$d_4(E)$	16	#4	2'-0"	
	$d_5(E)$	66	#5	5'-7"	
	$d_{20}(E)$	6	#6	4'-5"	
	$d_{21}(E)$	10	#6	10'-0"	
	$e_{20}(E)$	2	#8	29'-6"	
	$e_{21}(E)$	16	#4	29'-6"	
	$h_{20}(E)$	96	#5	30'-10"	
	$h_{21}(E)$	144	#5	31'-9"	
	Protective Coat			SQ YD	1051
	Bar Splicers			Each	218
*	Reinforcement Bars, Epoxy Coated			Pound	94,876

* Provided for information only

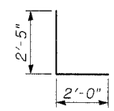


BAR $a_{20}(E)$

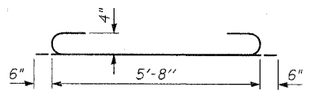


BAR $c(E)$ & $c_{21}(E)$

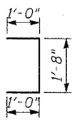
BAR $d_4(E)$



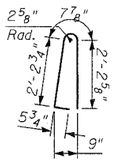
BAR $d_{20}(E)$



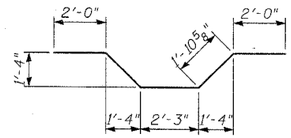
BAR $a_{22}(E)$



BAR $c_{23}(E)$



BAR $d_5(E)$



BAR $d_{21}(E)$

SHEET S-50 OF S-53

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
APPROACH PAVEMENT DETAILS - II
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE:
DATE: MAY 8, 2007
DESIGNED BY: PL
DRAWN BY: SNB
CHECKED BY: SP

TY·LIN INTERNATIONAL

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	298
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

DATE PILES DRIVEN:__________
MONTH YEAR
TYPE & SIZE OF PILE USED:__________

PILE DRIVING RECORD

PILE DRIVING EQUIPMENT USED:__________ ENERGY RATING
HAMMER USED: TYPE__________ STROKE__________ WEIGHT__________

FORMULA USED TO CALCULATE CAPACITY:__________

PILE DRIVING CONTRACTOR:__________ CSE:__________

PILE LOCATION	PILE NUMBER	GROUND SURFACE ELEVATION	CUT-OFF ELEVATION	PENETRATED LENGTH, FT.	DRIVING DATA FOR THE FINAL 5 FEET-BLOWS							CAPACITY TONS	REMARKS
					5' TO 4'	4' TO 3'	3' TO 2'	2' TO 1'	1' TO 0'	12" TO 6"	6" TO 0"		
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TYLININTERNATIONAL

REVISIONS	
NAME	DATE

SHEET S-51 OF S-53

ILLINOIS DEPARTMENT OF TRANSPORTATION

PILE DRIVING LOG - I
ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: PL
SCALE: DRAWN BY: PL
DATE: MAY 8, 2007 CHECKED BY: SP

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	299

STA. 432+83.12 TO STA. 470+56.84

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

60B01

DATE PILES DRIVEN:________________
MONTH YEAR
TYPE & SIZE OF PILE USED:________________

PILE DRIVING RECORD

PILE DRIVING EQUIPMENT USED:________________ ENERGY RATING
HAMMER USED: TYPE________________ STROKE________________ WEIGHT________________

FORMULA USED TO CALCULATE CAPACITY:________________

PILE DRIVING CONTRACTOR:________________ CSE:________________

PILE LOCATION	PILE NUMBER	GROUND SURFACE ELEVATION	CUT-OFF ELEVATION	PENETRATED LENGTH, FT.	DRIVING DATA FOR THE FINAL 5 FEET-BLOWS							CAPACITY TONS	REMARKS
					5' TO 4'	4' TO 3'	3' TO 2'	2' TO 1'	1' TO 0'	12" TO 6"	6" TO 0"		
	61												
	62												
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TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

SHEET S-52 OF S-53

ILLINOIS DEPARTMENT OF TRANSPORTATION

PILE DRIVING LOG - II

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

DESIGNED BY: PL
SCALE: DRAWN BY: PL
DATE: MAY 8, 2007 CHECKED BY: SP

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	119R-2	LAKE	439	300
STA. 432+83.12	TO STA. 470+56.84			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

60B01

PILE DRIVING RECORD

DATE PILES DRIVEN:________________
MONTH YEAR
TYPE & SIZE OF PILE USED:________________

PILE DRIVING EQUIPMENT USED:________________ ENERGY RATING
HAMMER USED: TYPE________________ STROKE________________ WEIGHT________________

FORMULA USED TO CALCULATE CAPACITY:________________

PILE DRIVING CONTRACTOR:________________ CSE:________________

PILE LOCATION	PILE NUMBER	GROUND SURFACE ELEVATION	CUT-OFF ELEVATION	PENETRATED LENGTH, FT.	DRIVING DATA FOR THE FINAL 5 FEET-BLOWS							CAPACITY TONS	REMARKS
					5' TO 4'	4' TO 3'	3' TO 2'	2' TO 1'	1' TO 0'	12" TO 6"	6" TO 0"		
	121												
	122												
	123												
	124												
	125												
	126												
	127												
	128												
	129												
	130												

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SHEET S-53 OF S-53

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PILE DRIVING LOG - III

ILLINOIS 60 OVER I-94
F.A.P. RTE. 335 SECTION 119R-2
LAKE COUNTY STA. 445+54.14
S.N. 049-2012 ISTHA BRIDGE NO. 407

SCALE: DESIGNED BY: PL
DRAWN BY: PL
DATE: MAY 8, 2007 CHECKED BY: SP

05/03/2007 04:31:35 PM

TYLIN INTERNATIONAL