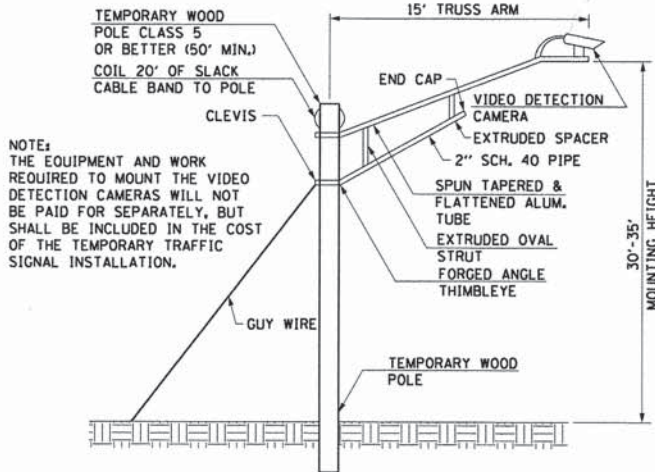
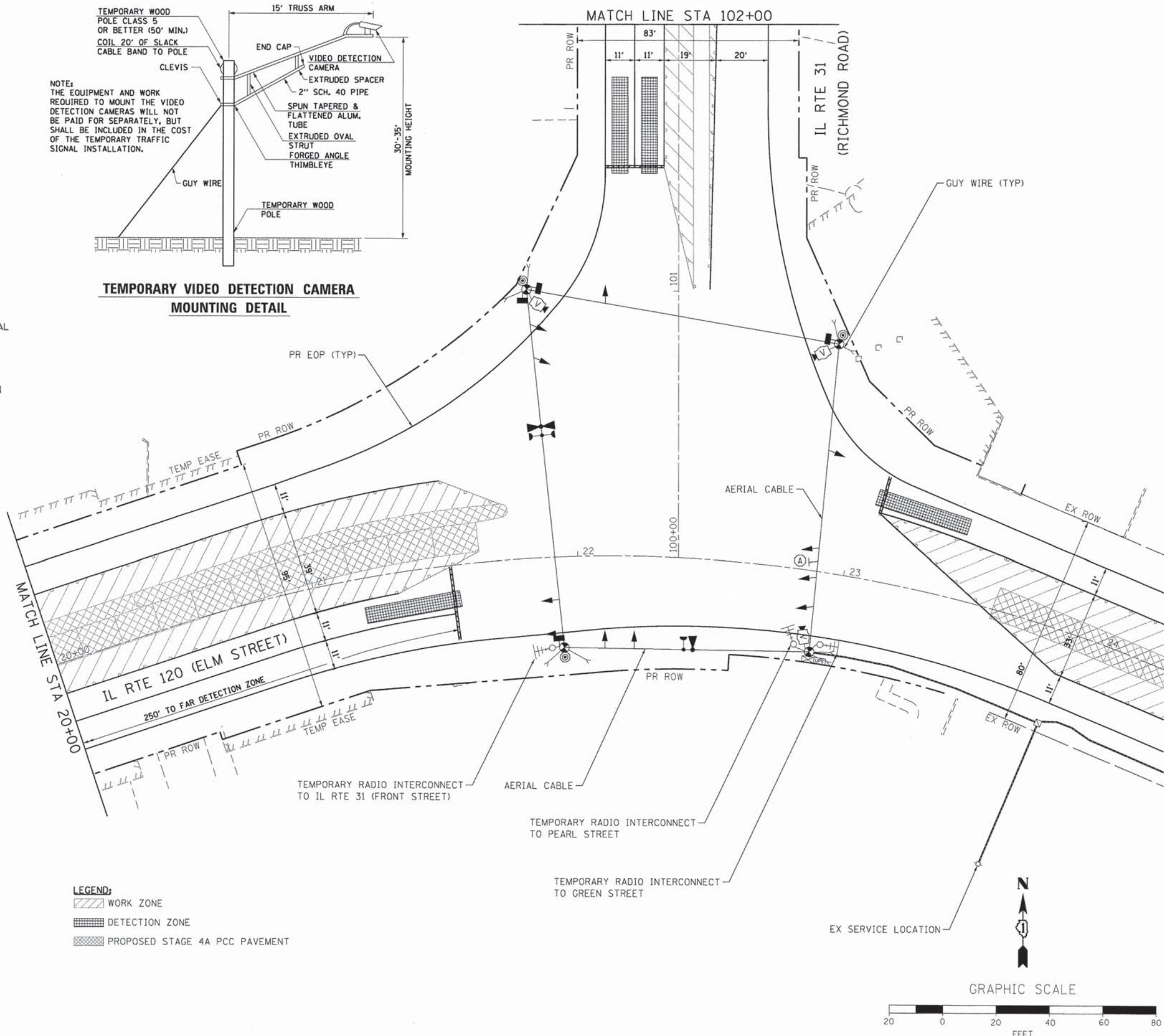


NOTES FOR TEMPORARY TRAFFIC SIGNALS

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 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 LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. 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 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. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



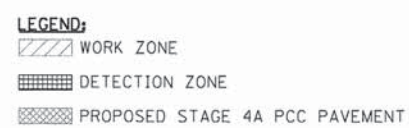
TEMPORARY VIDEO DETECTION CAMERA MOUNTING DETAIL



**CONSTRUCTION NOTES**  
ALL TEMPORARY PEDESTRIAN SIGNAL HEADS SHALL BE BAGGED AND DISCONNECTED WHEN EXISTING PAVEMENT IS REMOVED AND REMAINED BAGGED UNTIL PAVEMENT IS RESTORED, AND AS DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

**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 ROADWAYS 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 LAWNS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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



COMPANY NAME: HRGreen  
PROJECT CONTACT: HRGreen.com  
DATE PLOTTED: 08/01/2018 10:00 AM  
PLOT DATE: 08/01/2018 10:00 AM  
PLOT DIBLER: jmelhus  
PEN TABLE: Standard-Trans.tbl

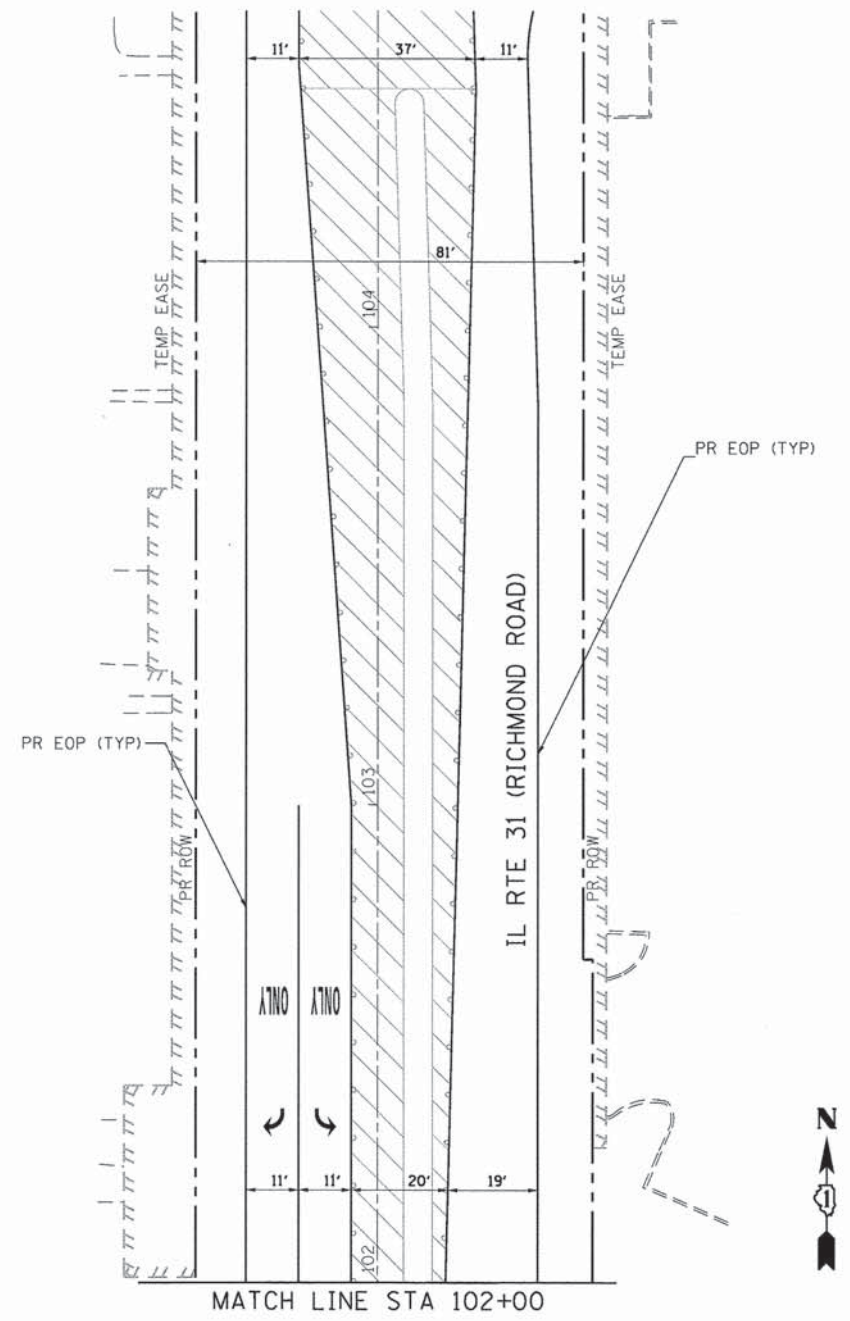
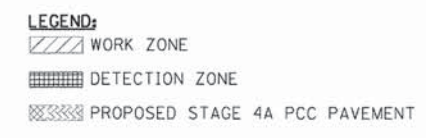
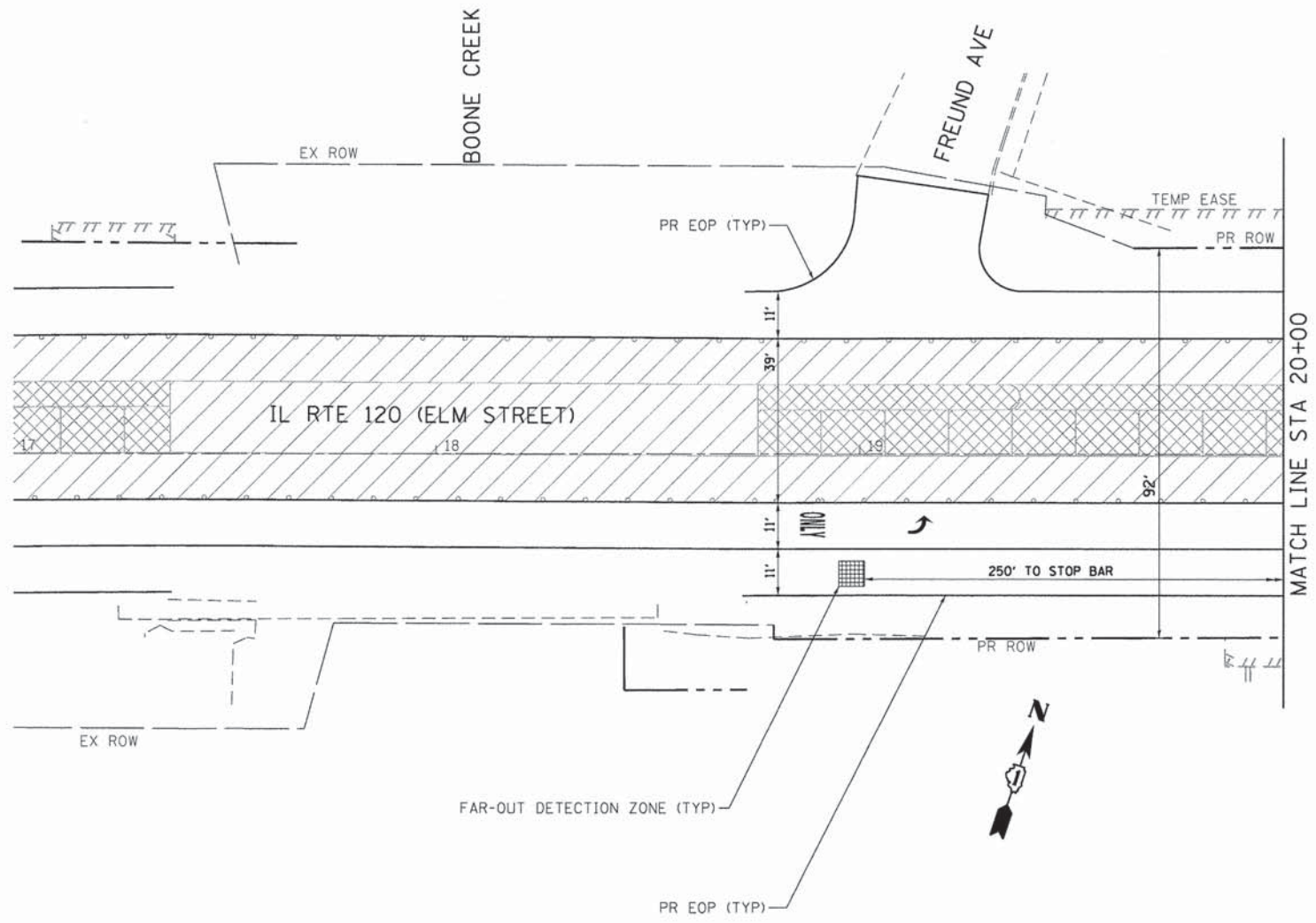
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

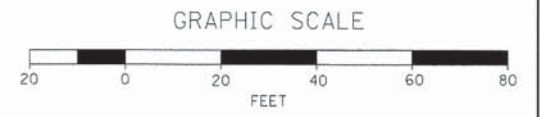
TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN  
STAGE 4A  
ILLINOIS ROUTE 31 AT ILLINOIS ROUTE 120

SCALE: 1"=20' SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	05-00067-00-CH	MCHENRY	226	101
FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750		ILLINOIS FED. AID PROJECT



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



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 PROJECT CONTACT: JJS  
 CLIENT: HRGreen  
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 PLOT DRIVER: pd7.plt  
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN  
 STAGE 4A  
 ILLINOIS ROUTE 31 AT ILLINOIS ROUTE 120**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• FAP 333, FAP 336, FAU 81	05-00067-00-CH	MCHENRY	226	102
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63750	

SCALE: 1"=20'    SHEET NO. 2 OF 2 SHEETS    STA. TO STA.

**CONSTRUCTION NOTES**

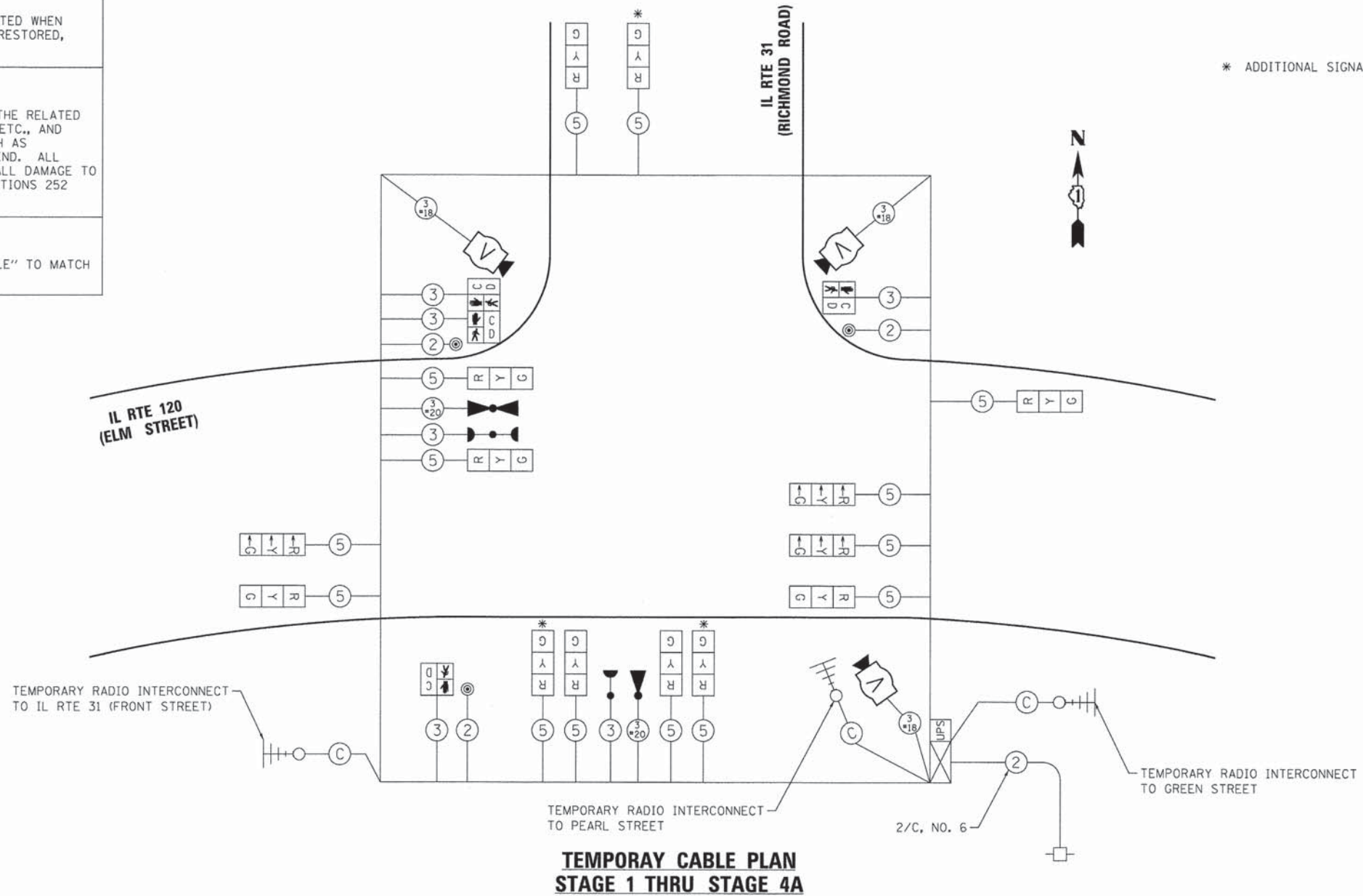
ALL TEMPORARY PEDESTRIAN SIGNAL HEADS SHALL BE BAGGED AND DISCONNECTED WHEN EXISTING PAVEMENT IS REMOVED AND REMAINED BAGGED UNTIL PAVEMENT IS RESTORED, AND AS DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

**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 ROADWAYS 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 LAWNS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**NOTE**

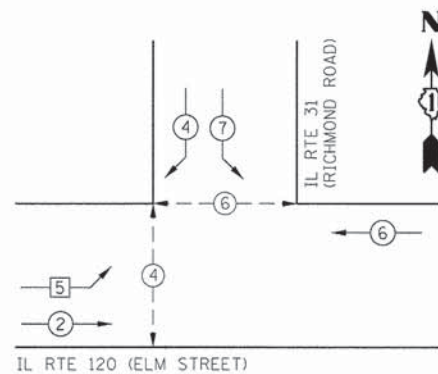
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.



\* ADDITIONAL SIGNAL HEAD FOR STAGE 3

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	11	17		0.50	93.50
(YELLOW)	11	25		0.25	68.75
(GREEN)	11	15		0.25	41.25
ARROW (RED)	3	12		0.10	3.60
(YELLOW)	3	12		0.10	3.60
(GREEN)	3	12		0.10	3.60
PEDESTRIAN SIGNAL	4	25		1.00	100.00
CONTROLLER	1	100		1.00	100.00
VIDEO SYSTEM	1	15		1.00	15.00
TEMPORARY UPS	1	25		1.00	25.00
<b>TOTAL =</b>					<b>454.30</b>
ENERGY COSTS TO:					ILLINOIS DEPARTMENT OF TRANSPORTATION 201 W. CENTER COURT SCHAUMBURG, IL 60196
ENERGY SUPPLY CONTACT:					NORA FERNANDEZ PHONE: (866) 639-3532 COMPANY: COMMONWEALTH EDISON

**TEMPORARY CONTROLLER SEQUENCE**

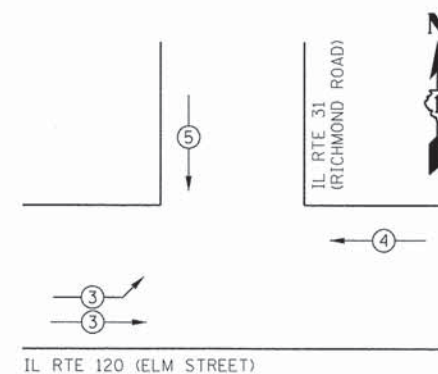


**TEMPORARY PHASE DESIGNATION DIAGRAM**

**CONTROLLER SEQUENCE LEGEND**

- ◄●► DUAL ENTRY PHASE
- ◄■► SINGLE ENTRY PHASE
- ◄◊► OVERLAP
- \* NUMBER REFERRING TO ASSOCIATED PHASE
- ◄●► PEDESTRIAN PHASE

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
TEMPORARY EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT	→	←	↓

COMPANY NAME: HRGreen  
 PROJECT CONTACT: HRGreen.com  
 CLIENT: Illinois Professional Design Firm  
 DATE PLOTTED: 08/06/11 3:10:53 PM  
 FILE NAME: 080611-fs1000-r120.dgn  
 PLOT NUMBER: 10/10  
 PLOT DATE: 08/06/11



USER NAME = jme1111  
 DESIGNED - JJS  
 DRAWN - DS  
 CHECKED - CP  
 DATE -  
 PLOT SCALE = NTS  
 PLOT DATE = .DATE1.

REVISIONS:  
 REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION  
 DIAGRAM - STAGE 1 THRU 4A  
 ILLINOIS ROUTE 31 AT ILLINOIS ROUTE 120  
 SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-00067-00-CH	MCHENRY	226	103
• FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750		
ILLINOIS FED. AID PROJECT				

**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 ROADWAYS 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 LAWNS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**NOTE**

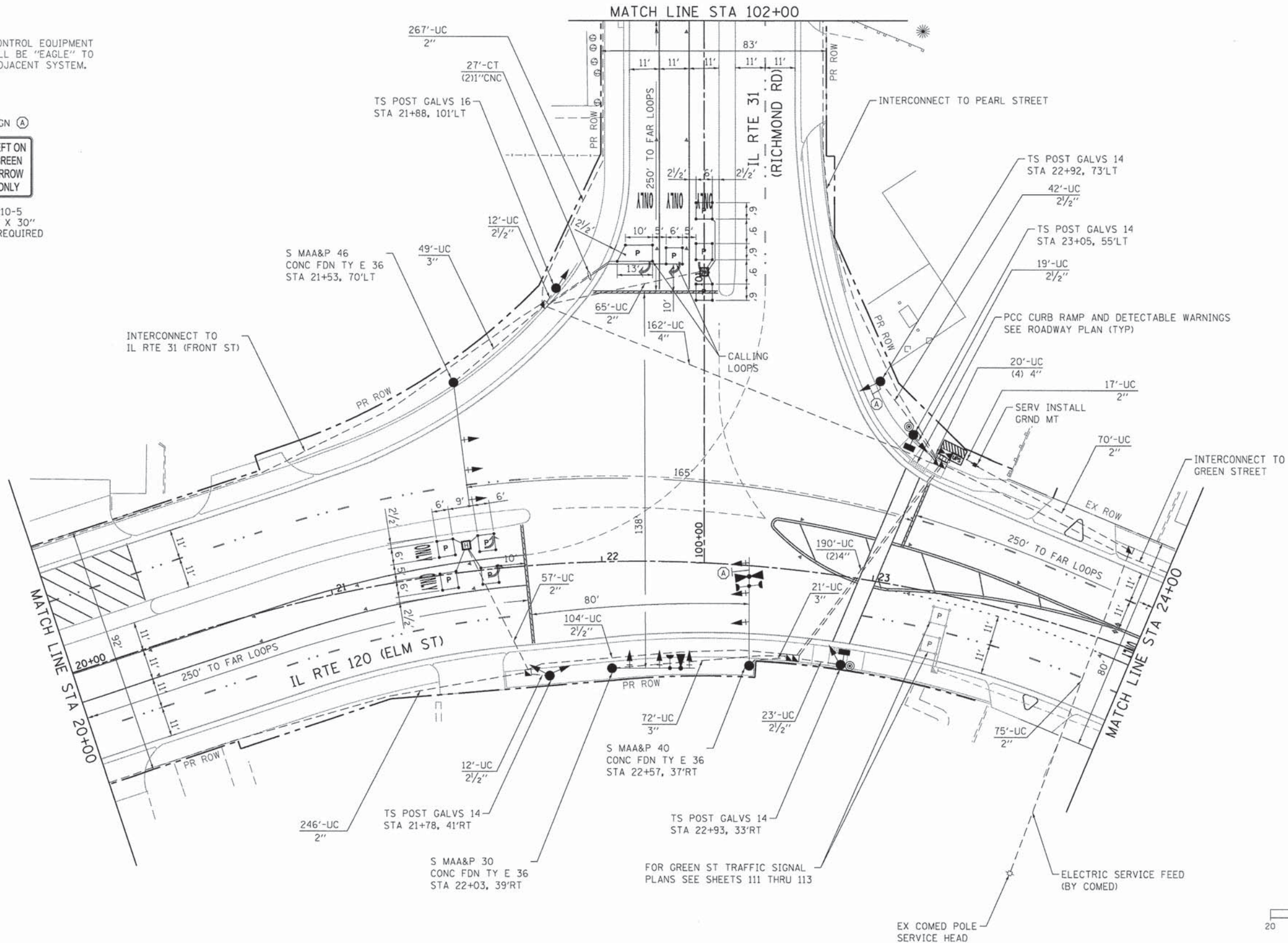
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

1. ALL NEW TRAFFIC SIGNAL EQUIPMENT INCLUDING POSTS AND MAST ARMS SHALL ARRIVE AT THE PROJECT SITE WITH A BLACK FACTORY FINISH IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
2. STOP BARS ARE NOT TO BE PLACED PRIOR TO THE PROPOSED TRAFFIC SIGNALS BEING OPERATIONAL, THEY WILL BE INSTALLED AT THE TIME OF TRAFFIC SIGNAL TURN-ON.
3. THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE TOMAR OR AN APPROVED EQUAL AS REQUIRED BY THE MCHENRY TOWNSHIP FIRE DISTRICT.

SIGN (A)



R10-5  
24" X 30"  
2 - REQUIRED



COMPANY NAME: HRGreen.com  
PROJECT CONTACT: jmelhus  
DATE PLOTTED: 08/01/2015 3:12:25 PM  
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DRAWN - DS	REVISED -	
CHECKED - CP	REVISED -	
DATE - .DATE1.	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN  
ILLINOIS ROUTE 31 AT ILLINOIS ROUTE 120**

SCALE: 1"=20' SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-00067-00-CH	MCHENRY	226	104
• FAP 333, FAP 336, FAU 81		<b>CONTRACT NO. 63750</b>		
ILLINOIS FED. AID PROJECT				



**SCHEDULE OF QUANTITIES**

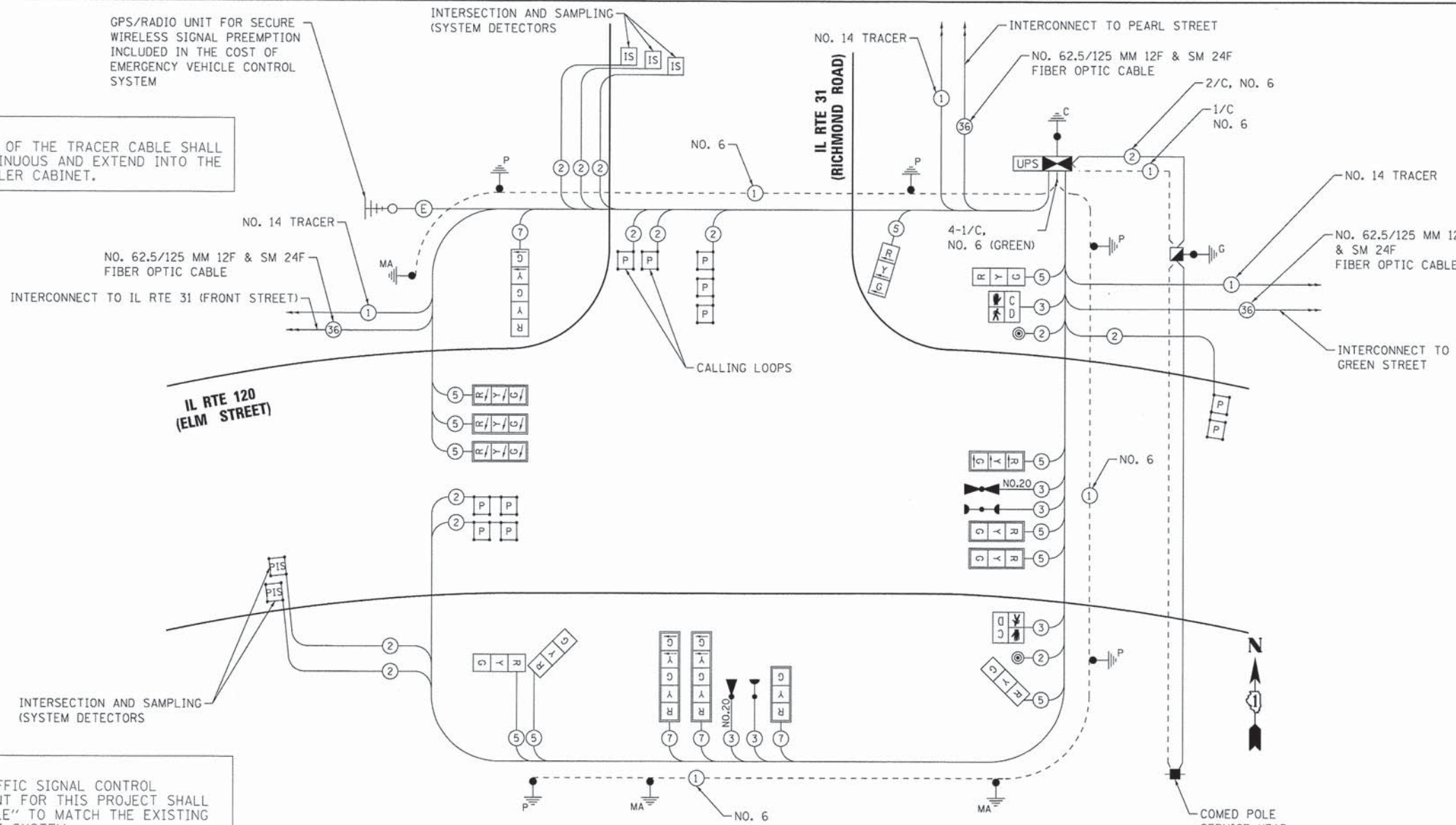
ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SQ FT	10.00
SIGN PANEL - TYPE 2	SQ FT	42.50
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	925.0
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	212.0
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	142.0
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	382.0
HANDHOLE	EACH	6
HEAVY-DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PAINT NEW TRAFFIC SIGNAL POST	EACH	5
PAINT NEW MAST ARM AND POLE, UNDER 40 FOOT	EACH	1
PAINT NEW MAST ARM AND POLE, 40 FEET AND OVER	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	224.5
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 3C	FOOT	779.5
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 6C	FOOT	2,926.5
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	746.5
ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 14 1 PAIR	FOOT	3,887.0
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 8 2C	FOOT	185.5
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1,517.0
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	4
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	24.0
CONCRETE FOUNDATION, TYPE C	FOOT	4.0
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	37.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	7
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	9
INDUCTIVE LOOP DETECTOR	EACH	12
DETECTOR LOOP, TYPE 1	FOOT	113.0
PREFORMED DETECTOR LOOP	FOOT	433.0
* LIGHT DETECTOR	EACH	3
* LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	2
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	14,419.0
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	7
REMOVE EXISTING DOUBLE HANDHOLE	EACH	3
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
* EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	541.0
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
* EMERGENCY VEHICLE SIGNAL CONTROL SYSTEM	EACH	1

\* 100% OF EMERGENCY VEHICLE PREEMPTION EQUIPMENT COST WILL BE PAID BY THE MCHENRY TOWNSHIP FIRE PROTECTION DISTRICT

NOTE:  
THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

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

NOTE:  
THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE TOMAR APPROVED EQUAL.



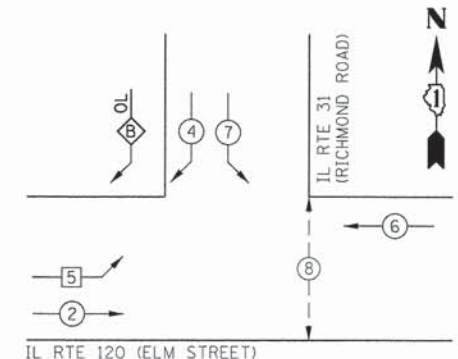
**CABLE PLAN**

TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	10		17	0.50	85.00
(YELLOW)	10		25	0.25	62.50
(GREEN)	10		15	0.25	37.50
ARROW (RED)	5		12	0.10	6.00
(YELLOW)	8		12	0.10	9.60
(GREEN)	8		12	0.10	9.60
PEDESTRIAN SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
UPS	1		25	1.00	25
TOTAL =					385.20

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 W. CENTER COURT  
SCHAUMBURG, IL 60196

ENERGY SUPPLY CONTACT: NORA FERNANDEZ  
PHONE: (866) 639-3532  
COMPANY: COMMONWEALTH EDISON

**CONTROLLER SEQUENCE**

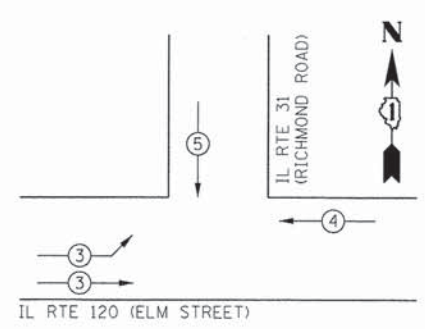


**PHASE DESIGNATION DIAGRAM**

OVERLAP PHASE      PERMISSIVE PHASE      PROTECTED PHASE  
B = 4 + 5

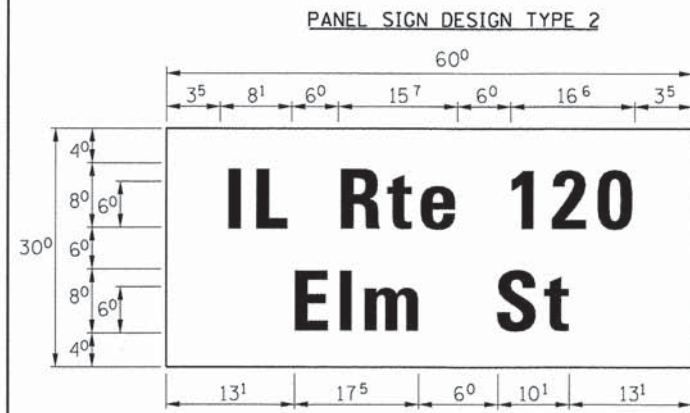
- CONTROLLER SEQUENCE LEGEND**
- ◀ ⊙ ▶ DUAL ENTRY PHASE
  - ◀ ⊙ SINGLE ENTRY PHASE
  - ◀ ⊙ OL OVERLAP
  - \* NUMBER REFERRING TO ASSOCIATED PHASE
  - ◀ ⊙ ▶ PEDESTRIAN PHASE

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

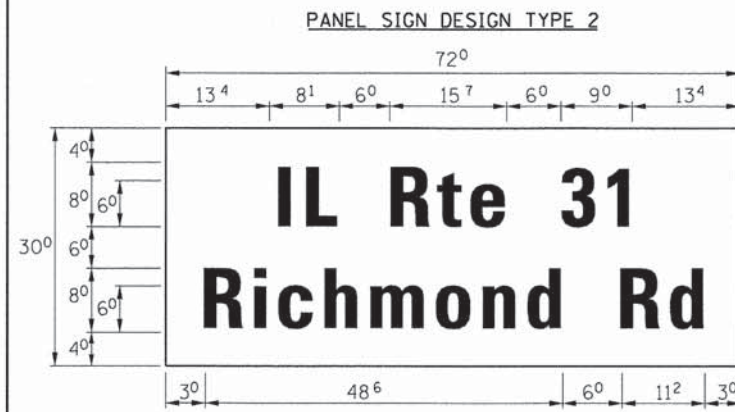
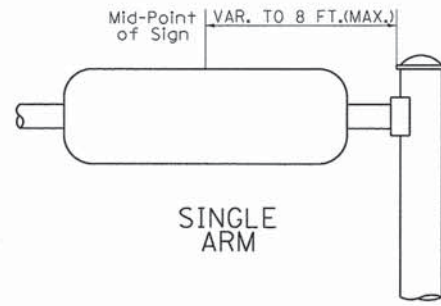
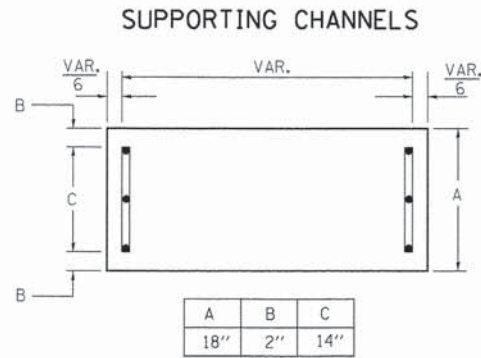


PROPOSED EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT	→	←	↓

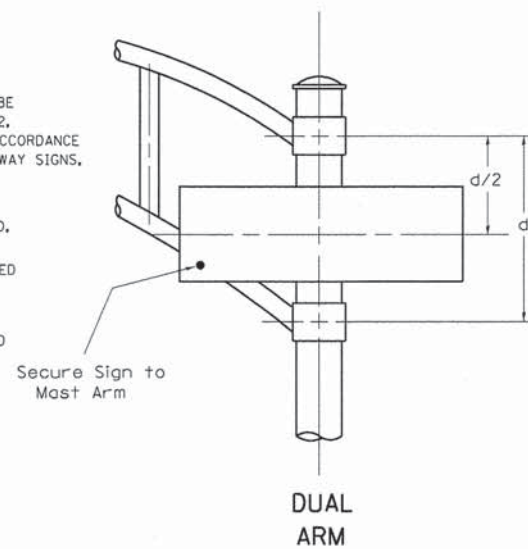
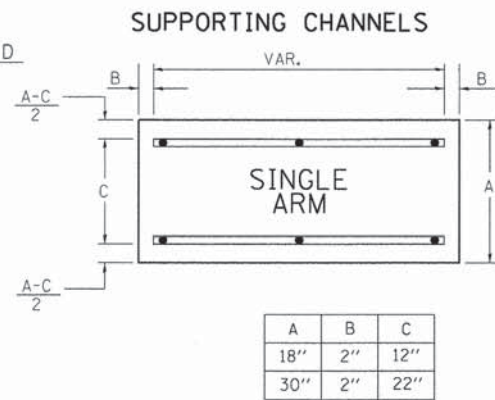
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PROJECT CONTACT: Illinois Professional Design Firm #184-001322  
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FILE NAME: 080611-sig01c-r1120.dgn  
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12.50 Sq. Ft each  
 1 Required  
 Design Series D



15.00 Sq. Ft each  
 2 Required  
 Design Series D



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

**GENERAL NOTES**

- 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 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-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.
- ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
- THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 8'-0".
- ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2-1/4".
- 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:

- \* J.O. HERBERT CO. MIDLOTHIAN, VA.
- \* WESTERN REMAC INC. WOODRIDGE, IL.

PARTS LISTING:  
 SIGN CHANNEL PART #HPN053 (MED. CHANNEL)  
 SIGN SCREWS 1/4" x 14 x 1" H.W.H. #3  
 BRACKETS PART #HPN034 (UNIVERSAL)  
 CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING  
 SELF TAPPING WITH NEOPRENE WASHER

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

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

EXAMPLE, 2<sup>3</sup> DENOTES 3/8"

SERIES	SECOND LETTER															
	a c d e		b h i k l		f w		j		s t		v y		x		z	
	g o q	m n p r u														
A W X	12	14	14	15	12	14	06	10	11	14	06	10	11	12	12	14
B	14	15	20	21	14	15	11	12	14	15	12	14	12	14	16	17
C E G	14	15	20	21	12	14	06	10	12	14	12	14	14	15	14	15
D O Q R	14	15	20	21	14	15	06	10	12	14	12	14	14	15	14	15
F	05	06	14	15	06	10	05	06	06	10	06	10	06	10	11	12
H I M N	20	21	22	24	20	21	14	15	16	17	16	17	20	21	20	21
J U	20	21	20	21	16	17	14	15	16	17	16	17	16	17	20	21
K L	11	12	16	17	11	12	05	06	11	12	11	12	11	12	12	14
P	12	14	14	15	12	14	05	06	11	12	11	12	12	14	12	14
S	12	14	16	17	12	14	06	10	12	14	12	14	12	14	12	14
T	11	12	16	17	06	10	06	10	11	12	11	12	11	12	12	14
V	06	10	14	15	11	12	06	10	12	14	12	14	12	14	12	14
Y	05	06	14	15	06	10	05	06	05	07	05	06	06	10	11	12
Z	16	17	22	24	16	17	12	14	16	17	16	17	16	17	20	21

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

SERIES	SECOND LETTER															
	a c d e		b h i k l		f w		j		s t		v y		x		z	
	g o q	m n p r u														
ad h g i j	16	17	22	24	16	17	12	14	14	15	14	15	16	17	16	17
l m n q u																
b f k o p s	12	14	16	17	11	12	05	06	11	12	11	12	12	14	12	14
c e	12	14	16	17	12	14	06	10	12	14	12	14	12	14	12	14
r	06	10	12	14	06	10	03	03	05	06	05	06	06	10	06	10
t z	12	14	16	17	12	14	06	10	11	12	11	12	12	14	12	14
v y	11	12	14	15	11	12	05	06	06	10	06	10	11	12	11	12
w	11	12	14	15	11	12	05	06	11	12	11	12	11	12	12	14
x	12	14	16	17	11	12	05	06	11	12	11	12	11	12	12	14

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

SERIES	SECOND LETTER																			
	0		1		2		3		4		5		6		7		8		9	
	0 9	16	17	16	17	14	15	12	14	14	15	14	15	16	17	12	14	16	17	16
1	20	21	20	21	20	21	16	17	14	15	20	21	20	21	14	15	20	21	20	21
2 3 4	14	15	14	15	14	15	12	14	12	14	14	15	14	15	11	12	16	17	14	15
5	14	15	14	15	14	15	11	12	11	12	14	15	14	15	11	12	14	15	14	15
6	16	17	14	15	14	15	12	15	12	14	14	15	14	15	11	12	14	15	14	15
7	12	14	12	14	14	15	12	15	05	06	12	14	14	15	11	12	14	15	12	14
8	16	17	16	17	14	15	12	15	12	14	14	15	16	17	12	14	16	17	14	15

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

NUMBER	6 INCH SERIES		8 INCH SERIES	
	C	D	C	D
1	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>
2	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
3	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
4	3 <sup>5</sup>	4 <sup>3</sup>	4 <sup>7</sup>	5 <sup>7</sup>
5	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
6	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
7	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
8	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
9	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
0	3 <sup>4</sup>	4 <sup>2</sup>	4 <sup>5</sup>	5 <sup>5</sup>

COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: J.J.S.  
 DATE PLOTTED: 08/01/2014  
 FILE NAME: 08001-8001r-120.dgn  
 PLOT DRIVER: pdfplot  
 PEN TABLE: standard-trans.tbl

**HRGreen**  
 HRGreen.com  
 Illinois Professional Design Firm  
 #184-001322

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	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1**  
**MAST ARM MOUNTED STREET NAME SIGNS**  
 SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
.	05-0067-00-CH	MCHENRY	226	107
* FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				

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 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 LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. 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 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. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

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

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 5 EACH SIGNAL POST
- 9 EACH SIGNAL HEAD, 1-FACE, 3 SECTION
- 3 EACH SIGNAL HEAD, 1-FACE, 5 SECTION
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 8 EACH PEDESTRIAN PUSH BUTTON
- 1 EACH CONTROLLER AND CABINET (COMPLETE)

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: MCHENRY TOWNSHIP FIRE PROTECTION DISTRICT

- 2 EACH EMERGENCY VEHICLE LIGHT DETECTOR
- 1 EACH LIGHT DETECTOR AMPLIFIER

CONSTRUCTION NOTES

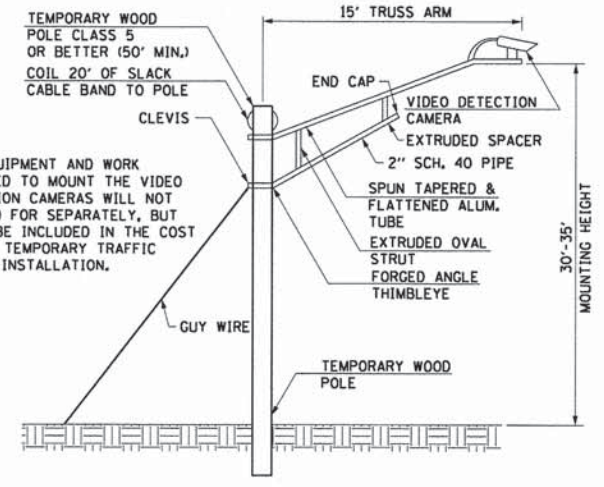
ALL TEMPORARY PEDESTRIAN SIGNAL HEADS SHALL BE BAGGED AND DISCONNECTED WHEN EXISTING PAVEMENT IS REMOVED AND REMAINED BAGGED UNTIL PAVEMENT IS RESTORED, AND AS DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

RESTORATION OF WORK AREA

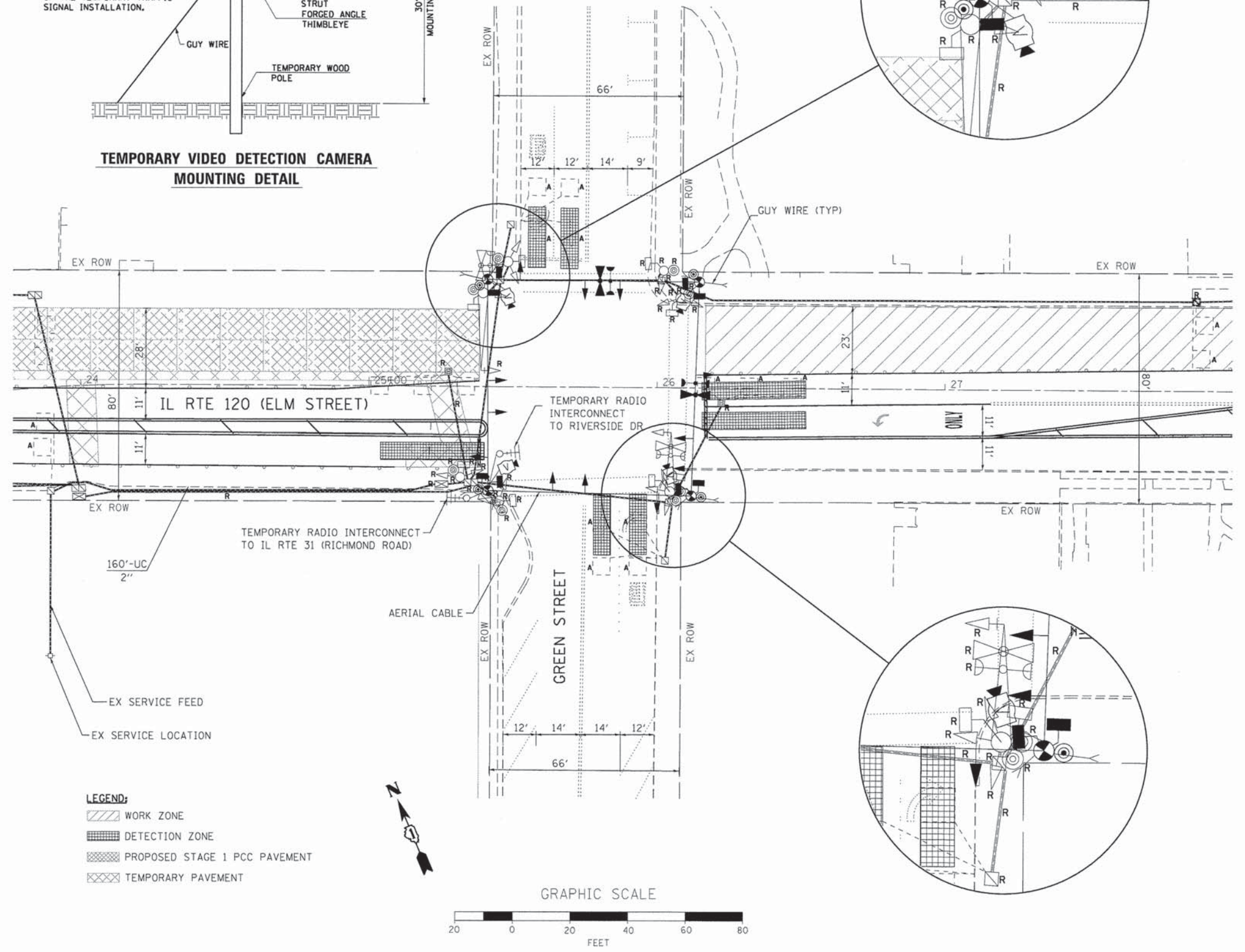
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAYS SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND.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

NOTE

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



TEMPORARY VIDEO DETECTION CAMERA MOUNTING DETAIL



LEGEND:

- WORK ZONE
- DETECTION ZONE
- PROPOSED STAGE 1 PCC PAVEMENT
- TEMPORARY PAVEMENT

COMPANY NAME: HRGreen  
 PROJECT CONTACT: HRGreen.com  
 CLIENT: Illinois Professional Design Firm  
 DATE PLOTTED: 08/08/11 10:02:00 am  
 PLOT DATE: 08/08/11 10:02:00 am  
 PEN TABLE: Standard-Trans.tbl



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	DRAWN - DS	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

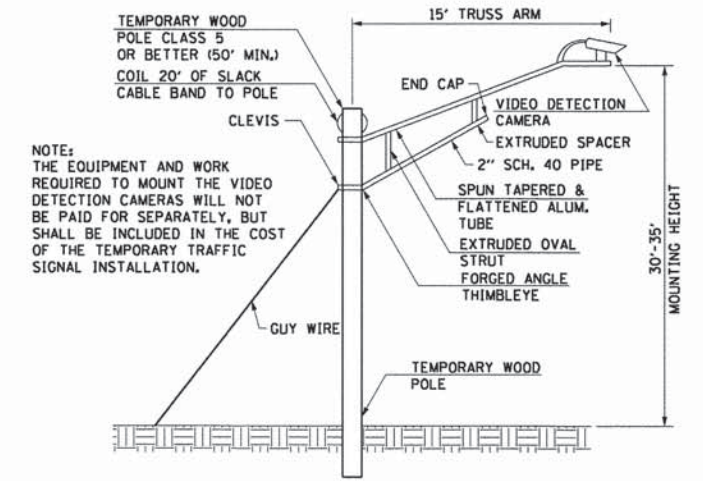
TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE  
EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN - STAGE 1  
ILLINOIS ROUTE 120 AT GREEN STREET  
SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	108
* FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750		
ILLINOIS/FED. AID PROJECT				

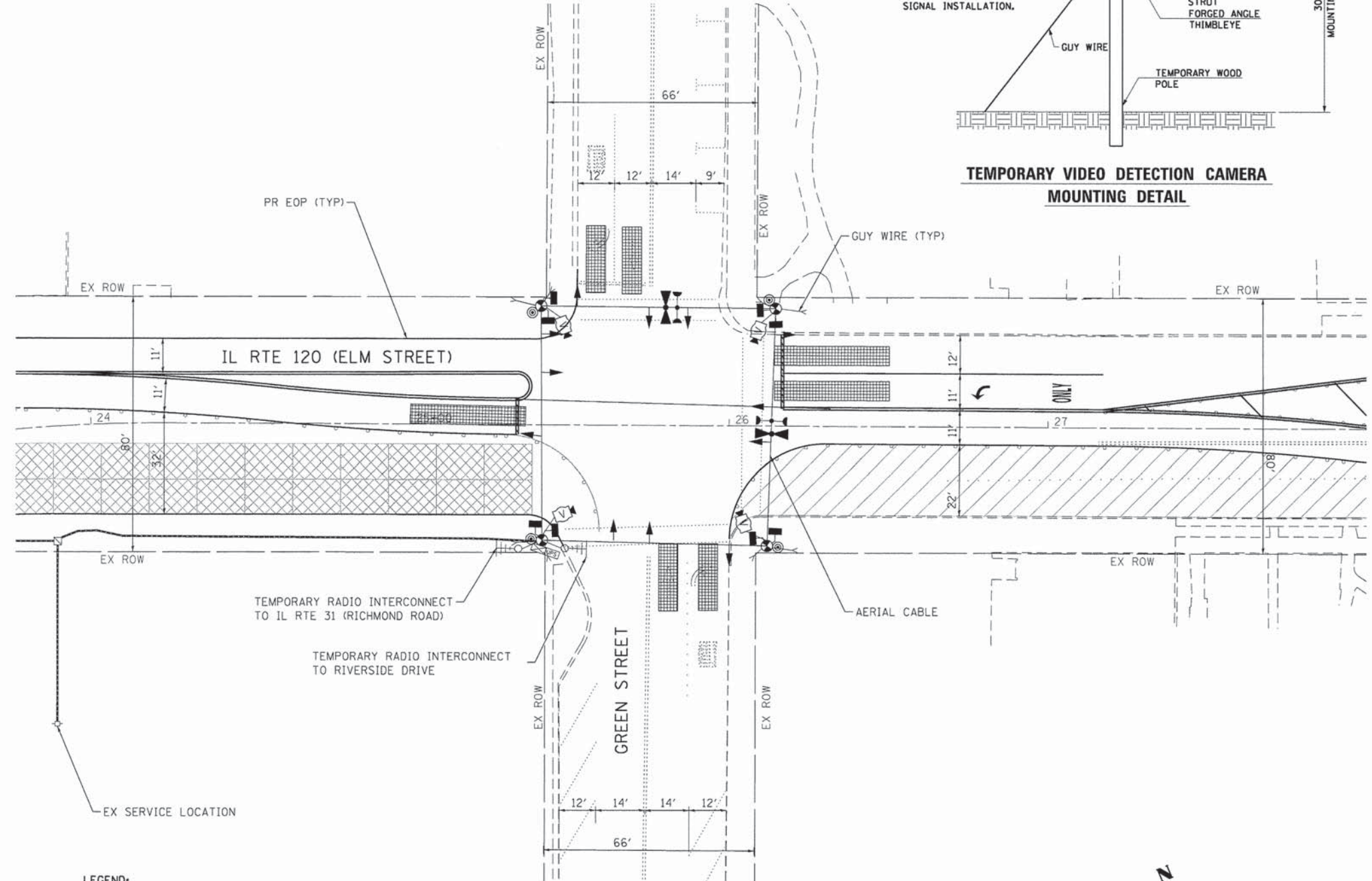


NOTES FOR TEMPORARY TRAFFIC SIGNALS

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7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
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TEMPORARY VIDEO DETECTION CAMERA MOUNTING DETAIL



**CONSTRUCTION NOTES**

ALL TEMPORARY PEDESTRIAN SIGNAL HEADS SHALL BE BAGGED AND DISCONNECTED WHEN EXISTING PAVEMENT IS REMOVED AND REMAINED BAGGED UNTIL PAVEMENT IS RESTORED, AND AS DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

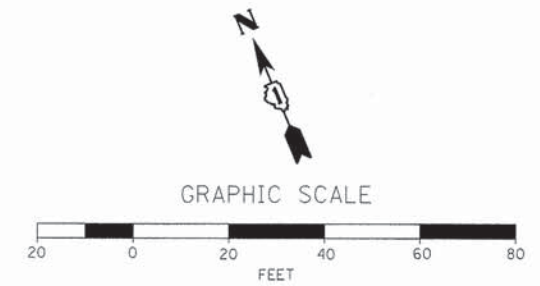
**RESTORATION OF WORK AREA**

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 ROADWAYS 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 LAWNS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**NOTE**

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

- LEGEND:**
- WORK ZONE
  - DETECTION ZONE
  - PROPOSED STAGE 2 PCC PAVEMENT



COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: HRGreen.com  
 CLIENT: HRGreen.com  
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 PEN TABLE: standard-trons.tbl



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PLOT SCALE = 1" = 20'	DRAWN - DS	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

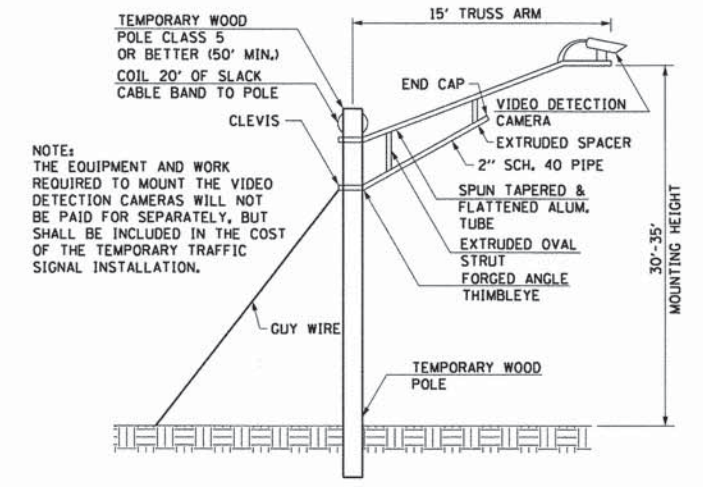
TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN - STAGE 2  
ILLINOIS ROUTE 120 AT GREEN STREET

SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

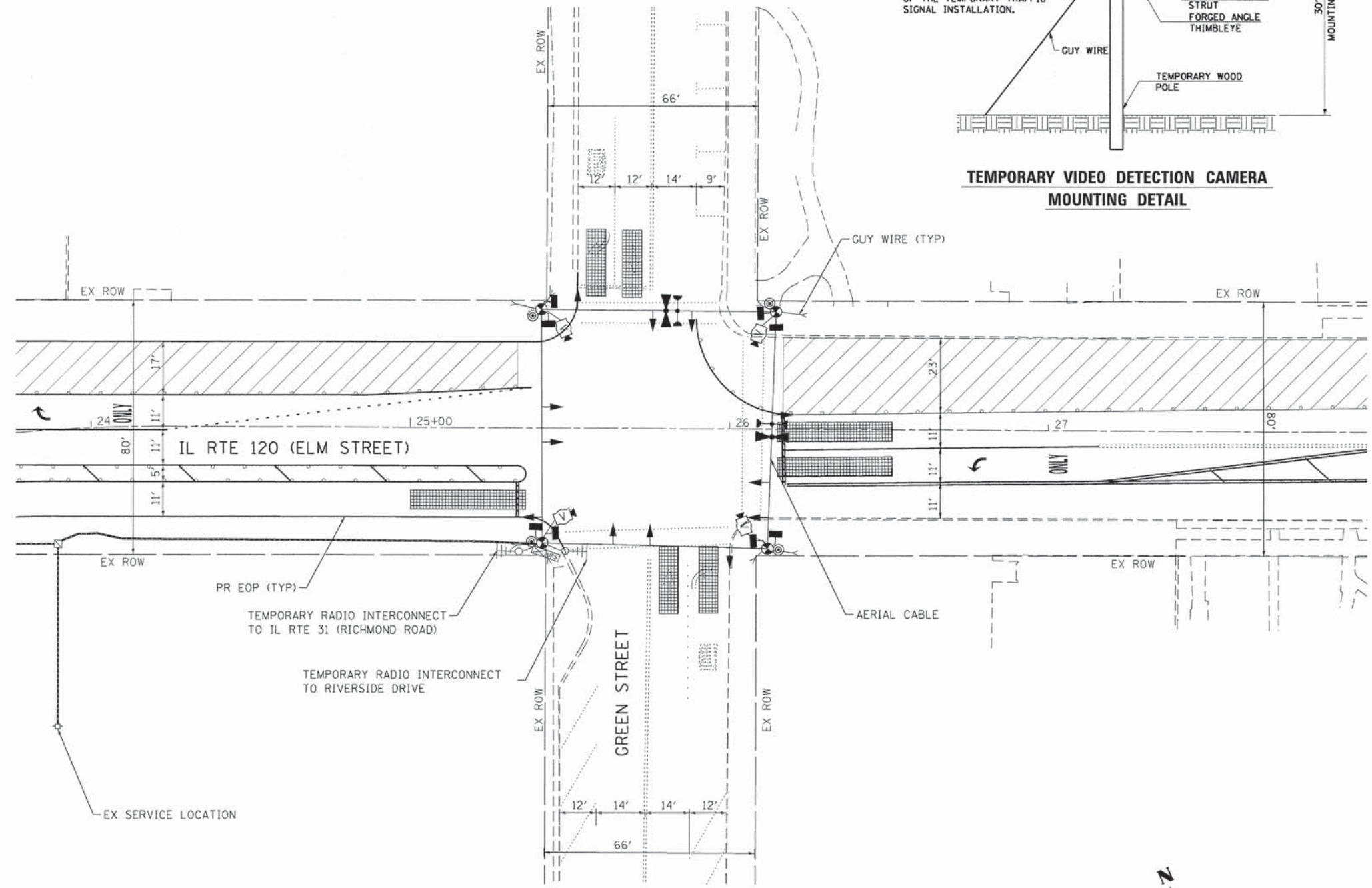
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
05-00067-00-CH		MCHENRY	226	109
FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
ILLINOIS/FED. AID PROJECT				

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 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 LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. 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 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. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



TEMPORARY VIDEO DETECTION CAMERA MOUNTING DETAIL



CONSTRUCTION NOTES

ALL TEMPORARY PEDESTRIAN SIGNAL HEADS SHALL BE BAGGED AND DISCONNECTED WHEN EXISTING PAVEMENT IS REMOVED AND REMAINED BAGGED UNTIL PAVEMENT IS RESTORED, AND AS DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

RESTORATION OF WORK AREA

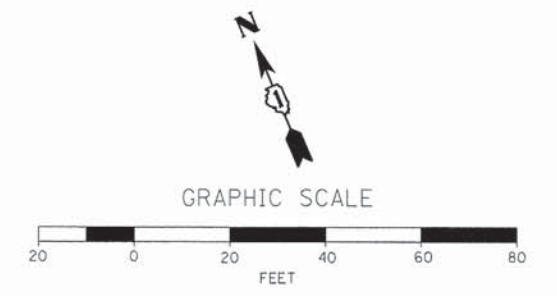
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAYS SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND.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

NOTE

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

LEGEND:

- WORK ZONE
- DETECTION ZONE
- PROPOSED STAGE 3 PCC PAVEMENT



COMPANY NAME: HRGreen  
 PROJECT CONTACT: HRGreen.com  
 DATE PLOTTED: 08/06/11 15:02:02  
 FILE NAME: 080611-151022-cr-ann.dgn  
 PLOT DRIVER: pdfplot  
 PEN TABLE: standard-trans.tbl

**HRGreen**  
 Illinois Professional Design Firm  
 # 184-001322

USER NAME = jma\jui	DESIGNED - JJS	REVISED -
PLOT SCALE = 1" = 20'	DRAWN - DS	REVISED -
PLOT DATE = .DATE1.	CHECKED - CP	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN - STAGE 3**  
**ILLINOIS ROUTE 120 AT GREEN STREET**

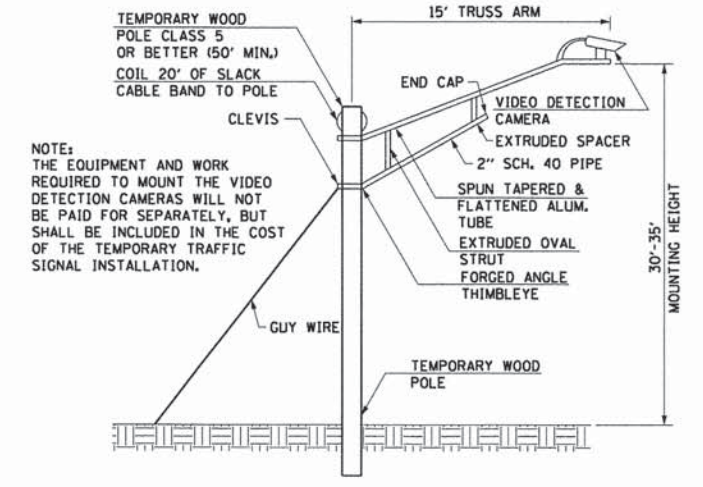
SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	110
* FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				

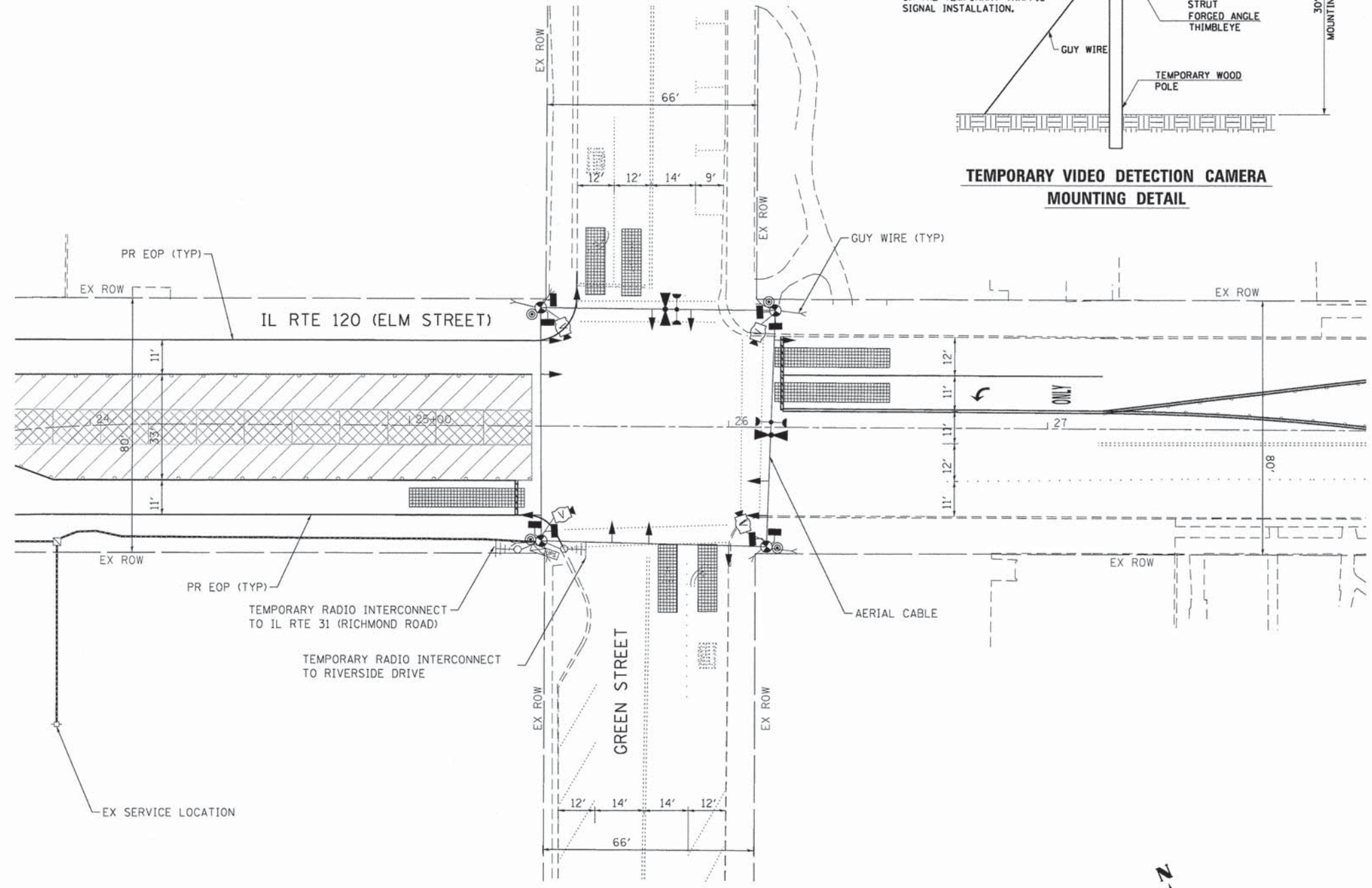


NOTES FOR TEMPORARY TRAFFIC SIGNALS

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 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 LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. 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 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. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



TEMPORARY VIDEO DETECTION CAMERA MOUNTING DETAIL



- LEGEND:**
- WORK ZONE
  - DETECTION ZONE
  - PROPOSED STAGE 4A PCC PAVEMENT

**CONSTRUCTION NOTES**

ALL TEMPORARY PEDESTRIAN SIGNAL HEADS SHALL BE BAGGED AND DISCONNECTED WHEN EXISTING PAVEMENT IS REMOVED AND REMAINED BAGGED UNTIL PAVEMENT IS RESTORED, AND AS DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

**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 ROADWAYS 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 LAWNS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**NOTE**

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

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 PROJECT CONTACT: HRGreen.com  
 CLIENT: Illinois Professional Design Firm  
 DATE PLOTTED: 08/06/17 10:00:00  
 FILE NAME: 080617-rs10028-green.dgn  
 PLOT DRIVER: pdr.dwt  
 PEN TABLE: sfontcolor=trans.tbl

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		DRAWN - DS	REVISED -
	PLOT SCALE = 1" = 20'	CHECKED - CP	REVISED -
	PLOT DATE = .DATE1.	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN - STAGE 4A  
ILLINOIS ROUTE 120 AT GREEN STREET

SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	112
* FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				

**CONSTRUCTION NOTES**

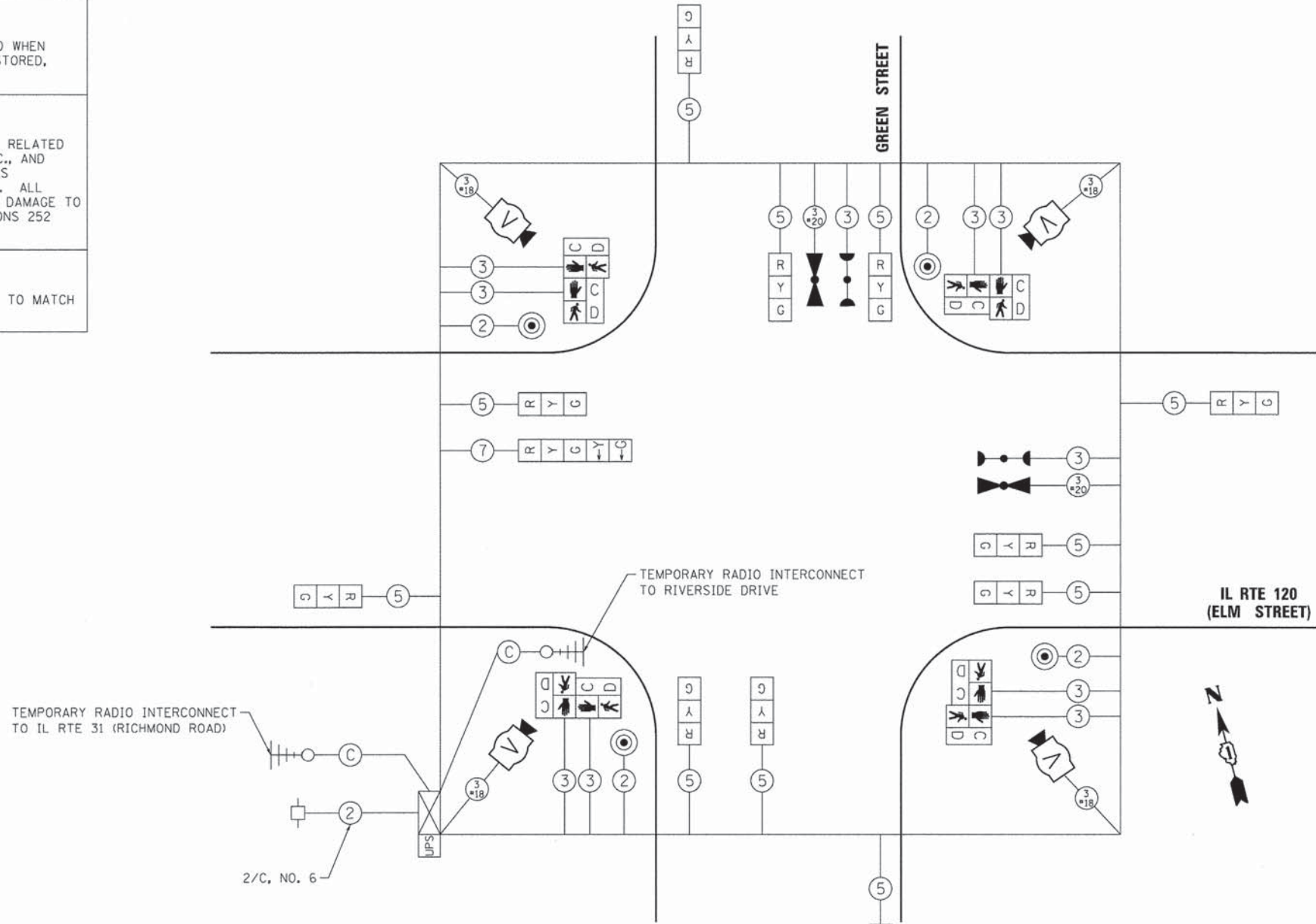
ALL TEMPORARY PEDESTRIAN SIGNAL HEADS SHALL BE BAGGED AND DISCONNECTED WHEN EXISTING PAVEMENT IS REMOVED AND REMAINED BAGGED UNTIL PAVEMENT IS RESTORED, AND AS DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

**RESTORATION OF WORK AREA**

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**NOTE**

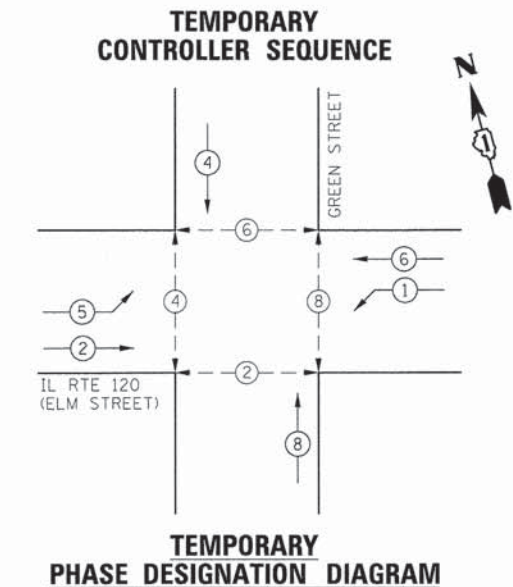
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.



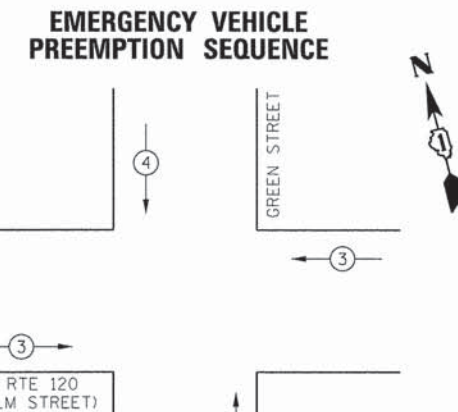
I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW (YELLOW)	1		12	0.10	1.20
(GREEN)	1		12	0.10	1.20
PEDESTRIAN SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
VIDEO SYSTEM	1		15	1.00	15.00
TEMPORARY UPS	1		25	1.00	25.00
<b>TOTAL =</b>					<b>564.40</b>

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 W. CENTER COURT  
SCHAUMBURG, IL 60196

ENERGY SUPPLY CONTACT: NORA FERNANDEZ  
PHONE: (866) 639-3532  
COMPANY: COMMONWEALTH EDISON



**TEMPORARY CABLE PLAN  
STAGE I THRU STAGE 4A**



TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
TEMPORARY EMERGENCY VEHICLE PREEMPTORS	3	4	
MOVEMENT	← →	↑ ↓	

COMPANY NAME: HRGreen  
 PROJECT CONTACT: HRGreen.com  
 CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DATE PLOTTED: 08/06/11 10:00:00 AM  
 FILE NAME: 080611-141000-080611.dgn  
 PLOT DRIVER: pdt2011  
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PLOT SCALE = NTS	DRAWN - DS	REVISED -
PLOT DATE = .DATE1.	CHECKED - CP	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION  
DIAGRAM - STAGE I THRU 4A  
ILLINOIS ROUTE 120 AT GREEN STREET**

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	113
* FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				

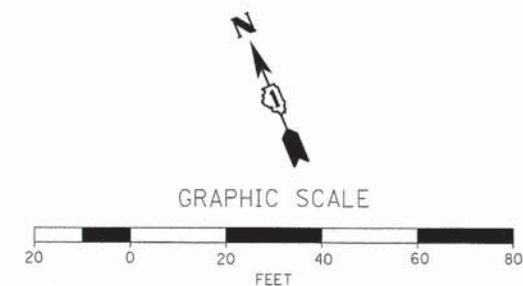
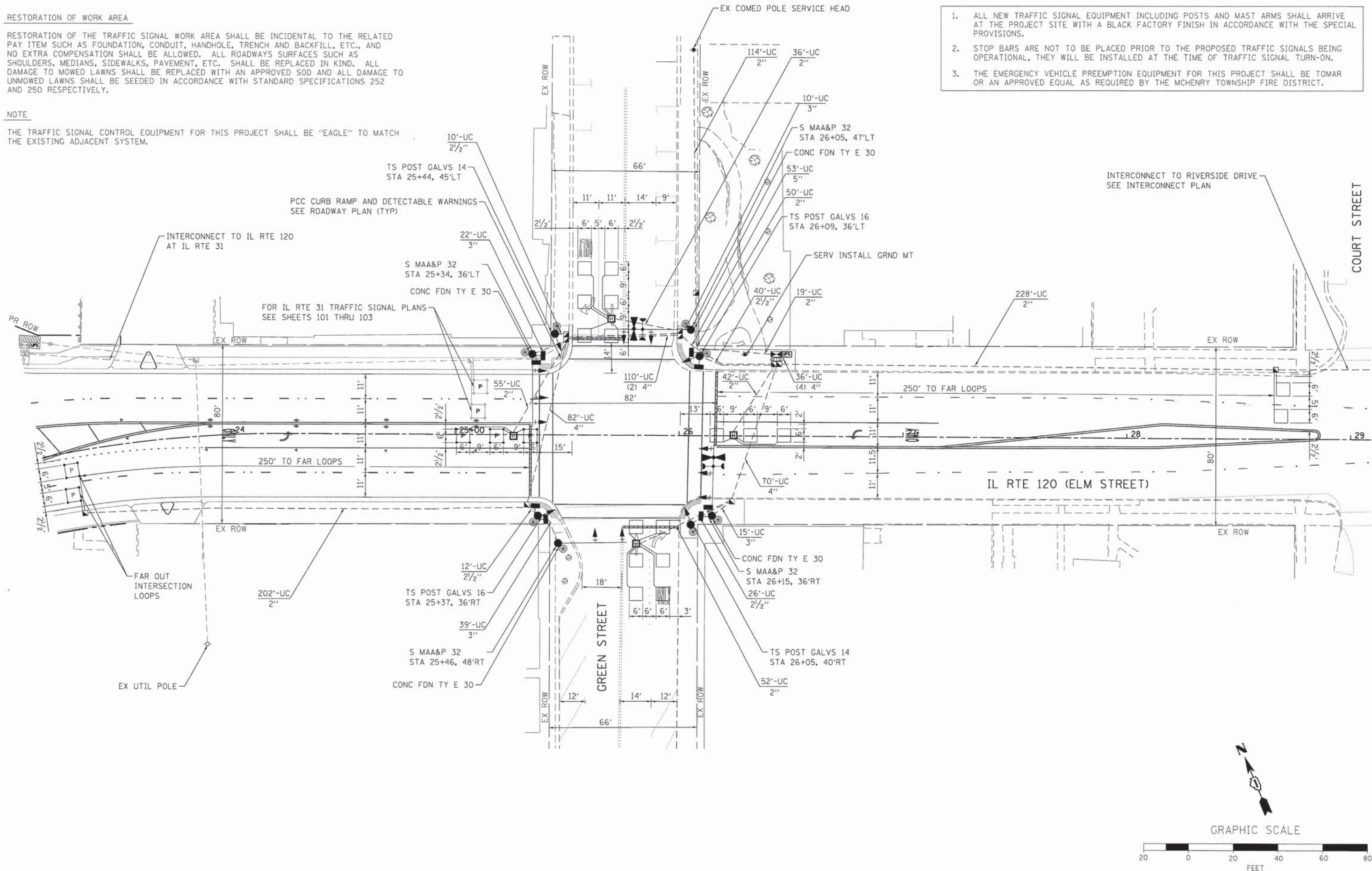
**RESTORATION OF WORK AREA**

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 ROADWAYS 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 LAWNS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**NOTE**

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

1. ALL NEW TRAFFIC SIGNAL EQUIPMENT INCLUDING POSTS AND MAST ARMS SHALL ARRIVE AT THE PROJECT SITE WITH A BLACK FACTORY FINISH IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
2. STOP BARS ARE NOT TO BE PLACED PRIOR TO THE PROPOSED TRAFFIC SIGNALS BEING OPERATIONAL. THEY WILL BE INSTALLED AT THE TIME OF TRAFFIC SIGNAL TURN-ON.
3. THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE TOMAR OR AN APPROVED EQUAL AS REQUIRED BY THE MCHENRY TOWNSHIP FIRE DISTRICT.



COMPANY NAME: HRGreen  
 PROJECT CONTACT: jmelhus  
 CLIENT: HRGreen.com  
 DATE PLOTTED: 08/24/24 3:24:45 PM  
 FILE NAME: 080611-sig02b-green.dgn  
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**HRGreen**  
 Illinois Professional Design Firm  
 #184-001322

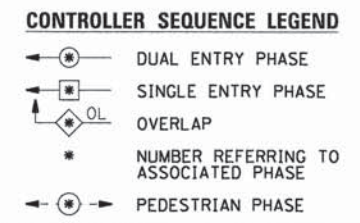
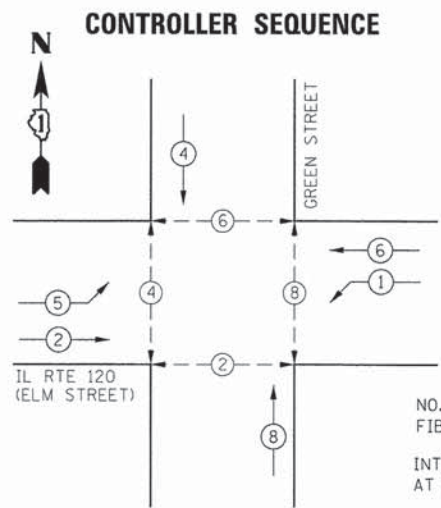
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	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

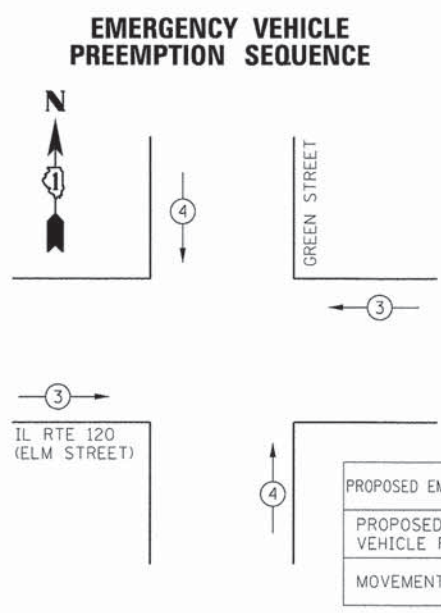
**TRAFFIC SIGNAL INSTALLATION PLAN  
 ILLINOIS ROUTE 120 AT GREEN STREET**

SCALE: 1" = 20'    SHEET NO. 1 OF 1 SHEETS    STA.    TO STA.

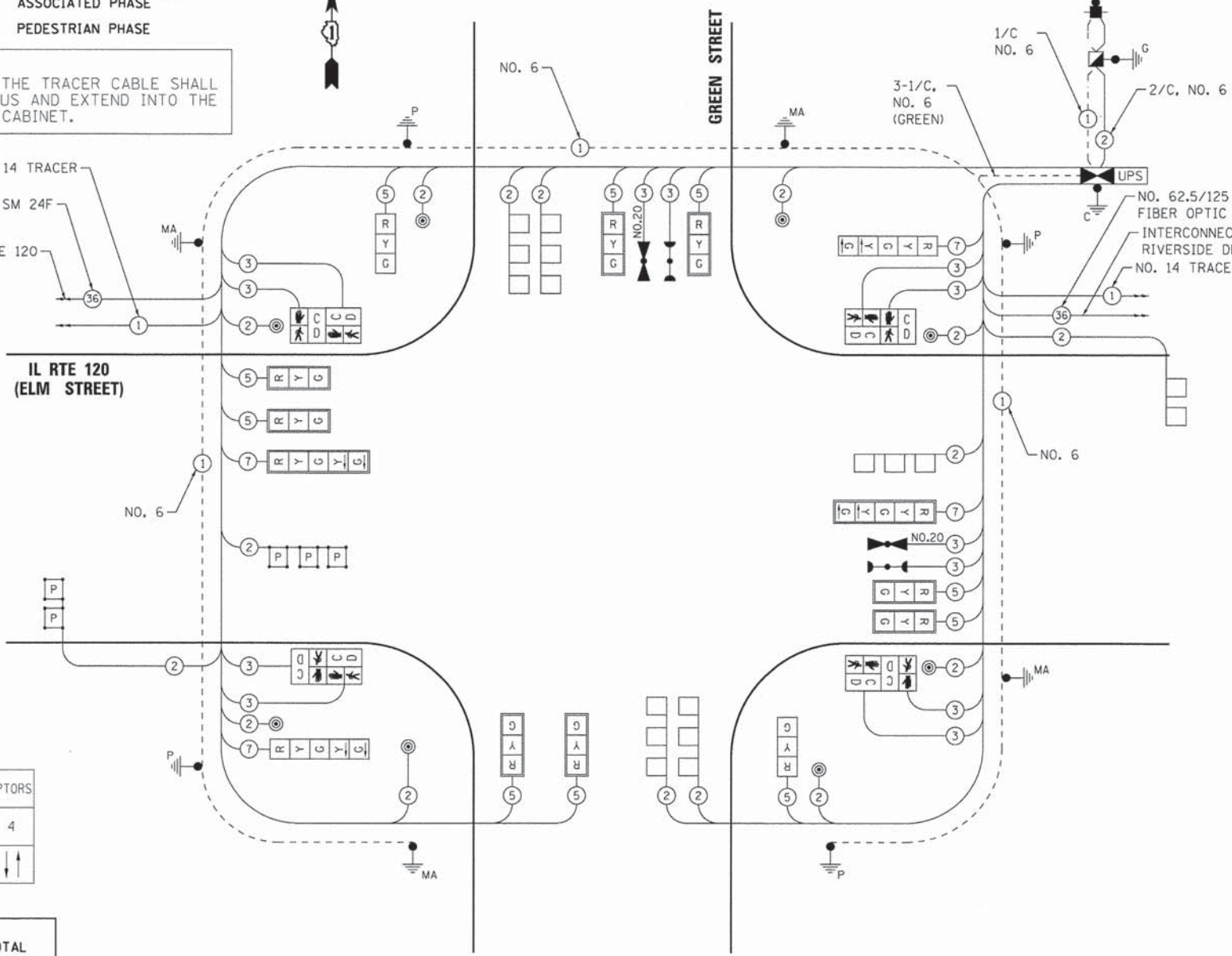
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-00067-00-CH	MCHENRY	226	114
•	FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750	
[ILLINOIS] FED. AID PROJECT				



NOTE:  
THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
PROPOSED EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	←	↑



NOTE:  
THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

### SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SQ FT	13.50
SIGN PANEL - TYPE 2	SQ FT	25.00
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	798.0
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	88.0
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	86.0
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	308.0
UNDERGROUND CONDUIT, GALVANIZED STEEL, 5" DIA.	FOOT	53.0
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	3
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PAINT NEW TRAFFIC SIGNAL POST	EACH	4
PAINT NEW MAST ARM AND POLE, UNDER 40 FOOT	EACH	4
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1,430.5
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,777.5
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2,120.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	793.0
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,601.0
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	211.5
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1,475.0
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	4
CONCRETE FOUNDATION, TYPE A	FOOT	20.0
CONCRETE FOUNDATION, TYPE C	FOOT	4.0
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	54.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	10
INDUCTIVE LOOP DETECTOR	EACH	10
DETECTOR LOOP, TYPE 1	FOOT	588.0
PERFORMED DETECTOR LOOP	FOOT	163.0
* LIGHT DETECTOR	EACH	4
* LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	7,579.0
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	8
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
* EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	339.5
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1

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

TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	17	0.50	119	
(YELLOW)	14	25	0.25	87.50	
(GREEN)	14	15	0.25	52.50	
ARROW (YELLOW)	4	12	0.10	4.80	
(GREEN)	4	12	0.10	4.80	
PEDESTRIAN SIGNAL	8	25	1.00	200	
CONTROLLER	1	100	1.00	100	
UPS	1	25	1.00	25	
<b>TOTAL = 593.60</b>					

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 W. CENTER COURT  
SCHAUMBURG, IL 60196

ENERGY SUPPLY CONTACT: NORA FERNANDEZ  
PHONE: (866) 639-3532  
COMPANY: COMMONWEALTH EDISON

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

NOTE:  
THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE TOMAR OR AN APPROVED EQUAL.

COMPANY NAME: HRGreen  
PROJECT CONTACT: HRGreen.com  
DATE PLOTTED: 08/06/11 3:02:02 PM  
FILE NAME: 080611-sig02-green.dgn  
PLOT DRIVER: pdfar  
PEN TABLE: s:\standard-trans.tbl



USER NAME = jmelhus	DESIGNED - JJS	REVISED -
PLOT SCALE = NTS	DRAWN - DS	REVISED -
PLOT DATE = .DATE1.	CHECKED - CP	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM  
ILLINOIS ROUTE 120 AT GREEN STREET  
SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.

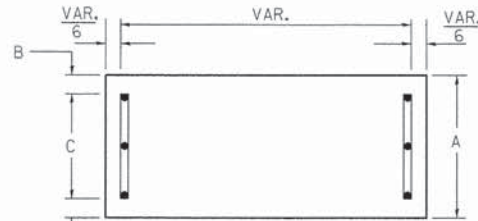
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	115
* FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750		
ILLINOIS FED. AID PROJECT				

PANEL SIGN DESIGN TYPE 2

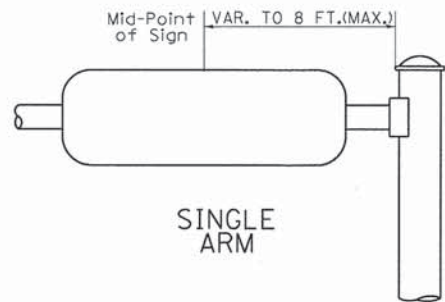


12.50 Sq. Ft each  
2 Required  
Design Series D

SUPPORTING CHANNELS

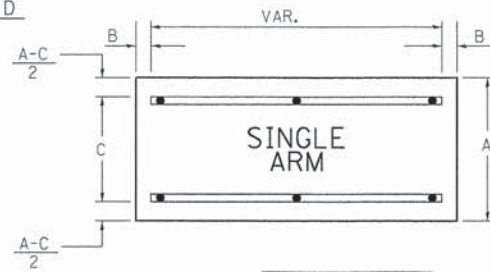


A	B	C
18"	2"	14"

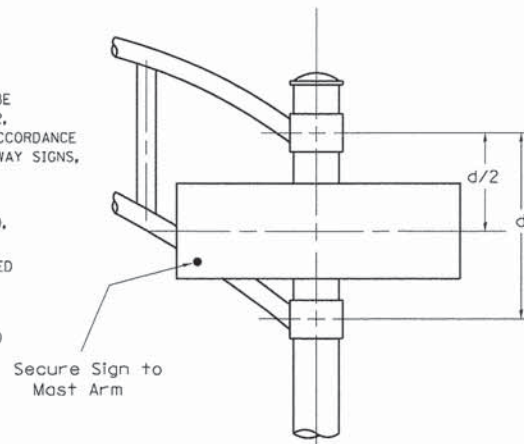


SINGLE ARM

SUPPORTING CHANNELS



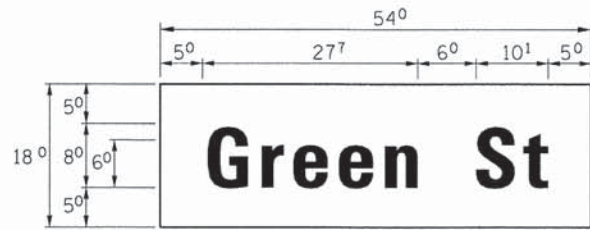
A	B	C
18"	2"	12"
30"	2"	22"



DUAL ARM

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

PANEL SIGN DESIGN TYPE 1



6.75 Sq. Ft each  
2 Required  
Design Series D

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

SERIES	SECOND LETTER															
	acde		bhikl		fw		j		st		vy		xz			
	g	o	q	m	n	p	r	u								
A W X	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>
B	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>
C E G	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>
D O Q R	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>
F	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>4</sup>	1 <sup>5</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>
H I M N	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>2</sup>	2 <sup>4</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>
J U	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>0</sup>	2 <sup>1</sup>
K L	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>
P	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
S	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
T	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>6</sup>	1 <sup>7</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>
V	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
Y	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>4</sup>	1 <sup>5</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>5</sup>	0 <sup>7</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>
Z	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>2</sup>	2 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>0</sup>	2 <sup>1</sup>

EXAMPLE, 2<sup>3</sup> DENOTES 3/8"

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

SERIES	SECOND LETTER															
	acde		bhikl		fw		j		st		vy		xz			
	g	o	q	m	n	p	r	u								
a d h g i j	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>2</sup>	2 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>
l m n q u																
b f k o p s	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
c e	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
r	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>3</sup>	0 <sup>3</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>
t z	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
v y	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>
w	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>
x	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>

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

SERIES	SECOND LETTER																	
	0	1	2	3	4	5	6	7	8	9								
	0 9	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>
1	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>
2 3 4	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>6</sup>	1 <sup>7</sup>
5	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>
6	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>
7	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>5</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>
8	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>

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

NUMBER	6 INCH SERIES		8 INCH SERIES	
	C	D	C	D
1	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>
2	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
3	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
4	3 <sup>5</sup>	4 <sup>3</sup>	4 <sup>7</sup>	5 <sup>7</sup>
5	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
6	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
7	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
8	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
9	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
0	3 <sup>4</sup>	4 <sup>2</sup>	4 <sup>5</sup>	5 <sup>5</sup>

GENERAL NOTES

- 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 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-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.
- ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
- THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 8'-0".
- ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2-1/4".
- 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:

\* J.O. HERBERT CO. MIDLOTHIAN, VA. \* WESTERN REMAC INC. WOODRIDGE, IL.

PARTS LISTING:  
SIGN CHANNEL PART #HPN053 (MED. CHANNEL)  
SIGN SCREWS 1/4" x 14 x 1" H.W.H. #3  
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/BACKET OF THE ABOVE PRODUCT.

COMPANY NAME: HRGreen  
PROJECT CONTACT: HRGreen.com  
CLIENT: Illinois Professional Design Firm  
DATE PLOTTED: 3/15/25  
FILE NAME: 0



NOTES FOR TEMPORARY TRAFFIC SIGNALS

- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
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- LEGEND:**
- WORK ZONE
  - DETECTION ZONE
  - PROPOSED STAGE 1 PCC PAVEMENT
  - TEMPORARY PAVEMENT

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 ALUMINUM MAST ARM ASSEMBLY AND POLE
- 4 EACH SIGNAL POST
- 7 EACH SIGNAL HEAD, 1-FACE, 3 SECTION
- 2 EACH SIGNAL HEAD, 1-FACE, 5 SECTION
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 2 EACH PEDESTRIAN PUSH BUTTON
- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 1 EACH SERVICE INSTALLATION

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: MCHENRY TOWNSHIP FIRE PROTECTION DISTRICT
- 2 EACH EMERGENCY VEHICLE LIGHT DETECTOR
  - 1 EACH LIGHT DETECTOR AMPLIFIER

**CONSTRUCTION NOTES**

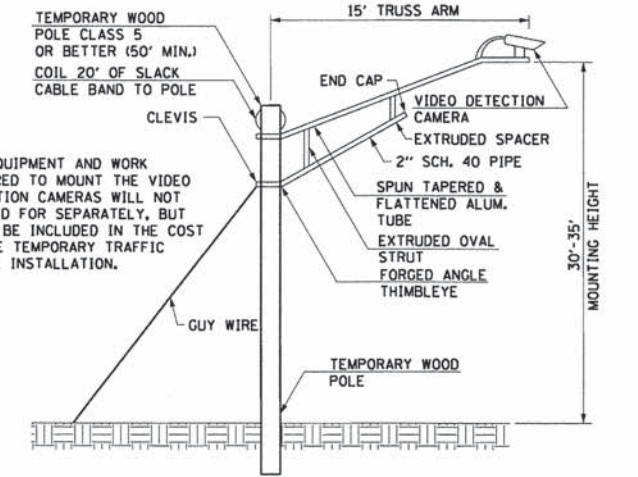
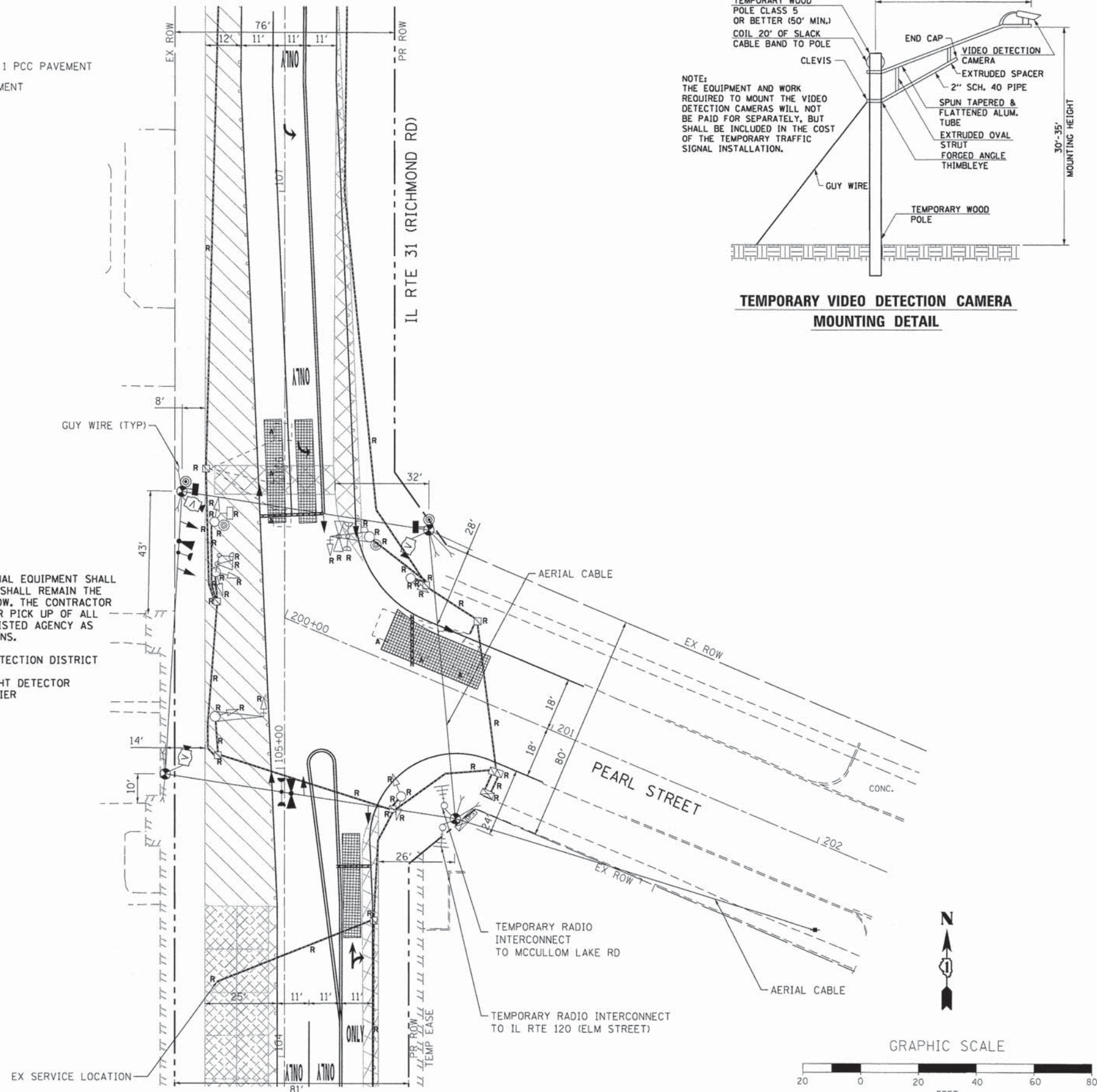
ALL TEMPORARY PEDESTRIAN SIGNAL HEADS SHALL BE BAGGED AND DISCONNECTED WHEN EXISTING PAVEMENT IS REMOVED AND REMAINED BAGGED UNTIL PAVEMENT IS RESTORED, AND DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

**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 ROADWAYS 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 LAWNS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**NOTE**

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



**TEMPORARY VIDEO DETECTION CAMERA MOUNTING DETAIL**

COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: HRGreen.com  
 CLIENT: HRGreen.com  
 DATE PLOTTED: 05/06/2019  
 PLOT DRIVER: pldrvr  
 PEN TABLE: pen.tbl



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	DRAWN - DS	REVISED -
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PLOT DATE = DATE1	DATE -	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

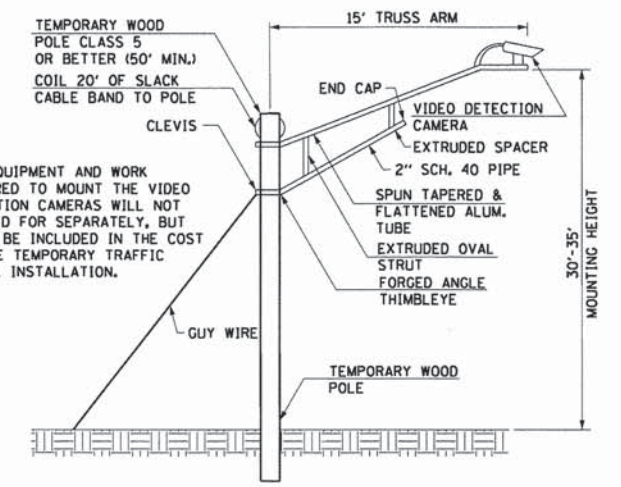
**TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN - STAGE I ILLINOIS ROUTE 31 AT PEARL STREET**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• FAP 333, FAP 336, FAU 81	05-00067-00-CH	MCHENRY	226	117
CONTRACT NO. 63750				
ILLINOIS FED. AID PROJECT				

SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

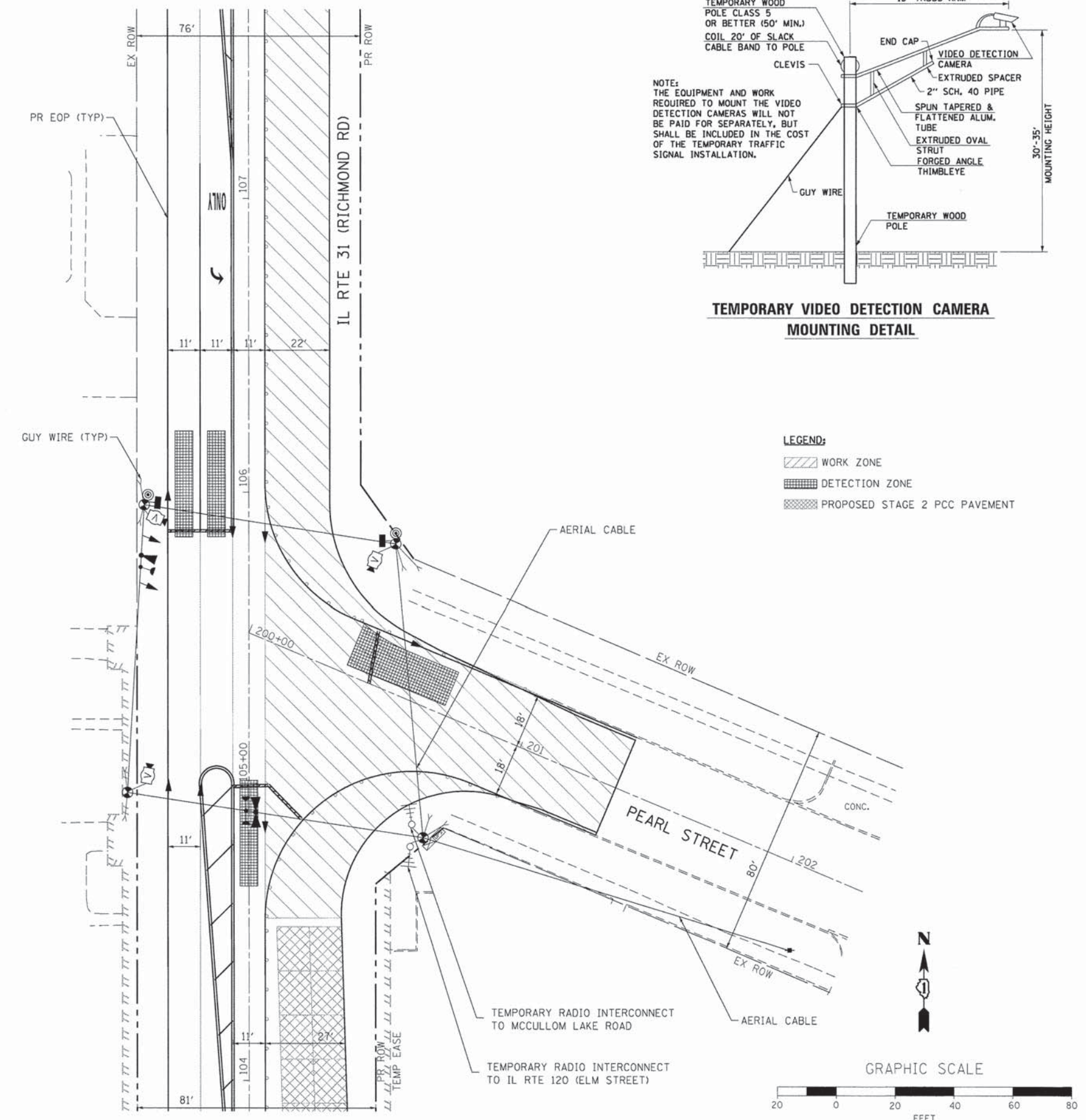
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**TEMPORARY VIDEO DETECTION CAMERA MOUNTING DETAIL**

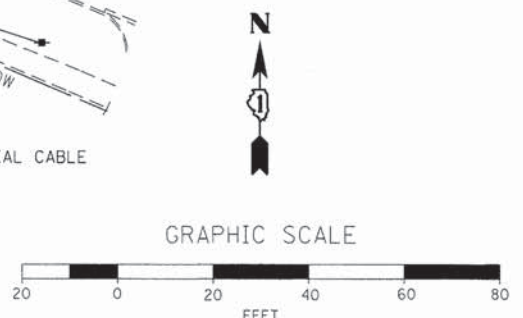
- LEGEND:**
- WORK ZONE
  - DETECTION ZONE
  - PROPOSED STAGE 2 PCC PAVEMENT



**CONSTRUCTION NOTE**  
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**NOTE**  
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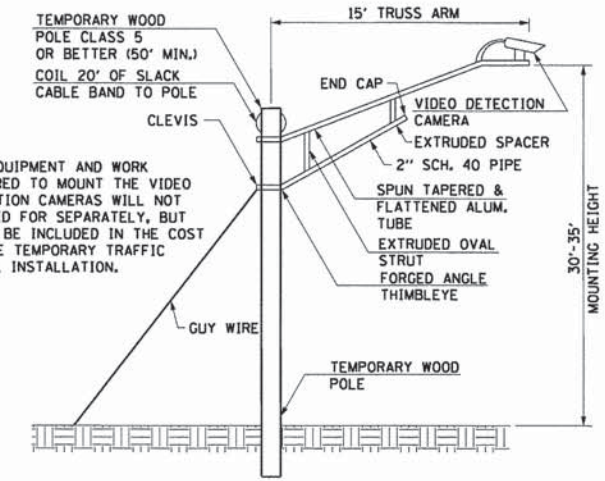


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PROJECT CONTACT: HRGreen  
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PLOT DRIVER: pdf.plt  
PEN TABLE: standard-trans.tbl

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	PLOT SCALE = 1" = 28' PLOT DATE = .DATEL.	SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.	CONTRACT NO. 63750 ILLINOIS FED. AID PROJECT		

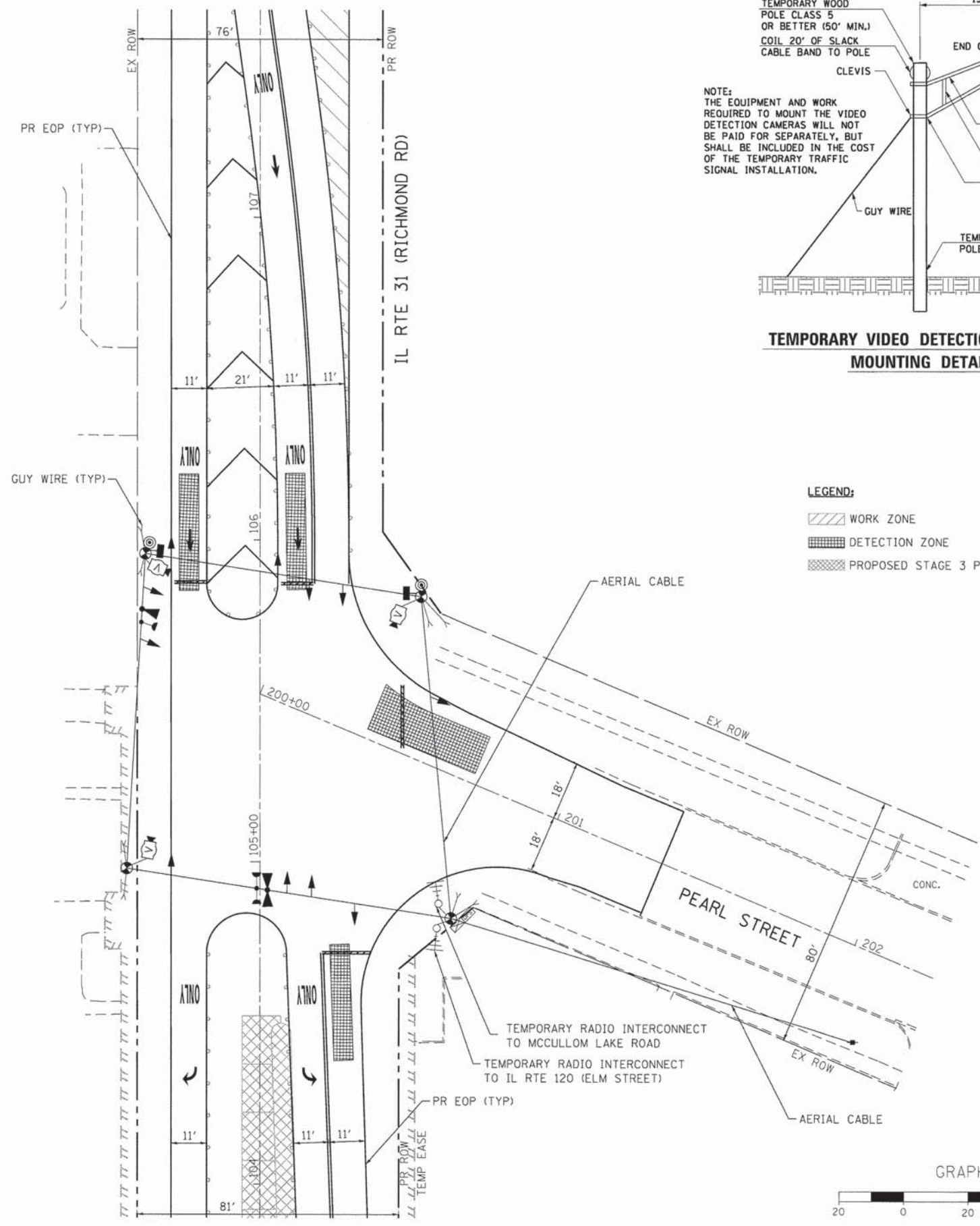
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TEMPORARY VIDEO DETECTION CAMERA MOUNTING DETAIL

- LEGEND:
- WORK ZONE
  - DETECTION ZONE
  - PROPOSED STAGE 3 PCC PAVEMENT



**CONSTRUCTION NOTE**  
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**NOTE**  
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

COMPANY NAME: HRGreen  
PROJECT CONTACT: HRGreen.com  
CLIENT: Illinois Professional Design Firm  
DATE PLOTTED: 08/05/11 10:50:30  
FILE NAME: 080511-fs1030-pearl10gn  
PLOT DRIVER: pd10gn  
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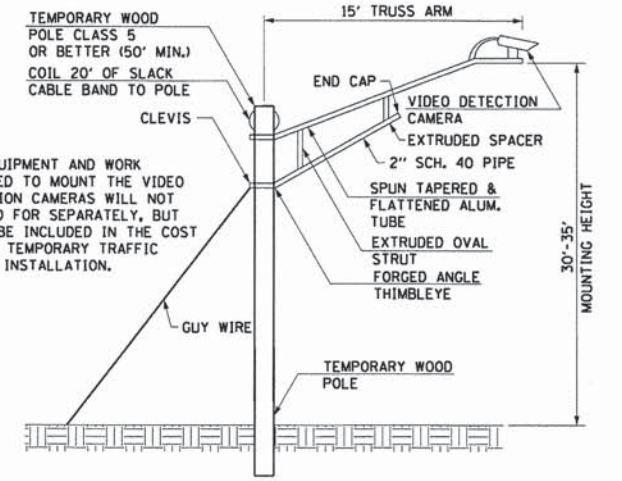
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN  
STAGE 3  
ILLINOIS ROUTE 31 AT PEARL STREET  
SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333, 336, 81	05-00067-00-CH	MCHENRY	226	119
CONTRACT NO. 63750			ILLINOIS FED. AID PROJECT	

NOTES FOR TEMPORARY TRAFFIC SIGNALS

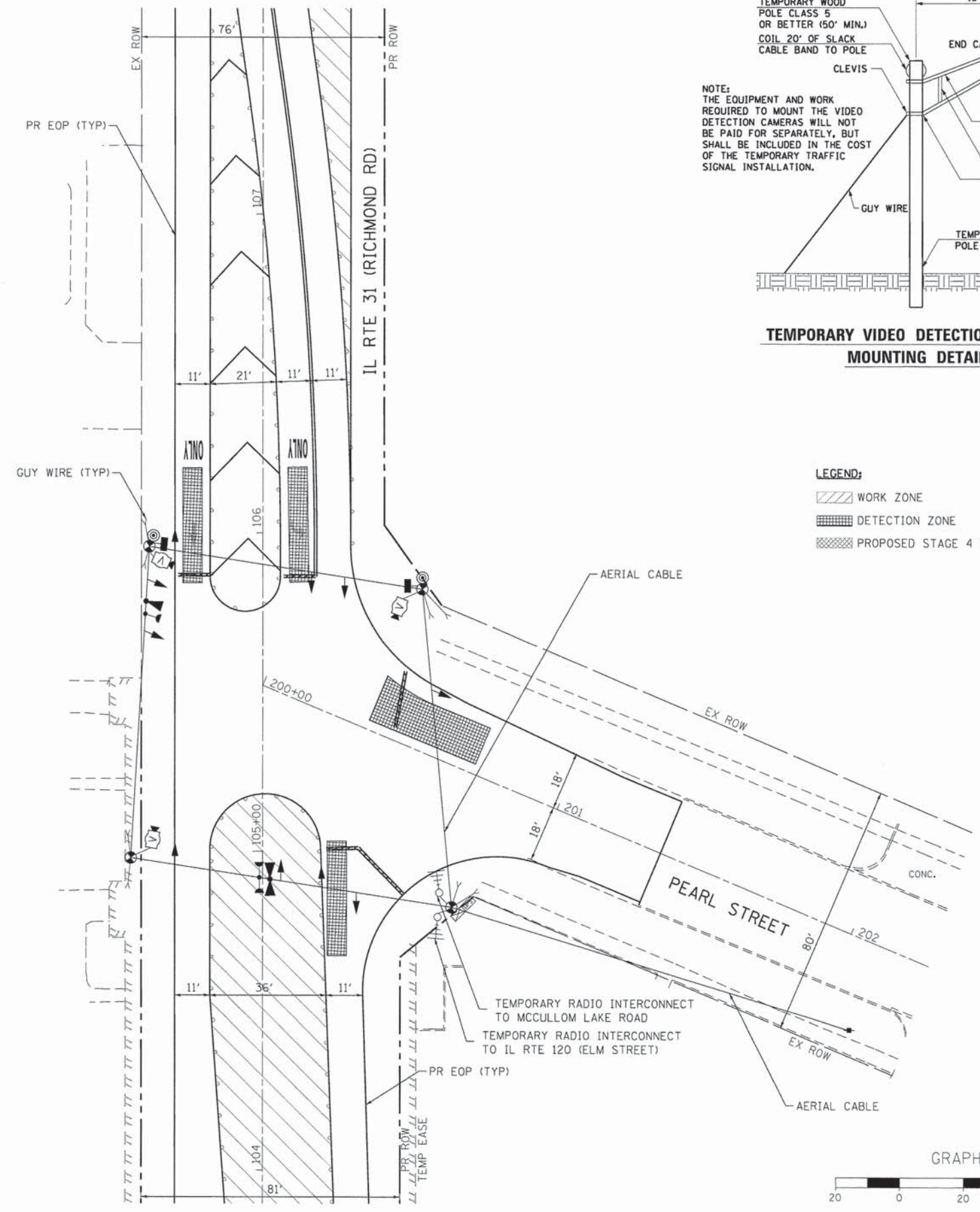
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10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



NOTE:  
THE EQUIPMENT AND WORK REQUIRED TO MOUNT THE VIDEO DETECTION CAMERAS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.

TEMPORARY VIDEO DETECTION CAMERA MOUNTING DETAIL

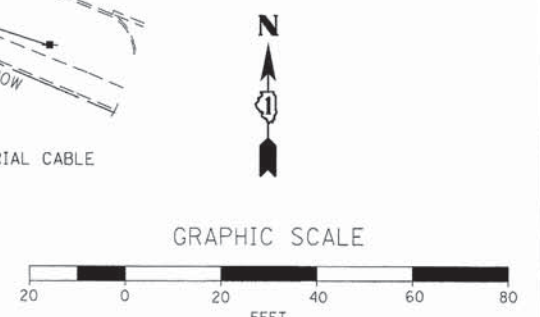
- LEGEND:
- WORK ZONE
  - DETECTION ZONE
  - PROPOSED STAGE 4 PCC PAVEMENT



**CONSTRUCTION NOTE**  
ALL TEMPORARY PEDESTRIAN SIGNAL HEADS SHALL BE BAGGED AND DISCONNECTED WHEN EXISTING PAVEMENT IS REMOVED AND REMAIN BAGGED UNTIL PAVEMENT IS RESTORED, AND AS DIRECTED BY THE ENGINEER DURING CONSTRUCTION.

**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 ROADWAYS 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 LAWNS SHALL BE SEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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



COMPANY NAME: HRGreen  
PROJECT CONTACT: HRGreen.com  
CLIENT: Illinois Professional Design Firm  
DATE PLOTTED: 08/06/11 10:50:26 AM  
FILE NAME: 080611-141020-1000.dgn  
PLOT DRIVER: pldrv.plt  
PEN TABLE: standard-trans.tbl



USER NAME = jmelhus	DESIGNED - JJS	REVISED -
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PLOT DATE = .DATE1.	CHECKED - CP	REVISED -
	DATE -	REVISED -

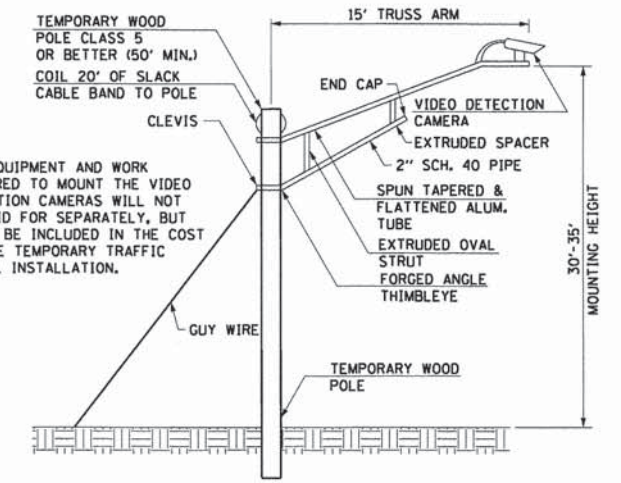
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN  
STAGE 4  
ILLINOIS ROUTE 31 AT PEARL STREET  
SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
333	05-00067-00-CH	MCHENRY	226	120
FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				

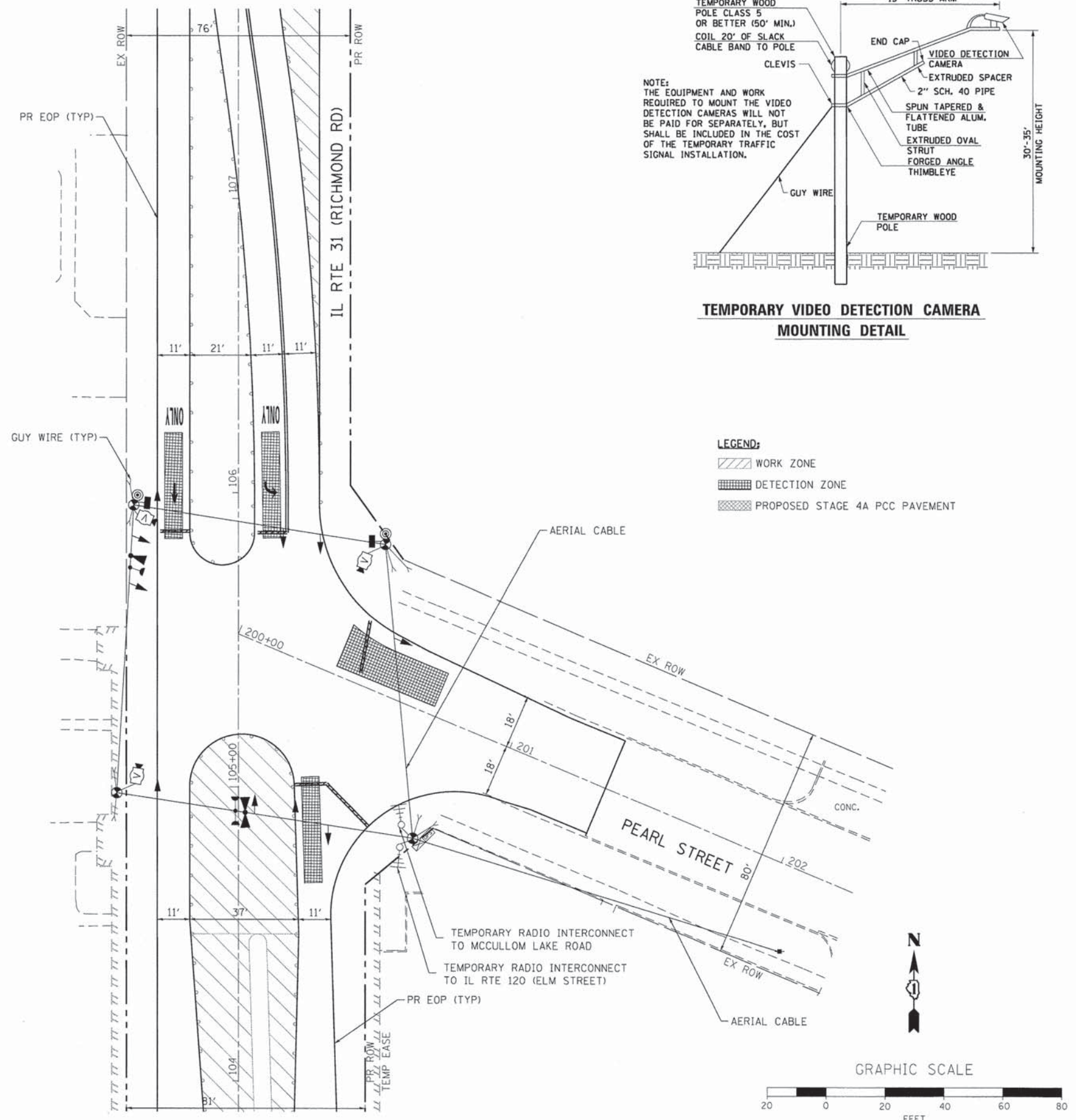
NOTES FOR TEMPORARY TRAFFIC SIGNALS

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 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 LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. 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 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. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



TEMPORARY VIDEO DETECTION CAMERA MOUNTING DETAIL

- LEGEND:
- WORK ZONE
  - DETECTION ZONE
  - PROPOSED STAGE 4A PCC PAVEMENT



**CONSTRUCTION NOTE**  
ALL TEMPORARY PEDESTRIAN SIGNAL HEADS SHALL BE BAGGED AND DISCONNECTED WHEN EXISTING PAVEMENT IS REMOVED AND REMAIN BAGGED UNTIL PAVEMENT IS RESTORED, AND AS DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

**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 ROADWAYS 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 LAWNS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

COMPANY NAME: HRGreen.com  
PROJECT CONTACT: Illinois Professional Design Firm #184-001322  
DATE: 3/13/24 PM  
FILE NAME: 080621-121020-pearl-1.dgn  
PLOT DRIVER: pldrv.plt  
PEN TABLE: standard-trns.tbl



USER NAME = jme1hu1	DESIGNED - JJS	REVISED -
PLOT SCALE = 1" = 20'	DRAWN - DS	REVISED -
PLOT DATE = .DATE1.	CHECKED - CP	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN  
STAGE 4A  
ILLINOIS ROUTE 31 AT PEARL STREET

SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• FAP 333, FAP 336, FAU 81	05-00067-00-CH	MCHENRY	226	121
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63750	

**CONSTRUCTION NOTES**

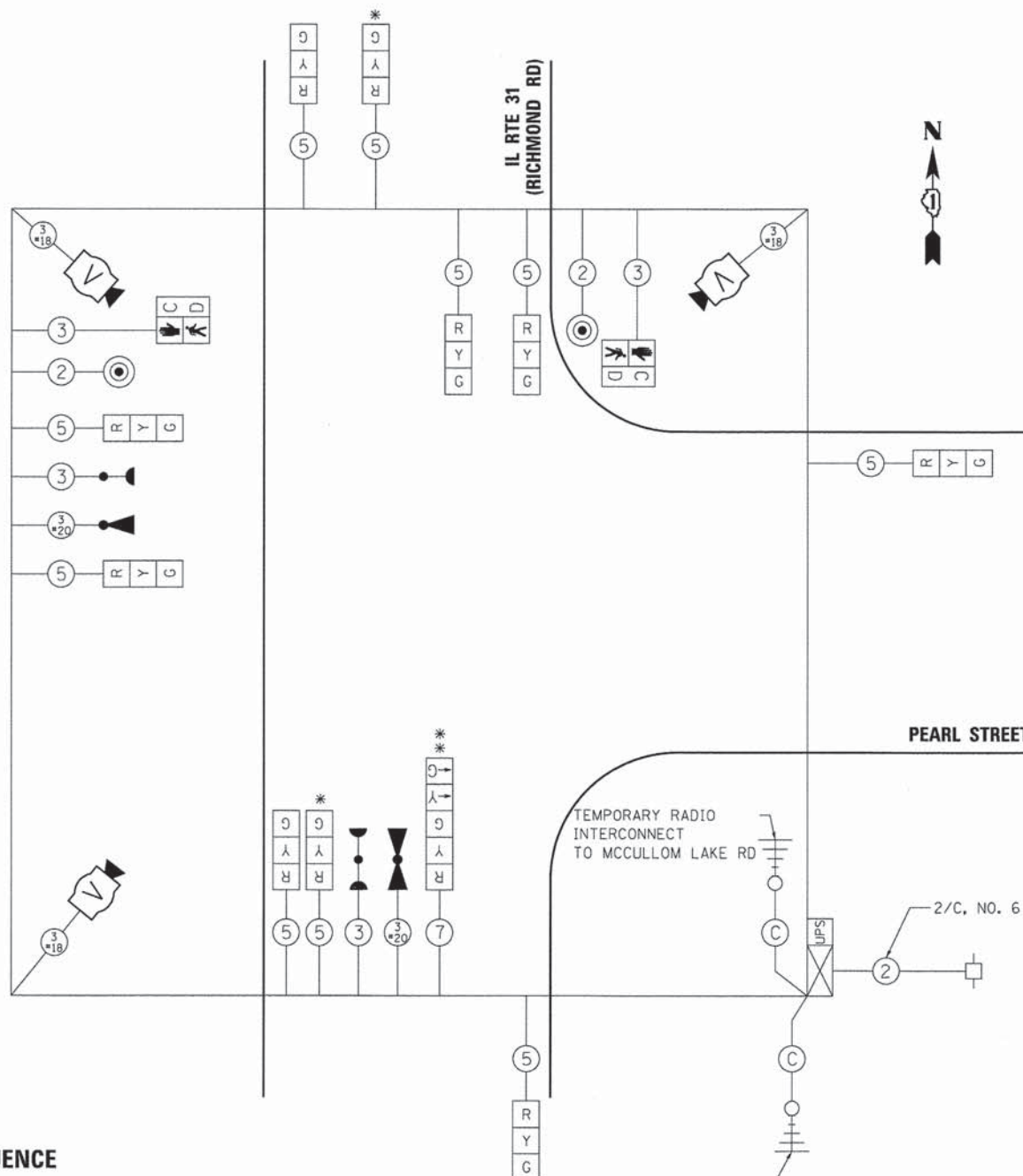
ALL TEMPORARY PEDESTRIAN SIGNAL HEADS SHALL BE BAGGED AND DISCONNECTED WHEN EXISTING PAVEMENT IS REMOVED AND REMAINED BAGGED UNTIL PAVEMENT IS RESTORED, AND AS DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

**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 ROADWAYS 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 LAWNS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**NOTE**

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



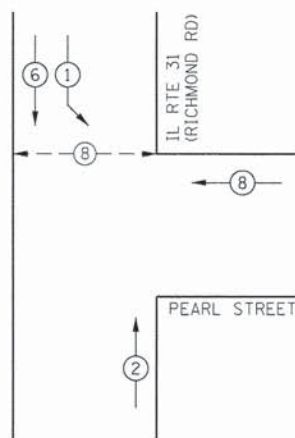
\* SIGNAL HEADS TO BE ADDED IN STAGE 3, 4 AND 4A ONLY  
 \*\* 5 SECTION SIGNAL HEAD TO BE REPLACED WITH 3 SECTION HEAD IN STAGE 3 ONLY. NO LEFT TURNS ONTO PEARL STREET WILL BE PERMITTED. CONTROLLER SEQUENCE TO BE ADJUSTED AS NEEDED.

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	11		17	0.50	93.50
(YELLOW)	11		25	0.25	68.75
(GREEN)	11		15	0.25	41.25
ARROW (YELLOW)	1		12	0.10	1.20
(GREEN)	1		12	0.10	1.20
PEDESTRIAN SIGNAL	2		25	1.00	50.00
CONTROLLER	1		100	1.00	100.00
VIDEO SYSTEM	1		15	1.00	15.00
TEMPORARY UPS	1		25	1.00	25.00
TOTAL =					395.90

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
 201 W. CENTER COURT  
 SCHAUMBURG, IL 60196

ENERGY SUPPLY CONTACT: NORA FERNANDEZ  
 PHONE: (866) 639-3532  
 COMPANY: COMMONWEALTH EDISON

**TEMPORARY CONTROLLER SEQUENCE**



**TEMPORARY PHASE DESIGNATION DIAGRAM**

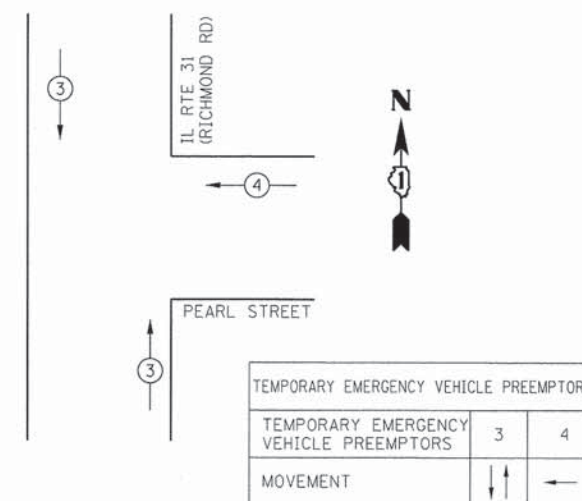
**TEMPORARY CABLE PLAN STAGE 1 THRU STAGE 4A**



**CONTROLLER SEQUENCE LEGEND**

- ← ⊙ → DUAL ENTRY PHASE
- ← ⊙ SINGLE ENTRY PHASE
- ← ⊙ OL OVERLAP
- \* NUMBER REFERRING TO ASSOCIATED PHASE
- ← ⊙ → PEDESTRIAN PHASE

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



COMPANY NAME: HRGreen  
 PROJECT CONTACT: HRGreen.com  
 CLIENT: Illinois Professional Design Firm  
 DATE PLOTTED: 08/06/11 10:00:00  
 FILE NAME: 080611-101000-pearl.rvt  
 PLOT DRIVER: pdt2007  
 PLOT TABLE: Standard-Trans.tbl



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DRAWN - DS	REVISIONS -	
PLOT SCALE = NTS	CHECKED - CP	REVISIONS -
PLOT DATE = .DATE1.	DATE -	REVISIONS -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM - STAGE 1 THRU 4A  
 ILLINOIS ROUTE 120 AT PEARL STREET  
 SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00067-00-CH	MCHENRY	226	122
FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				

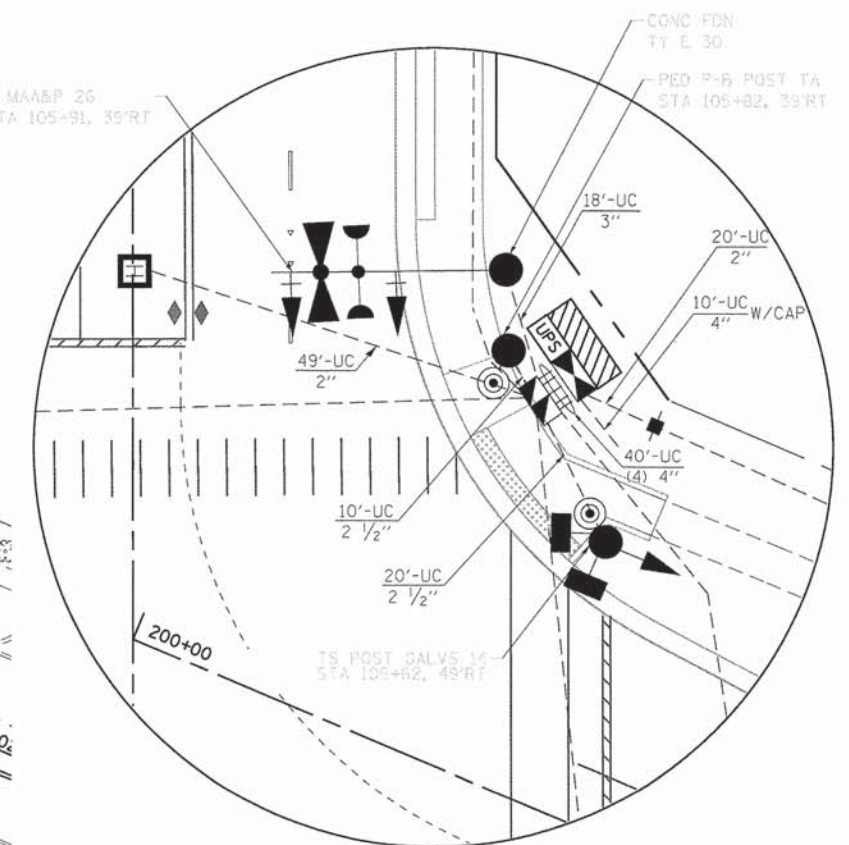
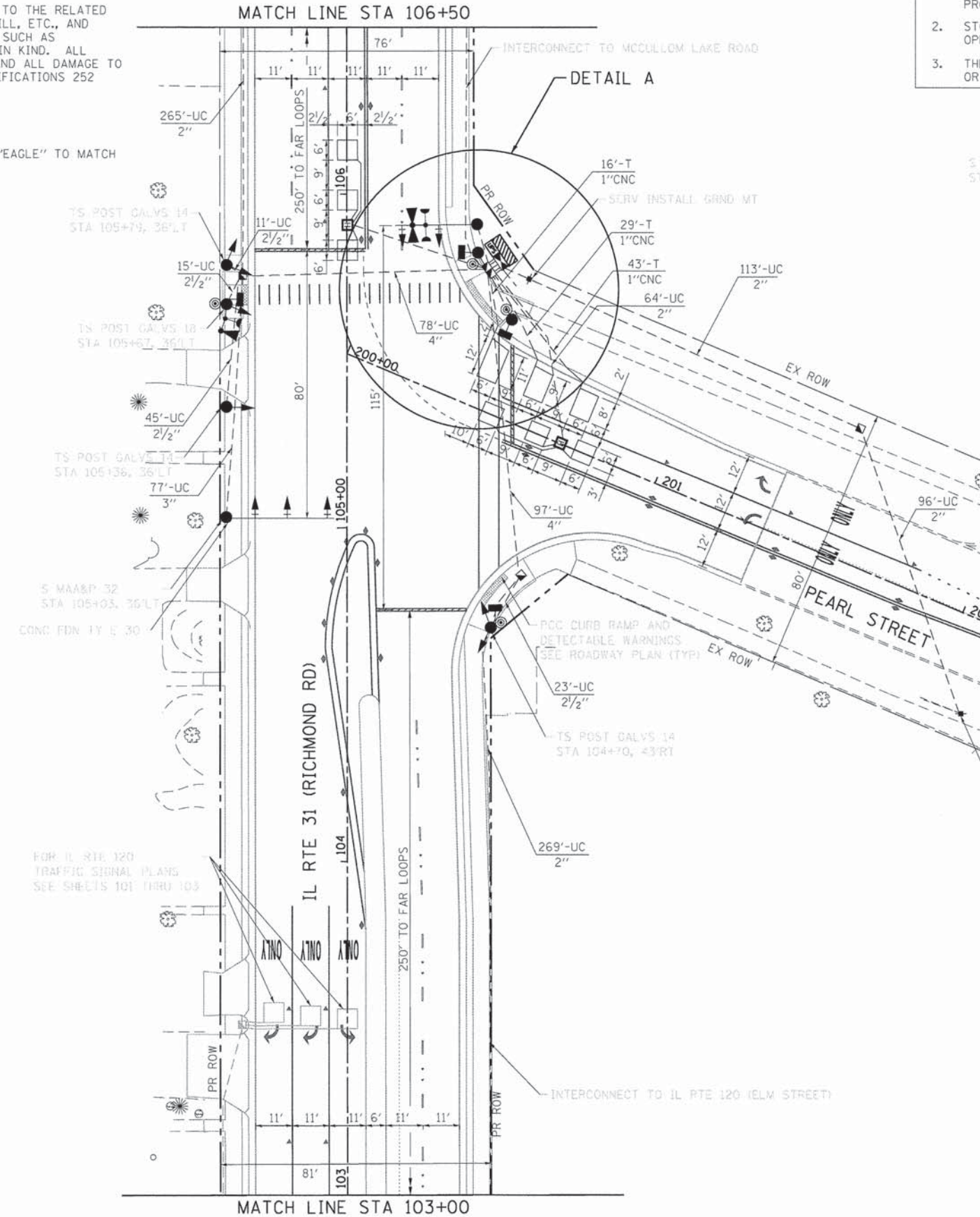
**RESTORATION OF WORK AREA**

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 ROADWAYS 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 LAWNS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

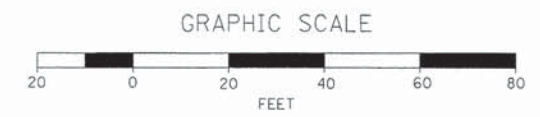
**NOTE**

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

1. ALL NEW TRAFFIC SIGNAL EQUIPMENT INCLUDING POSTS AND MAST ARMS SHALL ARRIVE AT THE PROJECT SITE WITH A BLACK FACTORY FINISH IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
2. STOP BARS ARE NOT TO BE PLACED PRIOR TO THE PROPOSED TRAFFIC SIGNALS BEING OPERATIONAL, THEY WILL BE INSTALLED AT THE TIME OF TRAFFIC SIGNAL TURN-ON.
3. THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE TOMAR OR AN APPROVED EQUAL AS REQUIRED BY THE MCHENRY TOWNSHIP FIRE DISTRICT.



**DETAIL A**  
1"=10'



COMPANY NAME: HRGreen  
 PROJECT CONTACT: HRGreen.com  
 CLIENT: Illinois Professional Design Firm  
 DATE PLOTTED: 08/05/11 3:15:52 PM  
 FILE NAME: 080511-31033-pearl-01.dgn  
 PLOT DRIVER: pdfcpl  
 PEN TABLE: standard-fonts.tbl



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PLOT SCALE = 1" = 20'	DRAWN - DS	REVISED -
PLOT DATE = .DATE.	CHECKED - CP	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN  
ILLINOIS ROUTE 31 AT PEARL STREET**

SCALE: 1" = 20' SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	123
* FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750		
ILLINOIS FED. AID PROJECT				

COMPANY NAME: HRGreen  
 PROJECT CONTACT: sstrand@hrgreen.com  
 CLIENT: MCHENRY COUNTY  
 DATE PLOTTED: 08/06/11 3:40:00 PM  
 FILE NAME: 080611-0003b-pearl-02.dgn  
 PLOT DRIVER: pdf.plt  
 PEN TABLE: sstrand-c-trans.tbl



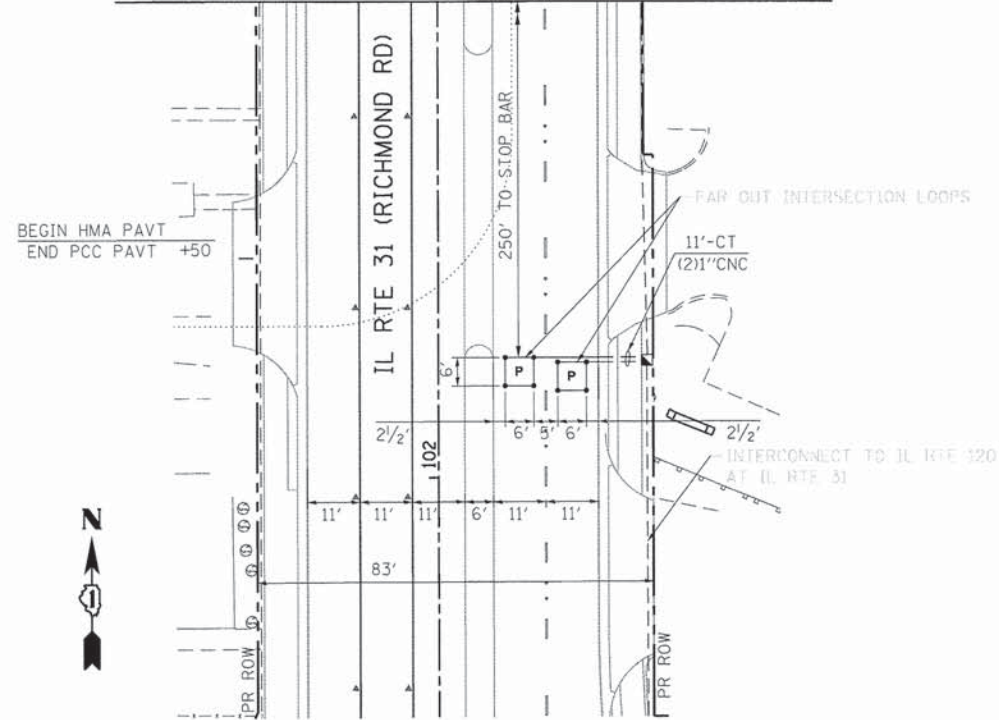
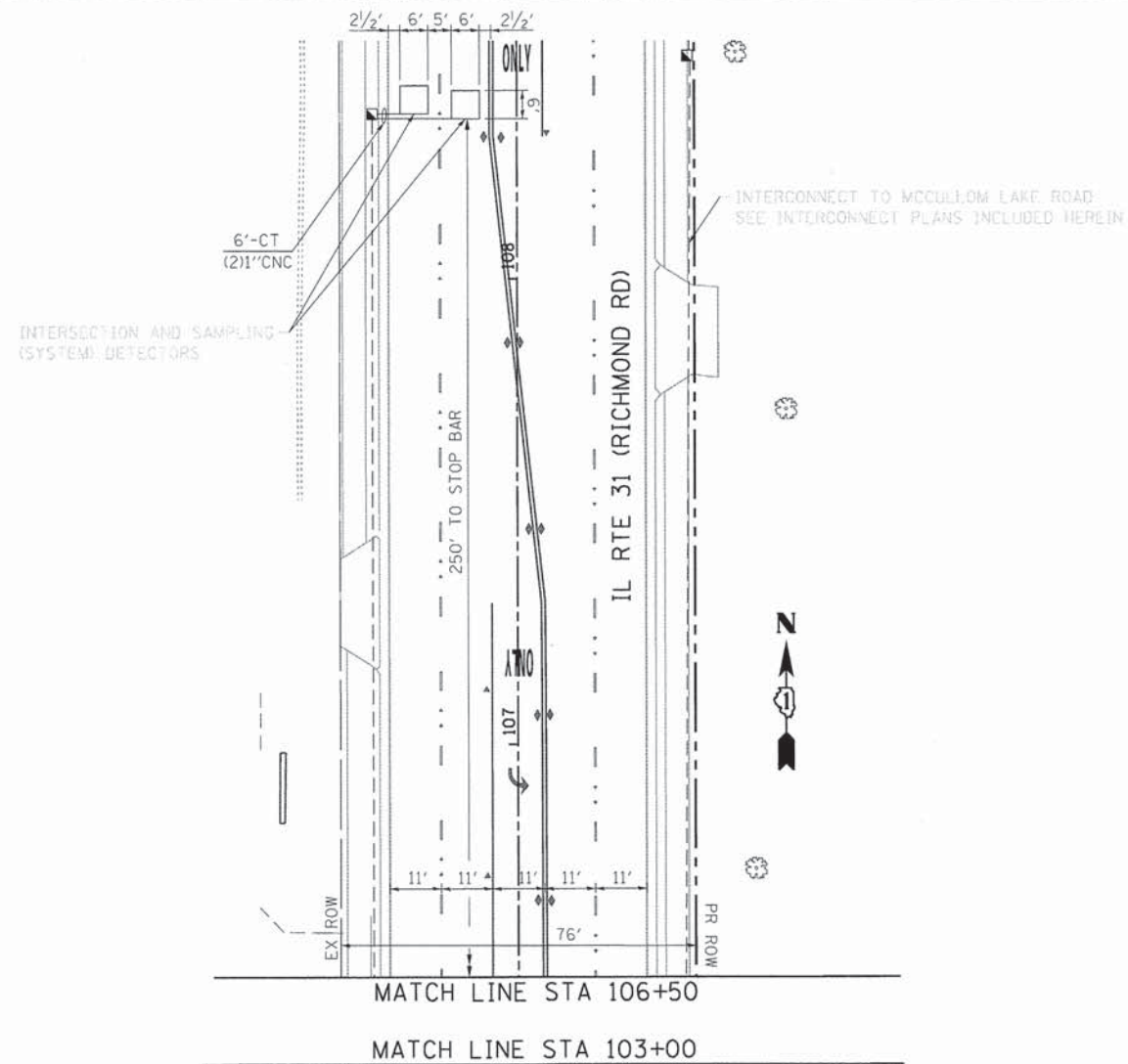
USER NAME = jmelhus	DESIGNED - JJS	REVISED -
PLOT SCALE = 1" = 20'	DRAWN - DS	REVISED -
PLOT DATE = .DATE.	CHECKED - CP	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN  
 ILLINOIS ROUTE 31 AT PEARL STREET

SCALE: 1" = 20' SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	124
* FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				



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 ROADWAYS 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 LAWNS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTE

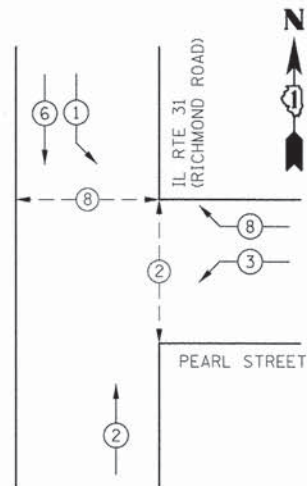
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

GRAPHIC SCALE





**CONTROLLER SEQUENCE**

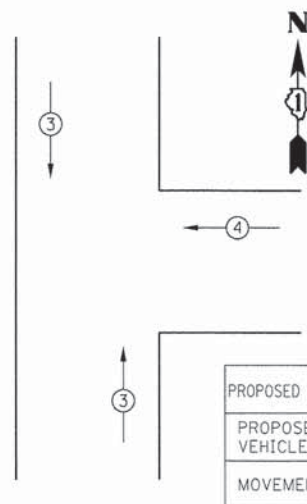


**CONTROLLER SEQUENCE LEGEND**

- ⊙ DUAL ENTRY PHASE
- ⊠ SINGLE ENTRY PHASE
- ⊠ OL OVERLAP
- \* NUMBER REFERRING TO ASSOCIATED PHASE
- ⊠ PEDESTRIAN PHASE

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	17	0.50	102	
(YELLOW)	12	25	0.25	75	
(GREEN)	12	15	0.25	45	
ARROW (YELLOW)	2	12	0.10	2.40	
(GREEN)	2	12	0.10	2.40	
PEDESTRIAN SIGNAL	4	25	1.00	100	
CONTROLLER	1	100	1.00	100	
UPS	1	25	1.00	25	
<b>TOTAL =</b>				<b>451.80</b>	

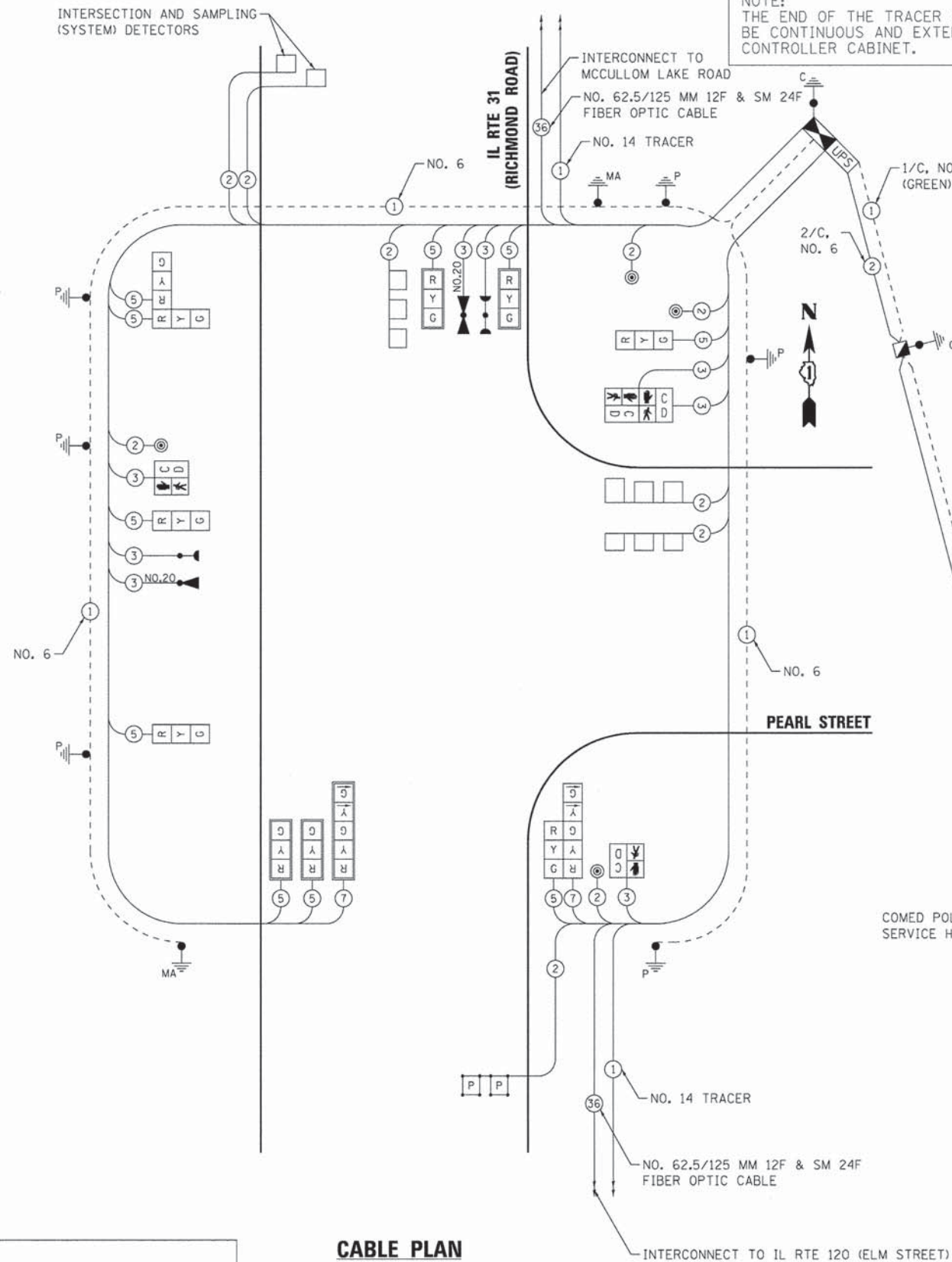
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 W. CENTER COURT  
SCHAUMBURG, IL 60196

ENERGY SUPPLY CONTACT: NORA FERNANDEZ  
PHONE: (866) 639-3532  
COMPANY: COMMONWEALTH EDISON

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

NOTE: THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE TOMAR OR AN APPROVED EQUAL.

INTERSECTION AND SAMPLING (SYSTEM) DETECTORS



**CABLE PLAN**

NOTE: THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

NOTE: THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SQ FT	12.00
SIGN PANEL - TYPE 2	SQ FT	15.00
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	876.0
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	124.0
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	95.0
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	225.0
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PAINT NEW TRAFFIC SIGNAL POST	EACH	5
PAINT NEW MAST ARM AND POLE, UNDER 40 FOOT	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	411.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	691.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,505.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	425.5
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,372.0
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	252.5
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1,091.5
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	4
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	28.0
CONCRETE FOUNDATION, TYPE C	FOOT	4.0
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	23.5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3 SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	5
INDUCTIVE LOOP DETECTOR	EACH	7
DETECTOR LOOP, TYPE 1	FOOT	368.0
PREFORMED DETECTOR LOOP	FOOT	65.0
* LIGHT DETECTOR	EACH	3
* LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	6,151.0
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	9
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	6
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
* EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	242.0
PAINT NEW PEDESTRIAN PUSH-BUTTON POST	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON POST, TYPE A	EACH	1

\* 100% OF EMERGENCY VEHICLE PREEMPTION EQUIPMENT COST SHALL BE PAID FOR BY MCHENRY TOWNSHIP FIRE PROTECTION DISTRICT

COMPANY NAME: HRGreen.com  
PROJECT CONTACT: JMS  
DATE PLOTTED: 08/06/11 3:46:06 PM  
FILE NAME: 080611-0103c-pearl.dgn  
PLOT DRIVER: pcf.plt  
PEN TABLET: standard-trans.tbl

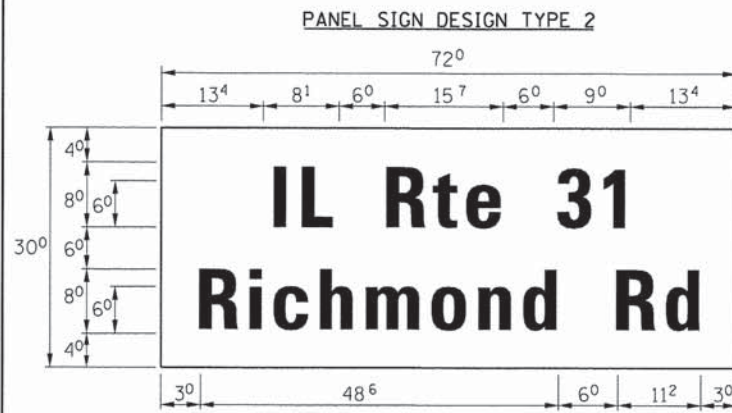


USER NAME = jms	DESIGNED - JJS	REVISED -
DESIGNED - DS	REVISIONS	
CHECKED - CP	REVISIONS	
DATE -	REVISIONS	

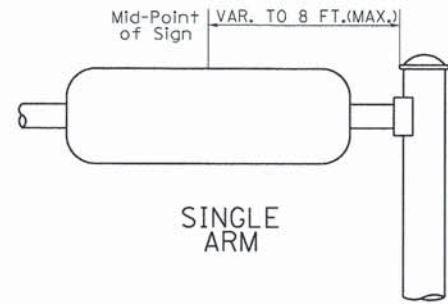
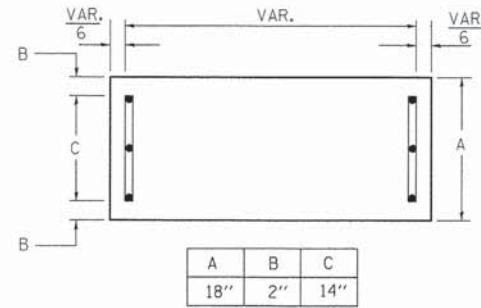
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM  
ILLINOIS ROUTE 31 AT PEARL STREET  
SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.

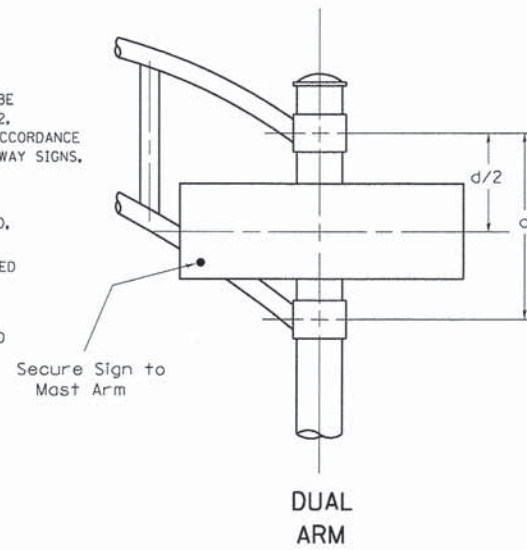
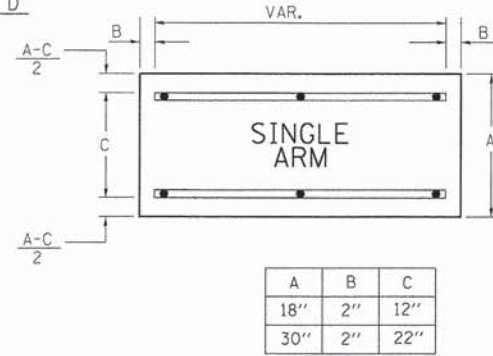
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-00067-00-CH	MCHENRY	226	125
• FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				



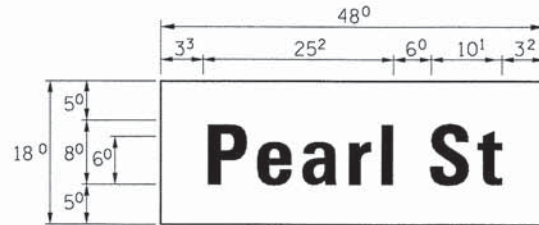
SUPPORTING CHANNELS



SUPPORTING CHANNELS



PANEL SIGN DESIGN TYPE 1



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

EXAMPLE, 2 <sup>3</sup> DENOTES 3/8"

SERIES	SECOND LETTER																			
	o c d e		g o q		b h i k l		m n p r u		f w		j		s t		v y		x		z	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
B	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>
C E G	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>
D O O R	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>
F	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>4</sup>	1 <sup>5</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>
H I M N	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>2</sup>	2 <sup>4</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>
J U	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>
K L	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
P	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>
S	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
T	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>6</sup>	1 <sup>7</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
V	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
Y	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>4</sup>	1 <sup>5</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>5</sup>	0 <sup>7</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>
Z	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>2</sup>	2 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>

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

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

SERIES	SECOND LETTER																			
	o c d e		g o q		b h i k l		m n p r u		f w		j		s t		v y		x		z	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
a d h g i j	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>2</sup>	2 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>
l m n q u	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>2</sup>	2 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>
b f k o p s	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>
c e	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
r	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>3</sup>	0 <sup>3</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>
t z	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>
v y	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>
w	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>
x	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>

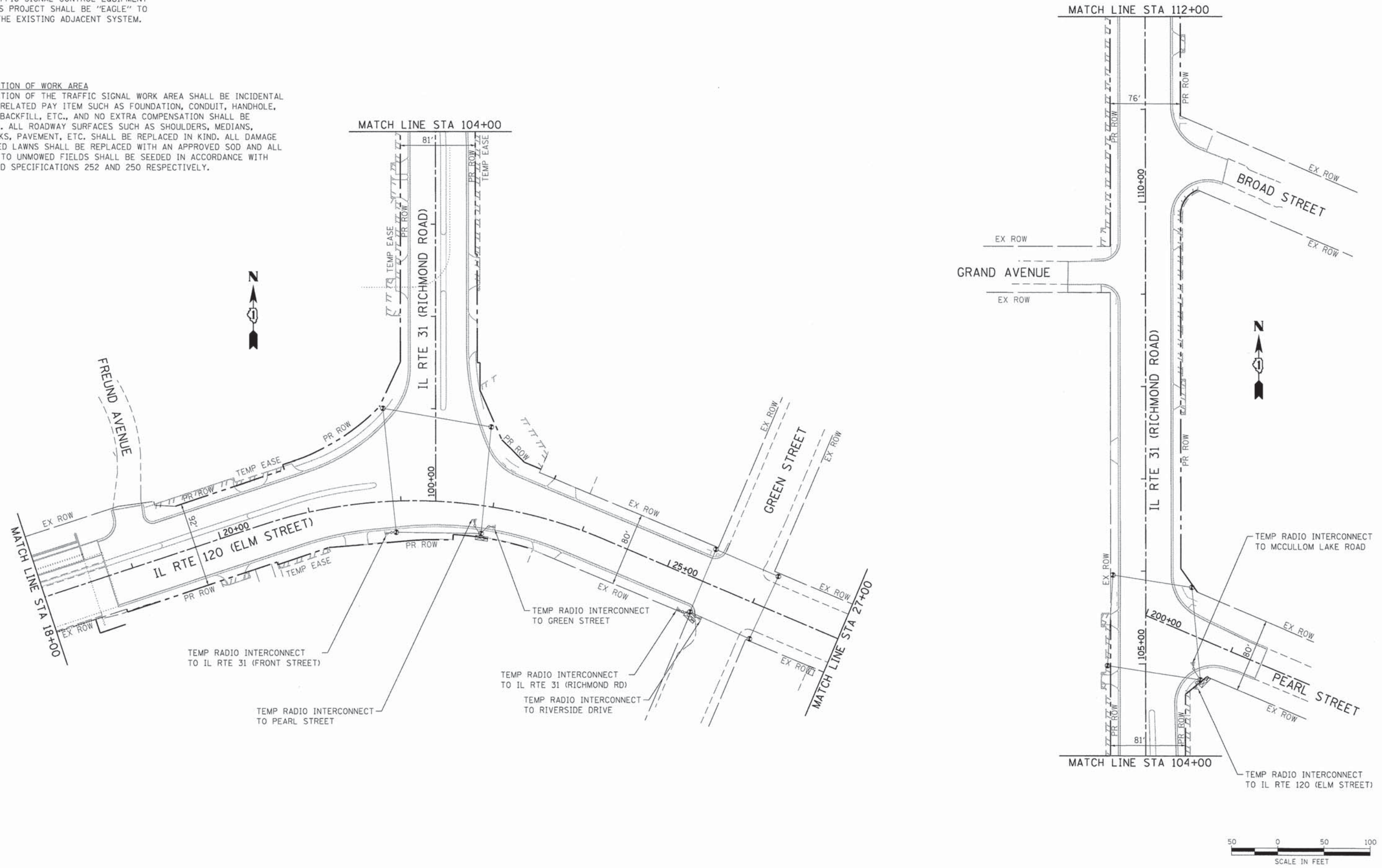
Number To Number  
Spacing Chart 8 Inch Series "C & D"

SERIES	SECOND LETTER																			
	0		1		2		3		4		5		6		7		8		9	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>
1	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>
2 3 4	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>
5	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>
6	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>
7	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>
8	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>

NUMBER	6 INCH SERIES		8 INCH SERIES	
	SERIES		SERIES	
	C	D	C	D
1	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>
2				

NOTE:  
THE TRAFFIC SIGNAL CONTROL 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 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 SEEDING IN ACCORDANCE WITH  
STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



COMPANY NAME: HRGreen  
PROJECT CONTACT: HRGreen.com  
CLIENT: Illinois Professional Design Firm  
DATE PLOTTED: 08/06/11 - 3:42:17 PM  
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PLOT DRIVER: plot.dwg  
PEN TABLE: standard-trans.tbl

**HRGreen**  
HRGreen.com  
Illinois Professional Design Firm  
# 164-001322

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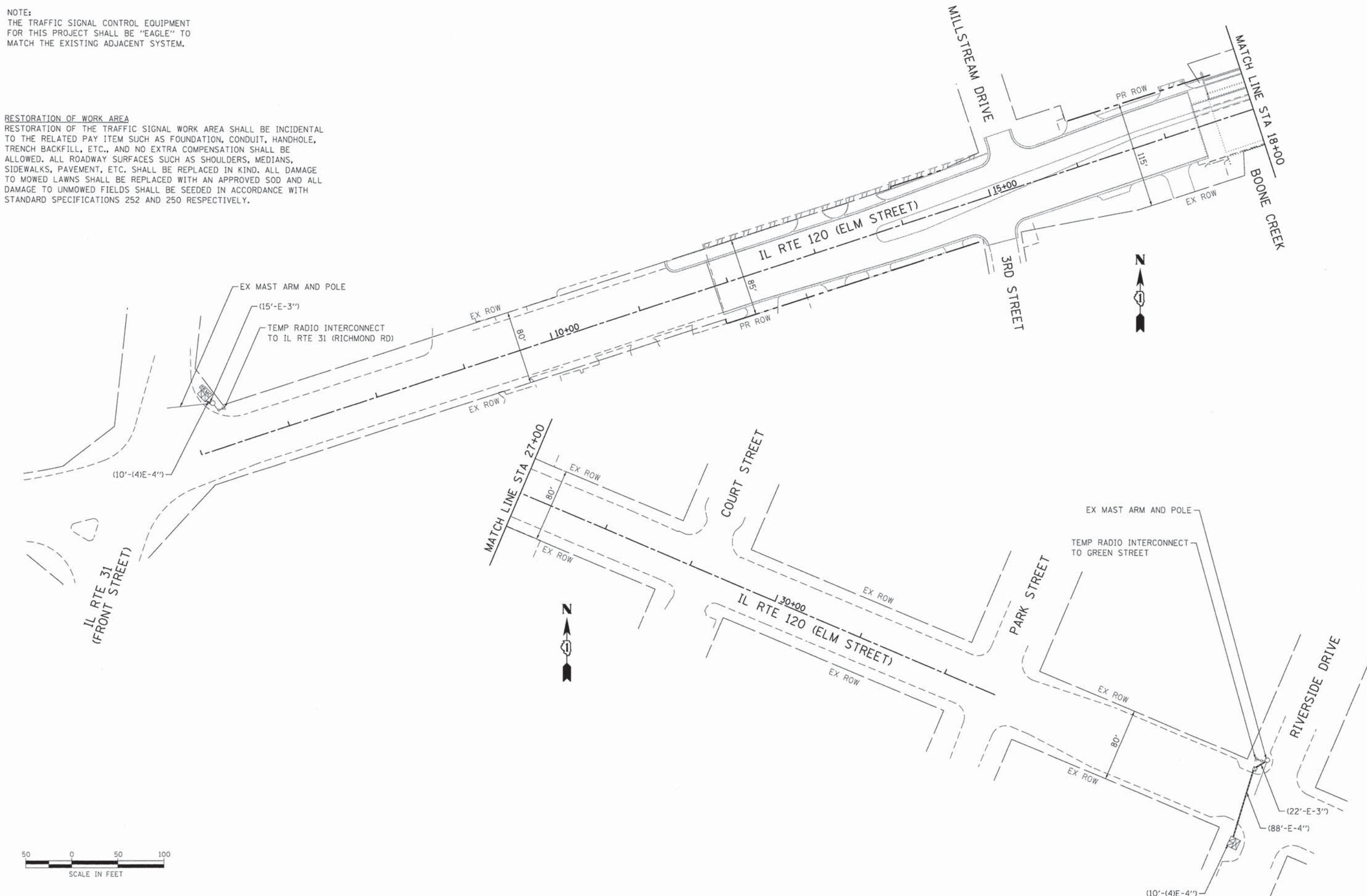
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT PLAN**  
SCALE: 1"=50' SHEET NO. 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• FAP 333, FAP 336, FAU 81	05-00067-00-CH	MCHENRY	226	127
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63750	

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

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RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH 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.



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PROJECT CONTACT: HRGreen.com  
CLIENT: Illinois Professional Design Firm  
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PLOT NUMBER: 226  
PLOT DATE: 08/06/17



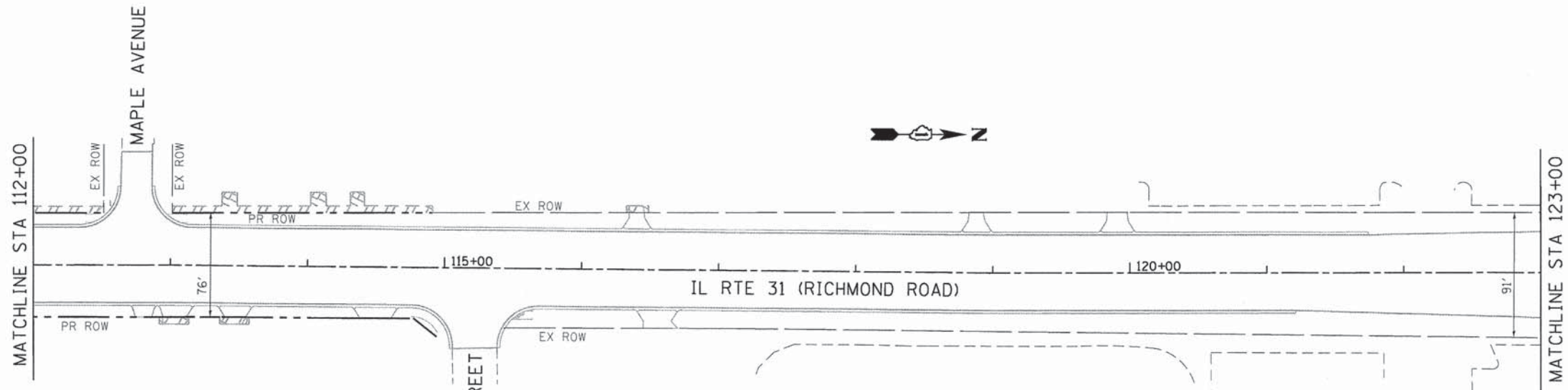
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DATE -	REVISOR -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

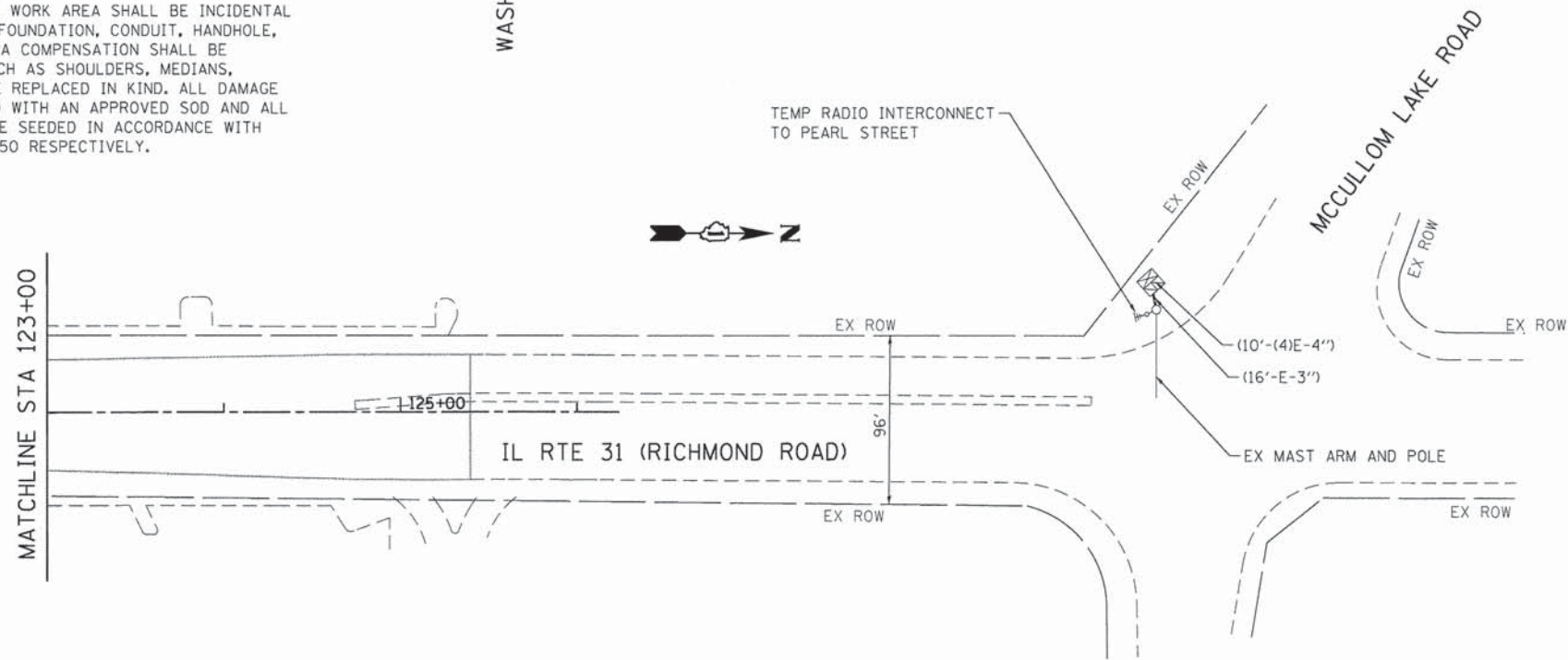
**TEMPORARY INTERCONNECT PLAN**

SCALE: 1"=50' SHEET NO. 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-00067-00-CH	MCHENRY	226	128
•	FAP 333, FAP 336, FAU 81	MCHENRY	CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				



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



COMPANY NAME: HRGreen  
 PROJECT CONTACT: JAMES HUI  
 CLIENT: STATE OF ILLINOIS  
 DATE: 3/6/21 PM  
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 PLOT DRIVER: JAMES HUI  
 PEN TABLE: STANDARD-TROUS.NT



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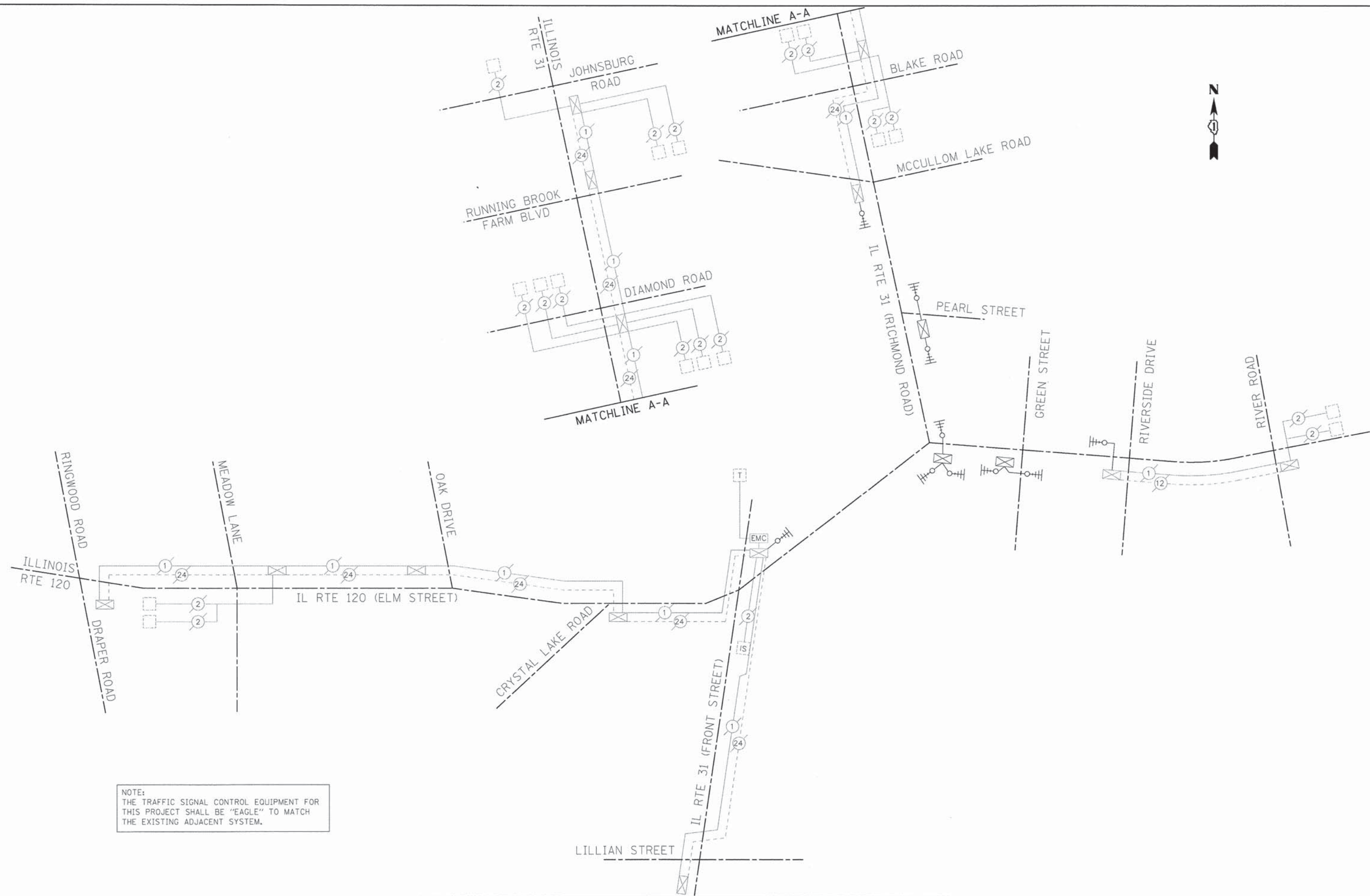
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT PLAN**

SCALE: 1"=50' SHEET NO. 3 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	129
* FAP 333, FAP 336, FAU 81			<b>CONTRACT NO. 63750</b>	

[ILLINOIS] FED. AID PROJECT



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

COMPANY NAME: HRGreen  
 PROJECT CONTACT: jmeinhuis  
 CLIENT: HRGreen.com  
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT SCHEMATIC  
 IL RTE 120 AND IL RTE 31  
 FROM MEADOW LANE TO RIVER ROAD**

SCALE: NTS      SHEET NO. 1 OF 1 SHEETS      STA.      TO STA.

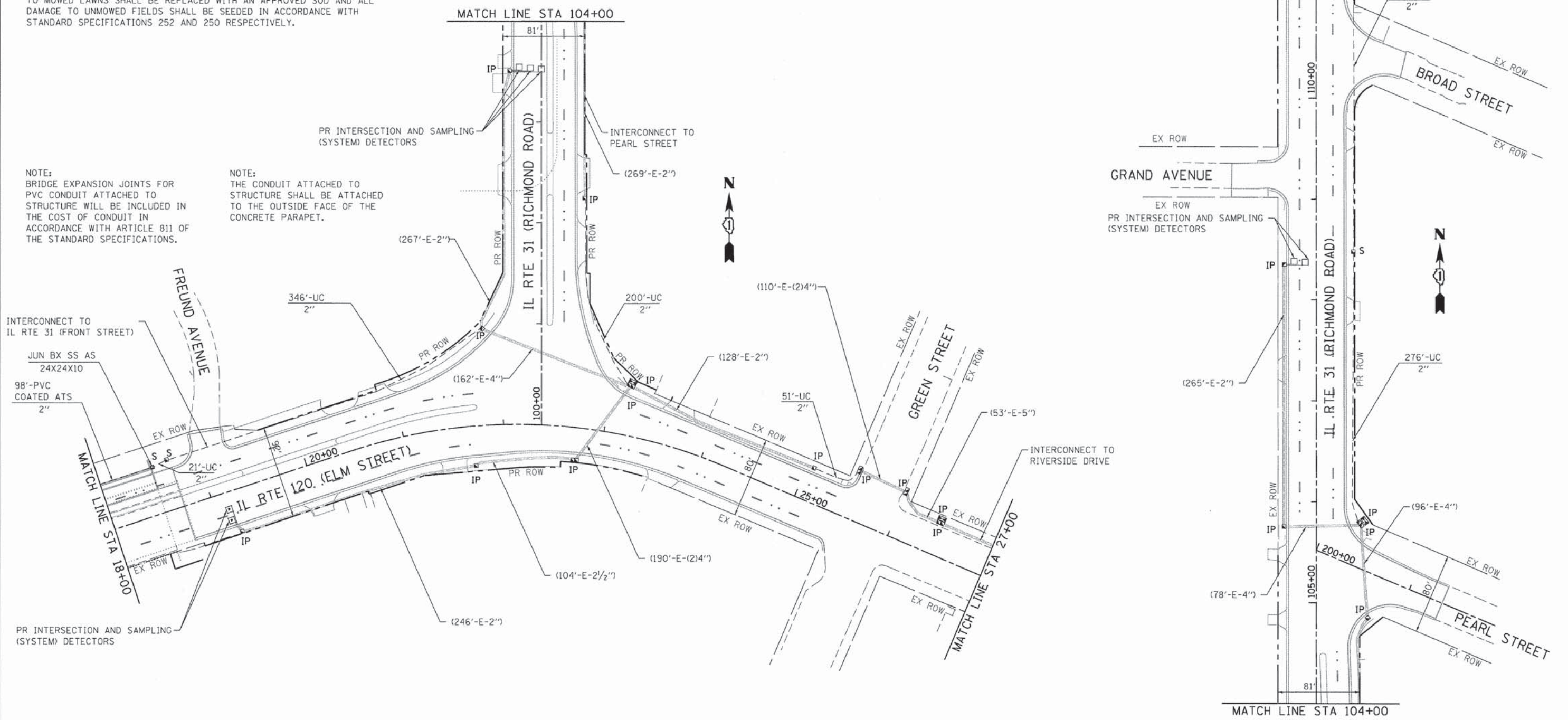
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-00067-00-CH	MCHENRY	226	130
• FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				

NOTE:  
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NOTE:  
BRIDGE EXPANSION JOINTS FOR PVC CONDUIT ATTACHED TO STRUCTURE WILL BE INCLUDED IN THE COST OF CONDUIT IN ACCORDANCE WITH ARTICLE 811 OF THE STANDARD SPECIFICATIONS.

NOTE:  
THE CONDUIT ATTACHED TO STRUCTURE SHALL BE ATTACHED TO THE OUTSIDE FACE OF THE CONCRETE PARAPET.



COMPANY NAME: HRGreen.com  
PROJECT CONTACT: JAMES J. JONES  
DATE PLOTTED: 3/14/2018 10:10 AM  
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**HRGreen.com**  
Illinois Professional Design Firm  
# 184-001322

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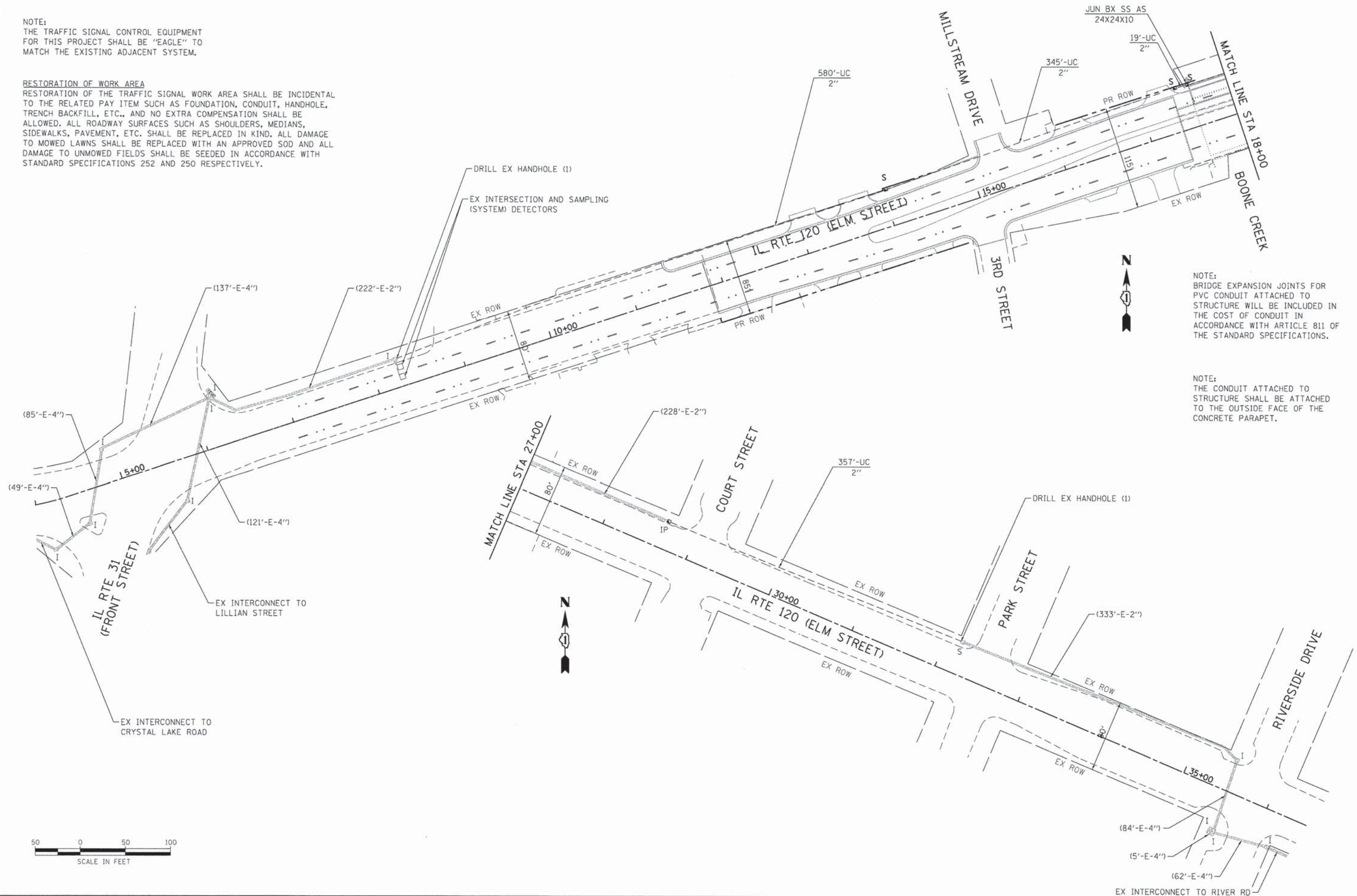
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INTERCONNECT PLAN**  
**CRYSTAL LAKE ROAD TO GREEN STREET TO MCCULLOM LAKE ROAD**  
SCALE: 1"=50' SHEET NO. 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-00067-00-CH	MCHENRY	226	131
• FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
[ILLINOIS] FED. AID PROJECT				

NOTE:  
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NOTE:  
BRIDGE EXPANSION JOINTS FOR PVC CONDUIT ATTACHED TO STRUCTURE WILL BE INCLUDED IN THE COST OF CONDUIT IN ACCORDANCE WITH ARTICLE 811 OF THE STANDARD SPECIFICATIONS.

NOTE:  
THE CONDUIT ATTACHED TO STRUCTURE SHALL BE ATTACHED TO THE OUTSIDE FACE OF THE CONCRETE PARAPET.

COMPANY NAME: HRGreen  
PROJECT CONTACT: HRGreen.com  
CLIENT: Illinois Professional Design Firm  
DATE PLOTTED: 08/06/11 08:01:02  
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INTERCONNECT PLAN  
CRYSTAL LAKE ROAD TO GREEN STREET TO MCCULLOM LAKE ROAD**

SCALE: 1"=50' SHEET NO. 2 OF 3 SHEETS STA. TO STA.

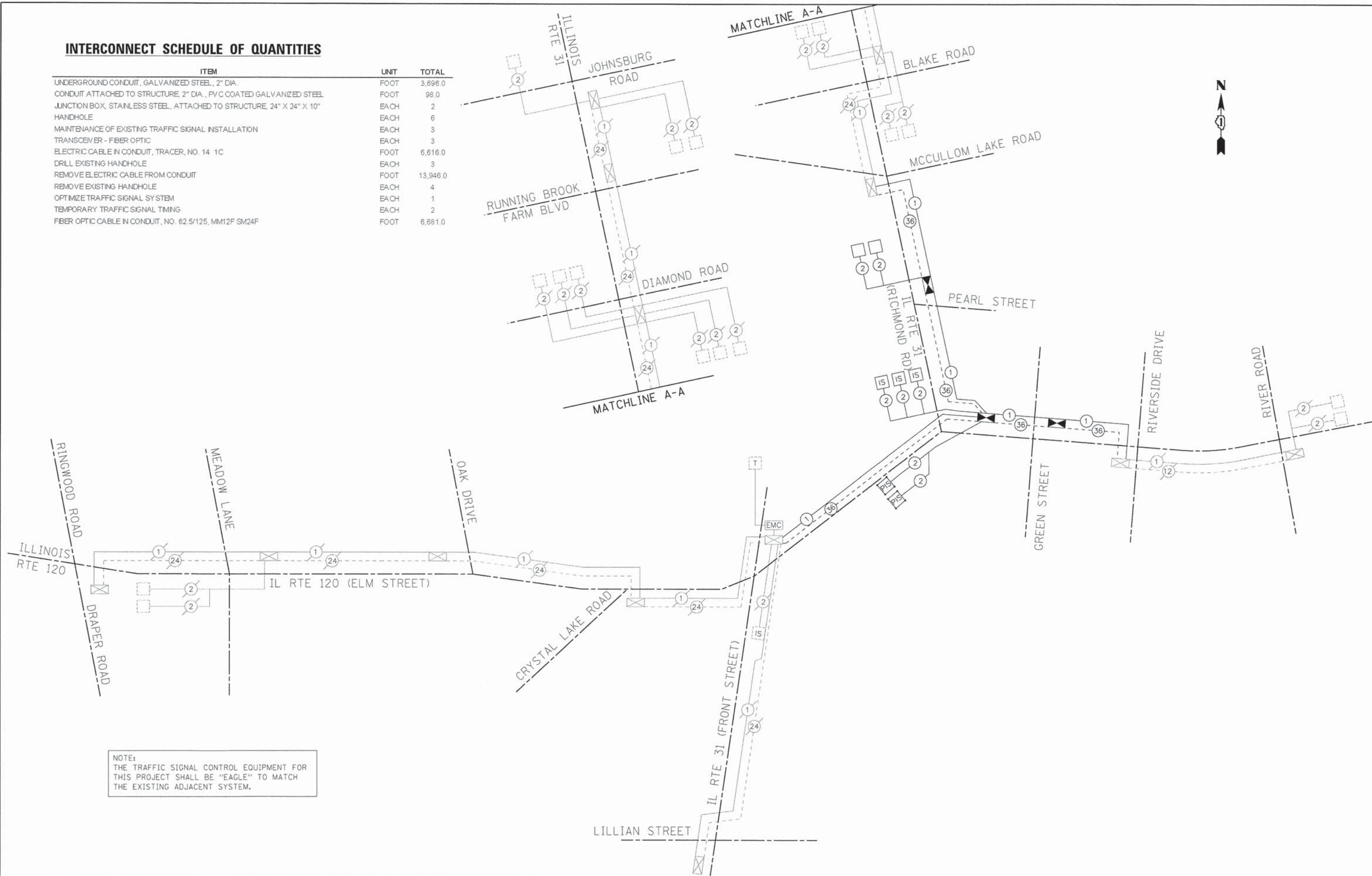
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-00067-00-CH	MCHENRY	226	132
•	FAP 333, FAP 336, FAU 81	MCHENRY		
CONTRACT NO. 63750				
ILLINOIS FED. AID PROJECT				





### INTERCONNECT SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	3,696.0
CONDUIT ATTACHED TO STRUCTURE, 2" DIA., PVC COATED GALVANIZED STEEL	FOOT	98.0
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24" X 24" X 10"	EACH	2
HANDHOLE	EACH	6
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3
TRANSCEIVER - FIBER OPTIC	EACH	3
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	6,616.0
DRILL EXISTING HANDHOLE	EACH	3
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	13,946.0
REMOVE EXISTING HANDHOLE	EACH	4
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	2
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	6,681.0



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

COMPANY NAME: HRGreen  
PROJECT CONTACT: HRGreen.com  
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	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.










INTERCONNECT SCHEMATIC  
IL RTE 120 AND IL RTE 31  
FROM MEADOW LANE TO RIVER ROAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-00067-00-CH	MCHENRY	226	134
•	FAP 333, FAP 336, FAU 81	MCHENRY	CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

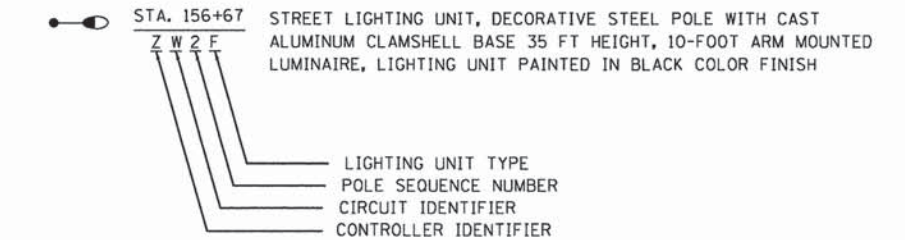
PAY ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY
80400100	ELECTRIC SERVICE INSTALLATION	EACH	2
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	3,266
81028360	UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.	FOOT	220
81028740	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA.	FOOT	6,200
81100700	CONDUIT ATTACHED TO STRUCTURE, 2 1/2" DIA., GALVANIZED STEEL	FOOT	320
81300550	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 6"	EACH	4
81400100	HANDHOLE	EACH	15
81603176	UNIT DUCT, 600V, 6-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/2" DIA. POLYETHYLENE	FOOT	3,800
81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	6,300
81702140	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4	FOOT	32,000
81702180	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 3/0	FOOT	220
82500370	LIGHTING CONTROLLER, BASE MOUNTED, 240VOLT, 200AMP	EACH	2
83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	392
84200500	REMOVAL OF LIGHTING UNIT, SALVAGE	EACH	6
84200600	REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	6
84200804	REMOVAL OF POLE FOUNDATION	EACH	12
84400105	RELOCATE EXISTING LIGHTING UNIT	EACH	6
84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	3
XX008424	LIGHT FIXTURE ASSEMBLY- TYPE A	EACH	17
XX008426	LIGHT FIXTURE ASSEMBLY- TYPE C	EACH	6
XX008427	LIGHT FIXTURE ASSEMBLY- TYPE D	EACH	8
XX008428	LIGHT FIXTURE ASSEMBLY- TYPE E	EACH	1
XX008429	LIGHT FIXTURE ASSEMBLY- TYPE F	EACH	12
XX008430	LIGHT FIXTURE ASSEMBLY- TYPE G	EACH	5
	LIGHT FIXTURE ASSEMBLY- TYPE H	EACH	4
	LIGHT FIXTURE ASSEMBLY- TYPE I	EACH	7

SYMBOLS

-  EXISTING LIGHTING UNIT, 30 FT MH, 12 FT MA 400W HPS MCIII, 240V LUMINAIRE, MAINTAINED BY THE CITY OF MCHENRY, REMAIN IN PLACE
-  EXISTING UTILITY SERVICE POLE, COMED 120 VOLT/240 VOLT, 1 PHASE
-  UNIT DUCT, SIZE AS NOTED
-  CABLE IN CONDUIT, SIZE AS NOTED
-  GROUND ROD, 5/8 " DIA. x 8 FT
-  LIGHTING CONTROLLER  
200 AMPERE - 120/240 VOLT, 1 PHASE
-  HANDHOLE
-  EXISTING LIGHTING FIXTURE TO BE REMOVED
-  EXISTING LIGHTING FIXTURE TO BE RELOCATED

- WHERE SEPARATE CIRCUIT RUNS ARE TO BE INSTALLED PARALLEL WITH EACH OTHER, ONE COMMON TRENCH SHALL BE USED.
- THE CONTRACTOR SHALL CONSULT WITH RESIDENT ENGINEER IN THE FIELD, AND FINALIZE ALL EXISTING ROADWAY LIGHTING ITEMS.
- THE RESPONSIBILITY FOR COORDINATING FINISHED SIDEWALK ELEVATIONS WITH THE TOP OF THE FOUNDATIONS HEIGHTS SHALL REMAINS WITH THE CONTRACTOR.
- THE CONTRACTOR SHALL SUBMIT FOR RESIDENT ENGINEER'S REVIEW WITHIN 30 DAYS OF CONTRACT EXECUTION DATA AND DETAIL SHOP DRAWINGS:
  - TRENCH, ELECTRICAL WARNING TAPE
  - FOUNDATION: CONCRETE MIX, RACEWAYS, ANCHOR BOLTS WITH NUTS & WASHERS.
  - CONDUIT: CONDUIT AND CONDUIT FITTINGS, BONDING COMPOUND
  - GROUND ROD: GROUND ROD, COPPER WIRE, EXOTHERMIC WELD.
  - UNIT DUCT/CABLES
  - ELECTRIC CABLES
  - ELECTRIC TAPES, QUICK DISCONNECT, FUSE & LAMP.
  - LIGHT POLES/ARM: DETAILS SHOP DRAWING, WIND LOAD CALCULATIONS (SHALL BE REVIEWED BY CONSULTANT CIVIL ENGINEER)
  - LUMINAIRE: LUMINAIRE WITH BALLAST ASSEMBLY OR DRIVER
  - LIGHTING CONTROLLER: CIRCUITRY DETAIL, CATALOG ON MATERIALS.
- ELECTRIC CABLE INSULATION SHALL BE FULLY PIGMENTED COLOR CODED AS SPECIFIED.
- FINISH PAINT:  
THE PAINT COLOR AND FINISH SHALL BE POWDER COATED. FOR THE LIGHT POLE AND LUMINAIRE THE CITY OF MCHENRY SHALL APPROVE THE PAINT COLOR AND FINISH.
- LIGHT POLE FOUNDATION HOLE.  
EACH HOLE FOR THE FOUNDATIONS SHALL BE INSPECTED BY THE RESIDENT ENGINEER PRIOR TO POURING CONCRETE FOUNDATIONS.
- THE CONTRACTOR SHALL SUBMIT FOUR (4) SETS OF FULL SIZED COMPLETE AND ACCURATE "RECORD DRAWINGS" TO THE ENGINEER FOR REVIEW AND COMMENT. THE RECORD DRAWINGS SHALL BE UPDATED ON A REGULAR BASIS AND DEPICT ALL ROADWAY LIGHTING INSTALLATIONS WITH ANY CHANGES INDICATED IN RED. "RESPONSIBLE RECORD DRAWINGS" SHALL BE SUBMITTED AT LEAST SEVEN (7) DAYS BEFORE SCHEDULING A FINAL INSPECTION.
- THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. AT (1-800-892-0123) TO LOCATE AND MARK/STAKE ALL UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL NOTIFY THE CITY OF MCHENRY TO LOCATE AND MARK/STAKE ALL CITY OWNED UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL GIVE IN WRITING TO THE ENGINEER FOR REVIEW, CONSTRUCTION STAGING FOR THE PROPOSED ROADWAY LIGHTING WORK, AND THE CONTRACTOR SHALL OBTAIN PRIOR WRITTEN APPROVAL FROM THE RESIDENT ENGINEER.

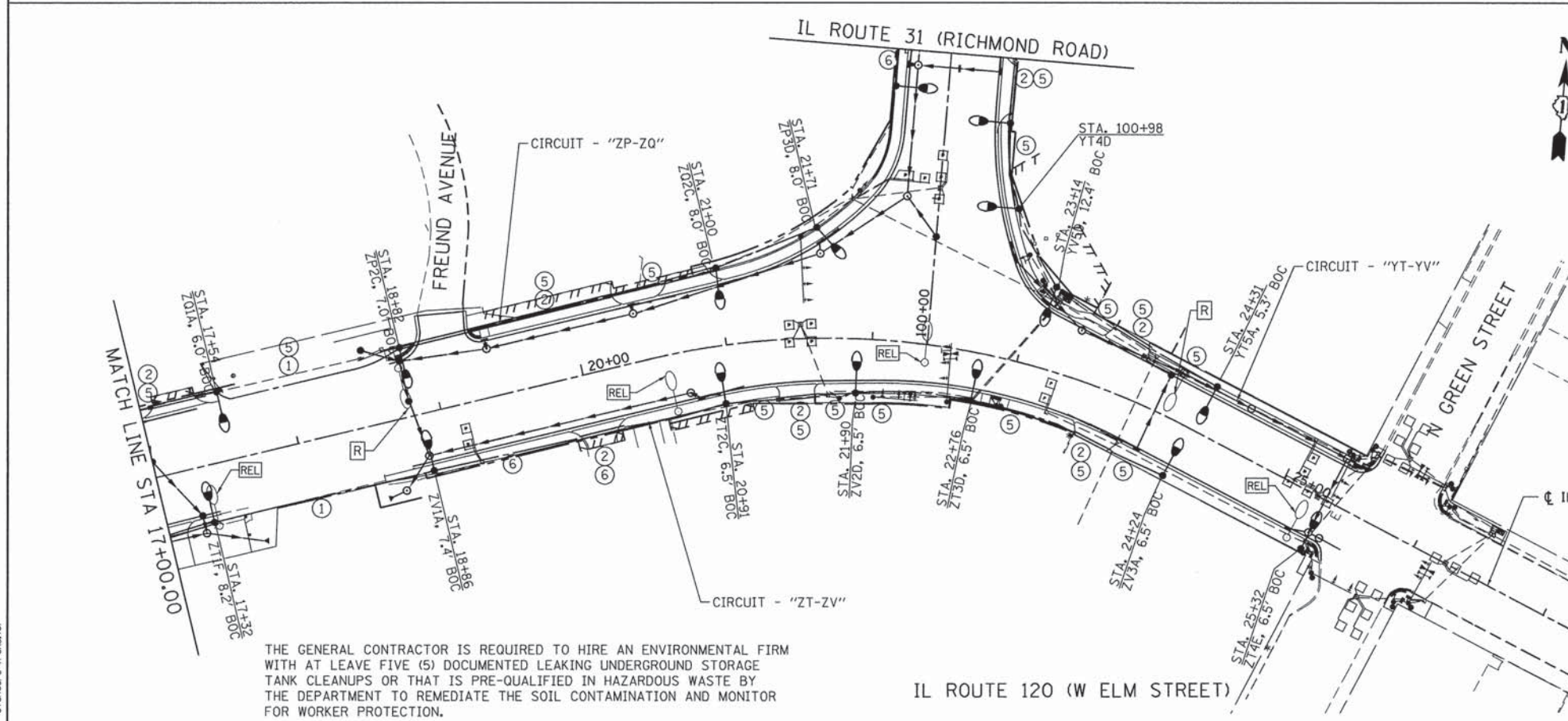
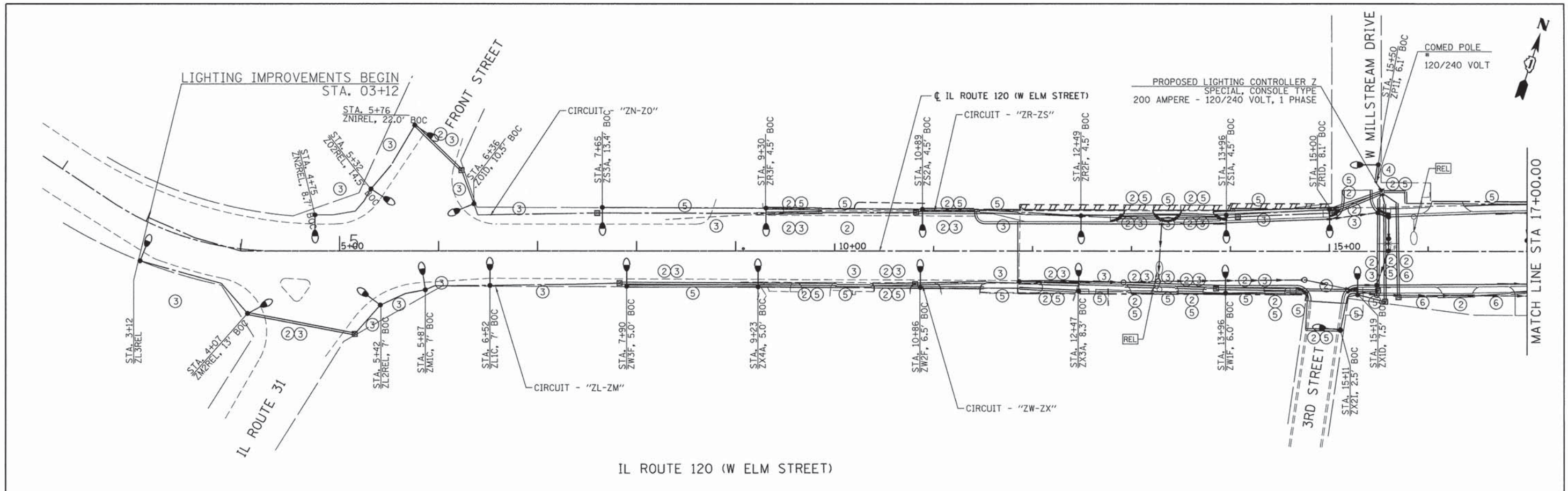
- THE LIGHT POLE SETBACK:  
VARIES: MEASURED FROM BACK OF CURB TO THE CENTER OF POLE.
- RESTORATION OF PARKWAY AND PROJECT SITE SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL CHISEL ARROWS LOCATING ALL CONDUIT CROSSINGS ACROSS ROADWAYS. THE CHISEL MARKS SHALL BE ON THE CURB.
- ALL STREET CROSSINGS SHALL HAVE GALVANIZED STEEL CONDUIT OF THE SIZE INDICATED PUSHED BENEATH THEM. PAYMENT SHALL BE LIMITED TO THE ACTUAL WIDTH PLUS TWO FEET. LENGTH OF CONDUIT SHALL BE THE WIDTH OF ROAD PLUS 4-FEET (EXTERND 2-FEET BEYOND ROAD, EACH SIDE)
- ALL ELECTRICAL EQUIPMENT AND PRODUCTS SHALL BE U/L LISTED AND LABELED.
- ALL POLE HANDHOLES SHALL FACE AWAY FROM TRAFFIC.
- LUMINAIRES SHALL BE LEVEL & HAVE A TIGHT FIT ON MAST ARMS TO THE OWNER'S SATISFACTION. THIS WORK SHALL INCLUDE FIELD ADJUSTING OF THE LUMINAIRE WHICH WILL BE INCLUDED IN THE COST OF THE "STREET LIGHTING UNIT" PAY ITEM.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS, WHICH ARE HEREBY MADE A PART HEREOF:
  - "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS," AS PREPARED BY IDOT.
  - "THE NATIONAL ELECTRICAL CODE"
  - MUNICIPAL CODES & STANDARDS
- TO MAINTAIN THE STRUCTURAL INTEGRITY OF LIGHT POLES WITH MAST ARMS, THEY SHALL NOT BE ERCTED AND LEFT TO STAND WITHOUT LUMINAIRES. NOTE THAT THE CONTRACTOR SHALL NOT BE PAID FOR POLES UNTIL LUMINAIRES ARE INSTALLED.
- BEFORE INSTALLING LIGHT STANDARDS NEAR OVERHEAD UTILITIES, CALL COM ED FOR LOCATION APPROVAL.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES AND LIGHTING CONTROLLERS FOR EXAMINATION AND CONFIRMATION WITH THE RESIDENT ENGINEER. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO AUGERING FOR LIGHT POLE FOUNDATIONS. THE EXACT LOCATIONS OF ALL PROPOSED ITEMS SHALL BE CONFIRMED WITH THE RESIDENT ENGINEER PRIOR TO STARTING WORK.
- THE LIGHTING CONTROLLER SHALL BE CONSTRUCTED TO UL STANDARDS 508 AND 508A, AND BEAR THE LABEL "INDUSTRIAL CONTROL PANEL".



- THE CONTRACTOR SHALL PERFORM ELECTRICAL TESTING AND VERIFY THAT THE INSTALLATION COMPLIES WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

COMPANY NAME: HRGreen  
 PROJECT CONTACT: HRGreen  
 DATE PLOTTED: 5/31/2013 10:20:31 AM  
 FILE NAME: 080611-light-01.dgn  
 PLOT DRIVER: pdfplot  
 PEN TABLE: standard-trans.tbl

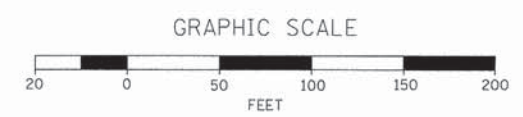
 HRGreen.com Illinois Professional Design Firm #194-001322	USER NAME = jmejhut	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>BILL OF MATERIALS, SYMBOLS, &amp; GENERAL NOTES</b> <b>ILLINOIS ROUTE 31/120</b>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED -	REVISED -		SCALE:	SHEET NO. 1 OF 9 SHEETS	STA. TO STA.	* 05-00067-00-CH	MCHENRY	226	135
PLOT DATE = 5/31/2013	DATE = 5/31/13	REVISED -	REVISED -				* FAP 333, FAP 336, FAU 81	CONTRACT NO. 63750		ILLINOIS FED. AID PROJECT	



**LEGEND:**

- ① CONDUIT ATTACHED TO STRUCTURE, 2 1/2" DIA., GALVANIZED STEEL
- ② CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
- ③ ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4-SET OF THREE CABLES  
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6-GROUND  
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA.
- ④ ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 3/0-SET OF THREE CABLES  
UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.
- ⑤ ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4-SET OF SIX CABLES  
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6-GROUND  
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA.
- ⑥ UNIT DUCT, 600V, 6-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/2" DIA. POLYETHYLENE

- [R] REMOVAL OF EXISTING LIGHTING UNIT
- [REL] RELOCATION OF EXISTING LIGHTING UNIT
- EXISTING LIGHT POLE
- ⊠ EXISTING LIGHTING CONTROLLER
- ⊠ EXISTING HEAVY DUTY HANDHOLE
- ⊠ LIGHT POLE, STEEL, 35 FT M.H., 10 FT MAST ARM
- ⊠ GROUND ROD, 5/8" DIA. X 8 FT.
- ⊠ PROPOSED HEAVY DUTY HANDHOLE
- ⊠ PROPOSED LIGHTING CONTROLLER 200 AMP - 120/240 VOLT



THE GENERAL CONTRACTOR IS REQUIRED TO HIRE AN ENVIRONMENTAL FIRM WITH AT LEAST FIVE (5) DOCUMENTED LEAKING UNDERGROUND STORAGE TANK CLEANUPS OR THAT IS PRE-QUALIFIED IN HAZARDOUS WASTE BY THE DEPARTMENT TO REMEDIATE THE SOIL CONTAMINATION AND MONITOR FOR WORKER PROTECTION.

COMPANY NAME: HRGreen  
 PROJECT CONTACT: HRGreen.com  
 CLIENT: Illinois Professional Design Firm  
 DATE PLOTTED: 06/06/11-light-02.dgn  
 FILE NAME: 06/06/11-light-02.dgn  
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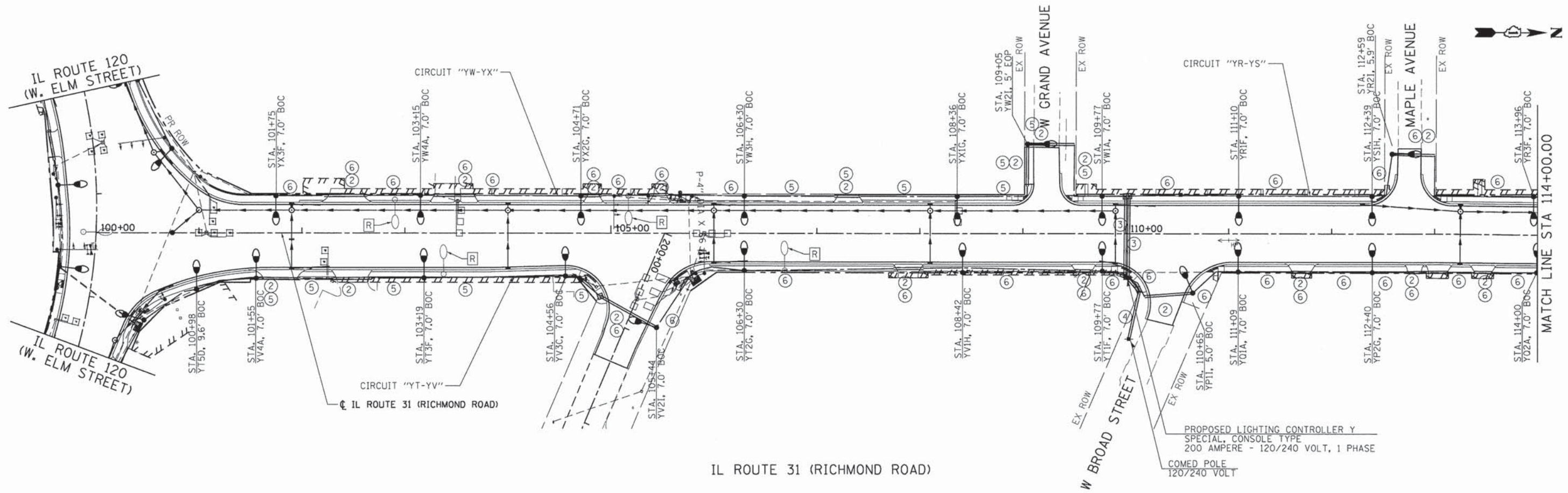
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	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

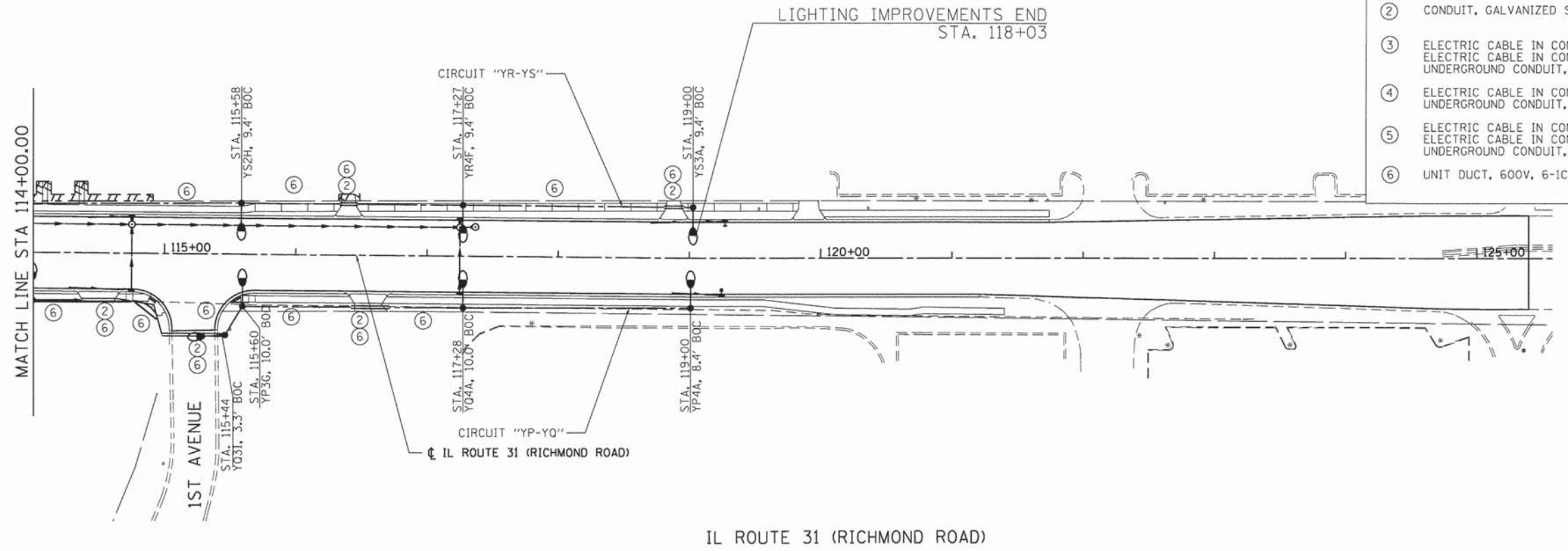
**LIGHTING PLAN**  
**ILLINOIS ROUTE 31/20**

SCALE: 1"=50' SHEET NO. 2 OF 9 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-00067-00-CH	MCHENRY	226	136
•	FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				



IL ROUTE 31 (RICHMOND ROAD)



IL ROUTE 31 (RICHMOND ROAD)

**LEGEND:**

- ① CONDUIT ATTACHED TO STRUCTURE, 2 1/2" DIA., GALVANIZED STEEL
- ② CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
- ③ ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4-SET OF THREE CABLES  
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6-GROUND  
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA.
- ④ ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 3/0-SET OF THREE CABLES  
UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.
- ⑤ ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4-SET OF SIX CABLES  
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6-GROUND  
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA.
- ⑥ UNIT DUCT, 600V, 6-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/2" DIA. POLYETHYLENE

- [R] REMOVAL OF EXISTING LIGHTING UNIT
- [REL] RELOCATION OF EXISTING LIGHTING UNIT
- EXISTING LIGHT POLE
- ⊠ EXISTING LIGHTING CONTROLLER
- ⊠ EXISTING HEAVY DUTY HANDHOLE
- LIGHT POLE, STEEL, 31 FT M.H., 12 FT MAST ARM
- ⊠ GROUND ROD, 5/8" DIA. X 10 FT.
- ⊠ PROPOSED HEAVY DUTY HANDHOLE
- ⊠ PROPOSED LIGHTING CONTROLLER  
TYPE CB-RCS 100 AMP - 240 VOLT

PROPOSED LIGHTING CONTROLLER Y  
SPECIAL, CONSOLE TYPE  
200 AMPERE - 120/240 VOLT, 1 PHASE  
COMED POLE  
120/240 VOLT



COMPANY NAME: HRGreen.com  
PROJECT CONTACT: jmelhus  
DATE PLOTTED: 3/5/2018 PM  
CLIENT: 080611-light-01.dgn  
FILE NAME: pat.dwg  
PLOT DRIVER: standard-trans.tbl  
PEN TABLE:

HRGreen.com Illinois Professional Design Firm # 184-091322
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DESIGNED -	REVISED -
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CHECKED -	REVISED -
DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

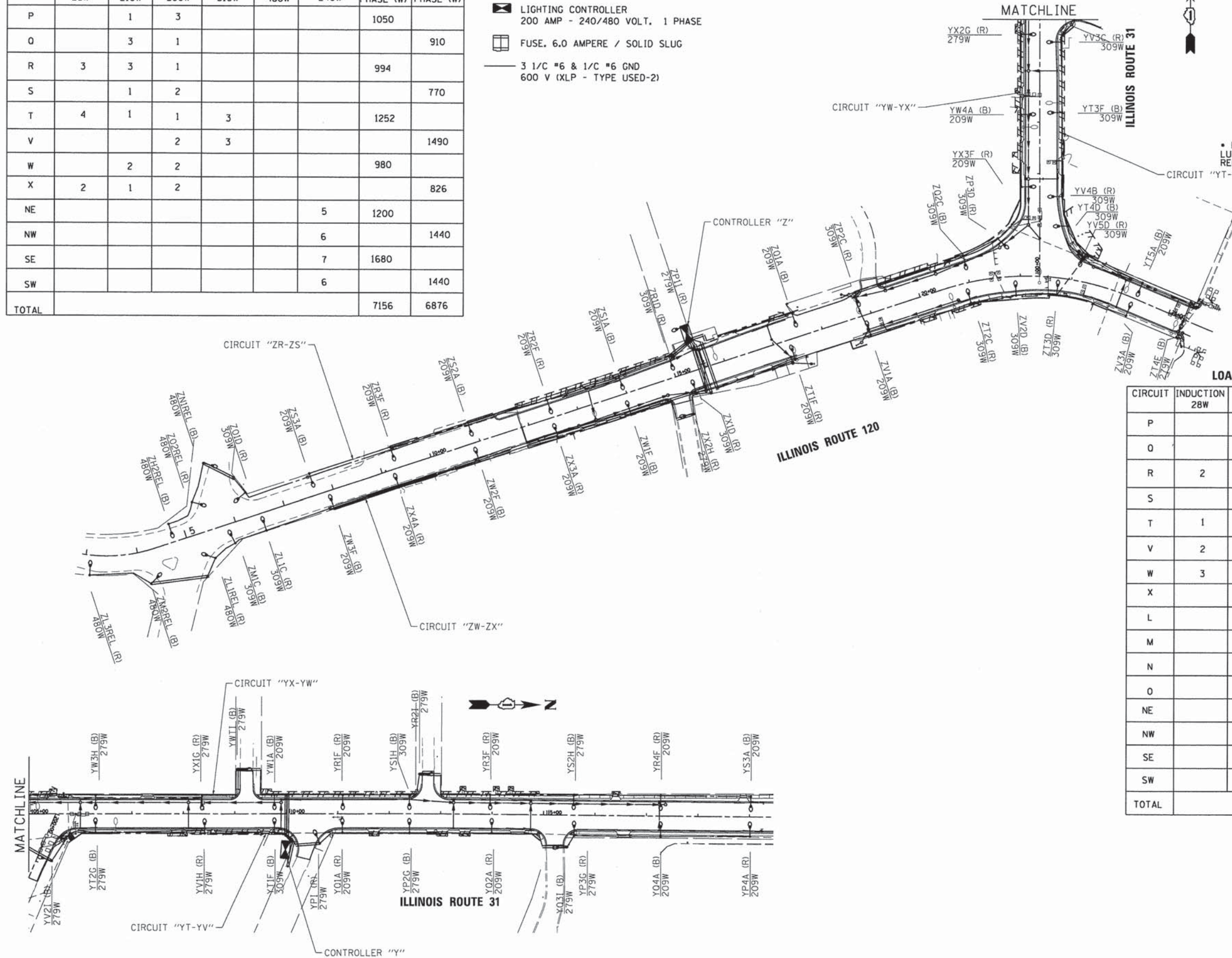
LIGHTING PLAN			
ILLINOIS ROUTE 31/20			
SCALE: 1"=50'	SHEET NO. 3 OF 9 SHEETS	STA. TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00067-00-CH	MCHENRY	226	137
FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				

**LOAD TABULATION FOR LIGHTING CONTROLLER "Y"**

CIRCUIT	INDUCTION 28W	LED 210W	LED 280W	LED 310W	HPS 480W	RECEPTACLE 240W	RED PHASE (W)	BLACK PHASE (W)
P		1	3				1050	
O		3	1					910
R	3	3	1				994	
S		1	2					770
T	4	1	1	3			1252	
V			2	3				1490
W		2	2				980	
X	2	1	2					826
NE						5	1200	
NW						6		1440
SE						7	1680	
SW						6		1440
TOTAL							7156	6876

- LEGEND**
- LUMINAIRE
  - LIGHTING CONTROLLER  
200 AMP - 240/480 VOLT, 1 PHASE
  - FUSE, 6.0 AMPERE / SOLID SLUG
  - 3 1/2 #6 & 1/2 #6 GND  
600 V (XLP - TYPE USED-2)



TYPE	POWER (W)	DISTRIBUTION	RECEPTACLE	ACORN	BANNER
A	209	III	Y	Y	Y
C	309	III	N	N	N
D	309	IV	N	N	N
E	279	III	Y	N	N
F	209	III	Y	Y	N
G	279	III	Y	Y	N
H	279	III	Y	N	Y
I	279	III	N	N	N

\* POWER AND PHOTOMETRICS BASED ON MCGRAW-EDISON VTS LED LUMINAIRE. OTHER MANUFACTURERS MUST MEET PHOTOMETRICS REQUIREMENTS AND BE OF SIMILAR NOMINAL POWER RATING.

**LOAD TABULATION FOR LIGHTING CONTROLLER "Z"**

CIRCUIT	INDUCTION 28W	LED 210W	LED 280W	LED 310W	HPS 480W	RECEPTACLE 240W	RED PHASE (W)	BLACK PHASE (W)
P			1	2			900	
O		1		1				520
R	2	2		1			786	
S		3						630
T	1	1	1	2			1138	
V	2	2		1				786
W	3	3					714	
X		2	1	1				1010
L				1	2		1270	
M				1	1			790
N					2		960	
O				1	1			790
NE						2	480	
NW						6		1440
SE						2	480	
SW						6		1440
TOTAL							6014	7406

DATE: 3/25/20  
 DRAWN BY: J. J. ...  
 CHECKED BY: ...  
 PLOT DATE: ...



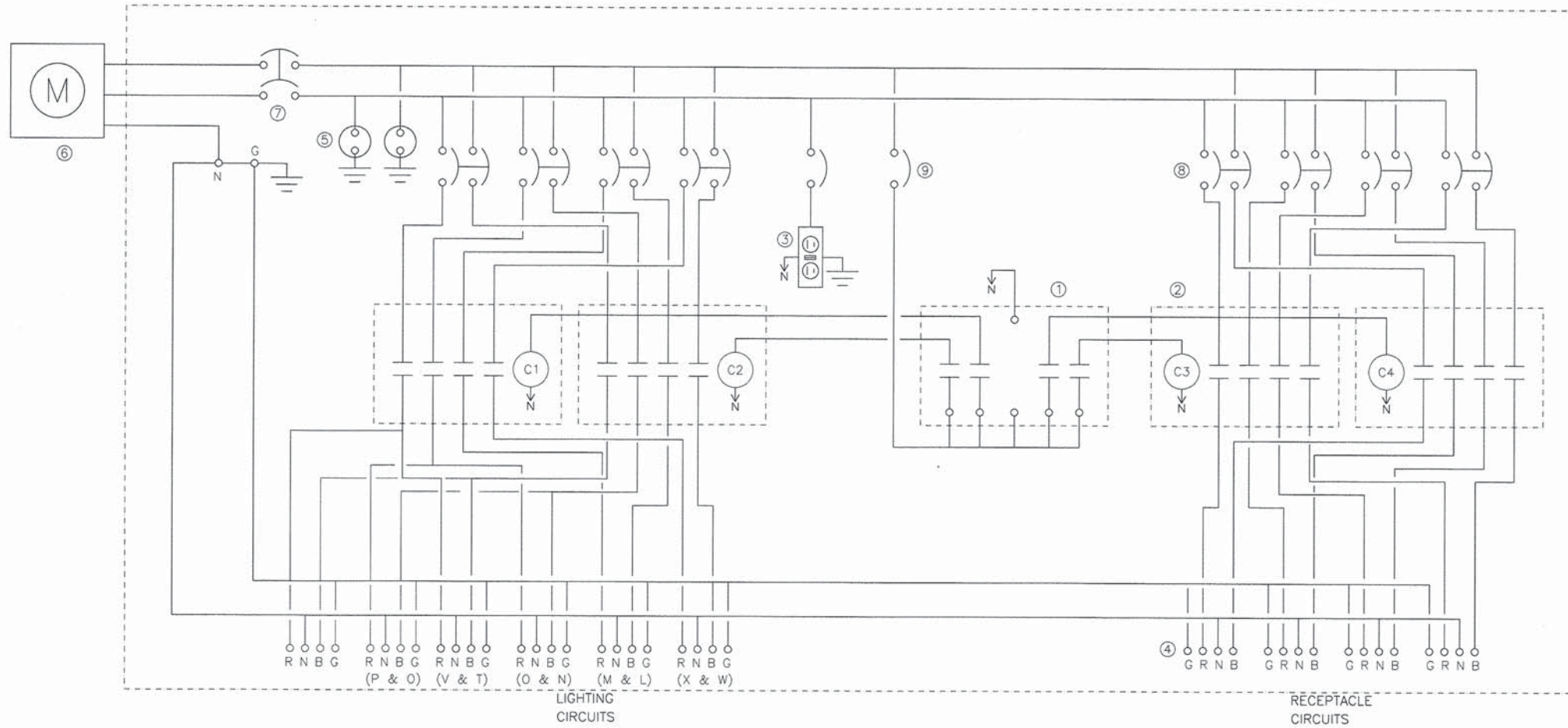
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PLOT DATE = DATEL	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**WIRING PLAN  
ILLINOIS ROUTE 31/120**

SCALE: 1"=100' SHEET NO. 4 OF 9 SHEETS STA. TO STA.

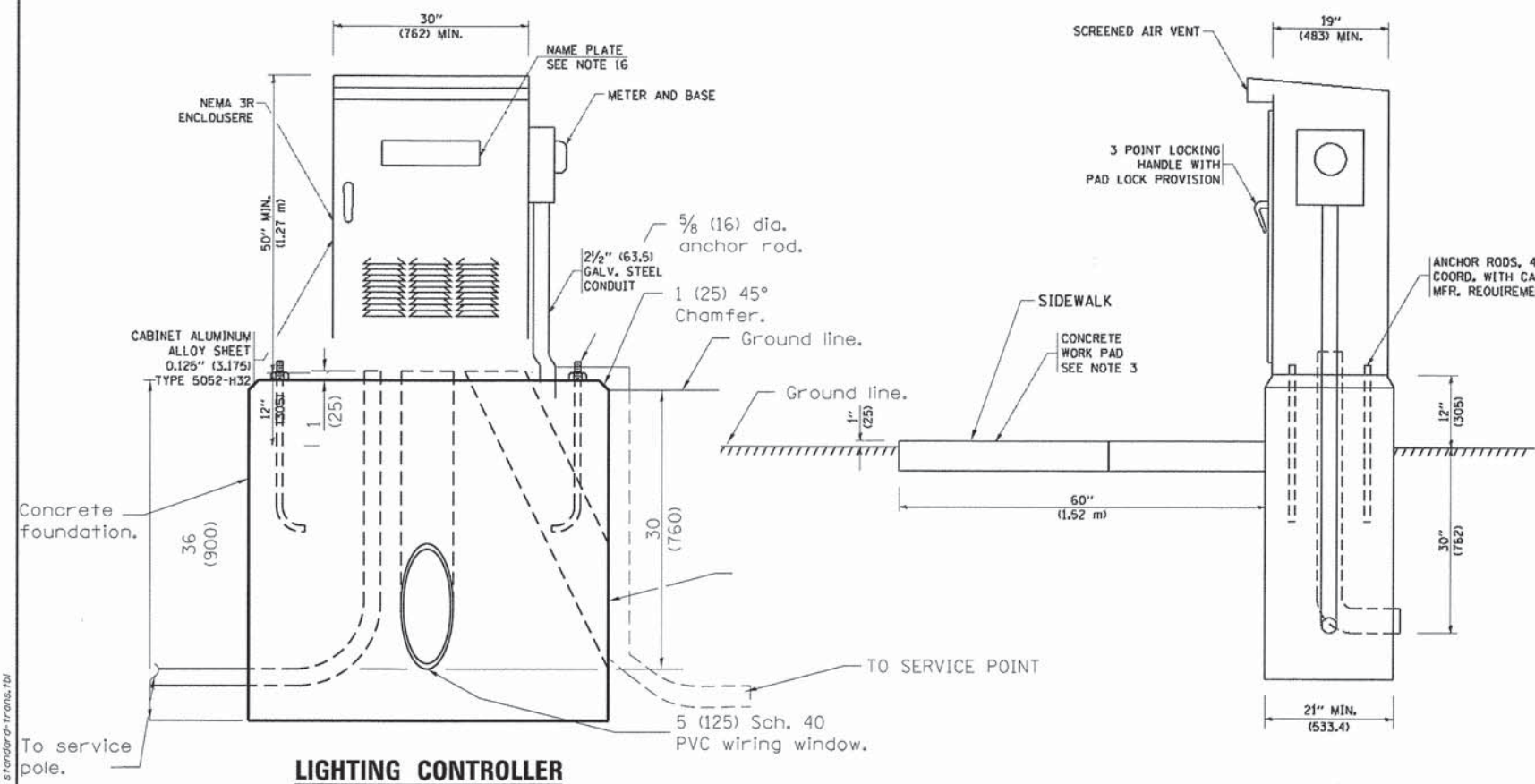
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00067-00-CH	MCHENRY	226	138
* FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
ILLINOIS FED. AID PROJECT				



- ① ASTRONOMICAL, 4-CHANNEL, 365-DAY, MICROPROCESSOR BASED TIME CLOCK WITH ONE-SHOT MANUAL OVERRIDE.
- ② 4-POLE, 30A LIGHTING CONTACTOR (TYPICAL OF 4).
- ③ GFCI, DUPLEX CONVENIENCE RECEPTACLE.
- ④ TERMINAL STRIP (QUANTITY AS NECESSARY).
- ⑤ SURGE ARRESTOR (FOR EACH HOT LEG - MAY BE A COMBINED UNIT).
- ⑥ UTILITY METER.
- ⑦ 200A, 2-POLE, CIRCUIT BREAKER MAIN DISCONNECT.
- ⑧ 30A, 2-POLE, BRANCH CIRCUIT BREAKER (TYPICAL OF 8)
- ⑨ 15A, 1-POLE, CONVENIENCE AND CONTROL CIRCUIT BREAKERS (TYP. OF 2).

**NOTES:**

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. FOUNDATION SIZE SHALL BE COORDINATED WITH CABINET SIZE AND MFR.
3. IN FRONT OF CONTROL CABINET DOOR, REMOVE VEGETATION AND 2" (50.8 mm) TOP SOIL, LEVEL THE AREA AND ON TOP, PLACE LENGTH WISE PARALLEL TO CONTROL CABINET, A CONCRETE PAD 36" (914.4 mm) x 60" (1524 mm) x 4" (101 mm) MIN. SIZE. THE COST OF LABOR AND MATERIALS ARE INCLUDED IN THE COST OF THE CONTROLLER.
4. DOOR SHALL BE CONSTRUCTED FROM SAME TYPE OF MATERIAL AND THICKNESS AS CABINET.
5. DOOR SHALL BE EQUIPPED WITH THREE POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP THE BOTTOM AND PADLOCK HASP.
6. DOOR HINGE SHALL BE A HEAVY GAUGE CONTINUOUS HINGE WITH A 1/4" (6.35 mm) DIA. STAINLESS STEEL HINGE PIN.
7. ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
8. CONTROL WIRING TO BE #18 AWG, 600V, TYPE STRANDED COPPER WITH THWN INSULATION.
9. METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET, NEAR TO THE SERVICE POLE.
10. CABINETS SHALL BE POWDER COATED FOREST GREEN.
11. THE HEADS OF CONNECTORS SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS.
12. ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.  
R = RED      P = PINK      W = WHITE  
B = BLACK    Y = YELLOW    G = GREEN
13. PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
14. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
15. THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
16. 12" (304.8) X 16" (406.4 mm) STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "CITY OF MCHENRY STREET LIGHTING" UNLESS OTHERWISE SPECIFIED.



**LIGHTING CONTROLLER**

COMPANY NAME: MCHENRY  
 PROJECT CONTACT: 050811-light-01.dgn  
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 FILE NAME: 08/21/04 2:26:00 PM  
 PLOT DATE: 08/21/04 2:26:00 PM  
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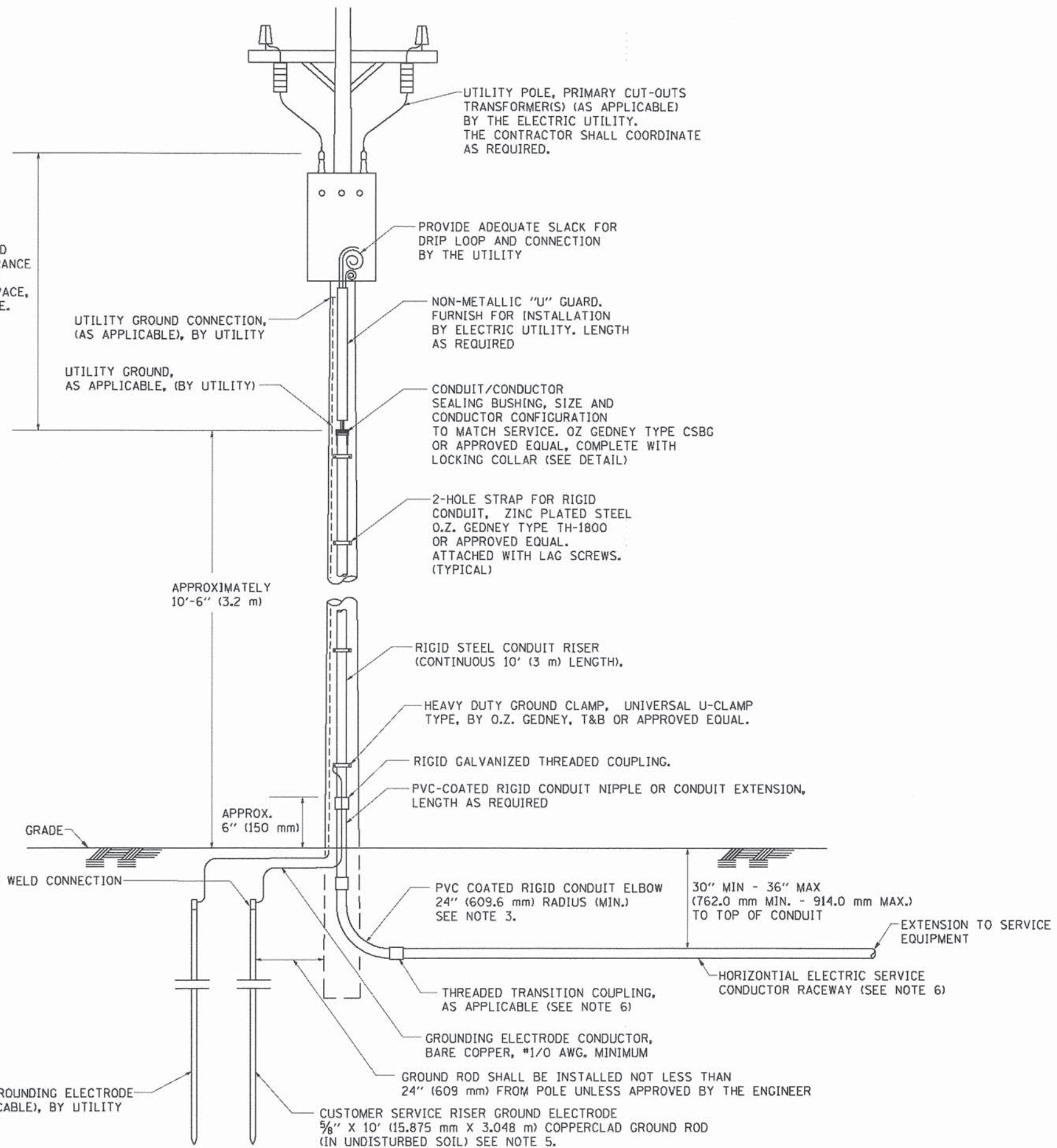
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		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>LIGHTING CONTROLLER SINGLE DOOR</b>			
SCALE: NONE	SHEET NO. 1	OF 1 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-00067-00-CH	MCHENRY	226	139
CONTRACT NO.				63750

ASCERTAIN AND ASSURE CLEARANCE FROM UTILITY SECONDARY SPACE, AS APPLICABLE.



UTILITY POLE, PRIMARY CUT-OUTS TRANSFORMER(S) (AS APPLICABLE) BY THE ELECTRIC UTILITY. THE CONTRACTOR SHALL COORDINATE AS REQUIRED.

PROVIDE ADEQUATE SLACK FOR DRIP LOOP AND CONNECTION BY THE UTILITY

UTILITY GROUND CONNECTION, (AS APPLICABLE), BY UTILITY

NON-METALLIC "U" GUARD. FURNISH FOR INSTALLATION BY ELECTRIC UTILITY. LENGTH AS REQUIRED

UTILITY GROUND, AS APPLICABLE, (BY UTILITY)

CONDUIT/CONDUCTOR SEALING BUSHING, SIZE AND CONDUCTOR CONFIGURATION TO MATCH SERVICE. OZ GEDNEY TYPE CSBG OR APPROVED EQUAL, COMPLETE WITH LOCKING COLLAR (SEE DETAIL)

2-HOLE STRAP FOR RIGID CONDUIT, ZINC PLATED STEEL O.Z. GEDNEY TYPE TH-1800 OR APPROVED EQUAL. ATTACHED WITH LAG SCREWS. (TYPICAL)

APPROXIMATELY 10'-6" (3.2 m)

RIGID STEEL CONDUIT RISER (CONTINUOUS 10' (3 m) LENGTH),

HEAVY DUTY GROUND CLAMP, UNIVERSAL U-CLAMP TYPE, BY O.Z. GEDNEY, T&B OR APPROVED EQUAL.

RIGID GALVANIZED THREADED COUPLING.

PVC-COATED RIGID CONDUIT NIPPLE OR CONDUIT EXTENSION, LENGTH AS REQUIRED

APPROX. 6" (150 mm)

GRADE

EXOTHERMIC WELD CONNECTION

PVC COATED RIGID CONDUIT ELBOW 24" (609.6 mm) RADIUS (MIN.) SEE NOTE 3.

30" MIN - 36" MAX (762.0 mm MIN. - 914.0 mm MAX.) TO TOP OF CONDUIT

EXTENSION TO SERVICE EQUIPMENT

THREADED TRANSITION COUPLING, AS APPLICABLE (SEE NOTE 6)

HORIZONTAL ELECTRIC SERVICE CONDUCTOR RACEWAY (SEE NOTE 6)

GROUNDING ELECTRODE CONDUCTOR, BARE COPPER, #1/0 AWG. MINIMUM

GROUND ROD SHALL BE INSTALLED NOT LESS THAN 24" (609 mm) FROM POLE UNLESS APPROVED BY THE ENGINEER

UTILITY GROUNDING ELECTRODE (AS APPLICABLE), BY UTILITY

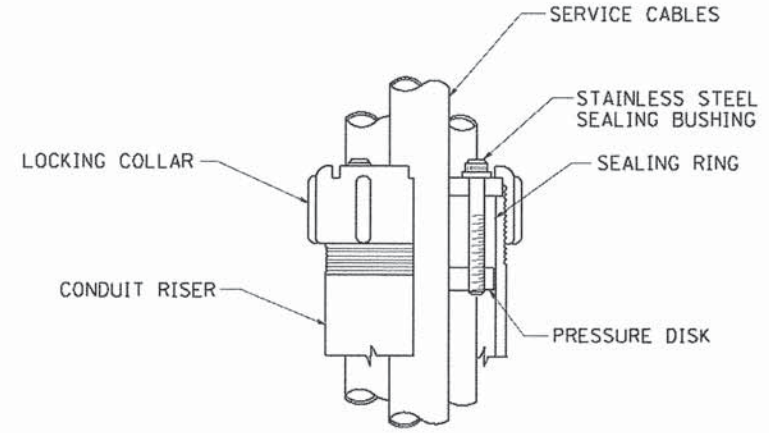
CUSTOMER SERVICE RISER GROUND ELECTRODE 5/8" X 10' (15.875 mm X 3.048 m) COPPERCLAD GROUND ROD (IN UNDISTURBED SOIL) SEE NOTE 5.

**APPLICATION**

THIS DETAIL APPLIES FOR LOW VOLTAGE ELECTRIC SERVICE (660 V OR LESS) FROM AN OVERHEAD UTILITY SUPPLY TO SEPERATLY-MOUNTED SERVICE EQUIPMENT.

**NOTES**

- SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
- UNLESS OTHERWISE INDICATED, ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.
- CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED ON THE PLANS.
- PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MFR RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
- THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
- THE HORIZONTAL ELECTRIC SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE), THE COUPLING SHALL BE A METALLIC TO NON METALLIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
- PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS. THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY, FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION IS REQUIRED AND SHALL BE INCLUDED IN THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.



**SEALING BUSHING DETAIL**

COMPANY NAME: MCHENRY  
PROJECT CONTACT: 080611-1911-00-00  
CLIENT: 080611-1911-00-00  
DATE PLOTTED: 3/16/11 PM  
FILE NAME: 080611-1911-00-00.dgn  
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		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

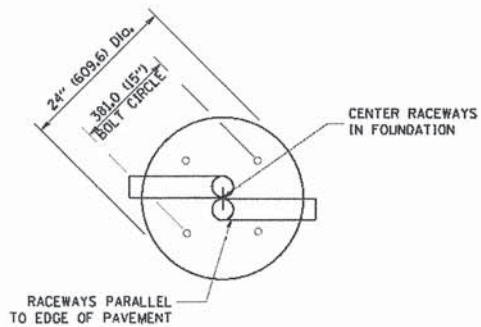
<b>ELECTRIC SERVICE INSTALLATION AERIAL REMOTE DISCONNECT</b>			
SCALE: NONE	SHEET NO. 1	OF 1 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00067-00-CH	MCHENRY	226	140
BE-220			CONTRACT NO.	63750
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

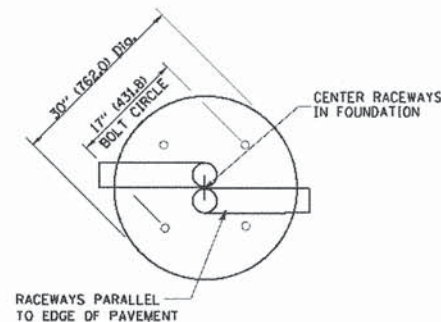


**LIGHT POLE FOUNDATION DEPTH TABLE**  
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Cu = 0.375 TON/SO. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Cu = 0.75 TON/SO. FT.	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY Cu = 1.50 TON/SO. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



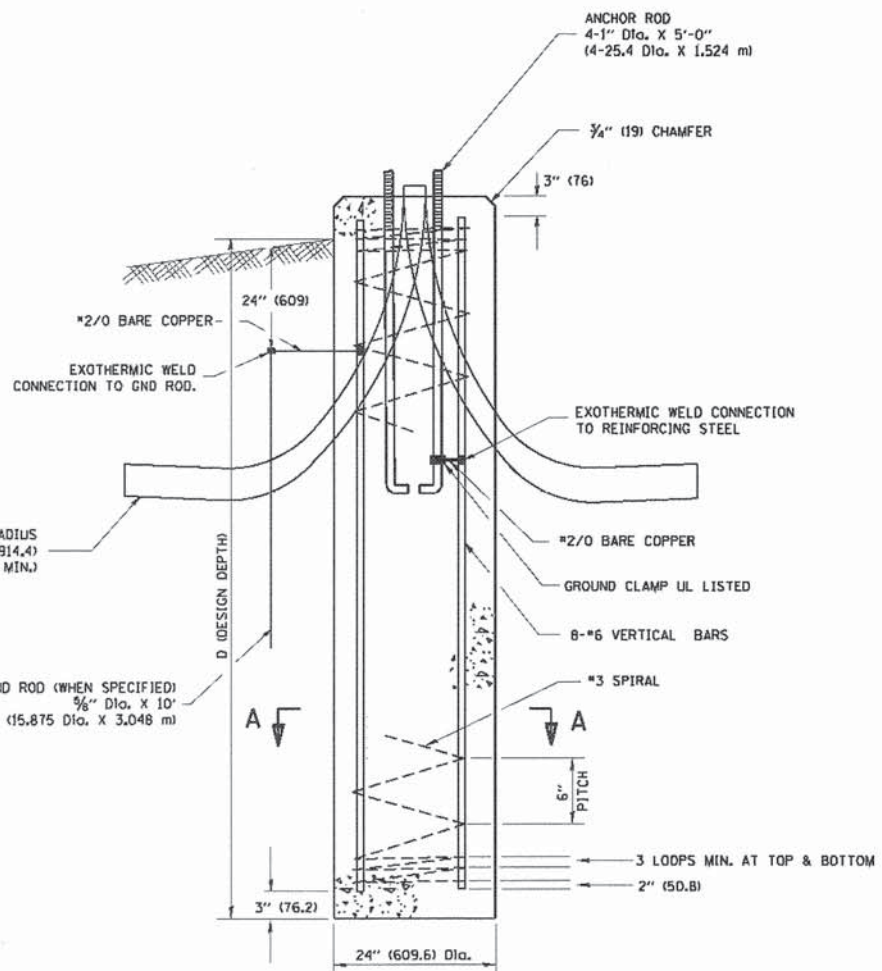
**TOP VIEW**



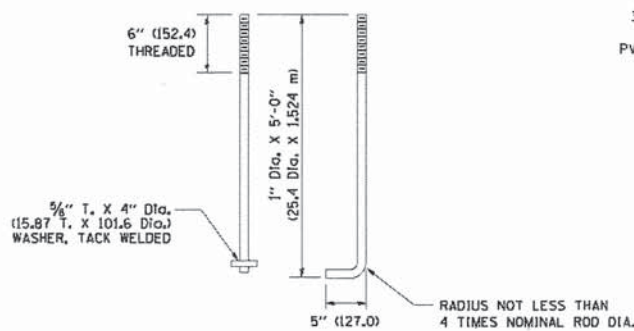
**TOP VIEW**

**NOTES**

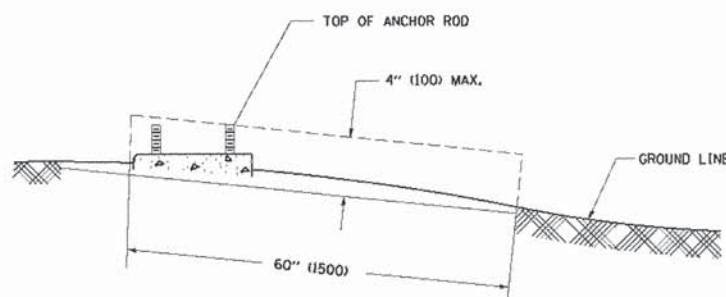
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 1/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS S1. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



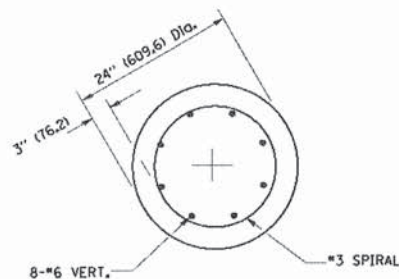
**FOUNDATION DETAIL**



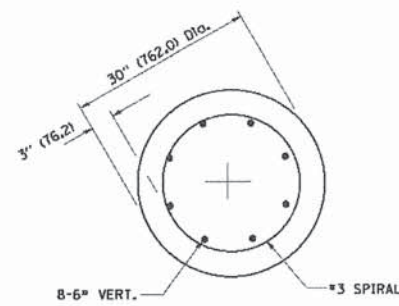
**ANCHOR ROD DETAIL**



**FOUNDATION EXTENSION DETAIL**



**SECTION A-A**



**SECTION A-A**

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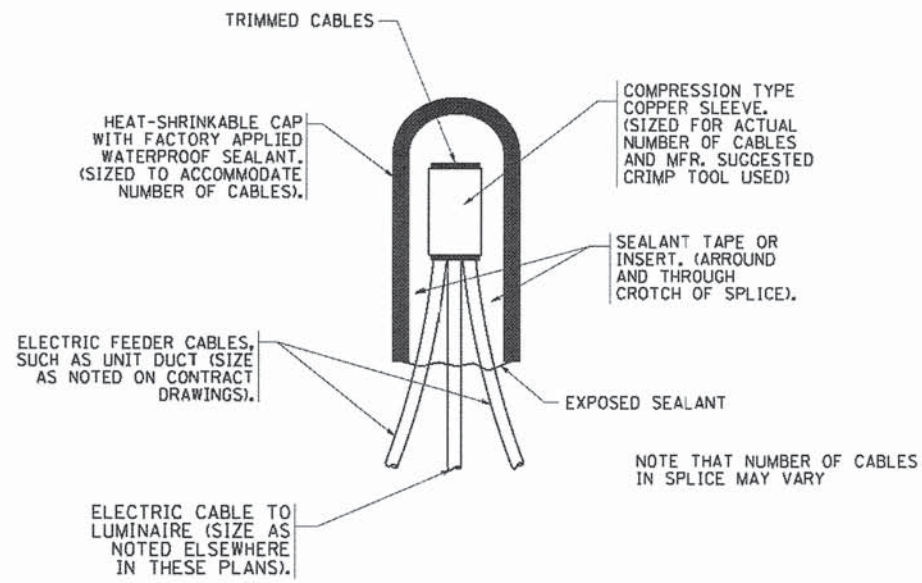
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REVISOR - 04-22-02 REVISED - REVISED - REVISED - DATE -

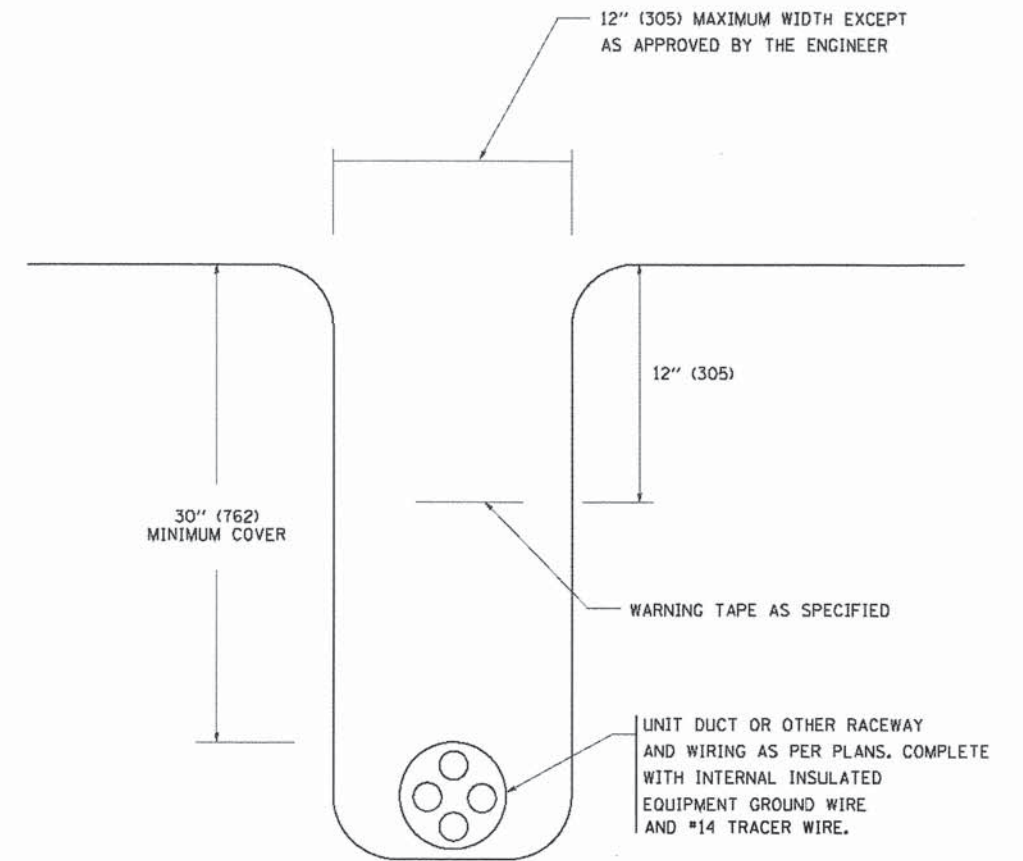
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**LIGHT POLE FOUNDATION**  
40' (12.192 m) TO 47' 1/2" (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE  
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

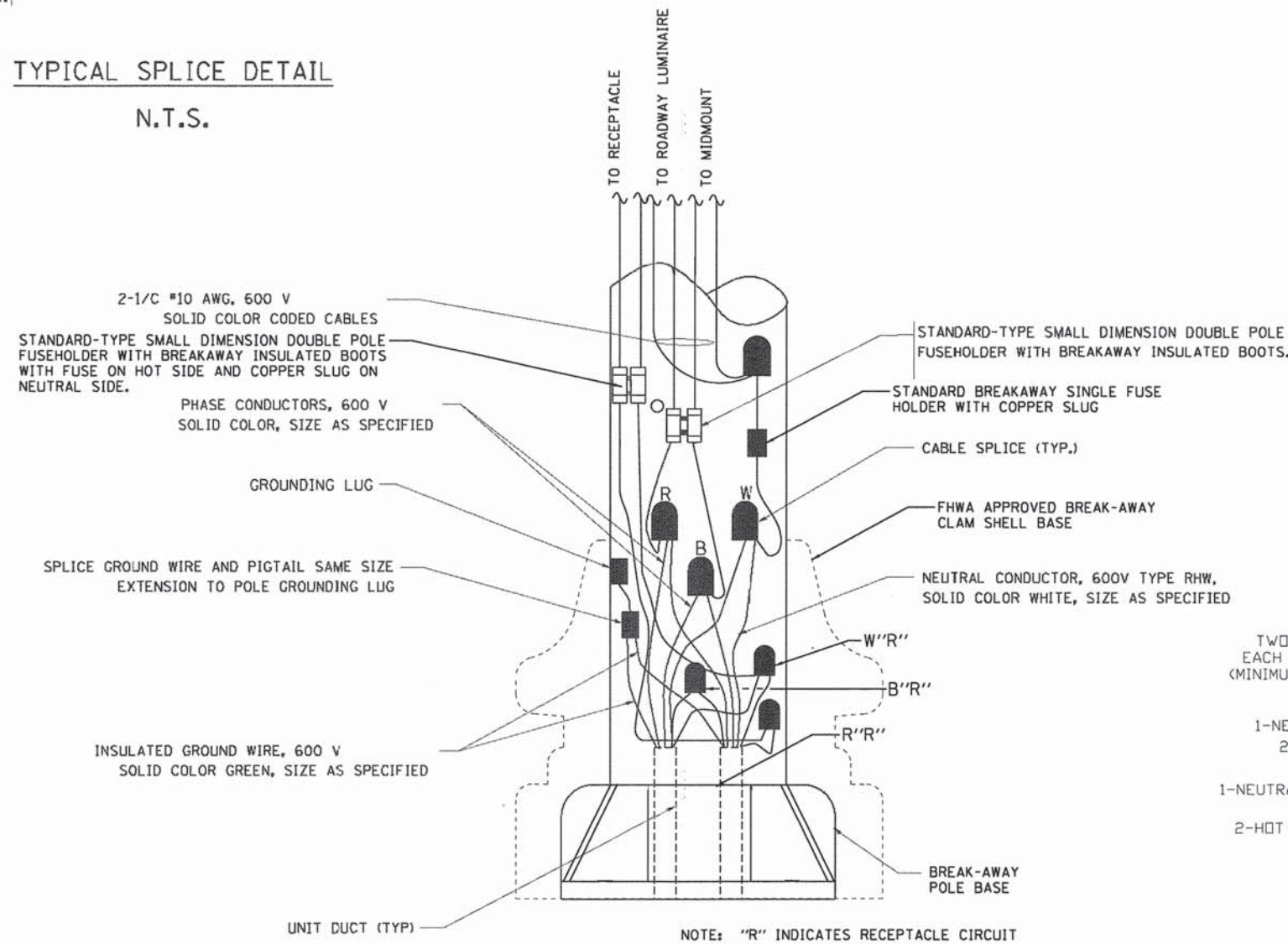
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<b>BE-301</b>			<b>CONTRACT NO. 63750</b>	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



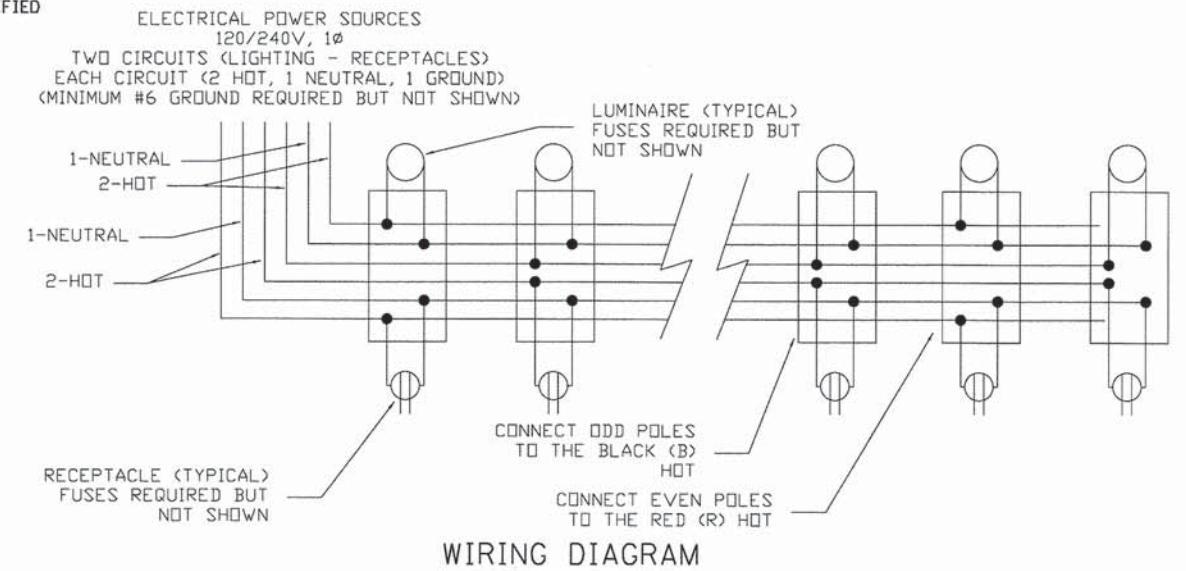
TYPICAL SPLICE DETAIL  
N.T.S.



TYPICAL WIRING IN TRENCH DETAIL  
N.T.S.



POLE WIRING DETAIL  
N.T.S.



WIRING DIAGRAM

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PROJECT CONTACT:  
DATE: 3/16/22 PM  
DATE PLOTTED: 08/01/2022 11:05 AM  
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		DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MISC. ELECTRICAL DETAILS  
SHEET A

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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BE-702			CONTRACT NO. 63750	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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 PROJECT CONTACT:  
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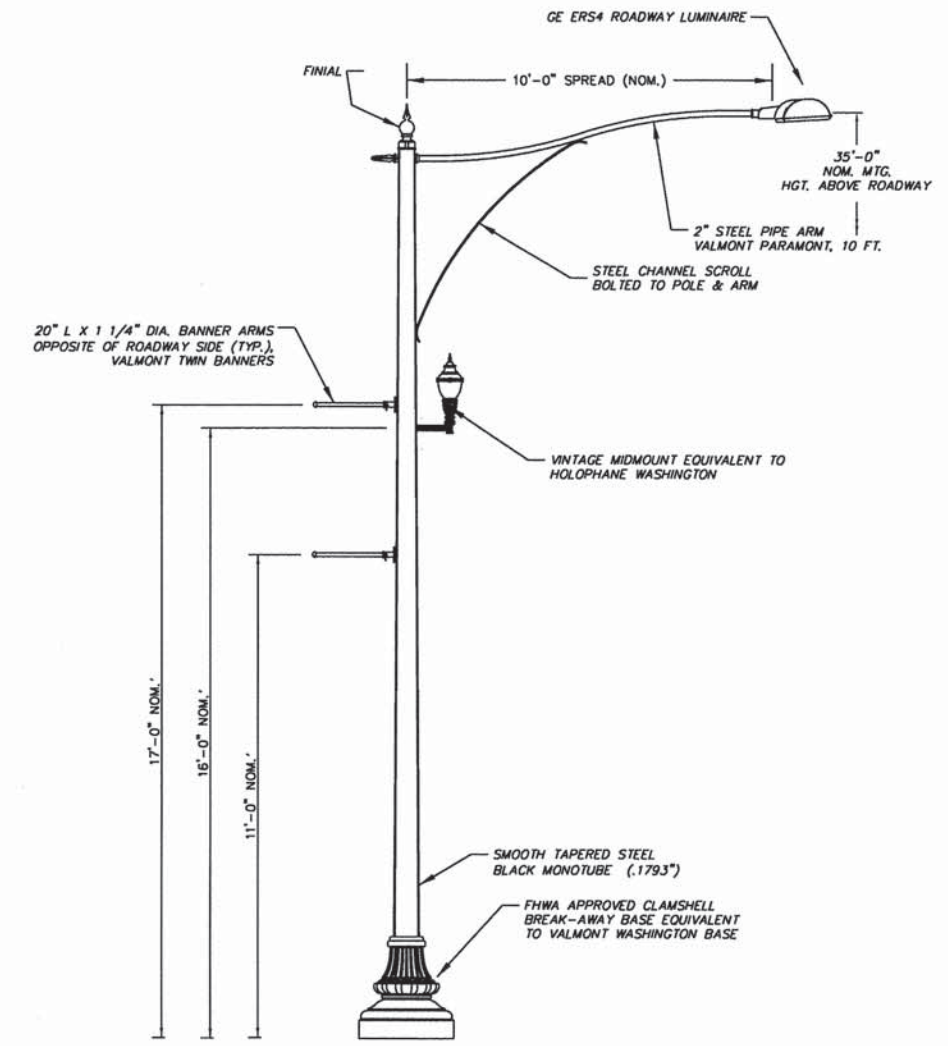


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PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = .DATE1.	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>ELECTRICAL DETAILS</b>	
<b>ILLINOIS ROUTE 31/20</b>	
SCALE:	SHEET NO. 9 OF 9 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	143
* FAP 333, FAP 336, FAU 81			<b>CONTRACT NO. 63750</b>	
[ILLINOIS] FED. AID PROJECT				



**STREET LIGHTING UNIT (TYPICAL)**  
 FOR SPECIFIC FEATURES OF EACH TYPE SEE SCHEDULE AND SPECIFICATIONS

**Benchmark:**

- Arrow bolt on hydrant located at the northeast corner of Broad Street and IL Route 31. Elevation=778.33 (NAVD88)
- Arrow bolt on hydrant located on the northerly side of IL Route 120 and approximately 100 west of the centerline of Boone Creek. Elevation=757.03 (NAVD88)

**Existing Structure:**

Existing structure SN 056-0060, Section 14B-1(86) built in 1990, is a single span of 54' deep precast, prestressed concrete I-Beams supporting a 7 1/2" reinforced concrete deck. The substructure consists of integral abutments supported on steel H-piles. 95'-0" bk. to bk. abutments, 72'-0" out to out and no skew. The traffic shall be staged on the existing structure.

**Old Structure:** SN 056-0013 built in 1926. Portions of the substructure remain, but are not included as part of the current structure.

**Salvage:**

Remove only Beam 10 and portions north as shown. Existing Bridge Fence Railing shall be removed from north and south parapets and delivered to the IDOT District 1 Bridge Yard at 1101 Blesterfield Rd, Elk Grove Village, IL 60007.

**LOADING HS20-44**

Allow no future wearing surface.

**DESIGN SPECIFICATIONS**

2002 AASHTO Standard Specifications for Highway Bridges with 2003, 2004 and 2005 Interims

**DESIGN STRESSES**

**FIELD UNITS**

f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)  
fy = 50,000 psi (M270 Grade 50)

**EXISTING PPC I-BEAM UNITS**

fy = 40,000 psi f's = 270,000 psi  
f'cl = 4,700 psi fsl = 189,000 psi  
f'c = 6,000 psi fi = 28,900 lbs

**PROPOSED PPC I-BEAM UNITS**

fy = 60,000 psi f's = 270,000 psi  
f'cl = 6,000 psi fsl = 201,960 psi  
f'c = 7,000 psi fi = 30,900 lbs

**SEISMIC DATA**

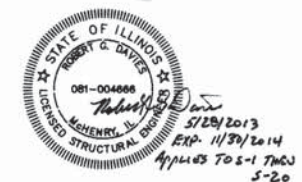
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.04g  
Site Coefficient (S) = 1.0

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	W. Abut. 747.40	E. Abut. 748.25
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**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*[Signature]*  
Engineer of Bridges and Structures

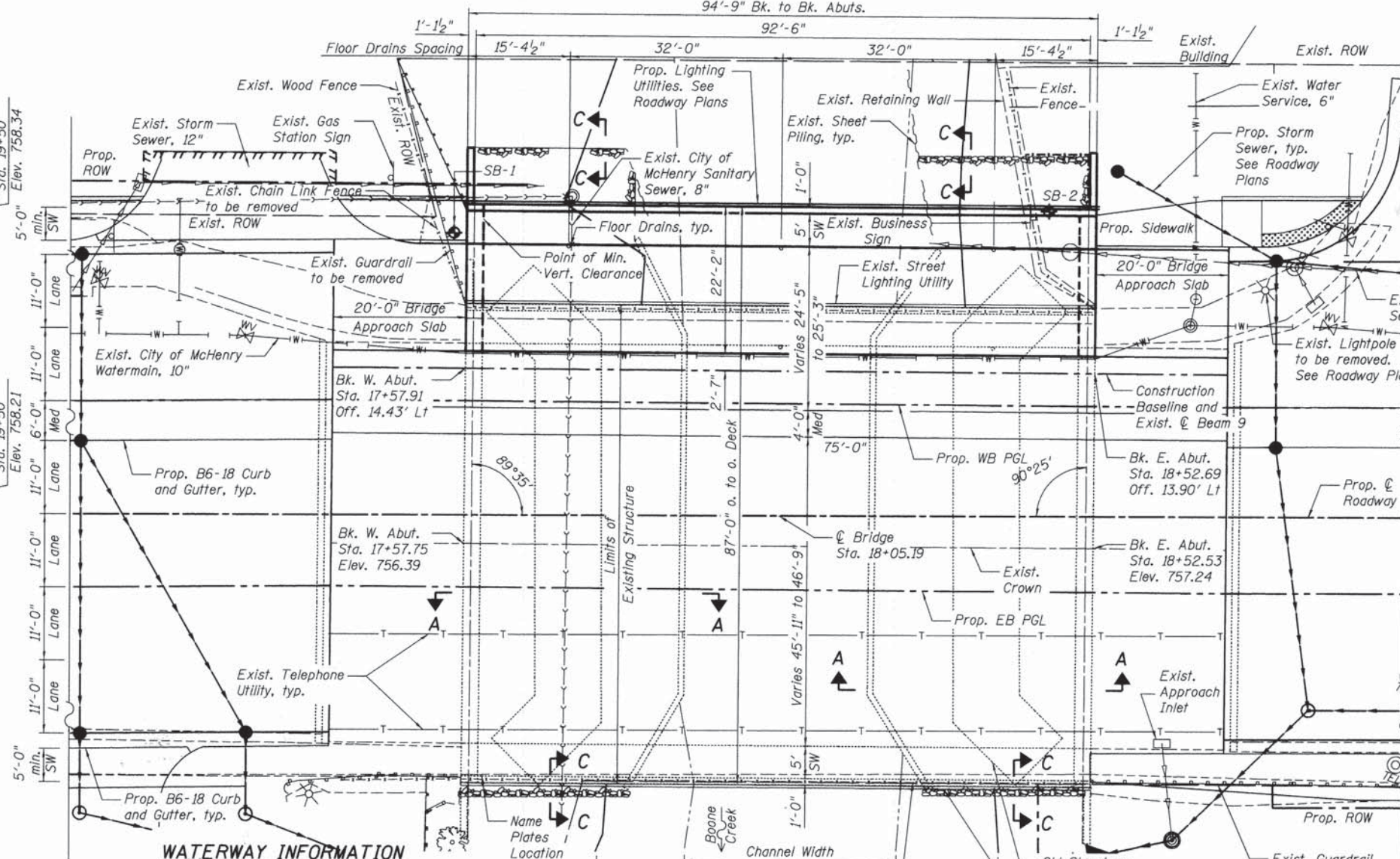
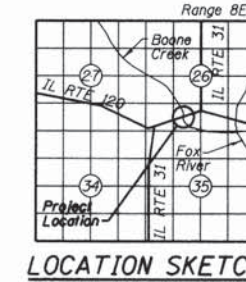
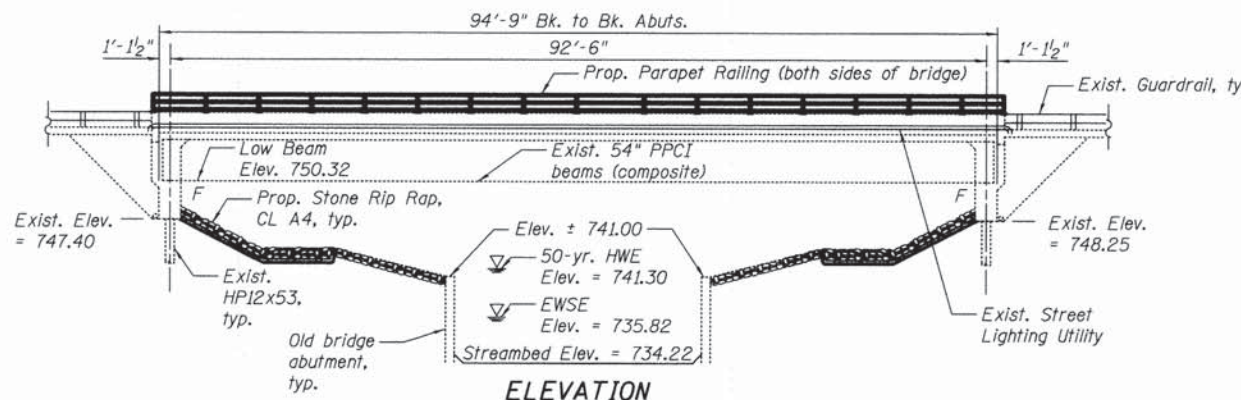


**GENERAL PLAN AND ELEVATION**

IL RTE. 31 (F.A.P. ROUTE 336) &  
IL RTE. 120 (F.A.P. ROUTE 333)  
OVER BOONE CREEK  
SECTION NO. 05-00067-00-CH  
CITY OF MCHENRY, MCHENRY COUNTY  
STA. 18+05.19  
STRUCTURE NO. 056-0060

DATE: 5/28/13

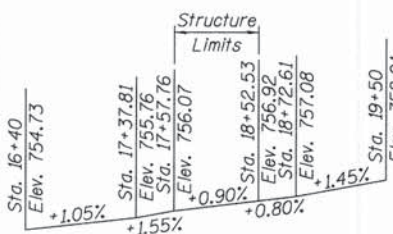
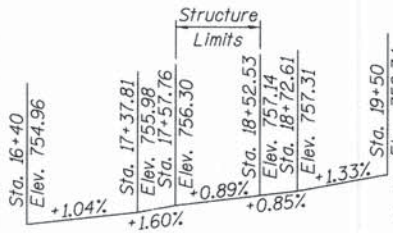
SHEET NO. S-1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	S-20 SHEETS	05-00067-00-CH	MCHENRY	226	144
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		



**WATERWAY INFORMATION**

Drainage Area = 23.1 sq. mi. Low Grade Elev. 753.94 @ Sta. 15+50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	755	183	183	741.3	0.0	0.0	741.3	741.3
Base	100	860	198	198	741.8	0.1	0.1	741.9	741.9
Max. Calc.	500	1105	238	238	742.9	0.1	0.1	743.0	743.0
Overtopping	>500								



STATION 18+05.19  
RE-BUILT BY  
STATE OF ILLINOIS  
F.A. RT. 336 F.A. RT. 333  
LOADING HS-20-44  
STR. NO. 056-0060

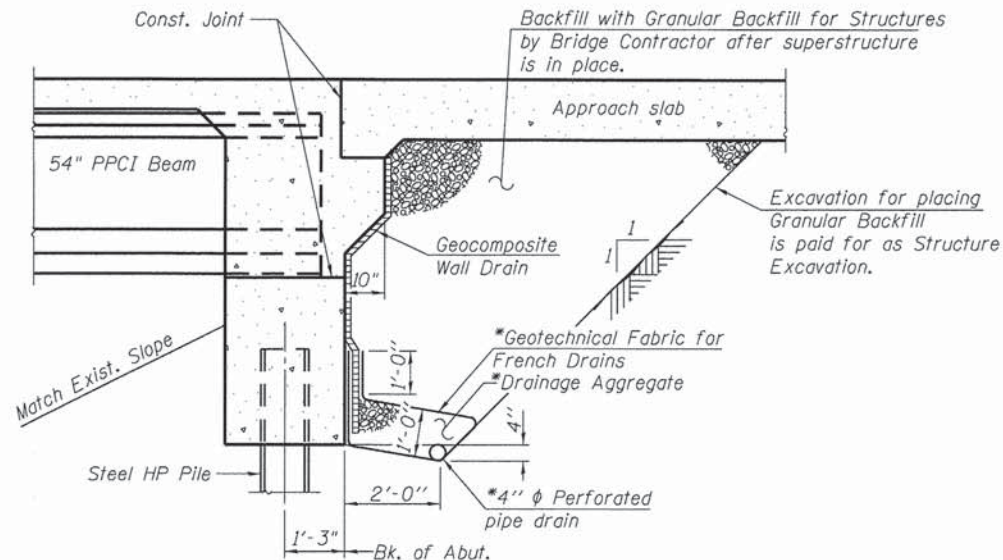
**NAME PLATE**  
See Std. 515001  
Install new Name Plate next to old Name Plate.

DESIGNED	MGH
CHECKED	RGD
DRAWN	WJH
CHECKED	MGH

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PLOT DRIVER: pdtplot  
PEN TABLE: STRPLOT 22x34.tbl

**GENERAL NOTES**

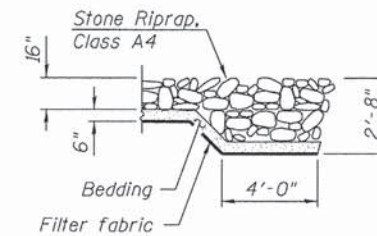
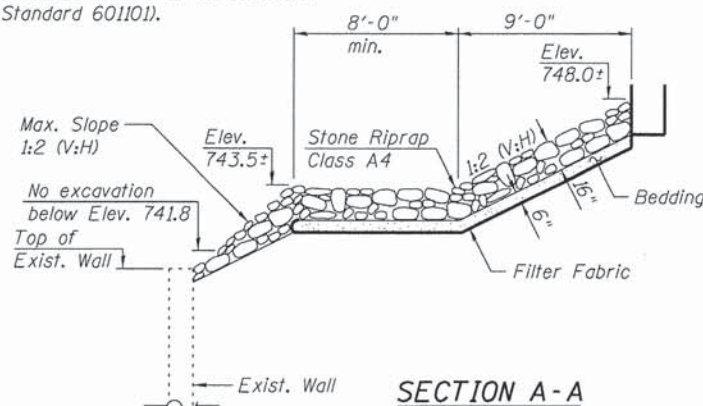
- Reinforcement bars designated (E) shall be epoxy coated.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
- Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost incidental to "Concrete Removal."
- The Proposed Chain Link Fence shall be installed behind the Northeast wingwall and back of curb. The height of the Chain Link Fence shall match the height of the existing fence. See Roadway Plans.
- Maintain existing lighting during construction. See Electrical Drawings.



**SECTION THRU INTEGRAL ABUTMENT**  
(Horiz. dim. @ Rt. L's)

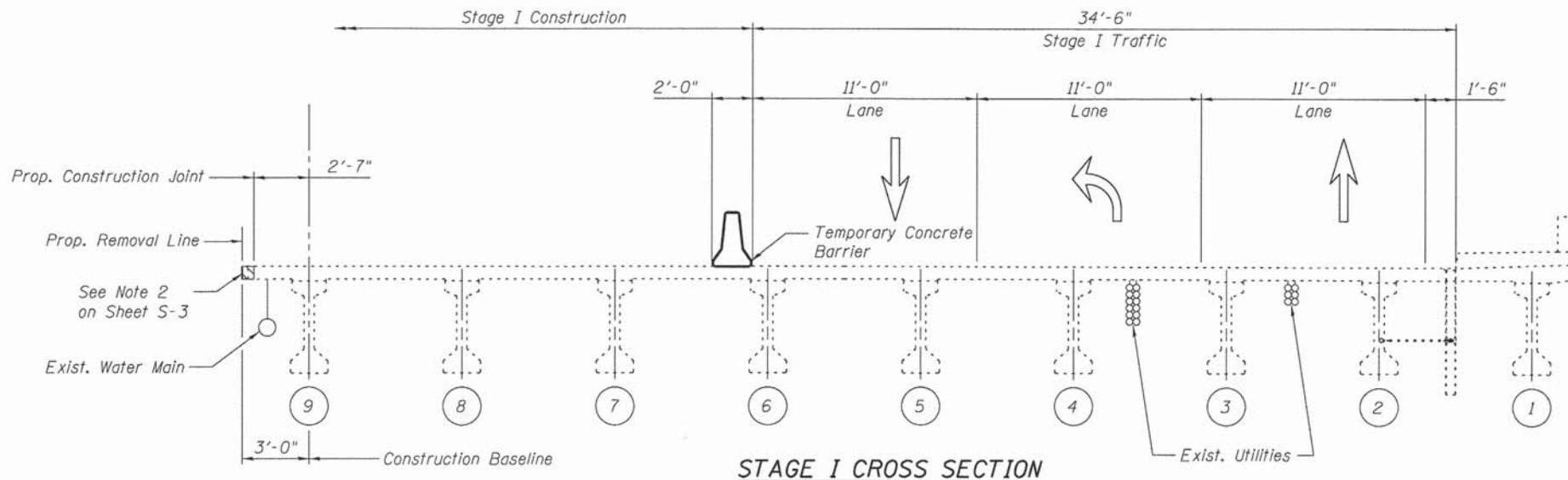
\*Included in the cost of Pipe Underdrains for Structures.

Note:  
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



**RECOMMENDED CONSTRUCTION SEQUENCE**

- Sawcut deck at 3'-3" from Const. Baseline (6" (+) from face of existing curb) (WB lanes).
- Remove Beam (10) and portion of deck, abutment, and diaphragm.
- Drive new piles. Construct abutment extensions. Set Beams (10), (11) and (12).
- Construct formwork for diaphragm and deck. Temporarily support water main off of formwork.
- Sawcut top of deck at 10" north of Const. Baseline. Chip concrete away to edge of top flange of beam (9).
- Lap splice rebar as detailed (See Section Thru Sidewalk, Sheet S-9).
- On the top of deck and approach slabs, perform Deck Slab Repair (Partial), Concrete Bridge Deck Scarification (3/8 inch), and Bridge Deck Thin Polymer Overlay 3/8".



**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.		592	592
Filter Fabric	Sq. Yd.		592	592
Concrete Removal	Cu. Yd.	55	20	75
Structure Excavation	Cu. Yd.		193	193
Floor Drains	Each	3		3
Concrete Structures	Cu. Yd.		28.6	28.6
Concrete Superstructure	Cu. Yd.	125.5		125.5
Concrete Encasement	Cu. Yd.		2.8	2.8
Protective Coat	Sq. Yd.	237		237
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54 in.	Foot	282		282
Reinforcement Bars, Epoxy Coated	Pound	22,092	7,392	29484
Mechanical Splicers	Each	327		327
Parapet Railing	Foot	190		190
Furnishing Steel Piles HPI2x53	Foot		255	255
Driving Piles	Foot		255	255
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		45	45
Concrete Headwalls for Pipe Drains	Each		2	2
Granular Backfill for Structures	Cu. Yd.		95	95
Concrete Bridge Deck Scarification (3/8 inch)	Sq. Yd.	1125		1125
Bridge Deck Thin Polymer Overlay 3/8"	Sq. Yd.	1125		1125
Deck Slab Repair (Partial)	Sq. Yd.	20		20
Pipe Underdrains for Structures, 4"	Foot		38	38

**INDEX OF SHEETS**

- S-1 General Plan and Elevation
- S-2 General Notes and Bill of Materials
- S-3 Removal and Repair Plan
- S-4 Temporary Concrete Barrier for Stage Construction
- S-5 Top of Deck Elevations
- S-6 Top of Deck Elevations
- S-7 Approach Pavement Elevations
- S-8 Deck Plan and Cross Section
- S-9 Superstructure Details
- S-10 Diaphragm Details
- S-11 Parapet Railing
- S-12 Bridge Approach Slab Details
- S-13 Bridge Approach Slab Details
- S-14 Beam Framing Plan
- S-15 Beam Elevation and Details
- S-16 Beam Details
- S-17 Abutment Details
- S-18 Steel H-Pile Details
- S-19 Bar Splicer Details
- S-20 Soil Boring Logs

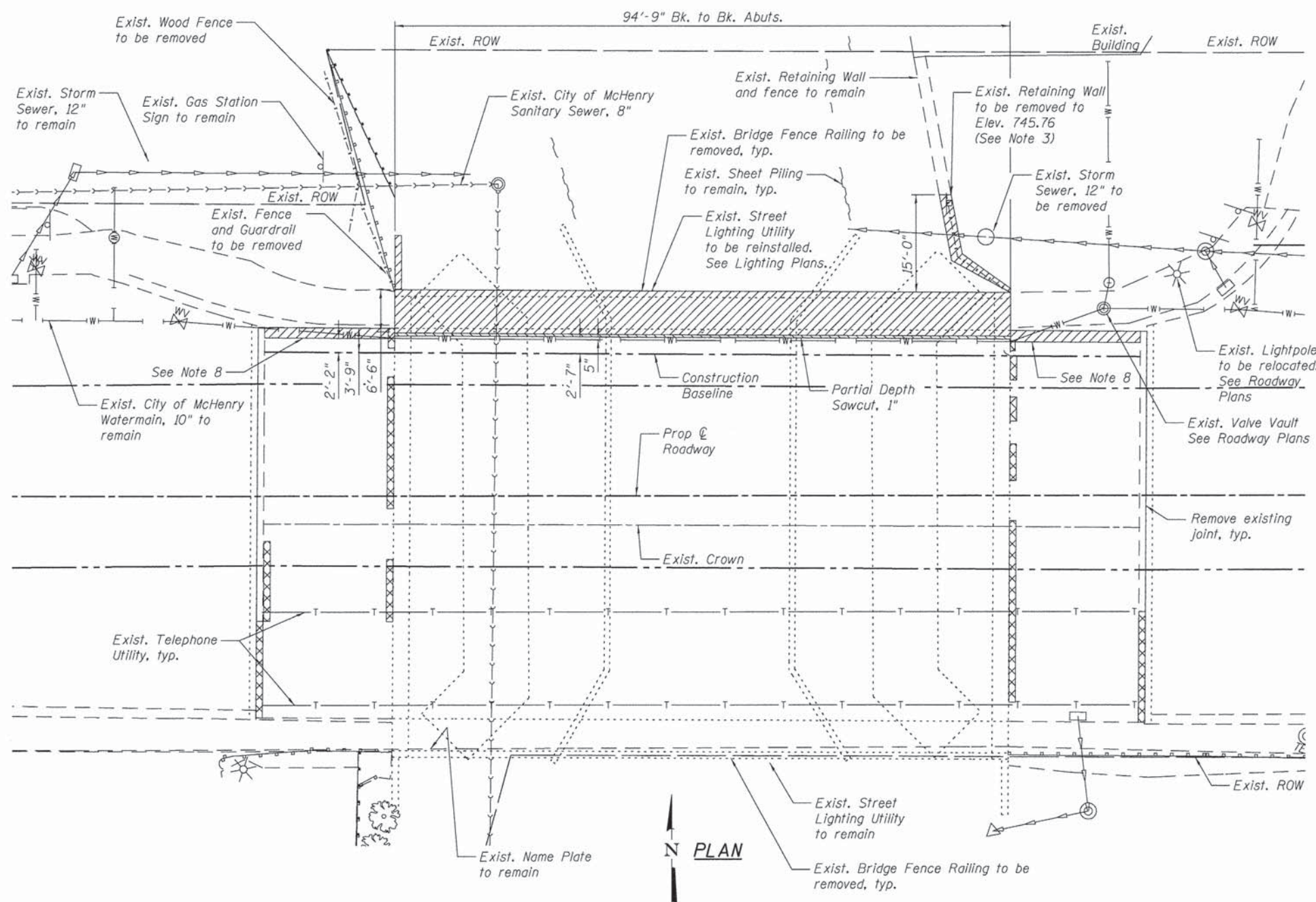
**GENERAL NOTES AND BILL OF MATERIALS**  
**STRUCTURE NO. 056-0060**

DATE: 5/28/13

DESIGNED	MGH
CHECKED	RGD
DRAWN	WJH
CHECKED	MGH



SHEET NO. S-2 S-20 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FAP 333, FAP 336, FAU 81			CONTRACT NO. 63150		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

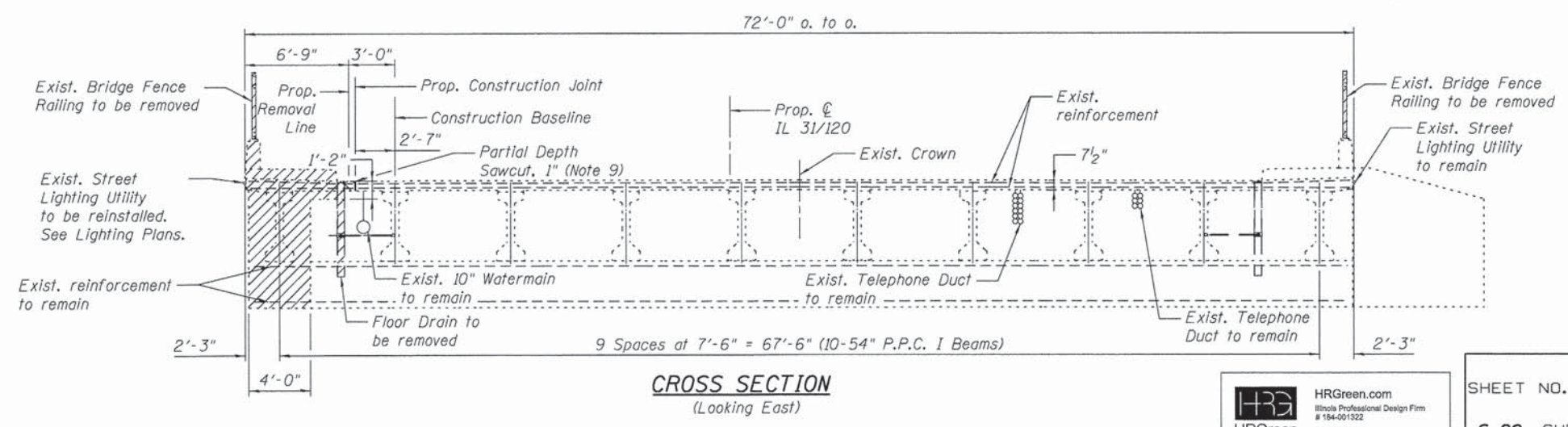


- Notes:
- Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in pay item Concrete Removal.
  - Exist. Reinforcement and Piles extending into removal area shall be cleaned, straightened, and incorporated into the new construction. Cost included in pay item Concrete Removal.
  - According to the Existing Structure Plans, FAP Rte 13/860 (ILL. 31/120) over Boone Creek, Section 14B-1 (86) SN 056-0060 Proj P91-294-86 by Allen Engineering, there is a detail for the Northeast Retaining Wall that shows Sheet Pile-PMA22 with 5/8" dia. studs being encased in concrete. It is unknown if the wall was built according to this detail.
  - Cost for Partial Depth Sawcut, 1", removal of existing beam, and removal of existing bridge fence railing shall be included in Concrete Removal.
  - Existing bridge fence railings shall be removed and delivered, along with the splices from the railing, to the IDOT District 1 Bridge Yard at 1101 Biesterfield Rd, Elk Grove Village, IL 60007. Cost shall be included in Concrete Removal.
  - See Sheet S-8 for limits of Concrete Bridge Deck Scarification and Bridge Deck Thin Polymer Overlay. See Special Provisions.
  - See Sheet S-2 for Recommended Construction Sequence.
  - See Sheets S-12 and S-13 for Approach Slab Details.
  - See Sheet S-9 for details

- LEGEND:**
- Indicates area of Concrete Removal
  - Indicates area of Deck Removal for Reinforcement Splicing. Cost included in Concrete Removal.
  - Indicates area for Deck Slab Repair (Partial). Verify quantity, See Special Provisions.

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	75
Deck Slab Repair (Partial)	Sq. Yd.	20



**CROSS SECTION**  
(Looking East)

**REMOVAL & REPAIR PLAN**  
**STRUCTURE NO. 056-0060**

DATE: 5/28/13

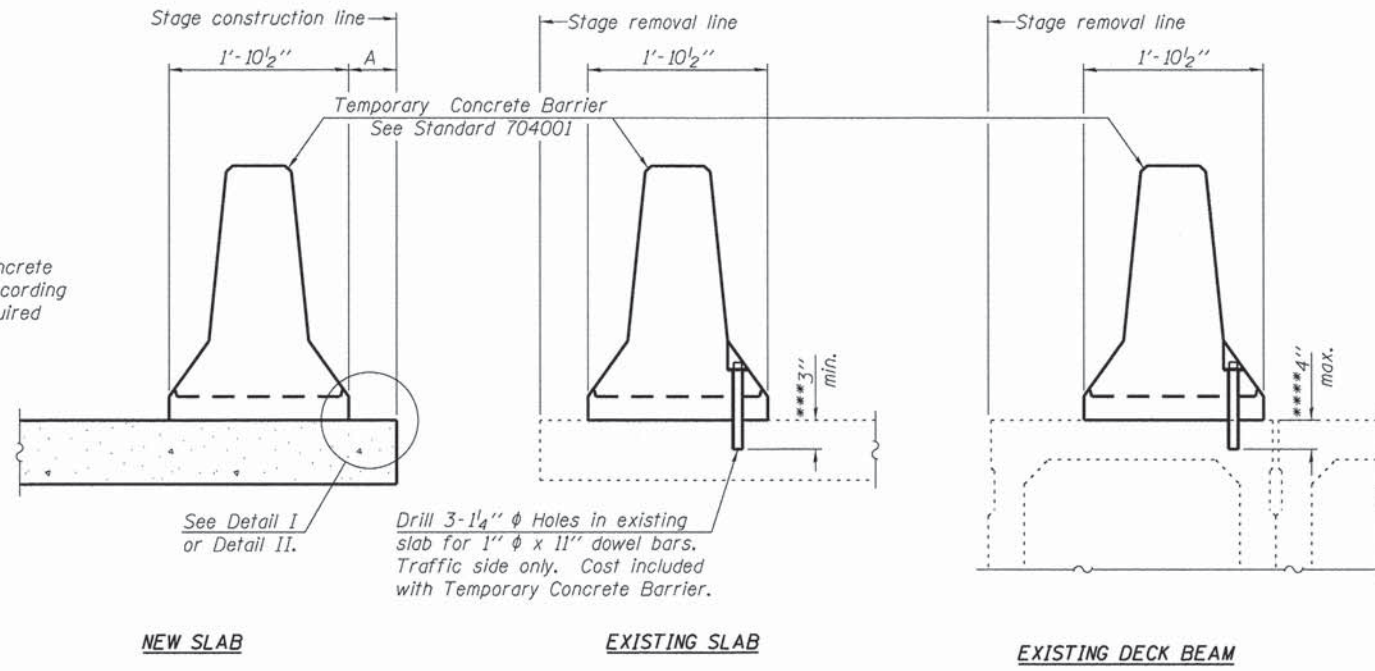
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CHECKED	MGH



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FAP 333, FAP 336, FAU 81			CONTRACT NO. 63150		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

FILE NAME: 056012.Ren.dgn  
PEN TABLE: 056012.tbl

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".



**SECTIONS THRU SLAB OR DECK BEAM**

**NOTES**

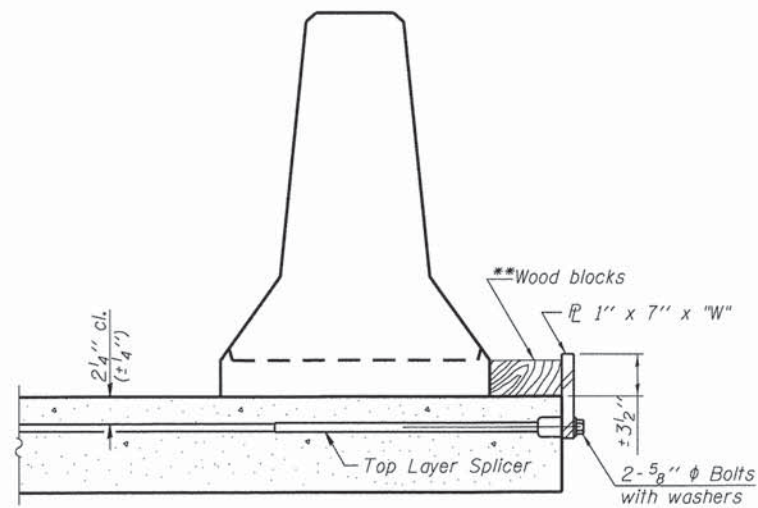
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1" x 7" x "W" steel  $\bar{P}$  to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.

Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1" x 7" x "W" steel  $\bar{P}$  to the concrete slab or concrete wearing surface with 2-5/8"  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each barrier panel.

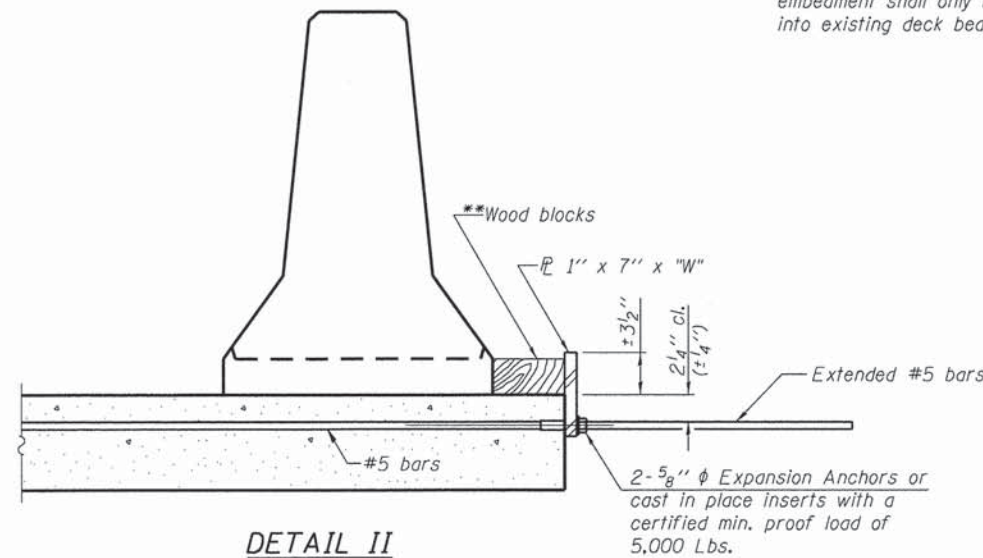
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

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



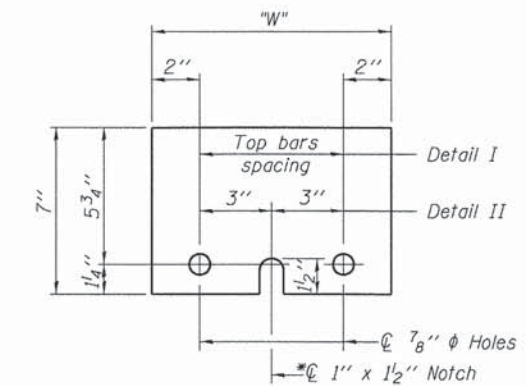
**DETAIL I**



**DETAIL II**

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

"W" = Top bars spacing + 4"



**STEEL RETAINER  $\bar{P}$  1" x 7" x "W"**

\* Required only with Detail II

**TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION  
STRUCTURE NO. 056-0060**

DATE: 5/28/13

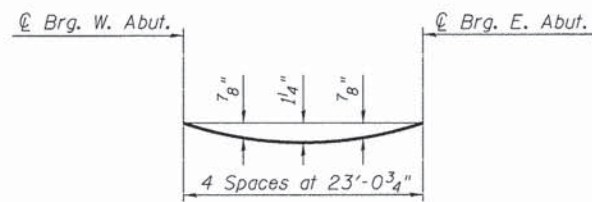
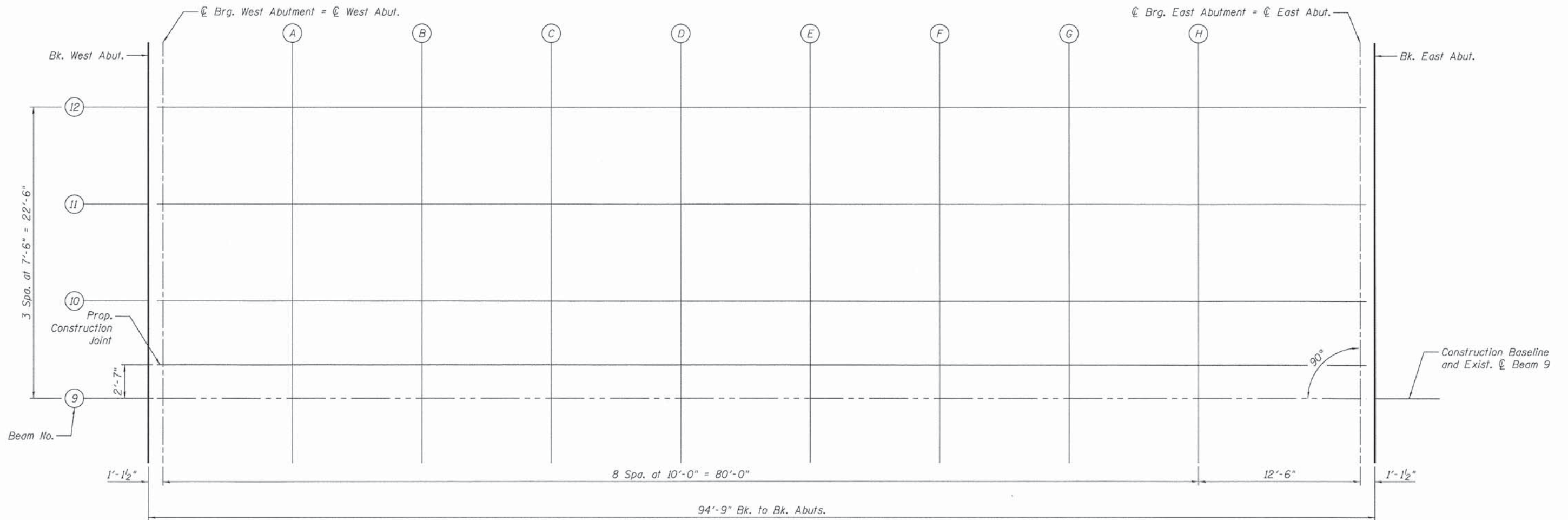
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CHECKED	RGD
DRAWN	WJH
CHECKED	MGH

R-27

7-1-10

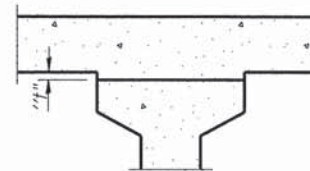


SHEET NO. S-4	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	05-00067-00-CH	McHENRY	226	147
S-20 SHEETS	• FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750		
	FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		



**DEAD LOAD DEFLECTION DIAGRAM**  
(Includes weight of concrete, excluding beams).

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheet S-6.



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at locations indicated on Sheet S-6. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

**FILLET HEIGHTS**

**TOP OF DECK ELEVATIONS  
STRUCTURE NO. 056-0060**

DATE: 5/28/13

DESIGNED	MGH
CHECKED	RGD
DRAWN	WJH
CHECKED	MGH



SHEET NO. S-5 S-20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	.	05-00067-00-CH	MCHENRY	226	148
FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



Notes:  
 1. Theoretical Grade Elevation at Baseline and Beam 9 is based on surveyed elevations. Contractor shall verify elevations prior to pouring sequence.

**CONSTRUCTION BASELINE & BEAM 9**

Location	Station	Offset from Baseline	Theoretical Grade Elevations (Note 1)
Bk. W. Abut.	17+57.75	0.00	755.98
☉ of Bearing	17+59.00	0.00	755.99
A	17+69.00	0.00	756.08
B	17+79.00	0.00	756.17
C	17+89.00	0.00	756.26
D	17+99.00	0.00	756.35
E	18+09.00	0.00	756.44
F	18+19.00	0.00	756.53
G	18+29.00	0.00	756.62
H	18+39.00	0.00	756.71
☉ of Bearing	18+51.50	0.00	756.82
Bk. E. Abut.	18+52.53	0.00	756.83

**BEAM 10**

Location	Station	Offset from Baseline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	17+57.75	7.50	755.86	755.86
☉ of Bearing	17+59.00	7.50	755.87	755.87
A	17+69.00	7.50	755.96	755.99
B	17+79.00	7.50	756.05	756.10
C	17+89.00	7.50	756.14	756.21
D	17+99.00	7.50	756.23	756.31
E	18+09.00	7.50	756.32	756.40
F	18+19.00	7.50	756.41	756.48
G	18+29.00	7.50	756.50	756.56
H	18+39.00	7.50	756.59	756.62
☉ of Bearing	18+51.50	7.50	756.70	756.70
Bk. E. Abut.	18+52.55	7.50	756.71	756.71

**BEAM 11**

Location	Station	Offset from Baseline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	17+57.75	15.00	755.74	755.74
☉ of Bearing	17+59.00	15.00	755.75	755.75
A	17+69.00	15.00	755.84	755.87
B	17+79.00	15.00	755.93	755.99
C	17+89.00	15.00	756.02	756.09
D	17+99.00	15.00	756.11	756.19
E	18+09.00	15.00	756.20	756.28
F	18+19.00	15.00	756.29	756.36
G	18+29.00	15.00	756.38	756.44
H	18+39.00	15.00	756.47	756.51
☉ of Bearing	18+51.50	15.00	756.58	756.58
Bk. E. Abut.	18+52.55	15.00	756.59	756.59

**BEAM 12**

Location	Station	Offset from Baseline	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	17+57.75	22.50	755.63	755.63
☉ of Bearing	17+59.00	22.50	755.64	755.64
A	17+69.00	22.50	755.73	755.75
B	17+79.00	22.50	755.82	755.87
C	17+89.00	22.50	755.91	755.98
D	17+99.00	22.50	756.00	756.07
E	18+09.00	22.50	756.09	756.17
F	18+19.00	22.50	756.18	756.25
G	18+29.00	22.50	756.27	756.32
H	18+39.00	22.50	756.36	756.39
☉ of Bearing	18+51.50	22.50	756.47	756.47
Bk. E. Abut.	18+52.55	22.50	756.48	756.48

**TOP OF DECK ELEVATIONS  
 STRUCTURE NO. 056-0060**

DATE: 5/28/13

DESIGNED	MGH
CHECKED	RGD
DRAWN	WJH
CHECKED	MGH



SHEET NO. S-6	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	S-20 SHEETS	05-00067-00-CH	McHENRY	226	149
FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

FILE NAME: 056067\_13\_0520.dgn  
 PLOT DRIVER: pldrvr  
 PEN TABLE: STRUC1.tbl

**CONSTRUCTION BASELINE**

Location	Station	Offset from Baseline	Theoretical Grade Elevations
West End of West Approach A1	17+37.75	0.00	755.67
East End of West Approach A1	17+47.75	0.00	755.82
West End of East Approach A2	18+52.55	0.00	756.83
East End of East Approach A2	18+72.55	0.00	757.01

**CONSTRUCTION JOINT**

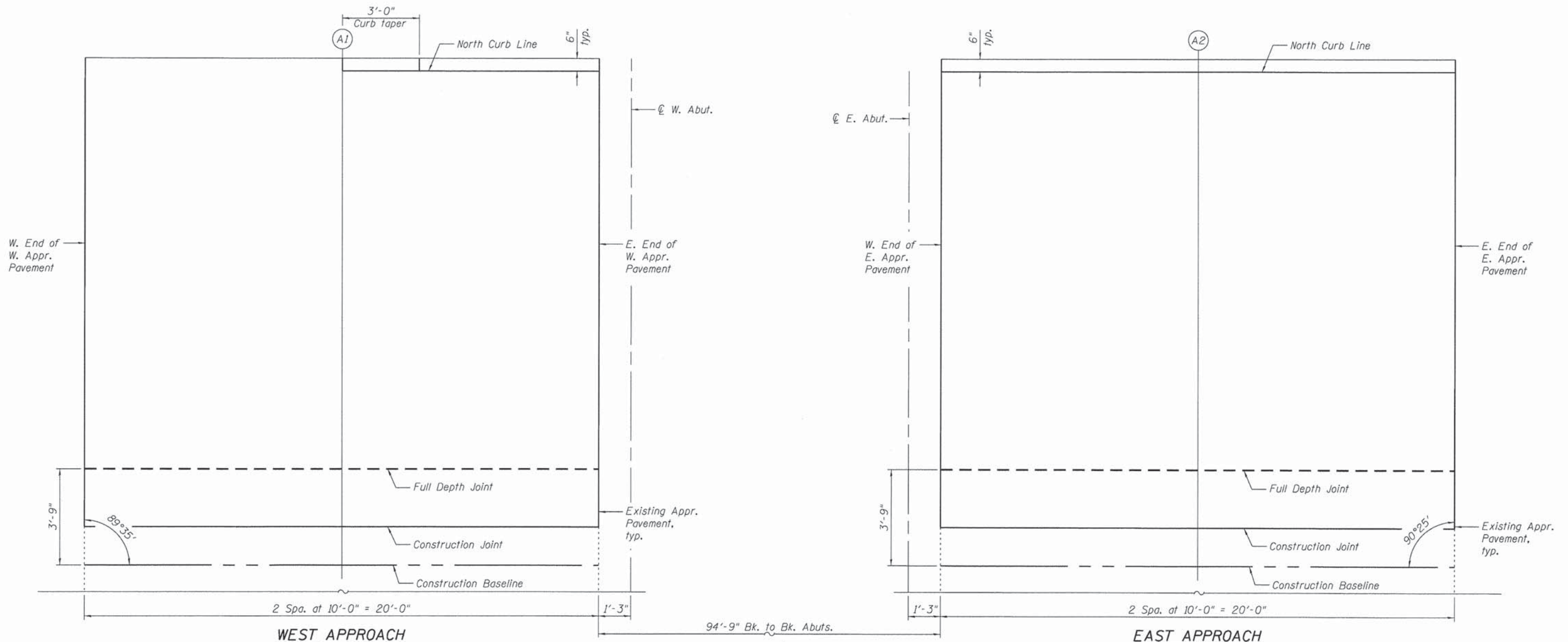
Location	Station	Offset from Baseline	Theoretical Grade Elevations
West End of West Approach A1	17+37.75	2.00	755.64
East End of West Approach A1	17+47.75	2.00	755.79
West End of East Approach A2	18+52.55	2.00	756.80
East End of East Approach A2	18+62.55	2.00	756.89

**FULL DEPTH JOINT**

Location	Station	Offset from Baseline	Theoretical Grade Elevations
West End of West Approach A1	17+37.75	3.75	755.61
East End of West Approach A1	17+47.75	3.75	755.76
West End of East Approach A2	18+52.55	3.75	756.77
East End of East Approach A2	18+62.55	3.75	756.86

**NORTH CURB LINE**

Location	Station	Offset from Baseline	Theoretical Grade Elevations
West End of West Approach A1	17+37.75	19.25	755.37
East End of West Approach A1	17+47.75	19.06	755.52
West End of East Approach A2	18+52.55	18.75	756.63
East End of East Approach A2	18+72.55	18.75	756.72



PLAN

**APPROACH PAVEMENT ELEVATIONS  
STRUCTURE NO. 056-0060**

DATE: 5/28/13

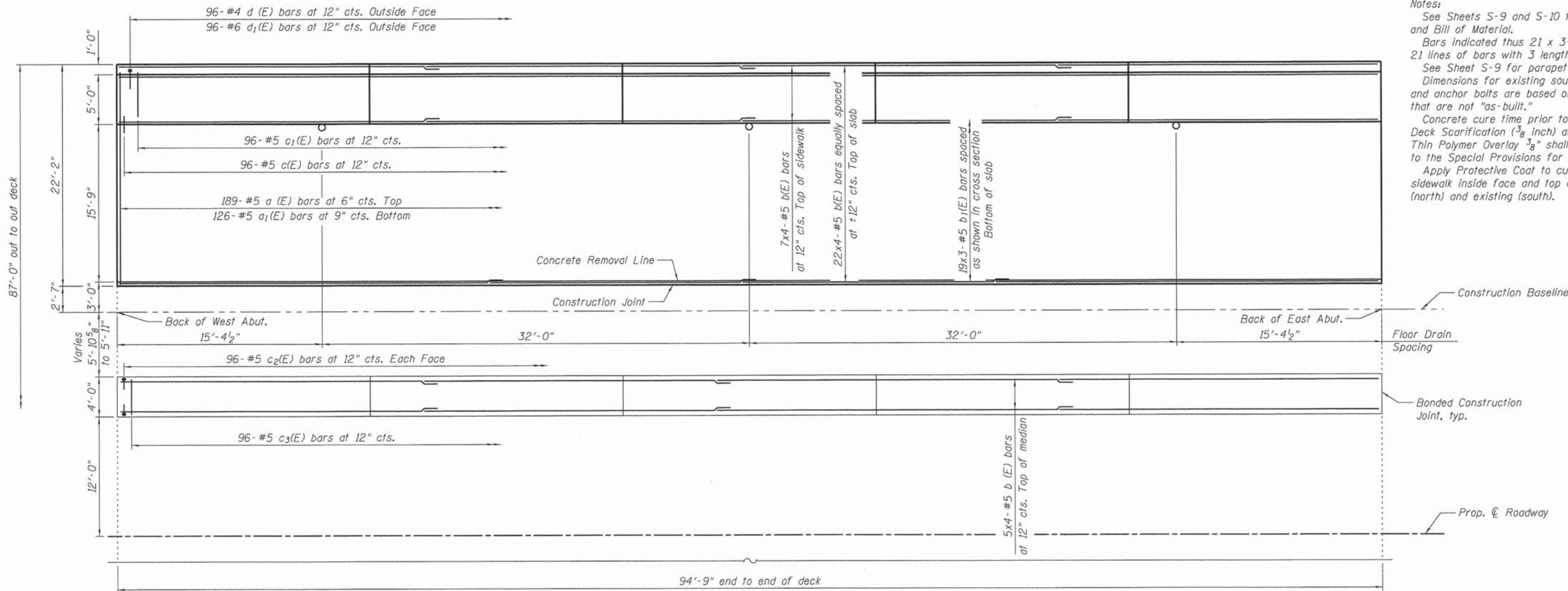
DESIGNED	MGH
CHECKED	RGD
DRAWN	WJH
CHECKED	MGH

Notes:  
Stations and offsets are given off the Construction Baseline.

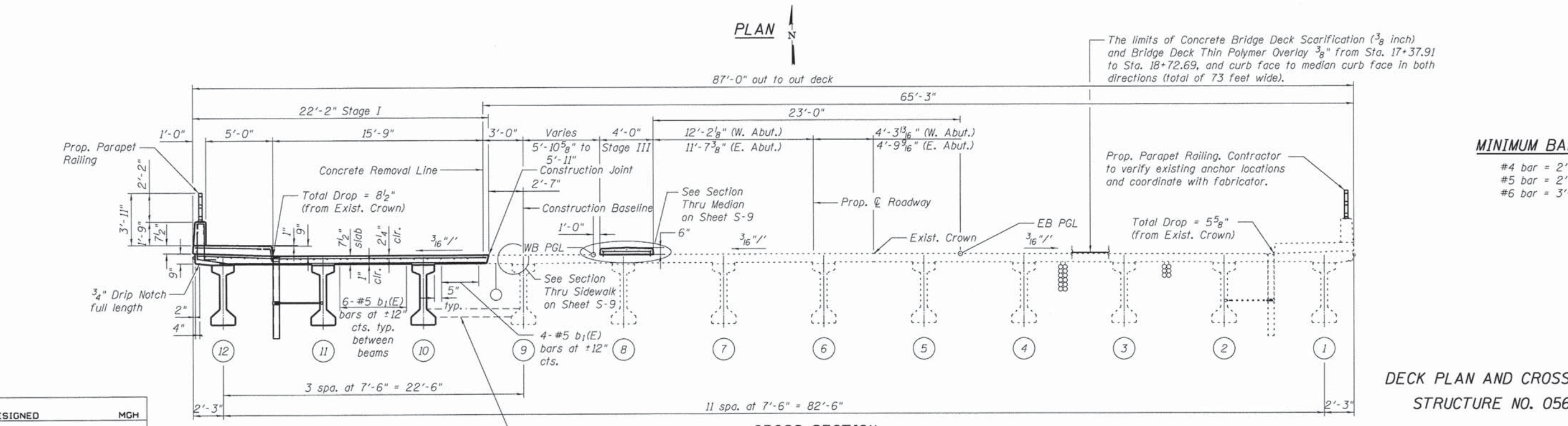


SHEET NO. 5-7 5-20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	05-00067-00-CH	McHENRY	226	150
• FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

FILE NAME: 080611.dwg  
PLOT DRIVER: pdfplot  
PEN TABLE: Struct.tbl



Notes:  
 See Sheets S-9 and S-10 for superstructure details and Bill of Material.  
 Bars indicated thus 21 x 3-#5 etc. indicates 21 lines of bars with 3 lengths per line.  
 See Sheet S-9 for parapet reinforcement.  
 Dimensions for existing south parapet railings and anchor bolts are based on design drawings that are not "as-built."  
 Concrete cure time prior to Concrete Bridge Deck Scarification ( $\frac{3}{8}$  inch) and Bridge Deck Thin Polymer Overlay ( $\frac{3}{8}$  inch) shall be according to the Special Provisions for these items.  
 Apply Protective Coat to curb face, median, sidewalk inside face and top of parapets proposed (north) and existing (south).



The limits of Concrete Bridge Deck Scarification ( $\frac{3}{8}$  inch) and Bridge Deck Thin Polymer Overlay ( $\frac{3}{8}$  inch) from Sta. 17+37.91 to Sta. 18+72.69, and curb face to median curb face in both directions (total of 73 feet wide).

**MINIMUM BAR LAP**  
 #4 bar = 2'-1"  
 #5 bar = 2'-7"  
 #6 bar = 3'-1"

**DECK PLAN AND CROSS SECTION**  
**STRUCTURE NO. 056-0060**

DESIGNED	MGH
CHECKED	RGD
DRAWN	WJH
CHECKED	MGH

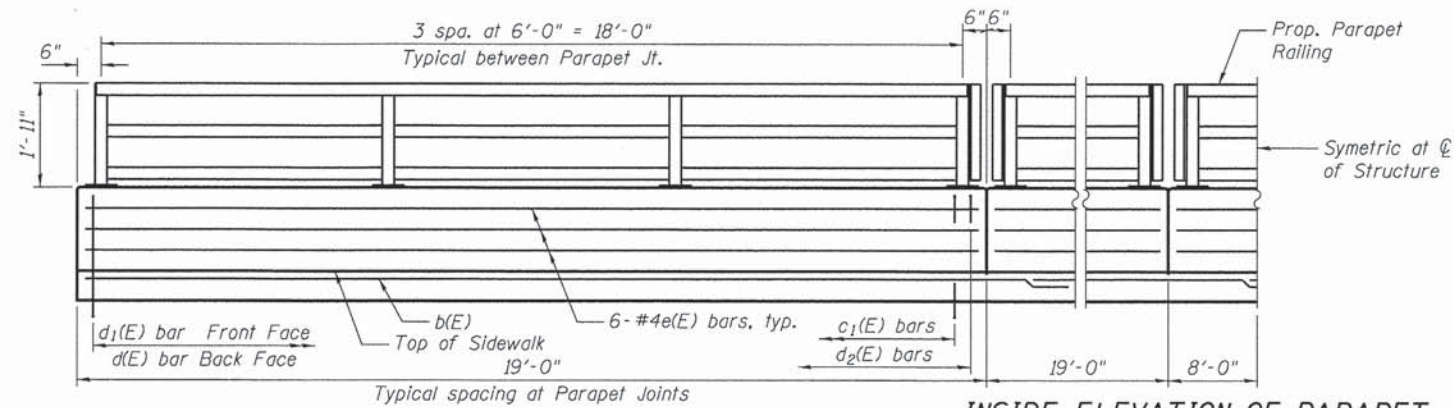
**CROSS SECTION**  
 (Looking East)



SHEET NO. S-8	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	S-20 SHEETS	05-00067-00-CH	McHENRY	226	151
FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

DATE: 5/28/13

FILE NAME: 050611.dwg  
 PLOT DRIVER: pdfplot  
 PEN TABLE: Struct JH17.tbl

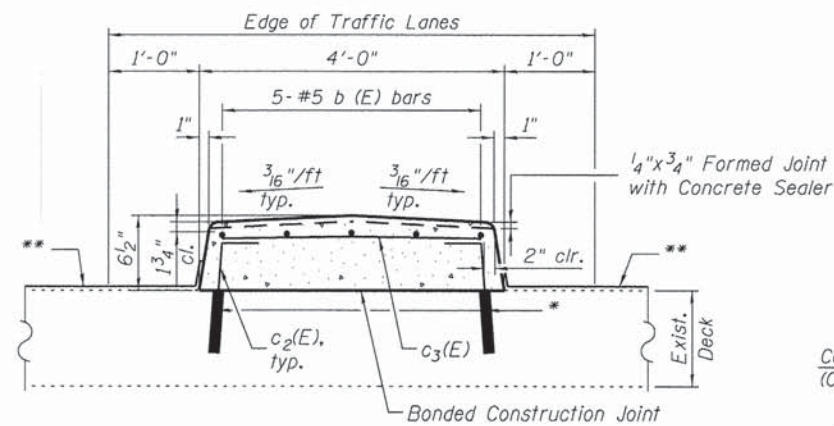


INSIDE ELEVATION OF PARAPET

- Notes:
- See Sheets S-8 and S-10 for Superstructure Details and Bill of Materials.
  - See Sheet S-11 for Parapet Railing Details.
  - Exist. reinforcement to be reused shall be cleaned, straightened, and incorporated into the new construction. Cost included in pay item Concrete Removal.
  - Dimensions for existing south parapet railings and anchor bolts are based on design drawings that are not "as-built."
  - Sawcut full depth allowed here for removal of existing deck.
  - Remove 5" of existing deck in accordance with Article 501.05(a).
  - Field installed mechanical splicers shall be from IDOT Bureau of Materials Approved List of Reinforcing Bar Splicer Assemblies. Splicers shall be epoxy coated. Minimum clear cover over splicer assembly shall be 1<sup>3</sup>/<sub>8</sub>". Minimum clear cover under splicer assembly shall be 1<sup>1</sup>/<sub>4</sub>".

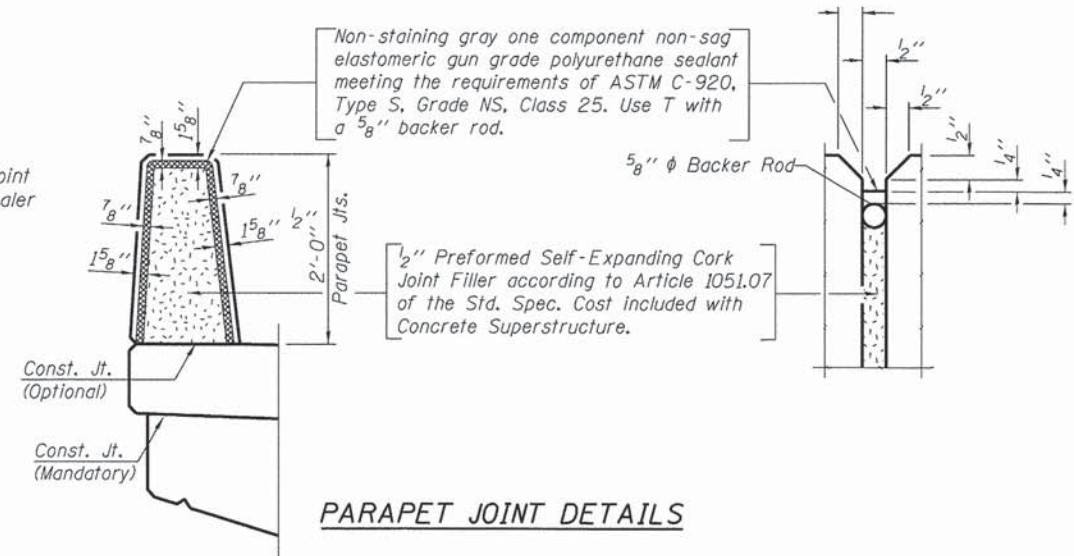
MINIMUM BAR LAP

#4 bar = 2'-1"  
#5 bar = 2'-7"



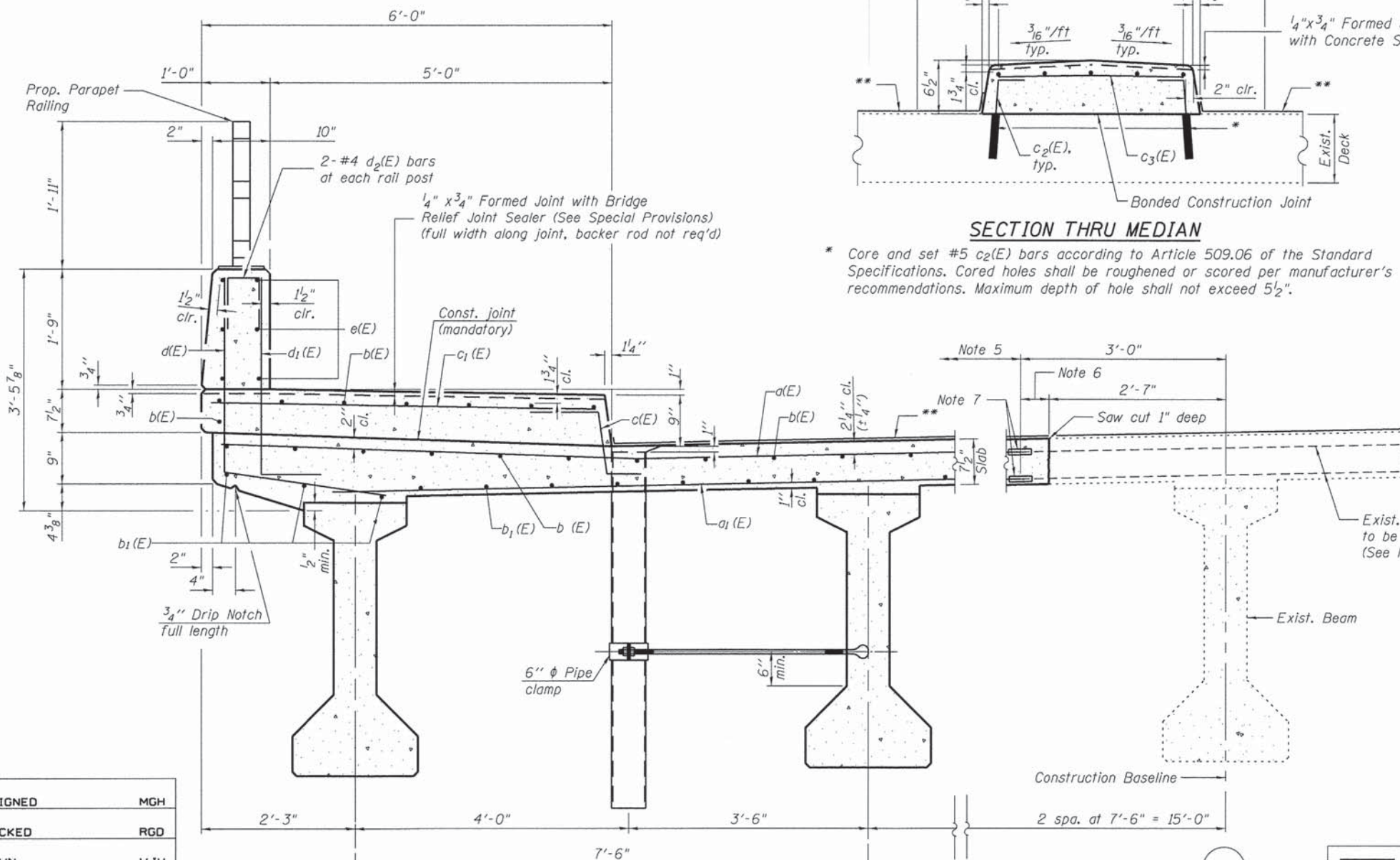
SECTION THRU MEDIAN

\* Core and set #5 c<sub>2</sub>(E) bars according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 5<sup>1</sup>/<sub>2</sub>".



PARAPET JOINT DETAILS

- Notes:
- Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
  - The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.
  - The clamping device and inserts shall be galvanized according to AASHTO M 232. Cost of clamping device and inserts included with Floor Drains.



SECTION THRU SIDEWALK

DESIGNED	MGH
CHECKED	RGD
DRAWN	WJH
CHECKED	MGH

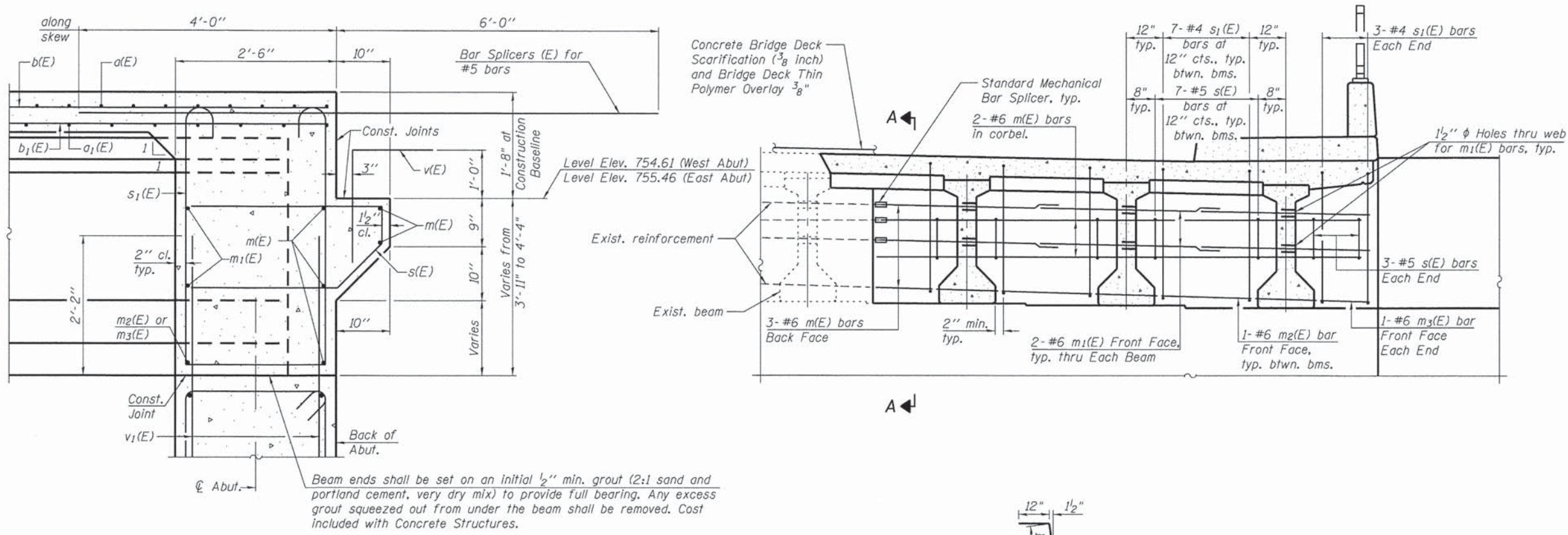
SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 056-0060

DATE: 5/28/13



SHEET NO. S-9 S-20 SHEETS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	05-00067-00-CH	MCHENRY	226	152
• FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

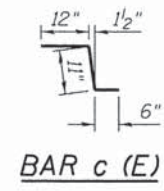
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PEN TABLE: Street JK17.tbl



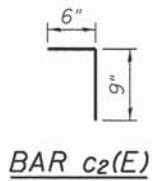
**SECTION A-A**  
Dimensions at right angles to abutment, except as shown.

SUPERSTRUCTURE BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
a (E)	189	#5	21'-6"	—
a <sub>1</sub> (E)	126	#5	20'-0"	—
b (E)	136	#5	25'-5"	—
b <sub>1</sub> (E)	57	#5	33'-1"	—
c (E)	96	#5	2'-5"	⌒
α (E)	96	#5	5'-8"	—
α <sub>1</sub> (E)	192	#5	1'-3"	⌒
α <sub>2</sub> (E)	96	#5	3'-8"	—
d (E)	96	#4	5'-0"	⌒
d <sub>1</sub> (E)	96	#6	3'-9"	⌒
d <sub>2</sub> (E)	40	#4	2'-0"	⌒
e (E)	30	#4	18'-8"	—
m (E)	10	#6	18'-10"	—
m <sub>1</sub> (E)	12	#6	10'-7"	—
m <sub>2</sub> (E)	6	#6	5'-4"	—
m <sub>3</sub> (E)	2	#6	1'-0"	—
s (E)	48	#5	8'-7"	⌒
s <sub>1</sub> (E)	48	#4	12'-4"	⌒
Floor Drains		Each	3	
Concrete Superstructure		Cu. Yds.	95.3	
Reinforcement Bars, Epoxy Coated		Pound	16,485	
Mechanical Splicers		Each	315	
Concrete Bridge Deck Scarification (3/8 inch)		Sq. Yd.	769	
Bridge Deck Thin Polymer Overlay 3/8"		Sq. Yd.	769	

**MINIMUM BAR LAP**  
#6 bar = 3'-4"



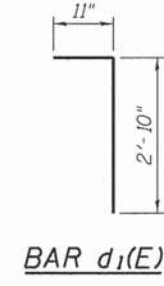
**BAR c (E)**



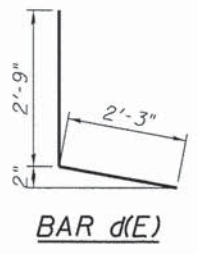
**BAR c<sub>2</sub>(E)**



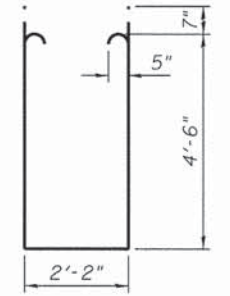
**BAR d<sub>2</sub>(E)**



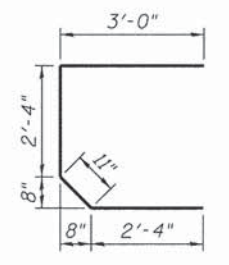
**BAR d<sub>1</sub>(E)**



**BAR d (E)**

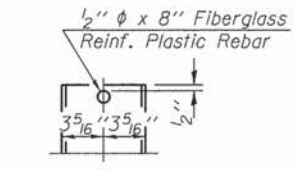


**BAR s<sub>1</sub>(E)**

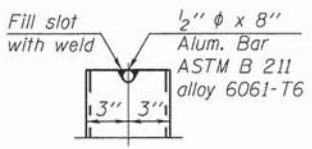


**BAR s (E)**

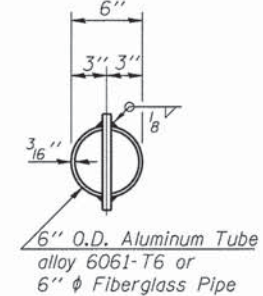
**Notes:**  
Reinforcement bars in diaphragm are billed with superstructure on this sheet.  
Concrete in diaphragm is included with Concrete Superstructure. The s(E) and s<sub>2</sub>(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.  
The installation of the Parapet Railing shall be in accordance with Section 509 of the Standard Specifications. Cost is included in the cost for "Concrete Superstructure".  
Cost of 30 lb roofing felt is included with Concrete Superstructure.



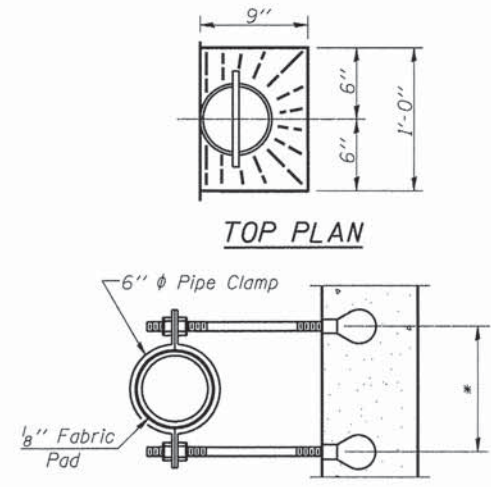
**FIBERGLASS PIPE**



**ALUMINUM TUBE**



**TOP PLAN (Showing Aluminum Tube)**



**SECTION A-A**  
\*Dimension as required by Pipe Clamp

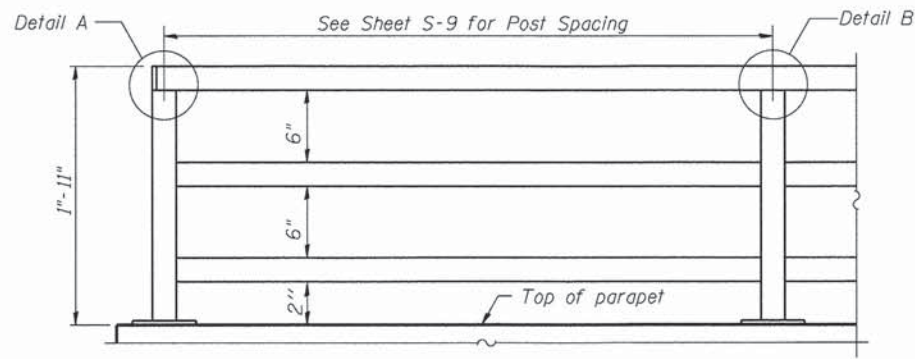
**DIAPHRAGM DETAILS**  
**STRUCTURE NO. 056-0060**

DATE: 5/28/13

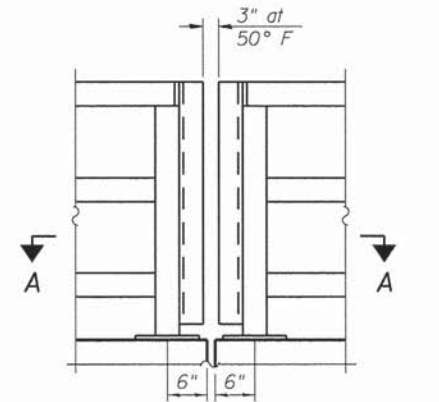
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CHECKED	RGD
DRAWN	WJH
CHECKED	MGH



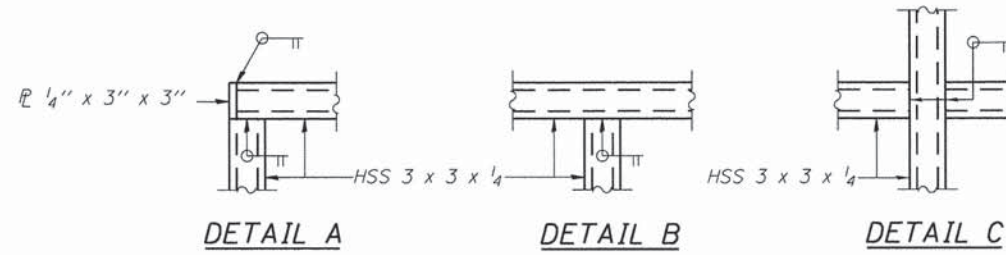
SHEET NO. <b>S-10</b>	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	05-00067-00-CH	McHENRY	226	153
<b>S-20</b> SHEETS	• FAP 333, FAP 336, FAU 81		CONTRACT NO. <b>63750</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



**PARAPET RAILING**  
**ELEVATION**  
(Inside Face of Three Element Rail)

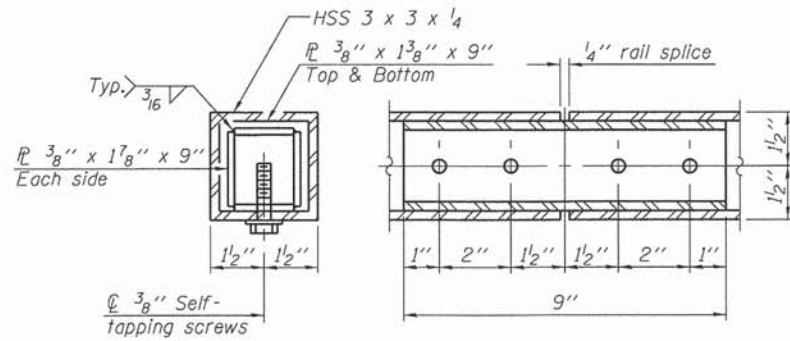


**PARAPET RAILING**  
**ELEVATION AT EXPANSION JOINT**

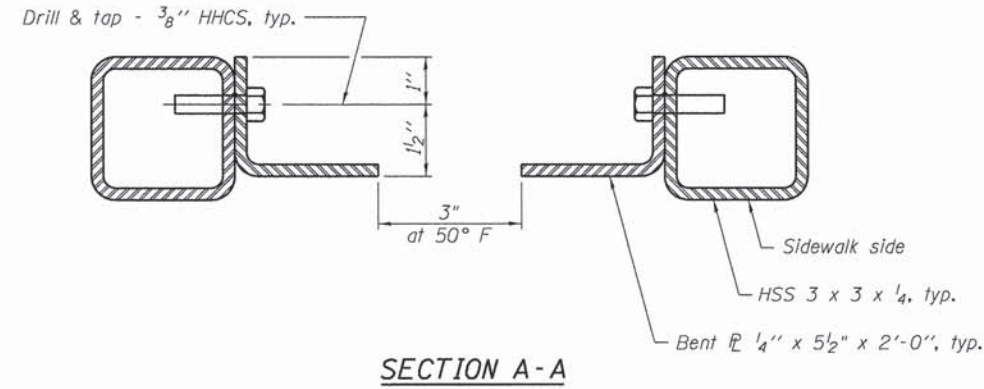


**DETAIL A**      **DETAIL B**      **DETAIL C**

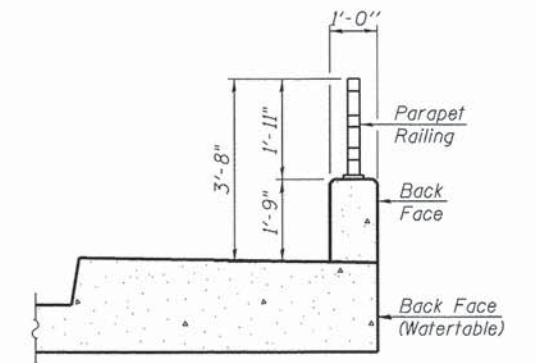
**NOTES:**  
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



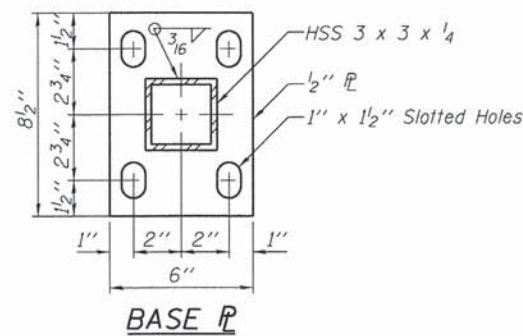
**RAIL SPLICE**



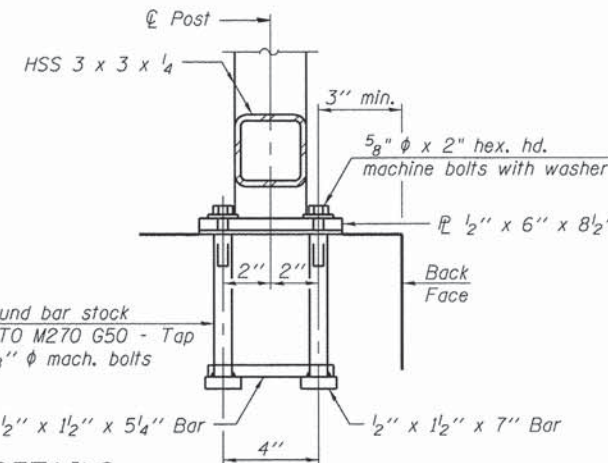
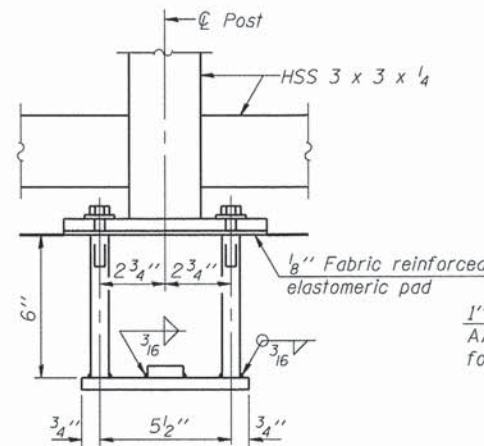
**SECTION A-A**



**SECTION THRU SIDEWALK**



**BASE PL**



**ANCHOR BOLT DETAILS**

Req'd north parapet only  
See Note 4 on S-9 for south parapet

**BILL OF MATERIAL**

Item	Unit	Quantity
Parapet Railing	Foot	190

**PARAPET RAILING**  
**STRUCTURE NO. 056-0060**

DATE: 5/28/13

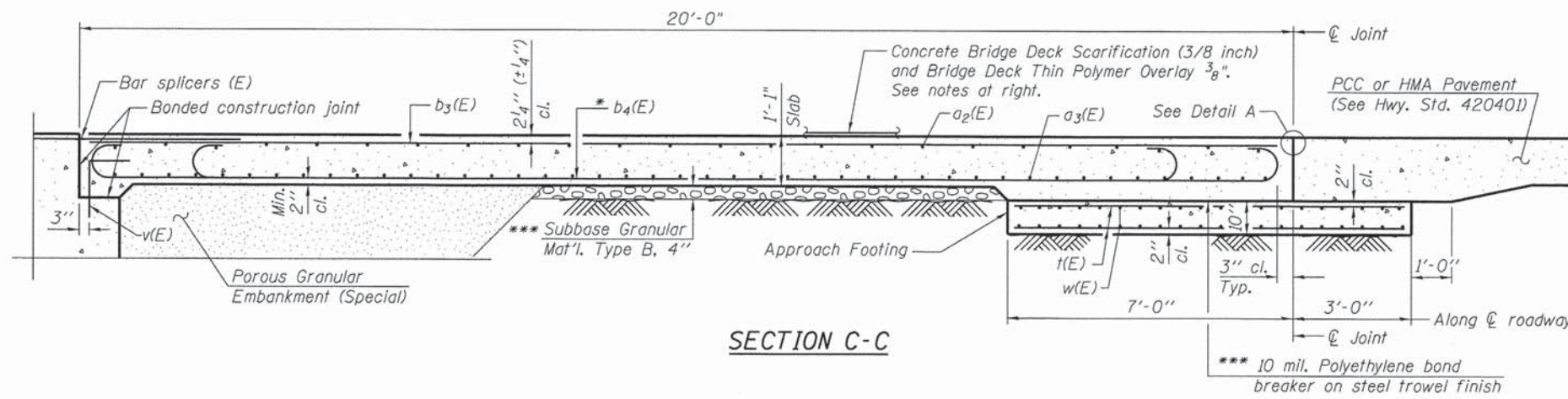
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CHECKED	RGD
DRAWN	WJH
CHECKED	MGH



SHEET NO. S-11	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	05-00067-00-CH	McHENRY	224	154
S-20 SHEETS	• FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT		

FILE NAME: 080621.parapet.dgn  
PLOT DRIVER: parapet  
PER TABLE: STRUCT-12/17/13





Notes:

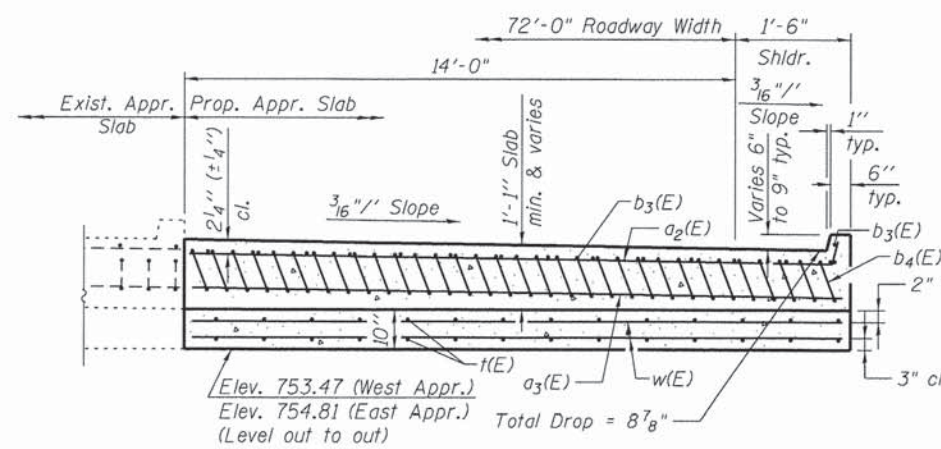
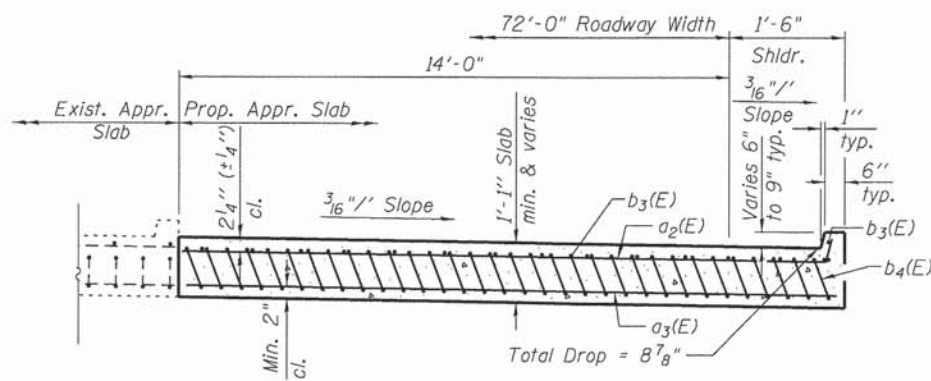
See sheet S-12 for Detail A and B.  
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.  
 Approach footing concrete shall be paid for as Concrete Structures.  
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
 For v(E) bar details, see sheet S-17.  
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.  
 For bar splicer details, see sheet S-19.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Granular Backfill for Structures and drainage treatment details, see sheet S-2.  
 Drill and epoxy grout #5 a<sub>4</sub>(E) bars in drilled holes with a minimum depth of 12" according to Article 584 of the Standard Specifications.  
 The limits of Concrete Bridge Deck Scarification (3/8 inch) and Bridge Deck Thin Polymer Overlay 3/8" is from Sta. 17+37.91 to Sta. 18+72.69, face-to-face of curbs.  
 Concrete cure time prior to Concrete Bridge Deck Scarification (3/8 inch) and Bridge Deck Thin Polymer Overlay 3/8" shall be according to the Special Provisions.

WEST APPROACH  
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a <sub>2</sub> (E)	17	#4	15'-10"	—
a <sub>3</sub> (E)	31	#5	15'-2"	—
a <sub>4</sub> (E)	17	#5	2'-6"	—
b <sub>3</sub> (E)	16	#4	19'-8"	—
b <sub>4</sub> (E)	37	#7	19'-9"	—
b <sub>5</sub> (E)	5	#5	19'-9"	—
c <sub>2</sub> (E)	38	#5	1'-3"	┌
c <sub>3</sub> (E)	19	#5	3'-8"	—
t(E)	68	#4	9'-8"	—
w(E)	80	#5	15'-2"	—
Concrete Structures			Cu. Yds.	4.8
Concrete Superstructure			Cu. Yds.	15.3
Reinforcement Bars, Epoxy			Pound	4,350
Concrete Bridge Deck Scarification (3/8 inch)			Sq. Yd.	162
Bridge Deck Thin Polymer Overlay 3/8"			Sq. Yd.	162

EAST APPROACH  
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a <sub>2</sub> (E)	17	#4	15'-10"	—
a <sub>3</sub> (E)	31	#5	15'-2"	—
a <sub>4</sub> (E)	17	#5	2'-6"	—
b <sub>3</sub> (E)	16	#4	19'-8"	—
b <sub>4</sub> (E)	37	#7	19'-9"	—
b <sub>5</sub> (E)	5	#5	19'-9"	—
b <sub>6</sub> (E)	16	#7	6'-10"	—
b <sub>7</sub> (E)	16	#5	5'-6"	—
c <sub>2</sub> (E)	38	#5	1'-3"	┌
c <sub>3</sub> (E)	19	#5	3'-8"	—
t(E)	68	#4	9'-8"	—
w(E)	80	#5	15'-2"	—
Concrete Structures			Cu. Yds.	4.8
Concrete Superstructure			Cu. Yds.	14.9
Reinforcement Bars, Epoxy			Pound	4,665
Concrete Bridge Deck Scarification (3/8 inch)			Sq. Yd.	162
Bridge Deck Thin Polymer Overlay 3/8"			Sq. Yd.	162

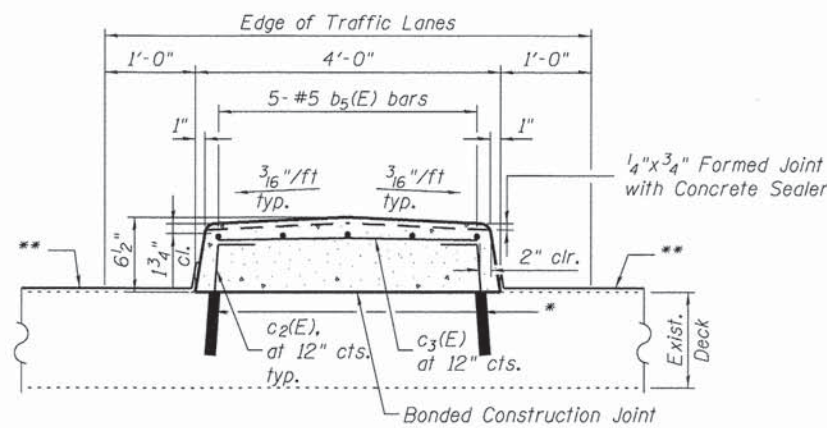


NEAR ABUTMENT

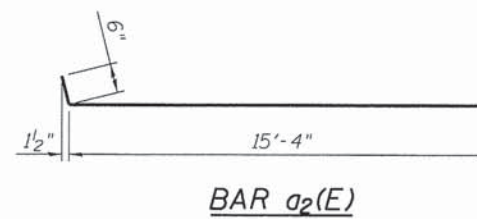
SECTION D-D

(See Plan for dimensions not shown)

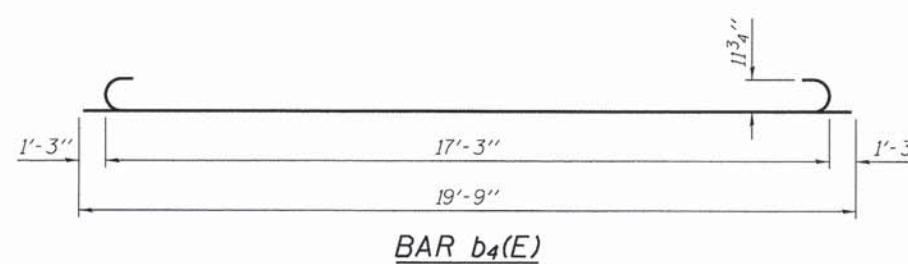
AT APPROACH FOOTING



\* Core and set #5 c<sub>2</sub>(E) bars according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 5 1/2".



BAR c<sub>2</sub>(E)



\* Tilt #7 b<sub>4</sub>(E) bars as required to maintain clearance.  
 \*\*\* Cost included with Concrete Superstructure.

(Sheet 2 of 2)

BRIDGE APPROACH SLAB DETAILS  
 STRUCTURE NO. 056-0060

DATE: 5/28/13

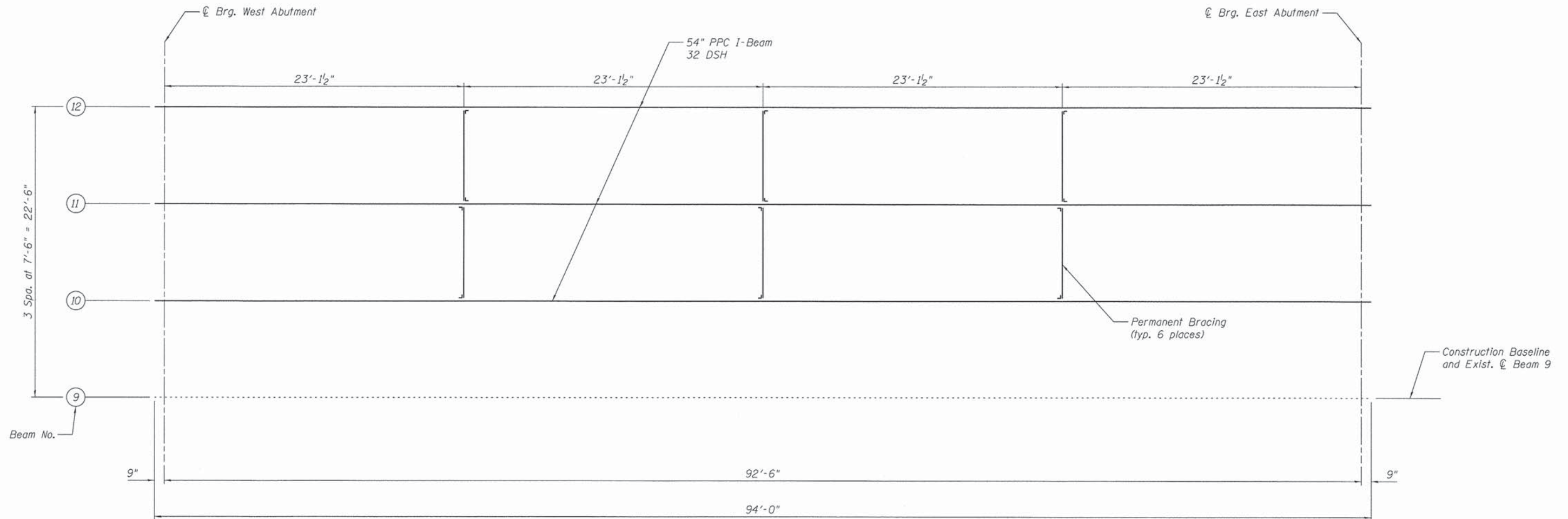
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CHECKED	RGD
DRAWN	WJH
CHECKED	MGH



SHEET NO. S-13	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	05-00067-00-CH	McHENRY	226	156
5-20 SHEETS	• FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

FILE NAME: 050611.dwg  
 PLOT DRIVER: pdf4pt  
 PEN TABLE: Struct.tbl





**FRAMING PLAN**



Notes:  
 See Sheet S-15 and S-16  
 for beam elevation and  
 framing details.  
 See S-16 for Permanent  
 Bracing Details.

INTERIOR BEAM MOMENT TABLE		
0.5 Sp. 1		
$I$	(in <sup>4</sup> )	213,715
$I'$	(in <sup>4</sup> )	513,052
$S_b$	(in <sup>3</sup> )	8,559
$S_b'$	(in <sup>3</sup> )	12,797
$S_t$	(in <sup>3</sup> )	7,362
$S_t'$	(in <sup>3</sup> )	36,890
$Q$	(k/')	1.33
$M_Q$	(k)	1,427
$s_Q$	(k/')	0.46
$M_s Q$	(k)	496
$M_L$	(k)	947
$M_I$	(k)	218

INTERIOR BEAM REACTION TABLE		
Abut.		
$R_Q$	(k)	61.7
$R_s Q$	(k)	21.5
$R_L$	(k)	10.2
$R_I$	(k)	2.3
$R_{Total}$	(k)	95.7

The total  $R_s Q$ ,  $R_L$ , and impact reactions are assumed to be distributed evenly to each bearing line at a pier regardless of the span ratios. The bearing design at a pier is based on the maximum reactions of either span.

- $I$ : Non-composite moment of inertia of beam section (in<sup>4</sup>).
- $I'$ : Composite moment of inertia of beam section (in<sup>4</sup>).
- $S_b$ : Non-composite section modulus for the bottom fiber of the prestressed beam (in<sup>3</sup>).
- $S_b'$ : Composite section modulus for the bottom fiber of the prestressed beam (in<sup>3</sup>).
- $S_t$ : Non-composite section modulus for the top fiber of the prestressed beam (in<sup>3</sup>).
- $S_t'$ : Composite section modulus for the top fiber of the prestressed beam (in<sup>3</sup>).
- $Q$ : Un-factored non-composite dead load (kips/ft.).
- $M_Q$ : Un-factored moment due to non-composite dead load conservatively taken at 0.5 of the span (kip-ft.).
- $s_Q$ : Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s Q$ : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- $M_L$ : Un-factored live load moment on the composite section (kip-ft.).
- $M_I$ : Un-factored moment due to impact on the composite section (kip-ft.).

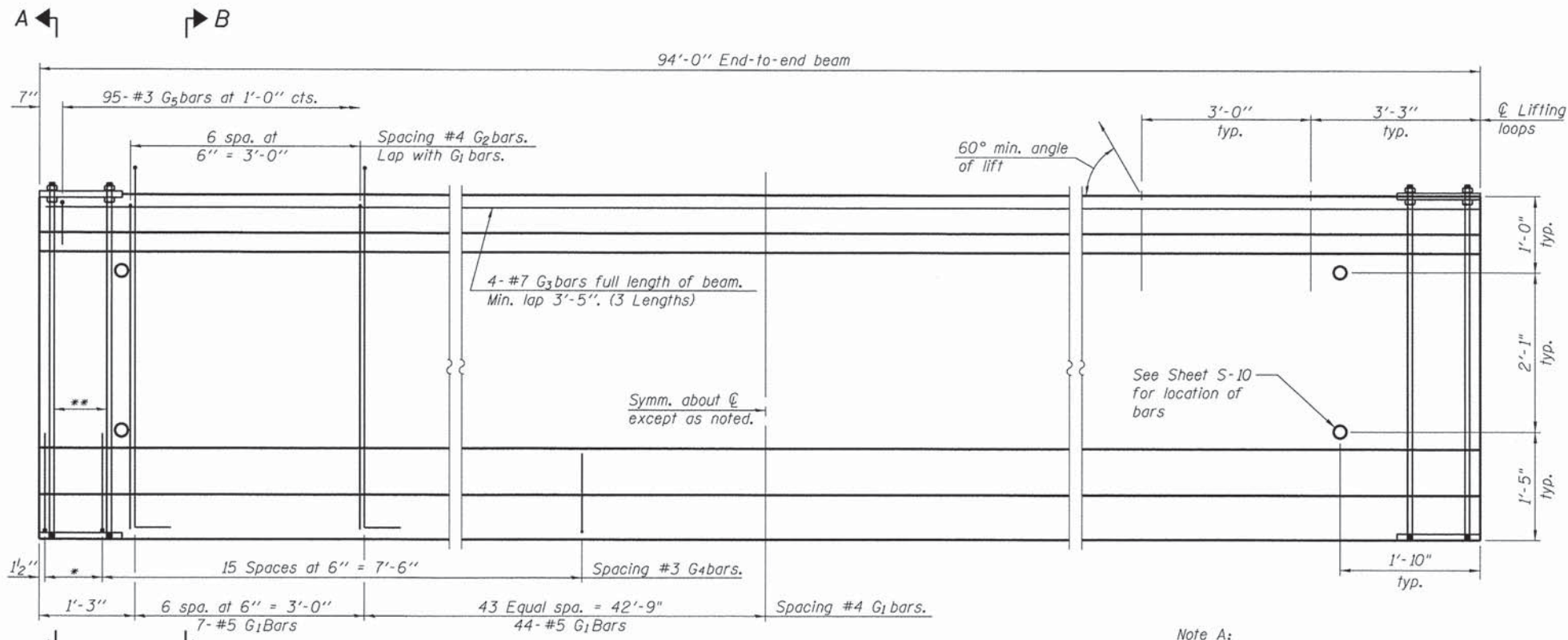
DESIGNED	MGH
CHECKED	RGD
DRAWN	WJH
CHECKED	MGH



**BEAM FRAMING PLAN  
 STRUCTURE NO. 056-0060**

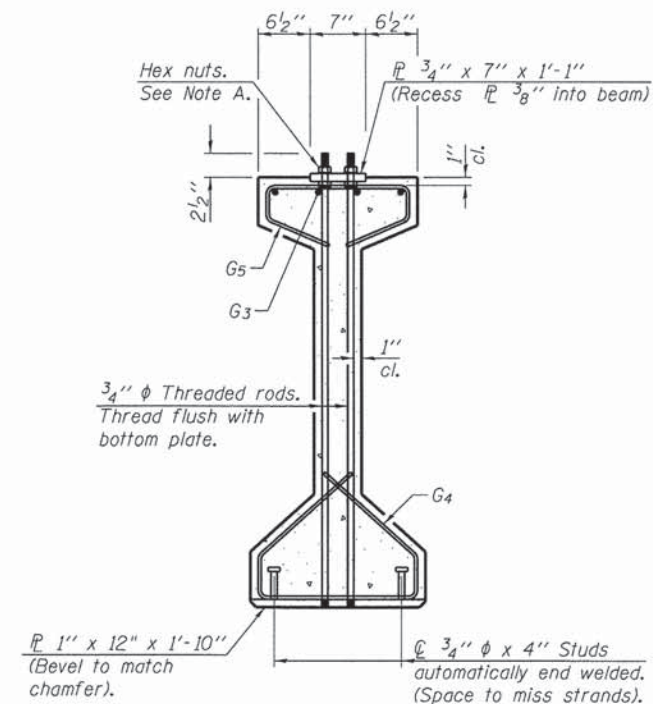
DATE: 5/28/13

SHEET NO. S-14	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				226	157
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FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT		

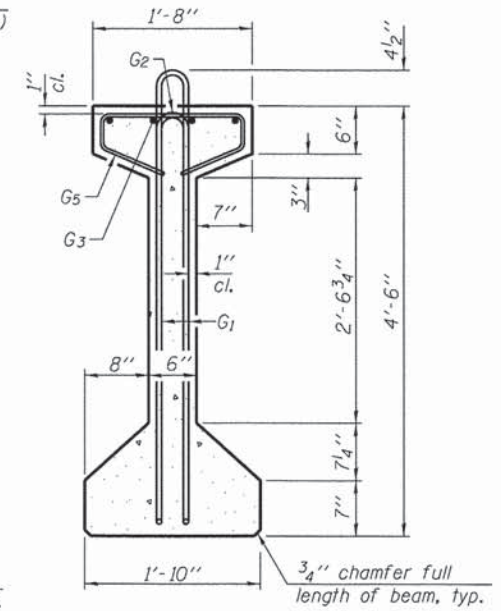


**ELEVATION OF BEAM**  
(Showing reinforcement & dimensions)

Note A:  
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



**SECTION A-A**

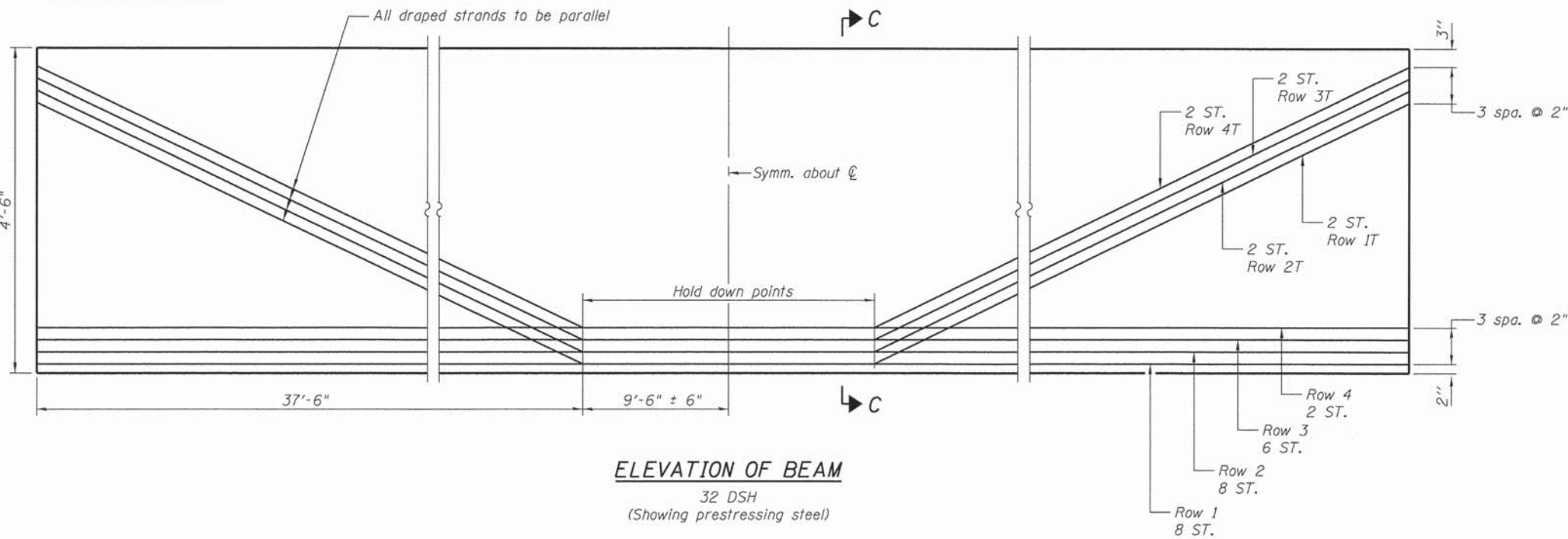


**SECTION B-B**

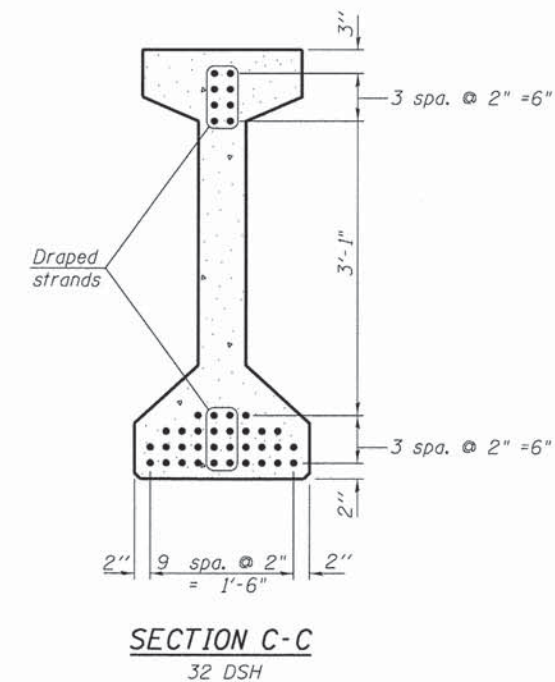


**ELEVATION OF BEAM**  
(Showing reinforcement & dimensions)

\* 3 spaces at 3" = 9"  
\*\* 4-3/4" diameter threaded dowel rods at 3" cts., Each Face.



**ELEVATION OF BEAM**  
32 DSH  
(Showing prestressing steel)



**SECTION C-C**  
32 DSH

**\*\*\*BAR LIST  
ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G <sub>1</sub>	102	#4	10'-5"	∩L
G <sub>2</sub>	14	#4	8'-8"	∩
G <sub>3</sub>	12	#7	33'-6"	∩
G <sub>4</sub>	40	#3	4'-11"	∩
G <sub>5</sub>	95	#3	3'-5"	∩

\*\*\*For information only  
Notes:  
See sheet S-16 for additional details and Bill of Material.  
Required release strength, f'ci, shall be 6,000 psi.

DESIGNED	MGH
CHECKED	RGD
DRAWN	WJH
CHECKED	MGH



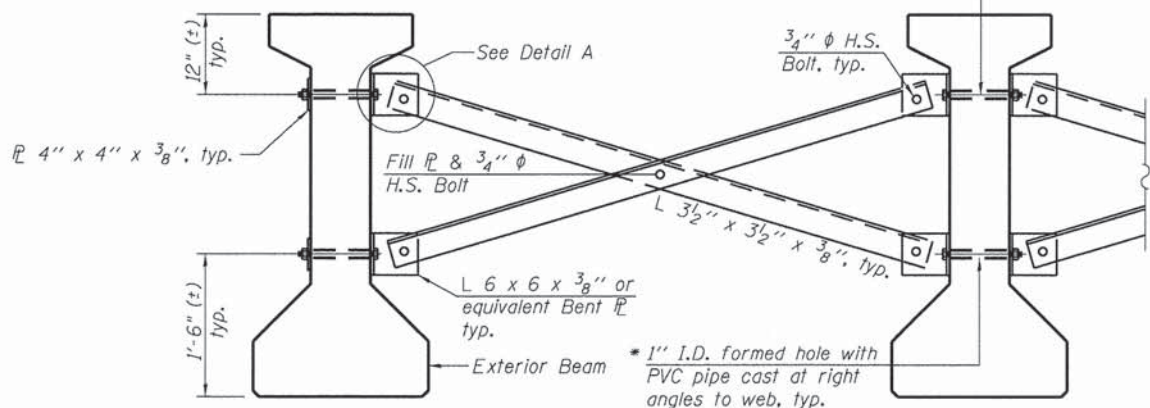
SHEET NO. S-15		F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-20 SHEETS		•	05-00067-00-CH	McHENRY	226	158
		•	FAP 333, FAP 336, FAU 81	CONTRACT NO. 63750		
		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**BEAM ELEVATION AND DETAILS  
STRUCTURE NO. 056-0060**

DATE: 5/28/13

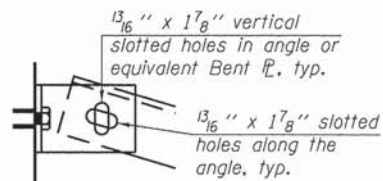
\* Fabricator shall locate to miss strands within permissible tolerances.

$\frac{3}{4}$ "  $\phi$  A307 Bolts with lock nuts, typ. Bolts through the concrete web shall be tightened to snug tight only.



**Notes:**

- All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
- Two hardened washers are required for each set of oversized holes.
- All holes shall be  $\frac{15}{16}$ "  $\phi$  unless otherwise noted.
- $\frac{5}{16}$ " x 3" x 3" plate washers are required over all slotted holes.
- All bolts shall be galvanized according to AASHTO M232.
- Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
- Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete I-Beams.

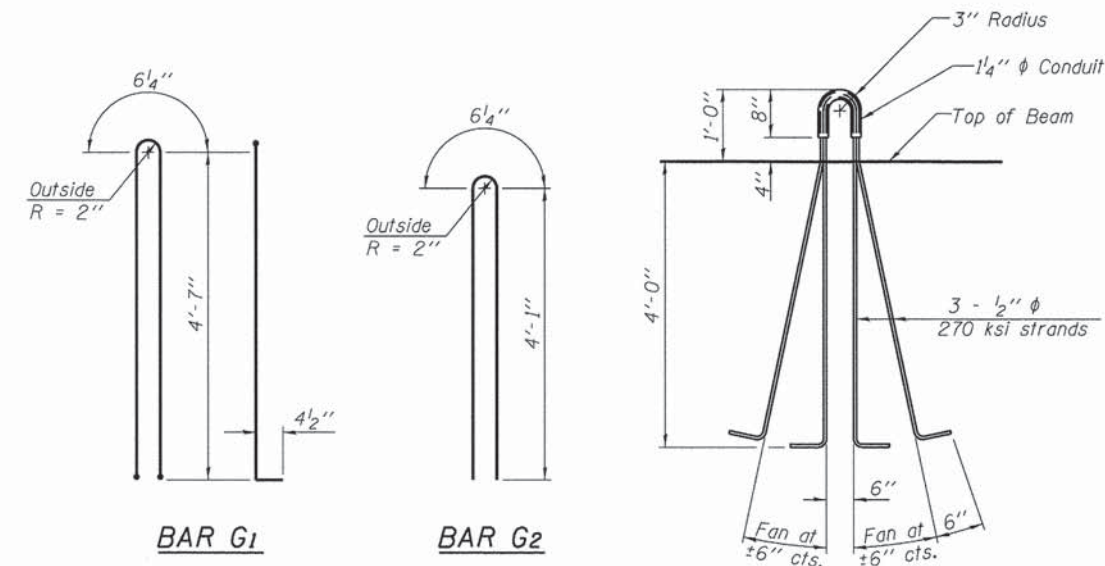


**DETAIL A**

**PERMANENT BRACING DETAILS FOR 48" AND 54" PPC I-BEAMS**

**NOTES**

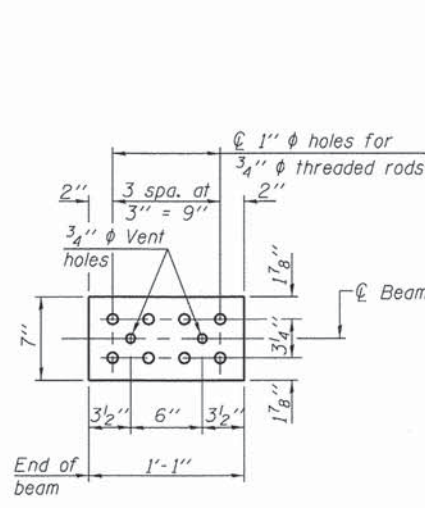
See Sheets S-8 and S-9 for location and details for Floor Drain inserts. Inserts for  $\frac{3}{4}$ "  $\phi$  threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be  $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in. A minimum  $2\frac{1}{2}$ "  $\phi$  lifting pin shall be used to engage the lifting loops during handling. The top and bottom plates shall be AASHTO M270 Grade 50. The bottom plates and studs shall be galvanized according to AASHTO M111. Top plates and threaded rods need not be galvanized. Threaded rods shall be ASTM F 1554 Grade 55.



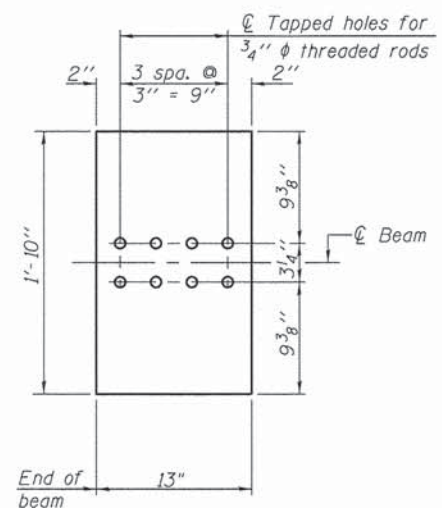
**BAR G1**

**BAR G2**

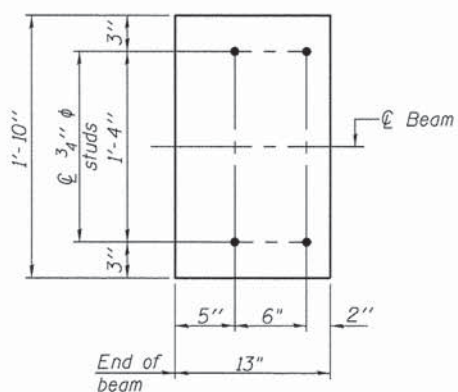
**LIFTING LOOP DETAIL**



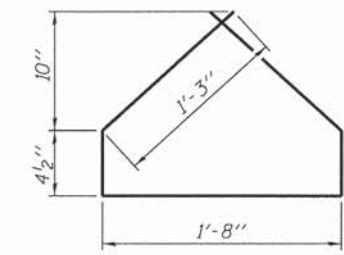
**TOP PLATE**



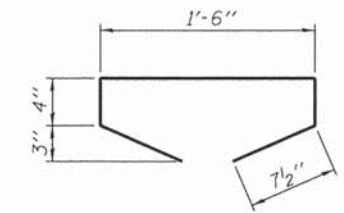
**BOTTOM PLATE (Showing threaded rods)**



**BOTTOM PLATE (Showing studs)**



**BAR G4**



**BAR G5**

**BILL OF MATERIAL**

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54"	Ft.	282

**BEAM DETAILS STRUCTURE NO. 056-0060**

DATE: 5/28/13

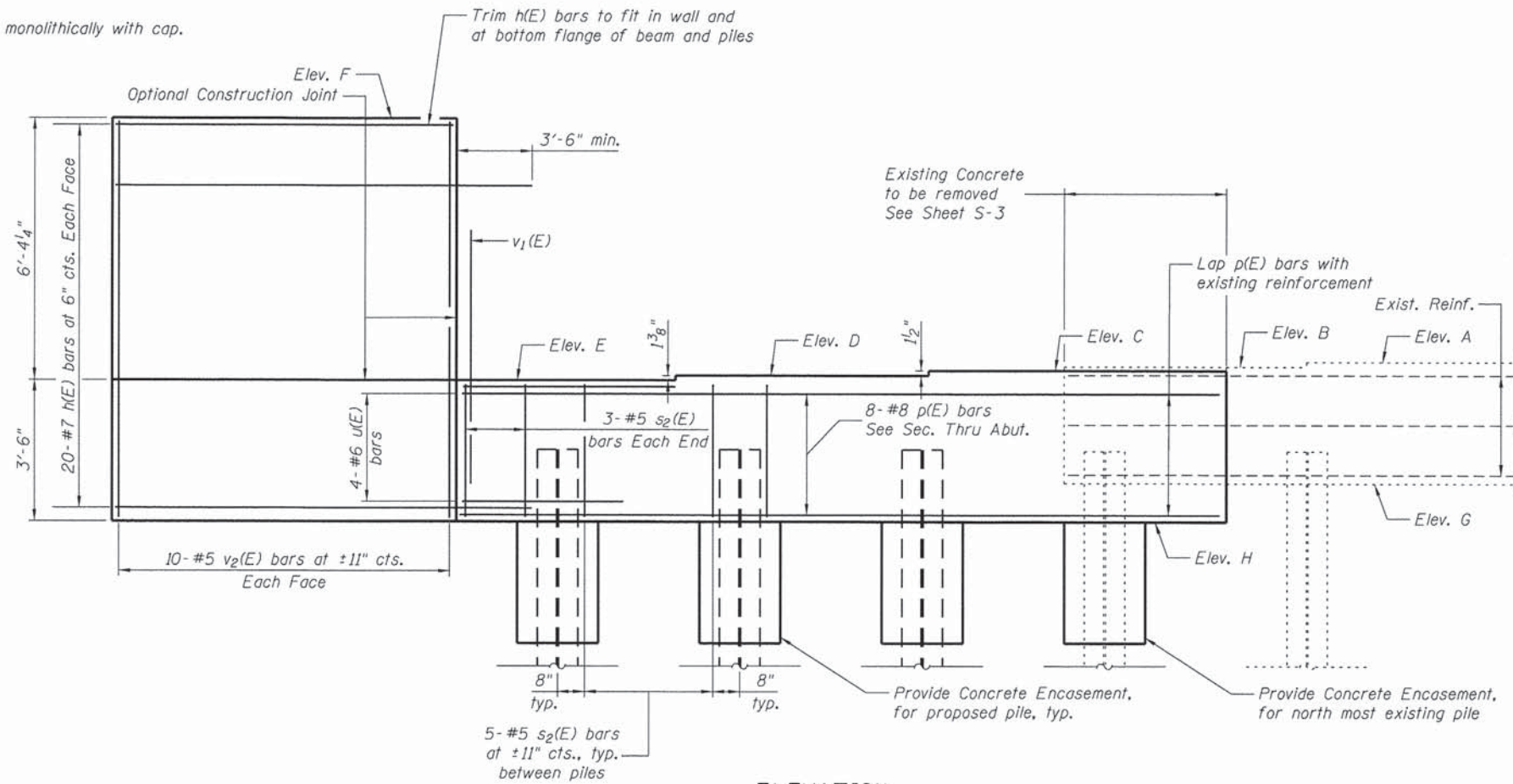
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CHECKED	RGD
DRAWN	WJH
CHECKED	MGH



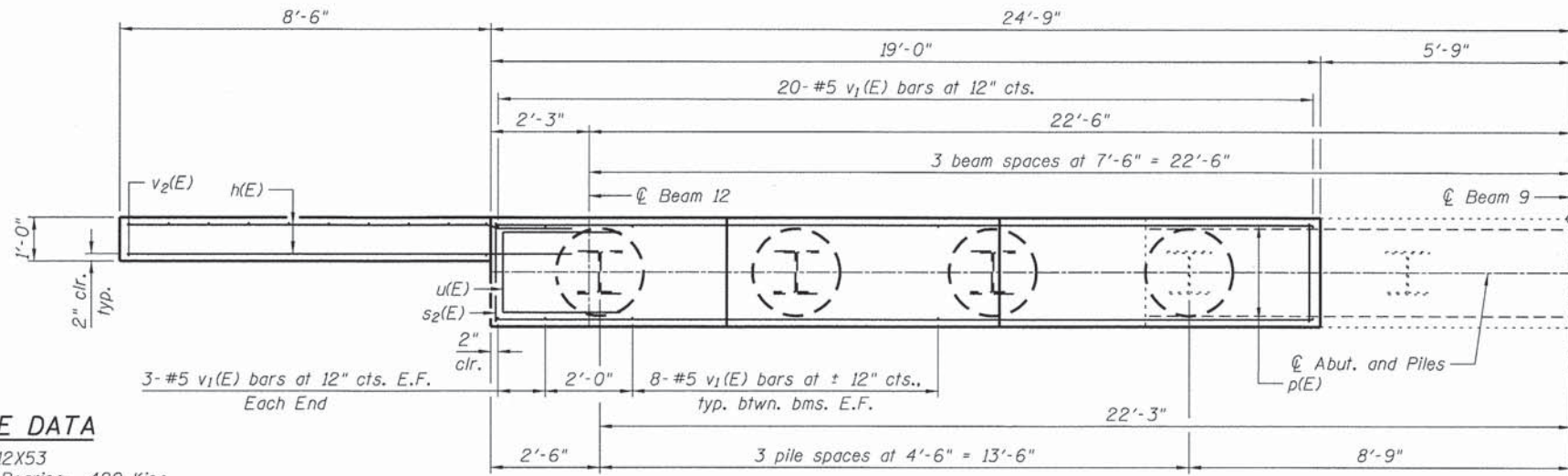
SHEET NO. S-16	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	S-20 SHEETS	05-00067-00-CH	McHENRY	226	159
		FAP 333, FAP 336, FAU 81	CONTRACT NO. 63750		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

FILE NAME: 056011.dwg  
PLOT DRIVER: plot.pdf  
PEN TABLE: Struct\_11x17.tbl

Notes:  
Pour steps monolithically with cap.



**ELEVATION**  
(Looking East - mirror for Looking West)

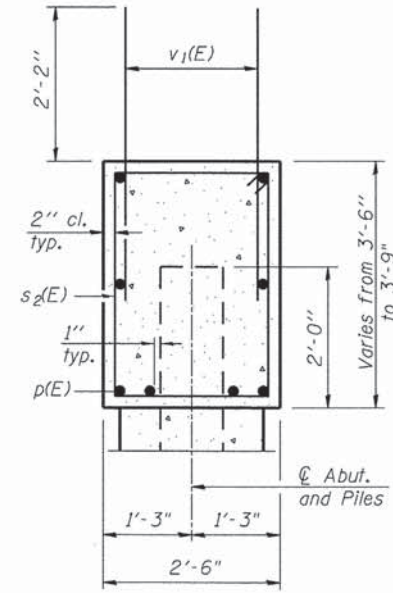


**PLAN**  
(East Abut. - mirror for West Abut.)

**PILE DATA**

Type: Steel HP 12X53  
Nominal Required Bearing: 420 Kips  
Allowable Resistance Available: 140 Kips  
Est. Length: 40' (West Abutment), 45' (East Abutment)  
No. Production Piles: 6  
No. Test Piles: 0  
Piles for the east abutment shall be driven through 12" diameter precored holes extending to elevation 741.25 according to Article 512.09 of the Standard Specifications. This work shall be included in the cost for Driving Piles.

DESIGNED	MGH
CHECKED	RGD
DRAWN	WJH
CHECKED	MGH



**SEC. THRU ABUT.**

**ELEVATION TABLE**

ELEV.	W. ABUT.	E. ABUT.
A	750.69	751.59
B	750.47	751.47
C	750.51	751.34
D	750.39	751.22
E	750.28	751.11
F	756.51	757.35
G	747.40	748.25
H	746.78	747.61

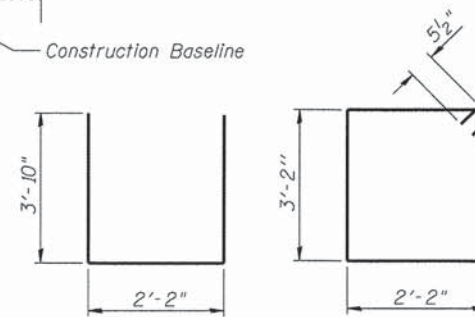
**BILL OF MATERIAL**  
(For East Abutment)

Bar	No.	Size	Length	Shape
h (E)	40	#7	11'-9"	—
p (E)	8	#8	18'-8"	—
s <sub>2</sub> (E)	21	#5	11'-7"	□
u (E)	4	#6	9'-10"	—
v <sub>1</sub> (E)	42	#5	4'-4"	—
v <sub>2</sub> (E)	20	#5	9'-6"	—
Structure Excavation			Cu. Yds.	96.5
Concrete Structures			Cu. Yds.	9.5
Concrete Encasement			Cu. Yds.	1.4
Reinforcement Bars, Epoxy			Pound	2,060
Furnishing Steel Piles HP			Foot	120
Driving Piles			Foot	120

**BILL OF MATERIAL**  
(For West Abutment)

Bar	No.	Size	Length	Shape
h (E)	40	#7	11'-9"	—
p (E)	8	#8	18'-8"	—
s <sub>2</sub> (E)	21	#5	11'-7"	□
u (E)	4	#6	9'-10"	—
v <sub>1</sub> (E)	42	#5	4'-4"	—
v <sub>2</sub> (E)	20	#5	9'-6"	—
Structure Excavation			Cu. Yds.	96.5
Concrete Structures			Cu. Yds.	9.5
Concrete Encasement			Cu. Yds.	1.4
Reinforcement Bars, Epoxy			Pound	2,060
Furnishing Steel Piles HP			Foot	120
Driving Piles			Foot	120

For details of Bar Splicers, see sheet S-19.  
For details of piles and Concrete Encasement, see sheet S-18.



**BAR u(E)**

**BAR s<sub>2</sub>(E)**

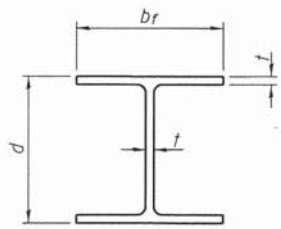
**ABUTMENT DETAILS**  
STRUCTURE NO. 056-0060

DATE: 5/28/13



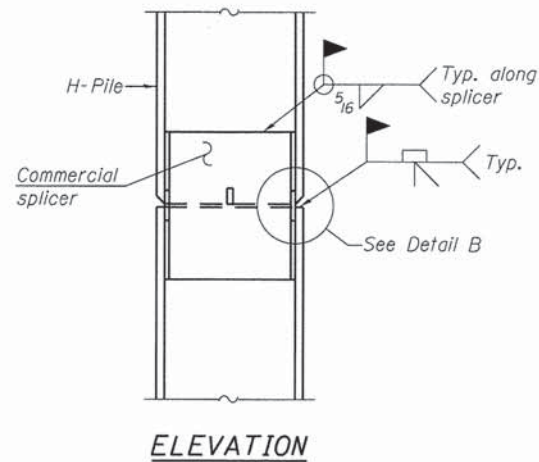
SHEET NO. S-17 S-20 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	•	05-00067-00-CH	McHENRY	226	160
• FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

FILE NAME: 050611.dwg  
PLOT DRIVER: pdfplot  
PEN TABLE: Struct.tbl

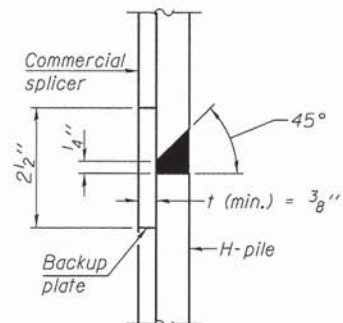


**STEEL PILE TABLE**

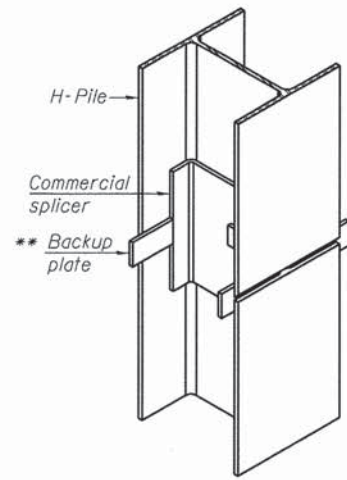
Designation	Depth d	Flange width b <sub>f</sub>	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 8/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	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**

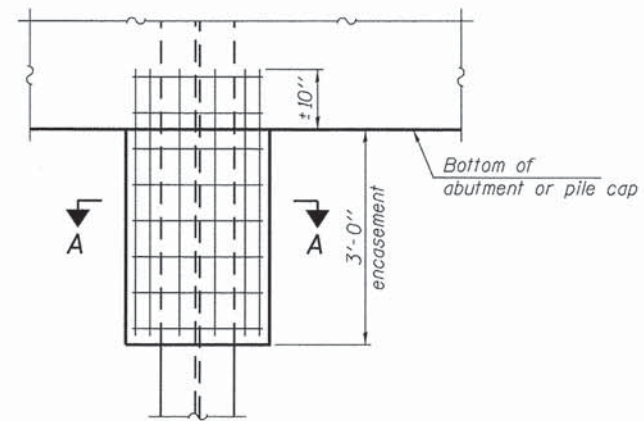


**DETAIL "B"**



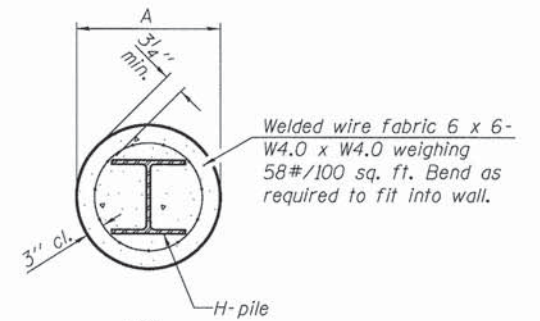
**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE**



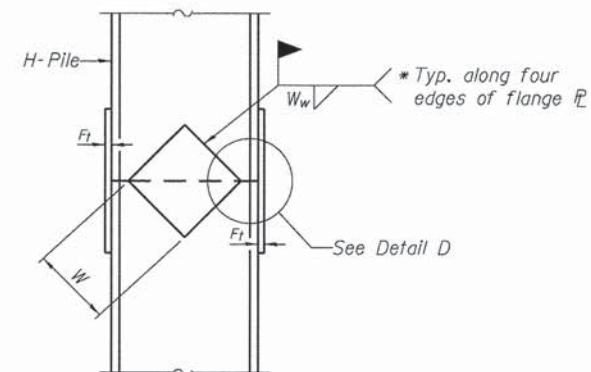
**ELEVATION**

**PILE ENCASEMENT**

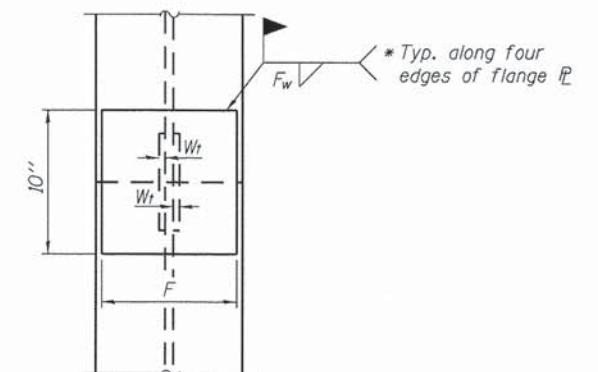


**SECTION A-A**

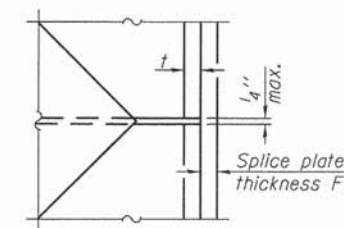
Note: Forms for encasement may be omitted when soil conditions permit.



**ELEVATION**



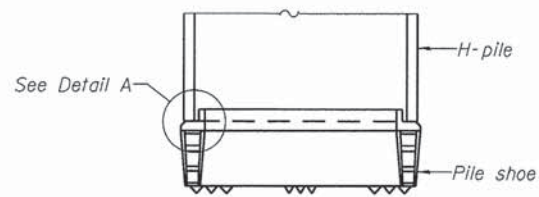
**END VIEW**



**DETAIL D**

**WELDED PLATE FIELD SPLICE**

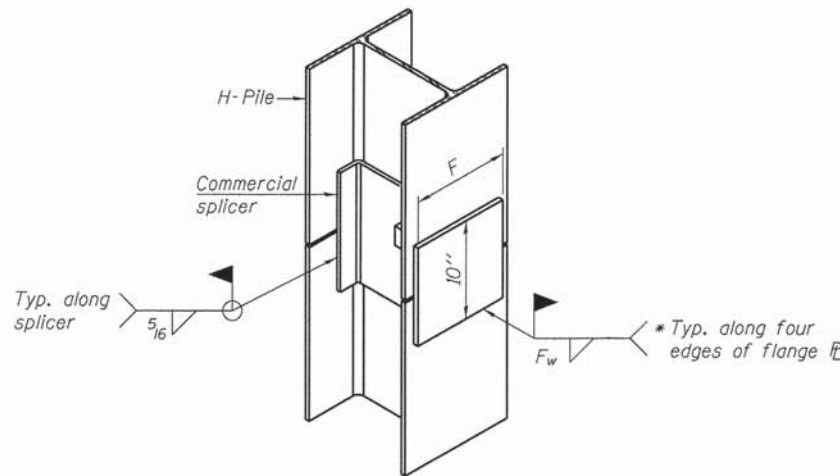
Designation	F	F <sub>t</sub>	F <sub>w</sub>	W	W <sub>t</sub>	W <sub>w</sub>
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 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"



**ELEVATION**

**DETAIL A**

**H-PILE SHOE ATTACHMENT**



**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE ALTERNATE**

- \* Interrupt welds 1/4" from end of web and/or each flange.
- \*\* Remove portions of backup plates that extend outside the flanges.
- \*\*\* Weld size per pile shoe manufacturer (5/16" min.).

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

**STEEL H-PILE DETAILS  
STRUCTURE NO. 056-0060**

DATE: 5/28/13

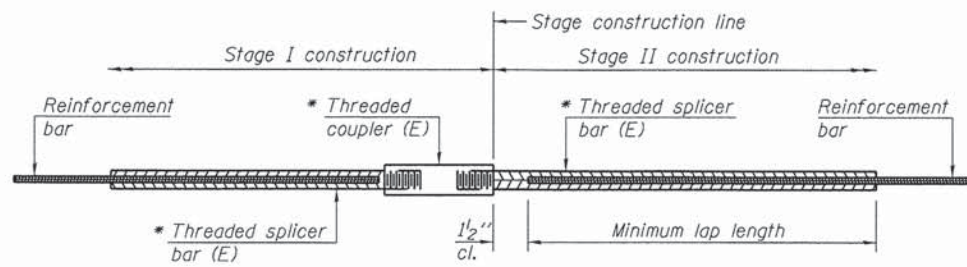
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CHECKED	RGD
DRAWN	WJH
CHECKED	MGH

F-HP

1-27-12



SHEET NO. S-18	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	*	05-00067-00-CH	McHENRY	226	161
S-20 SHEETS	* FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



**STANDARD BAR SPLICER ASSEMBLY**

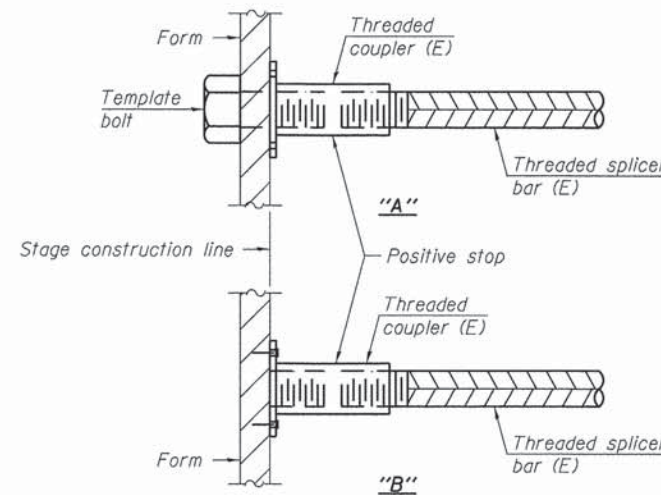
Bar size to be spliced	Minimum Lap Lengths				
	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Top bar lap, Class B

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

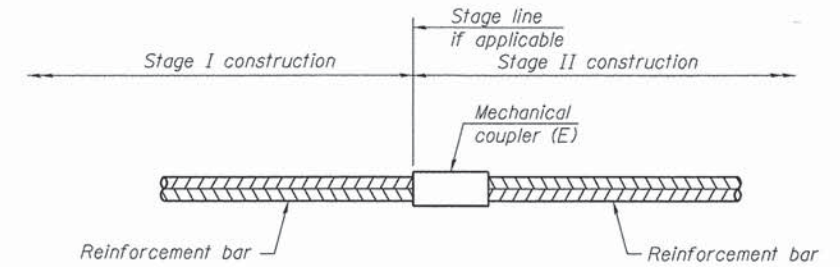
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
N/A	N/A	N/A	N/A



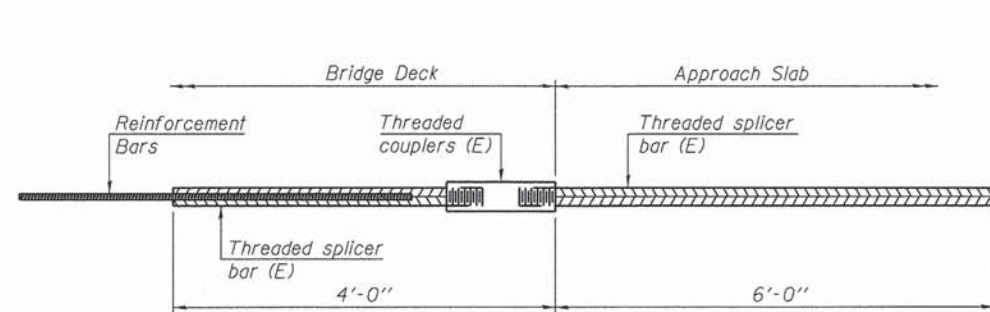
**INSTALLATION AND SETTING METHODS**

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



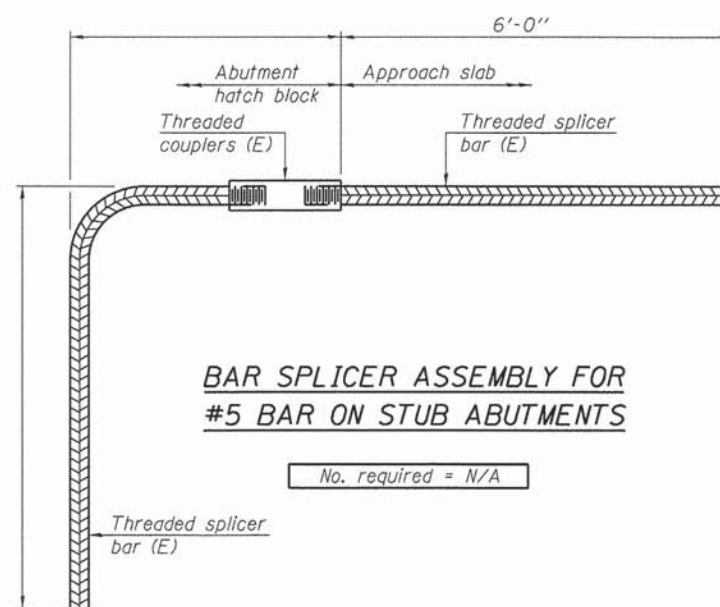
**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required
Diaphragm	#6	12
Br. Deck	#5	315



**BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

No. required = N/A



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required = N/A

**NOTES**

- Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
- All reinforcement shall be lapped and tied to the splicer bars.
- Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
- See approved list of bar splicer assemblies and mechanical splicers for alternatives.
- See S-9 for notes regarding acceptable epoxy coated, field installed bar splicers.

**BAR SPLICER DETAILS  
STRUCTURE NO. 056-0060**

DATE: 5/28/13

DESIGNED	MGH
CHECKED	RGD
DRAWN	WJH
CHECKED	MGH

BSD-1 1-27-12



SHEET NO. S-19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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S-20 SHEETS	• FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT			



Illinois Department of Transportation  
Division of Highways  
S.A.M. Consultants, Inc.

### SOIL BORING LOG

Page 1 of 2

Date 11/16/06

ROUTE Illinois 120 DESCRIPTION IL Routes 120/31 Bridge over Cole Creek LOGGED BY AR

SECTION 26 LOCATION Elm Street, McHenry, SEC. 26, TWP. 46N, RNG. 8E

COUNTY McHenry DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic Hammer

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	D	B	U	M
056-0060	363+75	S-1	17+45.00	42.50ft Lt	755.80	(ft)	(/6")	(tsf)	(%)	740.00	(ft)	(/6")	(tsf)	(%)
10 in CONCRETE														
SANDY GRAVELLY CLAY - reddish brown - soft (CL)														
					754.97	2								
						3	0.8	12.4						
						7	P			733.80	4		15.6	
						2								
						2		10.4						
						1								
						-5								
						1								
						1		15.3						
						2								
						2				747.80				
						2								
						2	0.5	19.4		726.80	14	4.5	7.6	
						-10	P							
						2								
						3								
						1		17.4						
						2								
						2				722.30	6			
						2		15.9						
						-15								
						3								
						3		12.3						
						4								
						4				718.50				
						4								
						4		10.9						
						-20								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation  
Division of Highways  
S.A.M. Consultants, Inc.

### SOIL BORING LOG

Page 2 of 2

Date 11/16/06

ROUTE Illinois 120 DESCRIPTION IL Routes 120/31 Bridge over Cole Creek LOGGED BY AR

SECTION 26 LOCATION Elm Street, McHenry, SEC. 26, TWP. 46N, RNG. 8E

COUNTY McHenry DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic Hammer

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	D	B	U	M
056-0060	363+75	S-1	17+45.00	42.50ft Lt	755.80	(ft)	(/6")	(tsf)	(%)	740.00	(ft)	(/6")	(tsf)	(%)
SILTSTONE - lightly cemented - gray - very hard (ML)														
Refusal at 43' - 0" (continued)														
					712.80									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation  
Division of Highways  
S.A.M. Consultants, Inc.

### SOIL BORING LOG

Page 1 of 1

Date 11/17/06

ROUTE Illinois 120 DESCRIPTION IL Routes 120/31 Bridge over Cole Creek LOGGED BY AR

SECTION 26 LOCATION Elm Street, McHenry, SEC. 26, TWP. 46N, RNG. 8E

COUNTY McHenry DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic hammer

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	D	B	U	M
056-0060	363+75	S-2	18+37.00	45.20ft IT	755.20	(ft)	(/6")	(tsf)	(%)	740.00	(ft)	(/6")	(tsf)	(%)
6" ASPHALT - Parking														
FILL - Sandy Gravelly Clay with rubble and debris - gray brown - moist - soft														
					754.70	2								
						1	0.5	12.2						
						3	P							
						3								
						1		16.7		731.20	6		18.1	
						-5								
						1								
						2		19.8						
						1								
						2				747.70				
						2								
						2	0.5	18.0		726.70	22			
						-10								
						2								
						2								
						4	0.8	19.1						
						2								
						2		21.7						
						-18								
						2								
						6		22.7						
						9								
						2								
						5		24.3						
						-20								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
BBS, from 137 (Rev. 8-99)

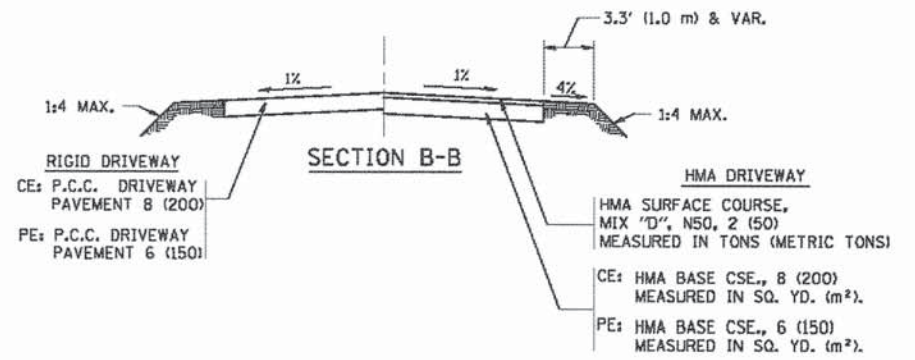
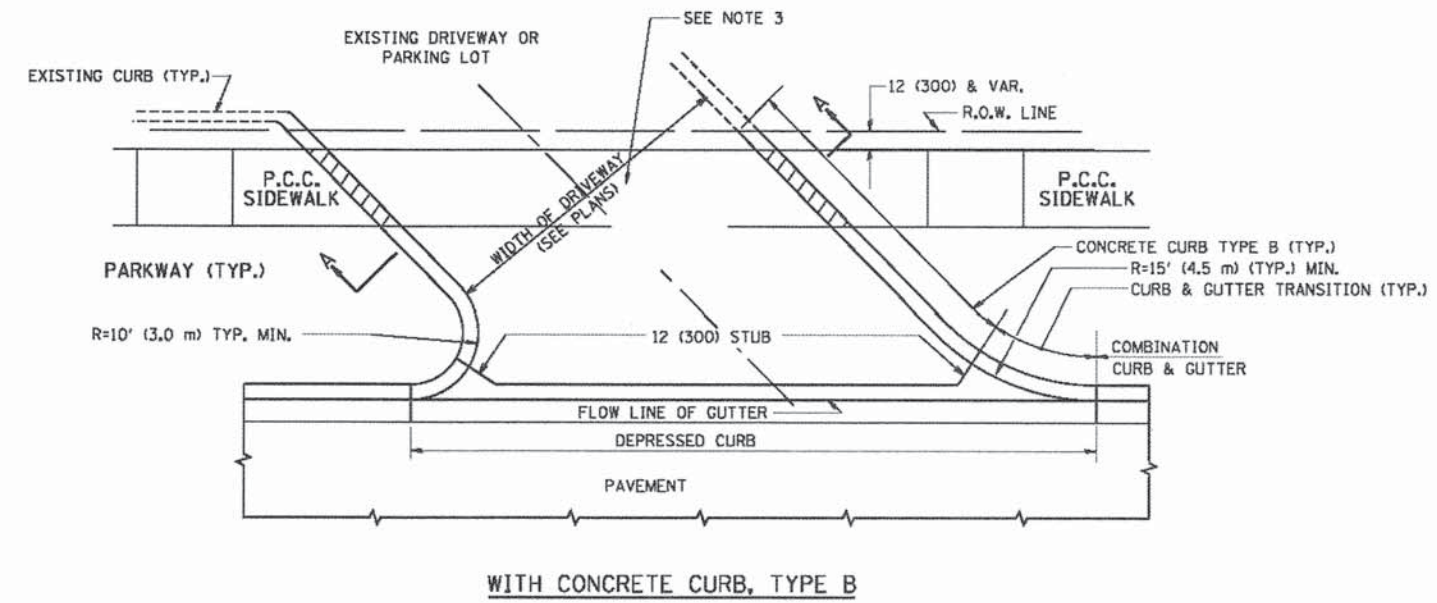
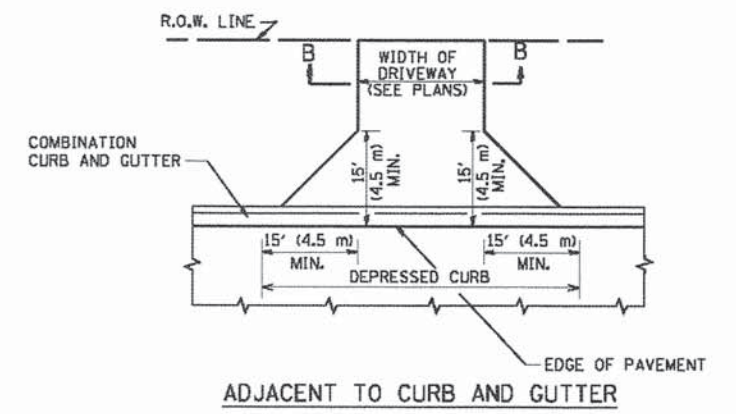
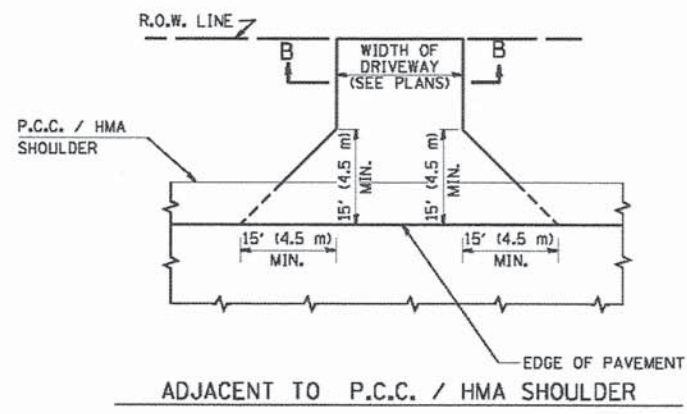
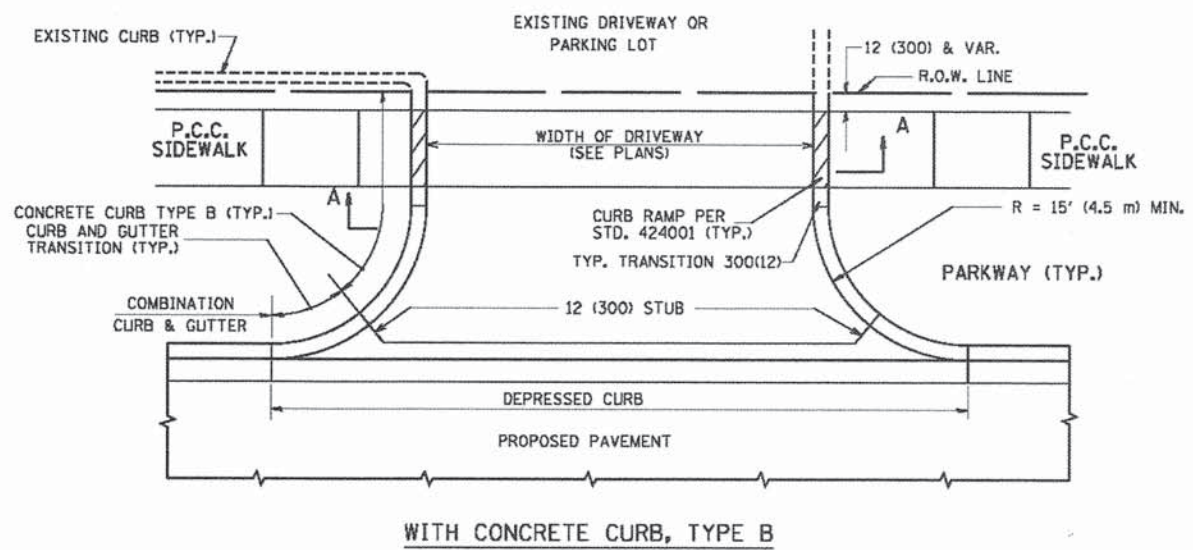
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DATE: 5/28/13

DESIGNED	MCH
CHECKED	ROO
DRAWN	WJH
CHECKED	MCH

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5-20 SHEETS	• FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

FILE NAME: 056-0060-13-099  
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**RURAL FIELD ENTRANCE (IFE)**

HMA SURFACE COURSE, MIX "D", N50, 2 (50) MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SQ. YD. (m<sup>2</sup>).

**GENERAL NOTES:**

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

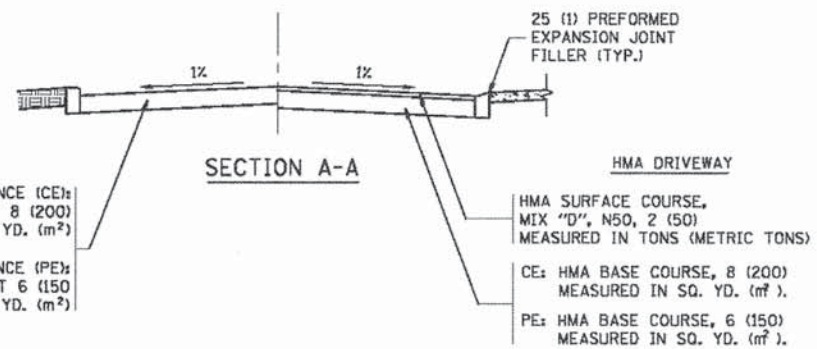
COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.



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PROJECT CONTACT: MCHENRY  
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		CHECKED -	REVISED - R. BORO 06-11-08
		DATE - 11-04-95	REVISED - R. BORO 09-06-11

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

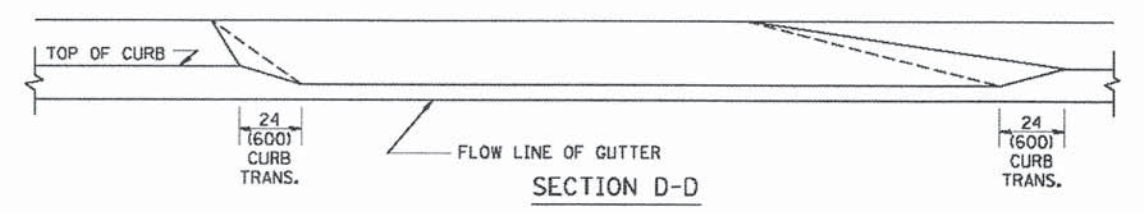
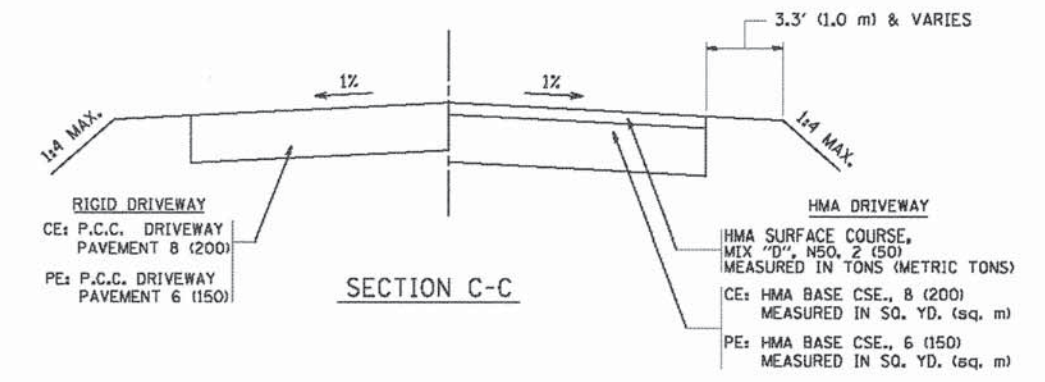
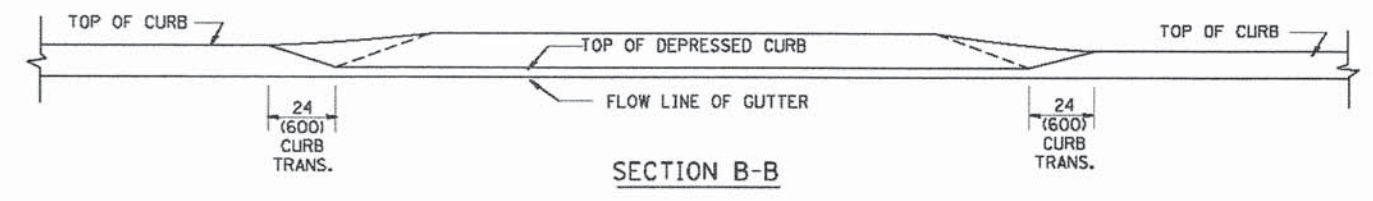
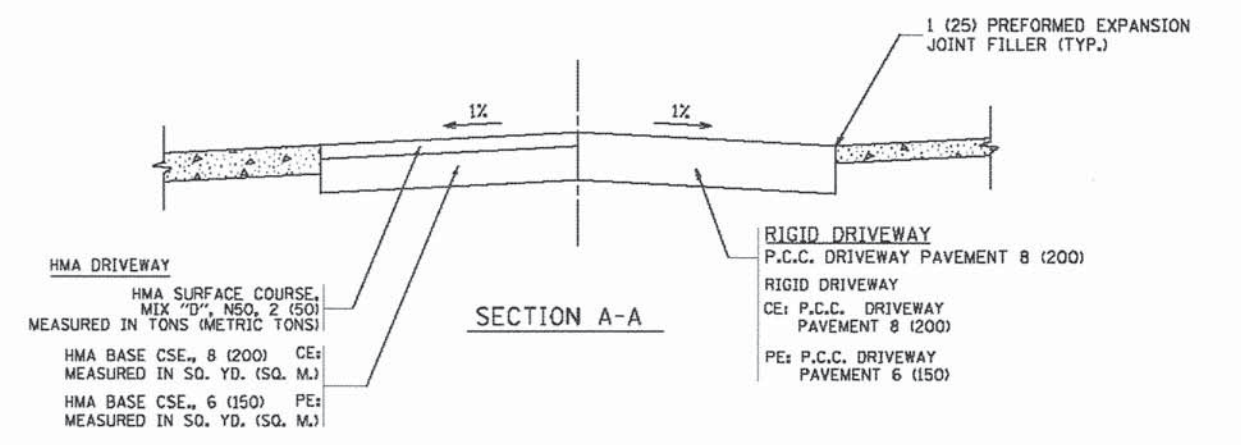
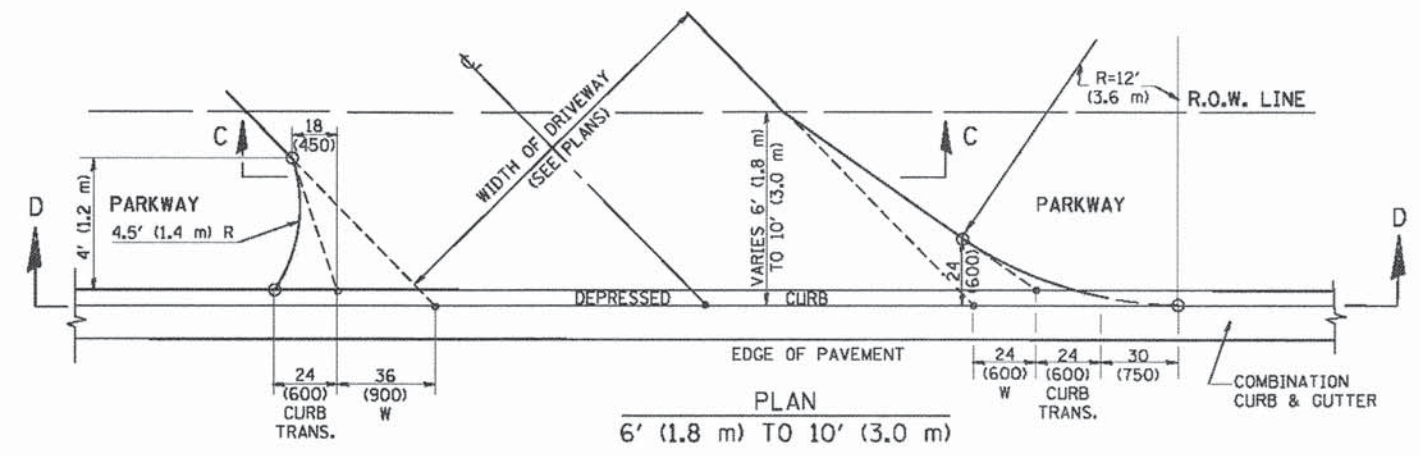
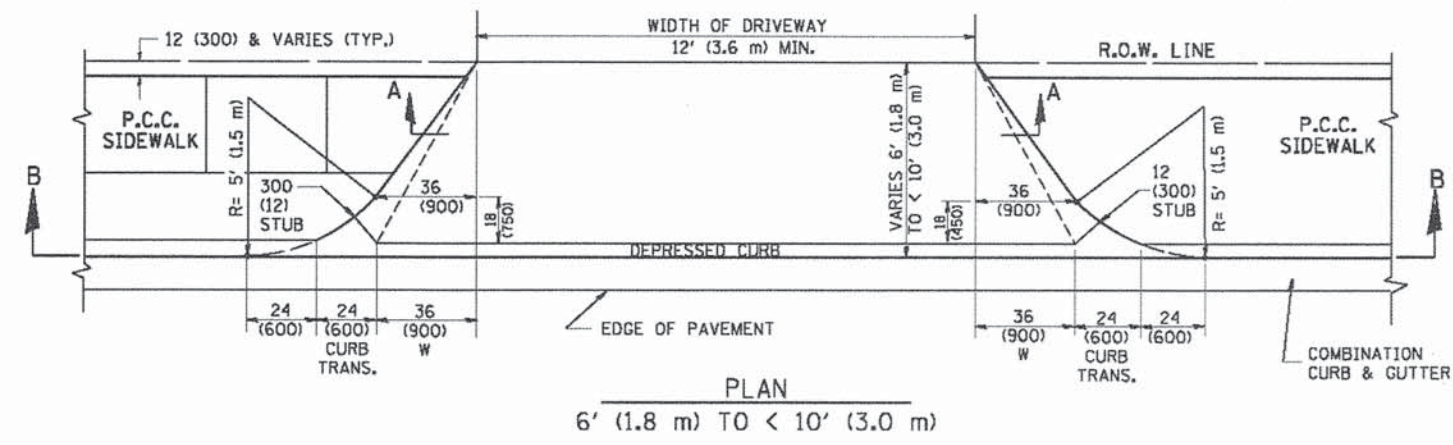
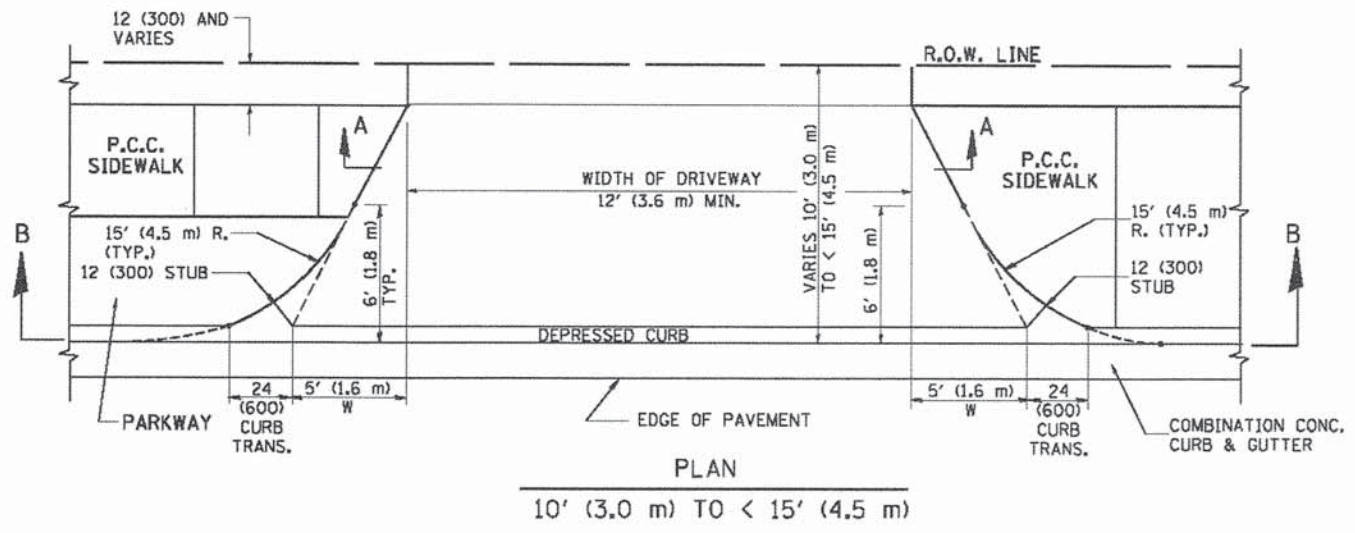
**DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W.  
AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
05-00067-00-CH		MCHENRY	226	164
<b>BD0156-07 (BD-01)</b>		<b>CONTRACT NO. 63750</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

\*FAP 333, FAP 336, FAU 81





**GENERAL NOTES**

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

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

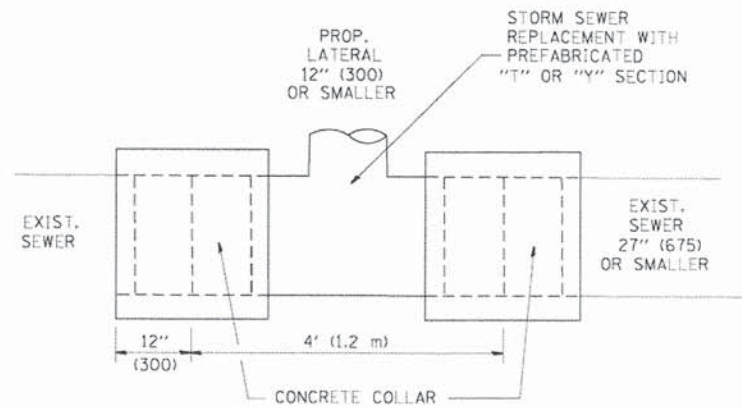
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PROJECT CONTACT: 05-00067-00-CH  
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

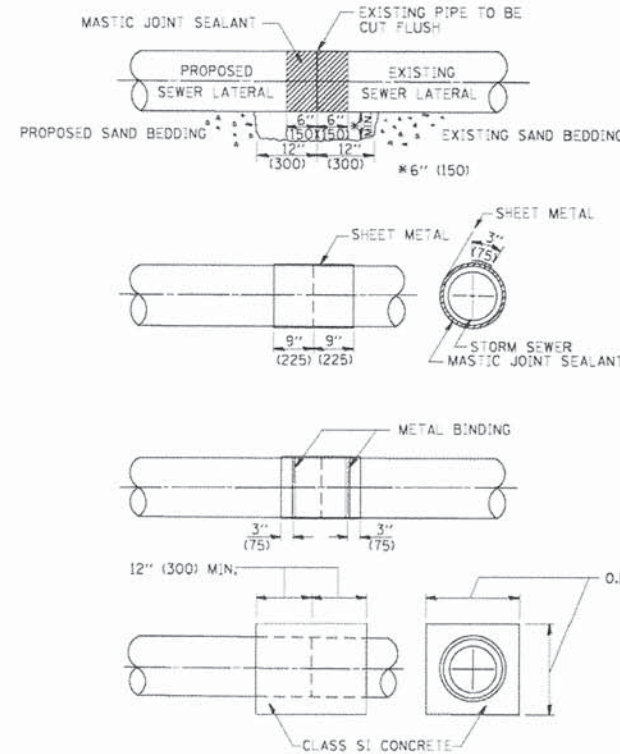
DRIVEWAY DETAILS			
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00067-00-CH	MCHENRY	226	165
BD400-02 (BD-02)			CONTRACT NO. 63750	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER

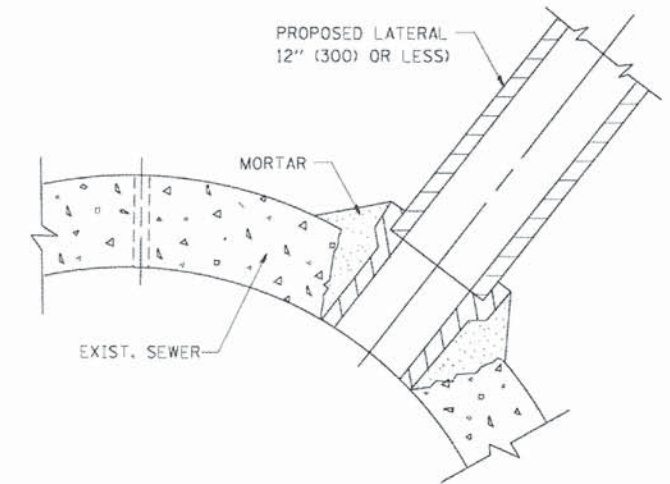


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT, BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12" x 6" (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT Oozes OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

1. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
  - A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
  - B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS. THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

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

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FOR TABLE: 050611-00-CH

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		DRAWN: -	REVISED: R. SHAH 09-09-94
		CHECKED: -	REVISED: R. SHAH 10-25-94
		DATE: 07-25-90	REVISED: R. SHAH 06-12-96

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

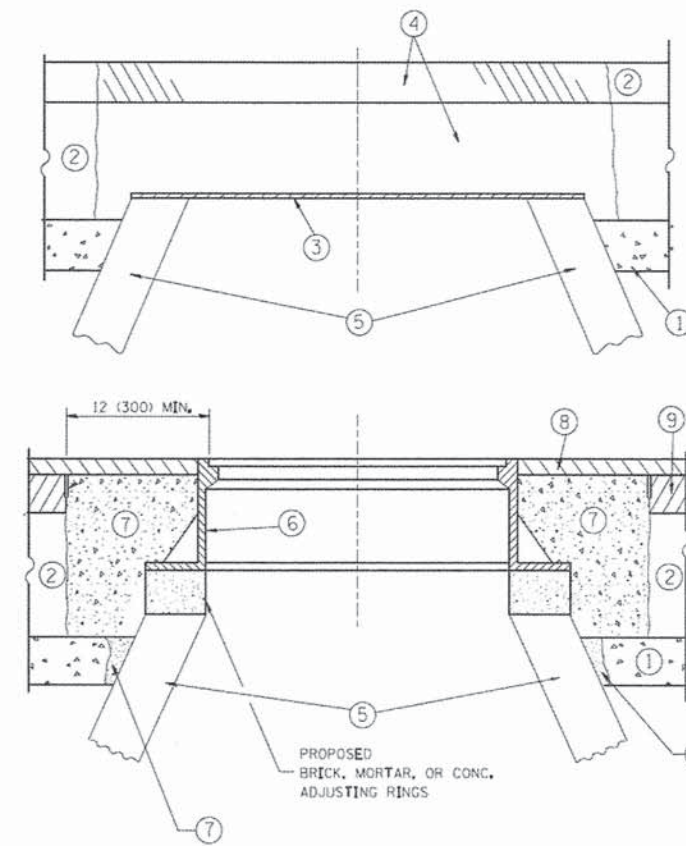
SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA.	TO STA.
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DETAIL OF STORM SEWER  
CONNECTION TO EXISTING SEWER

F.A. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00067-00-CH	MCHENRY	226	166
BD500-01 (BD-7)			CONTRACT NO. 63750	

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

FAP 333, FAP 336, FAU 81



**CONSTRUCTION PROCEDURES**

- STAGE 1 (BEFORE PAVEMENT MILLING)**
- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
  - B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
  - C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
  - D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

- STAGE 2 (AFTER PAVEMENT MILLING)**
- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
  - B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
  - C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- \*UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS PP-1\* CONCRETE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

**LOCATION OF STRUCTURES:**

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

**BASIS OF PAYMENT:**

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

**NOTES:**

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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 PROJECT CONTACT: 080411-00-01  
 CLIENT: 080411-00-01  
 DATE PLOTTED: 3/22/12 PM  
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 PLOT DRIVER: pdf.plt  
 PLOT TABLE: standard-trans.tbl

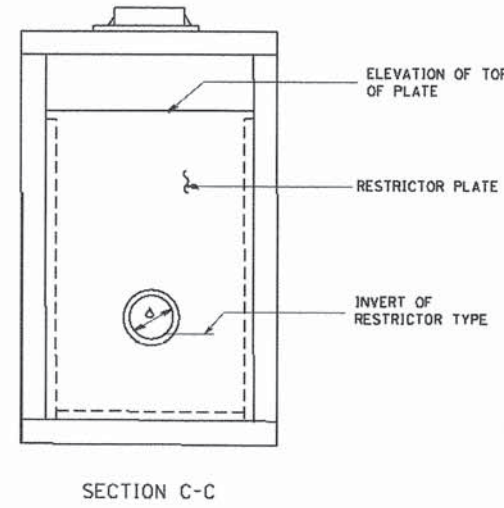
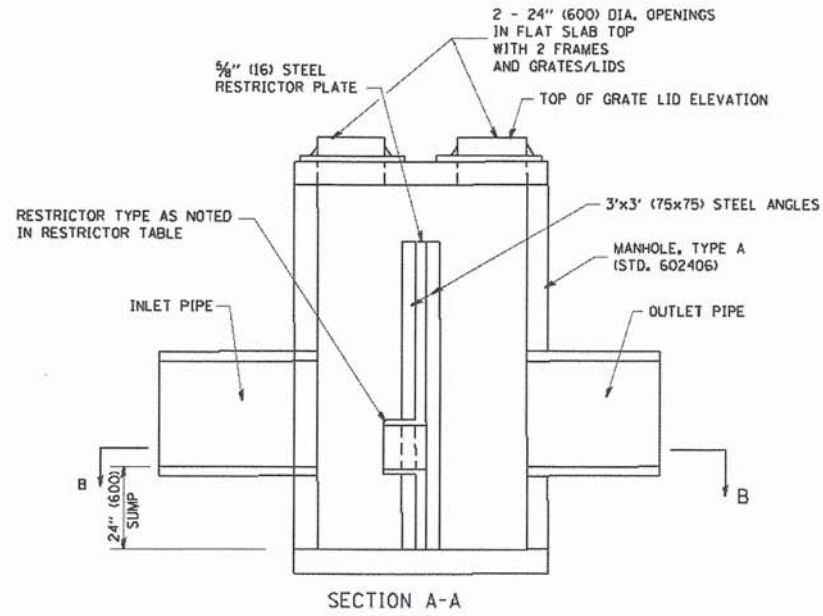
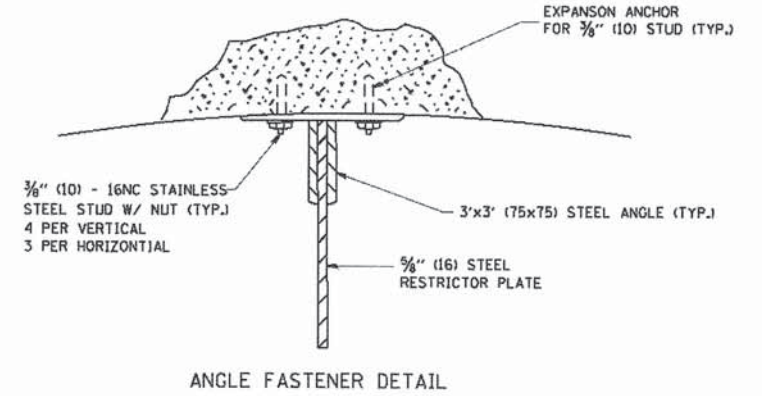
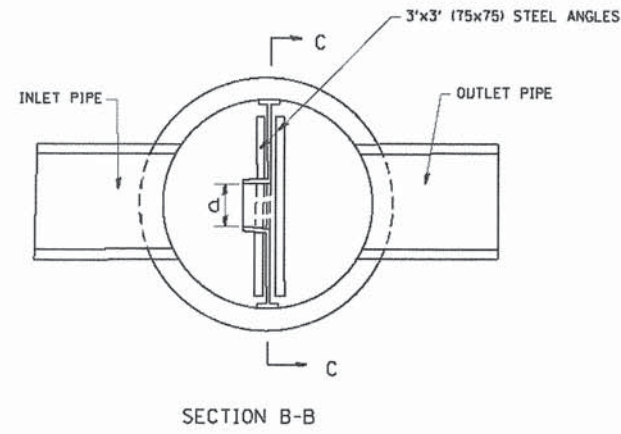
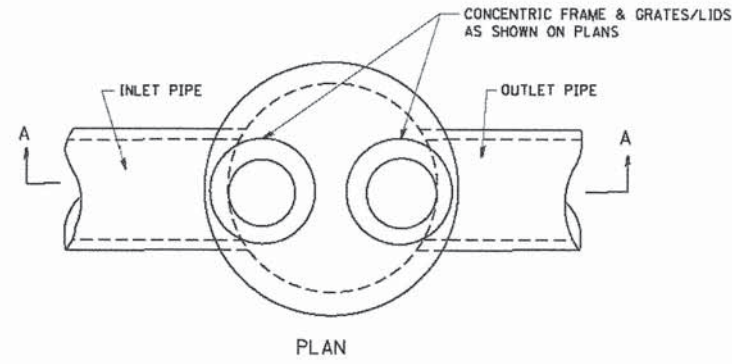
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

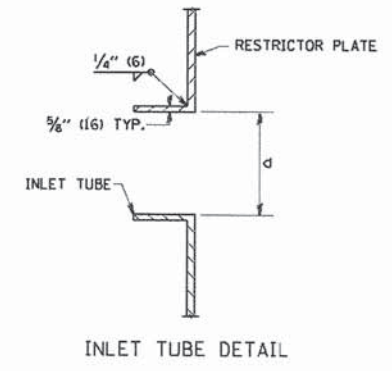
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**DETAILS FOR  
FRAMES AND LIDS ADJUSTMENT WITH MILLING**

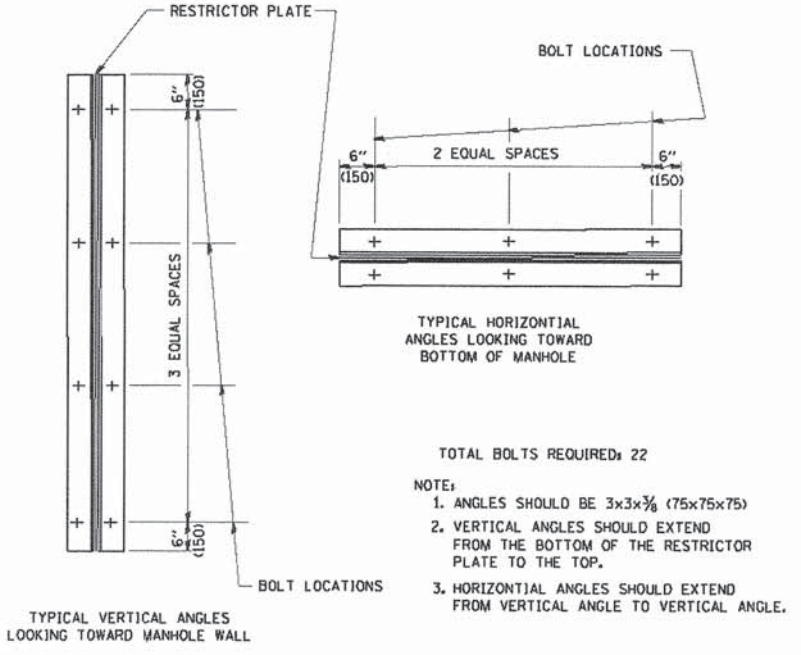
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	167
BD600-03 (BD-8)			CONTRACT NO. 63750	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
*FAP 333, FAP 336, FAU 81				



- NOTES:
1. ALL STEEL ANGLES AND PLATES TO BE GALVANIZED AFTER FABRICATION.
  2. ALL RESTRICTOR PLATES, ANGLES AND HARDWARE TO BE INCLUDED IN THE COST OF THE MANHOLE.
  3. BASIS OF PAYMENT: "MANHOLES, TYPE A, 6 FT. (1.8 m)-DIAMETER, TYPE I FRAME, CLOSED LID, RESTRICTOR PLATE" EACH



STATION	MANHOLE DIAMETER	FRAME AND GRATE	RESTRICTOR TYPE	INSIDE RESTRICTOR TYPE DIAMETER in. (mm) (d)	INVERT OF RESTRICTOR TYPE 2-YR	ELEVATION OF TOP OF PLATE OVERFLOW
25+40, 25.0 RT	6'	T1CL	3	9"	755.24	756.79
117+37, 22.4' LT	6'	T1CL	3	14"	765.11	768.00



- TOTAL BOLTS REQUIRED: 22
- NOTE:
1. ANGLES SHOULD BE 3x3x3/8 (75x75x75)
  2. VERTICAL ANGLES SHOULD EXTEND FROM THE BOTTOM OF THE RESTRICTOR PLATE TO THE TOP.
  3. HORIZONTAL ANGLES SHOULD EXTEND FROM VERTICAL ANGLE TO VERTICAL ANGLE.

RESTRICTOR TYPE					
1	2	3	4	5	6
RE-ENTRANT TUBE	SHARP EDGED	SQUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED
LENGTH: 1/2 TO 1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-1/2 DIA.	LENGTH: 2-1/2 DIA.	
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98

VALUES OF "C" FOR CIRCULAR AND SQUARE ORIFICES

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

COMPANY NAME: MCHENRY  
 PROJECT CONTACT: ...  
 DATE PLOTTED: 08/01/99  
 FILE NAME: ...  
 PLOT DRIVER: ...  
 PEN TABLE: ...

FILE NAME =	USER NAME = goglerobt	DESIGNED - R. SHAH	REVISED - R. SHAH 10-25-94
W:\dstate\td\22x34\bd12.dgn		DRAWN -	REVISED - E. GOMEZ 08-28-00
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - M. GOMEZ 01-08-01
	PLOT DATE = 1/4/2008	DATE - 09-09-94	REVISED -

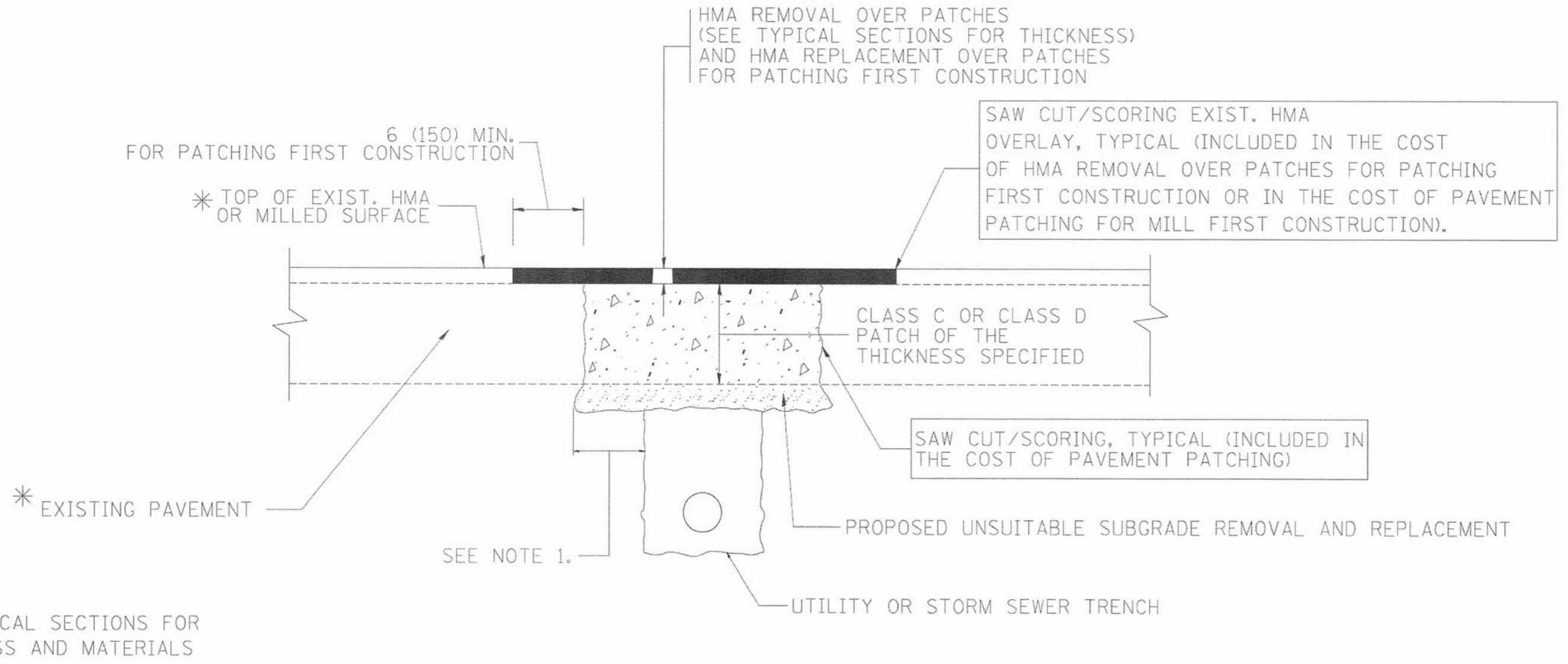
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

MANHOLE WITH  
 RESTRICTOR PLATE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	168
BD600-04 (BD-12)		CONTRACT NO. 63750		
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				

\*FAP 333, FAP 336, FAU 81



**NOTES:**

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

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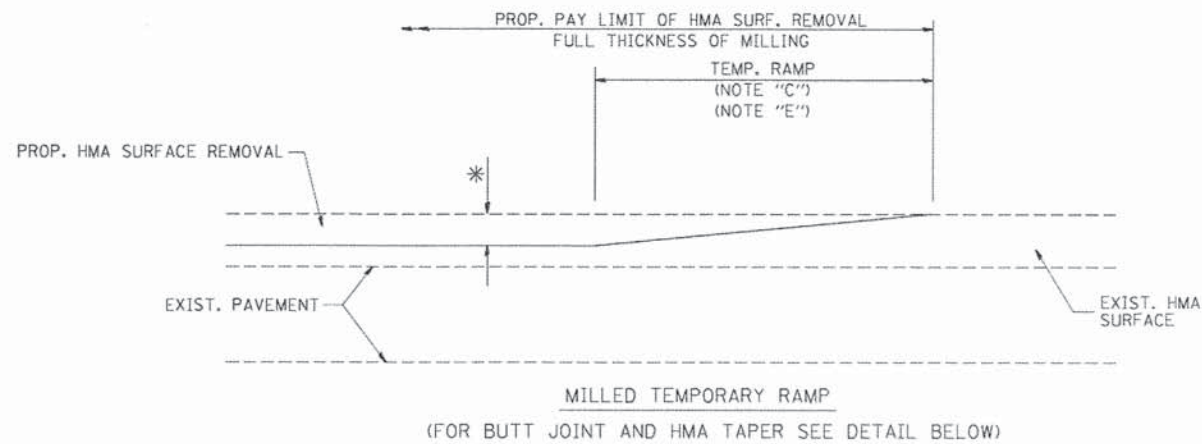
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		PLOT SCALE = 58.000 1/ IN.	REVISED - R. BORO 09-04-07
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		DATE - 10-25-94	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

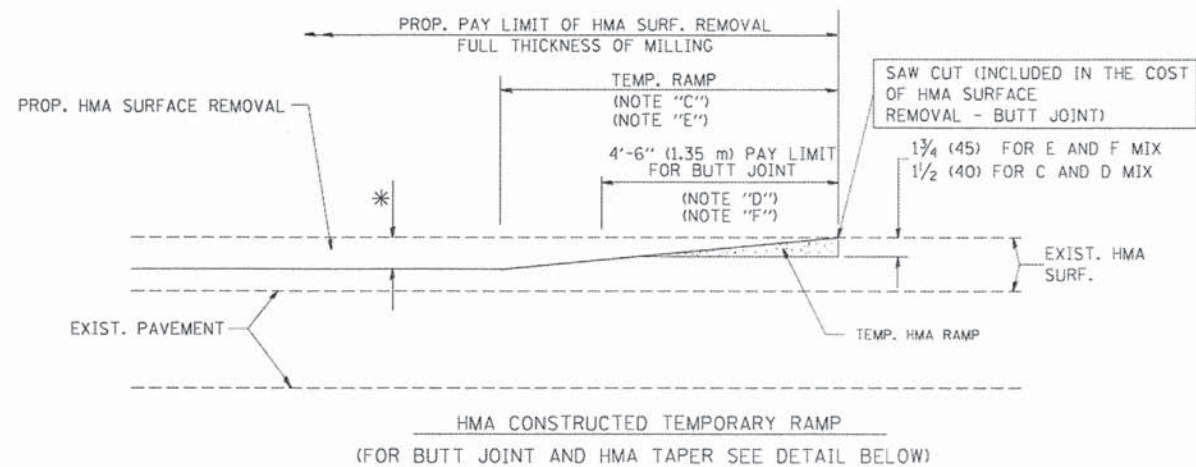
<b>PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	149
<b>BD400-04 (BD-22)</b>			CONTRACT NO. 63750	
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				

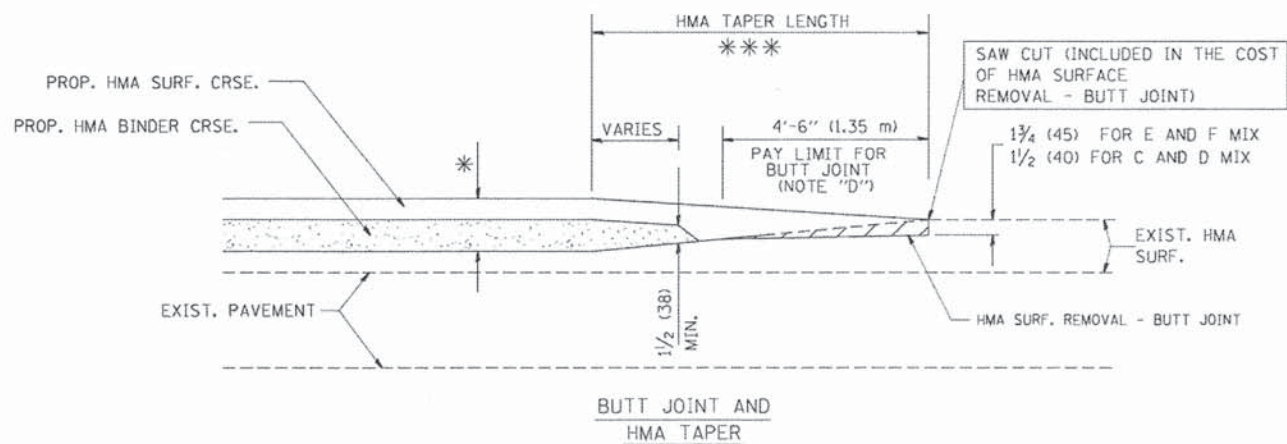
\* FAP 333, FAP 336, FAU 81



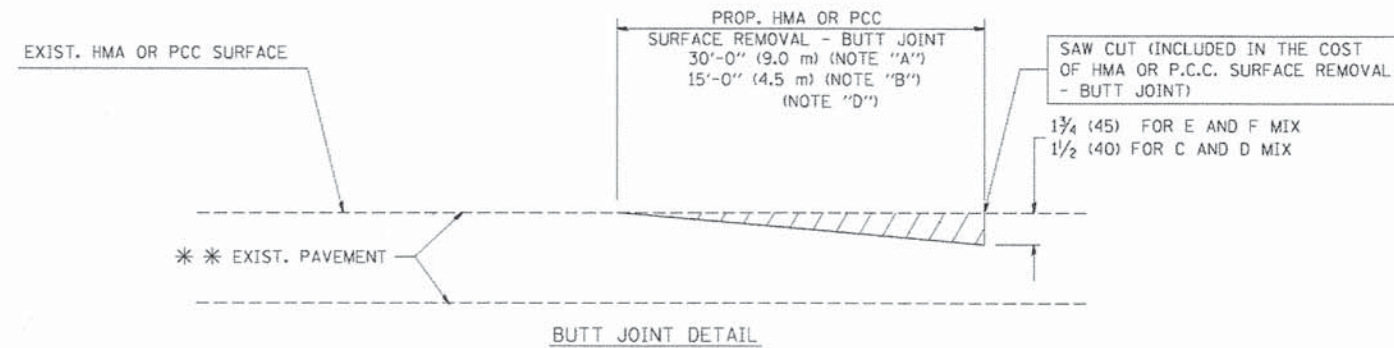
**OPTION 1**



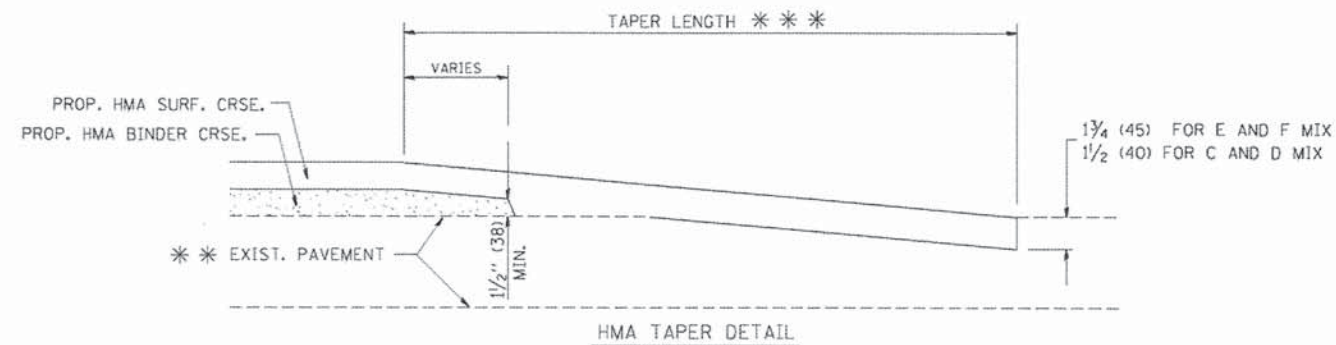
**OPTION 2**  
**TYPICAL TEMPORARY RAMP**



**TYPICAL BUTT JOINT AND HMA TAPER**  
**FOR MILLING AND RESURFACING**



**BUTT JOINT DETAIL**



**HMA TAPER DETAIL**

**TYPICAL BUTT JOINT AND HMA TAPER**  
**FOR RESURFACING ONLY**

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

**NOTES**

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
  - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

**BASIS OF PAYMENT:**

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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

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PROJECT CONTACT: 05-00067-00-CH  
DATE PLOTTED: 08/06/11 08:11:08 AM  
FILE NAME: 080611-dt1-08.dgn  
PLOT DRIVER: pldrvr  
PEN TABLE: sfontmgr-trans.tbl

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		CHECKED -	REVISED - M. GOMEZ 04-06-01
		DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

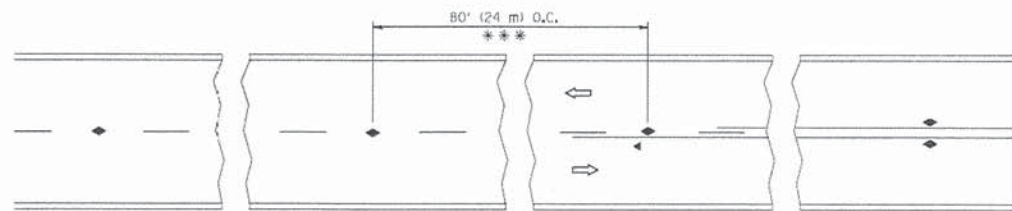
**BUTT JOINT AND**  
**HMA TAPER DETAILS**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	170
BD400-05 BD32			CONTRACT NO. 63750	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

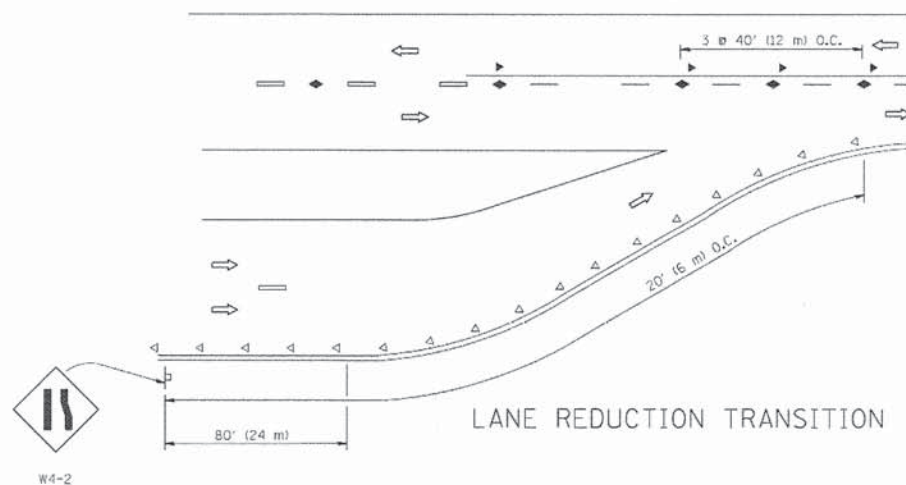
\* FAP 333, FAP 336, FAU 81



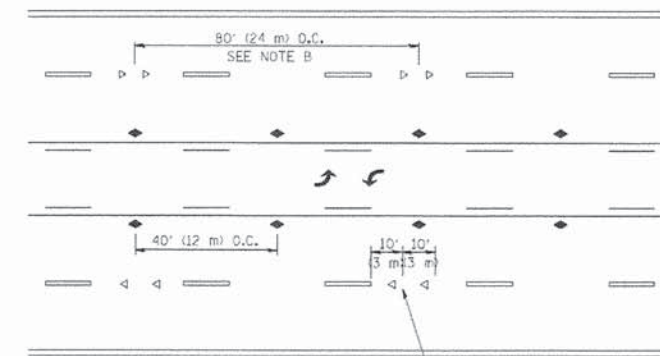


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

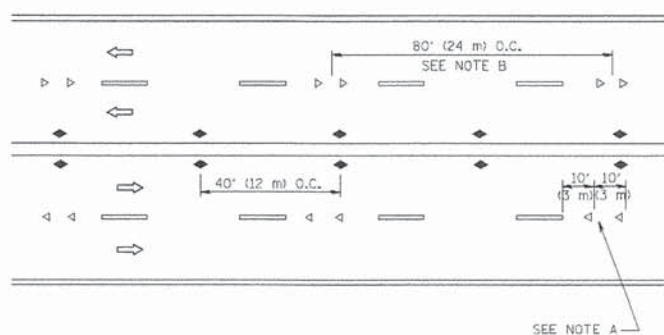
TWO-LANE/TWO-WAY



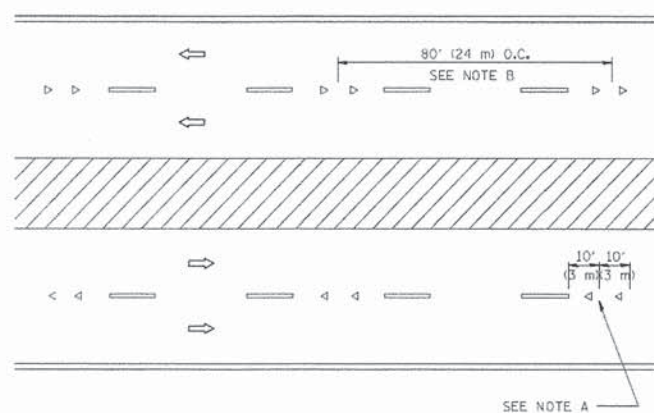
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

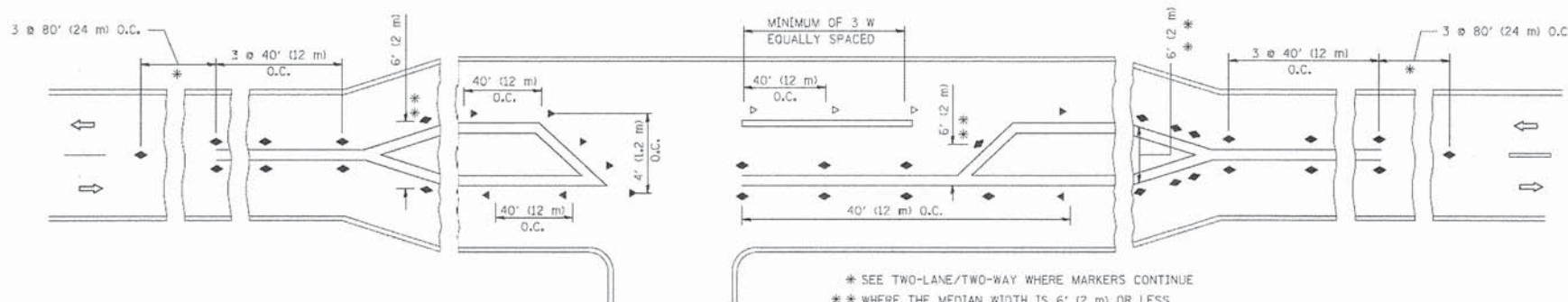
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◄ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

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

DESIGN NOTES

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



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

LEFT TURN

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

COMPANY NAME: MCHENRY  
 PROJECT CONTACT: 05-00067-00-CH  
 CLIENT: 05-00067-00-CH  
 DATE PLOTTED: 3/2/2011 3:28:28 PM  
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		CHECKED -	REVISED - T, RAMMACHER 01-06-00
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

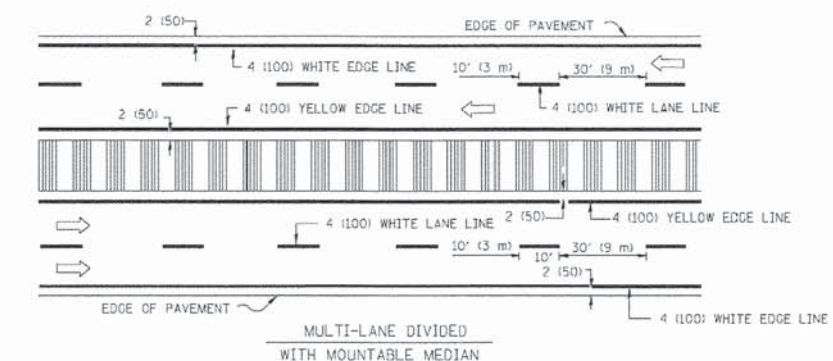
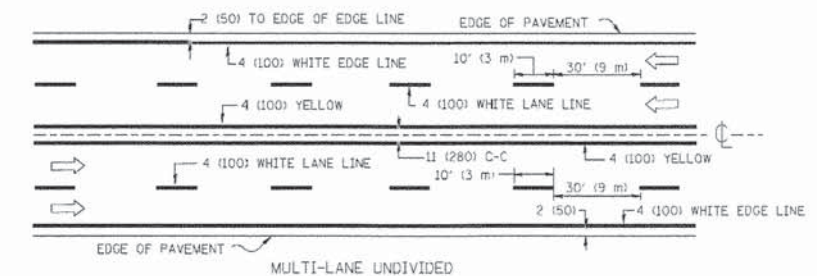
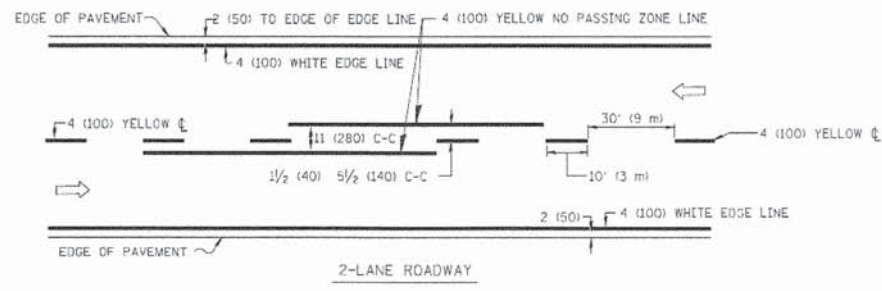
TYPICAL APPLICATIONS  
 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-00067-00-CH	MCHENRY	226	172
TC-11			CONTRACT NO. 63750	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

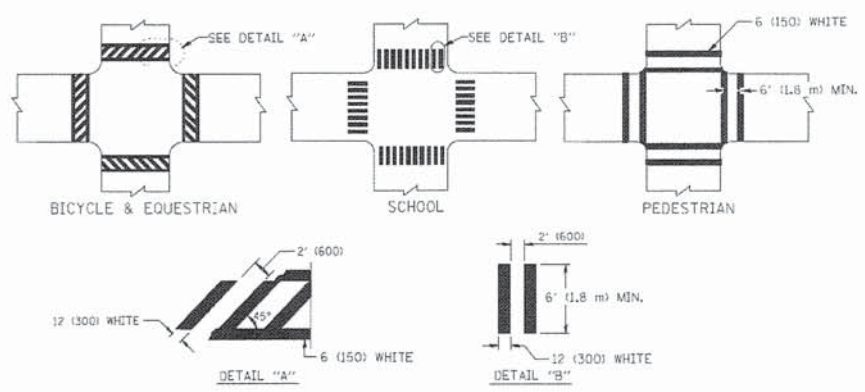
\* FAP 333, FAP 336, FAU 81



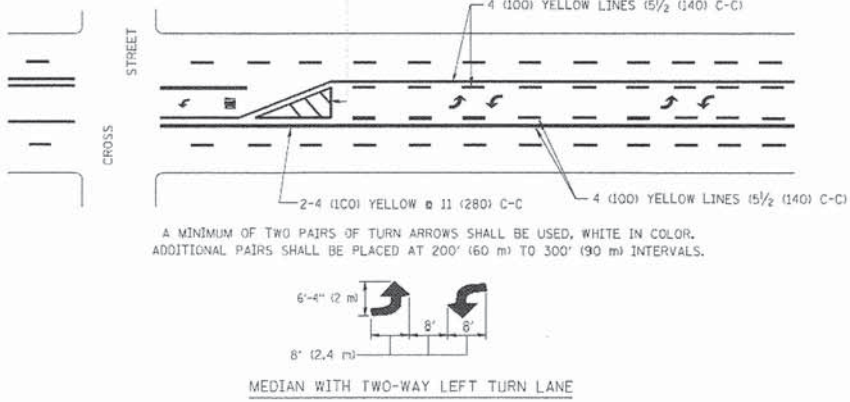
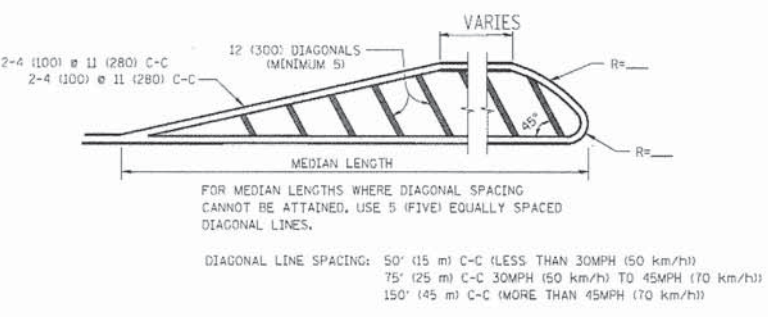
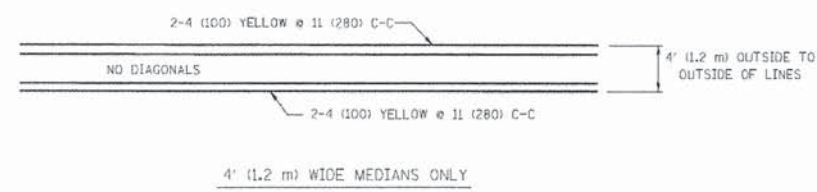


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

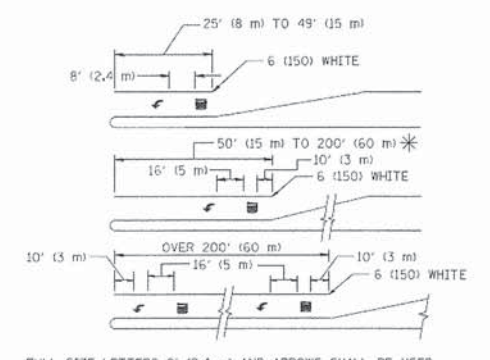
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



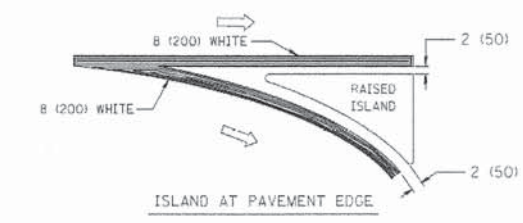
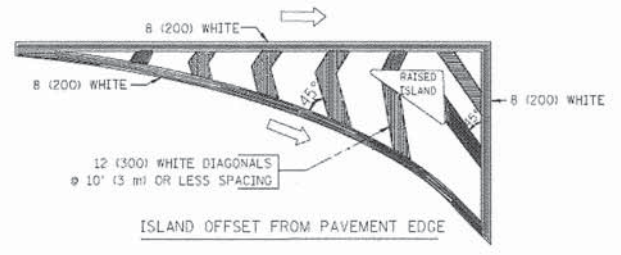
TYPICAL PAINTED MEDIAN MARKING



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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

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

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

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

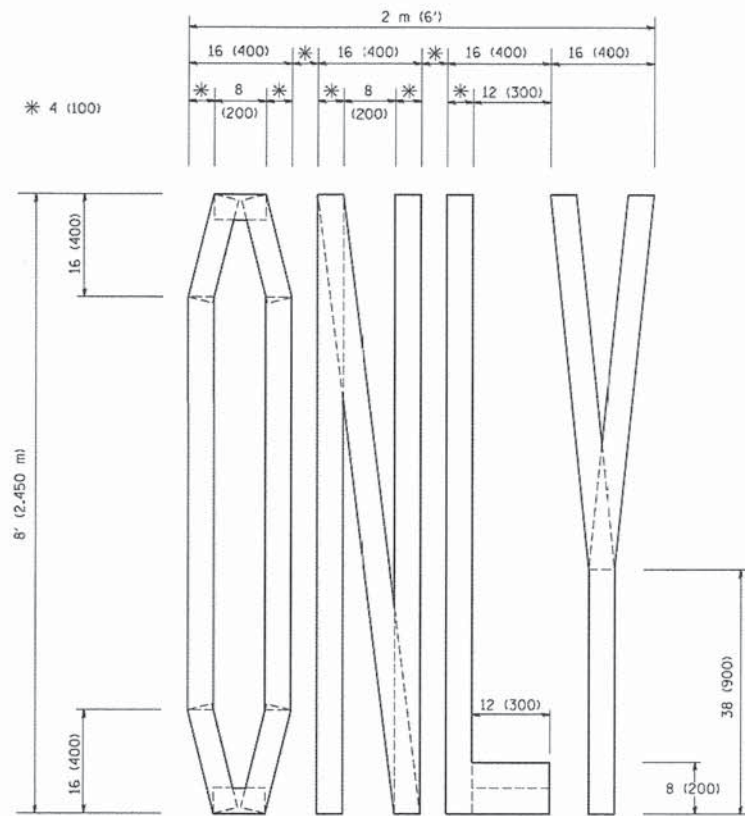
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 PROJECT CONTACT: 08011-00-01  
 DATE: 03/22/2009  
 FILE NAME: 08011-00-01-12.dgn  
 PLOT DRIVER: pdfcut  
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	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

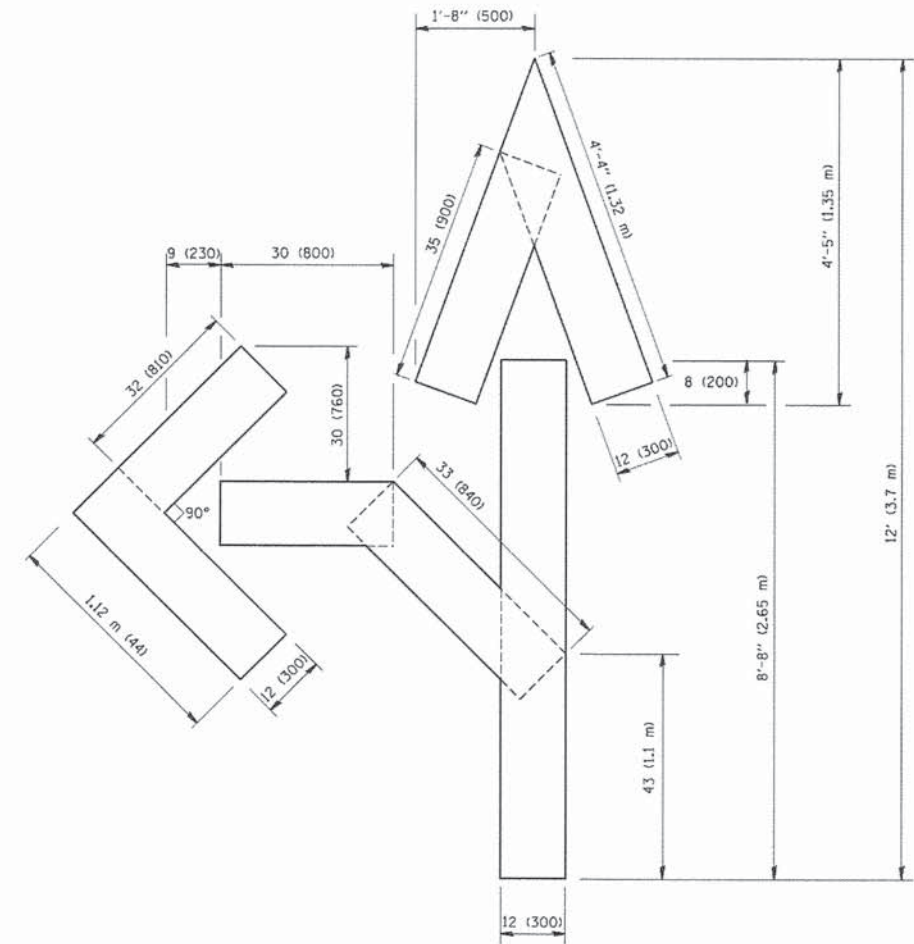
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		•	05-0067-00-CH	MCHENRY	224	173
SCALE: NONE		TC-13		CONTRACT NO. 63750		
SHEET NO. 1 OF 1 SHEETS		STA.	TO STA.		FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT	

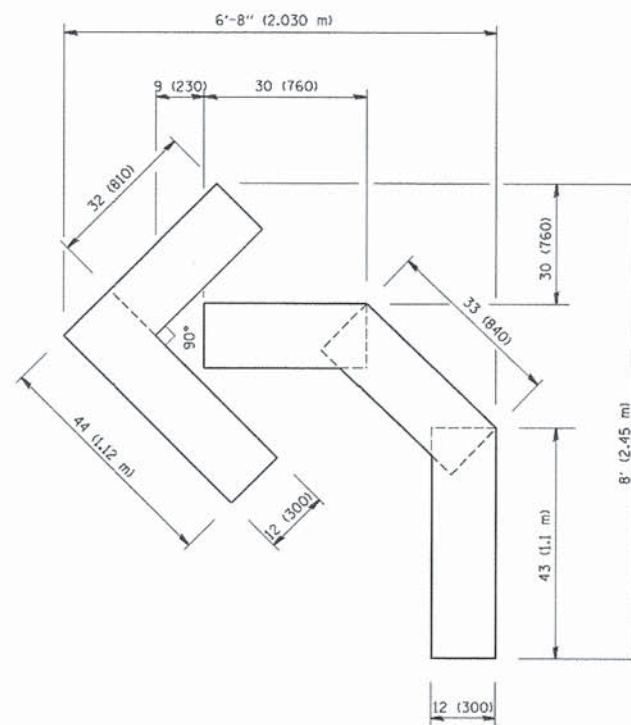
• FAP 333, FAP 336, FAU 81



QUANTITY  
 4 (100) LINE = 64.1 ft. (19.7 m)  
 21.1 sq. ft. (1.97 sq. m)



QUANTITY  
 4 (100) LINE = 82.5 ft. (25.3 m)  
 27.5 sq. ft. (2.53 sq. m)



QUANTITY  
 4 (100) LINE = 45.5 ft. (13.9 m)  
 15.2 sq. ft. (1.39 sq. m)

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

COMPANY NAME: MCHENRY  
 PROJECT CONTACT: MCHENRY  
 CLIENT: MCHENRY  
 DATE PLOTTED: 08/01/03 PM  
 FILE NAME: 080611-067-13.dgn  
 PLOT DRIVER: pdf2400  
 PEN TABLE: standard-trans.tbl

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W:\distrtd\22x34\vc16.dgn		DRAWN -	REVISED -T. RAMMACHER 11-04-97
		PLOT SCALE * 50.0000 "/>	REVISED -T. RAMMACHER 03-02-98
		PLOT DATE * 1/4/2008	REVISED -E. GOMEZ 08-28-00
		DATE - 09-18-94	

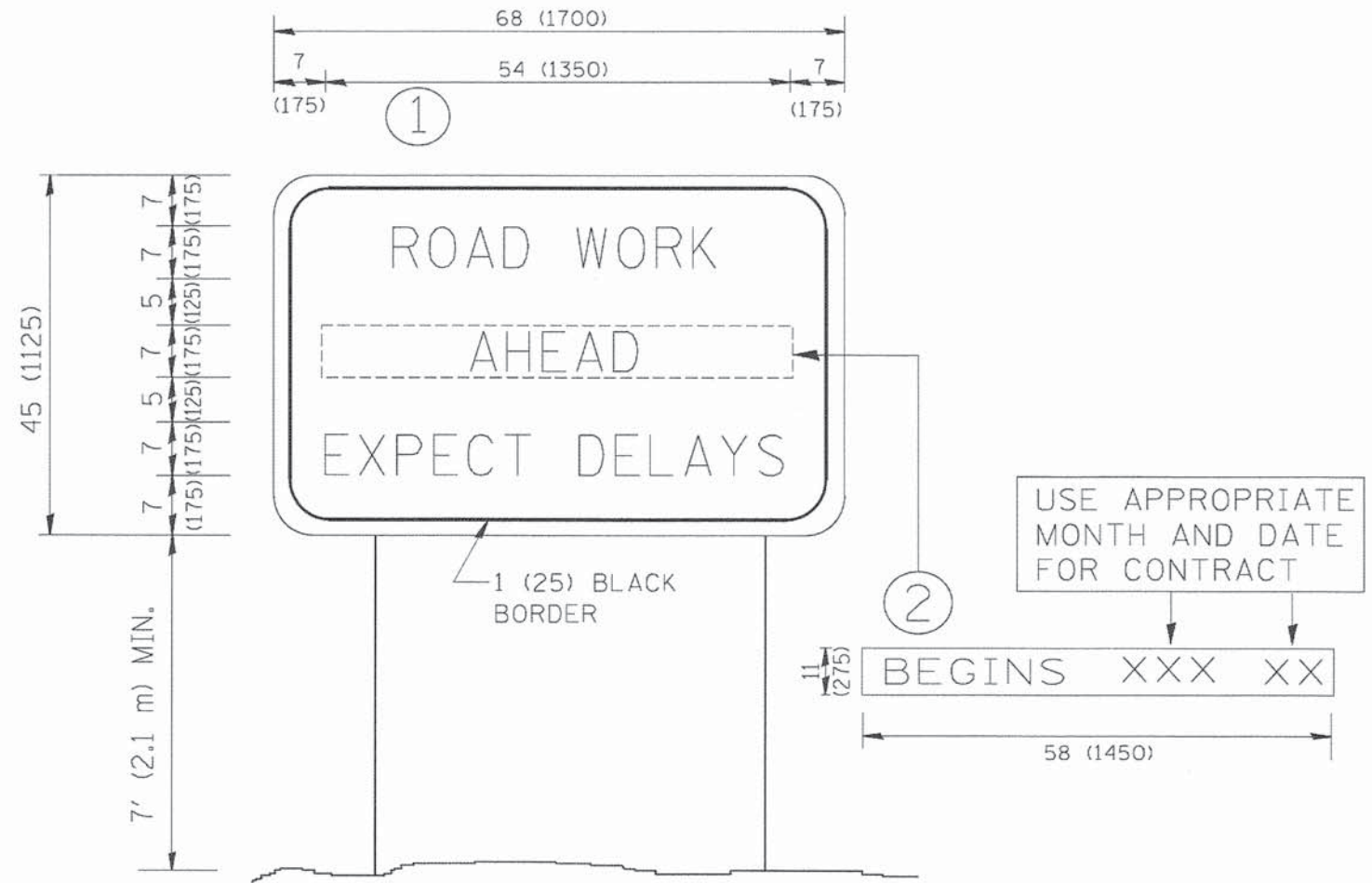
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS  
 FOR TRAFFIC STAGING

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00067-00-CH	MCHENRY	226	174
TC-16			CONTRACT NO. 63750	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

\*FAP 333, FAP 336, FAU 81



**NOTES:**

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

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

COMPANY NAME: MCHENRY  
 PROJECT CONTACT: 05-00067-00-CH  
 CLIENT: 080611-061-14.dgn  
 DATE PLOTTED: .DATEL. 3/31/07 PM  
 FILE NAME: 080611-061-14.dgn  
 PLOT DRIVER: pdf24pr  
 PEN TABLE: standard.ctb

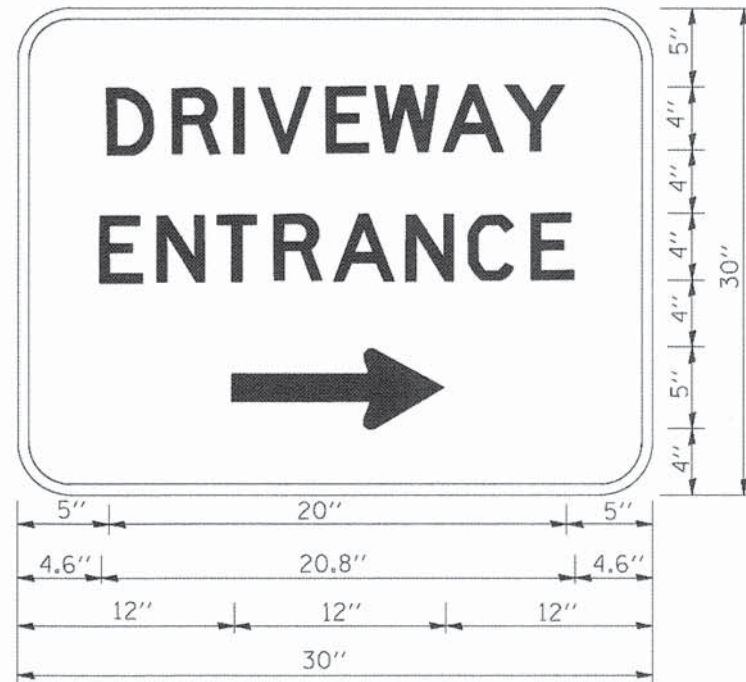
FILE NAME = H:\disto\td\22x34\to22.dgn	USER NAME = qeglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 / IN	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCLUS 01-31-07

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
 INFORMATION SIGN**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-00067-00-CH	MCHENRY	226	175
<b>TC-22</b>			CONTRACT NO. 63750	
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED  
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

**NOTES:**

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

COMPANY NAME: MCHENRY  
 PROJECT CONTACT: 05-0067-00-CH  
 CLIENT: 060611-001-15.dgn  
 DATE PLOTTED: 3:23:30 PM  
 FILE NAME: 060611-001-15.dgn  
 PLOT DRIVER: pcfplot  
 PEN TABLE: standard-trans.tbl

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M:\dstctcd\22x34\ts26.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

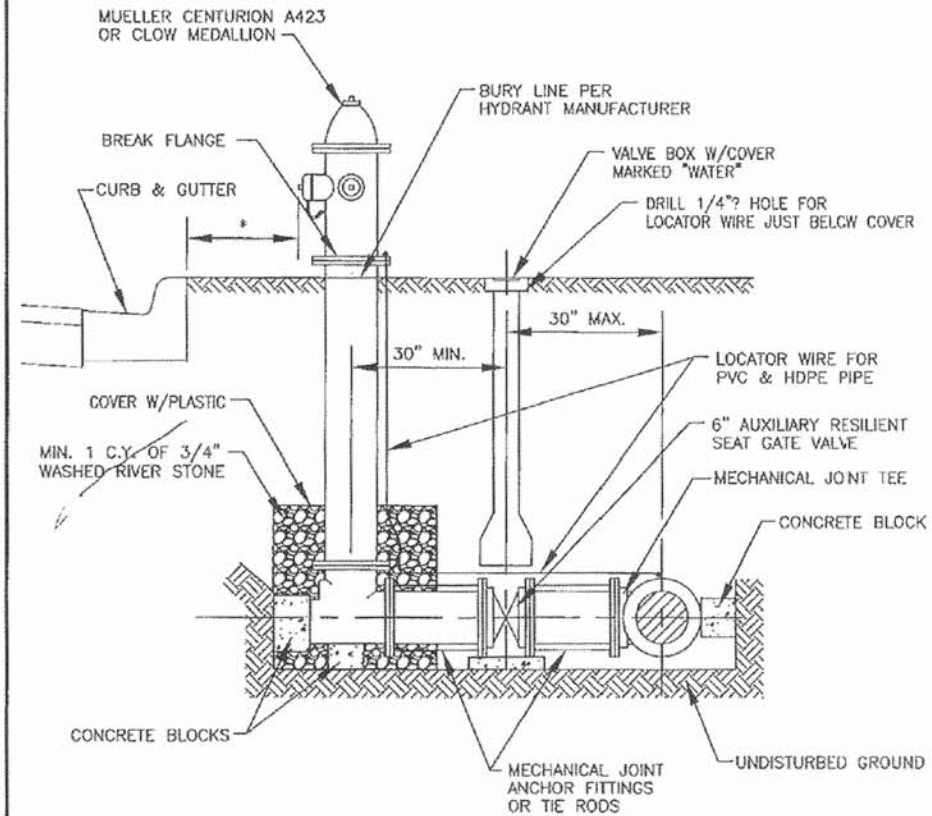
**DRIVEWAY ENTRANCE SIGNING**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-0067-00-CH	MCHENRY	226	176
<b>TC-26</b>			<b>CONTRACT NO. 63750</b>	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

NOTE: FIRE HYDRANTS SHALL BE MARKED WITH AN "X" ON THE NORTHWESTERN MOST FLANGE BOLT AND THE ELEVATION OF THE BOLT RECORDED ON THE RECORD DRAWING FOR THE PROJECT.

\* NO PART OF THE FIRE HYDRANT SHALL BE ANY CLOSER THAN 36" TO THE BACK OF CURB

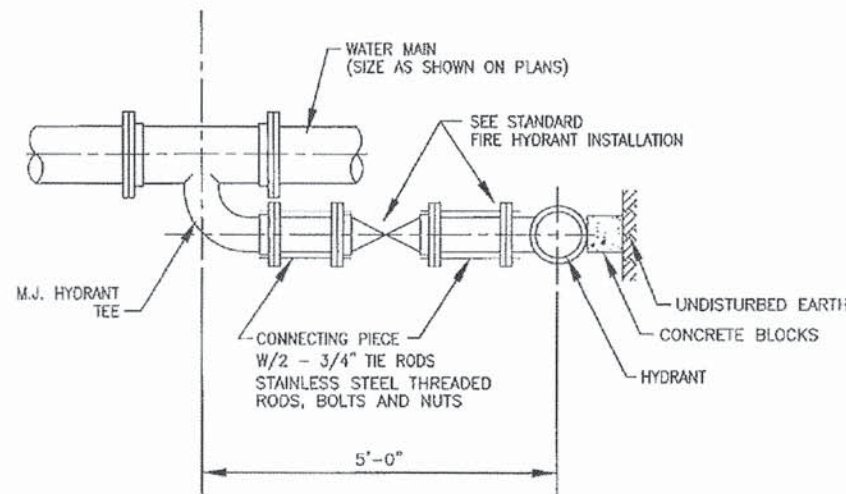


1. THREADED RODS AND NUTS SHALL BE "CORTEN STEEL"
2. BLOCKING AGAINST UNDISTURBED EARTH
3. RETAINING GLANDS

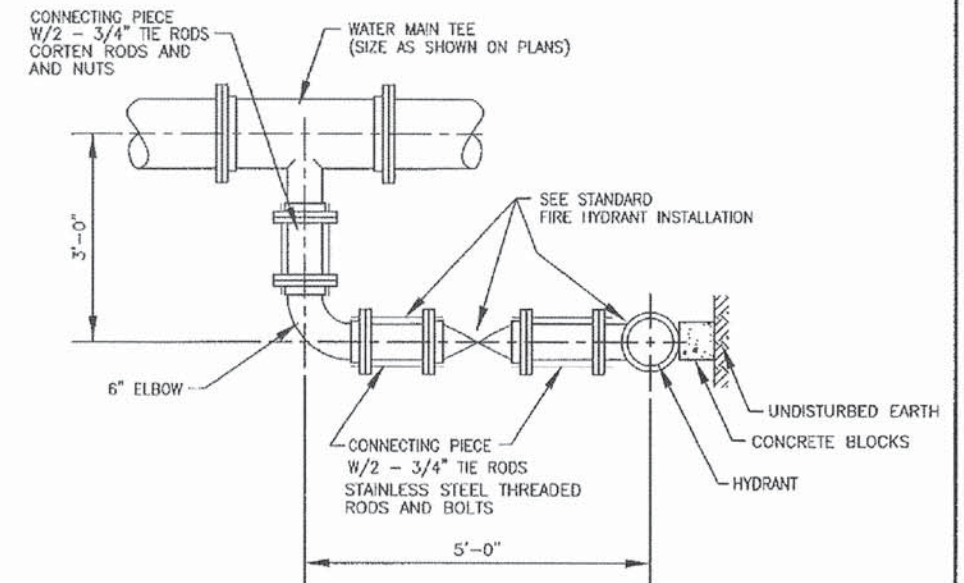
ACCEPTABLE FORMS OF BLOCKING SHALL BE ANY TWO COMBINATIONS OF THE METHODS 1, 2, OR 3 SHOWN ABOVE. AUXILIARY VALVES MUST USE METHODS 1 AND 3 TO CONNECT TO THE WATER MAIN.

F-3

F-4



1. ANY CHANGE OF DIRECTION REQUIRES RETAINER GLANDS AND BLOCKING
2. RETAINER GLANDS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.



1. ANY CHANGE OF DIRECTION REQUIRES RETAINER GLANDS AND BLOCKING
2. RETAINER GLANDS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.

F-5

FIRE HYDRANT  
INSTALLATION  
DETAIL

CITY OF  
McHENRY, ILLINOIS

REVISIONS	DATE
FINAL	6-20-03
LOCATOR WIRE	11-18-03
UPDATE	8-27-07

FIRE HYDRANT  
90° CONNECTION  
WATER MAIN SIZES  
6" THRU 12" IN DIAMETER

CITY OF  
McHENRY, ILLINOIS

REVISIONS	DATE
FINAL	6-20-03

FIRE HYDRANT  
90° CONNECTION  
WATER MAIN SIZES  
6" AND GREATER

CITY OF  
McHENRY, ILLINOIS

REVISIONS	DATE
FINAL	6-20-03

COMPANY NAME: HRGreen  
PROJECT CONTACT: HRGreen.com  
CLIENT: HRGreen.com  
DATE PLOTTED: 08/01/08 12:00pm  
FILE NAME: F-3.dwg  
PLOT TABLE: STANDARD-FRONT.tbl



USER NAME	DESIGNED	REVISIONS	DATE
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	DRAWN	-	-
	CHECKED	-	-
	DATE	-	-

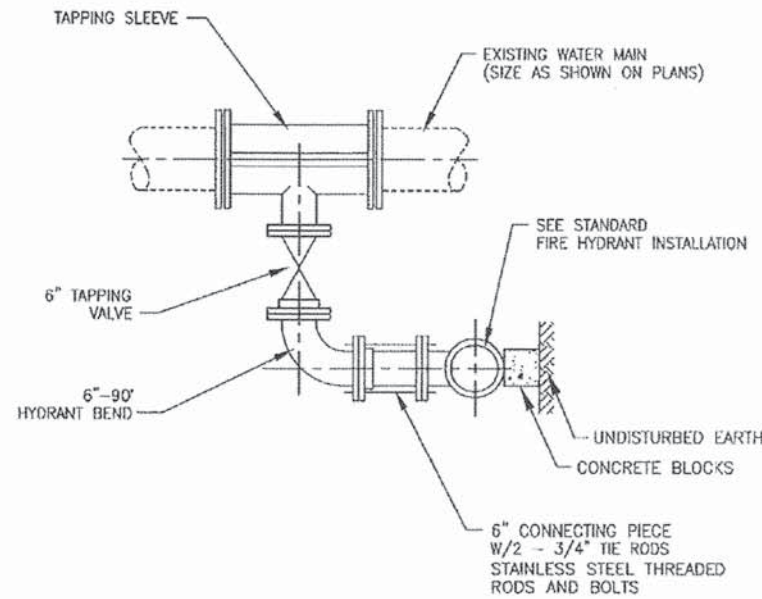
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CITY OF McHENRY DETAILS

SCALE: SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	05-0067-00-CH	McHENRY	226	177
•	FAP 333, FAP 336, FAU 81	CONTRACT NO.	63750	
ILLINOIS FED. AID PROJECT				

F-6

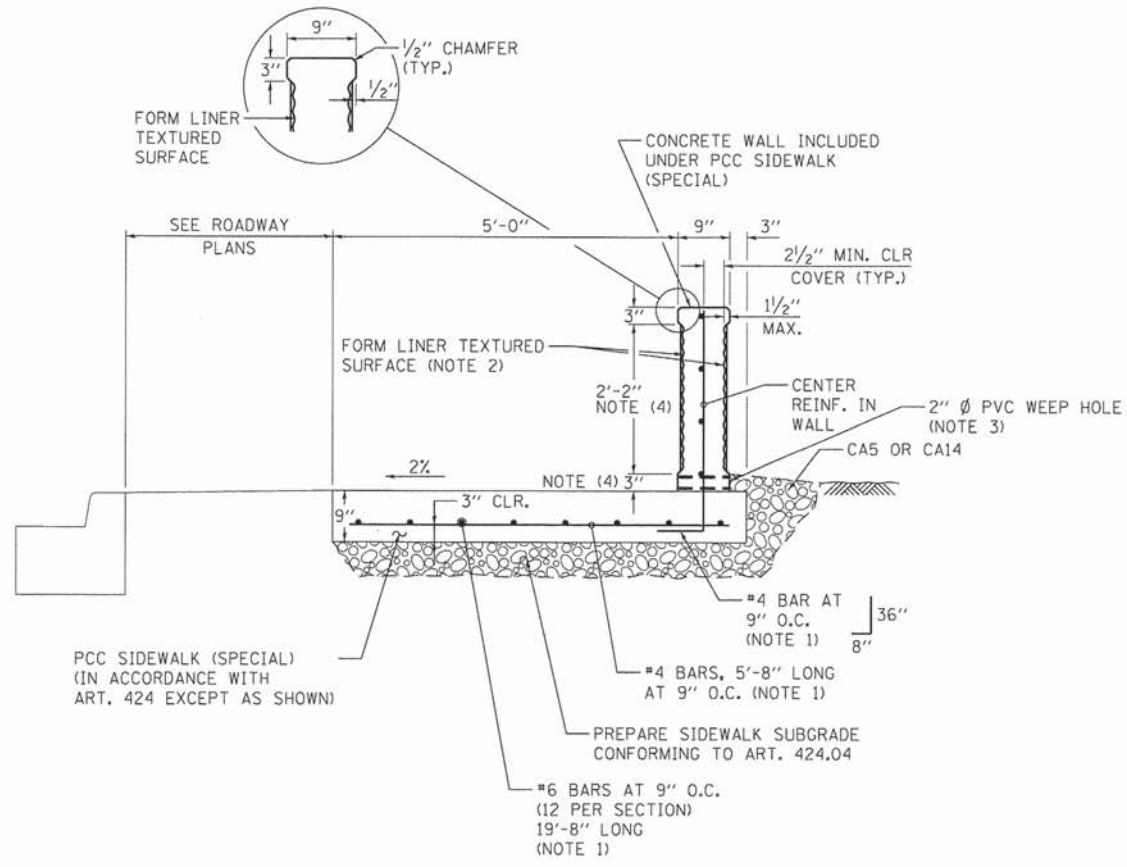


1. ANY CHANGE OF DIRECTION REQUIRES RETAINER GLANDS AND BLOCKING
2. RETAINER GLANDS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.

FIRE HYDRANT  
90° PRESSURE TAP

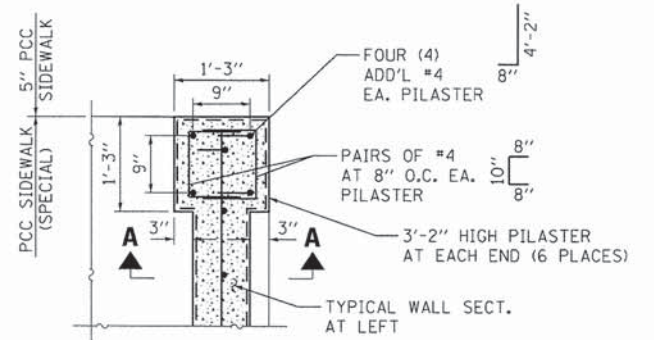
CITY OF  
McHENRY, ILLINOIS

REVISIONS	DATE
FINAL	6-20-03

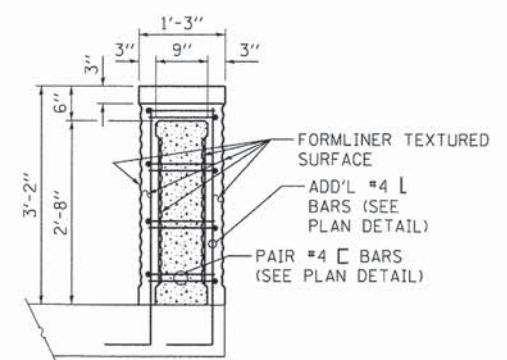


**SECTION PCC SIDEWALK (SPECIAL)**  
TYPICAL SECTION

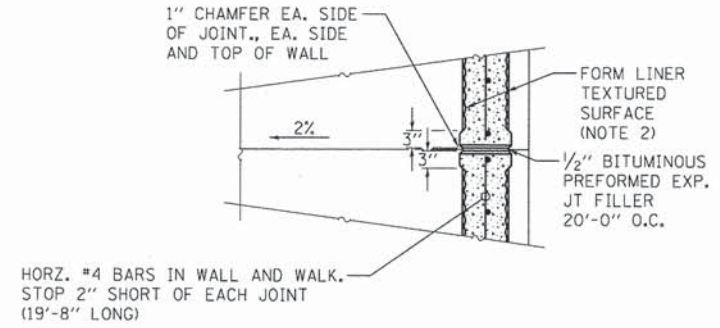
- NOTES: PCC SIDEWALK (SPECIAL)
1. REINFORCING BARS SHALL BE EPOXY COATED AND SHALL BE FURNISHED IN CONFORMANCE WITH SECTION 508. COST TO FURNISH AND PLACE REINFORCING BARS (APPROXIMATELY 26 POUNDS PER LF AS SHOWN IN PLAN) SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LINEAR FOOT OF PCC SIDEWALK (SPECIAL).
  2. THE WALL AND SIDEWALK PORTIONS OF PCC SIDEWALK (SPECIAL) SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 503 (FOR WALL, FORMLINER AND REINFORCING BAR PLACEMENT) AND SECTION 424 FOR THE SLAB PORTION). FORM LINER TEXTURED SURFACE SHALL BE FURNISHED AND CONSTRUCTED IN ACCORDANCE WITH ARTICLE 503.06(A) BUT THE COST OF THE FORMLINER SURFACE COLORATION AND SAMPLE NOTED IN 503.06 (c) SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LINEAR FOOT OF PCC SIDEWALK (SPECIAL).  
THE FORMLINER PATTERN SHALL FIT THE FOLLOWING DIMENSIONAL CRITERIA:  
RELIEF: 5/8" TO 1" DEEP  
STONE WIDTH: 5" TO 30" (RANDOM, VARIABLE)  
STONE COURSE HEIGHT: 3" TO 6"  
ACCEPTABLE PATTERNS INCLUDE:  
FITZGERALD FORMLINER #17027 (3/4" LINEAR CUT ASHLAR)  
CUSTOM ROCK #12005 (BEARPATH COURSED STONE)  
CUSTOM ROCK #12010 (MINNEHAHA BLEND)  
CUSTOM ROCK #12018 (OHIO LIMESTONE)  
ALL FORMLINER TEXTURED SURFACES SHALL RECEIVE SURFACE COLORATION. SEE SPECIAL PROVISIONS FOR PPC SIDEWALK (SPECIAL).
  3. TWO (2) PVC WEEPHOLES (1 3/4 " OR 2" DIAMETER SCHEDULE 40 PVC) SHALL BE FURNISHED FOR EACH 20'-0" WALL PANEL. THE WEEPHOLES SHALL BE LOCATED 5'-0" FROM EACH END OR JOINT. BOTTOM OF WEEPHOLE SHALL BE 1/4" TO 3/4" ABOVE THE SIDEWALK SURFACE.
  4. THE WALL AND FORMLINER HEIGHT SHALL MATCH THE DETAILS GIVEN AT EACH JOINT AND AT EACH END. THE TOP OF WALL AND TOP AND BOTTOM OF FORMLINER MAY BE CURVED TO MATCH THE ROADWAY PROFILE OR CONSTRUCTED TANGENT BETWEEN EACH JOINT/END LOCATION SUCH THAT A SERIES OF PARALLEL CHORDS CONNECT EACH JOINT/END LOCATION.



**PCC SIDEWALK (SPECIAL)**  
END OF WALL DETAIL  
(TYPICAL 6 PLACES)



**SECTION A-A**



**PCC SIDEWALK (SPECIAL)**  
EXPANSION JOINT DETAIL  
TYPICAL 20'-0" CENTER

COMPANY NAME: HRGreen  
PROJECT CONTACT: HRGreen.com  
DATE: 08/05/11 08:21:09  
DRAWN BY: jme/hui  
FILE NAME: pcc\_sidewalk  
PLOT DRIVER: standard-trans.tbl



USER NAME	DESIGNED	REVISED
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	-	-
	-	-
	-	-

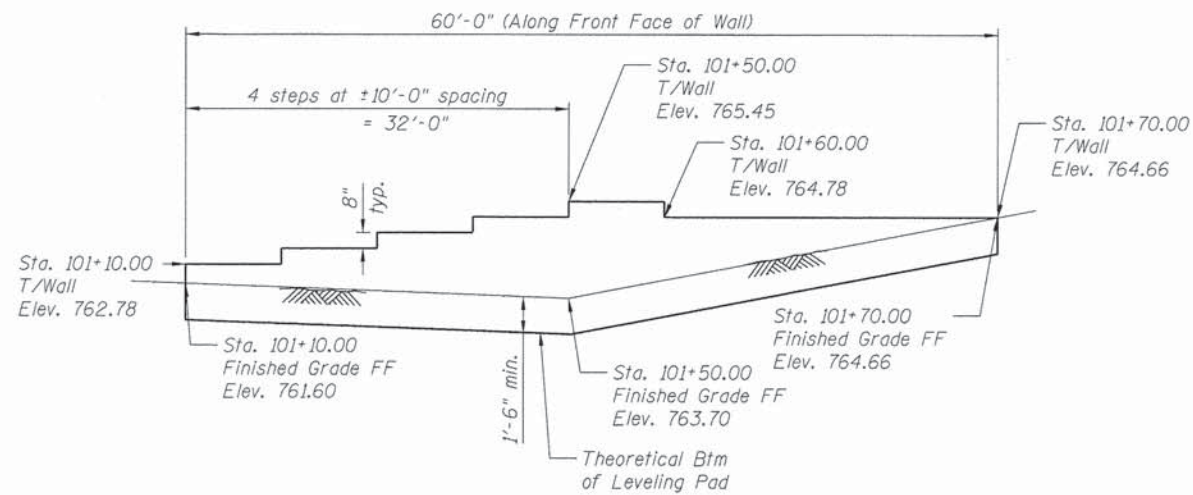
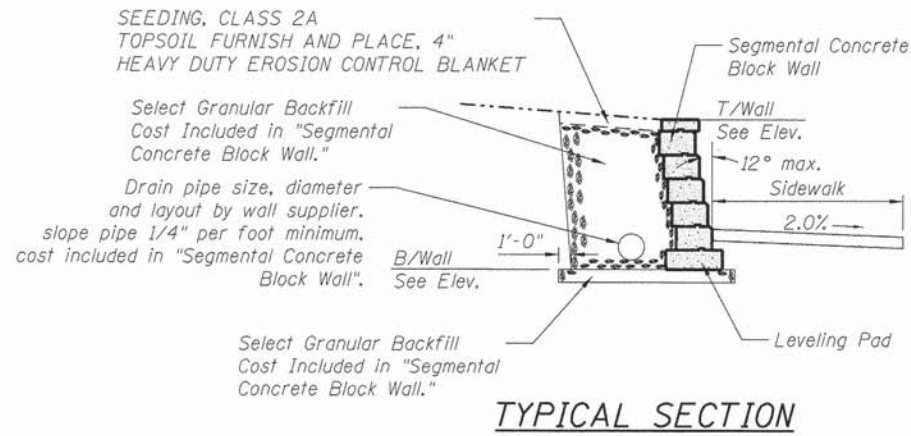
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CITY OF McHENRY DETAILS

SCALE: SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00067-00-CH	McHENRY	226	178
	FAP 333, FAP 336, FAU 81			

CONTRACT NO. 63750  
ILLINOIS FED. AID PROJECT



COMPANY NAME:  
PROJECT CONTACT:  
CLIENT:  
DATE PLOTTED:  
FILE NAME:  
PLOT DRIVER:  
PEN TABLE:



HRGreen.com  
Illinois Professional Design Firm  
# 184-001322

USER NAME = jme1hu1	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = .DATE1.	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

RETAINING WALL DETAIL

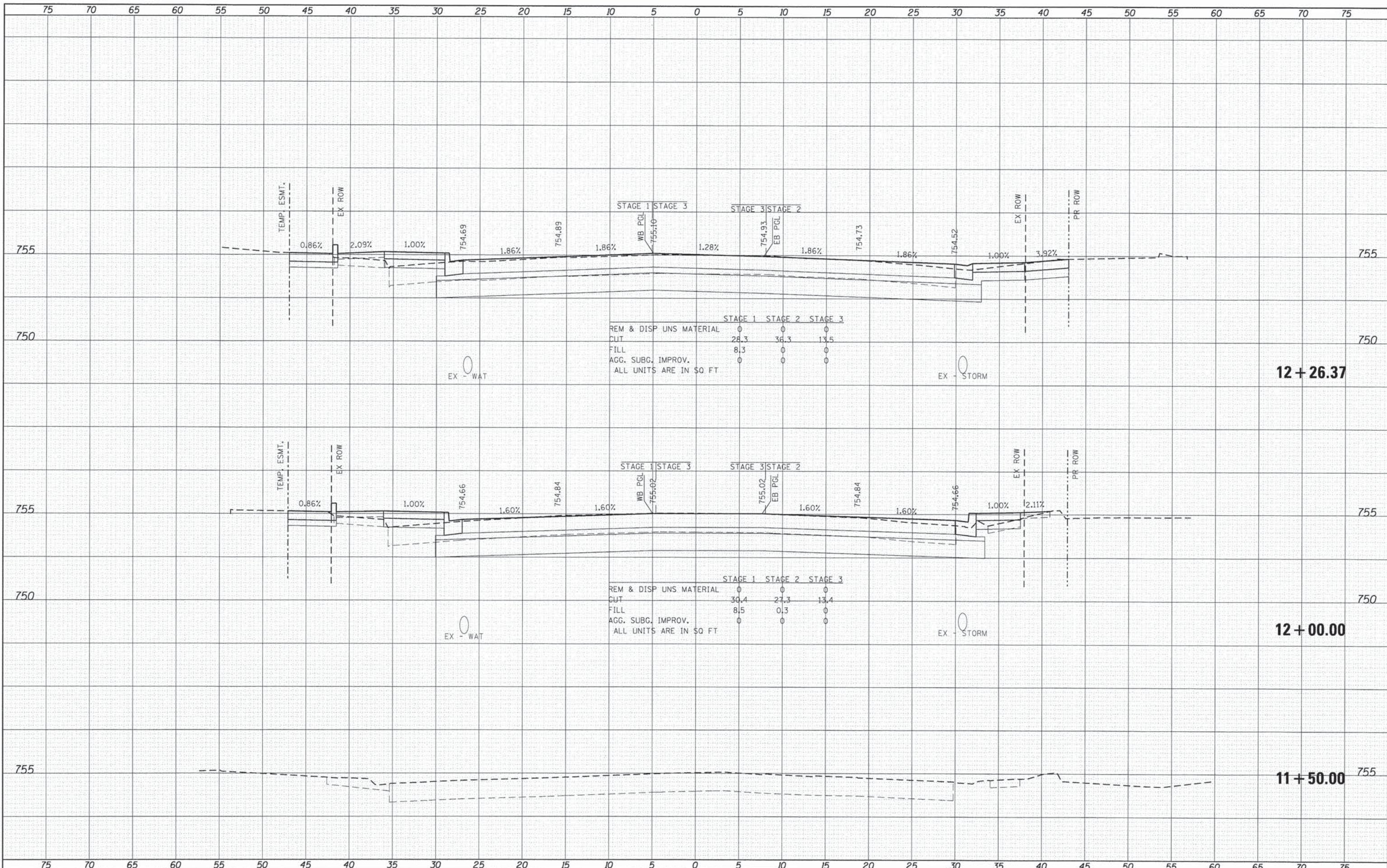
SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	05-00067-00-CH	MCHENRY	226	179
* FAP 333, FAP 336, FAU 81		CONTRACT NO. 63750		
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMP. DATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMP. DATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: JRM  
 CLIENT: STATE OF ILLINOIS  
 DATE PLOTTED: 4/21/17 PM  
 FILE NAME: 080617-SM1-vol20.dgn  
 PLOT DRIVER: perfu@hr.com  
 PEN TABLE: 6/standard-trans.tbl

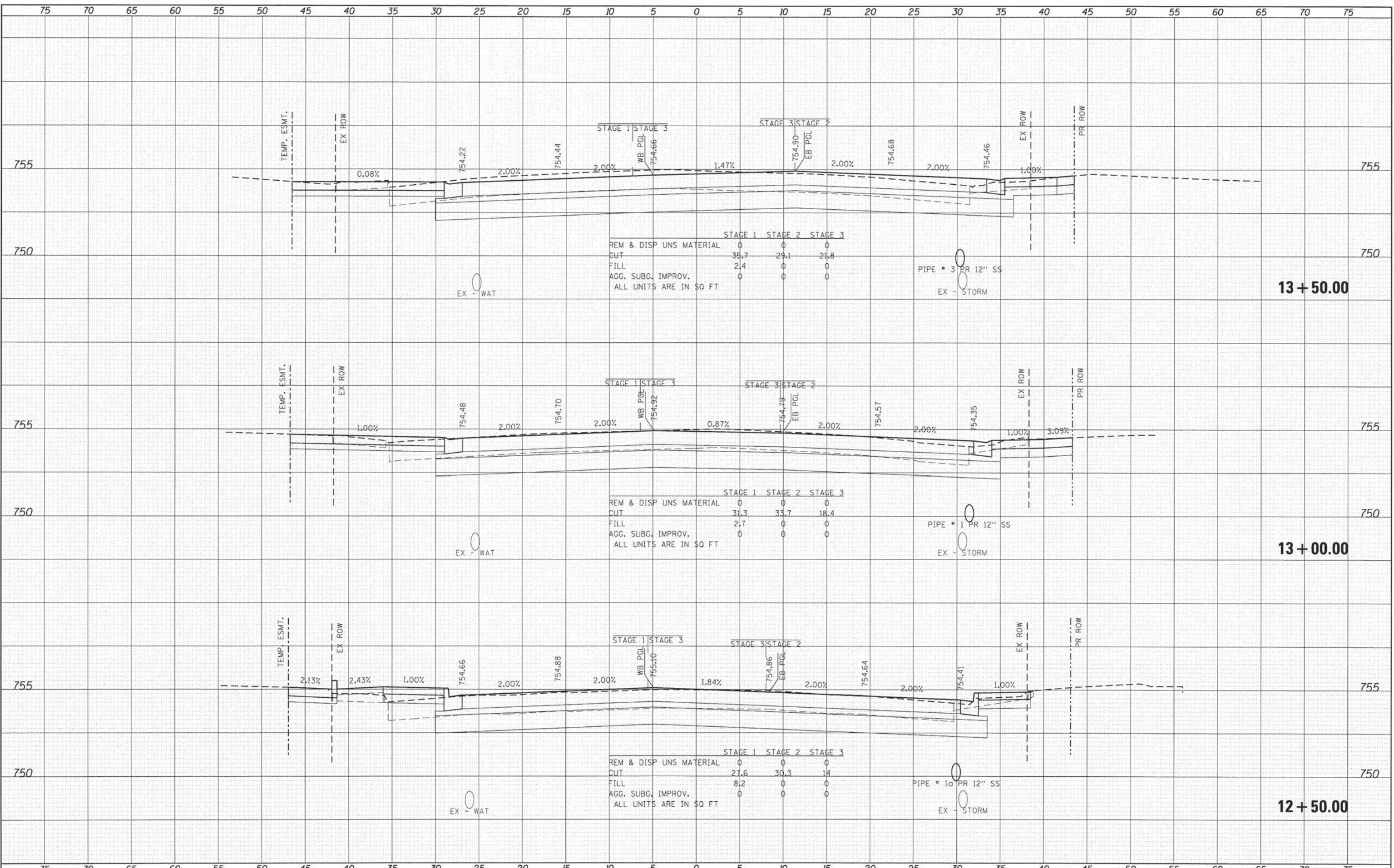




DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	

DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	

COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: jme@hr.com  
 CLIENT: STATE OF ILLINOIS  
 DATE PLOTTED: 05/20/20  
 FILE NAME: 05-0067-SH-xd20.dgn  
 PLOT DRIVER: pdt2000  
 PLOT TABLE: standard-11x17.tbl



	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	0	0	0
CUT	35.7	29.1	21.8
FILL	2.4	0	0
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

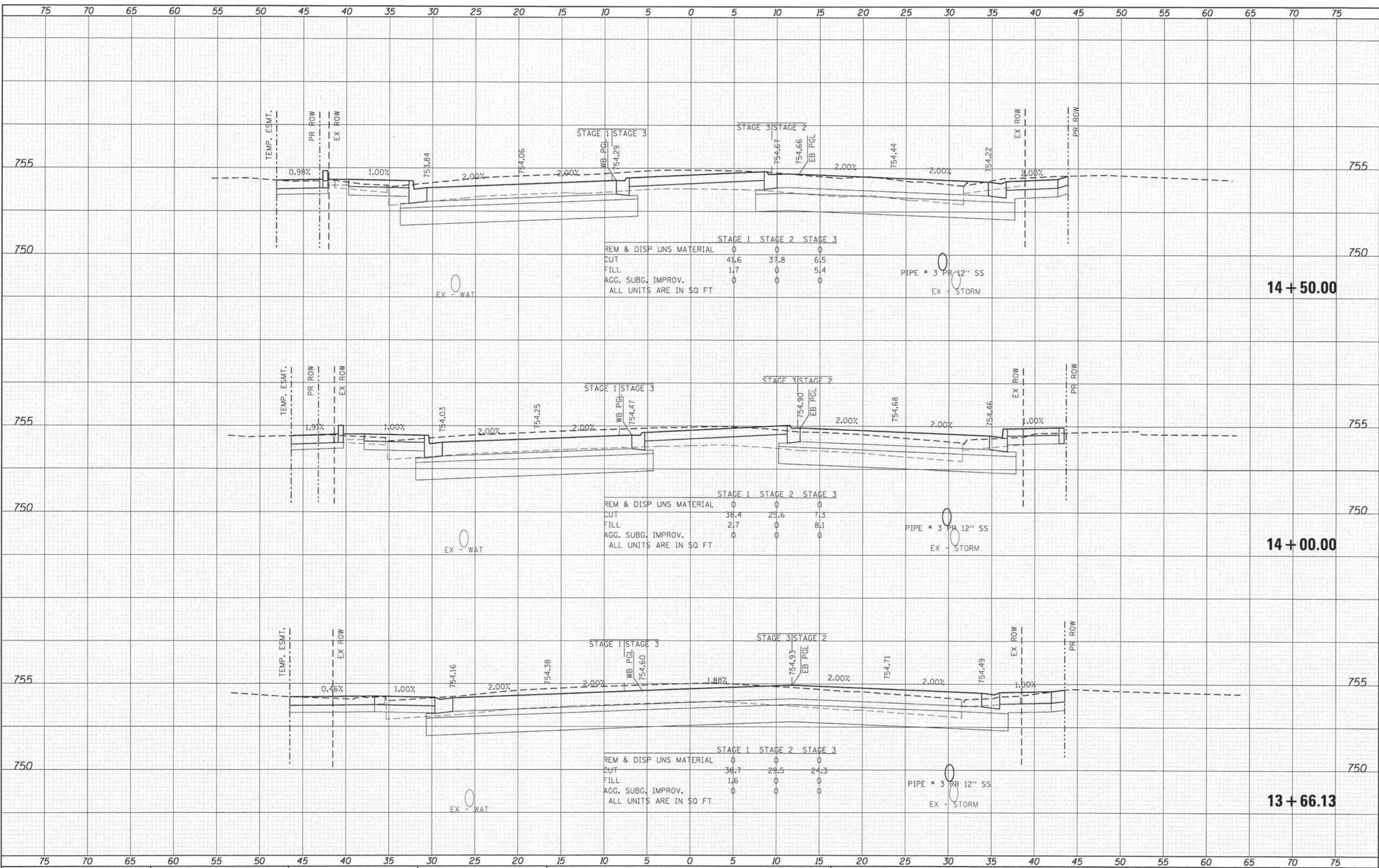
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REM & DISP UNS MATERIAL	0	0	0
CUT	31.3	33.7	18.4
FILL	2.7	0	0
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	0	0	0
CUT	27.6	30.3	14
FILL	8.2	0	0
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: jme1hu  
 CLIENT: HRGreen.com  
 DATE PLOTTED: 06/06/17 04:26:24 PM  
 FILE NAME: 090617-SH1-KS120.dgn  
 PLOT DRIVER: pctdprt  
 PLOT TABLE: 090617-Trans.tbl



USER NAME = jme1hu	DESIGNED - JRM	REVISED -
	DRAWN -	REVISED -
PLOT SCALE =	CHECKED - TH	REVISED -
PLOT DATE = DATEL	DATE -	REVISED -

STAGE 1	STAGE 2	STAGE 3	
REM & DISP UNS MATERIAL	0	0	0
CUT	41.6	37.8	6.5
FILL	1.7	0	5.4
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

STAGE 1	STAGE 2	STAGE 3	
REM & DISP UNS MATERIAL	0	0	0
CUT	38.4	25.6	7.3
FILL	2.7	0	8.1
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

STAGE 1	STAGE 2	STAGE 3	
REM & DISP UNS MATERIAL	0	0	0
CUT	36.7	29.5	24.3
FILL	1.6	0	0
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS  
 ILLINOIS ROUTE 120

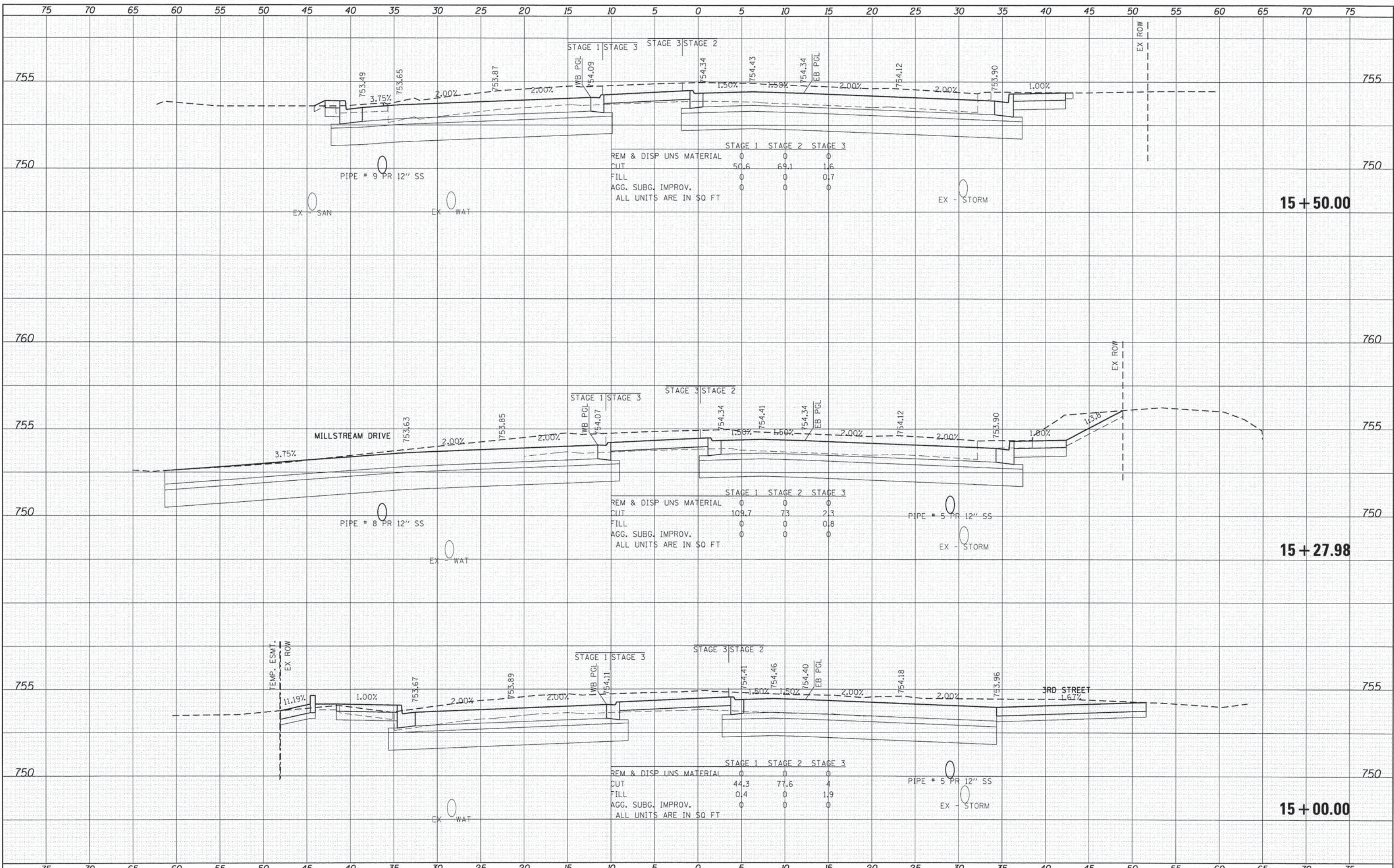
SCALE: SHEET 3 OF 14 SHEETS STA. 13+66.13 TO STA. 14+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00067-00-CH	MCHENRY	226	182
	FAP 333, FAP 336, FAU B1	MCHENRY	CONTRACT NO. 63750	
			ILLINOIS FED. AID PROJECT 63750	

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TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
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ORIGINAL SURVEY	
NOTE BOOK	
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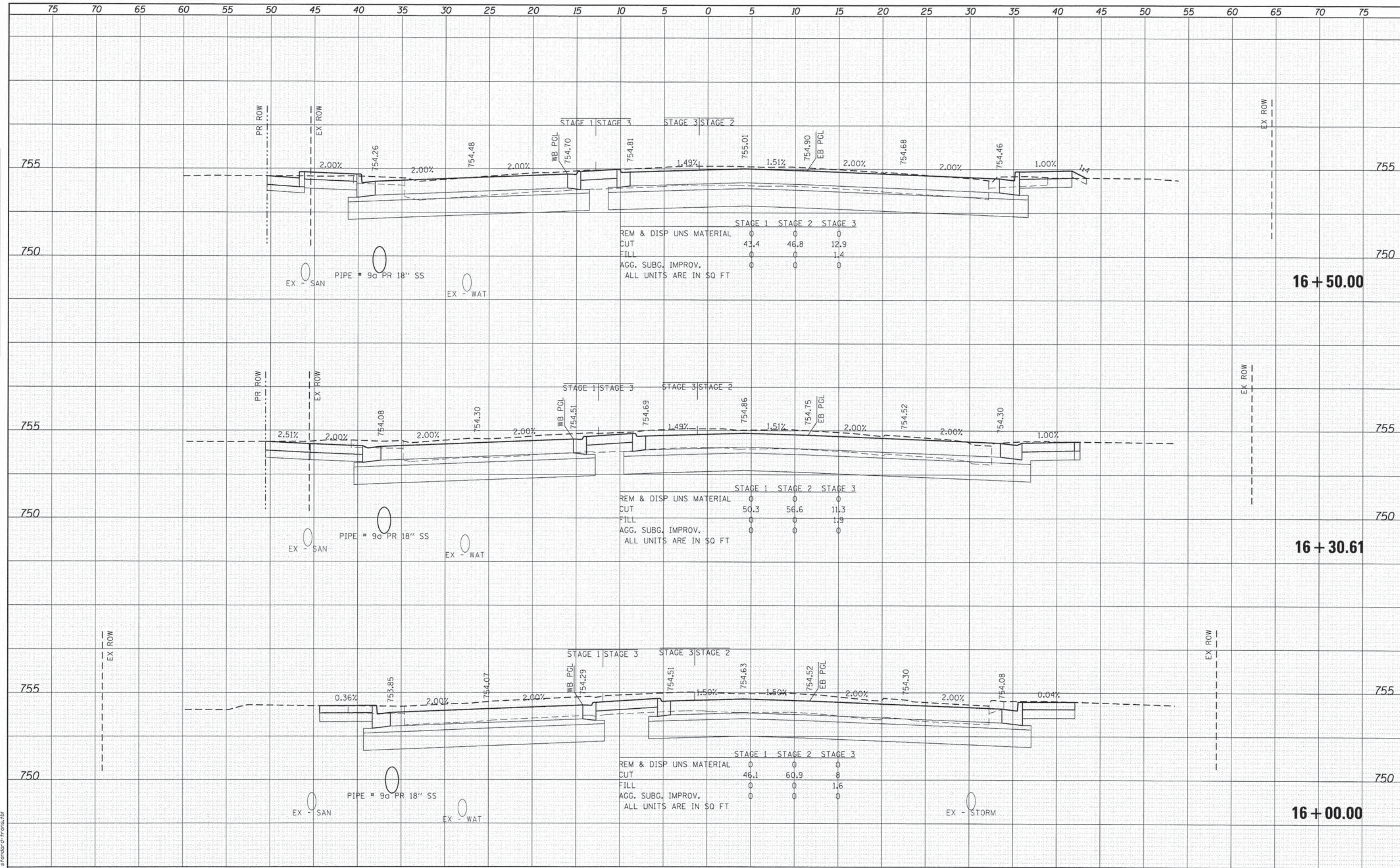
COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: JRM  
 CLIENT: HRGreen  
 DATE PLOTTED: 08/06/11-SH-XR20.dgn  
 FILE NAME: p07.dgn  
 PLOT DRIVER: standard-trans.tbl



DATE	
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DRAWN	
CHECKED	
DATE	
REVISIONS	
NO.	

DATE	
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DESIGNED	
DRAWN	
CHECKED	
DATE	
REVISIONS	
NO.	

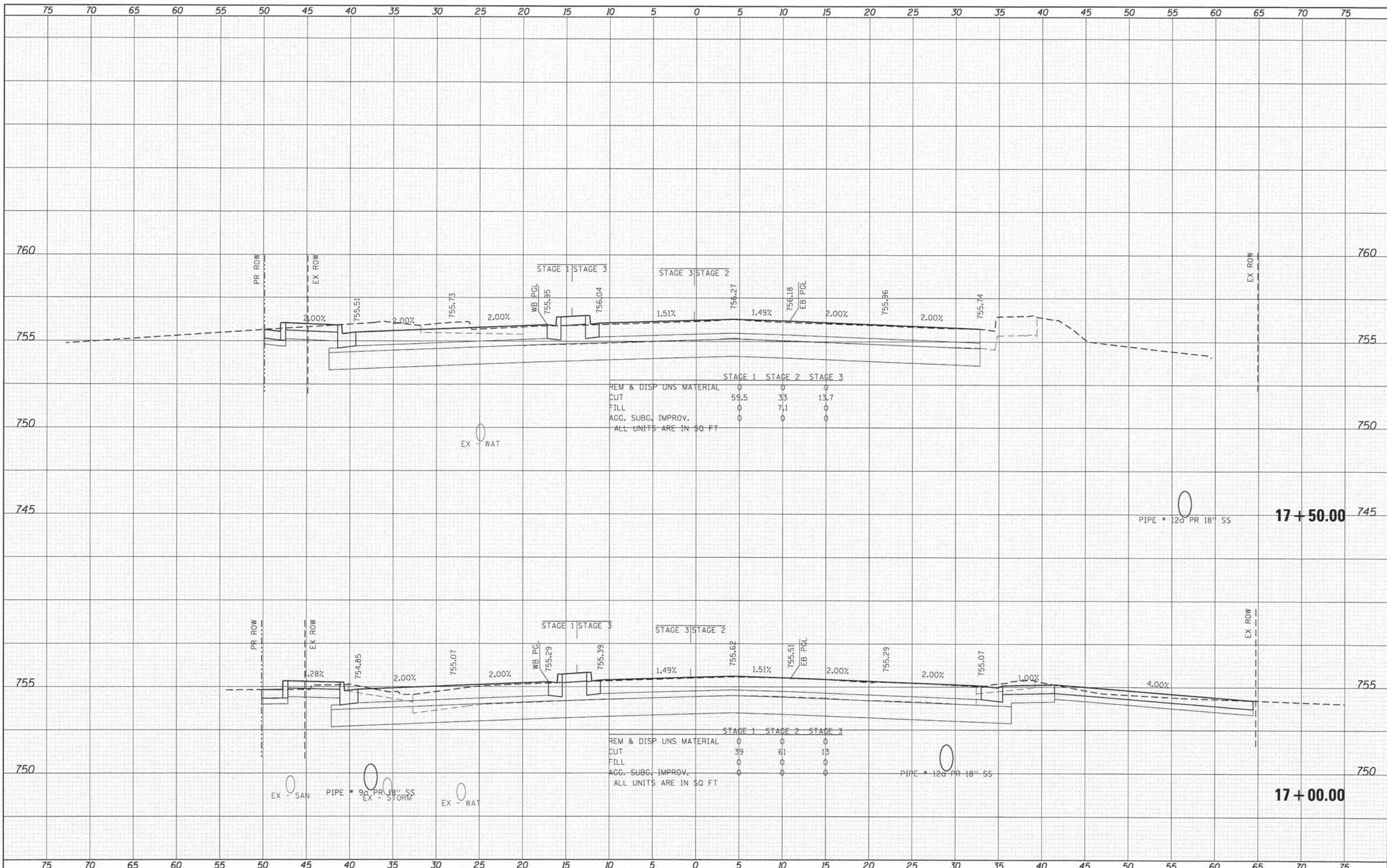
COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: Illinois Professional Design Firm #184-001322  
 DATE: 4/21/22 PM  
 FILE NAME: 060607-SH1-xd2020.dgn  
 PLOT NUMBER: 16+50.00  
 PEN TABLE: s:\pen\p-11000.tbl



FINAL SURVEY	DATE
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NOTE BOOK	
AREAS CHECKED	
NO.	

ORIGINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: jme/hut  
 CLIENT: -DATEL- 4/21/16 PM  
 DATE PLOTTED: 08/06/17-SHF-ws120.dgn  
 FILE NAME: pef/dp#  
 PLOT DRIVER: s:\standard\trans.tbl  
 PEN TABLE:



	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	0	0	0
CUT	59.5	33	13.7
FILL	0	7.1	0
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

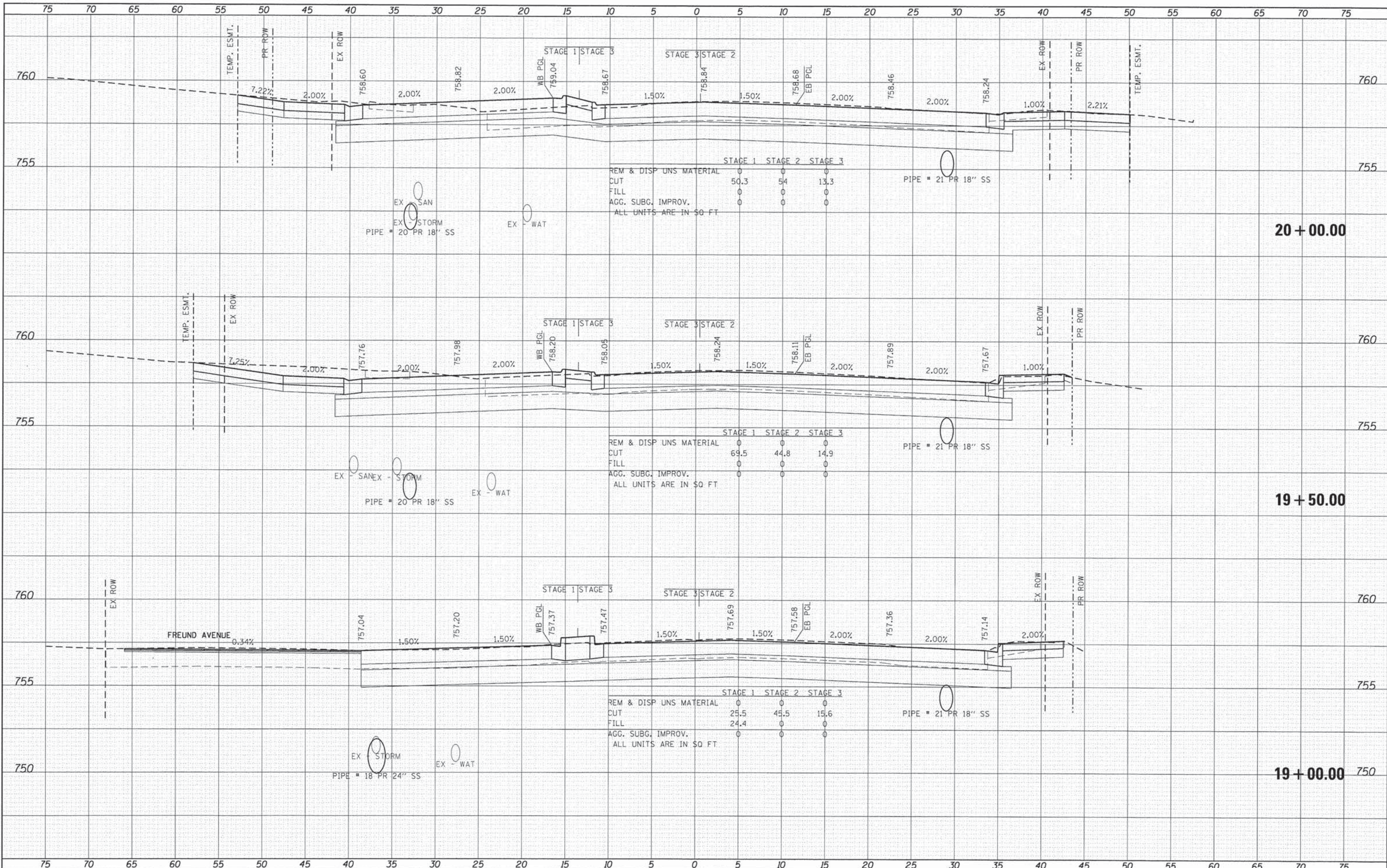
	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	0	0	0
CUT	39	61	13
FILL	0	0	0
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			



DATE	
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TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
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ORIGINAL SURVEY	
NOTE BOOK	
AREAS CHECKED	
NO.	

COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: Illinois Professional Design Firm  
 #184-001322  
 CLIENT: HRGreen  
 DATE PLOTTED: 08/06/11 5:42:42 PM  
 FILE NAME: 090611-SM1-ws120.dgn  
 PLOT DRIVER: pct10.plt  
 PEN TABLE: standard.ctb



STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS  
 ILLINOIS ROUTE 120

USER NAME = jmelhu	DESIGNED - JRM	REVISED -
	DRAWN -	REVISED -
PLOT SCALE =	CHECKED - TH	REVISED -
PLOT DATE = .DATEL	DATE -	REVISED -

SCALE: SHEET 8 OF 14 SHEETS STA. 19+00.00 TO STA. 20+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00067-00-CH	MCHENRY	226	187
	FAP 333, FAP 336, FAU 81		CONTRACT NO.	63750
			ILLINOIS FED. AID PROJECT	63750



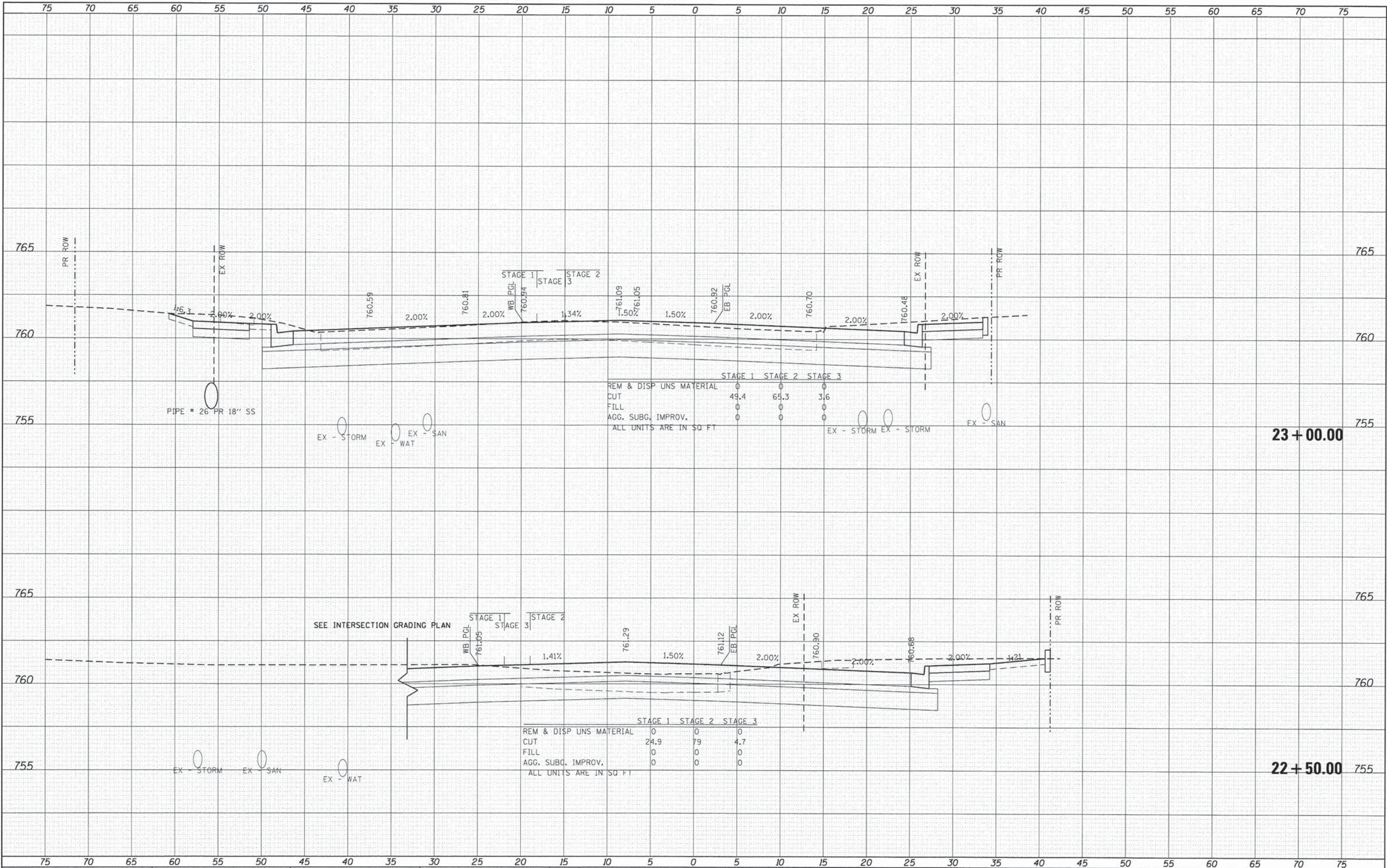




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TEMPLATE	
NOTE BOOK	
AREAS CHECKED	

DATE	
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ORIGINAL SURVEY	
NOTE BOOK	
AREAS CHECKED	

COMPANY NAME: HRGreen  
 PROJECT CONTACT: HRGreen.com  
 CLIENT: Illinois Professional Design Firm  
 DATE PLOTTED: 08/06/17 - 08/17/17  
 FILE NAME: 05-0067-00-CH-190.dgn  
 PLOT DRIVER: pdfcut  
 PLOT TABLE: standard-trans.tbl



	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	0	0	0
CUT	49.4	65.3	31.6
FILL	0	0	0
AGG. SUBG. IMPROV.	0	0	0

ALL UNITS ARE IN SQ FT

	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	0	0	0
CUT	24.9	79	4.7
FILL	0	0	0
AGG. SUBG. IMPROV.	0	0	0

ALL UNITS ARE IN SQ FT

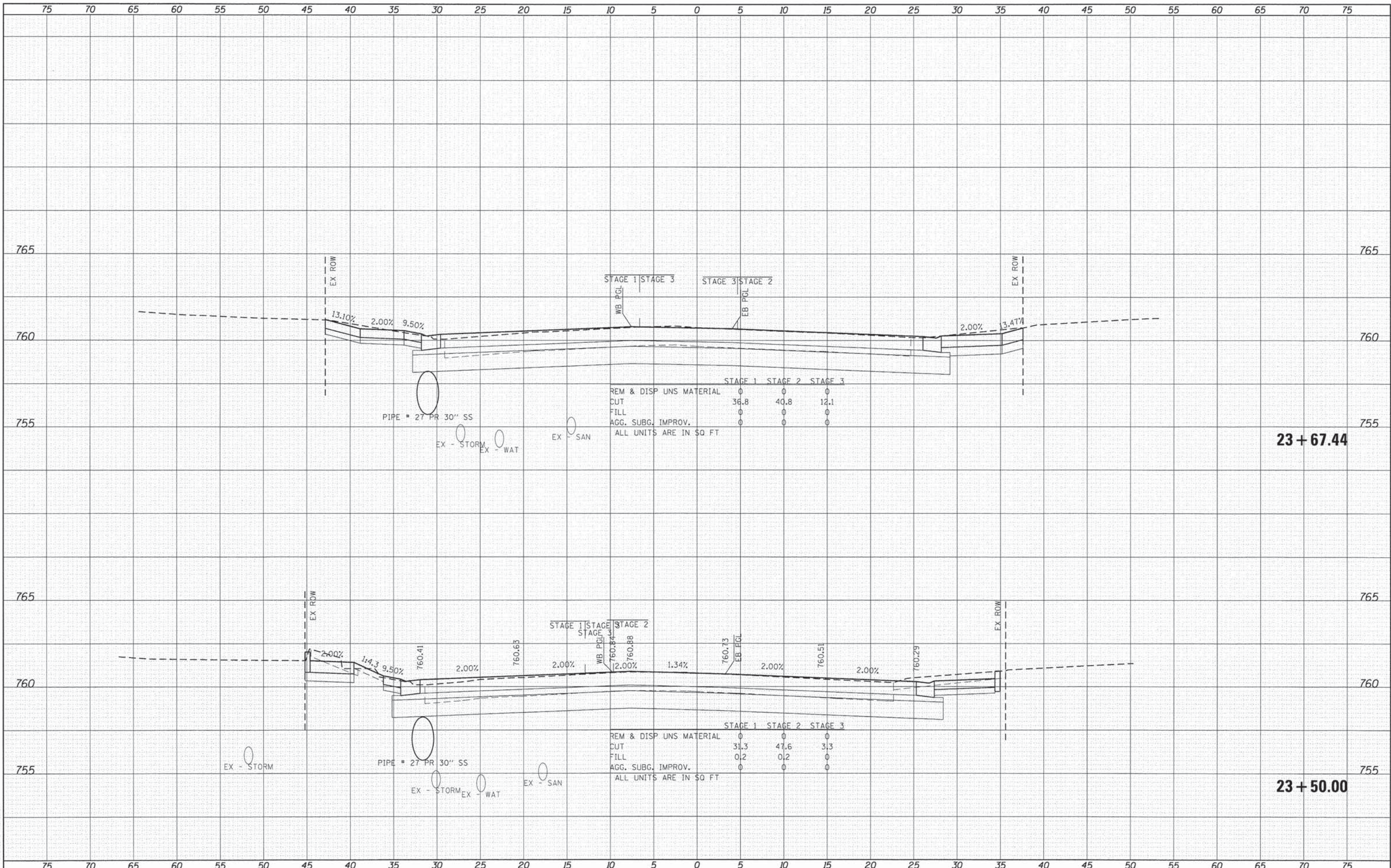
23 + 00.00

22 + 50.00

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DATE	
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SURVEY	
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COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: jme@hrg.com  
 CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DATE PLOTTED: 4/21/16 PM  
 FILE NAME: 080611-SHF-vsl20.dgn  
 PLOT DRIVER: perf.plt  
 PEN TABLE: Standard-Trans.tbl



USER NAME	= jme@hrg.com
DESIGNED	- JRM
REVIS	-
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REVIS	-

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED CROSS SECTIONS  
ILLINOIS ROUTE 120**

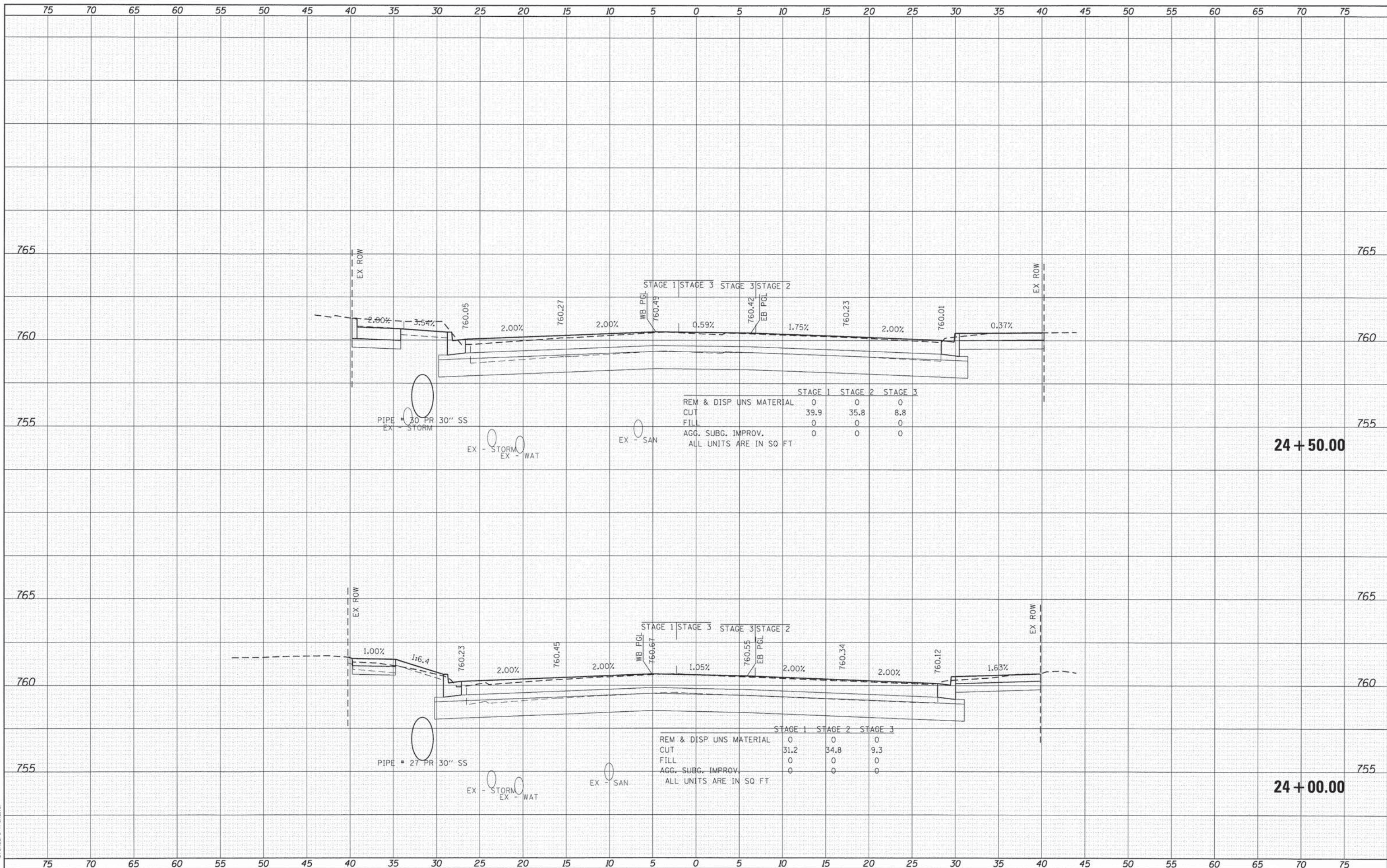
SCALE: SHEET 12 OF 14 SHEETS STA. 23+50.00 TO STA. 23+67.44

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
.	05-00067-00-CH	MCHENRY	226	191
* FAP 333, FAP 336, FAU 81			CONTRACT NO.	63750
			ILLINOIS FED. AID PROJECT	63750

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NOTE BOOK	
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NOTE BOOK	
AREAS CHECKED	
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COMPANY NAME: HRGreen  
 PROJECT CONTACT: jmelhus  
 CLIENT: HRGreen.com  
 DATE PLOTTED: 08/06/11 4:21:59 PM  
 FILE NAME: 080611-SHT-ns120.dgn  
 PLOT DRIVER: pdf24pt  
 PEN TABLE: standard-trans.tbl



	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	0	0	0
CUT	39.9	35.8	8.8
FILL	0	0	0
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

**24 + 50.00**

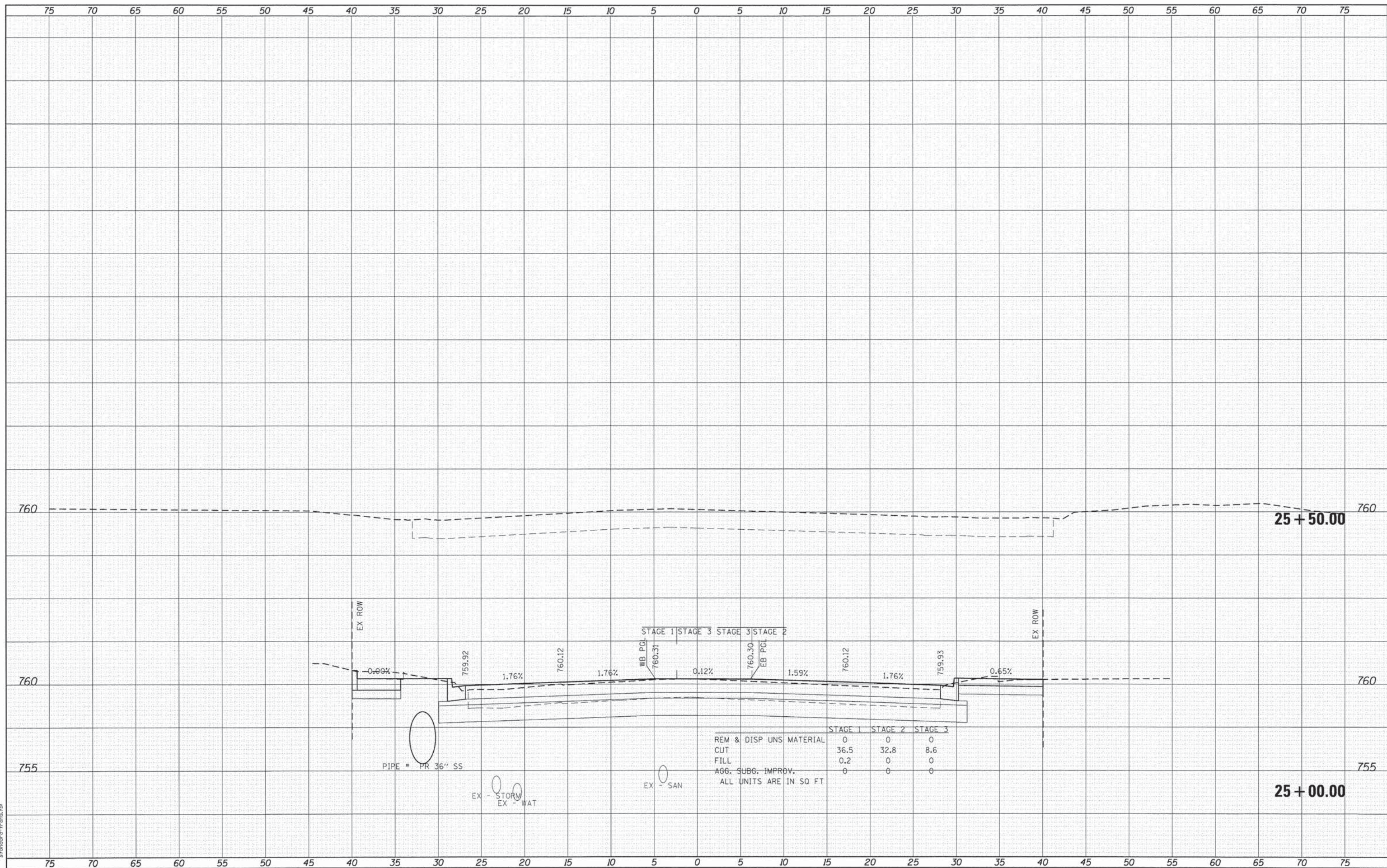
	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	0	0	0
CUT	31.2	34.8	9.3
FILL	0	0	0
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

**24 + 00.00**

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NOTE BOOK	
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AREAS CHECKED	

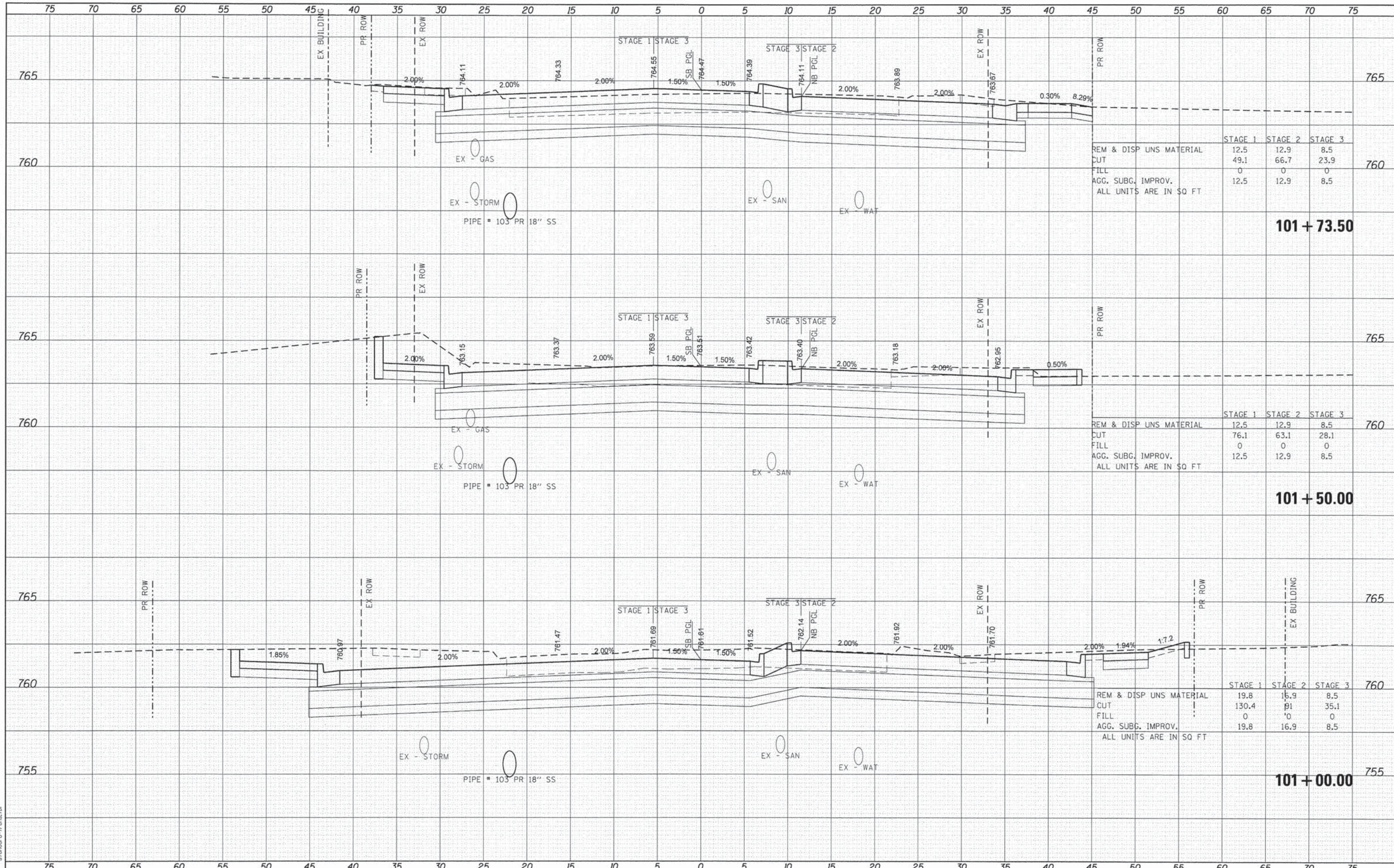
COMPANY NAME: HRGreen  
 PROJECT CONTACT: HRGreen.com  
 CLIENT: DATE: 4/23/2012 PM  
 DRAWN BY: 08/01/11-SJT-ws120.dgn  
 FILE NAME: perLah  
 PLOT DRIVER: s:\standard-frames.tbl  
 PEN TABLE:



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NOTE BOOK	
AREAS CHECKED	

COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: Illinois Professional Design Firm #194-001322  
 DATE: 4/22/12 PM  
 FILE NAME: 080601-SHT-x631.dgn  
 PLOT DRIVER: pdf.plt  
 PLOT TABLE: standard-trans.tbl

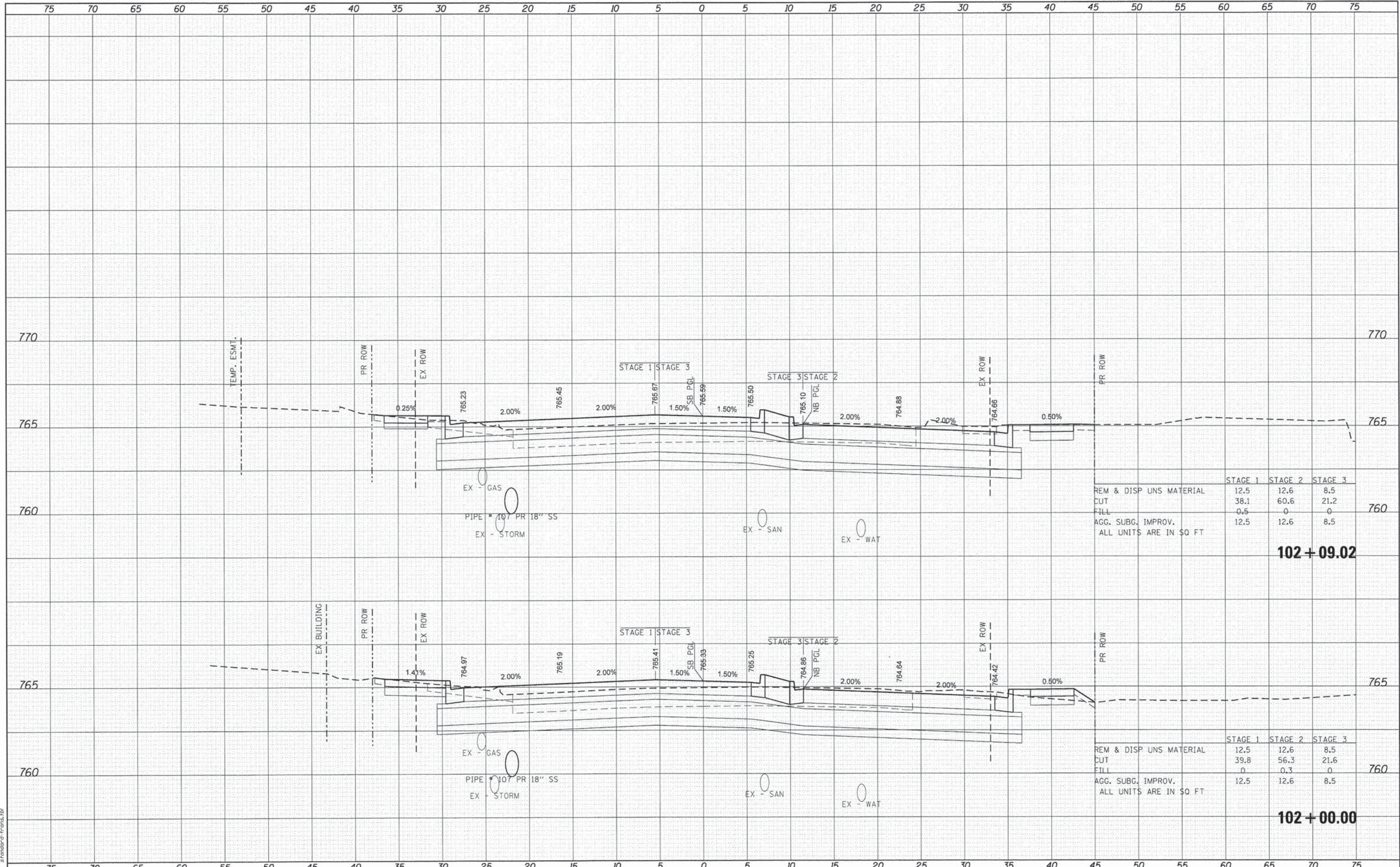


USER NAME = jmethu DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED CROSS SECTIONS</b> <b>ILLINOIS ROUTE 31</b>	SCALE: SHEET 1 OF 33 SHEETS STA. 101+00.00 TO STA. 101+73.50	F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO. 05-00067-00-CH MCHENRY 226 194 FAP 333, FAP 336, FAU 81 CONTRACT NO. 63750 ILLINOIS FED. AID PROJECT 63750
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FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS CHECKED	

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
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	AREAS CHECKED	

COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: Illinois Professional Design Firm #184-001322  
 CLIENT: JDA/ETL  
 DATE PLOTTED: 4/22/15 PM  
 PLOT DRIVER: pldrvr  
 PEN TABLE: standard-tronm.tbl



	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	12.5	12.6	8.5
CUT	38.1	60.6	21.2
FILL	0.5	0	0
AGG. SUBG. IMPROV.	12.5	12.6	8.5

ALL UNITS ARE IN SQ FT

**102+09.02**

	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	12.5	12.6	8.5
CUT	39.8	56.3	21.6
FILL	0	0.3	0
AGG. SUBG. IMPROV.	12.5	12.6	8.5

ALL UNITS ARE IN SQ FT

**102+00.00**

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED CROSS SECTIONS  
ILLINOIS ROUTE 31**

USER NAME = jmelhus	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = .DATE1.	DATE -	REVISED -

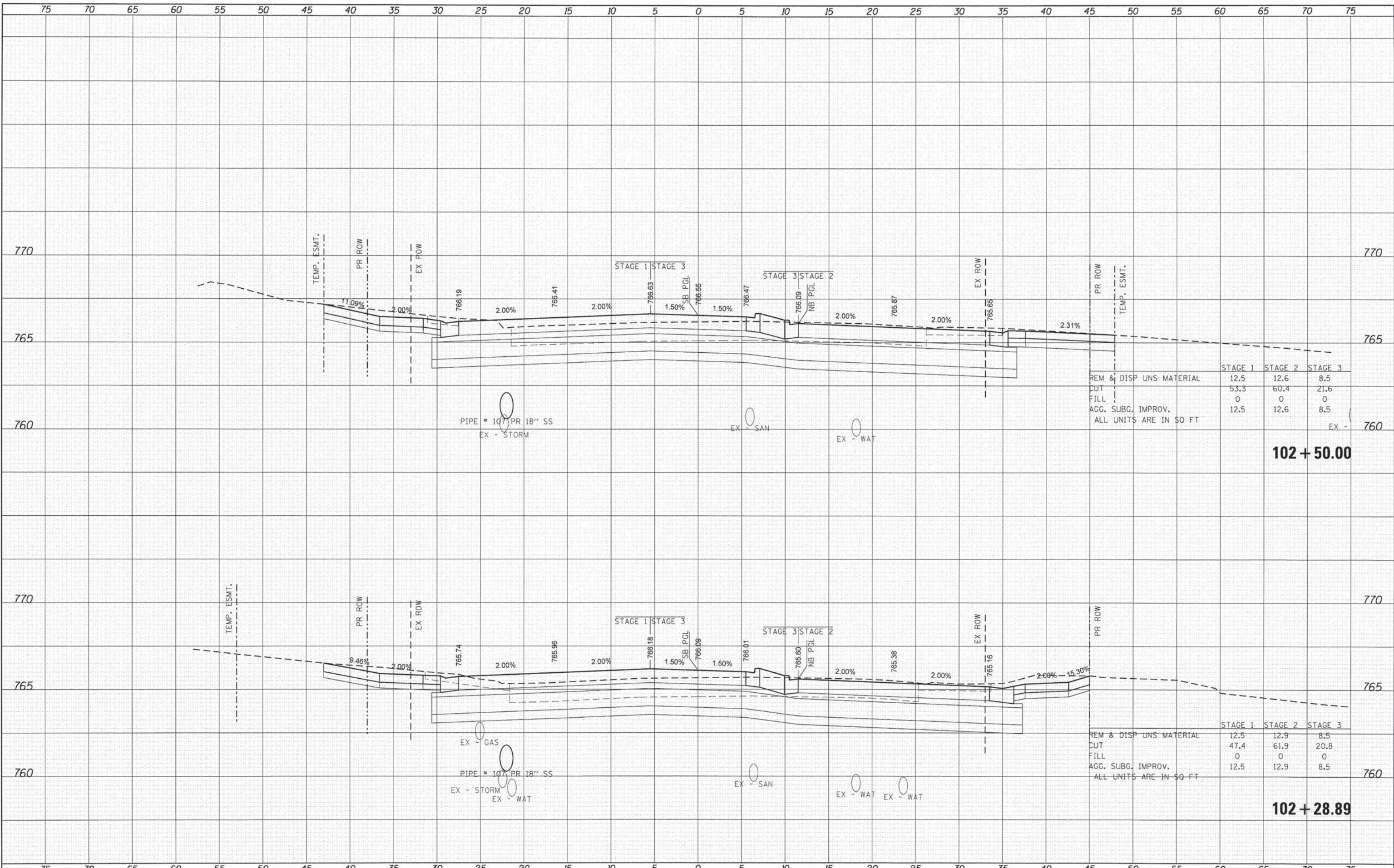
SCALE: SHEET 2 OF 33 SHEETS STA. 102+00.00 TO STA. 102+09.02

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00067-00-CH	MCHENRY	226	195
	FAP 333, FAP 336, FAU 81	CONTRACT NO.	63750	
	ILLINOIS FED. AID PROJECT		63750	

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COMPANY NAME: HRGreen  
 PROJECT CONTACT: HRGreen.com  
 CLIENT: Illinois Professional Design Firm  
 DATE PLOTTED: 08/06/21 4:22:18 PM  
 FILE NAME: 000601-SIT-x31.dgn  
 PLOT DRIVER: pdf24r  
 PEN TABLE: standard-11x17.tbl



	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	12.5	12.6	8.5
CUT	53.3	60.4	21.6
FILL	0	0	0
AGG. SUBG. IMPROV.	12.5	12.6	8.5
ALL UNITS ARE IN SQ FT			

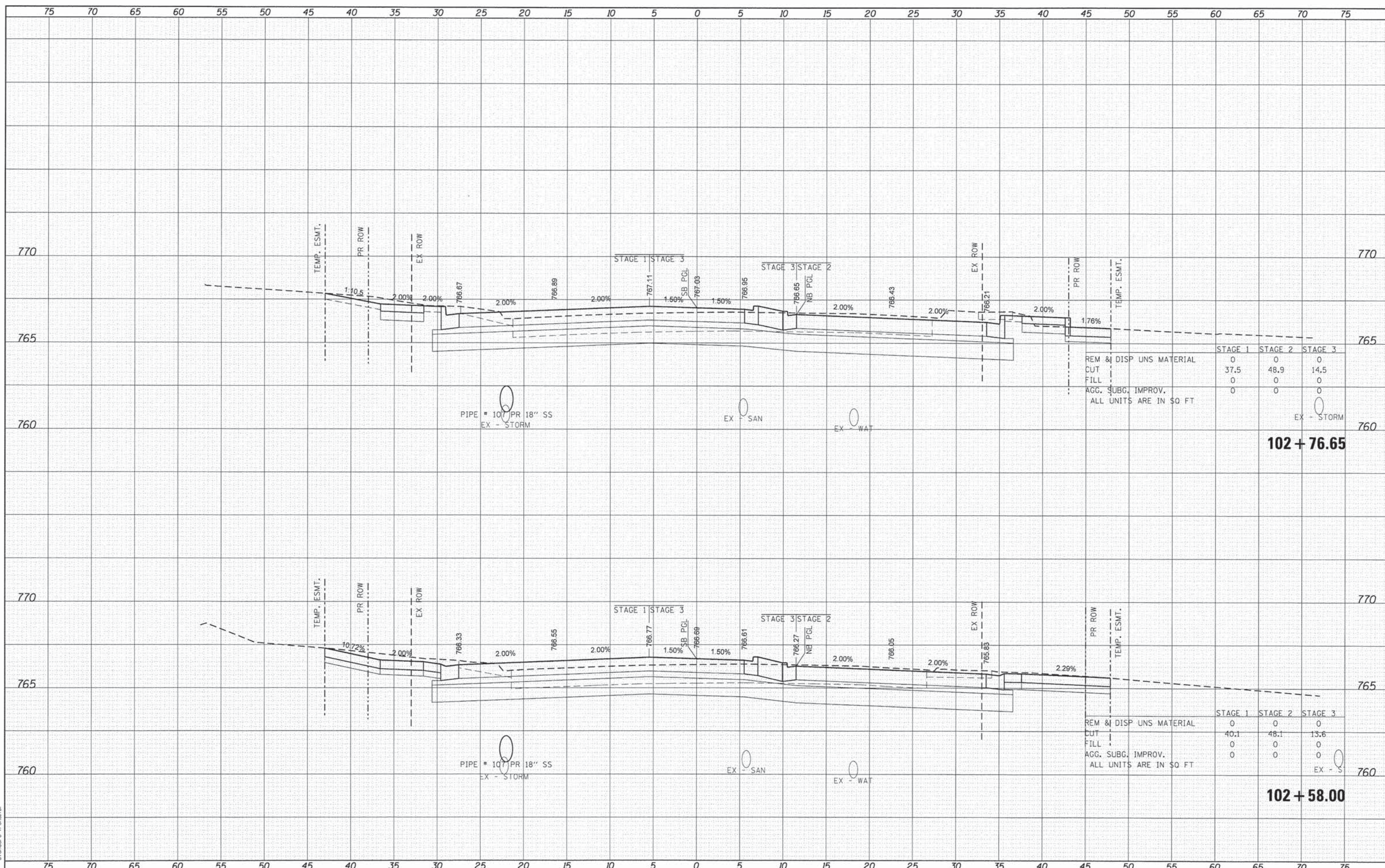
	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	12.5	12.9	8.5
CUT	47.4	61.9	20.8
FILL	0	0	0
AGG. SUBG. IMPROV.	12.5	12.9	8.5
ALL UNITS ARE IN SQ FT			



BY	DATE
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NOTE BOOK	
AREAS CHECKED	
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BY	DATE
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SURVEY	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: Illinois Professional Design Firm  
 DATE PLOTTED: 4/22/21 PM  
 FILE NAME: 090611-SHT-ss31.dgn  
 PLOT DRIVER: pdfLay  
 PEN TABLE: standard-frans.tbl



	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	0	0	0
CUT	37.5	48.9	14.5
FILL	0	0	0
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	0	0	0
CUT	40.1	48.1	13.6
FILL	0	0	0
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

USER NAME = jmelhut	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = _DATE1_	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS  
ILLINOIS ROUTE 31  
SCALE: SHEET 4 OF 33 SHEETS STA. 102+58.00 TO STA. 102+76.65

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	05-00067-00-CH	MCHENRY	226	197
FAP 333, FAP 336, FAU 81			CONTRACT NO. 63750	
[ILLINOIS] FED. AID PROJECT			63750	

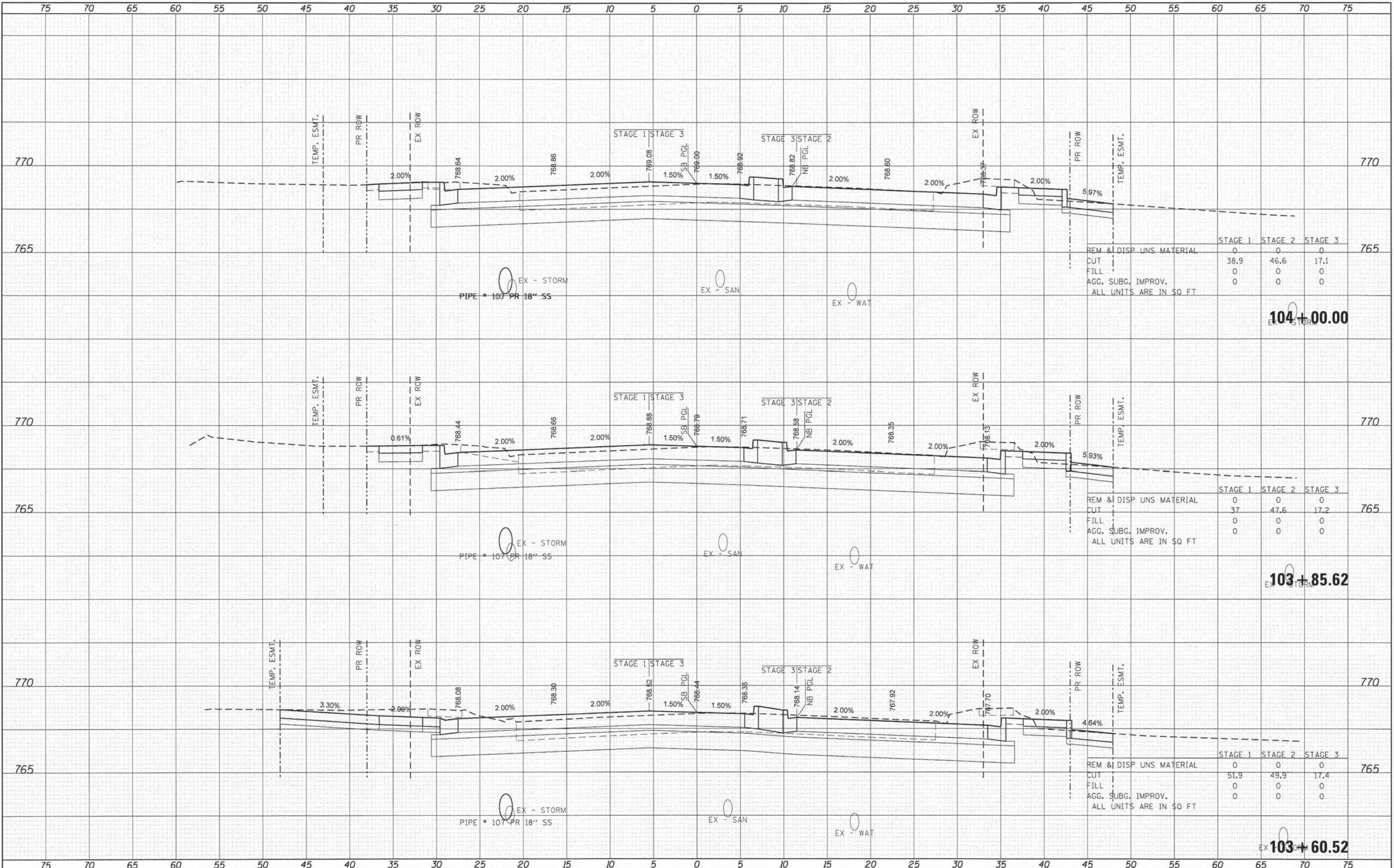




DATE	
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FINAL SURVEY	
REVIEWED	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
REVIEWED	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
NO.	

COMPANY NAME: HRGreen.com  
 PROJECT CONTACT: jmelhuus  
 CLIENT: DAREL  
 DATE PLOTTED: 4/22/20 PM  
 FILE NAME: 090611-SMT-ss-31.dgn  
 PLOT DRIVER: pdf24pt  
 PEN TABLE: str1000-d-trans.tbl



	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	0	0	0
CUT	38.9	46.6	17.1
FILL	0	0	0
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

104+00.00  
EX - STORM

	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	0	0	0
CUT	37	47.6	17.2
FILL	0	0	0
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

103+85.62  
EX - STORM

	STAGE 1	STAGE 2	STAGE 3
REM & DISP UNS MATERIAL	0	0	0
CUT	51.9	49.9	17.4
FILL	0	0	0
AGG. SUBG. IMPROV.	0	0	0
ALL UNITS ARE IN SQ FT			

103+60.52  
EX - STORM