

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7989	15-HSRT3-06-RR	SANGAMON	14	1
		ILLINOIS	CONTRACT NO. 93643	

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

**PROPOSED
HIGHWAY PLANS**

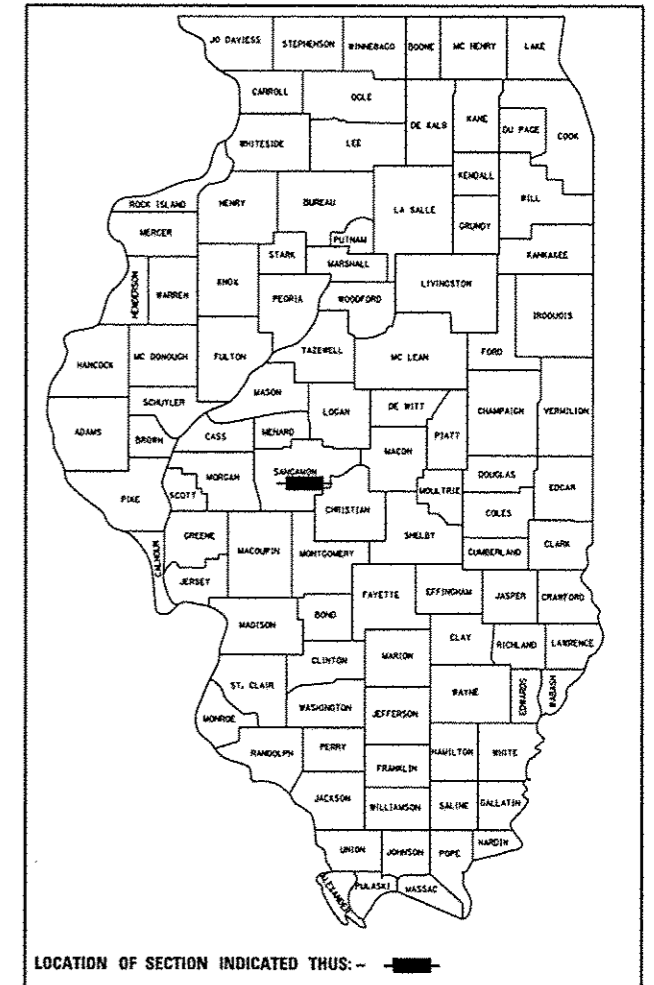
**F.A.U. ROUTE 7989 (S. GRAND AVENUE)
SECTION 15-HSRT3-06-RR
PROJECT**

**TRAFFIC SIGNAL AND RAILROAD
INTERCONNECT MODIFICATIONS
SANGAMON COUNTY /CITY OF SPRINGFIELD**

C-96-230-15

D-96-230-15

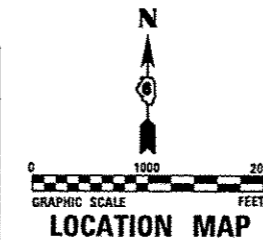
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MP 186.16



FUNCTIONAL CLASSIFICATION

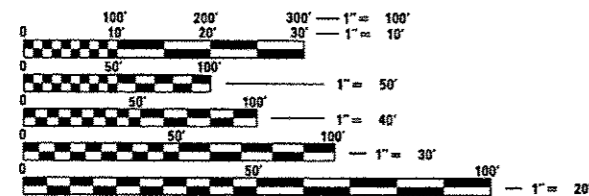
URBAN MINOR ARTERIAL (S. GRAND AVENUE)
2012 ADT = 16,300
P.V.= NA S.U.= NA M.U.= NA

**BEGIN PROJECT
S. GRAND AVENUE
STA. 45 + 37.00**



**END PROJECT
S. GRAND AVENUE
STA. 53 + 60.00**

FINAL

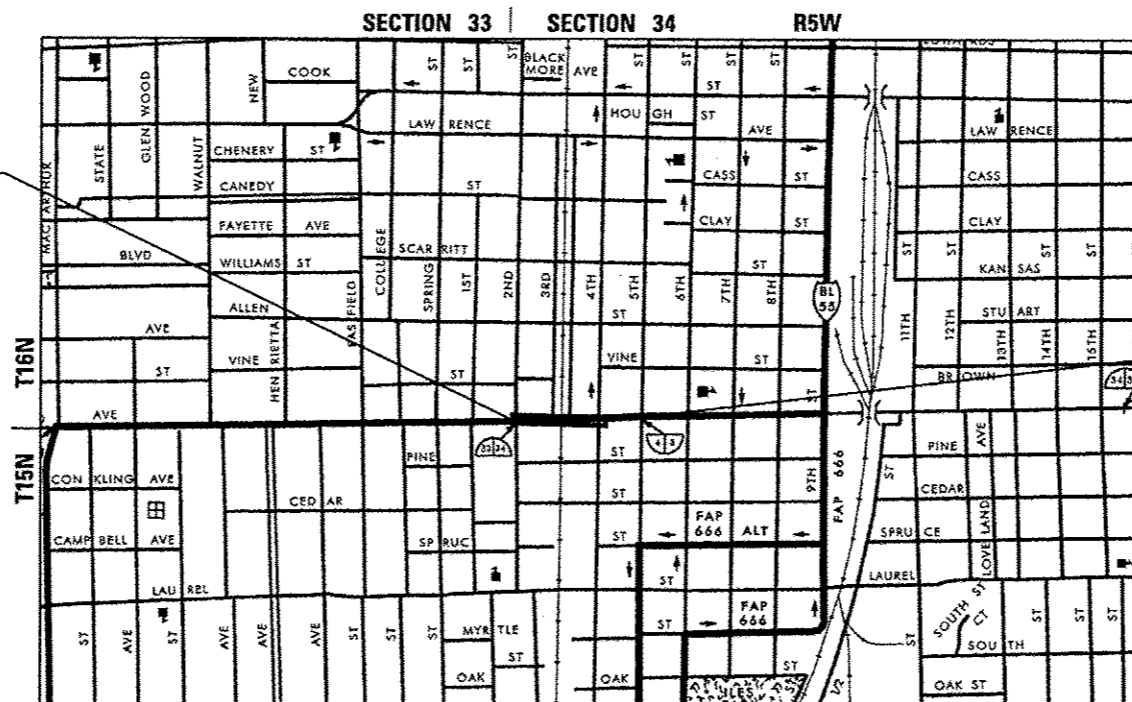


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

DISTRICT 6 NO. (217) 782-7301
PROJECT ENGINEER: JAY WAVERING (217)785-9046
TOWNSHIP: CAPITAL

CONTRACT NO. 93643



SECTION 4 | SECTION 3
CITY OF SPRINGFIELD
3rd P.M.

NET LENGTH GROSS LENGTH
SOUTH GRAND AVENUE 823.00 (0.156 MI) 823.00 FT (0.156 MI)



DATE: 11/23/2016
MATTHEW J. LETOURNEAU
IL. REG. P.E. NO. 062-055763
EXPIRES: 11-30-2017

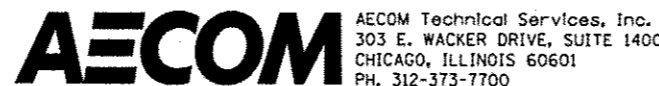
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED DEC 23 2016
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Jan 27 2017
Maureen M. Addis P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

Jan 27 2017
[Signature]
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER 2

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OF THE STATE OF ILLINOIS**



SUMMARY OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				SIGNALS
				S. GRAND AVE.
				100% HSR
				0021
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	40	40
25200100	SODDING	SQ YD	40	40
* 42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	150	150
* 44000100	PAVEMENT REMOVAL	SQ YD	4	4
* 44000600	SIDEWALK REMOVAL	SQ FT	150	150
* 44201713	CLASS D PATCHES, TYPE I, 6 INCH	SQ YD	4	4
67100100	MOBILIZATION	LSUM	1	1
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	LSUM	1	1
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	LSUM	1	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1	1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2	2
72000100	SIGN PANEL - TYPE 1	SQ FT	68	68
81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	552	552

* DENOTES SPECIALTY ITEM

c:\paworking\kevin.o'neill\workspace\station\15-hsrt3-06-rr\15-hsrt3-06-rr-500.dgn



USER NAME : kevin.o'neill
 PLOT SCALE : 48.0000' / in.
 PLOT DATE : 11/23/2016

DESIGNED - KMO
 DRAWN - KMO
 CHECKED - M.J.L.
 DATE - 11/23/2016

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: NONE SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7989	15-HSRT3-06-RR	SANGAMON	14	3
ILLINOIS FED. AID PROJECT			CONTRACT NO. 93643	

SUMMARY OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				SIGNALS S. GRAND AVE.	
				100% HSR	
				0021	
81028390	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	103	103	
81400100	HANDHOLE	EACH	2	2	
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2	2	
85900100	TRANSCEIVER	EACH	2	2	
87301705	ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 18 3 PAIR	FOOT	906	906	
87301750	ELECTRIC CABLE IN CONDUIT, RAILROAD, NO. 14 3C	FOOT	1006	1006	
87900200	DRILL EXISTING HANDHOLE	EACH	2	2	
88500100	INDUCTIVE LOOP DETECTOR	EACH	12	12	
89502215	MODIFY EXISTING CONTROLLER FOUNDATION	EACH	2	2	
X1400168	RAILROAD, FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	2	2	
* X7010234	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701, SPECIAL	LSUM	1	1	
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	2	2	
X8950105	REMOVE EXISTING TRAFFIC CONTROLLER AND CABINET	EACH	2	2	
* Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	LSUM	1	1	
X1400224	SPARE RAILROAD, FULL ACTUATED CONTROLLER, SPECIAL	EACH	2	2	

* DENOTES SPECIALTY ITEM

FILE NAME: #FILES



USER NAME : #USER#	DESIGNED - KMO	REVISED -
	DRAWN - KMO	REVISED -
PLOT SCALE : #SCALE#	CHECKED - MJL	REVISED -
PLOT DATE : #DATE#	DATE - 02/03/2017	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: NONE SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1989	15-HSRT3-06-RR	SANGAMON	14	4
CONTRACT NO. 93643			ILLINOIS FED. AID PROJECT	

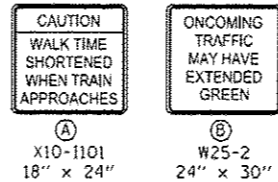
TRAFFIC SIGNAL GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION (J.U.L.I.E. 800/892-0123).
2. COORDINATE ALL WORK WITH THE RAILROAD FORCES.
3. THE CITY OF SPRINGFIELD DEPARTMENT OF PUBLIC WORKS (217-789-2260) SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO THE REPLACING OF AND TURNING ON OF THE UPGRADED CONTROLLER UNIT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING THE ELECTRICAL LOADS FOR THE UNMETERED SERVICES ON THIS IMPROVEMENT TO THE UTILITY COMPANY AND AGENCY RESPONSIBLE FOR ENERGY CHARGES: CITY OF SPRINGFIELD, ILLINOIS.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES, AS NECESSARY; COST TO BE INCLUDED WITH THE "MODIFY EXISTING CONTROLLER FOUNDATION" PAY ITEM.
6. CONTRACTOR SHALL PROVIDE A SELF-ADHERED PHASE DIAGRAM ON THE INSIDE OF THE CONTROLLER CABINET DOOR.

SIGNING SCHEDULE

STATION	OFFSET		SIGN NO	SIGN DESCRIPTION	72000100 SIGN PANEL T1 (50 FT)	ATTACHMENT	
	LT	RT					
A1	45+38		X	X10-1101	CAUTION WALK TIME SHORTENED WHEN TRAIN APPROACHES	3	**
A2	45+42	X		X10-1101	CAUTION WALK TIME SHORTENED WHEN TRAIN APPROACHES	3	*
A3	45+51	X		X10-1101	CAUTION WALK TIME SHORTENED WHEN TRAIN APPROACHES	3	**
A4	45+56	X		X10-1101	CAUTION WALK TIME SHORTENED WHEN TRAIN APPROACHES	3	*
A5	46+24	X		X10-1101	CAUTION WALK TIME SHORTENED WHEN TRAIN APPROACHES	3	**
A6	46+39	X		X10-1101	CAUTION WALK TIME SHORTENED WHEN TRAIN APPROACHES	3	*
A7	46+45	X		X10-1101	CAUTION WALK TIME SHORTENED WHEN TRAIN APPROACHES	3	*
A8	46+52	X		X10-1101	CAUTION WALK TIME SHORTENED WHEN TRAIN APPROACHES	3	**
B1	46+46	X		W25-2	ONCOMING TRAFFIC MAY HAVE EXTENDED GREEN	5	** ** *
B2	46+52	X		W25-2	ONCOMING TRAFFIC MAY HAVE EXTENDED GREEN	5	** *
SUBTOTAL						34	

TRAFFIC SIGNAL SIGNAGE



- * MOUNTED ON EXISTING MAST ARM POLE
- ** MOUNTED ON EXISTING TRAFFIC SIGNAL POST
- ** * MOUNTED ON EXISTING MAST ARM

PEDESTRIAN CROSSING, CURB AND SIDEWALK (BY OTHERS)

R1-1 (SB) (BY OTHERS) STOP

R5-1 (NB) (BY OTHERS) DO NOT ENTER

R8-8 (BY OTHERS) DO NOT STOP ON TRACKS

R6-2L (BY OTHERS) ONE WAY

R4-7 (BY OTHERS) STRIPING

W1D-1 (TO REMAIN)

R8-8 (BY OTHERS) DO NOT STOP ON TRACKS

R3-2 (BY OTHERS)

SIDEWALK REMOVAL PC CONC SIDEWALK 4 (50 SO FT)

R8-8 (WB) (BY OTHERS) DO NOT STOP ON TRACKS

R6-2R (SB) (BY OTHERS) ONE WAY

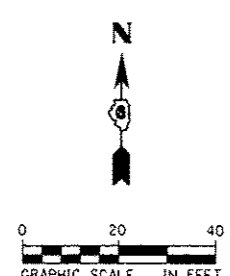
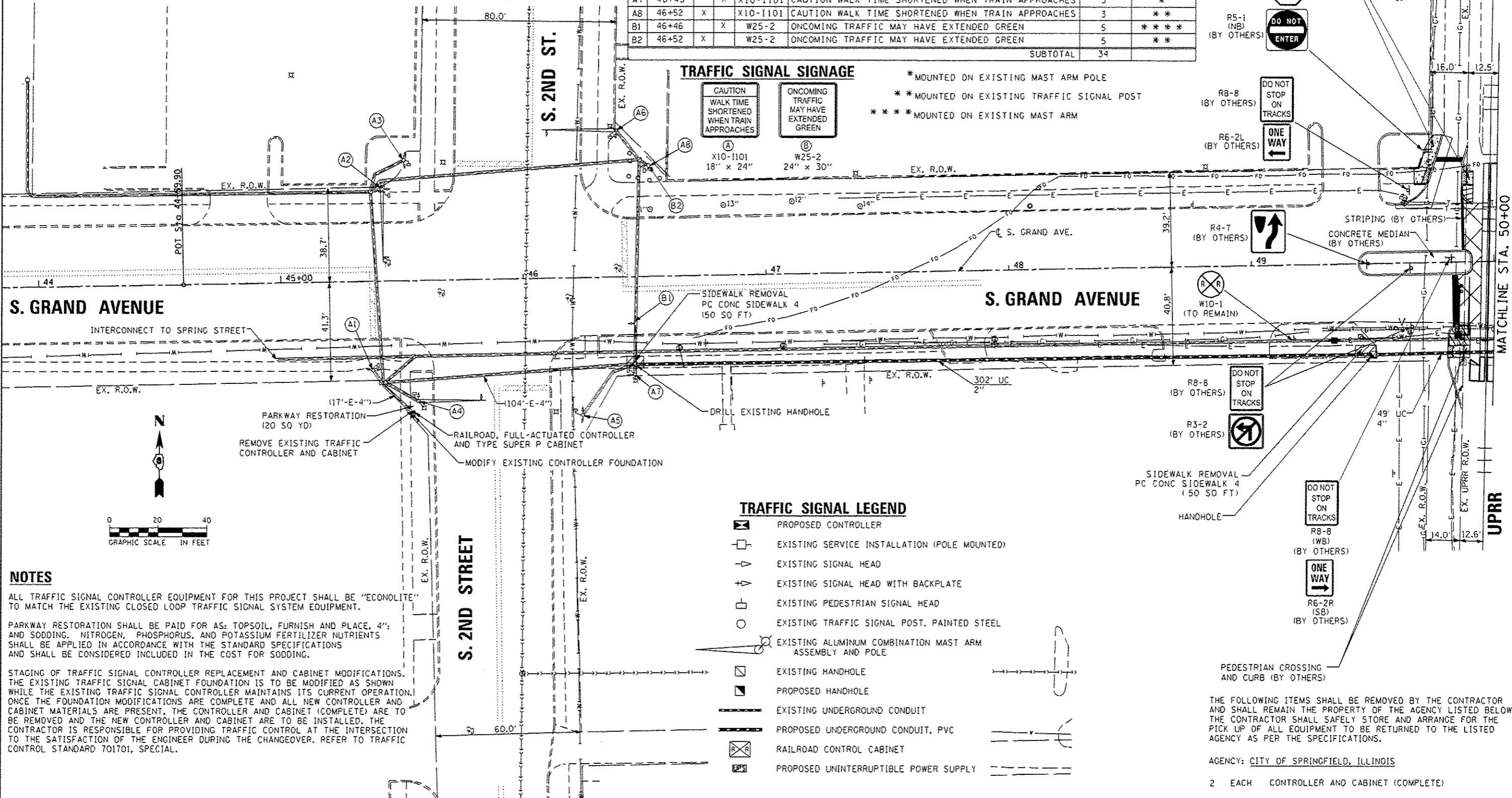
HANDHOLE

PEDESTRIAN CROSSING AND CURB (BY OTHERS)

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

AGENCY: CITY OF SPRINGFIELD, ILLINOIS

2 EACH CONTROLLER AND CABINET (COMPLETE)



NOTES

- ALL TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM EQUIPMENT.
- PARKWAY RESTORATION SHALL BE PAID FOR AS: TOPSOIL, FURNISH AND PLACE, 4"; AND SODDING, NITROGEN, PHOSPHORUS, AND POTASSIUM FERTILIZER NUTRIENTS SHALL BE APPLIED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND SHALL BE CONSIDERED INCLUDED IN THE COST FOR SODDING.
- STAGING OF TRAFFIC SIGNAL CONTROLLER REPLACEMENT AND CABINET MODIFICATIONS. THE EXISTING TRAFFIC SIGNAL CABINET FOUNDATION IS TO BE MODIFIED AS SHOWN WHILE THE EXISTING TRAFFIC SIGNAL CONTROLLER MAINTAINS ITS CURRENT OPERATION. ONCE THE FOUNDATION MODIFICATIONS ARE COMPLETE AND ALL NEW CONTROLLER AND CABINET MATERIALS ARE PRESENT, THE CONTROLLER AND CABINET (COMPLETE) ARE TO BE REMOVED AND THE NEW CONTROLLER AND CABINET ARE TO BE INSTALLED. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL AT THE INTERSECTION TO THE SATISFACTION OF THE ENGINEER DURING THE CHANGEOVER. REFER TO TRAFFIC CONTROL STANDARD 70101, SPECIAL.

TRAFFIC SIGNAL LEGEND

- PROPOSED CONTROLLER
- EXISTING SERVICE INSTALLATION (POLE MOUNTED)
- EXISTING SIGNAL HEAD
- EXISTING SIGNAL HEAD WITH BACKPLATE
- EXISTING PEDESTRIAN SIGNAL HEAD
- EXISTING TRAFFIC SIGNAL POST, PAINTED STEEL
- EXISTING ALUMINUM COMBINATION MAST ARM ASSEMBLY AND POLE
- EXISTING HANDHOLE
- PROPOSED HANDHOLE
- EXISTING UNDERGROUND CONDUIT
- PROPOSED UNDERGROUND CONDUIT, PVC
- RAILROAD CONTROL CABINET
- PROPOSED UNINTERRUPTIBLE POWER SUPPLY



USER NAME : #USER#	DESIGNED - KMO	REVISED -
PLOT SCALE : #SCALE#	DRAWN - KMO	REVISED -
PLOT DATE : #DATE#	CHECKED - MJL	REVISED -
	DATE - 02/03/2017	REVISED -

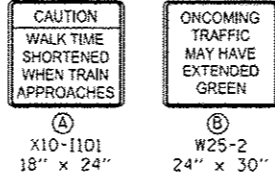
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL PLAN S. GRAND AVENUE (FAU 7989)
(S. 2ND STREET - S. 4TH STREET)

SCALE: 1"=20' SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7989	15-HSR3-06-RR	SANGAMON	14	5
ILLINOIS FED. AID PROJECT			CONTRACT NO. 93643	

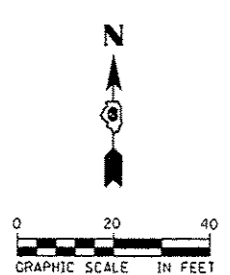
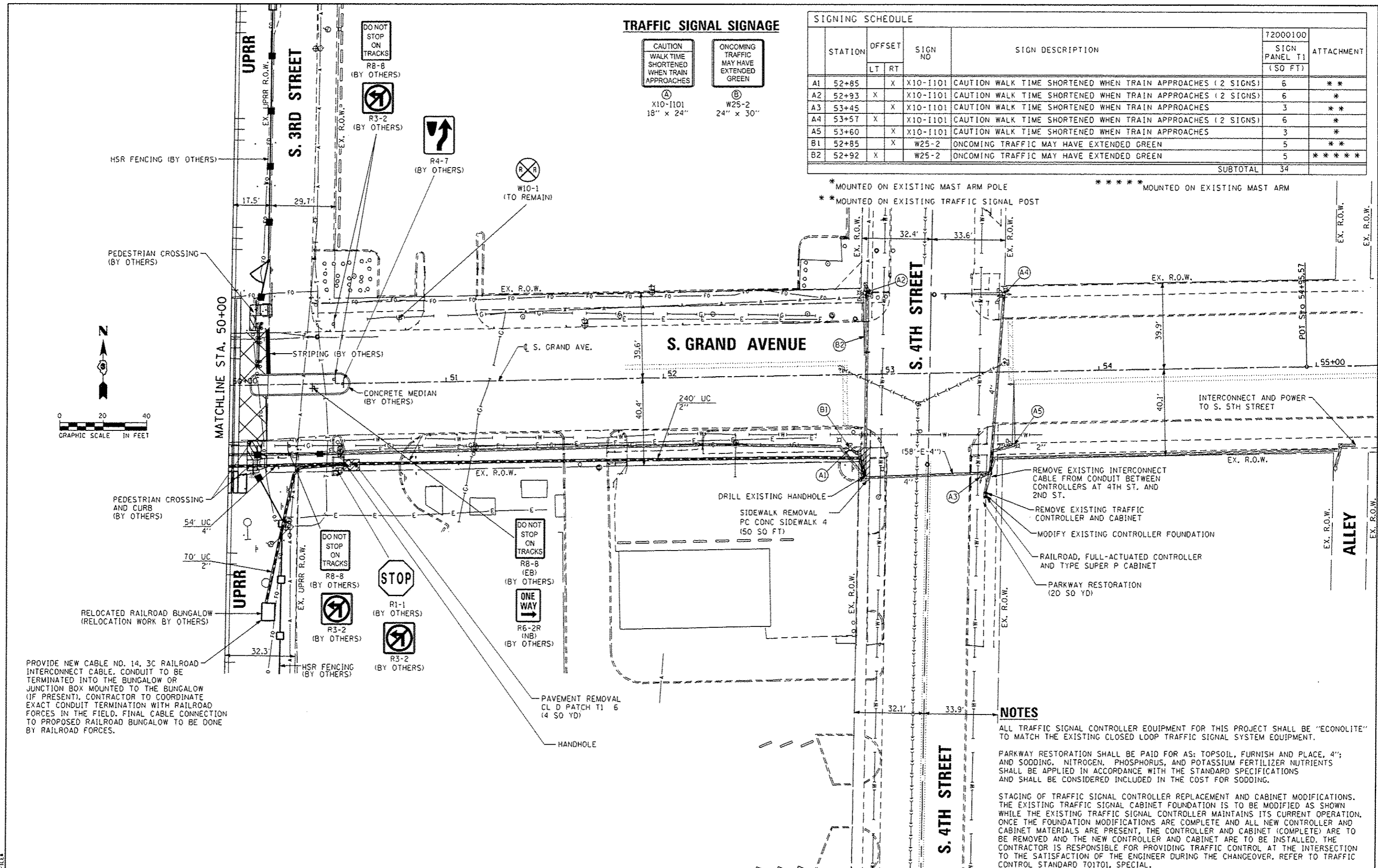
TRAFFIC SIGNAL SIGNAGE



SIGNING SCHEDULE

STATION	OFFSET		SIGN NO	SIGN DESCRIPTION	72000100 SIGN PANEL T1 (50 FT)	ATTACHMENT
	LT	RT				
A1	52+85	X	X10-1101	CAUTION WALK TIME SHORTENED WHEN TRAIN APPROACHES (2 SIGNS)	6	**
A2	52+93	X	X10-1101	CAUTION WALK TIME SHORTENED WHEN TRAIN APPROACHES (2 SIGNS)	6	*
A3	53+45	X	X10-1101	CAUTION WALK TIME SHORTENED WHEN TRAIN APPROACHES	3	**
A4	53+57	X	X10-1101	CAUTION WALK TIME SHORTENED WHEN TRAIN APPROACHES (2 SIGNS)	6	*
A5	53+60	X	X10-1101	CAUTION WALK TIME SHORTENED WHEN TRAIN APPROACHES	3	*
B1	52+85	X	W25-2	ONCOMING TRAFFIC MAY HAVE EXTENDED GREEN	5	**
B2	52+92	X	W25-2	ONCOMING TRAFFIC MAY HAVE EXTENDED GREEN	5	**
SUBTOTAL					34	*****

* MOUNTED ON EXISTING MAST ARM POLE
 ** MOUNTED ON EXISTING TRAFFIC SIGNAL POST
 ***** MOUNTED ON EXISTING MAST ARM



PROVIDE NEW CABLE NO. 14, 3C RAILROAD INTERCONNECT CABLE. CONDUIT TO BE TERMINATED INTO THE BUNGALOW OR JUNCTION BOX MOUNTED TO THE BUNGALOW (IF PRESENT). CONTRACTOR TO COORDINATE EXACT CONDUIT TERMINATION WITH RAILROAD FORCES IN THE FIELD. FINAL CABLE CONNECTION TO PROPOSED RAILROAD BUNGALOW TO BE DONE BY RAILROAD FORCES.

NOTES

ALL TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM EQUIPMENT.

PARKWAY RESTORATION SHALL BE PAID FOR AS: TOPSOIL, FURNISH AND PLACE, 4"; AND SODDING, NITROGEN, PHOSPHORUS, AND POTASSIUM FERTILIZER NUTRIENTS SHALL BE APPLIED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND SHALL BE CONSIDERED INCLUDED IN THE COST FOR SODDING.

STAGING OF TRAFFIC SIGNAL CONTROLLER REPLACEMENT AND CABINET MODIFICATIONS. THE EXISTING TRAFFIC SIGNAL CABINET FOUNDATION IS TO BE MODIFIED AS SHOWN WHILE THE EXISTING TRAFFIC SIGNAL CONTROLLER MAINTAINS ITS CURRENT OPERATION. ONCE THE FOUNDATION MODIFICATIONS ARE COMPLETE AND ALL NEW CONTROLLER AND CABINET MATERIALS ARE PRESENT, THE CONTROLLER AND CABINET (COMPLETE) ARE TO BE REMOVED AND THE NEW CONTROLLER AND CABINET ARE TO BE INSTALLED. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL AT THE INTERSECTION TO THE SATISFACTION OF THE ENGINEER DURING THE CHANGEOVER. REFER TO TRAFFIC CONTROL STANDARD 701701, SPECIAL.



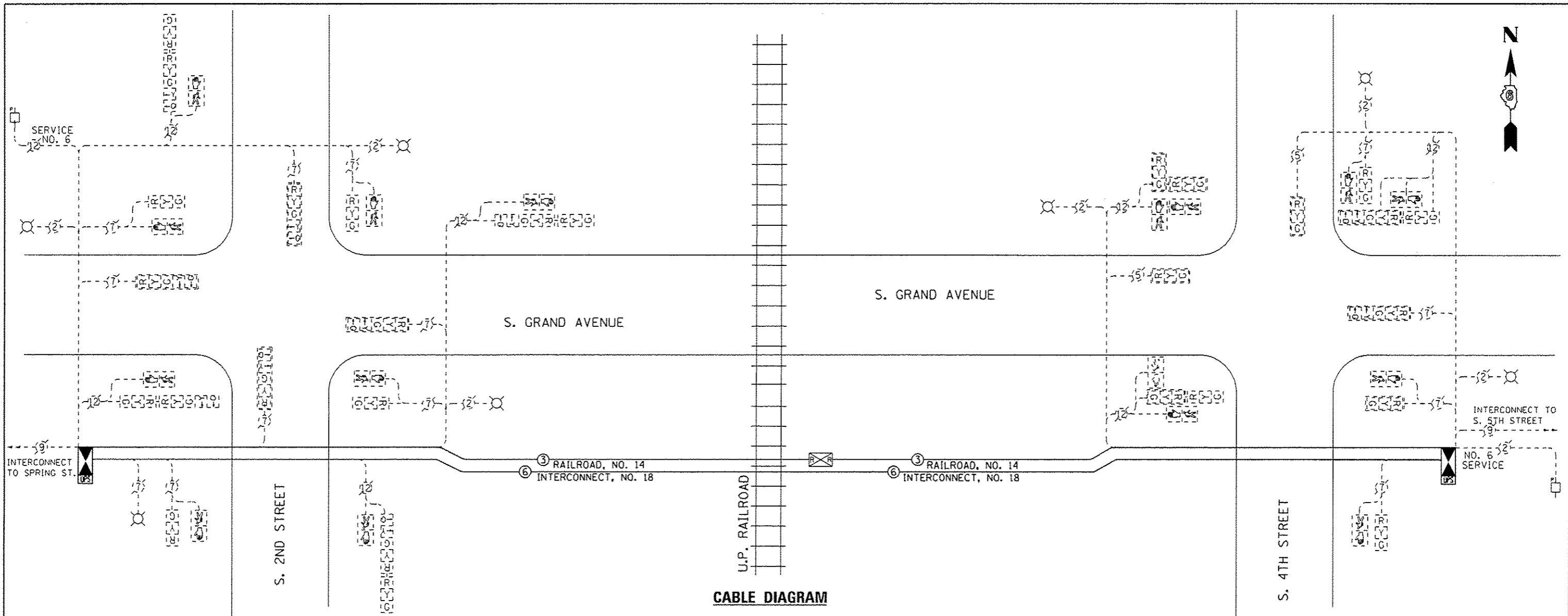
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PLOT SCALE : *SCALE*	DRAWN - KMO	REVISED -
PLOT DATE : *DATE*	CHECKED - MJL	REVISED -
	DATE - 02/03/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL PLAN S. GRAND AVENUE (FAU 7989)
(S. 2ND STREET - S. 4TH STREET)

F.A.U. RTE. 7989	SECTION 15-HSRT3-06-RR	COUNTY SANGAMON	TOTAL SHEETS 14	SHEET NO. 6
CONTRACT NO. 93643				ILLINOIS FED. AID PROJECT

SCALE: 1"=20' SHEET 2 OF 2 SHEETS STA. TO STA.



CABLE DIAGRAM

CABLE DIAGRAM LEGEND

NOTE: ALL ITEMS ARE EXISTING TO REMAIN UNLESS OTHERWISE STATED.

- DENOTES NUMBER OF CONDUCTORS (EXISTING) ALL CABLE NO. 12 (UNLESS OTHERWISE NOTED)
- DENOTES NUMBER OF CONDUCTORS (PROPOSED) ALL CABLE NO. 14 EXCEPT AS INDICATED
- SERVICE INSTALLATION, POLE MTD.
- UPGRADED CONTROLLER AND CABINET
- PROPOSED UNINTERRUPTIBLE POWER SUPPLY
- EXISTING RAILROAD CONTROL CABINET
- SIGNAL SECTION, 12"
- WALK/DON'T WALK SECTION
- TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
- EXISTING LIGHT ON COMBINATION MAST ARM

SCHEDULE OF QUANTITIES

DESCRIPTION	UNIT	QUANTITY
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	552
UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	103
HANDHOLE	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2
TRANSCEIVER	EACH	2
ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 18 3 PAIR	FOOT	906
ELECTRIC CABLE IN CONDUIT, RAILROAD, NO. 14 3C	FOOT	1006
DRILL EXISTING HANDHOLE	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	12
MODIFY EXISTING CONTROLLER FOUNDATION	EACH	2
RAILROAD, FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	2
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	2
REMOVE EXISTING TRAFFIC CONTROLLER AND CABINET	EACH	2
SPARE RAILROAD, FULL ACTUATED CONTROLLER, SPECIAL	EACH	2

NOTE: SEE TRAFFIC SIGNAL PLAN FOR NOTES REGARDING THE STAGING OF TRAFFIC SIGNAL CONTROLLER REPLACEMENT AND CABINET FOUNDATION MODIFICATIONS.

FILE NAME: AECOM



USER NAME: #USER#	DESIGNED - KMD	REVISED -
PLDT SCALE: #SCALE#	DRAWN - KMD	REVISED -
PLDT DATE: #DATE#	CHECKED - MJL	REVISED -
	DATE - 02/03/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL CABLE PLAN AND SCHEDULE OF QUANTITIES	
S. GRAND AVENUE (S. 2ND STREET - S. 4TH STREET)	
SCALE: NTS	SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1989	15-HSRT3-06-RR	SANGAMON	14	7
CONTRACT NO. 93643			ILLINOIS FED. AID PROJECT	

SEQUENCE OF OPERATION

S. GRAND AVENUE AT S. SECOND STREET

MOVEMENT	S. GRAND AVENUE AT S. SECOND STREET																												FLASH																		
	1 + 5								1 + 6				2 + 5				2 + 6				3 + 7				3 + 8					4 + 7				4 + 8													
INTERVAL	1	2A	2B	3A	3B	4A	4B	5	6	7A	7B	8	9	10A	10B	11	12A	12B	12C	13	14A	14B	15A	15B	16A	16B	17	18	19A	19B	20A	20B	21	22	23A	23B	24A	24B	25	26A	26B	26C					
CHANGE TO	1 + 6								2 + 5				2 + 6				3 + 7				3 + 8				4 + 7				4 + 8																		
SOUTH GRAND AVENUE MAST ARM AND FAR LEFT SIGNALS	E/B	R _G	R _Y	R	R _G	R _Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R				
SOUTH GRAND AVENUE FAR RIGHT AND NEAR RIGHT SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
SOUTH GRAND AVENUE MAST ARM AND FAR LEFT SIGNALS	W/B	R _G	R _G	R _G	R _Y	R	R _Y	R	R _G	R _G	R _Y	R	R _G	R _G	R _Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
SOUTH GRAND AVENUE FAR RIGHT AND NEAR RIGHT SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
SOUTH SECOND STREET MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R _G	R _Y	R	R _G	R _Y	R	R _G	R _G	R _Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R		
SOUTH SECOND STREET FAR RIGHT AND NEAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
SOUTH SECOND STREET MAST ARM AND FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R _G	R _Y	R	R _Y	R	R _G	R _G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
SOUTH SECOND STREET FAR RIGHT AND NEAR RIGHT SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
PEDESTRIAN SIGNALS CROSSING S. SECOND ST. ON NORTH SIDE OF SOUTH GRAND AVE.	H	H	H	H	H	H	H	P	••FH	H	H	H	H	H	H	P	••FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
PEDESTRIAN SIGNALS CROSSING S. SECOND ST. ON SOUTH SIDE OF NORTH SECOND STREET	H	H	H	H	H	H	H	H	H	H	H	P	••FH	H	H	P	••FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
PEDESTRIAN SIGNALS CROSSING S. GRAND AVE. ON EAST SIDE OF NORTH SECOND STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	P	••FH	H	H	H	H	H	H	H	H	H	H	P	••FH	H	H	H	H	H	H
PEDESTRIAN SIGNALS CROSSING S. GRAND AVE. ON WEST SIDE OF NORTH SECOND STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	P	••FH	H	H	H	H	H	H	P	••FH	H	H	H	H	H	H

PHASE 2 + 6 SHALL BE PLACED ON RECALL

• = TO APPEAR ONLY UPON PUSHBUTTON ACTUATION

•• = FLASHING "DON'T WALK" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

P = ILLUMINATED PERSON = WALK

FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK

H = ILLUMINATED SOLID HAND = DON'T WALK

θ = THIS "WALK" OR FLASHING "DON'T WALK" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT, IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "WALK" OR FLASHING "DON'T WALK" INTERVALS.

FILE NAME: c:\pwworking\havin_0\res11\tr_eng\pplottations\hva8778-24318K_SHT-Sequence.dgn



USER NAME = havin_0ne11	DESIGNED - KMO	REVISED -
DRAWN - KMO	REVISED -	
PLLOT SCALE = 40,0000' / in.	CHECKED - MJL	REVISED -
PLLOT DATE = 11/23/2016	DATE - 11/23/2016	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC SIGNAL SEQUENCE OF OPERATION			
S. GRAND AVENUE (S. 2ND STREET - S. 4TH STREET)			
SCALE: NTS	SHEET 1 OF 2 SHEETS	STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7989	15-HSRT3-06-RR	SANGAMON	14	8
				CONTRACT NO. 93643
ILLINOIS FED. AID PROJECT				

SEQUENCE OF OPERATION

S. GRAND AVENUE AT S. FOURTH STREET

MOVEMENT	N ↑												
PHASE		2 + 5		2 + 6		4		FLASH					
INTERVAL		1	2	3A	3B	4	5	6A	6B	7	8A	8B	8C
CHANGE TO		∅	∅	2 + 6		∅	∅	4		∅	∅	2 + 6	
SOUTH GRAND AVENUE MAST ARM AND FAR LEFT SIGNALS	E/B	G	G	G _Y	G	G	G	Y	R	R	R	R	R
SOUTH GRAND AVENUE FAR RIGHT AND NEAR RIGHT SIGNALS	E/B	G	G	G	G	G	G	Y	R	R	R	R	R
SOUTH GRAND AVENUE ALL SIGNALS	W/B	R	R	R	R	G	G	Y	R	R	R	R	R
SOUTH FOURTH STREET ALL SIGNALS	N/B	R	R	R	R	R	R	R	R	G	G	Y	R
PEDESTRIAN SIGNALS CROSSING S. FOURTH ST. ON NORTH SIDE OF SOUTH GRAND AVE.		H	H	H	H	P	••FH	H	H	H	H	H	H
PEDESTRIAN SIGNALS CROSSING S. FOURTH ST. ON SOUTH SIDE OF SOUTH GRAND AVE.		P	••FH	H	H	P	••FH	H	H	H	H	H	H
PEDESTRIAN SIGNALS CROSSING S. GRAND AVE. ON BOTH SIDES OF SOUTH FOURTH STREET		H	H	H	H	H	H	H	H	P	••FH	H	H

PHASE 2 + 6 SHALL BE PLACED ON RECALL

- = TO APPEAR ONLY UPON PUSHBUTTON ACTUATION
- = FLASHING "DON'T WALK" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.
- P = ILLUMINATED PERSON = WALK
- FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
- H = ILLUMINATED SOLID HAND = DON'T WALK
- ∅ = THIS "WALK" OR FLASHING "DON'T WALK" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT, IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "WALK" OR FLASHING "DON'T WALK" INTERVALS.

FILE NAME: c:\pwworking\kevin.o'neill\transportation\dm18778\243338c.sht-sequences.dgn

RAILROAD PREEMPTION SEQUENCE OF OPERATION

S. GRAND AVENUE AT S. SECOND STREET

PREEMPTOR
NUMBER 2

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1		5		8		11		13		17		21		25					
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	2	3	4	5	CLEAR TO NORMAL SEQUENCE
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	2	1E	2	1G	2	1J	2	1L	2	1N	2	1Q	2	3	4	5		
SOUTH GRAND AVENUE MAST ARM AND FAR LEFT SIGNALS	E/B R _Y	R	R	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	Δ
SOUTH GRAND AVENUE FAR RIGHT AND NEAR RIGHT SIGNALS	E/B	R	R	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	Δ
SOUTH GRAND AVENUE MAST ARM AND FAR LEFT SIGNALS	W/B R _G	R _G	C _G	R	R	G	G	R	R	R	R	R	R	R	R	C _G	Y	R	R	Δ
SOUTH GRAND AVENUE FAR RIGHT AND NEAR RIGHT SIGNALS	W/B	R	R	G	R	R	G	G	R	R	R	R	R	R	R	G	Y	R	R	Δ
SOUTH SECOND STREET MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R _Y	R	Y	R	R	R	Y	R	R	R	R	G	Δ
SOUTH SECOND STREET FAR RIGHT AND NEAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	G	Δ
NORTH SECOND STREET MAST ARM AND FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	R _Y	R	R	R	Y	R	Y	R	R	R	R	G	Δ
NORTH SECOND STREET FAR RIGHT AND NEAR RIGHT SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	Y	R	Y	R	R	R	R	G	Δ
PEDESTRIAN SIGNALS CROSSING S. SECOND ST. ON NORTH SIDE OF SOUTH GRAND AVE.	H	H	FH	H	H	FH	H	H	H	H	H	H	H	H	H	R	R	R	R	Δ
PEDESTRIAN SIGNALS CROSSING S. SECOND ST. ON SOUTH SIDE OF SOUTH GRAND AVE.	H	H	H	FH	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	Δ
PEDESTRIAN SIGNALS CROSSING S. GRAND AVE. ON EAST SIDE OF NORTH SECOND STREET	H	H	H	H	H	H	H	H	H	FH	H	H	H	FH	H	H	H	H	H	Δ
PEDESTRIAN SIGNALS CROSSING S. GRAND AVE. ON WEST SIDE OF NORTH SECOND STREET	H	H	H	H	H	H	H	H	H	H	H	FH	H	FH	H	H	H	H	H	Δ

HOLD

- P = ILLUMINATED PERSON = WALK
- FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
- H = ILLUMINATED SOLID HAND = DON'T WALK
- Δ = RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD INTERVAL 5 IS TERMINATED.

NOTES

1. ONCE PREEMPTION HAS BEEN CALLED, THE TRACK CLEAR SIGNAL DISPLAY SHALL APPEAR IMMEDIATELY AFTER ALL NECESSARY VEHICULAR CLEARANCES HAVE BEEN PROVIDED.
2. RAILROAD PREEMPTION WILL TERMINATE ACTIVE PEDESTRIAN PHASES IMMEDIATELY. PEDESTRIAN CLEARANCES WILL BE ABBREVIATED.
3. THE RAILROAD PREEMPTION SEQUENCE OF OPERATION SHALL HAVE PRIORITY OVER ALL OTHER SEQUENCES OF OPERATION.

FILE NAME: c:\pasepking\Kevin_G\11\1\anpoc\station\dm1878\294318K-Sht-Sequence.dgn



USER NAME = kevin.oneill	DESIGNED - KMO	REVISED -
	DRAWN - KMO	REVISED -
PLOT SCALE = 48,0000' / 1"	CHECKED - MJL	REVISED -
PLOT DATE = 11/23/2016	DATE - 11/23/2016	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**RAILROAD PREEMPTION SEQUENCE OF OPERATION
S. GRAND AVENUE (S. 2ND STREET - S. 4TH STREET)**

SCALE: NTS SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE. 7989	SECTION 15-HSRT3-06-RR	COUNTY SANGAMON	TOTAL SHEETS 14	SHEET NO. 10
CONTRACT NO. 93643				
ILLINOIS FED. AID PROJECT				

RAILROAD PREEMPTION SEQUENCE OF OPERATION

S. GRAND AVENUE AT S. FOURTH STREET

S. GRAND AVENUE AT S. FOURTH STREET						PREEMPTOR NUMBER 2					
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	5			8						
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	2	3	4	5	CLEAR TO NORMAL SEQUENCE	
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	1D	2	1F	2	3	4	5			
SOUTH GRAND AVENUE MAST ARM AND FAR LEFT SIGNALS E/B	\overleftarrow{G}	G	G	R	R	\overleftarrow{G}	Y	R	R	Δ	
SOUTH GRAND AVENUE FAR RIGHT AND NEAR RIGHT SIGNALS E/B	G	G	G	R	R	G	Y	R	R	Δ	
SOUTH GRAND AVENUE ALL SIGNALS W/B	R	Y	R	R	R	R	R	R	R	Δ	
SOUTH FOURTH STREET ALL SIGNALS N/B	R	R	R	Y	R	R	R	R	G	Δ	
PEDESTRIAN SIGNALS CROSSING S. FOURTH ST. ON NORTH SIDE OF SOUTH GRAND AVE	H	FH	H	H	H	H	H	H	H	Δ	
PEDESTRIAN SIGNALS CROSSING S. GRAND AVE. ON SOUTH SIDE OF SOUTH GRAND AVE	FH	FH	H	H	H	H	H	H	H	Δ	
PEDESTRIAN SIGNALS CROSSING S. GRAND AVE. ON SOUTH SIDE OF SOUTH GRAND AVE	H	H	H	FH	H	H	H	H	H	Δ	

HOLD

P = ILLUMINATED PERSON = WALK

FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK

H = ILLUMINATED SOLID HAND = DON'T WALK

Δ = RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD INTERVAL 5 IS TERMINATED.

NOTES

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2. RAILROAD PREEMPTION WILL TERMINATE ACTIVE PEDESTRIAN PHASES IMMEDIATELY. PEDESTRIAN CLEARANCES WILL BE ABBREVIATED.
3. THE RAILROAD PREEMPTION SEQUENCE OF OPERATION SHALL HAVE PRIORITY OVER ALL OTHER SEQUENCES OF OPERATION.

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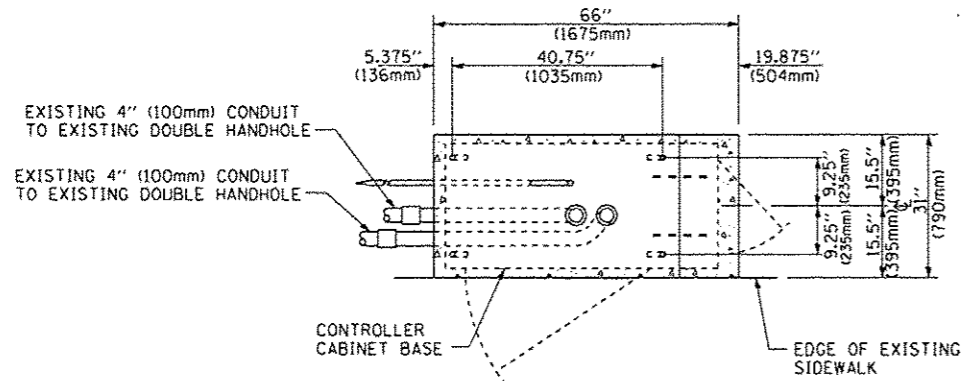


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	DRAWN - KMO	REVISED -	
PLOT SCALE = 40:0000' / in.	CHECKED - MJL	REVISED -	
PLOT DATE = 11/23/2016	DATE - 11/23/2016	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

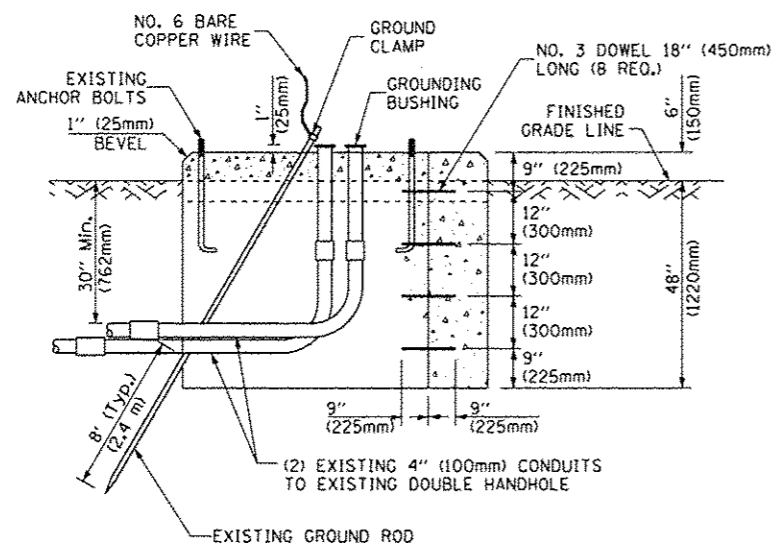
TRAFFIC SIGNAL SEQUENCE OF OPERATION			
S. GRAND AVENUE (S. 2ND STREET - S. 4TH STREET)			
SCALE: NTS	SHEET 2 OF 2 SHEETS	STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7989	15-HSR3-06-RR	SANGAMON	14	11
CONTRACT NO. 93643				
ILLINOIS FED. AID PROJECT				

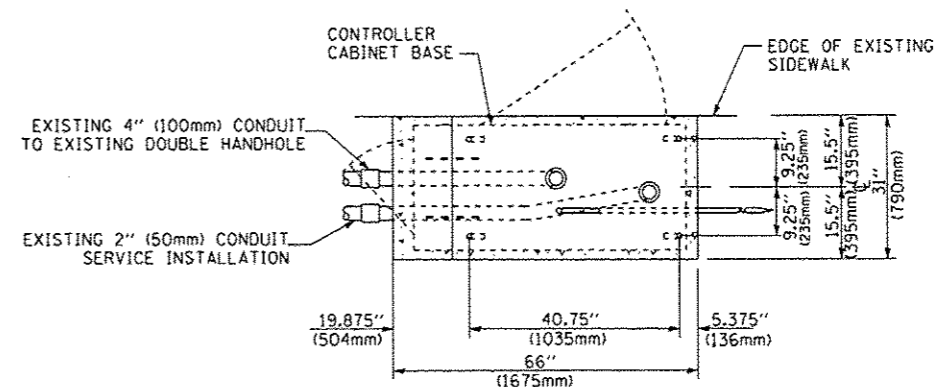


NOTE:
TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF ADJACENT SIDEWALK

TOP VIEW

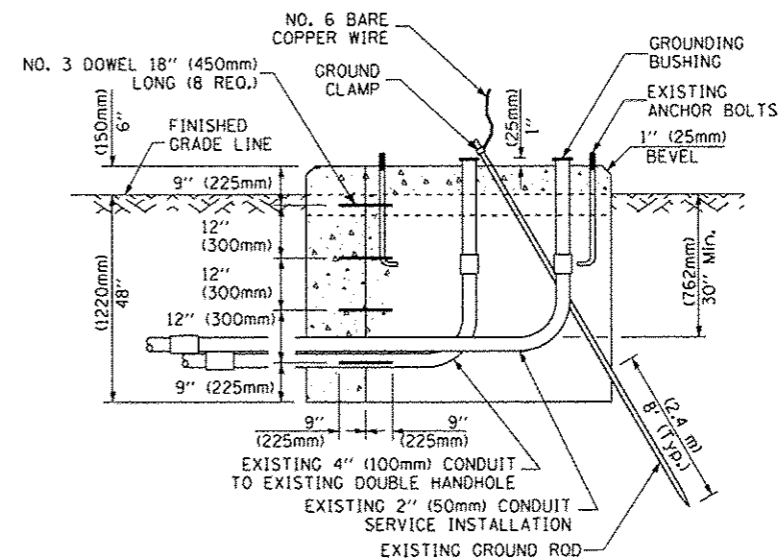


MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION FOR GROUND MOUNTED SUPER P CONTROLLER CABINETS (AT SECOND ST.)



NOTE:
TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF ADJACENT SIDEWALK

TOP VIEW



MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION FOR GROUND MOUNTED SUPER P CONTROLLER CABINETS (AT FOURTH ST.)

NOTES:

- FURNISH AND INSTALL A 20 AMP, 1 POLE, 120VAC, 10,000 A/C AT 120VAC CIRCUIT BREAKER FOR DUPLEX RECEPTACLES, AND A U.L. LISTED GROUNDED THREE-WIRE, 120VAC, 20 AMP GROUND FAULT INTERRUPTER TYPE DUPLEX RECEPTACLE (NEMA 5-20R) ALL LOCATED IN THE CONTROLLER CABINET.
- CONTROLLER SPECIFIED: FULL-ACTUATED CONTROLLER, STANDARD SEQUENCE II, 8 PHASE, IN TYPE "SUPER P" CABINETS.
- THE TRAFFIC SIGNAL CONTROLLER SHALL HAVE REMOTE MONITORING CAPABILITIES INCLUDING ALL NECESSARY PERIPHERAL HARDWARE SUCH AS INTERSECTION MONITOR, ETC. TO ALLOW FOR BOTH REMOTE ACCESS AND AUTOMATIC CONTROLLER REPORTING OF ALARMS. THE COST OF THE NECESSARY ADDITIONAL HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR "RAILROAD, FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)."
- CARE SHOULD BE TAKEN DURING MODIFICATION OF THE EXISTING FOUNDATION TO NOT DAMAGE THE EXISTING SERVICE CONDUIT AND SERVICE CABLE.
- STAGING OF TRAFFIC SIGNAL CONTROLLER REPLACEMENT AND CABINET MODIFICATIONS, THE EXISTING TRAFFIC SIGNAL CABINET FOUNDATION IS TO BE MODIFIED AS SHOWN WHILE THE EXISTING TRAFFIC SIGNAL CONTROLLER MAINTAINS ITS' CURRENT OPERATION. ONCE THE FOUNDATION MODIFICATIONS ARE COMPLETE AND ALL NEW CONTROLLER AND CABINET MATERIALS ARE PRESENT, THE CONTROLLER AND CABINET (COMPLETE) ARE TO BE REMOVED AND THE NEW CONTROLLER AND CABINET ARE TO BE INSTALLED. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL AT THE INTERSECTION TO THE SATISFACTION OF THE ENGINEER DURING THE CHANGEOVER. REFER TO TRAFFIC CONTROL STANDARD 701701, SPECIAL.

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC SIGNAL DETAILS

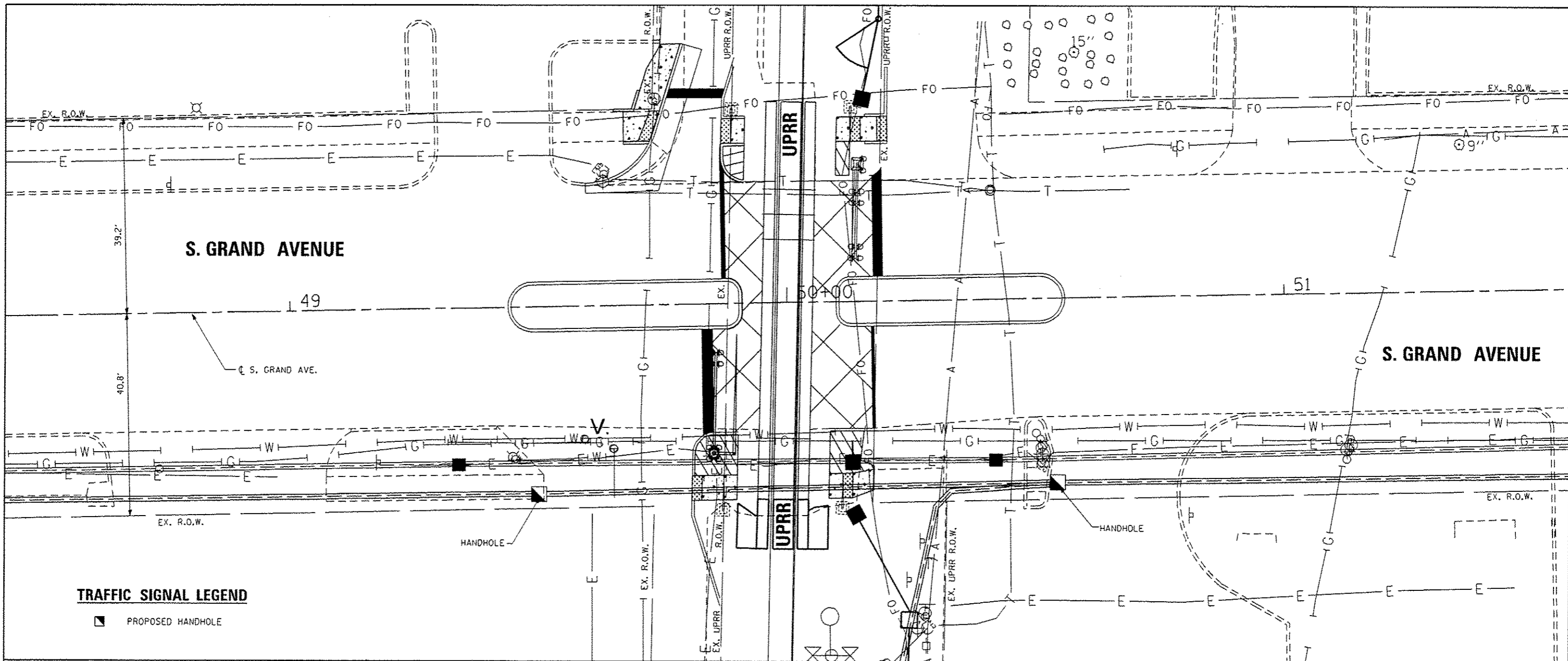
SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7989	15-HSRT3-06-RR	SANGAMON	14	12
CONTRACT NO. 93643			ILLINOIS FED. AID PROJECT	

FILE NAME: c:\pwworking\aveco\civil\trnsppor\station\15-hsrt3-06-rr\15-hsrt3-06-rr-12.dwg

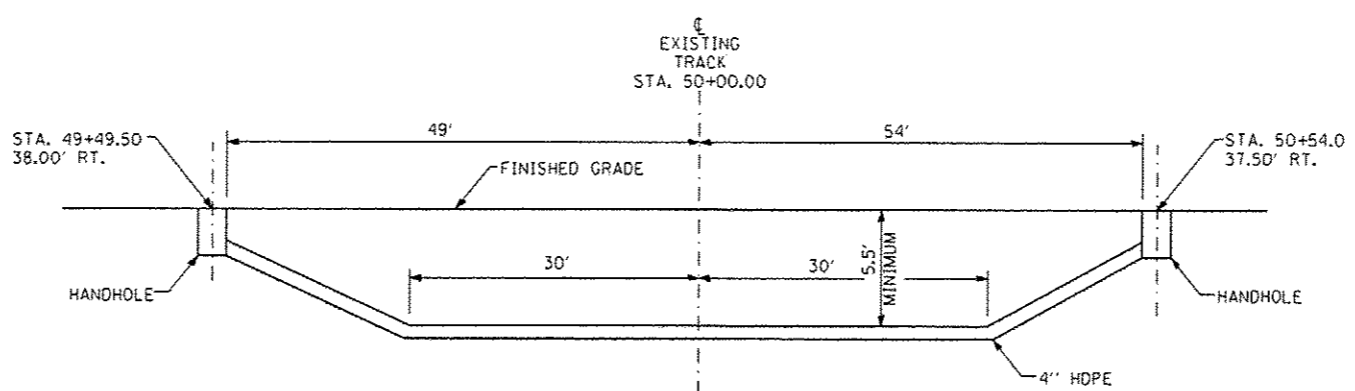


USER NAME = kevin.oneill	DESIGNED - KMO	REVISED -
PLOT SCALE = 40.0000' / 1"	DRAWN - KMO	REVISED -
PLOT DATE = 11/23/2016	CHECKED - MJL	REVISED -
	DATE - 11/23/2016	REVISED -



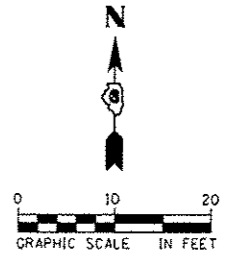
TRAFFIC SIGNAL LEGEND

■ PROPOSED HANDHOLE



ELEVATION

N.T.S.



- NOTES:
1. ALL HORIZONTAL DISTANCES TO BE MEASURED AT RIGHT ANGLES FROM THE CENTERLINE OF TRACK.
 2. A RAILROAD SIGNAL REPRESENTATIVE MUST BE PRESENT DURING INSTALLATION UNLESS A UPRR SIGNAL REPRESENTATIVE AUTHORIZES OTHERWISE, IN WRITING.



USER NAME : #USER#	DESIGNED - KMD	REVISED -
PLOT SCALE : #SCALE#	DRAWN - KMD	REVISED -
PLOT DATE : #DATE#	CHECKED - MJL	REVISED -
	DATE - 02/03/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

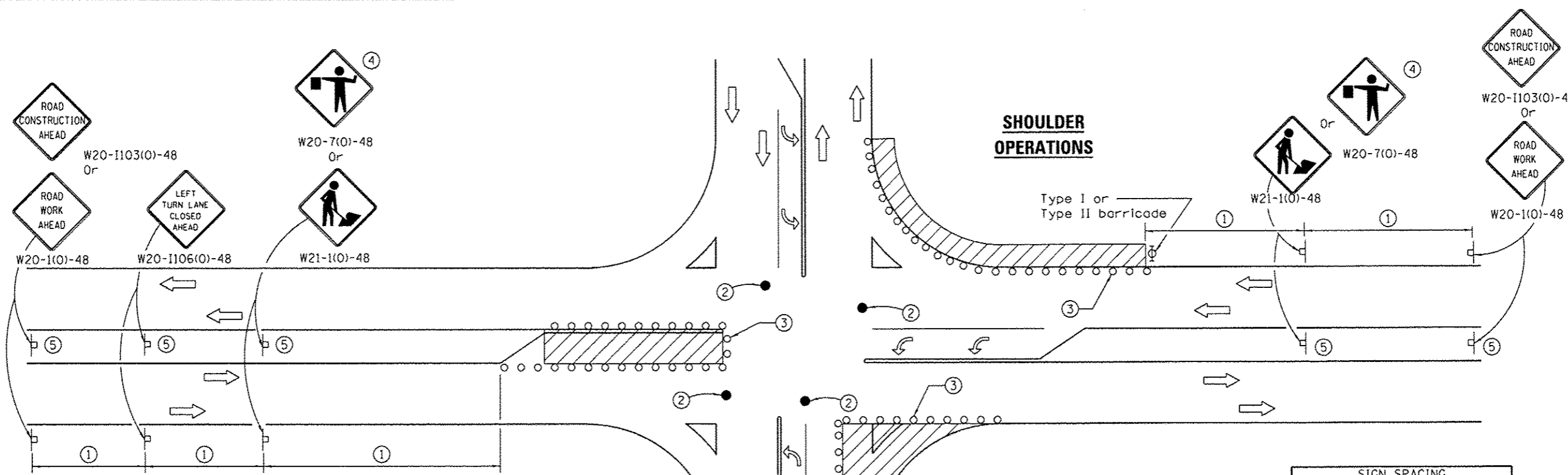
CONDUIT INSTALLATION UNDER RAILROAD TRACKS DETAIL
S. GRAND AVENUE (S. 2ND STREET - S. 4TH STREET)

SCALE: 1"=10' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7989	15-HSRT3-06-RR	SANGAMON	14	13
CONTRACT NO. 93643			ILLINOIS FED. AID PROJECT	

FILE NAME : #FILES#

2943(RK-SIT)-Conduit Detail.dgn 2/3/2017 2:09:21 PM



SHOULDER OPERATIONS

CORNER ISLAND OPERATIONS

LEFT TURN LANE OR CENTER MEDIAN OPERATIONS

SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

SYMBOLS

- Work area
- Cone, drum or barricade
- Sign on portable or permanent support
- Arrow board
- Barricade or drum with flashing light
- Flagger with traffic control sign

- ① Refer to SIGN SPACING TABLE for distance.
- ② Special - When signals are non-functional, flaggers on each leg of the intersection are required to maintain traffic until signals are operational.
- ③ Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.
- ④ Use flagger sign only when flagger is present.
- ⑤ Omit this sign when median is less than 10' (3 m) or for bi-directional turn lanes.
- ⑥ Cones, drums or barricades at 20' (6 m) centers in taper.
- ⑦ Advanced arrow board required for speeds > 45 mph.
- ⑧ Three Type II barricades, drums or vertical barricades at 50' (15 m) centers.

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement during shoulder operations or where construction requires lane closures in an urban area.

Calculate L as follows:

SPEED LIMIT	FORMULAS	
	English	(Metric)
40 mph (70 km/h) or less:	$L = \frac{WS^2}{60}$	$L = \frac{WS^2}{150}$
45 mph (80 km/h) or greater:	$L = (W)(S)$	$L = 0.65(W)(S)$

W = Width of offset in feet (meters).
 S = Normal posted speed mph (km/h).

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

TRAFFIC CONTROL AND PROTECTION, STANDARD 701701, SPECIAL DETAIL



USER NAME : *USER*	DESIGNED - KMO	REVISED -
PLOT SCALE : *SCALE*	DRAWN - KMO	REVISED -
PLOT DATE : *DATE*	CHECKED - MJL	REVISED -
	DATE - 11/23/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL	
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701, SPECIAL	
SCALE: NTS	SHEET 1 OF 1 SHEETS
STA. _____	TO STA. _____

F.A.U. RTE. 7989	SECTION 15-HSRT3-06-RR	COUNTY SANGAMON	TOTAL SHEETS 14	SHEET NO. 14
CONTRACT NO. 93643				
ILLINOIS FED. AID PROJECT				