

# MONTGOMERY-MEADOWBROOK-W. WHITE EAGLE TRAFFIC SIGNAL INSTALLATION

APRIL, 2019

GENERALLY LOCATED: T38N, 9, NW 1/4 & SW 1/4 SECTION 23, NAPERVILLE TOWNSHIP

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO 2

### TRAFFIC DATA

#### DESIGN DESIGNATION:

MONTGOMERY ROAD = MINOR ARTERIAL  
MEADOWBROOK DRIVE = LOCAL STREET  
WHITE EAGLE DRIVE = LOCAL STREET

#### EXISTING AADT:

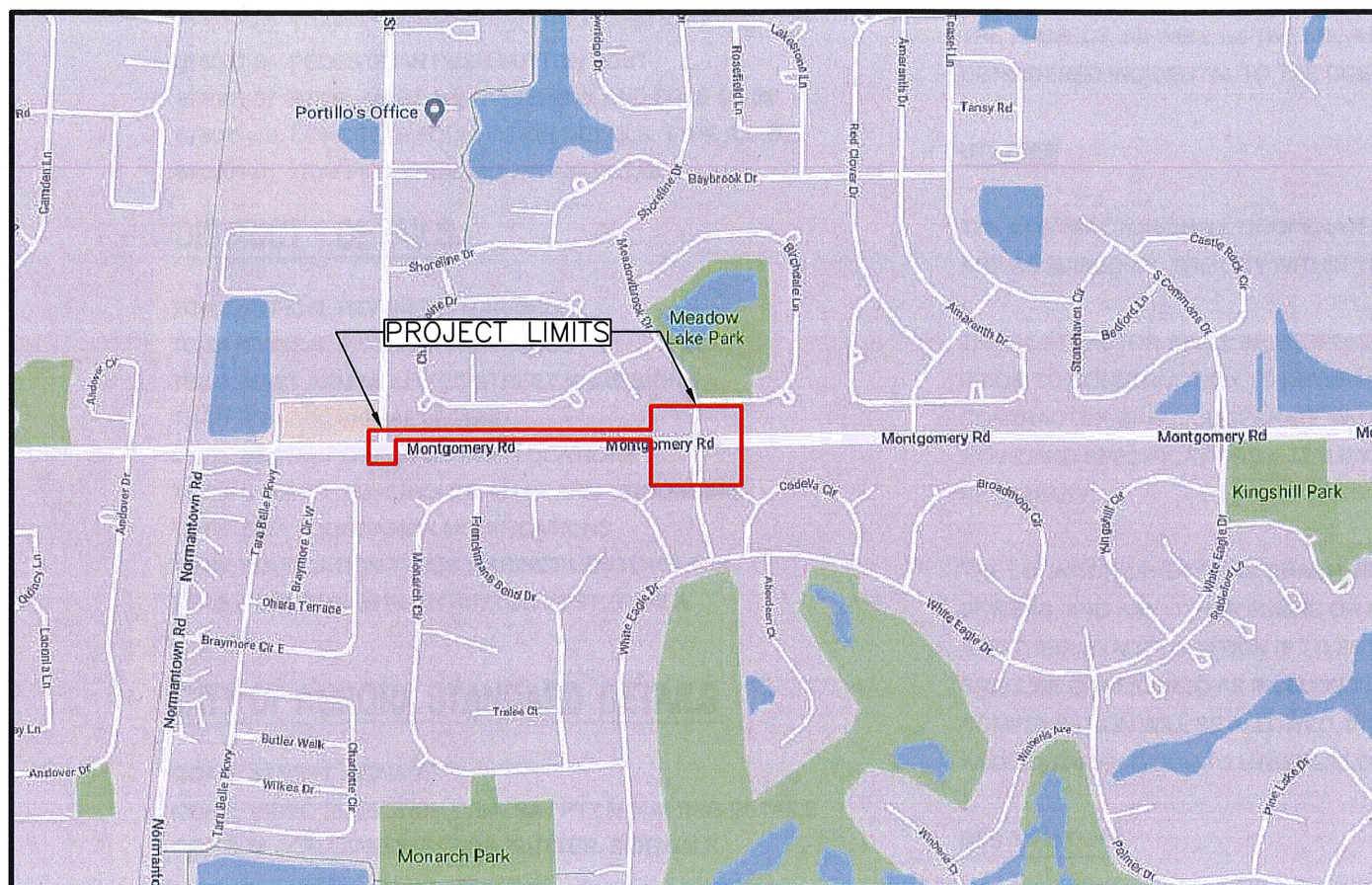
MONTGOMERY ROAD = 12,200  
MEADOWBROOK DRIVE = 1,000  
WHITE EAGLE DRIVE = 5,100

#### DESIGN SPEED:

MONTGOMERY ROAD = 40 MPH  
MEADOWBROOK DRIVE = 25 MPH  
WHITE EAGLE DRIVE = 25 MPH

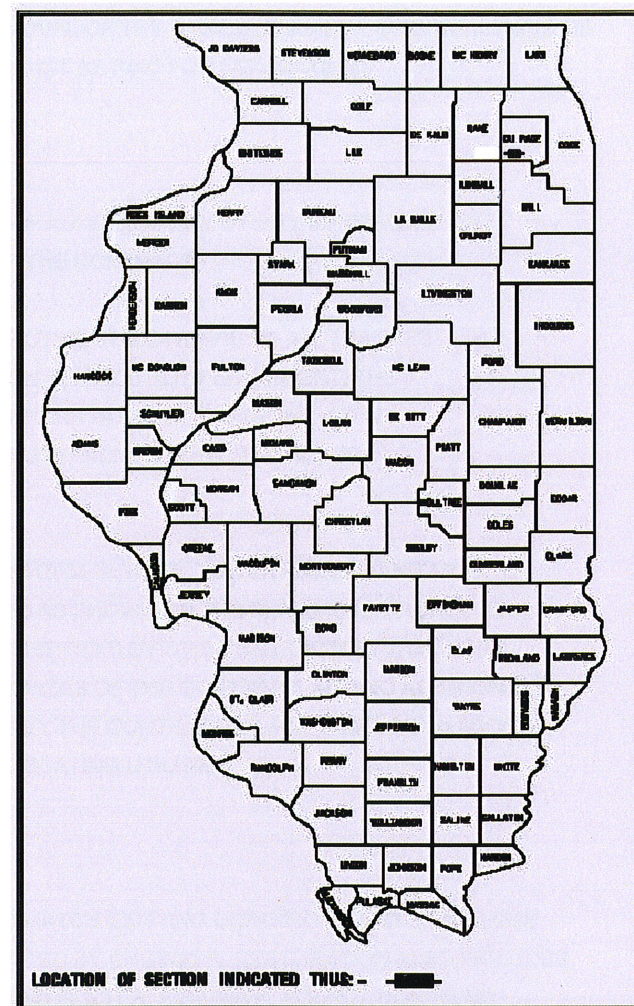
#### POSTED SPEED:

MONTGOMERY ROAD = 40 MPH  
MEADOWBROOK DRIVE = 25 MPH  
WHITE EAGLE DRIVE = 25 MPH



LOCATION MAP

SCALE: N.T.S.



LOCATION OF SECTION INDICATED THUS: - - - - -

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 SCALES PROVIDED ON PLAN PAGES MAY BE USED.

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



THIS IMPROVEMENT IS LOCATED  
IN THE CITY OF AURORA

PLANS PREPARED BY:  
**CITY OF AURORA**  
DEPARTMENT OF PUBLIC WORKS, DIVISION OF ENGINEERING  
77 S. BROADWAY - AURORA, IL  
PHONE: 630-256-3200 FAX: 630-256-3229

REVISIONS:  
REVISED 4/25/2019 BY GERARDO I. LICON

DESIGNED BY: GIL	DRAWN BY: GIL	CHECKED BY: RG	APPROVED BY: RG	HORIZ. SCALE: N/A	VERT. SCALE: N/A	DATE: 3/28/19
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STAMP  
ILLINOIS REGISTERED PROFESSIONAL ENGINEER No. 062-050799  
LICENSE EXPIRES 11-30-19

ROBERT B. GREENE  
062-050799  
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS  
Robt B Greene DATE 4-26-19

**INDEX OF SHEETS**

- 1 COVER SHEET
- 2 INDEX OF SHEETS / LIST OF HIGHWAY STANDARDS / GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4 CURB & SIDEWALK IMPROVEMENTS, PAVEMENT MARKINGS, SIGNAGE
- 5 TRAFFIC SIGNAL INSTALLATION PLAN - MONTGOMERY ROAD AT MEADOWBROOK DRIVE AND W. WHITE EAGLE DRIVE
- 6 CABLE PLAN AND PHASE DESIGNATION DIAGRAM - MONTGOMERY ROAD AT MEADOWBROOK DRIVE AND WHITE EAGLE DRIVE
- 7 INTERCONNECT PLAN
- 8 INTERCONNECT PLAN
- 9 INTERCONNECT SCHEMATIC
- 10-33 MISCELLANEOUS STANDARD DETAILS

**LIST OF HIGHWAY STANDARDS**

- 424006-04 DIAGONAL CURB RAMPS FOR SIDEWALK
- 424021-05 DEPRESSED CORNER FOR SIDEWALKS
- 606006-04 OUTLETS FOR CONCRETE CURB AND GUTTER TYPE B-6.24 (B-15.60)
- 701606-10 URBAN SINGLE LANE CLOSURE, MULTILANE, 2W W/ MOUNTABLE MEDIAN
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 814001-03 HANDHOLES
- 814006-02 DOUBLE HANDHOLES
- 873001-02 TRAFFIC SIGNAL GROUNDING AND BONDING
- 876001-04 PEDESTRIAN PUSH BUTTON POST
- 877001-07 STEEL MAST ARM ASSEMBLY AND POLE 16'-55'
- 878001-10 CONCRETE FOUNDATION DETAILS, TYPE A,C,D,E
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS

**DISTRICT 1 DETAILS**

- TC-13 TYPICAL PAVEMENT MARKINGS
- TC-24 TYPICAL PAVEMENT MARKINGS
- TS-02 MAST ARM MOUNTED STREET NAME SIGNS
- TS-05 TRAFFIC SIGNAL LEGEND
- TS-05 SIGNAL POST, MAST ARM LOCATIONS
- TS-05 CABINET, HANDHOLES, MAST ARM GROUNDING
- TS-05 EVP, FOUNDATION MODIFICATIONS
- TS-05 FOUNDATION TYPES, CABINET LENGTH/SLACK
- TS-05 PEDESTRIAN PUSH BUTTON POST, TYPE A

**CITY OF AURORA STANDARD DETAILS**

- COA-1 STREET SIGNAGE
- COA-2 VIDEO DETECTION CAMERA / PTZ MOUNTING DETAILS
- COA-3 MISCELLANEOUS CURB, GUTTER, SIDEWALK

**GENERAL NOTES**

MISCELLANEOUS

IT IS THE CONTRACTORS RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THE CONTRACT.

CHANGEABLE MESSAGE SIGNS AND STATIC SIGNS ARE TO BE INCLUDED IN THE COST OF PAY ITEM "TRAFFIC CONTROL AND PROTECTION".

MOBILIZATION CONSISTS OF TRANSPORTATION AND SETUP OF VARIOUS EQUIPMENT NECESSARY TO COMPLETE THE PROJECT, AS WELL AS THE BREAK DOWN AND REMOVAL OF THE SAME EQUIPMENT. THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND WILL NOT BE PAID FOR SEPARATELY.

UTILITIES

THE CONTRACTOR SHALL COOPERATE WITH THE CITY OF AURORA IF ANY UTILITY IMPROVEMENTS ARE REQUIRED BY THE CITY WITHIN THE DURATION OF THE CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL UTILITIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF ALL UTILITY EQUIPMENT. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS IF UTILITY RELOCATION, ADJUSTMENT, OR PROTECTION IS NECESSARY.

THE LOCATION OF EXISTING DRAINAGE STRUCTURES, STORM SEWERS, WATER MAINS, SANITARY SEWERS, AND ANY OTHER PUBLIC OR PRIVATE UTILITIES AS SHOWN ON THE PLANS IS APPROXIMATE AND THEIR EXACT LOCATION IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR. THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED, INCLUDING CLAIMS BY THE CONTRACTOR FOR TIME LOST (LABOR AND EQUIPMENT) DUE TO UTILITIES LOCATIONS OR RELOCATING UTILITIES.

RESTORATION

RESTORATION TO BE COMPLETED BY CONTRACTOR TO MATCH EXISTING CONDITIONS AND TO INCLUDE TOPSOIL, AURORA SEEDING MIX, AND/OR SOD AS DIRECTED BY ENGINEER. RESTORATION ALSO INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING ITEMS: CURB AND GUTTER, SIDEWALK, FOUNDATION ITEMS, AND AT/NEAR TRAFFIC SIGNAL HANDHOLES, FOUNDATIONS AND CONDUIT. THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

REMOVAL AND DISPOSAL OF SPOILS IS INCLUDED IN COST OF CONTRACT PAY ITEMS (SEE SP H.6 DISPOSAL OF DEBRIS AND EXCAVATED MATERIAL IN SPECIFICATIONS). RESIDENT ENGINEER, GERARDO LICON OR OTHER CITY OF AURORA ENGINEERING OFFICIAL, SHALL PROVIDE DISPOSAL VOUCHERS TO BE USED BY CONTRACTOR FOR DISPOSAL OF SPOILS FOLLOWING CCDD HEARTLAND STANDARDS AND GUIDLINES.



**CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY**

REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT	<b>MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL</b>
SHEET TITLE	INDEX OF SHEETS, LIST OF HIGHWAY STANDARDS, AND GENERAL NOTES

SHEET NUMBER	<b>2</b>
TOTAL SHEETS	<b>40</b>

**SIGNAL QUANTITIES**

Item No.	CODE NUMBER	PAY ITEM DESCRIPTION	UNIT	QUANTITY
1	80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	1
2	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	209
3	81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	25
4	81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	262
5	81400730	HANDHOLE, COMPOSITE CONCRETE	EACH	1
6	81400100	HANDHOLE	EACH	4
7	81400300	DOUBLE HANDHOLE	EACH	1
8	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
9	85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
10	87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	1917
11	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1387
12	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1443
13	87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1550
14	87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1431
15	8731805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	154.5
16	87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTER, NO. 6 1C	FOOT	571
17	87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT	EACH	4
18	87700190	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT	EACH	1
19	87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT	EACH	2
20	87700190	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT	EACH	1
21	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16
22	87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4
23	87800415	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	40.5
24	87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	13.5
25	87900200	DRILL EXISTING HANDHOLE	EACH	1
26	88030050	SIGNAL HEAD, LED, 1 FACE, 3 SECTION, BRACKET MOUNTED	EACH	4
27	88030020	SIGNAL HEAD, LED, 1-FACE, 3 SECTION, MAST-ARM MOUNTED	EACH	4
28	88030100	SIGNAL HEAD, LED, 1-FACE, 5 SECTION, BRACKET MOUNTED	EACH	4
29	88030110	SIGNAL HEAD, LED, 1-FACE, 5 SECTION, MAST-ARM MOUNTED	EACH	4
30	88102717	PEDESTRAIN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
31	88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8
32	88700200	LIGHT DETECTOR (INCLUDE CONFIRMATION BEACON)	EACH	2
33	88700300	LIGHT DETECTOR AMPLIFIER	EACH	1
34	8880100	PEDESTRIAN PUSH BUTTON	EACH	8

35	X0326266	ETHERNET SWITCH	EACH	2
36	X1400127	CAT. 6 ETHERNET CABLE	FOOT	158
37	X8710031	FIBER OPTIC CABLE, MICRO, 36 FIBERS, SINGLE MODE	FOOT	1943
38	X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
39	X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	317
40	XX007251	INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
41	XX007993	CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP	LSUM	1
42	81028750	UNDERGROUND CONDUIT, COILABLE NONMETALIC CONDUIT (HDPE, SCH. 40), 2" DIA	FOOT	1486
43	X0326885	VIDEO DETECTION SYSTEM	EACH	1

**MISCELLANEOUS QUANTITIES**

ITEM NO.	CODE NUMBER	PAY ITEM DESCRIPTION	UNIT	QUANTITY
45	***	COMBINATION PCC CURB AND GUTTER REMOVAL & REPLACEMENT	LF	65
46	***	PCC SIDEWALK REMOVAL & REPLACEMENT, 5"	SF	650
47	***	PCC SIDEWALK, 5"	SF	490
48	***	PCC CURB AND GUTTER, SPECIAL	LF	127
49	***	DETECTABLE WARNINGS	SF	64
50	78000200	THERMOPLASTIC PAVEMENT MARKINGS, 4" (YELLOW)	FT	700
51	78000400	THERMOPLASTIC PAVEMENT MARKINGS, 6" (WHITE)	FT	400
52	78000200	THERMOPLASTIC PAVEMENT MARKINGS, 4" (WHITE)	FT	350
53	78000650	THERMOPLASTIC PAVEMENT MARKINGS, 24" (WHITE)	FT	130
54	78000100	THERMOPLASTIC PAVEMENT MARKINGS - LETTERS AND SYMBOLS	SF	250
55	***	THERMOPLASTIC PAVEMENT MARKINGS - GRIND /REMOVAL	SF	275
56	72800100	TELESCOPING STEEL SIGN SUPPORT	FT	45
57	73100100	BASE FOR TELESCOPING STEEL SIGN SUPPORT	EA	1
58	72000100	SIGN PANEL - TYPE 1	SF	48.5
59	72000200	SIGN PANEL - TYPE 2	SF	40
60	72400500	RELOCATE SIGN PANEL ASSEMBLY -TYPE A	EA	1
61	72400310	REMOVE SIGN PANEL - TYPE 1	SF	12.5
62	***	ITEMS ORDERED BY ENGINEER	ALLOWANCE	1
63	***	TRAFFIC CONTROL AND PROTECTION	LSUM	1



**CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY**

REVISIONS:

DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT

**MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE  
TRAFFIC SIGNAL**

SHEET TITLE

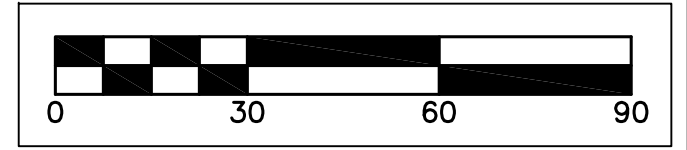
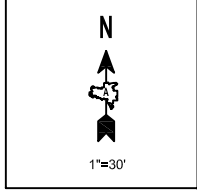
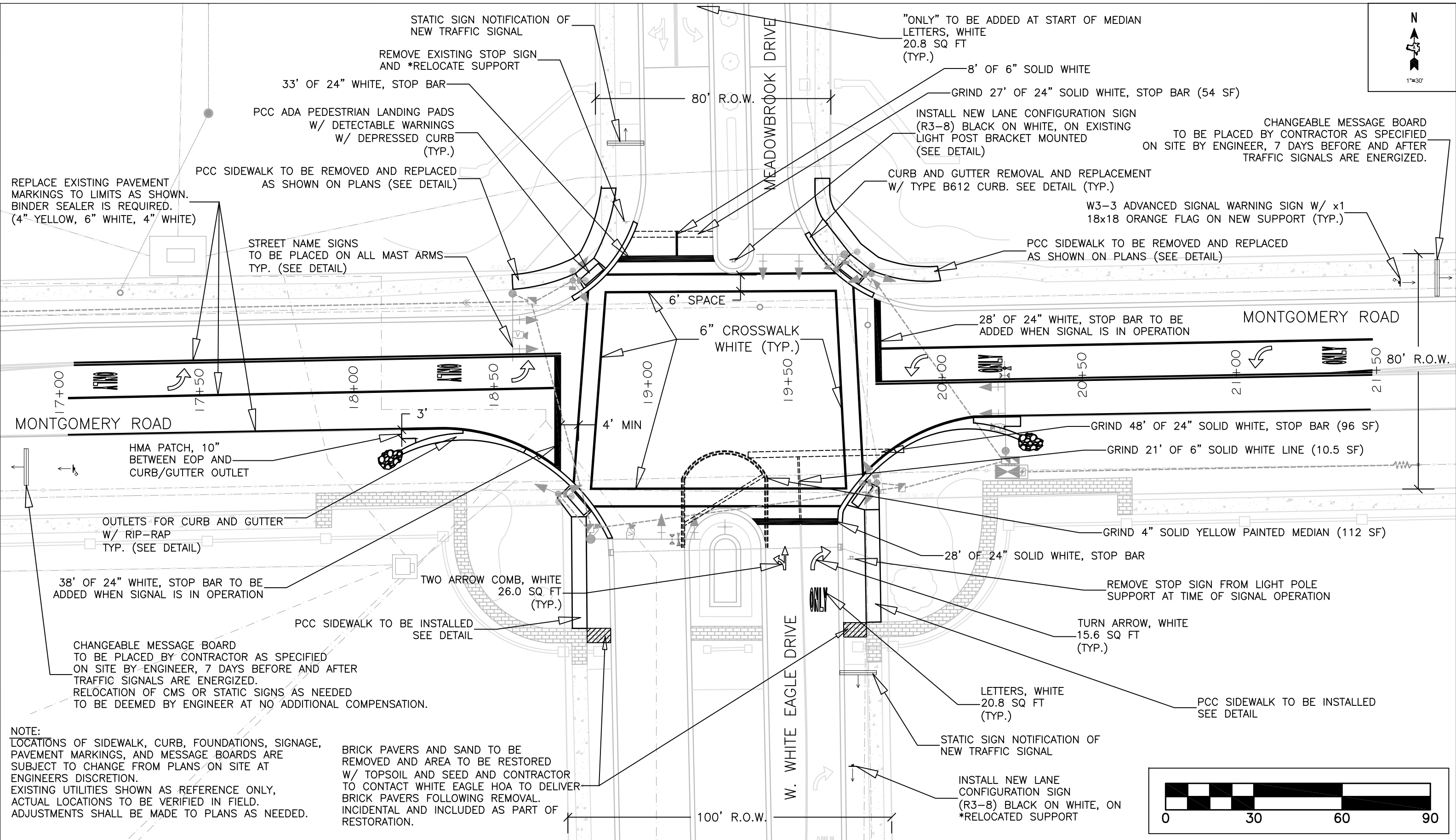
SUMMARY OF QUANTITIES

SHEET NUMBER

**3**


TOTAL SHEETS

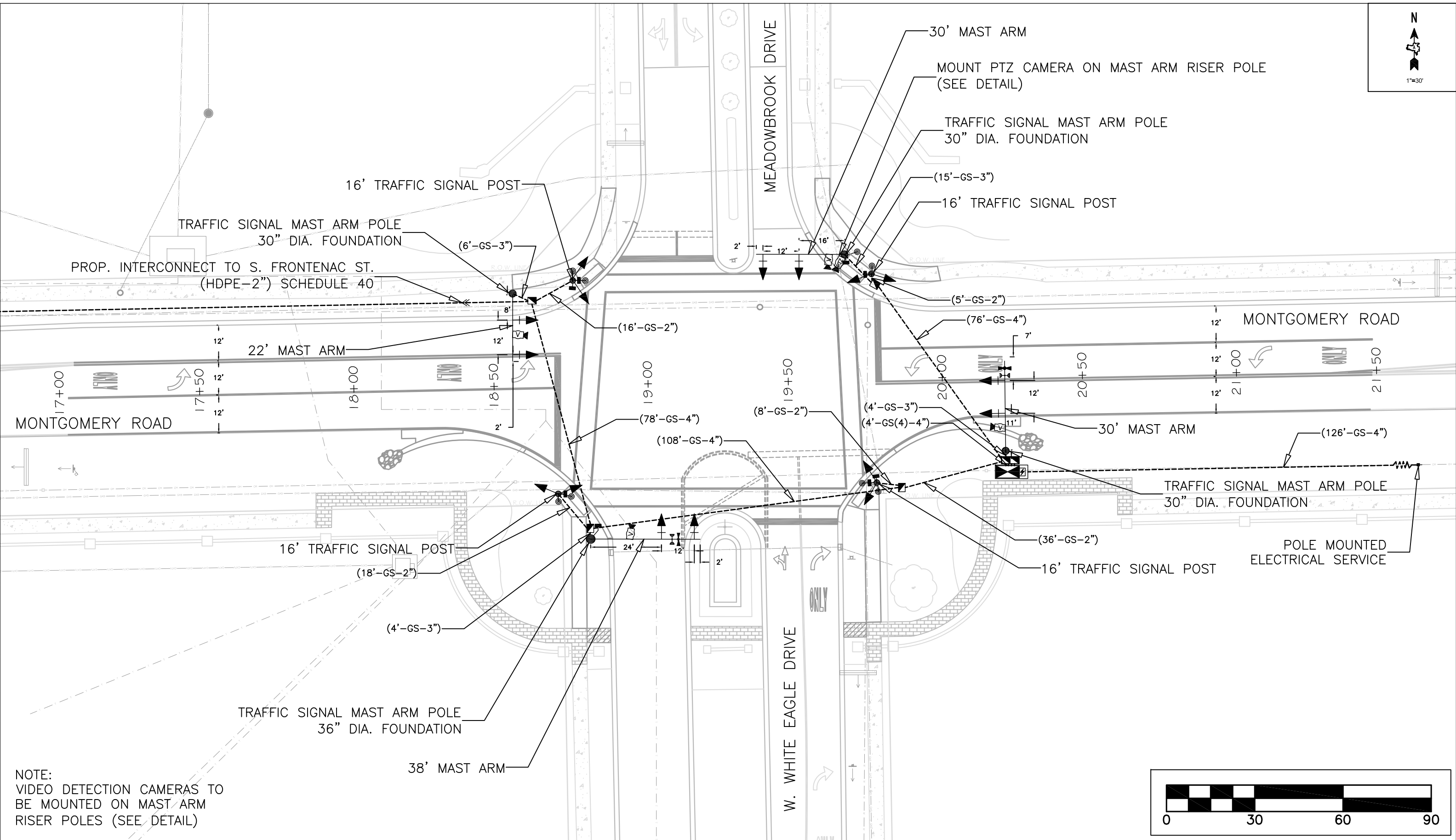
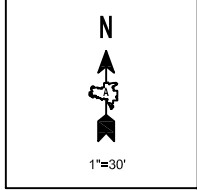
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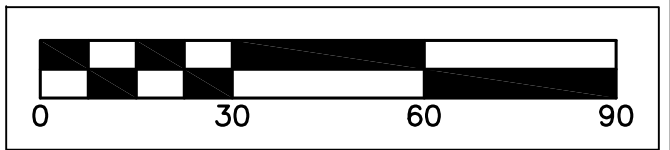
NOTE:  
 LOCATIONS OF SIDEWALK, CURB, FOUNDATIONS, SIGNAGE, PAVEMENT MARKINGS, AND MESSAGE BOARDS ARE SUBJECT TO CHANGE FROM PLANS ON SITE AT ENGINEERS DISCRETION.  
 EXISTING UTILITIES SHOWN AS REFERENCE ONLY, ACTUAL LOCATIONS TO BE VERIFIED IN FIELD. ADJUSTMENTS SHALL BE MADE TO PLANS AS NEEDED.

BRICK PAVERS AND SAND TO BE REMOVED AND AREA TO BE RESTORED W/ TOPSOIL AND SEED AND CONTRACTOR TO CONTACT WHITE EAGLE HOA TO DELIVER BRICK PAVERS FOLLOWING REMOVAL. INCIDENTAL AND INCLUDED AS PART OF RESTORATION.

 <p><b>CITY OF AURORA</b>  <b>ENGINEERING DIVISION</b>  <b>77 S. BROADWAY</b></p>	REVISIONS:	PROJECT <b>MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE</b> <b>TRAFFIC SIGNAL</b>	SHEET NUMBER <b>4</b>
	DESIGNED BY: GIL CHECKED BY: RG SCALE: 1"=30' DRAWN BY: GIL APPROVED BY: RG DATE: 4/2019	SHEET TITLE <b>CURB &amp; SIDEWALK IMPROVEMENTS, PAVEMENT MARKINGS, SIGNAGE</b>	TOTAL SHEETS <b>40</b>



NOTE:  
VIDEO DETECTION CAMERAS TO  
BE MOUNTED ON MAST ARM  
RISER POLES (SEE DETAIL)



**CITY OF AURORA**  
**ENGINEERING DIVISION**  
77 S. BROADWAY

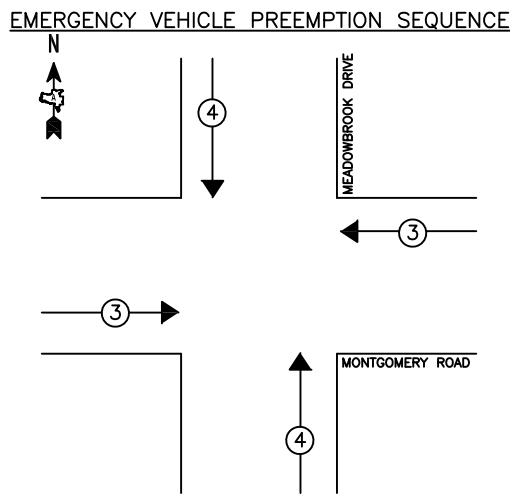
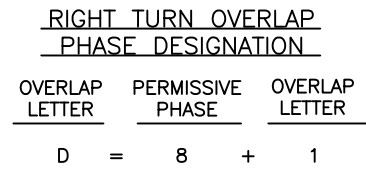
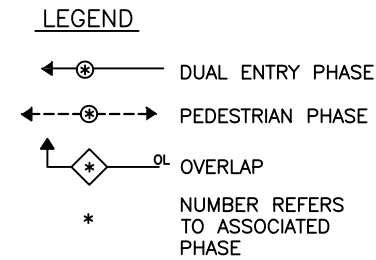
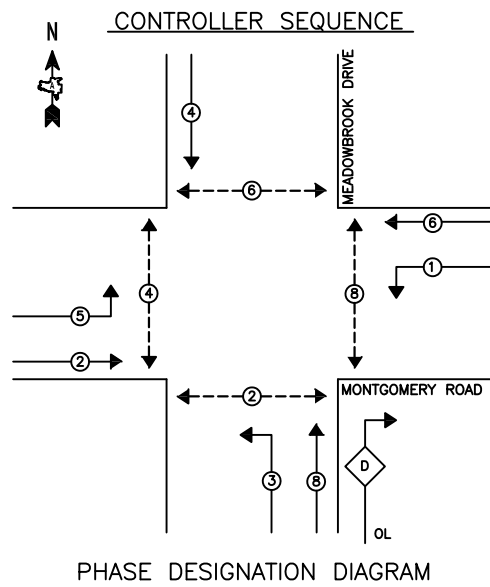
REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE: 1"=30'
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT: **MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE**  
**TRAFFIC SIGNAL**

SHEET TITLE: **TRAFFIC SIGNAL INSTALLATION PLAN**

SHEET NUMBER: **5**

TOTAL SHEETS: **40**



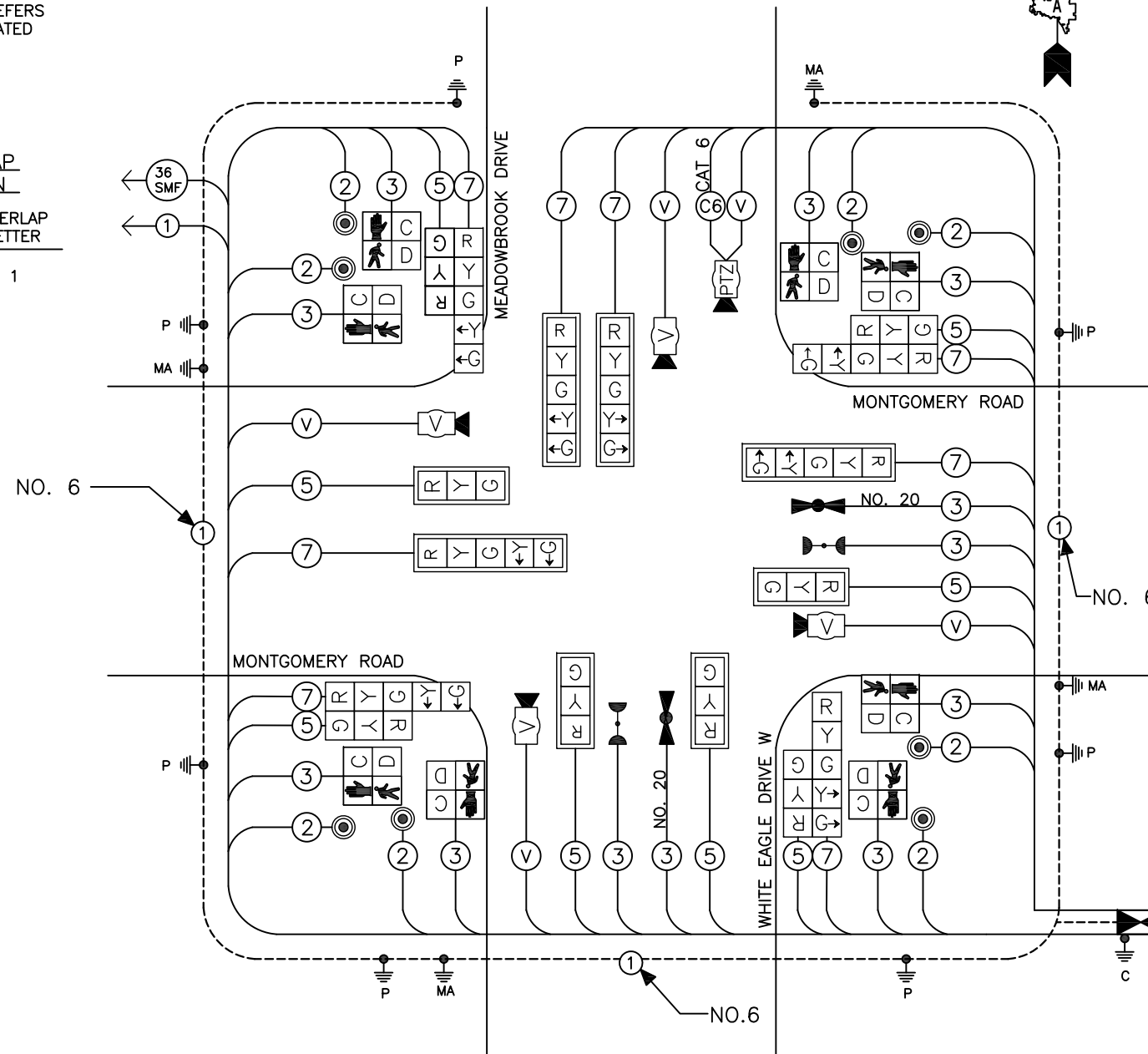
PROPOSED EMERGENCY VEHICLE PREEMPTION		
EMERGENCY VEHICLE PREEMPTION	3	4
MOVEMENT	←→	↑↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	17	0.50	136	
(YELLOW)	16	25	0.25	100	
(GREEN)	16	15	0.25	60	
ARROW	16	12	0.10	19	
PED. SIGNAL	8	25	1.00	200	
CONTROLLER	1	100	1.00	100	
UPS	1	25	1.00	25	
VIDEO SYSTEM	1	15	1.00	15	
TOTAL =				655	

ENERGY COSTS TO: CITY OF AURORA  
44 E. DOWNER PLACE  
AURORA, ILLINOIS 60507-2067

ENERGY SUPPLY CONTACT: MARK SCHERIBEL  
PHONE: (630) 723-2128  
COMPANY: COMMONWEALTH EDISON

NOTE:  
GROUNDING AND BONDING LABOR, EQUIPMENT, AND MATERIAL COSTS ARE INCLUDED IN THE CONTRACT CABLE, FOUNDATION AND HANDHOLE PAY ITEMS PER INCLUDED PLAN STANDARD DETAILS TS-05 AND 873001-02.



SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	QUANTITY
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	209
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	25
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	262
HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1387
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1443
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1550
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1431
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	154.5
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	571
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT	EACH	4
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	40.5
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	13.5
SIGNAL HEAD, LED, 1 FACE, 3 SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3 SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5 SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5 SECTION, MAST-ARM MOUNTED	EACH	4
PEDESTRAIN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8
LIGHT DETECTOR (INCLUDE CONFIRMATION BEACON)	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH BUTTON	EACH	8
CAT. 6 ETHERNET CABLE	FOOT	158
UNINTERUPTABLE POWER SUPPLY, SPECIAL	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	317
INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
VIDEO DETECTION SYSTEM	EACH	1



CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY

REVISIONS:

DESIGNED BY: GIL    CHECKED BY: RG    SCALE:  
DRAWN BY: GIL    APPROVED BY: RG    DATE: 4/2019

PROJECT

MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE  
TRAFFIC SIGNAL

SHEET TITLE

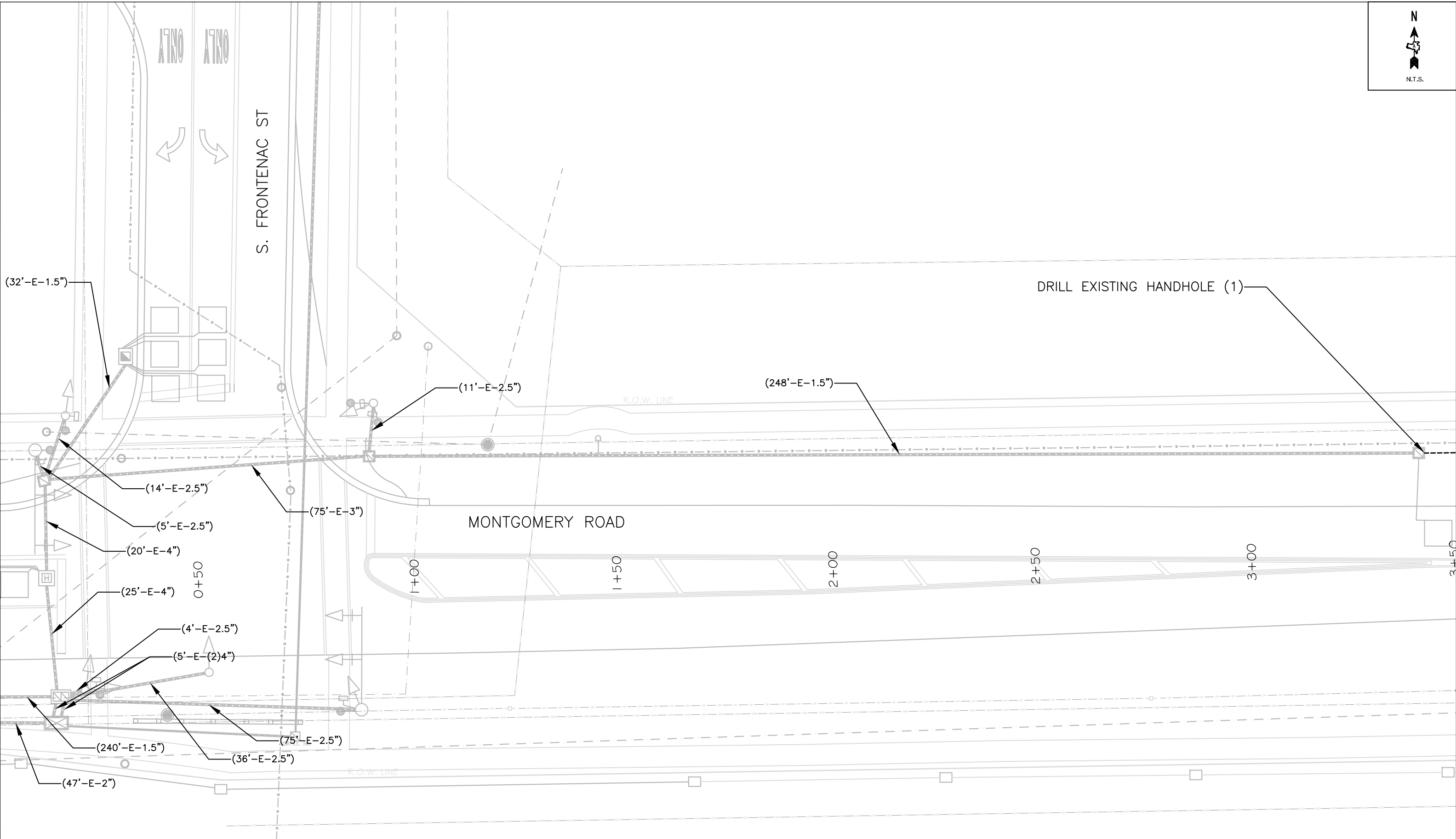
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE

SHEET NUMBER

6

TOTAL SHEETS

40

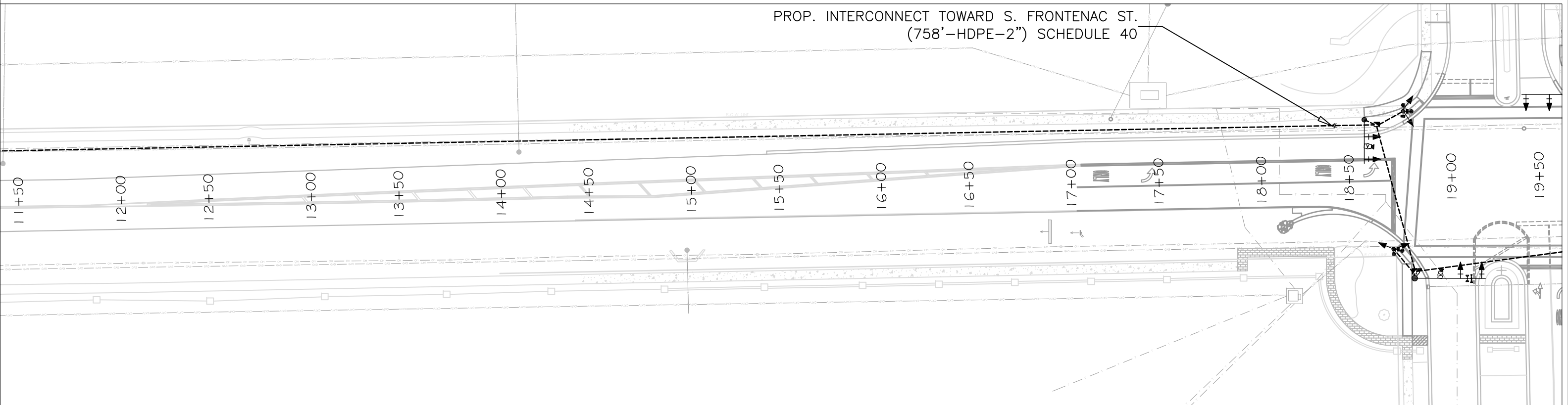
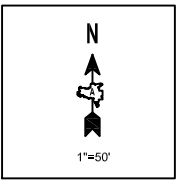
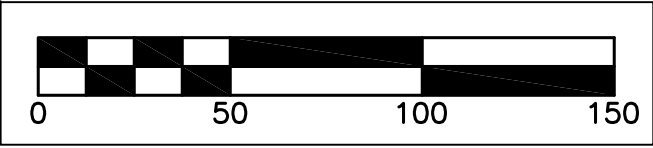
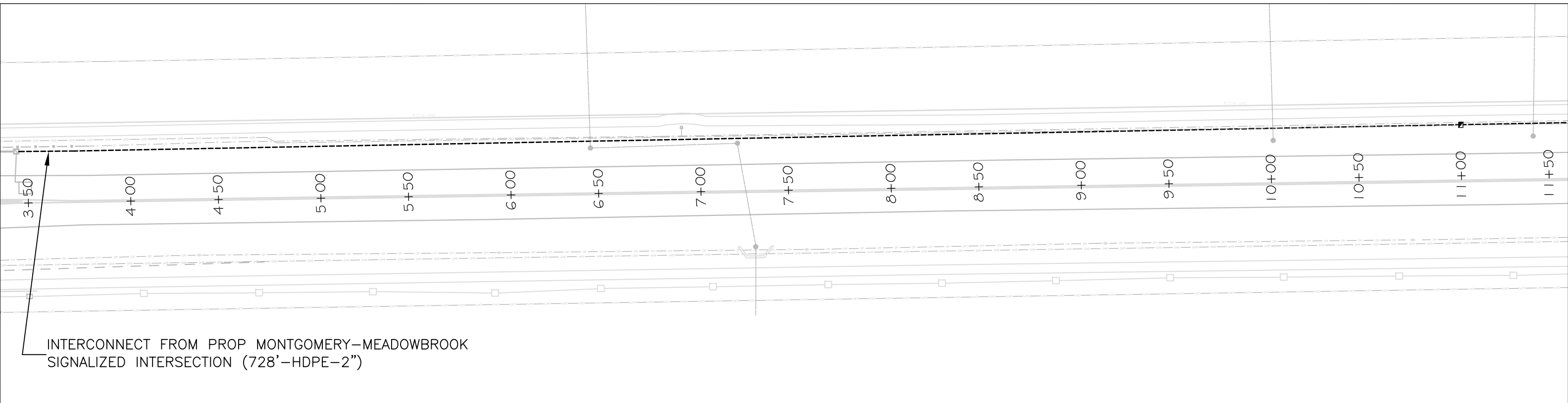


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**77 S. BROADWAY**

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PROJECT	<b>MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE</b> <b>TRAFFIC SIGNAL</b>
SHEET TITLE	<b>INTERCONNECT PLAN</b>

SHEET NUMBER	<b>7</b>
TOTAL SHEETS	<b>40</b>



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ENGINEERING DIVISION  
77 S. BROADWAY**

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DESIGNED BY: GIL	CHECKED BY: RG	SCALE: 1"=50'
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

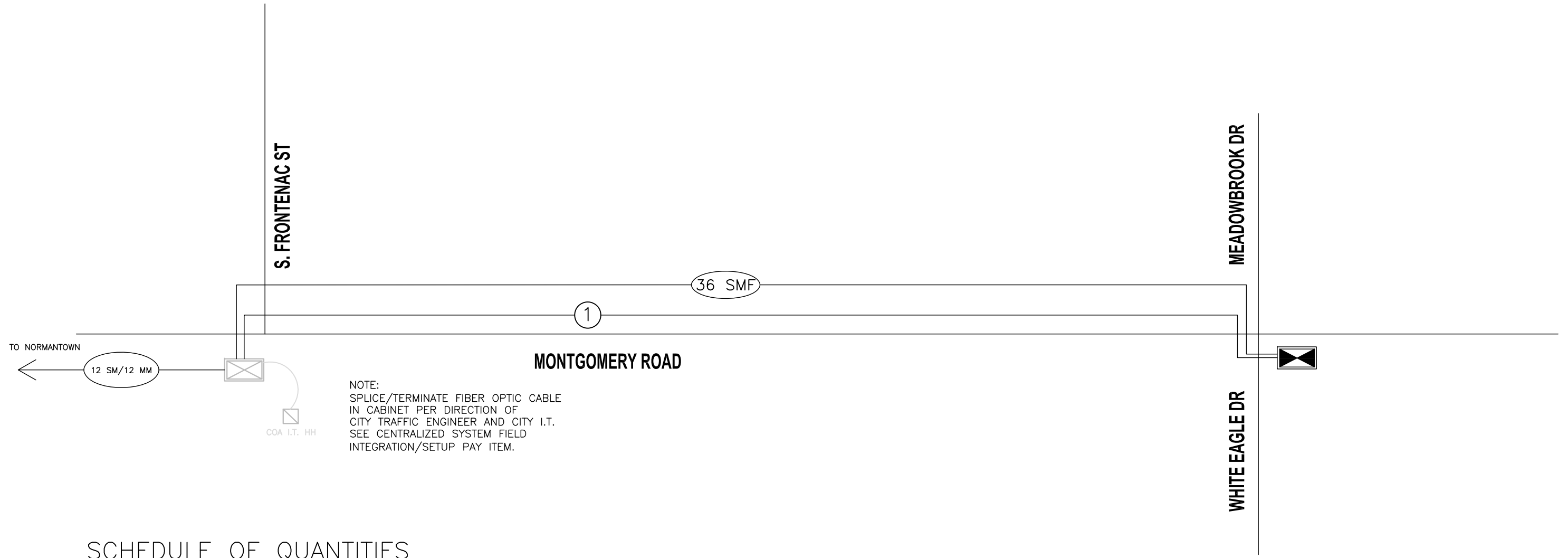
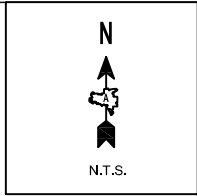
PROJECT  
**MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE  
TRAFFIC SIGNAL**

SHEET TITLE  
**INTERCONNECT PLAN**

SHEET NUMBER  
**8**

TOTAL SHEETS  
**40**





NOTE:  
 SPLICE/TERMINATE FIBER OPTIC CABLE  
 IN CABINET PER DIRECTION OF  
 CITY TRAFFIC ENGINEER AND CITY I.T.  
 SEE CENTRALIZED SYSTEM FIELD  
 INTEGRATION/SETUP PAY ITEM.

SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	QUANTITY
HANDHOLE, COMPOSITE CONCRETE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	1917
DRILL EXISTING HANDHOLE	EACH	1
ETHERNET SWITCH	EACH	2
FIBER OPTIC CABLE, MICRO, 36 FIBERS, SINGLE MODE	FOOT	1943
CENTRALIZED SYSTEM FIELD INTEGRATION / SETUP	L SUM	1
UNDERGROUND CONDUIT, COILABLE NONMETALIC CONDUIT (HDPE, SCH. 40), 2" DIA	FOOT	1486



CITY OF AURORA  
 ENGINEERING DIVISION  
 77 S. BROADWAY

REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE: N.T.S.
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT	MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL
SHEET TITLE	INTERCONNECT SCHEMATIC

SHEET NUMBER	9
TOTAL SHEETS	40

# TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET			HANDHOLE -SQUARE -ROUND			SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD		
COMMUNICATION CABINET			HEAVY DUTY HANDHOLE -SQUARE -ROUND			SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		
MASTER CONTROLLER			DOUBLE HANDHOLE			PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
MASTER MASTER CONTROLLER			JUNCTION BOX			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		
UNINTERRUPTIBLE POWER SUPPLY			RAILROAD CANTILEVER MAST ARM			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SERVICE INSTALLATION -(P) POLE MOUNTED			RAILROAD FLASHING SIGNAL			NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED			RAILROAD CROSSING GATE			GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)		
TELEPHONE CONNECTION			RAILROAD CROSSBUCK			ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		
STEEL MAST ARM ASSEMBLY AND POLE			RAILROAD CONTROLLER CABINET			COAXIAL CABLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL			VENDOR CABLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY			SYSTEM ITEM			FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		
WOOD POLE			INTERSECTION ITEM			GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE		
GUY WIRE			REMOVE ITEM					
SIGNAL HEAD			RELOCATE ITEM					
SIGNAL HEAD WITH BACKPLATE			ABANDON ITEM					
SIGNAL HEAD OPTICALLY PROGRAMMED			CONTROLLER CABINET AND FOUNDATION TO BE REMOVED					
FLASHER INSTALLATION -(FS) SOLAR POWERED			MAST ARM POLE AND FOUNDATION TO BE REMOVED					
PEDESTRIAN SIGNAL HEAD			SIGNAL POST AND FOUNDATION TO BE REMOVED					
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON			DETECTOR LOOP, TYPE I					
RADAR DETECTION SENSOR			PREFORMED DETECTOR LOOP					
VIDEO DETECTION CAMERA			SAMPLING (SYSTEM) DETECTOR					
RADAR/VIDEO DETECTION ZONE			INTERSECTION AND SAMPLING (SYSTEM) DETECTOR					
PAN, TILT, ZOOM (PTZ) CAMERA			QUEUE AND SAMPLING (SYSTEM) DETECTOR					
EMERGENCY VEHICLE LIGHT DETECTOR			WIRELESS DETECTOR SENSOR					
CONFIRMATION BEACON			WIRELESS ACCESS POINT					
WIRELESS INTERCONNECT								
WIRELESS INTERCONNECT RADIO REPEATER								

FILE NAME + ts05.dgn	USER NAME + leyse	DESIGNED - IP	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DESIGNED BY: GIL	CHECKED BY: LP	DATE: 9/29/2016	REVISED -	SCALE: NONE	SHEET 1 OF 7 SHEETS	STA. TO STA.	TS-05	CONTRACT NO.	ILLINOIS FED. AID PROJECT	



**CITY OF AURORA**  
ENGINEERING DIVISION  
77 S. BROADWAY

REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

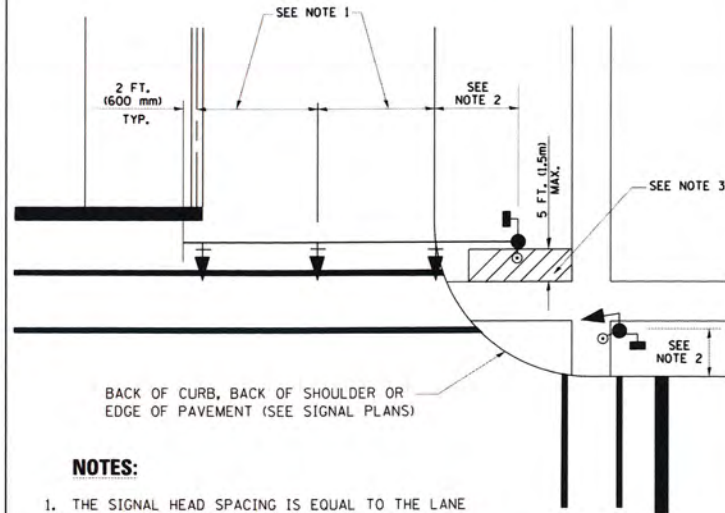
PROJECT  
**MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE**  
TRAFFIC SIGNAL

SHEET TITLE  
MISCELLANEOUS STANDARD DETAILS

SHEET NUMBER  
**10**

TOTAL SHEETS  
**40**

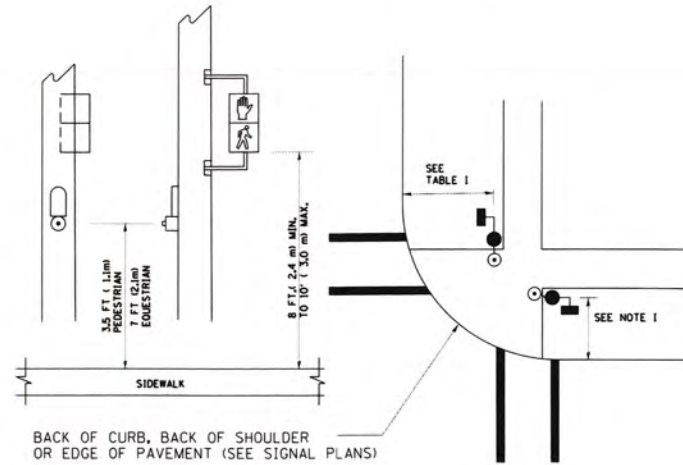
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**  
**MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR**  
**FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN**  
**WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



**NOTES:**

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

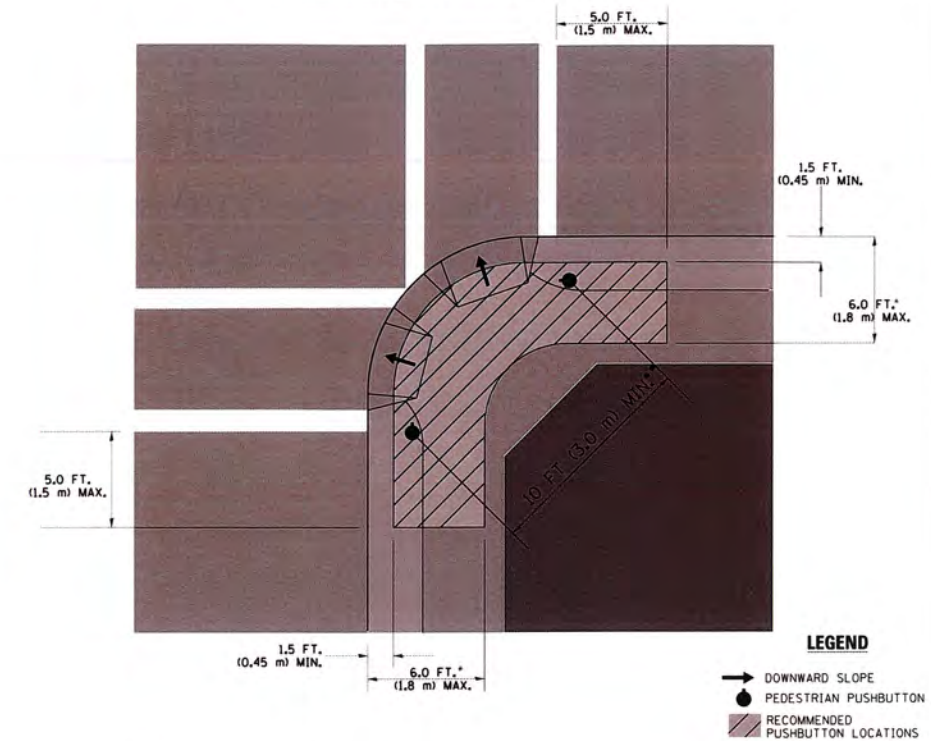
**PEDESTRIAN SIGNAL POST**  
**AND**  
**PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

**RECOMMENDED PUSHBUTTON LOCATIONS**



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

**NOTES:**

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

**TRAFFIC SIGNAL EQUIPMENT OFFSET**

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

**NOTES:**

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

FILE NAME =	USER NAME = fcasten_j	DESIGNED - DAD	REVISED - DAG 1-1-14
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PLOT SCALE = 50.0000		CHECKED - DAD	REVISED -
PLOT DATE = 1/13/2014		DATE - 10-28-09	REVISED -

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

**DISTRICT ONE**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TS-05			
SCALE: NONE		SHEET NO. 3 OF 7 SHEETS		STA. TO STA.
		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		CONTRACT NO.



**CITY OF AURORA**  
**ENGINEERING DIVISION**  
**77 S. BROADWAY**

**REVISIONS:**

DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

**PROJECT**

**MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE**  
**TRAFFIC SIGNAL**

**SHEET TITLE**

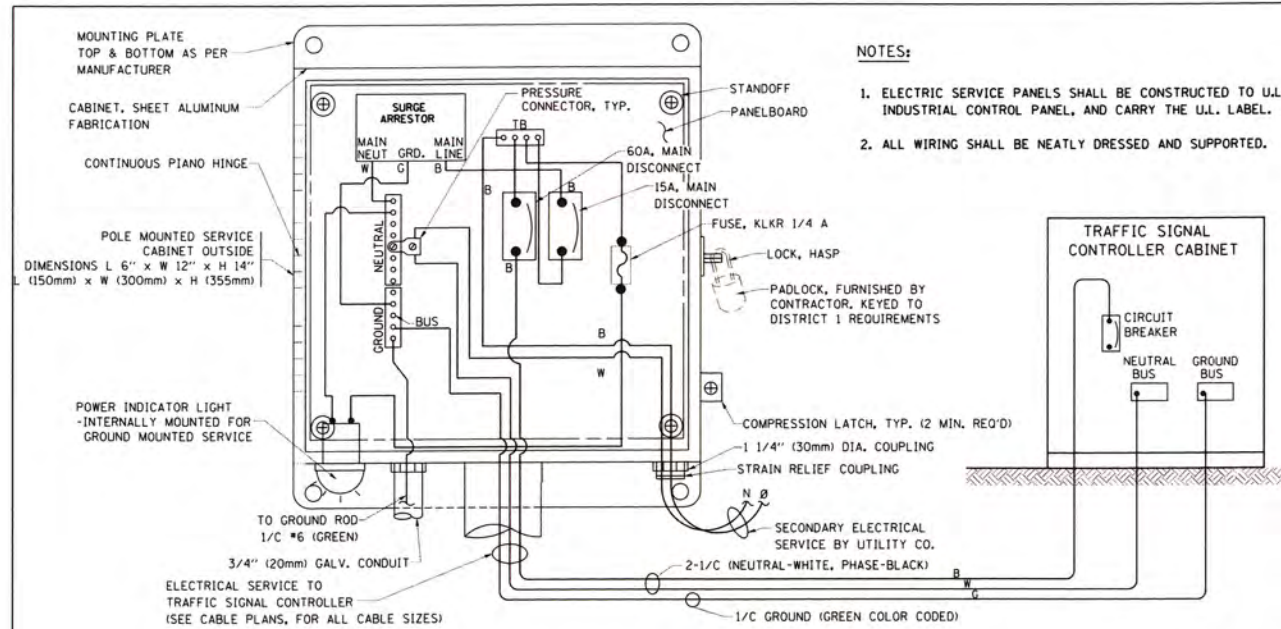
**MISCELLANEOUS STANDARD DETAILS**

**SHEET NUMBER**

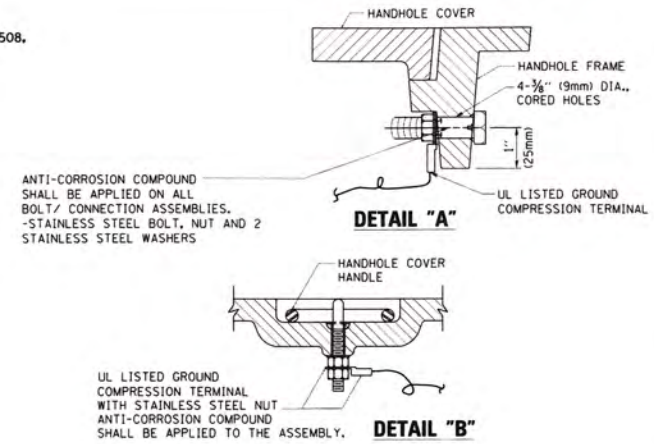
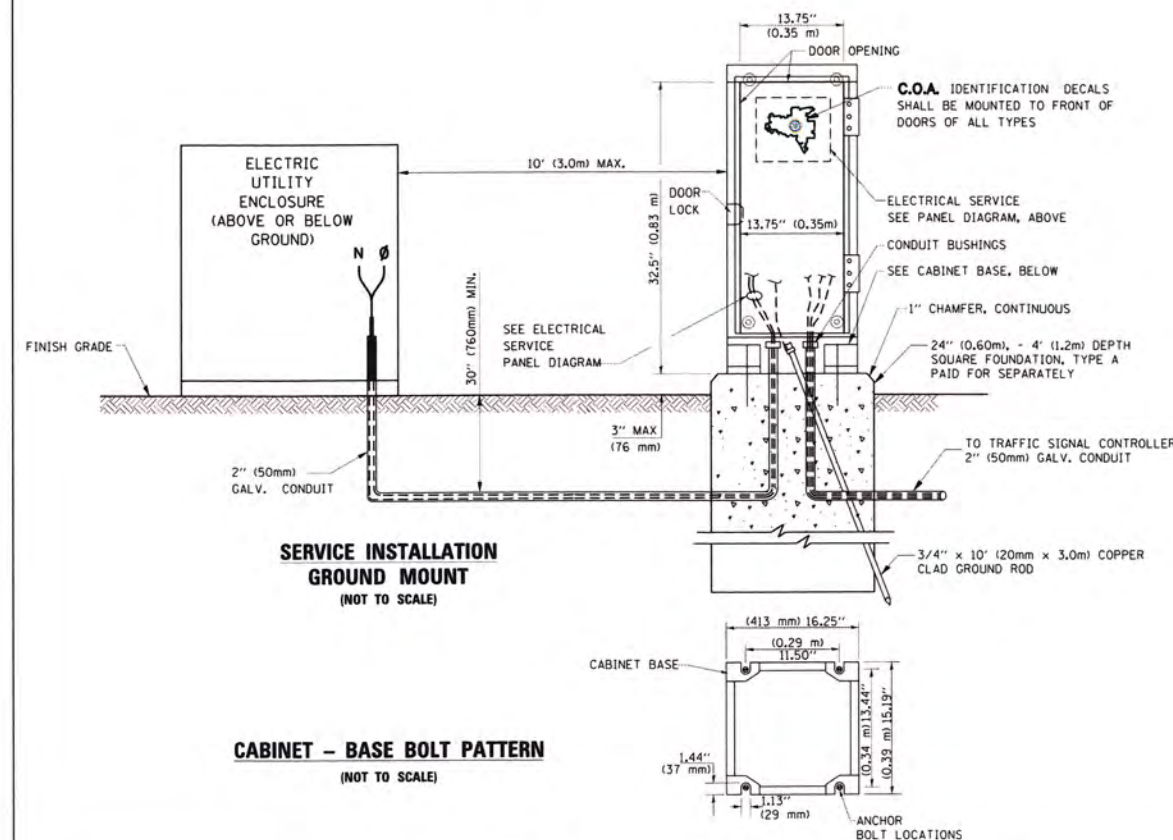
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**TOTAL SHEETS**

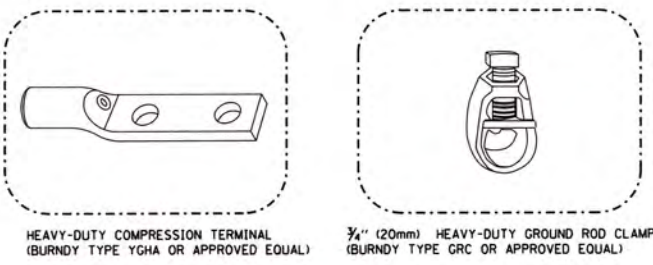
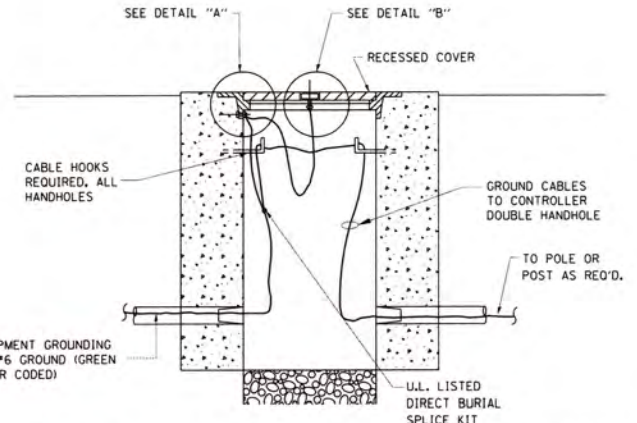
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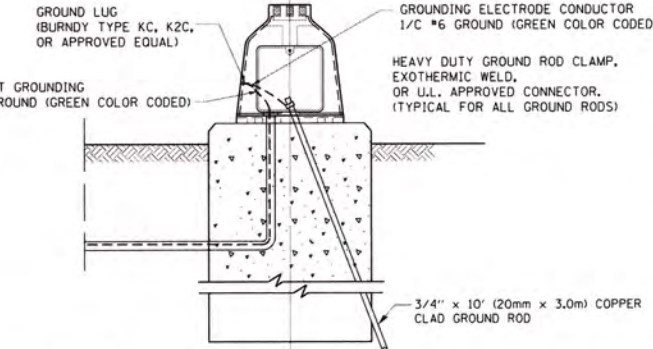
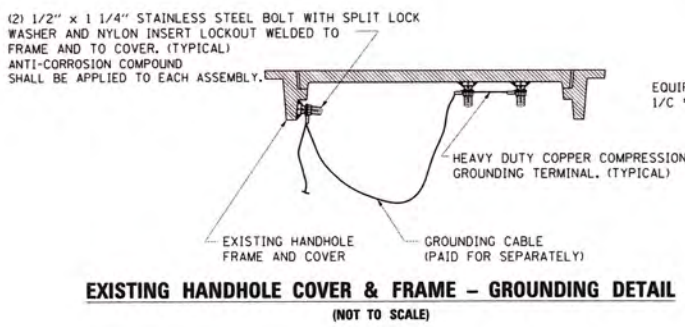
**ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)  
SERVICE INSTALLATION POLE MOUNT (SHOWN)  
(NOT TO SCALE)**



- NOTES:**
- GROUNDING SYSTEM**
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
  2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
  3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
  4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
  - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



FILE NAME: c:\pwwork\pwwork\footen\1481083151\ts05.dgn	USER NAME: footen	DESIGNED: DAD	REVISED: DAG 1-1-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE: 50:2000 1/2" = 1'	CHECKED: DAD	REVISIONS:	DATE: 10-28-09		SCALE: NONE	SHEET NO. 4 OF 7 SHEETS	STA.	TO STA.	<b>TS-05</b>			
PLOT DATE: 1/13/2014	DATE: 10-28-09	DESIGNED BY: GIL	CHECKED BY: RG		SCALE:				CONTRACT NO.			
		DRAWN BY: GIL	APPROVED BY: RG		DATE: 4/2019				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			



**CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY**

REVISIONS:

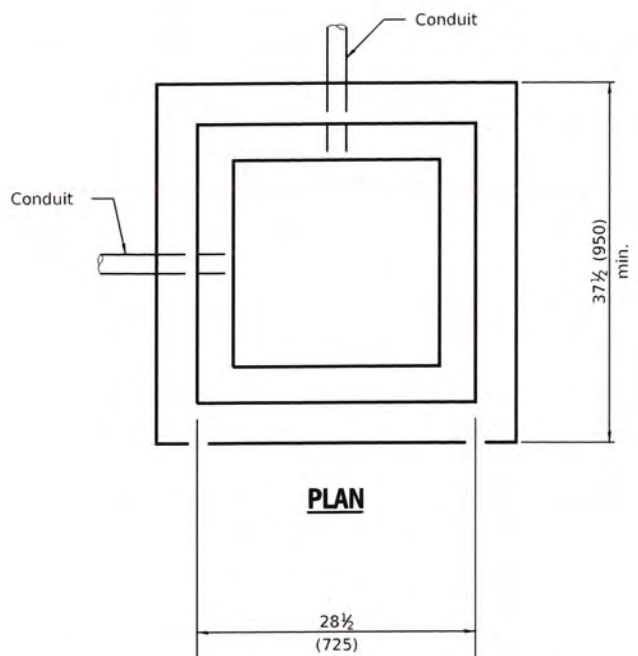
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT: **MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL**

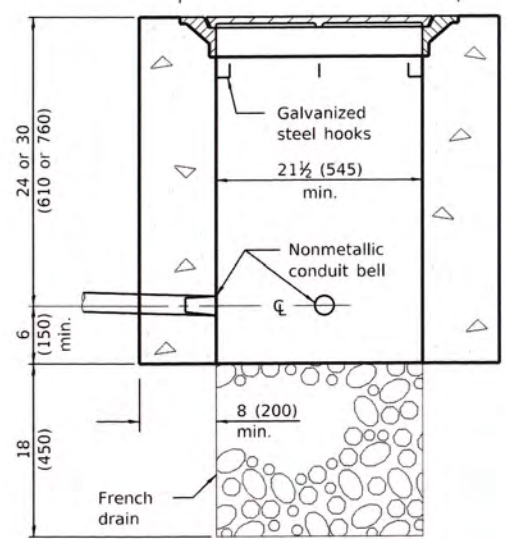
SHEET TITLE: **MISCELLANEOUS STANDARD DETAILS**

SHEET NUMBER: **12**

TOTAL SHEETS: **40**

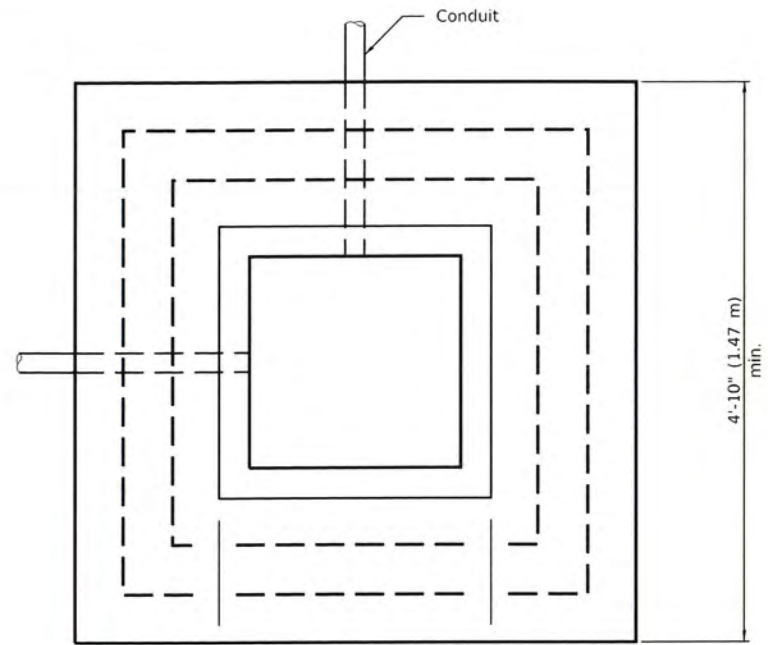


**PLAN**

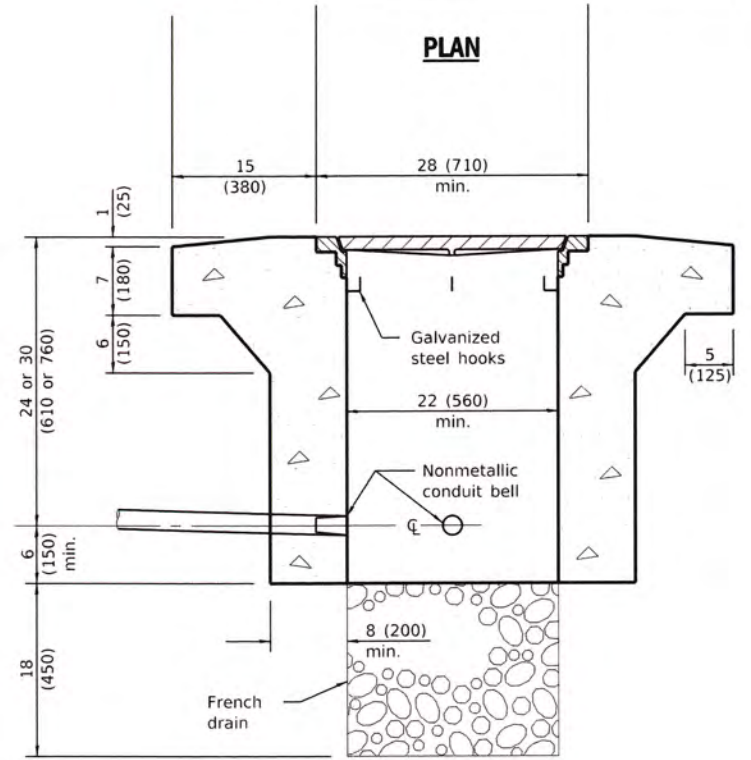


**ELEVATION**

**PORTLAND CEMENT CONCRETE**

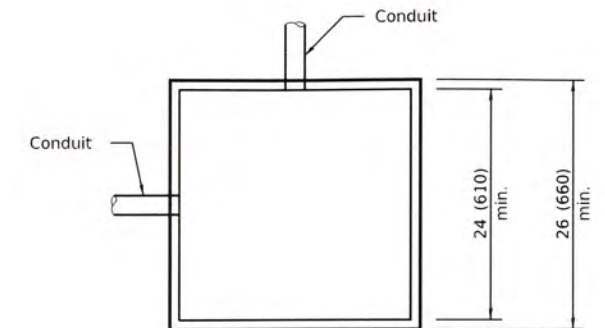


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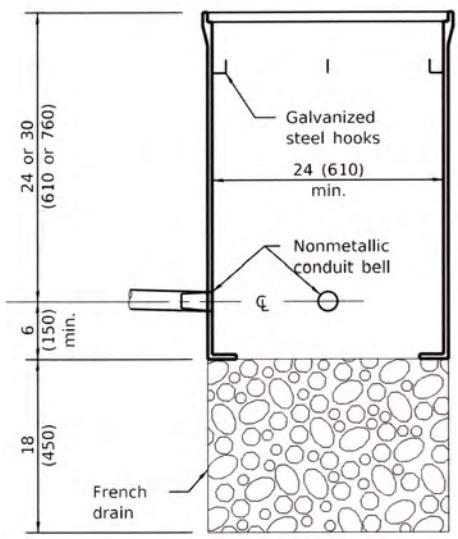


**ELEVATION**

**PORTLAND CEMENT CONCRETE  
HEAVY DUTY**



**PLAN**



**ELEVATION**

**COMPOSITE CONCRETE**

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

Illinois Department of Transportation  
 PASSED January 1, 2015  
 ENGINEER OF OPERATIONS  
 APPROVED January 1, 2015  
 ENGINEER OF DESIGN AND ENVIRONMENT

**QUANTITIES**

Depth	Concrete yd <sup>3</sup> (m <sup>3</sup> )	
	Handhole	Heavy Duty Handhole
30 (762)	0.61 (0.47)	0.98 (0.75)
36 (914)	0.73 (0.56)	1.10 (0.84)

DATE	REVISIONS
1-1-15	Corrected dimension on heavy duty handhole. Added concrete quantities table.
1-1-09	Switched units to English (metric).

HANDHOLES	
STANDARD 814001-03	



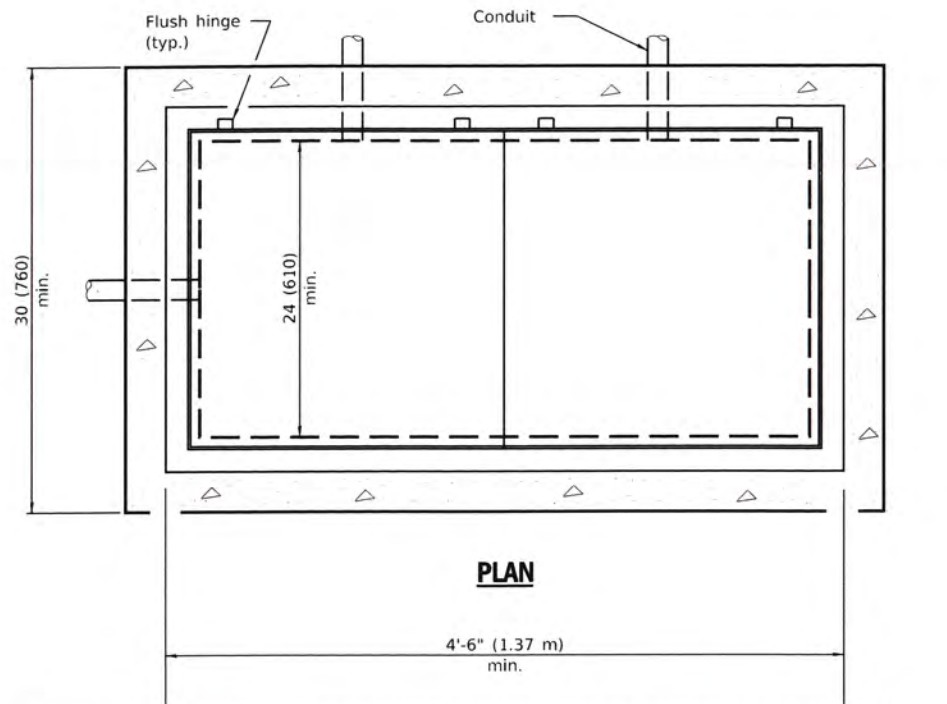
**CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY**

REVISIONS:

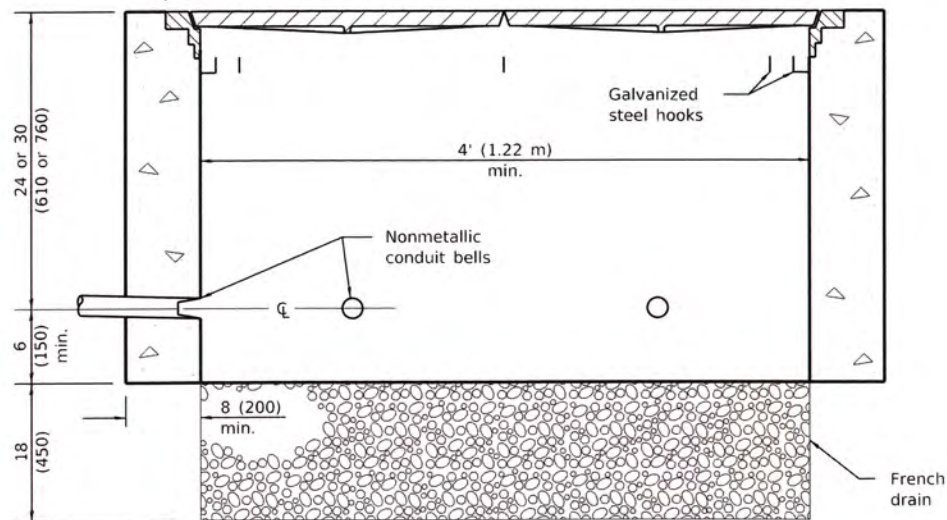
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DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT	<b>MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL</b>
SHEET TITLE	MISCELLANEOUS STANDARD DETAILS

SHEET NUMBER	<b>13</b>
TOTAL SHEETS	40

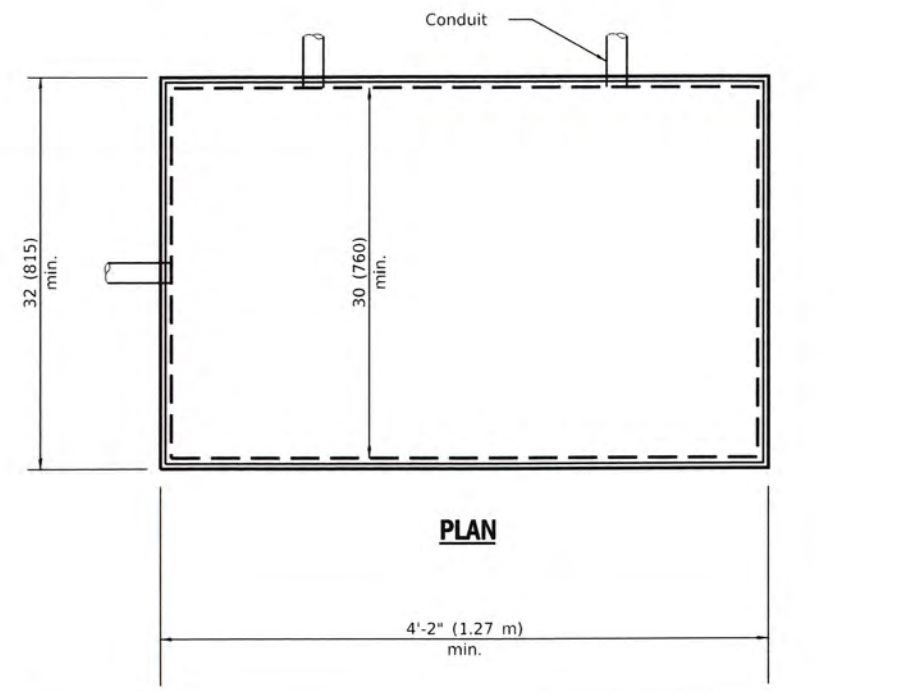


**PLAN**

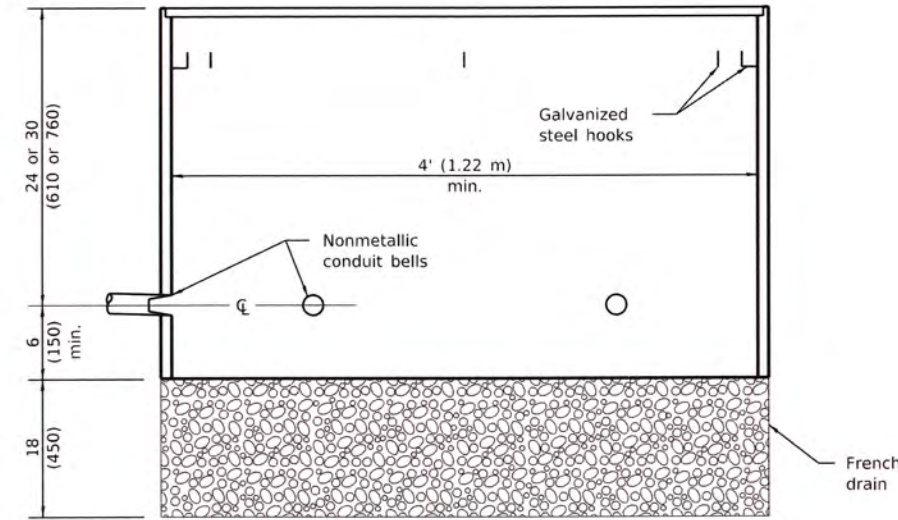


**ELEVATION**

**PORTLAND CEMENT CONCRETE**



**PLAN**



**ELEVATION**

**COMPOSITE CONCRETE**

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

Illinois Department of Transportation  
 PASSED January 1, 2009  
 ENGINEER OF OPERATIONS  
 APPROVED January 1, 2009  
 ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-09	Switched units to English (metric).
1-1-07	Revised composite conc. handhole. Rem. weights of frames and covers.

**DOUBLE HANDHOLES**

**STANDARD 814006-02**



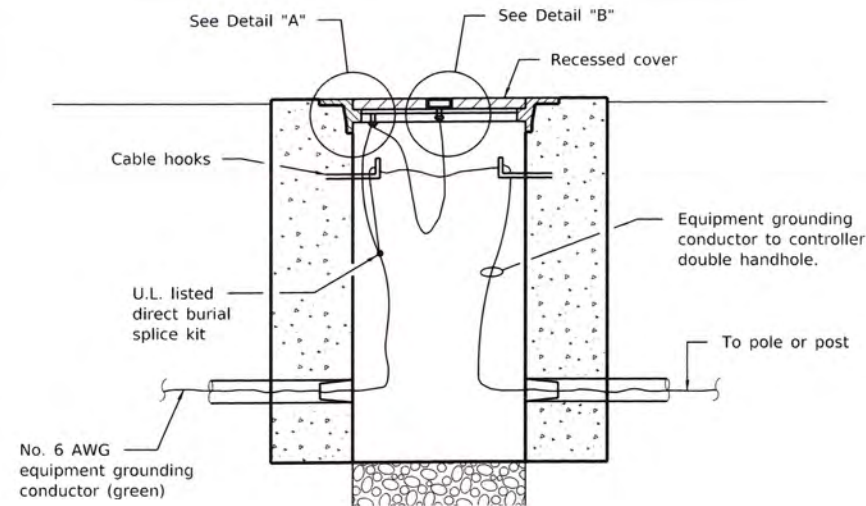
**CITY OF AURORA  
 ENGINEERING DIVISION  
 77 S. BROADWAY**

REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

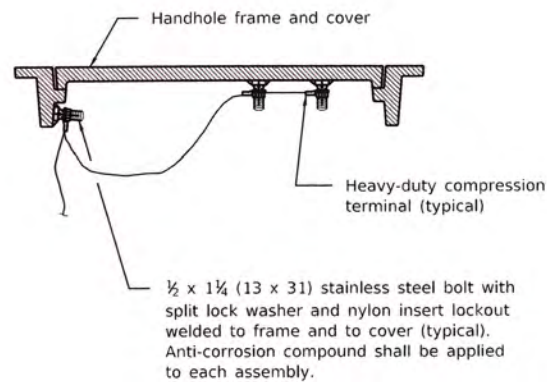
PROJECT **MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE  
 TRAFFIC SIGNAL**

SHEET TITLE **MISCELLANEOUS STANDARD DETAILS**

SHEET NUMBER **14**  
 TOTAL SHEETS **40**



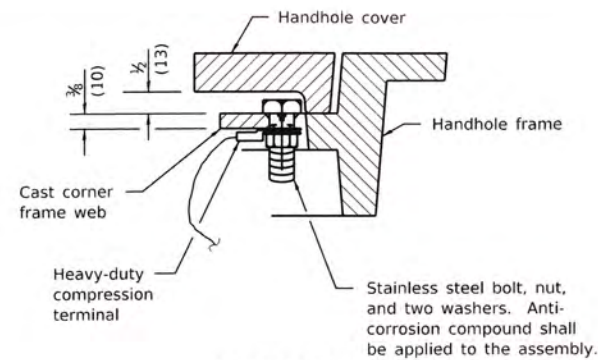
**BONDING A HANDHOLE COVER & FRAME**



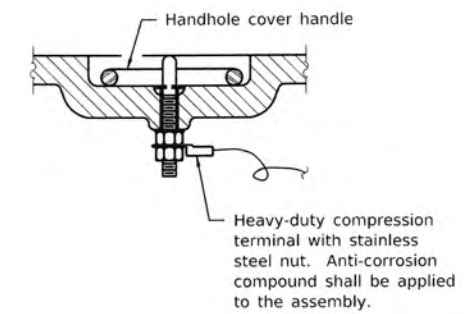
**BONDING AN EXISTING HANDHOLE COVER & FRAME**



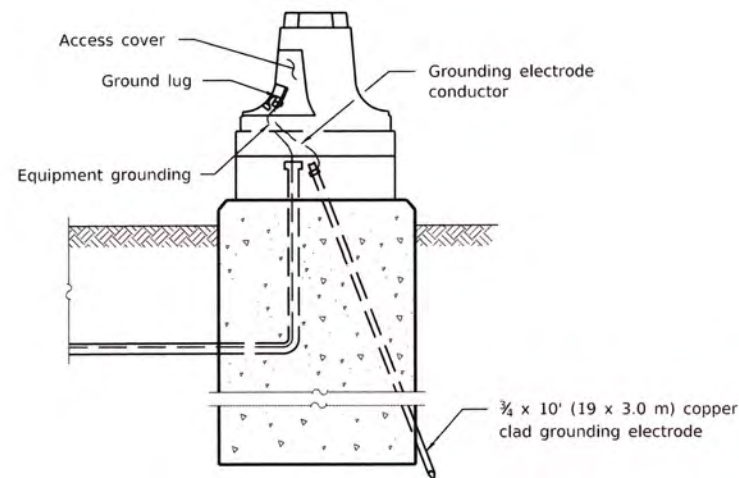
**HEAVY-DUTY COMPRESSION TERMINAL**



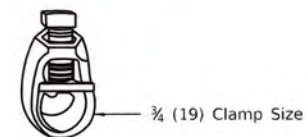
**DETAIL "A"**



**DETAIL "B"**



**GROUNDING A MAST ARM POLE/POST**



**HEAVY-DUTY GROUND ROD CLAMP**

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

Illinois Department of Transportation	
PASSED	January 1, 2009
<i>[Signature]</i>	
ENGINEER OF OPERATIONS	
APPROVED	January 1, 2009
<i>[Signature]</i>	
ENGINEER OF DESIGN AND ENVIRONMENT	
ISSUED	4.1.06

DATE	REVISIONS
1-1-09	Switched units to English (metric).
1-1-07	Revised terminology.

**TRAFFIC SIGNAL GROUNDING & BONDING**

**STANDARD 873001-02**



**CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY**

REVISIONS:

DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT

**MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE  
TRAFFIC SIGNAL**

SHEET TITLE

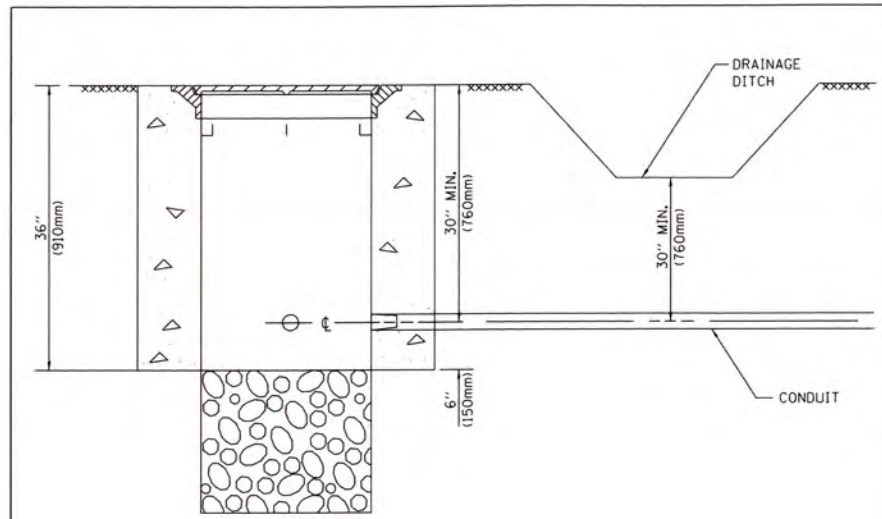
MISCELLANEOUS STANDARD DETAILS

SHEET NUMBER

**15**

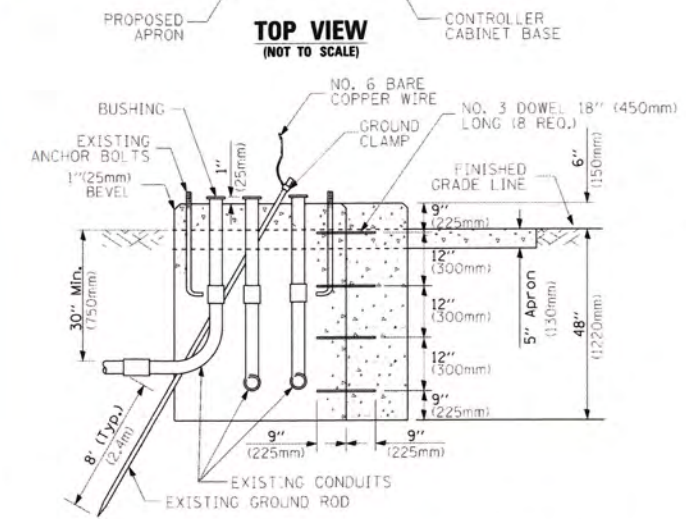
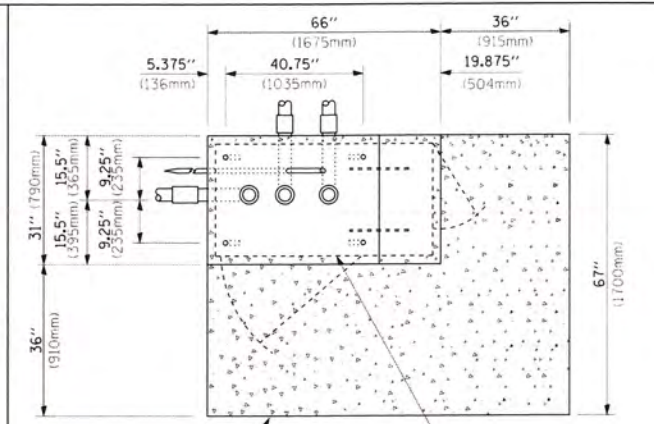
TOTAL SHEETS

**40**



- NOTES:**
1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
  2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
  3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

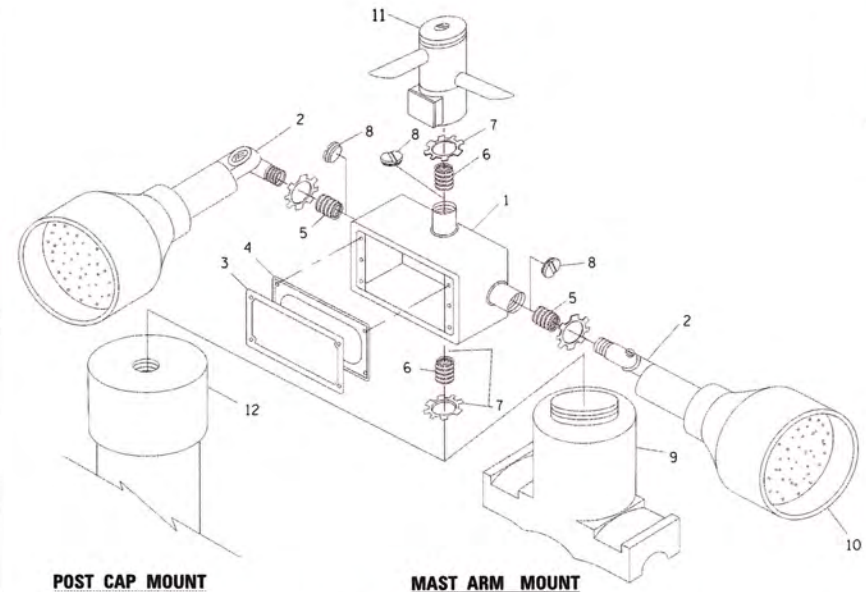
**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



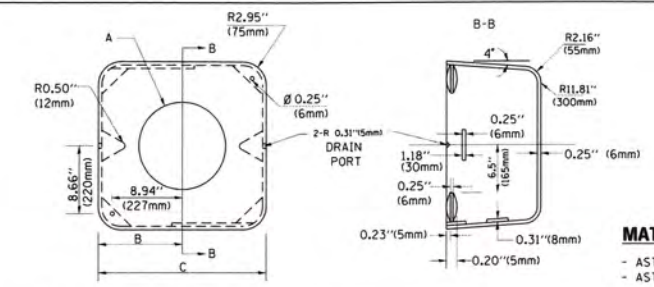
**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0,000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	1/2" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5,4 m) POST MIN.]

- NOTES:**
1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
  2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
  3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



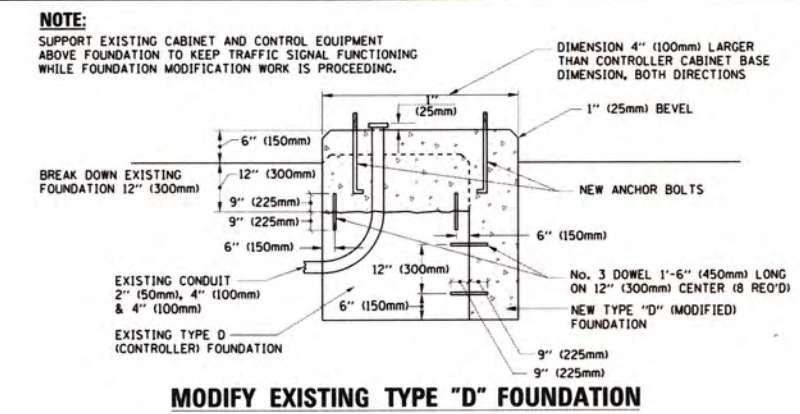
**EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL**



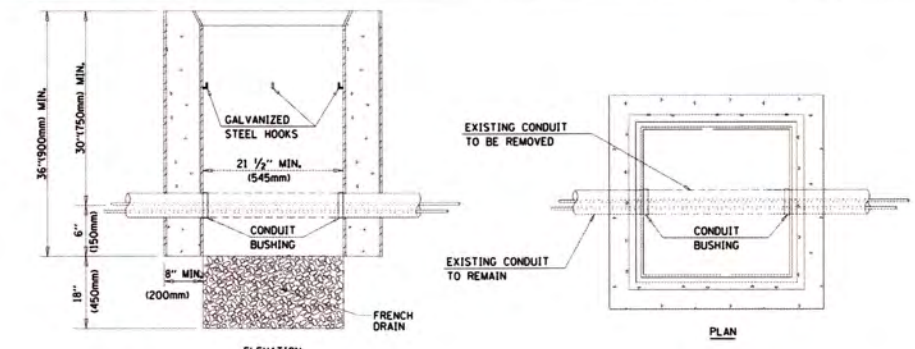
A	B	C	HEIGHT	WEIGHT
VARIES	9.5" (241mm)	19" (483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75" (273mm)	21.5" (546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0" (330mm)	26" (660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5" (470mm)	37" (940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

**SHROUD**

- NOTES:**
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
  2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
  3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



**MODIFY EXISTING TYPE "D" FOUNDATION**



- NOTES:**
1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
  2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

**HANDHOLE TO INTERCEPT EXISTING CONDUIT**

FILE NAME =	USER NAME =	DESIGNED =	REVISED =
0:\pe_work\p\p\01\003151\003151.dgn	Footej	DAD	DAG 1-1-14
PLT SCALE = 50.0000	PLT DATE = 1/13/2014	DRAWN =	REVISED =
		BCK	
		CHECKED =	REVISED =
		DAD	
		DATE =	REVISED =
		10-28-09	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TS-05			
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO.	



**CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY**

**REVISIONS:**

DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

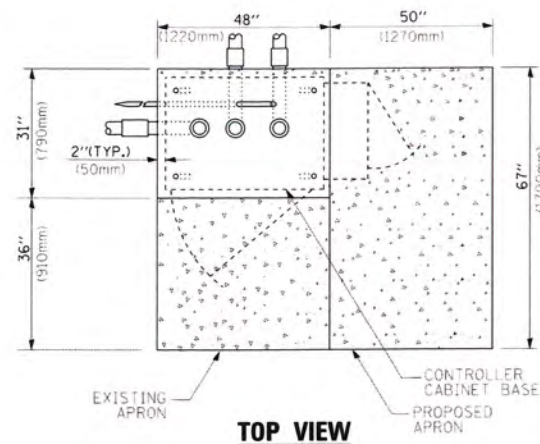
**PROJECT**  
MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE  
TRAFFIC SIGNAL

**SHEET TITLE**  
MISCELLANEOUS STANDARD DETAILS

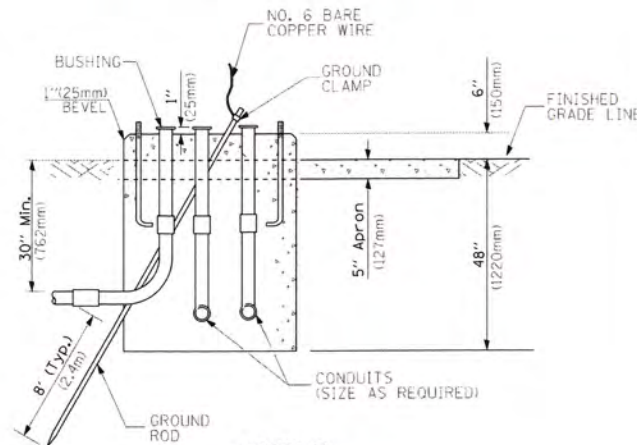
**SHEET NUMBER**  
16

**TOTAL SHEETS**  
40

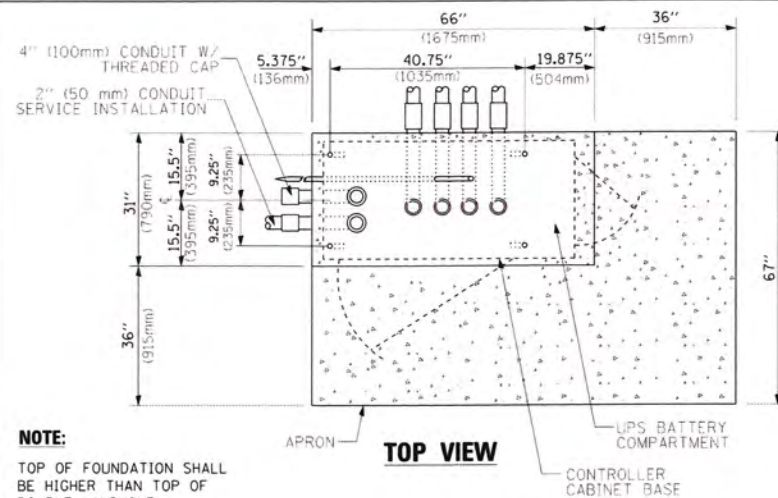




**TOP VIEW**

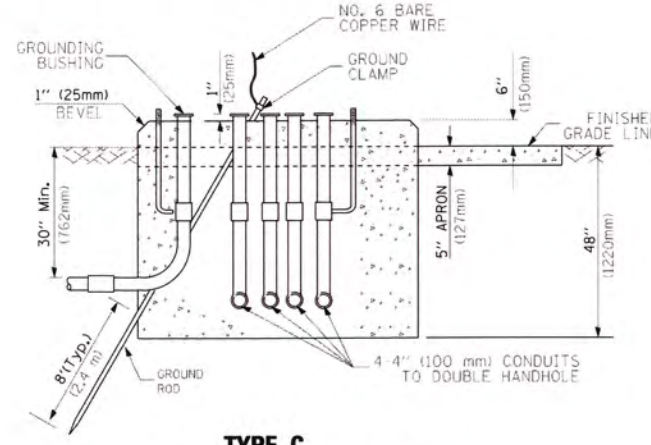


**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**

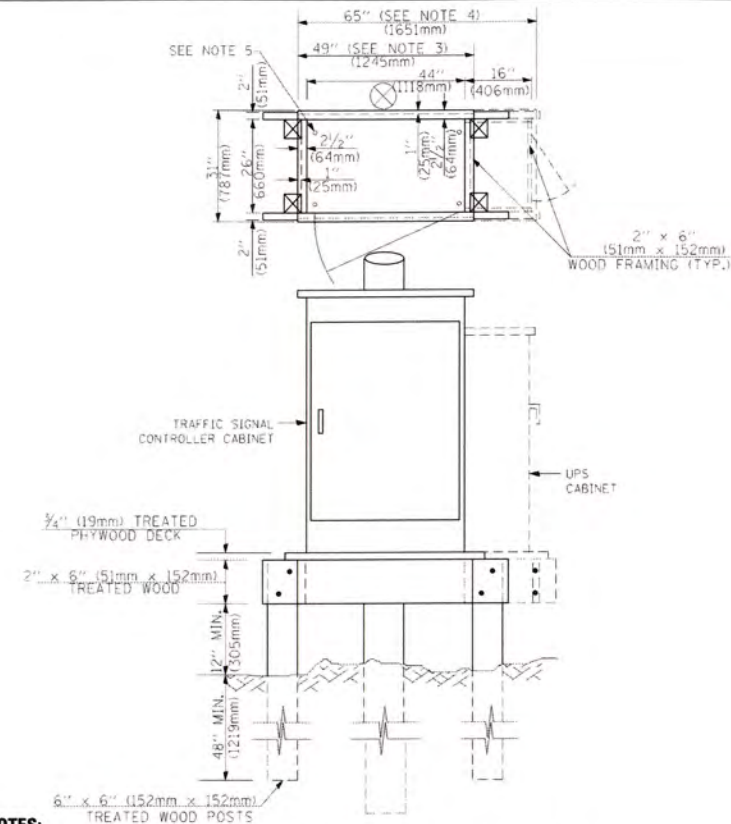


**TOP VIEW**

**NOTE:**  
TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



**TYPE C  
FOR GROUND MOUNTED  
SUPER P (TYPE IV) AND SUPER R (TYPE V)  
CONTROLLER CABINETS**



**NOTES:**

- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
- BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
- PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
- PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
- DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
- FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

**CABLE SLACK**

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

**VERTICAL CABLE LENGTH**

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

**DEPTH OF FOUNDATION**

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

**NOTES:**

- These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average unconfined Compressive Strength ( $q_u$ ) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
- Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
- Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
- For mast arm assemblies with dual arms refer to state standard 878001.

**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**

FILE NAME: c:\work\pawdot\footem\48189315\tsd.dgn	USER NAME: Footemj	DESIGNED: DAG	REVISED: DAG 1-1-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE: 50.0000 / 1 in.	CHECKED: DAD	REVISED:	REVISED:			<b>TS-05</b>		CONTRACT NO.		
PLOT DATE: 1/13/2014	DATE: 10-28-09	REVISED:	REVISED:			SCALE: NONE		SHEET NO. 5 OF 7 SHEETS STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



**CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY**

REVISIONS:

DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT

**MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE  
TRAFFIC SIGNAL**

SHEET TITLE

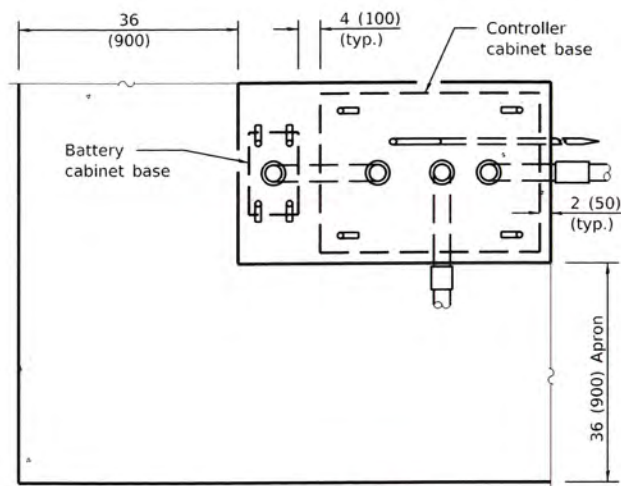
**MISCELLANEOUS STANDARD DETAILS**

SHEET NUMBER

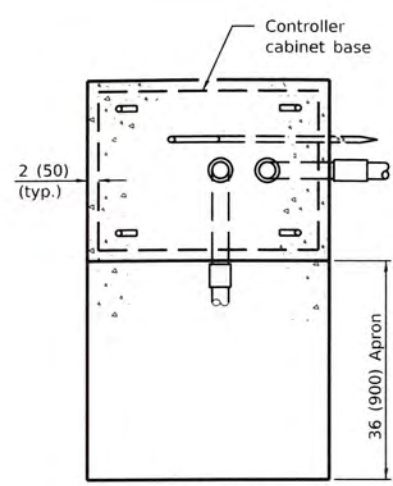
**17**

TOTAL SHEETS

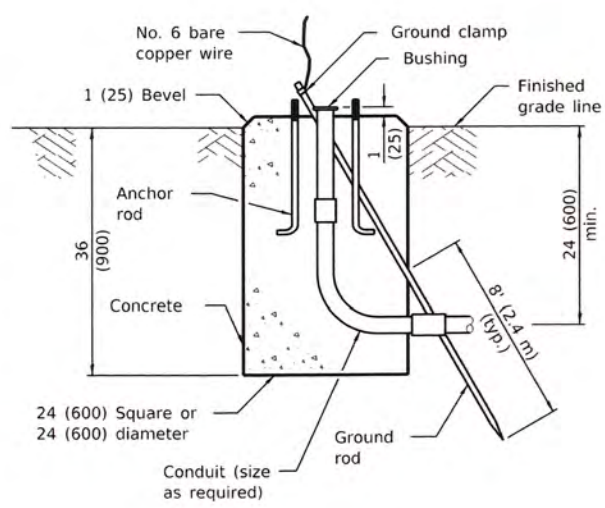
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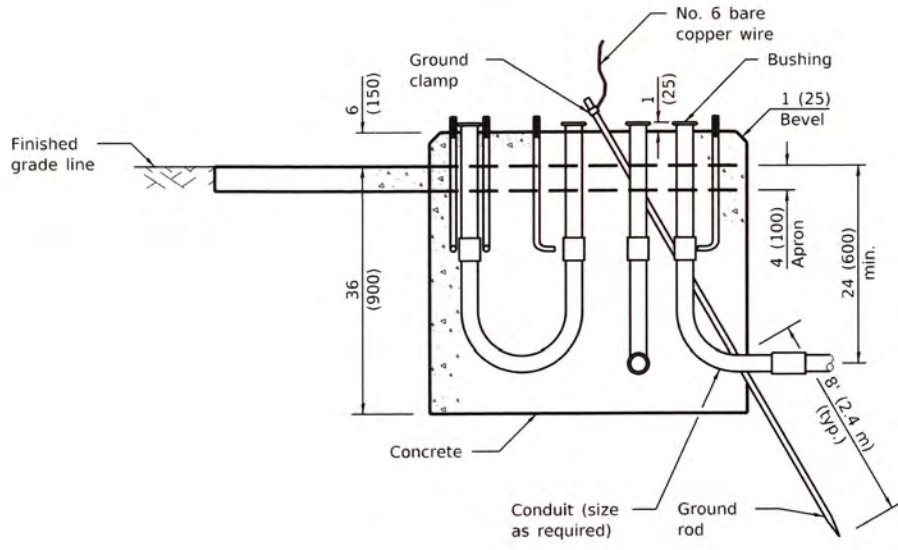
**TOP VIEW**



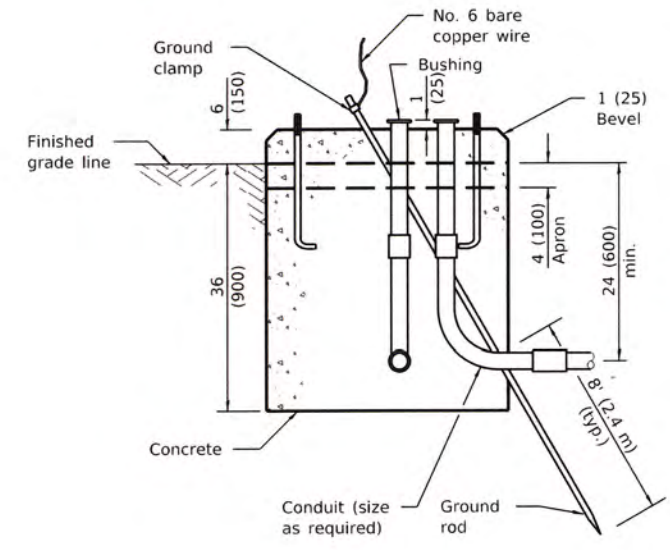
**TOP VIEW**



**TYPE A**



**TYPE C  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**



**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET**

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

Illinois Department of Transportation  
 PASSED January 1, 2015  
 ENGINEER OF OPERATIONS  
 APPROVED January 1, 2015  
 ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-15	Revised TYPE E detail.
1-1-12	Replaced rebar No.'s with 'Vertical' for TYPE E foundation detail.

**CONCRETE FOUNDATION DETAILS**  
 (Sheet 1 of 2)  
**STANDARD 878001-10**

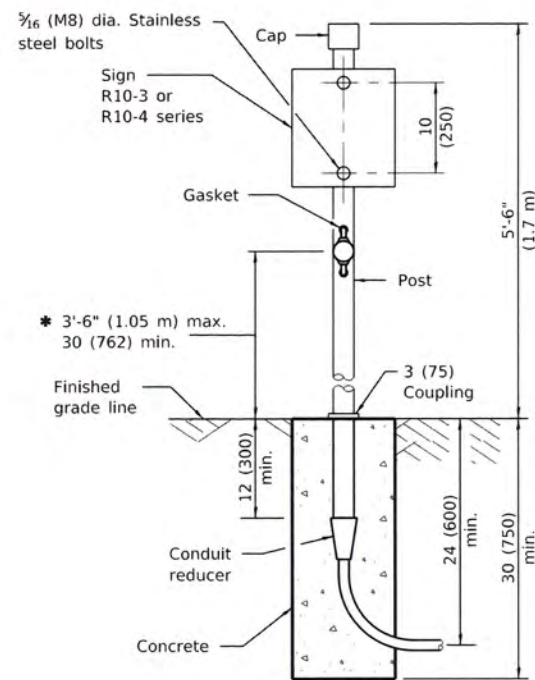


**CITY OF AURORA  
 ENGINEERING DIVISION  
 77 S. BROADWAY**

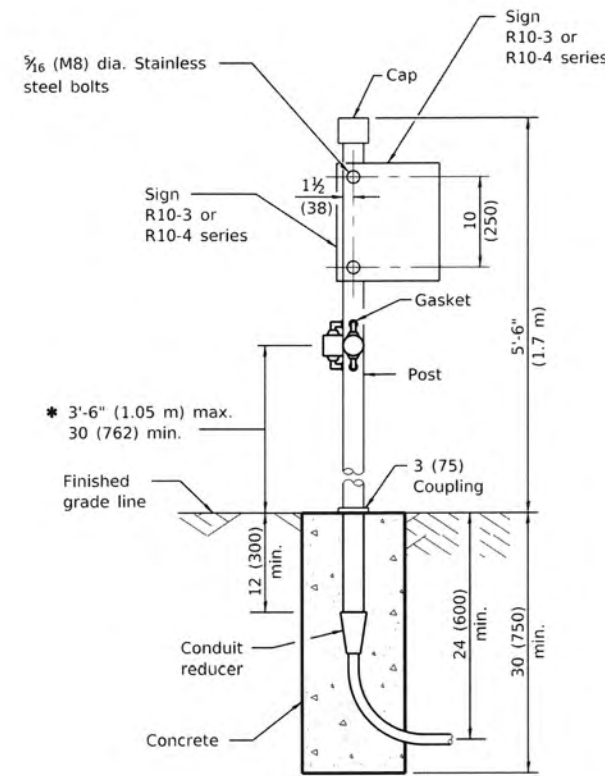
REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT	<b>MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL</b>
SHEET TITLE	MISCELLANEOUS STANDARD DETAILS

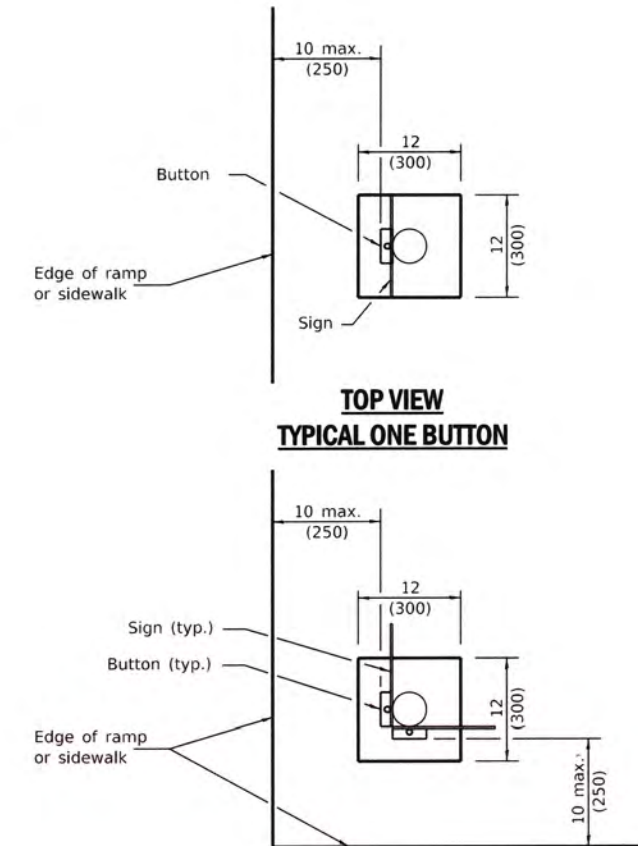
SHEET NUMBER	<b>18</b>
TOTAL SHEETS	40



**PEDESTRIAN ONE PUSH BUTTON POST**



**PEDESTRIAN TWO PUSH BUTTON POST**



**TOP VIEW  
TYPICAL ONE BUTTON**

**TOP VIEW  
TYPICAL TWO BUTTONS**

\* 36 (914) preferred

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

Illinois Department of Transportation

PASSED April 1, 2016  
*Jerry Allen*  
 ENGINEER OF OPERATIONS

APPROVED April 1, 2016  
*[Signature]*  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

DATE	REVISIONS	<b>PEDESTRIAN PUSH BUTTON POST</b>
4-1-16	Revised sign numbers for concistency with current MUTCD.	
1-1-14	Revised and added dimensions for PROWAG reach range requirements.	<b>STANDARD 876001-04</b>

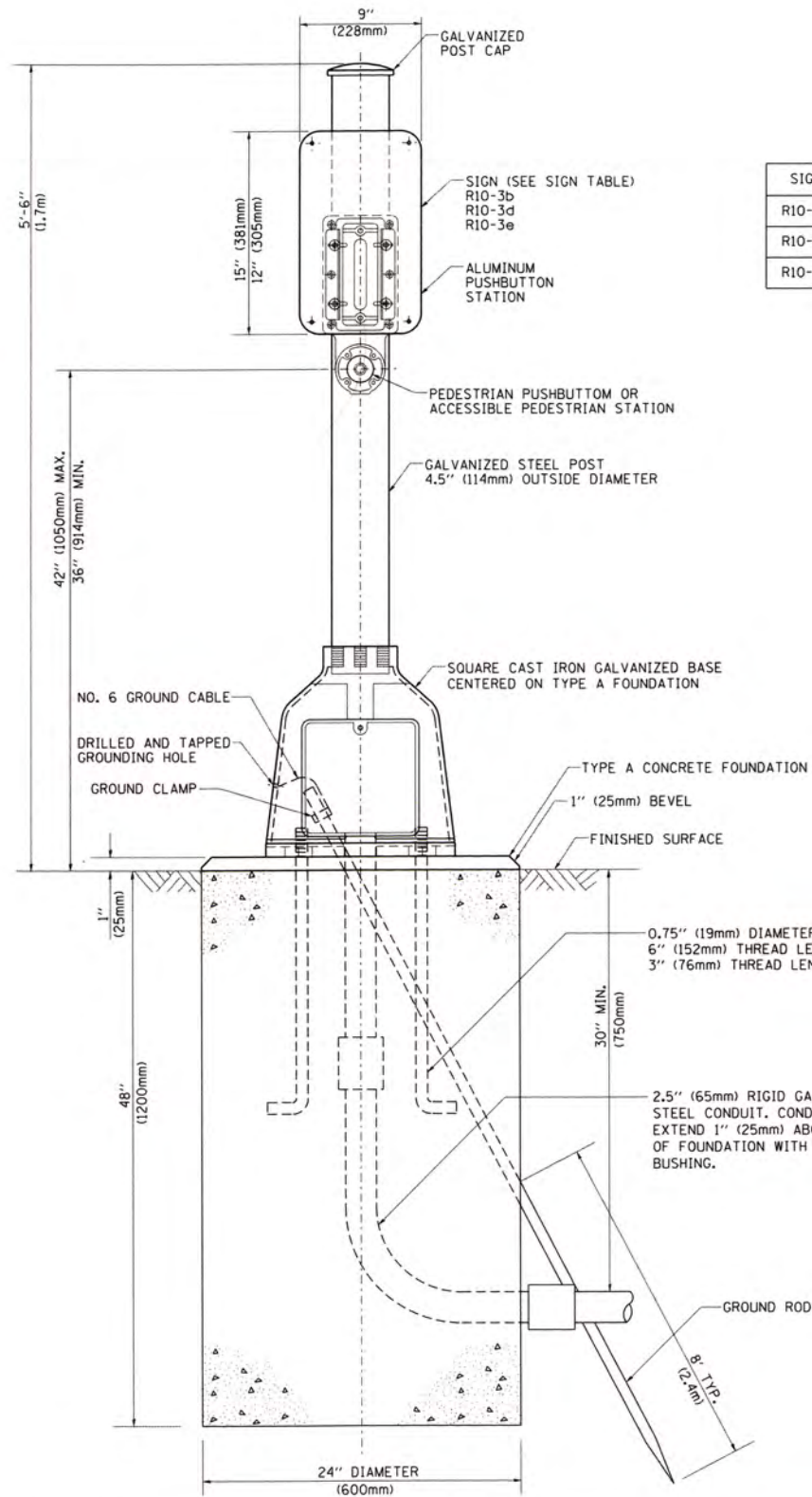


**CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY**

REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

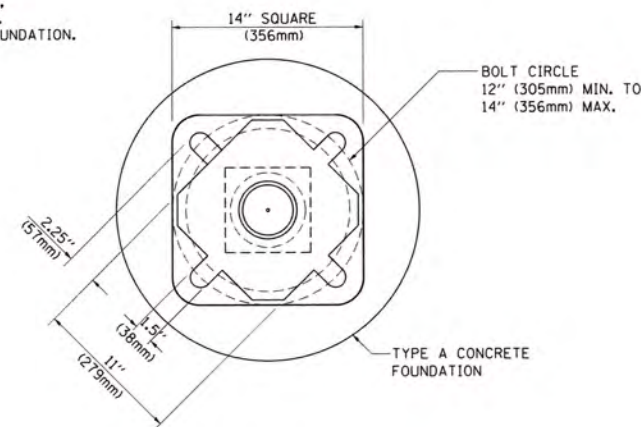
PROJECT	<b>MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL</b>
SHEET TITLE	<b>MISCELLANEOUS STANDARD DETAILS</b>

SHEET NUMBER	<b>19</b>
TOTAL SHEETS	<b>40</b>



**SIGN TABLE**

SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)



**BOLT PATTERN**  
**PEDESTRIAN PUSH BUTTON POST, TYPE A**

FILE NAME =	USER NAME = footenj	DESIGNED - DAG	REVISED - DAG 1-1-14
ca:\pwwork\pwwork\footenj\d0108315\ts05.dgn		DRAWN - GND	REVISED -
	PLOT SCALE = 50.0000' / 1" =	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10/1/2012	REVISED -

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

**DISTRICT ONE**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TS-05			
CONTRACT NO.		FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT		



**CITY OF AURORA**  
**ENGINEERING DIVISION**  
**77 S. BROADWAY**

REVISIONS:

DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT

**MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE**  
**TRAFFIC SIGNAL**

SHEET TITLE

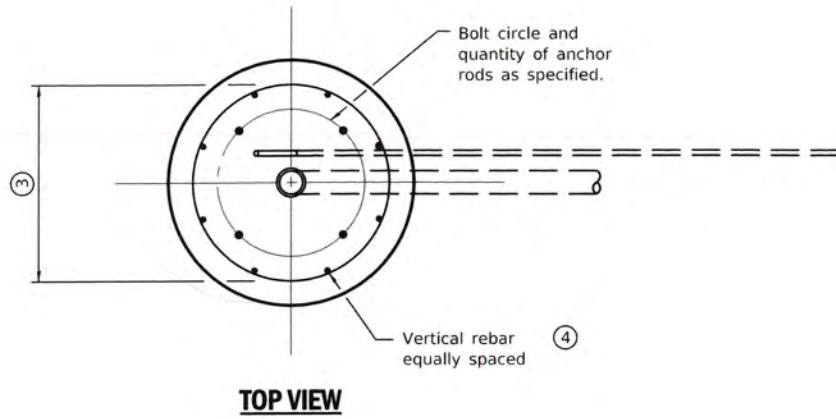
MISCELLANEOUS STANDARD DETAILS

SHEET NUMBER

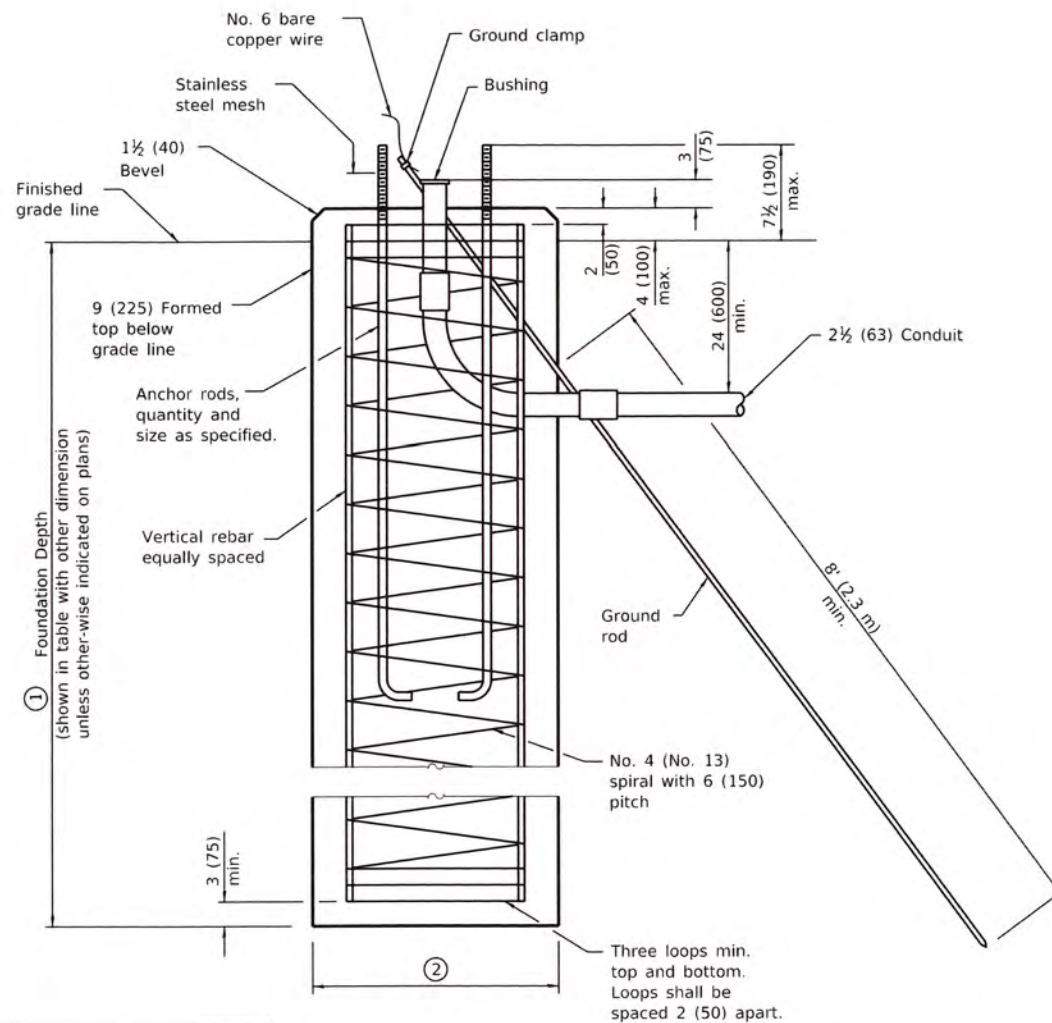
**20**

TOTAL SHEETS

**40**



Mast Arm Length	① Foundation Depth *	② Foundation Diameter	③ Spiral Diameter	④ Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30 (750)	24 (600)	8	6 (19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30 (750)	24 (600)	8	6 (19)
	11'-0" (3.4 m)	36 (900)	30 (750)	12	7 (22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36 (900)	30 (750)	12	7 (22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36 (900)	30 (750)	12	7 (22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42 (1060)	36 (900)	16	8 (25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42 (1060)	36 (900)	16	8 (25)



\* For standard and combination mast arm assemblies. Foundation depths for standard dual mast arms with the longest arm length upto and including 55' (16.8 m) shall be increased by 1' (0.3 m) of that shown in the table, based on the longer of the two arms.

These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.

Illinois Department of Transportation

PASSED January 1, 2015  
*Jay Allen*  
 ENGINEER OF OPERATIONS

APPROVED January 1, 2015  
*[Signature]*  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-10-20

**CONCRETE  
 FOUNDATION DETAILS**

(Sheet 2 of 2)

**STANDARD 878001-10**



**CITY OF AURORA  
 ENGINEERING DIVISION  
 77 S. BROADWAY**

REVISIONS:

DESIGNED BY: GIL CHECKED BY: RG SCALE:  
 DRAWN BY: GIL APPROVED BY: RG DATE: 4/2019

PROJECT

**MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE  
 TRAFFIC SIGNAL**

SHEET TITLE

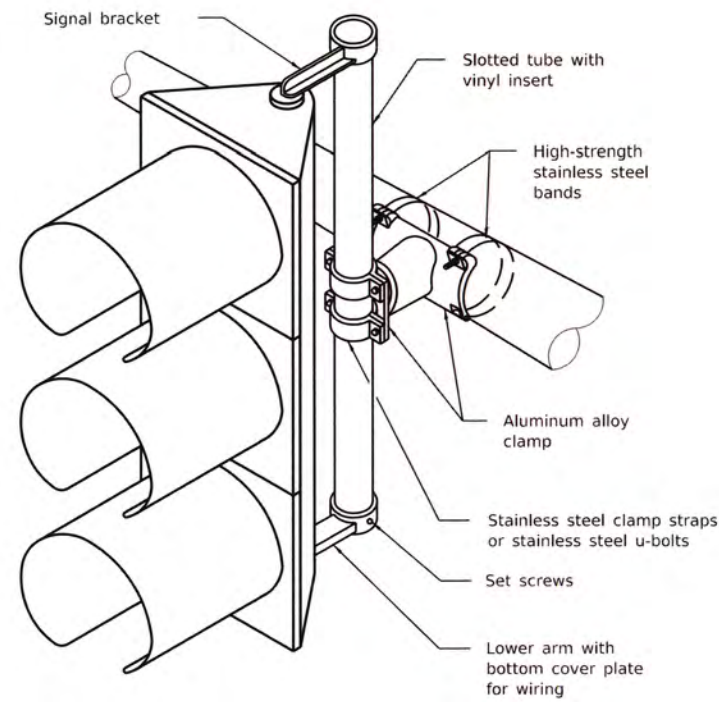
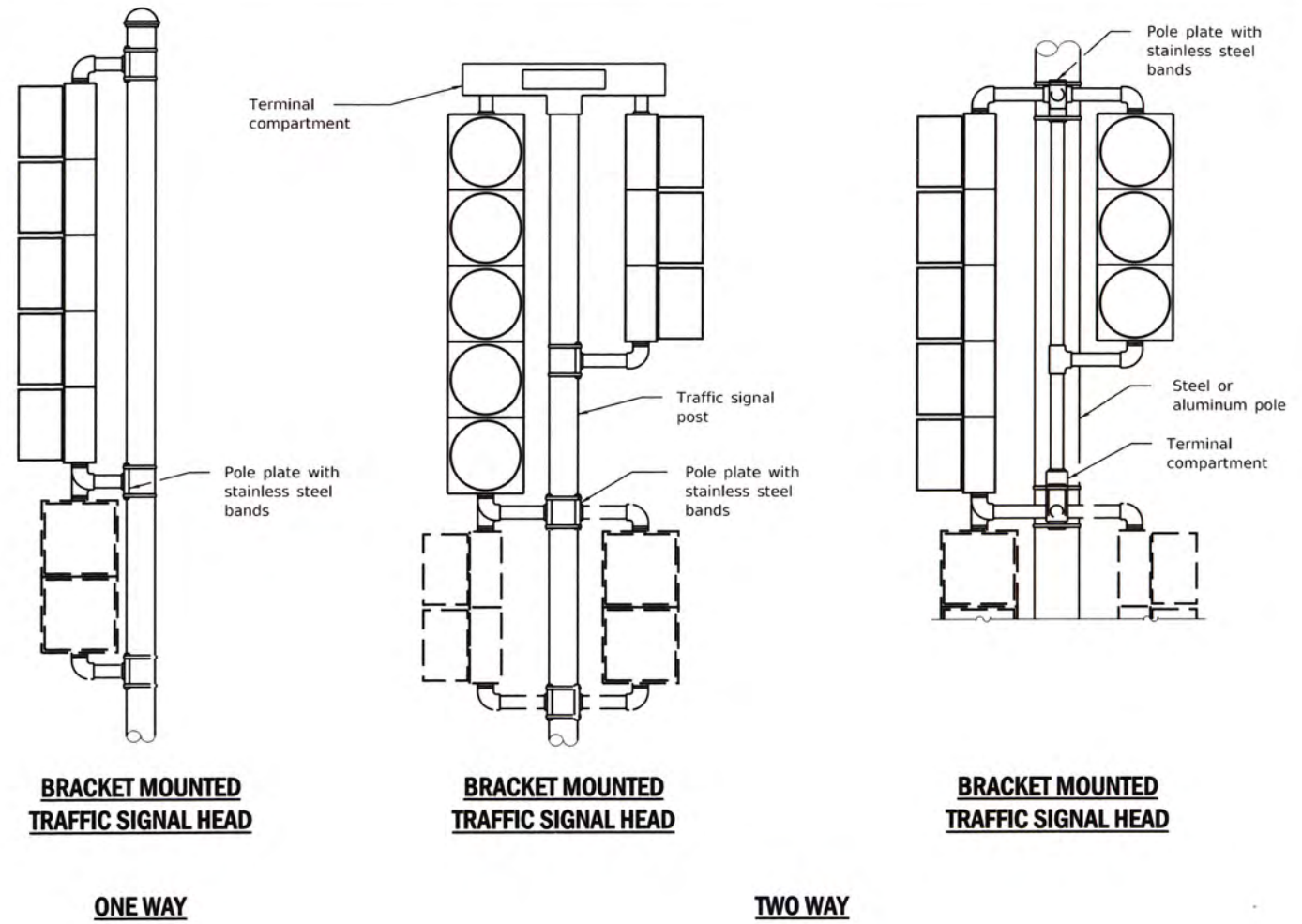
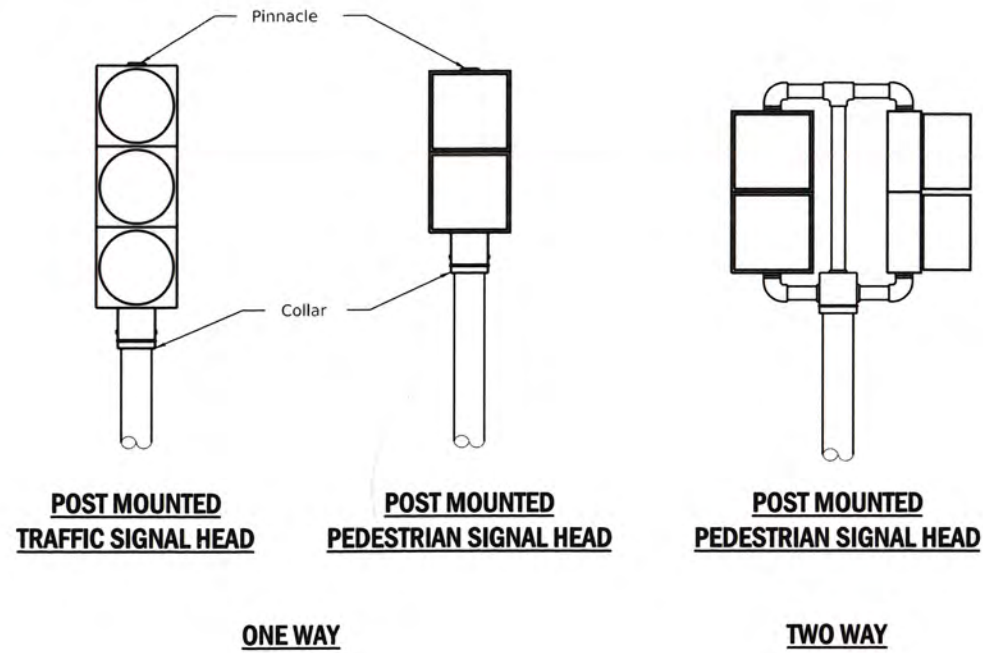
MISCELLANEOUS STANDARD DETAILS

SHEET NUMBER

**21**

TOTAL SHEETS

**40**



Illinois Department of Transportation  
 PASSED January 1, 2009  
 ENGINEER OF OPERATIONS  
 APPROVED January 1, 2009  
 ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS	TRAFFIC SIGNAL MOUNTING DETAILS
1-1-09	Omitted note regarding units of length.	
1-1-02	Renum. Standard 840006.	STANDARD 880006-01

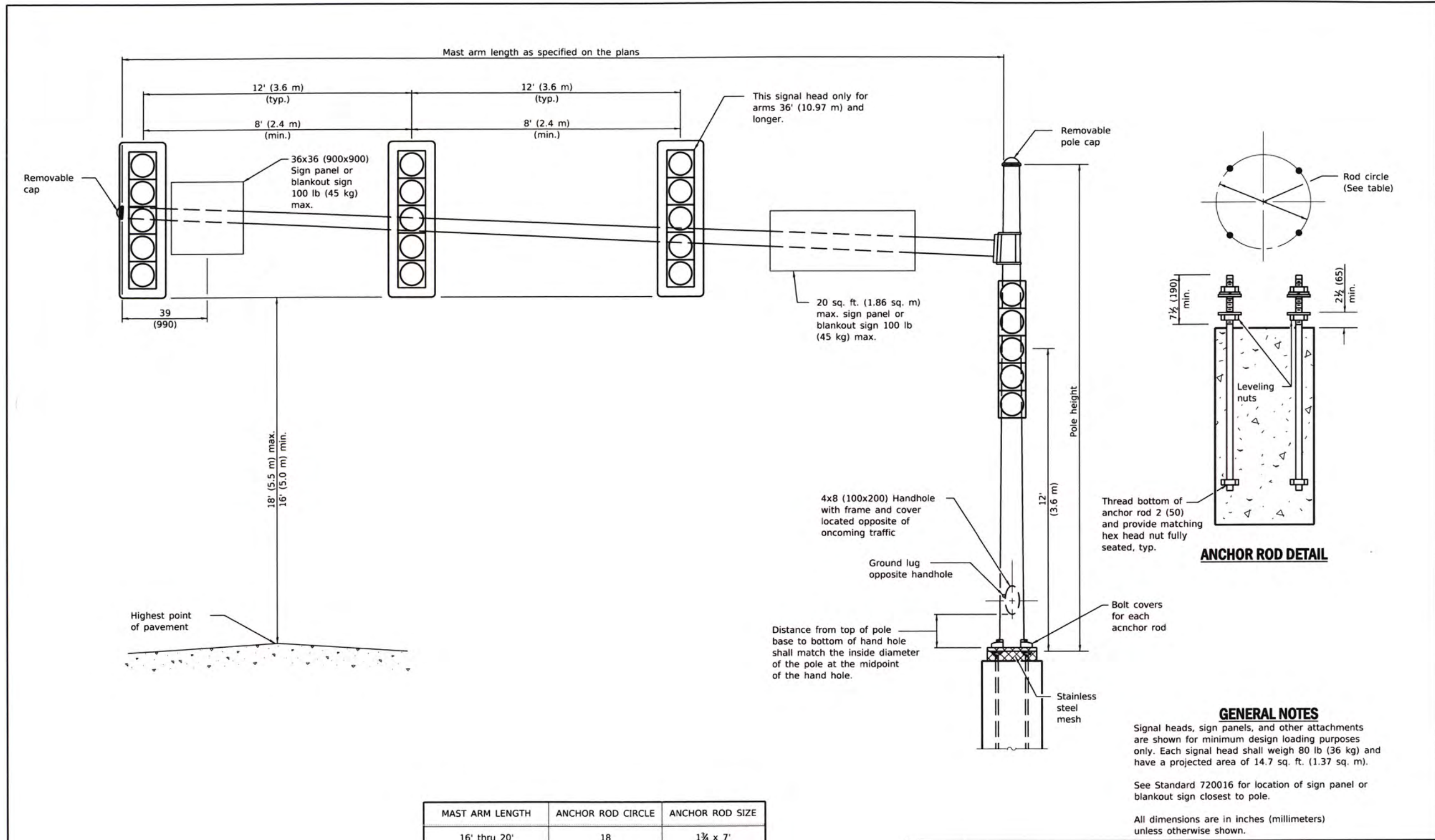


**CITY OF AURORA**  
**ENGINEERING DIVISION**  
**77 S. BROADWAY**

REVISIONS:  
 DESIGNED BY: GIL    CHECKED BY: RG    SCALE:  
 DRAWN BY: GIL    APPROVED BY: RG    DATE: 4/2019

PROJECT: **MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL**  
 SHEET TITLE: **MISCELLANEOUS STANDARD DETAILS**

SHEET NUMBER: **22**  
 TOTAL SHEETS: **40**



MAST ARM LENGTH	ANCHOR ROD CIRCLE	ANCHOR ROD SIZE
16' thru 20' (4.87 m thru 6.10 m)	18 (450)	1 3/4 x 7' (44 x 2.10 m)
42' thru 55' (12.80 m thru 16.80 m)	21 (535)	1 3/4 x 7' (44 x 2.10 m)

DATE	REVISIONS
1-1-18	Revised table for LRFD reqs.
	Revised GEN. NOTES for sign
	location. Rep. rod hooks with nuts.
4-1-16	Changed sign panel to 36x36.
	Added max. weight of 100 lb.
	Modified dim. to outer signal.

**STEEL MAST ARM  
ASSEMBLY AND POLE  
16' THROUGH 55'**

**STANDARD 877001-07**

Illinois Department of Transportation

PASSED January 1, 2018  
ENGINEER OF OPERATIONS  
APPROVED January 1, 2018  
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-02



**CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY**

REVISIONS:

DESIGNED BY: GIL CHECKED BY: RG SCALE:  
DRAWN BY: GIL APPROVED BY: RG DATE: 4/2019

PROJECT

**MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE  
TRAFFIC SIGNAL**

SHEET TITLE

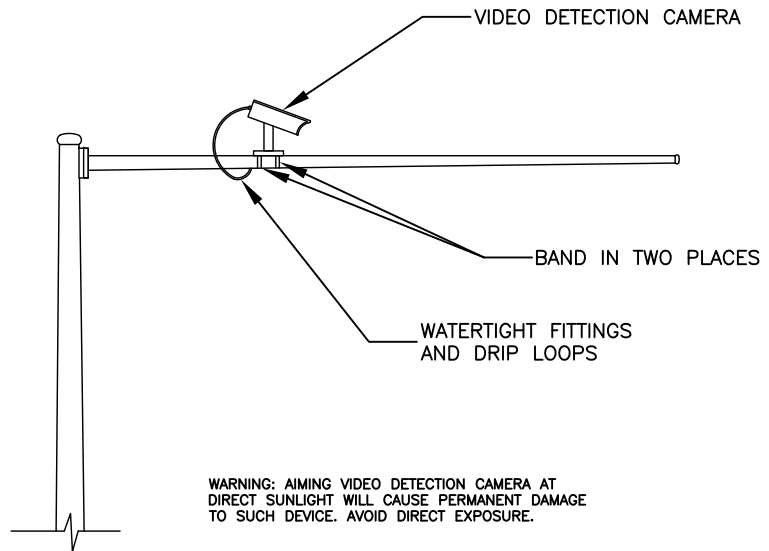
MISCELLANEOUS STANDARD DETAILS

SHEET NUMBER

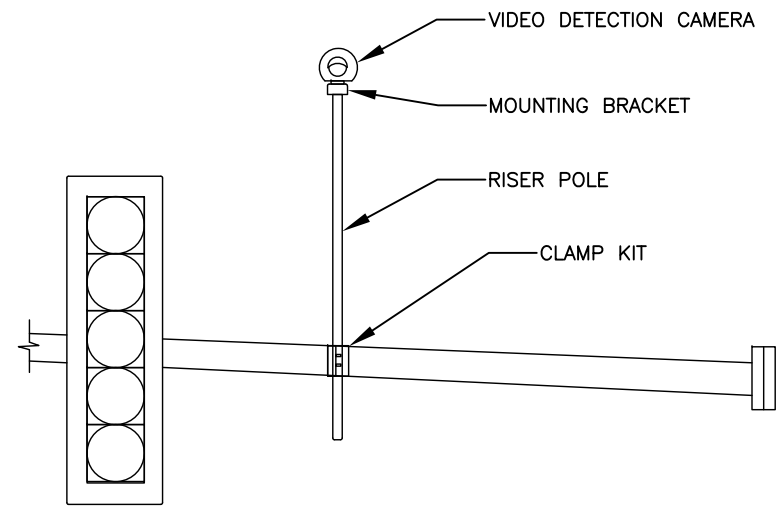
**23**

TOTAL SHEETS

**40**

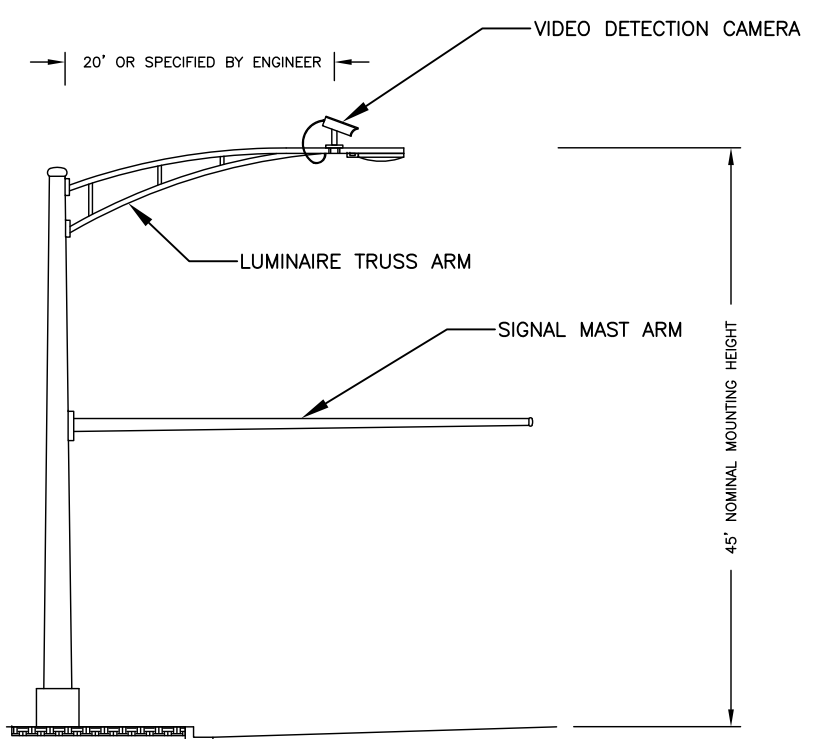


**VIDEO DETECTION CAMERA MOUNTING DETAIL**  
(NOT TO SCALE)

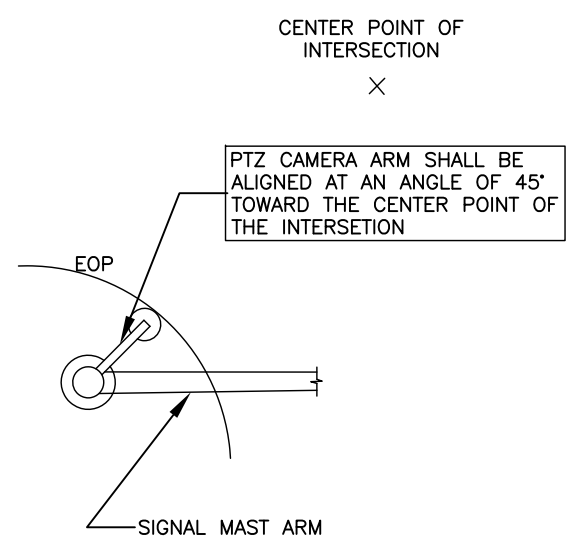


**VIDEO DETECTION CAMERA BRACKET MOUNTING DETAIL**  
(NOT TO SCALE)

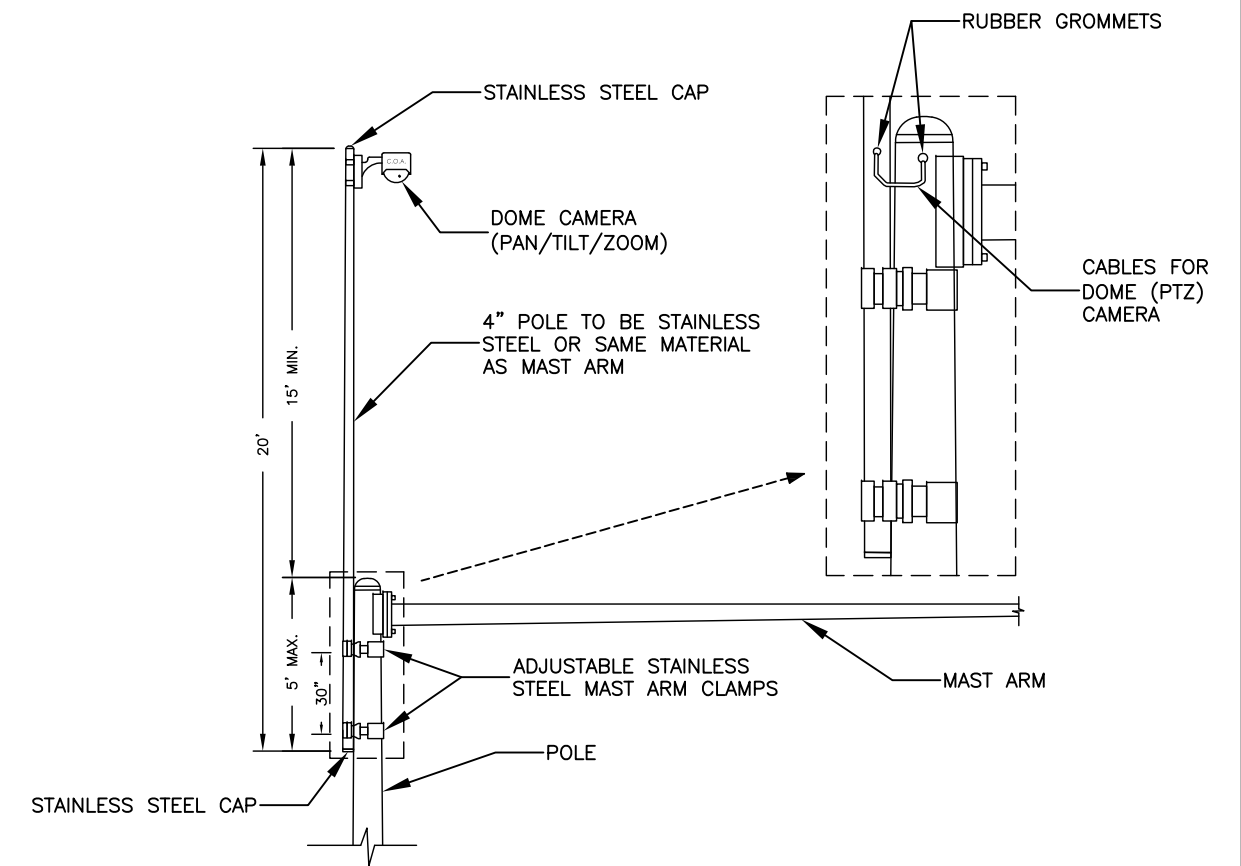
**NOTE:**  
THIS DRAWING HAS BEEN CREATED BY THE ENGINEERING DIVISION AT THE CITY OF AURORA USING SIMILAR DETAILS AS A BASIS OF DESIGN.



**COMBINATION MAST ARM ASSEMBLY AND POLE DIMENSIONS**  
(NOT TO SCALE)



**PAN TILT ZOOM (PTZ) CAMERA MOUNTING DETAILS**  
(NOT TO SCALE)



**PTZ CAMERA MOUNTING ASSEMBLY DETAIL**  
(NOT TO SCALE)

COA - 2 VIDEO DETECTION CAMERA / PTZ MOUNTING DETAILS			
DESIGNED: GIL	DATE: 12/14/18	REVISED:	REVISED:
DRAWN: GIL		REVISED:	REVISED:



**CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY**

REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT: **MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL**

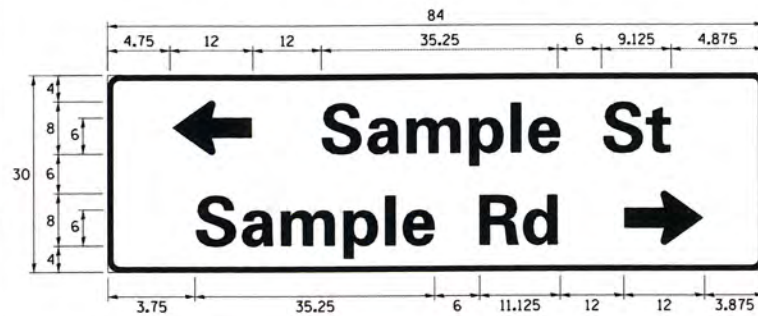
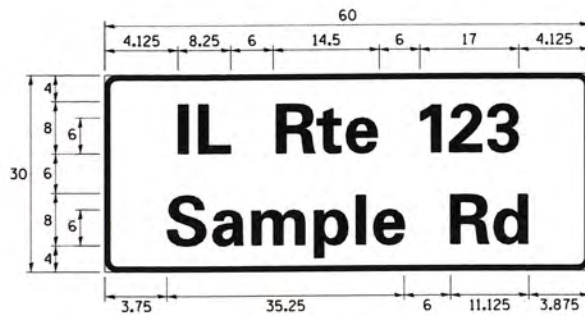
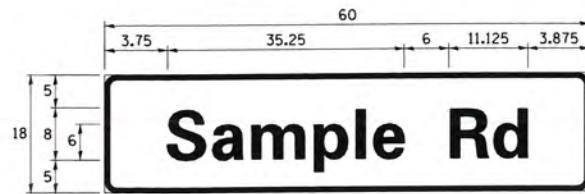
SHEET TITLE: **MISCELLANEOUS STANDARD DETAILS**

SHEET NUMBER: **24**

TOTAL SHEETS: **40**



**SIGN PANEL – TYPE 1 OR TYPE 2**



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D OR C	-	1 OR 2	ZZ	-

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

**COMMON STREET NAME ABBREVIATIONS AND WIDTHS**

NAME	ABBREVIATION	WIDTH (INCH)	
		SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Bld	17.125	20.000
CIRCLE	Clr	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7.750	9.125
UNITED STATES	US	10.375	12.250

**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 CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
- THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS SHALL BE 3/4" WIDE, CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-0" IN WIDTH, IF SERIES "D" DOES NOT FIT ON A 8'-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
- LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLISM MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

**LOCAL SUPPLIERS:**

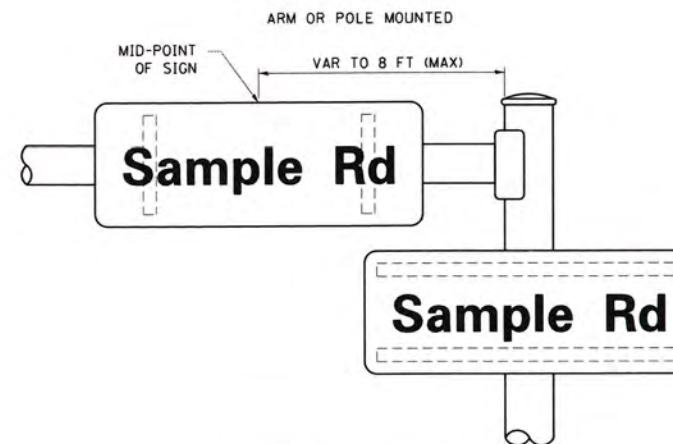
- J.O. HERBERT COMPANY, INC  
MIDLOTHIAN, VA
- WESTERN REMAC, INC.  
WOODRIDGE, IL

**PARTS LISTING:**

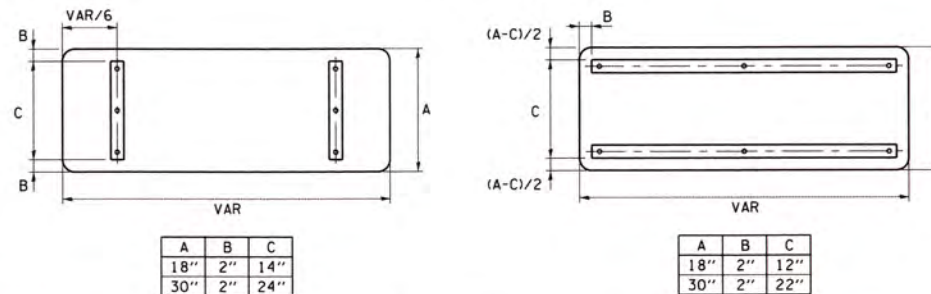
- SIGN CHANNEL PART \*HPN053 (MED. CHANNEL)  
SIGN SCREWS 1/4" x 14 x 1" H.W.H. #3  
SELF TAPPING WITH NEOPRENE WASHER
- BRACKETS PART \*HPN034 (UNIVERSAL)  
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

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

**MOUNTING LOCATION**



**SUPPORTING CHANNELS**



**STANDARD ALPHABETS SPACING CHART**  
(8") UPPER CASE AND (6") LOWER CASE

FHWA SERIES "C"				FHWA SERIES "D"			
CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.882	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

FILE NAME =	USER NAME = drivekogn	DESIGNED - LP/IP	REVISED - LP 07/01/2015	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		DISTRICT ONE		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	Documents\DOT Offices\District 1\Projects\Dist 1\DRM\CADData\CDR\Sheets\ts82.dgn	CHECKED - JP	REVISED -			MAST ARM MOUNTED STREET NAME SIGNS		SCALE:	SHEET OF SHEETS	STA. TO STA.	TS-02	CONTRACT NO.



CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY

**REVISIONS:**

DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

**PROJECT**

MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE  
TRAFFIC SIGNAL

**SHEET TITLE**

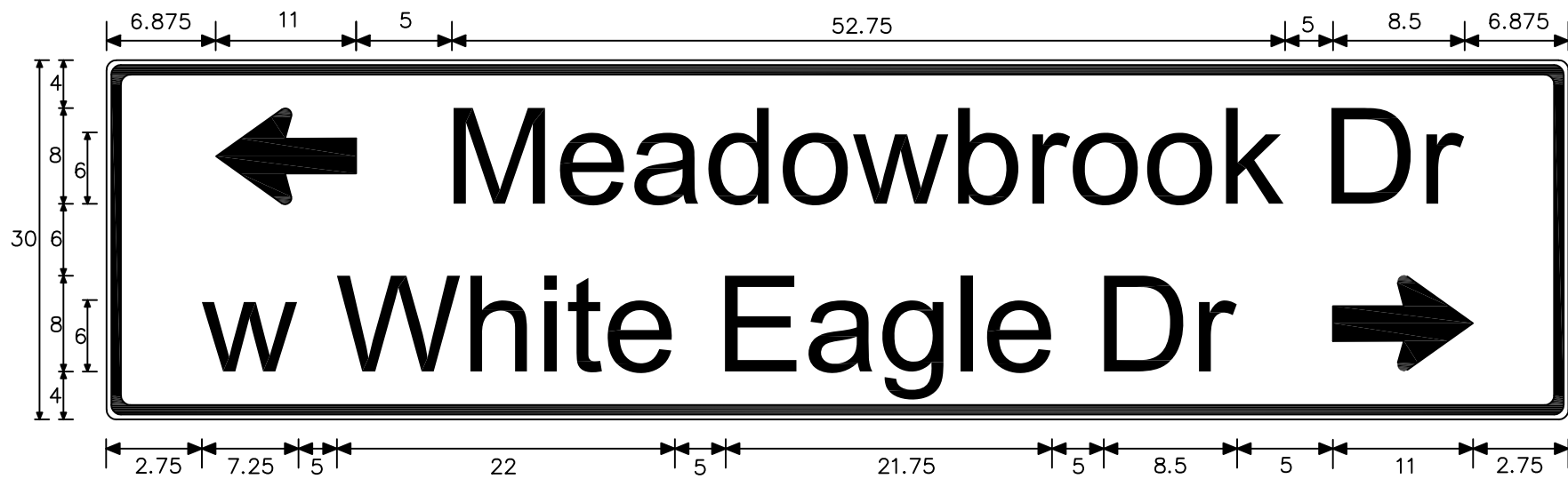
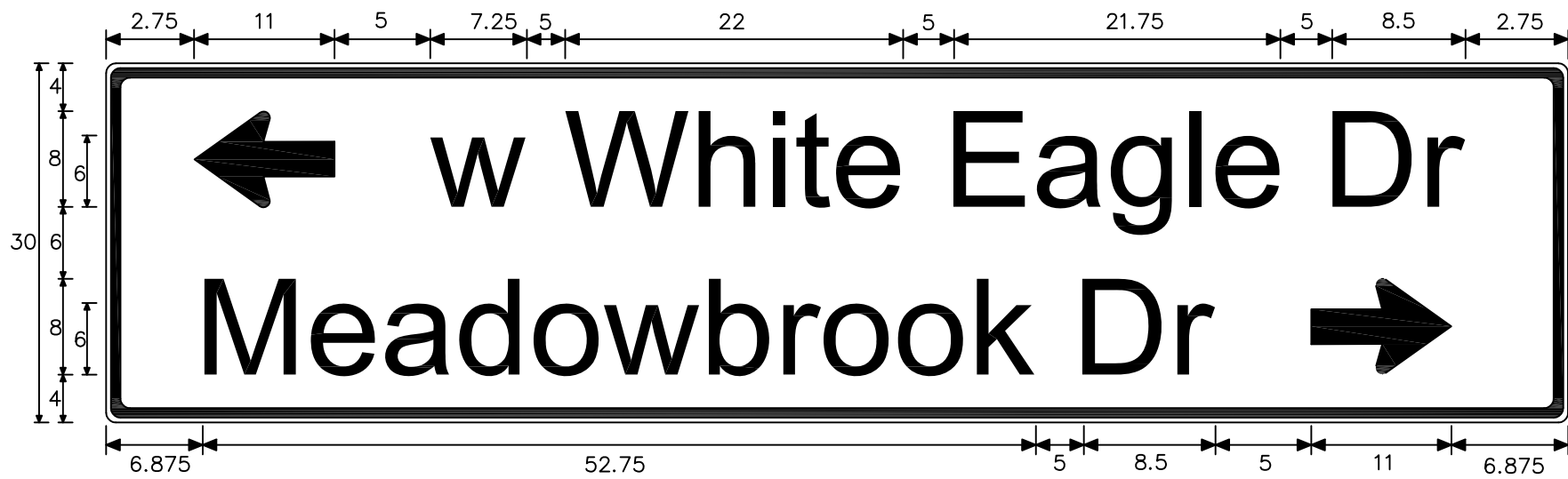
MISCELLANEOUS STANDARD DETAILS

**SHEET NUMBER**

25

**TOTAL SHEETS**

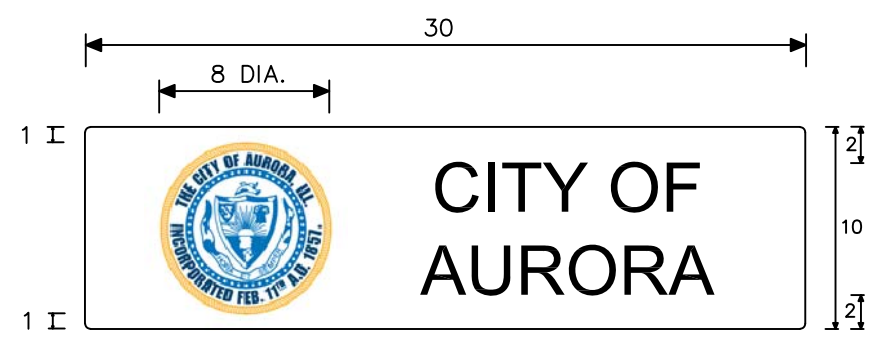
40



MAST ARM MOUNTED STREET NAME SIGNS  
(NOT TO SCALE)

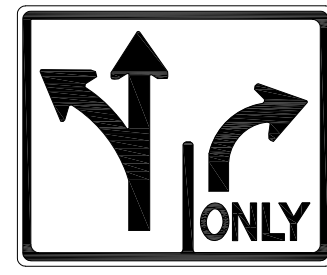
NOTE: THE SIGNAGE PROVIDED ON THIS DETAIL IS NOT TO SCALE, HOWEVER, DIMENSIONS PROVIDED ARE AN ACCURATE REPRESENTATION OF DESIRED SPACING AND SIZE. SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL FOR STANDARDS. DIMENSIONS SUBJECT TO CHANGE.

ALL DIMENSIONS PROVIDED ARE IN INCHES.

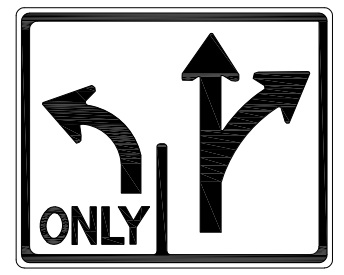


CITY OF AURORA CITY SEAL  
CABINET SIGNAGE – IDENTIFICATION DECAL (x3)

(BLACK TEXT ON WHITE REFLECTIVE BACKGROUND, CITY CREST TO BE IN COLOR, [IMAGE FILE TO BE PROVIDED BY C.O.A.] TO BE AFFIXED ON FRONT SIDE OF CABINET. IDENTIFICATION DECAL INCIDENTAL AND INCLUDED IN THE COST OF PAY ITEM "TYPE IV CABINET".)



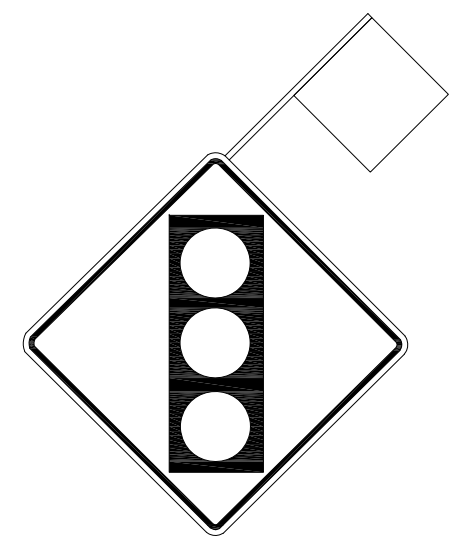
W. WHITE EAGLE ADVANCED LANE  
CONFIGURATION SIGNAGE  
(30x30 – NOT TO SCALE)



MEADOWBROOK ADVANCED LANE  
CONFIGURATION SIGNAGE  
(30x30 – NOT TO SCALE)

(x2)

NOTE:  
ALL BRACKETS AND MOUNTING  
HARDWARE NECESSARY TO MOUNT  
SIGNS ON MAST ARMS AND POLES  
INCLUDED IN COST OF PAY ITEM  
SIGN PANEL – TYPE 1 AND 2



W3-3 ADVANCED TRAFFIC  
CONTROL SIGN W/ FLAG (x2)  
(30x30 – NOT TO SCALE)

NOTE:  
FLAG TO BE INCLUDED IN  
COST OF PAY ITEM W3-3  
SIGN PANEL –TYPE 1

COA - 1 SIGNAGE			
DESIGNED: GIL	DATE: 4/15/19	REVISED:	REVISED:
DRAWN: GIL		REVISED:	REVISED:

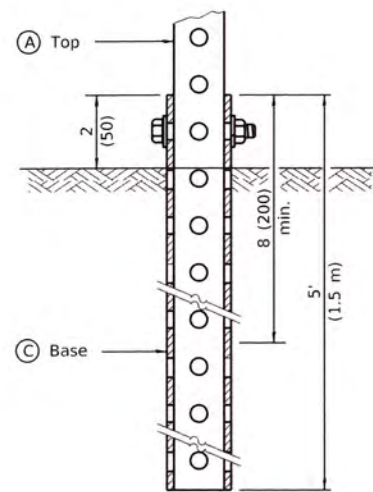


CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY

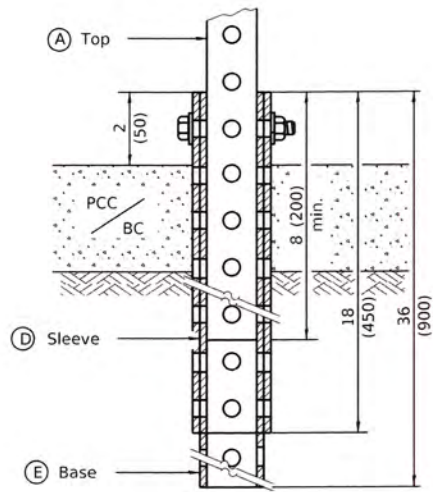
REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT	MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL
SHEET TITLE	MISCELLANEOUS STANDARD DETAILS

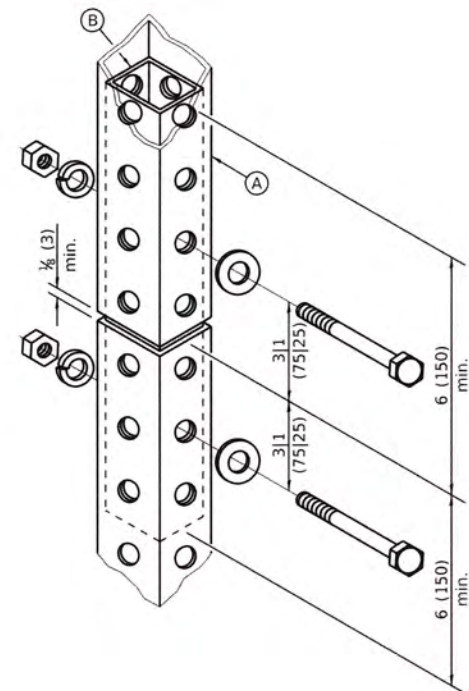
SHEET NUMBER	26
TOTAL SHEETS	40



**GROUND MOUNT DETAIL**



**PAVEMENT MOUNT DETAIL**



**SPLICE DETAIL**

A	2 x 2 x var. (51 x 51 var.)
B	1 3/4 x 1 3/4 x 12 (44 x 44 x 300)
C	2 1/4 x 2 1/4 x 60 (57 x 57 x 1500)
D	2 1/2 x 2 1/2 x 18 (64 x 64 x 450)
E	2 1/4 x 2 1/4 x 36 (57 x 57 x 900)

**GENERAL NOTES**

All bolts 3/8" (M10) hex head zinc or cadmium plated.

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

DATE	REVISIONS	<b>TELESCOPING STEEL SIGN SUPPORT</b>
1-1-09	Switched units to English (metric).	
1-1-07	New Standard. Used to be part of Standard 720006.	<b>STANDARD 728001-01</b>

Illinois Department of Transportation

PASSED January 1, 2009  
 ENGINEER OF OPERATIONS

APPROVED January 1, 2009  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07



**CITY OF AURORA**  
**ENGINEERING DIVISION**  
**77 S. BROADWAY**

REVISIONS:

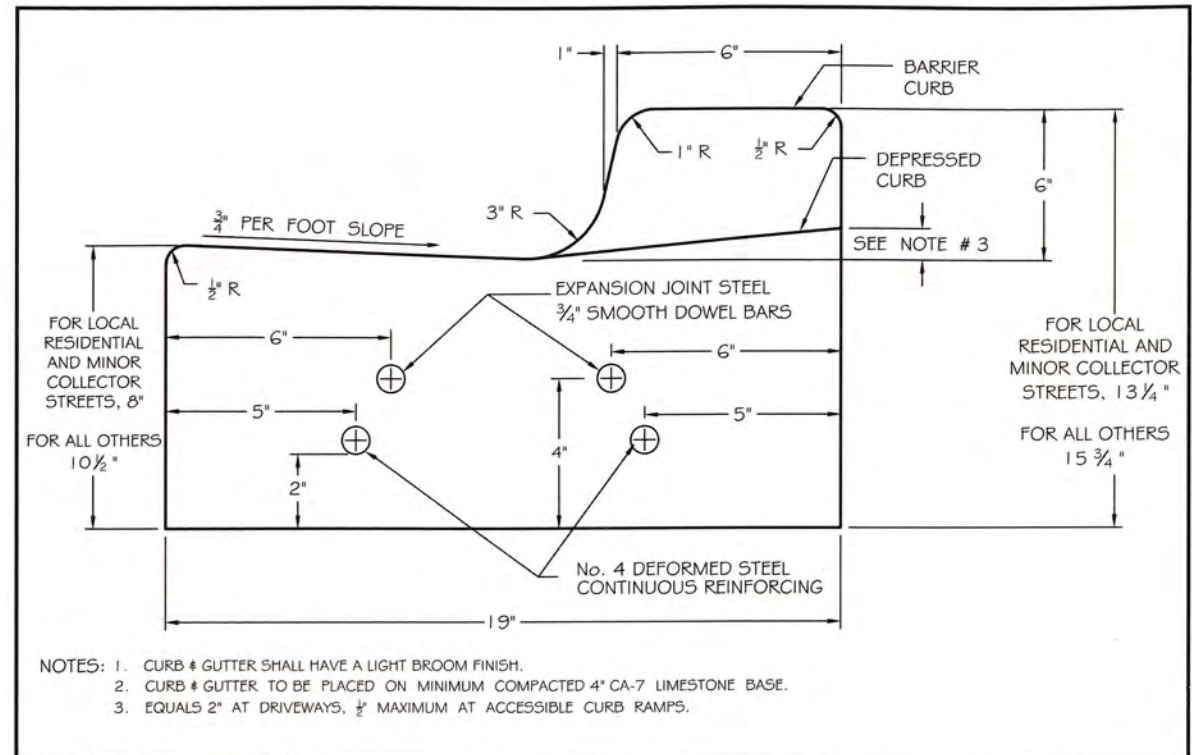
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT	<b>MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL</b>
SHEET TITLE	<b>MISCELLANEOUS STANDARD DETAILS</b>

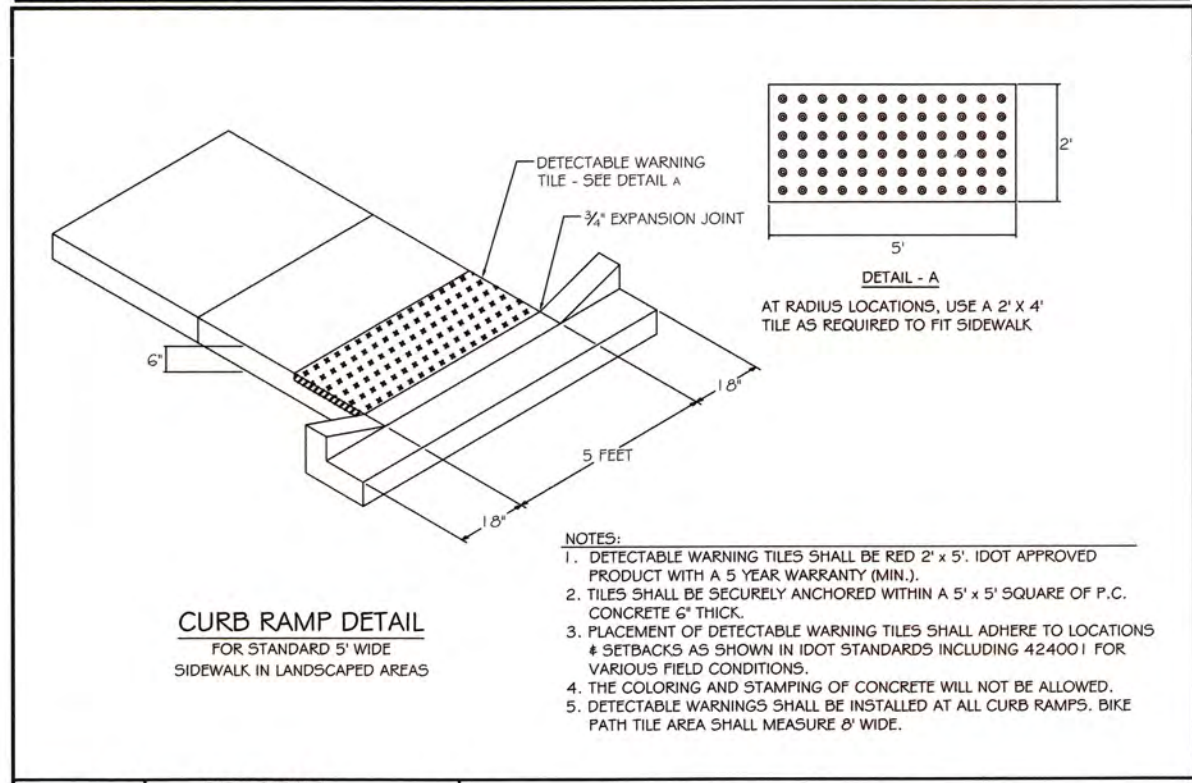
SHEET NUMBER	<b>27</b>
TOTAL SHEETS	<b>40</b>

**CURB AND GUTTER GENERAL NOTES:**

1. Contraction joints shall be placed ten (10) feet on centers and shall be saw cut to a minimum depth of two (2) inches from front to back within twenty four (24) hours of concrete placement.
2. The concrete material, curing, protection, and placement for all curb, combination curb and gutter or, depressed curb and gutter shall meet the requirements of Articles 606, 1020, 1021, 1022, and 1023 of the State of Illinois "Standard Specifications for Road and Bridge Construction", latest edition. Membrane curing and concrete sealing shall be accompanied by W.R. Meadows CS-309 Cure and Seal or approved equal like Okon S-20. If the forecast indicates temperatures below 32° F, protection methods shall be installed in accordance with the Standard Specifications for Road and Bridge Construction and shall be approved by the City Engineer.
3. The minimum longitudinal curb slope shall be 0.40%.
4. Cuts into the existing curb shall be made full depth with full expansion joints drilled at each per Exhibit II-C-12 herein.

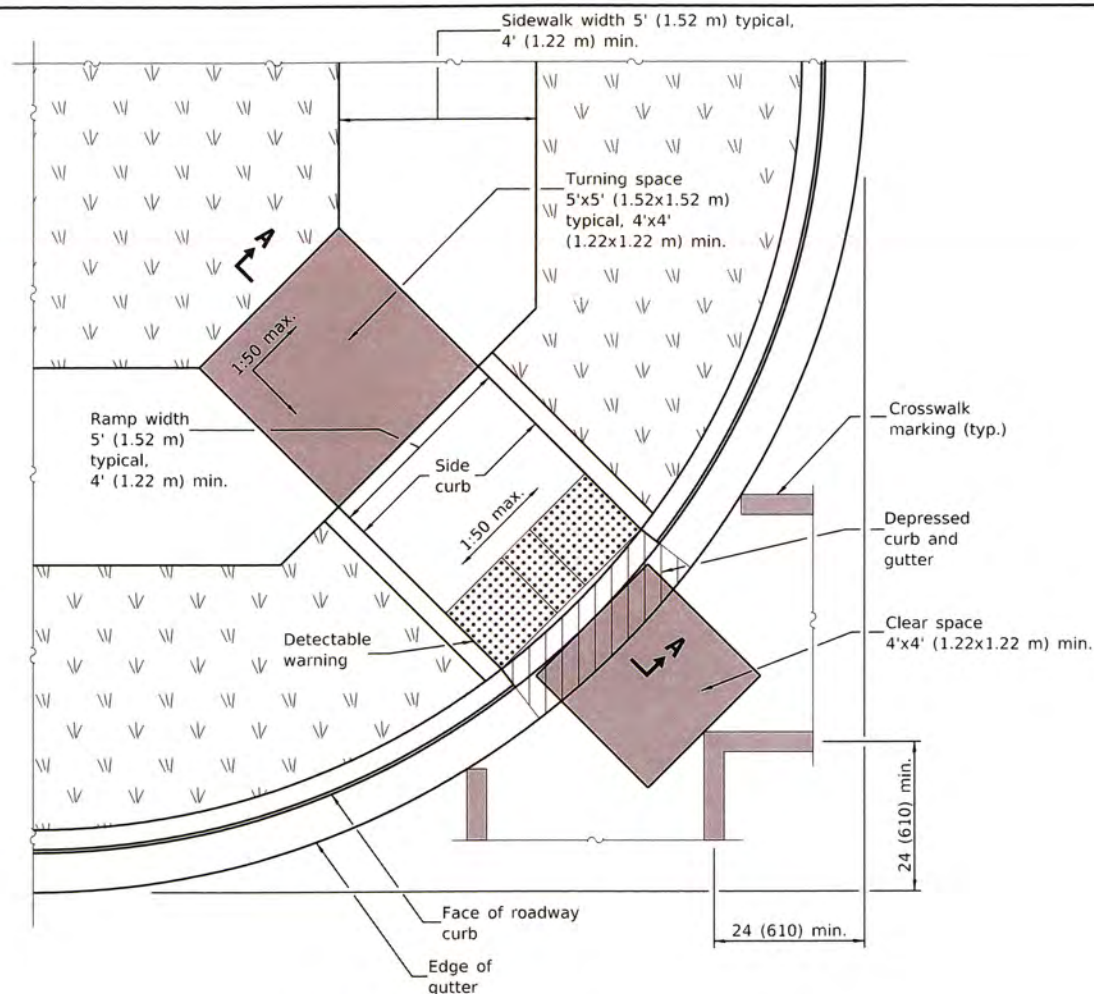


	<b>REVISIONS</b> DATE: 02/2013 BY: DG		<b>CONCRETE CURB &amp; GUTTER</b>	
	SCALE: NOT TO SCALE	CHECKED: DF	DRAWING NUMBER: EXHIBIT II-C-4	
ENGINEERING	DATE: 1/04	DRAWN: NM		

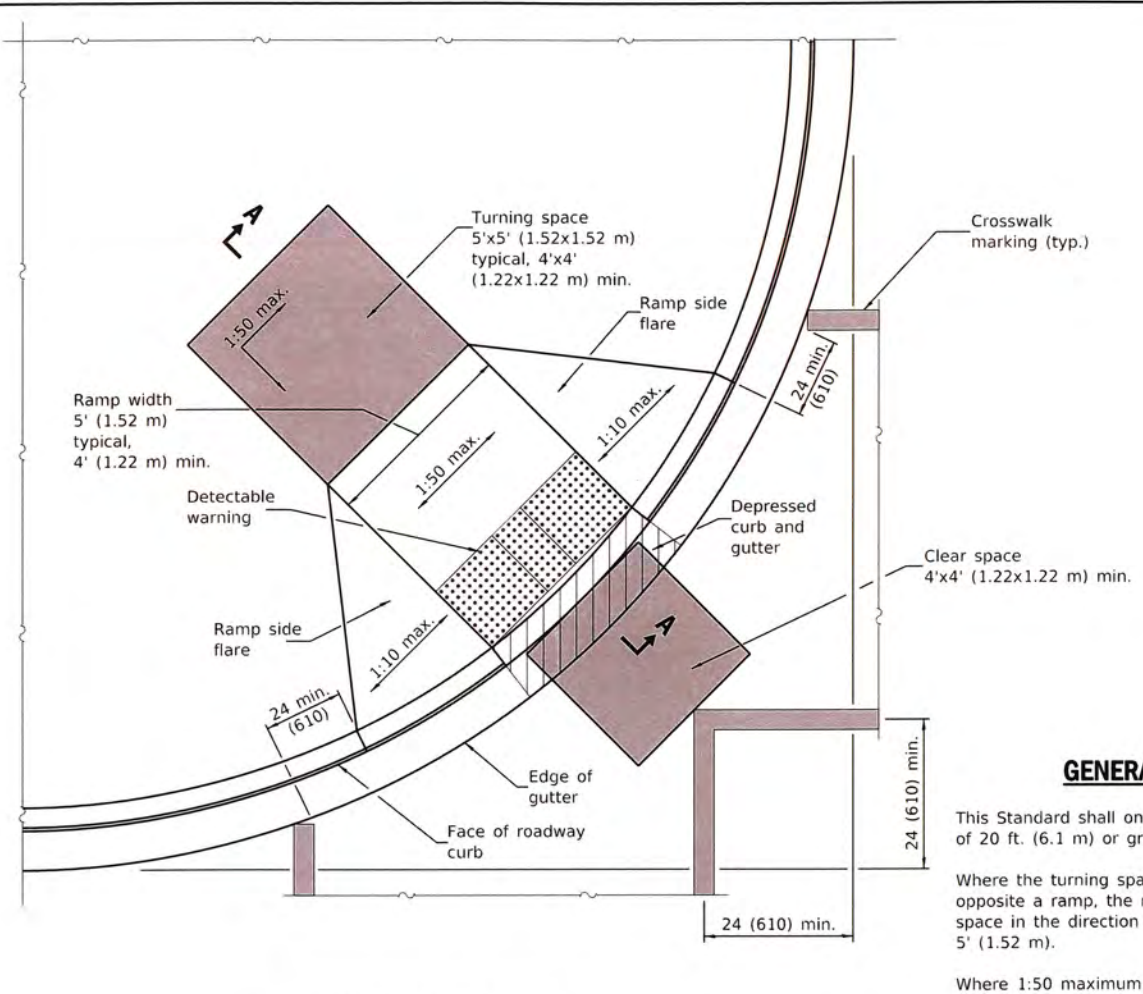


	<b>REVISIONS</b> DATE: 12/2010 BY: jhs DATE: 02-22-13 BY: DG		<b>CURB RAMP DETAIL</b>	
	SCALE: NOT TO SCALE	CHECKED: CL	DRAWING NUMBER: EXHIBIT II-C-6	
ENGINEERING	DATE: 1/04	DRAWN: DG		

	<b>REVISIONS</b> DATE: 01/2011 BY: jhs DATE: 02/2013 BY: DG		<b>CURB AND GUTTER GENERAL NOTES</b>	
	SCALE:	CHECKED:	DRAWING NUMBER: EXHIBIT II-C-5	
ENGINEERING	DATE: 03/08	DRAWN: J. MOORE		



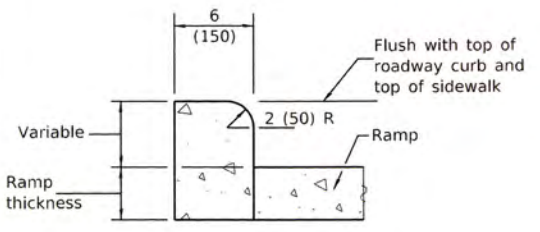
**RAMP IN LANDSCAPED AREA**



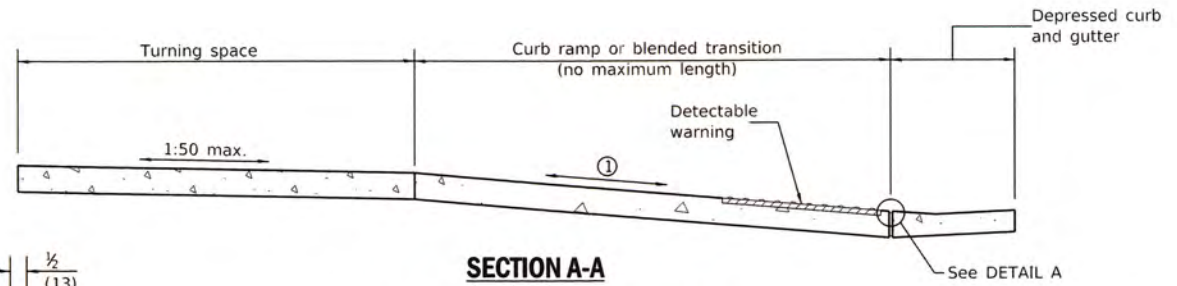
**RAMP IN PAVED AREA**

**GENERAL NOTES**

- This Standard shall only be used for curb radii of 20 ft. (6.1 m) or greater.
- Where the turning space is constrained on a side opposite a ramp, the minimum length of the turning space in the direction of the ramp-run shall be 5' (1.52 m).
- Where 1:50 maximum slope is shown, 1:64 is preferred.
- Detectable warnings are shown in their ideal locations but the following placement tolerances are allowed.
- Side Border** - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in width is allowed.
- Curb Set-Back** - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.
- All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
- See Standard 606001 for details of depressed curb adjacent to curb ramp.
- All dimensions are in inches (millimeters) unless otherwise shown.

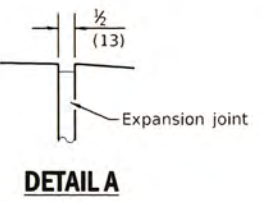


**SIDE CURB DETAIL**



**SECTION A-A**

① The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.



**DETAIL A**

Illinois Department of Transportation

PASSED January 1, 2019  
*Michael Bond*  
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2019  
*John E. ...*  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

DATE	REVISIONS
1-1-19	Removed "15-foot rule", added "blended transitions" and placement tolerances for detectable warnings.
1-1-18	Omitted diagonal slope at turning spaces.

**DIAGONAL CURB RAMPS FOR SIDEWALKS**

**STANDARD 424006-04**



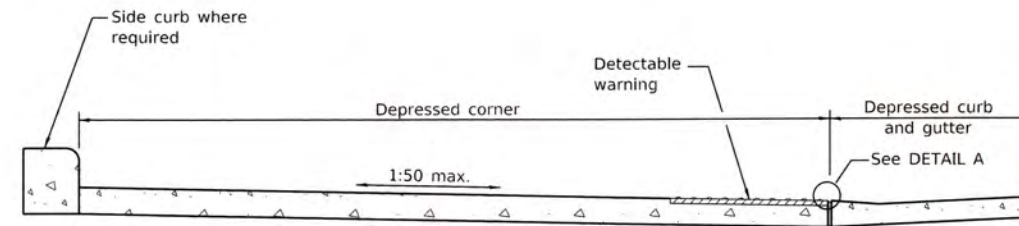
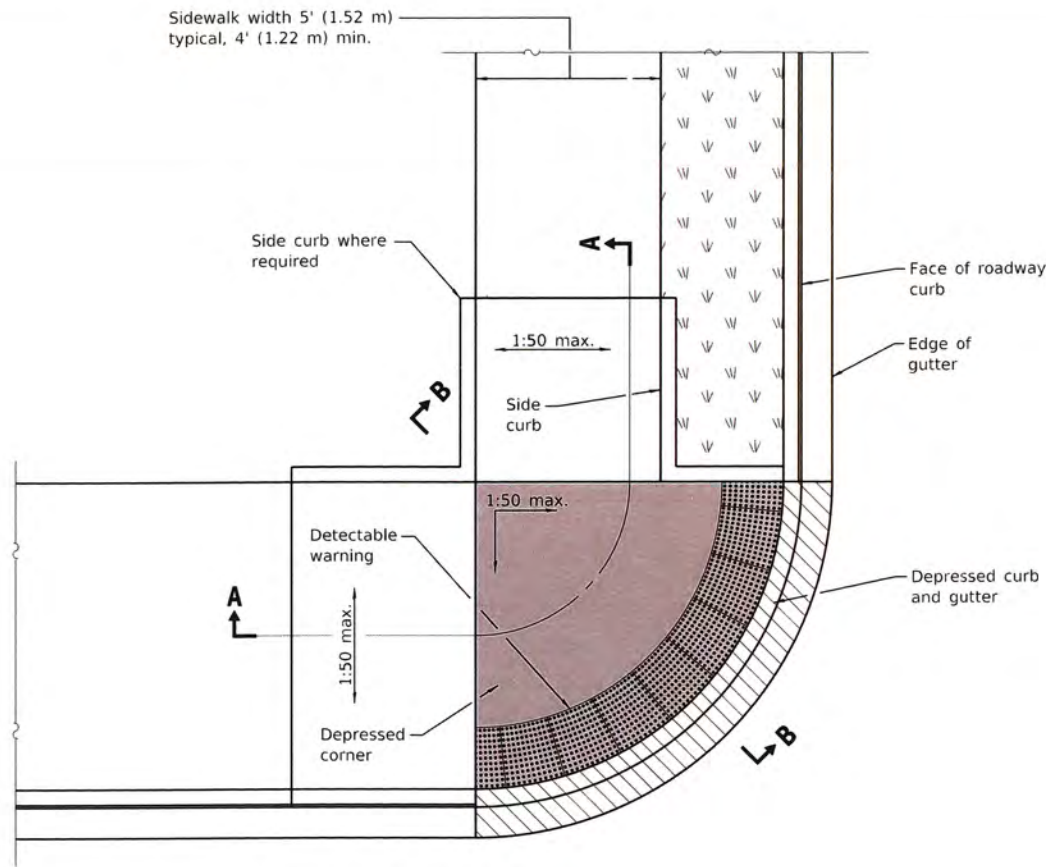
**CITY OF AURORA**  
**ENGINEERING DIVISION**  
**77 S. BROADWAY**

REVISIONS:

DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

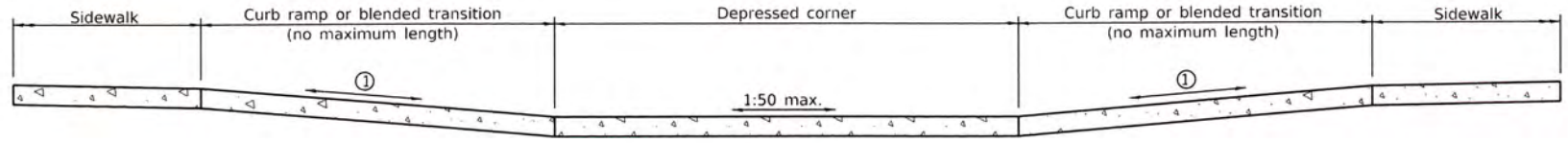
PROJECT	<b>MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL</b>
SHEET TITLE	MISCELLANEOUS STANDARD DETAILS

SHEET NUMBER	<b>29</b>
TOTAL SHEETS	<b>40</b>



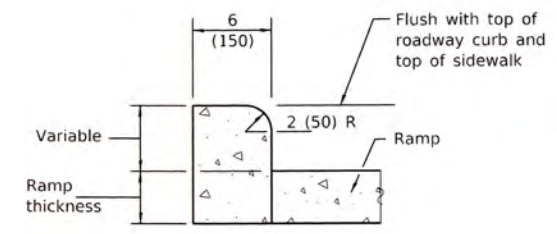
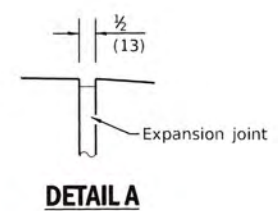
**SECTION B-B**

**DEPRESSED CORNER**



**SECTION A-A**

① The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.



**GENERAL NOTES**

This standard shall only be used for curb radii of 6 ft. (1.83 m) or greater.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where 1:50 maximum slope is shown, 1:64 is preferred.

Detectable warnings are shown in their ideal tolerances but the following placement tolerances are allowed.

**Side Border** - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in. width is allowed.

**Curb Set-Back** - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

DATE	REVISIONS
1-1-19	Removed upper landings, added blended transition and detectable warning tolerances.
1-1-18	Omitted diagonal slope at turning spaces and upper landings.

**DEPRESSED CORNER FOR SIDEWALKS**

**STANDARD 424021-05**

Illinois Department of Transportation

PASSED January 1, 2019  
*Michael B. ...*  
 ENGINEER OF POLICY AND PROCEDURES

ISSUED 1-1-12

APPROVED January 1, 2019  
*John E. ...*  
 ENGINEER OF DESIGN AND ENVIRONMENT



**CITY OF AURORA**  
**ENGINEERING DIVISION**  
 77 S. BROADWAY

REVISIONS:

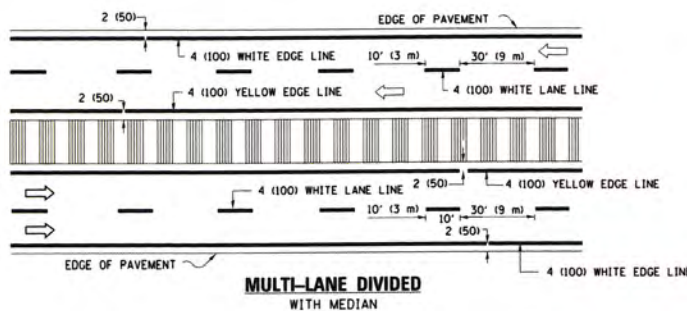
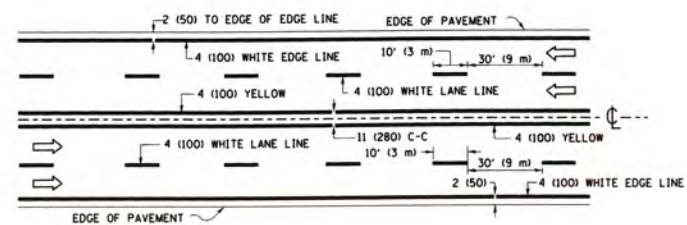
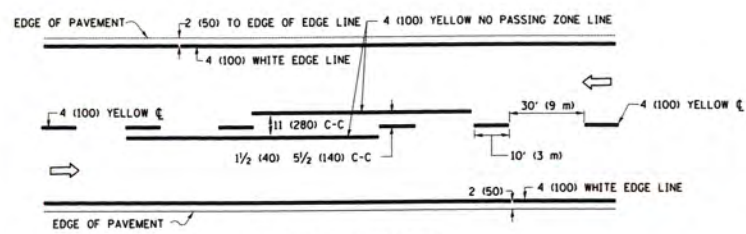
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT: **MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL**

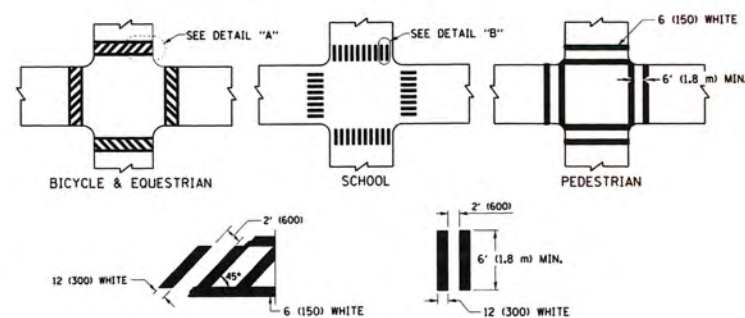
SHEET TITLE: **MISCELLANEOUS STANDARD DETAILS**

SHEET NUMBER: **30**

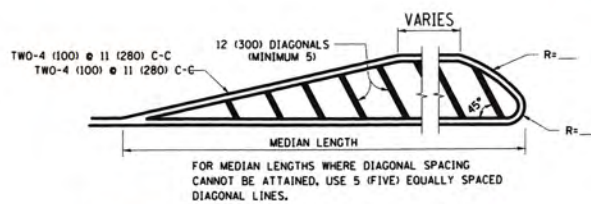
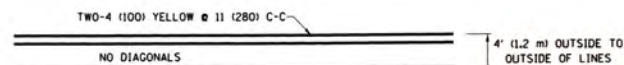
TOTAL SHEETS: **40**



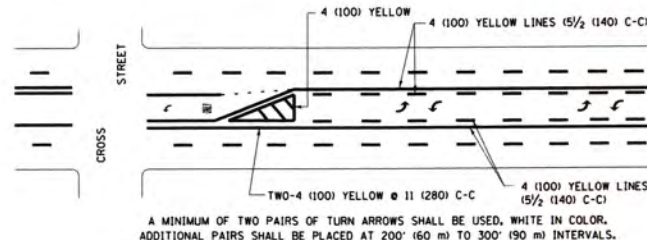
**TYPICAL LANE AND EDGE LINE MARKING**



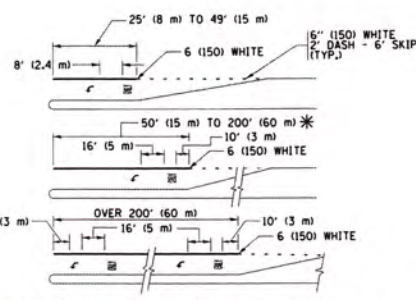
\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))  
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)  
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

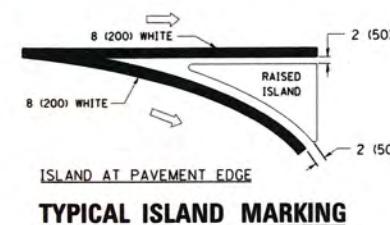
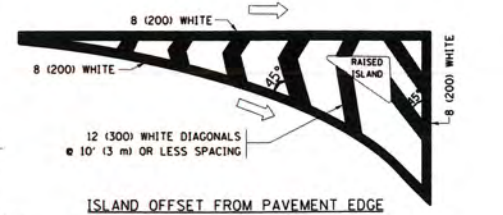


**TYPICAL PAINTED MEDIAN MARKING**

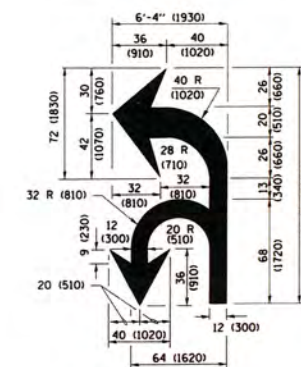


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
\* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

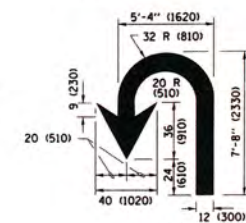
**TYPICAL TURN LANE MARKING**



**TYPICAL ISLAND MARKING**



**COMBINATION LEFT AND U-TURN**



**LANE REDUCTION TRANSITION**

\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

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	5/4 (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 MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/4 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BICYCLE & 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 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 (REQUIRED FOR SHOULDERS ≥ 8')	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))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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.

FILE NAME = W:\diststd\22-34\sc13.dgn	USER NAME = jaygo	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
Default	PLOT SCALE = 50.0000' / in.	DRAWN -	REVISED - C. JUCIUS 07-01-13
	PLOT DATE = 6/23/2017	CHECKED -	REVISED - C. JUCIUS 12-21-15
		DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE TYPICAL PAVEMENT MARKINGS</b>			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TC-13			
CONTRACT NO.			ILLINOIS FED. AID PROJECT	



**CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY**

**REVISIONS:**

DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

**PROJECT**

**MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE  
TRAFFIC SIGNAL**

**SHEET TITLE**

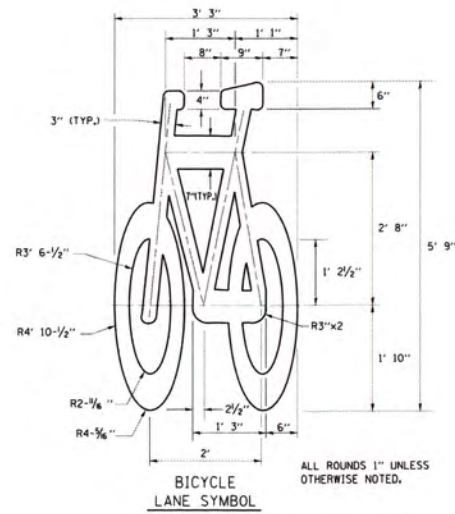
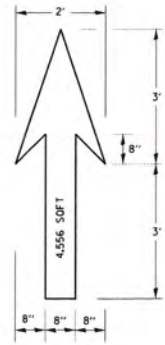
MISCELLANEOUS STANDARD DETAILS

**SHEET NUMBER**

**31**

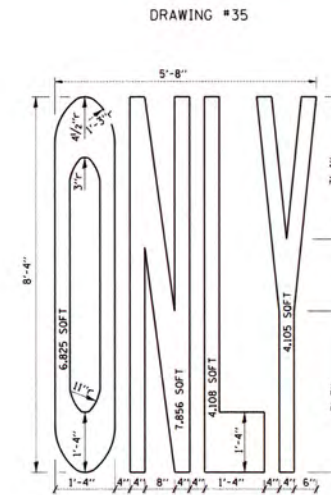
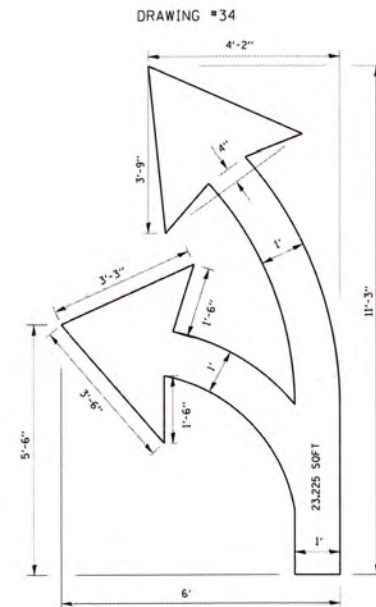
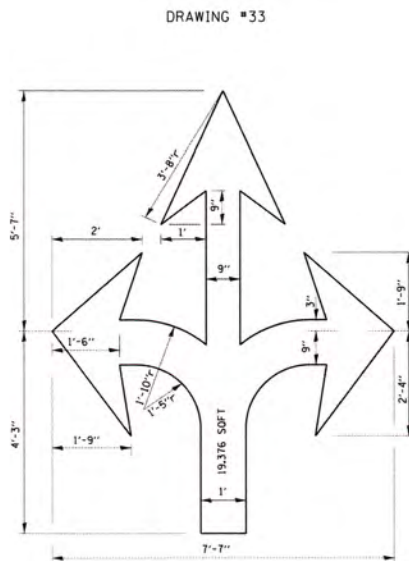
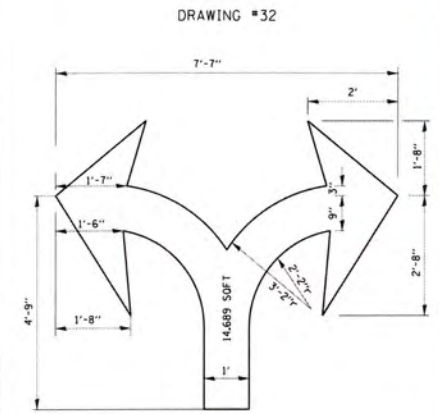
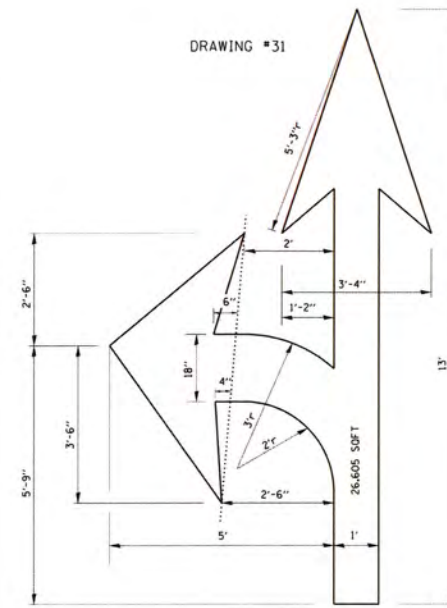
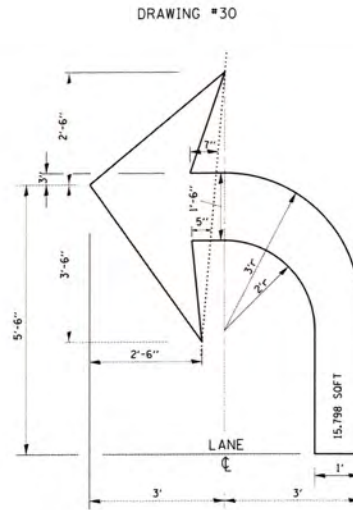
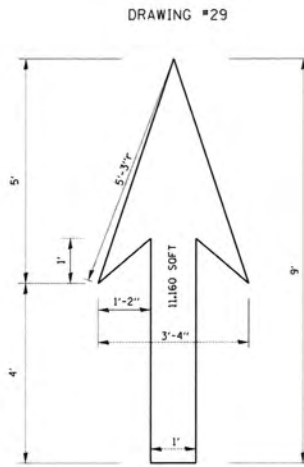
**TOTAL SHEETS**

**40**



**NOTE:**  
 1.) FOR BIKE LANE SYMBOLS ONLY, USE PRE-FORMED THERMOPLASTIC WITH A MINIMUM THICKNESS OF 90 MILS, MINIMUM SKID RESISTANCE VALUE OF 60 BPN, & A MINIMUM INDEX OF REFRACTION OF 1.50.  
 2.) THE RESIDENT ENGINEER SHALL CONTACT MR. BEN GOMBERG AT 312-744-8093 AT LEAST ONE CALENDAR WEEK PRIOR TO INSTALLING BIKE LANE SYMBOLS.

TYPICAL BIKE LANE SYMBOLS  
DRAWING #28



**NOTE:**  
 ALL MARKINGS SHALL BE SOLID WHITE UNLESS OTHERWISE NOTED IN THE PLANS

FILE NAME: c:\p\work\11\2012\11-29-12\11-29-12.dwg	USER NAME: drsvakosgn	DESIGNED: - T. RAMMACHER 12-07-00	REVISED: - T. RAMMACHER 12-07-00
		DRAWN: -	REVISED: - K. ENG 02-28-12
	PLOT SCALE = 50.000 / in.	CHECKED: -	REVISED: -
	PLOT DATE = 3/29/2012	DATE: -	REVISED: -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET NO. 2 OF 3 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TC-24			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO.	



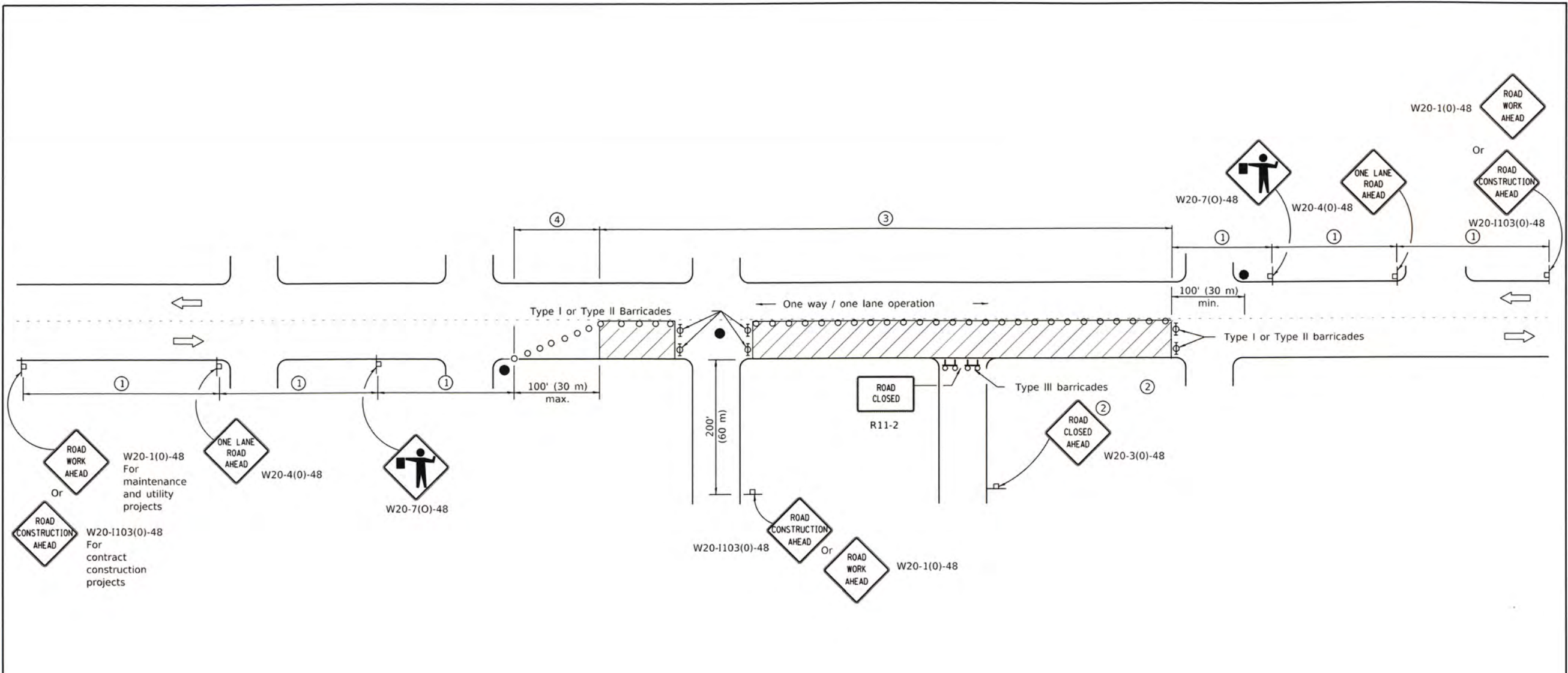
CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY

REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT	MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL
SHEET TITLE	MISCELLANEOUS STANDARD DETAILS







SHEET NUMBER	32
TOTAL SHEETS	40





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 (not required for moving operations)
-  Sign on portable or permanent support
-  Flagger with traffic control sign
-  Barricade or drum with flashing light
-  Type III barricade with flashing lights

- ① Refer to SIGN SPACING TABLE for distances.
- ② For approved sideroad closures.
- 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 Cones, drums or barricades at 20' (6 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 requiring the closure of one traffic lane in an urban area.

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

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to English (metric).
	Corrected sign No.'s.

**URBAN LANE CLOSURE,  
2L, 2W, UNDIVIDED**

**STANDARD 701501-06**

Illinois Department of Transportation

PASSED January 1, 2011  
*[Signature]*  
 ENGINEER OF SAFETY ENGINEERING

APPROVED January 1, 2011  
*[Signature]*  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97



**CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY**

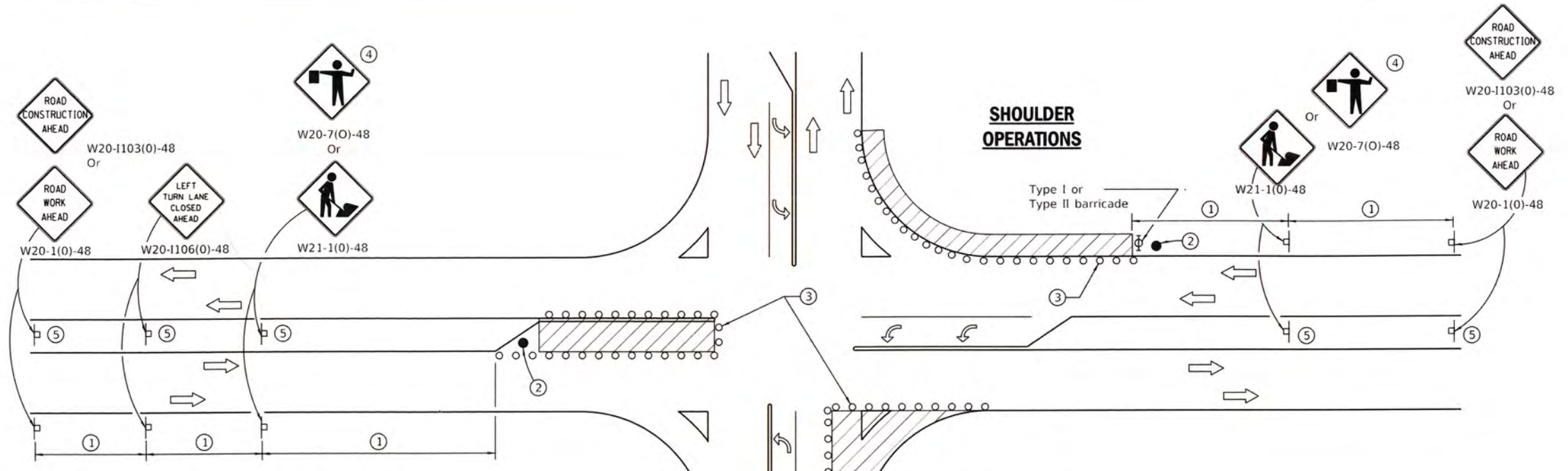
REVISIONS:

DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT: **MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL**

SHEET TITLE: **MISCELLANEOUS STANDARD DETAILS**

SHEET NUMBER	<b>33</b>
TOTAL SHEETS	<b>40</b>



**LEFT TURN LANE OR CENTER MEDIAN OPERATIONS**

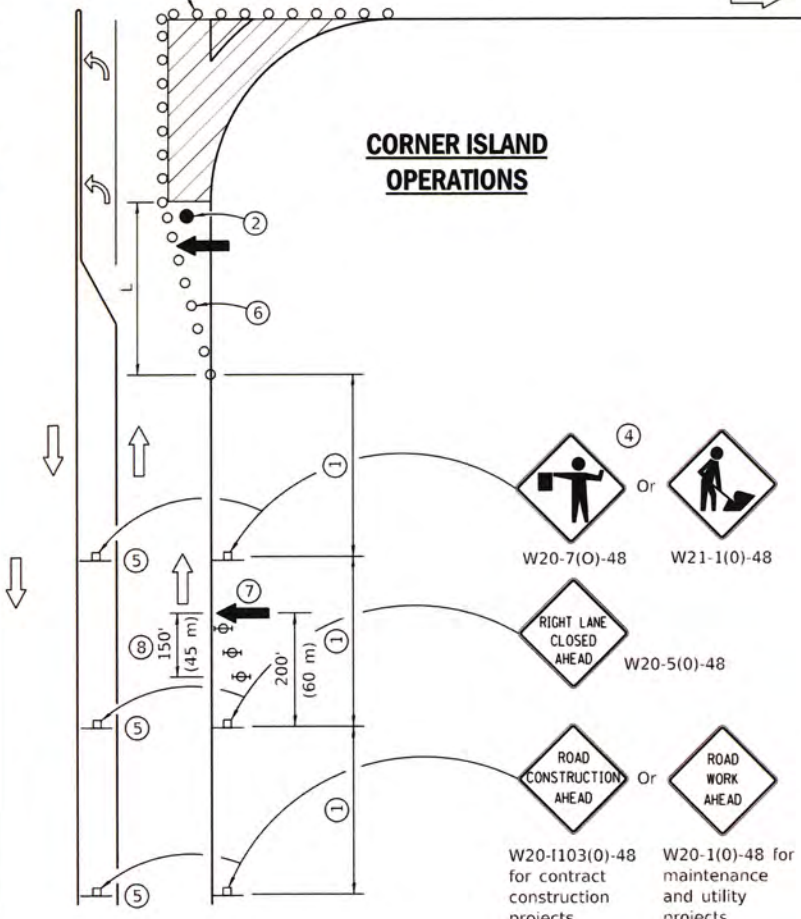
- ① Refer to SIGN SPACING TABLE for distance.
- ② Required for speed > 40 mph.
- ③ Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.
- ④ Use flagger sign only 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.

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

**CORNER ISLAND OPERATIONS**



**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.

Illinois Department of Transportation

PASSED April 1, 2016  
*Amelia A. Stan*  
 ENGINEER OF SAFETY ENGINEERING

APPROVED April 1, 2016  
*[Signature]*  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1.1.97

DATE	REVISIONS
4-1-16	Corrected sign number for LEFT TURN LANE CLOSED AHEAD.
1-1-14	Added devices at arrow board upstream from taper.
	Rev. workers sign number.

**URBAN LANE CLOSURE, MULTILANE INTERSECTION**

**STANDARD 701701-10**



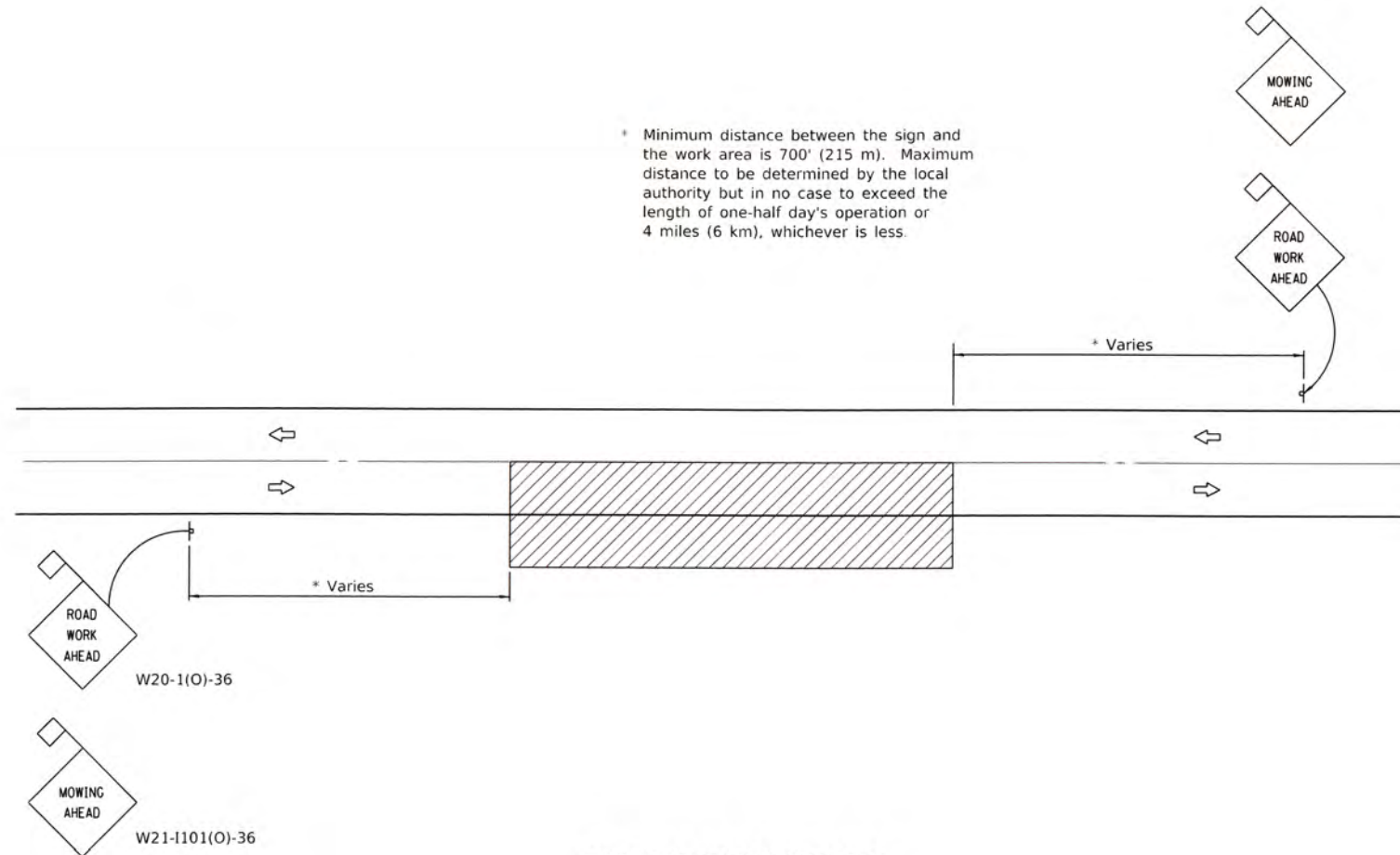
**CITY OF AURORA**  
**ENGINEERING DIVISION**  
 77 S. BROADWAY

REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT	<b>MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL</b>
SHEET TITLE	MISCELLANEOUS STANDARD DETAILS

SHEET NUMBER	<b>34</b>
TOTAL SHEETS	40

\* Minimum distance between the sign and the work area is 700' (215 m). Maximum distance to be determined by the local authority but in no case to exceed the length of one-half day's operation or 4 miles (6 km), whichever is less.



**TWO-LANE, TWO-WAY TRAFFIC  
RURAL OPERATIONS  
DAY OPERATIONS ONLY**

**SYMBOLS**



Work area



Sign with 18x18 (450x450) min. orange flag attached.

**TYPICAL APPLICATIONS**

- MOWING
- SPREADING AGGREGATE
- WEED SPRAYING
- SURFACE MAINTENANCE
- BITUMINOUS RESURFACING
- CRACK POURING
- SHOULDER REPAIR
- CLEANING DITCHES

**GENERAL NOTES**

Maintenance operations shall be confined to one traffic lane, leaving the opposite lane open to traffic. At least 500' (150 m) of both traffic lanes shall be available for traffic movement between work areas at intervals not greater than 1000' (300 m).

When operations are on the pavement and stationary or moving at a speed less than 4 mph (6 kph), a ONE LANE AHEAD, or other appropriate sign, shall be installed in each direction between the ROAD WORK AHEAD sign and the work area. The distance between this sign and the work area shall be a minimum of 400' (120 m) but in no case to exceed the length of one-half day's operation or 4 miles (6 km), whichever is less. The distance between the two signs shall be approximately 400' (120 m).

All signs are to be removed at completion of the day's operation.

Any unattended obstacle, excavation, or pavement drop off greater than 3 (75) in the work area shall be protected by Type I or Type II barricades with flashing lights.

Longitudinal dimensions may be adjusted slightly to fit field conditions.

All vehicles, equipment, men, and their activities are restricted at all times to one side of the pavement.

Flashing lights or rotating beacons are required for all maintenance vehicles while in operation.

Applicable operations illustrated in Standard 701301 may be used when operations do not exceed 15 minutes on the pavement or 60 minutes on the shoulder respectively.

All warning signs shall have minimum dimensions of 36x36 (900x900) and have black legend on an orange reflectorized background.

When fluorescent signs are used, orange flags are not required.

This case is for use on rural local roads where the local authority considers this protection to be appropriate for the specific job conditions.

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

Illinois Department of Transportation

PASSED January 1, 2015  
*James K. Keen*  
 ENGINEER OF LOCAL ROADS AND STREETS

APPROVED January 1, 2015  
*RE*  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-15	Corrected RWA sign number.
1-1-09	Switched units to English (metric). Moved one General Note.

**TRAFFIC CONTROL DEVICES-  
DAY LABOR MAINTENANCE**

**STANDARD B.L.R. 18-6**

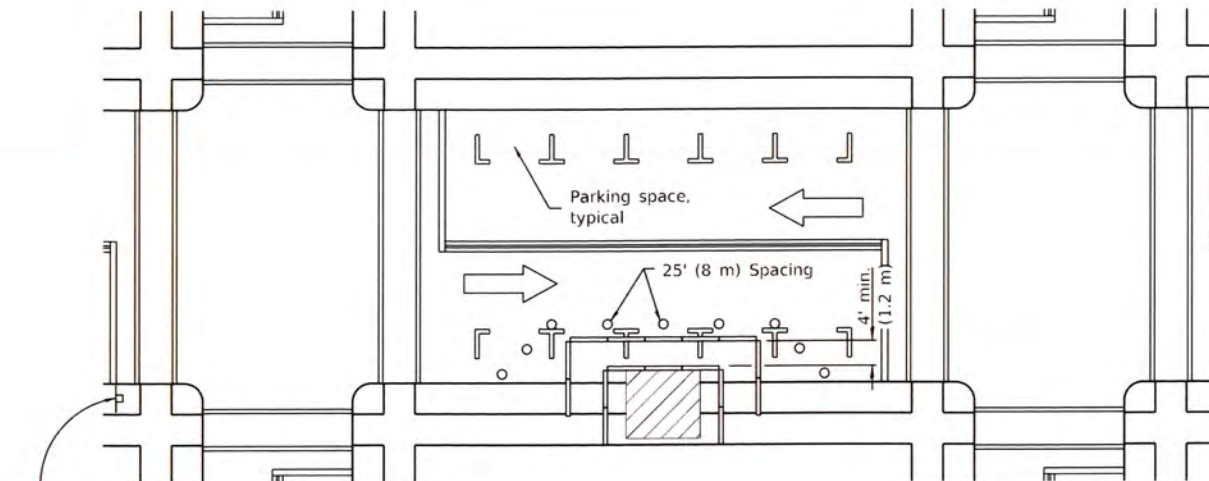


**CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY**

REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

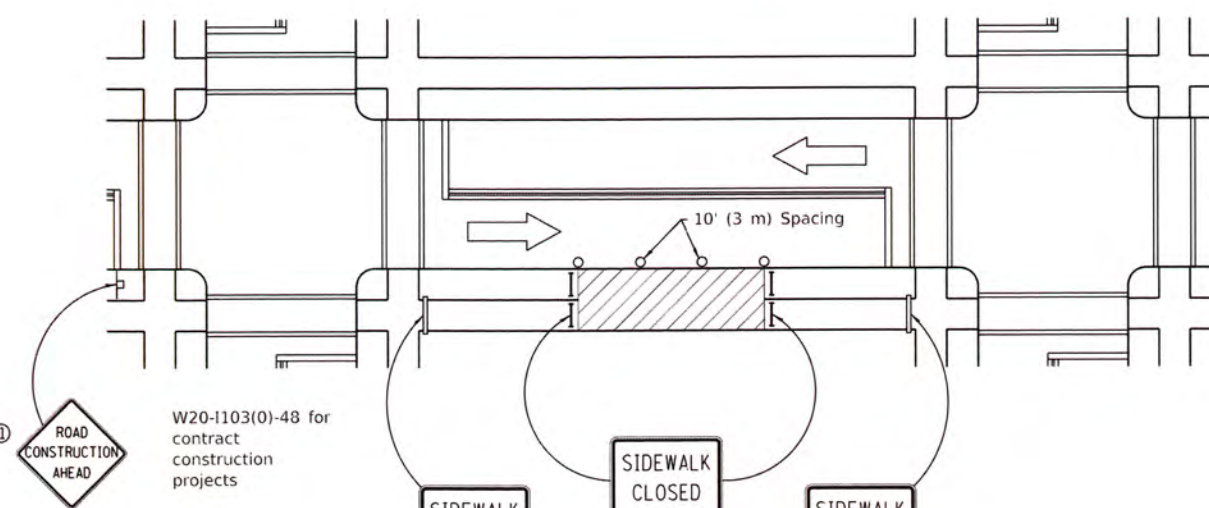
PROJECT	<b>MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL</b>
SHEET TITLE	MISCELLANEOUS STANDARD DETAILS

SHEET NUMBER	<b>35</b>
TOTAL SHEETS	40



- ① ROAD CONSTRUCTION AHEAD W20-1103(0)-48 for contract construction projects
- Or
- ① ROAD WORK AHEAD W20-1(0)-48 for maintenance and utility projects

**SIDEWALK DIVERSION**



- ① ROAD CONSTRUCTION AHEAD W20-1103(0)-48 for contract construction projects
  - Or
  - ① ROAD WORK AHEAD W20-1(0)-48 for maintenance and utility projects
- R11-1101-2418  
R11-1102-2430

**SIDEWALK CLOSURE**

① Omit whenever duplicated by road work traffic control.

- SYMBOLS**
- Work area
  - Sign on portable or permanent support
  - Barricade or drum
  - Cone, drum or barricade
  - Type III barricade
  - Detectable pedestrian channelizing barricade

**GENERAL NOTES**

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

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

DATE	REVISIONS
4-1-16	Omitted orange safety fence from standard as this is covered in the std. spec.
1-1-12	Added SIDEWALK DIVERSION. Modified appearance of plan views. Renamed Std.

**SIDEWALK, CORNER OR CROSSWALK CLOSURE**

(Sheet 1 of 2)

**STANDARD 701801-06**

Illinois Department of Transportation

PASSED April 1, 2016  
  
 ENGINEER OF SAFETY ENGINEERING

APPROVED April 1, 2016  
  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1.1.97

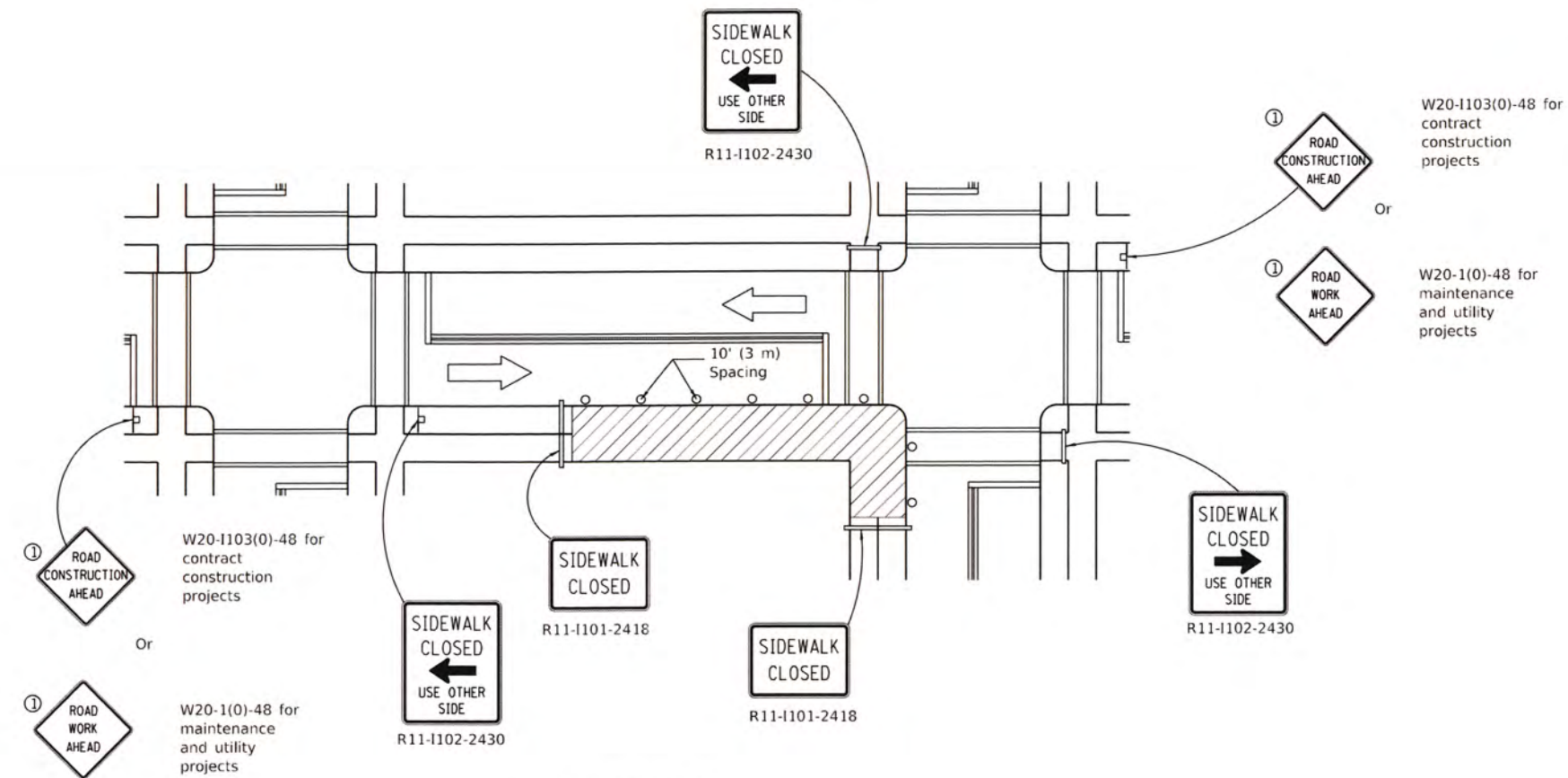


**CITY OF AURORA**  
**ENGINEERING DIVISION**  
 77 S. BROADWAY

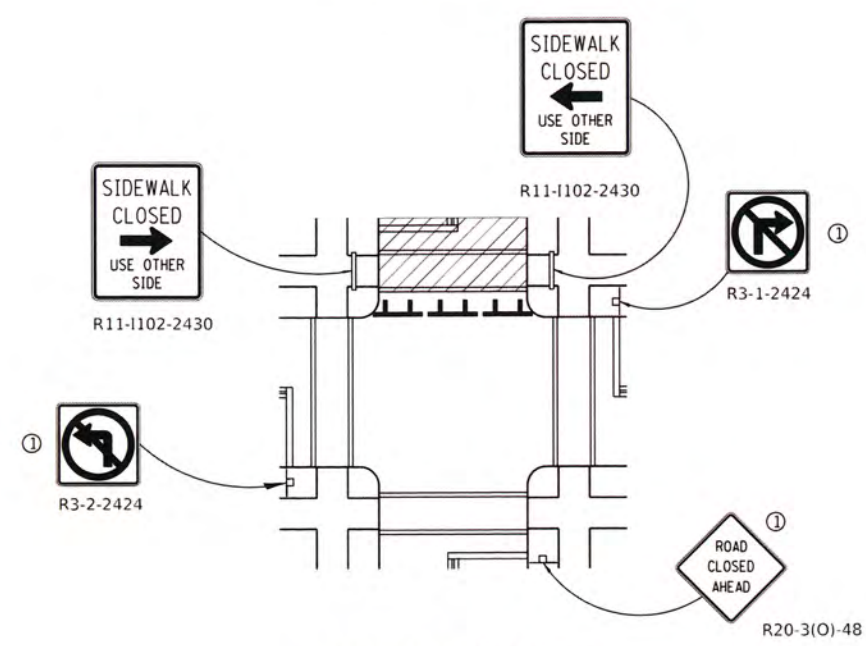
REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT	<b>MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE</b>
SHEET TITLE	<b>MISCELLANEOUS STANDARD DETAILS</b>

SHEET NUMBER	<b>36</b>
TOTAL SHEETS	<b>40</b>




**CORNER CLOSURE**

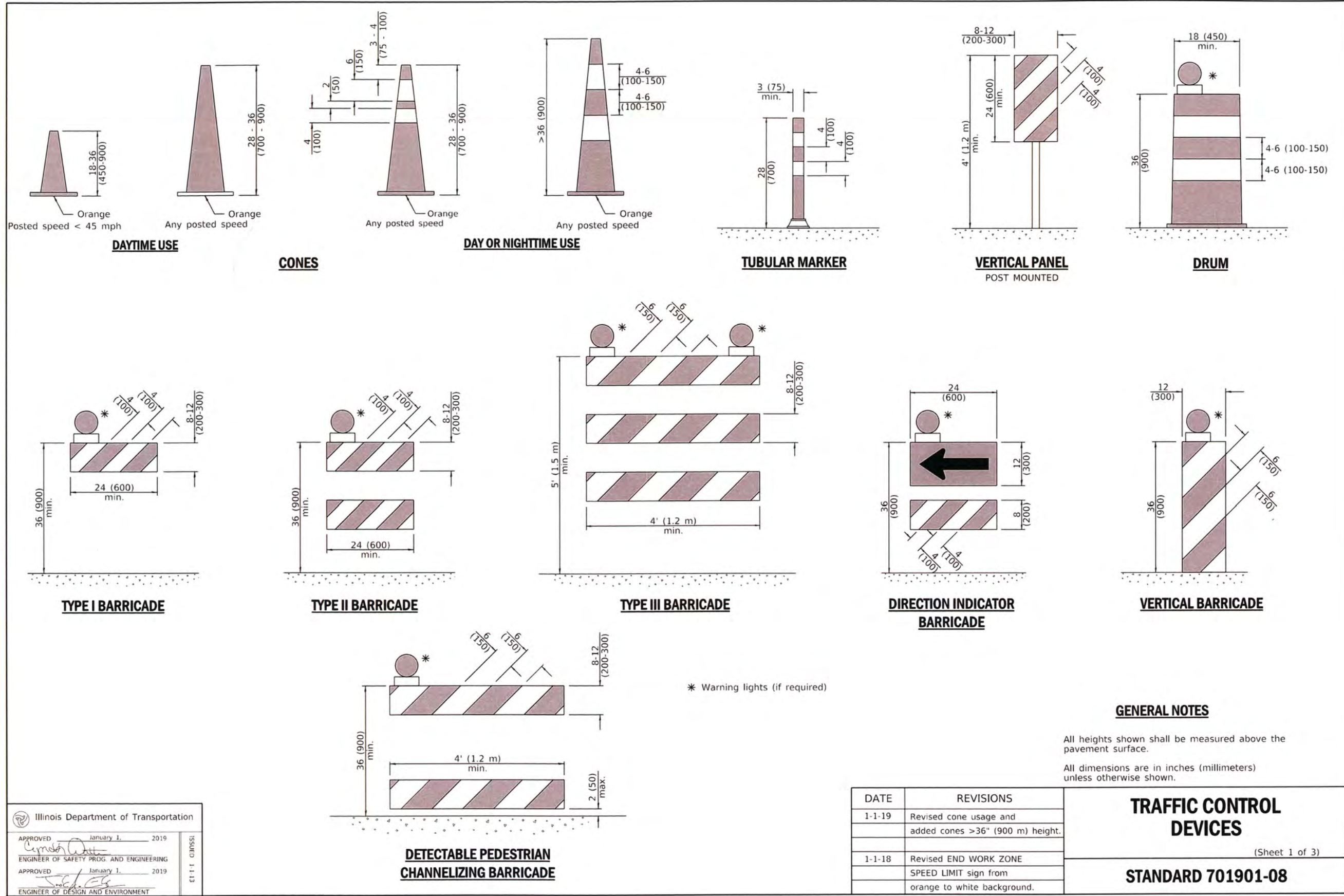


**CROSSWALK CLOSURE**

**SIDEWALK, CORNER OR CROSSWALK CLOSURE**  
(Sheet 2 of 2)  
**STANDARD 701801-06**

Illinois Department of Transportation  
 PASSED April 1, 2016  
 ENGINEER OF SAFETY ENGINEERING  
 APPROVED April 1, 2016  
 ENGINEER OF DESIGN AND ENVIRONMENT

 <p><b>CITY OF AURORA</b> ENGINEERING DIVISION 77 S. BROADWAY</p>	REVISIONS:	PROJECT <b>MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL</b>	SHEET NUMBER <b>37</b>
	DESIGNED BY: GIL    CHECKED BY: RG    SCALE: DRAWN BY: GIL    APPROVED BY: RG    DATE: 4/2019	SHEET TITLE MISCELLANEOUS STANDARD DETAILS	TOTAL SHEETS <b>40</b>



Illinois Department of Transportation

APPROVED January 1, 2019  
*Amish Dutt*  
 ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2019  
*[Signature]*  
 ENGINEER OF DESIGN AND ENVIRONMENT

ET 111 010105

**TRAFFIC CONTROL DEVICES**

(Sheet 1 of 3)

**STANDARD 701901-08**



**CITY OF AURORA**  
**ENGINEERING DIVISION**  
 77 S. BROADWAY

REVISIONS:

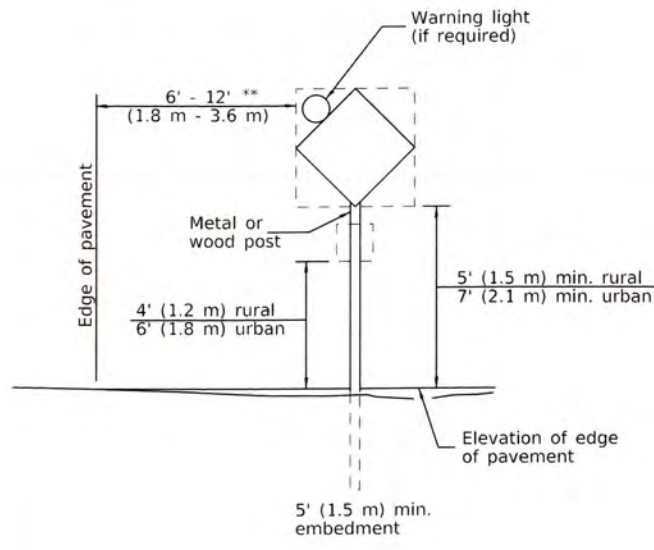
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT: **MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL**

SHEET TITLE: **MISCELLANEOUS STANDARD DETAILS**

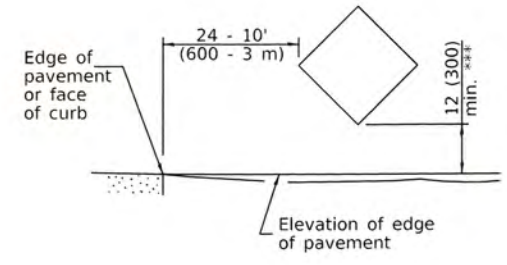
SHEET NUMBER: **38**

TOTAL SHEETS: **40**



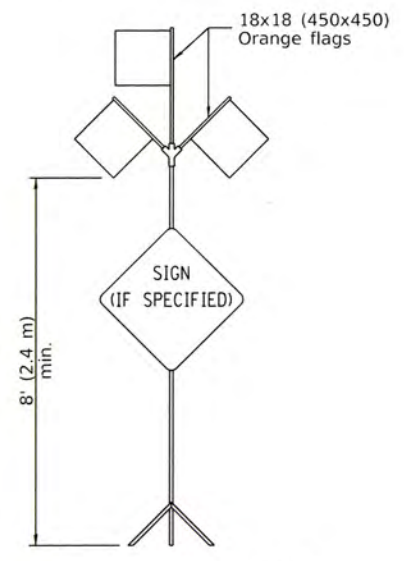
**POST MOUNTED SIGNS**

\*\* When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.



**SIGNS ON TEMPORARY SUPPORTS**

\*\*\* When work operations exceed four days, this dimension shall be 5' (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen completely above the devices.



**HIGH LEVEL WARNING DEVICE**

ROAD CONSTRUCTION NEXT X MILES G20-1104(0)-6036	END CONSTRUCTION G20-1105(0)-6024
--	--------------------------------------

This signing is required for all projects 2 miles (3200 m) or more in length.  
ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.  
END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).  
Dual sign displays shall be utilized on multi-lane highways.

**WORK LIMIT SIGNING**

WORK ZONE W21-1115(0)-3618
SPEED LIMIT R2-1-3648
<b>XX</b>
PHOTO ENFORCED R10-1108p-3618 ****
\$XXX FINE MINIMUM R2-1106p-3618

Sign assembly as shown on Standards or as allowed by District Operations.

END WORK ZONE SPEED LIMIT G20-1103-6036
--

This sign shall be used when the above sign assembly is used.

**HIGHWAY CONSTRUCTION SPEED ZONE SIGNS**

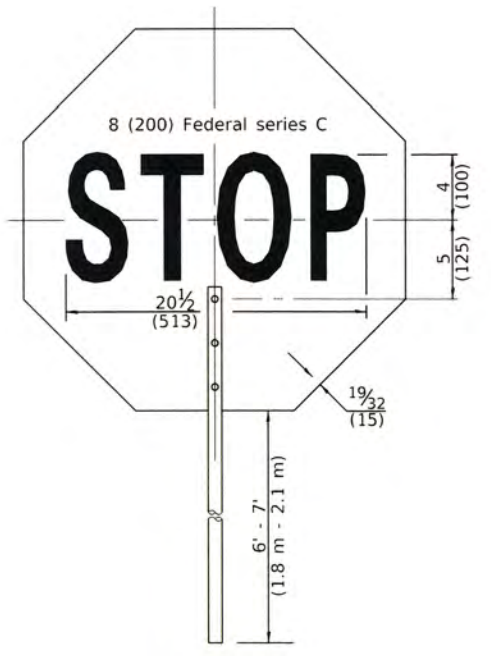
\*\*\*\* R10-1108p shall only be used along roadways under the jurisdiction of the State.



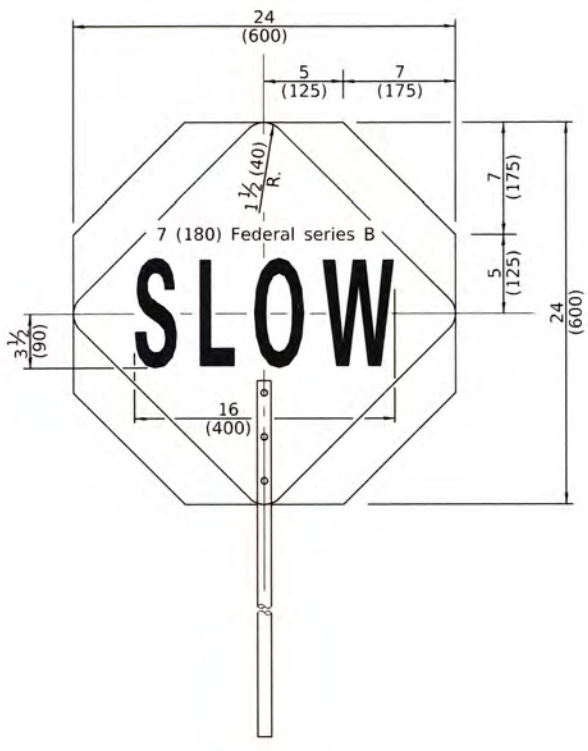
W12-1103-4848

**WIDTH RESTRICTION SIGN**

XX'-XX" width and X miles are variable.



FRONT SIDE



REVERSE SIDE

**FLAGGER TRAFFIC CONTROL SIGN**

Illinois Department of Transportation

APPROVED January 1, 2019  
  
 ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2019  
  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1.1.1

**TRAFFIC CONTROL DEVICES**

(Sheet 2 of 3)

**STANDARD 701901-08**



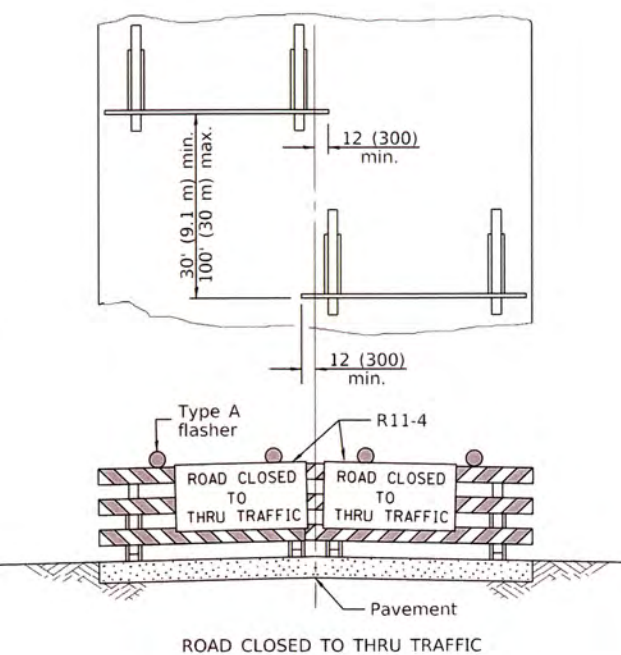
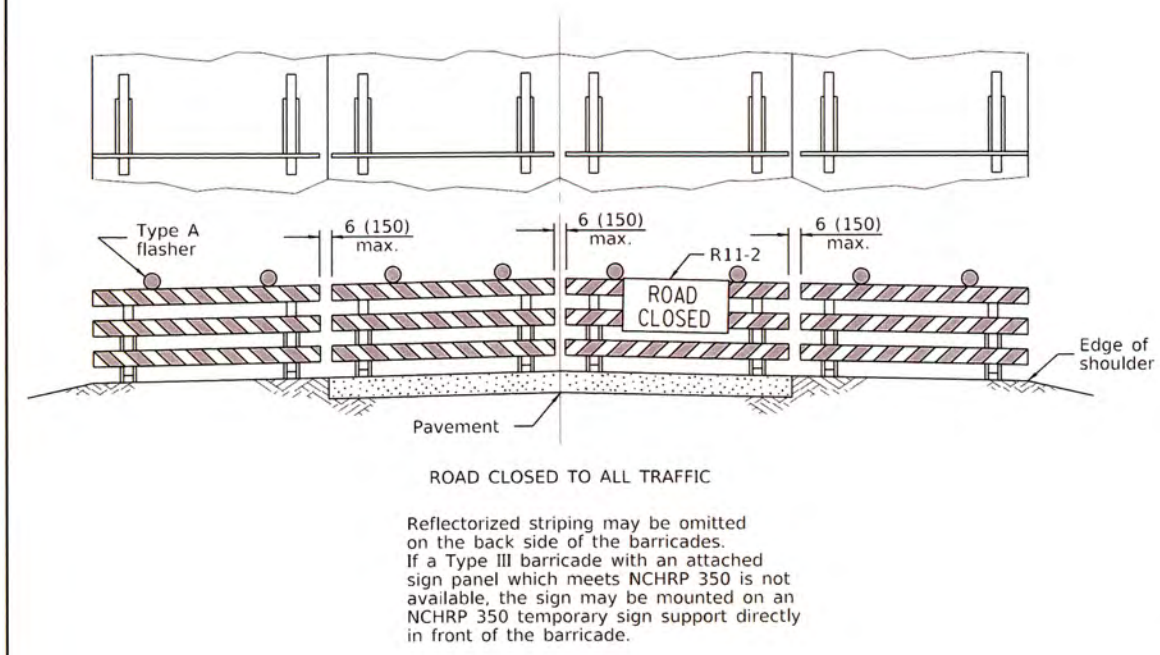
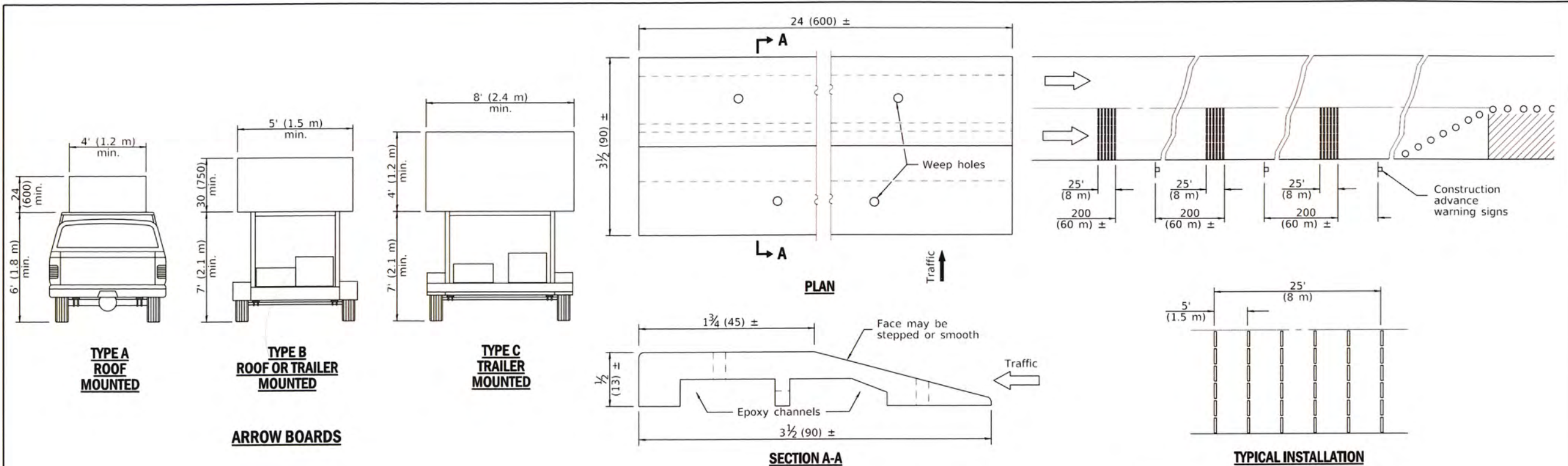
CITY OF AURORA  
ENGINEERING DIVISION  
77 S. BROADWAY

REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT: MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE TRAFFIC SIGNAL

SHEET TITLE: MISCELLANEOUS STANDARD DETAILS

SHEET NUMBER <b>39</b>
TOTAL SHEETS 40



**TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD**

ReflectORIZED striping shall appear on both sides of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the signs may be mounted on NCHRP 350 temporary sign supports directly in front of the barricade.

**TRAFFIC CONTROL DEVICES**  
(Sheet 3 of 3)  
**STANDARD 701901-08**

Illinois Department of Transportation  
APPROVED January 1, 2019  
ENGINEER OF SAFETY PROG. AND ENGINEERING  
APPROVED January 1, 2019  
ENGINEER OF DESIGN AND ENVIRONMENT



**CITY OF AURORA**  
**ENGINEERING DIVISION**  
**77 S. BROADWAY**

REVISIONS:		
DESIGNED BY: GIL	CHECKED BY: RG	SCALE:
DRAWN BY: GIL	APPROVED BY: RG	DATE: 4/2019

PROJECT	<b>MONTGOMERY - MEADOWBROOK - W. WHITE EAGLE</b> <b>TRAFFIC SIGNAL</b>
SHEET TITLE	MISCELLANEOUS STANDARD DETAILS

SHEET NUMBER	<b>40</b>
TOTAL SHEETS	40