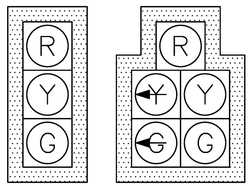
MAST ARM EXAMPLE

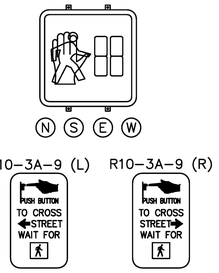
VEHICULAR TRAFFIC SIGNAL HEAD CONFIGURATION



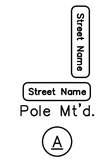
12" HEADS 2, 3, 4, 6, 7 & 8

12" HEADS 1 & 5

PEDESTRIAN SIGNAL HEAD CONFIGURATION



STREET NAME SIGN DETAIL



NOTES:

1. The Contractor shall ensure that all sidewalks/pathways meet ADA guidelines per City specifications.
2. Power, service and interconnect cable shall be continuous with no splices except as noted.
3. For signing and pavement markings, see sheet(s) XX & XX.
4. The top of the pole base foundation shall be edged using a 1/2" sidewalk edger instead of being chamfered.
5. The Transportation Division Personnel shall approve bolt alignment, pole foundation location and elevation prior to the Contractor installing the foundation.
6. Tagging of cable in the pullbox next to the control cabinet is not required except for tagging of certain cable as directed by the Project Engineer or as per plan.
7. The pedestrian signal head shall be aimed at the centerline of the crosswalk area (not the curb ramp) that is opposite of the pedestrian signal head. The pedestrian signal heads shall also have a slight downward angle to it.
8. Do not encase the ground rod, the grounding wire or the EMT conduit in concrete outside of their foundation. Full access to these items must be maintained at all times. Permanently mark the top of foundation concrete, if visible, with a marker or symbol so the rod location can be known by others.
9. Any signal support base foundation within or adjacent to a sidewalk area shall be flush with the top of the sidewalk.
10. The Contractor shall not install pole foundations until the pole location area is at finished grade.
11. Undergrou[illegible] posed sidewalk [illegible] to the placeme[illegible] roadway course.
12. The Contr[illegible] en the control [illegible] furnished and inst[illegible] shall be run sepa[illegible] other cable.
13. See interconnect schematic sheet(s) XXX for interconnect items.
14. For continuation of conduit, see sheet(s) XXX and XXX.
15. The control cabinet door shall be located on the south side of the cabinet.
16. The top surface of a cabinet foundation located in sidewalk areas shall be 4" above the surrounding walk. Expansion material shall be used between all foundations and adjacent sidewalk.
17. Use a separate conduit for each grouping of cables unless otherwise indicated: one conduit for 120VAC signal cable (5C, 7C, 9C, GND); one conduit for power; one conduit for 2 conductor cable (loop & pushbutton); and one conduit for interconnect cable (twisted pair, fiber optics or coax). Any other low voltage cable not specified above can be placed in the 2 conductor cable conduit. Power cable must be in its own conduit.
18. Unless otherwise specified the following shall apply. A preformed PVC conduit elbow shall be used to change the PVC conduit direction beyond what its natural bending flex would yield. Rigid metal conduit can be bent to form an elbow or any other bending angle required only if a proper conduit bending machine is used. The elbow radius for any non-interconnect conduit shall be 24" or larger when used in a horizontal or vertical manner. Any type of elbow used for interconnect conduit shall have a radius of 36" or larger when used in a horizontal direction or in a vertical direction when the trench is 36" or deeper. If the trench is less than 36" then the vertical elbow radius shall be 24".
19. All clamps and banding material shall be painted to match the signal supports.

SEE CITY OF COLUMBUS, TRAFFIC SIGNAL DESIGN MANUAL, SECTION 2.4 FOR A COMPLETE LIST OF PLAN SHEET NOTES.

POLE N/W-2 PEDESTRIAN PEDESTAL, 10.7'
W/(1)-PEDESTRIAN SIGNAL HEAD
STA. 105+33.1, 45.4' LT.

(1)-2" CONDUIT W/(2)-7/C & (1)-GND
(1)-2" CONDUITS - EMPTY
IN TRENCH = 13'

PULL BOX, 27"
STA. 105+30.0, 32.5' LT.

(1)-2" CONDUIT W/(1)-2/C & (1)-VIDEO
(1)-2" CONDUIT W/(2)-7/C, & (3)-GND
IN TRENCH = 20'

MAJOR STREET ℄ STA. 105+59.36 =
MINOR STREET ℄ STA. 37+56.65
CITY OF COLUMBUS INT. NO. = XXXX

POLE N/W-1 COMBINATION SIGNAL SUPPORT
W/(1)-PEDESTRIAN PUSHBUTTON
W/(1)-PEDESTRIAN SIGNAL HEAD
W/(1)-25' BRACKET ARM
W/(1)-VIDEO DETECTION CAMERA
STA. 105+11.3, 27.9' LT.

FOR CLARITY, VIDEO DETECTION BRACKET ARMS AND CAMERAS HAVE NOT BEEN SHOWN. SEE VIDEO DETECTION DETAIL.

(1)-2" CONDUIT W/(1)-2/C & (1)-VIDEO
(1)-2" CONDUIT W/(2)-7/C & (1)-GND
ENCASED IN TRENCH = 60'

POLE N/E-2 PEDESTRIAN PEDESTAL, 10.7'
W/(1)-PEDESTRIAN SIGNAL HEAD
STA. 105+85.8, 44.9' LT.

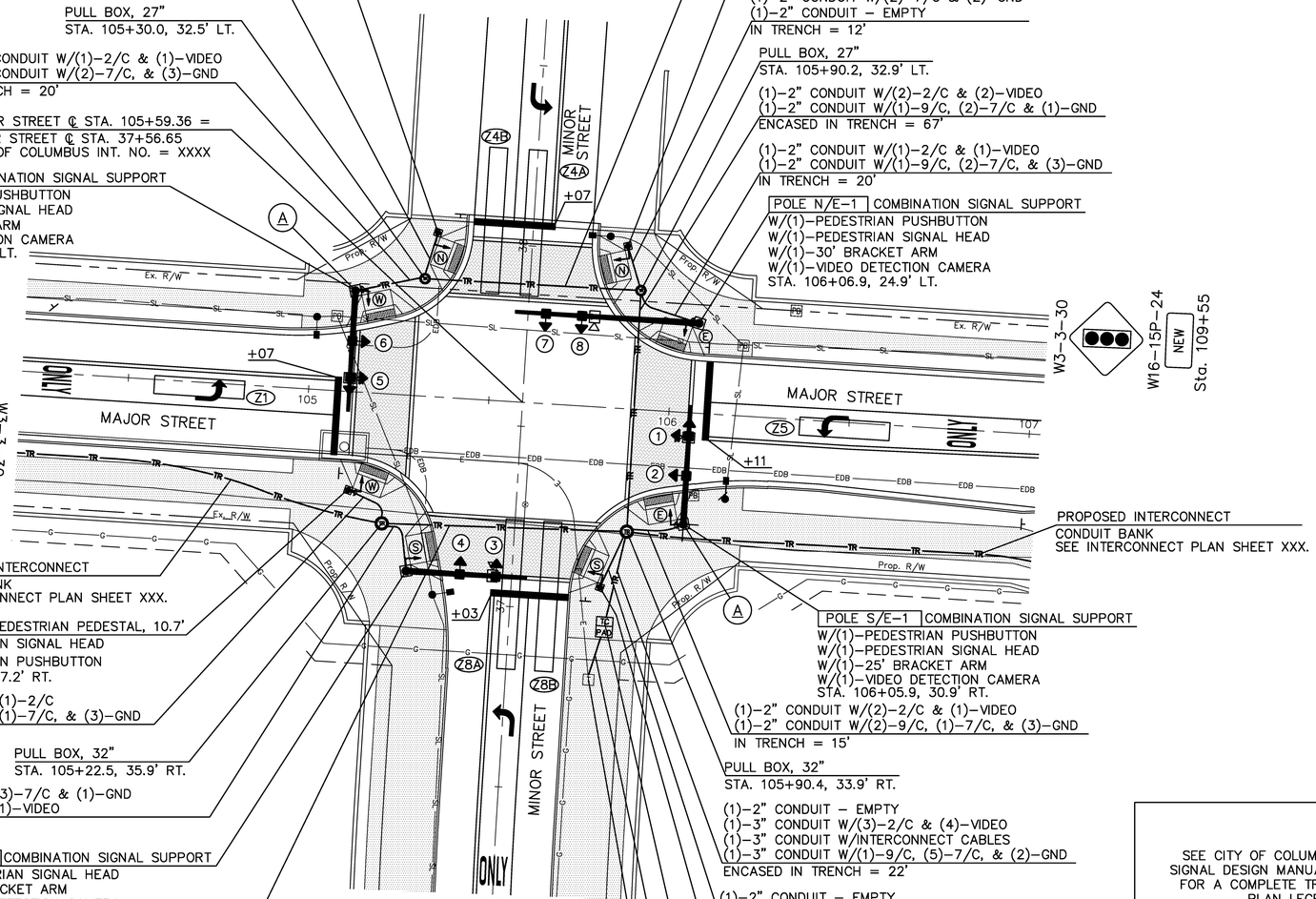
(1)-2" CONDUIT W/(2)-7/C & (2)-GND
(1)-2" CONDUIT - EMPTY
IN TRENCH = 12'

PULL BOX, 27"
STA. 105+90.2, 32.9' LT.

(1)-2" CONDUIT W/(2)-2/C & (2)-VIDEO
(1)-2" CONDUIT W/(1)-9/C, (2)-7/C & (1)-GND
ENCASED IN TRENCH = 67'

(1)-2" CONDUIT W/(1)-2/C & (1)-VIDEO
(1)-2" CONDUIT W/(1)-9/C, (2)-7/C, & (3)-GND
IN TRENCH = 20'

POLE N/E-1 COMBINATION SIGNAL SUPPORT
W/(1)-PEDESTRIAN PUSHBUTTON
W/(1)-PEDESTRIAN SIGNAL HEAD
W/(1)-30' BRACKET ARM
W/(1)-VIDEO DETECTION CAMERA
STA. 106+06.9, 24.9' LT.



PROPOSED INTERCONNECT
CONDUIT BANK
SEE INTERCONNECT PLAN SHEET XXX.

POLE S/W-2 PEDESTRIAN PEDESTAL, 10.7'
W/(1)-PEDESTRIAN SIGNAL HEAD
W/(1)-PEDESTRIAN PUSHBUTTON
STA. 105+12.7, 27.2' RT.

(1)-2" CONDUIT W/(1)-2/C
(1)-2" CONDUIT W/(1)-7/C, & (3)-GND
IN TRENCH = 14'

PULL BOX, 32"
STA. 105+22.5, 35.9' RT.

(1)-2" CONDUIT W/(3)-7/C & (1)-GND
(1)-2" CONDUIT W/(1)-VIDEO
IN TRENCH = 15'

POLE S/W-1 COMBINATION SIGNAL SUPPORT
W/(1)-PEDESTRIAN SIGNAL HEAD
W/(1)-25' BRACKET ARM
W/(1)-VIDEO DETECTION CAMERA
STA. 105+30.1, 48.6' RT.

(1)-2" CONDUIT W/(2)-7/C, & (1)-GND
(1)-2" CONDUIT W/(1)-2/C & (1)-VIDEO
(1)-1.5" CONDUIT W/TRACING WIRE
(4)-3" CONDUITS (SEE INTERCONNECT PLAN)
ENCASED IN TRENCH = 68'

PROPOSED INTERCONNECT
CONDUIT BANK
SEE INTERCONNECT PLAN SHEET XXX.

POLE S/E-1 COMBINATION SIGNAL SUPPORT
W/(1)-PEDESTRIAN PUSHBUTTON
W/(1)-PEDESTRIAN SIGNAL HEAD
W/(1)-25' BRACKET ARM
W/(1)-VIDEO DETECTION CAMERA
STA. 106+05.9, 30.9' RT.

(1)-2" CONDUIT W/(2)-2/C & (1)-VIDEO
(1)-2" CONDUIT W/(2)-9/C, (1)-7/C, & (3)-GND
IN TRENCH = 15'

PULL BOX, 32"
STA. 105+90.4, 33.9' RT.

(1)-2" CONDUIT - EMPTY
(1)-3" CONDUIT W/(3)-2/C & (4)-VIDEO
(1)-3" CONDUIT W/INTERCONNECT CABLES
(1)-3" CONDUIT W/(1)-9/C, (5)-7/C, & (2)-GND
ENCASED IN TRENCH = 22'

(1)-2" CONDUIT - EMPTY
(1)-2" CONDUIT W/(2)-7/C & (2)-GND
IN TRENCH = 15'

POLE S/E-2 PEDESTRIAN PEDESTAL, 10.7'
W/(1)-PEDESTRIAN SIGNAL HEAD
STA. 105+83.9, 49.8' RT.

GROUND MOUNTED CONTROLLER
STA. 105+85.8, 59.4' RT.

(1)-2" CONDUIT W/(1)-POWER
ENCASED IN TRENCH = 14'

EX. POWER COMPANY PAD
MOUNTED TRANSFORMER
(PROP. POWER SOURCE)

SEE CITY OF COLUMBUS, TRAFFIC SIGNAL DESIGN MANUAL, SECTION 2.1 FOR A COMPLETE TRAFFIC SIGNAL PLAN LEGEND.

LEGEND

SIGNAL HEADS:	PROP. VEHICULAR	EX. VEHICULAR
	PROP. PEDESTRIAN	EX. PEDESTRIAN
SIGNAL POLES:	PROP. ANCHOR/STRAIN POLE	EX. ANCHOR/STRAIN POLE
	EX. EMBEDDED POLE	EX. WOOD POLE / GUY ANCHOR
	PROP. PEDESTAL	EX. PEDESTAL / PUSHBUTTON
	EX. MASTARM	
	PROP. MASTARM	
CONTROLLERS & CABINETS:	EX. CABINET W/PAD	PROP. CABINET W/PAD
	EX. CABINET (NO PAD)	PROP. CABINET (NO PAD)
PULL BOXES:	EX. PULL BOX	
	PROP. PULL BOX	
DETECTION:	FLOW MONITOR	MICROWAVE / RADAR
	VIDEO CAMERA / VIDEO ZONE Z1	
	LOOP DETECTOR L1A	
MISCELLANEOUS:	REDLIGHT CAMERA	REDLIGHT FLASH

SCALE: 1 inch = 20 feet (0, 10, 20, 40)

CALCULATED XXX
CHECKED XXX

TRAFFIC SIGNAL INSTALLATION PLAN
STREET A AT STREET C

PROJECT TITLE
PHASE OR PROJECT ADDRESS (OR C.I.P. NUMBER)

XX XX

XXXX E
REVISED 4/11/14

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