

Michigan Department of Transportation Traffic and Safety



MACOMB COUNTY TRAFFIC SIGNAL DETAILS


MC-026A THROUGH MC-120A

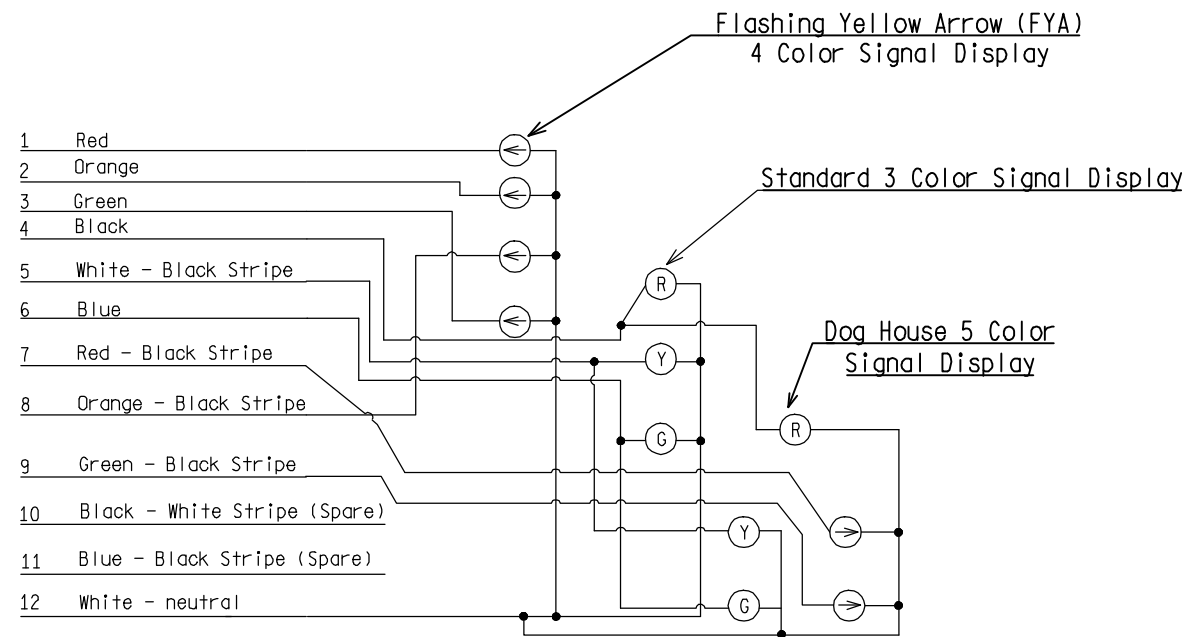
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ENGLISH VERSION

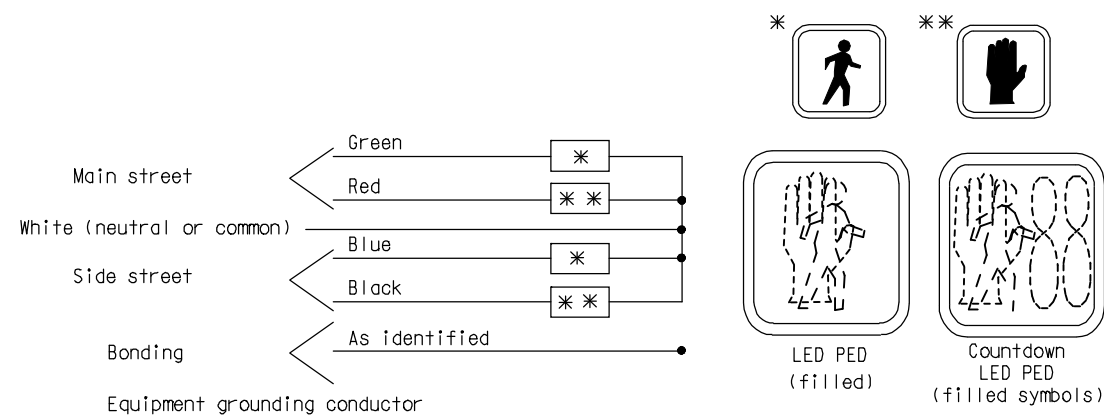
 Michigan Department of Transportation	PREPARED BY TRAFFIC AND SAFETY
	ENGINEER OF TRAFFIC AND SAFETY
DEPARTMENT DIRECTOR KIRK T. STEUDLE	DRAWN BY: MTS CHECKED BY: JAT
<small>MDOT\Projectwise\Documents\Reference Documents\Traffic Reference\Signals\Macomb County Special Details\Develop</small>	



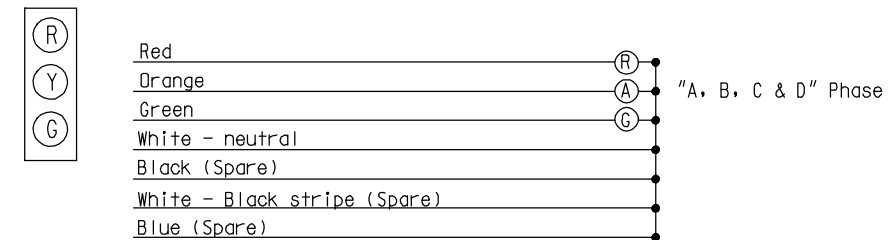
BOX SPAN

**COLOR CODE FOR WIRING CONNECTING TRAFFIC SIGNAL LAMPS
12 CONDUCTOR CABLE**

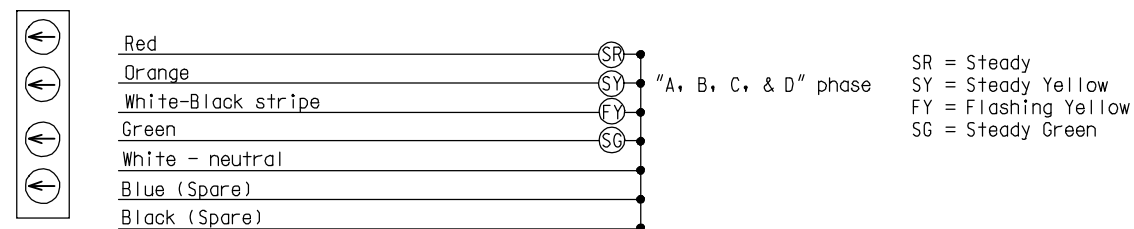
NOTE: Cable between splice box and controller cabinet.



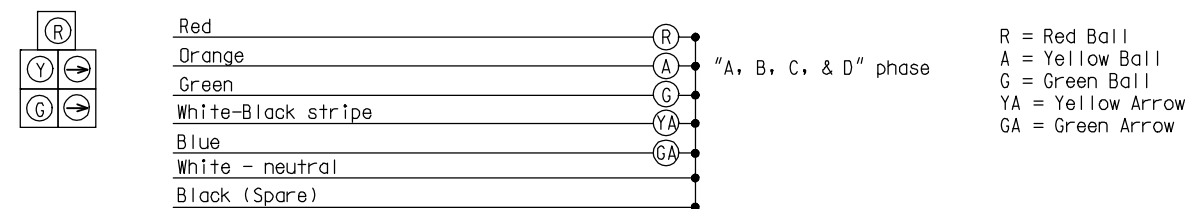
**COLOR CODE FOR WIRING CONNECTING PEDESTRIAN SIGNAL LAMPS
(WALKING PERSON - HAND SYMBOL)**



**STANDARD - 3 COLOR SIGNAL DISPLAY
7 CONDUCTOR CABLE**



**FLASHING YELLOW ARROW (FYA) - 4 COLOR SIGNAL DISPLAY
7 CONDUCTOR CABLE**



**DOG HOUSE W/RIGHT TURNS - 5 COLOR SIGNAL DISPLAY
7 CONDUCTOR CABLE**

COLOR CODE FOR WIRING CONNECTING TRAFFIC SIGNAL LAMPS

NOT TO SCALE

File: PW:RD/TR/Standards/Signals/mdot_sig026a.dgn Rev. 11/16/10



ENGINEER OF DELIVERY

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN FOR

**COLOR CODE WIRING/
EQUIPMENT GROUNDING**

PREPARED BY
TRAFFIC AND SAFETY

ENGINEER OF DEVELOPMENT

DRAWN BY: DJF

(SPECIAL DETAIL)

CHECKED BY:

FHWA APPROVAL DATE

PLAN DATE

MC-026-A

SHEET
1 of 6

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN

(SPECIAL DETAIL)
FHWA APPROVAL DATE

File: PW:RD/TR/Standards/Signals/mdot_sig026a.dgn

Rev. 11/16/10

PLAN DATE

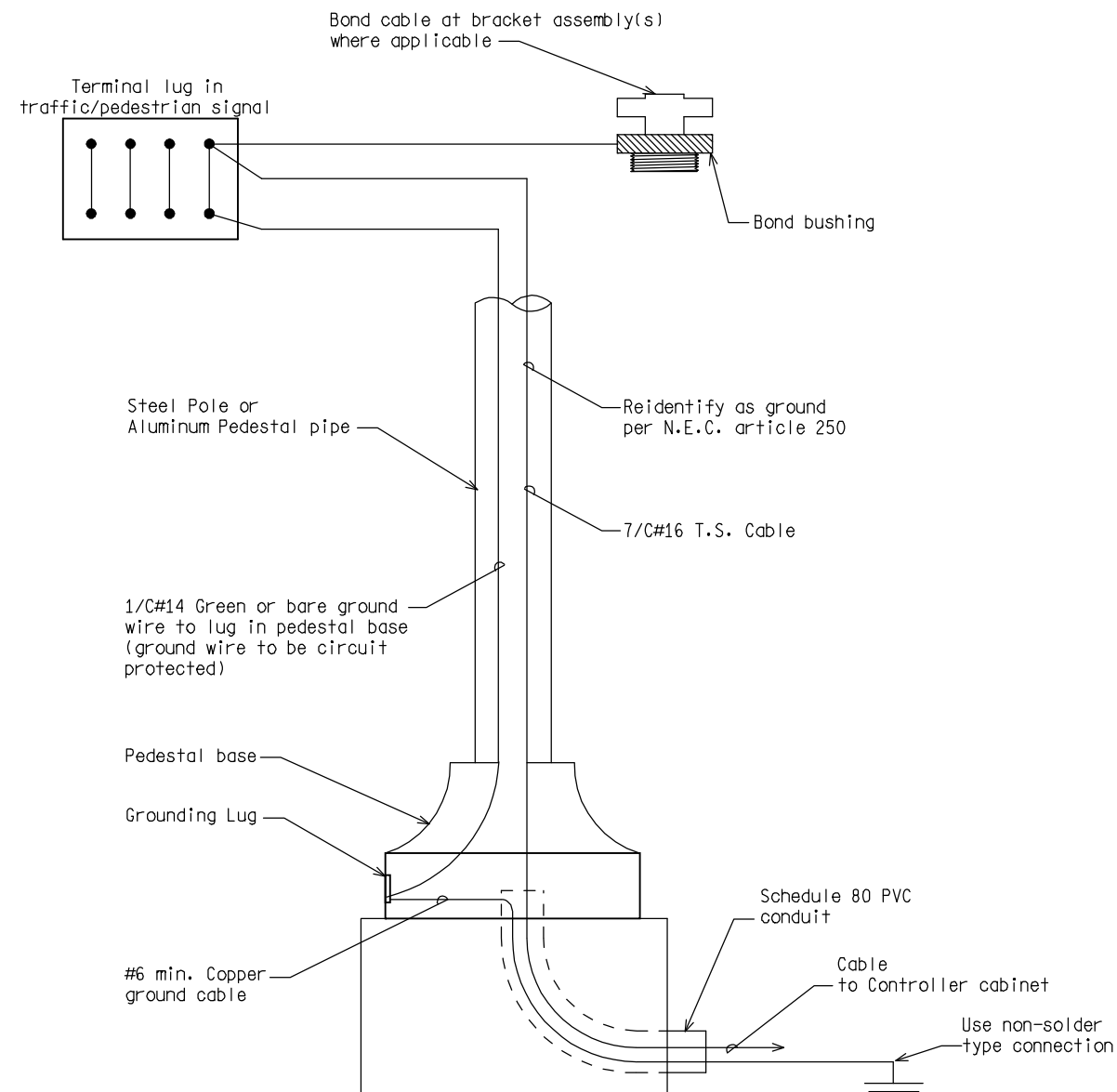
MC-026-A

SHEET
2 of 6

CONTROL
SECTION

JOB
NO.

SHEET NO.

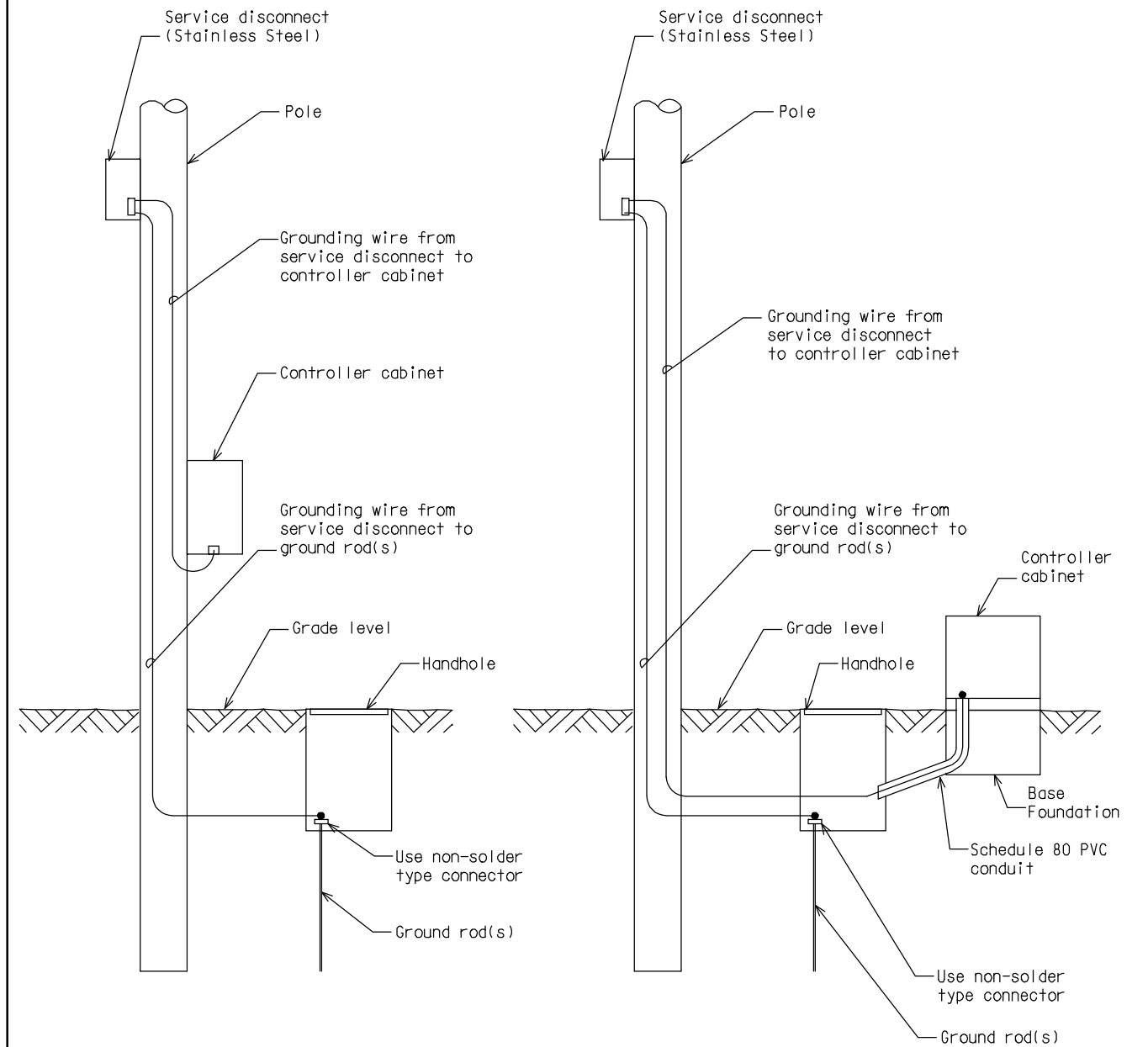


NOTE:
 For all cable poles, install 3/4" x 10'-0"
 ground rod(s) as shown on "ground rod installation".
 Connect ground rod(s) with #6 min. copper wire to
 messenger wire with non-solder type connection.

STEEL POLE/PEDESTAL GROUNDING DETAIL

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE	PLAN DATE	MC-026-A	SHEET 3 of 6
File: PW:RD/TR/Standards/Signals/mdot sig026a.dgn	Rev. 11/16/10			



GROUNDING

Install 3/4" x 10'-0" copper clad ground rod(s)
 as required to provide less than 10 OHM resistance
 to ground.

Grounding wire #6 AWG min. bare copper grounding wire
 shall be installed to meet N.E.C. and utility
 company specs.

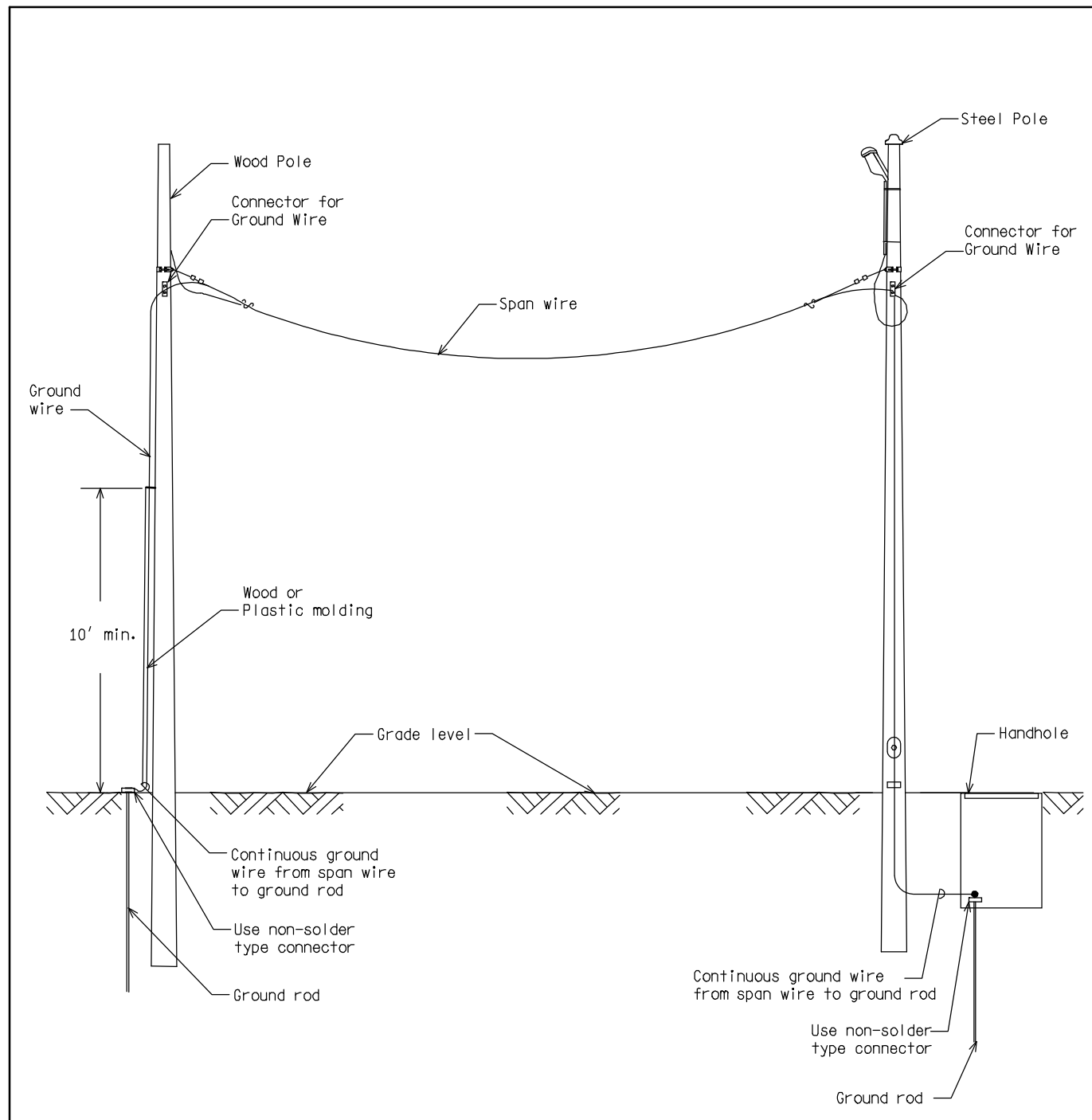
Ground wire from disconnect to ground rod to be in
 moulding (wood pole or post) or inside the pole
 (steel). Ground wire from disconnect to controller
 cabinet to be in conduit (wood pole, wood post, and
 steel pole).

CONTROLLER CABINET GROUNDING DETAIL

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE	PLAN DATE	MC-026-A	SHEET 4 of 6
File: PW:RD/TR/Standards/Signals/mdot sig026a.dgn	Rev. 11/16/10			

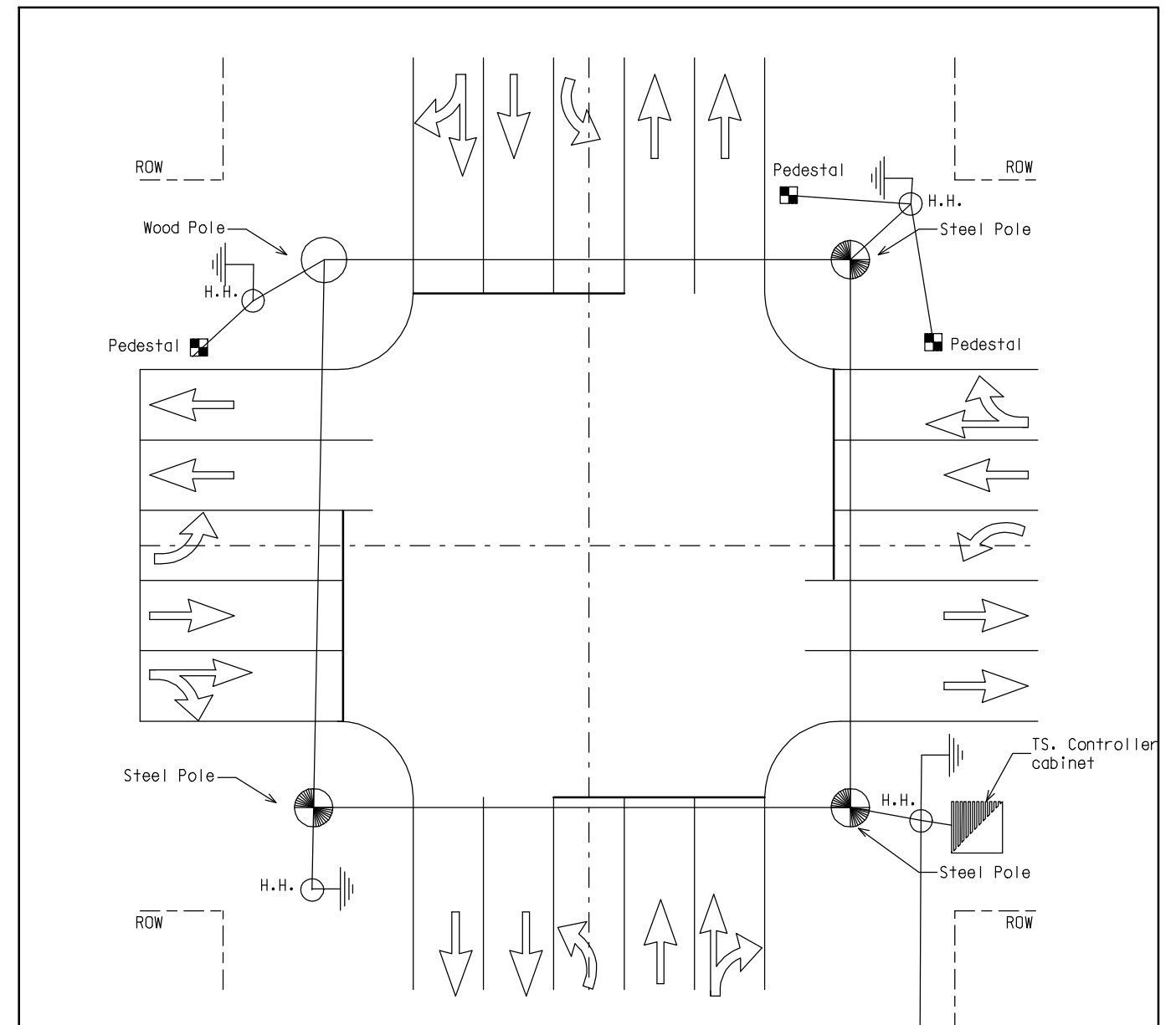
CONTROL SECTION	JOB NO.	SHEET NO.
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SPAN WIRE GROUNDING DETAIL

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE	PLAN DATE	MC-026-A	SHEET 5 of 6
File: PW:RD/TR/Standards/Signals/mdot_sig026a.dgn Rev. 11/16/10				

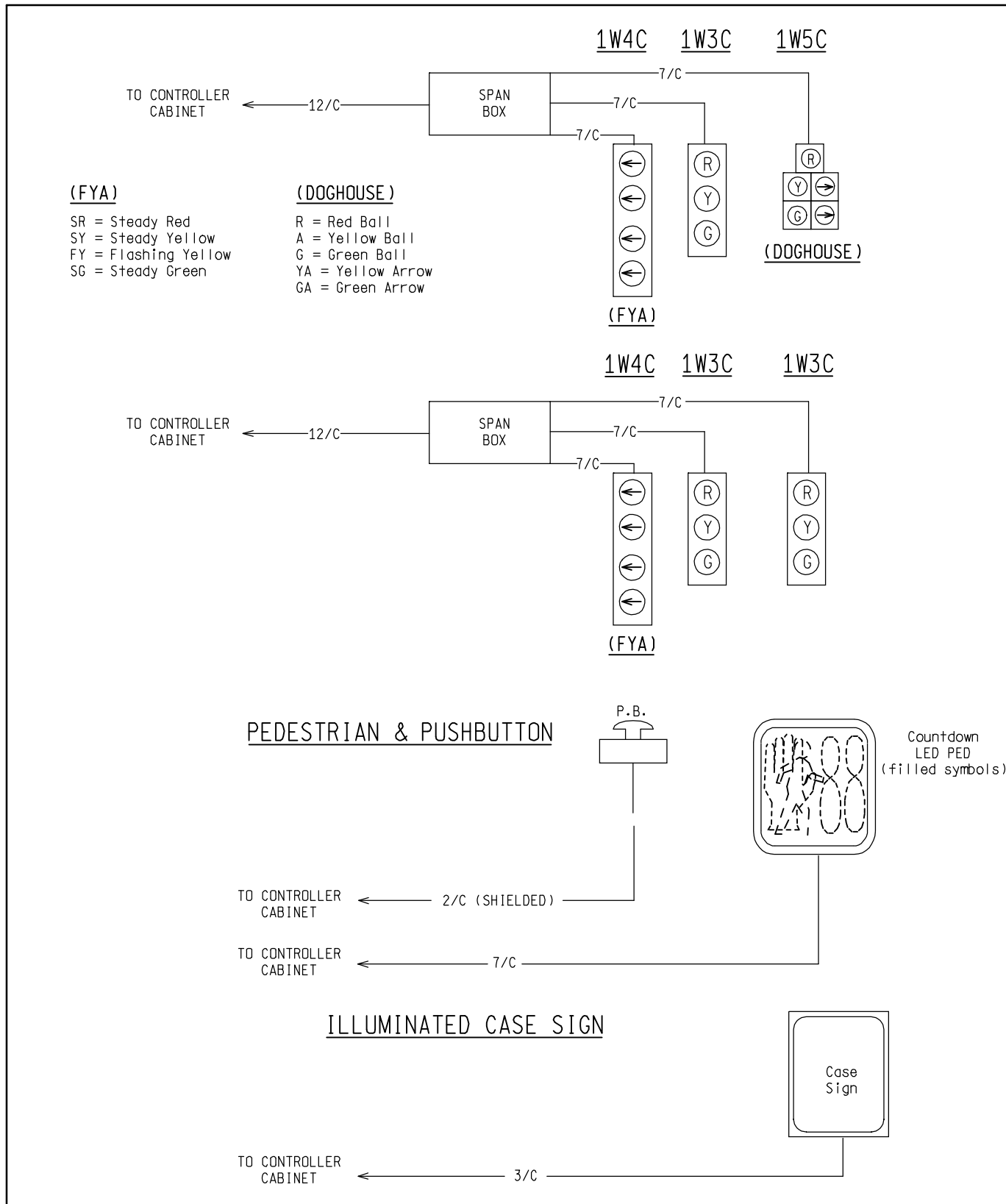


- 1) All ground rods shall be 3/4" x 10' in length copperclad.
- 2) Ground rods shall be drive straight down, so that only the required portions of of the ground rod is exposed to attach the ground wires.
- 3) All ground rods shall be connected to each other or to a span wire with a single #6 AWG copper conductor.
- 4) Each ground wire attaching to a ground rod shall have its own approved acorn type connector.
- 5) Do not install any ground rods within 10' of any other ground rods from other grounding.
- 6) The grounding system shall measure 10 ohms or less.
- 7) A separate #6 AWG copper ground is required from the service disconnect (safety switch) to the ground bussbar in the controller cabinet.
- 8) Ground rod for each steel pole, wood pole, pedestal and/or traffic signal controller cabinet shall be located in the adjacent handhole as indicated on the plans or as directed by the Engineer.
- 9) All metal bases must be connected to a ground rod with a #6 ground wire.

SYSTEM GROUNDING DETAIL

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE	PLAN DATE	MC-026-A	SHEET 6 of 6
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MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN FOR

CABLING DIAGRAMS

ENGINEER OF DELIVERY

ENGINEER OF DEVELOPMENT

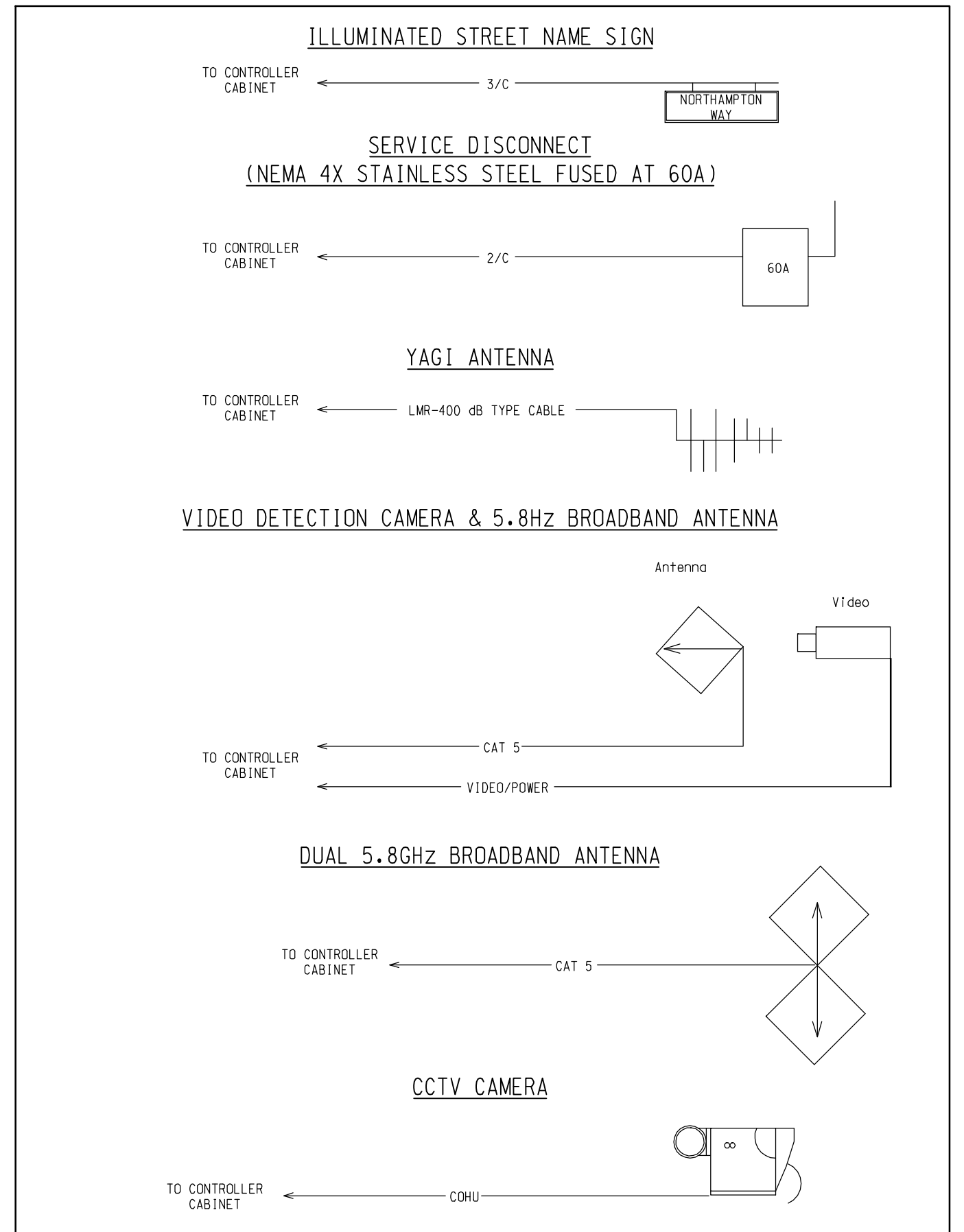
(SPECIAL DETAIL)

FHWA APPROVAL DATE

PLAN DATE

MC-026-B

SHEET 1 of 2



NOT TO SCALE

File: PW:RD/TR/Standards/Signals/mdot sig026a.dgn Rev. 01/18/11

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN FOR

(SPECIAL DETAIL)

FHWA APPROVAL DATE

PLAN DATE

MC-026-B

SHEET 2 of 2

