Sheet 1 of 7

30"
16"
49" to 52"

Vented aluminum cabinet
with base mounting
shall be Type NEMA 3R Size M-30

BASE MOUNTED TRAFFIC SIGNAL CONTROLLER CABINET

3" spacing between conduits (typ)
Cap any unused conduit (s)

Bushings required on all conduits

Refer to contract documents for the finished
concrete surface requirement for foundations.

NOTE:
Bolt pattern to manufacturer's specifications
(2) required.

24" min   22" min

(4) 3" schedule 80 PVC conduits (min)
or as shown on the plans

1 1/2" schedule 80 PVC
rigid metal conduit

40" MIN
42" MIN

PLAN

Grade level

1 1/2" schedule 80
PVC conduit

Handhole

To Service
Disconnect

36"

System Grounding

Use non-solder
type connection

3/4" x 10'-0" copper clad
ground rod(s) a variable distance
from foundation as directed
by Engineer and in accordance
with the current N.E.C.

Insulated
Ground wire

Gravel

3"

3 1/2"

#6 insulated or larger stranded copper
ground wire with 48" slack above
foundation.

3/4"x 42" galvanized foundation
bolts, nuts & washers (2 required)
(Refer to Detail "A" on
Sheet 6 of 7 for use of
Drop In type bolts
and anchors.)

42"

ELEVATION

FOUNDATION

NOTE:
1) Grounding system shall measure 10 ohm
or less to ground, with a 10' (min)
spacing between ground rods.

2) All insulated jackets are to remain
on cable entering controller.

3) Keep 1-3" conduit on left side open
for ITS

NOT TO SCALE

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Sheet 2 of 7

36"
16"
49" to 52"

Vented aluminum cabinet
with base mounting
shall be Type NEMA 3R Size M-36

BASE MOUNTED TRAFFIC SIGNAL CONTROLLER CABINET

3" spacing between conduits (typ)
Cap any unused conduit (s)

Bushings required on all conduits

Refer to contract documents for the finished
concrete surface requirement for foundations.

NOTE:
Bolt pattern to manufacturer's
specifications (2) required.

24" min   22" min

(4) 3" schedule 80 PVC conduits (min)
or as shown on the plans

1 1/2" schedule 80 PVC
rigid metal conduit

40" MIN
42" MIN

PLAN

Grade level

1 1/2" schedule 80
PVC conduit

Handhole

To Service
Disconnect

36"

System
Grounding

Use non-solder
type connection

3/4" x 10'-0" copper clad
ground rod(s) a variable distance
from foundation as directed
by Engineer and in accordance
with the current N.E.C.

Insulated
Ground wire

Gravel

3"

3 1/2"

#6 insulated or larger stranded copper
ground wire with 48" slack above
foundation.

3/4"x 42" galvanized foundation
bolts, nuts & washers (2 required)
(Refer to Detail "A" on
Sheet 6 of 7 for use of
Drop In type bolts
and anchors.)

42"

ELEVATION

FOUNDATION

NOTE:
1) Grounding system shall measure 10 ohm
or less to ground, with a 10' (min)
spacing between ground rods.

2) All insulated jackets are to remain
on cable entering controller.

3) Keep 1-3" conduit on left side open
for ITS

NOT TO SCALE

Left Panel

Vented aluminum cabinet
with base mounting
shall be Type NEMA 3R Size 6

44"
25.5" to 26"
8"
27"
55" TO 58"
15"

3/4" x 2 1/2" galvanized
bolts, nuts & washers
(4 required)

Washer
Lock washer
Nut

Base Adapter
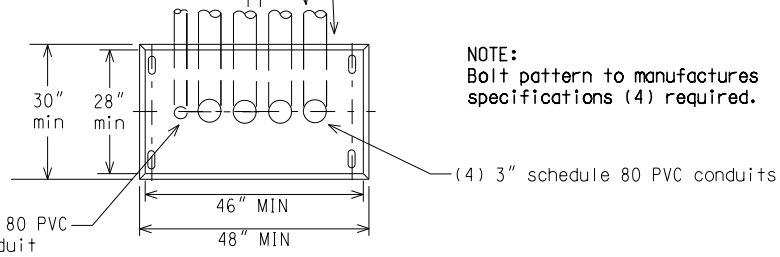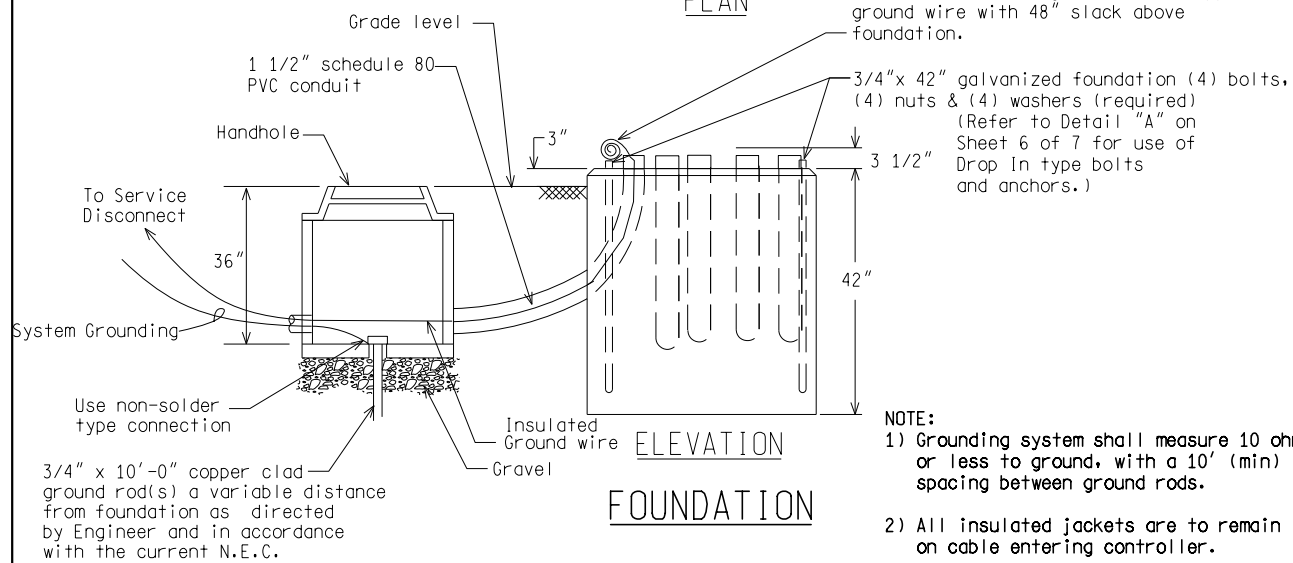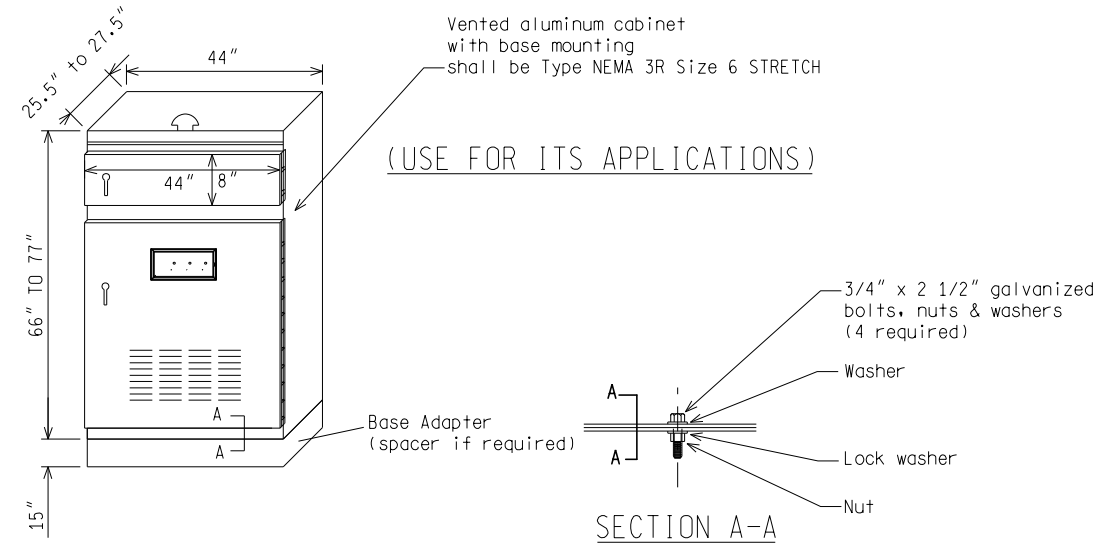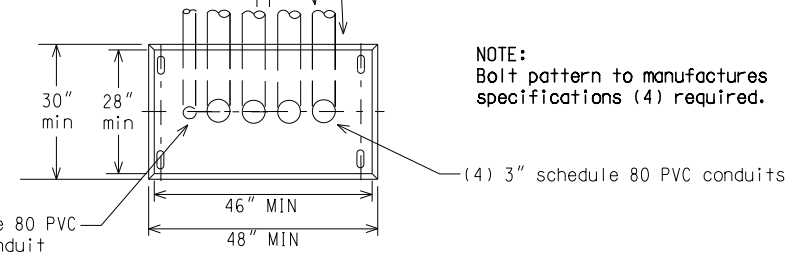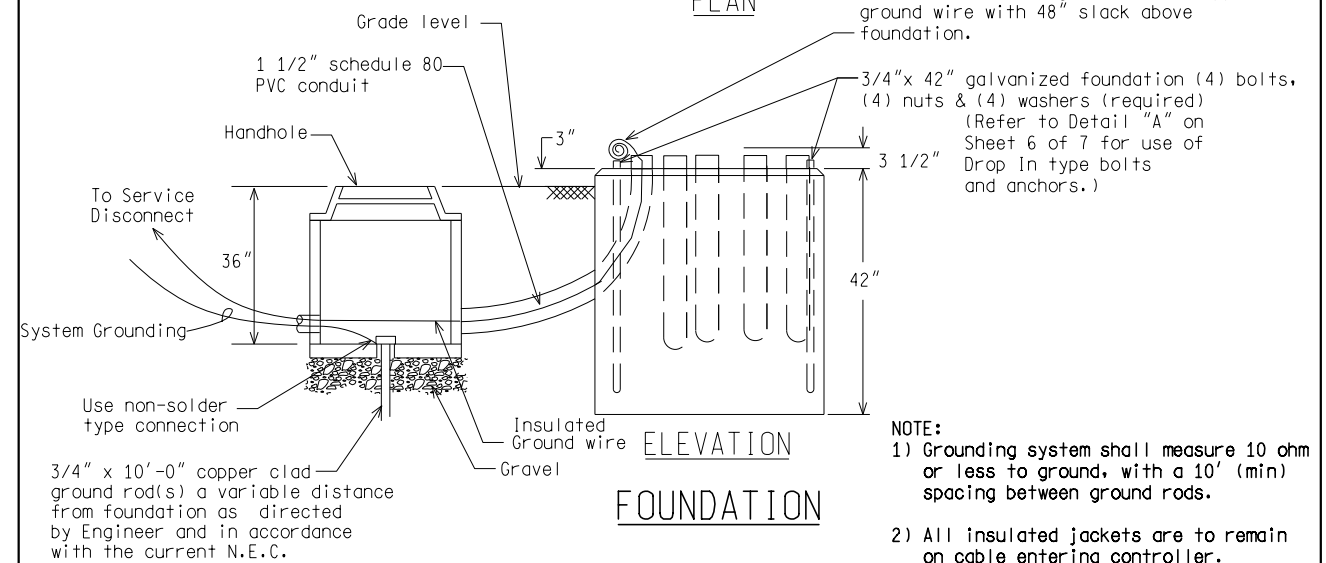(spacer if required)

A
A

SECTION A-A

BASE MOUNTED TRAFFIC SIGNAL CONTROLLER CABINET

Bushings required on all conduits

3" spacing between conduits (typ)
Cap any unused conduit (s)

Refer to contract documents for the finished
concrete surface requirement for foundations.

NOTE:
Bolt pattern to manufactures
specifications (4) required.

30" min
28" min

(4) 3" schedule 80 PVC conduits

1 1/2" schedule 80 PVC
rigid metal conduit

46" MIN
48" MIN

PLAN

#6 insulated or larger stranded copper
ground wire with 48" slack above
foundation.

Grade level

1 1/2" schedule 80
PVC conduit

Handhole

3"

3 1/2"

3/4"x 42" galvanized foundation (4) bolts,
(4) nuts & (4) washers (required)
(Refer to Detail "A" on
Sheet 6 of 7 for use of
Drop In type bolts
and anchors.)

To Service
Disconnect

36"

42"

System Grounding

Use non-solder
type connection

3/4" x 10'-0" copper clad
ground rod(s) a variable distance
from foundation as directed
by Engineer and in accordance
with the current N.E.C.

Insulated
Ground wire
Gravel

ELEVATION

FOUNDATION

NOTE:
1) Grounding system shall measure 10 ohm
or less to ground, with a 10' (min)
spacing between ground rods.

2) All insulated jackets are to remain
on cable entering controller.
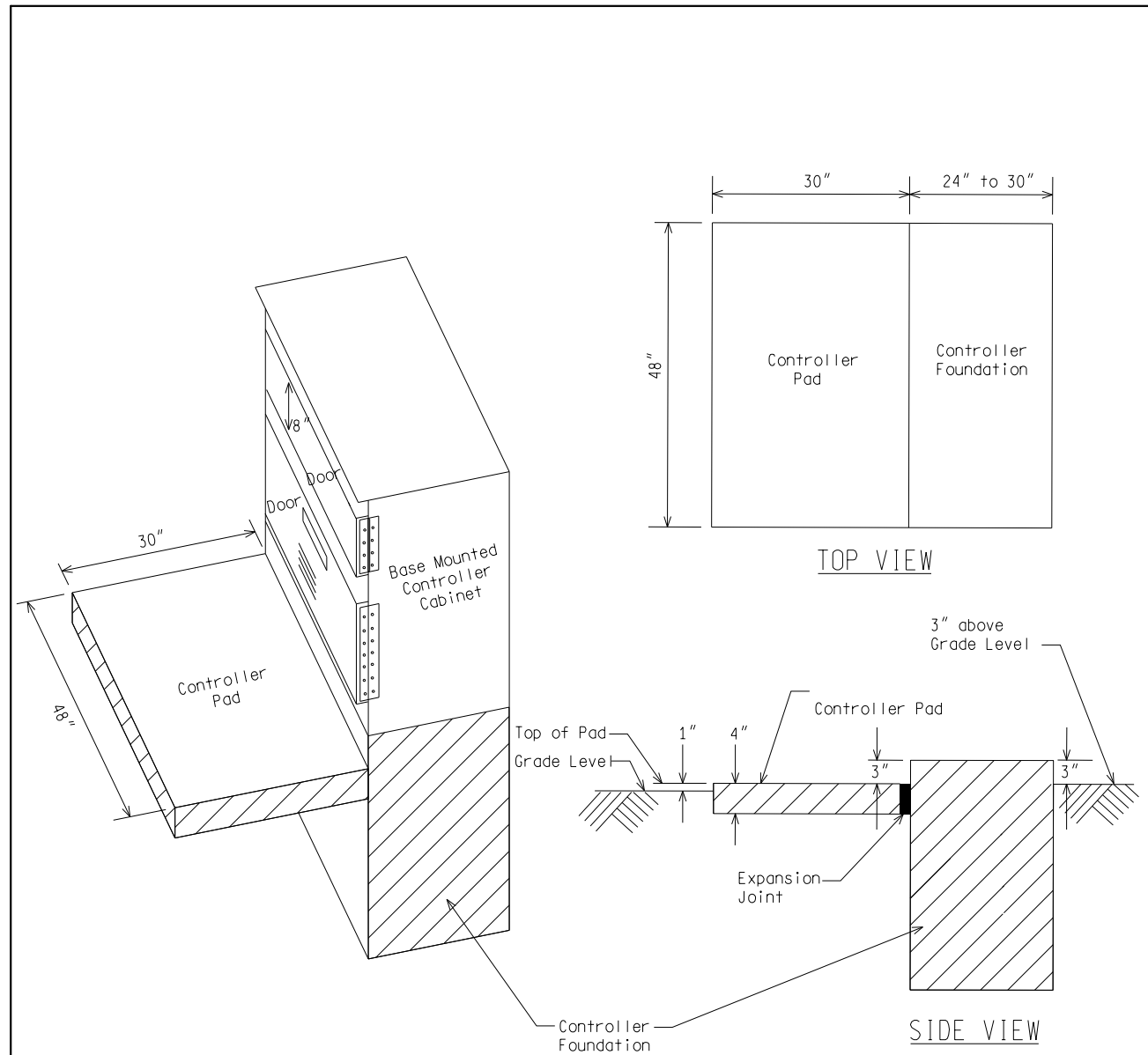
3) Keep 1-3" conduit on left side open
for ITS

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN
(SPECIAL DETAIL)
FHWA APPROVAL DATE
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PLAN DATE
SIG-110-A
SHEET 3 of 7

Right Panel

Vented aluminum cabinet
with base mounting
shall be Type NEMA 3R Size 6 STRETCH

(USE FOR ITS APPLICATIONS)

44"
25.5" to 27.5"
44" 8"
66" TO 77"
15"

3/4" x 2 1/2" galvanized
bolts, nuts & washers
(4 required)

Washer
Lock washer
Nut

Base Adapter
(spacer if required)

A
A

SECTION A-A

BASE MOUNTED TRAFFIC SIGNAL ITS CONTROLLER CABINET (IF USED)

Bushings required on all conduits

3" spacing between conduits (typ)
Cap any unused conduit (s)

Refer to contract documents for the finished
concrete surface requirement for foundations.

NOTE:
Bolt pattern to manufactures
specifications (4) required.

30" min
28" min

(4) 3" schedule 80 PVC conduits

1 1/2" schedule 80 PVC
rigid metal conduit

46" MIN
48" MIN

PLAN

#6 insulated or larger stranded copper
ground wire with 48" slack above
foundation.

Grade level

1 1/2" schedule 80
PVC conduit

Handhole

3"

3 1/2"

3/4"x 42" galvanized foundation (4) bolts,
(4) nuts & (4) washers (required)
(Refer to Detail "A" on
Sheet 6 of 7 for use of
Drop In type bolts
and anchors.)

To Service
Disconnect

36"

42"

System Grounding

Use non-solder
type connection

3/4" x 10'-0" copper clad
ground rod(s) a variable distance
from foundation as directed
by Engineer and in accordance
with the current N.E.C.

Insulated
Ground wire
Gravel

ELEVATION

FOUNDATION

NOTE:
1) Grounding system shall measure 10 ohm
or less to ground, with a 10' (min)
spacing between ground rods.

2) All insulated jackets are to remain
on cable entering controller.

3) Keep 1-3" conduit on left side open
for ITS

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN
(SPECIAL DETAIL)
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PLAN DATE
SIG-110-A
SHEET 4 of 7

Bottom Title Block

AS-LET PLAN REVISIONS
NO. | DATE | AUTH | DESCRIPTION | NO. | DATE | AUTH | DESCRIPTION

MDOT
Michigan Department of Transportation

DATE:
DESIGN UNIT:
FILE:
TSC:
CS:
JN:

DRAWING | SHEET

TOP VIEW

30"   24" to 30"

48"

Controller Pad

Controller Foundation

SIDE VIEW

3" above Grade Level

Controller Pad

Top of Pad

Grade Level

1"   4"

3"

3"

Expansion Joint

Controller Foundation

BASE MOUNTED CONTROLLER PAD
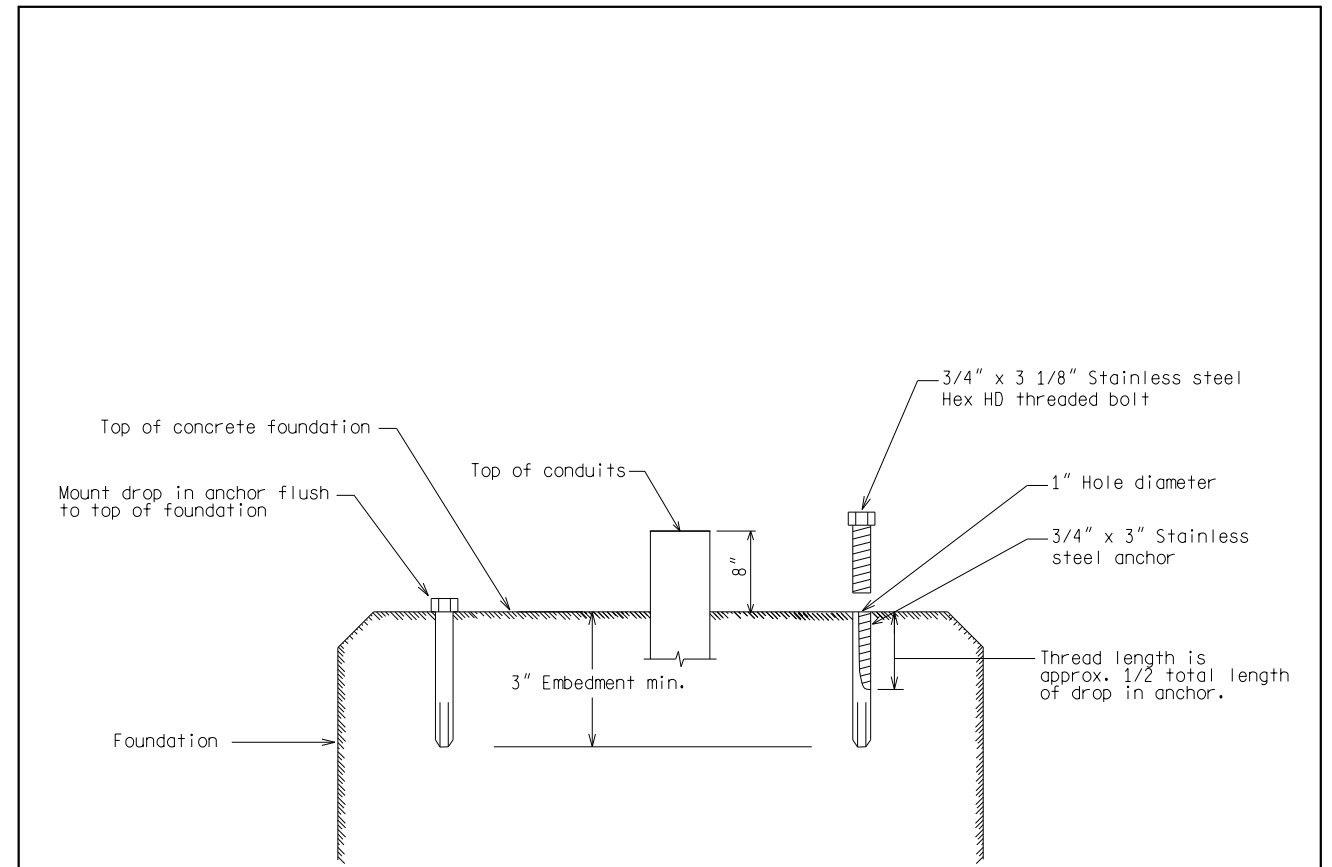
8"

Door

Door

30"

48"

Base Mounted Controller Cabinet

Controller Pad

NOTE:
Payment for controller pad to be included in controller foundation pay item.
Controller cabinet door to open toward pad.

NOT TO SCALE

3/4" x 3 1/8" Stainless steel Hex HD threaded bolt

Top of concrete foundation

Top of conduits

1" Hole diameter

Mount drop in anchor flush to top of foundation

8"

3/4" x 3" Stainless steel anchor

Foundation

3" Embedment min.

Thread length is approx. 1/2 total length of drop in anchor.

Notes:
1. Use AISI 300 Series Stainless Steel for all bolts and anchors.
2. Use Drop In foundation bolts and anchors as directed by the Engineer.

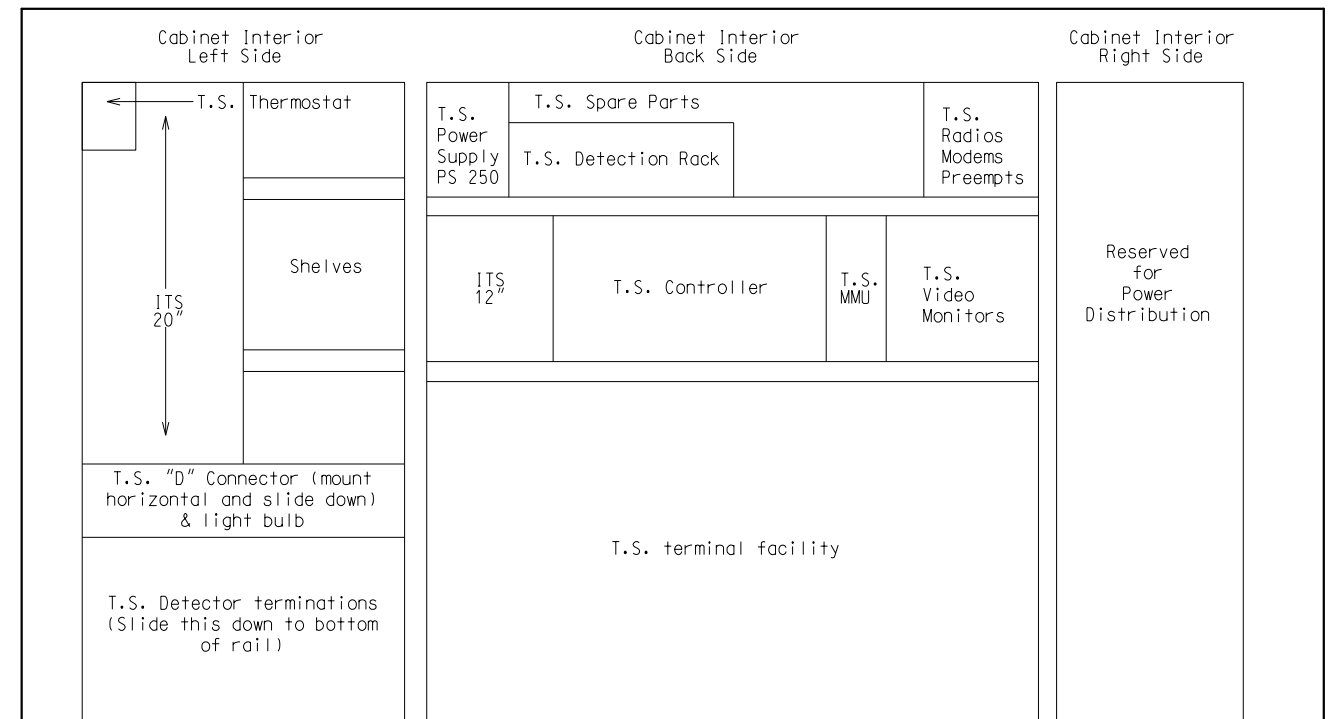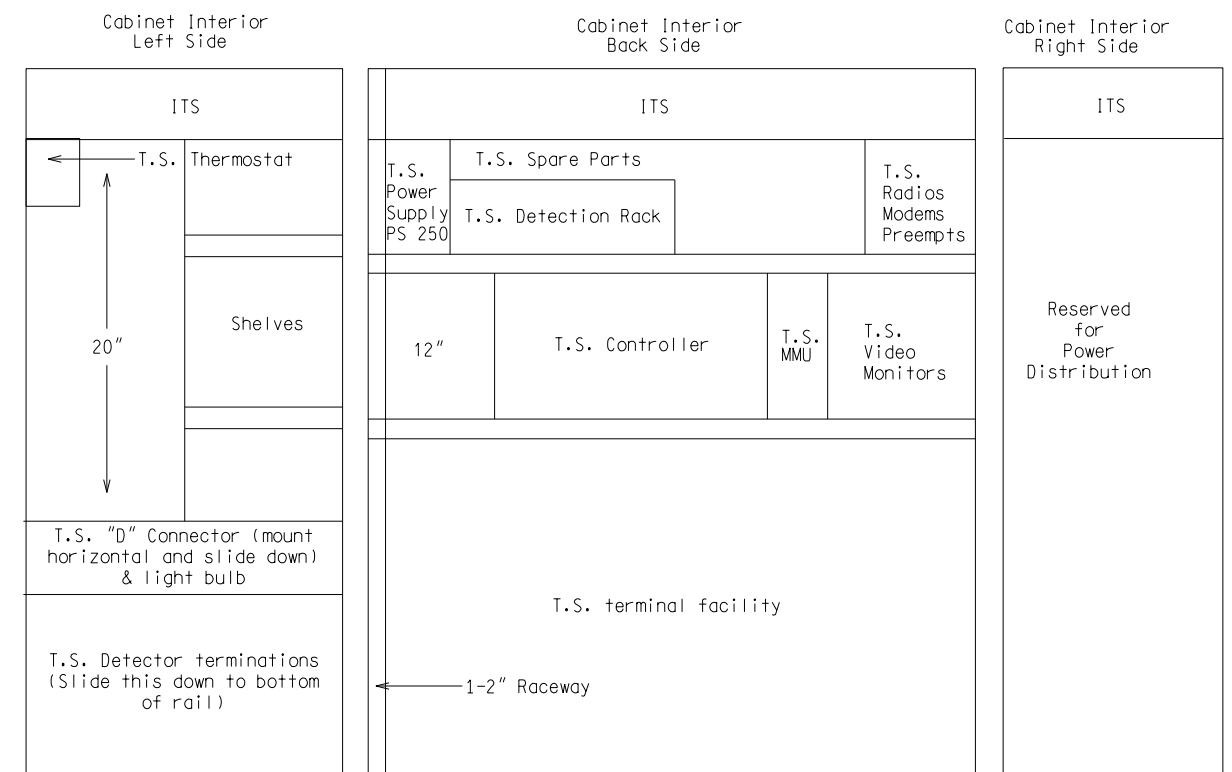## ALTERNATIVE DETAIL "A": DROP IN FOUNDATION BOLTS & ANCHORS

NOT TO SCALE

Cabinet Interior — Left Side

T.S. Thermostat

ITS 20″

Shelves

T.S. "D" Connector (mount horizontal and slide down) & light bulb

T.S. Detector terminations (Slide this down to bottom of rail)

Cabinet Interior — Back Side

T.S. Power Supply PS 250

T.S. Spare Parts

T.S. Detection Rack

T.S. Radios Modems Preempts

ITS 12″

T.S. Controller

T.S. MMU

T.S. Video Monitors

T.S. terminal facility

Cabinet Interior — Right Side

Reserved for Power Distribution

TRAFFIC SIGNAL NEMA 3R SIZE 6 CABINET REQUIREMENTS

Cabinet Interior — Left Side

ITS

T.S. Thermostat

20″

Shelves

T.S. "D" Connector (mount horizontal and slide down) & light bulb

T.S. Detector terminations (Slide this down to bottom of rail)

Cabinet Interior — Back Side

ITS

T.S. Power Supply PS 250

T.S. Spare Parts

T.S. Detection Rack

T.S. Radios Modems Preempts

12″

T.S. Controller

T.S. MMU

T.S. Video Monitors

T.S. terminal facility

1-2″ Raceway

Cabinet Interior — Right Side

ITS

Reserved for Power Distribution

TRAFFIC SIGNAL NEMA 3R SIZE 6 STRETCH CABINET REQUIREMENTS
FOR
ITS APPLICATIONS

NOT TO SCALE

AS-LET PLAN REVISIONS								DATE:	CS:		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION	NO.	DATE	AUTH	DESCRIPTION	DESIGN UNIT:	JN:			
								FILE:	TSC:			

MDOT
Michigan Department of Transportation