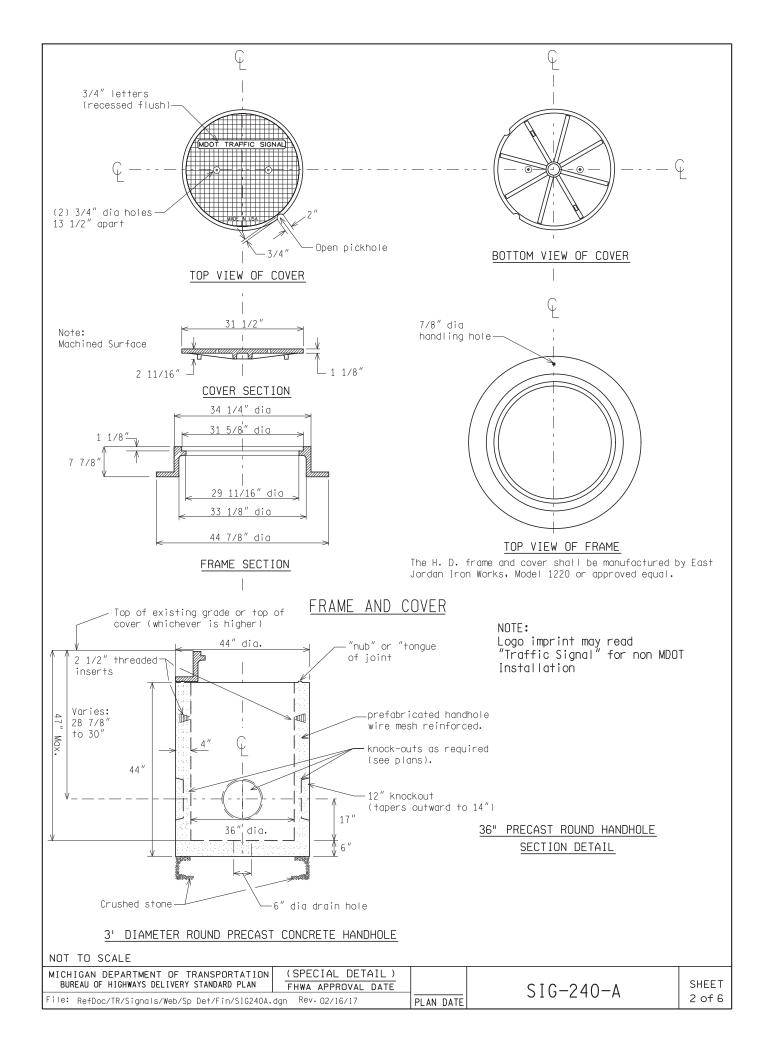
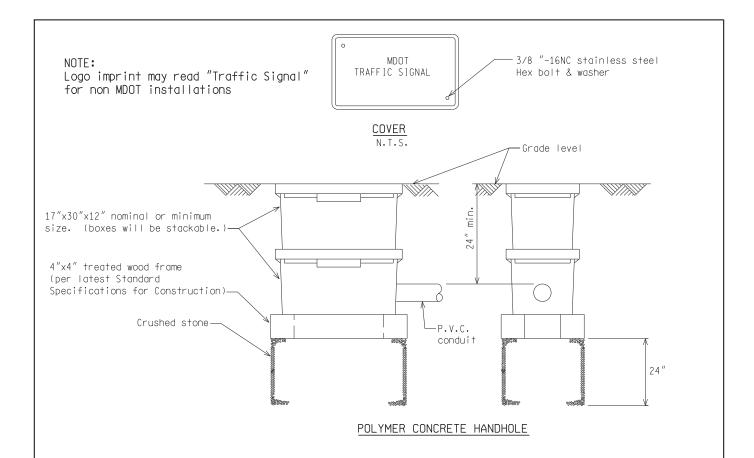


TYPICAL CONDUIT ENTRANCE
AT HANDHOLE

File:RefDoc/TR/Signals/Web/Sp Det/Fin/SIG240A.dgn Rev. 02/16/17 NOT TO SCALE MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN FOR **EMDOT** HANDHOLE- PRECAST, ENGINEER OF DELIVERY PREPARED BY TRAFFIC AND SAFETY POLYMER CONCRETE ENGINEER OF DEVELOPMENT SHEET (SPECIAL DETAIL) DRAWN BY: DJF SIG-240-A 1 of 6 FHWA APPROVAL DATE CHECKED BY: PLAN DATE



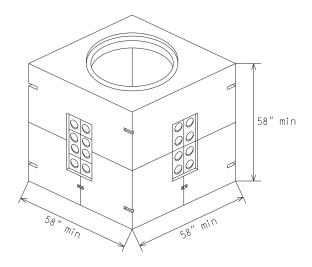


NOTES PERTAIN TO PRECAST OR BRICK:

- 1) The material and workmanship shall be in accordance with the current M.D.O.T. Standard Specifications for Construction.
- 2) All concrete masonary shall be grade 30M.
- 3) The inner surface of the handhole shall be smooth.
- 4) Heavy Duty covers shall be castings which meet the requirements of the current specifications for gray iron castings ASTM designation A48 and shall have a minimum strength as provided for Class No. 30 gray iron castings.
- 5) All castings shall be cleaned by sand blasting.
- 6) The seating face of the cover and the seat for the same on the frame if required, shall be ground or machined so that the cover shall have an even bearing on its seat to prevent rocking or tilting.
- 7) The castings shall be free of pouring faults, blow holes, cracks, and other imperfections. They shall be sound, true to form and thickness, clean and neatly finished and shall be coated with tar pitch varnish.
- 8) Light Duty cover shall be bolted to frame with not less than 2 countersunk Hex head bronze bolts.
- 9) The Heavy Duty cover & frame shall be East Jordan Iron Works #8206 Neenah Foundry, #R-6662-HP for square cover or East Jordan Iron Works #2860 Type "A", Neenah Foundry #R-6052 D for circular cover or an approved equal.

NOT TO SCALE 10) Handhole shall be equipped with cable rack and hooks to train cable.

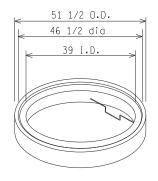
MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE		SIG-240-A	SHEET
File: RefDoc/TR/Signals/Web/Sp Det/Fin/S1G240A.dgn Rev. 02/16/17		PLAN DATE	310 240 A	3 of 6



	Length	Width	Height
Inside	48	48	48
Outside	58	58	58
Recommended			
Hole size	82	82	

	Min Thickness	Min Weight	Ibs
Wall	5	Тор	3300
Roof	5	Bottom	3850
Floor	5	Total	7150

NOTE: Galvanized step is standard with grade ring ASTM C478.



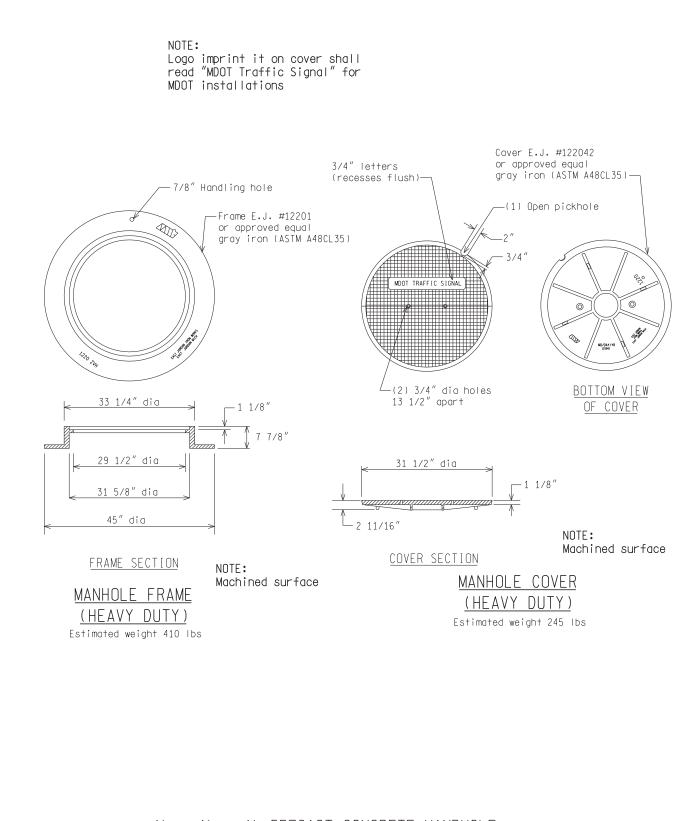
Dimensions		
А	Min Wt.	
6 9	440 650	
12	860	

GRADE RING WITH 39" I.D. & 46 1/2" RECESS

$\underline{4' \times 4' \times 4'}$ PRECAST CONCRETE HANDHOLE

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE		SIC-240-A	SHEET
File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG240A.c	PLAN DATE	310 240 A	4 of 6	

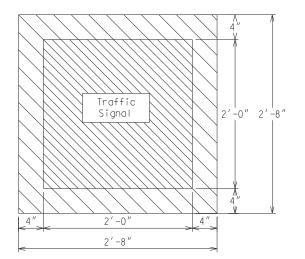


4' x 4' x 4' PRECAST CONCRETE HANDHOLE

NUT	ΙU	SCALE	

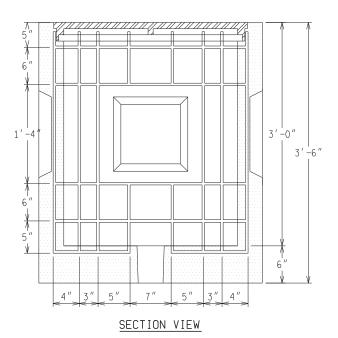
MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE		SIG-240-A	SHEET
File: RefDoc/TR/Signals/Web/Sp Det/Fin/S1G240A.	PLAN DATE	310 240 A	5 of 6	

Concrete: 4500 p.s.i. @ 28 days Reinforcement: Grade 60 rebar All bars are #4

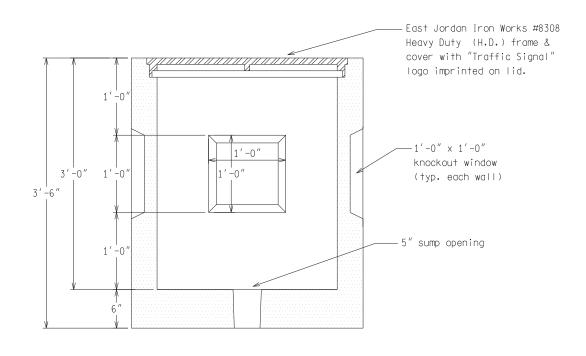


<u>PLAN VIEW</u>

With out frame & cover



Typ. reinforcement all walls



2' x 2' SQUARE x 3' HANDHOLE

SECTION VIEW

For use on Oakland County roads only.

NU		U	SC.	ALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS DELIVERY STANDARD PLAN	(SPECIAL DETAIL) FHWA APPROVAL DATE		SIG-240-A	SHEET
File: RefDoc/TR/Signals/Web/Sp Det/Fin/SIG240A.dgn Rev. 02/16/17		PLAN DATE	310 240 A	6 of 6