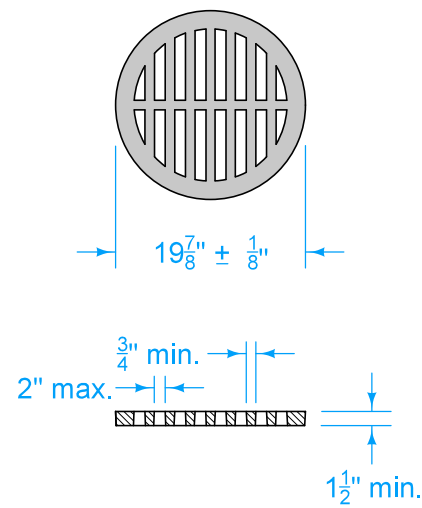
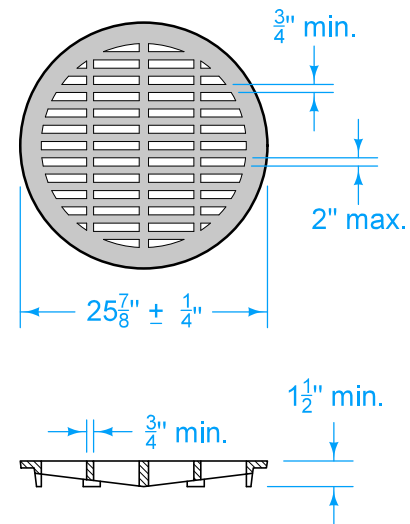


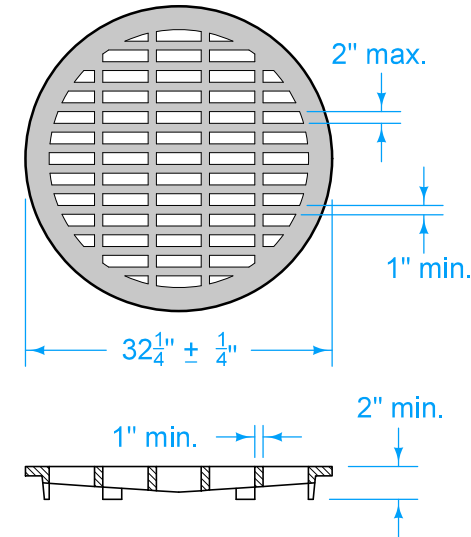
TYPE 4



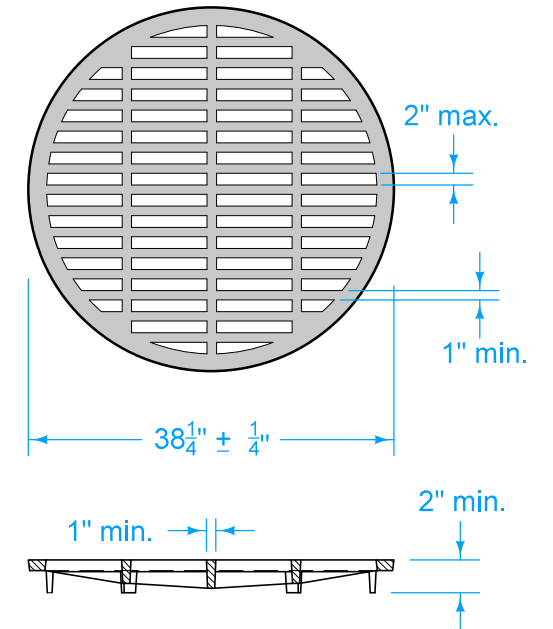
**TYPE 4A**  
For Placement on 18" RCP



**TYPE 4B**  
For Placement on 24" RCP

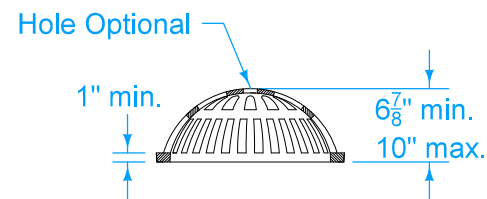
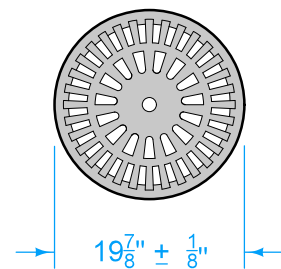


**TYPE 4C**  
For Placement on 30" RCP

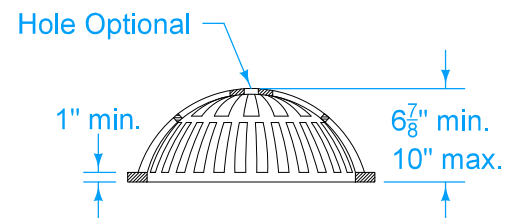
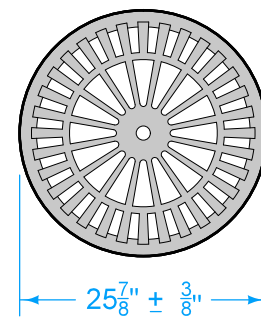


**TYPE 4D**  
For Placement on 36" RCP

TYPE 3  
(Light Duty)



**TYPE 3A**  
For Placement on 18" RCP



**TYPE 3B**  
For Placement on 24" RCP

TYPE 5  
(Light Duty)  
For Placement on 24" to 30" RCP

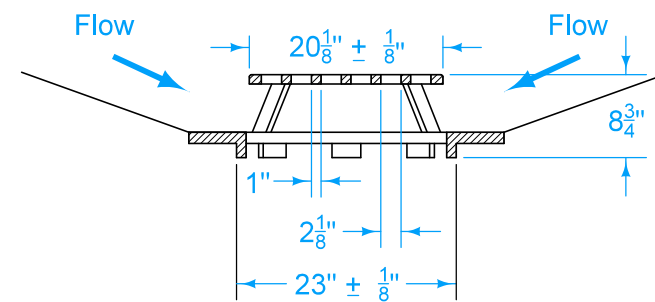
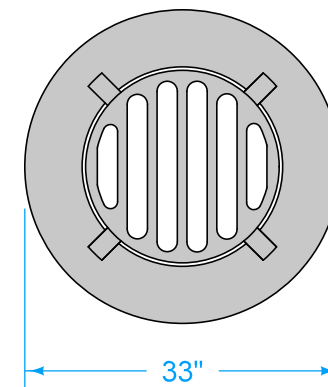


FIGURE 6010.604 SHEET 1 OF 2

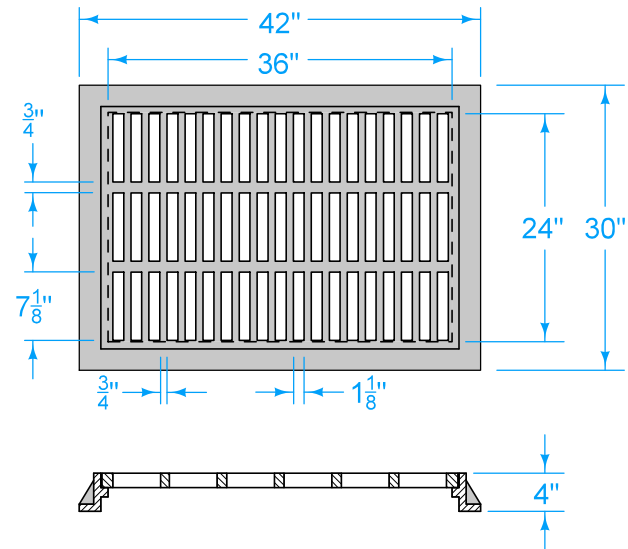
SUDAS	IOWA DOT	REVISION	
		3	04-21-20
FIGURE 6010.604	STANDARD ROAD PLAN	<b>SW-604</b>	
		SHEET 1 of 2	

REVISIONS: Added Type 7 casting. Modified circle notes.

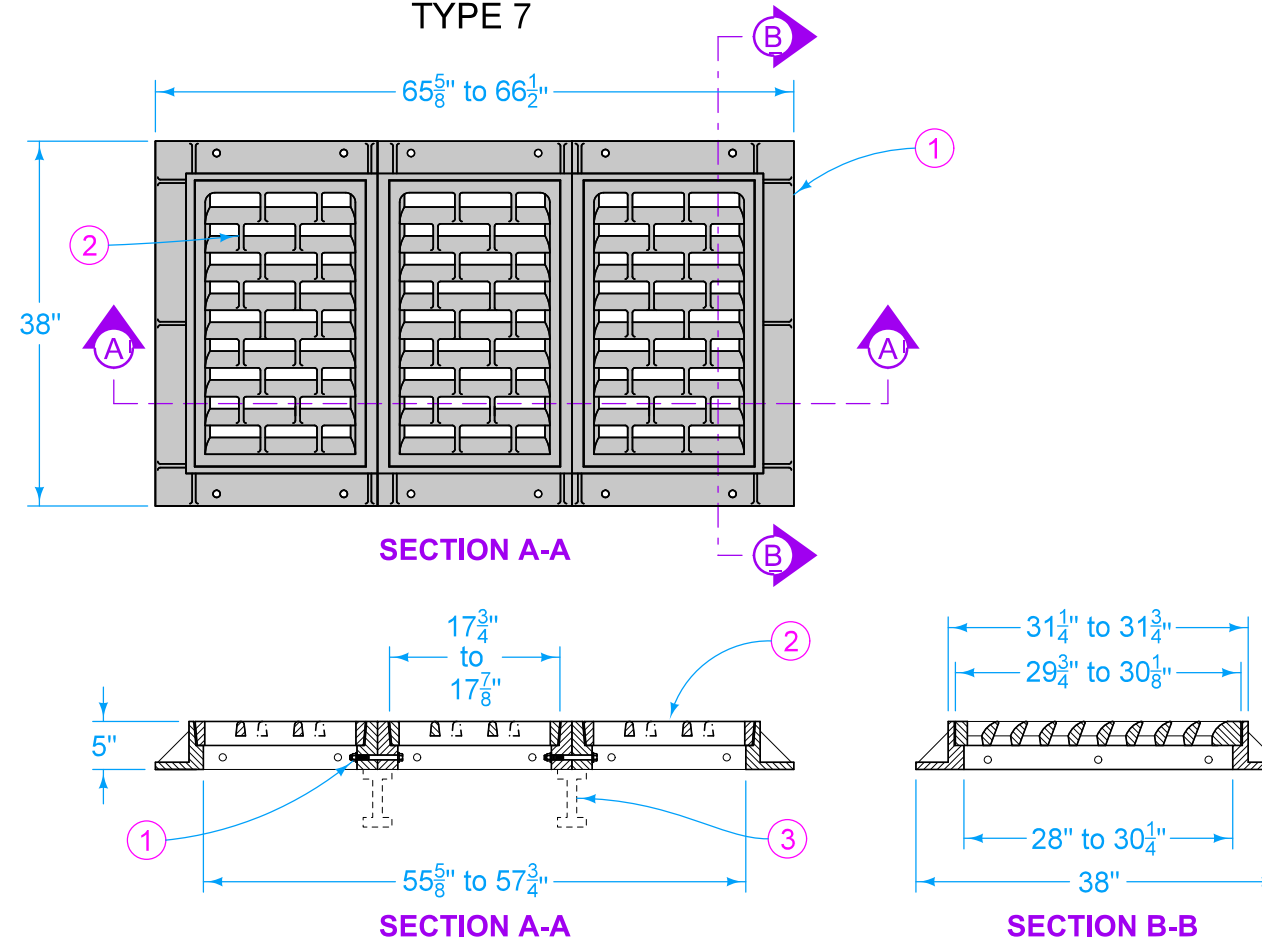
Paul D. Wrigand  
SUDAS DIRECTOR
 Stuart Miller  
DESIGN METHODS ENGINEER

**CASTINGS FOR AREA INTAKES**

TYPE 6



TYPE 7



- ① Frame provided in three segments (two ends and one center). Bolt segments together as specified by the casting manufacturer.
- ② Provide bicycle safe, vane style grates with a minimum open area of 4 square feet. At low points, grates with vanes facing both directions will be allowed.
- ③ If required by casting manufacturer, provide support beam under all frame joints. Modify structure walls as required to provide pocket for beam.
- ④ Cast grate without locking lugs so it may be used in an inverted position.

TYPE 9  
(Light Duty)

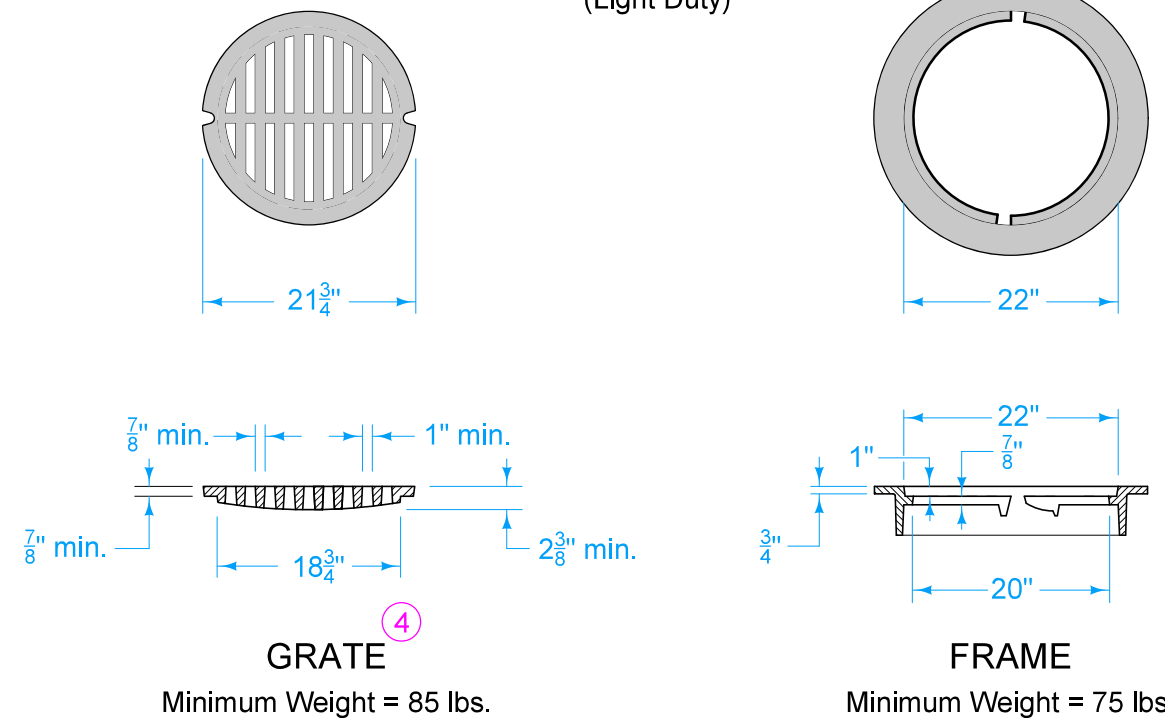


FIGURE 6010.604 SHEET 2 OF 2

SUDAS	IOWA DOT	REVISION	
		3	04-21-20
FIGURE 6010.604	STANDARD ROAD PLAN	<b>SW-604</b>	
		SHEET 2 of 2	

REVISIONS: Added Type 7 casting. Modified circle notes.

Paul D. Wrigand  
SUDAS DIRECTOR
 Stuart Miller  
DESIGN METHODS ENGINEER

**CASTINGS FOR AREA INTAKES**