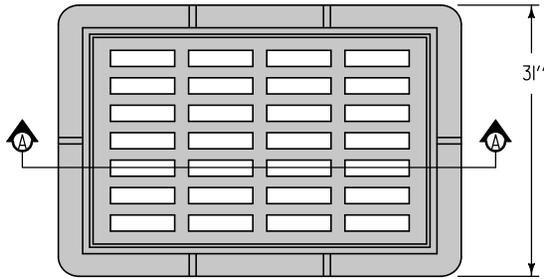
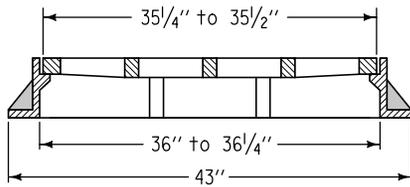


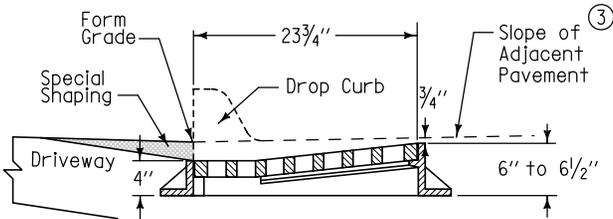
TYPE Q ①
 Driveway Grate
 (Minimum open area 370 in²)



PLAN

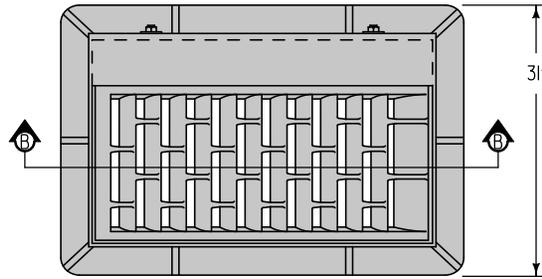


SECTION A-A

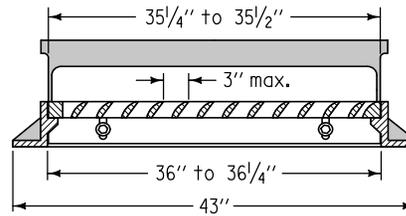


TYPICAL SECTION

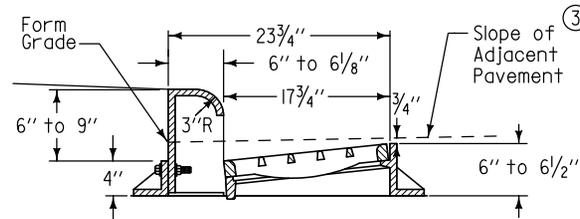
TYPE R ②
 Curb Inlet Grate
 (Minimum open area 180 in²)



PLAN



SECTION B-B



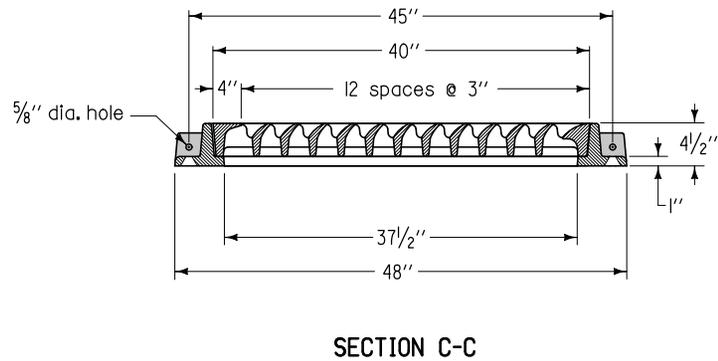
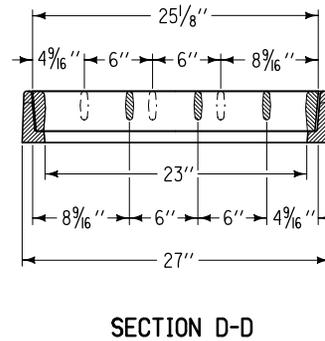
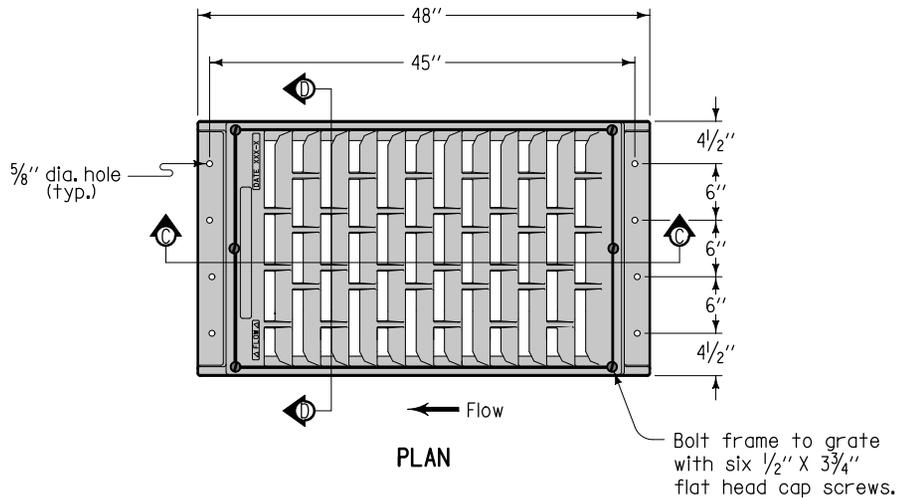
TYPICAL SECTION

- ① For use at curb drops for driveways. Use only when specified in the contract documents.
- ② Provide bicycle-safe vane-style grate with offset longitudinal ribs between vanes. At low points, grates with vanes facing both directions of flow are allowed.
- ③ For details of boxout pavement, refer to SW-514.

FIGURE 6010.603 SHEET 1 OF 2

| | | |
|--|-----------------------------------|---|
| SUDAS | Iowa Department of Transportation | REVISION |
| | | 1 10-20-09 |
| FIGURE 6010.603 STANDARD ROAD PLAN | | SW-603 SHEET 1 of 2 |
| REVISIONS: Added Type S grate to sheet 2. Modified notes 2 and 4. Added shading. | | |
| SUDAS DIRECTOR | | Deanna Mailfield DESIGN METHODS ENGINEER |
| CASTINGS FOR GRATE INTAKES | | |

TYPE S ②④
 Barrier Intake Gate
 (Minimum open area 300 in²)



- ② Provide bicycle-safe vane-style grate with offset longitudinal ribs between vanes. At low points, grates with vanes facing both directions of flow are allowed.
- ④ Use ductile iron frame castings meeting the requirements of ASTM A 536.
 Frame minimum weight = 220 lbs.
 Grate minimum weight = 340 lbs.

FIGURE 6010.603 SHEET 2 OF 2

| | | | |
|--|-----------------|---|---------------|
| SUDAS Iowa Department of Transportation | REVISION | 1 | 10-20-09 |
| | FIGURE 6010.603 | STANDARD ROAD PLAN | SW-603 |
| REVISIONS: Added Type S grate to sheet 2. Modified notes 2 and 4. Added shading. | | | SHEET 2 of 2 |
| SUDAS DIRECTOR | | Deanna Mailfield DESIGN METHODS ENGINEER | |
| CASTINGS FOR GRATE INTAKES | | | |