General Notes:

Contractor shall have the option to construct either steel or FRP slab drains. All drains shall be of same type.

Slab drain bracket assembly shall be ASTM A500 or A501.

Lateral drains in slab by dimensions shown in Part Section Near Drain.

Reinforcing steel shall be shifted to clear drain.

The bracket assembly shall be galvanized in accordance with ASTM A123.

All bolts, hardened washers, lock washers and nuts shall be galvanized in accordance with ASTM A123 and ASTM A795, Class C, Type 3, Grade A325.

Notes for Steel Drain:

The steel slab drain may be fabricated of either 1/4" thick, 1/2" max. thickness, 1/2" Ø bolt with hex nut, 1/2" Ø x 3" long, or 1/2" Ø x 3" rod with carriage bolt. The combination of materials used in the coating shall be tested to ensure a smooth, chip free finish.

All 1/2" Ø bolts shall be ASTM A307, except as shown.

Shop drawings will not be required for the slab drain and the bracket assembly.

The bolt hole for the bracket assembly attachment shall be shifted to the minimum extent necessary to field drill in the existing web.

1) See front sheet for slab thickness.

The galvanized surfaces of drain support brackets shall be prepared according to the coating manufacturer's recommendation and field coated with a primer (non-aluminum) within a distance of 6 inches from the point of connection to the weathering steel structure.

Notes for FRP Drain:

Outside dimensions of drains are 8" x 4".

The drains shall be galvanized in accordance with ASTM A123.

Drains shall be machine filament-wound thermoset resin tubing meeting the requirements of ASTM D2996 with the thermosetting resin tubing meeting the requirements of ASTM D2996 with the resin used shall be ultraviolet (UV) resistant and/or have UV inhibitors mixed in the coating for additional UV resistance.

The color of the slab drain shall be gray (Federal Standard 28373). The color shall correspond throughout the resin and any coating used.

The combination of materials used in the manufacture of the slab drain shall be tested for UV resistance in accordance with ASTM D4329 and shall be suitable for exposure in the weathering steel structure.

At the contractor's option, drains may be field cut. The method of cutting FRP slab drain shall be recommended by the manufacturer to ensure a smooth, chip free cut.

General Notes:

Contractor shall have the option to construct either steel or FRP slab drains. All drains shall be of same type.

Slab drain bracket assembly shall be ASTM A500 or A501.

Lateral drains in slab by dimensions shown in Part Section Near Drain.

Reinforcing steel shall be shifted to clear drain.

The bracket assembly shall be galvanized in accordance with ASTM A123.

All bolts, hardened washers, lock washers and nuts shall be galvanized in accordance with ASTM A123 and ASTM A795, Class C, Type 3, Grade A325.

Notes for Steel Drain:

The steel slab drain may be fabricated of either 1/4" thick, 1/2" max. thickness, 1/2" Ø bolt with hex nut, 1/2" Ø x 3" long, or 1/2" Ø x 3" rod with carriage bolt. The combination of materials used in the coating shall be tested to ensure a smooth, chip free finish.

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At the contractor's option, drains may be field cut. The method of cutting FRP slab drain shall be recommended by the manufacturer to ensure a smooth, chip free cut.
Standard Drawing Guidance (do not show on plans):

1. Replace example Plan of Slab Showing Slab Drain Locations with actual plan.
2. Details shown inside the sheet border are for drains transverse to roadway. Use the below details for drains parallel to roadway.
3. Use 1/6 of web depth.
4. For slab thickness less than 7 3/4", revise dimension to be equal to the slab thickness minus 3 1/4".
5. Type 3 for weathering steel; Type 1 for painted or galvanized steel.
6. Use with weathering steel. Delete for painted or galvanized steel.
7. Total drain length is equal to 9" + maximum girder and haunch + slab thickness, rounded UP to the next whole inch.

Alternate details for Type B barrier (SBC):

- See Sec 1080.4

- Type 3 for weathering steel; Type 1 for painted or galvanized steel.
- Use with weathering steel. Delete for painted or galvanized steel.
- Total drain length is equal to 9" + maximum girder and haunch + slab thickness, rounded UP to the next whole inch.