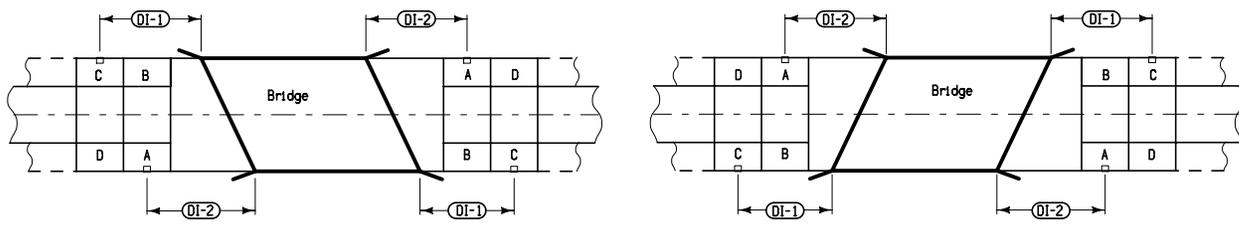
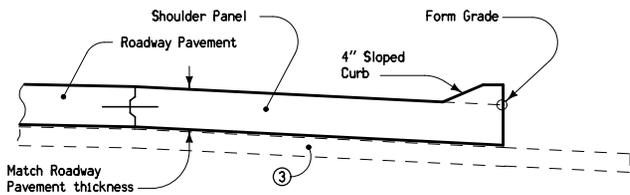
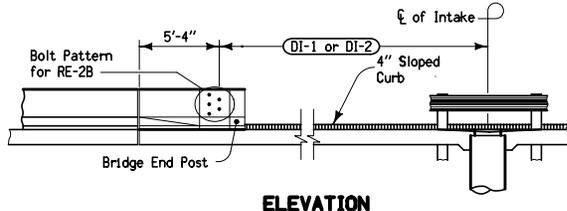


Price bid for "Bridge End Drain, RF-38" shall be considered full compensation for furnishing, installing, and constructing the Bridge End Drain as shown.

- ① Build 4" Sloped Curb 5 feet beyond centerline of intake.
- ② Paved shoulder panel will be paid for as, "Paved Shoulders, P.C. Concrete."
- ③ Modified subbase and polymer grid shall be installed under shoulder panels. See Section A-A (RK-20, RK-25, or RK-26) or Section C-C (RK-23).
- ④ Intake shall be located 5 feet or more from the nearest transverse pavement joint. Joints are determined by the bridge approach section.



Reinforced Section
 Non-Reinforced Section

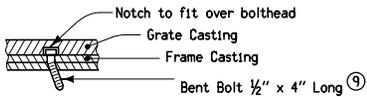
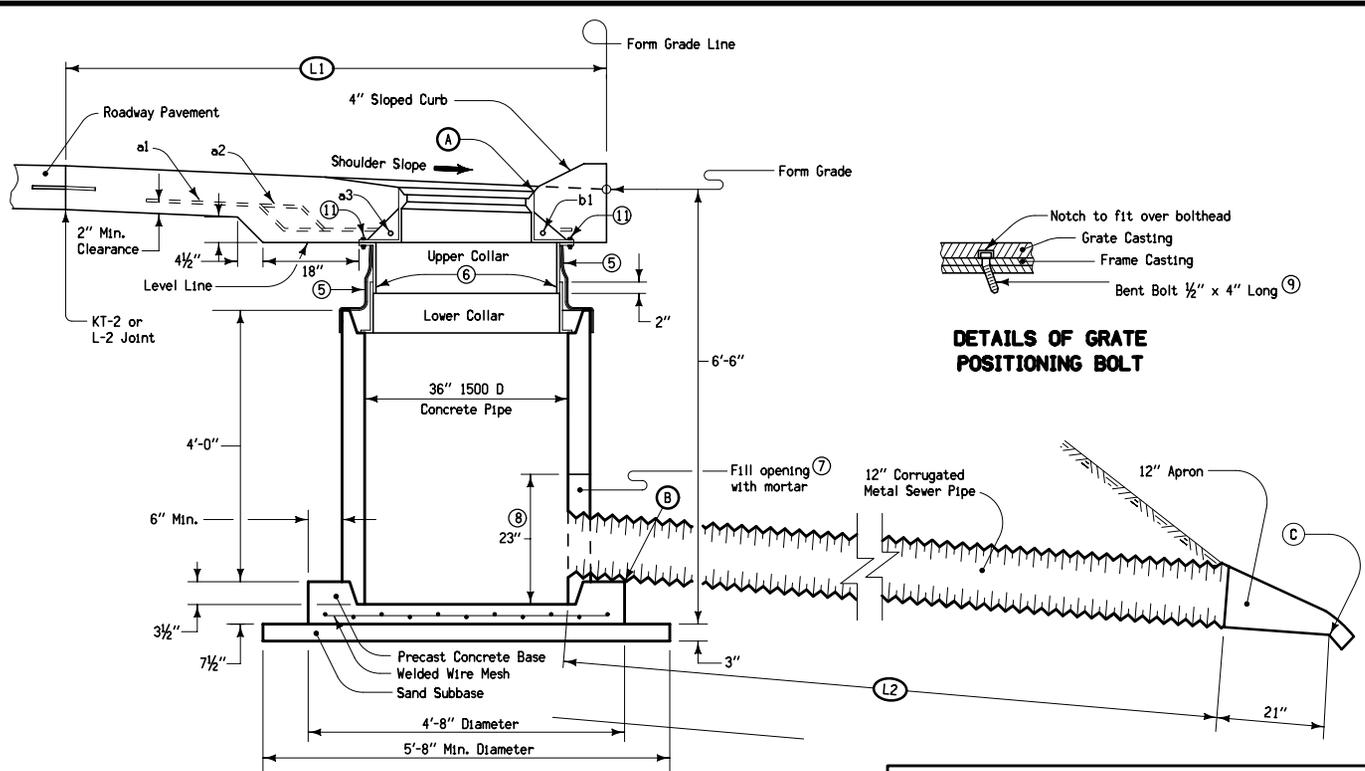
PANEL LOCATIONS

Possible Contract Items:
 Paved Shoulder, P.C. Concrete
 Bridge End Drain, RF-38
 Incidental to Paved Shoulder:
 Modified Subbase
 Polymer Grid

 Iowa Department of Transportation STANDARD ROAD PLAN	REVISION 10 10-20-09
	RF-38
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REVISIONS: No significant changes, reissued for file maintenance.
Deanna McFalls
 APPROVED BY DESIGN METHODS ENGINEER

**INTAKE FOR
BRIDGE END DRAIN**



DETAILS OF GRATE POSITIONING BOLT

Precast base shall be constructed using 4" x 4" steel wire mesh No. 6 wire reinforcing or equivalent.

All joints in corrugated metal pipe made with connecting bands shall be installed with approved asphaltic sealer to ensure a water-tight joint.

Flow line (A) elevation is 0.10 feet below Form Grade Elevation.

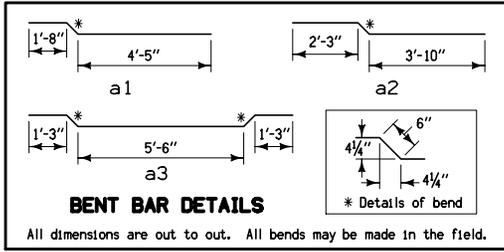
Flow line (B) elevation is 5.75 feet below flow line (A).

Flow line (C) elevation is 0 - 0.5 feet above ditch grade.

Refer to project plans for actual flow line elevations of (A), (B), (C), and dimensions L1 and L2.

- 5 Before backfilling around the intake assembly, wrap two thicknesses of engineering fabric around the settlement collar. Tape all the way around with 2" duct tape immediately below the flange of upper section and 4" below the top of well pipe.
- 6 Slip joint casting shall be fastened temporarily with (4) 1/2" cap screws during pavement construction. Cap screws shall be removed after pavement is hardened.
- 7 Refer to Article 4149.07 of the Standard Specifications.
- 8 23" x 15" slot for insertion of 12" corrugated metal pipe.
- 9 Field place 1/2" x 4" long bolt in upstream side and bend underside to prevent removal.
- 10 Reinforcing shall be placed through the appropriate holes in the intake casting.
- 11 Frame casting fastened to Upper Collar casting at 4 locations using 1/2" x 2" long hex bolts and 1/2" nuts.

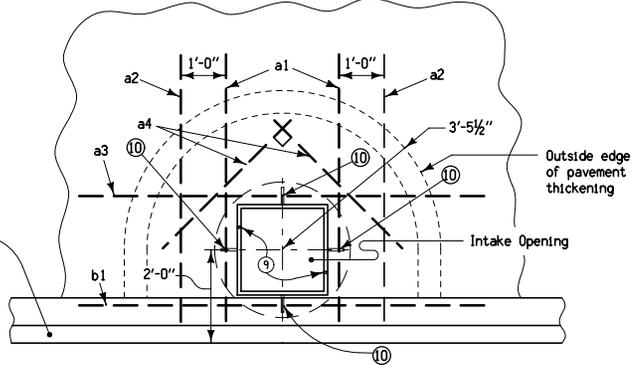
SECTION B-B THROUGH INTAKE



All dimensions are out to out. All bends may be made in the field.

REINFORCING BAR LIST

MARK	SIZE	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
a1 (10)	4	Shoulder	~	2	6'-7"	9
a2	4	Shoulder	~	2	6'-7"	9
a3 (10)	4	Shoulder	~	1	9'-0"	6
a4	4	Shoulder	~	2	4'-0"	5
b1 (10)	4	Curb	~	1	8'-9"	6
Total						35 lbs.



REINFORCING LAYOUT

Note: Place bars a1, a3, & b1 through holes in intake casting.

Iowa Department of Transportation

STANDARD ROAD PLAN

REVISIONS: No significant changes; reissued for file maintenance.

Deanna Mifflin
APPROVED BY DESIGN METHODS ENGINEER

REVISION

10	10-20-09
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RF-38

SHEET 2 of 2

INTAKE FOR

BRIDGE END DRAIN