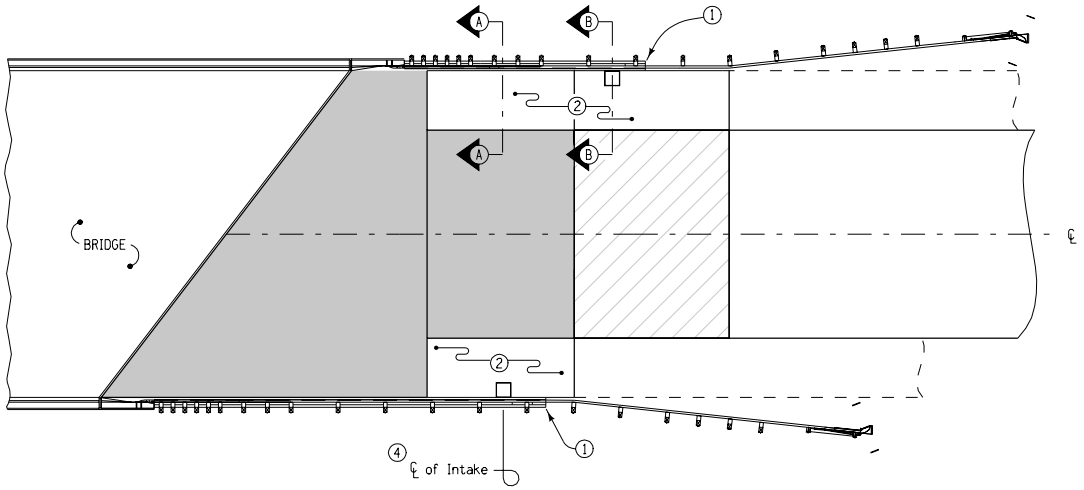
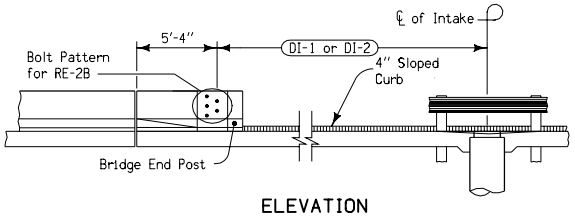
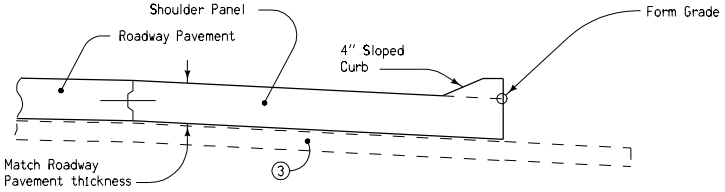


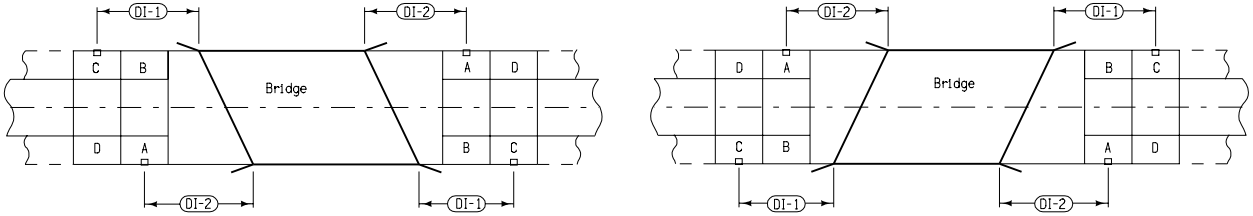
PLAN VIEW



ELEVATION



SECTION A-A
(Shoulder Panel)



PANEL LOCATIONS

Price bid for "Bridge End drain, RF-46" shall be considered full compensation for furnishing, installing, and constructing the Bridge End Drain as shown.

Contract Items:

Paved Shoulder, P.C. Concrete
Bridge End Drain, RF-46
Sewer Pipe, Corrugated Metal Storm, 12 inch
Apron, Metal, 12 inch

Incidental to Paved Shoulder:

Modified Subbase
Polymer Grid

Incidental to Bridge End Drain:

Cast iron grates, frames, and settlement collars
Excavation, backfill, and special shaping for intake
Excavation and backfilling of trench for outlet pipe

Tabulation 104-8

(1) Build 4" Sloped Curb 5 feet beyond centerline of intake.

(2) Paved shoulder panel will be paid for as, "Paved Shoulder, P. C. Concrete".

(3) Modified subbase and polymer grid shall be installed under shoulder panels. See Section A-A (Standard Road Plan RK-20, RK-25, or RK-26) or Section C-C (Standard Road Plan 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

Iowa Department of Transportation

STANDARD ROAD PLAN

REVISION	
8	10-17-06

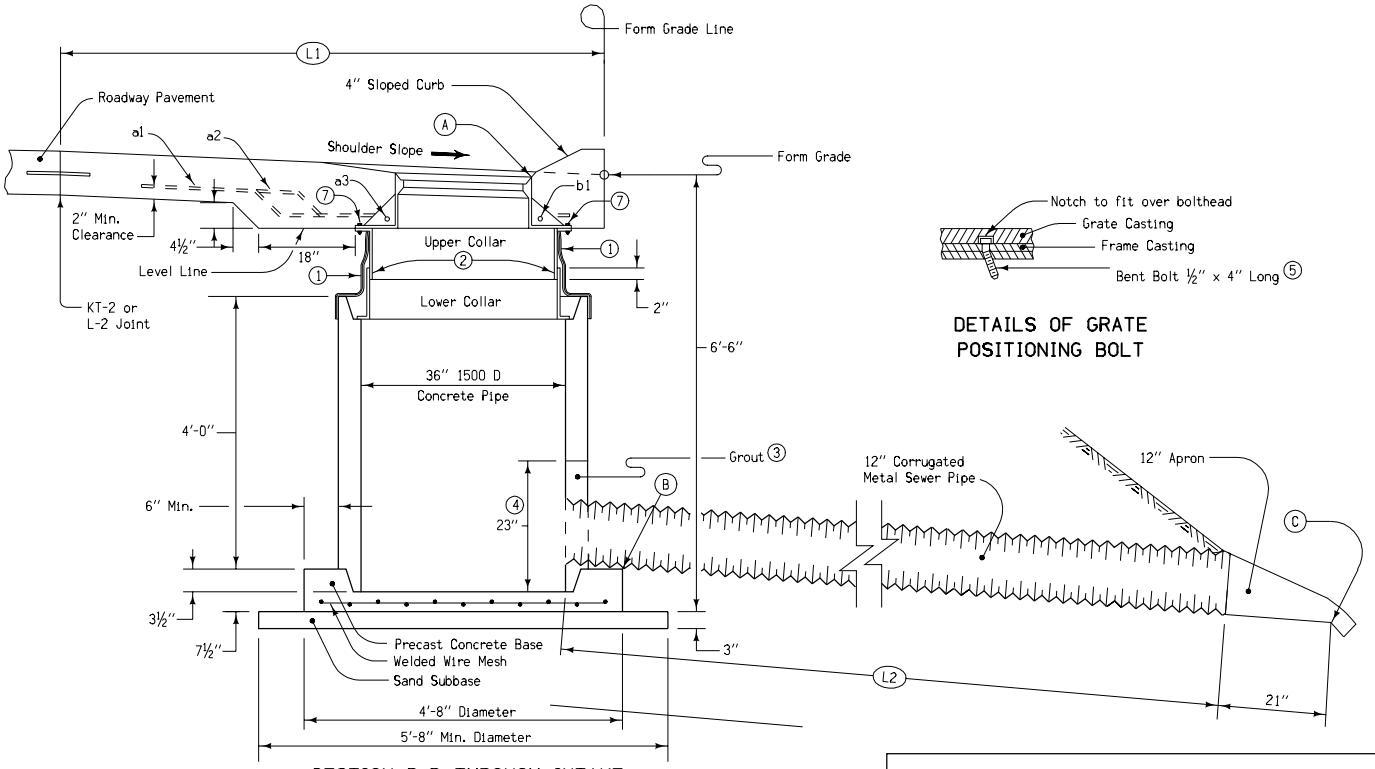
RF-38

SHEET 1 of 2

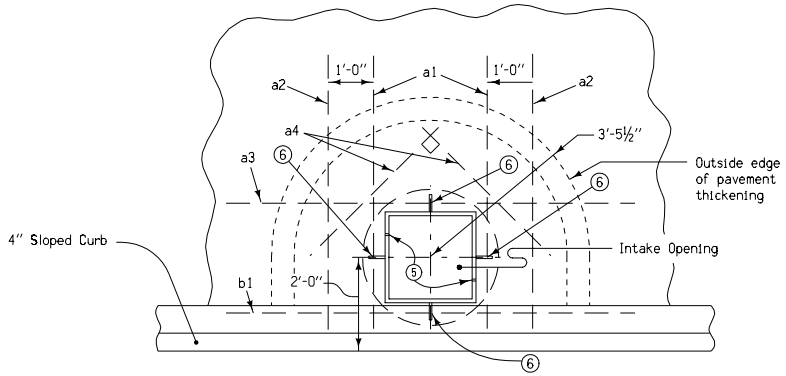
REVISIONS: Replaces paren-number standards (RF-38) with one multi-page standard.

Deanna Maifield
APPROVED BY DESIGN METHODS ENGINEER

INTAKE FOR BRIDGE END DRAIN



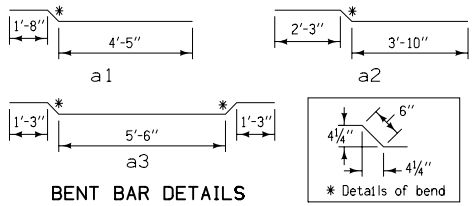
SECTION B-B THROUGH INTAKE



REINFORCING LAYOUT

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

DETAILS OF GRATE POSITIONING BOLT



BENT BAR DETAILS

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 ⑥	4	Shoulder		2	6'-7"	9
a2	4	Shoulder		2	6'-7"	9
a3 ⑥	4	Shoulder		1	9'-0"	6
a4	4	Shoulder		2	4'-0"	5
b1 ⑥	4	Curb		1	8'-9"	6
					Total	35 lbs.

GENERAL NOTES:

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.

For actual flow line elevations of (A), (B), (C), and dimension L1 and L2, see "Tabulation of Bridge End Drain".

For Details of Iron Castings, see Standard Road Plans RA-67A, RA-67B, and RA-67C.

1. 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.
2. 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.
3. Mortar grout shall meet the requirements of Article 4149.07 of the current specifications.
4. 23" x 15" slot for insertion of 12" corrugated metal pipe.
5. Field place 1/2" x 4" long bolt in upstream side and bend underside to prevent removal.
6. Reinforcing shall be placed through the appropriate holes in the intake casting.
7. Frame casting fastened to Upper Collar casting at 4 locations using 1/2" x 2" long hex bolts and 1/2" nuts.

Iowa Department of Transportation

STANDARD ROAD PLAN

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SHEET 2 of 2

REVISIONS: Replaces paren-number standards (RF-38) with one multi-page standard.

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INTAKE FOR BRIDGE END DRAIN