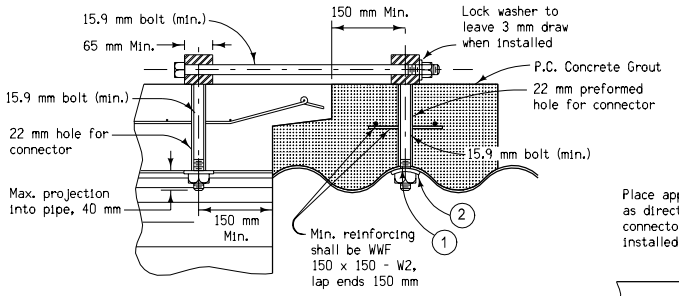
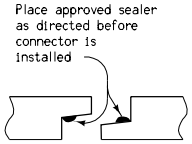
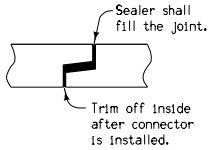


(CONCRETE PIPE TO CORRUGATED PIPE)

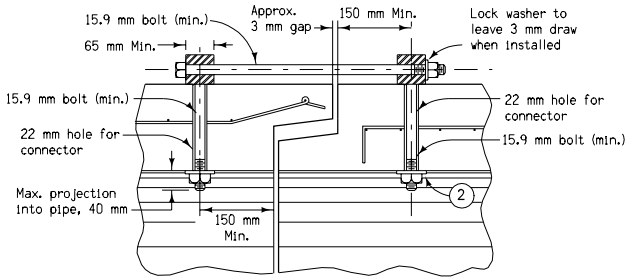
SECTION OF TYPICAL PIPE CONNECTOR





DETAILS OF SEALED JOINT

(Type 2 Connection Only)



(CONCRETE PIPE TO CONCRETE PIPE)

SECTION OF TYPICAL PIPE CONNECTOR

Unless otherwise specified, Type 3 Connections shall be used on all pipes.

TYPE 1

One (1) connector at the top of the pipe section. May be used with pipe class 100 D or greater.

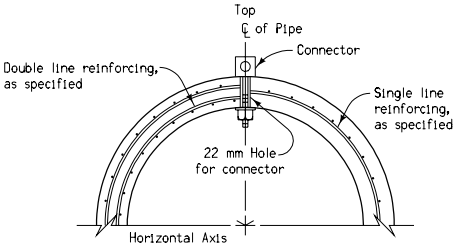
TYPE 2

Two (2) connectors near the top of the pipe section. For details of reinforcement refer to Standard Road Plan RF-1 for the class of pipe required. The seal used shall meet the requirements of Article 4149.08 of the Standard Specifications. See Materials I.M. 491.09.

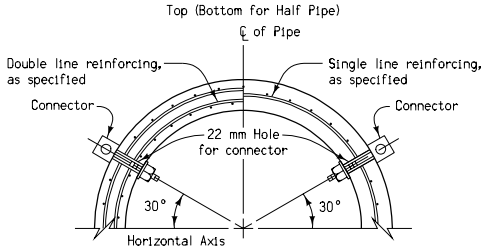
TYPE 3

Two (2) connectors near the top of the pipe section. For details of reinforcement, refer to Standard Road Plan RF-1 for the class of pipe required.

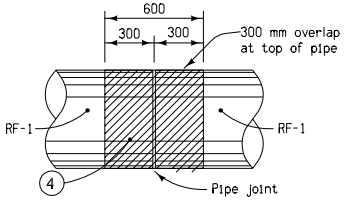
Tabulation: 104-3



TYPICAL SECTION
TYPE 1 CONNECTION
(Non-Sealed Joint)



TYPICAL SECTION
TYPE 2 CONNECTION (Sealed Joint)
TYPE 3 CONNECTION (Non-Sealed Joint)



PIPE JOINT WRAPPING

(1) If holes are field drilled, place a ribbon of butyl sealant around bolts before placing 75 mm x 75 mm x 6 mm plate on bolts through corrugated metal pipe and tightening nuts.

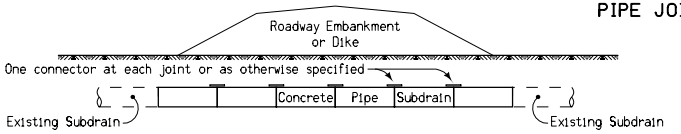
(2) 45 mm round x 3.6 mm thick washer or 75 mm x 75 mm x 6 mm square plate (shaped to pipe radius).

(3) On culvert extensions, all new joints shall be connected including the joint between the old and new culvert pipe, except when collars are poured. Holes may need to be drilled into existing pipes.

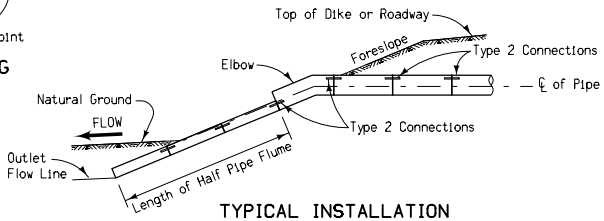
JOINT WRAPPING:

All joints on concrete pipe roadway culverts shall be wrapped.

(4) Engineering fabric for embankment erosion control.

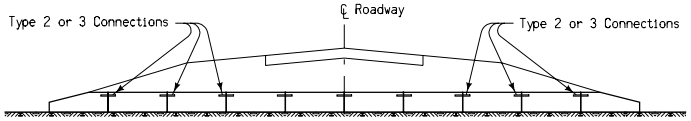


TYPICAL INSTALLATION
TYPE 1 CONNECTIONS

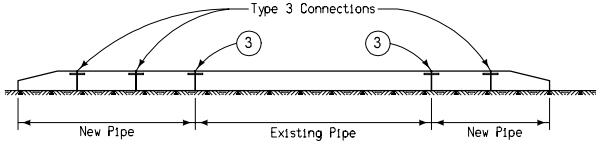


TYPICAL INSTALLATION
TYPE 2 CONNECTIONS

All dimensions given in millimeters unless noted.



TYPICAL INSTALLATION
NEW CONSTRUCTION - TYPE 2 or 3 CONNECTIONS



TYPICAL INSTALLATION
PIPE EXTENSION - TYPE 3 CONNECTIONS

M

METRIC VERSION

Iowa Department of Transportation
Highway Division

STANDARD ROAD PLAN | **RF-14**

REVISION: Specify Type 3 connections; add pipe joint wrapping detail; change title.

REVISION NO. 11

REVISION DATE 10-18-05

APPROVED BY DESIGN METHODS ENGINEER

CONNECTED PIPE JOINTS