IN TRENCH

EXCAVATION

BACKFILL

MINIMUM ALLOWABLE CLASSES OF RCP FOR METHOD 1

METHOD 1

REINFORCED CONCRETE PIPE

MINIMUM ALLOWABLE CLASSES OF RCP FOR METHOD 2

METHOD 2

NON-REINFORCED CONCRETE PIPE

MINIMUM ALLOWABLE CLASSES OF RCP FOR METHOD 3

METHOD 3

NOTES:

1. Unless otherwise shown on the plans or specified in the special provisions, the contractor shall have the option of selecting the class of RCP and the method of backfill to be used, provided the height of cover does not exceed the value shown for the RCP selected.

Example:

2'-0" RCP culvert with maximum cover of 18'-0" the options are:

a) Class II Special or stronger with Method 1.

b) Class III or stronger with Method 2.

c) Class IV or stronger with Method 3.

Cover is defined as the maximum vertical distance from top of pipe to finished grade within the length of any given culvert.

2. The class of RCP, method of backfill and bedding selected shall be the same throughout the length of any given culvert.

3. The length of any culvert is defined as the culvert between:

a) Successive drainage structures (inlets, junction boxes, headwalls, etc.)

b) A drainage structure and the inlet or outlet end of the culvert.

c) The inlet and outlet end of the culvert when there are no intervening drainage structures.

4. Slope or shore excavation sides as necessary.

5. Embankment height prior to excavation for installation of all classes of RCP under Methods 2 and 3A shall be as follows:

Pipe sizes 1'-0" to 3'-0", D = 4'-0"-0"
Pipe sizes 4'-0" to 7'-0", D = 7'-0"-0".
Pipe sizes larger than 7'-0", D = 9'-0".

6. The minimum size for all classes of RCP placed under Method 1 is 78" ID.

7. Non-reinforced precast pipe sizes 3'-0" or smaller may also be placed under Methods 2 and 3A.

8. Oval or arch shaped RCP shall be placed under Method 2 only.

9. Embankment compaction requirements govern over the 90% relative compaction requirement within 2'-0" of finished grade.

10. Backfill shall be placed full width of excavation except where dimensions are shown for backfill width or thickness. Dimensions shown are minimum.

11. Where the precast non-reinforced concrete pipe is used as a substitute for the cast-in-place pipe, both the wall thickness and the concrete strength shall be at least as great as that specified for the cast-in-place pipe.

The fill height allowed shall not exceed that shown for the cast-in-place pipe.