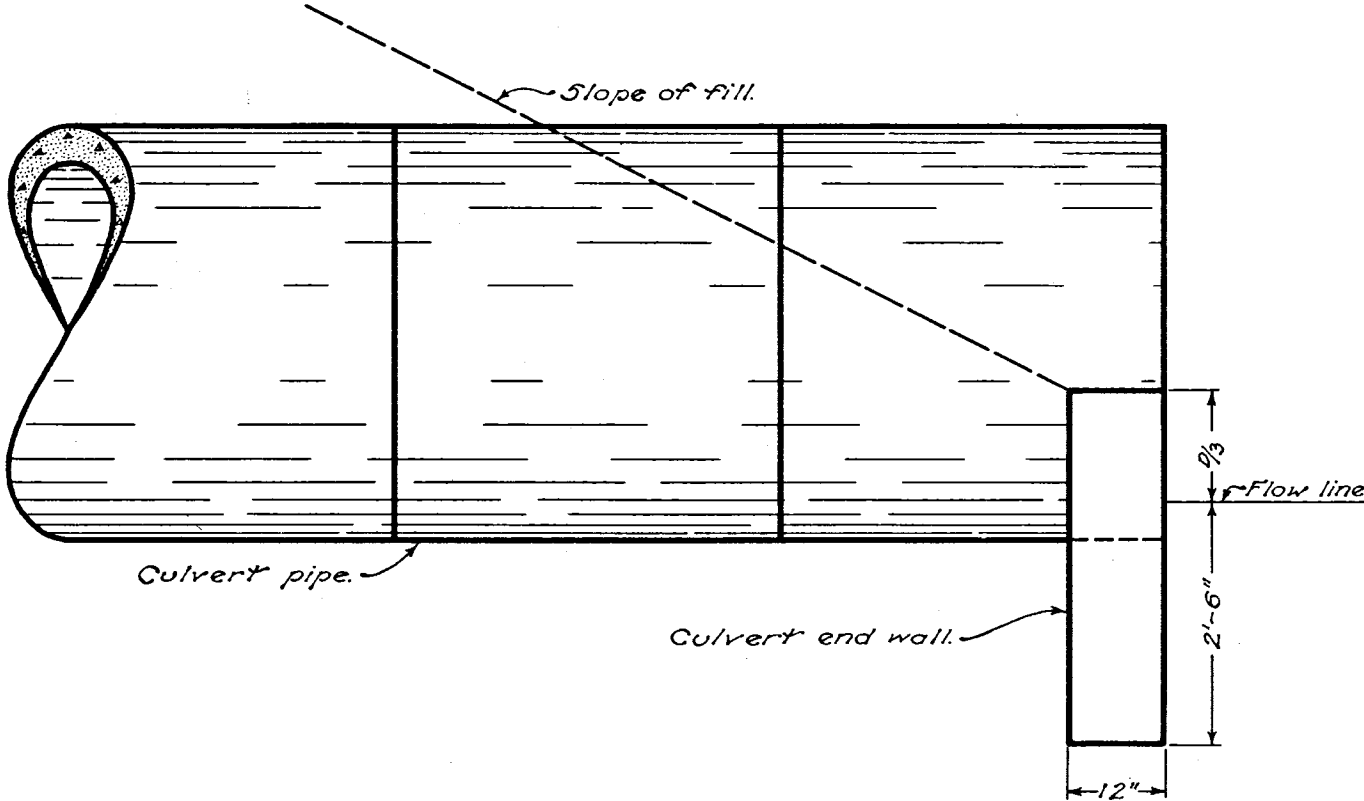
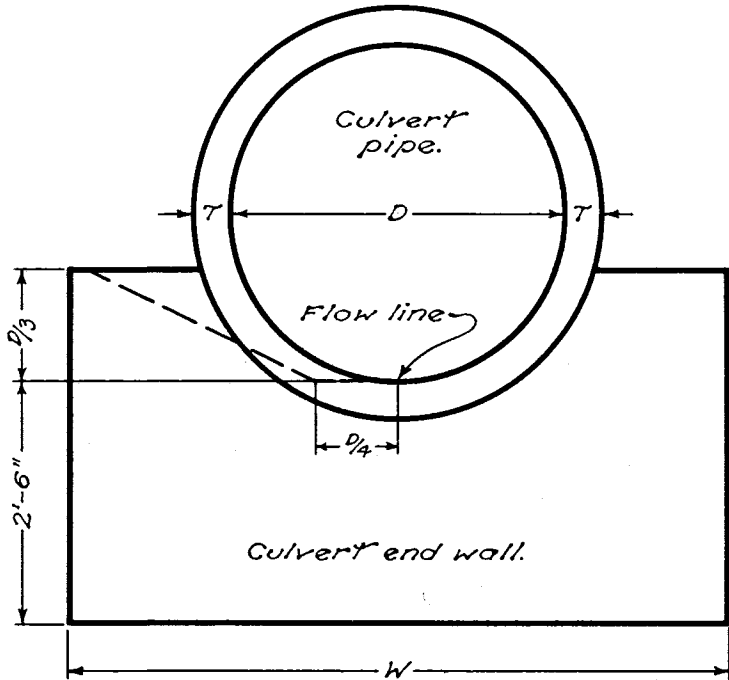


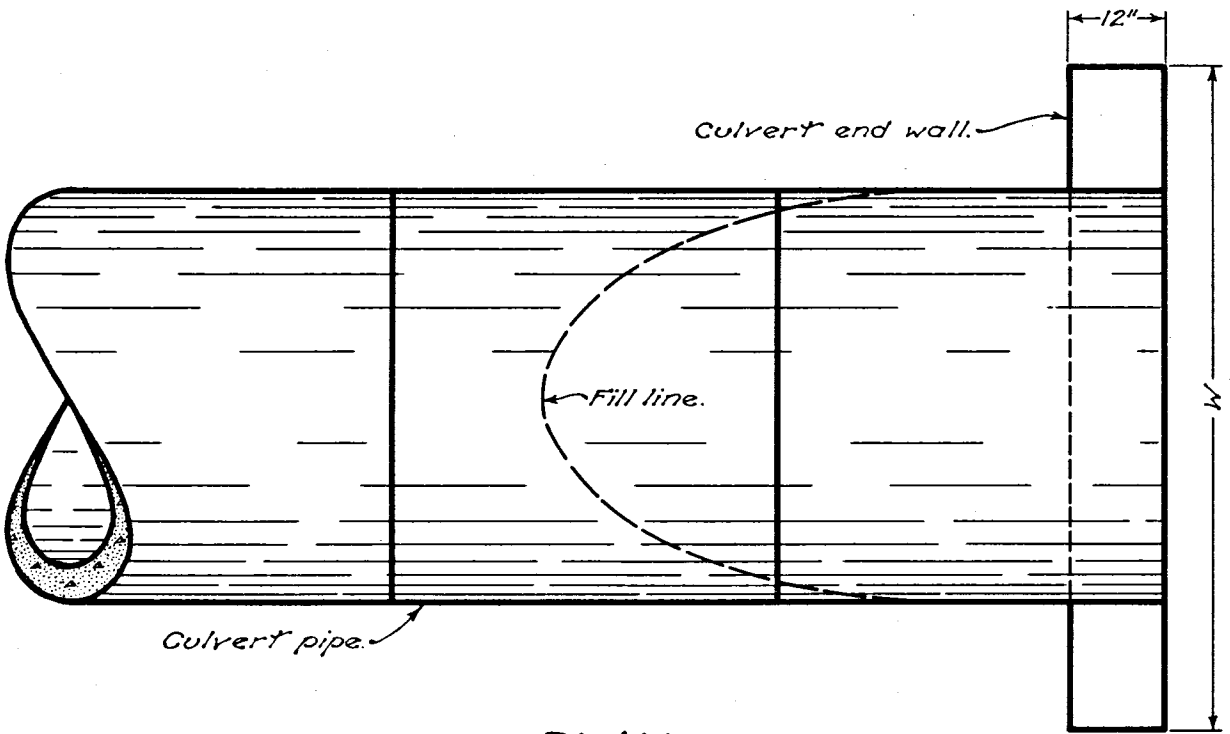
PIPE CULVERT END WALLS



SIDE VIEW



END VIEW



PLAN

PIPE DIAMETER D	WIDTH W	CONCRETE CU. YD. ONE END WALL
12"	2'-4"	0.23
15"	2'-8"	0.26
18"	3'-0"	0.30
21"	3'-6"	0.36
24"	4'-0"	0.41
27"	4'-6"	0.47
30"	4'-10"	0.51
33"	5'-2"	0.55
36"	5'-6"	0.59
39"	6'-2"	0.67
42"	6'-10"	0.76
48"	7'-7"	0.86
54"	8'-4"	0.96

NOTES

GENERAL: Concrete end walls shall be used as minimum end protection for pipe culverts, 54 inches or less in diameter, when paved or dumped rock channel lining is not specified.

CONCRETE for end walls shall be Class "E".

ESTIMATED QUANTITIES: Excavation required for the construction of end walls shall be included with Item E-2, structure excavation.

Concrete for end walls shall be included with Item S-1, class "E" concrete for structures.

BUREAU OF LOCATION AND DESIGN
OHIO DEPARTMENT OF HIGHWAYS

PIPE
CULVERT
END WALLS

STANDARD
CONSTRUCTION S-27 P.C. 4
DRAWING

APPROVED *K.L.R.* ENGINEER
LOCATION & DESIGN

DATE
1-4-54