T

CULVERT

▽ WATER SURFACE

D

d

1
2
1

PREFERABLE
MINIMUM
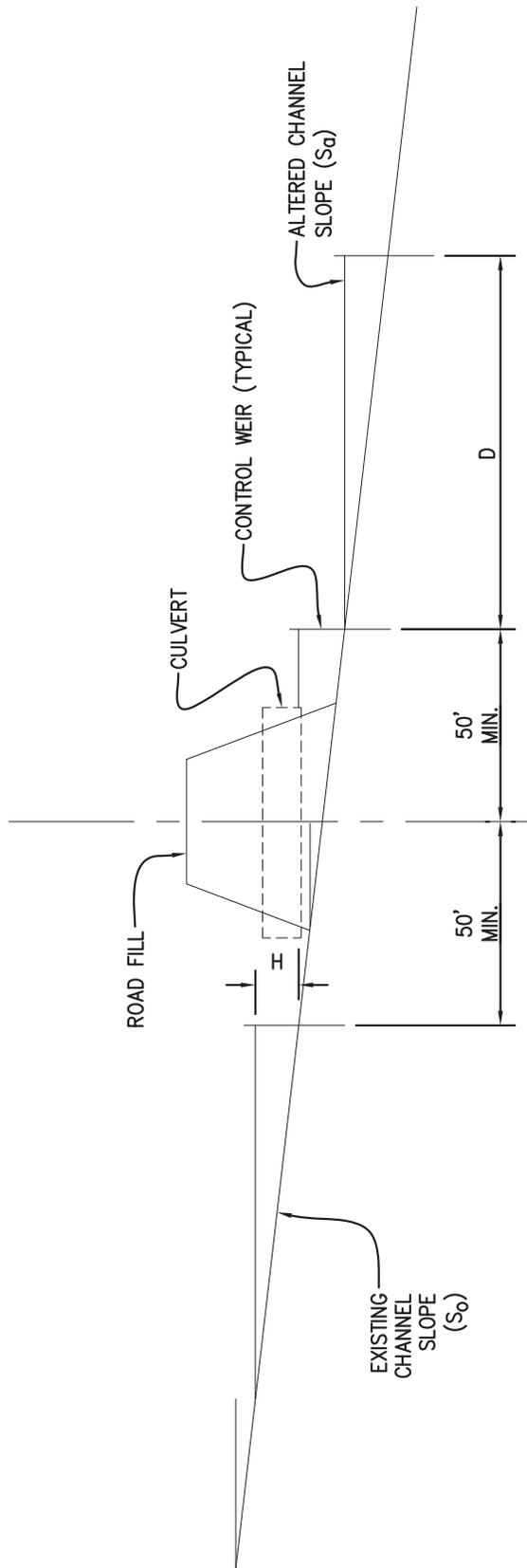
B

B = BOTTOM WIDTH OF CHANNEL
    CULVERT DIAMETER +6" OR 2'0" MINIMUM

D = DEPTH OF CHANNEL AT CULVERT DETERMINED BY
    CULVERT DIAMETER, 18" MINIMUM

d = DEPTH OF WATER

T = TOP WIDTH OF CHANNEL

RECOMMENDED TYPICAL
DITCH CROSS SECTION

| DATE: FEB, 2011 | REV. −/−/− | FIG. 4.7.1 |

ALTERED CHANNEL SLOPE (Sa)

CONTROL WEIR (TYPICAL)

CULVERT

ROAD FILL

D

50' MIN.

50' MIN.

H

EXISTING CHANNEL SLOPE (So)

$H = D(S_o - S_a)$

S_o = SLOPE HAS SUPERCRITICAL OR EROSIVE VELOCITY

S_a = SLOPE HAS SUBCRITICAL AND NONEROSIVE VELOCITY

ELEVATE!
WOODLAND PARK
CITY ABOVE THE CLOUDS

CHANNEL PROFILE FOR
EROSION CONTROL
AT CULVERTS

DATE: FEB, 2011 | REV. −/−/− | FIG. 4.7.3