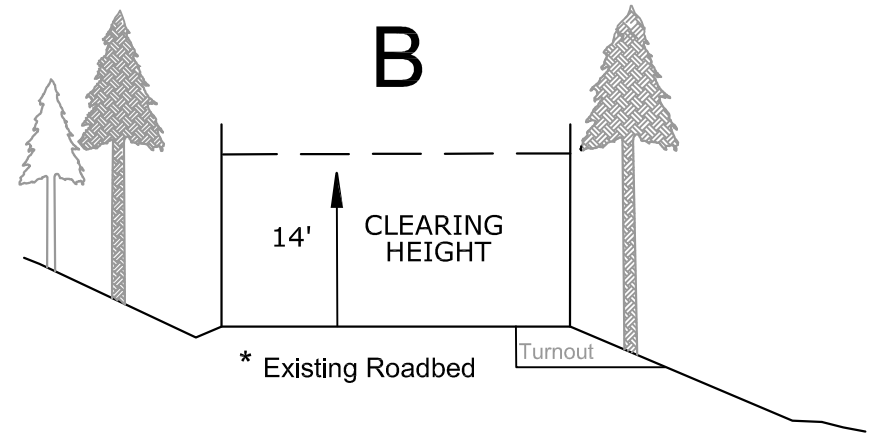
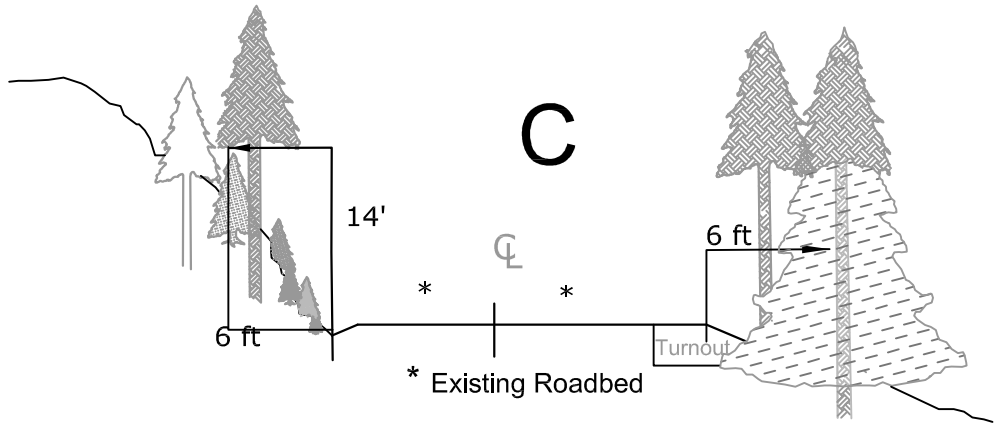
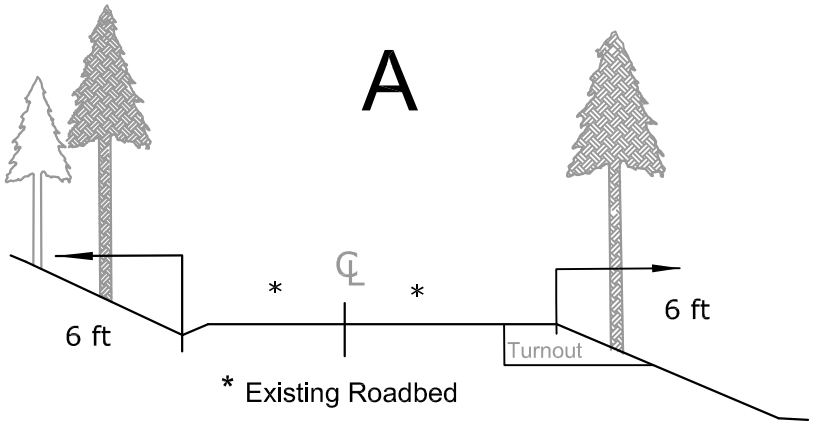
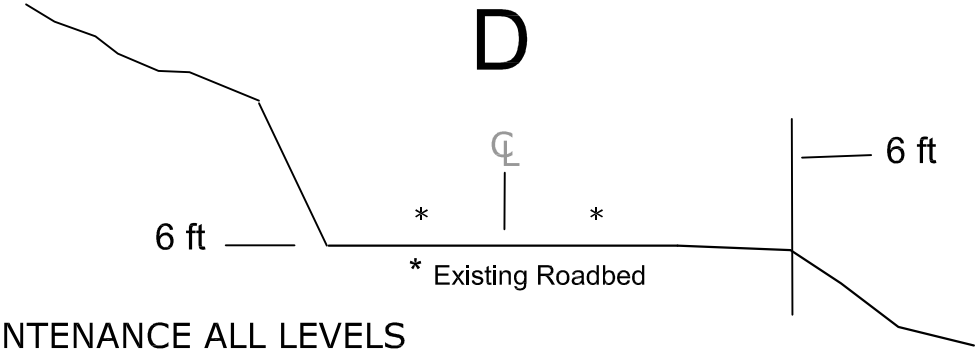



MAINTENANCE ALL LEVELS

ESTABLISHED CLEARING LIMITS

TYPICAL

NO SCALE

A. ALL VEGETATION within the established clearing limits and 6-feet (horizontally) from the bottom of the ditchlineor hinge point shall be cut. All woody debris within the clearing limits shall be removed when it interferes with the flow of traffic, obscures signs, impedes flow of water, or diverts water from drainage structures.

B. Branches on remaining conifers shall be trimmed from ground level to a clearing height limit to 14-feet (vertically) above the roadbed.

C. ALL limbs on vegetation within the clearing limits shall be cut to within 4-inches of the trunk.

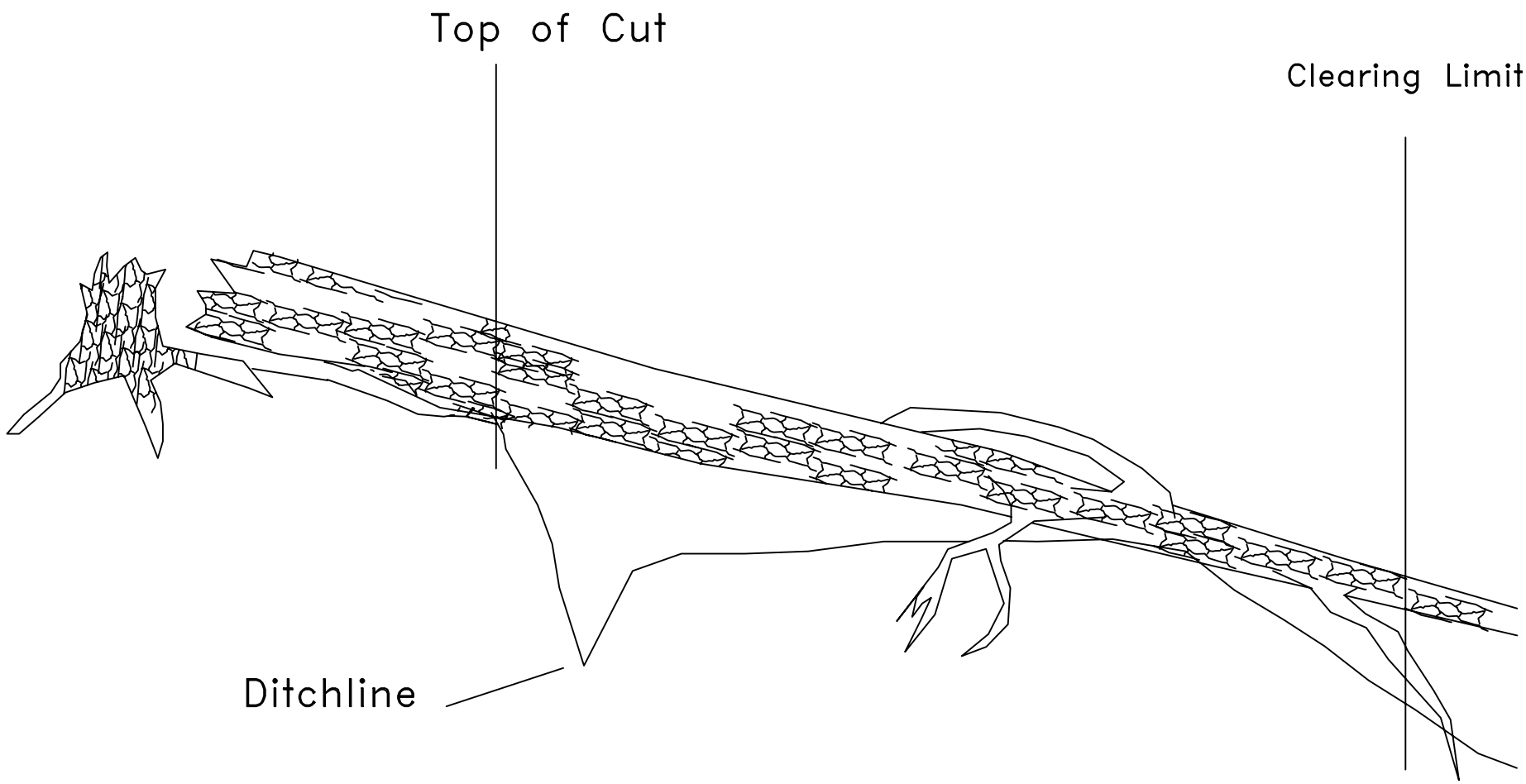
Trees that have vegetation trimmed for clearing shall be trimmed around the trunk of the tree. The exception is heavy stands where stems are within 2-feet of each other.

All vegetation with a DBH of 8-inches LESS shall be removed to a maximum height of 6-inches above ground surface. Remove the lowest live limbon allcut stems.

Trees with DBH 8-inches or MORE shall be limbed according to specifications.

D. When the road edge is not defined on roads the treated area for double lane shall be 18' from both sides of centerline; Single lane with turnouts shall be 13' both sides from centerline; turnout area shall be increased by 8'.

**CLEARING LIMITS TYPICAL**
**February 2009**



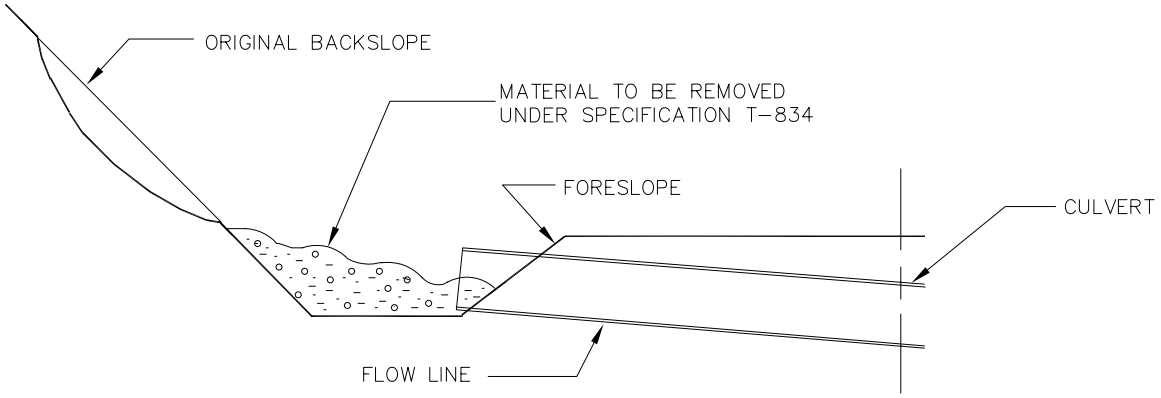

# LogOut

Not to Scale

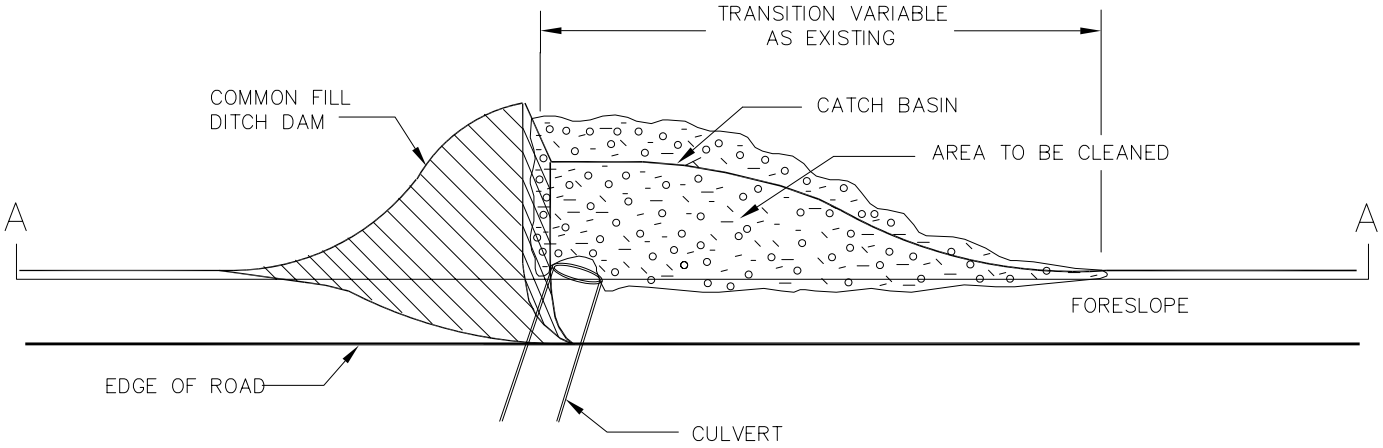
# CLEANING OF DITCH RELIEF CATCH BASIN AND TRANSITION

DRAWING #CB-1 ( NO SCALE )

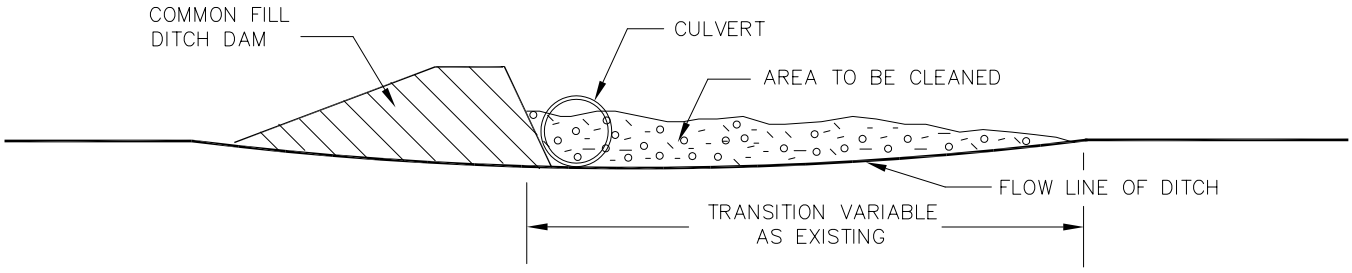
## CROSS SECTION VIEW




## PLAN VIEW ALONG DITCH



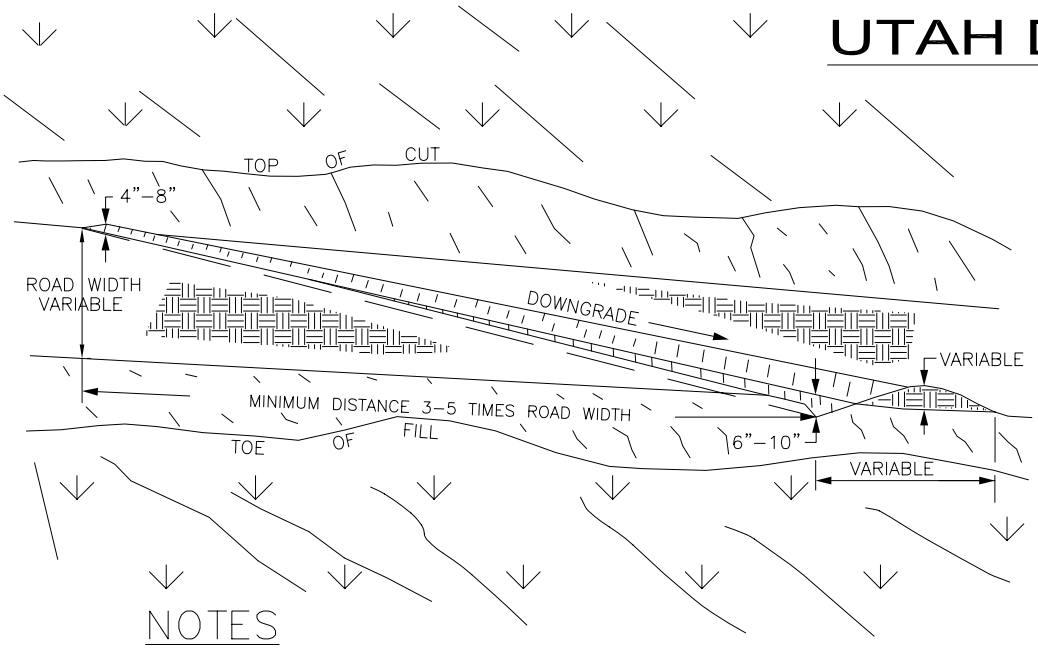

## SECTION A-A



DRAWING #UD-1

# UTAH DIP DETAIL

NO SCALE




## NOTES

1. ALL UTAH DIPS SHALL BEGIN AT THE INTERSECTION OF THE ROADBED AND CUT SLOPE AND RUN ACROSS THE ENTIRE WIDTH OF THE ROADBED.
2. ALL UTAH DIPS SHALL HAVE FREE FLOWING OUTLETS.
3. WHEN STAKES ARE USED, THEY SHALL DESIGNATE THE OUTLET LOCATION.
4. **UNLESS LOCATIONS ARE STAKED BY THE FOREST SERVICE,** THE FOLLOWING TABLE SHALL BE USED AS A GUIDE.

## DRAINAGE SPACING TABLE

SPACING ALONG Ô(BASED ON SOIL EROSION GROUP 3)

| DOWN GRADE (IN %) | UNSURFACED (IN SMU*) | 1/SURFACED (IN SMU*) | 2/SURFACED/UNSURFACED (OUTSIDE SMU*) |
|---|---|---|---|
| 2 | 105 FT. | 160 FT. | USE ENGINEERING SPACING GUIDE (BUT IN NO PLACE MORE THAN 500 FT. ALONG ô), OR AS STAKED BY THE FOREST SERVICE |
| 4 | 90 FT. | 140 FT. | |
| 6 | 80 FT. | 125 FT. | |
| 8 | 75 FT. | 115 FT. | |
| 10 | 65 FT. | 100 FT. | |
| 12 | 55 FT. | 85 FT. | |
| 14 | 45 FT. | 70 FT. | |
| 16 | 35 FT. | 55 FT. | |
| 18 | 30 FT. | 45 FT. | |
| >20 | 30 FT. | 30 FT. | |

1/PIT RUN OR GRID ROLLED > 25% FINES

2/CRUSHED ROCK, PIT RUN, OR GRID ROLLED W/ < 25% FINES

## * SMU = STREAMSIDE MANAGEMENT UNIT:

SMU WIDTH

Class I through IV Streams — 150 Ft. each side for sideslopes < 30%; 200 Ft. each side for sideslopes > 30%

SMU GUIDELINES

When a road is within 25 Ft. of a stream and parallels stream for more than 300 feet, decrease spacing by 25%.

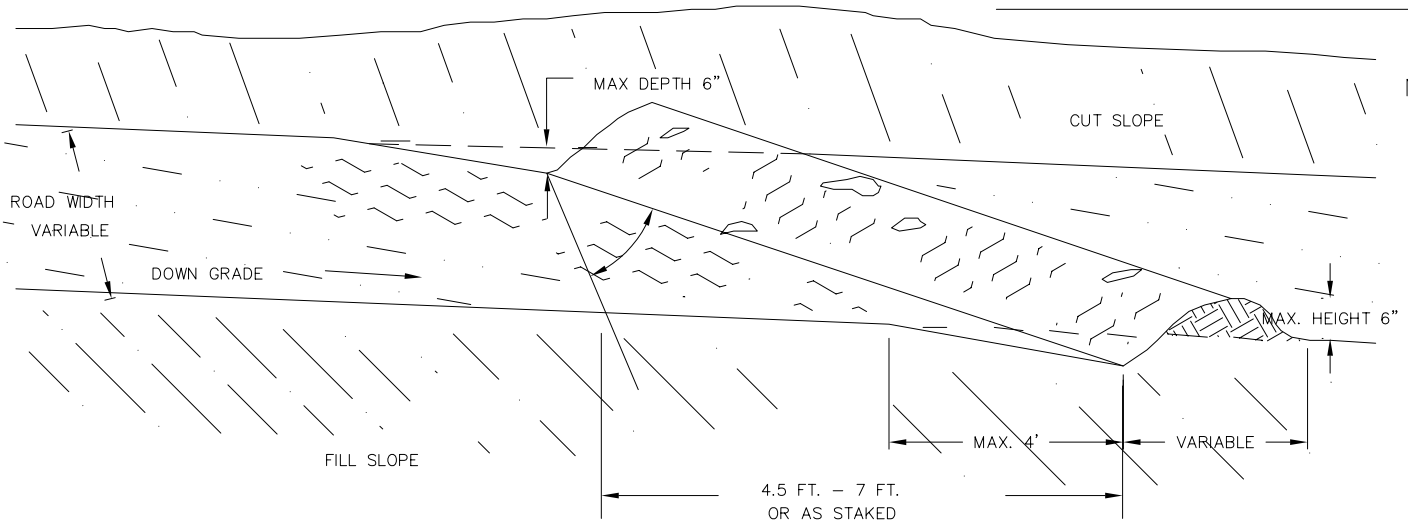
Where a road is grading down towards a stream, locate the last cross-drain at about 10-30 Ft. from stream (depending upon filtering capability at the outlet); place the next cross-drain upgrade at 75% of the spacing guide value.

If road has drainage ditch, extend cross-drains to intercept the runoff.

DRAWING #WB-6

# WATER BAR DETAIL

NO SCALE




## NOTES

1. ALL WATER BARS SHALL BEGIN AT THE INTERSECTION OF THE ROADBED AND CUT SLOPE AND RUN ACROSS THE ENTIRE WIDTH OF THE ROADBED.
2. ALL WATER BARS SHALL HAVE FREE FLOWING OUTLETS.
3. WHEN STAKES ARE USED, THEY SHALL DESIGNATE THE OUTLET LOCATION.
4. UNLESS LOCATIONS ARE STAKED BY THE FOREST SERVICE, THE FOLLOWING TABLE SHALL BE USED AS A GUIDE.

## DRAINAGE SPACING TABLE

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## * SMU = STREAMSIDE MANAGEMENT UNIT:

SMU WIDTH

Class I through IV Streams — 150 Ft. each side for sideslopes < 30%; 200 Ft. each side for sideslopes > 30%

SMU GUIDELINES

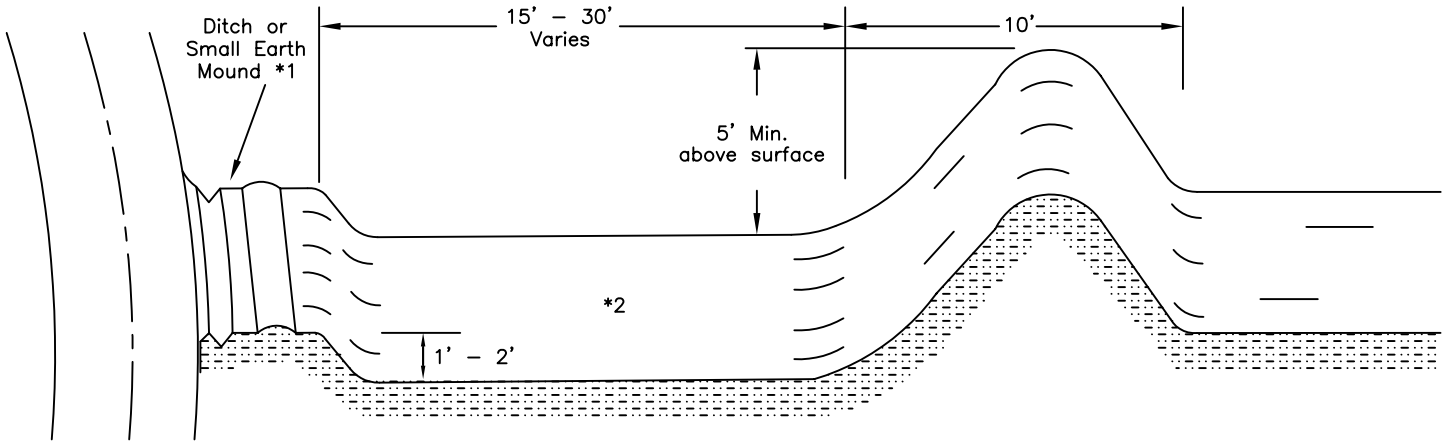
When a road is within 25 Ft. of a stream and parallels stream for more than 300 feet, decrease spacing by 25%.

Where a road is grading down towards a stream, locate the last cross-drain at about 10–30 Ft. from stream (depending upon filtering capability at the outlet); place the next cross-drain upgrade at 75% of the spacing guide value.

If road has drainage ditch, extend cross-drains to intercept the runoff.

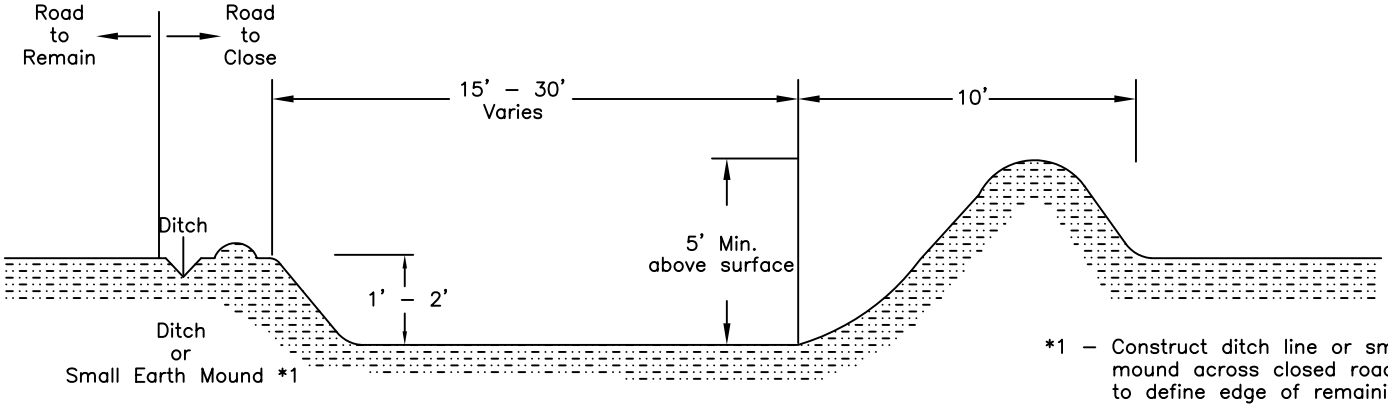
# EARTHEN BARRICADE DETAIL

Drawing #EB-2




## ISOMETRIC VIEW

ISOMETRIC VIEW




*1 – Construct ditch line or small earth mound across closed road entrance to define edge of remaining road.

*2 – Slope Excavation area to drain

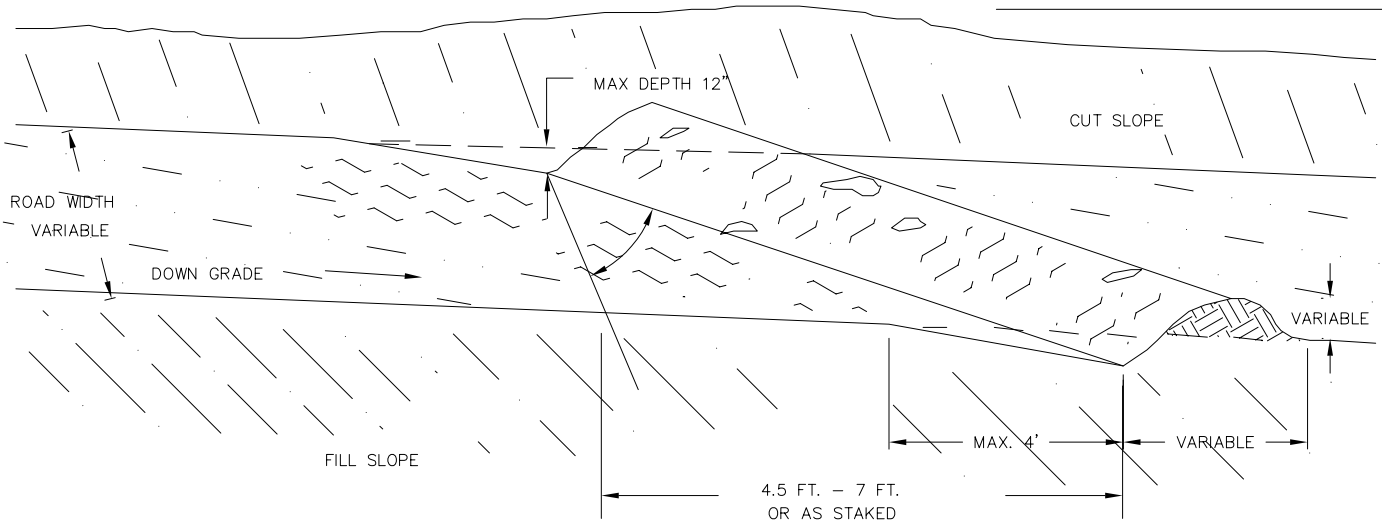
PROFILE VIEW

## PROFILE VIEW

DRAWING #WB-12

# WATER BAR DETAIL

NO SCALE




## NOTES

1. ALL WATER BARS SHALL BEGIN AT THE INTERSECTION OF THE ROADBED AND CUT SLOPE AND RUN ACROSS THE ENTIRE WIDTH OF THE ROADBED.
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