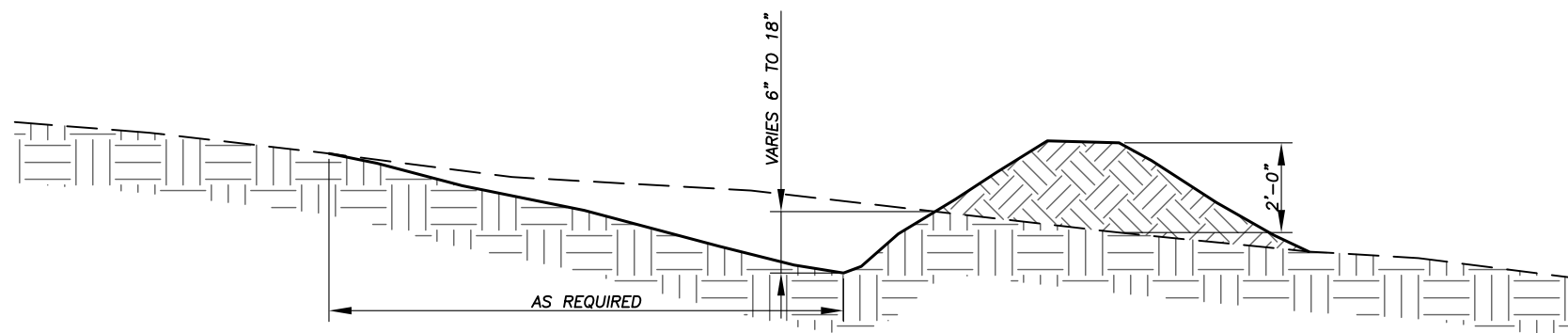


PLAN

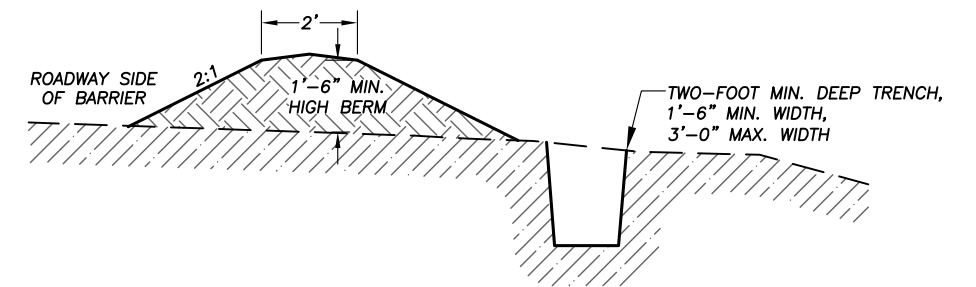


SECTION

EROSION HAZARD RATING OF SURFACE	ROAD GRADIENT (%)			
	10% OR LESS	11 - 25%	26 - 50%	OVER 50%
EXTREMELY HIGH	100'	75'	50'	50'
HIGH	150'	100'	75'	50'
MODERATE	200'	150'	100'	75'
LOW	300'	200'	150'	100'

NOTE: THIS TABLE INDICATES THE MAXIMUM DISTANCE BETWEEN WATERBARS; WHEN IN DOUBT OR AS DIRECTED BY THE PROJECT MANAGER, REDUCE THE SPACING. THE PROJECT MANAGER WILL DETERMINE EROSION HAZARD RATINGS AT EACH SITE.

**WATERBARS**  
NOT TO SCALE



**TYPICAL SECTION**  
**VEHICLE BARRIER AT FEATURE**  
**Q49-087 SHAFT**

SCALE: 3/8" = 1'-0"

NOTE:  
PLACE FOUR 4-FOOT DIAMETER BOULDERS AT 5' O.C. WHERE DRAINAGE CROSSES THE RECONSTRUCTED ROAD. INTERRUPT DITCH AND BERM FOR DRAINAGE.

**GENERAL NOTES:**

- CLOSE TEMPORARY ACCESS ROADS FOLLOWING THE NEED FOR CONSTRUCTION ACCESS. REGRADE CLOSED ROADS TO OUTSLOPE AT FOUR TO EIGHT PERCENT, INCREASING THE OUTSLOPING PITCH AS THE ROAD GRADE INCREASES. REMOVE ANY DITCHES OR BERMS ALONG THE OUTSIDE EDGES OF THE ROAD. DECOMPACT ROADBEDS, APPLY EXTREME ROUGHENING AND PREPARE FOR SEEDING AS SPECIFIED.
- CONSTRUCT WATERBARS ALONG CLOSED ROADS. ONE OF THE FIRST WATERBARS AT EACH ACCESSIBLE END SHALL BE CONSTRUCTED WITH A BERM HEIGHT OF AT LEAST FOUR FEET TO PROHIBIT VEHICULAR ACCESS. ALTERNATELY, AS ALLOWED BY THE PROJECT MANAGER OR AS INDICATED, BLOCK THE ACCESSIBLE END WITH LARGE BOULDERS OR TRENCH AT LEAST THREE FEET WIDE AND TWO FEET DEEP.
- EXTEND EACH WATERBAR TO THE CUT BANK TO INTERCEPT ALL DITCH FLOW AND EXTEND BEYOND THE SHOULDER OF THE ROAD. SKEW THE EXCAVATED WATERBAR WITH THE EXCAVATED MATERIAL BERMED ON THE DOWNHILL GRADE OF THE ROAD AS SHOWN.
- SITE THE WATERBARS TO DISCHARGE ONTO A STABLE SLOPE PROTECTED BY VEGETATION OR ROCK. WHERE DIRECTED BY THE PROJECT MANAGER, PLACE AT LEAST ONE-THIRD CUBIC YARD OF NATIVE STONE AT THE DISCHARGE POINT.

**ABANDONED MINE LAND PROGRAM**  
**MINING AND MINERALS DIVISION**  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

SCALE: AS SHOWN  
DATE: FEB. 2, 2010  
DRAWN BY: JAK/JRS  
REVISED:

**DETAILS - WATERBARS AND VEHICLE BARRIER**

LAKE VALLEY MINE SAFEGUARD PROJECT - PHASE IV  
DRAWING NUMBER: **FIGURE 37**