

DIRECTIONAL TREE FELLING

1. SCOPE

The work shall consist of the directional tree felling of existing trees. Tree felling is a way to reduce the erosion, by cutting trees so they fall perpendicular to the main direction of the slope and reduce the impact of raindrops and runoff from long slope lengths. The contour logs on the ground help trap sediments slow runoff and aid in the vegetation re-establishment.

2. MARKING

The limits of the areas that require directional log felling will be marked by means of stakes, flags, tree marking or other suitable methods. Trees to be left standing will be designated by special markings.

3. SAFETY

There is significant risk that burned trees may drop branches on workers or fall over completely with little or no warning. All equipment used on the area shall have appropriate protection for the operators. If the tree cannot be fallen safely, then avoid the area affected by the hazardous tree(s).

4. TREE FELLING AND PLACEMENT

Sawyers are to cut the trees, dropping the trunks across the slope perpendicular to the direction of the slope. Stumps shall be left at least 12 inches high to brace the tree from sliding downhill. Additional rocks may

be necessary to help brace the tree from moving downhill. Tree limbs are to be removed to the extent necessary for the log to lie flat on the ground to trap debris and water moving down slope. Tree felling should be completed to the extent the tree that has been dropped downhill will fill in the open gap in the slope from the downed trees upslope. The overlap of the downhill tree should be approximately 1/3 of the uphill tree length (actual spacing will vary greatly, depending on the location of the existing trees). Excess branches shall not be placed in drainageways, but shall be spread in a uniform manner. The felling and location of trees shall follow the pattern as shown on the drawings.

5. TREE SIZE AND SPECIES

The trees to be used should be 6 to 14 inches Diameter Breast Height (DBH). Any available standing dead, straight conifer species of the approximate correct size can be used.

6. DENSITY

The site should have adequate tree numbers per acre (approximately 40). The location of the fallen trees depend on the tree length, and the hillside slope gradient. On 20 to 40 percent slope the spacing is approximately 40 feet apart on the fall line of the slope. On 40 to 60 percent slope gradient reduce the spacing to approximately 25 feet spacing. Overlap the fallen trees in one row by shingling where possible. When completed, there should be approximately 700 to 800 linear feet of logs per acre on the 40-foot spacing and

1,100 to 1,300 linear feet of logs on the 25-foot spacing.

7. SPECIAL PROVISIONS

Special Provisions will be attached to the construction specifications, as appropriate, that define the site specific details.

8. MEASUREMENT and PAYMENT

For items of work for which specific unit prices are established, each item will be measured to the nearest unit applicable. Acreage will be measured to the nearest 0.1 acre. Payment for each item will be made at the agreed to unit price for that item. Such payment will constitute full compensation for all labor, equipment, tools, and all other items necessary and incidental to the completion of the work.