Use willow or willow type adventitiously rootable stock. Material should be from an area with similar soil, climate, and location relative to the stream. The material shall be at least two years old and free of disease, rot, or insect infestation. Material shall be harvested while dormant and soaked (1 to 14 days) before installation.

**Cuttings must penetrate geotextile or granular filter if used.**

**Cuttings must extend to lowest water of the year.**

**Note**: A geotextile may not be necessary if bank material is homogenous (uniform) clay (PI>10)

Joint Planting

Conventional riprap

Key in below scour

Place soil and install into bank. Wash in to achieve good soil to stem contact.

Rock Toe

Brush Layer

Conventional riprap

Place vertical bundles on bank before placing stone

Vertical Bundles

and Rock

Bend vertical bundles through Rock if Cuttings are too short

Maximum thickness is typically <24”

Do not penetrate geotextile if piping/sapping is a concern.