

How Soil Cement Bank Protection Is Constructed

Pantano Wash Bank Protection Construction October 2016 to January 2017



Construction begins with the removal and cutting down of brush.



The brush is then gather for disposal, usually done by chipping the brush.



The chipper grinds the brush into a mulch that may be used as a soil cover for plants or composted.



The banks backfilled and shaped to create the channel.



Construction equipment on the move.



Dust is control by regularly applying water to haul roads and exposed dirt surfaces.



Construction water storage tank.



Dozer assist the loading of a scrapper by pushing the scraper. The scraper then haul the dirt to it final location.



Beginning the trench at the base of the bank for soil cement toe down.



Excavating the channel; sand and gravels from the channel are stockpiled for making soil cement.



Stockpile of channel material/ aggregate for soil cement



Soil Cement batch plant where the harvested soil, concrete and fly ash are mixed with water to create soil cement.



Loading soil cement into a truck.



Hauling soil cement to be place as bank protection.



Truck arrives at bank protection location



Truck delivering and spreading soil cement for bank protection



Grader levels soil cement into an 6" lift layer, otherwise referred to as lift.



The lift is then compacted to create bank protection. As the lifts come up the soil cement is trimmed so that the exposed surface has a smooth uniform slope and is 8 ft thick.



With each lift, the soil cement bank protection raises out of the toe trench against the earthen slope to reach its full height. As it does it begins curing and hardening. Water is sprayed on the soil cement to allow it to harden slowly and reach full strength.



Soil cement bank protection finished with handrail being constructed along the top edge of the bank. On some projects the top of the soil cement is then paved for public recreation, while on other projects it remains a soil cement maintenance access path.