



# 3 Steps to NSB

Native Slurry Backfill

## Step 1. Preparation of Native Soil

NSB (Native Slurry Backfill) is a high performance backfill utilizing the native on-site soils or spoils. Potential projects can be quickly screened with a cost/benefit analysis. Projects start with field sampling, lab analysis and the development of the mix design by our in house engineer and lab. Field operations begin with the pre-conditioning of the soil, if required. This may include lime treatment to improve the workability and moisture of the soil. Griffin has over 20 years of lime treatment experience. After conditioning the material, it is screened to insure uniform particle size. Typically 2" minus. Soil preparation also includes "look ahead" monitoring to insure material consistency and quantity to support Step 2.



## Step 2. Creating NSB

The processed soil is mixed with cement and water to produce a flowable high performance backfill. Typical strengths are 50-200 psi unconfined compressive strength (UCS). The NSB mix is monitored with regular production cylinders and spread tests. The NSB equipment resembles a typical portable concrete batch plant or mobile concrete mixer. However, these mixers have been customized for soil use to the point where they do not make traditional concrete anymore. Lime treating and creating NSB from native soils is very different from making traditional concrete. Specialized equipment, experience, engineering and proper QC are essential to match the project performance criteria, such as UCS, fluidity and flow consistency.



## Step 3. Placement

The NSB is easily poured from the tailgate or through a concrete pump. Because the material is mixed on-site, service and production are tailored to the variables of the project. Any of the mixes can have color added. In roadway sections, the NSB can be placed up to the final grade and used as a temporary road surface pending the final pavement placement. QC measures includes spread tests for flow consistency and fluidity and production sample gathering for 28-day UCS confirmation.



Griffin Soil Group Corporate office:  
1556 Parkside Drive, Suite 110  
Walnut Creek, CA 94596

California Soil Stabilization Association

Phone (Office) (925) 862-2260  
Marc Kenner Marc@GriffinSoil.com  
Don Greb P.E. Don@GriffinSoil.com

Contractors License No. 791232



[www.GriffinSoilGroup.com](http://www.GriffinSoilGroup.com)