

#### SHANDONG WELLDONE ENVIRONMENTAL NEW MATERIALS CO.,LTD.

### **Construction tools**

The use of traditional road building machinery for construction machinery is to determine the number and selection according to the actual situation.

- ① Two smooth wheel rollers(above 18t roller) (vibratory roller, roller pressure machine);
- 2 4 excavators and 2 shovels;
- ③ 1 flat ground machine and 1 bulldozers;
- 4 1 stable soil mixing machines (mixing machinery above 80--90 horsepower);
- 5 pressure sprinkler vehicles.

### 5.3 Construction process

The concrete construction technology is as follows (picture for other sections of the construction, only for reference):

#### (1) Measurement and determination of construction section

The corresponding measuring instruments should be measured according to the coordinate method, and the roadside sideline should be released according to the roadbed design width. In order to ensure the effective compaction degree of the roadbed and the stability of the slope, when the roadside line is laid, the width of both sides shall be 20cm-40cm. Then the technicians accurately measure the leveling line, determine the elevation of the vertical and horizontal section, and mark the design side according to the design height. When we control the leveling height, we should take into account the loosening coefficient.

#### (2) Soil leveling

According to the amount of earthwork required in the construction stage, the soil is loosed, and the leveling is made according to the height and width measured. The method of leveling is generally used by artificial combination bulldozer. The soil with large particles is screened in advance for reserve.



SHANDONG WELLDONE ENVIRONMENTAL NEW MATERIALS CO.,LTD.



Soil leveling

# (3) Booth became lime, mixing (dry mix) Spread lime, mix (dry mix) - this step is only for sticky soil, ordinary soil can be without lime

In accordance with the proportioned proportions, the lime is evenly distributed in the divided square. There should be no blank position on the surface. The plane strives to be smooth. In the process of spreading, super size particles and other impurities should be picked up. Dry mix generally use a large horsepower tractor with engineering (hereinafter referred to as the rotary cultivator) by mixing again (also by road mixer mixing); small area can be artificial white.



Pelled cementitious material

Rotary mixing



Rotary mixing

Mix well



SHANDONG WELLDONE ENVIRONMENTAL NEW MATERIALS CO..LTD.

### (4) Spray curing agent, wet mix

A representative point is taken to test the water content, and the amount of water needed for the operation section is calculated accurately. Two times of spraying soil curing agent, for the first time with 45%, with mechanical mixing of not less than two times, and then sprayed 45% mix two times, reached the same color mixing, the remaining 10% of the water should be sprayed in seal after rolling.



A diluent curing agent

Mix well and mix 2 times

### (5) Mixing cloth cement, mixing

There should be no blank position on the surface of the cement in the divided square according to the proportioned proportions. The plane strives to be smooth. In the process of spreading, super size particles and other impurities should be picked up. Dry mix generally use a large horsepower tractor with engineering (hereinafter referred to as the rotary cultivator) by mixing again (also by road mixer mixing); small area can be artificial white.



Spreading cement

Mechanical mixing

(6) Initial pressure, leveling and rolling of solidified soil



### SHANDONG WELLDONE ENVIRONMENTAL NEW MATERIALS CO.,LTD.

When the mixture is evenly mixed, the bulldozer should be initially arranged and pressed, and the leveler is reformed. The leveling process for local low-lying areas, using the mixture of fresh Zhaobu for leveling, leveling avoid thin Zhaobu on a smooth plane.

Integer, the optimum water content of compacted, according to Lu Kuan, the roller wheel is different, making the corresponding rolling scheme. The 18T-22T vibratory roller is usually used to compact the solidified soil layer by the static pressure first. For the inconvenient area of the upper pressure road machine, the impact ramming can be used, the layer by layer is rammed, and the one layer is suitable for the thickness of 10cm.



Initial pressure, leveling and rolling of solidified soil

#### (7) Health care and traffic control

The solidified soil layer is rolled up every section, and the final 20% diluted agent is finished. After passing the compaction degree, it should immediately interrupt the traffic and start to cover the regimen, keep the road moist, and keep it for at least 7 days.



Spraying water and curing agent curing

Cover health



SHANDONG WELLDONE ENVIRONMENTAL NEW MATERIALS CO.,LTD.



After 7 days of maintenance

after the rain

### 5.4 Construction effect of solidified soil

(1)

The compressive strength of the pavement is obviously improved, and the hardening strength of the pavement rises fastest in 28 days, but the hardening time will continue to slow down until 90 days. As time goes on, the road strength will continue to grow.

(2)

Not afraid of water, also means not afraid of rainy days, heavy vehicles can still travel as usual. No longer affect the normal operation of the work to reduce unnecessary losses.

- (3) As the dust disappeared, the speed limit of the road on the non solidified soil could be improved.
- (4) When the cart out of the local mishap, the use of mixed soil to repair can be very convenient. In repair, a square pit is dug out of the lost road, which is 2/3 of the depth of the compacted depth, and can be repaired with a mixed soil. The mending can be made by a few tons of rollers or vehicles. You can no longer use roller large, otherwise it will damage the pavement.