

207-R-735 SUBGRADE

(Adopted 07-15-21)

The Standard Specifications are revised as follows:

SECTION 207, BEGIN LINE 9, DELETE AND INSERT AS FOLLOWS:

207.02 Materials

Materials shall be in accordance with the following:

~~Chemical Modifiers~~..... 215.02
 Coarse Aggregate, Class D or Higher,
 Size No. 5, 8, 43, 53, or 73..... 904.03
Fly Ash, Class C..... 901.02
 Geogrid, Type IB 918.05
 Geocell Confinement System ~~214~~918.04
Geotextile..... 918.02
 Geotextile *Properties* for Pavement
 and/or Subgrade Stabilizations..... 918.02(c)
Lime..... 913.04(b)
Portland Cement, Type 1..... 901.01(b)
 Water 913.01

Air-cooled blast furnace slag shall not be used for subgrade treatment Types ID, IV, and IVA.

Soil Property	Test Method	Requirements
Dry Weight Organic Material	AASHTO T 267	≤ 3%
Max Dry Density	AASHTO T 99	≥ 100 pcf
Liquid Limit	AASHTO T 89	≤ 50
Soluble Sulfate	ITM 510	≤ 1000 ppm
Note: Only soils meeting these requirements will be allowed within the specified thickness of the subgrade treatment in cut sections. Only soils meeting these requirements will be allowed within 24 in. of the finished subgrade elevation in fill sections.		

CONSTRUCTION REQUIREMENTS

207.03 Construction Requirements

(a) Subgrade Construction Methods

The subgrade shall be constructed uniformly transversely across the width of the pavement including shoulders or curbs unless shown otherwise on the plans, by one of the following methods:

1. chemical modification in accordance with 215;
2. aggregate No. 53 in accordance with 301;
3. ~~geogrid~~ *geosynthetic* in accordance with 214 placed under

coarse aggregate No. 53 in accordance with 301, or

- 4. soil compaction to 100% of maximum dry density;
- 5. ~~geotextile in accordance with 214 placed under aggregate No. 5, 8, and 53 in accordance with 301.~~

Longitudinally, the treatment may vary depending on the method of construction.

SECTION 207, BEGIN LINE 109, DELETE AND INSERT AS FOLLOWS:

207.05 Method of Measurement

Subgrade treatment will be measured in both cut and fill areas by the square yard per type. ~~Chemicals for soil modification using cement or lime, excavation, aggregates, geotextile, and geogrid materials will not be measured.~~

Geosynthetic specified for use in addition to that required for the specified subgrade treatment will be measured in accordance with 214.05.

The undercutting of rock, where encountered, will be measured in accordance with 203.27(b).

Testing, sampling, coarse aggregates, chemicals for modification, water, excavation, geogrid, geotextile, and geocell confining system for specified subgrade treatment types will not be measured.

207.06 Basis of Payment

The accepted quantities of subgrade treatment will be paid for at the contract unit price per square yard per type, complete in place. In areas where shallow utilities are encountered or the Contractor elects to use Type IC for Type IBC or Type IBL, payment will be made at the price of Type IBC or Type IBL.

The undercutting of rock, where encountered, will be paid for in accordance with 203.28.

Payment will be made under:

Pay Item	Pay Unit Symbol
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Subgrade Treatment, Type _____SYS
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The cost of subgrade treatments including testing, sampling, *coarse aggregates, chemicals for soil modification with cement or lime, water, excavation, geogrid, geotextile and geocell confinement system, coarse aggregate for Type IC, Type ID, Type II, Type IV, Type IVA, Type V, water, and the excavation required, specified subgrade treatment types* shall be included in the cost of the pay item.

The cost of excavation and grading of existing railroad ballast and railroad bed material shall be included in the cost of subgrade treatment, Type V.

Geosynthetic specified for use in addition to that required for the specified subgrade treatment will be paid for in accordance with 214.06.

Where conditions exist below the specified subgrade compaction depth that prevent achieving the specified compaction, payment for correcting such conditions will be made based on the directed method of treatment.
