

BuildingName  
The Description of the Project  
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SPECIFICATION DIVISION 31

NUMBER SECTION DESCRIPTION

DIVISION 31 EARTHWORK

SECTION 312323 - FILL

END OF CONTENTS TABLE



**DIVISION 31 EARTHWORK**  
**SECTION 312323 - FILL**

**PART 1 - GENERAL**

**THIS SECTION SPECIFIES ENGINEERED COMPACTED GRANULAR FILL MATERIAL. USE ONLY WHEN FILL MUST BE ENGINEERED, NOT FOR ORDINARY BELOW-SLAB USE.**

**1.1 SUMMARY**

- A. Extent of engineered granular fill indicated on drawings.
- B. Type of engineered granular fill is compacted sand and gravel, installed in layers and tested for compliance with requirements.

**1.2 QUALITY ASSURANCE**

- A. Employ an approved Geotechnical Testing Laboratory to evaluate and confirm compaction effort by testing for moisture content, and density of materials in place. For each 6 inch lift, test 6 locations at intervals not exceeding 25 feet. Immediately obtain test results, and re-compact and re-test areas not conforming to specified compaction requirements prior to placing additional fill materials.

**PART 2 - PRODUCTS**

**2.1 MATERIALS**

- A. Comply with the following Michigan Department of Transportation "1984 Standard Specifications for Construction" Section 8.02.06 for Granular Material Class I:
  - 1. Sieve Analysis: ASTM C 136
  - 2. Total Percent Passing - Dry Weights:
    - a. For 2-inch: 100 percent.
    - b. For 1/2-inch: 45-85 percent.
    - c. For No. 4: 20-85 percent.
    - d. For No. 30: 5-3 percent.
  - 3. Percent Loss by Washing - Dry Weights: ASTM C 117; 0-5 percent.
- B. Provide Granular Materials consisting of one, or any combination of, the following:
  - 1. Sand; gravel; crushed stone; foundry sand; iron blast-furnace slag; reverberatory-furnace slag.
  - 2. Provide foundry sand free of combustible materials and containing negligible quantities of iron.
- C. The following materials are not permitted:
  - 1. Cementitious shale.
  - 2. Crushed concrete.

**PART 3 - EXECUTION**

**3.1 PLACEMENT AND COMPACTION**

- A. Place fill materials in layers not exceeding 6 inches and compacted with portable pneumatic tampers and vibratory compactors to not less than 95 percent of maximum dry density as determined in accordance with ASTM D 1557 (modified Proctor).

**END OF SECTION 312323**