

Section 02714

FLEXIBLE BASE COURSE FOR TEMPORARY
DRIVEWAYS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Foundation course of crushed concrete or stone.

1.02 MEASUREMENT AND PAYMENT

A. UNIT PRICES

1. Measurement for flexible base course payment is on each driveway basis. To maintain access or temporary driveway, separate measurement will be made for each different type of driveway (residential, commercial, or custom properties) or as identified on the construction drawings.
 2. Payment limits for temporary driveways are based upon the width of the driveway access (not to exceed 12-feet for residential, 24-feet for commercial, or custom dimensioned properties) and the length from permanent or temporary roadway to the remaining permanent driveway or street right-of-way, as necessary to maintain access to properties.
 3. No separate payment will be made for flexible base course for temporary roads, detour pavements, and shoulder under this Section unless it is included as an extra unit bid and as approved for payment by the project manager. Flexible base course for temporary driveways or access if included under the extra unit bid item is on a cubic yard basis.
 4. Temporary driveways will be paid only once per driveway location shown to be replaced on the drawing and payment shall be made based upon actual installation.
 5. Refer to Section 01270 - Payment Procedures for unit price procedures.
- B. Stipulated Price (Lump Sum). If the Contract is a Stipulated Price Contract, payment for work in this Section is included in the total Stipulated Price.

1.03 REFERENCES

- A. ASTM D 1556 - Density of Soil in Place by the Sand-Cone Method.
- B. ASTM D 698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12.44 ft-lbf/ft³).
- C. ASTM D 2922 - Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
- D. ASTM D 361 - Test Method for Water Content of Soils and Rock in Place by Nuclear Methods (shallow depth).
- E. ASTM D 3017 - Test Method for Water Content of Soils and Rock in Place by Nuclear Methods.
- F. ASTM D 4318 - Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
- G. TxDOT Tex-101-E - Preparation of Soil and Flexible Base Materials for Testing.
- H. TxDOT Tex-110-E - Determination of Particle Size Analysis of Soils.

1.04 SUBMITTALS

- A. Submittals shall conform to requirements of Section 01330 - Submittals Procedures.
- B. Submit samples of flexible base course and soil binder for testing.

1.05 TESTS

- A. Tests and analysis of soil materials will be performed in accordance with ASTM C 131, ASTM D 698, ASTM D 4318, Tex-101-E, and Tex-110-E under provisions of Section 01454 - Testing Laboratory Services.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Provide materials from stockpiles that are protected during storage from contaminants that would be detrimental to the flexible base course.
- B. Load materials from same area of stockpile to maintain uniformity of each successive delivery to the project site.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Crushed Stone or Concrete: Material retained on the No. 40 sieve meeting the following requirements:
 - 1. Durable particles of crusher-run broken limestone, crushed concrete, crushed sandstone, or granite obtained from an approved source.
- B. Soil Binder: Material passing the No. 40 sieve meeting the following requirements when tested in accordance with ASTM D 4318:
 - 1. Maximum Liquid Limit: 40
 - 2. Maximum Plasticity Index: 12
 - 3. Maximum Lineal Shrinkage: 7 (when calculated from volumetric shrinkage at liquid limit).
- C. Mixed Materials shall meet the following requirements:
 - 1. Minimum compressive strength of 35 psi at 0 psi lateral pressure and 175 psi at 15 psi lateral pressure using triaxial testing procedures.
 - 2. Grading in accordance with Tex-101-E and Tex-110-E within the following limits:

Sieve	Percent Retained
1-3/4 inch	0 to 10
No. 4	45 to 75
No. 40	60 to 85

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify compacted subgrade is ready to support imposed loads.
- B. Verify lines and grades are correct.

3.02 PREPARATION

- A. Complete backfill of new utilities below future grade.
- B. Prepare subgrade in accordance with requirements of Section 02315 - Roadway Excavation or Sections 02336 - Lime Stabilized Subgrade and 02337 - Lime/Fly-ash Stabilized Subgrade.
- C. Correct subgrade deviations in excess of plus or minus 1/2 inch in cross section, or in 16 foot length by loosening, adding or removing material, reshaping and recompacting by sprinkling and rolling.
- D. Prepare sufficient subgrade in advance of base course operations.

3.03 PLACEMENT

- A. Spread and shape in lifts to compacted thickness not to exceed 6 inches in depth. Complete spreading, shaping, and compacting on same day material is deposited.
- B. Place base so that projecting reinforcing steel from curbs remain at approximate center of base. Secure a firm bond between reinforcement and base.
- C. Start rolling operations as soon as possible after placement. Use sheepfoot, steel, or pneumatic rollers as approved. Roll longitudinally with subgrade starting from sides. Overlap successive strips by one-half width of each rear wheel.
- D. Maintain moisture between optimum and 3 percent above optimum moisture.
- E. Compact to 95 percent of Proctor density in accordance with ASTM D 698, unless otherwise indicated on the Drawings.
- F. Finish to grade and compact lift before placing successive lift.
- G. Maintain shape by grading throughout operation.
- H. Provide total thickness indicated on Drawings.

3.04 TOLERANCES

- A. Completed surface shall be smooth and conform to typical section and established lines and grades.

3.05 FIELD QUALITY CONTROL

- A. Testing will be performed under provisions of Section 01454 - Testing Laboratory Services.
- B. Compaction Testing will be performed in accordance with ASTM D 698 or ASTM D 2922 and ASTM 3017 at a random location near each depth determination core. Rework and recompact areas that do not conform to compaction requirements.

3.06 PROTECTION

- A. Sprinkle to prevent excessive loss of moisture.
- B. Restrict construction traffic on finished base to equipment required to complete the work.

END OF SECTION