

INSTALLATION GUIDELINES – STRUCTURAL LIGHTWEIGHT FILL FOR BRIDGING EXISTING TREE ROOTS IN PAVED AREAS

PART 1 - GENERAL

- A. Provide Lightweight Aggregate that will meet the ASTM standards as Follows:**

3/4" Stalite Expanded Slate 100%

PART 2 - PRODUCTS

- A. 3/4" STALITE Rotary Kiln Expanded Slate**
1. ASTM C29 Unit Dry Weight loose (48 lb./cf to 55 lb./cf)
 2. ASTM C127 Specific Gravity to meet 1.45 to 1.60, SSD
 3. ASTM C330: ASTM Gradation 3/4" - #4 size
 4. Los Angeles Abrasion testing in accordance with ASTM C-131 modified method FM 1-T096. No more than 28% of the weight of the aggregate must be lost to degradation.
 5. The expanded slate must contain no clay lumps or any organic impurities.

Source; Carolina Stalite Company, Chuck Friedrich, RLA, ASLA 877-737-6284

PART 3 - EXECUTION

3.01 PREPARATION

A. GENERAL

1. The paving contractor shall obtain necessary approvals before placing each fill layer.
2. The paving contractor shall use adequate numbers of skilled workmen who are thoroughly trained in the necessary crafts and are completely familiar with the specified requirements and methods needed for proper performance of the work in this section.
3. The contractor must provide access for and cooperate with the testing laboratory.
4. Adequacy of the final compaction of all elements requiring compaction shall be determined in the field by the engineer by proof roll

B. PREPARING SUBGRADE

1. The subgrade shall be prepared according to these procedures:
 - a. Remove all organic matter, sod, debris, and large rocks.
 - b. Dig out soft and mucky spots without disturbing the roots.
 - c. Place woven geo-textile fabric or geo-grid as specified.

3.02 PLACING STRUCTURAL AGGREGATE BY PAVING CONTRACTOR

A. GENERAL

1. OPTIONAL: The soil vents and woven geo-tech fabric is optional, if specified, shall be placed according to specifications.
2. No equipment traffic will be allowed on the compacted material until the paving is in place.
3. If specified, the paving contractor shall lay the geo-tech fabric as shown on drawings, as recommended by the manufacturer, and protect fabric from construction traffic damage.
4. The fill shall be placed in approximately uniform lifts over the entire area of project and each lift compacted. Construction equipment, other than for compaction, shall not operate on the exposed root bridging aggregate. Over-compaction should be avoided.
5. Adequacy of the final compaction shall be determined in the field by the engineer by proof roll.
6. If specified, the drip irrigation system is to be installed and tested during the screenings laying course installation to avoid disturbing the compaction of the root bridge aggregate.

B. COMPACTING FOR PAVNG APPLICATION ONLY

1. Use of portable vibratory plate compacting machine or Vibratory roller (Recommended)
2. Place structural aggregate in horizontal lifts not exceeding 8-12 inches of compacted depth. Use a minimum of two passes, of not less than 10 seconds per pass, before moving the vibratory plate to the next adjacent location. Additional passes may be

required and should be determined in the field by the engineer to insure stability of the layer. Continue placing and compacting 12" lifts until the specified depth is reached.

3.03 PLACE ORGANIC MULCH AS SPECIFIED

3.04 PAVER INSTALLATION

1. Place filter fabric on root bridge material if dry laid pavers are specified. Install **Pavers** on 1"-2" depth coarse sand laying bed as per drawings and specifications.
2. No vehicles or heavy equipment are permitted on the compacted layer course until pavers are completely installed.

3.05 CONCRETE OR ASPHALT PLACEMENT

- A. Concrete may be placed directly on the compacted Stalite as specified.
- B. Asphalt may require a layer of ABC stone as a base course.

3.06 FOR PLACEMENT OF TURF SEE SECTION 02912