

ITEM 706.92

RESIN BOUND AGGREGATE SURFACING

SQUARE YARD

GENERAL

The work under this item shall consist of all labor, equipment, and materials necessary to construct the permeable resin bound aggregate surfacing. Work includes compacting a layer of permeable resin bound aggregate on a washed stone base at locations specified on the Plans or as required by the Engineer. Work under this item shall be in full compliance with the current requirements for installation of permeable resin bound aggregate surfacing as set forth by the approved manufacturer.

The Contractor's attention is directed to the fact that the materials, specifications, and the level of details for this work shall be strictly adhered to. The Contractor shall utilize the services of one of the subcontractors certified by the manufacturer to provide this service. If the Contractor decides to use a subcontractor not on this list, then the Contractor shall provide the name of the subcontractor to the City of Boston for approval by the manufacturer.

Work under this item shall be performed in accordance with the specifications of the manufacturer and/or the Plans.

MATERIALS

Resin bound porous surfacing consists of 6mm – 10mm aggregate, fully coated with two-part chemically curing, UV stable, flexible, crystal-clear resin, hand finished by trowel.

The Resin Bound Aggregate shall come from one of the following manufacturers, or approved equal:

1. Chameleon Ways Inc. PO Box 387, Center Valley, PA 18034. P. 877-426-5687 F. 610-797-4654 E. info@chameleonways.com
2. Solecol Inc, 195 Ile Belair Est, Rosemere, Quebec, J7A 1A8, Canada; Phone: (450) 433-0739; E-Mail: support@solecol.com; Website www.solecol.com
3. Soil Stabilization Products Company, Inc., (SSPCo), Merced, CA. (209) 383-3296 or (800) 523-9992.

Submittals

The Contractor shall submit product specifications and manufacturer's instructions in conformance with the details shown on the Plans for review and approval by the Engineer prior to ordering any material.

CONSTRUCTION METHODS

Preparation

Areas to receive aggregate bound surfacing system will be compacted and brought to subgrade elevation before work of this section is performed. Final fine grading, furnishing and installing washed stone base course, geotextile fabric, and aggregate bound

surfacing materials as required to form a firm, uniform, accurate, and unyielding paving at required elevations and to required lines, shall be done under this Item.

Examine site and verify that conditions are suitable to proceed with the aggregate bound surfacing system installation and that no visible defects or errors are present which would cause a defective installation of the system or cause latent defects in function.

Unsuitable Conditions: Before proceeding with work, notify the Engineer in writing of unsuitable conditions and conflicts.

Limitations

Aggregate bound surfacing system shall not be applied when it is raining or when rain is expected. Weather forecasts should indicate no rain during application procedures and for at least 24 hours following application. The ambient temperature must be above 60 degrees F for application of aggregate bound surfacing system unless otherwise approved in writing by the manufacturer.

Installation

After the area to receive the surfacing has been excavated and lightly compacted, a non-woven geotextile fabric shall be placed over the soil. Install a layer of crushed stone on top of the geotextile fabric and compact to achieve level and even finish. A layer of resin bound aggregate surfacing shall be placed on the crushed stone to meet the grade of the adjacent sidewalk.

At the base of trees, place a loose aggregate wedge utilizing the decorative aggregate used for the aggregate bound surfacing, funnel upwards to within 3/8 – 5/8 in. below the final expected finished grade.

Mix and install aggregate bound surfacing materials in strict accordance with manufacturer's printed instructions.

Tolerances and Field Quality Control

Grade requirements for ADA accessibility have priority over smoothness tolerances. In any place where the smoothness tolerance of the surface course conflicts with maintaining slope requirements governed by ADA accessible surface regulations, the ADA grade requirement supersedes the finished smoothness tolerance.

Finished Surface Smoothness:

1. Test pavement continuously following initial compaction for smoothness and correct profile by laying a 10-foot straightedge on the paving finished surface parallel to road or path centerline.
2. Surface shall not vary more than 3/8-inch (.375"), except at intersections, grade breaks, and tie-in points to adjacent pavements.
3. Correct areas not meeting specified surface tolerance immediately after initial compaction.

Course Thickness:

1. In-Place Compacted Thickness Variation from Design Thickness: Maximum 3/8-inch (.375") plus/minus 0-inch.

Protection

After work in this section is complete, the Contractor shall be responsible for protecting the resin bound aggregate surface from damage and/or contamination with mud, dirt, grass cuttings, accumulation of foliage and debris. If the Engineer deems that the resin bound aggregate has become contaminated, the Contractor shall pressure wash and vacuum the surface at their own expense.

Do not permit traffic on aggregate bound surface until curing is complete. Protect pavement surface against traffic until pavement has cured sufficiently to support traffic without marring, rutting, tearing, distressing, or damaging the pavement in any way. Utilize warning signs, barricades, and protection fencing to protect pavement from traffic. If the pavement structural section design and edge design are for pedestrian and bicycle traffic only, then restoration of traffic applies to pedestrian and bicycle traffic only. If the pavement structural section design and edge design are for light duty vehicular traffic use only, then restoration of traffic applies to light duty vehicular traffic only. All damage to the aggregate by Contractor will be the responsibility of the Contractor to repair at their own expense.

Provide drainage during construction to prevent water from collecting or standing on or adjacent to areas to be paved or areas of freshly placed resin bound aggregate.

Any landscape watering in the vicinity of the newly installed aggregate bound surfacing system during the traffic restriction period should be conducted by hand watering and timers for automatic sprinkler and watering systems should be shut off with explanatory written notices attached.

In the event of forecasted rain, newly installed aggregate bound surfacing shall be temporarily covered with plastic liner for protection as needed during the first 48 hours after placement. Liner must be placed so that the edges extend past the newly installed aggregate bound surfacing system by a minimum of twelve inches (12") on all sides and secured to prevent the liner from excessive movement and exposing the aggregate bound surfacing system until the return of dry weather and appropriate resin bound aggregate curing conditions.

Maintenance

The Contractor shall perform one cleaning of the resin bound aggregate surface with a vacuum sweeper after 120 days and before 150 days after date of Substantial Completion/Provisional Acceptance.

METHOD OF MEASUREMENT

Resin Bound Aggregate Surfacing will be measured for payment by the square yard, complete in place.

BASIS OF PAYMENT

Resin Bound Aggregate Surfacing will be paid for at the Contract unit price, per square yard, which price shall include all labor, materials, equipment, and incidental costs required to complete the work. No separate payment will be made for shaping and compacting of the sub-grade, formwork, furnishing and installing the resin bound aggregate surfacing, pressure washing, and vacuum sweeping, but all costs in connection therewith shall be included in the Contract unit price bid.

Washed stone base course will be paid for separately under Item 156.057, Washed No. 57 Stone.

Non-woven geotextile fabric will be paid for separately under Item 698.3, Non-woven Geotextile Fabric.