ARCHITECTURAL PAVERS - SITEWORK

1. General
   a. The purpose of this directive is to outline Fund procedures and requirements for the Consultant relative to the use and specifications of hardscape and architectural pavers for sitework. The objective is to achieve more lasting and trouble free installations of these materials in keeping with customary usage and maintenance procedures.

2. Policy
   a. It will be the policy of the Fund to allow the use of architectural pavers for walks, terraces and plazas only where there is minimum traffic or where snow removal is a low priority or unless otherwise stated in SUCF Site Programs.
   b. However in recognition that snow removal methods it may be necessary to design a hardscape area or paver which dictates a design which acknowledges traffic loadings. It is preferred that areas which anticipate radial turning movements (as opposed to straight) not be surfaced with pavers or other interlocking surfaces.
   c. Review standards as set forth by the manufacturer, the Interlocking Concrete Pavement Institute, and other reputable sources. Review such criteria and recommendations which the Fund and Campus.

3. Procedures
   a. When the Consultant anticipates the use of pavers, he shall submit circulation and snow removal diagrams as evidence of Campus coordination and material justification. This information shall be included in the Schematic Design Report and succeeding phase reports.
   b. Alternatives to the selection of hardscape surfaces should be reviewed including but not limited to brick pavers, concrete pavers, stamped concrete, stamped asphalt, flagstone and fieldstones.
4. Design Criteria
   
a. Influences

   (1) Because of the color, texture and richness of these materials they are desirable for accentuating and surfacing pedestrian routes and focal points. Accordingly, the surfaces are relatively flat (and thereby vulnerable to water absorption) and area utilized in areas have high pedestrian traffic which require immediate and positive snow removal.

   (2) It is due to these factors that the following occurrences must be anticipated:

      (a) Moisture collecting under the block or brick units mortar/mastic (if used) ultimately causes them to rise from freezing or to settle from erosion of subbase. Either situation will cause pedestrian hazards due to "trips" or iced depressions.

      (b) Regardless of whether a unit edge protrudes from freeze heaving or from uneven installation, it will ultimately catch on the front of a snow removal blade. This piece of equipment is standard on most campuses due to its versatility and efficiency. It cannot be assumed that the Campus has or should get special equipment for these operations.

      (c) Snow removal methods are more frequently requiring that hardscape designs be adequate to withstand vehicular traffic loadings. Turning movements tend to push pavers out of alignment.

b. Drainage

   (1) Hardscape designs must anticipate adequate inlets to collect surface drainage and provide for cross slopes promoting positive drainage. The ability to actually construct minimal sloes properly is limiting. As such, slopes of 0.5% minimum should be limited, with a minimum range of 1% - 1-1/2% as preferred.

   (2) Both spot elevations and contours must demonstrate positive drainage patterns. Layout lines and points should be coordinated with elevations.
c. Base Installation

(1) Where vehicles (including emergency and snow removal) and heavy pedestrian traffic are anticipated, brick/concrete pavers should be placed over a base of concrete or flexible asphalt base, including stabilization fabric and appropriate gravel subbase.

(2) Pavers, when set loose over sand, are easily extracted and thrown or carried off. Their use in locations where vehicular turning movements are expected or where vandalism is predictable should avoided.

(3) Brick/concrete pavers may be placed in a cement mortar setting bed if applicable. Interlocking brick pavers, because of their innate resistance to physical damage, may be placed in an asphalt setting bed with an adhesive.

(4) Utilization of a geotextile fabric is strongly recommended to prevent the migration of fines in to the granular subbase.

(5) Placement over asphalt with an adhesive or concrete is recommended. Placement of pavers on sand subbase is not permitted.

(6) Slabs supporting pavers must be tied to buildings (particularly at doorways), retaining walls, steps, etc. through the use of foundation seats (haunches) or dowel and sleeve joints.

(7) In large paved areas with numerous expansion joints, supporting slabs need to be interconnected to prevent setting.

(8) Joints between pavers should be limited to a maximum of 1/8" unless filled with the appropriate traffic-capable sealant.
d. Time of Installation

(1) A typical period of installation shall be between June 1 and October 1 with weather conditions dry and temperatures above 50° unless written permission from the Fund is obtained and special construction procedures are followed. The maximum compaction of setting bed and subbase cannot be obtained in freezing temperatures.