SECTION 602-0002 – PAVERS

602-0002.01  DESCRIPTION. This work shall consist of furnishing and placing brick, granite, concrete, or pervious pavers, or resetting existing pavers, as shown on the Plans and as directed by the Engineer.

The work under this section shall be performed in accordance with these provisions, the Plans, Section 203, Section 301, and Section 541.

602-0002.02  MATERIALS. Materials shall meet the requirements of the following subsections:

Crushed Gravel for Subbase 704.05

Pedestrian Paving Brick 705.01(c)

Vehicular Paving Brick 705.01(d)

Mortar, Type I 707.01(b)

Mortar, Type II 707.01(c)

(a) Pavers. Pavers shall be free from seams, cracks, chips, and other structural imperfections or flaws which would impair their structural integrity or appearance, and of a smooth but rustic appearance on at least one upward facing side. Pavers shall be the size and color shown on the Plans, of relatively uniform size and uniform color, matching other existing pavers in the project area if present. Representative samples shall be provided to the Engineer for approval prior to delivery to the required locations on the project.

(2) Granite Pavers. Granite pavers shall be new or unused previously and durable, free from shale, excess mica, scaling, or evidence of disintegration.

(3) Concrete Pavers. The concrete shall have a minimum compressive strength of 3,000 psi.

(4) Pervious Pavers. Concrete for pervious pavers shall meet the requirements of *ACI 522.1*.

(5) Brick Pavers. Brick used for pavers shall meet or exceed *ASTM C902* for pedestrian applications and *ASTM C1272*, Application PX for vehicular applications. The minimum compressive strength shall be 12,000 psi. Brick pavers shall have chamfered edges. The dimensional tolerance for length, width, and depth shall be 1/16-inch.

(b) Base for Pervious Pavers. Base for pervious pavers shall be clean, washed stone, free from lumps of clay and all deleterious substances. The material shall meet the gradation requirements of Table 602-0002.02A.

TABLE 602-0002.02A – GRADATION OF BASE FOR PERVIOUS PAVERS

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| Sieve Designation | Percentage by Mass (Weight) Passing Square Mesh Sieves |
| 1-1/2 inch (37.5 mm) | 100 |
| 1 inch (25.0 mm) | 95 – 100 |
| 1/2 inch (12.5 mm) | 25 – 80 |
| No. 4 (4.75 mm) | 0 – 10 |
| No. 8 (2.36 mm) | 0 – 5 |

(c) Bedding and Joint Filler Material for Pervious Pavers. Bedding and joint filler material for pervious pavers shall consist of clean washed, durable, uncoated particles, free from lumps of clay and all deleterious substances. The bedding and joint filler material shall meet the gradation requirements of Table 704.02B.

(d) Bedding and Joint Filler for Brick and Concrete Pavers. Bedding and joint filler material for brick and concrete pavers shall be Type II mortar. Prepared color conforming to *ASTM C150* shall be added such that the color of the bedding and joint filler material matches the color of the surrounding paver.

(e) Bedding and Joint Filler for Granite Pavers. Bedding and joint filler material for granite pavers shall be Type I mortar.

602-0002.03  CONSTRUCTION REQUIREMENTS.

(a) Excavation. Excavation shall be made to the required depth and to the width that will permit placing of base and setting beds as shown in the Plans. Excavation shall meet the requirements of Section 203 and shall be paid for under the appropriate excavation item. The wetting of the setting bed course material may be necessary to obtain the required 95% compaction.

(b) Base. Base shall be placed and compacted in accordance with the requirements of Section 301 to an elevation which will result in the top surface of the pavers being flush with the surrounding pavers, concrete, or soil.

(c) Protection of the Pavers. The pavers shall be stacked at the job site on pallets or suitable platforms that do not obstruct pedestrians or motorists and are protected from damage.

(d) Installation. Installation shall be performed in accordance with the Plans and the following requirements:

(1) The depth control base shall be set carefully to bring the pavers, when laid, to proper grade.

(2) The pavers shall be carefully placed by hand in straight courses with hand tight joints and a uniform top surface. Good alignment shall be kept, and the pattern shall be set in accordance with the Plans. Care shall be taken during the layout to minimize cutting.

(3) Cutting of the pavers may be necessary to accommodate field conditions and to achieve an accurate and consistent fit. If pavers need to be cut, the cut shall be made with a masonry saw. Pavers shall be free from stain, dirt, or dust after cutting. Paver units shall not be cut to a size smaller than one-third of a whole paver.

(4) No broken pavers shall be used. Cut pavers are not considered broken for these purposes.

(5) Installation shall be performed in one direction by building forward from previously installed pavers.

(6) For brick and concrete pavers, hand tight joints shall measure from 0 inches to a maximum of 1/4 inch. A dry mixture of the mortar shall be swept over the paver surface. The void shall be filled until the joints are within 1/8-inch of the top surface. The paver surface shall then be lightly fogged with water. Mortar stains that remain shall be cleaned.

(7) For granite pavers, hand tight joints shall measure from 0 inch to a maximum of 1/4 inch. Joints shall be filled with mortar. Excess mortar spilling out of the joints shall be thoroughly cleaned.

(8) For pervious pavers, hand tight joints shall measure from 3/8 inch to a maximum of 1/2 inch. The joints shall be filled with bedding material.

(e) Tolerances. Loose or uneven pavers with greater than a 1/4-inch difference in elevation to the adjacent pavers shall be tamped or removed and reset as required to attain a level surface.

602-0002.04  METHOD OF MEASUREMENT. The quantity of Brick Pavers, Granite Pavers, Concrete Pavers, and Pervious Pavers to be measured for payment will be the number of square yards placed in the complete and accepted work.

602-0002.05  BASIS OF PAYMENT. The accepted quantity of Brick Pavers, Granite Pavers, Concrete Pavers, and Pervious Pavers will be paid for at the contract unit price per square yard. Payment will be full compensation for transporting, handling, and placing the material specified, including subbase, pavers, and mortar; replacing pavers damaged through no fault of the Contractor; cleaning the completed surface as required; and for all labor, materials, tools, equipment, and incidentals necessary to complete the work.

The Contractor shall be responsible for replacing, at no additional cost to the Agency, any pavers that are broken or otherwise damaged by the Contractor’s operations.

Payment will be made under:

Pay Item Pay Unit

602.2500002 Brick Pavers Square Yard

602.2500003 Granite Pavers Square Yard

602.2500004 Concrete Pavers Square Yard

602.2500005 Pervious Pavers Square Yard