

CITY OF MEMPHIS – STANDARD CONSTRUCTION SPECIFICATIONS
SECTION 02740 FLEXIBLE PAVEMENT-DOUBLE SURFACE TREATMENT PAVEMENT

PART 1 – SCOPE

This work shall consist of a bituminous mat composed of mineral aggregate bonded with bituminous material. It shall be constructed on a designated surface in accordance with these Specifications and in conformity with the lines, grades, and cross-sections indicated on the Plans or directed by the Owner.

PART 2 – MATERIALS AND EQUIPMENT

2.01 MATERIALS.

A. Asphalt Cement. Asphalt cement used for this construction shall be cutback asphalt grade RC-800 or as directed by the Owner if this grade is not available. RC-800 asphalt shall be applied between 175° F and 250° F.

B. Aggregate. Aggregate shall be crushed limestone meeting the following gradation requirements:

Percent Passing by Weight

<u>Sieve Size</u>	<u>Mat</u>	<u>Seal</u>
1"	100	-----
¾"	90 - 100	100
½"	20 - 55	90 - 100
3/8"	0 - 15	40 - 70
No. 4	0 - 5	0 - 15
No. 8	----	0 - 5

C. Alternate Materials. The Owner will designate the alternate grade (s) of bituminous material and mineral aggregate within the limits on the Plans.

2.02 EQUIPMENT.

All equipment necessary for the satisfactory performance of this construction shall be on the Project and approved before work will be permitted to begin. The equipment shall include a power broom, a pressure distributor so designed that bituminous material at even heat may be uniformly applied at controlled widths up to 15 feet at readily controlled rates from 0.05 to 2.0 gallons per square yard with an allowable variation from any specified rate of plus or minus 0.02 gallons per square yard, self-propelled pneumatic tire and steel wheel rollers, aggregate spreading equipment that can be adjusted to spread accurately at the specified rate, and such other equipment and small tools as may be required to perform the work in a satisfactory manner.

PART 3 – CONSTRUCTION REQUIREMENTS

3.01 LIMITATIONS

Bituminous material shall be applied only when the designated surface is dry, firm, and properly cured, and only when the air temperature in the shade away from artificial heat is above 60° F.

3.02 PREPARATION OF DESIGNATED SURFACE

The designated surface upon which double surface treatment pavement is to be constructed shall meet the applicable requirements of Section 02710.4 of these Specifications. The surface shall be thoroughly cleaned of all dirt and other foreign or loose matter prior to the first application of bituminous material. All holes and surface irregularities shall be filled as directed well in advance of the construction.

3.03 MANHOLE ADJUSTMENTS

Drainage and sanitary sewer manholes owned by the City shall be adjusted and set at final grade by the Contractor as necessary for compliance with the Plans. Adjustments of City owned manholes shall be as specified in Section 02532 or 02634 (sewer or drain) of these Specifications. Manholes, valve boxes, and other utility structures not owned by the City but within the right-of-way of the project shall be adjusted as necessary by the owner of such facilities. The Contractor shall be responsible for notifying other owners

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of any required adjustments and for the accomplishment of that work by the owner of such facilities according to the project schedule.

3.04 APPLICATION OF BITUMINOUS MATERIAL AND MINERAL AGGREGATE

A. The first application of bituminous material shall be applied by a pressure distributor at a uniform rate of between 0.38 and 0.42 gallons per square yard. The definite rate will be established by the Owner. Beginning and ending areas and areas which are inaccessible to the distributor shall be treated by hand as the Owner may direct.

B. Immediately after the application of bituminous material has been made, it shall be uniformly covered with mat aggregate as specified in Paragraph 2.01 B. of this Specification Section. The aggregate shall be reasonably free of surface moisture. The aggregate shall be spread from trucks equipped with mechanical spreaders at a rate of between 20 and 40 pounds per square yard, as established by the Owner.

C. The second application of bituminous material shall be applied in the same manner as for the first application at a uniform rate of between 0.30 and 0.35 gallons per square yard. The definite rate will be established by the Owner.

D. Seal aggregate as specified in Paragraph 2.01 B. of this Specification Section shall then be spread in the same manner as for the first spread at a rate of between 20 and 25 pounds per square yard, as established by the Owner.

3.05 ROLLING AND CURING

A. Immediately after spreading and brooming the first spread of aggregate, the entire area shall be rolled, beginning at the edges and progressing to the center. Rolling shall begin within 30 minutes after the aggregate has been spread. The initial rolling shall be done with steel-wheel rollers, followed by pneumatic-tire rolling. The amount and sequence of rolling shall be as directed by the Owner.

B. The first application of bituminous material and aggregate shall be allowed to cure for such length of time as deemed necessary by the Owner before the second application is begun. Immediately before the second application of bituminous material, the surface shall be rolled with a steel-wheel roller.

C. The same rolling and curing procedures required in the first application of bituminous material and aggregate shall apply for the second application.

3.06 TRAFFIC AND MAINTENANCE

The Owner will determine when the pavement has cured sufficiently to allow construction equipment, slow moving local traffic, or normal traffic to use the completed surface.

3.07 FINAL CLEANUP

Final cleanup shall include sweeping up all excessive quantities of loose cover aggregate and disposing of this material as directed.

PART 4 – MEASUREMENT

4.01 DOUBLE SURFACE TREATMENT PAVEMENT

Double surface treatment pavement will be measured for payment by the square yard, complete in place.

4.02 GENERAL

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Manhole adjustments will be measured and paid for in accordance with Specification Section 02532 (sewer), Payment Item 02532-01 or Specification Section 02634 (drain), Payment Item 02634-01.

PART 5 – PAYMENT

5.01 DOUBLE SURFACE TREATMENT PAVEMENT

Double surface treatment pavement will be paid for at the contract unit price per square yard, which price will be full compensation for furnishing and placing all materials, spreading and rolling, cleaning up and maintaining surface until final acceptance, complete in place.

5.02 PAYMENT WILL BE MADE UNDER:

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02740.1-01	Double Surface Treatment Pavement	Square Yard

END OF SECTION 02740