GRANULAR SURFACING

PART 1 - GENERAL

1.01 SECTION INCLUDES

Granular Surfacing

1.02 DESCRIPTION OF WORK

Includes the requirements for construction of granular surfacing on a prepared subgrade. Section applies to new construction, resurfacing of previously surfaced streets, and repairs of trenching across.

1.03 SUBMITTALS

Comply with Division 1 - General Provisions and Covenants, as well as the following:

Aggregate gradation results and plasticity index (PI) for the proposed source.

1.04 SUBSTITUTIONS

Comply with Division 1 - General Provisions and Covenants, as well as the following:

Crushed PCC or RAP may be substituted for crushed stone if allowed by the Engineer and meeting graduation requirements.

1.05 DELIVERY, STORAGE, AND HANDLING

Comply with Division 1 - General Provisions and Covenants, as well as the following:

A. Aggregate Storage: Prevent segregation and contamination of shoulder aggregate; stockpile on firm, drained pads; and manage moisture to achieve target compaction without pumping.

B. Salvaged or Reclaimed Materials: The Contractor is responsible for obtaining the classification from an outside testing firm using the same tests as the Iowa DOT.

C. Disposal: Dispose of excess aggregate material according to applicable local, state, and federal regulations in a manner that does not cause damage or harm to adjacent properties or public facilities.

1.06 SCHEDULING AND CONFLICTS

Comply with Division 1 - General Provisions and Covenants.

1.07 SPECIAL REQUIREMENTS

None.

1.08 MEASUREMENT AND PAYMENT

A. Granular Shouldering:

1. **Measurement:** Measurement will be in tons for the width and depth of granular surfacing material placed. Measurement will be based on the scale tickets for the material delivered and incorporated into the project.

2. **Payment:** Payment will be at the unit price per ton for the granular surfacing material.

3. **Includes:** Unit price include, but is not limited to, proportioning and mixing material on site; prewetting, placing, shaping, and compacting the material; trimming and removing waste; and reworking to achieve tolerances.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Class A: Comply with Iowa DOT Article 4120.04.

B. Class C: Comply with Iowa DOT Article 4120.03.

C. Recycled Aggregate Options: Use only when specified in the contract documents or allowed by the Jurisdictional Engineer. Comply with Iowa DOT Article 4120.02. for crushed PCC, RAP, or crushed composite HMA+PCC; uniformly blend with crushed stone. Limit recycled materials to ≤30% (new construction) or ≤50% (existing granular shoulder reconstruction).

PART 3 - EXECUTION

3.01 PREPARATION

Prepare subgrade according to Section 2010, 3.06.

3.02 PLACEMENT AND SPREADING

A. Verify aggregate is at appropriate moisture to achieve required compaction. If using Class A material when more than one aggregate is to be combined, mix the aggregates before delivery to the road. Except as allowed in Iowa DOT Article 2121.03, A, 2, premix aggregate with sufficient water to ensure all particles are uniformly wetted.

B. Place granular surfacing material on the subgrade in uniform windrows using a motor grader.

C. Spread and compact the granular surfacing material to the width and thickness specified in the contract documents. If the subgrade CBR is less than 5, additional thickness or stabilization may be required.

3.04 COMPACTION

A. Consolidate under traffic unless the contract documents require roller compaction; maintain blading/shaping to keep the surface stable during consolidation.

B. When compaction is specified, compact in thin lifts using appropriate moisture conditioning to achieve a dense surface free of pumping and laminations. The tolerance for width of the completed surface is + 1 foot unless otherwise specified.

C. Maintain the required moisture content in the granular surfacing material until it has been satisfactorily spread, compacted, and finished to the required dimensions.

3.05 SHAPING AND FINISHING

A. Establish and maintain the roadway crown and cross slope not less than 4% but should not exceed 6%, ensuring water sheds off the traveled way; verify with slope meter or template.

B. Finish to a smooth, tightly bound surface free of segregation, potholes, loose windrows, or edge drop-off at shoulders/entrances.

C. Acceptance requires a uniformly dense, well-drained shoulder surface free of segregation, rutting > 1/2 inch; correct deficiencies by reshaping, adding material, moisture conditioning, and recompacting.

END OF SECTION