SECTION 31 11 00

AGGREGATE MATERIALS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Aggregate subbase material for concrete pavement, bluestone pavement, concrete unit pavers, and brick pavement.

B. Drainage stone.

C. Utility pipe bedding and backfill.

D. Stabilization and Filtration Geotextiles.

E. Cobblestones for the cobblestone/concrete gutter.

F. Stone Mulch.

G. Polymeric Sand Setting Bed.

1.02 RELATED SECTIONS

A. Section 31 2200 – Earthwork and Site Grading.

1.03 REFERENCES

A. NYSDOT Standard Specifications (latest edition), Section 300 - Bases and Subbases, Section 703 - Aggregates.

B. AASHTO - M147 - Materials for Aggregate and Soil-Aggregate.

C. ASTM C136 - Method for Sieve Analysis of Fine and Coarse Aggregates.

D. ASTM D2487 - Classification of Soils for Engineering Purposes

1.04 SUBMITTALS FOR REVIEW

A. Submit gradation and material analysis for ALL types of aggregate materials to Director's Representative, for approval prior to ordering or delivering to site.

B. Materials Source: Submit name of imported materials suppliers to Director's Representative.

1.05 QUALITY ASSURANCE

A. Perform work in accordance with applicable state and local standards.

PART 2 PRODUCTS

2.01 COARSE AGGREGATE MATERIALS

A. Aggregate sub-base material and trench backfill: Properly graded, non-frost susceptible, crushed stone mixture, NYSDOT type 2, item 304.12 and conforming to the following gradation requirements:

Sieve Size	Percent Passing
2"	100
1/4"	30-65
#40	5-40
#200	0-10

B. Utility pipe bedding stone, initial backfill and #2 drainage stone: Properly graded, non-frost susceptible crushed stone mixture, NYSDOT size designation 2, table 703-4

crushed stone conforming to NYSDOT 703-02 Requirements.

C. #1 Drainage Stone: Properly graded, non-frost susceptible crushed stone mix, NYSDOT size designation 1, table 703-4 and conforming to the following gradation requirements:

Sieve Size	Percent Passing
1”	100
1/2”	90-100
1/4”	0-15
#200	0-1.0

D. Stabilized Construction Entrance: Properly graded, non-frost susceptible crushed stone mix, NYSDOT size designation 4, table 703-4.

E. Cobblestones: Properly graded, non-frost susceptible rounded stones, approximately 3” in length, color and size to match existing cobblestone/concrete gutter.

F. Stone Mulch: 3” – 4” diameter, rounded, washed, river stone, decorative color: Brown

2.02 FINE AGGREGATE MATERIALS

A. Sand: Natural river or bank sand, free of silt, clay, loam, friable or soluble materials and organic matter; graded within the following limits:

Sieve Size	Percent Passing
3/8”	100
1/4”	90-100
1/8”	75-100
1/16”	50-85
#50 mesh	25-60
#100 mesh	10-30
#200 mesh	1-10

B. Polymeric Sand: Polybind Complete G2 Polymeric Sand or equal.

1. ASTM C144 gradation
2. OSHA cristalline silica compliant (OSHA 29 CFR 1926.1153)
3. No dust; haze free; no blower required; one watering.
4. Rain safe in 15 minutes.
5. Applicable for joints up to 4” in drainage applications and 2” in non-drainage applications.
6. Color: Oxford Grey.

2.03 FILTRATION GEOTEXTILE

A. Filtration Geotextile: Non-biodegradable, high modulus woven polypropylene fabric that is inert to naturally encountered chemicals, alkalies and acids. Fabric shall be Mirafi 160N, or approved equal.

2.04 STABILIZATION GEOTEXTILE

A. Stabilization Geotextile: Non-biodegradable, high modulus woven polypropylene fabric that is inert to naturally encountered chemicals, alkalies and acids. Fabric shall be Mirafi 500X, or approved equal.

2.05 SOURCE QUALITY CONTROL

A. Perform testing and analysis of aggregate materials in accordance with ASTM C136.

B. If tests indicate materials do not meet specified requirements, change material or material source and retest.

C. Provide materials of each type from same source throughout the work.

PART 3 EXECUTION

3.01 STOCKPILING

A. Stockpile materials on site as needed at locations designated by the Director's Representative.

B. Stockpile in sufficient quantities to meet Project schedule and requirements.

C. Separate differing materials with dividers or stockpile apart to prevent mixing.

D. Direct surface water away from stockpile site so as to prevent erosion or deterioration of materials.

E. Stock piles may not be placed within drip lines of trees nor of such a height to degrade the soil.

3.02 STOCKPILE CLEANUP

A. Prevent free standing surface water.

END OF SECTION