

1 Make the following section a part of the Standard Specifications:
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3 **"SECTION 321 – HEXAGONAL, TRAPEZOIDAL, AND TRIANGULAR GEOGRID**
4

5 **321.01 Description.** This section describes furnishing and placing Hexagonal,
6 Trapezoidal, and Triangular geogrid over geotextile fabric on soft subgrades.
7

8 **321.02 Materials.**
9

10 Geotextiles for Permeable Separator Applications

716.02

11
12 **(A) Materials.** Unless otherwise indicated in the contract documents, geogrid
13 shall be manufactured from a coextruded, composite polymer sheet, which is
14 then punched and oriented. The resulting structure consists of continuous and
15 non-continuous ribs forming three aperture geometries (hexagonal, trapezoidal,
16 and triangle) and an unimpeded suspended hexagon.
17

18 Geogrid material shall meet the following material requirements.
19

- 20 • Aperture shape: Hexagonal, Trapezoid, and Triangular
- 21 • Structure: Coextruded & Integrally Formed
- 22 • Rib Shape: Rectangular
- 23 • Continuous parallel rib pitch = 3.2 inches
- 24 • Rib Aspect Ratio > 1
- 25 • Node thickness = 0.18 inch
- 26 • Color identification: White / Black / White
27

28 **321.03 Construction.**
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30 **(A) Site Preparation.** Place geotextile over soft subgrade.
31

32 **(B) Installation.** Unroll geogrid smoothly on geotextile fabric in longitudinal
33 direction. Do not drag geogrid. Remove wrinkles and folds by stretching and anchoring.
34 Overlap adjacent rolls of geogrid along the sides and ends a minimum of 1 foot.
35

36 **(C) Geogrid Placement.** Hold geogrid in place by pins, staples, or piles of
37 aggregate base course material. On curves, cut geogrid to conform to curve, with
38 appropriate overlap. Install overlap in direction of aggregate base course material
39 placement.
40

41 **(D) Aggregate Subbase or Aggregate Base Course Material.** Deposit
42 Aggregate Subbase and Aggregate Base Course over the geogrid.
43

44 **(E) Geogrid Acceptance.** The manufacturer's certificate of compliance and
45 certified test results on the product, tested within six months of the submittal date shall
46 be submitted for approval. Additionally, the following shall be included in the submittal:
47

(1) Manufacturer's name, current address, and telephone number.

(2) Manufacturer's current Quality Assurance / Quality Control Manual.

(3) Full product name by trademark and product number.

(4) Geogrid polymer type(s).

(5) Recommended overlap.

(6) Six square yards of geogrid sample. Geogrid sample shall conform to requirements of Subsection 321.03(F) - Sampling.

(F) Sampling. Sampling shall be in accordance with ASTM D4354.

(G) Physical Properties. Physical property values in these specifications represent minimum average roll values (MARV) and are included for Quality Assurance purposes only. Average test results for any individual roll tested within a lot sampled shall meet or exceed specified values.

(H) Packaging. Geogrids shall be provided in roll form of length and width to meet requirements.

(I) Identification. Unless otherwise indicated in the contract documents, geogrid shall be identified in accordance with ASTM D4873 and this subsection. Include the following information:

(1) Unique roll number serially designated.

(2) Manufacturer's lot number or control numbers.

(3) Name of geogrid manufacturer.

(4) Date of manufacture.

(5) Product brand name.

(6) Manufacturer's style or catalog designation of the geogrid.

(7) Roll width, in feet.

(8) Roll length, in feet.

(9) Net weight of geogrid.

(J) Storage and Handling. Geogrids shall be stored and handled in accordance with ASTM D4873 and this subsection. During shipment and storage, material shall not be exposed to sunlight or other forms of light that contain ultraviolet rays for more than 6 months.

321.04 Measurement. The Engineer will measure geogrid on a Force Account basis, in accordance with Subsection 109.06 – Force Account and Compensation.

The Engineer will not measure geotextile fabric for installation of geogrid.

321.05 Payment. The Engineer will pay for the accepted geogrid on a Force Account basis. Payment will be full compensation for the work prescribed in this section and the contract documents.

The Engineer will not pay for geotextile fabric for the installation of geogrid separately. The Engineer will consider it incidental to Item No. 321.0100 Hexagonal, Trapezoidal, and Triangular Geogrid.

The Engineer will pay for the following pay item when included in the proposal schedule:

Pay Item	Pay Unit
Hexagonal, Trapezoidal, and Triangular Geogrid	Force Account

An estimated amount of force account is allocated in the proposal schedule under 'Hexagonal, Trapezoidal, and Triangular Geogrid', but the actual amount to be paid will be the sum shown on the accepted force account records, whether this sum be more or less than estimated amount allocated in proposal schedule."

END OF SECTION 321