PART 1 GENERAL

1.1 SECTION INCLUDES
A. Composite decking.

1.2 RELATED SECTIONS
A. Section 06-1100 - Wood Framing.

1.3 REFERENCES
1.4 DESIGN / PERFORMANCE REQUIREMENTS

A. Structural Performance:
   1. Deck: Uniform Load: 100 lb/sq. ft.
   2. Treads of Stairs: Concentrated Load: 750 lb/sq. ft., and 1/8” max. deflection with a concentrated load of 300 lb on area of 4 sq. in.

B. Fire-Test-Response Characteristics per ASTM E-84:

1.5 SUBMITTALS

A. Product Data: Indicate sizes, profiles, surface style, and performance characteristics.

B. Samples: For each product specified, one sample, minimum size 4 inches long, representing actual product, color, and finish.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Storage and Handling:
   1. Never dump TimberTech materials when unloading.
   2. Store on a flat surface and cover with non-translucent material.
   3. When carrying TimberTech planks, carry on edge for better support.
   4. Refer to installation instructions for additional guidelines on each product.

1.7 WARRANTY

A. Warranty: Limited Residential Warranty against rot, decay, splitting, checking, splintering, or termite damage for a period of 25 years beginning from date of purchase under normal conditions of use and exposure.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Contract Documents are based on products by: TimberTech Limited, 894 Prairie Avenue, Wilmington, Ohio 45177.

B. Substitutions: Not permitted under Division 01.

2.2 APPLICATIONS/SCOPE

A. Wood/Plastic Composite Lumber:
   1. Material Description: Composite plank consisting of high density polyethylene (HDPE) and wood flour, extruded into sizes and shapes indicated with the following physical properties:
      a. ValuPlank, Earthwood, and TwinFinish Decking Boards: 1 inch x 5-7/16 -inches wide.
      1) Lengths-12, 16, and 20 feet.
b. Color:
   1) ValuPlank- Cedar and Grey.
      a) Surface texture-Brushed
      b) Edges are Smooth for face fastening
   2) Earthwood- Tropical Rosewood, Tropical Teak, and Tropical Walnut.
      a) Surface texture- One side serrated, one side embossed
      b) Edges are Smooth for face fastening, or Grooved for CONCEALoc.
   3) TwinFinish- Grey, Cedar, and Rosewood.
      a) Surface texture- One side brushed, one side embossed
      b) Edges are Smooth for face fastening, or Grooved for CONCEALoc.

c. Specific Gravity: 1.2 g/cu. cm. when tested in accordance with ASTM D-792.

d. Flexural Properties when tested in accordance with ASTM D-6109:
   1) Modulus of Elasticity (MOE): 542,200 psi.- Ultimate
   2) Modulus of Rupture (MOR): 3157 psi.- Ultimate

   Floorizon Plank
   1) Flexural Stiffness 426,508 lb in²
   2) Moment Capacity 3157 in lb

e. Hardness when tested in accordance with ASTM D-143: 225 lb (101.25 kg).

f. Water Absorption when tested in accordance with ASTM D-1037, %vol. <1.35%, %mass <1.29%.


g. Flame Spread Index when tested in accordance with ASTM E-84: 75

h. Direct Screw Withdrawal Force when tested in accordance with ASTM D-1761: 787 lbs/in.

i. Slip resistance when tested in accordance with ASTM F-1679:
   1) Vertigrain Dry: 0.63 Wet: 0.55
   2) Brushed Dry: 0.77 Wet: 0.56
   3) Woodgrain Dry: 0.54 Wet: 0.43

j. Smoke Development when tested in accordance with ASTM E-84, 200.

k. Flash Ignition Temperature when tested in accordance with ASTM D-1929, 651 degrees F.

l. Spontaneous Ignition Temperature when tested in accordance with ASTM D-1929, 788 degrees F.

m. Coefficient of Linear Thermal Expansion when tested in accordance with ASTM D-696: length 2.0x10^{-5} in/in/°F, width 3.4x10^{-5} in/in/°F.

n. Fungus Resistance (Brown/White Rot Fungus) when tested in accordance with ASTM D-1413: No decay.

2.3 ACCESSORIES

A. Fasteners:
   a. Concealed Fasteners: CONCEALoc hidden fasteners
   b. Screws: No. 8, 2-1/2 inch stainless steel or high quality coated composite deck screws.

PART 3 EXECUTION
3.1 EXAMINATION
   A. Install according to manufacturers instructions.
   B. Cut, drill, and rout using carbide tipped blades.
   C. Pre-drill holes located closer than 1 1/2 inches from ends of plank.
   D. Cut ends square.
   E. Do not use composite wood material for structural applications.

3.2 CLEANING
   A. Clean surfaces regularly with a composite wood/plastic cleaner such as Corte Clean (www.corteclean.com).
   B. Power wash with a fan tipped nozzle in the direction of the grain of the planks with a maximum of 1500 psi.

END OF SECTION