SECTION 06446

ARCHITECTURAL POLYMER COMPOSITE COLUMNS

For best results, display hidden notes to specifier.

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Round columns, caps, and bases.

B. Square columns, caps, and bases.

C. Materials for column installation.

1.2 RELATED SECTIONS

A. Section 06100 - Rough Carpentry: Wood framing.

B. Section 06441 - Architectural Wood Columns.

1.3 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

C. Shop Drawings: For custom products, show dimensions, configuration, and anchorages.

D. Selection Samples: Two complete sets of color photographs representing manufacturer's full range of available materials and styles.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.5 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.6 WARRANTY

A. Free from defects in material and workmanship for "lifetime" of ownership. Installation must be per manufacturer's guidelines. "Lifetime" means "as long as purchaser of column owns the structure to which column is attached".

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: HB&G; P.O. Box 589, Troy, AL 36081. ASD. Tel: (334) 566-5000. Fax: (334) 566-4629. Email: architectural@hbgcompanies.com Web: www.hbgcolumns.com

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 GENERAL

A. Columns: HB&G PermaCast (tm) load-bearing columns; fiber-reinforced polymer composite; weatherproof, insect-proof, and highly durable.

B. Decorative Capitals and Bases: To fit over shaft through center of capital and base without affecting height of the column, except for "ornate" styles of capitals for round columns.

2.3 ROUND COLUMNS

A. Round Columns:
1. Height: 6 feet (1829 mm).
2. Height: 8 feet (3048 mm).
3. Height: 9 feet (2743 mm).
4. Height: 10 feet (3048 mm).
5. Height: 12 feet (3658 mm).
6. Height: 14 feet (4267 mm).
7. Height: 16 feet (4877 mm).
8. Height: 18 feet (5486 mm).
9. Height: 20 feet (6096 mm).
10. Height: 22 feet (6706 mm).
11. Height: 24 feet (7315 mm).
12. Height: 26 feet (7925 mm).
13. Height: 28 feet (8534 mm).
14. Height: 30 feet (9144 mm).
15. Size: 6 inches (152 mm) diameter; load limit: 8,000 pounds (3629 kg) per column.
16. Size: 8 inches (203 mm) diameter; load limit: 10,000 pounds (4536 kg) per column.
17. Size: 10 inches (254 mm) diameter; load limit: 14,000 pounds (6350 kg) per column.
18. Size: 12 inches (305 mm) diameter; load limit: 18,000 pounds (8165 kg) per column.
19. Size: 14 inches (356 mm) diameter; load limit: 20,000 pounds (9072 kg) per column.
20. Size: 16 inches (406 mm) diameter; load limit: 20,000 pounds (9072 kg) per column.
21. Size: 18 inches (457 mm) diameter; load limit: 20,000 pounds (9072 kg) per column.

22. Size: 22 inches (559 mm) diameter; load limit: 20,000 pounds (9072 kg) per column.
23. Size: 24 inches (610 mm) diameter; load limit: 20,000 pounds (9072 kg) per column.
24. Size: 30 inches (762 mm) diameter; load limit: 20,000 pounds (9072 kg) per column.
25. Tapering: One-third, two-thirds entasis.
26. Texture: Smooth.
27. Texture: Fluted.
28. Split Columns: 3/4 column (corner column), and half column (wall column), where indicated.

B. Capitals and Bases:
1. Capital: Colonial.
2. Capital: Tuscan.
3. Capital: Roman Ionic.
4. Capital: Greek Ionic.
5. Capital: Temple of the Winds.
6. Capital: Roman Corinthian.
7. Capital: Scamozzi.
8. Base: Colonial.
9. Base: Tuscan.
10. Base: Attic, torus and plinth.
11. Base: Attic, torus only.
12. Base: Tuscan, fiberglass.
13. Split Columns: Provide split capitals and bases to match.

2.4 SQUARE COLUMNS

A. Column Size
1. Height: 6 feet (1829 mm).
2. Height: 8 feet (2438 mm).
3. Height: 10 feet (3048 mm).
4. Height: 12 feet (3658 mm).
5. Height: 14 feet (4267 mm).
6. Height: 16 feet (4877 mm).
7. Height: 18 feet (5486 mm).
8. Height: 20 feet (6096 mm).
9. Size: 6 inches (152 mm) square.
10. Size: 8 inches (203 mm) square.
11. Size: 10 inches (254 mm) square.
12. Size: 12 inches (305 mm) square.
13. Size: 16 inches (406 mm) square.
14. Texture: Smooth.
15. Texture: Fluted.
16. Split Columns: 3/4 column (corner column), and half column (wall column), where indicated.

B. Capitals and Bases:
1. Capital: Colonial.
2. Capital: Tuscan.
3. Capital: Roman Ionic.
4. Capital: Scamozzi.
5. Capital: Greek Ionic.
6. Capital: Temple of the Winds.
7. Capital: Roman Corinthian.
8. Bases: Tuscan.
9. Bases: Attic, torus and plinth.
10. Bases: Attic, torus only.

11. Split Columns: Provide split capitals and bases to match.

2.5 ACCESSORY MATERIALS

A. Construction Adhesive: Non-acetone based exterior grade.
   1. Use at top and bottom of shaft.
   2. Use at top of cap and bottom of base prior to nailing or screwing to soffit and substrate.
   3. Use to affix neck molding to shaft of square columns, prior to screwing or nailing the molding in place.

B. Caulk: Use to cover holes of nails or screws in molding for square columns.

C. Molding for Columns:
   1. 1/2 inches (12.7 mm) deep by 1 inch (25.4 mm) wide; 8 feet (2438 mm) long panel. (54502)
   2. 1/2 inches (12.7 mm) deep by 1 inch (25.4 mm) wide; 10 feet (3048 mm) long panel. (54512)
   3. 3/4 inches (19 mm) deep by 1 inch (25.4 mm) wide; 10 feet (3048 mm) long panel. (54504)
   4. 1 inch (25.4 mm) deep by 11/16 inches (17.5 mm) wide; 10 feet (3048 mm) long panel. (54503)
   5. 3/4 inches (19 mm) deep by 1 5/16 inches (33.3 mm) wide; 10 feet (3048 mm) long panel. (54505)

D. Hardware:
   1. Bottom Anchors: Corner irons.
   2. Anchor Fasteners: Deck screws.
   3. Anchor Fasteners: Concrete anchors.
   4. Anchor Fasteners: Hollow wall anchors.
   5. Cap and Base Fasteners: Screws.
   6. Cap and Base Fasteners: Nails.
   7. Molding Fasteners: Screws.
   8. Molding Fasteners: Finishing nails.

E. Finish:
   1. Primer: One light, even coat of top quality exterior latex primer.
   2. Primer: One light, even coat of top quality exterior oil-based primer.
   3. Top Coats: Three light, even coats of high quality exterior latex paint.
   4. Top Coats: Three light, even coats of high quality exterior oil-based paint.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Check opening height before ordering columns.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. If attaching handrails or corner iron to column, pre-drill holes before applying screws.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Plumb and level, with 100 percent of bottom contacting substrate and 75 percent of top contacting soffit. Center load over shaft and evenly distribute around bearing surface.

3.4 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION