PART 1 GENERAL

1.1 SECTION INCLUDES
   
   A. Functional exterior shutters.
   
   B. Exterior shutter hardware.

1.2 RELATED SECTIONS

   A. Section 09900 - Paints and Coatings.

1.3 SUBMITTALS

   A. Submit under provisions of Section 01300.

   B. Shop Drawings: Show materials, layout, dimensions, profiles, fasteners and anchors, 
      hardware, finishes, and interface with adjacent construction.

   C. 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.

   D. Selection Samples: For each finish product specified, two complete sets of color chips 
      representing manufacturer's 40 standard colors.

   E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches 
      (150 mm) square, representing actual product, color, and textures.

1.4 QUALITY ASSURANCE

   A. Thermal Stability: Fiberglass louvers and side rails thermally stable from minus 100 degrees 
      F (minus 38 C) to 200 degrees F (93 C).

1.5 DELIVERY, STORAGE, AND HANDLING

   A. Deliver materials to site in manufacturer's original, unopened packaging, with labels clearly 
      identifying product name and manufacturer.
B. Store products in manufacturer's unopened packaging until ready for installation.

C. Store materials in a clean, cool and dry area in accordance with manufacturer's instructions. Do not leave unopened shutters in direct sunlight.

D. Protect materials during handling and installation to prevent damage.

1.6 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.

1.7 WARRANTY

A. Provide with a limited lifetime warranty on structural components and manufacturers defects and factory applied finish. Warranty is limited to the original purchaser.

B. Provide a limited ten year warranty on structural components and factory applied paint finish.

C. Provide a limited three year warranty on structural components and manufacturers defects.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Atlantic Premium Shutters - The Tapco Group, which is located at: 29797 Beck Rd, Wixom, MI 48398-2834; Toll Free Tel: 866-288-2726; Tel: 877-437-0608; Fax: 843-752-0111; Email: Wayne_Sanderson@tapcoint.com; Web: www.atlanticpremiumshutters.com

B. Substitutions: Not permitted.

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

2.2 SHUTTERS

A. Raised Panel Shutters: Atlantic Architectural Collection Raised Panel Shutters fabricated of high density solid core composite material, and high density PVC sheet machined and interlocked with pultruded fiberglass stiles. Finished Raised Panel is 1 inch (26 mm) thick. Shutters are finished with two part urethane paint, oven cured.

1. Style:
   a. Standard two panel.
   b. Single panel.
   c. Extra panel (3 panel).
   d. Extra panel (4 panel).
   e. Flat panel.
   f. Custom rail location.
   g. Arch or radius top.
   h. V-Groove flat panel.
   i. Single panel with vertical cut profile.
   j. Rabbeted edge with beading.
   k. Cut out.
   l. Butt hinge.

2. Width:
   a. _____ inch (____ mm).
   b. As indicated on the Drawings.
3. Height:
   a. _______ inch (______ mm).
   b. As indicated on the Drawings.

4. Colors:
   b. White 631.
   c. Walnut 641.
   d. Craftsman Brown 659.
   e. Federal Brown 635.
   f. Hammered Silver 661.
   g. Roycraft Mist Gray 664.
   h. Chelsea Gray 662.
   i. Evergreen 638.
   k. Pewter 646.
   l. Roycraft Pewter 663.
   m. Midnight Sky 639.
   n. Tempest Blue 666.
   o. Hamilton Blue 667.
   q. Rockwood Dark Green 656.
   r. Rockwood Shutter Green 654.
   s. Roycraft Bottle Green 655.
   t. Forest Green 633.
   u. Charleston Green 653.
   v. Weathered Shingle 660.
   w. Rockwood Medium Brown 658.
   x. Garnet 669.
   y. Polished Mahogany 657.
   z. Roycraft Copper Red 668.
   aa. Board and Batten Red 650.
   bb. Black 632.
   cc. Cascade 647.
   dd. Bordeaux 640.
   ee. Sand 642.
   ff. Plum Creek 643.
   gg. Prime finish.
   hh. Custom color as selected.

B. Louver Shutters: Atlantic Architectural Collection Louvered Colonial Shutters fabricated of pultruded fiberglass for vertical stiles and horizontal louvers. High density PVC sheet is machined and interlocked with fiberglass stiles. Finished louver is 1-1/4 inch (32 mm) thick. Louvers are spaced 1-1/4 inches (32 mm) to allow for proper air ventilation. Shutters are finished with two part urethane paint, oven cured.

1. Style:
   a. Standard.
   b. Additional rails.
   c. Vertical mullion.
   d. Faux tilt rod.
   e. Custom top or bottom rail.
   f. Solid arch top.
   g. Horns.
   h. Rabbeted edge.
   i. Bahama louver spacing.
   j. Butt hinge.

2. Width:
a. _____ inch (____ mm).
b. As indicated on the Drawings.

3. Height:
a. _____ inch (____ mm).
b. As indicated on the Drawings.

4. Colors:
b. White 631.
c. Walnut 641.
d. Craftsman Brown 659.
e. Federal Brown 635.
f. Hammered Silver 661.
g. Roycraft Mist Gray 664.
h. Chelsea Gray 662.
i. Evergreen 638.
k. Pewter 646.
l. Roycraft Pewter 663.
m. Midnight Sky 639.
n. Tempest Blue 666.
o. Hamilton Blue 667.
q. Rockwood Dark Green 656.
r. Rockwood Shutter Green 654.
s. Roycraft Bottle Green 655.
t. Forest Green 633.
u. Charleston Green 653.
v. Weathered Shingle 660.
w. Rockwood Medium Brown 658.
x. Garnet 669.
y. Polished Mahogany 657.
z. Roycraft Copper Red 668.
aa. Board and Batten Red 650.
bb. Black 632.
cc. Cascade 647.
dd. Bordeaux 640.
ee. Sand 642.
ff. Plum Creek 643.
gg. Prime finish.
hh. Custom color as selected.

C. Combination Shutters: Atlantic Architectural Collection Combination Shutters fabricated of pultruded fiberglass for vertical stiles and horizontal louvers. High density solid core composite material and High density PVC sheet is machined and interlocked with fiberglass stiles. Finished combination is 1-1/4 inch (32 mm) thick. Shutters are finished with two part urethane paint, oven cured.

1. Style:
   a. Standard.
b. Additional rail.
c. Extra panel.
d. Vertical mullion.
e. Faux tilt rod.
f. Custom rail sizes.
g. Solid panel arch top.
h. Bahama louver spacing.
i. Rabbeted edge.
2. Width:
   a. _____ inch (____ mm).
   b. As indicated on the Drawings.
3. Height:
   a. _____ inch (____ mm).
   b. As indicated on the Drawings.
4. Colors:
   b. White 631.
   c. Walnut 641.
   d. Craftsman Brown 659.
   e. Federal Brown 635.
   f. Hammered Silver 661.
   g. Roycraft Mist Gray 664.
   h. Chelsea Gray 662.
   i. Evergreen 638.
   k. Pewter 646.
   l. Roycraft Pewter 663.
   m. Midnight Sky 639.
   n. Tempest Blue 666.
   o. Hamilton Blue 667.
   q. Rockwood Dark Green 656.
   r. Rockwood Shutter Green 654.
   s. Roycraft Bottle Green 655.
   t. Forest Green 633.
   u. Charleston Green 653.
   v. Weathered Shingle 660.
   w. Rockwood Medium Brown 658.
   x. Garnet 669.
   y. Polished Mahogany 657.
   z. Roycraft Copper Red 668.
   aa. Board and Batten Red 650.
   bb. Black 632.
   cc. Cascade 647.
   dd. Bordeaux 640.
   ee. Sand 642.
   ff. Plum Creek 643.
   gg. Prime finish.
   hh. Custom color as selected.

D. Bahama Shutters: Atlantic Architectural Collection Bahama Shutters fabricated of pultruded fiberglass for vertical stiles, horizontal rails and horizontal louvers. Finished shutter is 1-1/4 inch (32 mm) thick. Shutters are finished with two part urethane paint, oven cured.
1. Style:
   a. Standard
   b. Additional rails.
   c. Additional vertical mullion.
   d. Colonial louver spacing.
2. Width:
   a. Single Panel.
   b. Double panel with vertical mullion.
   c. Triple panel with vertical mullions.
d. Four panel with vertical mullions.

f. As indicated on the Drawings.

3. Height:
   a. _____ inch (____ mm).
   b. As indicated on the Drawings.

4. Colors:
   b. White 631.
   c. Walnut 641.
   d. Craftsman Brown 659.
   e. Federal Brown 635.
   f. Hammered Silver 661.
   g. Roycraft Mist Gray 664.
   h. Chelsea Gray 662.
   i. Evergreen 638.
   k. Pewter 646.
   l. Roycraft Pewter 663.
   m. Midnight Sky 639.
   n. Tempest Blue 666.
   o. Hamilton Blue 667.
   q. Rockwood Dark Green 656.
   r. Rockwood Shutter Green 654.
   s. Roycraft Bottle Green 655.
   t. Forest Green 633.
   u. Charleston Green 653.
   v. Weathered Shingle 660.
   w. Rockwood Medium Brown 658.
   x. Garnet 669.
   y. Polished Mahogany 657.
   z. Roycraft Copper Red 668.
   aa. Board and Batten Red 650.
   bb. Black 632.
   cc. Cascade 647.
   dd. Bordeaux 640.
   ee. Sand 642.
   ff. Plum Creek 643.
   gg. Prime finish.
   hh. Custom color as selected.

E. Raised Panel Shutters: Atlantic Classic Collection Raised Panel Shutters fabricated of high density solid core composite material. Finished raised panel is 1 inch (25 mm) thick. Shutters are finished with two part urethane paint, oven cured.

1. Style:
   a. Standard.
   b. Single panel.
   c. Extra panel (3 panel).
   d. Extra panel (4 panel).
   e. Flat panel.
   f. Arch or radius top.
   g. V-Groove flat panel
   h. Custom rail location.

2. Width:
   a. _____ inch (____ mm).
b. As indicated on the Drawings.

3. Height:
   a. _____ inch (____ mm).
   b. As indicated on the Drawings.

4. Colors:
   b. White 631.
   c. Walnut 641.
   d. Craftsman Brown 659.
   e. Federal Brown 635.
   f. Hammered Silver 661.
   g. Roycraft Mist Gray 664.
   h. Chelsea Gray 662.
   i. Evergreen 638.
   k. Pewter 646.
   l. Roycraft Pewter 663.
   m. Midnight Sky 639.
   n. Tempest Blue 666.
   o. Hamilton Blue 667.
   q. Rockwood Dark Green 656.
   r. Rockwood Shutter Green 654.
   s. Roycraft Bottle Green 655.
   t. Forest Green 633.
   u. Charleston Green 653.
   v. Weathered Shingle 660.
   w. Rockwood Medium Brown 658.
   x. Garnet 669.
   y. Polished Mahogany 657.
   z. Roycraft Copper Red 668.
   aa. Board and Batten Red 650.
   bb. Black 632.
   cc. Cascade 647.
   dd. Bordeaux 640.
   ee. Sand 642.
   ff. Plum Creek 643.
   gg. Prime finish.
   hh. Custom color as selected.

F. Louver Shutters: Atlantic Classic Collection Faux Louvered Colonial Shutters fabricated of high density solid core composite material. Finished louver is 1-1/4 inch (32 mm) thick. Shutters are finished with two part urethane paint, oven cured. These shutters provide no air ventilation.

1. Style:
   a. Standard.
   b. Additional Rails.
   c. Arch or Radius Top

2. Width:
   a. _____ inch (____ mm).
   b. As indicated on the Drawings.

3. Height:
   a. _____ inch (____ mm).
   b. As indicated on the Drawings.

4. Colors:
b. White 631.
c. Walnut 641.
d. Craftsman Brown 659.
e. Federal Brown 635.
f. Hammered Silver 661.
g. Roycraft Mist Gray 664.
h. Chelsea Gray 662.
i. Evergreen 638.
k. Pewter 646.
l. Roycraft Pewter 663.
m. Midnight Sky 639.
n. Tempest Blue 666.
o. Hamilton Blue 667.
q. Rockwood Dark Green 656.
r. Rockwood Shutter Green 654.
s. Roycraft Bottle Green 655.
t. Forest Green 633.
u. Charleston Green 653.
v. Weathered Shingle 660.
w. Rockwood Medium Brown 658.
x. Garnet 669.
y. Polished Mahogany 657.
z. Roycraft Copper Red 668.
aa. Board and Batten Red 650.
bb. Black 632.
c. Cascade 647.
dd. Bordeaux 640.
ee. Sand 642.
ff. Plum Creek 643.
gg. Prime finish.
hh. Custom color as selected.

G. Board and Batten Shutters: Atlantic Classic Collection Board and Batten Shutters fabricated of high density solid core composite material. Finished board and batten is 1-1/2 inch (38 mm) thick. Shutters are finished with two part urethane paint, oven cured.

1. Style:
   a. Standard.
   b. Z-Bar.
   c. Extra batten.
   d. No battens.
   e. Arch or radius top.
   f. Cut out.

2. Width:
   a. ______ inch (_____ mm).
   b. As indicated on the Drawings.

3. Height:
   a. ______ inch (_____ mm).
   b. As indicated on the Drawings.

4. Colors:
   b. White 631.
   c. Walnut 641.
   d. Craftsman Brown 659.
   e. Federal Brown 635.
f. Hammered Silver 661.
g. Roycraft Mist Gray 664.
h. Chelsea Gray 662.
i. Evergreen 638.
k. Pewter 646.
l. Roycraft Pewter 663.
m. Midnight Sky 639.
n. Tempest Blue 666.
o. Hamilton Blue 667.
q. Rockwood Dark Green 656.
r. Rockwood Shutter Green 654.
s. Roycraft Bottle Green 655.
t. Forest Green 633.
u. Charleston Green 653.
v. Weathered Shingle 660.
w. Rockwood Medium Brown 658.
x. Garnet 669.
y. Polished Mahogany 657.
z. Roycraft Copper Red 668.
aa. Board and Batten Red 650.
bb. Black 632.
cc. Cascade 647.
dd. Bordeaux 640.
ee. Sand 642.
ff. Plum Creek 643.
gg. Prime finish.
hh. Custom color as selected.

H. ProSeries Raised Panel Shutters: Atlantic ProSeries Raised Panel Shutters fabricated of high density solid core composite material. Finished raised panel is 1 inch (25 mm) thick. Shutters are primed only and should receive a finish coat of paint.
1. Style:
   a. Standard.
   b. Single Panel.
   c. Extra Panel (3 panel).
   d. Extra Panel (4 panel).
   e. Flat Panel.
   f. Quarter Round Arch Top.
2. Width:
   a. _____ inch (_____ mm).
   b. As indicated on the Drawings.
3. Height:
   a. _____ inch (_____ mm).
   b. As indicated on the Drawings.
4. Colors: Shutters are primed only and should receive a high quality finish coat of paint.
   a. Color: as specified in Division 09900
   b. As Indicated on Drawings

I. ProSeries Louver Shutters: Atlantic ProSeries Louver Shutters fabricated of high density solid core composite material. Finished Louver is 1-1/4 inch (32 mm) thick. Shutters are primed only and should receive a finish coat of paint.
1. Style:
   a. Standard.
   b. Additional Rails.
c. Quarter Round Arch Top.

2. Width:
   a. _____ inch (____ mm).
   b. As indicated on the Drawings.

3. Height:
   a. _____ inch (____ mm).
   b. As indicated on the Drawings.

4. Colors: Shutters are primed only and should receive a high quality finish coat of paint.

J. ProSeries Board and Batten Shutters: Atlantic ProSeries Board and Batten Shutters fabricated of high density solid core composite material. Finished Board and Batten is 1-1/2 inch (38 mm) thick. Shutters are primed only and should receive a finish coat of paint.

   1. Style:
      a. Standard.
      b. Z-Bar
      c. Extra batten
      d. No battens
      e. Quarter Round Arch Top

   2. Width: _____ inch (____ mm).
      b. As indicated on the Drawings.

   3. Height: _____ inch (____ mm).
      b. As indicated on the Drawings.

   4. Colors: Shutters are primed only and should receive a high quality finish coat of paint.
      a. Color: as specified in Division 09900.
      b. As indicated on Drawings.

2.3 HARDWARE

A. Atlantic Architectural Collection, Classic Collection, and ProSeries Raised Panel, Louver, Combination, or Board and Batten Shutters Hardware only.

   1. Hardware:
      a. Pintel: Provide in same size pairs.
         1) Pintel plate size - 1-1/2 inch (38 mm) by 3-1/2 inch (89 mm) by 1/8 inch (3.2 mm), Pin diameter 3/8 inch (9.5 mm).
         2) Stainless Steel with a matte black powder coat finish.
         3) Offsets:
            a) 1/2 inch (12.5 mm).
            b) 1-1/2 inch (38 mm).
            c) 2-1/4 inch (57 mm).
            d) 3-1/2 inch (89 mm).
      b. 4 inch (102 mm) Lag Pintel: Provide in pairs.
         1) Stainless Steel with a matte black powder coat finish.
      c. 6 inch (152 mm) L-Hinge: Provide in same size pairs.
         1) Stainless Steel with a matte black powder coat finish.
         2) Offsets:
            a) 0 inch.
            b) 1/2 inch (12.5 mm).
            c) 1-1/2 inch (38 mm).
            d) 2-1/4 inch (57 mm).
      d. 9 inch (229 mm) adjustable L-Hinge: provide in pairs.
         1) Stainless Steel with a matte black powder coat finish.
      e. 10 inch (254 mm) Strap Hinge: Provide in same size pairs.
         1) Stainless Steel with a matte black powder coat finish.
         2) Offsets:
a) 0 inch  
b) 1/2 inch (12.5 mm).  
c) 1-1/2 inch (38 mm).  
d) 2-1/4 inch (57 mm).  
f. 12 inch (305 mm) Strap Hinge: Provide in same size pairs.  
1) Stainless Steel with a matte black powder coat finish.  
2) Offsets:  
   a) 1/2 inch (12.5 mm).  
   b) 1-1/2 inch (38 mm).  
   c) 2-1/4 inch (57 mm).  
g. 10 inch (254 mm) Backplate: Provide in same size pairs.  
1) Stainless Steel with a matte black powder coat finish.  
h. 12 inch (305 mm) Backplate: Provide in same size pairs.  
1) Stainless Steel with a matte black powder coat finish.  
i. Jamb Pintel: Provide in same size pairs.  
1) Stainless Steel with a matte black powder coat finish.  
2) Offsets:  
   a) 1/2 inch (12.5 mm).  
   b) 1 inch (25 mm).  
   c) 2 inch (51 mm).  
j. Flat Hinge:  
1) Stainless Steel, 12 gauge with matte black powder coat finish.  
2) Offsets:  
   a) 0 inch.  
   b) 1/2 inch (12.5 mm).  
   c) 1-1/2 inch (38 mm).  
   d) 2-1/4 inch (57 mm).  
k. 6 inch (152 mm) L-Hinge Backplate: Stainless Steel with matte black powder coat finish. Provided in pairs.  
l. Flat Hinge Backplate: Stainless Steel with matte black powder coat finish. Provided in pairs.  
m. H-Hinge: Stainless Steel with matte black powder coat finish. Provided in pairs.  
n. Pintel Shim: Stackable, black polyamide plastic, 1/4 inch (6 mm) thick.  
o. S Holdback: Stainless Steel with matte black powder coat finish. Provided in pairs with Stainless Steel lag bolt, washer, and cotter pin.  
q. Rat Tail Holdback: Stainless Steel with matte black powder coat finish. Provided in pairs.  
r. 6 inch (152 mm) Lag Bolt: Stainless Steel with matte black powder coat finish. Provided in pairs. For use with S Holdback and Rat Tail Holdback.  
s. Shutter Slide Bolt, 12 inch (305 mm). Stainless Steel with matte black powder coat finish.  
   1) Non-locking slide bolt.  
   2) Locking slide bolt.  
t. Acorn Holdback.  
u. Fixed Mounting Hardware – Clear polycarbonate bracket  
1) 9 inch (229 mm)  
2) 14 inch (356 mm)  
3) 18 inch (457 mm)  

B. Atlantic Architectural Collection Bahama Shutter Hardware only.  
1. Hardware:  
   a. Male Hinge:  
      1) Plate size - 1-1/8 inch (28 mm) backplate.  
   b. Female Hinge, 2-3/8 inch (60 mm):
1) Plate size 1-1/4 inch (32 mm) with 1/4 inch (6 mm) lip.
2) Projection 2-3/8 inch (60 mm).

   c. Female Hinge, 3-3/8 inch (86 mm):
   1) Plate size 1-1/4 inch (32 mm) with 1/4 inch (6 mm) lip.
   2) Projection 3-3/8 inch (86 mm).

d. Tilt Arms:
   1) Aluminum tilt arms with nylon end caps.
   2) Black Anodized tilt arms with nylon end caps.
   3) Nylon hinges/eye end sets.
   4) Stainless steel clevis pins:

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. Commencement of work will imply acceptance of substrate.

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.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions and with no fasteners through the face of the shutters.
B. Adjust operable units for smooth unobstructed operation.
C. Atlantic ProSeries Shutters require a light sanding using a 360 grit sandpaper prior to top coat application to achieve proper paint adhesion.

3.4 PROTECTION

A. Protect installed products from damage by weather and other work until Date of Substantial Completion.
B. Touch-up and repair damaged products before Date of Substantial Completion.

END OF SECTION