PART 1 - GENERAL

1.01 SECTION INCLUDES
   A. Factory assembled primed wood double hung windows [including fixed units], glass and glazing, operable hardware, weatherstripping, insect screen, and [grilles].
   B. Anchorages, attachments, and accessories.

1.02 RELATED SECTIONS
   A. Section 01340 - Shop Drawings, Product Data, and Samples.
   B. Section 01610 - Delivery, Storage, and Handling.
   C. Section 01710 - Final Cleaning.
   D. Section 07200 - Batt and Blanket Insulation.
   E. Section 07920 - Sealants and Caulking.
   F. Section 08800 - Glass and Glazing.

1.03 REFERENCES
   A. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM):
      1. ASTM E-283 - Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors.
      2. ASTM E-547 - Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Difference.
   B. AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA):
   C. WINDOW & DOOR MANUFACTURERS ASSOCIATION (WDMA):
      1. WDMA I.S-4 – 07 Industry Standard for Water-Repellent Preservative Treatment for Millwork
   D. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
   E. NATIONAL FENESTRATION RATING COUNCIL (NFRC)

1.04 PERFORMANCE CRITERIA
   A. Double Hung units shall meet requirements in accordance with AAMA / NWWDA 101-I.S.2-11.
   B. Air leakage shall not exceed 0.30 cfm per sq.ft. of sash when tested in accordance with ASTM E-283 at 1.57 psf.
   C. No water penetration shall be allowed when tested in accordance with ASTM E-547.
   D. Window units shall withstand positive and negative wind loads without damage. The units shall be tested in accordance with ASTM E-330.

1.05 SUBMITTALS
   A. Shop drawings shall be submitted in accordance with Section 01340.
   B. Product data in the form of general catalogs, test lab reports, product performance, and warranty information shall be submitted in accordance with Section 01340.
   C. Samples showing glazing, quality of construction, and finish shall be submitted in accordance with Section 01340.

1.06 DELIVERY, STORAGE, AND HANDLING
   A. In compliance with Section 01610, window units shall be delivered undamaged and with protective packaging. Complete installation and finishing instructions shall be included.
   B. Store units in a clean, dry place off the ground in an upright position.
PART 2 - PRODUCTS

2.01 MANUFACTURER
A. Pinnacle Series Double Hung window units [including fixed units] as manufactured by Windsor Windows & Doors.

2.02 MATERIALS
A. Frame: Sill and outside stops shall be low-maintenance cellular PVC material. Head and side jambs shall be select softwoods treated with water repellent preservative in accordance with NWWDA I.S.-4. Frames are assembled with hardware installed. Inside stops and sill stop are face nailed and glued. Jamb thickness shall be 11/16”. Standard jamb width shall be 4 9/16”. Pine jamb extensions are available to match other finished wall thicknesses. Factory set up units will include low-maintenance cellular PVC sill nosing, brickmould, and outside mull covers for a complete no rot exterior. Inside mull included on all mulled units regardless of jamb width. All 4 9/16” units will have a full length inside Mull tacked in place and will have to be trimmed and re-applied in the field. DP Upgrade units receive a 1/2” taller inside sill stop.
B. Sash: Shall be select pine treated with water repellent preservative in accordance with NWWDA I.S.-4 with a thickness of 1-1/2”. Sash corners shall be mortised and tenoned. Both sash shall be tilt-removable from the inside. Top and bottom rails utilize a full width finger pull. DP upgrade units shall have no finger pulls. No finger pull option is available for standard units.
C. Finish: Exterior Frame Components shall be white in color with a satin surface finish. This finish can be left as-is or repainted if other color is desired. Exterior of sash shall be primer coated and should be painted.
D. Glazing: Shall be 3/4” double pane LoE 366 insulating glass as standard, glazed with double-faced tape, a full perimeter bead of silicone, and interior wood stops. A wide array of other glass options is offered including clear, tinted, tempered, and obscure. Cardinal’s Preserve™ option is available on all LoE 366 glass. It is a removable, factory-applied protective film adhered to both interior and exterior surfaces of the glass.
E. Weatherstripping: Shall be closed-cell foam encased in TPE skin installed at the head, checkrail, and sill. Flex-hinge jambliner provides a tight seal at the stiles.
F. Hardware: Extruded vinyl jambliners shall have dual hinged leaf compression legs: beige color standard. White jambliner option available. Spring-loaded die-cast tilt latches allow both sash to be tilted in with ease. Balance system consists of a block and tackle with a locking shoe that allows for easy cleaning or removal; where required by sash weight, a double spring balance will be substituted. Flange mounted cam action locks have contemporary curved handle and concealed fasteners. One lock is used on glass widths 26” and below. Two locks are used on glass widths of 28” and up. Locks, keepers, and tilt latches all have a baked on champagne enamel finish. White, black, bronze, brass, oil-rubbed bronze, and satin nickel hardware options available.
G. Screens: Shall be a fiberglass BetterVue™ screen set in painted aluminum frame. UltraVue™ Screen option is available. Screens are full height of opening. Screens available in white, bronze, tan, ivory, hunter green, cinnamon, or black. The screen is intended to allow air and light in and keep insects out. The screen is not intended to stop children, adults or animals from falling out an open window.
(Materials continued)

H. Grilles: (Extra when specified) Colonial grilles shall be select pine with moulded edges. Stick grilles are fastened to sash with press pins, while perimeter grilles use a hidden clip system. Stick grilles and perimeter grilles are available in 7/8” or 1-1/4” widths. White, cinnamon, bronze, tan, ivory, hunter green, or black aluminum inner grilles (in air space) are also available in 13/16” flat, 3/4” profiled, or 1" profiled. Two-toned inner grilles (3/4" profiled only) are available with a white interior, and a bronze, green, tan, ivory, or black exterior. Windsorlite (WDL) simulates true divided lite and is created by adhesively fixing the wood interior and cellular PVC exterior bars to the surfaces of the insulated glass. WDL is available in 7/8” and 1-1/4” standard, 5/8” putty, and 7/8” putty exterior with standard interior. All are available with or without inner bar between the glass. Exterior bars are cellular PVC.

PART 3 – EXECUTION

3.01 EXAMINATION
   A. Verify that there is no visible damage to the unit before installation.

3.02 INSTALLATION
   A. Verify the rough opening is of the recommended size and that it is plumb, level, and square.
   B. Install the window unit in accordance with the manufacturer’s recommendations.
   C. Install sealant, backing material, and insulation around opening perimeter in accordance with Section 07900 and Section 07920.

3.03 ADJUSTMENT AND CLEANING
   A. Operate unit and verify that all hardware operates freely. Make any adjustments necessary.
   B. Cover the window unit to avoid damage due to spray paint, plaster, and other construction operations.
   C. Remove all visible labels and instructions.
   D. Final cleaning of glass in accordance of Section 01.