PART 1 - GENERAL

1.01 SECTION INCLUDES
   A. Factory assembled low-maintenance 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 / CSA A440.
   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. Revive Hybrid Series Double Hung window units [including fixed units] as manufactured by Windsor Windows & Doors.

2.02 MATERIALS
A. Frame: Shall be select softwoods treated with water repellent preservative in accordance with WDMA I.S.-4, assembled with hardware installed. Exposed exterior portion shall be extruded aluminum cladding. Frame cladding sealed at corners with injected silicone and screws. Jamb thickness shall be 1 1/16”. Pocket jamb width shall be 3 1/4”. Side jams to be factory prepped with installation holes and screws. Aluminum sill is thermally broken and end sealed. Optional color-matched exterior trim accessories are utilized for installation. Natural Alder and Fir interior options are available.

B. Jambliner & Balance: Jambliner consists of a white PVC fixed-back liner. The balance system shall be a block and tackle inverted balance mounted to the side jamb. A kerf mount weatherstrip is applied to each jambliner the entire length, providing a seal between the sash and both side jambs.

C. Sash: Shall be low-maintenance capped stock cellular vinyl, with a sash thickness of 1 3/8”. Sash corners shall be mortised and tenoned, and fastened with screws. Both the upper and lower sash shall be tilt-removable from the inside. Top and bottom rails utilize a full width finger pull to allow sash to easily operate without the use of additional hardware. No finger pull is optional. Interlocking meeting rails shall be reinforced with extruded aluminum.

D. Finish: All aluminum exterior surfaces shall be covered with a factory applied, polyester powder-coat paint in 22 standard and 20 feature colors. Both standard and feature colors will come with an AAMA 2604 paint finish and will have an option to upgrade to an AAMA 2605 paint finish. Custom colors and anodized finishes are also available. Wood interior available as unfinished, primed, or painted white.

E. Glazing: Shall be 3/4” double pane LoE 366 insulating glass as standard, glazed with a full perimeter bead of silicone to the interior. Glass held in place with exterior rigid PVC 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.

F. Weatherstripping: Shall be a closed foam bulb weatherstrip installed at head, check rail, and sill. Jambliner provides a tight seal at the stiles.

G. Hardware: Balance system consists of a block and tackle with a locking shoe that allows for easy cleaning and removal; where required by sash weight a double spring balance will be substituted. Recessed mounted cam action sash lock, keeper and tilt latches with baked on enamel finish. One lock is used on glass widths below 28” and two locks are used on glass widths 28” or greater. White, bronze, champagne, faux bronze, and satin nickel hardware options available.

H. 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.

I. Grilles: (Extra when specified) White, cinnamon, bronze, tan, ivory, hunter green, or black aluminum inner grilles (in air space) are available in 13/16” flat, 3/4” profiled or 1” profiled. Two-toned inner grilles (¾” profiled only) are available with a white interior, and a bronze, green, tan, ivory, or black exterior. Windsorlite (WDL) simulates true divided lite, but is created by adhesively fixing cellular PVC exterior and interior bars to the surfaces of the insulated glass. WDL is available in 5/8” Putty, 7/8” Putty, 7/8” Windsorlite, and 1 1/4” Windsorlite widths. Available in white color only. Also available with or without inner bar between the glass.
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.