

Window Refurbishing Specifications Single-Hung, Side-Load Windows

Part I: General

1.1 Intent

1. Replace sash balances & complete a general refurbishing of existing windows to improve their operation.
2. Contractor will take note that the major work includes but is not limited to the replacement of the window sash balances, and detailed in Section 3 - Execution.

1.2 Submittals

1. **Product Data:** Submit samples of materials to be used with manufacturer's product literature for all replacement components to be installed in existing windows demonstrating compliance with specified requirement.
2. **Mock-up:** Prior to contract awarding, the contractor of choice will be asked to do a mock-up of one window based on the contract documents. The test mock-up will be used as a basis of acceptability of quality of workmanship and the ability of the balance system to perform.

1.3 Quality Assurance

Qualifications: Pre-qualifications for window repair contractors. Contractors seeking to submit bids on this project must specialize in the window repair industry, and shall have the following minimum qualifications:

1. Contractors must have a minimum of ten years experience in window balance replacement and calibration.
2. Contractors must have a minimum of ten years experience in aluminum window glazing systems.
3. Contractors to submit a list of ten completed window balance repair projects complete with contact names, addresses, phone numbers, and emails.

1.4 Project Conditions

1. **Field verification:** Check all existing windows by field survey prior to ordering materials. Submit field survey report to show existing condition and specific repair method.

1.5 Warranty

1. **Class 5 Sash Balances - Balance Manufacturer:**

- A. Submit written manufacturer's warranty of class 5 balances, agreeing to replace units that fail in materials or manufacture for 5 years, from substantial completion of contract.

2. Repair Warranty – Contractor:

- A. Submit written and signed warranty covering complete window repair processes for one year from date of substantial completion of contract, stating that repair of window accessories conform to standards specified in this section.
- B. Any corrective work required during a warranty period to correct failures will conform to specifications and shall be performed by contractor at no additional cost to Awarding Authority.

Part II: Products

2.1 Manufacturers And Products

- A. Window Balances: Provide Ultra-Lift Balances by Caldwell Manufacturing, Rochester, NY, or approved equal.

2.2 Components

- A. Accessory components: Include carrier assemblies, sash caps and locking hardware as recommended by manufacturer for existing windows – or improved alternative as specified and/or approved by owner/architect.

2.3 Materials

- A. Balances:
 - 1. Balances shall be of appropriate size and capacity to hold sash in position with no unintended movement.
 - 2. Balances shall be high performance sash balances that are tested in accordance with AAMA 902192 Voluntary Specification for sash balances.
 - 3. Balances shall meet all minimum Class 5 requirements with a minimum .30 Manually Applied Force Ration (MAF).
 - 4. Compliance to 902.92 Class 5 and MAF ratio shall be verified by a test report from an AAMA accredited laboratory.

PART III: Execution

- 1. Refurbish windows as follows:
 - a. Remove lower sash
 - b. Vacuum debris and wipe sill clean

- c. Remove existing block & tackle balances
 - d. Install Caldwell Ultra-Lift Balance Systems or similar
 - e. Adjust interlocks if/as needed
 - f. Clean and lubricate jamb channels
 - g. Reinstall sash
 - h. Furnish and install stainless steel under rail brackets with stainless steel fasteners – 2 per cap
 - i. Replace existing bottom sash caps with custom Delrin sash caps. New sash caps to be attached with stainless steel fasteners – 2 per cap
 - j. Install four guides on the face of the lower sash to prevent lateral movement
 - k. Replace any plastic sash stops with aluminum channel stops
 - l. Remove and dispose of all debris
 - m. Return work area to its original condition
2. Option: Replace missing or broken locks with new in-kind white bronze sweep locks.
3. Submit a completed work log to the awarding authority in a commonly acceptable electronic format.