SECTION 23 34 23 – HVAC EXHAUST VENTILATION

PART 1 – GENERAL

1.1 RELATED SECTIONS

A. Section 02 41 00 – Demolition

B. Section 26 27 26 – Wiring Devices

C. Section 26 51 00 – Interior Lighting

1.2 REFERENCES

A. Home Ventilating Institute (HVI) ratings applicable to bathroom exhaust fans.

B. ENERGY STAR requirements applicable to residential ventilation fans.

C. ASHRAE 62.2 where applicable.

D. NFPA 70, National Electrical Code (NEC).

1.3 SUBMITTALS

A. Product data including airflow, sound rating, electrical requirements, housing dimensions, duct connection, sensor operation, timer settings, listings, and installation instructions.

B. Submit wiring diagram confirming automatic humidity-sensor operation and wall-switch requirements.

1.4 QUALITY ASSURANCE

A. Provide fan listed and labeled for intended bathroom exhaust application and compatible with existing duct and electrical conditions.

PART 2 – PRODUCTS

2.1 BATHROOM EXHAUST FAN

A. Manufacturer: Panasonic or Approved Equal.

B. Model: Whisper Suite™ RG-E110THA Ventilation Fan with Humidity Sensor, 110 CFM, or Approved Equal.

C. Performance and features:

1. Airflow: 110 CFM.

2. Provide integral humidity sensing that automatically responds to excess moisture without requiring resident activation.
3. Provide integral touchless motion sensor for automatic fan activation.
4. Provide adjustable delayed-off timer with range from approximately 30 seconds to 60 minutes.
5. Housing depth: approximately 7-3/8 inches.
6. Provide quiet, energy-efficient operation and ENERGY STAR certification where indicated by manufacturer.
7. Provide mounting bracket and accessories required for complete installation.
8. Provide duct connection compatible with existing ductwork or furnish approved transition as required.
9. Provide white grille suitable for finished bathroom ceiling.

2.2 CONTROL REQUIREMENTS

A. Fan shall not require a proprietary wall control for normal automatic humidity operation.

B. Provide standard 15A single-pole wall switch, Lutron Claro CA-1PS-WH, or Approved Equal, when a local wall switch is retained.

C. Wall switch shall remain ON during normal occupancy so that integral humidity and motion sensors remain continuously powered and can automatically activate the fan.

D. Do not use a timer, occupancy switch, dimmer, or other control that removes normal standby power unless specifically approved by fan manufacturer.

E. Provide switch label “VENTILATION – LEAVE ON” or other Owner-approved identification.

F. If permitted by code and Owner, fan may be continuously energized without a resident-operable switch, with required service disconnect provided by approved means. Coordinate final arrangement with electrical requirements.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Verify existing ceiling opening, joist/framing conditions, duct size and routing, exterior termination, circuit voltage, and branch-circuit capacity before installation.

B. Verify that existing ductwork is clean, intact, and capable of supporting specified airflow.

3.2 INSTALLATION

A. Remove existing exhaust fan and legally dispose of unless otherwise directed by Owner.

B. Install replacement fan in accordance with manufacturer's written instructions.

C. Seal duct connections to minimize air leakage and provide smooth airflow.

D. Install grille tight to finished ceiling without gaps.

E. Coordinate electrical connection so fan automatic humidity and motion sensing remain energized during normal use.

F. Adjust humidity response and delayed-off timer to Owner-approved settings after installation.

G. Patch ceiling only as required for a neat, finished installation; existing ceiling is otherwise to remain.

3.3 FIELD QUALITY CONTROL

A. Operate fan and verify airflow, quiet operation, sensor response, delayed-off function, and wall-switch operation.

B. Confirm that automatic humidity sensing remains functional with wall switch left ON.

C. Correct excessive vibration, noise, air leakage, or control deficiencies prior to Substantial Completion.

3.4 OWNER INSTRUCTION

A. Demonstrate sensor operation and timer adjustment to Owner's maintenance representative.

B. Provide manufacturer's operation, maintenance, and service information at closeout.

END OF SECTION