ARCHITECTURAL SPECIFICATIONS

WASTE/RECYCLING EQUIPMENT

This section is based on a recycling system produced by:

Nu-Recycling Technology, Inc.
10364 Book Road
Naperville, IL 60564-5700
Telephone: 800-NuReTec (687-3832)

The **NuReTec® 3000 Automatic Bi-Sorter Recycling Systems**, as manufactured by Nu-Recycling Technology, Inc., are comprised of a waste recycling system with Floor Control Panels located next to each trash chute Intake door to enable the residents of multi-story, residential buildings to do their recycling at the trash chute with just a touch of a button.

These systems are designed with the following built in features:

(A) No door lock out.
(B) Different cycle time from each floor.
(C) Operates within two (2) seconds from selection to selection.
(D) Trash override at all times.
(E) If no button is selected everything goes to trash.
(F) Warning on all floors when trash is backing up the chute.
(G) Compatible with most all trash compactors and chutes.
(H) Quick & Easy to convert to all removeables during power outage.

Part 1 - GENERAL:

1.1 RELATED DOCUMENTS

A. The general provisions of the contract, including General and Supplementary Conditions and Division 1, General Requirements, apply to the work specified in this section.

1.2 SYSTEM OPERATION

A. The **NuReTec® 3000 Automatic Bi-Sorter Recycling System** uses a single trash chute in a multi-story building to deliver materials pre-separated by the residents into two separate containers.

A resident activated, two-button control panel installed next to each trash chute Intake door shall initiate the appropriate container selection. When a button is depressed, to begin the selection process, that button lights up on every floor to let anyone attempting to use the system know what is currently being deposited down the chute. Once the material has passed the bottom of the trash chute the **NuReTec® 3000** automatically and immediately returns to the "home" position when at rest.

1.3 DESCRIPTION OF WORK

A. Work to include: Furnish and install a **NuReTec® 3000 Automatic Recycling System** where shown on drawings.

1.4 SUBMITTALS

A. Catalog Cuts: Before the **NuReTec® 3000 Recycling Systems** delivered to the job-site, submit catalog cuts to the Architect in accordance with these specifications, showing all details of installation and assembly and all requirements for work by other trades.

B. Product Data: Manufacturer's product specifications, standard details and recommendations for project conditions; indicate selected sizes and installation details specific to the project.

C. Shop Drawings:
   1. Plans: Scale 1/4 inch to 1 foot; indicate locations, dimensions, and required associated construction activities.
   2. Elevations/Sections: Scale 1//4 inch to 1 foot; indicate locations, dimensions, and required associated construction activities.
   3. Details: Scale 1/4 inch to 1 foot; indicate:
      a. Shop drawings specific to project conditions.
      b. Interface with adjacent construction.
      c. Dimensions and tolerances.
      d. Products required for installation of the **NuReTec® 3000 Recycling System**, but not supplied by Nu-Recycling Technology, Inc.

D. Quality Assurance/Control Submittals:
   1. Contractor's Certification that:
      a. Products of this section are manufactured by Nu-Recycling Technology, Inc..
      b. Manufacturer's certification that the installer of manufacturer's product is approved.

E. Close-Out Submittals:

1. Operation and Maintenance Data:
    a. Manufacturer's printed Owners and Operators Manual
    b. Manufacturer's Recycling Education Package including laminated instruction sheets for display at Chute Intake Doors on every floor.
2. Warranty Documents: Issued and executed by the Manufacturer and installer of the **NuReTec® 3000 Recycling System.**

1.5 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer: Minimum twelve (12) years documented experience producing products specified in this section.
2. Installer: Minimum five (5) years experience, and being approved by the Manufacturer.

B. Pre-Installation Meetings:

1. Convene at job site a minimum of seven (7) calendar days prior to scheduled beginning of installation activities of this section to review the requirements of this section.
2. Require attendance by representatives of the following:
    a. **NuReTec® 3000 Recycling System** manufacturer
    b. The Installer of this Equipment
    c. Other entities directly affecting, or being affected by, the installation activities of this section.
    d. Notify Architect four (4) calendar days in advance of scheduled meeting date.

1.6 RELATED WORK BY OTHERS SPECIFIED ELSEWHERE

A. The following work is excluded from the scope of work in this section 11175 and is included in other divisions of the specifications for inclusion in the scope of work of others.

1. Electrical Standards: The following electrical circuits, with disconnects, are required and are to be installed by others as shown on the plans:
    1 each: Local Load Center Nema 13,
        Consisting of:
        110VAC 20AMP 1PH for Master Control Panel
        110VAC 20AMP 1PH for local receptacle

    1 each: Cold water ground or earth ground

2. Low voltage wiring conduit: 1/2" flexible conduit for vertical installation, located per shop drawings to connect the Master Control Panel to the Floor Control Panels

1.7 WARRANTY

A. Manufacturer's Warranty: Furnish a **NuReTec® 3000** manufacturer's standard one (1) year warranty from the date of installation Warranty shall apply to defects in product workmanship and materials.

1.8 MAINTENANCE

A. Maintenance Service: Each **NuReTec® 3000 Automatic Recycling System** includes maintenance during the one year Warranty period.

Part 2 - PRODUCTS

2.1 MANUFACTURERS

A. Acceptable manufacturer: Nu-Recycling Technology, Inc., 10364 Book Road, Naperville, IL 60564-5700; Telephone 800-NuReTec (687-3832)
B. Substitutions: Equal Quality or Better
C. Components:
1. **NuReTec® 3000** Construction: The Main Body of the **NuReTec® 3000** shall be welded 1/4" A-36 Steel Plate; Deflector Plate(s) shall be 1/2" HS Aluminum; Recycling Chute and Baffles shall be 3/16" A-36 steel plate. All internal sections shall have fully welded seams or are fully bolted to accommodate installation. High speed, high torque 24 VDC actuators shall drive the mechanisms appropriately. The **NuReTec® 3000** shall be mounted to the floor and walls and will be separate from the trash chute to reduce noise transmission.
2. **Master Control Panel:** A Master Control Panel shall be housed in a U.L.® approved, NEMA 12 enclosure mounted on a wall in the area of the **NuReTec® 3000 System** in the trash/garbage room a minimum of 55" above the floor to the bottom of the enclosure. The Master Control Panel shall control and monitor all mechanical and electronic operating functions of the **NuReTec® 3000 System.** Supply power will be 110VAC with a 24VDC output to the individual Floor Control Stations and electronic Actuators.

The components of the system shall meet applicable U.L.® specifications and/or standards. Monitors shall determine when the container is full, and will de-activate the **NuReTec® 3000 System,** but will still allow for the disposal of garbage into the trash compactor or container.

3. **Floor Control Stations**: At the time of trash chute installation, by others, a 3-gang Junction box shall be anchored to the Intake Door to allow for a recessed application. Aluminum Flex-Conduit is connected from floor to floor to the J-Boxes and 18-8 wiring is run in anticipation of the installation of the Floor Control Station. After the walls (masonry or drywall) have been constructed around the trash chute, leaving access to the3-gang J-boxes, our Floor Control Stations are then "flush mounted" to the finished wall independent of the j-box, using plastic anchors and screws. These Floor Control Stations permit user selection of material types to be disposed of. When a button is depressed, that button lights up on every floor to alert anyone approaching the trash chute that someone is currently depositing a certain type of material. That person can also access the trash chute by pressing the same lighted button and placing their material into the chute. When a button is depressed it activates the linear actuator to move appropriate baffles into position to accept the material selected and to deposit it into the correct container.

2.2 FABRICATION

A. The **NuReTec® 3000 Recycling System** shall be fully factory assembled and all joints, except those required to separate the sections for shipment and installation shall be welded or lock-seamed tight.

Part 3 - EXECUTION

3.1 EXAMINATION

A. Verification of Conditions:

1. Area in which the System is going to be located is the correct size and location, and is prepared for installation of the recycling system components.
2. Electrical power source is in the correct location, and is the correct voltage, amperage, capacity and phase for the recycling system components.

3. Three-gang Junction boxes and the low voltage conduit, installed by others, are in the correct location, and are per shop drawings provided by Nu-Recycling Technology, Inc.

B. Installers Examination:

1. Have the installer of this section examine conditions under which installation activities of this section are to be performed, then submit written notification if unacceptable.
2. Beginning installation activities of this section before unacceptable conditions have been corrected is prohibited.

3.2 INSTALLATION

A. Install **NuReTec® 3000 Recycling System** components in accordance with shop drawings and manufacturer's printed installation instructions.

3.3 DEMONSTRATION

A. Arrange demonstration of **NuReTec® 3000 Recycling System**, conducted by manufacturer's representative, to Owners maintenance personnel.

END OF SECTION