

SECTION 13 4813

SOUND, VIBRATION, AND SEISMIC CONTROL LiftWrx SYSTEM FOR NOISE ISOLATION FLOOR

PART 1 GENERAL:

1.01 WORK INCLUDED:

- A. Furnish all labor, materials, tools, and equipment; and, perform all operations necessary for the complete execution of the installation of Kinetics Noise Control, Inc. (Kinetics) LiftWrx System as shown on contract drawings and/or indicated in contract documents.
- B. Related work shall include but not be limited to:
 - 1. Caulking: Section 07 9200.
 - 2. Concrete and concrete reinforcing: Section 03 3000.
 - 3. Pipe, conduit, ductwork packing: Section _____
 - 4. Floor drains: Section _____

1.02 SYSTEM DESCRIPTION:

- A. Flat, smooth structural surface, cleared of debris and broom swept; any required waterproofing properly installed (**Note to Specifier: suggested floor flatness-specified overall value = 38, minimum local value = 25**);
- B. Kinetics Perimeter and Penetration Interface (PPI) with removable tear strip shall be attached using Kinetics spray adhesive at perimeter(s) e.g., curb, wall, formwork, and around any protrusions penetrating through isolated floor e.g., duct and pipe;
- C. Kinetics poly sheeting, overlapped and taped at seams, and extended over top of structural surface and Kinetics PPI;
- D. Canister layout *before* concrete pour – Kinetics LiftWrx Canister, laid out per Kinetics engineered shop drawings; canister rebar interconnecting the canisters, rebar as required for isolated concrete slab strength; slab and reinforcement design by qualified engineer (**Note to Specifier: if the engineer-of-record is not available for slab and reinforcement design it is suggested that that an independent, impartial, structural engineer be contracted; Kinetics has a working relationship with outside firms that can offer a stamped design in all 50 states**);
- E. Isolated concrete slab, 4-inches thick properly reinforced and cured;

- F. Isolator Assembly *before* lifting – plywood lid is removed, add Kinetics spring assembly designed to deflect _____-inches (**Note to Specifier: typically 1"**) and create a _____-inch (**Note to Specifier: typically 2"**) airspace under design load, leveling screw assembly and steel lid.
- G. Isolated slab shall be raised slab per engineered shop drawing guidelines.
- H. Kinetics TrueAcoustic seals perimeter interface material at PPI tear strip cavity.

1.03 QUALITY ASSURANCE:

- A. Kinetics LiftWrx System shall be engineered and fabricated by Kinetics Noise Control, Inc., Dublin, Ohio. Represented by KPA Architectural Products in New England – Contact Keith Peterson (508) 591-7500
- B. Pre-installation Conference to review installation procedures; conference can be conducted via Internet/telephone conference call or at project site (as required).
- C. Kinetics LiftWrx System shall be installed by contractor either under direction from or by authorization of Kinetics or their qualified agent.
- D. Isolation materials shall not be installed during inclement weather when areas receiving same are temporarily exposed to the weather. Appropriate measures shall be taken to ensure work area remains dry during and after installation.

1.04 SUBMITTALS:

- A. Shop Drawings: The Contractor shall have Kinetics prepare engineered shop drawings that include layout, section, and transition details, load conditions, isolator natural frequency and load deflection curves, and construction sequence. Contractor shall transmit submittal package to the Design Team for approval.
- B. Isolator Selection: Bearing surface area and spacing of each isolator shall be determined by Kinetics on the basis of final evaluation of concentrated and uniformly imposed loads supplied to Kinetics by the Design Team. At operating load, isolator shall maintain uniform deflection of the floating floor.
- C. Substitutions: An alternate for Kinetics LiftWrx System which incorporates non-permanent, performance-deteriorating materials such as cork, rubber, neoprene, or polyurethane products will not be accepted. Thermal-type fiber glass and wood pulp board products will not be accepted. Substitute isolator must perform equally to Kinetics LiftWrx System as installed and tested in the specific composite reported in Kinetics's field test #AT001006. Field test reports from independent sources other than BRC Acoustics are unacceptable unless reviewed and accepted for performance variances by Design Team. Alternate must be submitted for approval ten (10) days prior to bid letting.

1.05 DELIVERY, STORAGE, AND HANDLING:

- A. Deliver and store materials in Kinetics's original and unopened packaging with product nomenclature clearly marked on the package(s).

PART 2 PRODUCTS:

2.01 MATERIALS:

- A. Kinetics LiftWrx System (supplied by Kinetics):
 - 1. LiftWrx Isolators
 - 2. PPI Perimeter and Penetration Interface (3/4" thick)
 - 3. Spray adhesive
 - 4. Poly sheeting and seam tape
 - 5. TrueAcoustic sealant
- B. Concrete and concrete reinforcement (supplied by others) per Specification _____.

PART 3 EXECUTION:

3.01 INSTALLATION:

- A. Installation of all sound isolation materials specified herein shall be accomplished following Kinetics's and/or the Design Team's written instructions. Installation instructions shall be submitted to the Design Team for approval prior to beginning of work.
- B. The installing contractor shall carefully examine conditions at the job site before commencing specified work. Any surfaces not properly prepared to receive work of this section shall be reported to the Design Team's representative and work shall not commence until conditions are satisfactory.
- C. All isolation materials installed in areas exposed to the weather shall be temporarily protected by 6 mil polyethylene film covering until permanent waterproofing is achieved. The work shall be protected at the end of each day's work.

END OF SECTION