SECTION 13 4600 – TRANSPARENT BULLET RESISTANT ASSEMBLIES

USE THIS SECTION WHEN SPECIFYING C.R. LAURENCE TRANSPARENT BULLET RESISTANT BARRIER SYSTEMS WITH SPEAK THRUS, ARCH WINDOWS OR BAFFLED WINDOWS SUITABLE FOR ANY COMMERCIAL APPLICATION. SPECIFIC PERFORMANCE LEVELS OF GLAZING AND FRAMES ARE DEFINED HEREIN. IT IS THE USER’S RESPONSIBILITY TO COORDINATE THE INFORMATION CONTAINED HEREIN WITH APPLICABLE BUILDING CODE REQUIREMENTS.

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Transparent Bullet Resistant Barrier System.

1.3 REFERENCE STANDARDS

A. Underwriters Laboratories: UL 752 – Standard for Bullet Resisting Equipment.
B. NIJ Standard 0108.01 – (National Institute of Justice) Standard for Ballistic Resistant Protective Materials.

1.4 SUBMITTALS

A. Product Data: Submit Manufacturer’s technical product data substantiating that products comply.
B. Shop drawings: Submit for fabrication and installation of Barrier System. Include details, elevations and installation requirement of finish hardware and cleaning.
C. Certification: Provide printed data in sufficient detail to indicate compliance with the contract documents.

1.5 QUALITY ASSURANCE
A. Source Limitations: Obtain each component of the Bullet Resistant Assembly through one source from a single manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver Bullet Resistant Assembly crated to provide protection during transit and job storage.
B. Inspect Bullet Resistant Assembly upon delivery for damage. Unless minor defects can be made to meet the Architect’s specifications and satisfaction, damaged parts should be removed and replaced.
C. Store Bullet Resistant Assembly at building site under cover in dry location.

1.7 PROJECT CONDITIONS

A. Field measurements: Check opening by accurate field measurement before fabrication. Show recorded measurements on shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of work.

1.8 WARRANTY

A. All material and workmanship shall be warranted against defects for a period of one (1) year from the original date of purchase.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer:

C.R. Laurence Co., Inc. (CRL)
2503 E. Vernon Ave.
Los Angeles, CA. 90058
Toll Free: (800) 421-6144
Toll Free Fax: (800) 262-3299
International Phone: (323) 588-1281
International Fax: (323) 584-5289
www.crlauonce.com or www.crl-arch.com
email: transaction@crlauonce.com

082112/13 4600 CRL TRANSPARENT BULLET RESISTANT ASSEMBLIES
2.2 **ALUMINUM SPECIFICATIONS**

A. All aluminum used to manufacture frames, channel, anchors, and accessories shall meet the following requirements:
   1. Aluminum: ASTM B221, alloy 6105-T5 and 6063-T5 for extrusions.
   2. All exposed aluminum shall have clean cut edges with no burrs, exposed corners shall be rounded and sanded.

2.3 **GLAZING SPECIFICATIONS**

A. Glazing shall be UL 752 rated Level__________
B. Glazing shall have all edges sanded and polished to a clear finish.

2.4 **ANODIZED FINISH**

A. Aluminum shall be thoroughly cleaned and chemically treated to insure maximum anodized finish.

2.5 **BULLET RESISTANT FIBERGLASS**

A. Manufacturers shall provide the type of product and frame assembly that has been investigated and/or successfully fire tested in accordance with the latest revision of UL 752, “Standard for Bullet Resisting Equipment”.
B. Through the design, manufacturing technique and material application the Bullet Resistant Fiberglass shall be of the "non ricochet type". This design is intended to achieve the capture and retention of an attacking projectile lessening the potential of a random injury or lateral penetration.
C. The panels shall be made of multiple layers of woven reinforced ballistic grade fiberglass scrim impregnated with a polyester laminate and compressed into flat rigid sheets. The production technique and materials used shall provide excellent capability to absorb multiple impacts from high velocity projectiles, limiting ricochet or shattering.

2.6 **STAINLESS STEEL**
A. All stainless steel used to manufacture deal trays, countertops, anchors, clamps and accessories shall meet the following requirement:

1. ASTM A 666 – Standard Specification for Annealed of Cold-Worked Austenitic Stainless Steel, Strip, Plate and Flat Bar.

2.7 VISION LITES

A. All glazing shall be secured with the manufacturer’s standard lite kit. Glazing to consist of UL 752 rated, bullet resistant glazing.

B. Voice transfer: (Specify one).
   1. Bullet Resistant Arch
   2. Bullet Resistant Baffle
   3. Bullet Resistant Speak Hole

2.8 DEAL TRAY

A. Stainless Steel shall conform to requirements outlined in 2.6 of this specification. The Deal Tray shall be: (Specify one).

   1. Bullet Resistance Level 1- Width of 12” (305 mm), depth of 11” (279 mm) and have a minimum clearance from the bottom of the glazing of 1-1/2” (38 mm).
   2. Bullet Resistance Level 1- Width of 16” (406 mm), depth of 11” (279 mm) and have a minimum clearance from the bottom of the glazing of 1-1/2” (38 mm).
   3. Bullet Resistance Level 3- Width of 12” (305 mm), depth of 12” (305 mm) and have a minimum clearance from the bottom of the glazing of 1-1/2” (38 mm).
   4. Bullet Resistance Level 3- Width of 16” (305 mm), depth of 12” (279 mm) and have a minimum clearance from the bottom of the glazing of 1-1/2” (38 mm).

B. The tray shall be recessed flush with the finished counter top surface. See drawing for specific detail.

2.9 GLAZING CHANNEL AND CLAMPS

A. Glazing shall be secured to millwork and partition walls with U-channel. Channel shall meet aluminum standards as specified in 2.2 of this specification.
B. Glazing shall be secured to millwork and partition walls with 11 gauge stainless steel Barrier Clamps. Clamps shall meet stainless steel standards as specified in 2.6 of this specification.
C. All anchorage shall be determined to meet the Federal, State and Local ordinances and codes governing the local municipality.

PART 3 – EXECUTION

3.1 EXAMINATION
A. Examine substrates to verify that locations to receive anchors have been clearly marked for Installer. Locate reinforcements and mark locations if not already done.

3.2 INSTALLATION, GENERAL
A. System shall be installed plumb, level, rigid and in true alignment.
B. Installation shall follow strictly in accordance with manufacturers recommendations and drawings. Any deviation may void warranties and product ratings. Repair damaged units as directed (if approved by the manufacturer and the architect) or replace with new units.
C. System shall be installed and fastened to maintain alignment with frames to achieve maximum operational effectiveness and appearance. System shall be adjusted to maintain perimeter clearances as specified in drawings. Shimming shall be performed by the installer as needed to assure the proper clearances are achieved.

3.3 CLEANING
A. Clean frame and glazing surfaces after installation, complying with requirements contained in the manufacturer’s instructions. Remove excess glazing sealant compounds, dirt or other substances.

3.4 PROTECTION
A. Institute protective measures required throughout the remainder of the construction period to ensure that the Transparent Bullet Resistant Barrier System does not incur any damage or deterioration at the time of acceptance.

END OF SECTION