

## **PART 1. GENERAL**

### **1.01 Scope**

- A. Include all labour, materials, and plant as required for the fabrication and delivery of acoustical baffles or free hanging screens complete in all respects as described and specified herein.

### **1.02 Related Work by Other**

- A. Gypsum board partition and wall structure
- B. Paint finish of wall surface behind and between panelling
- C. Lighting fixtures and electrical services and connections
- D. Other acoustical products

### **1.03 Quality Assurance**

- A. Manufacturer & Installer: Firm manufacturing the specified product shall have adequate capacity required for projects listed and have successfully completed similar projects for a period of not less than five years. The installer should be approved by the manufacturer as qualified to perform the work required.
- B. Reference Standards: Conform to all governing laws, building codes, and the following performance criteria:
  - 1. Fire Performance Characteristics: Provide baffles with surface-burning characteristics as determined by testing finish panel assemblies in accordance with CAN/ULC S102 test procedures (average of 3 tests required). CAN/ULC S102 testing must be performed by a testing organization acceptable to authorities having jurisdiction.

CAN/ULC S102	Flame Spread:	25 or less
	Smoke Developed:	100 or less
  - 2. Acoustical Performance Characteristics: Provide baffles with acoustical absorption characteristics as indicated in Part 2, which have been

determined by testing fully assembled production material in accordance with ASTM C-423 (Type J mounting as defined by ASTM E-795) by a testing organization acceptable to authorities having jurisdiction. Approved testing organization must be NVLAP accredited laboratory.

3. Environmental Performance (Low-Emitting Materials): To reduce the amount of indoor air contaminants including Volatile Organic Compound (VOC) emissions that are harmful to the comfort and wellbeing of the installers and building occupants, the complete panel assembly should be tested and comply with the VOC limits according to the California Department of Public Health CDPH Standard Method V1.2-2017 (Emission testing method for CA Specification 01350), which is recognized by USGBC LEED V4.1, WELL Building Standard WELL V2 and ANSI/GBI 01-2019 Green Globes Assessment Protocol etc.

#### **1.04 Submittals**

- A. Submit to the Architect of record, three (3) complete sets of CAD generated shop drawings, or standard detail sheets, prepared by the manufacturer showing all necessary details and dimension requirements which will subsequently be field verified and revised as required by the Architect.
- B. Samples: Submit (3 sets) manufacturers standard 14" (355mm) x 6" (150mm) sample baffles as specified in Part 2 to the Owner for approval. Product shall be original production material in finish specified for final use.
- C. Certification: Submit to the owner a certificate of compliance to specified acoustical and fire performance criteria as stated section 1.03 and Part 2 of this specification, signed by an officer of the panel manufacturer and attach independent laboratory test results for each product used, showing that the products supplied as components and complete assemblies, meet or exceed the specified requirements.
- D. Prior Approval: Manufacturers not listed in section 2.01 of this specification and wishing to be submitted as an equal on the project must submit information in accordance with section 1.04 of this specification fifteen days prior to the bid date as outlined in the contract documents. The information submitted must give evidence to show that the alternative product equals or exceeds the attributes and performance of the specified product.

- E. Manufacturers Approval: The manufacturer shall have the right to approve the selection of the installing contractor and to verify that said contractor has sufficient experience and expertise to complete the project in a satisfactory manner.
- F. Single Source: All custom acoustical baffles, free hanging screens, and wall and ceiling panels, shall be purchased from a single supplier.

### **1.05 Product Delivery, Storage and Handling**

- A. Deliver fabricated units and related components to the site for installation in accordance with a reasonable schedule furnished by the contractor. On-site storage shall be such as to assure that all panels and associated materials are protected from damage, and storage area is climatically controlled to normal operational levels.
- B. Prior to panel installation, the site must be free of all wet and dusty trades and the climatic conditions stabilized to normal operational levels. Baffles shall be allowed to stabilize on site 24 hours prior to installation.
- C. Baffles must only be handled by persons wearing clean light-weight gloves. It is very important that personnel installing hardware (hanger wires, clips, ceiling suspension systems, etc.) do not handle the baffles before putting the clean lightweight gloves on.
- D. Baffles must be stored, installed and maintained only in secure ambient environment (Humidity Min 35% and Max 55% - Temperature not to exceed 80° F (27°C)).

### **1.06 Guarantee**

- A. Furnish to the Architect in the Owner's name, the manufacturers written guarantee covering the products supplied against defects in materials and workmanship under normal operating conditions for a period of one year from the date of shipment. Submit certificates of compliance showing warranty period by dates for each project completed to the Owner.

## **PART 2 PRODUCTS**

### **2.01 2" Thick Claro Baffles**

Furnish and deliver prefabricated acoustical baffles as described in this section for installation in areas as shown on drawings meeting or exceeding the following requirements:

- A. Description: The acoustic Baffles shall be Decoustics "2" Thick Clean-Air Claro Baffle" as manufactured by:

**Decoustics**

61, Royal Group Crescent,  
Woodbridge, Ontario  
Canada, L4H 1X9

TEL: (800) 387-3809  
FAX: (905) 652-2505  
Email: [sales@decoustics.com](mailto:sales@decoustics.com)

1. The 2" Thick Clean-Air Claro Baffles shall be constructed of 6 lb./cu.ft (96 kg/cu.m.) density formaldehyde free acoustically absorptive core with a nominal 1/16" (1.5mm) high density 12 - 16 lb/cu.ft. (192 - 256 kg/cu.m.) acoustically absorptive layer laminated to each face. All edges and faces of the baffle shall be finished with a proprietary 1/64" (0.4mm) thick acoustically transparent Claro facing - nominal overall thickness is 2 1/8" (54mm). The core shall be free of surface defects and sanded as required to a uniform thickness, which will not vary by more than +/- 0.06" (1.5mm). The Baffles shall be fabricated to sizes and shapes as shown on Decoustics approved shop drawings, or as supplied by the installing Contractor, using a CAD/CAM (CIM) Robotics cutting system to ensure accurate panel core dimensions to a tolerance of +/- 0.06" (1.5mm). The top edge shall incorporate a concealed steel continuous mounting area for the 'D' ring suspension.
2. The top edge shall incorporate a concealed steel continuous mounting area for the 'D' ring suspension. The top edge shall incorporate a concealed continuous aluminum extrusion to accept mounting suspended mounting clips.
3. Finish shall be: Decoustics Claro - colour selected by the architect/designer. Finish shall be applied to all baffle edges and faces. The finish shall be flat and wrinkle free and fully tailored at corners with no exposed darting.
4. Installation shall be by use of specially treated hardware consisting of either "D" rings mounted to the concealed steel top edge of the baffles or Decoustics Panel Clips (DPC). All fasteners (ceiling anchors, hanger wire or chain, screws, etc.)

- are to be supplied by the installing contractor.
5. Installation shall be in accordance with local code requirements, manufacturers' instructions, and as shown on Decoustics approved shop drawings, or detail sheets. Installer shall provide for shimming, installing alignment splines (where required), and adjustments as required to maintain consistent alignment of joints and of finished baffle faces, and to ensure unstressed clip/'D' ring locations.
  6. Panels shall have noise reduction coefficient values of the following when tested in accordance with section 1.03 of this specification.

Claro Baffle				Frequency (Hz)						
Type	Thickness	Finish	s/h	125	250	500	1000	2000	4000	NRC*
Clean-Air	2" (54mm)	Claro	1	2.52	4.41	11.06	10.83	10.81	10.02	0.95
			1.5	2.38	4.75	12.22	11.63	11.78	10.64	0.70
			2	3.13	4.83	12.59	11.89	11.67	10.84	0.50

's' = baffle spacing.      'h' = baffle height.

Test data based on 48" wide x 24" high x 2" thick Claro finish baffles.

Numbers shown are Sabins per unit.

NRC\* - Apparent Sound Absorption Coefficient calculated from total test surface area covered

## PART 3 INSPECTIONS AND APPROVAL

### 3.01 Adjustment and Replacement

- A. The Owner shall inspect the installation and product on completion. The manufacturer shall provide repair or replacement of components not conforming to requirements as stated herein and said work will then become bound by the terms of this specification.
- B. Installation labour for removal and replacement of product improperly installed and not conforming to specified installation methods as detailed in sections 2.01.3 and 2.01.4, and shown on approved shop drawings, shall be the responsibility of the installing contractor.

### 3.02 Additional Material

- A. Provide to the Owner on completion of work, maintenance stock of additional Baffles as determined by the architect.