

1.0 **GENERAL**

1.1 **Related *Work and* UBC Guidelines**

- .1 Section 09 00 10 Finishes – General Requirements
- .2 *Section 09 21 16 Gypsum Board Assemblies*
- .3 *Section 09 22 16 Non-Structural Metal Framing*
- .4 *Section 09 90 00 Painting and Coating*
- .5 *UBC LEED Implementation Guide*
- .6 *UBC Resilience-Based Design Guide for Nonstructural Systems*

1.2 **Related External Documents**

- 1. *Ceiling installation shall be in accordance with ASTM-C636.*
- 2. *Latest edition of the AWCC / WCI (Association of Wall and Ceiling Contractors / Wall and Ceiling Institute) Specification Standards Manual.*
- 3. *Seismic requirements stipulated by the latest edition of the British Columbia Building Code (BCBC).*
- 4. *Coordination with seismic requirements of other ceiling components such as work in Divisions 20 to 28.*
- 5. *Ceiling suspension components shall be in accordance with ASTM-C635, “Intermediate Duty” for typical ceiling lighter weight panels such as mineral fiber panels.*
- 6. *Seismic design, components, and installation: in accordance with ASTM-E580, Clause 4 and subsequent clauses.*

1.3 **Description**

- 1. *Acoustical ceiling tiles (ACT) and associated support systems.*

1.4 **Coordination**

- .1 *The Guidelines apply to all work completed within buildings on both UBC Vancouver and UBC Okanagan campuses unless stated otherwise.*
- .2 *In instances where conflicts are found between these guidelines and provincial regulations or codes, please notify the UBCV Technical Review Team Architect or UBCO Facilities Management.*
- .3 *These guidelines are intended to be read by design consultants and their content integrated into construction drawings and specifications. Construction documents are not to reference the technical guidelines directly.*
- .4 *The Coordinating Registered Professional (CRP) is required to coordinate these requirements with other disciplines.*

1.5 **Submittals**

- .1 *Submit required documents to consultants in accordance with Section 013300 Submittal Procedures*
- .2 *Provide samples for colour selection only if it is a Construction Office project.*
- .3 *O&M Submittals*
 - .1 *Provide list of ACT types and colours used, complete with manufacturer/distributor name for all products used.*
 - .2 *Environmental Product Declaration (EPD).*
 - .3 *Maintenance data for all tile selections.*
 - .4 *Warranties.*
 - .5 *Material Data and Safety Sheets (MSDS).*
 - .6 *Maintenance data including source for replacement.*

1.6 Quality Control and Assurance

- .1 Quality Assurance
 - .1 All seismic restraint work including anchoring systems shall be designed and certified by a Professional Engineer registered in BC and to submit a Letter of Assurance.

2.0 DESIGN AND PERFORMANCE REQUIREMENTS

2.1 *Design Requirements*

- .1 *Specify ceiling systems that carry some assurance of a future supply of patterns and colours. Local suppliers are preferred.*
- .2 Fire-resistant ceilings that require the use of hold down clips, and concealed spline systems must not be used at UBC.
- .3 T-bar ceilings are required to be seismically reinforced in all new construction and renovations – *refer to 1.6.1.1 and the UBC Resilience-Based Design Guide for Nonstructural Components.*
- .4 *Ceiling finishes to have a Flame Spread Rating (FSR) of 0-25 (Class A) and is required for all core facilities. For new buildings or major renewals, FSR to be as per code consultant report.*
- .5 *Ceiling systems should have a high recyclable material content.*

2.2 Performance Requirements

- .1 *Ceiling systems should be easily accessible for any mechanical or electrical servicing required. Ceiling components should be removable and easily replaced by the Building Operations crews or external service trades without damage and without requiring other crews, trades or special equipment.*
- .2 *Ceiling systems shall be ISO 1400 Series Certified.*
- .3 Connect T-bar to edge molding using pop rivets, matching color of suspension system, as set out for seismic restraint by ASTM Standards *and UBC Resilience-based Design Guide for Nonstructural Components.* 25-year *service life required* for ceiling suspension system.

3.0 MATERIALS

3.1 *Product Selection*

- .1 The following are preferred products *for use as these are* stocked for maintenance at UBC;
 - .1 UBC Standard Tile: 24" x 48" x 5/8" Armstrong #769 "Cortega".
 - .2 Suspension System: 15/16" exposed Tee, Armstrong "Prelude XL".
- .2 For other *ceiling* systems proposed, criteria for selection *should include the following*: ease of accessibility *for mechanical/ electrical services, availability of future stock for maintenance and repair*, durability, high light reflectance *where required, high recyclable material content, and acoustical performance criteria* as recommended by Project Acoustical Consultant.

END OF SECTION