Emphasizing the “lightness” of common structures in the aerospace industry, the designers of the Learning Laboratory for Complex Systems at MIT features glass and steel elements in exterior and interior wall systems to complement the heavier masonry look of the existing building. The new stainless steel, long span hangar roof system also reinforces a feeling of “lightness” by springing from small HSS columns in the window walls. The roof structure incorporates a series of delicate steel king post and rod trusses that reinforce the “lightness” of the roof. The exterior window wall is comprised of a series of steel channels, which in turn support a steel window system. Even the oversized bi-fold hangar door incorporates a glazing system that coordinates closely with the steel window wall to give the overall space a generous sense of transparency and daylight.

Steel window systems with thin sightlines were incorporated into major portions of the new interior walls such as in the library, fabrication shops and various specialty classrooms. Metal panel cladding was the material of choice when the east brick façade of the building was discovered to have structural problems. Using a metal panel treatment in combination with the new steel windows allowed the hangar addition and the existing low speed wind tunnel to blend with the newer structures.
JURORS’ COMMENTS

Straight-forward, workmanlike, yet inventive approach to steel construction: devoid of stylistic moves. Simple, clean and well-engineered. No nonsense here. A very honest, down-to-earth use of steel... No gimmick! A raw expression of the material with its structural integrity and detailing.

STRUCTURAL ENGINEER
Weidlinger Associates, Inc., Cambridge, MA

ARCHITECT
Cambridge Seven Associates, Cambridge, MA

GENERAL CONTRACTOR
William A. Berry, Danvers, MA

DESIGN SOFTWARE
STAAD, RAM Structural System