Although HSS designs have been routine since 1920s, current bold applications with curved, twisted and composite combinations are redefining the potential freedom of design expression offered by Hollow Structural Steel. Bradlee Fletcher, SE from Atlas Tubes will present on technical design topics on current understanding to shape future trends with HSS:

- **The New ASTM A1085 Specification** adopted in early 2013 elevates the production of HSS to higher standards, raising the bar on the performance of HSS used in structures subjected to seismic and fatigue related loads. With tighter material tolerances, a higher minimum yield stress, a required Charpy V-Notch test, and cap on the minimum yield stress, this new specification makes designing with HSS easier and more economical, especially for buildings and bridges subjected to fatigue and seismic loads.

- **De-mystifying HSS Connections** will highlight areas of HSS connection design often overlooked or misunderstood. It will discuss similarities and the subtle differences between HSS connections and other types of connections for tension, shear, moment and truss applications.

- **Concrete filled HSS tubes** will provide overview on composite design details and tips for its successful applications.

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Brad Fletcher, S.E., is the senior sales engineer at Atlas Tube. He holds a Bachelor of Science and a Master of Science in civil engineering from Purdue University. He is a registered structural engineer in Illinois. Since past 26 years, he has held senior positions at leading architecture and engineering firms, such as Skidmore, Owings & Merrill; Sargent & Lundy; and Halvorson and Partners. For the past 11 years, while working at Tata Steel (formerly known as Corus) and now with Atlas Tube, Brad has focused his efforts on serving as a liaison between structural designers and the steel industry.

Brad is active in many industry groups and committees including the AISC, ASTM, the Structural Engineers Association of Illinois (SEAOI), the CISC Education and Research Council (formerly SSEF) in Canada and the S16 Technical Committee for the Canadian Standards Association (CSA). He actively contributes to the Technical Committees responsible for the AISC Specification, as well as the HSS Producers Group and the Committee on Research.