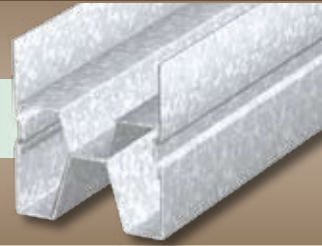


WALLS & CEILINGS

ProX HEADER
Engineered Header System



The CFSEI Cold Formed Steel Engineers Institute recently awarded Brady Innovations with an Innovative Design Award. Mr. Brady was recognized for the innovative use of cold formed sheet steel in the Century Tower Project, Century City, Calif.

Todd Brady, founder of Brady Innovations, has developed a superior metal stud framing system for interior and exterior door and window rough openings. Now being offered in the market for its third year, it is quickly becoming the industry standard.

The ProX Header replaces multiple piece (stud & track) built-up headers hand-made in the field.

ProX Header offers superior strength, it is faster to install, provides a better quality finish and uses less steel to accomplish equal header spans so it is (LEED CREDITS) an environmentally friendly choice too.

The ProX Header meets the requirements of the International Building Code (IBC) 2006 and the California Building Code (CBC) 2007 including tough OSHPD California Hospital - Title 24 Standards.

A CASE STUDY

Cold-formed steel innovators Brady Innovations, LLC and Ficcadenti Waggoner & Castle, consulting structural engineers, submitted "ProX Header" for the award of innovative product design.

Specific use of Building: "Luxury Condominium Residences"

An elliptical masterpiece designed by world-renowned Robert A.M. Stern Architects ascends 42 stories into the skies of Century City. The Century boasts panoramic views stretching from downtown, to across the Santa Monica Mountains and the Pacific Ocean.

The Century is registered with the US Green Building Council with anticipated LEED Silver Certification, the benchmark for high-performance green building, which encompasses energy efficiency, sustainable building materials, water conservation and indoor environment quality.

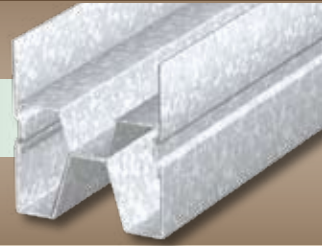
Project Requirements and Solutions:

Several challenges faced the cold-formed metal stud components and the installers (metal stud framers) on this project. For this report we will focus on five key challenges:



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1. WIND STUDY and COMPLIANCE

a. Project Requirements: Due to the building's 42-story height and elliptical configuration a wind study was required and was performed by Cermak, Peterka and Petersen (CPP Inc.) Wind Engineering and Air Quality Consultants (PH: 970-221-3371). The results of the wind study required that the cold-formed metal stud framing components and assemblies withstand wind pressures up to 80 pounds per square foot. Keeping in mind the towers elliptical shape, it was especially difficult to [efficiently] design a jamb and header system at the door and window openings through out the tower.

b. The Solution: The tower framing was designed to withstand wind pressures up to 80 pounds per square foot at designated locations. Efficiencies were gained by tailoring the designs of the exterior framing system to match the various wind pressure requirements around the building. At the towers (double glass siding doors) terrace openings Tom Castle designed radius'ed ProX Headers. The ProX Headers innovative design not only solved design and engineering limitations it also solved constructability (installation) and finished quality problems.

c. For material saving due to innovative product design see item 5 (i)

2. THE BUILDING'S ELLIPTICAL SHAPE

a. Project Requirements: The building was designed with an elliptical shape. This shape makes a beautiful building. However, cold-formed metal stud framing components are manufactured in straight pieces.

b. The Solution: Every framing component that installs horizontally must be radius'ed to match the building's contour. The radius changes depending upon location in the egg shaped building. This includes all exterior top and bottom tracks and header components. The ProX Headers used on the building exterior were radius'ed to match the building contour at various locations. The ProX Header innovative design does not require assembly, contrary to traditional built-up box headers, after it is "stretch formed" which solves many constructability (installation) and finished quality problems.

3. HAND-SET STONE OVER SPANDREL FRAMING

a. Project Requirements: Exterior "Low Rise" Spandrel Framing at the first 3 levels. The first (3) three levels of the tower are clad in hand set stone over structural steel spandrel framing, vertical tube steel and cold-formed metal stud infill framing was designed to support the weight of this 4 inch thick stone as well as wind and seismic loading while maintaining a strict deflection criteria.

b. The Solution: ProX Header was used at the top and bottom of the spandrel framing to carry the in-fill metal stud framing from the structural steel tube support to steel tube support. This application of the ProX Header replaced two (5) five piece traditional box headers. The ten (10) pieces were replaced with two ProX pieces, which resulted in significant time and material savings.

c. For material saving due to innovative product design see item 5 (ii)



CFSEI
AWARD WINNING
DESIGN

NO
Welding
Required



ProX Header



ProX Header w/ Insert



WALLS & CEILINGS

Pro X HEADER[®]
Engineered Header System



4. MORE THAN 4,000 DOOR and WINDOW OPENINGS

a. Project Requirements: Interior “Door and Window Framing.” Being a luxury condominium tower means thousands door openings throughout the building floors. The best quality finish is a must at the building interiors. There are approximately 100 door and window openings on every floor. The original plans called for built-up (stud and track) headers and jambs, which not only require excessive materials and man-hours of labor, but also prevent a superior quality finish.

b. The Solution: Brady Innovations and Martin Brothers/Marcowall designed upgraded 2-inch wide flange single jamb studs and ProX Headers at each of these 4,000 openings. This rough opening design provides the best quality framing substrate for the drywall and finishing crews, which results in a superior finished product for the buildings owner. The ProX Headers innovative design also eliminates countless hours of cutting which results in a safer work environment. Less cuts means less risk.

c. For material saving due to innovative product design see item 5 (iii)

5. GREEN BUILDING EFFORTS –(LEEDS)

a. Project Requirements: The Century is registered with the US Green Building Council with anticipated LEED Silver Certification, the benchmark for high-performance green building.

b. The Solution: Installing ProX Header in several of the above applications the overall construction realized a substantial savings in material usage. LESS raw materials, LESS manufacturing energies, LESS Trucking, LESS material cutting and handling and Better Safety too.

i. At the Exterior Tower: ProX Header vs. Built-up stud & track headers—640 studs were eliminated from this project by using ProX Header.

ii. At the Exterior Low Rise: ProX Header (2 pieces.) replaced built-up (10 pieces) stud & track headers—1,440 studs were eliminated from this project by using ProX Header.

iii. At the Interior: ProX Header replaced built-up stud & track headers saving 2,000 studs—2-inch wide flange single jamb studs replaced double jamb studs saving an additional 8,000 studs = 10,000 studs were eliminated from this project by using ProX Header.

The ProX Header is Better by Design:

The ProX design has saved countless man-hours of time and solved many issues of constructability on this project alone. The ProX design offers Better Production, Better Safety, Better Quality and it's Better for the Environment too.

Sidebar: PROJECT DETAILS

The ProX Header was use extensively in both the interior and exterior of the Century Tower.

Project Name: “The Century”

Location: Century City, Los Angeles County, Calif.

Construction Schedule: April 2007 through August 2009

Project (Structural) Engineer: Magnusson Klemencic Associates, 1301 Fifth Ave. Suite 3200 Seattle, Wash. 98101-2699, (206) 292-1200

Project Architect: HKS Architects, Inc., 9441 West Olympic Blvd., Beverly Hills, Calif., 90212, (310) 788-7700

Project Owner: The Related Companies, 60 Columbus Circle, New York, N.Y. 10023, (212) 421-5333 and/or The Related Companies, 18201 Von Karman Ave., Suite 900, Irvine, Calif., 92612, (949) 660-7272

General Contractor: WebCor Builders, 550 South Hope Street, Los Angeles, Calif., 90071, (213) 239-2800

Consultants and their Roles: Ficcadenti Waggoner & Castle, Consulting Structural Engineers 3100 Oak Road, Suite 390 Walnut Creek, Calif., 94597, (925) 280-0098; Tom Castle S.E., Principal Design of Cold Formed Steel Components

Cold-Formed Metal Stud Framing Contractor: Martin Brothers/MarcoWall Inc., 17104 South Figueroa. St., Gardena, Calif., 90247, (310) 532-5335 Bryan Mac - Project Manager

Cold-Formed Steel Manufactures: Dietrich Metal Framing (under license from Brady) Brady Innovations LLC, 13969 Aubrey Road, Beverly Hills, Calif. 90210, (818) 288-1188 – Todd Brady, President