

Custom Laser Welded Profiles for The Space Needle Seattle, WA

Profile:

*Custom Laser Welded Channels &
Custom H-Sections*

Material grade:

316/L Stainless Steel

Execution:

Laser Welded

Destination:

Seattle, WA



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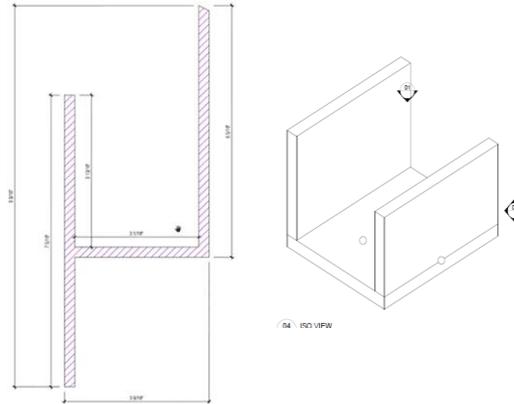
Sustainable Solutions

Background



In late 2017, work began on the Century Project in Seattle, Washington. This project revolved around the renovation of the iconic Space Needle. The 56-year-old structure was in need of a long list of improvements, with the most evident being the observation deck. Stainless Structurals partnered with Herzog Glass and Front Inc, to help with the Olson Kundig led design.

Challenge



The goal of the Space Needle redesign was to preserve the icon's legacy, while enhancing the visitor experience and views from the observation deck. In order to do this, the new design called for the glass panels to make up the barrier of the deck replacing the old metal wire and rod barrier. The specific detail called for 48 glass panels using 2 inch thick glass and measuring 7 feet wide and 11 feet high with each panel weighing over 1 ton. Given the size of the panels and the thickness of the glass, the glazer needed to find the most suitable product made from the best material to use as the fitted shoe of the glass to help keep the panels in place.

Solution



With the observation deck being exposed to the elements, they chose to use atypical profiles made from 316/L stainless steel. This sustainable alloy provides excellent corrosion resistance with increased mechanical properties. We produced three different laser fused shapes. The first two were unequal leg channels and the last was a custom h-type profile. These shapes were used as fitted shoes on the bottom of the glass panels. The unique feature of using the shoes on the bottom is that there is no mullion or frame between the panels, which allows for an unobstructed view all the way around the observation deck.

