

# Boeing Development Center

## Everett, Washington (1983)

### BACKGROUND

The Boeing Aircraft Plant is the world's largest volume building under a single roof, measuring in at over 62-acres indoors. Located in Everett, Washington, the sheer magnitude of the Center expressed Boeing to the world and become an icon in the aviation industry. The original facility was designed, engineered and constructed in 1966 and was already the largest building by volume in the world. In 1983, Boeing expanded in order to produce 777s, which meant further construction to an already unique building.

The below grade foundation required very thick concrete pours at 6 ft. thick at the base, tapering to 4.5 ft. (1.38 m) thick at the top. There were 6,500 ft. (1,981 m) of tunnels to accommodate utility mains and designed for emergency evacuation, and 11,500 ft. (3,505 m) of trenches to facilitate utility installation. At the time, sheet membranes had an average life expectancy of only five years, which would mean Boeing would have had to do replacements or repairs 6-times since 1983.

### SOLUTION

Instead of using sheet membranes, the construction team went with Kryton's Krystol Internal Membrane™ (KIM®) admixture to completely tank the massive building. KIM was able to make the concrete the waterproof barrier and replace any need for an external membrane or other waterproofing method.

Kryton provided the Boeing Aircraft Company with a standard 25-year warranty. Thirty-one years later and the system continues to perform perfectly to specification, effectively saving The Boeing Company a lot of time and money in the process.



*The Boeing Development Center is the largest building by volume in the world.*



*Street view of the Development Center in the 1980s.*

#### OWNER:

Boeing Aircraft Company

#### ARCHITECT/ENGINEER:

The Austin Company

#### CONTRACTOR:

Associated Sand & Gravel

#### READY-MIXER:

Associated Sand & Gravel

#### DISTRIBUTOR:

Kryton International Inc.

#### PRODUCTS:

Learn more at [kryton.com](http://kryton.com)  
 Krystol Internal Membrane™ (KIM®)