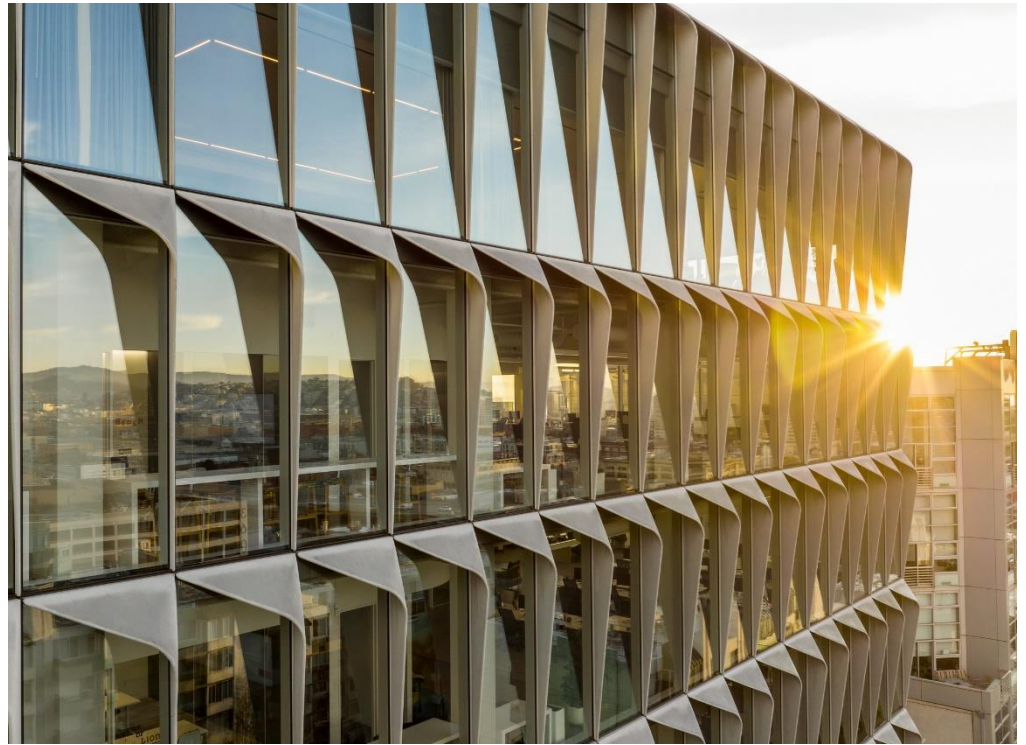




CAPABILITY PROFILE

Facade Engineering



- Facade design
- System and material selection
- Glass selection
- Glass engineering
- Parametric modeling
- Finite element analysis (FEA)
- Performance specifications
- 2- and 3-dimensional thermal and condensation risk analysis
- Energy code analysis
- Construction document details
- Bid review and analysis
- Shop drawing and submittal review
- Fabrication and field observation
- Laboratory mock-up and in situ performance testing
- Services for Leadership in Energy and Environmental Design (LEED) certification

Facades must meet demanding requirements for structural, thermal, moisture protection, flame spread, and visual performance. The successful design and realization of these systems requires an in-depth understanding of facade function and operation, as well as state-of-the-art knowledge and tools for evaluation and analysis. For more than sixty-five years, our facade design professionals have helped owners, architects, and construction managers achieve superior performance from their building facades. Our interdisciplinary team of engineers, architects, and materials scientists approaches each facade engineering project with a unique perspective gained from solving problems in thousands of building enclosures.

Our in-depth knowledge of facade performance translates into better performing facades for our clients. We work with clients from the conceptual design phase through construction and final acceptance to achieve results that are visually spectacular, technically sound, and cost effective.

Our experts apply sophisticated engineering tools to model and investigate design options. We use 2- and 3-dimensional thermal modeling to validate thermal performance, while finite element analysis is often used to investigate structural approaches and push the limits of glass engineering. Applying decades of domestic and international experience, our facade professionals provide guidance and leadership to help project teams produce constructable, coordinated, and validated designs, providing the best value to the owner at bid time. With a deep knowledge of global practices and products, our staff brings the firm's experience with alternative methods and materials to bear on each project. Supported by our structural and material testing laboratory at the Janney Technical Center, we can rapidly evaluate novel facade technologies and materials.

