Company:
Page, Houston TX
Project:
Higher Education Building, Houston TX

Page/ Investigate Glazing : Wall Ratios on Higher Ed Building

Perform parametric analysis to indicate solar exposure and heat gains using FenestraPro Premium for Revit.

"FenestraPro gave us rapid and comprehensive feedback for a competition proposal that we wouldn't have otherwise run.

The ability to parametrically generate windows and shading was a huge time saver, which enabled us to demonstrate a rich level of detail within the competition deadline.

Because of FenestraPro's rapid feedback, we finally have a tool that works well with design work flows, which are always iterative in nature."

Shreejay Tuladhar
Building Performance Analyst
Page

Early, **dynamic** exploration within **Revit**;

Exploration of **impacts of different glass to wall ratios** on the building performance and **Energy Codes;**

Export of data to Snapshots to better examine and understand;

Early **parametric analysis** of glazing distribution and **shading solutions**;

Intro

Page/ is a leading design firm, and hugely influential champions for design across multiple sectors. Their Higher Ed teams provide design solutions that are particular and responsive to program, site, context, and economics. In fact, **Page/ academic** ranked 13 of 110 University Giants by BuildingDesign + Construction 2016.

Project

Part of a campus masterplan in the Northeastern part of Houston TX, this building had a fixed orientation.

Using a single day of peak solar load, the designers quickly experimented with the **implications of a range of glass to wall ratios** - from 10 % to 90% - **while exporting data to FenestraPro Snapshots** to comparatively analyse the results.

Consideration was given to the Prescriptive Energy Codes IECC-2015 and the threshold **where shading became beneficial**, to graphically demonstrate differing options, and give considered information with which to prepare their proposals for presentation.

Summary

Carried out by an Energy Analyst as part of the design team, this exercise led to deeply informed decisions being made. This investigation in to **glass to wall ratio**, which can often take days, was carried out **in a matter of hours, and informed the team** of limits and opportunities of varying glazing solutions for each façade.