



International

Asia

Client

STMicroelectronics

Location

Singapore

STMicroelectronics Fabrication Facility and Office Building

Project Description

IDC Architects, an affiliate of CH2M HILL, and their Engineers worked in conjunction with Alfonso Mercurio, Architect to design and coordinate a new semiconductor fabrication facility and office building on the existing STMicroelectronics Singapore site.

Due to the very limited site constraints and the demand for production, support and office space “thinking vertical” became the design objective and “building up” the natural solution.

The fabrication facility was designed as a “stacked fab” with two fabrication floors separated and serviced by a single subfab. Process utilities ran both up and down. Clean stairways and clean passenger elevators linked the cleanrooms.

Fab gown room and support spaces are located in the “bridge” building. This innovative structure is a three level building that spans the main campus roadway, linking the office with the fab while creating a campus gateway.

The ground floor of the office tower was designed as the main campus entry for both visitors and employees. Levels 3 and 4 were designed for future clean test and assembly, and are aligned with the fabrication building to facilitate complete product and process flow. The remaining floors serve typical office and engineering support functions.

Building Statistics:

- Office: 24,000 SM
- Cleanroom: 26,000 SM
- Support: 34,000 SM

Program Elements:

- Office
- Bridge Building
- Fabrication
- Central Plant
- Bulk Gas Yard
- Curtain wall, Precast Concrete,
- Metal panel
- Design and Construction
- Management