



Project Profile:

Solar Facility Retrofit

Owner: Confidential Client
Location: Hillsboro, Oregon

Evergreen Engineering partnered with a large German General Contractor for the conversion of an existing semiconductor wafer manufacturing facility to solar production. Scope of work included Crystal Growing, Slicing, Squaring, Final Cleaning, Cell Production, and Facilities Systems.



Evergreen Engineering provided the following services:

- Site Master Plan Development
- Preliminary Engineering
- Scope Development
- Detailed Design
- Procurement
- Construction Management
- Permitting
- Startup/System Commissioning

Specific tasks included:

- Project Management
 - Construction Procurement
 - Project Scheduling
 - On-Site Safety Management
- Civil/Structural/Architectural
 - Conversion to “H” Occupancy
 - Interface with the City of Hillsboro
 - Design of a new Central Utility Building
 - Major structural upgrades to support new ceiling and material handling systems
 - Conversion from a cleanroom raised floor to a concrete floor
 - Crystal Growing pedestal and access platform design

- Process Engineering
 - New chemical delivery systems
 - Re-commissioning of waste water treatment and DI water plant
 - Re-configuring of distribution for the specific tool set
 - Hazardous Material Inventory Statement (HMIS) to ensure code compliance
- Electrical Engineering
 - Modeling of power systems for the campus
 - Negotiation assistance with local electric utility
 - Re-commissioning of all major electrical gear
 - Load analysis for new tool set
 - Conversion of primary tool panels from 208V to 480V
 - Design for the installation of new medium voltage switchgear and busways to support tools
- Mechanical Engineering
 - Review of HVAC and exhaust system design to meet code requirements
 - Review of Design of Process Cooling Water system design to meet code requirements
- Building Controls Systems/IT/Life Safety
 - Analysis and retrofit of existing systems
 - Modernization of systems and alignment to facility system upgrades

Evergreen Engineering Performance

Our commitment to client satisfaction is revealed by our ability to establish a long-term relationship, thus, granting us with repeat business.