



BASEBUILD

UNRIVALLED TECHNICAL SERVICES AND IN-DEPTH INDUSTRY KNOWLEDGE CREATE INTELLIGENT, VERSATILE BASEBUILD DESIGNS FOR THE HIGH TECH INDUSTRY



SYSTEMS EXPERTISE

- Air handling
- Bulk and specialty gases
- Chemical delivery
- Chilled water
- Cleanrooms
- Solvent waste
- Tool utilities, including controls
- Ultrapure / hot ultrapure water

For more than 30 years, SSOE has provided basebuild retrofit, reprogramming, and design services for semiconductor, research and development, cleanroom, and related support facilities. Our focus is to deliver high value to projects. Our techniques and experience enable us to provide clear and concise methods to successfully complete basebuild projects of all sizes and scope.

Over the years, SSOE has developed groundbreaking methodologies that comprehensively address complex technical basebuild challenges. Our commitment to the field is demonstrated through our focused effort to reduce waste, respond quickly and efficiently to fast-track schedules, and thoughtfully expand our portfolio of proven approaches that exceed client expectations.

Because understanding the guiding principles of a project is paramount to success, we work closely with clients to define project scope. Whether modifying existing facilities, converting buildings into cleanroom spaces, or providing services for new manufacturing sites, we listen to client needs and respond with detailed execution plans and costs.

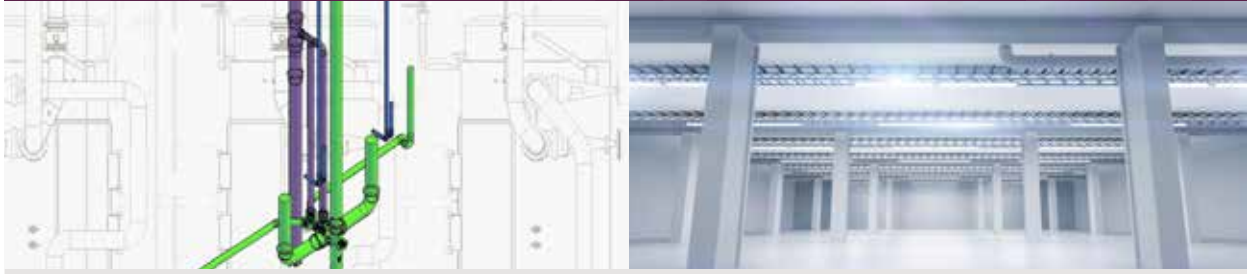
For many projects, SSOE completes short-term studies of proposed methods to solidify the means we will use to complete work on a large scale. This helps achieve a viable and sustainable reference model for future build-outs and allows us to clearly illustrate the cost-benefit ratios for each approach.

For projects that include modifying current facilities, we carefully evaluate and include as many of the existing systems as possible, while offering cost-effective recommendations for modifications and upgrades based on future need.



SERVICES WE PROVIDE

Architecture
BIM
Code analysis
Conceptual layout drawings
Construction management
Detailed design
Electrical design
Existing facility structural analysis
ISO 3 to ISO 8 cleanroom design
Master planning
Mechanical design
Preliminary agency review
Preliminary engineering
Process design
Scope development
Site studies
Structural analysis and design



BIM CAPABILITIES

SSOE has worked tirelessly to optimize and tailor our BIM infrastructure to deliver to our clients exceptional models embedded with rich data. We consistently provide quality representation of real-world conditions while integrating required data in basebuild and related work. Our BIM team excels at addressing the complexities of basebuild projects and understands that aligning with client goals is critical to the success of the overall project.

To enhance in-field measurements, SSOE uses laser scanning to accurately capture conditions. This in turn is rapidly converted into intelligent parametric model elements that contain relevant data. The goal is to reduce interferences in future build-outs by replicating working field conditions. We concisely illustrate coordinated layouts while allowing the flexibility to adjust systems where needed for climate and location-specific needs.

In addition, we offer clients a collaborative design environment and innovative approaches to both standard 2D and BIM projects that will ultimately benefit the development of a truly unique design plan to meet the project goals.

PROJECT EXECUTION

Our project execution approach incorporates SSOE best practices, which are then specifically tailored for our clients. Our knowledge and experience result in consistent, predictable project delivery. SSOE offers the following advantages:

- An IT infrastructure developed to protect the security of your intellectual property
- Established data management expertise for large-scale projects
- Experienced project managers who understand the challenges inherent in basebuild projects
- Extensive knowledge of BIM specifications and expected outcomes
- Integrated engineering and design services with all primary disciplines in-house
- Proven success modeling existing conditions within complex fabrication facilities
- Scalable and repeatable model environments