

One Model Advanced Delivery Process

Reduce Schedule. Lower Costs. Enable Off-Site Manufacturing.

As the Engineer of Record (EOR), SSOE creates a design model at the level of detail required to enable the production of fabrication drawings—quickly and efficiently in one software platform. This approach is known as SSOE’s One Model (OM) Advanced Delivery Process. By removing the redundant process of creating a construction model from the design model and the iterative submittal process, SSOE’s OM approach can shave months off the project schedule.

Our approach contrasts with the typical process which entails the EOR creating an Engineering Model in separate design platforms consisting of 2D and 3D deliverables. The trades subsequently produce a construction model at the fabrication level of detail and submit it to the EOR for review. With the submittal review, the EOR must align the Construction Model with the Engineering Model. There are often discrepancies in the content of the 2D and 3D documentation that require cyclical submittal processes to clarify the inconsistencies between the two models, which stalls procurement. Our approach avoids these costly tasks.

Our existing relationships with Original Equipment Manufacturers (OEMs) mean that SSOE can provide the necessary information to expedite procurement of long-lead materials. We value early collaboration with trade contractors for integrated constructability reviews. These two activities allow our team to bypass the submittal process and proceed directly to Issue for Fabrication (IFF) content, which reduces the project schedule and lowers costs.

Current Design / Bid / Build – Standard Construction Schedule



Proposed One Model (OM) Approach in Collaborative Design / Build Schedule



THE ONE MODEL ADVANTAGE

- One Model (OM) is the record model
- Developed by EOR / SME
- Early Off-Site Manufacturing (OSM) opportunities are built into the OM
- Eliminates duplication and enhances coordination
- Reduces schedule
- Lowers cost

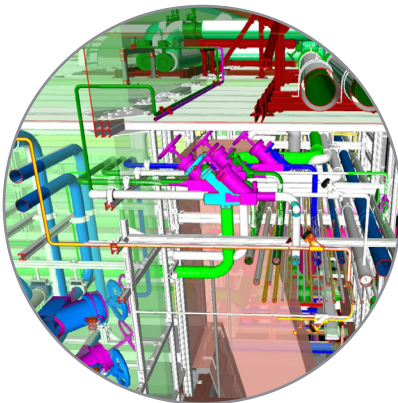
WHY SSOE: DEPTH OF KNOWLEDGE

As a top-ranked high-tech manufacturing A&E firm, SSOE has a depth of knowledge that extends to basebuild, progressive build, and layout-dependent support that informed our development of the One Model process, and our development of the OM for each project. Including:

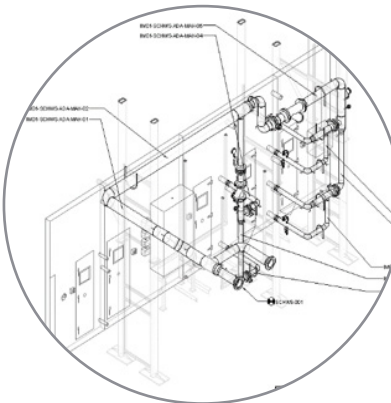
- Gap analysis
- System capacity analysis
- Utility database
- Pre-assignment
- Layout Release (LOR) progression
- POC distribution and XYZ's
- Mains, submains, and laterals
 - PCD / BCD / Spec gas
 - Power distribution
 - Life safety and security
 - IT and telecom
 - Multidiscipline racks

ONE MODEL: INTEGRATED DESIGN

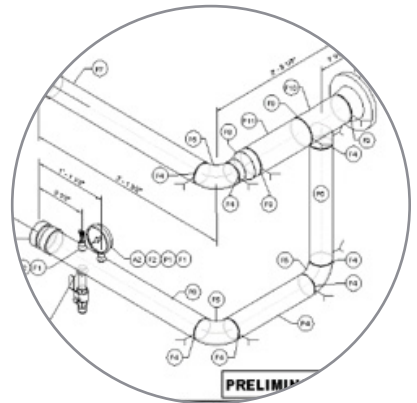
Coordination



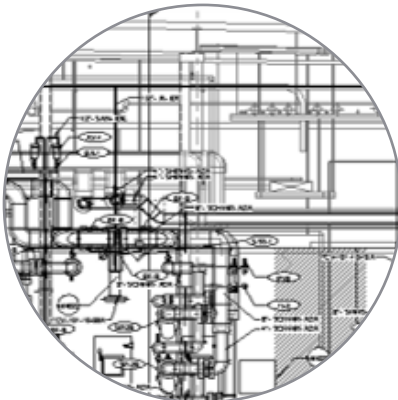
Assembly Maps



Fabrication Drawings



2D Deliverables



During the integrated design phase, the engineering team and trades collaborate on preferred pipe routes and align on design intent. The design team then creates the piping model and reviews the proposed route with the system owner and trade contractors. After this review, the design team finalizes the pipe routing model, including connection hardware. Finally, the design team coordinates pipe spool requirements with the trade contractors to facilitate the creation of spool drawings for fabrication and installation.