



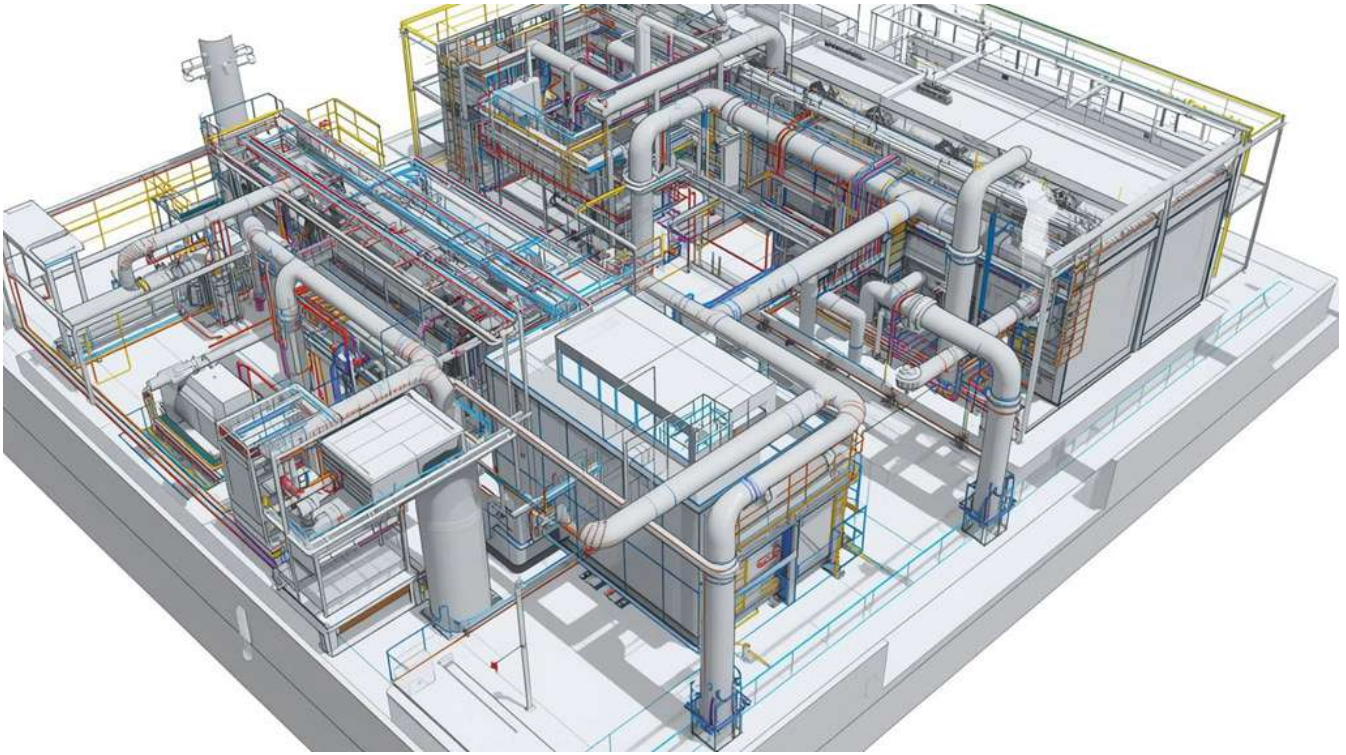
LOD 400 Mechanical Piping BIM Modeling & Coordination for Industrial Facility

(Mechanical BIM Modeling, Clash Coordination & Spool Drawing Development Services)

CASE STUDY



TECHTURE



Client : Utility & industrial Contractor

Team Size : 4 No.s (BIM Engineer & BIM Coordinator)

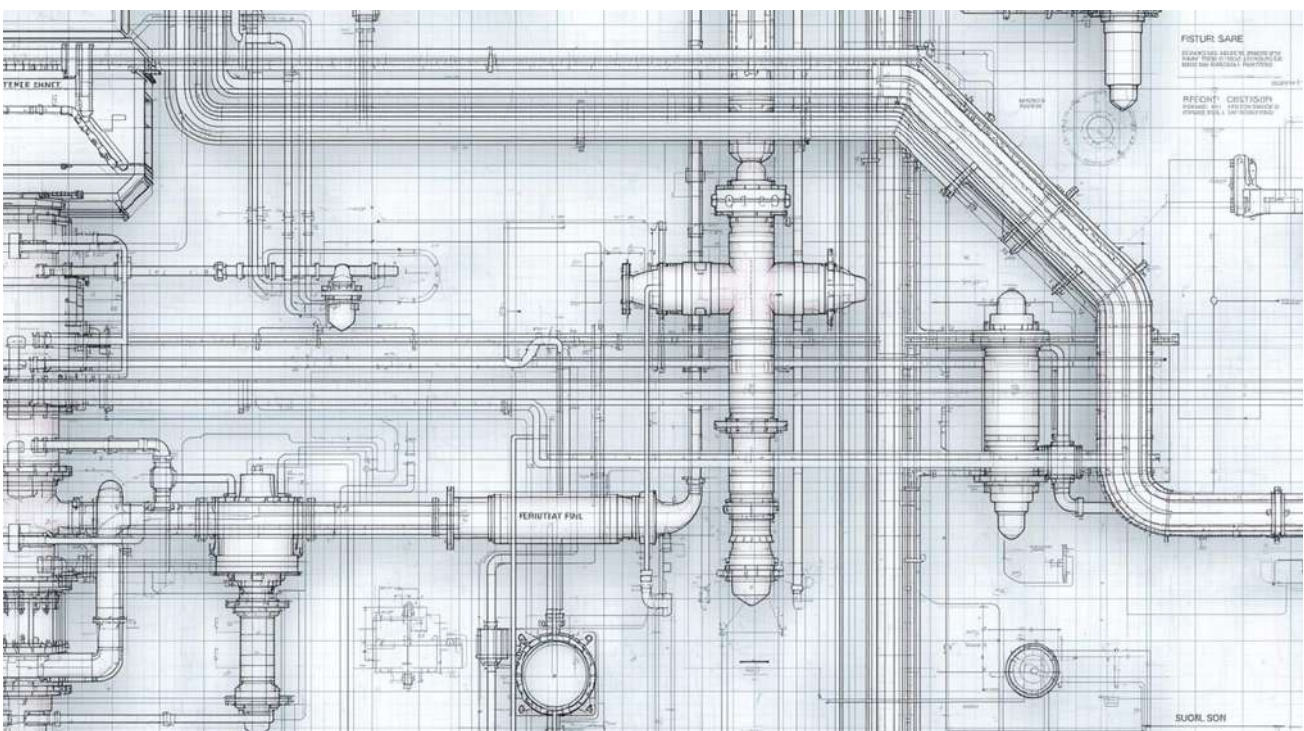
Disciplines : Mechanical

Duration : 3 Month

Type : Industrial

Software : Autodesk Revit & Navisworks

Location : New York, USA



Project Overview

Techture delivered LOD 400 Mechanical Piping BIM modeling and coordination for an industrial facility project. The scope involved developing fabrication-ready piping models using reference drawings, point cloud data, and NWD files. Using Autodesk Revit and Navisworks, the team ensured clash-free coordination with all disciplines. The final deliverables supported accurate fabrication, installation, and site execution.

Scope & Deliverables

- 📦 Develop LOD 400 mechanical piping BIM models using drawings, point cloud & NWD references.
- 📦 Perform clash detection and coordination with Architecture, Structure & MEP models.
- 📦 Create custom Revit families for piping components and support systems.
- 📦 Model piping supports and hanger systems based on client inputs.
- 📦 Generate 124 spool drawings for fabrication and installation workflows.

Challenges

- 📦 Managing complex piping networks within dense industrial layouts.
- 📦 Ensuring coordination across multiple disciplines and reference models.
- 📦 Maintaining fabrication accuracy with point cloud and design data variations.

Techture Approach

- ❏ Developed fabrication-ready LOD 400 piping models with precise detailing.
- ❏ Conducted clash coordination using Navisworks aligned with BIM meetings.
- ❏ Implemented custom family creation for supports and piping assemblies.
- ❏ Extracted spool drawings directly from coordinated BIM model outputs.

Benefits

- ❏ Enabled accurate fabrication through detailed spool drawings output.
- ❏ Reduced site conflicts via comprehensive clash detection and coordination.
- ❏ Improved installation efficiency with support modeling and layout clarity.
- ❏ Streamlined project delivery using coordinated and fabrication-ready BIM models.

