



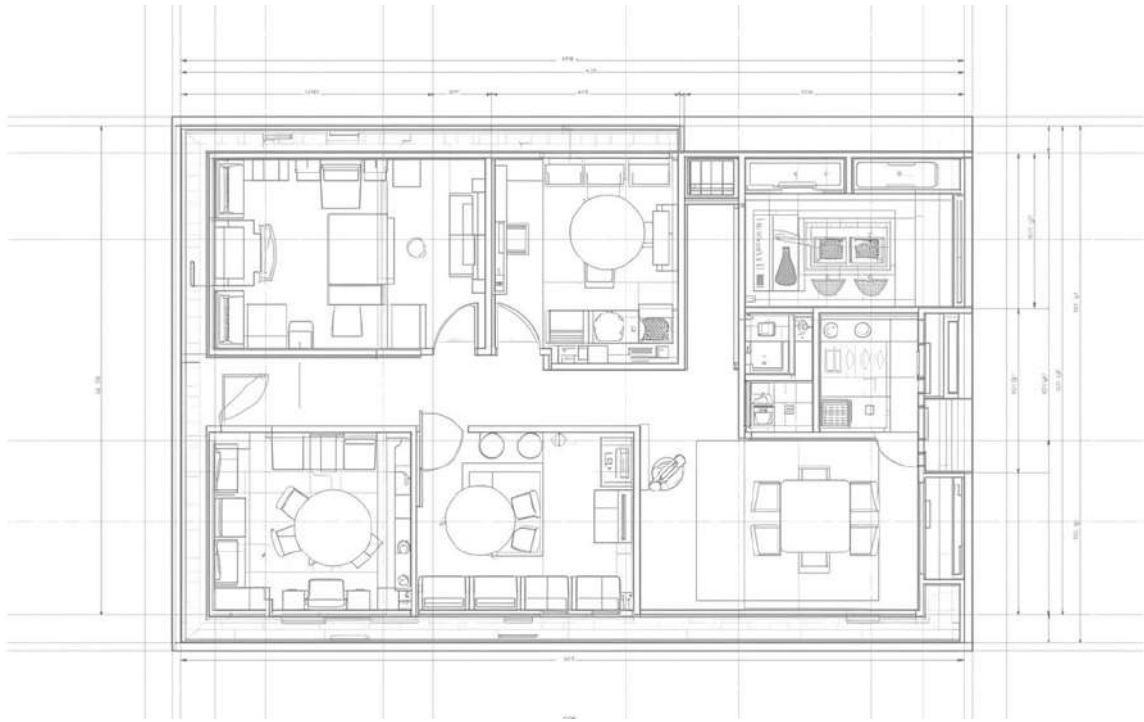
Digital Twin Creation & Architectural Documentation for Restaurant Renovation

(Scan-to-BIM Modeling (Architecture, Structure & Interior), As-Built Documentation & CD Set Development Services)

CASE STUDY



TECHTURE



Client : Design Consultant

Team Size : 3 No.s (BIM Engineer & BIM Coordinator)

Disciplines : Architectural, Structural & Interior

Duration : 2 Month

Scale : 4,470 Sq. Ft.

Software : Autodesk Revit

Type : Hospitality

Location : Texas, USA



Project Overview

Techture delivered Digital Twin creation and architectural documentation for a 4,470 Sq. Ft. restaurant renovation project. The scope involved converting point cloud data into coordinated Architectural, Structural, and Interior BIM models. Using Autodesk Revit, the team developed accurate as-built documentation and CD sets aligned with remodel guidelines. The solution enabled precise renovation planning and efficient design validation.

Scope & Deliverables

- 📦 Develop scan-to-BIM models from point cloud data for Architecture, Structure & Interior areas.
- 📦 Model interior waiting areas, furniture layouts, and spatial configurations.
- 📦 Generate as-built drawings including plans, elevations, sections, and site layouts.
- 📦 Update Revit model based on client markups, remodel guidelines, and iterations.
- 📦 Extract 35–40 sheet CD sets directly from coordinated BIM model.

Challenges

- 📦 Handling point cloud data accuracy and incomplete scan regions.
- 📦 Aligning models with multiple renovation iterations and client markups.
- 📦 Coordinating Architecture, Structure & Interior within existing conditions constraints.

Techture Approach

- Converted point cloud data into parametric BIM models with discipline segregation.
- Followed client sample standards for consistent drawing documentation outputs.
- Implemented iterative model updates aligned with remodel guidelines and feedback.
- Extracted CD sets directly from validated BIM model for documentation accuracy.

Benefits

- Delivered accurate digital twin for renovation planning and validation.
- Improved coordination through integrated Architecture, Structure & Interior models.
- Reduced rework via model-based documentation and iterative updates.
- Enabled efficient execution with comprehensive as-built and CD drawing sets.

