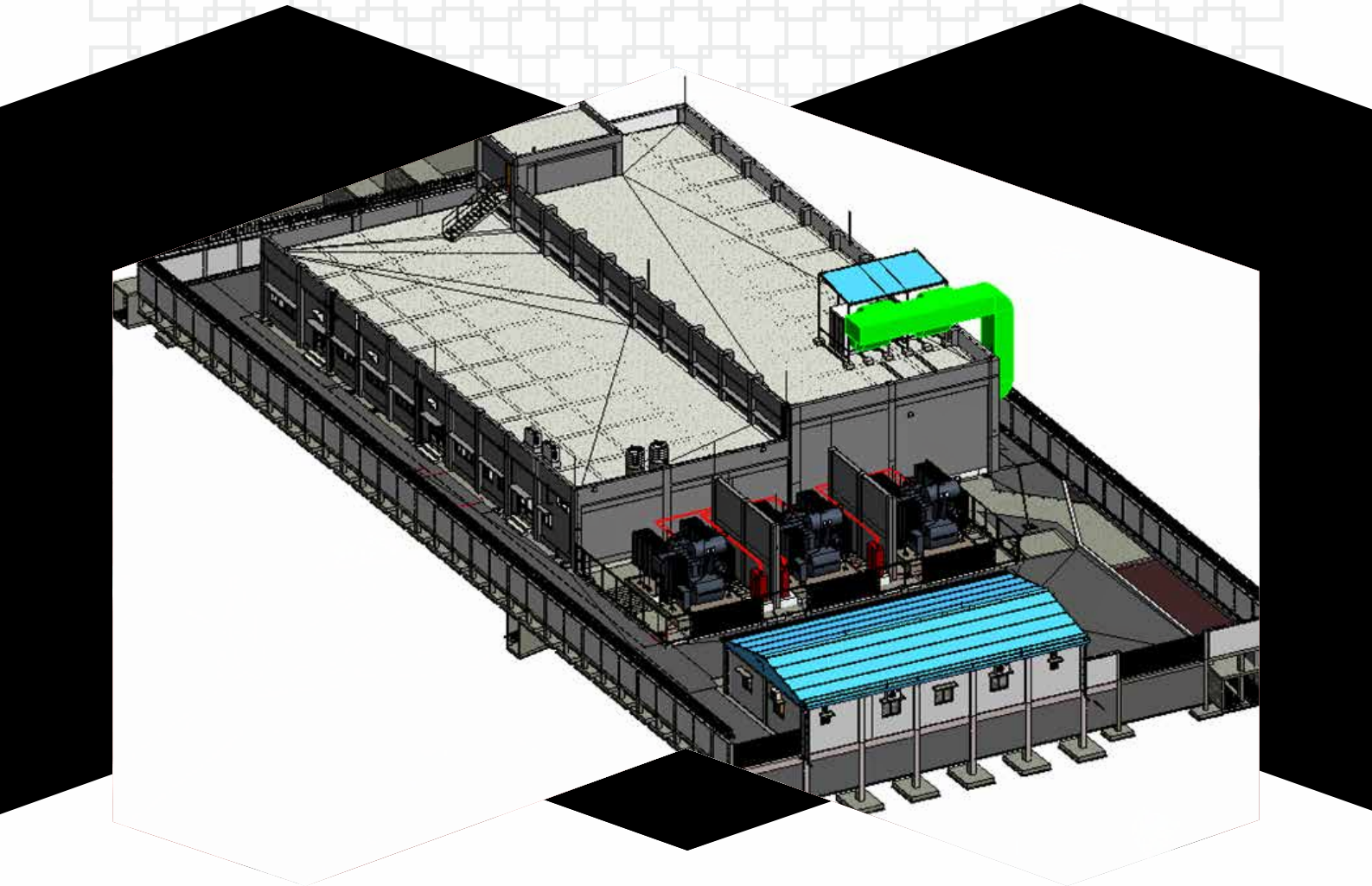
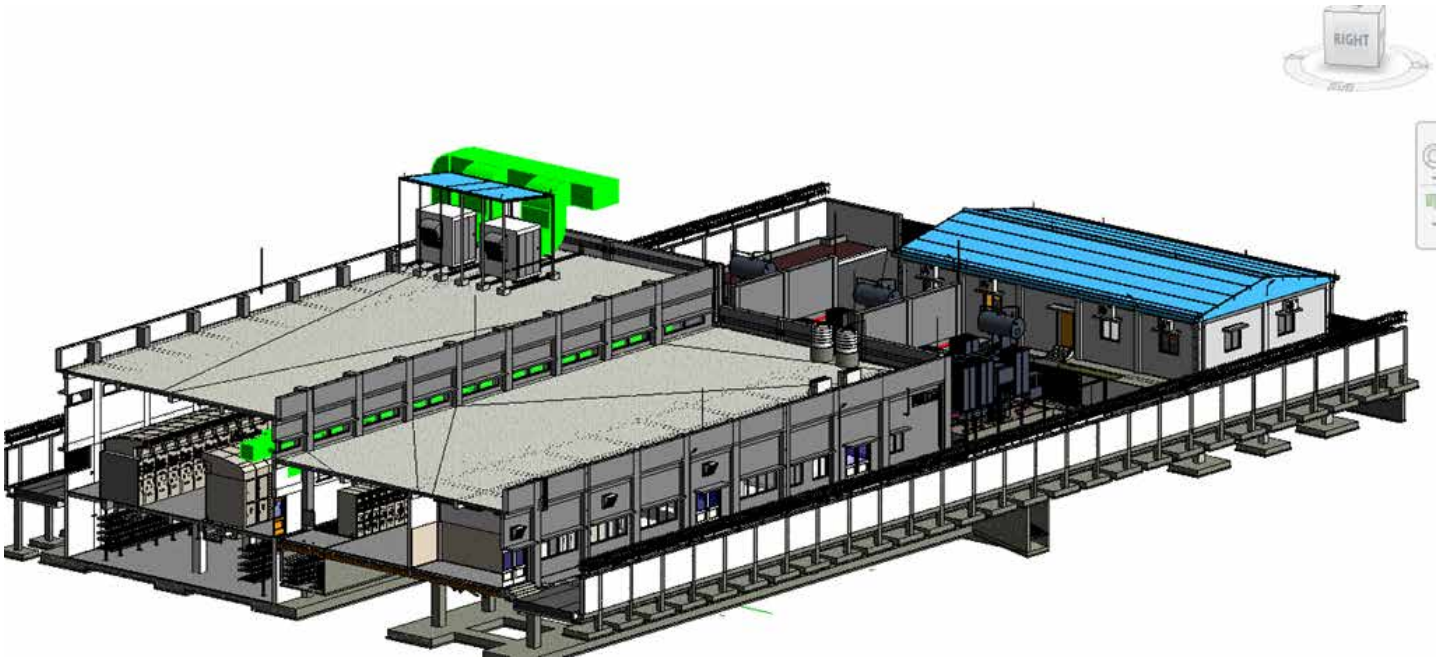


School Infrastructure Project Electrical BIM Modeling & Shop Drawing Support

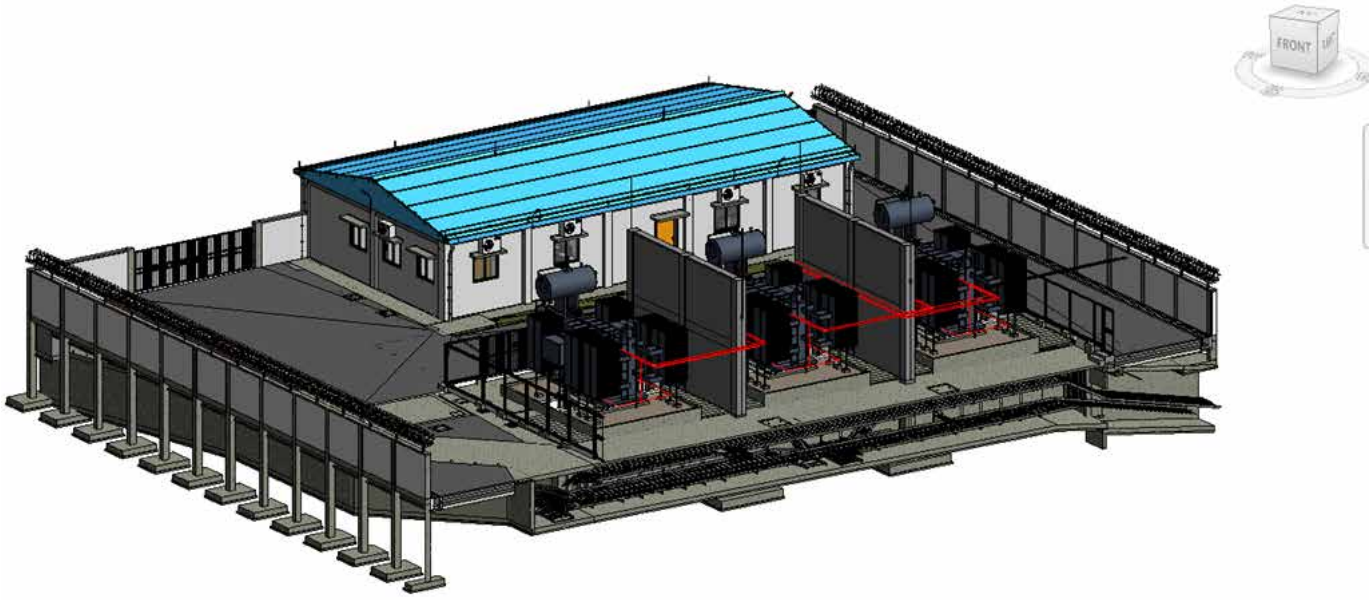
(Electrical Modeling, BIM & VDC Coordination Services)

CASE STUDY

TECHTURE



Client	: Electrical Contractor	**Team Size**	: 5 Nos. (BIM Engineers & BIM Coordinator)
Disciplines	: Electrical	**Duration**	: 5 Months
Scale	: 623,500 SF	**Software**	: Autodesk Revit
Type	: Institutional	**Location**	: Texas, USA



Project Overview

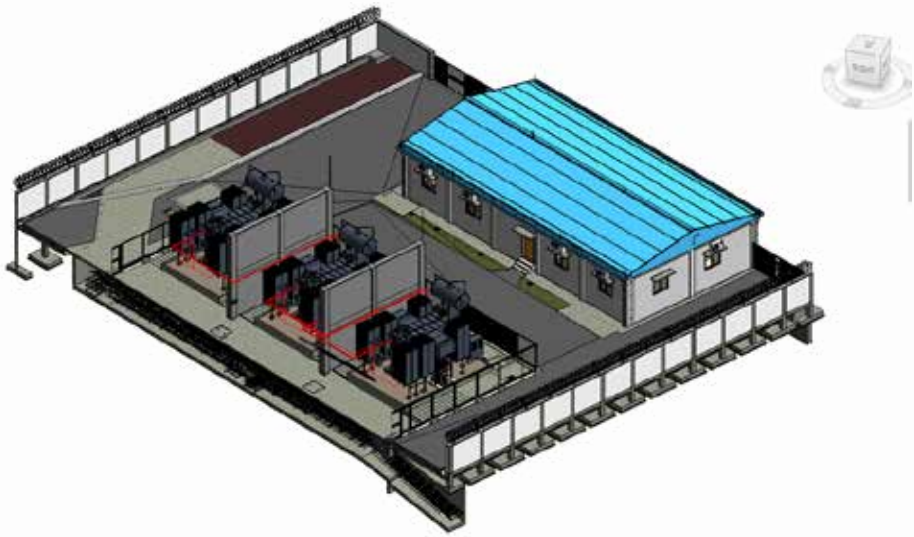
Techture collaborated with the Contractor to develop a comprehensive Electrical BIM model for High School, a large educational facility spanning approximately 623,500 sq. ft. across multiple levels. The project aimed to create a detailed, coordinated, and clash-free electrical model up to LOD 350, serving as the foundation for shop drawing development and BIM-based coordination. Through systematic collaboration and precise modeling.

Scope & Deliverables

- Development of LOD 350 Electrical BIM model based on client-provided design drawings.
- Modeling of lighting, power fixtures, conduits, electrical rooms, and fire alarm devices.
- Clash detection and resolution with architectural and structural models using Navisworks.
- Generation of 80–85 reference shop drawings in CAD and PDF formats for the electrical discipline.
- Ongoing model updates and coordination meetings with stakeholders to ensure alignment.

Challenges

- Managing coordination for a large, multi-level campus within strict deadlines.
- Resolving design discrepancies and missing information from source inputs.
- Maintaining LOD 350 precision across numerous electrical components.
- Ensuring seamless integration with architectural and structural reference models.



Techture Approach

- Established a structured BIM workflow leveraging Autodesk Revit and Navisworks for efficient coordination.
- Conducted regular virtual coordination meetings to validate design intent and update clashes.
- Used custom Revit families based on approved submittals to ensure model accuracy.
- Adopted a time-tracked and milestone-based delivery system for transparent project management.

Benefits

- Delivered a clash-free electrical model, enabling efficient on-site installation and reduced rework.
- Provided accurate reference shop drawings to support client's final shop drawing preparation.
- Ensured data-driven coordination, enhancing communication among project stakeholders.
- Supported cost and time optimization through proactive BIM-based issue resolution.