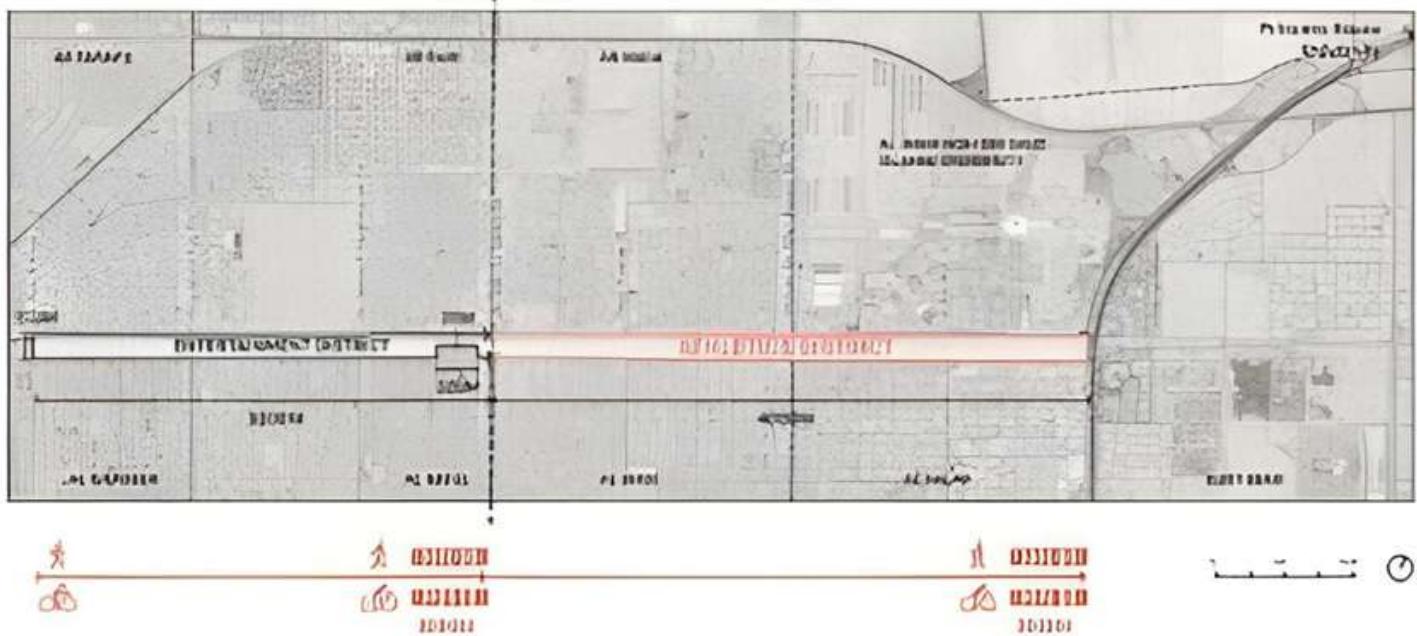


Commercial Sports Infrastructure Civil BIM Modeling

(Civil Modeling, BIM & VDC Coordination Services)

CASE STUDY



Client : Consultant

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

Disciplines : Civil

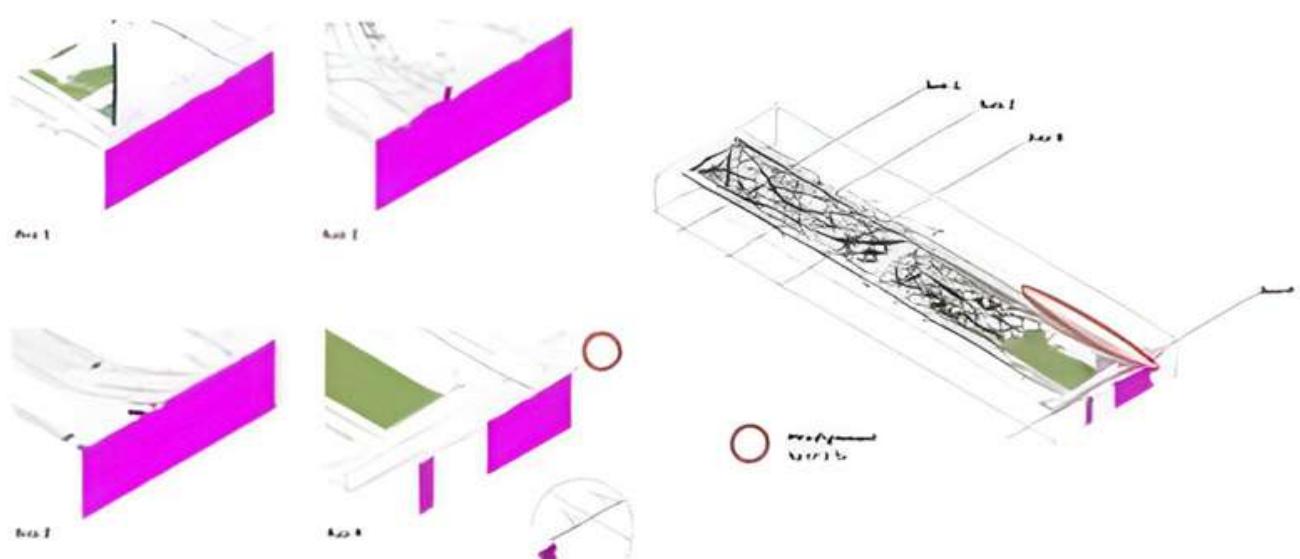
Duration : 2 Months

Scale : 5 km Long Road

Software : Autodesk Civil 3D & Naviswork

Type : Sports Complex

Location : Minnesota, USA



Project Overview

The Sports Boulevard project involved updating and coordinating multiple site BIM models for a 5 km long sports complex corridor using Autodesk Civil 3D and Naviswork. Techture reviewed and updated eight client-provided Revit site models within a clearly defined scope boundary. Civil 3D surfaces were linked and validated across all models to ensure accurate terrain representation. Existing site elements were draped and rehosted to align with the updated surfaces. The finalized models provided a coordinated, constructible representation of the civil scope for downstream planning and execution.

Scope & Deliverables

- Review and update eight client-provided Revit site models to LOD 200 within the defined project corridor
- Link, verify, and integrate Civil 3D surfaces into each Revit model for accurate terrain representation
- Drape and realign site floor elements to conform to updated Civil 3D surfaces
- Host, rehost, and coordinate site families (trees, lighting, benches, street furniture) for correct placement
- Clean up unused areas, apply worksets/view filters, and finalize coordinated models for delivery

Challenges

- Managing model consistency across a long, linear 5 km site corridor
- Ensuring accurate surface alignment across multiple Revit site files
- Correcting unhosted or misaligned site families after terrain updates
- Maintaining strict scope control based on highlighted civil boundaries

Techture Approach

- Verified Civil 3D surface data before linking into each Revit site model
- Systematically draped and validated all site elements against updated terrain
- Rehosted and realigned families to ensure accurate placement and constructability
- Organized models using worksets and filters for clear scope differentiation
- Performed final QA checks to ensure coordinated, lightweight, and clean model delivery

Benefits

- Improved terrain accuracy and site coordination across the full corridor
- Reduced site execution risks through precise surface and family alignment
- Clear visual differentiation of developed and undeveloped areas
- Optimized model performance and usability for future planning stages
- Minimized rework by validating site conditions early in the BIM process