

We have found true value in 4D modeling, especially for traffic sequencing and construction management on the Gore Hill Freeway section of the [Lane Cove Tunnel] job.

—Josef Smogurzewski
Design Director for the
Lane Cove Tunnel project

Construction Sequencing

Demonstrate Design Intent and Validate Planning and Scheduling Decisions in 4D.



Construction planning and scheduling requires you to sequence activities in space and time, while considering procurement, resources, spatial constraints, and other concerns. But the bar charts traditionally used for project planning cannot show how or why certain activities are linked in a given sequence, nor can they accurately calculate the critical path to complete a project.

Challenge

Planning Tools Miss Spatial Components

Schedulers typically use Critical Path Method (CPM) scheduling software to create, update, and communicate the project schedule using a wide variety of reports and displays. But traditional planning methods do not adequately capture the spatial components related to these activities. They also fail to link directly to the design or building model.

- Scheduling continues to be a manually intensive task
- Scheduling often remains out-of-sync with the design
- Project stakeholders struggle to understand the schedule and its impact on site logistics
- It is difficult and time-consuming to perform analysis on paper bid documents

Opportunity

Link the Construction Plan to 3D Objects

Building information modeling (BIM) allows schedulers to create, review, and edit 4D models more frequently, which has led to the implementation of better, more reliable schedules. Construction planning using 4D CAD and analysis tools requires linking a construction plan to the 3D design geometry, so that it is possible to show how the building and site would look at any point.

- Link 3D model data to project schedules for fast 4D visualization
- Produce 4D construction schedules that demonstrate and explain options
- Facilitate shared review at every stage of the creative process
- Enable better planning and trade coordination, and help identify risk

Summary

Autodesk software solutions enable design and construction professionals to share and combine output for clear, descriptive content that helps demonstrate design intent and validate decisions in 4D.

For more information, dial 866-815-3501, email cpm.sales@autodesk.com or visit www.autodesk.com/construction.