Overcoming the Biggest Site Design Challenges for Land Developers
Introduction

The land development market is complex and more competitive. Success depends on your ability to respond with speed, agility, and creativity. In this e-book, we will explore the challenges, the solutions, and the answers to your most pressing questions so that you can explore your next steps toward faster decision-making and shorter time to revenue.
Land Development Obstacles

All the “good dirt” is gone
As the land development industry continues to thrive, the availability of land that does not have site constraints, easements, or environmental obstacles to overcome gets smaller. The harder it is to develop the land, the more resources, time, and money that is needed to complete the project.

Extra days cost extra dollars
Every extra day it takes to complete a project costs you money, impacting your ability to be competitive in the market. You are fighting the challenges of speed to market to keep clients happy, meet budget requirements, and get the doors to the premises open so you can start making money sooner.

Site design is manual, tedious, and time consuming
Even the simplest of site designs can take weeks, if not months, to develop. Creating the optimal design for your client often involves making multiple iterations at various stages of the workflow, but time-consuming design updates will impact the delivery of your project.

Difficulty securing stakeholder buy-in
Conveying to your client, stakeholders, and the community what your design will look like is one of the biggest challenges when designing a site. If your stakeholders cannot see it, understand it, or realize how much risk is involved, they will not proceed – and you will not get paid.
What if you could overcome these obstacles faster and finish projects days to weeks sooner?

Meet OpenSite®

Quickly identify and understand project risks
Do not wait to address design issues – OpenSite will tell you what is possible and what is not early in the conceptual stage so you can quickly understand if a site is viable and then deliver a feasible solution for your clients. With OpenSite’s grading solver, you can optimize earthworks by comparing thousands of design scenarios in just one click.

How do I determine the economic feasibility for my project?
OpenSite’s grading solver helps you understand how much cut, fill, import, and export is required for your design. Detailed cost estimates are automatically generated to find the lowest cost of construction based on your requirements. You can use OpenSite to generate reports with deeper economic insight for your project, including cost estimates for rock exports, retaining walls, curbs, gutters, asphalt paving, and even piping. With OpenSite, you get a total cost of site construction and can accurately assess the economic feasibility of your project.

OpenSite provides:
- Rapid site modeling and analysis
- Earthwork optimization and quantification
- Fast identification of site constraints
- Design alternatives to limit revisions and reduce rework
Reduce project design time by 20%
You can use OpenSite’s simple automation capabilities with parametrics to quickly create design elements including but not limited to parcels, roadways, parking lots, golf courses, and clubhouses. With OpenSite, you can create a thousand-lot subdivision in hours, not days. The application helps you easily modify the position of the lot and the size and number of parking spaces, or even add a building and watch as the design automatically reconfigures.

How can I maximize the number of single-family parcels?
The parceling feature can define parcel sizes, draw your desired roadway, and automatically create lots. If a lot configuration is not possible, the software will not draw it. OpenSite tells you what is feasible and what is not, so you can quickly finalize your design and make your budget go further. OpenSite provides:

- Rules-based/relational modeling to capture, store, and maintain design elements
- Easy configuration and customization capabilities
- Dynamic change management
- Automated project deliverables
Increase productivity by 20–30%
OpenSite is the only purpose-built design software created specifically for site design and land development, but that does not mean you have to be a CAD expert or have specialist skills to use it. Whether you are working on commercial, industrial, residential, or campus projects, anyone on your team can use OpenSite.

How will my site drain?
OpenSite will analyze grading and stormwater design at the same time to optimize the cost of stormwater piping solutions. OpenSite has capabilities to help conceptually design stormwater basin ponds and make sure your layout has considered the pond location and grading cost for pond earthwork movement. OpenSite provides:

- Precise data acquisition
- Drainage and underground utility design
- Enhanced project transparency
- Reality meshes for continuous context of real-world conditions
Seal the deal with stunning visualizations

You can clearly communicate your project’s intent and secure stakeholder buy-in faster with stunning animations. Create 3D visualizations with LumenRT™, which is included with OpenSite. These visualizations will show stakeholders and the community exactly what your design will look like to help clients make quick decisions early and help you start generating revenue faster.

How can I see what my design will look like?

With LumenRT you can convey your design intent to stakeholders and communicate your plans for the project. High-definition images and videos will show exactly what your design will look like. Add moving vehicles, pedestrians, and even trees that change with the seasons. When you can see it, you believe it. OpenSite provides:

- Rich environmental context for your designs
- Cinematic quality skies, weather, and atmospheric effects
- Library of animated characters, vehicles, vegetation, and other elements
- A variety of export options
Land developers like you trust OpenSite

“[Our clients] became increasingly confident in the software, and they didn’t want to look at a site unless it was done through OpenSite.”

Hear how Collin Brock of V3 Companies used OpenSite to help make money and grow his business from a start-up firm to an established company securing bigger contracts and opportunities.
The smart choice for land developers

OpenSite will get the job done faster
When designing a site, you need site design software, not road software. OpenSite is the only true site design software built specifically for site and land development. Using the right software for the task allows for improved projects and improved outcomes.

OpenSite is affordable
You will be surprised by how little a 12-month subscription license of OpenSite costs. Businesses of all sizes can now compete with the industry’s leading players.

Bentley has your back
Support and standard training are included with your license, so you can seamlessly onboard your team. Need customized training or help with a specific project? We have options for that too.

About Bentley Systems
Bentley Systems (Nasdaq: BSY) is the infrastructure engineering software company. We provide innovative software to advance the world’s infrastructure – sustaining both the global economy and environment. Our industry-leading software solutions are used by professionals, and organizations of every size, for the design, construction, and operations of roads and bridges, rail and transit, water and wastewater, public works and utilities, buildings and campuses, mining, and industrial facilities. Our offerings, powered by the iTwin Platform for infrastructure digital twins, include MicroStation and Bentley Open applications for modeling and simulation, Seequent’s software for geoprofessionals, and Bentley Infrastructure Cloud encompassing ProjectWise for project delivery, SYNCHRO for construction management, and AssetWise for asset operations. Bentley Systems’ 5,000 colleagues generate annual revenues of more than $1 billion in 194 countries.

bentley.com

© 2023 Bentley Systems, Incorporated. Bentley, the Bentley logo, Bentley Infrastructure Cloud, Bentley Open, AssetWise, iTwin, LumenRT, MicroStation, OpenSite, ProjectWise, Seequent, and SYNCHRO are either registered or unregistered trademarks or service marks of Bentley Systems, Incorporated or one of its direct or indirect wholly owned subsidiaries. Other brands and product names are trademarks of their respective owners. 520250-23