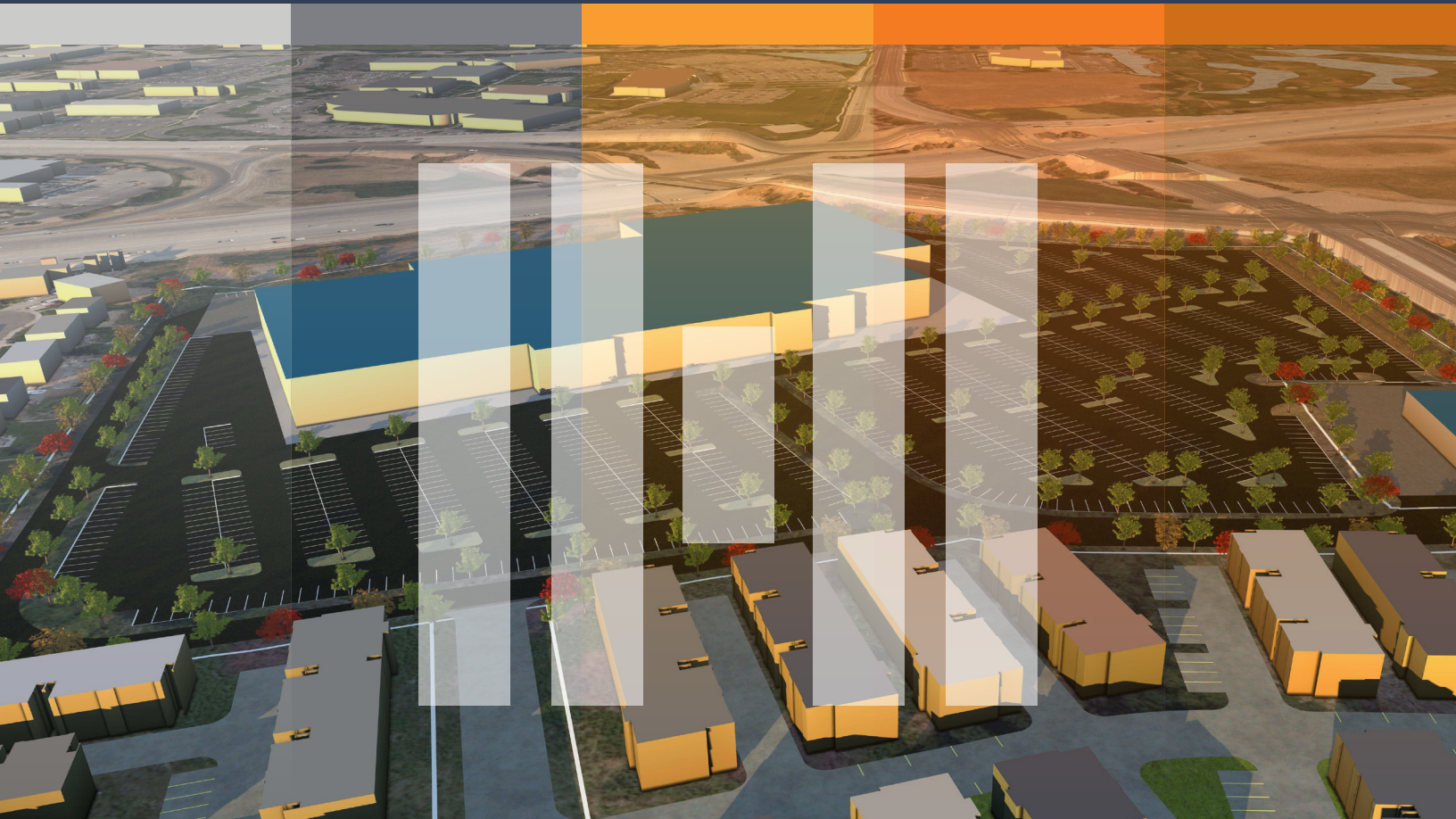
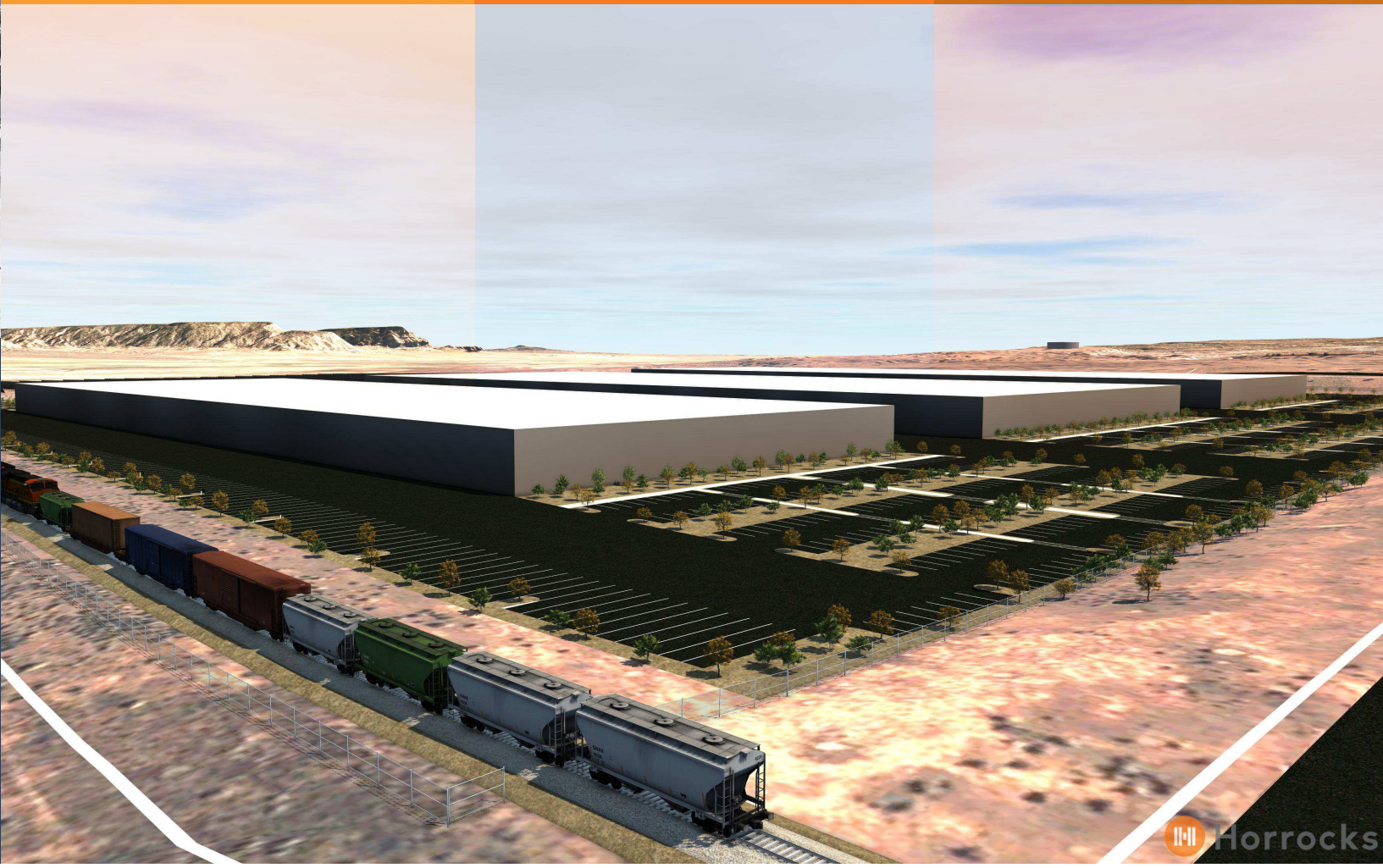




Informed SitesTM





INFORMED SITES™

Horrocks's Land Development team consists of site optimization certified professional experts that utilize a finely tuned process including SITEOPS®, Infraworks, and rendering programs to analyze multiple options for layout, grading and storm water design, and produce plans optimized for cost of construction. This innovative process sets Horrocks apart from other engineering firms. By using site optimization modeling, Horrocks is able to reduce the delivery time for site design and reduce the cost of construction. The technology allows us to quickly analyze various site design scenarios to determine optimal design. The ability to provide this level of value engineering during schematic design will create an efficient and productive design experience unparalleled in our industry.



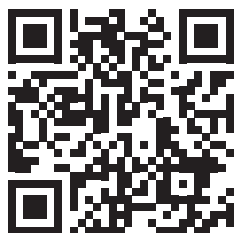
SERVICES

- Residential and Commercial Sites
- Subdivision Planning and Design
- Sustainable Development and Design
- Planning Ordinance Review Development
- General Plan Updates/Development
- Neighborhood, Village, and Town Planning
- County/Regional Planning
- Economic Development Planning
- Transit Oriented Development
- Mixed-Use Planning and Design
- Parks and Trails Planning and Design
- Urban Design
- Downtown Revitalization
- Annexation Studies
- Implementation Strategies
- Redevelopment/Infill Planning
- Infrastructure Planning and Design



INFORMED SITES ADVANTAGE

Horrocks has made a significant investment into acquiring and developing revolutionary technology that transforms the site selection and assessment process. Through Horrocks' unique process developers, municipalities, government agencies, land owners, and real estate and financial professionals can leverage Horrocks' Informed Sites service to bring a project to fruition.



Scan the QR Code for More Information



SITE ASSESSMENT AND PLANNING PROCESS

Rapid Conceptual Plan Development

- Quickly develop site concept plans based on real world criteria using parametric design
- Evaluation of multiple layout options on the same site
- Develop concept plans for comparison of multiple sites
- Explore the impacts of local ordinances and codes
- Compresses the site evaluation process from weeks to hours

Detailed Cost Estimates

- Cost estimates based upon national averages, including earthwork, storm water, geotechnical conditions, easements, other ordinance-driven criteria
- The ability to capture all other land development costs within the site concept model
- Customization of costs based on local data
- Comparison of multiple options based upon costs
- Determination of site development costs before survey data is available

Cloud Based Techniques

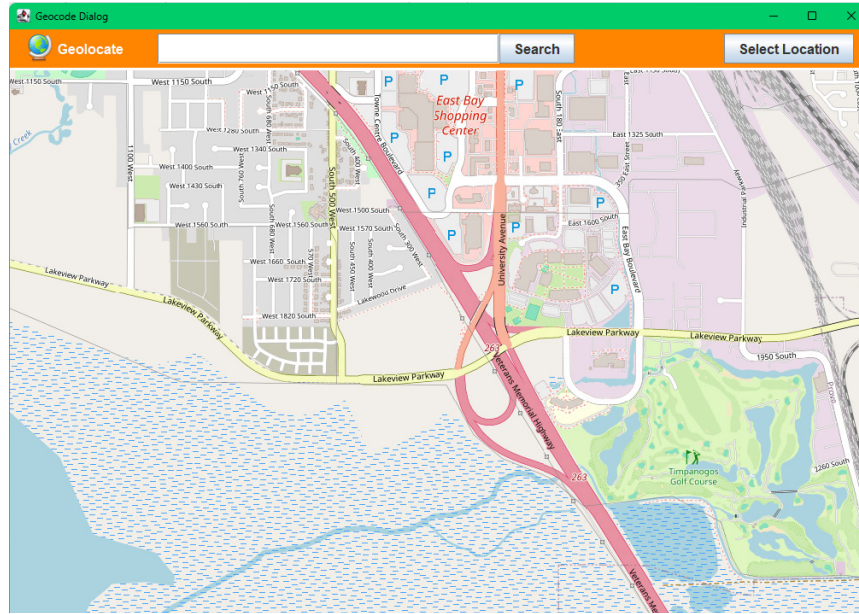
- Optimization techniques that use the power of the cloud to iterate through millions of grading and drainage configurations to determine the most cost effective way to construct the site
- Proven cost savings up to \$15,000/acre through the site optimization process

Presentation Level Plans

- Process natively utilizes Trimble (Google) SketchUp 3D models of buildings and other features for use in final visualizations
- Concept plans export to Trimble (Google) SketchUp for 3D visualization
- View site concepts in Google Earth
- Photorealistic 3D renderings
- 3D Site Animations

STEP 1:

Create Topographic & Aerial Photo Basemap from Google Maps Interface



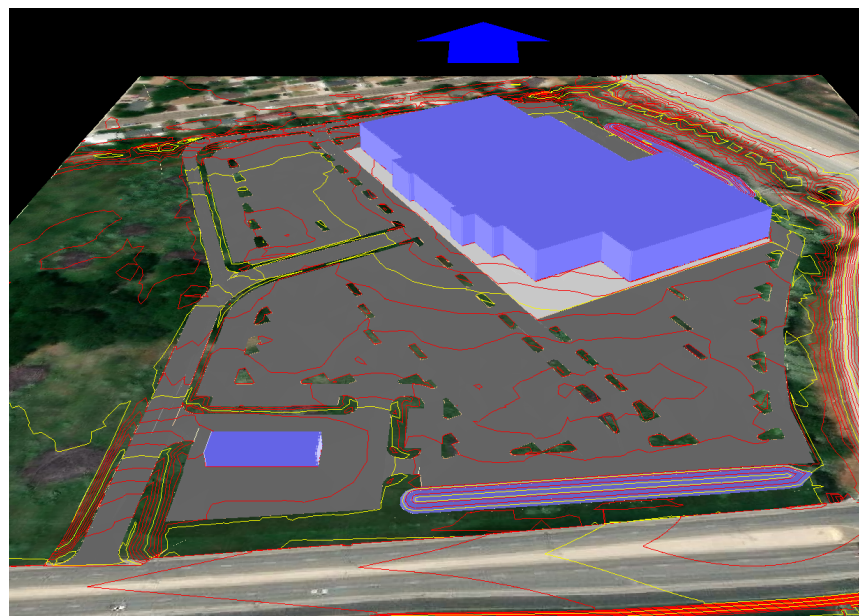
STEP 2:

Create Site Concepts



STEP 3:

Optimize Site Drainage and Grading for Costs



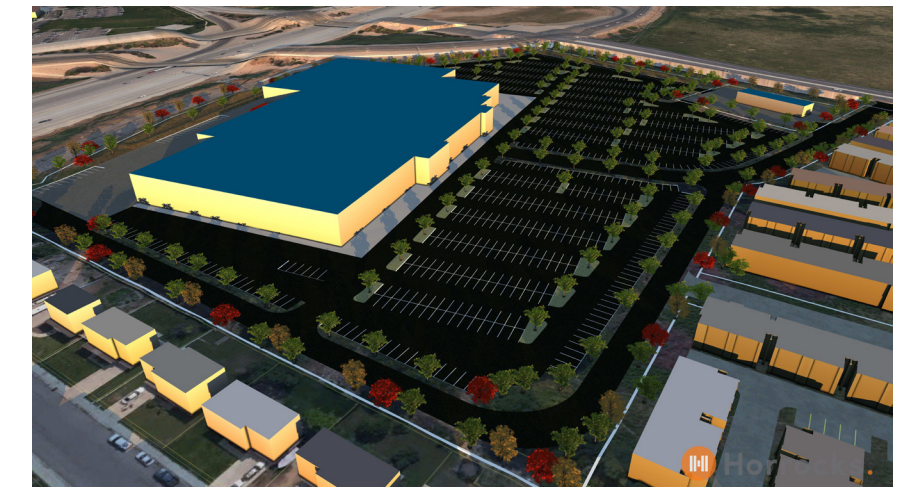
STEP 4:

Generate Cost Estimates

Description	Quantity	Unit	Unit Cost	Subtotal	Total
Total Grading Cut				30,798.67	53,897.67
Grading Fill					
Earth Fill	30,798.67	CY	1.75	53,897.67	
Import/Borrow Fill	496.31	CY	16.00	7,940.96	
Desired Import	0.00	CY	0.00	0.00	
Pipe Earth Fill	0.00	CY	16.00	0.00	
Pipe Earth Import	0.00	CY	16.00	0.00	
Total Grading Fill				31,294.98	61,838.63
Grading Export					
Earth Export	0.00	CY	8.00	0.00	
Rock Export	0.00	CY	8.00	0.00	
Unsuitable Export	0.00	CY	8.00	0.00	
Desired Earth Export	0.00	CY	0.00	0.00	
Pipe Earth Export	0.00	CY	8.00	0.00	
Pipe Rock Export	0.00	CY	8.00	0.00	
Total Grading Export				0.00	0.00
Retaining Wall	4,093.17	SF	25.00		102,329.25
Other Preparation					
Fine Grading (Building)	23,370.40	SY	1.00	23,370.40	
Fine Grading (Non-Building)	68,555.09	SY	1.00	68,555.09	
Erosion Control	0.00	AC	2,500.00	0.00	
Seeding	3.41	AC	1,600.00	5,456.00	
Total Other Preparation				97,381.49	97,381.49
Total					581,658.38
ON-SITE IMPROVEMENTS					
Paving - Asphalt					
Asphalt Paving - Drives (Light Duty)	64,912.05	SY	13.94	904,873.98	
Asphalt Paving - Drives (Heavy Duty)	0.00	SY	15.45	0.00	
Asphalt Paving - Streets (Light Duty)	0.00	SY	13.94	0.00	
Asphalt Paving - Streets (Heavy Duty)	0.00	SY	15.45	0.00	
Total Paving Asphalt				64,912.05	904,873.98
Paving - Concrete					
Concrete Paving - Drives (Light Duty)	0.00	SY	16.20	0.00	
Concrete Paving - Drives (Heavy Duty)	0.00	SY	18.05	0.00	
Concrete Paving - Streets (Light Duty)	0.00	SY	16.20	0.00	
Concrete Paving - Streets (Heavy Duty)	0.00	SY	18.05	0.00	
Total Paving Concrete				0.00	0.00
Paving - Pedestrian					
Pedestrian Asphalt	0.00	SY	35.00	0.00	
Pedestrian Concrete	3,643.04	SY	35.00	127,506.40	
Total Paving Pedestrian				3,643.04	127,506.40
Paving - Other					
Paving - Alternative 1	0.00	SY	16.00	0.00	
Paving - Alternative 2	0.00	SY	16.00	0.00	
Paving - Alternative 3	0.00	SY	16.00	0.00	

STEP 5:

Visualize





SERVICES

Construction Management

Environmental

Geographic Information Systems (GIS)

Land Development

Public Involvement

Right-of-Way

Structures

Survey

Telecommunications

Transportation

Utilities

Visualization

Water Resources

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