

# Efficient site planning and designing software

SITE CEM 2.0 is a complete CAD solution and was developed with the needs of engineers, designers, project managers, technicians, planners, and architects in mind who want the most accessible, flexible and cost-effective solution for their site design projects. The software uses the latest 3D technology and supports multiple platforms.

TRANSOFT SOLUTIONS"

**DESIGN WITH CONFIDENCE** 

Some current design software can be overly complicated, unintuitive or inflexible. SITE CEM 2.0 users gain a powerful and flexible, CAD-based software to handle different types of site projects of any size. Users can complete their site design projects by: developing site grading and drainage design layouts, calculating material volumes for optimal earthworks, and planning and modeling pipe networks to determine clearances between crossing pipes.

### BENEFITS



Top: Model of roads and building pads modeled with SITE CEM Bottom: Image from Google Earth.

SITE CEM 2.0 aims to provide a solution tailored to your site design needs. This efficient and cost-effective software will enhance your designs and take your productivity further.

### SOLUTIONS

- Do more tasks in less time
- Accurate and flexible design approach
- Simple to use and minimal training required
- 3D modeling technology that works with other CAD software

## THE COMPLETE SITE DESIGN SOFTWARE FOR DESIGNERS TO:

#### Do more tasks in less time

SITE CEM 2.0 gives users the right tools and content to design even the most complex site designs. The software is specific and focused on producing site design and grading results.

#### Accurate and flexible design approach

The site design approach is useful for many types of site design projects. The software will notify the engineer if anything is outside of the guidelines.

#### Simple to use and minimal training required

Spend less time worrying about learning how to use the software as there is no need for specific skills or previous knowledge. The software is user-friendly, which allows you to focus on producing quality site design results, not adjusting settings. With a straight-forward workflow, you can complete more projects in less time.

## 3D modeling technology that works with other CAD software

SITE CEM is a CAD-based product that uses industry standard files and blocks. It can import and export in LandXML format. This allows SITE CEM to be easily used with other software. SITE CEM creates 3D models of objects, not line work to represent objects in plan and profile. The software works on AutoCAD and BricsCAD platforms.



## FEATURES





Pipe networks and profiles.

#### **Surface Creation**

Underlying any civil design is a good digital terrain model of the existing ground. Surfaces can be created by: importing an external survey points file, selecting CAD elements in the drawing such as points, selecting contours in the drawing such as polylines, and importing LandXML files.

#### **Generate Site Layout**

SITE CEM will help develop the site design by defining design pads and creating a three-dimensional grading plan. The completed grading plan can then be used to model finished ground surfaces, can be viewed by cutting cross sections and volume calculations can be performed by comparing surfaces.

#### Modeling

Site features can be designed by modeling swept profiles along feature lines or 2D/3D polylines creating curbs, uniform/non-uniform sidewalks, retaining walls or other custom shapes.

#### Create Composite Surface

By combining the existing surface and proposed design elements, the user can create composite surfaces which can be used in the calculation of earthworks volumes and displaying different stages of a design.

#### **Pipe Networks**

Engineers can easily create pipe networks using built-in design requirements for depths, slopes and horizontal and vertical clearances – ensuring proper functionality and the minimum clearance between water, sanitary and storm water pipes.

#### Reporting

Cross section reporting provides users with the ability to choose which surfaces or objects are displayed in the report. The user can control axis scaling, labeling, and color and layer settings.

#### **Analysis Tools**

Create reports to analyze and compare multiple surfaces that show water flow, cut and fill requirements, pipe network profiles and determine capacity volume.



Features: design pad, surface grading, and composite surface.



## **APPLICATIONS**



A helipad.

#### **General Site Design**

With SITE CEM, engineers and designers can compare different scenarios for site grading, design building envelopes, develop basic grading for access roads and parking areas, as well as design pipe networks.

#### **Retaining Structures**

SITE CEM can assist with interpreting a contour map, determine how much wastewater can be contained and calculate volume of materials needed.

#### Pads

Create design pads easily and quickly with SITE CEM 2.0. They can be used to compare different locations for structures and calculate storage volumes for helipad designs, oil and gas pads and snow dump disposal sites.

#### **Platforms**

Calculate volumes of different required materials for runways, artificial islands, and compare the existing and proposed surfaces for earthwork estimation. Users can also determine the flow of surface run-off, evaluate the drainage path, and any necessary diversion of storm water.

#### ABOUT TRANSOFT SOLUTIONS

Transoft Solutions, Inc. develops innovative and easy to use software for transportation professionals. Since 1991, civil engineers and technologists, architects, and city planners across federal agencies, State DOTs, airport authorities, cities, ports, and infrastructure consultants have come to rely on Transoft's field-researched design solutions. Transoft engineers work closely with the world's leading agencies including AASHTO, ITE, TRB, TAC, Austroads, and CROW to develop highly specialized applications serving over 30,000 users across 120 countries.



**Open Excavation** 

Quickly develop concepts of mine wall configuration, slopes, benching and staging for landfills and containment sites, determine flow of surface run-off, and materials required for mine rehabilitation.

A dike.

#### Simple Site Roads

SITE CEM can easily compare alternatives for road layouts to identify maximum grade slopes, cut and fill, cross-fall and ditching. For road or parking areas, SITE CEM can determine the flow of run-off water ending in the storm water system and the effects of overflow.

#### **Pipe Networks and Analysis**

The software can be used to develop and visualize 3D model pipe networks, determine combined flows of converging pipe systems and determine the size of storm water, sanitary, and water distribution pipes. Also, SITE CEM allows the user to see flow paths along their surface for site design projects.

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