# Carlson Civil

— Civil design that puts you in the passing lane



### **Get Powerful Automation**

What might take days with other civil software takes just hours, or even minutes, with the powerful, intuitive Carlson Civil.

**Road NETwork.** Build all roads, intersections and cul-de-sacs in 2D and 3D with a single click of the "PROCESS" button.

**Site NETwork.** Elevate your estimating accuracy with this intuitive layer-based surface generator and earthwork calculator.

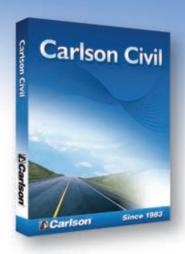
**Lot NETwork.** Quickly define an entire subdivision of lots based on an outer boundary, interior ROWs or Centerlines, and a simple set of user-defined "rules," then pick "PROCESS" and the lots appear, defined and labeled.

## **Carlson Offers Choice**

- AutoCAD® or IntelliCAD® Carlson Civil runs on top of any AutoCAD® or Map® from versions 2010 and up AND Carlson Civil comes with built-in IntelliCAD®
- Automatic, Prompt or Manual Carlson's fully dynamic design environment – its trademark "networking" – means that changes made to one aspect of your design are reflected in all other related aspects
- 2D, 3D, or Flyover get true 2D, easy-to-use 3D, plus the ability to view an aerial image draped onto a surface in both the Carlson 3D Viewer and Surface 3D Flyover
- Affordable, Voluntary Maintenance Programs –
   Carlson customers are allowed to choose to
   upgrade based solely on the merits of the
   software's new features. There is no
   retirement of software.







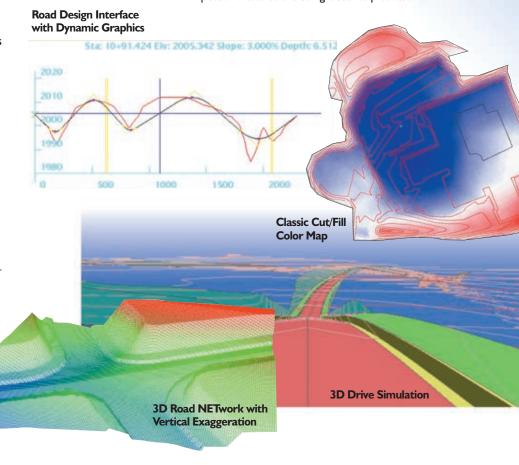
## **Be Competitive with Carlson**

"[Carlson Civil] enables us to provide the same service as the big firms without the level of cost."

**Eric Almond,** Almond Engineering, PA, Jacksonville, Florida

"Since we started using Carlson Software, we've been able to be much more responsive to our customers. We can get answers to them in a much shorter amount of time. And the Carlson support staff is outstanding. It amazes me that I can call in, get a person right away, get my question answered and be right back to production."





# Carlson Civil

# Advanced technology that works for you

### **Top New Features**

- New Dual CAD/3D Viewer check the design and adjust the drawing at the same time
- Road NETwork Enhancements with support for rounded template transitions and medians that cross the centerline
- Cleanup for Lot Linework that automatically finds Command for Vehicle Path Tracking, which any overshoots or undershoots and highlights them
- New Footprint Creator a library of different house footprints
- Road Rehabilitation command to create profiles for specified overlay with milling or leveling

**Template** 

**Detail for Road** 

Rehabilitation

- allows you to trace wheel paths for vehicle dimensions along centerline
- Edit Contours and instantly update the underlying 3D model (updates the underlying TIN surface to match the modified contours), a feature that is unique to Carlson

Original Surface

Overlay, Extended Lane

- CAD Platforms: AutoCAD versions 2010 and up as well as AutoCAD Map, Land Desktop and Civil3D, and IntelliCAD 7.2
- Project Setup: Flexible data and settings storage
- Drafting Enhancements: Handy tools for
- working in AutoCAD/IntelliCAD
  Data Compatibility: Supports industry standard LandXML plus specific data conversions
- Languages: Spanish, Portuguese, Russian, French, German, in addition to English

#### **CAD Standards**

- Draw Standard Item: Create common CAD entities with pre-defined properties
- Settings Explorer: Manage all program settings from single interface
- Settings Libraries: Setup tables for symbols, layers, road templates, etc.
- Data Depot: Document management for workgroups and archiving
- Project Sub-Folders: Custom controls of data folders by type

- Elevate 2D to 3D: For spot elevation, polylines, contours and pads
- Edit-Assign Polyline Elevations: Elevates 3D polylines using control points
- 3D Polyline Tools: Draw, offset, fillet and merge 3D polylines

#### Surfaces

- Build Surfaces: By triangulation or rectangular
- Contouring: One step from 3D entities or from surface files
- Triangulation Utilities: TIN math and offset, simplify and merge functions
- Surface Manager: Change surface properties
- 3D Surface Flyover: 3D viewer with vehicle to
- drive over surface or follow 3D path Slope Analysis: Slope reports and zone analysis

#### **Grading**

- Volumes: Earthwork volumes between triangulation or grid surfaces
- Pad Design: Tie cut/fill slopes from pad perimeters
- Cut/Fill Color Maps and Labels: Draw shaded red/blue map with labels
- SiteNET: Organize surfaces by layer with subgrade adjustments

# **Centerlines**

Design Centerlines: Input alignments on screen or in dialog with graphics

Road NETwork:

**Trapezoidal Ditch** 

Approach to Overpass with

Cloverleaf,

- Label Stations and Offsets: Annotate along centerline at selected points
- Calculate Offsets: Reports stations and offsets for selected points along centerline
- Offset Points: Create points at specified stations and offsets
- Spirals: Flexible handling of most complex spiral curves

#### **Profiles**

- Create Profiles: From surfaces, screen entities, points on centerline, etc.
- Ouick Profile: One step profile creation with real-time updates
- Input-Edit Profiles: Enter profile data in dual spreadsheet and graphics
- Draw Profiles: Draws profiles on grids or plan-profile sheets
- Profiles To 3D: Create points and 3D polylines from profiles

#### **Sections**

- Create Sections: From surfaces, screen entities, points, etc.
- Quick Sections: One step creation of sections
- Draw Sections: In vertical stack or sheets
- Input-Edit Sections: Enter section data in dual spreadsheet and graphics
- Sections to 3D: Create points and 3D polylines from sections
- Mass Haul: Diagrams and Analysis
- Section Volumes: By end areas method

#### **Road Design**

New — Best Fit Profile

28

- Template Design: Detailed yet simple template design
- Template Transitions: Define transitions for templates and superelevation
- Road Network: Dynamic road design with intersections and cul-de-sacs

#### **Points**

- Draw Points: Draw points with settings for symbols, layers and styles
- Point Groups: Point group manager to define sets of point by filters
- Coordinate File History: Tracks all changes to points with report and undo functions
- Fix Point Label Overlaps: Finds point label overlaps with rules to fix automatically
- Point Tools: Utilities for modify point labels such as move with leader, twist and resize

#### Area/Layout

- Label Areas: Customized area label styles
- Size Areas: Sliding side, hinged and radial
- Lot Manager: Definitions by point numbers
- Lot Network: Size lots along alignment
- Parking, Intersections and Cul-de-Sacs: Layout for linework

#### **Annotation**

- Angle & Distance Labels: Flexible routines to label linework
- Curve Labels: Label curve data in stack, along arc or in table
- Mapping Labels: Routines to create typical plat labels
- Linetypes: Draw special linetypes

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