2022 Virtual Workshops Session 6-4: Live Design: New Techniques for Better Project Design with Carlson Civil

A Virtual Workshop Using Carlson Software – Learn GIS-Supported Site Selection and Subdivision Layout

This virtual workshop session features civil engineer Bill Dennis demonstrating a streamlined field-to-office GIS and CAD workflow using Carlson Software. The presentation covers integrating GPS data, GIS mapping and CAD design to improve efficiency in large-scale land development projects.

Key Topics:

- Field-to-office GIS and CAD integration
- GPS-based conceptual design workflows
- Carlson Software tools for civil engineering
- Data export/import between CAD, GIS and mobile devices
- Real-world project demonstration

Descriptions, transcripts and other details of this recording ha ve been AI-generated and may contain errors.

This session was presented by Bill Dennis of Civil Design Team LLC of Greer on 12/13/2022.

2022 Virtual Workshops Session 6-3: Fire Flow Analysis Case Study

A Virtual Workshop Using Carlson Software – Learn Water Network Fire-Flow and Pressure Modeling

This Carlson Software virtual workshop session, led by Travis Maxwell, demonstrates how to model waterline extensions and perform fire flow and hydrostatic pressure analysis using Carlson's Pressure Pipe Network tools. The presentation covers setup, data input, hydraulic grade line calculations and integration with EPA Net for validation.

Key Topics:

- Pressure Pipe Network setup and configuration
- Fire flow and hydrostatic pressure testing
- Hydraulic grade line (HGL) and PSI-to-head conversions
- Integration with EPA Net for model verification
- Managing pipe crossings, profiles and demand nodes

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This session was presented by Travis Maxwell on 12/13/2022.

2022 Virtual Workshops Session 6-2: Pervious Paver Parking Lot Design

A Virtual Workshop Using Carlson Software – Learn Stormwater Retrofit and Permeable-Paver Storage Case Study

This virtual workshop showcased a real-world case study on designing a permeable paver stormwater system using Carlson HydroNet. Engineers from Finch & Associates demonstrated how to model complex drainage networks, link watershed areas and simulate stormwater detention using Carlson's 2022–2023 hydrology tools.

Key Topics:

- Permeable paver stormwater design
- Carlson HydroNet modeling and routing
- Stormwater detention and drainage analysis
- Project case study: Veterinary hospital expansion in Knigh tdale, NC

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This session was presented by Finch & Associates from Raleigh,

NC on 12/13/2022.

Customizing Menus & Toolbars

A Virtual Webinar Using CAD – Learn to Customize Menus, Toolbars and Workspaces

This webinar, led by Travis Maxwell and hosted by That CAD Girl, provides an in-depth walkthrough of how to customize menus, toolbars, workspaces and settings in Carlson Software. It covers practical steps for saving configurations, managing tool palettes and optimizing the user interface for efficiency.

Although Carlson Software with IntelliCAD was used in this session and a few Carlson-specific commands are shown, the workflows are by and large the same for all AutoCAD or IntelliCAD based programs, and other programs will likely have their own version of those Carlson commands.

Key Topics:

- Customizing toolbars, menus and workspaces in Carlson
- Using the CUI (Custom User Interface) command
- Managing tool palettes and saving configuration files
- Layer management and workspace recovery
- Tips for efficient CAD setup and troubleshooting

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ve been AI-generated and may contain errors.

This session was presented by Travis Maxwell on 05/11/2022.

2022 Virtual Workshops Session 6-1: Wet Pond Design for Multi-Family Development

A Virtual Workshop Using Carlson Software – Learn Stormwater Modeling and Detention Pond Case Study

This virtual workshop demonstrates advanced stormwater design techniques using Carlson Software's HydroNet Explorer. Presenter Travis Maxwell guides attendees through converting Civil 3D files, creating surfaces from Google Earth data and designing detention and wet ponds within Carlson's hydrology tools.

Key Topics:

- Carlson Hydrology and HydroNet Explorer workflows
- Stormwater detention and wet pond design
- Civil 3D data conversion and surface modeling
- Curve number and time of concentration calculations
- Integration with Google Earth and LiDAR data

Descriptions, transcripts and other details of this recording ha

ve been AI-generated and may contain errors.

This session was presented by Travis Maxwell on 12/13/2022.

2022 Virtual Workshops Session 5-3: Civil Design in Carlson Software

A Virtual Workshop Using Carlson Software – Design Sanitary and Storm Drainage Networks

This recorded session from the 2022 Virtual Workshops features Carlson Software's Mark Long demonstrating step-by-step civil design workflows in Carlson Civil and Hydrology. The class covers sanitary-sewer and storm-drain network setup, surface merging, pipe-network editing and profile design techniques used in real-world subdivision projects.

Key Topics:

- Creating and merging surface models (existing, finished-grade, merged)
- Designing sanitary-sewer networks and setting pipe parameters
- Storm-drain design with hydrology and hydraulic calculations
- Using Carlson's Spreadsheet Sewer Editor and profile-view

editing
- Managing automation, slopes, inverts and crossings
- Workflow philosophy and training plans for future instruct ional videos

Descriptions, transcripts and other details of this recording ha ve been AI-generated and may contain errors.

This session was presented by Mark Long on 12/07/2022.

2022 Virtual Workshops Session 5-2: Civil Design in Carlson Software

A Virtual Workshop Using Carlson Software – Improve RoadNet Grading and Intersections

This Carlson Software virtual workshop provides an in-depth demonstration of RoadNet for roadway and subdivision design, including surface modeling, template management, intersections and grading workflows. The session covers practical techniques for widening roads, handling intersections, creating cul-de-sacs and balancing earthwork using Carlson Civil tools.

Key Topics:

- RoadNet setup and file structure

- Template Point Center Line and Template Series usage
- Intersection grading and profile adjustments
- Super elevation and cul-de-sac design
- Earthwork balancing and volume calculations
- Profile and cross-section generation

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This session was presented by Mark Long on 12/07/2022.

Best Practices for Network Solutions with Carlson’s GNSS RTK Systems

A Virtual Webinar Using Carlson SurvNET – Learn Best Practices for GNSS RTK Networks

This webinar led by Carlson Software’s Doug Aaberg covers best practices for using GNSS and RTK systems in surveying workflows. It focuses on establishing accurate control networks, integrating GPS and EDM data and performing least-squares adjustments using Carlson SurvNET.

Key Topics:

- GNSS/RTK field procedures and accuracy considerations
- Establishing and verifying control networks
- Using Carlson SurvNET for traverse adjustment and network analysis
- Managing standard errors, redundancy and blunder detection
- Generating ALTA/NSPS relative positional accuracy (RPA) reports

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This session was presented by Doug Aaberg on 01/27/2022.

2022 Virtual Workshops Session 5-1: Civil Design in Carlson Software

A Virtual Workshop Using Carlson Software – Design Subdivisions with LotNet and RoadNet

This session from the 2022 Virtual Workshops features Mark Long of Carlson Software demonstrating advanced CAD workflows using Carlson’s LotNet and RoadNet tools. The training covers efficient subdivision layout, automated lot labeling, setbacks

and roadway design for civil engineering and hydrology applications.

Key Topics:

- Carlson LotNet setup and automation for subdivision design
- RoadNet configuration, templates and grading workflows
- Surface modeling and triangulation (TIN) creation and validation
- Hydrology preparation and ground-cover planning
- Troubleshooting performance and CAD layer management

Descriptions, transcripts and other details of this recording have been AI-generated and may contain errors.

This session was presented by Mark Long on 12/07/2022.

2022 Virtual Workshops Session 4-3: Field to Finish from Start to Finish

A Virtual Workshop Using Carlson Software – Automate Symbols and Survey Feature Labels

This session from the 2022 Virtual Workshops series covers advanced “Field to Finish” workflows in Carlson Software, led by Doug. The training focuses on coding strategies, symbol

rotation, scaling, pipe and tree features and automated labeling techniques for survey drafting efficiency.

Key Topics:

- Field to Finish code setup and management
- Special codes (ROT, SZ, RAMP, etc.)
- Multi-point and rotation symbol handling
- Pipe and tree feature configuration
- GIS notes, attributes and formulas
- Field-to-Finish Inspector and troubleshooting

Descriptions, transcripts and other details of this recording ha ve been AI-generated and may contain errors.

This session was presented by Doug Aaberg on 12/06/2022.