Making Models from a Mess: Using Carlson Cleanup and Elevate Tools

A Virtual Webinar Using Carlson Software – Learn to Clean Up Drawings and Elevate 2D Data into 3D Models

This webinar, hosted by That CAD Girl’s Jennifer DiBona, demonstrates how to transform messy CAD drawings into clean, usable models using Carlson Software’s Cleanup and Elevate tools. The session covers practical workflows for cleaning, organizing and elevating data for model building and stakeout preparation.

Key Topics:

- Drawing cleanup techniques in Carlson Software
- Managing layers, blocks and nested entities
- Elevating 2D data to 3D models for takeoff and stakeout
- Using Carlson Civil and Takeoff tools effectively
- Troubleshooting messy or inconsistent CAD data

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

This session was presented by Jennifer DiBona on 08/13/2024.

Site Grading Case Study for 36,000 SF Warehouse

This webinar features professional engineer Travis Maxwell demonstrating efficient grading techniques in Carlson Software for a 36,000 sq ft warehouse site in North Carolina. He walks through balancing cut/fill, using RoadNet for drives and parking and creating 3D polylines for split-level buildings.

Pond Design with Carlson Software

A Virtual Webinar Using Carlson Software – Learn to Design Stormwater Ponds

This webinar, hosted by That CAD Girl and presented by Travis Maxwell, provides a detailed walkthrough of pond design using Carlson Software. It covers grading techniques, pond creation, linking to HydroNET models and practical tips for efficient hydrology workflows.

Key Topics:

- Pond grading and design using Carlson’s Pond Grader and Bench Pond tools
- Editing bench ponds with cut benches and berms
- Linking pond storage files to HydroNET for stormwater modeling
- Rainfall and runoff setup for pond analysis
- Reporting storage and stage-storage results

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This session was presented by Travis Maxwell on 02/23/2024.

Overview of Carlson Point Clouds

A Virtual Webinar Using Carlson Software – Learn to Process Point Clouds

This Carlson CAD Solutions webinar, led by Doug Aaberg, provided a detailed overview of Carlson Point Clouds software, demonstrating how surveyors can use it to process, clean and extract data from LiDAR and drone-based point clouds. The session covered both basic and advanced modules, including workflows for creating surfaces, extracting features and

integrating with CAD.

Key Topics:

- Introduction to Carlson Point Clouds and workflow integration with CAD
- Importing and managing LiDAR and drone data
- Creating bare earth models and virtual surveys
- Feature extraction tools (curbs, sidewalks, parking lines)
- Field-to-finish and surface modeling techniques

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This session was presented by Doug Aaberg on 10/24/2024.

2024 Virtual Workshops: Session #4-4 Continuation of Advanced Design with Carlson Civil and Hydrology Presenter: Mark Long

A Virtual Workshop Using Carlson

Software – Design Storm Sewer and Hydrology Models

This advanced Carlson Software virtual workshop, led by Mark Long, demonstrates integrated civil and hydrology design workflows using Carlson Hydrology, Sewer Network and Precision 3D Hydro. Participants learn how to model surfaces, design storm and sanitary systems and visualize drainage networks in 3D for more efficient, accurate engineering.

Key Topics:

- Precision 3D Hydro and Dynamic CAD integration
- Storm drainage and sewer network design in Carlson Hydrology
- Surface modeling, watershed analysis and runoff coefficients
- Pipe sizing, hydraulic grade line (HGL) setup and profile generation
- Utility network creation (water, conduit, laterals)
- Future Carlson Software enhancements (2026 release preview)

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This session was presented by Mark Long on 12/11/2024.

2024 Virtual Workshops: Session #4-3 Advanced Design with Carlson Civil and Hydrology
Presenter: Mark Long

A Virtual Workshop Using Carlson Software – Design Roads and Subdivisions with Carlson Civil

In this advanced Carlson Software virtual workshop, Mark Long demonstrates time-saving techniques for civil and hydrology design using Carlson Civil and Hydrology modules. The session focuses on efficient subdivision layout, road network design, templates, super elevation and grading transitions to enhance productivity and precision in engineering workflows.

Key Topics:

- Lot Network and Subdivision Layout Tools
- Road Network (RoadNet) Design and Settings
- Template Creation and Management
- Super Elevation and Transition Design
- Grading, Slopes and Stream Impact Minimization

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This session was presented by Mark Long on 12/11/2024.

2024 Virtual Workshops: Session #4-2 Continuation of Surface Modeling in Carlson Software
Presenter: Jennifer DiBona

A Virtual Workshop Using Carlson Software – Grade Sites with Surfaces and 3D Polylines

This virtual workshop continues the 2024 series on Carlson Software, focusing on surface modeling, pad grading and 3D polyline workflows. Participants learn practical grading techniques, daylight line creation and surface triangulation for real-world site design projects.

Key Topics:

- Pad grading and daylight line creation
- 3D polyline utilities and elevation editing
- Building pad and curb grading workflows
- Surface triangulation, contour generation and volume analy sis
- Cut/fill color mapping and contour cleanup

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ve been AI-generated and may contain errors.

This session was presented by Jennifer DiBona on 12/11/2024.

2024 Virtual Workshops: Session #4-1 Surface Modeling in Carlson Software Presenter: Jennifer DiBona

A Virtual Workshop Using Carlson Software – Build Accurate Surface Models

This session from *That CAD Girl's 2024 Virtual Workshop Series* introduces participants to surface modeling and grading workflows in Carlson Software. The training covers building existing ground surfaces, using breaklines, creating 3D polylines, merging surfaces and integrating GIS imagery for visualization.

Key Topics:

- Carlson Software surface modeling fundamentals
- Breaklines, boundaries and triangulation (TIN) creation
- Field-to-Finish automation and 3D polyline generation
- Contour labeling, line-type generation and cleanup
- Importing Google/NASA/USGS surfaces and merging TIN files

- Using GIS imagery and 3D flyovers for visualization

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

This session was presented by Jennifer DiBona on 12/11/2024.

2024 Virtual Workshops: Session #3-4 Continuation of Adjusting YOUR Datasets with SurvNet
Presenter: Donnie Stallings

A Virtual Workshop Using Carlson Software – Review Least Squares Reports and Survey Control

This session from That CAD Girl's 2024 Virtual Workshop series features Donnie's in-depth training on Carlson's Least Squares Adjustment tools for survey data analysis. The workshop covers interpreting reports, identifying blunders, understanding statistical tests and applying best practices for boundary and DOT survey adjustments.

Key Topics:

- Carlson Least Squares Adjustment fundamentals
- Error analysis and residual interpretation
- Chi-square testing and blunder detection
- ALTA/NSPS accuracy standards
- Practical examples: boundary and DOT survey data

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This session was presented by Donnie Stallings on 12/10/2024.

2024 Virtual Workshops: Session #3-3 Adjusting YOUR Datasets with SurvNet Presenter: Donnie Stallings

A Virtual Workshop Using Carlson Software – Adjust Survey Networks with SurvNet Least Squares

This virtual Carlson Survey workshop, led by Donnie Stallings and hosted by That CAD Girl, introduced surveyors to the principles of least-squares adjustment and the use of Carlson Survey's SNET module. The session covered theory, workflow setup and practical examples combining total-station and GPS data.

Key Topics:

- Introduction to least-squares adjustment theory
- History and development of Carlson Survey’s SNET (Survey Net)
- Practical setup and configuration of SNET projects
- Combining total-station and GPS vectors
- Error analysis, blunder detection and ALTA/NC DOT workflows

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This session was presented by Donnie Stallings on 12/17/2024.