

Civil 3D Intro for Residential Site Grading



Duration | 2 Days

Description:

Students use AutoCAD® Civil 3D to complete the engineering tasks on a residential grading design. The course guides students through one possible grading design process from the examination of existing site conditions to a final grading solution.

Prerequisites:

Before taking this course, you should have:

- Completed a Civil 3D Essentials AOTC course or have in-depth knowledge of Civil 3D features and functionality.
- Experience with civil engineering processes and terminology.
- It is also recommended that the student have a working knowledge of Microsoft® Windows® XP.

Objectives:

The primary focus is to teach students how AutoCAD Civil 3D can be used as a tool to perform common engineering tasks in the grading process with greater accuracy and efficiency.

Upon completion of the course, the student will:

- Examine existing site conditions, create and grade detention basins, Design roadway grading, work with earthwork volumes. balance earthworks, refine surface grading, create and grade swales, grade open areas, revise and finalize the grading design, render the design and complete plan sets.

Course Outline:

Examining Site Conditions

- Examining Site Conditions
- Determining Slope and Flow Patterns
- Labeling Elevations at Key Locations
- Defining the Limits of Grading Activity

Creating Detention Basins

- Creating, Grading and Analyzing Detention Basins
- Creating Detention Basins
- Grading Detention Basins
- Analyzing Detention Basins

Designing Roadway Grading

- Designing Prefinal Roadway Grading
- Creating an Existing Ground Profile
- Creating a Finished Ground Profile
- Defining Roadway Cross Sections
- Creating a Road Surface Model

Training Facilities

Virginia Beach, VA
Richmond, VA
Roanoke, VA

Inlet Technology

192 Ballard Court
Suite 306
Virginia Beach, VA
23462

Ph: 757.496.2323
Fax: 757.496.2424

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Working with Earthwork Vols.

- Calc. Prefinal Earthwork Vols.
- Refining the Corridor and Knuckle Design
- Creating Prefinal Earthwork Calculation Surfaces
- Adjusting the Corridor Model
- Calculating Earthwork Volumes

Balancing Earthwork

- Balancing Earthwork
- Refining the Final Grading Design
- Modifying Basin Design Contour Label Style

Refining Surface Grading

- Refining Final Surface Grading
- Setting Lot Line Elevations
- Setting Building Pad Elevations
- Creating a Finished Ground Surface
- Grading Rear Lot Lines

Creating and Grading Swales

- Grading Rear-Yard Perimeter Swale
- Analyzing Prefinal Surface Flow Patterns
- Creating a Pad Buffer
- Creating a Swale

Grading Open Areas

- Grading Open Areas
- Designing a Detention Basin Overflow Route
- Creating Berms
- Adding Berms to the Proposed Top Surface

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Revising the Design

- Revising the Grading Design
- Modifying the Prop Road Prof.
- Updating Lot Grading

Rendering the Design

- Rendering the Design
- Analyzing the Slope
- Viewing Surfaces in 3D

Completing the Plans

- Labeling and Annotating the Plan and Profile
- Labeling Contours
- Creating Profile Sheets

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Inlet Training Class Registration Form



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Customer Information

Company _____
Address _____
City _____ State _____ Zip _____
Primary Contact _____
Telephone _____ eMail _____

Training Class Information

Class Name _____
Class Start Date _____ Duration (# of days) _____
Student 1 _____ eMail _____
Student 2 _____ eMail _____
Student 3 _____ eMail _____
Student 4 _____ eMail _____
Student 5 _____ eMail _____
Student 6 _____ eMail _____
Student 7 _____ eMail _____
Student 8 _____ eMail _____
Student 9 _____ eMail _____
Student 10 _____ eMail _____

Payment Information

CREDIT CARD

Type (Circle One) Visa Mastercard American Express
Credit Card Number _____
Expiration Date _____ 3-4 digit Verification Code _____
Name on Card _____ Amount to be Charged \$ _____
Billing Address _____

CHECK

Check Number _____ Amount \$ _____

PURCHASE ORDER

PO Number _____ Amount \$ _____
Purchasing Contact _____ Telephone _____
e-Mail _____

NOTE: Please fax copy of PO with Registration Form

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