



AUTOCAD CIVIL 3D ESSENTIAL TRAINING-RESIDENTIAL DEVELOPMENT

Objectives

After completing this training, you will be able to:

- ✓ Clean-up the survey drawings
- ✓ Converting them into 3D information and transpose them into 3D digital terrain model (DTM) surface.
- ✓ Learn how to quickly balance the earthwork volume to the optimum design and produce compelling crosssection detailing and hatching of cut/fill zones.
- ✓ Embed Google Earth and BING map images into the proposed 3D model for impressive and informative presentation for the project portfolio.

Pre-requisites

This guide is designed for new users of AutoCAD Civil 3D.

It is recommended that you have a working knowledge of:

- Microsoft® Windows® 7, Microsoft® Windows® 8, or Microsoft® Windows® 10.

TRAINING PROGRAMME DAY 1

Chapter 1: Introduction to AutoCAD Civil 3D

- Interface and Commands
- Generating Template
- Template Installation Guide

Chapter 2: Clean-up the Survey Drawings

- Working with Layers
- Execute clean-up Commands
- Importing Cleaned Survey Data into AutoCAD Civil 3D Template.

Chapter 3: Creating Existing / Original Ground Surface

- Creating OGL Surface from AutoCAD TEXTS
- Creating OGL Surface from AutoCAD POINTS
- Creating OGL Surface from AutoCAD LINES / POLYLINES / CONTOURS

Chapter 4: Surface Analysis

- Contour Labelling
- Elevation Analysis
- Slope Arrow Analysis

TRAINING PROGRAMME DAY 2

Chapter 5: Residential Development – Platform Design

- Converting AutoCAD Polylines into Feature Lines

Chapter 6: Residential Development – Grading / Slope Design

- Creating Natural/Earth Slopes
- Creating Retaining Walls

Chapter 7: Residential Development – Proposed Surface

- Generating Proposed Platform Surface

Chapter 8: Residential Development – Earthwork Cut and Fill Volume Calculation

- Earthwork Volume – TIN Volume Method
- Earthwork Volume – Cross-Section / Average End- Area Method
- Earthwork Balancing

Chapter 9: Residential Development – Preparing Construction Drawing

- Hatching Cut-Fill Areas / Zones
- Auto-Generate the Cross-Section Detailing

Chapter 10: Importing Google Earth and BING Map Imagery

- Setting the Coordinate System
- Draping Google and BING Map images onto Surface