# FUNDAMENTALS OF GRADING OPTIMIZATION ONLINE COURSE OUTLINE



**Solutions Store** 

## AUTODESK

Platinum Partner

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**Op-ti-mi-za-tion:** an act, process, or methodology of making something (such as a design, system, or decision) as fully perfect, functional, or effective as possible. – Webster

Autodesk Civil 3D's latest offering, Grading Optimization, is an interactive tool that facilitates grading design results faster and with less effort. This tall order is accomplished through an application of optimized algorithms that adhere to predefined user settings and constraints that meet your projects needs. Join us as we explore how these powerful tools further the process right from the start by bypassing the traditional methods of manual "trial and error" entry. From there, we'll shift our focus back to common grading tools (that we know and love) to further refine and complete our design surface. Rethink, Reimagine and Redesign!

**Prerequisite**: Working knowledge of traditional grading tools within Civil 3D, such as, feature lines, grading tools, and corridors.

\*\*\*AEC Collections is REQUIRED, and Grading Optimization is a separate download\*\*\*

#### Course Length: 1 day

#### Introduction to Grading Optimization

- Civil 3D Grading Objects
- Grading Optimization
- Grading Optimization Workflow
- Grading Surface
- Grading Optimization Objects

#### **Grading Optimization Program**

- Launching Grading Optimization
- Overview of the Interface
- Navigating the model
- Output Grading Information

#### **Zone Creation**

- Existing Surfaces
- Interim Design Surfaces
- Grading Optimization Zones
- Surface Evaluation

#### **Pond Design**

- Traditional Advance Pond Design (2-celled Pond)
- Construction Sequencing
- Dain Lines
- Low Points
- Visualization toolbar
- Pond Staging Volumes (within Grading Optimization)

#### **Parking Areas**

- Parking Lot Conceptual to Preliminary
  Design
- Parking Lot Drainage
- Convergence Plots
- Parking Lot Grading

#### Parcels and Building Pads

- Traditional Parcel Creation and Reports
- Building Pads
- Sidewalks
- Accessible Path
- Elevation Offset
- Reveals
- Aligned Edges

#### Misc. Tools

- DWG Compare
- Transparent Commands
- Project Explorer

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