

## **Civil 3D for Infrastructure Design Professional Certification Prep**

### **Course Content:**

#### **Getting started**

- Module overview
- Course overview
- Course resources

#### **See where you stand**

- Module overview
- Pre-test

#### **Points, parcels, and surveying, Part 1**

- Module overview
- Introduction to points
- Create COGO Points
- Specify point parameters
- Assign point styles and point label styles
- Create description key sets
- Rotate point markers and labels
- Create and assign point styles
- Create and assign point label styles
- Edit point properties
- Create point groups
- Change point group display order
- Introduction to the surveying tools
- Work with linework code sets
- Set up a survey database
- Work with the survey figure prefix database

#### **Points, parcels, and surveying, Part 2**

- Module overview
- Work with the Traverse Editor
- Perform a mapcheck analysis
- Introduction to parcel creation
- Create parcels by layout
- Create parcels from objects
- Subdivide existing parcels
- Associate parcels with sites
- Work with parcels
- Label parcels
- Create parcel tables
- Renumber and rename parcels
- Create and modify parcel styles
- Create and modify parcel label styles

- Delete parcels
- Practice exercise

### **Surfaces and grading, Part 1**

- Module overview
- Introduction to surfaces
- Define surfaces with data categories
- Control the display of a surface
- Define surface boundary types
- Access and review surface statistics
- Create a TIN surface
- Edit a TIN surface
- Edit the properties of a surface definition
- Create a TIN volume surface
- Create surface labels
- Add contour labels

### **Surfaces and grading, Part 2**

- Module overview
- Use surface analysis
- Set analysis parameters for surfaces
- Perform a surface analysis
- Create feature lines
- Edit horizontal data for feature lines
- Edit elevations for feature lines
- Work with objects on same site
- Create and modify sites
- Create grading groups
- Create grading with grading creating tools
- Work with grading criteria
- Practice exercise

### **Alignments and profiles, Part 1**

- **Module overview**
- **Introduction to alignments**
- **Create alignments with and without curves**
- **Add curves, lines, and spirals to an alignment**
- **Create alignments from objects**
- **Create an alignment from a pipe network**
- **Create offset alignments**
- **Create widenings for an alignment**
- **Create a surface profile**
- **Create a profile view**
- **Compare components of a profile view**
- **Identify object types in a profile view**

## Alignments and profiles, Part 2

- Module overview
- Create a profile with the Quick Profile tool
- Split a profile view
- Create and modify a profile
- Edit layout profiles
- Work in the profile grid view
- Add a vertical curve to a profile
- Grip edit a profile
- Add labels to profile views and alignments
- Add station offset labels to alignments
- Create tag labels for alignments
- Add label sets to alignments and profiles
- Add and edit alignment tables
- Practice exercise
- Challenge exercise

## Corridors and sections

- Module overview
- Create basic assemblies
- Create a corridor
- Rebuild a corridor
- Create a multiple baseline corridor
- Set targets for corridors
- Remove corridor bowties
- Create objects from a corridor
- Create sample lines
- Edit sample lines
- Create section views
- Create section sheets
- Compute materials
- Practice exercise
- Challenge exercise

## Pipe and pressure networks

- **Module overview**
- **Review the part catalog and parts list**
- **Set the part catalog location**
- **Add and modify parts**
- **Create a pipe network**
- **Edit a pipe network**
- **Place a pipe network in a profile**
- **Annotate plan and profile pipe networks**
- **Modify the pipe network flow direction**
- **Review the pressure parts catalog**

- **Create a pressure network parts list**
- **Create and edit a pressure network**
- **Place a pressure pipe network in a profile**
- **Annotate plan and profile of the pressure pipe network**
- **Practice exercise**

#### **Plan production and data management**

- Module overview
- Create view frames
- Create a sheet from a view frame group
- Use data shortcuts and external references
- Manage data shortcuts
- Create a data reference
- Practice exercise