

320803

## Tips and Tricks Using Feature Lines in Grading with Civil 3D

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### Learning Objectives

- Think through design and grading using Feature Lines
- Learn how to use the grading tool to get you the needed feature lines
- Learn how to detail out headwalls, walls, ramps, curbs, and more
- Learn about Feature Lines tools

### Description

This class will cover using feature lines to create a surface in Civil 3D software, including do's and don'ts. The class will also cover tips on how to use the grading tool to create the feature lines you'll need for grading. This type of grading is good for site plans and detail grading for walls, headwalls, ponds, ADA ramps, curbs, and ADA paths.

### Speaker

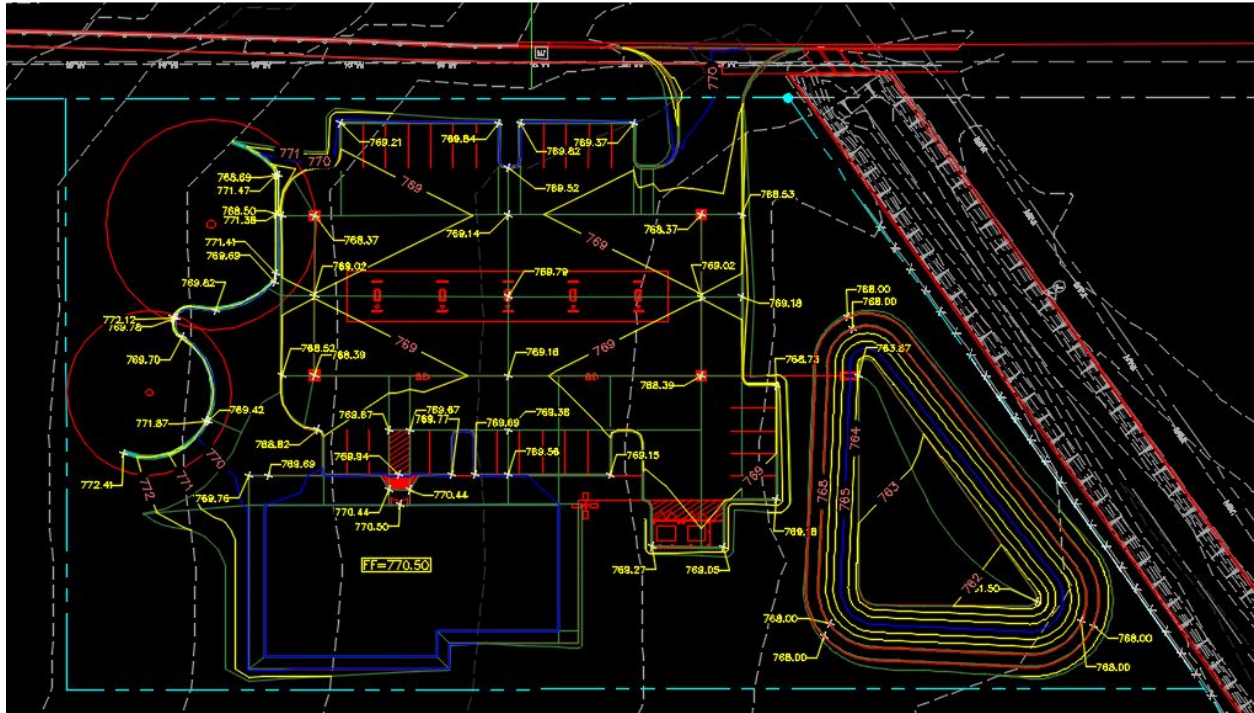
Holland Garza is a Sr. Designer for Pape-Dawson Engineers. He is a valued contributor to the standards and learning process in the company. Holland leads the Austin office for standards and Civil 3D design. He is the Austin Chair representative on the company-wide Standards Board. Holland is one of the leading Civil 3D trainers for the 7 offices in Texas. He has more than 24 years' experience in the Civil field that includes but is not limited to drainage, grading, utility design, survey, project management, and training. Holland started working in AutoCAD in high school on release one. He has since acquired and advanced his knowledge and experience in AutoCAD, Eagle Point, Softdesk, Land Desktop, and Civil 3D. Holland has received his Associate of Applied Science in Game Art Specialization degree in 2011.

### Speaker

Paul is the CAD Manager at Pape-Dawson Engineering. A Texas-based engineering firm that provides many engineering services from 7 offices throughout the state. Having 17+ years of experience in the civil industry. His focus at Pape-Dawson is to provide training, guidance, and support to the end-user and also to lead the effort on development/implementation of production standards, workflow enhancements and productivity throughout the company's design teams. During Paul's free time, he enjoys traveling with his family of 7 and also working on various projects around the house.

The objective of this class is to learn how to best utilize feature lines to create a proposed surface.

We will be working with feature lines, grading tools and feature line editor to get to a finished graded product. We will be grading site that has a pond, ramps, and walls.

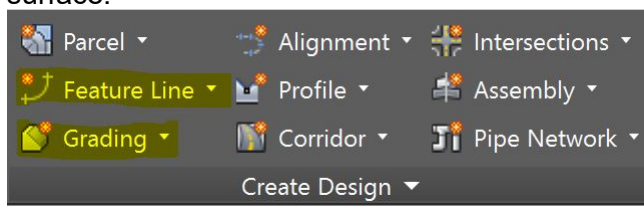


### Tools that we will be using

Here are some of the items we will be using in this class.

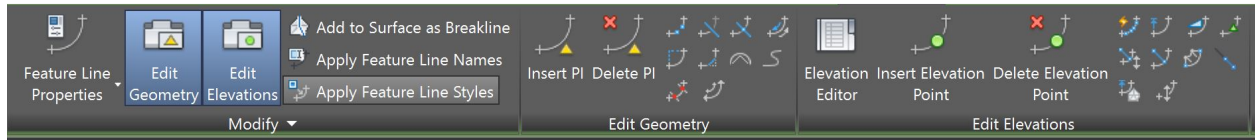
#### Feature line and Grading Tools

We will be using the feature and grading tools to help create all the break lines to build a surface.



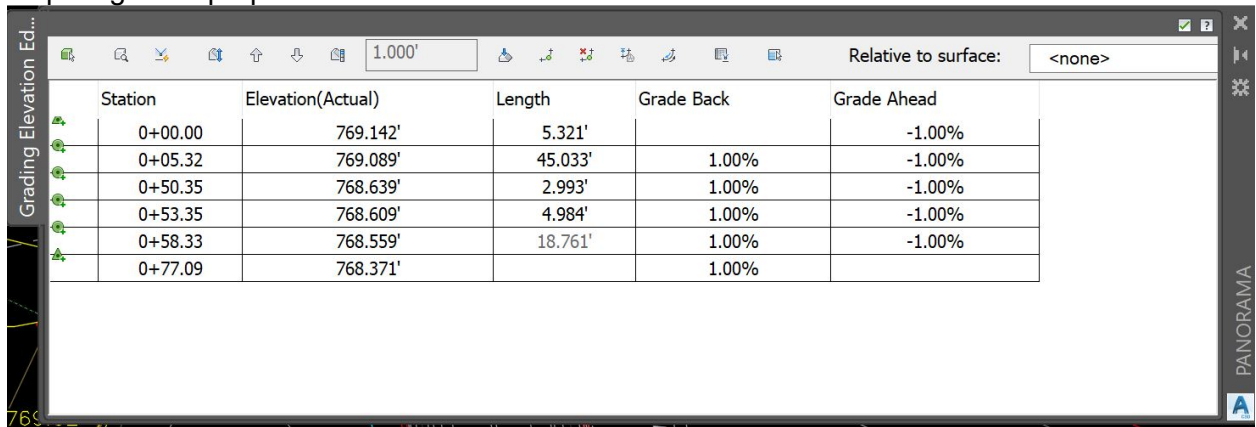
## Feature line editing tool

After creating the feature lines we will be utilizing this tool bar to help manipulate the line work.



## Elevation editor tool

One of the main tools we will be working with will be the elevations editor tools. This will help us get the proper elevations needed on the feature lines.



Station	Elevation(Actual)	Length	Grade Back	Grade Ahead
0+00.00	769.142'	5.321'		-1.00%
0+05.32	769.089'	45.033'	1.00%	-1.00%
0+50.35	768.639'	2.993'	1.00%	-1.00%
0+53.35	768.609'	4.984'	1.00%	-1.00%
0+58.33	768.559'	18.761'	1.00%	-1.00%
0+77.09	768.371'		1.00%	

## Grading tool

We will be using the grading tool to help us build the walls, ponds and grad back to existing surface.

