

Data Mining Techniques: Creating Pre- and Post-Development Drawings and Hydrographs

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CLASS SUMMARY

This hands-on lab covers data mining techniques using Autodesk® AutoCAD® Map 3D and Autodesk® Storm and Sanitary Analysis software. We cover how to effectively use existing and created GIS layers to streamline creation of pre- and post-development drainage map drawings and to then import the data into Storm and Sanitary Analysis to create hydrographs. We examine technical workflows and provide useful tips for analyzing soils and pervious/impervious data.

KEY LEARNING OBJECTIVES

At the end of this class, you will be able to:

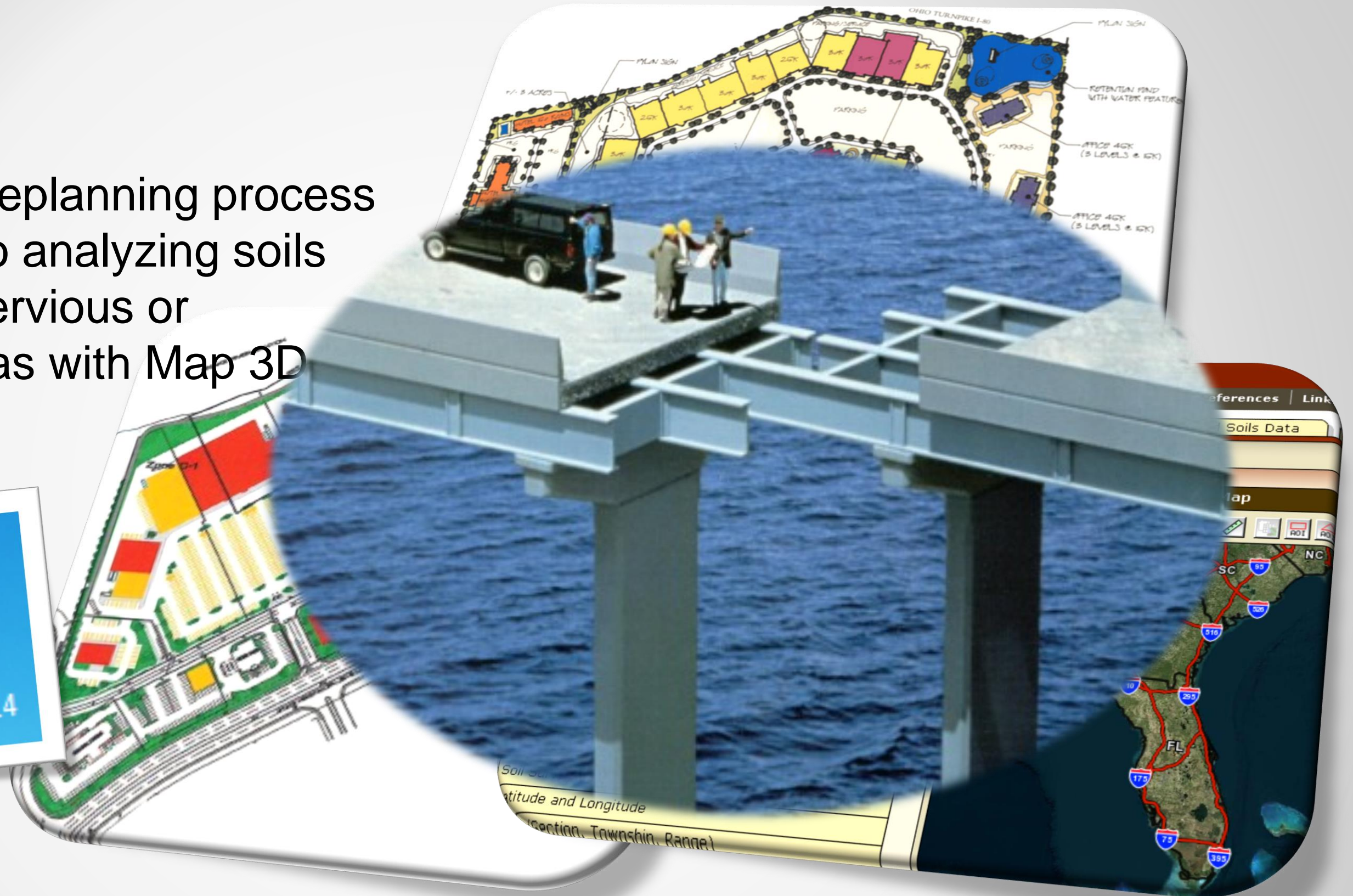
- Describe the preplanning process required prior to analyzing soils and their pervious or impervious state with Map 3D
- Attach data for impervious and pervious areas
- Analyze GIS layers in Map 3D
- Create catchment and sub basins using various methods

LECTURE



LECTURE

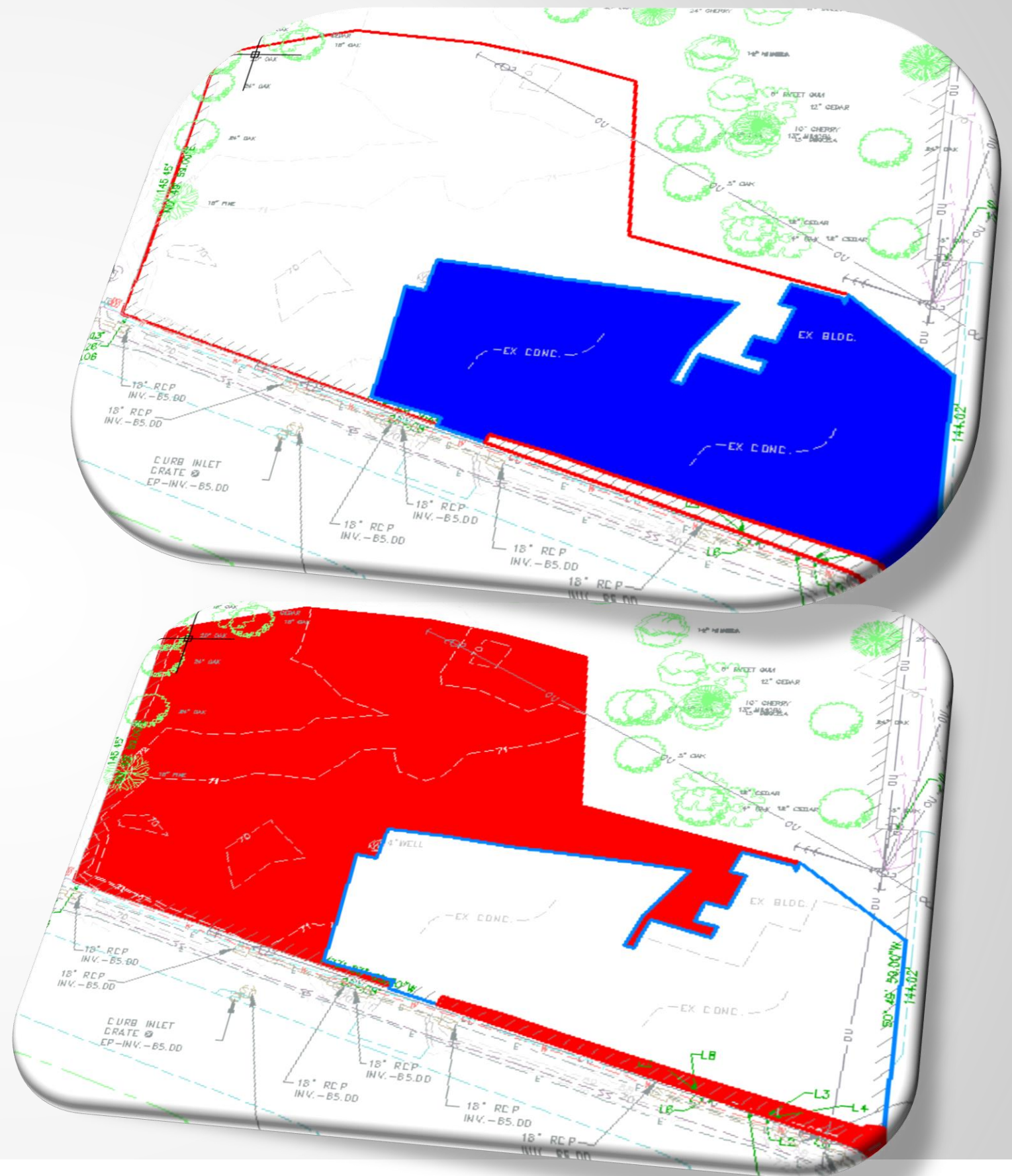
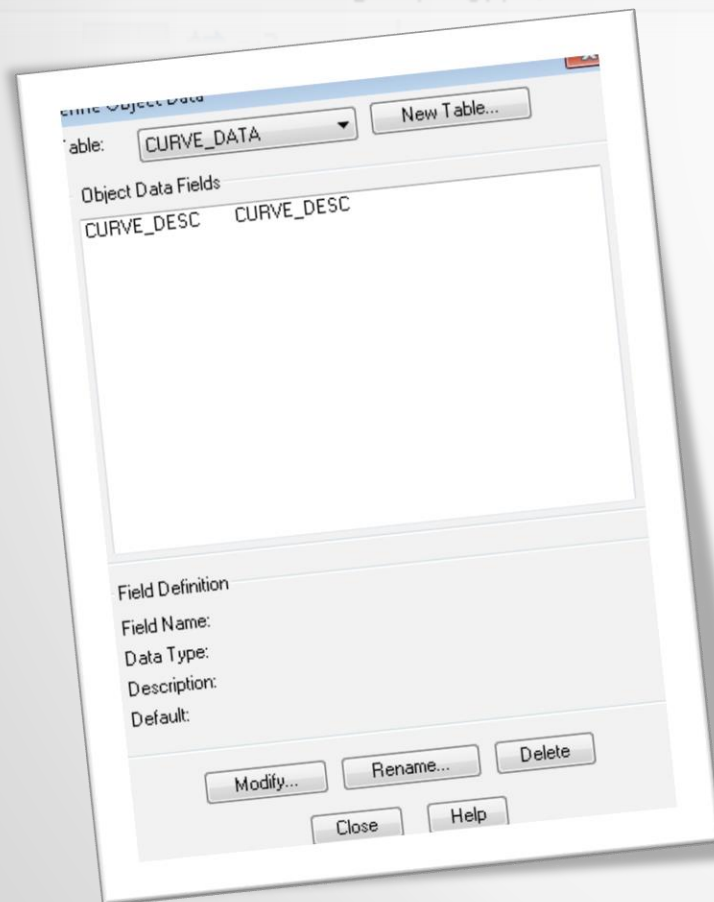
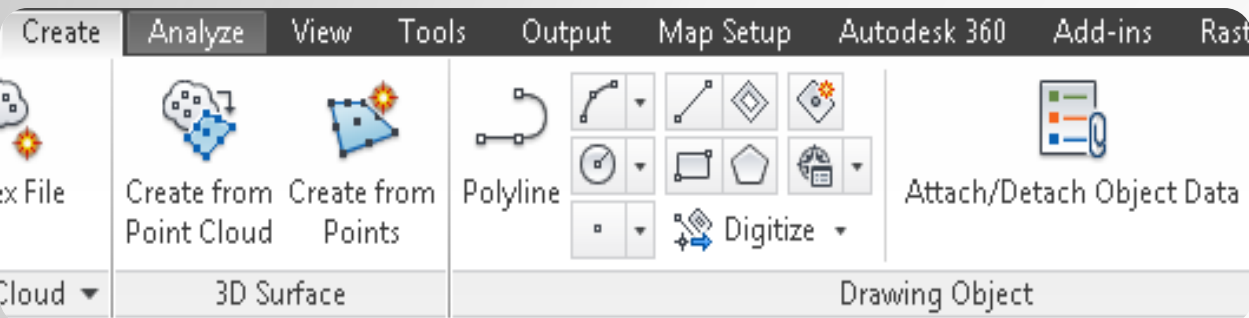
- Describe the preplanning process required prior to analyzing soils and the sites pervious or impervious areas with Map 3D Civil 3D.



*Image obtained from http://magicvalley.com/news/local/twin-falls/large-commercial-development-again-moving-toward-fruition-in-twin-falls/article_884caf54-f97e-53b9-a00d-676acf636281.html / <http://www.bostonheights.org/News/Alnola/> <http://cheezburger.com/template/3417140> <http://shipontheside.com/>

LECTURE

- Attach data for impervious and pervious areas



LECTURE

- Attach data for impervious and pervious areas

The screenshot displays the AutoCAD Civil 3D 2014 software interface. The title bar indicates the file is 'AU2013v4.dwg'. The command line shows the command '_QSAVE' being executed. The ribbon includes tabs for Home, Insert, Annotate, Modify, Analyze, View, Output, Manage, Help, Express Tools, Add-Ins, IMAGINiT, River, Trimble Link, and Vault. The 'Home' tab is active, showing various toolsets like 'Import Survey Data', 'Points', 'Surfaces', 'Parcel', 'Alignment', 'Intersections', 'Profile View', 'Sample Lines', 'Section Views', 'Grading', 'Corridor', 'Pipe Network', and 'Layers'. The 'Toolspace' palette is open on the left, showing the 'Active Drawing View' and a list of objects including 'Points', 'Point Groups', 'Point Clouds', 'Surfaces', and 'Alignments'. The main drawing area shows a 2D wireframe view of a site plan with green circular features and a black rectangular area. The 'Properties' palette is open on the right, displaying properties for the selected object (No selection).

Command: _QSAVE

Toolspace

Active Drawing View

AU2013v4

Points

Point Groups

Point Clouds

Surfaces

Alignments

Properties

General

Color	ByLayer
Layer	0
Linetype	ByLayer
Linetype scale	1.0000
Lineweight	ByLayer
Transparency	ByLayer
Thickness	0.0000

3D Visualization

Material	ByLayer
Shadow display	Casts and Rece...

Plot style

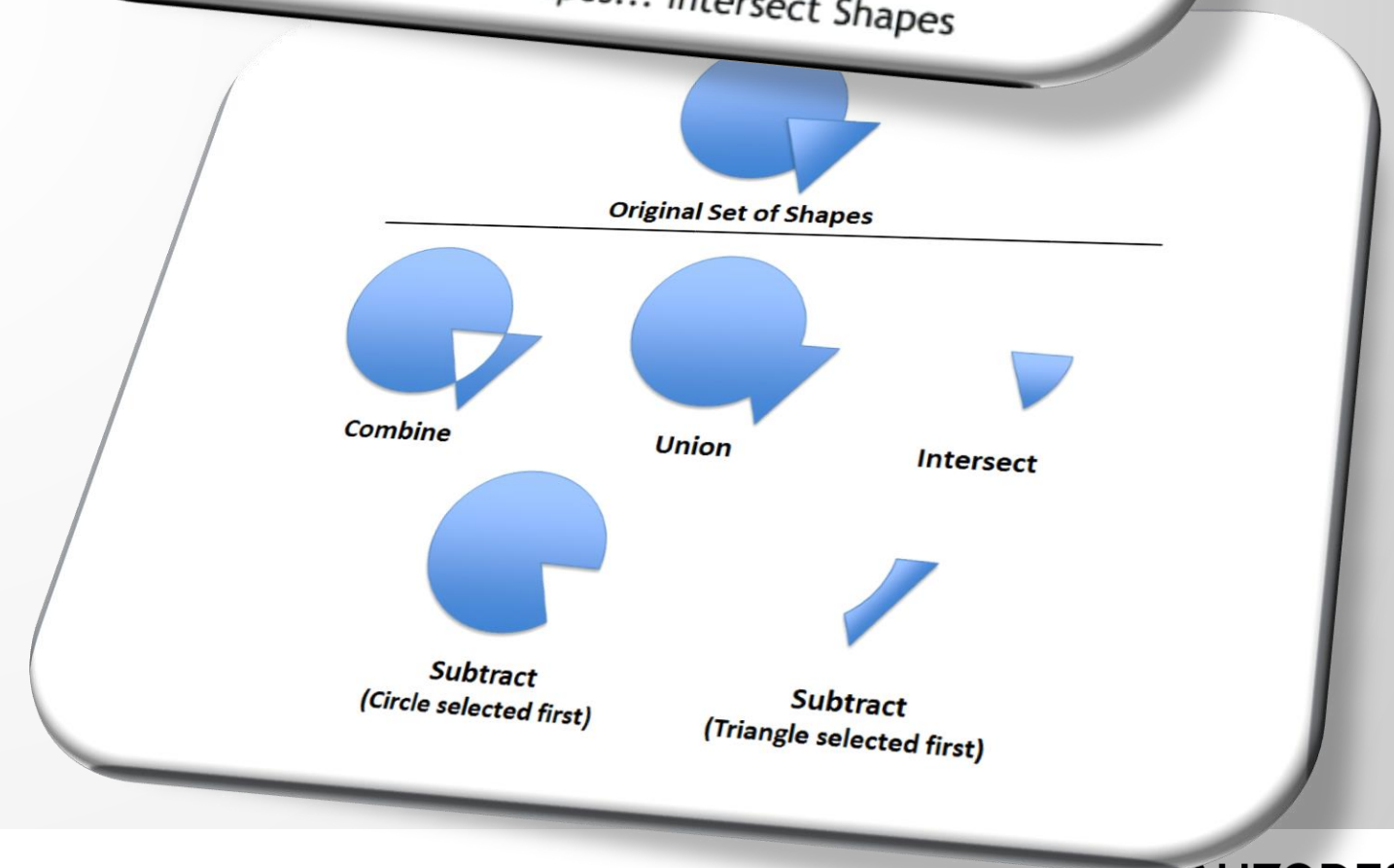
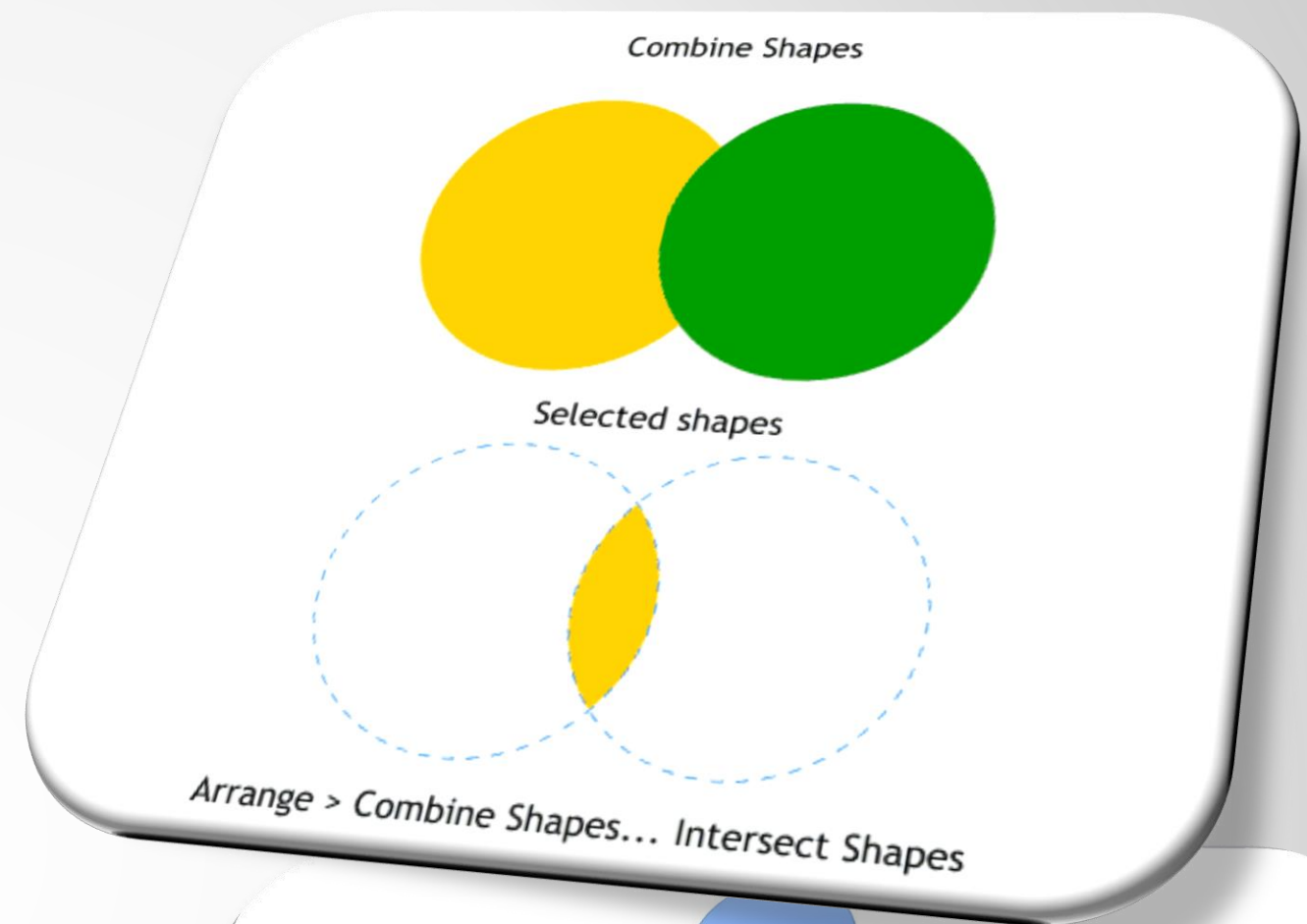
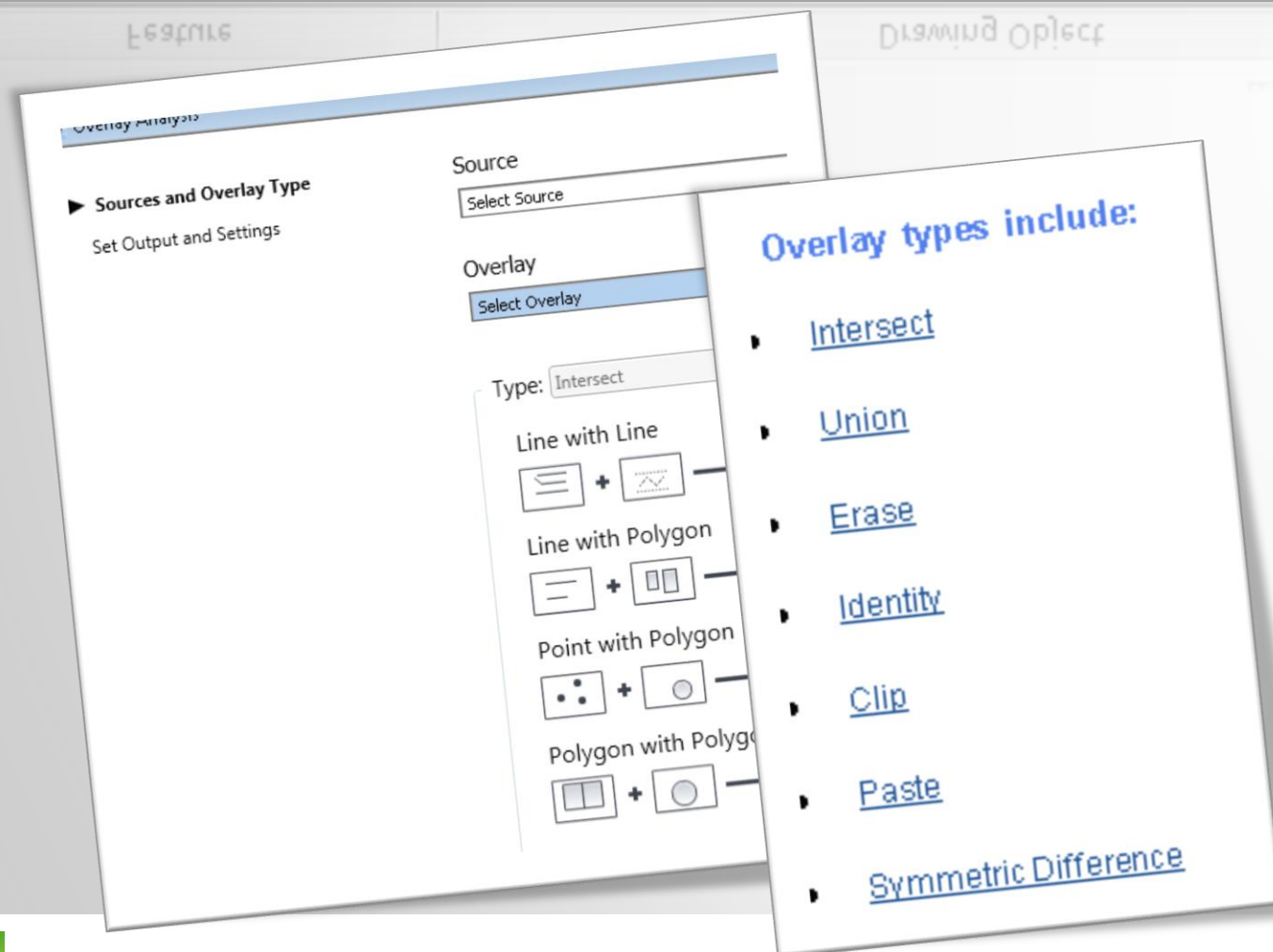
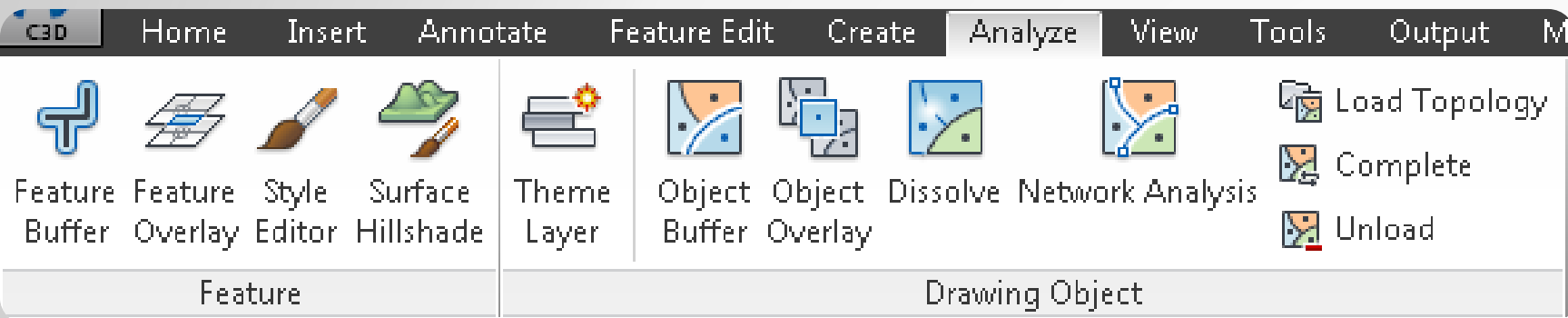
Plot style	ByColor
Plot style table	None
Plot table att...	Model
Plot table type	Not available

View

Center X	728854.0066
Center Y	1630490.9477
Center Z	0.0000

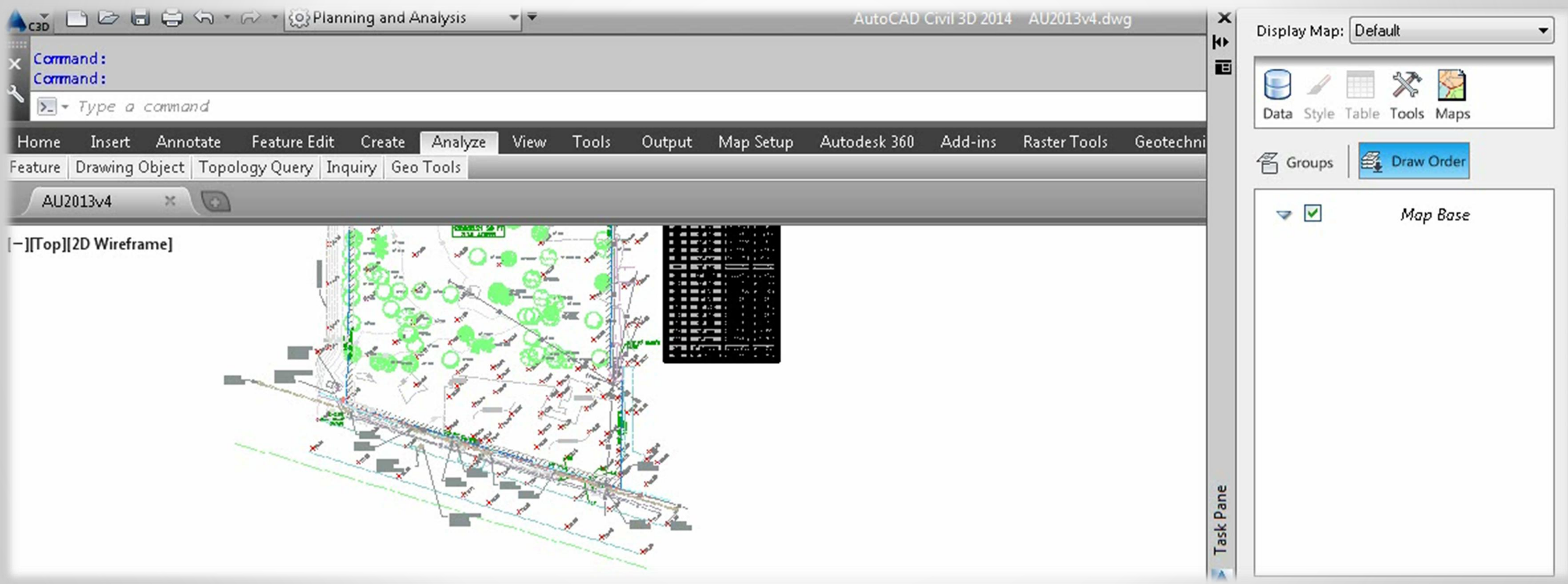
LECTURE

■ Analyze GIS layers in Map 3D



LECTURE

- Analyze GIS layers in Map 3D



An aerial perspective of a cityscape featuring a river, a bridge, and various urban structures. A semi-transparent white banner is overlaid on the left side of the image.

DEMO



DEMO

Please pay attention to the screen,
I will demonstrate the next activity.....

Watch Demo



LETS REVIEW..



ACTIVITY

- Now **YOU** will work on this activity where **YOU** attach object data to your shapes as well as import these shapes for FDO import and analysis.



LETS REVIEW..



LECTURE

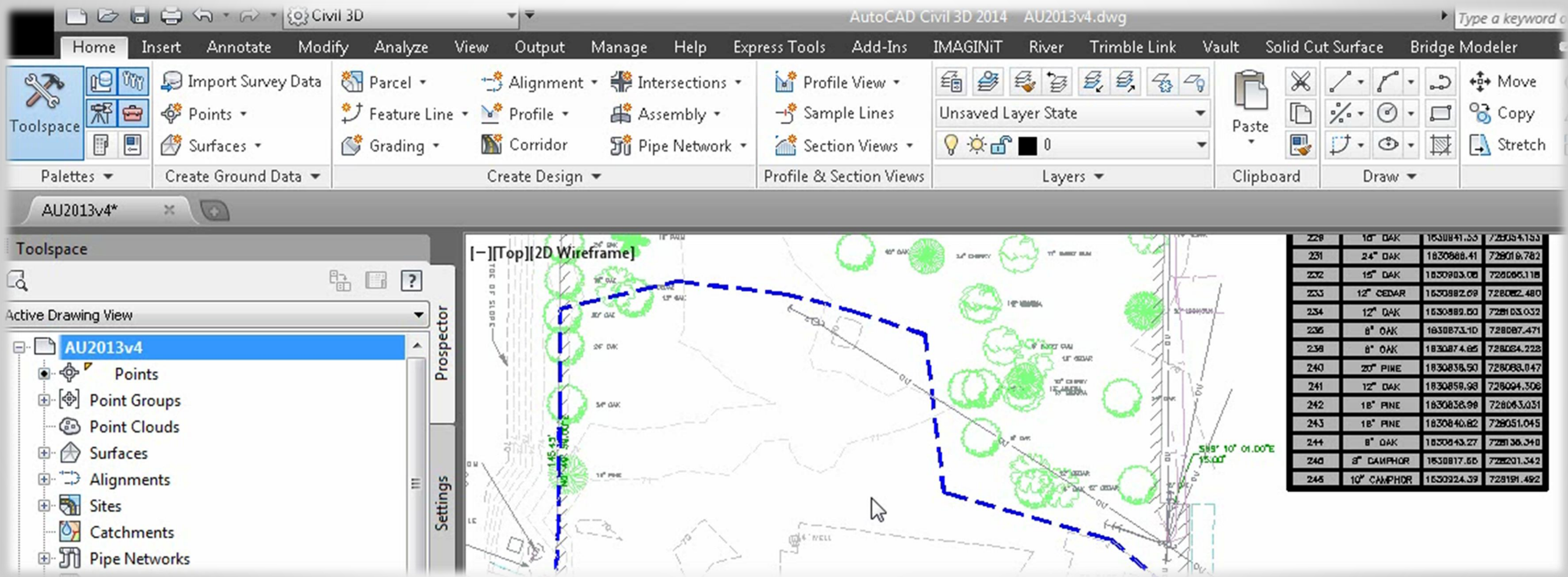
An aerial perspective of a cityscape featuring a wide river in the foreground. A multi-lane bridge with a rainbow-colored light strip along its edge spans the river. On the right bank, there is a large stadium with a circular roof, surrounded by parking lots and green spaces. The city skyline with various skyscrapers is visible in the background under a clear blue sky.

LECTURE

- Create catchment and sub basins using various methods

LECTURE

- Create catchment and sub basins using various methods



An aerial perspective of a city skyline across a river. In the foreground, a multi-lane bridge with a rainbow-colored light strip along its edge spans the river. A red car is visible on the bridge. The riverbank features green grass, trees, and a small landscaped area with purple flowers. In the middle ground, there's a park area with a baseball field and a blue oval track. The background shows a dense urban skyline with various skyscrapers under a clear blue sky.

DEMO



DEMO

Please pay attention to the screen,
I will demonstrate the next activity.....

Watch Demo



LETS REVIEW..



ACTIVITY

- Now **YOU** will work on this activity where **YOU** attach object data to your shapes as well as import these shapes for FDO import and analysis.



LETS REVIEW..



KEY LEARNING OBJECTIVES

Did we....

- Describe the preplanning process required prior to analyzing soils and their pervious or impervious state with Map 3D
- Attach data for impervious and pervious areas
- Analyze GIS layers in Map 3D
- Create catchment and sub basins using various methods

QUESTIONS



