Urban Planning and Geodesign with Esri CityEngine
Using CityEngine’s Street networks for Urban Design

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CityEngine

Transform 2D GIS Data into Smart 3D City Models
2D GIS Data + Rules

Shapes

Attributes

Rules

version "2014.0"
attr height = 10
Lot --> extrude(height)
  comp(f) [top: roofGable (30,2,1) X
  | all : X ]
Introduction

• What are shapes?
• Why do we want to create shapes?
• How are shapes created?
• What is special about street shapes?
Editing street networks

Move, rotate, scale

Street parameters

Edit street tool
Intersection Types

Crossing, Junction, Roundabout & Freeway
Acquiring Street Data

- Import from FileGDB, ShapeFile, DXF or OpenStreetmap
- Graph cleanup
Integrating Street Networks

- Align streets to terrain
- Align terrain to streets
- Fitting widths to existing buildings
- Interpreting 2.5D street position data
- Simplify graph / find curves
OpenStreetmap import: Judge Harry Pregerson Interchange
OpenStreetmap import: Judge Harry Pregerson Interchange
Thank you...

- Please fill out the session survey:

  First Offering ID: 1440

  Online – www.esri.com/ucsessionsurveys
Esri Roads and Highways is not CityEngine

- City Engine is a modeling and visualisation tool
- Supports decision making, rapid prototyping and sharing 3D models
- Roads and Highways is a different product