







## REALITY CAPTURE:

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## PRESENTATION OVERVIEW:

- Imagery
- Structured Light
- LiDAR
- Technology Limitations
- Software and Deliverables
- LiDAR / UAV Demonstration
- Sample Projects





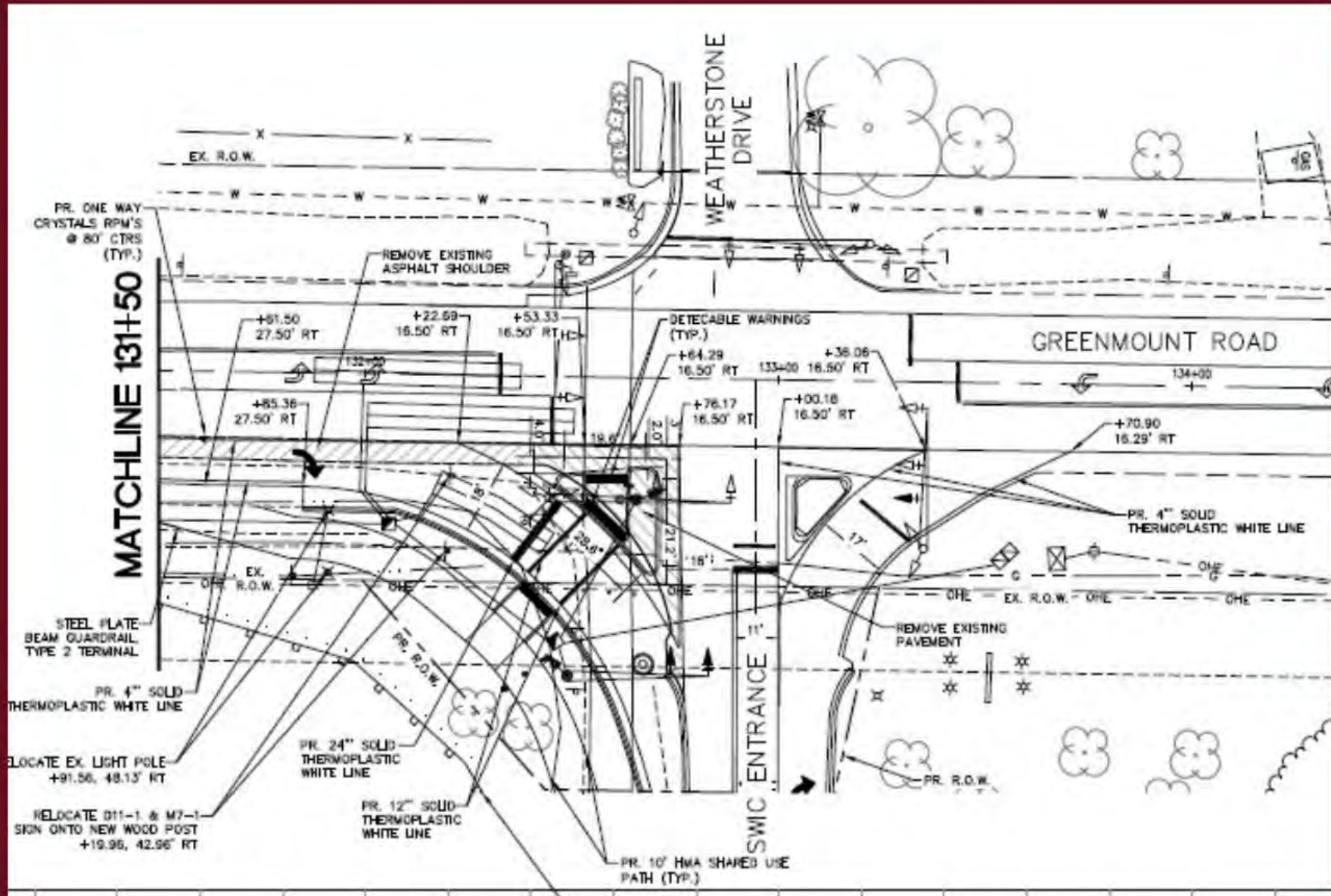
# What is Reality Capture?



Digitally capturing/representing  
real world elements



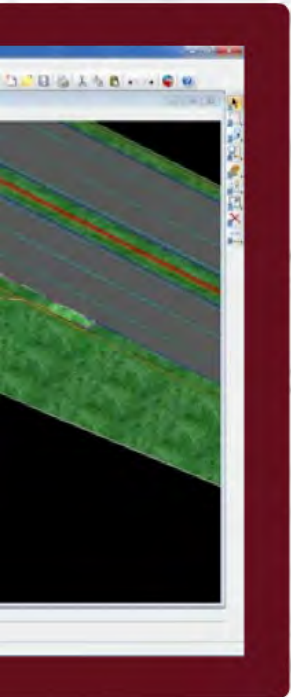
# Turn this:



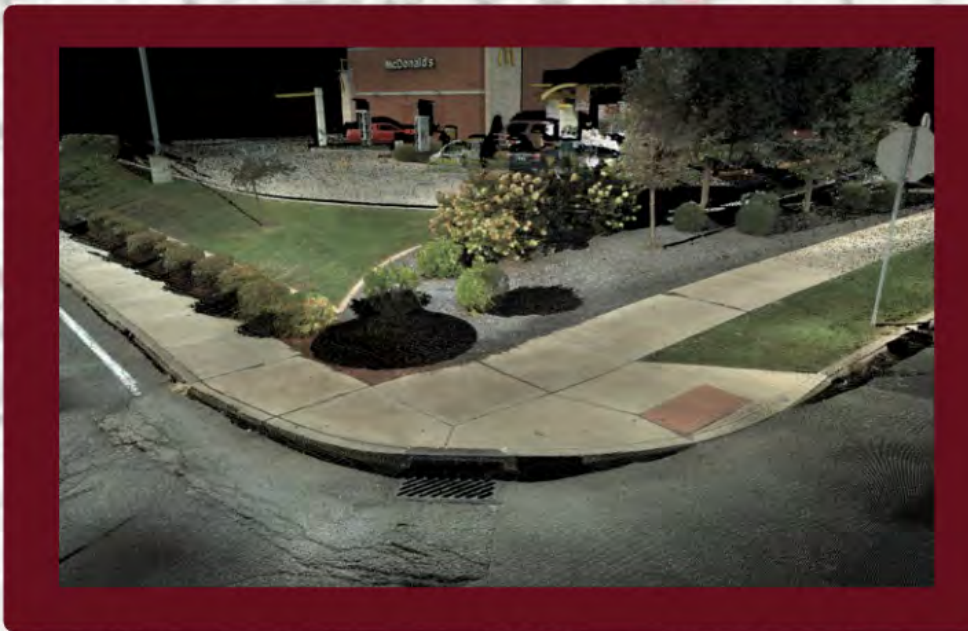








And these!





You **Tube**



A topographic map of a city area, showing streets, buildings, and terrain. A prominent red circular border is centered on the map. The text "Reality Capture Methods" is overlaid in the center of the circle.

# Reality Capture Methods



# Reality Capture Methods







IMAGERY







# STRUCTURED LIGHT





# LIDAR





# Benefits of Reality Capture



- Safety
- Reduce Site Visits/Return Visits
- Increased Understanding of actual conditions
- Higher Precision Data Accuracy
- Lowers Overall Risk
- Reduced Rework



Big Scale - Less Accuracy



Big Scale - Medium Accuracy



Small Scale - High Accuracy





# *Technology Limitations*

Choosing the right tool for the right project

- Should I fly this project?
- Is Mobile LiDAR accurate enough?
- How do I supplement my scanning data?

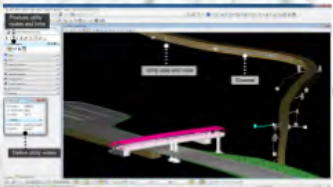
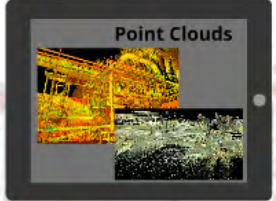




# Deliverables

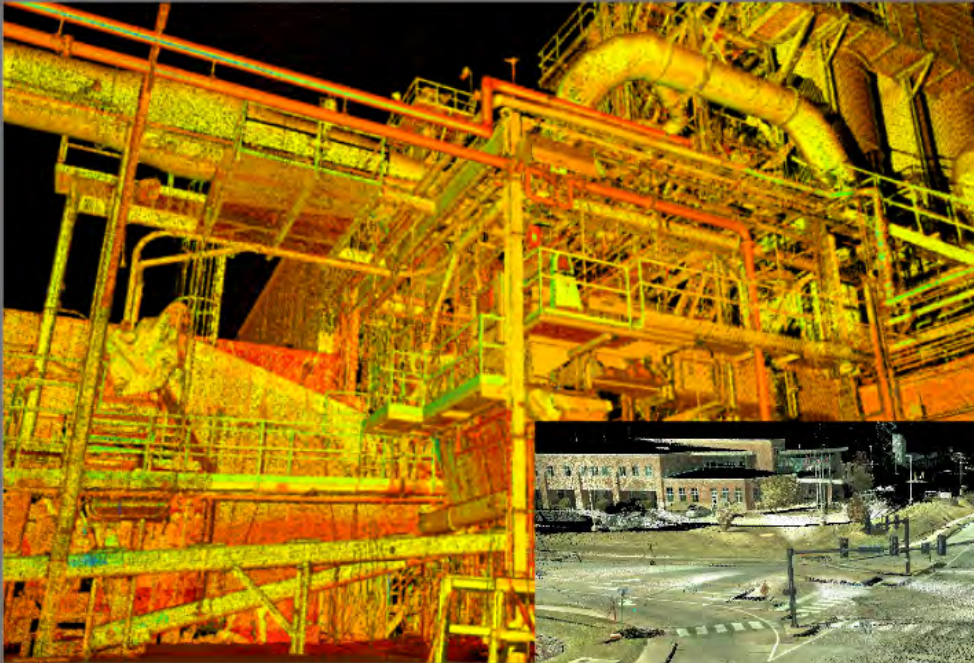








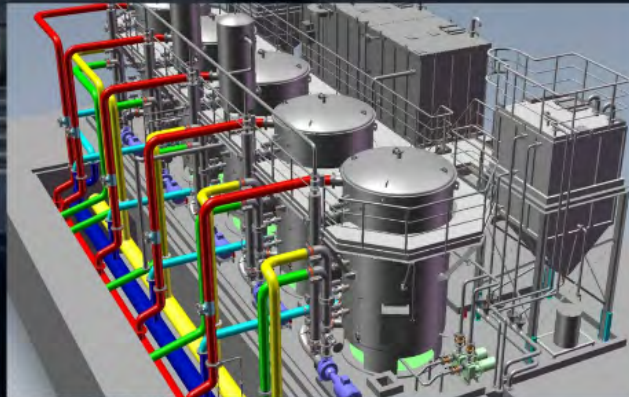
# Point Clouds





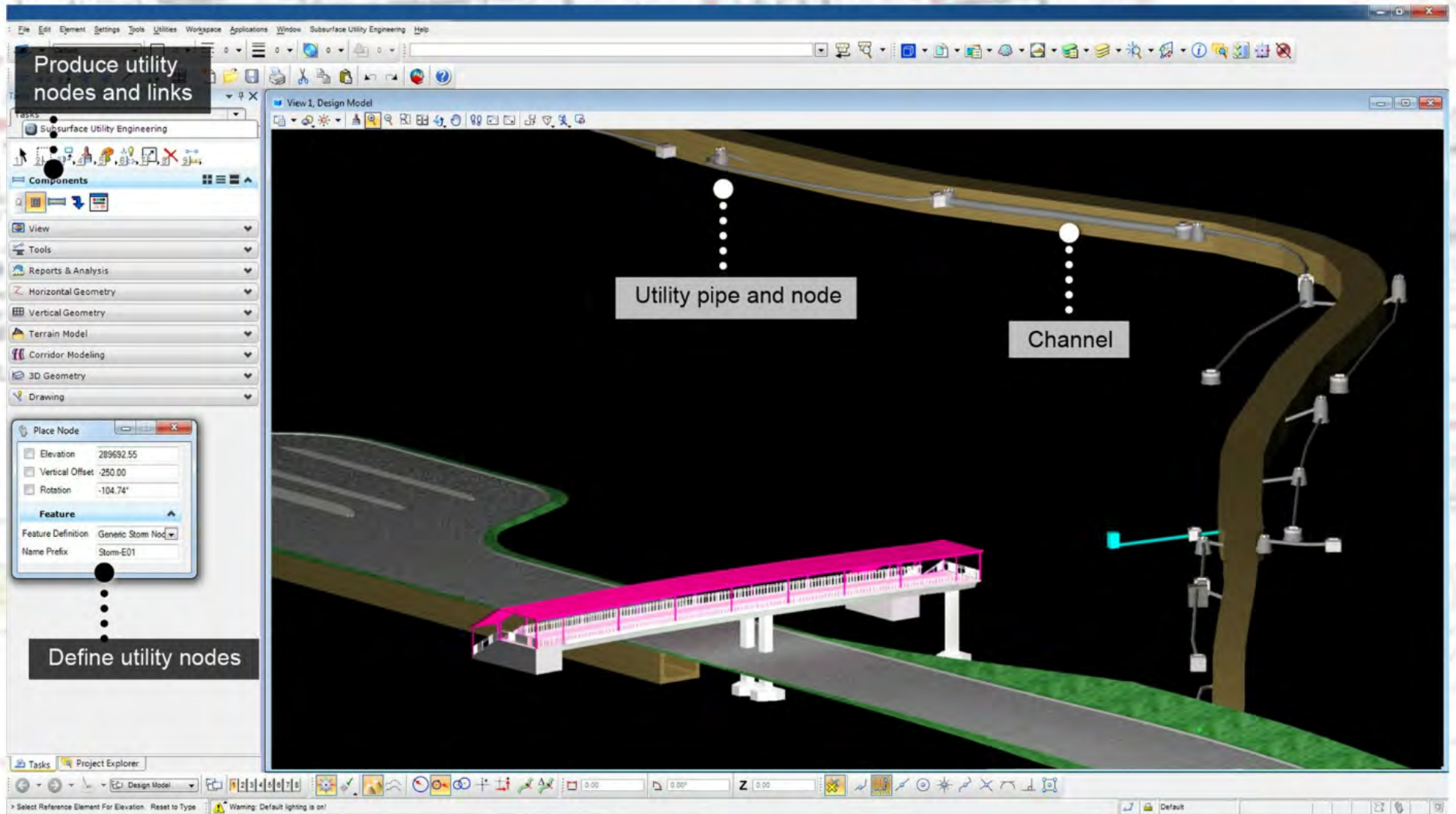
# *Models*

View on your desktop or with VR goggles





# Drawings





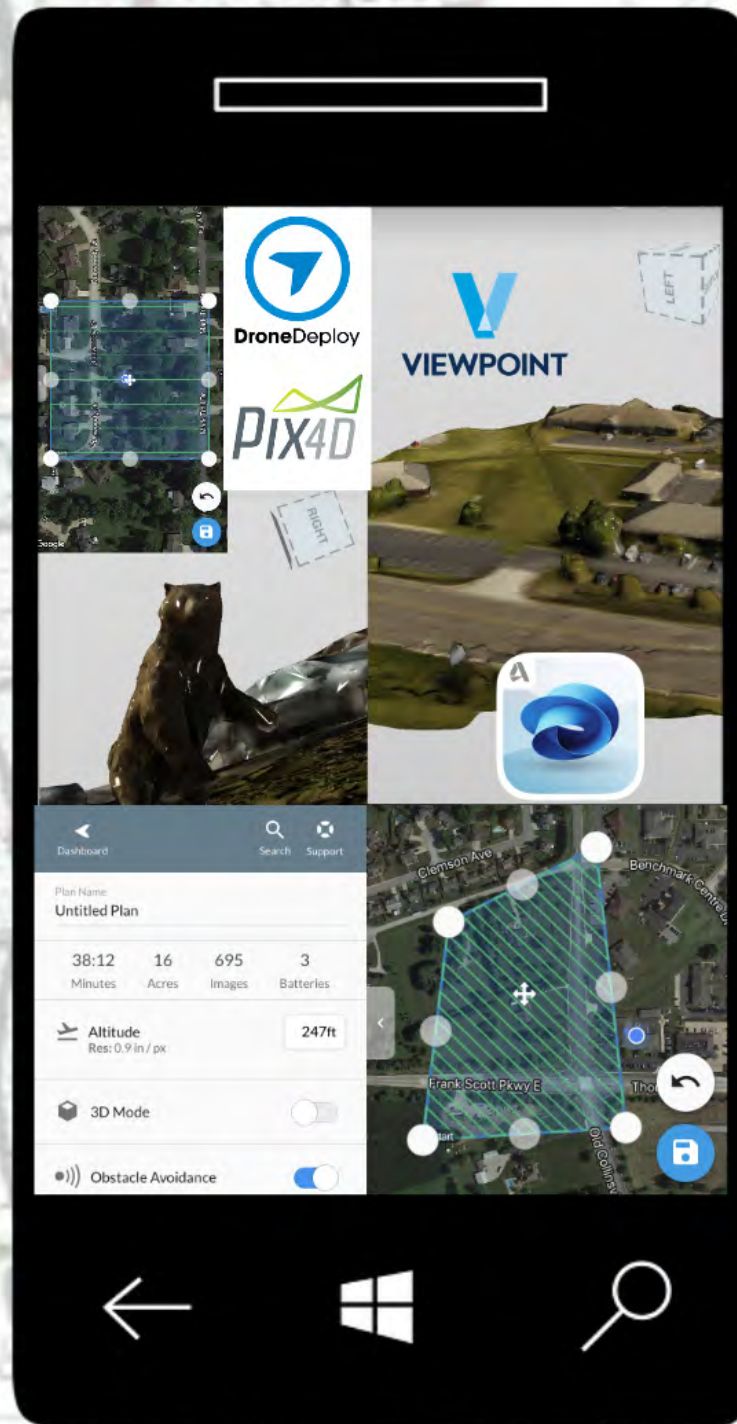


# ***Aerial Photos***





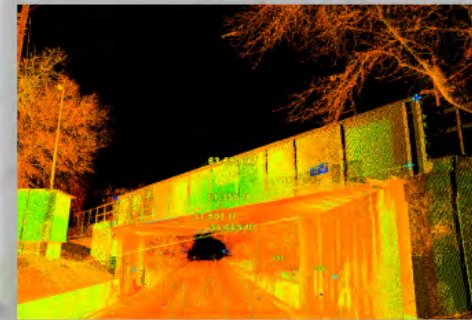
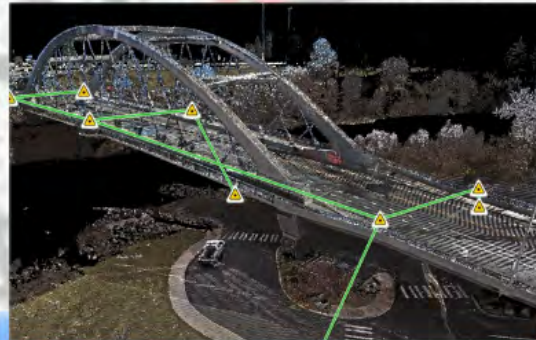
# Mobile Apps







# Example Data Sets





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# Questions