

Introduction

Tim Jones, P.E.

Associate Civil Engineer

City of Chula Vista

Department of Engineering and
Capital Projects

Project Delivery Section

Overview

- Equipment
- Process
- Deliverables
- Data Retention
- Benefits
- Special Projects

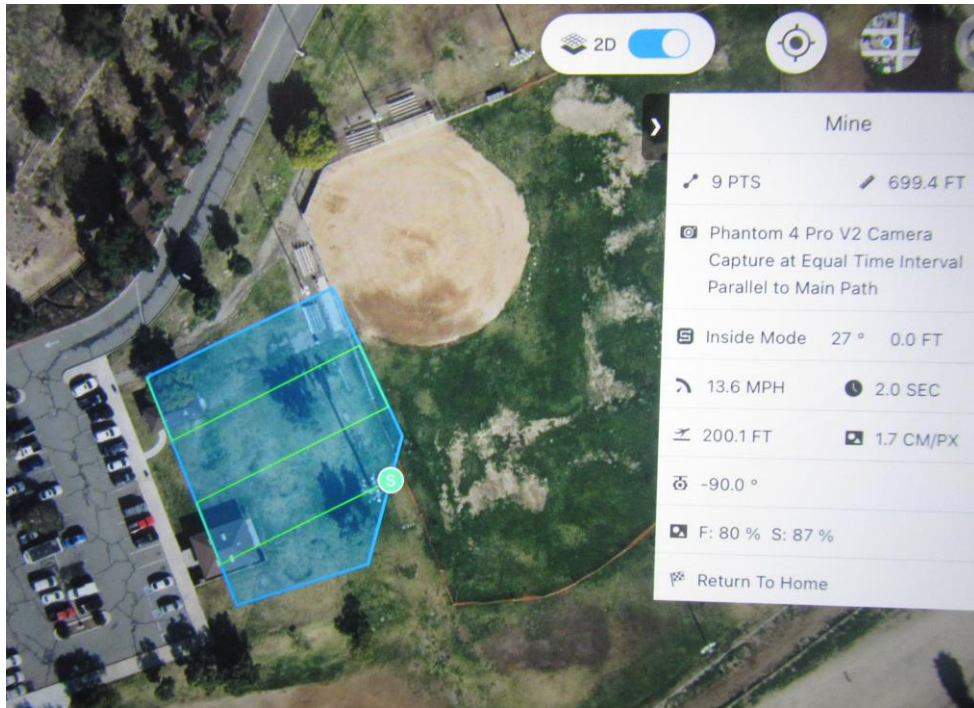
Equipment

- Two (2) Phantom 4 Pro v2 drones
- Two (2) IPAD Minis
- Software: DJI Go 4, DJI Ground Station Pro, and Pix4D
- Drones are stored in Building B
- Access is limited by access to the building
- Drone use is limited to individuals with current FAA Part 107 certification



The Process

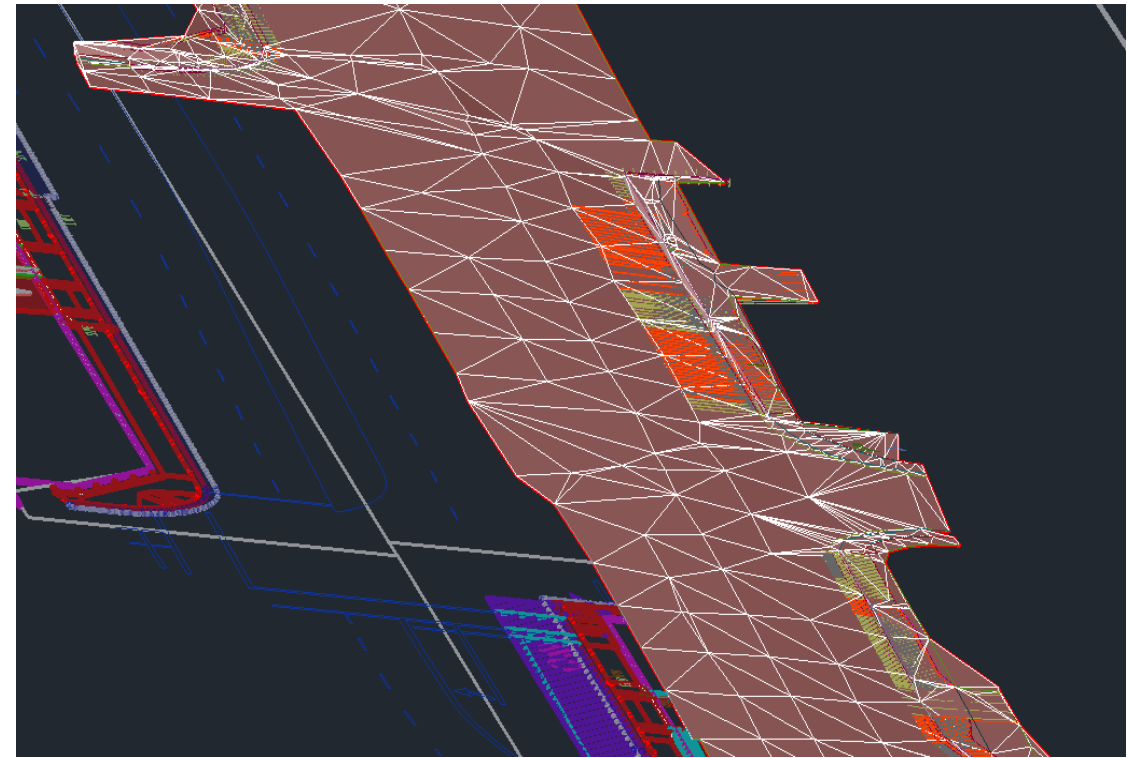
1. Set and survey aerial targets >>



<< 2. Fly drone mission

The Process *(continued)*

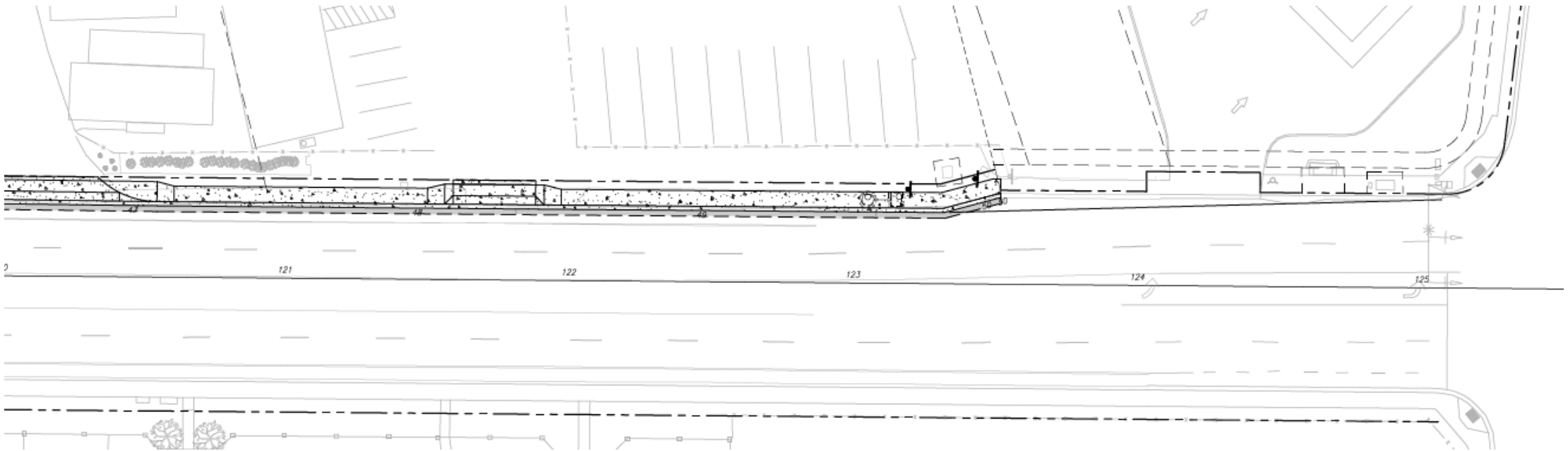
3. Prepare point cloud,
4. Extract digital surface model >>



<< and orthomosaic imagery

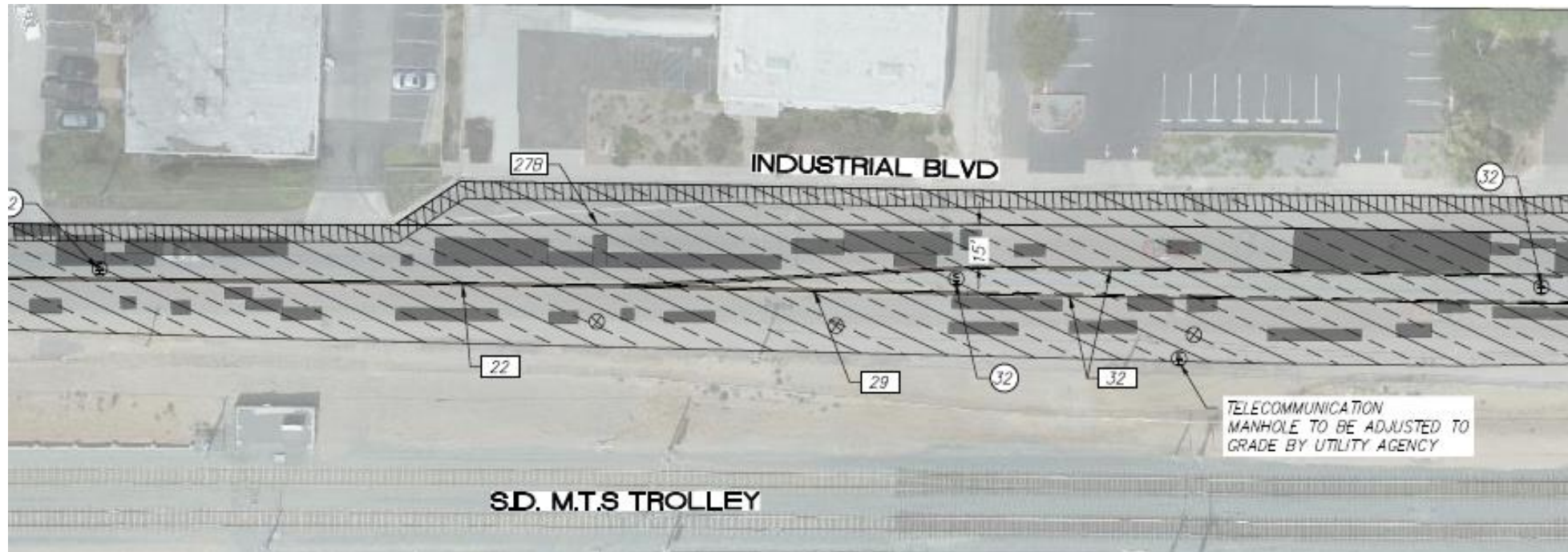
Deliverables

Most CIP projects use the data to produce background topology



Deliverables (continued)

Some CIP projects use the data as background imagery



Data Retention

- Data collected/produced with the drone is retained through the life of the CIP it supports according the City's Data Retention Schedule
- When a CIP is completed, data is deleted and only the project plans persist.

Benefits of Drone Use

- Reduce the number of staff exposed to hazardous environments
- Reduce the amount of time that staff must spend in hazardous environments
- More up-to-date than other online resources
- Faster, more cost-effective, and more site-specific vs traditional aerial photogrammetry



Special Projects

Occasionally projects come from other City departments

Data from these projects is given to the requesting department once compiled



Rice Canyon orthomosaic image for Public Works (*above*); CVEATC video for City Hall (*left*)

Questions and Discussion