

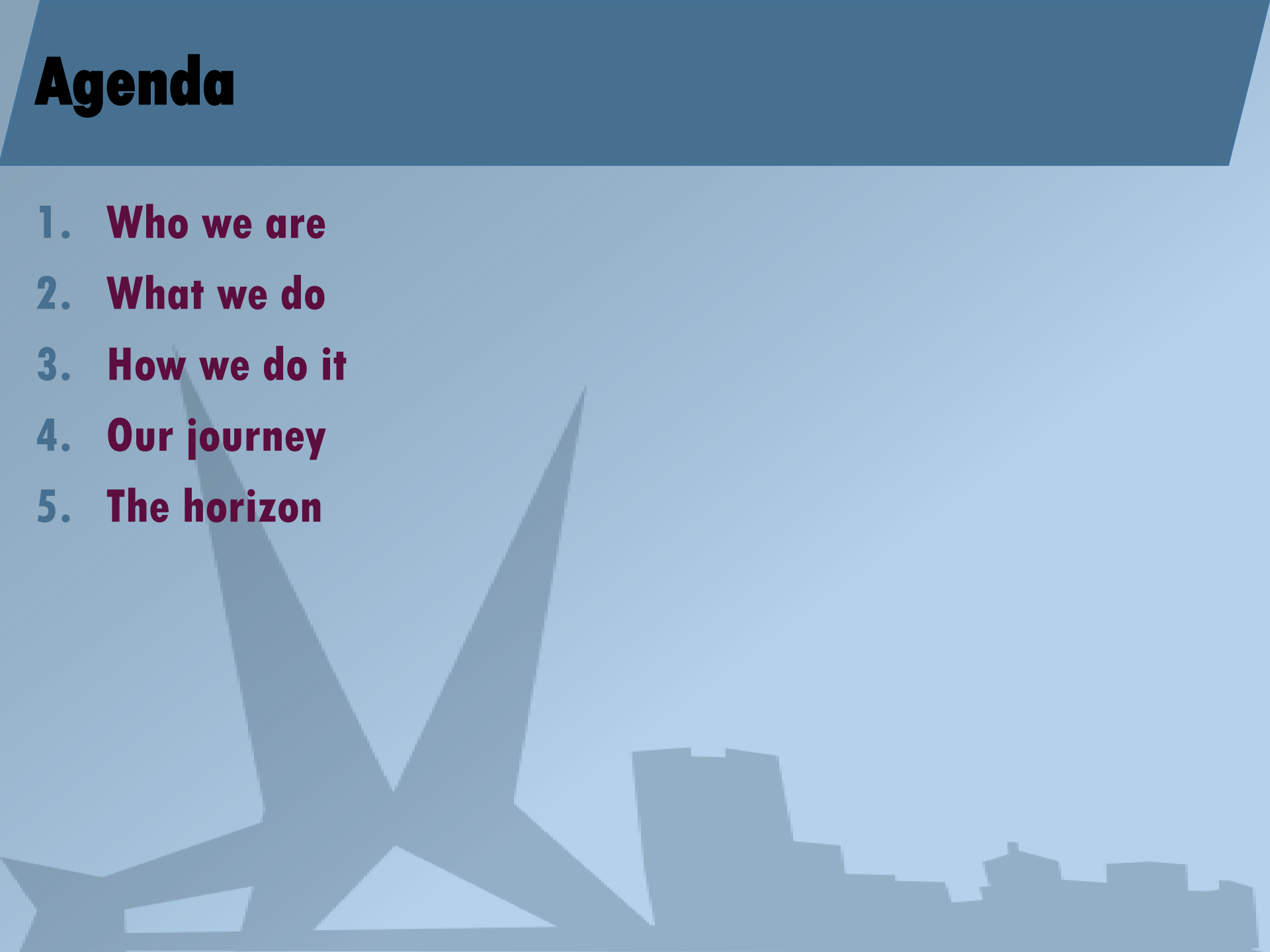
UNT Facilities Drone Mapping

FACILITIES DEPARTMENT
Division of Finance
& Administration

UNT[®]
EST. 1890

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Planning, Design & Construction
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940-369-8049

Agenda

1. **Who we are**
 2. **What we do**
 3. **How we do it**
 4. **Our journey**
 5. **The horizon**
- 
- A stylized background graphic featuring a city skyline silhouette at the bottom and a large, light blue 'X' shape that spans across the middle of the slide. The 'X' is formed by two intersecting diagonal lines.

1. Who we are

UNT

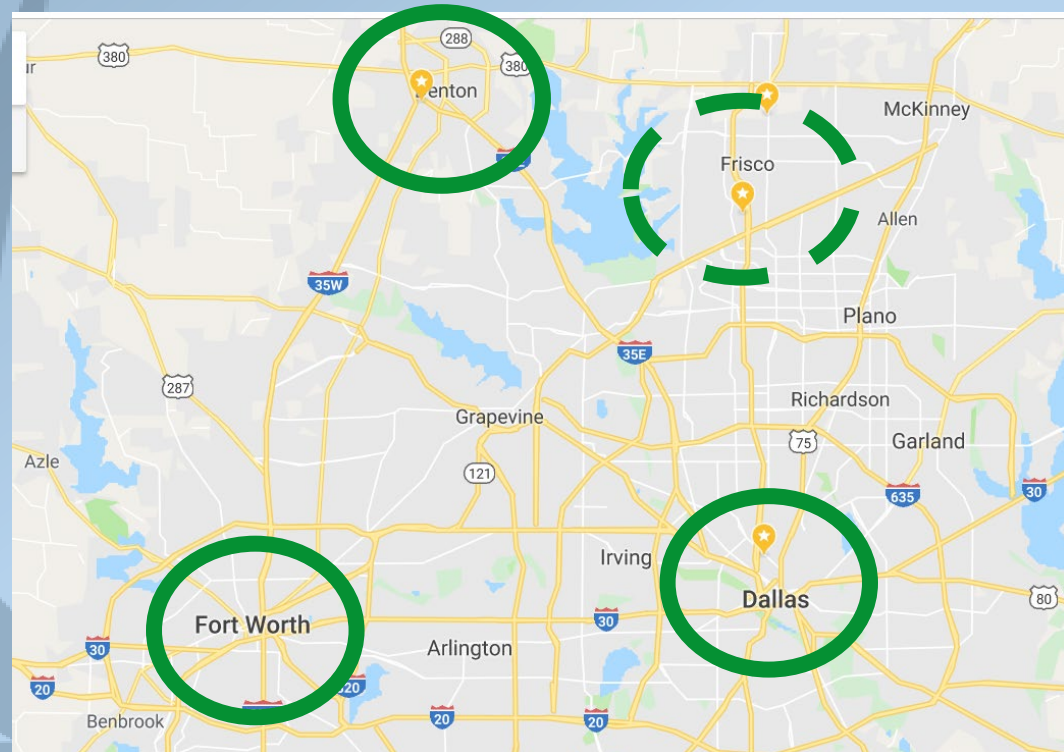
Community

- 38,000 students
- 3,400 faculty and staff



Facilities

- ~340 FTE
- 898 acres (+ 100 ac Frisco)
- 176 buildings
- 7M+ gross sq ft
- 38 miles of sidewalk
- 5,000+ trees mapped

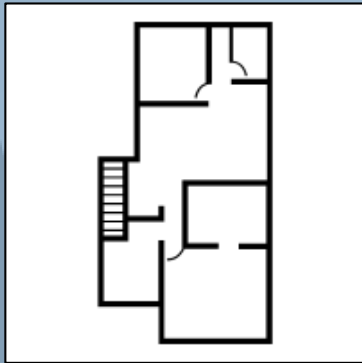


UNT Facilities Info. Services

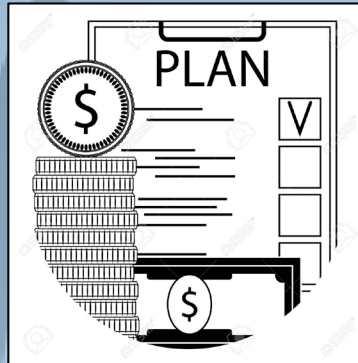
GIS



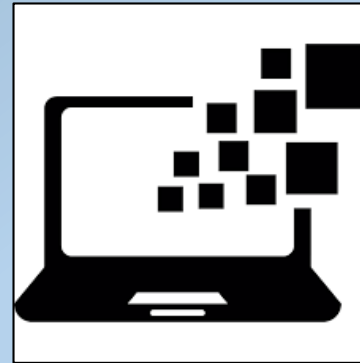
CAD



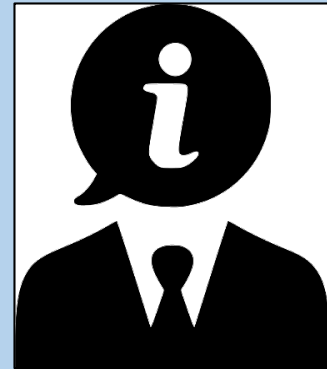
PLAN



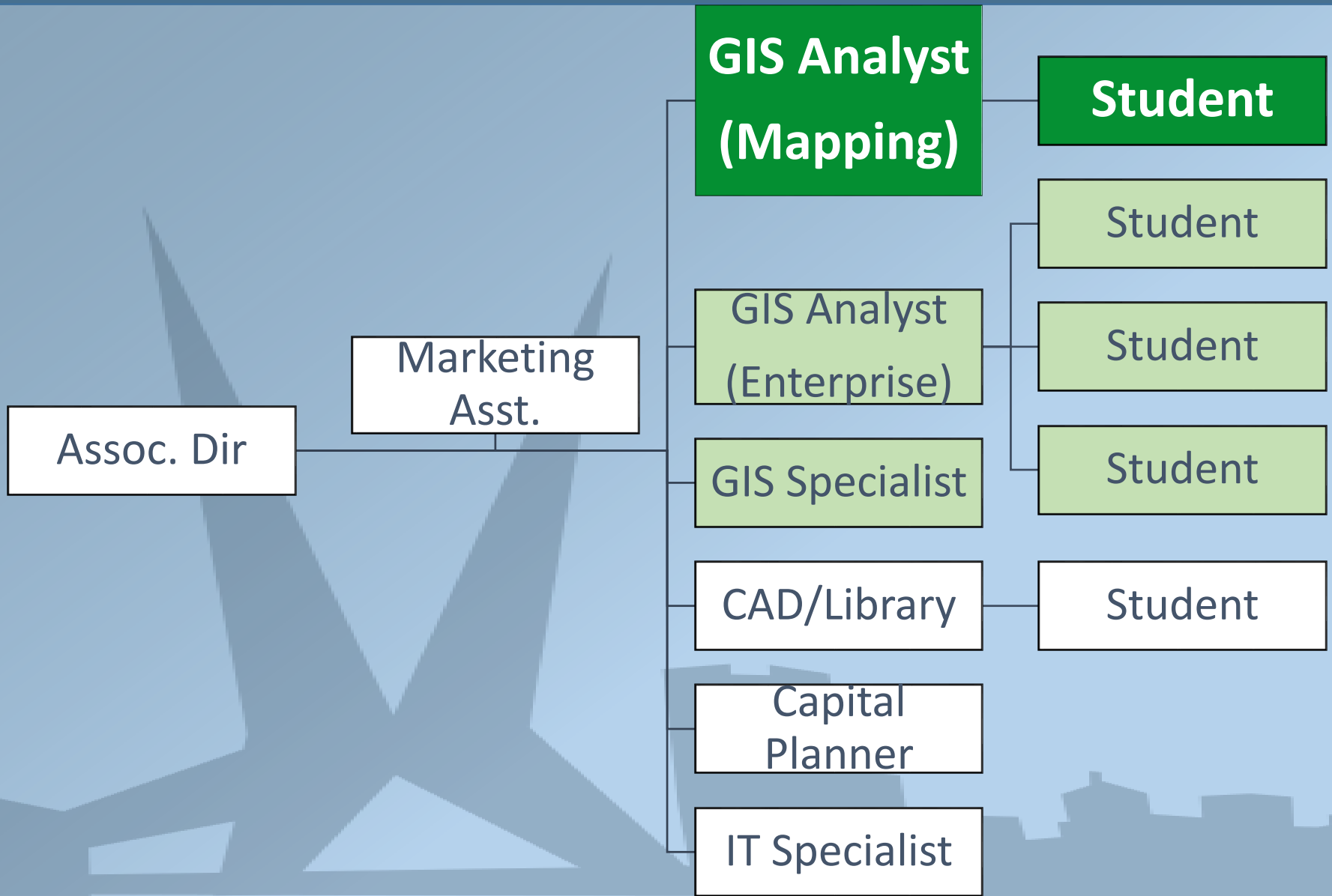
INFO



BI



UNT Facilities Info. Services

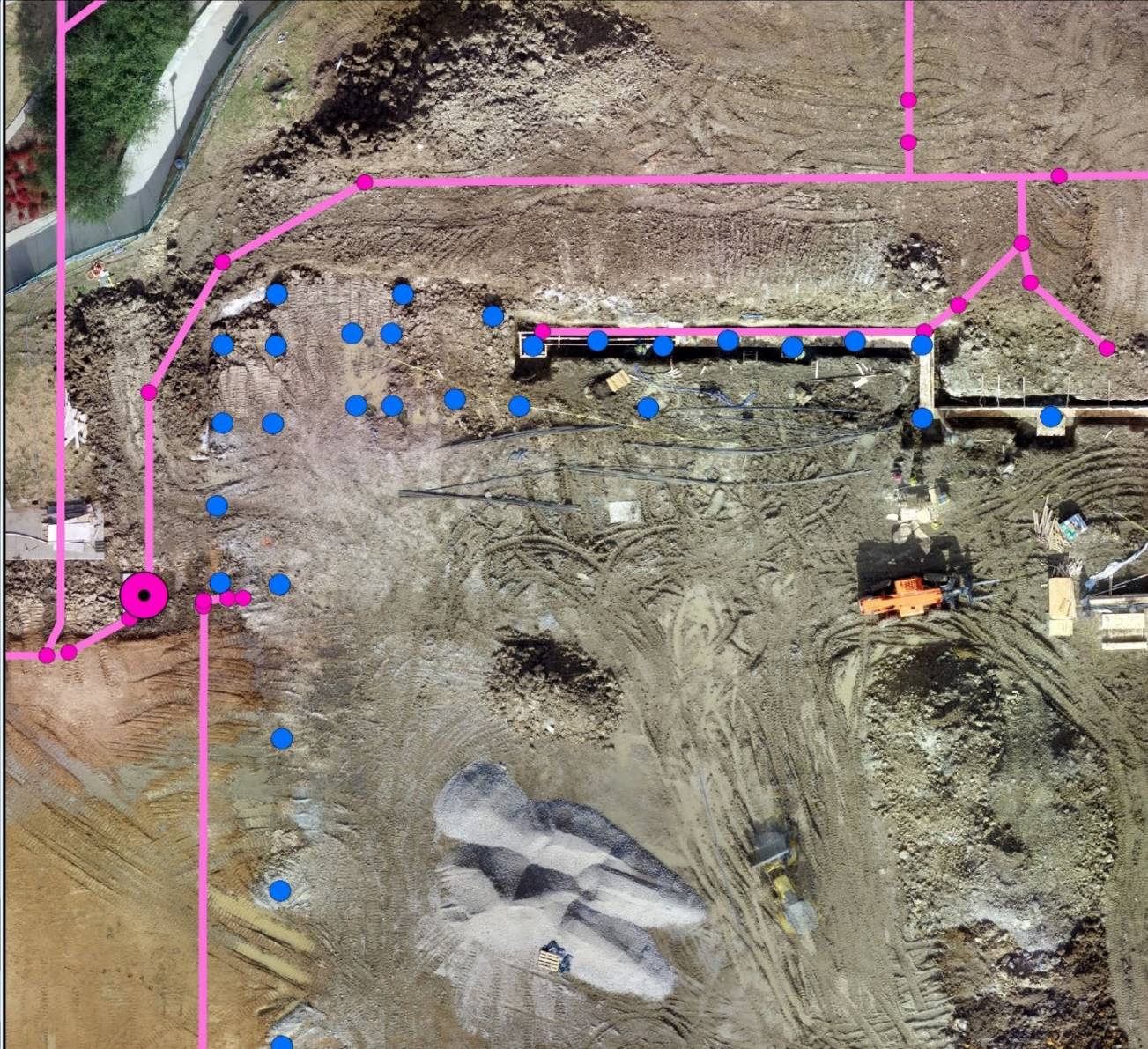


Aviation Support Unit (ASU)



2. What we do

Underground Infrastructure



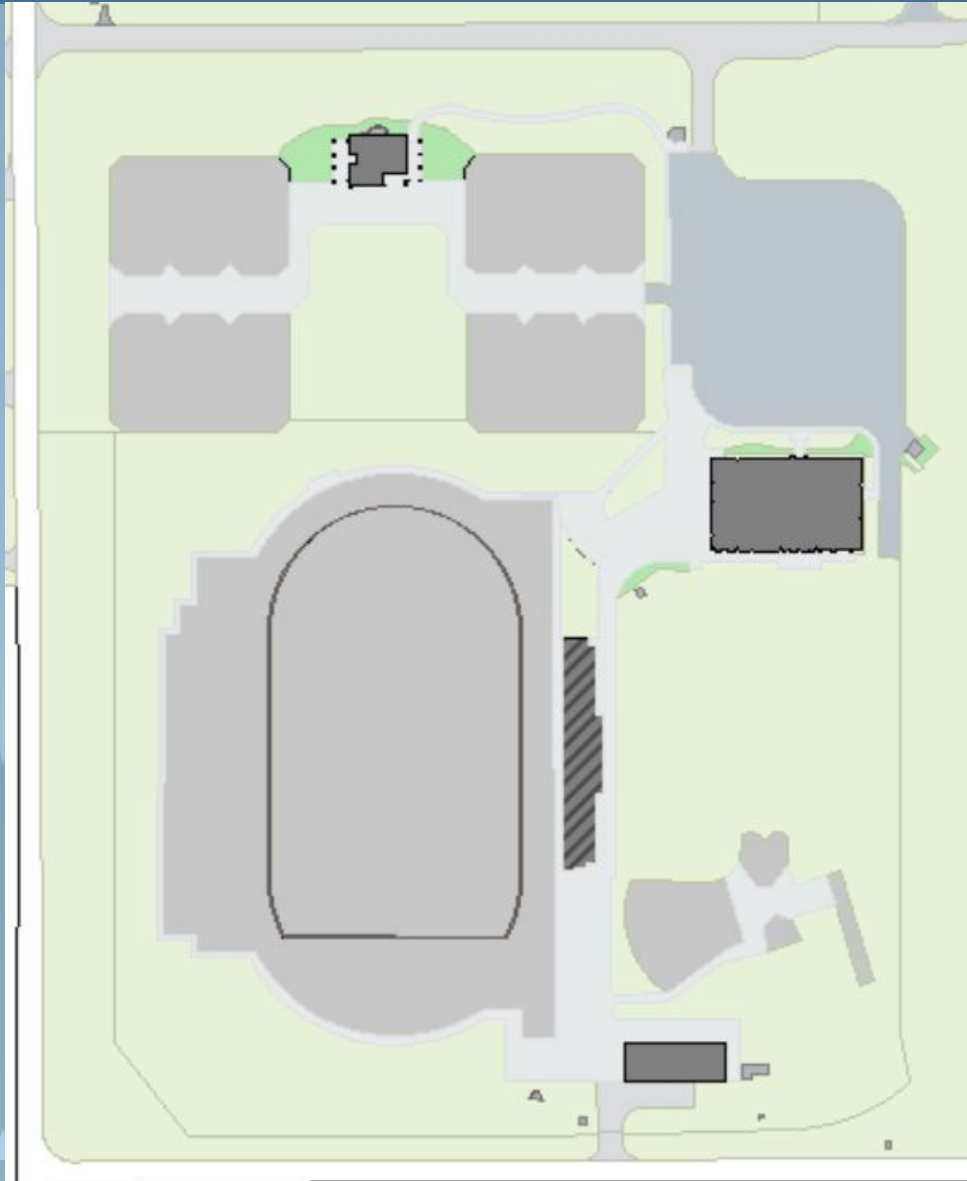
Underground Infrastructure



Basemap



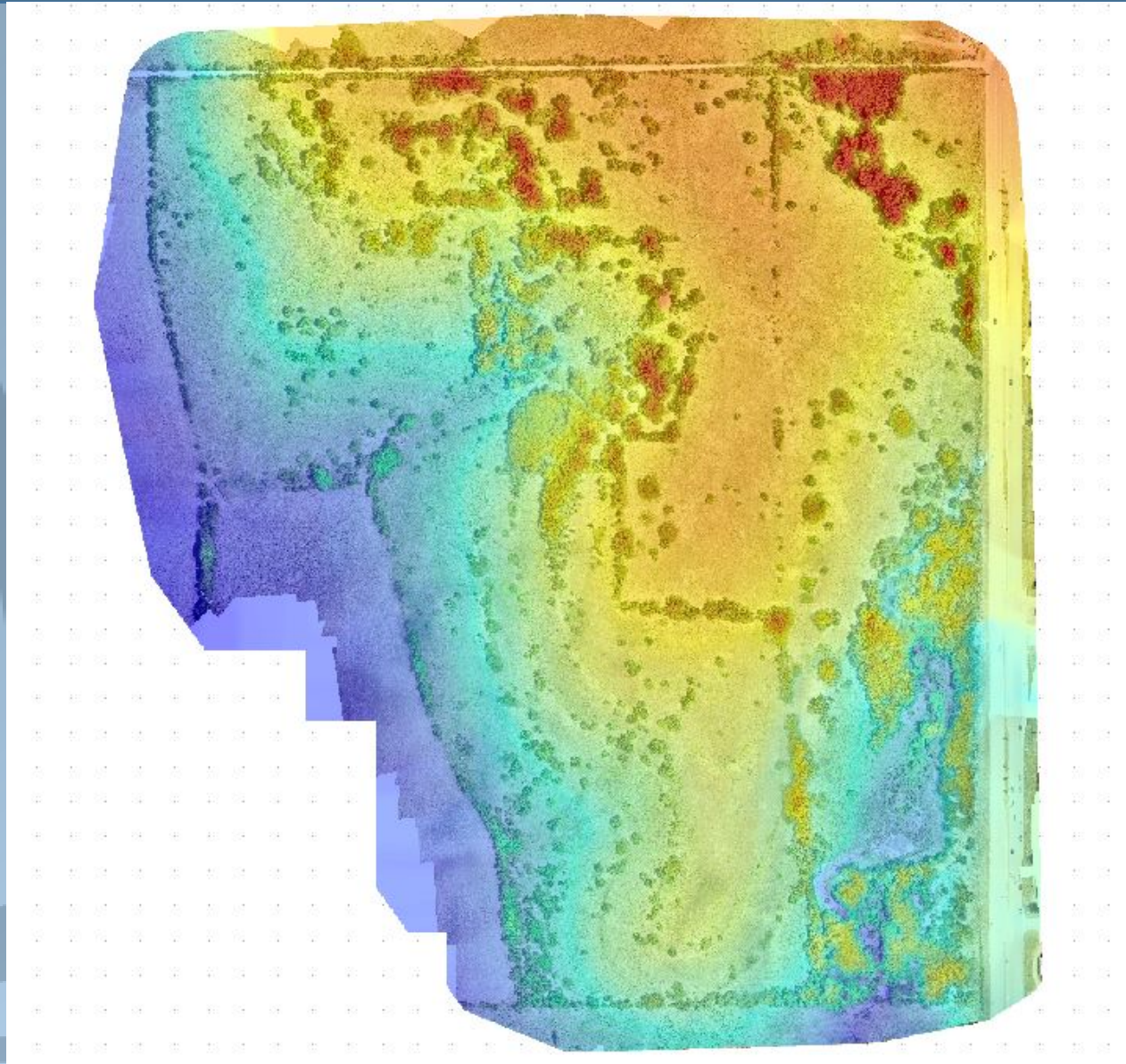
Basemap



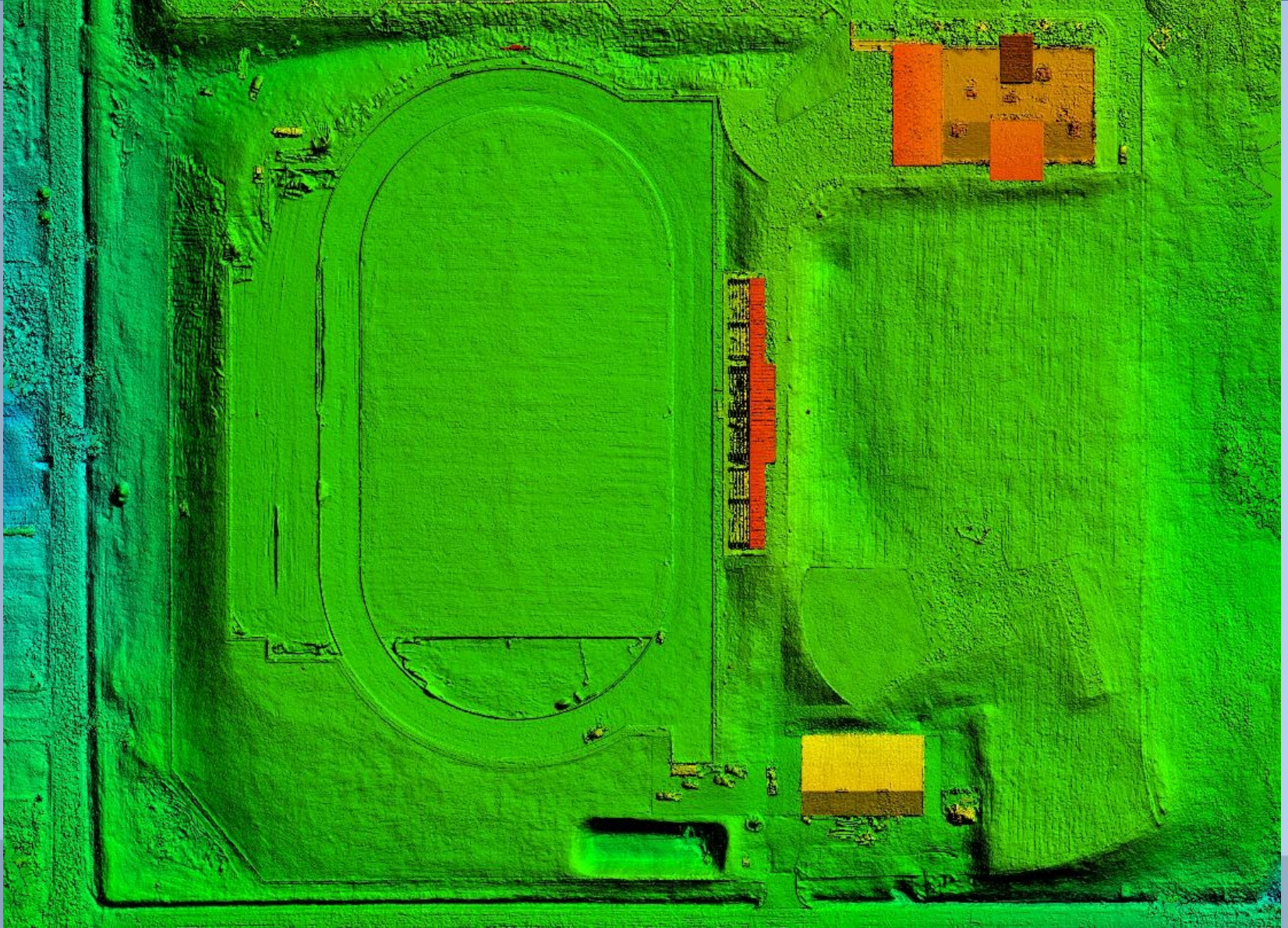
Topography



Topography



Topography



Topography



Photography



Photography



3. How we do it

Workflow

UNIVERSITY OF NORTH TEXAS FACILITIES AVIATION SUPPORT SERVICE OPERATIONS MANUAL

This document is a combined Safety and Operations Manual that covers all the appropriate Aspects of UNT's Aviation Support Service required to satisfy the requirements of Federal Aviation Administration permissions and exemptions for aerial operations.

January 31, 2019 (Revised March 12, 2019)

> **SAFETY**

> **OPERATIONS**

Risk Assessment

		Severity of the potential injury/damage				
		Insignificant damage to Property, Equipment or Minor Injury	Non-Reportable Injury, minor loss of Process or slight damage to Property	Reportable Injury moderate loss of Process or limited damage to Property	Major Injury, Single Fatality critical loss of Process/damage to Property	Multiple Fatalities Catastrophic Loss of Business
0 – 5 = Low Risk						
6 – 10 = Moderate Risk						
11 – 15 = High Risk						
16 – 25 = extremely high unacceptable risk						
Likelihood of the hazard happening	Almost Certain 5	1	2	3	4	5
	Will probably occur 4	5	10	15	20	25
	Possible occur 3	4	8	12	16	20
	Remote possibility 2	3	6	9	12	15
	Extremely Unlikely 1	2	4	6	8	10
		1	2	3	4	5

Figure 1: Risk assessment matrix

Resources

DJI Inspire 1



Birdseye FireFLY6 Pro



DroneLogbook

PIX4D

Field Operations



 **propeller**

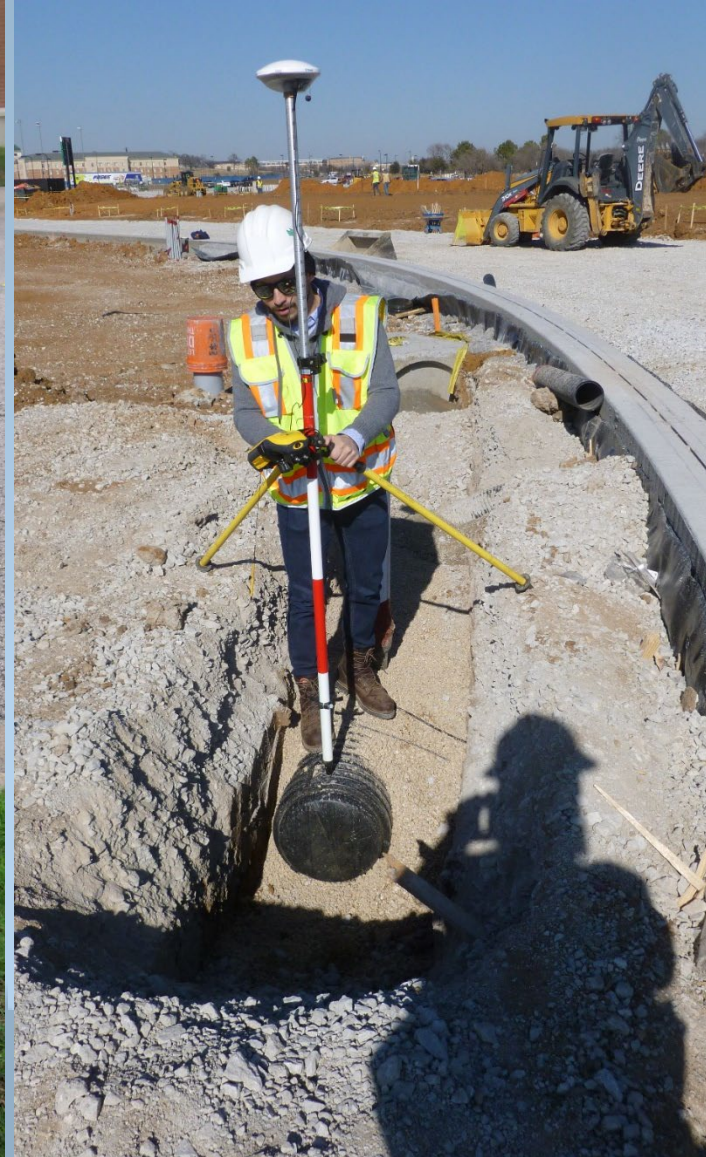


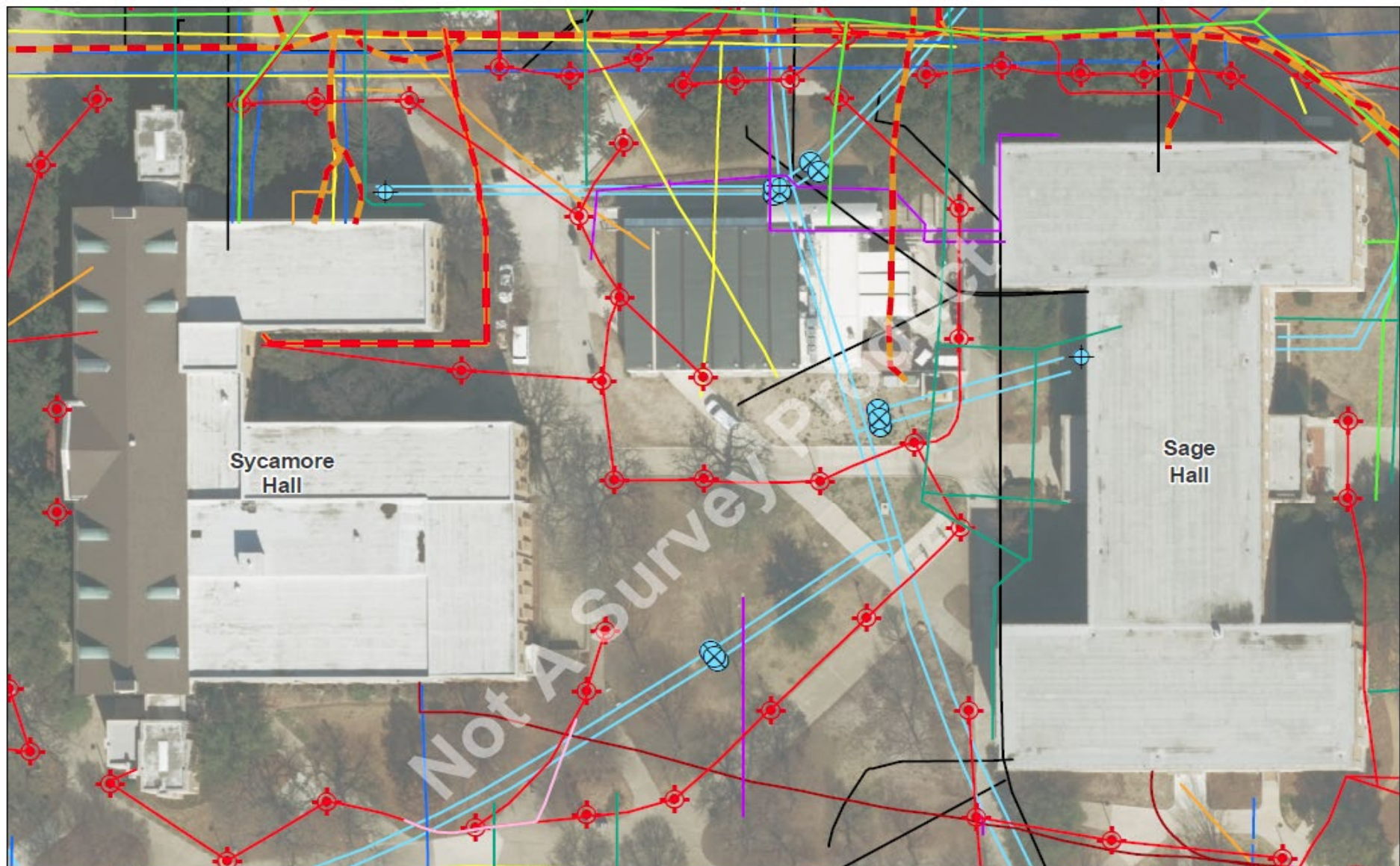
Finance


















2017	2018	2019	2020	TOTAL
14,350	17,160	23,460	9,500	64,470
UAS 1 + Hardware	Software + GCP	UAS 2 + Hardware	O+M	

4. Our journey

Infrastructure records & GIS

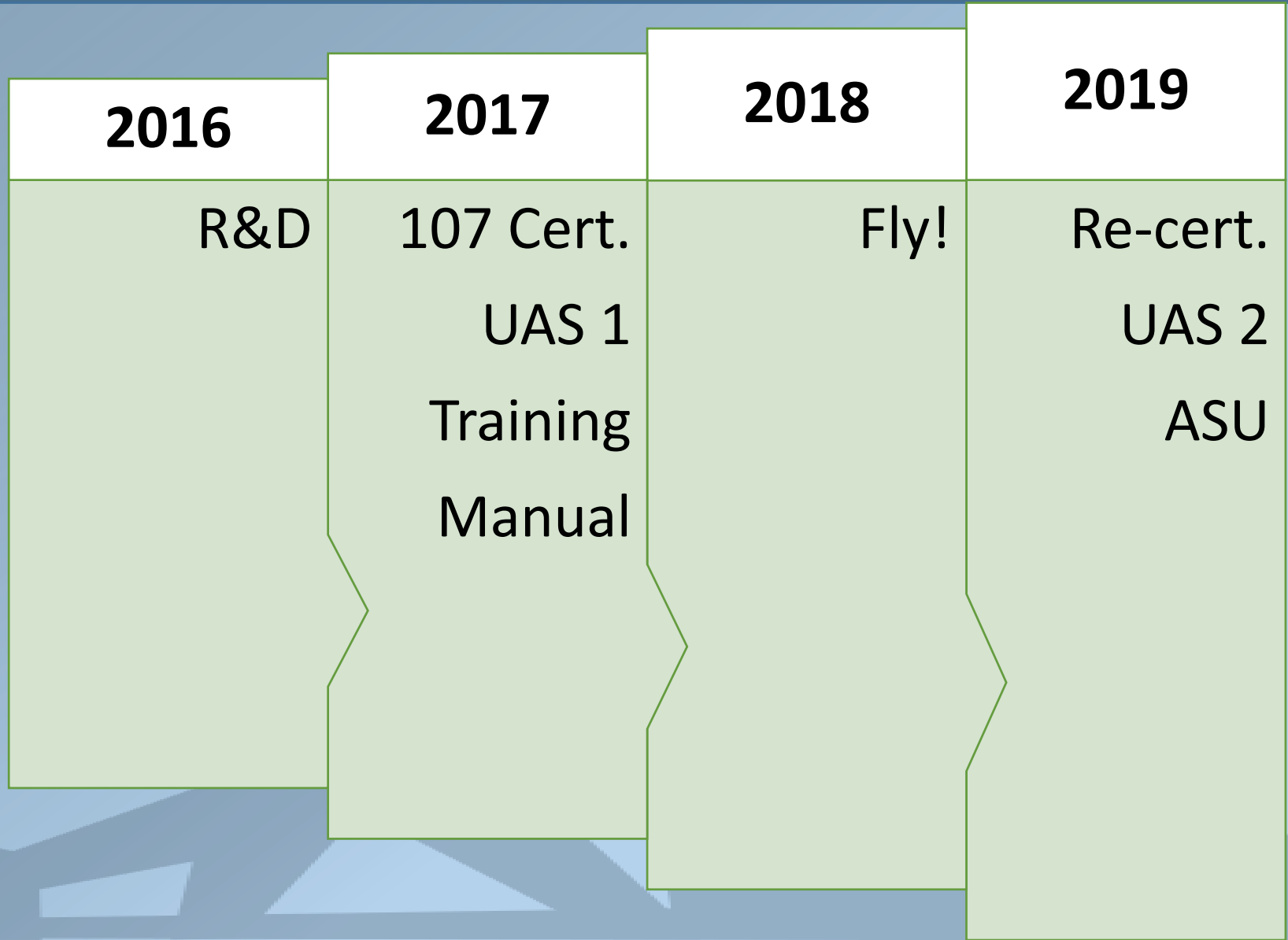




 NORTH	TITLE: <h2 style="text-align: center;">Food Court Area Utilities</h2>					LEGEND:			<p>Data is compiled from various sources. Accuracy or precision is not guaranteed, it may not reflect all existing conditions. For planning purposes only, not for design or construction.</p> <div style="text-align: center;">  UNT UNIVERSITY OF NORTH TEXAS FACILITIES GIS 1155 UNION CIRCLE #311040 DENTON TX 76203-5017 940.369.8049 facgis@unt.edu facilities.unt.edu/depts/gis </div>
	SCALE BAR: 0 25 50 100 Ft					 Sanitary Sewer Pipe	 Irrigation Pipe	 Unknown Pipe	
	RID: 19-236057	PAPER: 8.5 x 11	MAP SCALE: 1 : 650	DATE: 2018/12/10	AUTHOR: mjh0280	 Storm Drain Pipe	 Fire Pipe	 Lighting	
					 Power Conduit	 Water Pipe	 Chill Water Trace Station		
					 Power Ductbank	 Data Conduit	 Chill Water Valve		
					 Gas Pipe	 Abandoned Pipe	 Chill Water Pipe		



Chronology



Formal recognition and charter




FACILITIES DEPARTMENT
Division of Finance
& Administration

Memorandum

Date: February 21, 2019

To: David Reynolds
Associate Vice President of Facilities

From: Peter Palacios 
Assistant Director, Facilities Planning, Design and Construction

Subject: UNT Facilities Drone Program (aka Aviation Services Unit, ASU) Charter

The primary mission of the UNT Facilities Drone Program is as follows:

- Utilize unmanned aerial systems for creating record data of civil assets and as an analytical tool for planning purposes.

5. The horizon

Works on the horizon

- > **Internships**
- > **Routine orthos**
- > **New sensors**
- > **Videography**



Thank you, OKSCAUG 2019!

Peter Palacios

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