

Enterprise GIS Steering Committee Meeting

February 21, 2025

Agenda

- 1. Welcome**
- 2. Current System Status**
- 3. 2024 Highlights**
- 4. Projects in Progress**
- 5. Budget Considerations**
- 6. Other Business**

Committee Members

<https://facilities.ofa.ncsu.edu/committees/gis-steering-committee/>

MEMBERS

Amy Orders	Assistant Vice Chancellor	Emergency Preparedness and Environmental Health
Lisa Johnson	Assistant Vice Chancellor, University Architect	Campus Planning and Strategic Investment
Allen Boyette	Assistant Vice Chancellor	Campus Operations and Maintenance
Sarah Ketchem	Director	Landscape Maintenance and Operations
Kim Vassiliadis	Assistant Vice Chancellor	OIT Outreach, Communications and Consulting

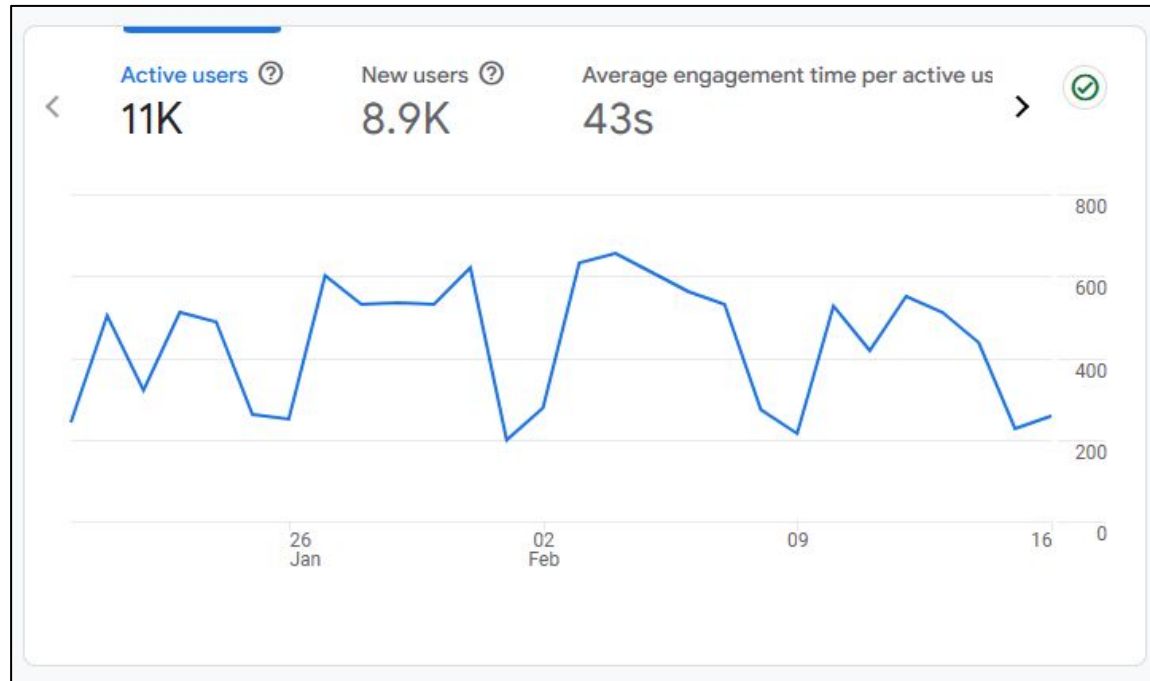
Current Systems Status - Users

	System (Portal)	Utilities Viewer
Total Users	355	245
NC State Users	276	166
Consultants	79	79

- Total users increased by ~250 since implementing Portal in 2022
- ~35 users actively supporting data collection and updates
- ~10 users creating GIS content on Portal

Current Systems Status - Campus Map Visitors

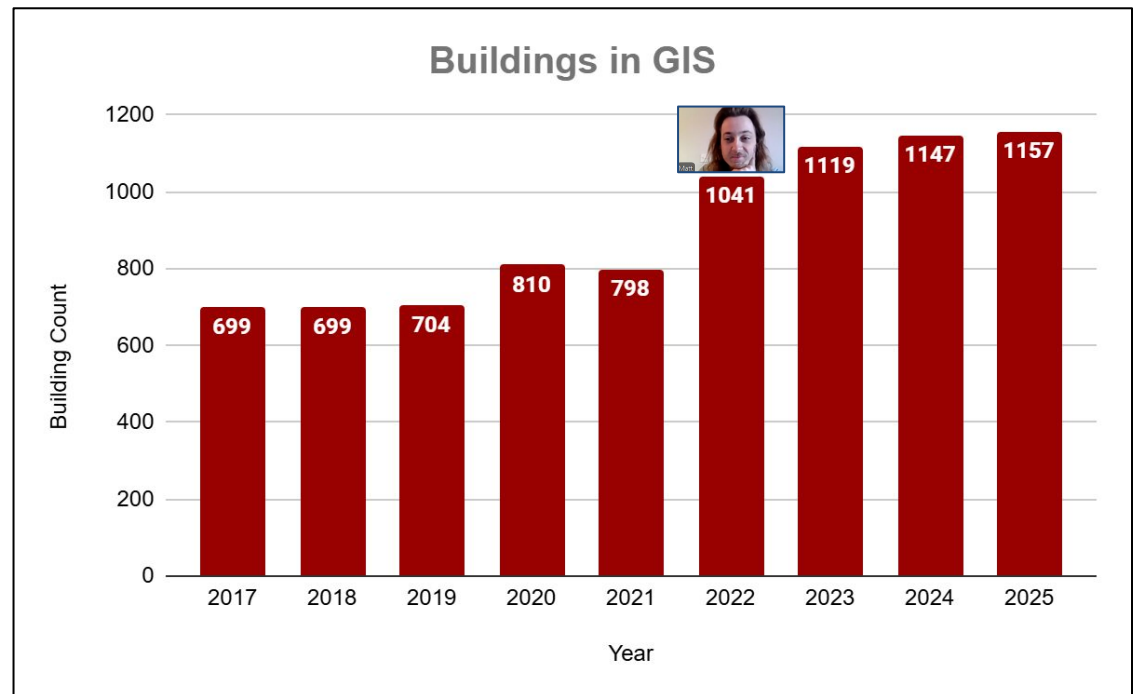
- Google Analytics - user counts for typical 28 day period



- First day of classes Fall 2024 = 1,800 active users

Current Systems Status - Buildings

- Completed locating/resolving all active buildings in GIS
- Current Building Footprints in GIS = 1,157



2024 Highlights

Utility Data Development

- Completed migration of sewer and water databases from ArcMap to ArcGIS Pro
- Migration projects implemented new rules and functionality to improve data integrity and support QA/QC of existing data
- Projects provided editing and admin training for GIS team

The screenshot displays the ArcGIS Pro interface. On the left, a map shows utility lines (red and blue) overlaid on a street map. A red line is labeled '146'. The map includes labels for 'Dan Allen Dr', 'Cates Ave', and 'Campus Health Ctr 063'. The bottom status bar shows coordinates '78.6749072°W 35.7844176°N' and 'Selected Features: 0'. On the right, the 'Error Inspector: Layers' window is open, showing a table of errors.

Shape	Rule Type	Exception	Source Layer	Feature ObjectID	Error Number	Error Message	Rule Name	Description
1	Validation		Water_Control_Valves	27001	363	Point intersects anothe...	wControlValve stacked...	Remove stacked feature
2	Validation		Water_Control_Valves	27002	363	Point intersects anothe...	wControlValve stacked...	Remove stacked feature
3	Validation		Water_Lateral_Lines	154239	10	Polyline intersects polyli...	wLateralLine connects...	Create gap between act...
4	Validation		Water_Lateral_Lines	154944	10	Polyline intersects polyli...	wLateralLine connects...	Create gap between act...
5	Validation		Water_Lateral_Lines	154944	223	Polyline has dangles wit...	Dangles Check - wLateral	Connect disconnected li...

2024 Highlights

Utility Inspection Workflows

- Hydrant Flow Test Dashboard:

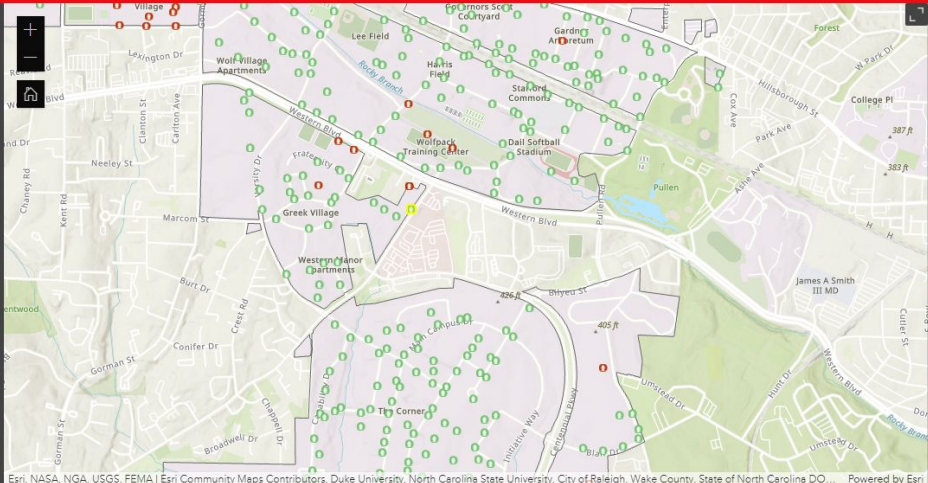
<https://gismaps.oit.ncsu.edu/portal/apps/experiencebuilder/experience/?id=3fa569a636fa4e5883b3b2c9020a4736>

NC STATE Hydrant Flow Test Dashboard

Hydrant 248

Inspection Date	9/23/2024, 12:50 PM
Hydrant Number	248
Test Purpose	Annual NFPA
Serviced By	dshome3
Pitot Reading (PSI)	55
Residual Reading (psi)	70
Static Reading (psi)	90
Orifice Size (in)	3
Coefficient Percent	90
Observed Discharge (gpm)	1,250
AiM ID	G400PHYD248
Asset ID	WDHYDR13583
Body Type	Mueller Company
Manufacturing Year	1993
Body Size	4.50
Accessibility	Good
Gate Valve Open	Yes
Appearance of Paint	Needed
Hydrant ID Number Stamping	Good
Hydrant Close Completely	Yes
Fire Department Connection	Needed
Notes	

Last edited by dshome3 on 9/23/2024, 12:50 PM.



Eri, NASA, NGA, USGS, FEMA | Eri Community Maps Contributors: Duke University, North Carolina State University, City of Raleigh, Wake County, State of North Carolina DO... Powered by Eri

Flow Test Table

Hydrant Number	Inspection Date	Serviced By	Test Purpose	Pitot Reading (PSI)
215	9/26/2024, 12:21 PM	dlbenson	Annual NFPA	0
	9/26/2024, 12:19 PM	dlbenson	Annual NFPA	0
	9/26/2024, 12:10 PM	dlbenson	Annual NFPA	55

Legend

- Water Hydrants - Flow Rate
- Water Hydrants

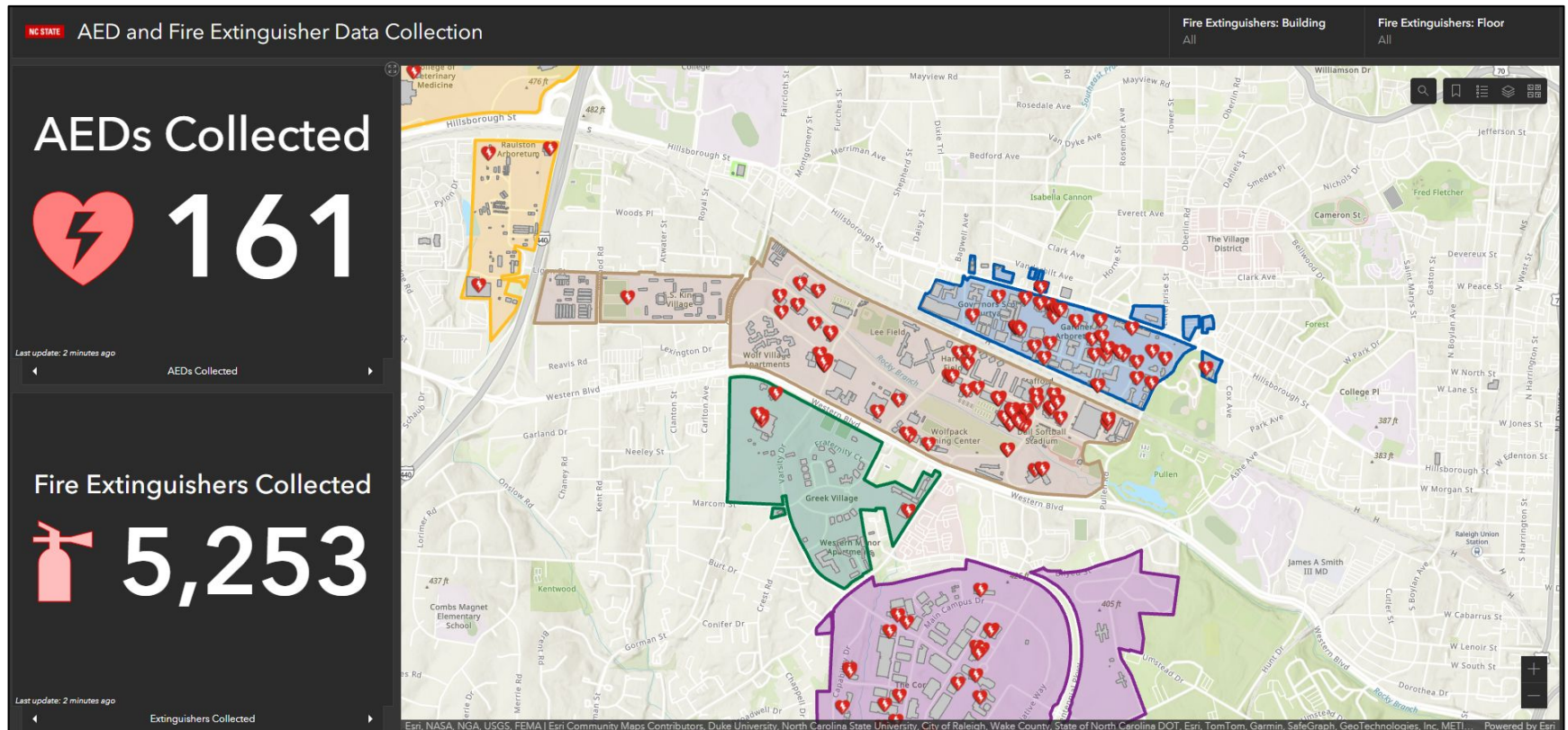
Map Layers

302 / 325
Flow Tests Completed

2024 Highlights

AED Data Development

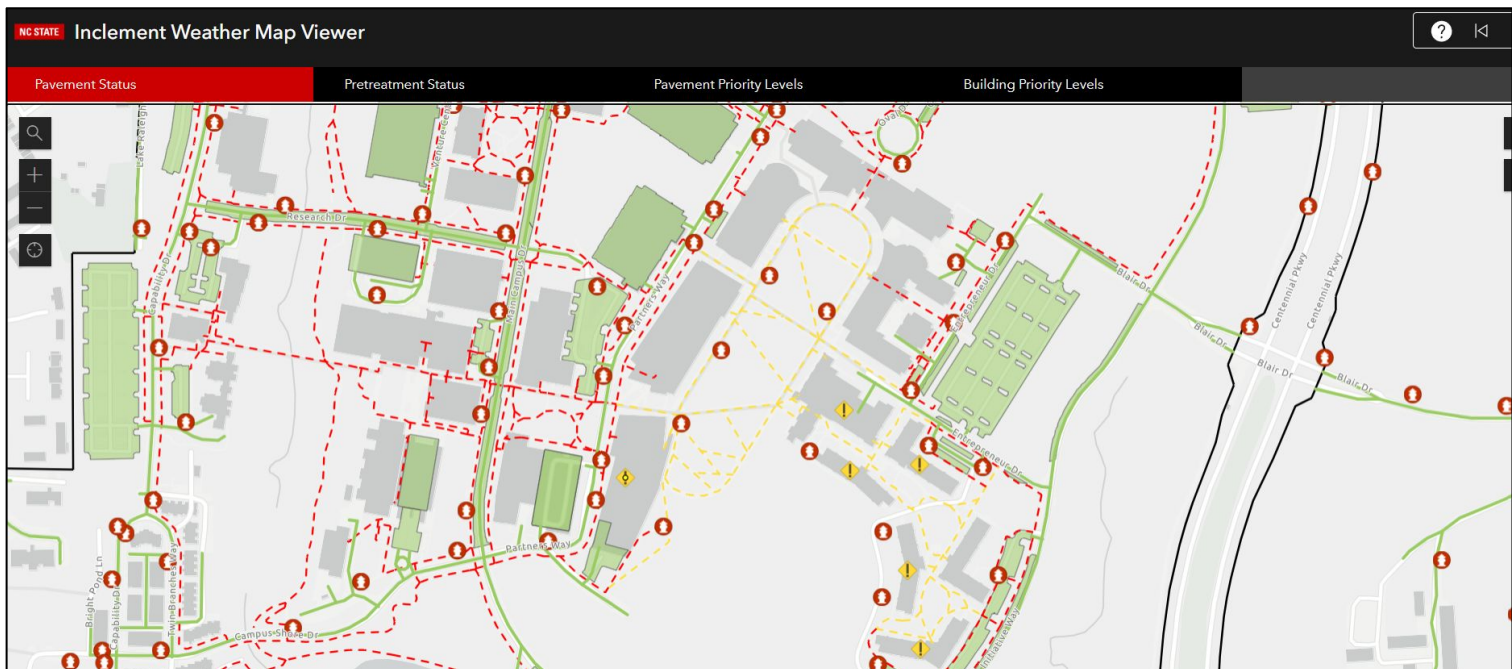
- AED and Fire Extinguisher dashboard:
<https://gismaps.oit.ncsu.edu/portal/apps/dashboards/f8fe04234ca14dd3bc4c0b4d612438c1>



2024 Highlights

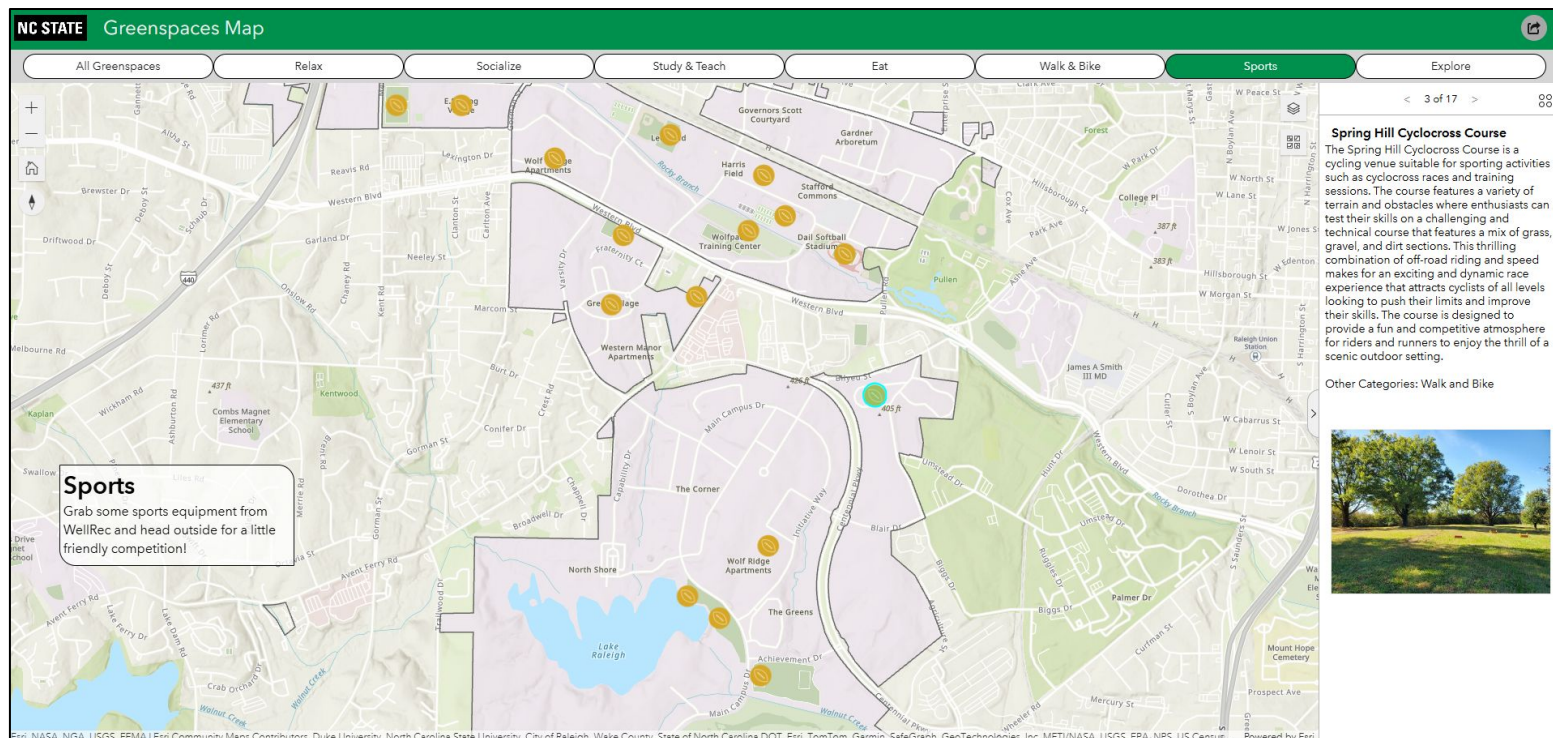
Inclement Weather Mapping

- Inclement weather GIS applications used to update clearing status and hazards during inclement weather events
- Inclement Weather Viewer:
<https://gismaps.oit.ncsu.edu/portal/apps/instant/portfolio/index.html?appid=d2ee72220175474f959dfcc482fbba76>



2024 Highlights Greenspace Map

- A new public-facing application to assist faculty, staff, and students in finding places to nourish their mental, physical, and social well-being.
- Greenspace Map: go.ncsu.edu/greenspaces



2024 Highlights Campus OneMap

<https://go.ncsu.edu/campusonemap>

NC STATE UNIVERSITY

Campus OneMap

Legend

- Sustainability Features
- Utilities
- Stormwater
 - Stormwater Pipe Ends
 - PipeEndType

Lee Hall Rain Garden

Zoom to

Name: Lee Hall Rain Garden

Location: 2530 Sullivan Dr, Raleigh, NC 27607

Picture: View

Sustainability Category: Water Quality or Conservation

Designed and built by College of Design landscape architecture students, the rain garden prevents ponding and protects Rocky Branch, an urban creek running through campus. The rain garden contains a wide well with gravel and a perforated pipe, which filters contaminants that could otherwise flow into Rocky Branch.

Select Layers

- Transportation
- Environmental
 - Sustainability Features
 - Tree Inventory
 - Wake County Floodplain
- Accessibility
- Utilities
 - Electric
 - Gas
 - Water
 - Sanitary Sewer
 - Chilled Water
 - Steam
 - Stormwater
 - Telecommunications
 - Miscellaneous
- Campus Maintenance & Construction
 - Construction Zone Impacts
 - Maintenance Zones
 - Housekeeping Zones

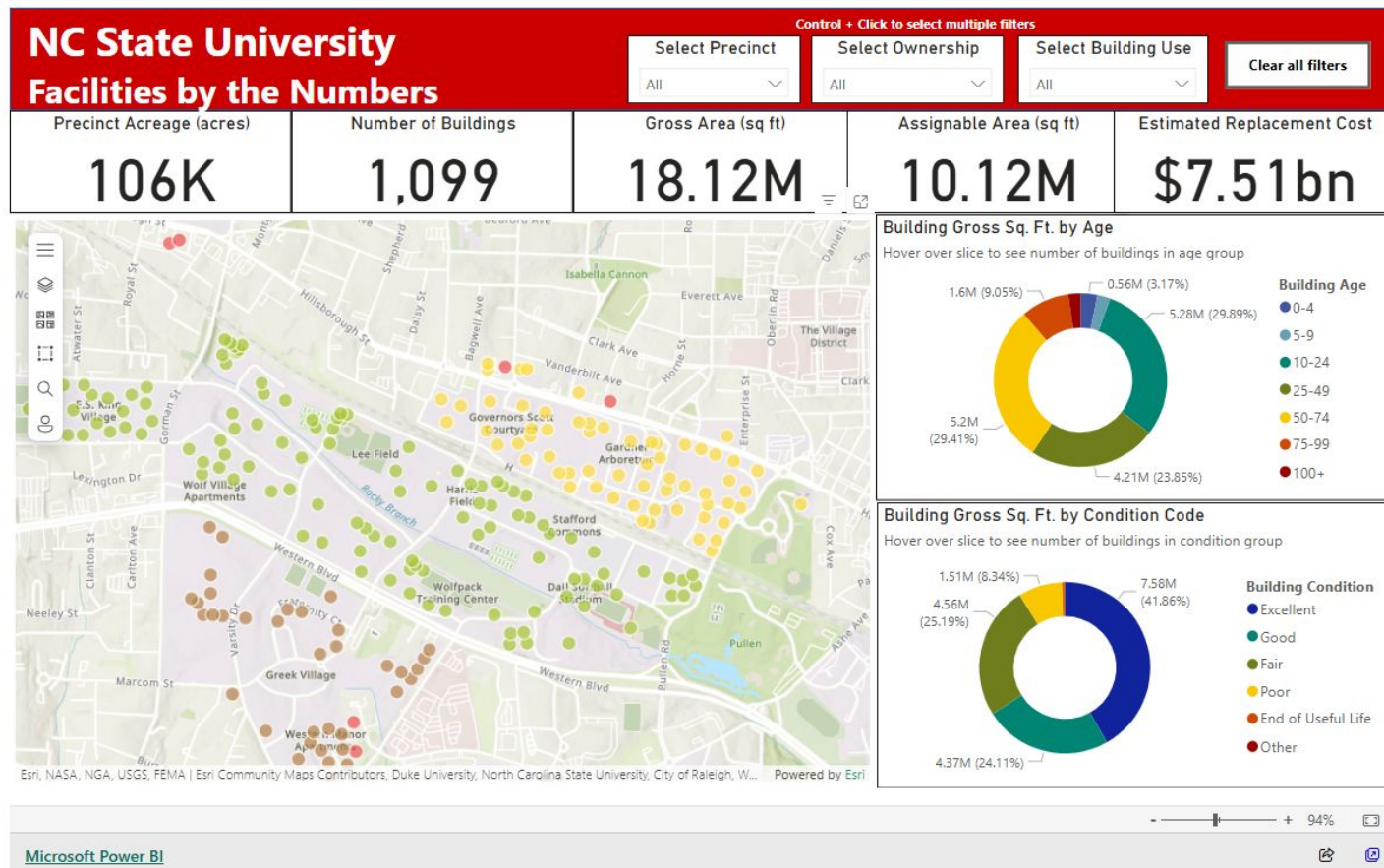
40 m
200 ft

Map Contributors: Duke University, North Carolina State University, City of Raleigh, Wake County, State of North Carolina. Powered by Esri.

2024 Highlights

Facilities by the Numbers Dashboard

<https://facilities.ofa.ncsu.edu/facilities-by-the-numbers/>



The dashboard is powered by FM:Interact, NC State's internal building and room database. The data is updated at the beginning of every quarter (1/1, 4/1, 7/1, 10/1). If you have questions about the dashboard, please contact Erin Seiling, eeseling@ncsu.edu.

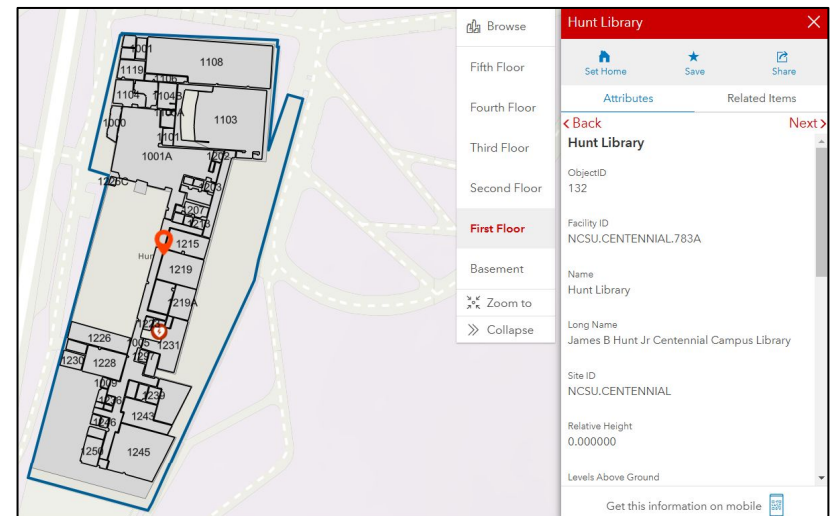
Projects In Progress - Campus Map

Digital Accessibility

- ADA update of 2024 establishes the expectation that state and local governments will provide accessible services, programs, and activities, in the digital space.
- WCAG 2.1 Level AA is the technical standard for conformance with Web and Mobile Accessibility under Title II of the ADA. Due by April 24, 2026
- Vendor working on for FY 24-25
 - Keyboard navigation of the controls through Tab order
 - Color contrast and symbology

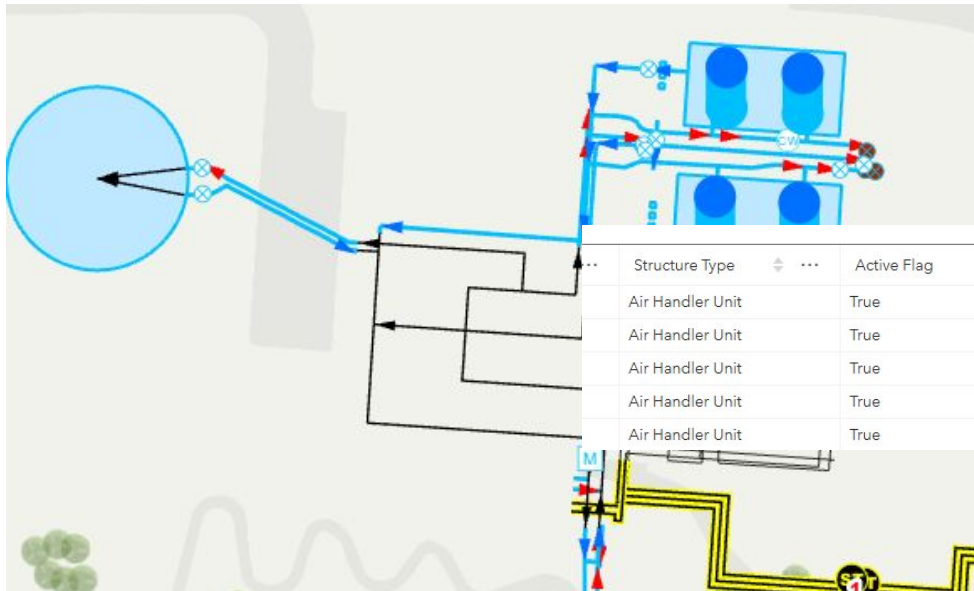
Projects In Progress - ArcGIS Indoors

- Continuing to migrate CAD floor plans to GIS
- Focusing on migration workflow and QA/QC process
- Integration with FM:I in progress
- Testing connecting interior assets to floors/spaces
- Current stats:
 - Facilities completed = 172
 - Floors completed = 573
 - Rooms completed = 30,237



Projects In Progress - Data Migration

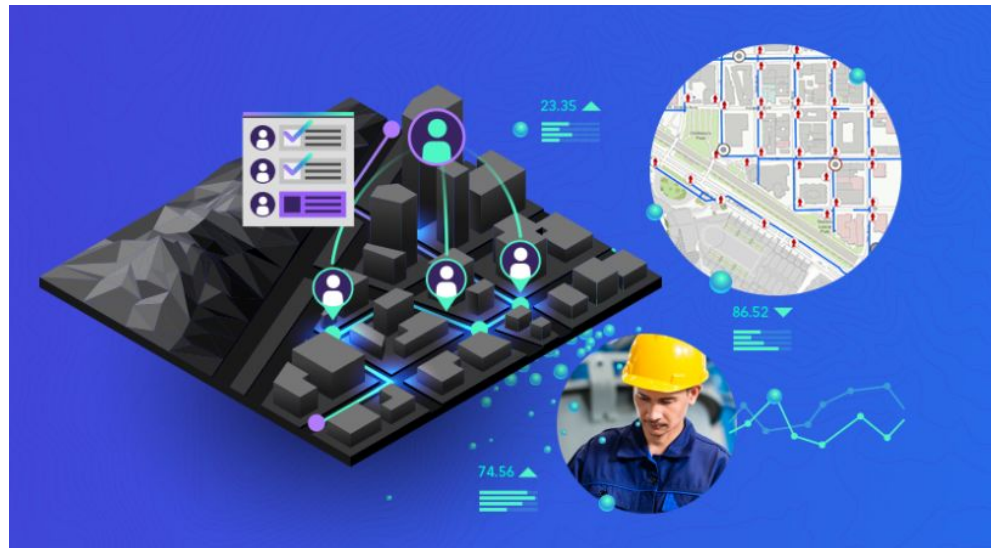
- Chilled Water and Steam
 - Will be done concurrently
 - Last two utilities maintained by U&E to be migrated



Structure Type	Active Flag	Owned By	Managed By	Abandoned?
Air Handler Unit	True	NCSU	NCSU	No
Air Handler Unit	True	NCSU	NCSU	No
Air Handler Unit	True	NCSU	NCSU	No
Air Handler Unit	True	NCSU	NCSU	No
Air Handler Unit	True	NCSU	NCSU	No

Projects In Progress - ComTech Needs

- This project will document the business needs and functional requirements for ComTech to consider moving its Telecom spatial data management from CAD to GIS.
- Complete by June 30, 2025



Budget Considerations

- Campus Map Enhancements
 - Enhance search options
 - Parking capacity link (<https://transportation.ncsu.edu/>)
 - Improve construction staging pop-up
- Review back-end architecture
- Improved Indoors viewer
- Student intern to support Indoors

Other Business