

Configuring Solutions: Building information and decision-making tools

Justin Anderson – Esri
Brian Baldwin – Esri
Keith Weber – Idaho State University
Michael Ferris – Cal State Dominguez Hills



“ The willingness to experiment with innovative approaches to GIS has yielded benefits for numerous field-based teaching and research activities across the university.

– Peter Knoop | University of Michigan

CAMPUS OPERATIONS
WEBINAR SERIES – Session #2

Advancing GIS & *The Science of Where*

Engineering and Science Focused

esri SERVING OUR USERS

Strong and Growing

*...Working Together
to Make a Difference*

Webinar Housekeeping

- Please enter your questions in the chat box
- Microphones will be muted
- Q&A session at the conclusion of the webinar
- Webinar & slides will be available
- Survey following the webinar



Welcome to the 'Campus Operations' webinar series!

- **From CAD to GIS:** The value of spatially enabling utility and facility information
 - (March 18th at 1pm EST)
- **Configuring Solutions:** Building information and decision-making tools
 - (April 8th at 1pm EST)
- **Smart Campus Operations:** Integrating GIS with facility, work, and space management systems
 - (April 29th at 1pm EST)



Your Geospatial Journey

Success can be realized at any phase!

Phase 1

CAD to GIS

Phase 2

GIS format

- Central location
- Authoritative
- Spatial views
- Standards
- Attributes
- Feature links

Phase 3

Configurable apps

- Explore Data
- Data editing
- Data collection
- Mobile tools
- Mobile viewing
- Dashboards
- StoryMaps
- Map Galleries

Phase 4

Indoor Mapping

- Navigation
- Wayfinding
- Tracing
- Indoor positioning
- Mobile tools
- Mobile viewing
- Dashboards
- Work management
- Asset management
- Space management
- 3rd party integrations

Utility Networks

Configuring Solutions: Outline

- Brian Baldwin – Configuring Applications
- Keith Weber – Idaho State Univ
- Michael Ferris – Cal State Dom Hills
- Esri Resources
- Q & A



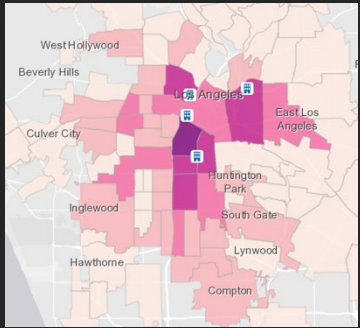


Configuring Applications

Brian Baldwin

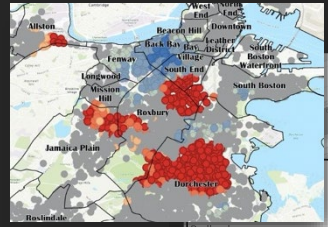
GIS today

Racial and Ethnic Disparities



USC California

Hot Spot Patterns

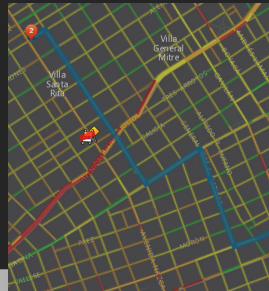


Northeastern University Boston Massachusetts

Tree Inventory



Emergency Routing



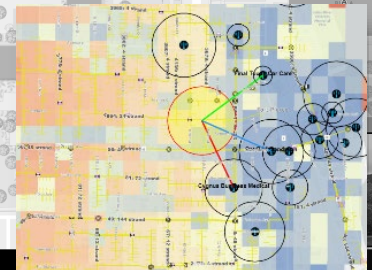
Travel Analysis



Sidewalk Ramp Status

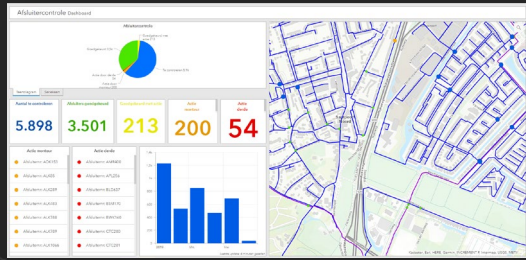


Wi-Fi Planning

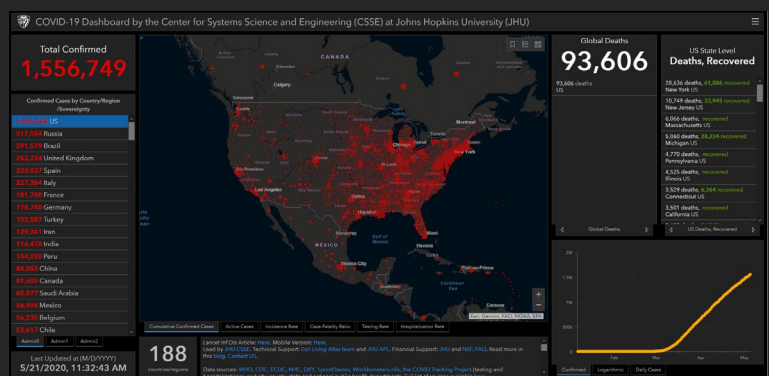


Chicago

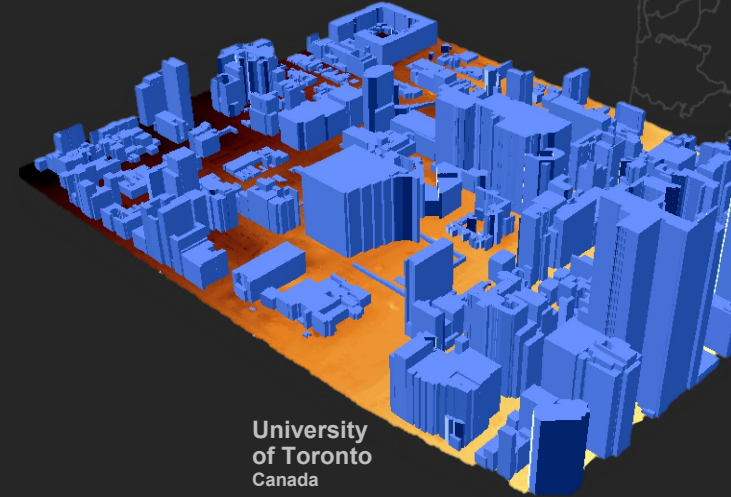
Water Management



COVID-19 JHU Dashboard



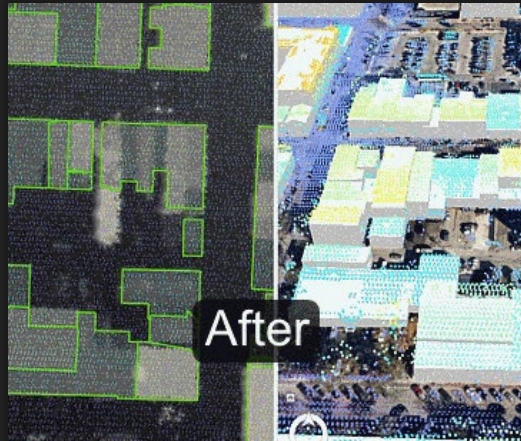
Campus Visualization



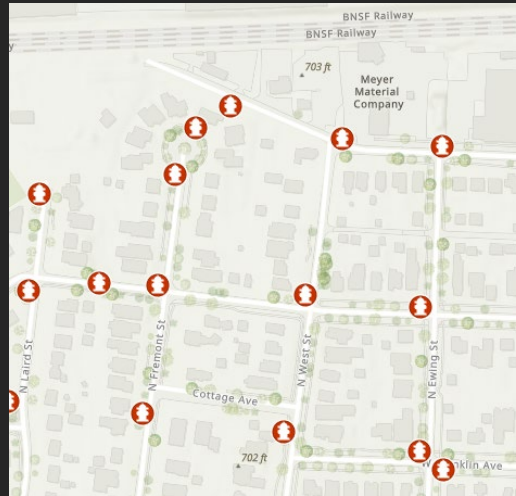
University of Toronto Canada

ArcGIS Solutions – Esri supported templates/configurations

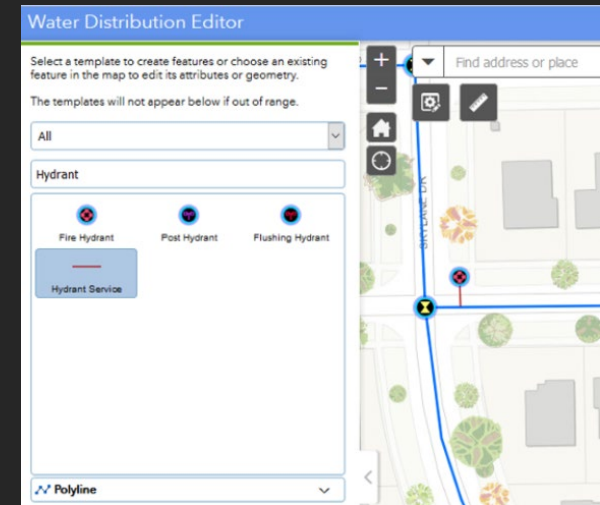
1 3D Basemaps



2 Hydrant Inspections



3 Water Data Management



Esri Applications – customizable for any workflow

1 Field Maps



MOBILE GIS

2 Experience Builder



WEB APPS

3 Dashboards



KPI's & METRICS



Keith Weber
Idaho State University





Idaho State
University

Campus GIS @ ISU

Keith T. Weber, GISP
GIS Director, ISU

ROAR

Keith Weber

Idaho State
University

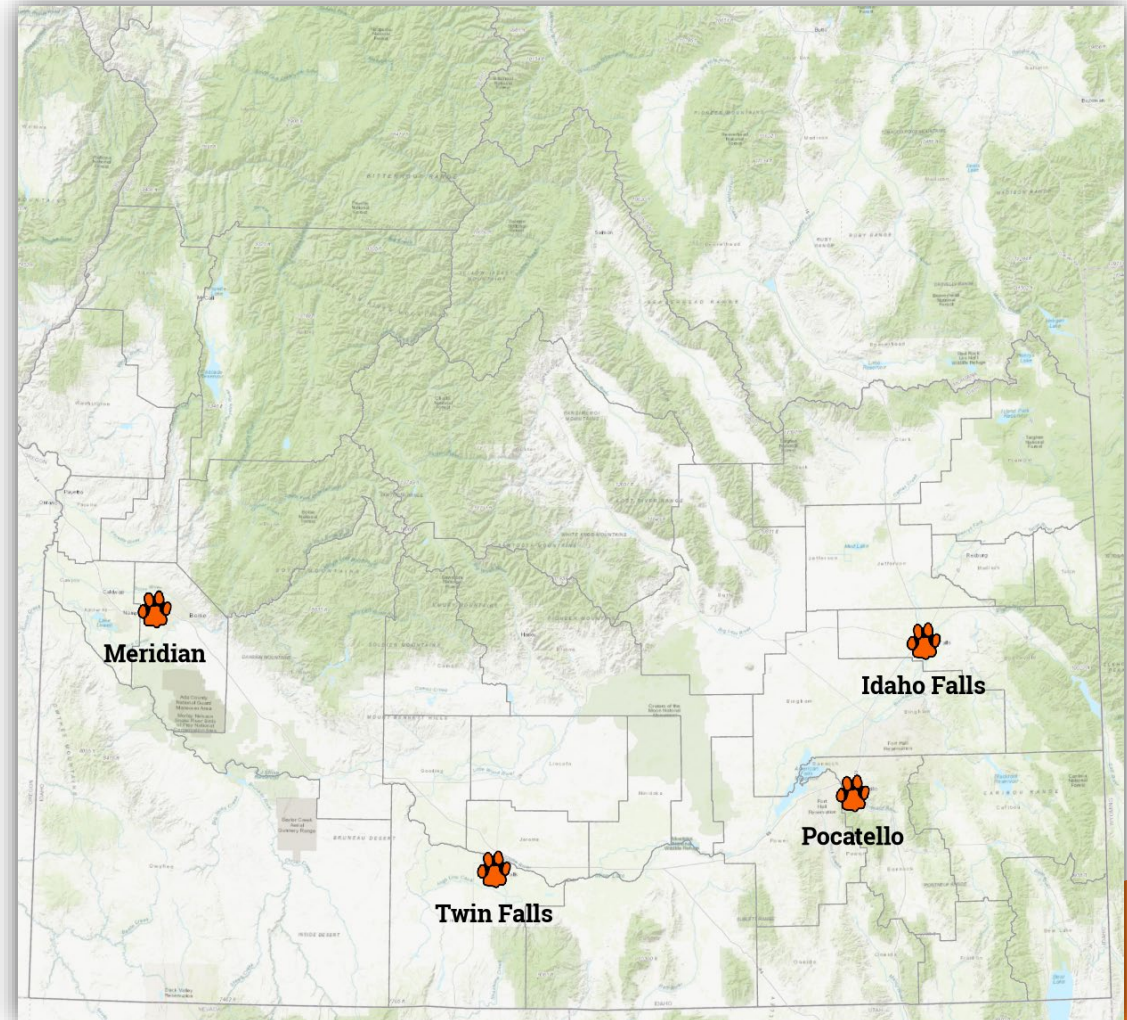
- Working in the Geospatial industry since 1988
- Founding Director of the GIS TReC (1998)



Idaho State University

Idaho State
University

- Founded in 1901, Idaho State University offers more than 250 degree programs and is the state's designated lead institution in health professions.
- Largest campus in Pocatello
 - Other campuses in Idaho Falls, Twin Falls, and Meridian
 - <https://www.isu.edu/>



GIS @ ISU

- I began teaching the first dedicated GIS courses at ISU
- Academics/education in GIS were the initial emphasis
- Followed closely by research
- Today, we have both undergraduate and graduate degree programs in Geotechnologies, Geomatics, and Geographic Information Science.
- The **GIS Center at ISU** leads these efforts

Campus GIS

Idaho State
University

- A much more recent emphasis
- After 20 years of trying...
 - GIS Day
 - Community Maps Program
 - Ambitious students



What Made the Difference?

- People
 - Champions in Facilities Services
 - The **need** to answer spatial questions
 - “Campus Trees”
 - “The 6,259 answer”

Today

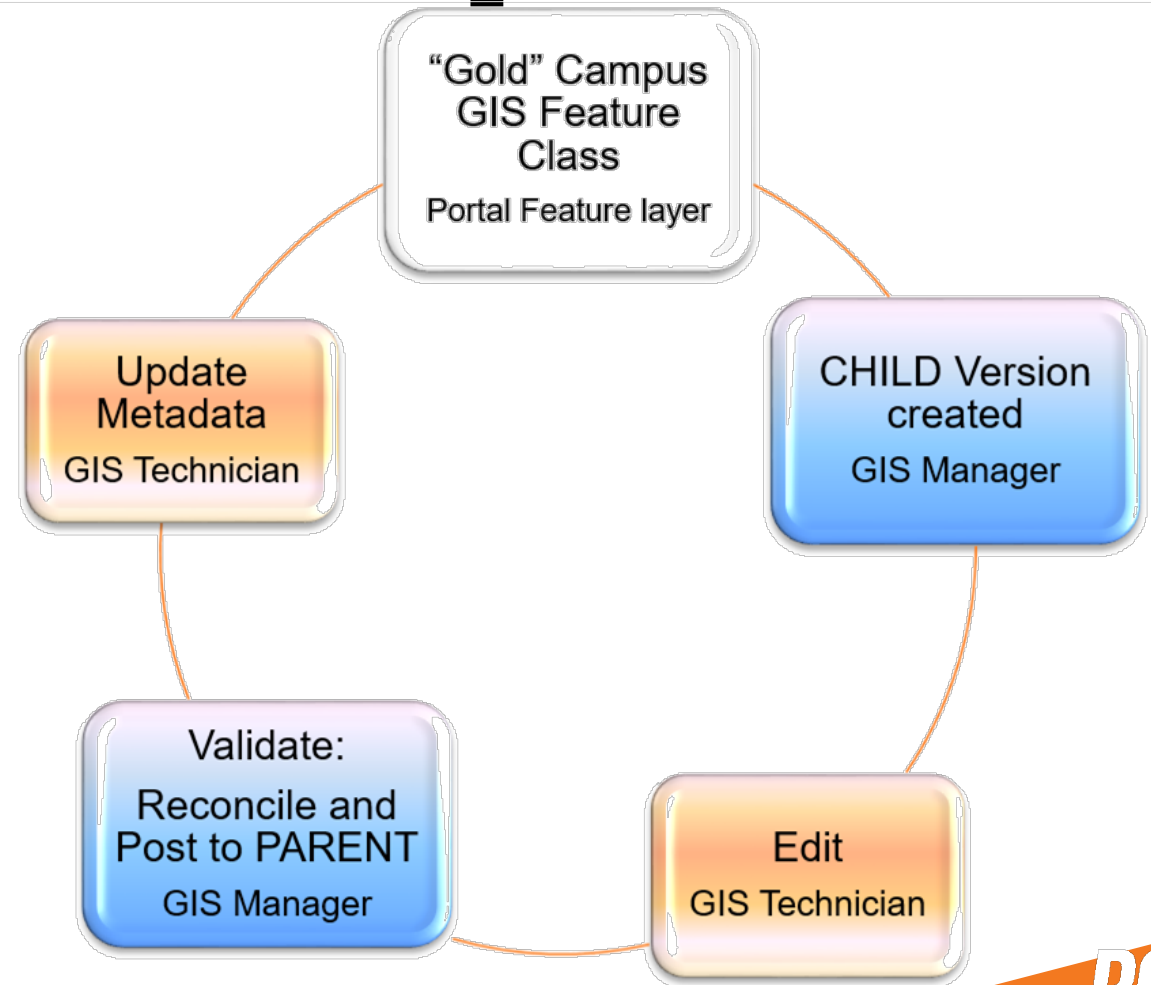
- Campus GIS has its own email address, web page, and is the source for all ISU's interactive web maps
- We work closely with:
 - Facilities Services
 - Public Safety
 - Emergency Management
 - Student Affairs
 - Marketing & Communications

Organizational Structure

- GIS TReC
 - Primarily a research center (<https://giscenter.isu.edu/>)
- Campus GIS Team
 - Bi-weekly meetings
- Who is doing the work?
 - Work-study students (Jessalyn Bartholamew)
 - Career Path Interns (Shanon Brailsford)

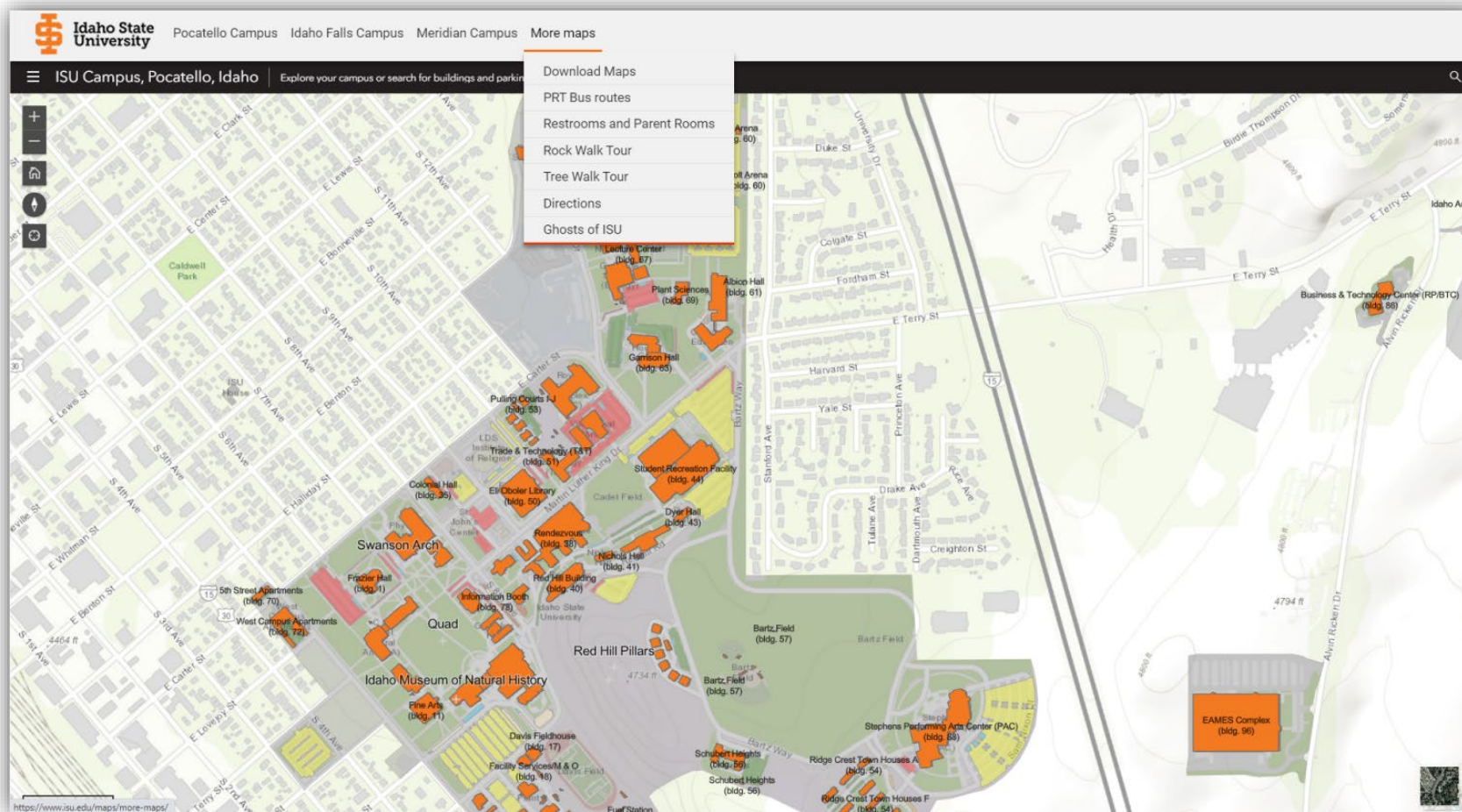
How We Built Our Campus GIS

- Geodatabase
 - Feature layer consolidation
 - Attribute Domains
 - Aliases
 - Definition queries
- ArcGIS Pro
- Portal
- Branch versioning
- AGOL



Showcase Apps

- Interactive Campus Maps



ArcGIS Urban



Story Maps





Challenges

Idaho State
University

- Funding
- Improve the student experience
- Improve safety and efficiency at ISU
 - “Safety at Night” map
 - AED locations
 - Public-facing
 - Editable facilities maps
 - COVID testing sites

What's Next?

- Begin self-service map making
 - Currently, the GIS TReC makes all maps
 - Planning to offer some indoor maps
 - Continue development of ArcGIS Urban/3D scenes
 - Real-time under construction service
 - Apply the best solution
 - Ideally, I want to empower others to make maps using the authoritative data we make available on Portal and AGOL
 - Upcoming workshop “AGOL for Everyone”



Questions?



- webekeit@isu.edu
- CampusMaps@isu.edu
- <https://giscenter.isu.edu/research/Techpg/CampusGIS/>



Michael Ferris

Cal State – Dominguez Hills



Configuring Solutions: Building information and decision-making tools

California State University, Dominguez Hills

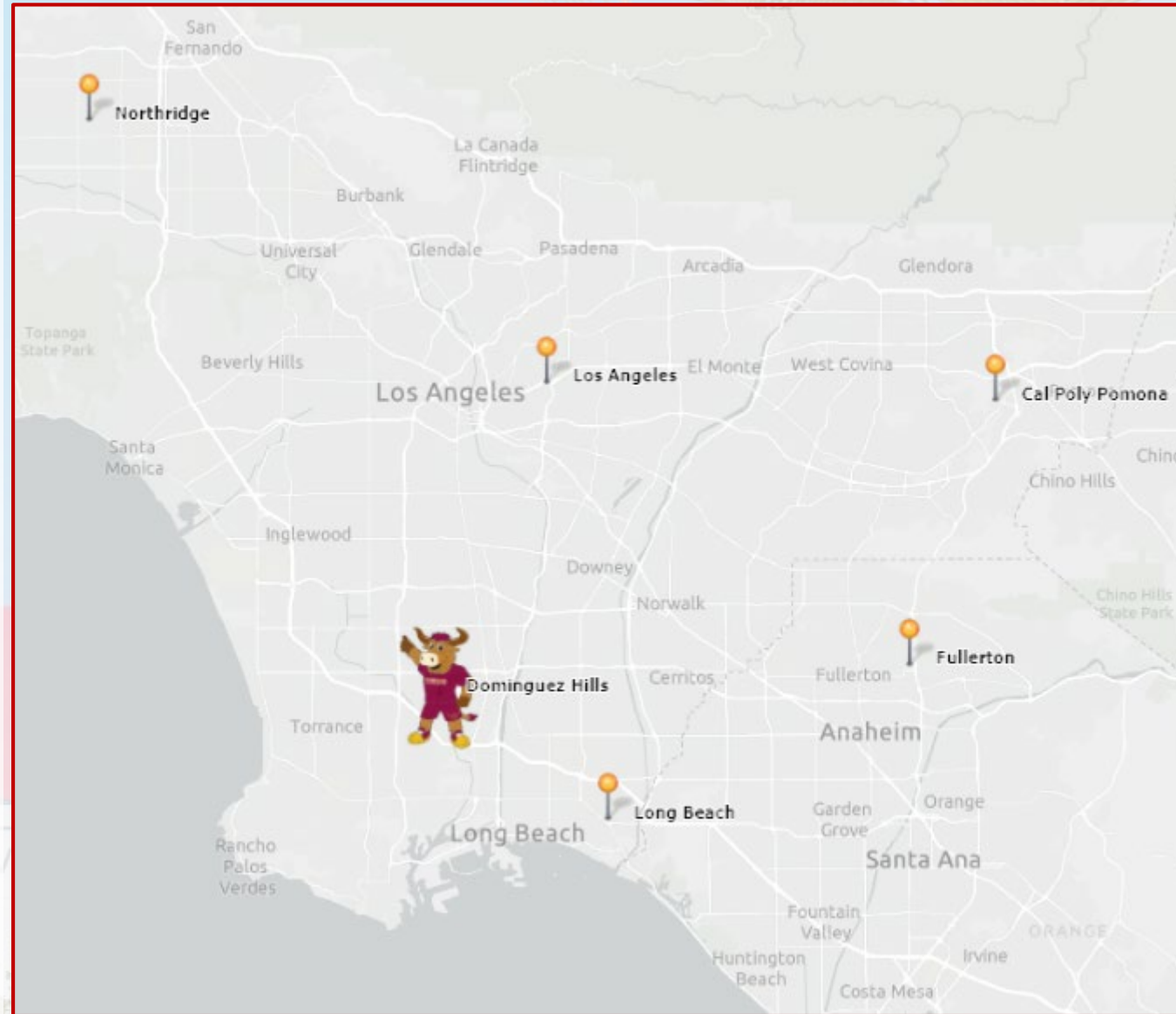
Mike Ferris

Geographic Data Analyst

CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS

CSU Dominguez Hills

- Located in Carson CA
- One of 23 campuses in the California State University system.
- Ranked 13 of the 23 in enrollment with 17,763 students in fall 2020 semester
- 1774 Employees (1180 FT and 567 PT)
- 80-85% of students come from areas 20-25 mi
- Campus GIS is part of IT Division (UEPA).
 - One FT analyst
 - Two PT student assistants



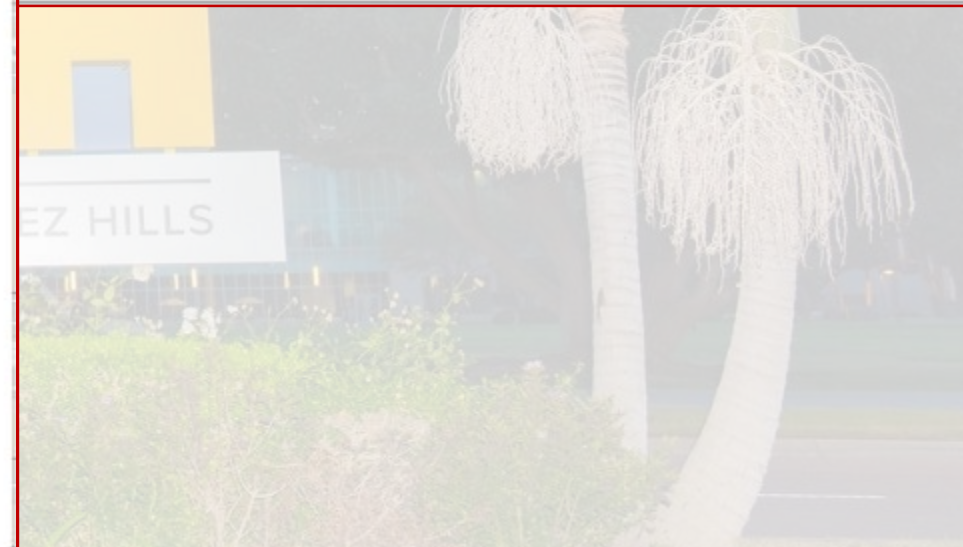
Web Applications Examples

CSUDH

CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS

Campus Map Application

- Original campus map was accessed as [PDF](#)
- Created an interactive [campus map](#) with App Builder



Campus Map Application

- Created map using desktop and shared to AGOL
- App Builder
 - Splash screen with basic info and instructions
 - Search Widget to find buildings, rooms, POIs, etc.
 - POI attributes include links to the various office web pages
 - Parking information (e.g. disabled spaces, charging stations, pass dispensers)
 - Basemap (Community Maps Program)

• <https://arcg.is/04fmj8>

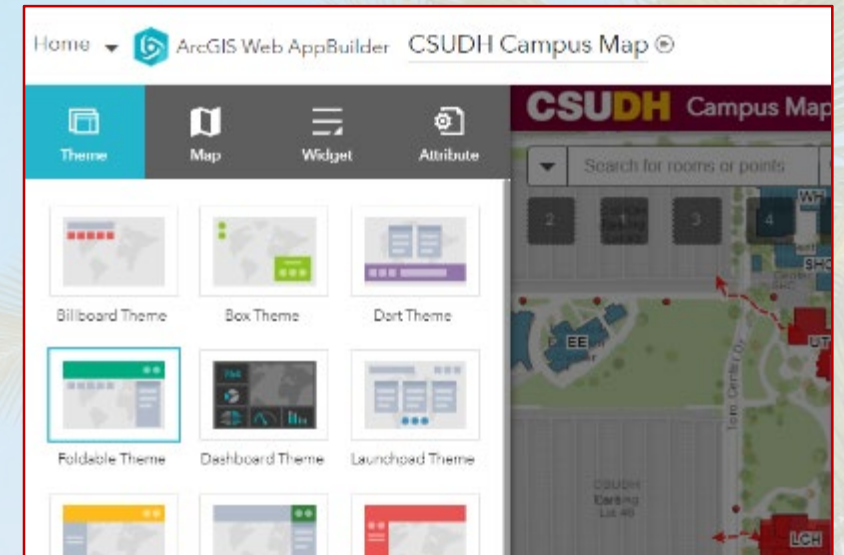
Open in Map Viewer

Open in ArcGIS Desktop ▾

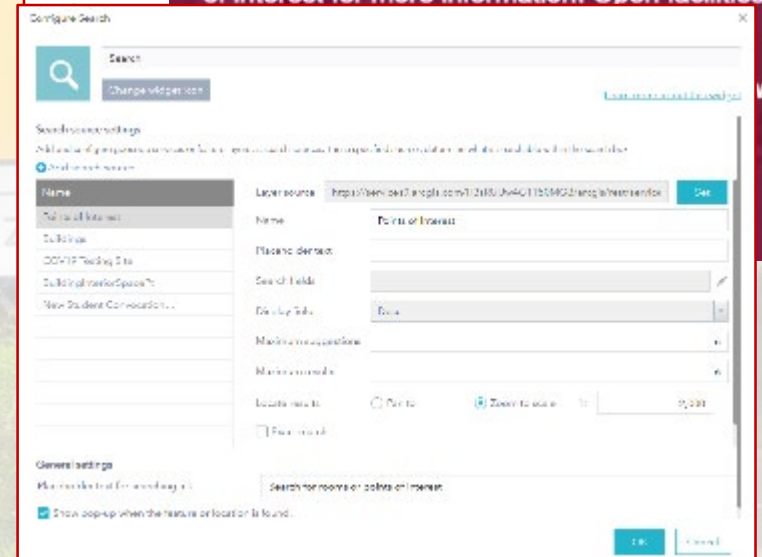
Create Presentation

Create Web App ▾

Share



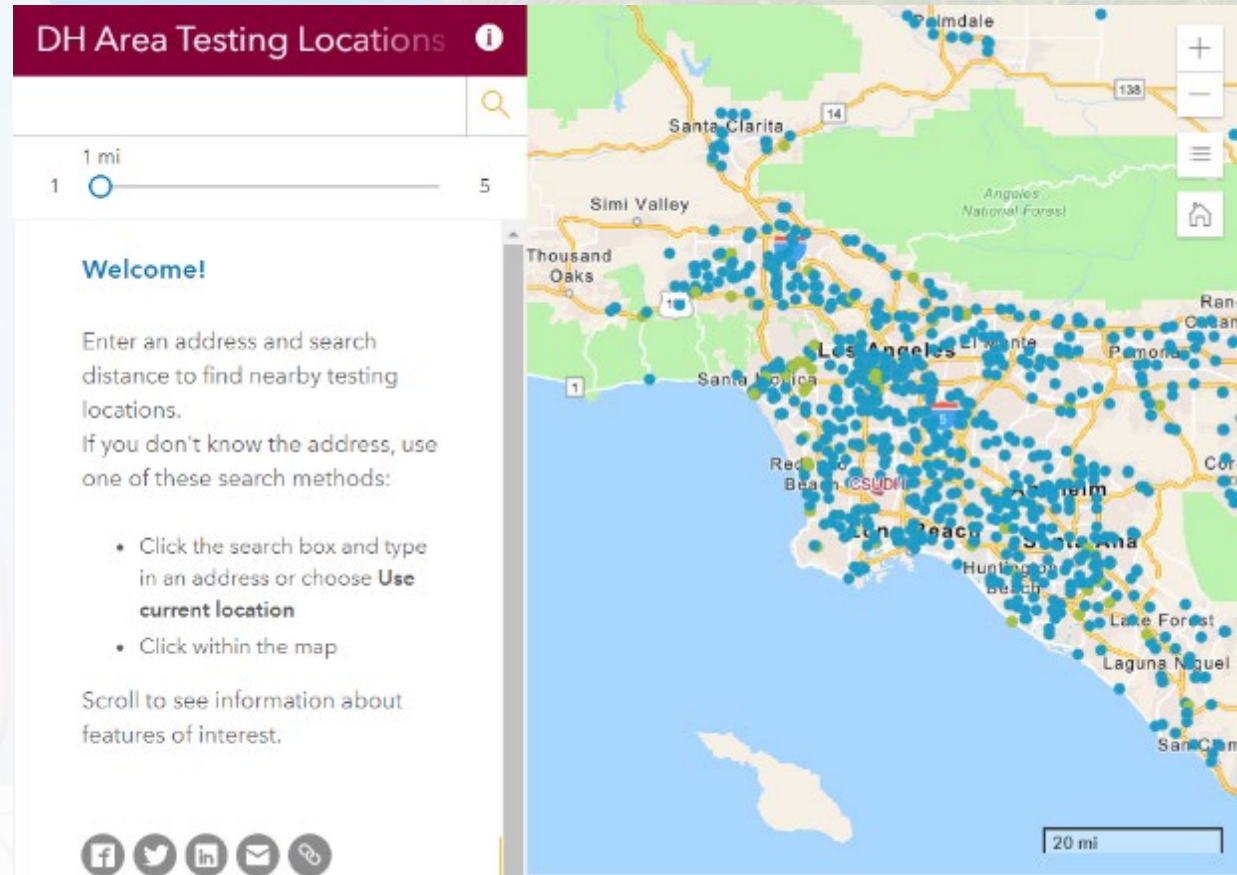
In response to the Coronavirus (COVID-19) public health emergency, CSUDH has transitioned to alternative instruction and scaled back campus operations. The university remains open with limited access to campus services. Visit the campus main page (www.csudh.edu) or the web page for the specific office of interest for more information. Open facilities and



OK

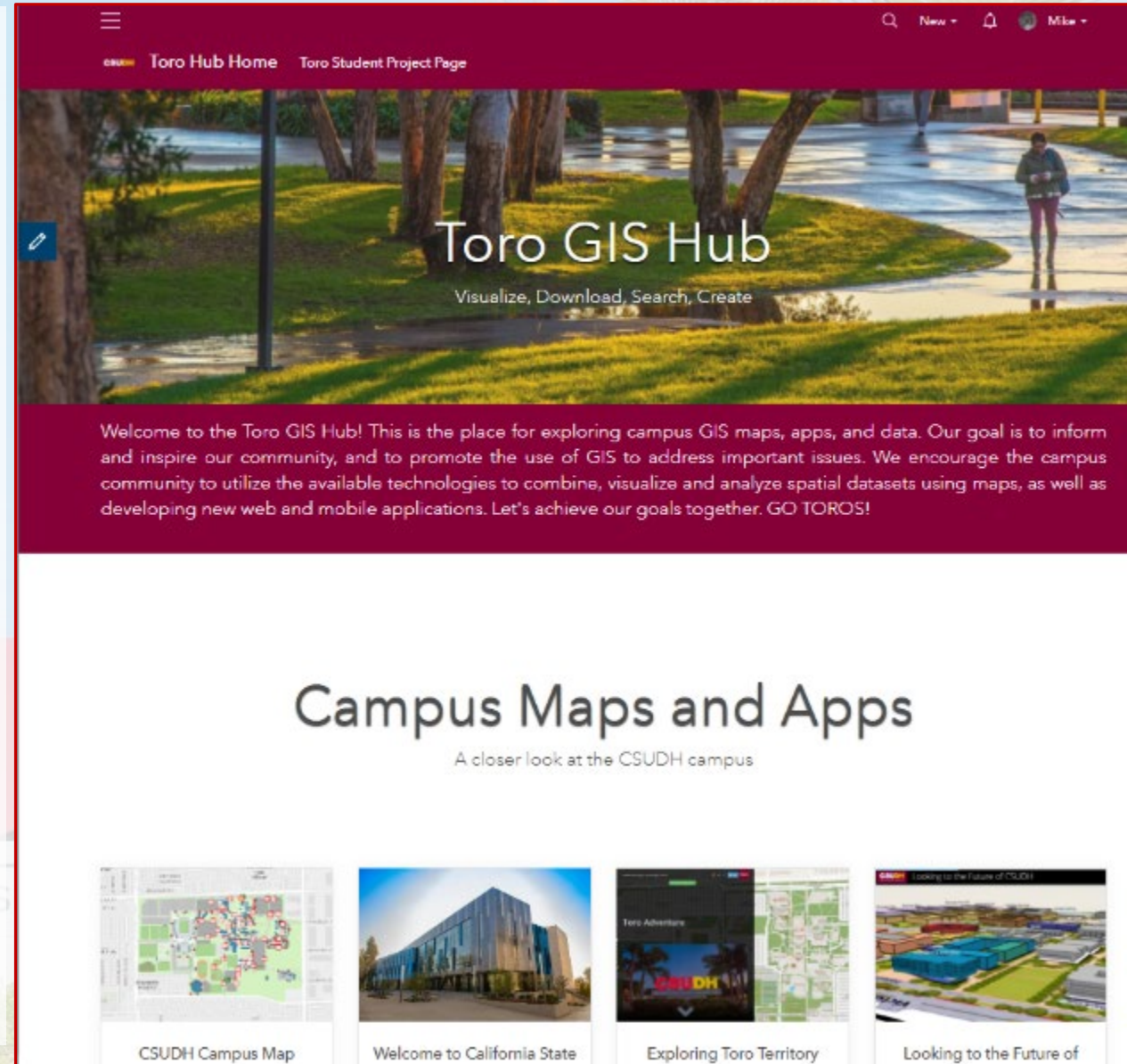
COVID-19 Testing Web App

- Created a COVID-19 dashboard to show pandemic data for cities near campus.
- Campus EOC committee asked for a way to display testing locations
- Configurable apps – Nearby template
 - GISCorps COVID-19 (Molecular (PCR) and Antibody) Testing Locations for DH Area
 - Molecular (PCR)
 - Molecular (PCR) and Antibody
 - DH campus polygon for reference
 - Navigation Basemap
- <https://arcg.is/1GbWLT0>



Toro Hub

- Provides starting point for campus GIS
- Examples of GIS applications
- Campus GIS data layers
- Share campus GIS events and information
- Learning plans
- Training and promotional videos
- <https://toro-maps-csudh--maps.hub.arcgis.com/>



The screenshot shows the Toro GIS Hub website. At the top, there is a navigation bar with a hamburger menu icon, a search icon, and user information for 'New' and 'Mike'. Below the navigation bar, the main header features a large image of a campus scene with trees and a person walking. The text 'Toro GIS Hub' is overlaid on the image, with the tagline 'Visualize, Download, Search, Create' underneath. A blue edit icon is visible on the left side of the image. Below the header, a dark red banner contains a welcome message: 'Welcome to the Toro GIS Hub! This is the place for exploring campus GIS maps, apps, and data. Our goal is to inform and inspire our community, and to promote the use of GIS to address important issues. We encourage the campus community to utilize the available technologies to combine, visualize and analyze spatial datasets using maps, as well as developing new web and mobile applications. Let's achieve our goals together. GO TOROS!'. The main content area is titled 'Campus Maps and Apps' with the subtitle 'A closer look at the CSUDH campus'. Below this, there are four featured items: 'CSUDH Campus Map' (a map thumbnail), 'Welcome to California State' (a building photo), 'Exploring Toro Territory' (a mobile app interface), and 'Looking to the Future of CSUDH' (an architectural rendering).

Thank you

- Contact Info:
 - Mike Ferris
 - mferris@csudh.edu

The logo for California State University, Dominguez Hills (CSUDH) is displayed in large, bold, 3D-style letters. The letters 'C', 'S', and 'U' are pink, while 'D', 'H', and the final 'H' are yellow. The letters are set against a background of palm trees and a clear sky.

CSUDH

A white rectangular sign with a thin black border is positioned below the large letters. It contains the text 'CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS' in a grey, sans-serif font. The sign is set against a background of palm trees and a clear sky.

CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS



Resources

Campus Operations

https://experience.arcgis.com/experience/5ef98030e3db44a9558ced1061ea7449

Smart Campus Operations

ArcGIS is deployed on college and university campuses across the world, helping them operate more effectively and efficiently.

By providing field staff with timely, accurate information; management with real-time metrics and spatial situational awareness; and students, staff, and visitors with visualization and analytical tools; GIS helps to build and manage smart campuses.

"At the heart of all of this decision making...is data that we can manage, report, visualize, and manipulate through GIS"

Brian Swanson, Assistant VP and CFO, University of Minnesota

University of Minnesota

Covid-19 Resources

Covid-19 will continue to have a dramatic impact on both the academic as well as operational aspects of higher education. The resources below are just a subset of many of the videos, blogs, and solutions that Esri has released to assist.

Resources	What	Description
Coronavirus Wellness Checks	Solution	Gallery listing all of the "1-click" solutions

Esri - My Applications

Microsoft Office Home

Configuring Apps.pptx

esri ArcGIS Solutions | Government

esri.com/en-us/arcgis/products/arcgis-solutions/overview

Products Solutions Support & Services Stories About

ArcGIS Solutions

Overview Resources [Launch ArcGIS Solutions](#)

ArcGIS Solutions

Industry-specific configurations for ArcGIS

ArcGIS Solutions is a collection of focused maps and apps that help address challenges in your organization. They leverage your authoritative data and are designed to help you understand, analyze, and enhance services in your organization.

Actions

- Contact account managers
 - Where do I start?
 - What's my licensing?
- Survey
 - Let's talk!
- Questions/Issues:
 - Justin Anderson – justin_anderson@esri.com



Q&A



esri

THE
SCIENCE
OF
WHERE

Justin Anderson –
justin_anderson@esri.com