

Buildings Information & Land use Dataset (BILD)

Technical Working Group

June 25, 2024

11:30-12:30

Attendees: Julia McWest, Shannon Clarke, Stephanie Notar, Violet Tsai, Lucas Milavec, Alyssa DePaula, Leo Bachinger, Richard Russell, Rebecca M Newell, Paul Hoole, Katherine Kiyanitsa, Corrina Cavallo, Stephanie Rockwell, Eric Krans, Matthew J Miller, Mariane Jang, Peter Cichetti, Dr. Catherine T Lawson, Sam Horowitz, Alexander Severino Muro, Tiffany Campo, Sean O'Connell, Christina Croll, Chris Leo, Stephen Conard, Elizabeth Mogus Garcia, Shelby Meyers, Samuel Semon, Kenneth Kemp, Jaime Reppert, Nicholas Zimmermann, Samantha Peterson Borins, Heather A Ipsen, Frank J Ciampa, Cherry Mui, Joshua A Clyburn, Brandom Ostiguy, Paul M Boyle, Ryan Mayr, William Calabrese, Adam M Tobey, Kisha Santiago, Meghan Wren, Suzanna R Randall, Amanda D Stevens

Discussion: focus areas, datasets, use cases, attributes

- DHSES hopes to conduct attribution and quantification of community services to buildings to support analysis, decision-making and BCA “cost-effectiveness” measures
 - Community service data is included in land use codes and HiFLD critical facilities. More datasets can be considered.
 - This important focus area, related to community resilience and social vulnerability, is an opportunity for a BILD-TWG subgroup.
- BILD is intended to be a base-level dataset. Many additional data (e.g., risk measures) may work better as a scenario tool layer than hard-coded attributes.
 - Transit proximity and access can be considered for either.
 - Overlaying/integrating BILD with things like 30x30 mapping can be done strategically and informed by agency use cases, without being included directly in the dataset.
- BILD contains three-dimensional geometries and information about living space and number of floors.
 - More related information may be in the HiFLD Lightbox data – it seems to have more commercially-oriented assessments. AVAIL is looking into joining it with BILD.
- BILD does not currently include attributes related to solar power, backup power storage, or solar potential. This could be considered, provided source data and/or data collection methodology.
- First floor building elevations information is inconsistently found in Daylight and OSM. The group could consider digital elevation maps to ascertain base elevation – this will depend on use cases and precision needed.
 - Data for elevation certificates has historically been inconsistently managed, despite its critical role in insurance, codes and standards.
- ITS has a buildings dataset available for download and as a web service. It contains address info from the [SAM address points](#) and [state-owned parcels](#).
 - DHSES has been in communication with OGS and ITS on each others’ work. NYS Footprints is being ingested in BILD. BILD takes the best available geometries and adds valuable attributes for use in other work and processes.

- NYS is using [LiDAR](#) state-wide to assess and correct existing buildings data. This is a multi-year process.
- BILD is developed and housed in a post-GIS environment.

Dataset considerations: Tax parcels + Daylight attributes

- [Current enrichment data sources](#) contains both the selected output attributes and all potential attributes.
 - Group members can comment in the spreadsheet or contact AVAIL with feedback.
- Site demo: mapping buildings by heat type
 - Corresponding tables can segment this data various ways (e.g., by land use code, county, or utility type), either aggregated or listed.
 - This flexible system is intended for development of custom tables for group members.
- ITS has more detailed assessment information (commercial and residential info, mobile homes). It isn't hard coded into the State parcel data – it is supplemental tables from Tax & Finance that are publicly available but only provided by ITS when needed.
- The 2023 parcels will be available this week and ITS is aiming to complete (and improve) the 2024 update of parcels by Spring of 2025.

State ownership and the Statewide Financial System (SFS)

- Tax parcel ownership data is not always accurate, and values vary greatly from year to year.
- AVAIL is seeking feedback on this, likely in a focus group, to ultimately inform a new state ownership field that is not solely reliant on tax parcel data.
- AVAIL is currently mapping this information and analyzing for inconsistencies: [Mitigate NY](#)
 - OGS “Buildings” and “Sites” have been around since before SFS. The attributes changed when SFS took over. “Buildings Other” has not been updated – it is no longer tracked by SFS.
 - “Work Locations” was developed from state agency websites, with OGS as a reference.
 - Source: NYS GIS Program office/geospatial services
- Assumptions made on ownership of vacant land come from municipalities and may not reflect true ownership, which can impact riparian rights; therefore, ownership assessments cannot be made based on SFS.
 - OGS is working on cleaning up the portfolio.
 - This disclaimer will accompany any locally available BILD data.
- 18 executive agencies are supposed to track assets through SFS. It is a large system with many functions (not all performed well). It is OGS’ system of record for tracking state-owned assets.
 - Public authorities (e.g., CUNY or SUNY) don’t use it – they are tracked in “Buildings Other”.
 - SFS is administered at a high level. A representative could explain the system and its capacity – OGS will connect the group.

Additional Outcomes

1. BILD-TWG Survey Responses (see below)
2. AVAIL/DHSES to connect with SFS representative via OGS (see SFS section above)

Survey Responses

(27 total responses)

Focus Area selection by survey respondents

| Focus Area | Total 'votes' |
|--|---------------|
| Hazard Risk and Climate Change | 16 |
| Building Footprint Enrichment/Attributes | 16 |
| Land Use Planning and Development | 11 |
| Methodology and Technical Processing | 12 |
| "Other" content areas | 11 |

"Other content areas" of interest to survey respondents

- State-owned buildings and facilities
- Support planning and compliance with Executive Order No. 22 on sustainability and decarbonization (NYSERDA)
- Resilience Planning and collaboration with HCR's RHC on buyouts (DEC)
- Research
- Mapping of infrastructure - the stuff in the ground. Water/Sewer lines, unground electric, etc. Is there a way to use the data in SFS ALMS and perhaps link the two systems. Give SFS ALMS the option to 'pin property on map'
- Disadvantaged Communities and Environmental Justice Areas
- Mapping unassessed areas (DEC)
- Funding

Datasets recommended for further evaluation

- National Register Building listings, National Register Building Districts, state owned land such as State Parks or DEC lands; linking the state-owned buildings to SFS
- It might be worth checking overlap with the buildings dataset in the State Financial System (SFS), which OGS has provided to my team in the past.
- State Building Asset data is tracked in SFS, as provided by ITS...that should be considered. Will BILD incorporate data sets produced by other agencies (ie LWRP grants at DOS, historic tax credit data created by Parks)?
- SFS ALMS, ArcGIS (used by OPRHP to map out properties and more)
- LightBox (parcel/building/address mapping), ATTOM (tax parcels), Clear Capital (MLS Realtor data), LL84/LL87 (NYSERDA)
- Coastal Erosion Hazard Areas, Erosion risk, Hydric soils, emerging wetland delineations and maps
- We also have access to lots of data that could support enrichment of state faculties by BILD (Frank C. - NYSERDA)
- Supplemental parcel assessment data tables (Katherine K. - Chief Data Office, Geospatial Services)

Feedback on potential use cases

(Please note: Items with asterisk () were put forward as a use case by more than one respondent)*

- Resilience Planning*
- Project planning, permitting/environmental impact review*
- Hazard mitigation planning and risk assessment*
- Flood and other hazard impact studies*
- Building, land improvement and infrastructure inventory (Tracy R. - OPRHP)
- State-owned real property inventory and management program (Ralph Hill – OGS)
- Climate change adaptation planning* (state and local level); program and intervention targeting (e.g., prioritization of adaptation efforts); vulnerability analysis and assessments (Leo B. - DEC)
- Linking into existing datasets - I'd like to use the data as the authoritative source of building footprints; FEMA/HUD grants or projects, developing inventories for projects, planning, storm response and rebuilding (Christina C. - Parks)
- OGS is looking for data to support oversight and management of building and land assets held by the People of the State of New York (POSNY) (Chris L. - OGS)
- We are usually looking for this data for Reimagine to find areas to rehabilitate and we also do Canal Land assessments based on the parcel codes that the assessors populate (Stephanie R. - Canal Corp)
- Enriching global data products for NASA SEDAC (Kytt M – CIESIN)
- For the DFS's climate team, we're interested in identifying buildings that are at highest risk from the different climate risks or perils (e.g. wind, snowstorm, etc) and the financial implications from an insurability (e.g. availability and affordability) and banking services and investments in particular neighborhoods (Cherry M – DFS)
- Market Characterization of buildings, uses and demographics to guide our program development to spur clean energy and building electrification statewide (Matt M – NYSERDA)
- Support thoughtful planning to first map the universe of relevant facilities for the Executive Order 22, and then assess opportunities (e.g., renewable energy development potential) on state land and built assets.
 - GreenNY Use Cases (working list):
 - 1. Identify the list of facilities that comprise the universe relevant for GreenNY and EO22 (prioritize buildings >5,000 ft², but should include all facilities)
 - 2. Understand proximity of NYS facilities to DACs (building footprint only)
 - 3. Map utility accounts to facilities
 - 4. Map ownership vs. occupancy by EO22 AEs
 - 5. Virtual solar PV assessment looking at terrestrial open-space or rooftop space (combination of answers from Frank C. and Heather I – NYSERDA)