LAND: Land Access for Neighborhood Development
Technical Documentation

OVERVIEW

The Land Access Neighborhood Development (LAND) mapping tool visualizes the distribution of local institutional and government-owned vacant, as well as underused properties. Developed by the University of Miami (UM)’s Office of Civic and Community Engagement (CCE), in collaboration with the UM Center for Computational Science, and with support from Citi Community Development, LAND will enable policymakers and community-based organizations to identify potential development opportunities for affordable housing in transit-served areas.

To cite LAND:


HOW LAND WORKS

Select Governmental, Institutional, and Surplus in the sidebar to filter and map out potentially underused properties owed by a municipality, anchor institution, or faith-based organization. All owner and property information is from the Miami-Dade County Property Appraiser (see Appendix A). These different Owner Categories are defined below:

- **Governmental**: represents potentially vacant or underused properties owned by the County, a municipality, or Community Redevelopment Agency. These properties were classified as vacant based on their Department of Revenue (DOR) Land Use Code. Source: Miami-Dade County Property Appraiser.

- **Institutional**: signifies potentially vacant or underused land owned by large anchor institutions, like universities and hospitals as well as faith-based organizations in aggregate. These properties were classified as vacant based on their Department of Revenue (DOR) Land Use Code. Source: Miami-Dade County Property Appraiser.

- **Surplus**: represents Miami-Dade County-owned vacant Surplus properties as well as City of Miami-owned uncommitted properties. Unlike Governmental parcels, Surplus properties are currently to be sold, leased, or donated to a qualified...
The County-owned Surplus properties were pulled directly from Miami-Dade County’s Department of Internal Services in December 2018. The City of Miami’s Department of Housing and Community Development provided CCE with a list of city-owned uncommitted properties in July 2017. Sources: Miami-Dade County Property Appraiser, Miami-Dade County Internal Services Department, and the City of Miami’s Housing and Community Development.

**BASIC FUNCTIONALITIES**

**Legend**

Each item in the Legend can be selected or deselected by pressing the checkbox.

- **Stations:** are current or proposed Metrorail and Tri-Rail stations. *Source: Miami-Dade County Open Data Hub.*

- **Terminals:** are proposed terminals outlined in the Strategic Miami Area Rapid Transit (SMART) Plan. *Source: 2018 Transportation Planning Organization SMART Plan Map.*

- **½ Mile Station Buffer:** is a one-half (½) mile radius of an existing or proposed station and terminal.

- **1 Mile Station Buffer:** is a one (1) mile radius of an existing or proposed station and terminal.

- **Existing Metrorail:** represents the current Miami-Dade Transit (MDT) Metrorail system. *Source: Miami-Dade County Open Data Hub.*

- **Existing Tri-Rail:** represents the current Tri-Rail system within Miami-Dade County. *Source: Miami-Dade County Open Data Hub.*


- **Bus Express Rapid Transit:** represents the proposed Bus Express Rapid Transit (BERT) network outlined in the Strategic Miami Area Rapid Transit (SMART) Plan. *Source: 2018 Transportation Planning Organization SMART Plan Map.*

- **City Commission:** represents the City of Miami’s Commission Districts. *Source: City of Miami Planning and Zoning.*

- **County Commission:** represents the Miami-Dade’s County Commission Districts. *Source: Miami-Dade County Open Data Hub.*
**Calculator**

Users can model various types of land acquisition scenarios using the Calculator function. The calculator assesses the combined lot size, total area, as well as bond prices for particular City of Miami-owned uncommitted properties.

- **Total Lot Size**: is size of the lot in square feet. *Source: Miami-Dade County Property Appraiser.*

- **Total Area ("Building Actual Area")**: is the sum total of all measured areas within the property. *Source: Miami-Dade County Property Appraiser.*

- **Total Bond Price**: Amount of bond encumbrance for City of Miami-owned uncommitted properties. *Source: City of Miami’s Housing and Community Development.*

**Color Picker**

Under the Governmental, Institutional, and Surplus tabs, users can select the total number of lots to access the Color Picker and assign a unique color to specific owners. This feature allows users to identify potential opportunities for land acquisitions or swaps.

**Search**

The search bar allows users to identify specific parcels by folio number, owner, or address.
UM OFFICE OF CIVIC AND COMMUNITY ENGAGEMENT

Project Director:
Robin Bachin, Ph.D, Assistant Provost for Civic and Community Engagement

Project Manager:
Jorge Damian de la Paz, Program Manager

Research and Design Assistance:
Chelsea Lafrance, AmeriCorps VISTA Inclusive Communities Coordinator (2019-2020)
Kaitlyn Speaker, AmeriCorps VISTA, Inclusive Communities Coordinator (2018-2019)
Carter Gill, AmeriCorps VISTA, Inclusive Communities Coordinator (2017-2018)
Melissa Gutierrez, Data Visualization Coordinator

UM CENTER FOR COMPUTATIONAL SCIENCE

Technical Team Manager:
Christopher Mader, Director - Software Engineering

Development Team:
Julio Perez, Senior Software Engineer
Sreeharsha Venkatapuram, Senior Software Engineer
Timothy Norris, Ph.D, Researcher - Software Engineering
Amin Sarafraz, Ph.D, Associate Scientist – Software Engineering
## APPENDIX A: PARCELS DATASET

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address</td>
<td>Street address of property</td>
</tr>
<tr>
<td>City</td>
<td>City where property is located</td>
</tr>
<tr>
<td>Zip Code</td>
<td>Zip Code where property is located</td>
</tr>
<tr>
<td>Folio</td>
<td>Property reference number</td>
</tr>
<tr>
<td>Ownership</td>
<td>Governmental, Institutional, or Surplus ownership</td>
</tr>
<tr>
<td>Owner</td>
<td>Name of true owner</td>
</tr>
<tr>
<td>DOR</td>
<td>Department of Revenue (DOR) Land Use Code</td>
</tr>
<tr>
<td>Bedrooms</td>
<td>Number of bedrooms</td>
</tr>
<tr>
<td>Bathrooms</td>
<td>Number of bathrooms</td>
</tr>
<tr>
<td>Living Units</td>
<td>Number of units in the building</td>
</tr>
<tr>
<td>Actual Size (Sq. Ft.)</td>
<td>Building square footage</td>
</tr>
<tr>
<td>Lot Size (Sq. Ft.)</td>
<td>Lot size in square feet</td>
</tr>
<tr>
<td>Year Built</td>
<td>Year structure was built/finished</td>
</tr>
<tr>
<td>Property Type</td>
<td>Surplus vacant building or vacant lot</td>
</tr>
<tr>
<td>Bond Price ($)</td>
<td>Bond encumbrance for City of Miami’s Uncommitted Properties</td>
</tr>
</tbody>
</table>