

# High-level accessibility review – LAA (BTAA GeoPortal Platform)

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# BTAA GeoPortal Platform

## Summary

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### Top 3 problems for the BTAA GeoPortal Platform

This high-level assessment covers limited portions and functionality of the BTAA GeoPortal Platform. The assessment revealed issues with assistive technology compatibility, resulting in some users missing information required to understand content, states and operate functions. It is important to keep in mind that the findings represent a high-level assessment, and do not reflect the results of a Deque Comprehensive Web Assessment.

1. **Name, Role, Value** – Many elements are using inappropriate aria attributes and many of the form fields are missing accessible names.
2. **Keyboard** – Many of the map data components are not accessible with the keyboard
3. **Non-text Contrast** – All pages contain focus indicator contrast issues

### Accessibility findings

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#### Project wide issues

The issues presented in this section were identified in multiple pages and are recorded here to avoid repetition. These are applicable to each screen. Due to particularities, similar issues are still reported on a page per page basis, where applicable.

#### Automated findings using Axe

Issues found through automated testing come from the Axe plugin, an open source accessibility testing tool that is available for Chrome, Firefox and Edge. Details here: <https://www.deque.com/products/axe/>.

1. **SC 4.1.1 A** – Unique IDs - Document has multiple static elements with the same id attribute: footer-app
2. **SC 1.4.3 AA** – Contrast – “Help us improve our site” has insufficient color contrast of 3.2 (foreground color: #ffffff, background color: #28A644)

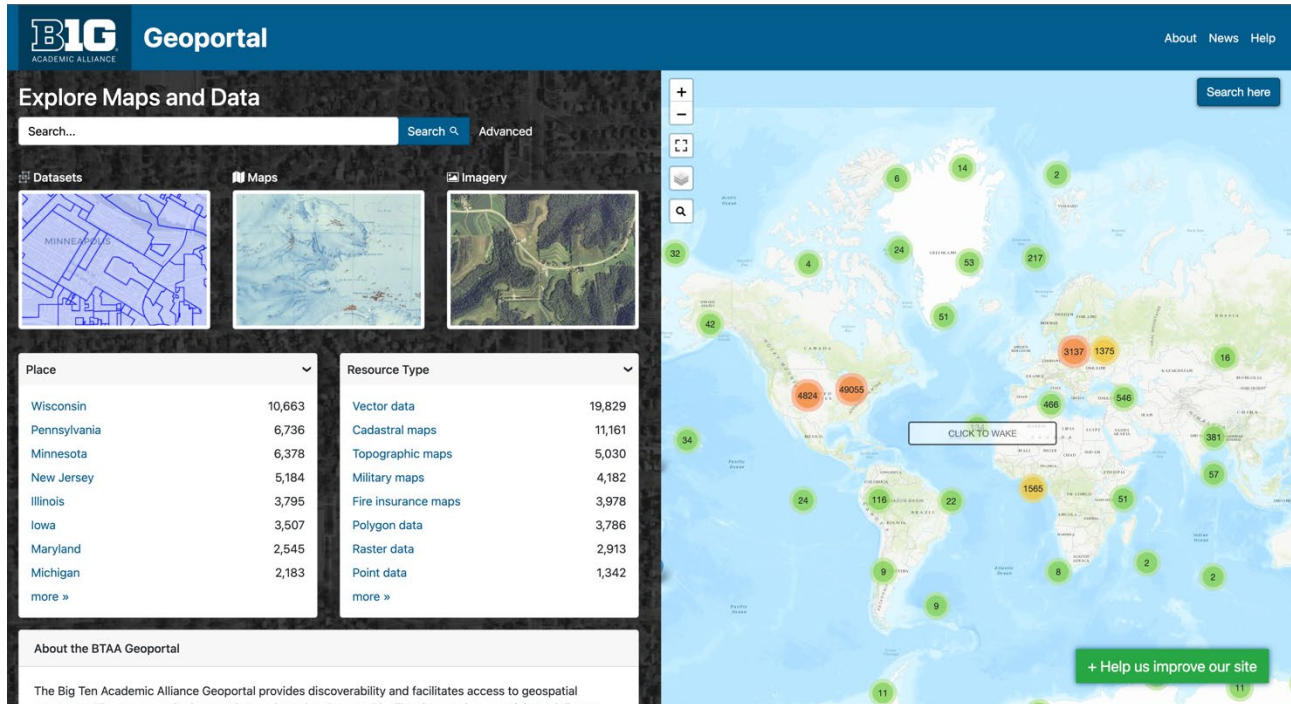
#### Additional manual findings using NVDA screen reader

1. **SC 1.4.11 AA** – Non text contrast - Help us improve our site button focus indicator lacks 3:1 contrast width adjacent background (Contrast Ratio: 2:1, focus border: #98BCD1, background: #ffffff)

## 1. Landing Page

Source: <https://geo.btaa.org/>

Test case: Test initial interface/landing page to ensure menus, search box, images, icons, sort by, etc. are accessible.



### Automated findings using Axe

1. **SC 1.4.1 A** – Link color contrast – Big Ten Academic Alliance link and learn more link are only distinguished from surrounding text by color
2. **SC 1.4.3 AA** – Contrast – “Click to Wake” link on the map has insufficient color contrast of 4.3 (foreground color: #76797A, background color: #FDFBFA)
3. **SC 4.1.1 A** – Unique IDs – Document has multiple static elements with the same id attribute: progress
4. **SC 4.1.1 A** – Unique IDs – Document has multiple static elements with the same id attribute: progress-bar
5. **SC 4.1.2 A** – Name, Role, Value – Search field is missing an accessible label.
6. **SC 4.1.2 A** – Name, Role, Value – Elements must only use allowed ARIA attributes. There are aria-labels on several span and div tags that do not have a role set. These include Current Page, Place List, Resource Type List, and Map container

### Additional manual findings using NVDA screen reader

1. **SC 1.4.11 AA** – Non Text Contrast – “Search Button” – focus indicators lack 3:1 contrast ratio with adjacent background (Focus indicator: #016EA7, Adjacent Background: #023C5A, contrast ratio: 2.1:1)
2. **SC 1.4.11 AA** – Non Text Contrast – “Advanced Link, search field” – focus indicators lack 3:1 contrast ratio with adjacent background (Focus indicator: #203558, Adjacent Background: #393939, contrast ratio: 1.1:1)
3. **SC 2.1.1 A** – Keyboard – “Number Dots” on map can be reached with the keyboard but not activated.
4. **SC 2.1.1 A** – Keyboard – “Click here to wake” on map cannot be reached with the keyboard
5. **SC 2.4.3 A** – Focus Order – “Map Markers Pop up – When the map marker is activated a popup opens but the focus is not moved to the popup
6. **SC 2.4.3 A** – Focus Order – “Map Markers Pop up Close button – When the map marker popup is closed

focus does not return to the map marker

7. **SC 2.4.6 AA** –Descriptive Label – “Map Markers”– All the map marker buttons have the same accessible name but represent different locations.

## 2. Search Results – Springfield, Illinois

Source: [https://geo.btaa.org/?search\\_field=all\\_fields&q=Springfield%2C+Illinois](https://geo.btaa.org/?search_field=all_fields&q=Springfield%2C+Illinois)

Test case: From the initial interface, perform a search for: “Springfield, Illinois”

The screenshot shows the Geoportal search results page. At the top, there is a search bar with 'Springfield, Illinois' entered and a 'Search' button. Below the search bar, there are filters for 'Place' and 'Resource Class'. The 'Place' filter shows 'Illinois' with 10 results, 'Illinois--Springfield' with 8, and other sub-locations. The 'Resource Class' filter shows 'Maps' with 21 results. The search results list four items: 1. Illinois Highway Map, 1989-90; 2. Map of Home Owners' Loan Corporation [Springfield, Illinois] (1937); 3. Insurance Maps of Springfield, Illinois, 1917; 4. Illinois, Springfield quadrangle : topography. A map is displayed on the right side of the page, showing the location of Springfield, Illinois. A 'CLICK TO WAKE' button is visible on the map. A green button at the bottom right says '+ Help us improve our site'.

### Automated findings using Axe

1. **SC 1.1.1 A** – Alternative Text (Informative Images) – Image associated with each search result (10) are missing alternative text
2. **SC 1.4.3 AA** – Contrast – “Maps” and “21” under Resource Class section has insufficient color contrast of 3.2 (foreground color: #ffffff, background color: #28A644)
3. **SC 1.4.3 AA** – Contrast – “Leaflet” link on the bottom corner of the map has insufficient color contrast of 4 (foreground color: #1D85B0, background color: #FCFBF8)
4. **SC 1.4.3 AA** – Contrast – “Click to Wake” link on the map has insufficient color contrast of 4.3 (foreground color: #76797A, background color: #FDFBFA)
5. **SC 1.4.3 AA** – Contrast – “Selected Page of the search results (1)” link has insufficient color contrast of 4 (foreground color: #ffffff, background color: #027BFF)
6. **SC 4.1.2 A** – Name, Role, Value – Elements must only use allowed ARIA attributes. There are aria-labels on several span and div tags that do not have a role set. These include Current Page, Place List, Resource Class Map, Resource Type List, Year fields, and Time Period List
7. **SC 4.1.2 A** – Name, Role, Value – Search field is missing an accessible label.

### Additional manual findings using NVDA screen reader

1. **SC 1.4.11 AA** – Non Text Contrast – “Search Button” – focus indicators lack 3:1 contrast ratio with adjacent background (Focus indicator: #016EA7, Adjacent Background: #023C5A, contrast ratio: 2.1:1)
2. **SC 1.4.11 AA** – Non Text Contrast – “Advanced Link, search field” – focus indicators lack 3:1 contrast ratio with adjacent background (Focus indicator: #203558, Adjacent Background: #393939, contrast ratio: 1.1:1)
3. **SC 1.4.11 AA** – Non Text Contrast – “Remove (X) links” – focus indicators lack 3:1 contrast ratio with adjacent background (Focus indicator: #B6BABD, Adjacent Background: #6C757C, contrast ratio: 2.4:1)

4. **SC 2.4.3 A** – Focus Order – “Map Markers – When the map marker is activated the visual focus moves to the correlating search result but the screen reader focus does not.

### 3. Search Results Details

**Source:** <https://geo.btaa.org/catalog/7d261a51-e695-44a0-a50c-b0616f2b9132>

**Test case:** Select “Map of Home Owners’ Loan Corporation [Springfield, Illinois] {1937}”. Test the individual landing page.

The screenshot shows the Geoportal interface. At the top, there is a blue header with the 'BIG ACADEMIC ALLIANCE' logo and 'Geoportal' text. Navigation links for 'About', 'News', and 'Help' are on the right. Below the header, the search results for 'Map of Home Owners' Loan Corporation [Springfield, Illinois] {1937}' are displayed. A 'Full Details' button is visible. The main content area is divided into two columns. The left column contains a list of metadata fields: Title, Description, Creator, Provider, Resource Class, Subject, Theme, Temporal Coverage, Place, Access Rights, Format, Language, and Date Added. The right column features a map of Springfield, Illinois, with a blue rectangular area highlighting a specific region. Below the map are sections for 'Links' (with a 'Visit Source' button and a 'Cite' link) and 'Download' (with a dropdown arrow). A green button at the bottom right says '+ Help us improve our site'. At the bottom of the page, there are sections for 'Has derivatives...' and 'Is part of...'. The 'Has derivatives...' section contains a link to 'Polygons and area descriptions of Home Owners' Loan Corporation [Springfield, Illinois] {1937}'.

**Title:** Map of Home Owners' Loan Corporation [Springfield, Illinois] {1937}

**Description:** This map shows the areas studied by the Home Owners' Loan Corporation for Springfield, Illinois. During the 1930s and early 1940s, HOLC staff members, using data and evaluations organized by local real estate professionals—lenders, developers, and real estate appraisers—in each city, assigned grades to residential neighborhoods that reflected their "mortgage security" that would then be visualized on color-coded maps. Neighborhoods receiving the highest grade of "A"—colored green on the maps—were deemed minimal risks for banks and other mortgage lenders when they were determining who should receive loans and which areas in the city were safe investments. Those receiving the lowest grade of "D," colored red, were considered "hazardous."

**Creator:** Home Owners' Loan Corporation

**Provider:** American Panorama

**Resource Class:** Maps

**Subject:** Discrimination in mortgage loans and Redlining

**Theme:** Property, Society, and Economy

**Temporal Coverage:** 1937

**Place:** Illinois—Springfield, Illinois

**Access Rights:** Public

**Format:** JPEG, GeoTIFF

**Language:** English

**Date Added:** 2022-05-13

Has derivatives...

[Polygons and area descriptions of Home Owners' Loan Corporation \[Springfield, Illinois\] {1937}](#)

Is part of...

#### Automated findings using Axe

1. **SC 1.4.3 AA – Contrast** – “Help us improve our site” has insufficient color contrast of 3.2 (foreground color: #ffffff, background color: #28A644)

#### Additional manual findings using NVDA screen reader

Not completed due to insufficient time.



#### 4. ArcGIS Feature Layer Map

**Source:** <https://geo.btaa.org/catalog/a25931f9-c2ba-48b7-8c3f-8c017f7050b6>

**Test case:** Under the Has derivative box, click “Polygons and area descriptions of Home Owners’ Loan Corporation [Springfield, Illinois] {1937}”. Test the ArcGIS Feature Layer Map, including zooming in and out, toggling full screen and switching from Default to OpenStreetMaps and to World Imagery. Also test the the download options on the right.

The screenshot shows the ArcGIS Feature Layer Map interface. At the top, there is a blue header with the 'BIG ACADEMIC ALLIANCE Geoportal' logo and navigation links for 'About', 'News', and 'Help'. Below the header, the title 'Polygons and area descriptions of Home Owners' Loan Corporation [Springfield, Illinois] {1937}' is displayed, along with a 'Full Details' button. The main area is a map with a blue polygon overlay. A 'CLICK TO WAKE' link is visible on the map. To the right of the map, there is a sidebar with a search bar, a 'Clear search' button, and a 'Back to Search' button. Below the search bar, there is a 'Links' section with buttons for 'Visit Source', 'Open in ArcGIS Online', and 'Cite'. At the bottom of the sidebar, there are buttons for 'Web services' and 'Download'. A green button at the bottom right of the page says '+ Help us improve our site'.

#### Automated findings using Axe

1. **SC 1.4.3 AA** – Contrast – “Click to Wake” link on the map has insufficient color contrast of 4.3 (foreground color: #76797A, background color: #FDFBFA)

#### Additional manual findings using NVDA screen reader

Not completed due to insufficient time.

## 5. Advanced Search

Source: <https://geo.btaa.org/advanced>

Test case: Test advanced search: <https://geo.btaa.org/advanced>

**Advanced Search** Clear search

Keyword  **Limit Results By**

AND  OR  NOT

Publisher/Creator  Resource Class

AND  OR  NOT

Title  Resource Type

AND  OR  NOT

Place  Provider

Year  -

**Big Ten Academic Alliance Geoportal**

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### Automated findings using Axe

1. **SC 4.1.2 A** – Name, Role, Value – Form elements must have labels. Majority of the form fields are missing an accessible label (9 fields)
2. **SC 4.1.2 A** – Name, Role, Value – Select element must have an accessible name(4 fields)

### Additional manual findings using NVDA screen reader

Not completed due to insufficient time.