City of Attleboro

Website Accessibility

Executive Summary Report

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Institute for
Human
Centered
Design

Introduction

IHCD conducted an internal review of the City of Attleboro's official website (https://www.cityofattleboro.us/), which is built using the ASP.NET web framework with jQuery and other JavaScript libraries. The objective of this review was to provide a high-level review of the overarching issues and areas for improvement to provide an accessible, usable website for all users including people with a ride range of disabilities who navigate with assistive technologies.

In general, the website has a good foundation of functionality and accessibility features that work well. This report outlines 5 general areas that need to be addressed to make the website more accessible. This is not an extensive or all-inclusive list of all the issues that persist across the site and all third-party websites that it connects; it is only an overview of the major areas that need to be addressed towards compliance with the Web Content Accessibility Guidelines (WCAG 2.1 AA) and Section 508. Where applicable, we include guidance and best practices based on industry standards and insights gleaned from decades of testing and reviewing products and services including websites, digital interactives, and multisensory immersive experiences with people with lived experiences with physical, sensory or brain-based functional limitations.

Overview

In general, on websites with a large amount of content and varying kinds of content, the major issues that need to be addressed for a seamless user experience are the main navigation menu, keyboard accessibility, semantic markup and ARIA roles and states, link text and alt text, and readability with a screen reader. Specifically for municipality websites, content-related functionality like the calendar and information about accessibility are also key.

Some of these major issues are outlined in the next section.

Overarching Issues

- **Main menu navigation with screen readers**

  Each of the main menu items have submenus associated with them, which only open on hover with a mouse or trackpad. For users navigating with screen readers, there is no easy way to access the submenu content other than to click on the menu item and be redirected to another page. Even though aria-haspopup has currently been implemented into the code, the functionality isn't working as it should, and the menu items are being read as both links and pop-up buttons without identifying that they have submenus. A few recommended approaches to remediate this would be to make the submenus expand on focus (with a keyboard with and without a screen reader), or to add intentional navigation so that the submenus expand when a user selects a main menu item, after which they can use tab or directional arrows to access submenu content. With any approach, the objective should be to ensure that there is easy and independent access to all main menu content for all users navigating with and without assistive technology, given the importance of the main menu on a municipality website with important information.

- **Keyboard accessibility**

  All website content should be accessible to users navigating with a keyboard without a screen reader. Many users rely on the use of a keyboard to navigate through web content due to a dexterity impairment or personal preference. Adequate visual focus indicators are necessary to facilitate navigation through the site and ensure that users know exactly where they are at any time.

- **HTML Semantic Markup and ARIA Roles and States**

  Regions and landmarks on each webpage should be carefully and accurately described for users navigating with a screen reader. For example, the region that contains the search field

and button is labelled as a "complementary" which does not provide any context or helpful information to help a user navigate through the content.

ARIA roles and states also need to be reviewed and tested to ensure that even when they're implemented in code, they're working correctly. In many cases, the ARIA element is included in the code (such as the aria-haspopup) example mentioned above but the functionality doesn't carry through to the experience of a screen reader user, which is ultimately the goal. This would also apply to adding aria-expanded to the menu items to convey their state to users who are blind or have low vision who are navigating with screen readers.

- **Calendar**

  The calendar is an important feature of a municipality website that many users rely on to obtain important information about the place they live or are visiting. Dates in a calendar should be read with the context that's needed to make the most sense of them. For example, reading "column 4 of 7 19" is not helpful, whereas "column 4, row 3, Monday June 21" would be much more helpful to a user who does not have the visual cues of the calendar grid. It also goes beyond the baseline accessibility compliance to ensure that while the user has the basic information they need, it's provided in a way that is useful and doesn't leave room to make assumptions or mistakes.

  On the homepage, the calendar under "Meeting" doesn't read correctly: it skips dates, doesn't read them in order, and reads dates as "link 7."

- **General readability issues**

  Oftentimes, punctuation and numbers can be a challenge for seamless integration with a screen reader. However, especially with phone numbers for accessibility or emergency services in a municipality, it's extremely important to label those numbers correctly and ensure they are easy to find. Many users look for that information in the footer of the

website and a label to provide context for a phone number goes a long way in alleviating anxiety in moments of stress. Punctuation such as hyphens are often missed and the screen reader just reads words, so it's important to ensure that critical information is provided in multiple locations and reiterated so users don't get contradicting information or have to spend time looking for information that should be easy to find.