City of Everett, MA | Website Review

Institute for Human Centered Design

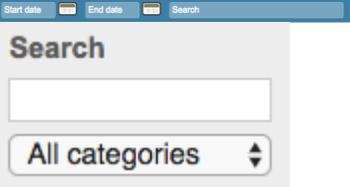|	Image	Section	Issue Name	Issue Details	Issue Tags
1		Navigation	Inaccessible Main Navigation	**Background** All menu items and mega-menu functionality must be accessible by keyboard-only navigation to allow screen reader users and keyboard-only user to navigate the web. **Current** Only the high-level five menu items are accessible with various assistive technologies. The popover HTML is not nested within the menu unordered list, rather at the very bottom of the page, therefore it is not appropriately placed in the accessibility tree. **Solution** Menu popovers should always be expanded using not only hover, but also keyboard focus. In addition, the HTML should be nested in the same intuitive order as the visual layout. **Engineering Notes** Review documentation for accessible mega-menus using web-aria, proper html structure, and keyboard focus. See Adobe open-source library for accessible mega-menus: https://github.com/adobe-accessibility/Accessible-Mega-Menu/	Blind, Low-vision, Dexterity Impairments **WCAG 2.1 Section 3.2.1 On Focus**
2		General Content	Header Hierarchy	**Background** Many screen reader users rely on headers for navigation within pages as well as visual users for grouping and visual focus. Heading levels should always be consistent and always follow a clear and helpful hierarchy. **Current** Heading levels are currently skipped and some visually styled html elements are not placed within heading tags. For example, this screen shot from the homepage contains no heading levels. **Solution** Ensure that the order of headings is semantically correct; h1 to h6 element tags should be in appropriate order. **Engineering Notes** Review W3's documentation on heading level/ranks: https://www.w3.org/WAI/tutorials/page-structure/headings/	Blind, Low-vision, Brain-based **WCAG 2.1 Section 2.4.6 Headings and Labels**

	Image	Section	Issue Name	Issue Details	Issue Tags

3		Form Fields	Missing Form Labels	**Background**
				Each form element must have a programmatically associated label element.
				
				Current
				The event calendar and search block form fields have placeholder values, but not label elements. This makes understanding the purpose of each form field very difficult and sometimes impossible for assistive technology users:
				`<input onkeydown="searchTextHook(event);" onblur="removeDefaultStartDate(this);" onfocus="removeDefaultStartDate(this); showPopup(this, event);" onclick="showPopup(this, event);" title="Start Date" id="startDate" type="text" value="Start date">`
				
				Solutions
				Please provide labels for all input fields so that users understand the context.
				
				Engineering Notes
				`<label for=""startDate"">Start Date</label>`
					Blind, Low Vision
					
					WCAG 2.0 Section 3.3.2 Labels or Instructions
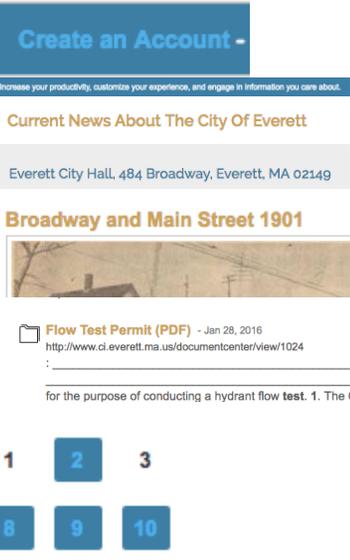
4		General Content	Color Contrast	**Background** All text elements must have sufficient contrast between text in the foreground and background colors. **Current** There is insufficient color contrast for many elements throughout the template. In this first example, "Create an Account," the color contrast ratio (foreground #50B1EA & background #3D7EA5) is only 1.9:1. **Solution** Ensure all text elements have at least 4.5:1 contrast for small text and 3:1 for large text. IHCD recommends the Colour Contrast Analyser: https://developer.paciellogroup.com/resources/contrastanalyser	Low-Vision, Older Users, Brain-based **WCAG 2.0 Section 1.4.3 Contrast (Minimum)**

	Image	Section	Issue Name	Issue Details	Issue Tags
5		Multimedia	Images of Text	**Background** The text in images are inaccessible to screen reader users without proper plain text alternatives. Additionally, images of text are not customizable by the end user (font-size, contrast, etc.) which affects low vision and users with learning disabilities that often rely on text customization to improve readability. **Current** There are many instances of images that display important text information. The information is not provided and the alt text: `<img src="/ImageRepository/Document?documentID=3639" alt="summer check in" title="summer check in">` In cases where there is more than a sentence or two in images, alt text or aria labels will not be sufficient. **Solution** Best practice is to not use images to display important text information. If the design calls for it, such as a poster, this information should always be displayed redundantly using plain text in close proximity to the images.	Blind, Low- Vision, Brain-based **WCAG 2.0 Section 1.4.5 Images of Text**
6		Header	Improper Use of Heading Levels	**Background** Screen reader users rely on heading levels to quickly scan, navigate and digest main content. **Current** Header icons are contained within an <h3> tag. This is confusing and disorienting for blind users navigating the page with heading commands. `<h3><img alt="Site Tools" class="imageHover" data-hover="/ImageRepository/Document?documentID=38" data-image="/ImageRepository/Document?documentID=37" src="/ImageRepository/Document?documentID=37"></h3>` **Solutions** Heading level tags should be reserved for main content, not icons.	Blind, Low-vision **WCAG 2.0 Section 2.4.6 Headings and Labels and Section 1.3.1 Info and Relationships**

Image	Section	Issue Name	Issue Details	Issue Tags
7	**Forms and Applications** ○ Application for Funeral Director License ○ Body Art Establishment Application ○ Body Art Practitioner Application ○ Dumpster hauler application ○ Dumpster Permit Yearly Residential Application ○ Dumpster Yearly Application ○ Tanning Facility - Checklist ○ Tanning Facility Application ○ Tanning Facility Operator Certificate ○ Tanning Facility Permit Application - New Facility ○ Tobacco Permit Application	General Content	Document Downloads	**Background** Unexpected document downloads or documents in new tabs are very disorientating for assistive technology users and often confusing for non-native tech users. It should be clear when users click a link to a document resource. **Current** Many links throughout the site direct users to document resources or forms. Often the link text contains "(PDF)" which is a good signifier to give the user awareness. However, some document links do not have any signifiers. For example see the Forms and Applications links. These download a PDF or open in a new tab. This is very unexpected and confusing behavior, often users will become frustrated or unaware that a document was downloaded to their local machine. **Solution** Links should always clearly signify their purpose and content. **Design Note** Consider using common icons for document resources: **PDF** **Engineering Note** Ensure document downloads or icons are properly labeled to give context to screen reader users: `<i class="pdf" aria-label="PDF Download" />`	Blind, Low-vision, Older users, Brain-based **Inclusive Design, WCAG 2.0**
8	**Parking** Parking Tickets NEW Parking Meters **Public Safety** Alerts	General Content	External Links	**Background** Unexpected new tabs or windows is very disorientating for assistive technology users and often confusing for non-native tech users. It should be clear when users are directed out of the site. **Current** Many links throughout the site open in new tabs or windows and direct users unexpectedly off of cityofeverett.com. For example, the menu item "Parking Tickets" opens www.kelleyryan.com/epay in a new tab. This is very unexpected and confusing behavior because users expect menu items to be	Blind, Low-vision, Older Users, Brain-based **Inclusive Design, WCAG 2.0**

Image	Section	Issue Name	Issue Details	Issue Tags
			internal routes. **Solution** Links should always clearly signify when users will be directed out of the site. **Design Note** Consider using common icons for external links: **Engineering Note** Ensure an external links or icons are properly labeled to give context to screen reader users: `<i class="external-link" aria-label="External Link" />`	

9	General Content	Improper Alt Text and Aria Labels	**Background**
			Images must have text alternatives that describe the information or function represented by them. This ensures that images can be used and understood by people with various disabilities.
			
			Current
			Most all images on Everett's website do include either alt text or aria labels. Unfortunately, many of these label do not describe the information or context displayed in the photos. It appears that a lot of images simply have the file name set at the alt text. For example:
			`<img src="/ImageRepository/Document?documentID=631" alt="SqClock1b" title="SqClock1b">`
			
			Solution
			Content authors and theme developers should review resources on best practice for writing alt text. Please refer to W3's in-depth documentation and resources:
			https://www.w3.org/WAI/tutorials/images/
			
			For example:
			`<img src="/ImageRepository/Document?documentID=631" alt="The famous square clock at Everett capitol" title="SqClock1b">`
				Blind, Low-Vision
				
				WCAG 2.0 Section 1.1.1 Non-text Content

	Image	Section	Issue Name	Issue Details	Issue Tags

10		Social	Improper Label	**Background**
				Labels on Image buttons should describe the button's function, instead of describing the image itself.
				
				Current
				Currently many image links with aria labels and alt text unnecessarily describe the image, and do not provide context for the link function. For example:
				`<img src="/ImageRepository/Document?documentID=297" class="graphicButtonLink" alt="Facebook" ...`
				
				Solution
				Write aria labels and alt text that describe the image link's function. For example:
				`<img src="/ImageRepository/Document?documentID=297" class="graphicButtonLink" alt="Everett Facebook Page" ...`
					Blind, Low-Vision
					
					WCAG 2.0 Section 4.1.2 Name, Role, Value

11		Create Account	Improper HTML Semantics	**Background**
				HTML markup may not change the graphical user interface, however screen reader users rely on this semantic information to make sense of the web and interact with elements.
				
				Current
				Some improper HTML markup creates confusion. For example, "Create and Account" is given the role of button. Buttons should be reserved for actions such as submitting a form. Here, "Create an Account" is most appropriately a link. Current:
				`<a href="/MyAccount/ProfileCreate" role="button" class="myConnections" id="signedOutToolbarCreateProfileButton">Create an Account</a>`
				
				Solution
				Alway use the most semantic and appropriate HTML roles and tags:
				`<a href="/MyAccount/ProfileCreate" role="link" class="myConnections" id="signedOutToolbarCreateProfileButton">Create an Account</a>`
					Blind, Low-Vision
					
					WCAG 2.0 Section 1.3.1 Info and Relationships

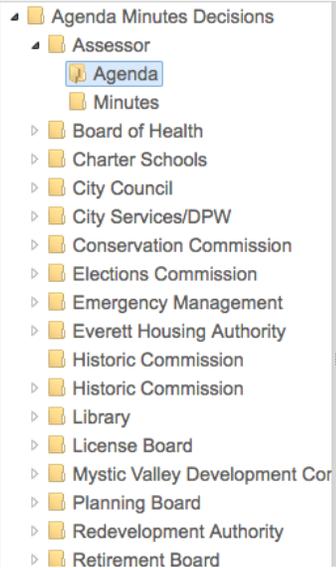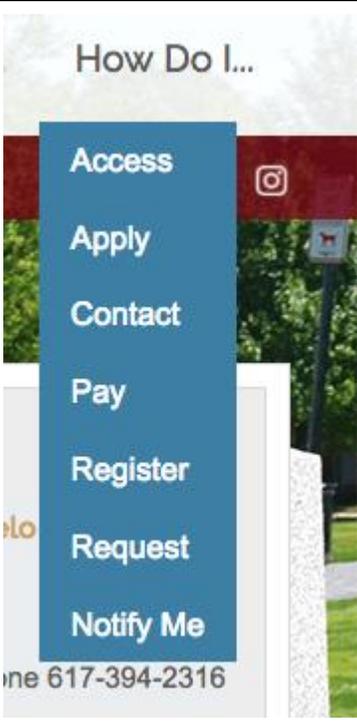| Image	Section	Issue Name	Issue Details	Issue Tags
12	Accessibility	Missing Contact Info	**Background** One of the most useful tools for users who identify with a disability is a direct contact when facing an accessibility issue on the web. **Current** The Accessibility page does have a "Contact" link, however this link brings the user to an expansive "directory" page with no identified accessibility contact. There is not an intuitive way to get support when experiencing an access issue on Everett's webpage. **Solution** Best practice is to include email and phone number for accessibility support directly on the accessibility page.	Low-vision, Brain-based, Older users, Blind **Inclusive Design**
13	Multimedia	Moving Content with No Pause or Stop Option	**Background** Automatically moving, blinking, or scrolling content that lasts longer than 5 seconds must provide the option to be paused, stopped, or hidden by the user. **Current** Users do not have the option to pause, stop or hide the automatically looping image widgets. **Solutions** Provide the option to pause, stop or hide moving content per user convenience. Consider turning off widget loop and opt for a more static display. **Engineering Notes** Refer to Mozilla's documentation on multimedia https://developer.mozilla.org/en-US/docs/Learn/Accessibility/Multimedia	Low-vision, Brain-based **WCAG 2.0 Section 2.2.2 Pause, Stop, Hide**

Image	Section	Issue Name	Issue Details	Issue Tags

14	Documents	Inaccessible Non-native HTML Elements	**Background**
			HTML elements such as buttons and links provide unique context to screen-readers. When custom buttons or links are created, proper ARIA attributes must be provided.
			
			Current
			The custom clickable element to browse and select documents are not seen as a clickable element in the accessibility tree. Therefore, screen-reader users cannot interact with this content:
			`<span class="t-in t-state-selected"><img class="t-image" alt="Open Folder" src="/Areas/DocumentCenter/Assets/Images/IconFolderOpen.gif">Agenda</span>`
			
			Solutions
			When creating a custom button or link, proper ARIA attributes must be assigned and a tabindex of 0 must be provided to ensure it is focusable by keyboard users.
			`<span role="link" tabindex="0" class="t-in t-state-selected"><img class="t-image" alt="Open Folder" src="/Areas/DocumentCenter/Assets/Images/IconFolderOpen.gif">Agenda</span>`
			
			Engineering Notes
			Refer to Mozilla documentation on using roles
			https://developer.mozilla.org/en-US/docs/Web/Accessibility/ARIA/ARIA_Techniques/Using_the_link_role
				Blind, Low-vision
				
				WCAG 2.0 Section 2.4.3 Focus Order

	Image	Section	Issue Name	Issue Details	Issue Tags

15		Clickable Elements	Non-visible Focus	**Background**
				Keyboard users rely on visible focus to help know which element has the keyboard focus.
				
				Current
				Many clickable elements do not have any signifeir for keyboard focus. For example, this screenshot was taken with the focus on the "Apply" link, yet there is not visual indication. The current CSS disables native HTML focus via:
				
				`a:focus { outline: none; }`
				
				Solution
				All keyboard focusable elements must have appropriately styled keyboard focus indicator.
				
				Engineering Notes
				
				`a:focus {`
				`  outline: 1px dashed black;`
				`}`
					Low-vision, Brain-based
					
					WCAG 2.0 Section 2.4.7 Focus Visible
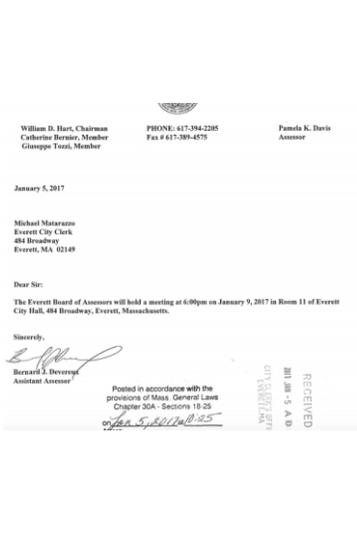
16		Documents	Inaccessible PDF	**Background** Downloadable resources must be made accessible. **Current** Many PDFs are inaccessible to screen reader-dependent users and users with low vision. **Solution** PDFs and other resource documents should be made accessible. This includes following WCAG guidelines for color contrast, image labels, and most importantly using rich text as opposed to images of text. Everett should provide alternative way to access documents and forms that are not yet accessible. **Design Notes** Refer to resources for PDF accessibility techniques. https://www.w3.org/TR/WCAG-TECHS/pdf.html And please review Adobe's Accessibility Training	Blind, Low-vision **WCAG 2.0 Section 1.1.1 Non-text Content**
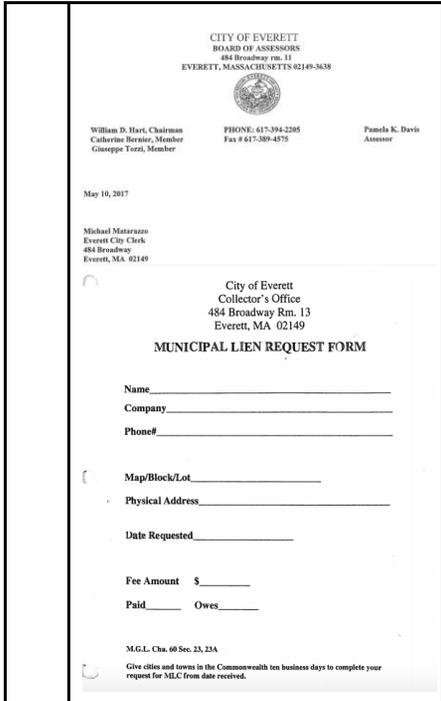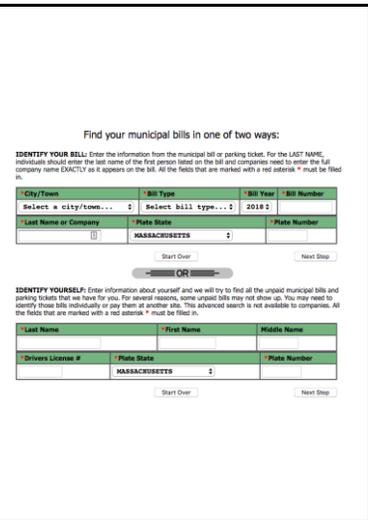
Image	Section	Issue Name	Issue Details	Issue Tags
17	Third Party / Portal	Inaccessible User Interfaces	**Background** User portals and third party software for processing payments, finding records, and many other tasks are especially important to be accessible for all visitors. **Current** Many portals and third party software linked from the Everett main website contain numerous web accessibility issues that are often a complete barrier to diverse and assistive technology users. For example, IHCD experts found dozens of issues on the Municipal ePayment System including poor color contrast, missing form labels, no headers, and no alt-text. **Solution** All third party software should be vetted and comply with web accessibility standard and inclusive design best practices.	Bind, Low-Vision, Brain-based, Older users **WCAG 2.0 and Inclusive Design**

Image	Section	Issue Name	Issue Details	Issue Tags
18	Multimedia	Moving Content with No Pause or Stop Option	**Background** Automatically moving, blinking, or scrolling content that lasts longer than 5 seconds must provide the option to be paused, stopped, or hidden by the user. **Current** Users do not have the option to pause, stop or hide the automatically looping sliders. **Solutions** Provide the option to pause, stop or hide moving sliders per user convenience. Consider turning off slider widget loop and opt for a more static display where user can choose when to change slides. **Engineering Notes** Refer to Mozilla's documentation on multimedia https://developer.mozilla.org/en-US/docs/Learn/Accessibility/Multimedia	Low-vision, Brain-based **WCAG 2.0 Section 2.2.2 Pause, Stop, Hide**