

Sample Accessibility Audit Report: CityLights demo home page (W3C BAD, "before" version)

Report date	October 24, 2026
Standard	WCAG 2.2 Level A and AA
Page audited	https://www.w3.org/WAI/demos/bad/before/home.html
Scope	One page: the CityLights demo content of the W3C Before and After Demonstration inaccessible home page (https://www.w3.org/WAI/demos/bad/before/home.html). The W3C wrapper around the demo (yellow header with "Skip to inaccessible demo page", demo navigation, and footer) is out of scope.

About this sample: the page audited is a public teaching demo built by the W3C Web Accessibility Initiative to be inaccessible on purpose. It is not a real business. This report is not legal advice and is not a certification of compliance.

Summary

- We tested one page against WCAG 2.2 AA using axe-core 4.13, Lighthouse 12.8, a WAVE-style visual review, and a manual keyboard pass reasoned from the page's code and confirmed in a browser.
- The page has 3 critical, 5 serious, and 2 moderate issues (plus 1 minor item outside scope). Keyboard users cannot follow 14 of 20 links, the image-only menu has no names for screen readers, and the quick menu navigates away on the first arrow key press.
- Automated tools flagged 8 axe-core rule failures and gave a Lighthouse accessibility score of 53/100. The most serious barrier, focus being thrown away, was found only by manual testing.
- Most fixes are small and mechanical: delete onFocus="blur()";, add alt text and a lang attribute, label the quick menu, and use real headings. Reflow needs a layout rework.

Issues by severity

Severity	Issues	Meaning
CRITICAL	3	blocks some people from using the page or completing a task
SERIOUS	5	causes major difficulty or confusion

Severity	Issues	Meaning
MODERATE	2	causes friction; workarounds exist
MINOR	1	polish and best practice

Inaccessible Home Page

Before and After Demonstration

Improving a Web site using Web Content Accessibility Guidelines (WCAG) 2.0

Overview

Home

News

Tickets

Survey

Template

Inaccessible:

Home Page

Accessible:

Home Page

Report

Report

Show

Annotations

your access to the city

QUICKMENU ---->

Traffic: Construction work on Main Road

Today: Saturday 24 October 2026, Sunny, 23°C

HOME

NEWS

TICKETS

SURVEY

Welcome to CityLights

Citylights is the new portal for visitors and residents. Find out what's on, book tickets, and get the latest news.

Heat wave linked to temperatures

After three years of effort city scientists now agree that the primary cause of the 2003 heatwave was hot air from our

[MORE >>](#)

Man Gets Nine Months in Violin Case

Mayor: These kinds of crimes need more creative, effective punishments. For example, we could require compulsory

[MORE >>](#)

Lack of brains hinders research

Brain donations: huge drop off in brain donations due to the great 'success' of 'Slow Traffic, Safe Streets' policy

[MORE >>](#)

Elsewhere on the Web

Please see the following websites for important information. Citylights take no responsibility for their content. For artichoke advice, call the number below.

Killer bees. [Click here.](#)

Onions. [Click here.](#)

Artichoke advice telephone hotline: (1) 269 (-H-O-W-E)

Free Penguins

"Free penguins" slogan at zoo benefit concert causes confusion among city rockers. Adjective or verb?

[Read More...](#)

More City Parks

More parks and more green throughout the city at the price of already rare car parking spaces, how will this affect you?

[Read More...](#)

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Feedback welcome to wai-eo-editors@w3.org (a publicly archived list) or wai@w3.org (a WAI staff-only list).

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The page as tested, desktop width (1280 px).

Results at a glance

All issues, most severe first

#	Severity	Issue	WCAG 2.2 criteria
1	CRITICAL	Keyboard focus is thrown away on most links	2.1.1 Keyboard (A); 2.4.7 Focus Visible (AA)
2	CRITICAL	Image-based menu links and "more" arrows have no accessible name	1.1.1 Non-text Content (A); 2.4.4 Link Purpose (In Context) (A); 4.1.2 Name, Role, Value (A)
3	CRITICAL	Quick menu has no label and jumps to a new page when you arrow through it	3.2.2 On Input (A); 4.1.2 Name, Role, Value (A); 3.3.2 Labels or Instructions (A)
4	SERIOUS	Images are missing text alternatives, or have wrong or unhelpful ones	1.1.1 Non-text Content (A)
5	SERIOUS	Page language is not set	3.1.1 Language of Page (A)
6	SERIOUS	No headings or page structure in the demo content	1.3.1 Info and Relationships (A); 2.4.6 Headings and Labels (AA)
7	SERIOUS	Content does not reflow on narrow screens or at high zoom	1.4.10 Reflow (AA)
8	SERIOUS	Low-contrast text in the right-hand teaser headings	1.4.3 Contrast (Minimum) (AA)
9	MODERATE	Text shown as images	1.4.5 Images of Text (AA)
10	MODERATE	Link text that doesn't say where it goes	2.4.4 Link Purpose (In Context) (A)
11	MINOR	Small adjacent links in the W3C wrapper (out of scope, noted for completeness)	2.5.8 Target Size (Minimum) (AA)

Issues in detail

1. Keyboard focus is thrown away on most links

CRITICAL · 2.1.1 Keyboard (A); 2.4.7 Focus Visible (AA)

Found by

Manual keyboard test (axe-core has no rule for this)

Where

14 of the 20 links in the demo content: the left navigation (Home, News, Tickets, Survey), the three news headlines, the three "more" arrows, both "Click here" links, and both "Read More..." links. Each has `onFocus="blur();"` .

Why it matters

When a keyboard user tabs to one of these links, the page immediately removes focus from it. Pressing Enter then does nothing. In our test, focusing the News link and pressing Enter left us on the home page. People who use a keyboard, switch device, or voice control that relies on focus cannot follow these links at all.

How to fix

Delete the `onFocus="blur();"` attributes. Never remove focus from an element when it receives it. If the outline was removed for looks, restyle it instead.

Before

```
<a href="news.html" onFocus="blur();" >Heat wave linked to temperatures</a>
```

After

```
<a href="news.html">Heat wave linked to temperatures</a>

/* CSS: a clear, consistent focus style */
a:focus-visible { outline: 3px solid #b34700; outline-offset: 2px; }
```

2. Image-based menu links and "more" arrows have no accessible name

CRITICAL · 1.1.1 Non-text Content (A); 2.4.4 Link Purpose (In Context) (A); 4.1.2 Name, Role, Value (A)

Found by

axe-core link-name (7 links), image-alt; Lighthouse

Where

Left navigation: 4 links whose only content is an image of text with no alt attribute (nav_home.gif, nav_news.gif, nav_facts.gif, nav_survey.gif). News stories: 3 "more" arrow links whose image has alt="".

Why it matters

A screen reader announces these as "link" with no name, or reads out the file name or URL. A blind visitor can't tell which link goes to News and which to Tickets, and voice control users can't say the link's name to click it.

How to fix

Use real text links for navigation (better), or give each image alt text that matches the words in the image. For the arrows, give each link a name that says where it goes.

Before

```
<a href="javascript:location.href='news.html';" onFocus="blur();"></a>  
<a href="news.html" onFocus="blur();"></a>
```

After

```
<nav aria-label="Main">  
  <ul>  
    <li><a href="home.html" aria-current="page">Home</a></li>  
    <li><a href="news.html">News</a></li>  
    <li><a href="tickets.html">Tickets</a></li>  
    <li><a href="survey.html">Survey</a></li>  
  </ul>  
</nav>  
<a href="news.html">Read more<span class="visually-hidden">: Heat wave linked to  
temperatures</span></a>
```

3. Quick menu has no label and jumps to a new page when you arrow through it

CRITICAL · 3.2.2 On Input (A); 4.1.2 Name, Role, Value (A); 3.3.2 Labels or Instructions (A)

Found by

axe-core select-name; manual keyboard test

Where

The "QUICKMENU ---->" drop-down in the top banner (<select onchange="location.href = this.value;">).

Why it matters

The drop-down has no label, so a screen reader just says "combo box". Worse, keyboard users move through options with the arrow keys, and each arrow press fires onchange. In our test, one press of the down arrow navigated away to the first option's page, so keyboard users can never reach the other 14 options.

How to fix

Give the select a visible label and only navigate when the person presses a Go button. Better still, replace it with an ordinary list of links.

Before

```
<SELECT ONCHANGE="location.href = this.value;">
  <OPTION SELECTED>QUICKMENU ---->&gt;
  <OPTION VALUE=" ../offsite.html">Broadcasting
  ...
</SELECT>
```

After

```
<form action="go.html">
  <label for="quickmenu">City services</label>
  <select id="quickmenu" name="service">
    <option value="broadcasting">Broadcasting</option>
    ...
  </select>
  <button type="submit">Go</button>
</form>
```

4. Images are missing text alternatives, or have wrong or unhelpful ones

SERIOUS · 1.1.1 Non-text Content (A)

Found by

axe-core image-alt (33 images); manual review

Where

33 elements have no alt attribute. Most are layout spacers and borders (border_*.gif, marker2_*.gif, blank_5x5.gif). Meaningful images without alt: the weather icon (top_weather.gif, a sun behind a cloud) and the two right-column photos (teaser_right1.jpg, a singer on a dark stage; teaser_right2.jpg). The three news photos are CSS background images with title="image", so there is no text alternative at all. The hotline image shows "(1) 269 C-H-O-K-E" but its alt says "1234 56789". The logo's alt text is a 60-word visual description. Bullet images have alt="bullet".

Why it matters

Screen readers read out missing-alt images as file names ("border underscore left underscore top dot gif"), dozens of times on this page. Meanwhile, information that matters is lost or wrong: a blind visitor who wants artichoke advice would be given the wrong phone number.

How to fix

Decorative images: alt="" (or move them into CSS). Meaningful images: short alt text that gives the same information. Content photos: use with alt, not CSS backgrounds. Logo: alt="CityLights: your access to the city". Phone number: use real text.

Before

```


<div class="image" style="background:url(/img/panda-sm.jpg)" title="image"></div>
```

After

```

<p>Artichoke advice hotline: (1) 269 C-H-O-K-E</p>

```

5. Page language is not set

SERIOUS · 3.1.1 Language of Page (A)

Found by

axe-core html-has-lang; Lighthouse

Where

The <html> element has no lang attribute.

Why it matters

Screen readers use the language to choose pronunciation. Without it, a reader set to another language may read English text with the wrong accent and rules, making it hard to understand. Browser translation and spell-check also rely on it.

How to fix

Add the page language to the html element.

Before

```
<HTML>
```

After

```
<html lang="en">
```

6. No headings or page structure in the demo content

SERIOUS · 1.3.1 Info and Relationships (A); 2.4.6 Headings and Labels (AA)

Found by

Manual DOM review (0 heading elements in the demo); axe-core region and landmark-one-main (best practice)

Where

"Welcome to CityLights", "Elsewhere on the Web", the three news headlines, and the "Free Penguins" and "More City Parks" teasers all look like headings but are styled paragraphs, `<b>`, or `<font>` text. The layout is built with nested tables. There is no `<main>`, `<nav>`, or other landmark.

Why it matters

Screen reader users commonly move through a page by heading or landmark to find what they need. With no headings and no landmarks, they have to listen to the whole page from the top, including dozens of spacer images.

How to fix

Mark up visual headings as real headings in a logical order, use landmarks for the main areas, and replace layout tables with CSS layout.

Before

```
<p class="headline">Welcome to CityLights</p>
<TABLE WIDTH=780px ...> ... </TABLE>
```

After

```
<header>...</header>
<nav aria-label="Main">...</nav>
<main>
  <h1>Welcome to CityLights</h1>
  <section aria-labelledby="news-h"><h2 id="news-h">Latest news</h2>
    <h3>Heat wave linked to temperatures</h3> ...
  </section>
</main>
```

7. Content does not reflow on narrow screens or at high zoom

SERIOUS · 1.4.10 Reflow (AA)

Found by

Manual test in a 320 px wide viewport (equivalent to 400% zoom on a 1280 px screen)

Where

Whole page. Fixed-width tables (WIDTH=800px and 780px) force a page width of 800 px; at 320 px wide the page needs sideways scrolling to read every line.

Why it matters

People with low vision who zoom in, and anyone on a small phone, must scroll left and right for every line of text, which is slow and makes it easy to lose your place.

How to fix

Remove fixed pixel widths and use a responsive CSS layout that stacks columns on narrow screens.

Before

```
<TABLE WIDTH=800px ...>
```

After

```
.page { max-width: 50rem; margin: 0 auto; }  
.columns { display: flex; flex-wrap: wrap; gap: 1rem; }  
.columns > * { flex: 1 1 15rem; }
```

Inaccessible Home Page Before and After Demonstration

Improving a Web site using Web Content
Accessibility Guidelines (WCAG) 2.0



At 320 px wide the page is cut off and needs sideways scrolling.

8. Low-contrast text in the right-hand teaser headings

SERIOUS · 1.4.3 Contrast (Minimum) (AA)

Found by

axe-core color-contrast; Lighthouse

Where

"Free Penguins" and "More City Parks" headings: #41545D text on #A9B8BF background, a contrast ratio of 3.88:1. Normal-size text needs at least 4.5:1.

Why it matters

People with low vision or color-vision differences, and anyone reading on a phone in sunlight, may struggle to read these headings.

How to fix

Darken the text or lighten the background. For example, #1F2A30 on #A9B8BF is about 7.2:1.

Before

```
<TD BGCOLOR=#A9B8BF><FONT COLOR=#41545D ...><B>Free Penguins</B></FONT></TD>
```

After

```
<h2 class="teaser-title">Free Penguins</h2>
.teaser-title { background: #a9b8bf; color: #1f2a30; }
```

9. Text shown as images

MODERATE · 1.4.5 Images of Text (AA)

Found by

Manual review

Where

Navigation labels (nav_*.gif), the phone number (telefon_white_bg.gif), and the "CITYLIGHTS" banner text.

Why it matters

Text in images blurs when zoomed, can't be restyled by people who change fonts or colors to read comfortably, and can't be copied or translated. Logos are an allowed exception; the menu and phone number are not.

How to fix

Use real HTML text styled with CSS for navigation and the phone number.

Before

```

```

After

```
<a href="news.html" class="nav-link">News</a>
```

10. Link text that doesn't say where it goes

MODERATE · 2.4.4 Link Purpose (In Context) (A)

Found by

Manual review

Where

Two "Click here" links (Killer bees, Onions) and two "Read More..." links in the right column. The "Click here" links also open a new window without warning.

Why it matters

Screen reader users often pull up a list of links to scan a page. A list with "Click here, Click here, Read More..., Read More..." tells them nothing. An unexpected new window can disorient people, especially when the Back button stops working.

How to fix

Make the link text describe the destination, and say when a link opens a new window (or don't open one).

Before

```
Killer bees. <a href="../offsite.html" target="_blank">Click here</a>.
```

After

```
<a href="../offsite.html">Killer bee safety information (external site)</a>
```

11. Small adjacent links in the W3C wrapper (out of scope, noted for completeness)

MINOR · 2.5.8 Target Size (Minimum) (AA)

Found by

axe-core target-size

Where

The "Report" links in the W3C demo navigation, outside the CityLights page.

Why it matters

Small, tightly packed targets are hard to hit for people with tremors or limited dexterity.

How to fix

Not part of the audited page. Listed so the axe-core results reconcile with this report.

Method and limits

Automated scan

axe-core 4.13.0 via @axe-core/playwright, rule tags wcag2a/aa, wcag21a/aa, wcag22aa and best-practice, run on the live page in Chrome (headless), October 24, 2026.

Lighthouse

Lighthouse 12.8.2 accessibility category. The W3C site served an automated-traffic check page to Lighthouse's headless browser, so Lighthouse was run against a byte-for-byte local copy of the page and its images and stylesheets (fetched with wget) served from localhost.

WAVE methodology

Visual review of the same items WAVE highlights: alt text, structure, contrast, links, and form labels. The WAVE tool itself was not run.

Manual keyboard pass

Reasoned from the DOM, then confirmed with scripted keypresses in Chrome via Playwright: tab sequence from the start of the demo, Enter on a focused link, arrow key on the quick menu.

Reflow

Page loaded in a 320 × 640 CSS pixel viewport; document width measured (800 px).

Not covered

Screen reader listening session (not performed for this sample; findings that affect screen readers are inferred from the code), mobile devices, other pages of the demo.

Next steps

1. Fix the three critical issues first (items 1 to 3). They are small code changes.
2. Add alt text and the page language, and fix contrast (items 4, 5, 8).
3. Plan the structural rework: headings, landmarks, and a responsive layout (items 6, 7).
4. Re-test with a keyboard and a screen reader after fixes.

Not legal advice. This report describes how the page measured against WCAG 2.2 AA on the date tested. It does not certify compliance with any law.