

## 1. HW3 Scope and What Was Tested

HW3 expanded the HW2 email campaign prototype by improving button design, responsive hero behavior, single-column layout, background images behind text, updated image assets, and accessibility validation using professional tools.

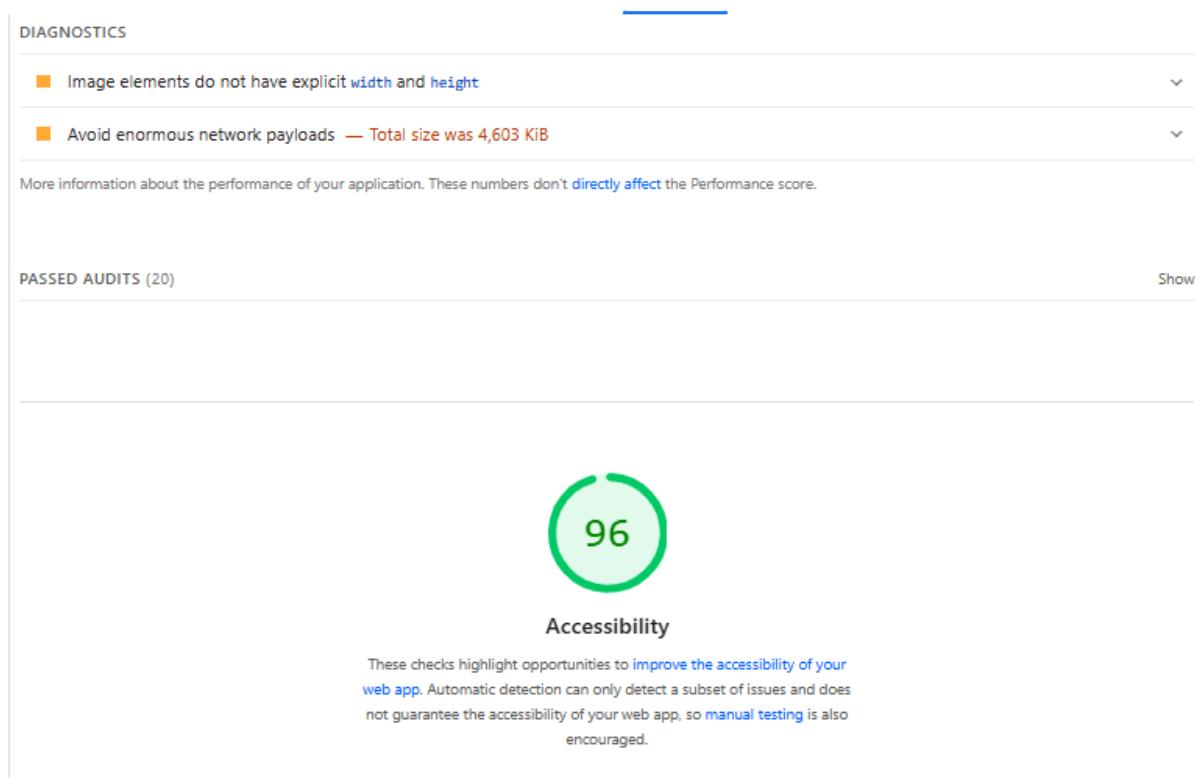
Pages Tested: index.html and signup.html

## 2. Accessibility Tools Used

### Chrome DevTools Lighthouse/PageSpeed Checker (Accessibility)

Pros: Built-in, fast scan, numeric score, highlights common WCAG issues. I used PageSpeed to check by using the pages url (the full report here:

<https://pagespeed.web.dev/analysis/https-m-ph484-github-io-comp584-hw3MK/7aw3aa214i?format=desktop>



Cons: Limited contextual understanding; automated checks only.

### axe DevTools

Pros: Auto-rule checks, actionable remediation guidance.

Cons: Automated; does not replace manual testing. Fixing one thing led to flags saying there were a lot more errors than before.

The screenshot shows a web browser window with the RageQuit Press website. At the top, there are three buttons: "Toggle Dark", "Toggle Reader", and "Toggle Images". Below them is a note: "Web preview only • Keyboard: Tab to buttons, Enter to toggle". The main content area features a logo of a video game controller with an 'X' on it, followed by the text "RAGEQUIT PRESS • EMAIL CAMPAIGN PREVIEW". A large heading reads "The Week in Gaming, With Zero Mercy". Below it, a sub-headline says "Issue #02 • Click any image to toggle "Evidence Mode."". Underneath is a banner with the text "RAGEQUIT PRESS" and "WEEKLY ROAST • ISSUE #02". It includes a "QRP" button with "TO TOGGLE GLITCH MODE" text and a "REVIEW" button. A note below the banner says "Click banner to toggle glitch mode.". To the right, the DevTools axe-core 4.11.0 audit results are displayed. The total issues count is 6. One specific issue is highlighted: "All page content should be contained by landmarks" (severity 5). The element location is "#body > div:nth-child(3) > div". The code snippet shown is: 

```
<div style="margin-top:8px; font-size:11px; line-height:16px; color:#6b7280; text-align:center;">  
    Web preview only • Keyboard: Tab to buttons, Enter to toggle  
</div>
```

. A note below says "To solve this problem, you need to fix the following:" followed by "Some page content is not contained by landmarks".

*(Some of the recommendations that axe gave were helpful. This was one of the issues that had to be fixed)*

## Manual Testing

Keyboard navigation validation, focus testing, skip link verification, reader mode testing.

The screenshot shows a dark-themed version of the RageQuit Press website. At the top, a white box contains the text "Cover shot (click to swap to "Evidence Mode")." Below it is another white box with the text: "Welcome to RageQuit Press, a video game journalism app that reviews games the way a 90's magazine did: brutal honesty, no agreements with companies to play nice, and what not to do in game design." In the main content area, a section titled "Featured Roast: "Galaxy Grind VII"" is shown. The text reads: "Marketing promised "freedom." The tutorial is 47 minutes long and I was actively rooting against the people I played as." At the bottom, there is a decorative footer bar featuring various game-related icons and the text "UI: Designed by someone who".

*(sometimes glitches happened and tests had to be done to troubleshoot, shown above with the dark mode css conflict)*

### 3. Accessibility Changes Implemented

#### Skip Link + Main Landmark

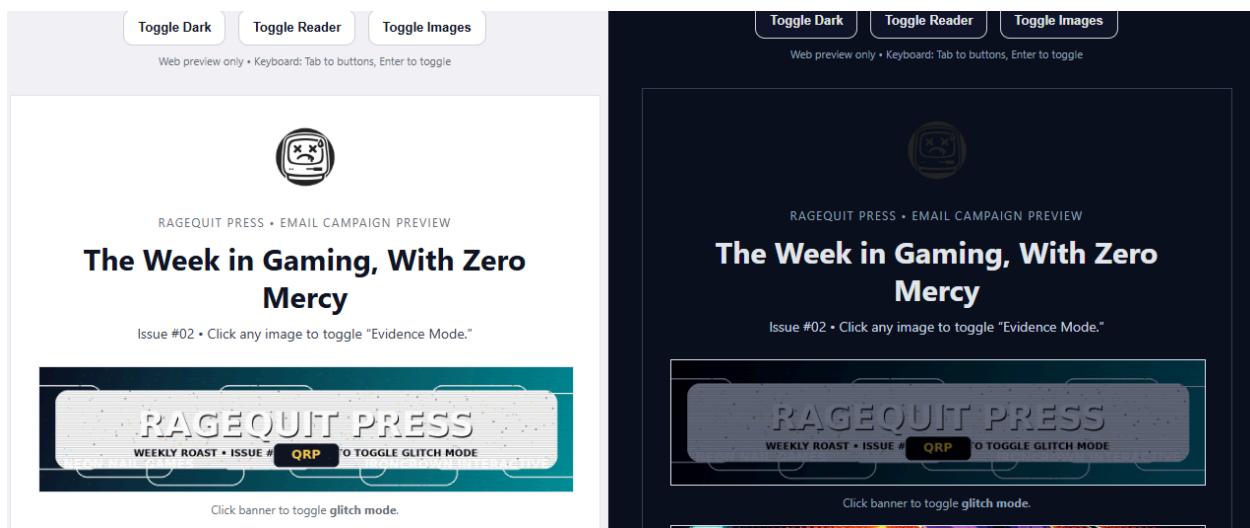
Added skip link and role='main' landmark to improve navigation for assistive technologies. Press tab to focus on main content

```
</head>

<body id="body" style="margin: 0 !important; padding: 0 !important; background-color: #f3f4f6;">
  <!-- Skip link improves keyboard navigation (especially for screen reader and power users) -->
  <a href="#main" style="position:absolute; left:-9999px; top:auto; width:1px; height:1px; overflow:hidden;">
    Skip to main content
  </a>
```

#### Dark Mode, Reader Mode, Skip Images Mode

User-controlled accessibility toolbar implemented. Dark mode required CSS overrides due to email-style inline backgrounds.

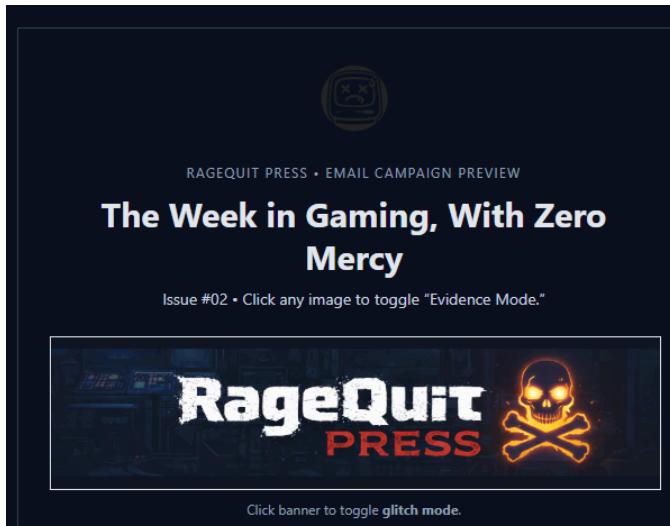


*(Light vs Dark mode - Banner changes too)*

*(reader-mode on the left, no-image mode on the right)*

## Dark Banner Fix

Implemented JavaScript-based banner swapping because banner is an <img>, not a CSS background.



*(banner changes in dark mode, too, and is mindful of keeping the 'darker' theme)*

## Button Accessibility Improvements

Implemented both bulletproof (table-based) and standard anchor buttons, centered with larger tap targets.

```

<!-- =====
PRIMARY CTA
Purpose:
- Clear conversion action (subscribe) in layout
- When this is made to work for real, this will go to an external landing page
Edit points:
- Change href to a real route later (signup.html / React route / etc.)
===== -->
<div style="margin-top:18px; text-align:center;">
  <a
    href="signup.html"
    id="ctaSubscribe"
    style="display:inline-block; padding:12px 18px; background-color:#111827; color:#ffffff; text-decoration:none; border-radius:6px; font-size:14px; line-height:14px">
      Subscribe for Roasts & Alerts
    </a>
  <div style="margin-top:10px; font-size:12px; line-height:18px; color:#6b7280;">
    (CTA now links to signup.html – a frontend-only landing page preview.)
  </div>
</div>

```

## Single-Column Layout

Converted feature section to stacked single-column format for reliability and accessibility.

Click badge to toggle ROASTED ⇄ GODLIKE (web preview).

### Quick Hits

Three headlines, one mood (this block is populated by a JS array of objects):

- Patch Notes Apology Tour** — “We fixed the bug where the game launched.”
- Indie Gem: “Wicker Dungeon”** — “Actually fun. Suspicious.”
- Sequel Syndrome** — “More of the same, priced like innovation.”

### Broadcast Channels: Reviews, Shorts, and Live “Game Breaking”

Written reviews stay mostly polite. The **real roasting** happens on video —where we can show the bugs, the jank, and the “feature-not-a-bug” moments in real time. Subscribers can opt in to **email alerts** when new uploads go live on any channel.

*(Before it would only turn to single-column mode if window was shrunk)*

## Form Accessibility (Signup Page)

Proper label-input pairing, clear CTA text, improved spacing, and validation structure.

**Subscribe for Roasts & Alerts**

(CTA now links to `signup.html` — a frontend-only landing page preview.)

## Subscribe / Email Alerts / Newsletter

Email address

you@example.com

What do you want delivered?

- Instant alerts (launch train-wrecks)
- Weekly newsletter (the polite yelling)
- Video upload alerts (YouTube/TikTok/Twitch)
- Deals & releases (so you can avoid them faster)

**Sign me up**

## 4. Findings Summary from Tools

Contrast issues in early dark mode resolved via override rules. Heading hierarchy validated. ARIA roles and labels confirmed compliant.

## 5. Accessibility Pros and Cons

Pros: Strong keyboard support, clear landmarks, adaptive viewing modes, improved button sizing.

Cons: JavaScript-dependent features not supported in real email clients; inline CSS complicates theming.

## 6. Connection to Senior Design — WCAG Framework

# Inclusion and Accessibility **Web Content Accessibility Guidelines**



My senior Design course covered WCAG principles: Perceivable, Operable, Understandable, Robust. These were taken into account when doing research and changing the design for HW 3 requirements. ([What is Web Accessibility \(WCAG\) and what are its guidelines? | Human Level](#))

## Quick reference list of WCAG guidelines



### Text alternatives

Provide text alternatives for any non-text content so that it can be interpreted in the way others need.



### Alternative content to audio and video

Offer alternatives for any information presented exclusively through audio or video.



### Adaptable

Content must be created so that it can be presented in different formats without losing information or its structure.



### Attacks

Do not design content that may cause seizures, such as the use of color contrasts in association with flash effects and rapid flickering of images.



### Distinguishable

Make it easier for your users to see or hear the content. This includes proper contrast between content and background.



### Navigability

Offer ways to help your users navigate, find content and determine where they are within your website.



### Accessible via the keyboard

Implement the various functionalities so that they can be accessed from a keyboard.



### Readability

Make sure that the text content is readable and easily understandable for your users.



### Enough time

Allow plenty of time for your users to read or use the content properly.



### Autocorrection or data entry assistance

Help your users avoid and correct mistakes they may make when interacting with your website.



### Compatibility

Optimize compatibility with current and future browsers by including assistive technologies.



### Predictability

Make your website appear and function in a predictable way to your users.



### Data entry

Enable your users to use different types of input devices in addition to the keyboard.

Web accessibility | [humanlevel.com](http://humanlevel.com)



(the full document, separated from comp 491 slides screenshot)

### Perceivable

Dark mode, reader mode, alt text, contrast fixes.

### Operable

Keyboard support for toggles and navigation.

### Understandable

CTA labels, logical heading hierarchy

## **Robust**

Semantic HTML, ARIA roles, form label structure.

## **7. Influence of External Sources (ByteByteGo + Medium)**

Research from ByteByteGo and Medium influenced architecture planning and future stack decisions. These resources were recommended by my senior project professor.

### **Why MUI Would Be Useful Later**

Centralized theming, built-in accessible components, improved dark mode implementation, standardized focus behavior.

### **Why Django Is Relevant for Accessibility**

Server-side validation, accessible error binding, secure form processing, scalable structure.

## **8. Conclusion**

HW3 requirements were satisfied and used some extra interactivity in the campaign. Accessibility tools were applied, WCAG principles followed, and a roadmap for scalable accessibility (MUI + Django) established.