



Usability Testing - BDES - 2504 - ONA

GO TRAIN

ACCESSIBILITY AUDIT

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Table of Contents:

1. Introduction	02
2. Process Overview	03
3. User Goals/ Tasks	04
4. Findings	05
5. Recommendations	13
6. Overall Accessibility Rating	14
7. Challenges	14
8. References & Appendix	15

Introduction:

Choice of Website:

To conduct this accessibility assessment, I chose the official GO Transit website (gotransit.com). I chose this website because GO Transit is a major public transportation provider for the Greater Ontario metropolitan area, serving millions of people annually (including people with disabilities).

Therefore, this website is highly interactive, and I believe this assessment is necessary and important to identify areas where the website is not well-suited for people with disabilities. This will allow me to make suggestions for improvement, enhancing the experience and satisfaction of this vulnerable group.

Business Goals:

The primary business objective of the GO Transit website is to facilitate seamless travel within the region. To achieve this, the website needs to provide and support users in:

- Accurately plan trips across multiple types of transport.
- Accessing real-time service updates to make informed travel decisions.
- Increasing e-ticket sales and PRESTO card usage rates.

As an agency under the Ontario provincial government (Metrolinx), accessibility is not optional, and GO Transit has an obligation to ensure its website is accessible to all citizens, regardless of their physical or cognitive abilities.

User & Audit Goals:

- Evaluate keyboard accessibility and screen reader compatibility.
- Evaluate colour contrast and information clarity.
- Identify system errors that prevent users from completing their tasks.

Process Overview:

The audit process is a combination of automated scanning and manual testing. It begins with automated testing using WebAIM WAVE (Web Accessibility Evaluation Tool). This phase allows for the rapid identification of easily detectable errors, such as colour contrast issues, website hierarchy problems, or missing alternative text for images or links. Using this tool, I was able to establish WCAG compliance levels before moving on to the manual assessment phase.

In phase 2, manual assessment is equally important to evaluate whether the website is truly user-friendly for people with disabilities. I used only a keyboard to navigate the entire website using **Tab**, **Shift + Control + Command Space**, or **arrow** keys to identify common keyboard errors. To simulate the experience of a visually impaired person, I also used the VoiceOver screen reader in combination with reducing the screen brightness to zero. During this phase, I would monitor the completion time, the number of keystrokes required, and the level of understanding of important information for each task.

User Goals/ Tasks:

The audit will focus on two key tasks:

- **Task 1:** Trip Planning. Users will plan a trip from Union Station to Hamilton Go Center, selecting the earliest train, a round-trip ticket, and travelling only by train. This scenario will test tasks such as searching for departure and arrival points; selecting ticket types; checking departure and arrival times, as well as the modes of transport.
- **Task 2:** Service Update Testing. Users will check for any delays occurring on their route. This scenario will help assess how the website communicates time information, ensuring that important alert information is communicated to customers with poor eyesight or colour blindness, rather than relying solely on visual cues like colored icons.

Findings:

1) User Task 1 - Trip Planning:

Evaluation:

Metric	Result
Time to Complete	10 minutes, 54 seconds
Success Rate	70% (Completed with workarounds)
Number of Clicks/Tabs	239 click
Ease of Use (1-5)	3/5 (Moderate Difficulty)

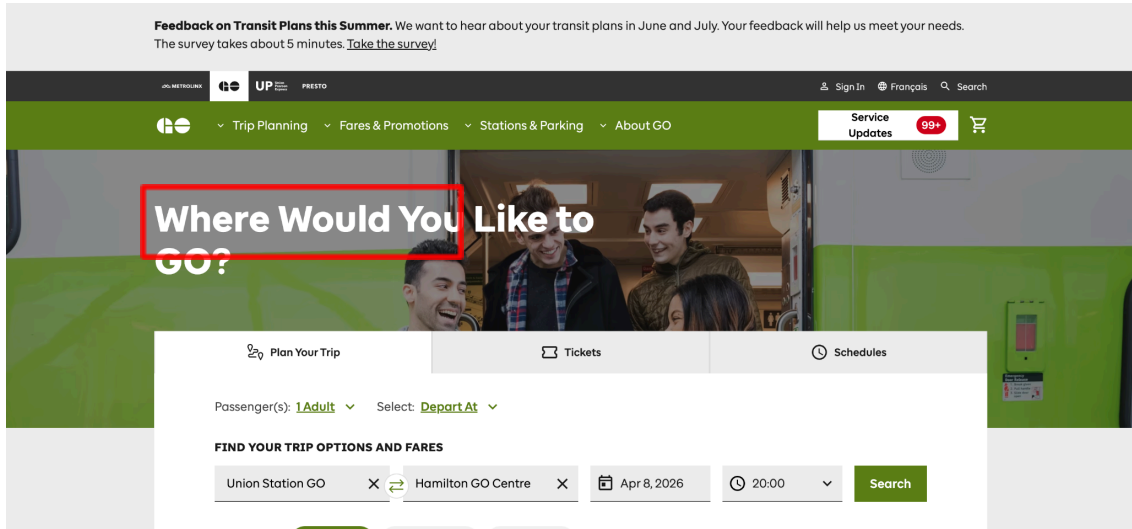
Finding 1: Poor Contrast on Primary Headings (WCAG 1.4.3: Contrast Minimum)

The colour contrast of the title "Where Would You Like to GO?" is poor and blends into the background image (the words "Where would you like to" are the same colour as the train's paint).

The screenshot shows the WAVE web accessibility evaluation tool overlaid on a website. The tool's interface includes a 'Contrast' section with the following details:

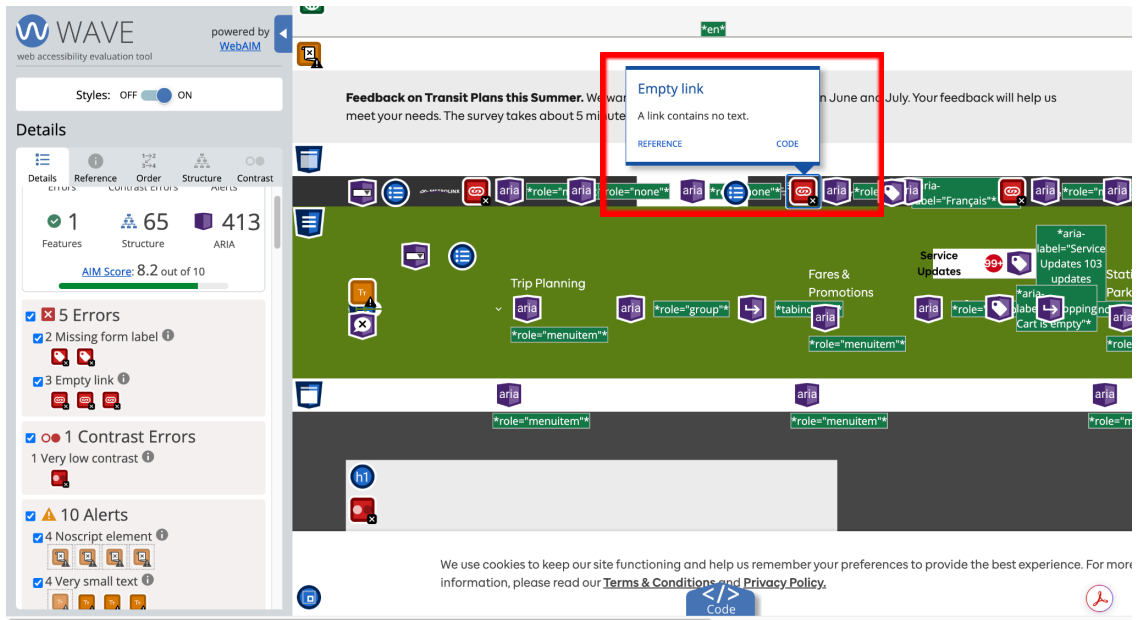
- Contrast Ratio: 1.17:1
- Text Size: Large
- WCAG AA: Fail
- WCAG AAA: Fail

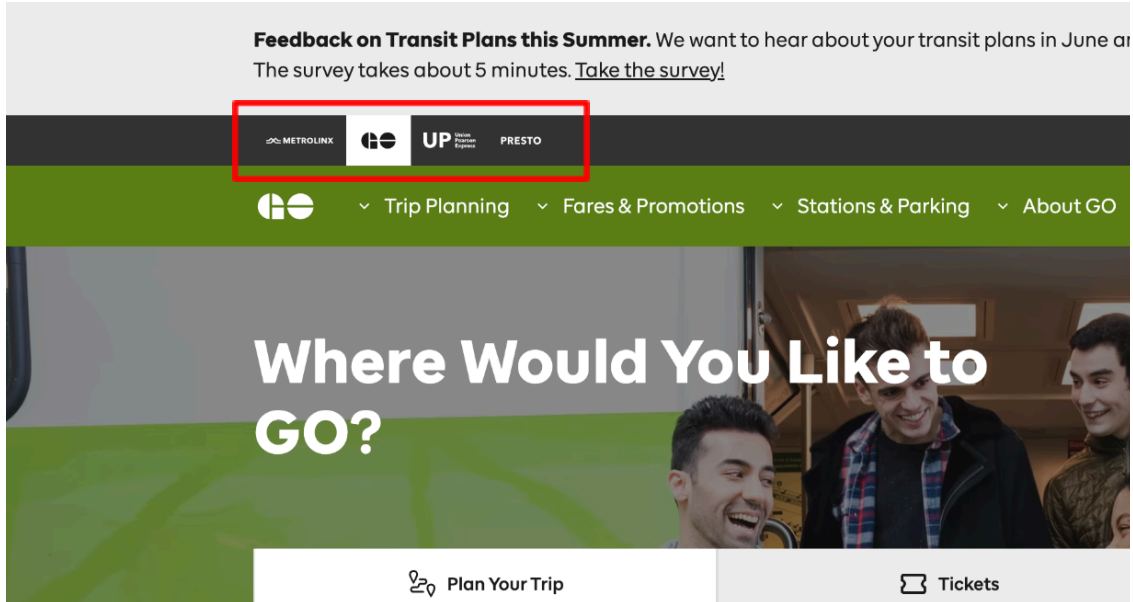
The website content shows a navigation menu with 'Trip Planning', 'Fares & Promotions', 'Stations & Parking', and 'About GO'. Below the navigation is a search bar with the text 'Where Would You Like to GO?' highlighted in a red box. The search bar also contains 'Plan Your Trip', 'Tickets', and 'Schedules' buttons. Below the search bar is a form with 'Passenger(s): 1 Adult', 'Select: Depart At', and a 'Search' button. The website footer contains a cookie notice and a 'Code' button.



Finding 2: Unannotated Link Purposes (WCAG 2.4.4: Link Purpose)

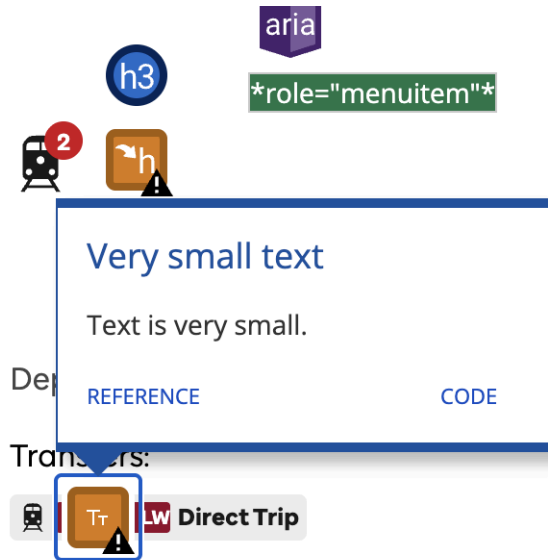
The links here are not texted (annotated), meaning that when using VoiceOver, users will not know what each link is or where it leads.





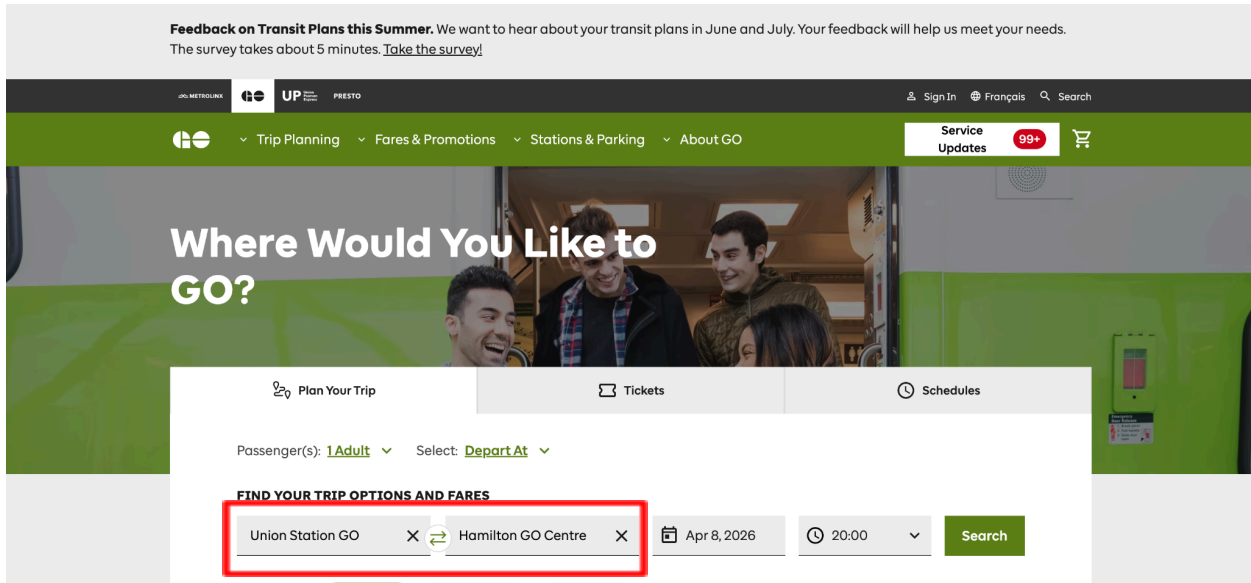
Finding 3: Small Text Size for Critical Route Details

The words "Transfer" and "Direct trip" are very small, making them difficult for people with poor eyesight to see or for average users to overlook.



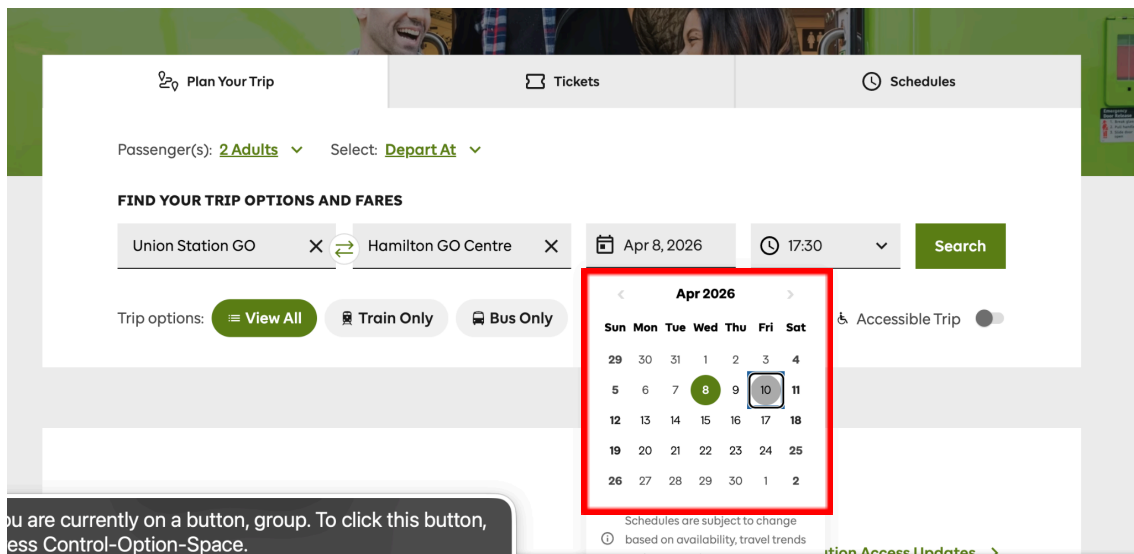
Finding 4: Missing Form Labels for Location Fields

VoiceOver failed to read that this is the departure location field and this is the destination location field, causing confusion for users who didn't know which field to fill in.



Finding 5: Incomplete Auditory Feedback in Datepicker

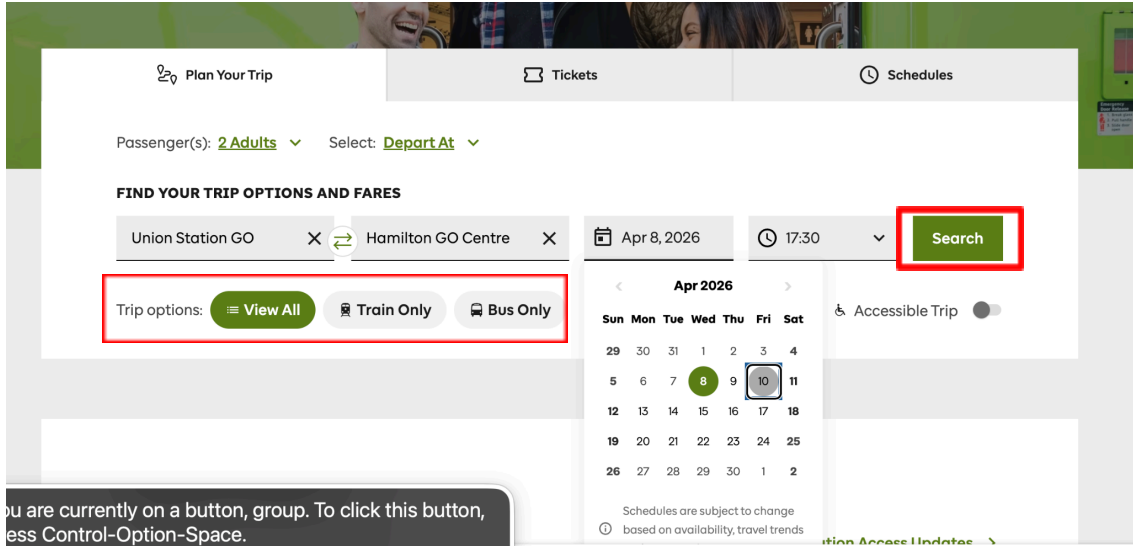
Voiceover only mentions the day, month, and year, but not the day of the week. This can be a bit confusing for users, as they can select a date but won't know what day of the week it is. For example, what day of the week would April 21, 2026, be?



You are currently on a button, group. To click this button, press Control-Option-Space.

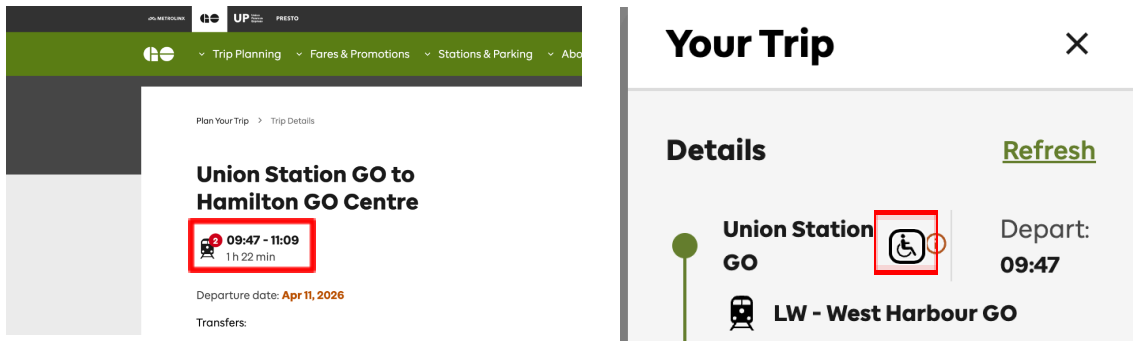
Finding 6: Illogical Focus Order

VoiceOver's reading sequence is not logical. Instead of mentioning trip options (including train only, bus only) first, and then search, it's the other way around: users will then choose search directly, skipping the trip options.



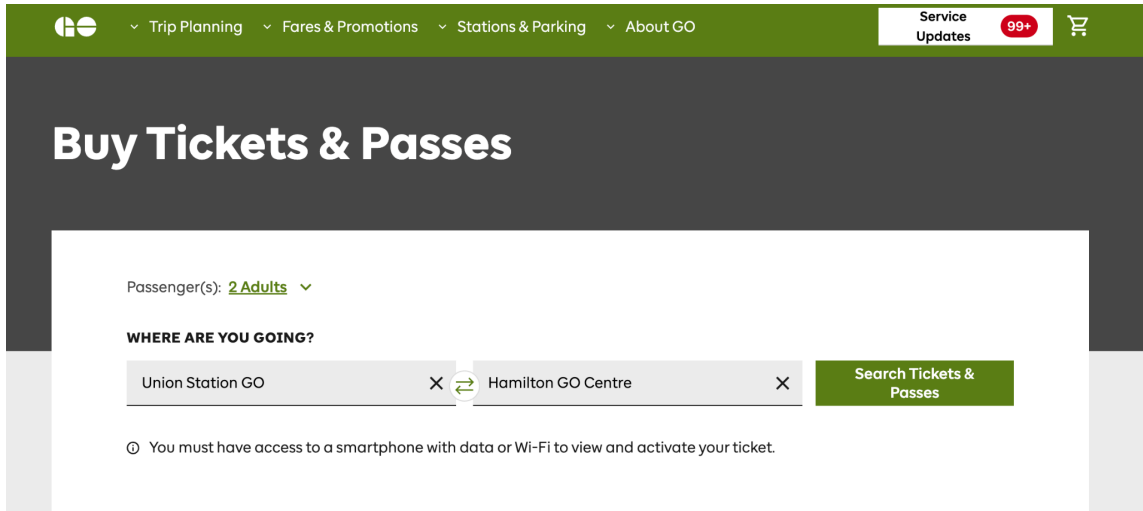
Finding 7: Non-Descriptive Alternative Text for Functional Icons

The alt text for the train icon, the line number icon, or the wheelchair icon is unclear and simply says "image".

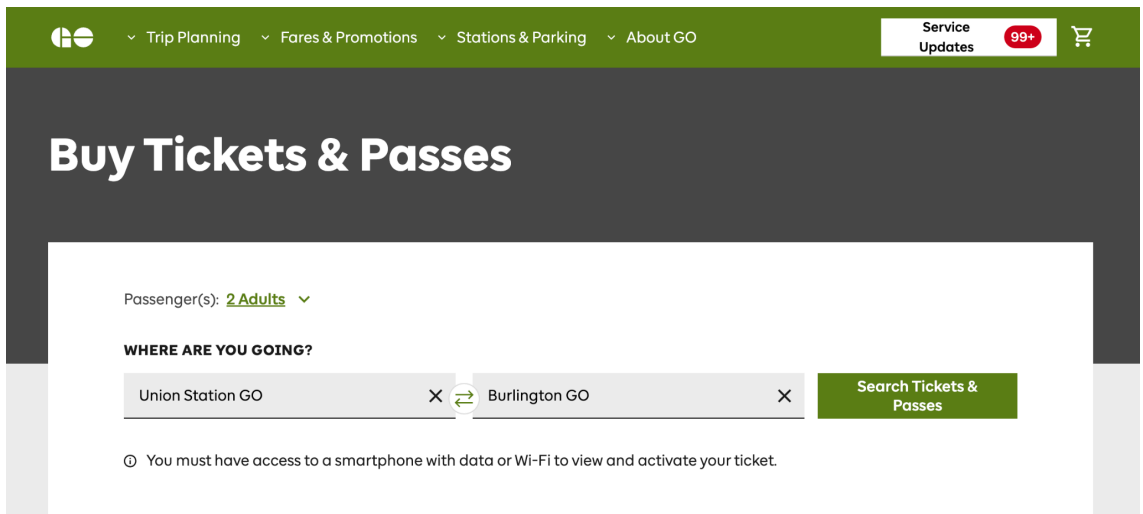


Finding 8: Lack of Error Prevention / Summary on Checkout

When on the checkout page, VoiceOver doesn't mention (repeat) the departure and arrival locations for the user to check before payment; instead, it only reads them aloud in the text field.



For example, a user wants to travel from Union to Hamilton, but for some reason, the destination changes to Burlington. Because VoiceOver doesn't mention this, the user won't realize they've selected the wrong destination.



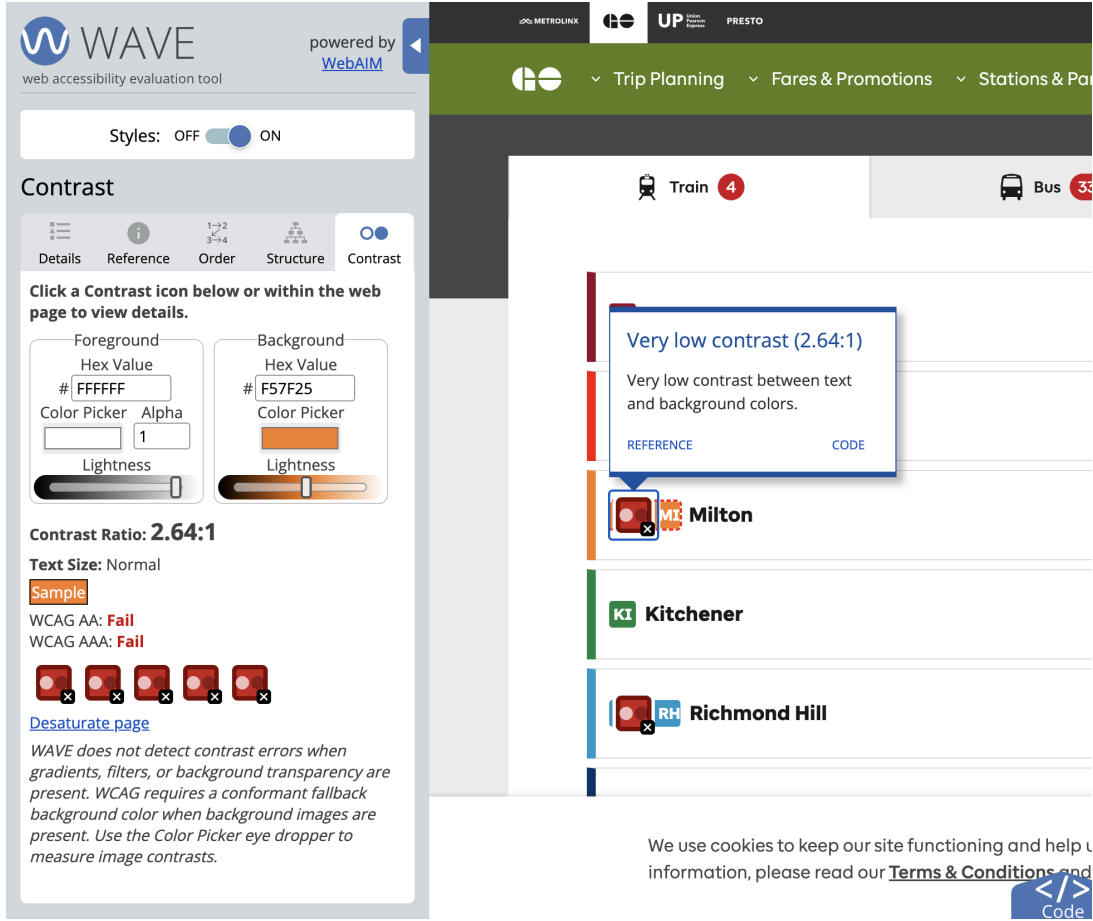
2) User Task 2 - Service Update Testing:
Evaluation:

Metric	Result
Time to Complete	7 minutes, 22 seconds
Success Rate	100%
Number of Clicks/Taps	75 clicks

Ease of Use (1-5)	5/5 (Not Difficult)
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Finding 9: Poor Contrast on Railway Line Symbols (WCAG 1.4.3: Contrast Minimum)

The colour contrast of the railway line symbols is very poor (LE, MI, and RH lines).



Finding 10 & 11: Missing Alt Text for Bus and Station Icons - Unexplained Numerical Badges

There is no alt text for the bus and station icons. Additionally, the number representing the number of updates is not clearly explained. This could be confusing for visually impaired users.

Train **3**
 Bus **33**
 Station **62**

1 Oakville GO	View Updates ▾
3 Aurora GO	View Updates ▾
1 Mount Pleasant GO	View Updates ▾
1 Pickering GO	View Updates ▾
2 Guelph Central GO	View Updates ▾

Train **3**
 Bus **33**
 Station **62**

3 88 - Peterborough / Oshawa	View Updates ▾
1 15 - Brantford / Burlington	View Updates ▾
3 56 - Oshawa / Oakville	View Updates ▾
2 29 - Guelph / Mississauga	View Updates ▾
1 47 - Hamilton / Hwy 407 Terminal	View Updates ▾

Prioritized Recommendations:

High Priority (Fix Immediately)	Medium Priority (Fix Soon)	Low Priority (Nice to Have)
<p>Label the Search Box: so VoiceOver will tell the user which box is for departure and which is for destination.</p>	<p>Improve Colour Contrast: Make the text darker or the background lighter for the main title and the railway line badges so they are easier to read.</p>	<p>Make Important Text Bigger: Increase the font size for the words "Transfer" and "Direct trip" so users don't miss them.</p>
<p>Fix Checkout Summaries: The checkout page needs to clearly read the user's final trip details out loud before they hit the "Pay" button so they can catch mistakes.</p>	<p>Update Icon Descriptions: Change the alt-text on the wheelchair and vehicle icons.</p>	
<p>Fix the Focus Order: Change the code so the screen reader reads the filter options ("Bus only") before the "Search" button.</p>	<p>Add Context to Links and Numbers: Make sure links describe where they go, and make VoiceOver read "3 updates" instead of just "3."</p>	
	<p>Add Days of the Week: Update the calendar widget so the screen reader announces the day of the week, not just the date.</p>	

Overall Accessibility Rating & Challenges:

1) Overall Rating: Functional but Needs Improvement

The GO Transit website is generally usable, but it still has several issues that slow down the user experience. I was able to successfully complete both of my tasks (booking a ticket and checking updates), so the site isn't completely broken for disabled users. However, the missing form labels, weird reading orders, and bad colour contrast make the process much harder and more frustrating than it needs to be. It works, but it needs a lot of improvements to be accessible and stress-free.

2) Challenges Met:

The hardest part of this exercise was reducing the screen brightness to the minimum and relying on a screen reader. As a user with normal vision, I had never known about this feature, so I often overlooked unclear labels because I could just look at the screen to understand.

Relying only on hearing showed me how confusing a website can become when developers forget to add appropriate text descriptions. I had a lot of trouble with keyboard input because I wasn't used to using websites this way, causing me to frequently press the wrong keys and forcing me to redo things multiple times.

Indeed, it was frustrating, but it really taught me the difference between a technically "working" website and a truly user-friendly one.

Accessibility Audit - Service Update.

Clicks:

Time : 07:22:77.

- Problems:

- No Alt-text for bus - station image
- The number of updated services is not read.

