

# Crossrail Learning Legacy (a11y<sup>1</sup> report)

## [Summary](#)

[Pages we've tested](#)

[Outside of testing scope](#)

[Recommendations](#)

[Issues](#)

[Moving forward](#)

## [How we create this report](#)

[Methodology](#)

[Lighthouse report](#)

[Performance](#)

[Accessibility](#)

[Best practices](#)

[SEO](#)

[Accessibility report](#)

## Summary

Using automated and manual testing we have reviewed your high-performing pages as per Google Analytics (GA), from 17 June 2020 to 17 August 2020.

Your Accessibility Score, across all the pages we tested was: **89 (0-100)**. This is in the upper range where we say that a website has, "**Room for improvement**". Under Recommendations, we go into more details about the issues and how to address them.

## Pages we've tested

These pages were tested using automated tools. Ordered here by their number of GA Page views (highest to lowest).

---

<sup>1</sup> From the Bureau of Internet Accessibility: "a11y" is an abbreviation for "accessibility" that is more compact for the character limits on social media. The "11" in the middle stems from conventions in software engineering and Information and Communication Technology that shortens long words by substituting middle letters with the number of middle letters instead. There are 11 letters between the "a" and the "y," so accessibility becomes a11y.

- [learninglegacy.crossrail.co.uk/](https://learninglegacy.crossrail.co.uk/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/project-and-programme-management/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/project-and-programme-management/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/project-and-programme-management/programme-and-control-reporting/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/project-and-programme-management/programme-and-control-reporting/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/engineering/civils/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/engineering/civils/)
- [learninglegacy.crossrail.co.uk/documents/](https://learninglegacy.crossrail.co.uk/documents/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/)
- [learninglegacy.crossrail.co.uk/documents/earthing-and-bonding/](https://learninglegacy.crossrail.co.uk/documents/earthing-and-bonding/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/project-and-programme-management/programme-and-control-reporting/risk-management/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/project-and-programme-management/programme-and-control-reporting/risk-management/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/engineering/mep-engineering/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/engineering/mep-engineering/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/engineering/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/engineering/)
- [learninglegacy.crossrail.co.uk/documents/integration-testing-commissioning-crossrail/](https://learninglegacy.crossrail.co.uk/documents/integration-testing-commissioning-crossrail/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/project-and-programme-management/business-case/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/project-and-programme-management/business-case/)
- [learninglegacy.crossrail.co.uk/documents/appraisal-business-case-crossrail/attachment/2003-preferred-route-jpg/](https://learninglegacy.crossrail.co.uk/documents/appraisal-business-case-crossrail/attachment/2003-preferred-route-jpg/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/project-and-programme-management/deliveryexecution-strategy/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/project-and-programme-management/deliveryexecution-strategy/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/procurement/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/procurement/)
- [learninglegacy.crossrail.co.uk/documents/crossrail-project-application-of-bim-building-information-modelling-and-lessons-learned/](https://learninglegacy.crossrail.co.uk/documents/crossrail-project-application-of-bim-building-information-modelling-and-lessons-learned/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/health-and-safety/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/health-and-safety/)
- [learninglegacy.crossrail.co.uk/documents/the-railway-integration-approach-at-crossrail/](https://learninglegacy.crossrail.co.uk/documents/the-railway-integration-approach-at-crossrail/)
- [learninglegacy.crossrail.co.uk/documents/managing-schedule-risk/](https://learninglegacy.crossrail.co.uk/documents/managing-schedule-risk/)
- [learninglegacy.crossrail.co.uk/authors/](https://learninglegacy.crossrail.co.uk/authors/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/information-management-and-technology/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/information-management-and-technology/)
- [learninglegacy.crossrail.co.uk/documents/corrosion-control-tunnel-environment/](https://learninglegacy.crossrail.co.uk/documents/corrosion-control-tunnel-environment/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/health-and-safety/health-and-safety-improvement/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/health-and-safety/health-and-safety-improvement/)
- [learninglegacy.crossrail.co.uk/learning-legacy-themes/engineering/integration/](https://learninglegacy.crossrail.co.uk/learning-legacy-themes/engineering/integration/)
- [learninglegacy.crossrail.co.uk/documents/installation-of-rigid-overhead-catenary-in-crossrail-tunnels/](https://learninglegacy.crossrail.co.uk/documents/installation-of-rigid-overhead-catenary-in-crossrail-tunnels/)

We were not able to test some content, which have been listed separately under “Outside of testing scope”.

## Outside of testing scope

We didn’t test your external documents, such as PDFs. External documents are often filled with issues caused by the authoring tools which don’t allow the editor (you) to create accessible documents in the first place.

We recommend all our clients replace their external documents with web pages instead as these can be managed, updated and printed a lot easier than any PDF.

## Recommendations

Reviewing the results from the automated tests and our manual tests, we've combined all of them into the following issues:

### Issues

The [WCAG conformance levels A, AA, and AAA](#) tell us how bad an issue is; where **A is the worst**, i.e. some people will find it impossible to use your website; to AAA, i.e. some people will find it somewhat difficult to use your website.

Many websites must comply with **level AA** by law. [Understanding new accessibility requirements for public sector bodies](#).

**The following issues will require development work to be addressed.**

Issue description	Reference	Level
Images-as-links must have texts. Example: <a href="https://learninglegacy.crossrail.co.uk/">https://learninglegacy.crossrail.co.uk/</a> (Learning Legacy image links)	WCAG 1.1.1	A
Images must have a text alternative or presentational role. Example: <a href="https://learninglegacy.crossrail.co.uk/">https://learninglegacy.crossrail.co.uk/</a> (Rating stars)	WCAG: 1.1.1	A
Form fields must have labels describing the content. Example: <a href="https://learninglegacy.crossrail.co.uk/">https://learninglegacy.crossrail.co.uk/</a> (Global search)	WCAG: 1.3.1	A
Text elements must have sufficient contrast ratio Example: <a href="https://learninglegacy.crossrail.co.uk/">https://learninglegacy.crossrail.co.uk/</a> (White-on-blue)	WCAG 1.4.3	AA
Frames must have title attributes describing the content. Example: <a href="https://learninglegacy.crossrail.co.uk/learnin">https://learninglegacy.crossrail.co.uk/learnin</a>	WCAG: 2.4.1	A

<a href="#">g-legacy-themes/project-and-programme-management/programme-and-control-reporting/</a> (Youtube embeds)		
All IDs must be unique in the DOM.  Example: <a href="https://learninglegacy.crossrail.co.uk/documents/">https://learninglegacy.crossrail.co.uk/documents/</a> (Document search)	WCAG 4.1.1	A
All links must have texts.  Example: <a href="https://learninglegacy.crossrail.co.uk/">https://learninglegacy.crossrail.co.uk/</a> (Menu toggle, on mobile)	WCAG 4.1.2	A
Form fields must have labels.  Example: <a href="https://learninglegacy.crossrail.co.uk/">https://learninglegacy.crossrail.co.uk/</a> (Global search)	WCAG: 4.1.2	A
Links must have destinations.  Example: <a href="https://learninglegacy.crossrail.co.uk/">https://learninglegacy.crossrail.co.uk/</a> (Off-canvas close overlay)	WCAG 4.1.2	A

Our automated tests found 2,645 errors across 25 pages. On average, that's 105.8 errors per page.

## Moving forward

Due to the sheer volume of pages on your website we currently cannot audit all pages. For a more extensive report we recommend commissioning the [Digital Accessibility Centre \(DAC\)](#) to do an extensive report.

It's important to note that this report and its findings are not comprehensive of your entire website and its potential accessibility issues. **Automated testing can only catch ~30%** of all accessibility issues and thorough manual testing requires a deep understanding of websites and assistive technology.

# How we create this report

## Methodology

We use a combination of automated and manual testing because automated testing can only catch ~30% of all accessibility issues and whilst tools are constantly being improved, there will always be a need for people to test websites as well.

We use Google Analytics to determine your key high-performing pages.

We then use Lighthouse to test your website's general health and Pa11y for a more detailed set of accessibility tests.

Your Lighthouse Accessibility score determines your Accessibility score (0-100) and our detailed Pa11y analysis shows the details of the issues that are present on your site.

After giving you the summary report we highlight our recommendations.

## Lighthouse report

Lighthouse runs a number of different tests to determine your website's general health and grades these across a few different dimensions.

For scoring, higher is better and we group the scores into the following broad descriptions; **90-100 (Good)**, **50-89 (Room for improvement)** and, **0-49 (Critical)**.

## Performance

These checks test how long a user has to wait before they can perceive or interact with your website. Studies show that 40% of people will abandon a website that takes more than 3 seconds to load.

## Accessibility

These checks highlight opportunities to improve the accessibility of your website. Only a subset of accessibility issues can be automatically detected so manual testing is also encouraged.

## Best practices

Check to see if your following industry best practices, such as allowing users to paste into password fields.

## SEO

These checks ensure that your page is optimized for search engine results ranking. There are additional factors Lighthouse does not check that may affect your search ranking.

## Accessibility report

Pa11y runs a sequence of automated tests; such as detecting if your page can be read with Assistive Technology, like a screenreader, or works well with high-contrast mode enabled.

There are 20 criteria in total, against which we can test. Depending on the site, we may not test all of them, for example, testing for the correct table structure won't pass a site which doesn't have tables at all.

**Your Lighthouse score becomes your Accessibility Score.**