ANet CUI WCAG Audit

Phase 1 ~ 3

12/2/22

## Scope of the tested product

The mandate of this audit covers the native desktop browser experience limited to audience view (including responsive), of the test pages identified within the Tested Product section below.

#### Natural languages in scope:

* English
* French (unless otherwise stated in the specific issue, every issue applies to both the English and each corresponding French page)

## Conformance target

standards/legislation to meet or exceed, and at what level.

#### Minimum standard (and level) targeted by this audit: W3C WCAG 2.1 Level AA, thus meeting or exceeding the WCAG technical standards designated by:

* both W3C WCAG 2.0 AA and W3C WCAG 2.1 AA
* U.S. Revised Section 508, and thus, by precedent, complies with known legal interpretations of the Americans With Disabilities Act (ADA) as it applies to online products
* EN 301 549 (2018) and (2019)
* Treasury Board of Canada’s Guideline on Making Information Technology Useable by All
* UK’s Public Sector Bodies (Websites and Mobile Applications) Accessibility Regulations 2018 (PSBAR), and possible post-Brexit engagement with aspects of the European Accessibility Act
* Australia’s DDA (Disability Discrimination Act, 1992)
* consideration of anticipated regulations related to Government of Canada’s Accessible Canada Act
* Ontario’s AODA
* Existing and anticipated regulations in other Canadian provinces, such as the Accessibility for Manitobans Act (AMA), Nova Scotia Accessibility Act (2017), British Columbia Accessibility Act (Bill M 219, 2018)
* Israel’s Equal Rights for Persons with Disabilities law / Standard 5568
* Korea’s KWCAG (all versions)
* Norway’s UU Section 14
* Japan’s JIS X 8341-3, JIS X 3241-3
* New Zealand’s NZG WS 2.0

## Accessibility support baseline

#### ACTIVE Network has declared support for only these browser/platform combinations:

* Apple Safari (current version) on macOS, with and without VoiceOver
* Google Chrome (current version) on Windows and macOS
* Microsoft Edge on Windows 10 (latest release)
* Mozilla Firefox (current version) on Windows

## Issue status legend

Development team: As you resolve each issue, please type a status code immediately before the word “Recommendation” within this very Google Doc (if you don’t have full editing rights, please notify us so we can arrange that for you). Then, if you desire a re-audit (and thus potential certification), notify berman@davidberman.com once you’ve done all you are going to do, and it has been deployed to where we can see it (including the URL of where the new product to test is located). When there is nothing but questions, we can move forward with any next steps (whether it be further coaching, clarification, or re-audit).

* [F?] dev team not finished fixing … dev team wants further guidance from Team Berman and has indicated what part of the recommendation they find unactionable or unclear.
* [F0] dev team has decided never to fix this (or to have Team Berman no longer audit it within this engagement).
* [F1] dev team thinks they have fixed, using a technique recommended by Team Berman.
* [F2][how fixed] dev team thinks they have fixed, using a different technique and that technique is [\_\_\_\_\_\_\_\_\_\_\_].
* (e.g., “[F2] We used an aria-describedby attribute instead of aria-label because it worked better for bilingual rollout”)
* [F3][how fixed] dev team not sure if they have fixed or not, and so needs Team Berman to make a determination.
* (e.g., “[F3] We tried doing what you said, but we weren’t certain what a flaboda is, and we didn’t have on iOS running Chrome to test on”)
* ~~Strikethrough through the entire issue (by Team Berman only)~~: indicates that Team Berman agrees the issue has been resolved.
* Google Doc Comment thread: started by Team Berman, if the issue is still an issue.
* [NEW] (by Team Berman only, if new issue discovered during a re-audit, uses lettering to preserve previous audit numbering)

## Summary for phase 1 ~ 3

Total issues: 125

Front end issues: 118Back end issues: 7

| Steps | [F0] Never to fix | Total number | Completed state |
| --- | --- | --- | --- |
| Phase 1 | 3 | 31 | ✅ All fixed |
| Phase 2 | 1 | 34 | ✅ All fixed |
| Phase 3 | 1 | 56 | ✅ All fixed |
| PDF |  | 4 | ✅ All fixed |

## Common Issue - [ANE-137859](https://jirafnd.dev.activenetwork.com/browse/ANE-137859)

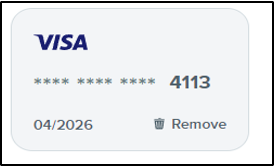
* Issue

The saved credit card has a “Remove” action that fails to identify what card will be removed. If multiple cards existed on the account, no differentiation would exist between remove actions.

* Recommendation

Include the type of card or another unique identifier of the card being removed as part of the label for the remove action.

### Solution



// Before  
"app.modules.myAccount.SavedCards.remove": "Remove",  
// After  
"app.modules.myAccount.SavedCards.removeAriaLabel": "Remove {cardType} with last 4 digits {lastFourDigits}",

#### Note:

The same kind of issues:

* Transaction list (remove, edit)
* The Date section of the reservation process (remove)

## Common Issue - [ANE-137868](https://jirafnd.dev.activenetwork.com/browse/ANE-137868)

* Issue

The page titles for all pages fail to adequately describe the page content stating only “Online Services”.

* Recommendation

Ensure that the page title conveys the primary topic of the page as well as the site name (e.g., “Home - Online Services | City of Ottawa”).

### Solution

// xxxRoute.js  
pageHeaderOptions: {  
 tabName: pageTitle  
},  
// Master.js  
componentDidUpdate(prevProps) {  
 this.syncDocumentTitle();  
}  
syncDocumentTitle = () => {  
 const { configurations } = this.context;  
 const route = this.getCurrentRoute();  
 if (route) {  
 const { pageHeaderOptions = {} } = route;  
 const pageTitle = pageHeaderOptions.tabName || pageHeaderOptions.title;  
 const tabWording = configurations.get('public\_url\_tab\_wording');  
 const finalTabName = combineTabName(pageTitle, tabWording);  
 document.title = finalTabName;  
 }  
}

## Common Issue - [ANE-140296](https://jirafnd.dev.activenetwork.com/browse/ANE-140296)

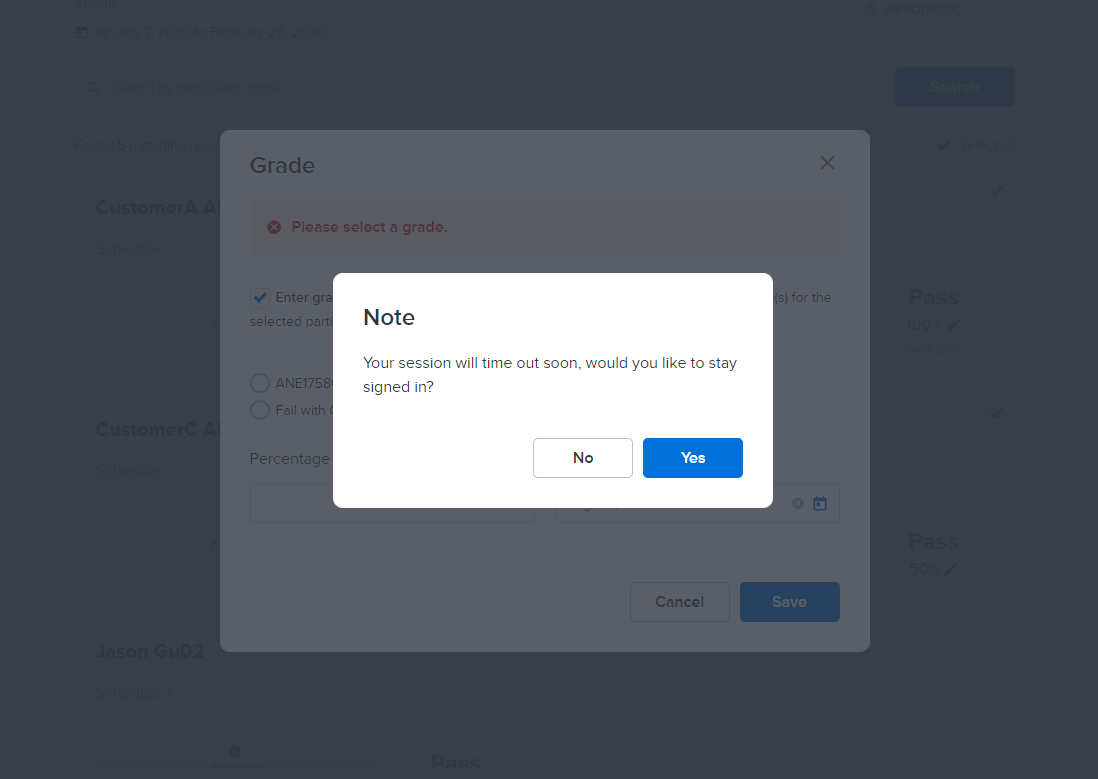
* Issue

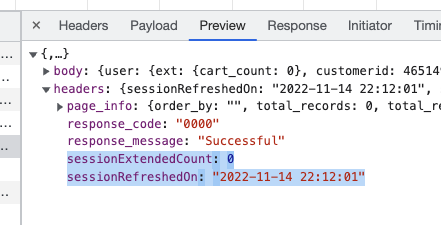
The timeouts fail to offer the extension of time required by this success criterion.

* Recommendation

Provide users with the opportunity to extend the timeout duration by up to ten times the original amount.

### Solution





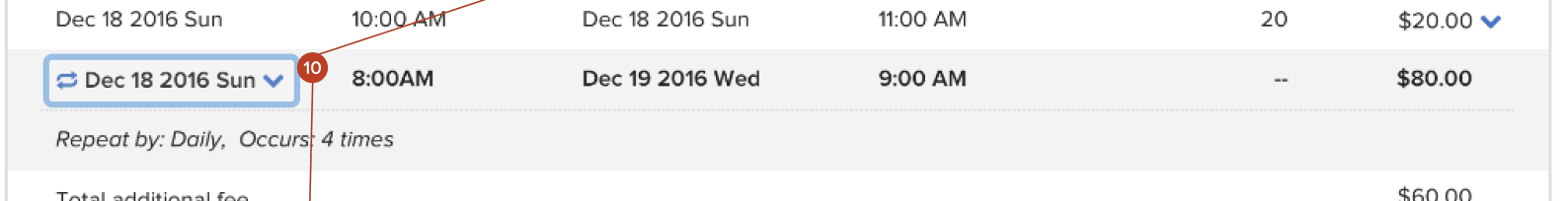
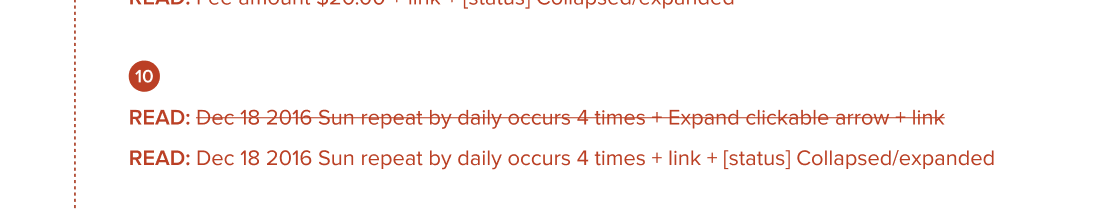
## Common Issue - [ANE-138518](https://jirafnd.dev.activenetwork.com/browse/ANE-138518)

* Issue

Throughout the application, multiple expandable regions are given aria-labels that are too verbose and obscure the description of the actual control with information that is not needed (e.g., “Section Activity selection collapse detail clickable arrow”)

* Recommendation

Change the aria-label wordings to be more precise about the controls they represent and leave out information that is not required to understand the control (e.g., “Activity selection”). Additional attributes already provide many of the queues required for assistive technologies to understand the control such as aria-expanded indicating expanded or collapsed.

### Solution

* Remove unnecessary words from aria-label.
* Use aria-expanded + aria-own/aria-controls to describe the expand/collapse state and related origin.
* More details please confirm with UX about the special cases.

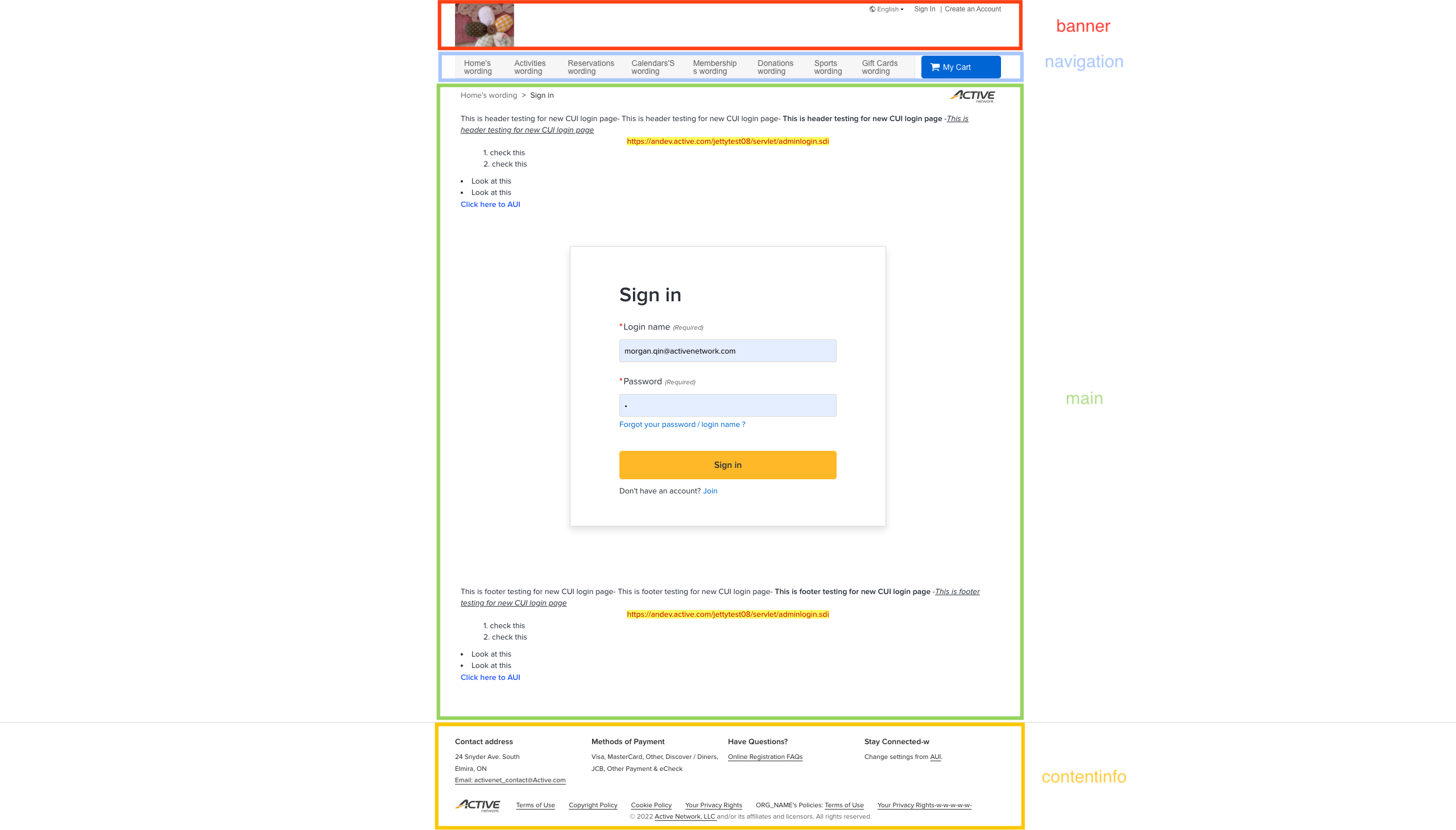
## Common Issue - [ANE-131139](https://jirafnd.dev.activenetwork.com/browse/ANE-131139)

* Issue

All pages lack a main landmark.

* Recommendation

Wrap the main content of the page in a <main> element …or use a role="main" on the main content parent container.



### Solution

Use header tag as a container of the banner region, <main> tag as a container of main region and <footer> tag as a container of the content info region.

You can also use aria roles for each landmark:

* Header landmark: role=“banner”,
* Main landmark: role=“main”,
* Footer landmark: role=“contentinfo”,
* Navigation landmark: role=“navigation”,
* Search: role=“search”

Finally, ensure that <header>, <main>, <footer> should be a direct child of <body> tag. (miss <Nav>)

Refer to:

* <https://www.w3.org/TR/wai-aria-practices/examples/landmarks/index.html>
* <https://www.w3.org/WAI/tutorials/page-structure/regions/>

## Common Issue - [ANE-137830](https://jirafnd.dev.activenetwork.com/browse/ANE-137830)

* Issue

Functional accessibility issue: Many SVG graphics contain a role="presentation" or role="none" attribute. Because these icons are not focusable, they present no real impact on assistive technologies but the implemented role values may flag as invalid in automated testing tools.

* Recommendation

Use aria-hidden="true" in place of role="presentation" or role="none".

### Solution

<Icon  
 symbolPrefix="an-icon"  
 name="location"  
 aria-hidden // default is true  
 focusable={false}  
 className="calendar-view\_\_select-icon"  
/>

<svg  
 aria-hidden={true}  
 className="icon-svg icon-svg-ic-problem icon-svg-size-md icon-svg-type-normal"  
 focusable={false}  
>

Note: Warning: Do not use aria-hidden=“true” on focusable elements.

Refer to:

* <https://html-validate.org/rules/svg-focusable.html>
* <https://a11y-guidelines.orange.com/en/articles/accessible-svg/>
* <https://developer.mozilla.org/en-US/docs/Web/Accessibility/ARIA/Attributes/aria-hidden>

## Common Issue - [ANE-137668](https://jirafnd.dev.activenetwork.com/browse/ANE-137668)

* Issue

The alternative text on the “Ottawa” wordmark fails to adequately describe the image content, announcing “System - Banner Logo” instead of “City of Ottawa”.

* Recommendation

Change the alternative text to “City of Ottawa” (if “City of Ottawa” appeared in proximity in machine text, we’d recommend “logo of City of Ottawa” instead … either are satisfactory).

### Solution

* Change the alternative text to reflect the image content.

**Dev Notes**

* Currently we use the display name as the alternative text, which were configured in AUI file upload.
* Confirm with UX that we would add additional information to describe the image before the display name.
* For the banner logo image, update alternative text to "Banner logo of {display name}"
* For the logo image of receipt, update alternative text to "Receipt logo of {display name}"

## Common Issue - [ANE-138581](https://jirafnd.dev.activenetwork.com/browse/ANE-138581)

* Issue

The page lacks an <h1> heading. Page lacks any headings.

* Recommendation

Every page must have at least one, and typically only one,<h1>. Add additional headings to the page content (e.g., “Book an event”, “Popular events”).

### Solution

Examples:

Home

* Update module name to h2.

Flexreg

* Update each section header to h2
* Update the “Block booing”, “Selected Summary” to h3

Reservation Detail

* Update “Availability calendar” to h2
* Remove the heading for “Attendee” label, Description of “More Information” item.(See the attachment with red underline)

Note: Anchor should not be whithin the heading

The reasoning is that screen readers will not guarantee to detect the heading level if within an anchor

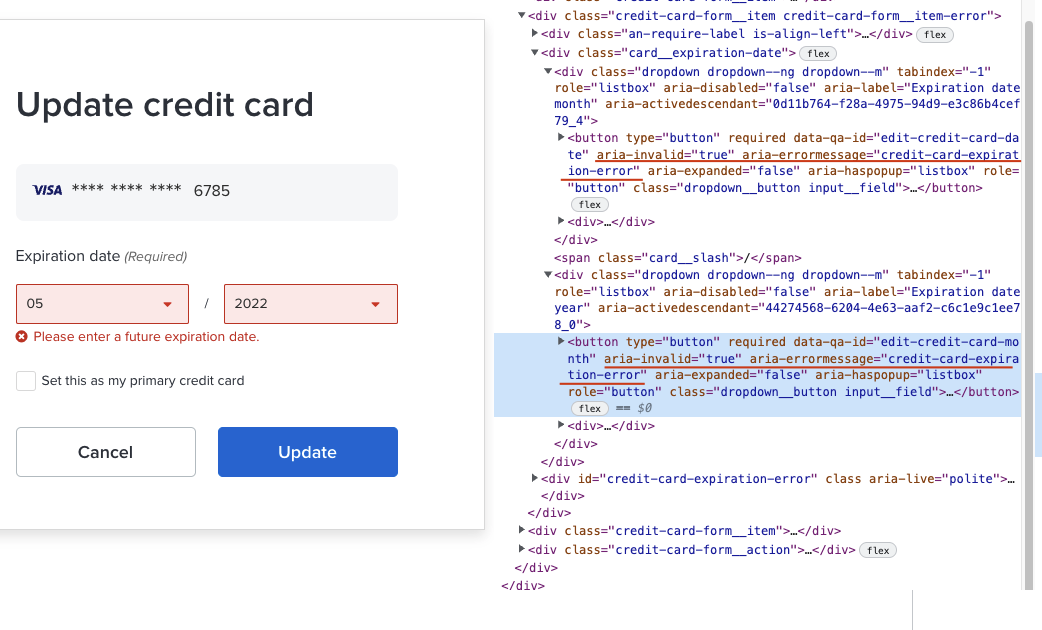
## Common Issue - [ANE-138601](https://jirafnd.dev.activenetwork.com/browse/ANE-138601)

* Issue

Issue #22: Anchors exist with aria-labels describing the anchors as images, yet the images are background CSS images and do not need to be identified as part of the anchor text. Issue #27: Form errors fail to be announced to screen reader users.Issue #32: The significance of asterisks is not explained.

* Recommendation

Issue #22: Remove the word image from each anchor’s aria-label.Issue #27: [ANE-138601](https://jirafnd.dev.activenetwork.com/browse/ANE-138601) Issue #32: Same with the above issue #27



### Solution

Issue #22: Remove the word "image" from aria-label of each link. Issue #27: Add attribute aria-invalid and aria-errormessage.Issue #32: Same with the above issue #27

Refer to:

* <https://developer.mozilla.org/en-US/docs/Web/Accessibility/ARIA/Attributes/aria-errormessage>

## Common Issue - [ANE-138596](https://jirafnd.dev.activenetwork.com/browse/ANE-138596)

* Issue

[WCAG 2.1] Many input fields lack proper input identification (as defined in WCAG 2.1 Success Criterion 1.3.5 Identify Input Purpose).

* Recommendation

Implement the associated input names using the autocomplete attribute.([Input Purpose](https://www.w3.org/TR/WCAG21/#input-purposes))

### Solution

<Input  
 className={classNames('sign-form\_\_field', { error: errors.lastName })}  
 maxLength={40}  
 onValueChange={this.bindOnFieldChange(fields.LAST\_NAME)}  
 onBlur={this.bindOnFieldValidate(fields.LAST\_NAME)}  
 value={formData.get(fields.LAST\_NAME)}  
 ariaLabel={this.getLabelAriaText(lastNameLabel)}  
 autoComplete="family-name"  
/>  
<Input  
 maxLength={phoneMaxlength || 20}  
 formula={/\d/}  
 disabled={disabled}  
 value={phone}  
 onInput={this.handlePhoneNumberChange}  
 onBlur={this.handlePhoneNumberBlur}  
 ariaLabel={phoneAriaLabel}  
 autoComplete="tel-national"  
/>

Refer to:

* <https://www.w3schools.com/accessibility/accessibility_autocomplete.php>
* <https://html.spec.whatwg.org/multipage/forms.html#attr-form-autocomplete>

## Common Issue - [ANE-137858](https://jirafnd.dev.activenetwork.com/browse/ANE-137858)

* Issue

Column headers that are not coded as headers (<th>) but instead as standard table data cells (<td>).

* Recommendation

Change the column headers to table headers (<th>) elements.

### Solution

#### Before:

<thead role="rowgroup">  
 <tr role="row">  
 <td className="col-1" role="columnheader">  
 <FormattedMessage {...selfMessages.originalBalanceSubTotalOfSummary} />  
 </td>  
 <td className="col-2" role="columnheader">  
 <FormattedMessage {...selfMessages.currentBalanceSubTotalOfSummary} />  
 </td>  
 <td className="col-3" role="columnheader">  
 <FormattedMessage {...selfMessages.amountDueNowSubTotalOfSummary} />  
 </td>  
 <td className="col-4" role="columnheader">  
 <FormattedMessage {...selfMessages.subTotalOfSummary} />  
 </td>  
 <td className="col-5" role="columnheader">  
 <FormattedMessage {...selfMessages.remainingOfSummary} />  
 </td>  
 </tr>  
</thead>

#### After:

<thead role="rowgroup">  
 <tr role="row">  
 <th className="col-1" role="columnheader">  
 <FormattedMessage {...selfMessages.originalBalanceSubTotalOfSummary} />  
 </th>  
 <th className="col-2" role="columnheader">  
 <FormattedMessage {...selfMessages.currentBalanceSubTotalOfSummary} />  
 </th>  
 <th className="col-3" role="columnheader">  
 <FormattedMessage {...selfMessages.amountDueNowSubTotalOfSummary} />  
 </th>  
 <th className="col-4" role="columnheader">  
 <FormattedMessage {...selfMessages.subTotalOfSummary} />  
 </th>  
 <th className="col-5" role="columnheader">  
 <FormattedMessage {...selfMessages.remainingOfSummary} />  
 </th>  
 </tr>  
</thead>

## Common Issue - [ANE-135010](https://jirafnd.dev.activenetwork.com/browse/ANE-135010)

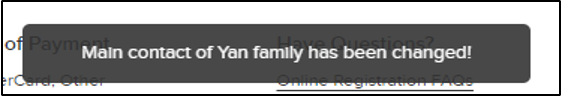
* Issue

[WCAG 2.1] Changing the active main contact presents a status notification that is not made aware to screen reader users.

* Recommendation

Ensure to announce status messages automatically to screen reader users. You can use a role="alert" or WAI-ARIA to accomplish this task.

### Solution



// Toast.jsx  
<div  
 role="status"  
 className={toastClassName}  
 style={style}  
 {...mouseEventProps}  
>

#### Status role

A type of live region whose content is advisory information for the user but is not important enough to justify an alert, often but not necessarily presented as a status bar.

#### Live Region Roles

Live regions are perceivable regions of a web page that are typically updated as a result of an external event when user focus may be elsewhere. These regions are not always updated as a result of a user interaction.

The following roles are live regions and may be modified by live region attributes.

* [alert](https://w3c.github.io/aria/#dfn-live-region)
* [log](https://w3c.github.io/aria/#log)
* [marquee](https://w3c.github.io/aria/#marquee)
* [status](https://w3c.github.io/aria/#status)
* [timer](https://w3c.github.io/aria/#timer)

## Common Issue - [ANE-138534](https://jirafnd.dev.activenetwork.com/browse/ANE-138534)

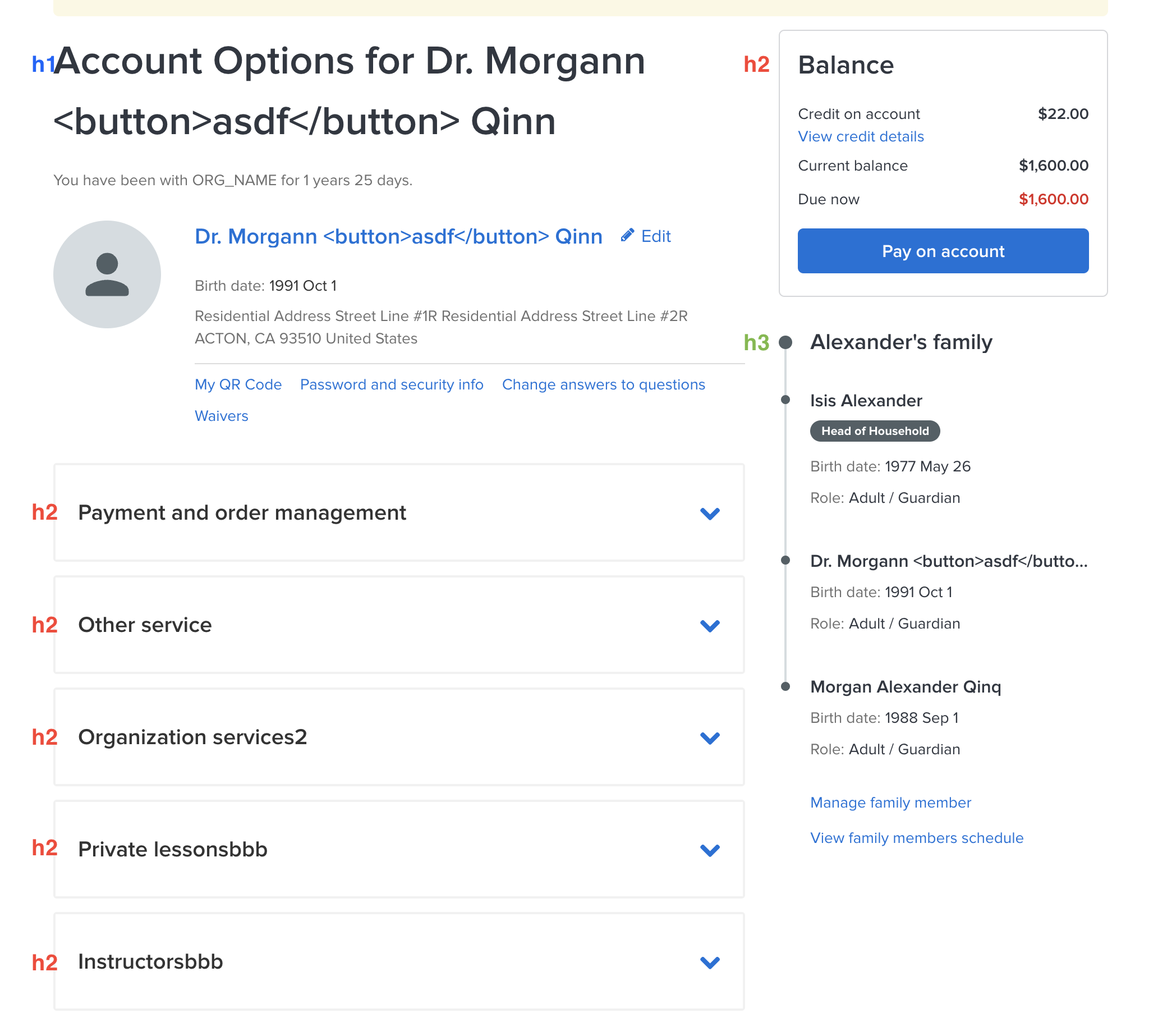
* Issue

The page contains multiple headings that are not programmatically implemented as headings but should be (e.g., Payment and Order Management, Other services, etc).

* Recommendation

Add section headings to the pages heading order.

### Solution



#### Before:

<div className="account-options\_\_balance-header">  
 <FormattedDyncMessage  
 value={headerLabel}  
 className="account-options\_\_balance-title"  
 />  
</div>  
<span className="family-name">  
 <FormattedMessage {...selfMessages.familyName} values={{ familyName }} />  
</span>

#### After:

<h2 className="account-options\_\_balance-header">  
 <FormattedDyncMessage  
 value={headerLabel}  
 className="account-options\_\_balance-title"  
 />  
</h2>  
<h3 className="family-name">  
 <FormattedMessage {...selfMessages.familyName} values={{ familyName }} />  
</h3>

## Common Issue - [ANE-137861](https://jirafnd.dev.activenetwork.com/browse/ANE-137861)

* Issue

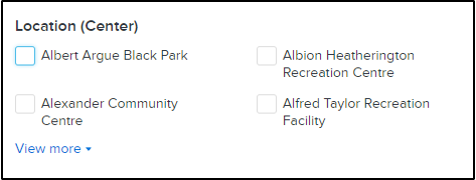
Issue42: The “View more” control presents additional location options but moves the user’s focus past all the newly injected options. Issue45: Functional accessibility issue: Multiple groups of input fields exist without the use of <fieldset> elements. Each group of inputs with a common topic would benefit from the use of <fieldset> elements.

* Recommendation

Issue42: When presenting the new options, move the user’s focus to the start of the new options instead of after the options. Issue45: Add <fieldset> and <legend> elements to each group of inputs.

### Solution

#### Issue42



onExpandChange = (expanded) => {  
 const {  
 expandable,  
 isForwardFocusWhenExpand,  
 maxDisplayCount  
 } = this.props;  
 if (  
 expandable && isForwardFocusWhenExpand && this.containerNode && expanded && maxDisplayCount  
 ) {  
 const ariaInputs = this.containerNode.querySelectorAll('input');  
 ariaInputs[maxDisplayCount + 1].focus();  
 }  
};

#### Issue45

#### Before:

<div className="filter-sections">  
 <Heading className="filter-sections\_\_title" level={4}>  
 <FormattedMessage {...selfMessages.titleDateRangeOfWhenFilter} />  
 </Heading>  
 <DateRangePicker  
 size="lg"  
 />  
</div>

#### After:

<div className="filter-sections">  
 <fieldset className="activity-search-filters\_\_fieldset">  
 <legend className="filter-sections\_\_title u-text-left">{messages[selfMessages.titleDateRangeOfWhenFilter.id]}</legend>  
 <DateRangePicker  
 size="lg"  
 />  
 </fieldset>  
</div>

## Common Issue - [ANE-137863](https://jirafnd.dev.activenetwork.com/browse/ANE-137863)

* Issue

A list of reservation rules exists that is not implemented as a list but visually implies a list.

* Recommendation

Change the structure of this list to use an ordered list (<ol>) and list items (<li>).

### Solution



#### Before:

const renderRule = rules =>  
 rules.map((rule, index) => (  
 <div className="rules-item" key={`rule\_${index}`}>  
 </div>  
 ));  
  
const ReservationRules = (isLg, rules) => (  
 <div className="rules\_\_content">  
 { renderRule(rules) }  
 </div>  
);

#### After:

const renderRule = rules =>  
 rules.map((rule, index) => (  
 <li className="rules-item" key={`rule\_${index}`}>  
 </li>  
 ));  
  
const ReservationRules = (isLg, rules) => (  
 <ol className="rules\_\_content">  
 { renderRule(rules) }  
 </ol>  
);

## Common Issue - [ANE-142791](https://jirafnd.dev.activenetwork.com/browse/ANE-142791)

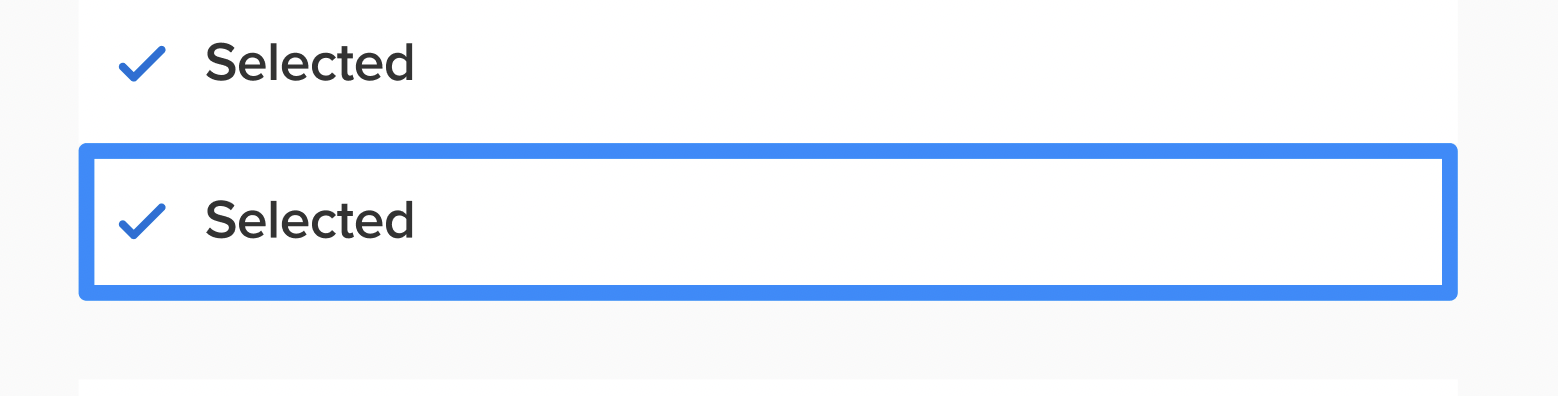
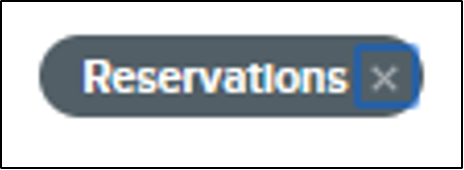
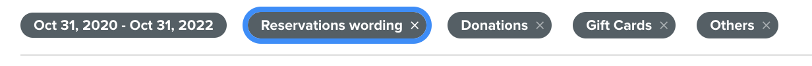
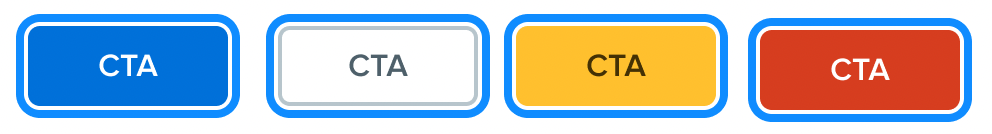
* Issue

[WCAG 2.1] The visible focus indicator on some controls lacks sufficient contrast falling short of the 3:1 ratio required for non-text contrast (ratio 1.5:1).

* Recommendation

Change all problematic foreground/background pairings to higher contrast ratios that meet or exceed the required minimum.

### Solution

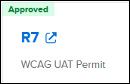
## Common Issue - [ANE-138958](https://jirafnd.dev.activenetwork.com/browse/ANE-138958)

* Issue

Modifying a reservation leads to a page with a primary heading <h1> that contains actionable button controls.

* Recommendation

Reposition the controls so they are no longer within the h1 element.

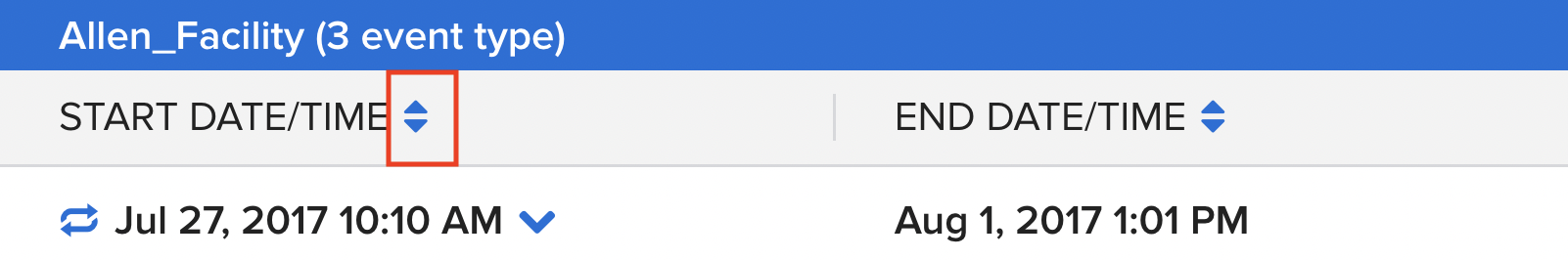
## Common Issue - [ANE-142788](https://jirafnd.dev.activenetwork.com/browse/ANE-142788)

* Issue

Table column headers throughout the Permit page contain sort icons that announce to screen reader users as only “graphic” due to empty aria-labels on the <i role=”img”> elements.

* Recommendation

Either provide a label for all states of the graphic, or use aria-hidden to hide the graphic from screen reader users. Note: the aria-sort attribute located on the <th> already indicates the current sort value of the column.



### Solution

Added the 'aria-hidden' attributes

<i  
 key={index}  
 className={classNames('icon', sortOrderIcon)}  
 aria-hidden  
/>

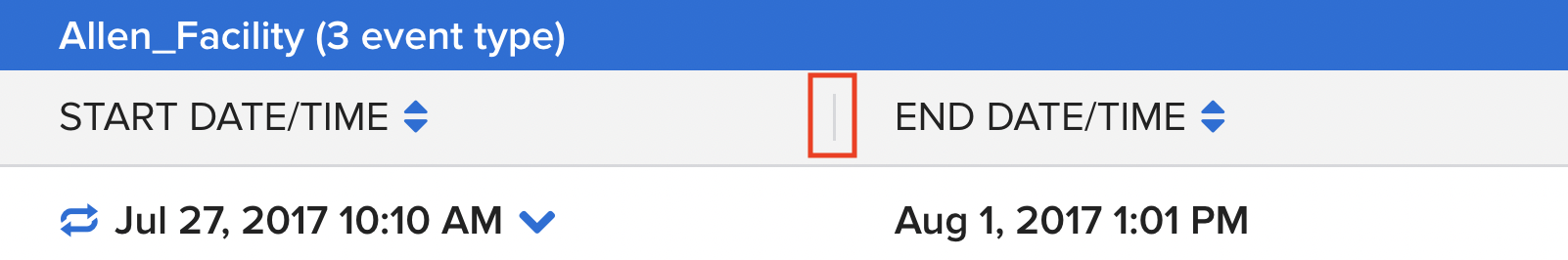
## Common Issue - [ANE-126474](https://jirafnd.dev.activenetwork.com/browse/ANE-126474)

* Issue

The tab controls that resize the column widths within the data tables are confusing to a non-sighted user, due to the tabs gaining focus prior to the table markup being announced. The user is given the ability to affect the width of a table column they have not yet encountered.

* Recommendation

Provide the tabs in the correct focus order where a user can modify the width of the column after having interacted with the table, and, ideally, also provide a specific trigger (e.g., a button that enters the “column width adjustment” mode) for the user to modify the column widths using the keyboard (otherwise the column width controls are skipped in the tabbing order).



### Solution

onKeydown(e) {  
 // ...  
 // Left Arrow  
 if (keyCode === 37) {  
 x -= 1;  
 }  
 // Right Arrow  
 if (keyCode === 39) {  
 x += 1;  
 }  
 // ...  
 }  
 onMouseMove(e) {  
 // ...  
 const x = (pageLeftX - this.drag.initPageLeftX) + this.drag.initLeft;  
 this.calculatePosition(index, x, e);  
 // ...  
 }

render () {  
 return (  
 //...  
 <span class="drag-handle" tabIndex="0" role="button" aria-grabbed="false" aria-live="polite">  
 //...  
 </span>  
 //...  
 )  
 }

## Common Issue - [ANE-142808](https://jirafnd.dev.activenetwork.com/browse/ANE-142808)

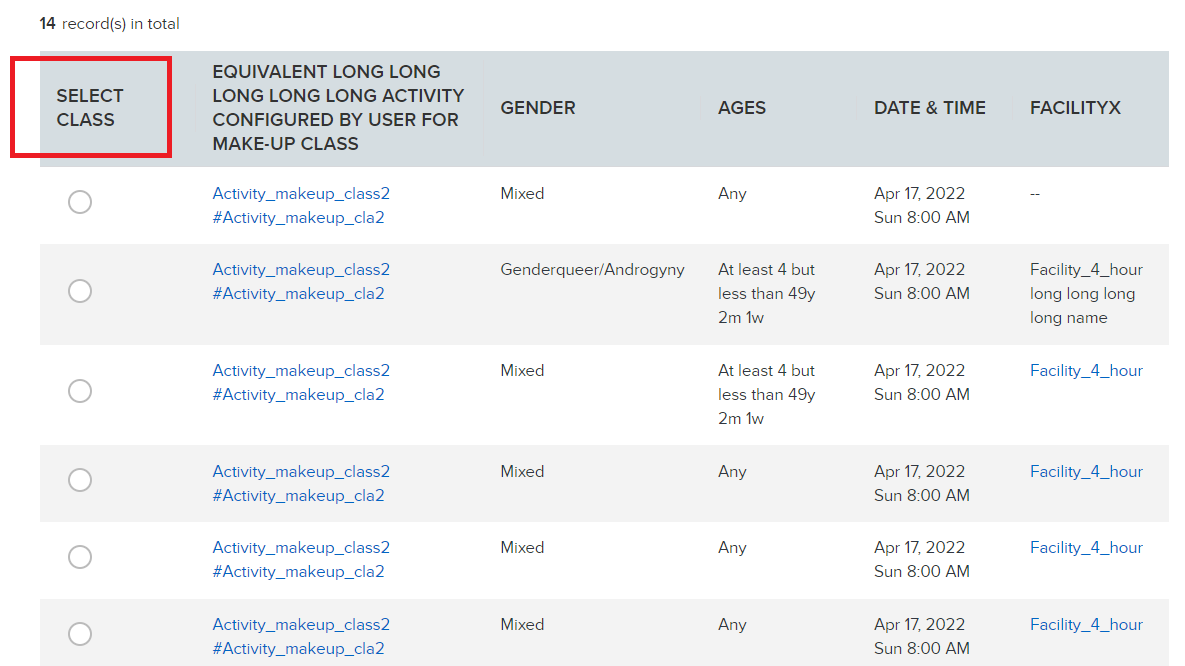
* Issue

Column 1 of the table containing the searched date results lacks any header information.

* Recommendation

Identify the column header’s purpose.

### Solution



Thanks!