The North Face

Anchorage, Alaska
I. Project Overview ................................................................................................................. 3

   Introduction
   Store Description
   Background
   Current Condition
   Existing Layout + Inventory

II. Data Collection Methodology .......................................................................................... 11

   Data Collection Overview
   Initial Walkthrough
   Interviews
   Literature Review
   Behavioral Mapping
   Questionnaires
   Space Inventory + Trace Observations

III. Client Needs ...................................................................................................................... 14

   Overview of Client Needs
   Prioritization of Client Needs

IV. Priority 1: Creating Additional Storage ........................................................................... 15

   Data + Observations Summary
   Function, Form, Economy + Time
   Form Study #1 + Analysis
   Precedent Research
   Related Issues

V. Priority 2: Eliminating Secluded Spaces ........................................................................... 18

   Data + Observations Summary
   Function, Form, Economy + Time
   Form Study #2 + Analysis
   Precedent Research
   Related Issues

VI. Priority 3: Improving Elevator Access ........................................................................... 22

   Data + Observations Summary
   Function, Form, Economy + Time
   Form Study #3/#4 + Analysis
   Precedent Research
   Related Issues
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>VII.</td>
<td>Priority 4: Improving Lighting Scheme</td>
<td>25</td>
</tr>
<tr>
<td>VIII.</td>
<td>Issues, Goals, and Performance Requirements</td>
<td>29</td>
</tr>
<tr>
<td>IX.</td>
<td>Design Criteria</td>
<td>32</td>
</tr>
<tr>
<td>X.</td>
<td>Timeline</td>
<td>35</td>
</tr>
<tr>
<td>XI.</td>
<td>Conclusion</td>
<td>36</td>
</tr>
<tr>
<td>XII.</td>
<td>Definitions</td>
<td>37</td>
</tr>
<tr>
<td>XIII.</td>
<td>Bibliography</td>
<td>40</td>
</tr>
<tr>
<td>XIV.</td>
<td>Appendices</td>
<td>42</td>
</tr>
</tbody>
</table>

**VII. Priority 4: Improving Lighting Scheme**

Data + Observations Summary
Function, Form, Economy + Time
Precedent Research
Related Issues

**VIII. Issues, Goals, and Performance Requirements**

Issue 1: Economy
Issue 2: Flexibility
Issue 3: Security
Issue 4: Visibility
Issue 5: Circulation
Issue 6: Convenience
Issue 7: Physical Safety
Issue 8: Physical Comfort

**IX. Design Criteria**

Criteria Matrix
Bubble Diagrams

**X. Timeline**

Programming Summary
Forthcoming Schedule

**XI. Conclusion**

**XII. Definitions**

**XIII. Bibliography**

**XIV. Appendices**

Appendix A: Interview Summaries
Appendix B: Behavioral Mapping
Appendix C: North Face Questionnaire
Appendix D: North Face Questionnaire Results
Appendix E: Trace Observations
Appendix F: Literature Review
Introduction

The space in which the Anchorage North Face store was constructed in 2015 was not originally intended for clothing retail. As such, after 16 months of occupancy, flaws in the original design have surfaced relating to flexibility; security; visibility; circulation; convenience; physical safety; and physical comfort. This revised program will review these issues in detail and outline new design parameters aimed at further improving the store’s operation and performance.

Store Description

Company Name ................................................................. The North Face

Store Type .......................................................... Clothing Retail

Address ........................................ 305 W. 5th Avenue, Anchorage, AK 99501

Store Manager .......................................................... E.J. Reiser

Building Owner .......................................................... Elaine S. Baker

Size .......................................................... Approximately 8100 sq ft

Background

The Anchorage North Face retail store opened in November of 2015. As a leading brand for winter and cold-weather apparel, their addition in Alaska was widely embraced and earned much attention throughout the community and from local media. They currently occupy the first two floors of a three-story commercial building that previously housed a furniture showroom, renovated rather extensively both inside and out.

The total size of the North Face store is approximately 8100 square feet, with roughly 5500 square feet available to the public, including the sales floor, three unisex dressing rooms, a wide set of public stairs, a shared stairwell, a shared elevator, and two checkout counters. The private space – for employees only – contains storage, restrooms, and offices, as well as the building’s boiler room and mechanical room. The public entrance consists of two sets of large double doors and an arctic entry in between, while a second and third entrance on the East and West ends are used for emergency exits for North Face, as well as direct access to the third floor – currently unoccupied office space on the market for rent. A fourth point of entry is located in along the North wall in the backroom, used for deliveries and as emergency egress.

The exterior of the building boasts large glass facades on the East and South street-facing ends, with sections of clean brick and thin structural members in between, while the interior has a modern industrial style and exposed elements. Combined with the store’s prominent downtown location, as well as the prevalence of winter sports in Alaska, The North Face immediately stands out along the 5th Avenue shopping district.
Current Condition

South-East Exterior (Holman, 2015)

First Floor, from Stairs (Holman, 2015)
First Floor, from Second Floor (Holman, 2015)

First Floor, Women’s Apparel/East Wall (Holman, 2015)
Project Overview

Second Floor, Checkout

Second Floor, Men’s/Children’s Apparel
Existing Layout + Inventory

2nd Floor

1st Floor

- Women's Section
- Featured Section
- Outdoor Equipment Section
- Footwear Section
- Men's Section
- Children's Section
- Cashier Space
- Private Space
- Dressing Rooms
### Women's Section

<table>
<thead>
<tr>
<th>Room/Section</th>
<th>Item</th>
<th>Quantity</th>
<th>Approx. Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1092 sq. ft.</td>
<td>Clothing Rack [typ.]</td>
<td>6</td>
<td>24” x 24”</td>
</tr>
<tr>
<td>1092 sq. ft.</td>
<td>Clothing Rack [long]</td>
<td>2</td>
<td>48” x 24”</td>
</tr>
<tr>
<td>1092 sq. ft.</td>
<td>Clothing Rack [peak]</td>
<td>4</td>
<td>24” x 24”</td>
</tr>
<tr>
<td>1092 sq. ft.</td>
<td>Clothing Rack [peak, l]</td>
<td>1</td>
<td>36” x 24”</td>
</tr>
<tr>
<td>1092 sq. ft.</td>
<td>Clothing Rack [peak, dbl]</td>
<td>1</td>
<td>36” x 24”</td>
</tr>
<tr>
<td>1092 sq. ft.</td>
<td>Table</td>
<td>1</td>
<td>48” x 24”</td>
</tr>
<tr>
<td>1092 sq. ft.</td>
<td>Table [stacked double]</td>
<td>1</td>
<td>48” x 36”</td>
</tr>
<tr>
<td>1092 sq. ft.</td>
<td>Mannequin</td>
<td>6</td>
<td>24” dia.</td>
</tr>
</tbody>
</table>

### Featured Section

<table>
<thead>
<tr>
<th>Room/Section</th>
<th>Item</th>
<th>Quantity</th>
<th>Approx. Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>106 sq. ft.</td>
<td>Table [stacked double, L]</td>
<td>1</td>
<td>42” x 42”</td>
</tr>
<tr>
<td>106 sq. ft.</td>
<td>Table [stacked double, sm]</td>
<td>2</td>
<td>36” x 24”</td>
</tr>
<tr>
<td>106 sq. ft.</td>
<td>Sign</td>
<td>1</td>
<td>12” x 4”</td>
</tr>
<tr>
<td>106 sq. ft.</td>
<td>Mannequin</td>
<td>3</td>
<td>24” dia.</td>
</tr>
</tbody>
</table>

### Outdoor Equipment Section

<table>
<thead>
<tr>
<th>Room/Section</th>
<th>Item</th>
<th>Quantity</th>
<th>Approx. Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>44 sq. ft.</td>
<td>Table [stacked triple]</td>
<td>1</td>
<td>48” x 36”</td>
</tr>
</tbody>
</table>

### Footwear Section

<table>
<thead>
<tr>
<th>Room/Section</th>
<th>Item</th>
<th>Quantity</th>
<th>Approx. Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>340 sq. ft.</td>
<td>Clothing Rack [peak, dbl]</td>
<td>1</td>
<td>36” x 24”</td>
</tr>
<tr>
<td>340 sq. ft.</td>
<td>Table</td>
<td>1</td>
<td>60” x 30”</td>
</tr>
<tr>
<td>340 sq. ft.</td>
<td>Bench</td>
<td>2</td>
<td>72” x 30”</td>
</tr>
<tr>
<td>340 sq. ft.</td>
<td>Chair</td>
<td>1</td>
<td>24” x 20”</td>
</tr>
<tr>
<td>340 sq. ft.</td>
<td>Stool</td>
<td>1</td>
<td>12” x 12”</td>
</tr>
</tbody>
</table>
### Project Overview

#### Men's Section
**2nd Floor [Public]**

<table>
<thead>
<tr>
<th>Room/Section</th>
<th>Item</th>
<th>Quantity</th>
<th>Approx. Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clothing Rack [typ.]</td>
<td>7</td>
<td>24” x 24”</td>
</tr>
<tr>
<td></td>
<td>Clothing Rack [irregular]</td>
<td>1</td>
<td>48” x 17”</td>
</tr>
<tr>
<td></td>
<td>Clothing Rack [long]</td>
<td>11</td>
<td>24” x 24”</td>
</tr>
<tr>
<td></td>
<td>Table</td>
<td>1</td>
<td>72” x 30”</td>
</tr>
<tr>
<td></td>
<td>Table</td>
<td>1</td>
<td>60” x 30”</td>
</tr>
<tr>
<td></td>
<td>Table</td>
<td>1</td>
<td>48” x 48”</td>
</tr>
<tr>
<td></td>
<td>Table</td>
<td>1</td>
<td>48” x 24”</td>
</tr>
<tr>
<td></td>
<td>Table</td>
<td>1</td>
<td>42” x 24”</td>
</tr>
<tr>
<td></td>
<td>Table</td>
<td>5</td>
<td>36” x 24”</td>
</tr>
<tr>
<td></td>
<td>Table</td>
<td>4</td>
<td>36” x 12”</td>
</tr>
<tr>
<td></td>
<td>Table</td>
<td>3</td>
<td>24” x 24”</td>
</tr>
<tr>
<td></td>
<td>Table [arrangement]</td>
<td>1</td>
<td>60” x 60”</td>
</tr>
<tr>
<td></td>
<td>Table [stacked dbl, long]</td>
<td>1</td>
<td>66” x 30”</td>
</tr>
<tr>
<td></td>
<td>Table [stacked triple, L]</td>
<td>1</td>
<td>54” x 54”</td>
</tr>
<tr>
<td></td>
<td>Mannequin</td>
<td>15</td>
<td>24” dia.</td>
</tr>
</tbody>
</table>

#### Children's Section
**2nd Floor [Public]**

<table>
<thead>
<tr>
<th>Room/Section</th>
<th>Item</th>
<th>Quantity</th>
<th>Approx. Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clothing Rack [small]</td>
<td>1</td>
<td>36” x 12”</td>
</tr>
<tr>
<td></td>
<td>Clothing Rack [peak, dbl]</td>
<td>1</td>
<td>36” x 24”</td>
</tr>
<tr>
<td></td>
<td>Table [stacked double]</td>
<td>1</td>
<td>42” x 30”</td>
</tr>
<tr>
<td></td>
<td>Table [stacked triple]</td>
<td>1</td>
<td>48” x 24”</td>
</tr>
<tr>
<td></td>
<td>Mannequin</td>
<td>2</td>
<td>24” dia.</td>
</tr>
</tbody>
</table>
### Room/Section

#### 1\textsuperscript{st}/2\textsuperscript{nd} Floor [Semi-Private]

<table>
<thead>
<tr>
<th>Room/Section</th>
<th>Item</th>
<th>Quantity</th>
<th>Approx. Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cashier Space</strong></td>
<td>Register Counter [1\textsuperscript{st} floor]</td>
<td>1</td>
<td>12'-0&quot; x 24&quot;</td>
</tr>
<tr>
<td></td>
<td>Work Space [1\textsuperscript{st} floor]</td>
<td>1</td>
<td>8'-0&quot; x 24&quot;</td>
</tr>
<tr>
<td></td>
<td>Folding Table [1\textsuperscript{st} floor]</td>
<td>1</td>
<td>30&quot; x 15&quot;</td>
</tr>
<tr>
<td></td>
<td>Accessory Display [1\textsuperscript{st} floor]</td>
<td>2</td>
<td>14&quot; x 14&quot;</td>
</tr>
<tr>
<td></td>
<td>Register Counter [2\textsuperscript{nd} floor]</td>
<td>1</td>
<td>8'-6&quot; x 24&quot;</td>
</tr>
<tr>
<td></td>
<td>Work Space [2\textsuperscript{nd} floor]</td>
<td>1</td>
<td>8'-0&quot; x 24&quot;</td>
</tr>
</tbody>
</table>

#### 1\textsuperscript{st} Floor, Cashier Space

- **Room/Section**     | **Item**                                           | **Quantity** | **Approx. Size**       |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage</strong></td>
<td>Roller-Rack Storage System</td>
<td>5</td>
<td>20'-0&quot; x 2'-0&quot;</td>
</tr>
<tr>
<td></td>
<td>Folding Table</td>
<td>3</td>
<td>48&quot; x 24&quot;</td>
</tr>
<tr>
<td></td>
<td>Storage Lockers</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

#### 2\textsuperscript{nd} Floor, Cashier Space

- **Room/Section**     | **Item**                                           | **Quantity** | **Approx. Size**       |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Office</strong></td>
<td>Desk</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Chair</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Filing Cabinet</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Storage Rack</td>
<td>2</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Additional Storage Room

- **Room/Section**     | **Item**                                           | **Quantity** | **Approx. Size**       |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Additional Storage Room</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Bathrooms

- **Room/Section**     | **Item**                                           | **Quantity** | **Approx. Size**       |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bathrooms</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Boiler Room

- **Room/Section**     | **Item**                                           | **Quantity** | **Approx. Size**       |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boiler Room</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Mechanical Room

- **Room/Section**     | **Item**                                           | **Quantity** | **Approx. Size**       |
|-----------------------|---------------------------------------------------|--------------|------------------------|
Data Collection Methodology

Data Collection Overview

The initial data collection process spanned over four weeks, and included an initial walkthrough; literature review; interviews; behavioral mapping; a space inventory with trace observations; and questionnaires. Evidence gathered helped identify four primary design issues to be addressed:

- A need for additional storage
- A preference to eliminate seclusion of spaces on the sales floor
- A preference to improve access to the second floor by elevator
- A preference to improve the current lighting scheme and reduce glare

Further methods of data collection were later employed to specify design objectives, clarify a design strategy, and detail existing conditions: precedent research was performed through an image search and observations of similar facilities; additional literature was gathered and reviewed; and applicable building specifications were collected and organized into prototypical sketches, a criteria matrix, and bubble diagram.

Initial Walkthrough

Data collection began with an initial walkthrough, aimed at detecting potential issues to be further investigated. In addition to the issues of elevator access; isolated spaces; and intense lighting as mentioned above, the walkthrough originally revealed other possible concerns that were later alleviated: the lack of public restrooms was not a concern of store manager E.J. Reiser, who called it a “store policy” to not allow customer use; inadequate parking was discussed, but is not an area addressed by interior design; and congestion was noticed in some areas, but since all equipment is on wheels, any problem of congestion is easily remedied, and further observations confirmed the current layout already provides adequate maneuverability throughout. The walkthrough was performed by carefully observing all areas of the store and recording information in a notepad and through photography.

Interviews

Interviews with the store manager, a staff member, and a customer provided additional information regarding the primary design issues, and brought to light the concern for adequate storage space. As mentioned by store manager, E.J. Reiser, there are areas in the store that could potentially be used for storage, requiring minor renovation, as later discussed. Interviews also helped establish a good working relationship with management – Mr. Reiser, in particular. (see Appendix A: interview summaries, page 44)

Literature Review

The literature review itemized various publications and documents relating to the identified issues, and included professional publications; building and planning standards; applicable codes and ordinances; popular literature; research literature; historical documents; and the official North Face website. Each of the resources covered in the literature review can be found in the bibliography. (see bibliography, page 40; and Appendix F: Literature Review, page 55)
Behavioral Mapping

Behavioral mapping tracked movements of customers throughout the store, noting departmental transitions and time spent. Although relying on a relatively small sample size, the study revealed little use of the men’s section in the back of the store, and the children’s section in general – both of which are considered “isolated areas” as mentioned above. Additionally, customer-employee interaction was higher on the first floor, as one employee was permanently stationed at or near the first-floor cash register, while a “floater” made his way throughout both levels, folding, cleaning, and assisting some customers as they shopped. In the two sessions spent observing, employees rarely spent time in the isolated areas, only tidying up merchandise before returning to higher visibility areas. Lastly, a “move right” tendency was observed, particularly among women as they first entered the store, which is capitalized by placing “featured items” in front of the store as seen on the updated floor plans. (See Appendix E: Trace Observations, page 54, for updated floor plans; and Appendix B: Behavioral Mapping, page 45)

Questionnaires

Questionnaires were left with The North Face staff for customer distribution upon checkout, and 14 completed questionnaires were received upon pickup one week later. Although a few customers reportedly took them home, no additional questionnaires were received via email, which was provided as an additional option. The questions focused on each of the primary design concerns that affected customers, and were mostly “yes/no” responses in order to speed up completion time and further encourage participation. Although the majority of customers seem pleased with The North Face, some customers did provide negative responses to some questions, which validated initial concerns regarding seclusion, lighting intensity, and 2nd floor access. Conversely, the questionnaires further alleviated the prior concern for public restrooms. Open responses, unfortunately, did not yield as much information as intended. (See Appendix C: North Face Questionnaire, page 51; and Appendix D: North Face Questionnaire Results, page 52)

Space Inventory + Trace Observations

Data gathered from the space inventory and trace observations were used to complete the unfinished floor plans provided by The North Face staff, which originally had no sales floor details, nor any information of the private space. Equipment, including tables, clothing racks, chairs, benches, and mannequins were measured and marked on the plans, while making note of any other areas of interest or concern. Furthermore, departmental zones were updated with higher levels of detail than used during the behavioral mapping, noting the location of “featured items” and equipment as well. Accompanied by a member of the staff in the private space, measurements were also taken of the bathrooms, office, storage bays, boiler room, and mechanical room to complete the plans. During this process, the staff member was able to address any questions, and pointed out unused areas that could facilitate storage expansion. During this process, additional observations were made, as noted on the plans. (See Appendix E: Trace Observations, page 54)
Precedent Research

Precedent research was conducted through an image search of relevant retail designs and by documenting observations of local retail facilities. The research sought to reveal the outcomes of various strategies and possible solutions to the four primary design issues, including storage concerns, secluded spaces, elevator access, and lighting. (See Sections IV-VII, Design Priorities, p. 15-28)

Building Specifications

Sketches of the existing layout, a criteria matrix, and a bubble diagram were used to document the current building specifications to be relied upon by the design team. Data gathered during the initial walkthrough, space inventory, and trace observations were verified through a final inspection to ensure completeness and accuracy. This information will be vital in the renovation design, ensuring that enough space is provided for each area and the associated equipment, merchandise, and other items. (See Design Criteria, p. 32)
Overview of Client Needs

Four primary design concerns were identified as a result of observations and data analysis. Although the store design was recent, relatively well-conceived, and seemingly efficient, it is not perfect. Store management requires additional storage to meet today’s needs, and those of the future. Furthermore, because The North Face inherited a building that was once used for a different program altogether, and shares the facility with third floor occupants, additional concerns in relation to elevator access and isolated areas throughout the sales floor compromise accessibility and security, respectively. Regarding these issues, the store is not infringing on any minimal standards or building codes, but would benefit from addressing them through design and modifications, rather than the work-around solutions they currently employ. In terms of inclusivity and environmental comfort, the store lighting scheme should also be adjusted to reduce or eliminate the intensity of spotlighting and consequential glares from the reflective floor surface.

Prioritization of Client Needs

<table>
<thead>
<tr>
<th>Priority</th>
<th>Client Need</th>
<th>Affected Users</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Creating Additional Storage</td>
<td>Management</td>
<td>Requirement</td>
</tr>
<tr>
<td>2</td>
<td>Eliminating Secluded Spaces</td>
<td>All Users</td>
<td>Preference</td>
</tr>
<tr>
<td>3</td>
<td>Improving Elevator Access</td>
<td>All Users</td>
<td>Preference</td>
</tr>
<tr>
<td>4</td>
<td>Improving Lighting Scheme</td>
<td>Customers</td>
<td>Preference</td>
</tr>
</tbody>
</table>
Data + Observations Summary

The interview with Mr. Reiser brought to light the need for additional storage space and provided suggestions to remedy the issue. The current storage area is restricted to one floor, which limits storage vertically, located beneath the isolated area of the men’s department. As mentioned by Mr. Reiser, the large boiler room and separate mechanical rooms cannot be used for additional storage as per building code, but could potentially be reduced in size. He also noted that the space below the stair cases could potentially be used for additional storage. While performing trace observations, the accompanying staff member noted that an area in the private space adjacent to windows was once used as a store display, but lack of space required that they blackout the windows and turn it into additional storage. Also noted during the space inventory, The North Face utilizes a roller-racking storage system to save space, as seen on the attached floor plan and the pictures below; however, additional space is needed to help unclutter the back space and potentially improve efficiency.

Function, Form, Economy + Time

Function: Store Manager E.J. Reiser has indicated they are in need of additional storage space. Current conditions have forced them to convert other spaces into storage, such as a display area visible to pedestrians outside, and circulation space in the private employee-only areas.

Form: The current storage space amounts to roughly 500 square feet, and is limited vertically to the first level. Additionally, about 75 square feet has been taken away from other spaces to be used as storage. Areas of interest for new possible storage include space underneath the main stairs and the “wasted” additional space currently part of the boiler and mechanical rooms. Furthermore, extending the current storage location vertically could be a consideration, although this would push into the men’s clothing department, therefore reducing its size.

Economy: The cost of renovation to open up and create storage space underneath the stairs would be relatively low, and very cost-effective over time; this space, however, is very limited (roughly 40 square feet). Reducing the sizes of the boiler and mechanical rooms may result in larger, unforeseen modifications to meet building codes, thus increasing the overall cost, and extending the current storage upward into the Men’s department would be most expensive, while also adding an additional problem of reducing the sales floor size.

Time: At present, a roller-racking system is being utilized, which condenses storage and once served the needs of The North Face when first built last year. Due to the inevitable expansion of inventory, however, and future grown projections, additional space is now required.
Form Study #1: Storage Space + Utilization

Private Space Utilization
Office; Storage; Mechanical/Boiler Rms; Bathrooms; Window Display; Circulation

Total Private Area: 1472 sq ft
Total Private Area Used: 1472 sq ft
100%

Available Storage Area: 513 sq ft
Storage Area Used: 577 sq ft
112.5%

Available Storage Space: 4361 ft³
Storage Space Used: 4096 ft³
93.9%

[Ideal Storage]  
A: Roller-Racking System (Jackets/Shirts/Pants)

[Unorganized Storage]  
B: Foldable Table + Stacked Boxes (Miscellaneous)  
C: Foldable Table + Stacked Boxes (Miscellaneous)  
D: Foldable Table (Hats/Gloves)  
E: Lockers/Shelves (Employee Belongings/Accessories)  
F: Dedicated Store Rm (Signs/Displays/Mannequins/Long-term Stg)  
G: Stacked Boxes (Footwear)

[Unacceptable Storage]  
H: Repurposed Window Display, Stacked Boxes (Miscellaneous)

Analysis

The space currently dedicated to private functions is 1472 sq ft, which includes: storage; one office; 2 bathrooms (male/female); a mechanical room; a boiler room; circulation; and an area intended to serve as a window display [H] that has been repurposed to hold additional storage as needed. In maintaining the client’s wishes, this space’s function should once again serve as a window display, only. The current storage area therefore exceeds the maximum area allowed by 12.5 percent.

The office should not be reduced in size; and the boiler room, mechanical room, bathrooms, and circulation cannot be reduced in size, nor eliminated from the program, as per local building codes and building owners.

In terms of volume, the available storage space is roughly 4361 cubic feet; compared to 4096 cubic feet currently used. The current area dedicated to storage, therefore, could potentially hold an additional 265 cubic feet of merchandise if made more vertically efficient. With a performance requirement of increasing additional storage to 125%, however, an estimated volumetric space of 5451 cubic feet is desired. It can therefore be concluded that the total private space must be expanded in order to satisfy this client need.
Precedent Research

1. JCPenney, Anchorage, AK

All available footwear – which clearly take up a lot of space – is located directly on the sales floor. This may be one strategy to consider at The North Face in order to increase current storage space. By moving all shoe-boxes out of the current storage area and onto the sales floor, enough space may be freed up to reach the goal of 125% of current storage needs. The drawbacks to this approach, however, are a reduction in sales floor space and increasing a security risk by creating additional obstruction and decreasing view.

As a simple, low-cost solution, however, careful and creative planning could make it a viable resolution. To reduce clutter on the sales floor, one box of each available size could be displayed while extras remain in the back, which would still considerably reduce the amount of dedicated storage required.

2. Thinstack Storage Systems

Similar to the roller-racking storage system currently employed at The North Face, these “ThinStak” storage systems maximize afforded space both horizontally and vertically by utilizing a track system, allowing users to slide racks out of the way to access needed items. These can be used in tighter spaces, however, such as along the fire-exit path in the back room.

3. Storage Carousel

Slightly larger than the “ThinStak” system, a storage carousel is another solution that can maximize space utilization in the back room. These products can be purchased to desired heights to ensure the best use of space, vertically.

Related Issues

Flexibility: The client need for additional storage is the result of a design that lacked flexibility: the “ability to change easily” (Duerk, 1993, p. 234). Along with added space for storage, additional spaces within the new layout should be flexible also, as to allow for additional expansion in the future.

(See VIII: Issues, Goals, and Performance Requirements)
Data + Observations Summary

The children’s clothing area and back portion of the men’s department are secluded from the main portion of the store, as a result of walled-off private spaces shared with third-floor occupants that jut into the sales floor. As a result, vision is blocked of these areas from central locations, made worse by the row of columns on the second floor, noted during trace observations.

Although Mr. Reiser indicated security measures are taken to avoid theft, renovations that increase visibility in these areas and include them with the main store layout would be beneficial. Customer service would likely improve as a result, as well. Three customers who completed a questionnaire noted that areas of the store felt secluded, and one response suggested that customer service was effected in these areas.

Function, Form, Economy + Time

Function: Secluded spaces present security risks, as they invite the possibility of theft, and detract from customer service opportunities. These spaces should be removed or opened up, if possible, to provide adequate physical and visual connections throughout the sales floor.

Form: There are two isolated spaces within the sales floor. The entire children’s section is located on the second floor, behind a walled-off stairwell. The men’s section in the back of the second-floor sales space is also secluded behind the other stairwell and elevator shaft. These are both used for emergency egress and 3rd floor direct-access, but could possibly be reduced in size or relocated to better incorporate these spaces.

Economy: The costs of relocating the stairwells would be very expensive, and not likely cost-efficient. Modifying these spaces, however, to improve visibility to and from the main store space, may be a sufficient measure to increase customer service and reduce the ability of theft. A third possibility would be reprogramming these spaces to another function – perhaps an employee folding station, large display, or storage – and reallocating other space for these departments.

Time: The North Face management currently relies on a closed-circuit surveillance system as a reactive measure to counter theft, and during times of heavy customer flow, attempts to station employees in these areas, which ultimately strains manpower. Renovation or modifications to merge sales spaces could prove beneficial to customer-employee relations and show a reduction in theft in time.
Form Study #2: Security + Employee Line of Sight

Minimal Staff [2 employees]
weekday mornings, afternoons

Area not visible to employees:
1st Floor: 63 sq ft
2nd Floor: 512 sq ft
Total: 575 sq ft

Percentage visible:
87.37 %

Typical Staff [3 employees]
weekday evenings;
Saturday mornings, evenings
Sunday mornings

Area not visible to employees:
1st Floor: 0 sq ft
2nd Floor: 512 sq ft
Total: 512 sq ft

Percentage visible:
88.76 %

Maximum Staff [4 employees]
Saturday afternoons
Sunday afternoons

Area not visible to employees:
1st Floor: 414 sq ft
2nd Floor: 0 sq ft
Total: 414 sq ft

Percentage visible:
90.90 %
Analysis

When North Face took over occupancy of the building a little more than one year ago, the existing layout was less than ideal for a retail clothing store. Certain architectural features – primarily the private/emergency stairwells shared with third floor occupants – create an obstruction of view that potentially invites theft.

The sales floor is approximately 4555 total sq ft (2197 sq ft on the first floor; 2358 sq ft on the second floor). There are typically three employees present on the sales floor, split between both levels, with the exceptions noted in the study that vary depending on day, time, and the projected number of customers. Under current conditions, an estimated 87-91% of the sales floor can be watched at one time, based on typical employee locations. The remaining 9-13% is therefore left unattended and unwatched, providing concealment for potential shoplifters and reducing interaction between customers and employees.

The highlighted portions of the floorplans below indicate the specific elements that block view along the sales floor (under minimal staffing):
Precedent Research

4. Wall Design #1

Similar to image 5, this wall provides both visual and audible access from one space to another, but maintains a more industrial style that may fit well in The North Face’s existing scheme.

5. Wall Design #2

As an economical approach to eliminating seclusion within the sales floor, the existing partitions that block view can be made transparent or see-through – instead of removing them altogether and relocating existing functions, or reducing the size of sales floor. This particular wall design allows visual and audible access from one space to another while still providing a physical boundary and separation of spaces.

6. Wall Design #3

A glass partition wall, conversely, can provide visual access from one space to another, but limits audible. They can display various graphics, logos, or text, as well.

7. Nordstrom, Anchorage, AK

This entire floor of Nordstrom is completely open and viewable, thus enabling complete employee surveillance throughout. The only floor-to-ceiling obstructions are the necessary structural elements; however, all clothing racks and dividers are kept below eye-level. Aside from the obvious benefits to security, an open sales floor also maximizes employee-customer interaction.

Related Issues

**Security:** Security should be a top priority of any retail design; and the current layout that isolates some spaces provides opportunities for theft.

**Visibility:** In terms of lines of sight, the isolated spaces and physical obstructions between areas on the sales floor block employee vision to and from some locations.

(See VIII: Issues, Goals, and Performance Requirements)
Data + Observations Summary

Each interview validated concerns over elevator usage and accessibility. The elevator itself is located in a private space shared with third floor occupants, and is therefore locked and not visible from the sales floor. This likely leads many to believe there is no elevator available for public use. A customer must therefore first ask a staff member for assistance. According to Mr. Reiser, the staff member must then obtain the keys needed to disable the alarm on the emergency crash door, and escort the customer to elevator and up to the second floor. In returning, the procedure is reversed. This process creates an inconvenience, not only for the customer, but the staff member as well, and may spur feelings of being unwelcomed. Furthermore, three respondents to the questionnaires rated access to the 2nd floor as less than “10/10,” even though an elevator wasn’t specifically required – suggesting that if an elevator were visible and available, it may be the preferred choice among some customers. According to Mr. Reiser, the current situation does meet ADA requirements, but the issue should be addressed nonetheless. The addition of a separate elevator, or another solution to better incorporate the existing elevator, would create a more inclusive environment for customers, as well as future employees that may require its use. The attached floor plan notes the location of the elevator in private/shared space.

Function, Form, Economy + Time

Function: The current situation regarding the elevator meets ADA standards, but is inconvenient to customers, and adds unnecessary responsibility and roles to employees. Responses from the questionnaires indicate some customers would prefer elevator access to the second floor rather than using the stairs, and for those with physical limitations or with a baby stroller, it is a necessity.

Form: Since the elevator is shared with 3rd floor occupants, it is separated from the sales floor of The North Face, behind an alarm-based crash door, which is also used as emergency egress. For a customer or employee to gain access, an employee must disable the alarm and escort the user to the second floor, wait as they shop, and follow the inverse process going back down. Furthermore, the elevator is not visible from the sales floor, rendering it unknown to many customers who may need to use it.

Economy: The cost of adding an additional elevator, used only by The North Face, would be substantial. Modifications to the existing elevator and shared stairwell would be more cost-efficient, but would need to be negotiated with occupants of the third floor.

Time: The current state of the elevator meets ADA requirements, as mentioned, which classifies this issue as a “preference” as opposed to a “requirement.” However, if the key is lost or misplaced, and access to the elevator cannot be granted to a customer in need, they may face allegations of discrimination based on a disability. Utilizing future funds to remedy this situation should be considered.
Form Study #3: Elevator Access + Physical/Visual Barriers

2nd Floor Access Barriers

Visual:
- Load-bearing Wall

Physical:
- Emergency/Crash Door

1st Floor Access Barriers

Visual:
- Load-bearing Wall
- Sales Floor Stairs

Physical:
- Emergency/Crash Door

Form Study #4: 1st + 2nd Floor Overlap
Analysis

The goal of improving elevator access involves removing physical barriers and creating a visual awareness for customers as they enter the store.

Based on line of sight from the store entrance, the sales floor stairs and South loadbearing wall of the shared circulation space block view of the elevator, leading many to assume the stairs are the only method of accessing the second floor. Furthermore, to physically access the elevator under current conditions, a customer must request an employee open an alarmed crash door and escort them, as it is currently shared with third floor occupants.

As an additional option to improve elevator access, it may be feasible and within reason to implement a new elevator exclusive to The North Face, spanning only the first two floors and therefore allowing open use by customers. The highlighted portion of the floor plan in Form Study #4 outlines where the first and second levels of the floor overlap – suitable locations for a new elevator.

Precedent Research

8. Elevator and Stair Integration

An exclusive elevator for The North Face, if added, can be visually integrated with the L-shaped stairs, to provide easy access to both and have all vertical circulation elements within close proximity.

9. Toyo Ito’s Mediatheque

Toyo Ito’s Sandai Mediatheque is a perfect example of displaying vertical circulation to the users – even from the exterior. In providing users visual access to the elevator upon arrival, the customer can be afforded more freedom to experience The North Face as they like. Making the physical barriers that block view of the existing elevator transparent is a more economical solution to improving elevator access, as opposed to adding a new one. Providing visual access, however, does not address the issue of physical access.

Related Issues

Circulation: Circulation of customers and employees can be improved by better facilitating access to the elevator, and other means of circulation improvement should be sought after during the design process.

Visibility: Current access to the elevator is far from convenient for customers, as well as employees. Information gained from questionnaires also indicated that customers might prefer to use an elevator over stairs, whether or not they necessarily need to.

(See VIII: Issues, Goals, and Performance Requirements)
Data + Observations Summary

All customers found the lighting “adequate,” according to the completed questionnaires, although two customers indicated they noticed lighting that was “too intense.” One mentioned areas “by clothing racks,” and the other in “random areas.” During trace observations, some spotlights seemed that they could be better adjusted, or eliminated altogether. During the interview, Mr. Reiser defended the lighting scheme as a way to “highlight displays and items,” and the staff member noted that he never noticed the glare on the floor. Yet, the reflective surface does create a shine that could be eliminated with more of a matte surface. Although an overhaul of the lighting scheme is not likely necessary, minor adjustments may improve the quality of lighting throughout the store.

Function, Form, Economy + Time

Function: The spotlighting throughout the store is in some areas rather intense, which can be irritating and uncomfortable to those with visual limitations and potentially cause harmful incidents, such as tripping or falling.

Form: The addition of a reflective floor surface compounds the lighting issue, as it creates glares. Spotlighting is used in conjunction with indirect and diffused lighting, specifically to highlight certain merchandise and displays. It is an often-used method of lighting in retail environments, but could be redesigned or adjusted to reduce direct exposure to customers.

Economy: Upgrading the flooring material to reduce glares would be relatively costly. Adjusting the lighting would be most cost-efficient, followed by a redesign of the entire lighting scheme by subcontracted experts.

Time: While designers or even store management could quickly adjust the lighting, redesign of the entire scheme and renovation to the store are long-term solutions that would require more time to plan and initiate.
Precedent Research

10. Glare from Diffused Lighting + Direct Lighting

This diagram represents a strategy to be considered in reducing glare, showing the benefit of diffused, more spread-out lighting instead of direct. As stated in Mechanical and Electrical Equipment for Buildings, “A concentration of light in the glare zone (a) produces the largest amount of reflected glare. As the number of light sources is increased (b) in the glare zone and luminance is decreased, reflected glare is decreased. The least glare is from an all-luminous ceiling, which also has the lowest luminance (c).”

11. Reflective + Nonreflective Materials

This image shows a comparison of flooring materials, under the same lighting, based on levels of reflectance. As opposed to changing the light scheme altogether, new flooring material can also eliminate glare.

12. Diffused Lighting #1

This jewelry store uses diffused lighting to illuminate the space and very limited direct lighting to highlight merchandise, which may be a useful strategy in The North Face, which currently relies on direct lighting throughout the store. Additionally, the flooring in this example provides a soft glow, but does not reflect or cause glare like the floor in The North Face.

13. Diffused Lighting #2

“Ribbons” of material are laid beneath direct lighting fixtures to diffuse the light – reducing intensity and the chance of glare off reflective surfaces.
14. Diffused Lighting #3
This image illustrates a combination of non-reflective flooring and diffused lighting.

15. JCPenney Wall Display #1
In this section of JCPenney, spotlighting is used only to highlight merchandise along the wall, while general overhead lighting illuminates the sales floor. By angling the lighting toward the wall, customers are less likely to inadvertently gaze directly at the light source. In addition to the spotlights, additional accent lighting is built into the wall display to further illuminate the product. Flooring here, however, is reflective, and therefore still produces a glare from some perspectives.

16. JCPenney Wall Display #2
Similar to image #15, spotlights and additional accents along this wall are used only to highlight merchandise – and not the sales floor. These lighting fixtures, however, are hidden completely from customer view behind a soffit, which further reduces any chance of gazing directly into the source. Additionally, the flooring here is carpet, which is completely nonreflective and therefore eliminates glare.
17. JCPenney Wall Display #3

The spotlights in this image are placed in front of the soffit, still directed at the wall. The accent lighting, however, is much brighter, and still hidden from customer view. This is another example of illuminating merchandise while ensuring the customer cannot look directly into the light source.

18. JCPenney Flooring Material

The hardwood floor in image 15 is reflective and, as mentioned, produces a glare, while the carpet in image 16 would not fit the industrial style of The North Face. The flooring in this image, used throughout the circulation paths of JCPenney, is a hard, natural material that does not produce glare. This is similar in appearance to the current flooring at The North Face, but is less reflective. A material such as this would fit well with the current style and help eliminate the problem of glare.

Related Issues

Physical Comfort: The current lighting scheme and flooring material creates glares that could present a hazard for some, especially near the stairs. Although safety is always critical, this issue is a relatively low priority since other aspects of the store have been found to be safe.

Physical Safety: The glare and intense spotlighting can cause discomfort to employees and customers over time.

(See VIII: Issues, Goals, and Performance Requirements)
### Issue 1: Economy

<table>
<thead>
<tr>
<th>Goal Statement(s)</th>
<th>Performance Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any renovations, improvements, or other design solutions should provide maximum function relative to costs incurred by the client.</td>
<td>- Projected revenue increase over ten-year span resulting from each solution should exceed costs of the associated renovation.</td>
</tr>
<tr>
<td></td>
<td>- Efforts should be made to solve two or more of the identified issues with single design solutions.</td>
</tr>
<tr>
<td></td>
<td>- Design emphasis and funding allocation shall be prioritized as follows: (1) increasing storage space; (2) increasing security; (3) increasing inclusiveness; (4) improving safety; (5) increasing comfort.</td>
</tr>
</tbody>
</table>

### Issue 2: Flexibility

<table>
<thead>
<tr>
<th>Goal Statement(s)</th>
<th>Performance Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space allocated for storage should exceed current client needs to meet future requirements.</td>
<td>- Allocated storage space shall meet or exceed 125% of current needs.</td>
</tr>
<tr>
<td></td>
<td>- Additional storage space should not reduce office space, bathroom space, or space shared with third floor occupants; nor should it occupy space observable by the public.</td>
</tr>
<tr>
<td></td>
<td>- Same or similar items should be stored adjacently; and all storage spaces should be located within close proximity – that is, within 20 seconds walking distance.</td>
</tr>
<tr>
<td></td>
<td>- Stored footwear should be organized by gender, style, and size, and clearly marked to allow the quickest retrieval; retrieval of footwear for customers from storage should take no longer than 30 seconds.</td>
</tr>
<tr>
<td>All private spaces should be adaptable for use as temporary storage, if needed.</td>
<td>- The private office and hallways, along with any added private spaces after renovation, should be large enough to temporarily store any overflow of merchandise, if needed.</td>
</tr>
<tr>
<td></td>
<td>- All current private space, both horizontally and vertically, should be utilized to maximum extent to increase storage capacity.</td>
</tr>
</tbody>
</table>
### Issue 3: Security

<table>
<thead>
<tr>
<th>Goal Statement(s)</th>
<th>Performance Requirement</th>
</tr>
</thead>
</table>
| The children’s and men’s department spaces should be further integrated with the main sales floor space to opportunities for theft. | - All alcoves and recesses should be removed from the main sales floor.  
- Non-essential visible obstructions, to include mannequins, signs, and displays, should be relocated or removed to prevent impediment of view along walls or in corners. |

### Issue 4: Visibility

<table>
<thead>
<tr>
<th>Goal Statement(s)</th>
<th>Performance Requirement</th>
</tr>
</thead>
</table>
| Visibility to and from the second-floor children’s and men’s departments should be maximized to improve customer-employee relations and further reduce opportunities for theft. | - The number of employees required to maintain 90% visibility of the sales floor should be reduced to 3; and the number of employees required to maintain 100% visibility of the sales floor should be reduced to 4.  
- Every location of the sales floor should be visible from cash registers or centralized points on the first and second floors.  
- Dressing room doors should be visible from cash registers and folding stations. |
| Any changes to the lighting scheme should maintain or improve the current level of luminosity for merchandise and displays. | - Spotlighting should be retained in predominant areas to highlight permanent mannequin, sign, and display locations.  
- Spotlighting should be aimed at centers of clothing racks and tables, where customers cannot gaze directly into the path of light. |

### Issue 5: Circulation

<table>
<thead>
<tr>
<th>Goal Statement(s)</th>
<th>Performance Requirement</th>
</tr>
</thead>
</table>
| All customers should have the ability to locate and use an elevator with ease, if needed or preferred over the use of stairs. | - The elevator should be visible and apparent from the store entrance.  
- A clear path of circulation should be made from the store entrance to the elevator doors, free from any physical barrier or obstruction, to include the existing crash door. |
All renovations and changes should maintain or improve the current flow of circulation for employees and customers.

- All renovations shall not interfere with – but may improve – current circulation patterns.
- All circulation paths shall maintain, at minimum, a 36” diameter of open space to maneuver.

### Issue 6: Convenience

<table>
<thead>
<tr>
<th>Goal Statement(s)</th>
<th>Performance Requirement</th>
</tr>
</thead>
</table>
| Access to and use of the elevator should be simplified and improved to facilitate customers who either want or need an easier method of ascending to the second floor | - The elevator shall be open to public use without employee assistance, and accommodate the physically, visually, audibly, or cognitively impaired.  
- The elevator shall comply with current ADA standards. |

### Issue 7: Physical Safety

<table>
<thead>
<tr>
<th>Goal Statement(s)</th>
<th>Performance Requirement</th>
</tr>
</thead>
</table>
| Glare on the floors should be reduced or eliminated wherever possible, especially near the stairs and other areas of potential danger. | - If the budget allows, flooring material should be replaced or altered to eliminate glare.  
- Spotlighting should be redirected away from the floor or any other reflective surface. |

### Issue 8: Physical Comfort

<table>
<thead>
<tr>
<th>Goal Statement(s)</th>
<th>Performance Requirement</th>
</tr>
</thead>
</table>
| Spotlight intensity and/or direction should be adjusted to reduce glare and improve the physical comfort of all users. | - Spotlighting targeting temporary fixtures or displays should be removed.  
- Permanent locations should be identified for displays and fixtures that can be replaced or rotated as seasons, sales, or promotional periods mandate. |
## Public Space (Sales Floor)

<table>
<thead>
<tr>
<th>Room</th>
<th>Size (ft²)</th>
<th>Adjacencies</th>
<th>Level of Daylight</th>
<th>View</th>
<th>Privacy</th>
<th>Plumbing</th>
<th>Special Equip.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women's</td>
<td>1092</td>
<td></td>
<td>Max</td>
<td>Max</td>
<td>Min</td>
<td>N/A</td>
<td>Sales Equip./Displays</td>
</tr>
<tr>
<td>Featured</td>
<td>106</td>
<td>[Store Entrance]</td>
<td>Max</td>
<td>Max</td>
<td>Min</td>
<td>N/A</td>
<td>Sales Equip./Displays</td>
</tr>
<tr>
<td>Outdoor Equip.</td>
<td>44</td>
<td></td>
<td>Max</td>
<td>Max</td>
<td>Min</td>
<td>N/A</td>
<td>Sales Equip./Displays</td>
</tr>
<tr>
<td>Footwear</td>
<td>340</td>
<td></td>
<td>Max</td>
<td>Max</td>
<td>Min</td>
<td>N/A</td>
<td>Sales Equip./Displays</td>
</tr>
<tr>
<td>Men’s</td>
<td>1767</td>
<td></td>
<td>Max</td>
<td>Max</td>
<td>Min</td>
<td>N/A</td>
<td>Sales Equip./Displays</td>
</tr>
<tr>
<td>Children’s</td>
<td>374</td>
<td></td>
<td>Max</td>
<td>Max</td>
<td>Min</td>
<td>N/A</td>
<td>Sales Equip./Displays</td>
</tr>
</tbody>
</table>

## Semi-Private Space (Sales Floor)

<table>
<thead>
<tr>
<th>Room</th>
<th>Size (ft²)</th>
<th>Adjacencies</th>
<th>Level of Daylight</th>
<th>View</th>
<th>Privacy</th>
<th>Plumbing</th>
<th>Special Equip.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cashier (2)</td>
<td>494</td>
<td></td>
<td>Mid</td>
<td>Max</td>
<td>Min</td>
<td>N/A</td>
<td>Counters/Register/Disp.</td>
</tr>
<tr>
<td>Dress Rms (3)</td>
<td>102</td>
<td></td>
<td>Mid</td>
<td>Min</td>
<td>Max</td>
<td>N/A</td>
<td>Seating</td>
</tr>
</tbody>
</table>

## Private Space (Storeroom/Office/Restrooms/Utilities)

<table>
<thead>
<tr>
<th>Room</th>
<th>Size (ft²)</th>
<th>Adjacencies</th>
<th>Level of Daylight</th>
<th>Level of View</th>
<th>Privacy</th>
<th>Plumbing</th>
<th>Special Equip.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Storage</td>
<td>725</td>
<td>Sales Floor/All Pvt.</td>
<td>Min</td>
<td>Min</td>
<td>Max</td>
<td>Full Access</td>
<td>Storage equip.</td>
</tr>
<tr>
<td>Office</td>
<td>135</td>
<td>[Main Storage]</td>
<td>Min</td>
<td>Min</td>
<td>Max</td>
<td>Full Access</td>
<td>Desk/Seating</td>
</tr>
<tr>
<td>Storage Rm</td>
<td>87</td>
<td>[Main Storage]</td>
<td>Min</td>
<td>Max</td>
<td>Max</td>
<td>Full Access</td>
<td>Storage equip.</td>
</tr>
<tr>
<td>Baths (m/f)</td>
<td>98</td>
<td>[Main Storage]</td>
<td>Min</td>
<td>Max</td>
<td>Max</td>
<td>Required</td>
<td>Typ. Plumbing</td>
</tr>
<tr>
<td>Boiler Rm</td>
<td>222</td>
<td>[Main Storage]</td>
<td>Min</td>
<td>Min</td>
<td>Max</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Mech. Rm</td>
<td>93</td>
<td>[Main Storage]</td>
<td>Min</td>
<td>Min</td>
<td>Max</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Total Sales Floor Size: 4319 sq. ft.
Total Private Space Size: 1360 sq. ft.

Total Size: 5679 sq. ft.
+ 25% circulation 1420 sq. ft.

Grand Total: 7099 sq. ft.
Existing Total: 8100 sq. ft.

Difference between Existing and New: -12%
(Additional space of roughly 1000 square feet to be dedicated to additional storage)

The criteria matrix was generated using the existing building size and current spatial dimensions, since this project requires a renovation instead of a new facility. The difference between total size and existing size, however, is due to omitting shared circulation space as a North Face “room” – such as the emergency stairwells or shared elevators – and not including them in the calculations. Ideally, a new elevator will replace the need to use the existing, thus eliminating roughly 1000 square feet from the plan.

By comparison, the men’s department is the largest, but also includes the most “secluded space” as discovered in previous observations. This space can be reduced in size, potentially. The storage room, conversely, would benefit most from additional space. It was estimated in the preliminary program that an additional 1090 cubic feet – or roughly 175 square feet accounting for circulation and floor-to-ceiling height – would achieve the goal of providing a total of 125% required storage space.
Bubble Diagrams

Existing Layout:

Ideal Layout:
# Programming Summary

<table>
<thead>
<tr>
<th>Activity</th>
<th>Completion Date</th>
<th>Time Spent (days)</th>
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<tbody>
<tr>
<td>Project Identification</td>
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<td>Data Collection Design</td>
<td>19 Jan</td>
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<td>Interviews</td>
<td>22 Jan</td>
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<tr>
<td>Data Collection Report</td>
<td>26 Jan</td>
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<td>Literature Review I</td>
<td>29 Jan</td>
<td>3</td>
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<tr>
<td>Behavioral Mapping</td>
<td>02 Feb</td>
<td>4</td>
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<tr>
<td>Data Collection Analysis</td>
<td>06 Feb</td>
<td>4</td>
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<td>Client Needs</td>
<td>09 Feb</td>
<td>3</td>
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<td>Issues and Goals</td>
<td>19 Feb</td>
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<tr>
<td>Performance Requirements</td>
<td>26 Feb</td>
<td>7</td>
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<tr>
<td>Facts (Form Analyses)</td>
<td>02 Mar</td>
<td>4</td>
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<td>Definitions</td>
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<td>3</td>
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<tr>
<td>Preliminary Program</td>
<td>12 Mar</td>
<td>7</td>
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<tr>
<td>Observational Research</td>
<td>16 Mar</td>
<td>4</td>
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<td>10</td>
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<tr>
<td>Literature Review II</td>
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<td>Prototypical Sketches</td>
<td>6 Apr</td>
<td>4</td>
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<td>Criteria Matrix</td>
<td>9 Apr</td>
<td>3</td>
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<tr>
<td>Bubble Diagram</td>
<td>13 Apr</td>
<td>4</td>
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<tr>
<td>Revised Schedule</td>
<td>20 Apr</td>
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# Forthcoming Schedule

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<th>Activity</th>
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<tr>
<td>Literature Review III</td>
<td>23 Apr</td>
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<tr>
<td>Final Program</td>
<td>30 Apr</td>
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<tr>
<td>Schematic Design</td>
<td>1 Jun</td>
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<td>Design Development</td>
<td>1 Jul</td>
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<td>Construction Documentation</td>
<td>1 Aug</td>
</tr>
<tr>
<td>Bidding</td>
<td>1 Sep</td>
</tr>
<tr>
<td>Contractor Selection</td>
<td>15 Sep</td>
</tr>
<tr>
<td>Construction</td>
<td>31 Dec</td>
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</table>
This document serves as the final program for The North Face in Anchorage, AK, containing updates and revisions of the preliminary programs presented on 12 March and 23 April 2017. All research, observations, and findings since have been included. This document concludes the programming phase and will be utilized during schematic design.

As previously covered, the main objective of the North Face renovation is to develop sufficient storage space and increase its total storage capacity beyond current requirements. This is a necessity to ensure operation continues fluently. Additionally, designs shall also address the client’s expressed preferences, to include eliminating secluded spaces; improving elevator access; and improving the lighting scheme. The proposals will follow all design criteria cited in this document.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Programming</td>
<td>Design programming is a link between the client and the designers; it is a step that translates the needs and wants of the client into a concise, yet comprehensive, project outline for the design team. According to Problem Seeking, programming includes the following five steps: “establish goals; collect and analyze facts; uncover and test concepts; determine needs; state the problem.”</td>
</tr>
<tr>
<td>Reductionism</td>
<td>Simplifying a set of information or collected data to ease the design process. For example, a programmer may sort through a large amount of collected data, and select only what is applicable to share with the design team, thus reducing an overload of unnecessary information.</td>
</tr>
<tr>
<td>Heuristic</td>
<td>Information that, according to Problem Seeking, serves to “guide, discover, or reveal.” This term refers to an experimental or investigative approach to research.</td>
</tr>
<tr>
<td>Methodology</td>
<td>A term to describe the “approach” taken, the steps involved, and decisions made toward solving a design problem.</td>
</tr>
<tr>
<td>Total Project Delivery System</td>
<td>This term describes the process in which a project develops, from conception to final design. According to Problem Seeking, this includes: “(1) programming, (2) schematic design, and (3) design development.”</td>
</tr>
<tr>
<td>Schematic Design</td>
<td>Part of the “Total Project Delivery System,” or design process, where programming requirements and prior research are used to create a basic design – or designs. This includes, according to Problem Seeking, “basic architectural concepts, space requirements and relationships, primary circulation, scale, massing, use of site, general appearance, and scope of the project.” Upon consultation with the client and their approval, the design team moves into the design development stage.</td>
</tr>
<tr>
<td>Design Development</td>
<td>A phase in the design process, typically after schematic design, leading toward the final development of a project. According to Problem Seeking, this includes “the determination, design, and coordination of architectural, structural, mechanical, and electrical systems; equipment layouts; and all related site development.”</td>
</tr>
<tr>
<td>Definitions</td>
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<td>----------------------------------------------------------------------------</td>
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<tr>
<td><strong>Building Information Modeling (BIM)</strong></td>
<td>The collection and management of building data for a project “during its life cycle,” from the initial programming, through the design process, and into maintenance thereafter.</td>
</tr>
<tr>
<td><strong>Goals</strong></td>
<td>The “objectives, aims, missions, purposes, reasons, philosophies, aspirations, and policies” of a project to be obtained through successful design solutions – based on the needs and/or wants of the client.</td>
</tr>
<tr>
<td><strong>Objectives</strong></td>
<td>A more defined goal, that outlines more concrete and quantifiable results to be achieved.</td>
</tr>
<tr>
<td><strong>Mission Statement</strong></td>
<td>A mission statement “explains the reason” for an organization’s – or client’s – “existence.” This can be used to aid in defining goals and validate solutions for a project.</td>
</tr>
<tr>
<td><strong>Value</strong></td>
<td>Value is worth, based on desires, utility, or importance, which “acts as a basis for motivation.” A design solution should aim at increasing overall value for the client.</td>
</tr>
<tr>
<td><strong>Empirical</strong></td>
<td>Data that is factual and often quantifiable, discovered through research or observations.</td>
</tr>
<tr>
<td><strong>Design Concept</strong></td>
<td>A concept is an idea or strategy; a design concept is a conceived solution toward “the client’s architectural problem.” Design concepts are formed during the schematic design phase, after programming; according to Problem Seeking, forming design concepts during the programming phase is “jumping to conclusions.”</td>
</tr>
<tr>
<td><strong>Performance Requirements</strong></td>
<td>Performance requirements further define how to accomplish the goals of the project, accounting for more “unique” restraints specific to a particular project, such as the “physical, social, and psychological environment.”</td>
</tr>
<tr>
<td><strong>Net Area</strong></td>
<td>The area needed for a specific user or specific programmatic requirements.</td>
</tr>
<tr>
<td><strong>Gross Area</strong></td>
<td>The total of “net assignable areas and required secondary circulation” for a specific group of users.</td>
</tr>
<tr>
<td><strong>Definitions</strong></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td><strong>Building Efficiency Factor</strong></td>
<td>Mathematical expressions of area relationships, to include Overall Building Efficiency, Base Building Efficiency, Interior Layout Efficiency, and a Rentable/Usable Ratio.</td>
</tr>
<tr>
<td><strong>Interior Layout Efficiency</strong></td>
<td>A building’s Interior Layout Efficiency is the ratio of the Net Assignable Area to the Usable Area, expressed as a percentage.</td>
</tr>
<tr>
<td><strong>Professional Fees</strong></td>
<td>These are the fees associated with architectural, engineering, consultant, designer, and programming services.</td>
</tr>
<tr>
<td><strong>Administrative Cost</strong></td>
<td>These are the fees associated with required tests and services of programming and design, to include “legal fees, site survey, soil testing, insurance, and material testing.”</td>
</tr>
<tr>
<td><strong>Core Finish, Interior Fit-Up</strong></td>
<td>The culmination of interior components in a building, to include “partitions, interior finishes, and specialties, such as lockers, toilet accessories, counters, kitchen cabinets, and closets.”</td>
</tr>
<tr>
<td><strong>Life-Cycle Assessment (LCA)</strong></td>
<td>An assessment of the “inputs and outputs” of a building’s functions, services and components, as well as the “potential environmental impact.”</td>
</tr>
</tbody>
</table>
References


Image References (Sections IV-VII, p. 15-28)


ID PROGRAMMING

INTERVIEW SUMMARY

PROJECT NAME __________ The North Face, Anchorage ____________________________

INTERVIEWEE (name, title/role) _______ EJ Reiser, Store Manager __________

(Phone, e-mail for follow up?) _______ TNF_Anchorage_Store@vfc.com _______

INTERVIEWER (NAME) _________________ Jonathan J. Sicurella __________

TIME AND LOCATION __________ 21 Jan 2017, The North Face, Anchorage, AK _______

1. **Secluded Spaces** (potential theft; customer service issues)
   - Issue was revealed before store opening
   - Theft not major concern due to other security measures and size/location of merchandise
     - Cameras focused in that area on closed circuit television
     - When heavy flow – have someone stationary there
     - Small expensive items close to checkout
   - Can cause customers to “get away” from staff members
     - Good and bad, “some people just want to browse on their own”
     - As long as they know where to find a staff member for questions
   - Divides departments
     - Verbally direct traffic; sometimes asked where to find children’s section
     - Could increase signage, but “bank on” interaction with customers
   - “In a perfect world, it would be better” if secluded spaces were eliminated

2. **Accessibility** (automated entry doors; “hidden” elevator; intense lighting/reflective floor)
   - In compliance with municipality ADA
   - Entry doors are in fact automated
   - Intense lighting used to highlight displays and items, meant to be out of the way
   - Elevator is an issue:
     - Staff must let members through crash door (alarm-based panic door) and through locked door on second floor; then inverse coming back down
     - Elevator in shared building space; therefore, can’t leave unlocked

3. **No Public Restrooms** (store policy on usage; inconvenience)
   - Only restrooms in private area
   - Store policy not to allow customer use – due to location

4. **High Congestion Area** (between clothing racks/merchandise/displays; contrasting areas)
   - Meant to open up circulation space
   - Still enough room to maneuver throughout
     - All clothing racks on wheels, and can be easily moved

Other issues/comments:
   - Back room has wasted space
     - Potential storage below stair case
       - Addition of door not approved by building owner
   - Mech room very large but can’t use for storage (building codes)
   - Stock room limited to first floor, 11-foot height
ID PROGRAMMING

INTERVIEW SUMMARY

PROJECT NAME __ The North Face, Anchorage __________________________

INTERVIEWEE (name, title/role) ________ Brian Plouffe, Staff Member ________

(Phone, e-mail for follow up?) ________ TNF_Anchorage_Store@vfc.com ________

INTERVIEWER (NAME) _________________ Jonathan J. Sicurella _________________

TIME AND LOCATION _____________ 21 Jan 2017, The North Face, Anchorage, AK _____________

1. **Secluded Spaces** (potential theft; customer service issues)
   - Concern for theft/customer service during busy hours
     - Staff member posted in the area
   - Wayfinding sometimes an issue with children’s department
     - Customer interaction stressed by management

2. **Accessibility** (automated entry doors; “hidden” elevator; intense lighting/reflective floor)
   - Elevator issue:
     - Have to escort customers upstairs via elevator
     - Need to obtain keys to unlock door, deactivate alarm on crash door
   - Lighting can be blinding if looked at directly
     - Never noticed issue with floor glares

3. **No Public Restrooms** (store policy on usage; inconvenience)
   - Sometimes asked for restrooms by customer
   - Only allowed in case of emergency

4. **High Congestion Area** (between clothing racks/merchandise/displays; contrasting areas)
   - All items on sales floor can be moved to open up space if needed
   - Has been an issue for customers with baby strollers
     - Easy fix by letting them move racks
     - Assistance given if needed

**Other issues/comments:**
- Frequently complimented on aesthetics
- Atmosphere makes job more enjoyable
ID PROGRAMMING

INTerview SUMMARY

PROJECT NAME The North Face, Anchorage

INTERVIEWEE (name, title/role) Maria Grillo, Customer

(Phone, e-mail for follow up?) mgrillo819@gmail.com

INTERVIEWER (NAME) Jonathan J. Sicurella

TIME AND LOCATION 21 Jan 2017, The North Face, Anchorage, AK

1. **Secluded Spaces** (potential theft; customer service issues)
   - Noticed limited space in children’s clothing area; could be congested when busy

2. **Accessibility** (automated entry doors; “hidden” elevator; intense lighting/reflective floor)
   - “Minor” inconvenience leaving stroller downstairs, in lieu of using elevator
     - Had to hold baby while shopping upstairs
   - Accessing store not an issue with automated doors
   - Lighting improved visibility

3. **No Public Restrooms** (store policy on usage; inconvenience)
   - Not noticed or needed; could be inconvenient if baby changing was needed

4. **High Congestion Area** (between clothing racks/merchandise/displays; contrasting areas)
   - Some tight spaces on first floor women’s, but enough to maneuver stroller if needed

Other issues/comments:
- N/A
Appendix B: Behavioral Mapping

Jonathan J. Sicurella
Professor Reza Ahmed
FCD 613, Design Analysis
2 Feb 2017

A7W4: Behavioral Mapping

The following data illustrates the behavior of customers at the Anchorage North Face Store, between 6:30pm and 7:00pm, on 31 January and 1 February. The study observed spatial usage, activities, and time spent.
North Face Questionnaire
As part of a course on design analysis for an interior design program, I am asking volunteers to answer the following questions. Your participation is greatly appreciated. Please circle your responses, and leave the questionnaire with the cashier, or send responses to: jjsicurella@bsu.edu

1. Did you notice any areas of the store that felt secluded? YES NO
   1a. If yes, was customer service effected in these areas? YES NO

2. Were staff members easily found for questions/help? YES NO

3. Was lighting in the store adequate? YES NO

4. Was lighting in the store too intense in some areas? YES NO
   4a. If yes, what areas? __________________________________________

5. Were areas of the store too tight, too congested, or offer little room to maneuver? YES NO
   5a. If yes, what areas? __________________________________________

6. Did you access the 2nd floor? YES NO
   6a. Did you use the stairs or elevator? Elevator Stairs
   6b. How would you rate accessing the 2nd floor? (1=hardest; 10=easiest)
       1 2 3 4 5 6 7 8 9 10

7. Were restrooms needed during your shopping experience? YES NO

8. In what areas of the store did you shop, and how would you rate your experience in these areas? (1=worst; 10=best)
   Women's: 1 2 3 4 5 6 7 8 9 10
   Men's: 1 2 3 4 5 6 7 8 9 10
   Children's: 1 2 3 4 5 6 7 8 9 10
   Footwear: 1 2 3 4 5 6 7 8 9 10
   Accessories: 1 2 3 4 5 6 7 8 9 10

9. Do you have any additional concerns or information you would like to provide regarding your experience in The North Face?
North Face Questionnaire Results

1. Did you notice any areas of the store that felt secluded?  
   3 YES  11 NO
   1a. If yes, was customer service affected in these areas?  
   1 YES  2 NO

While most did not notice areas of seclusion, 3 did, and one customer admitted customer service was affected. Although the “yes” responses were not overwhelming, this still seems to be an issue to be addressed.

2. Were staff members easily found for questions/help?  
   12 YES  2 NO

The majority of customers said staff members were easily found for questions and help, although 2 answered “no.” In these instances, additional information in question #9 would have been useful, but was not provided. One customer did mention that customer service was “great,” however.

3. Was lighting in the store adequate?  
   13 YES  1 NO

Almost all respondents found the lighting in the store to be sufficient.

4. Was lighting in the store too intense in some areas?  
   2 YES  12 NO
   4a. If yes, what areas?  
   Response 1: “by clothing racks”  
   Response 2: “random areas”

Two customers answered yes to intense lighting, “by clothing racks” and in “random areas.” It would be interesting to know if they would have noted this without being asked, but their responses still confirm that this is an issue to address.

5. Were areas of the store too tight, too congested, or offer little room to maneuver?  
   0 YES  14 NO
   5a. If yes, what areas?  
   No responses

All customers felt there was enough room throughout the store.

6. Did you access the 2nd floor?  
   9 YES  5 NO
   6a. Did you use the stairs or elevator?  
   0 Elevator  9 Stairs
   6b. How would you rate accessing the 2nd floor? (1=hardest; 10=easiest)
   1 2 3 4 5 6 7 8 9 10
   0 0 0 0 1 0 1 0 1 6

All customers used the stairs to access the 2nd floor, which unfortunately provided no information in regards to the issue of the elevator. Three customers, however, marked less than “10/10” in regards to ease of access, presumably because of the number of stairs needed to climb, which may suggest they’d rather use the elevator if visible and easily accessed.

7. Were restrooms needed during your shopping experience?  
   0 YES  14 NO
All customers stated no need for public bathrooms while shopping.

8. In what areas of the store did you shop, and how would you rate your experience in these areas? (1=worst; 10=best)

<table>
<thead>
<tr>
<th>Department</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<tr>
<td>Women's</td>
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<td>Children's</td>
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<td>Footwear</td>
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<td>1</td>
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</tbody>
</table>

Most customers marked “10/10” for each department they visited, with a few exceptions. One customer who visited both men’s and women’s marked “9” for women’s and “8” for men’s, which provides a useful comparative response. The lowest score received was a “5” for children’s, although no additional information was provided as to why.

9. Do you have any additional concerns or information you would like to provide regarding your experience in The North Face?

Response 1: “Great customer service”

Unfortunately, only one customer provided additional information at the bottom. Their response pertained to customer service, as addressed in question #2, “were staff members easily found for questions/help?”
Of the fifteen sources reviewed, the official North Face website (The North Face, 2017) was the most crucial to gain direct insight into the company’s outlook, ambitions, and goals. Their slogan, “never stop exploring,” is a governing concept for the store’s design, and should be applied to all aspects of this renovation as well. Features added to the Anchorage store can be made to represent qualities of the “extreme environments” in which their customers use their products. The International Directory of Company Histories’ summary of The North Face, Inc. (Boyd, Stansell, 2007) offered further information on their established image and vision, which designers should also take into consideration.

Common sources regarding building and planning standards, codes, and local ordinances were also reviewed. The international building code (International Code Council, 2014) regulates new construction with comprehensive guidelines for applicable topics, such as accessibility, interior finishes, interior environments, and elevators. Locally, AO No. 2015-127 (Anchorage Dept. of Law, 2015) further regulates new renovations in terms of permits, licensing, inspections, occupancy, and building safety. Architectural Graphic Standards (Bassler, 2008) outlines current construction methods and practices in accordance with the International Building Code through graphical representation, and will be used by designers to reference various requirements of the design.

The 2010 ADA Standards for Accessible Design (United States., Department of Justice, 2010) acts as a governing ordinance for accessibility, and compliance is mandatory. It is often criticized, however, for providing only minimum requirements, therefore permitting designs that are not fully inclusive. Linda Nussbaumer’s Inclusive Design: A Universal Need (Nussbaumer, 2012) was therefore reviewed to gain further awareness of current strategies and approaches toward building inclusive environments. Applicable subjects covered in this text include shopper behavior, wayfinding, and accessibility. Furthermore, the effects of lighting on the visually impaired and elderly are reviewed in detail, indicating the importance of improving the store’s current lighting scheme. The design strategies suggested by Nussbaumer should be considered during the design phase of this project. Kaufman-Scarborough’s research literature Sharing the Experience of Mobility-Disabled Consumers (Kaufman-Scarborough, 2001) explores the psychological impact of non-inclusive environments, suggesting that although The North Face complies with all ADA standards, disregarding needed improvements to second floor access may discourage some customers from shopping at the store.

To explore solutions implemented by successful retail designs, Chain Store Age magazine’s 2011 Store of the Year issue (Retail Store of the Year, 2011) was reviewed with particular attention toward material and product selections. The store images offer ideas for nonreflective flooring and lighting fixtures that would help reduce glare. Inside the Mind of the Millennial Shopper: Designing Retail Spaces for a New Generation (Calienes, Carmel-Gifilen & Profilio, 2016) examines the impact of certain design features among a target group of The North Face, noting how various tangible and intangible cues can encourage or discourage millennial shoppers. The research suggests that non-reflective hardwood flooring, which correlates with the existing North Face style, would not only help reduce glare but also add an “upscale” feel to the space. The authors also indicate that diffused lighting may be perceived better than direct spotlighting. Upon further study with regard to Tantanatwin & Inkarojrit’s Effects of Color and Lighting on Retail Impression and Identity (2016), it is revealed that diffused lighting can improve a store’s image, and that introducing a color hue to the ambience can have additional effects on customers. Information found in the iRetail Interior Design Blog (2015) and an interview with a retail employee (Ferree, 2017) concluded the retail environment study and explains how the shopping experience has changed over the years.
Specific research was also performed in relation to the top two priorities of this renovation: Carmel-Gilfilen explains in *Advancing Retail Security Design: Uncovering Shoplifter Perceptions of the Physical Environment* (2011) various techniques in retail security as well as design strategies that can be utilized to remove opportunities for theft. Finally, the Spacesaver Corporation’s website (Spacesaver, 2017) was reviewed to discover condensed storage solutions to increase the North Face’s storage capabilities – without necessarily increasing the amount of space dedicated to storing merchandise.

The following are brief synopsis of each source with additional information as it relates to The North Face renovation.

1. **Effects of Color and Lighting on Retail Impression and Identity**  
   [Professional Publication]

   The North Face store uses rather intense spotlights to highlight elements within, including merchandise, mannequins, and displays. Combined with reflective flooring, the lights can be unpleasant, distracting, and possibly harmful to the elderly and those with visual limitations. This article focuses on lighting techniques in retail design, covering careful application of both color and lighting in a space; various color tones of lighting; and customer perception of lighting arrangements. The information would be useful in designing new lighting schemes as suggestions to The North Face management.

   According to Tantanatewin and Inkarojrit, lighting in retail is used to “provide ambience illumination, attract attention and accentuate merchandise,” balancing factors such as “lighting arrangement, brightness level, light source properties, uniformity and contrast” throughout.


2. **Advancing Retail Security Design: Uncovering Shoplifter Perceptions of the Physical Environment**  
   [Professional Publication]

   This article is an excellent source of information on retail security implementation, which creates a strategy based on increased efforts and risks, and reduced rewards, provocations, and excuses for potential theft. Also discussed is the elimination of opportunity, which reinforces the concept of removing secluded spaces within The North Face store. Some specific approaches and design techniques are also illustrated, such as noting ideal locations of specific merchandise and the removal of visible obstructions. Carmel-Gilfilen cites the “Criminological Theory” as a way of understanding criminal intentions in order to produce a design that diminishes the motivation of theft.
Fig. 1. “Techniques of situational crime prevention (p. 23)"

Fig. 2. “Fixtures that market and consider loss prevention” (p. 37)


3. **Architectural Graphic Standards**  
   [Building and Planning Standards]

Architectural Graphic Standards is a resource often used by architects and designers, as it pertains to all aspects of building design. It provides graphical representation of current building techniques in accordance with general building codes, that would be useful for designers of any and all renovations in relation to this project. This information would be particularly useful for relocating the elevator or opening the existing elevator to the sales floor, as well as adding additional storage space in the private spaces, and ensuring proper space for circulation and maneuvering. Chapters of particular interest include (3), interiors; (5) equipment and furnishings; and (13) inclusive design.
4. **2010 ADA Standards for Accessible Design**  
[Building and Planning Standards]

The ADA Standards for Accessible Design provides details regarding accessibility, and compliance is required for new construction or renovations. This information would be a helpful addition to the Architectural Graphic Standards, needed for alterations that improve accessibility and create a more inclusive environment.


5. **A 2015 International Building Code**  
[Codes and Ordinances]

The International Building Code outlines regulations that must be followed for new construction and renovations, and covers accessibility, interior finishes, interior environments, and elevators – among other topics.


6. **AO No. 2015-127**  
[Codes and Ordinances]

In addition to the International Building Code, the city of Anchorage further regulates construction methods and procedures through AO No. 2015-127, addressing permits, licensing, inspections, occupancy, and building safety. This document outlines laws that must be followed before, during, and after construction.

7. **IRetail Interior Design Blog**  
   [Popular Literature]

IRetail is an interior consultant and design firm, whose website includes a blog that focuses on retail design. Many articles focus on the arrangement of displays and merchandise to improve appearance, increase sales, and ensure accessibility – that may assist designers adjust the existing plan of The North Face, if data collected during space inventory and trace observation indicate the need to.


8. **Inclusive Design: A Universal Need**  
   [Research Literature]

Linda Nussbaumer’s *Inclusive Design: A Universal Need* addresses various aspects of inclusivity within the built environment. Chapter nine, in particular, addresses retail design, including aspects of shopper behavior, wayfinding, and accessibility. Other concerns are addressed throughout the book, applicable to this specific project, including the effects of lighting on the visually impaired and the elderly, with suggestions and techniques to controlling potential discomfort and harm.


9. **The North Face, Official Website**  
   [World Wide Web]

The official website of The North Face provides a current view of the company, its aspirations, and appearance. The company’s slogan, “never stop exploring,” has been applied to their store designs throughout the world as they continue to strive for innovation solutions in retail design. They are dedicated to mimicking the “extreme environments” in which their customers explore through their store designs, and any recommended changes or alterations should follow similar themes.


10. **The North Face, Inc., from the International Directory of Company Histories**  
    [Historical Documents/Archives]

This detailed summary of The North Face’s history, from their conception in 1965 to today, does not provide specific design criteria or techniques, but offers information that is needed to understand the company’s past, present, and future. Having been a leader in winter apparel and outdoor equipment for over 50 years, they have established a tradition that should not be ignored in their store designs.

11. Inside the Mind of the Millennial Shopper: Designing Retail Spaces for a New Generation
[Professional Publication]

The North Face sells outdoor clothing for cold environments, and markets specifically toward extreme cold-weather outdoor activities, such as snowboarding. A large part of their customer base, therefore, is younger – to include millennials. This article reviews design elements and styles that encourage millennial shoppers to enter a store, as well as “intangible dimensions” used to create “dynamic, engaging retail environments for this generation.” Tangible elements include atmospheric cues that stimulate all of the customer’s senses, such as lighting, color, and crowding. Intangible cues, on the other hand, include “ambient scents, music, temperature, and services or experiences with the environment.”

In regards to lighting:

*Participants positively commented on the type of lighting (specifically chandelier, backlighting, and oversized lamp) and described the lighting as being “bright,” “classy,” and “beautiful.” Both the lighting fixtures as well as the ambiance they created were noted. The only negative lighting comment was related to a space that was too intensely lit.*

These findings provide additional evidence that the intense lighting of The North Face is an issue, and suggest that more unique, creative fixtures may be perceived better than direct spotlights.

In terms of physical appearance, subjects also associated wood – such as hardwood floors – with being “upscale” and “high-end.” In replacing the floor, a non-glare hardwood style may be one consideration. Ease and comfort were also qualities important to millennials, relating to the improvements needed to second-floor access at The North Face.


12. Sharing the Experience of Mobility-Disabled Consumers
[Research Literature]

This research provides direct insight toward retail designs from mobility-impaired consumers. As stated by the authors: “accessibility is typically examined by measuring architectural violations in retail settings” based on current ADA requirements, when in fact, those with limited mobility actually face tougher challenges than may be apparent on the surface. Their experiences can be “more complex” and include “fear of unexpected barriers and insensitive treatment by store employees,” among other issues. In The North Face, the “hidden” and hard-to-access elevator to the second floor presents an issue that – while compliant with ADA standards – still excludes users, however subtle it may seem to management. Information from this article could be presented to The North Face management to encourage a more inclusive elevator solution.

Of particular interest, the authors describe the psychological reactions to certain environmental conditions, and note that with a task such as accessing the 2nd floor, it’s
physical difficulty; the time it takes to do so as a mobility-impaired customer; and the embarrassment one may feel having to be escorted up and down, can often influence the user to forgo the hassle and instead end their shopping experience early.


13. Retail Store of the Year, 2011
[Historical Documents]

Chain Store Age magazine’s 2011 Retail Store of the Year issue lists, depicts, and comments on various retail store designs. They award a number of stores in various categories, such as overall entry; department store; “softline” design; “hardline” design; mass merchant store; best exterior; and many more. This piece documents the best designs of 2011, which still pertain to today. Many of the images provide great examples of lighting, circulation, storage, displays, styles, and overall form – all of which apply to The North Face. Design elements that the client may like could be further researched and used as precedents. The “Best Overall Entry” – Barneys New York Co-Op in Brooklyn, NY – in particular, has an industrial style and layout that closely relates to the current North Face theme. Images of Barneys show a hardwood floor that casts no glare, and interesting lighting fixtures that The North Face could mimic.

14. Spacesaver Corporation, Spacesaver.com
[Manufacturer’s Publication/World Wide Web]
Spacesaver is a manufacturer of “high-density mobile shelving” and “a variety of other innovative storage products” that help clients “better manage their time, space, and security.” They have dozens of various storage units that could benefit The North Face and help condense their storage to better utilize the existing space. Specifically, their high-density mobile shelving units; “freestyle” personal storage lockers; 4-post and case type shelving; and “Framewrx” bin shelving modular storage system – shown below – may be useful solutions to The North Face’s storage issues.

Although intended for medical supplies, bin shelving could be used to store accessories and other small items, while maximizing floor-to-ceiling space.

4-post and case type shelving units are fully customizable and can be designed to condense storage as much as possible.

The North Face already utilizes some mobile shelving; but if space permitted, additional mobile storage would help condense future merchandise and items.

Customizable storage lockers could be used to update and condense current employee personal storage space, or store high-valued merchandise or seasonal items.

15. The View from Behind the Counter, Design: Retail
[Trade/Professional Publication]

This article is an interview with a retail store employee to give design advice from an employee’s point of view, and offers many interesting concepts and ideas. In regards to customers, he points to millennials as being the majority of consumers in retail. “They know what they want. They’ve seen it online, or they have seen it on their friends.” Engagement with staff, especially among millennials, has decreased over the years. “If it’s just on a shelf, and all they needed was a size, that’s the engagement.” As it relates to the North Face, employees may spend more time at the cash registers and folding stations than walking around the sales floor, and the secluded spaces identified in the store should therefore be viewable from these particular locations.

From the employee’s standpoint, he argues that a store should be designed for “the highest traffic” that the store will face, which can be passed along to the design team. He also points to fitting rooms as needed more quality lighting, which could be included in The North Face’s lighting scheme redesign. A rack outside the clothing room for customers to place items they do not wish to purchase, he says, can also increase security and eliminate the hassle of cleaning out fitting rooms on a regular basis.