2021

ADHM 353 Project 1: The Winslow Hotel Programming Binder

ADHM 353 INTERIOR DESIGN STUDIO IV:
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Mission Statement

The Winslow Hotel & Spa strives to promote a warm, welcoming, and enjoyable environment for new and returning guests. Safety is of utmost importance as well as comfortable, modern furniture with a taste of downtown Fargo. Your hotel experience will be unlike any other.

User(s) Description

Hotel Management

The hotel management staff are responsible for recruiting, training and supervising staff within the hotel. They manage budgets, plan maintenance work and events, along with schedule room bookings. They handle customer comments and queries while ensuring compliance with health and safety legislation (Betterteam, 2021).

Hotel Staff

The Winslow Hotel & Spa offers a variety of staff members that work towards bettering the experience of the guests. They help to clean, prepare meals, schedule events, and provide assistance to all guests. They may be categorized under administration, guest services, or support staff (English 4 Hotels, 2021).

Housekeeping Supervisor

The supervisor of housekeeping is responsible for cleaning along with minimal maintenance tasks. They train new housekeepers and oversee staff performance daily. They conduct housekeeping checklists to ensure rooms and common areas are clean (Workable, 2021a).

Housekeeping Staff

The housekeeping staff are part of the largest department within the hotel industry, and are responsible for cleaning the guest rooms along with other hotel facilities. They help contribute to good health and safety of guests and staff (Park, 2021).

Café/Bar Manager

The manager of the café/bar is responsible for overseeing the staff and operations of the café/bar. They hire and train staff to provide excellent service to guests while maintaining the safety of all users. The ensure the facility's profitability (Indeed, 2021).

Café/Bar Staff

The staff at the café/bar will prepare alcoholic and non-alcoholic beverages to guests, interact with customers, take orders, and serve food and drinks. They also need to create a strong customer experience by providing strong customer service skills and knowing the function of the café/bar (Workable, 2021b).

Concierge

The concierge is responsible for knowing extensive knowledge about the hotel and the community. They assist guests with reservations, travel needs, and special events (Park, 2021).

Maintenance Staff

The maintenance and engineering staff are responsible for operating and maintaining hotel buildings and grounds. They help better the electrical and mechanical systems within the facility (Park, 2021).

Guests

Guests like travelers, caterers, café/bar users, and spa users will be entertained and served by the staff at the Winslow Hotel & Spa. They will experience a wonderful stay in the boutique hotel with many amenities in hopes of an enjoyable stay.

Scope of Work

As the interior designers of the Winslow Hotel and Spa, we will be improving the function and aesthetic of the existing space to create a unique and welcoming boutique hotel in downtown Fargo. This historic building will house an industrial modern design with comfortable furnishings and create a sense of home. Included within this hotel, there will be a café, lounge, fitness studio, and business center for guest to appreciate those amenities. To ensure the safety of the Winslow Hotel guests, we have incorporated smart technology and dynamic lighting fixtures to help aid accessibility and function within the space. This unique boutique hotel will consist of king and queen suites and a spa on the second level for guests to enjoy. The design features throughout the hotel consist of the original concrete columns and local blonde brick along the interior walls of the building. These features will be incorporated into a rehabilitated design to preserve the history of the original Ford building in Fargo.

Goals and Objectives

1. Provide the guests with an overall warm and welcoming feeling as they enter the building and accommodate their important needs and desires.

    1. Include warm and comforting colors in the common spaces for the guests to feel as though they are being included and their interests in the hotel are being taken care of accordingly (Harsritanto, et. al, 2020). Harsritanto, et. al, 2020).

    2. Amenities will be available for the guest's satisfaction during their stay. Allowing for contactless delivery options and pet accommodations will be provided (Rajaram, 2014).

    3. Guests will have access to Internet services, many cleaning options, comfortable lighting, and scents within the hotel for guests while they stay (Rajaram, 2014).

    4. The Café will have a variety of seating options and fixtures will help contribute to the design solution. The café will also offer a biophilic feature wall that naturally produces herbs (Rajaram, 2014).

2. Safety and security throughout a hotel are of utmost importance. Security is especially important during evening hours and if an emergency were to occur.

    1. The hotel will have safety plans on the back of all guest room doors. This includes a way for all guests to evacuate the building in a timely manner if there would ever be an emergency (Enz, 2009). Enz, 2009).

    2. Security cameras play an impactful role in hotel safety. This allows for the staff to be alerted when guests are entering and exiting the hotel and through all different entrance ways (Enz, 2009). Enz, 2009).

    3. Security guards are employed to stand near doorways to provide comfort for guests. This will improve security throughout the hotel and assist guests if necessary (Enz, 2009). Enz, 2009).

    4. Provide door locks that are controlled by an individual's phone. This will help protect a guest's identity and information that might be stored on a key card instead of an app. This will allow for not having to reset cards, save on plastic waste, and misplacing cards during their stay (Hertzfeld, 2020). Hertzfeld, 2020).

3. Utilize comfortable furniture that meets the needs of all guests' accommodations. Layout and types of furniture pieces help contribute to the design in both public and private spaces.

1. Provide modern furniture that is ergonomically comfortable and home-like to improve guest experience (DiNuzzo, 2020). DiNuzzo, 2020).

2. Incorporate bright, soft linens along with calming colors on furnishings within guest suites. Use dark colored upholstery on commonly used furniture to help prevent noticeable wear and tear (DiNuzzo, 2020). DiNuzzo, 2020).

3. Provide aesthetically pleasing furniture for the guests and staff working within the hotel. The furniture should contribute to the industrial, modern design (Zoom Inc, 2016).

4. Furniture will be safe and practical. The safety features on furniture include accessible armrests and sturdy legs. How and where the furniture is taken into consideration as well. The furniture will include resistive upholstery with high thread count that can withstand multiple uses (Zoom Inc, 2016).

4. Incorporate lighting, color and flooring that helps contribute to successful wayfinding for all.

1. Signs for wayfinding through the hotel will be able to be understood by all people. This includes multiple languages and different gestures (Creative Sign Designs, 2019).

2. Hotel signs will comply with ADA law to provide a navigable experience for guests of all abilities (Creative Sign Designs, 2019).

3. The wayfinding will contribute to a unique design solution that fits the industrial aesthetic of the Winslow Hotel. These wayfinding techniques can be found within the room numbers, building divisions and lighting. Various materials will also be incorporated into the design solution to help aid the ease of accessibility (Creative Sign Designs, 2019).

4. The wayfinding solution will be communicated through natural light and the use of color. Color will help contribute to sense of location and level of comfort (Arikan, 2012). Arikan, 2012).

Design Concept Statement

The Winslow Hotel, located in the heart of downtown Fargo, North Dakota, is situated in the historic Ford Building. This well-known building offers an abundance of historic charm including original blonde brick walls and concrete hexagonal columns throughout. The design of the Winslow Hotel has a modern, industrial design that is welcoming and comfortable. The mix of these styles was chosen to fit the urban feel of downtown Fargo, as well as the current, historic finishes inside. The industrial style of the building will be accentuated through exposed duct work, brick, beams, flooring, and other architectural components. The materials and products chosen for the Winslow Hotel are ADA compliant, durable, and COVID-19 sensitive. All surfaces are able to be sanitized and cleaned without affecting the materials and longevity of the products.

Designing around acoustics is very important when it comes to the design of the Winslow Hotel because the building is situated right next to train tracks that are still used today. Materials with acoustical properties are essential to keeping exterior noise outside when guests will be sleeping (Ismail, 2010). It is also important that the guests feel like they are in a second home and have a joyous experience during their stay at the Winslow Hotel (Lo & Yeung, 2020). Safety and sustainability considerations are made throughout with renewable materials and local sourcing (Nenadovic, et., 2018). Lighting used throughout the hotel varies, with general lighting, accent lighting, task lighting, and decorative lighting (Arikan, 2012). All light sources are on a dimmer switch and can be manipulated throughout the day to give the appropriate ambiance to the spaces desired (Arikan, 2012). The lounge and café are both places that guests can spend time visiting with their friends and family in a cozy environment. Ensuring that the private guest rooms are positioned away from the main public areas is of utmost importance. Guests will feel comfortable and at home in the hotel, while having peace and quiet as desired (Lee, 2018). , et., 2018). Lighting used throughout the hotel varies, with general lighting, accent lighting, task lighting, and decorative lighting (Arikan, 2012). All light sources are on a dimmer switch and can be manipulated throughout the day to give the appropriate ambiance to the spaces desired (Arikan, 2012). The lounge and café are both places that guests can spend time visiting with their friends and family in a cozy environment. Ensuring that the private guest rooms are positioned away from the main public areas is of utmost importance. Guests will feel comfortable and at home in the hotel, while having peace and quiet as desired (Lee, 2018).

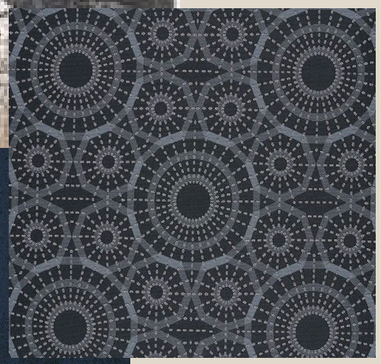
Concept Boards

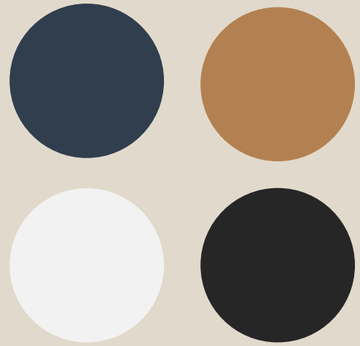
THE WINSLOW HOTEL

COMMON SPACES

THE WINSLOW HOTEL

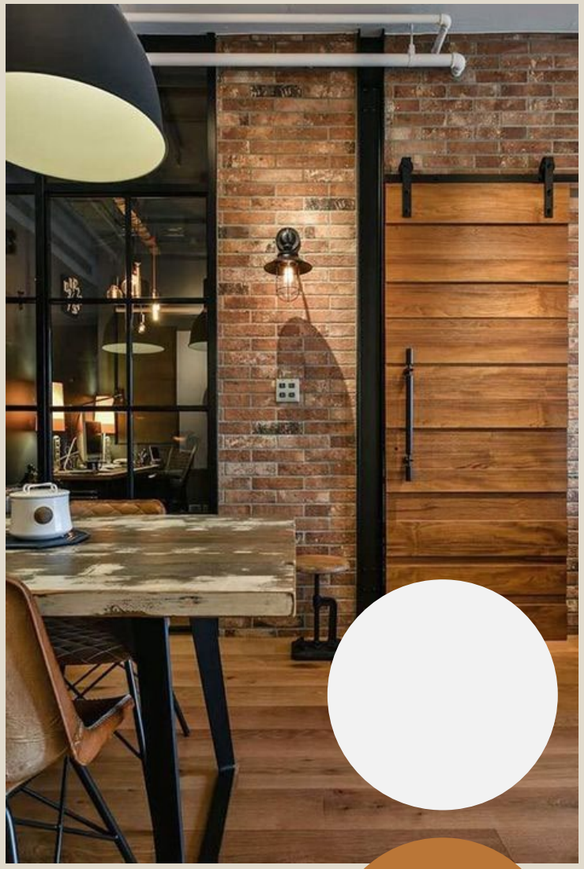
GUEST ROOMS





THE WINSLOW HOTEL

CAFÉ



Codes Analysis Report

Code Analysis Report

Date: March 26, 2021

1. PROJECT INFORMATION

Project Title	The Winslow Hotel
Project Address	Fargo, ND
Floor Location *(what floor is project on?)*	Third Floor
Building Construction Type	Type III

APPLICABLE CODES *(pull from city website of jurisdiction project is in)*		**EDITION**
Building Code	☒ IBC ☐ Other:	2018
Local Amendments	☒ Yes ☐ No	
Fire Code	☒IFC ☐ NFPA 1 ☐Other:	2018
Life Safety Code	Life Safety Code (NFPA 101)	
Plumbing Code	☐ IPC ☒UPC ☒Other: ND State Plumbing Code	2018
Mechanical Code	☒ IMC ☐ UMC ☐Other:	2018
Electrical Code	☒ NEC ☐ Other:	2020
Energy Code	☒ IECC ☐ NFPA 9000 ☐Other:	2018
Accessibility Regulations & Standards	☒ ADA 2010 Guidelines ☐ ABA ☒ ICC/ANSI A117.1: Accessible and Usable Buildings and Facilities ☐ Other:	-
Other Codes *(including special ordinances, health codes, historic preservation, etc.)*	*2020 Laws, Rules, and Wiring Standards of North Dakota* *2006 NFPA #1* *Fargo Sign Code* *Portions of the Land Development Code* *Portions of the Fargo Municipal Code*	

BUILDING CHARACTERISTICS	
Automatic Sprinkler System Installed [Sec 903]	☒ Yes ☐ No
Construction Type	☐ Type I ☐ Type II ☒ Type III ☐ Type IV ☐ Type V
Protection	☒ Protected (A) ☐ Unprotected (B)
Total Building Area (sf)	52,800 sq ft
Project Floor Area (sf)	17,600 sq ft

Summary Code Checklist *(use this as your guide to code compliance in your project using the tables below)*	
Step 1	**Determine Which Codes Are Required** ▪ Project Information ▪ Applicable building codes ▪ Building characteristics
Step 2	**Determine Accessibility Requirements**
Step 3	**Occupancy Requirements** ▪ Occupancy Classification ▪ Occupant Load ▪ Review specific occupancy requirements ▪ Compare code and accessibility requirements
Step 4	**Means of Egress Requirements** ▪ Determine quantity and type of means of egress ▪ Calculate minimum widths ▪ Determine arrangement of exits ▪ Calculate travel distances ▪ Determine required signage ▪ Compare code and accessibility requirements ▪ Determine emergency lighting requirements
Step 5	**Fire and Smoke Resistance Requirements** ▪ Determine Fire Barriers/Partitions and Horizontal Assemblies ▪ Determine Smoke Barriers/Partitions ▪ Determine location of opening protectives
Step 6	**Fire Protection Requirements** ▪ Determine fire and smoke detection systems ▪ Determine required alarm system ▪ Determine types of extinguishing systems ▪ Compare code and accessibility requirements
Step 7	**Plumbing Requirements** ▪ Determine types of fixtures required ▪ Calculate number of each fixture required ▪ Determine required toilet/bathing facilities ▪ Review for finishes, accessories, and signage ▪ Compare code and accessibility requirements ▪ Review water conservation requirements
Step 8	**Mechanical & Electrical Requirements** ▪ Determine ceiling heights ▪ Determine types/locations of outlets, switches, fixtures ▪ Determine emergency power and lighting requirements ▪ Compare code and accessibility requirements ▪ Review energy efficiency compliance
Step 9	**Finish and Furniture Requirements** ▪ Review tests and type of ratings required ▪ Determine special finish requirements ▪ Determine special furniture requirements ▪ Compare code and accessibility requirements ▪ Compare requirements during selection and specification
Building Codes calculations will need to be completed and updated throughout the project process. Initially, they are done to help in programming. Then, upon design development they will be checked again for compliance.	

2. ACCESSIBLITY [IBC Ch 11]

Chapter/Section	Description
Ch. 11 1104.2	One accessible route that connects accessible buildings, facilities, and space on the same site.
Ch. 11 1104.3.1	Employee accessible work area, with common circulation paths, not necessarily accessible.
Ch. 11 1104.6	Security barriers that allow for means of egress to be accessible at all times.
Ch. 11 1107.3	Accessible spaces that include many areas within sleeping units for multiple use residents.
Ch. 11 1108.2.9	Eating and drinking spaces must accommodate to accessible areas throughout the whole space.
Ch. 11 1108.2.9.1	5% of dinning surfaces must be the height of ADA accessible surfaces.
Ch. 11 1109.2.1	Gender neutral restrooms must all be accessible.
Ch. 11 1109.4	All kitchens and kitchenettes must be accessible.
Ch. 11 1109.5.1	Minimum of 2 drinking fountains must be put into a space. One that comply for those who are in a wheelchair and one for standing height persons
Ch. 11 1110.4.10	At least one type of each exercise equipment must be in an accessible route.
Ch. 11 1111.1	Signage that points out the accessible and emergency routes through a space.
Ch. 11 1111.3	Other signs that provide other such signage that can comply in all areas of a space.

3. OCCUPANCY CONSIDERATIONS [IBC Ch 3 & 5]

Occupancy Classification *(Check which apply)*

Single Occupancy	☐ Assembly A-1 ☐ Assembly A-2 ☐ Assembly A-3 ☐ Assembly A-4 ☐ Assembly A-5 ☐ Business (B) ☐ Business (B) – Ambulatory Health Care ☐ Education (E) ☐ Factory (F) ☐ Hazardous (H) ☐ Mercantile (M) ☐ Utility (U) ☒ Residential R-1 ☐ Residential R-2 ☐ Residential R-3 ☐ Institutional I-1 ☐ Institutional I-2 ☐ Institutional I-3 ☐ Institutional I-4
Multiple Occupancies	Occupancy 1 _____ Occupancy 2 _____ Occupancy 3 _____
	Occupancy required separation [Table 508.4] ☐ Yes ☒ No
Incidental Use Areas [Table 509]	☒ Yes ☐ No List Room or Area: Laundry Rooms over 100 sq ft – 1 hour or provide automatic sprinkler system
Accessory Occupancy [Sec 508.2]	☐ Yes ☒ No List Room or Area:

Occupancy Load Calculations

Occupant load should be organized by story since each story must be provided with exits to support the OL for that story. Total each story for OL for entire building.

Location in Building *(Room Name/ Number, etc.) List EACH individually. OK to combine 'like' uses*	**Floor Area[3]** (sf)	**Function (Use) of Space[4]** (Table 1004.5)	**Load Factor[2]** (sf/occupant)	**Occupant Load** *Remember rounding rules!*
Lobby	250 sf	Assembly – standing space	5 net	50
Front Desk	204 sf	Assembly – standing space	15 net	14
Lounge	492 sf	Assembly – concentrated (chairs only not fixed)	15 net	33
Luggage Storage	100 sf	Business area	150 gross	1
Hotel Manager Office	121 sf	Business area	150 gross	1
Marketing Office	150 sf	Business area	150 gross	1
Hotel Staff Work Area	251 sf	Business area	150 gross	2
Security Office	155 sf	Business area	150 gross	2
Staff Lounge	203 sf	Assembly – unconcentrated (tables and chairs)	15 net	14

Public Restrooms	-	-	-	-
Café	738 sf	Assembly – unconcentrated (tables and chairs)	15 net	50
Kitchen	300 sf	Kitchens, commercial	200 gross	2
Business Center	427 sf	Business area	150 gross	3
Fitness Studio	612 sf	Exercise rooms	50 gross	13
Housekeeping	502 sf	Business area	150 gross	4
Housekeeping Office	152 sf	Business area	150 gross	2
Guest Room, Queen Suite	561 sf (avg)	Residential	200 gross	3 per room (18 total)
Guest Room, King Suite	947 sf (avg)	Residential	200 gross	5 per room (20 total)
Corridors	-	-	-	-
Mechanical	-	-	-	-
Environmental Services	-	-	-	-

Occupant Load for Fixed Seats [Sec 1004.6]

Area 1_____ ☐ Fixed Seats ☐ Continuous Arms ☐ Booth
Show Calculations:

Area 2_____ ☐ Fixed Seats ☐ Continuous Arms ☐ Booth
Show Calculations:

Total Occupant Load for 3rd Floor	192
Total Occupant Load for Building	**-**

NOTES:
1. The 2018 IBC makes a distinction between "gross" and "net" areas for calculating occupant load.
2. "Gross" areas include wall thicknesses and utility spaces (chases, shafts, mechanical/electrical spaces, etc.).
3. Use only whole numbers for areas; round to nearest whole foot.
4. Use the most stringent USE of the space. Not the Occupancy Classification.

4. MEANS OF EGRESS [IBC Ch 10]

Travel Distances	**Maximum Travel Distance** [Table 1017.2] allowed per IBC	
	Travel Distance provided per print	250 feet
	Maximum Common Path of Travel Allowed per IBC [Table 1006.2.1 or 1006.3.3(2)]	75 feet
	Dead End Corridor Length (Sec 1020.4) allowed per IBC ☐ 20' ☒ 50' ☐ Other ____	
	Maximum Dead End Corridor Length provided per print	50 feet
Exit Requirements	Required Number of Exits [Table 1006.3.2] ☐ 1 ☒ 2 ☐ 3 ☐ 4	
	Single Exit Allowed [Table 1006.2.1 & 1006.3.2(2)] ☐ Yes ☒ No	

Total Exit Widths Required Calculations [Sec 1005]

Room/Space/Story *(Room Name/ Number, etc.)*	**Occupant Load** *(for room/space/story)*	**Egress Type** *(Door, Stairway, Corridor)*	**Egress Width Variable**	**Calculated Width** *(OL x egress width variable = calculated width)*	**Required Width** *(per code)*	**Provided Width** *(on plan)*
Lobby - 301	50 people	Stairway	.3	15"	52"	68"
Kitchen - 302	2 people	Door	.2	.4"	36"	36"
King Suites – 303-306	5 people	Door	.2	1"	36"	36"
Business Center - 308	3 people	Door	.2	.6"	36"	36"
Fitness Studio - 309	13 people	Door	.2	2.6"	36"	36"
Housekeeping Office - 310	2 people	Door	.2	.4"	36"	36"
Housekeeping - 311	4 people	Door	.2	.8"	36"	68"
Queen Suites – 312-317	3 people	Door	.2	.6"	36"	36"

Café – 320	50 people	Stairway	.3	15″	52″	68″
Front Desk - 321	14 people	Stairway	.3	4.2″	52″	68″
Lounge - 322	33 people	Stairway	.3	9.9″	52″	68″
Marketing Office - 323	1 person	Door	.2	.2″	36″	36″
Security Office - 324	2 people	Door	.2	.4″	36″	36″
Staff Lounge - 325	14 people	Door	.2	2.8″	36″	36″
Hotel Staff Work Area - 329	2 people	Door	.2	.4″	36″	36″
Hotel Manager Office - 330	1 people	Door	.2	.2″	36″	36″

Remoteness of Exits Determined by [Sec 1007] *(Check one)*

☐ ½ Diagonal Rule – required distance **[108'-9"]** ☒ 1/3 Diagonal Rule – required distance **[72'-6"]**

[217'-7"] Overall Diagonal of area calculating (space, tenant, or floor)

[137'] Provided distance between exit

Area of Refuge [Sec 1009.3.3]

☐ Yes ☐ Not required ☒ No – automatic sprinkler system provided

Means of Egress Components to Research *(indicate applicable information to your project below)*

- Doors: Type, swing, hardware, threshold, clearances, fire rating
- Stairs: Type, riser height, tread depth, nosing, width, handrail
- Ramps: Slope rise, landing, width, edge detail, finish, handrail, guard
- Corridors: Length, width, fire resistance rating
- Aisles: Fixed seats no fixed seats, ramp/stepped or flat, handrails
- Intervening Rooms: Allowed, maximum number, maximum distance
- Signage and Lighting: Exit signs, photoluminescent markings, emergency lighting, evacuation diagrams
- Special Occupancy Egress Requirements: Assembly, institutional, healthcare, detention center, other

Chapter/Section	Description
Table 1004.5	Table used to determine maximum floor area allowances per occupant.
1005.3.1	Means of egress stairways should be calculated using the occupancy load for the space x an exit width factor of .3 inches per occupant.
1005.3.2	Other means of egress components should be calculated using the occupancy load for the space x an exit width factor of .2 inches per occupant.
1005.5	Where more than one exit is required, should one exit become unusable, the other exit shall not reduce the available capacity or width to less than 50% of required.
Table 1006.2.1	Table used to determine maximum common path of egress travel distance.
Table 1006.3.2	Table used to determine how many exits or access to exits are needed per story.
1007.1.1	Exits shall not be placed farther than half of the longest diagonal of the story.
1008.2	All exits, exit accessways, and exit signage must be illuminated during general hours and an emergency.
Table 1017.2	Table used to determine exit access travel distance.
Table 1020.1	Table used to determine corridor fire-resistance ratings.
Table 1020.2	Table used to determine minimum corridor width based on occupancies.
1020.4	Dead-end corridors should not exceed 50 feet with an automatic sprinkler system installed.
1022.2.2	Exit doors must lead into the exit discharge or the public way.
1025.1	Luminous egress path markings must be provided in R-1 occupancies.
1028.1	Exits shall discharge directly to the exterior of the building.

5. FIRE RESISTANCE ASSEMBLIES [IBC Ch 7, 9, 10]

**The type of assembly required indicated below does not include spaces above/below. Adjust accordingly with horizontal assemblies.*

	Location *(room name/number)*	**Hourly Rating & Type of Assembly Required**
Occupancy Separation(s) [Table 508.4]	n/a	☐ 1 hr Fire Barrier ☐ 2 hr Fire Barrier ☐ NP ☐ N
Incidental Use Areas [Table 509]	Housekeeping - 313	☐ 1 hr Fire Barrier ☐ 2 hr Fire Barrier ☒ Automatic sprinkler system installed

**See part 3 above. Same spaces but here you indicate rating.*		☐ 1 hr Fire Barrier ☐ 2 hr Fire Barrier ☐ Automatic sprinkler system installed
Vertical Shaft Enclosures [Sec 713] Exit Stairway(s) [Sec 713]	Main Entry – Guest Elevator & Staircase (3 stories)	☒ 1 hr Fire Barrier ☐ 2 hr Fire Barrier
	Rear Freight Elevator Shaft & Staircase (4 stories)	☐ 1 hr Fire Barrier ☒ 2 hr Fire Barrier
Corridors for Exiting [Sec 1020]	All Corridors	☐ 0 ☒ 30 min Fire Partition ☐ 1 hr Fire Partition ☐ Not permitted
Interior Exit Stairways and Ramps [Sec 1023]	Main Entry – Guest Staircase (3 stories)	☒ 1 hr Fire Barrier ☐ 2 hr Fire Barrier
Exit Passageway(s) [Sec 1024]	n/a	☐ 1 hr Fire Barrier ☐ 2 hr Fire Barrier ☐ ____ hr Fire Barrier
Horizontal Exit(s) [Sec 1026]	n/a	☐ 2 hr Fire Barrier ☐ ____ hr Fire Barrier
Other [Chapter 4]:	403.3	Automatic sprinkler systems shall be equipped in a high rise building in accordance with Section 903.3.1.1.
	403.4.1	Smoke detection shall be provided in accordance with 907.2.12.1.
	403.4.2	A fire alarm system shall be provided in accordance with Section 907.2.12.

Opening Protectives [Section 716, Table 716.1(2)]

(Rated assemblies indicated above require proper opening protectives. List all that apply)

	Location *(room name/number)*	**Type of Wall Assembly Penetrating**	**Hourly Rating Required**
Rated Door Assemblies	Entry Staircase Enclosure	1 hour fire barrier	1 hour rating
	Housekeeping 313 (has laundry services)	1 hour fire barrier or automatic sprinkler system. The building will have the sprinkler system in 313.	1 hour rating. Building is sprinklered so not rated.
	Rear Staircase Enclosure	1 hour fire barrier	1 hour rating
	Public corridors	30 minute fire partition	20 minute rating
	Rear Freight Elevator Shaft	2 hour fire barrier	1 ½ hour rating
Rated Glazing & Frames	Entry Staircase Enclosure	1 hour fire barrier	1 hour rating
	Housekeeping 313 (has laundry services)	1 hour fire barrier or automatic sprinkler system. The building will have the sprinkler system in 313.	1 hour rating. Building is sprinklered so not rated.
	Rear Staircase Enclosure	1 hour fire barrier	1 hour rating
	Public corridors	30 minute fire partition	20 minute rating
	Rear Freight Elevator Shaft	2 hour fire barrier	2 hour rating

6. FIRE PROTECTION SYSTEMS [IBC Ch 7, 9, 10]

Visual/Audible Alarms [Sec 907.5.2.3]	☒ Provided in all public and common use areas (Sec 907.5.2.1)
	☒ Required to be in habitable dwelling and sleeping units per table 907.5.2.3.2. Number required **[2]**
	Other:
Carbon Monoxide Detectors [Sec 915]	☐ Installed in dwelling units, sleeping units, classrooms containing fuel burning appliance or fireplace (915.1.2)

	☒ Installed in dwelling units, sleeping units, and classrooms served by fuel-burning forced air (915.1.3) ☐ Installed in private garages attached to dwelling unit, sleeping units and classrooms (915.1.5) ☒ Installed in dwelling units outside each separate sleeping area and vicinity of bedrooms (915.2.1) ☒ Installed in each sleeping unit (915.2.2) ☐ Installed in classrooms (Group E) (915.2.3) ☐ Other:
Automatic Smoke Detection [Sec 907]	☒ Smoke Detection System required. Distance **[30']** ☐ Smoke Detection System not required due to automatic sprinkler system exception
Portable Fire Extinguishers [Sec 906, Table 906.3(2)]	☒ Wall Mounted ☐ Cabinet
	Distance to travel to reach fire extinguisher cannot exceed **[75']**
	☒ Installed in a conspicuous, unobstructed, and unobscured location [Sec 906.5 &906.6]
Manual Fire Alarm Boxes [Sec 907.4.2]	☒ Manual Fire Alarm pull box required. Distance **[5']** from each exit. ☐ No automatic sprinkler system – additional installed so travel distance does not exceed 200' ☐ Manual Fire Alarm pull box not required due to automatic sprinkler system exception
Other:	N/A

7. PLUMBING [IBC Ch 29 & IPC Ch 4]

Plumbing Fixture Calculations – per King Suite

(If multiple floors/tenant spaces exist, you must have multiple charts.)

Fixture Type	Fixture Ratio *[Table IBC 2902.1]*	Fixtures Required				Total Required	
		Standard		**Accessible** [Sec 1109]			
		Male	Female	Male	Female	Male	Female
Water Closets*	1 bathroom per sleeping unit	-	-	-	-	1 bathroom per sleeping unit	
*Urinal *(sub for %)*	-	-	-	-	-	-	
Lavatories	1 bathroom per sleeping unit	-	-	-	-	1 bathroom per sleeping unit	
Bathtubs/Showers	1 bathroom per sleeping unit	-	-	-	-	1 bathroom per sleeping unit	
Drinking Fountain	-	-		-		-	
Service Sink	-	-		-		-	
Other:	-	-		-		-	

Plumbing Fixture Calculations – per Queen Suite

(If multiple floors/tenant spaces exist, you must have multiple charts.)

Fixture Type	Fixture Ratio *[Table IBC 2902.1]*	Fixtures Required				Total Required	
		Standard		**Accessible** [Sec 1109]			
		Male	Female	Male	Female	Male	Female
Water Closets*	1 bathroom per sleeping unit	-	-	-	-	1 bathroom per sleeping unit	
*Urinal *(sub for %)*	-	-	-	-	-	-	-
Lavatories	1 bathroom per sleeping unit	-	-	-	-	1 bathroom per sleeping unit	
Bathtubs/Showers	1 bathroom per sleeping unit	-	-	-	-	1 bathroom per sleeping unit	
Drinking Fountain	-	-		-		-	

Service Sink	-	-	-	-
Other:	-	-	-	-

Plumbing Fixture Calculations – Public Spaces

(If multiple floors/tenant spaces exist, you must have multiple charts.)

Fixture Type	Fixture Ratio *[Table IBC 2902.1]*	Fixtures Required				Total Required	
		Standard		Accessible [Sec 1109]			
		Male	Female	Male	Female	Male	Female
Water Closets*	1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50	2	2	1	1	3	3
*Urinal *(sub for %)*	-	-	-	-	-	-	-
Lavatories	1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80	1	1	1	1	2	2
Bathtubs/Showers	-	-	-	-	-	-	-
Drinking Fountain	1 per 100	2		1		3	
Service Sink	1 service sink	-		-		1	
Other:	-	-		-		-	

Plumbing Elements to Research *(indicate applicable information to your project below)*

- Fixtures: Mounting heights, clear floors pace, faucet/control locations, projections, water consumption
- Faucet/Controls: Ease of operation (i.e. lever, automatic, etc.) water consumption, water temp control
- Grab Bars: Location, lengths, heights, orientation, additional required for use
- Accessories: Mounting heights control locations, projections, clear floor space
- Finishes: Smooth/nonabsorbent, slip resistant, thresholds, special locations
- Room: Turning space, overlapping clear floor space, privacy, signage, stall size, door swing

Chapter/Section	Description
Table 2902.1	Table indicating minimum number of plumbing fixtures required.
2902.1.1	To calculate how many restrooms per sex are required, you take the occupant load divided by 2 and continue calculating based on building type.
2902.1.2	Single-user toilet facilities should contribute to the overall fixture requirement and be labeled for use for either sex.
2902.4	Signage is required indicating the sex of the restroom at the entry of the restroom.

8. Mechanical & Electrical Requirements

Special Types of Outlets and/or Circuits	☒ Dedicated outlets	Mounting Height(s):15" A.F.F.
	☒ Ground fault circuit Interrupter (GFCI)	Mounting Height(s): 15" A.F.F., 48" A.F.F.
	☐ Arc fault circuit interrupter (AFCI)	Mounting Height(s):
	☐ Tamper-resistant outlets	Mounting Height(s):
	☐ Other	Mounting Height(s):

Research Additional Mechanical & Electrical Elements *(indicate applicable information to your project below)*

Chapter/Section	Description
Ch. 27 2702.2.5	Exhaust systems for domestic kitchens in multistory buildings. Stand by power for exhaust systems.
Ch. 27 2702.2 6	Exit signs should provide power for a duration of less than 90 minutes
Ch. 27 2702.2.16	Stand by power shall provide for smoke control systems
Ch. 30 3001.2	Elevator for those who are deaf, hard of hearing and speech impaired.

9. INTERIOR FINISHES [IBC Ch 8, 12, 21, 23, 24, 25, 26]

Interior Wall and Ceiling Finish Classification [Table 803.11]

Interior Exit Stairways, Ramps & Exit Passageways	☒ Class A ☐ Class B ☐ Class C

Corridors & Enclosure for Exit Access Stairways & Ramps	☐ Class A ☐ Class B ☒ Class C
Rooms & Enclosed Spaces	☐ Class A ☐ Class B ☒ Class C
Exceptions Indicated *(list)*	
Interior Floor Finish [Sec 804]	☐ Class/Type I ☒ Class/Type II

Interior Finishes to Research *(indicate applicable information to your project below)*

- Wallcoverings: Vinyl, textile, expanded vinyl, carpet, etc.
- Stretch Fabric Systems
- Light Transmitting Plastics Wood Paneling/Veneers
- Decorative Molding/Trim
- Curtains, Draperies, Fabric Hangings, etc.
- Interior Trim
- Floor-Wall Base
- Suspended Ceiling System
- Carpet: Broadloom, tile, padding
- Hardwood & Resilient flooring
- Foam plastics
- Furniture

Chapter/Section	Description
Ch. 8 802.1	The provisions of Section 803 shall limit the allowable fire performance and smoke development of interior wall and ceiling finish materials based on occupancy classification.
Ch. 8 802.5	Combustible materials shall be permitted to be used as finish for walls, ceilings, floors and other interior surfaces of buildings
Ch. 8 803.1.2	Interior wall and ceiling finish materials tested in accordance with ASTM E84 or UL 723
Ch. 8 808.1.1	Acoustical materials complying with the interior finish requirements of Section 803 shall be installed in accordance with the manufacturer's recommendations and applicable provisions for applying interior finish
Ch. 12 1202.5	Natural ventilation of an occupied space shall be through windows, doors, louvers, or other openings to the outdoors. The operating mechanism for such openings shall be provided with ready access so that the openings are readily controllable by the building occupants.
Ch. 12 1202.5.2.1	Rooms containing bathtubs, showers, spas and similar bathing fixtures shall be mechanically ventilated in accordance with the international mechanical code.
Ch. 12 1204.2	The minimum net glazed shall be not less than 8 percent of the floor area of the rooms served.
Ch. 12 1204.3	Artificial light shall be provided that is adequate to provide an average illumination of 10 foot-candles over the area of the room at a height of 30 above the floor level
Ch. 12 1204.5	The means of egress shall be illuminated in accordance with section 1008.1
Ch. 12 1209.2.1	In dwelling units, toilet, bathing, and shower room floor finish materials shall have a smooth, hard, nonabsorbent surface. The intersections of such floors with walls shall have a smooth, hard, nonabsorbent vertical base that extends upward onto the walls not less than 4 inches. Shall comply with sections 1209.2.1 through 1209.2.4.

Room Data Sheets

Room/Area Name: **Lobby**		
Users: Staff, Caterers, Guests, Pets		
Activities: Standing, Waiting, Relaxing, Sitting, Reading, Chatting		
Furniture: • Lounge chairs (2)* • Side table (1) • Console table (1) • Artwork (1) • Rug (1)	Heating/Ventilation/AC: • Furnace Heat • A/C – central air	Flooring: • Polished Concrete
Equipment/Appliances: • Security cameras	Plumbing/Fixtures: • N/A	Wall Partition(s): • Glass curtain walls • Paint • Wallcovering • Gypsum
Hours of Use: • 24/7	Communication: • Phone/Data	Ceiling: • Concrete
Special Provisions: • ADA accessible • Low-profile non-slip rugs	Electrical: • Receptacles • TV/Data • Light switches	Doors/Windows: • N/A
Occupant Classification & Occupant Load Per Room: • Assembly – standing space • 50 OL	Room Size: • 250 sq. ft	Natural Lighting & Natural Lighting Controls: • N/A
Additional Information: (Lee & Severt, 2017), (Ramkissoon, et al., 2016), (Strobele & De Castro, 2004), (Nowicka, 2020), (Kariru et al., 2017),		

Room/Area Name: **Front Desk**		
Users: Staff, Guests, Pets, Caterers		
Activities: Reservations, Departing, Chatting, Standing, Sitting		
Furniture: • Custom front desk* • TV (1)	Heating/Ventilation/AC: • A/C – central air • Furnace heat	Flooring: • Polished Concrete
Equipment/Appliances: • TV/Data • Computers • Printer • Keypad/signature pad • Security cameras	Plumbing/Fixtures: • n/a	Wall Partition(s): • Paint • Wallcovering • Gypsum
Hours of Use: • 24/7	Communication: • Phone	Ceiling: • Concrete
Special Provisions: • ADA accessible	Electrical: • Receptacle • TV/Data • Ethernet • Light Switches	Doors/Windows: • n/a
Occupant Classification & Occupant Load Per Room: • Assembly – standing space • 14 OL	Room Size: • 204 sq. ft.	Natural Lighting & Natural Lighting Controls: • n/a
Additional Information: (Lee & Severt, 2017), (Rather, et al, 2019), (Ramkissoon, et al., 2016), (Strobele & De Castro, 2004), " (Cetin & Walls, 2016), (Kariru et al., 2017), (Arikan, 2012)		

<table>
<tr><td colspan="3">Room/Area Name: Lounge</td></tr>
<tr><td colspan="3">Users: Guests</td></tr>
<tr><td colspan="3">Activities: Relaxing, Chatting, Charging technology, Sitting, Snacking/Drinking</td></tr>
<tr><td>Furniture:
Sofas (2) *
Chairs (10) *
Stools (4)
Rugs (2)
Side Tables (3)
Coffee tables (2)
High top table (1)</td><td>Heating/Ventilation/AC:
A/C – central air
Furnace heat</td><td>Flooring:
Polished Concrete</td></tr>
<tr><td>Equipment/Appliances:
TV (3)
Security cameras</td><td>Plumbing/Fixtures:
n/a</td><td>Wall Partition(s):
Paint
Wallcovering
Gypsum</td></tr>
<tr><td>Hours of Use:
24/7</td><td>Communication:
n/a</td><td>Ceiling:
Concrete</td></tr>
<tr><td>Special Provisions:
ADA accessible</td><td>Electrical:
Receptacles
USB ports
TV/Data
Light switches</td><td>Doors/Windows:
n/a</td></tr>
<tr><td>Occupant Classification & Occupant Load Per Room:
Assembly – concentrated (chairs only not fixed)
33 OL</td><td>Room Size:
492 sq. ft.</td><td>Natural Lighting & Natural Lighting Controls:
n/a</td></tr>
<tr><td colspan="3">Additional Information: (Lee & Oh, 2018), (Lee & Severt, 2017), (Rather, et al, 2019), (Arsenault, 2020), (Strobele & De Castro, 2004, (Nowicka, 2020), (Lo & Yeung, 2020), (Sipe & Testa, 2018), (Cetin & Walls, 2016), (Arikan, 2012)</td></tr>
</table>

Room/Area Name: **Public Restrooms**		
Users: Guests, Staff		
Activities: Personal hygiene		
Furniture: • Grab bars • Baby changing station • Faucet	Heating/Ventilation/AC: • A/C – central air • Furnace heat	Flooring: • Non-slip tile
Equipment/Appliances: • Paper towel dispenser • Soap dispenser • Trash can	Plumbing/Fixtures: • Toilet • Sink	Wall Partition(s): • Tile • Gypsum • Paint • Wallcovering
Hours of Use: • 24/7	Communication: • n/a	Ceiling: • Gypsum • Paint
Special Provisions: • ADA accessible	Electrical: • GFCI receptacles • Automatic hand air dryer	Doors/Windows: • Door
Occupant Classification & Occupant Load Per Room: • N/A	Room Size: • 90 sq. ft.	Natural Lighting & Natural Lighting Controls: • n/a
Additional Information: (Lee & Severt, 2017)		

Room/Area Name: **Café**		
Users: Guests, Caterers, Staff		
Activities: Eating, Drinking, Sitting, Chatting, Waiting		
Furniture: • Tables (4) • Chairs (20) • Barstools (9)	Heating/Ventilation/AC: • A/C – central air • Furnace heat	Flooring: • Polished Concrete
Equipment/Appliances: • Refrigerator • Freezer • Security cameras	Plumbing/Fixtures: • Sink • Ice maker • Soda machine	Wall Partition(s): • Brick • Gypsum • Paint
Hours of Use: • Mornings • Afternoons • Evenings	Communication: • N/a	Ceiling: • Concrete
Special Provisions: • ADA accessible	Electrical: • GFCI receptacles • Receptacles • Light switches	Doors/Windows: • Windows (south & west walls)
Occupant Classification & Occupant Load Per Room: • Assembly – unconcentrated (tables and chairs) • 50 OL	Room Size: • 738 sq. ft.	Natural Lighting & Natural Lighting Controls: • Natural lighting • Blinds • Curtains/drapery • Remote control
Additional Information: (Lee & Oh, 2018), (Lee & Severt, 2017), (Ramkissoon, et al., 2016), (Nowicka, 2020), (Arikan, 2012)		

Room/Area Name: **Business Center**		
Users: Guests		
Activities: Work, Use technology, Sit, Create		
Furniture: • Table (1) • Chairs (10) • Height adjustable desks (4)	Heating/Ventilation/AC: • A/C – central air • Furnace heat	Flooring: • Carpet Tiles
Equipment/Appliances: • Computers (2) * • Printer (1) * • Fax machine (1) • Security cameras	Plumbing/Fixtures: • N/a	Wall Partition(s): • Gypsum • Brick • Paint • Wallcovering
Hours of Use: • 24/7	Communication: • n/a	Ceiling: • Concrete
Special Provisions: • ADA accessible	Electrical: • Receptacles • Light switches • Data • Ethernet	Doors/Windows: • Door • Windows
Occupant Classification & Occupant Load Per Room: • Business area • 3 OL	Room Size: • 427 sq. ft.	Natural Lighting & Natural Lighting Controls: • Natural Light • Blinds
Additional Information: (Lee & Severt, 2017), (Arsenault, 2020), (Nowicka, 2020), (Cetin & Walls, 2016)		

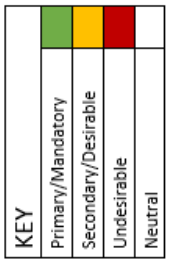
Room/Area Name: **Fitness Studio**		
Users: Guests		
Activities: Cardio, Yoga, Stretching		
Furniture: • Seating benches (2) • Whiteboard (1) • Laundry bin (1)	Heating/Ventilation/AC: • A/C – central air • Furnace heat	Flooring: • Rubber
Equipment/Appliances: • Treadmills (3) • Ellipticals (2) • Stationary Bike (1) • Weight bench (1)* • TV (1) • Sound system • Security cameras	Plumbing/Fixtures: • Water Fountains (2)	Wall Partition(s): • Brick • Gypsum • Paint • Wallcovering
Hours of Use: • 24/7	Communication: • n/a	Ceiling: • Gypsum • Paint
Special Provisions: • n/a	Electrical: • TV/Data • Receptacles • Light switches	Doors/Windows: • Windows • Doors
Occupant Classification & Occupant Load Per Room: • Exercise rooms • 13 OL	Room Size: • 612 sq. ft.	Natural Lighting & Natural Lighting Controls: • Natural Light • Blinds
Additional Information: (Lee & Severt, 2017), (Nowicka, 2020), (Cetin & Walls, 2016)		

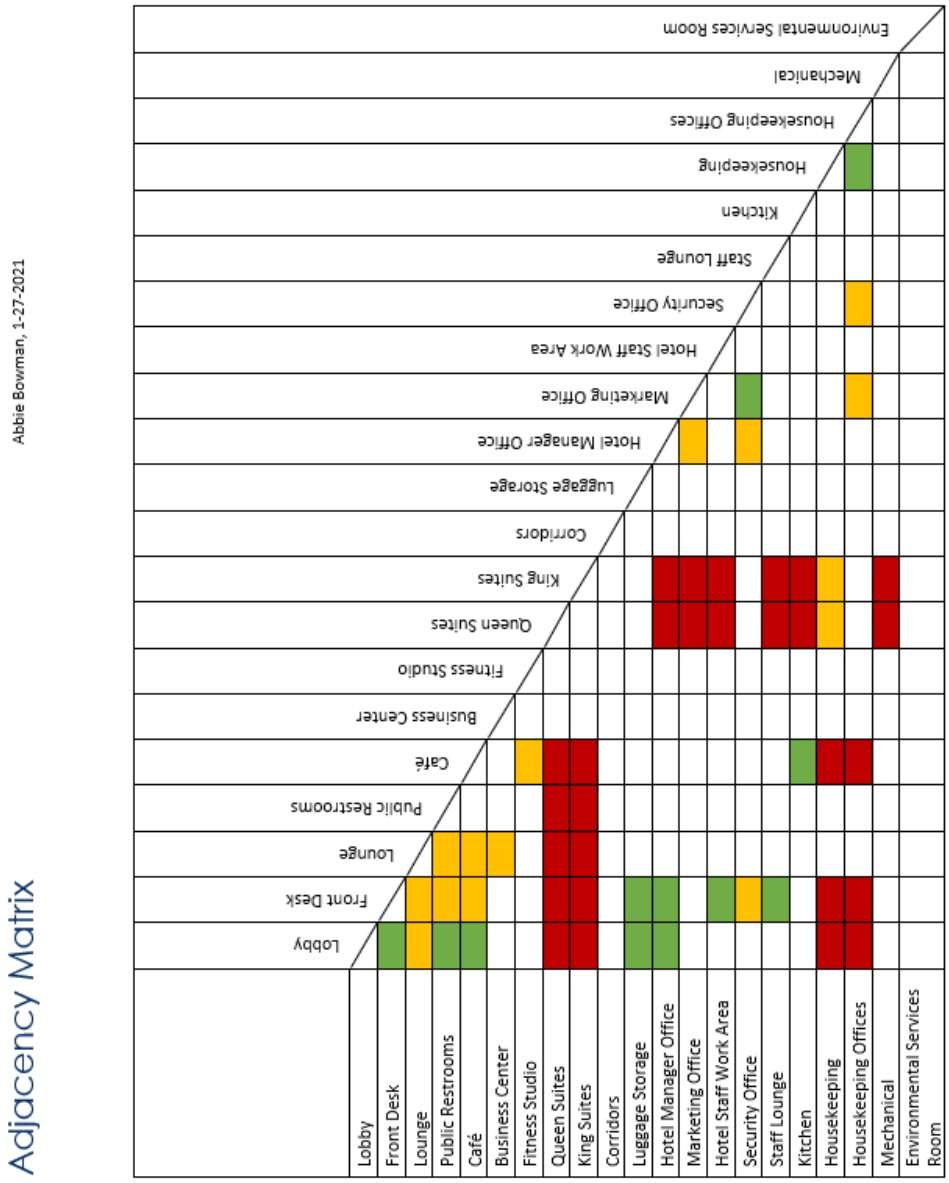
<table>
<tr><td colspan="3">Room/Area Name: Queen Suite – Guest Room</td></tr>
<tr><td colspan="3">Users: Guests, Pets, Housekeeping staff</td></tr>
<tr><td colspan="3">Activities: Relaxing, Sleeping, Personal hygiene, Sitting</td></tr>
<tr><td>Furniture:
Pull out (sleeper) sofa (1)
Lounge chairs (2)
End table (1)
Desk (1)
Desk chair (1)
Queen bed (2)
Nightstand (1)
Dresser (1)
Side chair (2)
Mirror (2)
Dining table (1)
Dining chairs (2)
Breakfast Table (1)
Rugs (1)</td><td>Heating/Ventilation/AC:
A/C – central air
Furnace heat</td><td>Flooring:
Polished Concrete
Tile</td></tr>
<tr><td>Equipment/Appliances:
TV (2)
Mini dishwasher (1)
Mini refrigerator (1)
Microwave (1)
Coffee maker (1)</td><td>Plumbing/Fixtures:
Sinks (2)
Toilet (1)
Shower/Tub (1)</td><td>Wall Partition(s):
Gypsum
Brick
Paint
Wallcovering
Tile</td></tr>
<tr><td>Hours of Use:
24/7</td><td>Communication:
n/a</td><td>Ceiling:
Concrete
Gypsum (bathroom)
Paint</td></tr>
<tr><td>Special Provisions:
ADA accessible</td><td>Electrical:
Receptacles
USB ports
Light switches</td><td>Doors/Windows:
Doors
Windows</td></tr>
<tr><td>Occupant Classification & Occupant Load Per Room:
Residential
3 per room, 18 total</td><td>Room Size:
572 sq. ft</td><td>Natural Lighting & Natural Lighting Controls:
Natural light
Blinds
Drapery</td></tr>
<tr><td colspan="3">Additional Information: (Lee & Oh, 2018), (Lee & Severt, 2017), (Arsenault, 2020), (Nowicka, 2020), (Arikan, 2012)</td></tr>
</table>

<table>
<tr><td colspan="3">Room/Area Name: King Suite – Guest Room</td></tr>
<tr><td colspan="3">Users: Guests, Pets, Housekeeping staff</td></tr>
<tr><td colspan="3">Activities: Relaxing, Sleeping, Personal hygiene, Sitting</td></tr>
<tr><td>Furniture:
Pull out (sleeper) sofa (1)
Lounge chairs (2)
End table (3)
Coffee table (1)
King bed (1)
Nightstands (2)
Dresser (1)
Side chair (1)
Mirror (1)
Dining table (1)
Dining chairs (4)
Rugs (1)</td><td>Heating/Ventilation/AC:
A/C – central air
Furnace heat</td><td>Flooring:
Tile
Polished Concrete</td></tr>
<tr><td>Equipment/Appliances:
TV (2)
Full dishwasher
Refrigerator
Microwave
Coffee maker</td><td>Plumbing/Fixtures:
Sinks (3)
Toilet (1)
Shower (1)</td><td>Wall Partition(s):
Gypsum
Brick
Paint
Wallcovering
Tile</td></tr>
<tr><td>Hours of Use:
24/7</td><td>Communication:
n/a</td><td>Ceiling:
Concrete
Gypsum (bathroom)
Paint</td></tr>
<tr><td>Special Provisions:
ADA accessible</td><td>Electrical:
Receptacles
USB ports
Light switches</td><td>Doors/Windows:
Doors
Windows</td></tr>
<tr><td>Occupant Classification & Occupant Load Per Room:
Residential
5 per room, 20 total</td><td>Room Size:
944 sq. ft.</td><td>Natural Lighting & Natural Lighting Controls:
Natural Light
Drapery
Blinds</td></tr>
<tr><td colspan="3">Additional Information: Key Card Access, Local Artwork (Lee & Oh, 2018), (Lee & Severt, 2017), (Arsenault, 2020), (Arikan, 2012)</td></tr>
</table>

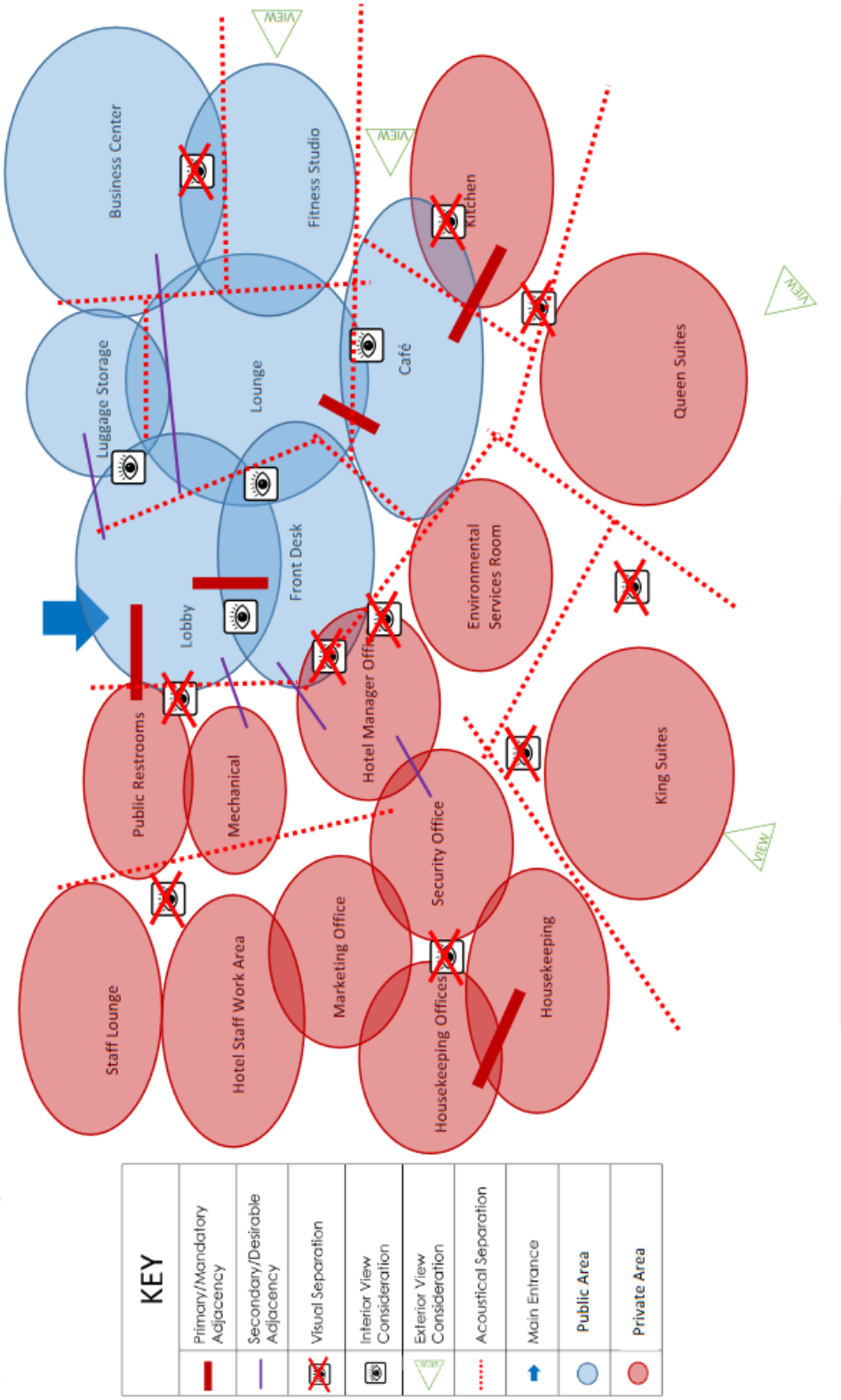
Room/Area Name: **Corridors**		
Users: Guests, Pets, Staff, Caterers		
Activities: Walking, Chatting, Moving equipment/hotel linens		
Furniture: • n/a	Heating/Ventilation/AC: • Furnace Heat • A/C – Central Air	Flooring: • Carpet
Equipment/Appliances: • Security cameras	Plumbing/Fixtures: • Drinking Fountains (2)	Wall Partition(s): • Gypsum • Paint • Wallcovering • Acoustical application
Hours of Use: • 24/7	Communication: • n/a	Ceiling: • Concrete
Special Provisions: • 6’ wide	Electrical: • Receptables • Light Switches	Doors/Windows: • Doors
Occupant Classification & Occupant Load Per Room: • n/a	Room Size: • N/A	Natural Lighting & Natural Lighting Controls: • n/a
Additional Information: (Arsenault, 2020), (Nowicka, 2020)		

Adjacency Matrix

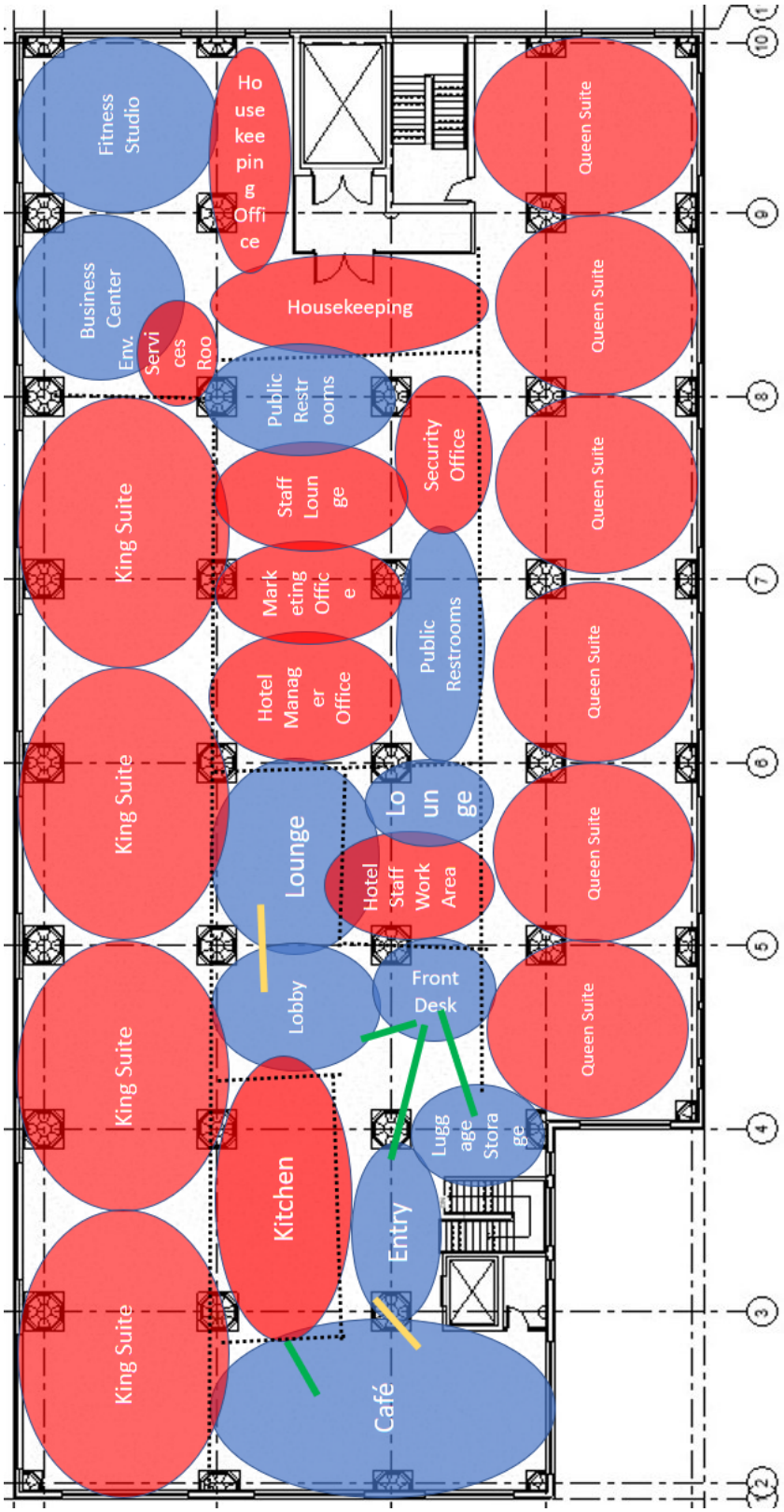




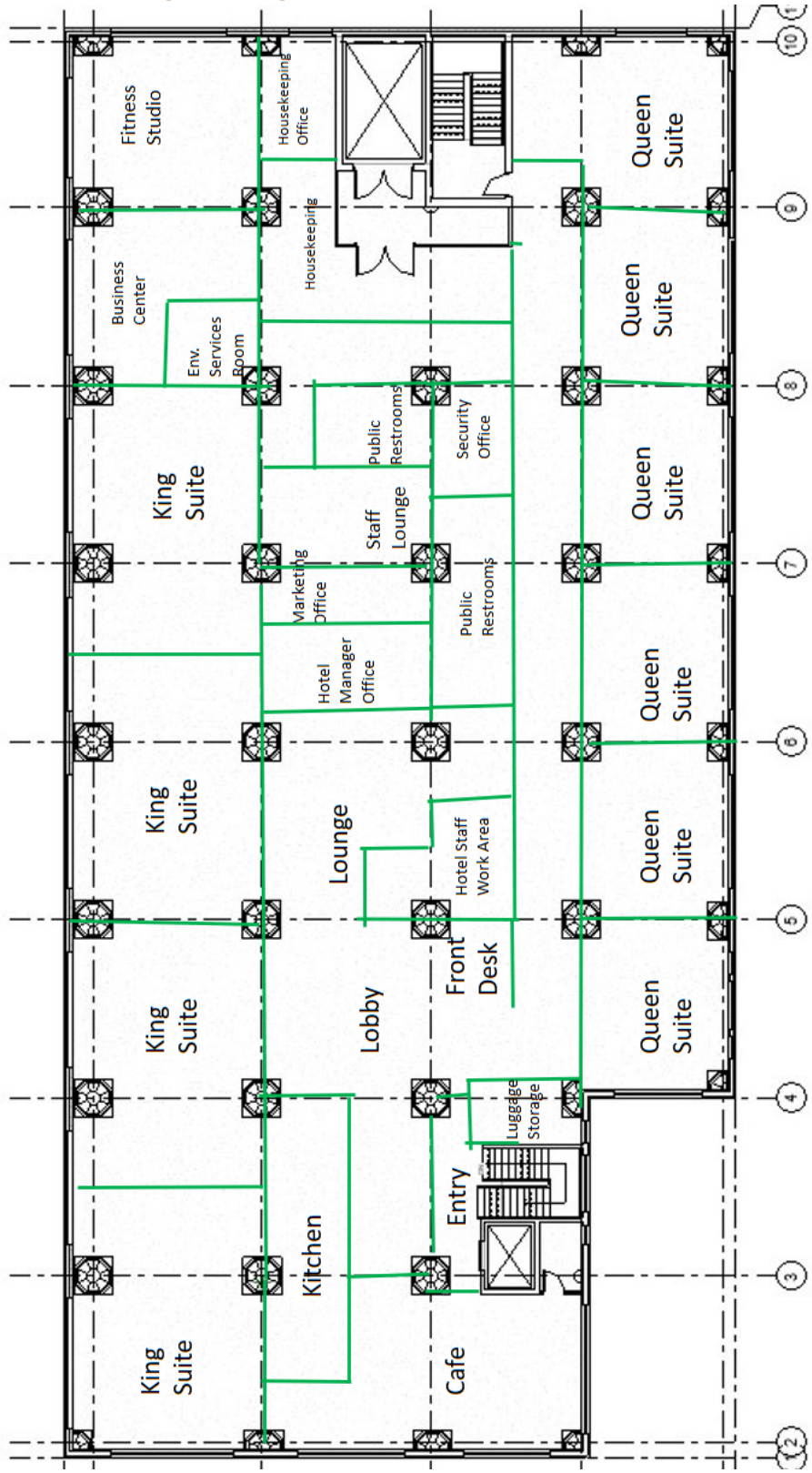
Adjacency Diagram



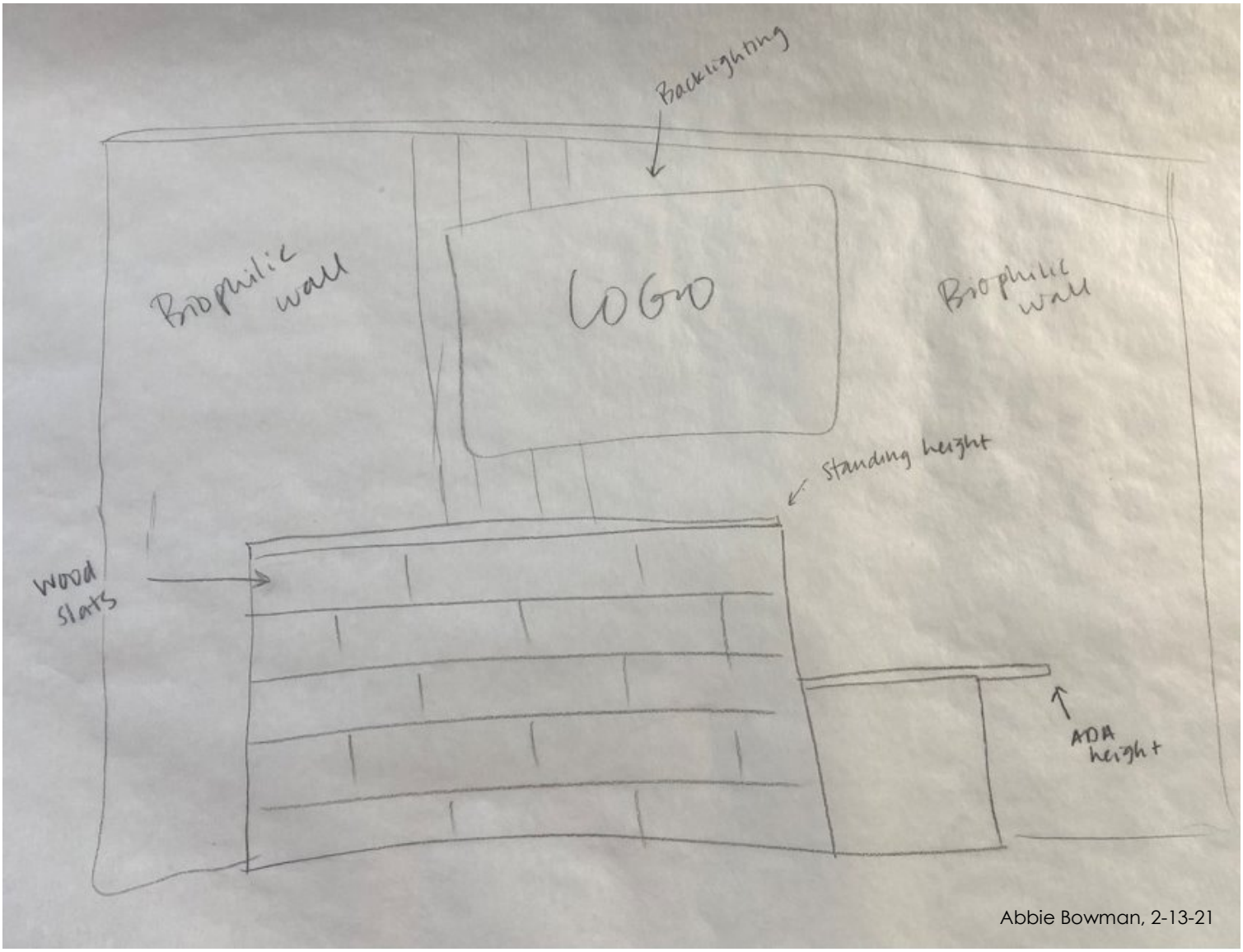
Bubble Diagram



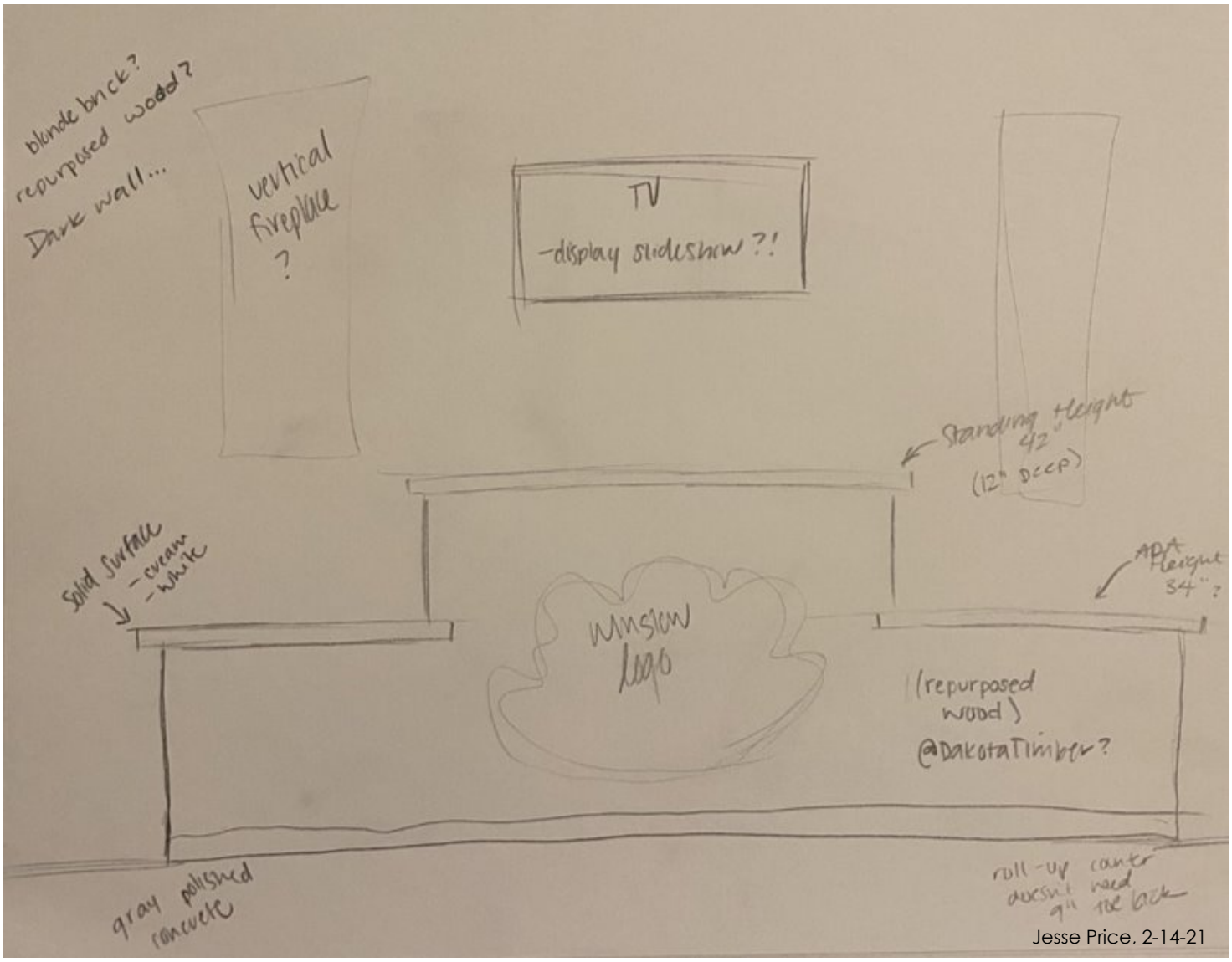
Blocking Diagram

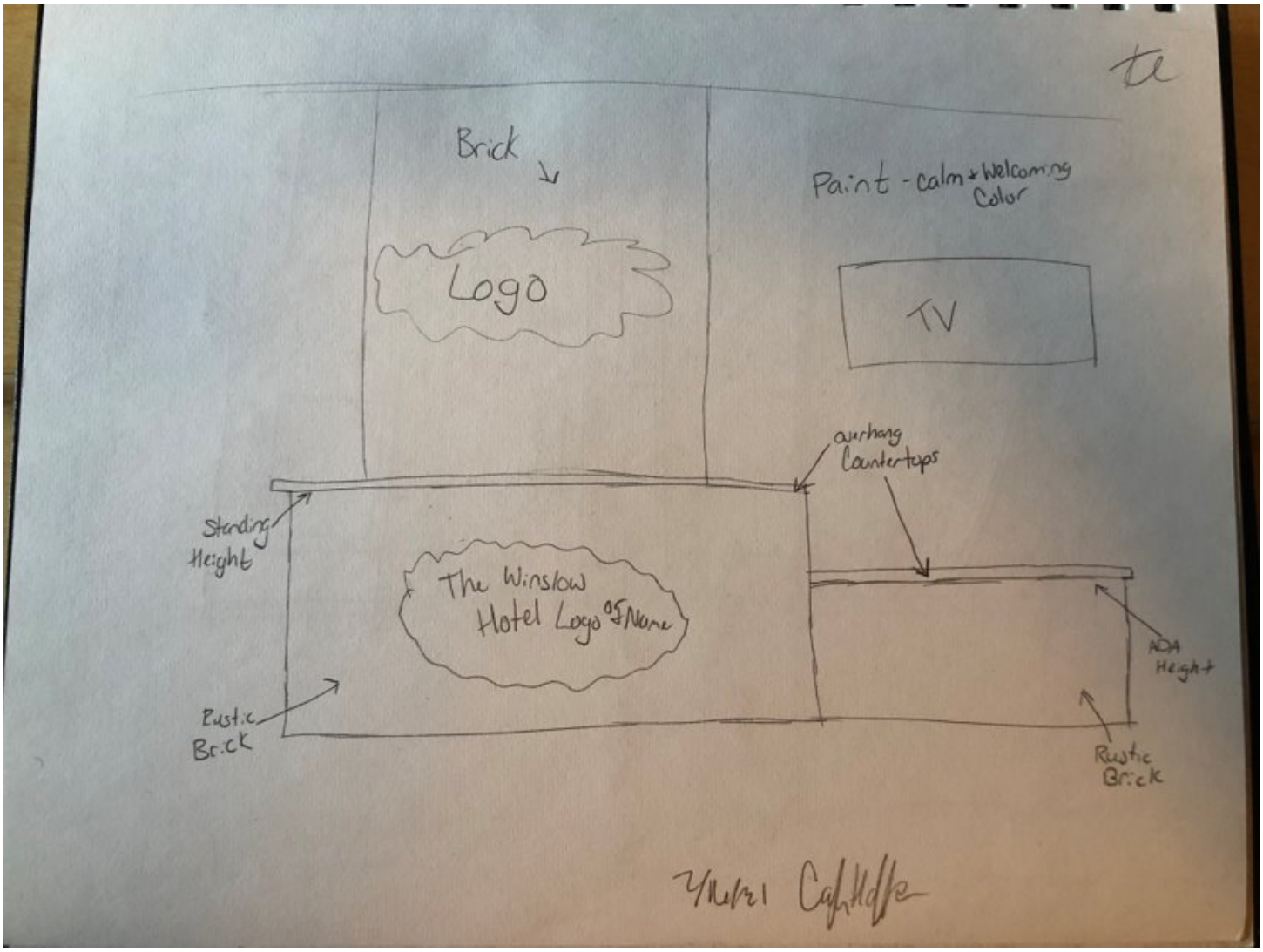


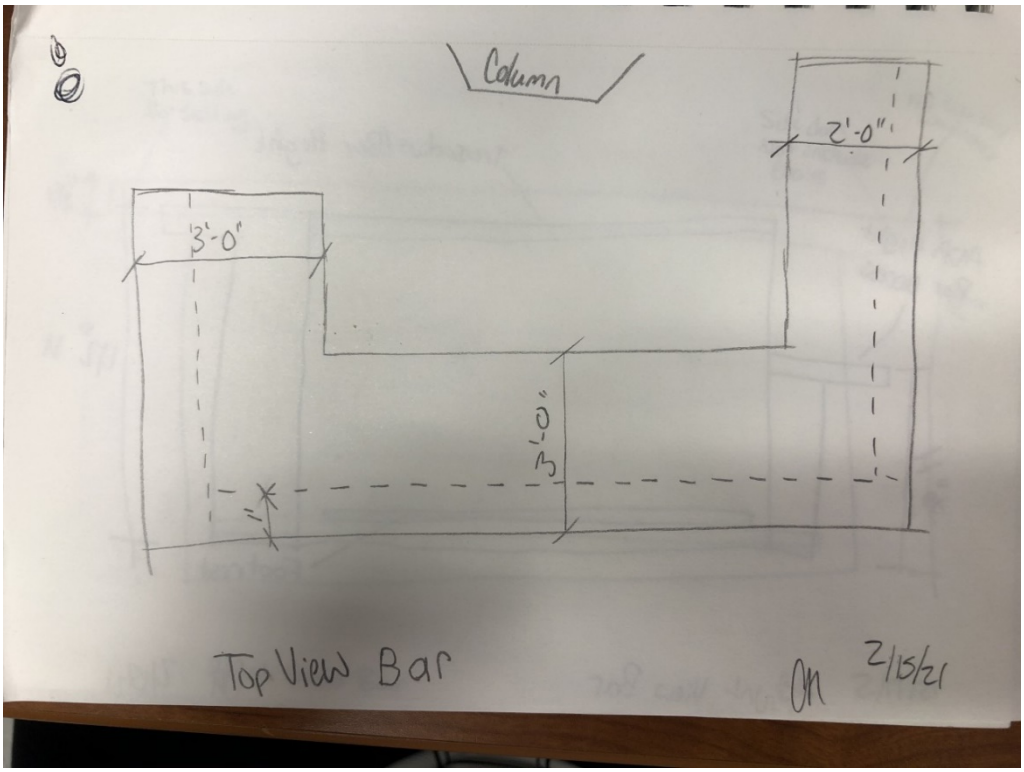
Process Sketches

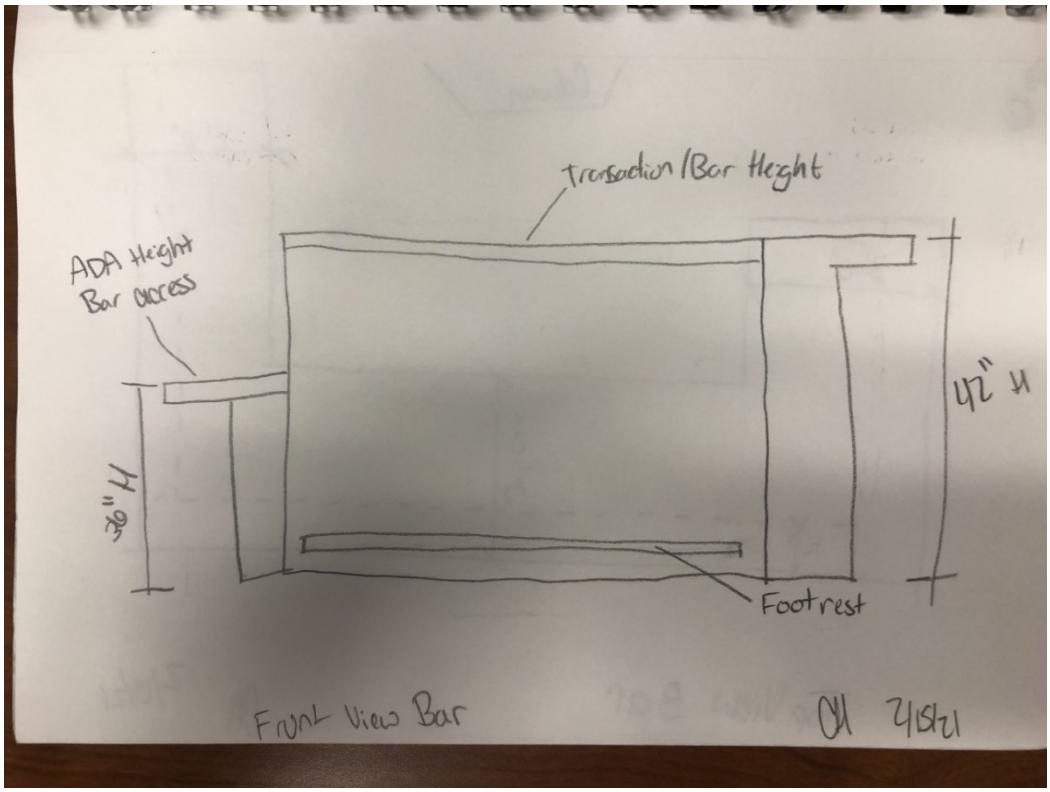


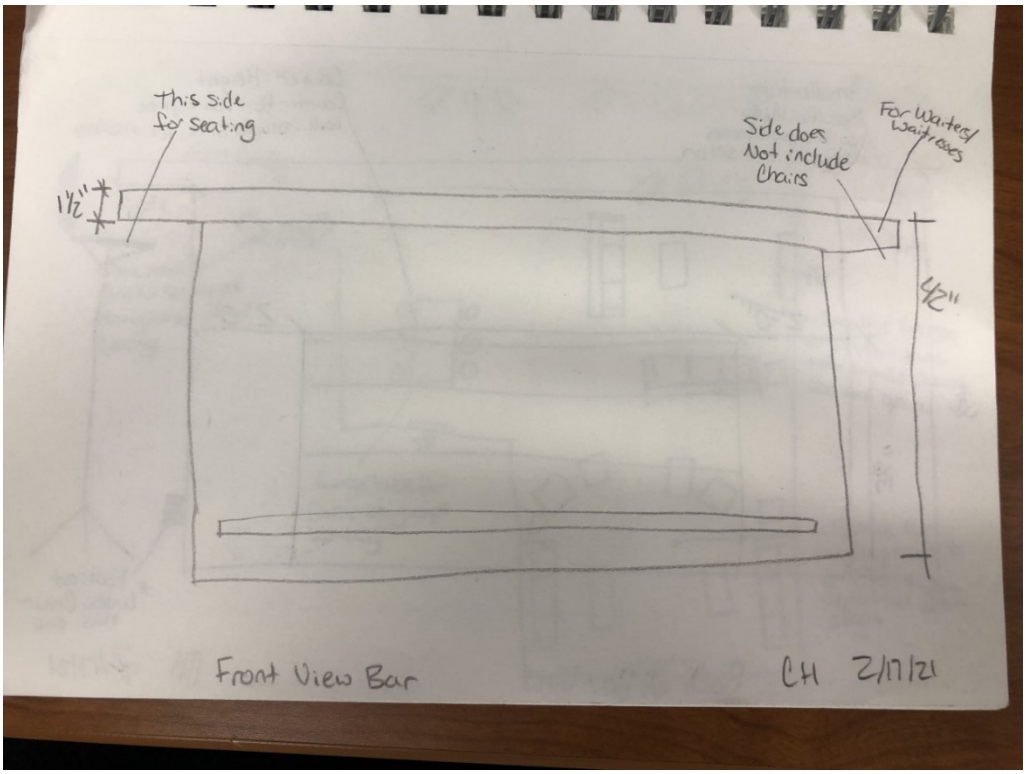
Abbie Bowman, 2-13-21

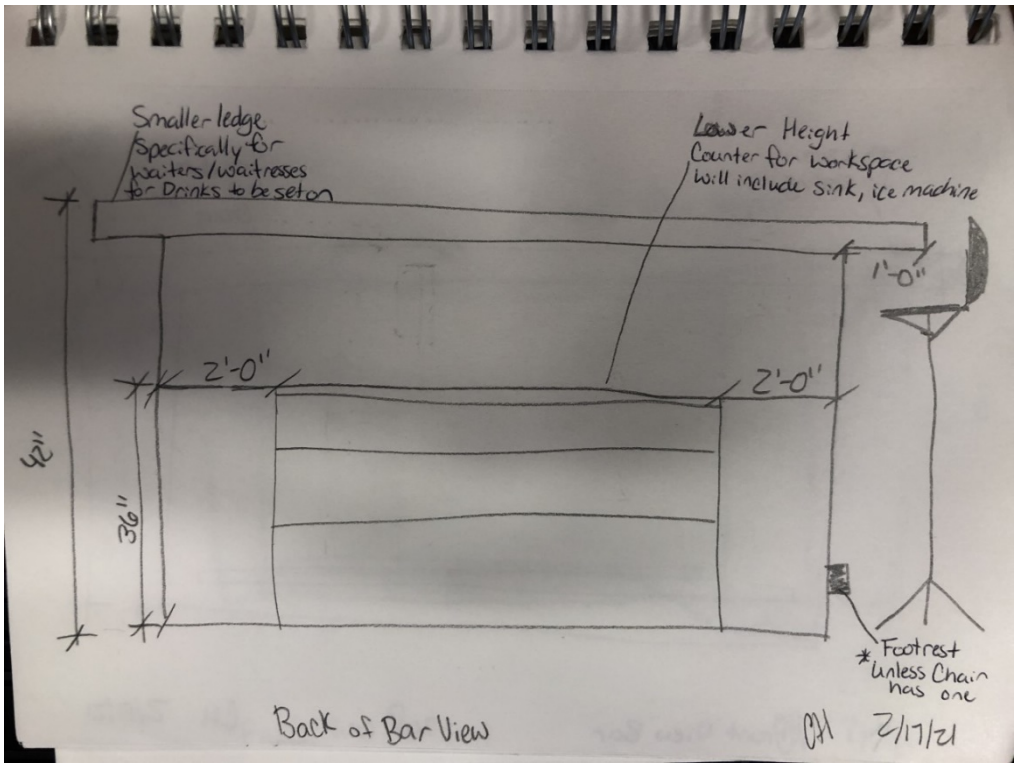

blonde brick?
repurposed wood?
Dark wall...
vertical fireplace ?
TV
-display slideshow ?!
Standing Height 42"
(12" DEEP)
Solid Surface
-cream
-white
ADA Height 34"?
Winslow logo
(repurposed wood)
@DakotaTimber?
gray polished concrete
roll-up counter doesn't need 9" toe back
Jesse Price, 2-14-21

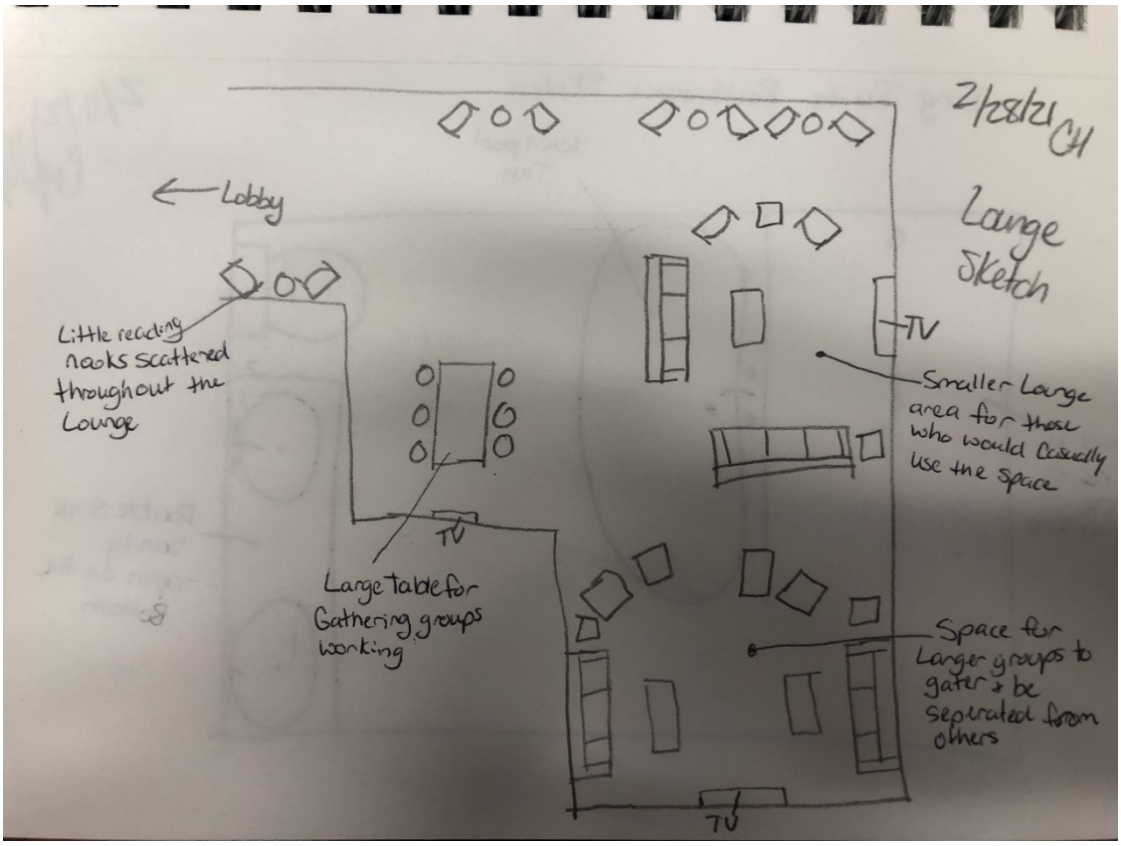

Brick
Paint - calm + Welcoming Color
Logo
TV
overhang Countertops
Standing Height
The Winslow Hotel Logo or Name
ADA Height
Rustic Brick
Rustic Brick

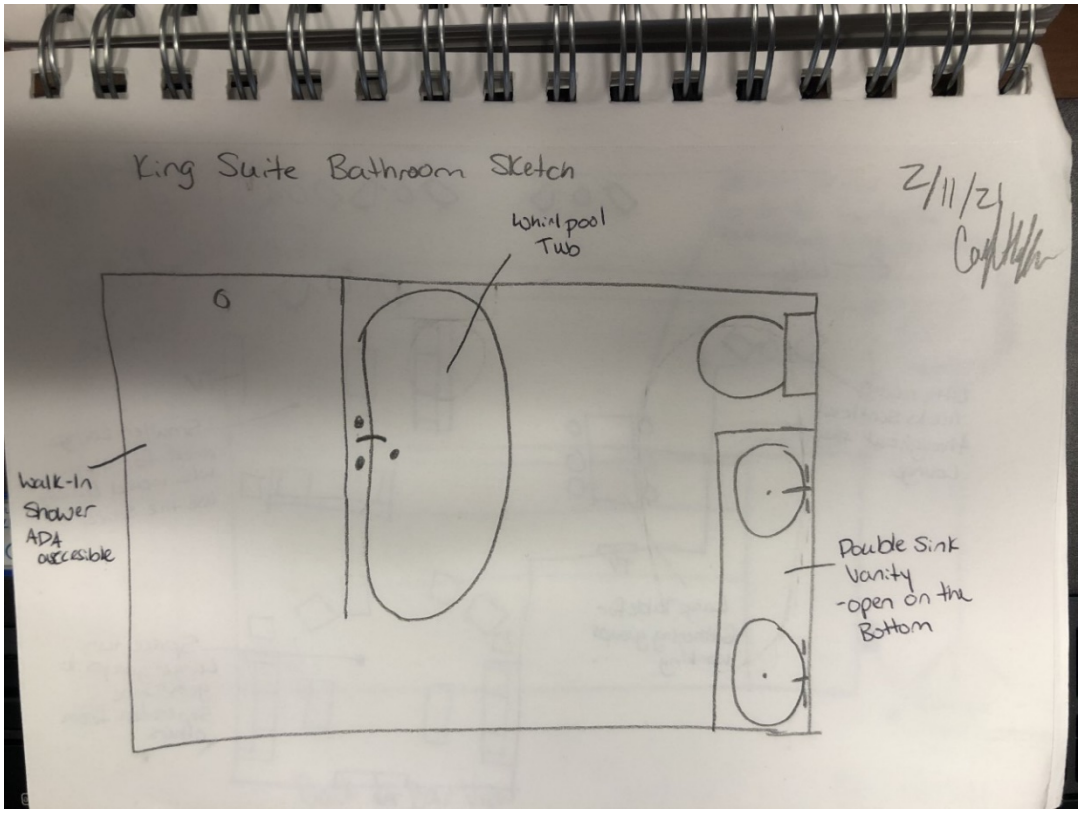

Column
2'-0"
3'-0"
3'-0"
Top View Bar
CM
2/15/21

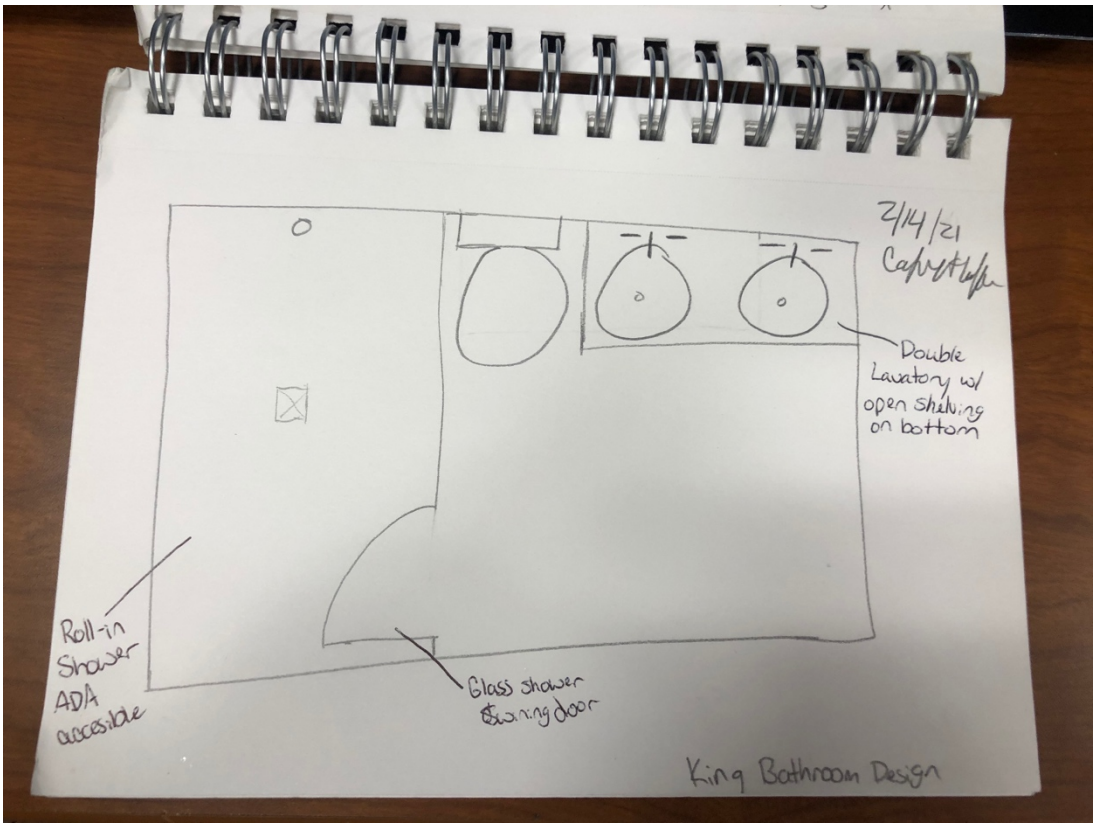

Transaction/Bar Height
ADA Height Bar access
42" H
36" H
Footrest
Front View Bar
CM
2/15/21

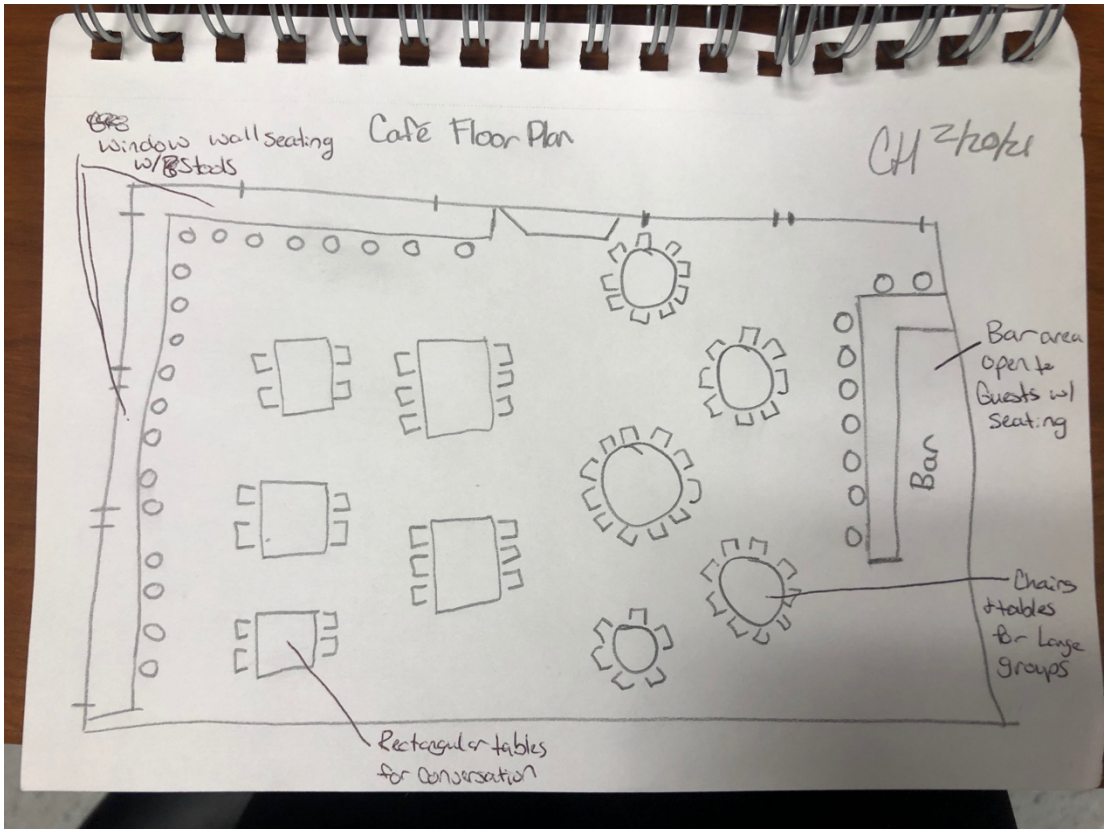

This side for seating
Side does Not include Chairs
For Waiters/ Waitresses
1½"
42"
Front View Bar
CH 2/17/21

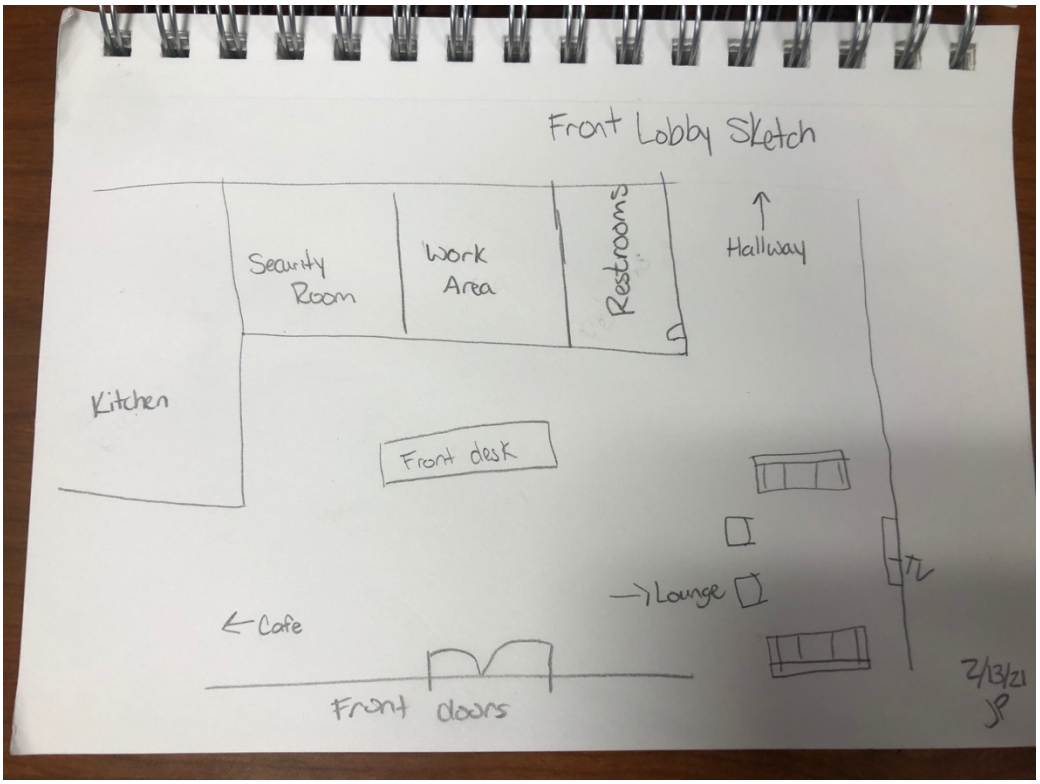

Smaller ledge Specifically for waiters/waitresses for Drinks to be set on
Lower Height Counter for workspace will include sink, ice machine
1'-0"
2'-0"
2'-0"
42"
36"
*Footrest Unless Chair has one
Back of Bar View
CH 2/17/21

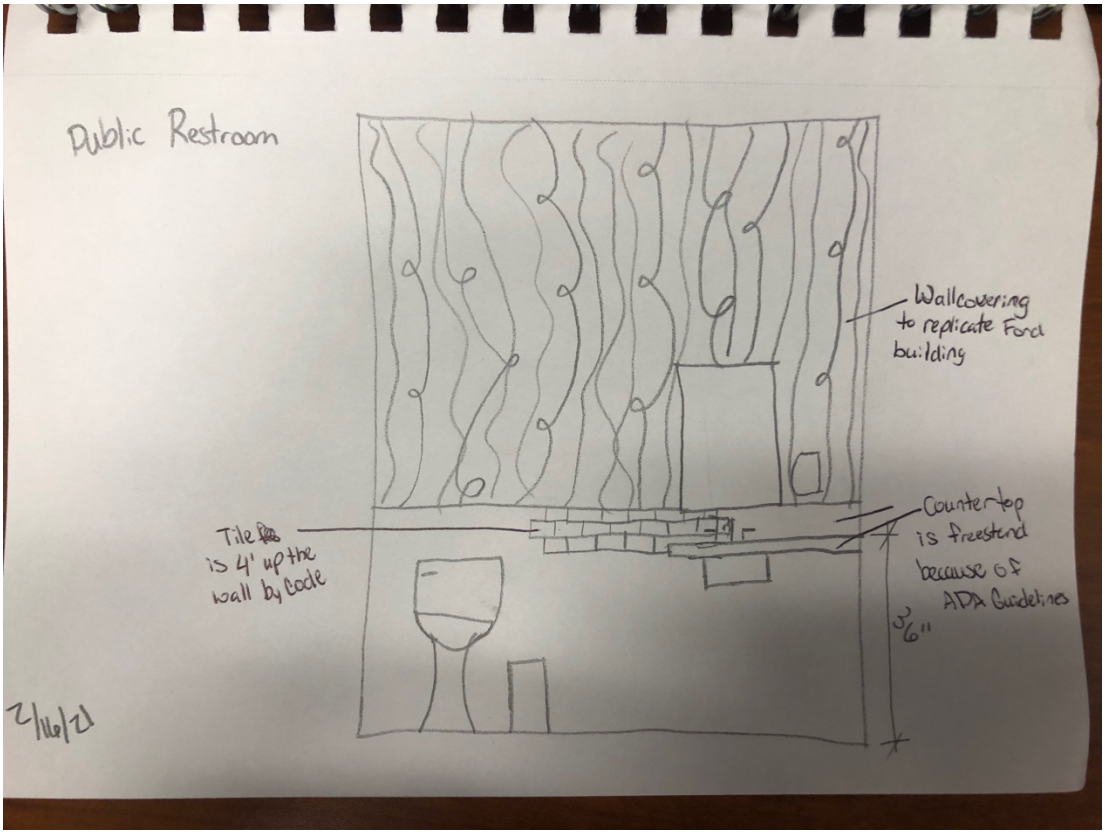

2/28/21 CH
Lobby
Large Sketch
Little reading nooks scattered throughout the Lounge
TV
Smaller Large area for those who would Casually use the space
TV
Large table for Gathering groups working
Space for Larger groups to gater & be seperated from others
TV

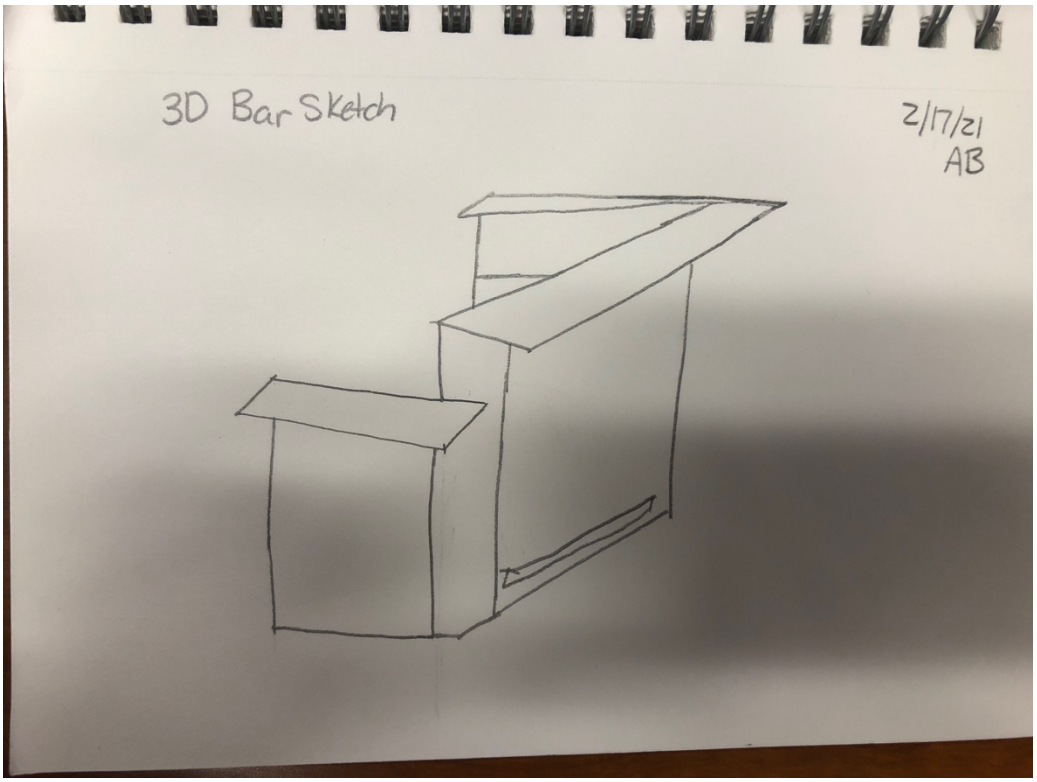

King Suite Bathroom Sketch
2/11/21
Whirlpool Tub
Walk-in Shower ADA accessible
Double Sink Vanity -open on the Bottom

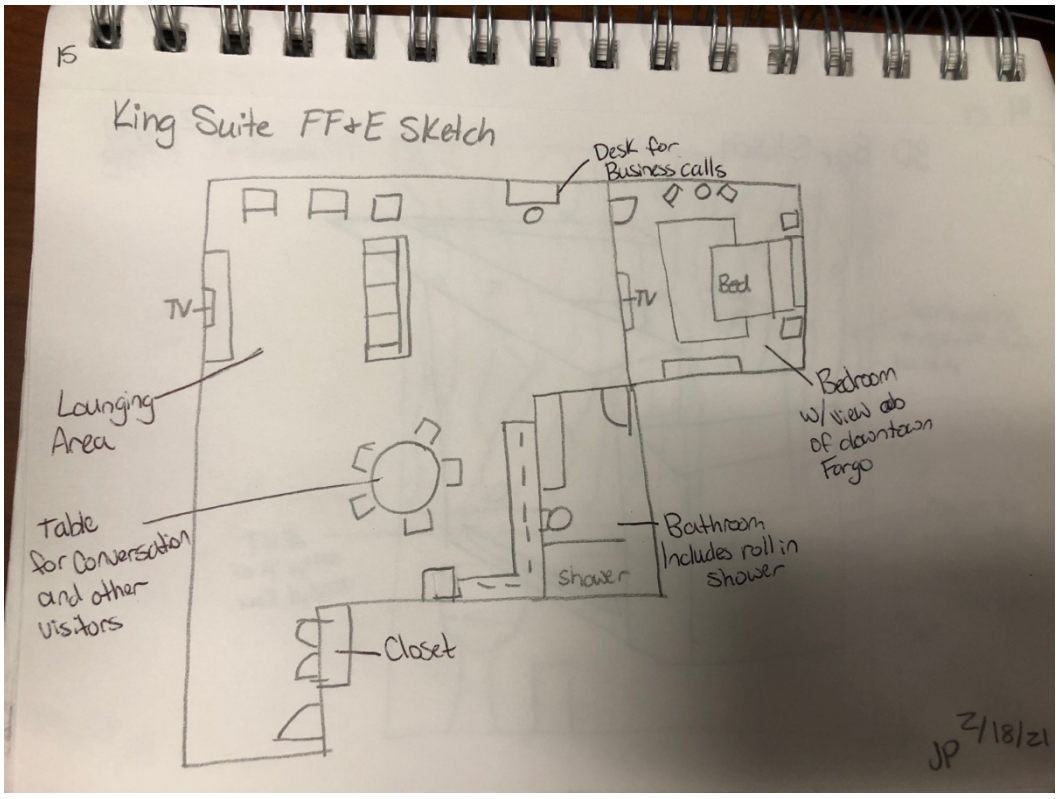

2/14/21
Double Lavatory w/ open shelving on bottom
Roll-in Shower ADA accessible
Glass shower swinging door
King Bathroom Design

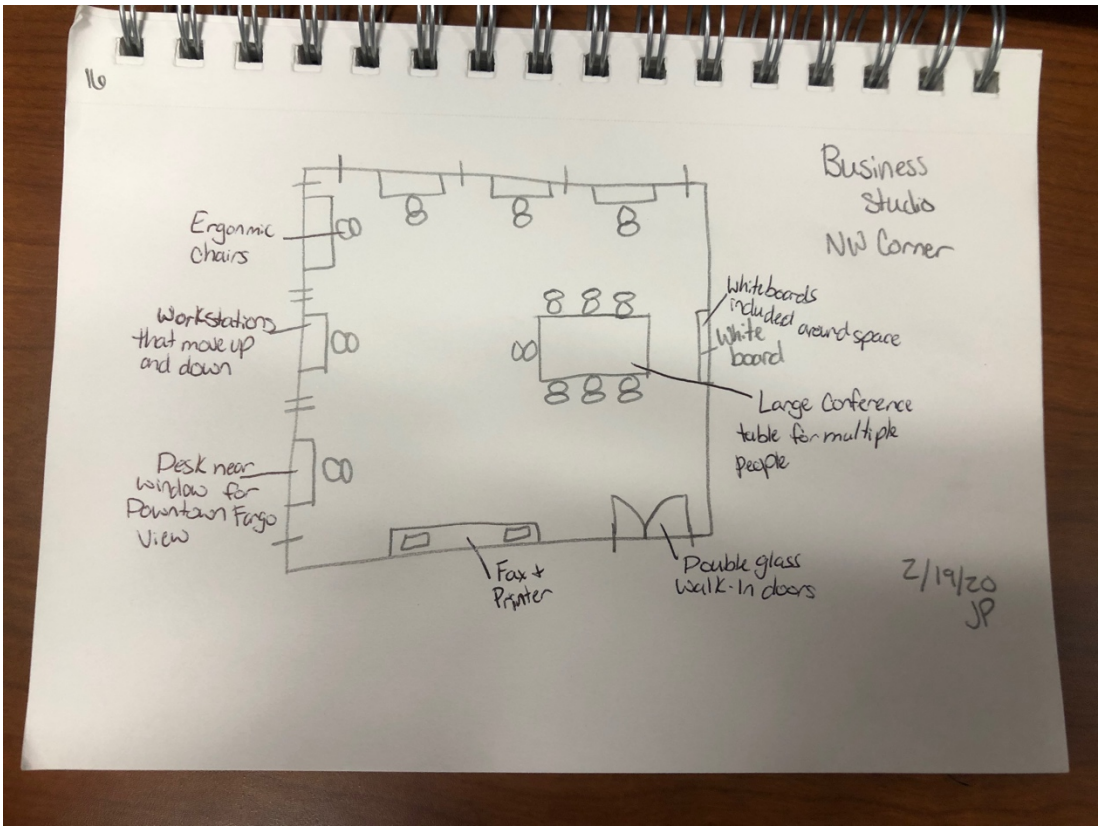

Window wall seating w/ stools
Café Floor Plan
CH 2/20/21
Bar area open to Guests w/ seating
Bar
Chairs & tables for Large Groups
Rectangular tables for conversation


Front Lobby Sketch
Security Room
Work Area
Restrooms
Hallway
Kitchen
Front desk
Lounge
TV
Cafe
Front doors
2/13/21
JP


Public Restroom
Wallcovering to replicate Ford building
Tile is 4' up the wall by code
Countertop is freestand because of ADA Guidelines
3'6"
2/16/21


3D Bar Sketch
2/17/21
AB


15
King Suite FF&E Sketch
Desk for Business calls
TV
TV
Bed
Lounging Area
Bedroom w/ view obs of downtown Fargo
Table for Conversation and other visitors
Bathroom Includes roll in shower
Shower
Closet
JP 2/18/21


Business Studio NW Corner
Ergonmic Chairs
Workstations that move up and down
Desk near window for Downtown Fargo View
Whiteboards included around space
White board
Large Conference table for multiple people
Fax + Printer
Double glass walk-in doors
2/19/20
JP

FF&E Schedule

FF&E Schedule		
Code	B-1	
Description	Bed	
Manufacturer	Bernhardt Hospitality	
Item/Model Name	Neoteric Guest Room Platform Bed	
Item/Model Number	705-MC01	
Dimension/Size	W: 63” D: 85” H: 60”	
Quantity	12	
Product Finish/Color	Desert Taupe	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Queen Suites	
Notes	(Stone, 2019)	

FF&E Schedule		
Code	B-2	
Description	Bed	
Manufacturer	Bernhardt Hospitality	
Item/Model Name	Avery Leather Button-Tufted Bed (54-1/2" H)	
Item/Model Number	755-H66L	
Dimension/Size	W: 83-3/8” D: 87-7/8” H: 54-1/2”	
Quantity	4	
Product Finish/Color	Black Leather	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	King Suites	
Notes	(Stone, 2019)	

FF&E Schedule		
Code	BE-1	
Description	Bench	
Manufacturer	Zilio Aldo & C	
Item/Model Name	SELERI Bench	
Item/Model Number	1253709	
Dimension/Size	47.2" w x 12.6" D x 17.7" H	
Quantity	2	
Product Finish/Color	Stained oak	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Fitness Studio	
Notes	(Ogle, 2009)	

FF&E Schedule		
Code	C-1	
Description	Chair	
Manufacturer	Skram	
Item/Model Name	Piedmont Dining Chair	
Item/Model Number	PC4	
Dimension/Size	18” W x 23” D x 30” H	
Quantity	20	
Product Finish/Color	Solid Timber seat	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Café	
Notes	Order as shown. (Ramkissoon, et al., 2016) (Ogle, 2009)	

FF&E Schedule		
Code	C-2	
Description	Chair	
Manufacturer	David Gaynor Design	
Item/Model Name	DGD | Bar Stool	
Item/Model Number	DGD-003	
Dimension/Size	21.5” D x 16.5” W x 41.75”H	
Quantity	9	
Product Finish/Color	Powder coated steel, walnut, and leather	
Fabric Code	FA-8	
Fabric Pattern Name/Number	Coffee/ 100243	
C.O.M. Description/Manufacturer Description	Content: 100% Otratex	
Location	Café Bar	
Notes	(Ramkissoon, et al., 2016) (Ogle, 2009)	

FF&E Schedule		
Code	C-3	
Description	Chair	
Manufacturer	Bert Plantagie	
Item/Model Name	Maple with arm	
Item/Model Number	20174237	
Dimension/Size	34.2” H 23.6” W 24.4” D	
Quantity	2	
Product Finish/Color	Black/Maple	
Fabric Code	F-9	
Fabric Pattern Name/Number	Sedona Black/ 102381	
C.O.M. Description/Manufacturer Description	Content: 100% Otratex	
Location	Lobby	
Notes	(Lee & Severt, 2017) (Lee & Koh, 2019) (Lo & Yeung, 2020) (Ogle, 2009)	

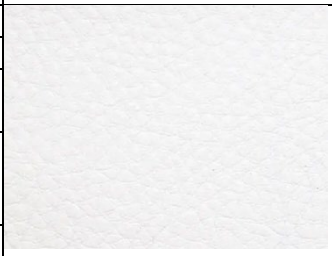
FF&E Schedule		
Code	C-4	
Description	Chair	
Manufacturer	Herman Miller	
Item/Model Name	Full Twist Chair	
Item/Model Number	1407353	
Dimension/Size	23.5” W, 24” D, 30” H	
Quantity	8	
Product Finish/Color	Wood	
Fabric Code	FA-8	
Fabric Pattern Name/Number	Coffee/ 100243	
C.O.M. Description/Manufacturer Description	Content: 100% Otratex	
Location	Lounge and Business Center	
Notes	12-year warranty (Lo & Yeung, 2020) (Ogle, 2009)	

FF&E Schedule		
Code	C-5	
Description	Chair	
Manufacturer	Bernhardt Hospitality	
Item/Model Name	Jaxson Chair	
Item/Model Number	N6313	
Dimension/Size	W: 28” D: 35” H: 31-1/2”	
Quantity	4	
Product Finish/Color	Black Hammered Steel	
Fabric Code	FA-4	
Fabric Pattern Name/Number	Tartan/ 6488/1	
C.O.M. Description/Manufacturer Description	Content: 100% Polyester	
Location	Lounge	
Notes	(Lee & Oh, 2018) (Lee & Severt, 2017) (Lee & Koh, 2019) (Lo & Yeung, 2020) (Stone, 2019) (Ogle, 2009)	

FF&E Schedule		
Code	C-6	
Description	Chair	
Manufacturer	StyleWell	
Item/Model Name	Finwick Matte Gunmetal Gray Metal Backless Bar Stool with Wood Seat	
Item/Model Number	SW801-30-GMM	
Dimension/Size	16.93 in. W x 29.53 in. H	
Quantity	4	
Product Finish/Color	Gunmetal Grey/Wood Seat	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Lounge	
Notes	1-year warranty (Lee & Severt, 2017) (Lo & Yeung, 2020) (Stone, 2019) (Ogle, 2009)	

FF&E Schedule		
Code	C-7	
Description	Chair	
Manufacturer	National Hospitality Supply	
Item/Model Name	York Hotel Lounge Chair	
Item/Model Number	5192K	
Dimension/Size	29.5" W x 27.5" D x 30.5" H	
Quantity	12	
Product Finish/Color	Espresso	
Fabric Code	FA-2	
Fabric Pattern Name/Number	Elk/466433-003	
C.O.M. Description/Manufacturer Description	Content: 61% Polyester, 39% Polyolefin	
Location	Queen Suites	
Notes	(Lee & Oh, 2018) (Stone, 2019) (Ogle, 2009)	

FF&E Schedule		
Code	C-8	
Description	Chair	
Manufacturer	Bernhardt Hospitality	
Item/Model Name	PS26 Desk Chair	
Item/Model Number	719-020	
Dimension/Size	W: 18” D: 20” H: 34”	
Quantity	10	
Product Finish/Color	Fog	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	King Suites and Queen Suites	
Notes	(Ogle, 2009)	

FF&E Schedule		
Code	C-9	
Description	Chair	
Manufacturer	Wittmann	
Item/Model Name	MERWYN LOUNGE	
Item/Model Number	29612	
Dimension/Size	H: 27.5” D: 26.7” W: 23.2”	
Quantity	12	
Product Finish/Color	Black/Wood	
Fabric Code	FA-3	
Fabric Pattern Name/Number	Ice Cap/ 100244	
C.O.M. Description/Manufacturer Description	Content: 100% Otratex	
Location	Queen Suites	
Notes	Environmental Benefits: This product is a non-phthalate vinyl. Within 30 years, the material fully decomposes when placed in an anaerobic environment such as a landfill. (Ogle, 2009)	

FF&E Schedule		
Code	C-10	
Description	Chair	
Manufacturer	MDF Italia	
Item/Model Name	NEIL LEATHER	
Item/Model Number	N/A	
Dimension/Size	20.07” L 22.4 D 31.1” W	
Quantity	12	
Product Finish/Color	Tanned leather, chrome	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Queen Suites	
Notes	(Ogle, 2009)	

FF&E Schedule		
Code	C-11	
Description	Chair	
Manufacturer	Industry West	
Item/Model Name	Kerry Lounge Chair	
Item/Model Number	IW-0000183889	
Dimension/Size	28.7” Wide x 29.9” Deep x 32.6” High	
Quantity	8	
Product Finish/Color	FA-8	
Fabric Code	Coffee/ 100243	
Fabric Pattern Name/Number	Content: 100% Otratex	
C.O.M. Description/Manufacturer Description	King Suites	
Location	12-year warranty (Lo & Yeung, 2020) (Ogle, 2009)	
Notes	FA-8	

FF&E Schedule		
Code	C-12	
Description	Chair	
Manufacturer	Blifase	
Item/Model Name	Aura - Sedia	
Item/Model Number	N/A	
Dimension/Size	34.2” H 21.6” W 22.8” D	
Quantity	24	
Product Finish/Color	Wood	
Fabric Code	FA-7	
Fabric Pattern Name/Number	Coffee/ LU-ST-012	
C.O.M. Description/Manufacturer Description	Content: 100% Vinyl with Urethane Top Coat	
Location	King Suites	
Notes	(Ogle, 2009)	

FF&E Schedule		
Code	C-13	
Description	Chair	
Manufacturer	Caracole	
Item/Model Name	THE ELEMENTAL ARMCHAIR	
Item/Model Number	SGU-418-032-A	
Dimension/Size	36” W x 36.5” D x 39” H	
Quantity	4	
Product Finish/Color	Urban Brass	
Fabric Code	F-6	
Fabric Pattern Name/Number	Ash-Hunter/ PENNINGTON100-ASH-HUNTER	
C.O.M. Description/Manufacturer Description	Content: 100% Polyester	
Location	King Suites	
Notes	(Stone, 2019) (Ogle, 2009)	

FF&E Schedule		
Code	C-14	
Description	Chair	
Manufacturer	Herman Miller	
Item/Model Name	Versus Chair	
Item/Model Number	PIA1B326AFAJVPR36501C73EP18	
Dimension/Size	Height 40"- 43.23" Width 27.625" Depth 25.8"	
Quantity	8	
Product Finish/Color	Black/Black	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Business Center	
Notes	12-year warranty (Ogle, 2009)	

FF&E Schedule		
Code	CH-1	
Description	Changing Table	
Manufacturer	Koala Kare	
Item/Model Name	Koala Kare KB200-00 Horizontal Baby Changing Station / Table - Cream	
Item/Model Number	KB200-00	
Dimension/Size	Width 35 3/16 Inches Depth 4 Inches Height 22 1/4 Inches	
Quantity	1	
Product Finish/Color	White	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Public Restroom 333	
Notes	Complies with ASTM static load performance requirements	

FF&E Schedule		
Code	DR-1	
Description	Dresser	
Manufacturer	Bernhardt Hospitality	
Item/Model Name	Eastman Hall Chest	
Item/Model Number	303-115B	
Dimension/Size	W: 50” D: 19” H: 32”	
Quantity	6	
Product Finish/Color	Sable Brown, Gray Mist	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Queen Suites	
Notes	(Stone, 2019)	

FF&E Schedule		
Code	DR-2	
Description	Dresser	
Manufacturer	Bernhardt Hospitality	
Item/Model Name	Adagio Dresser	
Item/Model Number	353-052	
Dimension/Size	W: 68” D: 19” H: 36”	
Quantity	4	
Product Finish/Color	Gmelina solids and flat cut cherry veneers	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	King Suites	
Notes	(Stone, 2019)	

FF&E Schedule		
Code	DRA-1	
Description	Drapes	
Manufacturer	Architex	
Item/Model Name	Heavy Upholstery Fabric 24/7 Performance Vinyls Collection	
Item/Model Number	N/A	
Dimension/Size	13’ H x 8’ W per panel	
Quantity	30 panels	
Product Finish/Color	Mantle/Aluminum	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	King Suites and Queen Suites	
Notes	Confirm measurements in the field.	

FF&E Schedule		
Code	EC-1	
Description	Entertainment Center	
Manufacturer	Praddy	
Item/Model Name	Arc	
Item/Model Number	TR056	
Dimension/Size	94.48” L 19.68” W 16.92” H	
Quantity	1	
Product Finish/Color	Wood	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	King Suite 305	
Notes	(McNeill, 2008)	

FF&E Schedule		
Code	EQ-1	
Description	Exercise Equipment	
Manufacturer	Precor	
Item/Model Name	Recumbent Bike	
Item/Model Number	RBK 885	
Dimension/Size	75" L x 28" W x 53.5" H	
Quantity	1	
Product Finish/Color	Black	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Fitness Studio	
Notes	7-year warranty (Cetin & Walls, 2016) (Kariru et al., 2017)	

FF&E Schedule		
Code	EQ-2	
Description	Exercise Equipment	
Manufacturer	Precor	
Item/Model Name	Elliptical Fitness Crosstrainer™ EFX® 885 with Converging CrossRamp®	
Item/Model Number	885	
Dimension/Size	80" L x 30" W x 72" H	
Quantity	2	
Product Finish/Color	Black	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Fitness Studio	
Notes	7-year warranty (Cetin & Walls, 2016) (Kariru et al., 2017)	

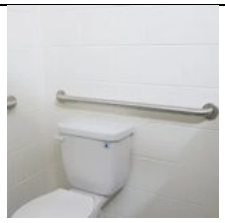
FF&E Schedule		
Code	EQ-3	
Description	Exercise Equipment	
Manufacturer	Precor	
Item/Model Name	Treadmill	
Item/Model Number	TRM 885	
Dimension/Size	83" L x 35" W x 68.5" H	
Quantity	3	
Product Finish/Color	Black	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Fitness Studio	
Notes	7-year warranty (Cetin & Walls, 2016) (Kariru et al., 2017)	

FF&E Schedule		
Code	EQ-4	
Description	Exercise Equipment	
Manufacturer	Precor	
Item/Model Name	Olympic Flat Bench	
Item/Model Number	DBR0408	
Dimension/Size	73" L x 65" W x 51.2" H	
Quantity	1	
Product Finish/Color	Black/Metal	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Fitness Studio	
Notes	7-year warranty (Cetin & Walls, 2016) (Kariru et al., 2017)	

FF&E Schedule		
Code	FR-1	
Description	Refrigerator	
Manufacturer	Frigidaire	
Item/Model Name	4.5 Cu. Ft. Mini Fridge with Top Freezer - Silver	
Item/Model Number	FFPE4533UM	
Dimension/Size	Height: 33 1/2 inches	
Quantity	6	
Product Finish/Color	Silver	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Queen Suites	
Notes	N/A	

FF&E Schedule		
Code	FR-2	
Description	Refrigerator	
Manufacturer	Hisense	
Item/Model Name	Hisense 17.1-cu ft Counter-depth Bottom-Freezer Refrigerator (Stainless Steel) ENERGY STAR	
Item/Model Number	HBM17158SS	
Dimension/Size	31.1” W 26.69” D 68.5” H	
Quantity	4	
Product Finish/Color	Stainless Steel	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	King Suites	
Notes	Energy Star Certified (Lee & Oh, 2018) (Stone, 2019)	

FF&E Schedule		
Code	GB-1	
Description	Grab Bar	
Manufacturer	Webstaurant Store	
Item/Model Name	Lavex Janitorial 42" Handicapped Restroom Grab Bar	
Item/Model Number	600GB11242	
Dimension/Size	42” L 1.5”dia.	
Quantity	6	
Product Finish/Color	Stainless Steel	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Public Bathrooms	
Notes	ADA Compliant	

FF&E Schedule		
Code	GB-2	
Description	Grab Bar	
Manufacturer	Webstaurant Store	
Item/Model Name	Lavex Janitorial 36" Handicapped Restroom Grab Bar	
Item/Model Number	600GB11236	
Dimension/Size	36” L 1.5”dia.	
Quantity	6	
Product Finish/Color	Stainless Steel	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	All Public Bathrooms	
Notes	ADA Compliant	

FF&E Schedule		
Code	HD-1	
Description	Hand Dryer	
Manufacturer	XLERATOR®	
Item/Model Name	Excel XL-SB-1.1N 110/120 XLERATOR® Stainless Steel Cover High Speed Hand Dryer - 110/120V, 1500W	
Item/Model Number	XL-SB-1.1N 110/120	
Dimension/Size	Width 11 3/4 Inches Depth 6 11/16 Inches Height 12 11/16 Inches	
Quantity	6	
Product Finish/Color	Stainless Steel	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Public Restrooms	
Notes	Dries hands in 8 seconds Offers up to 95% cost savings when compared with paper towels Uses up to 80% less energy than conventional dryers ADA Compliant	

FF&E Schedule		
Code	MW-1	
Description	Microwave	
Manufacturer	LG	
Item/Model Name	NeoChef 2.0 Cu. Ft. Countertop Microwave with Smart Inverter and EasyClean	
Item/Model Number	LMC2075ST	
Dimension/Size	Product Height:13 9/16 inches Product Width: 23 7/8 inches Product Depth:18 3/8 inches	
Quantity	10	
Product Finish/Color	Stainless Steel	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	King Suites and Queen Suites	
Notes	(Lee & Oh, 2018) (Stone, 2019)	

FF&E Schedule		
Code	S-1	
Description	Sofa	
Manufacturer	David Gaynor Design	
Item/Model Name	DGD | Sofa	
Item/Model Number	DGD-006	
Dimension/Size	34D x 72W x 34H x 18.5SH inches	
Quantity	2	
Product Finish/Color	Powder coated steel, maple	
Fabric Code	FA-8	
Fabric Pattern Name/Number	Coffee/ 100243	
C.O.M. Description/Manufacturer Description	Content: 100% Otratex	
Location	Lounge	
Notes	(Lee & Oh, 2018) (Lee & Severt, 2017) (Lee & Koh, 2019) (Lo & Yeung, 2020) (Stone, 2019) (Ogle, 2009)	

FF&E Schedule		
Code	S-2	
Description	Sofa	
Manufacturer	Bernhardt Hospitality	
Item/Model Name	Arthur Full Sofa Sleeper	
Item/Model Number	W6726S	
Dimension/Size	W: 76” D: 35” H: 35-1/2”	
Quantity	6	
Product Finish/Color	N/A	
Fabric Code	FA-1	
Fabric Pattern Name/Number	Naturel/ 1050/01	
C.O.M. Description/Manufacturer Description	Content: 59% Worsted Wool, 34% Cotton, 5% Rayon, 2% Nylon	
Location	Queen Suites	
Notes	(Lee & Oh, 2018) (Stone, 2019) (Ogle, 2009)	

FF&E Schedule		
Code	S-3	
Description	Sofa	
Manufacturer	Bernhardt Hospitality	
Item/Model Name	Barron Sofa Sleeper (Queen)	
Item/Model Number	W6277S	
Dimension/Size	W: 78” D: 36” H: 35”	
Quantity	4	
Product Finish/Color	Brandy	
Fabric Code	FA-5	
Fabric Pattern Name/Number	Canal/ 466433-009	
C.O.M. Description/Manufacturer Description	Content: 61% Polyester, 39% Polyolefin	
Location	King Suites	
Notes	Certificates & Standards: Greenguard Certified, Greenguard Gold Certified, REACH Compliant (Lee & Oh, 2018) (Stone, 2019) (Ogle, 2009)	

FF&E Schedule		
Code	SD-1	
Description	Shower Door	
Manufacturer	Basco Shower Enclosures	
Item/Model Name	Infinity Semi-Frameless 1/4-inch Glass Swing Shower Door	
Item/Model Number	1400	
Dimension/Size	36”W 72”H	
Quantity	4	
Product Finish/Color	Clear Glass/Matte Black	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	King Suites	
Notes	N/A	

FF&E Schedule		
Code	SP-1	
Description	Soap Dispenser	
Manufacturer	Health Guard	
Item/Model Name	Kutol 9981BLK Health Guard 1000 mL Black Automatic Hands Free Soap / Sanitizer Dispenser	
Item/Model Number	9981BLK	
Dimension/Size	Width 6 1/8 Inches Depth 7 1/2 Inches Height 11 Inches	
Quantity	6	
Product Finish/Color	Black	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Public Restrooms	
Notes	ADA Compliant	

FF&E Schedule		
Code	T-1	
Description	Table	
Manufacturer	Meridiani	
Item/Model Name	Plinto	
Item/Model Number	XW	
Dimension/Size	Diameter 62.99”	
Quantity	2	
Product Finish/Color	Oak Veneer	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Cafe	
Notes	(Ramkissoon, et al., 2016) (Ogle, 2009)	

FF&E Schedule		
Code	T-2	
Description	Table	
Manufacturer	Camino	
Item/Model Name	Graceful Reina	
Item/Model Number	CM12111	
Dimension/Size	Height 28 4/7”	
Quantity	2	
Product Finish/Color	Waxed Oak	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Cafe	
Notes	(Ramkissoon, et al., 2016) (Ogle, 2009)	

FF&E Schedule		
Code	T-3	
Description	Table	
Manufacturer	Pfeifer Studio	
Item/Model Name	Pale Rider Cottonwood Stump Table	
Item/Model Number	1413932	
Dimension/Size	Height 20” Diameter 18”	
Quantity	5	
Product Finish/Color	Reclaimed Cottonwood	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Lounge, Business Center	
Notes	(Lee & Severt, 2017) (Ogle, 2009)	

FF&E Schedule		
Code	T-4	
Description	Table	
Manufacturer	ERG International	
Item/Model Name	Dion Coffee Table	
Item/Model Number	1410045	
Dimension/Size	Height 17” Length 53.5” Depth 31.5”	
Quantity	2	
Product Finish/Color	Argento Metallic Powder Coat finish	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Lounge	
Notes	(Lee & Severt, 2017) (Lo & Yeung, 2020) (Stone, 2019) (Ogle, 2009)	

FF&E Schedule		
Code	T-5	
Description	Table	
Manufacturer	Meyer Wells	
Item/Model Name	Briggs Standing Height	
Item/Model Number	N/A	
Dimension/Size	L: 72” W: 36” H: 42”	
Quantity	1	
Product Finish/Color	Solid wood top/steel tube legs	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Lounge	
Notes	Order as shown. (Lee & Severt, 2017) (Lo & Yeung, 2020) (Stone, 2019) (Ogle, 2009)	

FF&E Schedule		
Code	T-6	
Description	Table	
Manufacturer	Herman Miller	
Item/Model Name	Nelson Swag Leg Desk	
Item/Model Number	NS5850	
Dimension/Size	Height 34.5"	
Quantity	10	
Product Finish/Color	Standard Color	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	King Suites and Queen Suites	
Notes	(Ogle, 2009)	

FF&E Schedule		
Code	T-7	
Description	Table	
Manufacturer	Bernhardt Hospitality	
Item/Model Name	Avondale Round Metal End Table	
Item/Model Number	470-121	
Dimension/Size	H: 24”	
Quantity	6	
Product Finish/Color	Faux marble top	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Queen Suites	
Notes	Adjustable glides	

FF&E Schedule		
Code	T-8	
Description	Table	
Manufacturer	Vitra	
Item/Model Name	BELLEVILLE TABLE BISTRO	
Item/Model Number	N/A	
Dimension/Size	29.5” W 29.25 H	
Quantity	6	
Product Finish/Color	Black	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Queen Suites	
Notes	(Ogle, 2009)	

FF&E Schedule		
Code	T-9	
Description	Table	
Manufacturer	Artek	
Item/Model Name	Kaari	
Item/Model Number	REB003	
Dimension/Size	31” DIA	
Quantity	6	
Product Finish/Color	Black/Flat rolled steel	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Queen Suites	
Notes	(Ogle, 2009)	

FF&E Schedule		
Code	T-10	
Description	Table	
Manufacturer	Bernhardt Hospitality	
Item/Model Name	Canyon Ridge Nightstand	
Item/Model Number	397-218	
Dimension/Size	W: 36” D: 19-1/2” H: 29-3/4”	
Quantity	6	
Product Finish/Color	Desert Taupe	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Queen Suites	
Notes	(Stone, 2019)	

FF&E Schedule		
Code	T-11	
Description	Table	
Manufacturer	Bernhardt Hospitality	
Item/Model Name	Union Side Table	
Item/Model Number	719-027	
Dimension/Size	W 18” H 18” D 18”	
Quantity	8	
Product Finish/Color	Wood Finish: Fog	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	King Suites	
Notes	N/A	

FF&E Schedule		
Code	T-12	
Description	Table	
Manufacturer	Caracole	
Item/Model Name	End All	
Item/Model Number	CLA-019-417	
Dimension/Size	21”W x 28”D x 24.5”H	
Quantity	12	
Product Finish/Color	Textured metal frame in Chocolate Bronze	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	King Suites	
Notes	N/A	

FF&E Schedule		
Code	T-13	
Description	Table	
Manufacturer	Bernhardt Hospitality	
Item/Model Name	Sanibel Dining Table	
Item/Model Number	X01-224	
Dimension/Size	W: 70-7/8” D: 35-3/8” H: 30”	
Quantity	4	
Product Finish/Color	Terrazzo top with polyurethane protective topcoat	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	King Suites	
Notes	N/A	

FF&E Schedule		
Code	T-14	
Description	Table	
Manufacturer	Caracole	
Item/Model Name	MODERNE COCKTAIL TABLE	
Item/Model Number	M021-417-404	
Dimension/Size	62W x 22D x 19H in.	
Quantity	4	
Product Finish/Color	Top and ends in Aged Bourbon.	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	King Suites	
Notes	(Lee & Oh, 2018) (Lee & Severt, 2017) (Stone, 2019)	

FF&E Schedule		
Code	T-15	
Description	Table	
Manufacturer	Herman Miller	
Item/Model Name	Nevi Sit-to-Stand Table	
Item/Model Number	DW6ATSR.2448LEWBSTS91919157	
Dimension/Size	24” x 48”	
Quantity	4	
Product Finish/Color	White/Graphite	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Business Center	
Notes	(Ogle, 2009)	

FF&E Schedule		
Code	T-16	
Description	Table	
Manufacturer	Herman Miller	
Item/Model Name	Headway Conference Table–Seated Height–Tapered–Y Base	
Item/Model Number	N/A	
Dimension/Size	Height: 28.5" Width: 60"–96" Depth: 42"–48"	
Quantity	1	
Product Finish/Color	White/Graphite	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Business Center	
Notes	12-year warranty (Ogle, 2009)	

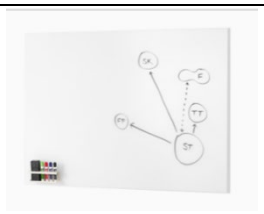
FF&E Schedule		
Code	T-17	
Description	Table	
Manufacturer	Gracie Oaks	
Item/Model Name	Viva 53" Console Table	
Item/Model Number	W003082868	
Dimension/Size	31.49" H x 53" W x 11.81" D	
Quantity	1	
Product Finish/Color	Wood/Black	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Lobby	
Notes	1-year warranty. Chip resistant. LEED Certified. (Lee & Severt, 2017) (Kariru et al., 2017)	

FF&E Schedule		
Code	TC-1	
Description	Trash Can	
Manufacturer	TOUGH Guy	
Item/Model Name	15 gal Round Fire-Resistant Trash Can, Metal, Silver	
Item/Model Number	4PGG2	
Dimension/Size	Height: 36 1/2 in Width/Diameter: 15 1/4 in	
Quantity	6	
Product Finish/Color	Silver	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Public Restrooms	
Notes	ADA Compliant Fire Resistant	

FF&E Schedule		
Code	TP-1	
Description	Toilet Paper Holder	
Manufacturer	Georgia-Pacific	
Item/Model Name	Toilet Paper Dispenser, Compact(R), Black, Coreless, (2) Rolls Dispenser Capacity, Plastic	
Item/Model Number	56784A	
Dimension/Size	Dispenser Depth: 6 3/4 in Dispenser Height: 7 1/8 in Dispenser Width: 10 1/8 in	
Quantity	6	
Product Finish/Color	Black	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Public Restrooms	
Notes	N/A	

FF&E Schedule		
Code	TV-1	
Description	TV	
Manufacturer	LG	
Item/Model Name	50" Class UN7000 Series LED 4K UHD Smart webOS TV	
Item/Model Number	50UN7000PUC	
Dimension/Size	Product Height With Stand: 28.3 inches Product Width: 44.5 inches	
Quantity	24	
Product Finish/Color	Black	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Lobby, Lounge, King Suites, Queen Suites	
Notes	(Lee & Oh, 2018) (Rather, et. Al. 2019) (Stone, 2019)	

FF&E Schedule		
Code	TV-2	
Description	TV	
Manufacturer	Samsung	
Item/Model Name	50" Class 7 Series LED 4K UHD Smart Tizen TV	
Item/Model Number	UN50TU7000FXZA	
Dimension/Size	Product Height With Stand: 28.1 inches Product Width: 44 inches	
Quantity	1	
Product Finish/Color	Titan Grey	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Fitness Studio	
Notes	1-year warranty (Lee & Oh, 2018) (Rather, et. Al. 2019)	

FF&E Schedule		
Code	WB-1	
Description	Whiteboard	
Manufacturer	Herman Miller	
Item/Model Name	Glass White Board	
Item/Model Number	N/A	
Dimension/Size	48" w x 36" H	
Quantity	1	
Product Finish/Color	White	
Fabric Code	N/A	
Fabric Pattern Name/Number	N/A	
C.O.M. Description/Manufacturer Description	N/A	
Location	Business Center	
Notes	12-year warranty	

FF&E Schedule – Plumbing Fixture		
Code	BA-1	
Description	Bathtub	
Manufacturer	Aquatics	
Item/Model Name	1-Piece Bath and Shower Kit with Right Drain in White	
Item/Model Number	260330SR-WHHD	
Dimension/Size	60 in. x 30 in. x 72 in	
Quantity	6	
Product Material/Finish/Color	White	
Location	Queen Suites	
Notes	Slip resistant, textured floor surface makes for a safer shower	

FF&E Schedule – Plumbing Fixture		
Code	CM-1	
Description	Coffee Maker	
Manufacturer	Keurig	
Item/Model Name	K-2500® Plumbed Commercial Coffee Maker	
Item/Model Number	K-2500	
Dimension/Size	7.87” W x 13”H x 14.25”D	
Quantity	10	
Product Material/Finish/Color	Black/Silver	
Location	King and Queen Suites	
Notes	UL-Listed (Lee & Oh, 2018)	

FF&E Schedule – Plumbing Fixture		
Code	DW-1	
Description	Dishwasher	
Manufacturer	KitchenAid	
Item/Model Name	24" Front Control Tall Tub Built-In Dishwasher with Stainless Steel Tub	
Item/Model Number	KDFE104HPS	
Dimension/Size	H: 34 1/2 inches W: 23 7/8 inches D: 24 1/2 inches	
Quantity	4	
Product Material/Finish/Color	Stainless Steel	
Location	King Suites	
Notes	(Lee & Oh, 2018)	

FF&E Schedule – Plumbing Fixture		
Code	FA-1	
Description	Faucet	
Manufacturer	Delta	
Item/Model Name	Trinsic Pull-Down Kitchen Faucet with Magnetic Docking Spray Head	
Item/Model Number	9159-BL-DST	
Dimension/Size	Overall Height: 15-2/3" Spout Height: 8-4/9" Spout Reach: 9-1/2"	
Quantity	4	
Product Material/Finish/Color	Black	
Location	King Suites and Queen Suites	
Notes	Includes Lifetime Warranty ADA compliant	

FF&E Schedule – Plumbing Fixture		
Code	FA-2	
Description	Faucet	
Manufacturer	Delta	
Item/Model Name	Ara 1.2 GPM Widespread Bathroom Faucet	
Item/Model Number	3567-BLMPU-DST	
Dimension/Size	Overall Height: 5-5/8" Spout Height: 4-5/8" Spout Reach: 5-3/8"	
Quantity	6	
Product Material/Finish/Color	Black	
Location	Queen Suites	
Notes	Includes Limited Lifetime Warranty. ADA compliant. Watersense certified Eco-friendly Diamond Seal technology	

FF&E Schedule – Plumbing Fixture		
Code	FA-3	
Description	Faucet	
Manufacturer	Delta	
Item/Model Name	Modern 1 GPM Single Hole Bathroom Faucet with Pop-Up Drain Assembly	
Item/Model Number	567LF-BLGPM-PP	
Dimension/Size	Height: 6-7/8" (deck to top of faucet) Spout Height: 4-3/8" (deck to spout outlet) Spout Reach: 4-1/2" (faucet base to spout outlet)	
Quantity	1	
Product Material/Finish/Color	Matte Black	
Location	Restroom 333	
Notes	ADA Compliant	

FF&E Schedule – Plumbing Fixture		
Code	SI-1	
Description	Sink	
Manufacturer	Kohler	
Item/Model Name	Vault 33" Single Basin Top-Mount/Under-Mount 18-Gauge Stainless Steel Kitchen Sink with SilentShield	
Item/Model Number	K-3821-1-NA	
Dimension/Size	Overall Width: 22" Overall Length: 33" Basin Depth: 9”	
Quantity	4	
Product Material/Finish/Color	Stainless Steel	
Location	King Suites	
Notes	Silent Shield Technology	

FF&E Schedule – Plumbing Fixture		
Code	TO-1	
Description	Toilet	
Manufacturer	American Standard	
Item/Model Name	Single Flush, Oscillating Handle, Two Piece, Flush Valve Toilet, Elongated	
Item/Model Number	2854128.020	
Dimension/Size	Water Surface Area 10 in x 12 in Rim Height 16 1/2 in Trapway Dia. 2 1/8 in	
Quantity	6	
Product Material/Finish/Color	White	
Location	Public Restrooms	
Notes	ADA Compliant 5-year warranty ANSI A117.1, ASME A112.19.2/CSA B45.1, ASSE 1037 WaterSense Certified	

FF&E Schedule – Plumbing Fixture		
Code	V-1	
Description	Vanity	
Manufacturer	Brand Standard Furnishings	
Item/Model Name	B91803VY2	
Item/Model Number	B91803VY2	
Dimension/Size	24 × 36 × 36 in	
Quantity	6	
Product Material/Finish/Color	Wood/White	
Location	Queen Suites	
Notes	(Lee & Oh, 2018)	

FF&E Schedule – Plumbing Fixture		
Code	V-2	
Description	Vanity	
Manufacturer	Brand Standard Furnishings	
Item/Model Name	N/A	
Item/Model Number	B91411VYC	
Dimension/Size	24 × 60 × 38 in	
Quantity	4	
Product Material/Finish/Color	Wood/Black	
Location	King Suites	
Notes	(Lee & Oh, 2018)	

FF&E Schedule – Plumbing Fixture		
Code	V-3	
Description	Vanity	
Manufacturer	The Bath Outlet	
Item/Model Name	Ceramic Console Sink and Matte Black Stand	
Item/Model Number	Scarabeo 5120-CON-BLK	
Dimension/Size	Overall Length: 39.8 Inches Overall Width: 18.1 Inches Overall Height: 36 Inches	
Quantity	1	
Product Material/Finish/Color	Black/White	
Location	Restroom 333	
Notes	IAPMO Certified US Standards Approved Uniform Plumbing Code (UPC/cUPC) National Plumbing Code of Canada ASME A112.19.2-2018/CSA B45.1-18	

FF&E Schedule – Accessory		
Code	AC-1	
Description	Accessory	
Manufacturer	Everly Quinn	
Item/Model Name	Gove Narrow Ottoman/Coffee Table Tray	
Item/Model Number	W000064297	
Dimension/Size	24" W x 10" L x 3.25" H	
Quantity	2	
Product Material/Finish/Color	Black	
Location	Lounge	
Notes	(Lee & Oh, 2018) (Manson, 2013)	

FF&E Schedule – Accessory		
Code	AC-2	
Description	Accessory	
Manufacturer	Three Posts	
Item/Model Name	Havana Timeless Hourglass Decor	
Item/Model Number	W001332295	
Dimension/Size	14.5" H x 7.75" W x 5.38" D	
Quantity	1	
Product Material/Finish/Color	Black	
Location	Lobby/Coffee Station	
Notes	(Lee & Oh, 2018) (Manson, 2013)	

FF&E Schedule – Accessory		
Code	MI-1	
Description	Mirror	
Manufacturer	Mercury Row	
Item/Model Name	Martinsen Full Length Mirror	
Item/Model Number	W002827223	
Dimension/Size	64" H x 21" W x 1.6" D	
Quantity	10	
Product Material/Finish/Color	Black	
Location	King and Queen Suites	
Notes	UL Listed (Lee & Oh, 2018)	

FF&E Schedule – Accessory		
Code	MI-2	
Description	Mirror	
Manufacturer	Bradley	
Item/Model Name	Angle-Frame Mirror	
Item/Model Number	780-018360	
Dimension/Size	18" Wide x 36" Tall x 3/4" Deep	
Quantity	26	
Product Material/Finish/Color	Silver	
Location	King Suites, Queen Suites, Public Restrooms	
Notes	Install 40” A.F.F.	

FF&E Schedule – Accessory		
Code	R-1	
Description	Rug	
Manufacturer	eCowhides	
Item/Model Name	Tricolor Cowhide Rug	
Item/Model Number	N/A	
Dimension/Size	7.5'x7'	
Quantity	12	
Product Material/Finish/Color	Tricolor	
Location	King Suites, Queen Suites, Lounge	
Notes	Size XXL (Lee & Oh, 2018) (Manson, 2013)	

FF&E Schedule – Accessory		
Code	R-2	
Description	Rug	
Manufacturer	West Elm	
Item/Model Name	Braided Jute Rug	
Item/Model Number	4764389	
Dimension/Size	10' dia.	
Quantity	1	
Product Material/Finish/Color	Natural/Ivory	
Location	Lobby	
Notes	Shed resistant (Manson, 2013)	

FF&E Schedule – Artwork		
Code	A-1	
Description	Artwork	
Artist	Justin Turner	
Creation Date	N/A	
Title	Textural in Grey	
Medium	Painted Print	
Dimension/Size	30" x 40"	
Location	Lobby, King Suites, Queen Suites	
Notes	Made in USA Foam Back Canvas to help with Acoustics (Lee & Oh, 2018) (Arsenault, 2020) (Nowicka, 2020)	

FF&E Schedule – Artwork		
Code	A-2	
Description	Artwork	
Artist	Panoramic Images Collection	
Creation Date	N/A	
Title	Sunset Skyline Chicago IL	
Medium	Photography	
Dimension/Size	48” x 16”	
Location	King Suites, Queen Suites	
Notes	Made in USA Foam Back Canvas to help with Acoustics (Lee & Oh, 2018) (Arsenault, 2020) (Nowicka, 2020)	

FF&E Schedule – Artwork		
Code	A-3	
Description	Artwork	
Artist	Melody Davis	
Creation Date	N/A	
Title	Black and white image of a fern leaf; Vancouver, British Columbia, Canada	
Medium	Photography	
Dimension/Size	32” x 48”	
Location	Lounge	
Notes	Foam Back Canvas to help with Acoustics (Lee & Oh, 2018) (Arsenault, 2020) (Nowicka, 2020)	

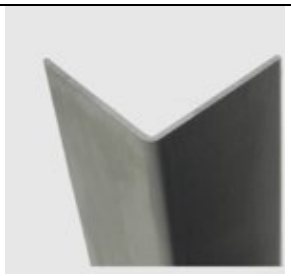
FF&E Schedule – Artwork		
Code	A-4	
Description	Artwork	
Artist	Walter Bibikow	
Creation Date	N/A	
Title	North Dakota, Fargo, Fargo Theater, marquee	
Medium	Photography	
Dimension/Size	48” x 32”	
Location	Lounge	
Notes	Made in USA Foam Back Canvas to help with Acoustics (Lee & Oh, 2018) (Arsenault, 2020) (Nowicka, 2020) (Cetin & Walls, 2016)	

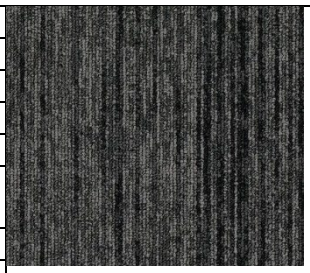
FF&E Schedule – Artwork		
Code	A-5	
Description	Artwork	
Artist	Panoramic Images Collection	
Creation Date	N/A	
Title	Pine treelined road covered with snow, Illinois	
Medium	Photography	
Dimension/Size	48” x 19”	
Location	King Suites	
Notes	Made in USA Foam Back Canvas to help with Acoustics (Lee & Oh, 2018) (Arsenault, 2020) (Nowicka, 2020) (Cetin & Walls, 2016)	

FF&E Schedule – Artwork		
Code	A-6	
Description	Artwork	
Artist	Avery Tillmon	
Creation Date	N/A	
Title	Colorful Bison Dark Brown	
Medium	Canvas Print	
Dimension/Size	45” x 36”	
Location	Queen Suites	
Notes	Made in USA Foam Back Canvas to help with Acoustics (Lee & Oh, 2018) (Arsenault, 2020) (Nowicka, 2020) (Cetin & Walls, 2016)	

FF&E Schedule – Artwork		
Code	A-7	
Description	Artwork	
Artist	Erin Ashley	
Creation Date	N/A	
Title	Numbers	
Medium	Canvas Print	
Dimension/Size	24” x 24”	
Location	Business Center	
Notes	Made in USA Foam Back Canvas to help with Acoustics (Lee & Oh, 2018) (Arsenault, 2020) (Nowicka, 2020)	

Room Finish Schedule

Room Finish Schedule		
Code	CG-1	
Description	Corner Guard	
Manufacturer	The Corner Guard Store Wall Protection Warehouse	
Product/Style Name	90 Deg, 18ga, Type 304, Satin #4 (Brushed) Finish, Stainless Steel Corner Guard	
Product Number	CG-SS4-18482-90	
Product Finish/Color	Stainless steel	
Dimension/Size	48" x 2" x 2"	
Location	Entire hotel.	
Technical Specifications	N/A	
Notes	Install on every wall corner in hotel	

Room Finish Schedule		
Code	CPT-1	
Description	Carpet Tiles	
Manufacturer	Acoufelt	
Product/Style Name	Monitor Acoustic Carpet Tile	
Product Number	FQBMO00-CUR	
Product Finish/Color	Circuit	
Dimension/Size	9.8in x 39.4in	
Location	Corridors and Business Center - See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Construction: QuietBack™ Level Loop Pile Content: 100% Solution Dyed Nylon Finish: Stain Protector & Soil Repellent Backing: Primary Backing - 100% Non-Woven Synthetic Spunbond, Secondary Backing - Eco-friendly Acoustic Felt Backing (>85% recycled PET bottles) Yarn / Tuft Details: 1/10 Gauge Dye Method: Solution Dyed Durability: Heavy Duty Flammability: AS/ISO 9239.1-2003 (Critical Radiant Flux - Mean result 3.2kW/sq m, Smoke Dev Rate - Mean result 160% min); ASTM E648 - Class 1 (Critical Radiant Flux - 0.54W/sq cm, Standard Deviation - 0.01W/sq cm); Thermal Resistance - 0.2 sq m K/W (1.14 sq ft°F/BTU) Classification: Commercial Extra Heavy Duty Lightfastness: ISO 105-B02 - Min 6 Acoustics: ASTM C423-09a - NRC Rating 0.35. Refer to Specification Sheet attachment for details. Electrostatic Propensity: AATCC 134 - Less than or equal to 1.0 KV Dimensional Stability: BS EN 986 <0.2% KV Environmental Benefits: Contains recycled PET content and is free of bitumen, fiberglass, PVC and rubber. Product is low emitting. Produced in an ISO 9001 and ISO 14001 facility. Certificates & Standards: CDPH / CHPS 01350 Compliant, CRI Green Label Plus Certified, Declared, LBC Compliant, LBC Red List Free LEED: Contributes to LEED credits. Recycling Notes: 100% Recyclable	
Notes	15 Years Wear Warranty, 20 Years Castor Chair Proof, Lifetime Anti-Static, 10 Years Colorfast See Room Finish Plan in Construction Documents for specific locations (Arsenault, 2020) (Nowicka, 2020) (Kim et al., 2019)	

Room Finish Schedule		
Code	CT-1	
Description	Countertop	
Manufacturer	Cambria	
Product/Style Name	White Cliff	
Product Number	N/A	
Product Finish/Color	White/cream	
Dimension/Size	Varies.	
Location	Front desk, Café Bar, King Suites Kitchenette, Queen Suites Kitchenette, Public Restrooms	
Technical Specifications	Lifetime warranty UL Listed GreenGuard Certified – low VOC emissions NSF LEED Certified – indoor air quality Mindful Materials certified	
Notes	See dimensioned floor plan for sizing. (Ramkissoon, et al., 2016)	

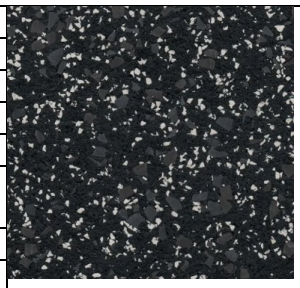
Room Finish Schedule		
Code	GR-1	
Description	Grout	
Manufacturer	Custom Building Products	
Product/Style Name	Polyblend #546 Cape Gray 25 lb. Sanded Grout	
Product Number	PBG54625	
Product Finish/Color	Cape Grey	
Dimension/Size	N/A	
Location	All rooms with tile	
Technical Specifications	Resists shrinking, cracking, powdering and wear Lifetime warranty 72-hour dry time	
Notes	Maximum coverage area (sq. ft.) 552	

Room Finish Schedule		
Code	P-1	
Description	Paint	
Manufacturer	Sherwin Williams	
Product/Style Name	Naval	
Product Number	6244	
Product Finish/Color	Navy Blue	
Dimension/Size	N/A	
Location	Queen Suites, Lounge – See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Light Reflectance Value: 4.458 Collection Name: Neutrals	
Notes	See Room Finish Plan in Construction Documents for specific locations (Debenedetti, et al., 2014) (Baek, et al., 2020)	

Room Finish Schedule		
Code	P-2	
Description	Paint	
Manufacturer	Benjamin Moore	
Product/Style Name	Ivory Porcelain	
Product Number	239	
Product Finish/Color	Tan	
Dimension/Size	N/A	
Location	Queen Suites, King Suites, Fitness Studio, Business Center - See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Light Reflectance Value: 70.79 Collection Name: BM Classics	
Notes	See Room Finish Plan in Construction Documents for specific locations	

Room Finish Schedule	
Code	P-3
Description	Paint
Manufacturer	Sherwin Williams
Product/Style Name	High-Reflective White
Product Number	7757
Product Finish/Color	White
Dimension/Size	N/A
Location	All Gypsum Ceilings - See Room Finish Plan/Reflected Ceiling Plan in Construction Documents for specific locations
Technical Specifications	Light Reflectance Value: 92.667 Collection Name: Whites & Pastel
Notes	See Room Finish Plan/Reflected Ceiling Plan in Construction Documents for specific locations

Room Finish Schedule	
Code	P-4
Description	Paint
Manufacturer	Sherwin Williams
Product/Style Name	Touch of Grey
Product Number	9549
Product Finish/Color	Grey
Dimension/Size	N/A
Location	Public Restrooms - See Room Finish Plan in Construction Documents for specific locations
Technical Specifications	Collection Name: Minimal + Modern
Notes	See Room Finish Plan in Construction Documents for specific locations

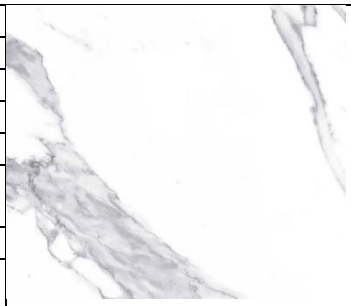
Room Finish Schedule		
Code	RB-1	
Description	Arial	
Manufacturer	Siena	
Product/Style Name	Night Sky	
Product Number	SR935107	
Product Finish/Color	Black	
Dimension/Size	Width: 48in	
Location	Fitness Studio	
Technical Specifications	Density: ASTM D3676 Density - 80 pcf Tensile Strength: ASTM D412 >200 PSI Slip Resistance: ASTM D2047 Coefficient of Friction >0.95 Tear Strength: ASTM D624 - 70 pli min Elongation: ASTM D412 >300% Flexural Strength: Passes ASTM F137 0.25in Mandrel Hardness: ASTM D2240 (Shore A) 60 +/- 5 Environmental Benefits: Contains post-consumer recycled content. LEED: Contributes to LEED credits.	
Notes	5-year Warranty See Room Finish Plan in Construction Documents for specific locations (Kim et al., 2019)	

Room Finish Schedule		
Code	TI-1	
Description	Tile	
Manufacturer	TileBar	
Product/Style Name	Skoven Porcelain Tile	
Product Number	TLSKOVNERO8X36	
Product Finish/Color	Nero	
Dimension/Size	8in x 36in.	
Location	Queen Suites Floor Tile	
Technical Specifications	Content: Porcelain Finish: Matte Tensile Strength: >1300 lbs Slip Resistance: DCOF <0.42 Weather Resistance: Frost Resistant Water Absorption: Less than or equal to 0.5%	
Notes	Use grout GR-1	

Room Finish Schedule		
Code	TI-2	
Description	Tile	
Manufacturer	TileBar	
Product/Style Name	Twilight Porcelain Tile	
Product Number	TLIBSTGDK12X48	
Product Finish/Color	Dark	
Dimension/Size	12in x 48in.	
Location	King Suites Bathroom Floor	
Technical Specifications	Slip Resistance: DCOF >0.46 Weather Resistance: Frost Resistant Water Absorption: <0.5% Content: Porcelain Finish: Matte	
Notes	Ceramic tile is resistant to germs and bacteria and it is also among the easiest of flooring materials to clean. Use grout GR-1	

Room Finish Schedule		
Code	TI-3	
Description	Tile	
Manufacturer	Riad Tile	
Product/Style Name	Safi	
Product Number	RD-SFI-100	
Product Finish/Color	Blue	
Dimension/Size	8in x 8in	
Location	King Suites Shower Wall - See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Content: Cement	
Notes	Tile must be sealed again during installation process. Use grout GR-1 See Room Finish Plan in Construction Documents for specific locations (Debenedetti, et al., 2014) (Baek, et al., 2020)	

Room Finish Schedule	
Code	TI-4
Description	Tile
Manufacturer	B and F Ceramics Design Showroom
Product/Style Name	Elegant Stone
Product Number	O2020ESS
Product Finish/Color	Statuario
Dimension/Size	20in x 20in
Location	King Suites Shower Walls - See Room Finish Plan in Construction Documents for specific locations
Technical Specifications	Content: Porcelain Finish: Matte Construction: Porcelain Glazed Abrasion / Wear Resistance: ISO 10545-7 PEI - 5 Tensile Strength: ASTM C648 Breaking Strength - More than or equal to 1.40kN Slip Resistance: ANSI A137.1 DCOF 0.44 Weather Resistance: ISO 10545-12 Frost Resistant Water Absorption: 0.05% Bond Strength: ASTM C482 - More than or equal to 50 psi (0.34 Mpa)
Notes	See Room Finish Plan in Construction Documents for specific locations



Room Finish Schedule	
Code	TI-5
Description	Tile
Manufacturer	TileBar
Product/Style Name	Aliante Porcelain Tile
Product Number	TLEQKITEBLACK
Product Finish/Color	Black
Dimension/Size	4in x 12in
Location	Public Restroom Walls - See Room Finish Plan in Construction Documents for specific locations
Technical Specifications	Content: Porcelain Finish: Matte Weather Resistance: Frost Resistant Water Absorption: <0.5% Hardness: MOHS Scratch Resistance - 7
Notes	Use grout GR-1 See Room Finish Plan in Construction Documents for specific locations

Room Finish Schedule		
Code	TI-6	
Description	Tile	
Manufacturer	Specialty Tile	
Product/Style Name	Shadebox Wood	
Product Number	CSASWOSA15	
Product Finish/Color	Sand	
Dimension/Size	6in x 48in	
Location	Public Restrooms - See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Content: Porcelain Finish: Matte Construction: Digitally Printed Glazed Colorbody Durability: Heavy Duty Abrasion / Wear Resistance: ISO 10545-7 PEI 5 Tensile Strength: ISO 10545-4 Breaking Strength more than or equal to 1350 N Slip Resistance: ANSI A137.1 DCOF Wet more than or equal to 0.42 Water Absorption: ISO 10545-3 Less than or equal to 0.1%	
Notes	ADA Compliant Use grout GR-1 See Room Finish Plan in Construction Documents for specific locations	

Room Finish Schedule		
Code	WB-1	
Description	Wall Base	
Manufacturer	Roppe	
Product/Style Name	Black 4 in. x 1/8 in. x 120 ft. Thermoplastic Rubber Wall Cove Base Coil	
Product Number	C40C71P100	
Product Finish/Color	Black	
Dimension/Size	4 in. x 1/8 in. x 120 ft.	
Location	All walls	
Technical Specifications	ADA Compliant Mark resistant	
Notes	N/A	

Room Finish Schedule		
Code	WC-1	
Description	Wallcovering	
Manufacturer	Arc-Com	
Product/Style Name	Elysium	
Product Number	53102	
Product Finish/Color	Frosted Pearl	
Dimension/Size	Width: 55/56in	
Location	Queen Suites – See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Content: Type II Vinyl Finish: None Backing: Recycled Woven Polycotton Osnaburg (10% Post-Consumer Recycled Content) Pattern Repeat: Drop Match / Reverse Hang Construction: Non-woven Wallcovering Classification: Type II Durability: Heavy Duty Flammability: Class A / ASTM E-84 Tunnel Test, Flame Spread: 25, Smoke Developed: 250; NFPA Life Safety Code 101 2006 Edition; International Building Code 2006 Edition Classification: Meets or exceeds requirements for Type II material for Federal Specifications CCC-W-408 A/C/D and W-101 WA Quality Standard for Polymer Coated Fabric Wallcovering Tensile Strength: 50 lb x 55 lb Tear Strength: 25 lb x 25 lb Post-Consumer Recycled Content, Recycled Content, Low Emitting / Low VOC, Water-Base Inks 10% post-consumer recycled content contributes to LEED Points (LEED MR4). Can contribute to LEED IEQ 4.1 for low emitting materials, adhesives, and sealants, if used with low V.O.C. adhesives. Post-Consumer Recycled Content Percentage: 10%	
Notes	See Room Finish Plan in Construction Documents for specific locations (Dixit & Lavy, 2012) (Speck, 2011) (Kim et al., 2019)	

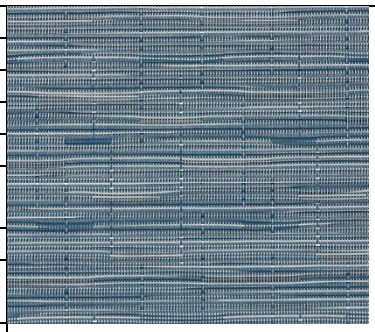
Room Finish Schedule		
Code	WC-2	
Description	Wallcovering	
Manufacturer	Vescom	
Product/Style Name	Walen	
Product Number	1091.01	
Product Finish/Color	Red	
Dimension/Size	Width: ± 52-54 inches	
Location	King Suites - See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Content: 100% Vinyl Finish: None Backing: Scrim/Osnaburg Construction: Non-Woven Wallcovering Classification: Type II Durability: Heavy Duty Flammability: ASTM E84 Class A; EN 13501; NFPA 286 Classification: CCC-W-408D Lightfastness: ISO 105-B02, pass rating of 8 Acoustics: ISO 354, Alphaw 0.10 This product can be recycled, has low VOC, and is free of phthalates. NSF/ANSI 342 Certified; VinylPlus Verified	
Notes	See Room Finish Plan in Construction Documents for specific locations (Debenedetti, et al., 2014) (Arsenault, 2020) (Nowicka, 2020) (Baek, et al., 2020) (Dixit & Lavy, 2012) (Speck, 2011) (Kim et al., 2019) (Orange, 2010)	

Room Finish Schedule	
Code	WC-3
Description	Wallcovering
Manufacturer	HD Walls
Product/Style Name	Metallized Cork
Product Number	HDW-METALLIZEDCORK-M01B
Product Finish/Color	White
Dimension/Size	Width: 54in Length: 50 yards Pattern Repeat: 250in W x 170in H
Location	King Suites - See Room Finish Plan in Construction Documents for specific locations
Technical Specifications	Content: 100% Vinyl Base Cloth / Material: Silver Flash Finish: None Custom Finishes: Protective Ink Coating Backing: Non-Woven Surface Texture: Smooth Pattern Repeat: 250in W x 170in H Construction: Non-Woven Wallcovering Classification: Type II Durability: Heavy Duty Flammability: ASTM E84 Class A; NFPA 101 Class A Classification: Meets federal specifications CCC-W-408D and CFFA-W-101D standards for Type II vinyl coated fabric wallcovering Lightfastness: Passes Federal Standard 191A Method 5660 Tensile Strength: Warp: exceeds Type II minimum of 50 lbs, Weft: exceeds Type II minimum of 55 lbs Tear Strength: Warp: exceeds Type II minimum of 25 lbs, Weft: exceeds Type II minimum of 25 lbs; Cold Crack Resistance at 20 degrees F - no change; Heat Aging 7 Days at 158 degrees F - no change Stain Resistance: Passes ASTM D1308 Antimicrobial Testing: Passes ASTM G21 Emissions: Passes EV Toxicity BN12149 Adhesion of Coating: Passes ASTM D751 This product is low emitting. Contains post-consumer recycled content. Free of antimony, formaldehyde, heavy metals, and lead. CHPS 01350 Certification, Environmental Product Declaration (EPD), Health Product Declaration (HPD) LEED: LEED credits EQ 4.1 & MR 5.1 Post-Consumer Recycled Content Percentage: 31%
Notes	Made in USA 5-year warranty

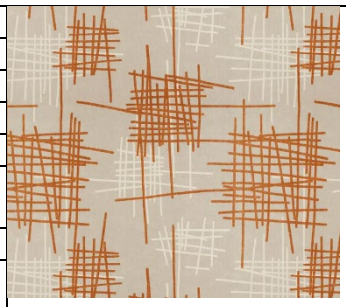
	Contains mold and mildew inhibitors and passes the ASTM G21 testing for mold and mildew resistance See Room Finish Plan in Construction Documents for specific locations (Debenedetti, et al., 2014) (Baek, et al., 2020) (Dixit & Lavy, 2012) (Speck, 2011) (Kim et al., 2019)	

Room Finish Schedule	
Code	WC-4
Description	Wallcovering
Manufacturer	HD Walls
Product/Style Name	Taos
Product Number	HDW-TAOS-M01B
Product Finish/Color	Ash
Dimension/Size	Width: 54in Length: 50 yards
Location	Lounge - See Room Finish Plan in Construction Documents for specific locations
Technical Specifications	Content: 100% Vinyl Base Cloth / Material: Satara Pearl Finish: None Custom Finishes: Protective Ink Coating Backing: Non-Woven Surface Texture: Textured Pattern Repeat: 50in W x 46.875H Construction: Non-Woven Wallcovering Classification: Type II Durability: Heavy Duty Flammability: ASTM E84 Class A; EN 15102 Class B; NFPA 265 Class A; NFPA 286 Class A Classification: Meets federal specifications CCC-W-408D and CFFA-W-101D standards for Type II vinyl coated fabric wallcovering Lightfastness: Passes Federal Standard 191A Method 5660 Tensile Strength: Warp: exceeds Type II minimum of 50 lbs, Weft: exceeds Type II minimum of 55 lbs Tear Strength: Warp: exceeds Type II minimum of 25 lbs, Weft: exceeds Type II minimum of 25 lbs; Cold Crack Resistance at 20 degrees F - no change; Heat Aging 7 Days at 158 degrees F - no change Stain Resistance: Passes ASTM D1308 Antimicrobial Testing: Passes ASTM G21 Emissions: Passes EV Toxicity BN12149 Adhesion of Coating: Passes ASTM D751 Environmental Benefits: This product is low emitting. Contains post-consumer recycled content. Free of antimony, formaldehyde, heavy metals, and lead. Certificates & Standards: CHPS 01350 Certification, Environmental Product Declaration (EPD), Health Product Declaration (HPD) Post-Consumer Recycled Content Percentage: 11%
Notes	Made in USA 5-year warranty

	Contains mold and mildew inhibitors and passes the ASTM G21 testing for mold and mildew resistance See Room Finish Plan in Construction Documents for specific locations (Debenedetti, et al., 2014) (Dixit & Lavy, 2012) (Speck, 2011) (Kim et al., 2019)	

Room Finish Schedule		
Code	WC-5	
Description	Wallcovering	
Manufacturer	Chilewich	
Product/Style Name	Bamboo Wall Textiles	
Product Number	500179-033	
Product Finish/Color	Rain	
Dimension/Size	Width: 72in (1.83m)	
Location	Front Desk - See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Content: Terrastrand (25% Renewable Vegetable Content, 100% Phthalate-Free) Backing: Nonwoven Nylon Scrim. Acoustical backing option available. Construction: Woven Wallcovering Classification: Type II Inherent antimicrobial protection works for the lifetime of the product to inhibit the growth of stain and odor-causing bacteria, mold, and mildew. Flammability: ASTM E84 Adhered - Class A Classification: ASTM F793 - Cat V; Type II Abrasion / Wear Resistance: ASTM D4157 Wyzenbeek - 100,000 Double Rubs Environmental Benefits: Contains renewable vegetable content and is free of phthalates, heavy metals, and petroleum-based plasticizers. Product is low emitting. Certificates & Standards: Health Product Declaration (HPD)	
Notes	15-year commercial warranty Made in USA See Room Finish Plan in Construction Documents for specific locations (Debenedetti, et al., 2014) (Baek, et al., 2020) (Dixit & Lavy, 2012) (Speck, 2011)	

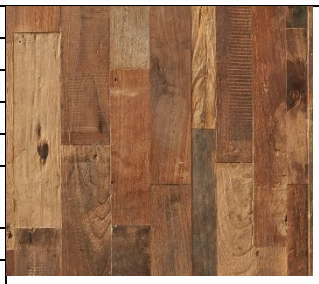
Room Finish Schedule		
Code	WC-6	
Description	Wallcovering	
Manufacturer	MDC Interior Solutions	
Product/Style Name	Harrison	
Product Number	MLH4001	
Product Finish/Color	Brown Sugar	
Dimension/Size	Width: 52/54in	
Location	Corridor Walls - See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Content: 100% Vinyl Finish: None Backing: Osnaburg Construction: Non-Woven Wallcovering Classification: Type II Durability: Heavy Duty Flammability: ASTM E84 Class A, Flame Spread at 10, Smoke Developed at 40 Environmental Benefits: This product contains recycled content and has low VOC. Post-Industrial Recycled Content Percentage: 20% Post Industrial Recycled Content	
Notes	5-year warranty See Room Finish Plan in Construction Documents for specific locations (Dixit & Lavy, 2012) (Speck, 2011) (Kim et al., 2019)	

Room Finish Schedule		
Code	WC-7	
Description	Wallcovering	
Manufacturer	Arc-Com	
Product/Style Name	Hashtag	
Product Number	53083	
Product Finish/Color	Tuscan	
Dimension/Size	Width: 55/56in	
Location	Fitness Studio - See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Durability: Heavy Duty Flammability: Class A / ASTM E-84 Tunnel Test, Flame Spread: 20, Smoke Developed: 70; NFPA Life Safety Code 101 2006 Edition; International Building Code 2006 Edition Classification: Meets or exceeds requirements for Type II material for Federal Specifications CCC-W-408 A/C/D and W-101 WA Quality Standard for Polymer Coated Fabric Wallcovering Tensile Strength: 50 lb x 55 lb Tear Strength: 25 lb x 25 lb Environmental Benefits: Post-Consumer Recycled Content, Recycled Content, Low Emitting / Low VOC, Water-Base Inks Certificates & Standards: California 01350 Indoor Air Quality LEED: 10% post-consumer recycled content contributes to LEED Points (LEED MR4). Can contribute to LEED IEQ 4.1 for low emitting materials, adhesives, and sealants, if used with low V.O.C. adhesives. Post-Consumer Recycled Content Percentage: 10%	
Notes	Arc-Com wallcoverings contain additives to resist mold and other microbiological growth on the product. Those additives, however, will not prevent mold growth if moisture is allowed to accumulate behind the wall. See Room Finish Plan in Construction Documents for specific locations (Debenedetti, et al., 2014) (Baek, et al., 2020) (Dixit & Lavy, 2012) (Speck, 2011) (Kim et al., 2019)	

Room Finish Schedule		
Code	WC-8	
Description	Wallcovering	
Manufacturer	LBI Boyd Design Resource	
Product/Style Name	Boom Town	
Product Number	G2-02-03	
Product Finish/Color	Green Envy	
Dimension/Size	Width: 54in	
Location	Business Center - See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Content: 100% Vinyl Finish: ImageLock® Protective Coating Backing: Polyester/Cotton Osnaburg Pattern Repeat: Repeatable Pattern Construction: Non-Woven Wallcovering Classification: Type II Durability: Heavy Duty Flammability: ASTM E84 Class A, Flame Spread at 25, Smoke Developed at 140; BS 476 Parts 6 and 7; CAN/ULC-S102.2; EU Class Flame, EN 13502, B-s1; NFPA Life Safety Code 101 Classification: ASTM F793 Standard Classification of Wallcovering, Washability at 100 Cycles, Scrubbability at 300 Cycles; CCC-408-D Type II; WA-101 Type II Antimicrobial Testing: ASTM G21 Environmental Benefits: This product contains UV LED inks with nearly zero VOCs and up to 50% naturally-derived monomers and oligomers. It is free of cadmium, lead, and phthalates. Certificates & Standards: CDPH Standard Method v1.2 for Classroom and Office Environments; EU Toxicity Compliant; Greenguard Gold	
Notes	90-day warranty See Room Finish Plan in Construction Documents for specific locations (Debenedetti, et al., 2014) (Baek, et al., 2020) (Dixit & Lavy, 2012) (Speck, 2011)	

Room Finish Schedule		
Code	WC-9	
Description	Wallcovering	
Manufacturer	National Solutions	
Product/Style Name	Eniko	
Product Number	CD2-ENO-04	
Product Finish/Color	Storm Frost	
Dimension/Size	Width: 52/54in	
Location	Entry - See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Content: 100% Vinyl Finish: Metallic Backing: Osnaburg Pattern Repeat: 24in V x 53in H Construction: Non-Woven Wallcovering Classification: Type II Durability: Heavy Duty Flammability: ASTM E84 Class A, Flame Spread 15, Smoke Developed 20; NFPA 286 Corner Burn Test Classification: CCC-W-408A-D; W-101 W; EN 15102 Antimicrobial Testing: ASTM G21 Environmental Benefits: This product has low VOC, is a non-phthalate vinyl, and is free of formaldehyde and heavy metals. Certificates & Standards: Pass rating under CA 01350; NSF/ANSI 342 certified for sustainability	
Notes	5-year warranty against materials defects Made in USA See Room Finish Plan in Construction Documents for specific locations (Debenedetti, et al., 2014) (Dixit & Lavy, 2012) (Speck, 2011)	

Room Finish Schedule		
Code	WC-10	
Description	Wallcovering	
Manufacturer	National Solutions	
Product/Style Name	Eniko	
Product Number	CD2-ENO-14	
Product Finish/Color	Rustic Charm	
Dimension/Size	Width: 52/54in	
Location	Café - See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Content: 100% Vinyl Finish: Metallic Backing: Osnaburg Pattern Repeat: 24in V x 53in H Construction: Non-Woven Wallcovering Classification: Type II Durability: Heavy Duty Flammability: ASTM E84 Class A, Flame Spread 15, Smoke Developed 20; NFPA 286 Corner Burn Test Classification: CCC-W-408A-D; W-101 W; EN 15102 Antimicrobial Testing: ASTM G21 Environmental Benefits: This product has low VOC, is a non-phthalate vinyl, and is free of formaldehyde and heavy metals. Certificates & Standards: Pass rating under CA 01350; NSF/ANSI 342 certified for sustainability	
Notes	5-year warranty against materials defects Made in USA See Room Finish Plan in Construction Documents for specific locations. (Ramkissoon, et al., 2016) (Dixit & Lavy, 2012) (Speck, 2011)	

Room Finish Schedule		
Code	WO-1	
Description	Wood	
Manufacturer	IndoTeak Design	
Product/Style Name	Reclaimed Teak Plywood	
Product Number	SAPLYRPP1/2	
Product Finish/Color	Patina	
Dimension/Size	4ft x 8ft	
Location	Entry, Front Desk, Café Bar - See Room Finish Plan in Construction Documents for specific locations	
Technical Specifications	Content: Teak Finish: Varies depending on finish (If Chosen) and Texture. Backing: None Construction: Engineered Species (Latin Name): Tectona Grandis Wood Grade: Meets Character Grade Specifications Wood Figuring: Knots, Nail Holes Environmental Benefits: Bio-Based Materials, Post-Consumer Recycled Content, Recycled Content, VOC Free Certificates & Standards: FSC Chain of Custody #: RA-COC-006850 LEED: MR 7 – Certified Wood Post-Consumer Recycled Content Percentage: 1/2in and 1/4in : 50%, 3/4in 30%	
Notes	See Room Finish Plan in Construction Documents for specific locations (Ramkissoon, et al., 2016) (Debenedetti, et al., 2014) (Speck, 2011) (Kim et al., 2019)	

Lighting Fixture Schedule

Lighting Schedule		
Code	PEN-1	
Description	Pendant	
Manufacturer	Pure Edge Lighting	
Item/Model Name	Cirrus MIYO Hexagon, With Lit Corners	
Item/Model Number	CSDSP-HX-5W-C-42-2K6K-SN	
Dimension/Size	8” Canopy, 42” Dia.	
Quantity	4	
Lamp Source	LED	
Location	Fitness Studio	
Notes	See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012)	

Lighting Schedule		
Code	PEN-2	
Description	Pendant	
Manufacturer	Performance in Lighting	
Item/Model Name	ROUND LED	
Item/Model Number	SL720PL	
Dimension/Size	Height: 3/4" Width: 32" Depth: 32"	
Quantity	2	
Lamp Source	LED	
Location	Business Center	
Notes	See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012)	

Lighting Schedule		
Code	P-3	
Description	Pendant	
Manufacturer	Nordlux	
Item/Model Name	Nordlux Angle LED Metal Pendant in Black	
Item/Model Number	TBGLCJS5 48163003	
Dimension/Size	8.11 dia.	
Quantity	4	
Lamp Source	LED	
Location	King Suites	
Notes	See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012) (Kwan, 2010)	

Lighting Schedule		
Code	PEN-4	
Description	Pendant	
Manufacturer	Orsjo	
Item/Model Name	Konkret	
Item/Model Number	N/A	
Dimension/Size	10.2” H 9.44” Dia.	
Quantity	8	
Lamp Source	LED	
Location	King Suites Bedroom	
Notes	See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012)	

Lighting Schedule		
Code	PEN-5	
Description	Pendant	
Manufacturer	Folk	
Item/Model Name	FOLK ABIGAIL 15" SOFT CONE PENDANT	
Item/Model Number	A2373	
Dimension/Size	Overall fixture width: 15" Shade Height: 12-1/4"	
Quantity	4	
Lamp Source	Incandescent	
Location	Café	
Notes	See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012)	

Lighting Schedule		
Code	PEN-6	
Description	Pendant	
Manufacturer	Tech Lighting	
Item/Model Name	Syrma Pendant	
Item/Model Number	700TDSYRPB-LED930	
Dimension/Size	Height: 19-1/8" Width: 21-1/2"	
Quantity	13	
Lamp Source	LED	
Location	Café, Lobby, Lounge	
Notes	See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012) (Jen, 2006) (Kwan, 2010)	

Lighting Schedule		
Code	PEN-7	
Description	Pendant	
Manufacturer	Maxim Lighting	
Item/Model Name	Nordic Single Light 14" Aluminum Pendant with Leather Strap	
Item/Model Number	11356TNBK	
Dimension/Size	Fixture Height: 14-1/2" Minimum Height: 18" Maximum Hanging Height: 136-1/2" Width: 14-1/4" Depth: 14-1/4"	
Quantity	6	
Lamp Source	Incandescent	
Location	Queen Suites	
Notes	1-year warranty See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012)	

Lighting Schedule		
Code	PEN-8	
Description	Pendant	
Manufacturer	Tech Lighting	
Item/Model Name	Brox LED Pendant	
Item/Model Number	700BRXCL93012BR	
Dimension/Size	25.9” H x 25” W x 25” D	
Quantity	10	
Lamp Source	LED	
Location	Queen Suites, King Suites	
Notes	5-year warranty See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012)	

Lighting Schedule		
Code	PEN-9	
Description	Pendant	
Manufacturer	Vibia	
Item/Model Name	Algorithm	
Item/Model Number	0882-18/12	
Dimension/Size	47.25” H 35” W 40.25” D	
Quantity	4	
Lamp Source	LED	
Location	King Suite	
Notes	See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012)	

Lighting Schedule		
Code	PEN-10	
Description	Pendant	
Manufacturer	Vibia	
Item/Model Name	Algorithm 0872 Rectangular Pendant Lights	
Item/Model Number	0872	
Dimension/Size	43.25" W x 47.25" H x 23.5" L	
Quantity	2	
Lamp Source	LED	
Location	Lounge	
Notes	UL Listed See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012)	

Lighting Schedule		
Code	PEN-11	
Description	Pendant	
Manufacturer	Metalumen	
Item/Model Name	RAIL 4	
Item/Model Number	RM4DI	
Dimension/Size	8’ long	
Quantity	3	
Lamp Source	LED	
Location	Business Center	
Notes	See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012)	

Lighting Schedule		
Code	PEN-12	
Description	Pendant	
Manufacturer	Tech Lighting	
Item/Model Name	BROX 48 LINEAR SUSPENSION	
Item/Model Number	700BRX	
Dimension/Size	48” L x 25” W x 25” D	
Quantity	11	
Lamp Source	LED	
Location	King Suites, Queen Suites, Lounge	
Notes	5-year warranty See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012)	

Lighting Schedule		
Code	PEN-13	
Description	Pendant	
Manufacturer	PureEdge Lighting	
Item/Model Name	Pipeline® 1 Suspension Rotatable Modular	
Item/Model Number	P1SDM – 5W – 24 – 22K – SN	
Dimension/Size	24” L 1.25” H	
Quantity	37	
Lamp Source	LED	
Location	Corridors, Entry, Lobby	
Notes	See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012) (Jen, 2006)	

Lighting Schedule		
Code	RC-1	
Description	Recessed Can	
Manufacturer	Halo	
Item/Model Name	Halo 3" Adjustable Gimbal	
Item/Model Number	3009WHWB	
Dimension/Size	3”	
Quantity	60	
Lamp Source	LED	
Location	All bathrooms, closets, and public restrooms	
Notes	See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012)	

Lighting Schedule		
Code	WS-1	
Description	Wall Sconce	
Manufacturer	Tech Lighting	
Item/Model Name	Gambit Single Light 9" High LED Wall Sconce with a Glass Globe Shade	
Item/Model Number	700WSGMBSCR-LED927	
Dimension/Size	Height: 9" Width: 5-1/2" Depth: 5-13/16"	
Quantity	36	
Lamp Source	Incandescent	
Location	All bathrooms and public restrooms	
Notes	1-year manufacturer warranty See Reflected Ceiling Plan in Construction Documents for specific placement. (Arikan, 2012)	

Appendix

Required Research Articles Annotated Bibliographies (all)

Annotated Bibliography

Written by: Abbie Bowman

APA Format Citation

Munir, R. & Naqshbandi, M. (2011). Atmospheric Elements and Personality: Impact on Hotel Lobby

Impressions. *World Applied Sciences Journal 15 (6)*: 785-792.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

This journal article covers different information about how customers perceive hotel lobbies and other hospitality environments. It also discusses the difference in perception with convention and boutique hotels. The lobby of a hotel has the number one greatest impact on customers. The design sets the precedent for how customers believe their service and stay will be at that certain hotel. In convention hotels, an artful color approach was the most common response to their survey. When it comes to the layout dimension for a convention hotel lobby, proportionate had the highest rating. They rated lighting placement, soothing colors, and comfortable furnishings as most important in convention hotels.

For boutique hotels, research found that the highest rating was initially given when the first impression was whether the space was perceived to feel beautiful or impressive. Proportion and accommodation were also considered highly important. Inviting and appropriate lighting that can arouse a positive feeling were of high ratings. Placement of furnishings as well as comfort of furnishings in a boutique hotel played a higher role. Soothing color choices within a boutique hotel are the last elements that were considered to make a lasting impression on customers and guests. These different elements are important to know and incorporate into our design project because we want our guests to feel like they're staying at a beautiful place with 5-star service as soon as they walk in. This article taught me that the design needs to sell the service before the customers are even served.

Indicate Significant Quotes (with citation following)

- "Firms have long realized the importance of hotel appearance to costumer's first impression. Hotel appearance gives "the direct impact of physical stimuli on human emotions and the effect of physical stimuli on a variety of behaviors, such as work performance or social interaction" (Munir & Naqshbandi, 2011, pg. 785).

- "Among the many public areas, the hotel lobby has the single greatest impact on guests and visitors. The lobby is a total design environment, engendering a sense of arrival socially and physically" (Munir & Naqshbandi, 2011, pg. 786).
- "Boutique hotels are always individual and therefore extreme in physical design and unlikely to be found amongst the homogeneity of large chain hotel groups like Convention hotels" (Munir & Naqshbandi, 2011, pg. 786).
- "Based on factor loading values of Boutique Hotels dimensions, it can be concluded that when people assess a lobby hotel, they consider whether the hotel lobby style feels beautiful or not, whether the layout of hotel lobby is proportionate or not, whether the lighting design is appropriate with the overall theme and can arouse positive feeling or not, whether placement of furnishings makes the costumer feel comfortable or not and also whether the colors of hotel lobby can give soothing feeling to the customer or not" (Munir & Naqshbandi, 2011, pg. 788).

APA Format Citation

Gronhaug, K., Heide, M., & Laerdal, K. (2007, January 23). The design and management of ambience—

Implications for hotel architecture and service. *Science Direct Tourism Management 28 (2007)*

1315–1325. DOI:10.1016/j.tourman.2007.01.011

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

This article talks about the importance of ambiance and the role it can play in the hospitality and service industries. Research shows that ambience plays a vital role in the profitability of businesses, but it can be very difficult to grasp. Ambiance in the hospitality industry is often created between individuals and the environment. The idea of atmosphere and ambiance are important to my design project because my design needs to portray what I want the guests to feel. If guests feel welcome, calm, and like they're going to be taken care of when they enter the hotel then my design has come across as intended. My design creates the ambiance which is a huge factor to keep in mind when choosing finishes and furnishings.

It was also mentioned in the article that ambiance can only be taken as a hospitality variable if it invokes a feeling or reaction within the guests or users of the space. If that is achieved, then that variable can be counted. Another aspect to keep in mind is each user has different reactions that invoke different feelings and perceptions of the space. Their reaction may also depend on situational factors that influence how they perceive the ambiance. All of these factors are important information to integrate into my design project!

Indicate Significant Quotes (with citation following)

- "Ambience only counts as a tourism/hospitality variable if it generates a reaction within or among individual visitors/guests. In other words, the ambience is expected to evoke an internal response" (Gronhaug, Heide, & Laerdal, 2007, pg. 1316).
- "Furthermore, ambience is in some way created, implying that input factors influence ambience. Elements of physical design and decor have been highlighted as drivers of ambience and a limited number of studies have examined their importance for management in general" (Gronhaug, Heide, & Laerdal, 2007, pg. 1316).
- "This implies that it goes beyond the individual, i.e. atmosphere or ambience includes elements of the environment. The individual may very well contribute to the ambience, but other factors must be present as well. In fact, we view ambience as created by the interaction between individuals and their environment" (Gronhaug, Heide, & Laerdal, 2007, pg. 1316).

APA Format Citation

Countryman, C. & Jang, S. (2006, December). The effects of atmospheric elements on customer impression: The case of hotel lobbies. *International Journal of Contemporary Hospitality Management.* 534-545. DOI: 10.1108/09596110610702968.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

This article covers five different aspects of design and how customers perceive them in a hotel setting. The first of the five being style. It was found through research that hotels that felt like home and had a unique architectural approach, were more profitable and had a higher nightly occupancy. The next aspect was layout. This is a very important piece to keep in mind while designing my project to be sure that the front desk is right when you walk in and the traffic flow to the elevator is smooth. These two things were both issues that the researchers found in certain lobbies that could be improved and should be considered in my design plan.

Research also found that the types of furnishings used played the smallest role on customer impressions. While the furnishings are still important, it would pay off to put more time into other areas like inviting lighting and pleasant colors. I can integrate this information into my design project by choosing light, pleasant, welcoming colors into the entire hotel but especially the lobby. Changing color throughout is an important tool to have the hotel give a positive impression to new guests. I can also provide lots of natural light, as well as artificial lighting that is inviting and layered for an inviting affect for guests to enjoy in the private rooms and public spaces.

Indicate Significant Quotes (with citation following)

- "Those hotels that had more of a "home-like" or residential feel to them, had a strong theme, or incorporated more of the natural landscape surrounding the hotel, were found

to be more successful than other hotels (Siguaw and Enz, 1999). Some people feel that the success of "boutique" hotels is due in part to their unique architectural and interior designs" (Countryman & Jang, 2006, pg. 536).

- "The result indicated that the furnishings and style elements do not have discriminant validity, which means that both elements do not represent unique dimensions (Countryman & Jang, 2006, pg. 540).
- "The results also suggest that color changes, when renovating hotels, may be one of the most effective tools to create positive impression of the lobby (Countryman & Jang, 2006, pg. 543).
- "As for lighting, the trend in the hotel industry is to provide more lighting with a large percentage coming from natural lighting during daylight hours. There has been a shift away from the low or subdued lighting of past hotel lobby designs as is evident in many of the new hotel prototypes that incorporate more windows into the design of the hotel lobby and more abundant lighting throughout" (Countryman & Jang, 2006, pg. 543).

APA Format Citation

Day, J., Jones, D., & Quadri-Felitti, D. (2013, October 28) Emerging Definitions of Boutique and Lifestyle

Hotels: A Delphi Study. *Journal of Travel & Tourism Marketing, 30:7*, 715-731,

DOI: 10.1080/10548408.2013.827549

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

In this article, one issue that was presented was defining the difference between a boutique hotel and a lifestyle hotel. With boutique hotels, the *experience* is the driving force as guests will go in expecting high-end service and a great experience. Boutique hotels having a limited number of rooms is also a driving force that make them more sought after for high-end service because they expect since there will be less guests, they will get more/better attention. It will be important to ensure that the design portrays a feeling of 'experience' and luxury for the guests who will enter the hotel I design.

Lifestyle hotels provide some or all aspects of a boutique hotel, but also merge aspects of chain hotels as well and are becoming more popular. However, the focus of this article was figuring out what differentiates the two. It's important to keep only the aspects of what defines a boutique hotel in mind as that is what my project is, but it is still good to know what a lifestyle hotel is as well. It's important that someone doesn't mistake this boutique hotel for a lifestyle hotel. Things like high-quality service, high-end finish choices, good flow, and natural light are all key factors of a boutique hotel.

Indicate Significant Quotes (with citation following)

- "Having a limited number of sleeping rooms is the most frequent characteristic used to describe a boutique hotel in the limited academic literature" (Day, Jones, & Quadri-Felitti, 2013, pg. 716).
- "One key factor that emerges from the examination of boutique hotels is the importance of the "experience" as a key theme in describing boutique hotels" (Day, Jones, & Quadri-Felitti, 2013, pg. 716).
- "Boutiques tend to offer an aspirational experience, a total experience, and a focus on the property experience. Lifestyle hotels focus on specific activities within the property such as relaxation, spa, and personal well-being, and focus on the individual experience" (Day, Jones, & Quadri-Felitti, 2013, pg. 726).
- "A small, historic hotel would be a boutique hotel rather than a lifestyle hotel" (Day, Jones, & Quadri-Felitti, 2013, pg. 726).

APA Format Citation

Alonso, A. & Ogle, A. (2008, September 12). Exploring design among small hospitality and tourism operations. *Journal of Retail & Leisure Property* Vol.7 No.4 PP 325–337.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

This article outlines different ways that design impacts the hospitality and tourism industry, specifically hotels. One aspect that stood out to me that wasn't mentioned in other articles was customers caring about outside environmental and sustainability factors at the hotel. If the hotel has water conservation and waste reduction as a part of their everyday operations, a customer is more likely to stay at that hotel than one without these measures in place. This would be a great addition to the hotel I'm designing.

It also discusses how most hotels are reaching for a home-like feel to attract guests by providing amenities that one would find at home, like private office spaces. A tall, open, natural light-filled entry is one thing that research found increasingly important to guests and employees. I would like to integrate this finding into my design project by utilizing the tall ceilings and windows surrounding the building to let in as much natural light as possible. I would also choose fixtures and materials that are environmentally friendly and conserve resources. While making the hotel environmentally friendly, it is also important to keep the historic aesthetic of the building.

Indicate Significant Quotes (with citation following)

- "Other studies focusing on hotel design also indicate that while providing a pleasurable experience to guests is paramount, addressing environmental concerns can be equally important. In the case of the Orchid Hotel in Mumbai, India, Jones (2002) presents an overview of ways in which this establishment combines design and comfort with

environmentally responsible strategies that include energy-saving systems, minimization of pollution and water usage, and waste reduction" (Alonso & Ogle, 2008, pg. 328).

- "We wanted to create something that is much lighter and airier and have that access to the rural environment outside because you have got all those beautiful trees outside and wherever you look in the gallery you can see you are surrounded by nature and I think that really works well for us and for the customers" (Alonso & Ogle, 2008, pg. 329-330).
- "These comments are in line with Carmichael (2005) , who highlights the aesthetic value of the rustic and rural appeal, including buildings with an old farm appearance, elements that help connect with visitors and contribute to a more pleasurable experience" (Alonso & Ogle, 2008, pg. 331).

APA Format Citation

Gensler. (2018). What makes a hotel experience great? *Hospitality Experience Index.*

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

This article discusses the differences between different age categories using hotels and the primary things that each category desires. Some of these overlap, while others do not. One key finding that Gensler found through research was that hotels that prioritize a great experience including comfort, safety, and technology, are what make a hotel great instead of just good. Through their findings, research showed that guests rated their experience with "exceeding expectations" in the categories of 'latest technology' and 'intimacy.' The importance of having guests feel comfortable where they are as well as the updated technology, they might need throughout their stay are key factors in designing a new hotel.

The next three highest rated factors at contributed to a great experience were comfortable beds, beauty and authenticity. The one that stood out to me the most out of these three was beauty. I want the hotel I design to be beautiful but functional. I want the design to accentuate the historic feel but with modern upgrades that bring it back into the 21st century. While these factors are important to note while designing a new hotel, there are factors that need to be improved in current hotels that I would want to capitalize on as well. A few of the issues or areas of improvement include safety, value, and quality. I want to incorporate items into my design that account for these things that guests may not experience fully at other hotels. I want my guests to feel safe and I want them to feel like they are getting what they pay for in value and quality. Amenities offered also play a big role in the experience of customers, but this also depends on age group.

Indicate Significant Quotes (with citation following)

- "Hotels that offer a great experience optimize basics like comfort and safety, while integrating technology, luxury amenities, and a beautiful and aspirational aesthetic" (Gensler, 2018, pg. 11).

- "Having a design that's "inspirational" also emerges as a key driver of a good experience" (Gensler, 2018, pg. 12).
- "We do also see areas for improvement, particularly when we turn our attention to hotel common areas. Compared to hotel room features, common areas tend to be ranked lower by our survey respondents, representing a potential area for improvement, particularly for hotels looking to go beyond just a task-focused experience" (Gensler, 2018, pg. 13).
- "Done right, people see a beautiful, well-designed space as a reflection of overall quality; but if a space feels more opulent than the brand, products, or services associated with it, excessive beauty can be seen as wasteful" (Gensler, 2018, pg. 14).
- "Numerous factors—from the comfort of the hotel bed, to the overall comfort of a hotel's furnishings and common areas—proved to be drivers of a great experience. But if there's one place to focus, it's the bed: get that wrong, and it's an uphill battle to provide a great experience" (Gensler, 2018, pg. 15).
- "For amenity usage, generational differences also prove significant—Millennials use nearly every hotel amenity at the highest frequency, and overall report doing a wider range of activities in hotels more often" (Gensler, 2018, pg. 17).
- "When we asked respondents to note the reason why they chose a hotel, two primary reasons emerged above all else. The first is familiarity: nearly half of all survey respondents chose a hotel because they had stayed there before" (Gensler, 2018, pg. 21).

APA Format Citation

Tucker, L. (2015). Hospitality projects - Designing Sustainable Residential and Commercial Interiors.

Bloomsbury Publishing. Pg. 152-186.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

The main issue that this chapter of the book talks about is sustainability in hospitality environments. Trying to find a happy medium with a sustainable luxury experience has had its challenges with hotel owners. The chapter talks about the difference in cost in making a building LEED certified upon construction which would be something to consider when building a new hotel. While a LEED certified building can cost 3-5% more than typical construction, it can save money in the long run for most commercial buildings, but not always hotels. It is also harder to scale a business worldwide using LEED certifications on all buildings when not all countries use it.

Sustainable options that guests have enjoyed throughout their stay include refillable soap and shampoo dispensers, recycling bins, linen and towel policies, and energy efficient lighting. I have personally staying in various hotels that have offered these items and I too, found them beneficial. These options would definitely be things to consider while designing my hotel project. I would also incorporate the option to limit the amount of times the room needs to be cleaned if

guests don't want it every day. There are also options to make the current structure more sustainable like installing energy efficient lighting and water conserving fixtures. Biophilic walls are also appreciated by guests.

Restaurants also tie into hospitality design and is to be taken into consideration for the café portion of the design project. Research has found that guests prefer tables over booths in these settings and they also keep diners from extending their stay at the table, while people tend to sit in booths longer than a table. Guests also appreciate sustainability in the restaurant with local food and furnishings.

Indicate Significant Quotes (with citation following)

- "Unique interior architecture, furniture, and building comprised the specific design features that appealed to guests" (Tucker, 2015, pg. 153).
- "…the report also concluded that a LEED-certified building costs a 3- t- 5-percent premium above standard construction" (Tucker, 2015, pg. 155).
- "Recent studies in the journal have concluded that green certifications are important to hotel guests; these research efforts have also articulated the benefits of sustainable hotels. Millar and Baloglu identified some sustainable features to which guests respond positively including refillable soap and shampoo dispensers, recycling center and bins, linen and towel policies (washing by request), and energy efficient lighting" (Tucker, 2015, pg. 155).
- "The author identified several specific measures to retrofit an existing facility as well as new construction: install compact fluorescent lighting and low-flow showers, limit the use of individual shampoos and soaps, consider updating hotel construction standards to take site and orientation into account for passive solar gains, consider tax incentives for green construction, and understand that low or no volatile organic compounds emitted will enhance the indoor air quality leading to healthier guests and employees" (Tucker, 2015, pg. 156).
- "These researchers concluded that banquette (padded bench style seats) seats were not preferred over tables and that placing tables closer than 12 inches to one another was also not preferred" (Tucker, 2015, pg. 156).

APA Format Citation

Tucker, L. (2015). Adaptive reuse projects - Designing Sustainable Residential and Commercial Interiors.

Bloomsbury Publishing. Pg. 241-257.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

This chapter of the book discusses design issues associated with adaptive reuse and how to design in a historically significant building. It was once said that the most sustainable way to

build is to use a building that's already built (adaptive reuse). It's important to keep in mind the age of the building and what areas of the building can or can't be touched during a renovation. Historical buildings need to be put through a historic building assessment, a historic structures report needs to be written, and building codes need to be followed. During the first part of the historic structures report is the developmental history, many photos are taken to document how the structure first looked when it was found. There should also already be measurements taken of the building, but if not, those will need to be taken and drawn out. The second part of the report is treatment and work recommendations. This is where a historic preservation consultant decides what can and cannot be renovated.

The rehabilitation/adaptive reuse option for renovation is the most common for interior designers. There are various standards and guidelines that must be followed, and the new design has to keep historical significances in mind like maintaining existing materials and spatial relationships. Benefits associated with reuse projects include life-cycle costing, carbon footprint, embodied energy, and ability to use local/sustainable materials. Issues that have been found in reuse buildings include leaky windows, high energy costs, and lead paint concerns. These issues and considerations are all things to keep in mind while designing my new hotel project since we are designing within a historical building. It will be important to remember what we can and cannot change within the building, while still making it more efficient and sustainable.

Indicate Significant Quotes (with citation following)

- "An assessment of the conditions should include a complete evaluation of age, materials, structural soundness, the need for experts (to make sure the proper approach is ultimately taken), and historical significance" (Tucker, 2015, pg. 242).
- 'The first requirement when working with a significant historic site is to document the property as it was first found" (Tucker, 2015, pg. 244).
- "Preservation places a high premium on the retention of all historic fabric (materials in the building) through conservation, maintenance, and repair" (Tucker, 2015, pg. 245).
- "With this approach (rehabilitation/adaptive reuse), the historic fabric is retained as much as possible. The Secretary of the Interior's Standards recommend new uses that are deemed compatible with the existing building. New designs should maintain existing materials, features, spaces, and spatial relationships" (Tucker, 2015, pg. 245).
- "Common benefits of reusing existing buildings include embodied energy, material reuse, societal values, artistic value, historical value, and high thermal mass (high volumetric heat capacity). Common problems cited by opponents of building reuse include leaky windows, energy-efficiency problems/high energy costs, roof problems (the addition of green roofs and solar panels), insulation concerns, and lead paint and asbestos content" (Tucker, 2015, pg. 247).

Annotated Bibliography

Written by: Jesse Price

Tucker, L. M. (2015). *Designing sustainable residential and commercial interiors, Applying concepts and*

practices. Bloomsbury Fashion Central. doi: 10.5040/9781501371448.ch-007

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

In Chapter 7 of "Designing sustainable residential and commercial interiors, Applying concepts and practices" by Tucker, the author discusses historical buildings can be revived to meet the needs of today. Adaptive reuse projects are in construction across the United States and it is important for today's architects and interior designers to be aware of how to design around the history stored within these buildings. Today's challenge is to preserve and display as much history of these buildings and their interiors as possible. Factors such as sustainability, accessibility, and existing conditions need to be considered to ensure the health, safety, and welfare of the users is not in risk.

There may be old materials and construction finishes within historic buildings that are now harmful within today's standards. An assessment should be done of the building to determine its safety, and that will determine how the design team makes progress. While it is important to preserve historical value, buildings must be safe today. The Americans with Disabilities Act (ADA) is a federal law and must be applied once construction/remodeling has begun on a project. 36" minimum doorways must be applied throughout buildings to allow accessibility for all guests. Harmful toxins must be removed from buildings to ensure the safety of the users. Designing with sustainability as a driving force is also important in today's designing considerations. Incorporating modern, energy-efficient appliances and windows can help lower costs within the building, but also contribute to a "greener" community.

Indicate Significant Quotes (with citation following)

- "An assessment of the conditions should include a complete evaluation of age, materials, structural soundness, the need for experts (to make sure the proper approach is ultimately taken), and historical significance," (Tucker, 2015, pg. 242).
- "Approximately 6 percent of buildings in the United States were constructed prior to 1920. An additional 11 percent of (non-residential) buildings were built prior to 1950," (Tucker, 2015, pg. 243).
- "Preservation zones are areas of a property or building, or individual features of a property or building, that have been singled out for a specific preservation approach." (Tucker, 2015, pg. 244).
- "Rehabilitation/adaptive reuse projects are the most common. This is also the approach an interior designer is likely to take with a building located in a historic district, downtown Main Street community, or other historic building commonly found across the United States… New designs should maintain existing materials, features, spaces, and spatial relationships," (Tucker, 2015, pg. 245).
- "… the Whole Building Design Guide Historic Preservation Subcommittee of the National Institute of Building Sciences (WBDG, 2010) outlines five arenas of sustainable preservation: sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality. These coincide with LEED Green Building Rating Systems categories and include several of the individual point indicators as contained in the LEED systems." (Tucker, 2015, pg. 246).
- "According to Jacobson, historic buildings can be made green by addressing several issues: building envelope, windows, plumbing fixtures, thermal comfort, historic light fixtures, appliances, and human behavior." (Tucker, 2015, pg. 247).
- "Historic buildings also relied on craftsmen to perform several of the tasks associated with construction… As construction has become more streamlined, many of these craftsmen

have disappeared and, with them, the art of their respective trades." (Tucker, 2015, pg. 249).

Naqshbandi, M. M. & Munir, R. S. (2011). Atmospheric elements and personality: Impact on hotel lobby impressions. *World Applied Sciences Journal* , 15 (6), 785-792.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

In the article "Atmospheric Elements and Personality: Impact on hotel Lobby Impressions," authors M. Muzamil Naqshbandi and Roni Sirozul Munir discuss hotel lobbies and the impressions they make on customers. An environment can create an emotional and physical response from people, so it is important for interior designers to design to establish a positive outcome. A hotel lobby, specifically a boutique hotel lobby, can display a personality type that can affect the overall mood and impression of the guests' stay. The layout of the furniture, colors used, and variety of shape and architecture quickly make guests aware of their environment and make an impact.

The importance of lighting, furniture and material selection, color, and layout have a large importance when it comes to the success of a hotel lobby. Furniture should be organized in a manner that encourages warm conversation and greeting and be easily accessible for all. Arranging furniture around a warm fireplace and in clusters helps welcome conversation. The lighting should be comfortable for the users of the space and highlight key design features, such as artwork and mantles. The color and materiality within the space needs to be welcoming and create an initial impression that is lasting and makes the guest explore. From the article about hotel lobby impressions, it will be important to incorporate these design features into lobby design to make it memorable, welcoming, and stunning to all. The first impression will often determine the overall experience the guest chooses to have.

Indicate Significant Quotes (with citation following)

- "Hotel appearance gives the 'the direct impact of physical stimuli on human emotions and the effect of physical stimuli on a variety of behaviors, such as work performance or social interaction'" (Naqshbandi & Munir, 2011, pg. 1).
- "One of the important functions of a lobby is that it serves as the main circulation space, directing guests to the various parts of the hotel," (Naqshbandi & Munir, 2011, pg. 2).
- "Bold colors, high-technology lighting applications and sculptural furnishings and finishes typify the latest trends in lobby design," (Naqshbandi & Munir, 2011, pg. 2).
- "The function of architectural design as well as interior design and décor plays an important role in customers' satisfaction level and contributes to the attractiveness of the

physical environment. One important factor, seating arrangement in particular, not only affects where people sit, but also the character of interaction that can occur between them." (Naqshbandi & Munir, 2011, pg. 2).

- "Boutique hotels are considerably smaller than mainstream hotels, often ranging from 3 to 100 guest rooms and differentiate themselves from larger chain/branded hotels and motels by providing personalized accommodation and services/facilities." (Naqshbandi & Munir, 2011, pg. 2).
- "Based on factor loading values of Boutique Hotels dimensions, it can be concluded that when people assess a lobby hotel, they consider whether the hotel lobby style feels beautiful or not, whether the lighting design is appropriate with the overall theme and can arouse positive feeling or not, whether placement of furnishings makes the customer feel comfortable or not and also whether the colors of hotel lobby can give soothing feeling to the customer or not." (Naqshbandi & Munir, 2011, pg. 4).
- "Lighting directs attention within a space because the ye automatically seeks out the brightest object in its field," (Naqshbandi & Munir, 2011, pg. 7).

Heide, M., et al. (2007, January 23). The design and management of ambience – Implications for hotel

architecture and service. *Tourism Management*, 28 (2007), 1315–1325.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

In the journal article "The design and management of ambience – Implications for hotel architecture and service," authors Morten Heidea, Kirsti Lærdala, and Kjell Grønhaug discuss ambience in hospitality settings and how environments can perform based on their ambience. Through the article, the three authors took a discovery approach to better collect information for this low-researched topic. By conducting multiple interviews and tours, these authors discovered that managers often rate their own hotel well for having a well-liked ambience and would then rate their competitors lower. These results of high satisfaction with hotel ambience offered personality, character, strong customer service, and varying atmospheric factors.

To create a lasting and enjoyable impression, the ambience of hotels should be considered. When incorporating the strong balance of atmospheric, social, and design factors into a hotel, positive reviews can be made. While interior designers do not have strong control over all atmospheric factors, they have great input on the lighting and acoustical control within an environment. To encourage well-managed ambience, the interior design should offer layered lighting throughout that also has the capability to be dimmed. The acoustical control within the space can be used in acoustical panels, soft finishes, and the use of varying ceiling heights. When designing for a hotel, it is important to design with these considerations to help achieve an enjoyable environment for everyone.

Indicate Significant Quotes (with citation following)

- "While, servicescape is the physical environment in which services are delivered, ambience can be viewed as the result of interaction between people (i.e. service providers and customers) and the physical environment (i.e. the servicescape). A key point, however, is that ambience is perceived and experienced," (Heide, M. et al, 2007, pg. 2).
- "A review of relevant studies (referred to below) points toward three factors that are important for creating the desired ambience: (1) atmospheric factors; (2) social factors; and (3) design factors." (Heide, M. et al, 2007, pg. 2).
- "Atmospheric factors are background conditions in the environment, e.g., temperature, scent, noise, music, and lighting," (Heide, M. et al, 2007, pg. 2).
- "The managers regarded ambience as a key aspect and an integrated part of the operations of the company, nourished by friendly and caring attitudes among their staff. Two of the establishments highlighted the authentic atmosphere based on local history and shared pride in original buildings or fragments from earlier times," (Heide, M. et al, 2007, pg. 5).
- "The hospitality managers were generally more concerned than the design experts with social factors and their impact as drivers of ambience. The examples sed by the hospitality managers reflected a focus on interaction between staff members (staff–staff) between staff and guests (staff–guest), and between guests (guest–guest)." (Heide, M. et al, 2007, pg. 5).

Countryman, C. & Jang, S. (December 2006). The effects of atmospheric elements on customer impression:

The case of hotel lobbies. *International Journal of Contemporary Hospitality Management*, 18 (7),

534-545. doi: 1 0.1108/09596110610702968

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

In the journal article "The effects of atmospheric elements on customer impression: The case of hotel lobbies," authors Cary Countryman and Soocheong Jang discussed customer experiences and how hotel lobbies can make a lasting impression. A variety of factors such as lighting, design style, color, furnishings, and layout all contribute to the physical space of a hotel lobby that make an impact on customers. This research article conducted interviews and tests to see how influential these previously mentioned factors were. The results showed that design style, lighting, and color were very significant for customer impression.

Design style, lighting, and color are constant design considerations interior designers ponder when designing for an interior. For a hotel lobby, these were dominant factors that contributed to an influential lobby. When designing a lobby, it is important to offer lighting that is dimmable and layered. Avoiding glare with contrasting materials and colors should be considered when selecting lighting. A soft incandescent lighting selection is desired to portray a higher quality environment. Color combinations within the space should be attractive and neutral to help with wayfinding and creating pleasant feelings. To help contribute to a successful boutique hotel, people felt that these hotels offered unique architectural and interior designs that created a grand experience. Designing unique eye-catching features throughout a hotel design is a factor that must be considered.

Indicate Significant Quotes (with citation following)

- "Mehrabian and Russell (1974) described it as 'the direct impact of physical stimuli on human emotions and the effect of physical stimuli on a variety of behaviors, such as work performance or social interaction". Their conceptual framework is based on the idea that the physical environment creates an emotional response, which in turn elicits either approach or avoidance behavior in regards to the physical environment.'" (Countryman & Jang, 2007, pg. 2).
- "This conceptual framework is comprised of the three environmental dimensions that combine to form the perceived servicescape: (1) ambient conditions; (2) space/function; and (3) signs, symbols, and artifacts." (Countryman & Jang, 2007, pg. 3).
- "…customers perceive environments holistically with the three dimensions affecting overall perception independently and/or through interaction with the other dimensions," (Countryman & Jang, 2007, pg. 3).
- "…positive cognitions of the perceived servicescape can lead to positive beliefs and attributions being associated with the organization, its people, and its products." (Countryman & Jang, 2007, pg. 3).
- "…the physical environment serves as a mnemonic or a recognizable characteristic in helping customer differentiate among firms." (Countryman & Jang, 2007, pg. 3).
- "…the architectural style of a hotel did have an impact on the profitability and success of the hotel. They believed that hotels with unique architectural approaches and designs were able to increase the average daily rate(ADR) and increase occupancy. Those hotels that had more of a "home-like" or residential feel to them, had a strong theme, or incorporated more of the natural landscape surrounding the hotel, were found to be more successful than other hotels," (Countryman & Jang, 2007, pg. 4).

Jones, D., et al. (2013, October 28). Emerging definitions of boutique and lifestyle hotels: A Delphi study.

Journal of Travel & Tourism Marketing, 30(7), 715-731. doi: 10.1080/10548408.2013.827549

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

In the journal article "Emerging definitions of boutique and lifestyle hotels: A Delphi study," authors David L. Jones, Jonathon Day & Donna Quadri-Felitt discussed the different definitions of hotels and how a Delphi study created varying results in definition bias. Since there is not a firm definition to either a boutique hotel or lifestyle hotel, designers and hospitality professionals hope to better understand the definition of such hotels. After conducting a Delphi study, the authors found one key comment that was consistent throughout – boutique hotels are unique and offer a sense of charm.

The design challenge faced within lifestyle and boutique hotels makes it difficult to be fully aware of what each hotel is by definition and design properly. However, through research, the authors were able to justify how each hotel can be individualized and offer its own unique design. Each design should create an experience that is welcoming for guests. Offering a lobby that is home-like, or seems like third home, helps guest enjoy their stay. Personalized guest features like a warm living room fireplace, soaking tub, and fully equipped kitchen may help appeal to the customer's' desires while away from home. Personalized services from the hotel staff is also recommended to create a enjoyable stay.

Indicate Significant Quotes (with citation following)

- "One key factor that emerges from the examination of boutique hotels is the importance of the 'experience' as a key theme in describing boutique hotels," (Jones, D., et al, 2013, pg. 3).
- "The Boutique and Lifestyle Lodging Association (BLLA, n.d.) considers a lifestyle hotel as a subcategory of boutique hotel and defines it as 'A property that combines living elements and activities into functional design that gives guests the opportunity to explore the experience they desire,'" (Jones, D., et al, 2013, pg. 4).
- "…boutique hotels began to stress 'homelike atmosphere' and 'personalized service,'" (Jones, D., et al, 2013, pg. 4).

- "A boutique hotel has very personalized service and hopefully some charm and/or other unique characteristics." (Jones, D., et al, 2013, pg. 13).

Alonso, A. & Ogle, A. (2008, September 12). Exploring design among small hospitality and tourism operations. *Journal of Retail and Leisure Property* (2008) 7, 325–337. doi: 10.1057/rlp.2008.23.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

In the journal article "Exploring design among small hospitality and tourism operations" by authors Abel Alonso and Alfred Ogle, Alonso and Ogle discussed how small hotels and how their operations can provide a unique experience for their guests. The hospitality industry must stay up to date on current trends and necessities, but boutique hotels always offer a unique experience that may not be "normal." Tangible and intangible factors within a hotel design must be considered to create a pleasant customer experience; design can directly correspond to business success.

Image and style are top factors considered in a boutique hotel that can make or break the design. Incorporating "soft" elements, like reminders of home and highly stylized furnishings, can help create a welcoming environment for guests. Boutique hotels are faced with the challenge of making themselves "unique" against their competition. Luckily, these operations offer personalized services that allow guests to feel appreciated and at home. To create a welcoming environment, simplicity and efficiency should be factors that are considered in furniture selection and layout. Offering a circular layout of furniture that encourages conversation will help customers to have welcome themselves and simply enjoy their stay. All hotels desire to make a lasting impression on their customers; character, color, and architecture are just some of the few factors that interior designers must consider to create a successful hospitality design.

Indicate Significant Quotes (with citation following)

- "The design of a hospitality/tourism establishment can provide an identity or character to the business and project the operation's appeal and vision to visitors, or potential visitors." (Alonso & Ogle, 2008, pg. 2).
- "…tangibles such as architecture, décor and furnishings… and intangibles such as ambience, are also contributors to guests' overall experience at a destination, and can be decisive factors in determining guests' satisfaction or dissatisfaction during their stay. Resulting potential business implications can be in the form of repeat visits or word-of-mouth advertising." (Alonso & Ogle, 2008, pg. 2).
- "Several definitions seek to explain the meaning of design, with one of them suggesting that design entails decorations, shapes, sizes and styles, all aspects that can impact 'soft' factors such as a building's ambience, comfort, image and style, and 'hard' factors such as cost, ergonomics, noise, safety or space allocation," (Alonso & Ogle, 2008, pgs. 2-3).
- "…research has also examined the importance of design in front-line areas of hospitality operations… [and] investigating how design features of hotel lobbies can have an impact on customers and their behaviour toward the hotel's overall environment," (Alonso & Ogle, 2008, pg. 3).
- "According to Stipanuk (2006), 'a facility's design will clearly dictate the scope of the facility management function' (p. 14), with management focusing on facility layout, materials, quality, types of construction and systems." (Alonso & Ogle, 2008, pg. 3).
- "… combines design and comfort with environmentally responsible strategies that include energy-saving systems, minimization of pollution and water usage, and waste reduction." (Alonso & Ogle, 2008, pg. 4).
- "The operator's views on providing the appropriate atmosphere that mirror the theme of the business further emphasize the importance of this dimension," (Alonso & Ogle, 2008, pg. 6).

Gensler. (2018). *Hospitality Experience Index* [PDF]. Gensler Research Institute.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

In the article "Hospitality Experience Index" written by Gensler and the Gensler Research Institute, multiple studies and research have been compiled to share the results of guest experiences in hotels. Their wide-range of research showed how the Baby Boomer generation compares to Millennials, and how each of these guests plan to spend their stay. Today, hospitality guests are searching for an experience when they stay at a hotel; it is no longer just a place to sleep. With increasing demands for options and experiences, the hospitality industry must incorporate ever-changing capabilities into their hotels.

After many studies, Gensler identified six design factors that matter most to guests. Customers today are looking for beauty, comfort, authenticity, intimacy, inspiration, and the

latest technology. When designing a hospitality environment, it will be important to incorporate a variety of receptacles and charging ports to allow all guests to conveniently work, relax, and stay powered. A hotel's furnishings should not only contribute to the interior design of the space, but also be comfortable. To improve the guest experience, furniture should be selected based off ergonomic dimensions and cushion. As the hospitality industry is evolving, offering amenities that customers are eager for should be top priority to stay successful.

Indicate Significant Quotes (with citation following)

- "82% of people go to hotels to have fun," (Gensler, 2018, pg. 1).
- "69% of business travelers also do leisure-related activities during their stay," (Gensler, 2018, pg. 1).
- "58% of Baby Boomers choose hotels based on places they've stayed before," (Gensler, 2018, pg. 1).
- "41% of people use hotels as a place to work somewhere quiet," (Gensler, 2018, pg. 1).
- "38% of business travelers share their hotel experience on social media," (Gensler, 2018, pg. 1).
- "26% of hotels have iPad check-in available," (Gensler, 2018, pg. 1).
- "Whether guests are traveling for business or leisure, hotels are supporting a wide range of activities—from the traditional work trip or vacation, to places to hang out, socialize, host or attend meetings, get inspired, take a break, or just work away from the office." (Gensler, 2018, pg. 5).
- "Younger travelers report doing a wider range of activities in hotels today than their older peers," (Gensler, 2018, pg. 6).
- "Hotels that offer a great experience optimize basics like comfort and safety, while integrating technology, luxury amenities, and a beautiful and aspirational aesthetic," (Gensler, 2018, pg. 7).
- "Alongside this suite of both pragmatic and ephemeral drivers of a great experience, we also see significant importance in the growing trend for hotels to offer the latest technologies—as driver of experience, and particularly as a means of elevating hotel stays beyond expectations," (Gensler, 2018, pg. 8).
- "Business travelers are, however, more critical of the overall hotel and more likely to see their rooms as cluttered. Leisure travelers, by contrast, are more critical of spaciousness, comfort, and the ability of their room to host guests or other activities," (Gensler, 2018, pg. 10).

Tucker, L. M. (2015). *Designing sustainable residential and commercial interiors, Applying concepts and*

practices. Bloomsbury Fashion Central. doi: 10.5040/9781501371448.ch-005

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

In Chapter 5 of "Designing sustainable residential and commercial interiors, Applying concepts and practices" by Tucker, the author discusses the current issues regarding hospitality interior design. Hotels, spas, and restaurants are evolving to meet the needs of new guests. Each of these sectors in the hospitality industry focus heavily on customer experiences, while determine the success of the business. Hotels today are focusing on sustainability and how to reduce costs while "going green." With a new emphasis on health and fitness, wellness, and comfort, the hospitality industry and interior designers need to design for these new challenges.

Boutique and lifestyle hotels are unique because they offer "different" experience for their guests, compared to a "traditional" hotel. The personalized services and sense of home is a successful driving force for these hotels. To ensure a happy stay, the interior design makes an impact. The furniture and artwork are often created locally and incorporated throughout the design. Lighting like residential fixtures along with guest room size will also play a part in sense of place within these hotels. By incorporating technology into these spaces, guests can freely power their devices and stay connected, a popular demand for today's society. Designers should place receptacles and charging stations in guest rooms and lobby areas to be as convenient as possible for their users.

Indicate Significant Quotes (with citation following)

- "Top concerns of the hospitality industry during the past decade include sustainability and the reduced cost of "going green," a renewed emphasis on nutrition, health and fitness, and the need for unique experiences that differentiate a hospitality venue from its competitors," (Tucker, 2015, pg. 153).
- "The room amenities most impacting a positive experience were location, quality, personalized service, and design and hominess. Unique interior architecture, furniture,

and building comprised the specific design features that appealed to guests." (Tucker, 2015, pg. 153).

- "Most importantly, design features prominently in the boutique hotel. Design features would include local furniture, furnishings, and artwork that demonstrate the historical and unique characteristics of the place. Unique lighting, trim work, room size and shape, and other unusual features would further contribute to the experience." (Tucker, 2015, pg. 154).
- "…the lifestyle hotel tends to have a contemporary aesthetic, high levels of technology, and a focus on wellness. A lifestyle hotel tends to be larger than a boutique hotel. Both types – lifestyle
- and boutique – are designed to elicit an emotional response," (Tucker, 2015, pg. 154).
- "Millar and Baloglu (2011) identified some sustainable features to which guests respond positively including refillable soap and shampoo dispensers, recycling center and bins, linen and towel policies (washing by request only), and energy-efficient lighting." (Tucker, 2015, pg. 155).
- "Arched windows, traditional staircases, hardwood floors, and the retention of historic detail support the sustainable guest experience, which is augmented by photovoltaic water heating and paperless guest services (guests are encouraged to use hand dryers instead of paper towels in washrooms and to order services using a touch screen in the guest room). Thus, the traditional-appearing hotel features up-to-date 'smart building' features and beautiful views of the outdoors." (Tucker, 2015, pg. 171).

Annotated Bibliography

Written by: Carolyn Hoffmann

APA Format Citation

Naqshbandi, M. M., & Sirozul Munir, R. (2011). *Atmospheric Elements and Personality: Impact on Hotel Lobby Impressions*, 785–792.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

The design elements that were discussed in this article were that lighting, openness, color, value, all have a play in the lobby design or feeling. One of the top discussed pieces I found interesting was the openness and lighting. Often times it is stated that openness is not wanted within a lobby space. This may reduce the lighting in the space and have the overall impact be negative. As for some the openness created many different feelings for the individuals throughout the space in the lobby. The openness of the lobby does not have as much effect on people as lighting, color, and furniture will have impacted them.

The perception of space is different for each individual. The lobby of a boutique hotel is quite a difference compared to one at a convention hotel. Lobby space depends on what it is being compared to and how the other spaces are being used. A convention hotel will have more openness within the lobby as a boutique will have multiple places for others to go in and out of making the traffic greater within the allocated space. The design of these spaces have changed drastically over the years and with the appreciate for accommodations and design antics, or how people perceive the space itself.

Indicate Significant Quotes (with citation following)

- **"**The direct impact of physical stimuli on human emotion and the effect of physical stimuli on a variety of behaviors, such as work performance or social interaction" (Mehrabian, p. 795, 1974)
- **"**Bold colors, high- technology lighting application and sculptural furnishings and finishes typify the latest trends in lobby design." (Mucci, p. 786, 2005)
- "Color surrounds us. It penetrates our bodies as light waves… Color and light are inseparable. In the absence of light, color cannot exist." (Fehrman, p. 786, 2004)

APA Format Citation

Heide, M., Lærdal, K., & Grønhaug, K. (2007). *The Design and Management of Ambience—Implications for Hotel Architecture and Service*, 1315–1325.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

Ambience through design imitates behavior, sense, and responses of individuals when in the space. The mood of the space will depend on each individual occupying the space. Their mood factors what they like to be around and personal interests. Each and every person that comes into a space is going to have different perspectives and feelings. Through the ambiance of the interior lobby spaces having effect on people in different ways and feelings or understanding throughout any space. It is very important to consider the hospitality managers and the designers to rely on each other through the design process to gather all the information that is needed to make the space sufficient. The overall design of the building is important in these types of spaces and instincts of individuals plays a huge role.\

The findings through the research of designers and hospitality managers was color, value, overall design and understanding. This makes a difference in design drastically when these are key concepts to have placed in a space that will be used my multiple kinds of people. Not only does the design tactics have effects on all guest and individuals, even workers they prefer a comfortable looking workplace. Professionalism from the designer needs to be represented well throughout the design elements and the wayfinding of each main area located in a management type of setting. This is critical for all design ideas and communication of what is desired in certain spaces with all different types of people.

Indicate Significant Quotes (with citation following)

- "Ambience will be an important determinant of customer satisfaction" (Heide, 2007)
- "Guests and staff as the single most positive characteristic of the establishment" (Kokko, 2005)
- "Experience differ among hospitality managers and design experts, their perceptions and knowledge of the role of ambience may differ" (Heide, 2007)
- "We view ambience as created by the interaction between individuals and their environment." (Heide, 2007)
- "Servicescape is the physical environment in which services are delivered, ambience can be viewed as the result of interaction between people… and the physical environment." (Heide, 2007)
- "Avoiding "fake" atmospheric drivers" (Heide, 2007)
- "Growing interest in planning and development of social arenas, public meeting place, receptions and lobbies where people can mingle and build networks" (Heide, 2007)

APA Format Citation

Countryman, C. C., & Jang, S. C. (2006). *The Effects of Atmospheric Elements on Customer Impression: the Case of Hotel Lobbies*, *18*(7), 534–545.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

The main topic of this article was for the sole purpose of research towards servicescapes and atmospherics. The purpose of this study was to understand how human emotions have on a space and what they are perspectives. Emotional responses to people need to feel welcoming, comfortable in the environment and those around each other. Many factors that play a big role in an overall design aesthetic of a lobby is the layout, color, lighting, and furniture. These are key things that need to be addressed when designing spaces that are occupied. Some layouts are going to be liked by other versus other plans. The compromise of a boutique hotel or a convention hotel is what people look at and realize what they look like inside.

The main focus on a design is the layout, color, lighting, furniture. Some of the top key features. When they took a survey of what was expected in a typical lobby was the lighting as the main focus. Lighting is very important in the main space of the lobby as lighting is often times the first impression when you walk into a space. With sufficient lighting in a large open space makes the room feel even more open and spacious. With the correct lighting the colors will need to be coordinated together in order to not have glares or shadows on the walls in the open space. These are both very important factors when designing as space may feel uncomfortable to others using the space. Once complete the furniture is then picked for the space as the colors, design, and layout may vary between each lobby. This closes the design with furniture and how it effects the space.

Indicate Significant Quotes (with citation following)

- "Layout has a significant relationship to customers' impression of the hotel lobby" (Penner, p.537, 1985)
- "Colors have a significant effect on customers' impression of the hotel lobby" (Robson, p.537, 1999)
- "The layout should minimize crowding in order to create a favorable impression among guests." (Countryman, p.537, 2006)
- "Style of a hotel did have an impact on the profitability and success of the hotel" (Enz, p. 536, 1999)
- "The contrast of a bright area with that of a darker area, sometimes referred to as glare, to be unpleasant" (Countryman, p. 537, 2006)
- "Style like colors comes from a combination of physical elements" (Countryman, p.543, 2006)

APA Format Citation

Day, J., Jones, D. L., & Quadri-Felitti, D. (2013). *EMERGING DEFINITIONS OF BOUTIQUE AND LIFESTYLE HOTELS: A DELPHI STUDY*, *30*(7), 715–731.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

As the hotel chains changed throughout the last couple years and decade it has been very specific in some ways. Certain chains of hotels make their hotels have themes and lean towards the overall design be based towards a time period or time such as rock and roll. These are all boutique hotels, often times they often include amenities, such as pools, saunas, game rooms, convention centers, etc. Boutique hotels used to have all the things you would find luxury in a hotel, but now that is becoming a more lifestyle hotel. The standards are changing drastically of what people consider boutique and lifestyle hotels. This changes the opinion of people in a hurry when viewing the hotel and staying with their regular commodities.

Boutique hotels have slightly different aspirations towards the guest experience and overall view of the hotel, than the lifestyle hotels do. Lifestyle hotels are more focused towards the normal standard living and having small comfortable spaces for guest, versus what a boutique hotel would typically have within it. Lifestyle hotels are more focused on the wellness of the guest and services that are offered for little to no cost to the guest. Boutique is more focused around the personalized services that make the stay unique and will want to return in the future. Hotels are all about guests' personal interests what they enjoy and aspire in a hotel. Often times people's ideas are different, but some are very similar and many options can be taken away in many perspectives.

Indicate Significant Quotes (with citation following)

- "Hotel companies are seeking to achieve competitive advantage through highly differentiated offerings to specific target markets" (Day, p 717, 2013)
- "Boutique and lifestyle hotels can be seen in the context of corporate strategy based on differentiation designed to provide a strategic advantage" (Day, p. 717, 2013)
- "Lifestyle hotel has more ancillary services, focused on wellness" (Day, p. 726, 2013)
- "Boutique hotel has very personalized service and hopefully some charm and/or other unique characteristics" (Day, p.726, 2013)

APA Format Citation

Alonso, A. D., & Ogle, A. (2008). *Exploring Design among Small Hospitality and Tourism Operations* , *7*(4), 325–337.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

Designing for space is very important in a tourism and hospitality buildings and operations. There is lots to consider when designing such as the decorations, sizes of everything, cost, style, safety, and space for everything. Things that hotels need to make a design priority is for guests to have space for themselves and socializing with others. These types of spaces include pools, lobbies, restaurants for guests. Designs of hotels often times manage how the business is perceived to others and how it may affect everybody who uses the space as a whole. Word of mouth on how a hotel is managed is another top priority, the more reputation out there the greater the business there will be and vice versa.

The functionality of the building is very important. The users of all types need to be able to have access inside the hotel and to know how they are to use the space that is given to them. The simple features throughout the hotel, such as wayfinding, patterns, colors, comfort, furniture, and amenities all need to be included in the design process and how the spaces will be used during the end product of the hotel. Through international tourism hotels will change throughout the world and how others might look at them on the inside, compared to their home countries hotels. As tourism and hospitality are combined and really focused on in hotels, they need to be constant but also have their own style and comfort throughout the whole hotel.

Indicate Significant Quotes (with citation following)

- "One attribute that travelers often seek in a hotel is its ability to make the traveler feel comfortable while on a trip." (Alonso, p.328, 2008)
- "Combining design, comfort and efficiency seems to be a challenging yet rewarding strategy for hospitality operation to integrate to contemporary business practices" (Alonso, p. 330, 2008)
- "The surrounding can be a critical attraction point for many customers" (Alonso, p. 333, 2008)
- "A hotel's physical design modifies guests' inferences and perceptions of quality" (Alonso, p. 327, 2008)
- "Design is a significant tool in enhancing the building's attractive appeal, creating an atmosphere in public areas, such as lobbies, and attracting visitors in the process" (Ransley and Ingram, 2001, p. 79)
- "The creation of attractive environments through design can support operations in their quest for providing ambience and environment" (Kotler, 1973, p. 327)

APA Format Citation

Gensler. (2018). *What Makes a Hotel Experience Great?*, 1–32.

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

Hotel expectation are often based on the first impression of people. Hotels often times have the highest types of technology to have the guests engage with the workers and features

throughout the hotel experience. This is a very important topic through hotel experience of comfort and latest technology. Some key features in hotels that guests now prefer are keyless room entry doors, self-check-in kiosks, affordable pricing, quality of the hotel, entertainment, technology, wayfinding, and robots. These features are becoming more popular and making the hotel space more comfortable and reliable than what used to be offered.

Depending on who is going to be using the spaces of the hotel such as businesspeople, or travelers use different amenities throughout hotels. Many people prefer quiet spaces in a hotel and other prefer to use all the things that are offered to them to their top ability. The newest technology is what is making the hotels what they are becoming today. The evolution of style and comfort is also still evolving through the hospitality and tourism world.

Indicate Significant Quotes (with citation following)

- "Hotels are supporting wide range of activities" (Gensler, 2018, p 6)
- "The best hotels know that designing for today's everything/everywhere customer doesn't mean being everything to everyone" (Gensler, 2018, p. 6)
- "Having a design that's inspiration also emerges as a key driver of a good experience" (Gensler, 2018, p. 12)
- "Business travelers are also more likely to use hotel amenities" (Gensler, 2018, p. 18)

APA Format Citation

Tucker, L. M. (2015). In *DESIGNING SUSTAINABLE RESIDENTIAL AND COMMERCIAL INTERIORS* (pp. 152–186).

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

Hospitality and tourism is a common focus on design and the luxury of hotel experiences. Local and cultural items are often used to design the interior of boutique and lifestyle hotels to make them unique to their inspiration towards the design of the lobbies, and overall building. With new and upcoming hotels, it is very important for them to be LEED or somewhat LEED standard depending on the city and state authority and jurisdiction is. It is important to have a hotel within the amenities in can withstand and hold the power to it. Restaurants are often found in popular hotel to accommodate some of the higher quality guests and their desires.

The wayfinding's in the restaurants and hospitability is important because the wayfinding lets others lead themselves and being independent within the occupied space of others. This is important for the fact of having the right colors, styles, comfort, materials, etc. Spacing is a big consideration with hospitality design. As people may not like to be close to one another they need to be able to have their own privacy too! And this is a very important factor with design and how it is perceived from others.

Indicate Significant Quotes (with citation following)

- "Lifestyle hotel tends to have a contemporary aesthetic, high levels of technology, and a focus on wellness" (Tucker, 2015, p. 154)
- "Local culture can provide a source of inspiration" (Tucker, 2015, p 184)
- "Boutique hotels has increased in popularity over the past decade" (Tucker, 2015, p. 153)
- "Boutique hotel as one with fewer than 100 rooms that provides personalized services" (Tucker, 2015, p. 153)
- "The room amenities most impacting a positive experience were location, quality, personalized service and design and hominess" (Tucker, 2015, p. 153)

APA Format Citation

Tucker, L. M. (2015). In *DESIGNING SUSTAINABLE RESIDENTIAL AND COMMERCIAL INTERIORS* (pp. 241-269).

Discuss design issues covered in the article/book. Why are these issues of importance to your design project? How can you integrate the information you have learned into your design project?

The reuse of products is very adaptable in today's world. It is amazing how things can change through the years, and you can use them many years later if their shape is maintained and focused on what is important. Materials need to be examined before any reuse can be determined. This is closest thing to original shape that it has come in. Building that are older and are being restored and reused then all need to be updated to standard code and this is a great deal of extensive work that goes into this and how it may make the workload seem but also make the place end up being a brand-new interior in some cases.

With new building structure it must follow code to the new and updated city laws or area codes. This is all because as it is remodeled then this needs to be updated to follow code in order to be safe for guests to use any type of structure. Restoration is very important in some places and circumstances, but it also needs be followed and often times restored back to its closest original state that it was in before restoration. IBC codes must be followed in order for the building to be cleared for construction and rebuild. Although this is very important in restoration build, it is important through all types of builds, and if reusing old material on a new construction project. Reuse of materials is a good thing for the future of the Carbon Footprint that we are making on our Earth. This type of design makes the space unique and how it originally felt in some ways to make it feel alive and still an inviting space.

Indicate Significant Quotes (with citation following)

- "Structural soundness of an older building before any subsequent planning or work can be initiated." (Tucker, 2015, p.242)

- "The exterior might be identified as a preservation zone while the interior is an adaptive reuse zone" (Tucker, 2015, p. 245)
- "Preservation places a high premium on the retention of all historic fabric through conservation, maintenance, and repair" (Tucker, 2015, p. 245)
- "Allows for the health, safety, and welfare of the public through alternatives that might not meet the current wording of the IBC but that can help to preserve the historic fabric of the building" (Tucker, 2015, p.247)
- "Existing building is the reduction of virgin material use and the capture of embodied energy contained by the existing materials" (Tucker, 2015, p. 248)

Master Research Table

The Winslow Hotel Master Research Chart - Spring 2021

TOPIC: Sense of Place Theory		**TEAM: J. Price & K. Borgen**
Reference Citation (APA Format)	**Research Findings**[1]	**Design Application**[2]
Lee, J. & Oh, C. (2018). The casual effects of place attachment and tourism development on coastal residents' environmentally responsible behavior. *Coastal Management*. 46 (3), 176-190. doi: 10.1080/08920753.2018.1451728	"Shumaker and Taylor (1982) define place attachment as 'a system of interlocked attitudes and behaviors that refer to the home and the household and reflect the intimacy of strength of the individual's tie to the locale,'" (Lee & Oh, 2018, pg. 178).	• Incorporate local artwork that tells of a story of the environments the guests are in. • Design with local materials and finishes so staff can tell the story of the material and allow the guest to feel at home. • Include appliances and furniture that could be used in a home to reflect the idea of "being home," such as kitchen appliances in a King suite.
	"Place identity is developed based on feelings and perceptions that individuals have accrued from unique experiences with the place; providing memorable experiences that can help them recall the positive feeling from the place could thus increase their level of emotional attachment," (Lee & Oh, 2018, pg. 186).	• Bring is pieces of artwork that make a statement and are memorable, whether it be large in scale and bold in color. • Incorporate interactive elements throughout a hospitality setting that encourages a unique experience, such as an interactive information center or movable furniture. • To create a memorable experience, offer furniture that is movable to encourage conversation. Offering movable furniture or furniture layouts that are circular to encourage gathering promotes an emotional attachment.
Lee, J. & Severt, D. (2017). The role of hospitality service quality in third places for the elderly: An exploratory study. Cornell Hospitality Quarterly. 58 (2), 214-221. doi: 10.1177/1938965516686110	"Third places are defined as 'public places that host the regular, voluntary, informal and happily anticipated gatherings of individuals beyond the realms of home and work,'" (Lee & Severt, 2017, pg. 215).	• Offer various seating areas that encourage conversation. • Allow the acoustics of the environment to be suitable for conversation to be held, but not create a noise. • Accent lighting can be used to display local artwork which may draw traffic towards the artwork. Informal gathering and conversation may arise, creating a warm and welcoming environment. • Incorporate assorted colors throughout the design that are memorable and attract people. Bold colors or a strong use of texture can cause people to wander, encouraging involvement and being comfortable.
	"According to the relational third-place theory framework (Rosenbaum, 2006), older consumers develop meanings to a particular place based on their ability to satisfy consumption (i.e., food, prices, ambient conditions, layout of the place), social and emotional needs through companionship, and emotional support in a particular place," (Lee & Severt, 2017, pg. 215).	• Offering an accessible layout, such as the lobby furniture arrangement, will help for easier movement and the ability to be comfortable in an environment. • Incorporate local finishes and materials that the employees are well-educated on so they can tell the story of the design to the visitors. This encourages

		conversation, depth, and education on the hotel, offering a unique and home-like experience.
Rather, R., et al. (2019). Tourism-based customer engagement: The construct, antecedents, and consequences. The Service Industries Journal. 39 (7-8), 519-540. doi: 10.1080/02642069.2019.1570154	"These findings therefore offer strategic value to managers in terms of their customer experience design… is advised to focus on the development of customer-perceived place authenticity and attachment. Sample ways in which managers may achieve this goal include offering rich, detailed information (e.g. on interactive displays) regarding the site's historic development…" (Rather, et al, 2019, pg. 533).	• Designed with display boards and/or plaques to describe historical value of finishes. • Have audio playing in the background of a room describing the original purpose of the building. • Educate staff on historical elements of the design.
	"… it will be important to offer personalized content options that allow customers to select that content they are most interested in (Hollebeek & Macky, 2019). To stimulate their engagement, emerging techniques such as virtual reality may be used to simulate and bring back to life significant events," (Rather, et al, 2019, pg. 533).	• Offer televisions with video presentation of old historical pictures and original designs. • Incorporate a virtual reality service that guests of all ages can use to feel welcome in the space and understand the design of the building.
Jiang, Y., Ramkissoon, H., Mavondo, F. T., & Feng, S. (2016). Authenticity: The Link Between Destination Image and Place Attachment. Journal of Hospitality Marketing & Management, 26(2), 105-124. https://www-tandfonline-com.ezproxy.lib.ndsu.nodak.edu/doi/pdf/10.1080/19368623.2016.1185988?needAccess=true	"There is abundant evidence in recent literature indicating the focal role of customer perceptions in the relations between marketing stimuli and marketing outcomes. The restaurant image is found to be a significant antecedent of customer perceived value, which is informative upon customer satisfaction" (Ramkissoon, et al., 2016, pg. 110)	• Design an inclusive restaurant/dining option that adheres to the brand of the entire hotel • Use elements such as color, shapes, and textures to entice the users of the space to want to be in the space • Include inviting music to persuade the users into the space.
	"Authenticity has been widely recognized as the fundamental motivation for visitors and an essential concept in tourism." (Ramkissoon, et al., 2016, pg. 105)	• Create a brand for the entire space of the Winslow hotel to allow the space to be deemed "authentic" • Use matching line styles and patterns around the entire hotel to keep the brand. • Incorporate different elements of the building's past to keep an authentic atmosphere.
Debenedetti, A., Oppewal, H., & Arsel, Z. (2014). Place Attachment in Commercial Settings: A Gift Economy Perspective. Journal of Consumer Research, 40(5), 904-923. doi:10.1086/673469	"Security. Our participants frequently refer to their treasured places as safe havens that provide comfort, support, and shelter." (Debenedetti, et al., 2014, pg. 913)	• Incorporate secure entrances and exits to give the users of the space a safe place. • Use wayfinding to help direct in the case of emergency
	"consumers feel strongly attached to provide an experience that goes beyond what consumers believe that the market usually offers." (Debenedetti, et al., 2014, pg. 909)	• Create unique experiences for the users of the space. • Incorporating inviting color schemes and patterns to draw in the users to the space.

TOPIC: Acoustics		**TEAM: M. Sosa & J. Hoefler**
Reference Citation (APA Format)	**Research Findings**[1]	**Design Application**[2]
Arsenault, P.J. (2020) Designing for better acoustics. *Architectural Record,* 102-109.	Poor acoustics or exposure to unwanted noise in buildings negatively impacts the ability of people to concentrate, be productive, learn, or carry-on meaningful conversations. (Arsenault, 2020, pg.102)	• Careful consideration to acoustics as it has a direct impact to the guests and their experiences as well as the staff doing their work
	Specific strategies related to common interior surface, including walls and ceilings[...] doors and operable walls is addressed to maintain acoustical separations. (Arsenault, 2020, pg.102-103)	• Design solutions to consider for acoustical properties: o Walls o Ceilings o Doors and Frames
	One such measured test focuses on sound transmittance and measures how much sound passes through a given material or assembly. This test is referred to as a sound transmission class (STC). […] The higher STC rating, the more sound that does not transmit […] With an increased focus on acoustics, human heath, and worker productivity, higher STC ratings are more routinely specified in buildings[...] gypsum board partitions require enhancements beyond conventional gypsum panels provide. (Arsenault, 2020, pg. 104)	• For designers it is imperative to know what tests and their results mean when specifying materials. o STC- The higher the less sound transmits, seen in wall ratings o When specifying, use tests and results as a way to navigate the best choice • Previous gypsum board partitions can no longer deliver the acoustical properties without specifying, use additional technology to make walls a acoustical barrier
	Common requests for building spaces to be more open and more flexible in the ways that they are used[...]A popular solution to this is to use opening glass walls. (Arsenault, 2020, pg. 106)	• Glass walls can deliver on many client requests. o Offer privacy if glazing is provided o Opening of spaces o Acoustical properties
	Doors in particular are needed for access, but if they are not addressed acoustical, then unwanted sound transfer and noise will be unwelcome intruders. […] Addressing not only the operable door itself but also the door frame that couples the door with the wall. […] Doors and frames are acoustically tested according to the same standards as other building components [...]ASTM E-90 & ASTM E413. […] Steel doors and frames are widely used in commercial buildings of all types and can be readily specified to provide a full rander of acoustic performance. (Arsenault, 2020, pg. 108)	• Doors and Frames can also offer acoustical properties to the space. o It is imperative that the door and frame are both specified similarly as it will deliver the promised acoustical results. o Door and Frame ratings pertaining to acoustics: ▪ ASTM E-90- airborne sound transmission loss of building partitions, operable partitions, floor panels and other space-dividing elements. ▪ ASTM E413- How well an acoustic door reduces the amount of sound transfer between two sides of the door. The higher the better in terms of acoustic transfer. • Commercial buildings use steel doors and frames. Adhere to the best construction type of the boutique hotel
	The shape of those spaces (ceilings and walls) and the type of surface treatments all impact the acoustical performance of the space […]	• PET Felt- Sustainable material that provides great acoustical properties.

	One material has emerged as popular and proven chose to create acoustical products from [...] PET felt. […] Noise Reduction Coefficient: individual materials can be formally tested according ASTM C423. [...] Commonly viewed as percentage to measure the rate of sound absorption. (Arsenault, 2020, pg.109)	• Research other materials that offer both aspects of sustainability and acoustics. • When it comes to materials and their acoustical tests, the NRC is important to understand. o NRC-Measures the rate of sound absorption of materials on a scale of 0-1. The higher, the better absorption of material instead of reflection.
Ismail, M.R. (2010). Acoustics hotel design criteria and challenges in Egypt. 717-730.	Ensure reduction of: exterior noise generated and caused mostly by traffic, noise transfer by air or building internal or external skin from adjacent spaces, background noise produced by mechanical installations and equipment of the building (Ismail, 2010, pg.718)	• Careful consideration to the exterior noises: o Analyze location and proximity so that the designer plans uncontrollable noises • Careful considerations to interior noises: o Plan for mechanical spaces to be far enough to not cause acoustical disruptions o Place appropriate acoustical rated walls around mechanical spaces.
	High isolation occurs when activities in adjacent rooms are radically different. […] Stereo TVs will require higher STC ratings compared to the older mono systems. (Ismail, 2010, pg. 719)	• Consider the variety of guest activity throughout the day o Ex. TV on in one room while the other sleeps. o Space plan furniture layout to minimize transfer of noise
	Analysis of the proposed construction with regard to the acoustic considerations and to identify potential noise areas. Spaces to consider: hotel rooms, lobby and lounge, restaurants, spa areas, retail areas, and conference areas. [...] Assess the existing background noise level in the vicinity of the development. (Ismail, 2010, pg. 719)	• Designer must consider these aspects prior to moving on with design process as it will reduce the need to change plans • Analyze and plan for desired acoustical levels between different spaces • Analyze proximity to exterior business and its effect noise and traffic
Jablonska J., Trocka-Leszczynska E., Tarczewski R. (2019). Sound and form in public spaces of contemporary hotels. Advances in Human Factors, Sustainable Urban Planning and Infrastructure, 216-225. https://doi.org/10.1007/978-3-319-94199-8_21	One indicator of such design are optimal parameters of sound field, which are connected to architectural and furnishing forms and materials, used in hotels public spaces. (Jablonska, et al., 2019, pg. 2)	• Acoustic properties can also be seen in the overall architecture and interior design of the space. o Walls, Columns, Ceilings and Floor o Furniture, Window Treatments, Interior Materials, and Interior Finishes • Acoustic affect ambience pertaining to the open public areas, must consider the desired levels of permitting sound and sound transfer
	In the hotels' public spaces legibility of speech and good conditions for listening music are important. Also reduction of inner noise and creation of spaces providing intimacy of conversation are crucial. […] Depending on form, related to its dimensions, volume of the room and the method of architectural compartments shaping, each interior will offer different acoustical conditions. This concerns also its' guest capacity, thus number of people visiting per spaces, furniture type and placement, as well as building and finishing material used. (Jablonska, et al., 2019, pg. 3)	• Guests are encouraged to not only interact with staff but as well as other guests. *Promote* these engagements by promoting area of conversation with higher acoustical materials. • Consider architectural design solutions and their impact on acoustics of the space. o Larger rooms require additional acoustical materials and solutions o Forms, shape and height of the space will change the desired acoustical needs for the space

		○ Occupancy and flow of traffic need to be taken into consideration as well
	For public spaces of hotels reflection and diffusion of acoustical sound waves are a proper and needed phenomenon, providing the interiors with impression of liveliness and users with spatial orientation and safety. Materials connected to this include; glass,wood, concrete, and plaster. (Jablonska, et al., 2019, pg. 6)	• Research a material's acoustical properties will help reach the optimal acoustical preferences in a space. ○ For example; glass, wood, concrete and plaster reflect and diffuse sound if placed in the proper areas.
	Contemporary hotels are vast [...] it is crucial to provide limitations to reflections[...] places when intimacy is required, guests should not hear each other at separate tables. […] Vast halls, corridors, bars and cases, it is especially required to absorb substantial portion of acoustical energy. It is done with use of soft, porous materials[...] This can be carpet, curtains, furniture with soft upholstery, wall textile & etc. (Jablonska, et al., 2019, pg. 9)	• Consider amount of vast spaces within design solution ○ This leads to unwanted reflections of space ○ Vast areas include; hallways, corridors and bars • Acoustical solution would be including porous and soft interior materials to combat sound reflection
	In contemporary hotel public spaces, there are usually combinations of all solutions. […] With the applications of simple means and clear architectural acoustical solutions, the space is comfortable, functional and friendly to users. (Jablonska, et al., 2019, pg. 10)	• Public spaces while needing to balance the connectivity between staff and guest, should also balance the acoustical levels of the space. ○ Important to consider comfortability, safety, and layout within the space • For example, the absence of ambience noise or noise in general can evoke uncomfortability ○ With all the research available, it will be imperative to combine and use a variety of methods to come up with acoustical design solutions
Strobele, N., & De Castro, J.M. (2004). Effect on ambience on food intake and food choice. *Nutrition*, 20(9), 821-831. http://doi.org/10.1016/j.nut.2004.05.012	Ambience is that consists of 'parts of the environment that are hard to localize and that surround the organism integrally like temperature, sound smell and so on' with 'potential for impinging upon human functioning at nearly all levels- physiology, motivation, mood, behavior, cognition, and social interaction'. (Strobele & De Castro, 2004, pg. 821)	• Ambience has a large impact on guests and how they experience restaurants ○ Acoustics and sound perception to guests will play a significant role as part of the holistic ambience of the hotel. ○ Use all aspects of ambience to cohesively set the ambience for the space
	Social facilitation appeared to take place regardless of time of day,place, or whether the participants ate a meal or a snack. Weekends and holidays usually involve eating with more people[...]Social facilitation also seems to influence people's drinking behavior. (Strobele & De Castro, 2004, pg. 822)	• Promoting social interactions between guests and staff is imperative for the ambience of the setting, plan for appropriate acoustical solutions in: ○ Restaurant/Dining Spaces ○ Bars ○ Lounge areas with snack spaces ▪ Regardless of time or place, guests will have interactions • Hotels and Restaurants are more inclined to house more guests during the weekend, using appropriate acoustical solutions in these spaces will allow for acoustical control in the whole hotel

	A relaxing ambience might diminish the awareness of the amount consumed. (Strobele & De Castro, 2004, pg. 823)	• Planning for restaurant acoustics can help guests stay longer in these spaces and in return promote more food and beverage consumption, profiting the hotel.
	Chosen music is meant to shield one party from the other and to neutralize noises from guests or from the kitchen.[...] It can also support relaxation or change mood[...] Increasing auditory stimulation led to an increase in total consumption. (Strobele & De Castro, 2004, pg. 829)	• Implement the correct sound system that can play music at a comfortable level to distract back of house noises and other guests.
Abdulaali, H. S. (2020). A Review on Green Hotel Rating Tools, Indoor Environmental Quality (IEQ) and Human Comfort. International Journal of Advanced Science and Technology, 128-157.	"Acoustical Society of America (ASA) claims that in a vacant space, the noise should not exceed 35 decibels in the background and the ultimate reverberation can vary from 0.6 to 0.7 seconds." (Abdulaali, 2020)	• Keeping the noise at a comfortable level for customers has shown to be healthy and allowed for a more comfortable experience as a whole. • Less reverberation leads to a quieter room which can cause a larger room to feel more private.
	"Moreover, "noise and reverberation have lowered the speech intelligibility rating to 75 percent, meaning that the average listener picks up only 75 percent of what is said." Since the background noise should not be more than 35 decibels than suitable and a controllable music is advised for improving space ambience and it helps at rising alertness and relaxation." (Abdulaali, 2020)	• Keeping sound levels to a more comfortable level raises the relaxation among those enjoying the space. • Reducing background noise makes people within the space more alert to uncommon occurrences or potential dangers, creating a safer environment.
	"Excessive noise can negatively affect psychosocial relationships and working performance‖, in addition to initiating several health problems like high blood pressure and hearing loss." (Abdulaali, 2020)	• It's been shown that excessive noise can be detrimental to health and developing social skills. • Providing good acoustical absorption is proven to contribute to a healthier lifestyle.
Torresin, S. (2020). Acoustics for Supportive and Healthy Buildings: Emerging Themes on Indoor Soundscape Research. Architecture and Salutogenesis: Beyond Indoor Environmental Quality.	"The awareness of sound and noise, and the potential for better acoustic design, would radically change current design practice, providing designers with a wider variety of technologies and approaches to be applied to the source–receiver path in order to shape regenerative buildings." (Torresin, 2020)	• Sound and noise are two separate entities, and knowing the difference between the two will lead to a better design. • Sound is what we hear. Noise is an unwanted sound. The difference between sound and noise depends upon the listener and the circumstances. Rock music can be pleasurable to one person and an annoying noise to another. This difference in terminology might affect how we see design acoustically.
	"When designing masking strategies in indoor spaces, those should be based on the appropriate combination of indoor and outdoor sounds according to people's perception (i.e., wanted versus unwanted sounds)."(Torresin, 2020)	• Some sound is wanted in a space while other sound might not be. For the Winslow building in particular, an urban setting might warrant some urban sound from below with car horns or voices. • Including different spaces for quiet environment, while also including a more atmospheric environment with a soundscape for other spaces could be provided for more variety.

	"However, natural features (e.g., fountains) and active systems playing sounds should not be relied upon as a substitute for good acoustic design. Added sounds can be very controversial. If used, they must fit the intended purpose of the space in order to create supportive environments suited to the tasks to be performed and peoples' personal preferences." (Torresin, 2020)	• Plants, fountains, or music shouldn't be seen as acoustical design, but rather an element that might enhance a space's soundscape when needed. • Each space should be seen as its own, and the acoustics of the space designed in accordance to it. • Use acoustical elements as necessary and apply additional background effects or sounds after where appropriate.
Nowicka, E. (2020). The acoustical assessment of the commercial spaces and buildings. *Applied Acoustics*.	"Reverberation time has a strong influence on the perception of speech intelligibility." (Nowicka, 2020)	• Include materials and solutions to reduce reverberation to improve speech intangibility.
	• "room volume – noise level greatly affects the reverberation time in all spaces. Excess noise has a negative impact on verbal communication and perception of speech sounds, and that is why this architectural parameter has to be taken into account when evaluating acoustic quality. Volume can also negatively contribute to an increase in the reverberation noise." (Nowicka, 2020)	• Items and furniture in rooms greatly impact a room's acoustic design. An emptier room needs more effort put into its materials and solutions to reducing noise and reverberation. • A room's size also needs to be taken into account when designing for acoustics. The larger the room is, the more effort needs to be put in to make sure there is less reverberation and noise reflection on the walls. • Include wall decorations or acoustical barriers to reduce noise reflection.
	"the presence of constant, active noise sources, such as ventilation and air-conditioning systems, increases sound levels in spaces, and this markedly compromises acoustic quality, especially that of atrium spaces. High levels of noise may render verbal messages unintelligible (both in the case of direct communication and through public address systems). If there are many sources of sound in a very big space, energy accumulation will cause high background noise level. The adverse impact of increased background noise levels is taken into account in the assessment of the acoustic quality of all commercial spaces, because this phenomenon has been widely described in existing literature and is taken into account in acoustic quality assessments relating to many other types of spaces." (Nowicka, 2020)	• Be aware of mechanical and ventilation in each space and how much noise it might make. Incorporate appropriate solutions to mask these sounds or reduce them significantly. • Limiting the number of sources of sound in each room or space reduces the amount of acoustical barriers and solutions needed to hide them.
	"The acoustics of space will depend on the material and interior finish of the building and the room. The type of materials used in the building and the room and their sound-absorbing properties will have a huge impact on the acoustic quality. Ceilings, walls, floors, furniture and the number of people occupying space play a big role in this." (Nowicka, 2020)	• Materials used will affect the acoustics of the space. Each material has an acoustic rating and this should be noted before selecting a material to be used in certain areas as their reverberation or sound absorption might be too high for that location. • Finish materials and furniture also play a role in the overall acoustic design of the space. Using materials and furniture that complement the area while also providing good

		acoustical health is necessary in a design and should be thought of early in the design process.
Milo, A. (2019). The acoustic designer: Joining soundscape and architectural acoustics in architectural design education. Building Acoustics and Health, 83-112.	"In 2014, the standard ISO 12913-1:2014 has defined the soundscape as 'the acoustic environment as perceived or experienced and/or understood by a person or people, in context', where the acoustic environment is 'sound at the receiver from all sound sources'. Such sound from all sources can be 'actual or simulated, outdoor or indoor, as experienced in memory'." (Milo, 2019)	• Defining a soundscape is the first step to understanding what acoustical materials or blocking you want in a particular space. Understanding how guests should feel when entering a room based on the sound alone can be a positive experience physically and mentally.
	"A respect for the ear and voice – when the ear suffers a threshold shift or the voice cannot be heard, the environment is harmful." (Milo, 2019	• Having the mindset of understanding and respecting other's auditory senses and desire for communication is the correct response to learning to design for acoustics. • Harmful auditory experiences will have a customer or guest react negatively to a certain soundscape or area as a whole.
TOPIC: Guest Experience		**TEAM: J. Mueller & Z. Erickson**
Reference Citation (APA Format)	**Research Findings[1]**	**Design Application[2]**
Beer, E. (2015). Creating the Best Guest Experience. *MEED: Middle East Economic Digest*, 8–9.	All of our studies show customers hate electronic curtains, for example. They might be good for your home, if you know the system and how it works, but not in hotels (Beer, 2015, p.8).	• Avoid complicated technology interfaces.
M., Lee, S. (Ally), & Koh, Y. (2019). Multisensory experience for enhancing hotel guest experience: Empirical evidence from big data analytics. *International Journal of Contemporary Hospitality Management, 31*(11), 4313–4337. https://doi-org.ezproxy.lib.ndsu.nodak.edu/10.1108/IJCHM-03-2018-0263	Providing customers with unique, positive, and memorable experiences can enhance customer satisfaction and loyalty and ultimately provide hospitality companies sustainable competitive advantages by differentiation (Lee & Koh, as cited in Walls, 2019, p.4314)	• Provide opportunities for unique experiences to differentiate from the market.
	Technology adoption facilitates co-creation elements, thereby resulting in service innovation and competitive advantage gain (Lee & Koh, as cited in Chen, 2019, p.4319)	• Adapt new technology to create service innovation like Nests for thermostat control, voice/app control for lighting, and smart shower controls. High end service could have your shower programmed to a specific temperature so you don't have to do it yourself.
	Thus, hotels should stimulate all five senses of customers to enhance customers' consumption experience to address the intangible characteristics of the hospitality industry (Lee & Koh, 2019, p.4322).	• Provide touchpoints that immerse guests in their senses. Lobby could have music, custom scent, complimentary chocolate, plush furniture, and an artistic focal point to satisy the senses.
	When a customer has a positive multisensory experience, that experience amplifies the customer's positive affect, thereby leading to significantly higher satisfaction. By contrast, when a customer has a negative multisensory experience, that experience amplifies the customer's negative affect, thereby leading to significantly lower satisfaction (Lee & Koh, 2019, p.4330).	• Provide option for guests to purchase home the hotel's scent or food offering to reinforce brand recall.

Lo, A., & Yeung, M. A. (2020). Brand prestige and affordable luxury: The role of hotel guest experiences. *Journal of Vacation Marketing, 26*(2), 247–267. https://doi-org.ezproxy.lib.ndsu.nodak.edu/10.1177/1356766719880251	At present, luxury is not only about status and monetary value but is increasingly being associated with experience, authenticity, and personal transformation (Lo & Yeung, as cited in Yeoman and McMahon-Beattie, 2020, p.247).	• Provide authentic experiences for guests through genuine guest to staff interactions, local food, and architecture/design that pays tribute to the location.
	The concept of luxury travel is no longer just about price or material goods but the growing importance of experiences (Lo & Yeung, as cited in Euromonitor, 2020, p.248).	• Design areas that foster the creation of experiences like sitting areas that encourage conversation and lounge areas for guests to bring family and friends. • Concierge should be knowledgeable about the area. Provide a separate concierge area for guests to plan their trip with a local.
	People purchase luxury or prestigious products or services not only for their utility value but also for the hedonic value, such as pleasure and status, associated with them (Lo & Yeung, as cited in Baek et al., 2020, p.249).	• Offer photography for guests to remember their trip and share to social media.
	Walls et al. (2011) suggested the four physical environment (PE) dimensions of a luxury hotel that can influence the five senses of consumers: ambience, multi-sensory, space/function, and sign/symbol/arti- fact (Lo & Yeung, 2020, p.250). LeBlanc and Nguyen (1996) elucidated that PE cues are the most important among the five identified factors that affected travelers' overall assessment of a hotel image (Lo & Yeung, 2020, p.250).	• Create ambience through lighting, furniture, accessories, sound, scent, and layout. Physical environment continually arises as the top 5 most important factors in assessing a hotel's image.
Sipe, L. J., & Testa, M. R. (2018). From Satisfied to Memorable: An Empirical Study of Service and Experience Dimensions on Guest Outcomes in the Hospitality Industry. *Journal of Hospitality Marketing & Management, 27*(2), 178–195. https://doi-org.ezproxy.lib.ndsu.nodak.edu/10.1080/19368623.2017.1306820	Surprises and novelty are considered triggers for memorable experiences (Sipe & Testa, 2018, p.181).	• Incorporate unexpected design elements for a memorable experience like the zebra in the Blake Hotel.
	According to Tung and Ritchie (2011) social interaction is another trigger of memorable experiences. Engaging with others in collective experiences, especially with local people and actual living environments, makes travel experiences more memorable (Sipe & Testa, 2018, p.181).	• Use common areas to promote socialization. • Host events where the local people are invited.
	As consumers become more sophisticated, they are seeking meaningful experiences to satisfy their unmet needs, and these experiences last longer in their memory (Sipe & Testa, as cited in Tung & Ritchie, 2018, p.181).	• Host unique events that are tailored to each guest like cooking lessons from the head chef or a fishing trip with a local guide.
	Entertainment experiences such as watching a theatrical play tend to be passive and involve more absorption than immersion. Esthetic experiences such as a visit to an art gallery are immersive, but in both cases, the participants remain fairly passive. Educational and escapist experiences require active participation on the part of the consumer,	• Offer a range of activities for each unique guest. Yoga, hiking, library, local play, custom tasting/drink menu, or other events are likely to satisfy a range of guests.

	like descending the Grand Canyon (escapist) or taking a ski lesson (educational). Pine and Gilmore contend that optimal experiences encompass all aspects, forming a "sweet spot" (Sipe & Testa, 2018, p.182).	
	Employee interactions are among the most powerful triggers of memorable tourism experiences (Sipe & Testa, as cited in Tung & Ritchie, 2018, p.184).	• Ensure employee areas are given thought as their interactions with guests are among the most important. Provide a relaxing space for them to unwind before heading back to work.
	With so many varying locations for guests to visit, the physical aspects become a central part of the experience (Sipe & Testa, 2018, p.190).	• Design must be distinguishable from other establishments. Cannot please all with design style, but should be unique.
Stone, B. (2019). A Traveler's First Resort: Resort hotels can deliver the authentic boutique-style experience that guests crave. *Food & Drink, 19*(4), 104–107.	Hotels are ideally positioned to connect their guests with the unique people and experiences within the communities in which they operate (Stone, 2019, p.105).	• Collaborate with local businesses to create a unique experience for the guest.
	Offer experiences to foster guest camaraderie and build a sense of resort community (Stone, 2019, p.105-106).	• Host group events like movie night to connect guests and make it open to the public, not just guests.
	Curate experiences for a wide range of tastes (Stone, 2019, p.106).	• Offer amenities for a range of people like a library, spa, outdoor area, pet run, gym, and/or sauna.
	Outsource experiences with local outfitter partners. Guests often aren't aware of the off-resort opportunities available to them (Stone, 2019, p.107).	• Invite local businesses to host events at the hotel. • Create a travel guide with a range of people who have lived in the area for a while.
	"Luxury travelers view the role of a hotel beyond curating authentic local experiences. It is the combination of destination expertise and recreating the comforts of home that creates this trusted relationship and positions the most desirable hotels in the world at the very heart of the travel experience" (Stone, 2019, p.107).	• Create a home-like atmosphere through furniture arrangements, style, lighting, and unique accessories.
Baek, J., Choe, Y., & Ok, C. M. (2020). Determinants of hotel guests' service experiences: an examination of differences between lifestyle and traditional hotels. *Journal of Hospitality Marketing & Management*, 29(1), 88–105. https://doi-org.ezproxy.lib.ndsu.nodak.edu/10.1080/19368623.2019.1580173	"Hotel companies attempt to provide unique and unforgettable memories through the creation of pleasurable experiences using various stimuli/sources. For example, luxury vacation resorts (e.g., Banyan Tree, Shangri-La, and the Ritz-Carlton) specifically focus on color and touch in their guest rooms to please the senses and create a mood for a romantic experience. By contrast, lifestyle hotels enhance hotel guest experience by providing public spaces for social interactions among guests" (Baek et al., 2020, p. 90).	• Use color as a focal point to provide a unique experience • Utilize human sense though textures and visual indicators
	"Our findings indicated that the guestroom is most important to hotel guest experiences for lifestyle.	• Provide features in the guestrooms that connect the spaces together.

	Guestroom-related words appeared second most frequently in online reviews (followed by employee interaction) for lifestyle hotels and substantially more frequently than for traditional hotels" (Baek et al., 2020, p. 97).	• Include unexpected amenities that lend a hand towards a memorable impression.
Berezan, O., Millar, M., & Raab, C. (2014). Sustainable Hotel Practices and Guest Satisfaction Levels. International Journal of Hospitality & Tourism Administration, 15(1), 1–18. https://doi-org.ezproxy.lib.ndsu.nodak.edu/10.1080/15256480.2014.872884	"For example, Robinot's and Giannelloni's (2010) study found that customers evaluated the reuse of linens and towels as a basic attribute that they expected from hotels, and the absence of such an attribute was considered to have a negative effect on guest satisfaction" (Berezan et al., 2014, p. 4).	• Encourage the reuse of towels and linens through by using signage
	"Hoteliers can maximize product marketing if they understand what satisfies their guests and who their guests are. Satisfaction with a hotel recycling policy appears to be one fairly simple way that a hotelier may tap into guest satisfaction" (Berezan et al., 2014, p. 13) "Regarding satisfaction, respondents placed the highest level of satisfaction on having a hotel recycling policy in place" (Berezan et al., 2014, p. 13).	• Provide a recycling location throughout the space
	"Satisfaction with a hotel recycling policy appears to be one fairly simple way that a hotelier may tap into guest satisfaction. It may also be used as a tool to attract or retain guests by incorporating management actions such as providing recycling programs in ways that are obvious to the hotel guest, or including it in promotional efforts for the hotel" (Berezan et al., 2014, p. 13).	• Provide clear information about the hotels green initiatives to help engage the guests
Cetin, G., & Walls, A. (2016). Understanding the Customer Experiences from the Perspective of Guests and Hotel Managers: Empirical Findings from Luxury Hotels in Istanbul, Turkey. Journal of Hospitality Marketing & Management, 25(4), 395–424. https://doi-org.ezproxy.lib.ndsu.nodak.edu/10.1080/19368623.2015.1034395	"For instance, although smooth check-in is important, hospitality emerges when the process is performed with a warm smile and genuine care (Smith, 1994)" (Cetin & Walls, 2016, p. 400).	• Provide a clear and easy to access lobby check-in location
	"A majority of respondents agreed that accommodation is an important element of their travel experience in varying degrees. For example, G231 said, "although we do not use the hotel much during day time, I want to return to a relaxed, comfortable, and quiet environment after a long day" (Cetin & Walls, 2016, p. 406).	• Offer a wide assortment of amenities like a fitness center, spa, pet friendly areas, outdoor recreation space, café for relaxation

	"Carbone and Haeckel (1994) surmised that mechanics and humanics comprise two types of contextual cues. The "sights, smells, tastes, sounds, and textures generated by things" comprise mechanics (Carbone & Haeckel, 1994, p. 13) such as physical environment, quality of lobby décor, aromas, and so on. Humanics, on the other hand, involve the human interrelationships that emanate between employees and fellow customers.These two constructs are generally considered to be at the heart of consumers' experiences as noted in previous research (Bitner, 1992; Carbone & Haeckel, 1994; Hirschman & Holbrook, 1982; Schmitt, 1999)." (Cetin & Walls, 2016, p. 398-399).	• Incorporate the use of textures through a variety of mediums • Utilize décor that helps explain the local environment
	"Guests valued authentic details and physical clues (ornaments, food, carpets, curtains, and fresh flowers) that represent the locality" (Cetin & Walls, 2016, p. 407).	• Team up with local businesses to provide elements like fresh flowers or décor.
	"Guests also valued local symbols such as hand-made ornaments, paintings, carpets, and authentic details that make them realize that they are in a different environment" (Cetin & Walls, 2016, p. 410).	• Include local art and materials in the hotel.
	"What makes a boutique experience unique is that the staff is able to respond immediately to whatever the problem is. They have personal relationships with the guests on one to one" (Cetin & Walls, 2016, p. 419).	• Design the pathways to allow for easy access to the to the staff
Kariru, A. N., Kambona, O. O., & Odhuno, E. (2017). Enhancing competitiveness through guests' experiences: A typology of customer experiences in upscale hotels. *International Journal of Hospitality & Tourism Administration, 18*(4), 361–392. https://doi-org.ezproxy.lib.ndsu.nodak.edu/10.1080/15256480.2017.1289137	"A number of guests kept in memory the accommodation and unique amenities such as spacious rooms, spas, Jacuzzis, saunas, bathtubs, steam baths, swimming pools, extra-large beds, comfortable beds, satellite TV service, and free Wi-Fi, which they held were impressive and of high quality" (Kariru et al., 2017, p. 374).	• Offer a wide assortment of amenities like a fitness center, spa, pet friendly areas, outdoor recreation space, café for relaxation
	"Guests' experiences can enhance organizational performance by satisfying customers through giving them memorable experiences created via themes such as atmosphere, services, communication, and products (Williams, 2006) thus influencing their emotions, generating competitive advantages (Tsaur, Chiu, & Wang, 2007) and repeat business" (Kariru et al., 2017, p. 363).	• Design the lobby to allow for communication among guests and staff members

	"Torres and Kline (2013, p. 648), on the other hand, found that "delighted customers are those who have had an extraordinary experience in a hotel: making their stay memorable-that is making their stay an experience." The two authors revealed the most frequently mentioned attributes of customer delight to include "catering to guest needs, staff friendliness and professionalism, exceeding expectations and high-quality food and beverage with aspects such as lobbies, entertainment facilities, pools, use of guest name and creativity in service delivery being less important" (p. 642)" (Kariru et al., 2017, p. 364).	• Design a snack area in the lobby for late night entertainment allowing for guest interactions
TOPIC: Artificial Lighting		**TEAM: H. Schumacher & A. Bowman**
Reference Citation (APA Format)	**Research Findings[1]**	**Design Application[2]**
Arikan, M. (2012, February). Effects of Lighting in the Creation of the Character of Spaces in Hotel Environments: The Case study of Lobbies of Hotels Designed by the Idea Mimarlık Company. *Eastern Mediterranean University*, 12, 56-91.	"Architectural lighting controls within five star hotels are considered this type of lighting can allow for the owner/manager to create the desired effect in enhancing the overall space performance and experience, in addition to providing maintenance and energy costs (Ilumin-intelligent control, n.d.): Enhance visual effects by highlighting architecture or finishes, Create different moods in different spaces during different times of day, Manage energy costs better with real-time energy metering, Extend lamp life by dimming to reduce expenses, Dim or turn lights off with timeclock/sensors innon-crucial spaces, Integrate with BMS, A/V, Security, or Emergency Systems" (Arikan, 2012, pg. 56-57).	• Provide dimmer switches on all fixtures applicable – allows guests to set their own mood/ambiance. • Use spotlighting to accentuate artwork or architectural features.
	"Authenticity must be emphasized through lighting within the dining area, accordingly with the catering concept whether they follow traditional concepts, fine dining, cool or exotic" (Arikan, 2012, pg. 62).	• Change or use dynamic lighting in the café area to distinguish design intent. • Consider sustainability – energy-efficient fixtures throughout the hotel to emphasize the mission.
	"Each guest desires different lighting levels for reading, writing, and watching TV similar to home. Guests expect at least as many features as they have in their home by providing control of lighting, integrated with shades, audio visual components, and temperature" (Arikan, 2012, pg. 65).	• Include various types of general, task, accent, and ambient lighting for guests to utilize within the room. • Ensure some of the fixtures can be manipulated/dimmed. • Provide hand-held lighting controls in guest rooms.

	"Some of the guest's experiences that long corridors disorientate them and make them feel claustrophobic. Good lighting solutions help to eliminate this and reverse this effect, with the illumination of walls, ceilings, pieces of furniture, helps to break the monotone aspect of corridors" (Arikan, 2012, pg. 68-69).	• Provide plenty of lighting within hallways and corridors for guests to navigate safely. • Utilize lighting for wayfinding as well as general lighting. • The lighting should interact with the whole design, not feel like it doesn't belong.
Harsritanto, B., Ratnasari, C., & Setiawan, D. (2020, April 21). The application of artificial lighting in hotel room: Grand Anugerah Hotel and Sae inn, Kendal. *MAJ: Malaysia Architectural Journal.*	"The habit of covering the windows with curtains has maximized the demand for artificial lighting. The artificial light itself was mostly illuminated by lamps system and sometimes using the other illuminating devices (Setiawan and Hartanti, 2014; Nur Laela Latifah, 2015). The room environment can be changed into several themes just by the different applications of lamp sets in a specific spot of the room (Rees, 1999)" (Harsritanto, et. 2020, pg. 1).	• Provide lamps for variations of light within the room. • Provide a blackout curtain and thinner curtain to control natural light.
	"The level of lamp illumination also affects the psychological to the human who lives on the room as described by Yu and Akita (2019) that cooler light in high intensity and the warmer light in low intensity can create a more comfortable environment" (Harsritanto, et. 2020, pg. 2).	• Provide levels of light that portray the ambience you want to achieve – cooler vs. warmer light.
	"More than 5500K looks so cold, 3000-5300 looks medium, below 3000K seems warm. The higher colour temperature made human fresher and highly concentrated and in opposite cold colour could bring relax conditions" (Harsritanto, et. 2020, pg. 2).	• Provide high levels of Kelvin for fresher light and lower levels of Kelvin for warmer light. Warmer light tends to bring more relaxing conditions. • Provide various levels within the room based on the tasks being done in that area.
	"Grand Anugerah is using the lamp for illumination purposes only while Sae inn brings the aesthetic function of the lamp" (Harsritanto, et. 2020, pg. 8).	• Ensure the lamps/lights are aesthetically pleasing in your design solution as well as functional.
Jen, L. (2006). Lighten up. *Canadian Architect*, 51(9), 70–79.	"The system is equipped with dimmer switches to permit flexibility in lighting control. Once again, custom-designed light fixtures include Oriental paper lanterns, lending a vaguely romantic and exotic flavour to the space" (Jen, 2006, pg. 72).	• Create custom light fixtures to accentuate the design and provide the exact amount of light intended in the space. • Consider flexibility of lighting – include dimming options in public and private areas.
	"On Colborne Street, vaguely eerie blue-green light and clear signage announce the presence of the hotel's relatively narrow elevation amidst its neighbors, a lighting strategy that continues in the hotel lobby and reception area" (Jen, 2006, pg. 73).	• Pay attention to the exterior lighting and use it to your advantage to make sure the design intent flows from the outside, in. • Strategic lighting is important in the lobby and reception areas where guests are first greeted. This sets their first impression and the tone for their stay.
	"The public areas of the hotel benefit from a variety of artificial lighting effects. In the linear seating area of the main bar, a continuous concrete wall is punctuated at regular intervals with washes of light from a series of Sistemalux light sconces" … "And to enhance the intimacy of the experience, the warmth of	• Utilize shadows from the fixtures to enhance the design. • Use different kinds of bulbs/fixtures to express different light output and color levels.

	candlelight is liberally applied as yet another layer to the entire lighting strategy" (Jen, 2006, pg. 73).	
Kwan, J. (2010, February). Theory Studies: Archetypical artificial lighting practices in contemporary interior design. *Cornell University,* 20-31, 49-54, 100-130, 156.	"In addition to making our surroundings visible, lighting also has the capacity to direct and provide an "indefinable sense of mood and atmosphere" if used consciously and artistically" (Kwan, 2010, pg. 21).	• Utilize lighting to provide the atmosphere and tone of the space that you want to achieve. • Lighting should be used artistically and functionally.
	"Designers found light to be an especially suitable medium for enhancing dynamic architectural forms in minimalist interiors" (Kwan, 2010, pg. 28).	• Apply lighting to enhance architecture within the interior. • Layered lighting can accentuate interior architecture.
	"Patches created by cutout patterns reemerged in the 2000 to 2010 period, primarily in hotels and restaurants. They broke up large spaces, bringing them into a more intimate scale and often contributed to a visual narrative in the interior" (Kwan, 2010, pg. 101).	• 'Patches' of light can create different spaces without the layout needing to do so. • Patches of light can create an intimate area while still being associated with the overall design solution.
	"Philippe Starck, however, broke with this notion when he designed St. Martins Lane Hotel (2000) as an interactive space. Green was among a choice of colors that guests could choose to Color Flood their rooms. (Figures 5.14a-e) Personalizing one's hotel room became a feature of a number of boutique hotels during this period, like St. Martin's Lane; color and light soon became one of the options allowing guests to "paint [their] mood[s]" (Kwan, 2010, pg. 122).	• Personalize guests' rooms with colored lighting options to allow guests to "paint their mood."
	"Float was first identified as an archetypical practice in boutique hotels. Float may be a result of a floor slab inset with structural glass which becomes a lit floor through illumination of the level below" (Kwan, 2010, pg. 130).	• Incorporate lighting into the floor using the 'Float' method. • Incorporate lighting into other areas of the hotel including backsplashes or wall details – onyx is a good stone option for this.
	"Luminous reception desks constitute some of the boldest statements of Light Body found across various practices. A clean, luminous reception desk created an excepting entrance without compromising a sense of professionalism desired by many firms" (Kwan, 2010, 156).	• Provide lighting in and around the reception desk. • Incorporate lighting that involves branding as well as atmosphere intent.
Park, N. (2010). Cultural Preferences in Hotel Guestroom Lighting Design. *36*, 21-34.	"Lighting preferences can differ according to the user of the space or more specifically where they are from." (Park, 2010, p. 22)	• Feature warm/bright lighting in hotel lobby
	In a study on lighting temperature in hotel guestrooms results showed that 62% of American participants preferred warm/dim lighting over bright or cool lighting." (Park, 2010, p. 22)	• Incorporate warm/dim lighting in the hotel rooms.
Lampi, E. (nd). Hotel and Restaurant Lighting. 58-64.	"Finishes and décor can have an effect on the success of lighting." (Lampi, nd, p. 60)	• Be cautious of finishes and metal for reflective purposes.
	The Reflective properties of paint must work with the lighting chosen for the space." (Lampi, nd, p. 60)	• Choose paint sheen that will positively affect lighting.

	"How well we see and how we experience our environment depends on the illumination." (Lampi, nd, p. 60)	• Ensure that lighting levels and placement of lighting allows for users to safely maneuver throughout the hotel.
Barazawa, N. (2013). Japanese Psychological Association. *Effects of Nonuniform Lighting on the Evaluation of Spaces: A Comparison between the Situation with and without Conversation, 55*(No 3), 273-283.	"Non-uniform lighting can be affective in hotel rooms whereas uniform lighting is better for the hotel lobbies. (Barazawa, 2013, p. 282)	• Incorporate layered lighting in hotel lobby • Incorporate non-uniform layered lighting in hotel rooms.
	"Layered lighting can create a more unique space." (Barazawa, 2013, p. 282)	• Include task lighting in work areas or near desks. • Incorporate general and ambient lighting throughout space for a layered look.
Milshtein, A. (2006). Good Day, Sunshine [Abstract]. 112.	"LED's are a practical energy saving option. They last much longer than incandescent lighting and therefore more creative options can be used." (Milshtein, 2006, p. 112)	• Use LED lighting in the interior space. • Incorporate creative eye-catching lighting in lobby area.
TOPIC: Furnishings		**TEAM: S. Garris & A. Stauffenecker**
Reference Citation (APA Format)	**Research Findings[1]**	**Design Application[2]**
McNeill, D. (2008). The hotel and the city. *Progress in Human Geography*, *32*(3), 383–398.	"the boutique or design hotel is usually small in terms of number of rooms, usually independent (many are part of a small chain), often possessing room-by-room distinctiveness and difference and, as noted above, exploiting and adapting unusual architectural spaces" (McNeill, 2008).	• Switch up some of the furnishings from room to room to create distinctiveness between the rooms.
Rogerson, J. M. (2010). The Boutique Hotel Industry in South Africa: Definition, Scope, and Organization. Urban Forum, 21(4), 425–439.	"This counter-movement was inspired by a consumer search for hotels with unique or innovative characteristics." (Rogerson, 2010).	• Incorporate furnishings with innovative characteristics to design a unique design.
	"Design and uniqueness, variously expressed in terms of architecture, buildings and pieces of furniture, are acknowledged to be a major driving force behind the growth of the boutique hotel sector." (Rogerson, 2010).	• Create a unique feel in each room through varying furniture layout.
Ogle, Alfred. (2009) Making sense of the hotel guestroom. Journal of Retail & Leisure Property. Vol. 8, 3, 159–17	"Obata (2001) suggests that hotel rooms become the second homes for many business guests; thus these rooms should be warm, comfortable and inviting, and conducive for the conduct of business." (Ogle, 2009).	• Add is a space for business such as a table and chairs.
	"What the guest expects is an environment in which he or she is comfortable and where the entirety of human senses is stimulated in a positive way." (Ogle, 2009)	• Include furniture that is comfortable and also has a soft upholstery.
	"Cleanliness is a recurring factor in the determination of guest satisfaction with the guestroom." (Ogle, 2009).	• Select furniture that can be easily cleaned and doesn't stain easily.
	"four key points about cleanliness of hotel rooms: odour, visual cleanliness, shininess of bathroom and well-made-up bed." (Ogle, 2009).	• Select furniture with clean edges to make it appear visually clean.
	"The visual aspects of the room contributed most to satisfaction with the guest room, then the smell of the room followed by the surface treatments such as fabrics, linen and furnishings." (Ogle, 2009).	• Select fabrics that are easily cleaned, soft to the touch and visually pleasing

Khosravi, Sharareh, Malek, Anahita, Ekiz, Erdogan. (2014) Why Tourists are Attracted to Boutique Hotels: Case of Penang Island, Malaysia. Journal of Hospitality & Tourism, Vol. 12, No. 1, 2014.	"Boutique hotel is a niche market started in North America and the United Kingdom to describe the modern and luxurious design along with quirky hotel environments." (Khosravi, 2010).	• Design using quirky elements including unique furniture and decor.
	"They were created to focus on the needs of travelers who were tired of sleeping in the same room with the same furnishings in every city they visited" (Khosravi, 2010).	• Create a space that is unique to the location the hotel is at using locally sourced furnishing.
	"rather than simply viewing the hotel as accommodation, clients are looking at the hotel to provide an experience in itself." (Khosravi, 2010).	• Provide an experience by selecting furniture that has a story to be told to the guests
	"Furthermore, McIntosh and Siggs (2005) studied the UK's boutique hotel attributes and discovered that location, quality, uniqueness, services provided and the personalized levels of service offered are the top five attributes attracting respondents to Boutique hotels" (Khosravi, 2010).	• Incorporate furnishings that are quality, unique, and personalized.
Manson, E. (2013). Material world. *Caterer & Hotelkeeper*, *203*(4794), 30–33.	"Operators often need to break up a space or add a sense of homeliness and luxury, and this is where rugs and pictures can be used to great effect and also help with acoustics" (Manson, 2013).	• Clever and intentional accessorizing helps to complete the appearance of the hotel spaces and will make the environment feel more "homey" for guests. • Rugs can assist with dampening acoustic levels if a space has hard flooring.
	"Curtains and wallpaper make a difference to the sound and acoustics within a room, as well as creating a comfortable environment" (Manson, 2013).	• Layering soft materials in both public spaces and guest rooms will contribute to the acoustic management in the hotel while adding more comfort to the environment.
	"Make sure the fabric is fit for purpose: check the 'martindale' or rub test (40,000 for commercial use)"(Manson, 2013).	• All furniture pieces selected should be upholstered with commercial grade upholstery that passes the martindale rub test.
	"Smaller-scale patterns and textured fabrics are great for disguising marks and dirt" (Manson, 2013).	• Smaller scale patterns would be clever to utilize in common areas where seating is shared and used by guests at a higher rate.
	"Select classic designs for drapes that will not go out of fashion, but can be used alongside contemporary fixtures and fittings" (Manson, 2013).	• Choose patterns and designs that can be used for years to come, rather than something too bold or is in current trend and will need to be replaced soon. • Choose designs that complement the other accompanying fixtures, furnishings, and finishes in the space to create a cohesive environment.
	"Be clever with colour. Trends change every season, so start with a neutral base of taupes or greys and then add splashes of colour that can be updated as trends change at minimal cost. This will keep the scheme looking fresh" (Manson, 2013).	• When choosing color schemes, select a palette that will last years rather than seasons. • Bold colors for accent pieces can be layered over a more neutral base environment to be swapped as needed. • The furnishings and finishes will need to be durable and aesthetically pleasing for years to come.
Greco, J. (2012). Hyatt regency minneapolis. *Hospitality Design*, *34*(10), 43–44.	"The project's sustainability ethos began with the elimination of long-haul transport. It continued with the reward of adding jobs and dollars to the regional economy, Suomi points out. But that didn't mean the project suffered when it came to cost comparisons. 'To make sure we stayed competitive, we had our purchasing agent. Stroud Group, bid out to Asian and European	• Locally made products do not cost more than overseas production. • Choosing to buy locally made products will help boost the local economy where the project is located.

	companies,' Suomi says. 'The answer came back that, no, we weren't paying more to have things made locally.' (Greco, 2012, p.43).	
	"Equating local with expensive is a 'kneejerk' reaction, he adds, that doesn't factor in other associated costs such as those involved in packaging, transportation, and time loss" (Greco, 2012, p.43).	• Local sourcing does not mean that it will be more expensive. • Oftentimes prices are heightened when NOT buying local due to packaging, transportation, and wait time. • Buying local will have a shorter wait period to receive product, which is especially beneficial in the hotel industry. The quicker the furnishings arrive, the faster the hotel can serve guests. • It is more sustainable to purchase products as local as possible to avoid excess packaging and transportation costs or emissions.
Gibbons, N. (2001). staying in style. *Leisure & Hospitality Business*, 10-14.	"It has used different local artists and craftsmen to fashion rooms themselves, they might contain a large piece of artwork or matching color schemes and materials. It all feels quite bohemian and is mid-range in terms of price" (Gibbons, 2001, p.12).	• Using local art and furniture to accessorize and furnish the guest rooms will enhance the feel of local comfort, while giving guests a unique experience apart from other hotels in the area • Consider a collaboration with a local artist that can tell the story of the city or hotel location through their art pieces.
	"A hotel's design is judged by its use of public areas. Lobbies, bars and leisure facilities can all contain eye-catching furnishings while containing standard features" (Gibbons, 2001, p.12).	• The furnishing and design of public spaces are also of high importance to the guest's judgement, and approval of the hotel's overall appearance. • Utilize the public spaces as a chance to use eye-catching and custom furniture pieces that would be memorable to guests and provide a more unique experience unlike the standard hotel's appearance.
Sheehan, P. (2007). Design of the Times. *Lodging Hospitality*, *63*(6), 30–44.	"Soothing, luminous colors punctuated by bold detailing impart an intimate spa-like quality throughout. Organic materials such as porcelain, bamboo, glass tile and sheer draped fabric add rich texture and enhance the cooling color scheme" (Sheehan, 2007, p.44).	• Guest rooms furnishings should reflect the intimate, relaxing spa atmosphere as it is the main amenity of the hotel.
	"The guest rooms' white porcelain tile floors create a peaceful, cooling effect while pale bamboo-veneer furnishings and crisp white bed linens create a backdrop for the bold-colored accents of tropical fabric and contemporary artwork" (Sheehan, 2007, p.44).	• Bamboo veneer can give a cooling effect in addition to the relaxing furnishings in the space. • Crisp white bed linens are seen as relaxing, crisp, clean and they provide a backdrop for other design elements to stand out in the guest rooms.
TOPIC: Interior Finishes (flooring, walls, ceiling)		**TEAM: A. Bosch & H. Dobie**
Reference Citation (APA Format)	**Research Findings[1]**	**Design Application[2]**
Interiors & Sources. October 21, 2010. *Hardwood Floor Finishing.* Retrieved from https://iands.design/articles/40560/hardwood-floor-finishing	"For example, wood floors certified by the Forest Stewardship Council (FSC) means the wood has been sourced according to responsible forest management practices. Additionally, durable finishes that are easier to maintain means that wood floors can last for 100 years or more—a life-cycle that few products can match" (Interiors & Sources, 2010).	• Hardwood flooring is a great environmentally friendly option • Extremely durable in high traffic areas • Easy to clean and maintain • Lif-cycle of up to 100 years or more, not many products can match

	"Even when a space is remodeled, hardwood flooring can be changed to match. Wood can be sanded and finished to renew its original look, or stained to change color" (Interiors & Sources).	• When remodeling a space, original hardwood flooring can easily be matched by sanding, finishing and staining new wood
	"Hardwood flooring offers a multitude of health benefits. It does not trap dust, allergens and other particulates. Dirt and debris commonly found in carpet and padding, as well as mold and mildew, also are not present. Finally, there's less waste associated with renewing hardwood flooring as compared to replacing carpet that is stained or worn out" (Interiors & Sources, 2010).	• Hardwood flooring does not trap dust, mold, dirt, debris and other things that trap in carpet, creating a safety benefit for guests • Does not wear easily, meaning less waste from fast replacement
Kloepple, Sarah. December 21, 2020. *How 3form Created Its Globally Inspired Artisan Collection.* Retrieved from https://iands.design/articles/44834/3form-artisan-collection	"New panels and shield guards have certainly been prolific, designed to create more distance between those in commercial environments and to protect employees at forward-facing counters like office receptions, retail check-outs and hotel front desks" (Kloepple, 2020).	• Provides a barrier at the front desk protecting the customers from the front desk workers
	"All of 3form's barrier products, including the Artisan Collection, are bleach cleanable, making them appropriate for healthcare applications. "We see our materials specifically chosen in healthcare quite often," Darby says. "For the cleanability, and then it also allows so much light translucency to come through. It does a beautiful job of that compared to a lot of products"" (Kloepple, 2020).	• Creates sanitary, easy to clean walls for high traffic areas during the COVID-19 pandemic • Allows light translucency to come through, allowing natural lighting into spaces
Dixit, Manish K.; Lavy, Sarel. February 1, 2012. *Wall Finish Selection in Hospital Design: A Survey of Facility Members.* Retrieved from https://web-b-ebscohost-com.ezproxy.lib.ndsu.nodak.edu/ehost/pdfviewer/pdfviewer?vid=6&sid=2d61c37e-2a52-4c62-8d68-fc69676939e0%40pdc-v-sessmgr01	"The color, hue, and saturation that provide character to a hospital interior are essential for the quality of indoor atmosphere; thus, they have a significant impact on the mood and behavior of patients, on the one hand, and on the psychological wellbeing of healthcare staff, on the other" (Dixit; Lavy, 2012, p. 83).	• The colors, hues, and saturations of wall finish selections will have a great impact on the mood a behavior of guests. • Cooler tones provide a more relaxed feel
	"Wall finishes and their materials play an important role not only in creating a healing and comfortable environment, but also in maintaining a clean, nontoxic, and infection-free healthcare facility" (Dixit; Lavy, 2012, p. 96).	• Easy to clean wall finishes such as vinyl help maintain a clean, nontoxic and infection free facility
Interiors & Sources. November 3, 2020. *Felt: A Time-honored Material & Modern Acoustic Marvel.* Retrieved from https://iands.design/articles/44815/felt-time-honored-material-modern-acoustic-marvel	"According to IWBI's research, the human ear has a very specific range of sensitivity with regard to sound. While individual sensitivity to sound will vary, the average range of comfort is between 10 dB and 130 dB. And, it's not just the ear that can experience a negative reaction to excessive, poorly controlled sound. Both sound pressure level and frequency can affect the body in more ways than are commonly realized. One finding in particular points to the connection between sound impact and stress. Noise levels as low as 55 dBA have been discovered to cause an increase in urinary stress hormone excretion. Since the negative effects stress can have on overall health are widely known, efforts to control contributing factors like acoustic levels and sound absorption take on greater importance" (Interiors & Sources, 2020).	• Using felt ceiling systems in the hotel lobby and/or guest rooms will absorb sounds and create a sound barrier in between guest rooms • Allows guests to feel less stressed and more relaxed during their hotel stay

	"With such focus placed on the importance of healthy hearing levels and the overall wellbeing that can be achieved through the thoughtful design of a space's sound quality, acoustic felt ceiling installations become a vital part of an interior's design and the experience occupants will enjoy while there" (Sources & Interiors, 2020).	• Can be used to create a focal point in the lobby • Provides healthy hearing levels for occupants of the space
	"A maintenance team need only dust or vacuum lightly when needed; no special cleaning processes or solutions are required. For best performance, care should be taken during installation and over the lifetime of the installation to avoid or minimize the accumulation of dust and other particles" (Sources & Interiors, 2020). "The felt used for ceiling installations is compatible with industry standard lighting, speakers, and HVAC systems, and meets standards for fire safety and security systems as well" (Sources & Interiors, 2020).	• Easy to clean and maintain, only needs occasional dusting or vacuuming • Easy installation process cuts installation costs
Speck, A. M. (2011). *A cost comparison of sustainable versus conventional interior finishes for a luxury hotel suite prototype* (Order No. 1494916). Available from ProQuest Dissertations & Theses Global. (876011324). Pg. 15-17. https://ezproxy.lib.ndsu.nodak.edu/login?url=https://www-proquest-com.ezproxy.lib.ndsu.nodak.edu/dissertations-theses/cost-comparison-sustainable-versus-conventional/docview/876011324/se-2?accountid=6766	"A typical finish for a wood floor has a VOC level of 15 percent to 30 percent, while an environmentally friendly finish has a VOC level of 6 percent or less. Adhesives, paints, caulk, and varnishes with low VOCs are available for flooring and wall covering installations (Stoessel, 2009; Fox, 1996)." (Speck, A. M. (2011), p. 16)	• Find flooring, wall, and ceiling treatments that have varnishes as well as paint with low VOCs to improve indoor air quality.
	"Many interior finishes such as carpeting, wall coverings, and ceiling tiles can be made from recycled fiber content, and then be recycled again when replacement of the materials is necessary (Stoessel, 2009). " (Speck, A. M. (2011), p. 16) "... flooring should come from a reclaimed or recycled material such as wood from the demolition of another building or recycled content carpet tiles, or a fast-growing wood species such as bamboo or palm lumber. The definition also means that the flooring should originate at a nearby location in order to reduce shipping costs (Mahoney, 2005)." (Speck, A. M. (2011), p. 16)	• Incorporate carpeting, wood, wall coverings, and ceiling tiles that are made from recycled and/or reclaimed materials. • Incorporate materials from nearby locations to reduce environmental impact.
IandS. (2007). American Hardwoods: Durable, Natural Products for Green Buildings. (n.d.). Retrieved 2021, from https://iands.design/articles/43990/american-hardwoods-durable-natural-products-green-buildings	"Waterborne finishes, however, are not suitable for finishing casework, millwork or flooring onsite, according to the Architectural Woodwork Institute (AWI)." (IandS. (2007)) "For on-site finishing, the best option remains polyurethane. Today's polyurethane finishes make American hardwoods an easy-to-maintain choice, even in kitchens—once considered out-of-bounds for solid wood flooring." (IandS. (2007)) "The type of finish selected can further influence indoor air quality. Surface finishes are durable, moisture-resistant, easy to maintain and appropriate for many applications. " (IandS. (2007))	• Use finishes that are oil based as they are easier to maintain and are more durable than oil based varnishes.
Lee, A. W. C., & Liu, Y. (2003). Selected physical properties of commercial bamboo flooring. *Forest Products Journal, 53*(6), 23. https://ezproxy.lib.ndsu.nodak.edu/login?url=https://www-proquest-	"Compared with most wood species, bamboo grows quite fast, reaching maturity within 5 years. Therefore, bamboo is considered a highly renewable raw material." (Lee, A. W. C., & Liu, Y. (2003) p. 23)	• Include bamboo wood in wall, floor, and ceiling finishes vs other tropical hardwoods.

com.ezproxy.lib.ndsu.nodak.edu/scholarly-journals/selected-physical-properties-commercial-bamboo/docview/214629933/se-2?accountid=6766	"Bamboo flooring, commercially available in natural and carbonized colors, is laminated in horizontal and vertical forms. It has properties comparable to hardwood flooring: durability, dimensional stability, abrasion resistance, hardness, and ease of installation. Furthermore, it is competitively priced and, by saving hardwood resources, it is environmentally friendly." (Lee, A. W. C., & Liu, Y. (2003) p. 24) "Bamboo flooring has a significantly lower SG than red oak flooring, but they have very similar MCs at 65 percent RH and 21[degrees]C." (Lee, A. W. C., & Liu, Y. (2003) p. 25)	
Chapel, D. D., AIA. (2006). Brick by brick: Use these guidelines to balance appearance, cost, and durability when you choose interior building materials. Retrieved 2020, from Veterinary economics.	"You want the materials you choose to look great on opening day. But you also want them to look terrific in a year. And it would be even better if they looked great in 10 years." (Chapel, D. D., AIA. (2006), p. 20) "When focusing on appearance, consider the range of available colors, textures, patterns, and sizes. When considering cost, identify the initial cost of the product, installation, mainte-nance over time, and the cost of replacing the product at the end of its life cycle." (Chapel, D. D., AIA. (2006), p. 16)	• Choose materials have a long life cycle life • Look at the range or colors, textures, patterns, sizes, and cost of materials.
	"I don't recommend vinyl wallpaper, because it's expensive and not very durable. Holes and scratches appear easily and aren't simple to repair." (Chapel, D. D., AIA. (2006), p. 20)	• Avoid vinyl wallpaper in areas that need to be cleaned regularly or are in high traffic zones.
TOPIC: Safety & Security		**TEAM: C. Hoffmann & G. Bruns**
Reference Citation (APA Format)	**Research Findings[1]**	**Design Application[2]**
Enz, C. A. (2009). The Physical Safety and Security features of U.S. Hotels. *The Physical Safety and Security Features of U.S. Hotels*, *50*(4), 553–560. https://doi.org/10.1177/1938965509345963	"The perception that higher-priced hotels contain more physical safety and security features than hotels in other price segments is not surprising, because it is accurate" (Enz, 2009)	• Security features need to be noticed when walking in a space, but also need to be hidden in some type of design way for the guests to also feel comfortable. • For the higher priced and higher security features the security needs to be better and allow for guests to choose what they may want within their room service or check in options. • Being able to hide most security features so guests do not feel as though they are constantly being watched at the same time
	"The mere presence of such equipment as electronic locks and security cameras does not guarantee guests' safety or security in the absence of personnel who are well trained to implement a fully developed emergency plan." (Enz, 2009)	• Security features that stick out to guests often think that they can be broken into and the guest security features will not be supported. • The key less features on doors and other access points in a hotel is for the safety of guests and can be run through their smartphones. Room privacy with less noticeable locking features outside the door and more within the room for guest safety.

Bradley, K. (2019, August 19). *Hotel Safety: Security for Hospitality and Hotel Management Companies*. Hospitality Net. https://www.hospitalitynet.org/opinion/4094684.html.	"A safe and secure environment all starts with a knowledgeable staff" (Bradley, 2019)	• Having staff know the safety and security plans throughout the whole building. The guests will find this a high priority when visiting the hotel. • Comfortable safe looking and feeling environment for those who may have anxiety for the safety of the building and having the easiest ways out of the building in case of an emergency. • Mobile keys and corridors for safety, being able to gain access through a smartphone
Chan, E. S. W., & Lam, D. (2012, June 27). *Hotel safety and security systems: Bridging the gap between managers and guests*. International Journal of Hospitality Management. https://www.sciencedirect.com/science/article/pii/S0278431912000795.	"Terrorists have been known to target non-military infrastructure such as commercial buildings, shopping centers and hotels or places with large crowds of people" (Chan, 2012)	• The fact this happens in large crowd areas is especially important to be cautious of what is always happening throughout the hotel. • Outside of the hotel in the parking lot there should be secretive detectors and around the building so things will be noticed if it is being brought in through another door. Security alarms on all doors in a space, motion detectors, and cameras in all doorways and corridors. No space left unseen with a camera. • Uniformed security guards are at watch 24/7 with higher rated hotels for guest safety. • Emergency lighting should be equipped for clear wayfinding in case of an emergency • Bulletproof glass in higher traffic areas and/pr every room.
Kim, J., Farrish, J., & Schrier, T. (2011, May 23). *Hotel Information Technology Security: Do Hoteliers Understand the Risks?* International Journal of Hospitality & Tourism Administration. https://www.tandfonline.com/doi/pdf/10.1080/15256480.2013.809992.	"A secure network, take steps to encrypt and protect cardholder data, maintain vulnerability management program, implement strong access control measures, regularly monitor and test their networks, and maintain an information security policy" (Security Standards council, 2008)	• Secure Wi-Fi and networks that only staff can use within the hotel for safety, and a separate network. Self-check in kiosk and check out or in room check outs are necessary for guest security through billing information, safety and the pleasure of guests being independent and comfortable during their stays at hotels. • Contact less is important for the guest and being safe for the staff, especially now with COVID. • Constant monitoring systems, and alarming systems for suspicious activity and the uniformed security for assistance with secure checkout and check in • The front desk should have mostly hidden objects behind the counter and cameras surrounding it all. Alerts for all activity throughout the hotel is necessary for all guests. • Doors should have a camera on it for all guests vs. a peep hole. Intercom system for the guests to communicate with those who may be at the door, in case they do not want to let them in for their safety and freedom throughout a hotel.
	"the need for greater emphasis on IT security among hoteliers." (Kim, 2011)	• Guest concern is one of the highest's when it comes to the idea of IT security. Guests prefer the highest of security when staying a higher rated hotel. • Hotels have their own IT departments on 24/7 for the safety and security of those who are residing in the hotel for a

		short amount of time. This invovles being able to protect their belongings • Safe deposit boxes in rooms are used often, these need to be hidden within the room but easily found by guest
Hilton Diagonal Mar Barcelona. (n.d.) Safety & Security Features. Normal.dot (hilton.com)	Safety & Security Features that are in Hilton hotels. Examples are guest room provisions, fire prevention, first aid, security, workplace safety, control of hazardous substances and emergency procedures.	• The lists that were provided in this document, will help me make sure we have the equipment that is needed the most.
United Security Incorporated. (2018, November 20). 5 Security Threats in Hotels and What to do About Them. USI Integrated Solutions Inc. 5 Security Threats in Hotels and What to Do About Them (usisecurity.com)	"Unfortunately, many people look at hotel visits as an opportunity to act in ways they never would at home". (USI, 2018).	• To help against people who are looking to make a mess or think that they can do whatever they want in the hotel room, I want to have security personnel walking around the building and parking lot. • They should be dressed casually so the guests don't get nervous or scared when they see a security officer.
	"Proper surveillance coupled with security guards that serve both as deterrents and prevention can stop theft in your hotel. You should also consider updating your security system. The latest technology will provide new solutions to help you monitor your property effectively. When you install new security cameras, you can also consult security experts on proper placement to ensure maximum visibility." (USI, 2018)	• I believe that the receptionist should have some knowledge on what to do if he has to handle an aggressive guest. • Surveillance cameras are huge for security. I don't doubt one bit that they are a necessity. I think what makes them to most helpful, is to have them positioned in the best spot possible. So, they can cover a big area with the position.
Hertzfeld, Esther. (2020, January). Guests' safety, security a top issue. Hotelmanagement.net.	"With new security threats continuously arising, they should further inquire how an upgrade is able to adapt to potential vulnerabilities as they are discovered" (hotelmanagement, 2020) "I've even seen an exterior door with a hole in the push bar that you could open with your finger to gain entry – not safe" (hotelmanagement, 2020).	• I will pick design features and security features that will be able to be upgraded. This would happen if the program gets busted, or just gets too old.
	"Hoteliers should also request that a vendor demonstrate how an upgrade can fit into their overall security infrastructure to provide enhanced management efficiency and control." (hotelmanagement, 2020).	• I think this would be very beneficial. Security and safety can all be changed so easily. The hotel needs to have security that has the ability to adapt to the different risks that could happen. So, in the design I want to design with sight lines and wayfinding in mind. Along with being specific on which finishes get chosen.
Enz, Cathy. (2009). *The Physical Safety and Security Features of U.S. Hotels.* Cornell University. Enz15_The_Physical_Safety_and_Security_Features_of_U.S._Hotels.pdf;jsessionid=260DF79F9635D49F8ADBDBB8457158FB (cornell.edu)	"Regarding the security index, by contrast, the dividing point seems to be fifty rooms. Hotels with between fifty and sixty-four rooms are more akin to larger hotels on the security index, while hotels with less than fifty rooms score far lower on security than any other group of hotels did. New hotels (less than eight years old) offer the most comprehensive array of safety and security amenities, but lower scores are most notable for the oldest hotels in the sample (thirty years or older)." (Cornell, 2009). "The fact that some hotels score high on the indexes does not guarantee that they are physically safe and secure, but the results	• Regarding this study, this proves that security really need to get put into the Winslow Hotel. The customers pay for the type of security they want. This article makes me want to provide the little factors that will improve the safety and security. I need to add all the necessities that guests will need to feel safe. The design will provide good sight lines, universal shades, secure hazardous materials, and efficient and safe technology.

	do suggest that a price premium (higher advertised rack rate) does appear to be associated with those hotels that offer a full complement of safety and security features." (Cornell, 2009). "On balance, luxury and upscale hotels, airport and urban hotels, large properties, and new hotels are most likely to maintain a high level of safety and security amenities, a finding that replicates the study I conducted with Masako Taylor (Enz and Taylor 2002)." (Cornell, 2009)	
TOPIC: Wayfinding		**TEAM: K. Clothier & V. Nelson**
Reference Citation (APA Format)	**Research Findings[1]**	**Design Application[2]**
Bosch, S. J., & Gharaveis, A. (2017). Flying solo: A review of the literature on wayfinding for older adults experiencing visual or cognitive decline. *Applied Ergonomics*, *58*, 327–333. https://doi.org/10.1016/j.apergo.2016.07.010	"The primary goal of wayfinding design is to clearly provide essential information for people that will enhance their ability to navigate within a building's environment" (Bosch & Gharaveis, 2017, p. 328).	• Provide obvious visual points of interest to guide individuals through the space in addition to informational pieces (signage, maps, word of mouth, etc.)
	"There are two distinct types of architectural information that may be used to improve wayfinding—environmental cues (e.g., signage, furniture, color, lighting) and floor plan typology" (Bosch & Gharaveis, 2017, p. 329).	• Provide signage that is consistently available, legible, and systematic to support wayfinding. • Incorporate pictograms on signage in addition to text to accommodate for users with a visual impairment. • Use color as a distinguishing factor to differentiate certain spaces from one another. • Use copious amounts of natural light and bright light to help users navigate the space.
Dong, W., Qin, T., Liao, H., Liu, Y., & Liu, J. (2019). Comparing the roles of landmark visual salience and semantic salience in visual guidance during indoor wayfinding. *Cartography and Geographic Information Science*, *47*(3), 229–243. https://doi.org/10.1080/15230406.2019.1697965	"Indoor landmarks were regarded as distinctive points of interest that are visually and spatially dominant and informative for spatial orientation within a structure" (Dong, et al., 2019, p. 234).	• Make indoor landmarks not only visually interesting but highly informative for all users. • Use indoor landmarks to dictate circulation of spaces. • Provide enough informative landmarks within the space to allow for easy wayfinding and egress needs.
	"Human visual attention is dominantly guided by visual salience during indoor wayfinding" (Dong, et al., 2019, p. 240).	• Design not only noticeable, but important/informational indoor landmarks that are visually salient in more complicated scenes. • Create landmarks that allow for users to understand the space while still maintaining a forward direction.
Haghani, M., & Sarvi, M. (2016). Human exit choice in crowded built environments: Investigating underlying behavioural	"For nonemergency egress, proximity of the exit points to passenger's destination is a dominant factor" (Haghani & Sarvi, 2016, p. 1).	• Provide adequate exits, and knowledge of exit placement, for users when considering placement of individuals throughout the entire space.

differences between normal egress and emergency evacuations. *Fire Safety Journal*, *85*, 1–9. https://doi.org/10.1016/j.firesaf.2016.07.003		• Design the space to allow for induvials to know where the closest exit is, and how to reach it, no matter their location within the building.
	"In an emergency, passengers place a much higher priority on avoiding crowded exits compared to non-emergency situations" (Haghani & Sarvi, 2016, p. 1).	• Provide adequate exit signage to allow users to avoid congested directional flow when attempting to exit the space in terms of emergency. • Provide multiple routes and proper circulation throughout space to allow users to maneuver the space in more ways than one. • Consider spatial distribution of exits. • Acknowledge the diversity in behavior and attempt to design for every mind in case of emergency.
Farr, A. C., Kleinschmidt, T., Yarlagadda, P., & Mengersen, K. (2012). Wayfinding: A simple concept, a complex process. *Transport Reviews*, *32*(6), 715–743. https://doi.org/10.1080/01441647.2012.712555	"A better understanding of wayfinding may increase efficiency and effectiveness of the use and design of public buildings and spaces for people with disabilities to allow them to make their way from their current location to a desired destination more easily" (Farr, et al., 2012, p. 717).	• Design and provide proficient wayfinding information and design applications for people of all ages, race, gender, and for people with disabilities. • Make wayfinding signage useful and marketable to people with diverse abilities.
	"Signs provide a one-way form of communication and convey facts and information about environments without ambiguity. They direct, inform, control and identify, and fit into one of three basic sign types: directional, identification or reassurance" (Farr, et al., 2012, p. 726).	• Use varying sign types for the appropriate space and informational needs. • Provide appropriate space for the signage and landmark on which it is on when considering the approach of individuals and potential congestion or stagnant circulation.
	"People's understanding of built environments, especially buildings, their elements and functions even when they have an incomplete knowledge of the environment, is generally informed by their intuitions and expectations of an environment" (Farr, et al., 2012, p. 723).	• When designing elements of wayfinding it is important to act as if you were an individual entering the space for the first time not knowing how to navigate the space at all. • Individuals have high expectations for boutique hotels and their personalized services. Consider how their initial pression could be dampened through ineffective wayfinding.
Kan-Kilic, D., Dogan, F., & Duarte, E. (2020). Nonvisual Aspects of Spatial Knowledge: Wayfinding Behavior of Blind Persons in Lisbon. PsyCh Journal volume 9. Pg. 769-790. https://doi.org/10.1002/pchj.377	"In the absence of vision, senses such as hearing, smell, and touch provide crucial spatial information from the environment." (Kan-Kilic, Dogan, Duarte, 770)	• All five senses play important roles in wayfinding techniques. Design in a way that allows guests to use all senses. • For a blind individuals, hearing, smell, and touch are crucial senses that provide information to be able to navigate a space.
	"Pallasmaa also emphasized that a person who has spatial awareness understands that the eye is not the sole organ	• The sense of hearing takes over and becomes a more prominent sense for blind individuals and because of

	which creates spatial experiences. Often, researchers have highlighted the primacy of auditory information in wayfinding for blind individuals. As Pallasmaa stated, auditory information is almost equivalent to vision." (Kan-Kilic, Dogan, Duarte, 770)	this, they are able to use sounds as a wayfinding technique. • Use materials that provide adequate sound absorption.
	"Changes in ground texture can be a landmark for blind people. Path identity, texture, and planting are very important for blind people's wayfinding to acquire information about the entire space." (Kan-Kilic, Dogan, Duarte, 770)	• Touch is another important sense especially for blind people. Becoming familiar with a texture or feeling can help guide anyone around an environment. Include items such as railings that provide a sense of spatial awareness.
	"Freksa (1999) suggested that blind people gain specific spatial knowledge by exploring the environment and memorizing landmarks." (Kan-Kilic, Dogan, Duarte, 771)	• Incorporate landmarks such as art, furniture, structural features, etc. To help blind individuals navigate through a space. They oftentimes memorize where objects are located.
	"Blind individuals are able to construct a cognitive map from nonvisual cues of their surroundings. The echoes from the environment help blind individuals navigate within space. Blind individuals can orient themselves in reference to enclosed walls of a given space and can easily walk parallel to a wall with the help of the echo that the wall creates (Ashmead & Wall, 1999)." (Kan-Kilic, Dogan, Duarte, 772)	• Blind people tend to tap their cane on the ground as they walk or make a click sound with their mouth in order to hear the echo of the sound off of a wall nearby in order to locate where they are and how close they are to an object. • Specify walls that have appropriate sound attenuation.
Kuliga, S.F., Nelligan, B., Dalton, R.C., Marchette, S., Shelton, A.L., Carlson, L., Hölscher, C. (2019). Exploring Individual Differences and Building Complexity in Wayfinding: The Case of the Seattle Central Library. Environment and Behavior 2019, Vol. 51(5). Pg 622–665. https://doi.org/10.1177/0013916519836149	"Wayfinding includes self-localization within an environment, route identification and planning, continuous monitoring while on the route, and recognition of the destination upon arrival." (Kuliga, Nelligan, Dalton, Marchette, Shelton, Carlon, Hölscher, 625)	• Create a path from destination to destination that can easily be navigated through.
	"For multilevel wayfinding, this representation must also include how different floors relate to each other. However, although individuals can encode elevation information (Jeffery, Jovalekic, Verriotis, & Hayman, 2013; Lu & Ye, 2017), they may memorize multiple floors as a collection of separate floor layouts (layered two-dimensionally), rather	• Wayfinding between floors can be hard. It is recommended that similar activities are kept on the same floor, or easy and clear access is provided between floors. • Providing the floor layout of each floor can be very beneficial.

	than one cohesive 3-D model." (Kuliga, Nelligan, Dalton, Marchette, Shelton, Carlon, Hölscher, 625)	
	"Therefore, we would expect that wayfinding is more difficult when visual accessibility to vertical travel options is limited." (Kuliga, Nelligan, Dalton, Marchette, Shelton, Carlon, Hölscher, 627)	• Incorporate clear sight lines for important wayfinding techniques.
	"That is, "one size will not fit all" suggests that designers must consider an environment that will allow success in light of multiple different strategies, solutions, or skills, and that those plans account for the diversity among building users." (Kuliga, Nelligan, Dalton, Marchette, Shelton, Carlon, Hölscher, 656)	• Designing inclusively is very important when creating a space that is easy for users to navigate through because everyone thinks and processes information differently.
Schaik, P. V., Mayouf, M., Aranyi, G. (2015). 3-D route-planning support for navigation in a complex indoor environment. Behaviour & Information Technology Vol. 34, No. 7. Pg. 713–724. http://dx.doi.org/10.1080/0144929X.2015.1004649.	"The **use** of 3-D representations during route-planning could help people in more effectively constructing a cognitive representation of the to-be-navigated environment (Darken and Peterson [9]) in terms of the three types of spatial knowledge. Particular features of dynamic 3-D representations that may contribute to this include the following: they can provide an egocentric perspective, high-fidelity information regarding the environment and richer or more detailed information about landmarks. In particular, they allow the presentation to highlight landmarks at the expense of less salient elements of the environment, in order to facilitate the encoding of landmarks in relation to the environment." (Schaik, Mayouf, Aranyi, 714)	• 3-D route planning systems are more effective and are very beneficial in a hotel evnironment. • Include 3-D touch screens that have the capability of aiding in route planning for guests.
	"According to our results, the main reason for the advantage of route-planning support is that it facilitated people's use of landmarks." (Schaik, Mayouf, Aranyi, 720)	• Landmarks are used more efficiently and appropriately as people use 3-D route planning systems. • Include identifiable landmarks in the design solution.
	"this empirical study has identified several benefits of 3-D route-planning support in complex public buildings; these include improving people's navigation performance, reducing disorientation and anxiety, and promoting a landmark-based wayfinding strategy." (Schaik, Mayouf, Aranyi, 722)	• 3-D routes aid in the wayfinding process especially in complex environments such as a hotel. • Specify technology that allows a route to be downloaded to a phone from the device.

Porco, M. (2010). Wayfinding 101: Digital Signage is More Than Just Directions. Sound and Video Contractor, Vol. 28, Issue 12. Pg. 42-46.	"Traditionally, wayfinding in facilities such as convention centers has relied on paper signage, where conference attendees navigate a facility based on a printed site map or a large poster that directs them to their meeting room." (Porco, 42)	• Include devices in design that decrease the amount of paper needed for wayfinding.
	"It is important, however, to prevent the screen from becoming too cluttered, which overwhelms the viewer and detracts from the overall experience." (Porco, 45)	• Use technology that keeps route planning simple for the user.
	"Hotels also want to be able to provide visitors with the most up-to-date information on meeting schedules, without the need to constantly update the screens. This can be accomplished through integration with a facility's third-party event-management software, such as Newmarket's Delphi." (Porco, 45)	• Provide a way for visitors to check to status of their meeting or event they are planning to attend.
TOPIC: Nature & the Environment		**TEAM: M. Bichler, P. Johnson, J. Erickson**
Reference Citation (APA Format)	**Research Findings[1]**	**Design Application[2]**
Kellert, S. and Calabrese, E. 2015. The Practice of Biophilic Design. www.biophilic-design.com	• "The direct experience of nature refers to actual contact with environmental features in the built environment including natural light, air, plants, animals, water, landscapes…" (p. 9). • "The indirect experience of nature refers to contact with the representation or image of nature, the transformation of nature from its original condition, or exposure to particular patterns and processes characteristic of the natural world" (p. 9).	• Knowing the difference between direct and indirect experiences with nature in the built environment is important so you can determine what one is best for your hotel's spaces. Example: • Direct experience – water feature • Indirect experience – realistic painting of the ocean
Ryan, C. O., Browning, W. D., Clancy, J. O., Andrews, S. L., & Kallianpurkar, N. B. (2014). Biophilic Design Patterns Emerging Nature-Based Parameters for Health and Well-Being in the Built Environment. International Journal of Architectural Research, 8(2), 62–76.	• "Health responses are of specific interest to the designer, because they influence how an individual might experience their design, and to planners and policy makers, because they influence public health and equitable access to nature and its benefits" (p. 63). • "Increase positive emotions and reduce negative emotions, relaxation of the brain, ocular muscles and lenses; as well as lowering of diastolic blood pressure and stress hormone (I.e., cortisol) levels in the bloodstream" (p. 64) • "This collected evidence leads us to deduce that good biophilic design could have a number of positive impacts. Some of these include enhancing productivity and performance and have a positive	• Consider the health benefits for the guests and employees when designing with nature in hotels. Adding natural elements into the built environment like plants, natural light, or water features can increase a positive response in the brain and help relax the brain.

	impact on attention restoration and stress reduction" (p. 64)	
Gillis, K., & Gatersleben, B. (2015). Review of A Review of Psychological Literature on the Health and Wellbeing Benefits of Biophilic Design. Buildings, 5, 948–963. https://doi.org/10.3390/buildings5030948	• "Biophilic design is based on the Biophilia hypothesis, which proposes that humans have an innate connection with the natural world [2] and that exposure to the natural world is therefore important for human wellbeing" (p. 948). • "...human interaction with nature is often lacking in modern day societies [3] due to societal trends such as urbanization, building design, and lifestyle" (p. 948-949). • "Like many design philosophies, Biophilic design strategies need to be employed in consideration with the building occupants, location, and function. There may be a threshold for the amount of plants and the type of plants that will be beneficial for certain human activity. For productivity, a room with too many plants may decrease productivity while improving affect" (p. 959).	• Understanding that humans are innately attached to nature when considering your design solution is important. • Adding nature in the environment can increase productivity if it is done correctly. Eveluating your space is important to know if a biophilic design is for your space's design and your customer's preference.
Williams, F. (2017). Urban Nature. *Natural History*, *125*(4), 30–35.	• "Cities are often the most creative, wealthiest, and most energy-efficient places to live" (Williams, 2017, pg 31). • "Nature changes our brains for the better. We benefit cognitively and psychologically from having trees, bodies of water, and green spaces just to look at." (Williams, 2017, pg 32). • "City dwellers get most excited about two natural features: water and trees" (Williams, 2017, pg 35)	• Add real plants instead of fake ones. Our brains know the difference and won't react the same to a fake one. • Water elements add to the freshness of air inside.

Naguib, R., Awaad, I., Kassim, O., & El-Aidi, D. (2020). Towards a methodological approach to apply Biophilic Interior Design in hospitality spaces. *Journal of Design Sciences and Applied Arts, 1*(2), 55–67.	• "The impact of Biophilic interior design on users resulted from the relation between human biology, built environment and the surrounding nature of the establishment which enhances user psychological and physiological health." (Naguib et al., 2020, pg 56). • "The importance of controlling daylight entry by natural light into the building to reduce carbon dioxide, improves the user experience, which is reflected positively in the economic aspect." (Naguib et al., 2020, pg 57). • "Norman invites us to stop designing practical things and start designing fun products and services that bring us pleasure because the goal of emotional design is to make our lives more enjoyable and 'make attractive things work better', while balancing efficiency with aesthetic values." (Naguib et al., 2020, pg 60). • "Biophilic design is a design philosophy and has the potential to intentionally reconnect people and nature through buildings. It goes beyond adding plants or a water feature and focuses on connecting to the particular ecology of a place, to its culture and climate to create buildings that's full of life". (Naguib et al., 2020, pg 63)	• Research the space before designing. Know how the users want and need to use the space. We can't design a space we do not understand. • Add natural elements wherever possible. Natural elements relax and clear our minds and improve our mood. • Understand how natural light move in the space throughout the day. Research where the light hits during sunrise, noon, and sundown. Water and glass may reflect the light in a negative way.
TOPIC: Sustainability		**TEAM: K. Frank & S. Miller**
Reference Citation (APA Format)	**Research Findings[1]**	**Design Application[2]**
Han, H., Moon, H., & Lee, H. (2019). Excellence in eco-friendly performance of a green hotel product and guests' proenvironmental behavior. *Social Behavior and Personality: An international journal, 47*(12), e8317.	• "Previous researchers have shown in diverse contexts that product performance, satisfaction with a product experience, and moral norms can be used to explain customer's pro environmental decision making and behavior" (Han et al., 2019, pg.1). • "The *eco-friendly performance of a green hotel product* refers to customers' perceptions of their experience of a hotel's environmentally friendly product attributes such as the use of recycled materials, refillable soap/shampoo dispensers, cloth napkins rather than paper towels, encouraging guests to reuse towels and linens, having recycling containers in guest rooms and lobby areas, water-efficient and energy-efficient appliances, and incorporating	• Incorporate sustainable choices that will encourage guests at the hotel to also participate in this behavior. • Provide signage and bins about recycling, provide reusable hand drying cloths, use refillable soap containers, use appliances that are water/ energy efficient.

	green landscape and architectural design components" (Han et al., 2019, pg.2).	
Kim, Y., Barber, N., & Kim, D. (2019) Sustainability research in the hotel industry: Past, present, and future, Journal of Hospitality Marketing & Management, 28:5, 576-620, DOI:10.1080/19368623.2019.1533907	• "Currently, there are three critical areas in environmental sustainability management within hotels: recycling, renewable energy, and energy conservation system" (Kim et al., 2019, pg.577). • "Thirdly, energy conservation systems, such as clever key cards, automatic air-conditioning systems, and solar thermal systems, also play a critical role in hospitality sustainable management" (Kim et al., 2019, pg.578).	• Not only provide recycling bins but use recycled products when picking out materials. • Solar panels might not be the most logical when designing in this specific project. However, providing easy to use shades/drapery over the windows to allow as much sun in as possible could save on energy usage. • Provide clever key card systems to conserve energy
Orange, E., (2010). From eco-friendly to eco-intelligent. *The Futurist.*	• "Sustainable materials are perpetually circulated, and, once used, can be disposed of in any natural environment and decompose into the soil, providing food for small life forms without affecting the natural environment" (Orange, 2010, pg.32). • "In the future, being green will mean taking into consideration the entire life cycle of a product when designing it" (Orange, 2010, pg.32).	• Use as many materials/products as possible that are biodegradable • Use as many materials/products as possible that could actually benefit the environment when disposed of. • Use materials that can be used for as long as possible before being disposed of. • Consider every aspect of that product's lifetime.
Nenadovic, A., Tekic, Z., & Djordjevic, S. (2018). Environmentally-based structural design criteria for buildings. *Thermal science.* Vol. 22, Suppl. 4, pp.S1047-S1058	• "Energy consumption during the life cycle of the building includes energy consumption in phases of production of materials and products, of building construction, of building use, and of the end of life of the building" (Nenodovic et al., 2018, pg.S1049). • "The goal is to achieve minimum energy consumption, consisting of embodied and operational energy, throughout the life cycle of the building" (Nenodovic et al., 2018, pg.S1049). • "One way to reduce the total material demand is to reuse the existing buildings, which may require adaptation or reconstruction, or replacement of building elements" (Nenodovic et al., 2018, pg.S1049). • "It is necessary to reduce the transportation impact, by the use of local raw materials and products, as well as use of more energy-efficient forms of transport" (Nenodovic et al., 2018, pg.S1049). • "-use of materials and elements obtained from secondary raw materials, i.e. use of reclaimed structural elements, use of already used products from other industries without prior processing, use of materials obtained through recycling processes and use of by-products" (Nenodovic et al., 2018, pg.S1049).	• When picking out materials/products, think about the energy used in the production, during the usage of it, and what happens to it when its lifetime is over. Pick materials/products that will use as little energy as possible throughout all of these aspects. • For this project specifically, we have requirements to keep certain aspects of the building like the blond brick. So this isn't necessarily adding a design application but it's about what we aren't doing that will save energy and not waste materials. • When searching for materials, try searching for local products or at least products that are made in the US. This will save on emissions of gasses through travel.
Sheehan, P. (2007). Design Side. Seeing Green - Rethinking hospitality design from a sustainable viewpoint.	• "Interior Strategies - Lighting, air conditioning and heating: intelligent control systems that monitor guests in a room, together with their preferences and patterns.." (Sheehan, 2007).	• Incorporate intelligent controls for lighting, air conditioning, and heating to allow for sustainability to take place automatically through smart systems. • Include materials known to be rapidly renewable, like bamboo rather than artificial veneers.

	• "Renewable materials including cork, bamboo, agrifiber substrates for millwork; materials that are recycled or recyclable Sustainahly managed wood products: certified by the Forest Stewardship Council. Materials and finishes that do not off-gas: no or low-VOC paints. adhesives and sealants; no added formaldehyde - local and regional materials" (Sheehan, 2007). • "For example, low-VOC (volatile organic compounds) paints and adhesives and formaldehyde-free wood substrates. What is the source of the wood being used? Is it from a rapidly renewable source like bamboo or wheat or is it from an endangered rainforest species? Bamboo is very popular aesthetically for walls and floors; it grows rapidly and is renewable" (Sheehan, 2007). • "In the guestroom, intelligent lighting control systems will monitor the amount of light in a room and will do a composition balance of artificial to natural light, or daylight harvesting" (Sheehan, 2007). • "One survey reports there's a five- to 10-percent rate premium guests are willing to pay for quality indoor air. Marriott reported that 40 percent of its corporate guests are asking about environmental issues when booking stays and green hotels are being placed on lists of recommended hotels for government employees" (Sheehan, 2007).	• Incorporate materials with low-VOC when choosing paints, adhesives, and wood substrates. • Including intelligent lighting controls and systems for reducing and monitoring amounts of lighting
Ibbotson, H., & Wells, F. (2013). Green from the Ground up. *Caterer & Hotelkeeper*, *203*(4768), 40–42.	• "A successful project must aim to deliver on the business plan as well as hitting sustainability commitments such as reducing running costs and wear and tear. This is likely to encompass attracting customers in, keeping them comfortable and happy- and spending- before sending them away enthused. It should also mean creating an efficient and pleasant working environment that helps to keep your stay fresher, happier and serving customers better" (Ibotson, 2013). • "Food, consumables and even bathrobes are sourced locally -- with support given to suppliers to help them meet the right credentials" (Ibotson, 2013). • "Smart operators offer their guests high-quality walk-in shower spaces in place of water-guzzling baths. New breeds of aerated shower heads and taps deliver a spa-like experience without the environmental and bottom-line costs" (Ibotson, 2013). • ""'Green roofs mimic local natural habitats; waste water is recycled for toilet flushing; while rainwater harvesting, energy-saving heating and lighting and a carbon-neutral	• Including a color scheme in the design that will keep customers happy and in a good mood from the second they arrive to when they leave. • Create an efficient work environment by considering staff happiness. A break room with staff amenities will be included. • Staff will be happier overall and willing to serve clients with a beautifully designed breakroom that carries the design theme of the overall boutique hotel with sustainable and green materials. • Including locally sourced woods, finishes, and furnishings. • Locally sourced bath robes and linens for king and queen suites.

	biomass boiler all add to the list of sustainability credentials" (Ibotson, 2013).	
Akkam, A. (2012). Sustainable Studio. Courtyard By Marriot Denver Downtown. HospitalityDesign.com	• "Seventy percent of the products specified for the property have a green component, including furniture with FSC-certified wood stock and veneers" (Akkam, 2012). • "Guests are greeted by green plus carpeting in the corridors" (Akkam, 2012). • "she adds, as would a lowering of the cost differential between standard wallcoverings and ones without chemicals. "It would be great to see the industry step up and produce environmentally preferred, recyclable, cost effective, and beautiful wall treatments. This is a tall order, but it would be a game changer for sustainability in the hospitality industry," she says" (Akkam, 2012). • "What happens to the products that are removed in a refresh? Are they reused or recycled? Can we avoid trendy design solutions and purchase products with greater durability that requires replacement less often? Are some of the high impact items, like casegoods, designed to last three to four cycles, whereas softgoods can be refreshed more often in more of a closed loop fashion?" (Akkam, 2012).	• Utilizing FSC-certified wood stock and veneers for all custom cabinetry, furniture, and fixtures. • If carpet is needed, implement carpet tiles rather than rolls of carpet to be cost effective and support sustainability, • Implement wall coverings that can be recyclable, re-used, and cost effective • Consider what happens to products after a remodel, by implementing sustainable material choices, such as flooring, that can be recycled or re-used.
Malcheva, M. (2019). Green Boutique Hotels - Marketing and Economic Benefits	• "Tourism is one of the leading growth sectors of the global economy developing countries and destinations but also through the years it has created an increasing amount of stress on the environment" (Malcheva, 1). • "Boutique hotels as properties that would like to provide not only basic accommodation services but also added value for their guest can successfully implement a green idea that will be, in addition a successful marketing tool and a way of reducing overhead expenses and leading of a successful corporate social responsibility policy" (Malcheva, 1). • "An extremely high-class boutique hotel has that type of luxury which is devoted to the environment preservation and has an eco-friendly attitude" (Malcheva, 3) • "This is the reason why some hotels adopt the green concept as part of their product portfolio. The main objectives can be systemized as following (Cámara Santiago de Compostela, 2006): ✓ Reduce the consumption of natural resources; ✓ Minimize waste production; ✓ Avoid accidental contamination; ✓ Decrease costs; ✓ Improve the environmental management of the organization and the quality of service" (Malcheva, 2).	• Use materials that leave a low impact and low stress on the environment, including cork and bamboo. • Incorporate design solutions that show sustainability is being considered. An example of incorporating a solution that shows sustainability is reducing water waste by choosing the right toilets and sinks in suites. • Include materials that are self-sufficient and easily manageable to show improved environmental management.

Notes

1. This section can contain a direct quote or brief summary of that quote. Page referencing is still required.
2. This section is for indicating how you will apply into your design and act as a 'check list' as you move forward with your design. This material will be key in creating your EBD and annotated plan.

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