

Brewing up a Community



John Huebsch

Problem Statement

Through design, how can different zoning types, such as commercial and industrial, be combined to create a hybrid structure that would complement each zoning type?

Typology

- Destination Brewpub
 - A brewpub is defined as a restaurant-brewery that sells 25% or more of its beer on site. A majority of beer is to be consumed on site. They are allowed to sell “to go” beer to off site accounts.

Theoretical Premise/Unifying Idea

- Approaching an integrated design with a holistic view draws upon multiple influences that, when combined create new design opportunities and solutions.

Project Justification

- With increasing Industries, mixed-use buildings provide new jobs and products. These buildings must be looked at in a holistic sense in order to integrate them into the community.

Multiple Influences

- Research Focus in two main categories
 - Brewing Industry
 - History and tradition of brewing
 - How the brewing process works
 - The current state of the industry
 - Commercial needs
 - Personal experience as a beertender
 - Ray Oldenburg's writing on the importance of space

Brewing History

- The origin of beer dates back thousands of years to the beginning of the agricultural revolution
- The process of making beer has not change much over the years, we have just gained a better understanding of the brewing science
- Four main ingredients are need:
 - Malted Barley
 - Water
 - Hops
 - Yeast

Brewing History

- As cities became industrialized, their water supplies became polluted. Because beer has to be boiled during the processing it meant that beer would be safer to drink than the local water
- By studying the different types of styles we are able to gain an insight into history. Each style is an outward expression of the political, social and economical conditions.

Style Research

- IPA
 - The name IPA stands for India Pale Ale. The British breweries started to hop their beers excessively in order for the beer to survive the trip to the outer colonies
- Doppelbock
 - This strong beer was brewed for the monks to drink during their fasts. Because of the strength of the beer, it provided the monks with nutrition.



Current state of the Industry



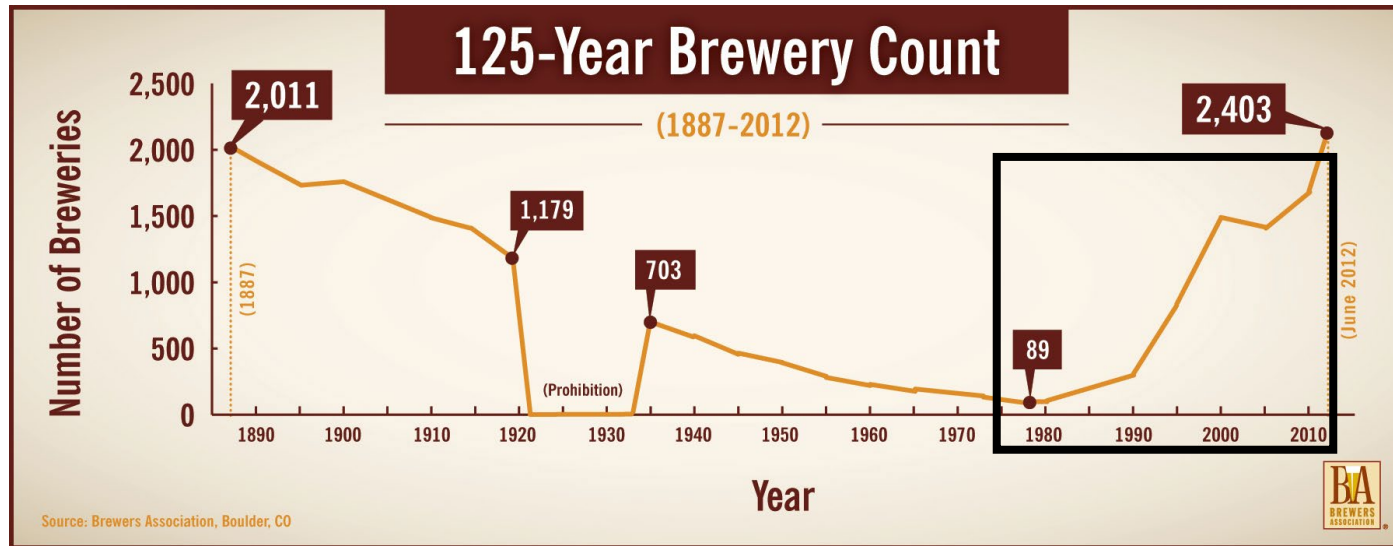
- German immigrants introduce lager brewing
- Decline of smaller brewers as macro lager brewers fight for market dominance

Current state of the Industry



- Prohibition kills many small breweries and forced many large breweries to create new products like 1919 root beer

Current state of the Industry



- In 1978 Jimmy Carter makes homebrewing legal
- These early homebrewers pioneer the massive surge of new craft breweries

Current state of the Industry

- The craft brewers provide an estimated 108,440 jobs in the US
- There is roughly 2,416 breweries in the US with 2,360 being classified as craft breweries
- 13,235,000 barrels of craft beer was sold in 2012
 - = about 400,000,000 gallons
- Overall US beer market is 99 billion in sales
 - 200,000,000 barrels of beer

Personal experience in the Industry



Personal experience in the Industry



4 tips for a successful Brewery

- 1 - Supply their home market with a quality craft product
- 2 – Turnover of kegs both in house and off site accounts
- 3 - Gain insightful feed back from patrons
- 4 - Supply the community with more than just beer

My take on the Industry

- I feel the craft beer industry will continue to grow as long as there is a passion for the art. Brewing beer is a labor of love much like that of any artist or chef.
- The brewer is a student of the past and present, learning the techniques of yesterday and adapting them for tomorrow. The industry is filled with passionate professionals who care about their communities.

Beertending at JLBeers



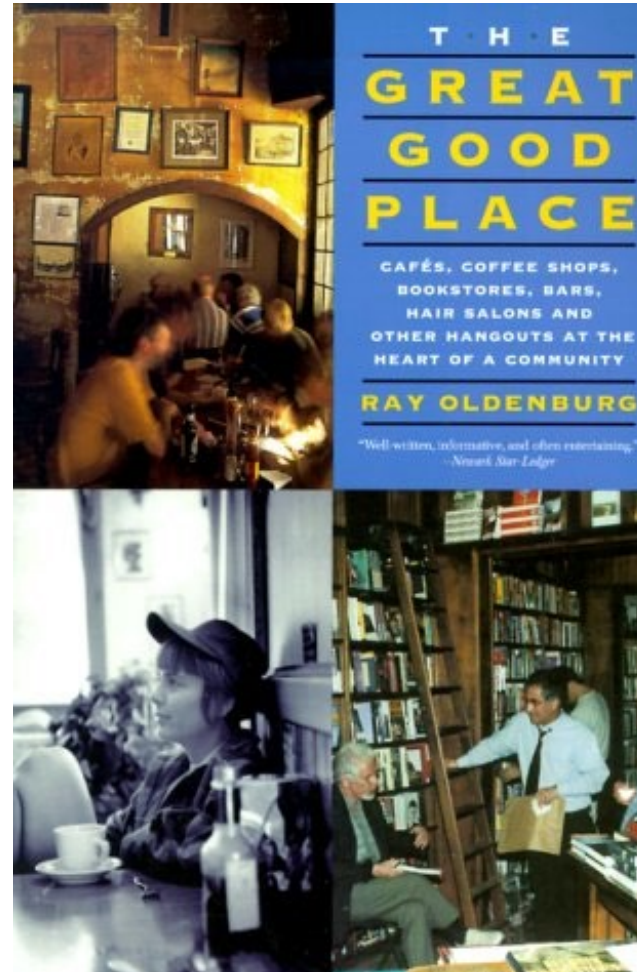
Observations from behind the bar

- Having an active interest in the history and production of beer
- When we step behind the bar that is our stage to shine, all of our worries and problems can be left at the door
- Always have something new to talk about
- Make an extra effort to remember people's names, there is a level of respect that is shown when you address a person by their name



Importance of Space

- Ray Oldenburg
 - The Good Great Place: Cafes, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community



Importance of Space

- 1st space – Home
 - A place of privacy and security
- 2nd space – Work
 - A place of formal interactions that consumes a major of our time
- 3rd space – Common meeting place
 - A place of unexpected possibilities

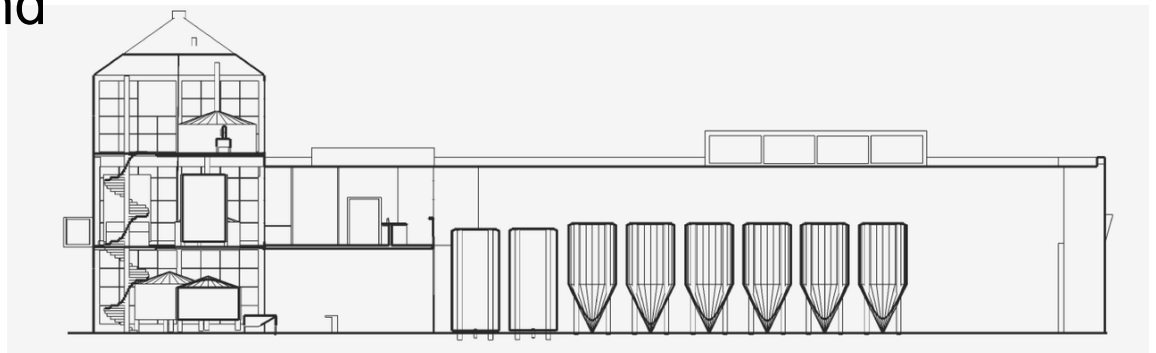
Defining the 3rd space

- 3rd space where people can live outside predictable lifestyles of house and work. A space of unexpected possibilities
 - Neutral ground where neither are bound by the rules of hospitality
 - Social Leveling – allows people to remove their day-to-day titles and be one with the crowd. Creates informal and simple conversations
 - The space allows for the opportunity of conversations

Case Studies

Great Northern Brewery Whitefish, MT

- They do a great job displaying the brewing process
- The unique experience makes this building a great destination
- The brewery sponsors fun events like the Big Trade and K9 keg pull



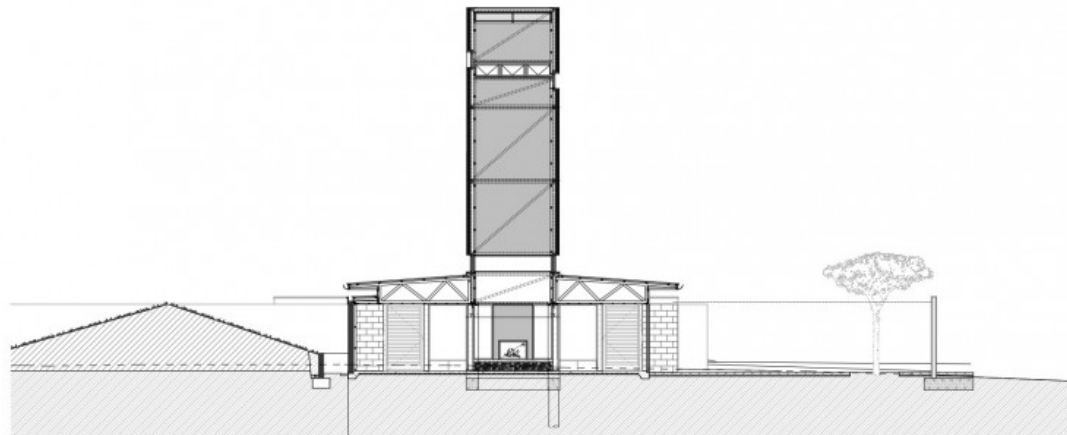
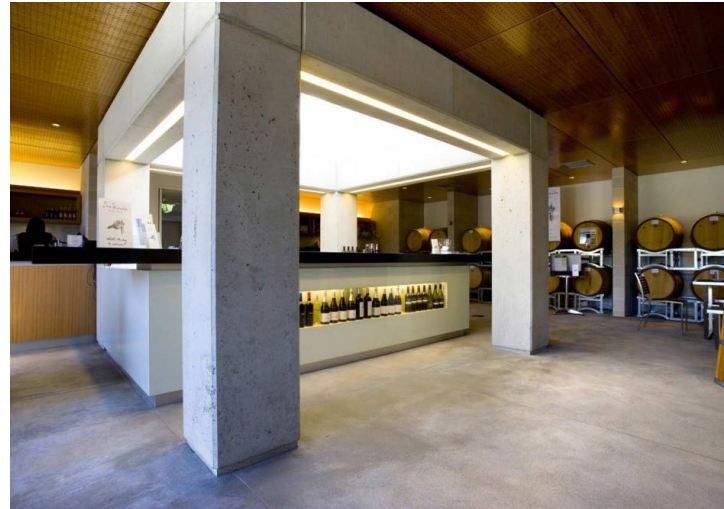
Case Studies

Miranda Winery

Oxley, Australia

Popov Bass Architects

- The tower helps to draw in on lookers and develops a place of interest
- The building creates a stage for tasting and education

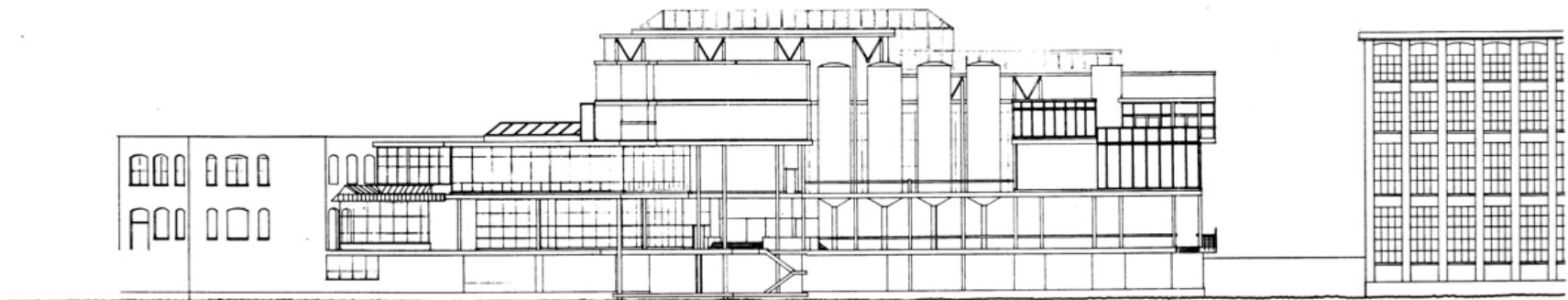
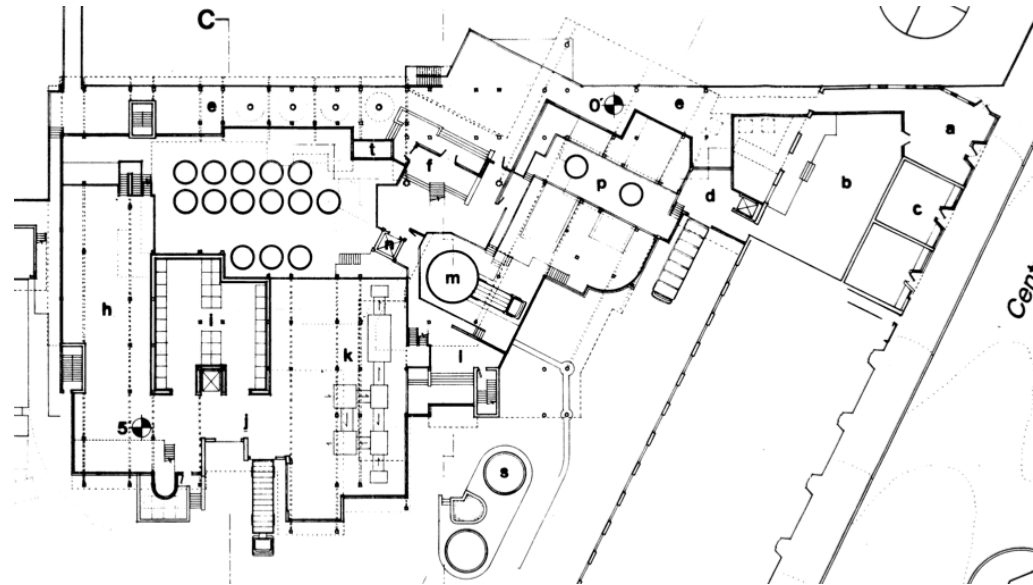


Case Studies

Lowell Small Brewery

Thesis project by Andrew Garvin

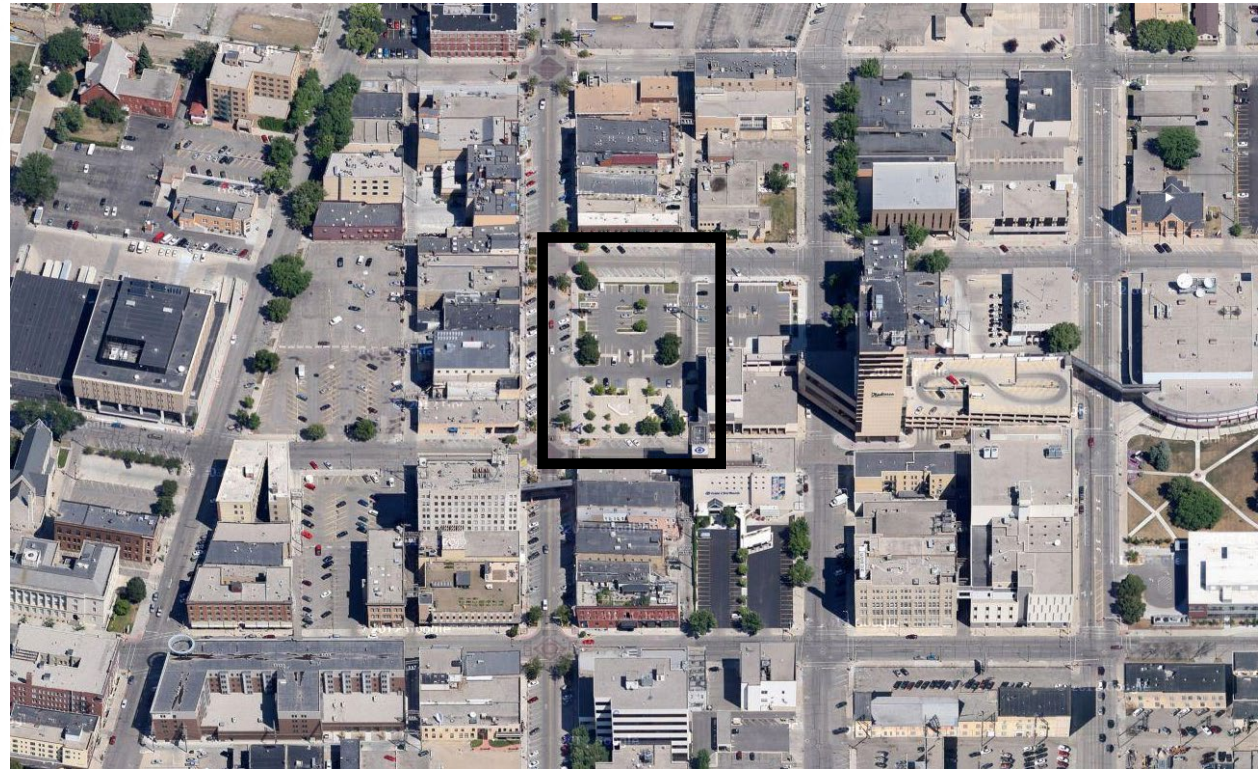
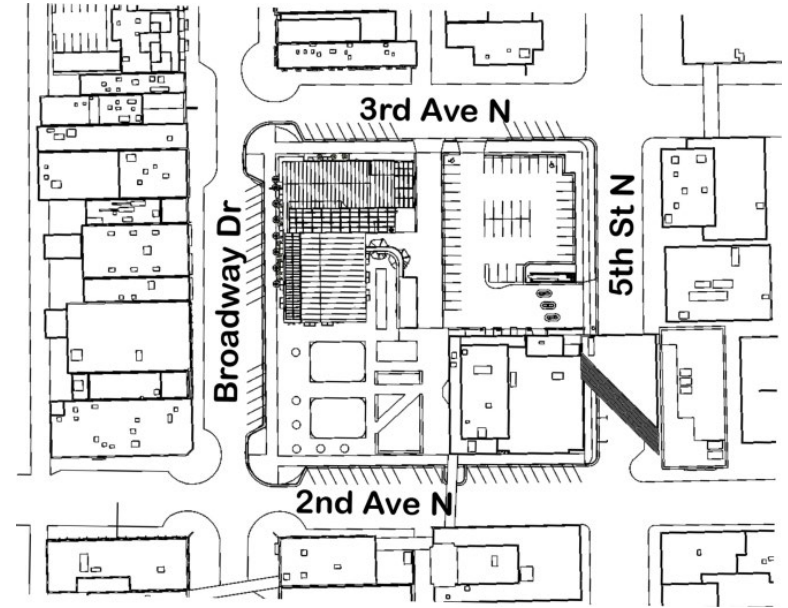
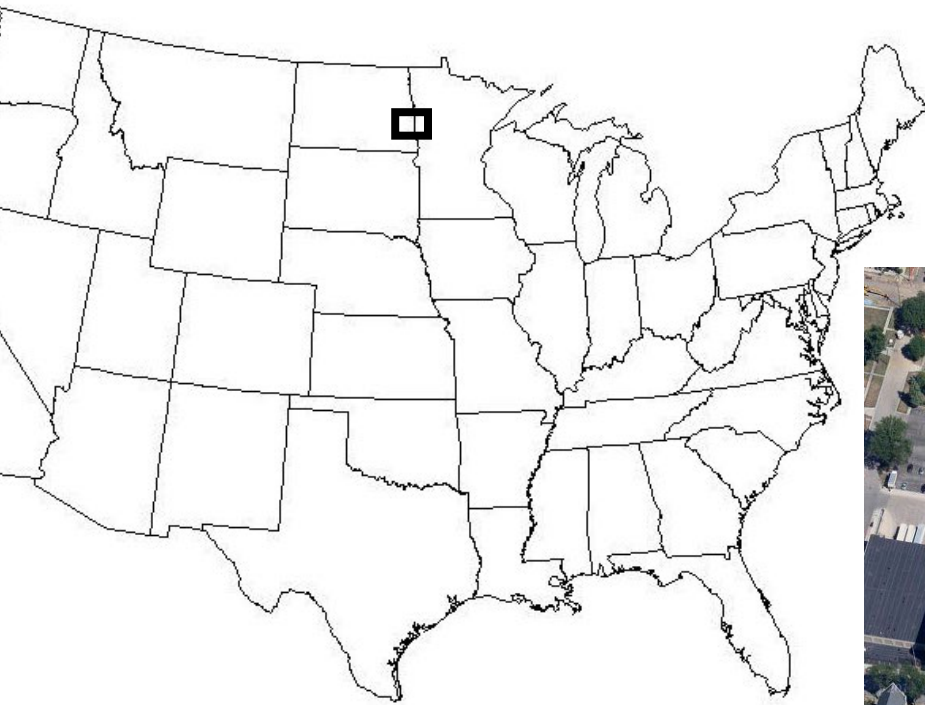
- Introduced the idea of an Industrial landscape
- Created a valley like layout where patrons could look down upon the brewing process



Site

Fargo, North Dakota

Corner of 3rd avenue and Broadway

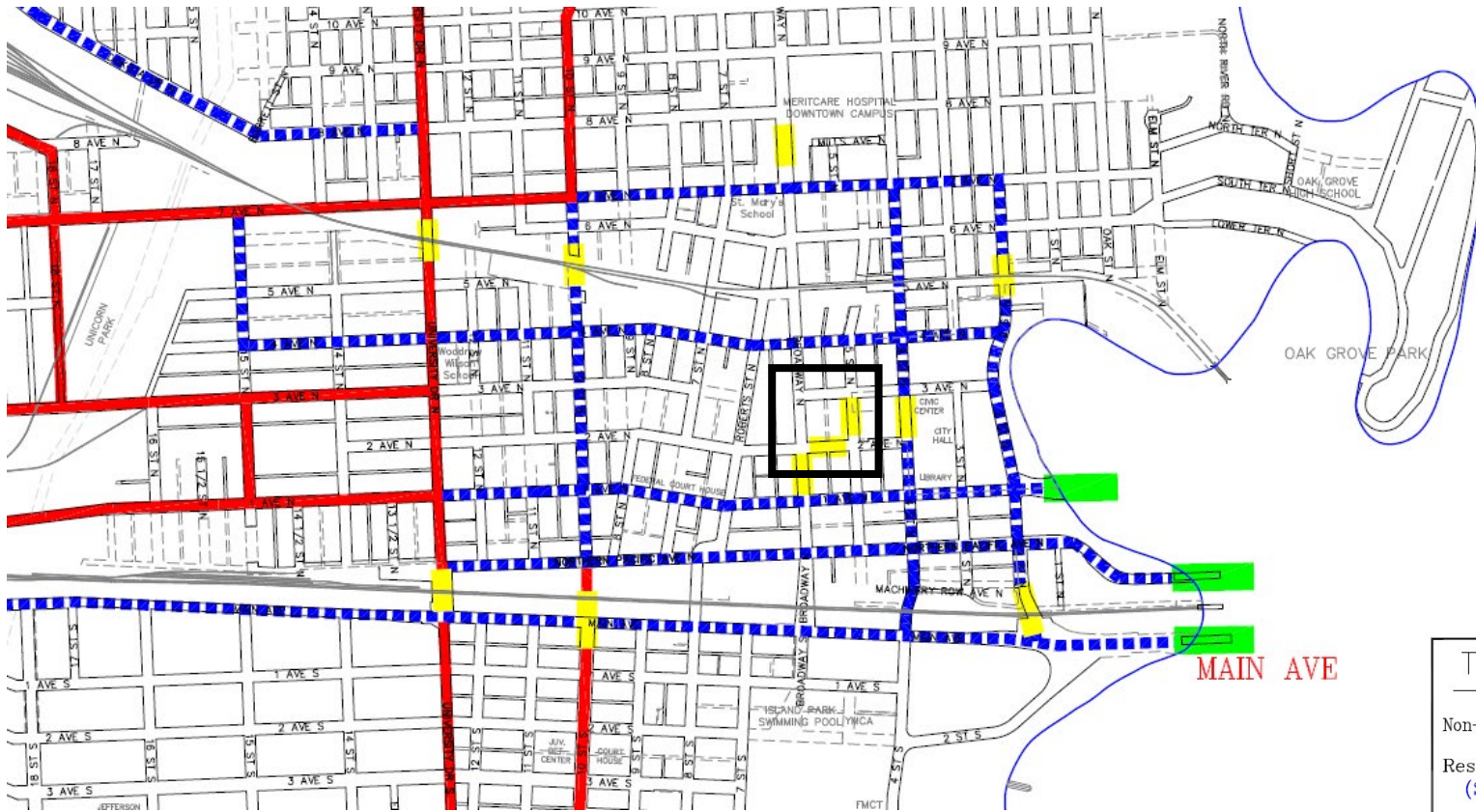


Why this site

- Currently it is a parking lot that acts as a large void on the Broadway street scape
- It has a central location along Broadway
- Has access to alley way to the north
- This site has a prime location for community events



Truck Access



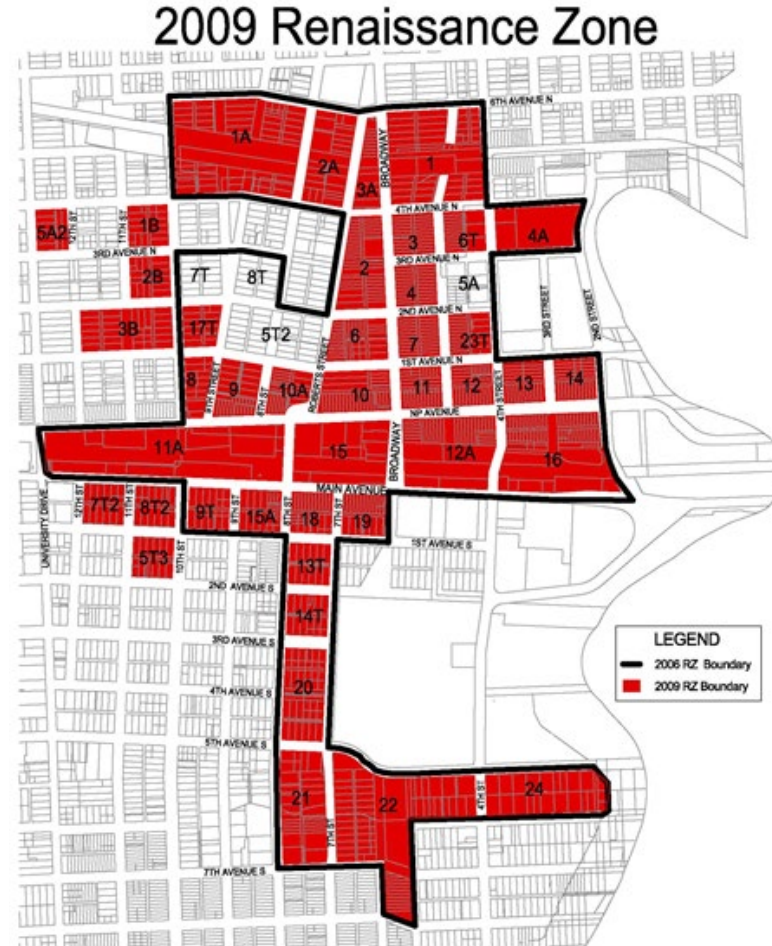
TRUCK ROUTE MAP

- Non-Restricted Truck Route —
- Restricted Truck Route - - - - -
(Spring Load Restrictions)
- Bridges & Underpass Height Restrictions ■
- Bridge Structure Weight Restriction ■

Revised: April 2012

Renaissance Zoning

- **The Place to Be** – Make downtown a key destination for visitor/conventioners and a key destination for residents
- **Ground Floor Uses** – Reserve ground floor land uses to spaces that will encourage the streets to come to life
- **Spruce up the area** – Encourage artist to use place-based artwork that brings a sense of community pride to downtown Fargo
- **Connections and Coordination** – Coordinate public and private efforts to create strong connections between people and place to create a sense of community



Streets Alive



Cruisin Broadway



Street Fair



Early Process Drawing

Brew house separation

Tour - HODO



Kitchen

25x25

625

3 from 2nd

625

Make it for

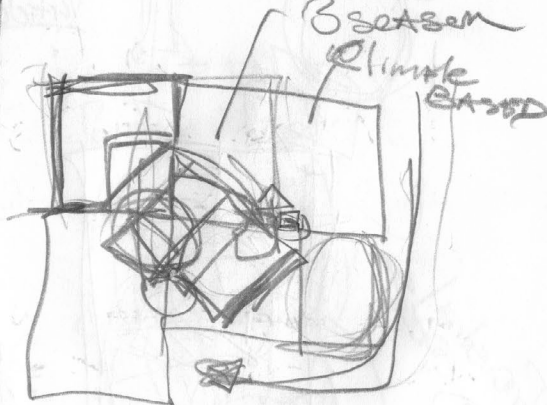
View from the Bar?

OFF center the

MAIN circulation

3 season

climate based



Density Diversity

Brew is small

Circulation

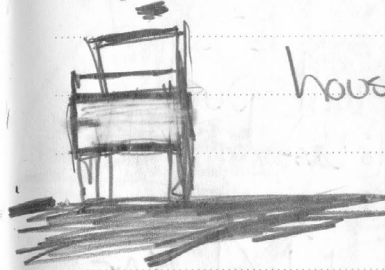
Core But separate

Argue like a Pirate - Why Does a new Design

Inspire so much Drive

The mash shoot

housing / 2

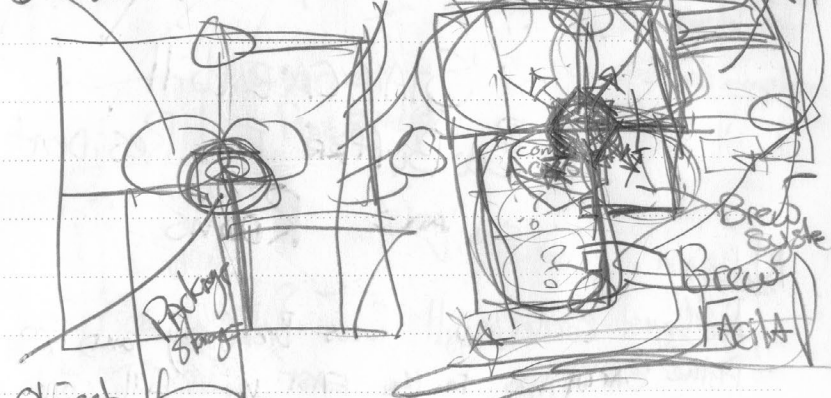


Density With Diversity

GRAND STAIR CASE



Separate For Housing
2 story BAR

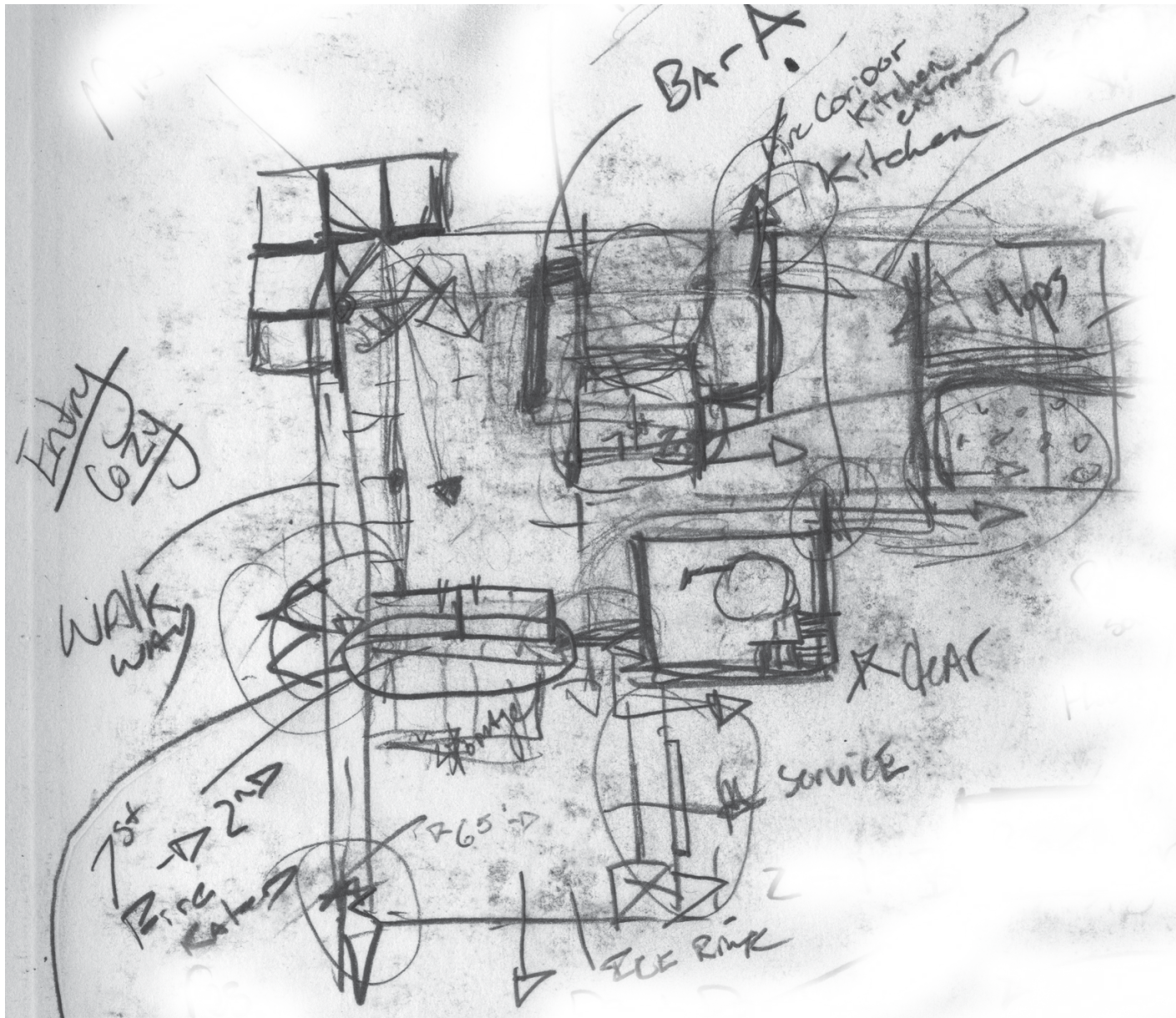


object of circulation

Density with diversity

Ferment basement
Package Storage
Main level

Early Process Drawing



Midterm Changes



Western Section



Western Facade

Midterm Changes

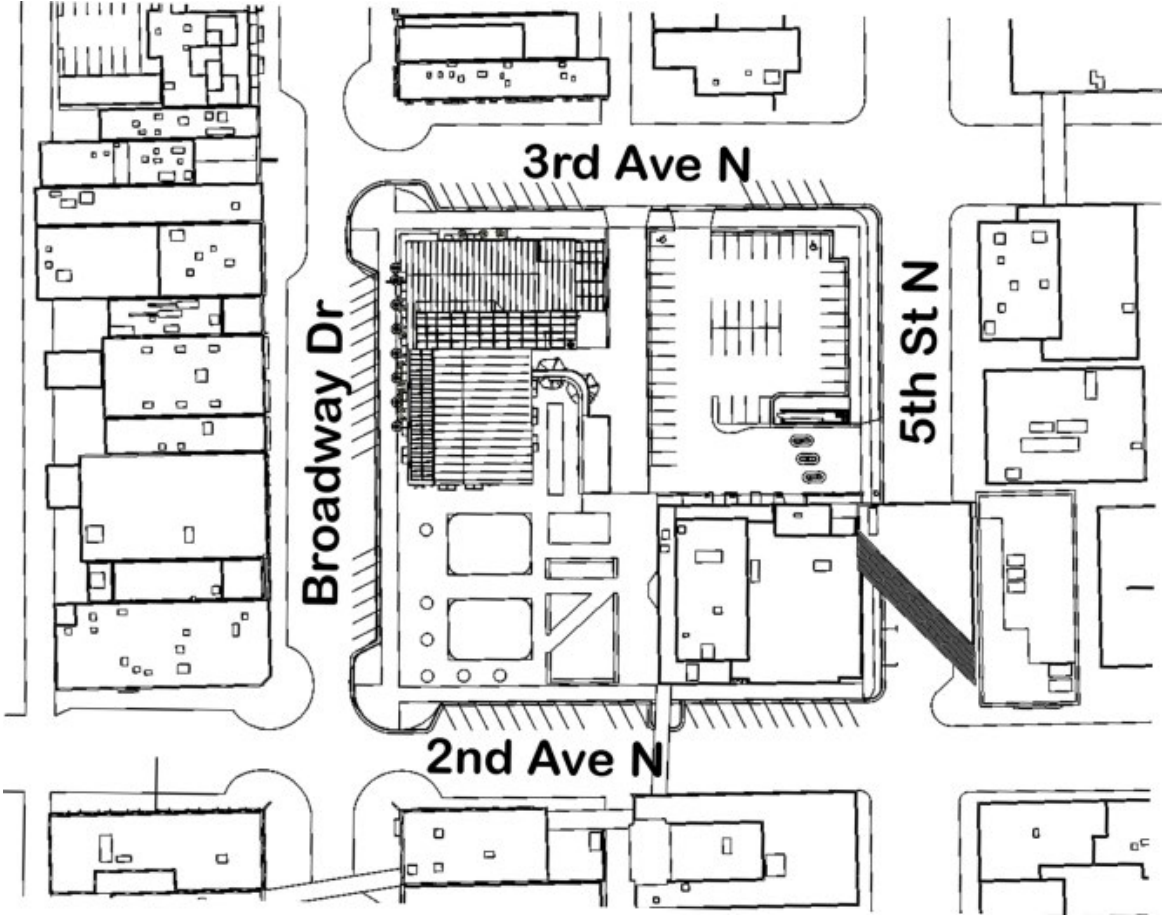


Southern Perspective

Midterm Changes



Site and surrounding buildings



1st Floor

1 - Walkway
1450 sq.ft

2 - Bathroom
555 sq.ft

3 - Lower Dining
2000 sq.ft

4 - Lower Bar
250 sq.ft

5 - Kitchen
680 sq.ft

6 - Keg/Package
900 sq.ft

7 - Loading Dock
960 sq.ft

8 - Cold Liquor Tank
200 sq.ft

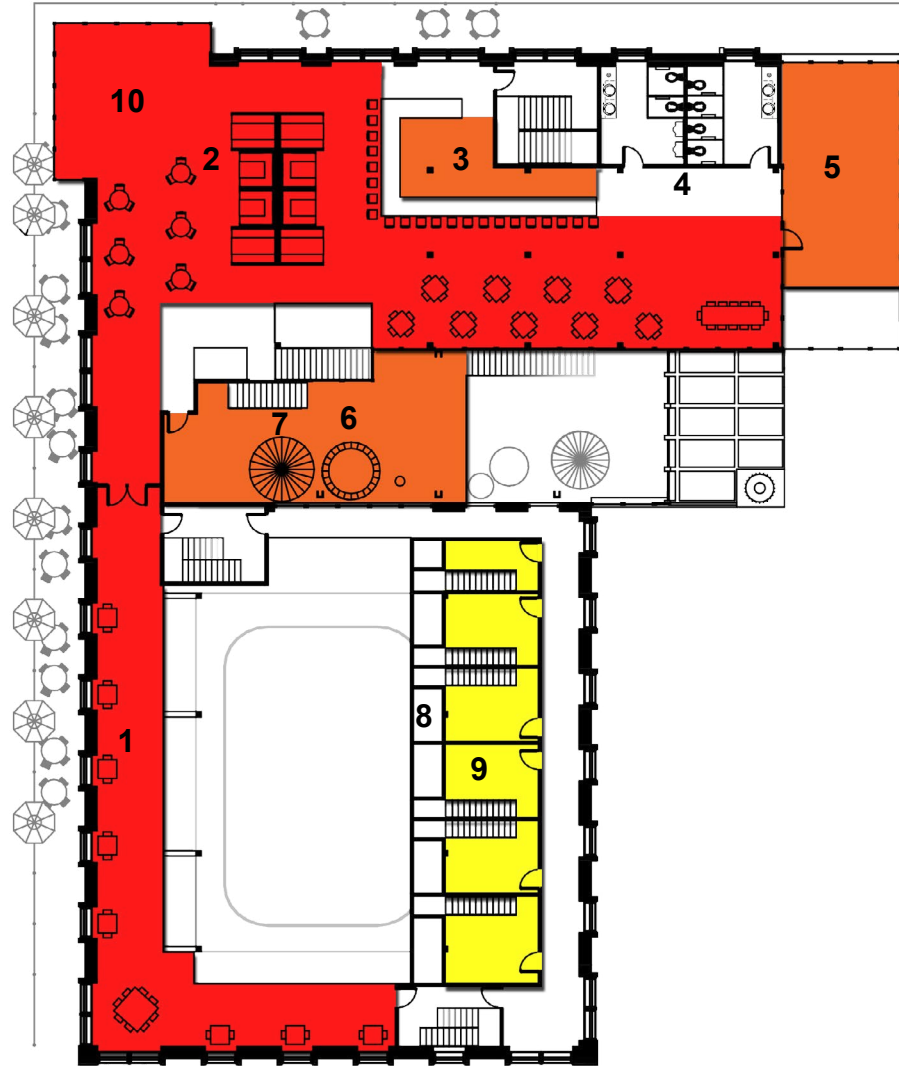
9 - Whirlpool Kettle
370 sq.ft

10 - Event space
4745 sq.ft



2nd Floor

- 1 - Mezzanine
1190 sq.ft
- 2 - Upper Dining
3100 sq.ft
- 3 - Upper Bar
450 sq.ft
- 4 - Bathroom
555 sq.ft
- 5 - Greenhouse
800 sq.ft
- 6 - Boil Kettle
150 sq.ft
- 7 - Lauter Tun
180 sq.ft
- 8 - Mech. Space
300 sq.ft
- 9 - Mudroom
1000 sq.ft
- 10 - Observation Space
625 sq.ft



Second Floor
0 5 10 20 50

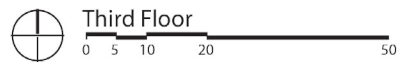
3rd Floor

1 - Residential Space
4800 sq.ft

2 - Patio Space
1100 sq.ft

3 - Mash tun
190 sq.ft

4 - Hot Liquor Tank
150 sq.ft



Basement

1 - Fermenters
1050 sq.ft

2 - Lab Space
210 sq.ft

3 - Grain Room
400 sq.ft

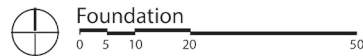
4 - Office
160 sq.ft

5 - Cold Storage
265 sq.ft

6 - Employee Lounge
350 sq.ft

7 - Prep. Space
480 sq.ft

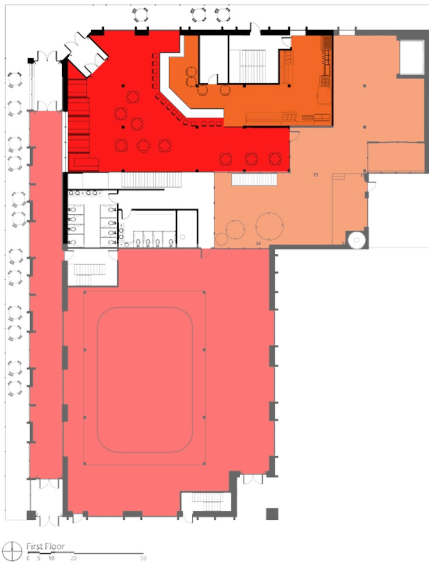
8 - Mech. Space
500 sq.ft



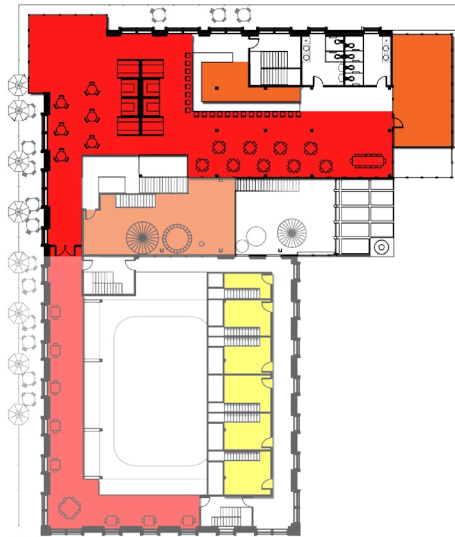
Walkway



Lower Bar



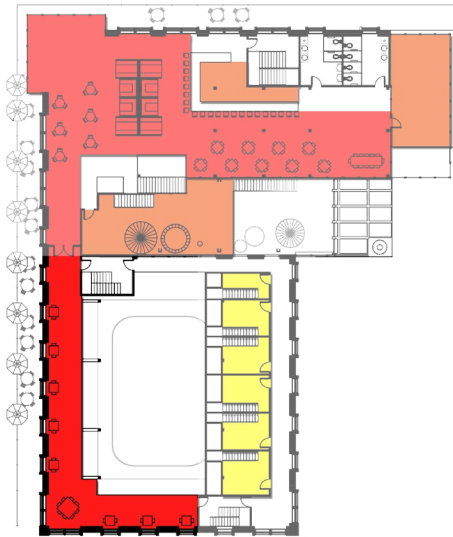
Upper Bar



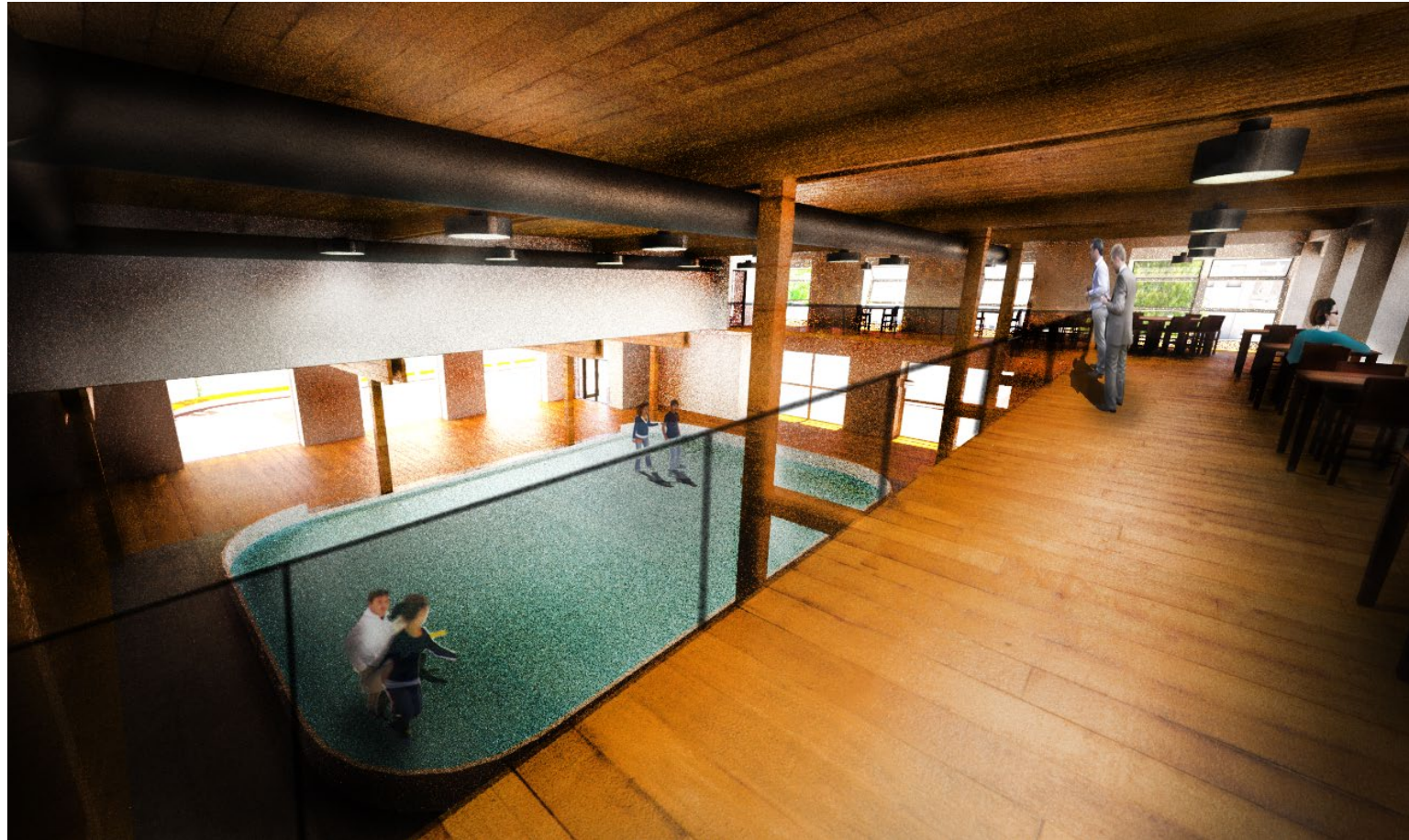
Second Floor
0 5 10 20 50



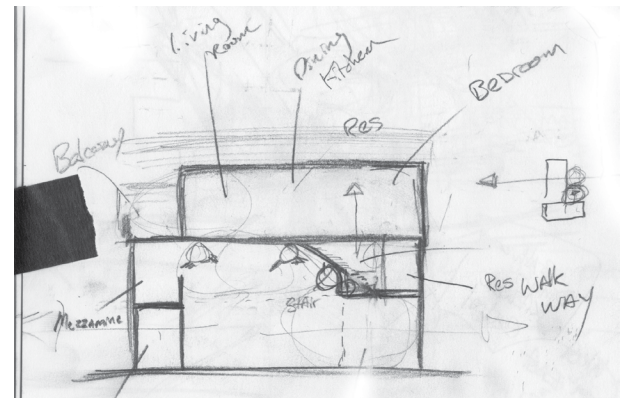
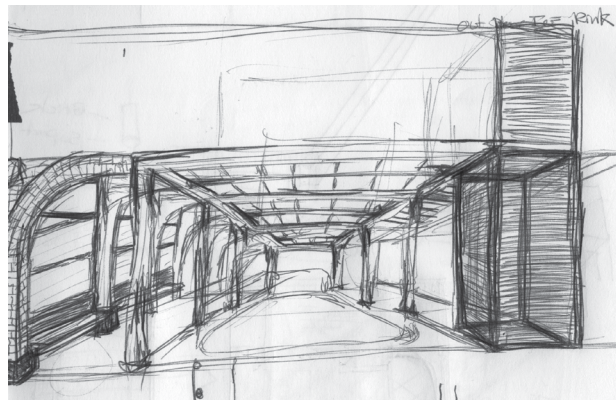
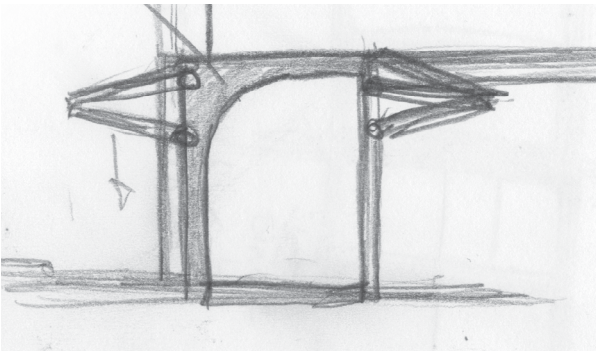
Mezzanine



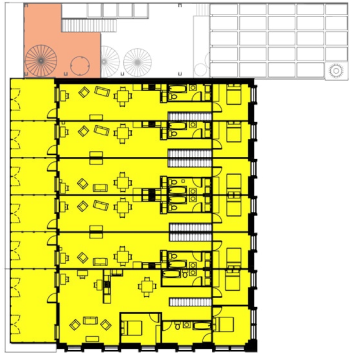
Second Floor
0 5 10 20 30







Residential Unit



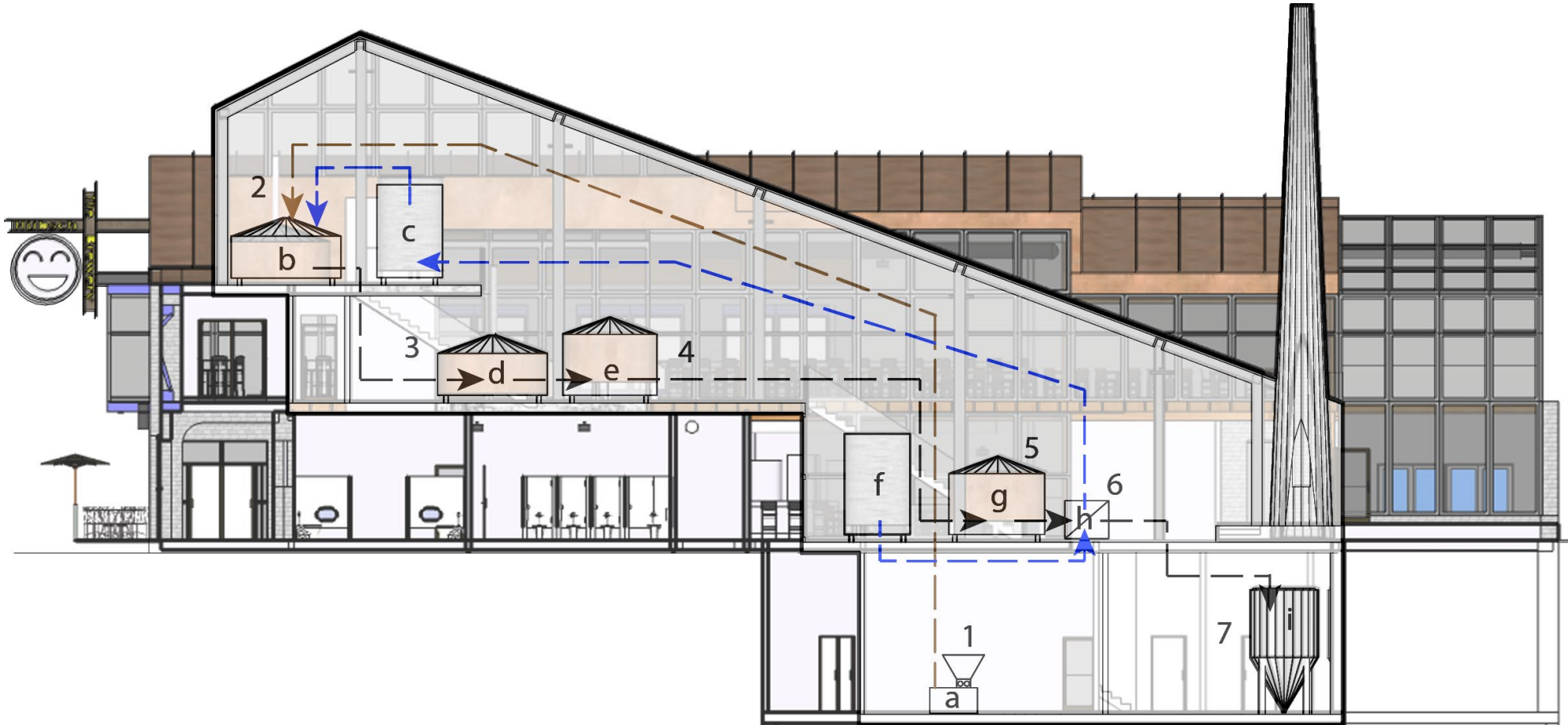
Third Floor
0 5 10 20 50



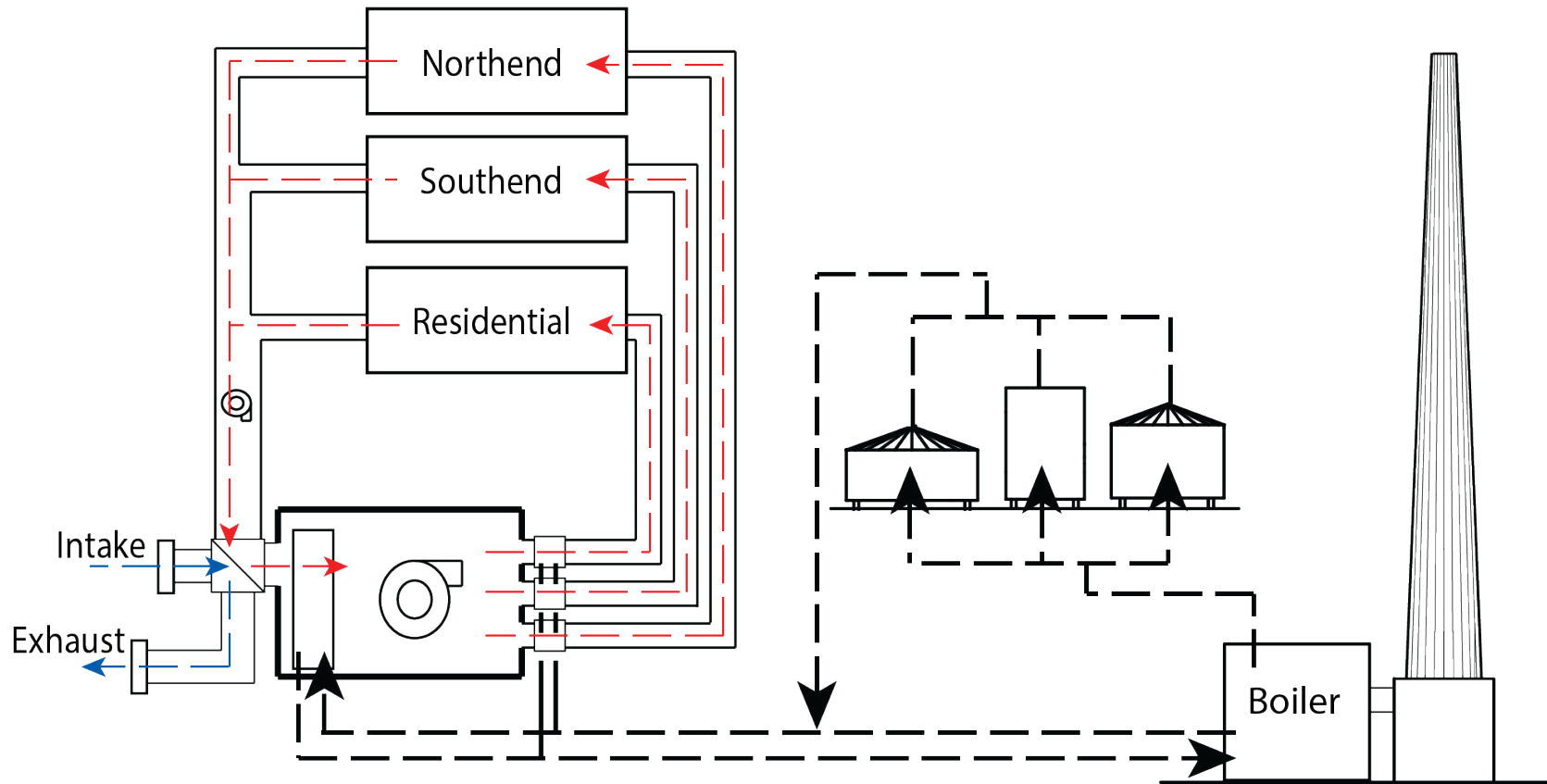
Brew House



How to Brew



HVAC Integration



Wall Detail

Copper Sheet Roof
 Hidden Gutter Channel
 12" Rigid Insulation
 4" Structural Wood Deck
 Fixed Greenhouse Glass

Cap Flashing
 Continuous Screen Vent
 4" Brick Veneer
 1" Air Space
 2" Rigid Insulation
 8" CMU
 4" Metal Stud w/soy
 Insulation
 4" Interior Finished Brick

4" Brick Veneer
 1" Air Space
 2" Rigid Insulation
 8" CMU
 4" Metal Stud w/soy
 Insulation
 4" Interior Finished Brick

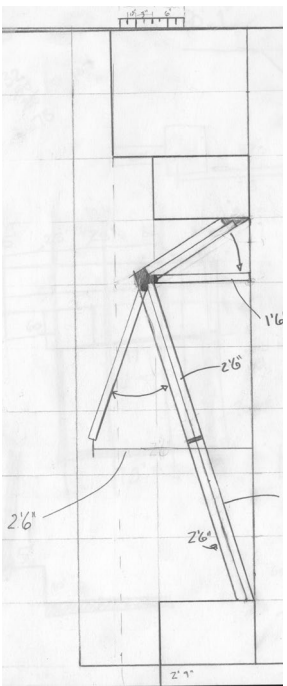
Flashing with end dams
 and weepholes

Finished Wood Flooring
 6" Structural Slab
 Concrete Footing
 Set 5' Below Grade

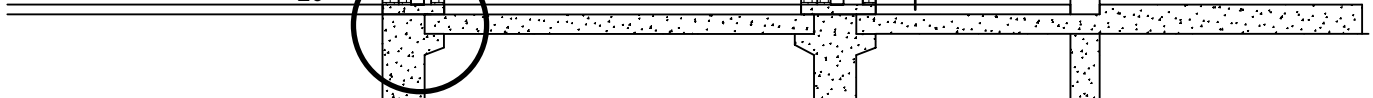
Operable Garage Door

3 1/2" Structural Wood
 Deck
 Batt Insulation
 4" Structural Wood Deck
 12" Glulam Beam
 Steel Plate Connector
 10" Timber Post

4" Brick Veneer
 1" Air Space
 2" Rigid Insulation
 8" CMU
 4" Metal Stud w/soy
 Insulation
 4" Interior Finished Brick



Wall Detail - D.







LIVE STEWERY
Hubschi



Walmart



Questions