

# StarTribune

## An old building heading nowhere

Once ornate, 628 E. Franklin has been through myriad financial setbacks and development fights.

By **STEVE BRANDT** Star Tribune | MARCH 1, 2011 — 10:27PM





Phillips ReGen

Attached Housing Division





## An old building heading nowhere

Once ornate, 628 E. Franklin has been through myriad financial setbacks and development fights.

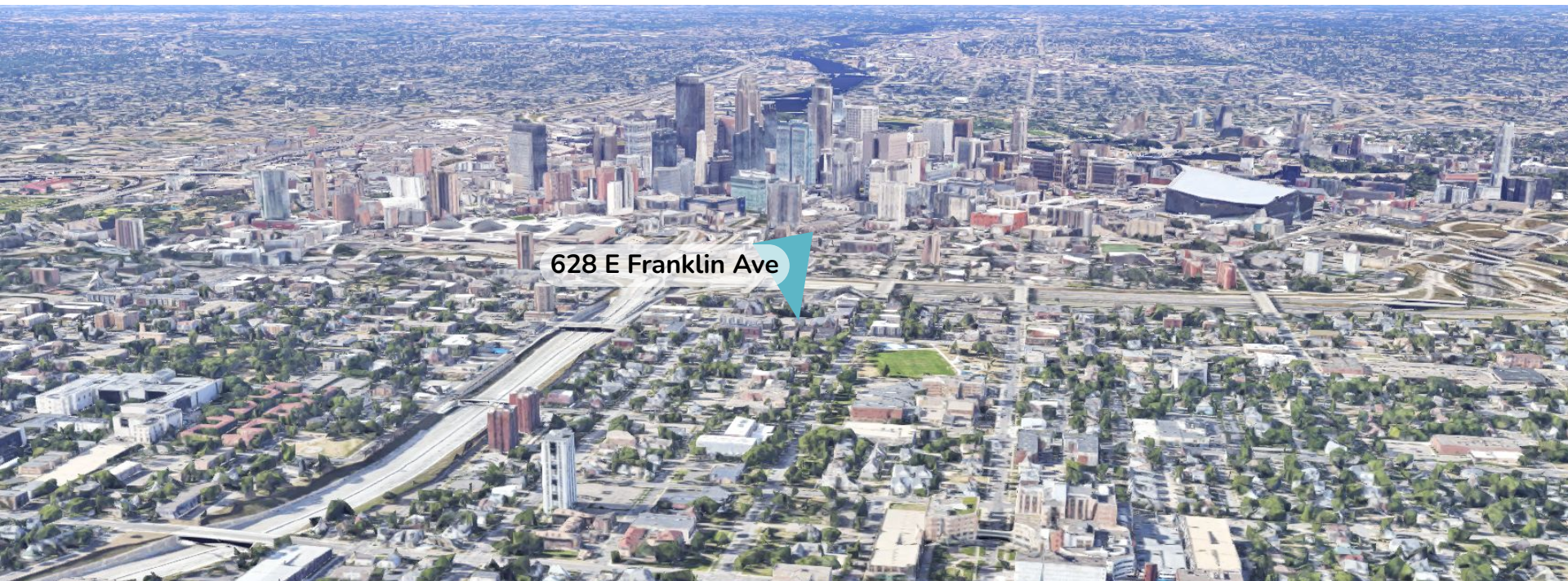
By **STEVE BRANDT** Star Tribune | MARCH 1, 2011 — 10:27PM



"It's aggravating that the building sits there like that," said Alan Arthur.



# The Neighborhood

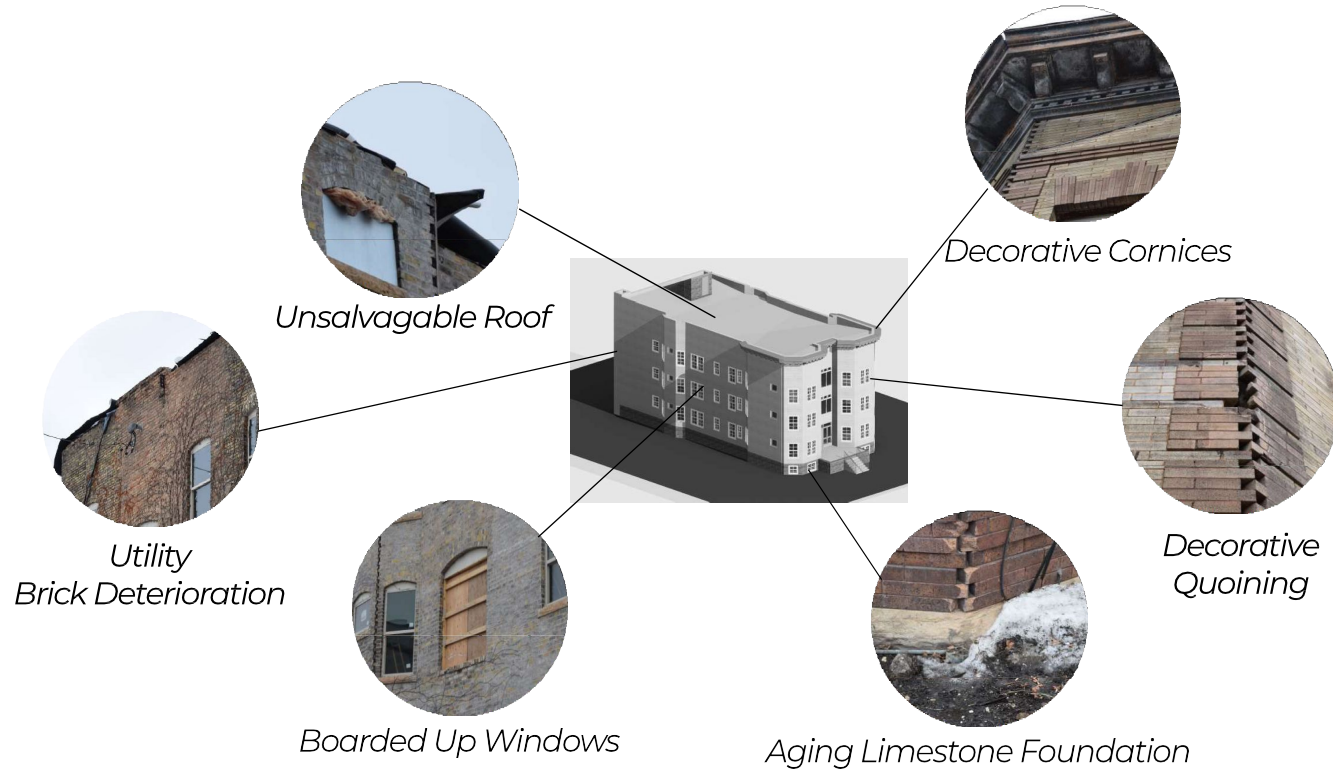




# The Neighborhood



# Existing Conditions





Can it be saved?



Can it be saved?



Should it be saved?





Can it be saved?



Should it be saved?

Can it meet modern expectations?



# Why Phillips ReGen?





# Why Phillips ReGen?

Preserve



# Why Phillips ReGen?

Preserve

Reclaim



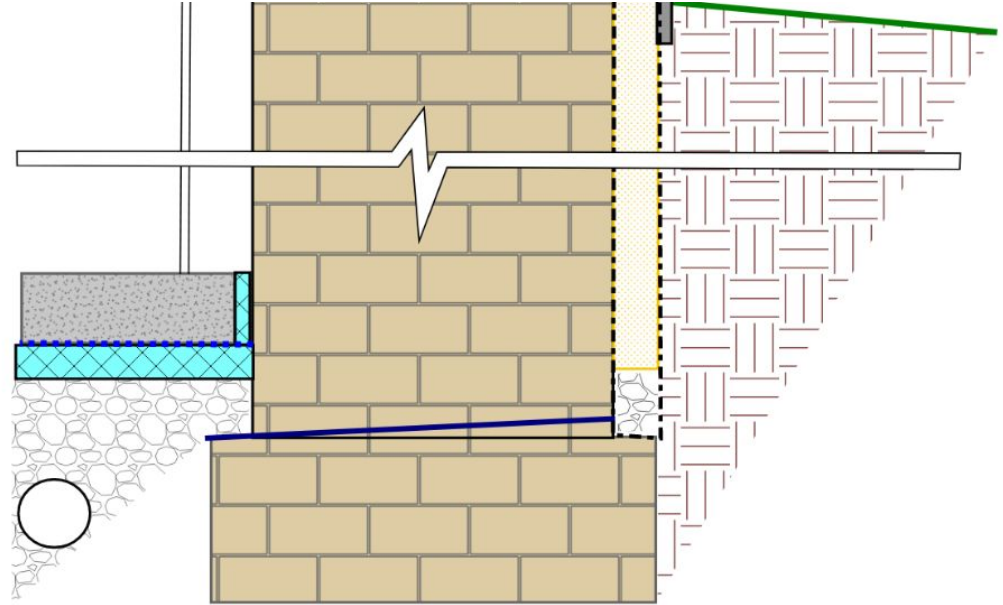


# Why Phillips ReGen?

Preserve

Reclaim

**Innovate**



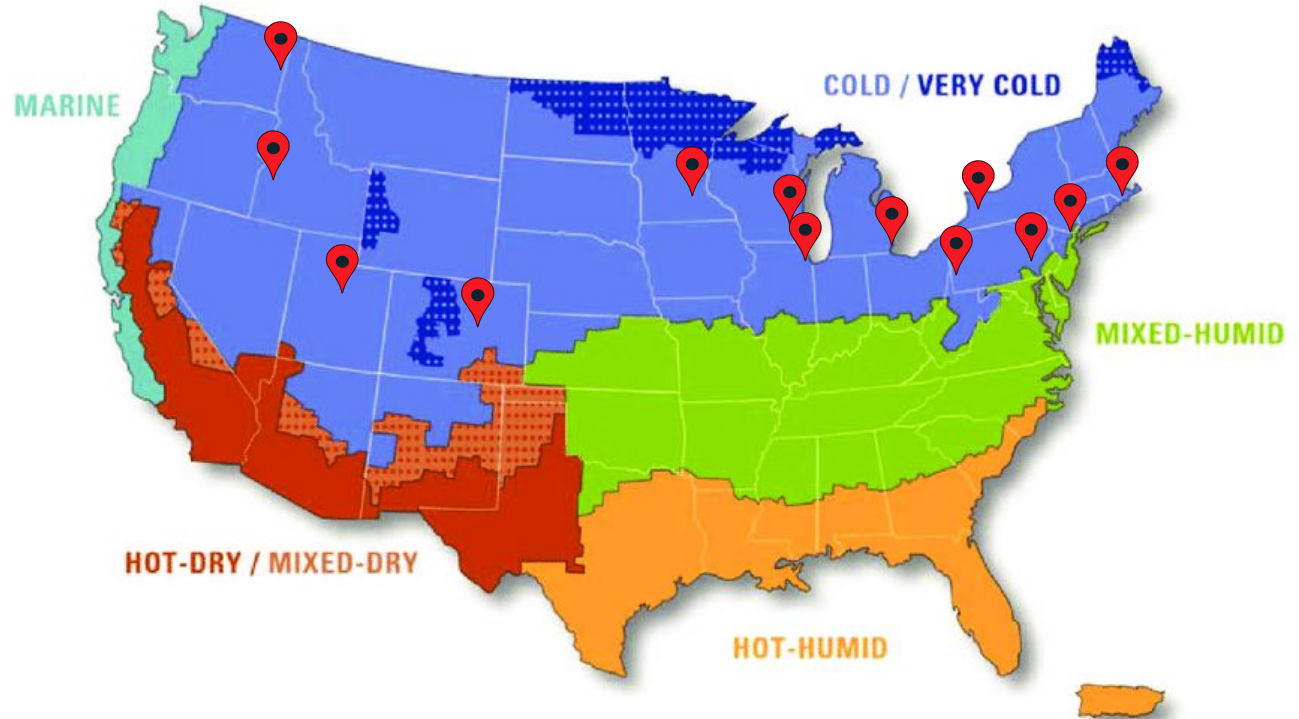
# Why Phillips ReGen?

Preserve

Reclaim

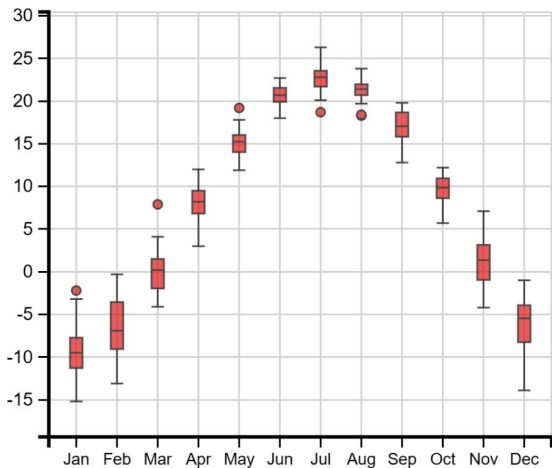
Innovate

Replicate

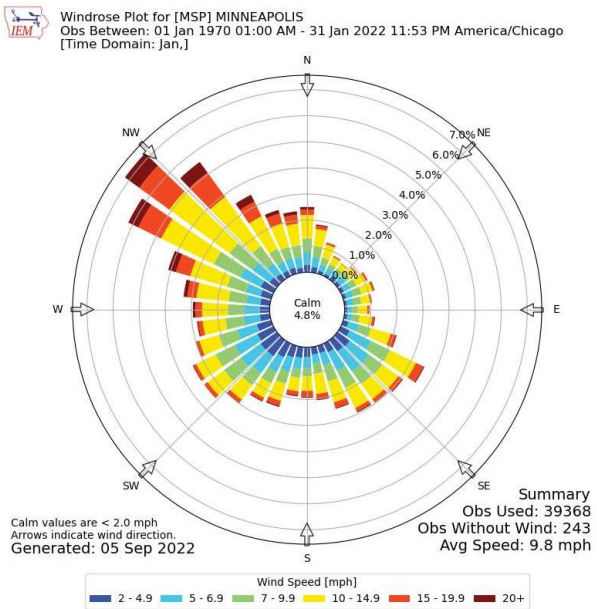
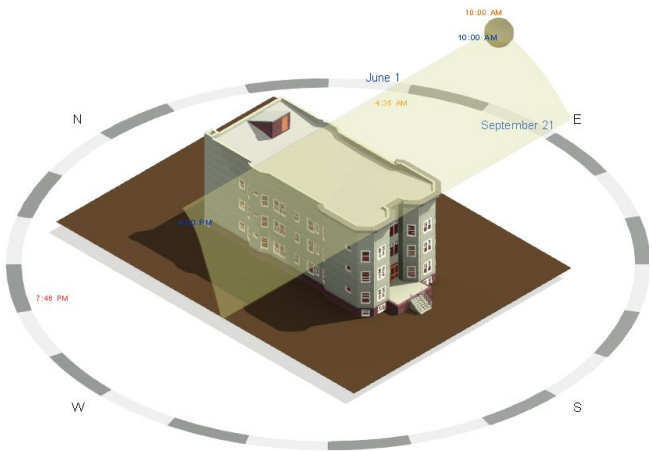


# Climate Considerations

Distribution of Temperature [°C]

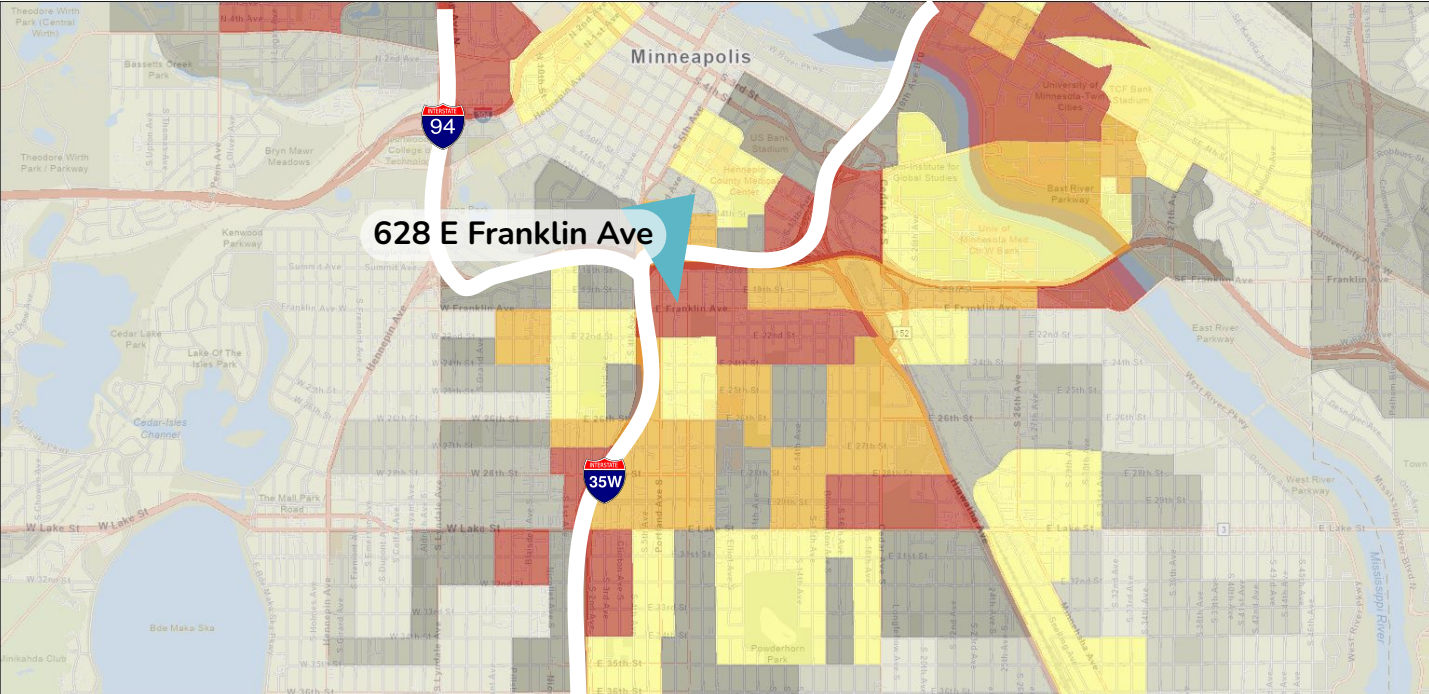


Data Source: CRU Time Series v4.05  
<https://catalogue.ceda.ac.uk/uuid/c26a65020a5e4b80b20018f148556681>





# Neighborhood Pollution



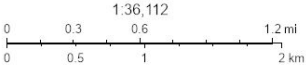
4/16/2023

Air Toxics Cancer Risk  
(National Percentiles)

Less than 50 percentile

- 50 - 60 percentile
- 60 - 70 percentile
- 70 - 80 percentile

- 80 - 90 percentile
- 90 - 95 percentile



City of Minneapolis, Metropolitan Council, MetroGIS, Three Rivers  
Park District, Esri, HERE, Garmin, SafeGraph, GeoTechnologies,  
Inc, METNUSA, USGS, EPA, NPS, US Census Bureau, USDA



# Target Market



# Design Goal 1





## Design Goal 2



# Design Goal 3



## Design Goal 4





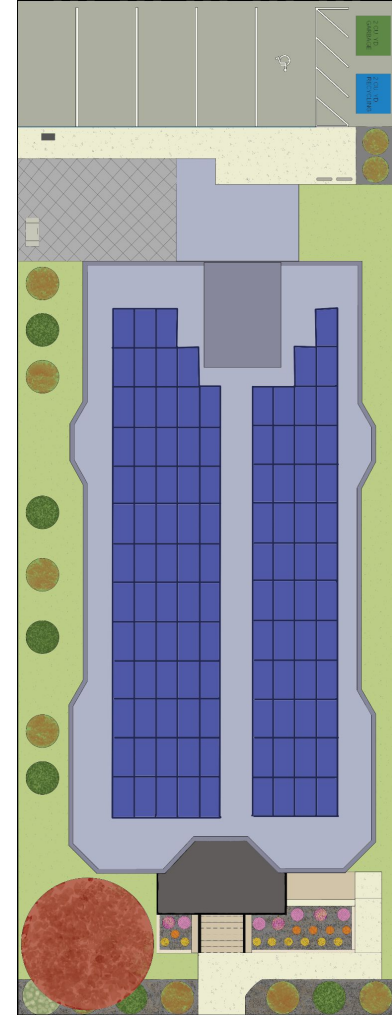
# Design Goal 5



# Design Goal 6



# Landscape Architecture

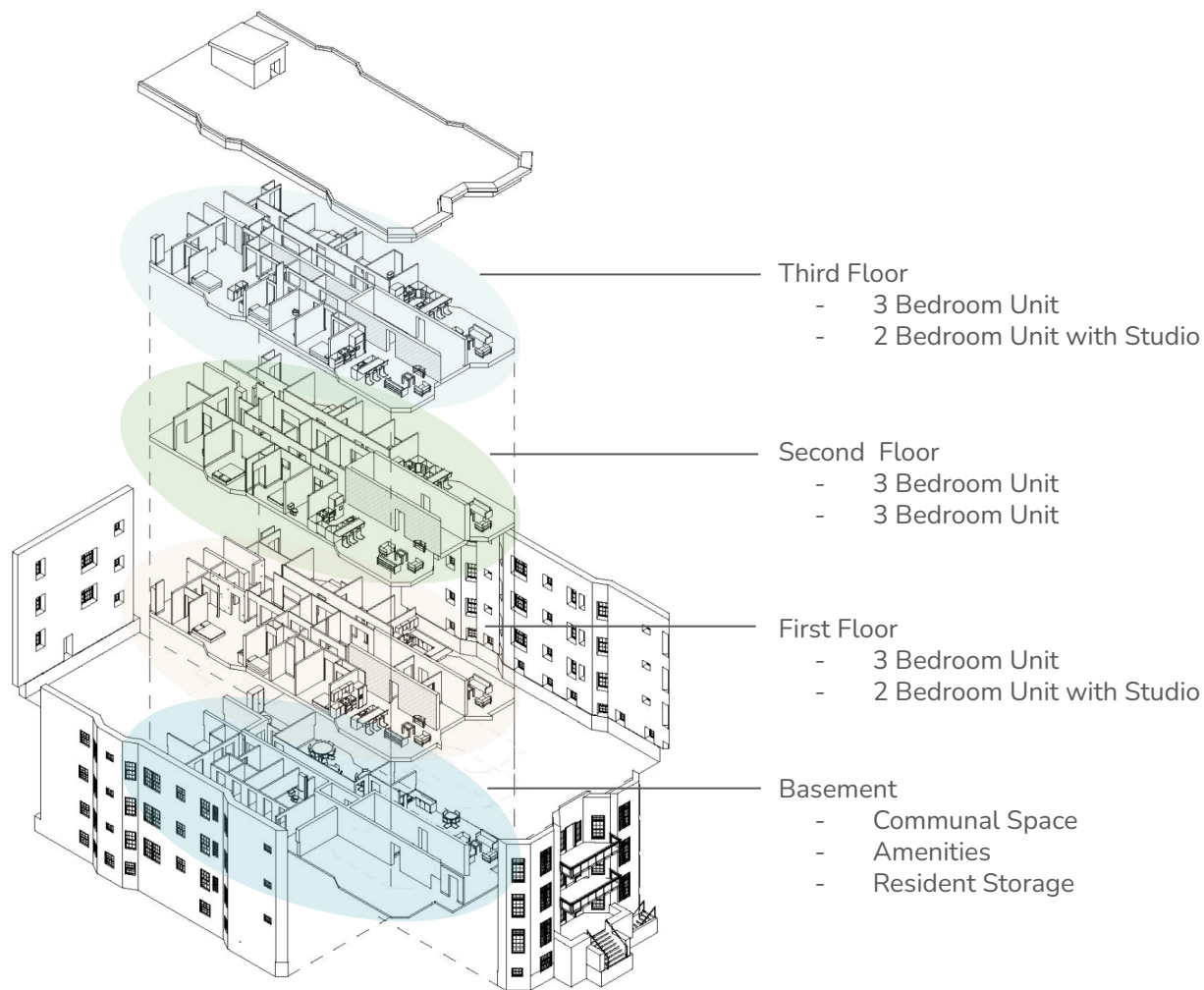




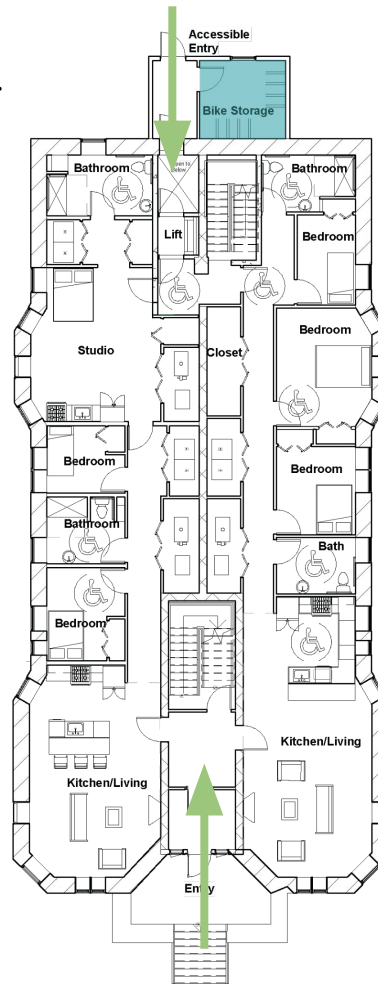
# Landscape Architecture




# Architecture



# Architecture | First Floor

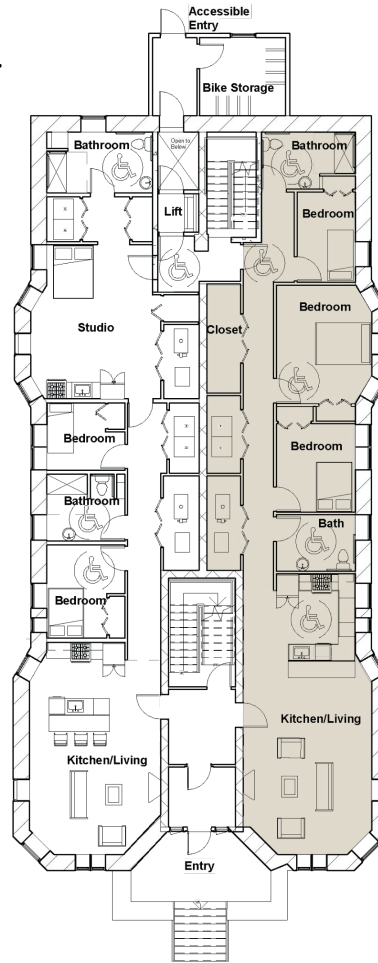


## Room Legend

 Bike Storage



# Architecture | First Floor



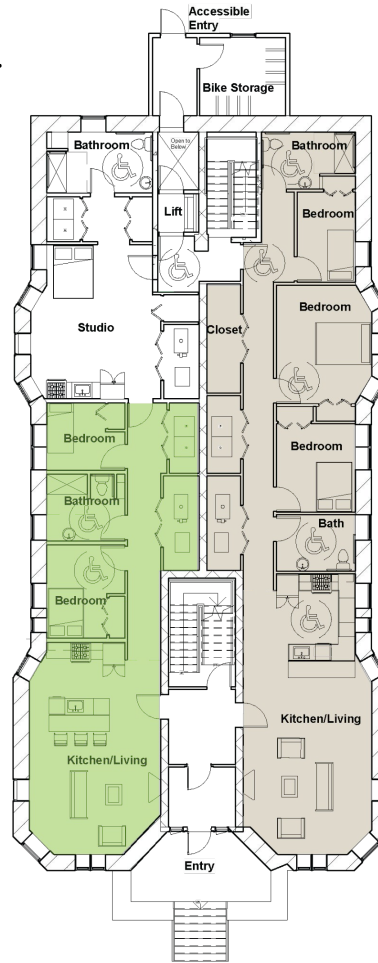
## Room Legend

■ 3 Bedroom | 1,500 sf





# Architecture | First Floor



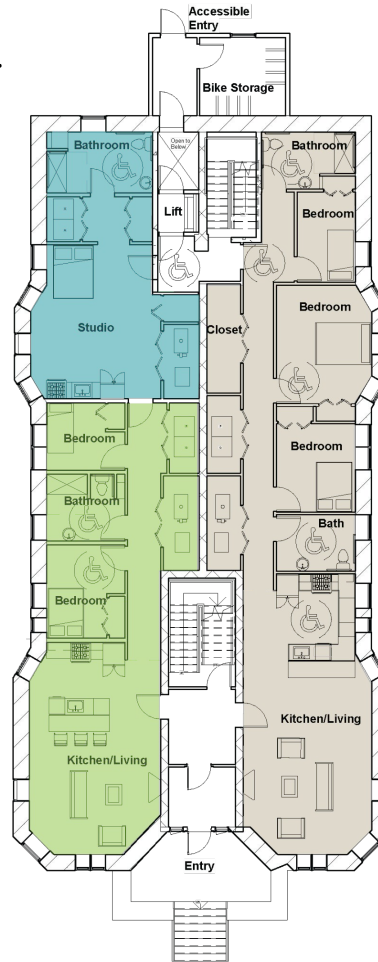
## Room Legend

3 Bedroom | 1,500 sf

2 Bedroom | 1,000 sf



# Architecture | First Floor

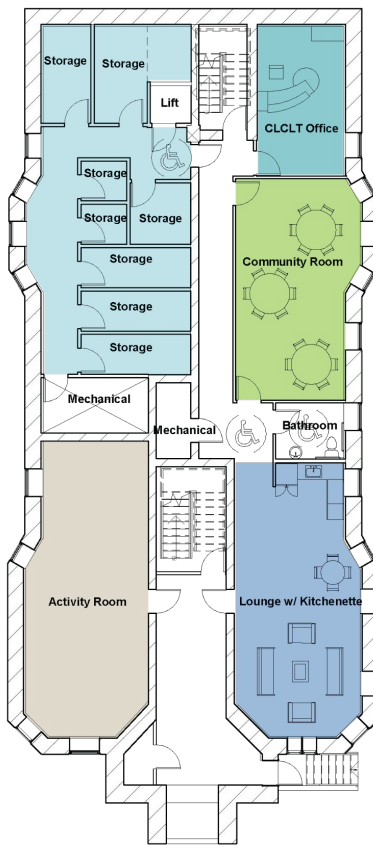


## Room Legend

- 3 Bedroom | 1,500 sf
- 2 Bedroom | 1,000 sf
- Attached Studio | 500 sf



# Architecture | Basement

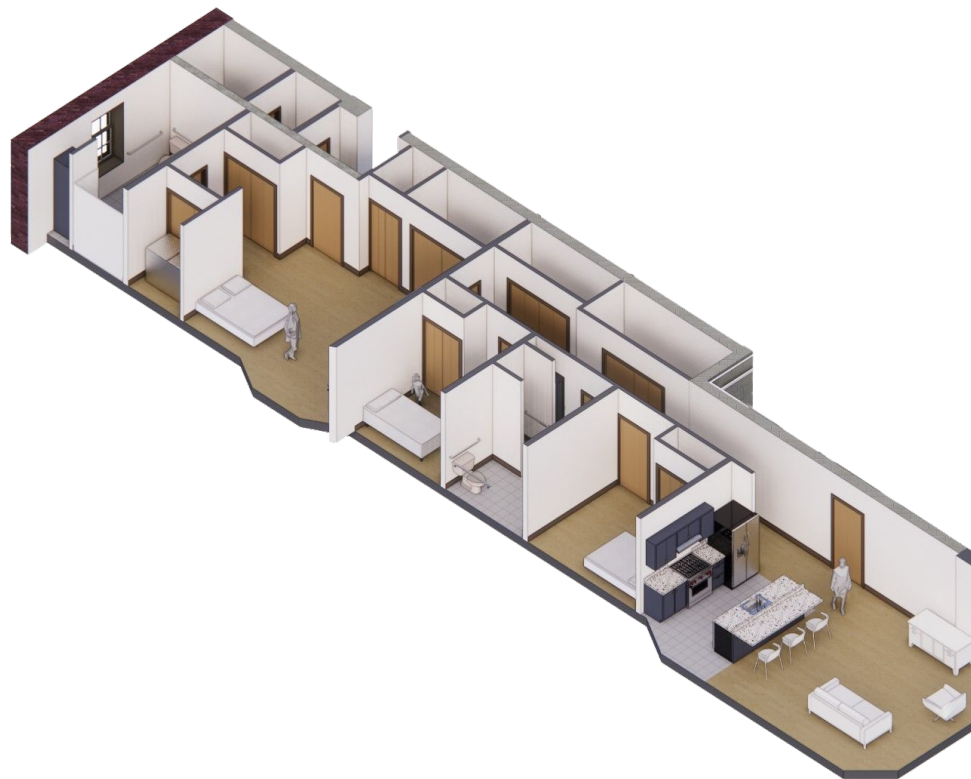


## Room Legend

- Resident Storage Rooms
- Activity Room
- City of Lakes Community Land Trust Office
- Community Room
- Lounge with Kitchenette

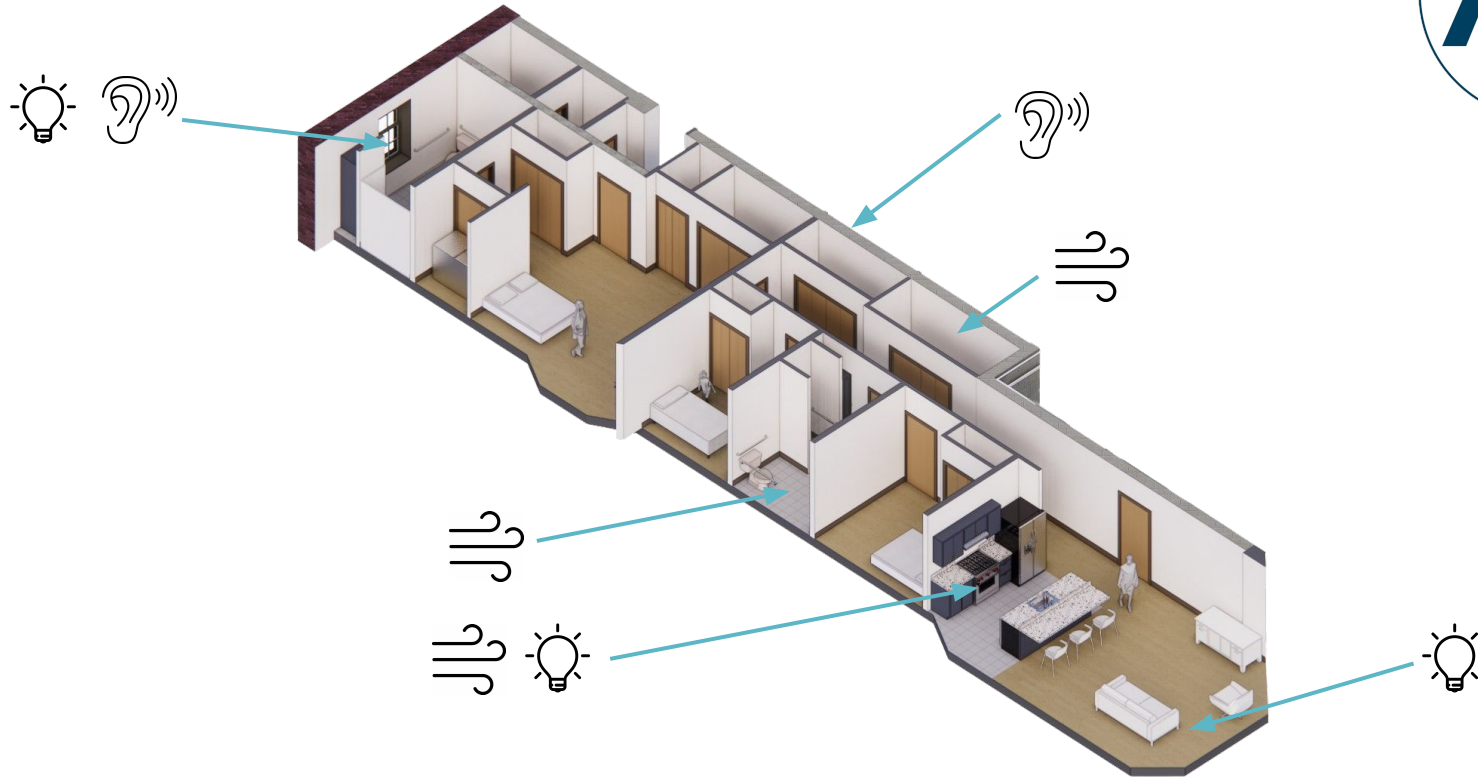


# Comfort & Indoor Environmental Quality

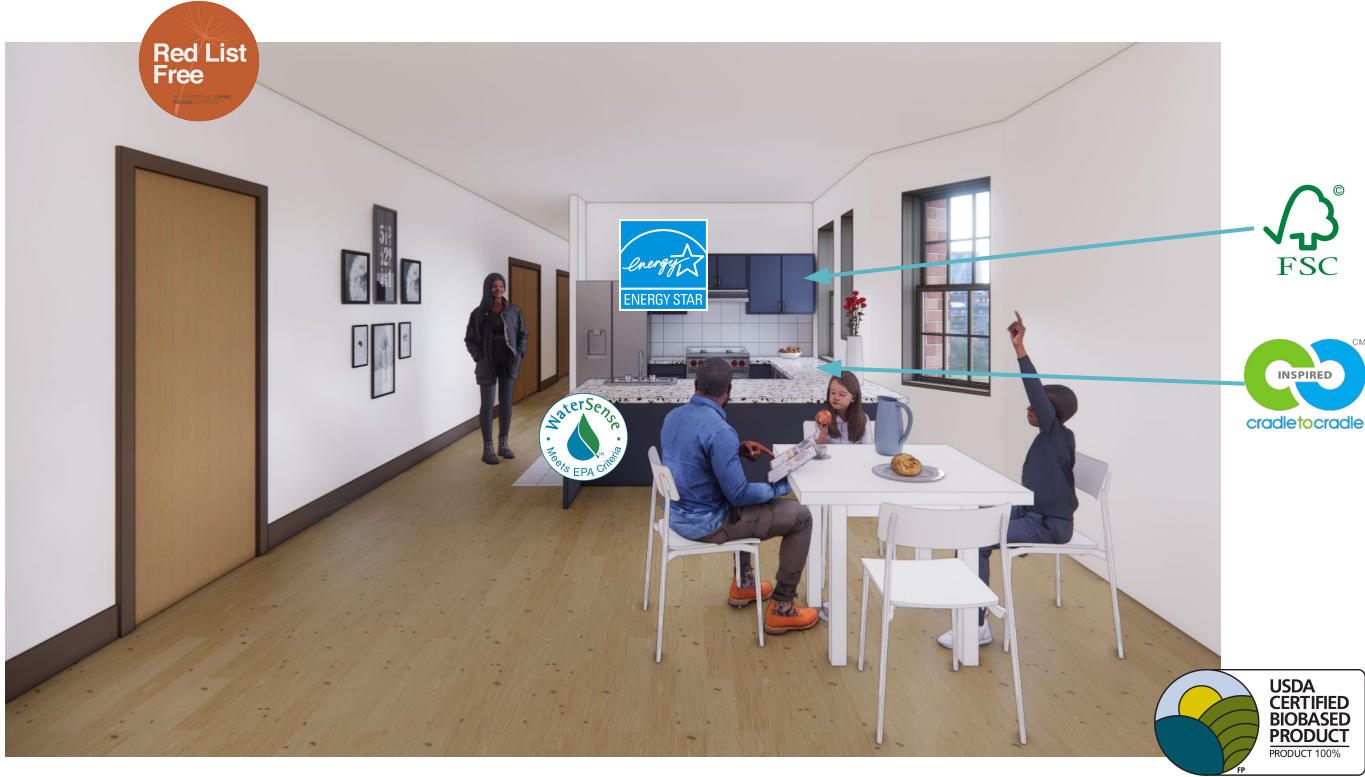




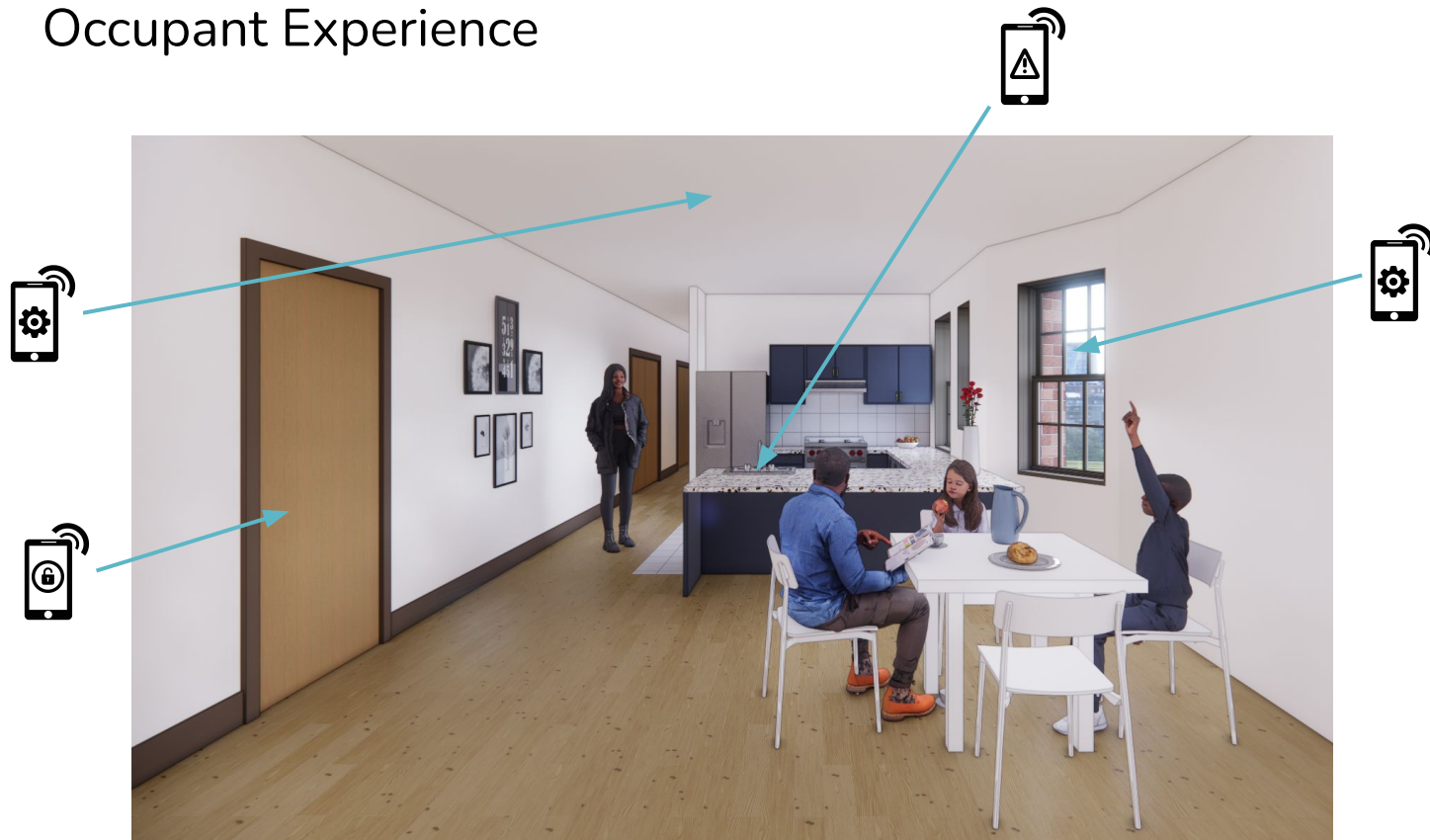
# Comfort & Indoor Environmental Quality



# Occupant Experience



# Occupant Experience

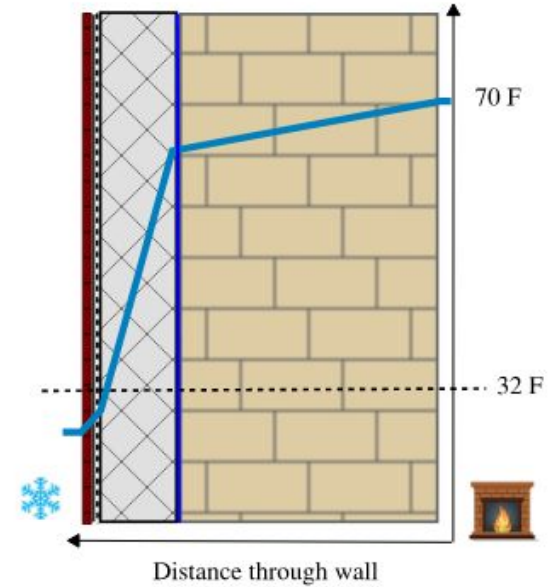
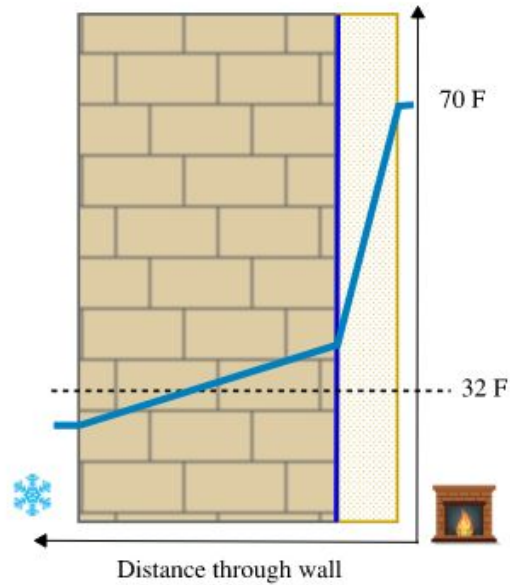
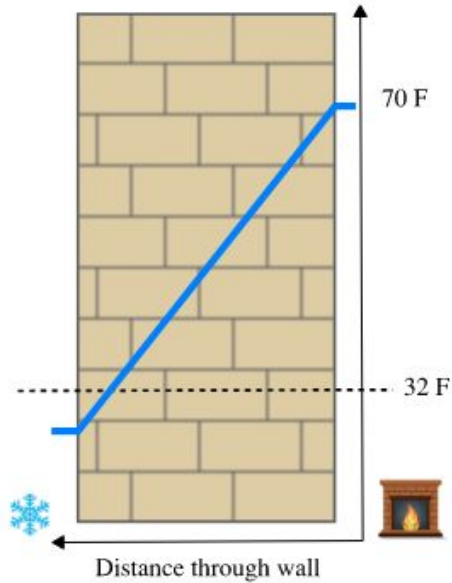


# Occupant Experience

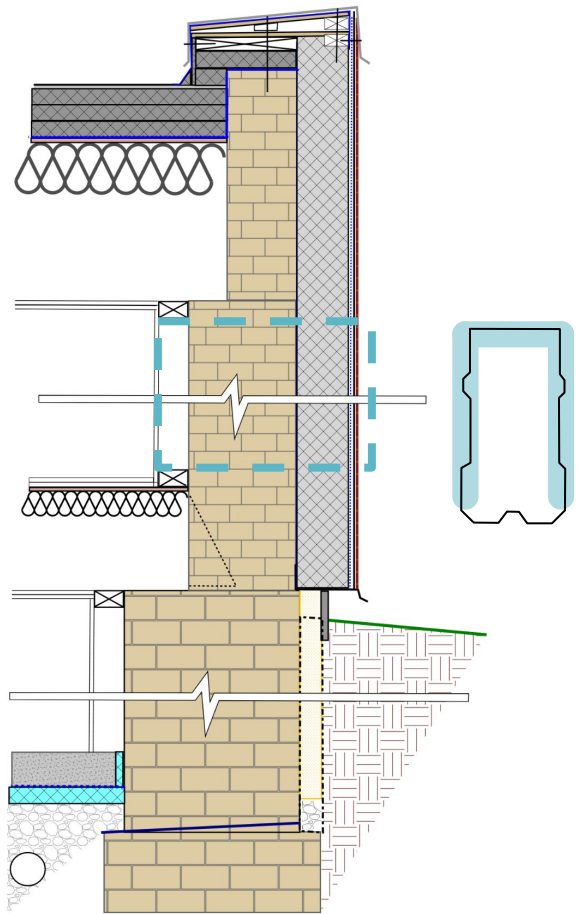
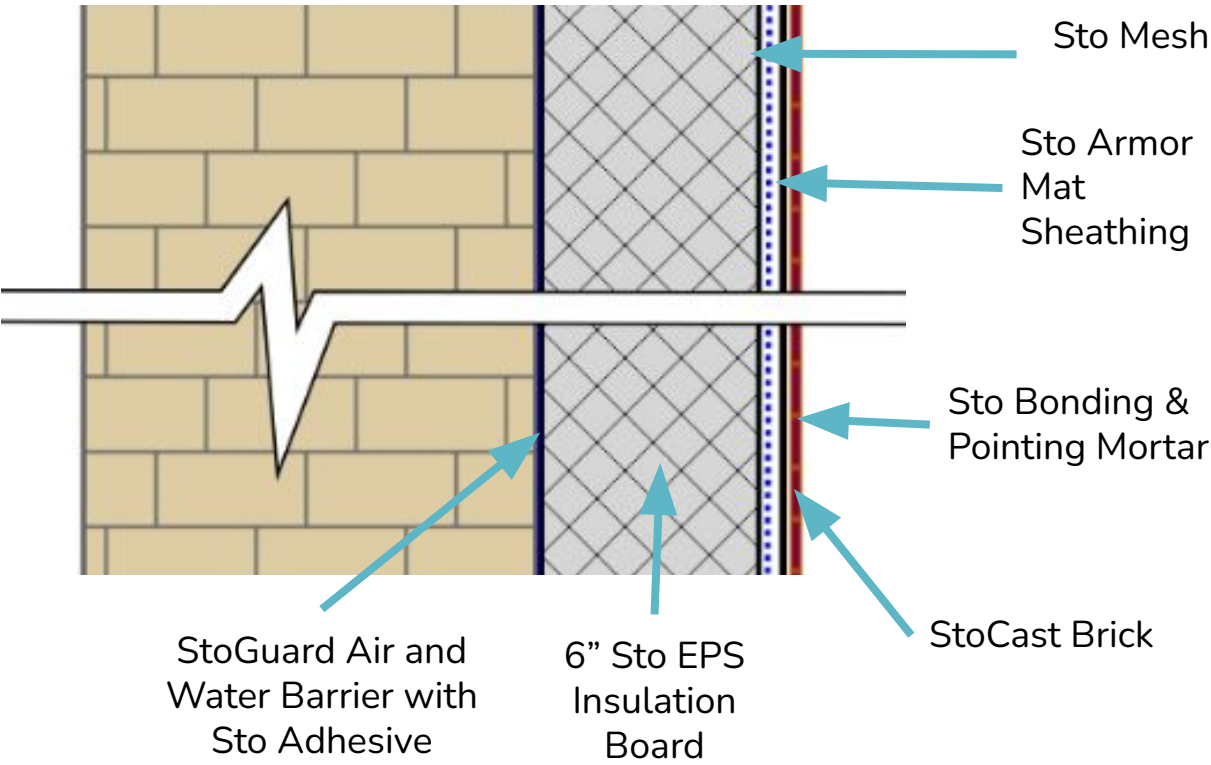




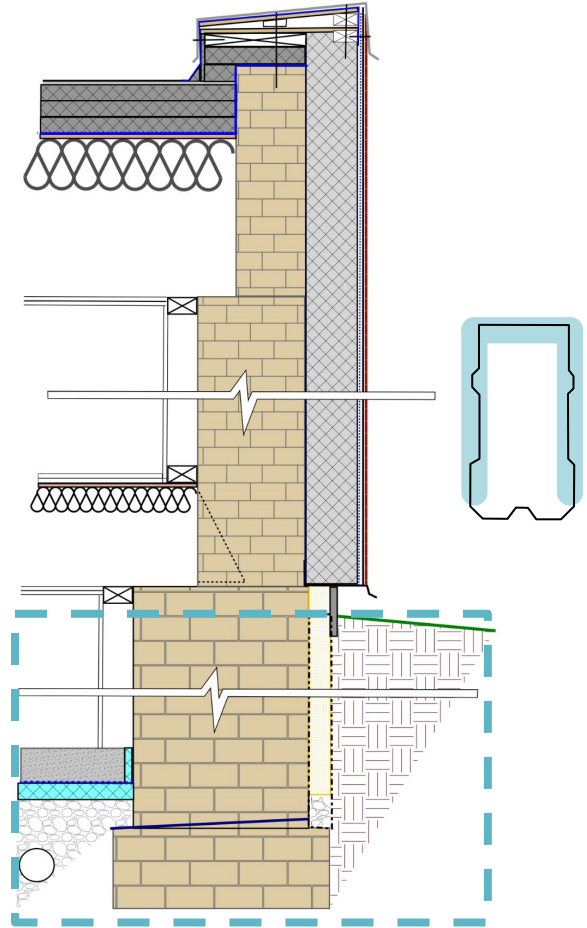
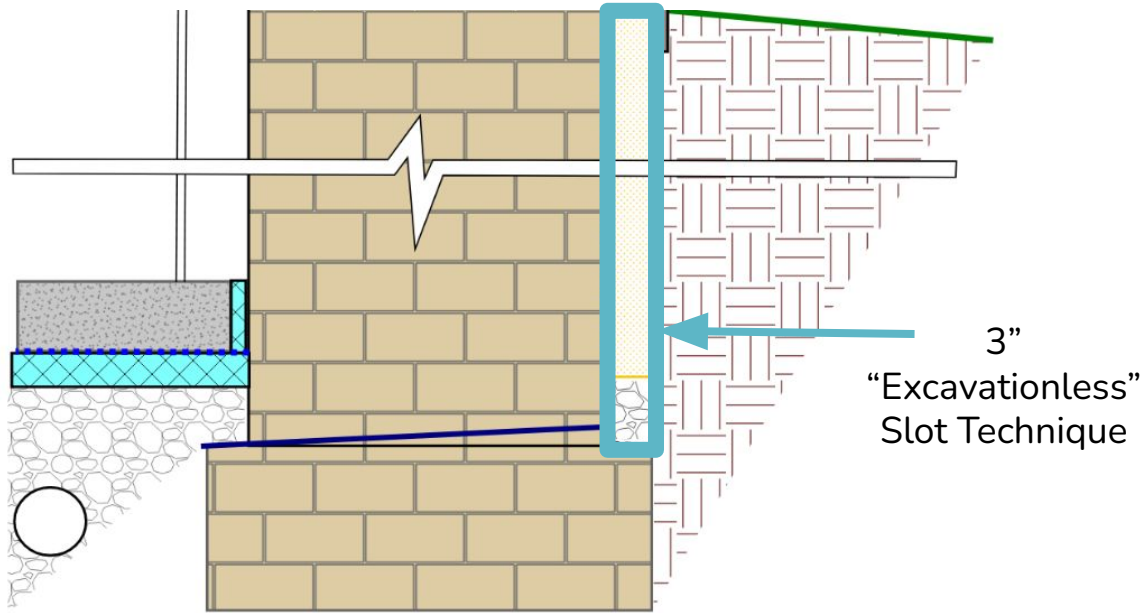
# Enclosure Approach



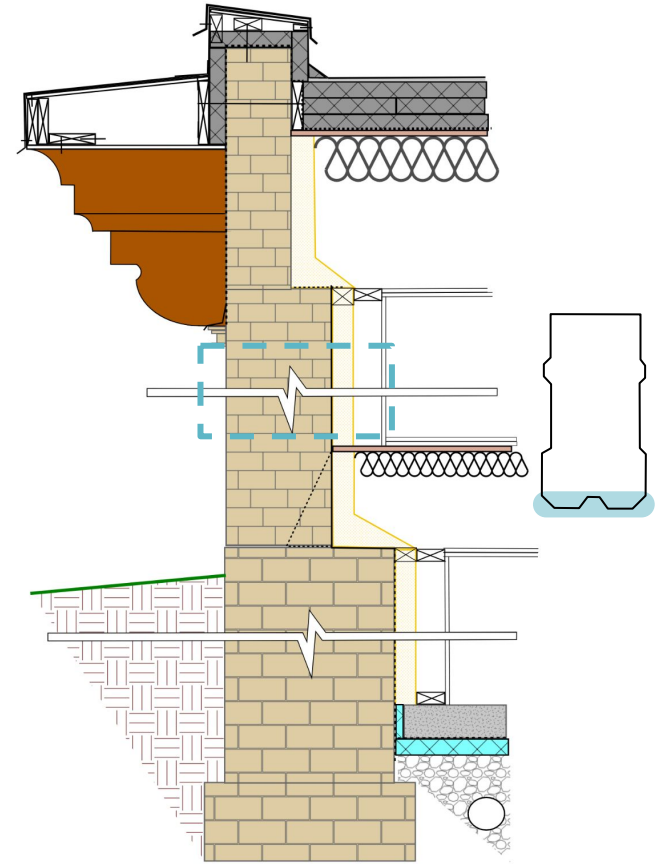
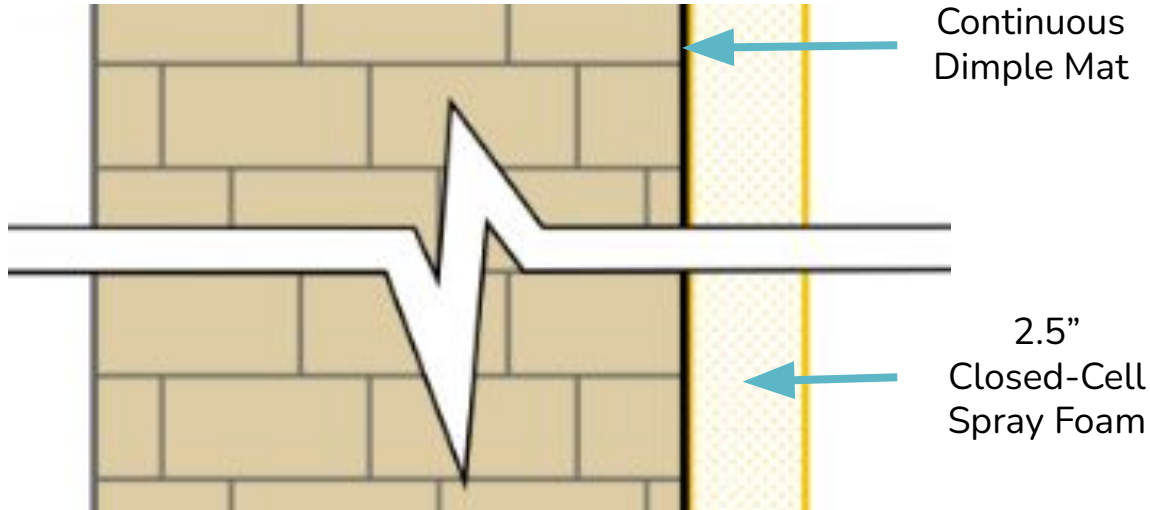
# North , East, and West Walls



# “Excavationless” Technique

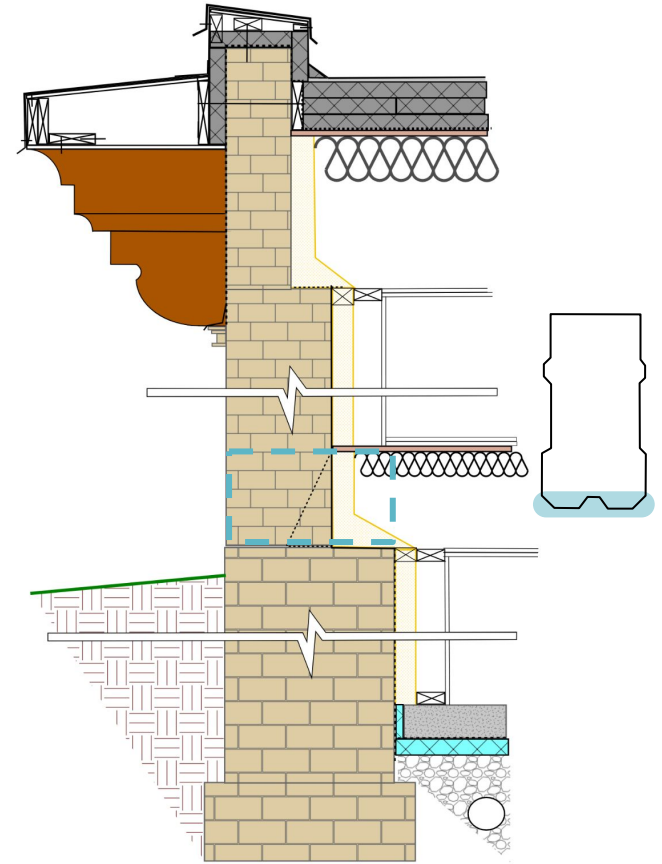
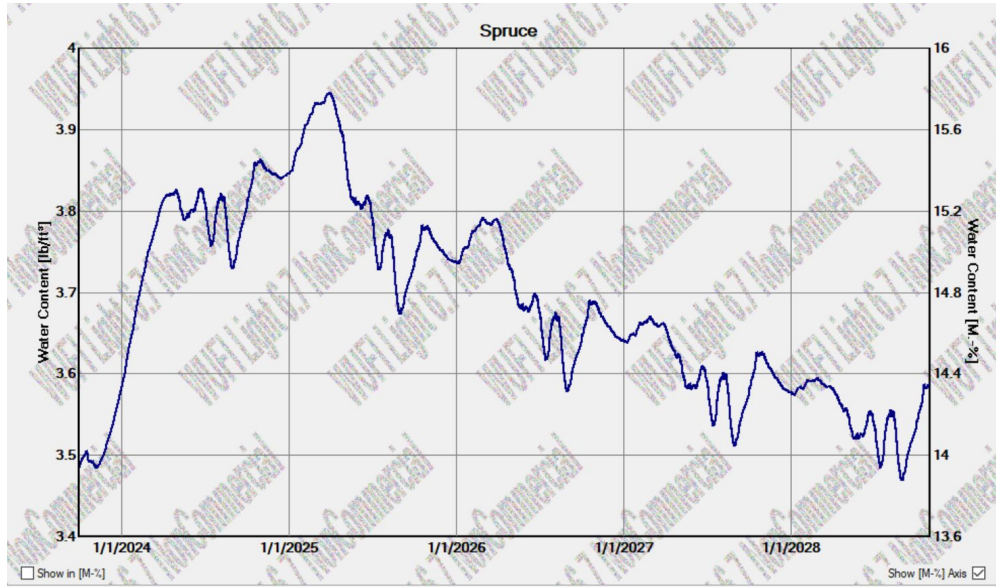


# South Wall

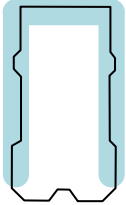




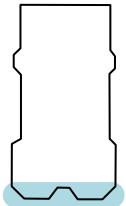
# South Wall



# Windows



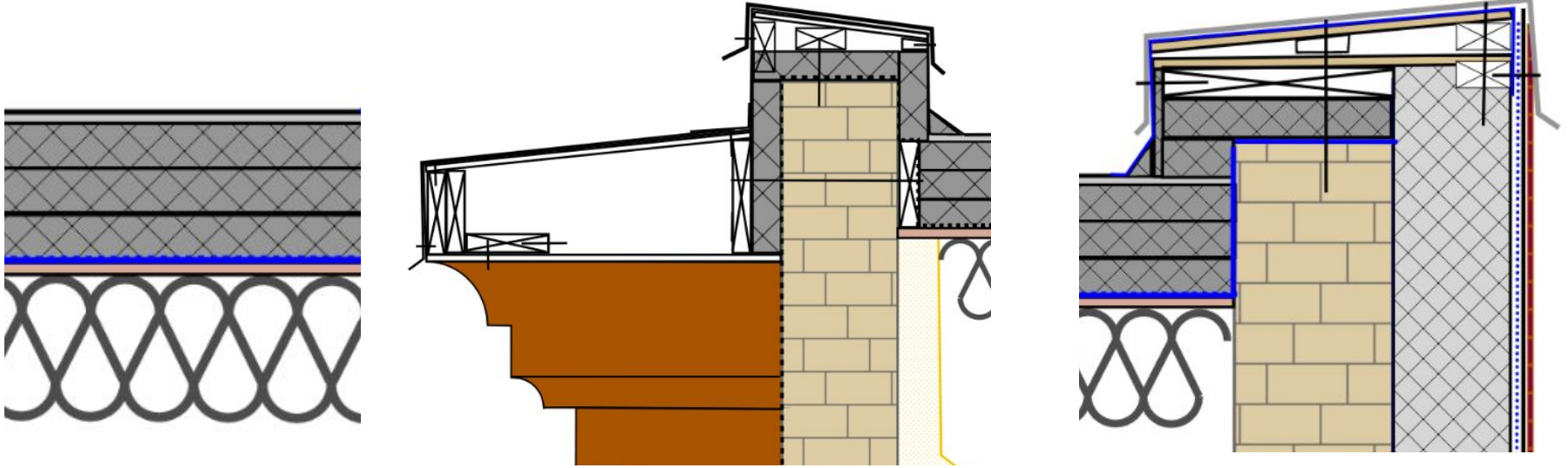
Type	Name	U factor	SHGC
A	Elevate casement picture transom: 1 1/8" Tripane Low E2 w SDL <1"	0.18	0.28
B	Elevate double hung 11/16" IG Low E3/ERS With SDLS < 1"	0.24	0.19



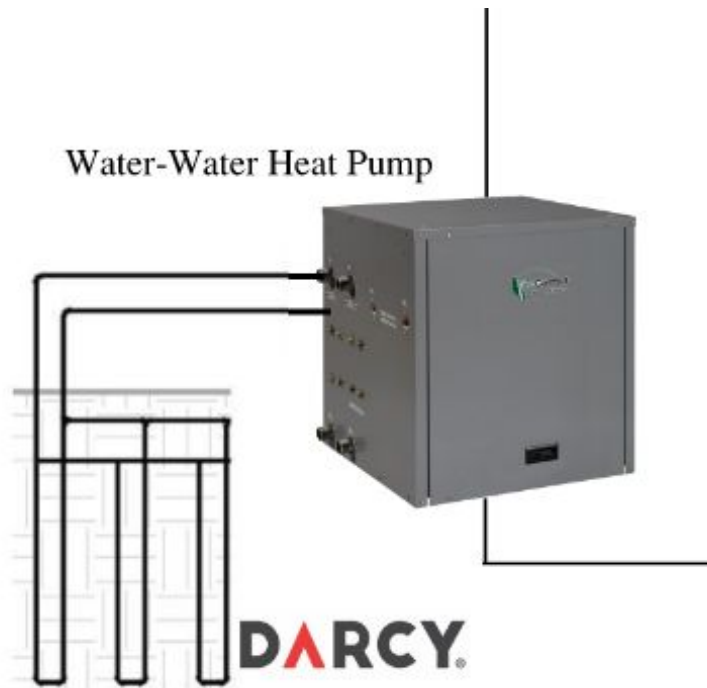
C	Ultimate double hung transom G2 7/8" tripane low E2/E1 with SDL <1"	0.24	0.26
D	Elevate casement picture transom: 1 1/8" Tripane Low E2/E1	0.18	0.31
E	Elevate outswing french door 3/4" IG Low E3/ERS SDL < 1"	0.25	0.16



# Roof and Parapets



# Ground Source Heat Pump System

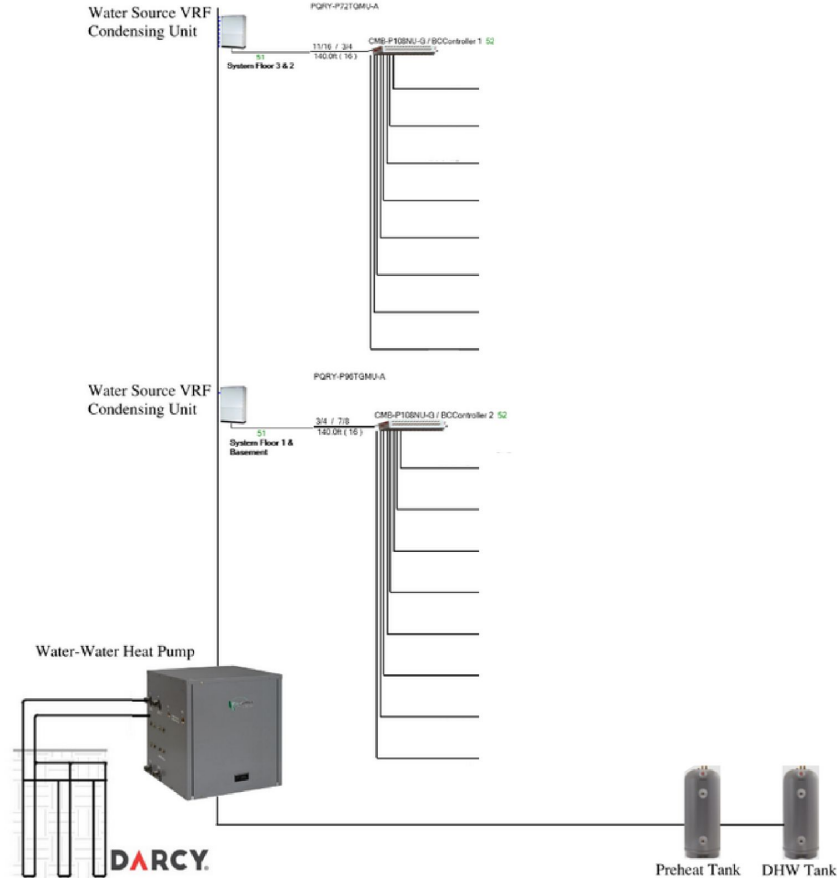


# DHW System

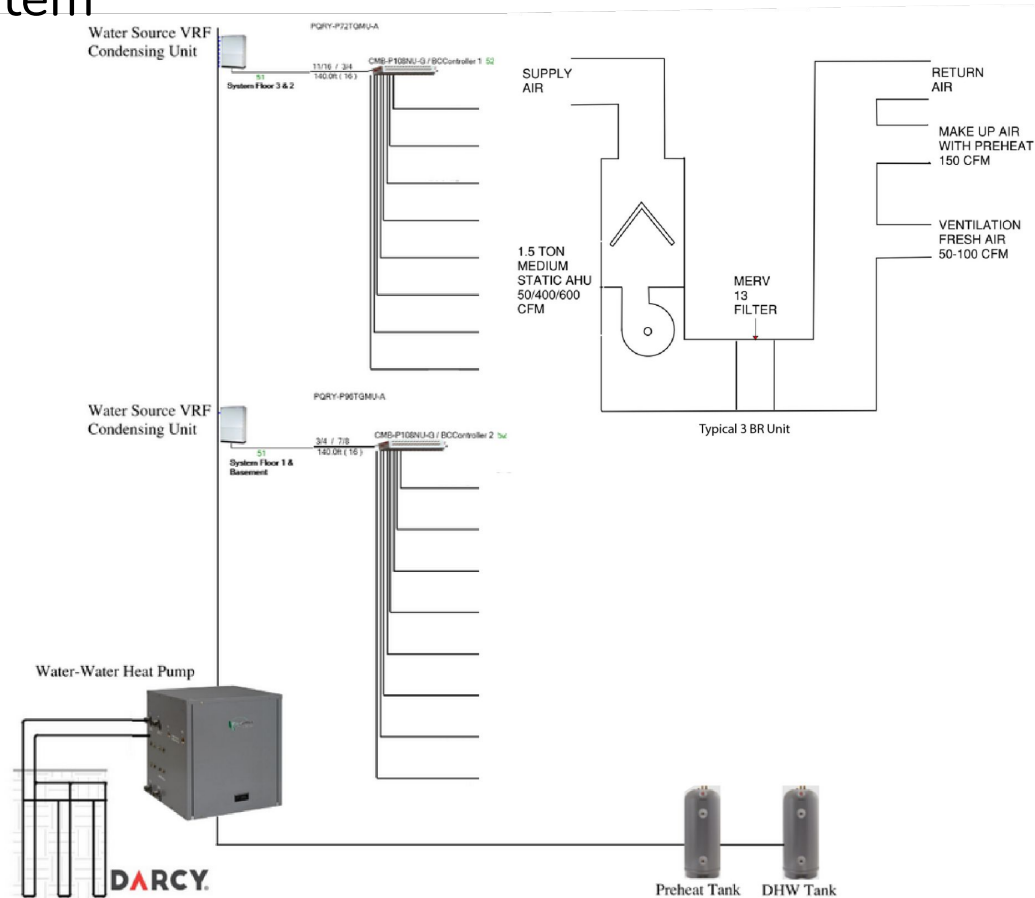




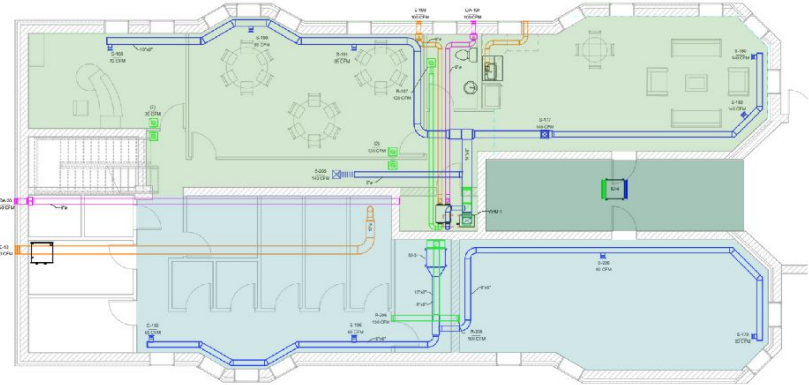
# VRF Units w/ Branch Controllers



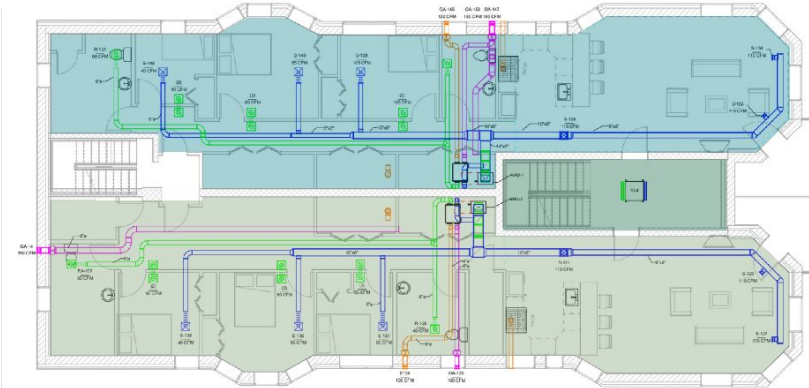
# In-Unit HVAC System



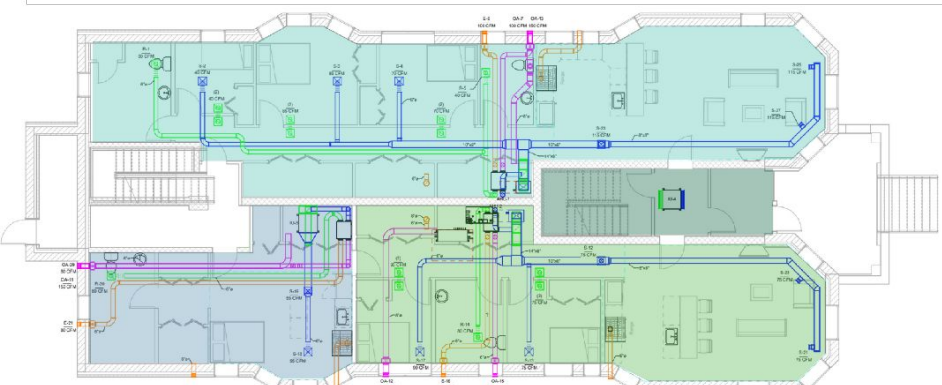
# HVAC Plans, Ventilation System, & Zones



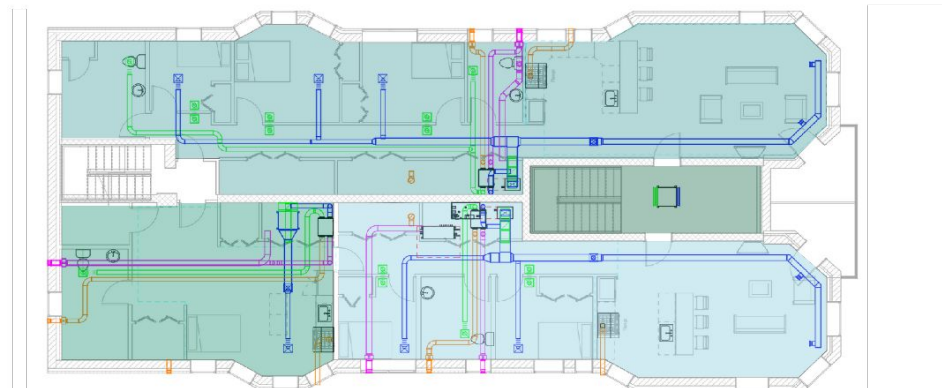
Basement - HVAC Plan



1st Floor - HVAC Plan



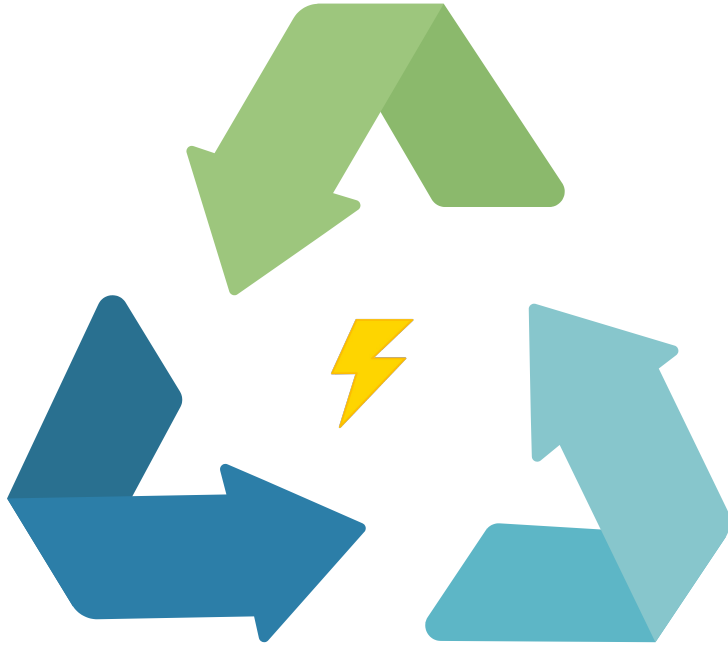
2nd Floor - HVAC Plan



3rd Floor - HVAC Plan



# Optimized Energy Approach



Enclosure



HVAC



PV System



# Rooftop Solar PV

450W ZNShine Panels

16 Microinverters

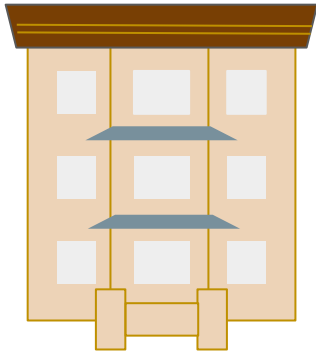
Storage Battery

Safety Switch

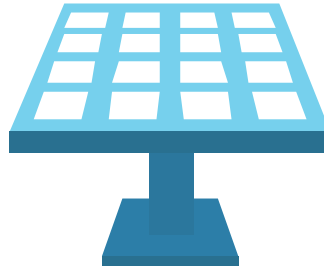




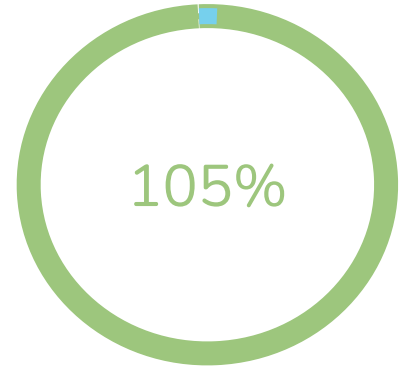
# Rooftop Solar PV



-46.8 MWh



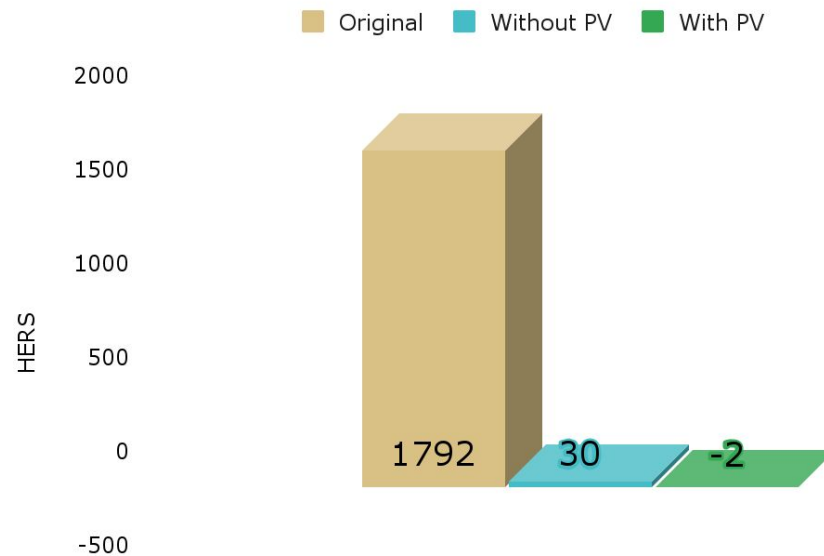
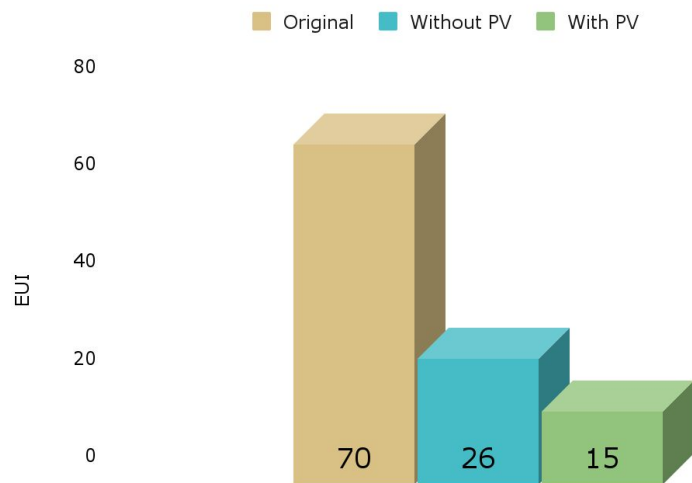
+48.1 MWh



+1.3 MWh



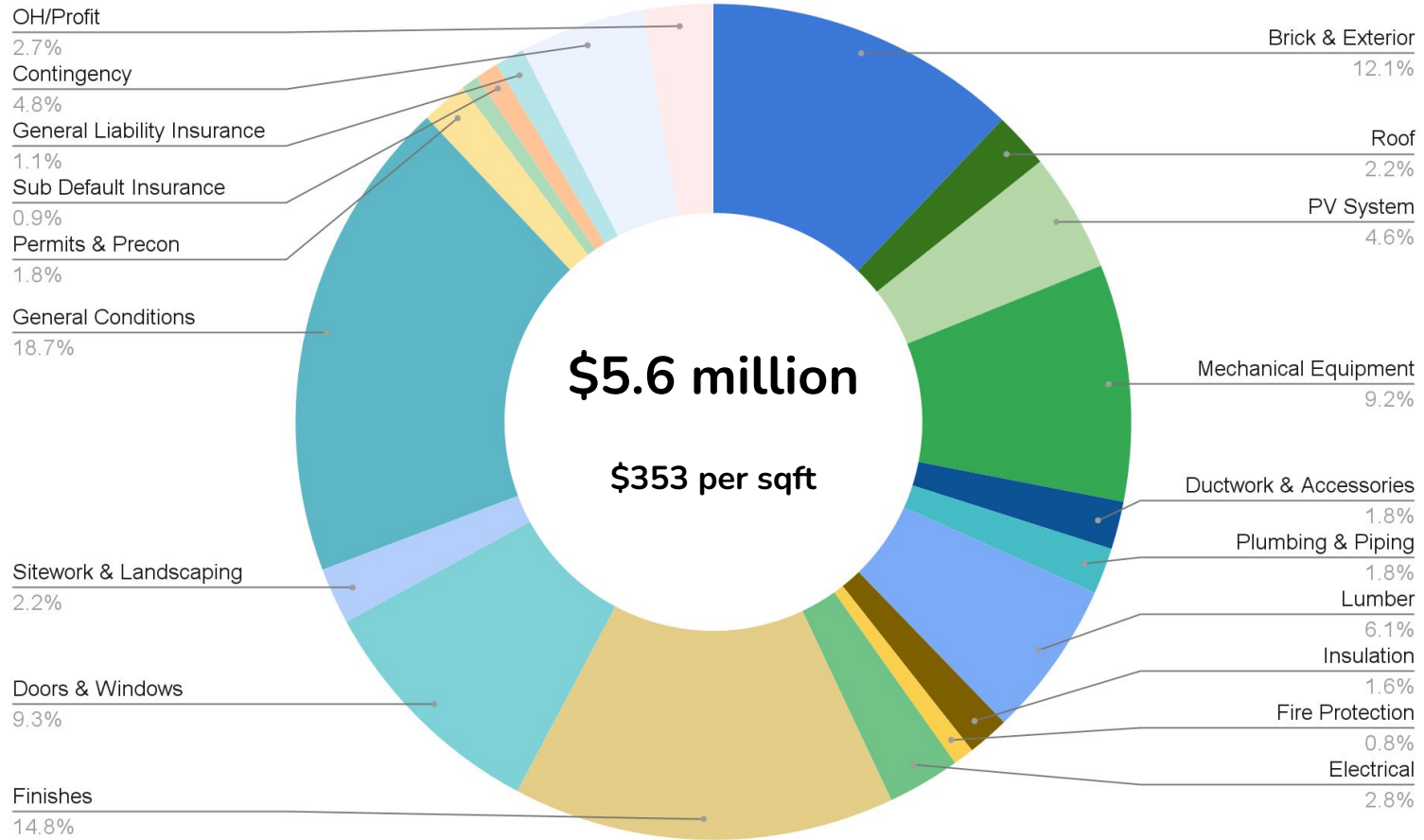
# Energy Modeling



# QA/QC

## Quality Assurance vs Quality Control



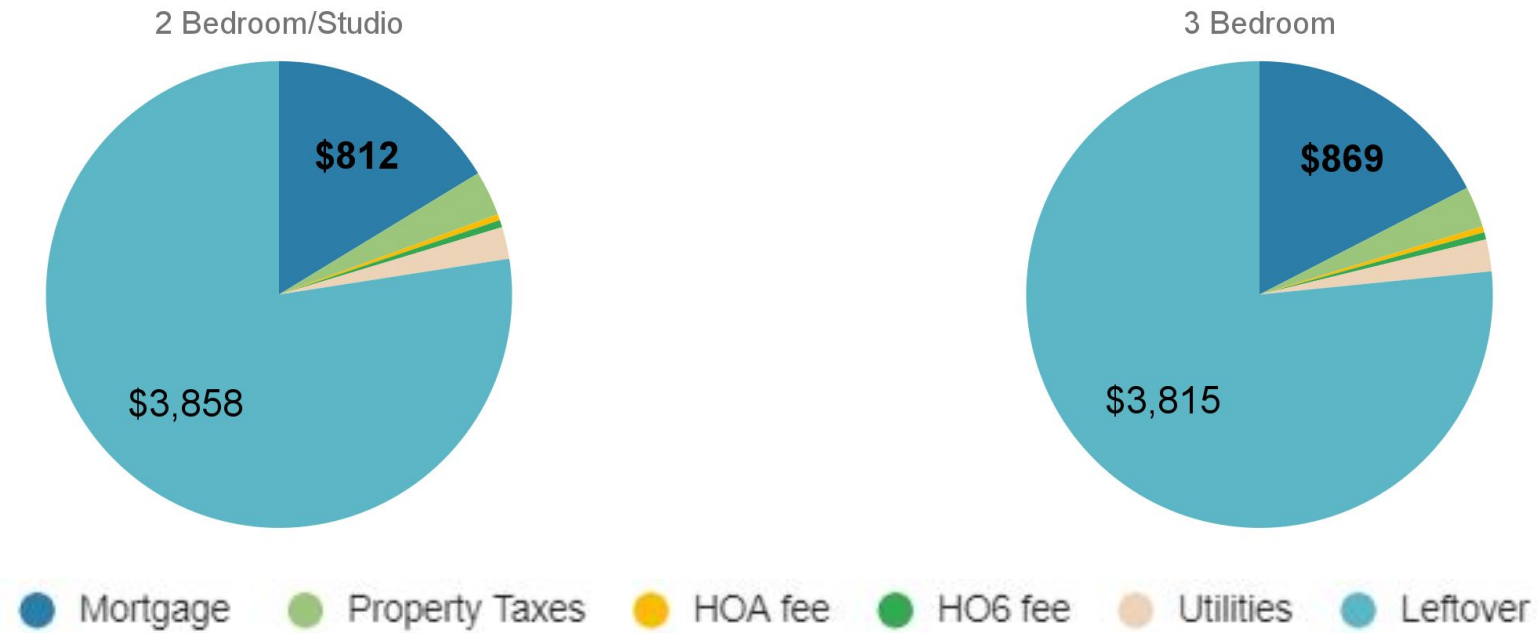


## Market Analysis

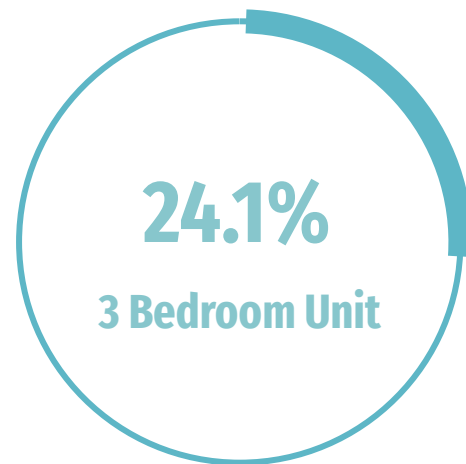
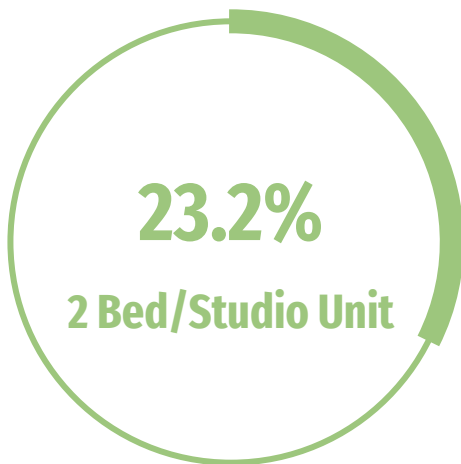
60% AMI



# Market Analysis

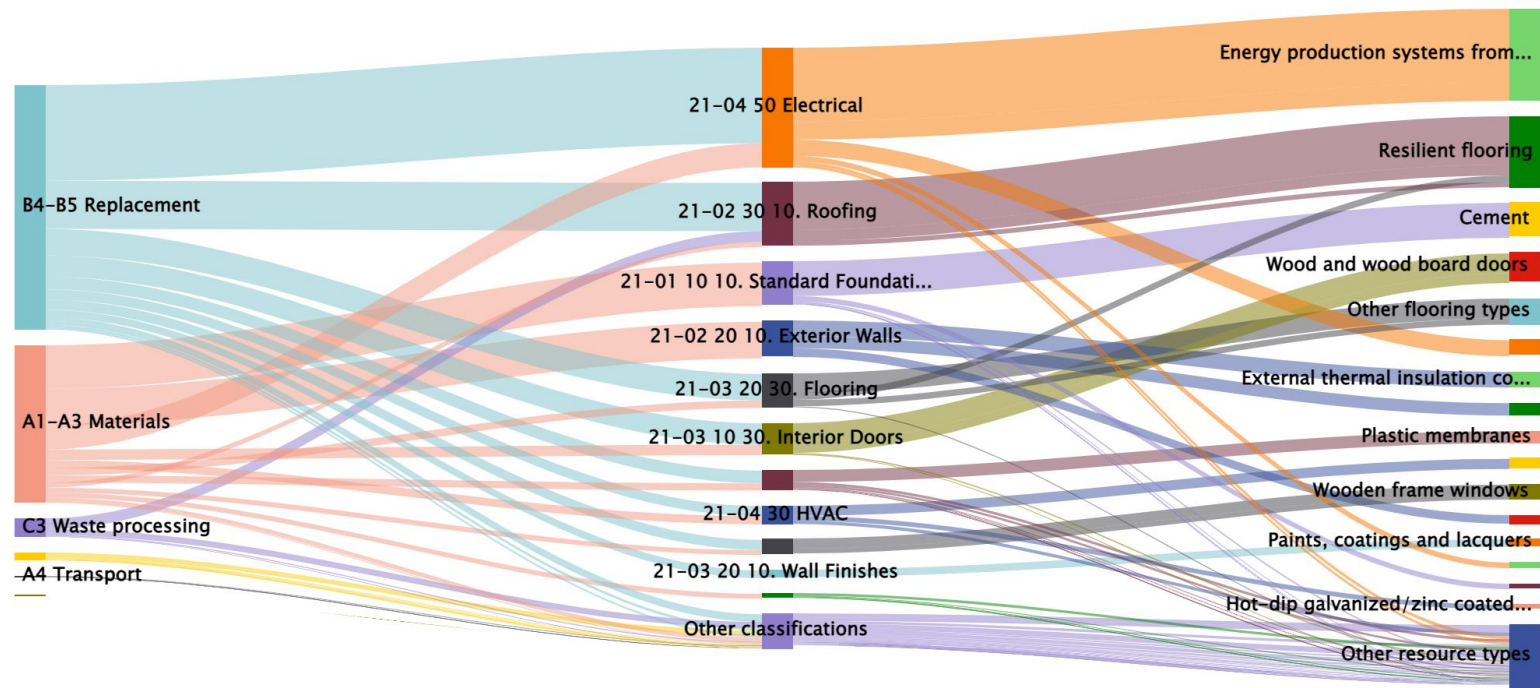


# Cost-Burden

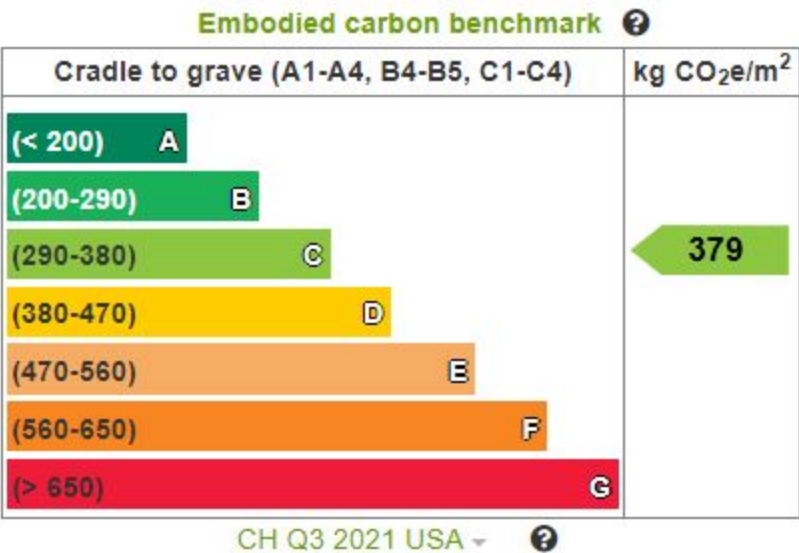


# Environmental Analysis

Sankey diagram, Global warming



# Environmental Analysis



# So, why did we choose this project?



# Design Goals





To meet the needs of the community and our environment



# Our Team



Phoebe McCartan



Alice Lesch



Megan Winkler



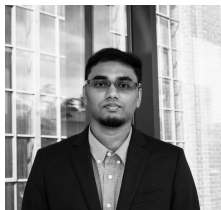
Savannah Forstie



Muahmong Vang



Autumn Saign



Kavinesaan Karpaya



Jacquelyn Wyman



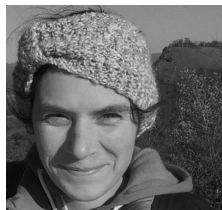
Ben Oman



Anke Wiersma



Ella Johnstad



Cadence Nelson



Anna-Bella  
Sawyer-Ewing



Madison McCullogh



Nick Reynolds



Jack Krutchen



Pat Huelman



Peter Hilger



## Our Partners





U.S. DEPARTMENT  
OF ENERGY

SOLAR  
DECATHLON



Thank you!

