BASIC NEEDS.

Secure a bed. Secure a meal. Secure help.

BACKGROUND

BASIC NEEDS. is a collaboration between Chancellor Gardiner, Kenzie Mahoskey, Hannah Juth, and Ennis Johnson.

It was completed in 5 weeks as part of Brittany Schade's Digital Media Design II class.

CHANCELLOR GARDINER
Video Director + Animator

KENZIE MAHOSKEY
Co-Lead UI +UX Designer

HANNAH JUTH
Co-Lead UI +UX Designer

ENNIS JOHNSON
Researcher + Visual Designer

Unhoused people don't have confidence that they'll be able to meet basic human needs like food and housing on a daily basis.

We sought to solve this problem through environmental data visualization.

OUR SOLUTION

BASIC NEEDS. will reduce stress and increase time efficiency for unhoused users by using a mobile app, kiosk, and ride service that will be accessible, intuitive, and will empower them to remotely reserve a bed, a meal and other resources locally.

We achieved this solution by understanding that uncertainty about transportation, meals, and housing is often the most stressful part of being unhoused, and that we must find a way to get rid of these "unknowns."

TEN ASSUMPTIONS

Before beginning our design process, our team addressed ten assumptions we had about our users and about the functionality of our product.

1. That homeless people would use our app or kiosk instead of standing in line at the shelter, or that significantly less people would stand in line

2. That homeless people stay on the street in Bellingham if there is no room at the Mission. That is to say, they do not stay with family or friends for the night, nor do they find rides to other shelters.

3. That lines will not form at the kiosks prior to the time reservations open, much as lines exist now at the Mission, prior to their opening at 8pm

4. The kiosk would help a homeless person to find a job and permanent housing so that they would no longer need to use the kiosks

5. Homeless people would be willing to meet with a social worker to set up a kiosk account

6. Homeless people want a meal so they use the kiosk to find a shelter near them that is serving a free meal.

7. Homeless people want to get off the streets and find a job

8. Homeless people don't have enough access to the resources necessary to find housing or employment

9. Many homeless people don't have or have lost identifying documents (ID, Social Security card)

10. Users will be successful in meeting their shuttle at the scheduled time/location

TEN USER SCENARIOS

Our team also imagined ten real-life scenarios that would motivate someone to use our product, which helped us to empathize while designing.

1. Homeless person has a job interview/work, needs to find a ride to arrive on time

2. Homeless person wants to find a job but needs an ID/ references

3. Homeless person needs to find a meal at a soup kitchen within walking distance

4. Woman leaves domestic abuser partner and visits the nearest kiosk to her to reserve a bed at a local women's shelter.

5. Homeless person travels to shelter and shelter is full. The person uses kiosk and finds a nearby shelter that is open, so they reserve a spot.

6. Homeless person travels to shelter and shelter is full. The person uses kiosk and finds a shelter that is open but too far to walk. The user reserves a spot and then requests, through the app/kiosk, an automated vehicle to come pick them up and shuttle them to shelter.

7. Homeless person is having an emergency. A kiosk is a block away so a person uses kiosk to connect to 911.

8. Person wants to find a job but has lost their ID and a social security number, so they meet with a social worker and set up an account on the kiosk where they can save their data for future employers.

9. The shelter near them is full, so the homeless person requests a spot on the kiosk, and checks to see if nearby shelters have room.

10. Homeless person is having trouble breathing but has no way to call 911 so uses the kiosk

USER GOALS

EXPERIENCE GOALS

A kiosk that will empower, decrease stress, be user-friendly & intuitive

END GOALS

Reserve a meal and/or a bed at a nearby shelter or soup kitchen, book an appointment for job/life counseling, join the program

LIFE GOALS

Find a permanent roof over one's head

USER JOURNEY

Our team outlined the steps a user would hypothetically take as they moved through our product. At this point, our product featured a drug test, an idea we later discarded because it could discourage new users.

1. User has seen ad campaign or heard through word-of-mouth about kiosk/app and finds nearest kiosk, clicks the join button on the welcome screen.

2. The join button then pulls up a map with locations of nearby certified social workers and times.

3. The user chooses a location and time.

4. If the location is close the user walks to meeting.

5. The location is far, so the user requests a vehicle to drive them to the meeting.

6. Once at the meeting, the social worker will explain the benefits and resources the program + kiosk provides

7. The social worker will input basic information, scan their thumb and scan important documents.

8. The social worker will administer a drug test

9. Social worker tells user to check any kiosk near them in 2 days to see if they passed.

10. If passed, the user can log in to the kiosk with their fingerprint and then has full access to the program

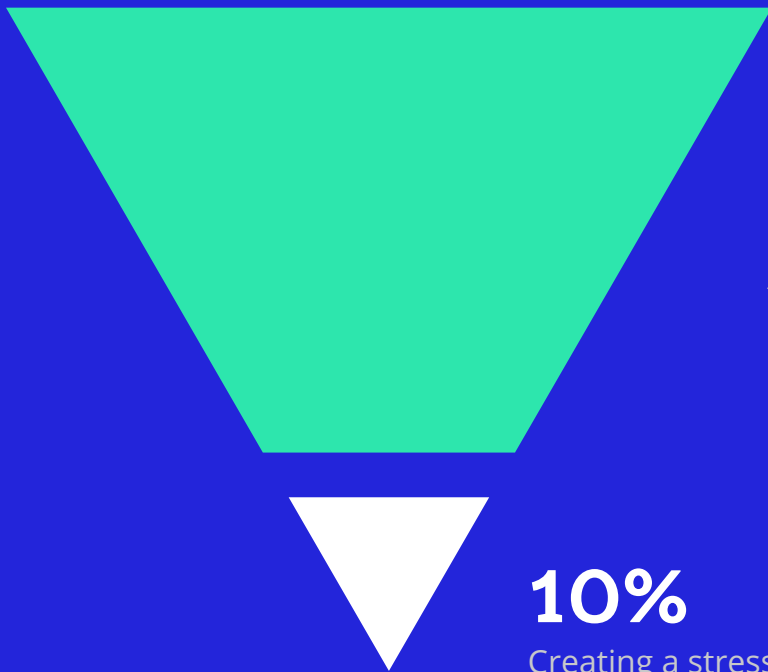11. The user must visit a social worker monthly for updates and another drug test.
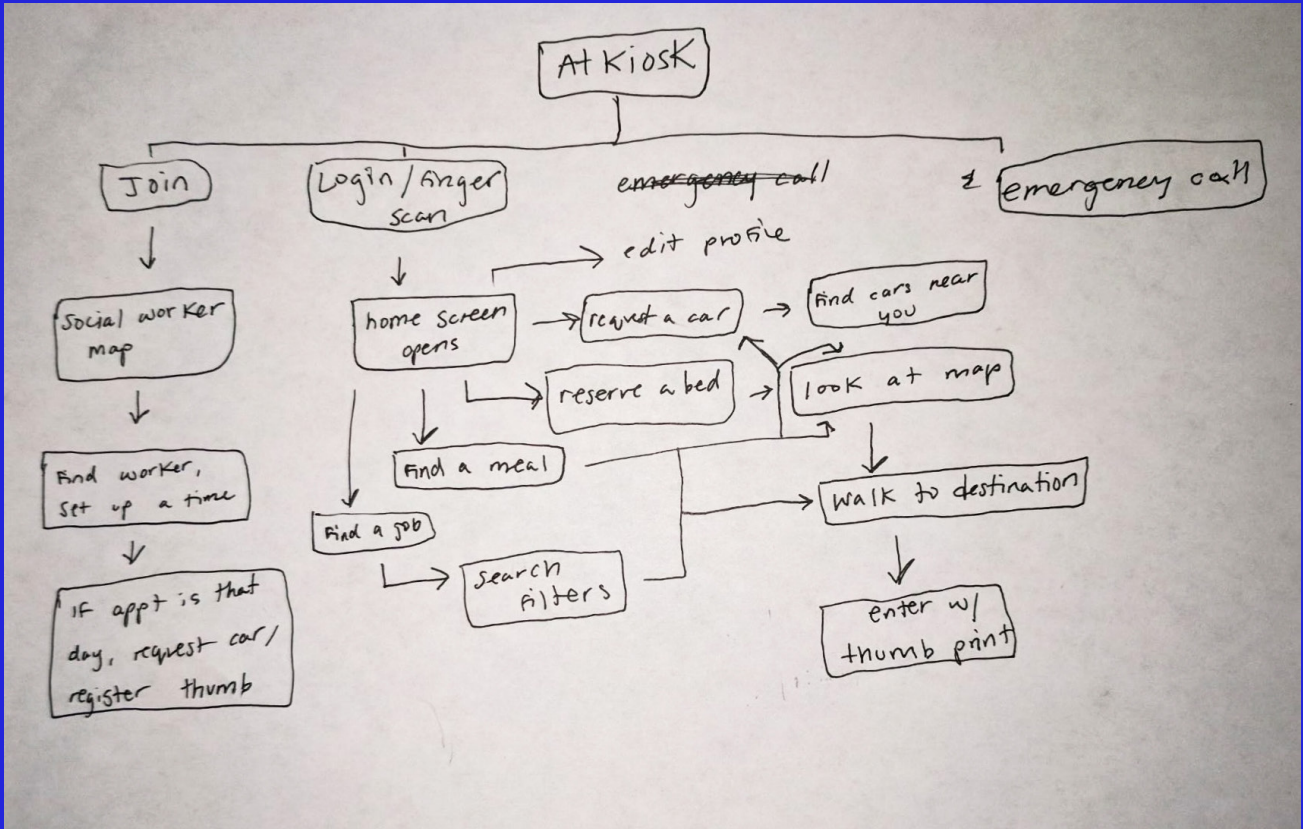
PRIORITY PYRAMID

90%
Reduce time spent locating transportation, food, and a place to sleep

10%
Creating a stress free process by ensuring empathy and empowerment of disadvantaged users within interactions between human and app/kiosk

RESEARCH

Our research methodology had three components: field interviews, market research, and statistical analysis.

For this project, conducting good research was particularly important because no one in our group was part of our target audience of unhoused people. We had no personal experience to "fall back on" when we were stuck, so we had to rely on our research to inform our design decisions.

MARKET RESEARCH

ACTION HUNGER

Vending machine stocked with free supplies like water, fresh fruit, energy bars, chips and sandwiches, as well as socks, toothpaste, toothbrushes and even books.

CLEAR CHANNEL BILLBOARDS

Streetside billboards in Sweden display directions to nearest emergency shelter when the temperature drops below 45 degrees Fahrenheit.

PINK BOX

The vending machines contain sanitary packs that each include two pads and six tampons, and work on a timed system to reduce waste.

LAVA MAE

A San Francisco mobile shower-bus that is designed for unhoused individuals.

INTERVIEWS

Our team prepared to conduct interviews with two groups of stakeholders: unhoused people and shelter directors.

Our interview with Lighthouse Mission director Hans Erchinger-Davis fell through due to scheduling constraints, but we were able to conduct very helpful interviews with two unhoused disabled women, Charlotte and Rhonda, and an unhoused Seattle man who goes by Skater Ray.

Questions for Director Hans Erchinger-Davis

What are the largest reasons the people who stay at this shelter are homeless?

What do you think are the biggest stressors + struggles for those experiencing homelessness?

How well do you think new technology would be received among the homeless community, if designed to help them? This could include apps, kiosks, new education, vending machines, etc?

What are ways that you think could help?

Why did you choose to work at the Mission?

What do you think is the hardest daily task for someone who is homeless?

Do you think society/the city/the government is doing a good enough job helping and providing resources to those experiencing homelessness?

Does this shelter (or other shelters) usually fill to capacity every night? If so is there any other option for those who don't get a bed?

In your opinion, what is the most crucial + important step someone can take to overcome homelessness?

Are there any common complaints + stressors you hear amongst the people who stay at this mission?

What time does a line start forming outside this shelter?

Is the shelter pet friendly?

How heavily used is the childcare wing of the Lighthouse Mission?

Takeaways from Interviews with Charlotte, Rhonda, and Skater Ray

Meals are doled out on a first come, first serve basis at the Lighthouse Mission

Unhappy with the quality of food at the Mission; "They serve us slop"

People typically wait in line for 1 hour or less to receive services

Both women knew which churches, missions, and shelters provided meals on which days.

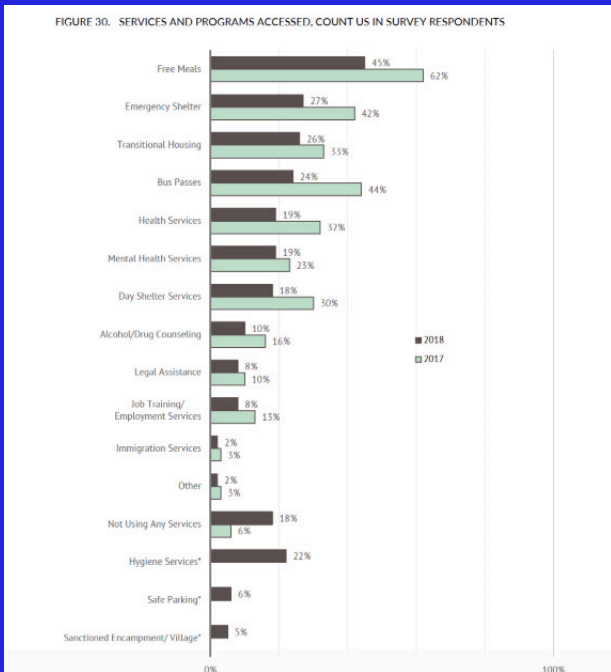Charlotte emphasized the specific needs of unhoused women and has spoken with Bellingham mayor Kelli Linville about them

Process for getting a bed: They take your picture, get your name, and find a bed for you. After that, you are enrolled in the system and can just come to the Mission and receive a bed, if space allows

STATISTICAL ANALYSIS

Instead of conducting an online survey to collect data, we turned to a massive survey on unhoused people in King County, titled "Count Us In," conducted in 2018.

It highlighted the most common obstacles that people faced in receiving assistance or a permanent shelter, which we referenced as we designed our product.

FIGURE 30.   SERVICES AND PROGRAMS ACCESSED, COUNT US IN SURVEY RESPONDENTS

Service	2018	2017
Free Meals	45%	62%
Emergency Shelter	27%	42%
Transitional Housing	26%	33%
Bus Passes	24%	44%
Health Services	19%	32%
Mental Health Services	19%	23%
Day Shelter Services	18%	30%
Alcohol/Drug Counseling	10%	16%
Legal Assistance	8%	10%
Job Training/Employment Services	8%	13%
Immigration Services	2%	5%
Other	2%	3%
Not Using Any Services	18%	6%
Hygiene Services*	22%	
Safe Parking*	6%	
Sanctioned Encampment/ Village*	5%	

Have you been living in an emergency shelter and/or on the streets (including bus stations, underpasses, encampments, abandoned buildings, etc.) for the past year (12 months) or more?			
	Yes	493	55.3%
	No	377	42.3%
	Decline to state	22	2.5%
	Total	892	100.0%

What would help you obtain permanent housing?			
	Rental assistance/More affordable housing	693	80.4%
	Job/increased income	404	46.9%
	Money for moving costs	363	42.1%
	Make housing process easier	325	37.7%
	Help clearing my credit	180	20.9%
	Case management	152	17.6%
	Transportation	146	16.9%
	Help clearing my rental history	123	14.3%
	Additional education	108	12.5%
	Landlords who accept my housing voucher	94	10.9%
	Medical/health care	80	9.3%
	New ID/Paperwork	74	8.6%
	Legal assistance	73	8.5%
	Child care assistance	61	7.1%
	Other	33	3.8%
	Safe parking location while seeking housing	29	3.4%
	Immigration/refugee assistance	26	3.0%

Section I: Services and Assistance		Count	Column N %
Are you currently using any of the following services/assistance?	Free meals	384	44.8%
	Emergency shelter	229	26.7%
	Transitional housing	226	26.3%

124 |2018 Seattle/King County Count Us In

COUNT US IN

Appendix 3: Survey Results

	Bus passes	206	24.0%
	Hygiene services	191	22.3%
	Health services	166	19.3%
	Mental health services	160	18.6%
	Day shelter services	155	18.1%
	Not using any services	152	17.7%
	Alcohol/drug counseling	83	9.7%
	Job training/employment services	67	7.8%
	Legal assistance	67	7.8%
	Safe Parking site	49	5.7%
	Tiny Home/sanctioned encampment	42	4.9%
	Immigration services	20	2.3%

If you are not using any type of shelter services, why not?	They are full	20	25.6%
	They don't accept my pet	5	6.4%
	don't feel culturally accepted	5	6.4%
	I am afraid of others/predators	11	14.1%
	I am barred from services	1	1.3%
	I am not eligible (e.g. criminal record)	5	6.4%
	Other	21	26.9%
	They are far away	6	7.7%
	They are too crowded	24	30.8%
	Germs	12	15.4%
	Bugs	24	30.8%
	I can't stay with my partner/family	4	5.1%

2018 Seattle/King County Count Us In | 125

COUNT US IN

Appendix 3: Survey Results

	I can't stay with my friends	4	5.1%
	There is nowhere to store my stuff	8	10.3%
	There are too many rules	21	26.9%
	Total	78	100.0%

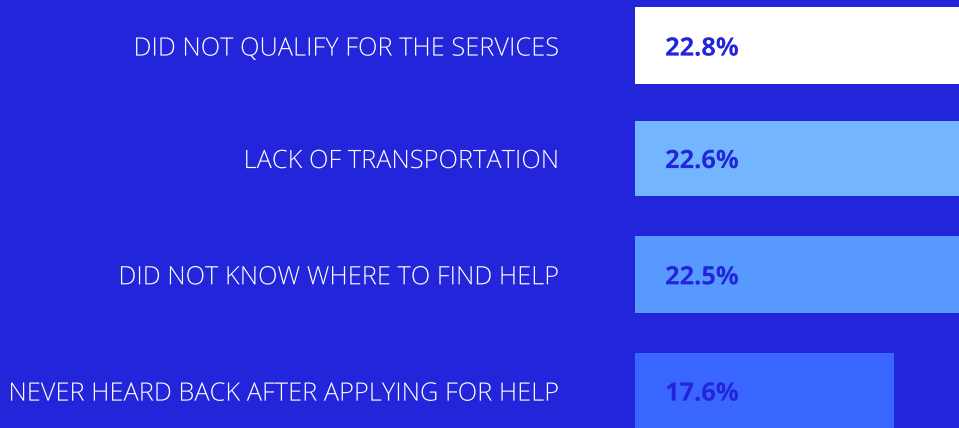| Have you recently experienced any of the following issues trying to get help or access services in the community?	I have not experienced any issues	250	31.3%
	Did not qualify for the service I wanted	182	22.8%
	Lack of transportation	181	22.6%
	Did not know where to go for help	180	22.5%
	Did not have an ID or personal document	174	21.8%
	Never heard back after applying for Services	141	17.6%
	Program rules are too strict	109	13.6%
	Did not follow through or return for services	89	11.1%

126 |2018 Seattle/King County Count Us In

COUNT US IN

Appendix 3: Survey Results

	Issues with program staff	75	9.4%
	Separation from my partner/spouse	33	4.1%
	Separation from my pet	29	3.6%
	Language barrier	28	3.5%
	Other	28	3.5%
	Total	800	100.0%

Section C: Accommodation		Count	Column N %
Where were you staying on the night of January 25th?	Outdoors/streets/parks/tent	175	16.6%
	Backyard or storage structure	1	.1%
	Motel/hotel	20	1.9%
	Emergency shelter	163	15.4%
	Transitional housing	222	21.0%
	A place in a house not normally used for sleeping	5	.5%
	Public facility (train station, transit center, bus depot)	27	2.6%
	Van	29	2.7%
	Automobile/car	52	4.9%
	Camper/RV	90	8.5%
	Abandoned building/squat	43	4.1%
	Encampment	172	16.3%
	Drug/alcohol treatment/detox center	0	0.0%
	Hospital	0	0.0%

STATISTICS HIGHLIGHTS

Have you experienced any issues by trying to get help or access services in the community?

DID NOT QUALIFY FOR THE SERVICES — 22.8%

LACK OF TRANSPORTATION — 22.6%

DID NOT KNOW WHERE TO FIND HELP — 22.5%

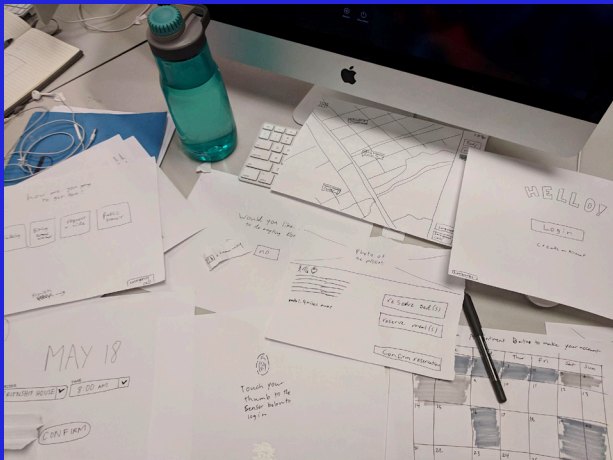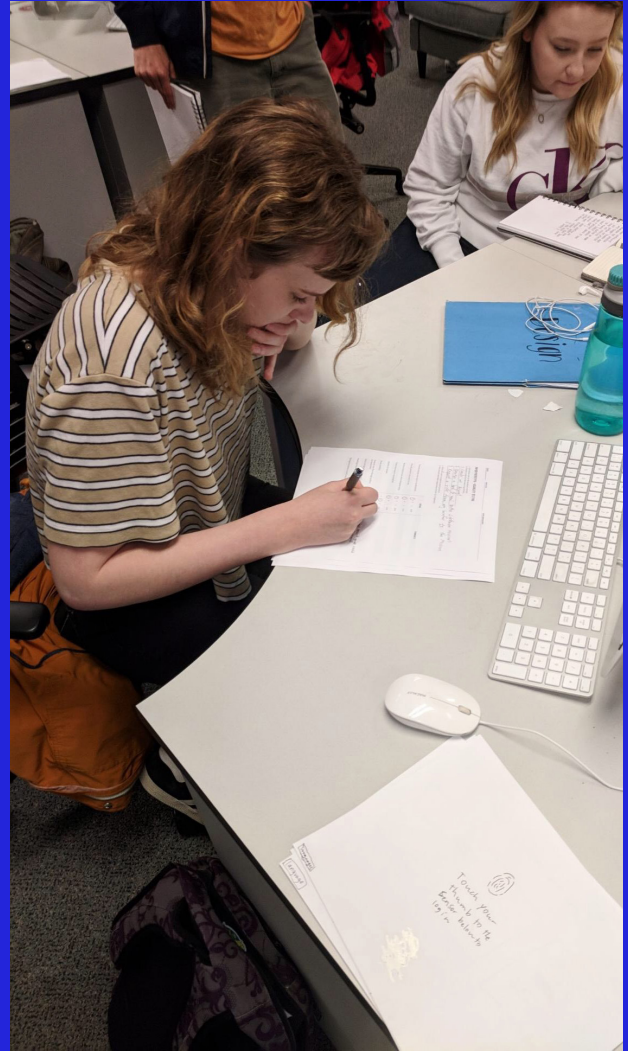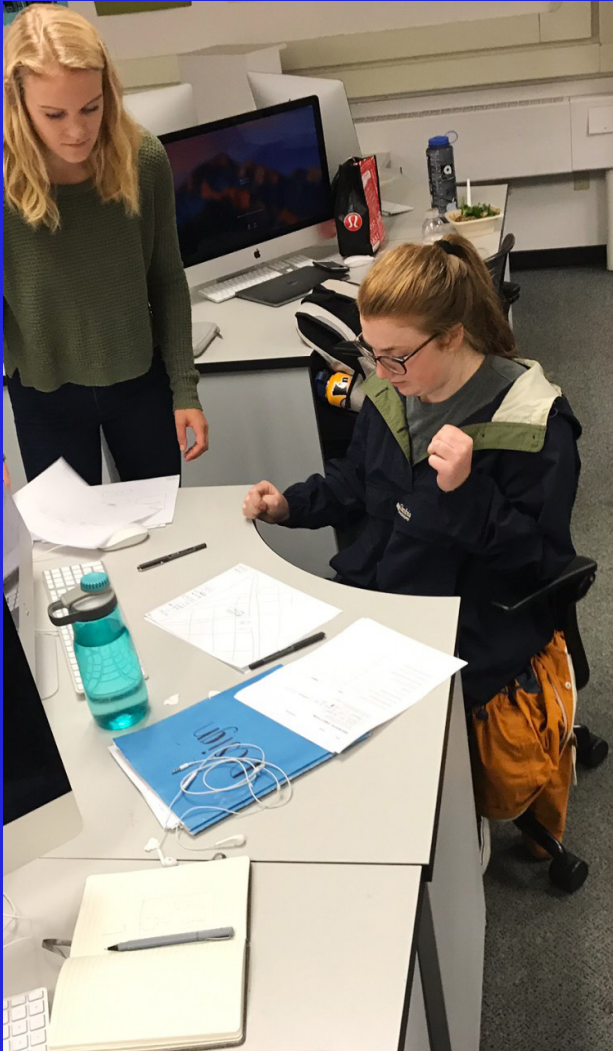NEVER HEARD BACK AFTER APPLYING FOR HELP — 17.6%

Have you been in an emergency shelter and/or the streets for the past year or more?

55.3%
YES

42.3%
NO

2.4%
DECLINED TO ANSWER
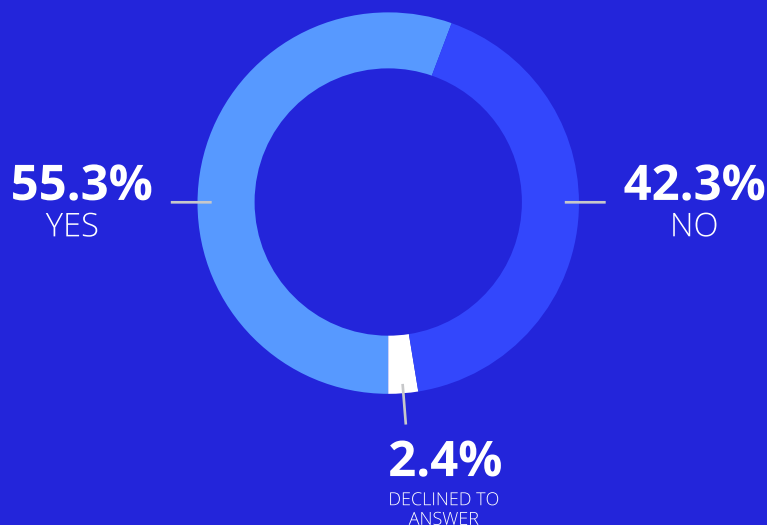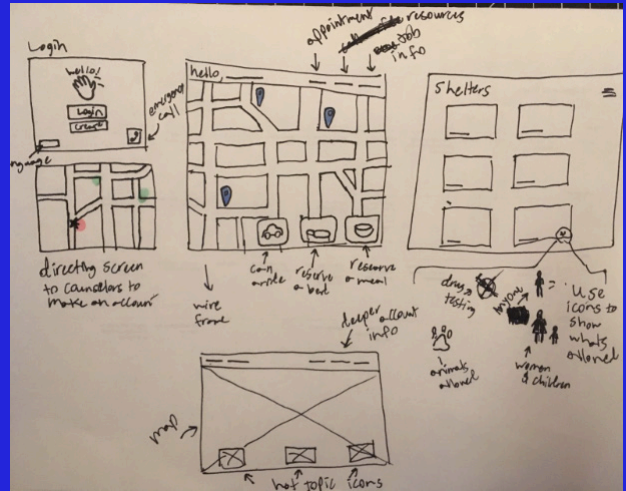
PAPER PROTOTYPING

USER INTERFACE DEVELOPMENT
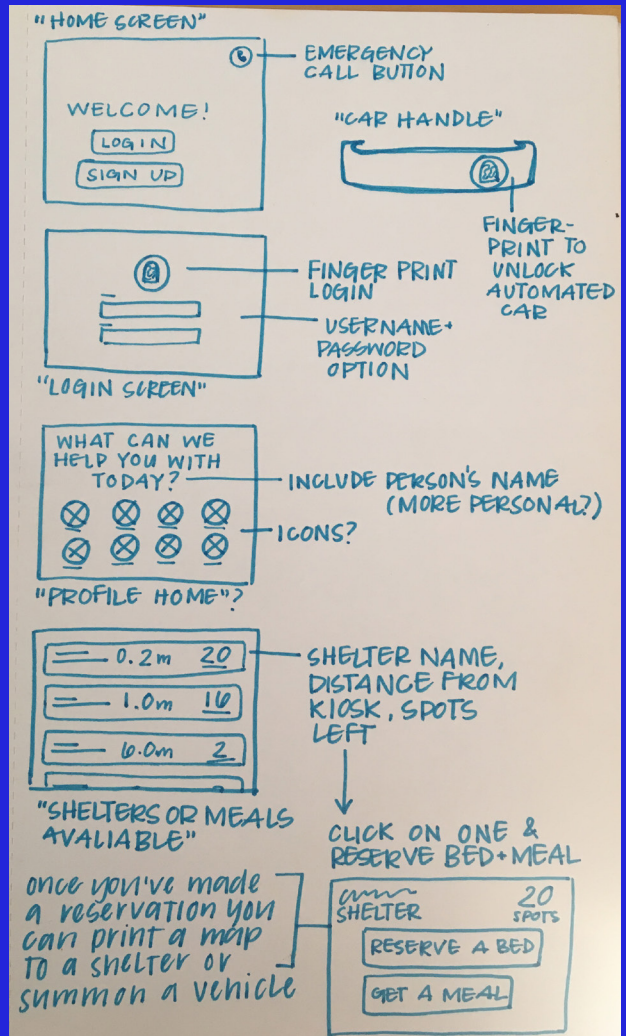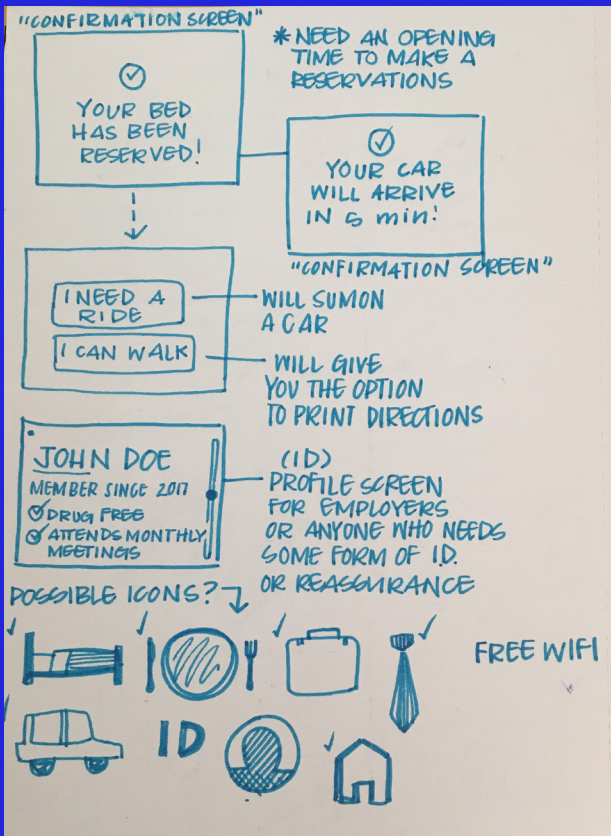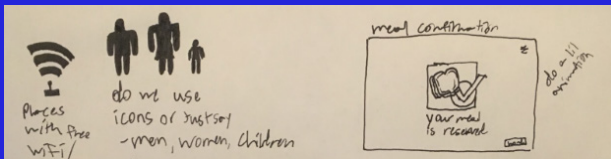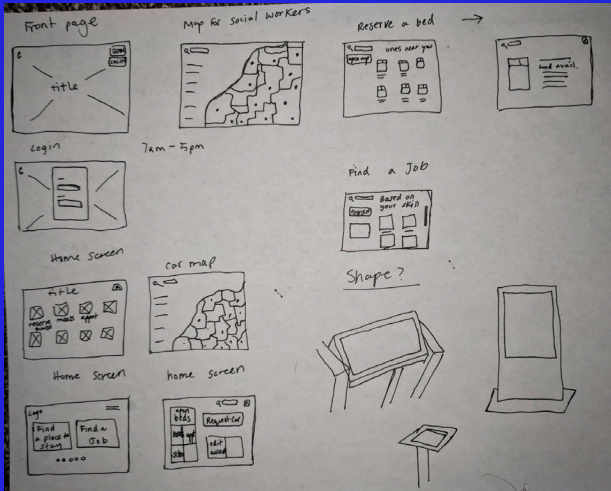
HIGH-FIDELITY USER TESTING
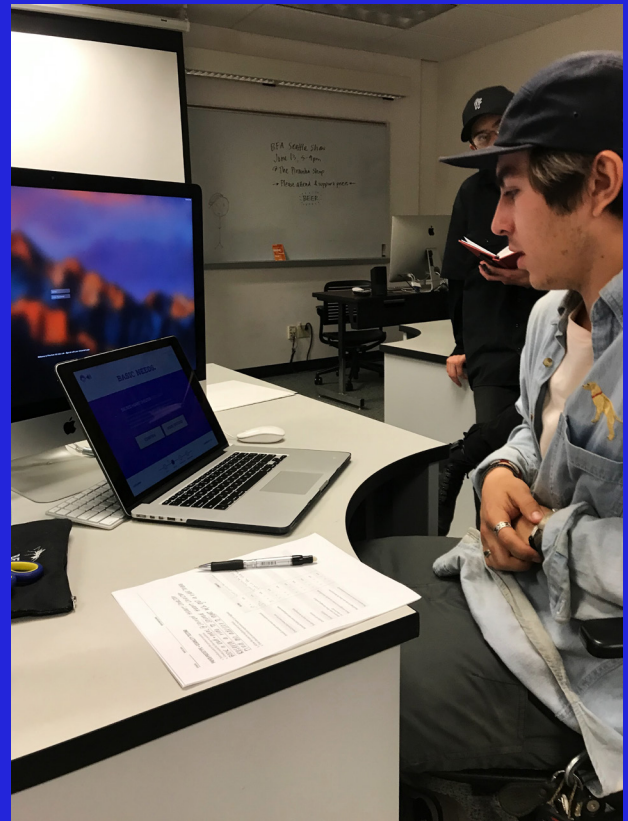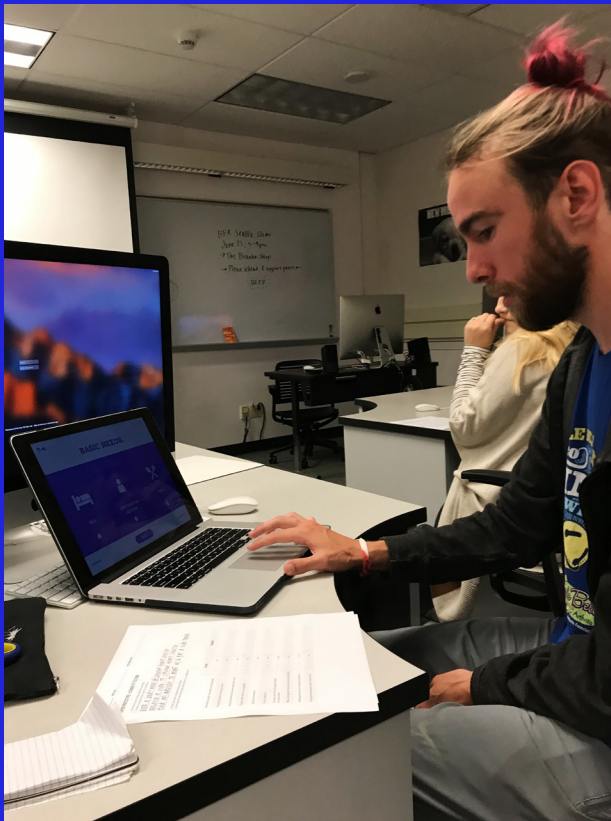
FINAL PRODUCT

Our team created a mobile app and fleet of kiosks located in public spaces accessible to the unhoused community that can be used to reserve a bed, meal, and private shuttles to shelters.

To begin using the service, you can download and open our mobile app or locate one of our many kiosks placed around your city.
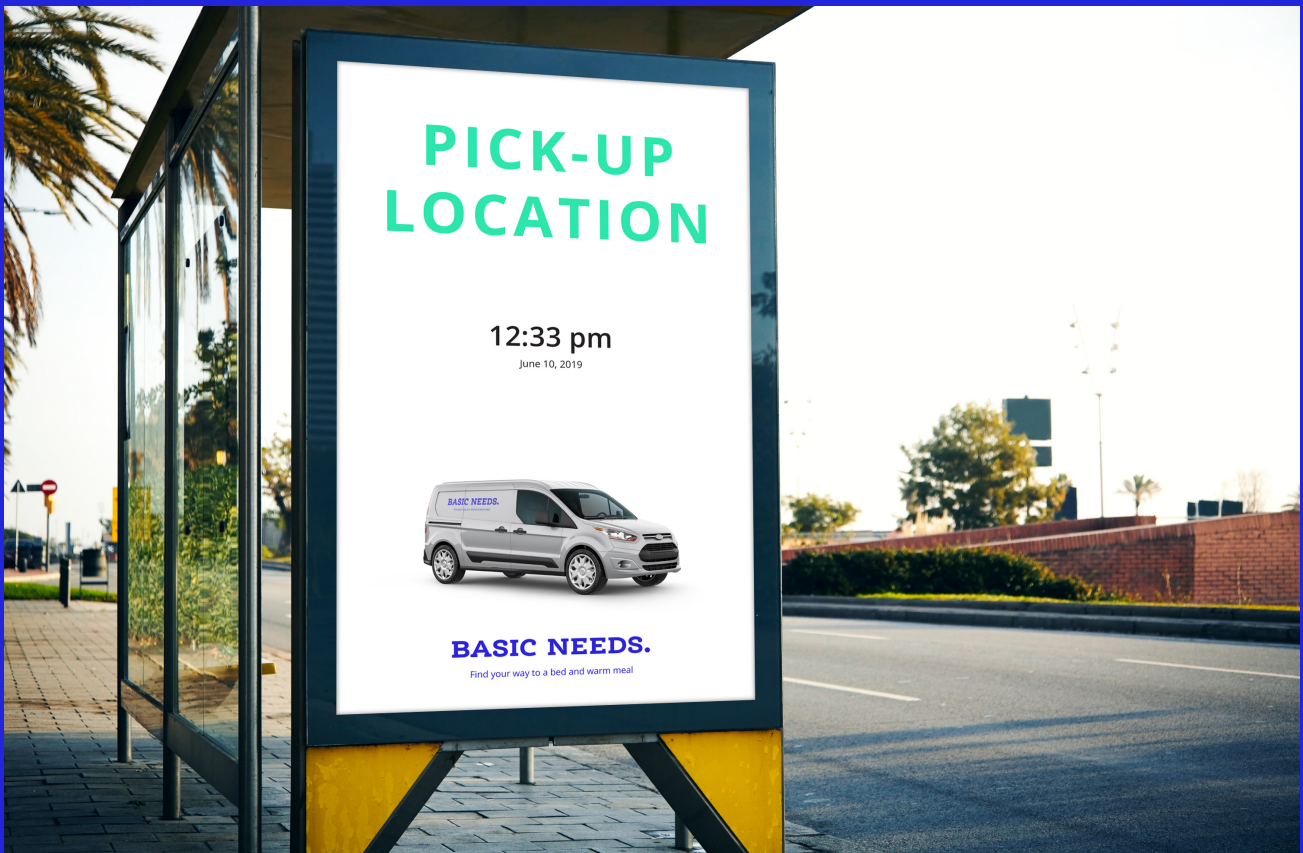
Then, you select which services you want to reserve.

The system will provide you the closest available location. If that doesn't meet your needs, you can filter the full list of options available.

Once you're happy, hit confirm and your reservation is complete.

If you need assistance getting to your location, we offer ride services located at pick-up zones around the city. Choose the best location for you and select the time you would like to be picked up. Hit confirm and you're all finished.

FINAL PRODUCT

PICK-UP LOCATION

12:33 pm

June 10, 2019

BASIC NEEDS.

Find your way to a bed and warm meal

BASIC NEEDS.
Select one or more to continue.

3:02 PM
November 20, 2019

BED

MEAL

MEET ADVISOR

LANGUAGE

NEXT

EMERGENCY CALL

BASIC NEEDS.

3:02 PM
November 20, 2019

Pick a shelter to meet your advisor at

SACRED HOMELESS SHELTER	4 MI AWAY
Sacred Heart Shelter, 232 Warren Ave N, Seattle, WA 98109	
WOMEN WELLNESS SHELTER	6 MI AWAY
Womens Wellness Center, 1900 2nd Ave, Seattle, WA 98101	
MARY'S PLACE NORTH	7 MI AWAY
Marys Place North, 1155 N 130th St, Seattle, WA 98133	
NOEL HOUSE	6.5 MI AWAY
Noel House, 118 Bell St, Seattle, WA 98121	
YOUTHCARE ORION CENTER	8.5 MI AWAY
1828 Yale Ave, Seattle, WA 98101	

LANGUAGE

NEXT

EMERGENCY CALL

BASIC NEEDS.

3:02 PM
November 20, 2019

Do you need a ride?

YES

NO,
PRINT MAP

If yes, pick location
on the map to be
picked up at.

Shelter Location
Pickup Location
Your Current Location

LANGUAGE

NEXT

EMERGENCY CALL

FINAL PRODUCT

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Select one or more to continue.

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EMERGENCY CALL

PROJECT CHALLENGES

In designing our product, we encountered many challenges, most of which centered around user accessibility.

As video director Chancellor says, "we started with such a deep system of information (meals/beds, shelters, individual shuttles, number of users and their individual needs) and transformed it into a very simple system that puts most of the power into the users' hands."

We had to constantly think about accessibility. This means considering the issues that many unhoused people face, like mental illness, disability, and addiction to ensure as many people as possible could use our product.

BASIC NEEDS.