Transformational Neighborhoods

The Georgetown BEND

ARTFUL, AFFORDABLE, SUSTAINABLE, SHARED

2024 Scan Design Interdisciplinary Master Studio

College of Built Environments | University of Washington

KARENS MINDE AKSEN, COPENHAGEN
Photo by Sarah Whitney

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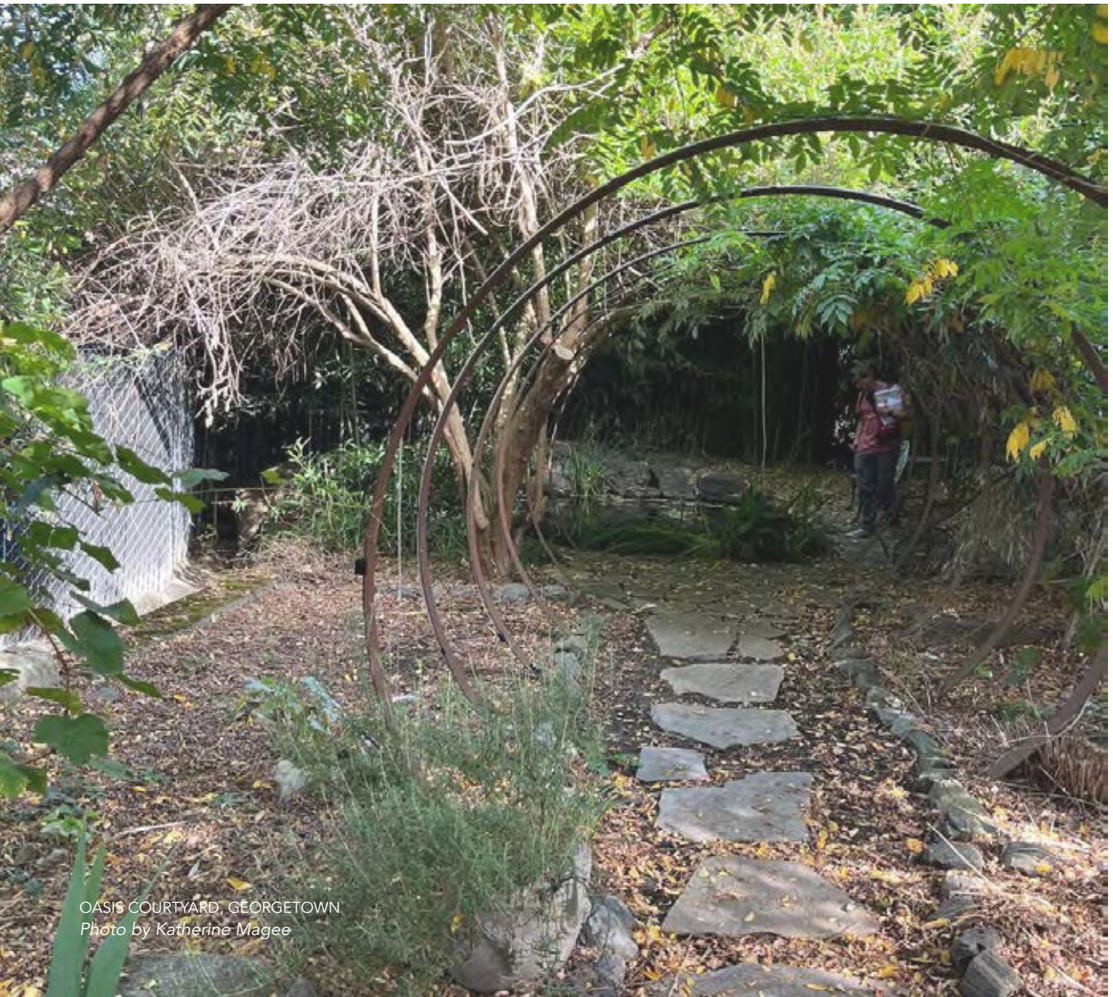
Cover image by Peiyao Xiao | Back cover image by Matt Jernigan

LAND ACKNOWLEDGMENT

We respectfully acknowledge the Coast Salish peoples, the historic and ongoing stewards of the land on which we study and work, the land which touches the shared waters of all tribes and bands within the Duwamish, Puyallup, Suquamish, Tulalip, and Muckleshoot nations. This acknowledgment is not intended to replace efforts in building authentic relationships with these communities, but rather to serve as a first step in honoring the Coast Salish peoples and their lands, where we have studied and which have inspired the design work in this book. As future designers, we strive to continue learning about the cultural past and present of the lands on which we work and to support and honor the Coast Salish peoples.



OASIS COURTYARD, GEORGETOWN
Photo by Katherine Magee

ØSTERGRO ROOFTOP
Photo by Russell Corbin

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COPENHAGEN'S AMAGER COAST
Photo by Vincent Javet

FOREWORD

Visionaries for The Bend, a new live/work affordable artist housing district planned for Seattle's Georgetown neighborhood, have conceived farsighted ethical design concepts and initiated achievable processes that will underpin a model for urban density that responds to city and neighborhood needs for both industry and housing. Our interdisciplinary studio has had the propitious opportunity to build on the promising foundational visions and designs established so far for The Bend, which center and integrate principles that will guide development of a community that is diverse and inclusive, affordable, livable, sustainable, and artful.

Our charge has been to imagine and develop designs for a public/private realm that embraces these values, integrating public space, ground floor and rooftop uses in the 9-block district, and plans for local streets that will transform the harsh industrial conditions into inviting spaces for walking and biking. Overlaying all were considerations for honoring and reclaiming local environmental health, and for how the design of the built environment can help protect our precious but threatened global climate.

Our group was inspired and informed by the successful and innovative urban design examples that we experienced together during our September Scan Design Study Tour to Copenhagen and Malmö. Through their individual research into specific projects experienced in our travels, students further deeply investigated specific examples that could enlighten The Bend's future; these illustrated "precedent" studies are documented in this book. With the benefit of prior student and professional research, documentation of community engagement desires, and the rich visioning completed by Watershed, Signal Architecture and M x M Landscape Architecture, small teams of our planning and design students distilled and augmented research on local conditions, and undertook visioning for the potential Georgetown site. A workshop with the Land Art Generator Initiative helped us to imagine how the project could creatively generate its own power through integration of energy-generating art in the buildings, site elements and materials. Individuals and pairs then selected projects at both district and site scales to develop in detail, which they then refined through input in several rounds of reviews by visiting professionals and Georgetown stakeholders. We sincerely hope that these informed, creative and beautifully illustrated design explorations presented in this book will illuminate what might be possible for The Bend's and Georgetown's inspired future development.

This year marks the seventeenth Scan Design Interdisciplinary Master Studio and we would like to give special thanks to the Scan Design Foundation for their continued support of this extraordinary opportunity that benefits both our students and Seattle/Pacific Northwest communities. The immersive relationship between life in Seattle and Copenhagen would not be possible without the talented guidance of our Scan Design Master Teacher, Louise Grassov. Our stellar teaching assistant Katherine Magee has been vital in corralling and organizing the complexities of our travel, studio processes, and project communications and outcomes, including this book, and UWLA colleague Vincent Javet not only co-led the study tour but also provided design insights at several points during the studio.

We are deeply grateful to Mark Johnson, Lorine Moellentine and Joseph Sadoski of SIGNAL Architecture; Brice Maryman and Tim Spenser of M x M Landscape Architecture; Ben Rankin, Richard Conlin, T. Frick and Erika Bell of Watershed Community Development; and Robert Ferry and Elizabeth Monoian of the Land Art Generator Initiative, for their informative and inspiring support and feedback throughout the term – we could certainly not have learned or achieved the depth of design without their background on the complexity of the project and insights into its possible future. We also benefited from many generous professionals and academics who participated in reviewing the students' final proposals. We profoundly thank you all!

Nancy Rottle, PLA, FASLA
Professor Emeritus
Director, UW Green Futures Lab


BIKE TOUR WITH JAMES THOEM FROM GEHL ARCHITECTS

STUDY TOUR RECAP

In early September, our studio traveled together to Copenhagen, Denmark and Malmö Sweden. The study tour was sixteen days of packed activities from bike tours to site exploration to office tours, studying urban design and public space through the lenses of climate mitigation and adaptation. Through this unique opportunity made possible by the Scan Design Foundation, we learned about how these cities are breaking down silos, working together toward climate goals, and designing spaces for vibrant public life.

We learned directly from experts across the public and private sectors - visiting projects like Karens Minde Aksen and the new landscapes at the Kaktus Towers and firms including Schulze + Grassov, Gehl Architects, SLA, Cobe, and Bjarke Ingels Group. We learned about Scandinavian housing models in visits to the CPH Villages and BIG's project Dortheavej Residences and a lecture and design exercise with activists at the Democracy Garage. Other themes of the study tour included place-based human-scale design, integration of social and built infrastructure, creative urban stormwater solutions, and frameworks of circularity and energy generation. Students analyzed and mapped neighborhoods and public space through sketching and experienced CPH's vibrant public space on bikes and through play. All of these themes, activities, and explorations inspired students throughout their studio work in Autumn quarter.


CPH VILLAGES, NORDHAVN


HIKING UP COPENHILL


STORMWATER INFRASTRUCTURE GRØNNINGEN-BISPEPARKEN


PUBLIC ART, CHRISTIANIA


PLAYING AT REMISEPARKEN


BIKE TOUR WITH LARS GEMZØE


IKEA ROOFTOP LANDSCAPE, DESIGNED BY SLA


SHARING SKETCHBOOKS


2024 SCAN STUDIO PARTICIPANTS AND TOUR LEADERS

STUDIO OVERVIEW

Each year, the Scan Design Interdisciplinary Studio engages with different questions and themes based on the specific needs of the project and site. This year, our theme was "Transformational Neighborhoods," as we sought to investigate planning and design considerations for creating neighborhoods that center healthy, sustainable, affordable and artful living, for all. Taking the inspirational Georgetown community project of The Bend as our applied test case, students listened and learned from professionals who have been working on the Bend, then developed their own design and planning proposals envisioning how Georgetown, an industrial site, could be reimagined and rebuilt into a vibrant, people-centered neighborhood; and simultaneously, how the Bend and its goals toward artfulness, inclusivity, affordability, sustainability, and livability, could be the spark towards larger transformation in Georgetown, Seattle, and beyond to more healthy, connected, inspired neighborhoods for all.

Select questions and goals we explored, posed by proponents and designers of The Bend, are:

- More than object buildings, advance thoughts of *community systems, real belonging, and spaces and structures that grow and change over time.*
- Design by, with, and for a community that will double in population over the next 10 years. What are the highest priorities for resilient development? How do we design a neighborhood for future residents who are not yet part of the community?
- How can The Bend create a health-giving environment for its residents?
- Impart learnings from CPH into the Seattle development paradigm – what is a path that breaks the norm and charts a path for resilient, regenerative placemaking?
- How can the process of deconstruction and material reuse on-site help tell the story of a community through new construction? How far can we extend the concept of reuse and equitable sourcing of materials?
- Given that this valley is prone to extreme weather conditions like flooding, power outages, poor air quality, and heat waves, how can multifamily housing be designed to ensure disaster resilience? What specific green stormwater infrastructure can we build here?
- The aspirations of The Bend and the realities of the Duwamish basin highlight and ask us to live into the tension inherent in a fecund indigenous landscape that has been remade for economic productivity. How does The Bend take in all of this place-based history and define a new eco-industrial future that draws on that past?
- As this place is disturbed, how does it – like a forest – become stronger? How does the construction and maintenance of The Bend continue to lift up people and the planet for decades to come?

Many of these are challenging questions that need answering to inform not only the specific aims of The Bend, but to help answer the question that is central to all of our planning and design endeavors: ***How shall we live?***

ABOUT THE BEND

The Bend is the vision of Watershed Community Development alongside the community of Georgetown, Equinox Studios, SIGNAL Architecture, MxM Landscape Architecture, and many others. According to Watershed, the Bend is an arts-centered Live/Work District that bends towards justice – a once-in-a-generation project that, over the next decade and with $550 million in planned investment, will transform this nine-block area of Georgetown – offering affordable housing, nurturing inclusive community, bringing much-needed services, and supporting and sharing the arts. To achieve this, The Bend's District Plan is built around 5 Key Values:

- Art as Convener
- Diverse and Inclusive
- Affordable Spaces
- Environment & Stewardship
- A Livable Neighborhood

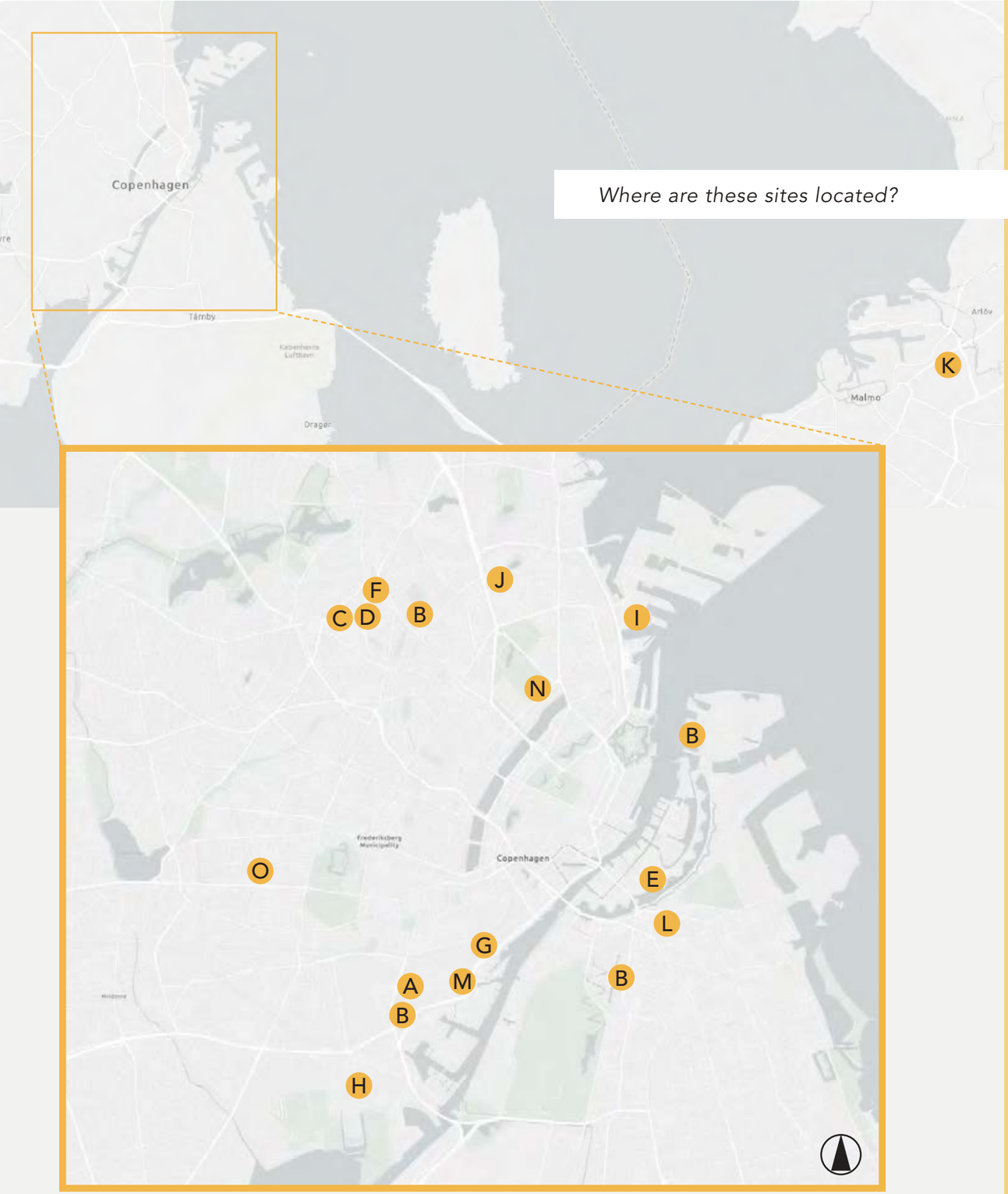
Since its inception, the Bend has prioritized vibrant, human-scale streets and spaces that inspire and connect people. The 'meander and mews' plan of Fall 2022 envisioned creating a pathway of pedestrian experiences throughout the district that blur the lines between public and private, art and business, communities and cultures. The Street Concept Plan, developed by MxM in Fall 2023, follows the key tenets put forth by Watershed. These concepts respect the importance of freight traffic on 4th while suggesting modifications to improve safety along 4th and transforming 5th Ave and cross streets into more human-scale streetscapes, including the Findlay 'Festival Street.'

The Bend will consist of five mixed-use buildings. SIGNAL Architecture configured ground-floor uses to integrate services, art, and social spaces. Currently in development by SIGNAL, the 'Cookbook of the Street' documents design intent for key gestural aspects of the Bend… and offers guidance for form, function, and overall experience of streets and other public spaces.

IMAGINING THE BEND IN 2029
The Bend District Plan / Watershed Community Development

DISTRICT GROUND-FLOOR USES
SIGNAL Architecture + Research

STREET CONCEPT PLAN
MxM Landscape Architecture



Where are these sites located?

PRECEDENT STUDIES

On the study tour, students visited precedent sites including parks, neighborhoods, streetscapes, housing development, and community organizations. Sites were chosen for their specific relevance to The Bend and its goals. Each case study pays particular attention to context and purpose, program including social and environmental amenities, and lessons that could be applied to The Bend.

Working in pairs, students visited and observed sites, guided by the Gehl Quality Criteria for public life and documented through sketching and photography. Students additionally consulted archival sources to learn the background of each project including their planning and design concepts, goals, and roles in the natural environment and city contexts; identified structural, material, social, and functional qualities; and evaluated performance over time.

- (A) BANEGAARDEN
- (B) CPH VILLAGE
- (C) DEMOCRACY GARAGE
- (D) DORTHEAVEJ RESIDENCES
- (E) FREETOWN CHRISTIANIA
- (F) GRØNNINGEN-BISPEPARKEN
- (G) IKEA + KAKTUS TOWERS
- (H) KARENS MINDE AKSEN
- (I) ORIENTEN AT NORDHAVN
- (J) ØSTERGRO
- (K) SEGE PARK
- (L) SOCIAL SPINE
- (M) SPOR10
- (N) STRÆDET
- (O) TÅRNLEGEPLADSEN
- (P) VENLIGBOLIG PLUS

BaneGaarden

MATT JERNIGAN

Location:	Otto Busses Vej 45, Jernbanebyen, CPH
Year:	2019
Designer(s):	Aarstiderne, Rønnow Architects
Client:	Danish State Railways

Wooden barns once used for the Danish railway have been converted into a community and culinary hub. Through thoughtful renovation, the structures now hold space for community events, food stalls, and working spaces. The founders envisioned a place that could inspire people to live sustainably through more beauty, food, and excitement. Their goal was to contribute to the green transition with enthusiasm and positivity rather than finger-wagging.

BaneGaarden exemplifies a commitment to sustainability through principles that guide each action. Each barn was restored through traditional building practices and sustainable materials. Everything offered on site s 100% organic. BaneGaarden co-hosts community dinners with local chefs, featuring seasonal ingredients. Flea markets, farmers markets, educational evens, and youth programming are offered throughout the year.

Background + History

Situated within Copenhagen's railway district, BaneGaarden serves as a culinary hub for sustainability and ecological living. Although now a green oasis surrounded by dense urban city, the space was not always as such. The barn structures that take center stage, were originally constructed in 1909 by the Danish State Railways to store and dry timber. By the 1950s the barns were left abandoned after the needs and production of the railway system shifted.

For decades the space remained unused and was slowly taken over by nature and decay. Then in 2019, the founders of Aarstiderne, Søren Ejlersen and Thomas Hartung, saw the potential to transform it into a cultural and culinary center with an emphasis on sustainability. With the funding of Realdania and help of Rønnow Architects, they aimed to restored the barns to their original condition using traditional timber-framing techniques and historic craftsmanship.

Respectful Restoration

From the beginning, the project team made a commitment to restore the buildings traditionally with a team of experts. Now five years after the construction started, the buildings continue to be restored, much like the development of BaneGaarden, which never stops. The organization employs up to 15 full-time builders at a time. They support the vision of each individual craftsperson; to follow their own distinctive approach

BANEGAARDEN
Source: Venuu

THE CENTRAL GATHERING AREA
Source: AFAR Media

to sustainability and construction practices. Materials also need to be sustainable, as well. For example, the paint on site contains buttermilk to avoid the use of plastics.

BaneGaarden's Guiding Principles:

- Reuse rather than consume
- Craftsmanship rather than haste
- Natural building materials rather than synthetic
- Wood rather than concrete or steel
- Wood chips rather than tiles or bricks

Although all of the barns have yet to be fully reconstructed, the organization has made their approach a part of the mission. They include sustainability in each thing they do; renovating the barns takes a long time because they want to keep preserve the old crafts.

BARN CONDITION BEFORE RENOVATION
Source: BaneGaarden

"BaneGaarden must be a place relevant to a wide range of people. Not just somewhere to hang out, but a place you are affected and inspired by – a place that leads visitors going home with the desire and knowledge of how even small behavioral changes can contribute to a more sustainable everyday life."

- Søren Ejlersen (BaneGaarden Co-founder)

They also re-purposed a 105-year-old greenhouse from the Copenhagen Botanical Gardens, sustainably restoring it with recycled materials, like re-purposed flooring and doors from a local school. An earth screw foundation allows for its disassembly and relocation. Located in BaneGaarden's protected forest, it serves as a classroom and event space, and in the summer, hosts a restaurant focused on local, seasonal meals.

A Green Lighthouse

BaneGaarden was created to shape the future of sustainability by inspiring visitors to contribute to a better world through engaging experiences and innovative community events. The founders wanted a place that practiced sustainability and celebrated the transition to a greener future. Everything at BaneGaarden

BANEGAARDEN'S FOREST GREENHOUSE
Source: BaneGaarden

is 100% organic; they run restaurants, cultural programs, youth programs, a farm shop, food stalls, and host educational workshops.

The design of the space helps to convey BaneGaarden's mission. The buildings face a central "street" covered with wood chips that serves as a gathering and meeting place. They also worked to preserve the natural vegetation, placing a glass greenhouse in the woods and siting pathways around existing vegetation. Throughout the property you can see vegetable gardens, bee hives, a chicken coop, and compost systems placed so that visitors can interact with them.

A GREEN OASIS WITHIN THE CITY
Source: BaneGaarden

A large part of the project involves the programing of the space. The organization has events that run weekly throughout the year. This includes everything from swap markets, craft fairs, movie nights, dance parties, saunas, community dinners, to even fermentation workshops. Food stalls that operate regularly activate the space daily, even when there are not larger events being hosted. Existing next to a school, they also offer youth programs that introduce children to green practices and local, sustainable food.

Lessons for the Bend

The principle-driven project of BaneGaarden can serve as inspiration for the work of the Bend, because of their shared approach and ethos. The Bend, too, is guided by core values that contribute to how space is shaped and used. BaneGaarden let their principles and the site's history guide the form and aesthetics of the space. Additionally, they kept as much nature within the area as possible, choosing to adapt and build around it and include it within their spaces. Through these practices it became a green sanctuary within the larger city.

Another of BaneGaarden's notable successes lies in its dynamic programming of space for cultural events and celebrations. Year-round activities cater to a variety of audiences at different times, often with multiple events occurring simultaneously. This creates a vibrant intersection of diverse groups—professionals, youth, activists, farmers, and others—who engage and interact within the shared space. How might The Bend adopt a similarly inclusive approach to programming, fostering a rich environment where diverse communities can connect, collaborate, and build relationships?

"While it would have been easier to build something from scratch, [this] result is more meaningful."

- Mikkel Bøgh (Architect, Forma Studio)

The creative reuse of materials and sustainable construction methods of BaneGaarden can also inform the Bend by encouraging novel solutions to how art and structures get built and at what timeline they are completed. Could the Bend lean into the use of more natural materials within the dense urban city of Seattle?

A SOURCE FOR LOCAL SUSTAINABLE FOOD
Source: BaneGaarden

BUILDING COMMUNITY THROUGH FOOD
Source: Peter Vari

CPH Village

REBECCA ZARAGOZA +
SISKA DEWANTI

Location:	Refshalevej 159-161 Amagerfælledvej 52 Otto Busses Vej 101 Banevingen 20
Year:	2015 - Present
Designer(s):	Arcgency, Vandkunsten, and others
Client:	CPH Village

CPH Village creates affordable, sustainable housing with minimal environmental impact by utilizing idle urban land. Since 2014, they've influenced Danish zoning laws to support resource-efficient student housing. Now operating four villages in Copenhagen—Refshaleøen, Vesterbro, Amagerbro, and Nørrebro—the villages focus on sustainability, emitting 60% less carbon dioxide than national limits, with plans for zero-emission projects including 'Generation 5.' Using upcycled materials, such as shipping containers, they activate underused spaces and foster strong communities. Village Nørrebro, the largest, stands out for its vibrant design that promotes social interaction and community-building.

VILLAGE REFSHALEØEN
Source: CPH Village

History & Context

The mission of CPH Village is to accelerate the supply of affordable housing with minimal use of natural resources to activate idle land and flexible buildings. In 2016 this alliance successfully advocated for a change in Danish zoning law to allow for this type of affordable and resource-light housing for students across cities. Today CPH Village offers housing at 4 different locations across Copenhagen (Refshaleoen, Vesterbro, Amagerbro, and Norrebro) and is actively working on developing future villages in what they call "secret spots" in the city.

Each village offers a private room and kitchen with a shared bathroom. The total monthly rent which includes electricity, water, and heating is roughly 4.800 DKK or about $718 USD after subsidies. Rent is primarily used to repay the loans used to rent the land for 10 years.

VIEW OF VILLAGE NØRREBRO
Source: CPH Village

MAP OF CPH VILLAGE LOCATIONS
Source: Rebecca Zaragoza

Village Refshaleøen

Village Refshaleøen is located in the old ship wharf area which today offers easy access to cafes, restaurants, sports facilities, spaces for concerts and cultural events, the "street food mecca, Reffen," and the waterfront. Refshaleoen's units are reused shipping containers. This project has helped transform a former industrial district into a creative and alternative urban development.

Village Amagerbro

Village Amagerbro is the smallest CPH village with 88 living spaces adjacent to University of Copenhagen's South Campus. This particular village is experimenting with 3-story buildings with multiple yet smaller living spaces in an urban setting. Although Village Amagerbro is newer, it has already helped foster community cohesion by integrating flea markets and a greenhouse.

VILLAGE REFSHALEØEN
Source: CPH Village

CPH VILLAGE'S PROGRESS TOWARDS SUSTAINABILITY:

The existing designs of CPH Village only emit 1.02 lbs of CO_2 per square foot per year. This is 60% below the Danish requirement set in 2023.

Village Vesterbro

Village Vesterbro houses 184 students in an abundantly green environment and is also easily connected to neighboring cafes, and other social amenities and events in Vesterbro.

Village Nørrebro

With 342 apartments, Village Norrebro is the largest CPH Village and takes inspiration from the concept of urban villages and communities in Brazil. There is also easy access to nearby cafes and restaurants, as well as the newly renovated Mimers Park. Its residents are quite diverse, including students and non-students, and its communal spaces offer this community many opportunities for social cohesion and mutual support.

CONTAINER LIVING SPACES IN VILLAGE NØRREBRO
Source: Rebecca Zaragoza

AERIAL VIEW OF VILLAGE VESTERBRO
Source: CPH Village

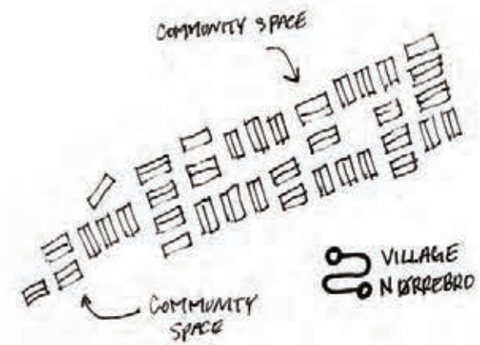
SHARED WALKWAY IN VILLAGE AMAGERBRO
Source: CPH Village

Form, Structure, & Materiality

CPH Village aims to promote the use of flexible materials and a light use of natural resources. This idea follows its first prototype which used upcycled and organic materials and flexible buildings. At Village Nørrebro, container units are combined to form 3 stories and are elevated off the ground. Blocks of living spaces are closely placed to create a seemingly dense community. Some blocks are also connected by steel sky bridges that match the container's materiality. The elevated blocks allow the living spaces to have more views of the city and likely prevent damage during cloudburst events.

Climate & Environment

In addition to providing affordable housing, CPH Village also aims to promote sustainable living through the use of minimal natural resources. The existing villages emit less than 60% of 12 kg Co2/m2 per year, a limit set in 2023 across Denmark. CPH Village continues to work towards zero emissions with future projects like Generation 5 and Earth Robots.



SKETCH LAYOUT OF VILLAGE NØRREBRO
Source: Rebecca Zaragoza

Urban Design & Programming

Each CPH Village has its own identity, welcoming residents with diverse backgrounds and interests. CPH Village identifies idle "secret spots" to activate them through affordable and sustainable housing. Each village is within close proximity to commercial businesses and social amenities. While some villages could benefit from more direct or clear connectivity to their surrounding neighborhoods, the secluded character of the locations contributes to the identity of the villages and the mission to revitalize underused spaces within the city.

Village Nørrebro is extensively colorful and dense. Although the immediate vicinity is underdeveloped and lacks formal landscaping, the village is bursting with art and murals that reflect the creative population and atmosphere.

As part of the formal design, Village Nørrebro provides communal living and eating spaces that provide opportunities for social interaction and entrepreneurial activities. The open surrounding also allows for large gatherings and community events or celebrations. The open outdoor space and secluded atmosphere have allowed residents to create informal gathering spaces outdoors as well. Since each living space shares a bathroom, entryways connecting the two units creates opportunities for neighborly interaction and reliance.

NEXT STEPS FOR CPH VILLAGE:

CPH Village is working on several innovative projects through the year 2027: Village Generation 5, Adaptive Design System, Village Generation 6, and Earth Robots.

SELF-MADE OUTDOOR GATHERING SPACE
Source: Rebecca Zaragoza

Democracy Garage

JINGYAO WU + TINA LEE

Location:	Rentemestervej 57, Nordvest
Year:	2020-2024
Designer(s):	We Do Democracy
Client:	We Do Democracy

Democracy Garage is a space in Copenhagen's Northwest neighborhood dedicated to fostering democratic participation and innovation. Once a blacksmith and auto repair shop, the building has been transformed into a community hub where citizens, activists, and organizations collaborate to strengthen democracy through dialogue and experimentation. The Garage reimagines the traditional community center, focusing on democratic engagement by developing and testing new formats of participation. It brings together diverse actors—public, civil society, and entrepreneurs—to work on solutions that address society's shared challenges. It offers a platform for cross-sector collaboration, encouraging collective intelligence and cooperation. Through innovative programming and partnerships, the space helps shape and revitalize democratic practices for the future.

No one can solve big challenges alone. Everyone's brains, hands, voices and innovation are needed to design more and better democracy to help shape our shared future.

WE DO DEMOCRACY

We Do Democracy: leading Nordic advisors in democratic innovation and deliberation

1. Deliberative democracy

Deliberative citizens' councils, assemblies, and panels engage representative citizens in developing informed recommendations on complex issues. This process strengthens democratic legitimacy and provides decision-makers with a stronger mandate for bold, long-term decisions. We Do Democracy leads Denmark in organizing and facilitating these methods.

GENERAL MEMBER MEETING
Source: We Do Democracy

2. Participation strategy

Sustainable change requires involving more voices than the usual participants. Inclusive participation strategies are designed to ensure diverse perspectives are represented, using international best practices and leading knowledge to create processes that engage a broad range of stakeholders effectively.

RUDERSDAL CITIZENS' ASSEMBLY
Source: We Do Democracy

3. Democracy and innovation

Democratic innovation encompasses novel approaches to political processes and decision-making. It seeks to enhance how policies are developed and implemented through collaborative methods, fostering participation among citizens and stakeholders. We Do Democracy specializes in designing strategies for democratic renewal across various sectors, including associations, businesses, and institutional frameworks.

4. Representation - get more people on board

Representation focuses on amplifying diverse voices to enrich decision-making and implementation processes. By ensuring equitable involvement, it transforms collective knowledge, resources, and commitment into valuable assets. We Do Democracy designs customized participation strategies, such as youth councils and advisory boards, to tackle challenges in inclusivity and foster broader democratic engagement across various sectors.

5. Facilitation and change management

Facilitation and change management involve guiding processes that require shared ownership of solutions. As expert consultants, We Do Democracy designs and operates a wide range of processes, from extensive, complex initiatives to short, focused sprints. Their approach utilizes proven, open, interactive, and visual facilitation practices to foster co-ownership, maintain momentum, and achieve tangible results.

6. YES in my Backyard

In the face of complex societal transitions, communities often encounter polarized debates, NIMBY movements, and political gridlock that alienate citizens from the system. However, an increasing number of individuals are advocating for democratic approaches to issues like urban development, mobility, renewable energy, climate adaptation, and coastal protection. We Do Democracy specializes in facilitating difficult conversations and navigating dilemmas, offering alternative pathways to constructive dialogue and community engagement.

7. Knowledge and lectures

The initiative focuses on disseminating the latest insights and expert advice across Denmark to empower individuals and organizations. It shares knowledge at professional events and is regularly invited to deliver keynotes and lectures that inspire others to strengthen participation and democracy in their respective arenas. This approach fosters a culture of informed civic engagement and encourages active involvement in democratic processes.

HOW DO WE GET MORE PEOPLE INVOLVED IN THE TRANSFORMATION OF OUR SOCIETY?

ZAKIA ELVAN, PARTNER AND DEMOCRACY ADVISOR
Source: We Do Democracy

Democracy and local communities get a new framework in a former garage in Copenhagen's North-West quarter.

Democracy Garage: A New Hub for Participation

Democracy Garage is branded as Copenhagen's new democracy house and meeting place for civic engagement. Located in a unique neighborhood characterized by a mix of residential, commercial, and industrial spaces, this area showcases cultural and social diversity alongside emerging entrepreneurs. Despite its vibrant development, it grapples with high unemployment and low voter turnout. To address these challenges, We Do Democracy, in collaboration with the analysis agency Analyze og Tal, has established Democracy Garage to foster greater participation and strengthen democratic processes in the community.

1. From Pilot Project to Permanent Address in a Courtyard Environment

Following a successful pilot project in 2019, Democracy Garage has established a permanent location in a vibrant courtyard environment featuring workshops, industrial halls, and open spaces. Funded by the Underværker campaign and the Local and Anlægsfonden, the first phase of renovations took place in 2020, with the second phase focused on restoring two heritage buildings and enhancing outdoor green spaces.

2. *Three Rooms, One Purpose*

Folkestuen, one of the two heritage buildings, serves as Nordvest's new community living room, run by volunteers. It hosts various activities, including communal dinners, chess and book clubs, events, and meetings for local associations. The second heritage building, Værkstedet, is the innovative heart of Democracy Garage, facilitating democratic collaboration with public and private actors through conferences and workshops. The courtyard acts as a central hub, showcasing activities from both buildings to visitors and users.

3. *Nordvest – A Challenged Neighborhood in Rapid Development*

Despite its rapid development, Nordvest faces challenges such as a lack of meeting places, communal activity spaces, and areas for relaxation. The project's primary aim is to create a green, vibrant venue for democracy, community, and innovation in Nordvest, welcoming residents, Copenhageners, and visitors of all genders, ages, ethnicities, and economic backgrounds.

FOLKESTUEN, NORDVEST'S NEW DAILY LIVING ROOM BUILDING RUN BY VOLUNTEERS
Source: We Do Democracy

FOLKESTUEN OFFER COMMUNAL DINING AND EVENTS
Source: We Do Democracy

▲ BOOK AUTHOR READING AT DEMOCRACY GARAGE
Source: We Do Democracy

◀ A MEETING AT DEMOCRACY GARAGE
Source: We Do Democracy

▼ GROUP PHOTO OF EMPLOYEES
Source: Arthur Cammelbeeck/Altinget

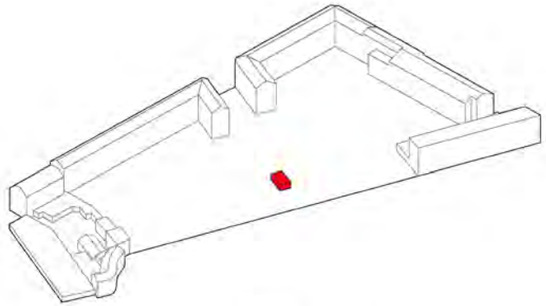
Dortheavej Residences

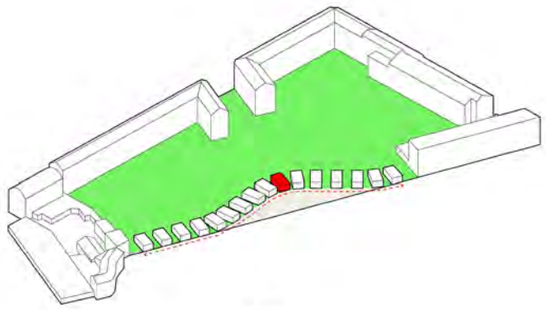
SARAH WHITNEY +
LELA COOPER

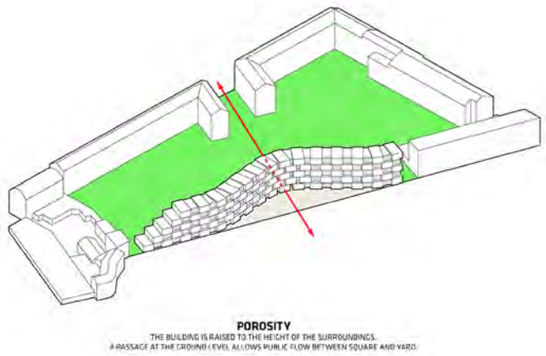
LOCATION:	Dortheavej 2c, 2400 Copenhagen
YEAR:	2018
DESIGNER(S):	Bjarke Ingels Group
CLIENT:	Lejerbo

The Bjarke Ingels Group (BIG) was hired by Lejerbo, a nonprofit affordable housing association, to fulfill her 'homes for all' mission in the Nordvest neighborhood. In the 1930s through 1950s, Nordvest was populated by industry, storage facilities, and car repair shops. It is now one of Copenhagen's most ethnically diverse neighborhoods that is primarily residential. The Dortheavej residences, named after its address, is a 5-story structure that includes 66 affordable homes for low-income citizens. The building has a footprint of 6,800 square meters, and apartments range from 60-115 square meters in size.

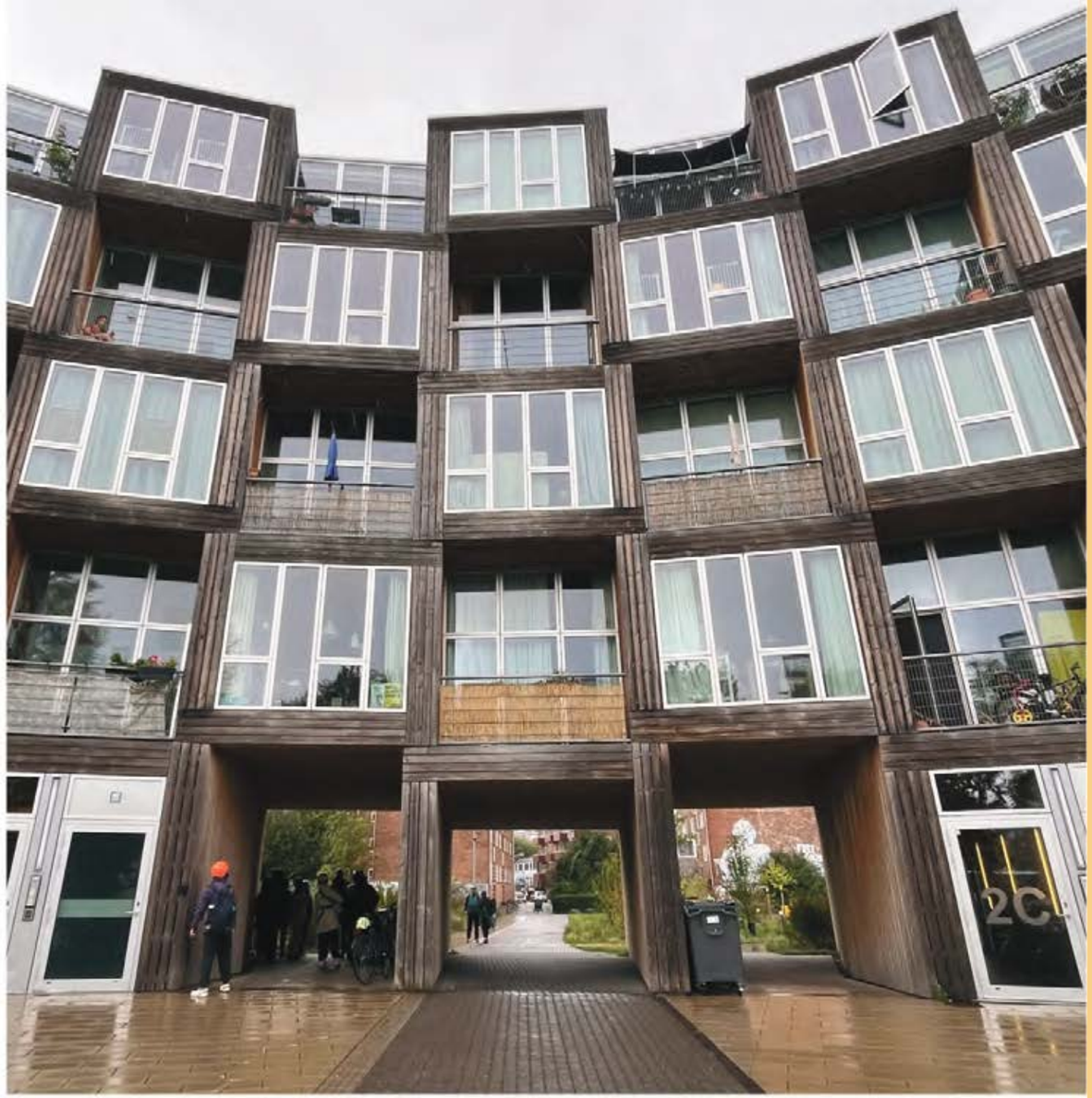
In 2018, the project won the Lille Arne Award from the Danish Association of Architects, celebrating the exceptional design qualities that were achieved on a strict budget. The Dortheavej residences illustrate how innovative and sustainable design can create a higher quality of living, even at a modest price point.







MODULAR DESIGN CONCEPTS
Source: Bjarke Ingels Group



DORTHEAVEJ ENTRANCE
Source: Sarah Whitney

Modular Design

The design concept began with a checkered pattern. The pattern was achieved by stacking and staggering prefabricated modules. The concrete, hollow-core modules create a strong and sustainable frame; prefabrication generally has lower carbon emissions and produces less material waste. The modules were manipulated to create a curved structure. The structure allows light and air in between apartments, and creates more spacious interiors. The curve of the structure

"We have attempted to mobilize modular construction with modest materials to create generous living spaces at the urban as well as residential level."

- Bjarke Ingels, BIG Founding Partner

design exterior spaces: a plaza on the south side, and an internal courtyard on the north side of the building.

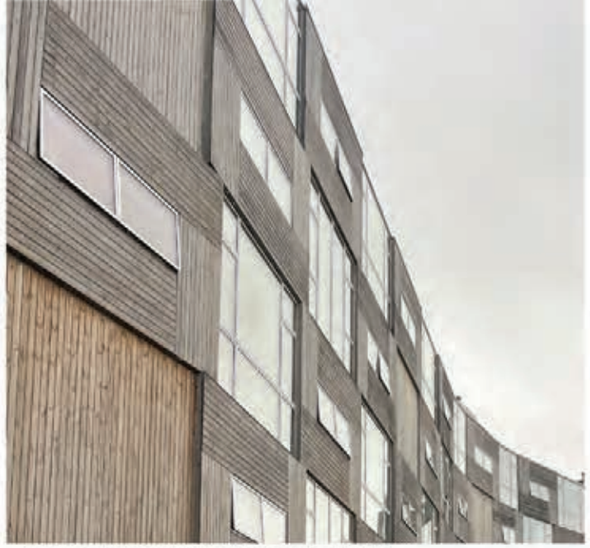
BIG played with the idea of porosity in their design. This concept is achieved by the rotations of the modules, creating gaps for light in between the apartments and spaces for movement in between. At the base of the building there are clear pathways to pass through the structure. At the center of the building lies a bike and pedestrian path, which connects the south plaza and the north internal courtyard. This allows for residents and neighbors to easily access the street, and creates more opportunities for interaction.

High Quality Design

The exterior is cladded in Thermowood pine planks. Thermowood is a highly durable, sustainable material that uses heat and steam to enhance the properties of the wood. The cladding alternates directions per module to emphasize BIG's design concept and the structure's distinctive form. The interiors of the apartments are light and airy. Tall ceiling heights of 3.5 meters are accentuated by large floor-to ceiling windows. The simple design, light cabinetry, natural materials, and pine flooring create a blank canvas for residences and draw your attention towards the outdoors. South facing balconies also provide access to the outdoors and maximize sun exposure.

Porous Design

Designing with porosity in mind, BIG integrated passageways into the modular form. The paths connect the plaza on the southside with the green



CURVED DESIGN AND EXTERIOR CLADDING
Source: Sarah Whitney

CURVED DESIGN AND EXTERIOR CLADDING
Source: Rasmus Hjortshøj - COAST

courtyard on the north. The central path has both a designated bike lane and pedestrian walkway. The south plaza is mostly used for bike parking, with no public seating options. It is a place to move through or meet before a journey. The north courtyard has a lawn, trees and plantings, and a play structure that mimics the residences.

Lessons for The Bend

As affordable housing in a formerly industrial neighborhood, the Dortheavej residences can serve as an inspiration for The Bend. Their simple and innovative modular design is both sustainable and relatively low cost, and spacious interiors are comfortable compared to typical affordable housing apartments. The form of the building responds to the climate, and creates connections to the outdoors. In the conxtext of Georgetown, it is helpful to think about how we can design affordable housing that fosters connections to nature and the artist community. Overall, the Dortheavej residence demonstrates a need, and desire, for quality affordable housing, which matches the needs of Seattle and the Georgetown community.

PLAY STRUCTURE
Source: Sarah Whitney

Sources:

Bjarke Ingels Group. (2018). Dortheavej 2 residences: Big: Bjarke Ingels Group. BIG. https://big.dk/projects/dortheavej-2-residences-2442

Fundació Mies van der Rohe . (2024). Dortheavej Residence. EUmies Award. https://miesarch.com/work/3924

Hernández, D. (2018, October 8). Homes for all - Dortheavej Residence / Bjarke Ingels Group. ArchDaily. https://www.archdaily.com/903495/homes-for-all-dortheavej-residence-bjarke-ingels-group

POROUS PATH AND COURTYARD
Source: Sarah Whitney

Freetown Christiania

DAVIEN GRAHAM

Location:	Christianshavn, CPH
Year:	1971
Designer(s):	Multiple
Client:	Residents of Christiania

Freetown Christiania is a sovereign district in the city of Copenhagen. The existing context s made up of the remnants of old military barracks and infrastructure. In 1971, a group consisting of those lying on the fringes of society came together and turned an abandoned city district into a thriving free space for self expression and community organization.

History

Christiania's military origins can be traced back to medieval Europe. The initial construction of the character-defining bastions and ramparts were constructed in the early 1600s. Over the course of the mid-20th century, the military phased out use of the site; by 1971, the area was abandoned. Starting in May 1971, people broke down infrastructure on site, using portions as playscapes and, over the coming months, taking control of more and more abandoned buildings. On September 26, 1971, Freetown Christiania was formerly established.

"Christiania's objective is to create a self-governing society, whereby each and every individual can thrive under the responsibility for the entire community. This society must economically rest in itself, and the joint efforts must continue to be about showing that psychological and physical destitution can be diverted" (1971)

Community Governance

As the name suggests Freetown Christiania is a self governing society. The district has its own set of laws and rules such as no firearms or hard drugs. Decisions made in the interest of the larger group must be unanimously agreed upon by attendees of their town hall meetings. One such decision was that choice to take government funding to legally buy the land of Christiania, which the government has utilized to crack down on some of the districts more illicit activities such as the sale of cannabis.

A NEIGHBORHOOD MEANT FOR PEDESTRIAN USE
Source: Vincent Javet

REUSE OF MILITARY INFRASTRUCTURE FOR COMMUNITY USES SUCH AS HOUSING
Source: Davien Graham

Design Strategies

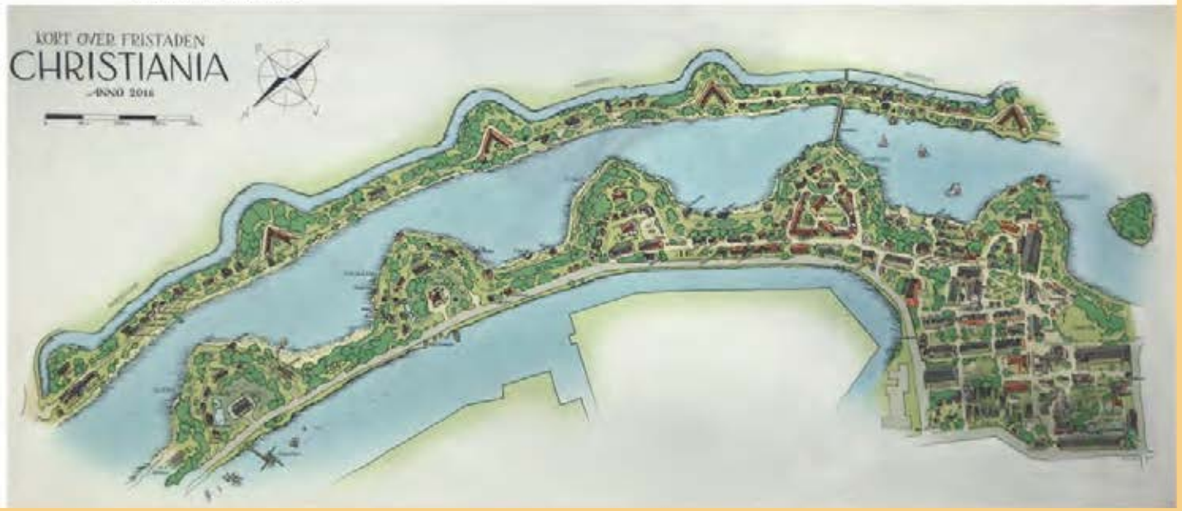
Arguably the most alluring part of Christiania is its design language. Housing typologies can range from small hobbit-like cottages to the former living quarters of military leadership. Most of the stuctures in this neighborhood are covered in murals and graffiti. A lot of the vegetation has crept up the walls of the former military buildings, adding a lovely layer of green to the pedestrian friendly streets that weave through the former ramparts.

This site is home to a bathhouse, a public market with bars and restaurants, art spaces and facilities, meditation spaces, urban gardens, a brewery, and much more. A common thread in all of these places in Christiania is sustainability and recycling, which are at the forefront of their building methodology. The neighborhood has its own recycling facility as well as a large market hall that residents use to fabricate anything they wish. In this way, adaptive reuse is the primary building language stepping through the gates of Christiania, and 50+ years later, the district still stands strong.

ANARCHY AS ARCHITECTURE AND DESIGN
Source: Davien Graham

An estimated 500,000 people visit Christiania every year, making this district the second largest tourist attraction in Copenhagen.

THE EXTENTS OF FREETOWN CHRISTIANIA
Source: Christiania Guide Map



Grønningen-Bispeparken

HUNTER OTTMAN

Location:	Nordvest, Copenhagen
Year:	2020- 31 August 2024
Designer(s):	SLA, HOFOR, Niras, Bergendal
Client:	City of Copenhagen

Grønningen-Bispeparken is a 20,000 square meter urban park in the Nordvest district of Copenhagen, designed by SLA as a cutting-edge example of nature-based climate adaptation. Constructed between 2020 and 2024, the park serves as a key element of Copenhagen's Cloudburst Management Plan, designed to address the city's increasing vulnerability to intense rainfall events known as cloudbursts.

The park features 18 'social basins,' which can collectively retain up to 3,000 cubic meters of rainwater. As their name indicates, these social basins also function as spaces for community to gather in dry weather. Grønningen-Bispeparken integrates environmental, social, and recreational features, fostering biodiversity and offering a vibrant public space for all ages.

THE PARK, FACING NORTH, WITH GRØNNINGEN (FRONT) AND BISPEPARKEN (BEHIND, ACROSS THE STREET)
Source: SLA

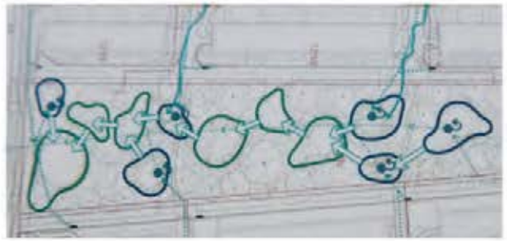
PRE-CONSTRUCTION VIEW FROM THE SOUTH
Source: Apropos en eng, 2019

An Opportunity

Before the transformation, the site was an underutilized, flat lawn with limited ecological or social value. This lack of infrastructure made the area vulnerable to flooding during heavy rains, and it did little to serve the needs of the surrounding community.

The absence of interactive spaces or natural features resulted in a park that neither supported social interaction nor contributed to urban biodiversity. Residents expressed a desire for a more engaging and ecologically dynamic space that could offer both environmental benefits and social opportunities.

COLOR RENDERING WITH TOPOGRAPHY
Source: @NIRASConsulting on YouTube



WATERFLOW THROUGH BASINS DIAGRAM
Source: @NIRASConsulting on YouTube

SITE PLAN
Source: Copenhagen Municipality

"Wild, poetic, and very sensuous. The feeling of walking has been accentuated in a multitude of ways that I can't remember having experienced in any other recent park."

- Karsten Ifversen, Architecure Critic in Danish daily Politiken

Goals of the Project

1. Climate Resilience and Flood Mitigation

One of the primary goals of Grønningen-Bispeparken was to create a resilient urban space capable of mitigating the effects of intense rainfall events. The park is designed to manage cloudbursts through its 18 social basins, which act as water retention systems during storms, holding up to 3,000 m³ of rainwater to prevent local flooding. The park's design also includes bioswales and depressions, which allow water to infiltrate the soil, minimizing pressure on the city's drainage systems.

SOCIAL BASIN FLOODED
Source: SLA via Instagram

2. Biodiversity and Ecological Enhancement

Another goal was to enhance urban biodiversity by integrating a variety of native plants, trees, and bioswales into the park's design. These features create habitats for local wildlife and foster ecological diversity within the city. The park's hilly terrain and pocket spaces offer microhabitats that support flora and fauna, contributing to Copenhagen's broader sustainability goals.

VIEWING DECK
Source: Hunter Ottman

3. Community and Social Infrastructure

A central aspect of the park's development was the involvement of the local community. Residents played a key role in shaping the design of Grønningen-Bispeparken, ensuring that it would meet their social and recreational needs. The park includes social basins that transform into playgrounds, meeting areas, and relaxation spaces when dry. In addition, the inclusion of art elements by Kerstin Bergendal enhances the cultural significance of the space, making it a vibrant hub for community interaction and engagement.

PLAY SPACE IN BISPEPARKEN
Source: Hunter Ottman

4. Historical and Cultural Preservation

The park also preserves key historical elements of the area. The design retains views of Grundtvig's Church, an important cultural landmark, while also honoring the legacy of the original park design by landscape architect C.Th. Sørensen. Existing trees and plantings were preserved as much as possible, and new elements were carefully integrated to reflect both the site's history and its modern, climate-adaptive function.

PLAY SPACE CONCEPT MODELS TO AS-BUILT PHOTOS
Source: K. Bergendal (above), Hunter Ottman (below)

PUBLIC ENGAGEMENT AFTER PARK OPENING
Source: SLA

Sources:

"Grønningen-Bispeparken," SLA, 2024.

sla_architects. Instagram Post about Grønningen-Bispeparken, 2024. Instagram.

"Grønningen NV – Bispeparken." Københavns Kommune, 2024.

"Footpaths and Meeting Spots in Grønningen." Apropos En Eng.

"18 bassiner i Grønningen–Bispeparken kan nu tilbageholde 3.000 kubikmeter regnvand." NIRAS.

"Sad Lawn Becomes a New Park in Copenhagen with Built-in Protection Against Cloudbursts." TV2 Kosmopol.

"Come to the Opening of Bispeparken – Grønningen NV." Bispeparken.

"Has Been Closed for Over a Year: Copenhagen's New Park is Now Opening." Kobenhavn Liv.

"Skybrudspark Creates Life and Brings Together Grønningen NV and Bispeparken." Byggeri Arkitektur.

"Rain Gardens & Storm Water Management in Copenhagen." URBiNAT, 2024.

IKEA + Kaktus Towers

PEIYAO XIAO

LOCATION:	Vesterbro/Kongens
YEAR:	2023
DESIGNER(S):	1:1 Landskab, Dorte Mandrup, BIG
CLIENT:	IKEA, Kaktus 1, Catella, Høpfner Projects

As cities reimagine commercial infrastructure for ecological and public use, the new IKEA in downtown Copenhagen offers a compelling model of adaptive landscape design. Far more than a furniture store, the building integrates a three-story public landscape that culminates in a lush rooftop garden. This elevated space provides both infrastructure (for bikes, pedestrians, and urban wildlife) and a unique encounter with wild urban nature.

This landscape connects to the larger planning effort, Det Grønne Strøg, or the "green strip," a network of public green roofs and pedestrian routes that stretch from Copenhagen's City Center, across the IKEA rooftop, and down past the Kaktus Towers, continuing southwest.

CONTEXT:

Located at the edge of Vesterbro, Copenhagen's 'Western Neighborhood,' the IKEA rooftop and Kaktus Towers sit at the intersection of the city's historic center and newer urban districts. Positioned within the palm area of the city's historic 'Finger Plan' strategy, the site is both central and significant, particularly in its potential to offer public open space, part of a layered strategy to support diverse land uses including housing, retail, and green space.

This area has seen rapid transformation, spurred in part by new transit investments that have reactivated former industrial and infrastructural zones. Proximity to central stations and bike networks has supported mixed-use development, blending housing, retail, and public green space.

AREA OUTSIDE WEST GATE IN 18TH CENTURY
Image Source: Danish Architecture and Design Review

SITE LOCATION
Source: Google Maps

◀ IKEA COPENHAGEN MASTER PLAN
Source: 1:1 Landskab

IKEA COPENHAGEN: SOCIAL FEATURES

CONNECTIVITY
BICYCLE FRIENDLINESS
COMMUNITY EVENTS

CONNECTIVITY:

The IKEA green roof connects to a network of green roofs from the SEB bank across Tivoli Hotel, Dybbølsbro, Kaktus Kollegiet and onwards through new buildings towards Sydhavnen.

◀ GREEN WALKWAY THROUGH IKEA CPH
Source: 1:1 Landskab

▶ KALVEBOD BRYGGE VIEW FROM IKEA CPH

▼ IKEA ROOFTOP PARK
Source: Peiyao Xiao

BICYCLE FRIENDLY:

With parking spaces for hundreds of bicycles, IKEA cargo-bikes available for customers and easy access for pedestrians, the new city store is tailored to the behavior of its neighbors.

COMMUNITY EVENTS:

The rooftop provides gathering space for the local community, visitors and employees of IKEA, as well as intimate resting places and opportunities for spontaneous meetings. Looking out from the roof, there is a beautiful view over Vesterbro, the canal, and the inner city.

▼ CAFE ON IKEA CPH ROOFTOP
Source: Peiyao Xiao

▼ IKEA CPH BIKE PARKING
Source: Peiyao Xiao

IKEA ROOFTOP: NATIVE PLANTS

Planting zones are inspired by Danish cultural landscapes: beach meadows, pastures, and hedgerows, with swaths of native species. Given the challenges of a third-floor rooftop, careful attention was paid to soil composition, plant orientation, rooting depths, and wind tolerance. An impressive 18,000+ plants and trees now cover 60% of the rooftop.

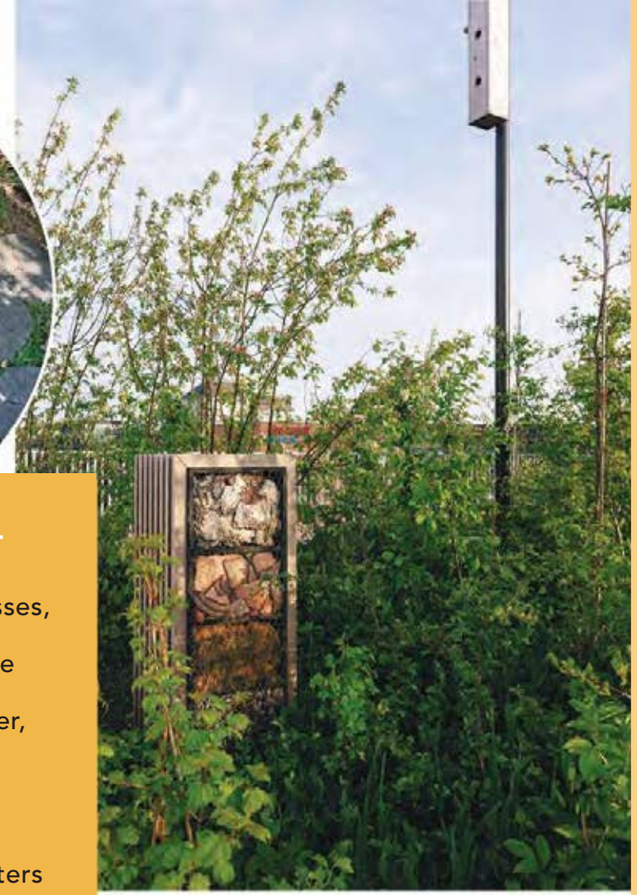
◀ 'THE BEACH MEADOW'
◀ 'THE PASTURE'
▶ 'THE HEDGEROWS'
Source: Peiyao Xiao

▼ IKEA ROOFTOP BIRDVIEW
Source: 1:1 Landskab

IKEA ROOFTOP: MATERIALS + ENERGY

The rooftop integrates shrubs, grasses, repurposed native woods, and bug hotels, strategically placed to create comfortable microclimates, attract diverse fauna, and manage rainwater, which is collected and reused for cooling the store.

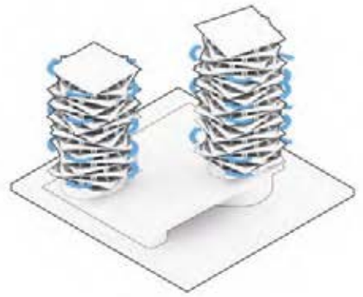
The material palette emphasizes circularity, featuring recycled cobblestones and 1,450 square meters of solar panels that contribute to the building's renewable energy supply.

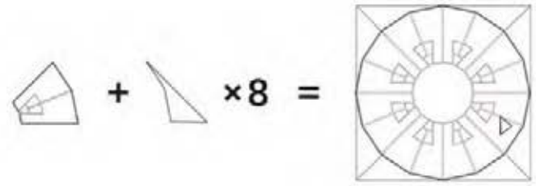


▲ IKEA ROOFTOP BUG HOTEL
Source: 1:1 Landskab
▼ IKEA ROOFTOP PAVING
Source: Peiyao Xiao

KAKTUS TOWERS

Public spaces respond to steep grade changes with a network of ramps and slides that offer playful circulation and visual continuity. These elements connect the more private residential areas of the Kaktus Towers to the public IKEA rooftop, supporting the flow of the Green Strip. Plantings draw from biodiverse, meadow-like landscapes, extending the ecological character of the adjacent rooftop while offering a quieter, more granular scale suited to the residential context





▼▲ KAKTUS TOWERS
Source: BIG

▶ SLIDE IN KAKTUS TOWERS PUBLIC SPACE
Source: Peiyao Xiao

▼ KAKTUS TOWERS
Source: BIG

Karens Minde Aksen

JAXON ROLLER

Location:	Wagnersvej 19, Sydhavn, Copenhagen
Year:	2023
Designer(s):	Schønherr
Client:	City of Copenhagen, HOFOR

"To add as much and subtract as little as possible"

This is the motto that the project was designed to follow. In an area that was previously perceived as very divided, a meandering brick 'river bed' and a central Circle Bridge now connect the community as central features.

Faced with flooding challenges, particularly from cloudburst events, this adaptation's primary function is to handle 15,000 cubic meters of stormwater. Instead of hiding the problem, Karens Minde Aksen celebrates it by making the flow and treatment highly visible and engaging for visitors.

Stormwater & Community

Able to take in stormwater in major weather events, this project prevents flooding damage in the surrounding neighborhood. Karens Minde Aksen celebrates its important function with a sweeping meandering path as the central design element of the park.

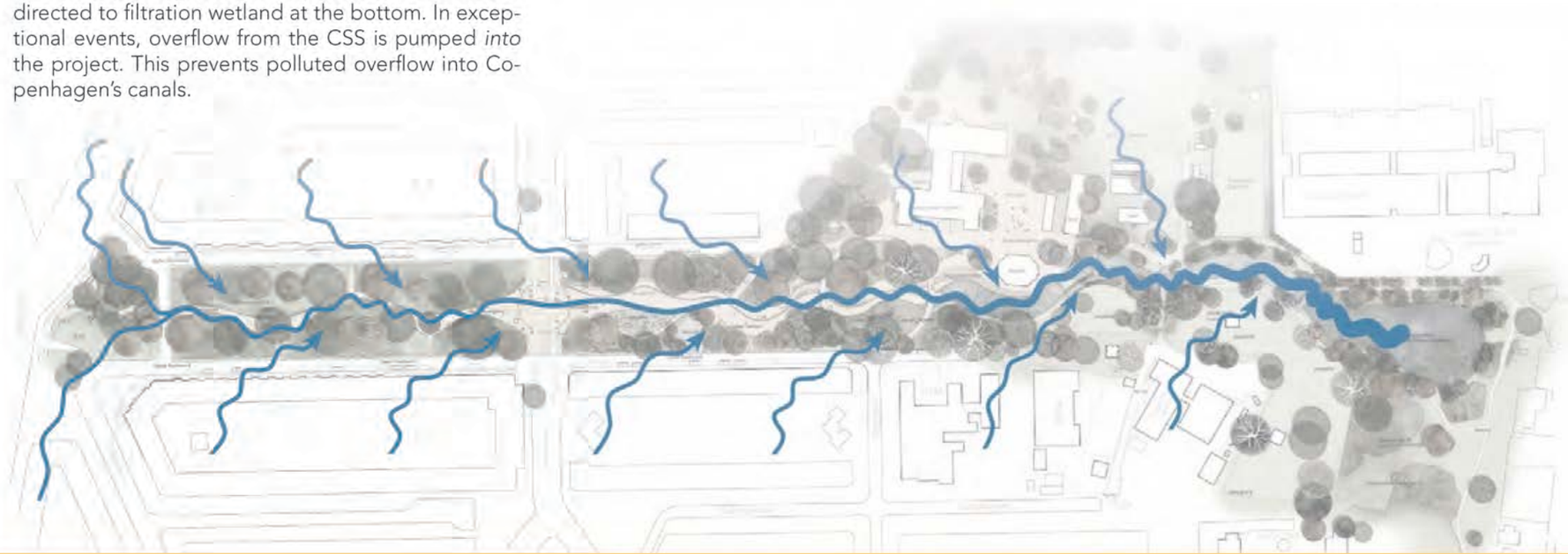
The site is home to a large number of mature trees. In keeping with the theme of subtracting as little as possible, very few trees were removed during construction. Instead, they were incorporated into the design, contributing to the unique meander, boosting biodiversity and carbon sequestration, and providing a beautiful canopy for visitors.

Cloudburst Flooding

Cloudburst events are increasingly common in Denmark. In these events, a large amount of stormwater is deposited at once, overwhelming the existing combined storm-sewer (CSS) system. The street is a natural low point in the neighborhood, leading to water accumulating here, often in residents' basements.

Karens Minde Aksen is designed to handle 15,000 m^3 of stormwater from surrounding streets and rooftops. Instead of pooling in the street, water is collected and directed to filtration wetland at the bottom. In exceptional events, overflow from the CSS is pumped *into* the project. This prevents polluted overflow into Copenhagen's canals.

RIVERBED, CIRCLE BRIDGE, AND MATURE TREES
Source: Schønherr - Thomas Vesterbæk and Jens Juel Thiis Knudsen



100+ MATURE TREES PRESERVED:
By designing with existing trees in mind, Schønherr preserved over 100 mature trees.

Tree Preservation

Mature trees lined the street and prior green space. Acknowledging the irreplaceable value of large trees, Schønherr decided to preserve as many as possible.

The meander of the brick riverbed, as well as where depressions (to hold water) could be cut, were dictated by the root zones of the existing trees.

These mature trees provide massive benefits in terms of shade, urban cooling, biodiversity, carbon sequestration, pollution reduction, and water infiltration.

Invitations for Use

Karens Minde Aksen provides what was referred to by many Danish designers as "invitations to use" the space. Unique spaces for play, seating, conversation, or ambiguous use are scattered throughout the park. This means a diversity of users and their desired activities are accommodated and welcomed.

By providing more niches for people to fill, people naturally fill those niches. Children play basketball, commuters cycle the brick riverbed, skaters find unique terrain, and parents sip coffee on the myriad seating arrangements.

A MULTITUDE OF USES AT KARENS MINDE AKSEN
Source: Schønherr

AERIAL PERSPECTIVE VIEW
Source: Schønherr

Community Engagement

During the project's inception and design, the community was regularly engaged. This ensured that what was created actually served its immediate users, rather than being prescriptive.

Without this engagement, the project would not have been as easy to pass politically, would not have a current sense of ownership, and would likely have failed at providing what diverse users need.

Orienten at Nordhavn

RUSSELL CORBIN +
KAYLIE TRESKIN

Location:	Århusgade, Nordhavn, Copenhagen
Year:	2017-2021
Designer(s):	Dorte Mandrup, BOGL
Client:	Domea
Gross Floor Area:	150,000 sf total 114,000 sf residential 32,000 sf retail, incl. 11,000 sf daycare 98 social housing units 9 youth housing units 24 supportive housing units 2 buildings (2-6 floors)
Cost to construct:	$31.1 million USD

As a central part of the burgeoning Nordhavn district, the Orienten mixed-use project seeks to bring diversity and inclusivity to the neighborhood through sustainable design, affordable housing, and an active public realm.

All unlabeled photographs by Russell Corbin

Situated in two city blocks along the main street Århusgade in the heart of the district, the project's two buildings feature a mixture of social, youth, and supportive housing, retail space, and a daycare center. With two grocery stores across the street and a metro station two blocks away, this is an ideal site for affordable housing aimed at serving a diverse group of people. The project's architecture blends well with the rest of the Nordhavn's industrial style and the street arrangement and design is appropriate for walkability and urban life. There is an effective balance of comfortable private indoor and outdoor space for residents and public open space and services to serve the surrounding residential buildings.

SECTION AND MASSING RENDERINGS
Source: Norconsult Arkitektur

Architectural Massing

In order to break up the midrise facades, the building steps up and down in height, has setbacks, and large tunnel-like pass-throughs into the courtyard. The unique shape of the blocks also inspired a mixture of sweeping obtuse and sharp acute angles on building corners. Fenestration typology and facade material varies as well, though some styles are repeated throughout the blocks and all the private balconies are identical in form, thus creating sufficient visual distinction while also indicating the unity of this residential community.

"THE HARMONIOUS BLENDING OF PUBLIC AND PRIVATE SPACES"

Activation through transparent ground-floor retail, residential balconies, and communal open space.

Streetscape

The ground floor along Århusgade provides about 10 small business retail pads which are occupied by a mix of boutique shops, restaurants, and essential businesses. Whereas the courtyards and rooftop terraces are semi-private spaces for residents and the daycare, this active public street blends the edge of the residential development.

Additionally, individual unit balconies line the Århusgade facade, further blending the public realm with semi-private space. Residents can contribute creatively to public space with their plant beds and railing decoration which can be seen by all, while also having agency over their space through that customization. Additionally, having more people in the street, including those existing in vertical space, adds "eyes on the street", making the neighborhood feel safer and more lively. Interestingly, on the slightly more vehicle trafficked Helsinkigade street on the opposite side of the project there are no balconies and a less transparent ground floor.

The project essentially created two pedestrian streets, one which allows limited vehicle traffic and the other which does not. These rules are indicated through posted signs for drivers and physical design including trees planted in the street and bike parking racks. The narrow width of these streets and their utility more as service entrances to the building give them an alley-like feel. The smaller street can serve as flexible space for community events and also as an intimate staying space for city goers to rest and gather in a hybrid-plaza space.

Materiality = Identity

Other than the angled corners, the buildings have very little architectural detail such as cornices and each rectangular prism volume maintains the same siding material from ground to roof, giving the impression of large cubes or containers. Additionally, the siding materials are various shades of grey, gold, and clay color, very neutral earth tones. One volume even has corrugated metal siding. As a result, the buildings feel very industrial in nature, which at the same time acknowledges the very recent history of Nordhavn as an industrial place but also hinders the friendly community feeling with these large, blank and colorless walls. This project demonstrates the power of materials to shape the identity of a place. If the goal is vivacity, perhaps redeveloped industrial sites ought to be injected with bold creativity and color rather than a direct recreation of the industrial typology.

"A BEACON OF INCLUSIVITY"

Affordable urban housing for a diverse, multigenerational community, located at the heart of a trendy, high-end, transit-oriented new district.

STREETVIEW BEFORE AND AFTER

Source: Google Maps

Connection to The Bend

Just as The Bend project aims to do in Seattle, Orienten created a lively, high-density, transit-oriented, affordable, diverse, and sustainble mixed-use urban neighborhood in what was formerly a district of heavy industry. The images shown below reveal this shocking transition; note one of the few remaining old industrial buildings in Nordhavn at the far left of the images. On the one hand, having a blank slate of a site in which to design a totally new neighborhood makes it easy to create the ideal urban form; on the other, the industrial nature adds additional challenges like the reintroduction of nature, and constructing on a land area made from infill. The success of Orienten lies in its activated urban design and blending of public and private space. For a diverse community, however, it perhaps leans too far into the simple, industrial architectural style that comprises much of the market-rate housing in Nordhavn.

ØsterGRO

JOANNA CHEN +
ELLEE RUDER

Location:	Æbeløgade, Østerbro
Year:	2014
Designer(s):	Kristian Skaarup + Sofie Brincker
Client:	N/A

Founded in 2014 by Kristian Skaarup and Sofie Brincker, ØsterGRO has flourished atop an old car auction facility. The principle goal of the garden is to connect citizens with organic food-growing systems. In the limited space they have, the farm will produce around 750 kilos of produce in a year. The produce supplies the farm's CSA program, providing healthy, organic vegetables to residents of the neighborhood. Volunteers are the central, driving force of ØsterGRO; garden maintenance is done largely in volunteer events. The character of the space has also been shaped by citizen involvement.

In a reality where climate change and rising populations spark debate about the future of urban living, ØsterGRO is a model for climate adaptive design. Their community-centric mode of operation, as well as their clever reuse of space, make this farm more than just a place where vegetables grow.

MORE THAN JUST A PLACE WHERE VEGETABLES GROW:

ØsterGRO combines the operations of a modern agricultural business with elements of citizen participation. Through this communal participation, the 600 m² rooftop garden has flourished as not only a place for vegetbales to grow, but for community as well.

A STAFF MEMBER TENDING TO THE VEGETABLE BEDS
Source: ØsterGRO

A COMMUNITY MURAL WATCHES OVER THE FARM
Source: Vincent Javet

Community Identity and Placemaking

A mural decorates the industrial elevator at ØsterGRO. The volunteer led effort showcases another form of community engagement that can foster a sense of communal character.

Fostering Local Business

Atop the roof lies not only ØsterGRO, but also a restaurant space called Gro Spiseri. This symbiosis between the two organizations ensures maximum use of the space and a mutual support that allows both businesses to thrive.

GRO SPISERI
Source: ØsterGRO

Building Reuse

Housed in a defunct car auction warehouse, ØsterGRO smartly repurposes the strengths of the building to serve their needs. In doing so, the organization gives new life to a building that would have otherwise been destined for obsolesence.

HELLCATS MOTORCYCLES, LOCATED BELOW THE ROOFTOP GARDEN
Source: Vincent Javet

IN JUST 600M²

The farm is able to support around 30-40 varieties of produce each season, a restaurant, 5-6 chickens, and two bee hives.

Sources:

1. *Private tours with both Kristian and Sofie*
2. *Ostergro website*
3. *Danish Architecture Center, "Ostergro Rooftop Farm Above the Concrete"*

Sege Park

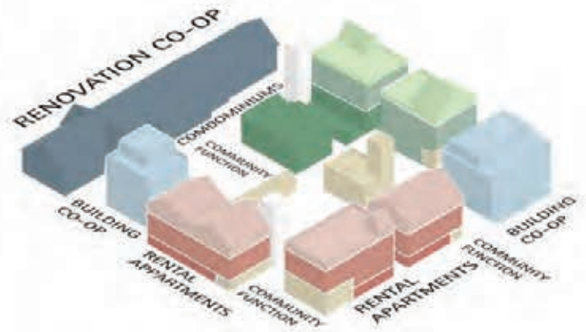
LELA COOPER +
SARAH WHITNEY

Location:	Östra sjukhusgaan, Malmö, Sweden
Year:	2016-present
Designer(s):	Kjellander Sjöberg
Client:	City of Malmö

Sege Park serves as a showcase of what sustainable residential development may look like in Malmö.

The park was initially developed in he 1930s as a mental health hospital, Östra sjukhus. Since closing operations in 1955, Sege Park gained its current name and has seen a variety of uses including other medical operations and education.

Today, the City of Malmö envisions Sege Park as a community in which green living is at the center. The site is expected to have approximately 800 residential units built within a decade. By implementing both sustainable design solutions and emphasizing community through the site's programming, Sege Park serves as a vision for climate-smart, socially rich living.



'IT TAKES A BLOCK' RESIDENTIAL TYPOLOGIES
Source: Kjellander Sjöberg

"It Takes a Block"

Central to the mission of Sege Park is ensuring a mix of residential typologies that can serve a diverse range of tenants. By implementing a wide range of residential typologies and ownership models in a dense block setting, Sege Park fosters diverse community.

The dense block strategy Kjellander Sjöberg has coined as "It Takes a Block" also emphasizes the role of designing for communal space and sharing of resources, while priortizing small private dwellings.

Spaces in between buildings are reimagined for their ability to promote resident wellbeing and interactions between neighbors. Such spaces are designed as places for play, interacting with nature, and arts and culture, shaped by the interests of Sege Park's residents.

ÖSTRA SJUKHUSET
Source: Kollektivhuset Röda Oasen

PRESERVING CULTURAL HERITAGE WHILE PLANNING FOR THE FUTURE
Source: Kjellander Sjöberg

Preserving Heritage and Gradual Transformation

While Sege Park aims to rethink what the future of sustainable, socially rich living looks like, the site's past remains in vision. One of the strengths of Sege Park is the well-maintained 1930s park landscape and historic buildings, and the site's designers have made a mission to retain existing structures amidst new construction. In addition to integrating the existing structures, careful consideration is paid to gradual growth and improvements to the area, to ensure refinement and usage by current and future residents.

SHARING FOR SUSTAINABILITY

"In Sege Park, it is easy to live within the limits of the planet by sharing material resources."

- Navet, Sege Park

Shared Resources for Community and Climate

While the design of Sege Park emphasizes shared space and fostering community, the site also implements programming that provides connection and sharing of resources and knowledge. Strong social infrastructure is central to Sege Park's mission in supporting resident well-being, as well as supporting climate friendly behavior.

Navet - Sege Park's Meeting Place

Navet, or 'The Hub' serves as the central community space to Sege Park. Staffed and led by Drevet, a community development organization focused on building social infrastructure, alongside other resident interest groups, Navet allows a place for Sege Park residents to get involved in their community and share resources.

Navet offers programming to Sege Park's approximately 100 existing residents nearly every day of the week, with different events that span across

NAVET COMMUNITY WORKSPACE
Source: Vincent Javet

KOLLEKTIVHUSET SHARED LIVING MODEL
Source: Lela Cooper

interest areas and target audiences. This includes providing a coworking space, yoga classes, senior meetings, family activities, educational presentations, and more. Each month a calendar is provided to residents outlining the events offered that month, alongside relevant community updates, providing an easy way for community members to stay engaged and interact with one another. By fostering social connection, learning, and wellbeing, Navet and Sege Park more broadly are able to encourage resiliency within the community. This is especially helpful in guiding the development forward and ensuring a sense of community identity remains as new residences are built in coming years.

Fixoteket

In addition to these offerings, Navet also highlights the need for sharing of resources both for affordability, but also in an effort to reduce individual consumption.

The Fixotek is a designated repair space within the Navet community space at Sege Park. The Fixotek is equipped with sewing machines, tools, and a bicycle repair station that allowes residents to make an effort in repairing and reusing items that may need attention, without needing to buy specialized equipment. The Fixotek is also staffed once a week by a Drevet member, who can guide residents on how to repair their items. The space also sees frequent resident exchanging of items that are no longer of use, such as clothes, textiles, and household items rather than being discarded.

Sharing for Climate

The shared resource model extends beyond the Navet space, as Sege Park has also explored developing community gardening organizations, offering residents an opportunity to shape their own landscape and connect with nature.

Sege Park has also made an effort to encourage biking and walking, limiting parking access, and implementing resident car share.

Lessons for The Bend

Sege Park emphasizes the value in both designing for community and climate, but also the need for programming. Similar to The Bend, Sege Park creates a community in a space with rich heritage and low existing residential presence. By balancing both preservation of historical charm with visions of a green and collective future, Sege Park provides residents the opportunity to form a distinct neighborhood of their own, representative of their community needs and values.

AMENITIES FOR ALL AGES
Source: Vincent Javet

BUILDING COMMUNITY

"Here, residents and businesses create a community around sustainable solutions"

- Navet, Sege Park

A LANDSCAPE SHAPED BY RESIDENTS
Source: Kjellander Sjöberg

Social Spine

TINA LEE + JINGYAO WU

Location:	Dalslandsgade 8, Øresund, Copenhagen
Year:	2021-2022
Designer(s):	SLA
Client:	Øresundskollegiet

The Social Spine project revitalizes Øresundskollegiet, Scandinavia's largest student housing complex in Copenhagen. Once a worn-down, concrete-heavy space, the complex is now being transformed into a green social hub.

With Copenhagen losing green spaces and facing high real estate prices, fostering social and ecological spaces has become crucial. In 2021, the City of Copenhagen allocated some housing in the complex to marginalized youth, spurring a redesign to promote inclusivity.

The project's first phase revamped a 1,470 square meter rooftop terrace, adding greenhouses, study areas, a lawn, and over 350 trees and shrubs.

PERSPECTIVE ON THE ROOFTOP
Source: SLA

A Framework for Social Connectivity

Øresund College is a vibrant hub of students from all walks of life, including socially vulnerable individuals. Though the social life within the college was already rich, it remained fragmented within the concrete walls of individual housing blocks. The Social Spine changes that by providing a natural, outdoor framework that encourages more meaningful social interactions.

Now, students can gather in a communal garden, prepare meals in the outdoor kitchens, study amidst greenery, or simply relax on the grass lawns. These diverse outdoor spaces activate a sense of community, offering opportunities for residents—both old and new—to connect and engage, fostering a more socially sustainable environment.

ISO DIAGRAM
Source: SLA

PERSPECTIVE ON THE ROOFTOP
Source: SLA

Enhancing Biodiversity with Thoughtful Planting

The Social Spine is not just a social space but also a biodiversity hotspot. Native plant species were carefully selected, along with a few exotic varieties, to create a lush, species-rich environment. The vegetation not only serves as a habitat for local wildlife, such as insects and birds, but also provides fruits, nuts, and berries for both animals and students.

"The Social Spine is the backbone of our college's sustainable, social responsibility."

Sustainability Through Recycling and Reuse

A key feature of The Social Spine is its commitment to sustainability, not just in terms of design but also in material use. Over 350 new and recycled trees, shrubs, and climbing plants now adorn the former rooftop. Many of the plants were relocated from the ground level of Øresund College, where they had to be removed to make way for renovations. Instead of discarding these trees, the project team chose to transplant them to the roof terrace, giving them a second life.

This approach saved resources and reduced costs while preserving the aesthetic and social benefits these trees provide to the college community.

▲ PERSPECTIVES ON THE ROOFTOP

▼ BEFORE AND AFTER ROOFTOP CHANGE
Source: SLA

Social and Environmental Impact on a Budget

The Social Spine is a prime example of how innovative design can maximize impact even with limited resources. With a budget of just €373,000, this project demonstrates that substantial social and environmental value can be created without excessive financial investment. It redefines the concept of green roofs, expanding their potential to include sustainability, biodiversity, and social interaction on a larger scale.

"We have worked closely with the residents of Øresundskollegiet to uncover all the social values and powers that exist at the college and get them into the design."

- Rasmus Astrup, Partner and Design Principal

▼ ISOMETRIC DRAWING OF SITE DESIGN
Source: SLA

SPOR10

ELLEE RUDER + JOANNA CHEN

LOCATION:	Jernbanebyen, CPH
YEAR:	2023-present
DESIGNER(S):	Nrep, Archival Studies, Gehl Studio, Cobe, Studio Atlant
CLIENT:	DSB and FREJA Ejendomme

SPOR10 is a dynamic 365,000 square meter community space located within the evolving Jernbanebyen district. The space is multifunctional both in and outside, hosting a range of activities daily. The main attractions are sporting events, though the space provides opportunities for other forms of connection too.

The space is part of a larger project to transform the district from a defunct rail yard into a neighborhood that can satisfy the increasing need for housing and sustainable living in the city. SPOR10 acts as a tool for initial community-building within the area, able to evolve into a central community hub once the district becomes more established. Part of this vision is showcasing the plans for the new district within the facility, showing visitors a hopeful future and igniting more interest from surrounding communities.

OUTSIDE OF THE FACILITY
Source: Joanna Chen

Cobe, the Copenhagen-based architectural firm, has created the master plan for the district of Jernbanebyen that includes workspaces for over 8000 people, 4500 apartments, 8 hectares of green streets, and 11 hectares of green space. SPOR10 is part of the initial phase of this change, providing an early space for community building that will aid in the transition and activation of the area as it evolves.

CENTRAL OUTDOOR SEATING AREA
Source: Joanna Chen

SPOR10 is emblematic of the goal of the district to foster new life while honoring its industrial past. The master plan contains five pillars, the fifth aiming to pay tribute to the industrial roots of the area as a "City of Production." The building itself was once a railway customs house constructed in 1964, while the surrounding district will be transformed from industrial warehouses into workspaces. The storage and exhibition areas in SPOR10 allow for artistic insertions and are composed of recycled panels found on site.

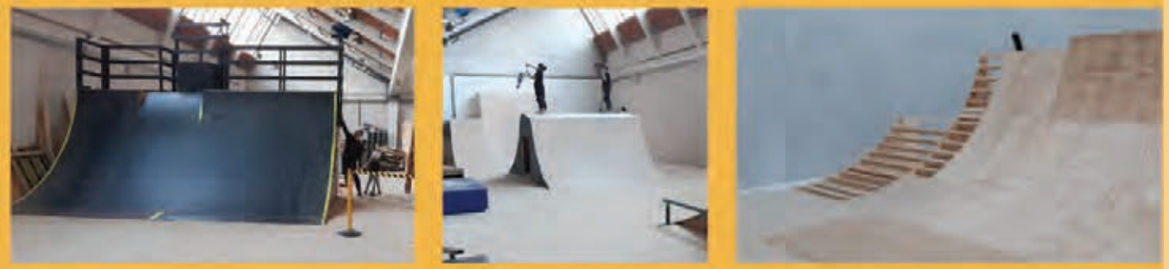
EXHIBITION INSIDE SPOR10
Source: Archival Studies

From sporting activities to exhibtions, SPOR10 acts as social structure for the community to express its desires and needs.

LARGE GATHERING INSIDE SPOR10
Source: SPOR10

TRACK 10 SKATE HALL

Mills Club Skate & Event created an indoor skate ramp as a way to give skaters a place to go during the rainy months. As designers, it's important to provide ways for the community to be active in all seasons.



SKATE PARK CREATION INSIDE OF SPOR10
Source: Rullesport Danmark

INSIDE SPOR10
Source: A-Sport

Active Contributors

SPOR10 has become a major success for the district. There are over 30 participants within the building. Outside contributors such as A-Sport, a Danish sport supply company, have provided the basketball equipment for public use. The material used for the court flooring, long lasting polypropylene tiles, reflect the intentions of the district towards an environmental focus and active play in any setting.

A Typical Day at Spor10

At SPOR10, the majority of the activities are free. In the main room of the facility, you might find an ongoing exhibition filled with visitors chatting or lounging within the multiple seating areas. The main room can also convert into a dance floor, hosting such events as jazz dance for adults.

Hall 1 doubles as an exhibition space and food hall. A local company, Noon, regularly serves food that can be purchased.

Hall 2 possesses sporting activities such as boxing on one end, while the other hosts creative activities such as a giant chalk wall for drawing. Two additional halls house other activities such as basketball for beginners and a skate hall. Rooms 3-6 are packed with more fun and play opportunities while the garage has a trainer on staff. Every part of the SPOR10 experience is packed with activitesfor connection and play!

A Closer Look

Freja Ejendomme and DSB Ejendomsudvikling are the landowners working with Cobe Architects on the project. Freja Ejendomme is working closely with The Baneby Consortium on the planning and forseement of the entire project as they foresee the sales of the land from the Danish government. Freja Ejendomme will continue its close relationship with the project until a local plan is adopted for the entire site.

SPOR10 showcases the success of early community development within a project. As both an athletic and artistic space, SPOR10 gives the community the chance to invest in their health and hobbies, along with an outlet of self-expression.

> "An endless number of green buildings don't make a sustainable city"
>
> *- Jan Gehl*

Sources:

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Strædet

SISKA DEWANTI +
REBECCA ZARAGOZA

Location:	Læderstræde, CPH
Year:	1397-present
Designer(s):	varies
Client:	varies

Strædet, commonly referred to as 'the Alley,' is a vibrant shopping strip in downtown Copenhagen.

The official name for Strædet is Læderstræde, which connects to Kompagnistræde and Farvergade. This corridor is filled with numerous antique shops, galleries, bars, restaurants, and cafes. Strædet plays a crucial role in enhancing the dynamic atmosphere of Copenhagen through street activation, which attracts foot traffic. This influx of visitors promotes economic growth, supports local businesses, and builds public spaces, all while fostering a sense of community for both residents and visitors.

STRÆDET STREET VIEW
Source: tripadvisor.com

Background & History

Læderstræde, also known as Strædet, originally extended to Rådhusstræde before becoming Farvergade. Its name comes from "Ladbro," which refers to a pier at Gammel Strand, Copenhagen's first harbor. First documented in 1397 as Laadbrostrede, this corridor's name has evolved over the centuries. Strædet has a significant history, having been home to the Royal Copenhagen Shooting Society since 1447 and a synagogue established in 1764. The area has also served as a hub for Jewish immigrants since the early 17th century.

SHOP EDGES AT STRÆDET
Source: tripadvisor.com

STRÆDET STREET VIEW
Source: Siska Dewanti

The old buildings on Læderstræde were destroyed during the great fire of 1795, but they were reconstructed in the following years. Subsequently, the remaining parts of Læderstræde and Farvergade were renamed Kompagnistræde.

STRÆDET URBAN LINKAGES

Located in the heart of the city, Strædet connects Strøget, Kompagnistræde and Farvergade - major shopping street in Copenhagen

Urban Connections & Context

Strædet, also known as Læderstræde, is a fully pedestrianized street that connects to other major shopping streets and plazas in Copenhagen. It links Højbro Plads on Strøget, as well as Kompagnistræde and Farvergade, creating a vibrant corridor that attracts thousands of pedestrians and fosters connections between people and places.

STRÆDET AND URBAN CONTEXT
Source: Google Maps, graphics by Siska Dewanti

HØJBRO PLADS
Source: Siska Dewanti

STORKESPRINGVANDET

STRØGET

STRÆDET STREET VIEW
Source: Siska Dewanti

Design, Structure, & Materiality

The programming and design of the Strædet corridor have been vital in fostering community interaction and enhancing the overall social infrastructure in Copenhagen.

Pedestrian-friendly design

As a fully pedestrianized area, Strædet promotes a welcoming atmosphere, ensuring safety and comfort for pedestrians to linger and interact.

Dynamic Commercial strip

The street features antique shops, boutiques, cafés, and restaurants that provide a unique shopping experience.

Street Proportion

Strædet has narrower dimensions compared to the adjacent shopping streets, creating a more intimate atmosphere.

STRÆDET : A WELCOMING HUB FOR OF PEDESTRIAN-FRIENDLY COMMERCE AND COMMUNITY

A street with thoughtfully designed street furniture, clear wayfinding, and encourage social interaction for visitors.

Street Furniture

Street furniture, including displays, planter boxes, restaurant seating, lighting, and benches, effectively creates positive visual stimulation that encourages people to linger and socialize.

Wayfinding

Strædet features designated paving that clearly distinguishes the walkway from softer boundaries, aiding in wayfinding alongside the shops.

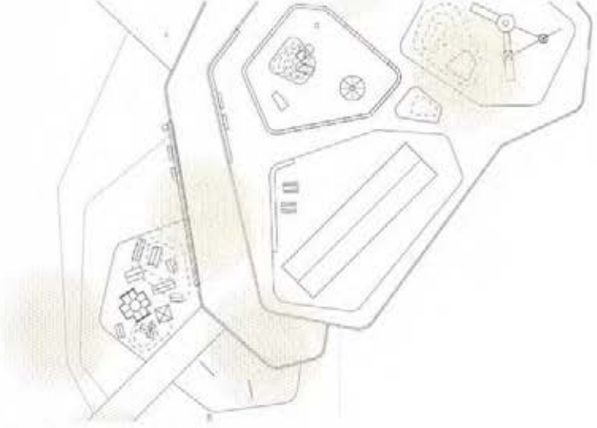
Tårnlegepladsen

LIZ FORELLE

Location:	Frederik V's Vej 4, Østerbro, CPH
Year:	2012
Designer(s):	Morten Weeke Borup
Client:	Copenhagen Municipality

Located in Fælledparken in Østerbro, the Tower Playground was built in 2012. While the construction of the playground came later, the park itself began in 1909 when the first trees were planted. Designed by landscape architect Edvard Glæsel, the park was completed in 1914. The park was designed in cooperation with the Copenhagen Municipality on a large space known to locals as 'the commons,' or 'fælled' in Danish.

Today, the park is used for major outdoor events from political rallies to sports to children's festivals. The formalized pathways through the park allow for promenading and picnicking. In 2011, money was invested into remodeling and improving the park with a number of play area. This includes a large skate park and an area known as Trafiklegepladsen (Traffic House) where children can learn to ride bikes through roads and junctions.



SITE DESIGN
Source: LYYT Urban and Landscape Architecture

FIRST PLAYGROUND AT FÆLLEDPARKEN
Source: Copenhagen Municipal Archives

FIRST STRUCTURE AT FÆLLEDPARKEN
Source: Copenhagen Municipal Archives

THE TOWER PLAYGROUND
Source: Liz Forelle

"The playground designed to offer a great diversity in play opportunities for children at different ages... We have emphasised spaces for parents and kindergarten teachers, seeing that the successes of a playground often relies on the grown ups finding the place attractive as well."

- LYYT Urban and Landscape Architects (3)

History and Location

When the park was first designed, there was a building and a place space where Tårnlegepladsen is today. The playground was fairly limited in terms of structure and creative use of space. There was a long low building with a pitched roof in the space that was used for toilets and as a gathering space for adults (2).

"The spire playground in Falledparken piques children's curiosity and imagination and offers many fun and challenging experiences."

- 2012 Jury Statement, Danish Design Award

Programming and Design

The primary design concept behind this playground was to use towers and spires that make up the city skyline at a reduced scale at the playground. The 5 towers include: the Marble Church's Dome, the Round Tower, the City Hall Tower, Our Saviour's Church's Tower, and the Royal Exchange Towers. The design of the play structures and play spaces were to be distinctive, challenging, and different play spaces at every level. Along with the play space, there is a mirror house that provides amenities to those visiting the playground.

OVERLAY OF ICONIC TOWERS AND PLAY STRUCTURES
Source: LYYT Urban and Landscape Architecture

Playground Goals

This playground was designed with all users in mind. The designers incorporated a diversity of play at all ages. While they designed for multiple ages for children, there was also intention in providing spaces for parents and teachers. This design intervention happened through both small and large structures. The Mirror House provides a place to stay and for toilet facilities when staffed with an employee. (3)

MULTI-USE PLAY SPACE FOR CHILDREN
Source: Danish Architecture Center

"It is a new and exciting approach to playground design, encouraging children to experience and relate to some of Copenhagen's most characterstic buildings through play."

- 2012 Jury Statement, Danish Design Award

CHILDREN PLAYING WITH ARCHITECTURAL STRUCTURES
Source: Danish Architecture Center

Lessons for The Bend

This is a space that services both adults and children in engaging and meaningful ways through programming and the use of art, structure, and form. The designers were able to minaturize significant cultural elements in their design. By using these elements, the designers wanted to show that good architecture can be fun! The Mirror House is a structure that can easily translate to The Bend. It is a building that was renovated and transformed through design to create an interactive art installation and attraction. The side walls and roof were clad with heat-treated or smoke-blackened timber planks. The ends of the building contain walls that captivate both adults and children. The architectural practice MLRP used polished steel to act like a distorted carnival mirror, bringing joy to those walking by.

PLAYING AT THE MIRROR HOUSE
Source: Danish Architecture Center

THE MIRROR HOUSE
Source: Red Dot Design Award

CHILDREN ENJOYING THE SUSPENDED BRIDGE
Source: Danish Architecture Center

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Venligbolig Plus

RUSSELL CORBIN +
KAYLIE TRESKIN

Location:	Roskildevej 54B, Frederiksberg
Year:	2019
Designer(s):	ONV Architects
Client:	We Do Democracy

Venligbolig Plus, or Friendly Housing Plus, is a microliving community in Frederiksberg, where refugees and students who cannot afford to live in Copenhagen can live together. The project meets several of the UN's global goals, with sustainable architecture and promoting sustainable development through democratic action. The project was created as a public-private partnership between Frederiksberg Municipality, Frederiksberg United Housing Companies, FFB/KAB, Friendly Housing, ONV Architects, and We Do Democracy.

The project includes three four-story buildings, for a total of 41 apartments located on 50 square meters. The buildings are located on the border of the Solbjerg Park Cemetery, connected to Frederiksberg's largest park and located off one of its main streets, Roskildevej.

VIEW FROM COURTYARD
Source: Russell Corbin

To the left of the development is a neighborhood of single family homes, which is separated from Venligbolig Plus with a walking path. The development is set back from the road and thus secluded from the public. Users enter the development through a paved driveway with limited car parking lots and bike parking to the right. They walk into a central courtyard with three buildings, which each have a ground level common room facing towards the courtyard. The buildings and development are intended to promote community through design.

Building and Site Layout

Venligbolig Plus consists of three cubes built on four loors, which are skewed to create community interaction. This includes a common room on the ground floor, which serves as the entrance to the building and area where residents can socialize. The common room also boasts floor to ceiling windows along the entire

SPATIAL COMPOSITION OF BUILDINGS
Source: ONV Architects, We Do Democracy

ENTRANCE TO VENLIGBOLIG PLUS
Source: Russell Corbin

wall facing the courtyard for further interaction with the community. On the top on the building, there is a shared rooftop, and the center of the building has an open stairway. Each building is pre-fabricated using modular construction combined with load-bearing wooden structures. This method, where nearly finished buildings are brought to the site post-construction, makes production more sustainable, as there is less material waste. It also creates a weatherproof construction process and thus improved working environment, and allows the project to have better quality control. It also reduces construction and building costs so that the development can be affordable.

MICROLIVING:

The amount of private space is cut down and optimized, allowing for more space for common areas.

Site Flow

Within the buildings, users flow from the staircase or common room into the central courtyard, which is designed for people to spend time in. There are ample seating options, from small tables outside buildings to picnic tables to benches around trees. Residents can then either walk around the corner to get into the cemetary and walking trails on the other side of the fence, go along the trail into the nearby neighborhood, or head back the same way they came in towards Roskildevej.

Apartment Layout

Along with the overall property, the individual apartments are designed to build community. Each has a shared living room and small kitchen area, as well as two separate bathrooms. The kitchen is intentionally minimal so that residents are encouraged to cook in the common room downstairs, with others. Residents also share a balcony.

RESIDENTS OF VENLIGBOLIG PLUS
Source: ONV Architects, We Do Democracy

PRINCIPAL SECTION
Source: ONV Architects, We Do Democracy

Building Layout

In front of each apartment is a "greeting area," or common entryway. It overlooks the open stairway that allows people to see who else is coming up or down, and facilitates conversation. The stairway leads all the way up to the rooftop deck.

Materials

Each building has a modern feeling through the use of shape and materials. As a whole, the buildings maintain their cube-like, simple appearance and have ample windows throughout. Each uses the same exterior materials, which are a combination of painted black metal siding, with accent wood that is slightly weathered looking on the ground floor and on some of the sides. The material combination makes the buildings look cohensive and highlight that this is an intentional community. Materials also make the buildings look modern, yet grounded and not flashy, as they have a dark, muted, and weathered look. This could harken to the fact that this is a progressive housing idea, but it is grounded in community.

Community

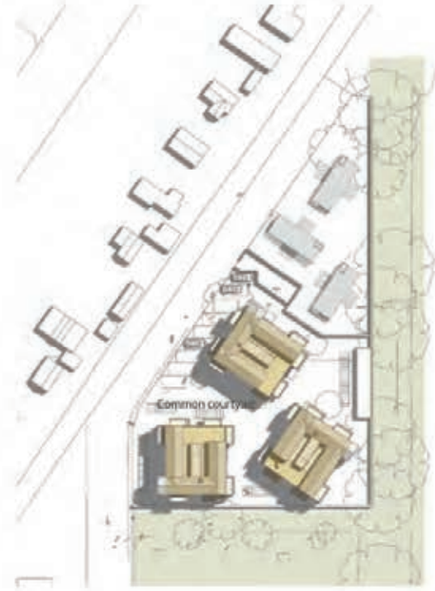
The concept behind Venligbolig Plus is to create community between refugees and Danish students, so that students can invite them into daily life and Danish culture and more common understanding can be built. Since it is central to the project, the design of the individual buildings, overall layout of the site, and programming of what goes on within the housing complex is centered around building community.

Community Activities

Programming in the common rooms and shared spaces was an important idea for bringing the 78 initial residents together. It would allow especially refugees to meet people other than their roommate in a country that they knew fewer people in. Activities varied between being purely fun to somewhat more political, and usually left-leaning.

Activities seem to have lulled since the creation of the project, as there are anecdotes from We Do Democracy staff whose friend lived in Venligbolig Plus that they had slowed when they lived there. Despite, the initial community activities were an effective way of bringing the community together.

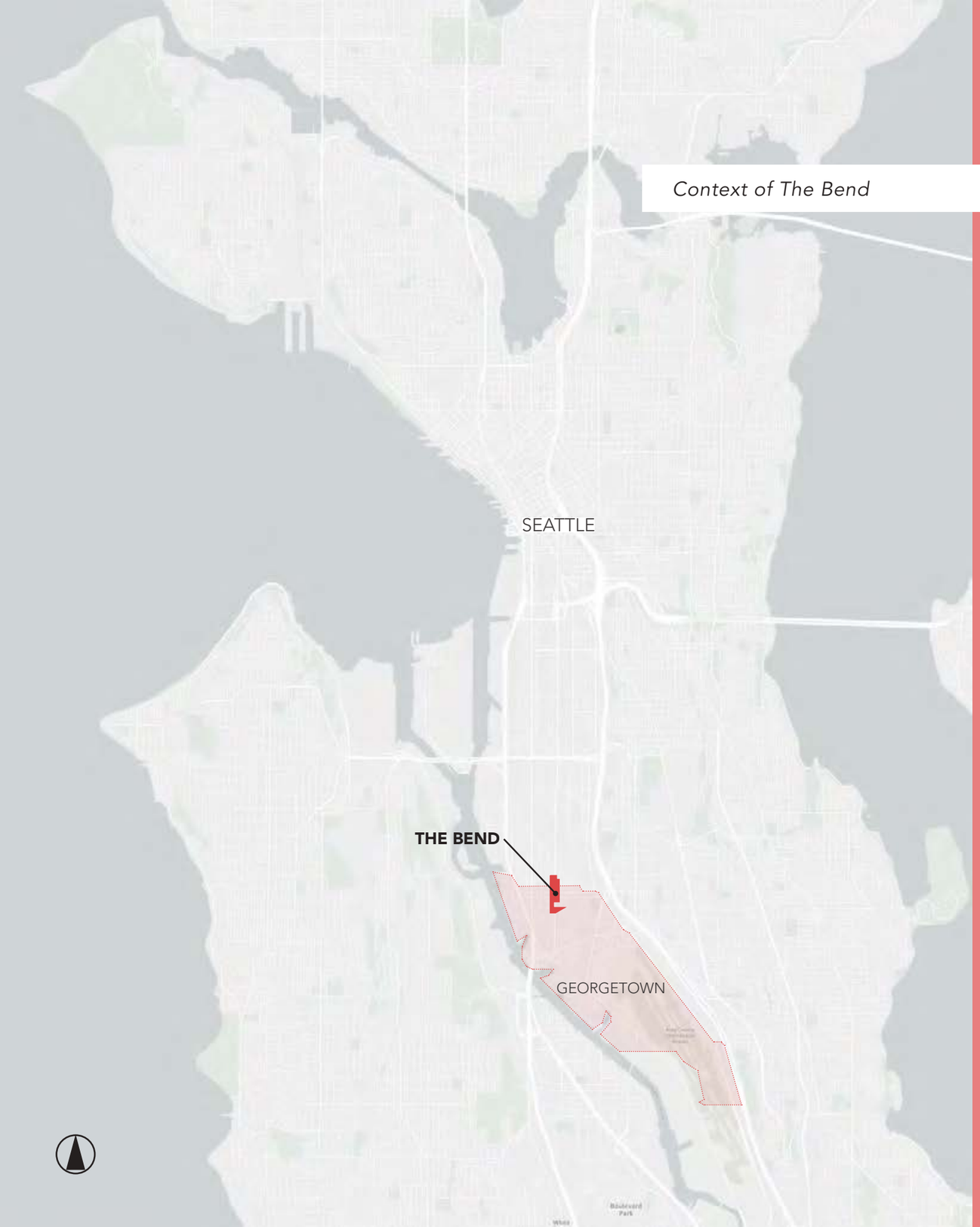
Community activities such as communal cooking still happen in the common rooms, and other informal interactions. A design that prioritizes community over individual privacy allows for maximum interaction during daily life, thereby facilitating informal community activities.



PLAN VIEW
Source: ONV Architects, We Do Democracy

"Here, students and refugees can find a modern shared housing for DKK 2500 in the middle of the city and form part of a committed community in everyday life with the aim of supporting integration, friendships and joint democratic formation."

COURTYARD WITH VIEW INTO COMMON ROOMS
Source: Russell Corbin



Context of The Bend

DISTRICT + SITE ANALYSES

Prior to developing design proposals, it was essential that we understand current conditions and potential futures of the Georgetown/Bend/Seattle/Duwamish watershed contexts – environmentally, socially, culturally and economically. Working together, students conducted comprehensive analyses of the many systems that impact the site, seeking to understand existing and potential conditions, challenges, opportunities and pathways within the various nested scales of the project – from the site, to its adjacent industrial and Georgetown contexts, to the city and watershed, and to the site's global relationships and impacts to planetary health.

The following pages combine on-the-ground reconnaissance and documentation, archival investigation, discussions with local stakeholders and authorities, and students' own analytical thinking to uncover the essential qualities of the site and neighborhood districts, including their current forms and functions as well as predicted future conditions and needs.

WATERSHED + TOPOGRAPHY
EXISTING SITE
MOBILITY + TRANSPORT
HEALTH, SAFETY, HAZARDS, AND RESILIENCE
PEOPLE, NEIGHBORHOOD, AND CULTURE
PUBLIC SPACE, ECOLOGY, AND BIODIVERSITY
PLANNING CONTEXTS

Watershed + Topography

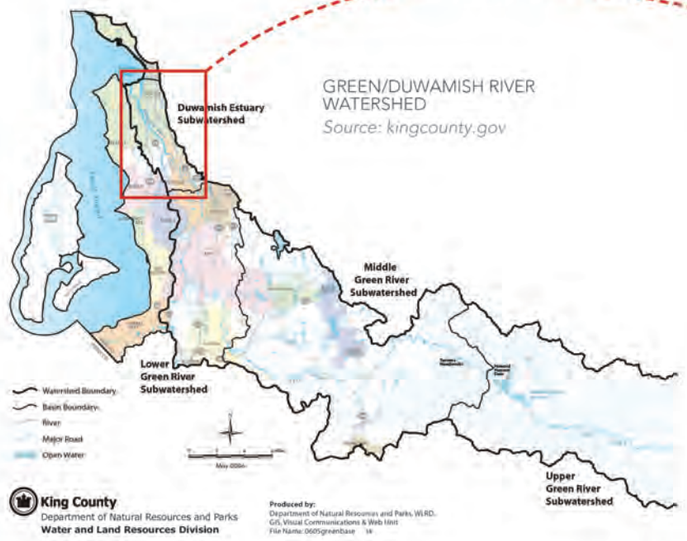
Site Topography, Drainage, and Major Form

PEIYAO XIAO +
JAXON ROLLER

KEY TAKEAWAYS:

- Georgetown is located in the Duwamish Estuary Subwatershed, an area **heavily industrialized for flood control, navigation, and commercial interests**
- The channelization of the Duwamish River has resulted in significant pollution, loss of natural habitat, and threat to Indigenous cultural heritage
- **Alluvial soils** on site raise concerns about flooding and floodplain erosion, and **artificial fill** is associated with potential instability and industrial pollution
- The site's location on the **Seattle Fault Zone** creates seismic risks, including possible soil liquefaction during earthquakes
- The main topographical observation is that **the site is incredibly flat**. Drainage will thus be dictated by the grading of individual parcels and streets

Green/Duwamish River Watershed



GREEN/DUWAMISH RIVER WATERSHED
Source: kingcounty.gov

History: 1851 - 1916

1851:
European settlement begins in the Duwamish River.

1880 - 1910:
Logging occurs across much of the watershed and in the lower river valley; agricultural land use expands.

1911:
White River is diverted from Green River to Puyallup River for flood control, reducing watershed area by 30 percent.

1913:
City of Tacoma, Washington begins diverting water from Green River to provide water for homes and industry. Anadromous salmonids are blocked from Upper Green River Sub-watershed.

1916:
Black and Cedar Rivers are diverted from Duwamish River to Lake Washington to improve navigation, further reducing watershed area by 40 percent from its original size.

Local: Duwamish Estuary Subwatershed

GREEN/DUWAMISH RIVER WATERSHED
Source: King County

The Green-Duwamish River watershed is located in southern King County and is the largest freshwater component in the Water Resources Inventory Area (WRIA) 9. The river flows for over 93 miles beginning at the crest of the Cascade Mountains and ending as it empties into Elliott Bay (Herrera, 2005; Kerwin and Nelson, 2000).

Historically, the White, Green, and Cedar Rivers flowed into the Duwamish River and drained an area of over 1,024,000 acres (Kerwin and Nelson, 2000). Major alterations of the Green-Duwamish watershed have taken place over the last century resulting in many alterations to the drainage area.

GREEN RIVER GORGE NEAR ENUMCLAW, ND
Source: Chapin Bowen, UW Special Collections

DUWAMISH RIVER
Source: Mid Sound Fisheries Enhancement Group

CONSTRUCTION OF THE DUWAMISH RIVER IN THE EARLY 20TH CENTURY

was largely undertaken for flood control efforts, navigation, and commercial interests.

Lake Washington

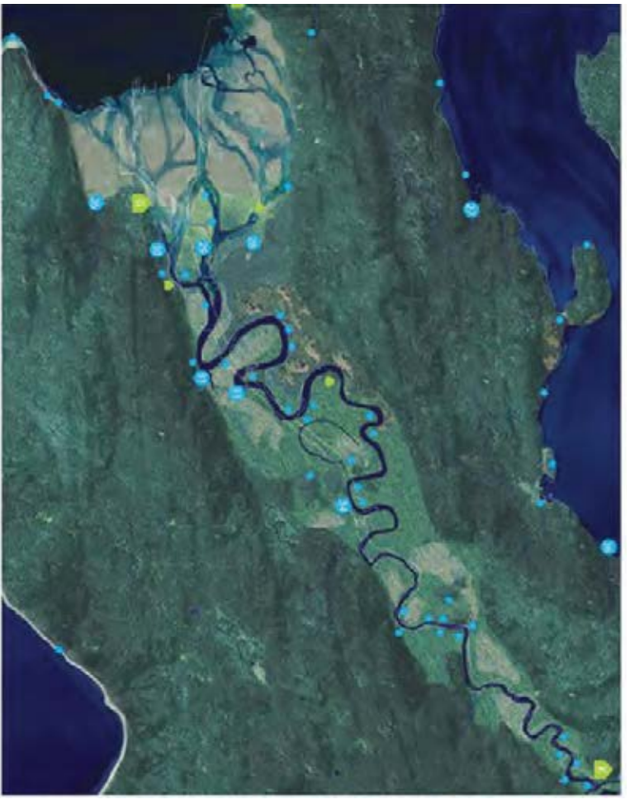
lowered 9 feet

River Meander

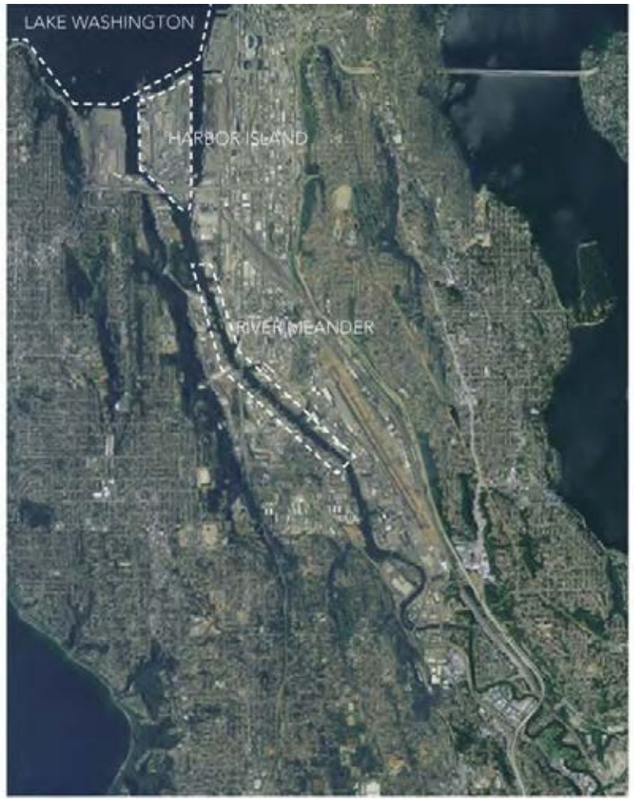
shortened by 4 miles
dredged the river into a navigable waterway, filled in the old meanders

Harbor Island

built by washing hillsides into the tide flats. the largest manmade island in the world at the time



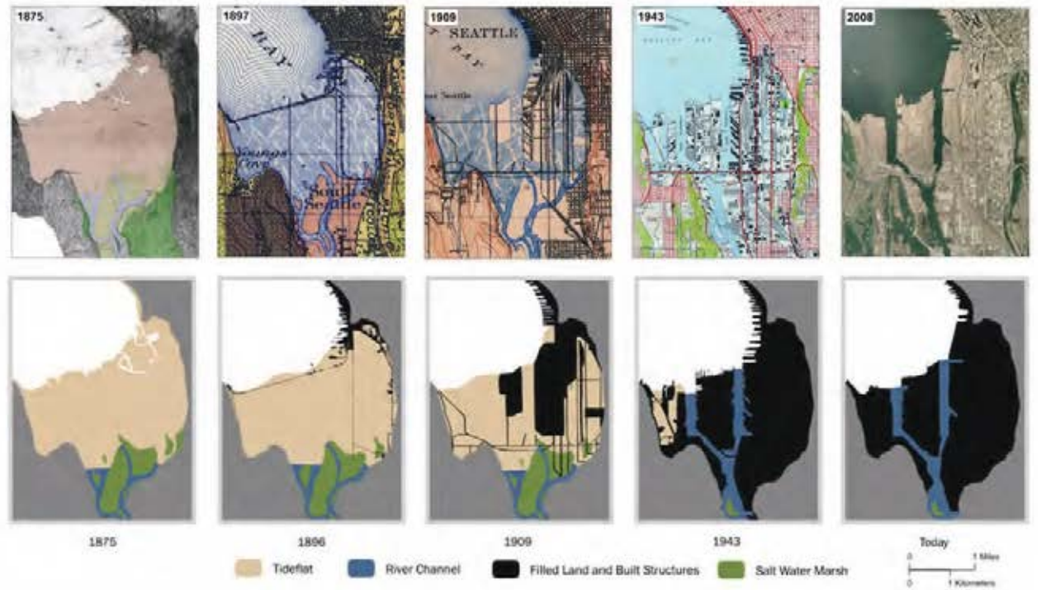
MID-1800S



TODAY

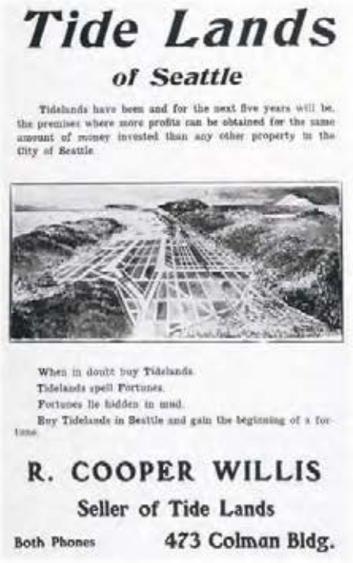
DUWAMISH RIVER VALLEY
Source: Waterlines Project, Burke Museum

Washing Hillsides into the Tide Flats.



DUWAMISH ESTUARY FILL SERIES
Source: Waterlines Project, Burke Museum

HARBOR ISLAND
Source: Hansrad Collection

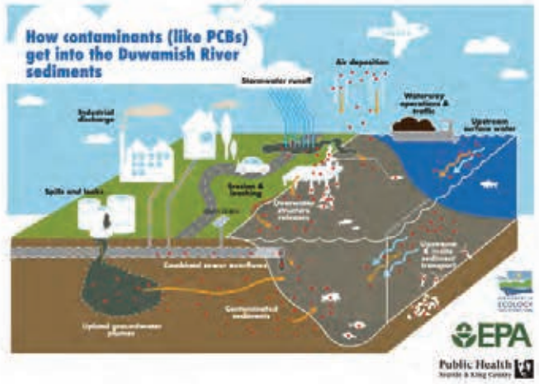


SEATTLE TIDELANDS REAL ESTATE (1907)
Source: Early Advertising of the West Collection

Cost of the Duwamish Construction

Ecosystem

Pollution & Clean up



Duwamish traditional food practices include:

- **Water-based foods:** Salmon, shellfish, fish, ducks, and other saltwater animals were the main sources of food for the Duwamish.
- **Land-based foods:** Deer, elk, bear, and rabbit were other sources of meat.
- **Vegetables:** Sprouts, roots, nuts, and vegetables like Indian carrot and Columbia lily were eaten.
- **Fruits:** Berries and crabapple were eaten.
- **Wapato:** A particularly important food for the Duwamish.
- **Acorns:** Acorns were relished but were not widely available.
- **Camas:** A rare opportunity to gather camas bulbs remains around Puget Sound.

Food & Traditional Practice

GILBERT KING GEORGE SPEAR FISHES ON THE WHITE RIVER DURING THE "FISH-INS" OF THE 1970S
Source: Burke Museum

SALMON WEIR, WHITE RIVER NEAR AUBURN, CA 1903
Source: Elmer E. Patten, White River Valley Museum

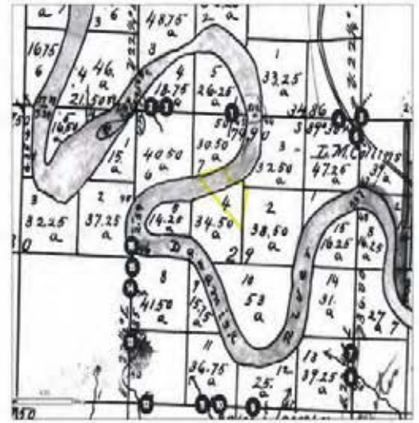
The Duwamish Tribe has a kitchen and cooking talents that they use to support their programs and facility. They showcase Duwamish cooking, teach about food sustainability, and host community events. The Duwamish Tribe has also collaborated with the FoodCircle Foundation to distribute Thanksgiving meal kits that feature both traditional American Thanksgiving items and Native heritage foods.

Duwamish Revealed Project

As part of the Duwamish Revealed project, Waterlines Project team member Amir Sheikh worked in collaboration with civil engineer Zachary Corum, to support artist Frances Nelson in the creation of a large-scale installation called "Meanders."

Meanders is an interpretation of one of the old meanders of the Duwamish that ran through what is now South Seattle College's Georgetown campus in the Georgetown neighborhood of Seattle. The site was the location of the King County Poor Farm and the area of initial dredging and filling along the Duwamish River in 1913. This installation literally "reveals" the history of the river beneath your feet at the site. In order to do this, the team researched historical data and context around the vicinity of the site.

The Duwamish Revealed Project was a great opportunity to bring together environmental sciences, natural and cultural history, and public art practice.

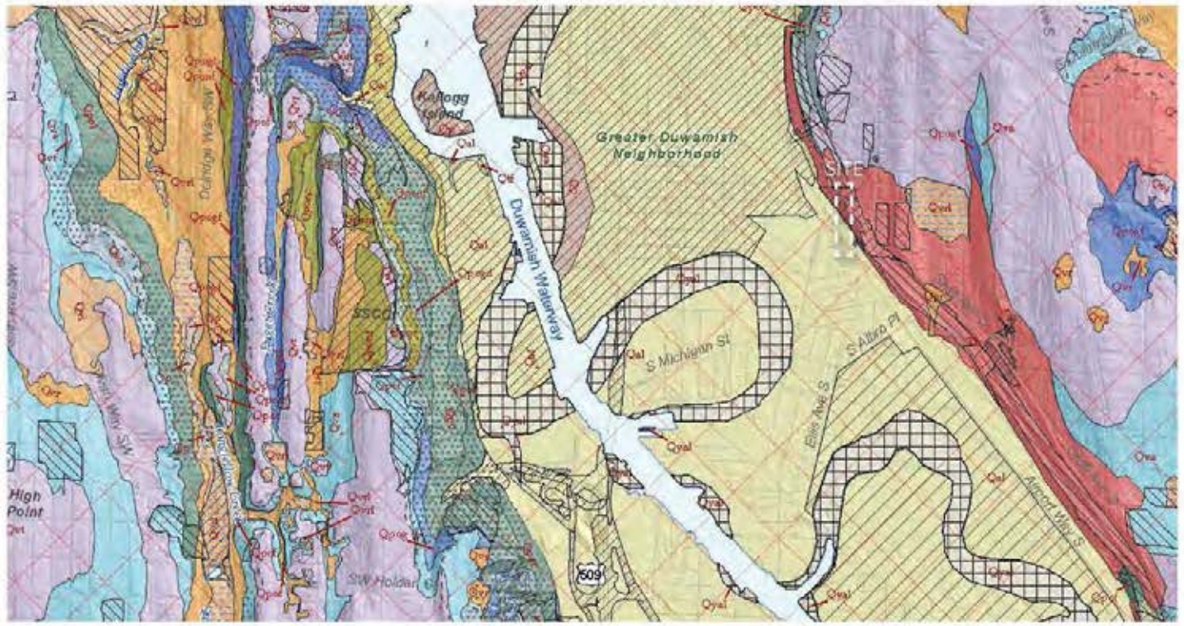


DUWAMISH REVEALED PROJECT MATERIALS
Source: Burke Museum

THE DUWAMISH REVEALED INSTALLATION
Source: Burke Museum

Soil and Fill

GEOLOGIC MAP OF SEATTLE
Source: USGS



Source: Google Maps

Nonglacial Deposits (Holocene)
- Qal - Alluvium
- Qyal - Younger alluvium
- Qp - Peat

Younger Glacial Deposits (Fraser Glaciation, Pleistocene)
- Qpo - Pre-Olympia deposit

Older Glacial and Nonglacial Deposits (Pleistocene)
- Qvt - Vashon subglacial till

Bedrock (Tertiay)
- Tb - Blakeley Formation

Overprints
- Mass wastage deposits
- Landslide deposits
- Modified land
- af - artificial fill
- afl - landfill debris
- afr - filled river channels
- graded land
- regraded land
- Seattle Fault Zone
- Seattle City Limit

Site Geographical Features

- Artificial fill
- Alluvium
- Seattle Fault Zone

Alluvium

Sediments that have been deposited by flowing water, typically in river valleys, floodplains, and deltas. These deposits are usually a mix of clay, silt, sand, and gravel, often fertile but also prone to flooding and changes in landscape due to river dynamics.

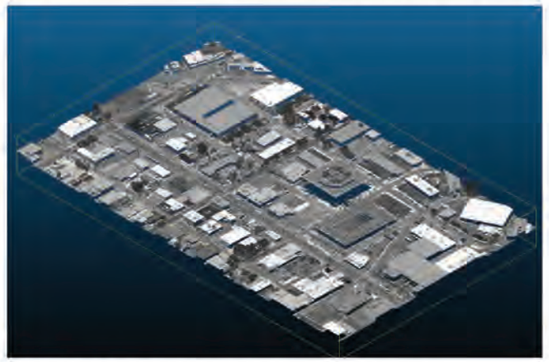
Artificial fill

Areas where human activity has added material to the landscape, often for construction, reclamation, or other modifications. This fill may not be as stable or naturally compacted as the original soil.

Seattle Fault Zone

A major geological fault running through the region. The Seattle Fault was first recognized as a significant seismic hazard in 1992. The interaction between the fault and the artificial fill may raise concerns about soil stability and settlement during seismic events.

Digital Site Model + Topography



POINT CLOUD DATA FROM AERIAL LIDAR SCAN
Source: Washington State Department of Natural Resources

Beginning with a larger set of LiDAR data from the the Washington LiDAR Portal, a sub-area was clipped for The Bend site. The point-cloud above is comprised of over 3.5 million points.

Creating the Model

To create a workable model, the millions of points need to be converted into a simplified form. This will allow future analysis of the site, and refinement of the model.

From Point-Cloud to Rhino:
Using a combination of software, the points are converted into a triangulated mesh, representing the ground surface of the site.

Adding Detail:
Existing buildings and trees were added to the model. Key details from Watershed were added, including the boundaries of the C1-75 zone, parcels they own, and their current massing models.

Navigability:
The entire model is geo-referenced, meaning its elevations are accurate and the data is easily used in other programs such as Google Earth. Street names are included, ensuring the model is easily navigable.

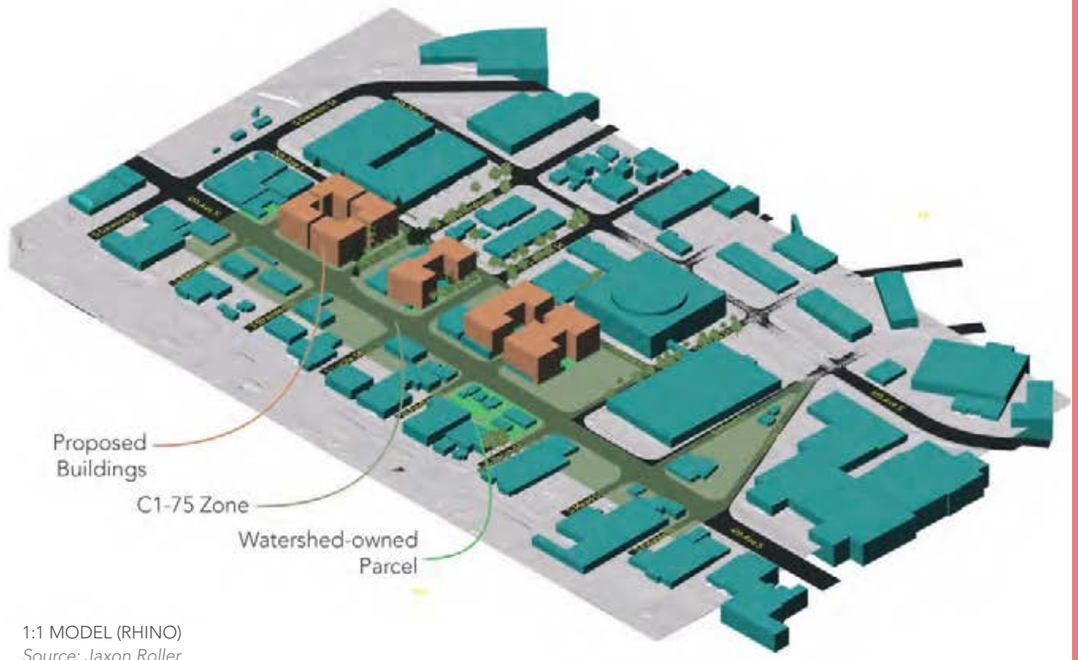
Analyzing Topography

There is a *very* slight slope from the NE to the SW. This makes sense, as the site is constructed on in-fill over historic wetlands on the east bank of the Duwamish River.

Implications of Extreme Flatness:
The slope of the overall site is only 0.07%. This means that water will pool rather than drain, as a slope of ~1% is needed for water to move. To avoid flooding and stagnant water, drainage challenges will need to be addressed street-by-street, parcel-by-parcel.

SIMPLIFIED SLOPES
Source: Jaxon Roller

Alluvium soil is highly permeable. If the impervious surface on the site can be broken, it is likely that water can be infiltrated and wetland plants established.



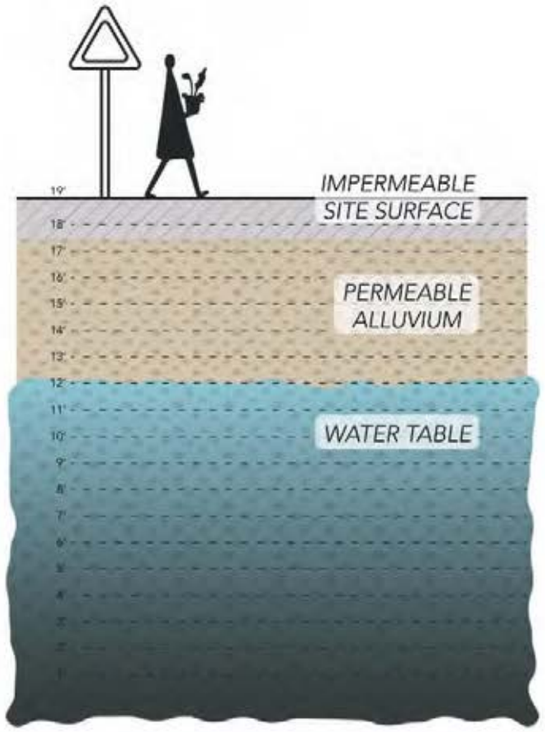
1:1 MODEL (RHINO)
Source: Jaxon Roller

Life at 19 Feet

At only 19' above sea level and 7' above the water table, there is not a lot of room to dig down for stormwater infrastructure. That said, the alluvium soil here is highly permeable. If there is not soil contamination, infiltrative GSI should be implemented.

Subterranean Pollution?

The one major risk with depaving and infiltration is the potential of causing a pollution plume. If the soil contains pollutants that are currently stagnant, creating subsurface flow could disturb and distribute these pollutants.



ILLUSTRATIVE SUBSURFACE SECTION
Source: Jaxon Roller

Existing Site

Site Conditions and Uses

JOANNA CHEN +
SARAH WHITNEY

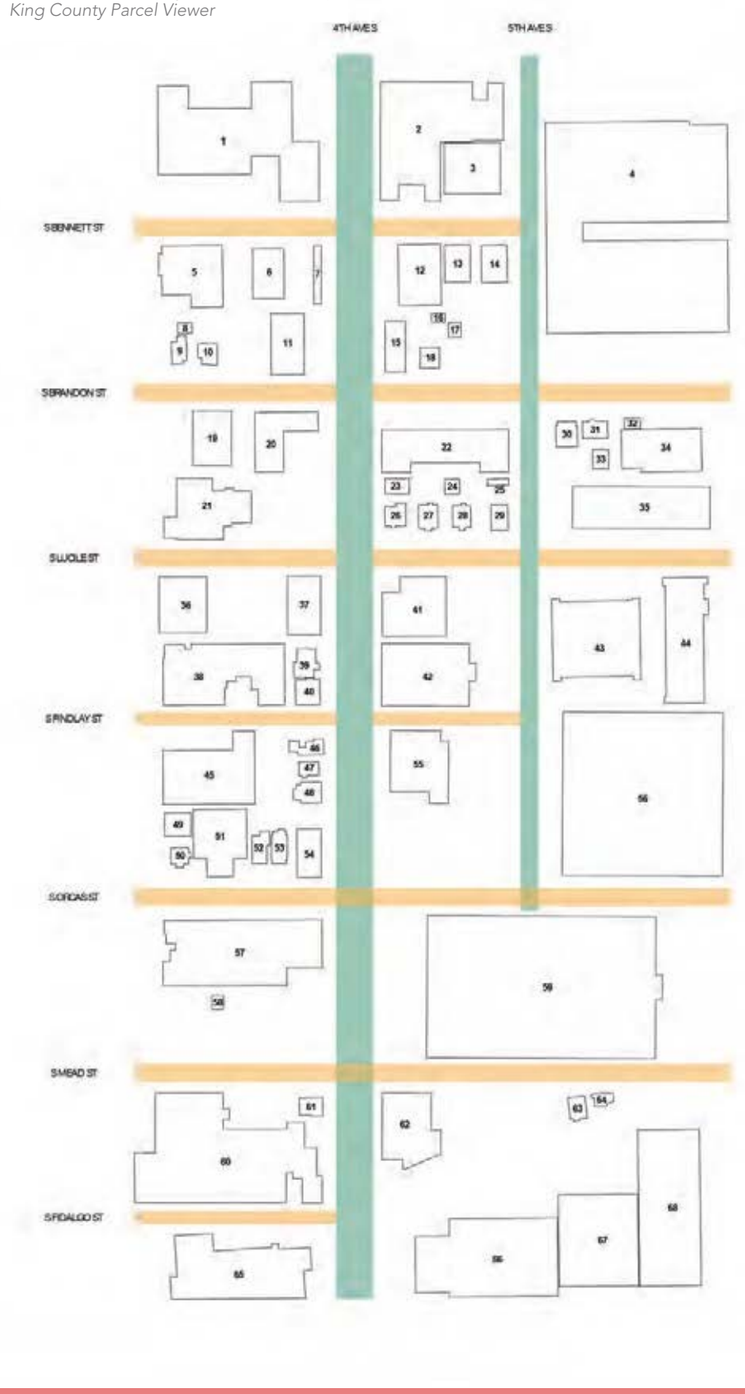
Key Takeaways:

These diagrams illustrate the current conditions and land use of The Bend site. We documented the qualities of the streets through film and note-taking. Longitudinal collages of the streets were constructed using frames of the footage. Uses of each building were determined by investigating on foot and with King County Parcel Viewer and Google Maps.

- 4th Avenue South is loud, exposed to the elements, and generally was unpleasant to walk
- 5th Avenue South is quieter than 4h but has no sidewalks. There was a poor stench due to the landfill transfer station nearby
- South Lucile Street is the main east-to-west travel corridor, and there are more cars traveling at faster speeds. As such, this street felt noisier than the other east-to-west streets: South Bennett, South Brandon, South Findlay, South Mead, and South Fidalgo

BUILDING USES MAP

Source: Sarah Whitney and Joanna Chen, King County Parcel Viewer



BUILDING USES

1. Vacant, Parking, and Warehouse
2. Warehouse/Service Building/Hotel/Motel
3. Retail
4. Warehouse
5. Warehouse (parcel viewer)
6. Industrial/General Purpose (parcel viewer)
7. Office building (parcel viewer)
8. Single family (parcel viewer)
9. Single family (parcel viewer)
10. Single family (parcel viewer)
11. Warehouse (parcel viewer)
12. Warehouse (parcel viewer)
13. Star Motel (parcel viewer)
14. Star Motel (parcel viewer)
15. Warehouse (parcel viewer)
16. Office building (parcel viewer)
17. Office building (parcel viewer)
18. Office building (parcel viewer)
19. Industrial (parcel viewer)
20. Warehouse (parcel viewer)
21. Warehouse (parcel viewer)
22. Office building (parcel viewer)
23. Apartment/mixed use(parcel viewer)
24. Single Family (parcel viewer)
25. Single Family (parcel viewer)
26. Apartment/mixed use (parcel viewer)
27. Single Family (parcel viewer)
28. Single Family (parcel viewer)
29. Single Family (parcel viewer)
30. Single Family, residence (parcel viewer)
31. Single Family
32. Warehouse
33. Single Family
34. Warehouse (parcel viewer)
35. Office buildings (parcel viewer)
36. Office building (parcel viewer)
37. Office building (parcel viewer)
38. computer services (google)
39. Industrial/General purpose
40. Service building (parcel viewer)
41. Service building (parcel viewer)
42. Warehouse (parcel viewer)
43. Warehouse
44. Industrial Park, design center (parcel viewer)
45. Industrial Park
46. Warehouse (Parcel Viewer)
47. Restaurant
48. Single Family (Parcel Viewer)
49. Single Family (Parcel Viewer)
50. Single Family (Parcel Viewer)
51. Single Family (Parcel Viewer)
52. Warehouse (Parcel Viewer)
53. Vacant
54. Single Family owned by GCDA (Parcel Viewer)
55. Restaurant (Parcel Viewer)
56. Warehouse (Parcel Viewer)
57. Office Building Georgetown Squared (Parcel Viewer)
58. Industrial/General Purpose (Parcel Viewer)
59. Industrial/General Purpose (Parcel Viewer)
60. Office Building (Parcel Viewer)
61. Industrial/General Purpose (Parcel Viewer)
62. Vacant
63. Restaurant (Parcel Viewer)
64. Single Family (Parcel Viewer)
65. Retail (Parcel Viewer)
66. Industrial (Parcel Viewer)
67. Warehouse (Parcel Viewer)
68. Warehouse (Parcel Viewer)
69. Warehouse The Chapman Building (Parcel Viewer)

4th Avenue

East

West

4TH AVENUE
Source: Sarah Whitney

5th Avenue

West

East

5TH AVENUE
Source: Joanna Chen

South Bennett Street

North

South

South Brandon Street

North

South

South Lucile Street

North

South

BENNETT - LUCILE STREETS
Source: Sarah Whitney

South Findlay Street

North

South

South Orcas Street

North

South

South Mead Street

North

South

South Fidalgo Street

North

South

FINDLAY - FIDALGO STREETS
Source: Joanna Chen

Mobility + Transport

Pathways and Challenges

LELA COOPER +
REBECCA ZARAGOZA

KEY TAKEAWAYS:

- Georgetown **prioritizes vehicle transportation** over other modes
- Industrial activity leads to **high traffic volumes and reduced safety** for non-motorized transportation users
- Mobility data reflects a **neighborhood of commuters**, with few residents working in the area and most workers commuting in
- The **transit network does not support user needs**, and last mile connections to the light rail remain an opportunity area
- The bike and pedestrian network has **limited connectivity** and needs improved safety conditions
- Freight planning remains a challenge as Georgetown represents **84% of Seattle's industrial area**
- Investments in safety, wayfinding, and connectivity remain crucial

SIDE STREET CONDITIONS: SERVING COMMERCIAL/INDUSTRIAL USE WITH LIMITED PEDESTRIAN AMENITIES
Source: Lela Cooper

Georgetown both historically and remaining today has a strong industrial presence, and this is evident in the transportation network and mobility conditions of the area. Industrial usage necessitates the presence of large vehicles, semi-trucks, and freight trains. With limited retail or residential use, minimal attention is paid to the pedestrian experience in many areas. Automobile transportation remains the primary means of getting to and from the neighborhood, and is often priortized in the urban form, with ample free parking, wide streets, and limited speed deterrents.

This section will discuss the Georgetown transportation network, including transit connections, parking and vehicle considerations, biking and walking conditions, as well as existing traffic and mobility to and from the area.

This understanding will help to shape planning for The Bend, as the area's existing transportation network in many ways does not support the needs of a residential community, or the sustainability goals of the project.

4TH AVE S, LACKING PEDESTRIAN AND TRANSIT CONDITIONS
Source: Lela Cooper

Photo: Rebecca Zaragoza

Georgetown both historically and today has a strong industrial presence, and this is evident in the transportation network and mobility conditions of the area. Industrial usage necessitates the presence of large vehicles, semi-trucks, and freight trains. With limited retail or residential use, minimal attention is paid to the pedestrian experience in many areas. Automobile transportation remains the primary means of getting to and from the neighborhood, and is often priortized in the urban form, with ample free parking, wide streets, and limited speed deterrents.

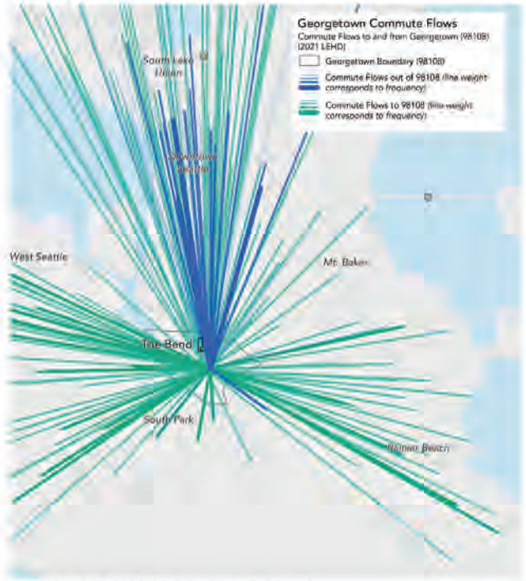
Understanding of Georgetown's transit connections, parking and vehicle considerations, biking and walking conditions, and existing traffic and mobility will help to shape planning for The Bend, as the area's existing network does not support the needs of a residential community or the sustainability goals of the project.

A NEIGHBORHOOD OF COMMUTERS

Georgetown has more jobs than residents, and few residents work in the area. With limited transit connectivity, SOV rates remain high.

Georgetown Commute Patterns

Currently, Georgetown primarily serves as a neighborhood of industry and commercial usage, and the commute patterns of the area reflect this. Using U.S. Census Longitudinal Employer Household Dynamics (LEHD) data, Georgetown's commute flows were evaluated. Based on the most recent data from 2021, Georgetown's zipcode 98108 employed approximately 38,000 jobs, in which roughly 98% of workers indicated living outside the zipcode. Of the approximate 11,000 residents within the 98108 zipcode, which includes some additional residential areas of nearby South Park, only about 700 indicated working in the same zipcode as where they lived. This data helps to represent the typical commute flows in and out of Georgetown, and highlights large, out of neighborhood workforce traffic in and out of the area each day, rather than traffic fueled by residents.



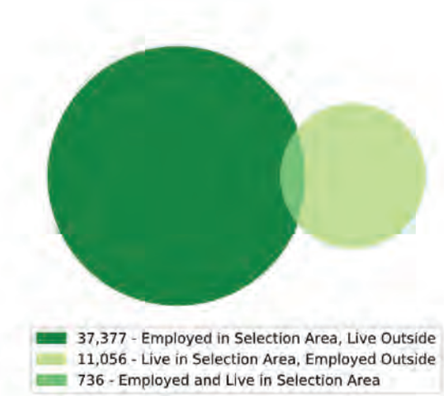
GEORGETOWN COMMUTE FLOWS
Source: LEHD Data (2021), Lela Cooper

Current Commute Flows

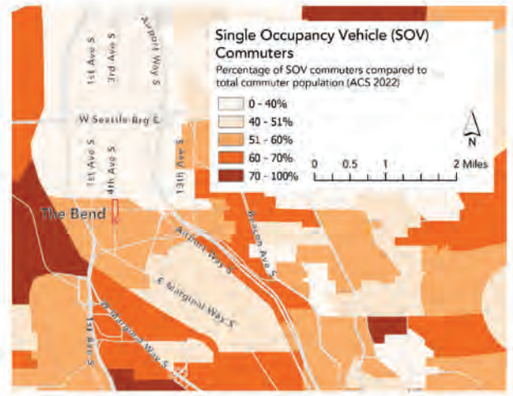
Understanding that Georgetown currently is a neighborhood in which more people are coming to work rather than reside, mobility concerns primarily concern employment commute flows. Residents of Georgetown tend to commute north-south for employment opportunities within the commercial core of Downtown Seattle, as well as South Lake Union, with fewer residents commuting east-west to nearby neighborhoods. A small proportion of Georgetown area residents indicated working in the area (less than 10%) based on 2021 LEHD data. For employees of the Georgetown area, commute flows were much more broad, with increased east-west travel from nearby neighborhoods in West Seattle, South Park, and Rainier Beach, as well as less concentrated travel flows coming from north of Seattle's commercial core.

Current Preferred Commute Modes

Georgetown is largely a neighborhood of commuters, with both residents being unlikely to work in the neighborhood, and workers living in other areas. Due to heavy industrial activity and limited infrastructure for alternative commuting modes, single-occupancy vehicle (SOV) commutes make up the largest share of Georgetown residents' indicated commute modes. Using 2022 U.S. Census American Community Survey (ACS) data, frequency of self-reported commuting behavior was evaluated. Within the census block where The Bend is located, currently 51-60% of residents shared that they primarily drive an SOV to get to and from work. A smaller proportion shared that they took transit, at 10-18% of the population, likely limited by the existing transit network. Excluding teleworking, SOV commuting is dominant in the area, yet leaves more to be desired for community sustainability goals.



GEORGETOWN (98108) COMMUTE INFLOW/OUTFLOWS
Source: U.S. Census, LEHD Data (2021)



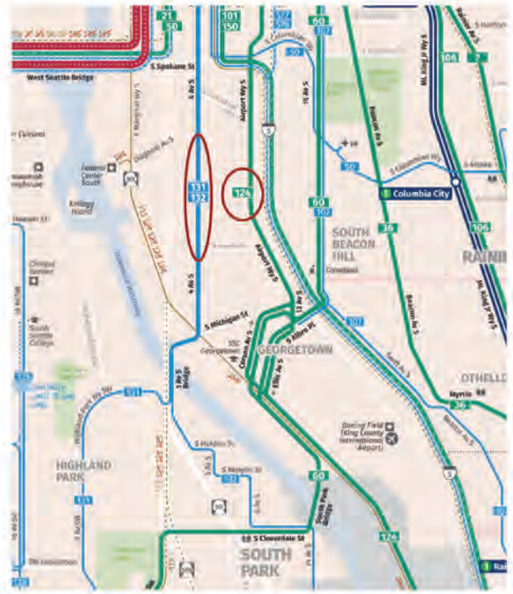
SINGLE OCCUPANCY VEHICLE (SOV) COMMUTING RATES AMONG GEORGETOWN RESIDENTS
Source: ACS Data (2022), Lela Cooper

Transit Network

Georgetown is located south of Seattle's main commercial area, but serves as a major industrial hub. The area's transit network reflects this, and bus routes emphaisze north-south connections to the main commercial core rather than east-west to surrounding neighborhoods.

Existing Transit Service

Georgetown is served by a mix of frequent and all day service bus routes. Frequent service is available every 15 minutes or better on several routes, including route 124, which travels from Tukwila International Boulevard to downtown Seattle, and routes 131 and 132, which connect Burien to downtown Seattle and transition into route 28X in downtown going north to Ballard. Route 60 offers service from White Center to Capitol Hill, and route 107 provides all-day service from Beacon Hill to Renton, running every 15 minutes on weekdays and every 30 minutes on weekends. Additionally, the light rail is co-located approximately 2.2 miles from SODO station and 2.5 miles from Columbia City Station. Both stations are roughly a 10-minute drive from the site location, providing another potential transit connection point, but beyond expected walking distance.



GEORGETOWN CURRENT TRANSIT NETWORK
Source: Oran Viriyincy via Seattle Transit Map

Transit Challenges and Opportunities

Despite having multiple routes with frequent service and strong connections north-south to Seattle's commercial core, east-west transit connections remain limited within the study area.

There are limited major transit investments planned for the immediate area surrounding The Bend, and despite planned infill stations to Link Light Rail as part of Sound Transit's ST3 plan, Georgetown remains disconnected from much of the major public transit network. Connections to light rail are further challenged by a lack of last mile connectivity to get to stations east of Georgetown, and are heightened due to significant topography change as well. Additionally, existing transit stops could encourage ridership through amenity improvements in coordination with the pedestrian infrastructure network. This includes increased seating, bus shelters, and improved signage based on King County Metro's ridership criteria for installing amenities.

Parking Considerations

Due to the high SOV modeshare of Georgetown and limited east-west transit connections, parking remains an important consideration for the area. The existing parking allocation surrounding The Bend development site consists of mainly of unrestricted parking as defined by the City of Seattle, which is free and has no time limits for users.
Some restricted parking areas exist, with time-limited parking (typically 4 hours), located at cross-streets of 4th Avenue South along Findlay, Orcas, and Mead, as well as at the southern end of the site on 5th & Orcas, and 5th & Findlay.
No parking zones make up a small propotion of curbspace, and are primarily designated in front of lot access points, which are mainly reserved for private parking and business use.

Planning for large vehicle use, including parking for large trucks and commercial vehicles remains a necessary consideration, though sometimes at odds with pedestrian needs or safety considerations.

THE BEND PARKING ACCESS ALLOCATION
Source: Seattle Department of Transportation (SDOT)

SEMI-TRUCK PARKED IN SIDEWALK ALONG 4TH AVE S (NB)
Source: Lela Cooper

Future Mobility - Reducing SOV Transportation

In order to support the needs of future residents of The Bend, considerations must be made both on and offsite to encourage more sustainable modes of transportation.

Onsite Opportunities

To enhance non-SOV transportation options onsite, transportation demand management (TDM) programming such as bikeshare, carshare, and cargo bike rentals, could be implemented, while also reducing resident financial barriers to access such items.
Onsite commercial vehicle access stays an important consideration as well for The Bend's maker community, and could also be improved by emerging technology in delivery services reducing needs for vehicles, or through zero-emission trucks. Relatedly, The Bend also has an opportunity to rethink vehicle parking needs, through shared use models like carshare for residents, as well as upcoming advancements in autonomous vehicle technology that may reduce needs for personal vehicle ownership and parking.

Offsite Opportunites

For offsite improvements, developing last-mile connections to transit and particularly Link light rail poses a worthwhile opportunity to change commute behavior. King County Metro's (KCM) Metro Flex service operates on-demand, last mile service that connects riders in elligible areas with a van ride that can be paid for using a standard transit fare (along with free transfers on buses and light rail). Metro Flex has expanded into most areas immediately adjacent to Georgetown recently, and would greatly improve accessibility of nearby transit beyond comfortable walking distance of The Bend. In addition, such service could improve connectivity to other crucial neighborhood resources that are underserved by the transit network.

'METRO FLEX' ON-DEMAND LAST-MILE SERVICE: EXISTING ZONES
Source: KCM MetroFlex (2024)

LAST MILE CONNECTIVITY

Investments in the nearby Link light rail offer an opportunity to explore last mile solutions, such as micromobility and on-demand connections like KCM Metro Flex.

KING COUNTY METRO - 'METRO FLEX' ON-DEMAND VAN
Source: KCM MetroFlex (2024)

"THERE IS A GROWING NUMBER OF FAMILIES WHO ARE CHOOSING TO LIVE IN GEORGETOWN. SAFE ACCESS TO SCHOOLS, PARKS, AND PLAY AREAS IS VERY IMPORTANT."
Georgetown Mobility Study, 2017

Active Transportation Infrastructure: Overview of Planning Documents

Bike Master Plan: Implementation Plan (2021-2024)

The Seattle Bicycle Master Plan (BMP) aims to make cycling a safe and accessible part of daily life for all ages and abilities. Covering the period from 2014 to 2033, the plan outlines projects to improve safety, equity, connectivity, and livability through a network of 100 miles of protected bike lanes and 250 miles of greenways. It also supports cycling through facility maintenance, parking, and education. Funded by the 2015 voter-approved $930M Levy to Move Seattle, which provides 30% of the city's transportation budget, the BMP aims to create reliable and affordable travel options for Seattle's growing population.

The most recent updates on the implementation of the BMP are outlined in the 2021-2024 Implementation Plan, including specific infrastructure that SDOT has aimed to build each year. In 2020, SDOT received grant funding along with a city council allocation to fully fund construction in 2023 (Implementation Plan, 16).

Pedestrian Master Plan

The Seattle Pedestrian Master Plan (PMP) is a 20-year strategy aimed at making Seattle the most walkable and accessible city in the nation, focusing on resident safety and neighborhood vibrancy. With limited funding for sidewalk and crossing improvements, the PMP establishes a prioritization framework to decide which facilities to build first and where. It also outlines policies, programs, and project opportunities to enhance pedestrian safety and access. Key strategies, actions, and performance measures are included to guide progress toward achieving the plan's vision.

SIDEWALK CONDITIONS ON S BRANDON ST
Source: Rebecca Zaragoza

Georgetown Mobility Study

The Georgetown Mobility Study aims to improve safety and conditions for walking, biking, and driving in response to community input during the Seattle Freight Master Plan's development. Georgetown residents, workers, and businesses contributed recommendations for transportation enhancements, building on previous community efforts and citywide mobility plans.

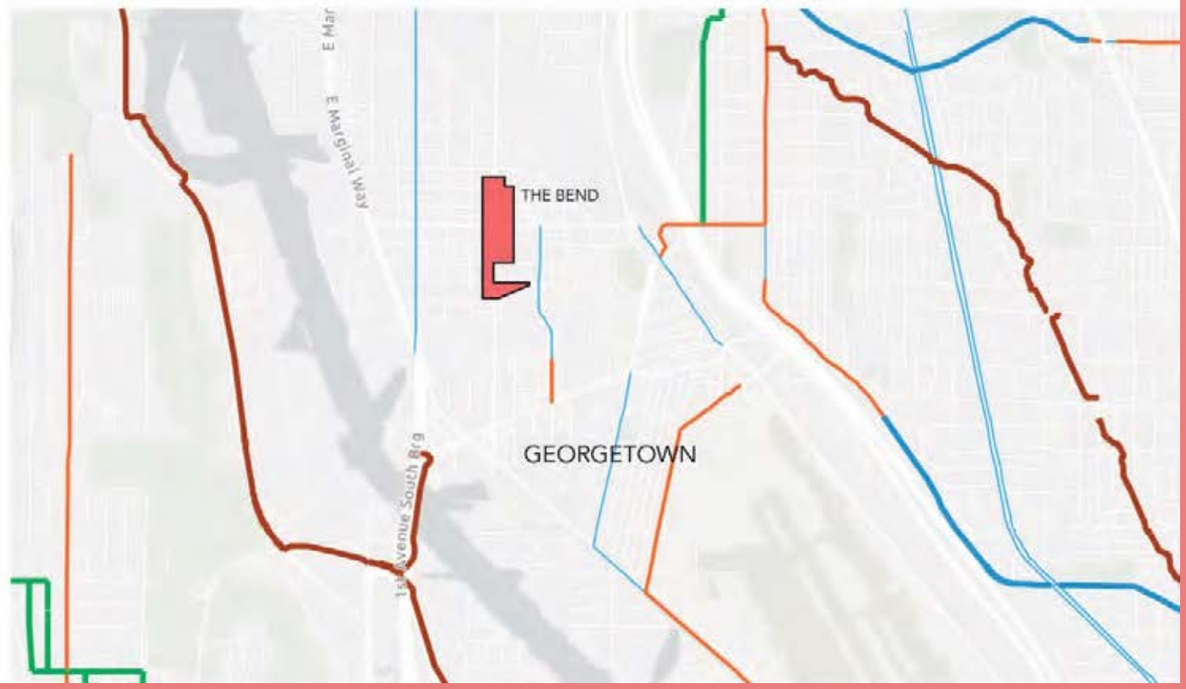
Existing Conditions of Bike and Pedestrian Infrastructure

As of 2024, the bike facilities and infrastructure near The Bend are quite insignificant. The nearest facility serves a portion of 6th avenue with painted bike lane that runs from S Michigan St north to S Front St. It then transitions to sharrows connecting north to Lucille St. Additional sharrows can be found east and west of the site, but do not connect with eath other or 6th Ave (see map of Existing Bike Facilities Near the Bend).

Georgetown's pedestrian network varies in condition, with more complete sidewalks in residential areas east of Corson Ave S and west of Ellis Ave S. High-traffic areas, especially along major arterials and freight routes, have narrow, incomplete sidewalks, making walking stressful and limiting safe crossings to signalized intersections. Despite recent investments like new crosswalks and festival streets, areas like Airport Way S remain challenging due to narrow sidewalks and heavy traffic. The community's traditionally underserved populations often rely on walking and transit. Georgetown's growth highlights the need for better access to parks, community centers, and schools, as many residents are cut off from these services by barriers like the Duwamish River and railway corridors. Frequent sidewalk obstructions, such as height differences and poor surface conditions, further hinder pedestrian mobility.

PEDESTRIAN WALKING NORTH ON S 5TH AVE
Source: Rebecca Zaragoza

EXISTING BIKE FACILITIES NEAR THE BEND
Source: Seattle Geodata



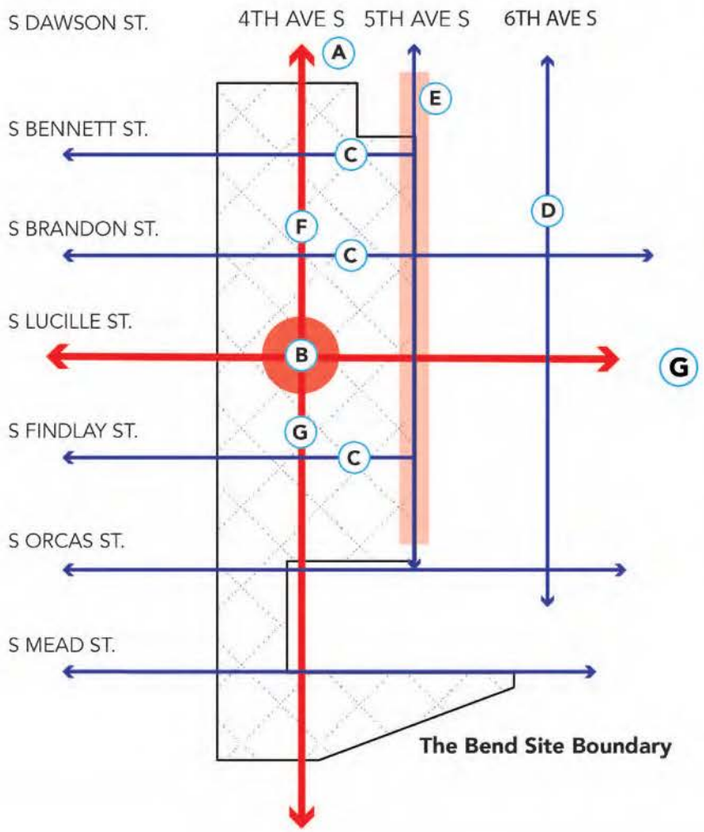
Existing Conditions Assessment

A Within the project site, S 4th Ave does not have any type of bike lane facility on either side of the street.

B The site's major intersection at S Lucille St. and S 4th Ave is the only intersection with crosswalks and traffic signals. However, the pedestrian clearance time is not sufficient when crossing west-east.

C Other cross-streets like S Bennett St., S Brandon St., and S Findlay St. do not have sidewalks on either side of the streets.

D 6th Ave S is registered as having sharrows from S Lucille St. to S Front St.



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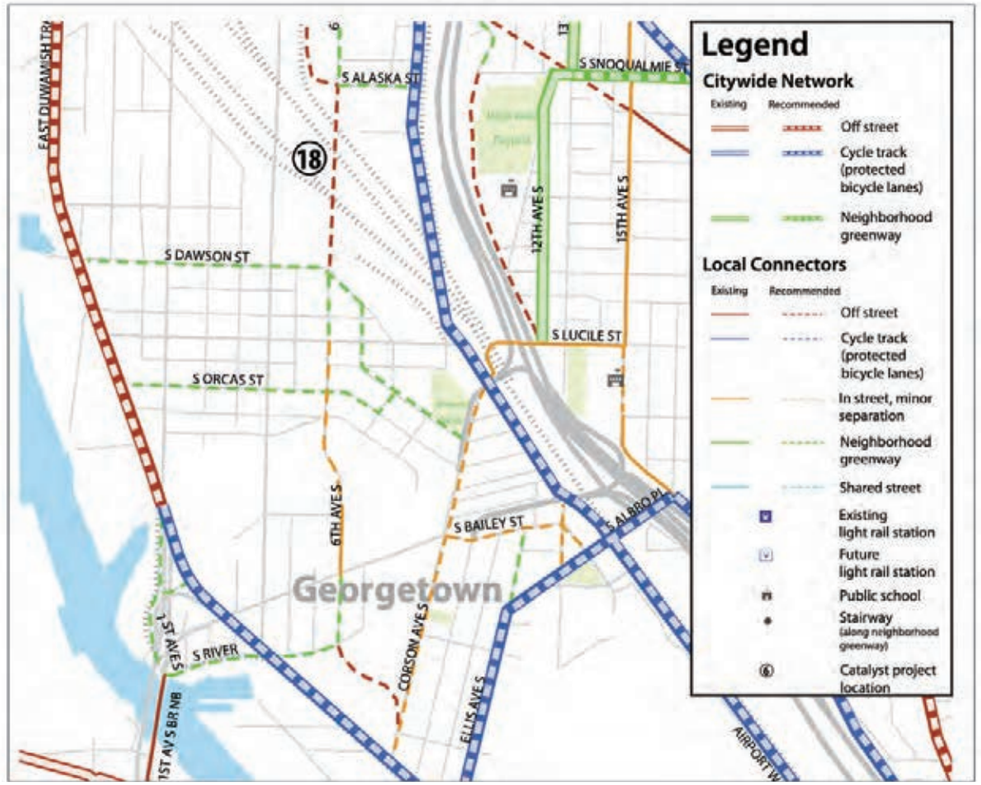
Source: Rebecca Zaragoza

Existing Proposals for Bike and Pedestrian Projects



EXISTING AND RECOMMENDED CITYWIDE NETWORK
Source: Bike Master Plan

Georgetown to Downtown Safety Connection

New protected bike line. This connection will be the final link in a system of north-south bike trails between Seattle and South King County. This bike system includes the Green River Trail and the South Park to Georgetown Trail. These changes will also make the light rail network more accessible for communities in Georgetown and South Park.

Georgetown to South Park Connection

During the 2017 Georgetown Mobility Study, the need for better connections between Georgetown and South Park was highlighted, and it was further supported by various city master plans. Based on community input, the project is moving forward with a walking/biking path along Ellis Ave S, S Albro Pl, and 13th Ave S, a path on the north side of E Marginal Way S, and protected bike lanes on 16th Ave S leading to the South Park Bridge.

BIKE AND PEDESTRIAN SAFETY ANALYSIS (BPSA)

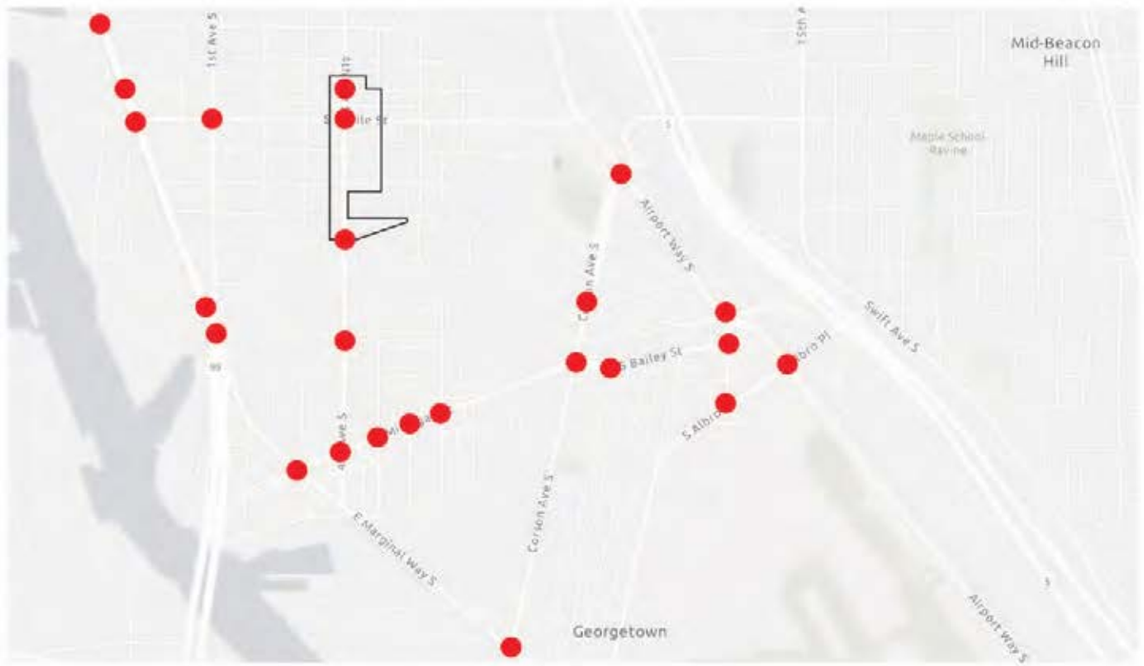
The BPSA (2016) is used to prioritize safety projects and inform data-driven strategies to reduce collisions.

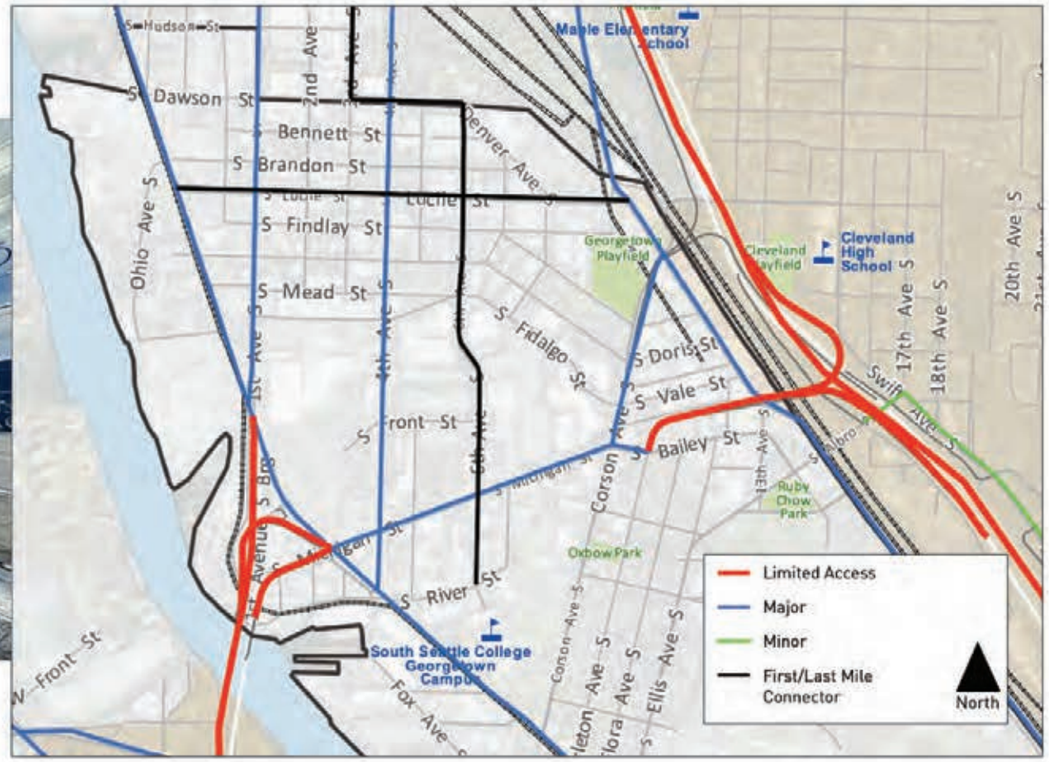
The BPSA examined collisions involving pedestrians and cyclists from 2007 to 2014 to identify crash patterns and factors contributing to accidents. A model was developed to predict high-risk locations, guiding future safety improvements.

Key findings include a strong link between cyclist presence and lower injury rates, improved safety for all road users with better walking and biking infrastructure, and that severe pedestrian crashes are more likely at non-signalized intersections.

FREIGHT TRUCK PARKED ON S LUCILE ST
Source: Rebecca Zaragoza

BPSA PRIORITY LOCATIONS
Source: Bike and Pedestrian Safety Analysis, Rebecca Zaragoza





CURRENT FREIGHT NETWORK
Source: Georgetown Mobility Study

Freight Mobility

Freight Master Plan

Seattle's Freight Master Plan (FMP) addresses the unique needs and challenges of freight mobility in the city. Its stated focus is to improve urban truck freight movement to meet the city's growing demand for goods in a safe, reliable way while supporting goals of social equity, economic productivity, sustainability, and livable neighborhoods. The FMP includes an analysis of current conditions, a policy framework, future assessments, and design guidelines, along near- and long-term improvements to the freight network.

The Duwamish MIC is the oldest and largest of the 8 designated MICs in the Puget Sound region. Its siting was driven by the Duwamish Waterway and Elliot Bay. It contains 84% of the total industrial-zoned land in Seattle. According to the FMP "The Duwamish MIC functions as a focal point for international industrial activity and is the center of the Port's primary marine shipping area, with deep-water berths, piers, shipyards, drydocks, container terminal cranes, on-dock rail, container support yards, cargo distribution and warehousing, oil and petroleum storage facilities, major railroad yards, and the King County International Airport (also known as Boeing Field)" (FMP, 18). Efficient and safe freight movement is crucial for Georgetown's residents, workers, and businesses, as several key freight routes cross the neighborhood, supporting both Seattle's and the regional economy. The Georgetown Mobility Study focused on maintaining access

along these corridors while ensuring safe crossings for pedestrians, cyclists, and drivers. Efficient traffic flow is also vital for minimizing air pollution, especially from idling vehicles. S Michigan St is a key challenge, with high freight volumes and pedestrian and bicyclist safety concerns. The study prioritized solutions that align with other ongoing projects to address these safety and accessibility issues.

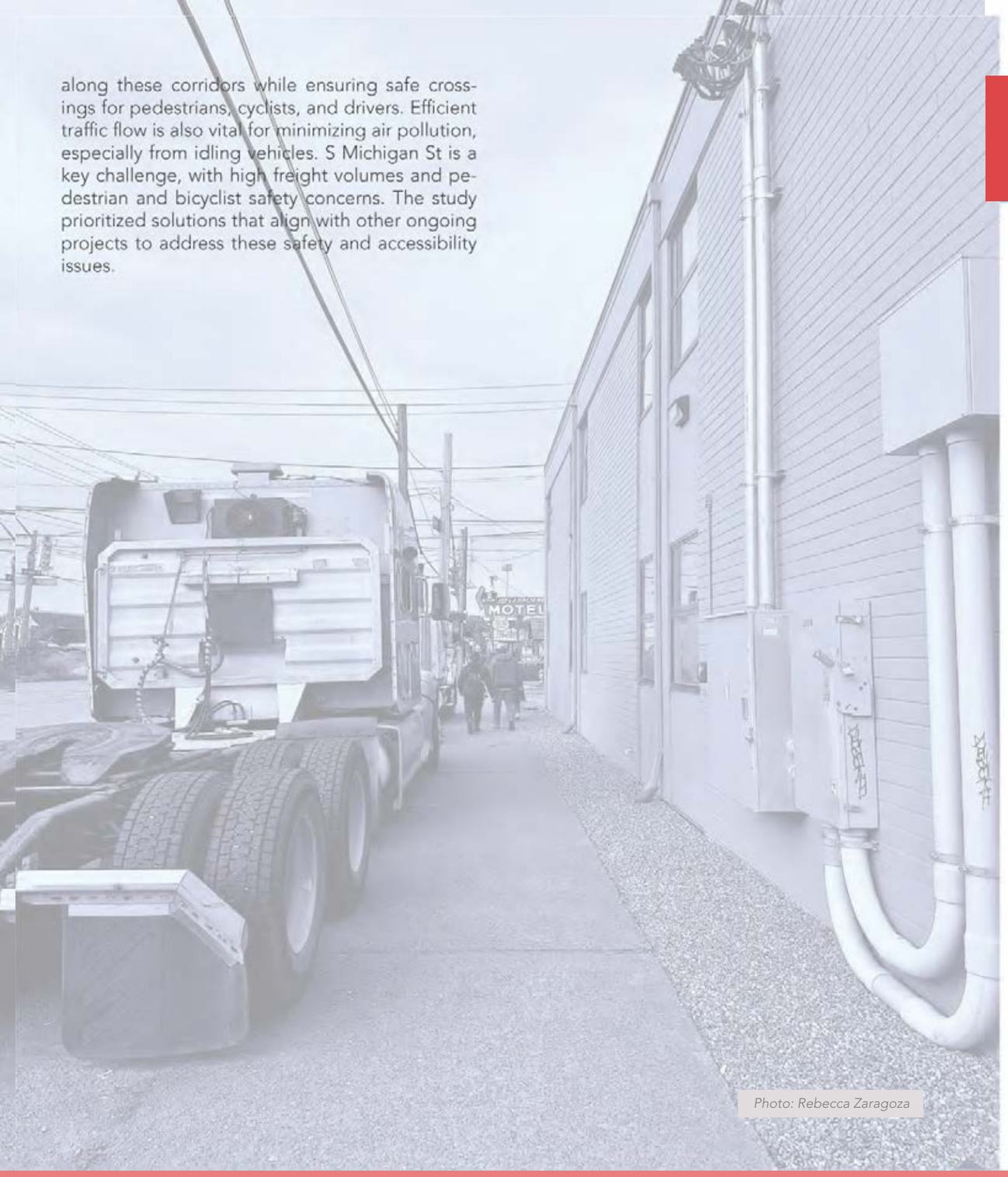
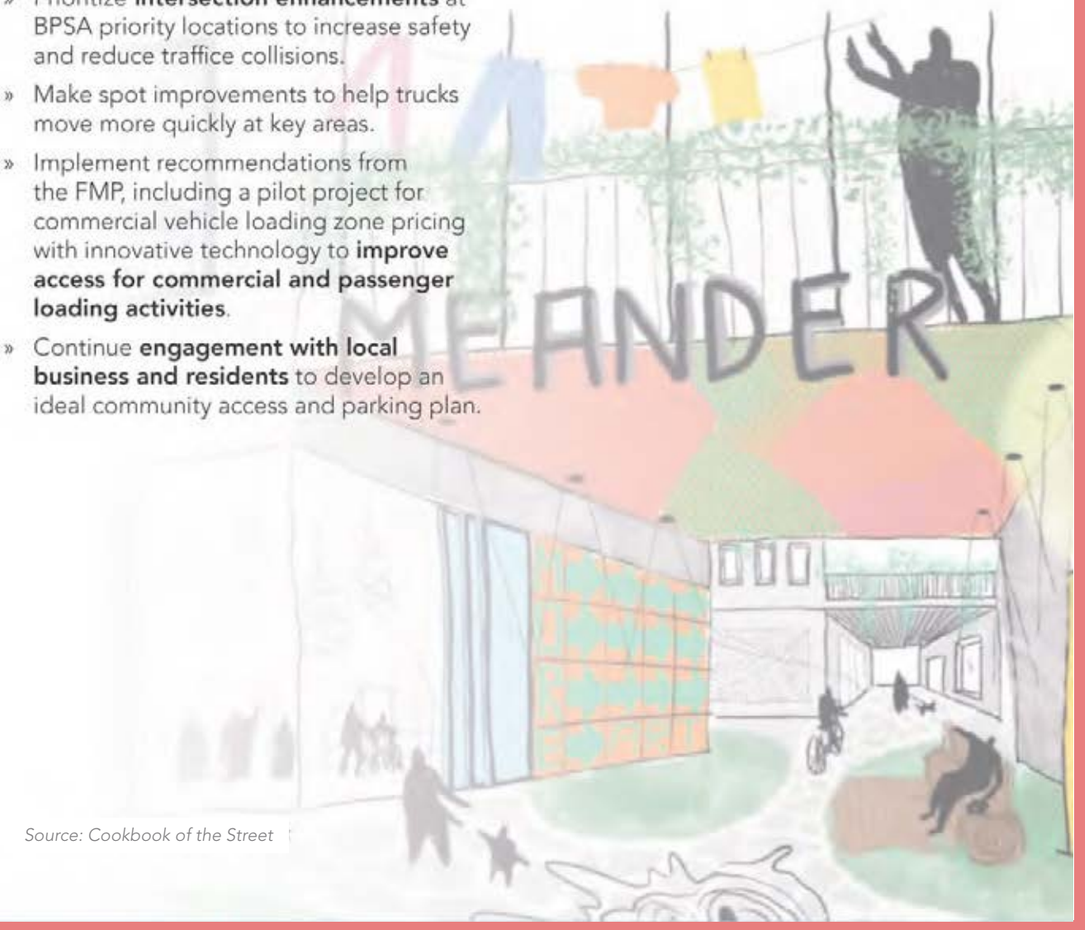


Photo: Rebecca Zaragoza

OPPORTUNITIES FOR MOBILITY IN THE BEND

- Expand **diverse types of bike and pedestrian facilities** to enhance connectivity within Georgetown that also connect to The Bend.
- Expand sidewalk network along smaller streets that connect to major arterials.
- Combine **greenways and other landscaping measures** to better support walkability and enhance safety.
- Prioritize **intersection enhancements** at BPSA priority locations to increase safety and reduce traffice collisions.
- Make spot improvements to help trucks move more quickly at key areas.
- Implement recommendations from the FMP, including a pilot project for commercial vehicle loading zone pricing with innovative technology to **improve access for commercial and passenger loading activities**.
- Continue **engagement with local business and residents** to develop an ideal community access and parking plan.



Source: Cookbook of the Street

Health, Safety, Hazards + Resilience

LIZ FORELLE +
HUNTER OTTMAN

Key Takeaways:

- Georgetown is afflicted by numerous types of **air pollution, which can result in health problems** including bronchial irritation, lightheadedness, and cancer
- Georgetown sees the impacts of **urban heat island effect** during summer months, with temperatures staying high through the evening
- In the effect of an earthquake, Georgetown will experience **high physical impacts**
- Georgetown is subjected to a significant amount of **noise pollution** from freight, commuter traffic, rail, and aviation
- While not at immediate risk to sea level rise, the site may be affected by reverberating hydrological and climatological impacts
- Topography and soil conditions make on-site water detention a challenge

GEORGETOWN, SEATTLE'S OLDEST NEIGHBORHOOD
Source: Seattle Parks Foundation, Georgetown Open Space Vision Framework

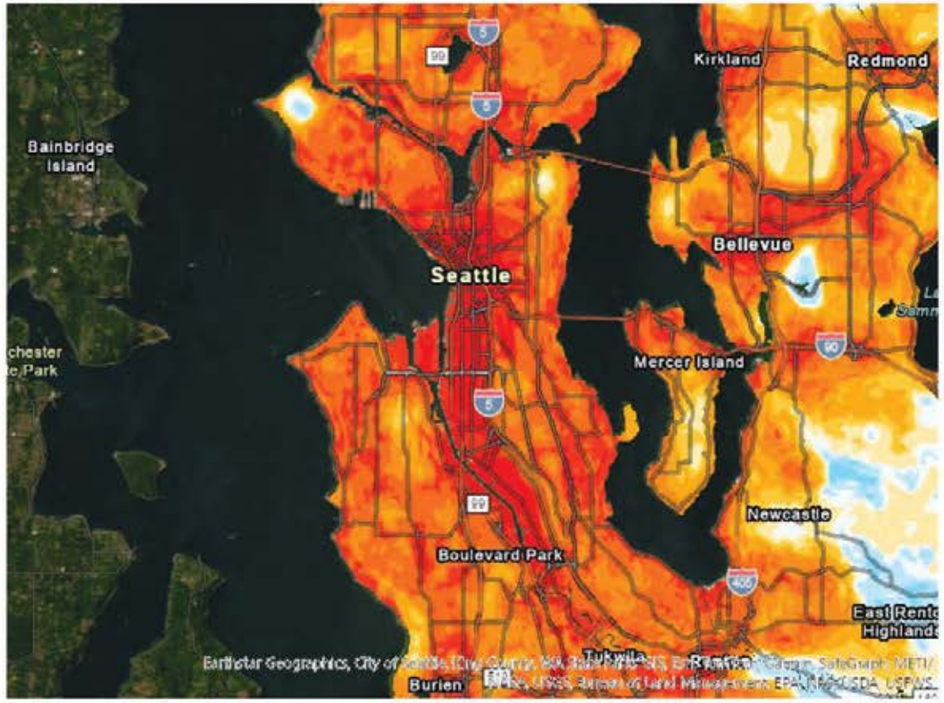
Georgetown has some of the lowest air and sensory qualities of any neighborhood in Seattle. This is also a place where the Urban Heat Island effect takes a toll on the community throughout the warm summer months, ultimately impacting the community's overall health. This can lead to serious long term health impacts on those living in this area. Along with health hazards, Georgetown is afflicted by significant environmental hazards as well.

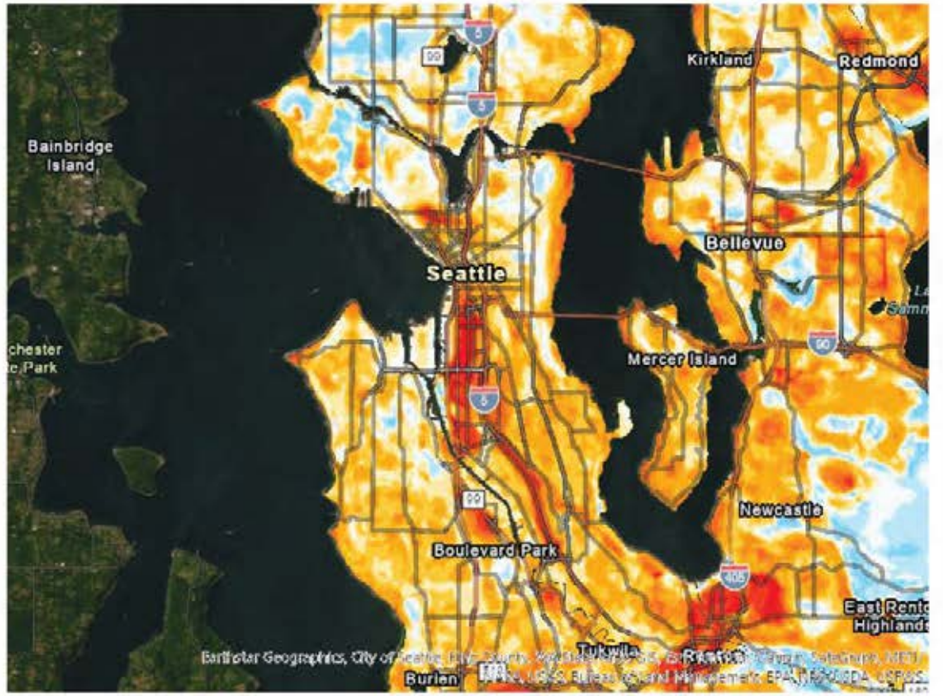
Overall Health of Georgetown

Georgetown residents will likely live 8 years less than the average Seattle resident and has almost 2.5 times the number of toxic dumping sites compared to the rest of Seattle. Along with this, this neighborhood is a key route for moving freight in and out of the port of Seattle. Based on the "Georgetown Open Space Vision Framework" put together by the Seattle Parks Foundation and the Georgetown Community Council, there are 4 categories of particular concern: air, noise, ground, groundwater pollution.

HEALTH INDICATOR CHART
Source: Seattle Parks Foundation, Georgetown Open Space Vision Framework

Environmental Indicator	Inequity	Supporting Data			
		South Park or 98108	vs	Seattle or other	Data Source
Toxic Release Inventory (TRI) Sites (number)	Highest	38 (98108)		0-11 (all other Seattle neighborhoods)	Gould & Cummings (2013)
Air Pollution (annual average concentration of pollutant in human breathing zone, µg/m³)	Among Highest	diesel particulate: 2.3 (98108) benzene 1.7 (98108)		diesel particulate: 1.03 (King County) benzene 1.7 (King County)	Gould & Cummings (2013); data year: 2008
Noise (decibels, dBA)	Much Higher	~65-80 (South Park Community Center)		55-70 (range of WAC 173-60-040 state standards for environmental noise)	Sound level meter collected data during SNE Site Visit on 9/19/16
		observed multiple sources of noise in South Park: cars, trucks, airplanes, industries			SNE Site Visit on 9/9/16





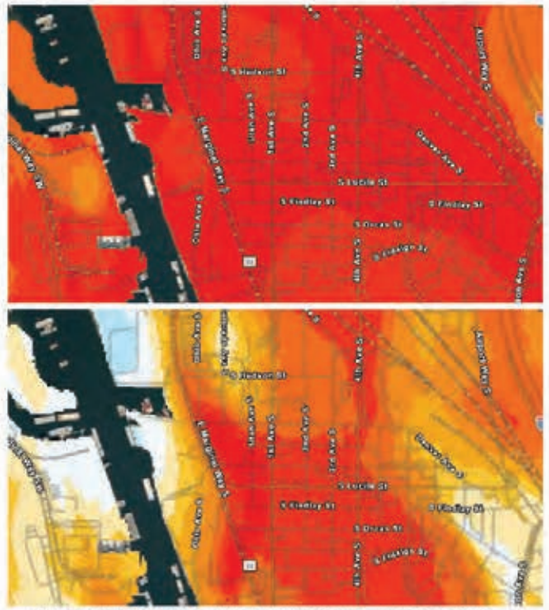
SEATTLE MORNING AND EVENING HEAT INDEX MAPS
Source: ArcGIS Online

Those living in Georgetown will live 8 years less than the average Seattle resident.

Sensory and Air Qualities

Some of the key noises that are heard in Georgetown include overhead planes, large trucks, and trains. We are also seeing particulates dispersed throughout the air, diesel pollution from trucks, and chemicals from local industries in this area. Exposure to such loud sounds and particulates over time can lead to hearing impairment, interference with sleep, cardiovascular and physiological effects, bronchial irritation, and cancer to name a few. The health indicator chart shows Georgetown with the highest air pollution within Seattle. Two particles this study noted include diesel and benzene particulates. A study looking at societal risks throughout Seattle found Georgetown to have a score of 84/100 meaning those living in this area are at "severe risk" to air pollution.

SEISMIC HAZARDS MAP OF SEATTLE
Source: Sound Seismic



THE BEND MORNING AND EVENING HEAT INDEX MAPS
Source: ArcGIS Online

Urban Heat Island Effect

Urban heat island effect occurs in dense urban ares that absorb and trap heat due to impervious surfaces like asphalt and concrete. This can result in higher and longer sustained temperatures in the summer months. The map on the previous page shows that Georgetown retains heat in the evening while other parts of Seattle are able to cool down at night. The maps above highlight The Bend and show the morning heat index to be 63-69 degrees F while the evening heat index is 85-99 degrees F. With increasing global temperatures, this is only going to become more severe over time.

Seismic / Earthquake Risk

Looking at the map on to the left, we can see Georgetown and South Seattle to be in a moderate-high risk zone for earthquakes. A risk study found an earthquake would scale at an 8.81 our of 12 on the Mercalli index. This means residents would feel a light earthquake that could be felt indoors by many, outdoors by few during the day. Dishes, windows, and doors would move a bit and walls would make cracking noises. It is described to feel similar to the sensation of a heavy truck stricking the building and standing motor cars would rock noticeably.

Noise Pollution Expanded

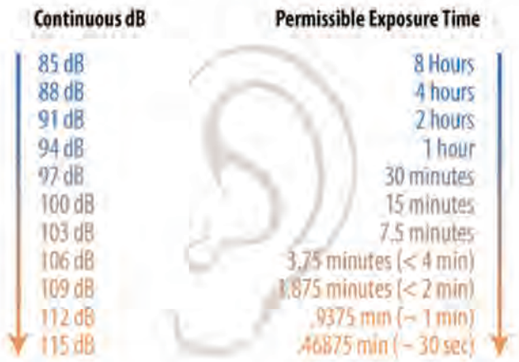
In dense urban, well-tracked areas with freight corridors and industrial zones, the continuous exposure to high noise levels (above 75 dB) poses significant risks to public health. Noise pollution is not only an environmental issue but also a public health concern, and it disproportionately affects vulnerable populations like children, the elderly, and individuals with pre-existing conditions.

Short-Term Risks:

Temporary exposure to noise levels above 85 dB can lead to a temporary threshold shift (a dulling of hearing) and increased stress levels. These short bursts of noise, particularly during the night, can also disrupt sleep patterns, affecting mood, concentration, and overall well-being.

Long-Term Risks:

Long-term exposure to noise levels above 70 dB has been linked to serious health problems, including hypertension, heart disease, stroke, and cognitive decline. Prolonged noise pollution can also exacerbate existing mental health conditions by inducing chronic stress and fatigue. Additionally, children exposed to high levels of noise may experience delayed cognitive development and learning difficulties.



GUIDE TO RECOMMENDED MAXIMUM EXPOSURE TIMES
Source: Know Your Noise / Shout Hearing Healthcare

Health Thresholds for Noise Exposure

LAeq– Equivalent Continuous Sound Level:

The World Health Organization recommends that environmental noise exposure should not exceed 55 dB during the day and 40 dB at night to avoid annoyance, stress, and sleep disruption. Chronic exposure to noise levels above 70 dB over extended periods increases the risk of cardiovascular disease, hypertension, and cognitive impairment in children.

LMax– Maximum Noise Level:

Noise peaks above 85 dB pose a risk of temporary hearing loss if sustained over time. OSHA, for example, limits workplace exposure to 85 dB for 8-hour shifts and mandates hearing protection if noise exceeds that threshold. Intermittent peaks, such as those from freight trucks or horns, can cause annoyance and fatigue, especially at night.

LCpeak– Peak Noise with Low-Frequency:

Noise with low-frequency components above 100 dB (LCpeak) can be especially harmful as it is harder to block and can penetrate walls, causing vibrations that contribute to stress, concentration difficulties, and sleep disturbances. Studies have shown that low-frequency noise, like that from heavy vehicles, can have a stronger psychological impact compared to higher-pitched noise sources.

Site Conditions

The site is bordered by a major freight route (4th Ave S), an Industrial route on the North end (S Dawson St), and is divided by another Industrial route (S Lucile St). Additionally, the site is in close proximity to the Union Pacific Railroad - Argo Yard, which includes a Waste Transfer Station, and is effectively under the flight paths of several airports. The following pages show Sound Pollution Data from the National Transportation Noise Map which shows 24-hour LAeq readings, followed by site-specific field measurements along each of the main intersections.

Noise Pollution

Georgetown at large, and the site more specifically is subjected to a problematic combination of noise pollution from the roadways, the rail network, and aviation (to say nothing of nearby commercial & industrial activity).

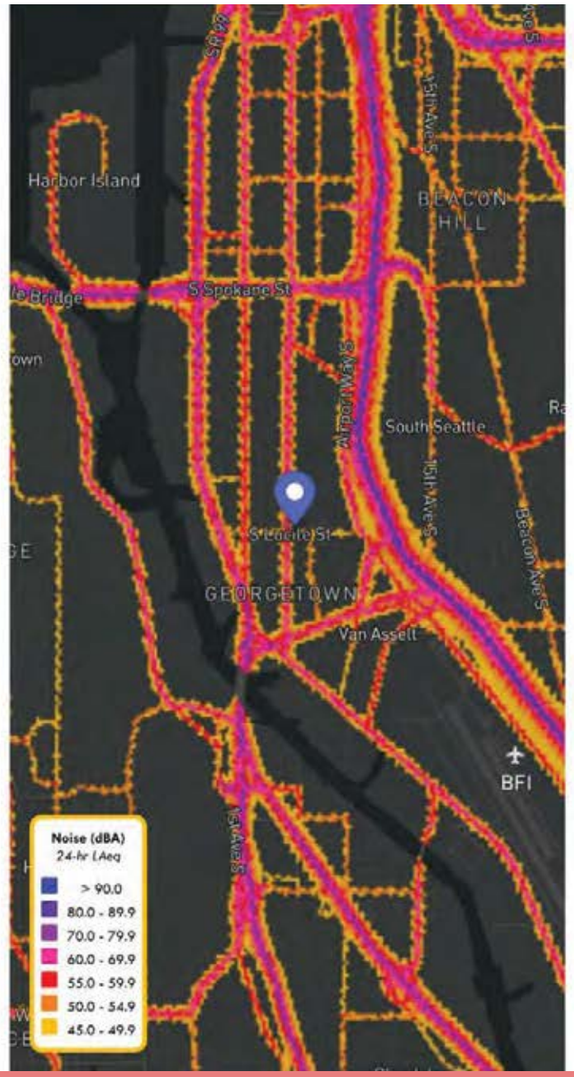
Although hard to discern with the resolution of the data, the Combined Noise Map registers the site as being within the LAeq range 60-70dB. While safe for moderate lengths of time, constant exposure will diminish the health of any residents.

ABOUT THE DATA:

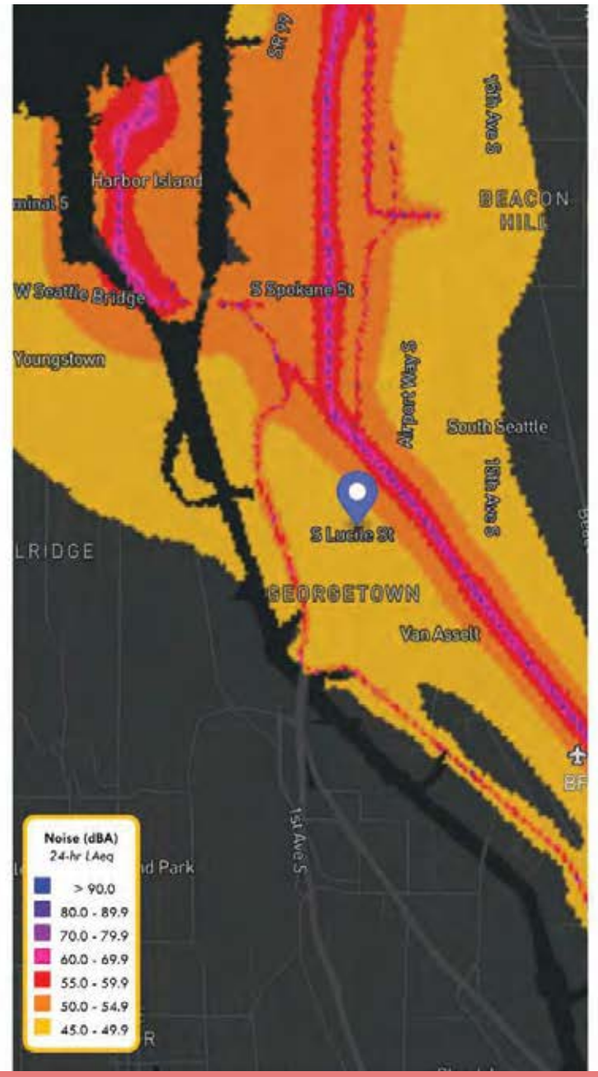
The national transportation noise map was developed using a 24-hr equivalent A-weighted sound level noise metric, denoted by LAeq. The results represent the approximate average noise due to multi-modal transportation sources over a 24-hour period at the receptor locations. The map is intended to facilitate the tracking of trends in transportation-related noise, by mode and collectively.

NATIONAL TRANSPORTATION NOISE MAP 2020
Source: Bureau of Transportation Statistics

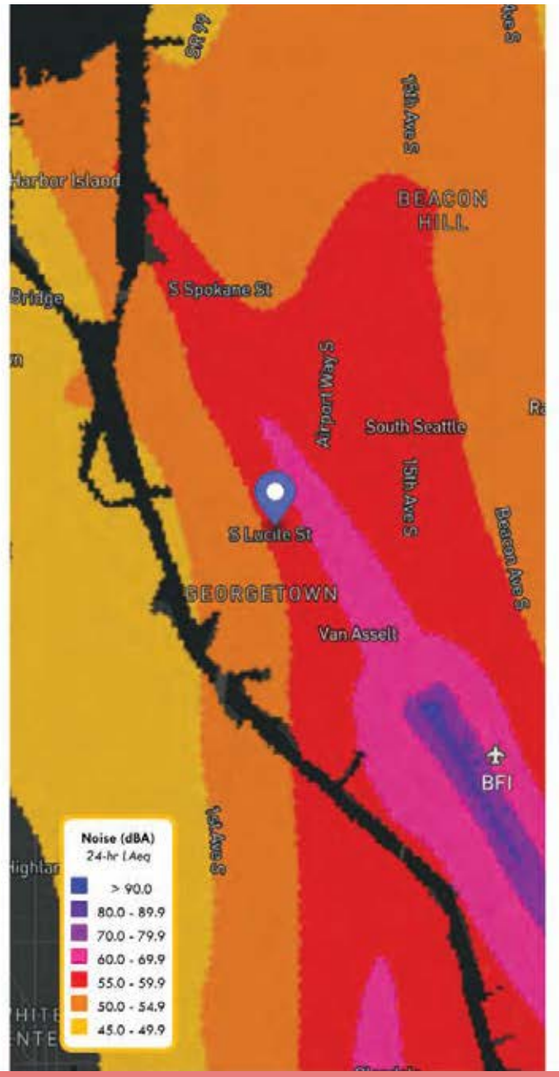
ROAD NOISE POLLUTION



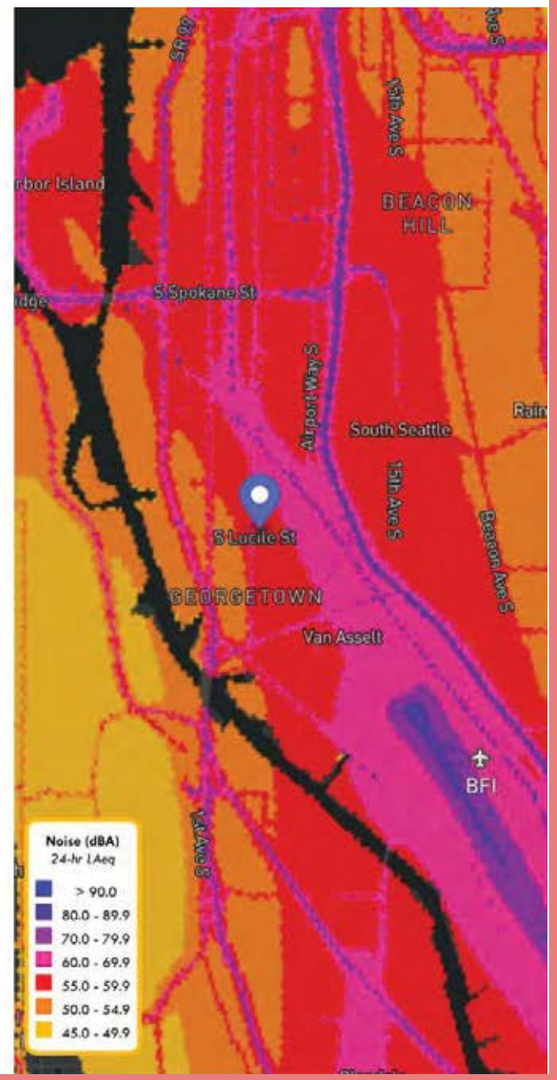
RAIL NOISE POLLUTION



AVIATION NOISE POLLUTION



COMBINED NOISE POLLUTION



4th Ave S & S Dawson St

1 *High chronic noise with frequent loud peaks can cause hearing fatigue, stress, and sleep issues due to low-frequency noise.*

4th Ave S & S Bennett St

2 *Moderate exposure with occasional peaks may increase stress; low-frequency noise adds mild discomfort.*

4th Ave S & S Brandon

3 *Sustained exposure with loud peaks risks hearing fatigue, and low-frequency noise can disrupt concentration or sleep.*

4th Ave S & S Lucile St

4 *High noise levels may cause hearing fatigue and stress, with low-frequency noise posing a potential sleep disturbance risk.*

4th Ave S & S Findlay St

5 *Moderate noise with elevated peaks risks mild hearing fatigue; low-frequency noise may induce stress over time.*

4th Ave S & S Orcas St

6 *Continuous noise can cause fatigue; peaks are moderate but low-frequency sounds may increase stress.*

5th Ave S & S Orcas St

7 *Similar to Site #6, chronic noise may cause stress and fatigue, with occasional disruptions from low-frequency sounds.*

5th Ave S & S Findlay St

8 *Safe levels overall, but low-frequency peaks might still cause mild annoyance for sensitive individuals.*

5th Ave S & S Lucile St

9 *Moderate exposure with occasional loud peaks; low-frequency noise may disrupt sleep or concentration.*

5th Ave S & S Brandon St

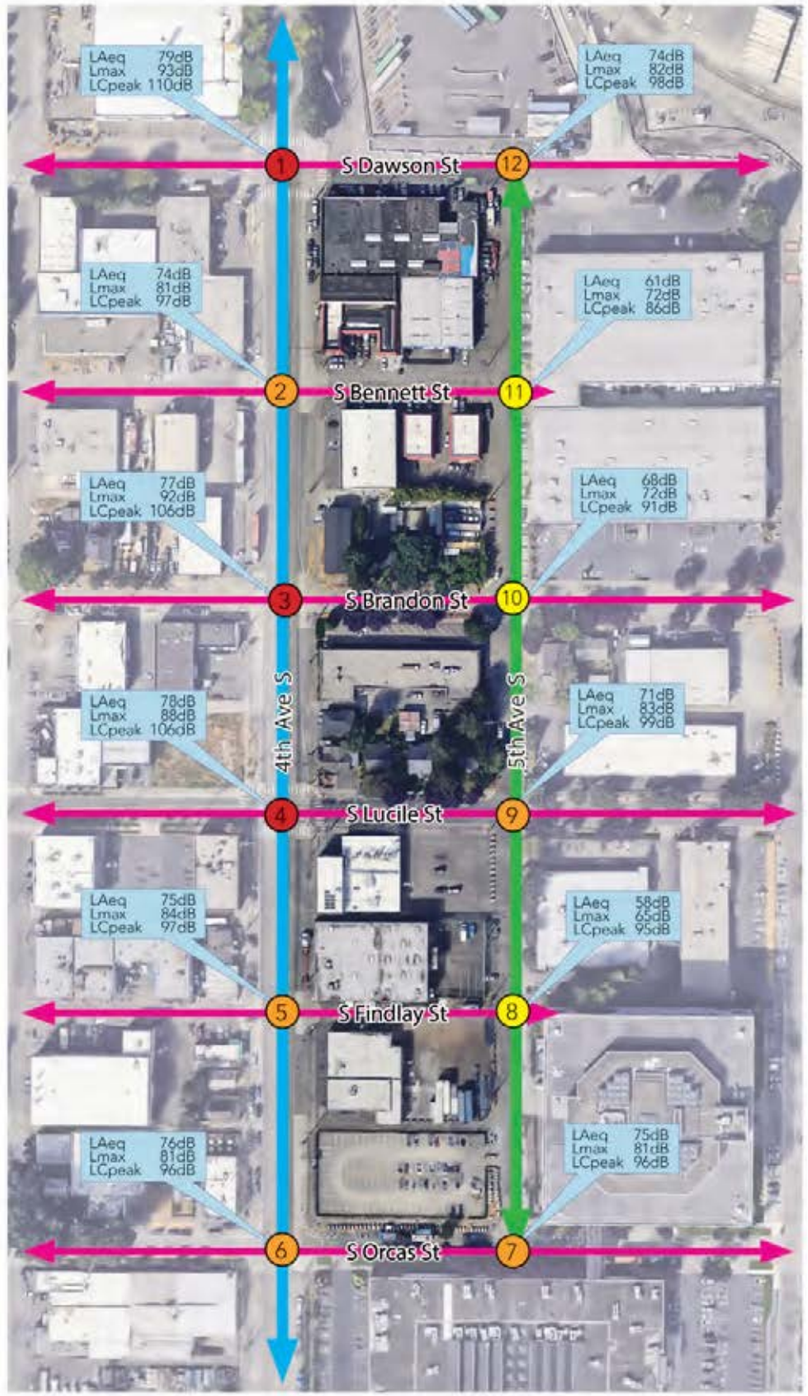
10 *Minimal short-term risk, but long-term exposure could affect sleep and well-being.*

5th Ave S & S Bennett St

11 *Low noise levels with little risk, though occasional peaks might cause mild annoyance.*

5th Ave S & S Dawson St

12 *Moderate noise exposure with potential for fatigue; peaks and low-frequency sounds may cause sleep disruptions.*



Decibel meter readings were taken across these 12 sites to provide a higher resolution picture of the noise pollution on site. These readings were only for a 60-90 second period between 4 & 5 PM on a Friday. Even this small sample is cause for concern.

The primary sources of noise pollution in the area are trucks and freight traffic. Engines, mainly diesel engines, produce low-frequency noise, amplified during acceleration and braking. The air brakes of trucks and sudden stops contribute to sharp noise spikes, reflected in the high LMax and LCpeak values. Airplanes descending toward nearby airports introduce additional overhead noise, which is especially disruptive due to its irregular nature.

Noise is also generated throughout the day from a mix of industrial activity, rail operations at the Union Pacific Yard, and freight trucks, creating a 24-hour noise environment. This combination of steady ambient noise and frequent loud peaks means residents experience both acute hearing risks and chronic health impacts, especially without adequate noise barriers or mitigation measures which each site can be seen to lack.

DECIBEL METER READINGS

Source: Hunter Ottman, Field Data using the National Institute for Occupational Safety and Health (NIOSH) Sound Level Meter App

Topography and Hydrology

An insulated floodplain

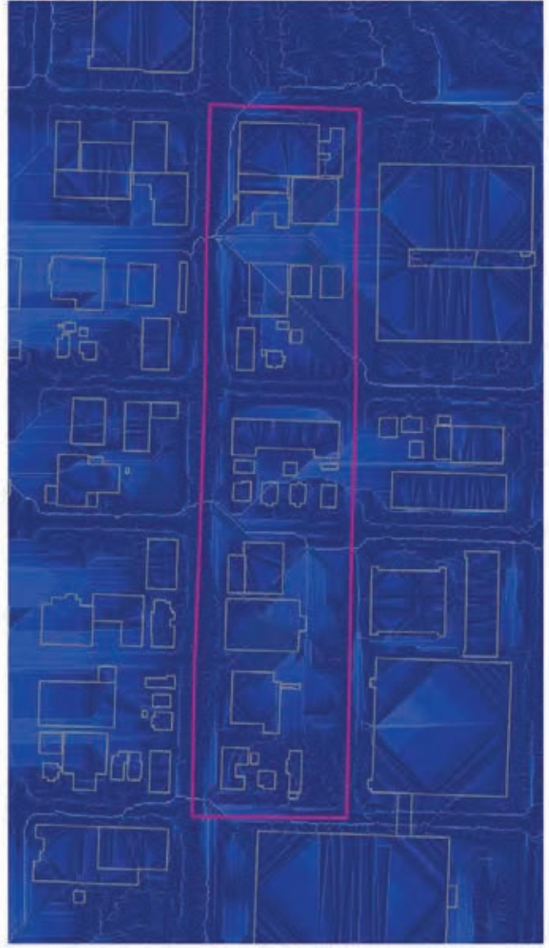
Georgetown is located on the Northeast shore of the Duwamish River, and in the historic floodplain. The topography and hydrological systems of the area can and do directly impact both health and safety in the area. The flat, low-elevation nature of the site, which is now largely impermeable, makes the area prone to flooding during heavy rain and tidal events, and creates challenges for managing stormwater runoff and groundwater levels.

Coupled with the high water table, there is a limited capacity for water to naturally infiltrate into the soil, which can cause groundwater to rise closer to or above the surface during heavy rains or high river flows, overwhelming wastewater systems and increasing the chance of combined sewer overflows (CSOs). This flood risk is exacerbated during storm surges and king tides, which can push saltwater inland and damage infrastructure (e.g., wastewater treatment facilities) that is already vulnerable in the face of by climate change induced sea level rise and increased storm intensity.

Prolonged flooding and poor drainage can result in mold growth, vector-borne diseases, and increased exposure to contaminants from past industrial activities. As part of mitigation efforts, Georgetown is home to the Georgetown Wet Weather Treatment Station, which treats stormwater to protect both residents and the Duwamish River from pollution during heavy rain events. However, residents remain vulnerable to flood-related health risks and infrastructure challenges without further investments in flood management systems and climate adaptation strategies. The high levels of soil and groundwater contamination also limit certain Green Stormwater Infrastructure interventions from being fully utilized.

Waterflow Analysis

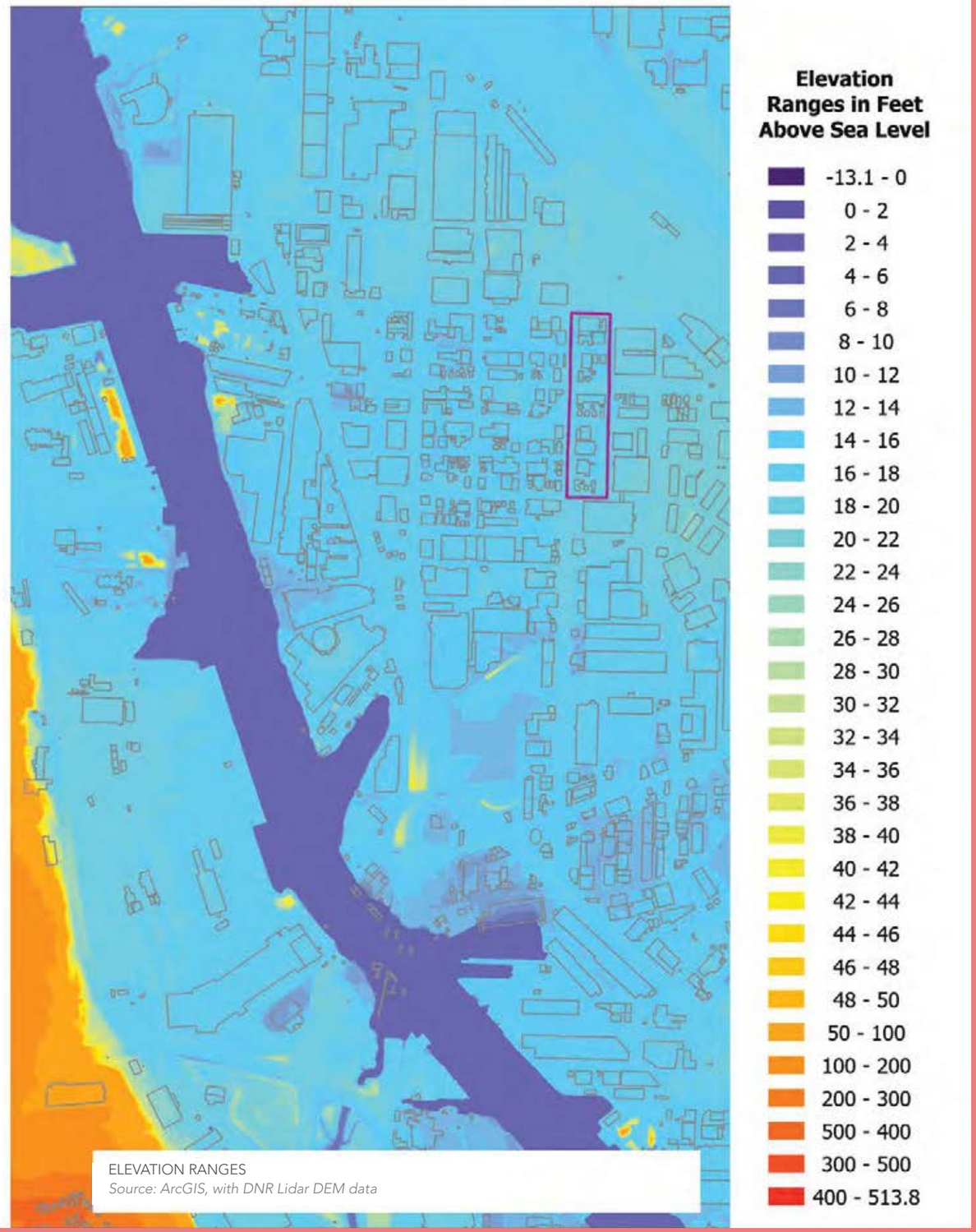
This map shows how surface water moves and accumulates across the site based on elevation data. Lighter colors on the map indicate higher water accumulation, highlighting areas where water pools and flows more intensely, such as low points or flood-prone zones. Darker colors represent areas with less water accumulation. The units are relative water concentration per pixel, showing which areas receive the most runoff. This can be used to determine where runoff is coming from and should be diverted to.



ESTIMATED SURFACE WATERFLOW
Source: ArcGIS, with DNR Lidar DEM data

Elevation

While the site is about 14-18 feet above sea level, the topography of the area provides hardly any natural barrier to storm-surge related flooding. This map illustrates the uniformity in elevation of the floodplain and absentee of barriers for catastrophic events.



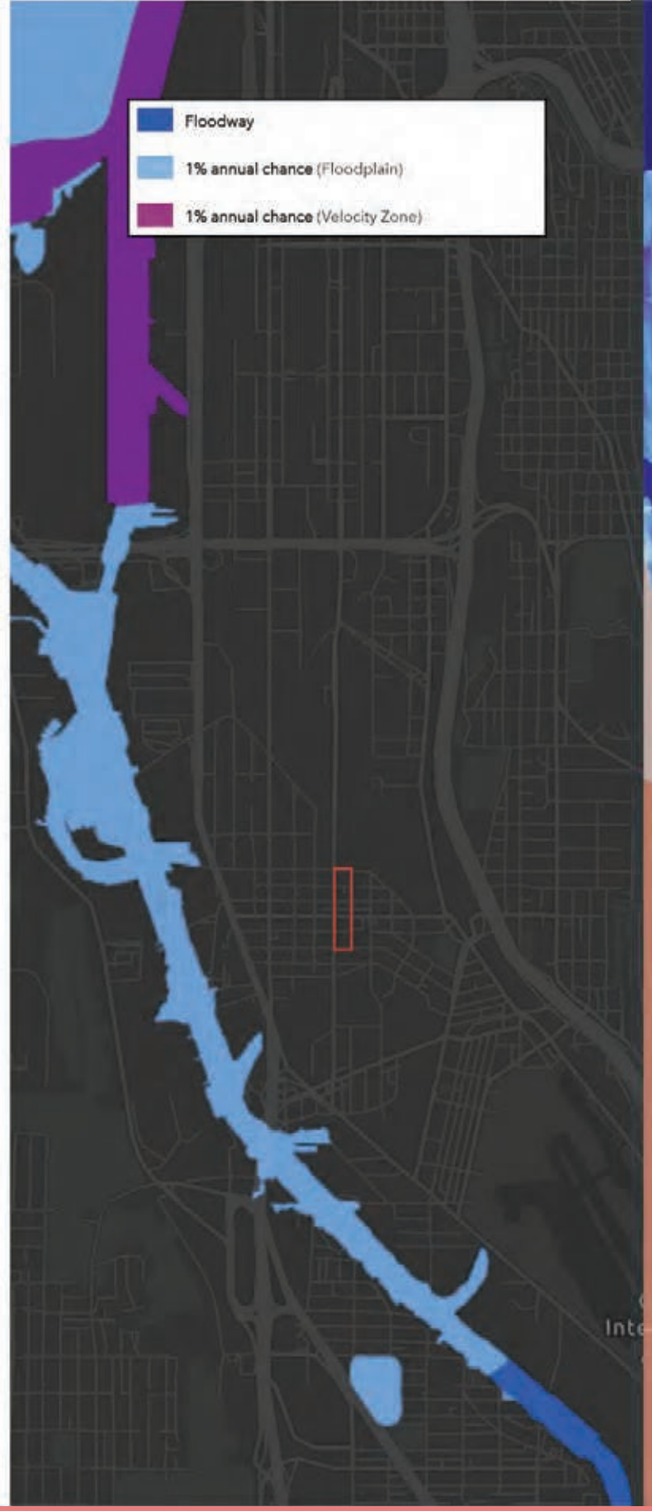
ELEVATION RANGES
Source: ArcGIS, with DNR Lidar DEM data

Flood risk

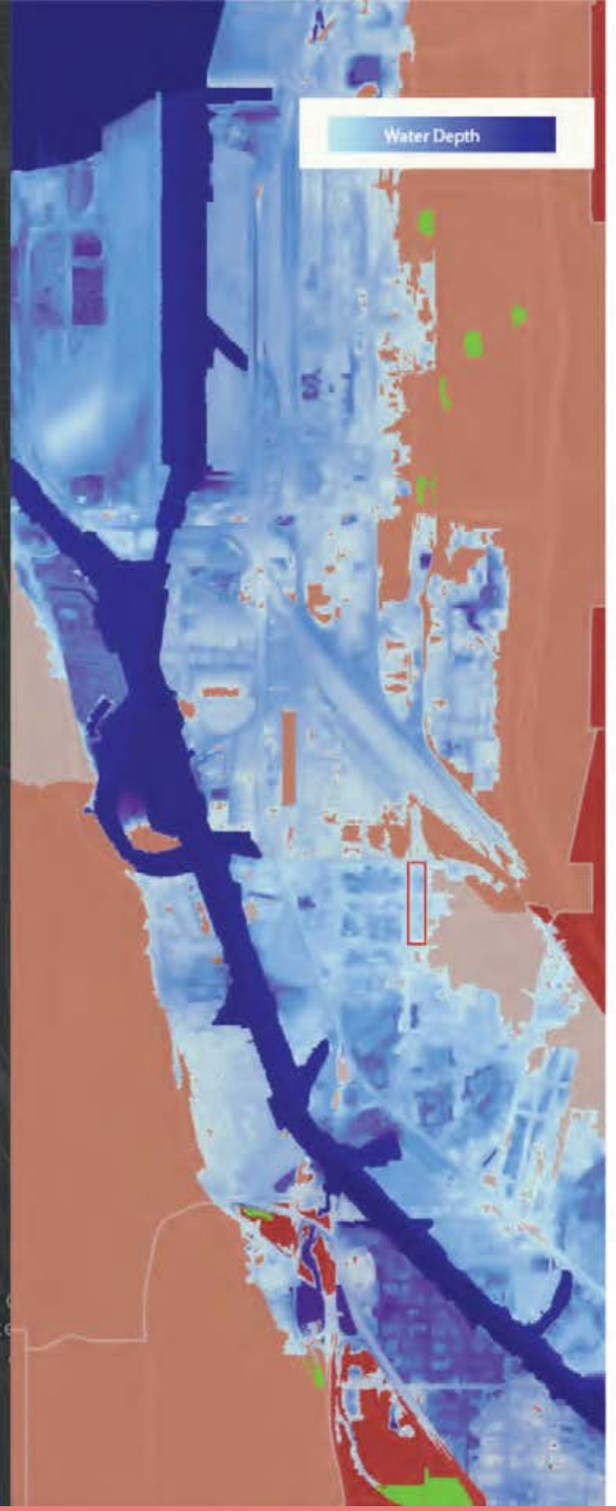
A 100-year and 500-year flood classifications are part of the National Flood Insurance Program (NFIP), are based on statistical models that evaluate annual peak streamflow data from rivers over time. The maps used to define these zones rely on topography, historical streamflow data, and drainage models, meaning they assess how water behaves across elevations but do not fully account for future climate variability or infrastructure capacity issues.

Although the site is not included in either the 100-year or 500-year flood zones, this does not eliminate its flood risk. Georgetown sits on the former floodplain of the Duwamish River, a historically low-lying area now vulnerable to secondary flooding risks. The high water table limits the soil's ability to absorb water, increasing the chance of surface pooling and localized flooding during heavy rains. Moreover, Georgetown's proximity to the Duwamish River and aging stormwater infrastructure makes it prone failures with the combined sewer overflows (CSOs) during storms, which could release contaminated water into streets and homes.

From a health and safety perspective, even areas outside designated flood zones can experience significant impacts during extreme weather events. Climate change is expected to bring more frequent heavy rainfall events, higher tides, and storm surges, which could overwhelm the neighborhood's drainage systems and expose residents to pathogens, toxic runoff, and mold from stagnant water. Flood events can also disrupt transportation, power, and emergency services, compounding risks for residents and businesses, and the development must plan beyond traditional flood maps, focusing on stormwater management upgrades, green infrastructure, and emergency preparedness measures.



100-YEAR FLOOD EVENT PROJECTION
Source: King County Flood Risk iMap Viewer

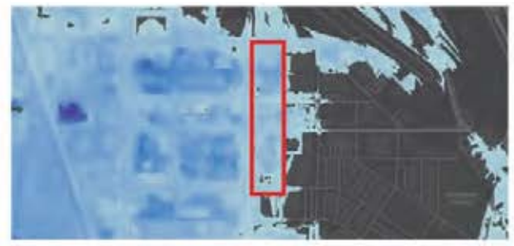


Sea level rise projections

Based on NOAA's sea level rise projections, 7 feet of sea level rise could occur by 2100 under high-emission scenarios. While the site in may not be directly submerged for quite some time, the broader area faces serious direct and indirect threats. As sea levels rise, the water table will rise, reducing the ground's ability to absorb rainfall and leading to frequent surface water pooling. This could overwhelm existing stormwater systems, especially during heavy rain or high-tide events, increasing the likelihood of localized flooding even without direct inundation.

Storm surges will push water further inland, magnifying flood risks during extreme weather. When combined with Georgetown's aging infrastructure, this could result in more combined sewer overflows (CSOs), where the untreated sewage and stormwater are released into the Duwamish River. The site will experience recurrent water-logging and heightened risks of contaminated runoff spreading through low-lying areas. Even if the site itself stays dry, disruptions to freight corridors and critical infrastructure could limit access to essential services, compounding the public health risks for the neighborhood. The development should plane accordingly, and could reduce the risk to people and important equipment by creating a flood-able ground floor. Other infrastructural investments must be made into the area at large in order to protect the communities and industries that are already there and those that will come to occupy the area moving forward.

SEA LEVEL RISE AT 10-FT PROJECTIONS
Source: NOAA Sea Level Rise Viewer



People, Neighborhood, + Culture

Georgetown Community, Present and Future

DAVIEN GRAHAM +
KAYLIE TRESKIN

Key Takeaways:

- Georgetown is an industrial neighborhood that is home to **artists, designers, brewers, winemakers, and restaurants**
- It is the o**ldest community in Seattle**, as First Nations settlements lived along the Duwamish River in the same location as modern-day Georgetown**. Both the Duwamish and Muckleshoot tribes have ties to the area**
- There are five census tracts in Georgetown and South Park that have **gentrified since 2000**
- Institutions such as Equinox Studios and Marco Polo Bar & Grill provide community cohesion, but there is still a **desire for more community space**
- Neighborhood residents also desire more access to **open space and essential services**

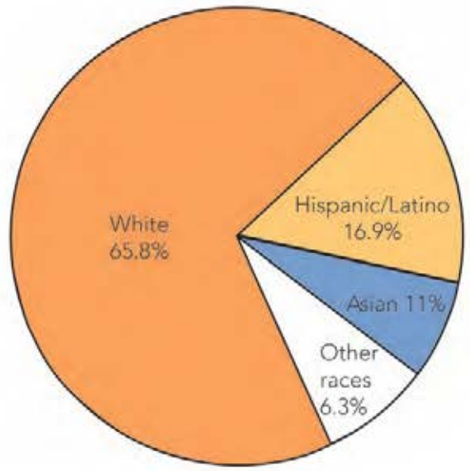
People

Historically, the current site of Georgetown was home to several First Nations villages and significant sites, both from the Duwamish and Muckleshoot. Post-routing of the Duwamish, Georgetown was established east of the river.

HISTORICAL DUWAMISH ROUTE AND NATIVE SETTLEMENTS (19TH CENTURY) VS. GEORGETOWN TODAY
Source: Hidden Hydrology

The community is comprised of 54.9% renters, which is higher than the citywide average. It has a higher percentage of residents who speak languages other than English at home, and lower degree holding rates and median household incomes than other communities. The poverty level is 15.2%, which is higher than the citywide average of 14%.

		Georgetown	Citywide
Renter households	%	54.9	53
People under 18 years of age	%	9.9	15
People age 65 and over	%	5.1	11
Persons of color	%	34.2	33
Language other than English spoken at home	%	25.4	22
High school or higher	%	84.7	93
Bachelor's degree or higher	%	31.8	57
Median household income	$	47,734	65, 277
Unemployed	%	4	7
Population below poverty level		15.2	14



NEIGHBORHOOD NUMBERS + RACIAL BREAKDOWN
Source: City of Seattle Department of Neighborhoods 2009-2013 American Community Survey

LA HACIENDA MOTEL
Source: Google Maps

DOWNTOWN GEORGETOWN ON AIRPORT WAY S.
Source: SDOT Blog

SLIM'S LAST CHANCE
Source: Google Maps

EQUINOX STUDIOS
Source: Wikimedia Commons

SEATTLE ARTIST LEAGUE ART SCHOOL
Source: Google Maps

GEORGETOWN PLAYFIELD
Source: Seattle Parks and Recreation

PLACES THAT CAPTURE GEORGETOWN'S ESSENCE:

From streets like Airport Way S, to community art spaces like Equinox Studios, these are essential to Georgetown

Significant Places

Despite current and predicted future gentrification, neighborhood institutions have stayed in place. Places like the Georgetown Playfield are essential open space in a neighborhood with very little, and the Seattle Artist League School and Equinox Studios are popular organizations that serve the artist community. La Hacienda Motel currently houses residents, Slim's Last Chance is a popular neighborhood bar, and Airport Way South has become Georgetown's trendy area.

Residents' Needs, Preferences, and Ideas for Georgetown

Seattle Department of Neighborhoods Survey

- Business Improvement Area
- Arts and Cultural Spaces
- Community Gathering Spaces

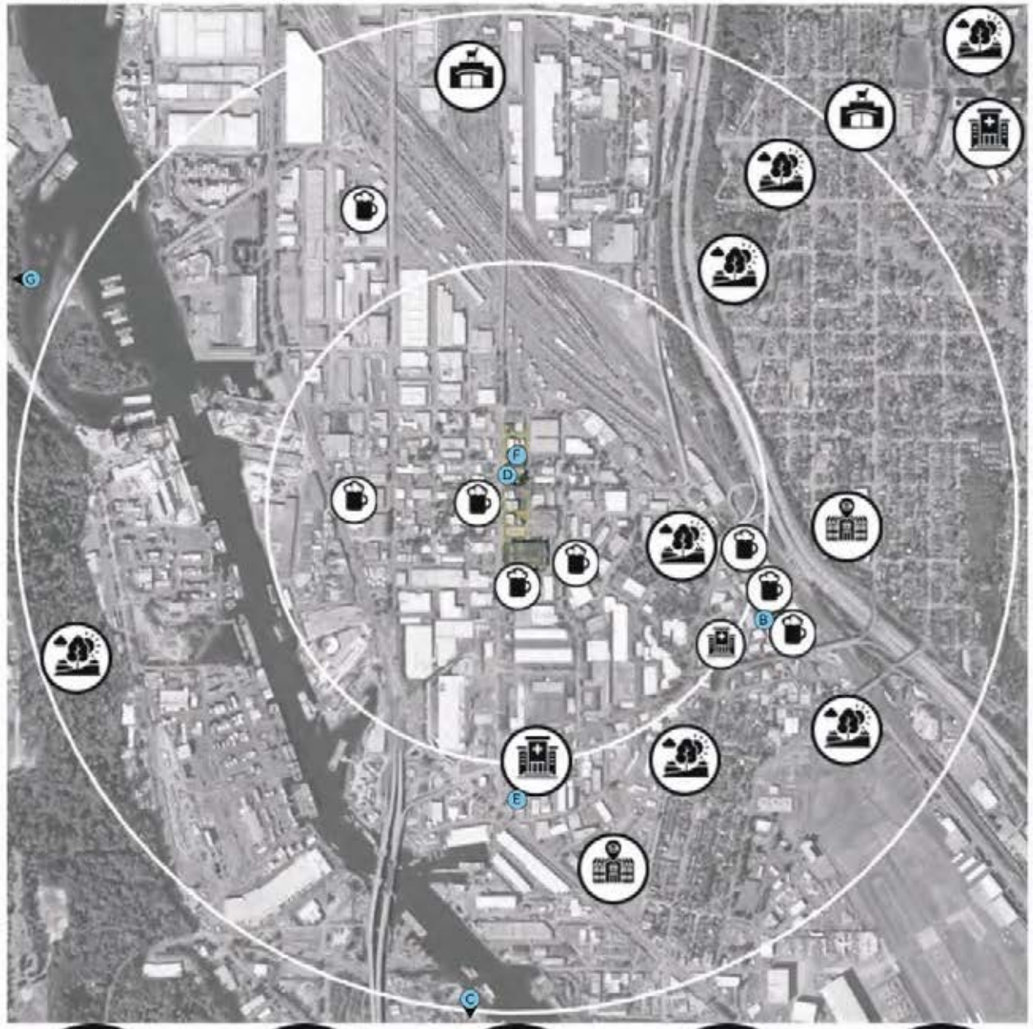
IdeaFest

- Opportunity: P-patches, Green Spaces, Post-Incarceration Skills and Jobs
- Art: Interactive Projects, Soundscapes, Art Classes, Indoor Black Box Theater, Murals, Science + Art Spaces, Interactive Art, Tool Library, Interconnected with Greenspace
- Industry: Businesses reducing air polution, Grocery Store, Farmers Markets, Jobs that align with residents' professions, Marijuana businesses, WELD Seattle (Reintegration for former prisoners and addicts)
- Activities: Montlhly Street Parties, Recreation, Yoga, Flea Market, Glass Blowing, Bike/Skate/Run/Walk Paths, DJ Plaza, Safe Spaces
- Circulation: Wide Sidewalks, Litter Patrol, Crosswalk and Lane Visibility, Bike Lanes, Good Lighting, Pedestrian Crossing Bridges, Path from Corson to River St.
- Streets: Engaging Storefronts, Sidewalk Seating, Noise Buffers, Woonerfs (living streets), Solar Panels, Rainwater Recycling, Trees and Native Plants
- Housing: Post-Incarceration and Halfway Homeless Housing, Live/Work Art Studios, Child and Family Friendly, Taller Buildings to Preserve Open Space
- Environment: Biophilic Design, Carpools, Public Transport, Trees, Wetlands, Sustainable Farming/Eating More Plant-Based, Eliminate Pollution, Vote

Other Neighborhood Needs

- Open Space (30% less than citywide average)
- Access to Grocery Stores (15% of people experience food insecurity), Hospitals, and Schools

Neighborhood Organizations and Amenities



- A Friends of Georgetown History
- B Georgetown Arts & Cultural Center
- C Duwamish River Cleanup Coalition / Duwamish Valley Youth Corps
- D Dead Baby Bicycle Club
- E Equinox Studios
- F Oasis Outpost - Equinox
- G Duwamish Longhouse & Cultural Center

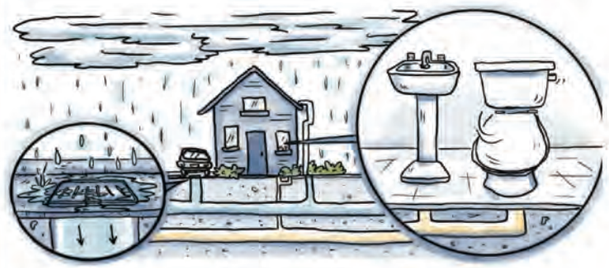
Other organizations include: Georgetown Community Council, Georgetown Merchants Association, Georgetown Strong

Climate, Energy, + Utilities

TINA LEE + SISKA
FLORENSIA DEWANTI

Key Takeaways:

- Seattle has three sewer types: Combined, Separated, and Partially Separated. The Bend is dominated by **SPU Combined Mainlines** for waste and stormwater
- The Cedar River Watershed provides 70% of the city's drinking water, including for Georgetown
- Two transfer stations (the North Station in Wallingford and the South Station in South Park) process trash, recycling, and compost for Seattle
- Recology's Artist in Residence (AIR) Program allows artists to create using materials from recycling facilities, promoting reuse
- Large demolition projects must assess and salvage reusable materials
- For the Bend, **reusable materials from existing buildings are being salvaged**, with the aim to minimize waste



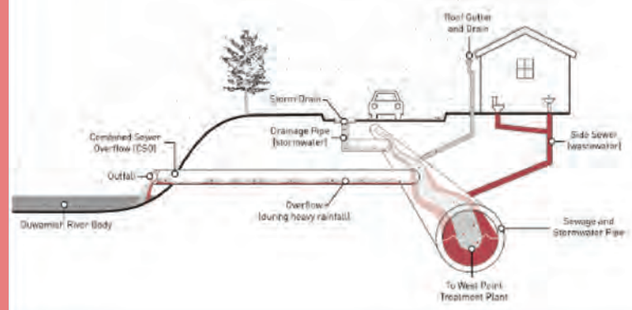
WASTEWATER SYSTEM AND DRAINAGE SYSTEM
Source: SPU via ArcGIS Storymaps

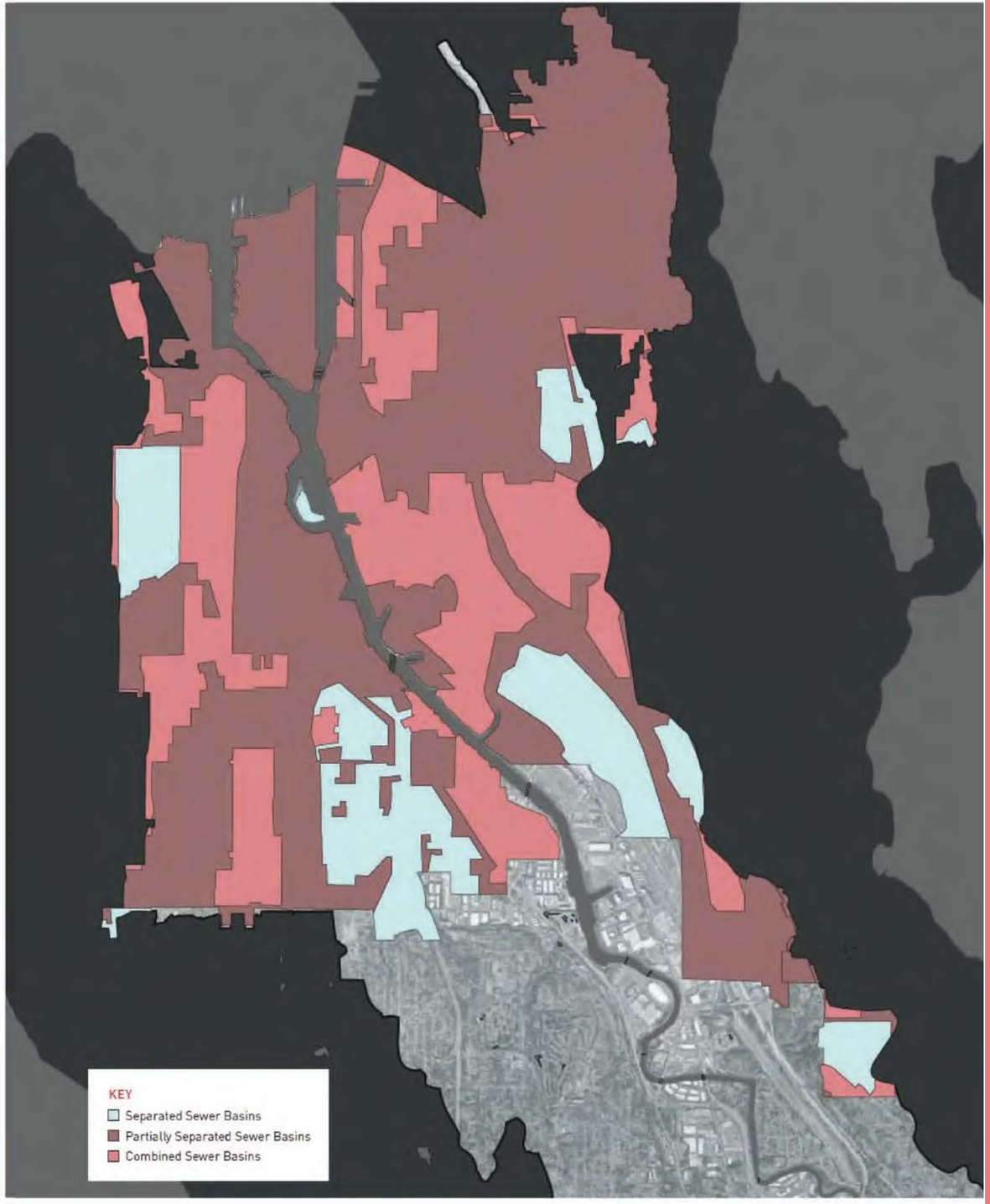
Seattle's Sewer Infrastructure

The wastewater system plays a crucial role in managing everything that flows down our drains and toilets, whether from homes or businesses. Meanwhile, the drainage system is dedicated to handling rainwater—water that pours off roofs, streets, and sidewalks during storms.

Seattle's sewer infrastructure is built around three distinct types of systems: combined, separated, and partially separated. The combined sewer systems, the oldest in the city, have a particular history. In these systems, both wastewater and stormwater travel together through a single network of pipes to treatment plants. However, during periods of heavy rainfall, these pipes can become overwhelmed, leading to what is known as a combined sewer overflow (CSO). When this happens, untreated water spills directly into natural water bodies, creating environmental challenges and potential pollution.

COMBINED SEWER SYSTEM
Source: SPU via ArcGIS Storymaps





SEWER CLASSIFICATION AREA
Source: SPU via ArcGIS Storymaps

"There used to be little flows of water, all these tiny flow paths that gather together, and we took it and put it into pipes and controlled it so we can build."

- Eric Autry, Seattle Public Utilities Spill Response Program Lead

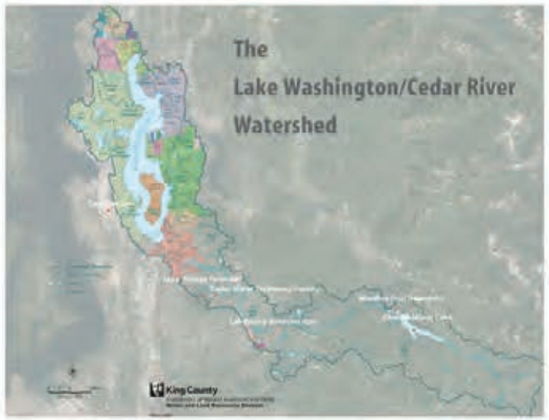
Zooming into the area known as The Bend, the combined mainlines of Seattle Public Utilities (SPU) carry both wastewater and stormwater through pipes that run east to west. During heavy rainfall, these pipes may reach capacity, causing water to overflow at designated relief points. For The Bend, this overflow discharges at an outfall on Brandon Street.

Fortunately, the newly constructed Georgetown Wet Weather Treatment Station nearby can process up to 70 million gallons of this combined rainwater and wastewater daily. This capability helps prevent untreated water from spilling directly into the Duwamish River during storms. However, despite the new station, some online maps may not yet reflect its connection to the existing sewer network.

Potable Water

Seattle Public Utilities serves as a vital source of drinking water for 1.6 million residents in Seattle

MAP OF COMBINED SEWER MAINLINE UNDER THE BEND
Source: Tina Lee



MAP OF CEDAR RIVER WATERSHED
Source: SPU

and the surrounding areas, drawing primarily from the Cedar and Tolt watersheds. Of these, the Cedar River Watershed, situated about 35 miles southeast of the city, supplies 70% of Seattle's drinking water, including the neighborhood of Georgetown.

Water from this watershed is gathered through snowmelt and rainfall, which collect in Chester Morse Lake and the Masonry Pool reservoirs. From there, a dam directs the water through two large pipes to a hydroelectric power plant at Cedar Falls, generating electricity for the city. After powering the plant, the water flows back into the river and reaches the Landsburg diversion dam. Here, a portion is directed into pipelines that stretch over seven miles to Lake Youngs Reservoir in Renton. At this stage, the water is pumped to the Cedar Water Treatment Facility, where it undergoes final treatment before being delivered as clean drinking water to Seattle's homes and businesses.

CEDAR RIVER WATERSHED
Source: SPU

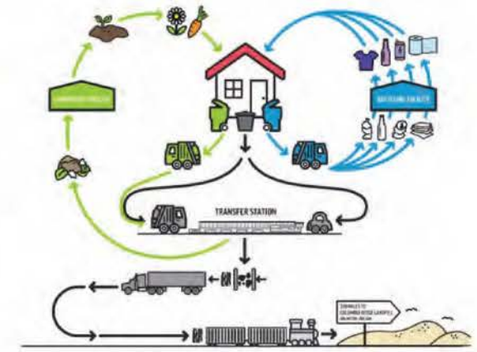
Waste in Seattle

Seattle Public Utilities operates two transfer stations for handling trash, compost, and recyclables: one in Wallingford and another in South Park. In 2023, they processed 437,525 tons of waste. These stations are not landfills—they sort waste before sending it to its next destination.

Construction Demolition Waste Management

Seattle has implemented regulations aimed at reducing waste from construction and demolition projects. Since July 1, 2014, any significant demolition or renovation project valued over $75,000 must undergo a salvage assessment before beginning. This assessment identifies materials that can be salvaged and reused. During the construction process, recyclable materials must be sent to approved facilities, with resources available online to guide contractors to the correct disposal locations. After the project's completion, a Waste Diversion Report is required to ensure compliance. Failure to submit this report results in a $250 fine.

At The Bend, the project team has partnered with Earthwise Salvage to identify reusable



SOLID WASTE SYSTEM DIAGRAM
Source: SPU

materials from five buildings slated for demolition. They are exploring the possibility of hand deconstruction, which could help maximize the recovery of valuable materials, reducing waste and promoting reuse in line with the city's sustainability goals.

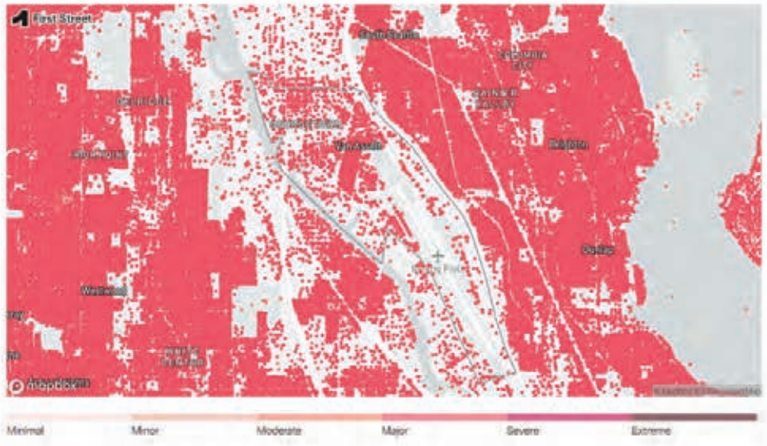
DECONSTRUCTION FOR MATERIAL SALVAGE
Source: Second Use Seattle

RECOLOGY'S ARTIST IN RESIDENCE (AIR) PROGRAM GIVES ARTISTS IN KING COUNTY ACCESS TO MATERIALS FROM RECYCLING FACILITIES TO PROMOTE THE IMPORTANCE OF REPURPOSING MATERIALS
Source: Recology

Moderate
HEAT FACTOR

Heat Factor

Georgetown has moderate risk from heat. A hot day in Georgetown is considered to be any day above a "feels like" temperature of 103°F. Georgetown is expected to experience 7 hot days this year. Due to a changing climate, Georgetown will experience 16 days above 103°F in 30 years, and the increasing needs for cooling is expected to increase Georgetown's electricity usage for cooling purposes by 27.00%.

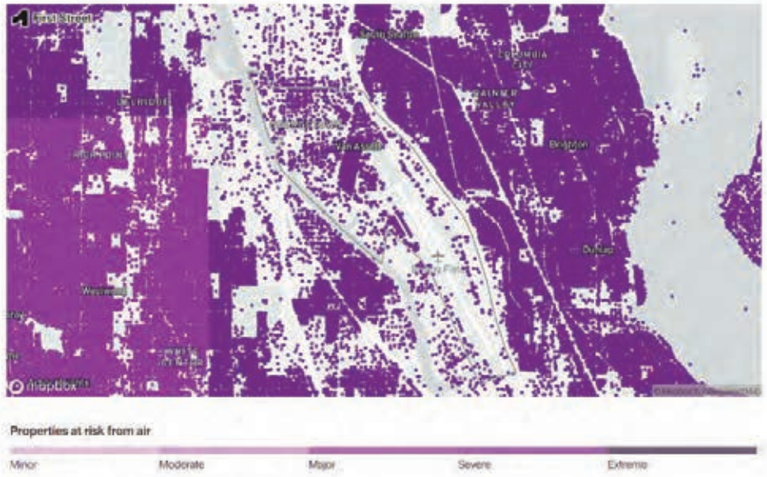


HEAT PATTERNS IN GEORGETOWN
Source: First Street Technology, Inc.

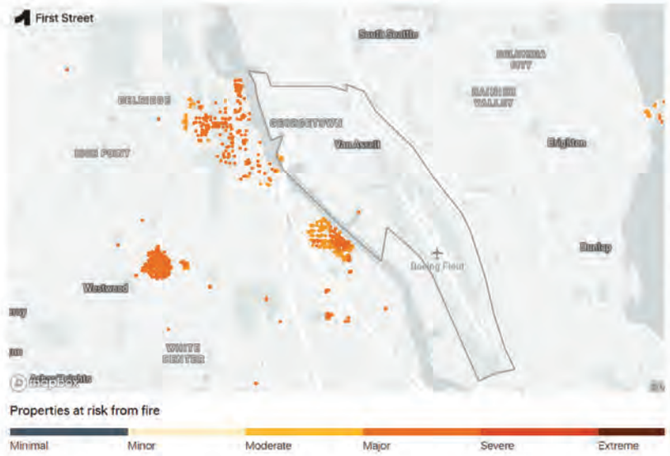
Severe
AIR FACTOR

Air Factor

Georgetown has a severe risk from air quality. The number of poor air quality days with an Air Quality Index AQI > 100 in Georgetown will be higher in 30 years. Based on the the number of poor air quality days, Georgetown has worse air quality than 67% of neighborhoods in Washington.



AIR QUALITY IN GEORGETOWN
Source: First Street Technology, Inc.

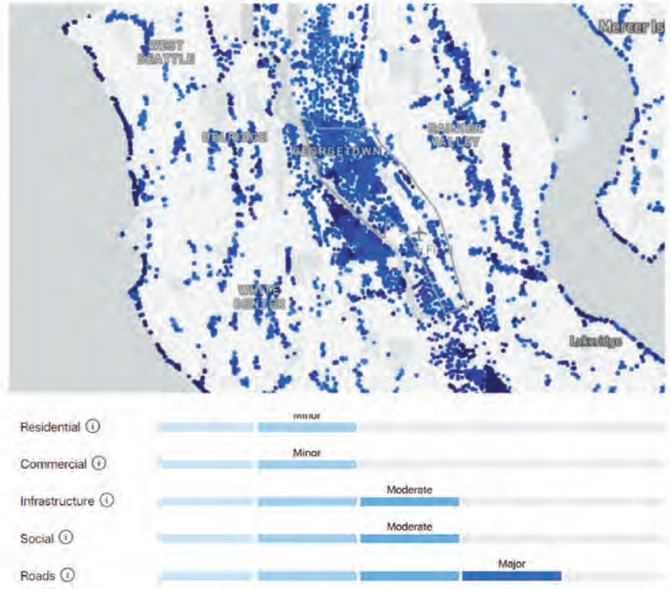


FIRE RISK IN GEORGETOWN
Source: First Street Technology, Inc.

Moderate
FIRE FACTOR

Fire Factor

There are 4 properties in Georgetown that have some risk of being affected by wildfire over the next 30 years. Overall, Georgetown has a moderate risk of wildfire over the next 30 years. This is based on the level of risk the properties face rather than the proportion of properties.



FLOOD RISK IN GEORGETOWN
Source: First Street Technology, Inc.

Moderate
FLOOD FACTOR

Flood Factor

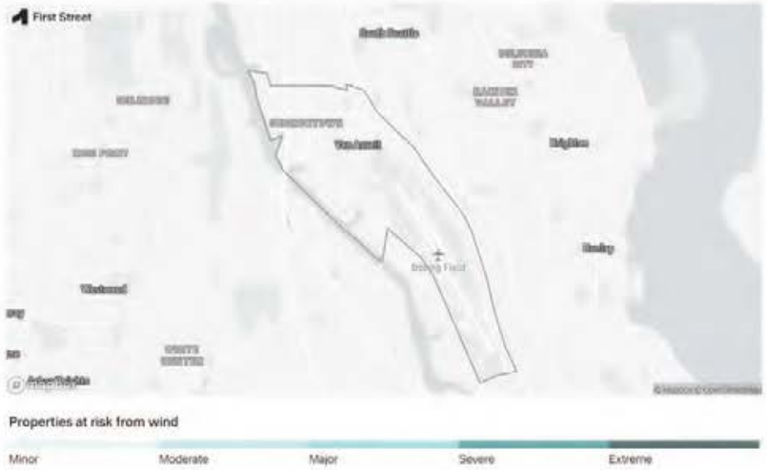
Overall, Georgetown has a moderate risk from flooding. To determine community impact from flooding, the operational risk for today and in 30 years is calculated for all properties in the community based on the property use and flooding depth.

If a low-likelihood storm resulting in severe flooding (a 1-in-100 year flood event), occurred today, it could affect 182 properties in Georgetown. This type of event has a 26% chance of occurring at least once over the life of a 30 year mortgage. 30 years from now, an event of this same likelihood would affect 223 properties due to a changing environment.

Minimal
WIND FACTOR

Wind Factor

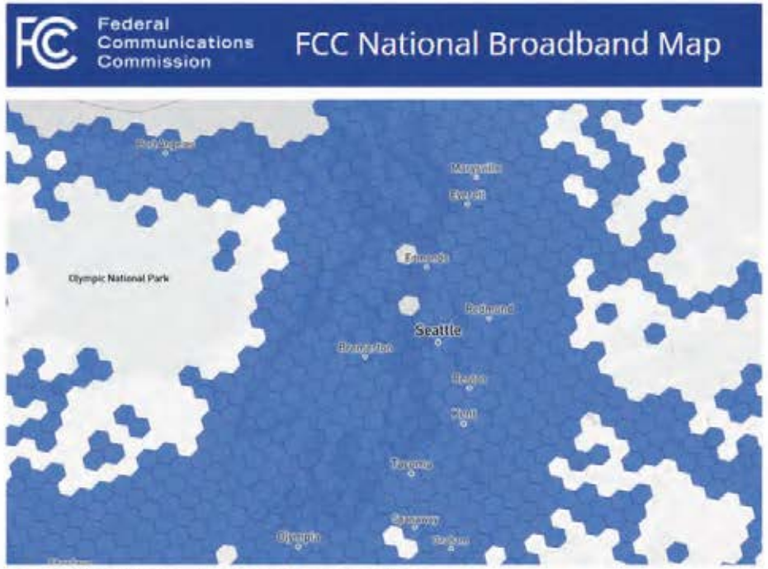
Georgetown has a Minimal Wind Factor™, which means there is a very low likelihood that hurricane, tornado or severe storm winds will impact this area. Risk Factor has found no historic records of tornado events since 1955, or hurricane events since 1851 near Georgetown.



WIND FACTOR IN GEORGETOWN
Source: First Sreet Technology, Inc.

Information and Communication Infrastructure

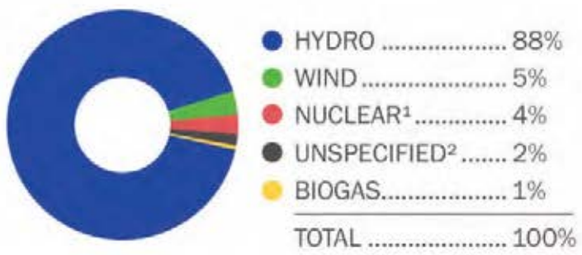
Seattle Information and Communication Technology is mostly provided by gigabit broadband internet service that covers most households in Seattle. The available internet service providers includes Atlas Networks, Astound Broadband, and Google Fiber Webpass. Some fixed wireless connection to residences are provided by Verizon, T-Mobile, and Salmon Bay Wireless. On the other hand, the fiber optics is under development to cover major neighborhood in Seattle.



FCC NATIONAL BROADBAND MAP NATIONWIDE
Source: Federal Communications Commission

POWER RESOURCES IN SEATTLE
Source: Seattle City Light

POWER VENDORS IN SEATTLE
Source: Seattle City Light



POWER RESOURCES MIX IN SEATTLE
Source: Seattle City Light

Power Resources

Over 80% of the power from Seattle City Light is generated from clean, carbon-free hydroelectricity.

About 40% of power comes from the city's fully owned hydroelectric projects on the Skagit and Pend Oreille Rivers. The remaining power is generated from a mix of power sources purchased from the Bonneville Power Administration (BPA) and other renewable sources.

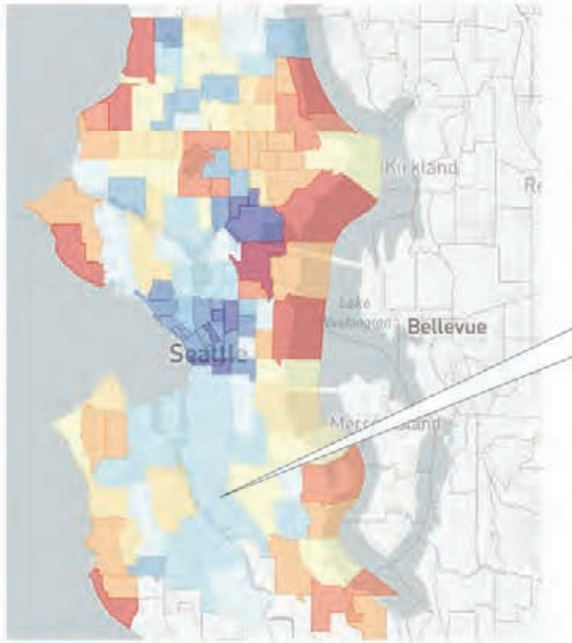
- Power is generated from the dam and powerhouse.
- Substation transformer steps up the voltage for transmission
- Transmission lines carry electricity long distances
- Neighborhood substation transformer steps down voltage
- Distribution lines carry electricity to residents
- Transformers on poles step down electricity before entering residence.
- Service lines deliver power from the pole to the residence

FUTURE PROJECTION OF POWER RESOURCES IN SEATTLE - GREEN UP OPPORTUNITIES
Source: Seattle City Light

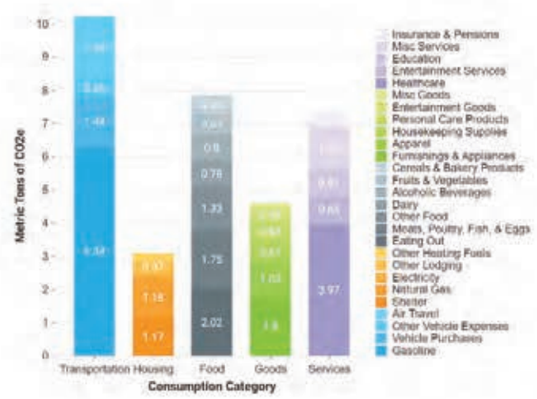
Power Resources : Future Projection

Green Up is a voluntary renewable energy program that allows citizen to support wind, solar and other renewable energy projects that are generating carbon-free energy across the Pacific Northwest.

City Light purchases on behalf of Green Up customers regional renewable energy credits (RECs) and funds local rooftop solar projects hosted by not-for-profits and public organizations like affordable housing, schools, and parks.



CONSUMPTION-BASED EMISSIONS INVENTORY
Source: Seattle Office of Sustainability & Environment



CARBON CONSUMPTION CATEGORIES IN SEATTLE
Source: Seattle Office of Sustainability & Environment

TOTAL EMISSIONS PER HOUSEHOLD IN GEORGETOWN
Source: Seattle Office of Sustainability & Environment

Consumption-Based Emissions

A consumption-based emissions inventory (or 'CBEI'), generated by the Puget Sound Regional Emissions Analysis, is an estimate of the greenhouse gas (GHG) emissions associated with the activity of all residents of a geographic area. It accounts for the emissions associated with all the goods and services consumed within the community, no matter where they are produced. This includes 'embodied' emissions associated with the production, transportation, use, and disposal of goods, food, and services consumed in Seattle. It is equivalent to a personal household carbon footprint estimate, except calculated for all households in a jurisdiction.

As seen above, each household in Georgetown emits about 31.41 metric tons of carbon dioxide equivalent (greenhouse warming potential) per year, with most emissions coming from transportation, followed by food.

Public Space, Ecology, + Biodiversity

MATTHEW JERNIGAN +
JINGYAO WU

KEY TAKEAWAYS:

- Georgetown currently has **few connections to greenspace and wildlife corridors and is dominated by hardscape**, but there are some planned park and trail connections
- While there is little urban agriculture immediately surrounding the site, there is a **P-Patch in the nearby Oxbow Park and several other community gardening organizations** based nearby
- Georgetown has **less than 5% tree canopy** and is on SDOT's priority list for future planting
- The majority of trees on site are **monoculture Purpleleaf Plum street trees**. There are opportunities to plant more diverse species that grow well in harsh urban environments
- There are opportunities to **highlight views of downtown, optimize sun and shade access, and implement green stormwater infrastructure** on site

Open Space + Ecological Connections

The site is surrounded by industrial zoning and a lack of connections to green space and wildlife corridors. The closest green spaces are labeled on the map, including three public parks, one public street end, and the green space for South Seattle Community College. Two major wildlife corridors on the west of the site extend from north to south: the West Duwamis Green Belt and the Duwamish Waterway. On the east, habitat connections is severed by the railway system and Interstate 5. Additional threats and challenges to biodiversity are summarized in the diagram below.

As reported by the environment impact statement from the Industrial and Maritime Strategy for Seattle, the landscape ecology of the greater Duwamish can be broken down to the following:

- Approximately 22% vegetation
- Approximately 68% hardscape
- Approximately 10% water

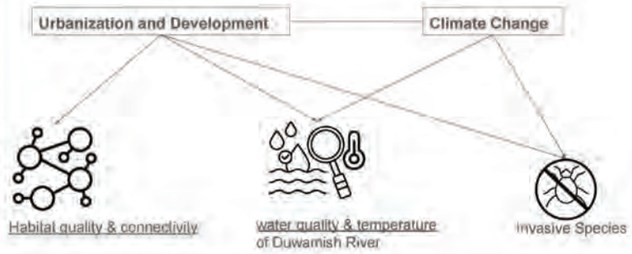
Important Species of the Area

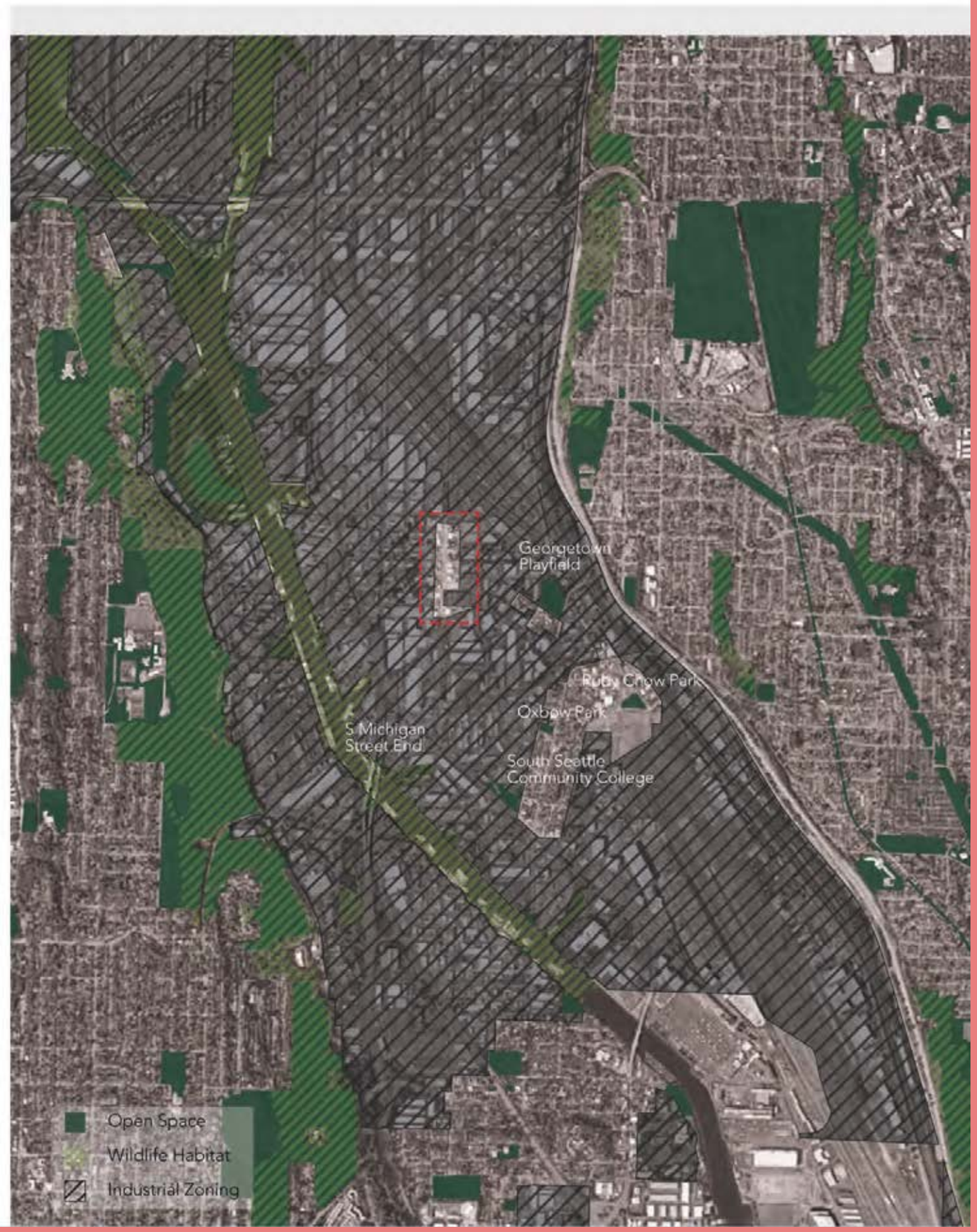
Fish

The Duwamish Waterway provides critical habitat and migration paths for bull trout, Chinook, coho, pink salmon, cokeye, steelhead (O. mykiss), coastal cutthroat. The waterway is also habitat for yellow rockfish and boccaccio.

Birds

Bald eagles (Haliaeetus leucocephalus) forage in the Duwamish River. Purple martin and great blue heron nest and forage in the Duwamish River valley.





PUBLIC SPACE IMPROVEMENT PRIORITY AREAS
Source: Seattle GIS


RUBY CHOW PARK


OXBOW PARK


GEORGETOWN PLAYFIELD

NEAREST EXISTING PUBLIC SPACES
Source: Seattle Parks and Recreation, Foursquare, Everout

Public Space Priority Areas

Aside from three existing public parks, there is a considerable lack of public amenities and equity for the site and the surrounding neighborhood. A shown in the map above, the majority of the greate Duwamish falls within the highest priority need for parks. The Seattle Office of Planning and Community Development has mapped out priority areas for public space improvements based on three criteria:

- **Public space access:** Lack of access to existing public and open space
- **Racial and social equity:** calculated by Seattle's Race and Social Equity Index
- **Park Pressure:** the ratio between neighborhood population and total acres of all public spaces within a 10 minute walk of the neighborhood

NEAREST AGRICULTURAL PROJECTS
Source: Seattle GIS


BEACON HILL FOOD FOREST


MARRA FARMS


NURTURING ROOTS FARM

Sources: Beacon Food Forest, Solid Ground, Nurturing Roots Farm

Local Agriculture

There is a lack of urban agriculture surrounding the site. Aside from one P-Patch located at Oxbow Park, the closest urban agriculture organizations includes Beacon Hill Food Forest, Marra Farms, and Nurturing Roots Farm.

Beacon Hill Food Forest

Volunteer-driven project that transformed a 7-acre plot into an urban food ecosystem. It serves as a community space where people can freely harvest food and learn about sustainable practices. Volunteers have developed a food forest, giving garden, and P-Patch plots.

Marra Farms

8 acres of preserved farmland in South Park, serving a diverse immigrant community. It hosts various groups, including Solid Ground's Giving Garden, which offers food and educational programs for the community. Other members include P-Patchs, Seattle Youth Garden Works, and a Mien Community Garden.

Nurturing Roots Farm

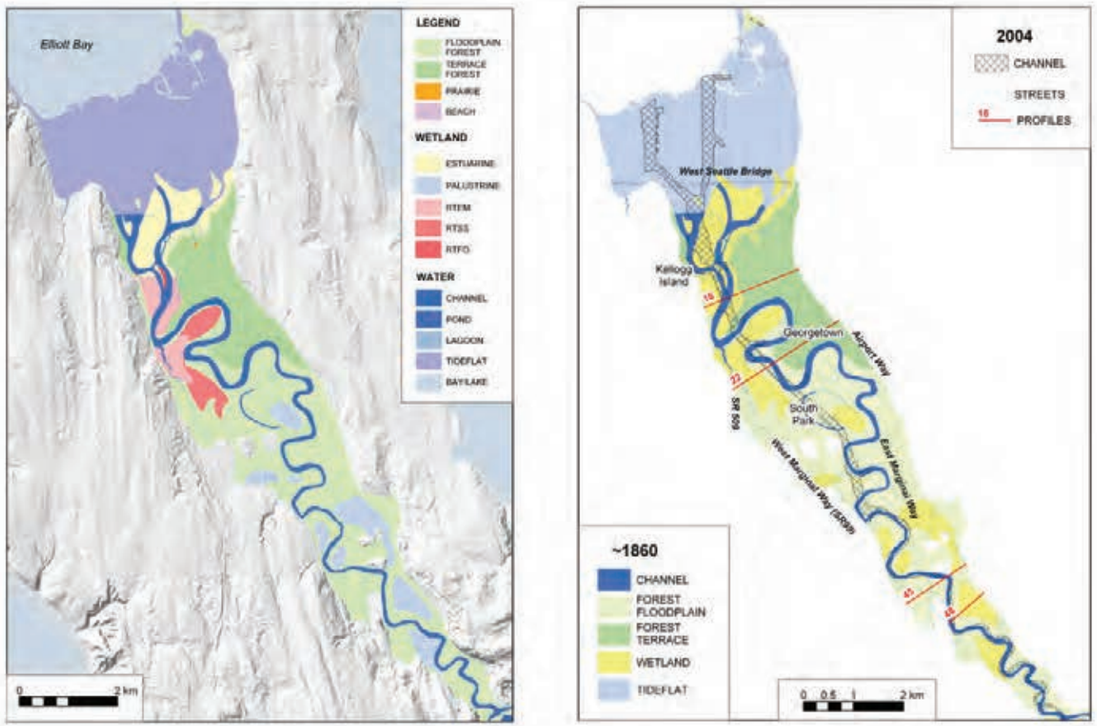
Urban farm founded by Nyema Clark promoting food justice and community empowerment. It focuses on providing fresh, culturally relevant food to underserved communities and offers educational programs on sustainable farming, cooking, and food preservation. Nurturing Roots also donates produce to schools, food banks, and community groups.

Historic Ecology

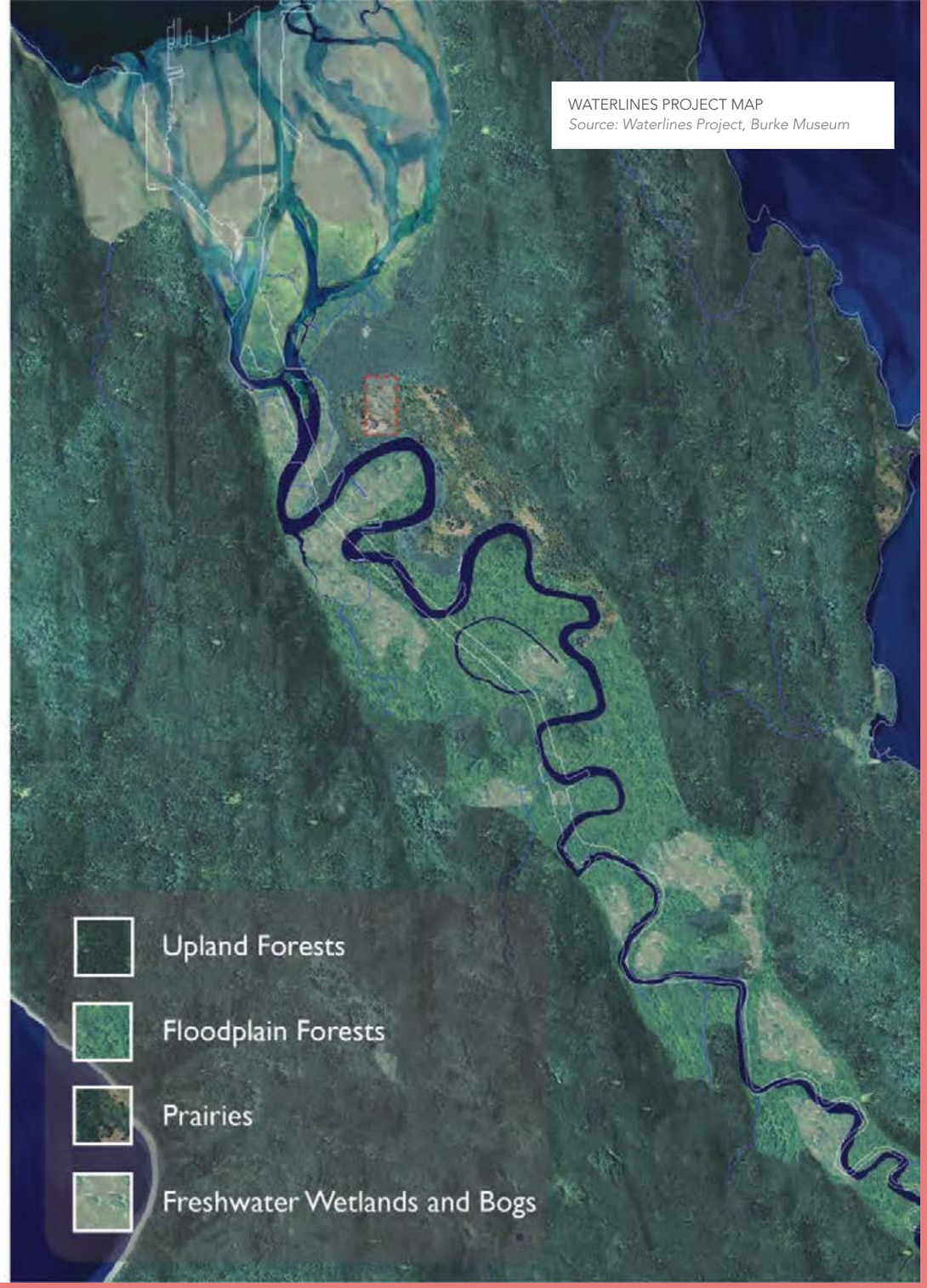
The historic ecology of the site has predominately been characterized by hydrologic and geologic forces. The General Land Office took field notes from a transect that ran from 1st Ave S. and Marginal Way northward. For the area around the site they reported, "land high dry level bottom. Solid sandy, good 2 rate timber-fir and cedar. Undg'th sallal and fern."

Contrasting with the west side of the river, which was low and subject to inundation, the east side was observed to have a high, dry sandy bottom. This is marked as the forest terrace in the maps below. It is thought that an earthquake on Seattle's fault line that occured ~1,150 years ago may have created the elevated terrace along the west side of the lower Duwamish River.

The earthquake along with a series of lahars from Mt. Rainier eruptions created the modern day Duwamish river valley. which was then shaped by the sinous nature of the river system. The general ecologies for the area include forests, prairies, wetlands, and aquatic habitats. However, since settlement much of these ecologies have been erased by the development and industrial uses in the area.



HISTORIC AND MODERN LANDSCAPE CONDITIONS OF THE DUWAMISH RIVER
Source: Historical Aquatic Habitats in the Green and Duwamish River Valleys and the Elliot Bay Nearshore, King County, WA



WATERLINES PROJECT MAP
Source: Waterlines Project, Burke Museum

Historic Ecologies

Upland Forests

The most extensive habitat in the lowlands west of the Cascades, forming a matrix within which other habitats. Dominated by evergreen conifers and deciduous broadleaf trees. Late seral stands are characterized by an abundance of larger coniferous trees, large snags, and much wood debris.

WESTERN HEMLOCK, DOUGLAS FIR, WESTERN RED CEDAR, RED HUCKLEBERRY, BLACKCAP RASPBERRY, TRAILING BLACKBERRY

Source: Waterlines Project

Prairies + Oak Savannas

Typically were found on lowland areas with well-drained soils, often on glacial outwash plains or rolling hills. Vegetation is well adapted to nutrient-poor soils and fire played a critical role in maintaining the grassland structure.

GARRY OAK, CAMAS, BRACKEN FERN, STRAWBERRY, SALAL, BALSAMROOT, SERVICEBERRY

Source: Waterlines Project

Floodplain Forests

Habitat areas near the shoreline, or around lakes, ponds, and backwaters that are >10% vegetated with seasonally flooded forests. Plants are adapted to grow at or near the water table where it can become inundated from spring flooding and high-water events.

RED ALDER, BIGLEAF MAPLE, BLACK COTTONWOOD, STINGING NETTLE, RED ELDERBERRY, OREGON ASH, BITTER CHERRY, BEAKED HAZELNUT

Source: Waterlines Project

Freshwater Wetlands and Bogs

Characterized by proximity to water, often forming in low-lying areas that experience regular flooding. A habitat dominated by emergent vegetation that act as transitional zones.

WAPATO, BULRUSH, CATTAIL, SKUNK CABBAGE, DEVIL'S CLUB, CRANBERRY, SPHAGNUM MOSS, CRAB APPLE

Source: Waterlines Project

Tree Canopy

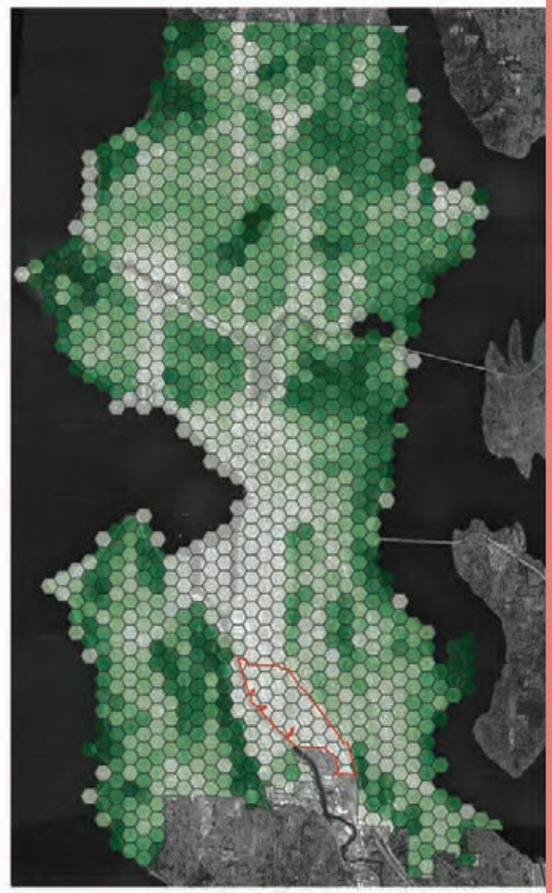
As noted in the visual to the right, the Georgetown neighborhood is located in an area that has the lowest canopy coverage in all of Seattle. According to the 2021 City of Seattle Tree Canopy Assessment, the city's canopy cover is 28.1% and has lost 255 acres of canopy in the last 5 years, the approximate size of Green Lake. Additionally, the neighborhoods most affected by racial and economic injusticies, like Georgetown, have lost more than the citywide average.

Trees provide crucial ecosystems services and serve to buffer urban areas from climate change events, like extreme heat. In addition to providing shade, they improve air quality, provide wildlife habitat, slow stormwater, and sequester carbon in the soil. In order to achieve climate reslience in the future, it is improtant to consider tree canopy and equity.

Tree Planting Priorities

According to SDOT tree planting is done based on several critieria. They prioritize census tracts census tracts that have less than 25% canopy cover (based on the 2021 assessment), and neighborhoods with the "Highest" or "Second Highest" priority in the City's Race and Social Equity (RSE) Index.

SDOT also rotates through Urban Forestry Management Units (MUs) and prioritize Levy-funded tree planting in up to three MUs per year. Another limitation is that some tree planting funds come with requirements for planting along neighborhood greenways or school routes. the organization has to utilize that specific funding only along streets that meet these criteria.



% TREE CANOPY IN SEATTLE BY HECTARE

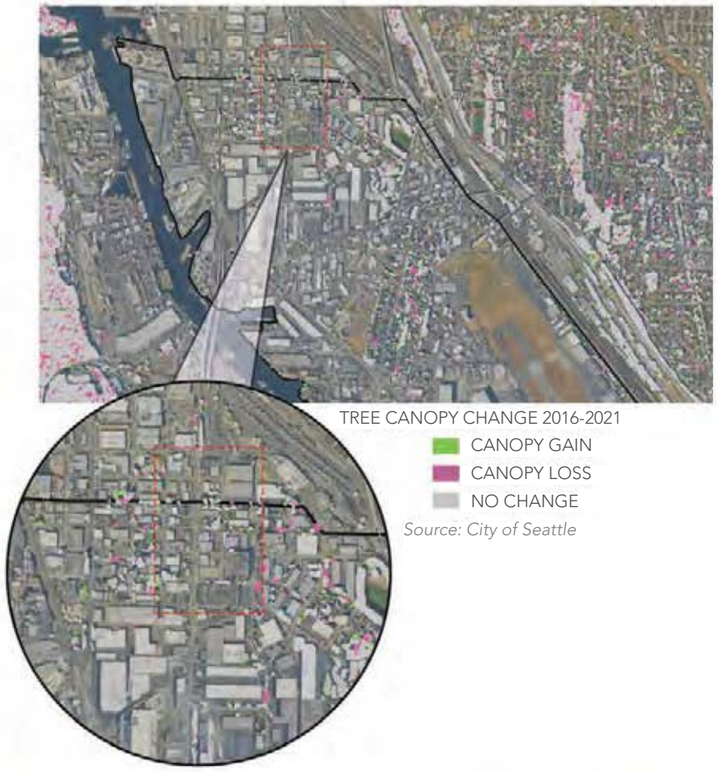
Source: City of Seattle

Georgetown Tree Planting Priorities

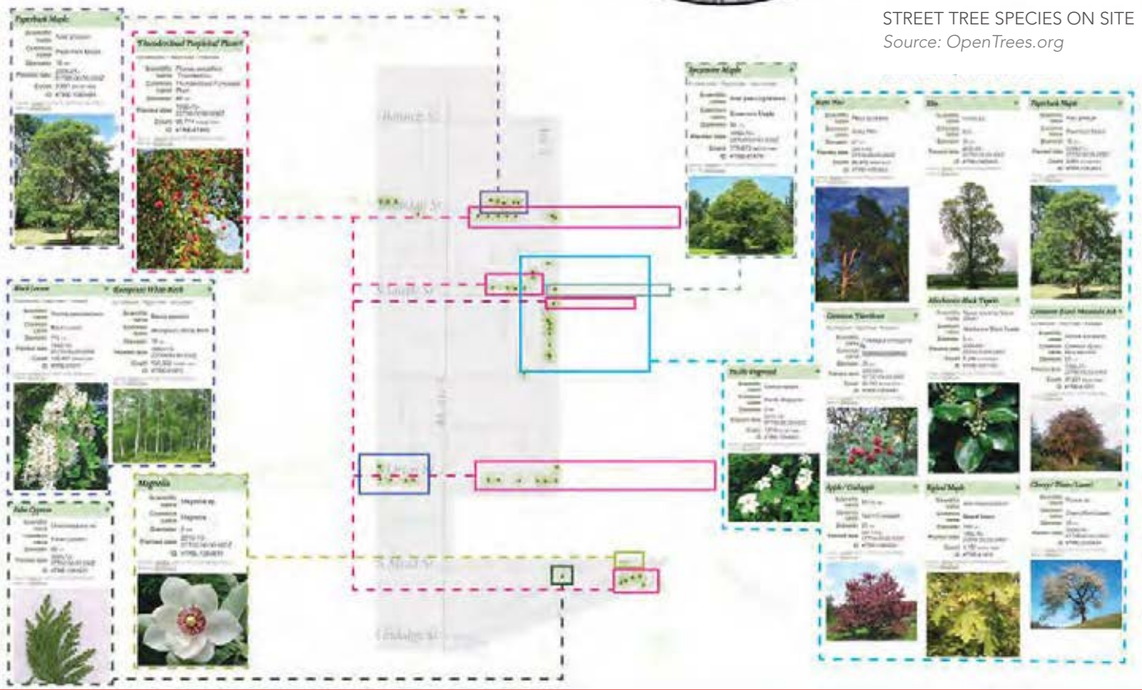
The neighborhood has a low tree canopy (<5%) in the 2021 assessment, and it is classified as "Second Highest" priority in the City's RSE Index, on SDOT's list for future tree planting. However, the neighborhood will need additional public investment to create plantable space; for example, SDOT's minimum planting strip width for trees is 5 feet. If planting strips are not wide enough or have been paved over, there is currently no funding to address these deficiencies. As many of the planting strips within the site fall within this description, it is important to consider required preconditions in order to achieve a higher quality tree canopy

Main tree species on site

Majority trees are monoculture Purpleleaf Plum street trees, show in below diagram as pink dashed lines. The most diversed planting area is at the crossing of 5th Ave & Lucile St, a mix of native and exotic species, shown in blue.



TREE CANOPY CHANGE 2016-2021
Source: City of Seattle



STREET TREE SPECIES ON SITE
Source: OpenTrees.org

A Greener Future: PNW Native Trees that grow well in urban environments

Georgetown is busy, industrial, and disconnected from other Seattle neighborhoods. A thriving tree canopy requires hardy trees that are adaptable to harsh environments and require minimal maintenance. The lists below are a good place to start:

PLANT LIST 1 SUNNY PLACES
Full Sun, Partial Sun, 6' minimum planting width

TREE CANOPY
PLANT LIST 1 (SUNNY PLACES)

BOTANICAL NAME	COMMON NAME	REMARKS
Aesculus californica	California Buckeye	**Adaptable**, prefers well drained soils
Arbutus menziesii	Madrone	**Requires**, coarse, well drained soils, transplant seedlings only
Betula papyrifera	Paper Birch	**Adaptable**, prefers moist, well drained soils
Calocedrus decurrens	Incense Cedar	**Adaptable**, prefers moist to wet soils
Castanopsis chrysophylla	Chinquapin	**Adaptable**, prefers well drained soils in full sun
Chamaecyparis nootkatensis	Alaska Yellow Cedar	**Adaptable**, prefers moist to wet soils
Cornus nuttallii	Pacific Dogwood	**Adaptable**, prefers partial sun and moist soils
Fraxinus latifolia	Oregon Ash	**Adaptable**, prefers highly organic moist soils
Juglans hindsii	California Black Walnut	**Highly Adaptable**
Pinus contorta	Shore Pine, Lodgepole Pine	**Highly Adaptable** *Caution – Aggressive
Pinus monticola	Western White Pine	**Requires**, well drained soils
Pinus ponderosa	Ponderosa Pine	**Adaptable**, prefers well drained soils in full sun
Populus tremuloides	Quaking Aspen	**Adaptable**, prefers well drained soils in full sun – Note: See list 7
Prunus emarginata	Bitter Cherry	**Highly Adaptable**
Pseudotsuga menziesii	Douglas Fir	**Highly Adaptable**
Quercus chrysolepis	Canyon Live Oak	**Adaptable**, prefers well drained soils
Quercus garryana	Garry Oak, Oregon White Oak	**Adaptable**, prefers well drained soils
Quercus kelloggii	California Black Oak	**Adaptable**, prefers well drained soils
Salix lucida ssp. lasiandra	Pacific Willow	**Requires**, moist to wet soils
Salix scouleriana	Scouler's Willow	**Adaptable**, prefers moist soil in full sun, forms thickets
Thuja plicata	Western Red Cedar	**Adaptable**, prefers moist to wet soils

PLANT LIST 2 SHADY PLACES
Shade, Partial Shade, 6' minimum planting width (no supplemental watering needed after establishment)

TREE CANOPY
PLANT LIST 2 (SHADY PLACES)

BOTANICAL NAME	COMMON NAME	REMARKS
Cornus nuttallii	Pacific Dogwood	**Highly Adaptable**
Prunus emarginata	Bitter Cherry	**Highly Adaptable**
Pseudotsuga menziesii	Douglas Fir	**Highly Adaptable**
Taxus brevifolia	Pacific Yew	**Highly Adaptable**, slow growing
Thuja plicata	Western Red Cedar	**Highly Adaptable**
Tsuga heterophylla	Western Hemlock	**Highly Adaptable**, very shade tolerant

PLANT LIST 3 NARROW PLANTING AREAS
Narrow planting areas and all light exposures (no supplemental watering after establishment)

TREE CANOPY
PLANT LIST 3 (NARROW PLANTING AREAS)

BOTANICAL NAME	COMMON NAME	REMARKS
Betula papyrifera	Paper Birch	**Adaptable**, prefers moist well drained soils
Calocedrus decurrens	Incense Cedar	**Adaptable**, prefers moist to wet soils
Cornus nuttallii	Pacific Dogwood	**Highly Adaptable**
Pinus monticola	Western White Pine	**Requires**, good drainage
Prunus emarginata	Bitter Cherry	**Highly Adaptable**
Quercus kelloggii	California Black Oak	**Requires**, deep, well drained soils

PNW NATIVE PLANT LISTS
Source: Native Plants for Urban Areas

Sensory Qualities

Sun/Shade

S. Mead St. is relatively most exposed throughout the day, while 5th Ave & S. Lucile has the most shade. These conditions should be considered when choosing plants as well as in public space design decisions.

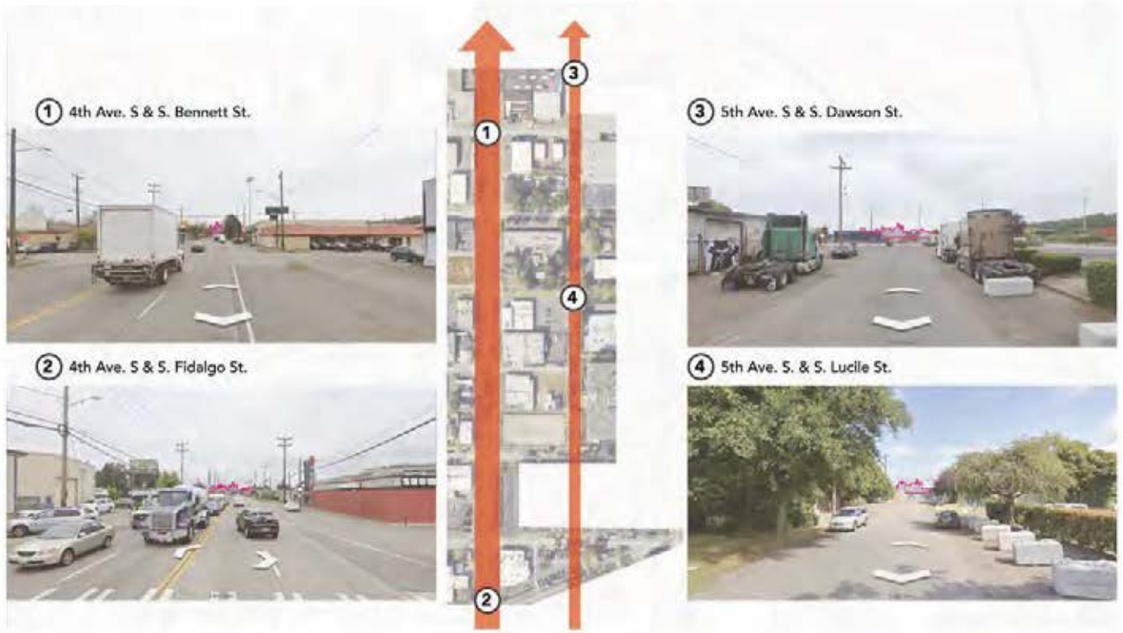
Viewsheds

Current viewsheds are on 4th and 5th Ave; looking north, it is possible to see downtown, highlighted as pink in below diagram.

While the site generally lacks tree canopy, the most dense vegetated area is at 5th Ave & S. Lucile St., marked as number 4 in below diagram.

Traffic is busiest on 4th Ave, contributing to less visible views beyond cars.

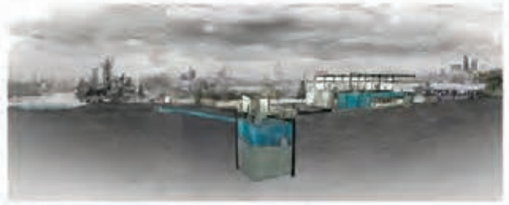
SUN/SHADE ANALYSIS
Source: ShadeMap.app



VIEWSHED ANALYSIS
Source: Google Maps

Green Stormwater Infrastructure (GSI)

As the site is located in a Combined Sewer Area, strategies to prevent pollution should be integrated into the Bend. Located 0.6-mi south of the site, the Georgetown Wet Weather Treatment Station can treat up to 70 million gallons of combined rain and wastewater a day, reducing water pollution and improving aquatic habitat and overall water quality of the Duwamish River. In major weather events, water from the Bend will flow through this station.

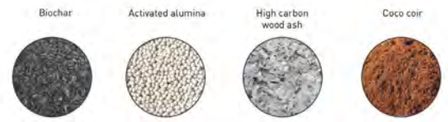


SECTION OF TREATMENT STATION
Source: Berger Partnership

There are many other strategies for on-site water treatment. As infiltration on site is not possible, viable tactics include:

- **Cisterns:** rainwater collection from buildings for use in irrigation and/or toilets
- **Green Roofs:** rainwater capture and filtration, benefits to building cooling and rooftop solar energy collection
- **Buffers:** vegetated zones surrounding highly polluted areas to prevent runoff
- **Bioswales:** vegetated areas around parking lots and roadways to prevent pooling and surface runoff
- **Green streets:** plantings along streets to improve water quality and neighborhood aesthetics
- **Tree retention pits:** tree box technologies treat stormwater from nearby paved areas
- **Green walls:** vegetated walls capture rain water and filter pollutants
- **Phytoremediation:** planting species that uptake pollutants from contaminated soils

The planting palette on site will contribute to the aesthetic character of the site and has the potential to help in efforts to retain water, uptake pollutants, and prevent erosion. Amendments to soil can also remediate soil and filter pollutants.



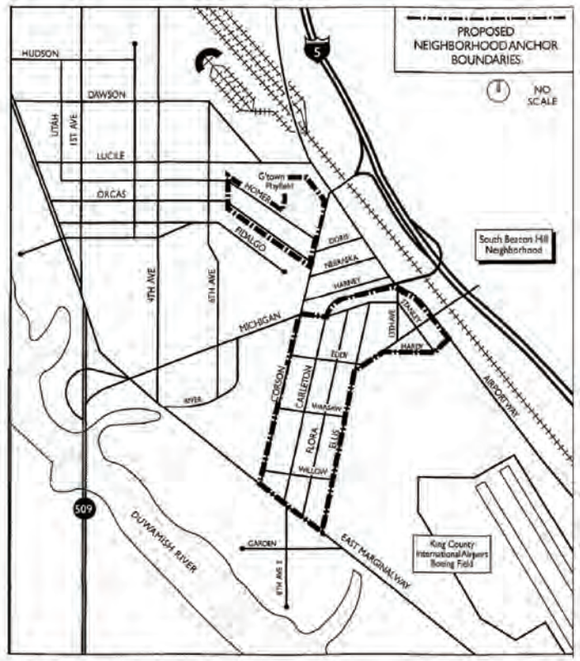
PLANTS AND SOIL FOR POLLUTION PREVENTION
Source: Kat Golladay, Meredith Grupe, Meaghan O'Connor-Lenth, "Preventing Pollution: A Toolkit of Urban Stormwater Design Strategies that Prevent Pollution from Entering the Duwamish River" (Spring 2024 UW MLA Capstone)

Planning Contexts

RUSSELL CORBIN +
ELLEE RUDER

KEY TAKEAWAYS:

- There are existing organizations and efforts in Georgetown that designers could and should collaborate with
- Though the city allows for and is excited about affordable housing development in Georgetown, **few major infrastructure investments are planned** to make the neighborhood more liveable and better connected
- Classified an "urban neighborhood" in the One Seattle Plan, **the Bend site is not planned for major growth**
- The City of Seattle recognizes the importance of industry and freight mobility but is now balancing those interests with pedestrian safety
- The Seattle, Georgetown, and Duwamish climate adaptation plans have goals to **increase tree canopy, alleviate traffic accidents, retain and clean stormwater, and restore the Duwamish Valley**



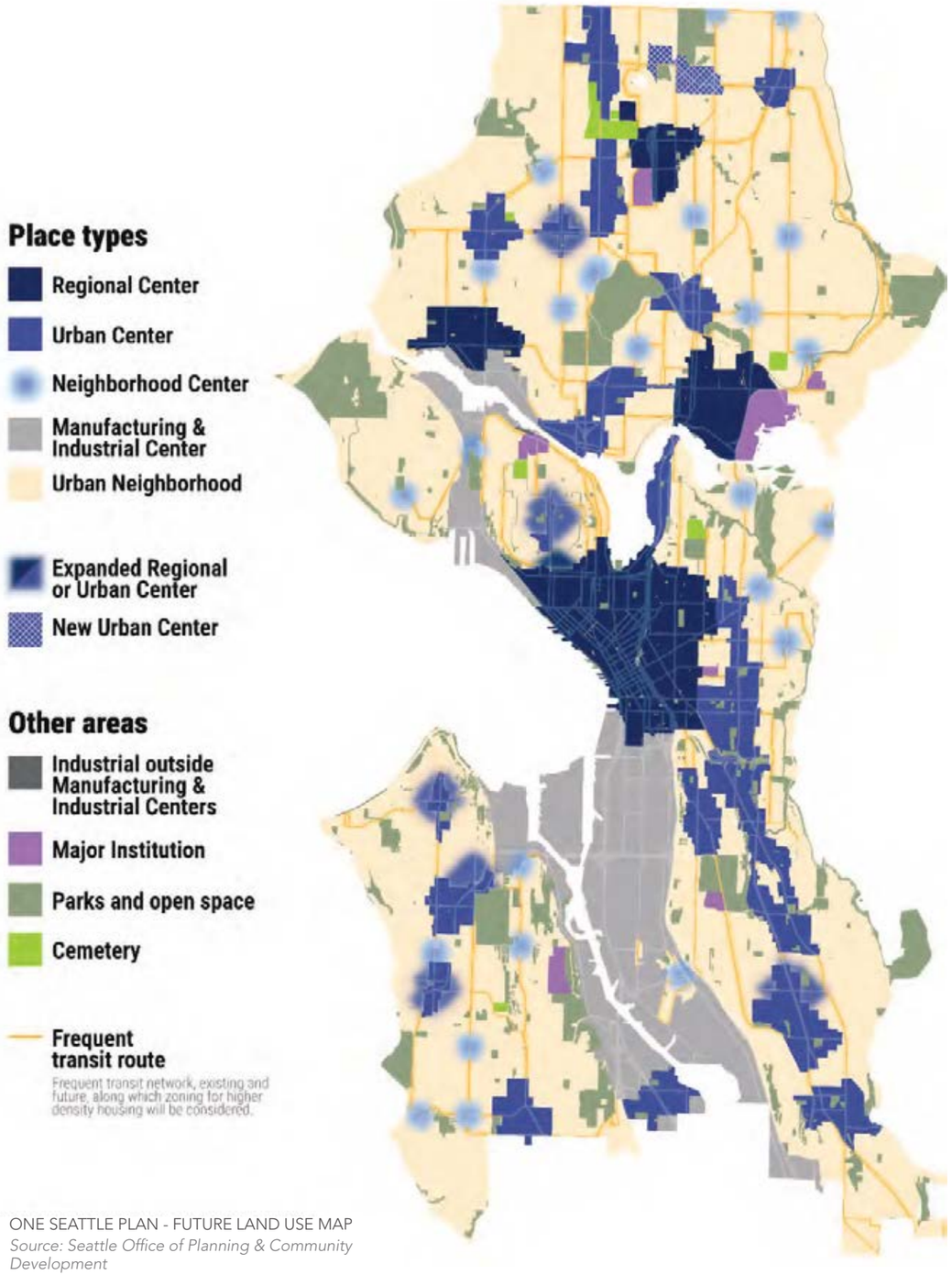
PROPOSED NEIGHBORHOOD ANCHOR
Source: Georgetown Neighborhood Plan

Regional growth plans, neighborhood visions, climate adaptation plans, and public infrastructure projects all influence local development such as with The Bend project. This section offers a review of these wide reaching and long range plans in the context of Georgetown and in relation to The Bend.

Georgetown Neighborhood Plan

In 1995, Georgetown, what is considered Seattle's oldest neighborhood, was selected as one of three pilots for neighborhood planning, which was then applied across the city. Through a process of deep community discussion and bottom-up planning, the neighborhood by 1999 finalized its vision, goals, and policies for their future into the "Georgetown Neighborhood Plan".

Overall, the plan emphasizes the uniqueness of Georgetown as a mixed industrial/residential neighborhood and states the importance of preserving that balance, for the sake of maintaining good local working class jobs and affordable housing in a diverse,



ONE SEATTLE PLAN - FUTURE LAND USE MAP
Source: Seattle Office of Planning & Community Development

GEORGETOWN NEIGHBORHOOD PLAN VISION:

"As Georgetown plans its future, we will work to maintain what we always have been: a strong, valuable manufacturing and industrial center that also includes affordable, 'in-city' residential community."

tight-knit community. Of relevance to The Bend project, the neighborhood was especially proud of its diverse housing typologies, including "live/work units in old historic warehouse lofts". The concept of combining creative professional working space with homes is not new to Georgetown, and it in fact is an efficient and healthy means of harmonizing industry and residential living.

One part of the plan focused on the establishment of a "neighborhood anchor" area, which would be the heart of the community and provide both housing and community facilities including an envisioned community center, museum, library, and park. Interestingly, the 7 block area between 4th Ave S and 5th Ave S where The Bend will be located (and which is currently zoned for commercial and residential uses), was not included in the 1999 neighborhood anchor area, as shown in the map.

One Seattle Comprehensive Plan

In its final draft stages as of autumn 2024, the One Seattle Comprehensive Plan is the city's latest overarching, long-range plan. Largely about where and how the city plans to accomodate population growth and urban development, it has reorganized the categorization of neighborhoods, which now are ranked from regional center, urban center, neighborhood center, to urban neighborhood, based on descending levels of density and capacity for growth. These designations will lead to some zoning code changes to allow for mostly increased growth targets ("upzoning") and they inform where the city should invest in public infrastructure such as sidewalks and climate resiliency strategies.

Of note, while the similarly physically disconnected and economically disinvested neighborhood of South Park just across the Duwamish River is designated an "Urban Center", the main commercial and residential core of Georgetown (what was the "planned neighborhood anchor") receives just a "Neighborhood Center" designation. Though that center's boundaries have yet to be finalized, The Bend site is likely not to be included and thus is designated an "Urban Neighborhood", essentially the default for most of Seattle.

This designation "allows a range of commercial and mixed-use development on major streets and smaller-scale non-residential uses such as small institutions, corner stores, and at-home businesses". Though mostly intended for detatched houses and low-density middle housing, it does accomodate mid-rise buildings along transit arterials, such as 4th Ave S. As written, the plan does not allocate much growth for Georgetown, especially for The Bend site; though the area allows for a decent mix of housing types and private development, we cannot expect a great amount of city investment in public facilities, since they are prioritizing the urbanization of so many other centers.

Seattle Transportation Plan

In 2024, the City released its latest Transportation Plan, a long term guiding document that outlines goals for safety, equity, sustainability, economic vitality, livability, and modernization. It as well details policies to support those goals and a long list of feasible and aspirational projects that the Department of Transportation hopes to implement.

◀ SEATTLE TRANSPORTATION PLAN GOALS
Source: Seattle Department of Transportation

Pertinent to The Bend project is the Freight element of the plan, which while it emphasizes the vitality of supporting freight mobility for the city's economy, has an especially strong emphasis on pedestrian safety and balancing the needs of trucks with all road users. One goal states: "Provide dedicated places for people to walk, bike, or roll safely separated from vehicles by using context appropriate treatments such as protected bike lanes or "complete street" corridors, especially on major truck routes. Where a freight route shares a street with a bicycle route, facilities for trucks and bicycles should be clearly separated".

In order to achieve that balance in the interest of pedestrian safety, one of the capital improvement projects listed in the highest tier of priority is a redesign of 4th Ave S to support reliable transit, ped safety, and freight mobility. In the lower tier of projects is S Lucile St, which will be enhanced for freight mobility. In order to address Georgetown's isolated geography, the plan proposes a better bike connection to Beacon Hill across I-5. Finally, a light rail extension from SoDo through Georgetown and separately a Sounder regional rail station in Georgetown are listed as aspirational projects.

SEATTLE TRANSPORTATION PLAN VISION:

"Seattle is an equitable, vibrant, and diverse city where moving around is safe, fair, and sustainable. All people and businesses can access their daily needs and feel connected to their community."

FREIGHT IN SEATTLE
Source: Seattle Department of Transportation

Zoning for The Bend

The Bend site is zoned Commercial 1 (M) - 75, which allows for both commercial and residential uses, and has a mandatory housing requirement. The city early in 2024 approved a height limit exception for the project to increase the allowed height to 85 ft if the devleopment meets the following conditions: green building standards, five stories of residential use, at least 20% activated ground floor, and sound insulation and air conditioning for all dwellings.

A Collective Conversation

Many of the programs that exist within Georgetown work in conversation, allowing for a larger spread of information and activities. For instance, before the Georgetown Open Space Vision Framework project was launched, the local community leaders and the Seattle Parks Foundation created a full list of contacts, pre-existing partnerships, and sites of interest to guide their decisions. Another example of collective activism occurred in 2023 when the Seattle Department of Transportation (SDOT) partnered with the Office of Sustainability and Environment (OSE), DIRT Corps, ECOSS, and Just Health Action to increase the tree canopy within both Georgetown and South Park.

"The greatness of a community is most accurately measured by the compassionate actions of its members."

- Coretta Scott King

Georgetown Contributors

As Seattle's last working class neighborhood, Georgetown remains as a vital contributor to the history, community, and economy of the city. Though Georgetown is such a vital part of the area, it faces many challenges. To better understand our role as designers to the Bend, we must become fmailiar with the contributors that are already active in the district.

Climate adaptation is a staple aspect of the planning process for evolving the Georgetown neighborhood. Within the greater Seattle climate adaptation strategy, it has become mandatory for sea level rise planning to be integrated into all projects. An attention to planing changes such as tree establishment periods have been introduced along with an interest in integrating more climate-adaptive plants into the landscape.

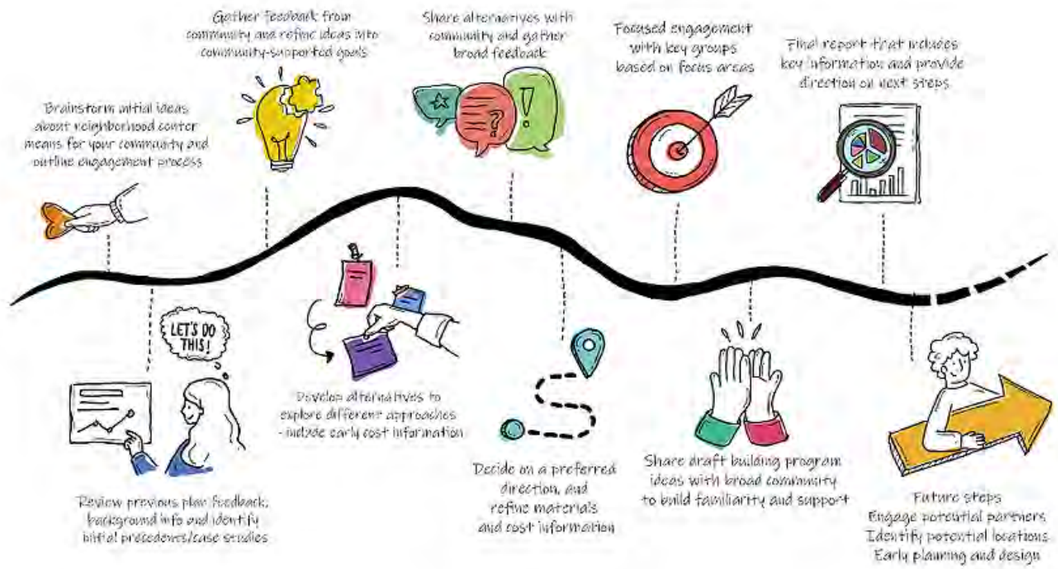
WORKING TOGETHER FOR CHANGE:

The Duwamish Valley Action Team has gathered over 18 city departments and more than 20 active members to achieve their goals.

Georgetown Community Council

The Georgetown Community Council is a non-profit organization aimed at empowering and unifying the community. The organization runs a local blog, the Georgetown Gazette, that is open for community members to contribute to. Currently, the council has partnered with the City of Seattle Office of Sustainability & Environment (OSE), MAKERS Architecture, and Environmental Works to create a new community center in the neighborhood. The organization is a vital example of local activism and inclusion that should be worked with and invested in on new projects.

FLYER FOR A COMMUNITY MEETING
Source: Georgetown Community Council



PLAN FOR THE GEORGETOWN COMMUNITY CENTER
Source: MAKERS, Georgetown Community Council

The Duwamish Valley Program

The Duwamish Valley Program is composed of multiple departments. The project is led by the Office of Sustainability & Environment (OSE) and the Office of Planning & Community Development (OPCD). The Duwamish Valley action plan, created in 2018 and updated in 2023, is a comprehensive initiative created to respond to calls from the surrounding community and conditions. The plan has 7 areas of focus: affordable housing, economic opportunities, community influence, mobility and transportation, public spaces, and a healthy environment. An aspect of the plan that has led to much of its success has been its guiding principles of equity and inclusion. Many of the projects have come to fruition and are continuing to to develop, including one that could be used as an example for the initiation of the Bend; the Mini Mart City Park.

DUWAMISH VALLEY ACTION PLAN GOALS
Source: Seattle Office of Sustainability & Environment

The Mini Mart City Park

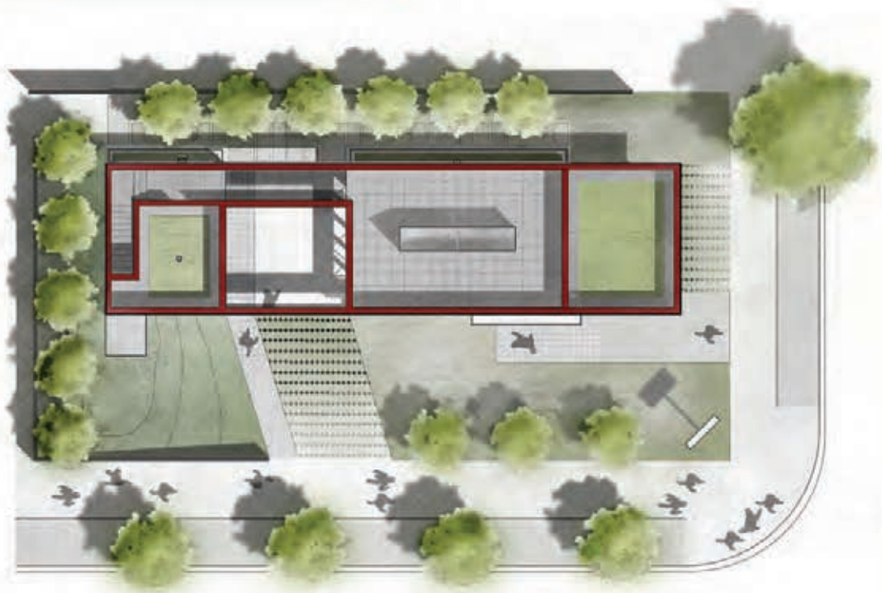
The Mini Mart City Park acts as an example of a positive transformation from a polluted, exclusive space to one that works to rehabilitate both the environment and community needs. The space was once a gas station and fuel-storage facility. The idea began with SuttonBeresCuller (SBC), a group of 3 artists, and was completed with the help of over 40 outside contributors and a team of staff. Now, the Mini Mart City Park acts as a multi-functional space for performance and installation art along with a continuous site for experimentation and assessment of cleaning up the polluted soil.

A PRECEDENT OF ART AND COMMUNITY

The Mini Mart City Park is a place for the locals to express their artistic ideas while showcasing ecological restoration in action.

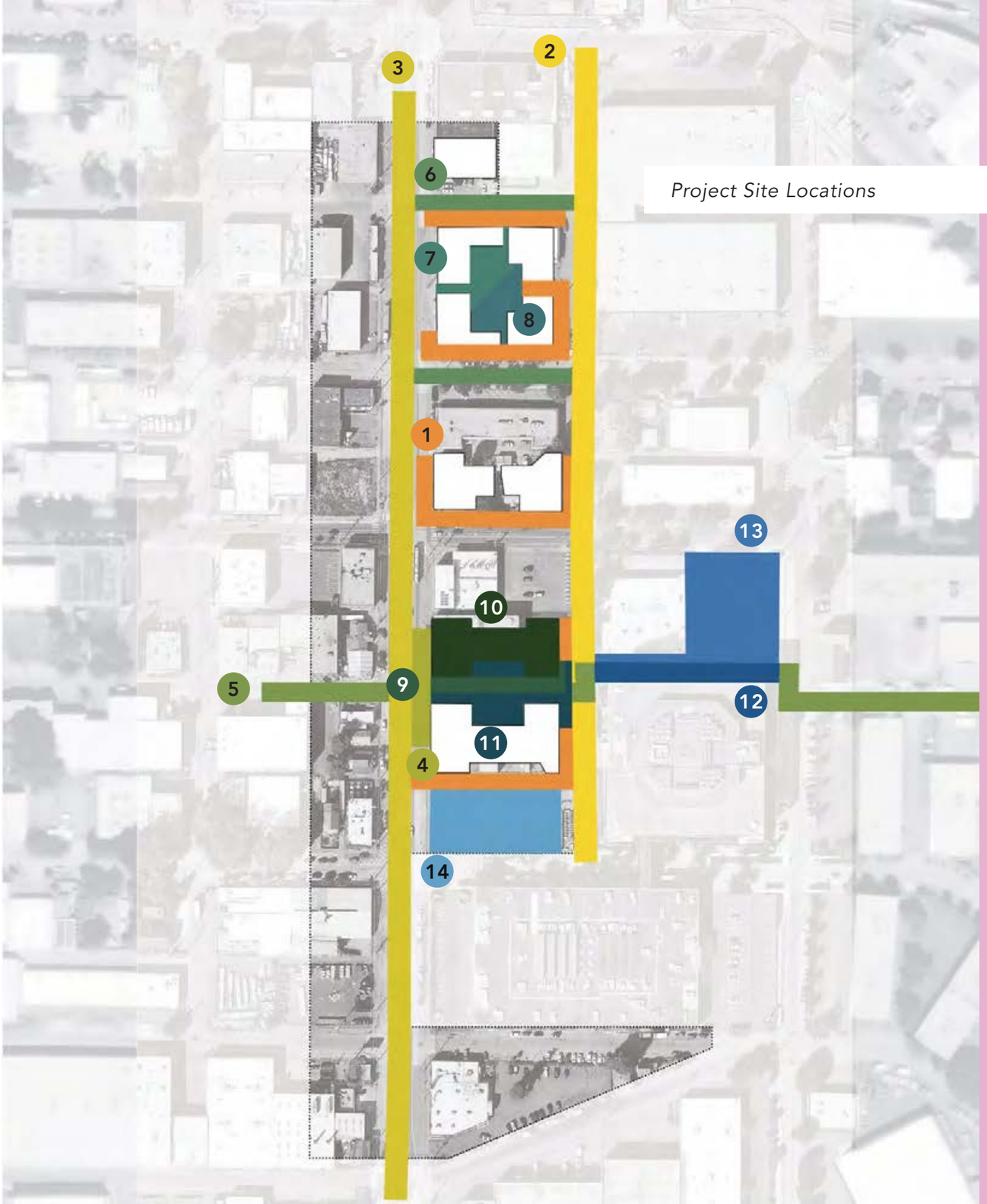
What We Can Learn

In the past, many organizations have sprouted to aid the issues plaguing the Georgetown area. As designers, it is our responsibility to activate and encourage the success of these imperative community makers. Rather than approaching the Bend with the notion of tabula rosa, we can coordinate with and listen to the community and its existing participants. When designing, we can be inspired by the transformation of spaces such as the Mini Mart City Park to guide how important honoring the past and utilizing spaces for the present can be. In the Bend, we must listen to artists and allow them to express their needs. Outside of the art community, we must encourage locals to have spaces for their own expression and enjoyment. Though there might be issues with timelines, especially with outside participants, we must understand that design is an evolving process that is stronger if it is inspired and led by the community it is made for.



PLAN VIEW OF MINI MART CITY PARK
Source: GO'C Studio

MINI MART CITY PARK
Source: GO'C Studio



Project Site Locations

DESIGN PROPOSALS

Neighborhood is a state of being in a relationship. More than anything, the human environment is about relationships: relationships between people and planet, relationships between people and place, and relationships between people and people.

– David Sim, Soft City - Building Density for Everyday Life

Based on their district analyses and site understandings, students identified specific sites and concepts to explore further. Through a series of design exercises and workshops with one another as well as with Master Teacher Louise Grassov and the Land Art Generator, students developed their concepts into schematic proposals, iterating on and testing their ideas through drawing and modeling. Students explored a range of sites and scales, from site and streetscape design to larger network planning to kit-of-parts ideas that can apply more widely.

No matter the size and scope of their projects, all students were challenged to tell clear and succinct narratives, while still tackling the complex network of values, activity, and interactions that may occur at The Bend.

1. RIVER POWER: Energy and Circular Systems — *Kaylie Treskin*
2. MOVEMENT AND FLOW — *Lela Cooper + Joanna Chen*
3. SAFE PASSAGE: Structural Solutions for Noise Pollution — *Hunter Ottman*
4. A NEW 4TH AVE — *Jaxon Roller*
5. PEDESTRIAN PATH: A Climate-Friendly Connection Beyond The Bend — *Sarah Whitney*
6. LIVABLE STREETS: Brandon & Bennett St. — *Peiyao Xiao*
7. PRESERVING OASIS: Embracing the Canyon — *Russell Corbin*
8. THE GROTTO UNDER OASIS — *Davien Graham*
9. FINDLAY ART LANE — *Rebecca Zaragoza*
10. VERTICAL LANDSCAPE: Findlay North — *Chih-Ting Lee + Jingyao Wu*
11. STEELHEAD: The Bend's S Findlay Pedestrian Street — *Matt Jernigan*
12. PLAYFUL PASSAGE: Connecting to Downtown Georgetown through Art and Play — *Liz Forelle*
13. CANON PARK — *Ellee Ruder*
14. (RE)GENERATE GEORGETOWN: S Findlay St. — *Siska Florensia Dewanti*

River Power

Energy and Circular Systems

KAYLIE TRESKIN

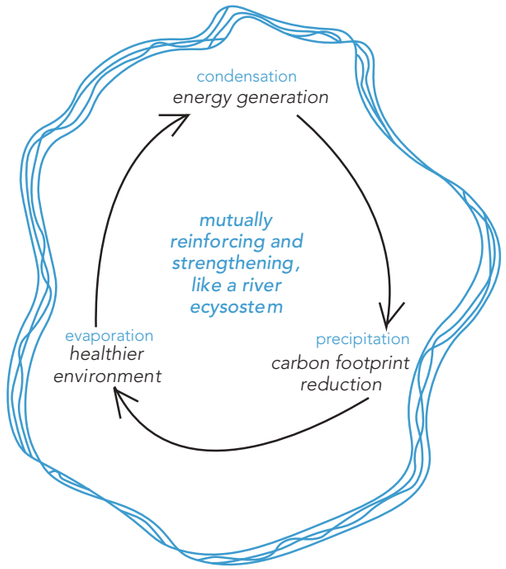
Watershed's Live/Work District Plan states the goal of making **all buildings carbon neutral, in part through solar energy.** How can we achieve this while making these energy-producing systems embody the Georgetown character? Solar panels could incorporate local artists' work and The Bend could introduce an artist-in-residency program for energy-producing art. Water features could simultaneously nod to the history of the natural, snaking Duwamish river and generate power. Combined, these alternative energy methods could make The Bend more sustainable and add vibrancy.

Precedents

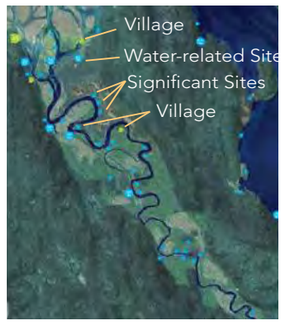
BIOSWALE
Source: Waterborne Environmental

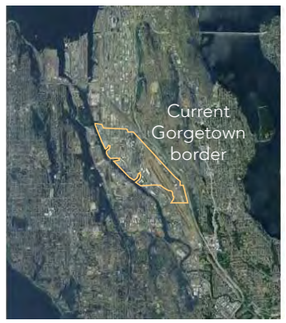
RIVER SCULPTURE
Source: Allison Sky

Concept: Water Cycle / Clean Energy Cycle



Concept: Unchannelized Duwamish River





HYDROPOWER

A water channel could provide power by spinning underwater wheels which are connected to a central battery that feeds into The Bend's energy grid. At the same time, it harkens back to the unchannelized Duwamish river pre-industralization.

WATER CHANNEL
Source: getimg.ai

SOLAR ENERGY

Solar energy is one of the most effective clean energy sources. If solar panels were incorporated strategically throughout The Bend, ~2 buildings could be taken off the grid, reducing energy use.

There are many forms that solar panels can take to combine aesthetics with utility, including solar awnings, solar art, and art-laminated solar panels. They can also serve as the backing for neon signs, which are iconic to the neighborhood. Below are examples.

Precedents

NEON SIGN
Source: Axios

SOLAR AWNING
Source: Lumos Solar

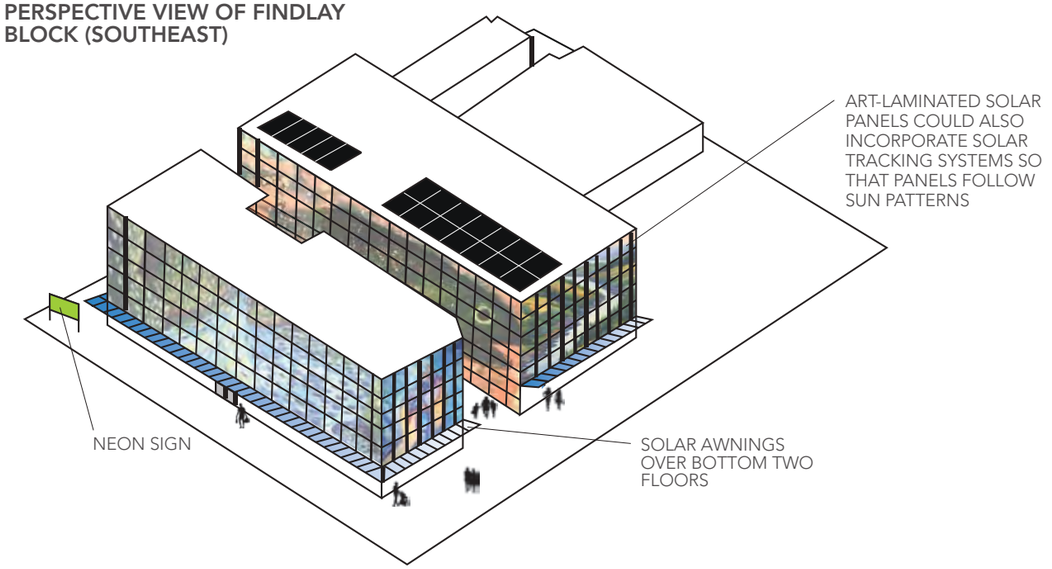
SOLAR ART
Source: Science Photo Gallery

ART-LAMINATED SOLAR PANEL
Source: Land Art Generator

CONCEPT: SOLAR PANEL SIGN WITH NEON ART
Source: getimg.ai

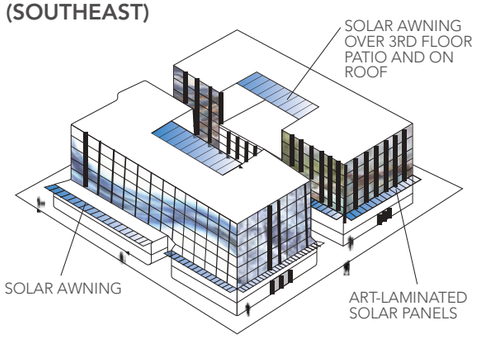
CONCEPT: ART LAMINATED SOLAR PANELS
Source: getimg.ai

PERSPECTIVE VIEW OF FINDLAY BLOCK (SOUTHEAST)

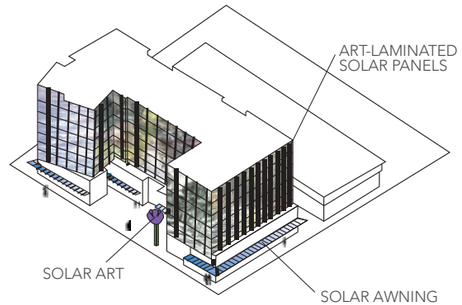


CONCEPT: SOLAR AWNING WITH RIVER ART
Source: getimg.ai

PERSPECTIVE VIEW OF OASIS BLOCK (SOUTHEAST)



PERSPECTIVE VIEW OF ELEMENTS BLOCK (SOUTHEAST)



Movement and Flow

LELA COOPER AND
JOANNA CHEN

As The Bend creates a new community within Georgetown's industrial fabric, resident mobility considerations are key. Creating safe and easy connections, walkable, bikeable, and multifunctional streets, and staying focused on health and environmental considerations inform the future of the site. This section discusses existing mobility considerations, programming strategies to foster sustainable transportation choices, as well as the potential 5th Avenue has for serving as a sanctuary and key connector to the surrounding neighborhood.

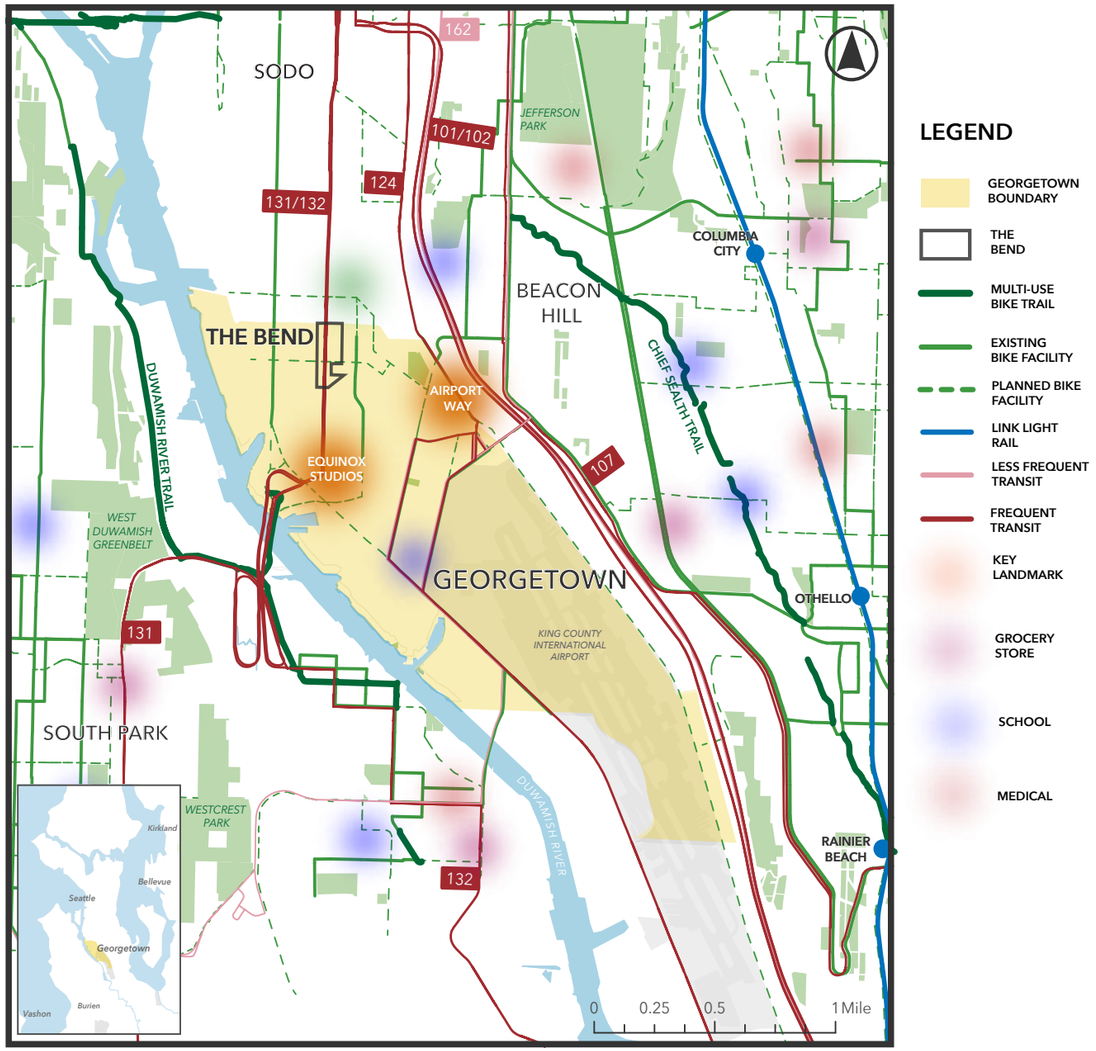
VIEW FROM GEORGETOWN PLAYFIELD NORTH TOWARD
LUCILE ST AND AIRPORT WAY

Georgetown to Downtown Connections at S Findlay St:

Safety improvements have begun for the Georgetown to Downtown bike connection, with the start of the route at Lucile St and Airport Way. By improving bicycle and pedestrian access north of the Georgetown Playfield, direct pedestrian-friendly connections can be made with the Georgetown to Downtown bike route as well as to The Bend along South Findlay Street.

Current Mobility Context

The Bend is located at the northern end of the Georgetown neighborhood, and is currently served primarily by the 131/132 bus service north-south, but with limited transit options going east-west. Bike connections in Georgetown are also currently limited, but planned investments will connect to Downtown as well as South Park. Key amenities such as grocery stores, schools, and medical facilities lie primarily east and west of the neighborhood, furthering the need for bike, walk, and transit connections for The Bend's future residents. Additional considerations include bike and walk access to artist studios at Equinox Studios, Georgetown Playfield, and the commercial core of Airport Way S.



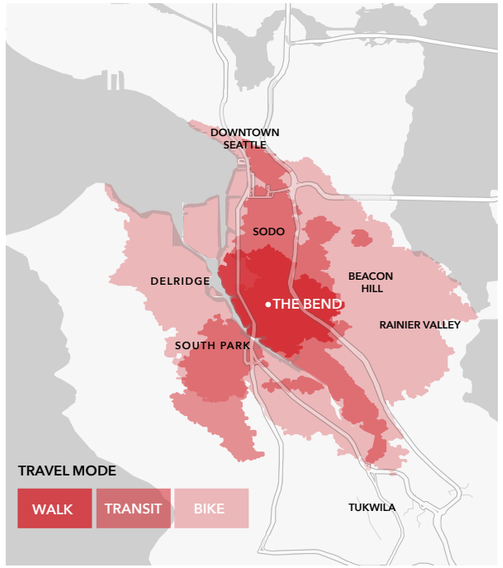
THE BEND MOBILITY CONTEXT AND NEARBY KEY AMENITIES
Source: King County Metro, City of Seattle GeoData

Where Can You Go in 30 Minutes from The Bend?

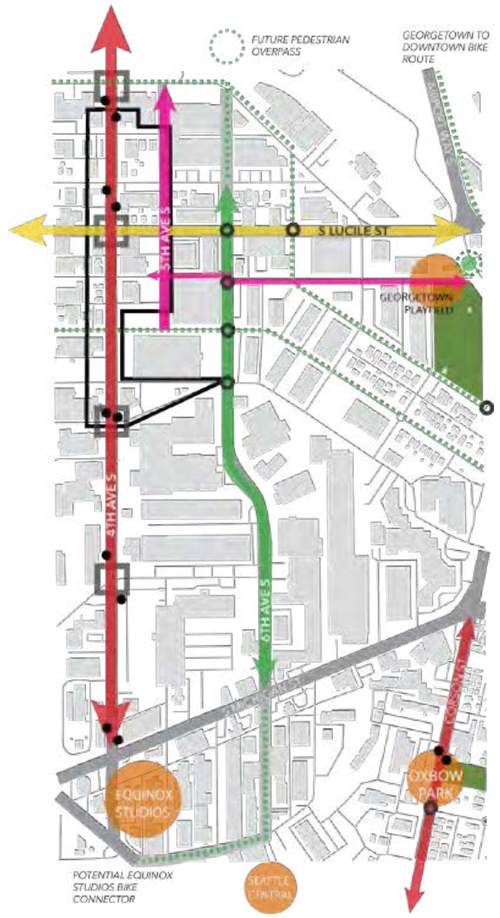
Currently, Georgetown is an automobile oriented neighborhood, with historically low emphasis on resident's transportation needs, as Georgetown's employment far exceeds its resident count.

Within thirty minutes, residents can walk throughout the immediate neighborhood, but face poor sidewalk conditions and high vehicle traffic adjacent to the neighborhood's freight routes. By transit, connections north-south are strongest, extending from Downtown Seattle to the outskirts of Tukwila.

With the area's flat topography, biking has the greatest potential reach for residents, and is the only efficient way to travel east-west without a car. With expansions in Georgetown's bike network, The Bend has an opportunity to solidify and build these bicycle connections and provide residents with more affordable, sustainable transportation options.



ACCESSIBLE FROM THE BEND: BASED ON 8:00 AM WEEKDAY TRAVEL TIMES.
Source: GIS TravelTime API, Seattle GeoData, King County



THE BEND'S KEY CONNECTORS BY BUS, BIKE, AND FOOT
Source: City of Seattle, King County Metro

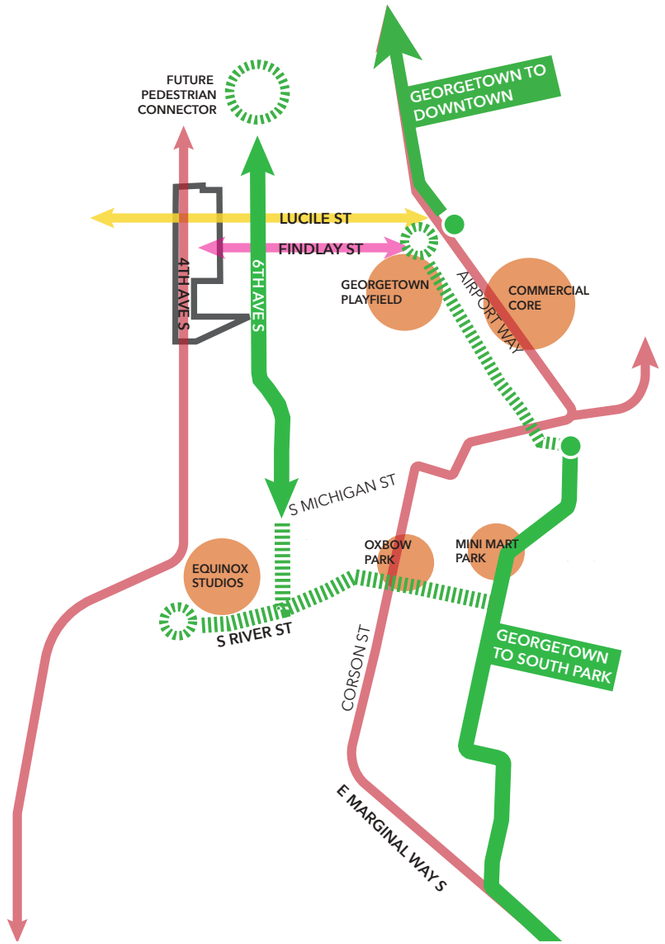
Flow Through The Bend

Based on both planned and existing transportation plans, traffic flows, and site needs, the following streets were identified as key modal connectors. 4th Avenue S serves as the primary transit corridor, Lucile as the east-west vehicular connector, 6th Avenue S as the primary bicycle route, and 5th Avenue S and S Findlay Street as pedestrian sanctuaries.

Envisioning a Georgetown Cycling Loop

By exploring a continuation of the existing bike lanes along 6th Ave S, and into River Street, a bicycle connection can be made from The Bend to Equinox Studios, supporting the needs of makers, and community members alike. This includes replacements of existing sharrows with formal bike lanes, as well as implementation of new sidewalks and improved crossings. Additional opportunities to connect the Georgetown to South Park, and Georgetown to Downtown bike routes within the neighborhood can be achieved by building connections through existing residential blocks adjacent to Oxbow Park and Mini Mart Park, potentially through a Neighborhood Greenway designation.

Potential expansions along Airport Way S can also be explored for long-term connectivity, by utilizing unused or infrequently used rail tracks west of Airport Way S, in commercial alleyways. By formalizing a connection, improved access to the future Georgetown to South Park bike route could be realized, and open opportunities for east-west connection to destinations including the Mini Mart Park, Oxbow Park, and Equinox Studios.



GEORGETOWN CYCLING LOOP CONCEPTUAL DIAGRAM, WITH EXISTING AND PLANNED INVESTMENTS, ALONGSIDE KEY COMMUNITY OPPORTUNITY AREAS TO EXPLORE.

6TH AVENUE S BIKE LANE

SAFE + EASY CONNECTIONS · WALKABLE + BIKEABLE

6TH AVENUE SOUTH BIKE IMPROVEMENTS UTILIZING EXISTING ON-STREET PARKING SPACE FOR A TWO-WAY BIKE LANE.

RAIL TO TRAIL CONNECTOR

SAFE + EASY CONNECTIONS · WALKABLE + BIKEABLE · MULTIFUNCTIONAL STREETSCAPE

POTENTIAL CONNECTION REPLACING UNUSED RAILROAD TRACKS BEHIND AIRPORT WAY SOUTH, AND ADJACENT TO SOUTH CARSTENS PLACE WITH A MULTI-USE TRAIL.

Last-Mile Transit Connections

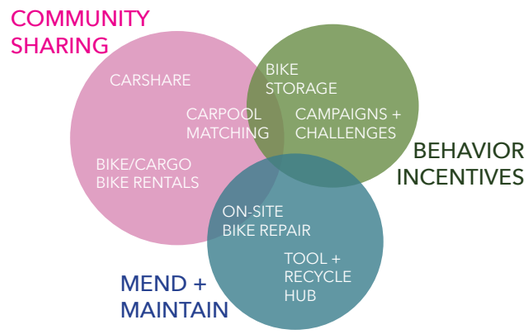
Within The Bend there remain gaps in transit service, and particularly limited access to light rail.

King County Metro Flex is a last-mile, on-demand service allowing riders to call rides for the same fare as a bus within their service area. Currently, Georgetown is surrounded by service areas, but is excluded from the program. By expanding this service with King County Metro, residents would benefit from easier connections to essential needs, as well as bringing new visitors to the area.

CURRENT KING COUNTY METRO FLEX LAST MILE SERVICE
Source: King County Metro, Sound Transit

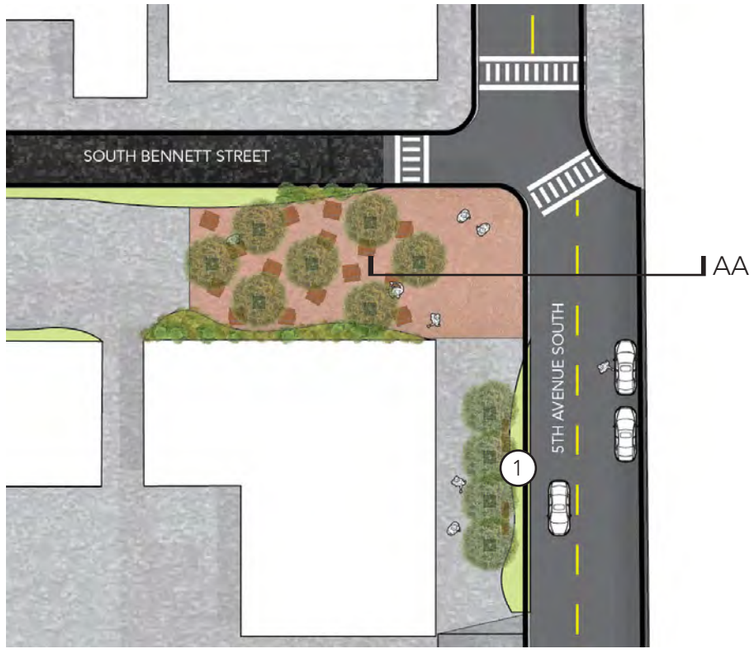
On-Site Programming

By exploring community programming and resident amenities, The Bend can augment design interventions and investments to encourage sustainable mobility. As Georgetown remains primarily automobile oriented, offering amenities such as bike and carshare, community campaigns, and on-site maintenance, help reduce the need for individual vehicle transportation.



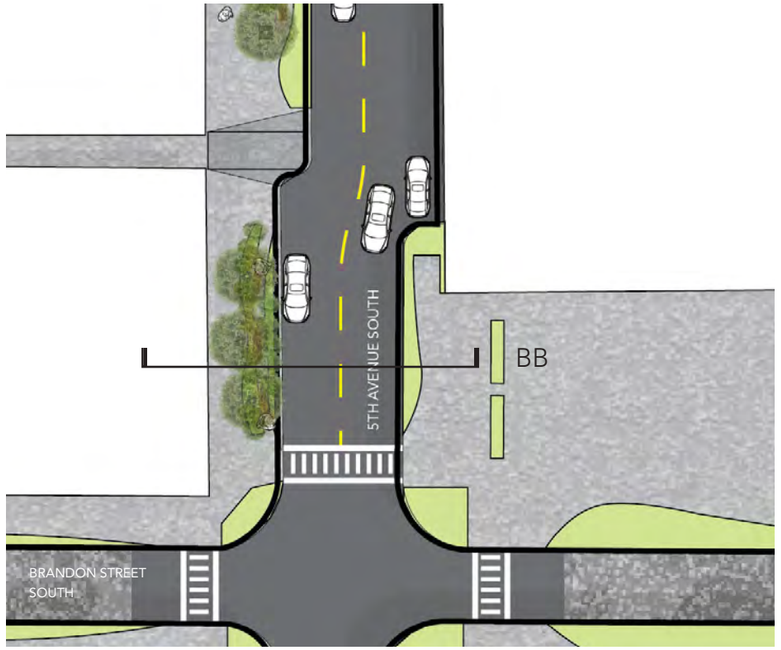
PROPOSED PLAN

SOUTH BENNETT & 5TH AVE SOUTH



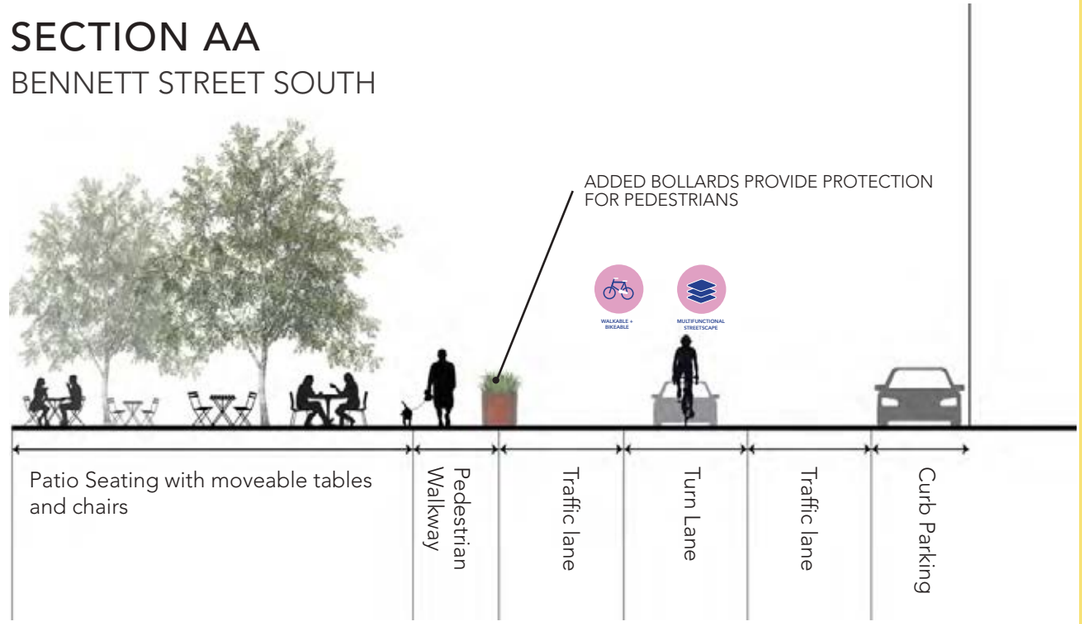
PROPOSED PLAN

SOUTH BRANDON & 5TH AVE SOUTH



SECTION AA

BENNETT STREET SOUTH



SECTION BB

BRANDON STREET SOUTH

COMMUNITY LEVEL INTERVENTIONS

CHOSEN VIEWS THROUGH 5TH AVE SOUTH

1 *CINEMA*

South Bennett & 5th Avenue South

An outdoor cinema provides opportunities for street closures that close the space off to vehicular traffic.

MULTIFUNCTIONAL STREETSCAPE

2 *WAYFINDING*

South Lucile & 6th Avenue South

Signage along the 6th avenue bike lane can improve wayfinding into 5th avenue south.

SAFE + EASY CONNECTIONS

WALKABLE + BIKEABLE

3 *DAYCARE DROP OFF & PICKUP*

South Findlay Alleyway & 5th Avenue South

Re-positioning the daycare drop off to the alleyway can reduce congestion and create more pedestrian friendly spaces.

SAFE + EASY CONNECTIONS

WALKABLE + BIKEABLE

4 *FINDLAY FESTIVAL STREET*

South Findlay & 5th Avenue South

The intersection at Findlay will prioritize pedestrians and have the ability to be closed off for festivals and markets.

SAFE + EASY CONNECTIONS

WALKABLE + BIKEABLE

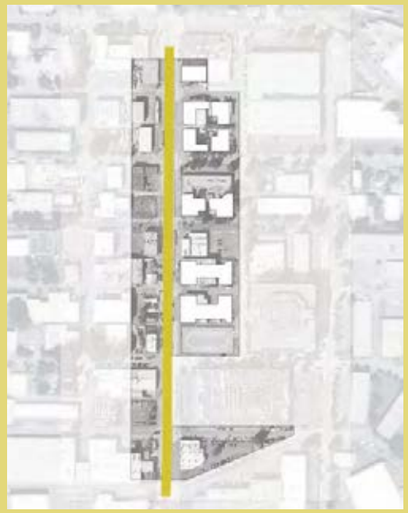
MULTIFUNCTIONAL STREETSCAPE

Safe Passage

Structural Solutions for Noise Pollution

HUNTER OTTMAN

This project is focused on transforming 4th Avenue into a more livable, pedestrian-friendly environment. Innovative noise barrier systems reduce the constant noise pollution caused by freight traffic while simultaneously providing artistic, ecological, and interactive public spaces—creating a safer, more inviting pedestrian experience while addressing unhealthy noise in the community. This project strives to reflect, not shy away from, Georgetown's history and current state as a transportation hub while supporting the well-being of the people who live, work, and walk here.



4TH AVE STREETSCAPE: 3-5 LANE DESIGN

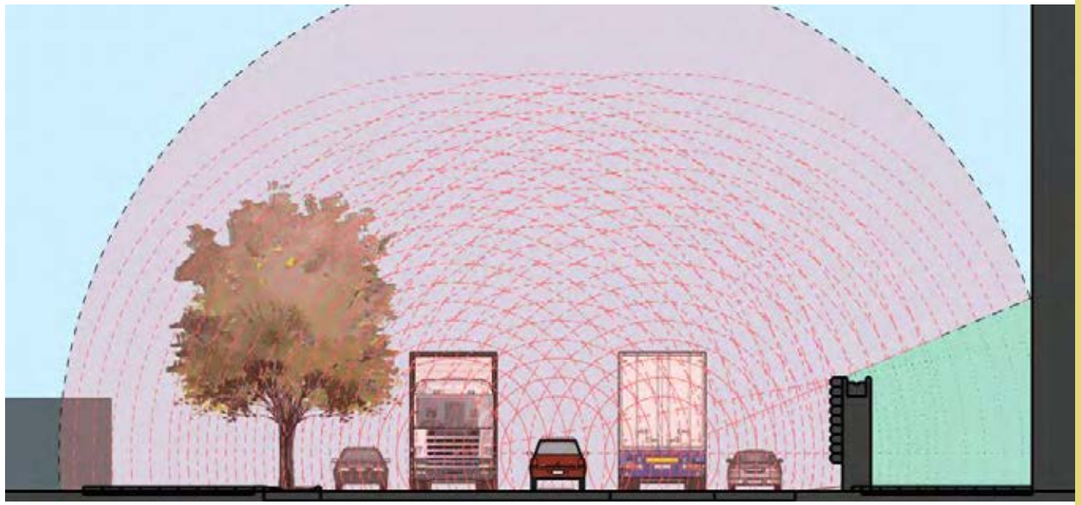
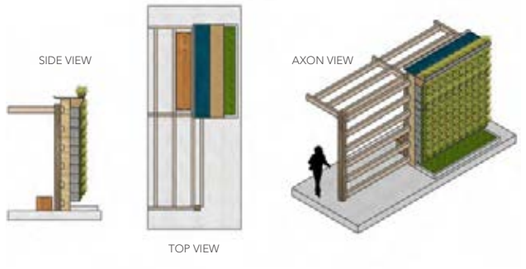
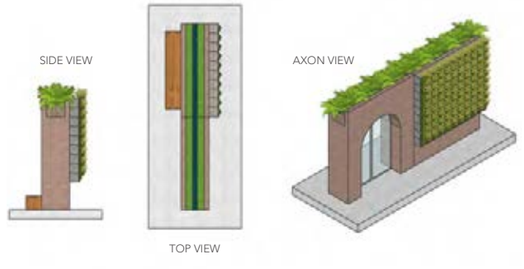


DIAGRAM OF NOISE POLLUTION ALONG 4TH AVE AND MITIGATION VIA WALLS



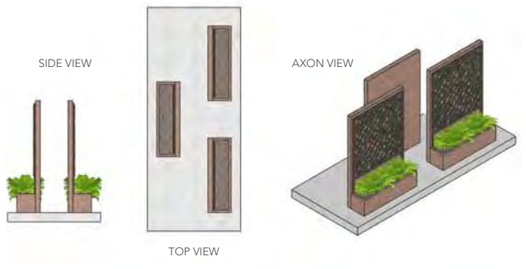
LIVING WALL AND PERGOLA

3/5 3/5 4/5 4/5 2/5 3/5 4/5 3/5



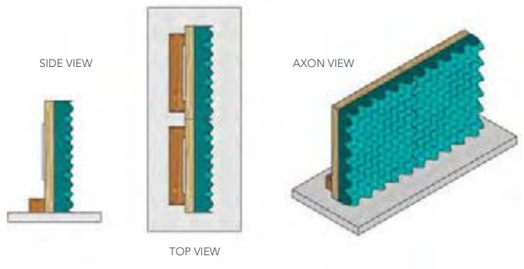
BIO-AQUEDUCT

3/5 3/5 3/5 5/5 2/5 4/5 5/5 5/5



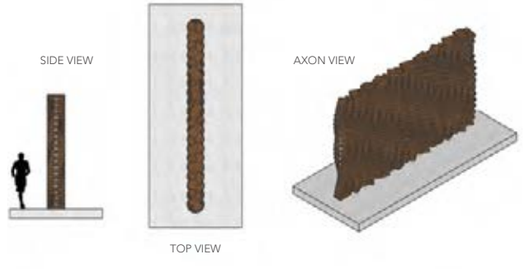
STAGGERED WALLS

3/5 3/5 3/5 4/5 3/5 5/5 3/5 3/5



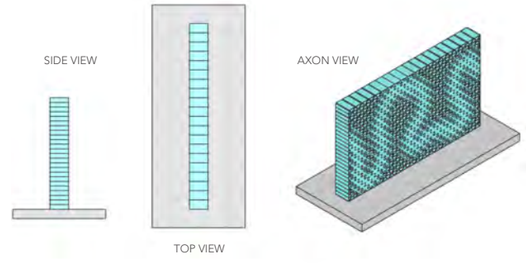
SINE WAVE SURFACE

5/5 3/5 1/5 2/5 2/5 4/5 5/5 4/5



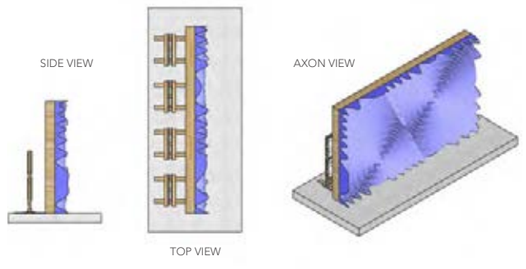
ROTATING BRICKS

2/5 3/5 4/5 2/5 3/5 3/5 4/5 2/5



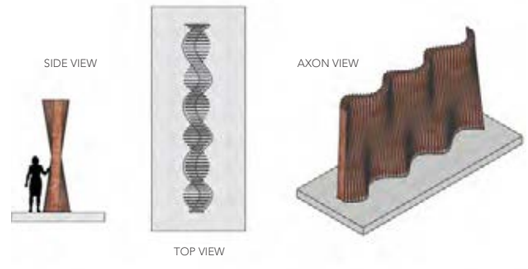
POROUS WALL WITH - THE BEND

4/5 3/5 5/5 2/5 3/5 2/5 4/5 2/5



RIPPLES IN THE WATER

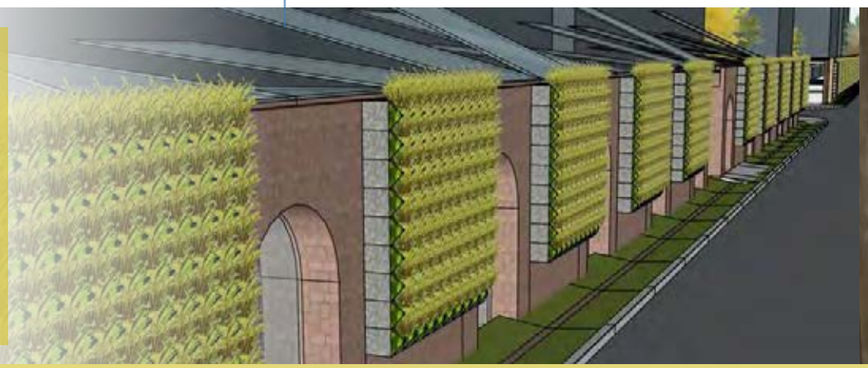
4/5 3/5 1/5 2/5 2/5 5/5 5/5 3/5

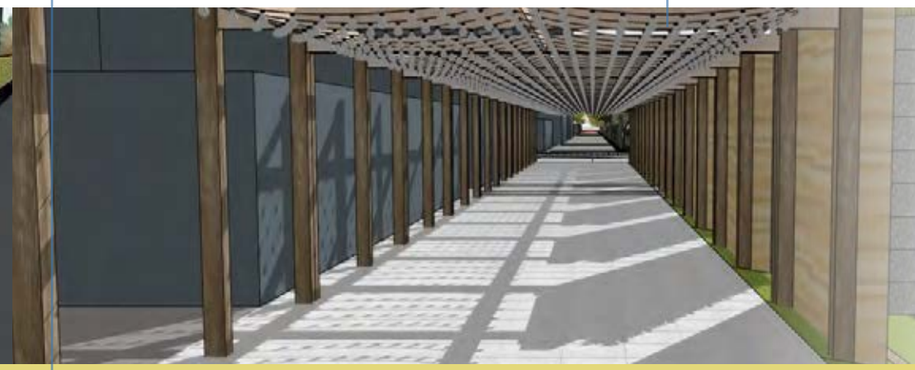


SINUSOIDAL SLATS

2/5 3/5 5/5 1/5 3/5 2/5 2/5 2/5

- CREATIVE POTENTIAL
- CARBON COST
- VISIBILITY & SAFETY
- ECOLOGICAL BENEFIT
- FINANCIAL COST
- SOUND REFLECTION
- SOUND DIFFUSION
- SOUND ABSORPTION





Recommendations:

Multiple strategies should be employed so as to provide wide and diverse range of experiences as well as varying levels of noise pollution mitigation depending on the unique needs of the development and community members.

A New 4th Ave

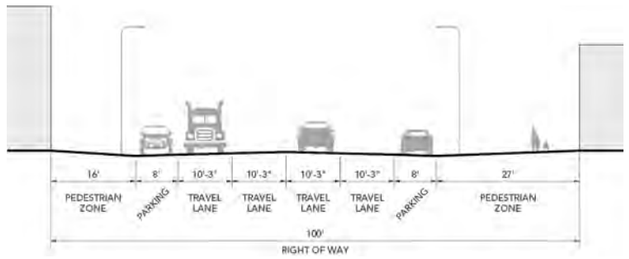
JAXON ROLLER

This project is defined by two key interventions:

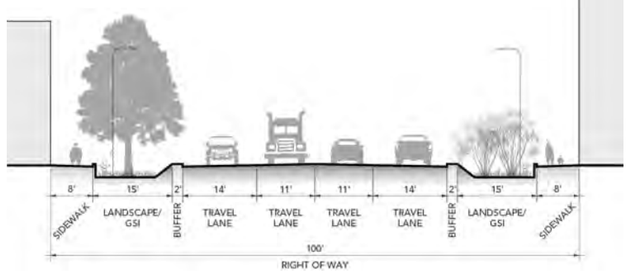
1. Chicanes, bike lanes, and freight & bus (FAB) lanes are implemented along 4th Ave between Orcas St. & Dawson St.

2. A plaza is proposed where Findlay St. meets 4th Ave. It serves to extend the currently stunted Findlay Festival/Pedestrian Street, and provide a strong example of the type of urbanism that is possible with a redesigned 4th Ave.

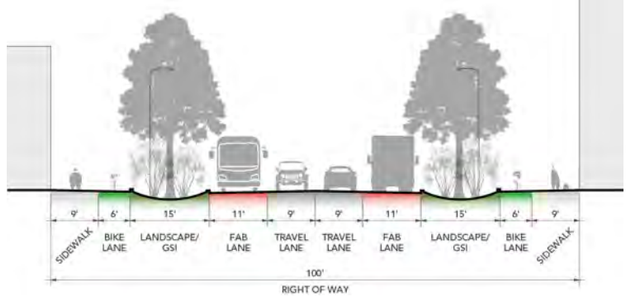
EXISTING TYPICAL SECTION ON 4TH AVE (FACING NORTH)

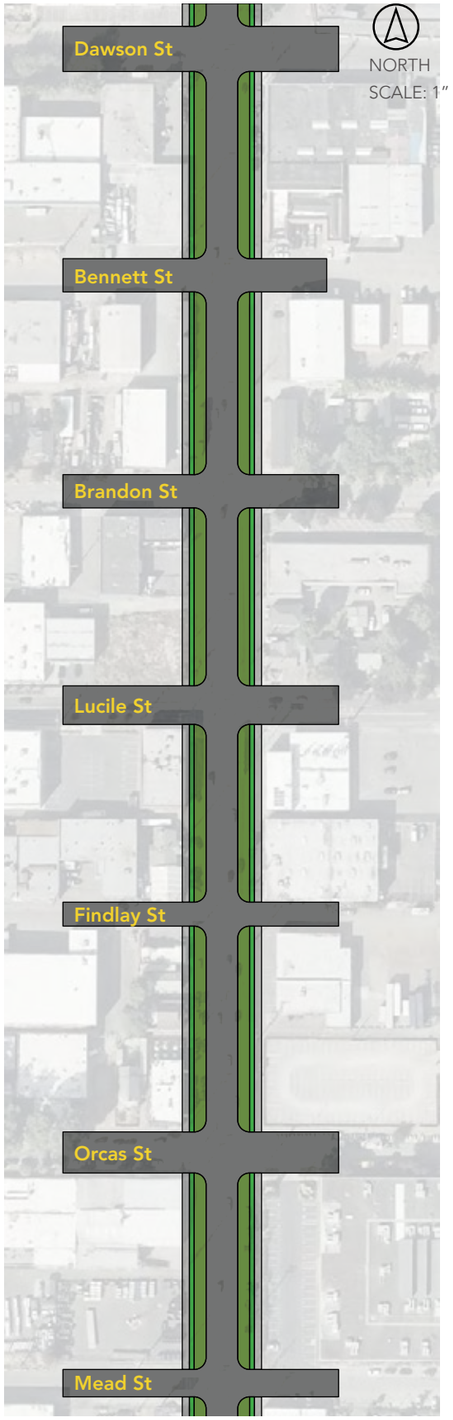


MXM'S PROPOSED TYPICAL SECTION ON 4TH AVE (FACING NORTH)

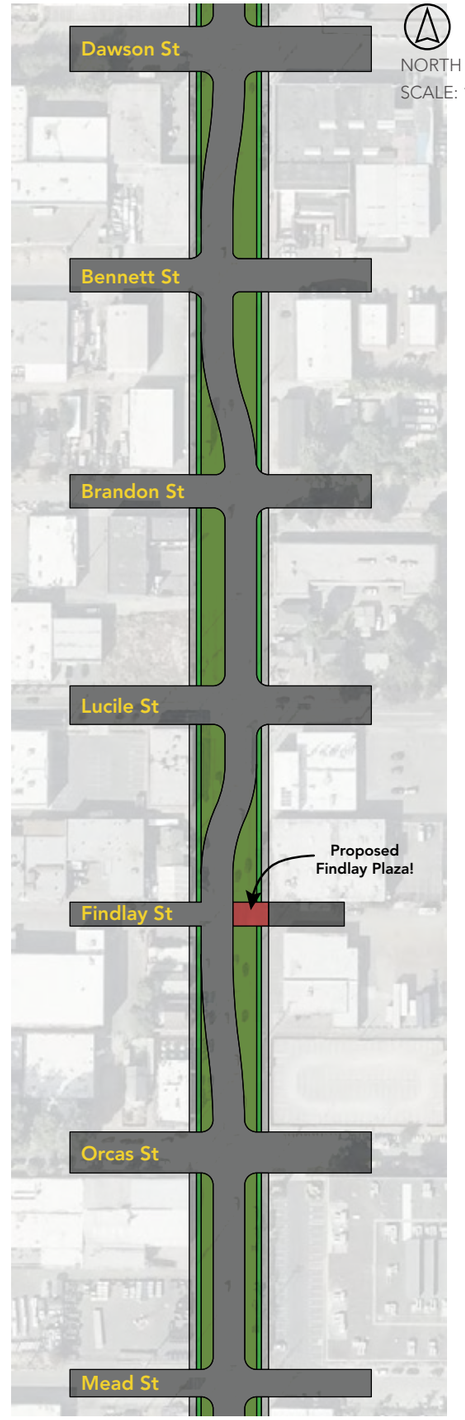


MY PROPOSED TYPICAL SECTION ON 4TH AVE (FACING NORTH)



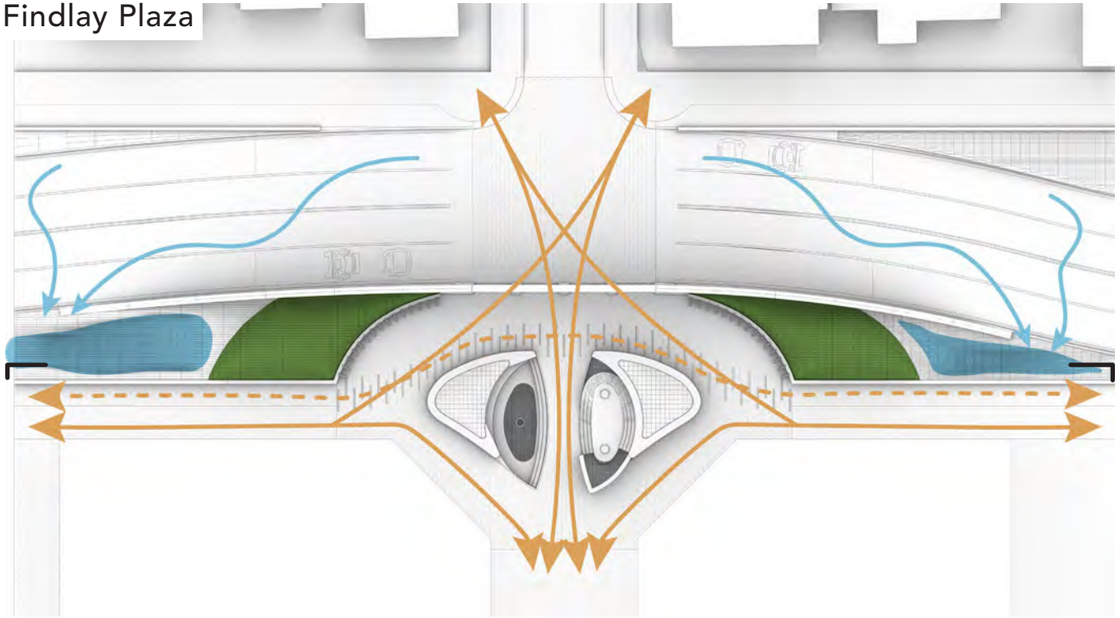


CORRIDOR PLAN **WITHOUT** CHICANES



CORRIDOR PLAN **WITH** CHICANES

Findlay Plaza



CIRCULATION, DRAINAGE, AND MAJOR TOPOGRAPHICAL FEATURES IN FINDLAY PLAZA

Safe Circulation

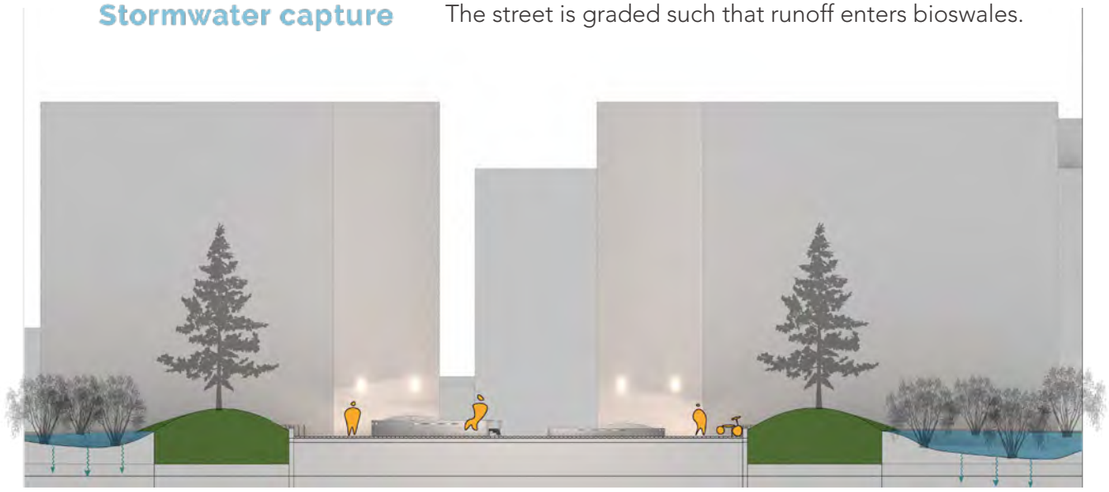
A raised intersection provides a statement entrance to Findlay Plaza. This added safety will be crucial for pedestrians as the Bend grows and expands across the street.

Separation from Traffic

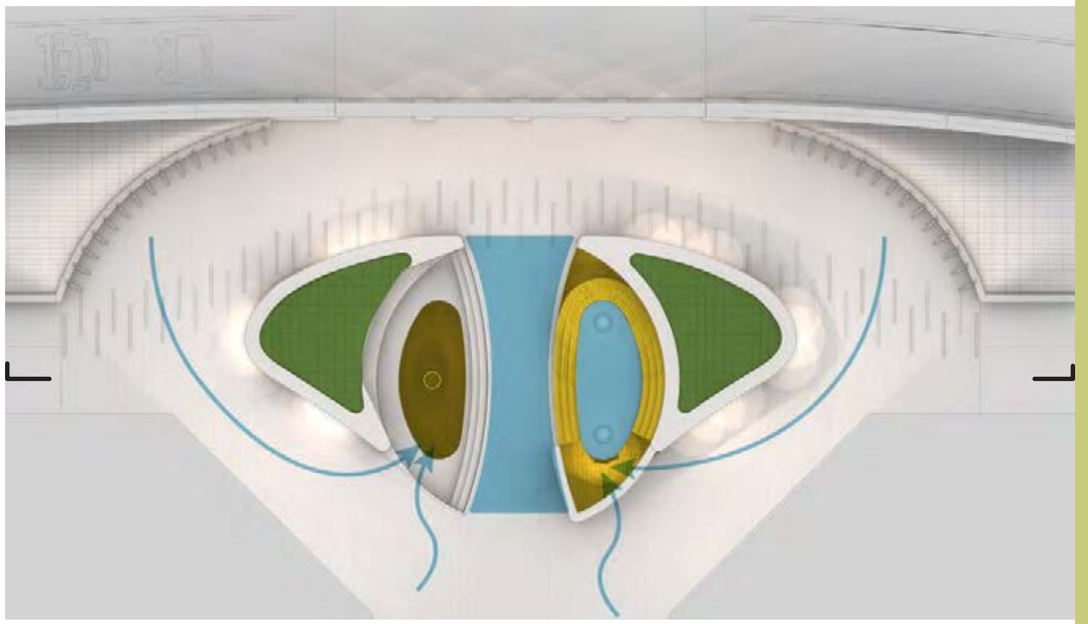
Large berms and a breathable, air-filtering wall provide enclosure and reprieve from the loud street.

Stormwater capture

The street is graded such that runoff enters bioswales.



SWALES, BERMS, AND PLAZA SPACE, FACING EAST



CIRCULATION, DRAINAGE, AND MAJOR TOPOGRAPHICAL FEATURES IN FINDLAY PLAZA

Varied Ecology

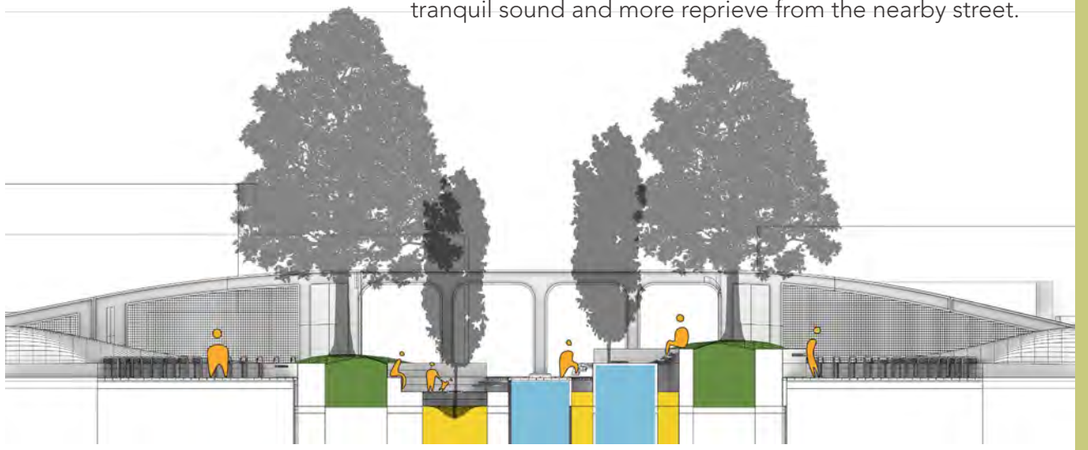
By creating varied topography, many ecological niches are formed. Wetland plantings, historic to the area, are possible in the sunken beds.

Large Canopy Plantings

Doubling as seating, retaining beds give adequate soil room for exceptionally large trees. This provides habitat and comfort in the plaza area.

Integrated Cistern

An underground cistern takes in runoff, cycling it through water features in the wetland plantings. These provide a tranquil sound and more reprieve from the nearby street.



PLAZA SECTION SHOWING RAISED AND SUNKEN PLANTINGS, AND WATER STORAGE

Findlay Plaza

PERSPECTIVE A - PLAZA CENTER, SHOWING RAISED AND SUNKEN PLANTINGS

PERSPECTIVE C - RAISED CROSSING CONNECTS FINDLAY PLAZA TO WEST SIDE OF 4TH AVE

PERSPECTIVE B - ENTERING FINDLAY PLAZA FROM SOUTH SIDE AS A PEDESTRIAN/CYCLIST

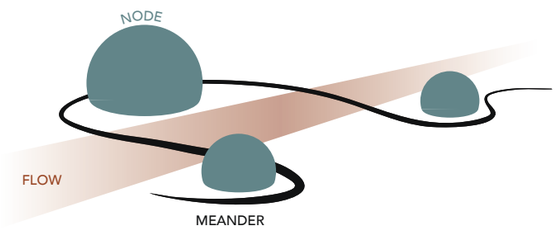
PERSPECTIVE D - AS SEEN FROM APARTMENT BALCONIES OVERLOOKING FINDLAY ST

Pedestrian Path

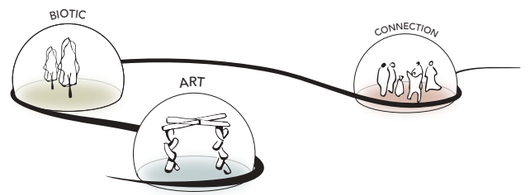
A Climate-Friendly Connection Beyond The Bend

SARAH WHITNEY

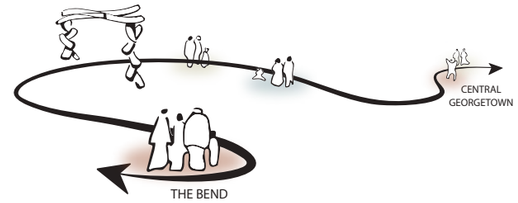
This pedestrian path aims to connect The Bend with downtown Georgetown through a slow, safe, sustainable pathway. The design integrates The Bend District Plan's imperatives and an "ABC" design concept. This East-West Connection moves slow travel away from busy S Lucile Street and encourages people to meander, pause, discover, and play. As safety is paramount to promote usage, this design explores the intersections between the path and north-to-south travel routes.



CIRCULATION



THEMES



CONNECTION

8 Stops 6 Elements

These concept sketches explore entry points to the site, which aim to improve safety, reduce environmental stressors, increase legibility, and encourage human-scale design where possible. Within these drawings, I identified six overarching elements that could supplement The Bend's existing "Cookbook of The Street." These six elements weave together to improve this slow connection, enhance comfort, foster a sense of belonging, and create a vibrant environment reflective of the residents of Georgetown.

PAVEMENT: This design envisions unique yet complementary paving along the pedestrian path, increasing overall legibility, safety, and experience. The paving of the pedestrian-only path is rust-toned and organized in a swirling pattern to add visual interest, change texture, and create a sensuous experience for the user. The paving on the rest of the route will be painted in a similar shade to indicate that one is still moving along the pedestrian path.

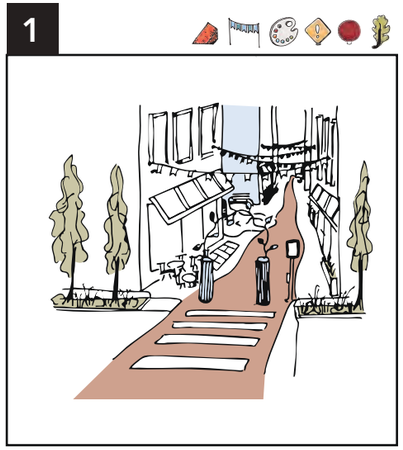
CEILING: Design elements to lower the ceiling can create an inviting, human-scale environment. The buildings on S Findlay Street within the Bend are projected to be eight stories tall. Overhead design interventions, like lighting or flags, can make the street more attractive for users.

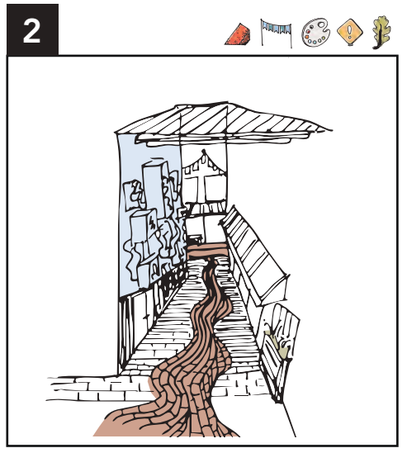
ART: The Bend is a hub for artists. As such, art elements extending beyond its limited boundaries can showcase the unique perspective of this community and place. While there are extensive possibilities, I am primarily focusing on large gate structures and interactive wayfinding signs to add continuity and distinction.

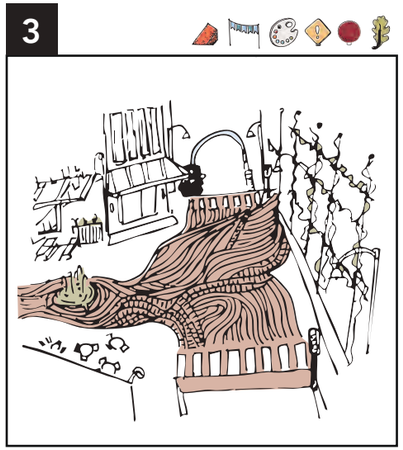
SAFETY: The design prioritizes infrastructure to protect and improve the experience for pedestrians within this primary slow path of travel. A colored, elevated table across all walkways, as well as other traffic calming mechanisms like stop signs, will improve safety and promote usage.

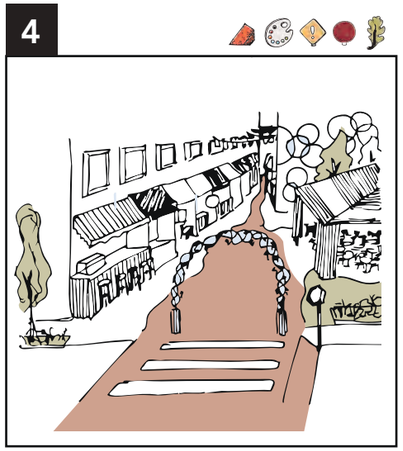
NODES: Along the path are nodes that encourage people to gather, connect, discover, and rest. Design interventions can range from a simple bench to a festival street. These nodes will make the path a destination where people want to not just move through but stay.

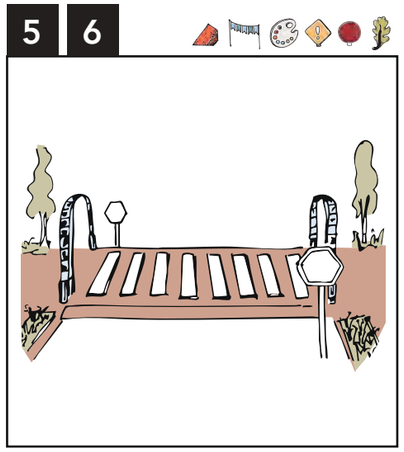
BIOTIC: Georgetown is rooted in industry, and as such, there are limited green elements. Biotic elements will integrate nature back into the urban fabric, overall improving the environmental conditions of the neighborhood. Examples include bioswales, rain gardens, planter beds, and street trees.

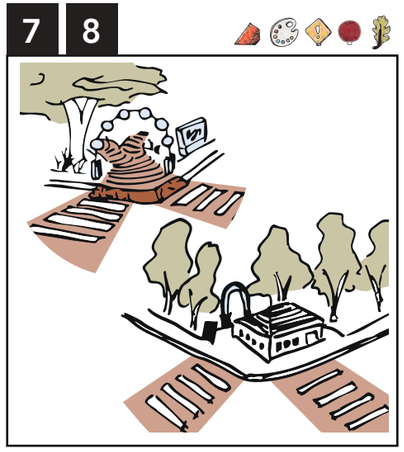






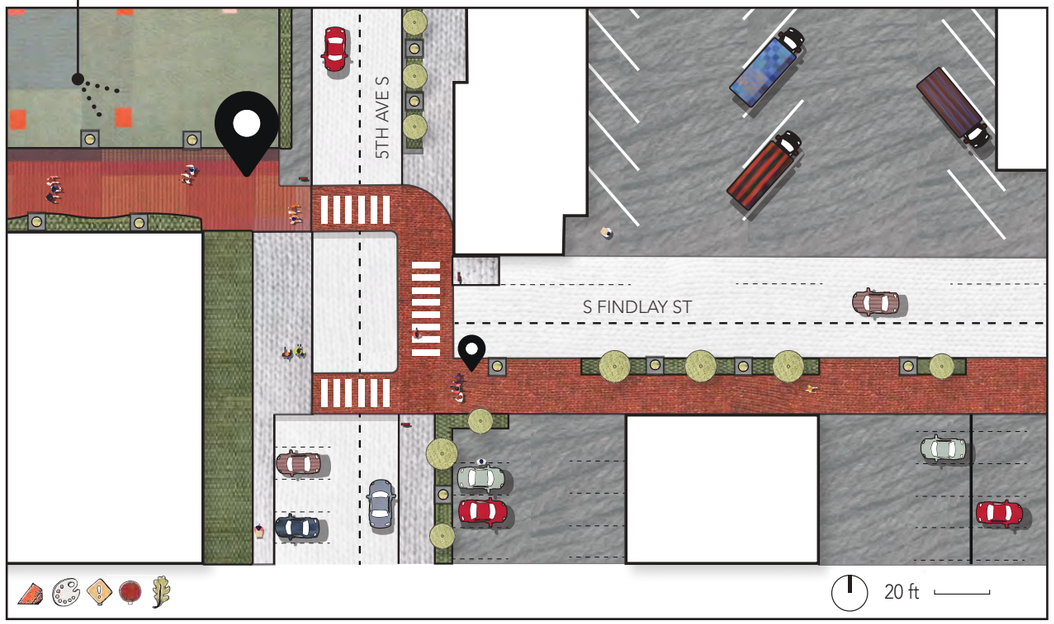






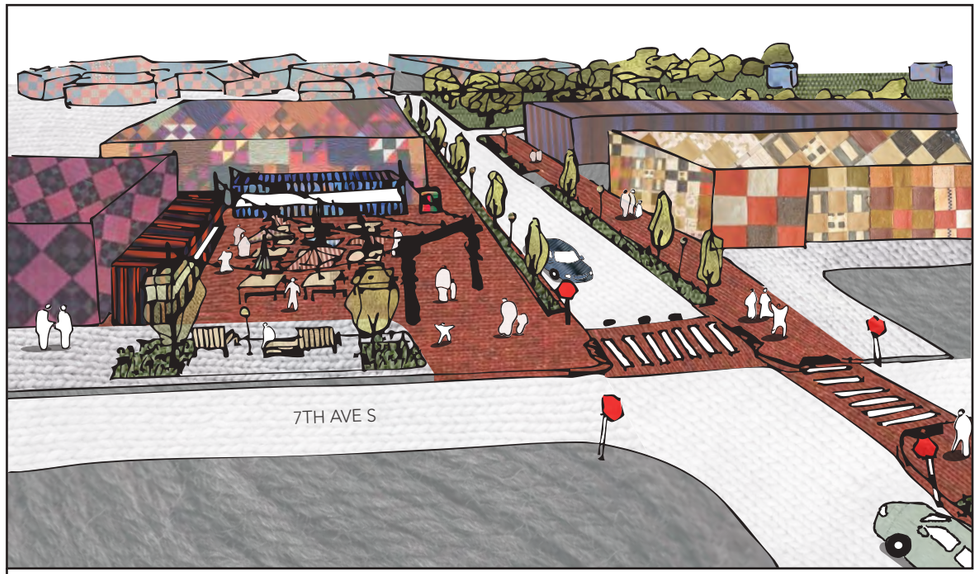
Stop 4

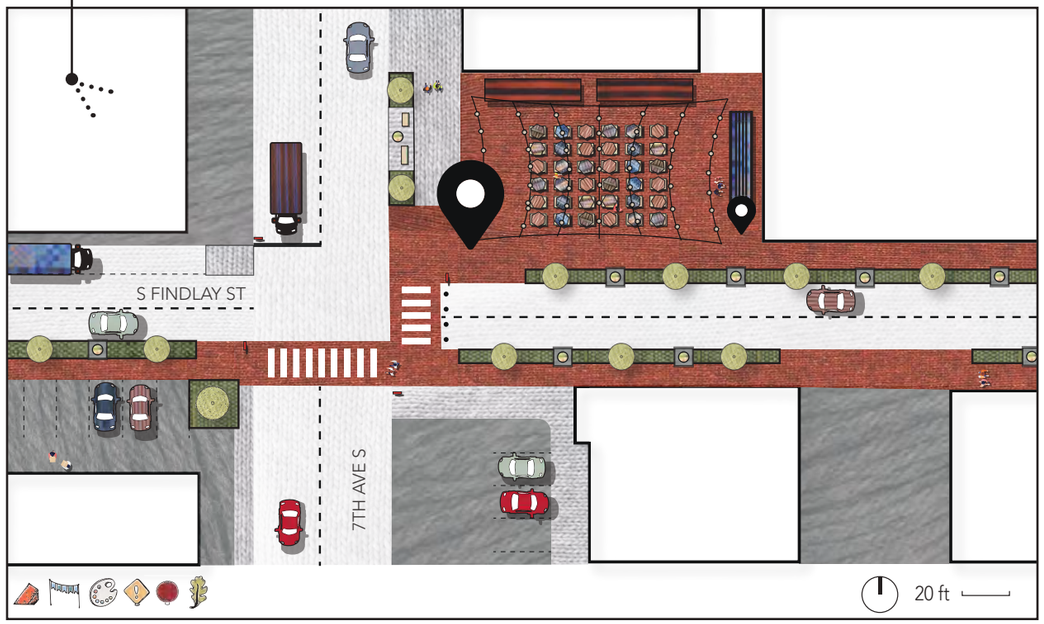
This intersection marks the transition from pedestrian only path to a pedestrian-friendly path. The design for Stop 4 directs pedestrian traffic to the south side of S Findlay Street to accommodate semi-trucks using the north side. The vignette, looking at the stop from the NW corner, illustrates the integration of five elements.



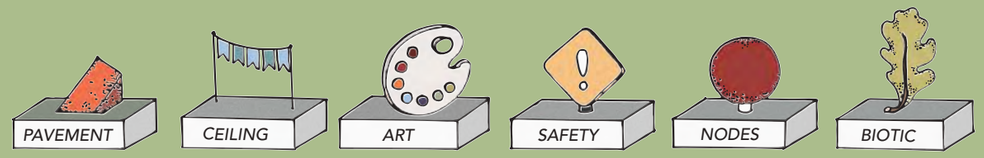
Stop 6

The design for Stop 6 features a shipping container market on a currently vacant lot. Retractable bollards on the E side of the intersection can also transform the block adjacent to Georgetown Playfield into a festival street. The vignette, looking at the stop from the NW corner, illustrates the integration of six elements.



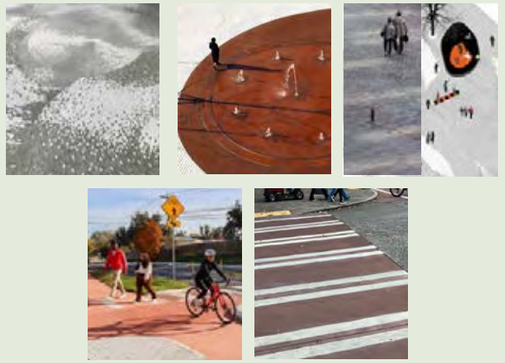


Design Interventions Matrix and Precedents



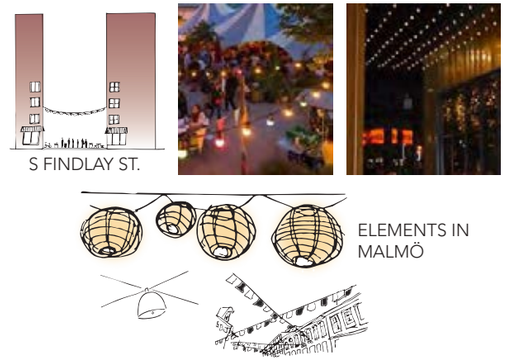
	PAVEMENT	CEILING	ART	SAFETY	NODES	BIOTIC
1	Patterned pedestrian-only paving, colored sidewalk across 4th	String lighting/ flags	Gateway	Raised path, crosswalk, stop light/ walk signals, change in paving type, lighting	Seating	Street trees, street planting beds, rain garden, swale
2	Patterned pedestrian-only paving	Overhead lighting	Light installation, wayfinding signage	Raised path, bollards, change in paving type, lighting		Raised planting beds
3		String lighting between buildings on E side, overhead lighting	Gateway, wayfinding signage, mural	Raised path, change in paving type, raised crosswalk, colorful paving, stop signs, lighting	Seating, plaza closed on weekend/ select days for special events	Street trees, street planting beds, green wall, swale, water fountain
4	Patterned pedestrian-only paving, colored sidewalks				Seating, park recreation and stage space, stores	Street trees, street planting beds, park, p-patch, swale
5	Colored sidewalks		Wayfinding signage	Raised path (S side) and crosswalk, colorful paving, stop signs, lighting	Seating, corner parklet	Street trees, raised beds, street planting beds, swale
6	Colored sidewalks, colored pavement from 6th to 7th Ave	String lighting/ flags	Gateway, and wayfinding signage	Raised path, raised crosswalk, colorful paving, stop signs, lighting	Market gathering space, shipping container cafe stalls, seating	Street trees, street planting beds, swale
7	Colored pavement and crosswalk				Georgetown Playfield	Georgetown Playfield
8			Gateway			

Pavement



Mathilde Jonquiere, Château de Bagnolet - Cognac ; Anji Aijia Linxi Valley, MBDI; Grønnegade Square, MASU Planning; Fast Company, "Why these bike lanes in Austin are red not green"; Downtown Seattle Crosswalk

Ceiling



Studiotech Catenary Lighting, Pintertest; Frau Gerolds Garten

Art

Chemin des Carrières, Reiulf Ramstad, Arch Daily; Giclee Print, Railroad Bridge; Gijs Van Vaerenbergh, Arcade; Ersha ArtDist Sign Design, Liang Xiang; Shadow Signage, Pinterest; Viva Recreation Animal Labyrinth; Robert Rickard, Moon River II Sculpture

Safety

Stop Sign Image, Lorenzo and Lorenzo; Bollards, Karens Minde Aksen, Schønherr Seattle's Swale on Yale, WaterWorld; Transpo Industries, Color-Safe Crosswalks

Nodes

West Seattle Farmers Market, West Seattle Blog, Restaurante Container; Bernardo Horta Arquiteto, Meius Arquitetura, and Estúdio Zargos; Tully Artworks, Node Sculpture

Biotic

Green street at Vellinge Campus; Water feature, Bureau Koppelaar; Community Garden, Pinterest; Common Camas Plant, U.S. Forest Service; Yarrow Plant, King County Native Plant Guide

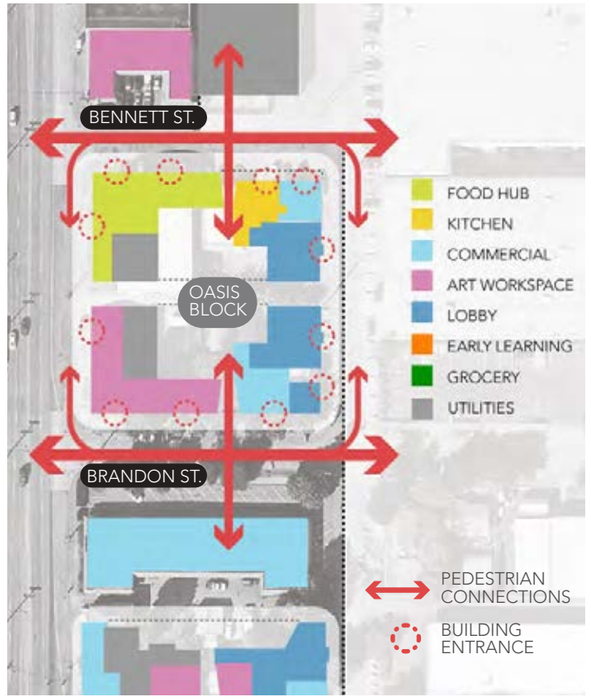
Livable Streets

Brandon & Bennett St.

PEIYAO XIAO

Brandon and Bennett Streets, located to the south and north of the Oasis block, are envisioned as primarily pedestrian streets with minimal vehicular access, serving as a contrast to and connection between 4th and 5th Ave. This proposal transforms these streets into vibrant spaces that accommodate diverse programs and activities, acting as an everyday stage for the Oasis building's work-live community. Green elements, such as planters made from repurposed materials, stormwater infrastructure, and greenbelt buffers, enhance walkability and livability, fostering a sustainable and engaging streetscape.

Site Context

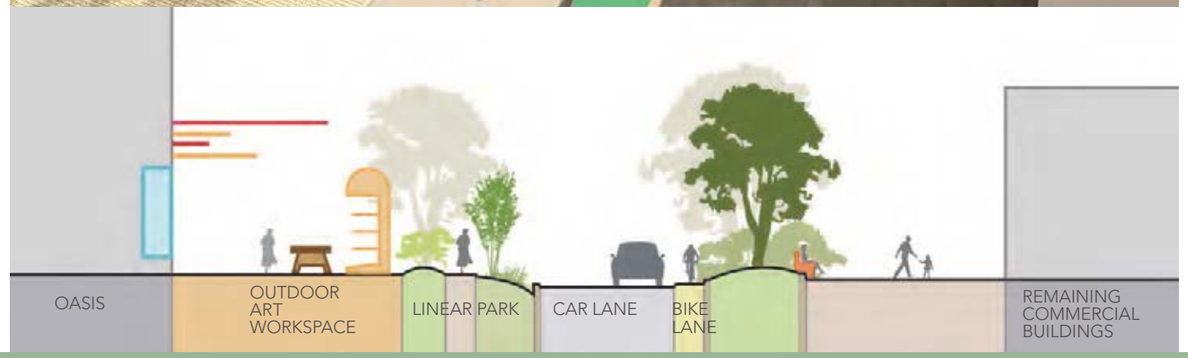


BUILDING PROGRAMS & STREET CONNECTIONS

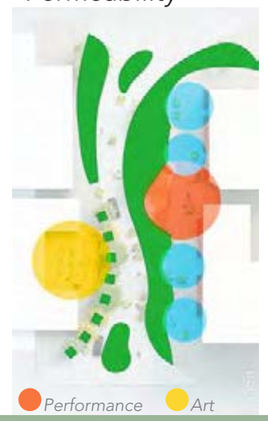
Existing Conditions

Photo credits: Sarah Whitney and Joanna Chen

Brandon and Bennett Streets are currently dominated by car lanes, with limited pedestrian space and a lack of green infrastructure. In the proposed design, these streets will prioritize pedestrians while meeting the minimum requirements for vehicular access.



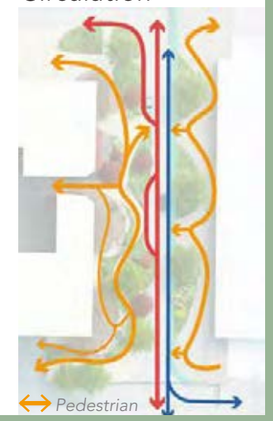
Program & Permeability



Circulation

Program & Permeability

Circulation



Repurposing Industrial Materials

DEGREE OF TRANSFORMATION

LOW

RECONTEXTUALIZATION

taking objects out of their original context and placing them in a new environment or setting

UPCYCLING

transforming discarded or unused materials into products of higher value or quality

RESHAPE

altering the form or structure of original objects while retaining some of their essential characteristics

RECOMBINE

disassembling original objects and using their components to create new structures or artworks. juxtaposition and layering of different textures, colors, and shapes.

HIGH

Rebar → Railing

Concrete → Permeable paving

Unused machines → Art Installation

MOVABLE FURNITURE FROM RECYCLED MATERIALS

Preserving Oasis

Embracing the Canyon

RUSSELL CORBIN

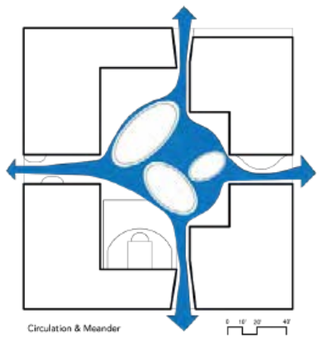
Today, one of the few spaces of natural respite amongst Georgetown's overstimulating concrete jungle is a small garden just off of S Brandon St. With simple elements including a koi pond, a couple of exceedingly rare mature trees and a wall of greenery separating it from the surrounding streets, the Oasis provides artists and residents a space to create, gather, and connect with nature. The current development plan is to pave this paradise for a 25-car parking lot; the following design proposes a way to preserve the Oasis.

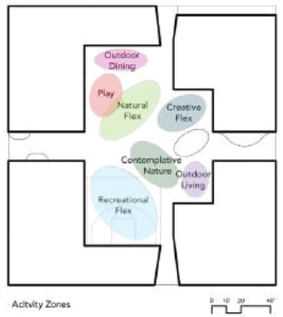
The Case for a Courtyard

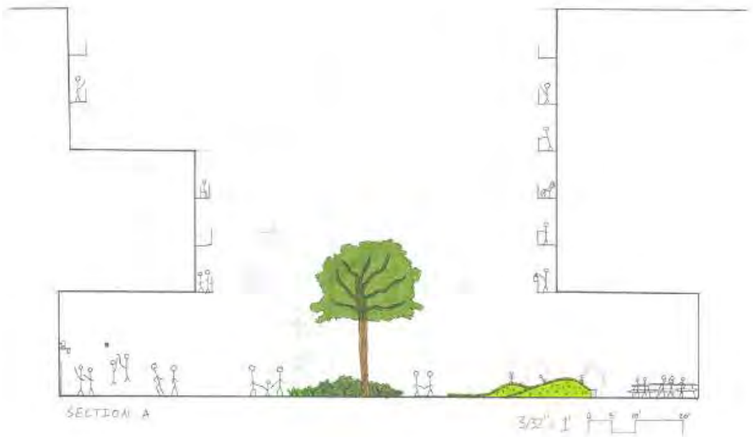
As a way of mitigating the noise pollution from the nearby airport and the heavy truck traffic on the adjacent 4th Ave S while still providing meaningful outdoor space for residents of the new Oasis apartment building, this proposal takes advantage of the 85 ft high walls that surround the courtyard and prioritizes it as a multipurpose public space. These tall buildings act as a sound barrier and recreate the feeling of embrace, safety, and relaxation that the Oasis today provides.

The parking lot in the courtyard as proposed today is a way of conforming to the zoning code that requires said spaces for the commercial ground-floor uses in the new building. In the name of creating **not just housing units but a useful, comfortable, and safe place that people can call home**, it is imperative that this valuable courtyard not be wasted on storing private cars for visitors to the shops but rather accessible to the residents as a welcoming semi-public space. A zoning variance or arrangements for off-site parking across the street can be pursued to address the parking requirement and an alley vacation would allow the courtyard space to be cohesively designed and planted without an arbitrary barrier.

Proposed ground-floor uses, including 34 parking stalls in the courtyard.
Source: Signal Architecture + Research





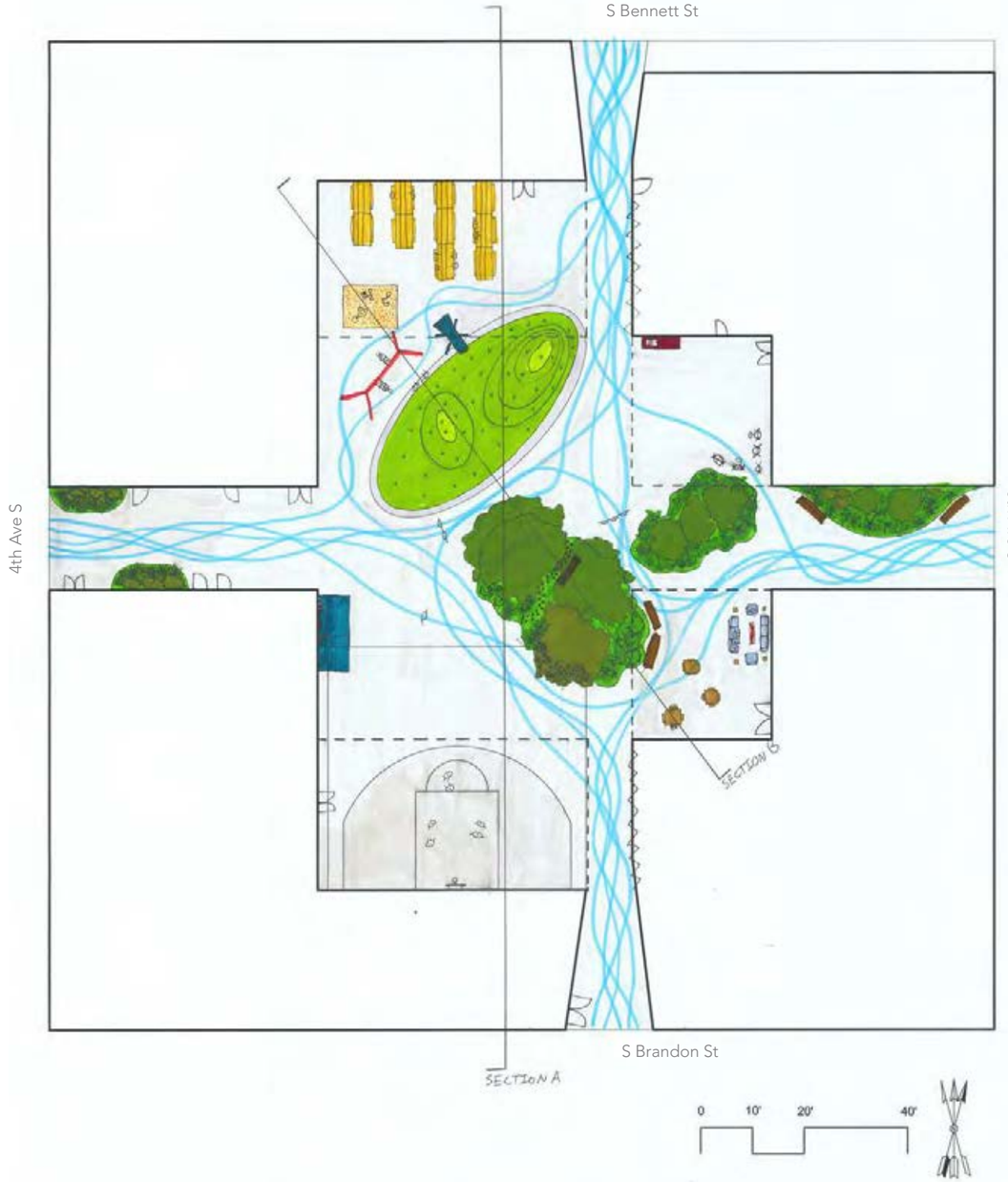


"Don't it always seem to go
That you don't know what you've got till it's gone
They paved paradise
And put up a parking lot"

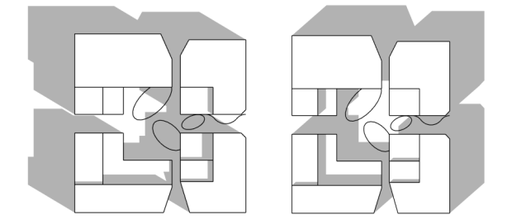
- Joni Mitchell

Harmonizing Uses

For a building with hundreds of residents and a community of thousands, the Oasis Courtyard must balance many uses. This design aims to pay particular attention to **providing sufficient un-programmed open space that residents can shape as theirs over time**. A creative flex area can be used for outdoor art-making or events; a sloped grass lawn is a natural flex area for play and relaxation; the recreational flex zone fits a regulation-sized basketball half-court and a bouldering wall.



The more semi-permanent spaces include an outdoor living area, an outdoor dining area that serves the food market, a play area with swings, a slide, and a sandbox, and a forested grove for contemplation in nature. The western portion of the current alley that opens onto 4th Ave S in this design maintains driveability for large trucks as a loading zone and access the trash rooms. Thus, these uses can serve the needs and interests of residents and visitors of all ages.



Design Theory

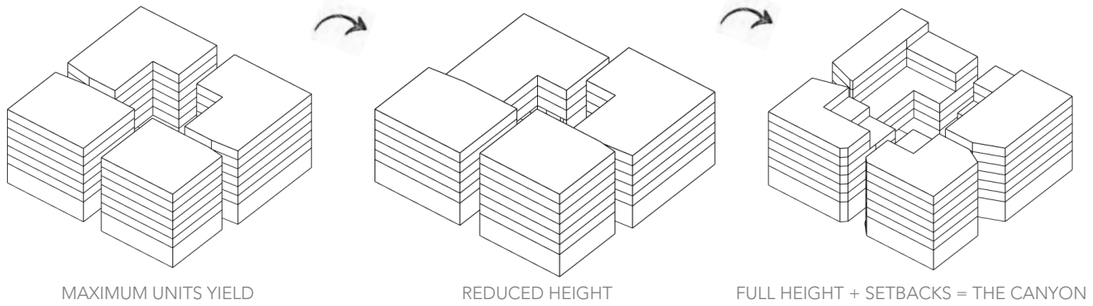
The landscape form of this design seeks to recognize the natural history of The Bend site as the former path of the Duwamish River as well as help harmonize the aforementioned uses. Three oval-shaped "islands" of planted soil provide ample space for foliage while most of the remainder of the courtyard is paved in permeable pavement to maximize the creative potential and neighbor agency for the flex spaces. The islands are arranged in a way to encourage non-linear meandering for people walking through the courtyard. Bright blue painted lines mimic a braided river and guide folks along the desire paths between entrances to the courtyard as they travel through the space.

Left: top-down axonometric view of the Oasis block at the summer solstice and autumn equinox.

Above: perspective views of the Oasis courtyard facing northeast.

Shadow Study: Carving the Canyon

Given the tall height of the buildings and the narrow courtyard width, this design proposes modulating the interior rooflines to maximize sunlight in the courtyard. In an effort to balance getting a lot of units with making them healthy and habitable, the proposed building massing maintains the 85 ft height on the walls facing the exterior of block and has some single-loaded units on the upper floors. The tiered steps of the roofline create a canyon-like effect, where not only is there much more sun but the roofline above the courtyard at 50 ft is much closer to a human-scale design. This also creates many desirable rooftop terraces that further enhance the vertical public life and community feel of the courtyard.



Precedent Studies

Broens Gadekøkken, an outdoor food market with back to back picnic tables that are constantly packed. *Source: Russell Corbin*

A Copenhagen courtyard retrofitted for enhanced nature and stormwater management. *Source: Russell Corbin*

Courtyard of Ohboy apartments and hotel in Malmö, featuring an abundance of dense plant life. *Source: Russell Corbin*

Orienten mixed-use development in Nordhavn; this pedestrian alley features trees and bike parking, while maintaining vehicle access to half of the alley's length. *Source: Russell Corbin*

Physical 3D Model

The Grotto Under Oasis

DAVIEN GRAHAM

More than two stories above ground level lies a tranquil space of mounded berms with punched openings below. Plants hang down, and trampoline nets serve as engagement spaces along the rooftop courtyard.

A meandering boardwalk path connects the courtyards of two apartment buildings separated by an alley. As users walk the path, curiosity begs them to look into one of the punched skylight openings and see what awaits below. What peers through the opening is the Grotto.

OASIS

This rooftop courtyard starkly contrasts the Grotto below. Open to residents and pedestrians, it is meant to provide refuge in this otherwise industrial neighborhood.

LEVEL 1 FLOOR PLAN
NOTABLE FEATURES:

Painted graffiti alley for vehicular and pedestrian use.

Moss pavers serving as the continuation of the neighborhood meander.

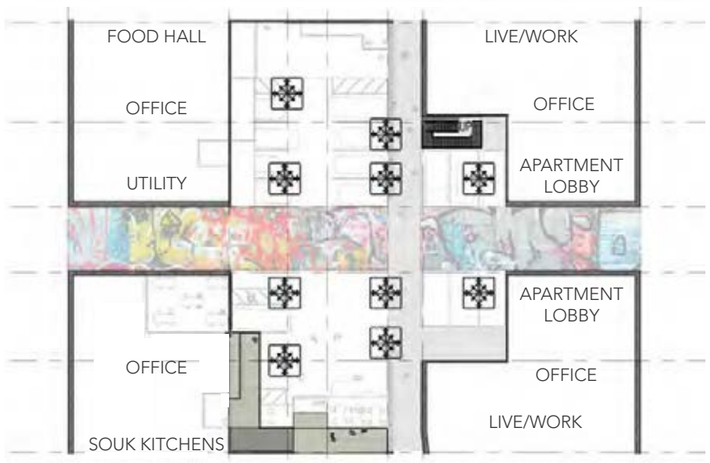
Extended exterior eating space adjacent to souk kitchen and food hall spaces.

LEVEL 2 FLOOR PLAN
NOTABLE FEATURES:

Branching columns offering structural support, ventilation, and stormwater drainage.

Multi-leveled interior mezzanine space underlay.

Acoustic wood panels on the ceiling surface. (See Section Axons)



LEVEL 3 FLOOR PLAN
NOTABLE FEATURES:

Meandering boardwalk mimicking the duwamish river.

Punched berms serving as a trampoline park and voids for hanging plants into the Grotto.

Drawbridge connecting the courtyards.

10 30 80

NORTH
CROSS SECTION
AXONOMETRIC

SOUTH - WEST
CROSS SECTION
AXONOMETRIC

WEST LONGITUDINAL SECTION AXONOMETRIC

Form and Function

The new development Oasis will be an 8-story tall apartment complex with food market spaces on its ground and second-floor levels. A Food Hall in the north extends out into the Grotto to provide a large space capable of hosting large gatherings. In the south, the lower 2 floors serve as a Souk kitchen (a type of Arab food market). Due to the commercial and service use of the ground spaces zoning code requires parking adjacent to the markets. Zoning also requires that residential spaces have an associated accessible greenspace. So a courtyard lid above the parking would satisfy these codes. Another zoning issue was a 35' clear height for emergency vehicle access, to address this the connecting platform for Oasis's courtyards is also a drawbridge that raises in emergencies.

Since Oasis is meant to be accessible to pedestrians and residents, the spaces adjacent to the courtyard can serve as live/work spaces for additional commercial use. To garner further use out of the space the 1st floor is a double-height floor rising to 17' high. This allows for a half floor of shipping container souks to be slipped in to gain more commercial use and a dynamic interior/exterior environment.

Materials such as blue shipping containers, glazing, permeable pavement, and wood aid in crafting the allure of these spaces. Graffiti serves a dual purpose of aesthetics and vehicle control. By painting the ground cars will naturally slow in pace. Neon signs take advantage of the dark mystique of the Grotto and give instances of wayfinding. Branching columns serve as a biophilic reminder of the former Oasis that is currently in Georgetown crafting a "forest under the lid" aesthetic.

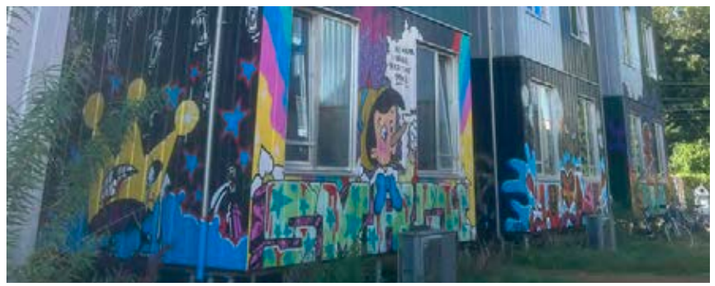
The Spirit of Georgetown

As earlier chapters have addressed Georgetown is an industrial neighborhood in South Seattle. This neighborhood is characterized by brick and steel, graffiti, and neon lights, and is currently a void of biophilia. This project sought to bring design philosophies from Danish design and blend them with the grit and glamour of Georgetown. A prominent inspiration for the Grotto was the neighborhood of Christiania in Copenhagen. There, many artists and craftspeople gather, exchange ideas, and dynamically impact their environment. As for the alleyways, Detroit's graffiti-filled and intimate alleys served as inspiration due to of the similar character it shares with Georgetown. Additionally, to address biophilia and create a beautiful and engaging landscape the California Academy of Sciences was used as a precedent.

THE BELT, DETROIT, MI
Source: Nick Hagen

CALIFORNIA ACADEMY OF SCIENCES ROOFTOP, SAN FRANCISCO, CA
Source: California Academy of Sciences

CHRISTIANIA, CPH, DK
Photographed by Davien Graham



(ABOVE) CPH VILLAGE NØRREBRO, CPH, DK (BELOW) AI GENERATIVE INSPIRATIONS
Photographed by Davien Graham / Generated by Davien Graham via Stable Diffusion

CAPTURING THE SPIRIT OF GEORGETOWN:

Neon and graffiti are emblematic of the Georgetown community and in this project, the art styles are used as a means of wayfinding and exploration.

ALLEYWAY ENTRANCE INTO THE GROTTO

STAIRCASE FROM THE GROTTO TO OASIS ABOVE

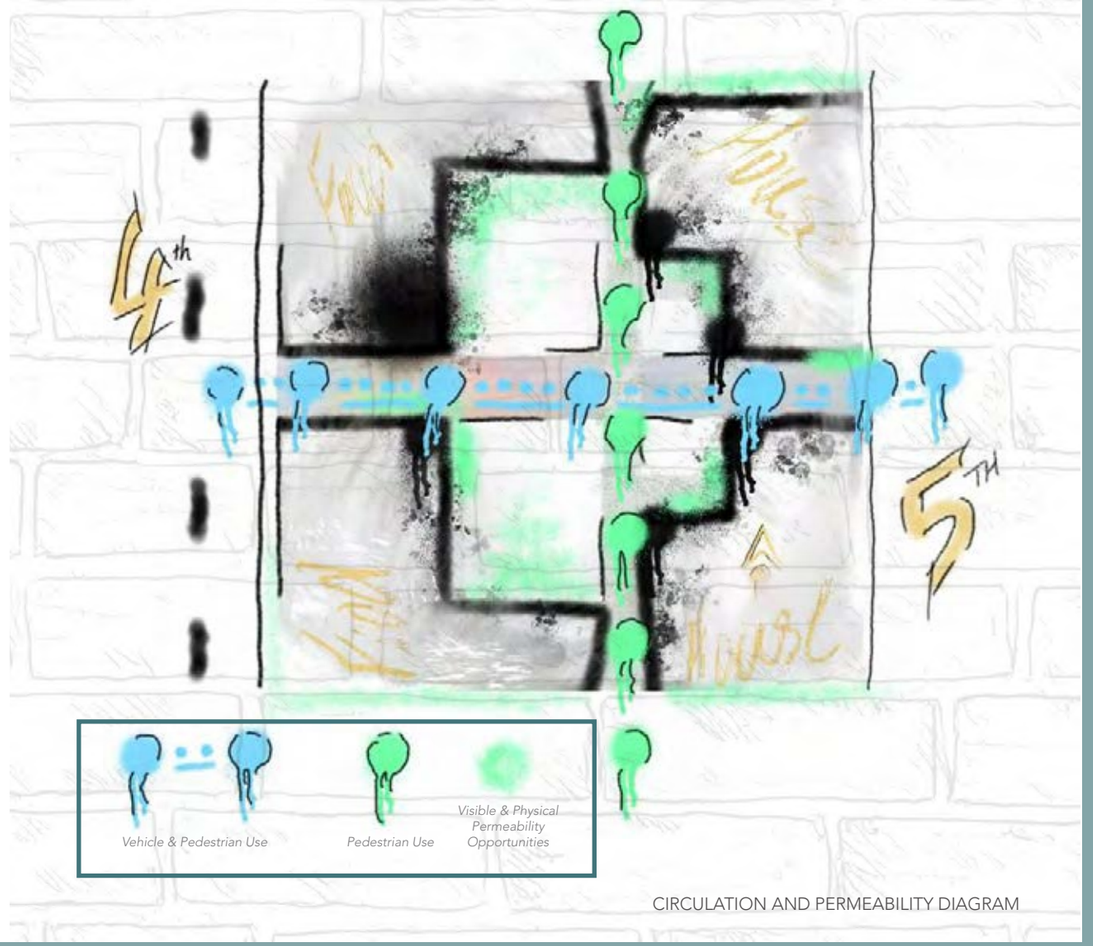
BRANCHING COLUMN DIAGRAM

Process and Progress

Development of a new apartment complex and food hall generated initial designs of the Oasis block. These designs were used as a base plan in Revit and were iterated to generate the extruded forms of the Grotto walls and the punched mounds of Oasis. Generative AI images were produced to serve as initial inspiration.

To address some of the aesthetic concerns with the space, in Revit, I designed branched columns serving as structural systems capable of performing MEP (Mechanical, Engineering, Plumbing) tasks. Trees perform similar transmissions of water and gases through their branches to their roots, the roots in this case being a cistern to contain and reuse stormwater.

After the space was designed I applied materiality to its elements and rendered the Grotto under Oasis in Enscape. Entourage, vehicles, and light made the space feel realistic especially the skylights in the Grotto. After this, I post-processed this information in Photoshop utilizing its generative AI tool to add artistic elements such as graffiti and neon lights.



CIRCULATION AND PERMEABILITY DIAGRAM

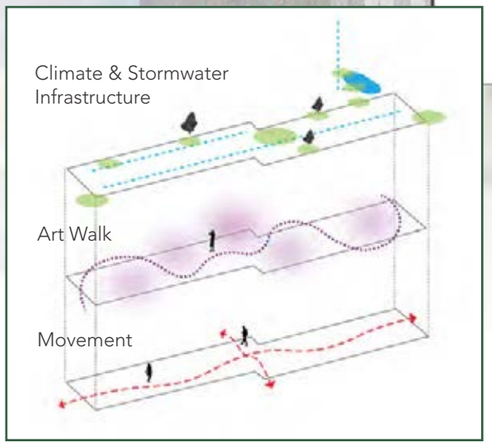
THE GROTTO

Extruded shipping container souk kitchens, neon lights, and graffiti culminate to produce this dynamic and vibrant space below the Oasis lid.

Findlay Art Lane

REBECCA ZARAGOZA

The **Findlay Art Lane** is a pedestrian-friendly street designed to blend vibrant art displays with inviting spaces for relaxation and community engagement. The goal is to create a dynamic, walkable environment where art, culture, and social interaction thrive. By incorporating permanent and rotating art installations, the space becomes a living gallery while fostering a sense of connection through places to linger.



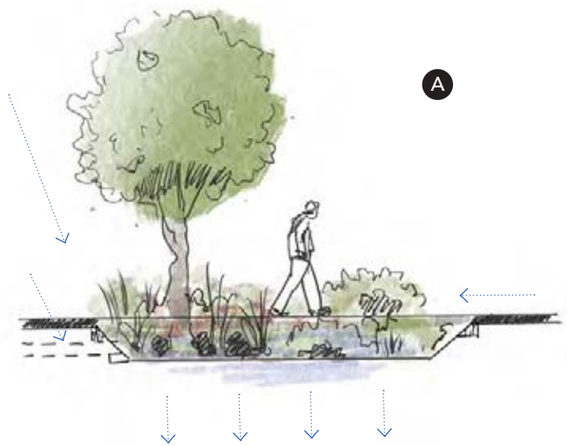
EXPERIENCE VISION

The grounding element of the Findlay Art Lane is a painted design on the pavement that follows the original winding path of the Duwamish River to honor the history and presence of the Duwamish Peoples and the significance of the river.

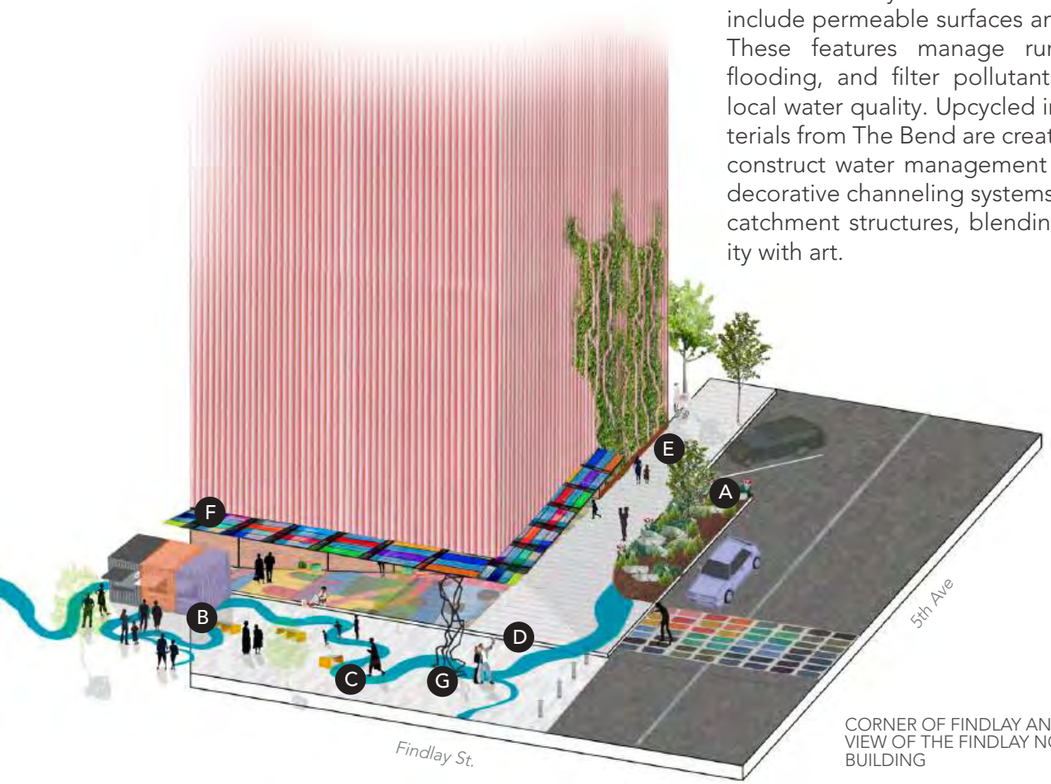
Visitors enter a vibrant pedestrian street alive with color, sound, and movement. They stroll at their own pace, exploring interactive installations, stopping to rest on artful benches, or enjoying a drink in a shaded area. The air buzzes with creativity from live painting sessions or open air acoustic performances. By blending art with places to linger, the Art Lane becomes a cultural hub, a meeting place, and a canvas for expression.

Climate Resilience & Infrastructure

The Findlay Art Lane incorporates environmentally conscious design by upcycling and reusing industrial materials from Georgetown, reducing waste and promoting sustainability. By repurposing these materials for art installations, seating, and pathways, the project minimizes its carbon footprint and showcases creative reuse. This approach not only beautifies the space but also serves as a model for reducing landfill waste, conserving resources, and fostering community awareness about climate-friendly practices. The integration of sustainable design elements enhances urban resilience while creating an engaging, eco-conscious public space.



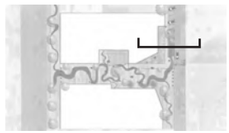
Environmentally conscious design elements include permeable surfaces and bioswales. These features manage runoff, reduce flooding, and filter pollutants, improving local water quality. Upcycled industrial materials from The Bend are creatively used to construct water management features like decorative channeling systems or rainwater catchment structures, blending functionality with art.

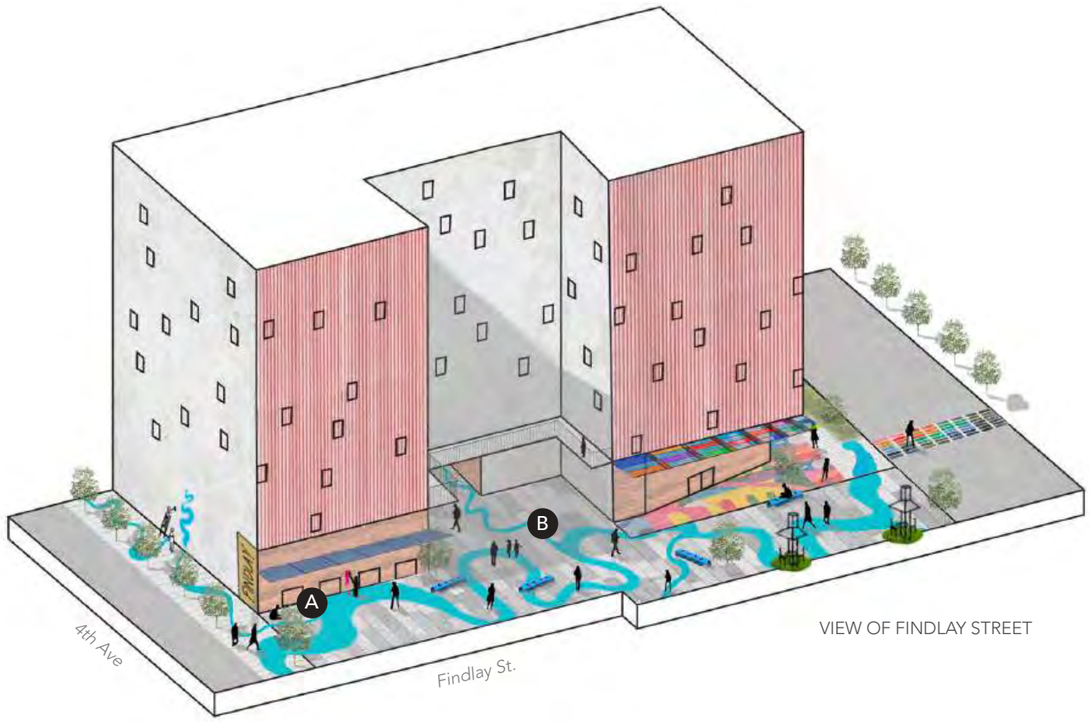


CORNER OF FINDLAY AND 5TH AVE: VIEW OF THE FINDLAY NORTH BUILDING

Sustainability & Accessibility

- **B** **Eco-friendly Materials:** Use recycled or locally sourced materials for installations and street furniture.
- **C** **Universal Accessibility:** ADA-compliant pathways and seating ensure inclusivity for all visitors.
- **D** **Stormwater Features:** Functional designs like drains and permeable art pavements that double as stormwater management.
- **E** **Eco-Art Installations:** Green walls and bioswale that double as stormwater management.
- **F** **Solar Energy:** Sustainable energy sources for nighttime illumination and solar panels above Workspace awning.
- **G** **Upcycled Materials:** Art pieces and street elements made from reclaimed or recycled materials.





VIEW OF FINDLAY STREET

Art & Public Space

Programming Opportunities

Seasonal Festivals: Themed art and cultural festivals like light festivals, craft fairs, or music-and-art fusion events.

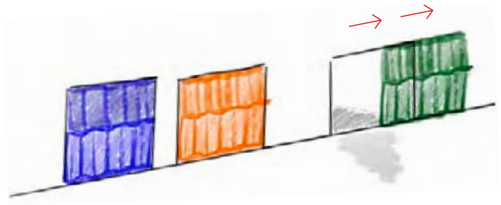
Flex Space: Open and flexible space on the street that can host pop-up markets, holiday events, or special exhibitions.

Hands-On Installations: Kinetic sculptures, musical instruments, or sensory experiences that visitors can interact with.

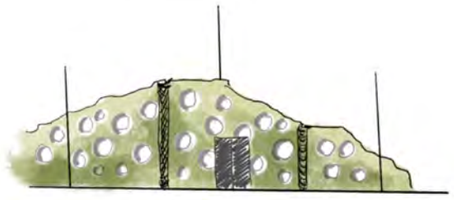
Rotating Outdoor Galleries: Large display boards or stands showcasing works by local artists or photographers.

Art History Signage: Informational plaques about the artworks and artists, adding educational value.

A Upcycled container doors for workspace units that can slide open and allow engagement between artists, vendors, and the public.



B Sculptural fence enclosing the outdoor play area with some transparency. Fence can be opened during off hours for public use.



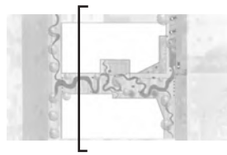
Artful Lighting: Creative uses of light, such as solar-powered LED installations or projection mapping on walls.

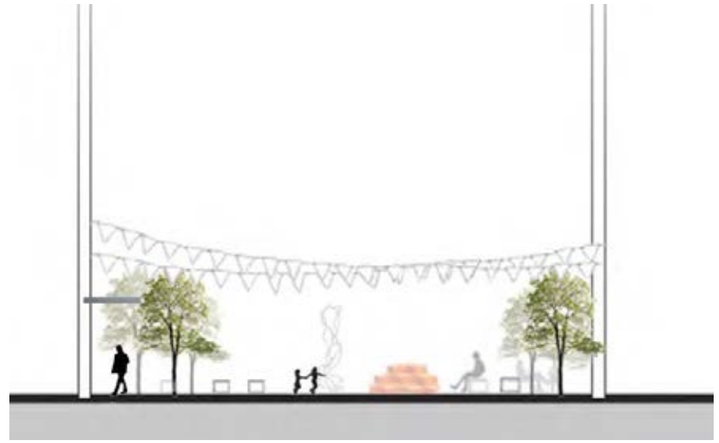
Functional Sculptures: Street furniture like bike racks or trash bins designed as creative, sculptural elements.

Art in Action: Scheduled workshops for visitors to try painting, sketching, or sculpture.

Kids' Creative Corner: Dedicated art activities for children, such as DIY crafts or scavenger hunts that can be hosted along the street or at the outdoor play area during off hours.

First Friday Art Walks: Monthly evening events featuring new installations, live performances, and guided tours.





Vertical Landscape

Findlay North

JINGYAO WU + TINA LEE

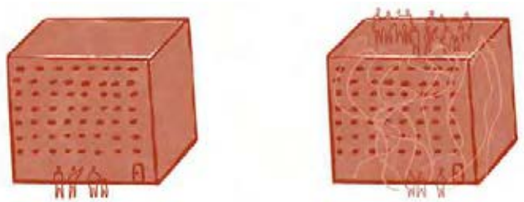
Recognizing the current streetscape focus and the limited use of building above second floor, our group aims to activate the underutilized gray spaces of the Findlay North building. Our design extends the proposed ground-floor mixed-use concept vertically, integrating inclusive and biophilic elements to enhance the community's unique character and create vibrant, multifunctional spaces.

"CREATE PLAYFUL CONNECTIONS, AND BRING ROOFTOPS INTO VIEWS, AND INTO OUR LIVES."

"ROOFTOPS CAN BE HUBS OF CREATIVITY, FUN, AND CONNECTION"

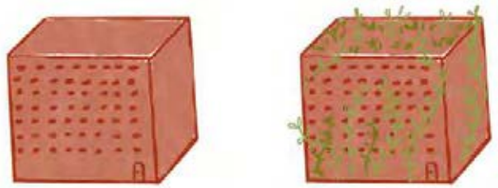
Design Principles

Before *After*



Design rooftops with inviting, semi-public spaces that welcome everyone.

Foster livable, inclusive communities where neighbors connect and interact.



Transform rooftops into vibrant, biophilic spaces filled with greenery and life.

Create playful vertical playgrounds for all ages, integrating playful elements into the architecture.

Plane-Spotting in Georgetown

"WITHIN A 0.5-MILE RADIUS OF THE BEND, OVER 300,000 SQUARE FEET OF ROOFTOP SPACE LIES WAITING FOR TRANSFORMATION."

PHASE 1

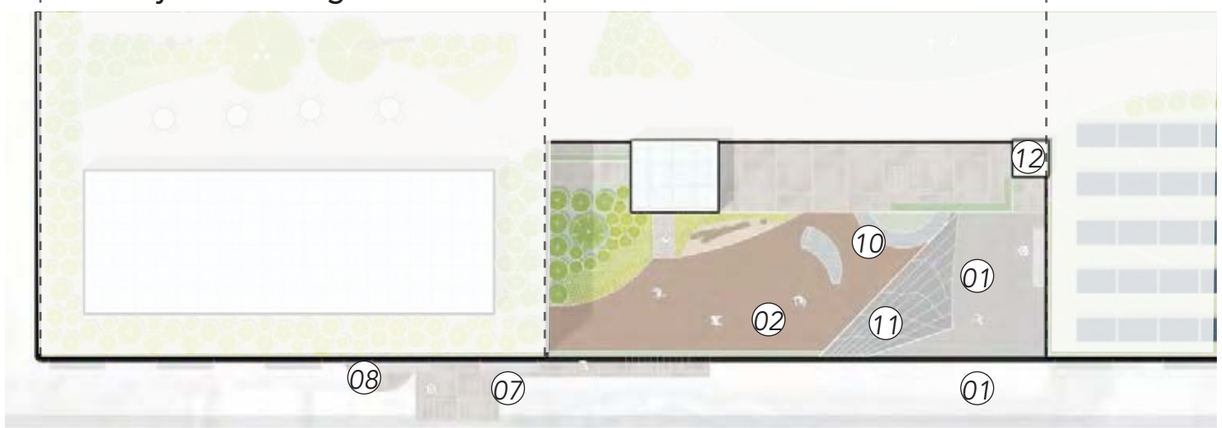
PHASE 2

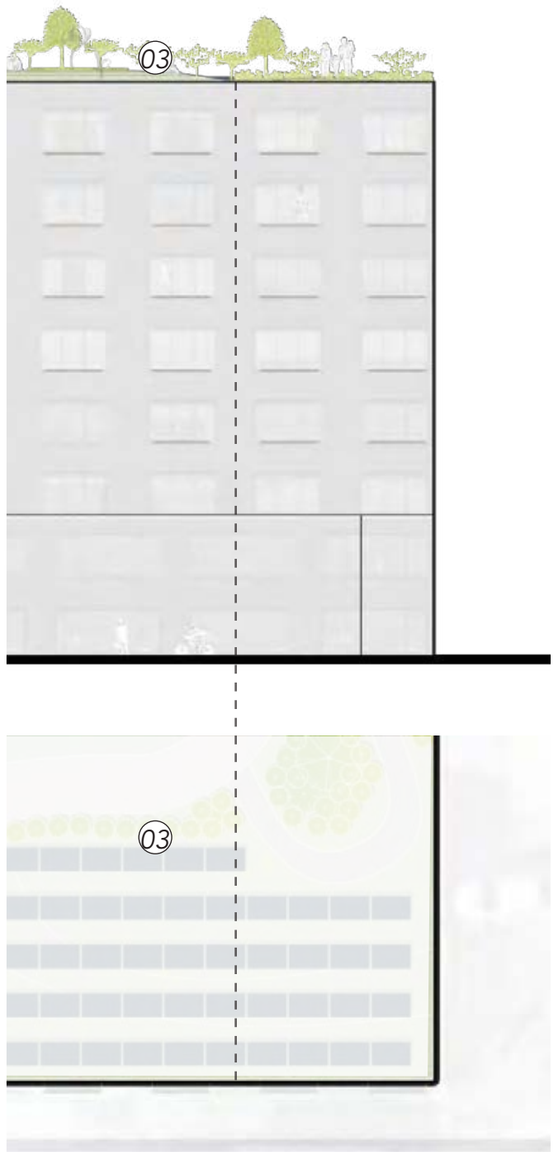
PHASE 3

Findlay N. Building Elevation

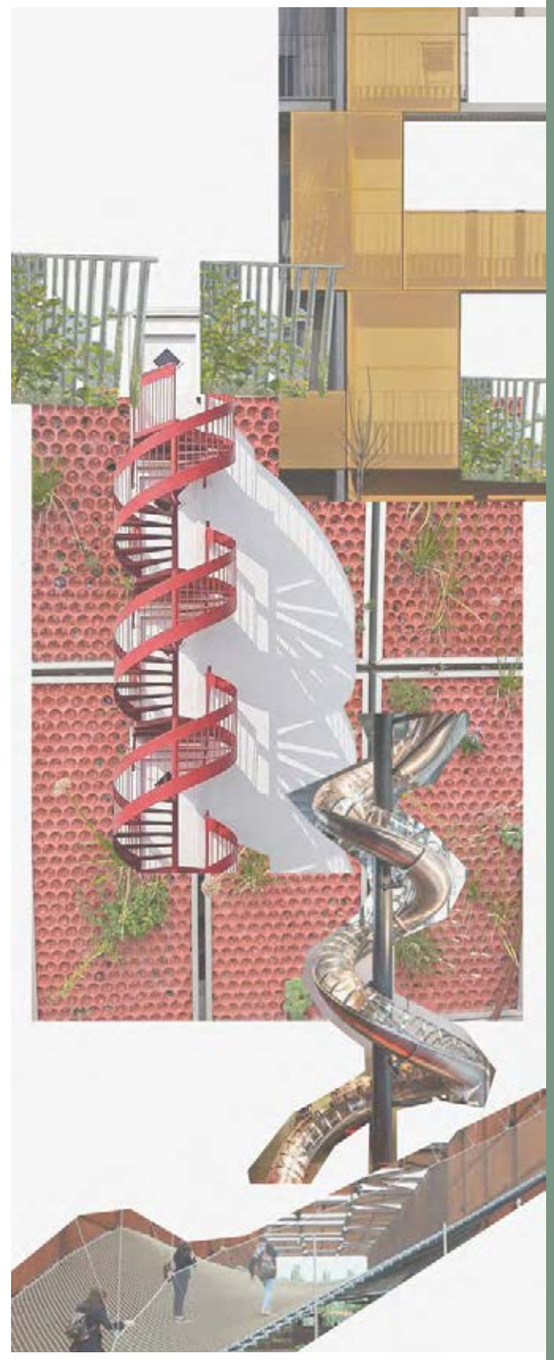
01 STREET
02 THIRD FLOOR PATIO
03 ROOFTOP
04 GREENWALL
05 METAL PLATE
06 SENSORY GARDEN
07 STAIRCASES
08 SPIRAL STAIRCASES
09 PLATFORM
10 SLIDE
11 NET
12 ELEVATOR

Findlay N. Building Plan



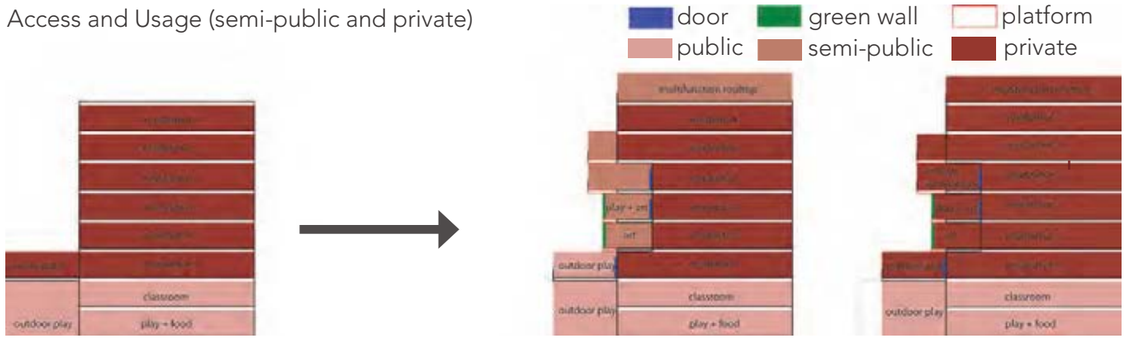


Material Palette



Vertical Connection Concept

Access and Usage (semi-public and private)



original design

proposed design
during daytime or events

proposed design
during nighttime

A

PATIO:
PLAYGROUND
&
SENSORY
GARDEN

B

GROUND-
FLOOR:
VERTICAL
PLAYGROUND

C

5TH FLOOR:
ART GALLERY
AND ENERGY
GENERATORS

D

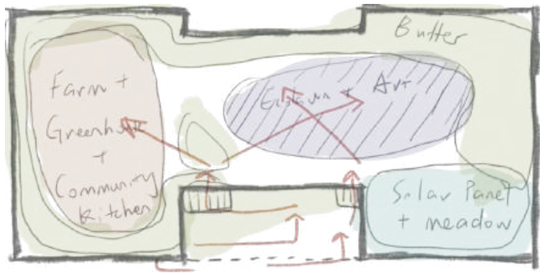
5TH FLOOR:
COMMUNITY
WORKSHOP

E

4TH FLOOR:
ART GALLERY

Rooftop Intervention Concept:

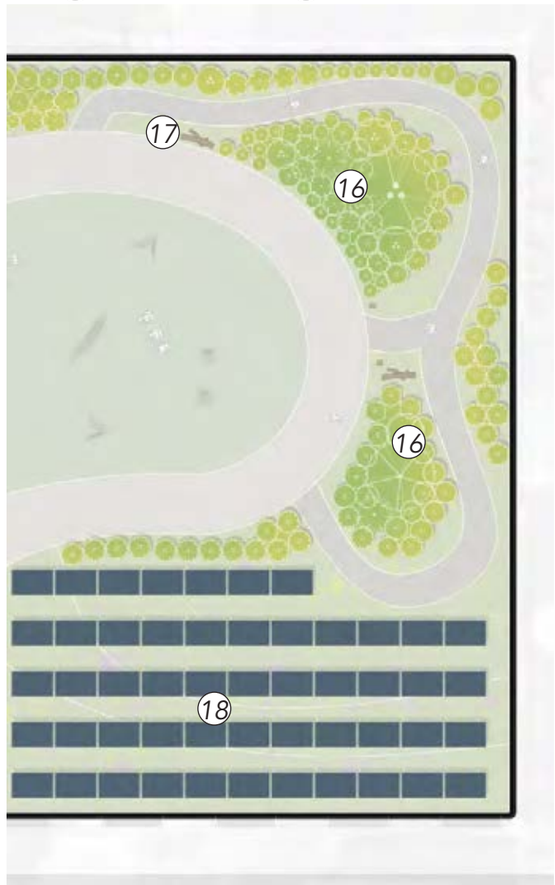
After creating vertical connections within the Findlay North building, the design focuses on transforming the third-floor patio and rooftop into inviting, inclusive, biophilic, and playful public spaces. Features like biodiversity buffer, edible forest, native ecolawn, and solar panel meadow enhance ecological value, foster community interaction, and provide energy production. These interventions encourage residents to explore and enjoy the integrated public spaces throughout the building.



BUBBLE DIAGRAM

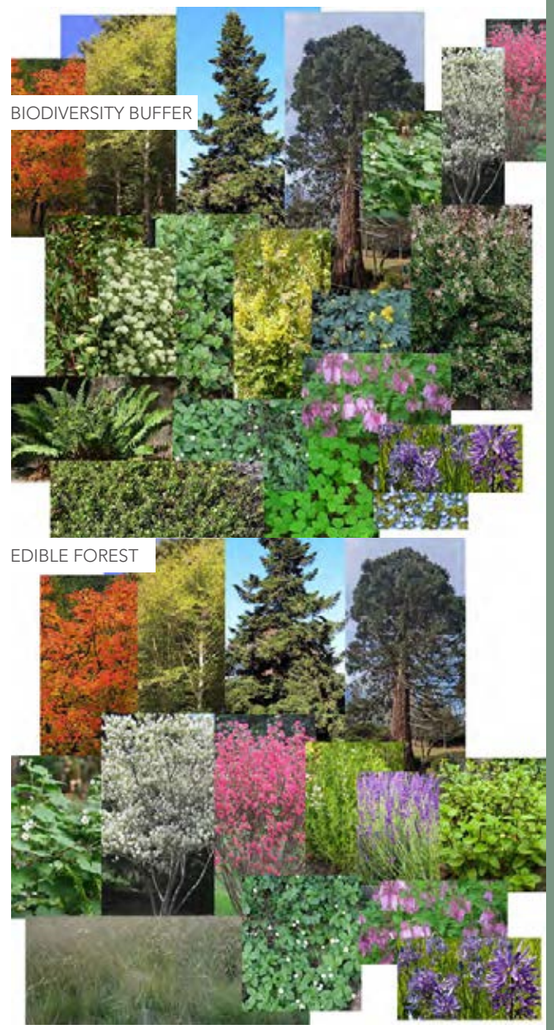
01 TOOL LIBRARY
02 COMPOST BIN
03 P-PATCHES
04 EDIBLE LANDSCAPE
05 COMMUNITY SPACE
06 GREEN HOUSE & COMMUNITY KITCHEN
07 ART SCULPTURES
08 NATIVE ECOLAWN
09 SENSORY GARDEN
10 STAIRCASES
11 SPIRAL STAIRCASES
12 PLATFORM
13 SLIDE
14 NET
15 ELEVATOR
16 BIODIVERSITY BUFFER
17 POLLINATOR HABITAT
18 SOLAR PANEL MEADOW

ROOFTOP ILLUSTRATIVE PLAN



Rooftop Experience

We redesigned third floor patio and rooftop.



Native Eco-lawn

Select low maintenance native ground cover to enhance the central art sculpture elements.

Solar Panel Meadow

Select drought and high temperature resilient plants to adapt to the microclimate.

Major User Route Map

The rooftop design identifies three major user groups: pollinators, residents, and maintenance teams, each with distinct needs and movement patterns. Their routes sometimes overlap and sometimes diverge, reflecting diverse interactions with the public space.

Below, a user experience diagram illustrates potential activities and pathways for each group on the rooftop, ensuring the design accommodates ecological functions, community use, and operational efficiency.

Pollinators

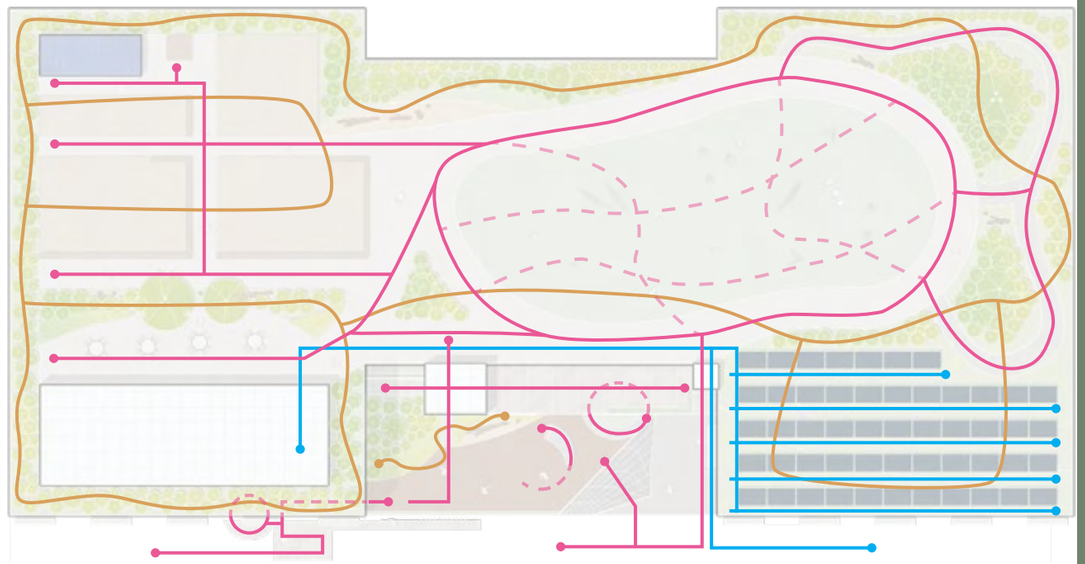
- Need food, water, shelter, refuge, and connection to other members

Residents

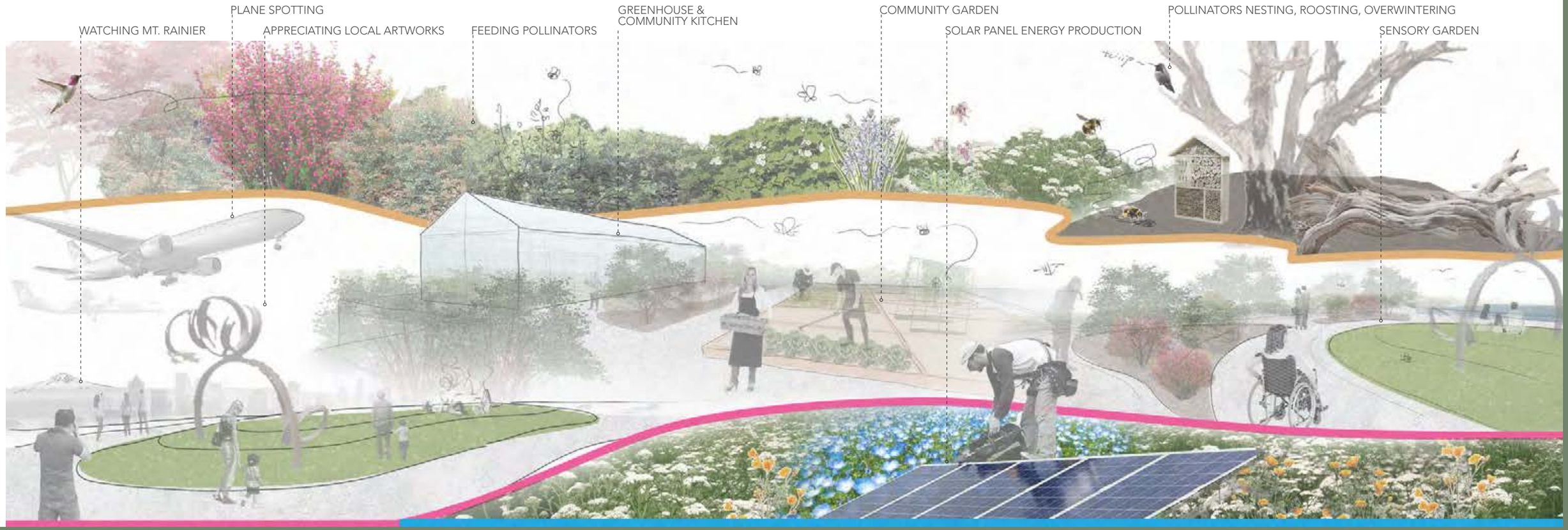
- Need public spaces and amenities
- Avoid undesirable factors
- All age inclusive

Maintenance group

- Need quick and direct access to utilities



USER EXPERIENCES DIAGRAM



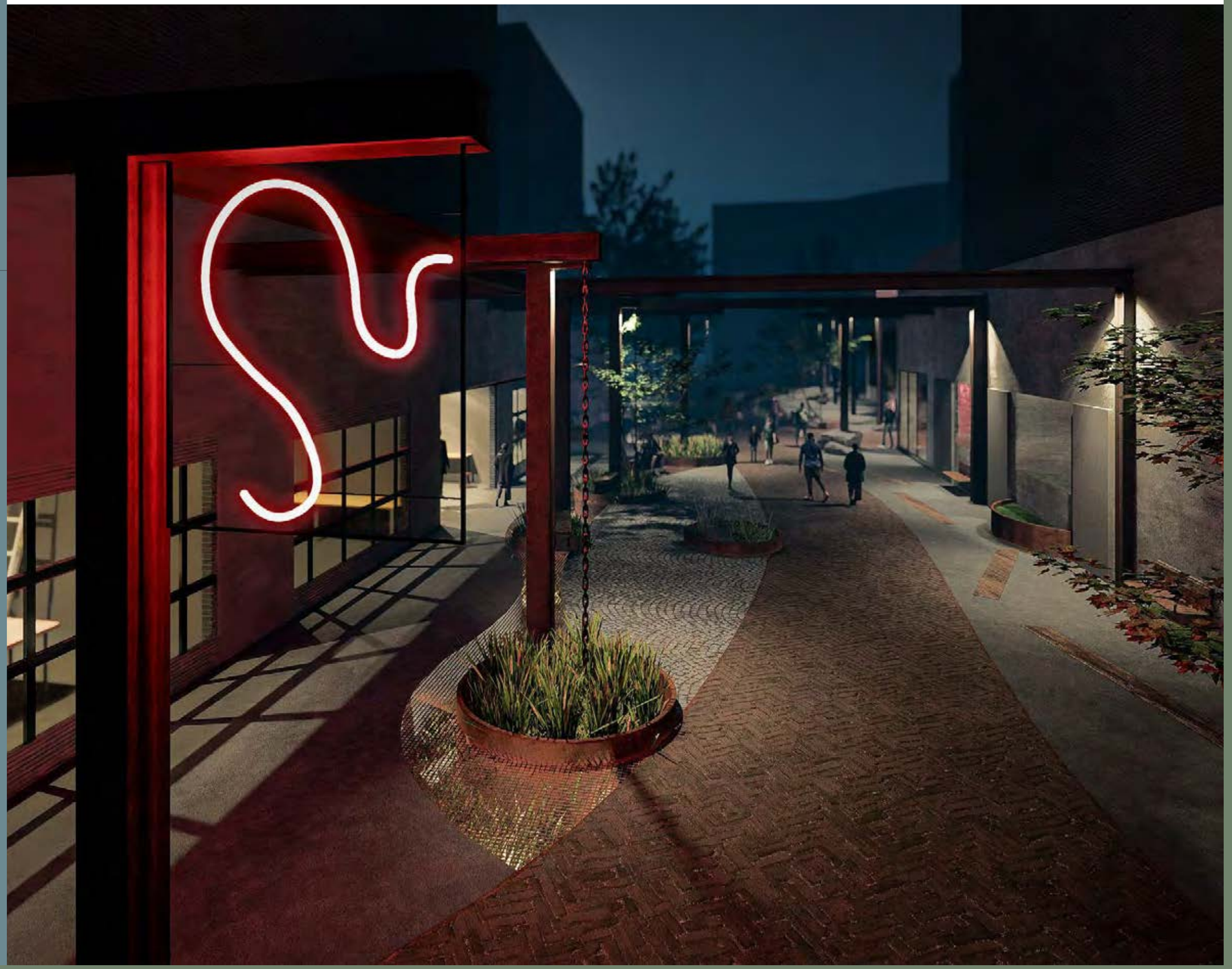
Steelhead

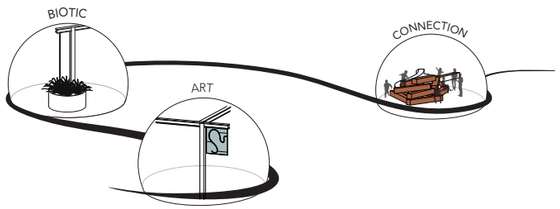
The Bend's S. Findlay Pedestrian Street

MATTHEW JERNIGAN

The pedestrian street along S. Findlay connects residents, makers, and visitors through a dynamic interplay of **industrial material design and natural processes.** Echoes of the neighborhood's **manufacturing history** are embedded in the materials used, while elements inspired by the **Duwamish River** are woven through the site's fabric.

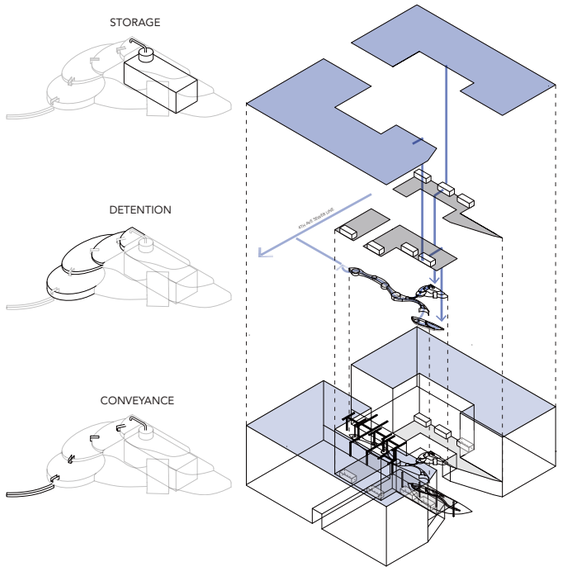
The design prioritizes opportunities for **interaction with nature, art, and community** by creating spaces that naturally encourage engagement and connection through their form and function





CONCEPT

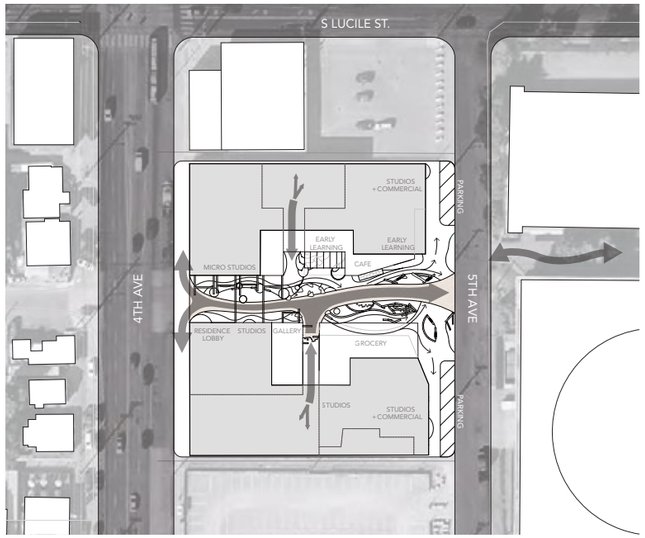
The design of S Findlay Street is guided by three core principles: connections to art, embracing the natural environment, and nurturing meaningful relationships within the neighborhood. Grounded in these principles, the design aims to create vibrant, dynamic spaces where residents and visitors can engage with the rich cultural fabric of the Bend and Equinox Studios. These spaces are thoughtfully crafted to inspire unique interactions, celebrate creativity, and deepen a sense of belonging.



REVEALING THE WATER CYCLE

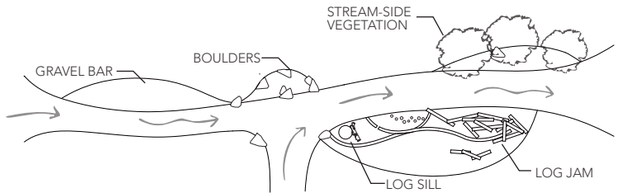
CATCH, STORE, CONVEY

Rainwater is captured from the buildings' rooftops and stored within cisterns on the balconies. It is then released, detained and treated through various routes throughout the site. Revealing this process is central to the design of the green infrastructure on site.

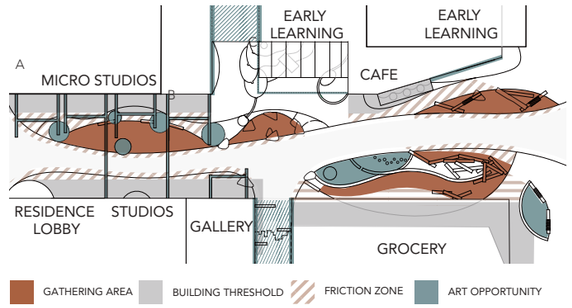


SITE CIRCULATION + CONTEXT

SITE LAYOUT CONCEPT

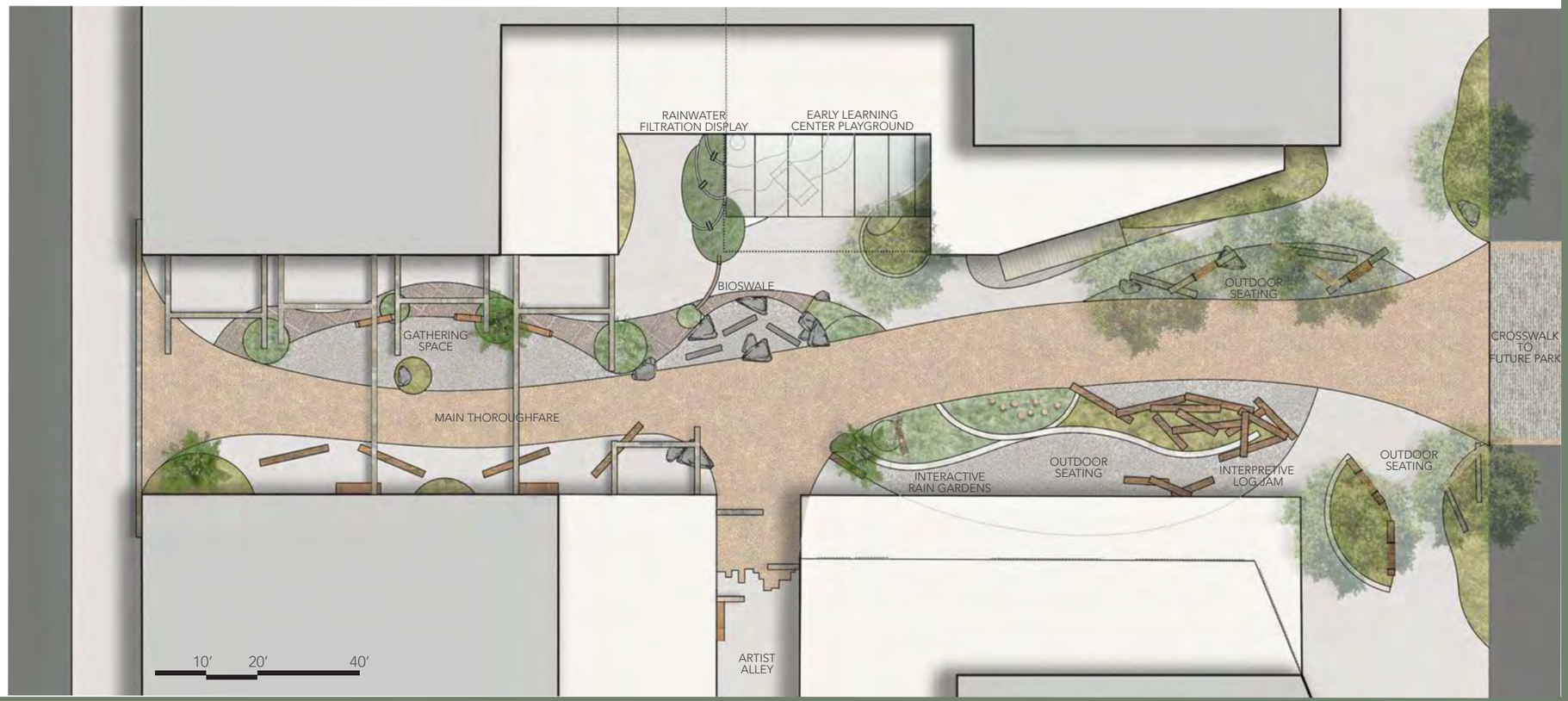


SITE PROGRAM + OPPORTUNITIES FOR ART



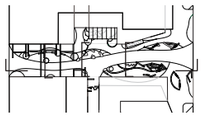
The site design is inspired by the theme of river ecology, weaving elements of river morphology into the features of the pedestrian street. The site incorporates diverse uses of space through thoughtful circulation and the inclusion of art. Informal gathering areas, designed to resemble gravel bars, are intentionally spaced along the main walkway to encourage social interaction. The site's materials also create unique opportunities for artistic expression, allowing art to seamlessly be integrated with walls, fences, I-beams, and plantings areas, furthering the connection between art and nature.

SITE PLAN

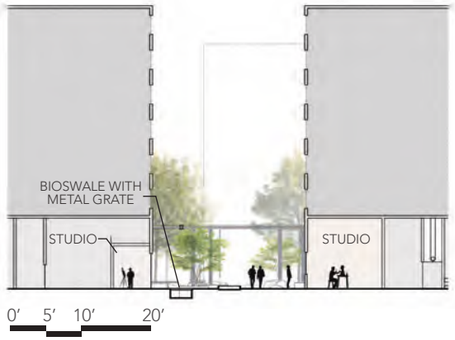


LIFE + MATERIALS

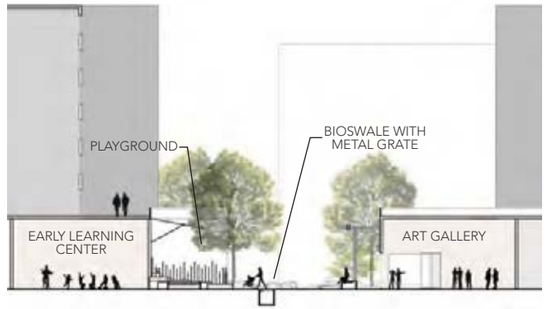
Each space along the street conveys unique spatial and material qualities. The neighborhood's history plays a primary role in the design of the space showing where industrial form meets natural processes. The materials serve to enhance the functioning of the space and its residents, supporting the types of programing and activities important to The Bend.



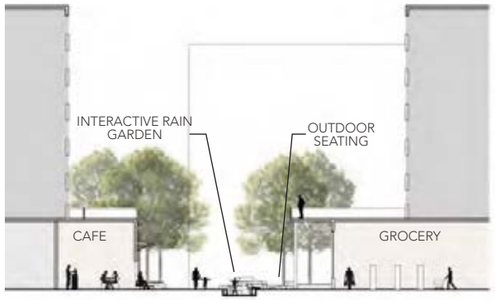
The Maker's Crossing



The Central Confluence



The Riverside Commons



INDUSTRIAL

NATURAL

The Maker's Crossing

Serving as the entry and beginning of the green connection to the Georgetown playfields, this space creates a threshold for visitors to pass through, encouraging informal and incidental interaction with the artists and their workshops.

The Central Confluence

Within the central courtyard area, many programs and pathways intersect, creating a mix of energies. This flexible space can adapt to multiple functions while allowing visitors to orient themselves within the larger space.

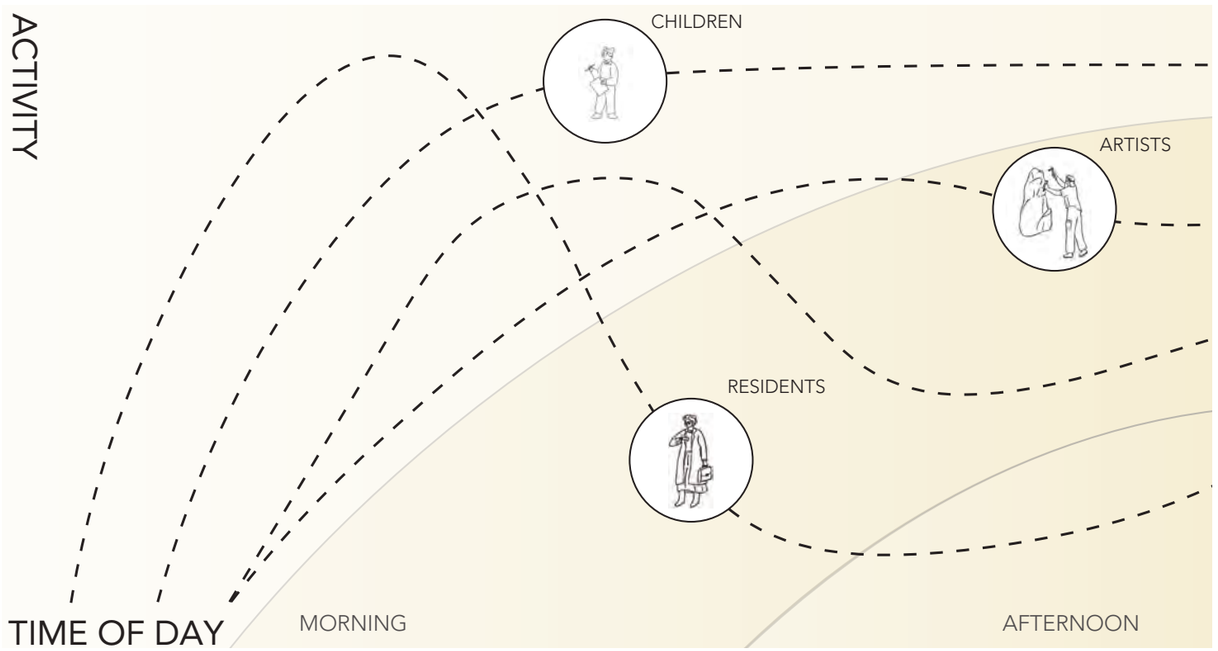
The Riverside Commons

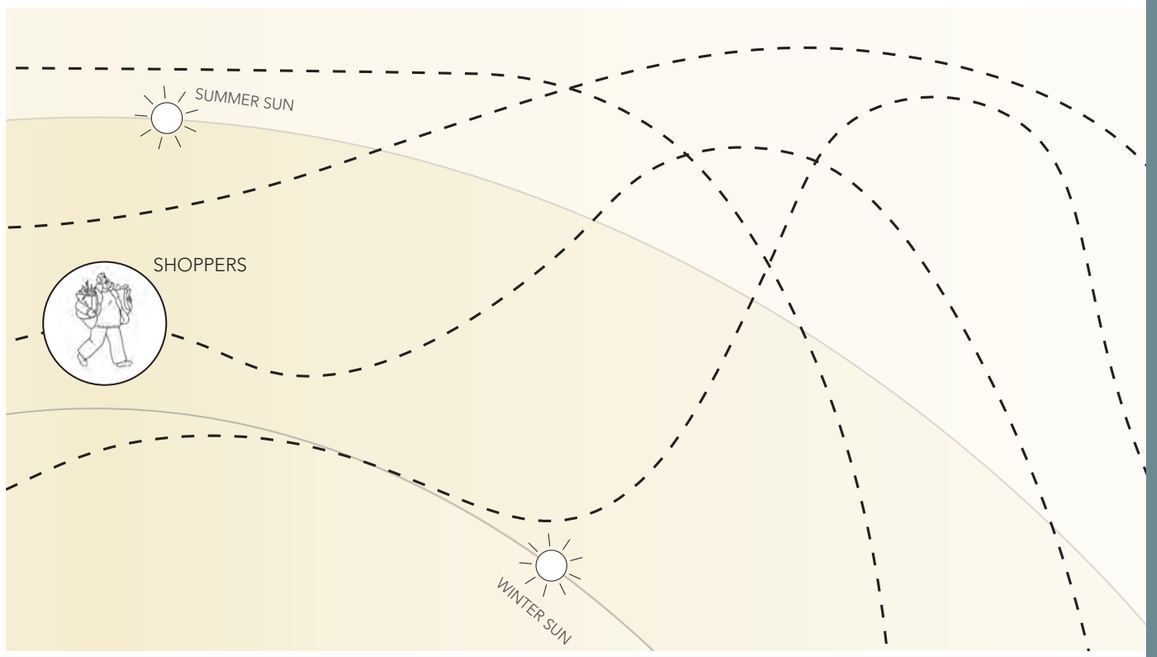
Close 5th Ave the pace slows and the natural landscape envelops several gathering areas. These serve as overflow for street events and encourage everyday visitors to stop and enjoy food or coffee from the grocery and cafe.


MORNING DROP-OFF


MIDDAY WORK


SHOULDER SEASON COMMUTE


ACTIVITY
CHILDREN
ARTISTS
RESIDENTS
TIME OF DAY
MORNING
AFTERNOON


SUMMER SUN
SHOPPERS
WINTER SUN


MORNING FARMERS MARKET


SUMMER PLAY

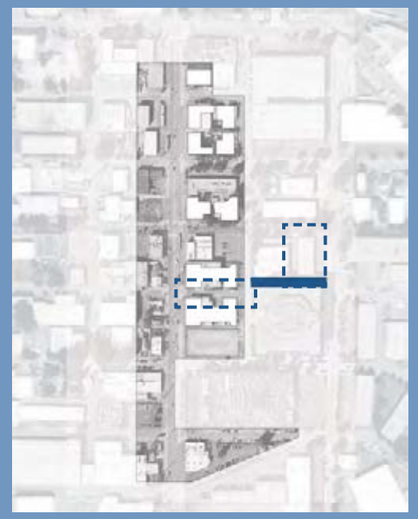

EVENING ART WALK

Playful Passage

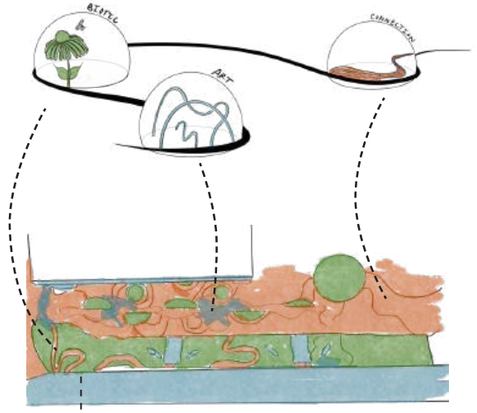
Connecting the Bend to downtown Georgetown through art and play

LIZ FORELLE

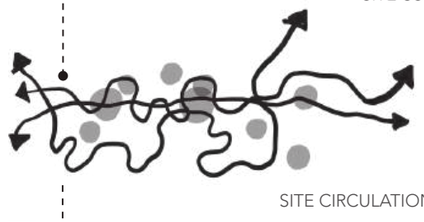
This site is on the stretch of S Findlay Street between 5th and 6th street in Georgetown, Seattle. The street is a fairly narrow space that aims to connect those living at The Bend to the surrounding spaces of Georgetown. Play, materiality, and art are centered in this space to create an inviting and fun passage for the residents of Georgetown. This is a space for all ages and abilities to enjoy and play throughout the day and night.



Concept Diagram



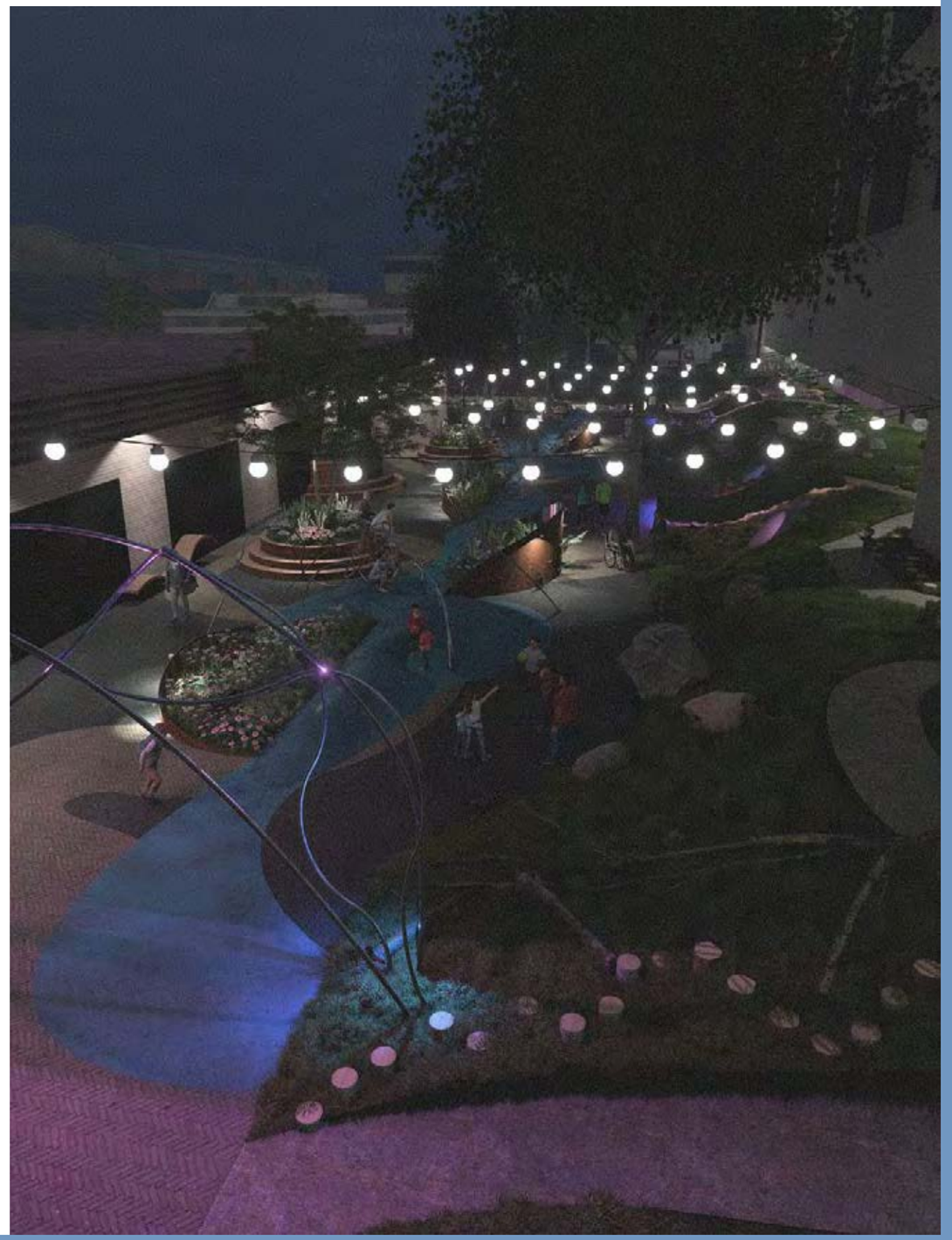
SITE USE



SITE CIRCULATION

24-HOUR CHANGE OVER TIME

This design is centered around three key ideas, art, biotic, and connection (A, B, C), as a meander with nodes. The design permeates these three key ideas and concept throughout the design and programming of the space. The flow and circulation of the space highlights the use of meander while the nodes are highlighted through places to rest, meet, or gather. Site use across day and night changes based on the users and activities. During the day, more kids might be active in the space, running up the meandering paths and taking the slides down the hill or playing on the metal play structures. Alternatively, at night, adults may occupy the space to pass through towards downtown Georgetown or an event in the park.



A VIEW LOOKING WEST ALONG S FINDLAY ST FROM THE INTERSECTION AT 5TH AVE TO HIGHLIGHT THE ART ELEMENTS AND CONNECTIVITY THROUGHOUT THE SPACE AS A SOURCE OF WAYFINDING AT THE BEND.

B VIEW LOOKING EAST ALONG S FINDLAY ST TOWARDS 6TH AVE TO HIGHLIGHT THE INTERACTION OF ART AND BIOTIC ELEMENTS.

C VIEW LOOKING WEST ALONG S FINDLAY ST TOWARDS 5TH AVE TO HIGHLIGHT THE CONNECTION THROUGHOUT THE SPACE AND HOW ART AND PLAY CAN BE INCORPORATED THROUGHOUT THE SPACE.

D VIEW LOOKING TOWARDS THE OFFICE BUILDING TO HIGHLIGHT THE CONNECTIVITY AND BIOTIC ELEMENTS AT NIGHT.

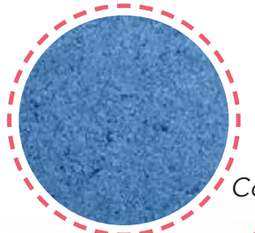
Plant Material

Corten Steel

Wood

Rock

Metal



Corkeen

Log

Materiality is used throughout the design to signify a change in space and programming on the horizontal plane. On the vertical plane, materials break up the space in a sensory and textural way.

Distressed Mirror

Brick Paving

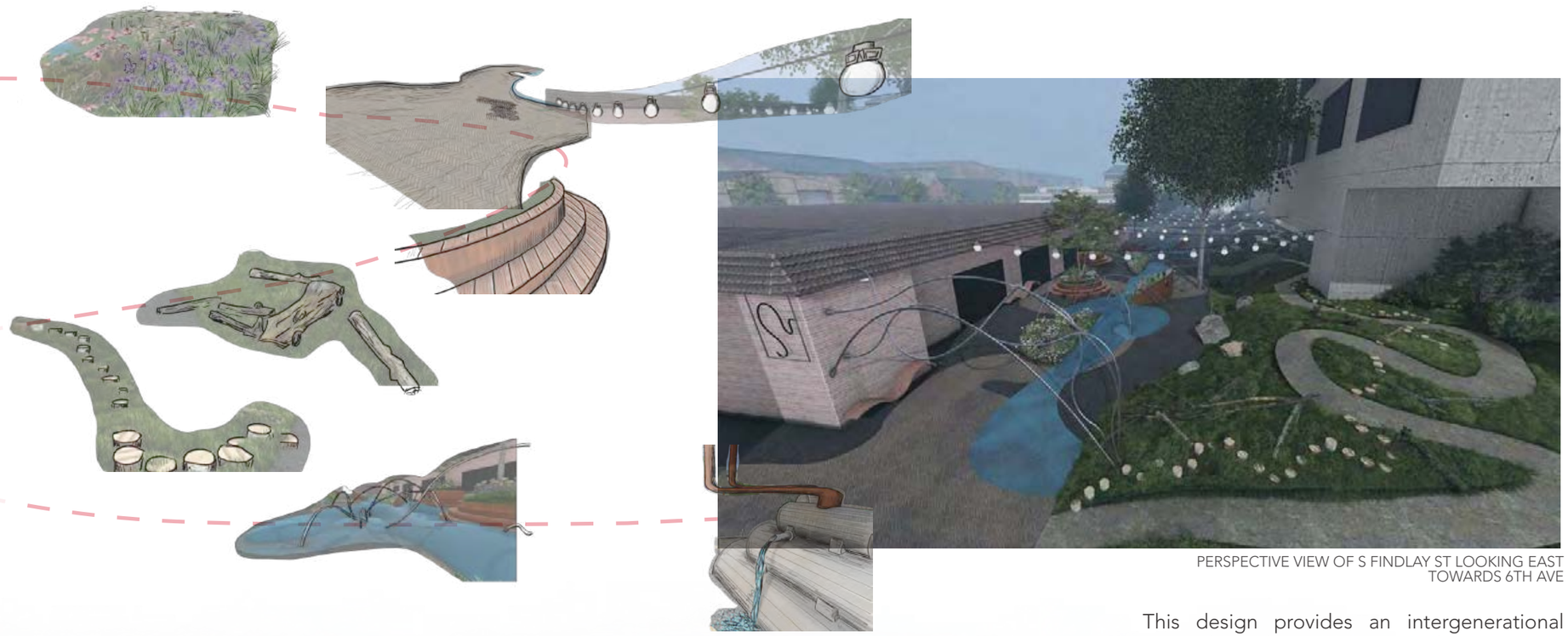
PLAY

CONNECTION TO PLACE

CLIMATE RESILIENCE

ART

Alongside the A, B, C concept, the design also emphasized four key principles: play, connection to place, climate resilience, and art. These elements were integral to shaping the overall vision. Each element incorporates at least two of these design principles in order to create a highly multi-functional space. The plants chosen are resilient species that can increase biodiversity and provide a playful texture next to the walkway for users to engage with. The string lights hanging above the space help to lower the ceiling next to the tall office building creating a better connection to place in an artful way. The stumps and logs placed throughout the sloped areas provide an alternative path for users to engage in the space in a more exploratory and playful way. These small moments can help create a positive connection to place or provide habitat for insects and small mammals. The metal play structures are an art piece alone but can also provide a space for play as well.



PERSPECTIVE VIEW OF S FINDLAY ST LOOKING EAST TOWARDS 6TH AVE

This design provides an intergenerational space that rich with moments of engagement and play at all levels through the use of materiality, flow, and space. This can occur across both the horizontal and vertical planes to provide a rich experience along a passage to and from The Bend.

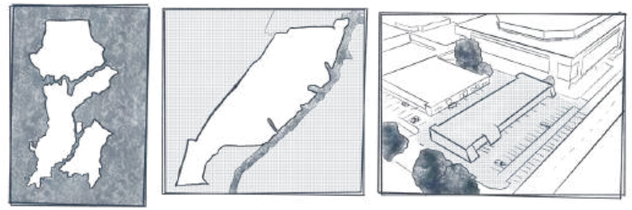
SECTION CUT LOOKING SOUTH ALONG S FINDLAY ST BETWEEN 5TH AND 6TH AVE

Canon Park

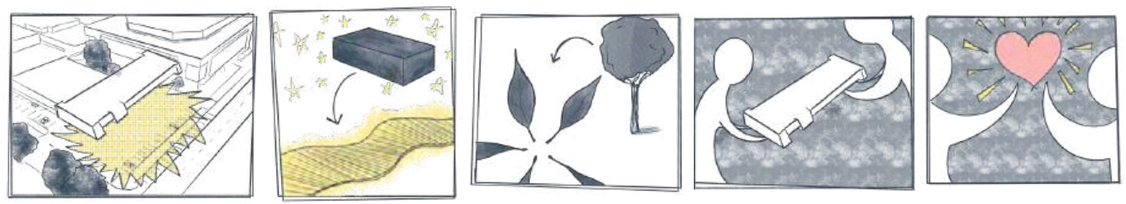
ELLEE RUDER

Canon park was designed with the intention of fostering an artistic and sustainability-focused space.

With an attention to elevating pollinator habitat and a relationship between the visitor and nature, Canon Park acts as a space for exploration and attention to detail. Rotating public exhibitions along with eclectic and continually blooming planting spaces inspire visitors and set the intention of the space as one of creation and community.



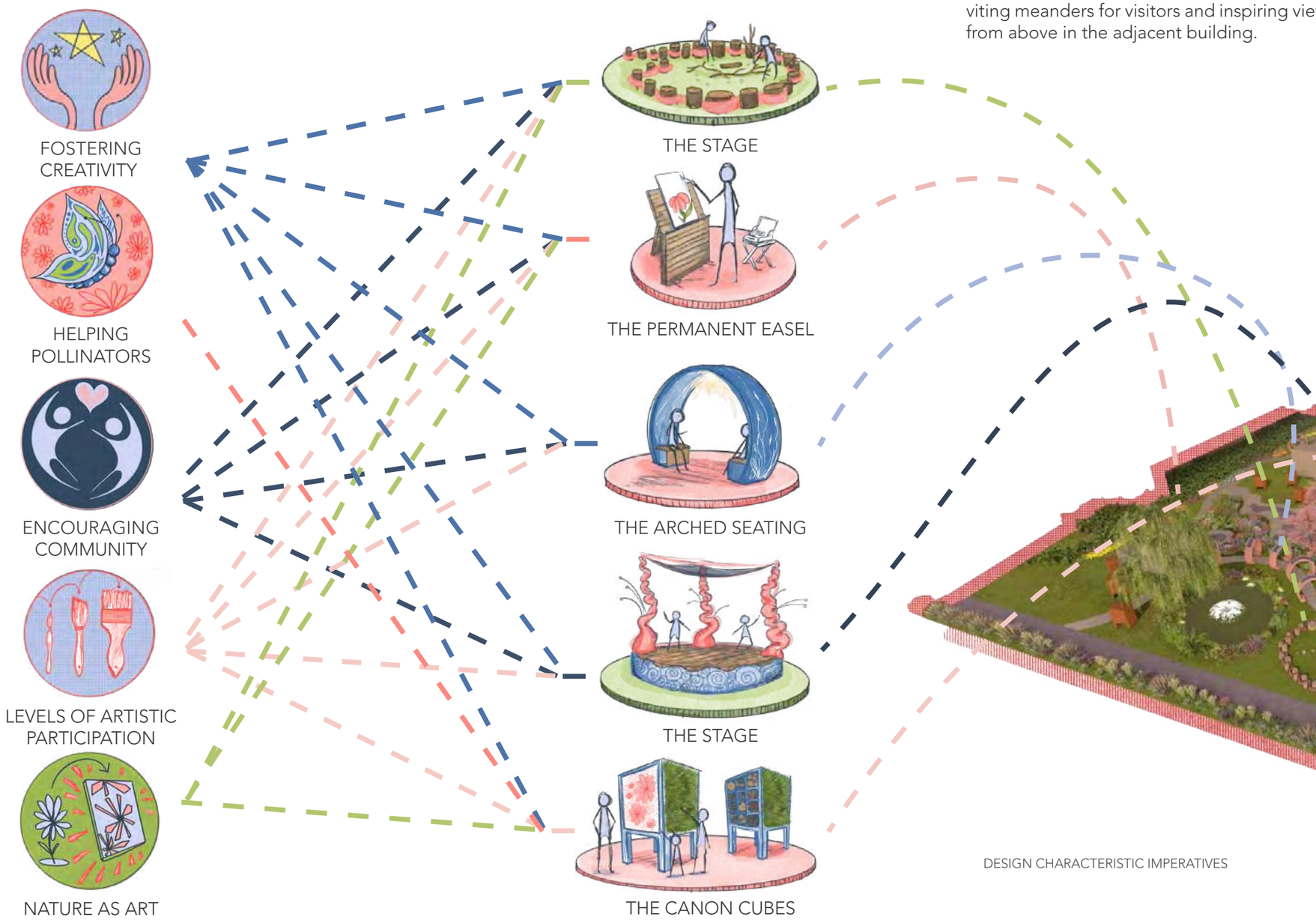
In a big city... in the 1st town established... was a parking lot and a building...



with a hidden gem underneath... where the brick of a building could turn into a winding path... and the leaves of a tree could become a work of art... It's up to us to unearth this gem... to share with the community!

The Design Elements

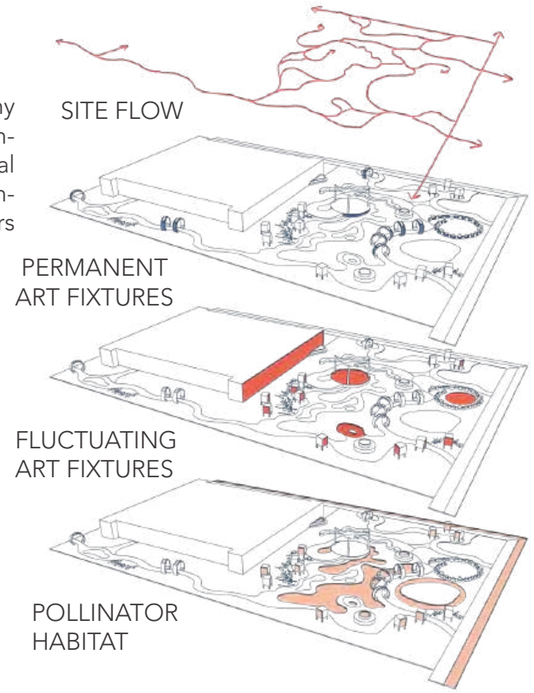
The site was inspired by 5 characteristics as a response to the main goal of elevating the art and nature communities of the Bend. Through these elements, different programming and design features emerged. Canon park is rooted in the goals of fostering creativity, helping pollinators, encouraging community, access to different levels of artistic inspiration, and nature as art.



DESIGN CHARACTERISTIC IMPERATIVES

The Composition

The composition of the park creates harmony between the various activities and potential interests for visitors to maximize the flow. An aerial view mimics that of an abstract painting, both inviting meanders for visitors and inspiring viewers from above in the adjacent building.



PARK USE COMPOSITION

The Canon Cubes

The Canon Cubes act as a celebration of art and nature while expressing their harmony. As the seasons change, the bug habitat walls will be routinely replaced and curated by a local group of artists. This aids in the success of pollinator populations while allowing for another opportunity for an art -in-nature experience. The plantings will show the change in season and the beauty in growth or decay as months pass. Rotating artworks will accompany the natural processes, allowing for a more official curatorial experience and a chance for local artists to showcase their skills and connect with the community. The placement of the Canon Cubes resembles a gallery, elevating the artworks while also acting as commentary of what could be considered the official artistic 'canon'.

CANON CUBES VIGNETTE

A CHANGE OF SEASON:

Many of the park features are equipped to honor the change in season and the fluidity of nature. these elements similarly reflect an artist's path

The Stage

The stage invites planned and spontaneous performance. The central placement gives a sense of spectacle to those showcasing their talents. The size allows for a multitude of activities while not overbearing the site and giving space for other points of interest to visitors. Reclaimed black locust wood and solar fabric express an interest in sustainability while hand-made metal work from local artists encourage community and a sense-of-place. The surrounding blooms and artistic frame act as methods of inspiration and praise for the pre-existing and forthcoming artistic neighborhood.

THE STAGE VIGNETTE

The Arched Seating

Arched seating placed throughout the main pathways act as a resting place and a chance for conversation. The direct line of sight between those seated gives possibility for portrait sketching exercises. Community building occurs as those seated are directly within the path of passerby, increasing the chance of conversation and connection. The lights are powered by a solar panel above, consistent with other efforts of sustainability within the park. The wooden seats are made with recycled black locust wood. The arch itself will be designed by a local artist, with light that emanates through the cut material and glows in the night to reveal more local art.

SPIRAL VIGNETTE

The Permanent Easel

The plantings within the park offer blooms in every season, while their variety in foliage and their response to the seasons gives a plethora of muses for artists. A permanent easel and room for personal ones in an area most closely placed to the array of plantings gives opportunity for locals to build an intimate relationship to nature and the seasons.

ARCHWAY VIGNETTE

The Spiral

Participants will be invited to collect material from around the park as tools of expression. The natural material will be placed with in the mixture of metal and wood, a framing device, as an evolving art piece. This fixture amplifies the beauty of nature while serving as an interactive and exploratory tool within the Bend. The knee-level height of the frame along with a low-stakes barrier of entry for participation increases the variety of participants. By utilizing natural material, participants will see the change of the seasons.

THE PERMENANT EASEL VIGNETTE

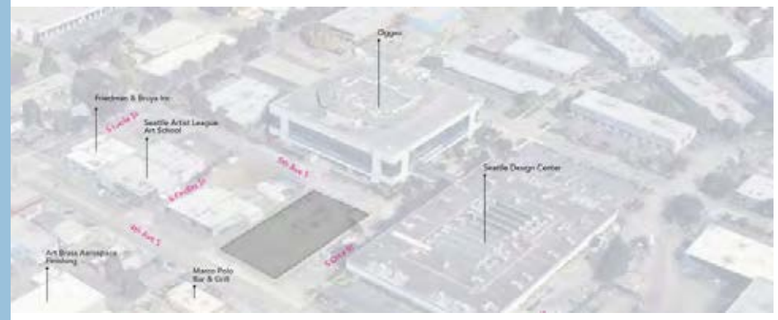
(Re)generate Georgetown

S Findlay St

SISKA FLORENSIA DEWANTI

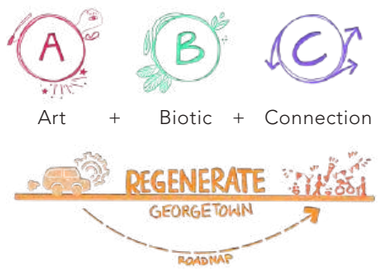
Seattle's Georgetown neighborhood blends its rich history with modern creativity, originating as a Coast Salish settlement by the Duwamish River before white settlers established it as the city's oldest platted area in 1851. The area evolved into an industrial hub with affordable spaces, attracting a vibrant community of artists, artisans, and makers who contribute to its lively, eclectic character.

The site is a parking lot at the intersection of S Orcas St and 4th Ave S adjacent to the Seattle Design Center.



SITE ANALYSIS - EXISTING

Main Concept

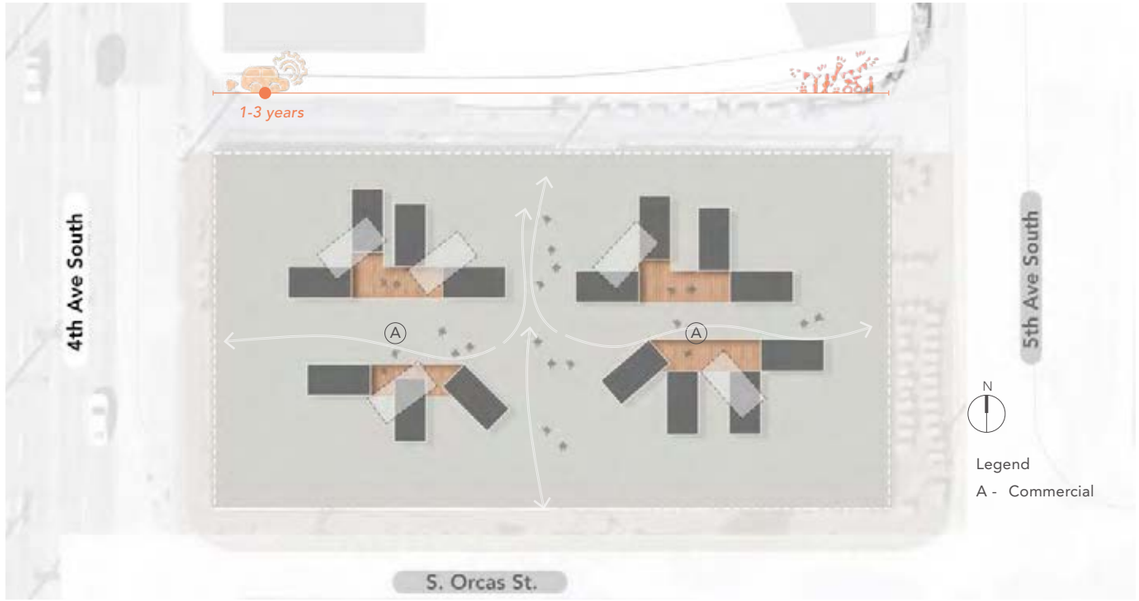


Thinking Framework

Parking lot does not evokes a (+) visual stimulation

Envisioning a commercial hub as an extension to the SDC and beyond

A grand gesture to split the commercial into 2 to foster a welcoming atmosphere



SITE PLAN - DESIGN PHASE 1

0 5 10 20

SECTION - DESIGN PHASE 1

0 5 10 20

ISOMETRIC
DESIGN PHASE 1

Design Phase 1

In the first phase, the design focuses on creating an inter-changeable space between parking and commercial use. This temporary intervention is intend-ed to gradually adapt to change within a reasonable budget for future development.

The commercial containers are playfully designed reflecting the artistic- diverse Georgetown community.

SITE PLAN - DESIGN PHASE 2

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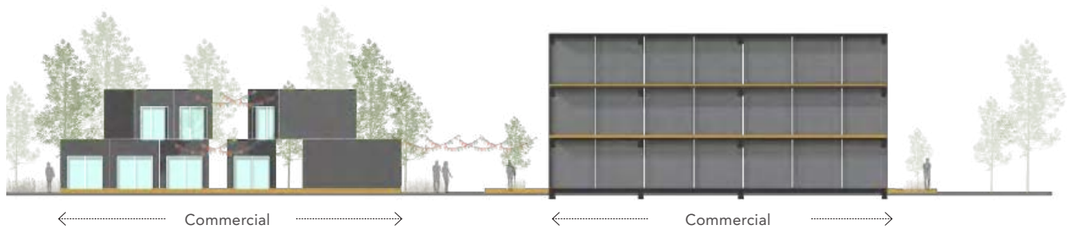

SECTION - DESIGN PHASE 2

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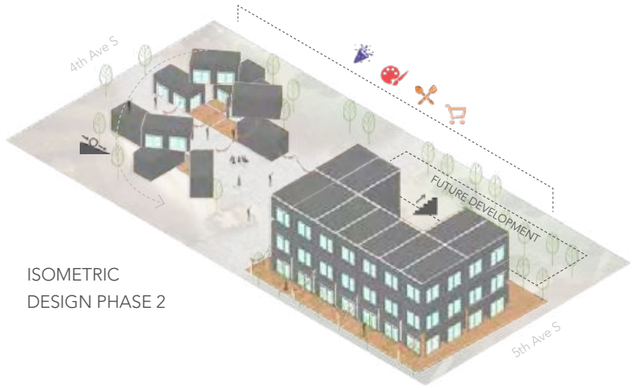

ISOMETRIC
DESIGN PHASE 2

Design Phase 2

The second design phase ex-pands the commercial area on the east side with a centralized connection while maintaining the west side as a more permeable and grounded space.

Additionally, an adequate amount of space is reserved for future residential development to promote economic growth and neighborhood sustainability.

SITE PLAN - DESIGN PHASE 3

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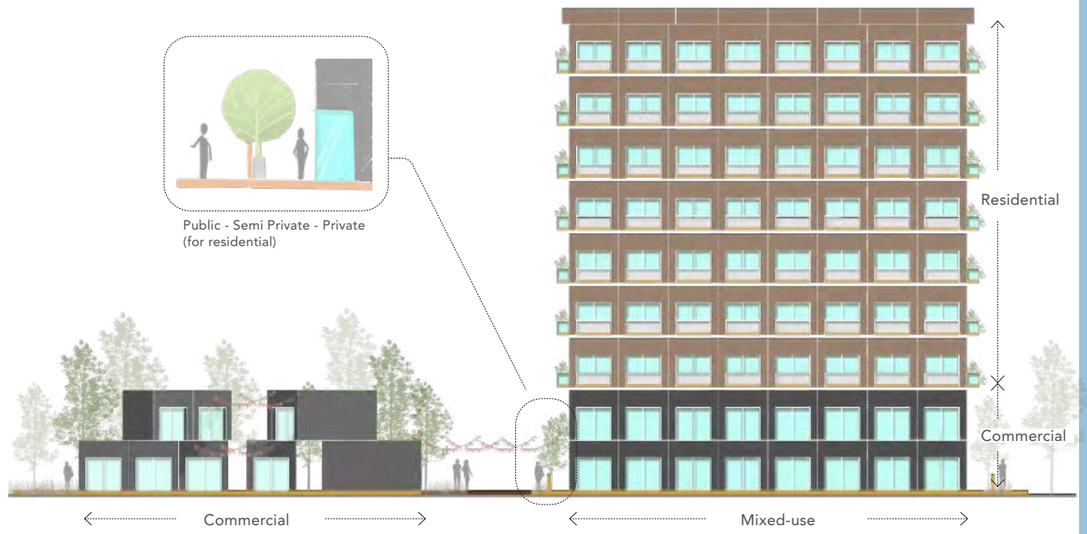


SECTION - DESIGN PHASE 3

0 5 10 20

ISOMETRIC
DESIGN PHASE 3

Design Phase 3

The long-term vision of the design is to create a mixed-use development for the space while maintaining its playful character. The design for phases 2-3 incorporates abundant landscaping and paving elements that add softness and foster a strong sense of place.

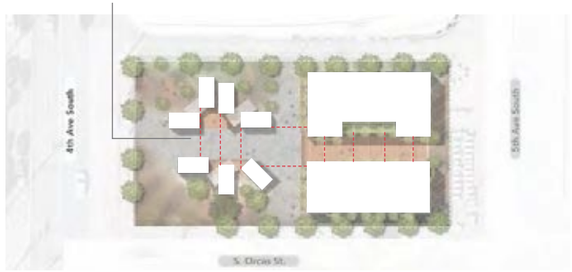
By shifting the focus from parking lots to spaces for non-motorized vehicles and pedestrian movement, the design invites artists and residents to engage creatively within the public space.

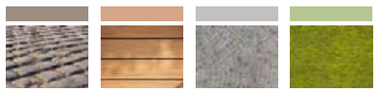
SPECIAL DESIGN FEATURE

The outdoor festival decorations utilize photovoltaic film to generate energy while creating an intimate atmosphere within the space.

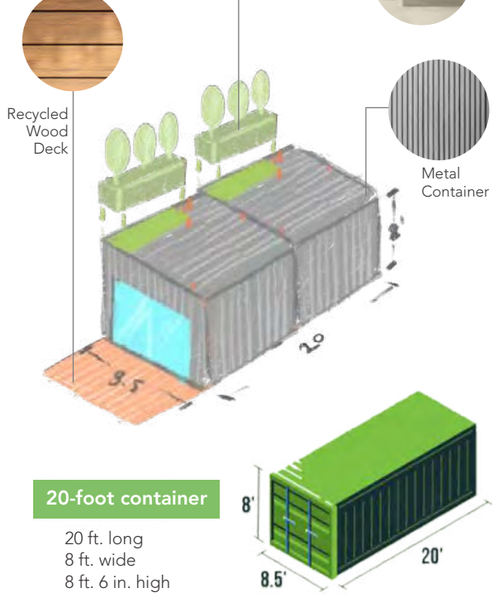
Site Materials

Hardscape + Softscape





Stone Paving | Recycled Wood Deck | Stone Paving | Grass Landscape /Rooftop



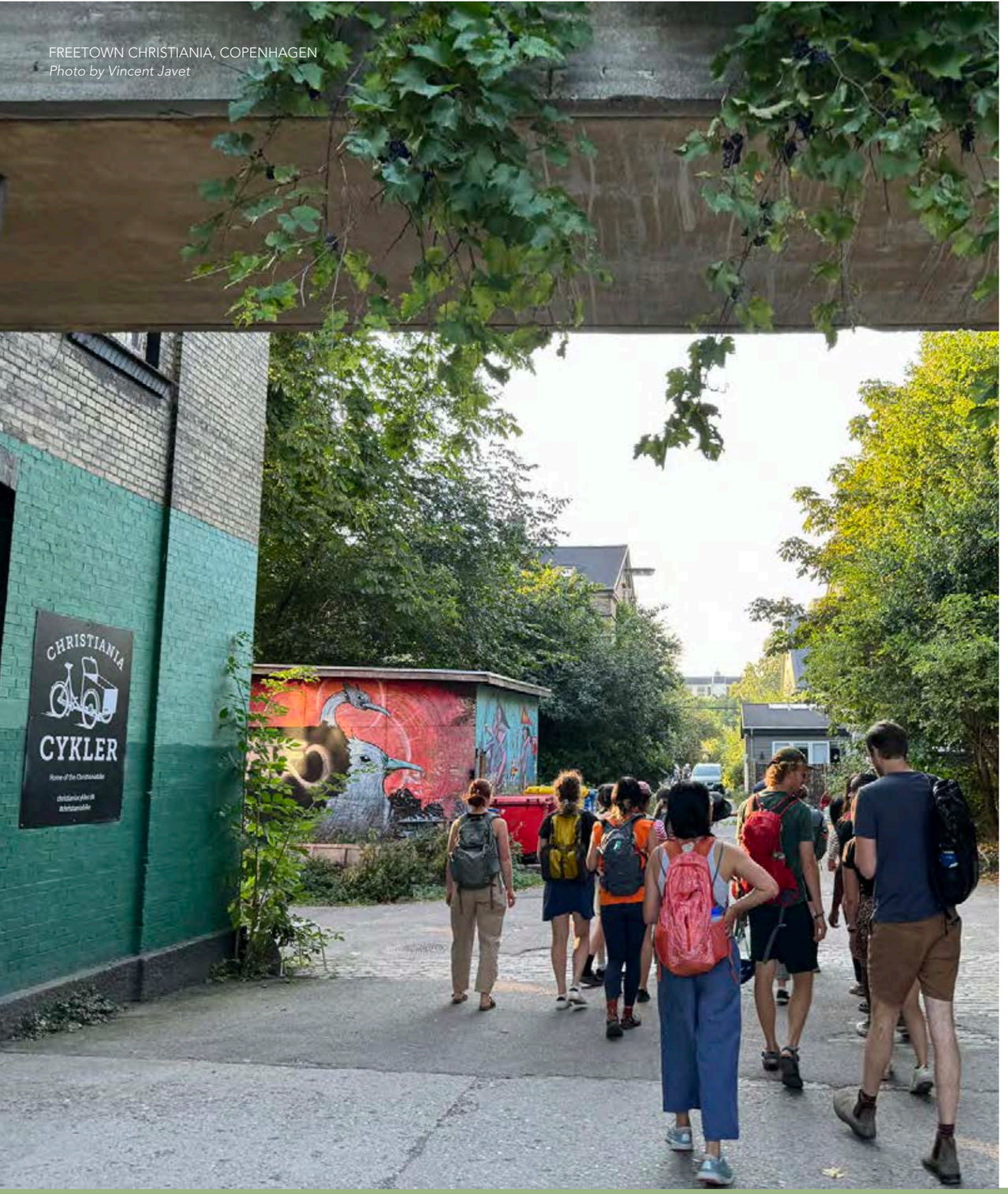
20-foot container

20 ft. long
8 ft. wide
8 ft. 6 in. high

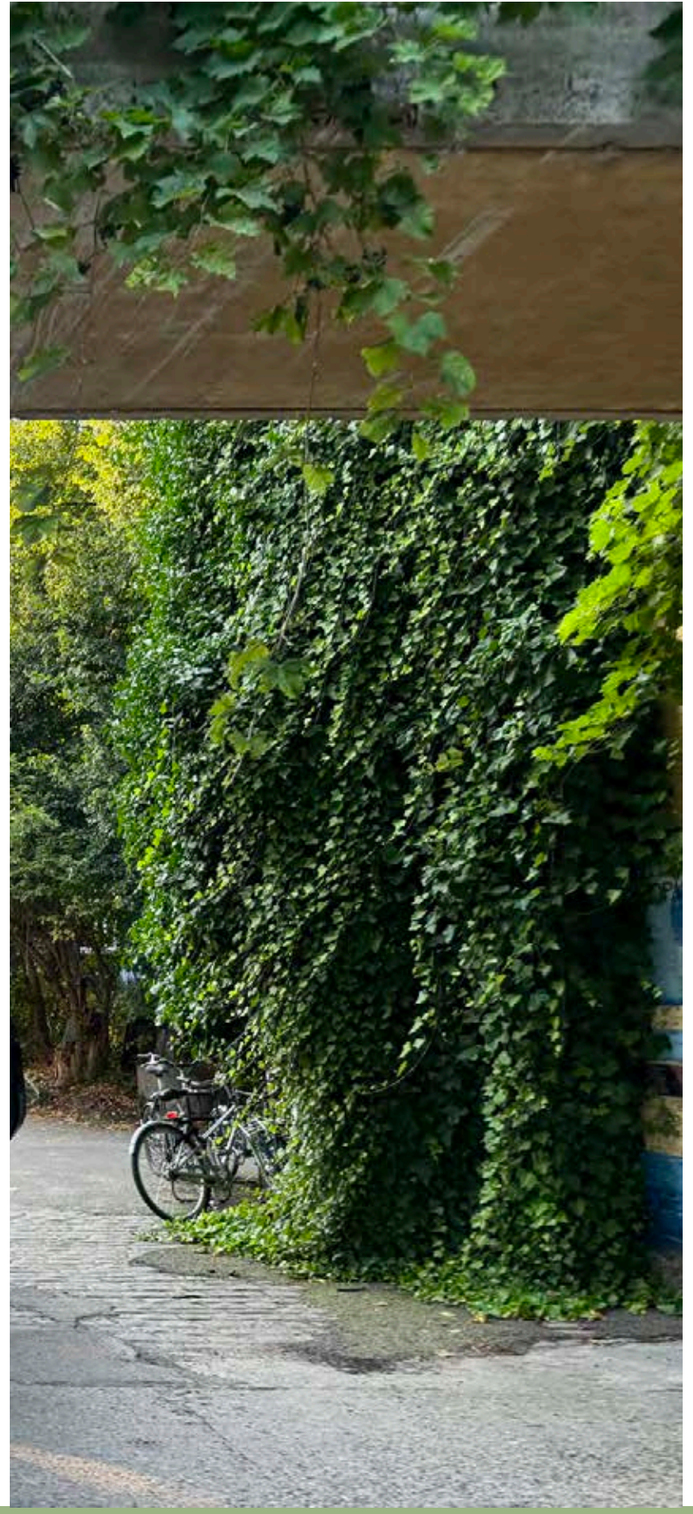
CONTAINER MODULE CONCEPT

Design Process Highlight

An initial conceptual sketch represents the transformation journey of a parking lot into a vibrant public space to foster social interaction and building dynamic communities in Georgetown.



FREETOWN CHRISTIANIA, COPENHAGEN
Photo by Vincent Javet



Design is what you are standing on. It is what holds you up. And every layer of design rests on another and another and another…You have to dig.

– Beatriz Colomina & Mark Wigley
in *Are We Human?*

Thank you:

SCAN DESIGN SDF FOUNDATION

SIGNAL

Watershed Community Development

MxM LANDSCAPE ARCHITECTURE

LAND ART GENERATOR

UW // LA

Photo by Vincent Javet