RE EVOLUTION

Life
Work
Leisure
in endemic Seattle

Daphne Fabbri

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RE | EVOLUTION

Life, Work, Leisure
in endemic Seattle

Relatore Matteo Robiglio

Candidata Daphne Fabbri

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To everyone who has come before me
in architecture, art, planning and Seattle.

Abstract

Throughout history, times of crisis forced humanity to adapt, whether it be natural, political or financial. Post-war European countries gave birth to rebellious movements in the sixties, translating into prolific art and architecture movements which investigated society and its issues.
Today, after more than a year battling with the CoVid-19 pandemic, mankind has adapted once again to a critical situation which has affected the whole world.
Nature's revenge on humankind made us create new spaces and new ways of experiencing these spaces.
Thanks to technological advancements, many have been able to readjust to life in lockdown; in the context of Seattle, tech has impacted everyday life for its citizens in the past eight years.
The Re-Evolution studies the shift in daily life tasks, divided into three categories: Life, Work, and Leisure. Before the pandemic, the three were distinctly divided in time and space throughout the city, but after being forced to live confined in one space - whether a house or room - people slowly managed to accomplish regular life duties in the same place; hence, the spaces and times Life, Work, and Leisure happen changed. Today, slowly evolving towards an endemic, some aspects from pandemic life have been kept, optimizing people's schedules.
In the case of SoDo, a gradual regeneration of the area is necessary to welcome the evolving lifestyle. To do so, production areas have to be implemented with elements which do not affect or clash with the industrial zoning.
Taking advantage of the investments made on 5th Ave S, the public transit line and its future evolution is associated with a fast track for pedestrians and human-powered vehicles.
The new path acts as a catalyst for evolution towards a combined behaviour; public-related spaces and offices are arranged to connect with the elevated trail. Hence, activities from the three categories are distributed accordingly along the new axis to support the hybrid lifestyle, generating a new influx towards a high-production area.

"Seattle is a place where you go to create something for the future"
Jim Olson, FAIA

CON TENTS

CON TENTS

Superarchitecture is the architecture of superproduction, of superconsumption, of superinduction to superconsumption, of the supermarket, of superman and super petrol.
Society's myths are shaped in the representation society produces. The new objects are both things and the representation of things: the dream-car is a car and the representation of a car, the new monument is the representation of the monument.
The accumulation of visual data influences the new urban scene and through its shock power it creates consumers for it.
The hidden persuader is the sorcerer's apprentice; what do you know about the image's copier?
The use of familiar terminology in pop-entertainment-industrial images does not imply a new vocabulary, but a critical conscience and an openness that are able to accept all the new stimuli.
Transcending conventions and creating temporary behavioural schemas occur through a direct relationship with the total urban reality, current events and the news.
A new series of implications, which includes irony as a form of constructive criticism, is featured in the exhibited objects.
Besides the architecture of monuments we invent mechanisms capable of producing images, we invent prototypes, we organize their production, their consumption and the promotion to consumption.
We build consumers.
SUPERARCHITECTURE *accepts the mindset of production and consumption and plays a demystifying role.*
It is an architecture of images with a strong representability, able to evoke rigorous representations and to inspire behaviours: that is, to induce the consumption of itself.
It is an architecture with the subversive strength of advertisement, but even more effective as it inserts purposeful images into a "bigger picture" and into the realm of the city with all its permanencies and its history.

Superarchitettura Exhibition
Archizoom and Superstudio
4 – 17 December 1966
Galleria Jolly 2, Pistoia

PRE FACE

I.I Behind The Scenes

The occasion behind this project was the necessity to write a thesis for my Master's Degree in Sustainable Architecture at the Politecnico of Turin, but I also wanted to create something for Seattle, as my family has done before me. I have always been fascinated by the potential Seattle has to offer: not just its material resources, but the "Seattle Spirit" which motivates creativity and progress.

In February 2020, right before leaving for Seattle for an internship at Olson Kundig, I participated in a joint workshop with MIT and the Politecnico's Future Urban Legacy Lab. Entitled "Industrial Remix", it heightened my awareness of industrial areas and post-manufacturing renovations. This experience led me to choose industrial Seattle as a topic for my thesis research. When starting out my analysis, I found the report "The future of Seattle's industrial lands", issued by the Seattle Planning Committee in 2007, which is a project to preserve the industrial areas of the city and to promote their zoning, rather than transform them into more residential areas - however much needed they may be. One such area is the Duwamish-North Tukwila industrial area, which is the biggest in the city; moreover, the urbanistic and architectural connection between this high production land with the neighboring Downtown/Pioneer Square district intrigued me. By the end of February I had chosen to study the SoDo area and left for Seattle for my internship. Unfortunately, a week later the world changed and we went into lock down. Although restrictions on people's movements evolved throughout 2020, it became clear that the changes they wrought on workers had to be taken into consideration when conceiving spaces. Design is meant to help people and satisfy whatever needs they have, so not addressing this huge change would have been glib and superficial.

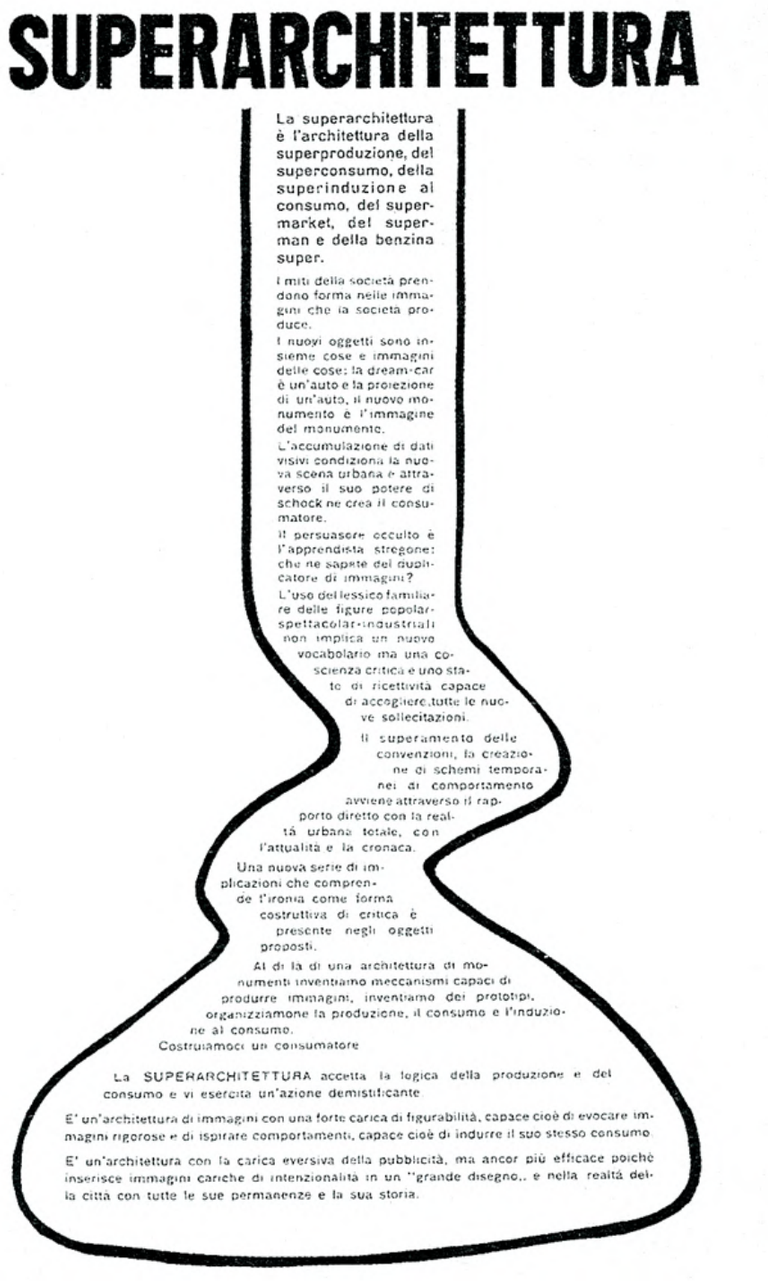
While researching the history of Seattle and of SoDo, I was repeatedly struck by how so much that happened in the city was due to Seattleites' enormous drive and resilience. Whether starting companies from scratch or rebuilding them, everyone was (and still is) moved by the goal to make things better. And that is also my goal.

Throughout the years I have seen the city grow and evolve, adapting locally to global shifts and events. Most notable was the move Amazon's headquarters created in both residential and business construction. Then, in 2020, "adapting" became what probably could be considered the word of the year. Furthermore, this year's (2021) Venice Architecture Biennale theme "How will we live together?"; visiting it provided me with further references and inspiration regarding ways of accommodating the changes that we are facing.

Pike Place Market during Lockdown
Daphne Fabbri ©2020

I.II An Outline

In post-war Europe, a number of radical architecture groups flourished, with their progressive ideas on life in the future.
The Florence Flood on November 4th, 1966, took a toll on the citizens, physically, financially and mentally. Cristiano Toraldo di Francia, one of the founding members of Superstudio, described "Besides the personal and collective tragedies, I remember how the pictures of the flood communicate scenarios which, with their absurdity, portrayed the end of the idea of progress, the revenge of nature over architecture, of emotion over rationality." [1]
The same year, the Radical Architecture movement was born. It "focused on a reassessment of urban space" [2] while taking into consideration the political ferment of the late sixties in Italy. Architecture was considered "an environment that was constantly being reshaped, inscribed in the moment",[3] instead of being a mere object in our daily lives.
The Superarchitettura Manifesto of the Florentine Radical Architecture groups Archizoom and Superstudio could be a reflection of today's society. What they called "representations" are loosely comparable to where technology has brought us; our present culture is based on technological advancements, high networking and the influence of images as projections of an ideal. The movement, particularly Superstudio, tried to imagen and represent how life would look like in a techno-utopian society, with an underlying political criticism.
The past year has been full of events which have struck humankind and forced us to change how we live. Technology already had an important role before 2020, but with all the hardship we have been through, it has become an essential need. Acknowledging the struggles humanity had to face, and the solutions it found to overcome them, our daily life is shifting again "going back to normal"; but what does that look like?



Superarchitettura Exhibition
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The Re-Evolution

This undertaking is a projection of life in post-pandemic Seattle. The revolution, life in lockdown due to the COVID-19 pandemic, forced everyone to rethink and reinvent their everyday tasks: to re-evolve. I analyzed pre-pandemic spatial and usage aspects of Seattle offices and merged those with uses that prevailed during the pandemic, to forecast living with an endemic.
Our daily activities can be summarily categorized into Life, Work and Leisure.

Life private life, everything which happens within a personal space and time.

Work tasks related to one's job.

Leisure personal time spent doing enjoyable activities for oneself.

All three realms happen within a certain space and time. However, while before the pandemic specific spaces and times were distinguishable for each category, starting in 2020, people adapted to the pandemic situation by coalescing the activities from these areas, both in space and time. Moreover, recently-developed technologies allowed many to work in various environments, rather than in a single, dedicated one. Consequently, life, work and leisure tasks are now commonly blended, with multiple categories happening in single spaces, rather than at single-use premises. Similarly, the realms are blending timewise, as travel time can be abolished.

View of Downtown Seattle from Kerry Park
Daphne Fabbri ©2020

I.III Acknowledgements

This work would not have been possible without the experiences - both professional and personal - which have brought me to this point. Firstly, I would like to express my appreciation for my advisor, Arch. Prof. M. Robiglio, whose work allowed me to discover and partake in various spheres of architecture, besides supporting me in this final project. I would also like to extend my deepest gratitude to the Olson Kundig family, whose many members have helped me to learn and grow; each one has taught me something, whether directly or indirectly, and I cannot express how thankful I am to have been a part of the group. Furthermore, several people have played a decisive role in shaping me throughout the past years. I would like to thank both students and teachers from my University of Florence years, from the Politecnico of Turin, and from my time at Diorama in Milan. Each day has taught me something new and I cherish every single addition.

In this book there is a piece of every person who has been a part of my adventure, and I would like to thank you for sharing moments with me.

View of Seattle from Gas Works Park
Daphne Fabbri ©2020

Notes

[1] C. Toraldo di Francia in *Supertudio. Opere 1966-1978*, G. Mastrigli ed., Quodlibet Habitat, Macerata, April 2016, page CVIII

[2] A. Galansino in *Utopie Radicali. Archizoom, Remo Buti, 9999, Gianni Pettena, Superstudio, UFO, Zziggurat,* P. Brugellis, G. Pettena, A. Salvadori, ed., Quodlibet Habitat, Florence, 2017, page 10

[3] M. Brayer in *Utopie Radicali. Archizoom, Remo Buti, 9999, Gianni Pettena, Superstudio, UFO, Zziggurat*, P. Brugellis, G. Pettena, A. Salvadori, ed., Quodlibet Habitat, Florence, 2017, page 4

CONTEXT II

II.I South Seattle's Origins

First Settlements

The first people to settle in the Seattle area were the Natives, ancestors of the Duwamish and Suquamish tribes, which are traced back to the 6th century CE. Starting from Alki Point, the tribes expanded to the Duwamish river, settling long its bed, and developing an extensive trade.

The first white settlers to arrive were British in 1792, guided by captain G. Vancouver who was sent to map the area and find the Northwest Passage[1]. Their nominal control ended with the arrival of American explorers from Illinois in 1851 and establishing a logging community in today's Pioneer Square District, right next to the Native center Duwamp. The village was named Seattle in honor of the Duwamish leader Sealth, who was considerably hospitable to the newcomers.

In 1855 the Treaty of Point Elliot was signed by government and Native representatives, confining them to specific areas around Seattle in order to allow the expansion and economic growth of the city.[2]

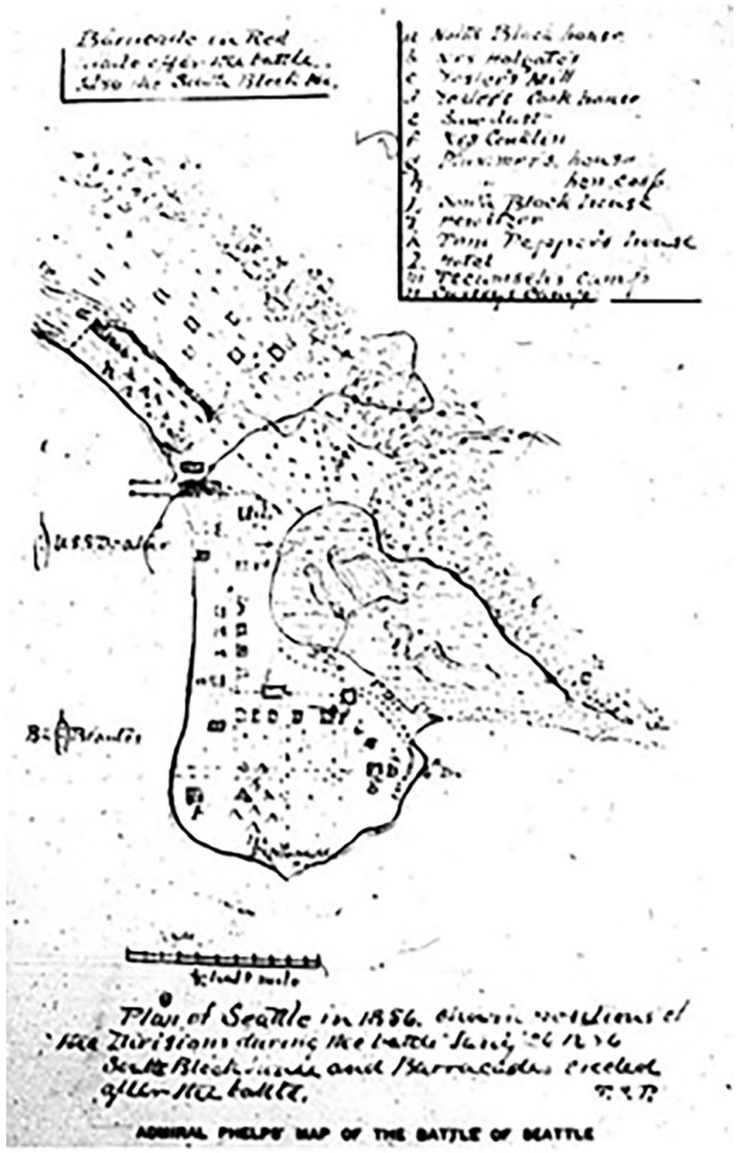
These lands were important for the Native people. They could harvest clams, cockels and mussels; fishing weirs were found upstream, which would have been used to catch migratory salmon. Today the Duwamish tribes "retain treaty rights to hunt, gather roots and berries and fish". [3]

Initial City Growth

Not only because of it was the first settlement, the Duwamish River mouth is tightly bound with the growth of the city of Seattle as the fulcrum of its economic development.

Of the first settlers, a very important name was the one of Henry Yesler, who built his sawmill in 1853 and produced lumber to supply San Francisco. Yesler's business paved the way to the great evolution the city endured with building its own railroad in 1873. At a time when Seattle had a population of about eleven thousand people, city council created the "Seattle and Walla Walla railroad and transportation company" (S&WW), which connected the two cities with 289 miles of tracks. The city council gave "all the tide-flats south of King Street" to the railroad company, opening the door to local development of the area: lay routes, set timetables and give permission to do so. Construction began in May 1874 and two lines were built. The first one, the Summer line, headed south of the urban center of Seattle; it was seasonal because of the tides and potential landslides. The Winter line instead went over the hill.

The building process was halted in late 1874 because of the national economic panic[4] but was saved two years later with the

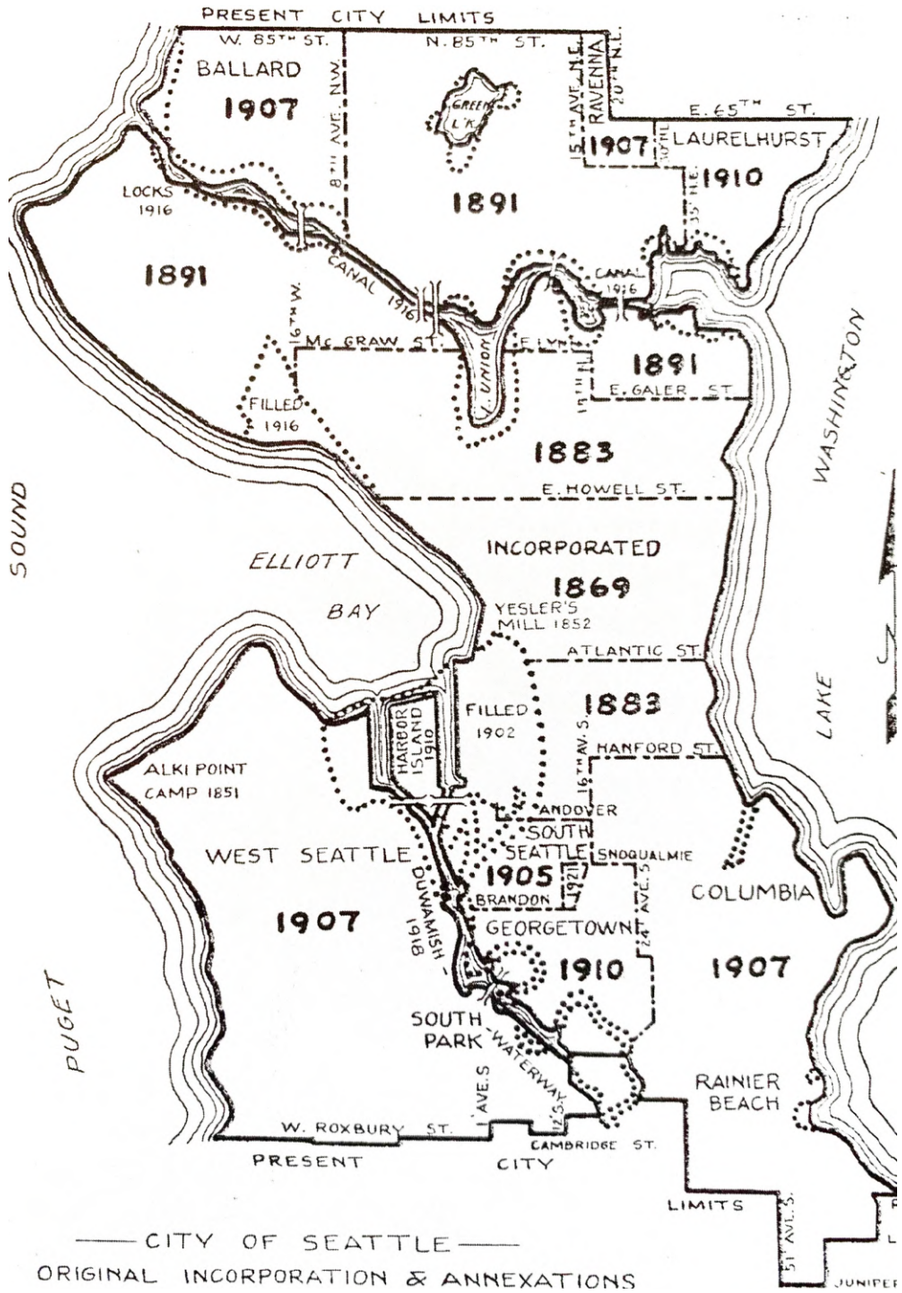


1856 map of Seattle by Thomas Phelps of USS Decatur, as published in Town Crier, December 15, 1917

aid of Scotsman James Colman, who pledged 20,000 dollars.
Rail was the only option for Seattle to expand as a city, and the only buildable areas were at the base of the steep hills on Elliot Bay or the tide flats. The new infrastructure would help move people and resources to and from the city. In 1853, coal deposits had been discovered near Newcastle and Renton, but the city landscape at the time made it difficult to exploit these eastside resources. However, with the new S&WW line, coal could reach Seattle in a couple hours on a single line, instead of the 20-day journey and multiple lie changes it originally required. The fuel's final destination was San Francisco.
To enable the construction of the rail lines in the southernmost areas of the Duwamish tidelands, Joe Surber created a pile driver to drive logs into the mud. This former chief of police ended up driving a line of Douglas fir piles across the tideflats in less than four months, allowing the workers to lay supports and rails quite quickly.
Train service began on March 7, 1877, and by 1883 Seattle was providing 22% of all coal produced on the Pacific Coast. Coal, and an endless supply of high-quality lumber, helped boost Seattle's growth; furthermore, the city provided support services for the developing coal towns. These exported commodities remained prominent until 1910, when the petroleum industry expanded.
The Seattle and Walla Walla was sold in 1880 to Henry Villard, owner of the Northern Pacific Railway and does not exist anymore. The S&WW were local rail lines which connected Seattle to the rest of the region and not the country. Nevertheless they managed to propel the newly born city into an influent modern age. In an era when Pragmatism was mainly the silver lining, Seattleites pushed themselves to conquer the natural environment surrounding them, thus creating their city from scratch.

Expansion Towards the Tidelands

Seattle started expanding southward together with the construction of the line, as shown in a photograph dated 1884. The new stretch was primarily populated by industries. The majority of these were sawmills, which produced great quantities of sawdust and debris while providing building materials for the growing city. This excess matter was dumped in the tideflats and eventually created a strip of land. In 1888, Seattle mills had produced 100 million board feet of wood. With this expansion trend, as seen in 1641 Boston, industry found its ideal location in the city, in a flat and isolated area with lots of room to grow. On the other hand, residential areas were budding on the more fashionable hills.
Housing started appearing in the area with the rise of the Chinese community in 1880. They settled in this cheaper and segregated part of town until their expulsion during the economic downturn. The Natives also found refuge in this part of town, specifically on



Seattle Annexetions Map, Sanitary Survey Land Use Project (Record Series 2613-03), Seattle Municipal Archives, Seattle, 1938

Ballast Island. As another artificial block of land, the island was created from the dumping of rocks from merchant ships arriving in Seattle. Ballast Island was one of the few areas of town where Natives were tolerated and where they could move to when burned out of their homes.
In 1888 another category of residents settled in the south Seattle area. At the beginning of the year, the owner of the most prominent sawmill in the city, Henry Yesler, expanded his business onto the tidelands, property of the S&WW. The railroad company didn't contest the usurpation, leading to a boom in jumpers and squatter, attempting to take over portions of land. Jumpers drove in piles whenever they could, while squatters, starting from their own property, built out into surrounding aeas.

Rebuilding from Scratch

All the efforts Seattleites put into building up the Duwamish tidal lands, as well as expanding their city, were burned to the ground by the Great Fire of 1889. From historic photographs, we can see how it was as if the fire had "peeled off the ersatz skin of the waterfront and revealed the fragile framework hidden beneath"[5]. Nonetheless, the acclaimed "Seattle Spirit"[6] brought citizens together to rebuild using what the fire had given them: waste material. They went back to dumping residue in the muddy tidelands and extending streets. Piers got bigger and extended out into the water, Railroad Ave became more substantial and by the early 1900s, nine parallel sets of tracks extended over Elliot Bay. Hundreds of trains used these tracks every day, making it dangerous to reach the warehouses on the water. To manage the busy railroad, the Great Northern Railroad Company (which arrived in Seattle in 1893) decided to create a tunnel from todays' King Street Station to Virginia Street. The Great Northern Tunnel still provides train access to Seattle to this day since its opening in 1905.

Pilings on the Duwamish River Tideflats, Seattle, 1855
MOHAI

Indian Camp with Canoes, Ballast Island, Washington Street, Seattle, ca. 1890
MOHAI

Semple's Plan

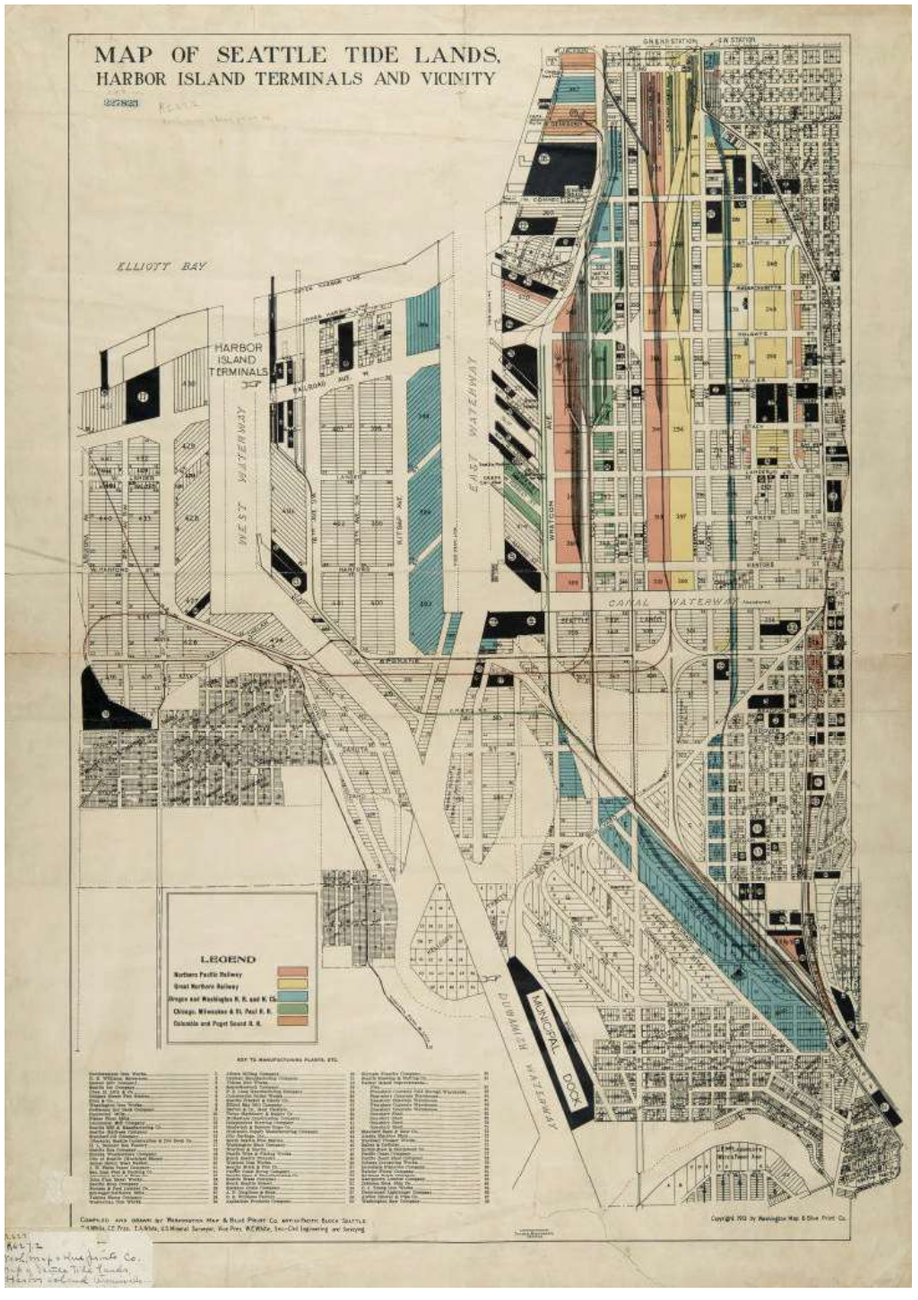
Another very important event for the development of the tidelands in south Seattle was Washington becoming a state on November 11, 1889. To establish ownership of the state's tideflats, a five-person committee was created: the Washington State Harbor Line Commission. Before November 1889, the federal government "held all submerged lands beneath the ordinary high-tides in trust for the citizens of the future state"[7], thus making any railroad or industrial construction illegal. Instead, in 1890 the Commission, influenced by member Eugene Semple, gave the city of Seattle public control over the waterfront. In other words, the tidelands were on the open market, as Semple had arranged.

Semple realized the area destined for development, so in 1891 he proposed to fill in the mouth of the Duwamish River, thus reclaiming it. His plan, based on a previous harbor scheme by Virgil Bogue[8], was then transposed into the creation of a canal through Bacon Hill to Lake Washington. In order to fund the excavation, he would sell the filled-in Duwamish tidal flats' land to citizens and corporations, which hadn't been possible before statehood. Semple knew the land would be appealing for the industrial market because of its having deep-water access and railway frontage at the same level, besides providing a hard-to-find flat landscape close to downtown. In his original plan, Semple intended to cut two channels through the newly filled tideflats, but ha was unable to due to financial and legal reasons.

Excavation for the canal started in 1895, providing jobs after the economic panic of '93, and by June 1897 had created 75 acres of new land. After two years of stalling, dredging resumed in 1900, and by 1904, Semple's company had completed the East Waterway. This filler provided a more substantial base for new construction, compared to the pilings of the 1880s, allowing the use of materials like brick, instead of the highly fire-susceptible wood.

After filling in the tidelands, Semple had yet to create the South Canal, connecting fresh water to salt water through Beacon Hill. While the value of the new land had increased by at least ten times since the start of the project, the canal did not have enough support from the community. His project could not continue without the South Canal, so in 1905 he resigned from the Commission and the filling terminated in 1917, aided by the excess dirt produced by the Jackson Regrade (1907-1910).

Although Semple's vision was not fulfilled, he gave Seattle the industrial base on which it grew to its success. Unfortunately, the muddy and unstable tidelands were created by thousands of years of geological events which the filling project did not take in account.



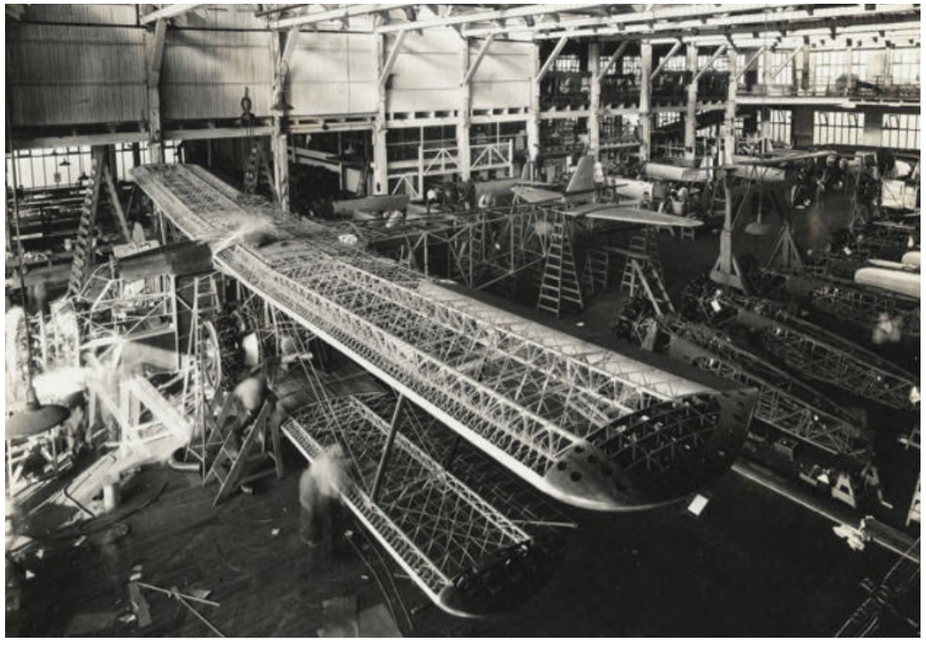
Map of Seattle Tide Lands, Harbor Island Terminals and Vicinity, Seattle, Washington Map & Blue Print Co., 1913, Seattle Public Library (spl_maps_2448166)

A New Wave of Housing Arrangements

In the 1900 census, data shows that the filled-in land interested not only industrial companies, but also single men who needed a cheap place to live. In contrast to the predominantly Chinese and Native communities in the 1880s, now the census found twenty-five different countries of origin. Mostly tradesmen, they lived in what the census called "shacks, tents, barges..." on the waterfront, which led to a city "cleanup" in 1907.
Lastly, during the Great Depression the underprivileged built wood-and-tin shacks in the area, creating yet another Hooverville[9].

Booms and Busts

Heading into the 20th century, Seattle starts a string of vertiginous peaks followed by plummets into profound lows. This unsustainable economic cycle is driven both by historical events and by the expanding of private companies[10].
The first of these events is the Klondike Gold Rush of 1897, which put Seattle on the map as the last port before Canada. Although taking place in a different country, the Gold Rush brought great economic prosperity to the city, as Seattle became the main supply center for prospectors, as well as the transportation hub, connecting up with Alaska and the Yukon.
The Gold Rush also sparked an immigration wave into Seattle, as potential miners forwent adventure and hardship for security. To accommodate the spike in housing demand, the city expanded quickly. Consequently, there was not enough time to create a plan for the expansion, so there was a mix of uses and classes throughout the city.
Still riding the wave of the Gold Rush, Seattle hosted the 1909 Alaska-Yukon-Pacific Exposition. Unfortunately, the event caused controversy and protest, regarding the non-unionized labor and human exhibitions, making the Exposition a debacle rather than a capstone.
The wars brought great economic growth to Seattle, but the years in between them unfortunately were not as productive. Due to the battles being in the Atlantic in World War I, maritime trade in the Pacific Ocean was increased. This brought to Seattle an increase in the lumber and maritime industries, joint in shipbuilding. Therefore, all other industries were stalled for the time being, so when the demand for boats ceased, Seattle was left without diversified businesses. The explosive growth of the city had come to an end after two decades.
During the Great War, the Boeing airplane company was the main employer in Seattle and continued to be for the second world conflict.
The aerospace manufacturing company originated as a wooden boat manufacturer on the muddy tidelands at the mouth of



Hooverville, University of Washington Libraries Digital Collections, Collection UW2224, 1937

Airplane assembly at Boeing Airplane Company plant, Author Unknown, July 23, 1929, MOHAI (1953.345.17)

the Duwamish river. In 1910 William E. Boeing bought the woodworking company and transformed it into an airplane factory. He became fascinated with planes and decided to start producing them. Without much luck at first, the company took off with the US entry into World War I in 1917, when it began regular, consistent airplane production.

After facing a post-WWI stagnation period, Boeing bounced back with World War II. The federal government went back to Boeing for its aviation needs, inducing a series of developments for the city's war-related businesses. Once again, the huge demand was followed by a migration spur to Seattle, this time mostly from the African American communities from the south. Another stall came with the end of the war, but this time Boeing found a way to stay on the market. The company became the world's leading producer of passenger planes for commercial use and went from employing a fifth of Seattle's population in 1947 to half of it in 1957. The consequence, for the third time, was a migration of manufacturing workers towards the city, which had to respond promptly.

In addition to housing, the city's transportation needed improving. Interstate 5 was completed in 1957, thus connecting the city north-south; at the same time, i90 was being built to cross Seattle east-west. Lastly, the elevated Alaskan Way Viaduct was built along the waterfront to connect West Seattle to Belltown.

In the early 70s a change in demand led Boeing to cut its workforce by 50%, consequently leading the city into a crisis. Furthermore, the 1973 energy crisis brought Seattle into recession.

In 1962 Seattle hosted the Century 21 Exposition, hoping to benefit from the urban developments and upgrades that would be covered by the ticket purchases. The fair had a futuristic theme; so, for example a permanent Science Center was left to the city. The new developments regenerated the downtown area of the city, gifting Seattle a brand new, avant-garde, landscape-grade center, and a profit. This event could arguably be the last boom before Boeing's bust in the '70s.

Double-deck section of viaduct under construction, central waterfront, Seattle, April 16, 195, Seattle Municipal Archives (43119)

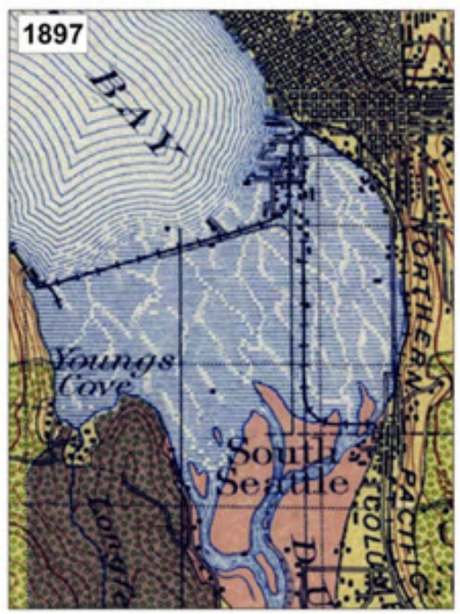
Aerial view of crowds waiting to enter Seattle World's Fair taken from east, Forde Photographers, Seattle, 1962, MOHAI (1965.3598.5.7)

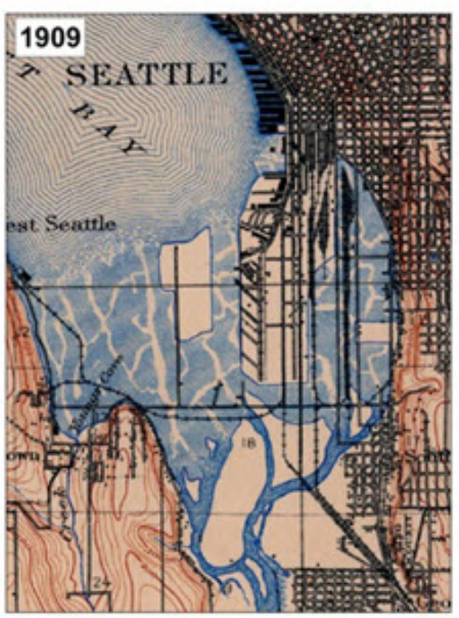
The Tech Ascendancy

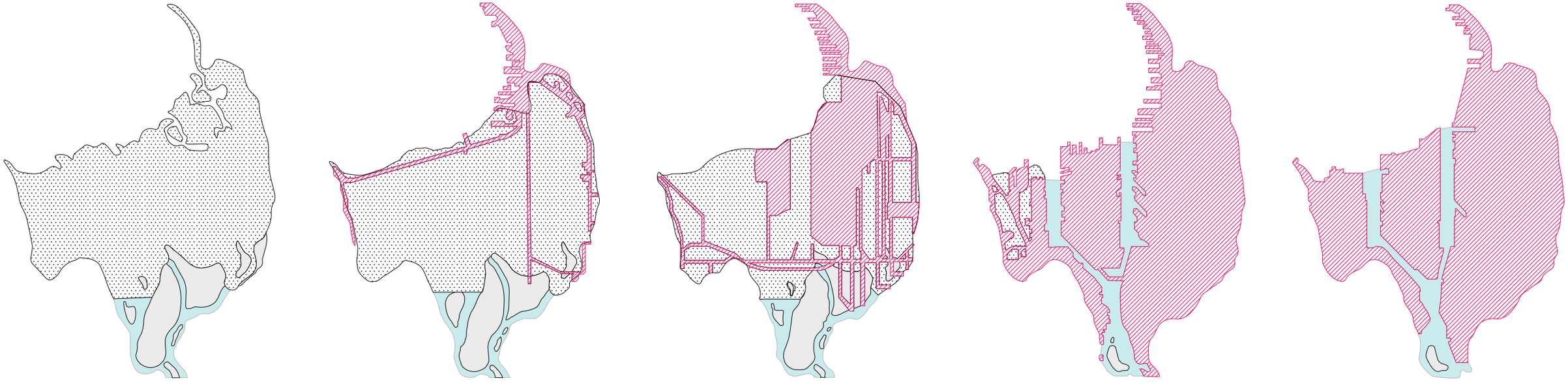
The latest boom, currently ongoing, is the tech upsurge. After founding their company in New Mexico, Bill Gates and Paul Allen moved back to their hometown of Seattle in 1979. By 1995, Microsoft was the most profitable corporation worldwide and was - and still is - active in public works.
Paul Allen, after leaving the company, was an active participant in city politics and funded throughout the years numerous projects. Of these, notable developments are the improvement of the South Lake Union district into a biotech center and the Seattle Seahawks stadium in SoDo.
After the Great Recession brought the boom to a halt in 2008, the tech industry made a comeback even stronger with Amazon moving into cloud computing between 2005 and 2011.
Since the flowering of these major tech companies, many satellite start-ups have been populating Seattle, transforming it, together with other international businesses, into a booming city since 2016.

View of South Lake Union from the Space Needle
Daphne Fabbri ©2020

View of Downtown Bellevue from the Space Needle
Daphne Fabbri ©2020







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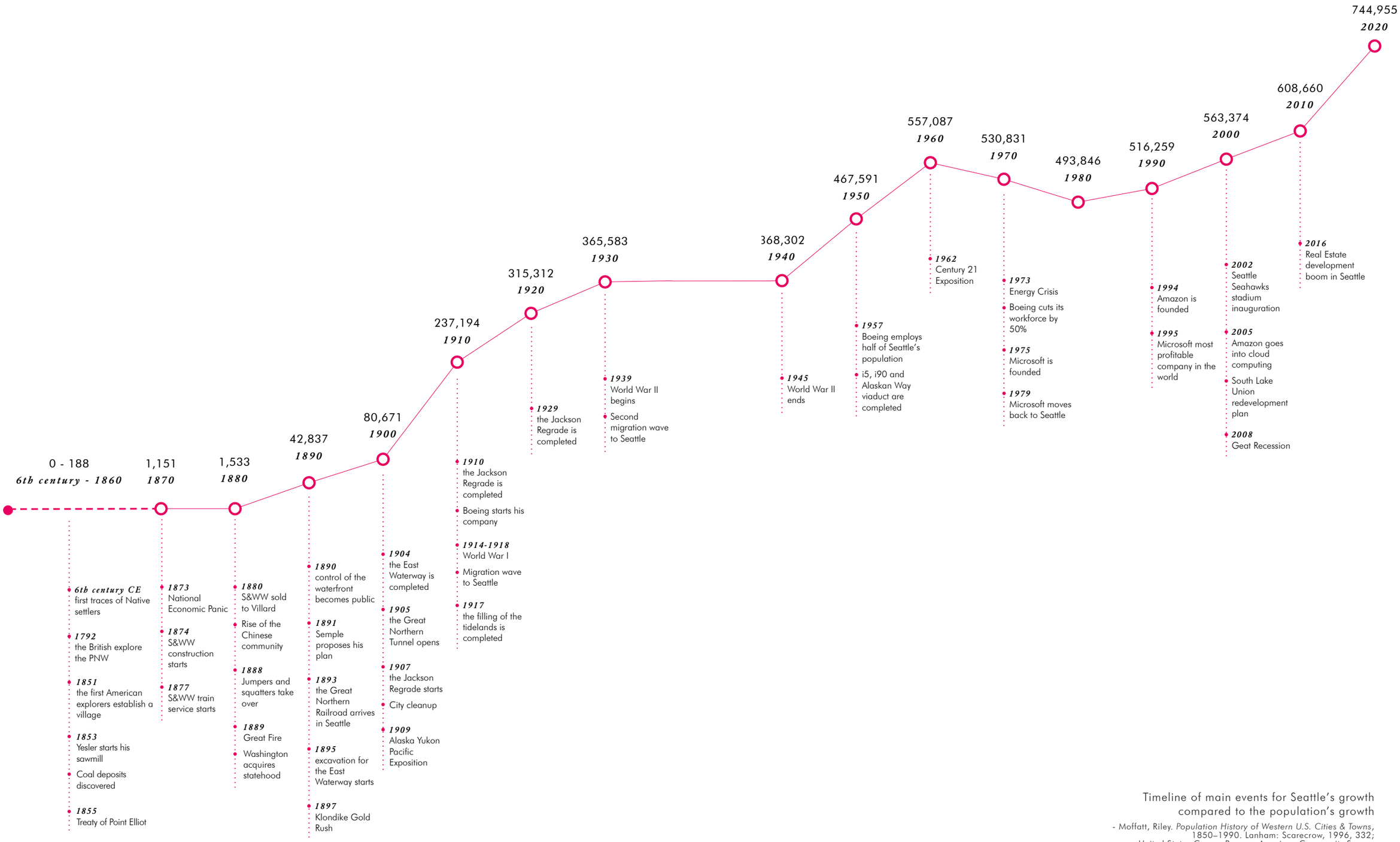
Adaptation of a diagram from "The Waterlines Project", Burke Museum.

Historic data from USCGS Topographic Sheet T-1406, 1875; USGS Land Classification Sheet, Seattle Quadangle, 1897; USGS Topographic map, Seattle Quadrangle, 1909; USGS Topographic map, 1943



Timeline of main events for Seattle's growth compared to the population's growth

- Moffatt, Riley. *Population History of Western U.S. Cities & Towns*, 1850–1990. Lanham: Scarecrow, 1996, 332;
- United States Census Bureau, American Community Survey, TableID: B01003

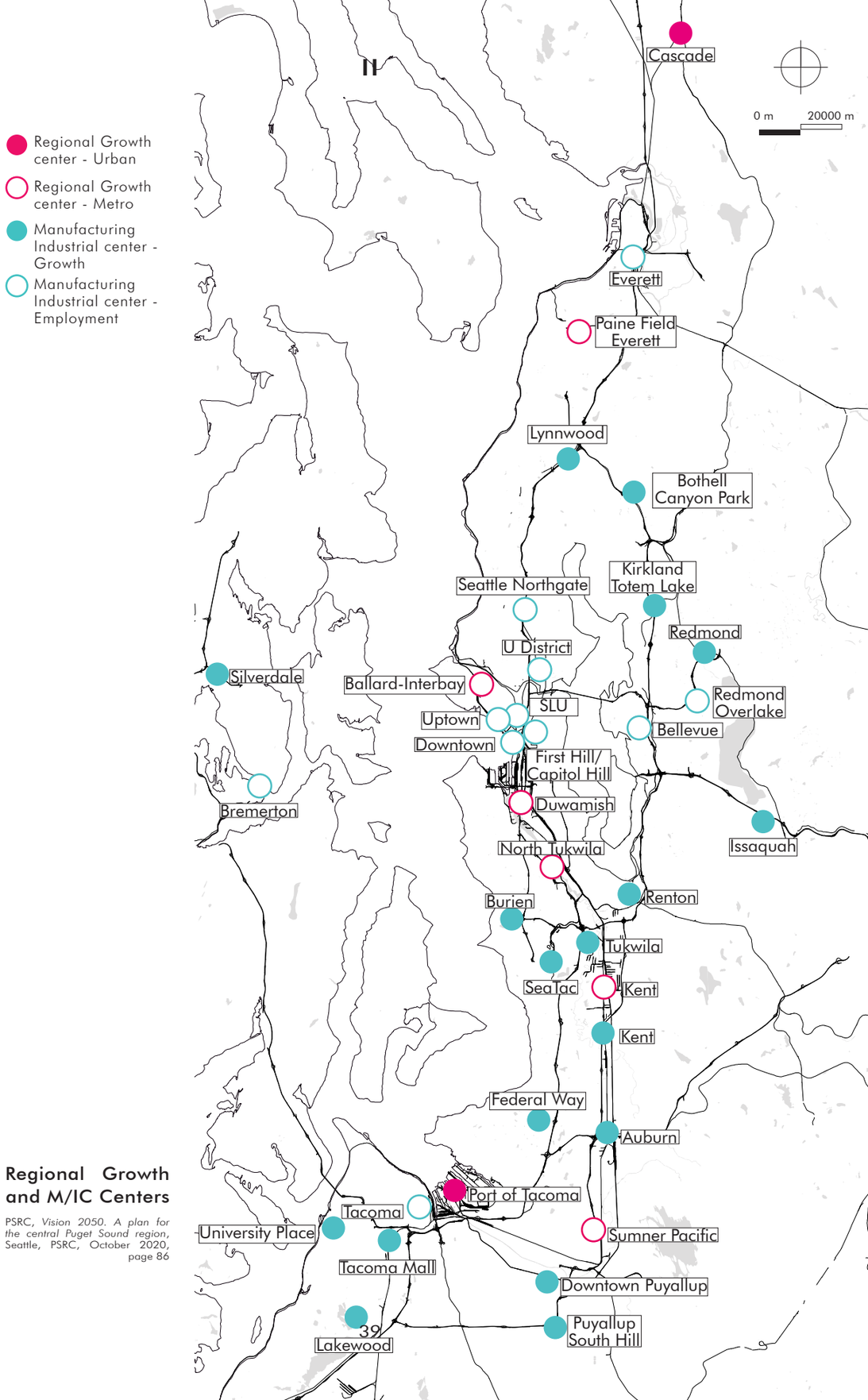
II.II Planning Measures

In 2007, the Seattle Planning Commission issued the report *The future of Seattle's industrial lands* to develop a strategy for future industrial needs. The city's industrial lands were thriving - and still are - and needed to be preserved from being taken over by mixed-use and commercial lands. Between 2007 and 2009, various reports, commissions, public involvement efforts and conversations took place to review and update industrial zoning[11]. Since then, a number of improvement projects have been designed and enacted around the city, for instance the transit implementation plan[12], but at the same time new technologies have brought about new ways of doing manufacturing. This section analyzes the most recent projects, which highlight the importance of the SoDo area not just for Seattle, but also for Washington State and the Puget Sound region. The new vision for Puget Sound's economy commits to investing in people in order to create a highly skilled and diverse workforce.
SoDo is considered part of the Duwamish industrial area in both plans, which resides on Duwamish tribal land.

"If zoning strategies begin to take the changing face of some industrial uses into account, then industrial land supply could potentially be configured differently to maximize performance for core industrial uses." [13]

Vision 2050

Vision 2050 is a general growth plan for the Puget Sound region, first published by the Puget Sound Regional Council (PSRC) as *Vision 2040* in 2008, and updated in 2020. Its stated goals are "planned growth, economic development and transportation infrastructure investments"[14] across the state, region and local levels. The plan aims to accommodate "growth in urban areas, focused in designated centers and near transit stations, to create healthy, equitable, vibrant communities well-served by infrastructure and services".[15]
PSRC created the Regional Growth Strategy plan to explain how to put these goals into action. It lays out environmentally - and economically - sustainable patterns for urban growth in the realms of housing, prosperity, social equity, and mobility. Specifically, it provides guidelines for increasing housing choices and affordability, for creating opportunities for all within a strong economy, and for maintaining regional transportation, while reducing greenhouse gas emissions and restoring Puget Sound's health. It underlines growth in specific regional centers (neighborhoods, cities or military areas) and near transit.
The SoDo area is classified as a Manufacturing/Industrial Center (M/IC). These "provide economic diversity, support national



Regional Growth and M/IC Centers

PSRC, *Vision 2050. A plan for the central Puget Sound region*, Seattle, PSRC, October 2020, page 86

and international trade, and offer higher-than-average wages. These centers can also generate substantial revenue for local governments [...]".[16] The MICs are further divided into two subcategories: Industrial Employment Centers and Industrial Growth Centers. The SoDo area is one part of the Duwamish Manufacturing Industrial Employment Center; it borders on the Seattle Downtown Metro Growth Center.
The PSRC has yet to publish its development patterns for industrial lands (DP – Action – 2)[17]; however, the importance of SoDo is underscored by the fact that many of Vision 2050's key economic players are located here. For example, Vision 2050 specifies that the state's economy depends on trade; the Port of Seattle (the second-largest port in the United States) is located here. Furthermore, SoDo hosts the headquarters for many global companies and resources for its other pivotal areas: "information technology, aerospace and agricultural products".[18]

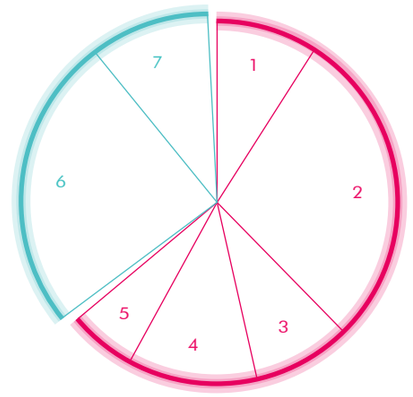
Industrial Lands Anaysis Report

The Industrial Lands Analysis (ILA) report of 2015 examined in-depth the economic activity of the industrially-zoned areas to steer them towards Vision 2050. As said before, land uses are divided between employment-based and land-intensive uses. The former can only operate in specific locations, while the latter needs to find relevance within cities, namely in industrially-zoned areas. However, another use which is closely related to industries, but "is not traditionally considered a core industrial use",[19] is Research and Development (R&D). R&D activities range widely, depending on the industry they are connected to; consequently, their physical spaces can look like an office space for some, or be a production plant in other cases.
In the Central Puget Sound region, there has been a resurgence in manufacturing jobs due to the lower energy costs in the U.S. and more convenient distances to customers. This has been accompanied by profound transformations in the sector, which the ILA report lists as:

- Growing share of smaller-scale production;
- Increased automation in manufacturing;
- More comprehensive process, including design and support services for production;
- Lower-impact processes, reducing the number of activities requiring isolated industrial zones;
- More sustainable practices, like closed-loop manufacturing;
- Artisanal size production - "Maker movement" [20] - taking place inside city limits.

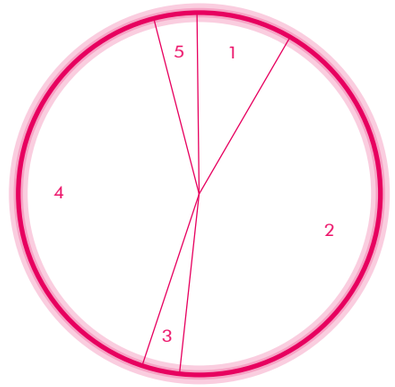
Employment in the Duwamish-North Tukwila subarea

1. Construction	9.1%
2. Manufacturing	28.5%
3. Transportation	8.7%
4. Warehousing	11.5%
5. Other industrial	6.0%
6. Non-industrial	25.0%
7. Public Sector	11.1%



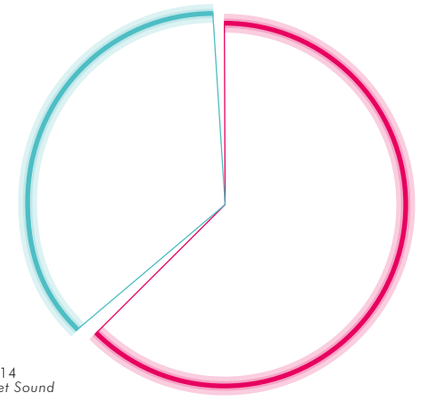
Estimated Industrial Business Revenues

1. Construction	8.5%
2. Manufacturing	43.1%
3. Transportation	3.3%
4. Warehousing	41.2%
5. Other	3.8%

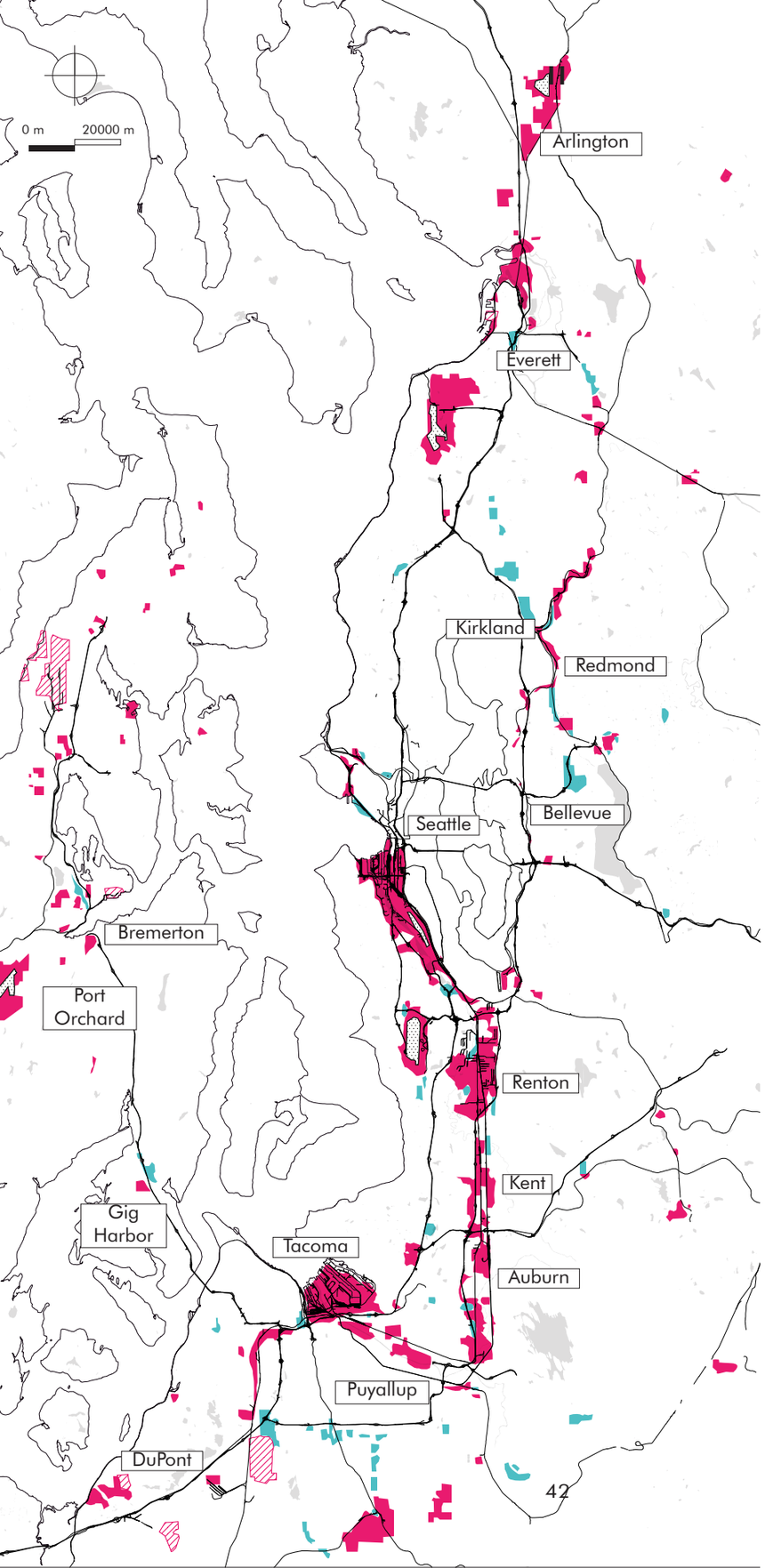


Employment Forecasts for 2040

Industrial	62.7%
Non-industrial	37.3%

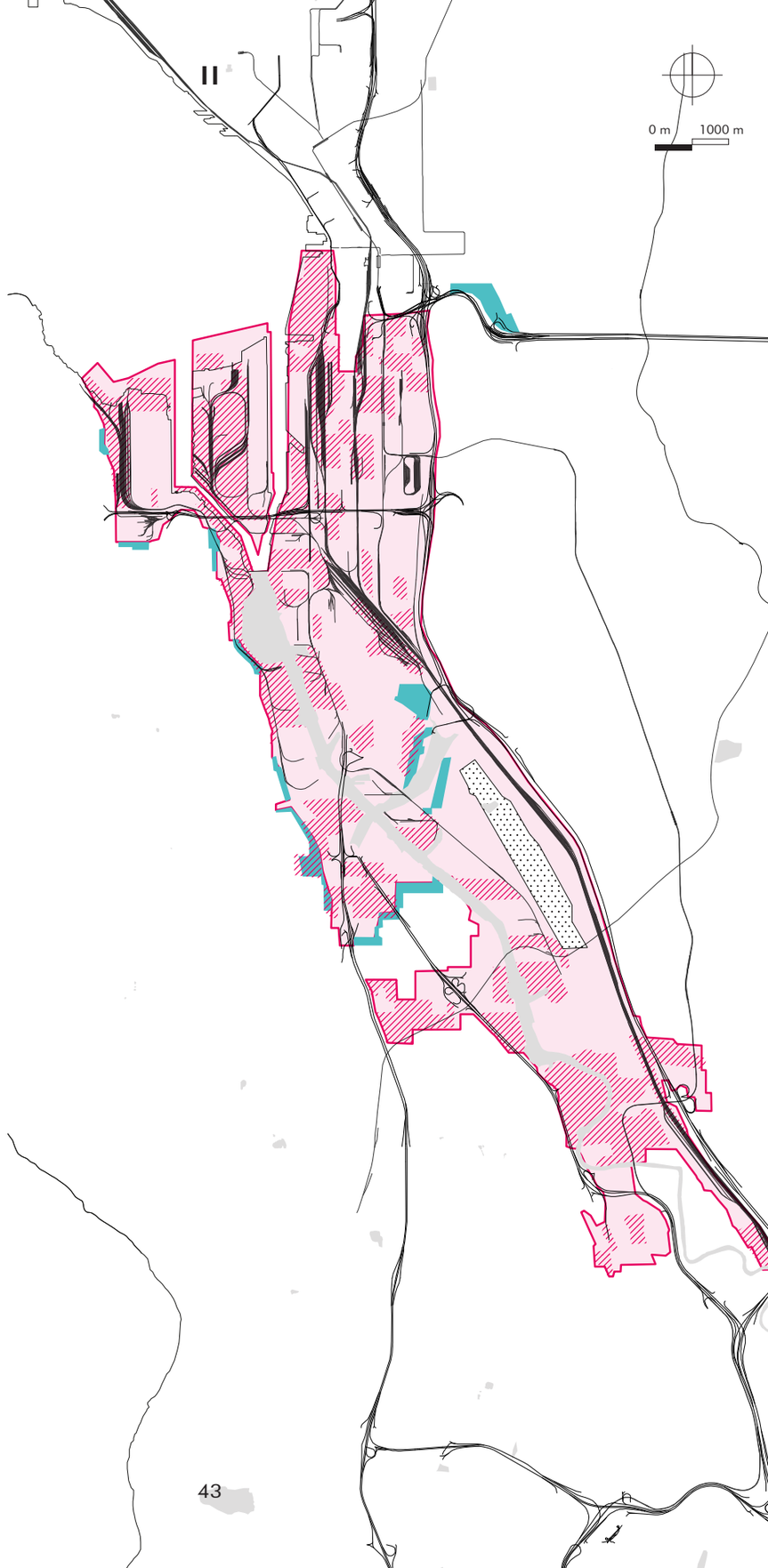


Employment in the Duwamish - North Tukwila subarea, 2014
PSRC, Ca inc, *Industrial Lands Analysis for the central Puget Sound region*, Seattle, PSRC, March 2015, page P-17
Estimated Industrial Business Revenues, 2014
PSRC, Ca inc, *Industrial Lands Analysis for the central Puget Sound region*, Seattle, PSRC, March 2015, Exhibit 4.20
Employment Forecasts for the Duwamish-North Tukwila Subarea, 2012-2040
PSRC, Ca inc, *Industrial Lands Analysis for the central Puget Sound region*, Seattle, PSRC, March 2015, Exhibit 6.5



Gross Industrial Land Supply for the Central Puget Sound Region

PSRC, Ca inc, *Industrial Lands Analysis for the central Puget Sound region*, Seattle, PSRC, March 2015, Exhibit E.2



Duwamish-North Tukwila Gross Industrial Land Supply

PSRC, Ca inc, *Industrial Lands Analysis for the central Puget Sound region*, Seattle, PSRC, March 2015, page P-19

Reviewing current industrial trends [21] in relation to the central Puget Sound region, ILA identifies six industries - aerospace, maritime, transportation and logistics, life science and global health,clean tech, industrial business services - as the ones leading changes in land utilization. The report, which considers the Duwamish M/IC and the North Tukwila area as one, underlines how, together with the Kent-Renton subarea, it makes up "the non-aerospace industrial core of the region".[22] Furthermore, it also includes the Port of Seattle's primary marine shipping facilities.

The Duwamish MIC is the primary marine shipping area for Seattle, which depends on its docks and freight distribution system to move its products. Consequently, most of the land is zoned as core industrial, and other heavy activities take place here, such as steel melting and concrete manufacturing.[23]

Of all the subareas in the central Puget Sound region, the Duwamish-North Tukwila one has one of the highest employment rates, although parcels are smaller compared to other areas because of denser development patterns. In fact, most of the buildings were constructed at the beginning of the 20th century and are under 200,000 square feet.

ILA forecasts a growth of 59% for the Duwamish-North Tukwila subarea between 2012 and 2040, and most of it will occur in industrial jobs. Compatible with the core industrial nature of the area, some new land use management strategies will have to take place in order to accommodate the boost, given the current very low vacancy rates.[24] The Industrial Land Analysis specifically suggests local jurisdictions[25] allow non-industrial uses only when providing support services for industrial business; in alternative, encouraging the viability of industrial corridors could be useful.

In the years leading up to 2015, technology had brought changes to the advanced manufacturing industry, widely present in Washington state; this trend is still ongoing. New technologies allow companies to save time during the design process, while avoiding the need for storage space by having parts arrive just in time for use. Likewise, automation can also result in a lower number of employees required, e.g. Amazon's fulfillment centers, as well as limiting potential hazardous situations. On the other hand, operating these new technologies requires a higher skill set, thus making job training programs a new priority.[26]

BSNF Terminal Entrance on S Hanford St
Daphne Fabbri ©2020

To ensure an adequate supply of land for industrial uses, the ILA report identifies five strategies:

1. protect priority users, such as port and rail operations, logistics, distribution, and manufacturing, because of their unique needs for infrastructure. These users generate demand for warehousing and other related services and therefore are key to the industrial ecosystem;
2. limit non-industrial uses on industrial land, because of the competition they create and generate traffic congestion. Consequently, non-industrial uses should be provided with adequate non-industrial land off of the industrial core;
3. accommodate low-impact industrial uses, such as the new smaller-scale manufacturing, by increasing the supply of land zoned. These new generation manufacturing typologies could contribute to mixed-use environments with walking/transit-oriented job sites;
4. hold large parcels to ensure large industrial needs;
5. improve space efficiency and land use by working with businesses to increase productivity. The new technologies and processes used in manufacturing have brought changes in the workflow, vacating spaces which could now be used by light-industrial uses like upper floors of existing buildings; this practice can increase employment densities and leave room for more intensive uses at lower levels.

In general, collaborative strategies are promoted to succeed in creating a more sustainable industrial system.

Industrial Business on S Horton St
Daphne Fabbri ©2020

Industrial Zoning Code

The Department of Construction and Inspections has identified three out of four categories within the industrial designation in the SoDo neighborhood. In all Industrial zones, residential uses are not permitted, parking is required and venting must happen at a minimum of 10' above grade. Landscaping is required only when adjacent to residential uses.

The three industrial zones in question are General Industrial 1 (IG1), General Industrial 2 (IG2) and Industrial Commercial (IC). Each of the three typologies covers a different aspect in order for the industrial goal to flourish. Setbacks are required to meet street improvement requirements, which are not present in the study area; FAR is set at 2.5.

IG1 aims to "protect marine and rail-related industrial areas from an inappropriate level of unrelated retail and commercial uses by limiting these uses to a density or size limit lower than that allowed for industrial uses".[28] Typically found in this category are "general and heavy manufacturing, commercial uses, subject to some limits, high impact uses as a conditional use, institutional uses in existing buildings, entertainment uses other than adult, transportation and utility services, and salvage and recycling uses".[29] The height limit is imposed for retail, office, entertainment, R&D and institutions at 30', 45', 65' and 85'; furthermore, for the first three uses the maximum square footage is set at 10 000 sqf.

IG2 allows "a broad range of uses where the industrial function of an area is less established than in IG1 zones, and where additional commercial activity could improve employment opportunities and the physical condition of the area, without conflicting with industrial activity".[30]

It shares land uses and height restrictions with IG1, but sets the maximum square footage at 10 000 for lodging and entertainment and 25 000 for office and retail use.

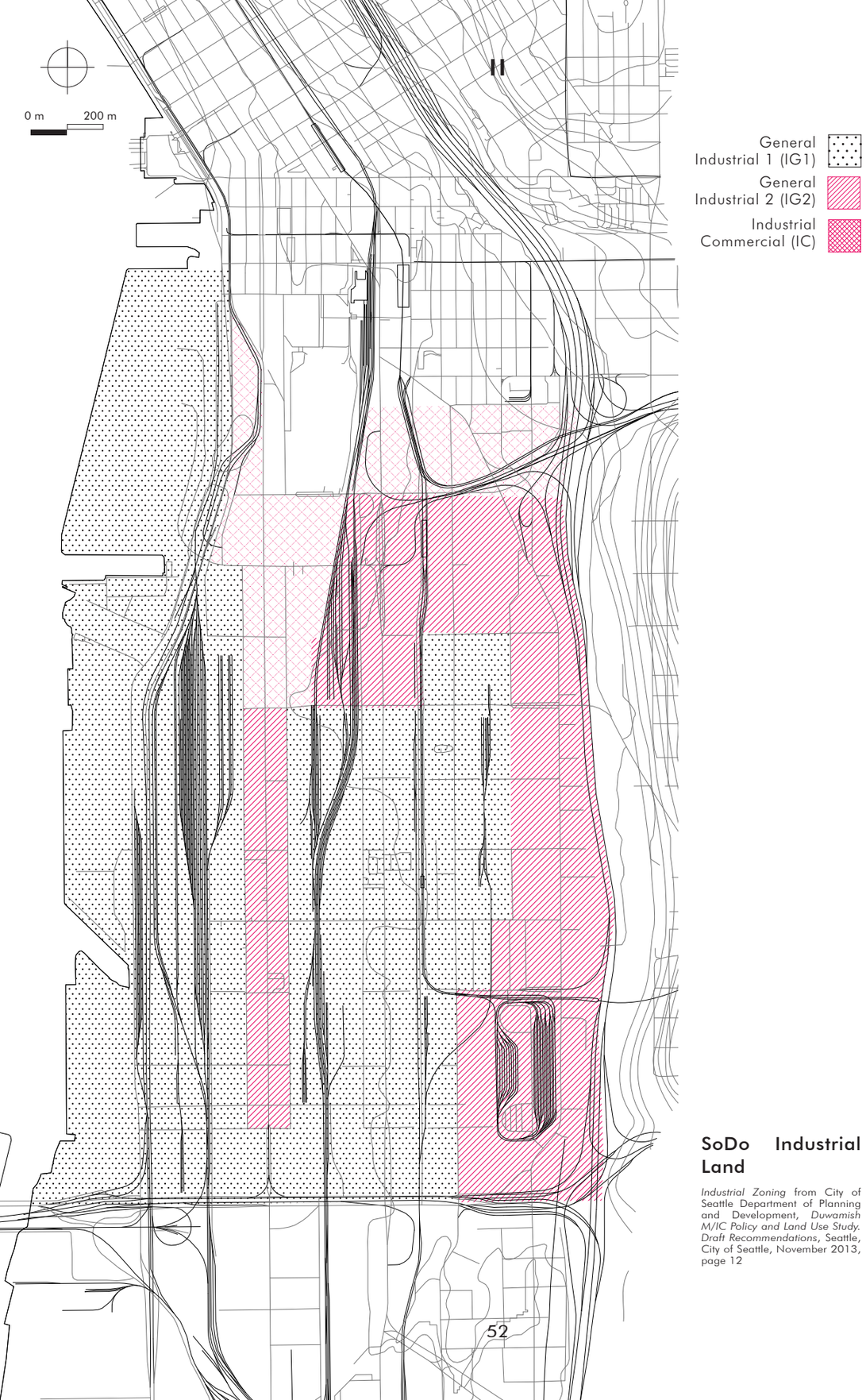
IC has a broader view of land usage and focuses on development of the commercial aspect of the industrial business. Its goal is to "promote development of businesses which incorporate a mix of industrial and commercial activities, including light manufacturing and research and development, while accommodating a wide range of other employment activities".[31] Land uses involve "light and general manufacturing, commercial uses, transportation facilities, entertainment other than adult, institutions generally in existing buildings, utilities, and salvage and recycling uses".[32] The height limit is set at 30', 45', 65' and 85' for all uses; square footage is limited at 75 000 sqf for retail and entertainment, while office use doesn't have a fixed number, but must abide by the rule "all the foregoing uses on a lot may not exceed two and one half times the area of the lot".[33] Landscaping and screening are required for "blank facades,

Seattle M/IC Zoned Land

City of Seattle, *Generalized Zoning*, Seattle, City of Seattle, May 2019

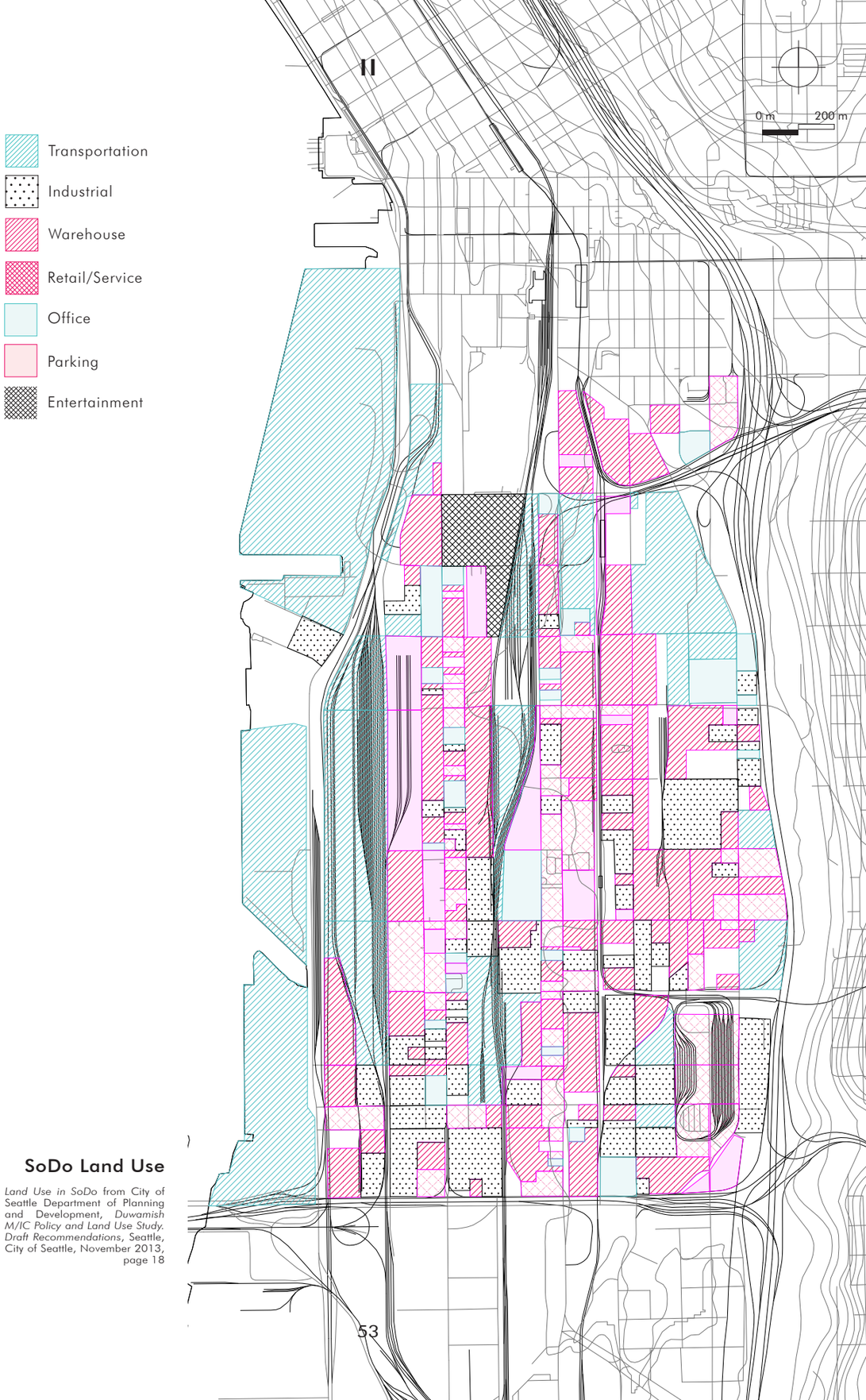
parking and loading, outdoor sales, rental and storage, drive-in businesses".[34] When bordering a residential zone, setbacks may be applied and lighting shielded to avoid glare.
For all industrially-zoned areas, height-limit exemptions apply for rooftop features.[35]
From the Municipal Code Library, Table A for 23.50.012 [36] lists the uses in industrial zones which are permitted, prohibited or have some sort of conditional use. The table states that lodging, horticulture, libraries, private clubs and live-work units are not permitted in the Duwamish M/IC on IG1 and IG2 zoned land.
According to the Industrial Streets Landscaping Plan, S Royal Brougham Way, S Holgate St, S Lander St, Alaskan Way S, 1st Ave S, 4th ave S and Airport Way S have to be provided with landscaping by the uses located on them.[37]

View of Seattle from S Horton St looking north
Daphne Fabbri ©2020



SoDo Industrial Land

Industrial Zoning from City of Seattle Department of Planning and Development, *Duwamish M/IC Policy and Land Use Study. Draft Recommendations*, Seattle, City of Seattle, November 2013, page 12



SoDo Land Use

Land Use in SoDo from City of Seattle Department of Planning and Development, *Duwamish M/IC Policy and Land Use Study. Draft Recommendations*, Seattle, City of Seattle, November 2013, page 18

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[14] Puget Sound Regional Council, *Vision 2050. A plan for the central Puget Sound region*, Seattle, PSRC, October 2020, page 3.

[15] *idem*, page 26.

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[17] *idem*, page 99.

[18] *idem*, page 116.

[19] PSRC, Ca inc, *Industrial Lands Analysis for the central Puget Sound region*, Seattle, PSRC, March 2015, page E-2.

[20] *idem*, page E-4.

[21] *idem*, page 2-1.

[22] *idem*, page E-6.

[23] *idem*, page P-17.

[24] *idem*, page 6-8.

[25] *idem*, page 7-1.

[26] *idem*, page 2-5.

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[28] City of Seattle Department of Construction and Inspections, *Industrial Zoning Summary*, Seattle, City of Seattle, January 2016.

[29] *idem*

[30] *idem*

[31] *idem*

[32] *idem*

[33] *idem*

[34] *idem*

[35] City of Seattle, *Land Use Code*, Seattle, City of Seattle, December 2020, subsection 23.50.020.A.4 | https://library.municode.com/wa/seattle/codes/municipal_code?nodeId=TIT23LAUSCO_SUBTITLE_IIILAUSRE_CH23.50IN_SUBCHAPTER_IIIDESTALZO_23.50.016LASTDEST

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THE TECH RESURGENCE III

III.I Shaping Seattle

As seen in the previous chapter (II.I), Seattle's popularity and economy fluctuates, with recurring boom-to-bust cycles. The first wave started with the Gold Rush and lasted until the Economic Panic of 1873; this trend has been repeated throughout the city's history. Currently we are experiencing a tech boom.

Seattleites have been confronted with techies migrating to their city since the rise of Microsoft Corp. in the 1980s. The initial newcomers came from California; they acclimated and blended in with the counterculture Seattle is famous for.[1]

Since then, tech companies of all calibers have come to the Emerald City to take advantage of the IT talent first drawn to Microsoft, as well as of the mechanical engineers at Boeing. For this reason, today Seattle is undergoing a "technology Gold Rush"[2]; in fact, Amazon established its headquarters here to tap into that preexisting skilled workforce.

In just a few years, the South Lake Union area of the city went from being a group of parking lots and warehouses to upscale apartment buildings, retail stores and offices.[3] The much-abandoned land was purchased by Vulcan, Paul Allen's real estate company, who was aiming to transform it from light-industrial to a public park. Once Amazon started becoming relevant, they moved to this previously-declining neighborhood and transformed it into a group of condominiums which do not blatantly appear connected to the brand.[4]

By taking over South Lake Union, Amazon has brought back to life what used to be a deserted part of town. Instead of isolating themselves in a suburban campus, like Microsoft, they located close to the business district and encourage employees to take advantage of local establishments. For example, the company offers limited seating in the designated dining areas inside the office buildings, so that its workers will support nearby eateries and shops. Furthermore, every employee is offered a public transport pass, which most of them use.[5]

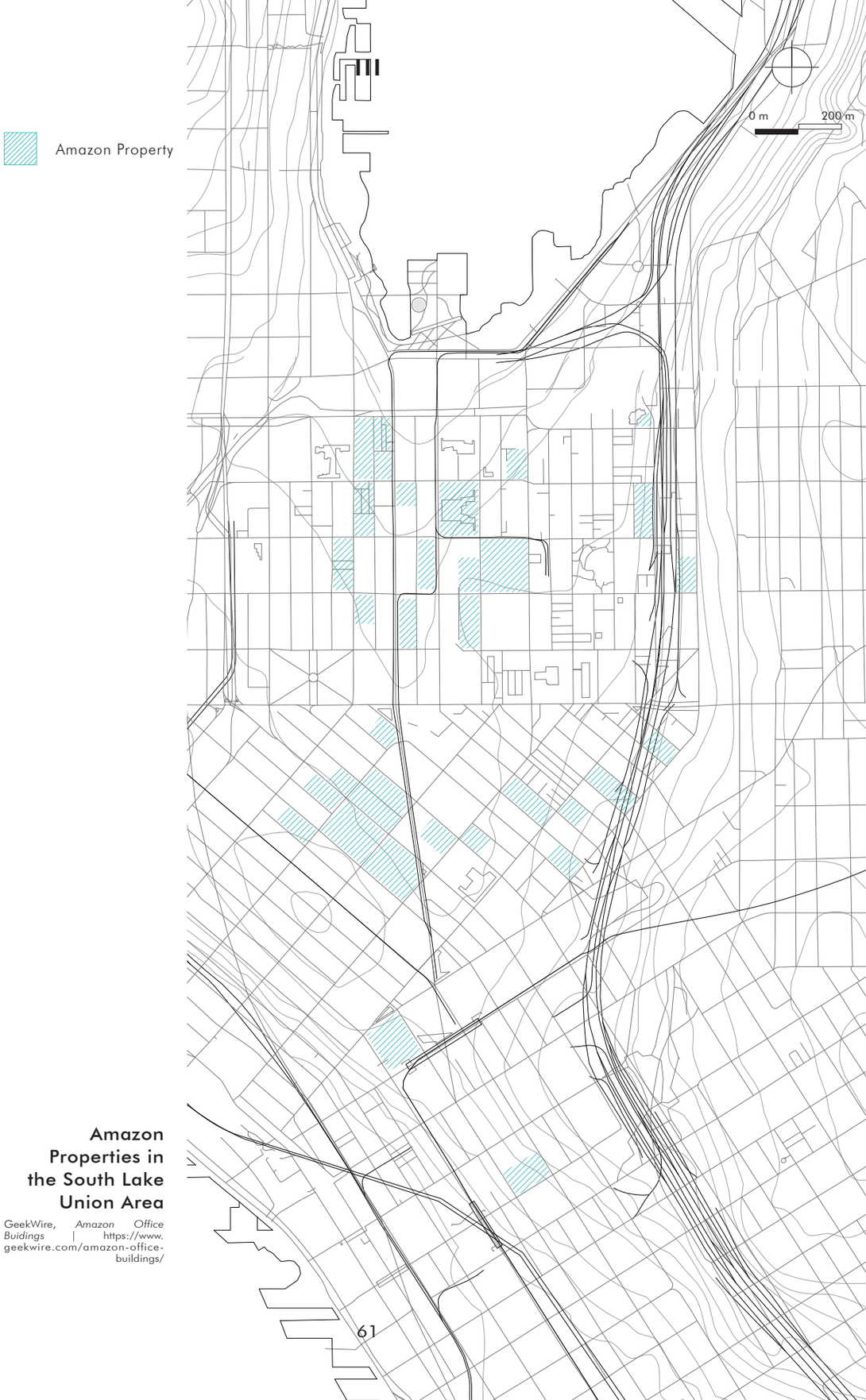
The downside of this technology resurgence is that Seattle has become difficult to afford for its original citizens in non-tech jobs. The company has mostly high-paid workers, so housing prices have soared; this effect has been multiplied by the arrival of other tech giants who followed Amazon because of the availability of tech talents. By expanding downtown, the big companies have expelled the African American community, which historically resided there since the '60s. Moreover, the newcomers, both in the '80s and today, usually "love Seattle, but don't identify with Seattle" - M. O'Mara.[6] The industry relies on a supply of dynamic people who are attracted by the city's gritty industrial base and independent businesses, but do little to sustain it, while making housing costs rise.[7]

III

The Spheres on 7th Ave
Daphne Fabbri ©2020

Amazon in Seattle

GeekWire, *Amazon Office Buidings* | https://www.geekwire.com/amazon-office-buildings/



Amazon Properties in the South Lake Union Area

GeekWire, *Amazon Office Buidings* | https://www.geekwire.com/amazon-office-buildings/

Housing Repercussions

Since 2010, Amazon has generated an estimated $38 billion in revenue, 40,000 related jobs and 53,000 indirectly related jobs in Seattle. Between 2010 and 2017, the average price for a new single-family house in the US increased by 46.3%, while in Seattle it grew by 83.4%. Regarding rental prices, Seattle went from being on par with the national average in 2010 to a 41.7% increase in 2017, compared to the 17.6% national growth. These increases have pushed buyers and renters seeking affordability into outlying towns and areas.

The biggest social impact has been on the middle-income families, who have been pushed to live further away from their jobs because of the rising prices.[8] Amazon is looking to create its new parallel headquarters - HQ2 - in Arlington, Virginia; although it will boost the town's economy, it will probably shatter the housing market for its residents. According to Todd Britsch, regional director of Metrostudy for the Seattle market, when companies are interested in locating to a new area, they are interested in affordability, which is why many tech companies had opted for Seattle instead of Silicon Valley.[9]

Because of this escalation, many less-desirable buildings have been transformed and put back on the market at higher prices. This is another reason why people looking for more affordable choices have had to steer away from (or move out of) downtown Seattle. Britsch found that the price of higher-end living solutions rose from $2.25 per square foot to $4.00 per square foot, going higher for condominiums.

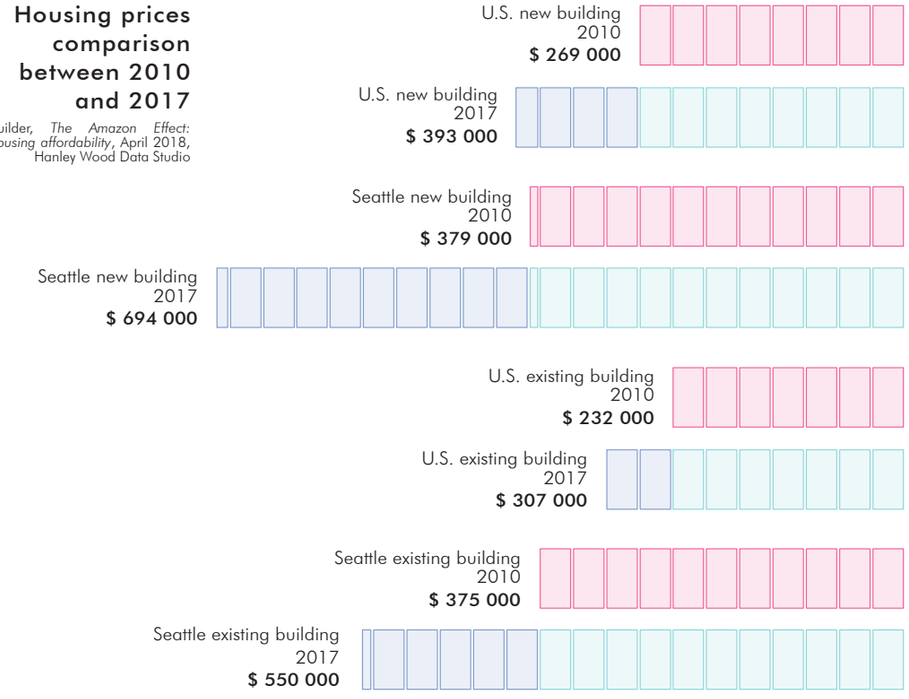
The severe land constrictions and high demand, which exceeds supply, have brought Seattle to a shortage of new and resale homes. Furthermore, perpetuating the condominium shortage, is the Washington Condo Act, which overprotects buyers with unrealistic warranties of quality, making litigation easy and frequent. Said disputes have hoisted the cost of insurance, with downtown Seattle units selling for $1300 per square foot. What was supposed to be the cheaper alternative to home ownership of single-family homes has now thus also become inaccessible.[10]

As reported by Metrostudy, between 2010 and 2017, 1.3 million people migrated to Washington state, with 58.29% of them located in King County. Most of these newcomers initially concentrated downtown in apartments, eventually moving to the suburbs about a year and a half later. Most of Amazon's 40 000 employees, however, live within 3 miles of the South Lake Union hub.[11]

This influx of new arrivals, and their demographics, caught the Emerald City's planners unaware. Mike Pattison, manager of the Master Builders Association of King and Snohomish county for Snohomish, believes Seattle was under-planned for infrastructure when Amazon exploded, thus unable to respond

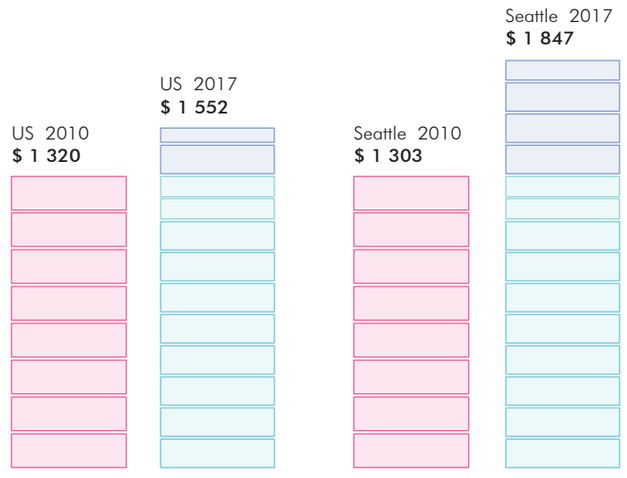
Housing prices comparison between 2010 and 2017

Builder, *The Amazon Effect: housing affordability*, April 2018, Hanley Wood Data Studio



Rental Rates comparison between 2010 and 2017

Builder, *The Amazon Effect: rising rents*, April 2018, Hanley Wood Data Studio



to the expansion. The Growth Management Act (GMA) issued by the PSRC, enacted in 1990, required counties which are densely populated to develop a comprehensive plan for future growth. Its goal was to create a controlled development of the cities involved, thus avoiding urban sprawl while protecting agricultural, rural and conservation areas.[12] In contrast, Amazon's HQ2 location, recently appointed after fierce battles, will be more prepared to embrace Amazon and the changes it entails.

Furthermore, the major tech colossal has created issues for the retail world. With its "Amazon effect" consumers are now accustomed to a frictionless shopping experience and instant results, making the competition unfair for in-person stores. In order to keep up with the online shopping experience, Forbes magazine has suggested retailers offer a technology-driven experience. For instance, they could offer online/in-person hybrid models, where one supports the other, or use technology to track customer behavior to better their shopping experience. Lastly, they could promote the use of tech in-store, to satisfy the customer with quick and smooth purchasing.[13]

LEGEND

1 Amazon Delight
507 Westlake Ave. N.
Seattle, WA 98109

2 428 Westlake
428 Westlake Ave. N.
Seattle, WA 98109

3 9th & Thomas
234 Ninth Ave. N.
Seattle, WA 98109

4 Amazon Roxanne
202 Westlake Ave. N.
Seattle, WA 98109

5 Amazon Phase VII
5400 Ninth Ave. N.
Seattle, WA 98109

6 Amazon Phase VI (Nessie)
500 Ninth Ave. N.
Seattle, WA 98109

7 Westlake Terry
321 Terry Ave. N.
Seattle, WA 98109

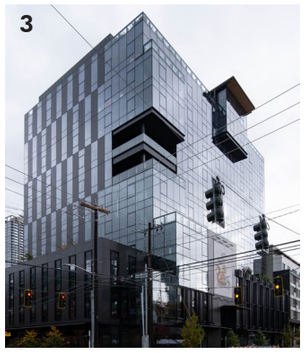
8 Original South Lake Union Campus
410 Terry Ave. N.
Seattle, WA 98109

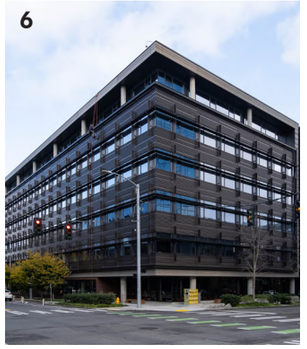
9 Day One
2121 Seventh Ave.
Seattle, WA 98121

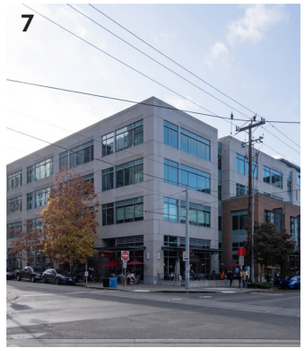
10 4th Block
2200 Seventh Ave.
Seattle, WA 98121

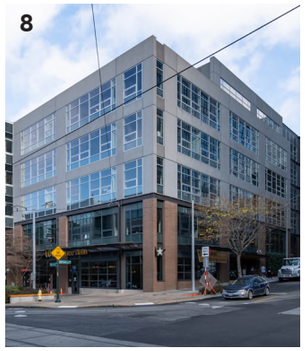
11 The Spheres
2111 7th Ave
Seattle, WA 98121

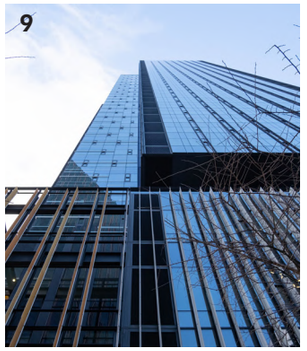
12 Block 20
2100 Seventh Ave.
Seattle, WA 98121











Seattle's Response

Struggling with these financial repercussions, citizens tend to compare the two major tech companies which shaped their city.[14] On the one hand, well-established Microsoft has adapted and taken part in many city initiatives through the years, mostly through the Gates Foundation. On the other, the relatively-new Amazon has made drastic changes to Seattle life while doing very little for its citizens; specifically, its founder Jeff Bezos, although the wealthiest man in the world for years in a row, is considered a negative figure in the Seattle panorama.
The Seattle City Council has tried to rectify this through taxation. In 2018, a headcount tax imposed $275 per full-time employee on businesses reporting $20 million or more. The much-debated tax was passed, but then repealed prior to its implementation date due to Amazon's and other businesses' uproar.[15] Then, in July 2020, the City Council passed the JumpStart Seattle tax (Chapter 5.38, Seattle Municipal Code), which taxes businesses with a minimum of $7 million in annual payroll expenses. Effective from January 1st 2021 to December 31st 2040, the funds will initially go into a Coronavirus relief, and then aid housing and homelessness.[16] The tax also is applied to employees who earn $150 000 or more annually, varying from 0.7% to 2.4%. It is due quarterly and affects about 700 businesses; it is forecast to raise $214 million per year in new revenues. On February 2nd, 2021, Bezos announced he would be stepping down from his position as Amazon CEO, in order to dedicate himself more to philanthropy. Seattle's altruism ethic for the affluent probably influenced this decision.

Tents on 4th Ave S and Edgar Martinez Dr S

III.II The Tech Workplace

With the ascendance of technology and tech companies, the way people work in the 21st century is continuously evolving. Companies like Google, Microsoft and Apple have shaped the workday both through their inventions and their innovative workplace experiences.
During the tech boom of the 1990s, every aspect of business "as usual" was questioned. As a result, small break areas with cafés started to be included in-house to encourage casual conversations, since these are known to spark innovation and improve productivity. At the same time, "choice-based work environments"[17] sprouted, where employees could decide the best place to perform their tasks. Furthermore, employees could now meet their daily needs, such as doing laundry, relaxing, and working out, within the working area. These layout changes actually did make workers happier and more productive.
Urban planning vernacular has been adopted for referring to these new workplaces; macro-areas have become neighborhoods. For example, Airbnb offices in San Francisco and Dublin have been divided by the Airbnb Environments Team into identical neighborhoods with identical characteristics in order for their employees to be able to choose in which environment to work.[18,19]

The Five Principles

Although each tech company has their own aesthetic and design preferences, most aim to make the workplace more enjoyable for their employees. Five principles can be identified to govern successful tech workplace design: responsiveness, choice of environment, community engagement, nature+technology, and transparency.
The first principle is responsiveness: the confluence of resilience and flexibility. Tech companies have to continually adapt not only to evolving technology, but also to changes in employees' perceived needs. For example, the increasingly high pressure put on employees for productivity makes wellness programs, laundry services, and dog runs necessary to achieve work/life balance. Office support and flexibility, moreover, are intensifying as technology evolves.[20] An example of designing in responsiveness is Amazon's offices in Seattle; although commonly known as a thrifty company, the tech giant uses open floor plans and rearrangeable partitions, instead of static and impersonal cubicles. This allows the employees to work alone or in pairs, as well as setting up, last-minute, a ten-person meeting, without having to book a specific room in advance.

Amazon Package pickup @ Fresh in SoDo - 76 S Lander St
Daphne Fabbri ©2020

Allowing employees to choose their work environment is the second principle, as this contributes to employee productivity; when a person is happy they work better. Specifically, the contemporary workday covers a range of work processes and activities, all of which are experienced in a different way by each person. Allowing workers to choose the environment that suits them best, which may vary according to each task, makes for more efficient working.

At the beginning of the decade, tech companies would locate to suburban areas and build campuses from scratch, with every possible amenity in-house, thus creating isolated universes. In recent years, instead, tech companies seek out community engagement. This is the third axiom. Tech firms nowadays prefer pre-existing city centers, where employees can spend their time - and money - in local businesses. Many employers make agreements with small shops, placing them at the ground level of their tech towers, benefiting both parties. Thus employees can satisfy their needs close to their workplace while interacting with locals and participating to some extent in the life of the neighborhood.[21]

Studies show that workers prefer more natural spaces, with wooden desks, vegetation and natural lighting.[22] This is also true at tech companies, whose workers tend to prefer environments with natural elements. For instance, for the Squarespace offices in New York City, the firm A+I, which designed the space, conducted a three-month workplace study to optimize their design. They found that the workers leaned towards a more natural aesthetic intermingled with the brand identity.[23] Furthermore, combining natural elements with technology improves indoor environmental quality (IEQ), which regards both the environment and the employees. To do this, many workplaces use a cloud system to improve the overall experience at work. This not only minimizes storage space and clutter, but it can also control lighting, temperature, and employee schedules.[24]

The fifth principle, transparency, is a recognized factor for boosting a company's growth, both with the employees and with the customers. On the one hand it means providing visibility in the workplace, through design strategies which favor an employee's growth. On the other, it involves attention to a customer's needs, with changes to the company's customer service policies, as well as engaging with them more through apps and feedback.

View of the Space Needle from Thomas St in South Lake Union looking west

III.III The Revolution

Lean manufacturing has been used for decades to improve productivity in the workplace through standardization and empowerment of the workers. Integrating humans in the manufacturing process, eliminating complexity and other value-adding activities have made it easier to avoid waste in production. Lean management then introduced preventive maintenance, but new technologies are bringing more transparency to the manufacturing process and raised to predictive maintenance.[25]

In his 2016 book, Klaus Schwab identified a Fourth Industrial Revolution,[26] which builds on the digital revolution but is characterized by a more available Internet, smaller, cheaper, and more powerful sensors, and machine learning. Also known as Industry 4.0, this revolution is separate from the previous digital one because of its change in pace, depth and impact. This fourth industrial revolution is evolving at an exponential pace. Building on the previous one, this one involves combining multiple technologies, leading to the transformation of entire systems in business, economy, and society.[27]

This change enabled the birth of *smart factories*, which join physical systems to a virtual world in manufacturing in order to cooperate in a flexible way. Besides creating a faster speed of innovation in development and diffusion, and no diminishing returns to scale, innovation is created with tangible results from different technologies cooperating and creating objects that are continuously evolving and adapting.

This fourth revolution is creating new approaches to the way in which individuals and businesses collaborate.[28] Namely, Industry 4.0 creates a cyber-physical environment by converging information technology (IT) and operational technology (OT). This has been made possible by the invention of specific digital solutions which are the key characteristics of the fourth industrial revolution:

- **Industrial Internet of Things (IIoT)**
  The IIoT is the communication of data through a digital network of physical devices. Softwares are connected to physical machines and continuously collect data regarding their performance. For example, programs can track supplies and create a digital inventory, thus saving time and money for businesses.
- **Big Data**
  The enormous data sets generated by the IIoT can be utilized in many different ways. Data analytics convert the outputs into insightful information, such as information about the machines, their users, their processes, or data visualisation.

III

Vacant Warehouse on Ocidental Ave S and S Massachussets St looking east
Daphne Fabbri ©2020

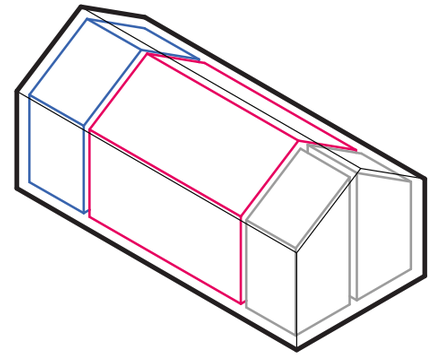
- **Cloud Computing**
  Platforms to store and process the data generated on remote servers. Since the amount of data generated by the IIoT is vast, the information is being stored elsewhere and accessed via the internet. This enables centralising operations without requiring heavy computing.
- **Advanced Robotics**
  Machines can now analyze, recognise, and act on information received from the environment and humans. In this category, collaborative robots can also perform dangerous or repetitive tasks for workers; for example, self-driving robots can reduce order processing time by 50%.
- **Additive Manufacturing**
  Also known as 3D printing, additive manufacturing uses digital 3D models to create physical objects layer by layer. This allows products to be stored in virtual inventories and produced on-demand - thus permitting a decentralized approach to warehousing. This flexibility reduces transportation distances, costs and simplifies inventory management.
- **Digital Twins**
  Digital representation of an object or system, which allows the user to analyse and optimise processes through simulation. It is based on data received from sensors connected to a machine or device and collected continuously and in real time, thus allowing to improve designs and predict potential issues.
- **Augmented Reality**
  Superimposition of virtual images onto a physical object. This technique can improve the assembly process and training.[29]

Introducing these technological advancements in the manufacturing process and our lives contributes to a necessary transformation to the way we view the production process. What used to be the minimum space requirements for a human to perform a task are now not necessary if it is performed by a collaborative robot. Huge storage warehouses might be redundant if a business shifts to on-demand production by using a 3D model kept in the cloud database and prints it upon request in hours - if not minutes.The point at issue has now become how to utilize the space which has been made unnecessary by these improvements, while preserving the manufacturing feature of an industrial area.

Production
Storage
Offices, Retail
New Available Space

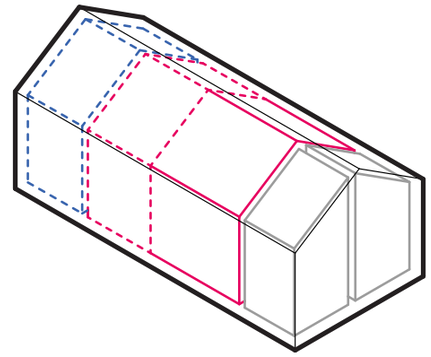
Pre - Industry 4.0

Production holds the most space in the warehouse and is higlhly dependent on - and connected to - the storage area.
Offices, retail and other public-related services are additional and take up the minumum amount of volume.



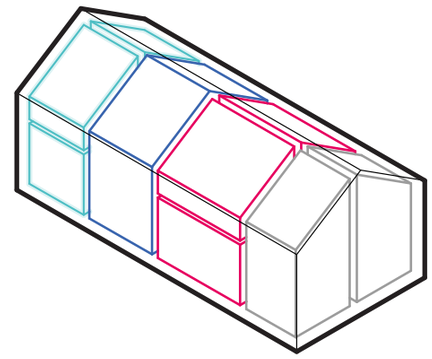
Industry 4.0

Storage becomes almost completely digital with Cloud technology and production is based on smaller machinery. Physical depository can be managed with autonomous robots, thus needing less space.



Adapting

Production can be organized in different ways and still remain connected to the storage area.
New services or businesses can occupy the volume that has been made redundant by the technological improvements to the industry.



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CORONA VIRUS IV

IV.I Washington's Plan

The first confirmed case of SARS-coV-2 virus (later named "CoVid19") in the US was found on January 21st, 2020 in Washington State. Almost a month later, Gov. Jay Inslee declared a state of emergency and proclaimed bans for schools and gatherings; subsequently, all non-essential businesses were closed in March.[1] After several months of general confusion and unrest - as elsewhere in the world - the Governor announced a phased approach towards reopening the state's economy in a press conference.
The plan consisted of four phases, each of which addressed different requirements for: high risk populations, recreation, gatherings, travel and business.[2] The data-driven approach modified the phase by taking into account metrics which indicate a decreasing disease load, namely:

- Current cases of CoVid19, hospitalizations and deaths
- Modeling data from different entities
- Mobility trends

To move from one phase to another, specific goals were to be achieved in the four areas:[3]

1. healthcare system readiness
2. testing capacity and availability
3. case and contact investigations
4. ability to protect high-risk populations

Since the plan was based on mathematical indexes, each county had a different output, depending on their population. Since King County is the most populated, with over 2 million people, it struggled to move forward between phases. On June 19th, King County was able to move on to Phase 2, the last of the western Washington counties. This entailed allowing gatherings for the first time in months, for a maximum of 5 people outside of a single household, outdoor group activities with the same limitations, and reopening non-essential businesses.[4] Although entering a modified Phase 2 with fewer limitations, King County has to-date not reached the Phase 3 threshold.

View of the Pike Place Market shut down during phase 1
Daphne Fabbri ©2020

Avoiding Transmission

With new studies being published daily, humanity is continuously learning more and more about the virus and how to accommodate for it in everyday life. The CoVid-19 virus can be transmitted, as with all viruses, either directly or indirectly. Direct transmission can happen person to person, when an infected person comes into contact with another person, or through droplets, for example when sneezing or coughing. Indirect transmission can occur via aerosols, fecal-oral viral particles, or by means of full mites. Airborne indirect transmission happens when infectious particles linger in the air for an extended period of time and are breathed in by others; fecal-oral transmission happens when eating or drinking infected products. Full mites transmission, instead, occurs through inanimate objects, that is touching a contaminated surface.[5]

While transmission can be avoided in most cases by applying social distancing measures and by wearing a face covering, full mites can be addressed by way of adopting certain design approaches, namely by choosing certain materials over others. Specifically, the virus can survive on certain materials for interiors for a shorter amount of time than on others; even others are also antimicrobial. In general, porous elements shelter the microorganism more, but in some cases this can be resolved by applying proper finishes.[6] Instead, on surfaces such as metal, wood, glass and ceramics, the virus can live up to 5 days; nevertheless, some of these materials are also easy to clean, thus eliminating the virus with an alcohol-based detergent. Furthermore, infectious particles remain viable on plastics and stainless steel for 2 to 3 days, while cardboard needs to quarantine for 24 hours. On stainless steel, CoVid19 is shown to survive 2 to 8 hours, while on antimicrobial materials, such as epoxy and lead-free copper, it only lives for a maximum of 4 hours.[7] Consequently, transmission in the workplace can be reduced by applying certain finishes to current materials, or by adopting those materials on which the virus cannot survive.

IV

View of the Pike Place Market's stands shut down during phase 1
Daphne Fabbri ©2020

IV.II The New Tech Workplace

While imposing a new way of life on the whole world, the pandemic has forced a rethinking and reshaping of the workplace. From the general workflow to the materials used for fixtures, every aspect of the design of an office is being re-thought to create a safer environment.
Since no guidebook to "pandemic design" exists, the subsequent proposal is based on design experts' recent suggestions and examples, as well as on health guidelines. As discussed in the previous chapter (III.II), current tech firms' workplace design are characterized by five principles.
To provide an updated office design, these five elements can be applied to all the different workplace functions.

Responsiveness

Flexibility has always been a central element in design, whether it be of a building or an object. In the context of the current pandemic, a flexible workplace design will be essential to the transition back to the office. Returning to in-person work will probably occur in phases; consequently, the workplace should be capable of satisfying all needs, from an initial stage with very few people to a full house, without overwhelming those involved in the process.
Maintaining the required social distancing impacts both private and public areas. For instance, considering the strict measures which will necessarily be in place initially, separations between desks and one-way-circulation regulations must be enacted to help avoid direct transmission of the virus. Additionally, many workers may choose to continue working from home, so an increasing amount of workspaces may be dedicated to co-working, whose users come in once a week.
Existing spaces will likely need to be rearranged or repurposed for the firm's resilience. While meetings are mostly held virtually at the moment, conference rooms may eventually come back into use. These existing rooms for larger groups can in the meantime be brought into play for additional desk space to ensure proper social distancing at first, and slowly go back to their original purpose with hybrid in-person/ virtual solutions. Additionally, to implement safety, screening procedures may be enacted when entering the building, both for people and objects. Hence a mud-room-turned-UV-filter can help protect workers from indirect transmission through visitors and deliveries.[8]
In addition, new spaces might be needed for additional procedures which have become necessary in these difficult times.

View of Starbucks HQ neighboring Amazon
UWA4 in SoDo from Colorado Ave S
Daphne Fabbri ©2020

Choice of Environment

At the beginning of 2020, everyone was imposed one environment to live and work in. While numbers of cases are still fluctuating, the world has been learning to adapt to this precept. However, discoveries regarding how to minimize transmission have also enabled a partial or complete return to the workplace, when legislation allows.

As seen in the previous chapter, being able to choose their work environment to perform specific tasks improves worker productivity. In the case of the pandemic, a further choice is available: between working from home or returning to the office, as well as only part-time or occasionally. Returning to the workplace does not necessarily entail completely redesigning the office space, as many people may prefer continuing working remotely. An alternative to putting up screens could be using shared desks for part-time in-office employees, with due sanitation performed between shifts.[9]

The use of stairs should be encouraged, so designing a more appealing vertical connection , which can double as meeting space, could make the choice easier, compared to the enclosed elevator.[10]

Regarding collaboration moments throughout the workday, people might prefer to attend virtually, whether from home or the workplace. Consequently, video conferencing options should be available to everyone, regardless of their choice of environment. For those who prefer - or need - to meet in person, a feasible option could be incorporating an outdoor/indoor area, which is safer for indirect transmission and helps productivity. Instead of using regular indoor plants to make a space more comfortable, insect-repelling plants could be used to improve the area, like basil or marigold.

IV

View of SoDo from the Space Needle
Daphne Fabbri ©2020

Community Engagement

Considering the pandemic has brought humans to distance from each other for their own safety, people have been relying even more on technology to stay connected. As mentioned before, local businesses and communities can work together with bigger tech companies to thrive. This work relationship can benefit both parties in a return-to-office scenario, as smaller businesses need the bigger company's workers to survive, while providing a service which they can't get at home. Local communities could be the incentive for employees to work from the office, whether it's because of a delicious cuisine or a day care which takes care of toddlers and children going through homeschooling. These distinctive services can be extended to the employees when working from home through special discounts or at-home options.

Another opportunity for the community to grow is having outdoor or hybrid spaces as property of a specific local business, but available to tech employees. Office workers could take their breaks in the classic coffee shop patio, or play a tennis game at lunch time. These areas in the open can provide the previously-mentioned choice of environment to the worker not just for leisure, but also for meetings or everyday work options.

View of people strolling in CHAZ on E Pine St
looking west
Daphne Fabbri ©2020

Nature + Technology

Technological information and statistics have been largely used in the past decade to improve the indoor environment, especially in tech companies. This data can now be used to improve safety as well. For example, environmental data can be aided by sensor technology to evaluate air quality and the cleanliness of a room. Building systems can keep indoor air to the correct humidification percentage, in order to counteract the spread of the virus with dry air. Furthermore, they can be timed to flush in outdoor air to improve circulation. Systems can also be used to maximize the penetration of natural light indoors, and simulate daylight when it's dark. This both decreases bacteria and creates a better work environment.

Contact tracing is a key element in battling the spread of a virus. AI is successfully being used in various countries for doing this; it could be introduced during the screening process when entering buildings in order to minimize transmission.

On a smaller scale, technology can be used to avoid the dispersion of the virus by automating transaction areas, such as doors or elevator buttons. Examples of alternatives are floor buttons or motion-activated commands.

Transparency

As much as an employer can provide a healthy environment, emotional safety needs to be ensured as well. Having the possibility to choose their best work environment is definitely beneficial to the employee's well-being, but with all the uncertainties the pandemic has brought, the topic might need more attention.

Visible cleaning of common areas and surfaces can be helpful, as well as providing cleaning supplies for everyone to have individual control over sanitation.[11]

Furthermore, decreasing incidental contact through hands-free doors, or even eliminating doors to communal spaces altogether can help avoid transmission through inanimate objects.

Choosing the correct materials is also useful to provide a safer work environment. Some materials are easily cleanable, while others are naturally antimicrobial, like copper. Choosing smart glass could help both with keeping a safe work environment and employees visibility.

Transparency regarding emotional safety can be addressed not only for tech employees, but also for construction workers. With these new changes happening for offices, many companies and private citizens have been making changes to their properties, whether it is a building or a home. In this case, designers should aim to have as many prefabricated pieces as possible, in order to have less work that needs to be done onsite. Hence, limiting the amount of time and people on the construction site.

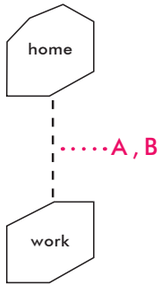
View of the Spheres and Day 1 from 7th Ave
Daphne Fabbri ©2020

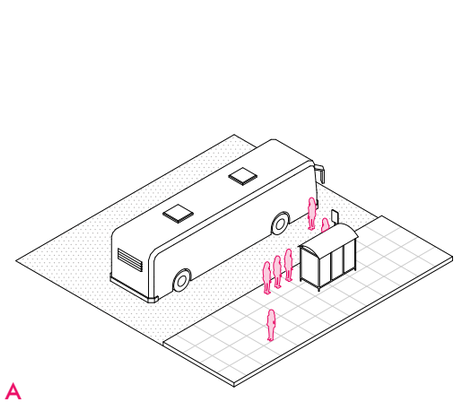
IV.III Diagrams

Commute

Most of the people working in Downtown and South Lake Union used to commute by public transport or bike. (A) Driving is rarely chosen as an option because of the high parking fees.

Since the pandemic, Seattleites have preferred to keep safe by avoiding crowded environments, and therefore commuting to work by bike. (B)





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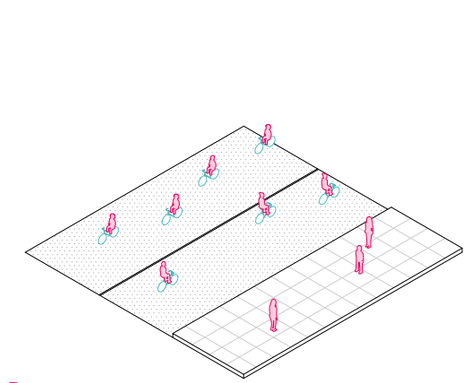
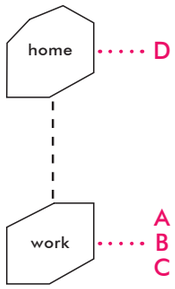


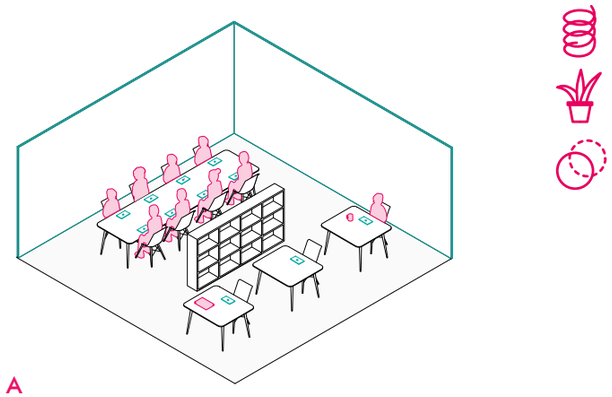
B

Work Environment

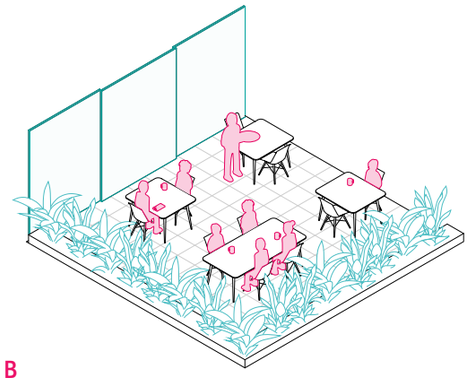
As described in the previous chapter, many tech workplaces are flexible and it is possibile to choose a different work environment for each task. (A)

With social distancing measures in place, every office set up a remote working system. While restrictions slowly ease, employees can still choose their work environment but with a broader selection compared to before the pandemic. (C)
Besides going back to the office or working from home (D), any place with a wifi connection can be suitable. Local cafes and restaurants can work with offices to provide a different workspace. (B)





A



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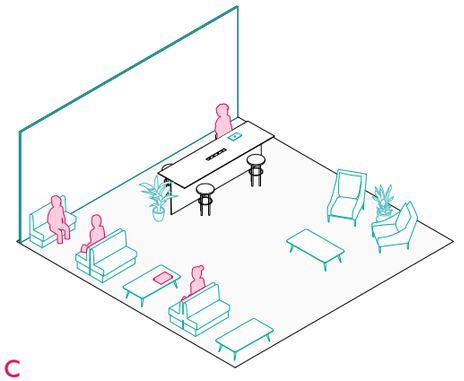

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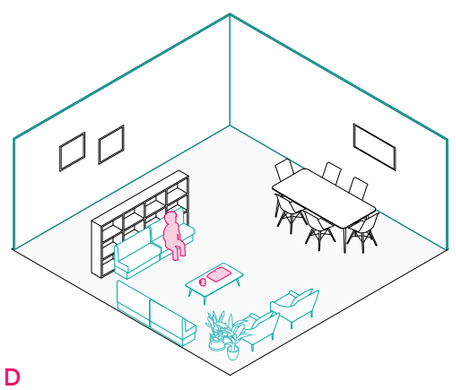
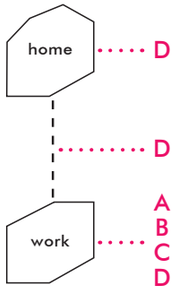


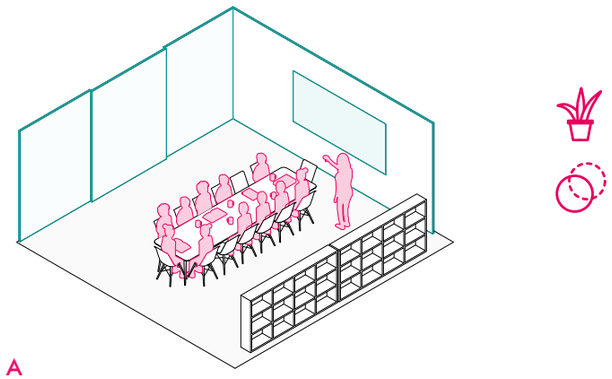
D

Meetings

Likewise for work environments, meetings have been made flexible and easy to organise in the new work environments. (A)

To maintain a safe distance between people, meetings can be moved to cafes (B) or outdoor spaces. (C)
Hybrid solutions are still a viable option for everyone to feel comfortable. (B)





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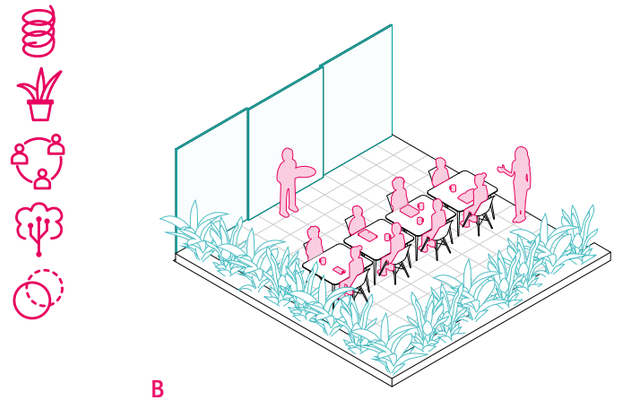

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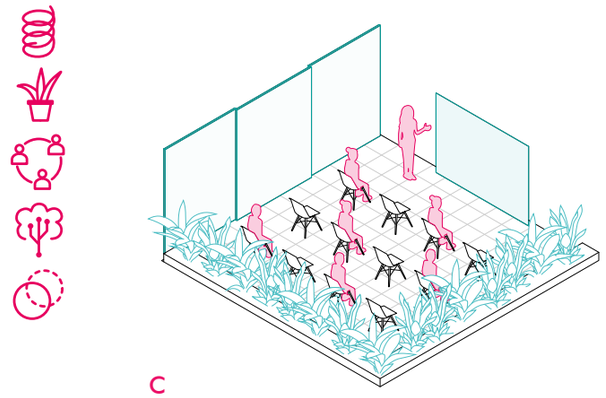

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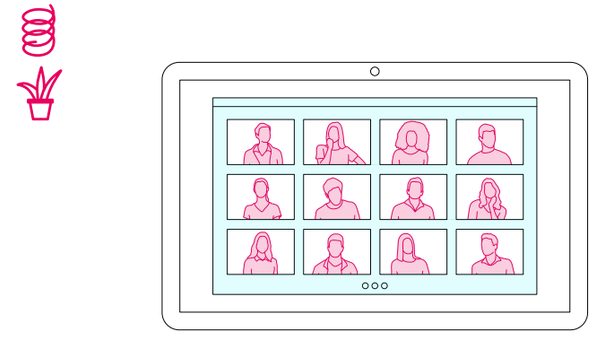

D

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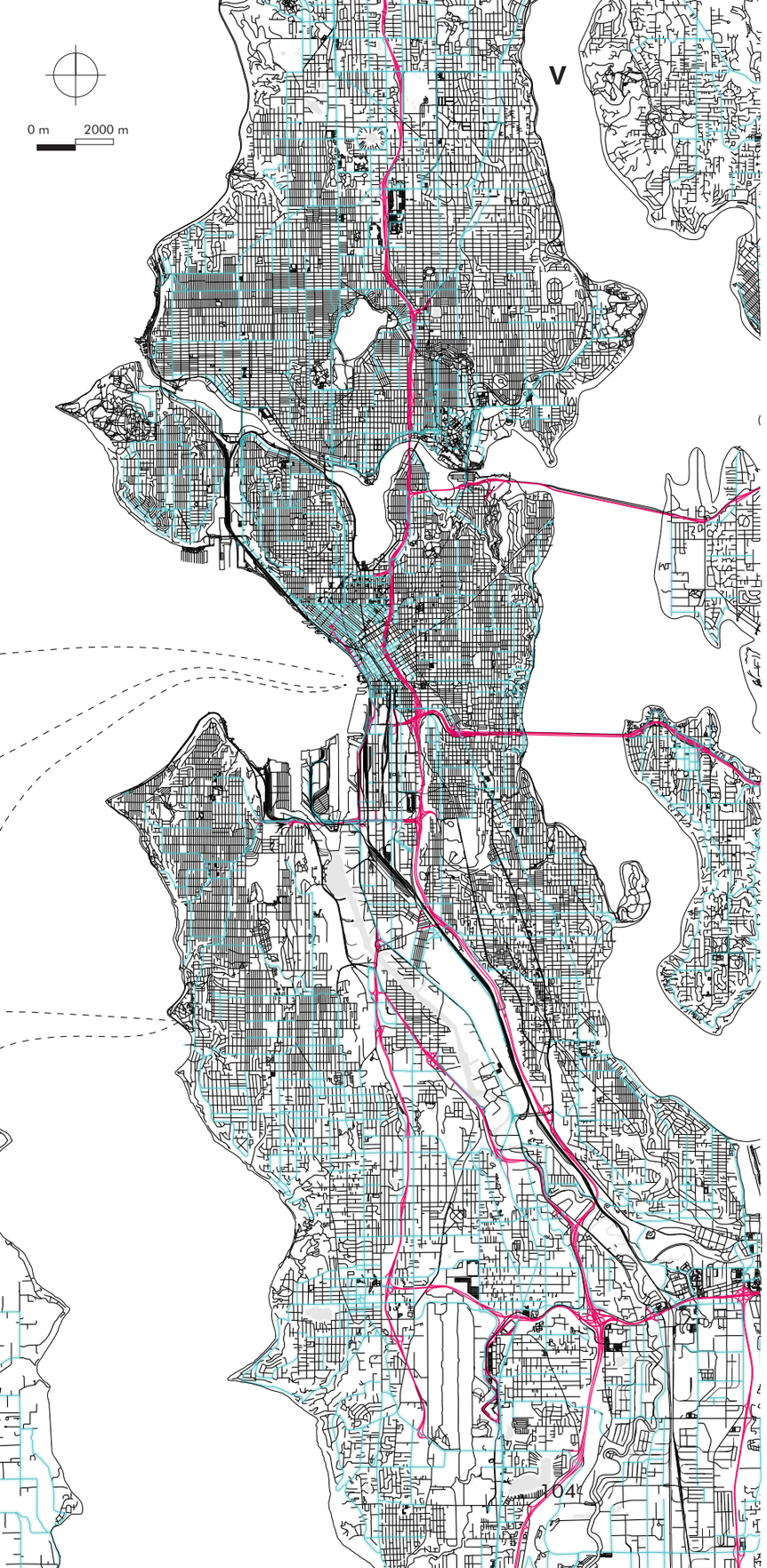
IV

SITE BREAK DOWN V

V.I Infrastructure Analysis

The Duwamish Industrial area is an international port and the biggest industrial area of Seattle. Hence, it is served by an efficient infrastructure system, formed by major arterials, industrial access roads and rail systems. SoDo comprises the heart of the industrial area, while bridging with the Downtown Urban Center.
Since implementing Vision 2050, the SoDo area has undergone quite an upgrade.
In 2020, the local light rail system, called Link, was supposed to start construction of an extension to West Seattle which would pass through part of SoDo.[1] Due to the pandemic and to structural problems to the West Seattle bridge, however, it has been postponed. Nonetheless, related road improvements to the SoDo have already begun.
Since SoDo is an industrial area, most of its streets are Industrial Access Streets[2] and therefore have specific design requirements to accommodate freight transit. Most of the area's arterials are also considered a Priority Investment Network (PIN) according to the Pedestrian Master Plan.[3] Thus improvements entail bettering both crossings and strips alongside the roadways for pedestrians' safety.
There are not any specific recommendations in the Bicycle Master Plan[4] for SoDo, although the Right-of-Way Improvements' Manual suggests factoring into any design physically separated bike facilities, in order to insure more visibility and safety.[5]
In 2010, the Industrial Areas Street and Landscaping Plan required landscaping to be introduced on Alaskan Way, 1st Ave S, 4th Ave S, Airport Way, S Holgate St, and S Lander St. In some cases, street trees have been added - also thanks to the forthcoming Link extension - but landscaping could be implemented into the cross section.

Below i99 on S Hanford St
Daphne Fabbri ©2020



Seattle Main Roads

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Arcgis, *Seattle Roadway Classification*, City of Seattle | https://www.arcgis.com/apps/webappviewer/index.e474d86ecde00dae81cee

SoDo Main Roads

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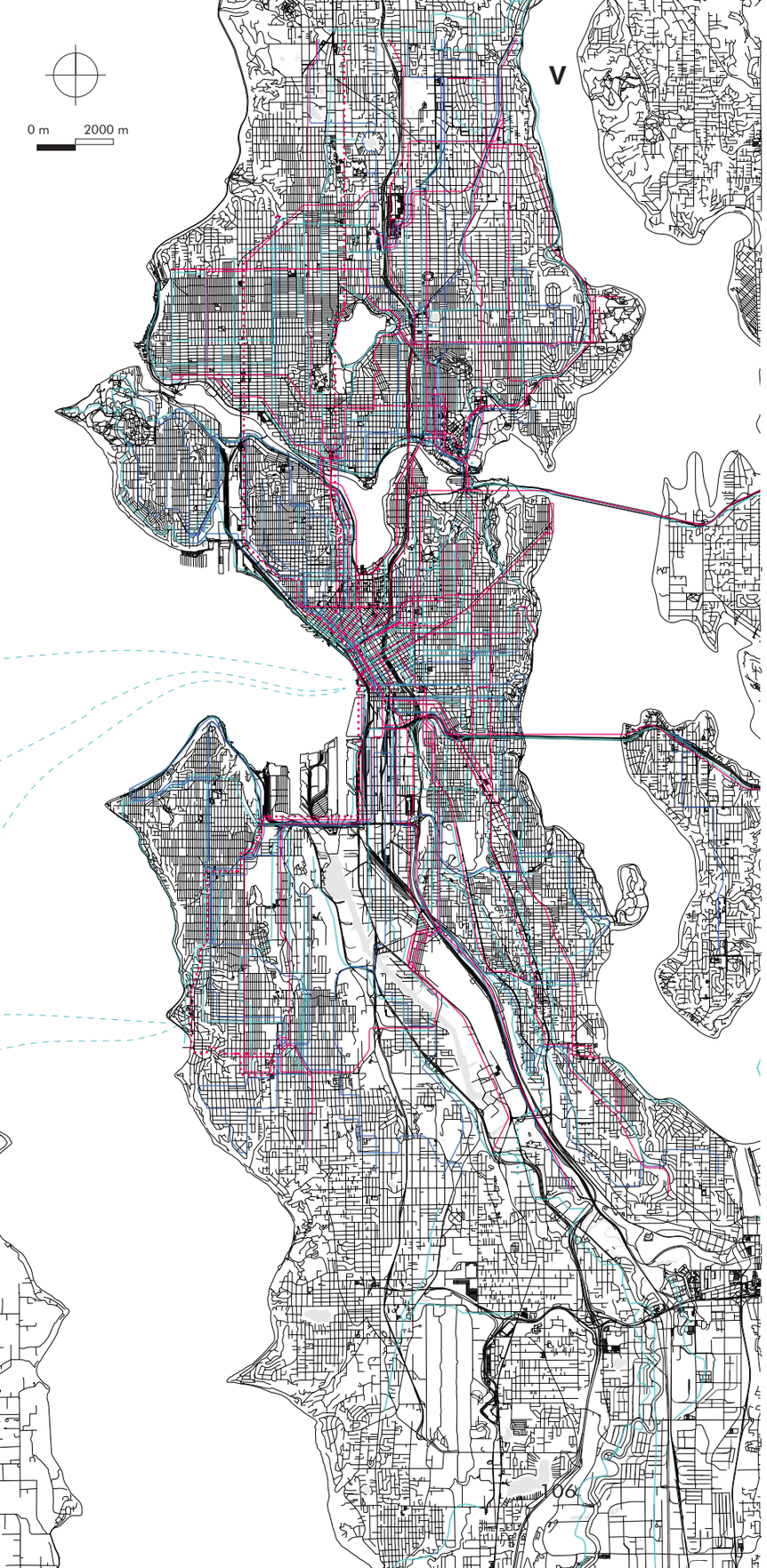

Public Transit Routes in Seattle

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Public Transit Routes in SoDo

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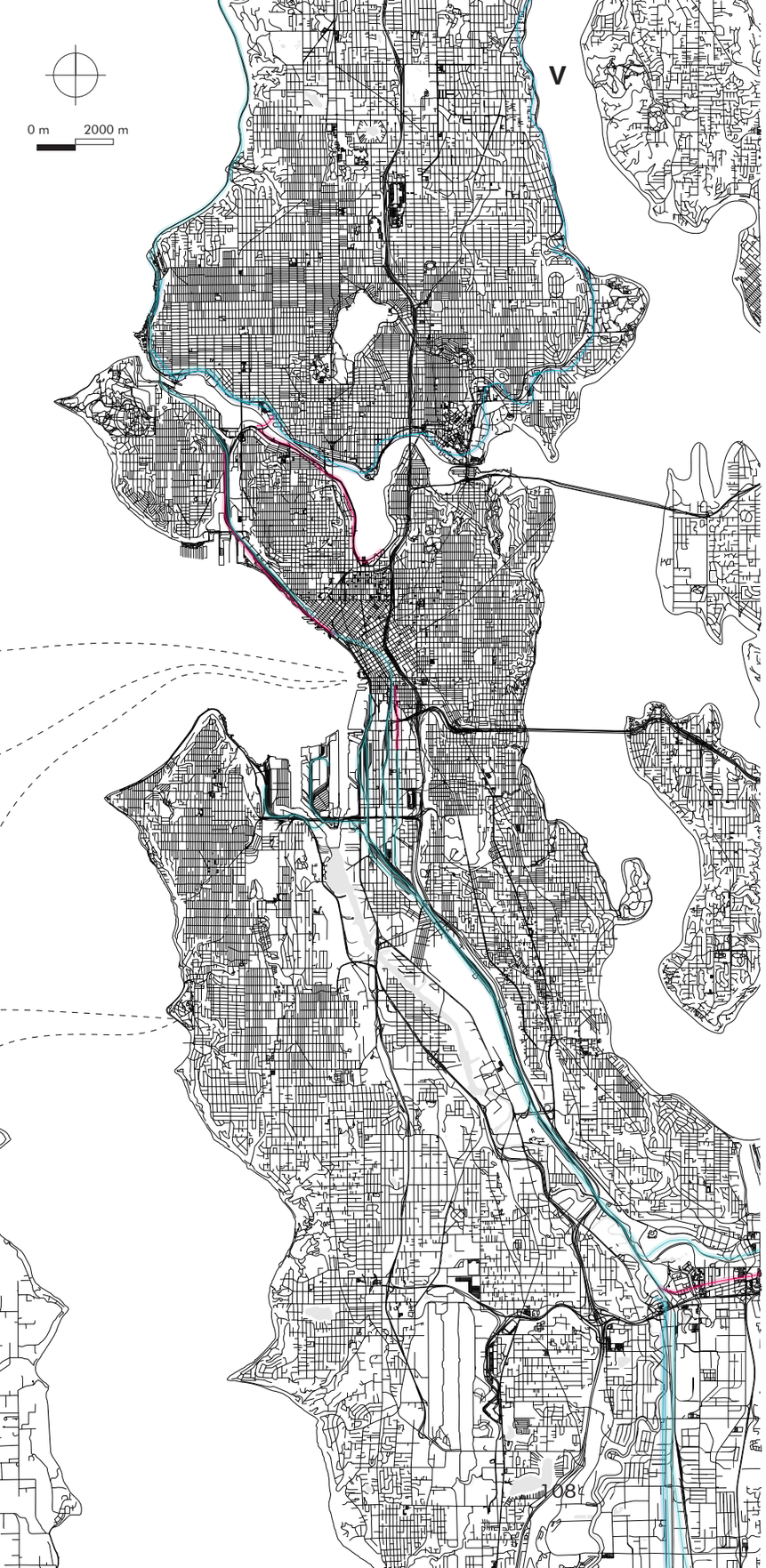

Seattle Rail Transit Routes

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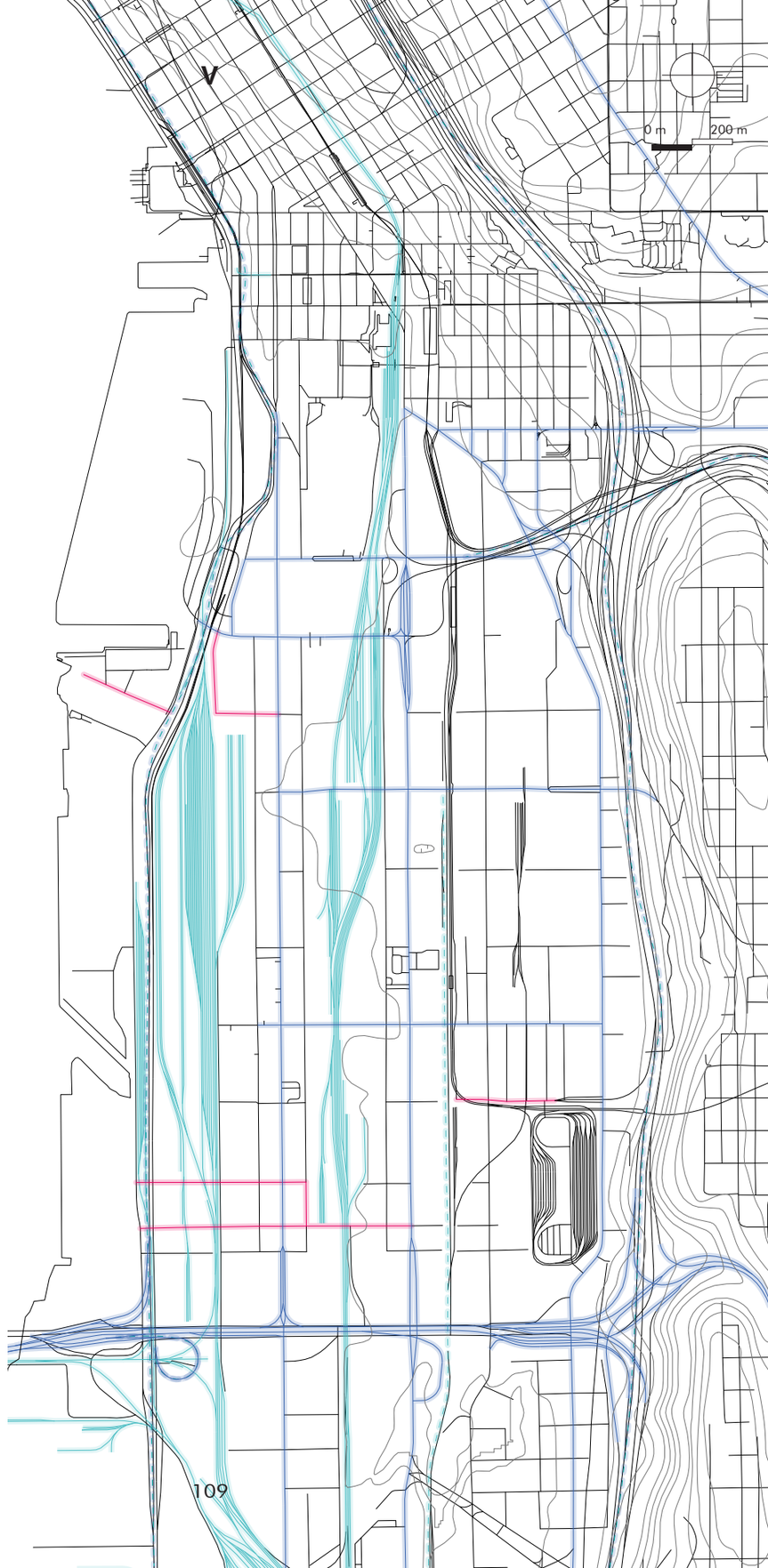

Freight Routes in SoDo

WSDOT, *Rail Lines of Washington State 1:24K*, City of Seattle | https://wsdot.maps.arcgis.com/home/webmap/viewer.eac4d03a6e789559e66061a
Arcgis, *Seattle Roadway Classification*, City of Seattle | https://www.arcgis.com/apps/webappviewer/index.a24e474d86ecde00dae81cee

View of BSNF tracks from S Hanford St looking north
Daphne Fabbri ©2020

View of the SoDo Light Rail station from S Lander St looking north
Daphne Fabbri ©2020

View of S Holgate St from Colorado Ave S looking west
Daphne Fabbri ©2020

View of tracks from S Horton St looking north
Daphne Fabbri ©2020

V.II Built Environment

Being part of the Duwamish MIC, SoDo's built environment reflects the industrial nature of the area. It occupies the northmost section of the industrial area and is adjacent to the Downtown and International Districts. Therefore, the building typologies gradually change from the northern boundary of Edgar Martinez Dr S approaching south.[6] Conforming to the Pioneer Square neighborhood, the first few blocks still house red brick buildings which date back to the late 1800s. Moving south, the neighborhood is colonized by warehouses and parking lots, but the allotments get progressively smaller when nearing major arterials, such as 1st Ave S, 4th Ave S, S Holgate St, and S Lander St. Along these major roads, the lots fall under the IG2 zoning category, allowing commercial activities to develop next to industrial businesses.

In order to preserve and enhance the neighborhood, a group of property owners and tenants in SoDo have created the organization SoDo BIA to advocate for a safer and cleaner area.[7] In 2016, SoDo BIA partnered with King County Metro and SoundTransit to improve the SoDo Busway. The two-mile transit corridor of 5th Ave S has been transformed by 60 artists from various countries into an open air art gallery, called the SoDo Track.

Extending from Royal Brougham Way to Spokane St, the Track is made up of more than fifty murals representing motion and progress, which can be experienced by riding public transport, by bike or just walking along the trail.[8]

View of S Horton St from Utah Ave S looking east
Daphne Fabbri ©2020

View of the skatepark on S Hanford St and E Marginal Way S
Daphne Fabbri ©2020

View of BSNF tracks from S Hanford St looking south
Daphne Fabbri ©2020

Graffiti along the SoDo Track looking west
Daphne Fabbri ©2020

BOH façade of a business along the SoDo Track looking east
Daphne Fabbri ©2020

Notes

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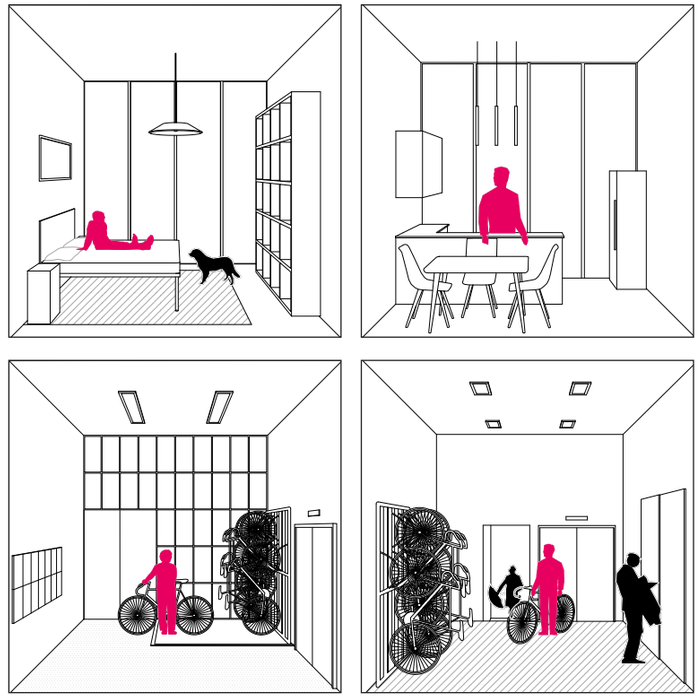
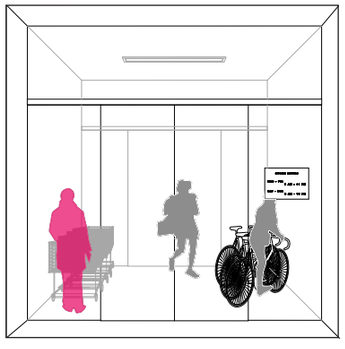
IV

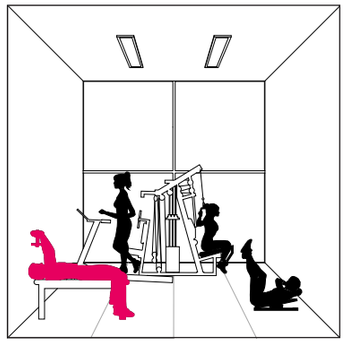
SCEN ARIOS VI

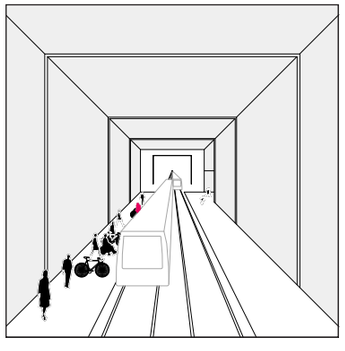
VI.I Single-Person Household

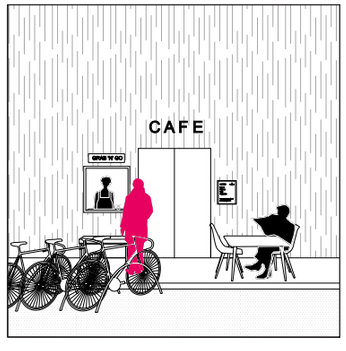
A typical single-person household in Seattle currently is a tech-related person with a pet. Namely, a dog. Many people are choosing to live in apartment buildings because of the high real estate prices; as Seattle became more and more densely populated in a short amount of time, construction companies consequently invested in condos rather than in single-family houses. Most of the tech newcomers are young professionals who prefer paying rent rather than a mortgage, as they might be required to move again for work after a few years.
Seattleites like being outdoors and commuting to work by bus or bicycle. Many businesses and workplaces have adapted to this trend, but improvements can still be made in the realm of connecting residential neighborhoods and in providing necessary equipment. With the pandemic, many more commuters have chosen bicycles over public transit - seen as possible contagion hotspots. Hence the spotlight moved to the need for better cycling routes and cycle-friendly facilities.
On a daily basis, most Seattleites start their mornings with a stop at a cafè for breakfast; some dine-in while others just grab a drink and go. This trend has not changed with the pandemic as many people get breakfast outside and then go back to work, whether in an office, at home, or elsewhere.
Regarding our typical tech employee's working day, new options became available during 2020, when previously-in-person tasks had to be done at home in lockdown. While many people have since gone back to the office, these other solutions continue to be in use, since they make the workday more flexible. For example, meetings now take place in restaurants, online, face-to-face, or in as many combinations as there are attendees, allowing total adaptability.
Especially in tech, most companies have decided to not yet return completely to in-office work, although ever more people are vaccinated. Consequently, on any given work day, one might start the morning working from home while alternating work-related tasks with life activities, such as doing housework or running errands. Lunch might happen at home, at a café, or in the office break room, whereas the rest of the work day may be spent at the office or from any chosen place.
In their personal time, our tech worker might be doing sports outdoors, going to the gym, or undertaking other activities. For instance, with the pandemic there has been a renewed passion for crafts, house improvements, and manual creative projects.







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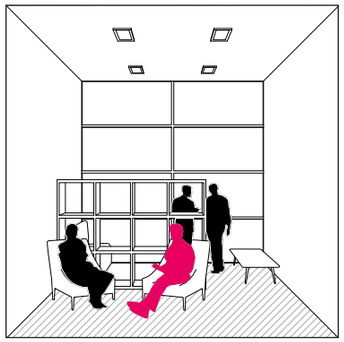

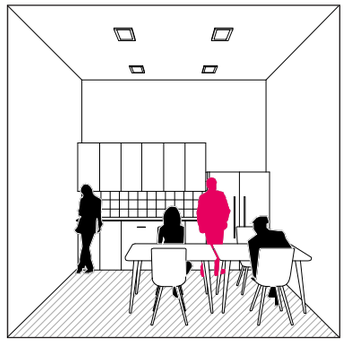

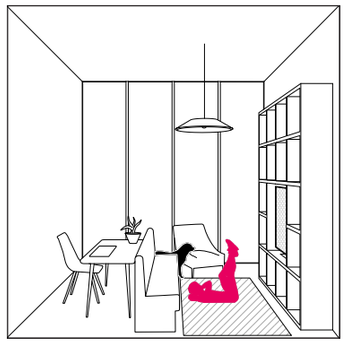

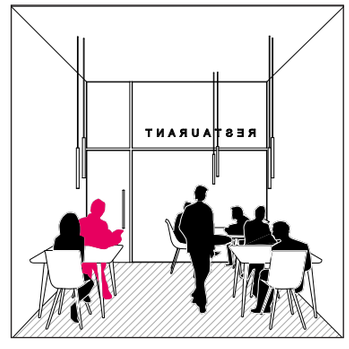
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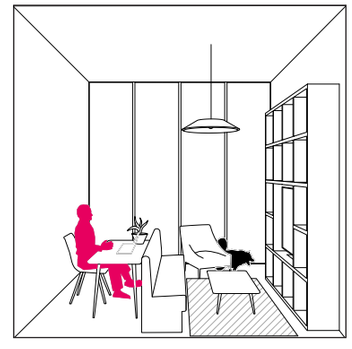

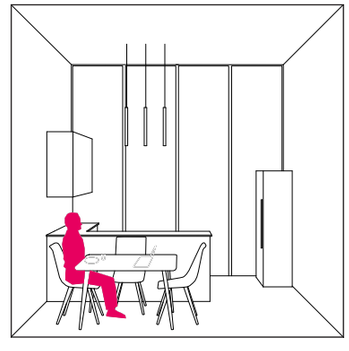


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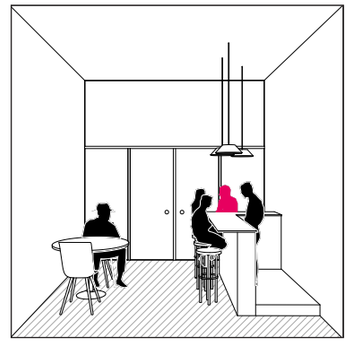
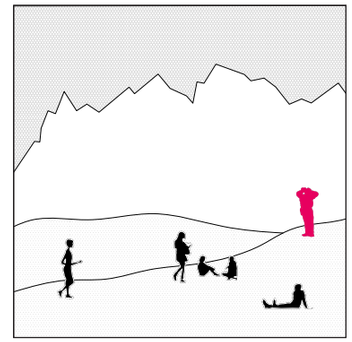
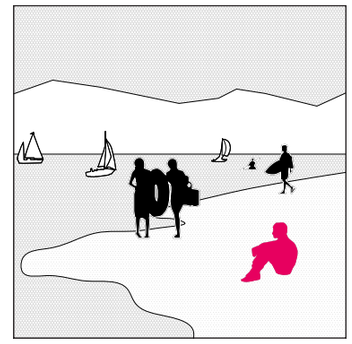
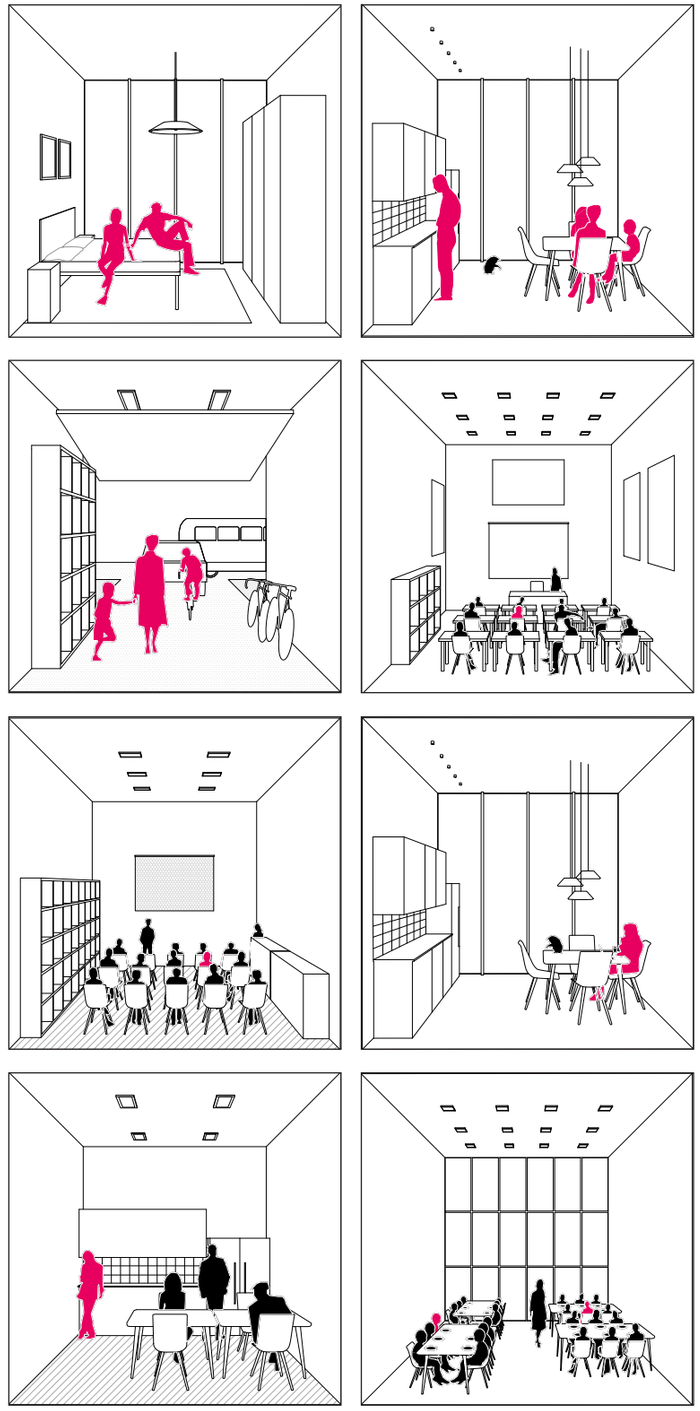






VI.II Multiple-Person Household

Arranging two or more schedules has been probably one of the biggest challenges for multiple-person households. In this case, we take into consideration a four-person household, made up of two working parents, two children and a pet cat. Having 1+ people living together during the lockdown and the pandemic generated new organizational hurdles and burdens as families were forced to change and reorganize their daily life. A frequent solution was the parents worked from the bedroom and/or common areas of the house, while the children were homeschooled in their room and/or other areas of the house.
To accommodate these changes, most people living in a single-family home have reclaimed the basement, garage, porch or backyard. As we progressed through different stages of lockdown, these newly-created work spaces have become part of a hybrid in-person/working-from-home arrangement. These areas have been particularly helpful to all members of the family as they tried to balance their work/school day and private life. Since work has been brought home, families in Seattle usually spend their private family time outdoors in parks, beaches, campgrounds, etc.

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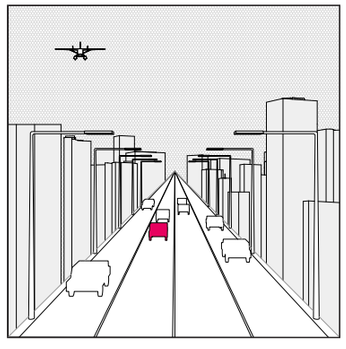

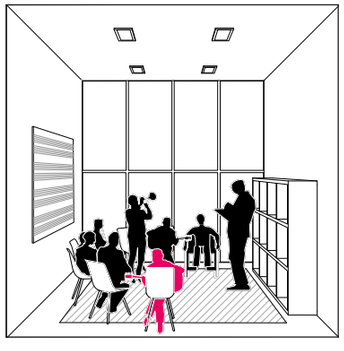

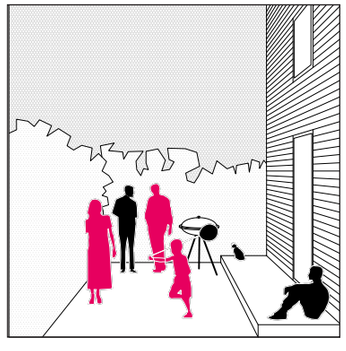

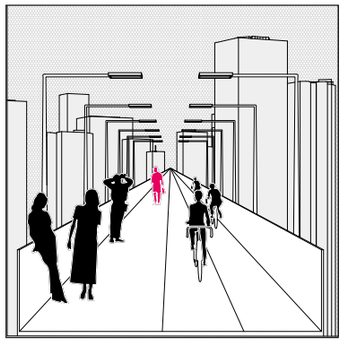

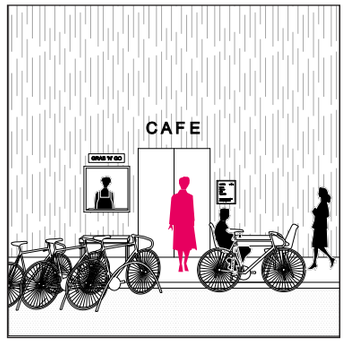
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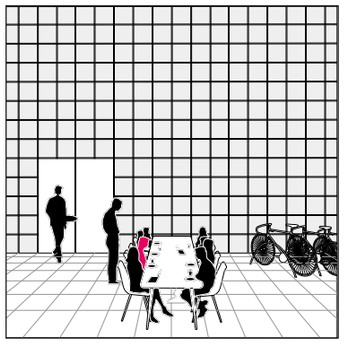
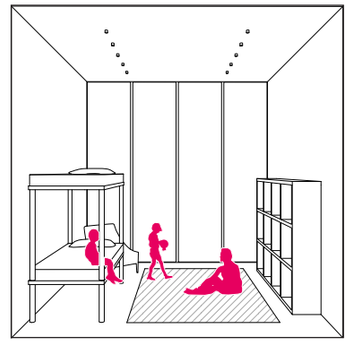
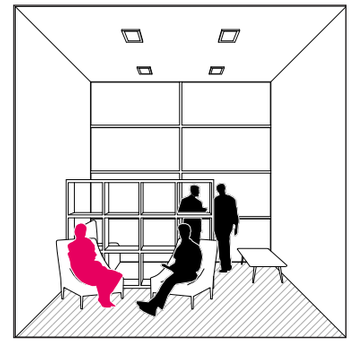
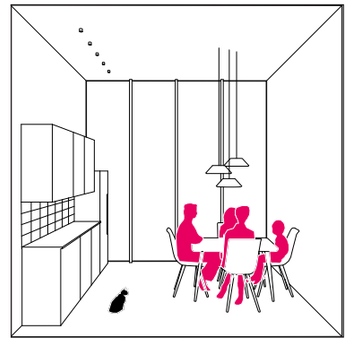
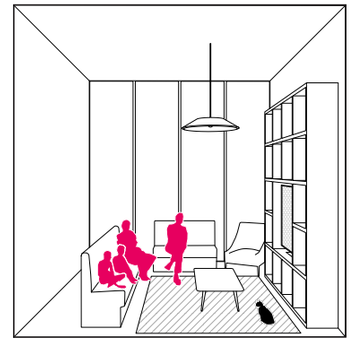
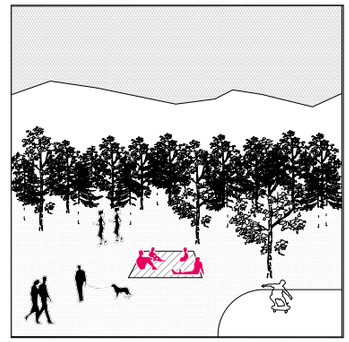


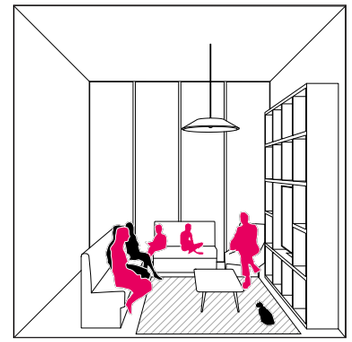


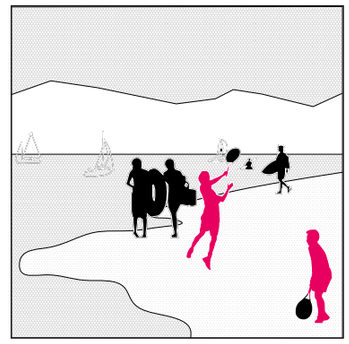


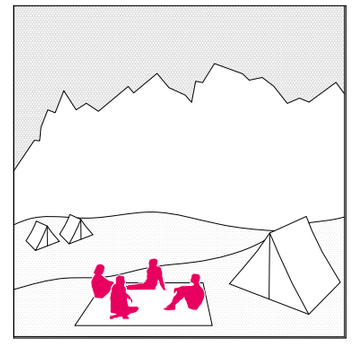












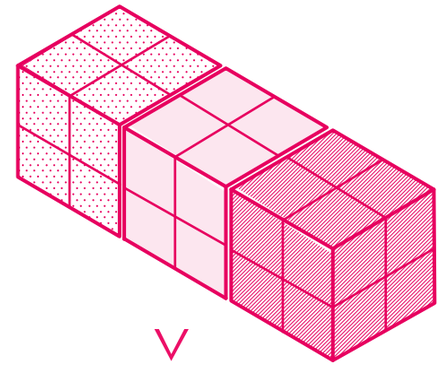
PROP OSAL VII

VII.I The Tripartition

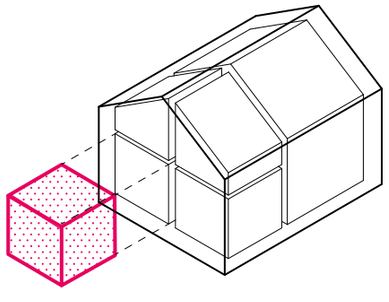
Summarizing the previous typical life scenarios of tech-employed single- and multi-person households in Seattle, everyday activities fall into three categories: Life, Work and Leisure. In the Sixties, this last category started to be considered independent from work life; Cedric Price's Fun Palace is an example of the novel idea of leisure. As post-war London was a place of changes and social transformation, Price took into account the new electronic era to create an "interactive and improvisational architecture".[1] Together with Joan Littlewood, he created a "shell" to host any sort of program or function related to Leisure. The design was as flexible as possible to accommodate any activity at any time, with spaces easily adjustable by the user for endless possibilities.
Transposing these concepts of leisure and of a flexible box to today's Seattle, and combining it with Superstudio's Supersuperfice analysis on "*abitare*" and "*produrre*" [2] squares, we have the three categories, recognizable in the scenarios.
The first category, Life, represents all activities one does on a daily basis which relate to "living", such as waking up in the morning, having a meal, or doing laundry. The second category, Work, entails the various tasks related to one's livelihood. In the third group, Leisure, are actions meant for one's recreation during personal time.
As all activities, these tiers happen in space and in time. When analyzing the behavior of Seattleites, specifically when comparing it to before and after the rise of CoVid19, a shift is noticeable in where and when the actions take place. While before the pandemic the three phases in daily life happened in separate places and at separate times of the day, life in lockdown has forced adaptability upon our lives. Hence, what used to happen in different parts of a city has been packed into a single home, which became particularly difficult with multiple occupants.
During the phases of the pandemic, people have developed creative solutions to organize their spaces and schedules. First of all, the Work category was given priority. Since Life activities had always taken place at home, not much has changed in terms of space for these; instead, the time factor changed. Life activities have become distributed throughout the day, taking place even during short breaks from work. On the other hand, Leisure, coming after Life and Work tasks, looks different for each individual and was arranged consequently to the other two categories.
During the early months, when little was known about the virus and how it spread, people focused on staying safe, so they centralized their basic needs at home. If a home office space was not present before February 2020, it was created;

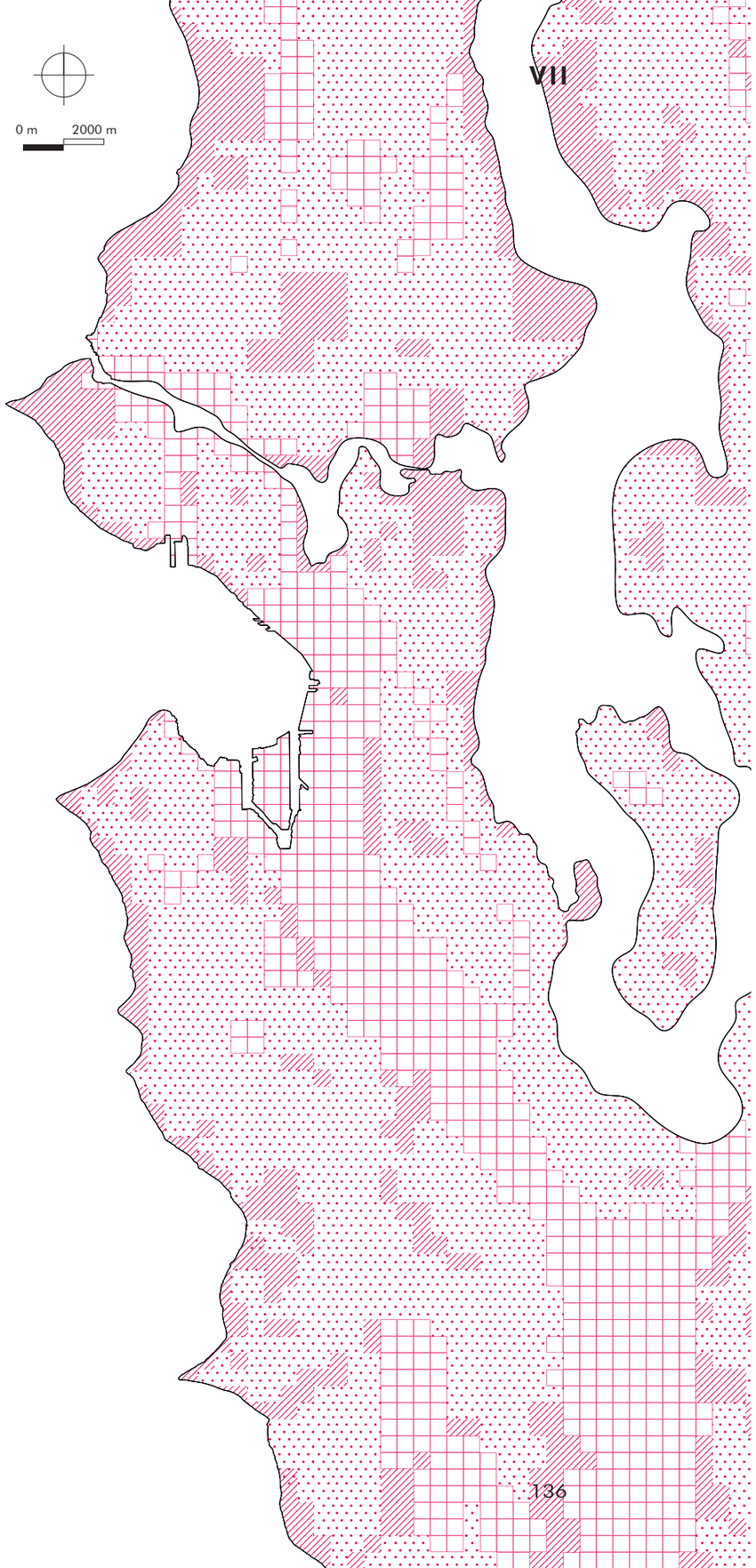
Life | Work | Leisure
Life can be categorized into three groups.

Mix
Life pre-pandemic was divided both physically and timewise into the three categories.
With lockdown, people adapted to the new lifestyle and rearranged everyday tasks in a more heterogeneous way.



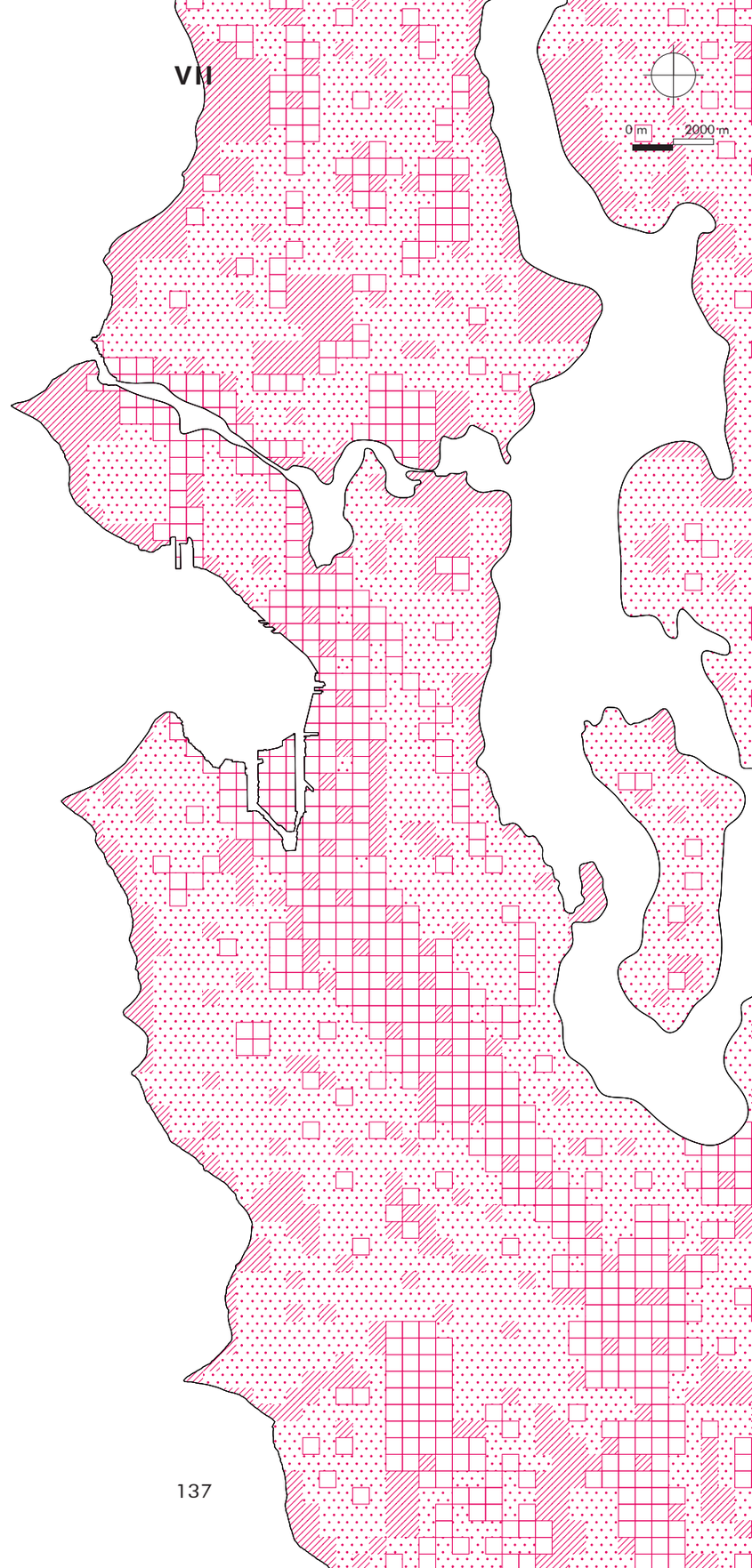
Placement
Since the three categories can happen in multiple places and time slots of each person's day, the activities connected to the three can mix and match





Life
Work
Leisure

Category
Distribution
Pre-Pandemic



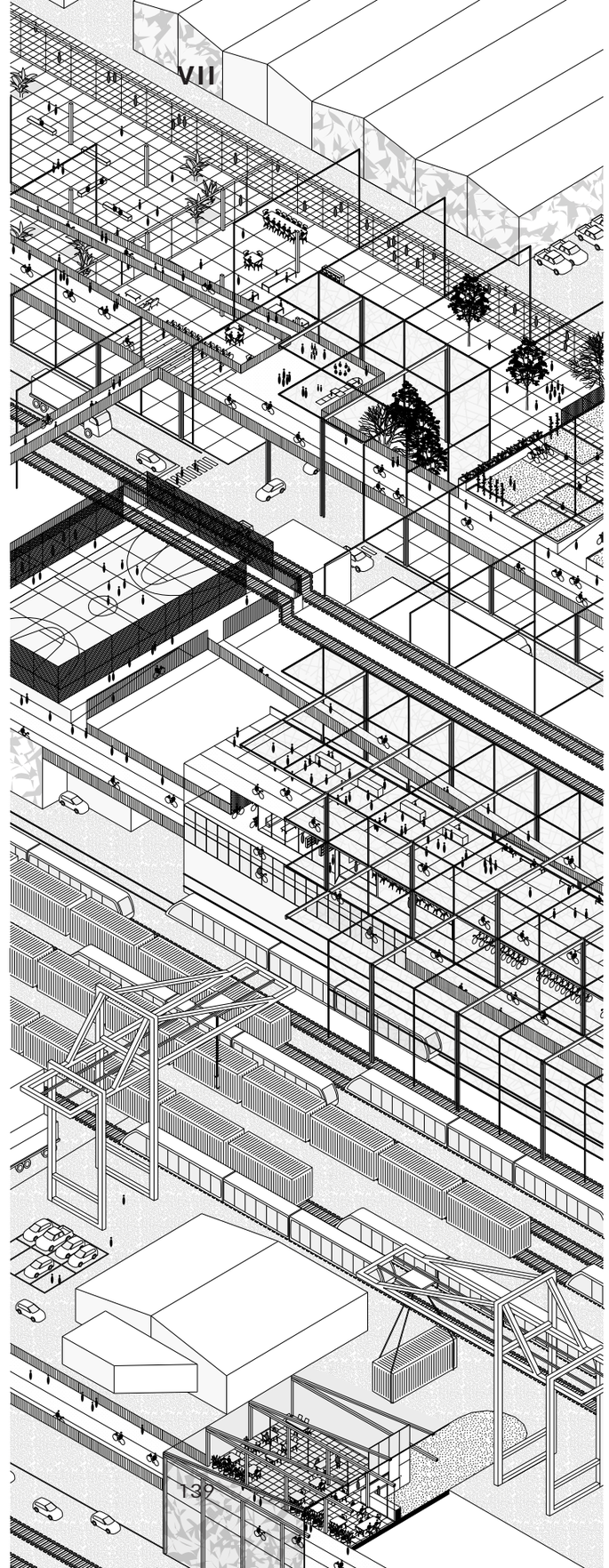
Life
Work
Leisure

Category
Distribution
Post-Pandemic

if it was missing equipment, this was purchased or updated; if it previously accommodated only a part of the domestic unit, it was revised to meet everyone's needs. Most solutions involved repurposing parts or a whole space of the house. For instance, the main areas which were completely reconverted were basements, garages, and spare rooms; the areas which became subdivided were bedrooms, common areas (dining and living room), patios and outdoor areas. As we now move towards an endemic CoVid-19, these re-conceived spaces, both indoor and outdoor, will continue to play a central role in the new hybrid lifestyle.

Looking at the work and production areas of the city, the shift requires further efforts to complement the updated residential areas. Employers, business owners, landlords, and builders need to integrate the work environment with the necessary spaces and elements which complete one's daily categories. This entails changes ranging from adding a break room to reorganizing the floor plan.

VII



VII.II The Process

As the city slowly reopened in June 2020, the few people who chose to go back to the office largely preferred to avoid public transit. In addition to keeping safe, Seattleites like to be outdoors and mostly choose to commute by bike, instead of driving to work. To accommodate this, the city has a network of bike lanes and trails, but these mostly serve residential neighborhoods and the downtown area. This proposal aims to implement the existing network by connecting the southern industrial and production-oriented areas with the rest of the city through a bicycle-and-pedestrian-friendly track.

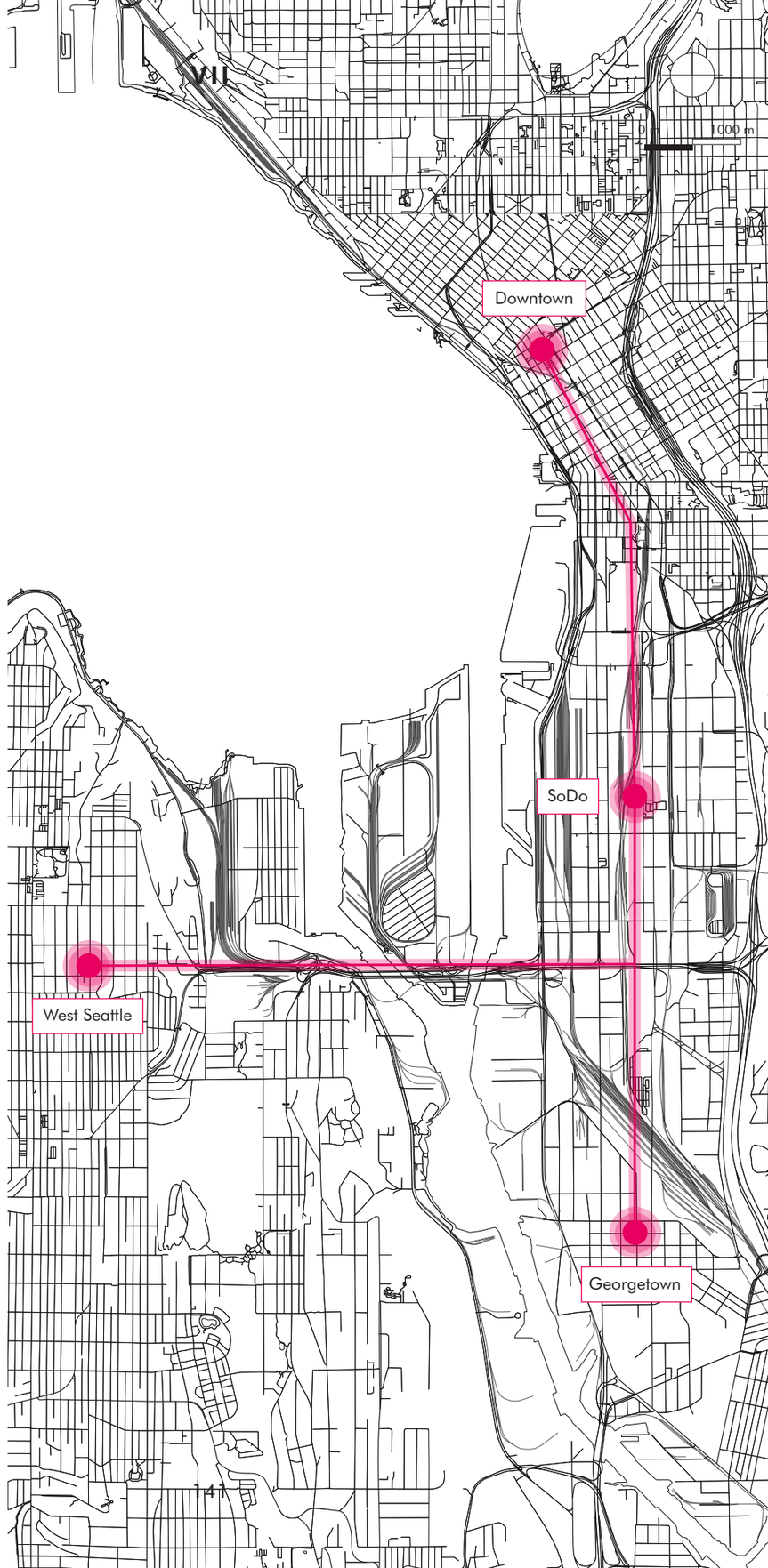
Unfolding along the existing and future extensions of the light rail, the design connects the downtown to West Seattle, and eventually Georgetown, passing through SoDo. The trail is made up of a fast track for human-powered vehicles and a pedestrian lane, both of which have direct access to Link stops, businesses and the street, while being protected from motor vehicle traffic.

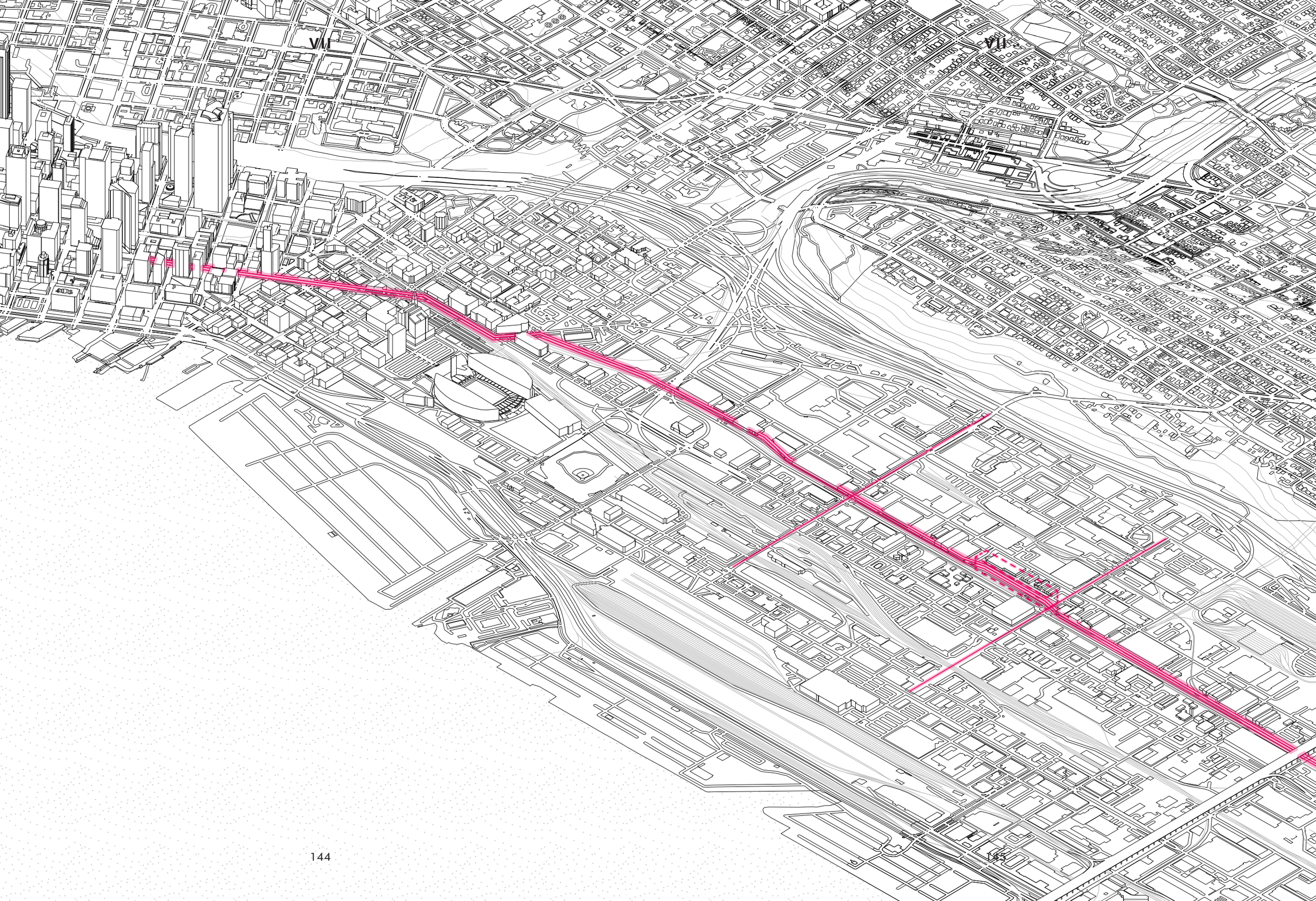
In the SoDo portion, the infrastructure runs along 5th Ave S and is elevated to six meters, in order to connect easily to the Spokane Viaduct. Progressing on the eastern side of the avenue, most of the lots are currently occupied by metal-related works and automotive supply shops, interspersed with retail and food-and-drink businesses. Hence, by adding height to the new trail and physically connecting it to the existing built environment, it acts as an incentive to reorganize their functions. Manufacturers can thus keep production on the ground floor and move retail and offices to the upper floors.

A transport exchange station wraps around the existing Link stop on S Lander St, connecting it to the new fast track through vertical distribution. On the ground floor, between the light rail stop and the ramps to the trail, is a bicycle parking area where commuters can leave their bikes. Across the road is a car parking lot; hence all mediums of transportation can be accessed from this point.

Upon populating the new artery with the three categories, it becomes immediately apparent how the buildings directly connected to the new track are impacted by it. This can be used as a catalyst for change, by rearranging and introducing new functions into a production-oriented area in order to support the hybrid lifestyle and, ultimately, to generate an influx towards SoDo. These new additions are activities regarding all three categories, and range from opening a new business model to adding a park.

Pursuing small-scale interventions on multiple buildings, new services can be added to the area without impacting the strict - and necessary - zoning. In such a way, a sustainable evolution process towards the new way of living is created, for businesses, the city, and its citizens.

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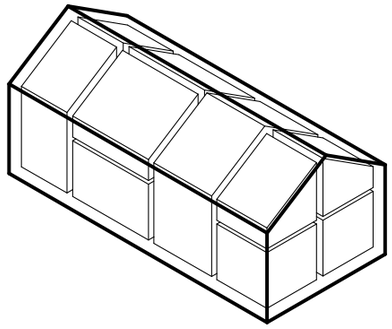
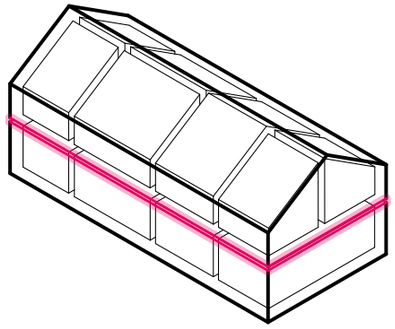
VII



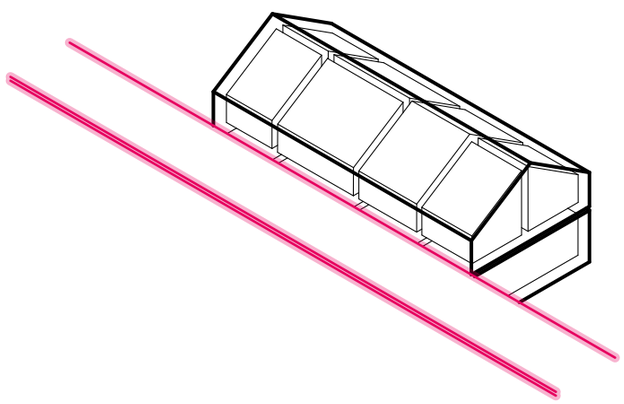
Industry 4.0 Warehouse

The production process has been reshaped and new spaces can be used by different types of businesses.



Horizontal Subdivision

The newly introduced activities are divided between the lower floors and the upper floors. The heavier and production-based functions are located in the inferior half, while retail, offices and public-related operations are based above.

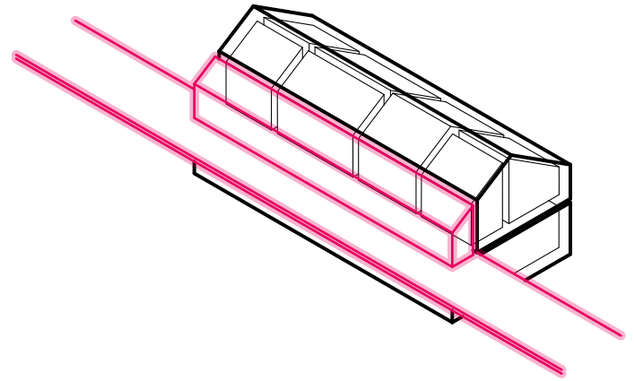


Addition of Infrastructure

A shared use path is added along 5th Ave S, elevated to the second floor. The new infrastructure will serve as a protected lane for cyclists to move around town and join the businesses for a better pedestrian access.

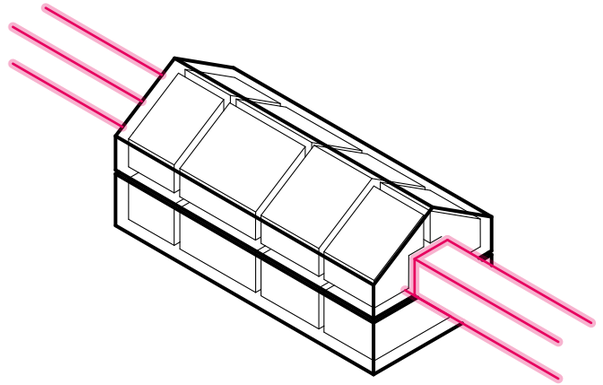
Option A: Hybrid

The new pathway is both indoor - for an easier access to businesses - and outdoor. Bicycles, scooters, skateboards and other means of transport can travel safely in the external lane which serves as an express way.



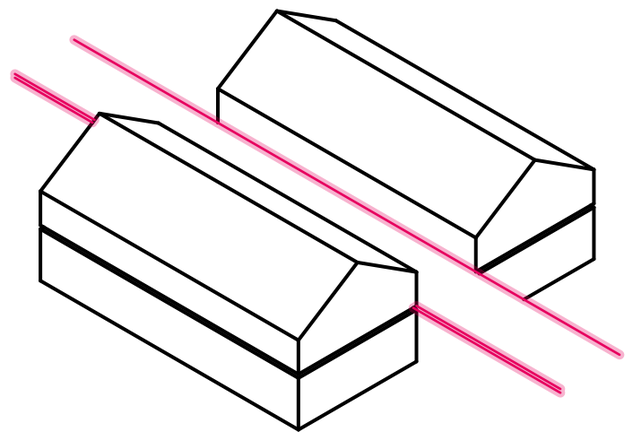
Option B: Encased

When feasible, the track can pass through existing buildings to serve as many plots as possible.



Option C: In between

Some cases may require the added infrastructure to cross the block in between buildings, in order to access different trades.



VII

VII

Enclosed

Transparent Envelope

Top Floor:
Public Plaza

Hybrid

Ground Floor:
Indoor Bicycle Parking

Park Addition

Enclosed

Open

Existing Link Stop Integrated
in the new Station

Hybrid

Existing Parking Lot

Access Ramp

Light Rail Extension

VII

VII

Daycare

R+D Lab

Office Entrance

Offices

Cafè

Park

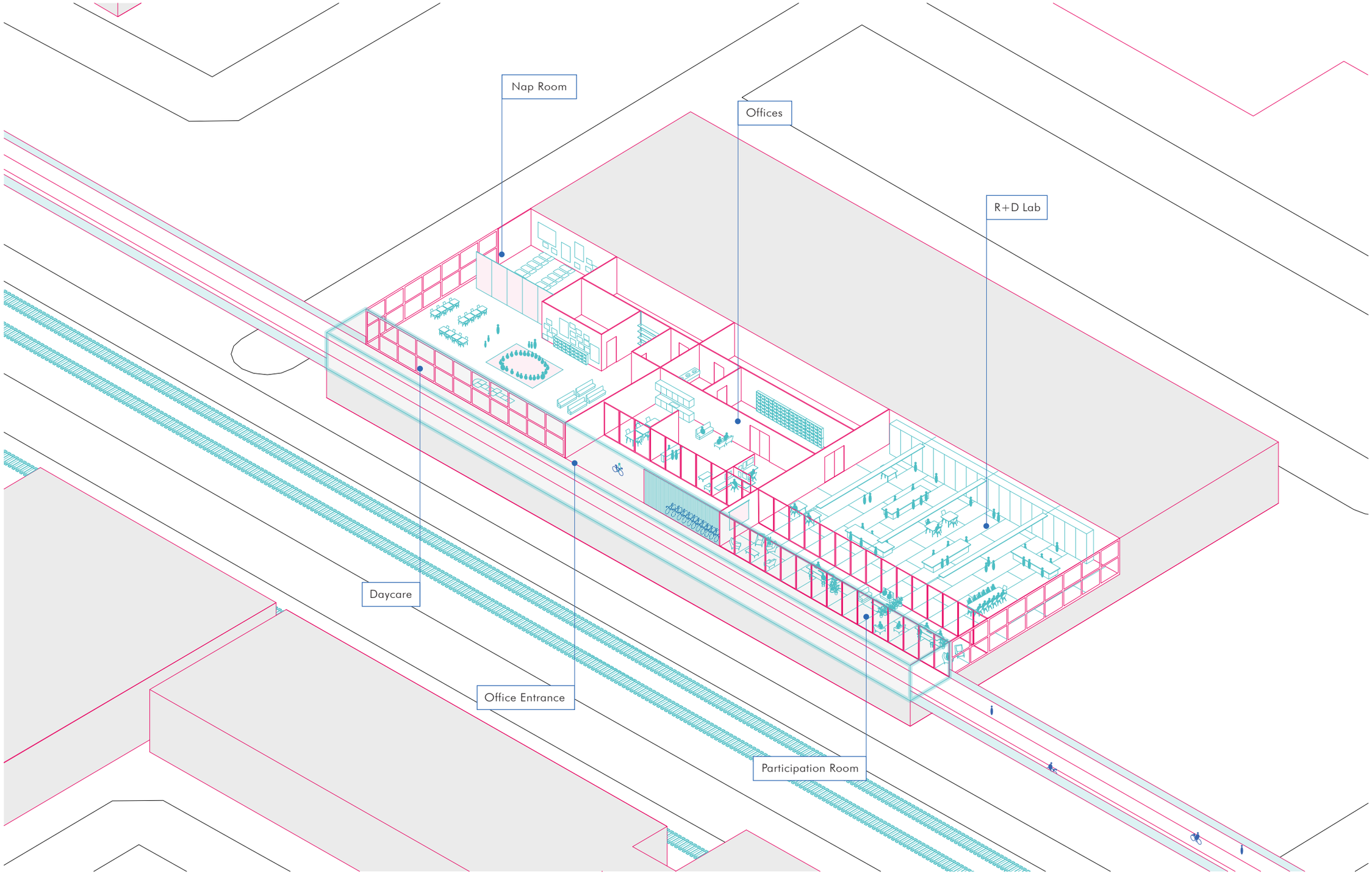
Basketball Court

Garden

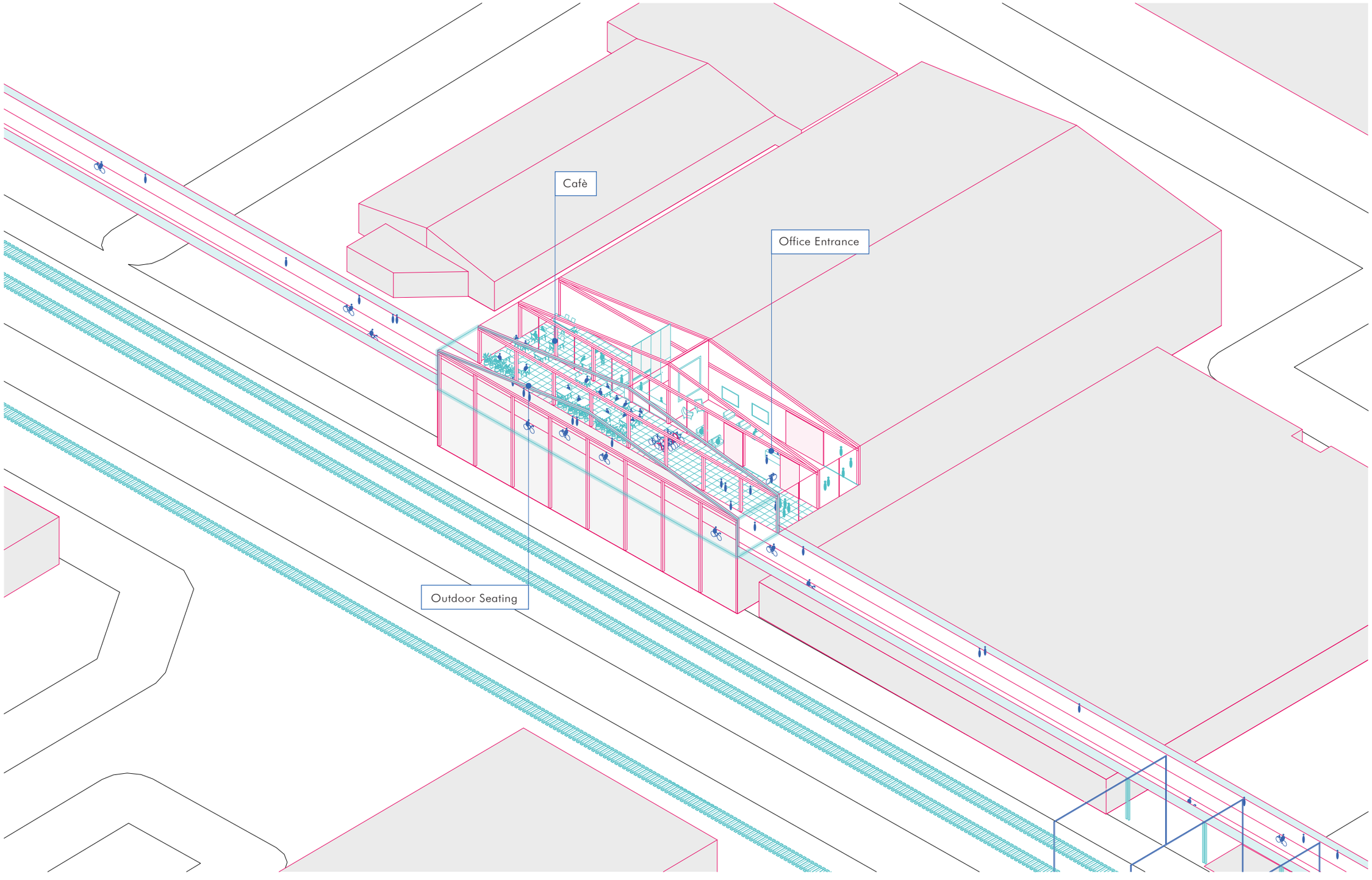
Workshop

Public Square

VII


Nap Room
Offices
R+D Lab
Daycare
Office Entrance
Participation Room

VII



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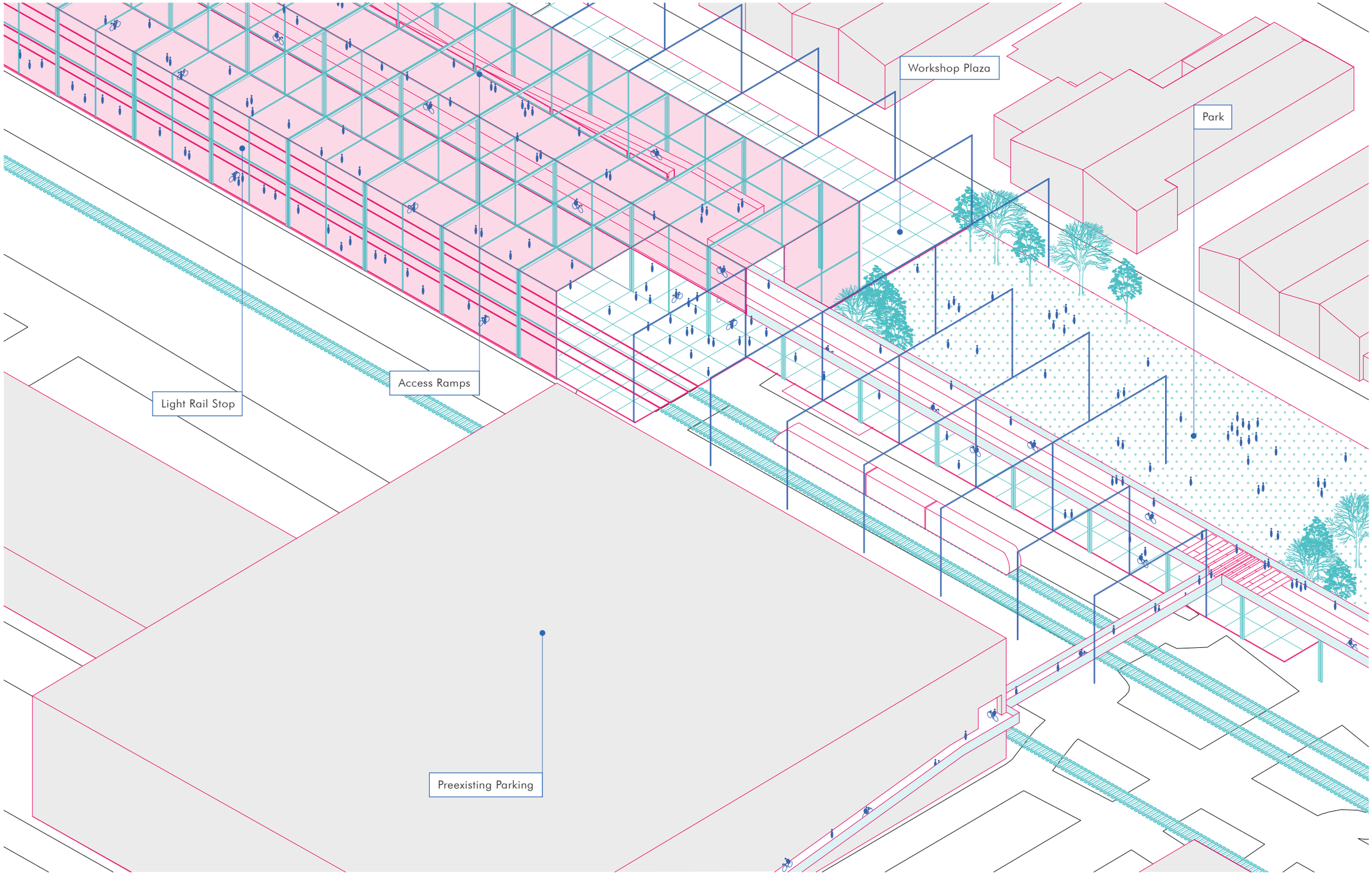
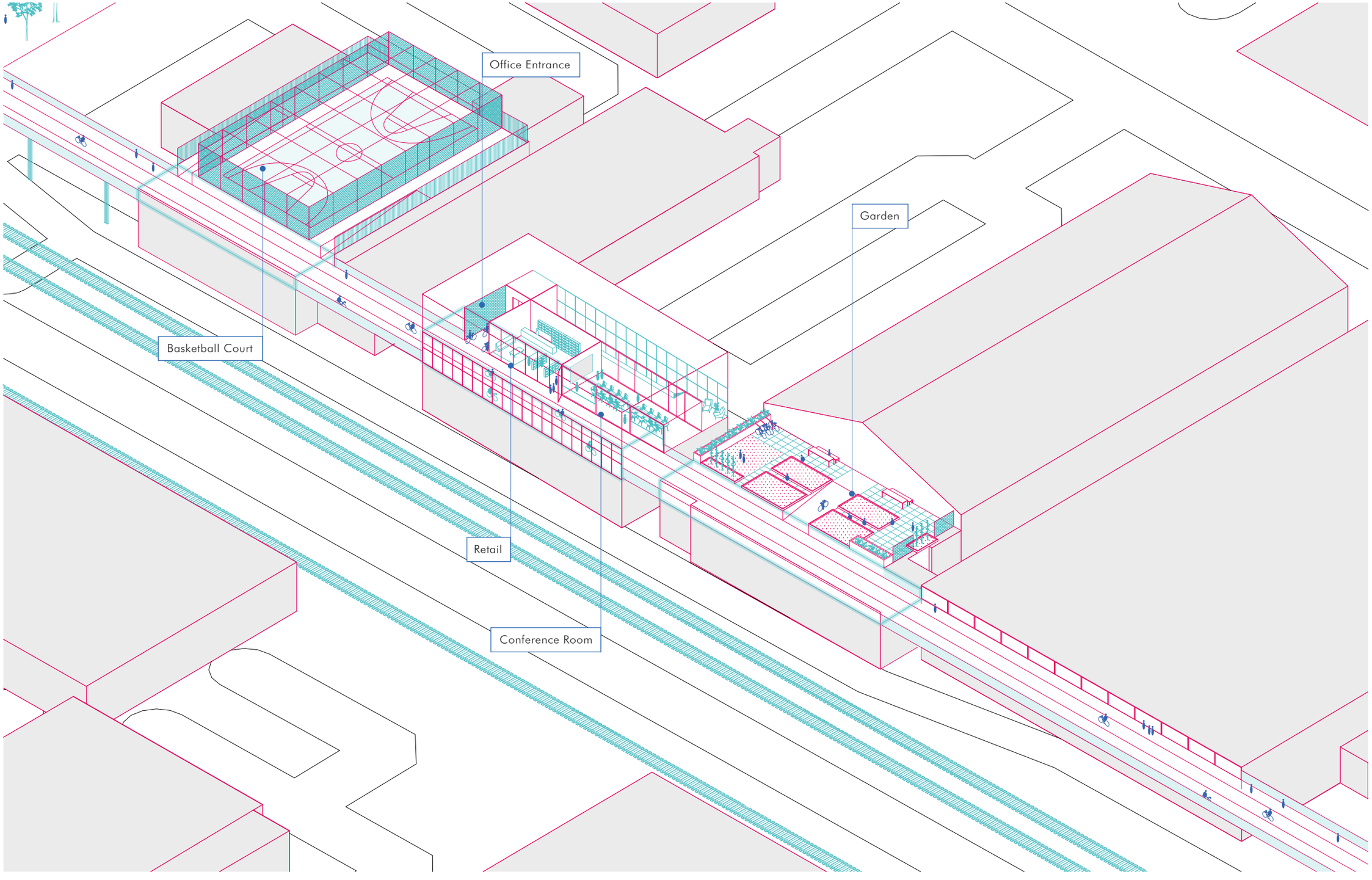
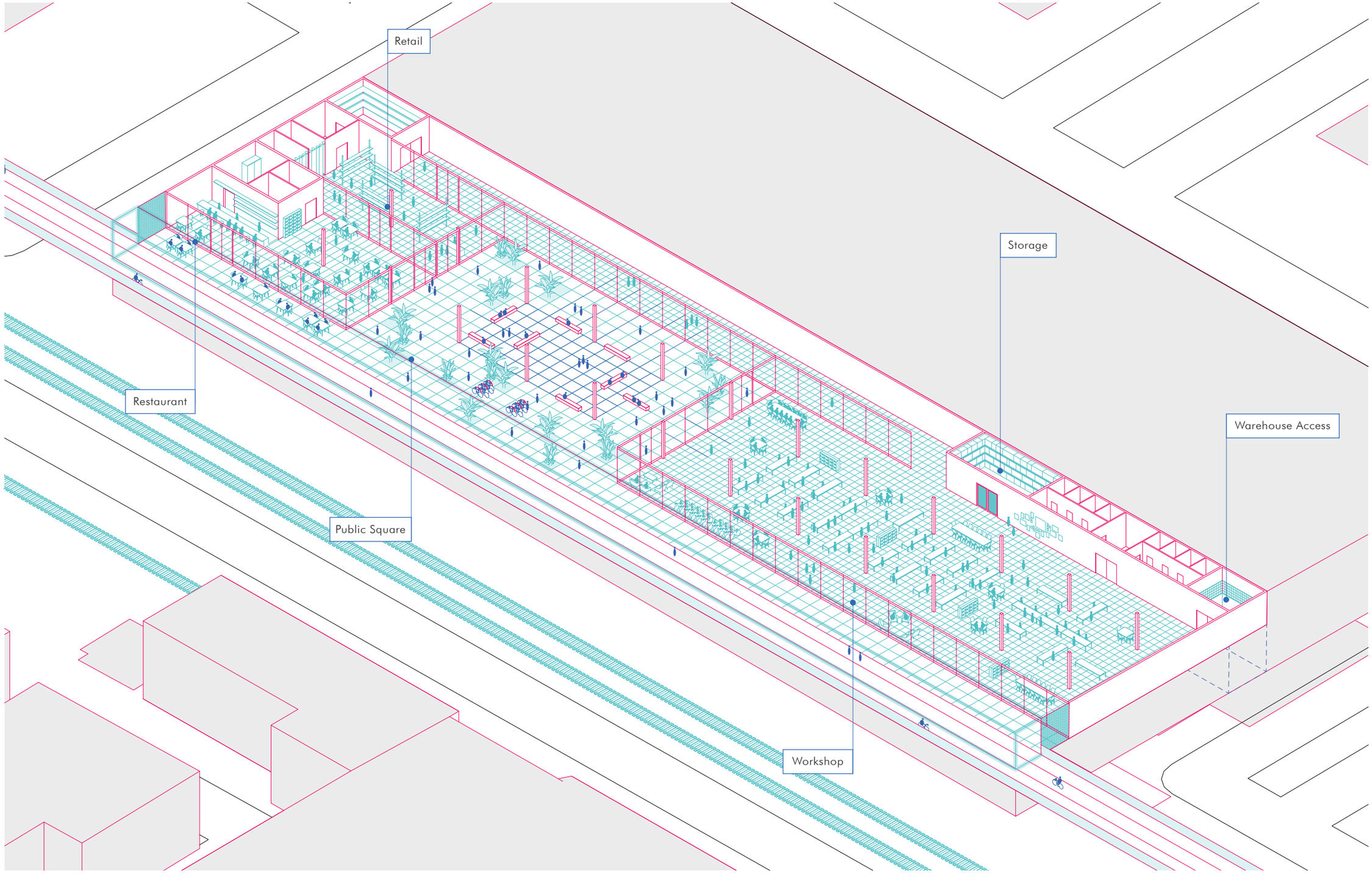

Workshop Plaza
Park
Access Ramps
Light Rail Stop
Preexisting Parking

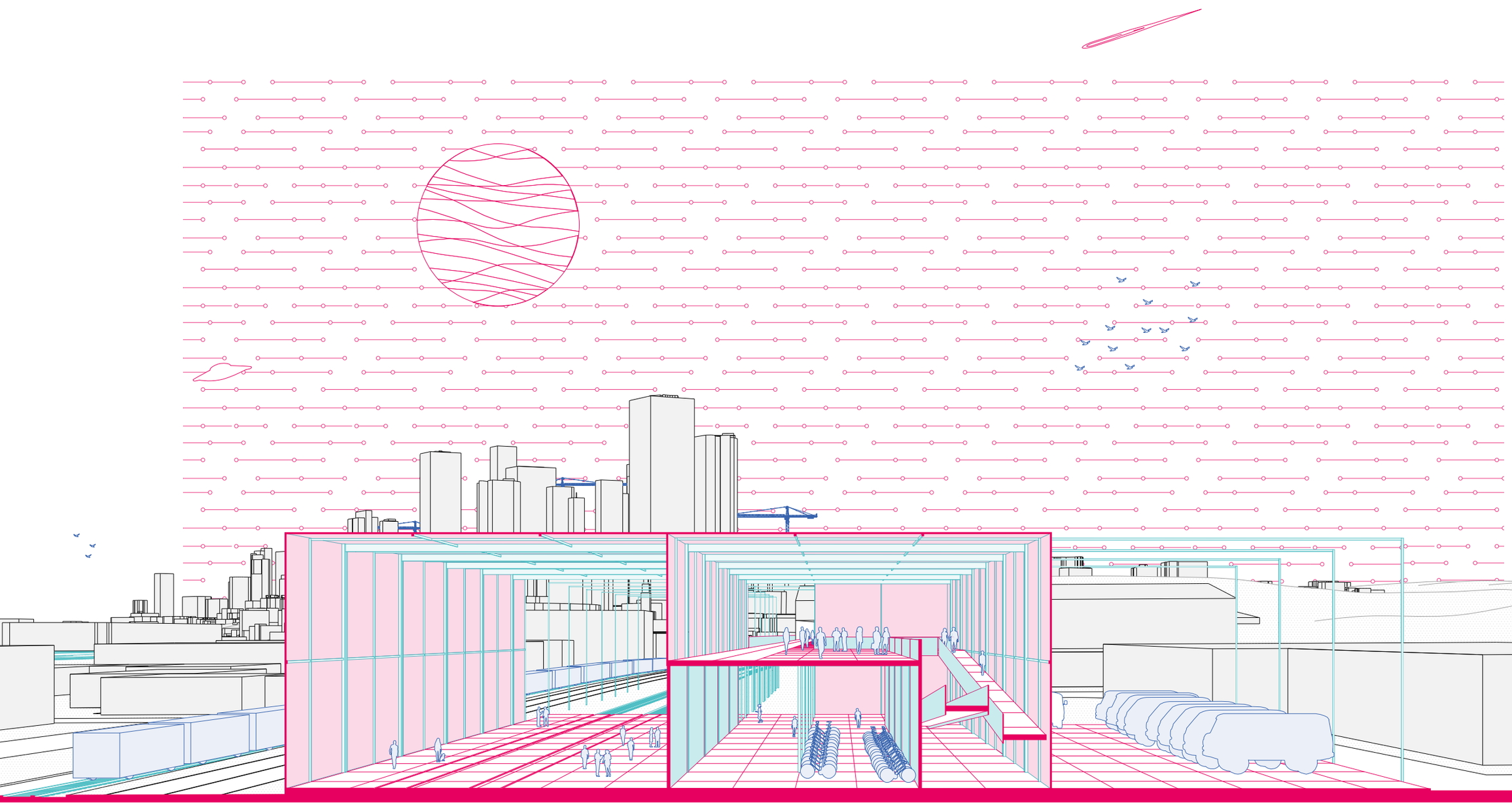
VII


Office Entrance
Garden
Basketball Court
Retail
Conference Room

VII


Retail
Storage
Restaurant
Warehouse Access
Public Square
Workshop

VII



IV

Notes

[1] S. Mathews, *The Fun Palace as Virtual Architecture: Cedric Price and the Practices of Indeterminacy*, in *Journal of Architectural Education* (1984-), Vol. 59, No. 3, February 2006, page 40

[2] R. Gargiani, B. Lampariello, *Superstudio*, Editori Laterza, Bari, 2010, page 72

CLOSING STATEMENTS VIII

Throughout its history, Seattle has been through ups and downs, but has always managed to bounce back. The tech boom of recent years has brought many changes to the city; many employees moved here in a short amount of time, causing a housing crisis, and making Seattle one of the most expensive U.S. cities to live in. Consequently, many overpriced condominiums sprung up, populating firstly South Lake Union, and then spreading to the rest of the city. The real estate market has continued to become more competitive, saturating every square foot with residential buildings, to the point where production areas needed to be protected.

Despite having a tech boom, Seattle's economy still relies heavily on its ports, manufacturing, naval and aerospace industries. During lockdown, technological advancements were an influential part in daily life, to the point where they shaped the way we approach everyday tasks. The pandemic and its consequences have taken a toll on the production industry, so it is important to integrate this field into the new hybrid lifestyle; therefore the project integrates manufacturing spaces into daily life. Inserting misplaced residential buildings in industrial zones would just take away real estate from a big part of the city's livelihood, while contributing to gentrification.

First and foremost, all stakeholders have to be considered to make a difference, but more so the users and their needs. For this reason, the suggested approach is subtle, a process rather than a project. The system gradually makes a change, by starting from the single businesses (reorganization of spaces), and then moving to making them accessible through a comprehensive trail. This strategy is based on the concept that having shifted towards a hybrid workflow - when possible - thanks to technological evolution, public related offices and businesses within the lots can be rearranged to serve the track, and increase productivity by adapting to the employee's needs. Activities from Life, Work, and Leisure are more available to workers in SoDo, thus accommodating their needs and attracting new businesses and customers.

By taking advantage of the attachment to private property, each landlord or business can rearrange their own space to welcome the new fast track. Reorganizing individual lots to embrace the new distribution accordingly, the trail will bring a bigger flow of commuters and customers to a low populated and vulnerable area. These efforts amount to moving public functions to the new "main road", so from 6th Ave S to SoDo Busway/5th Ave S.

In conclusion, imposing a design project on the city does not work in the long term. A more gradual approach is necessary, because the users and their needs inevitably change through time. Accordingly, flexibility and resilience must be kept throughout the design and execution phase.

Firstly, the main goal needs to be identified; this allows one to stay focused in the right direction. Secondly, an outline of a program helps to keep a schedule of progressive steps which lead to the objective.

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PERSONAL JOURNAL X

ARCHITETTURA TECNOMORFA – Superstudio

Pretende di integrare la macchina, generatrice di immagini sempre diverse, nelle figure assolute ed elementari di un ordine geometrico archetipo ...

Non potendo rinunciare alla macchina, perché la storia di Benevolo ne ha dimostrato le potenzialità creative e riduzionarie, superstudio tratteggia la possibilità di dominarla, rendendola invisibile attraverso un fascio.

(pag. 22)

... le opere degli Archigram che vengano a lungo andare sono poi concludere che esse esprimono ancora la fiducia futuristica in una "Tecnica che risolve tutto". Non è a caso che la Tecnologia a cui superstudio guarda con interesse resta quella invisibile dei collegamenti, dei cavi o dei fluidi da poter far scorrere sotto attrezzi superfici.

[...]

Il Viaggio nelle Regioni della Ragione attende a una necessaria fase di separazione dell'architettura da ogni programma tipologico, da ogni funzione contingente, verso una rigenerazione utopica in pura forma espressiva di una razionalità assoluta, atemporale e di ascendenza Razionale.

(pag. 23)

[...]

La riduzione dei progetti alla loro essenza formale, compiuta con il Viaggio nelle Regioni della Ragione, è la tappa fondamentale per la scoperta di un solido geometrico concepito al di là di ogni funzione e programma, una placita indipendente da ogni logica funzionale contingente, espressione di una geometria capace di divenire l'immagine stessa della ragione e, come tale, contenente ma escludente il Viaggio.

(pag. 25)

2.1 Genesi del "Monumento Continuo": il "Viadotto d'Architettura"

Dalla sobrietà del "puro deserto" monumenti affiorano primari rappresentativi di una generale biblica delle forme dell'architettura e della città.

(pag. 26)

Il viadotto d'Architettura appare il risultato di una distruzione apocalittica delle principali metropoli del mondo i cui frammenti si ricompongono in due sole strutture lineari che attraversano il globo all'altezza dei meridiani terrestri. Di quel viadotto vengono sommariamente tratteggiate le strutture interne e gli organismi costruttivi.

[...]

A seconda del paesaggio, il "viadotto" assume delle trasformazioni per adattarsi alla forma e al carattere dei luoghi, diventando di volta in volta un muraglia ai piloti articolata come quella di Saggara, percorsa autostrade e ferrovie di scorrimento laminare con appendici primatiche che arrivano fino al mare [...]. L'aspirazione di superstudio a fare di quel viadotto un monumento a scala paesaggistica spiega la sequenza di immagini in cui il sistema di compatte appare a confronto con monumenti celebri che pretende di restaurare[...]

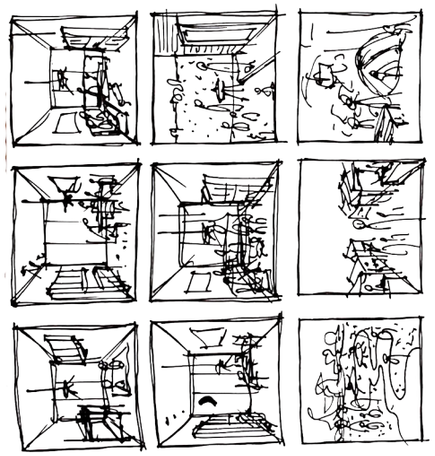
(pag. 27).

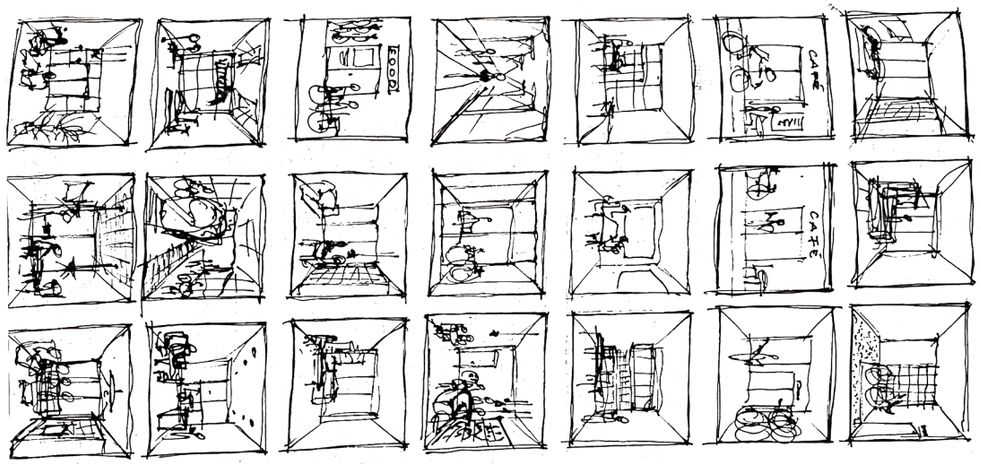
La premessa della Tesi di Tafuri di Francia nel catalogo aggiorna che il Modello Architettonico possa diventare l'espressione più compiuta di una "architettura tecnomorfa" ridotta a involucro talmente astratto e assoluto da poter rappresentare, come il planisfero di Malevič, ogni invenzione Tecnologica.

(pag. 84)

[...] l'unico elemento distintivo del monumento Continuo, generato indipendentemente da ogni Tecnologia. Distrutta la genesi delle forme monumentali attesa al "Tecnomorfismo", esorcizzata ogni tecnologia contemporanea, l'ultimo e definitivo "supermonumento" del XX secolo, a Superstudio non resterà che sondare la possibilità di reintegrare in quell'assoluto formale le forme di vita umana e le tecnologie più avanguardistiche.

(pag. 39)





3.2. "Hyperurbanité", "alternative models for life"

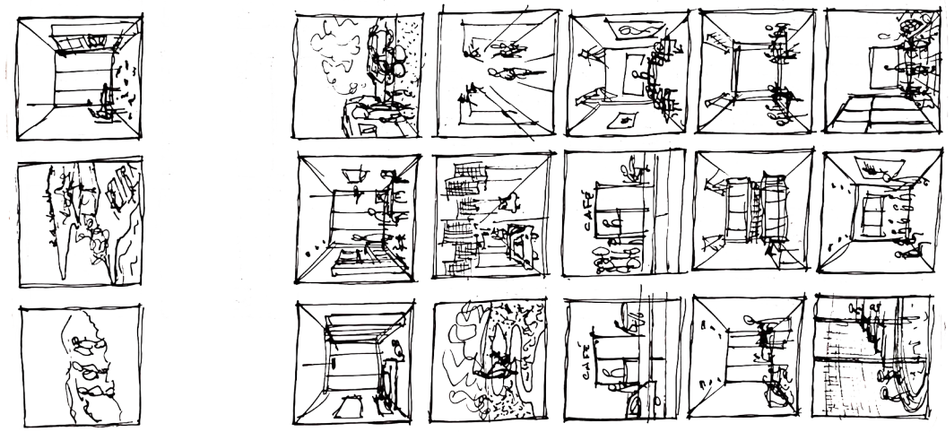
[...] I primi esempi di superamento radicale della forma della periferia di espansione del dopo, che identificano nella periferia moderna la forma urbana per eccellenza, privilegiano tre diversi, o "tipi di operazione o spazio": una griglia con regole costanti per produzione e residenza; una griglia con regole costanti per distribuzione partecipate da diversi attori per la produzione; infine una struttura lineare distinta dal distretto e su cui si attestano tutti gli produttori.

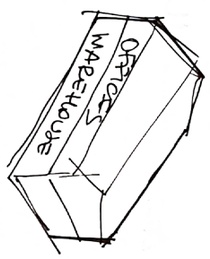
(pag. 72-73)

3.3. New Domestic landscape

Il grado di distruzione dell'architettura non fisica, raggiunto da superstudio con la superficie e la pianura per una rigenerazione in forme contemporanee, adeguate alle tecnologie delle comunicazioni elettroniche, ai nuovi modelli rappresentativi dei cambiamenti nell'idea della partizione del spazio. La distruzione della casa e della famiglia dell'architettura come un progetto culturale diverso da quello di altre contemporanee avanguardie.

(pag. 78)

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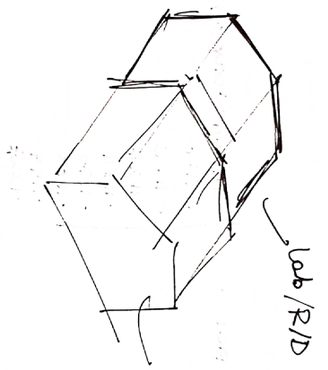
Lab/R&D
Storage
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meeting rooms
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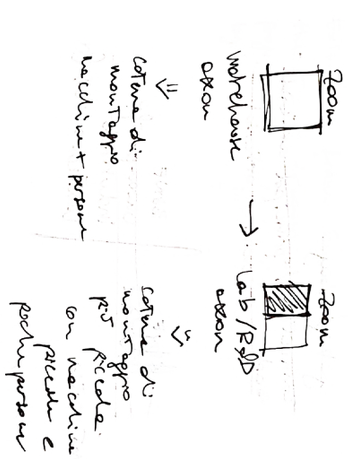
Simulations
Training
Lounge


Room
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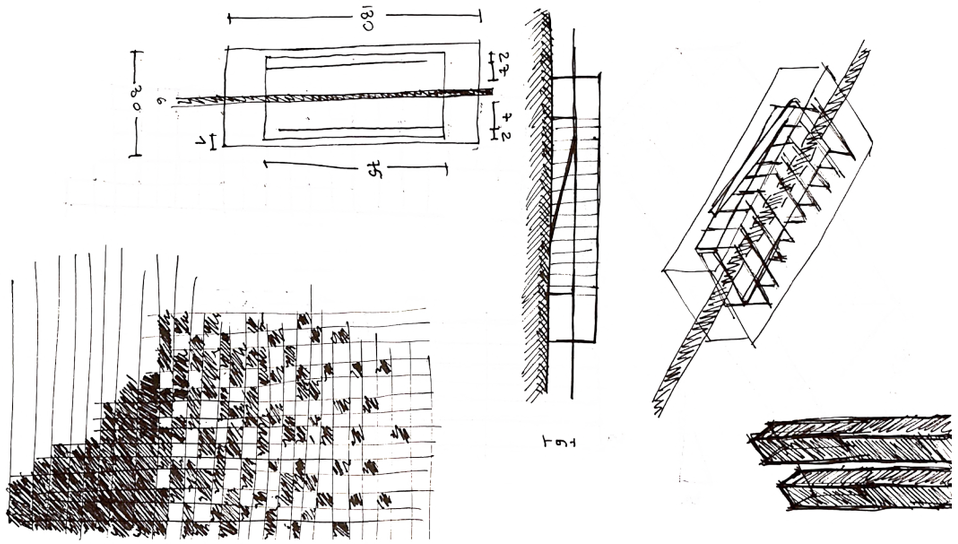
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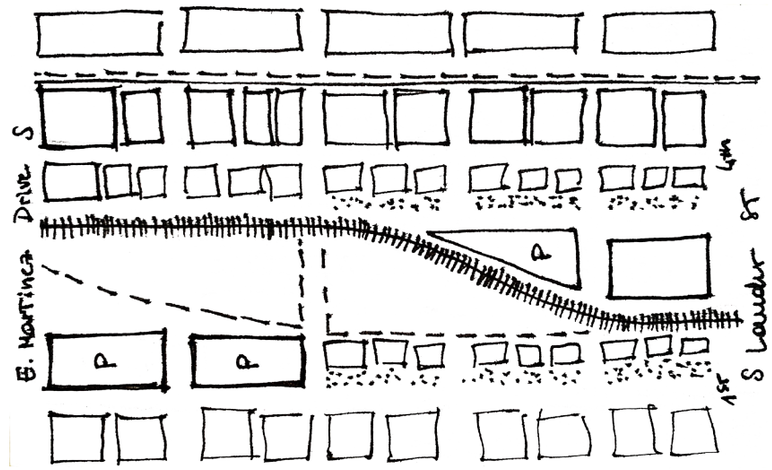
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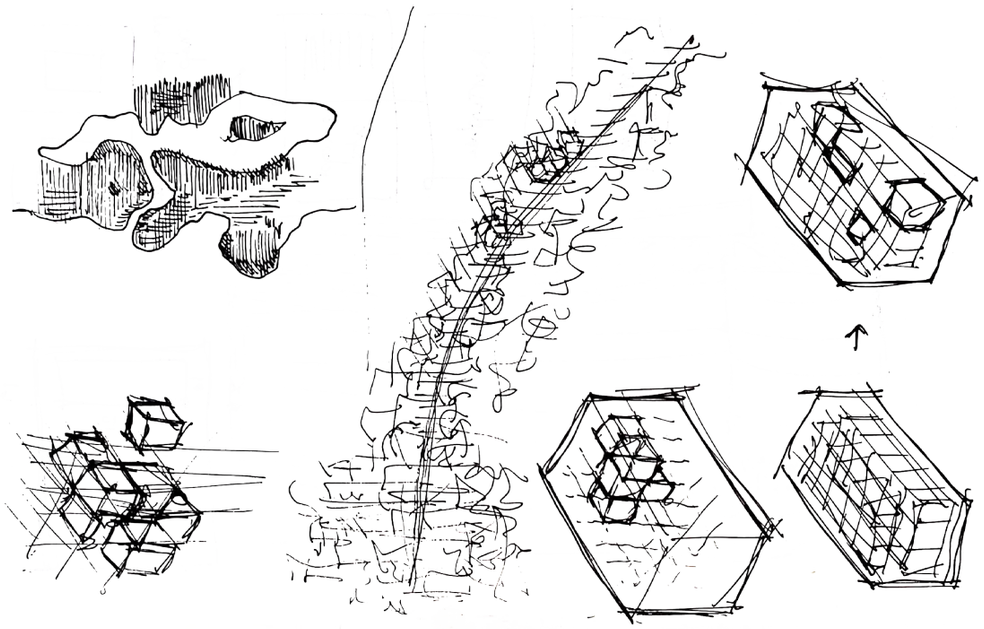

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Ernalee, who showed me the beauty of art and its artists
Jerry, who paved the way for a better Seattle.