

What Makes Public Infrastructure so Enticing to Fund?

Which infrastructure projects garner enough federal support to be completed?

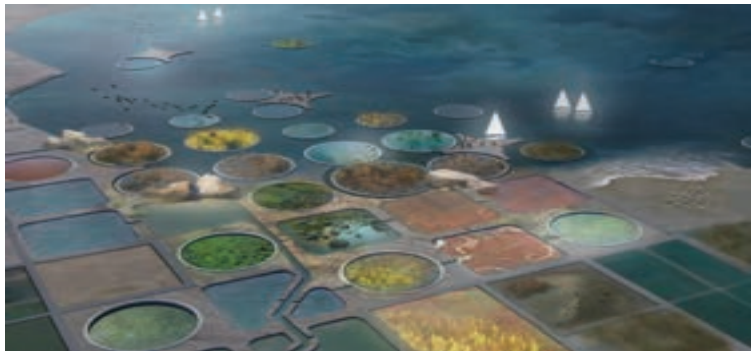
HOUSING FIRST - An approach to ending homelessness that prioritizes permanent housing as the first step before any following support systems.

At Home/Chez Soi Project, Canada	The Y-Foundation, Finland	The Rhetoric of Housing First, USA	Housing First Neoreaction, UK	Social Policy Influence, USA	Highway Reconstruction, USA	Contemporary Infrastructure, USA	Sound Walls and Noise Legislation, USA
<p>I am studying the At Home/Chez Soi project because I want to better understand the flexibility of housing first programs and how they adapt to locations with varied demographics. I wish to understand the differences required in implementing a housing first program in an urban vs a rural setting.</p> <p>The At Home/Chez Soi project was a 4 year housing first study conducted by the Mental Health Commission of Canada across 5 of the largest cities in Canada. The study was a success in understanding that even within 5 contexts with different geographies, demographics, municipalities, and social programming, a housing first model was adaptable to each city, each type of care for residents (including intensive and high-intervention models), and varying size of populations.</p> <p><i>"In 2008, the federal government invested \$110 million for a five-year research demonstration project aimed at generating knowledge about effective approaches for people experiencing serious mental illness and homelessness in Canada."</i></p> <p><i>"One of the advantages of stable housing for a group who have high levels of chronic mental and physical illness is the possibility of shifting their care from institutions to the community."</i></p> <p><small>Goering, Paula, et al. National At Home/Chez Soi Final Report. Mental Health Commission of Canada, 2014. Retrieved from: mentalhealthcommission.ca</small></p>	<p>I am studying the work done by the Y-Foundation in Finland because I want to find out the real benefits and challenges attached to housing first programs with support from the federal government. I wish to understand what progress the programs need to make before trying to adapt it to a local municipality.</p> <p>A Home of Your Own documents the ongoing work of non-profit, the Y-Foundation and their work throughout the country of Finland. Their main goal is to install permanent housing across the country to facilitate a national housing first program in an attempt to end homelessness. The success of this work is outlined within this handbook including quantitative research relating to the longevity of this housing first program's positive effects on ending homelessness.</p> <p><i>"A dwelling is the foundation on which the rest of life is put back together. When a person has a roof securely over their head it is easier for them to focus on solving their other problems."</i></p> <p><i>"The Housing First model in Finland has taken into account the existing social benefits system so that it is utilized as much as possible. Service providers help clients with getting access to assistance and services provided by the state or municipalities."</i></p> <p><small>A Home of Your Own—Housing First and ending homelessness in Finland. Y-Foundation, 2017.</small></p>	<p>I am studying the rhetoric of Housing First programs because I want to find out whether the framing of housing first programs affect the public perception and feasibility of the housing first strategy. I want to understand the opposition to this movement and how its opponents offer a better solution to homelessness.</p> <p>Stephen Eide presents an analysis of Housing First programs through a lens of performative awareness having seen the results of similar programs under governments of various support levels. He concludes that housing first programs merely act as "a harm-reduction approach not only for behavioral health but also for poverty." The issue is not housing infrastructure as much as it is a cost-benefit issue, finding more success in linear treatment programs. The framing of all of these claims, however, fail to adequately state the successes of housing first on housing stability and the reduction of long-term and recurrent homelessness</p> <p><i>"We would not say that a community has ended murder based upon a qualitative analysis of its police department, but rather the absence of murder. If ending homelessness must remain the goal of homelessness policy, governments should define success in a way that can be independently verified by the public."</i></p> <p><small>Eide, Stephen. "Housing First and Homelessness: The Rhetoric and the Reality." Manhattan Institute, 21 April 2020.</small></p>	<p>I am studying reaction to housing first rhetoric because I want to find out how predatory rhetoric and contextual framing can alter results of housing first programs. I wish to understand the tactics used by adversarial parties to understand what evidential support of conducted studies could be used to shift public opinion.</p> <p>Nicholas Pleace offers his own analysis of two US generated responses to the failures of housing first programs in the US. Pleace also integrates external precedents of the Finnish Y-Foundation, laying the contextual differences between implementation of housing first programs in the US, EU, and UK. The misrepresentation of the effectiveness of Linear Treatment when compared to housing first acts as a generalized example of how these two papers distort the weight of evidences to support governmental reductionist ideals in the cost-benefit of housing first spending. This points to the housing first implementation in the US being stunted by the prohibitive allocation of resources, when a full-scale nation-wide implementation would require extensive and sustained funding.</p> <p><i>"Finland's version of 'Housing First' is and always was distinctly Finnish, a home-grown ethos and philosophy that has produced a uniquely strong, housing-led, integrated strategy that has greatly reduced long-term and recurrent homelessness."</i></p> <p><small>Pleace, Nicholas. "Neoreaction and Housing First: A Review Essay." European Journal of Homelessness, vol. 15, no. 2, 2021, pp. 269-288.</small></p>	<p>I am studying the policy challenges around housing first programs because I want to find out how policies that have been implemented in more socialist governments could be passed in the US. I wish to better understand the effect that social science has on framing the issue of homelessness and how that problem-framing can affect the policy created around it.</p> <p>The three "streams" contributing to the framing of these problems are based on a social framework developed by Robert Kingdon where a Problem stream, Policy stream, and Politics stream all contribute to how policy change is enacted. In the case of homelessness, the Policy stream is important to use research-based information to frame the issue so that effective evidence-based solutions can be developed. Politics are then influenced to allow policy change to effectively pass through with wide-scale implementation. It is the funding of these programs within the US government that poses the largest hurdle for sweeping legislation to become reality.</p> <p><i>"Homelessness is often framed in terms of having either personal or structural determinants, or both. If homelessness is considered to result from individual psychopathology, poor choices, or a moral failing, then a model that emphasizes 'treatment first' or charitable care is often invoked."</i></p> <p><small>Nelson, Geoffrey, et al. "How Social Science can Influence Homelessness Policy." European Journal of Homelessness, vol. 15, no. 1, 2021, pp. 131-158.</small></p>	<p>I am studying the reconstruction efforts of the United States highway system because I want to find out what the larger ramifications of the installation of the highway network. I wish to better understand what kind of policies were in place to route the highway networks and how modern reconstruction efforts are used to remedy the damages done to disrupted areas.</p> <p>The existence of the United States Highway network today exemplifies the permanence with which these physical barriers were planned and constructed. They stand as a visible example of the segregation practices of the 20th century lasting through to a contemporary society that has worked tirelessly to shut down those same kinds of practices. Reconstruction efforts around these highways have not been plentiful as the legal tools available today are not adequate to address the years and years of disinvestment and systemic racism. Archer calls for a new set of updated civil rights tools to be able to combat this exact area of concern, in order to revitalize these communities.</p> <p><i>"When adopted by state and local governments, racial impact studies can be a powerful tool for understanding how past, present, and proposed systems and procedures contribute to racial inequality."</i></p> <p><small>Archer, Deborah. "White Men's Roads Through Black Men's Homes": Advancing Racial Equity Through Highway Reconstruction." Vanderbilt Law Review, vol. 73, no. 5, 2020, pp. 1259-1330.</small></p>	<p>I am studying the contemporary United States infrastructure legislation because I want to find out what it is that makes an infrastructure bill passable in the current political climate. I wish to better understand what elements in these infrastructure bills draw consensus across the aisle and allow for an increasingly divisive political context to agree on federal spending.</p> <p>The Infrastructure Investment and Jobs Act (IIJA) is one of two primary infrastructure bills written during the first year of the Biden Administration. This bill, paired with the Build Back Better Act (BBBA), account for an administration reinvesting in the systems which allow the United States to function as well as it does. The IIJA, passed two years into the 2019 pandemic, continues with a trend of the United States more commonly passing physical infrastructure bills and inhibiting the progress of social infrastructure bills, like the BBBA. This tracks even back to the national Highway Act of 1956, where a massive physical infrastructure was funded and subsequently used as a means of social change, segregating minority communities in urban settings. The IIJA does include pilot programs to begin addressing these disrupted communities.</p> <p><i>\$500 million is to be disbursed to disrupted communities for research programs and construction projects to remedy negative effects from the highways.</i></p> <p><small>"H.R.3684 - 117th Congress (2021-2022): Infrastructure Investment and Jobs Act." Congress.gov, Library of Congress, 15 November 2021, https://www.congress.gov</small></p>	<p>I am studying the evolution of sound walls because I want to find out what has been done in the past up to the present to remedy the effects that excessive noise has on highway adjacent communities. I wish to better understand what legislation and studies have addressed this issue and what can be done using modern technology.</p> <p>Sound walls are pieces of infrastructure used to patch the maladies of larger pieces of infrastructure. Since the late 1960s, excessive highway noise has been known to be harmful to immediately adjacent persons. When the United States highway system tore through developing neighborhoods, it created these negatively affected communities en masse. As more infrastructure is being authorized for highways, they could find benefit in doing more than just addressing highway noise pollution.</p> <p><i>"Rapid suburbanization post-WWII made noise virtually inescapable."</i></p> <p><i>"Those displaced by highways during the urban renewal era, often poor communities and communities of color who often lacked the resources to fight back against development, were left to suffer the ceaseless noise as countless others (including those who helped cause the problem) simultaneously escaped its adverse effects."</i></p> <p><small>Wagner, Kate. "Building the Wall: Highway Sound Barriers and the Evolution of Noise." 99% Invisible, 8 Dec. 2016, https://99percentinvisible.org</small></p>

How Does Architecture Interface with Infrastructure Projects?

What architectural innovations exist to increase the benefit of infrastructure?

Water Economies / Water Ecologies



Lateral Office // Salton Sea, CA // 2009 - 2010 // Unbuilt

The mixing of multiple constituencies and programs at an infrastructure scale project, where they overlap, compliment, and draw on one another. This project addresses, at the largest scale, the environment and sustainability, while allowing for commercial activity and integrating recreational public use areas. The combination and overlapping of these multiple occupancies showcases a flexible use of space that can negotiate with its occupants and fit any currently desired need. The implementation of the different occupancies can be analyzed through the scale of the actual built form. The large industrial aspects take up such a majority portion of the footprint while the recreation and commercial integration seems to infill the space between large interventions. This concept can be utilized when viewing larger infrastructure projects within an urban fabric and how to tactfully design leftover space to be used later.

Slow Up-Rising



Ja Architecture Studio // Bagnara, Italy // 2010 // Unbuilt

Though Slow Up-Rising did not exactly follow the competition brief provided, Ja Architecture Studio's interpretation of a solar park in a decommissioned Italian highway bridge exhibits similar methodology to how this work could be implemented. This new settlement, proposed to be built within the skeleton of the Salerno-Reggio Calabria highway, could be replicated at every other gorge-crossing section of highway, given the same construction is applied. By changing how the bridge is built at the base level, these settlements could be built at every highway bridge going forward.

The Spark



Snøhetta // Not Sited // 2018 // Unbuilt

The Spark speculates on a future of a dominant Data Center typology infesting the built environment. This concept harnesses the potential of this speculative future to provide benefit to any vernacular community while allowing in a dominant typological presence. The premise is that the heat created by theoperation of the data center can be harnessed and used to heat the adjacent community. There is no spatial byproduct created, however, the byproduct that is created, heat, is utilized by the architecture to directly address an issue held in the immediate context. The design of the data centers allows them to be contextless, installed in any location, in any climate, and adjacent to a population of any size. Even with these radically shifting parameters, it can still provide a dual-purpose benefit, storing and facilitating transfer of data, while using exhaust heat to directly benefit the host community. It is universally designed.

The project is first and foremost, speculation. Addressing the projected rise of universal data being created and the need for such data to quickly outgrow the current web infrastructure, The Spark explores how future demands can be met while remaining sympathetic to what already exists. It is an investment into infrastructure and into humans, consuming the resources demanded by a new future while simultaneously benefitting communities which are not directly affected by the infrastructural benefit.

Secret Studio



Fernando Abellanas // Valencia, Spain // 2017

The secret studio hidden against the underside of an undisclosed bridge in Valencia is exactly the intervention needed with large scale infrastructure in areas of dense urban fabric. Tucked against the unused underside of the bridge, the studio makes use of the bountiful and muscular space that exists inaccessible to the typical population around it. Just as bridges leave plenty of leftover space behind high up in the air, so to do highways at grade, causing large strips of flanking land to become unusable as easements and berms. This project makes use of previously unusable space, and utilizes it to directly benefit a constituency that could have used it. This work saps the benefit from leftover space created as an infrastructural byproduct. How better can these ideas integrateate at a larger scale?

A4 Sportpark



ModerscheimMoonen Architects // Schiedam, Netherlands // 2016

The A4 sportpark exists on top of the Dutch A4 highway. The tunnel over the roadway was constructed first as a means of noise mitigation and separation between neighboring residential areas. What this project achieves is the literal and figurative bridging over top of a large piece of infrastructure that actually connects the diametrically opposed populations. Developing the new space to be a community center further accentuates the thematic effect of the work. The work is first and foremost a piece of attendant infrastructure, installed ovetop of the highway to mitigate the noise created by fast travelling cars and trucks. Once the highway is covered and the effects are controlled, the next step is to infill the space with programming to directly benefit the adjacent communities.

The use of the an open-air field for sports and recreation is the perfect thematic element to reconnect two communities that had been driven apart by a multi-lane highway. The cultural mapping done by ModerscheimMoonen Architects highlights the true scale of the green space intervention. When paired with rendered model sections, the logic of the space is immediately and simply understandable, easily consumed and understood by many different constituencies.

What Does Social Housing Cost?

What housing typologies could be scaled up to exist as an infrastructural investment?

Vainola Supported Housing

The Vainola Supportive Housing is a housing first catalyst unit constructed by the Y-Foundation in Espoo, Finland. Being a piece of the Finnish housing first strategy, the building is fully supported with all necessary social services and foundationally funded resources.

The fully supported building offers residents the rehabilitative support they require while maintaining a stable housing option and sense of community around like-experienced neighbors. The residents are provided with courses, and support groups to teach personal wellness as well as the promotion of personal agency and community. The buildings host very little autonomy, being well-placed in the urban fabric to promote ideals of neighborhood and larger community, as well as to make use of urban infrastructure.

The cost of construction for these buildings are carried by the Y-Foundation first, then leased to the Finnish government to be used as a part of the nation-wide housing first approach to ending homelessness. These units are built on purchased land specifically to be integrated into the national system, so they could be considered infrastructural. Regardless, the cost fronted by the Y-Foundation is still the driving force behind the movement.

Name:	Vainola Supported Housing
Location:	Espoo, Finland
Lifespan:	2014 - Present
Geography:	Permanent Leased Lot
Mobility:	Permanent
Nearest Grocery Store:	0.4 mi - 8 min.
Public Transportation:	On Site - 0 min.
No. of Residents:	35+
Typical Length of Stay:	1-3 yr. - Permanent
Government Type:	Landlord, Democracy
Resident Contribution:	None
Dues & Fees:	Subsidized Rent
Supporting Organizations:	Y-Foundation, On-site support service workers and volunteers
General Rules:	No substances in common areas, paths to ending individual substance abuse. Community agreed-upon rules and autonomous enforcement
Community Interaction:	Local litter/cleanliness, neighborhood + grounds chores, community engagement
Top-Down Costs:	Building Construction, Supporting on-site positions



Communities with too much Overhead Cost prove to be operatively cost-prohibitive for standard developers. These typologies require serious top-down funding which is why governmental funding is the typical source of these communities.

Highest Overhead Cost

Cass Community Tiny Homes

Cass Community Tiny Homes is a piece of Cass Community Social Services, a non-profit faith-based group operating out of Detroit, Michigan. The residents of twelve of the twenty-five to-be-constructed tiny homes have all formally experienced homelessness.

The tiny homes are rented to low-income residents at \$1 /sf monthly, typically costing around \$350-400. The linear support model introduces courses and volunteer tasks to prepare residents for home ownership, offered 7 years into a resident's stay and inclusive of the land around the property as well. The purpose of the homes is wealth accumulation, fostering the resident with the needed agency to re-enter the neighborhood structure of Detroit. The buildings are permanent on the Detroit site, but do offer great upward mobility for the residents.

A majority of the professional services required to build these tiny homes within the CCSS campus is donated by local businesses. Architectural work, contracting, and construction costs are even sometimes donated by local firms in support of the mission which CCSS has taken up. These homes still require a fair amount of overhead to be constructed, but the consequent social services are offered and covered by CCSS.

Name:	Cass Community Tiny Homes
Location:	Detroit, Michigan
Lifespan:	2016 - Present
Geography:	CCSS Private Land
Mobility:	Permanent
Nearest Grocery Store:	0.5 mi - 10 min.
Public Transportation:	0.2 mi - 3 min.
No. of Residents:	25+
Typical Length of Stay:	7 yrs - Permanent
Government Type:	Landlord, Faith-based
Resident Contribution:	Special Trade to donate to Community, completion of reintegration courses \$1/sf /mo. for 7 yrs. Offer to buy after Cass Community Social Services, Local Individual Donations
Dues & Fees:	
Supporting Organizations:	
General Rules:	General Safety, Neighborhood Watch Participation
Community Interaction:	None
Top-Down Costs:	Donated Time/Labor/Material for Construction, \$45-65k/Home



Target Overhead Cost strikes a balance between lower operating costs and higher quality of life. There is a some demand for top-down funding in these communities, but a bulk of the operating resources still come from the residents.

Target Overhead Cost

Dignity Village

Dignity Village is a resident-founded tiny home community in Portland, Oregon. Beginning as a rough sleeping protest movement, the community, backed by Portland non-profits, settled onto a city-donated industrial lot and erected permanent bricolage tiny homes.

Each of the tiny homes is constructed by the resident moving in with donated and found materials, aided by any able and knowledgeable neighbors. Homes are usually made demountable with hopes one day to lift off the paved lot and move elsewhere, leaving space for another who could use the community. The village is tapped into urban infrastructure within the community building, hosting washrooms, heating, and internet access, but individual homes are all off-grid. Vacancy is limited to 50 plots, but residents cycle out, moving into permanent housing.

The overhead and start-up costs for a community like Dignity Village are substantial in acquiring a piece of land and preparing it with utilities. After that initial cost, the operating costs run low and fall onto the residents to upkeep. The construction is done in-house by residents for residents, and provides a strong foundation for emergent communities to begin, and maintain themselves in various locations.

Name:	Dignity Village
Location:	Portland, Oregon
Lifespan:	2000 - Present
Geography:	Vacant Paved Lot
Mobility:	Semi-Permanent
Nearest Grocery Store:	1.1 mi - 22 min.
Public Transportation:	On Site - 0 min.
No. of Residents:	60
Typical Length of Stay:	Up to 8 Seasons
Government Type:	Democratic, Lead Council
Resident Contribution:	Labor, Upkeep of facilities
Dues & Fees:	\$50 / Mo.
Supporting Organizations:	Dignity Village, City of Portland, Local Lawyers, Architects, Planners, Builders, JOIN, Local Individual Donations
General Rules:	No Violence, Theft, Substance Use. No sales on site, Everyone contributes, No disruptive behavior
Community Interaction:	Small Businesses, Healthcare Systems, Public Tours, Volunteer Work
Top-Down Costs:	Donated Vacant City Lot, Funded Full-Time Position



Target Overhead Cost strikes a balance between lower operating costs and higher quality of life. There is a some demand for top-down funding in these communities, but a bulk of the operating resources still come from the residents.

Target Overhead Cost

Camp Take Notice

Camp Take Notice was a tent encampment community based out of Ann Arbor, Michigan. Founded in 2008, the community nomadically moved around Ann Arbor before settling into an MDOT interchange off of I-94, building out a campsite before eviction in 2012.

The residents of the camp made up a homestead tucked in the woods, operating off-grid using propane heaters and a generator donated by a local church. Often residents would leave the camp in the winter, seeking shelter accommodations, before seasonally returning to bolster the numbers during the summer. Once shut down, only half of the 75+ campers were offered housing vouchers and only 18 were accepted into local housing, the rest rejected. The camp hosted many returning residents, unable to foster great upward mobility.

Camp Take Notice is an example of how many emergent communities are formed today. Operating outside of what is considered "legal," these communities infill the spaces around them which are available and has the space to facilitate supporting a fluctuating community of residents. The start-up cost is next to nothing as these communities sprout of borrowed land, and the operating costs run parallel to the quality of life. These communities showcase efficient and resilient use of leftover urban spaces.

Name:	Camp Take Notice
Location:	Ann Arbor, Michigan
Lifespan:	2008 - 2012
Geography:	Wooded Highway Interchange
Mobility:	Itinerant
Nearest Grocery Store:	1.4 mi - 28 min.
Public Transportation:	0.3 mi - 5 min.
No. of Residents:	20-75+
Typical Length of Stay:	1-2 Seasons
Government Type:	Democratic
Resident Contribution:	Labor, Have something to give laterally
Dues & Fees:	None
Supporting Organizations:	MISSION, Local Faith Groups, Local Individual Donations

General Rules:
Always allow people to get a good night's sleep, No violence, Pick up after yourself, No illicit substances

Community Interaction:
Highway Clean-Up

Top-Down Costs:
Cooperation with Local Police + MDOT



Communities with too little Overhead Cost parallel the quality of life in the community with the resource demand from each resident. As emergent communities take up this range, support systems are needed for residents who cannot meet the demand of the community.

Lowest Overhead Cost

Earthaven Ecovillage

Earthaven Ecovillage began as a cooperative housing project in 1994 dedicated to sustainable living practices and community-based spiritual living. The now expansive off-grid settlement spans over many acres of mountain land outside of Asheville, North Carolina.

The ecovillage model boasts prosperous community-based living using only sustainable and eco-friendly means of survival. Earthaven hosts over 100 members all intentionally living an off-grid community with self-sufficient farming and economy practices. Labor is resident supported and multiple neighborhoods of people coexist, all working for the greater benefit of the ecovillage as a whole. Residents, cost-permitting, are usually permanent.

The model for Ecovillages provides an extremely resilient example of an emergent community. The composition of ecovillage residents are more often than not, knowledgeable and able individuals who grow tired of the progressing capitalist society that the US has been developing. The quality of life, however, is directly tied to resident contribution, leading to very structured entry fees and continued dues of both monetary and labor value. Due to such a high resource demand of its residents, the ecovillage may not be the most appropriate model for populations experiencing homelessness, even though the benefits and promotions of the model would perfectly suit that exact population.

Name:	Earthaven Ecovillage
Location:	Asheville, North Carolina
Lifespan:	1994 - Present
Geography:	Forested Mountain Land
Mobility:	Permanent
Nearest Grocery Store:	19.4 mi - 39 min. (car)
Public Transportation:	N/A
No. of Residents:	100+
Typical Length of Stay:	Permanent
Government Type:	Democratic, Council, Committees, HOA
Resident Contribution:	Labor, Chores, 1,500 hours Community Service over 10 yrs. 50 hr/yr. min.
Dues & Fees:	\$5,000 Entry, \$3,000 Deposit, \$82/mo. or \$800 - 1,200/yr. member fees
Supporting Organizations:	Self-Organized HOA, Self-Organized Non-Profit, In-Community Businesses

General Rules:
Specific per unique Neighborhood, General Cooperative Living

Community Interaction:
SOIL, In-Community Small Trade Businesses, Village Arts Co-Op, On-Site Classes & Retreats for members and visitors.

Top-Down Costs:
None



What Effect Do Highways Have on Urban Fabrics?

What housing typologies could be scaled up to exist as an infrastructural investment?



More often than not, at the behest of the local governments, the proposed highways were routed nearby, against, or directly through the middle of black and brown neighborhoods. In the case of Detroit, this manifested with the construction of US 1-375, running from I-75 to what would become Jefferson Avenue. A very small stretch of highway, which could have been arguably been replaced with a boulevard instead, running coincently through the western edge of the Black Bottom Neighborhood, displacing thousands from the thriving minority district. Black Bottom woul dlater fall victim to Urban Renewal and be completely removed, replaced with Lafayette Park and the largest collection of Mies van der Rohe buildings in the world.

This practice of urban renewal became an extremely common tool to displace minority communities in major urban centers. At a time where typical means of segregation like redlining were being phased out practice through the US judicial system, this was a covert way to segregate minority communities from urban centers. This practice was not local to Detroit, as it influenced almost every map in the Yellow Book, leading to highways blazing through US cities, displacing countless minority communities and constructing federally funded barriers within cities.

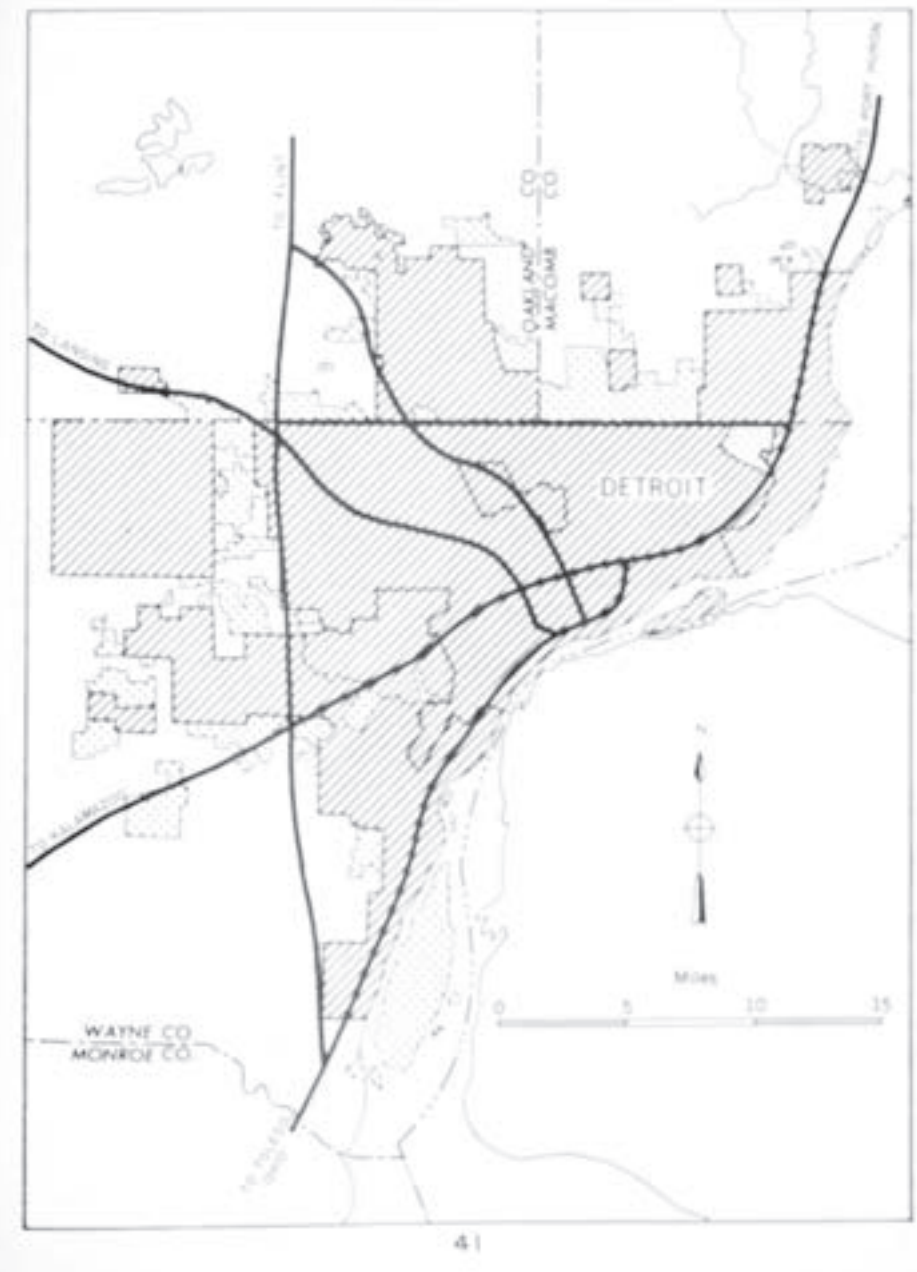


An aerial of the end of freeways construction of the R. L. Thornton and Stemmons expressways, Dallas, Texas, 1959

A common infrastructure seen all over the United States and the world are highways. Large, high-speed roadways that connect all reaches of the US to one another. The national interstate highway system represents a public infrastructure project which garnered mass appeal in the country and provided many years of federal constuction jobs.

The "Yellow Book" is a 1955 document compiled by the United States Bureau of Public Roads, showing the planned routing of the entire US national system of interstate highways. Included in the document were consequent maps showing every major urban area affected and a routing plan where the federal network would run through each city. This was all put together in preparation to pass legislation authorizing the construction of the entire roadway network, now know as the Federal Highway Act of 1956. These maps were then used as planning documents for the installation of the highways, following exactly, where the Yellow Book planned to place highways.

The catch is that the Yellow Book was created with a majority of influence from automotive industry executives and highway engineers. Paired with this was the stipulation then implemented by the federal government, agreeing to subsidize up to 90% of the associated construction costs so long as local municipalities did not alter the routing. If local governments abided by the route predestined in the Yellow Book, nearly all of the construction costs would be covered with federal funds. This meant that the currently laid plans hosted in the Yellow Book held immense power in dictating the effect that these highways would have on the various fabrics of each individual city.



The reason these highways were utilized as barriers is due to the immense space requirement needed construction. Oftentimes highways well depress into the ground when routing through residential districts or inhabited areas in order to reduce the flanking easement space needed for safe operation. This however digs a fifteen feet-deep canyon through once established neighborhood and business districts. At times, incorporating the service drives, these installations can require as much as 300 feet of width just to serve the highway. These highways are then major producers of noise and air pollution to the communities directly adjacent to them. The closeness can be seen in the image to the left, of a Texas highway from 1959, as the street grid is disrupted by such a major installment of transportation infrastructure.

Urban highways were realized as a tool of separation and segregation that would be almost funded in full by the federal government. These scars carved into the cities still remain today as a stark reminder of the ill intentions behind their placement.

Can Social Infrastructure be Retroactively Coded Into Cities?

What policies could be implemented now to enforce social infrastructure?

Walkable City - Fridays Only

To celebrate the warm weekend nights, some cities close off their downtown drags to cars and welcome in vendors, live music, and street seating for restaurants. These events happen few and far between while the weather permits, but what if . . .

Goodbye Main Street!

Hello Times Square in all fifty states. Street parking is damaging enough to the urban fabric of a downtown strip, so welcome in some bollards and convert Main street to a permanent pedestrian road. Outfit the new pedestrian highway with public amenities, restrooms, potable water, and ample street lighting for safety and security at all hours of the day. Build the space to be a thriving market of peacemaking during the day while being a safe haven for all who seek respite by night.

Pedestrian Main Streets create the opportunity to be a social bazaar, a source of life at all hours of the day and provide a constant presence of safety and resource to those directly adjacent.



How can architecture engage multiple occupancies within the same space? Especially with large scale projects?

Low-Income Mandates

Many cities employ zoning ordinances to mandate a small percentage of low-income or affordable units when new multi-family residential projects go up. It is a step in the right direction to passively build up affordable units. But what if . . .

Just Try to Gentrify This!

The low-income mandates for public projects should be increased tenfold! A minimum of 50% of units in every proposed new residential construction project should be permanently made both financially and physically accessible. Combating rising rent costs and preventing any further white-washing of the destruction of thriving cultural areas, a sweeping mandate of low-barrier, low-cost, accessible units without the ability to revert to market cost rent prices. The ubiquity of such a system could introduce critical nearby resources to those who are most in need of them, like hospital service or access to green space within the city.

Universal mandates of accessible units mean that existing communities do not need to break up for housing stability. Permanent housing becomes inherently accessible at all locations.



How can architecture avoid the separation of populations along socio-economical lines?

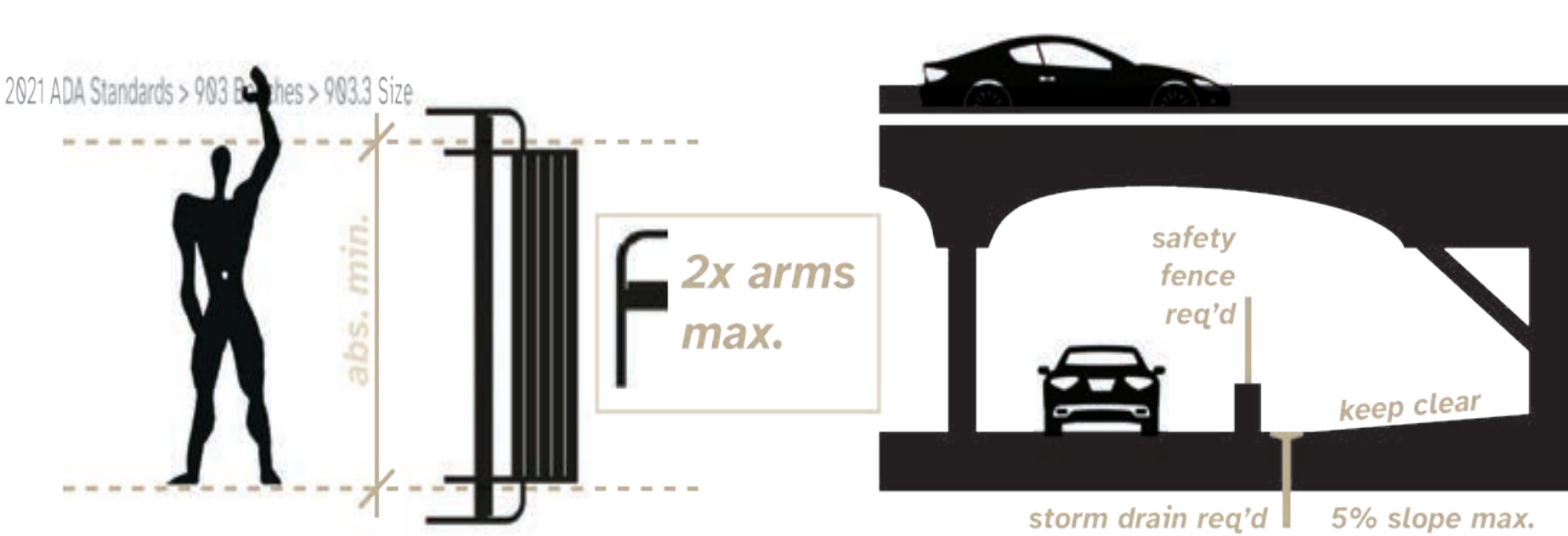
Infrastructure Reclamation

Defensive architecture has been an impediment to the populations that need to sleep rough. Retroactive design applications have littered public spaces in order to deter the “misuse” of public space. But what if . . .

Bench-Scaled Standards!

Fresh from a unanimous decision from the International Code Council comes new standards for public use structures in urban environments. Included among the humanist changes are reversals on hostile design implemented in recent years, including a repeal of overpass spikes and stoop bolts with updated regulations including a limit on bench tilt angles and number of arms. City leadership now welcomes the creative and resilient usage of all of its public structures, no matter who may be using it.

Amending current code to abolish defensive design that directly opposes rough sleeping populations can alleviate the stress of an unknown every night, allowing for more focus on other issues.



What can be learned from how people impose their ideas on the space leftover from infrastructure?

What can be Learned About Community from How People Are Housed Now?

Ecovillage Communities
United States

I am studying ecovillages because I want to find out what an off-grid community looks like as an intentional settlement. I want to better understand how these communities operate and support themselves apart from existing built infrastructure.

Ecovillages act as a mirror to bottom-up communities strengthened by the desire and capability to raise the quality of life through intention. Most commonly built from similar belief systems, ecovillages act as modern day examples of communities that capitalize on current knowledge and technique to create homesteads which operate independently from built infrastructure. These communities are able to share knowledge and labor to thrive in less-industrious conditions.

Pleace, Nicholas. "Neoreaction and Housing First: A Review Essay." *European Journal of Homelessness*, vol. 15, no. 2, 2021, pp. 269-288.



Communal Living

Low-Income Housing Units
United States

I am studying unsupported low-income housing units because I want to find out what these units can offer to the cause without any social service support. I want to better understand what can be done with these units, having been built by mandate, to incorporate them into a holistic response to homelessness.

As one of the leading causes of chronic homelessness in the United States is severe mental illness, there has been trouble when mandating the construction of low-income housing without proper support. Inadequate social support for people experiencing homelessness exists as a policy problem which should be addressed through governmental support of various, well-structured health care and social service provisions.

Martin, Edward. "Affordable Housing, Homelessness, and Mental Health: What Health Care Policy Needs to Address." *Journal of Health and Human Services Administration*, vol. 38, no. 1, 2015, pp. 67-89.



Affordable Housing

Tent Cities / Encampments
United States

I am studying Tent Cities and Encampments because I want to find out what fosters the sense of community and the benefit of nomadic camps. I want to better understand what a sense of community can do to benefit the people living in them as well as how these benefits can be employed outside of nomadic communities.

"Tent cities are not a new phenomenon" and the social fabric that holds them together and allows them to thrive under less than favorable circumstances should be acknowledged. Instead of local municipalities breaking up and dispersing these communities, they should be supported. It is not the best solution to homelessness but it is a step in the right direction.

Loftus-Farren, Zoe. "Tent Cities: An Interim Solution to homelessness and Affordable Housing Shortages in the United States." *California Law Review*, vol. 99, no. 4, 2011, pp. 1037-1081.



Shelter Housing

Temporary Shelter Villages
United States

I am studying Pallet prefab shelters because I want to find out what corners are being cut for the most affordable emergency housing. It is primarily short-stay housing but I want to better understand how these micro-shelters could play a role during periods of shelter renovations.

The Washington-based company Pallet has branched into housing those experiencing homelessness as well. Though these flat-packed 64 sf and 100 sf shelters are intended for very low-length stays, typically a month or so, the innovation behind their design shows how cost-effective relief structures can be. Alongside housing, Pallet also offers opportunities for residents to pick-up work and income during transitional periods.

Chang, Brittany. "A Washington company is creating \$5,000 prefab tiny homes that can be setup in 30 minutes to help solve the homelessness crisis." *Business Insider*, 24 Jan. 2021, <https://www.businessinsider.com>



Hotel Housing Conversion
California, United States

I am studying the effects of Project Roomkey because I want to find out whether hotel reuse is a viable method for ending homelessness. I want to understand the lasting effects on the residents throughout the time they spent in the hotels as well as the infrastructure needed to retrofit the hotels to facilitate every resident being permanent.

Project Roomkey is a social program instituted by the state of California during the pandemic. This program allowed for dormant hotel rooms to be allocated to house populations of people experiencing homelessness while maintaining proper social distancing and CDC guidelines in response to the pandemic.

U.S Dep't of Housing and Urban Development. "Learning From the Pandemic Response: Converting Hotels to Shelter or Housing." *PD&R Edge*, 17 May 2021.



Transitional Housing

Tiny Home Communities
Tallahassee, Florida

I am studying Tiny Home communities because I want to find out how ownership and community contributes towards housing mobility and quality of life. I wish to better understand the infrastructure needed for these communities in locations of differing demographic and populations.

The Dwellings is a Tallahassee tiny home community constructed with low-barrier renting in mind as it developed a dense, "New Urbanism-esque" community. Cost was a paramount concern and the successes of The Dwellings could be useful in forwarding the progress of tiny home communities and applying these ownership and urbanism tenets to other forms of communities.

Jackson, April, et al. "Exploring Tiny Homes as an Affordable Housing Strategy to Ameliorate Homelessness." *International Journal of Environmental Research and Public Health*, vol. 17, no. 2, 2020.



Permanent Supportive Housing

Novel Low-Cost Fabrication
Austin, Texas

I am studying Icon 3D printed concrete homes because I want to learn about the feasibility of advanced fabrication techniques when constructing low-income housing. I wish to better understand how these principles of construction could benefit prefabricated components being used in possible retrofit scenarios.

Icon's first foray into 3D printed architecture was a proof of concept project, the Chicon House, but they have refined their printing technology and have expanded into customizable 3D printed structures to aid those experiencing homelessness, those with very low-incomes, and the elderly. The 400 sf concrete-printed homes settle into the Community First Neighborhood, located in Austin Texas.

Jayson, Sharon. "Around The Corner: 3D Housing Designed for the Homeless and Needy Seniors." *Kaiser Health News*, 9 Mar. 2020, [khn.org](https://www.khn.org).



Shelter Housing Conversion
Helsinki, Finland

I am studying the Alppikatu 25 because I want to find out the long-term benefits and challenges of the adaptive reuse of shelters. I wish to better understand the infrastructure needed to accommodate the full retrofitting of temporary housing into permanent housing.

Alppikatu 25 is a Finnish emergency shelter that was converted into permanent housing as a part of the Y-Foundation's work in Finland. Located in Helsinki, the all-male shelter was one of the first buildings converted to supported housing. The conversion lasted 4 years from 2008-12 and completely re-imagined the building's interior to support apartments, support spaces, and community spaces where the entire residence can contribute toward a shared space.

A Home of Your Own—Housing First and ending homelessness in Finland. Y-Foundation, 2017.



Highly Top-Down Supportive Housing

Can Social Infrastructure be Retroactively Coded Into Cities?

What policies could be implemented now to enforce social infrastructure?

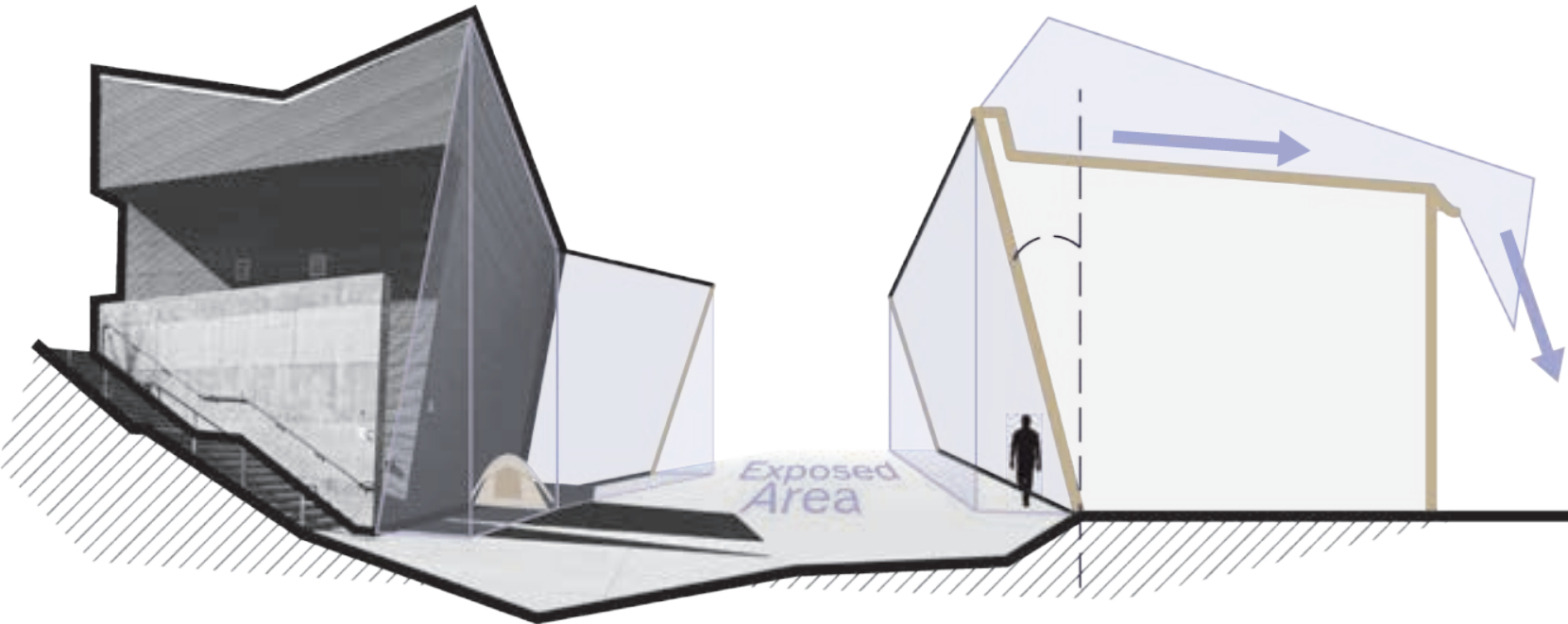
Awning Culture

Awnings provide quality sheltered space at a storefront for customer comfort and exterior browsing. The awnings are an applied piece of design existing as an interchangeable piece separate from the architecture. But what if . . .

“Street Wall” Awnings!

Instead of treating an awning as a secondary architectural element, or designing specific awnings for building facades, buildings as part of a street wall now require a 5% outward slope into the public airspace. The sloped facade paired with proper drainage at the roof and parapet will allow for all weather to be directed through roof water management assemblies instead of falling on sidewalks below, or collecting and falling from the building face. This creates an integrated strip of shelter along the street wall, useful by all populations in all weather.

Folding in the building facade creates tension points at the base of the street wall, apt for slower movement. It simultaneously creates sheltered space to use for respite.



How does infrastructure greet the larger public purposefully and accidentally? How (de/at)tached can it be?

Doorways Aren’t a Bad Option

Within urban settings, doorways provide a place for many of those experiencing homelessness to rest for the night. It provides a sheltered stoop above the ground for people to rest in the open, discouraging unprovoked violence. But what if . . .

Architecture of Doors!

These spaces of safety should be celebrate by architects and city planners alike, a solution to increased safety has been in a ubiquitous vernacular for ever! Pull back the storefront, accommodate the space for those who can use it. Pair it with streetlights and mildly tilted sills to ensure the maximal comfort of those who need the space most desperately when it is not in use.

Covered storefronts allow protection from the elements and easily adaptable municipal infrastructure to allow safer sleeping within the urban fabric while the shelters are at capacity.



How does infrastructure greet the larger public purposefully and accidentally? How (de/at)tached can it be?

What Happened in Detroit?

How did the Motor City accept federal highways?



Detroit, 1951



Detroit, 2010

Detroit, with already strained race relations from the Race Riots of 1943, was nonetheless growing throughout a period of development leading up to the 1950s. It was then the highway system’s installation which sparked the urban renewal of Black Bottom and sequestering of the neighborhood from the city. US I-375 is a short off-shoot expressway that was overbuilt for what it needed to be. But it was built as such to segregate a minority community from the urban core of the city. The fallout from this catalyst moment led only to further strained race relations until the late 1960s where a second major uprising took place. This tenuous period led to a massive burst of “white flight” from the city, peaking at over 80,000 residents having left the city the following year.

The dense neighborhoods of Detroit provide an ample opportunity to study how the installation of the highway network impacted social, economic, and urban fabrics. With no shortage of disrupted communities or areas of disinvestment, the still recovering city hosts miles of highways trenching through neighborhoods and a perfect opportunity to explore what options can be installed alongside it.

1950-1960					
Detroit Loses 20% of its population to the suburbs					
1943 Detroit Race Riots of 1943	1949 National Housing act of 1949 Passed	1956 National Highway Act passed, provides city of Detroit funds for Urban Renewal	1956-1965 Black Bottom is Demolished Lafayette Park redeveloped	1967 Detroit Uprising of 1967 begins in Virginia Park Neighborhood	1968 White Flight Spikes at 80,000 Residents

How Do People Impose Themselves onto Highway Infrastructure?

What methods work best to leach benefit out of the massive infrastructures?

Saticoy - Tiny Home Village



Lehrer Architects // Los Angeles, CA // 2021

The Saticoy Tiny Home Village is not a perfect example of an integrated architectural strategy, but it is a case study for how to maximize the use of a throwaway site. Tucked between a 10-lane highway and an industrial complex, this very oddly shaped site was utilized well by the architect, planning around the odd boundaries and making the best of the land that is afforded. Nested right up against the sound wall, the Pallet shelter home village proves that these sites can be salvaged.

Claibourne Expressway



New Orleans Gov’t // New Orleans, LA // 1968

The Claiborne Highway is an act of middle-late 20th century redlining, installing a massive infrastructural project which cuts through two miles of predominantly and historically black neighborhoods. There now exists a movement to reclaim the space and develop a new urbanism culture throughout the corridor. Removal of the highway opens the corridor to new construction without the best interest of the citizens, and a huge influx of traffic, contingent on a better route through the city.

The space created from the highway was left unengaged, and built to facilitate only traffic above and below. It was designed only for the transportation of cars and should have incorporated the benefit of the surrounding community. Reclamation efforts include using the sheltered spaces to gather, and reintroduce the thriving community aspects that once existed. Reclaiming the space allows full community control over the final programming of the space. Studies explore the potential effects of removing the expressway but do so largely irrespective of input from the residents of the affected area. Benefit of such moves should be universal.

The Crib - MI Lighthouse Board



Intentional

An Intentional infrastructure is one that includes a dual purpose integrated into the design work. Merging the two purposes together to allow both to function. In the case of a lighthouse, the light will need tending to and operation daily, meaning that the lighthouse keeper will need to be close by at all times. In the case of the North Manitou Shoal Light, also known as The Crib, the remote lighthouse sits in the middle of a strait between Michigan and North Manitou Island. The remote location means that the well-being of the lighthouse keeper must be accounted for and built directly into the larger infrastructure structure.

Micro Refuge - L. Ibarra and R. Carro



Unintentional

An Unintentional infrastructure allows for human imposition without meaning to. In the case of the Micro Refuge, located between the bones of a bridge above the Landwehr Canal, the imposition is made quite clear. It was built as a means to reinforce the power which humans have to shape the built environment around them. The imposition relies on the unintentional space created by the bridge to serve only the function of the bridge. This small installation slips between the structural struts of the bridge and creates place where there was onlybyproduct space before.

paraSITE - M. Rakowitz



Impositional

An Impositional infrastructure is one that is completely reprogrammed to fit the needs of the humans that are now utilizing it. paraSITE showcases this typology perfectly as the exhaust air from industrial sources is utilized to aid in constructing a temporary shelter. Inflating a fabricated plastic shell, this project is an exploration of what a byproduct can be repurposed to do. In this case the byproduct is only air but it can still be used to create space through human innovation and imposition.

By utilizing the leftover space created from the installation of urban highways, a flexible, infrastructural architecture can be installed to begin to repair social, urban, and economic fabrics of highway-adjacent neighborhoods, business districts, and all other spaces negatively affected by the highways

How Can This Architecture Be Realized?

Site Selection

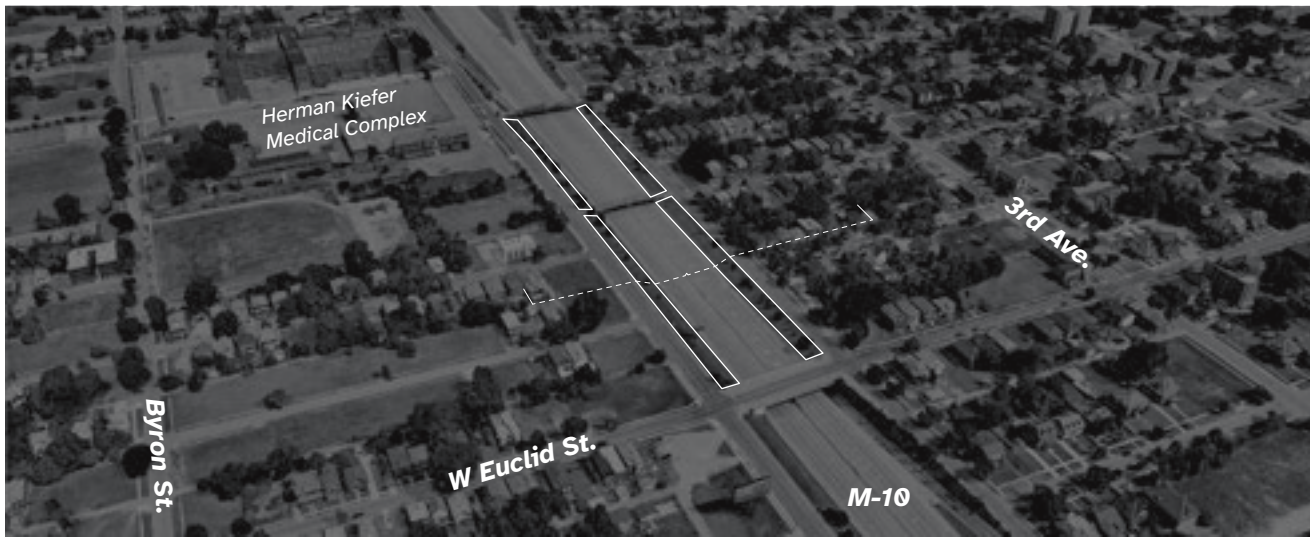
Where, in Detroit, has highway infrastructure severed a neighborhood or community in half? Outlining all of the highways built post 1940, it is not hard to find a site historically affected by some extent of redlining.



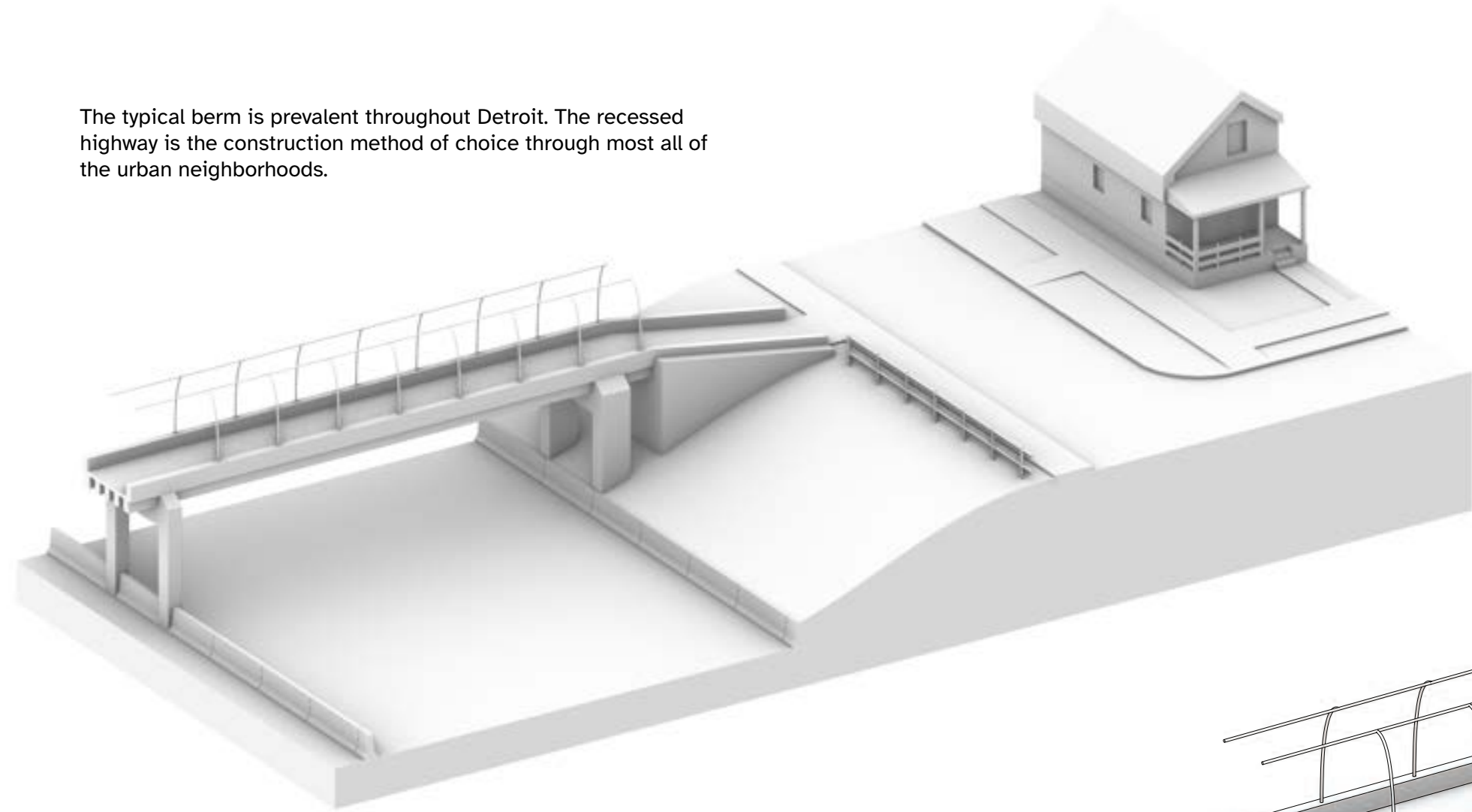
The area north of current day New Center is the Virginia Parks neighborhood, one of the many thriving, predominantly black neighborhoods of early 20th century Detroit. It is also a neighborhood which was severed in two from the construction of the John C. Lodge Freeway, or M-10. The Lodge, with a design speed of 55 mph, commonly sees traffic moving at speeds much higher than regulated. Small shoulders and short entry and exit ramps mean that traffic is brisk and intense, generally causing far more noise pollution than initially designed for.



The site selected should be of a similar quality to the one shown here, just north of Detroit's New Center neighborhood. The sloped easements act as a pseudo-berm and sound reflector for the traffic, yet the low height and low grade does not act as a sufficient noise controlling device. These areas are also situated between pedestrian overpass walkways and a roadway overpass with sidewalks, dodging the on and off ramps of the highway and leaving usually straight and square sites. However, this is not required, as the architecture being installed is adaptive to whatever shape the site may be.

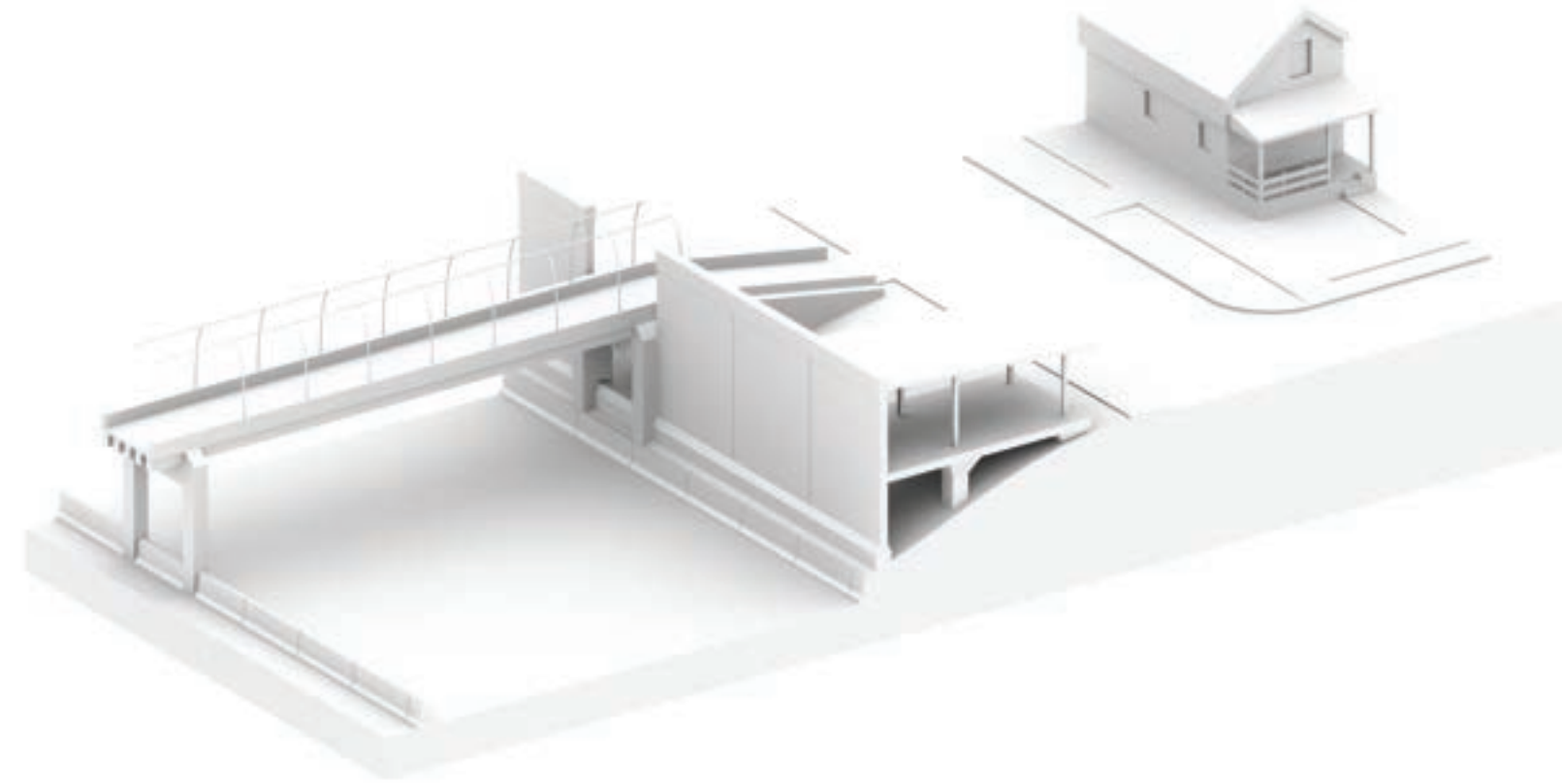


The typical berm is prevalent throughout Detroit. The recessed highway is the construction method of choice through most all of the urban neighborhoods.



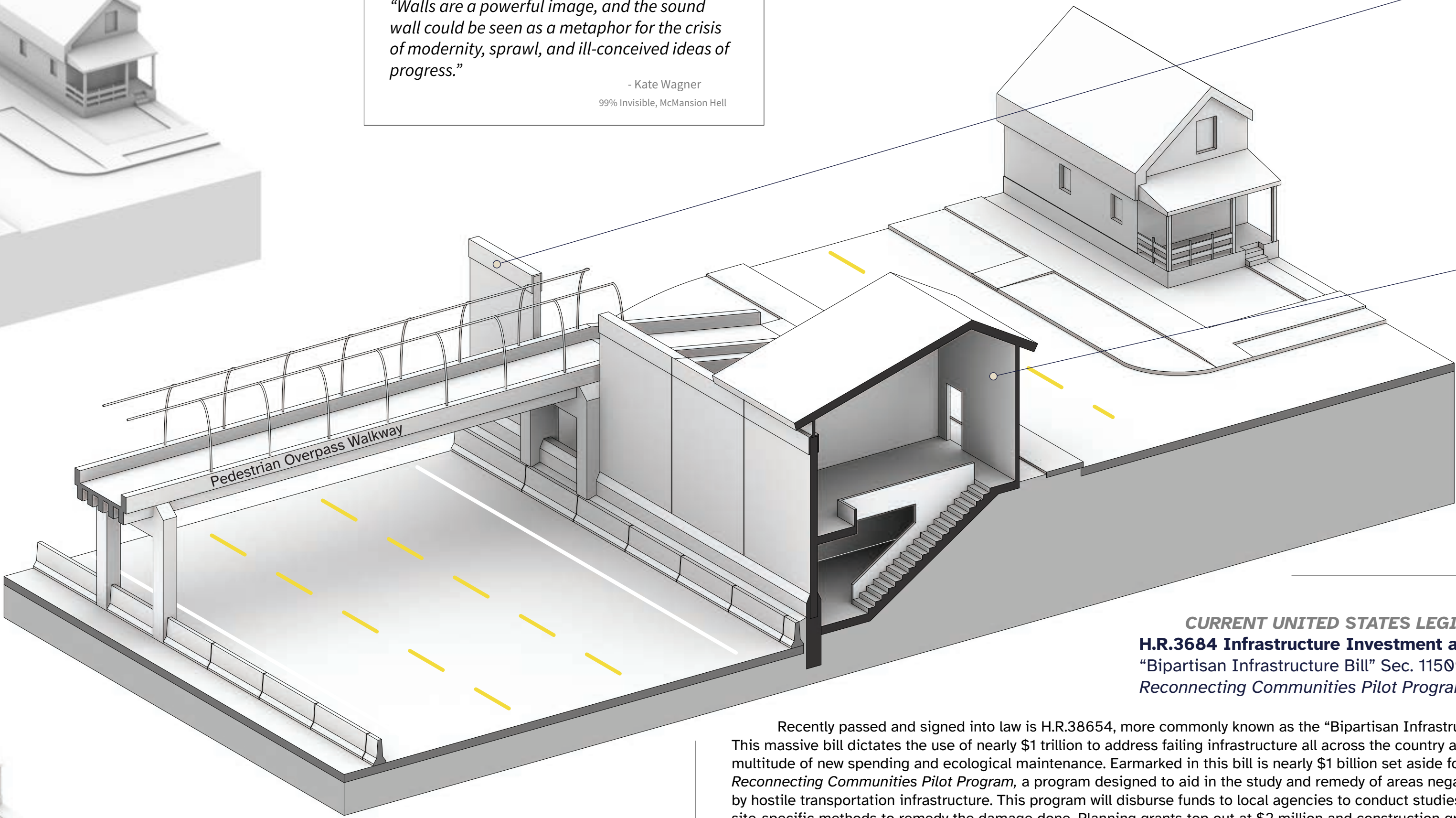
The architectural intervention does not need to be so developed so as to enclose space. It could exist as a newly graded and prepared site and provide ample benefit to its adjacent communities. It could be a concrete pad, elevated out of the way of watershed. It could be a variety of programs and structural typologies.

One thing that must remain a constant is the addressal of the highway effects. Before addressing the communities adjacent, it must primarily remedy the ill effects of the highway while **simultaneously** benefitting whatever other occupancy it faces.



“Walls are a powerful image, and the sound wall could be seen as a metaphor for the crisis of modernity, sprawl, and ill-conceived ideas of progress.”

- Kate Wagner
99% Invisible, McMansion Hell

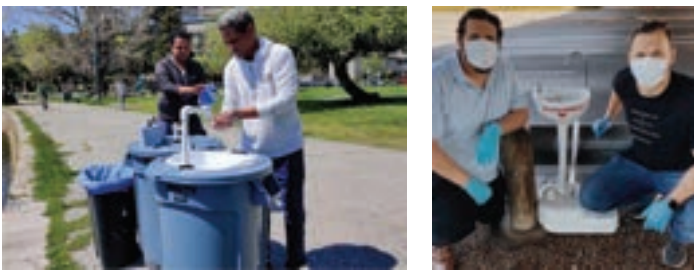


MATERIAL PRECEDENT
Geisel Library
William Pereira
La Jolla, CA
1968-70



A Post-Soviet icon of brutalism, the Geisel Library and brutalism as a whole are aesthetically composed of the same muscular structure and materials which are commonly used in the construction of highway infrastructure. An architecture developed within the standard kit of parts used to build this infrastructure could be expressed using the tenets of brutalism to either blend into the muscular vernacular or stand as a powerful icon alongside

METHODOLOGY PRECEDENT
Love Sinks In
Love Beyond Walls
Atlanta, GA
2020



During the height of the COVID-19 pandemic, non-profit, Love Beyond Walls developed and deployed portable hand washing stations all throughout the city of Atlanta. Most notably, these sinks made it into public parks, and under highway overpasses, both area with high densities of people experiencing homelessness. Not only was it a hygienic necessity during the time where COVID-19 was still being researched, but it provided these locations with a sense of dignity during a time where all humans were defending against a common enemy that did not discriminate. A new architecture bolstering these same locations could provide a similar benefit to transient communities that could make better use of loosely programmed places.

CURRENT UNITED STATES LEGISLATION
H.R.3684 Infrastructure Investment and Jobs Act
“Bipartisan Infrastructure Bill” Sec. 11509
Reconnecting Communities Pilot Program

Recently passed and signed into law is H.R.38654, more commonly known as the “Bipartisan Infrastructure Bill.” This massive bill dictates the use of nearly \$1 trillion to address failing infrastructure all across the country as well as a multitude of new spending and ecological maintenance. Earmarked in this bill is nearly \$1 billion set aside for the *Reconnecting Communities Pilot Program*, a program designed to aid in the study and remedy of areas negative impacted by hostile transportation infrastructure. This program will disburse funds to local agencies to conduct studies and find site-specific methods to remedy the damage done. Planning grants top out at \$2 million and construction grants top out at \$5 million of federal government subsidies composing up to 50% of a project's budget.

With serious weight now being thrown behind the retroactive improvement of these sites across the country, it is now more important than ever to be making sure that the implemented infrastructure will not be a shallow-scoped bandage on deeper issues of urbanism and humanist design.

“A billion here, a billion there, and pretty soon you're talking real money.”

- Sen. Everett Dirksen
Senate Floor Leader 1959-69, R-IL

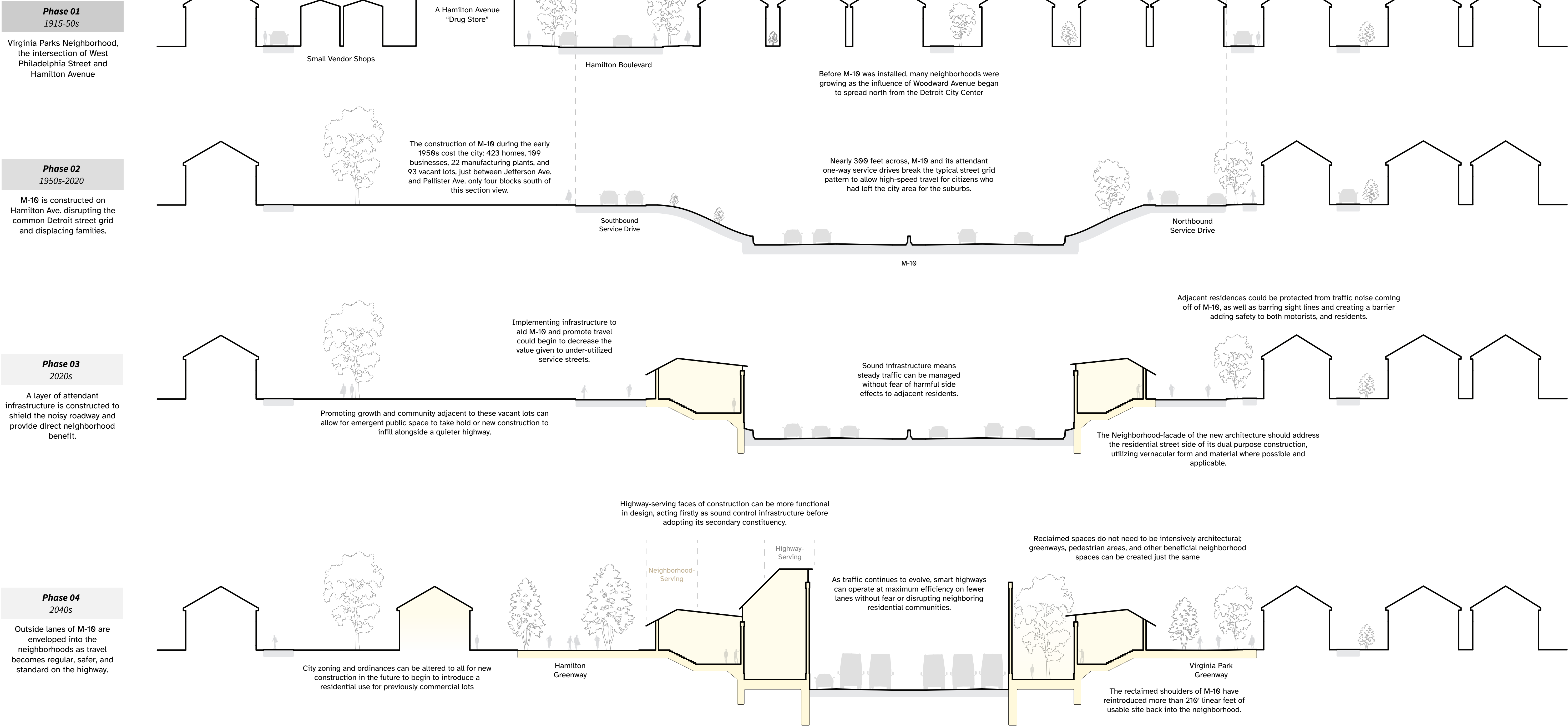
“I think it's wonderful to be able to say and have the goal that this historic investment will advance racial equity [...] It's another thing to distribute these funds in a way that has impact.”

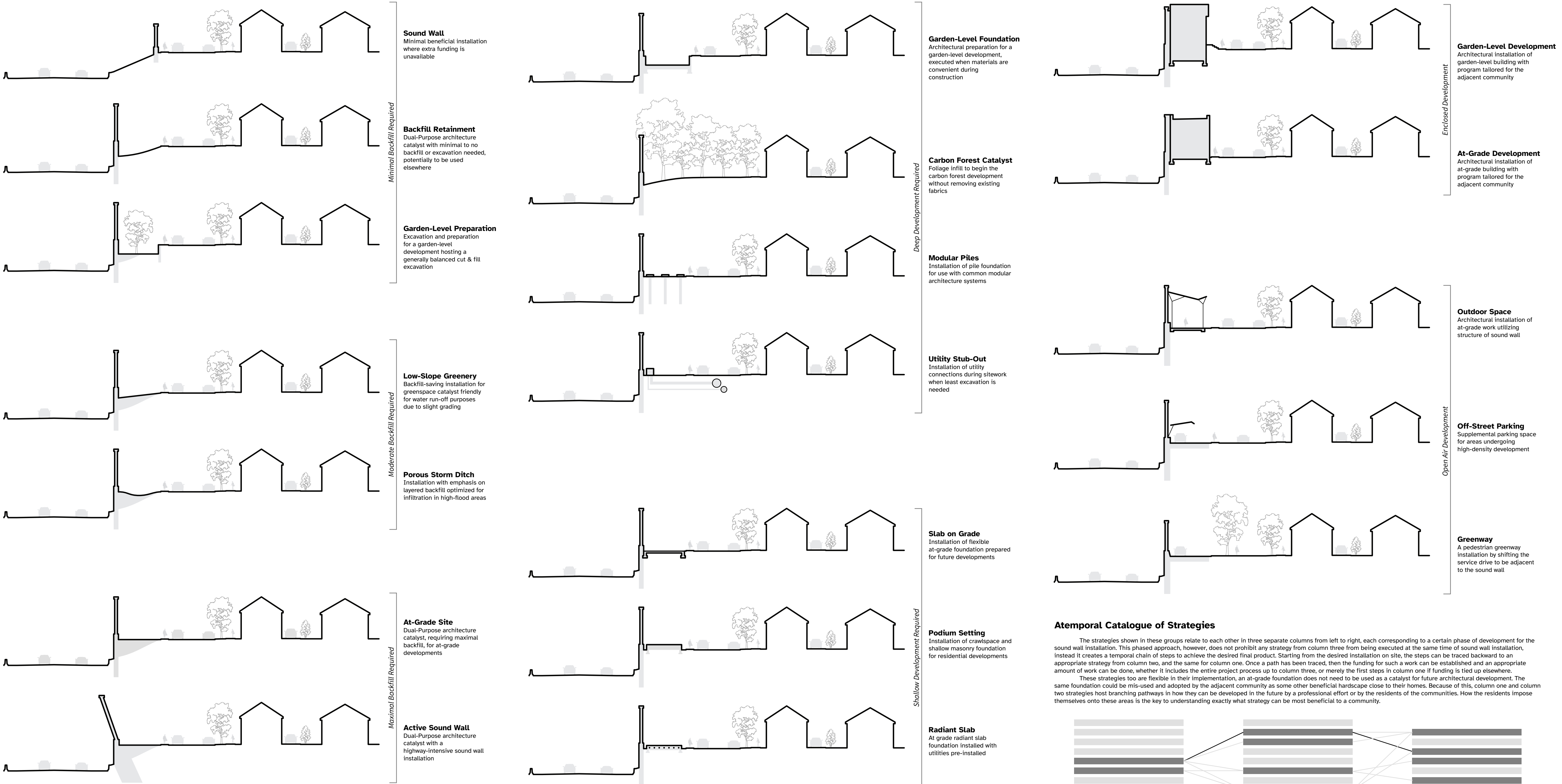
- Deborah Archer
On the Bipartisan Infrastructure Bill H.R. 3684
Dir. Center on Race, Inequality and the Law, NYU

Planning Grants Disbursement
\$30 million per fiscal years 2022 through 2026, totaling **\$150 million**
Grants are awarded to eligible entities in amounts of up to **\$2 million** not to exceed more than **80%** of the research's total budget

Capital Construction Grants Disbursement
\$65 million for fiscal year 2022
\$68 million for fiscal year 2023
\$70 million for fiscal year 2024
\$72 million for fiscal year 2025
\$75 million for fiscal year 2026
Totaling **\$350 million**
Grants are awarded to eligible entities in amounts of no less than **\$5 million** not to exceed more than **50%** of a construction project's total budget.
Separate federal funds can be solicited to subsidize up to a total of **80%** of a construction project's total budget.

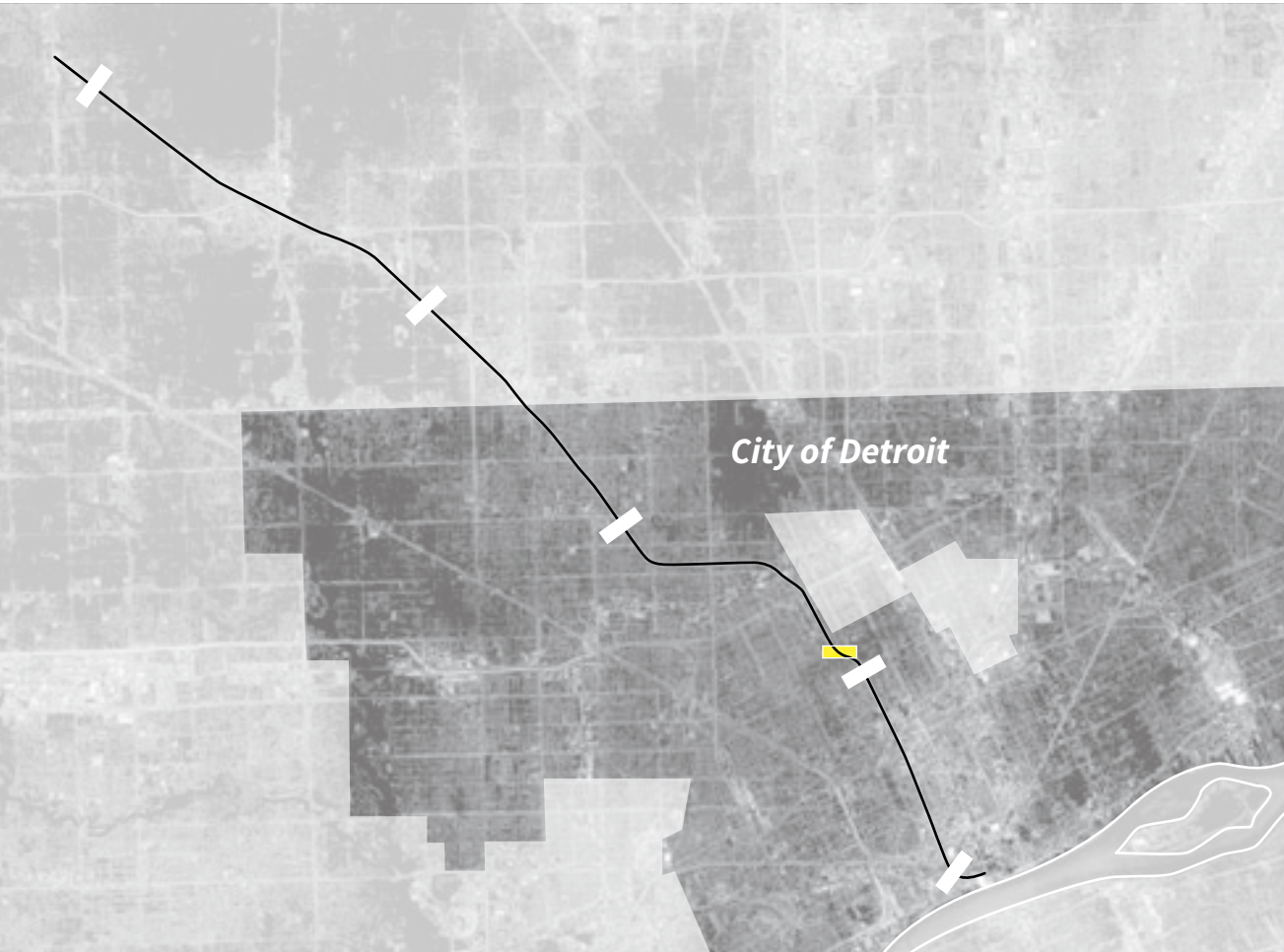
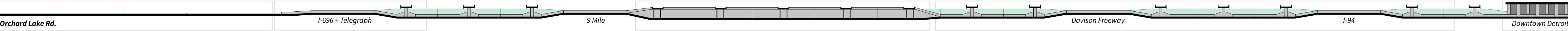
How Can Torn Urban Fabrics Be Mended?





What Highway Edge Conditions Exist on M-10?

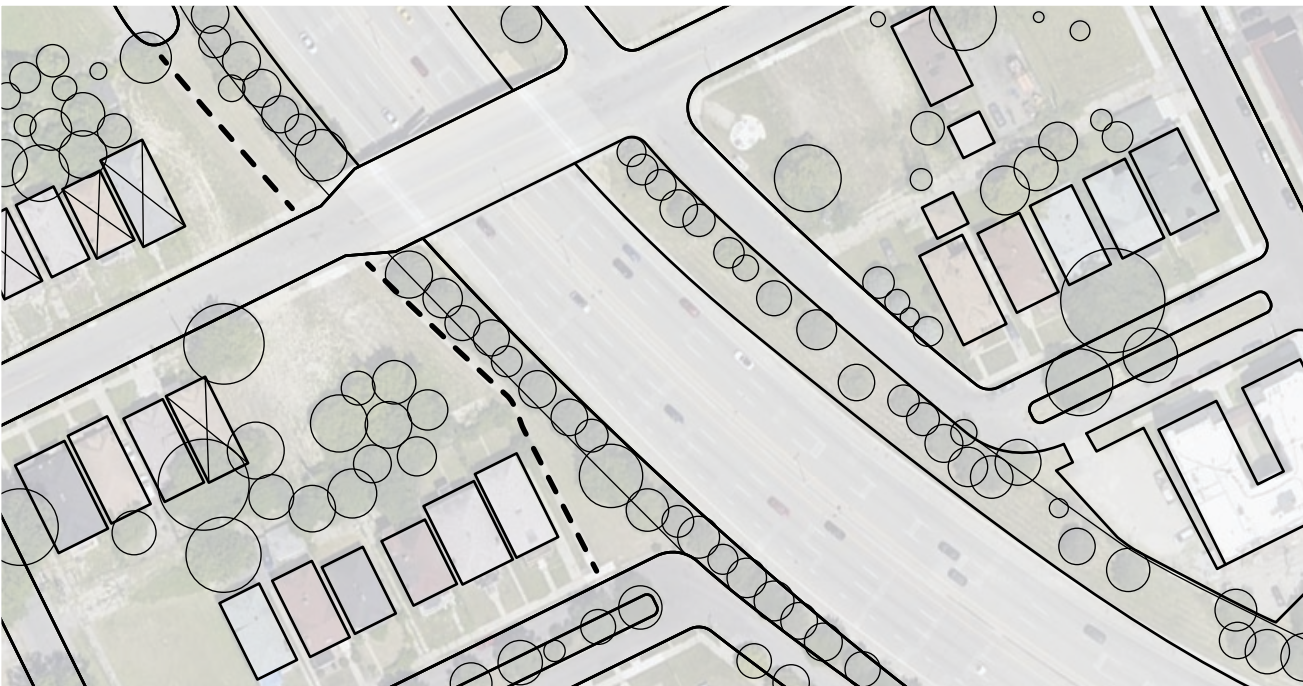
What conditions exist and what conditions could maximize benefit from architectural intervention?



The recessed typology provides an opportunity to engage closer to Downtown Detroit. Typically flanked by residential districts and neighborhoods, sound walls will be definite addition to M-10 if there is any investment going to be made. This area is also heavily researched as it is within the city limits and forefront to redevelopment efforts like the Detroit Future City framework. This research can then synergize with those efforts and begin to catalyze the newly planned changes to the composition of Detroit's neighborhoods.

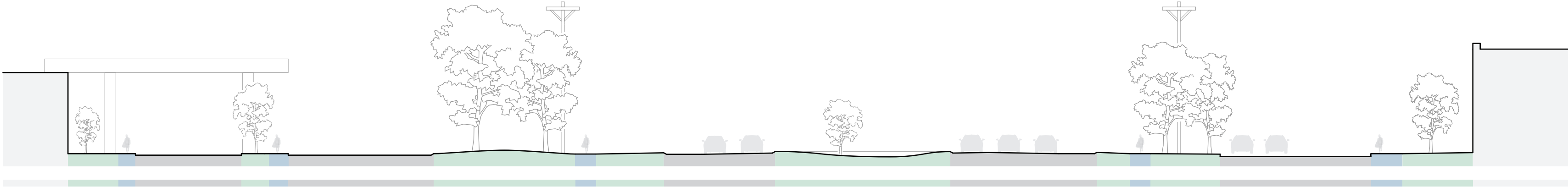


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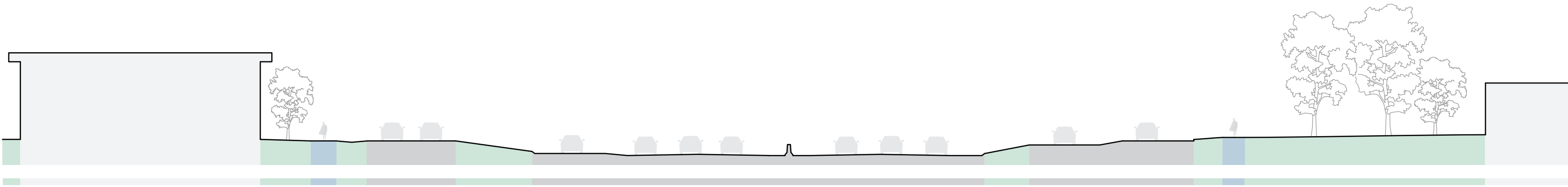
Grade

This flat typology exists at the lower design speed northern miles of M-10. A large median replaces the jersey style barricades as a means to separate the lanes. The flatter and wider profile demands extra flanking space for run away vehicles to safely come to a stop.



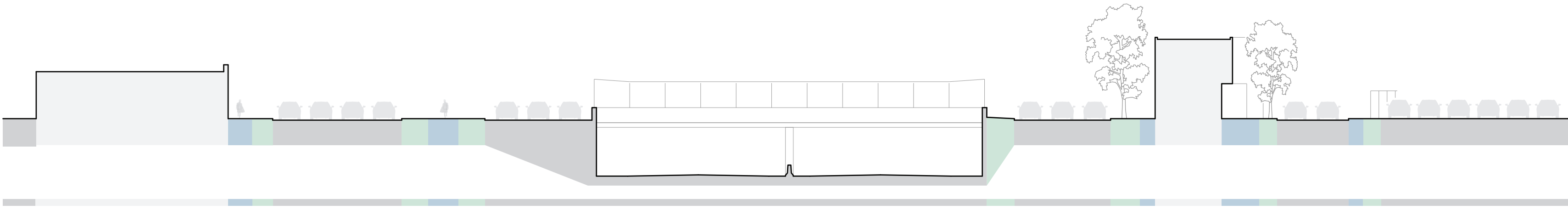
Shallow

This typology is prominent as the grade condition begins to recess into the ground. The on and off ramps do not require any walls and the service drives are typically often used for adjacent business and commercial district access.



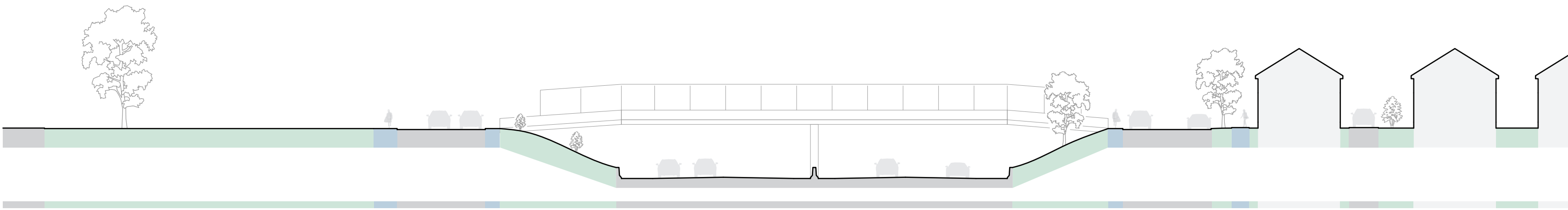
Walled

This typology is dominant in the middle stretches of M-10, level with the city of Highland Park. These service drives are heavily trafficked as they blend between access to adjacent business and residential districts and interface with the greater Detroit street grid, tilted ~26° off axis.



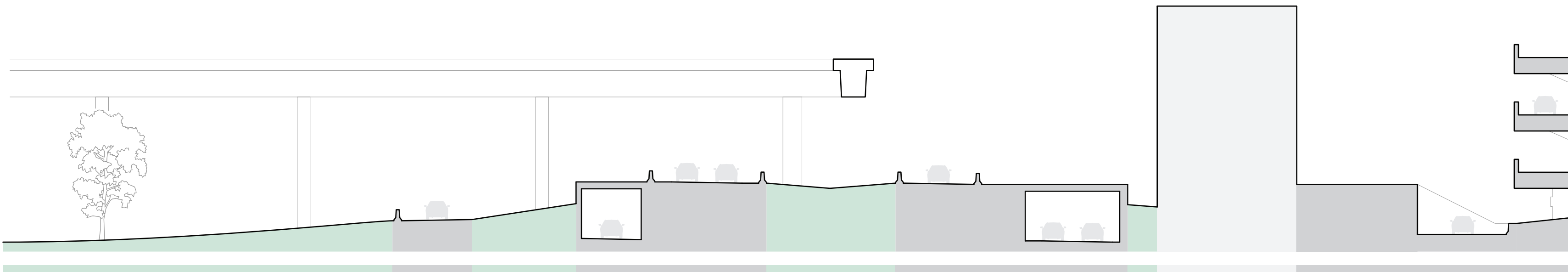
Recessed

This typology makes up the bulk of the lower half of M-10, as it routes through the urban neighborhoods of Detroit. The depth of the road varies but it is often more than 15 feet, making for sometimes very steep berms to either side of the road as they vary from 20-50 feet in depth.



Tunneled

This typology is only seen in Downtown Detroit as M-10 enters the urban center. The highway routes underneath Huntington Place and empties out onto Jefferson Avenue.



Section at Middlebelt Rd.



Section at Southfield Rd.



Section at Myers Rd.



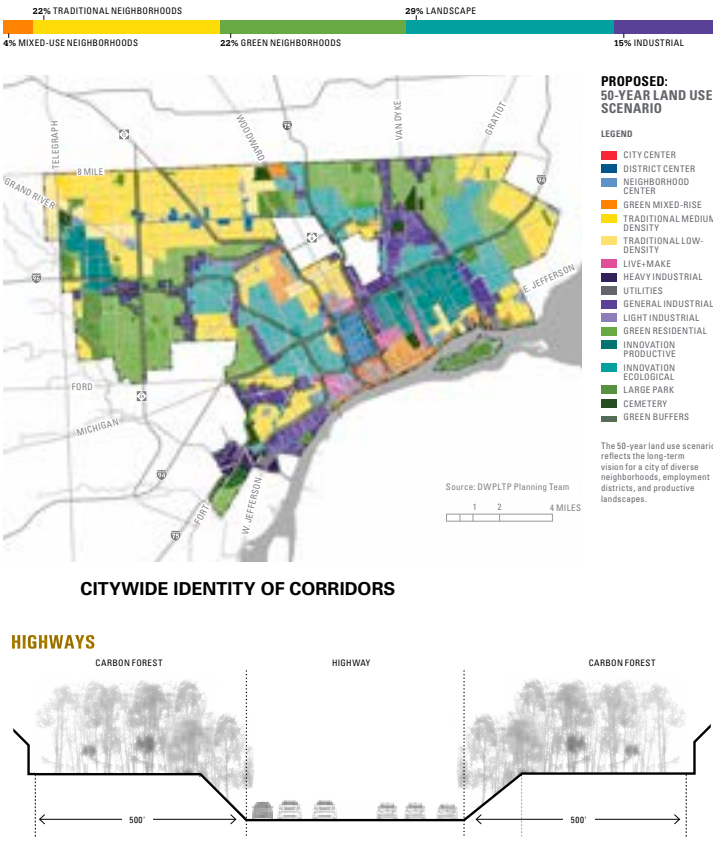
Section at Philadelphia St.



Section at W Congress St.

How Could These Strategies Be Employed?

How can these installations affect their adjacent communities?



Locating and Installation

The selected site for this work was chosen by first deciding on the recessed highway edge condition, and then selecting a site which hosts an interesting series of adjacencies within the urban fabrics of Detroit. This site, between Glynn Ct. and Calvert Ave. hosts these unique conditions in that M-10 rounds itself through this area, not cleanly dissecting the street grid. Instead, there are triangular lots left over as remnants of retroactive highway construction, and disrupted service drive access leading to even more unwanted and vacant land.

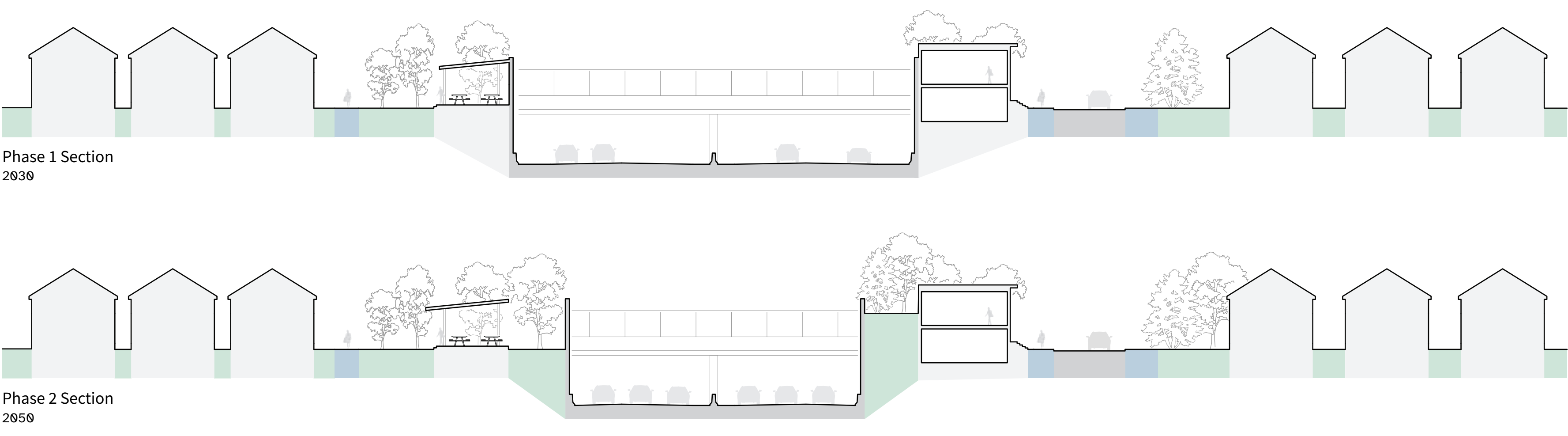
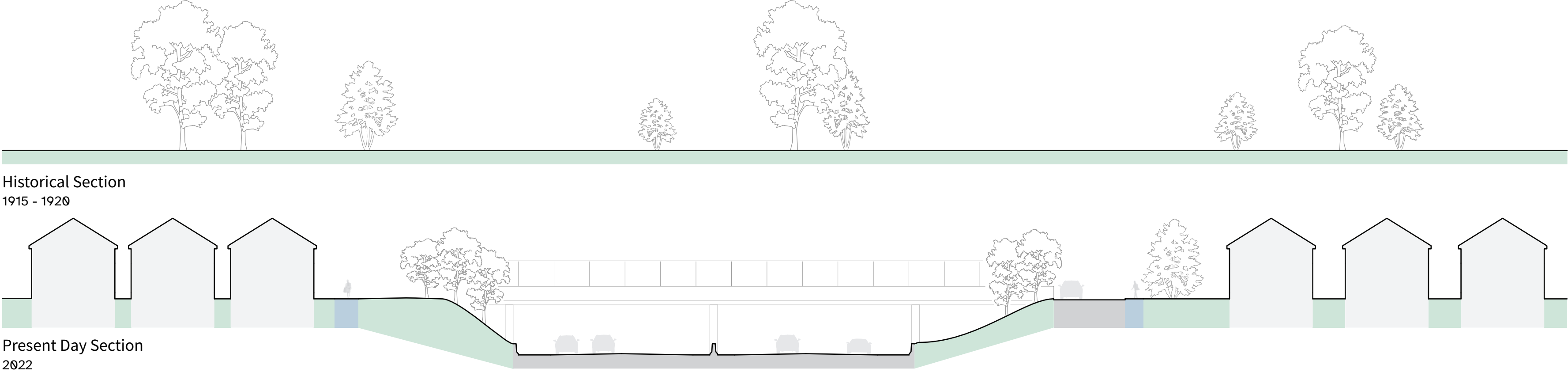
From the 2012 Detroit Strategic Framework Plan, this area is already denoted as low vacancy residential and is planned to to be Traditional Low Density from the figure to the left. Low Density housing typologies provided in the same framework plan consist of many vaireties, though all seem to include copious amounts of green space and public areas.

The roadway redevelopment offered from this plan addresses the exact area with which this work is concerned. With dense variations on roadway sections depending on the vehicle class which will be utilizing the road most, the highways offer ample space to begin planting carbon forest. Calling for a 500-foot separation between highways and neighborhoods, this seeks to line most all highway embankments with carbon offsetting flora. The plans laid in this Framework Plan are very informative in beginning to test the conditions and strategies used in the exploration of this site.

Collecting ample field evidence, the blocks surrounding this site and this stretch of M-10 are victim of some amount of disinvestment and blight. The historic mansions on Calvert have fallen to decay and abandonment, as well as many other structures seen in travelling further north. There are ongoing efforts to renovate and restore some of these properties which hints at a promising future for this area. Further north, the effects of Highland Park are visible, as the city limits cut off but the neighborhoods spill over to the south, not quite reaching as far as Collingwood St.

Understanding the available area created from constructing sound wall sites, the embankments capping off Glynn Ct. can be best fit to meet the low density housing principles. Nodes of public spaces act as stopper for the end of axes created by the highway. The rest of the areas are used for hosting foliage and contributing toward the carbon forest goal, if only as a starting point.

Vacant lots are engaged for more forested area and numerous DLBA lots now host shared park spaces. The close by park at Calvert and Woodrow Wilson has fallen into disrepair, making new public space a well needed commodity for the nearby communities. Further speculations into a future where there is less reliance on highway infrastructure forecast a possibility of shrinking the highways by an outside lane and reclaiming that extra space for the neighborhoods, and opening another round of strategic investment as construction takes place.



Garden-Level developments seat themselves right up against the sound walls, benefitting from a sturdy rear wall to attach to. With a depth of thirty to forty feet, the build could easily be split down the middle, hosting four units total from this small lot addition.

Small green spaces infill the spaces between the buildings to allow safe separation as well as contribute to the carbon forest and increase green space density



Public spaces like these are not the result of an intesely architectural instalment, but instead a public imposition on the newly available space as the public sees fit. The flexibility which the green space provides is more local to the communities surrounding it. The opportunity for development is always present.



These public gather place installments make use of an existing foundation and support structure provided by the sound wall. It could exist as merely public space akin to a park, or it could be used for an outdoor sleeping area or a storm shelter. The rigidity which the foundation and sound wall provide make this strategy one that can provide a massive benefit to a community that could utilize it as a more permanent type of imposition that can still be altered and adjusted as needed.