THE OPEN AGENCY PROJECT:
Operations in the Creative UnCommons

by

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B.S. Brain and Cognitive Science
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Submitted to the Department of Architecture on January 15, 2010 in Partial Fulfillment of the Requirements for the Degree of Master of Architecture.

Abstract:

The Open Agency Project proposes an experimental architecture office as an agency for ideas and inventions. By actively seeking unconventional design opportunities, taking advantage of loopholes in restrictive codes, and hacking/tinkering rather than master planning, this office aims to insert architectural ideas into unexpected places and spur the imaginative rethinking of familiar problems. The open-source sharing of research, process and design is embraced and DIY attitudes are encouraged in order to make good design accessible and intelligible to everyone. The Open Agency Project aspires to harness bottom-up action to transform ideas into realities, and ultimately to transform reality.

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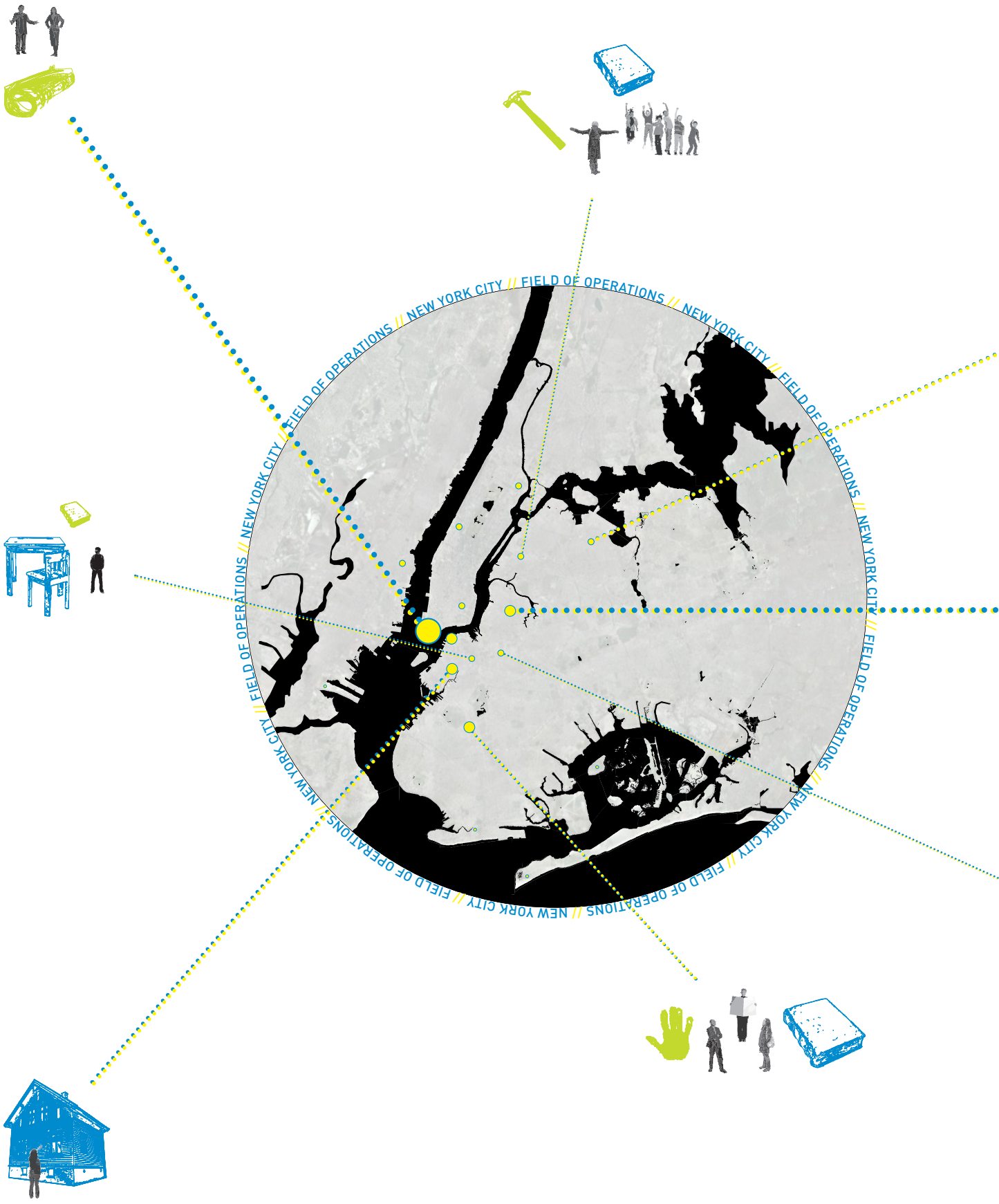
NEW YORK CITY // FIELD OF OPERATIONS //

The Open Agency Project:
Operations in the Creative UnCommons

THE OPEN AGENCY PROJECT
http://openagencyproject.com

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THE

OPEN AGENCY

PROJECT

→ **as in OPEN-ing.**
Find a loophole in the existing rules for architecture to play a key role.

→ **as in OPEN source.**
Share all design explorations + findings, as well as the shoulders you stand on.

→ **as in OPEN operation.**
Create an open process that invites feedback and leads to better design.

→ **as in OFFICE.**
Rather than waiting for problems to solve, reinvent the architecture office as an agency for ideas + inventions.

→ **as in AGENT.**
Everyone is an agent of the built environment. Experiment with different "hats" to find the most effective one for each project.

→ **as in ACTION.**
Thinking is important, but so is doing. Take action to transform ideas into realities, and thus transform reality.

DESIGN PRINCIPLES:

1. **Be imaginative.** Insert architectural ideas into unexpected places with designs that inspire imaginative rethinking of familiar problems.

2. **Be smart.** "Hack" and "tinker" rather than reinventing the wheel.

3. **Be efficient.** Make architecture that is small but effective. Seek efficiency with the minimum intervention and the maximum impact.

4. **Be fast.** Embrace the iterative process. Aim to produce more design value in a shorter amount of time.

5. **Be green.** Reuse and reclaim materials when possible, address lifecycles of components, and use local materials.

OPERATIONAL STRATEGIES:

1. Know the rules in order to find the loopholes (i.e. "cleverage").

2. Support bottom-up action and DIY attitudes by making good design accessible and intelligible to everyone.

3. Appropriate design processes from other design disciplines outside of architecture (think product design) who more actively experiment with process.

4. Collaborate and solicit feedback from different experts to optimize designs while staying fast and small.

5. Share research, process and designs openly.

Introduction
What is the Open Agency Project?

The Open Agency Project is an experimental architecture office, operating as an agency for ideas and inventions. The architect, as the primary "agent" of this agency, does not wait for clients in order to kick-start a project. Rather, she seeks unconventional design opportunities by examining the world around her for problems that need solving, and takes action. Empowered by versatility, the architect tries on different hats to find the most effective one for each project. Further, she believes in using architectural design as a means of giving agency to those who desire to change their built environment.

The Open Agency architect actively searches for openings in which to operate. When confronted by seemingly restrictive rules and codes, the architect hunts for loopholes[1] that allow her to push the bounds of convention. By inserting architectural ideas into unexpected places, she aims to spur the imaginative rethinking of familiar problems.

1. For more on loopholes and their potentials for architecture, see Jones, Wes. "Cleverage: finding and exploiting loopholes for architectural advantage." Course notes. Options Studio. Department of Architecture, Harvard Graduate School of Design. Fall 2008.

During the design process, the architect hacks and tinkers in the hopes of building upon good ideas, rather than repeatedly master planning from scratch. Research, process and design is shared through an open-source model in order to contribute to the greater field of architectural knowledge. Moreover, DIY (do-it-yourself) attitudes are embraced along every step of the way in order to make great design accessible and intelligible to everyone.

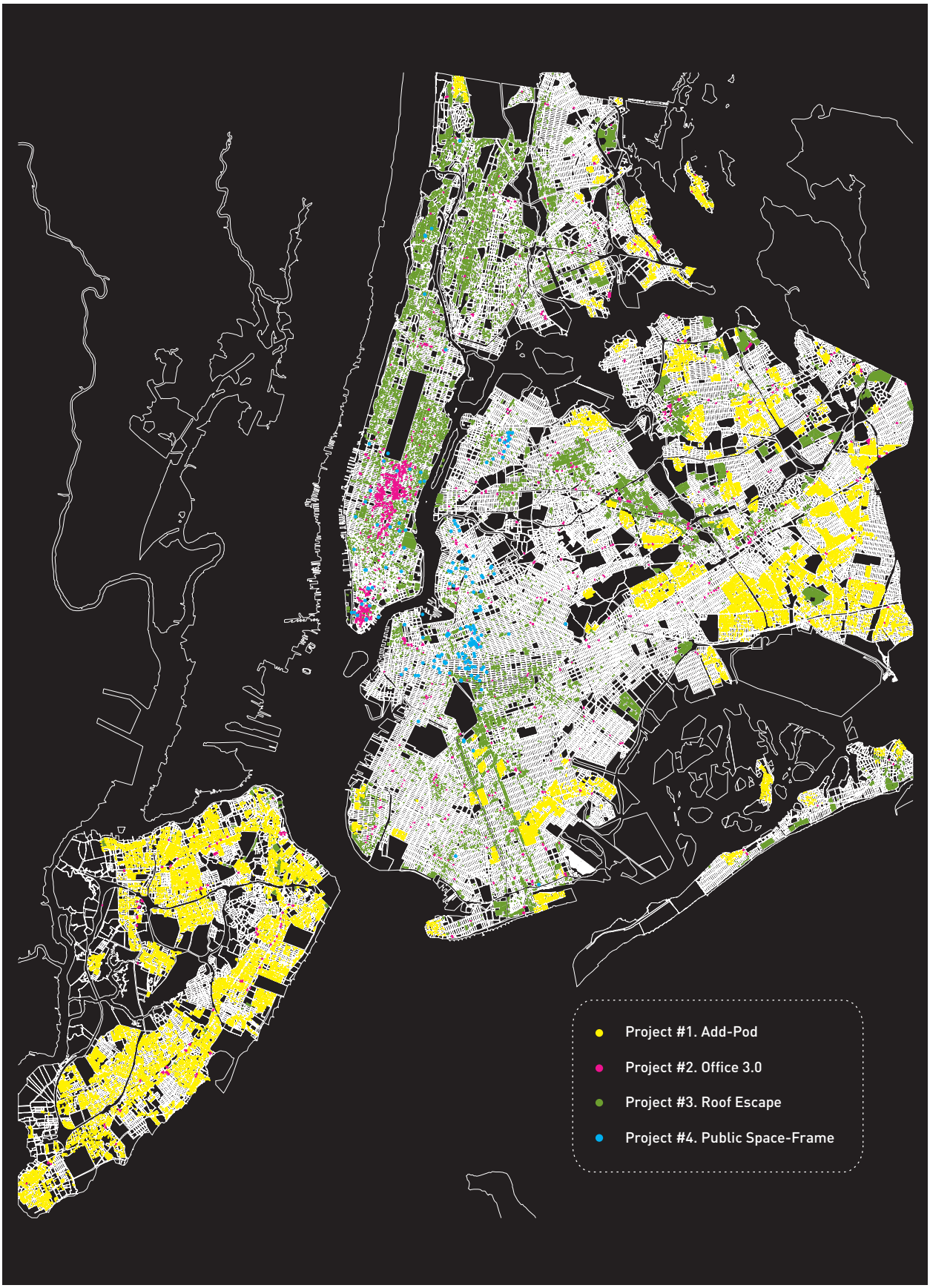
The Open Agency Project firmly believes that through harnessing the bottom-up actions of individual agents, ideas can be transformed into realities, and ultimately, reality itself can be transformed.

The Four Projects

To explore some of the many possible modi operandi for the architect, four design projects have been simultaneously launched. Each of these experimental projects addresses a distinct "client", a unique site, a specific scale, and of course, a different role for the architect - all operating out of a single "office": The Open Agency Project.

The context of operations for all projects is New York City, chosen for its density of spatial diversity and the wealth of opportunities for intervention. A specific site has been chosen for each project for the purpose developing a concise design solution addressing the explicit rules, regulations and design restrictions for a precise locale. However, each proposed design has also been carefully modulated to be appropriate for a wealth of other similar sites across the city so that each project is never a one-of-a-kind occurrence.

Figure 01. (opposite page) Open Agency Project principles + design strategies poster.


Project #1. Add-Pod
Project #2. Office 3.0
Project #3. Roof Escape
Project #4. Public Space-Frame

Together, the four projects deployed simultaneously apply to almost every corner of the city (see Figure 02), and it is imagined that these individual agent-based architectures may begin to interact with each other, enabling novel ways of occupying the urban environment.

The first project, Add-Pod, is designed for homeowners who desire to increase their living space, but are unwilling or unable to solve this problem in the traditional way (i.e. hiring an architect or contractor to build an addition to the house, move to a bigger house in the suburbs, etc.). The specific site chosen is Port Richmond, Staten Island - a blue collar residential area with a suburban grain and urban constraints. A handbook for creating your own Add-Pod is published and distributed for free, enabling anyone to use the design to expand their own home. Building codes and zoning regulations are tackled head on such that the Add-Pod is technically completely legal, though designed to avoid detection.

Office 3.0, the second project, is an unsolicited proposal to the Mayor and Economic Development Commission of New York City for a new type of office space that is modeled for the emerging trend of coworking and takes advantage of underused large lobbies. Here, the City and the owners of applicable lobby spaces must work together with a workspace mapping agency who can direct free-lancers and entrepreneurs to specific locations. The architect would be hired to actually implement the design in dispersed locations throughout the City.

Roof Escape, a design for a programmed roof module which takes advantage of the recently instituted green roof tax credit, is the office's third project. Though the general design is shared freely through a pamphlet, since an architect (or engineer) must sign off on the tax credit, actual design drawings are provided when the Open Agency Project is hired to create the modules at a specific building. The targeted clients are owners and residents of mid-rise residential buildings in parts of the city that sorely lack green space (as exemplified by the site in Crown Heights, Brooklyn).

Finally, the fourth project is Public Space Frame, an architectural strategy for activating a stopped construction site at 23 Caton Place in Brooklyn. This specific proposal is rooted in local history and context, and is directed towards the local community and the City. However, many of the design strategies employed for this project can easily be translated to activate other stopped construction sites throughout the entire city.

Figure 02. (opposite page)
Open Agency Project map of all current project sites.

Interlude

Open-Source City: Towards a Pragmatist's Utopia

The following essay was originally written as an overview of open-source strategies for the city as a whole, encompassing issues of urban planning, urban design and architecture. It is re-purposed and adapted here in order to give a more complete background on open-source paradigms and their promising potentials for the built environment.

Abstract:

The problems that cities face are increasingly complex. With global urban populations skyrocketing while resources diminish, the intelligent management of urban areas is more critical and more challenging than ever before. In the U.S., cities are additionally facing severe economic crisis, and the built environment is deteriorating through widespread foreclosure, aging infrastructure, and growing homelessness and joblessness. In an effort to take control of this grave situation, the government is turning to top-down rescue plans and increased oversight. At the same time, individual citizen groups are initiating their own bottom-up actions, recognizing that some urban problems are solved more effectively from the ground. Though both individually important, neither top-down plans nor bottom-up initiatives alone can solve all of our urban issues. However, these two opposing strategies could operate more effectively if their energies were channeled together. An emerging open-source paradigm, both as a conceptual model and a technological innovation, is offering a new platform through which this can happen. The resulting "Open-Source City" holds the potential for bringing creative energy and utopian ideas back into the solving of pragmatic urban problems through revolutionizing how cities are built, occupied and governed simultaneously from the top-down and the bottom-up.

Introduction: An Operative Mythology for the City

> American cities are in crisis – budgets are splashed with red ink, people protesting cutbacks, unemployment lines extending around the corner. Many of our cities have become the crucibles of general economic crisis. Why are cities experiencing such economic trauma? What sickness has invaded our urban lives? Do cities have a chance for survival? [1]

Though written in 1976, the above words hauntingly echo current newspaper headlines. Unemployment rates are soaring, homelessness is increasing, and city governments are struggling to meet their budgets again. The current economic crisis may seem all too familiar for those who remember the last three fiscal downturns since the mid-1970s, but some experts say that this one is different. Richard Florida, author of "How the Crash Will Reshape America," writes that the current crisis "marks the end of a chapter in American economic history, and indeed, the end of a whole way of life." [2]

Unfortunately, it is not just our economic resources that are petering out. The Ecological Footprint Atlas illustrates that we are fast running out of global material resources. Specifically, we in the U.S. are consuming limited resources at an appallingly unsustainable rate. Compared to the global average ecological footprint of 2.69 global hectares, the ecological footprint of the average American is 9.42 global hectares.[3] If everyone in the world were to live like the average American, the biocapacity of more than 4.5 Earths would be needed to support humanity's consumption rates.[4]

While urban problems continue to accumulate as resources diminish, cities are still growing fast. The urban population of developing countries is predicted to double by 2030.[5] Moreover, these rapidly densifying cities are simultaneously sprawling outwards: by 2030, these cities will have tripled their land area.[6] Cities in developed countries are also expanding. Though population is only expected to increase by 20%, their land coverage is predicted to multiply 2.5 times by 2030.[7]

As we teeter at the edge of some kind of impending cataclysmic change to our familiar way of life, people are still flocking to cities, and urban problems urgently need to be solved.[8] Moreover, it is becoming apparent that we need new ways of tackling these familiar urban problems that are only increasing in scale and scope. Top-down decision-making and administration are still needed to better

1. Gordon, David. "Capitalism and the Roots of Urban Crisis." The Fiscal Crisis of American Cities: Essays on the Political Economy of Urban America with Special Reference to New York. Eds. R. E. Alcaly and D. Mermelstein. New York: Vintage Books, 1977.

2. Florida, Richard. "How the Crash Will Reshape America." The Atlantic Online. March 2009.

3. Ewing, B., S. Goldfinger, M. Wackernagel, M. Stechbart, S. M. Rizk, A. Reed and J. Kitzes. The Ecological Footprint Atlas 2008. Oakland: The Global Footprint Network, 2008.

4. *Ibid*.

5. United Nations. World Urbanization Prospects – The 2003 Revision. New York: United Nations, 2004. The urban population of developing countries is expected to grow from 1.93 billion in 2000 to 3.97 billion in 2030.

6. Shlomo, Angel, Stephen C. Sheppard and Daniel L. Civco, with Robert Buckley, Anna Chabaeva, Lucy Gitlin, Alison Kraley, Jason Parent, and Micah Perlin. The Dynamics of Global Urban Expansion. Washington D.C.: Transport and Urban Development Department, The World Bank, September 2005.

7. *Ibid*.

8. Though coaxing a complex urban system to flow smoothly is a difficult task, making cities viable is a better bet for the future than continuously settling virgin territories.

control land use, optimize infrastructure delivery and support sufficient social programs. However, emerging bottom-up initiatives are demonstrating that independent actions can have a greater impact on specific local issues and on improving the quality of individual lives. Through balancing top-down plans with bottom-up energy, we may be able to approach acute urban issues with a sense of hope and an optimistic attitude. As Duke Reiter wrote in the late '90s, "we need an operative mythology for the city." [9] Open-source could be our contemporary operative mythology for pragmatically addressing real problems, while moving towards the dream of a utopian vision of citizen empowerment.

9. Reiter, Wellington. Vessels and Fields. New York: Princeton Architectural Press, 1999.

What Is Open-Source?
And What Does It Have To Do With Cities?

The phrase "open-source" first emerged in the late 1990s and referred to the 'source' code of computer software being made 'open' for free sharing between individual developers. Formally defined today by the Open Source Initiative [10], "open-source" means free access to source code, free redistribution of the original source code (as well as any derivative works), and unrestricted distribution regardless of technology type, field of endeavor, or product type. Through making source code open to free sharing, programmers acknowledge the importance of building upon the work of others who came before, and essentially agree to jointly contribute towards a dispersed, iterative strategy for producing a better end product.[11] Thus, open-source successfully integrates bottom-up energy into a traditionally top-down process, and creates a completely new type of learning platform where multiple types of intelligence are simultaneously honored, and innovation is achieved through "tinkering" as a means of optimization.[12] In sum, open-source "harnesses the power of distributed peer review and transparency of process" to deliver "better quality, higher reliability, more flexibility, lower cost, and an end to predatory vendor lock-in." [13]

In the past few years, these core ideas behind "open-source" have spread far beyond computer software, and have embedded themselves into such diverse fields as journalism, hardware design and "citizen encyclopedia-ism" [14]. Most recently, open-source ideas have even percolated into urban governance and architectural design.

It is relatively simple to understand the relevance of open-source for governance; free access to knowledge, distributed peer review and transparent process are all principles that a democracy holds dear. Moreover, a smart government would realize that the open-source model holds the potential for a productive interface between top-down decision-making and bottom-up participation, enabling the more efficient delivery of government services to constituents.

On his first day in office, President Barack Obama issued a memorandum on "Transparency and Open Government," stating that his administration was "committed to creating an unprecedented level of openness in Government," and would "work together to ensure the public trust and establish a system of transparency, public participation, and collaboration." [15] Obama further directed executive branch departments and agencies to "harness new technologies to put information about their operations and decisions

10. Open Source Initiative (http://opensource.org/)

11. Some may argue that the field of scientific research has been practicing open-source methods for centuries by publishing transparent, peer-reviewed papers explicating the hypothesis, methodology, and results of experiments. This is indeed true to an extent and serves as a useful analogy, but science never had to defend the greater goal of building a shared knowledge base for furthering humankind's understanding of the world. In contrast, the open-source software movement was innovative for recognizing the value of freely shared knowledge within a primarily for-profit environment.

12. Lessig, Lawrence. Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity. New York: Penguin Press, 2004.

13. Open Source Initiative (http://opensource.org/)

14. A good example of this is Wikipedia (http://wikipedia.org)

15. Obama, Barack. "Transparency and Open Government." Memorandum for the Heads of Executive Departments and Agencies. January 21, 2009.

online and readily available to the public," and "offer Americans increased opportunities to participate in policymaking and to provide their Government with the benefits of their collective expertise and information." [16] Though Obama does not explicitly use the words "open-source" to describe his strategic policies, his choice of words in describing "openness", "participation" and "collaboration" certainly point towards open-source ideals. Now into the seventh month of his presidency, Obama's administration has launched websites to share government decisions and information (whitehouse.gov, recovery.gov, data.gov).

16. *Ibid*.

Individual cities and their respective planning agencies are also beginning to adopt open-source policies. Washington D.C. has made government data publicly accessible since November 2008, and New York City recently announced its own intentions for open data. Furthermore, openness in governance is increasingly becoming a universal ideal for the future global city. The Ethisphere Institute, a think-tank on business ethics, recently published a ranking of the top "Global Sustainability Centers" for the year 2020.[17] Interestingly, the cities they believe have the best plans for sustainable futures also rank highest in "regulatory framework, law enforcement and transparency," as well as having good "media and speech" for communicating with their citizens.[18] The weight that these qualities are given indicates that open-source ideas are (and perhaps always were) intrinsically linked to healthy cities.

17. see Ethisphere Institute for more (http://ethisphere.com/2020-global-sustainability-centers/)

18. *Ibid*.

Open-source is also finding resonance in architectural and urban design. First embraced by industrial design firms, open-source is being explored within the design professions as an innovative strategy for increasing user participation in the design process, as well as facilitating the sharing of expert design knowledge. As in governance, open-source frameworks in architecture and urban design could potentially revolutionize the role of bottom-up initiatives in a traditionally top-down profession.

The ideas behind open-source are powerful, and are virally spreading across many fields. Fueled by technological advances, open-source is facilitating new access to knowledge, and enabling individual citizens to engage with the top-down framework of the city in novel ways. The following sections describe examples of how open-source ideas are proliferating within urban planning, city governance and architectural design, and are forecasting a hopeful future moving towards a pragmatic utopia.

Open-Source Planning + Data

> …the increasing complexity of everyday life implies another way of living and the right to create another experience of the social, another social time, another way of existing, another way of 'planning.' The impossible is attained through the possible, through practical utopias.[19]

Constant, in his New Babylon, dreamed of a modern utopia where individual inhabitants could edit their built environment as they wished, and industrial advances would ultimately break man free from the necessity of daily toil for basic needs. Though perhaps his specific utopia may not be pragmatically possible yet, open-source ideas can at least propel us towards reappropriating planning as part of a creative act - or poesis [20] - and each citizen can begin to take part in the (re)building of cities.

Open-source ideals can encourage bottom-up involvement by individual citizens within a traditionally top-down framework through a multi-pronged strategy of open action, open regulatory code, and open data.

* * * * *

Open action:

It is good practice for government agencies to share the reasoning behind their actions, as it is useful for citizens to understand why certain planning decisions are made. As President Obama made clear in his advocacy of transparency and open government, through sharing information about their actions, government agencies can benefit from increased public recognition of their efforts, and can even gain new knowledge by encouraging feedback from outside experts. By maintaining an open attitude towards their actions, government can increase the quality and efficiency of their operations, as well as avoid monopoly by specific interests.

The philosophical theories behind path dependence and their relation to city form reveal further reasons for open action in city planning. Eran Ben-Joseph, in Code of the City: Standards and the Hidden Language of Place Making [21] , cites how W. Brian Arthur, an economic researcher, applied a Polya process (a mathematical example introduced by Polya and Eggenberger in

19. Kofman, Eleonore and Elizabeth Lebas. "Recovery and Reappropriation in Lefebvre and Constant." Non-Plan: Essays on Freedom, Participation and Change in Modern Architecture and Urbanism. Eds. Jonathan Hughes and Simon Sadler. Oxford; Boston: Architectural Press, 2000.

20. *Ibid*.

21. Ben-Joseph, Eran. The Code of the City: Standards and the Hidden Language of Place Making. Cambridge, MA: MIT Press, 2005.

1923) to demonstrate that random disturbances early in the history of selection, coupled with the self-reinforcing nature of these selections, often shape subsequent outcomes. For example, in the early stages of video technology development in the late 1970s and 1980s, two different formats competed for capturing the majority market: VHS (by JVC) and Betamax (by Sony). In the end, path dependency was created as a result of positive feedback in the video film-rental market as video rental stores stocked more film titles for the system with the larger user base (VHS), and new providers chose the system for which they could rent more videos. As a result, it was not the better technology that prevailed, but rather the technology that was "in the right place at the right time". Some other examples of path dependence include nuclear power production techniques (as discussed by Robin Cowan[22]), and the QWERTY keyboard (as discussed by Paul David[23]). Similarly, city governments can get locked into suboptimal policies enacted at a time when the future consequences of these policies were unclear (as discussed by Anthony Woodlief[24]).

One way to avoid path dependence from dictating how city policies are developed is to create an open-source system through which urban agencies share their decision-making process, and strive towards a multidisciplinary team of varied actors to take part. Just as open-source software development leads to better quality, added reliability, more flexibility, and lower costs, so can open-source planning lead to a better "product" delivery.

An example of an attempt towards open-source planning through open action is NYC 311[25], New York City's online website and hotline for government information and services. Residents and visitors may call 311 or go online to access information, report problems, or request services. Further, since 2005, the City's Department of Information Technology and Telecommunications is required to issue monthly public reports on the data collected on calls and inquiries made to 311. Anyone with Internet access can learn what city services are the most requested, which have the most reported problems, and what the city's response to these was. The city plans to employ Google to improve 311 as a city service by better understanding which facilities and services are being searched for the most. Thus, 311 opens up a two-way channel of communication between the city and its constituents rather than simply providing a one-way broadcast of city services, and sparks an unprecedented level of transparency and accountability for planning actions.

Another example of open action is Recovery.gov, the Obama administration's website on the stimulus bill. Pledged to be a "user-

22. See original paper for further discussion: Cowan, Robin. "Nuclear Power Reactors: A Study in Technological Lock-In." Journal of Economic History. 40 (1990): 541-566.

23. See original paper for further discussion: David, Paul A. "Clio and the Economics of QWERTY." The American Economic Review. 75.2 (1985): 332-337.

24. See original paper for further discussion: Woodlief, Anthony. "Unforeseen Consequences and Pathological Self-Reinforcement: Why Cities Decline." Critical Review: A Journal of Politics and Society. 12.1 (1998): 13-34.

25. NYC 311 (http://www.ci.nyc.ny.us/apps/311/about.htm)

friendly, public-facing website to foster greater accountability and transparency in the use of covered funds," Recovery.gov provides detailed updated information on stimulus spending, as well as "tools for the public to report waste, fraud and abuse of recovery funds." [26] "Recovery.gov was seen as an indication that the federal government may begin to take advantage of more open-source technology to save money and include citizen input."[27]

26. http://www.recovery.gov/?q=content/about

27. Hart, Kim. "Firms Take to the Tweetable Business Model." The Washington Post. 9 March 2009: D01.

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Open code:

Regulatory codes for cities have existed since the dawn of human civilization.[28] Likened to what DNA is for biological organisms, city code can be called the genetic footprint of cities: "like genetic code in biology, standards are the functional and physical unit of planning legacy, passed from one generation to the next." [29] Though well meaning in their intention to establish guidelines for maintaining order in chaotic urban life, city code often boils down to a headache for code-followers and code-enforcers alike. Written in an unappealingly restrictive legal tone, regulatory codes are nearly impossible to decipher, and even then, only interpretable to those who have the time or responsibility to build up an expertise. Further, because most codes must provide coverage for an entire city, they can prove to be too didactic because they refer to a universal norm as their baseline condition. As Stuart Brand criticizes, "at their worst, code enforcers block creativity and defy reason, answerable to remote abstractions that have nothing to do with the present case or opportunity." [30]

28. Reaching back as far as the first civilizations in Mesopotamia with the Code of Ur-Nammu (ca. 2100 BCE) and the Code of Hammurabi (ca. 1790 BCE), humankind has always needed rules and regulations for sustaining communal life.

29. Ben-Joseph, Eran. The Code of the City: Standards and the Hidden Language of Place Making. Cambridge, MA: MIT Press, 2005.

30. Brand, Stuart. How Buildings Learn: What Happens After They're Built. New York: Viking, 1994.

However, codes are a necessary part of a functioning city; without codes, the health and safety of citizens could become at risk. How can code become a more living, breathing, fluid document that appropriately regulates while being understandable, and remaining open to change and feedback?

One way in which an open-source code can be achieved is through a proscriptive approach (as opposed to the more common prescriptive code). Prescriptive code is an authoritative set of rules, usually associated with a central administration that has jurisdiction over a specific area, and dictates absolute solutions regardless of local conditions. "It is a top-down mechanism designed by officials who may or may not be familiar with the area in question." [31] In contrast, proscriptive code allows "freedom of action and initiative within a

31. Hakim, Besim S. "Julian of Ascalon's Treatise of Construction and Design Rules from Sixth Century Palestine." Journal of the Society of Architectural Historians. 60:1 (2001): 4-25.

framework of prohibitions," and because these prohibitions often overlap with local social values and ethics, they are often more intuitive to follow. "Due to the community roots of proscriptive rules, they need to be viewed as a bottom-up system of self-regulation, and thus democratic in spirit." [32] By adopting more proscriptive rules for the code for a city, regulations will evolve into a more flexible, creative set of intuitive prohibitions. As Julian of Ascalon's treatise from the 6th century asserts, property owners can have the freedom to build as they wish upon on their own property, so long as is does not cause detriment to neighbors, rather than attempting to preemptively define all such things that should be avoided.

32. *Ibid*.

Further, approaching code as an open-source rule set could prevent overregulation through encouraging better citizen understanding, and through this understanding, cultivate ideas about how to remain inventive within the regulatory framework. "Overregulation stifles creativity. It smothers innovation. It gives dinosaurs a veto over the future. It wastes the extraordinary opportunity for a democratic creativity that digital technology enables." [33]

33. Lessig, Lawrence. Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity. New York: Penguin Press, 2004.

"Can technological innovations and new forms of information delivery and computing manipulation interfaces create a flexible and more open approach to urban regulations and the application of standards?" [34] The answer is yes. Today we have the technological capability to offer individual involvement in 'tinkering' with the code of the city. People know more about where they live than detached regulators learn by sitting in a downtown office. Top-down regulatory power is still necessary, but there should be a way to meet in the middle with ground-up knowledge and individual action. Rather than proposing an anarchistic "non-plan", an open plan could establish ground rules while still encouraging innovation and creativity.

34. Ben-Joseph, Eran. The Code of the City: Standards and the Hidden Language of Place Making. Cambridge, MA: MIT Press, 2005.

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Open data:

The idea of transparency in urban data is not a new idea. Beginning as far back as the Nolli Maps of Rome, city officials have tried to understand their assets in order to make sound decisions, and communicate these to their citizens. However, the idea of opening up original data to completely free public access is a rather novel idea, and has only really become a plausible and relevant strategy with the technological advances of the present day.

As Richard Wurman iterated in his "Making the City Observable" exhibition in 1971:

> Public information should be made public. Information about our urban environment should be made understandable. Architects, planners and designers should commit themselves to making their ideas immediately comprehensible. [35]

If we believe that indeed, "a citizen who understands the highway system and its relationship to other urban systems – housing, transportation, business, schools – has a basis for making decisions regarding highway expansion, elimination of cars from core areas, and linkage of the highway system to various means of public transportation," then today we finally have the technological capabilities to make this open source city system happen (even if it weren't quite possible yet in 1971).[36]

The basic idea behind open data for city planning is that daunting urban problems are best faced with the sharing of information to enable transparency, collaboration and peer-review. By having more people involved and more information, cities are able to make better decisions and have smarter feedback.

As previously mentioned, the federal government has recognized the importance of open-source, especially in terms of open-source data. In June 2009, Vivek Kundra, President Obama's Chief Information Officer, established Data.gov, a website that provides free public access to high value, machine-readable datasets generated by the federal government.[37] Currently available data includes H1N1 (swine) flu data from the CDC, and Toxic Release Inventories from the EPA. As the website states:

> A primary goal of Data.gov is to improve access to Federal data and expand creative use of those data beyond the walls of government by encouraging innovative ideas (e.g. web applications). Data.gov strives to make government more transparent and is committed to creating an unprecedented level of openness in Government. The openness derived from Data.gov will strengthen our Nation's democracy and promote efficiency and effectiveness in Government.[38]

Though it is still unclear what the direct outcomes of this governmental action towards open-source will be, we can look to

35. Wurman, Richard Saul. Making the City Observable. Minneapolis: Walker Art Center; Cambridge: M.I.T. Press, 1971.

36. Mildred S. Friedman in the Editor's Notes of Wurman, Richard Saul. Making the City Observable. Minneapolis: Walker Art Center; Cambridge: M.I.T. Press, 1971.

37. Jung, Bomee. "Transparency & Innovation: Open Data for Green Buildings." July 1, 2009. The Sallan Foundation. July 21, 2009. <http://www.sallan.org/newviews/archives/2009/07/002954.php>

38. http://www.data.gov/about

Kundra's previous tenure as Chief Technology Officer of Washington, D.C.[39] for some indicative results. In November 2008, before being appointed to his current federal position, Kundra launched "Apps for Democracy," a competition for web developers to come up with useful ways to use city government data for DC area residents. The results were encouraging: the investment of a 30-day competition costing the city $50,000 returned 47 iPhone, Facebook and web applications with an estimated value of more than $2,600,000 to the city.[40] Some examples of the resulting applications for city residents included "DC Bikes," a website created by Development Seed which displays live information on bike thefts, popular bike routes and bike shops within the DC area (see Figure 01).[41]

39. Washington, D.C. currently offers 301 datasets online, and is recognized as an emerging leader in opening government data.

40. Apps for Democracy (http://www.appsfordemocracy.org/about/)

41. http://www.outsideindc.com/bikes (see all "Apps for Democracy" winners at http://www.appsfordemocracy.org/apps-for-democracy-medal-winners/)

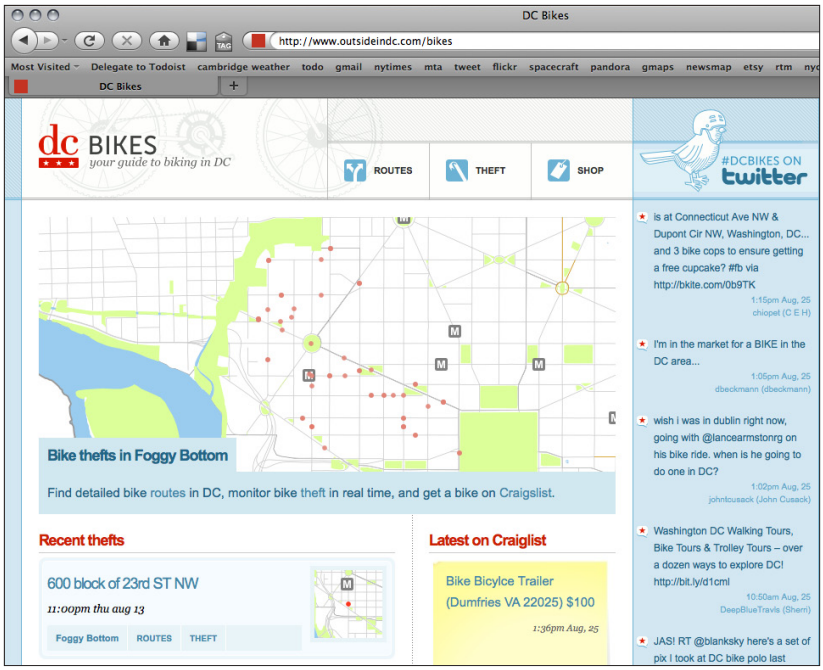
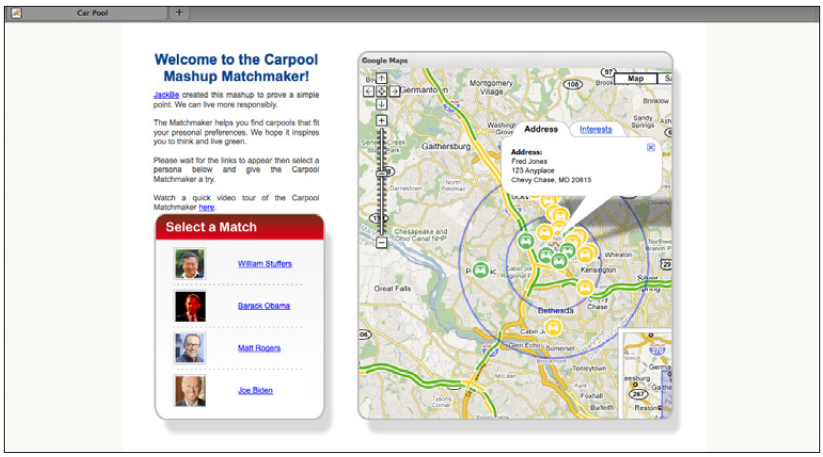


Figure 01. (left) "DC Bikes," a website created through open government data by Development Seed. The site displays live information on bike thefts, popular bike routes and bike shops within the DC area. (http://www.outsideindc.com/bikes)

Another popular winner of the contest was the "Carpool Mashup Matchmaker" which allowed users to reduce their carbon footprint by forming carpools based on personal preferences, home location and social networks (see Figure 02).[42]

42. http://demos3.jackbe.com/mashlets/DCCarpool/ (see all "Apps for Democracy" winners at http://www.appsfordemocracy.org/apps-for-democracy-medal-winners/)

Figure 02. (right)
"Carpool Mashup Matchmaker" which allows users to reduce their carbon footprint by forming carpools based on personal preferences, home location and social networks. (http://demos3.jackbe.com/mashlets/DCCarpool/)



Other governments (both city and state) are also striving towards open data. In 1999, the state of Massachusetts mandated the Office of Geographic and Environmental Information (MassGIS) to begin sharing spatial data "among all levels of government and private users." [43] Today, MassGIS's website offers free downloads of numerous datasets including census data, satellite imagery, infrastructure features, and environmental quality data. Using such data, individual users can begin to critically understand their built environment through creating multi-layered maps and analyses (see Figure 03).

43. http://www.mass.gov/mgis/mandate.htm

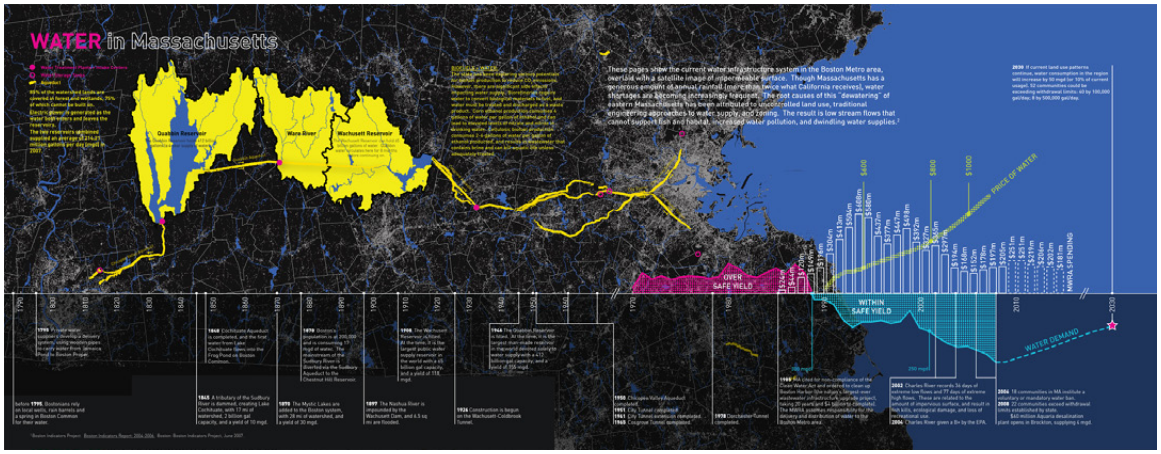


Figure 03. (above)
Graphic on water resources in Massachusetts created through openly shared MassGIS data. (Image credit: author, created for "Sustainability in Boston 2009" booklet)

In New York City, Mayor Bloomberg recently announced a contest called "NYC Big Apps," through which the city will release approximately 80 datasets including property records, sales information, recreational facilities and restaurant inspections. Scheduled to begin this fall, the city hopes to "encourage our entrepreneurs to create new applications" using the information, and "leverage existing resources to stimulate investment and create jobs."[44] Further, New York City Councilwoman Gale Brewer (Chair of the Technology in Government Committee) announced in early June that she is sponsoring a new bill to require all city data to be put online at a central website.[45] Though the city currently provides a reasonable quantity of original data online, it is not formatted to be open source (in fact, some data is intentionally made hard to manipulate), and users must jump through hoops in order to manipulate the data freely (see Figure 04). By opening up more data, cities can actually increase their own knowledge base, as well as the chance for unsolicited (and free) analysis and ideas.

44. Pompeo, Joe. "At PdF, Bloomberg Announces 'Big Apps' Contest, Says He'll Dine with Winner." New York Future Initiative. 29 June 2009. 30 July 2009. <http://nyfi.observer.com/politics/208/pdf-bloomberg-announces-big-apps-contest-says-dine-winner>

45. *Ibid*.

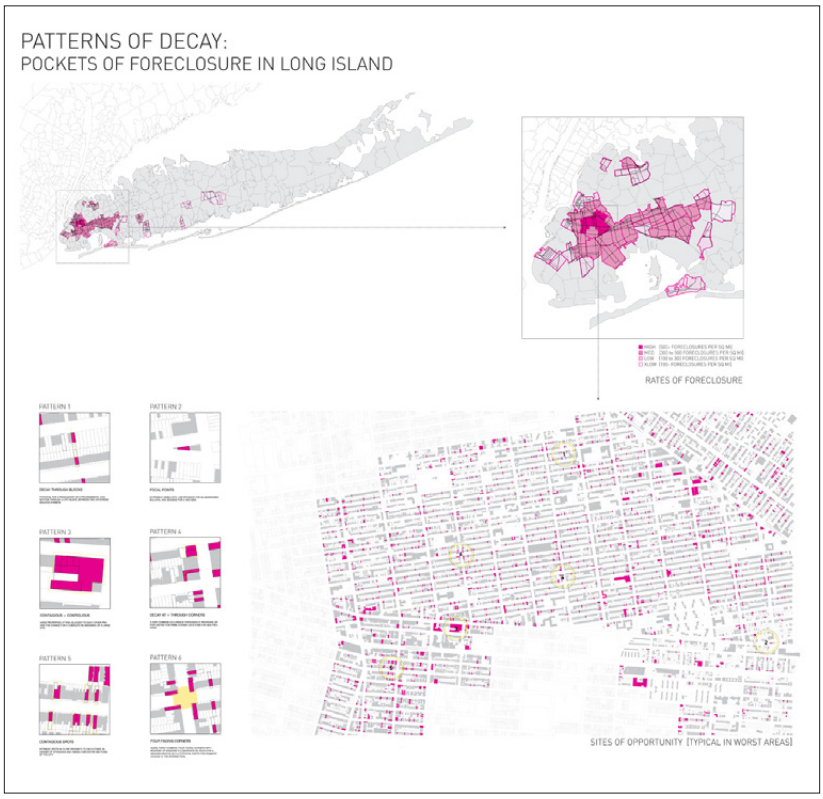


Figure 04. (left) Graphic on foreclosures in New York City, created through data available on the internet. (Image credit: author)

Finally, in addition to the above examples of how open data is already being employed in city contexts, there is future potential for open

data to become even more valuable. With the continual advancement of the Internet, the technology of computers in relation to the web has been growing more complex and capable. As we move towards the next step – Web 3.0[46], or Semantic Web – machines will be able to 'understand' web pages and how they relate to each other, and ultimately make the Internet into an easily accessible, vast store of information for individual users. In order for computers to be able to read information from web pages, data must also become smarter; data must also become semantic in order enable linkages between the individual pieces of data. This is by no means a small task – data must be made open and freely accessible in order for this to accumulate over time as individual users 'tinker' with the data. "The goal of Open Data is to enable innovation: to make available data that can be re-used in ways unanticipated by the original owner of the data." [47] Through taking the next step with open data and allowing users to 'tinker' freely, cities will begin to see exponential payback of increasingly useful data.

* * * * *

Open-Source Design

Open-source ideas are beginning to impact diverse design fields; from industrial design to architecture, from individual DIY ('do-it yourself') projects to non-profit organizations, open-source is quickly being embraced by design professionals (or 'experts') and non-professionals ('non-experts') alike. Through idea sharing, peer review and collaboration, open-source is enabling more efficient but higher value designs. Moreover, open-source is promoting dialogue within the design world, as well as between design experts and non-experts; each of these have their own set of unique potentials and will be discussed separately.

Between design experts:

Architecture is a field that continually yearns to reinvent itself, in which the institutional memory of built projects and research findings are not reliably remembered or consistently refreshed. The activity of building has existed since humans evolved from apes, and the profession of architecture (or at least architect/builder) in some form has arguably existed since the time of ancient civilizations, yet architects often desire to shed history and reinvent the idea of architecture in every project. Of course, the spirit of invention is of

46. Web 1.0, the very first version of the Internet as we know it today, was a physically connected network of computers which allowed novel forms of communication. More recently, the second generation of web development – Web 2.0 – has led to new forms of information sharing and collaboration as a result of open access to web-based data and applications (examples include Twitter, GoogleMaps, Wikipedia and Facebook). See following article for more complete discussion: Jung, Bomee. "Transparency & Innovation: Open Data for Green Buildings." July 1, 2009. The Sallan Foundation. July 21, 2009. <http://www.sallan.org/newviews/archives/2009/07/002954.php>

47. Jung, Bomee. "Transparency & Innovation: Open Data for Green Buildings." July 1, 2009. The Sallan Foundation. July 21, 2009. <http://www.sallan.org/newviews/archives/2009/07/002954.php>

indispensable value, but to be a truly forward-thinking profession, past learnings must be retained, and information must be shared more openly. As Cameron Sinclair, founder of Architecture for Humanity, says, "there's no open-sharing mechanism [in architecture]. Many well-meaning individuals are reinventing the wheel because proven and disproven ideas aren't shared." [48]

48. Zjawinski, Sonia. "Framing Open Source Architecture." Wired. 3 March 2007. 15 June 2009. <http://www.wired.com/culture/design/news/2007/03/72902>

Industrial designers have recognized the potential of open-source, and are harnessing the energy of a peer-reviewed process to strive towards increasing efficiency in process and resilience in the end product. For example, Riversimple, a UK-based startup, aims to use an open-source optimization strategy (see Figure 05) to create a lightweight network electric vehicle of carbon composite structure and powered by hydrogen fuel cells.[49]

49. http://www.riversimple.com/

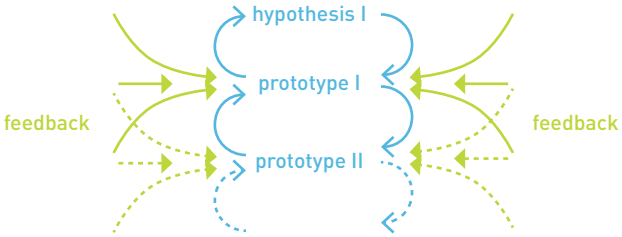


Figure 05. (left) Open-source design diagram, inspired by Riversimple's optimization strategy.

A for-profit company, Riversimple, has invested the initial costs to create and publicly launch a prototype of an electric vehicle in June 2009. The 40 Fires Foundation, the nonprofit arm of the operation, will release the technical drawings and specifications of this prototype online under an open source license (for now, others may only use the licensed designs for noncommercial purposes) in a wiki-style website, and is actively recruiting experts to participate in the next step of optimizing the car design. Riversimple sees the advantages of open source during this design process as several-fold. First, by opening up their design to outside feedback, they hope to speed up development times, produce more robust vehicles, drive down component costs, and press forward the adoption of common standards. Realistically, this strategy multiplies the creative input to their project for free (people will contribute their feedback simply because they are experts and are interested in the innovation of the project), and enables a small startup company to compete against the established car-manufacturing giants who are also designing fuel-efficient vehicles. Second, and more importantly, by opening up their designs to the world for free, they will share the knowledge gained during this process and drive forward innovation across the board by contributing towards humanity's greater knowledge base. Though not perhaps immediately helpful for the profitability of their enterprise,

sharing their designs with others will create a more competitive field that will ultimately benefit the greater world.

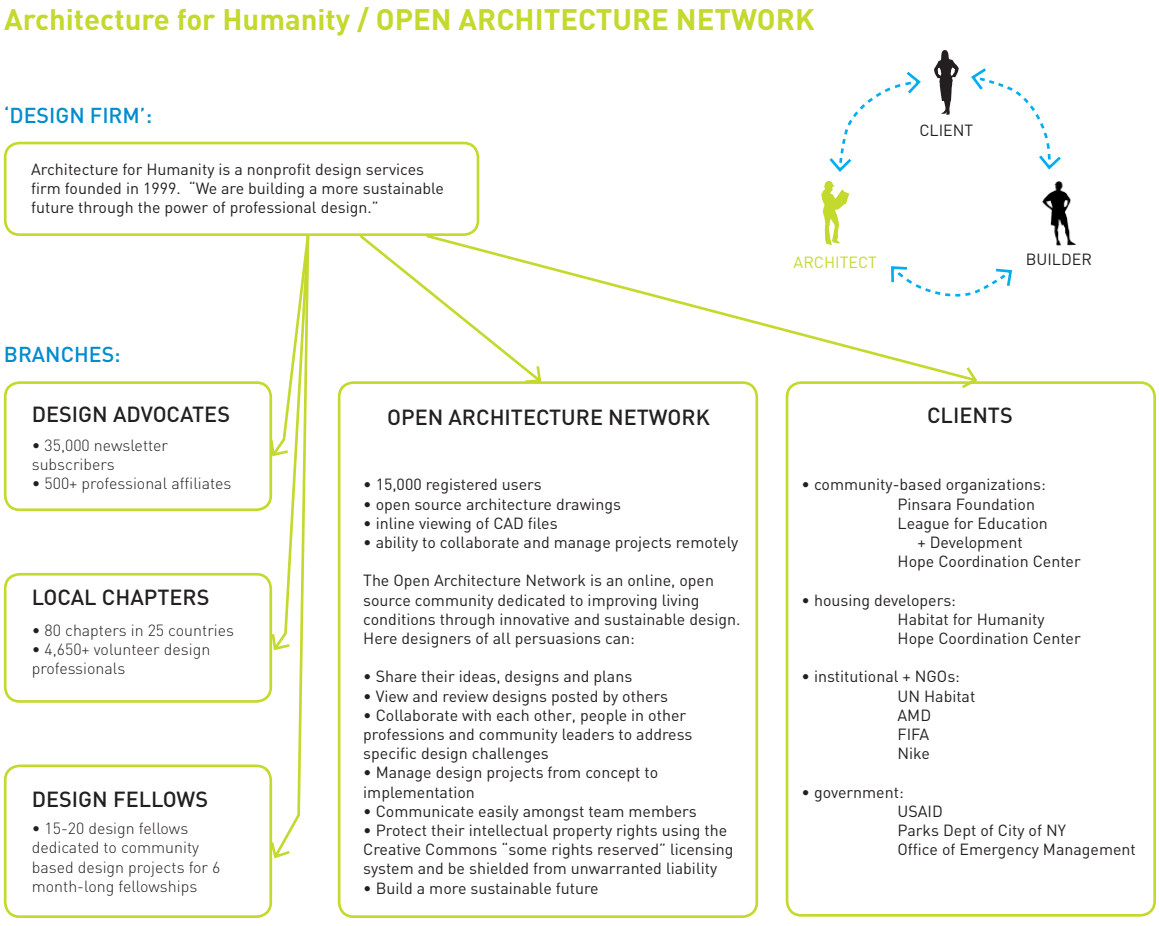
Within the architectural profession, nonprofit organization Architecture for Humanity[50] is revolutionizing how architects share their designs with each other. In 2006, Architecture for Humanity – who "seeks architectural solutions to humanitarian crises" and aims to deliver design services to communities in need – won the TED prize[51], which grants recipients one wish to change the world. With their wish, Architecture for Humanity established the Open Architecture Network[52], "an online, open source community dedicated to improving living conditions through innovative and sustainable design" (see Figure 06). Through the Open Architecture Network, designers can share their drawings and specifications, collaborate on projects through a website portal, and learn about innovative architecture projects around the world.

50. http://www.architectureforhumanity.org/

51. http://www.ted.com/

52. http://www.openarchitecturenetwork.org/

Figure 06. (below) The operating structure of Architecture for Humanity and the Open Architecture Network.



Recognizing that designers, like any other creative professional, "depend on their intellectual property rights to protect them and to enable them to sell their work"[53], the site employs Creative Commons licensing[54] so individual contributors can dictate how they wish their work to be used, ranging from freely putting the design in the public domain to restricting any derivative works or the use of the design commercially. The Network is planning on further adapting the Creative Commons licenses to be more architecturally specific. Thus far, through the Open Architecture Network, architects have contributed CAD drawings, renderings and images of built projects, and technical specifications. Though currently, most of the architectural work remains within the nonprofit realm of the developing world, the groundwork has been laid for profound changes of how design professionals operate. One can imagine that the for-profit world of architectural design can equally benefit from better knowledge of what has been tried and succeeded or failed before.

53. Zjawinski, Sonia. "Framing Open Source Architecture." Wired. 3 March 2007. 15 June 2009. <http://www.wired.com/culture/design/news/2007/03/72902>

54. Creative Commons licenses allow individuals to publish their work through free licenses and set their own conditions for their work. With six main licenses to choose from, publishers can dictate attribution, allow sharing, dictate noncommercial use, or forbid any derivative works. For more, please see http://creativecommons.org/

Another example of an open-source architectural strategy is Richard Bodane's database on roof design and performance.[55] Bodane and his colleagues at the Office of General Services in New York have created a database that tracks the state's more than 10,000 buildings, recording location, design conditions, specific components, testing results and the history of problems and their respective solutions. "By correlating design information with performance problems, the architects identify patterns of success and failure." [56] Though not an open source to the entire field of architecture, this example of a research database within a group of professional designers is a promising way through which technology is being leveraged to help share information for the betterment of design.

55. Novitski, B. J. "Roofing Systems Software." Architecture. (February 1992): 102. in Brand, Stuart. How Buildings Learn: What Happens After They're Built. New York: Viking, 1994.

56. *Ibid*.

Between design experts and non-experts:

Open-source ideas have the potential to revolutionize the traditional interaction between design experts and non-experts, primarily in two distinct ways. First, an open design process can enable new levels of participation by non-experts in a design process that is still run by design experts. Second, the design experts can make their designs available openly to enable non-experts to 'tinker' with their ideas, and good design will be able to reach a much wider audience.

Though some architects may be skeptical that openly sharing the design process and their carefully formulated proposals may damage their professional opportunities, this is not necessarily the case, especially if we believe Thomas Jefferson's wise statement: "He

who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me." [57] In fact, by contributing good ideas into a shared knowledge base, and empowering non-experts to engage more deeply in the built environment, architects will ultimately benefit from a more educated and open-minded client base.

57. Lipscomb, Andrew A. and Bergh, Albert Ellery, eds. The Writings of Thomas Jefferson Vol 6. Washington D. C.: The Thomas Jefferson Memorial Association, 1903.

Open Design Process:

By opening up the design process to listen to user needs and desires, architects and urban designers can potentially create stronger designs that are better suited to user needs. Industrial and product designers have already began to discuss how participatory design can be re-imagined through the lens of emerging technologies which enable new interactions between designers and users. Termed 'catalyst design,' designers become the catalyst for communities to change their examine their own behavior through participatory design methods.[58] For example, by employing social media technologies within a traditional user-centered design process, the designer can "create a network of influence" which can result in "a type of social cohesion that builds community consensus around the idea of exploring new possibilities and embracing new futures." [59] Essentially, the design expert is designing a new system of participation, rather than simply designing another new object.

58. Fabricant, Robert. "Design with Intent: How Designers Can Influence Behavior." Design Mind. June 2009. 15 June 2009. < http://designmind.frogdesign.com/articles/power/design-with-intent.html>

59. *Ibid*.

Cuusoo.com, a branch of the Japanese industrial design firm Elephant Design, allows an innovative level of participation for product users to contribute ideas to design experts (see Figure 07). A website allows individual users, product designers, and manufacturing companies to discuss ideas and designs, ultimately selecting popular items for manufacturing. "Cuusoo" roughly translates to "fantasy" and encourages users to submit their dream products, ranging from rough ideas to fleshed out design proposals. Peers review these dream products, and rate the ones that they would also like to see developed. Those ideas that prove the most popular are then given to designers to develop, and a manufacturer to produce.

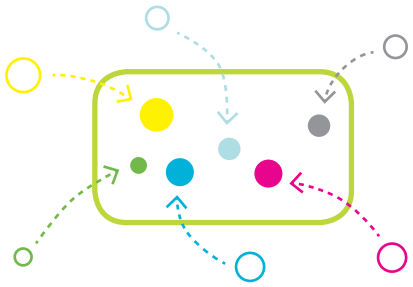


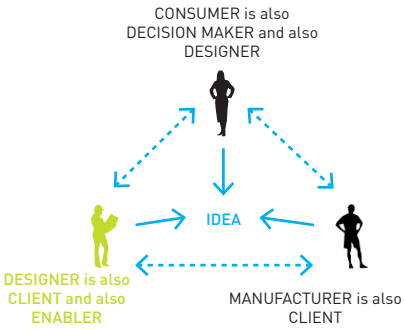
Figure 07. (right)
Cuusoo's website as a marketplace of ideas.

elephant design / CUUSOO.com

THE 'DESIGN FIRM':

elephant design

"the elephant uses its nose, which is originally its respiratory organ, for many other ways, such as bringing food into its mouth and absorbing water to bathe. accordingly, we can develop new ideas for innovativ applications / usages of any existing tool or product. 'elephant design' was named after the concept of promoting new ways of application based on individuals needs."



CUUSOO.com

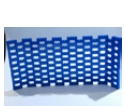
「ほしい」の声から商品化。みんなの「ほしい」をかなえるサイト。

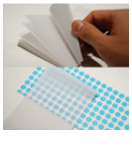
"Let's fulfill the wishes of all by listening to the voices of 'I wish'!"

BRANCHES:	VISUAL INTEGRATION	COMMUNITY MEDIA	MERCHANDISING
SLOGANS:	"visualizing your ideas!"	"sharing your ideas online!"	"productizing your idea!"
FUNCTIONS:	helping clients develop their product proposals into visual images.	cuusoo.com helps individual users, product designers and business enterprises connect to select popular items for manufacture.	ideas which have collected enough votes will be selected for production at a preferred manufacturer. each product type has a unique 'break even point' of feasibility. royalties from sales of the new products will be paid to inventor and designer.
SERVICES:	• vision design • products + service support design	**for corporations:** • private visualizing/imaging service • theme sponsorship • community sponsorship **for architects + engineers:** • proposal design service **for individual users:** • CUUSOO TV channel services • posting your proposal/voting on other user's wishes/proposals	• retail sales of cuusoo.com selected products • manufacturing user innovated ideas into real products • product development process support for corporations

LEGO-CUUSOO

MUJI-CUUSOO





CORPORATE STRUCTURE:

Founder:

Kohei Nishiyama [formerly new product development consultant at McKinsey + Company]

Advisory Board:

Peter Coles [Harvard Business School]
Robert Hammond [co-founder of Friends of High Line]
Eric Von Hippel [MIT Sloan School of Management]
Karim R. Lakhani [Harvard Business School]
Yoav Shapira [software engineer]
Alan Webber [columnist]
Yoshinori Yokoyama [McKinsey + Company]

Figure 08. (left)
The operating structure of Cuusoo and Elephant design.

Cuusoo.com has proved so popular and successful that large product companies have set up collaborative relationships. For example, Lego and Muji each have individual pages where users can submit their ideas for these specific product lines, and if successfully voted and developed, users can buy the product, and the company can launch the product knowing that a core base consumer group already exists.

Though architecture is certainly not product design, one could imagine appropriating some of Cuusoo.com's strategies for listening to building users' wants and needs. Rather than architects dictating what the perfect home or perfect public space is for most people, a different type of design process enabled through web networks could change the ideas. Especially for mass-produced buildings, an open-source, participatory design process could have many positive implications. As John Habraken once wrote, mass housing results in a downward spiral of dissatisfaction where "man no longer houses himself, he is housed." [60]

> The mass-designed, mass-produced environments for an increasingly homogenized market of mass-consumers are no more than assemblies of material goods devoid of existential meaning. They are not the product of dialogue. Decisions are made for a producer's market by those themselves bound by highly institutionalized norms and procedures. The occupant buys or rents a ready-made unit in much the same way as he gets his motor car or tv set – and if it is a flat or in a tightly controlled subdivision, he can do little more with his house than he can do with the other manufactured 'goods' essential to his way of life. The intense dialogue that takes place between squatters planning an invasion and the continuing dialogue of its development and administration are, with rare exceptions, totally lacking in the modern housing process.[61]

By opening up the process of making ideas into architecture, and building a city through these ideas, non-experts can begin to be more involved in the design process, and more fully participate in their occupation of the city.

Michael Speaks, Dean of the University of Kentucky College of Design, writes that the "ability to seek out chatter and turn it into credible intelligence, an innovative process that occurs through interactive, non-linear learning" is what defines an innovative approach to problem solving in design.[62] Though he is not specifically referencing the open-source paradigm, this idea of using "chatter" to brainstorm new ways of solving problems is precisely

60. N .J. Habraken in Ward, Colin. Housing: An Anarchist Approach. London: Freedom Press, 1983.

61. John Turner in Ward, Colin. Housing: An Anarchist Approach. London: Freedom Press, 1983.

62. Speaks, Michael. "Design Intelligence." Hunch 6/7: 109 Provisional Attempts to Address Six Simple and Hard Questions About What Architects Do Today and Where Their Profession Might Go Tomorrow. Dekalb, Illinois: Education Studies Press, 2003.

what open-source design processes could do.

> Problem-solving is an essentially conservative approach that accepts without question the parameters of a given problem. Design is meant to work within those parameters in linear fashion until a solution to the problem is reached; a final design. Innovation operates by an affirmative, non-linear process of continuous feedback, through which opportunities are discovered that are exploited and transformed into designs not posed or unforeseen by the problem. While problem-solving works within a given paradigm to solve known problems, innovation risks working with existent but unknown or seemingly extraneous conditions, in order to discover opportunities that could not have been predicted in advance.[63]

63. *Ibid*.

Thus, through innovating the process by which architecture is designed, and using open-source methods to incorporate ideas from non-experts, a whole new array of inventive solutions may be discovered.

Open Design Ideas:

Taking the idea of open-source one step further, the sharing of architectural design proposals could revolutionize the field by offering good design ideas for free to the greater public. Through this action, design experts can empower non-experts to shape their own built environments to better suit their needs and desires. As a result, a truly utopian city, shaped by inhabitants' needs and desires, may perhaps be achieved.

Adaptable environments have been a long-sought utopian ideal by architects and planners alike. One only has to imagine a city where the built environment is not a static stage set, but rather an ever-changing canvas for human activity. Architects have always had a fascination for designing flexible structures that users can transform according to their needs. A compelling and seductive idea, adaptable architecture has been imagined by designers from Constant Nieuwenhuis to Sir Richard Rogers:

> One of the things which we are searching for is a form of architecture which, unlike classical architecture, is not perfect and finite upon completion…We are looking for an architecture rather like some music and poetry which can actually be changed by the users, an architecture of improvisation.[64]

64. Rogers, Richard. "The Artist and the Scientist." Bridging the Gap. New York: Van Nostrand Reinhold, 1991.

However compelling the utopian vision of an adaptable city may be, truly flexible architecture in the traditionally top-down mode of architecture is quite challenging and requires a combination of an innovative and appropriate design in combination with the perfect user. First, the architect must have uncannily good predictive powers in order to measure the costs to someone at some specific future date to adapt a building to some defined change, at some level of performance.[65] Further, the architect must consider 'manipulability', or "those changes in the spatial system which can be achieved by individuals or small groups, at low cost, in a short time, with little political leverage." [66] Other measures of adaptability include 'reversibility', or the consideration of returning a site to some previous condition, and 'resilience', or how the building responds to disruptions in the spatial system.[67] Finally, the adaptable nature of the building, and the knowledge of how the building can be adapted, must be either kept fresh within a user's lexicon, or be inherently intuitive. In order to successfully consider all of these measures at once, an architect must possess rather extraordinary skills of prediction and design, as well as be fortuitously blessed with rather predictable but DIY ('do-it-yourself') enthusiast users.

Unless all of the above factors serendipitously come together, most architects may never experience the successful design, construction and adaptation of a building project. Thus, rather than a top-down approach to utopia, a bottom-up strategy could perhaps be more effective. Most utopias of the past "thrust utopia on the masses and try to change man from without. Less often, they encourage man to change himself. And yet, ultimately, only he can develop that inner self…called 'the living spirit within the soul.'" [68] If we recognize that in fact, individual non-experts may be the most effectual agents within the building of a city, and we agree that "an unused building is nothing else than a ruin," [69] then the sharing of design ideas between experts and non-experts should be embraced to truly move towards an adaptable, flexible city.

If this idea seems far-fetched, there are numerous past examples of so-called 'non-experts' successfully taking control of their own environments (with or without architects). In fact, some say that non-experts have historically been better at building their own homes than professional architects. After all, "homes are the domain of slowly shifting fantasies and rapidly shifting needs." [70] As Ivan Illich writes, "dwelling is an activity that lies beyond the reach of the architect not only because it is a popular art; not only because it goes on and on in waves that escape his control; not only because it is of a tender complexity outside of the horizon of mere biologists and system analysts; but above all because no two communities dwell alike." [71]

65. Lynch, Kevin. "Some Notes on 'Adaptability.'" Course notes. Theory of City Form. Department of Architecture, Massachusetts Institute of Technology. Spring 1978.

66. *Ibid*.

67. *Ibid*.

68. Curtis, Edith Roelkler. A Season in Utopia: The Story of Brook Farm. New York: Thomas Nelson and Sons, 1961. from Manuel, Frank E. ed. Utopias and Utopian Thought. Boston: Houghton Mifflin, 1966.

69. Friedman, Yona. "Function Follows Form." Non-Plan: Essays on Freedom, Participation and Change in Modern Architecture and Urbanism. Eds. Jonathan Hughes and Simon Sadler. Oxford; Boston: Architectural Press, 2000.

70. Brand, Stuart. How Buildings Learn: What Happens After They're Built. New York: Viking, 1994.

71. Illich, Ivan. In the Mirror of the Past. London, New York: Marion Boyars, 1992.

In fact, some say that man's ability to "dwell" helps him feel fulfilled in ways an architect cannot do for others. As Christian Norberg-Schulz elaborated, 'genius loci' or 'spirit of place' which enables man to orient himself and identify with an environment is created through the action of dwelling. According to Norberg-Schulz, the architect's role is to create meaningful places which have the capacity of receiving different contents, and may be interpreted in different ways. Through this interpretive process, "what was there as possibilities at the outset, is uncovered through human action, illuminated and 'kept' in works of architecture which are simultaneously 'old and new'." [72]

Looking back at the 20th century provides some inspiring precedents of DIY ('do-it-yourself') approaches to architecture, specifically home building. Post World War II, housing shortages in England prompted radical action by Post Office factory workers in Birmingham.[73] 50 telephone mechanics, clerks and store men formed a cooperative in 1949 to jointly built their own homes. They independently selected a site, found an architect to design a standard bungalow, and learned how to lay bricks. They fixed mortgages with a building society, rented construction equipment, formed construction gangs and even worked out their own points system to establish the order of possession of each finished home. Successfully completed, this and other instances of self-help housing solutions led eventually to the Housing Act of 1974 through which the Housing Corporation of England lent funds to self-build associations and helped them acquire sites. In these examples, rather than fully hire an architect or other design expert, these self-help groups acquired the expert knowledge and then forged ahead while knowing "just enough". That "just enough" knowledge of architecture was then enough for them to create the community they desired.

Later in the 1970s, DIY was revived as a popular mode of home-improvement in the U.S., and manuals such as the Reader's Digest were sold widely. "In a small but socially important way, people were taking control of their own domestic environments." [74] However, in more recent generations, this innate skill for dwelling is dissipating. Because of increasing mass production of homes and stricter code regulations (among other factors), fewer and fewer people have the knowledge and ability to shape their own buildings. Non-experts increasingly rely on architects or contractors for home alterations, and for many, this process is too expensive. As John Turner points out, the poor of poor countries possess 3 freedoms that the poor of rich countries have lost: 1) the freedom of community self-selection; 2) the freedom to budget one's own resources; and 3) the freedom to shape one's own environment.[75]

72. Norberg-Schulz, Christian. Genius Loci: Towards a Phenomenology of Architecture. New York: Rizzoli, 1979.

73. Ward, Colin. Housing: An Anarchist Approach. London: Freedom Press, 1983.

74. Hughes, Jonathan. "The Indeterminate Building." Non-Plan: Essays on Freedom, Participation and Change in Modern Architecture and Urbanism. Eds. Jonathan Hughes and Simon Sadler. Oxford; Boston: Architectural Press, 2000.

75. John Turner in Ward, Colin. Housing: An Anarchist Approach. London: Freedom Press, 1983.

Nevertheless, though specific skills relative to building may no longer be the norm for most Americans, the current and upcoming generations have grown up with the notion of "rip, mix, and burn" [76] in multiple contexts (music, information, images) and increasingly popularize DIY websites and magazines such as Make.com or Instructables.com. These DIY websites encourage users to venture into the realm of doing things themselves, and then to share their failures and successes with others. Riding on the wave of such DIY movements, the adaptation of buildings may become a more widespread phenomenon again in the very near future.

76. Lessig, Lawrence. Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity. New York: Penguin Press, 2004.

Spanish architect Santiago Cirugeda's Recetas Urbanas (or Urban Prescriptions) are a smart and intriguing operational model in which the architect himself first takes on the DIY model for changing his surroundings through clever design solutions (see Figure 09). Maneuvering carefully within established local legal frameworks - and by doing so - challenging them - Cirugeda reads between the lines and inserts his architectural interventions opportunistically between the cracks. For example, he takes advantage of the legal process by which to obtain a license for a dumpster near construction sites, follows procedure to gain permission, then turns the dumpster into a public park. Taking one step further, he then publishes the method by which he has accomplished this task, and encourages others to take the same actions in their own neighborhoods, adapting the skip to fulfill a locally desired function (he suggest a picnic shelter, a seesaw, a playground, etc.). In this way, a second DIY loop is added upon the first, encouraging others to take interest in their complex urban environments and empowering them with the tools of physical change. Subverting the conventional role of an architect, Cirugeda becomes both an expert advisor and co-conspirator for those who dare to intervene within the city.

Again, encouraging non-experts to interact with their built environment differently should not necessarily lead to less commissions for architects or design experts. Rather, if non-experts begin to appreciate the value of well-designed spaces and places, perhaps the average architect's work will begin to become more creative and forward-thinking. Open-source architecture should have the overall goal of good designs becoming accessible to all people. As a result, architectural design will no longer be an extravagance that is only commissioned by the wealthy, but rather, may again begin to be valued as an indispensable part of the process of building a good city.

Santiago Cirugeda / RECETAS URBANAS

THE 'DESIGN FIRM':

"All the urban prescriptions showed next are public domain and may be used in all its strategic and juridical proceedings by the citizens who may try out to do it.

Recommends a full research on the different urban locations and situations in which the citizen may want to intervene.

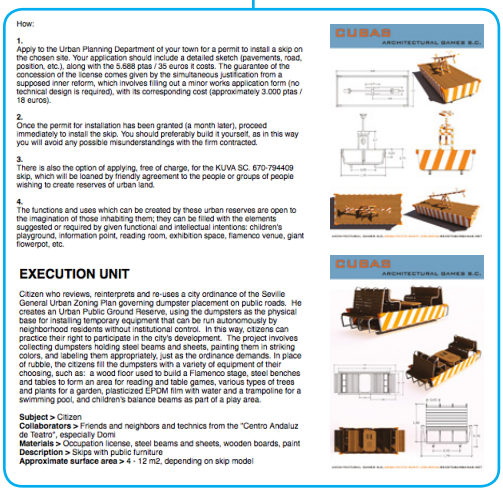
Any physical or intellectual risk produced by such interventions will be on each citizen account."

Santiago Cirugeda

Recetas Urbanas
Urban Prescriptions

Figure 09. (below)
The operating structure of Santiago Cirugeda's Recetas Urbanas.

THE SERVICES:



How:

1.
Apply to the Urban Planning Department of your town for a permit to install a skip on the chosen site. Your application should include a detailed sketch (pavements, road, position, etc.), along with the 5.688 ptas / 35 euros it costs. The guarantee of the concession of the license comes given by the simultaneous justification from a supposed inner reform, which involves filling out a minor works application form (no technical design is required), with its corresponding cost (approximately 3.000 ptas / 18 euros).

2.
Once the permit for installation has been granted (a month later), proceed immediately to install the skip. You should preferably build it yourself, as in this way you will avoid any possible misunderstandings with the firm contracted.

3.
There is also the option of applying, free of charge, for the KUVA SC. 670-794409 skip, which will be loaned by friendly agreement to the people or groups of people wishing to create reserves of urban land.

4.
The functions and uses which can be created by these urban reserves are open to the imagination of those inhabiting them; they can be filled with the elements suggested or required by given functional and intellectual intentions: children's playground, information point, reading room, exhibition space, flamenco venue, giant flowerpot, etc.

EXECUTION UNIT

Citizen who reviews, reinterprets and re-uses a city ordinance of the Seville General Urban Zoning Plan governing dumpster placement on public roads. He creates an Urban Public Ground Reserve, using the dumpsters as the physical base for installing temporary equipment that can be run autonomously by neighborhood residents without institutional control. In this way, citizens can practice their right to participate in the city's development. The project involves collecting dumpsters holding steel beams and sheets, painting them in striking colors, and labeling them appropriately, just as the ordinance demands. In place of rubble, the citizens fill the dumpsters with a variety of equipment of their choosing, such as: a wood floor used to build a Flamenco stage, steel benches and tables to form an area for reading and table games, various types of trees and plants for a garden, plasticized EPDM film with water and a trampoline for a swimming pool, and children's balance beams as part of a play area.

Subject > Citizen
Collaborators > Friends and neighbors and technics from the "Centro Andaluz de Teatro", especially Domi
Materials > Occupation license, steel beams and sheets, wooden boards, paint
Description > Skips with public furniture
Approximate surface area > 4 - 12 m2, depending on skip model

THE DISSEMINATION:

Conclusion: Towards a Pragmatist's Utopia

As cities grow and their problems become increasingly complex and urgent, new approaches for solving old problems are needed. After all, "if all you ever do is all you've ever done, then all you'll ever get is all you ever got." [77] This paper has outlined how the open-source paradigm can radically transform how we approach urban problems today and set up a new model of operation for the future.

77. Old Texas saying

Through open action, open regulatory code, and open data, city governments and planning agencies can initiate new dialogues with their constituents, incorporating bottom-up feedback into their top-down frameworks. Through open design processes and the open-source sharing of designs, architects and urban designers can optimize their own expertise, as well as empower non-experts to literally build their own dreams. Further, the open-source spirit has the potential to spark an unprecedented level of urban literacy within cities, such that individual citizens can go beyond "read only" to "do-it-yourself":

> "Read only." Passive recipients of culture produced elsewhere. Couch potatoes. Consumers. This is the world of…the twentieth century. The twenty-first century could be different. This is the crucial point: It could be both read and write…The aim of any literacy…is to "empower people to choose the appropriate language for what they need to create or express." [78]

78. Interview with Elizabeth Daley and Stephanie Barish, director of Multimedia Literacy at the Annenberg Center in Lessig, Lawrence. Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity. New York: Penguin Press, 2004.

The power of open-source as an idea lies in the re-valuing of collaboration and cooperation among diverse experts, for the purpose of advancing the common good. Growing technologies are making open-source the method for leveraging knowledge at an individual level, as people begin to try to solve their own problems themselves. Real and lasting societal changes can only happen through the productive marriage of top-down frameworks and bottom-up groundswell movements, and an open-source paradigm for the city is the key towards an optimistic future.

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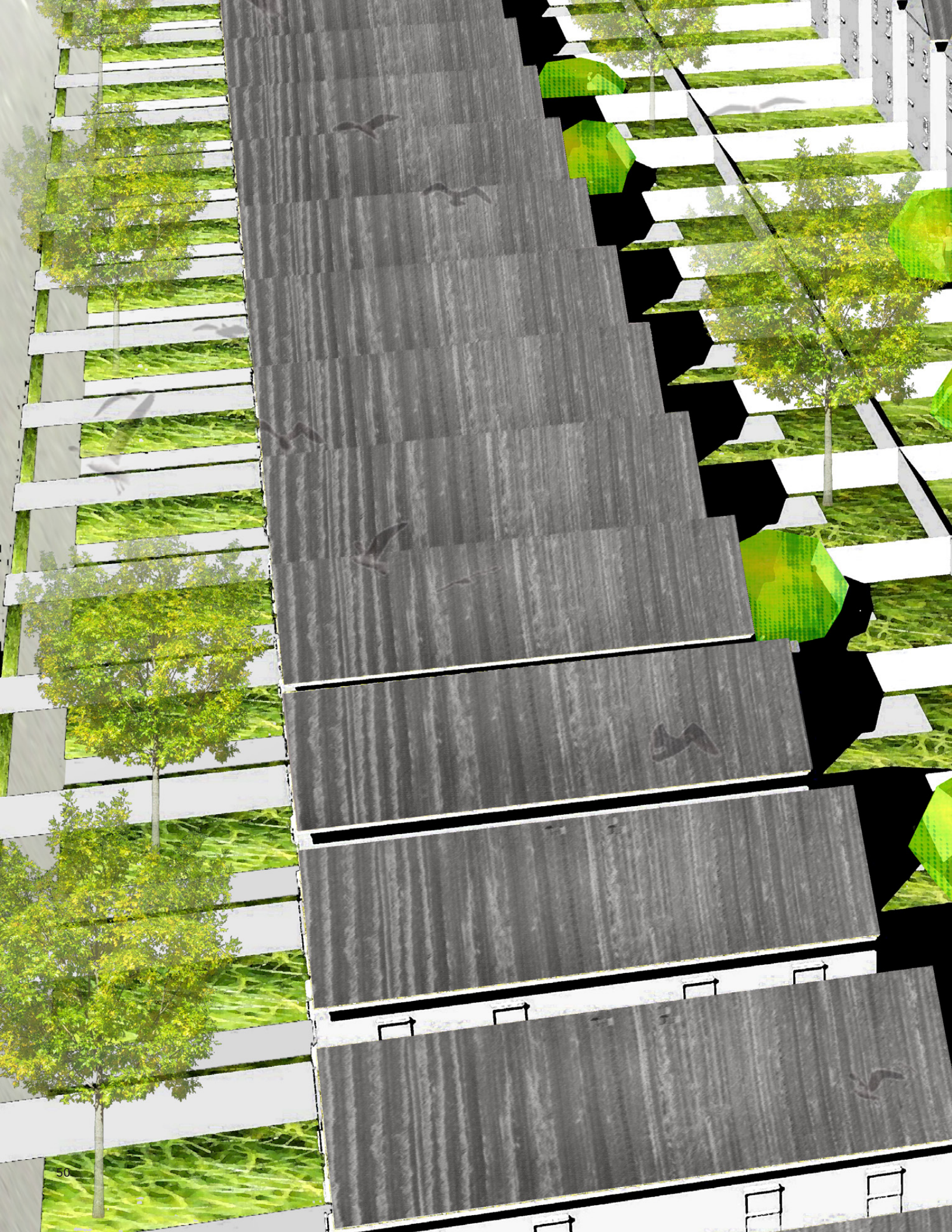
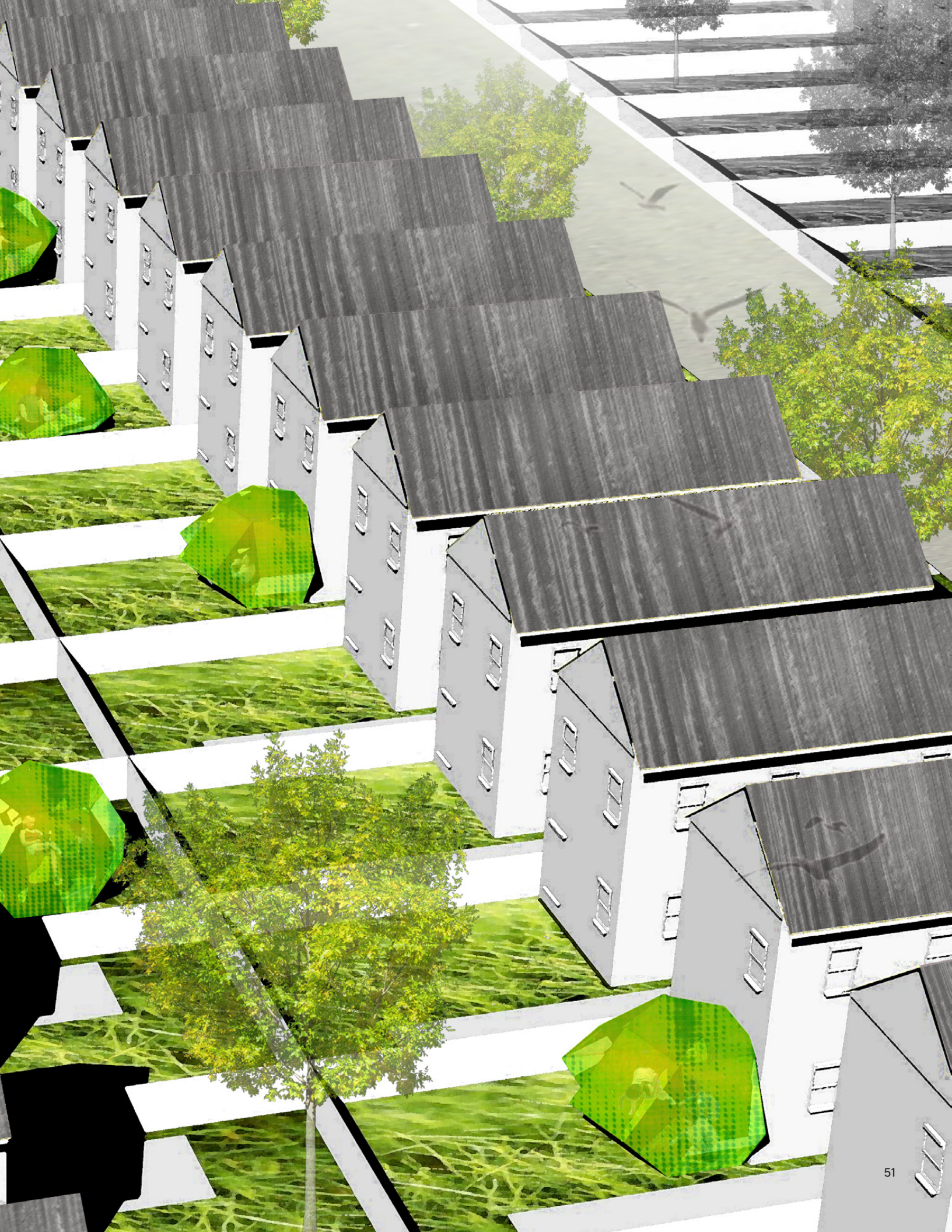
Projects

Project #1. Add-Pod

Port Richmond, Staten Island





Project #1. Add-Pod
Port Richmond, Staten Island

Architects have long been seduced by the idea of an indeterminate architecture. From Constant's New Babylon[1] to Cedric Price's Fun Palace, the dream of a single flexible structure that can simultaneously fulfill multiple desires has occupied a prominent place in the architectural imagination. Many attempts at architectural indeterminacy in the past have taken on the form of a "clip-on"[2] operation, through which discrete architectural elements can be aggregated (or detached). Often, these clip-on architectures are designed as largely mechanical devices, attempting to technically solve the problem of indeterminacy through additive rooms that plug-in to a larger infrastructure. However, the most compelling thing about most clip-on architectures is often their optimistic engagement with spatial types of the future and their willingness to embrace utopian scenarios.

1. See p. 217 in the Catalog of Inspirational Projects in the Appendix for further information on Constant's New Babylon.

2. For further reading on the subject, see Banham, Reyner. "A Clip-On Architecture." Design Quarterly 63. 1965.

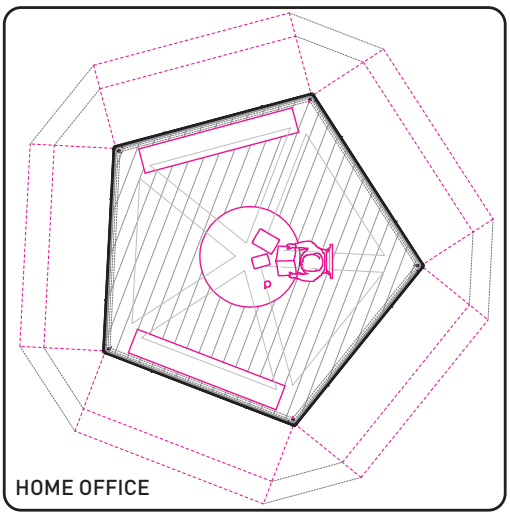
Following in these illustrious footsteps of clip-on architects of the past, the Open Agency Project proposes the Add-Pod, a do-it-yourself version of a clip-on for the conventional small single family home. The Add-Pod can be built with store-bought materials, and can be assembled without the use of heavy machinery or extensive construction experience. Further, the Add-Pod is much more affordable than a traditional home addition, since it does not require the time of an architect, the work of a professional builder, or the approval of a building inspector.

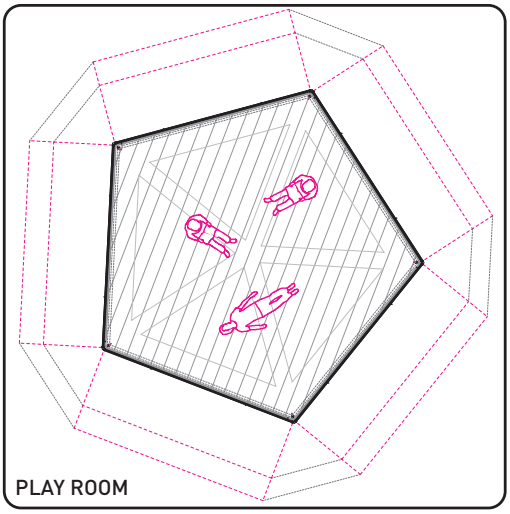
The Add-Pod is not a literal plug-in, as it is not activated through "plugging-in" to existing infrastructure. Rather, the simple action of entering the pod makes the space come alive, and the pod interior becomes the host for infinite possibilities of occupation. The Add-Pod is intentionally designed as a single empty space so that individuals can impose almost any type of use upon it. The most typical predicted uses are a home office, a children's play room, or simply storage space. However, users should let their imaginations roam free when deciding how to make the most of their extra space. The Add-Pod is best thought of as a spatial clip-on that enables hopes and dreams to be made into a reality.

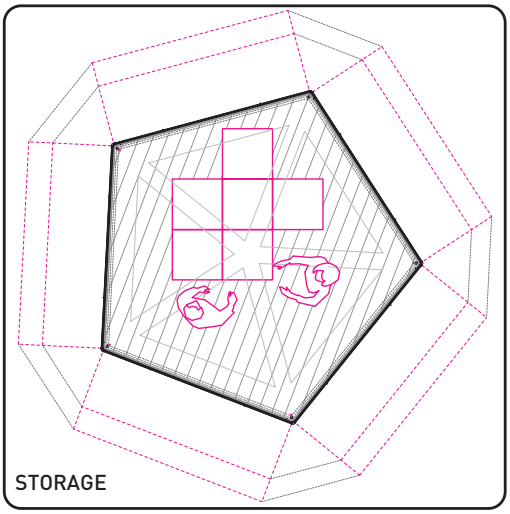
The Add-Pod is a devious structure. It outsmarts the restrictions on the size of back yard structures by maintaining the required dimensions when empty, but expanding far beyond them when occupied. Thus, the pod can be quickly retracted to its minimum dimensions in case an inspector happens to be lurking about, but takes maximum advantage of normally unused space for the majority of the time. Further, the materials used are chosen to imitate a conventional greenhouse[3], and green mesh fabric is used to line the interior, giving the illusion of greenery growing inside. Finally, the reflective bubble wrap that insulates the interior simultaneously deflects unwanted eyes and provides further camouflage by reflecting the colors of surrounding grass and plants.

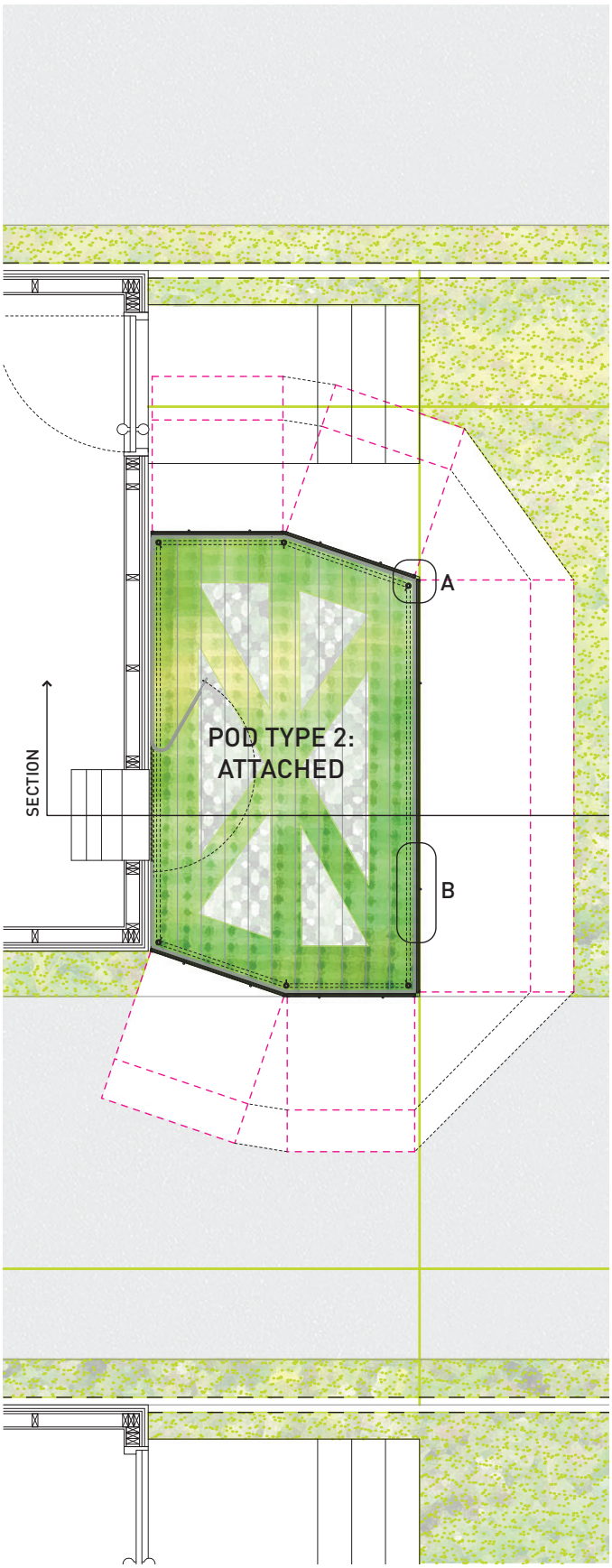
3. This allows the structure to be legally considered a greenhouse, in terms of zoning regulations and building code.

Because the Add-Pod is composed of easily accessible and affordable materials, the dream of a clip-on architecture is made attainable for those who may not normally have the privilege of indulging in building dream homes. The Add-Pod advocates for a small victory against the mundane life of the average single family neighborhood; simultaneously a conventional back yard structure and a foreign spaceship, the Add-Pod may provoke the curiosity of neighbors and inspectors, but is assuredly a legal addition to your wildest dreams.



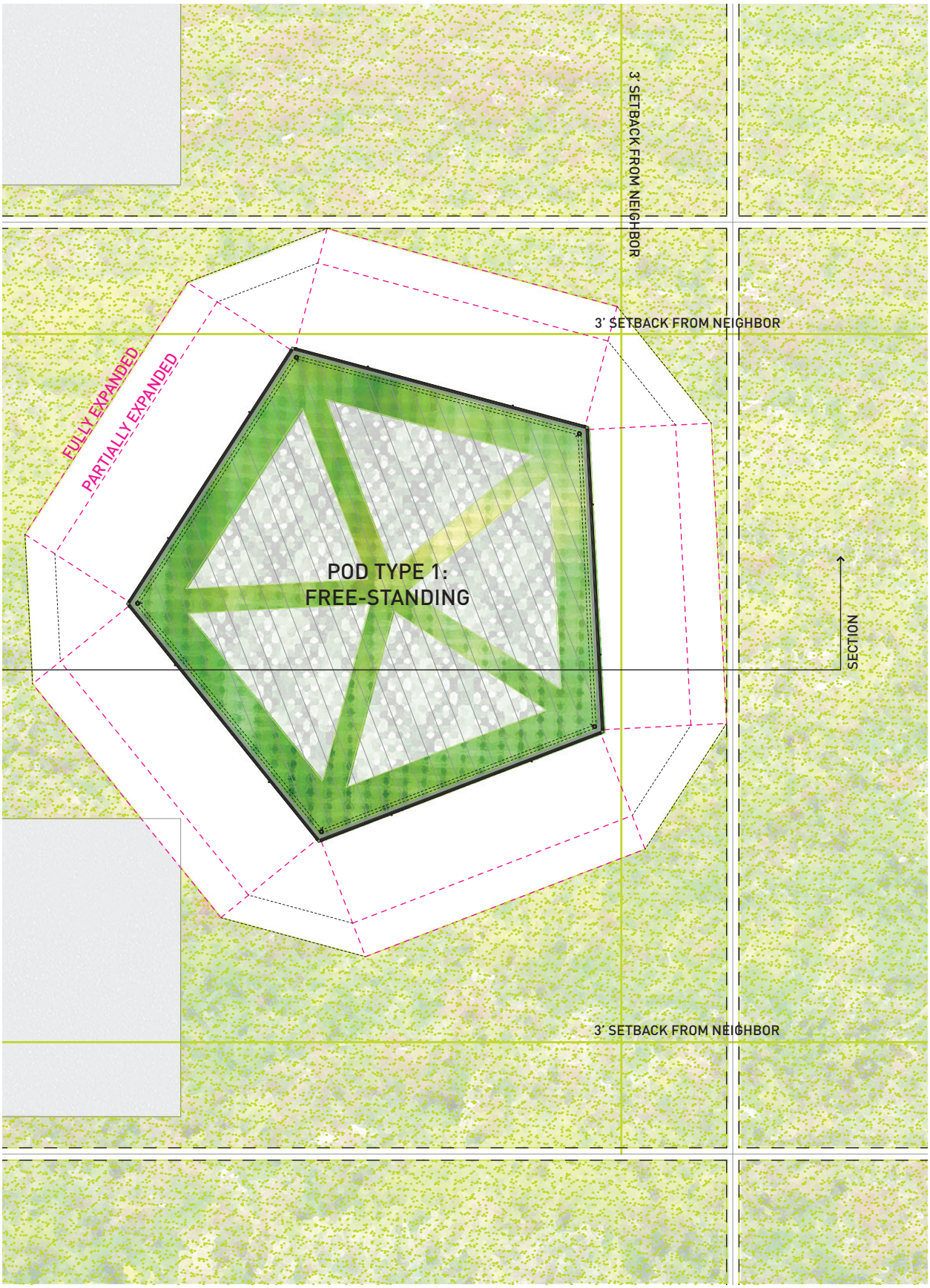


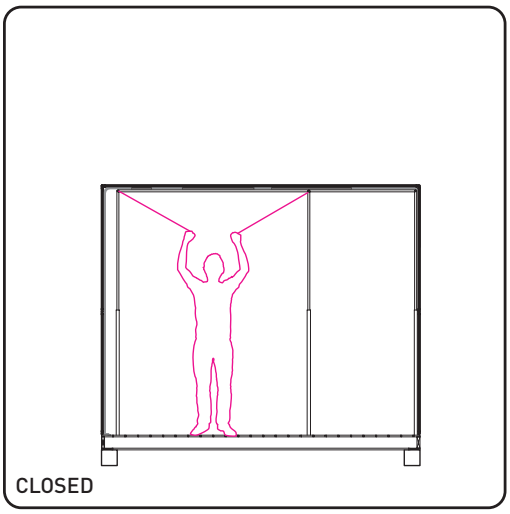


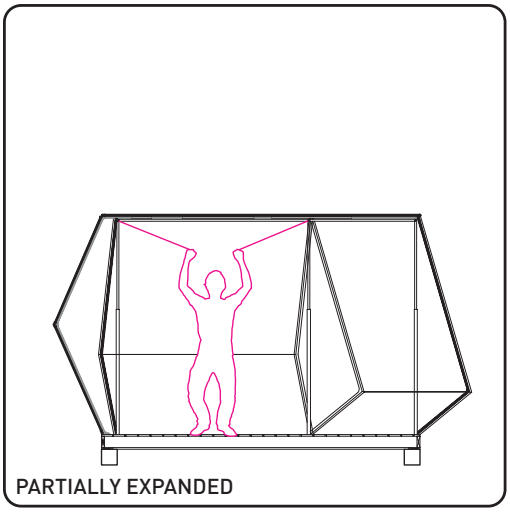


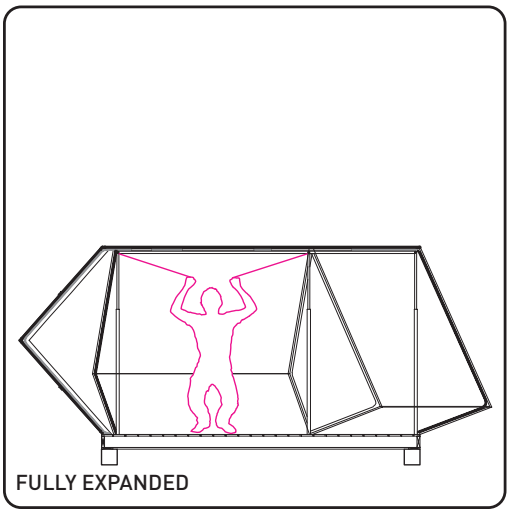
Programmatic options (above)

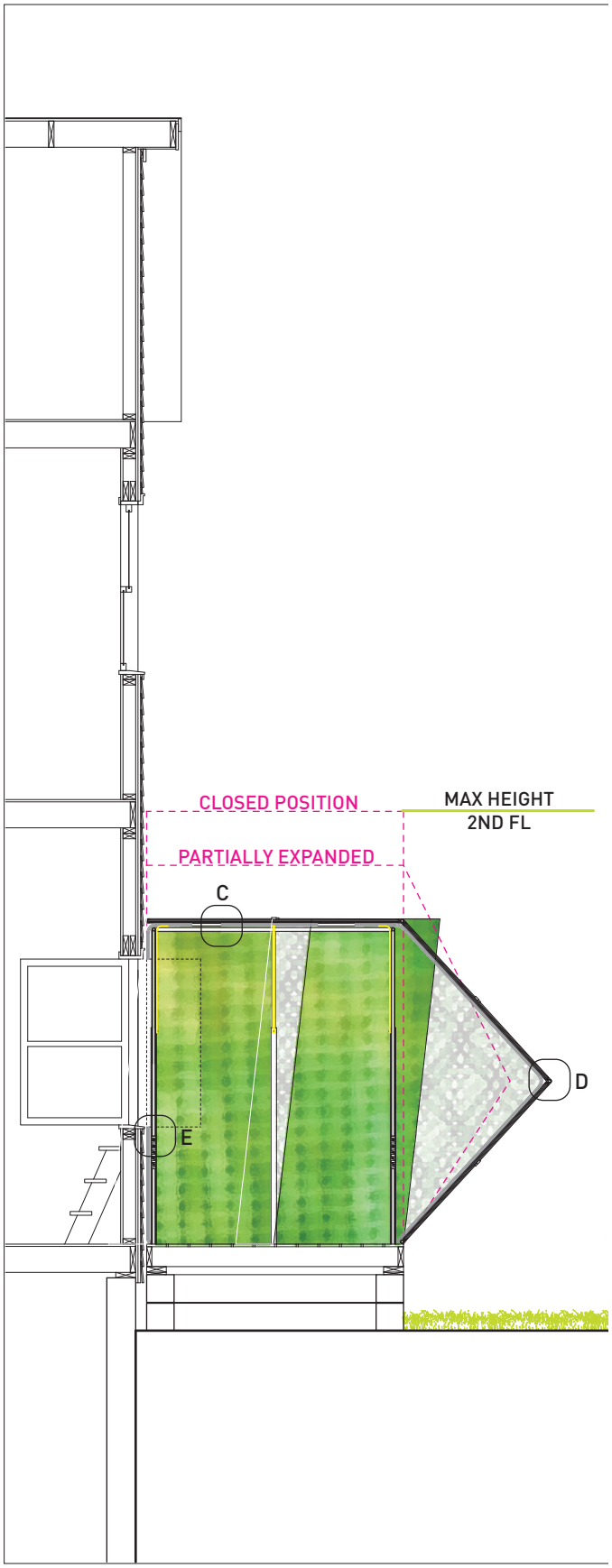
Plan (right)
*(N.T.S.) original drawing at 1/2" = 1'-0"


3' SETBACK FROM NEIGHBOR
3' SETBACK FROM NEIGHBOR
FULLY EXPANDED
PARTIALLY EXPANDED
POD TYPE 1:
FREE-STANDING
SECTION
3' SETBACK FROM NEIGHBOR



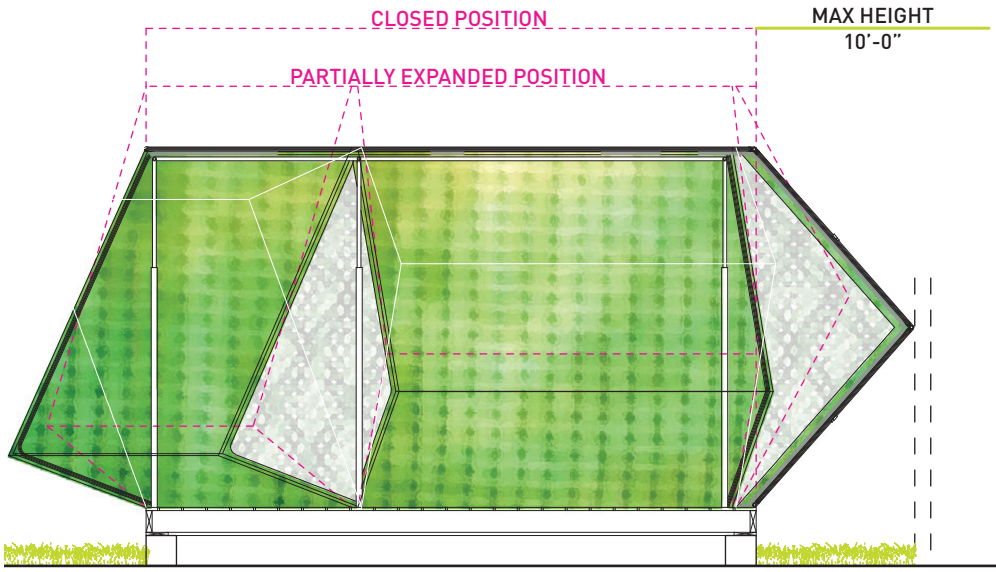


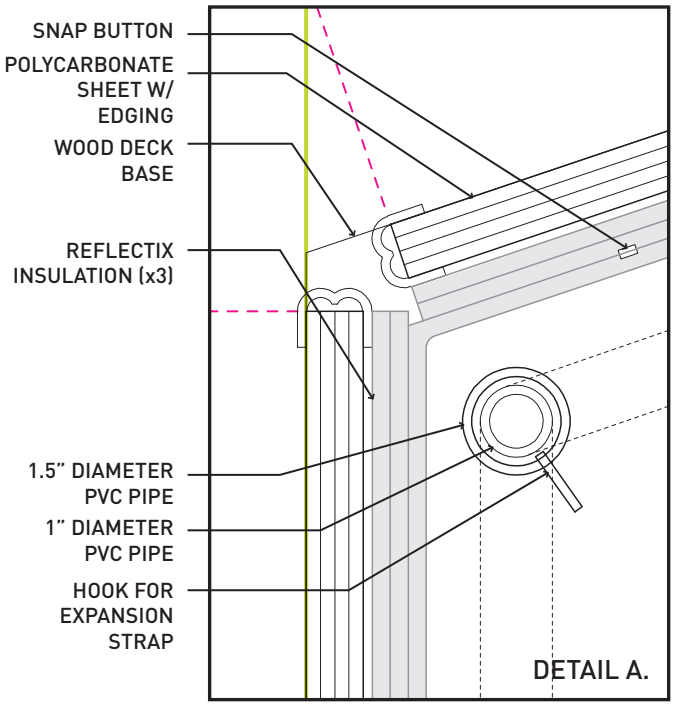


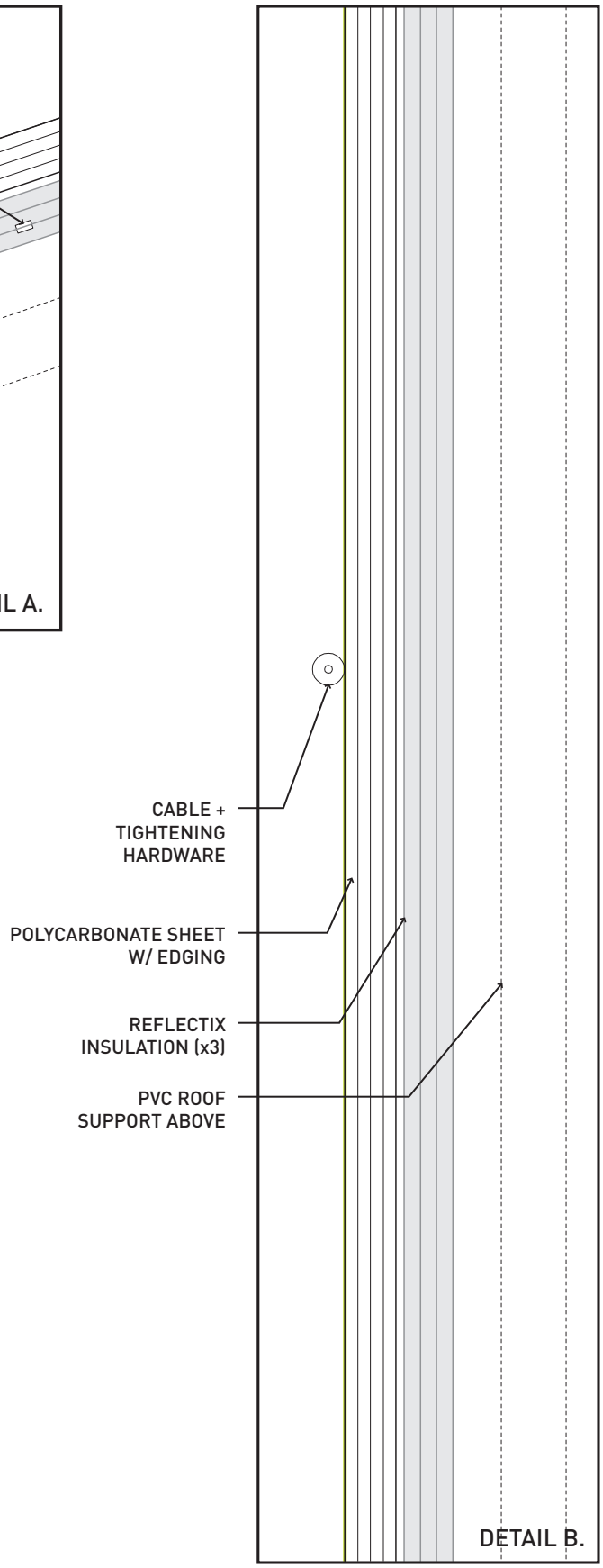


Expansion options (above)

Section (right)
*(N.T.S.) original drawing at 1/2" = 1'-0"


CLOSED POSITION
MAX HEIGHT
10'-0"
PARTIALLY EXPANDED POSITION





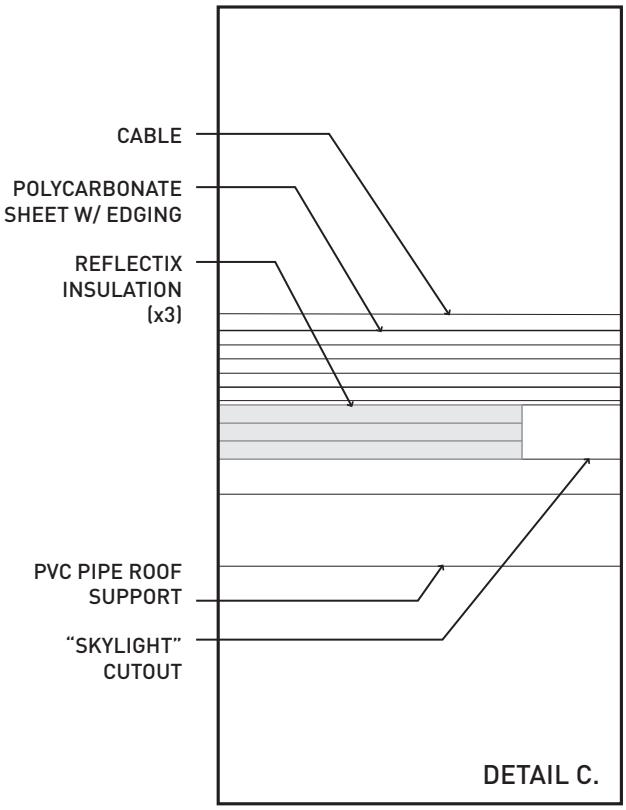
Detail A. Corner joint (this page, left)
*(N.T.S.) original drawing at 1" = 2"

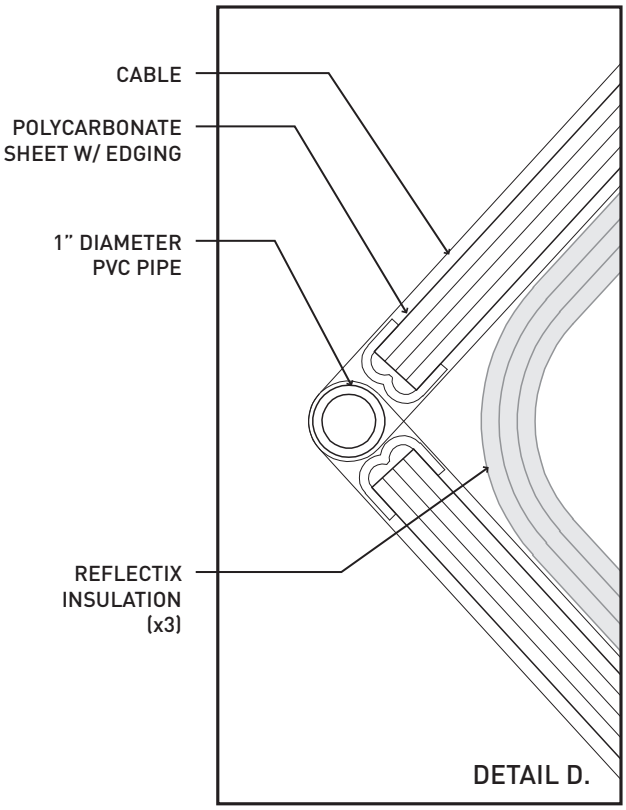
Detail B. Wall section (this page, right)
*(N.T.S.) original drawing at 1" = 2"

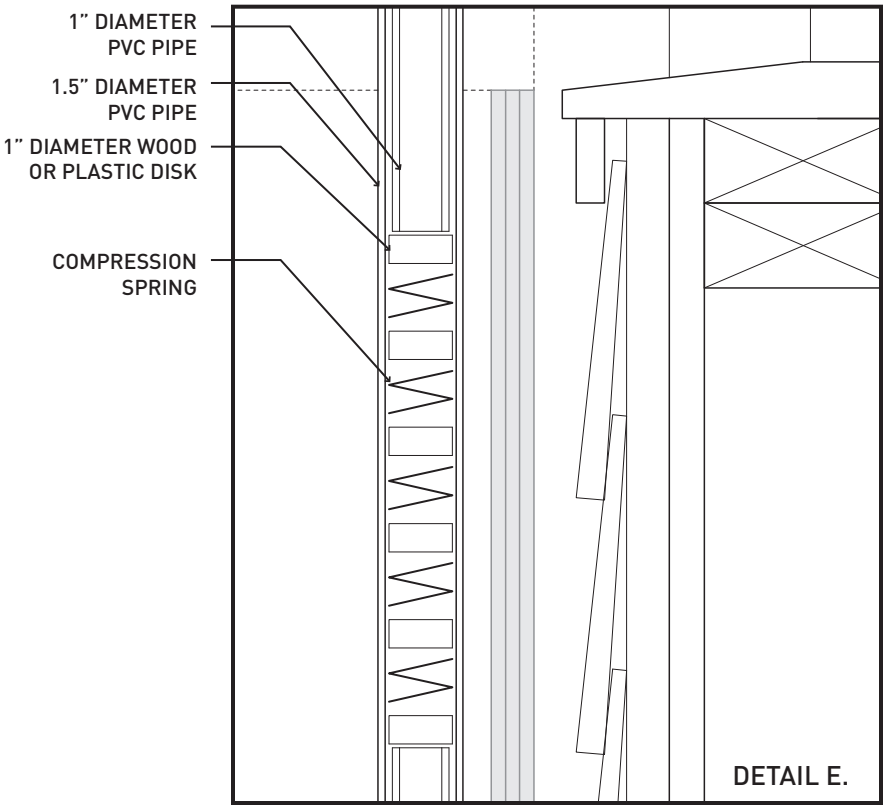
Detail C. Roof section (opp. page, top left)
*(N.T.S.) original drawing at 1" = 2"

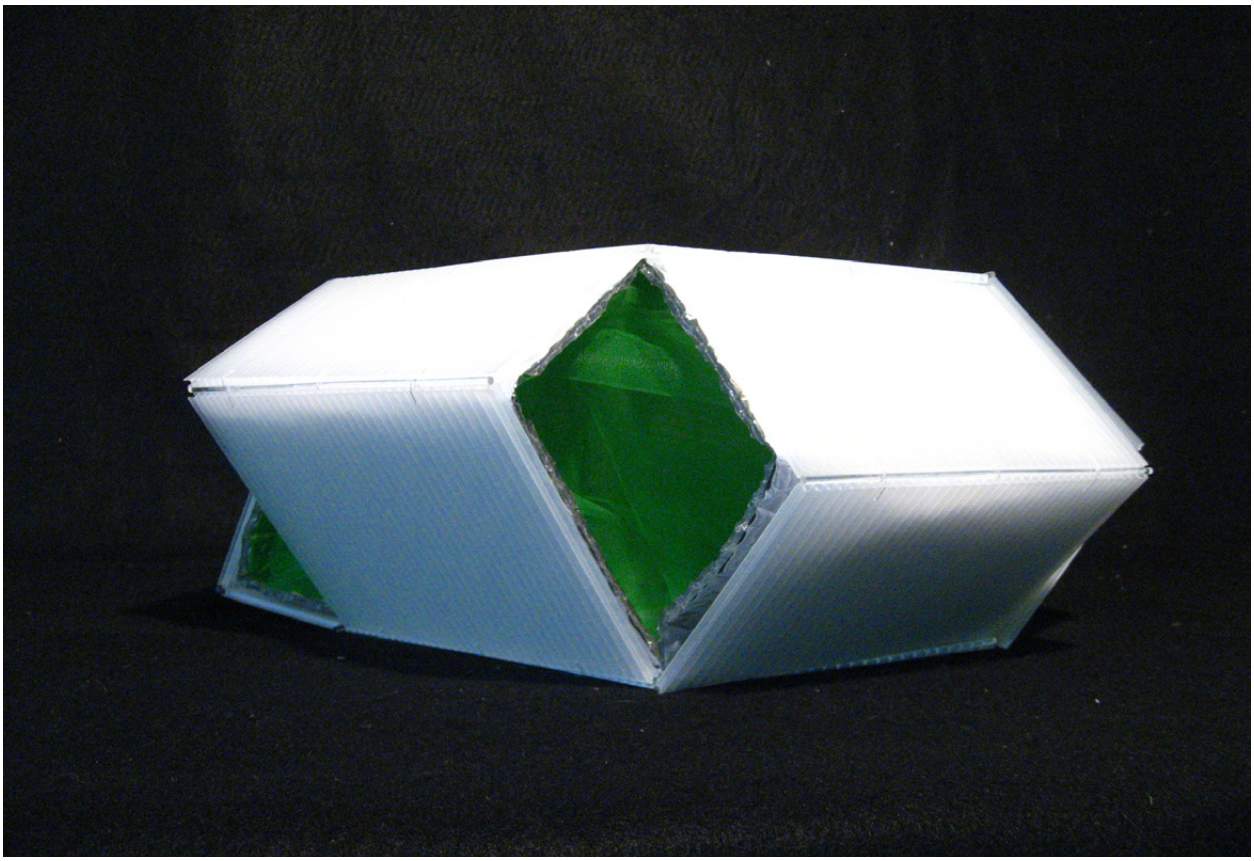
Detail D. Wall section (opp. page, top right)
*(N.T.S.) original drawing at 1" = 2"

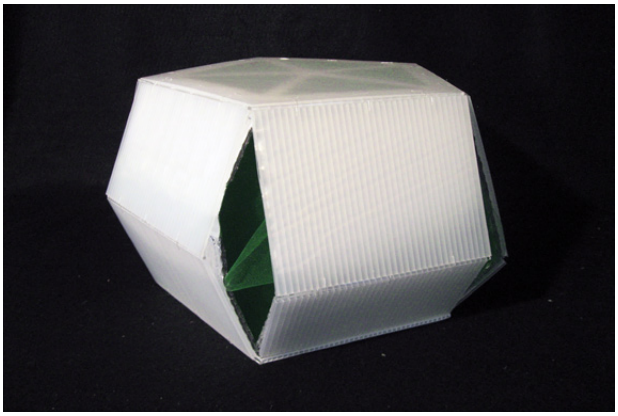
Detail E. Spring-loaded column (opp. page, bottom)
*(N.T.S.) original drawing at 1" = 2"

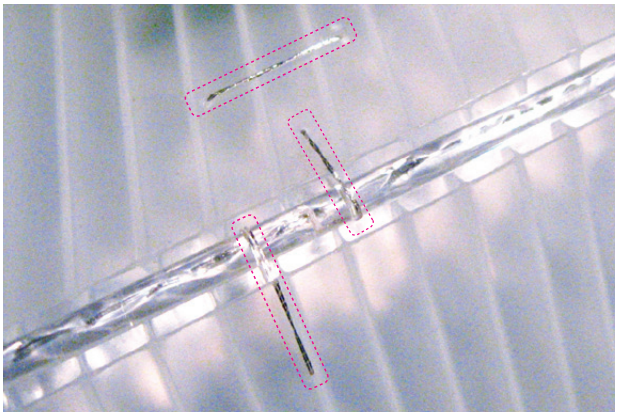

CABLE
POLYCARBONATE SHEET W/ EDGING
REFLECTIX INSULATION (x3)
PVC PIPE ROOF SUPPORT
"SKYLIGHT" CUTOUT
DETAIL C.


CABLE
POLYCARBONATE SHEET W/ EDGING
1" DIAMETER PVC PIPE
REFLECTIX INSULATION (x3)
DETAIL D.


1" DIAMETER PVC PIPE
1.5" DIAMETER PVC PIPE
1" DIAMETER WOOD OR PLASTIC DISK
COMPRESSION SPRING
DETAIL E.





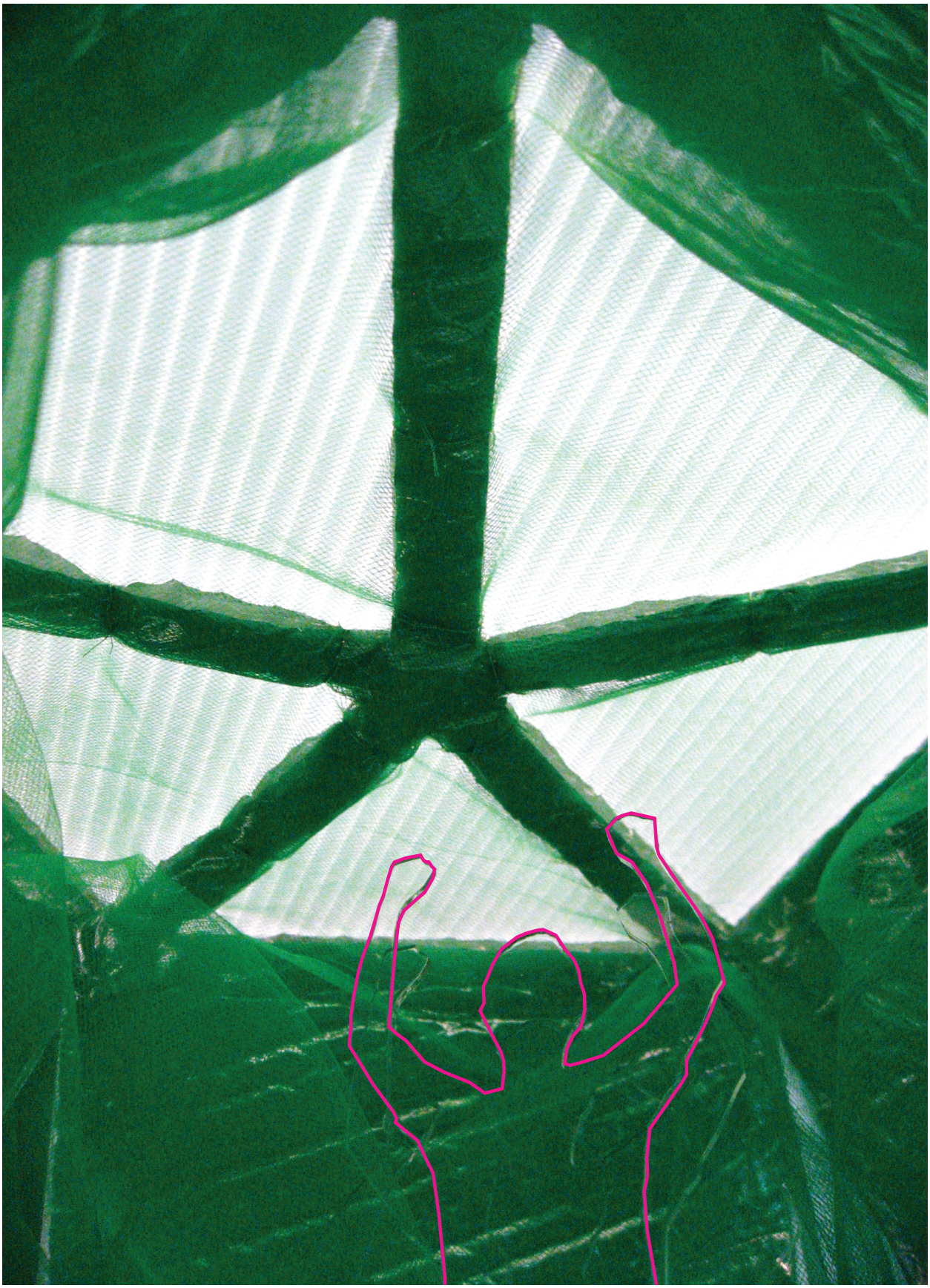


Model photo (this page, top)
Add-Pod with full expansion.

Model photo (this page, bottom left)
Add-Pod with slight expansion.

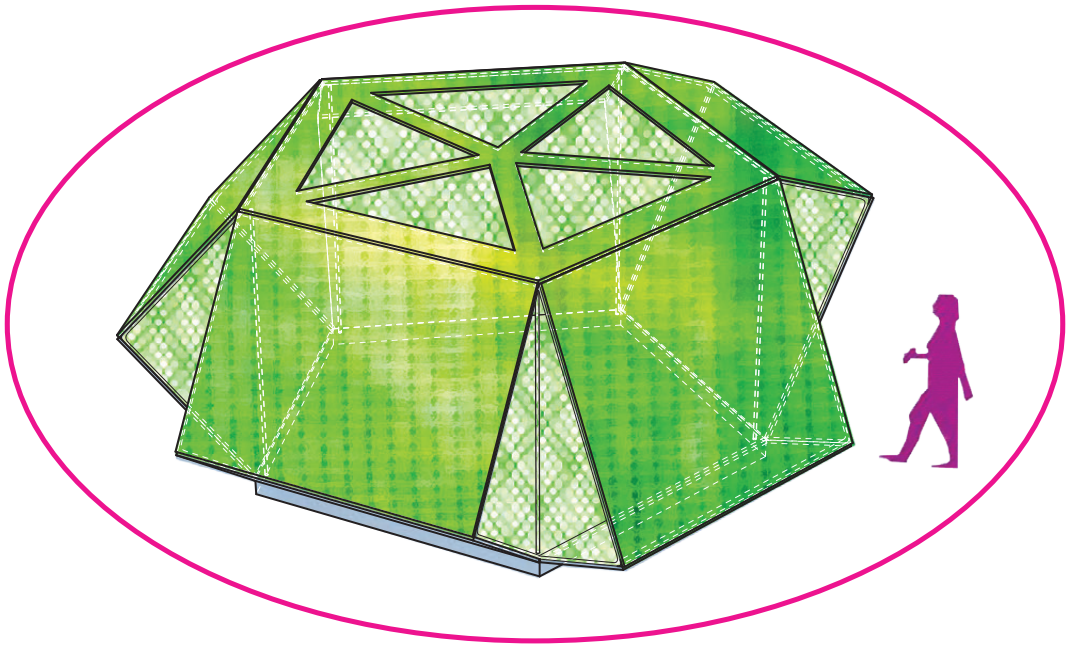
Model photo (this page, bottom right)
Detail view of joint connections, shown in pink.

Model photo (opp. page)
Interior view of skylight while inhabitant expands the pod.



Add-Pod Handbook:

How to make a greenhouse to grow more space!

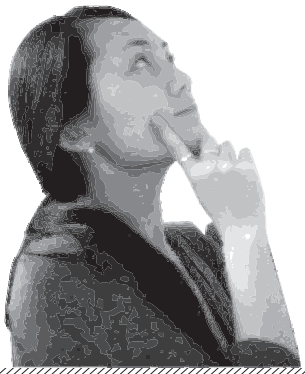


architect architect architect architect architect

I have a great idea for a quick pod that can expand when it needs to!

homeowner homeowner homeowner homeowner

I need a bigger house!...it would be great if I could add some space without going through all the hassle of getting permits + paying a contractor...



THE OPEN AGENCY PROJECT

http://openagencyproject.com

Project #1

What is the Add-Pod?

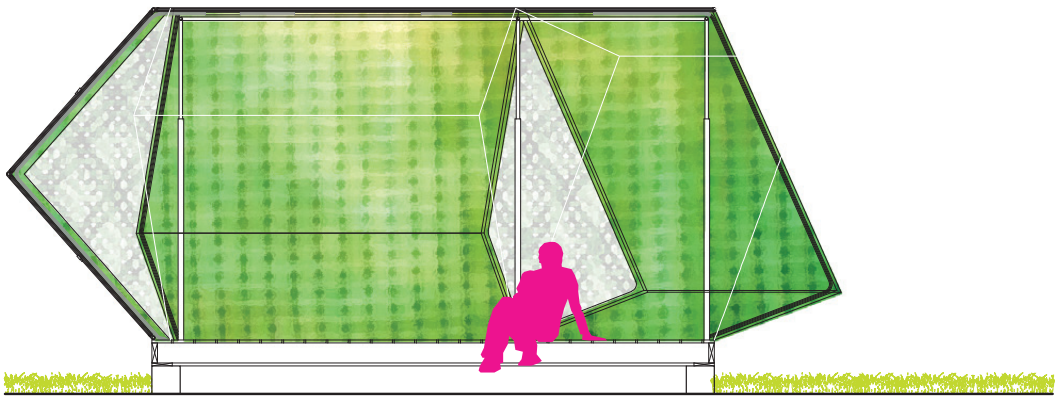
Need your house to expand at the same rate that your family grows?

Do you want a bigger house, but don't want to move too far away from the city?

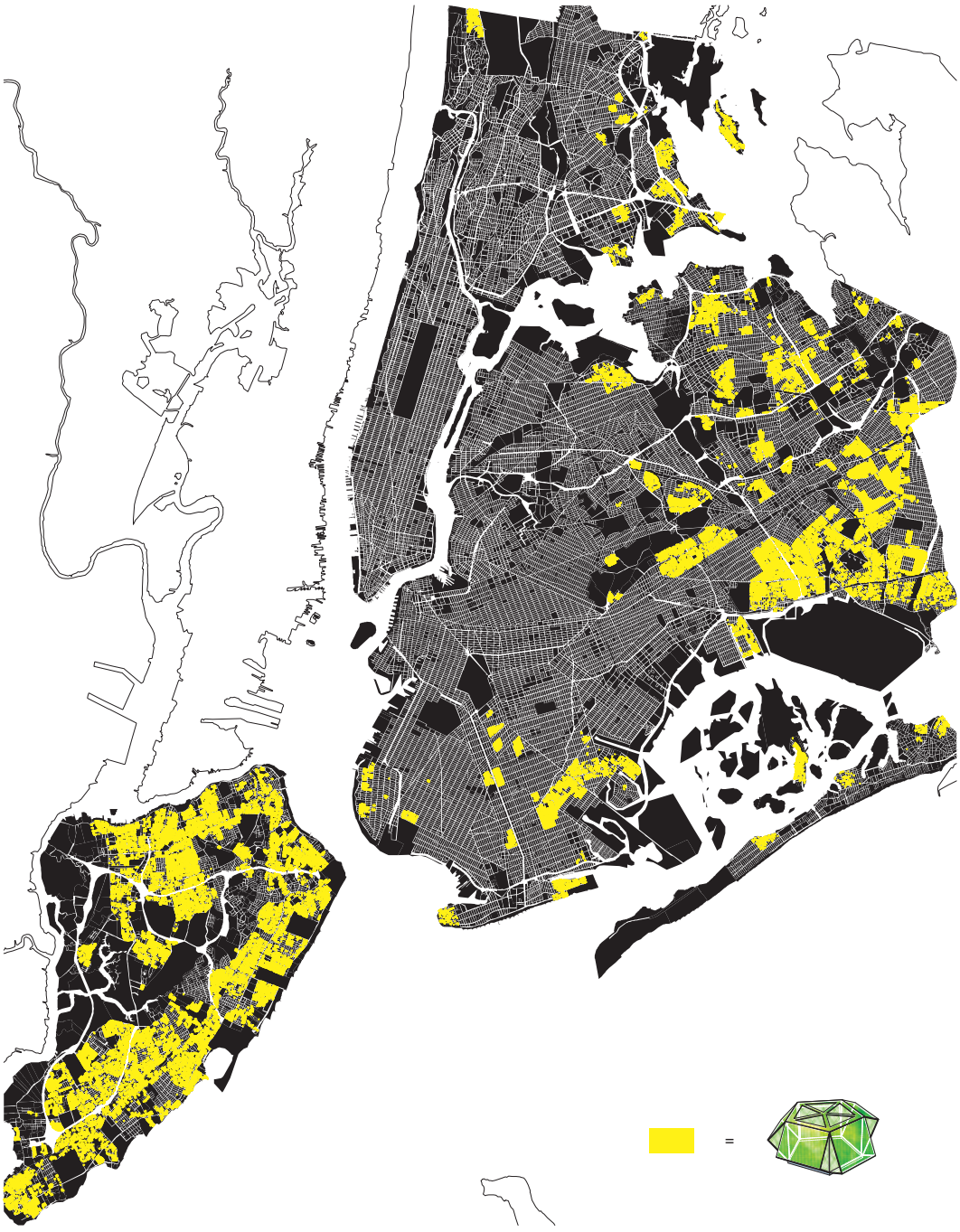
Need some extra space that won't cost an arm and a leg?

The Add-Pod may be perfect for you!

The Add-Pod is a quick and inexpensive way to grow your living space. Specifically designed for those living in compact single-family or two-family homes in the New York City area, the Add-Pod does not require any construction permits or zoning approvals. Further, this room (disguised as a greenhouse) has a flexible structure which allows it to "grow" when needed. When you are inside, you can choose to have the maximum occupation area and big views, or the minimum occupation area and maximum privacy from nosy neighbors.



Who can have an Add-Pod?



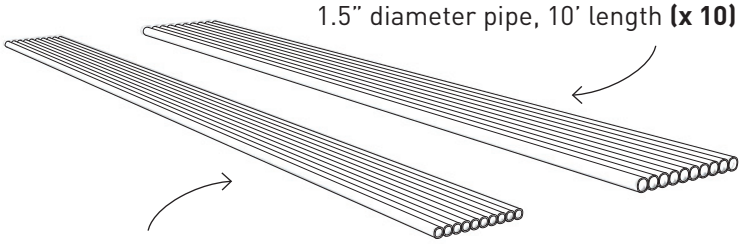
This map highlights all of the neighborhoods across New York City with similar physical characteristics as the model neighborhood of Port Richmond, Staten Island, and includes properties in districts zoned for single-family and two-family residences, detached and semi-detached, excluding large detached properties such as mansions and large suburban residences. (Please see interactive map at http://openagencyproject.com to zoom-in and find your neighborhood!)

MATERIALS LIST:

Most of these materials can be bought at or ordered through your local hardware store or Home Depot (unless otherwise noted).

PVC Pipe + Fittings:

These should be available in the plumbing section, or through online retailers. Make sure you buy utility-grade pipe and fittings.



1.5" diameter pipe, 10' length **(x 10)**

1" diameter pipe, 10' length **(x 8)**

22 degree elbow,
1" diameter **(x 5)**

22 degree elbow,
1.5" diameter **(x 5)**

Radius/Fishmouth,
1" diameter **(x 5)**

Radius/Fishmouth,
1.5" diameter **(x 5)**

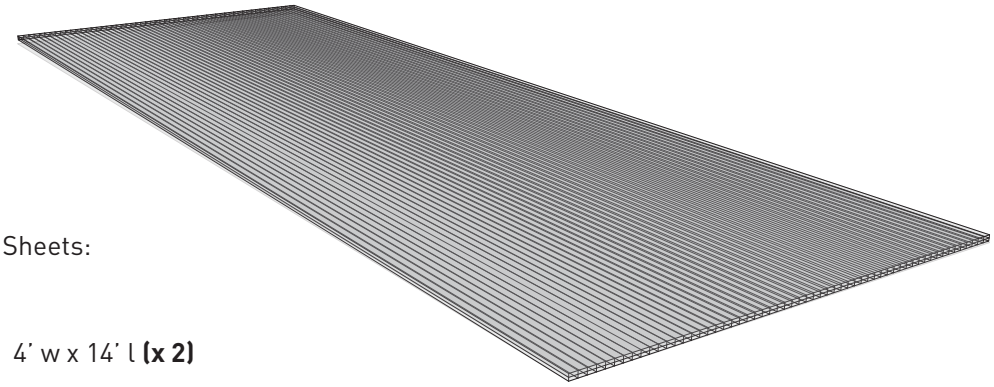
Compression Springs:

The springs recommended here are sized to achieve an overall compression of about 3' (the height difference between the closed and the partially expanded positions of the pod). If different sized springs are available and can be combined to achieve the same overall compression, those may equally work.

1" diameter spring, 6" length, 2" solid height **(x 45)**

<u>Multiwall Polycarbonate sheet</u> (such as Lexan Thermoclear, Verolite, Polygal, Palram, Suntuf):

Mutliwall polycarbonate sheet is usually sold in standard widths (4' or 6') and variable lengths up to 39' (though some vendors sell standard lengths, such as 8', 10', and 12'). The dimensions on this materials list are the most economical for completing the project, but if you can't get the exact sheet sizes, don't worry. Use the patterns to figure out how much you will need to buy of whatever sheet size you can get, and make sure you adjust the number of joint pieces you get.



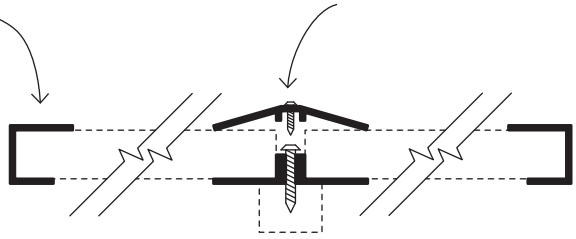
Sheets:

4' w x 14' l **(x 2)**

4' w x 10' l **(x 12)**

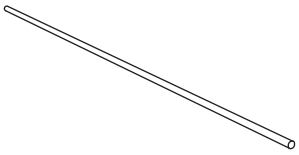
End caps, 8' length **(x 25)**

Connector joint, 8' length **(x 13)**



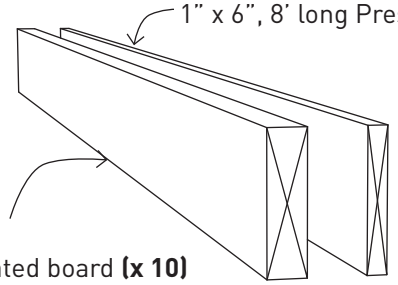
<u>Clear Acrylic Rod:</u>

These can be ordered online if you can't find them in the store.



1" diameter acrylic rod, 8' length **(x 15)**

Lumber:



1" x 6", 8' long Pressure Treated board **(x 40)**

2" x 6", 8' long Pressure Treated board **(x 10)**

Reflectix Insulation + Foil Tape:

If you find another brand, that should work, too. Just make sure that they have the same insulation properties.

2" wide x 30' long **(x 6)**

48" wide x 25' long **(x 6)**

Green Tulle:

54" wide x 75' long **(x 1)**

Hanger Wire:

18 gauge wire x 300' long **(x 1)**

Concrete Block:

8" x 8" x 16" **(x 40)**

SHOPPING LIST:

PVC Pipe	Estimated Cost:*
1" diameter pipe, 10' length **(x 8)**	$1 per foot **(x 8)**
1.5" diameter pipe, 10' length **(x 10)**	$1.50 per foot **(x 10)**
22 degree elbow, 1" diameter **(x 5)**	$1 each **(x 10)**
22 degree elbow, 1.5" diameter **(x 5)**	$2 each **(x 10)**
Radius/Fishmouth, 1" diameter **(x 5)**	$2 each **(x 10)**
Radius/Fishmouth, 1.5" diameter **(x 5)**	$2 each **(x 10)**

Multiwall Polycarbonate Sheet

4' w x 14' l, triple wall, 16 mm **(x 2)**	$50 each **(x 14)**
4' w x 10' l, triple wall, 16 mm **(x 12)**	
Base + cap, 16 mm, 8' length **(x 13)**	$25 each **(x 13)**
U-profile edging, 16 mm, 8' length **(x 25)**	$9 each **(x 25)**

Acrylic Rod

1" diameter acrylic rod, 8' length **(x 15)**	$24 each **(x 15)**

Dimensional Lumber

1" x 6", 8' long Pressure Treated board **(x 40)**	$4 each **(x 40)**
2" x 6", 8' long Pressure Treated board **(x 10)**	$6 each **(x 10)**

Reflectix Insulation + Foil Tape

48" wide x 25' long **(x 6)**	$42 each **(x 6)**
2" wide x 30' long **(x 6)**	$3.25 each **(x6)**

Springs

1" diameter spring, 6" length, 2" solid height **(x 45)**	$2 each **(x45)**

Green Tulle

54" wide x 75' long **(x 1)**	$25.00 each **(x1)**

Hanger Wire

18 gauge wire x 300' long **(x 1)**	$7.00 each **(x1)**

Concrete Block

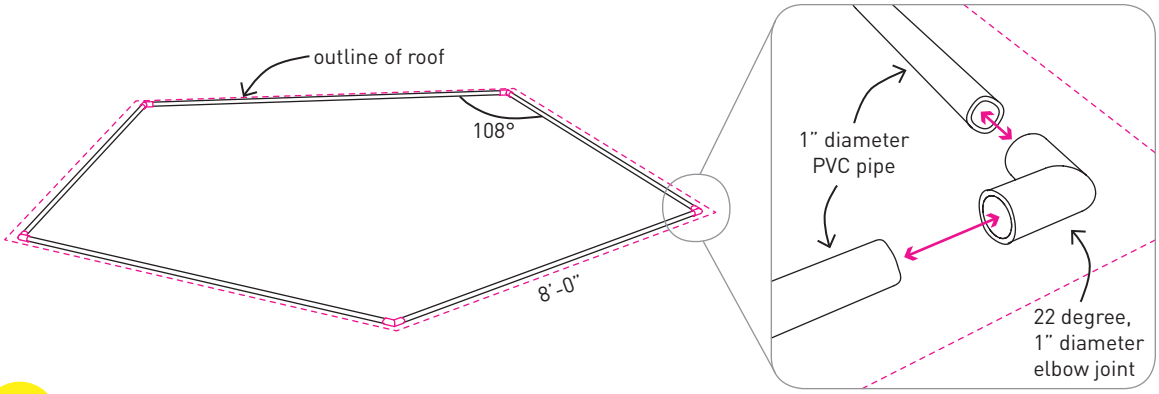
8" x 8" x 16" **(x 40)**	$1.50 each **(x40)**

* rounded estimates found for products at the time of this writing in January 2010

STEP-BY-STEP INSTRUCTIONS:

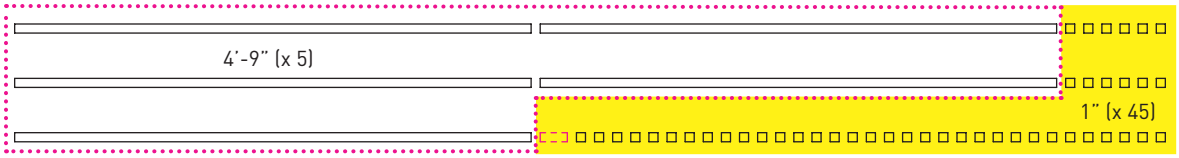
1. Construct the top frame.

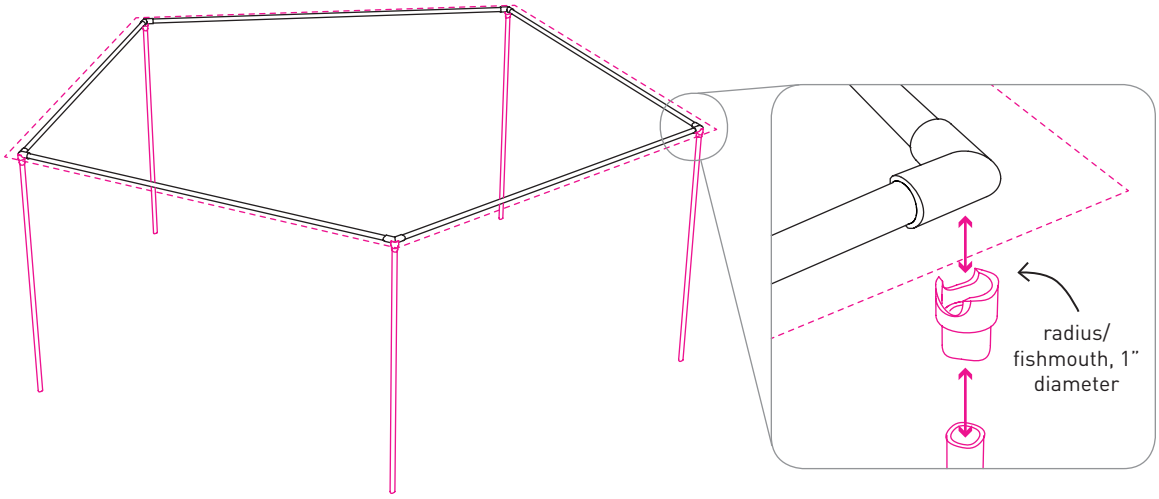
The first step is to construct the pentagonal frame that will be the frame structure supporting the roof of the Add-Pod. Take (5) lengths of the 1" diameter PVC pipe, and (5) of the 22 degree, 1" diameter PVC elbow joints, and join them together as shown below.



2. Add columns to the top frame.

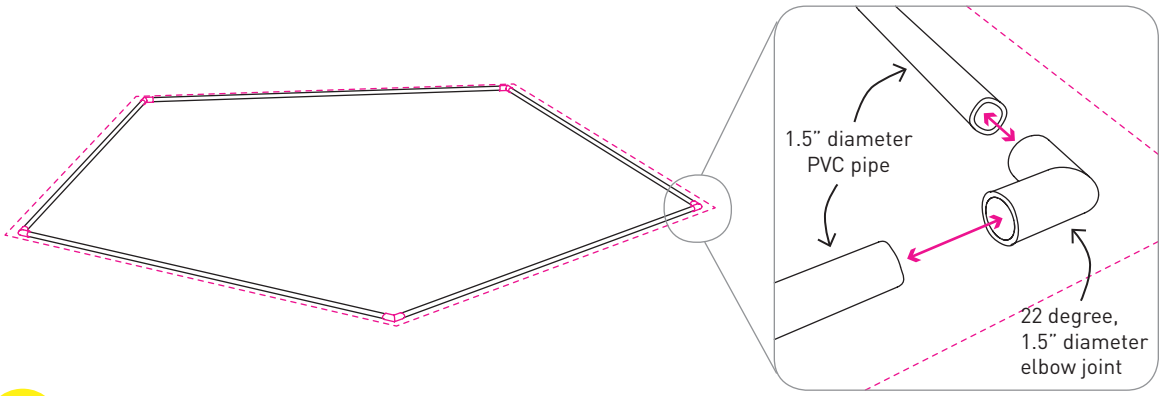
Take the remaining three 1" diameter lengths of PVC pipe, and cut them down to size as shown below. Then, take the 1" diameter radius/fishmouth joints, and attach them at the 5 corners of the top frame. Then, take the (5) 4'-9" pieces and attach them to the bottom end of the radius/fishmouth joints. (Put aside the other pieces of PVC pipe for now, they will be used in a later step.)





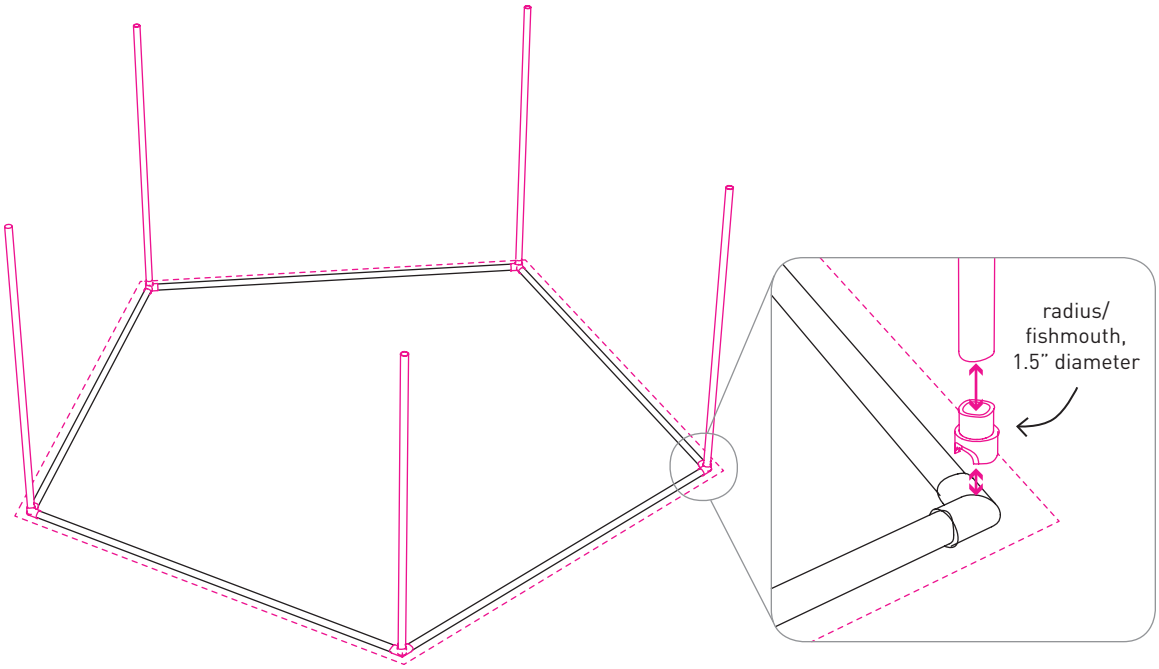
3. Construct the bottom frame.

Using the same methodology as step 1, construct the bottom half of the frame structure using the 1.5" diameter PVC pipe and coordinating fittings.



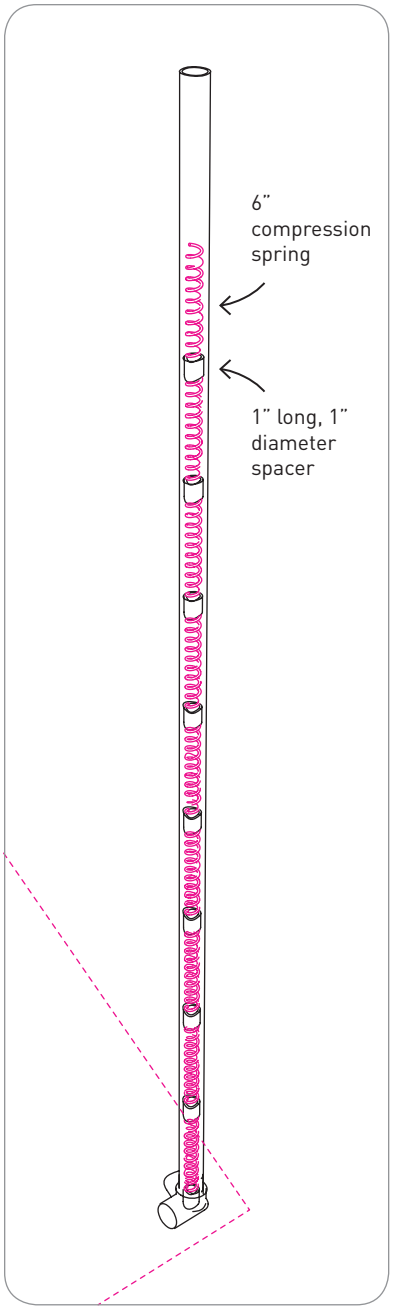
4. Add columns to the bottom frame.

Cut the remaining (5) 1.5" diameter PVC pipe into 6'-0" lengths. Then, similarly to step 2, use the 1.5" diameter radius/fishmouth joints to attach these to the bottom frame.



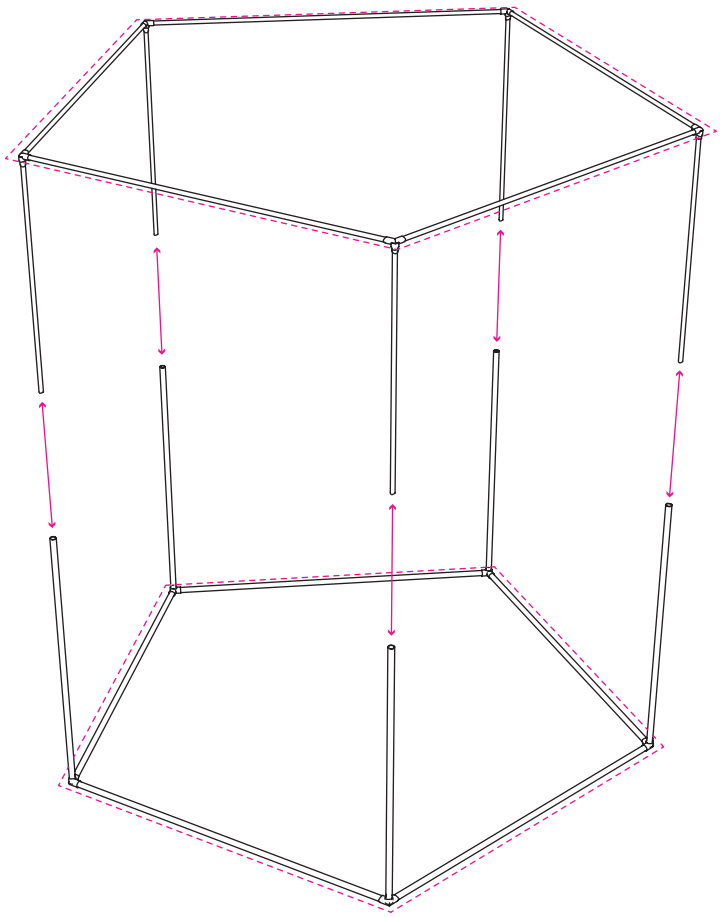
5. Insert springs and spacers into bottom columns.

Now, take the 1" long, 1" diameter pieces of PVC pipe from step 2 and space them with the 6" long springs into each bottom 1.5" diameter column.



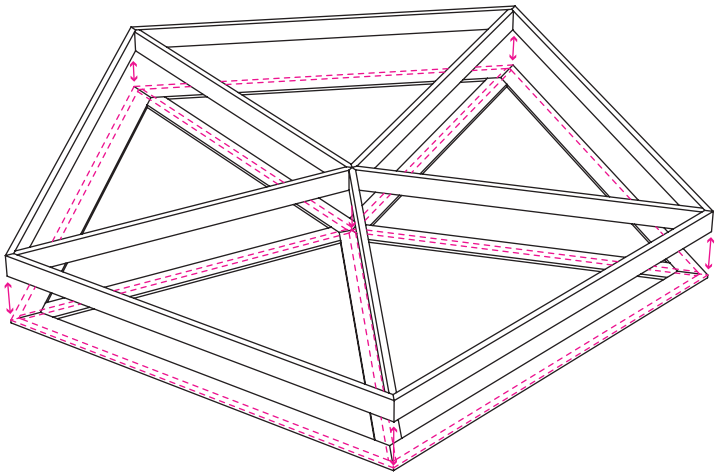
6. Complete inner structural frame.

Take the top frame that you have constructed, and carefully insert the columns into the columns of the bottom frame. These 1" diameter top columns should fit just within the 1.5" diameter bottom columns, but with room to slide easily. Also, you should feel some bounce from the springs within the bottom columns.



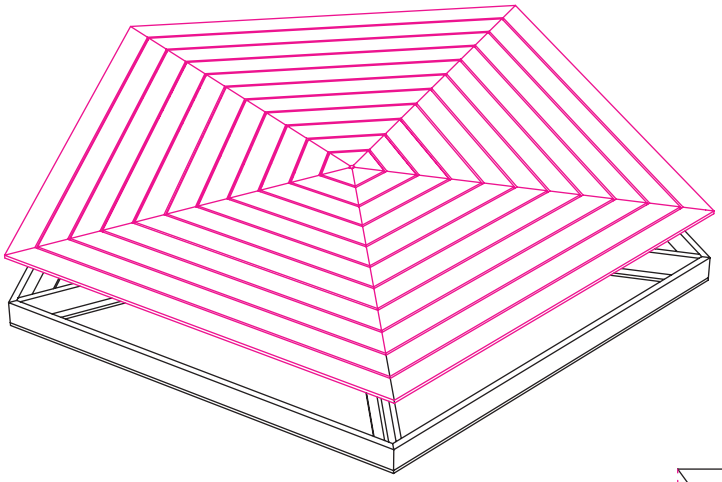
7. Construct the structure of the wooden deck base.

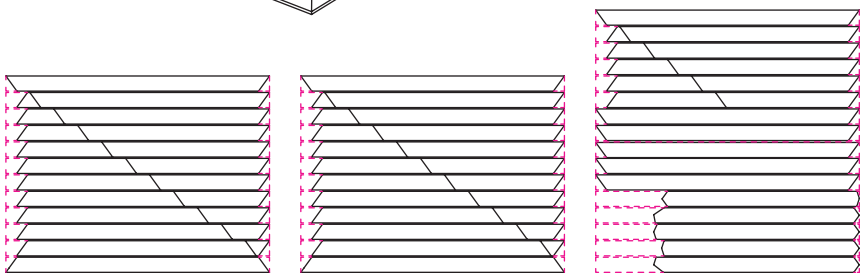
Now, using the 1" x 8" pressure treated boards, create a base for the deck. Each side is 8' long, and the inner angle of each corner should be 108°. After this, using the 2" x 8" boards, lay out the joists as shown (which will hold up the floor boards).



8. Create the floor of the pod.

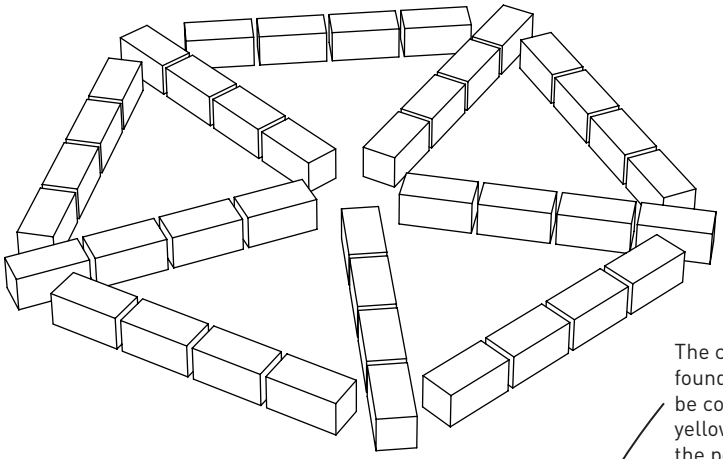
With the remaining 1" x 8" boards, install the floor of the deck as shown below. The patterning diagrams at the bottom right will help you make the most of the materials.

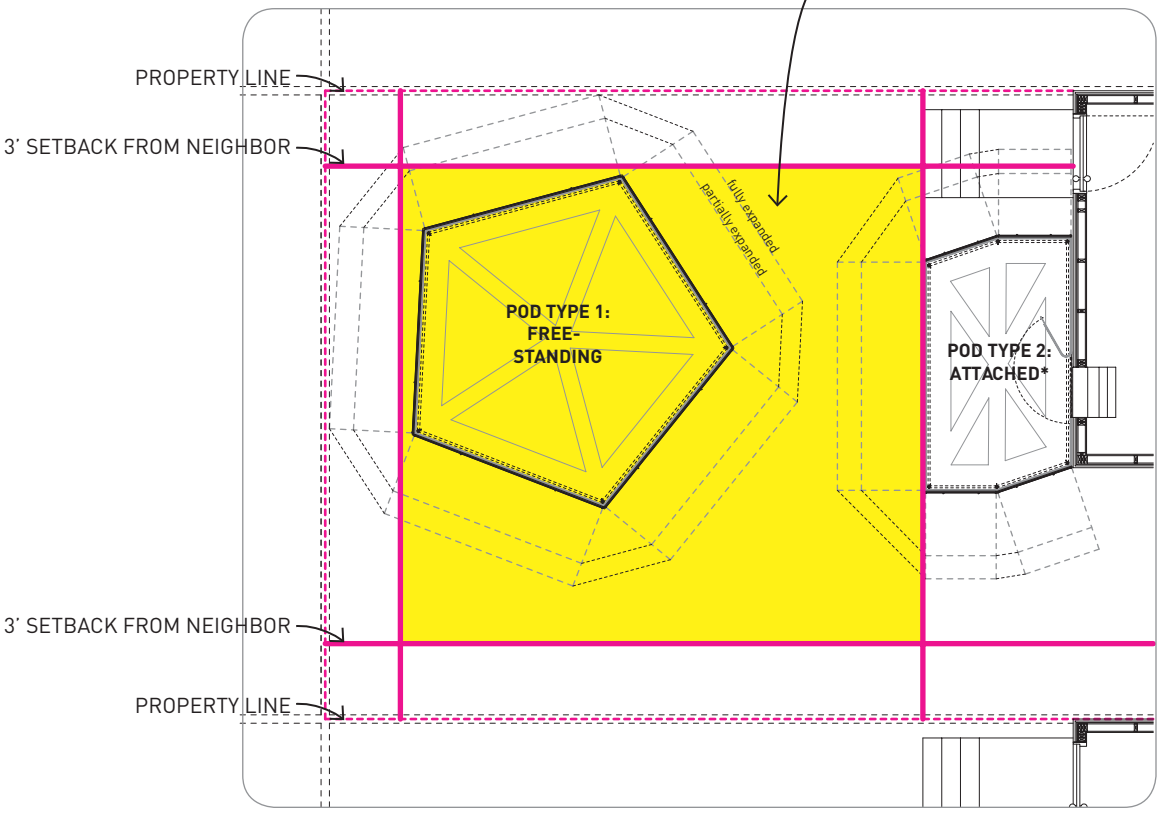




9. Construct the concrete block simple foundation.

Using the concrete block, lay out a simple foundation for the pod. Make sure the ground is level, and if its a marshy yard, you may want to pour a foundation to ensure that the blocks don't settle unevenly. Refer to the diagram below as you decide where to place the pod in your yard, to make sure you do not violate any of the zoning or code requirements.



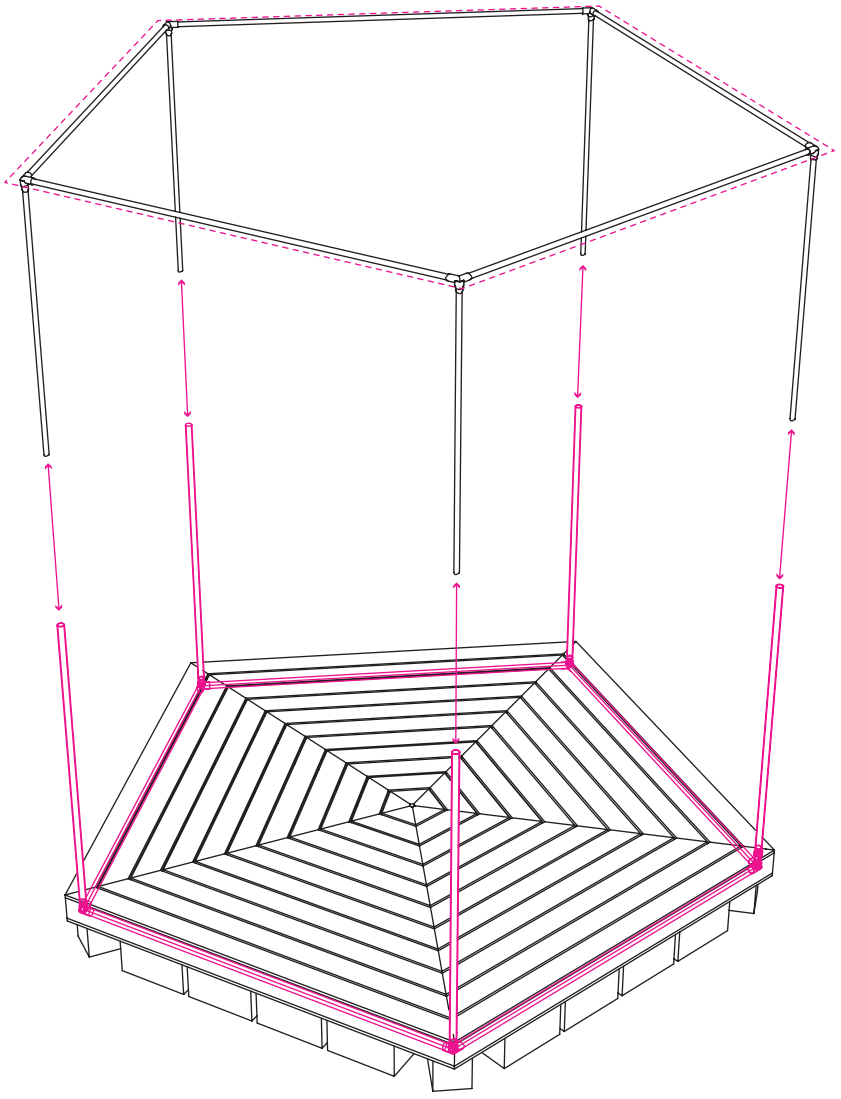


* For Pod Type 2 (attached), please see http://openagencyproject.com/add-pod/attached

10. Fit the deck and PVC structure onto the foundation.

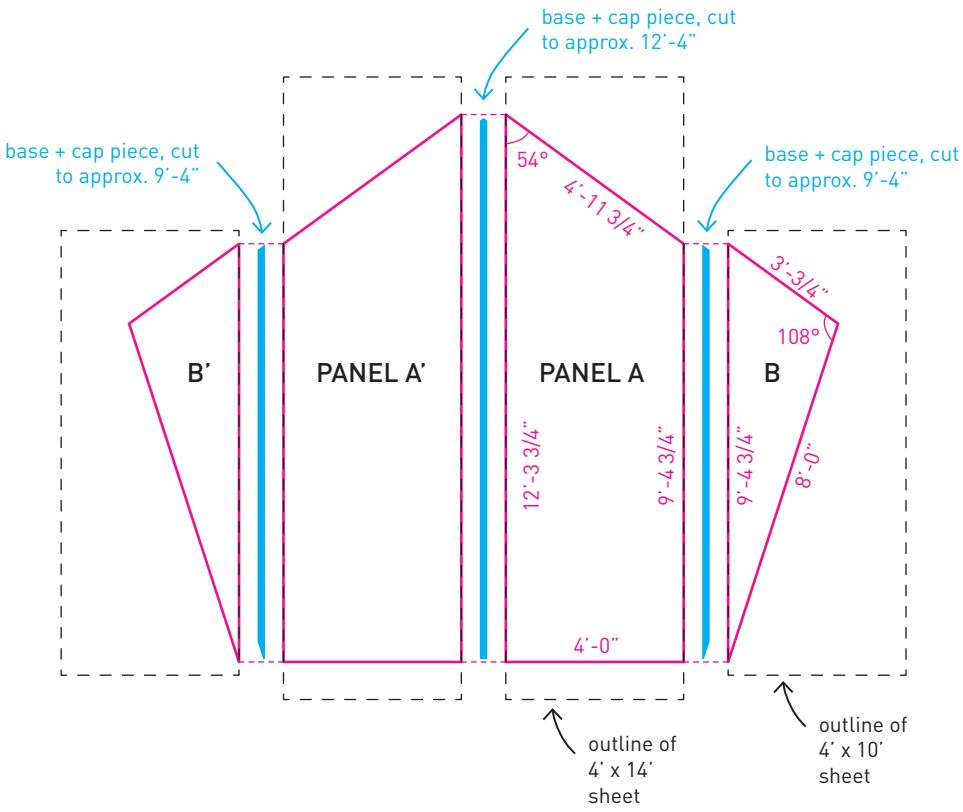
First, hold the PVC structure onto the wooden deck base, and mark where the columns will need to come through the decking. Next, drill holes at these areas, and taking the two halves of the PVC structure apart once more, carefully fit the structure through the deck. Now affix the deck and structure to the concrete block foundation. Lastly, place the top half of the structure again onto the bottom half.

Congratulations, you've completed the inner structure of the pod!



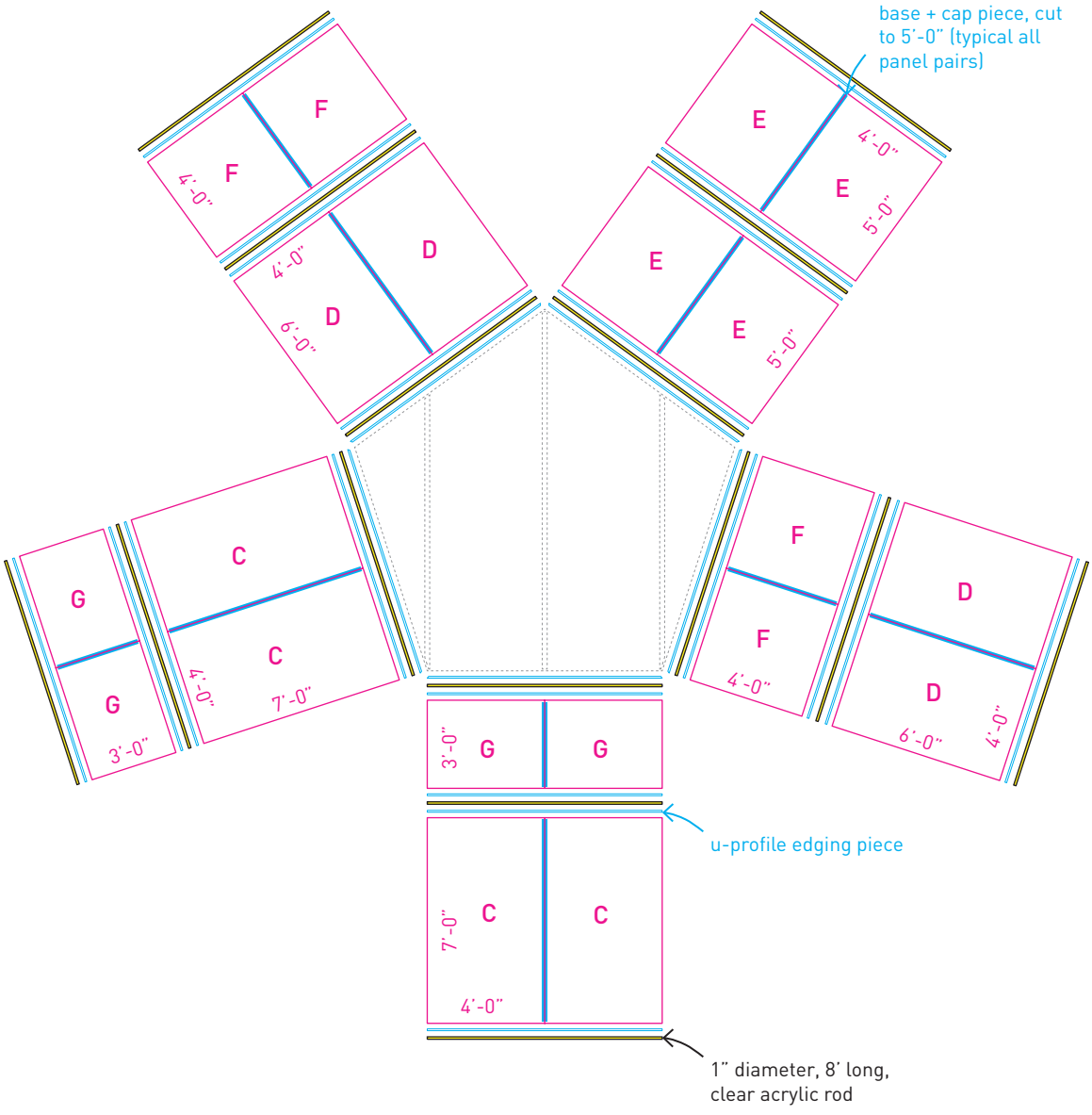
11. Cut out the roof from the multiwall polycarbonate sheet + attach together.

Using the (2) 4' x 14' sheets, as well as (2) of the 4' x 10' sheets, cut out the roof panels using the pattern below. Also, cut the aluminum base + cap pieces to connect the pieces of the roof together.



12. Cut down the rest of the materials down for the exterior envelope.

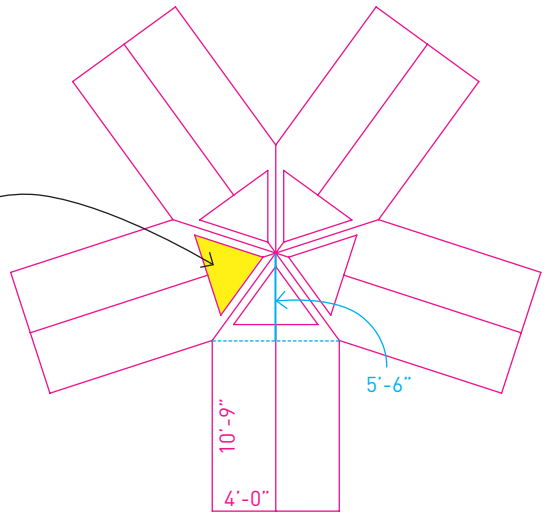
Refer to the pattern below to cut the pieces of polycarbonate sheet down to size. The dimensions are written in, as well as where panels repeat (shown in pink). It is important to note that the vertical grain of the polycarbonate sheet should go lengthwise (to match with the 4' width of the panel). In addition, cut down (25) 8' lengths of u-profile edging for each panel, such that each panel will have 2 edges profiled. Also cut down (10) lengths of the base + cap to join each pair of panels lengthwise. The dimensions of these should correspond to the panel length minus the u-profile edging depths. Finally, cut down (15) 8' lengths of 1" diameter clear acrylic rod. You are now ready to begin constructing the envelope!



13. Cut out the Reflectix panels...

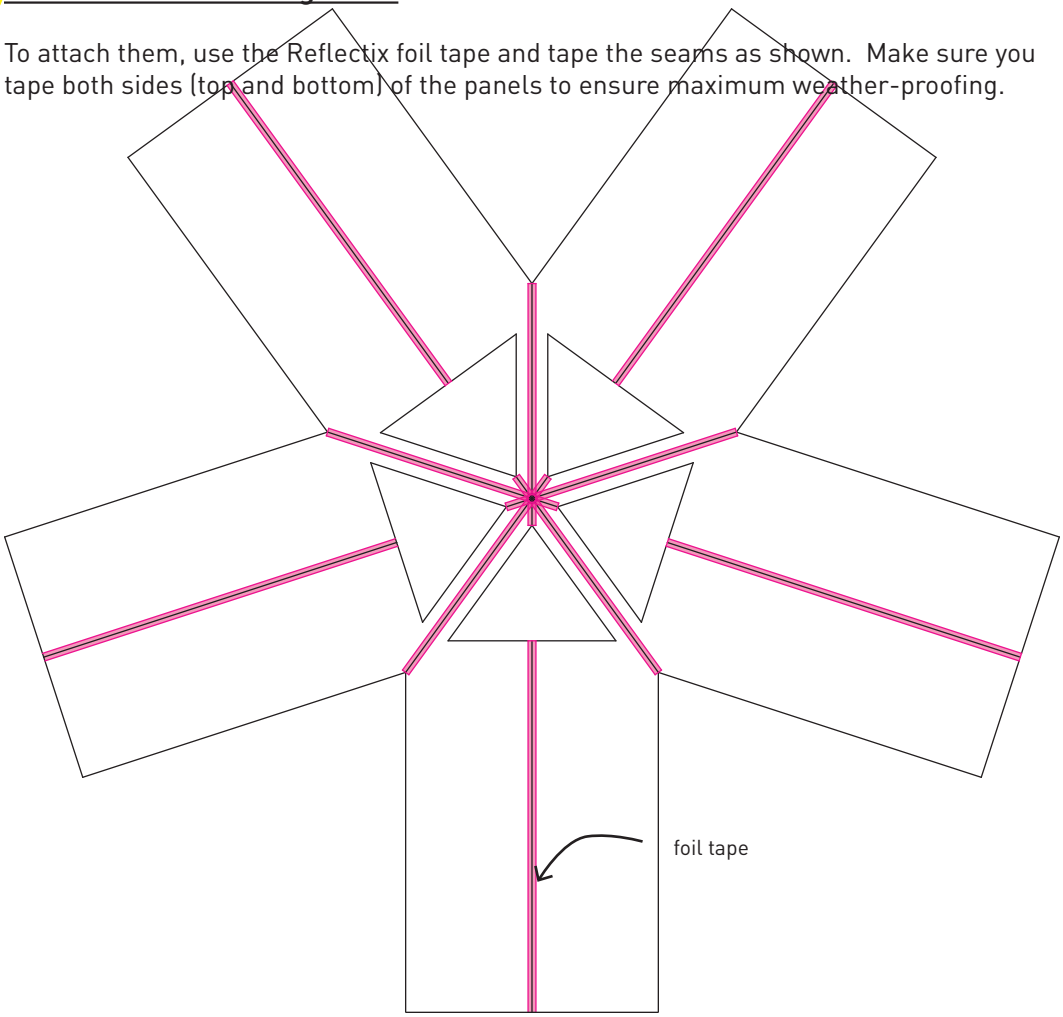
Using the pattern shown on the right, cut out the Reflectix. This will be the inner lining of the pod which provides extra protection from the weather, as well as your neighbor's prying eyes. All of the pieces will be the same shape.

Holes for skylight are optional. If you decide you don't want daylight, don't cut them out. If you do want them, make sure you leave at least a 1'-0" margin on all sides.



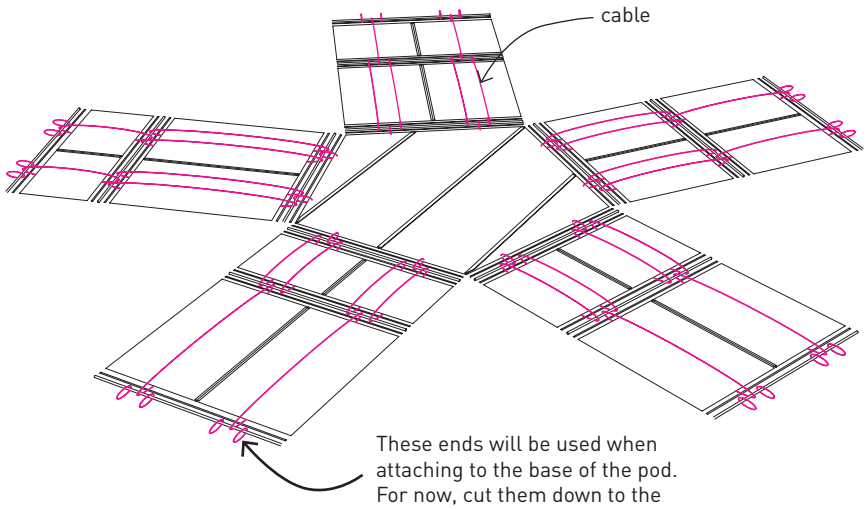
14. ...and attach them together.

To attach them, use the Reflectix foil tape and tape the seams as shown. Make sure you tape both sides (top and bottom) of the panels to ensure maximum weather-proofing.



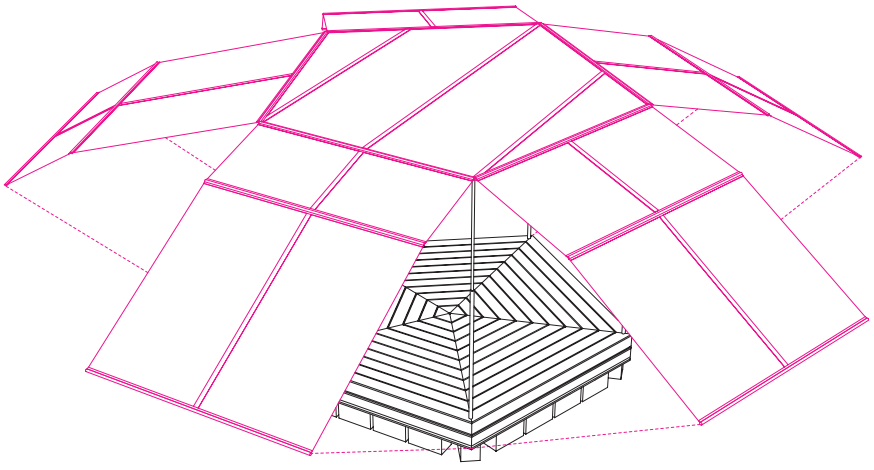
15. Attach cables using cable-tightening joints.

The cables should be spaced as shown below, and make sure the tightener ends up on the outside of the panels. The cables are the joints, so they should be secure. However, you want to make sure they are not too tight, as the panels have to be able to rotate at the joint.

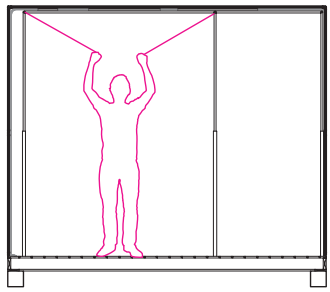


16. Complete your pod!

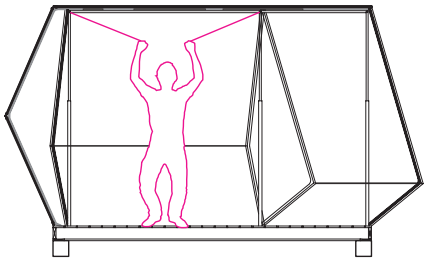
The final step is to lift your envelope structure onto the PVC structure, and drape the sides down to create enclosure. The last cables (pointed out above in step 15) should attach to the bottom deck. Finally, install some hanging straps on the inside ceiling of your pod so that you can expand it when you are inside!



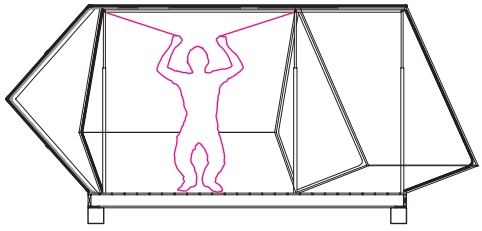
EXPANDING YOUR POD:



CLOSED



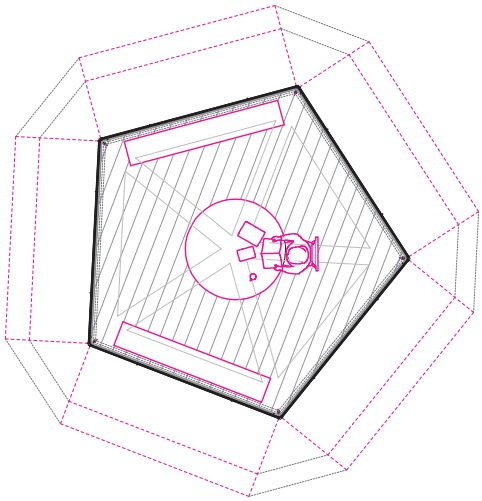
PARTIALLY EXPANDED



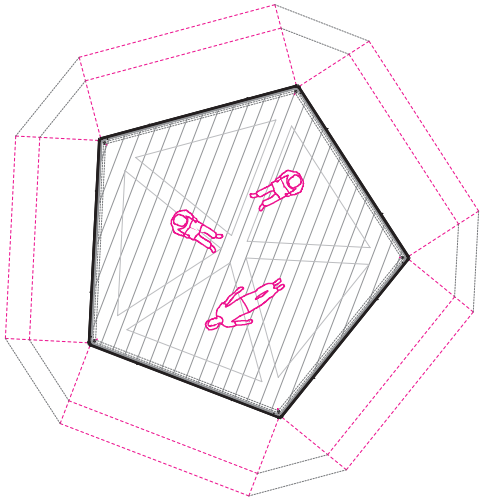
FULLY EXPANDED

INHABITATION OPTIONS:

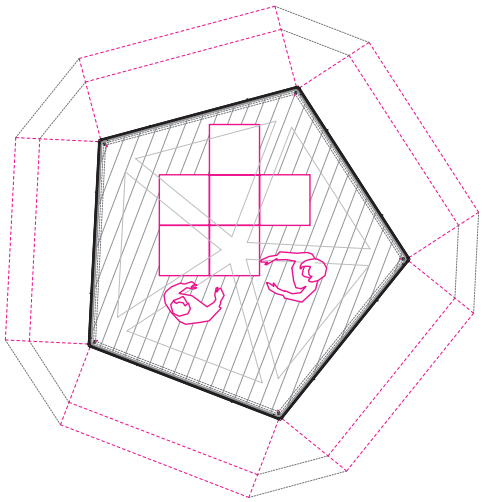
Home office



Kids' playroom



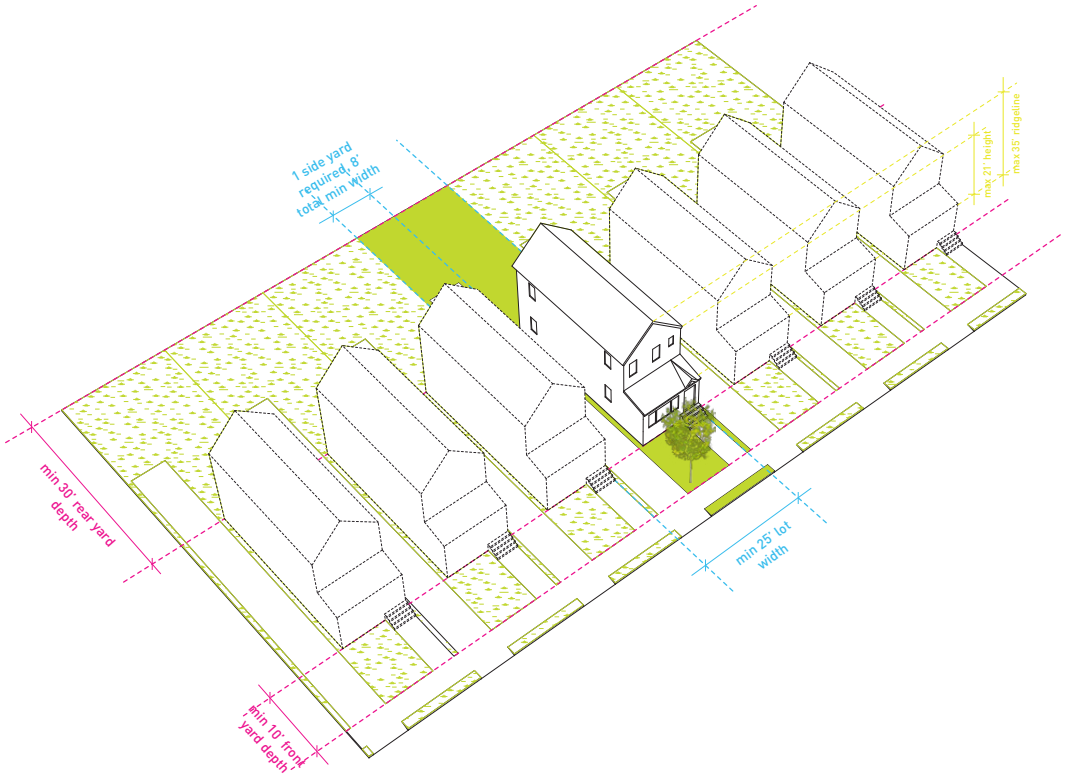
Storage



RULES: ZONING

R3-A:
DETACHED RESIDENCE DISTRICTS

These districts are designed to provide for single- or two-family detached dwellings on zoning lots of specified lot widths. R3-A districts permit zero lot line buildings, and also include community facilities and open uses that serve the residents of these districts or benefit from a residential environment.



MAX F.A.R.: 0.50
MIN LOT AREA: 2,375 SF

PERMITTED OBSTRUCTIONS IN HEIGHT:

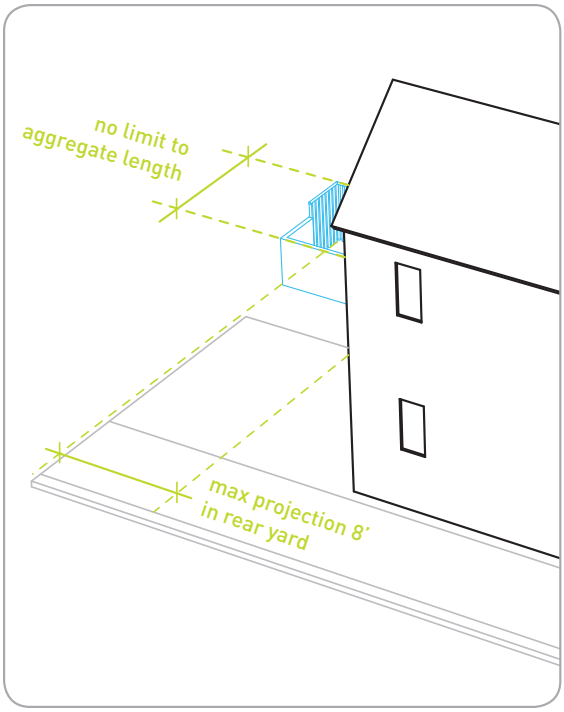
- Balconies (unenclosed);
- Chimneys or flues (total width up to 10% of aggregate width of street walls of the building at any level);
- Dormers (aggregate width of street walls up to 50% of width of the street wall);
- Elevators or stair bulkhead, roof water tanks or cooling towers (for each, aggregate width of street walls up to 30'; the total square footage of the aggregate width of street walls of these obstructions, times their average height, must not exceed 4x the width of the street wall of the building);
- Flagpoles or aerials;
- Parapet walls (up to 4' high);
- Wire, chain link or other transparent fences.

TREES:

If the street frontage is between 20' to 34', at least 25% of the front yard must be planted.

PERMITTED OBSTRUCTIONS IN REQUIRED YARDS:

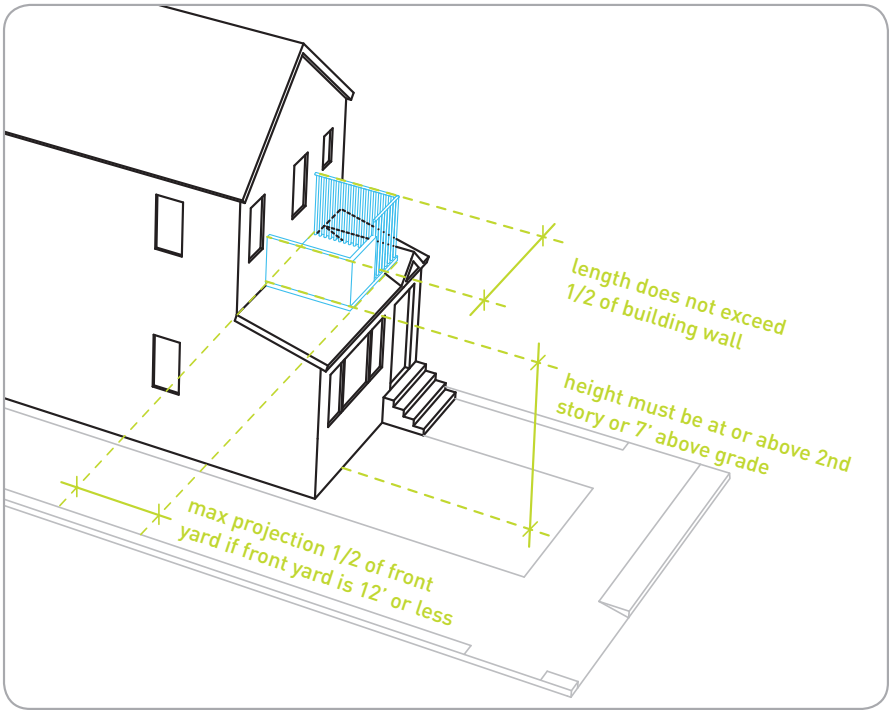
- Air conditioning units (located not less than 8' from any lot line, rear yards);
- Arbors or trellises;
- Awnings or canopies;
- Balconies (unenclosed, not allowed in required side yards);
- Breezeways (rear yards);
- Chimneys (projecting up to 3' into, or 2% of total yard area);
- Eaves, gutters or downspouts (projecting up to 16 inches into, or 20% of yard width);
- Fences (up to 4' high);
- Flagpoles;
- Greenhouses (non-commercial, accessory, up to 1 story or 14' tall, area less than 25% of required rear yard);
- Parking spaces for cars or bicycles (rear, side or front yards);
- Parking spaces (accessory, up to 1 story);
- Ramps for handicap access;
- Recreational or drying yard equipment (rear yards);
- Sheds, tool rooms or other similar accessory structures for domestic or agricultural storage (up to 10' tall, rear yards);
- Steps (only provide access to lowest story at the street frontage);
- Swimming pools (above grade, up to 8' high, only in rear yards);
- Terraces or porches, open;
- Walls (up to 8' high in rear yards, up to 4' high in front yards, not roofed or part of a building).



BALCONIES:

Unenclosed balconies must have either a parapet less than 3'-8" high, or a 50% open railing less than 4'-6" high.

Balconies may be enclosed by building walls if at least 33% of the perimeter is unenclosed except for a parapet of less than 3'-8" high or a 50% open railing less than 4'-6" high. The portion of the balcony enclosed by building walls shall not exceed 6' in depth.



RULES: BUILDING CODE

OCCUPANCY GROUP: J-3
(ONE- AND TWO- FAMILY DWELLINGS)

TO AVOID GETTING A PERMIT:

- Do NOT construct, enlarge, repair, move, demolish, remove or change the use or occupancy of the building. (28-105.1)
- Do NOT fiddle with signs or service equipment, gas/mechanical/plumbing/fire systems. (28-105.1)
- Do NOT consider demolishing any part of the building UNLESS it was constructed after April 1, 1987. (28-106.2, asbestos abatement)
- Do NOT project beyond the street line. (Title 28, Subchapter 4, Articles 8/9)

§ 28-105.4 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code, the zoning resolution or any other law or rules enforced by the department. Such exemptions shall not relieve any owner of the obligation to comply with the requirements of or file with other city agencies. Unless otherwise indicated, permits shall not be required for the following:

1. Emergency work, as set forth in section 28-105.4.1.
2. Minor alterations and ordinary repairs, as described in section 28-105.4.2.
3. Certain work performed by a public utility company or public utility corporation, as set forth in section 28-105.4.3.
4. Ordinary plumbing work, as set forth in section 28-105.4.4.
5. Permits for the installation of certain signs, as set forth in section 28-105.4.5.
6. Other categories of work as described in department rules, consistent with public safety.

§ 28-105.4.1 Emergency work. Work that would otherwise require a permit may be performed without a permit to the extent necessary to relieve an emergency condition. An application for a permit shall be submitted within 2 business days after the commencement of the emergency work and shall include written description of the emergency condition and the measures undertaken to mitigate the hazard. Emergency work may include but shall not be limited to:

1. Erection of sidewalk sheds, fences, or other similar structures to protect the public from an unsafe condition.
2. Stabilization of unsafe structural conditions.
3. Repair of gas leaks.
4. Repair or replacement of heating or hot water equipment servicing residential

TO AVOID GETTING A PERMIT (continued):

occupancies during the heating season as established by the New York city housing maintenance code.

5. Replacement of parts required for the operation of a combined standpipe or sprinkler system.

§ 28-105.4.2 Minor alterations and ordinary repairs. A permit shall not be required for minor alterations and ordinary repairs.

§ 28-105.4.2.1 Definitions. The following words and terms shall, for the purposes of this section 28-105.4.2 and as used elsewhere in this code, have the meanings shown herein.

MINOR ALTERATIONS. Minor changes or modifications in a building or any part thereof, excluding additions thereto, that do not in any way affect health or the fire or structural safety of the building or the safe use and operation of the service equipment therein. Minor alterations shall not include any of the work described as "work not constituting minor alterations or ordinary repairs."

ORDINARY REPAIRS. Replacements or renewals of existing work in a building, or of parts of the service equipment therein, with the same or equivalent materials or equipment parts, that are made in the ordinary course of maintenance and that do not in any way affect health or the fire or structural safety of the building or the safe use and operation of the service equipment therein. Ordinary repairs shall include the repair or replacement of any plumbing fixture, piping or faucets from any exposed stop valve to the inlet side of a trap. Ordinary repairs shall not include any of the work described as "work not constituting minor alterations or ordinary repairs."

WORK NOT CONSTITUTING MINOR ALTERATIONS OR ORDINARY REPAIRS. Minor alterations or ordinary repairs shall not include:

1. The cutting away of any load bearing or required fire rated wall, floor, or roof construction, or any portion thereof.

2. The removal, cutting, or modification of any beams or structural supports; 3. The removal, change, or closing of any required exit;

4. The addition, rearrangement, relocation, removal or replacement of any parts of the building affecting loading or exit requirements, or light, heat, ventilation, or elevator requirements or accessibility requirements or any fire suppression system;

5. Additions to, alterations of, or rearrangement, relocation, replacement, repair or removal of any portion of a standpipe or sprinkler system, water distribution system, house sewer, private sewer, or drainage system, including leaders, or any soil, waste or vent pipe, or any gas distribution system;

6. Any plumbing work other than the repair or replacement of plumbing fixtures, piping or faucets from the exposed stop valve to the inlet side of a trap; 7. The alteration or repair of a sign for which a permit is required; or

8. Any other work affecting health or the fire or structural safety of the building or the safe use and operation of the service equipment therein.

FIRE RESTRICTIONS:

- Not in a fire district. (27-293)
- No requirements for maximum travel distance to exits, door openings or corridors. (Title 28, Subchapter 6)
- Keep free 1 window, or readily identifiable access panel, within each 50' or fraction thereof of horizontal length of every wall that fronts on a street or frontage space. Windows must be openable or breakable from both inside and outside, and have minimum dimensions of 24" x 36" when open. For access panels, minimum dimensions are 48" high and 32" wide, and the sill must not be higher than 36" above inside floor. (27-292)
- Area + height limitations (see chart).

*TABLE 4-1 AREA AND HEIGHT LIMITATIONS FOR UNSPRINKLERED BUILDINGS AND SPACES

Occupancy Group		NONCOMBUSTIBLE CONSTRUCTION GROUP I					COMBUSTIBLE CONSTRUCTION GROUP II				
		Class IA	Class IB	Class IC	Class ID	Class IE	Class IIA	Class IIB	Class IIC	Class IID	Class IIE
HIGH HAZARD A[e]	Area	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.
	Height										
STORAGE B-1	Area	1,000	1,000	1,000	1,000	1,000	1,000	1,000	N. P.	1,000	N. P.
	Height	75'-0"	75'-0"	65'-0"(5)	65'-0"(5)	40'-0"(3)	50'-0"(4)	50'-0"(4)		40'-0"(3)	
STORAGE B-2[e]	Area	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	2,100
	Height	75'-0"	N.L.	75'-0"	75'-0"(6)	40'-0"(3)	75'-0"(6)	75'-0"(6)	40'-0"(3)	40'-0"(3)	40'-0"(3)
MERCANTILE C	Area	7,500	7,500	7,500	7,500	7,500	7,500	7,500	5,600	8,400	2,100
	Height	75'-0"	75'-0"	75'-0"	75'-0"(6)	40'-0"(3)	75'-0"(6)	75'-0"(6)	40'-0"(3)	40'-0"(3)	40'-0"(3)
INDUSTRIAL D-1	Area	7,500	7,500	7,500	7,500	3,500	7,500	7,500	N. P.	1,400	N. P.
	Height	75'-0"	75'-0"	65'-0"(5)	65'-0"(5)	40'-0"(3)	50'-0"(4)	50'-0"(4)		40'-0"(3)	
INDUSTRIAL D-2	Area	N.L.	N.L.	N.L.	17,500	10,500	14,700	14,700	5,600	8,400	2,100
	Height	75'-0"	75'-0"	75'-0"	75'-0"(6)	40'-0"(3)	75'-0"(6)	75'-0"(6)	40'-0"(3)	40'-0"(3)	40'-0"(3)
BUSINESS E	Area			N.L.		10,500	14,700	14,700	5,600	8,400	2,100
	Height	75'-0"[d,f]	75'-0"[d,f]	75'-0"[d,f]	75'-0"[d,f]	40'-0"(3)	75'-0"(6)	75'-0"(6)	40'-0"(3)	40'-0"(3)	40'-0"(3)
ASSEMBLY F-1	Area			N.L.	17,500	10,500	14,700	14,700	5,600	8,400	2,100
	Height	75'-0"	75'-0"	75'-0"	75'-0"(6)	40'-0"(3)	75'-0"(6)	75'-0"(6)	40'-0"(3)	40'-0"(3)	40'-0"(3)
ASSEMBLY F-2[c]	Area	N.L.	N.L.	N.L.	N.L.	17,500	N.L.	N.L.	12,600	15,400	9,100
	Height					75'-0"(6)	75'-0"(6)	75'-0"(6)	65'-0"(5)	75'-0"(6)	65'-0"(5)
ASSEMBLY F-3	Area			N.L.	17,500	10,500	14,700	14,700	5,600	8,400	2,100
	Height	75'-0"	75'-0"	75'-0"	75'-0"(6)	40'-0"(3)	75'-0"(6)	75'-0"(6)	40'-0"(3)	40'-0"(3)	40'-0"(3)
ASSEMBLY F-4[e]	Area			N.L.	17,500	10,500	14,700	14,700	5,600	8,400	2,100
	Height	75'-0"	75'-0"	75'-0"	75'-0"(6)	40'-0"(3)	75'-0"(6)	75'-0"(6)	40'-0"(3)	40'-0"(3)	40'-0"(3)
EDUCATIONAL G	Area	N.L.		N.L.	17,500	10,500	14,700	14,700	5,600	8,400	2,100
	Height	75'-0"	75'-0"	75'-0"	75'-0"(6)	40'-0"(3)	75'-0"(6)	75'-0"(6)	40'-0"(3)	40'-0"(3)	40'-0"(3)
INSTITUTIONAL H-1	Area	17,500	14,000	10,500	7,000	N.P.	4,200	4,200	N. P.	N. P.	N. P.
	Height	N.L.	75'-0"	65'-0"(5)	50'-0"(4)		50'-0"(4)	50'-0"(4)			
INSTITUTIONAL H-2	Area	17,500	14,000	10,500	7,000	N.P.	4,200	4,200	N. P.	N. P.	N. P.
	Height	N.L.	75'-0"	65'-0"(5)	50'-0"(4)		50'-0"(4)	50'-0"(4)			
RESIDENTIAL J-1	Area	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.
	Height										
*RESIDENTIAL J-2 When Constructed Subject to the Requirements of §27-954(t) or Altered Subject to the Requirements of §27-123.2	Area	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.	N. P.
	Height										
*RESIDENTIAL J-2 When Not Subject to the Requirements of §27-954(t) or Altered Subject to the Requirements of §27-123.2	Area	N.L.	N.L.	N.L.	17,500	N. P.	10,000	10,000	5,600	N. P.	N. P.
	Height			75'-0"	75'-0"(6)		75'-0"(6)	75'-0"(6)	40'-0"(3)		
RESIDENTIAL J-3	Area	N.L.	N.L.	N.L.	17,500	10,500	14,700	14,700	5,600	8,400	2,100
	Height			75'-0"	75'-0"(6)	40'-0"(3)	75'-0"(6)	75'-0"(6)	40'-0"(3)	40'-0"(3)	40'-0"(3)

N.L.– No Limit N.P.– Not Permitted Not Permitted Inside Fire Districts*

NATURAL LIGHT:

- Every habitable room (a residential room or space with minimum dimensions of 8' x 8' x 8') must have natural light. (27-733)
- The aggregate transmitting area of natural light sources must be at least 10% of the floor area of the room. Each required source must have a minimum transmitting area of 12 sf, and only the area of the light source that is above 30" from the finished floor may be considered as providing natural light. (27-734)

NATURAL VENTILATION:

- All occupiable rooms must have natural or mechanical ventilation. (27-745)
- All habitable rooms must have natural ventilation. (27-746)
- The area of a ventilating opening in habitable rooms must have a free openable area of at least 5% of the floor area of the room, and each opening must have a minimum openable area of 6 sf. (27-750)

NONCOMMERCIAL GREENHOUSES:

CHAPTER 23 NONCOMMERCIAL GREENHOUSES
§23-01 Noncommercial Greenhouses Accessory to Residential Uses as a Permitted Obstruction in Required Rear Yards or Rear Yard Equivalents.
(a) Definitions: Greenhouse. A greenhouse shall be defined as a glass or slow burning plastic enclosed building used for cultivating plants.
(c) Attached accessory noncommercial greenhouse. An attached accessory noncommercial greenhouse is a permitted obstruction in a required rear yard or rear yard equivalent, pursuant to §23-44 (b) of the Zoning Resolution when it complies with the following conditions:
1. no portion of the greenhouse is located in a rear yard equivalent which also is a required front or side yard,
2. the greenhouse roof shall be no higher than the level of the floor above the lowest residential level,
3. the floor area of the greenhouse is included in the total floor area on the zoning lot,
4. the greenhouse use does not create offensive odors or dust,
5. in no event shall the greenhouse project more than six feet from the plane surface of the building wall,
6. the greenhouse shall be constructed of noncombustible materials and glazed with plain or wire glass or slow burning plastic. The floor of the greenhouse shall be constructed as required in Table 3-4 of the Building Code, for the construction classification of the building to which it is attached and if not on grade [sic] shall be capable of sustaining a minimum live load of 75 pounds per square foot,
7. the roof of the greenhouse shall be constructed of glass or slow burning plastic and capable of supporting the live load prescribed in §27-561(a) of the Building Code,
8. the depth of the greenhouse need not be included in the maximum permitted depth of a room, pursuant to §30(3) of the Multiple Dwelling Law,
9. the greenhouse shall be provided with operable windows or jalousies, whose free openable area shall be equal to at least five percent of the combined floor area of the greenhouse, as prescribed in §27-750 of the Building Code.

TENTS AND AIR-SUPPORTED STRUCTURES

§[C26-718.1] 27-510 Location and height. -
Tents or air-supported structures may be erected inside or outside of the fire districts provided they are not more than one story high above the ground, or above a roof that meets the requirements of subchapter five of this chapter for fire divisions.
See the rest of Article 19 for more detail on material + fire rules and regulations.

RULES: WHAT IS A GREENHOUSE?

A noncommercial greenhouse accessory to residential uses is defined as "a glass or slow burning plastic enclosed building used for cultivating plants."

RULES + RESTRICTIONS (ZONING + BUILDING CODE)

1. Up to 1 story or 14' tall.
   The greenhouse roof must be at or lower than the level of the second floor.

2. Area is less than 25% of required rear yard.
   The floor area of the greenhouse is included in the total floor area of the zoning lot.

3. Cannot project more than 6 feet from the plane surface of the building wall.
   The depth of the greenhouse does not need to be included in the maximum permitted depth of a room.

4. Must be constructed of noncombustible materials and glazed with plain or wire glass, or slow-burning plastic.

5. Floor of the greenhouse must be constructed according to the construction classification of the building to which it is attached (see Table 3-4 of Building Code).
   If not on grade, the floor must support a minimum live load of 75 lbs per sf.

6. Roof of the greenhouse must support a minimum live load of 30 psf of horizontal projection if slope is less than or equal to 20°. If slope is greater than 20°, roof must support min live load of 30 psf of horizontal projection minus 1 psf per degree over 20°.

7. Must have operable windows or jalousies with a free openable area of at least 5% of the combined floor area.

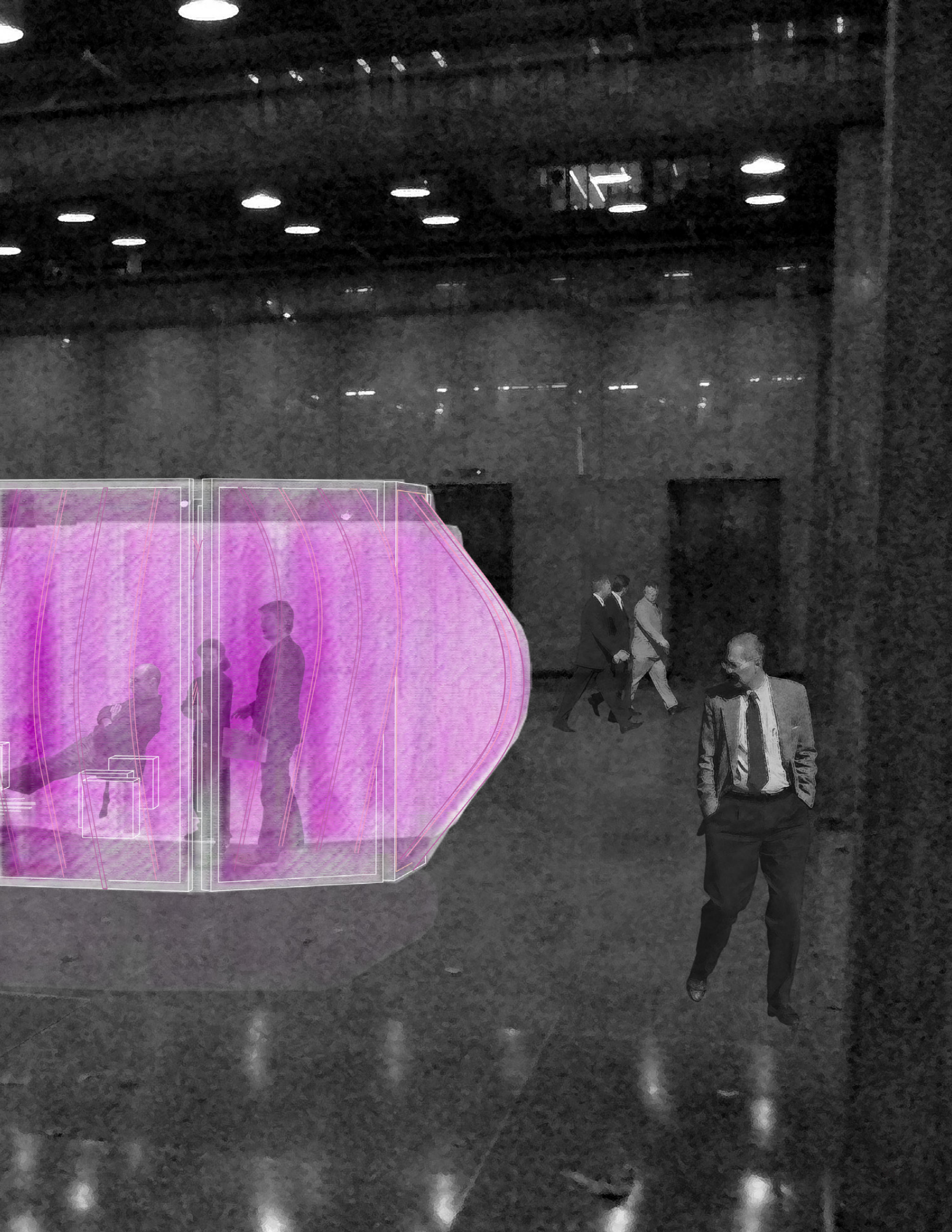
8. No offensive odors or dust.

WHAT SHOULD A GREENHOUSE LOOK LIKE?



Project #2. Office 3.0

Common Office Lobby, Manhattan



Project #2. Office 3.0

Common Office Lobby, Manhattan

Current trends are revealing that more and more people are working in untraditional modes and in unconventional spaces. Since the invention and proliferation of the internet, the value of non-material goods (i.e. information) has surpassed the value of material goods, and many workers have become "info-laborers" who only need a power source and an internet connection to make a living.[1] At the same time, the monetary value of real estate in cities has continued to rise, such that companies who trade in info-labor have found it more economical to rid themselves of physical office spaces and rely on their workers to become flexible agents, being able to work anyplace, and at anytime (see Figure 01, p. 96-97). Further, it is not only workers at relatively traditional companies that find themselves without a conventional office. The proliferation of info-labor has meant that lone entrepreneurs or small venture capital operations can compete equally against more established companies without needing to commit to an expensive office space. Again, these workers (many in the creative industries) can work just as well almost anywhere, so long as they have power and internet.

1. This is obviously a gross simplification of a complex phenomenon. For more reading and food for thought, please see Franco "Bifo" Berardi's writings, including "Technology and Knowedge in a Universe of Indetermination" (1998), available for download at: http://www.16beavergroup.org/bifo/.

Recognizing this growing workforce of rogue info-laborers, some companies have begun to provide flexible office spaces to support such occupational activities. These work space providers rent shared office spaces called "coworking" spaces, with necessary infrastructure (i.e. power, internet, phone, print/copy/fax machines, etc.) so that freelancers and entrepreneurs can have the benefit of a traditional office setting without the burden of paying the conventional rent.

At New Work City, a coworking space in Manhattan, workers can choose from a wide range of rental choices, from full-time occupation with monthly rent to daily drop-in rates for those just passing through (see Figure 02, p. 98). Many other coworking initiatives now exist, and in various other cities across the U.S. These various organizations offer different operational set ups, and emphasize slightly different benefits (see Figures 03 and 04, p. 99).

The New York City Economic Development Corporation (EDC) and the Mayor's office have recognized that these nontraditional workers are also highly valuable to the overall city economy, and are a lucrative investment for the city's future. Last February, the NYC EDC announced a new initiative to support and partner with local start-up work space companies, including Sunshine Suites, Nutopia and New Work City.[2] Through this initiative, workspace companies will provide discounted services and event space to the city. In return, they will get free promotion and publicity of their services.

2. McCarthy, Caroline. "Source: NYC to announce start-up workspace partnership." CNET News., 17 Feb. 2009. Web. 10 Sept. 2009.

Further, the City is also planning on creating its own specialized coworking space, called "Media Freelancer Hive@55", a center for media

freelancers at 55 Broad Street in Lower Manhattan.[3] The NYC EDC is providing a $500,000 grant to the Downtown Alliance for creating 5,000 square feet of office space for 50 freelancers at a time. The "Hive@55" is estimated to be able to provide workspace and other services for up to 1,850 part-time and drop-in workers every year.

As the concept of coworking - as defined in this contemporary context - proliferates and is supported through official means, it becomes useful to seriously reconsider what spatial characteristics would best serve this new type of "office". Many of the coworking spaces that already exist or are being built still appear and function like a conventional workspace, and simply implement a new way of managing the space. However, the intriguing part of the coworking phenomenon is that these independent workers mostly do not need all of the infrastructure that comes with a conventional office set up. Rather, they are craving human contact and interaction within a greater creative community. A revealing example of this impulse is Jelly (see Figure 05, p. 99), a loose and flexible coworking group which meets weekly for the express purpose of spending time with other people for "fresh ideas" and a "change of pace".

If nurturing collaborative environments and accidentally inspiring conversations with other like-minded innovators are the driving force behind coworking, then providing conventional insular workspaces in an office building seems like an inappropriate solution. Rather than simply providing traditional office spaces at a cheaper rate, can't there be a more appropriate spatial solution to fulfill this need?

The Open Agency Project proposes an alternative future for coworking space through the design of a plug-in infrastructural Office 3.0. Office 3.0 takes advantage of the numerous underused lobbies in large buildings throughout the city (including common office buildings, as well as public and institutional buildings). These grandiose lobbies are typically over-scaled symbolic gestures which remain empty for most of the day, containing a front desk with a lone worker, and perhaps a commissioned piece of public art. These lobbies are actually an ideal space for sheltering groups of creative people who want to work together in a stimulating environment, collaborating from time to time. These workers of the future wil have more opportunities for interaction with others, more spontaneous sparks of innovation may fly, and their work will be deservedly more exposed to the greater public.

Office 3.0 consists of an infrastructural supertable which plugs in to the local power supply and distributes power along its entire, infinitely extendable length. Always united through working upon the same continuous surface, users can easily choose to work independently or in clusters. The second element of Office 3.0 - the soft walls - are made of translucent fabrics which provide varying degrees of acoustic and visual insulation for coworkers. These walls simultaneously shield inhabitants from disruption while providing a visual cue to passerby that something exciting and innovative is happening within.

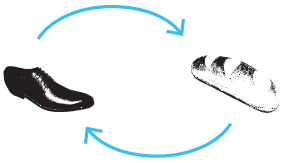
3. Pompeo, Joe. "Bloomberg Announces Package of Media Initiatives for Economic Development." New York Future Initiative., 7 July 2009. Web.

A SHORT HISTORY OF OCCUPATION:

occupation (n): 1) a job or profession; 2) the action, state or period of occupying or being occupied by an outside force; 3) the action or fact of living in or using a building or other place.

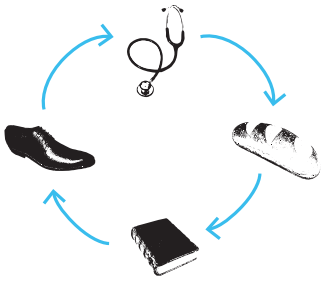
PAST

FLOWS OF LABOR + CAPITAL:



EXCHANGE OF MATERIAL GOODS

Beneficial for individual + societal survival, a product's monetary value is linked to its materiality.



EXCHANGE OF SERVICES + NON-MATERIAL VALUE FOR MATERIAL GOODS

Intangible "products" like knowledge + services are bought + traded within a material-based value system; USE is the prime factor in determining product value.

OCCUPATIONAL BODY:

OCCUPATIONAL TIME + SPACE:

AT HOME // LIVE-WORK

Time and space for occupation is determined by trade for life, and is balanced with other life activities.

CLOSE TO HOME // LIVE-WORK

The workplace and normative work hours introduce a greater separation between labor + life.

INDUSTRIAL REVOLUTION

1960s: Pirate radio stations proliferate.

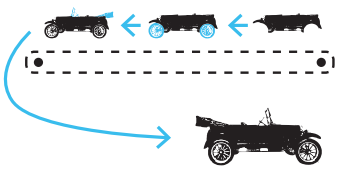
1977: "The year of passage beyond modernity."

- Occupation of Fiat Mirafioni factory in Italy. "A massive refusal of the sadness of work."
- Mass suicide of 784 youth in Japan.
- Apple trademark created.

1989: Invention of World Wide Web.

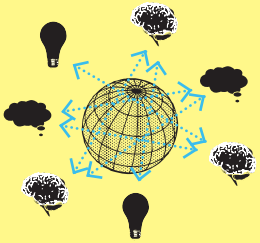
TODAY

FUTURE



MASS PRODUCTION OF MATERIAL GOODS

Technological advances inherently change the nature of production + labor;
TIME and ECONOMY become the drivers of product value.



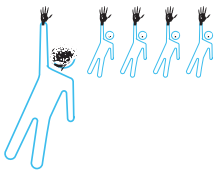
INFO-LABOR // SEMIO-CAPITAL // COGNITARIAT

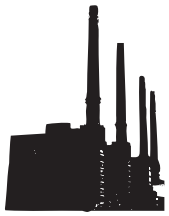
Intangible "products" (like information) diverge from and overtake material products, creating a world in which "production" is no longer a purely economic process (cannot be ruled by traditional ideas of labor, i.e. salary, work day, etc.). Furthermore, the quantification of cognitive labor as an activity leads to a blurring between "labor" and "life".

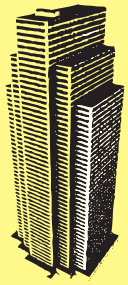
"semio-capital" = the fusion of media + capital; capital that lacks materiality; "info-labor" = the dissolution of the person as the active productive agent of labor.

AUTONOMY // BEYOND CAPITALIST MODES OF PRODUCTION (?)

"independence of social time from the temporality of capitalism"







SEQUENTIAL PRODUCTION // FACTORY

Systems of production dictate the 8-hour work day and 5-day work weeks. The aim of efficiency in capital and temporality presides over any other factor. Work takes place in "inhuman" conditions.

SIMULTANEOUSLY ANYWHERE // GENERICALLY DISPERSED

The unit of work (in terms of effort = time) is fractalized; revolution is not possible because fractalized workers cannot set into motion a wave of dissent. Workers are dispersed in time and space.

BALANCE OF AUTONOMY + SOCIETY

PRECEDENTS: COWORKING

New Work City (http://www.nwcny.com)

Bites:

"a home for your startup"

"a place to work alongside like-minded people"

"a respite for hotel-weary road warriors"

"the gathering spot for like-minded individuals who need somewhere to work that's both creative and social, and professional and conducive to working"

Facilities:


high-speed internet


conference phone


conference rooms


print/copy/scan


projector


free hosting, email + file storage


free coffee


membership in the "coworking visa program". allows you to work in 22 spaces in 10 states / 6 countries.


hvac (shelter)

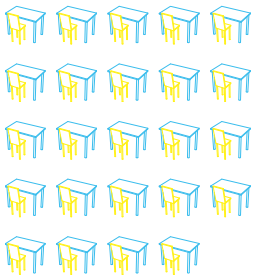
Members:


web/technology/ business entrepreneurs


writer

film maker

Workspaces:



Membership Types:

Full-time:	Part-time Option A/B:	Basic:	Drop-in:
$500 / month	$150 / month $200 / month	$50 / month	$20 / day
24 hr access	9-5 access	9-5 access	9-5 access
anytime	2 days / week 3 days / week	3 days / month	workdays
key access	swipe card		
private desk	shared desk	shared desk	shared desk

Figure 01. (previous page)
A Short History of Occupation.

Figure 02. (left)
New Work City

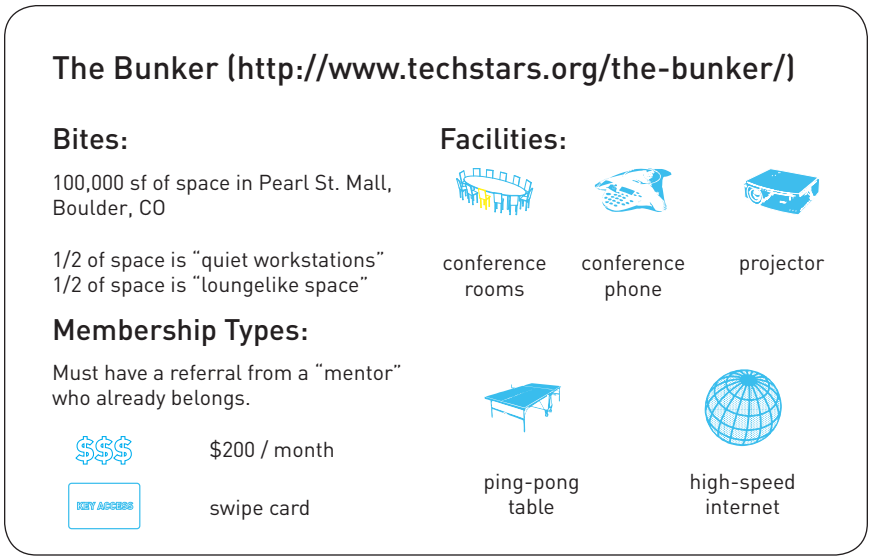


Figure 03. (right, top)
The Bunker. Boulder, Co.

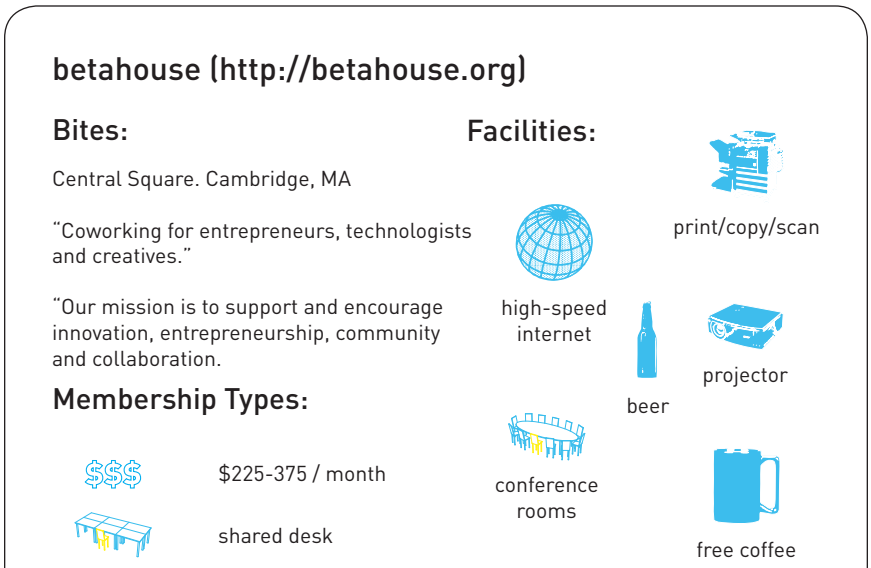
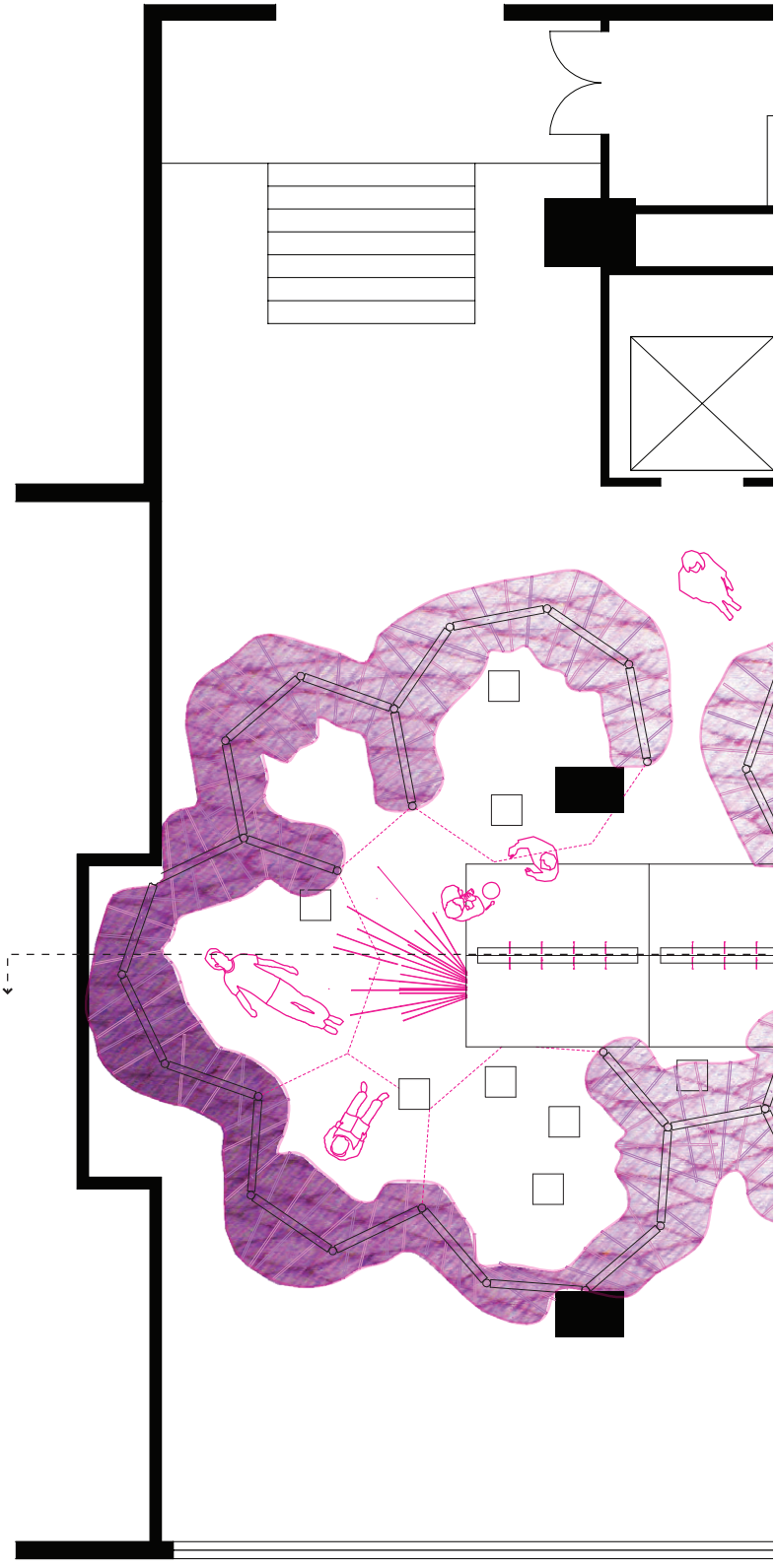
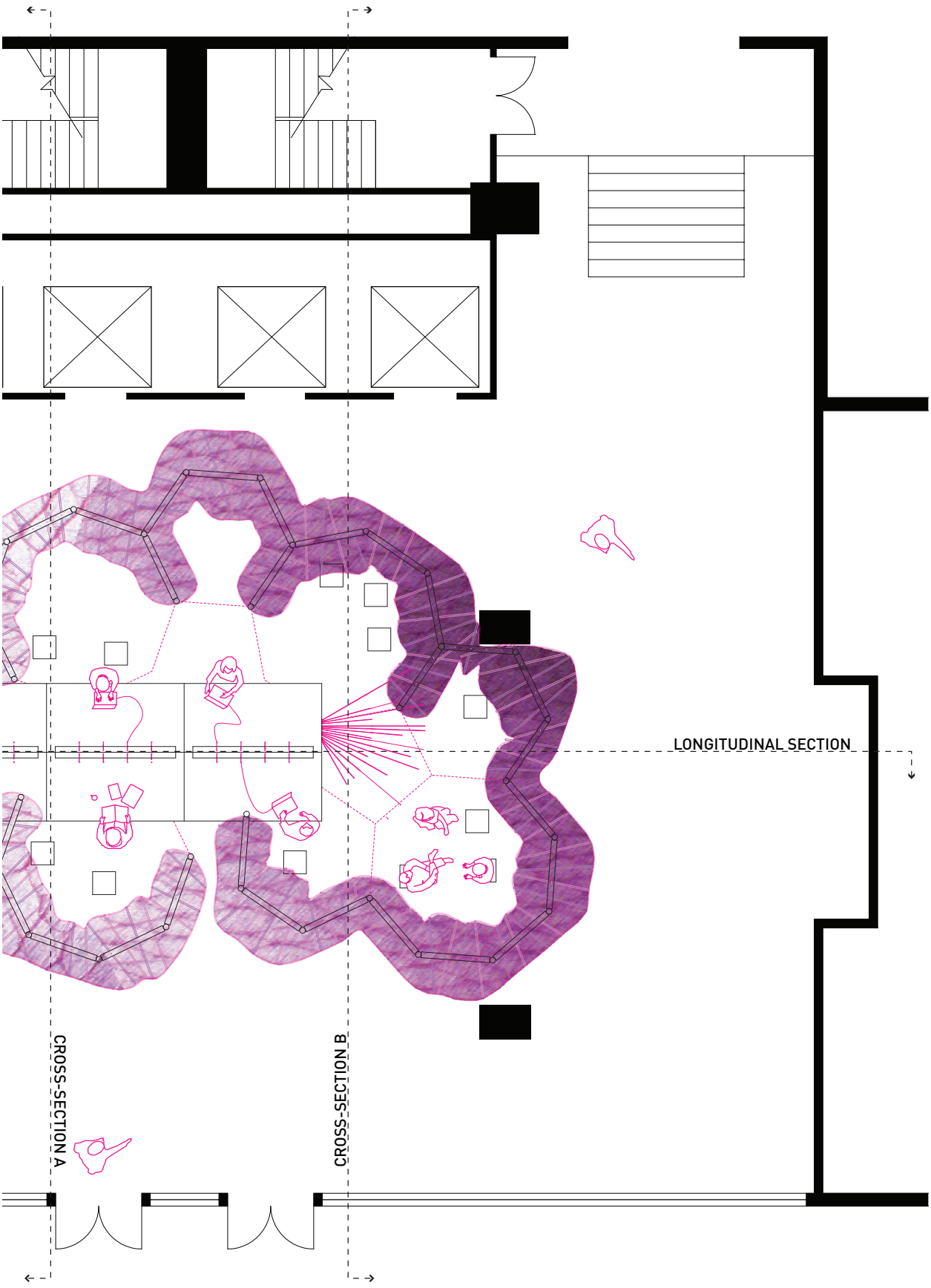


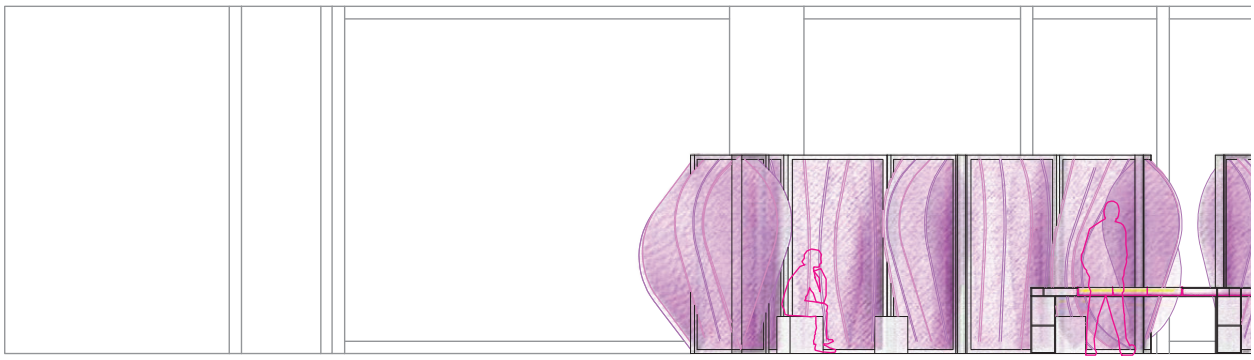
Figure 04. (right, middle)
Betahouse. Cambridge, MA.

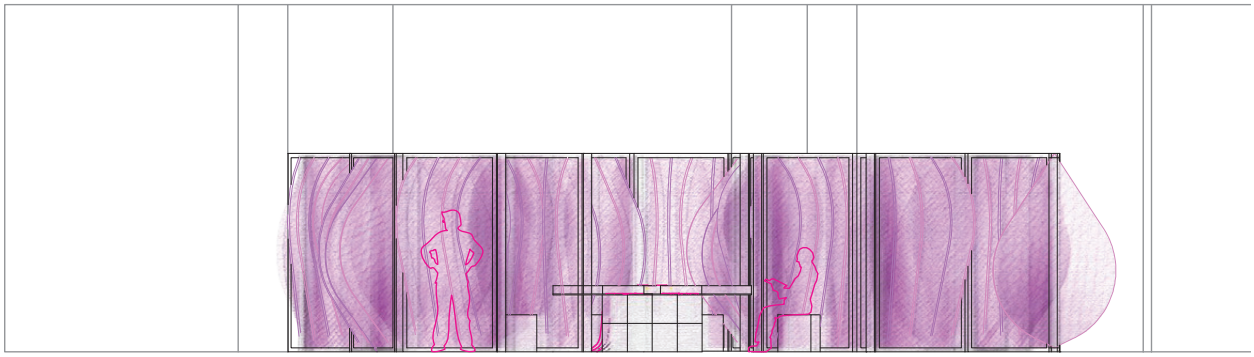
Figure 05. (right, bottom)
Jelly. New York City and around the world.

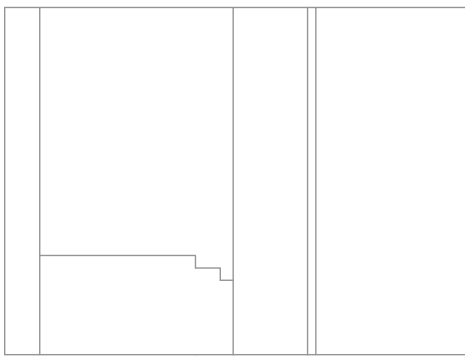


Plan
*(N.T.S.) original drawing at 1/4" = 1'-0"


LONGITUDINAL SECTION
CROSS-SECTION A
CROSS-SECTION B



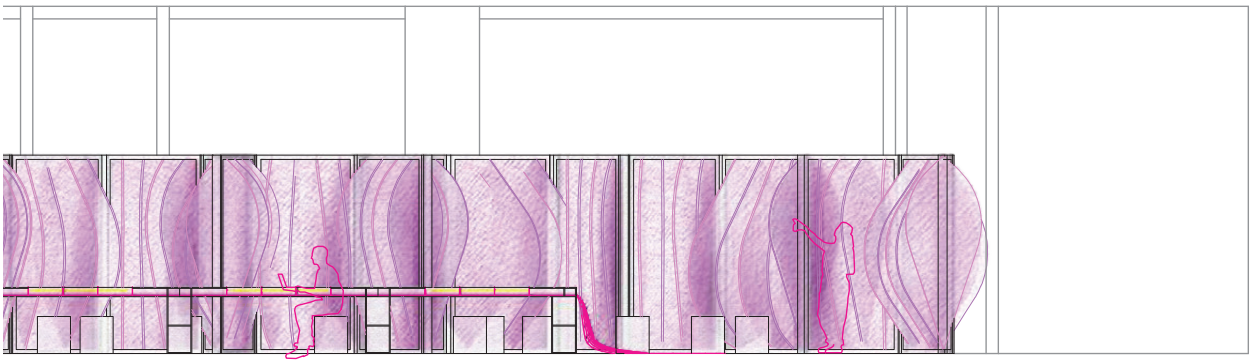


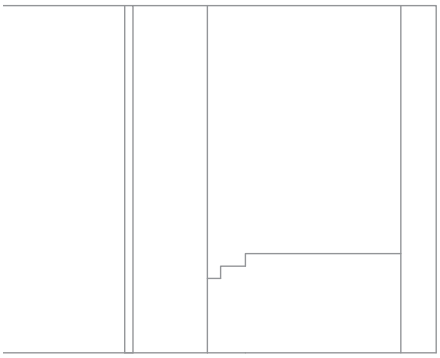


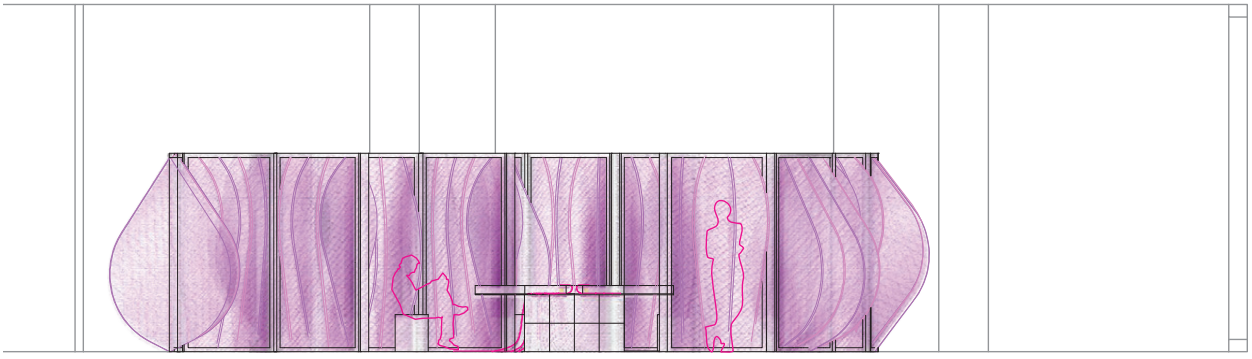
Longitudinal Section (top)
*(N.T.S.) original drawing at 1/4" = 1'-0"

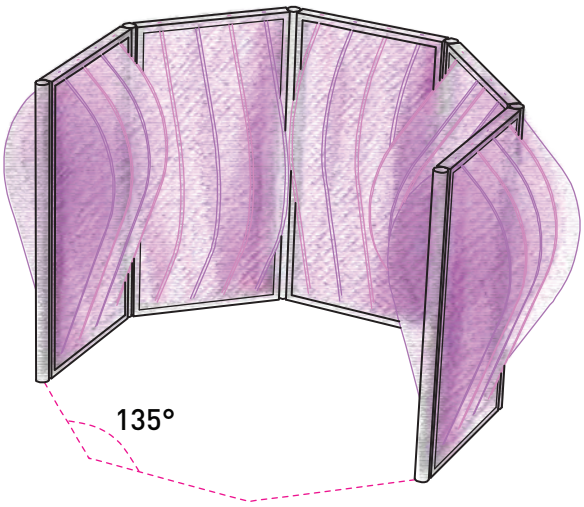
Cross Section A (middle)
*(N.T.S.) original drawing at 1/4" = 1'-0"

Cross Section B (bottom)
*(N.T.S.) original drawing at 1/4" = 1'-0"

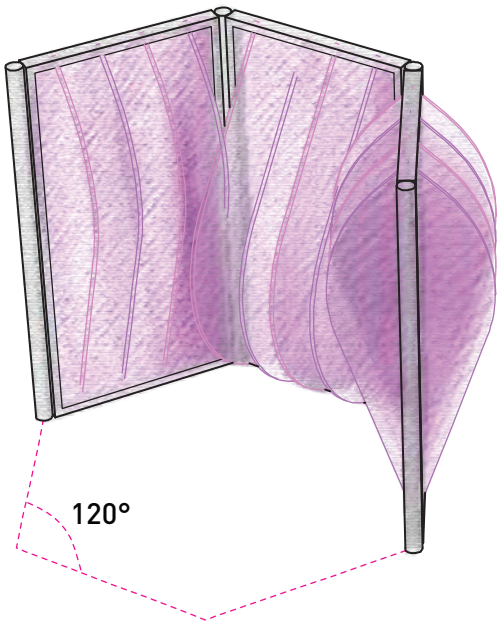








GROUP-WORK POD:
Sized for multiple people working together.

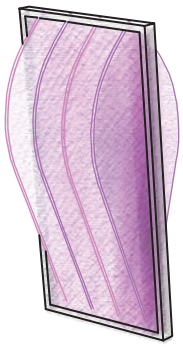


INDIVIDUAL POD:
Sized for one or two people, more acoustic and visual padding.

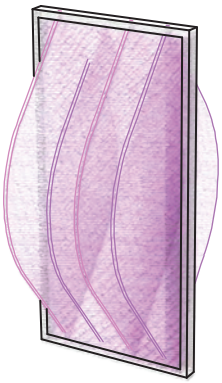
Cluster Types (this page)
*(N.T.S.)

Panel Types (opp. page, top)
*(N.T.S.)

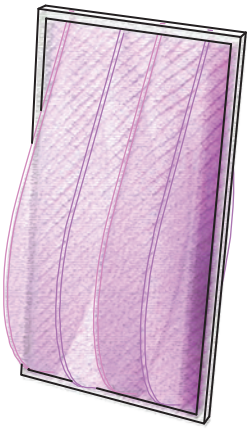
Frame Connection Detail (opp. page, bottom)
*(N.T.S.)



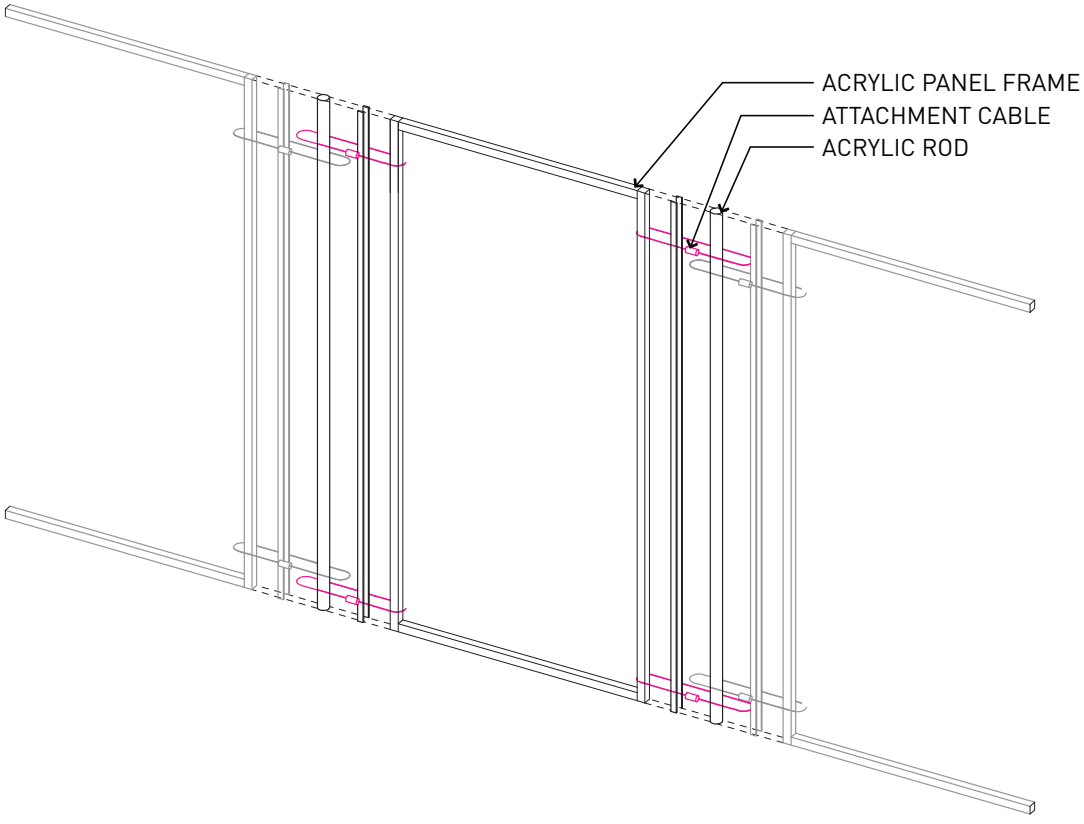
TYPE 1:
Full at the top. Good for sitting under, best for visual privacy from passersby.

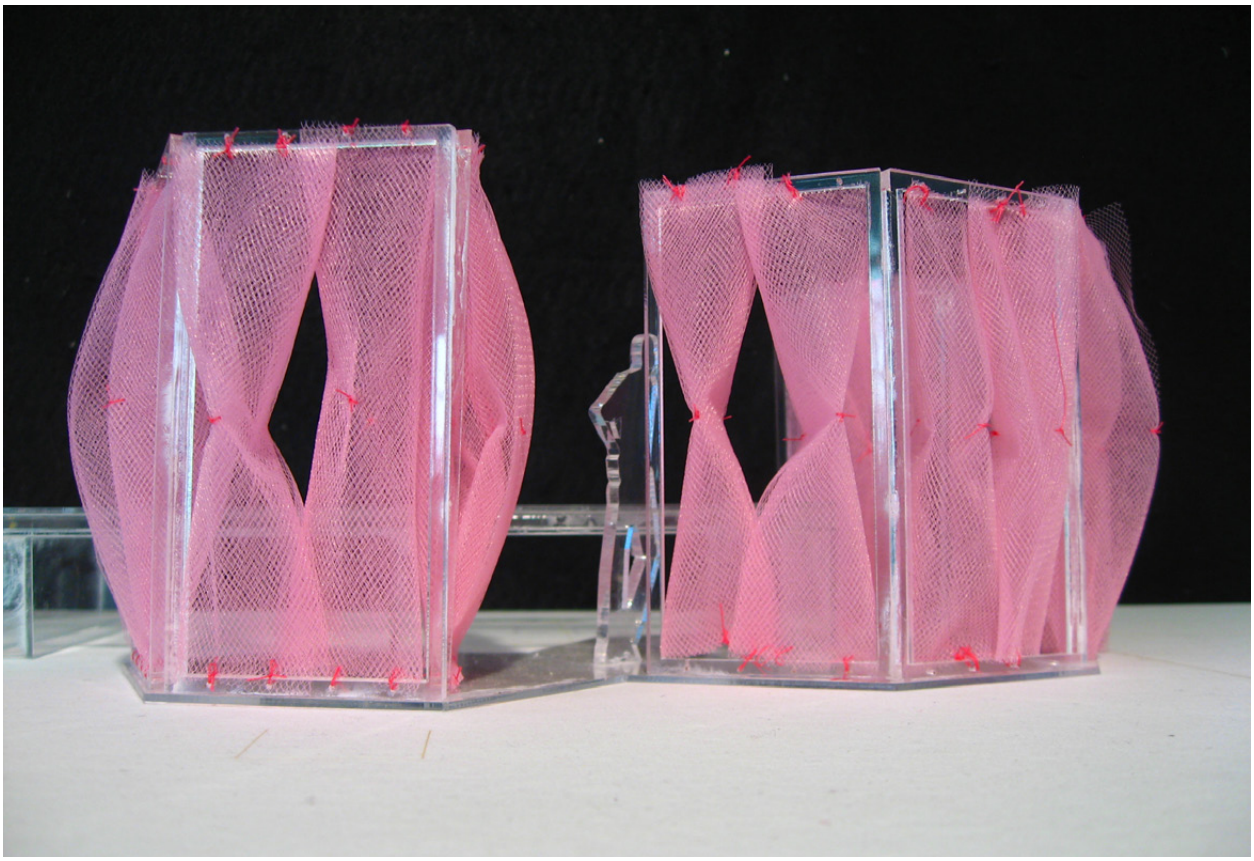


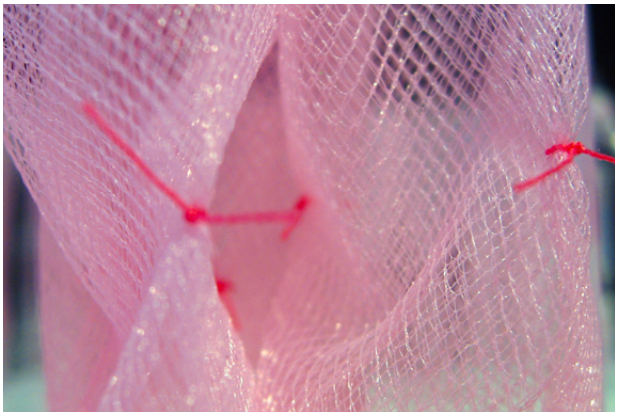
TYPE 2:
Full in the middle. Typical buffer, best for visual privacy for seated workers.

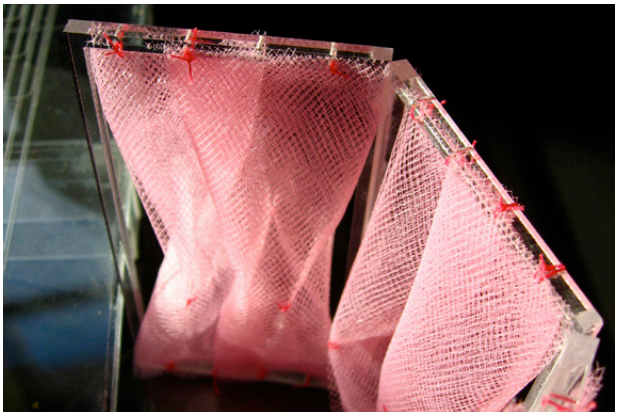


TYPE 3:
Full at the bottom. Physical buffer, maximum acoustic insulation.



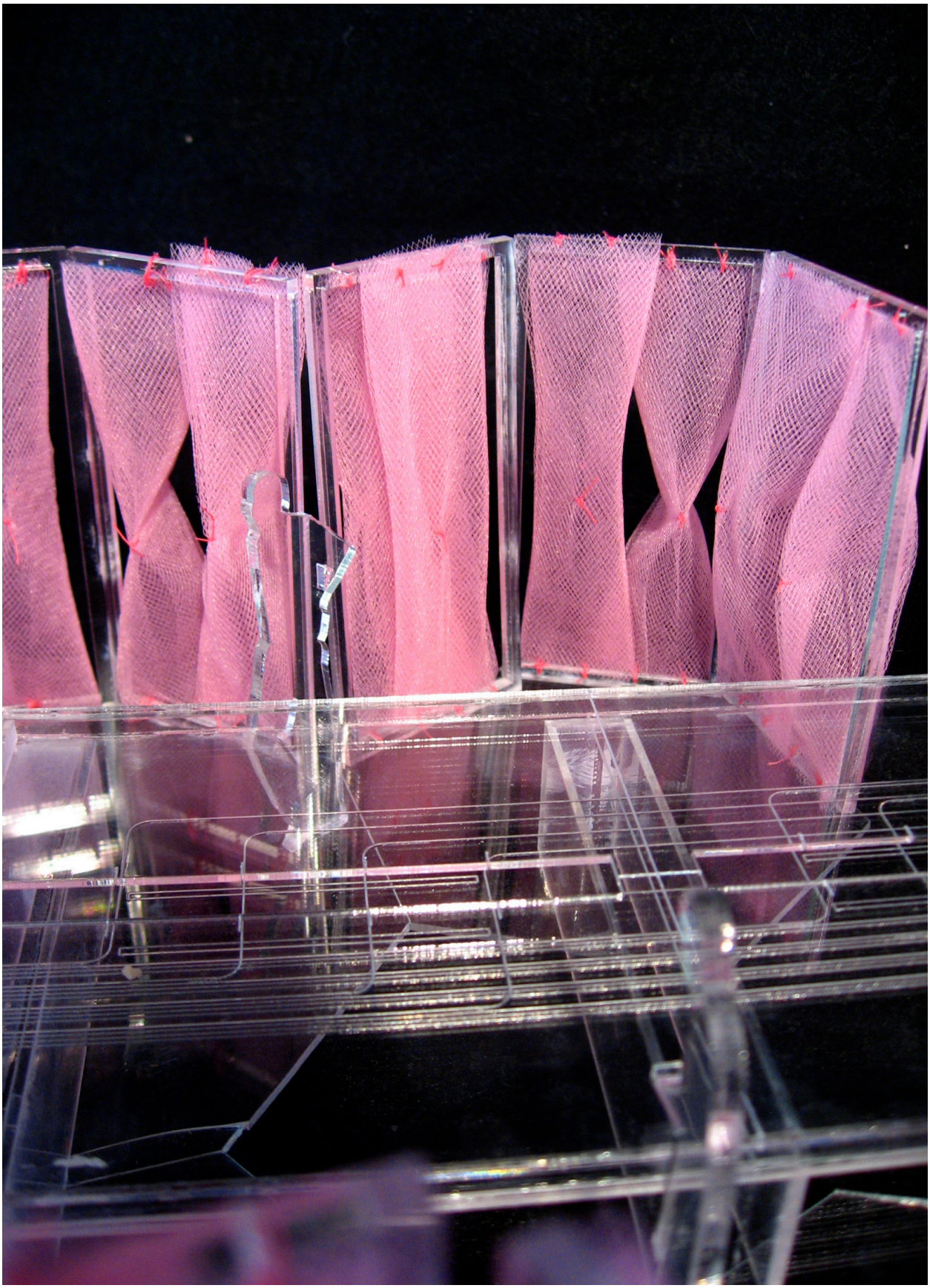






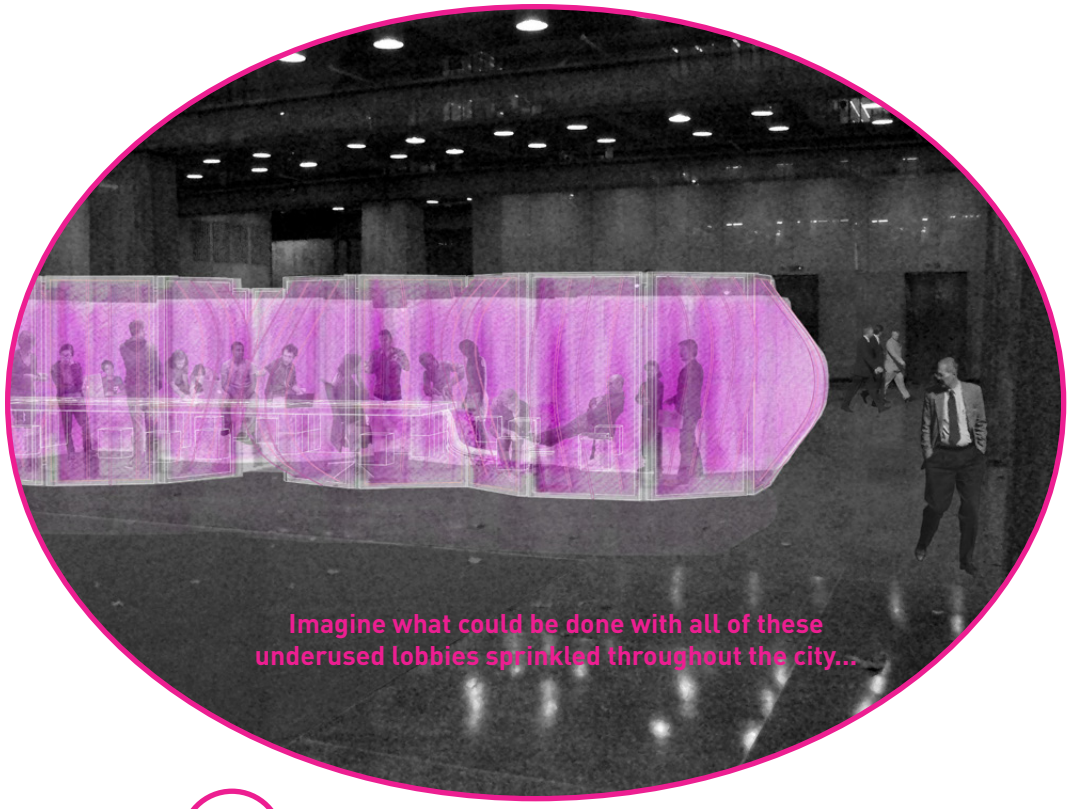
Model photos (this page)
Detailed views of soft fabric walls.

Model photo (opposite page)
View of supertable and office walls from above.



An Open Letter:

To Mayor Bloomberg and the New York Economic Development Corporation



Dear Mayor Bloomberg and Mr. Seth W. Pinsky:

The Open Agency Project would like to submit an idea for consideration by the City of New York, concerning new coworking spaces for freelancing and entrepreneurial work. We have recently read about the City's support of existing coworking (i.e. shared office) spaces, as well as the planned Media Freelancer Hive@55 with great interest. Encouraging entrepreneurial activity by recognizing that a new workforce needs a new model for office space is smart and proactive. However, it seems like the emphasis thus far is placed mainly upon the development of new ways of managing conventional office spaces, rather than rethinking what a workspace of the future could be. This seems like a missed opportunity, and we at the Open Agency Project propose an alternative solution for the creation of new coworkspaces throughout the City of New York.

It seems that one of the strongest driving factors of the coworking phenomenon is the desire for people who don't technically need coworkers to want to sometimes work alongside others in a nurturing collaborative environment. Though of course, the need for a secure and reliable office infrastructure (including internet, phone, fax, etc.) are important, what these independent workers really crave is the physical experience of working alongside others, not to mention the opportunity for bouncing ideas and comments back and forth with other creative workers. Thus, we propose a plug-in infrastructural Office 3.0 that inhabits underused public spaces throughout the city (i.e. lobbies in office buildings and public/institutional buildings). This Office 3.0 consists of an infrastructural supertable that plugs in to existing electrical outlets within the existing building and distributes power over a continuous single work surface. The second element of Office 3.0 is a soft fabric wall which simultaneously provides acoustic and visual insulation to the coworking inhabitants and a visual signal to passerby of the exciting work that is being done within.

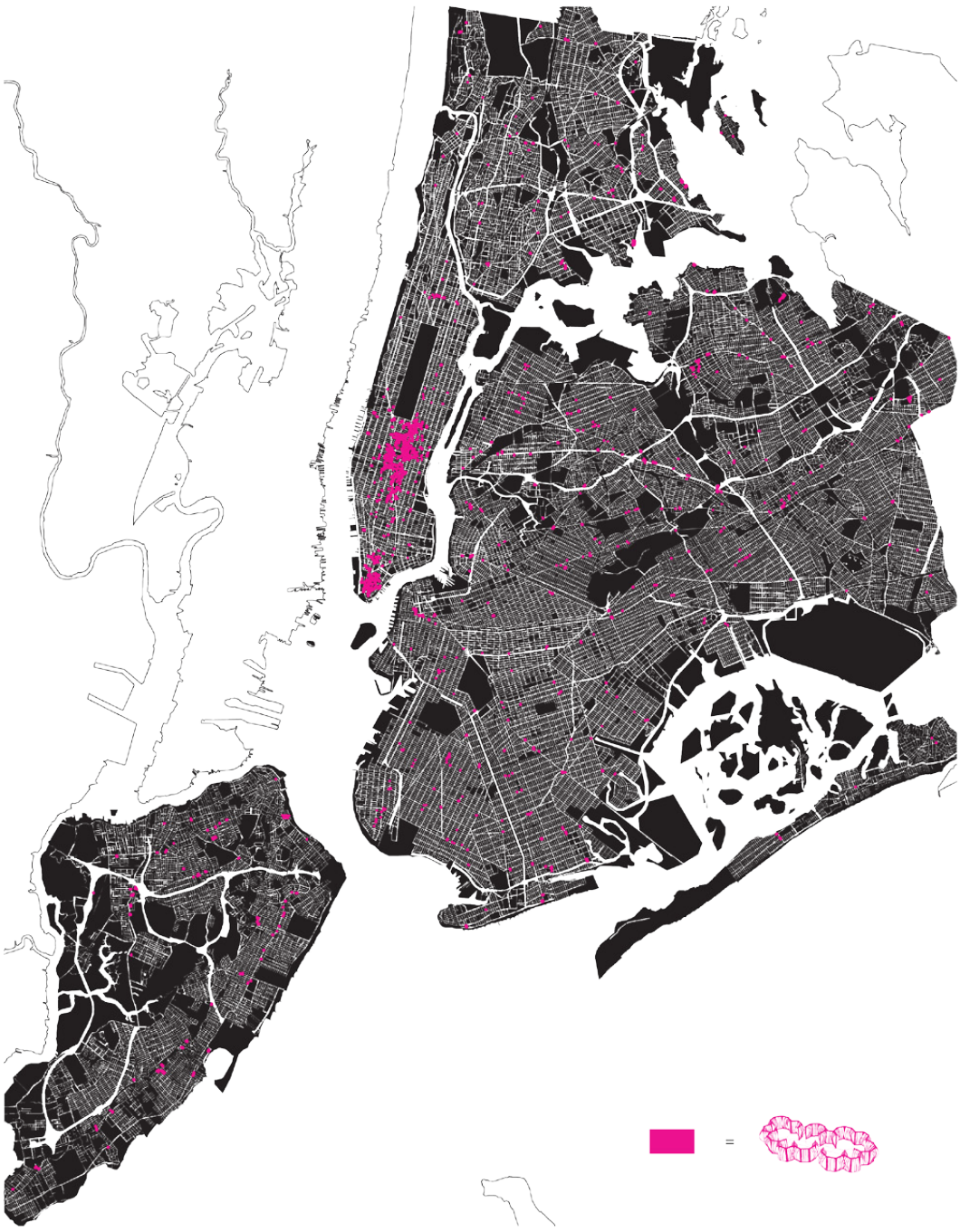
Further, the proposed Office 3.0 will go further to support the City's "Five Borough Economic Opportunity Plan" than the current plans for a single new coworking space at Hive@55. Because Office 3.0 can be implemented in existing underutilized spaces throughout the City, local "hives" for creative workers can be created with less expense (please see the map at right, showing the array of possible places where a new "hive" can be created). Moreover, by dispersing these "hives" throughout various neighborhoods in all five boroughs, the City can more successfully target the expressed goal of "creat[ing] jobs for New Yorkers today, implement[ing] a vision for long-term economic growth, and build[ing] affordable, attractice neighborhoods" (from press release titled "Mayor Bloomberg Announces Eight Initiatives to Strengthen the Media Industry in New York City" (July 7, 2009)).

We would be excited to speak with you further about the specifics of Office 3.0. Please contact us at info@openagencyproject.com.

Sincerely,

The Open Agency Project

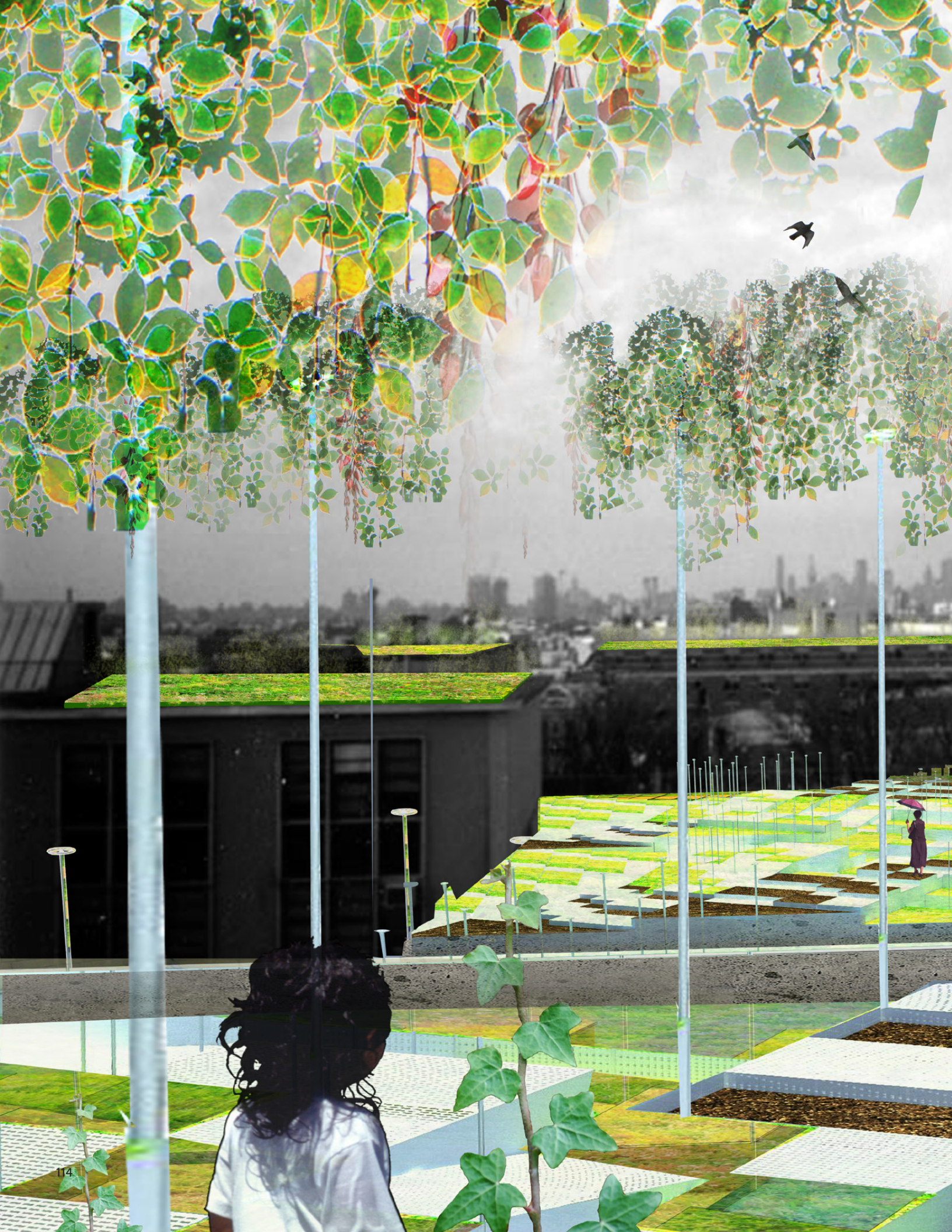
Where can Office 3.0 be implemented?



This map highlights all of the buildings across New York City with available lobby spaces for Office 3.0, including office buildings over ten stories (Main Avenue Type), bank buildings (designed exclusively for banking), and large buildings for cultural assembly, including YWCA, YMCA, etc. (Please see interactive map at http://openagencyproject.com to zoom-in for more detail.)

Project #3. Roof Escape

Crown Heights, Brooklyn



Project #3. Roof Escape
Crown Heights, Brooklyn

Green roofs are a well-known and widely proliferated strategy deployed by many sustainability enthusiasts and fervent LEED followers. In fact, green roofs do have many known and quantitatively measured benefits, including mitigating the heat island effect, conserving energy used to heat and cool buildings, removing carbon dioxide from the atmosphere, improving the quality of storm water runoff, extending the service life of roofs, and creating pockets of wildlife and vegetation in urban environments. However, green roofs have the potential to be more than technical solutions with quantifiable effects. Those who have experienced the other-worldliness of stepping out onto a vegetated surface in the sky know that a green roof can also be a natural respite from the unrelenting brutality of the concrete jungle. The overwhelming success of the High Line, recently opened in Chelsea, is a testament to the power of experiencing the city from the rooftops.

With the recently passed Green Roof Tax Abatement Law (Title 4-B) in June of 2008, there is now an unprecedented opportunity for creating these green spaces at a greatly subsidized cost in any part of the city, especially those areas which lack significant green space. Further, it is now an opportune time to push the boundaries of what a green roof can be, and aim for more than simply technical solutions.

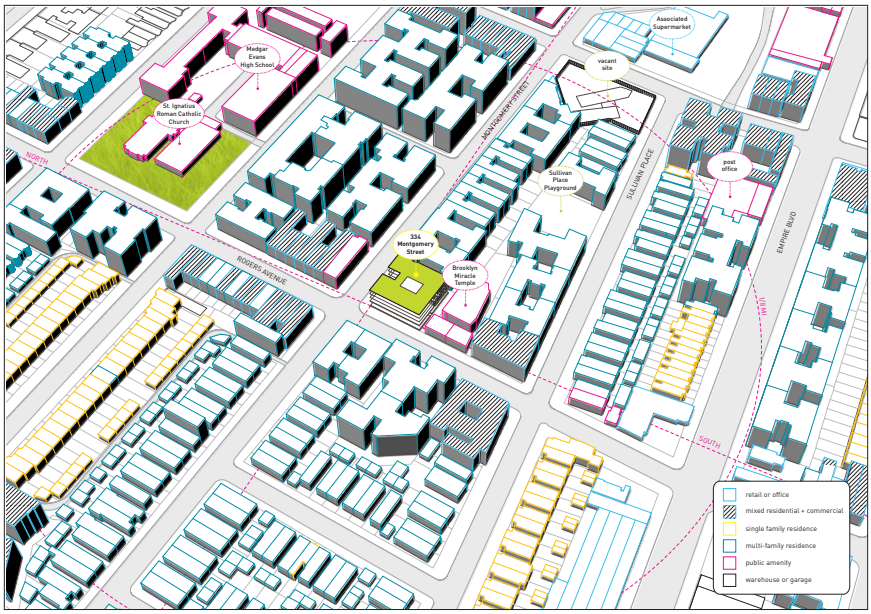
The Roof Escape module, designed by the Open Agency Project, is carefully engineered to fit within the operating budget of most property owners, and makes the most of the green roof tax credit by not only providing a 50% green roof surface (as required by law), but also creating a varied roof that dips and rises to accommodate a wide array of different programs. Easy to construct but efficiently providing a complex surface, the Roof Escape module comes programmed with the capability of hosting various activities such as gardening, sunbathing, walking, playing, and communal gathering.

Also, the Roof Escape module is specifically designed for mid-sized residential buildings (see Figure 01) of more than three stories in neighborhoods with little green space. The process of implementing the Roof Escape module is intended to become a community-building project for each individual building, functioning as a tool for cooperatively creating a shared public space.

Finally, because each Roof Escape module is shaped by its relation to the sun path (in order to maximize the sun exposure for the planting beds), all of the rooftops which employ the Roof Escape module will produce a deep grain which sweeps across the city, providing a unifying effect overall (see Figure 02).

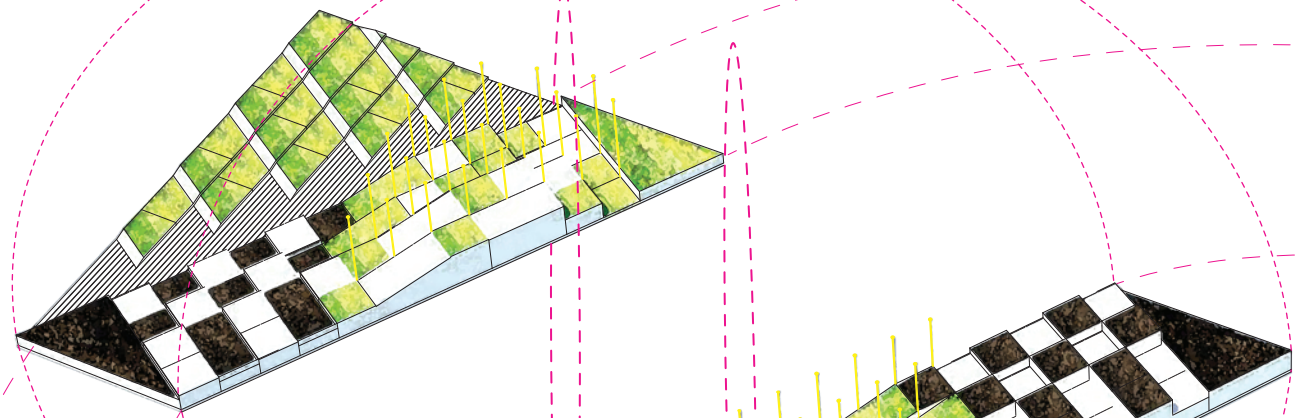
Before

Figure 01. (right)
Map of site area in Crown Heights, Brooklyn.

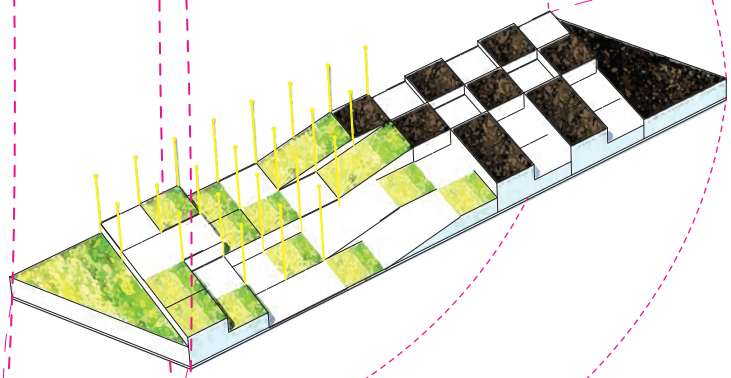


After

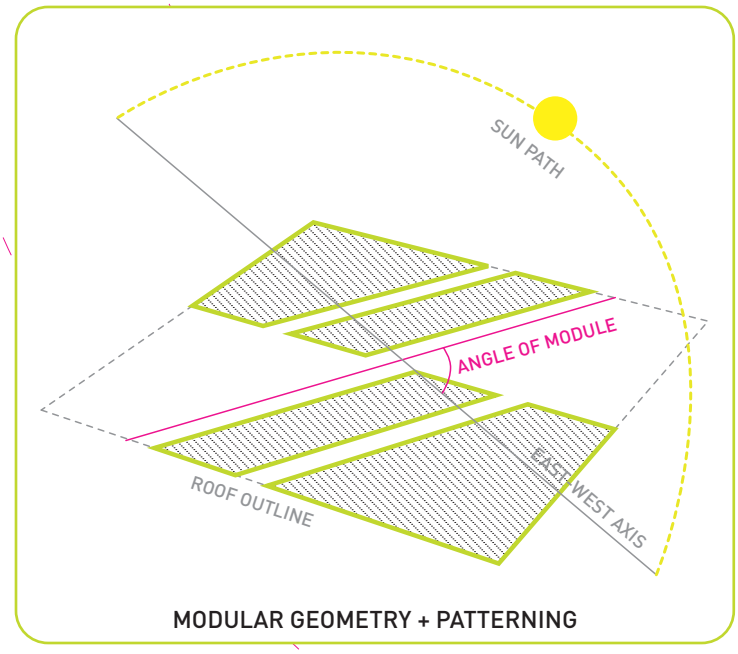
Figure 02. (left + right)
Before and after image and rendering of site and surrounds. The "before" image shows the lack of greenspace in the immediate vicinity of the selected site. The "after" rendering illustrates the effect of the adding green roofs to all of the multi-family, 3 story+ residential buildings in the neighborhood.



MODULE TYPE A'



MODULE TYPE B'



MODULAR GEOMETRY + PATTERNING

50% GREEN RULE:

The tax credit stipulates that half of the roof must be **green**. This 50% green rule is built into the design of each module, making it easy to follow this rule.

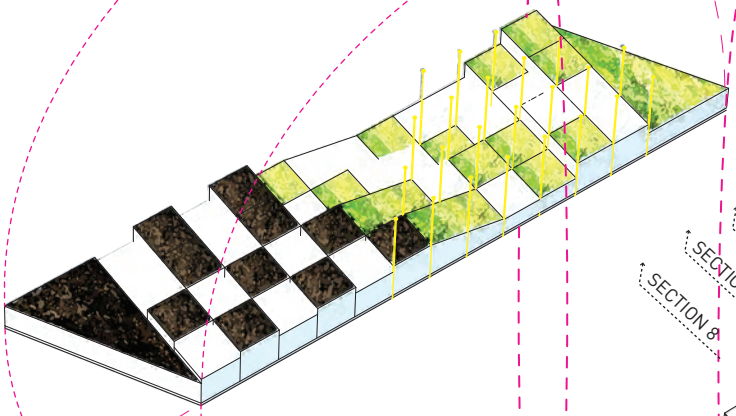
COST FACTORS:

Green Roof Tax Credit = $4.50 per sf
Total Roof = 100,000 sf
Total Tax Credit = $45,000

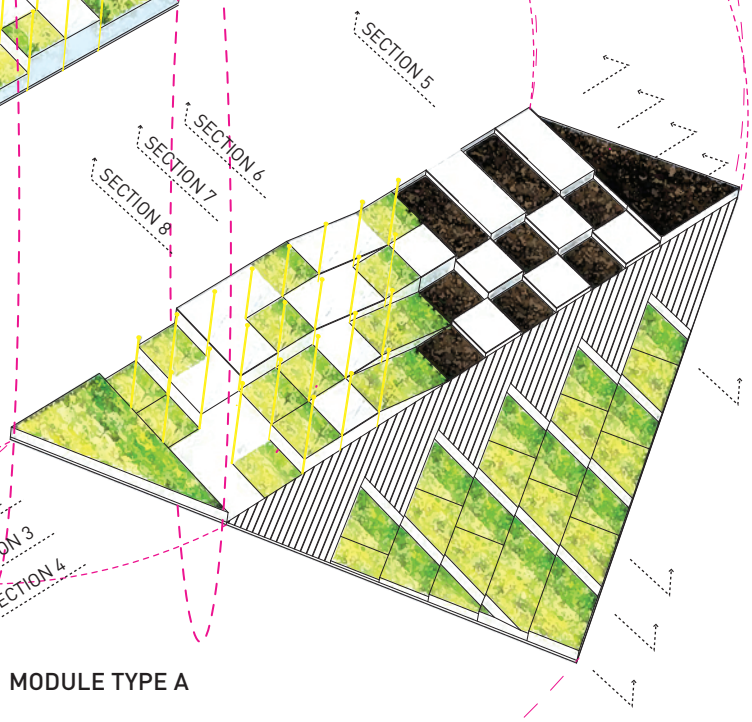
If the cost of each 4' x 4' module averages $36, the whole roof will be **free**!

COMMUNITY-BUILDING:

A minimum of **50** to a maximum of **150** people live in this type of building. Households range from young singles to families to older couples. The roof should have something for everyone, as well as spaces large enough for all to gather. The module is designed to provide individually sized spaces that can feel intimate, yet are always common + shared.

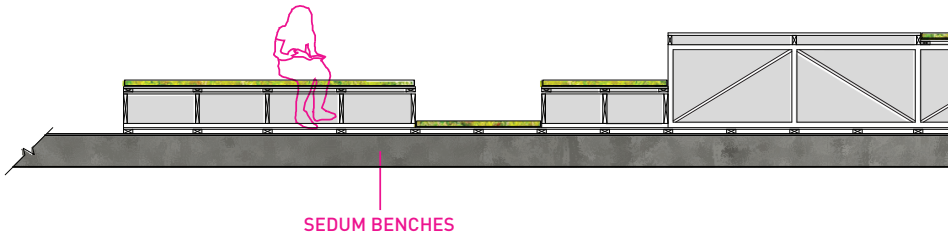


MODULE TYPE B

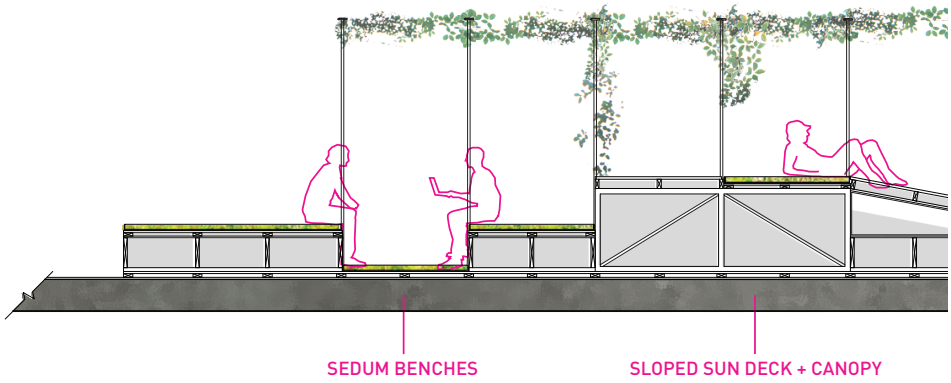


MODULE TYPE A

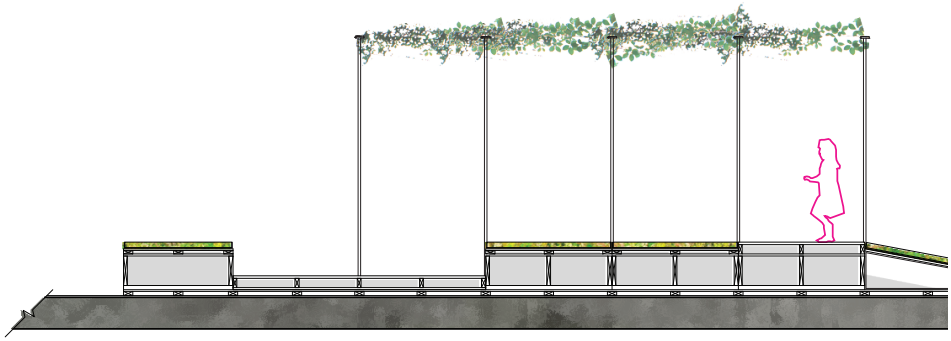
Section 1



Section 2



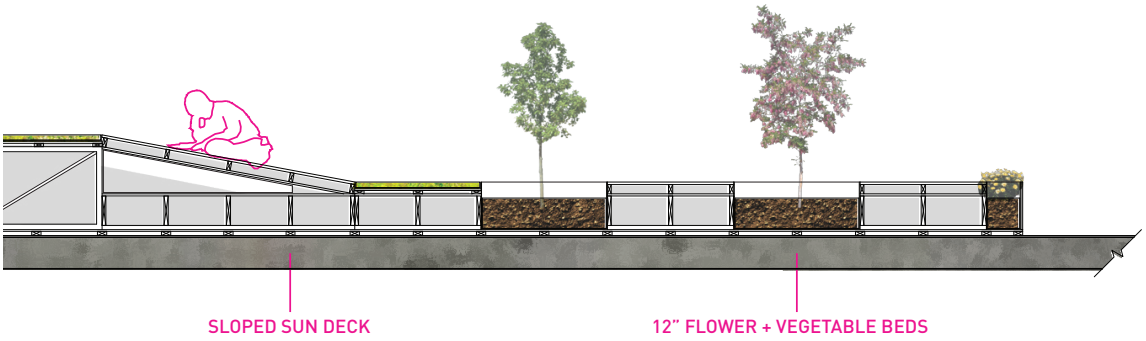
Section 3

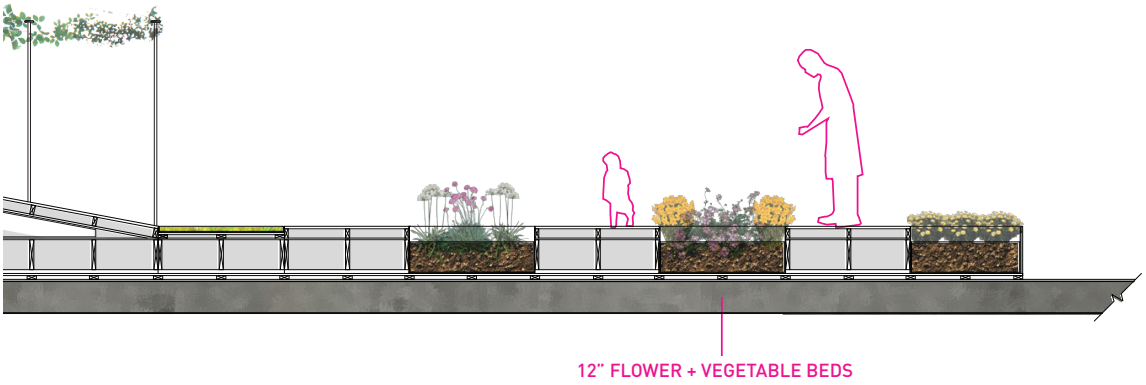


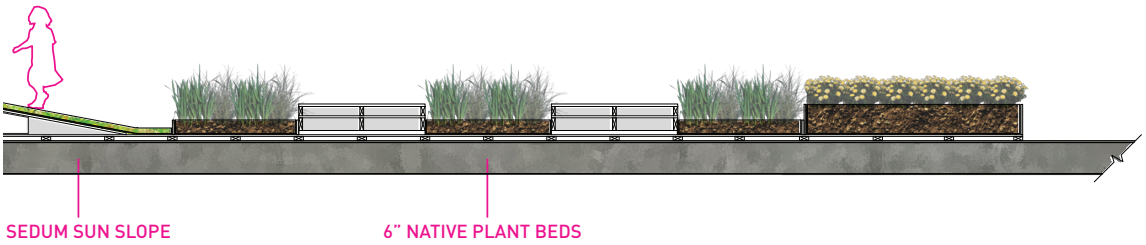
Section 4

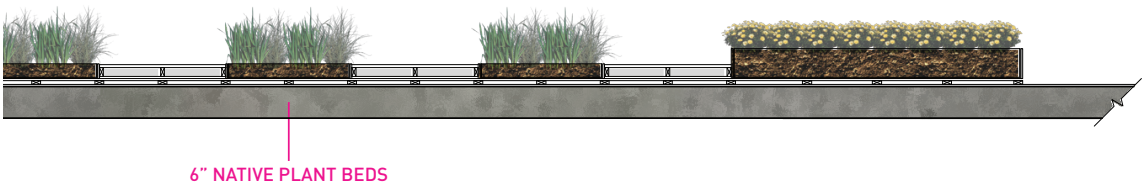
Programmatic Sections

*(N.T.S.) original drawing at 1/4" = 1'-0"


SLOPED SUN DECK
12" FLOWER + VEGETABLE BEDS


12" FLOWER + VEGETABLE BEDS

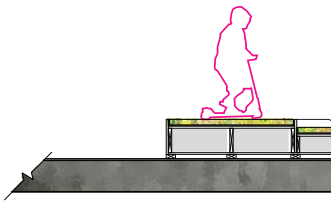

SEDUM SUN SLOPE
6" NATIVE PLANT BEDS


6" NATIVE PLANT BEDS

Section 5

Section 6

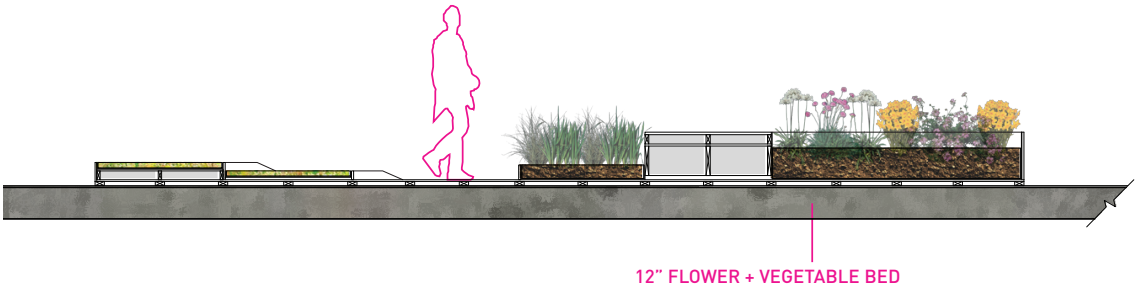
Section 7

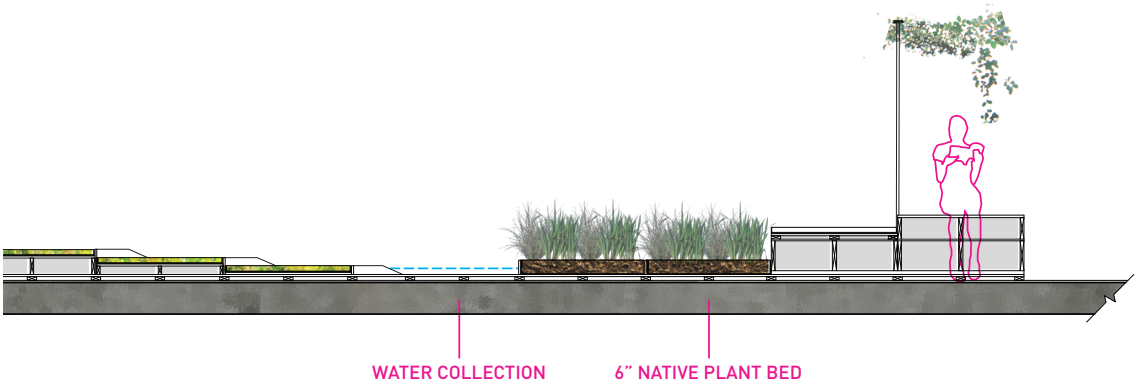


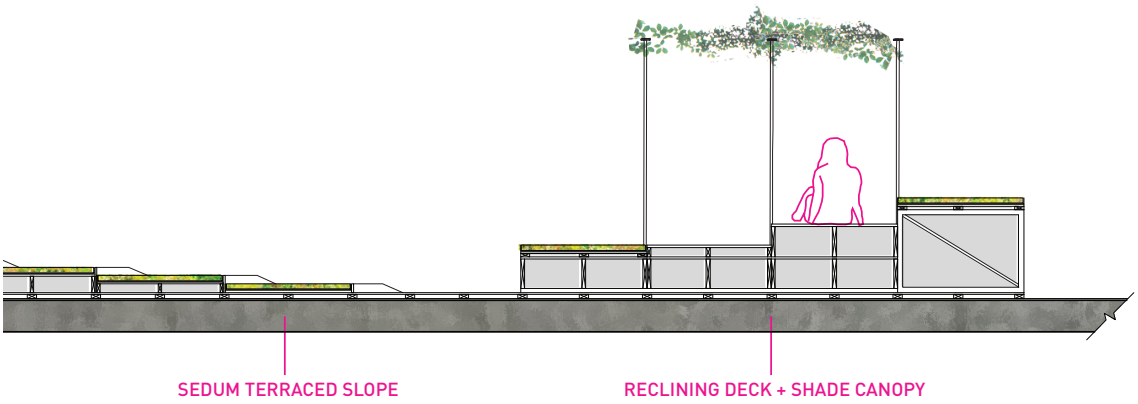
Section 8

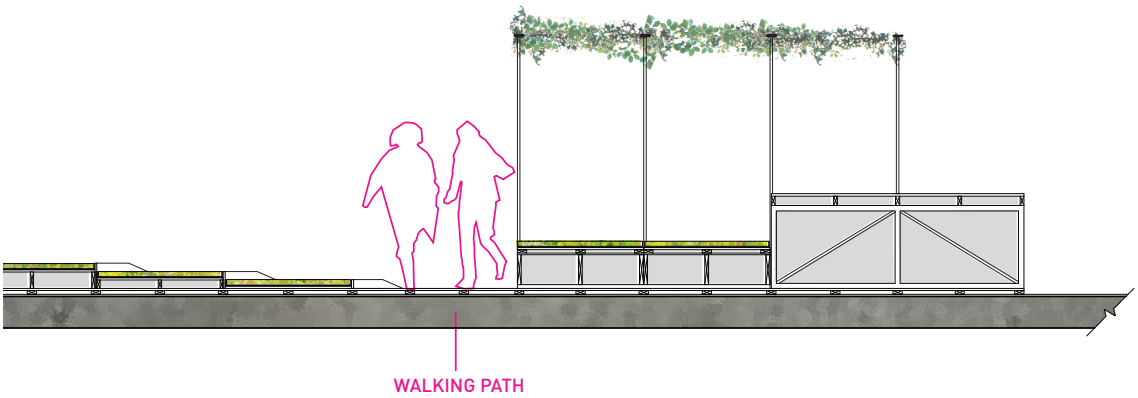
Programmatic Sections

*(N.T.S.) original drawing at 1/4" = 1'-0"


12" FLOWER + VEGETABLE BED


WATER COLLECTION
6" NATIVE PLANT BED


SEDUM TERRACED SLOPE
RECLINING DECK + SHADE CANOPY


WALKING PATH

Green Roof Guide:

Things to know for creating your own roof escape!

What is a green roof escape?

If you live in a high density neighborhood that has little or no greenspace, then you can create a green escape on your rooftop (paid for by a tax incentive)!

New York State legislature passed the Green Roof Tax Abatement Law (Title 4-B) in June 2008 which gives tax credits of $4.50 per square foot of green roof, up to $100,000 or the tax obligation of the property for one year, if the following requirements are met.

- **To be an eligible buiding, a building must be a class one, class two or class four real property.**
  [class one: 1, 2 or 3 family residence; class two: all other residential property that is not class one, except for hotels, motels and other such commercial property; class four: all other real property not designated in class 1 or 2]

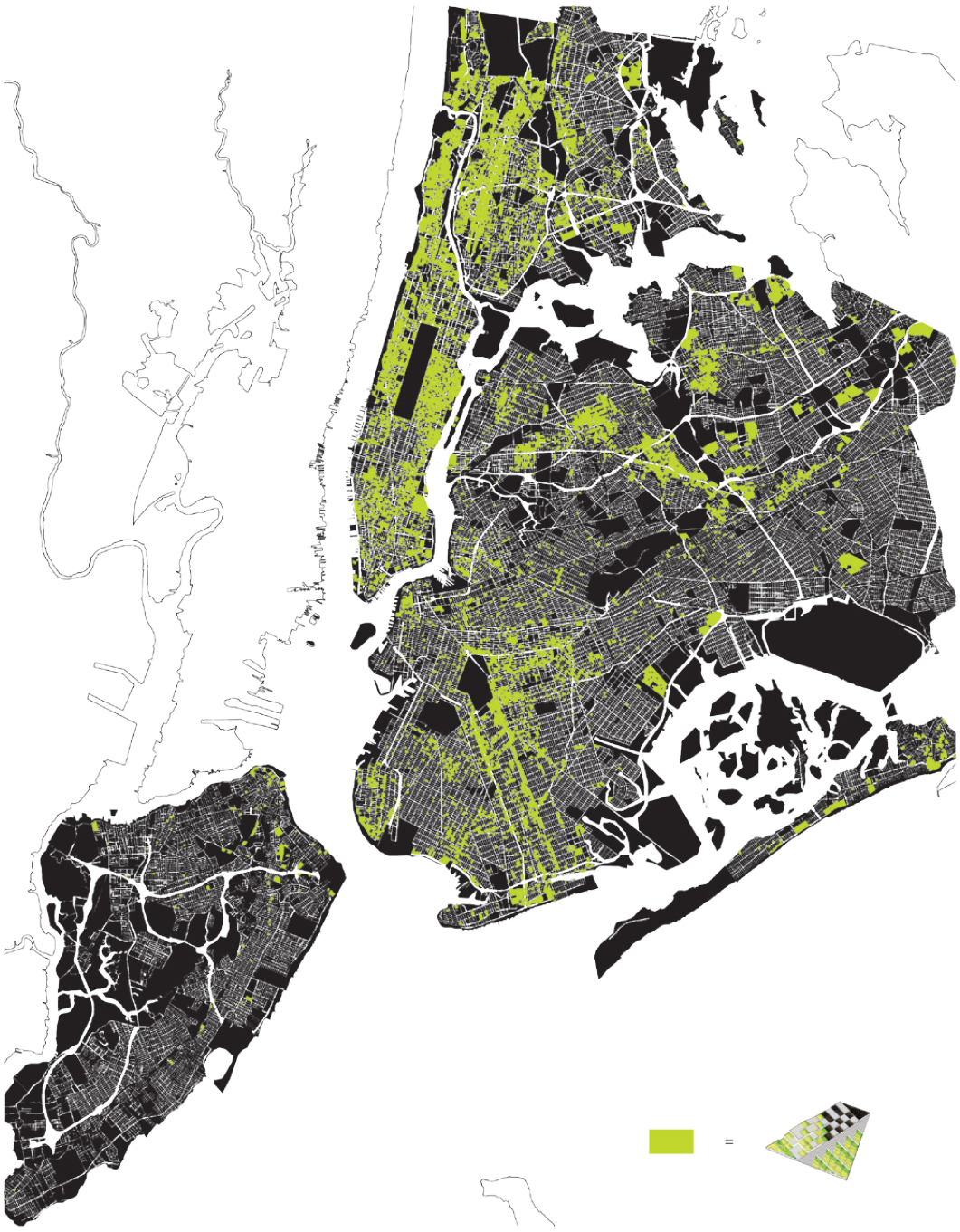
- **The green roof must cover at least 50% of the building's eligible rooftop space.**

- **A green roof is defined as including:**
  a) a weatherproof and waterproof roofing membrane layer that complies with local construction and fire codes,
  b) a root barrier layer,
  c) an insulation layer that complies with local construction and fire codes,
  d) a drainage layer that complies with local construction and fire codes,
  e) a growth medium, including natural or simulated soil, with a depth of at least two inches,
  f) if the depth of the growth medium is less than three inches, an independent water holding layer that is designed to prevent the rapid drying of the growth medium, such as a non-woven fabric, pad or foam mat, unless the green roof is certified not to need regular irrigation to maintain live plants, and
  g) a vegetation layer, at least eighty percent of which must be covered by live plants such as sedum or equally drought resistant and hardy plant species.

- **A licensed engineer or architect must certify the application.**
  The licensed professional must certify that the application is for (i) an eligible roof top space, (ii) that a green roof has been constructed on an eligible building in accordance with this title, the rules promulgated hereunder, and local construction and fire codes, (iii) that a structural analysis of such building has been performed establishing that the building can sustain the load of the green roof in a fully saturated condition.

- **The green roof must be maintained for at least 3 years after the 1 year compliance period.**
  A maintenance plan must be submitted.

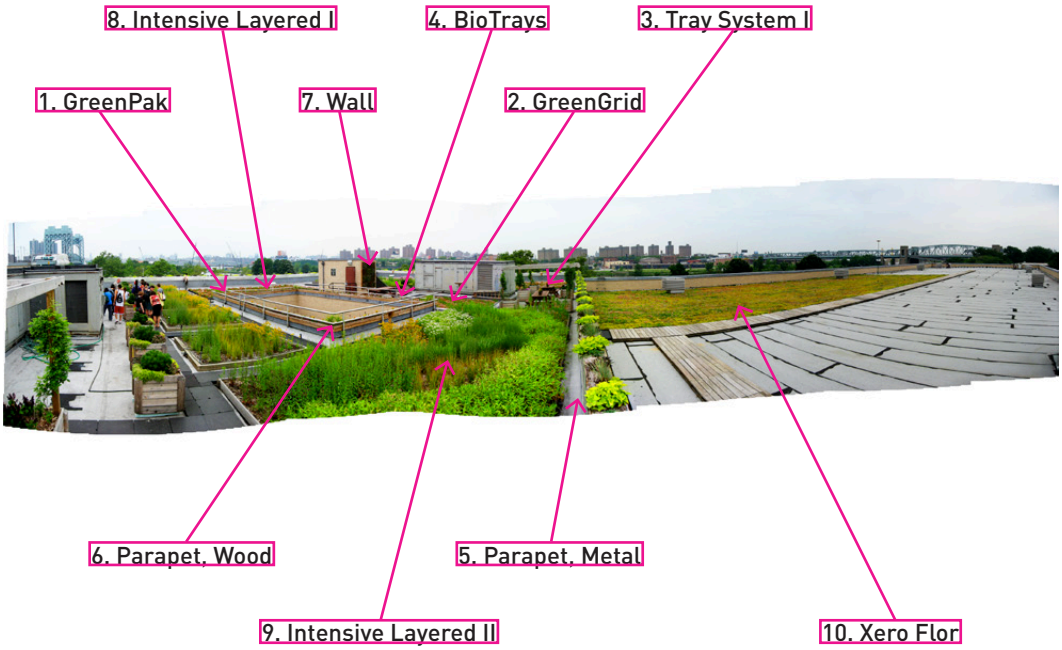
Where can I create a Roof Escape?



This map highlights all of the buildings across New York City with similar physical characteristics as the model building in Crown Heights, Brooklyn, and includes multi-family buildings containing more than six units, with frontage wider than 60 feet, excluding public housing. (Please see interactive map at http://openagencyproject.com to zoom-in and find your neighborhood!)

GREEN ROOF EXAMPLES:

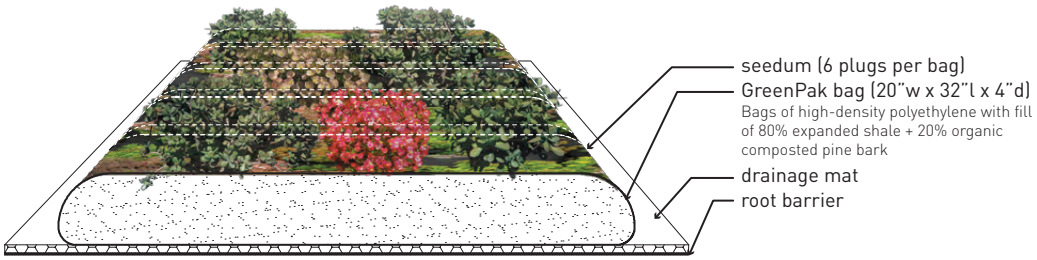
The following pages illustrate different types of green roofs and was compiled from research done after visiting New York City Department of Parks and Recreation's Five Borough Technical Services at Randalls Island (see photo below). Artie Rollins, Chief of Technical Services, has been experimenting and economizing different types of green roofs best for local materials and conditions, and all of the green roof types shown here were developed for this great green roof experiment.



The green roof types shown here are only some of the many possible solutions for how to create a green roof. For those who may want to try something a little different, and make the most of the green roof tax incentive to create more than a green surface, continue reading to find the recommended Roof Escape module at the end of the guide.

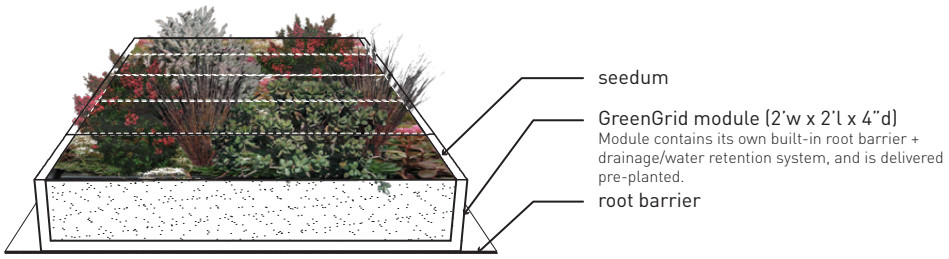
Modular Systems

1. GreenPak (manufactured by Green Roof Blocks, MO)



Cost: $22 to $28 per sq ft
Weight: 12 lb per sq ft (dry); 18 lbs per sq ft (wet)
Effort // DIY factor // Speed: ◊ // ◊ ◊ // ◊ ◊ ◊

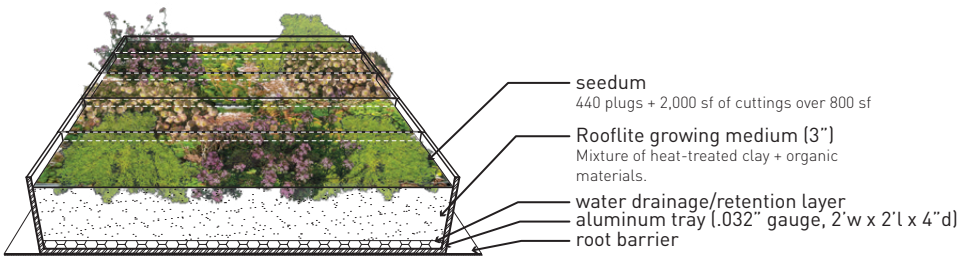
2. GreenGrid® Modular System



Cost: $$$
Weight: 10 lb per sq ft (dry); 14 lbs per sq ft (wet)
Effort // DIY factor // Speed: ◊ // ◊ // ◊

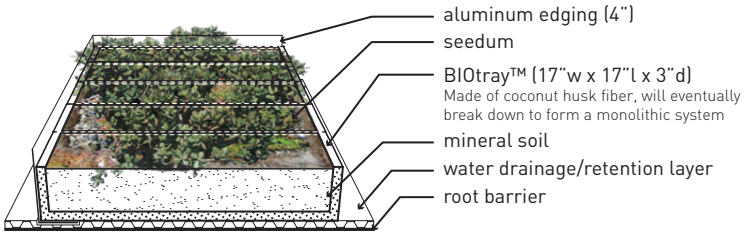
Modular Systems (continued)

3. Tray System I



Cost: $22 to $28 per sq ft
Weight: 14 lb per sq ft (dry); 25 lbs per sq ft (wet)
Effort // DIY factor // Speed: ◊ ◊ ◊ // ◊ ◊ ◊ // ◊ ◊

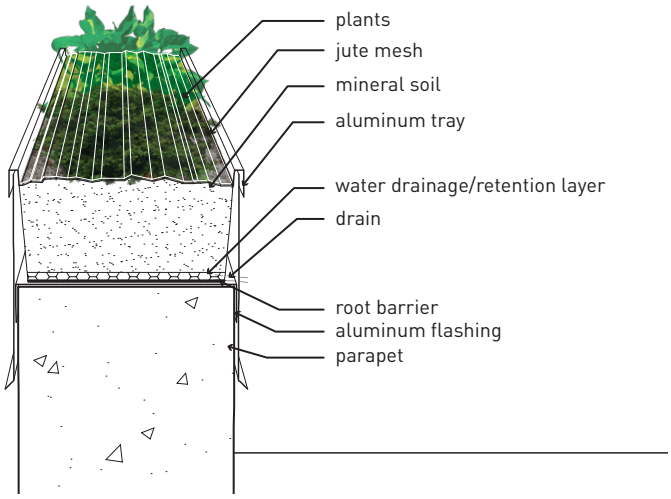
4. BIOTrays™ (by Green Roof Solutions)



Cost: $20 to $26 per sq ft
Weight: 12 lb per sq ft (dry); 19 lbs per sq ft (wet)
Effort // DIY factor // Speed: ◊ ◊ // ◊ ◊ // ◊ ◊

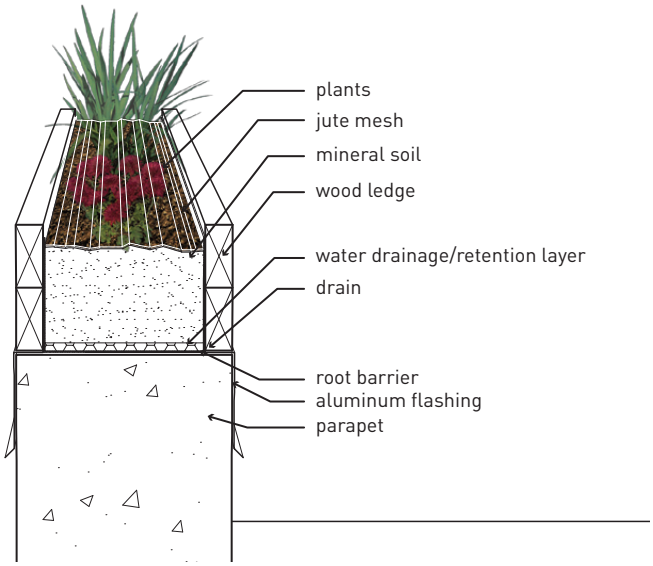
Vertical Systems

5. Parapet Planters, Metal



Cost: $$
Weight: ?
Effort // DIY factor // Speed: ◊ ◊ ◊ // ◊ ◊ ◊ // ◊ ◊

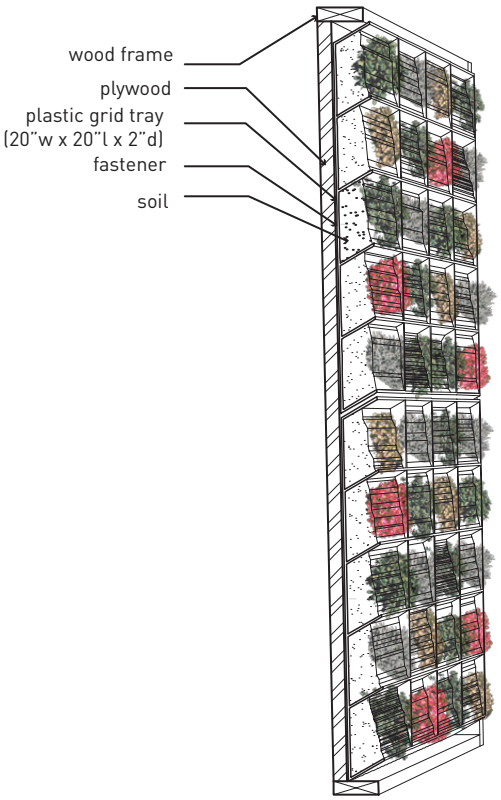
6. Parapet Planters, Wood



Cost: $$
Weight: ?
Effort // DIY factor // Speed: ◊ ◊ ◊ // ◊ ◊ ◊ // ◊ ◊

Vertical Systems (continued)

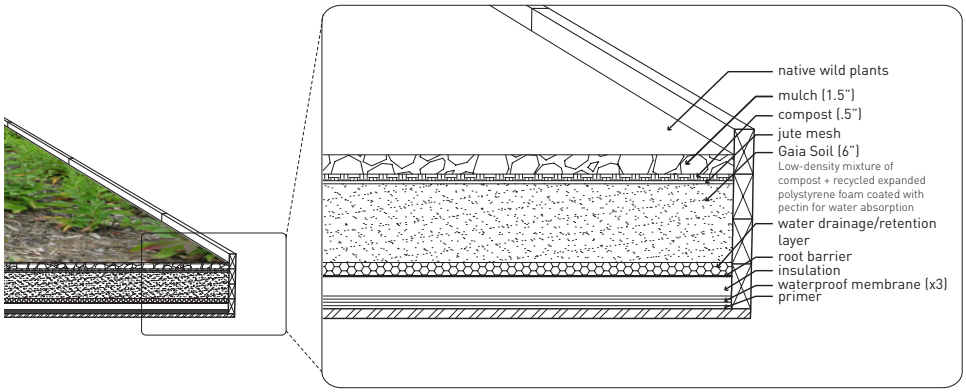
7. Wall



Cost: $$
Weight: ?
Effort // DIY factor // Speed: ◊ ◊ // ◊ ◊ ◊ // ◊

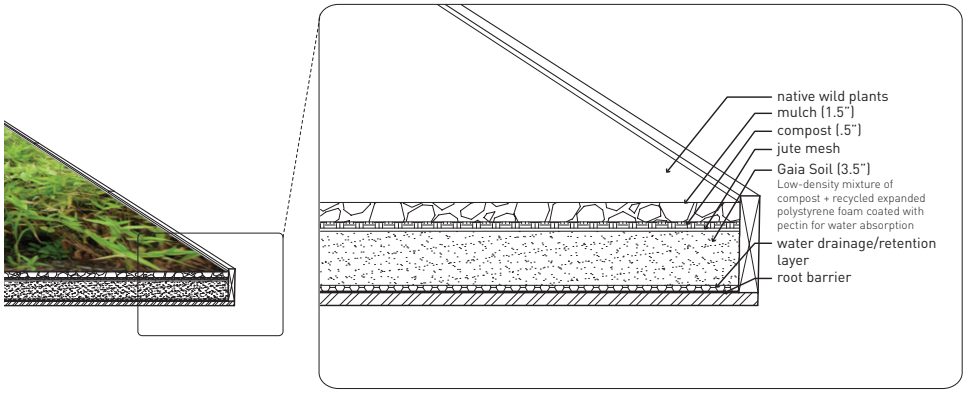
Monolithic Systems

8. Intensive Layered System I



Cost: $25 to $30 per sq ft
Weight: 14 lb per sq ft (dry); 25 lbs per sq ft (wet)
Effort // DIY factor // Speed: ◊ ◊ ◊ ◊ // ◊ ◊ ◊ ◊ ◊ // ◊ ◊

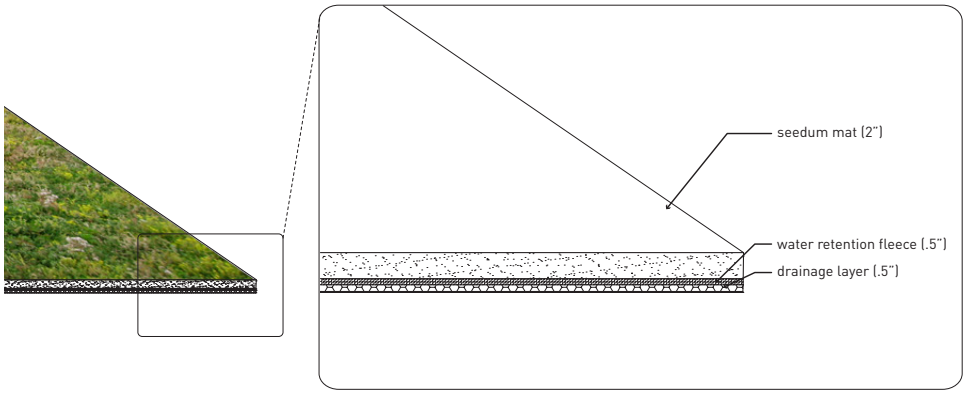
9. Intensive Layered System II



Cost: $17 to $23 per sq ft
Weight: 8 lb per sq ft (dry); 19 lbs per sq ft (wet)
Effort // DIY factor // Speed: ◊ ◊ ◊ // ◊ ◊ ◊ ◊ // ◊ ◊

Monolithic Systems (continued)

10. Xero Flor



Cost: ?
Weight: 8 lb per sq ft (dry); 14 lbs per sq ft (wet)
Effort // DIY factor // Speed: ◊ ◊ // ◊ ◊ ◊ // ◊ ◊

RULES: BUILDING CODE

ROOF LOADS:

- (27-561) Roofs and marquees shall be designed for wind, live, and other loads as prescribed in subdivisions (a) through (d) of this section. It may be assumed that maximum wind load occurs with zero live load and that maximum live load occurs with zero wind load. For dwellings an exception is made for awnings, canopies, and patio covers, which may be designed for a live load of twenty psf of horizontal projection.

- LIVE LOAD (27-561a) Minimum design live loads shall be as follows:

- (1) For roofs with slopes up to and including twenty degrees from the horizontal, thirty psf of horizontal projection.

- (2) For roofs with slopes greater than twenty degrees from the horizontal, thirty psf of horizontal projection, reduced by one psf for each degree of slope in excess of twenty degrees.

- (3) For valleys, live loadings shall be increased to provide for accumulations of snow. The loading intensity shall be assumed to vary from forty-five psf at the low point to fifteen psf at the ridge.

- (4) For roofs having curved or pyramidal shapes, the proposed live load shall be established by the architect or engineer, subject to approval by the commissioner.

- WIND LOAD (b) - The provisions of section 27-569 of article five of this subchapter shall apply.

- CONCENTRATED LOADS (c) - The provisions of subdivision (b) of section 27-557 of this article shall apply.

- SPECIAL LOADS (d) -

(1)When used for purposes such as promenades, assembly areas, or roof gardens, design shall be made for live loads corresponding to the particular usage, as indicated in reference standard RS 9-2. Such loads shall be considered as nonconcurrent with the wind load or with the live load specified in subdivision (a) of this section. The design live and wind loads for roofs, as specified elsewhere in this subchapter, shall be deemed to provide for incidental use of the roof of a building by the occupants thereof.

(2)Where roofs are intended for the ponding of water, the roof shall be designed for the maximum possible depth of water which may be ponded thereon as determined by the relative levels of roof deck and overflow weirs or scuppers. Such load need not be considered as occurring simultaneously with wind or live load.clothes drying frames;

duckboarding or platforms that do not cover more than twenty per cent of the roof area at that level.

(3) Girders and roof trusses (other than joists) over garage areas regularly utilized for the repair of vehicles and over manufacturing floors or storage floors used for commercial purposes shall be capable of supporting, in addition to the specified live and wind loads, a concentrated live load of two thousand pounds applied at any lower chord panel point for trusses, and at any point of the lower flange for girders.

(4)Where roofs are landscaped, the uniform design live load on the landscaped portions shall be thirty psf. The weight of the landscaping materials shall be considered as dead load and shall be computed on the basis of saturation of the earth. The areas adjacent to the landscaped portions shall be considered as assembly areas, unless specific provision is made to prevent such use.

(5)Where equipment is placed on roofs, the design shall provide for the support of such equipment.

ROOF COVERINGS:

- (27-337) Roof coverings shall be classified as A, B, or C on the basis of their resistance to exterior fire exposure as listed in reference standard RS 5-9, or as determined by tests made in conformance with reference standard RS 5-10 for those not listed.

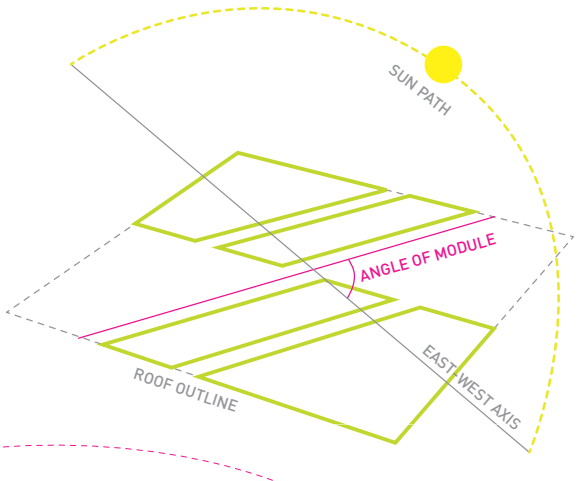
- (27-337a) Limitations of use. - Every roof placed on a building shall be covered with Class A or B roof covering, except Class C roof coverings may be placed on buildings classified in occupancy group J when not more than three stories or forty feet in height, and on buildings permitted by this code to be of Class II-D or II-E construction. The use of roofing having no rating is prohibited, except for replacement to the extent of twentyfive percent of the roof area in any twelve month period.

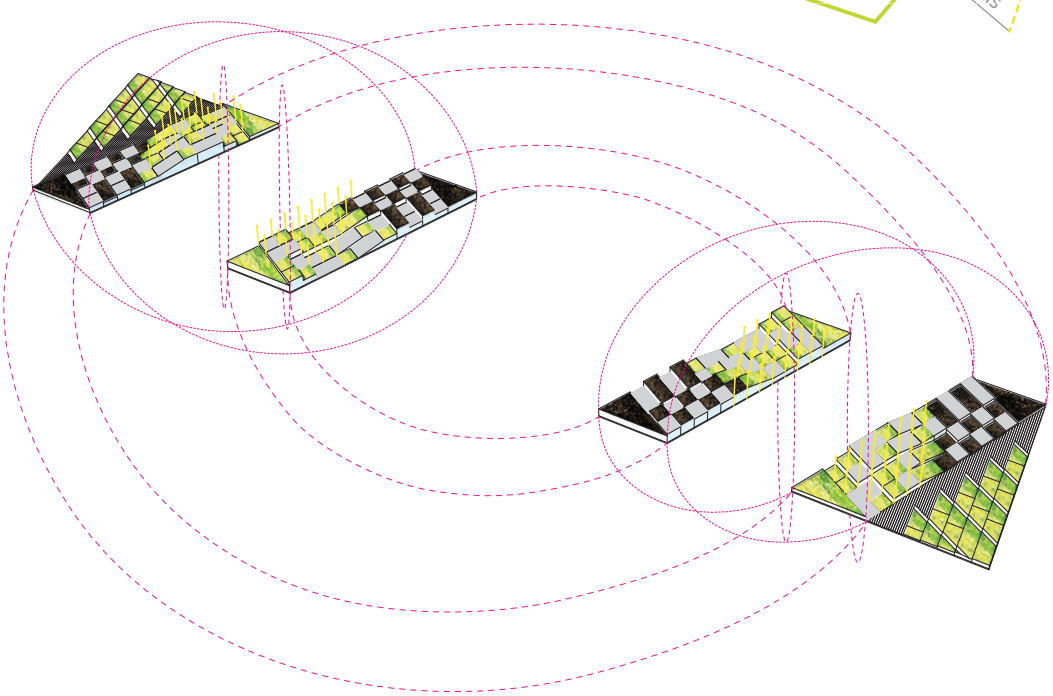
- (27-337b) Combustible roof decking. - Unless attached directly to noncombustible framework, all roof coverings shall be applied to a closely fitted deck; except that wood shingles, to the extent permitted in subdivision (a) of this section, may be applied to wood slats.

- (27-337c) Roof insulation. - Combustible roof insulation may be applied on top of roof decking or slab provided that it is protected with the roof covering applied directly thereto.

ROOF ESCAPE DESIGN

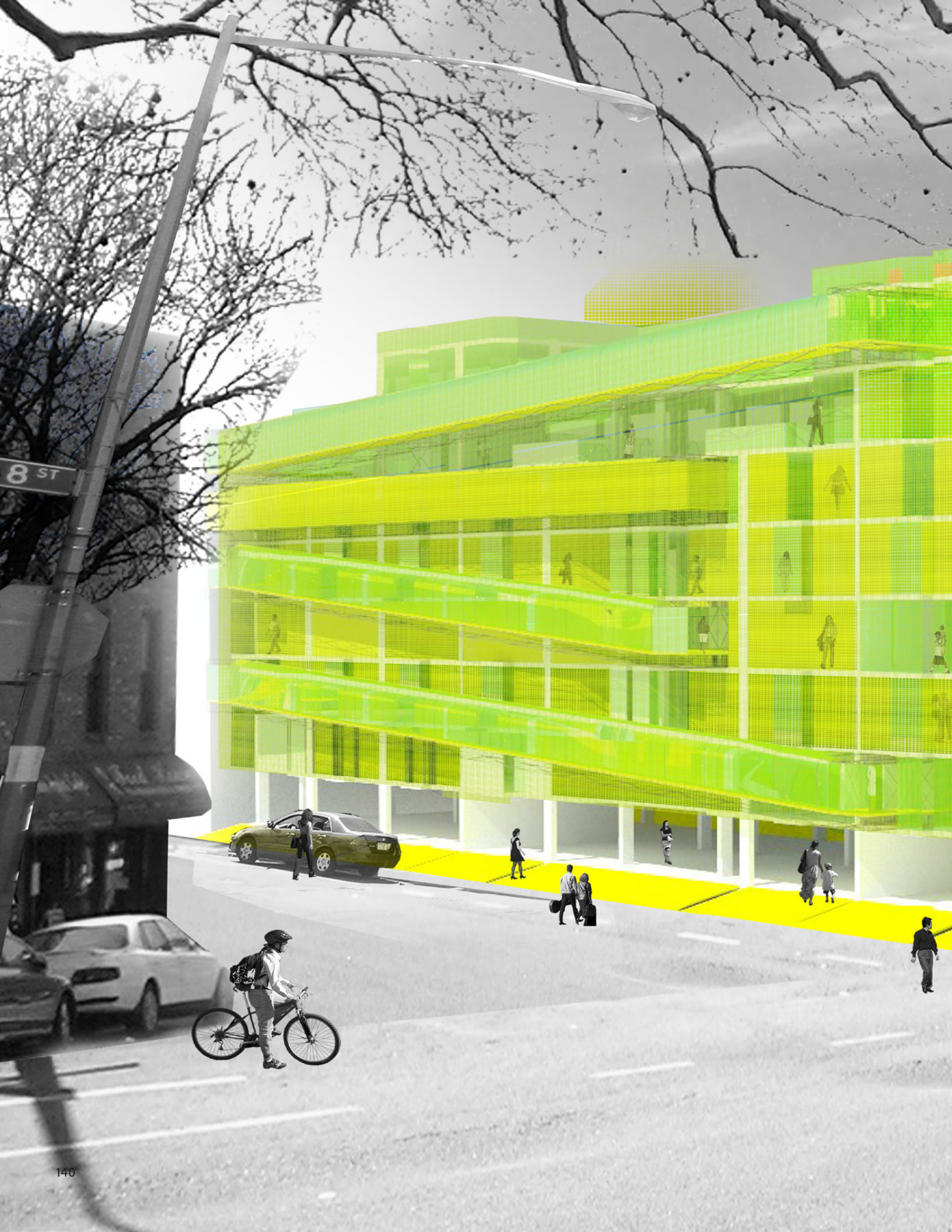
The roof module suggested below is the perfect solution for creating a new green roof for a multi-unit residential building. The modules are simple to build and are designed with all of the rules in mind, so you will be automatically eligible for the green roof tax credit. Also, the roof structure allows for many different programmatic activities, such as gardening, sunbathing, walking, and having social gatherings. If you would like your own Roof Escape, hire the Open Agency Project (go to http://openagencyproject.com)!





Project #4.
Public Space Frame

23 Caton Place, Brooklyn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Project #4. Public Space Frame
23 Caton Place, Brooklyn

"It looks like a bomb hit over here. It's just blocks and blocks of everything torn down, and most of the permits are expired," says Williamsburg housing activist Philip DePaolo.[1]

"We feel like we're living in a forgotten land," says Gia Piro, a Carroll Gardens resident.[2]

Before the housing crash, entrepreneurs and small developers began buying up sites across Brooklyn to construct new mid-rise condominiums for a then-growing mid-to-upper income housing market. As the financing system collapsed and loans have dried up, these construction sites have frozen, leaving many unhappy communities to deal with empty lots and half-finished structures. Owners are unable to borrow the money to finish the projects, and in many cases, contractors have still not been paid for work already completed. Neighbors complain of squatters and the security risks associated with the scaffolding structures.

"These buildings are big question marks, not exclamation marks. A real question about what is the state of the economy, and is it ever going to come back to what it was before."[3]

"It's not good for the psyche," said Catherine McVay Hughes, a downtown community board leader. "Instead of having a vibrant corner, now we have a hole in the ground."[4]

***

The story of 23 Caton in Windsor Terrace, Brooklyn (see Figure 01) is one of many such similar circumstances occurring throughout the city. Dubbed "Caton on the Park", the originally planned building was meant to be a "mix of middlebrow architecture and high-end finishes", and aimed at a higher end housing market. The architect, Karl Fischer, designed an 8 story, 80 foot tall condominium with 107 units and 55 parking spaces (see Figure 02). The units were to range in size from a 575 square foot studio (going for $299,000) to a 1,357 square foot three bedroom apartment for $895,985.

The local residents were unhappy about Caton on the Park from the beginning. First of all, when owner Moshe Feller bought the property in 2005, he tore down historic horse stables (for the nearby Prospect Park), and 13 horses were evicted. Neighbors were also unhappy that such a high-density building was being built, and were concerned about more similar development being planned in the near future.[5]

Then, things took a turn for the worse, and residents have learned the hard way that "the only thing worse than a new building that nobody likes is a half-finished building that nobody likes."[6]

1. Hays, Elizabeth, Jeff Wilkins and Veronika Belenkaya. "Empty remains of real estate bust haunts Brooklyn." The New York Daily News. 31 March 2009.

2. *Ibid.*

3. Associated Press. "Stalled building projects bode ill for NY economy." Asbury Park Press. 13 February 2009.

4. *Ibid.*

5. In March 2009, neighborhood residents successfully instigated a re-zoning of the area to prevent any more high-density residential buildings being planned for the future.

6. "The Decline and Fall of 23 Caton Place." Blog entry. Brownstoner. 14 April 2009.

Figure 01. (right)
Map of area around 23 Caton Place, Windsor Terrace, Brooklyn.

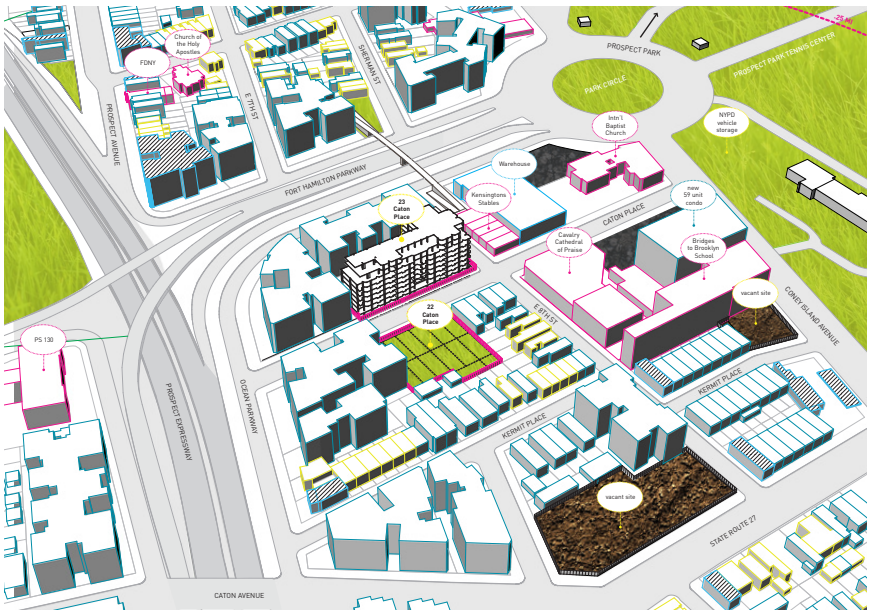


Figure 02. (right)
Proposed building rendering.
Image: Karl Fischer Architect
(http://www.kfarchitect.com/)

Figure 03. (right)
Existing condition of stopped construction site at 23 Caton Place.

In April of 2008, the Department of Buildings issued a stop-work order to Feller's contractors, Springline Builders, resulting from neighbors' complaints of unsafe construction practices. Just two months later, Corus Bank, the main lender for the project, filed for foreclosure on the property as the site remained halted and the economy took a turn for the worse. Finally, in August, Sagecrest II, the Connecticut-based hedge fund that was the mezzanine lender for the project, declared bankruptcy. Since then, the partially completed structure has remained dormant (see Figure 03, previous page).

In February, six months after the building site entered a seemingly permanent hibernation, the neighborhood residents held a meeting to brainstorm a solution for reactivating the site. By April, the local residents had recruited Brad Lander (the former head of Pratt Center for Community Development) and Christine Quinn (Council Speaker) to support them in trying to purchase the property themselves. The plan was to have a responsible developer complete the building as affordable housing or a school. Unfortunately, the built-in customizations that were designed and constructed for a high-end condominium were deemed to require some structural "dumbing down", adding expense to the overall project cost, and the neighborhood was unable to complete the purchase. Finally, it became clear that, though the Department of Buildings had determined the existing concrete structural frame as safe as built, the legal implications of a bankruptcy declaration associated with the site will result in a long legal process that must be untangled before a new permanent future can be determined.

***

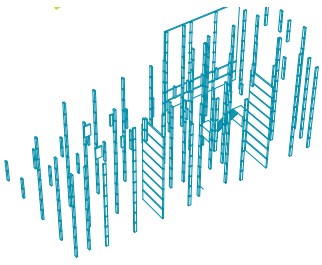
When the Open Agency Project first learned of the stopped construction site at 23 Caton, covert on-site research and documentation of the existing concrete structure was conducted (see Figure 04) and a digital model of the building was created (see Figures 05 + 06). Next, the Open Agency Project did some wild-posting on site to illicit anonymous feedback about what types of programs the local community desired to see in the neighborhood (see Figures 07, 08 + 09, p. 147). Responses were rich and various, ranging from "ninja training camp" to "strip club". However, some common desires emerged; most local residents imagined a shared community space, such as a garden, a park or a cafe/restaurant/bar.

From these first explorations, it became apparent that the temporality of the situation was actually enabling a collective leap in the shared imaginary of the local community. Because the site was stopped and its future uncertain, people could fantasize about what the place could be without the restrictions of reality.

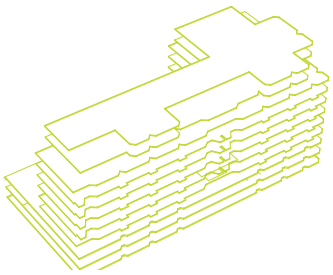
In fact, rather than being seen as eyesores or dangerous breeding grounds for undesirables, these stopped construction sites cropping up across

Figure 04. (right)
Diagram showing existing structure and overall site dimensions. The grassy lot across the street is 22 Caton Place, another stopped development.

Figure 05 + 06. (right)
The concrete floor slabs and the concrete column grid that make up the existing structure.



Concrete column grid



Concrete floor slabs

the city can be seen as opportunities with limitless possibilities. Because of their residual nature, these space frames and scaffolds can take on numerous temporary identities and host myriad dreams. Moreover, since many of these structures essentially are without an owner, they are rare opportunities for experimenting with architectural strategies for activating public space; these dormant shells can prove to be a rich testing ground for architectural ideas.

Taking on this design project as a unique opportunity for imagining a truly public space in an increasingly privatized city, the Open Agency Project proposes a temporary architectural strategy that aims to leave no physical traces, but will unearth utopian memories buried deep within the minds of the community.

***

First, in order to activate the stopped structure as a useable and productive space, the site must be made safe and accessible to all. In order to do this, a safe and efficient circulation structure and skin must be installed.

The proposed circulation structure consists first of a construction-grade temporary elevator to be installed in the center of the building to provide fast access to all 8 stories (and the roof) of 23 Caton.[7] Second, a series of lightweight steel trusses are inserted between the floor slabs and support hollow steel decking to create an outer promenade which winds around and through the building for walkable connections from floor to floor.

Next, two types of envelope will be installed. First, a safety net construction mesh will be installed over the entire building as a continuous envelope for safety of occupants. Second, a newly developed "bubble wall" (see page 153) using deflateables technology[8] will be used to enclose specific spaces to create interior areas throughout the building.

In order to make the interior of the structure inhabitable, a combination of generators and temporary water provisions will be employed.[9] Further, three current projects of the Open Agency Project will be built and deployed throughout this site. The Add-Pod will provide individual rooms that can be secure when closed, and expandable when opened. Office 3.0 will provide nodal points of energy distribution and gathering areas. Finally, the Roof Escape modules will be installed on the upper floors for outdoor roof spaces and rainwater collection.

Though the physical strategies to activate the building are intended to be flexible to permit a wide range of uses, the earlier wild-posting responses from the community were used as a wish list and incorporated to loosely program the building (see page 154).

7. As far as can be observed on site, there is only a partially completed exit stair that is currently existing on site. This stair, even if deemed safe, will not be sufficient for the desired occupation load.

8. For further reading on deflateables, see: Knaack, Ulrich, Tillman Klein and Marcel Bilow. Imagine 02: Deflateables. Rotterdam: 010 Publishers, 2008.

9. Various types of energy and water infrastructure were considered, including asking the City to invest in a permanent system which could remain useful throughout the lifetime of the building. However, in the interest of a fast and flexible occupation (and the expected delay and complications which would occur from planning a permanent power and water supply system), generators and portable water devices were selected as the best immediate strategy.

Figure 07. (right)
Poster with responses from the community. "Field of dreams: What can it be?"

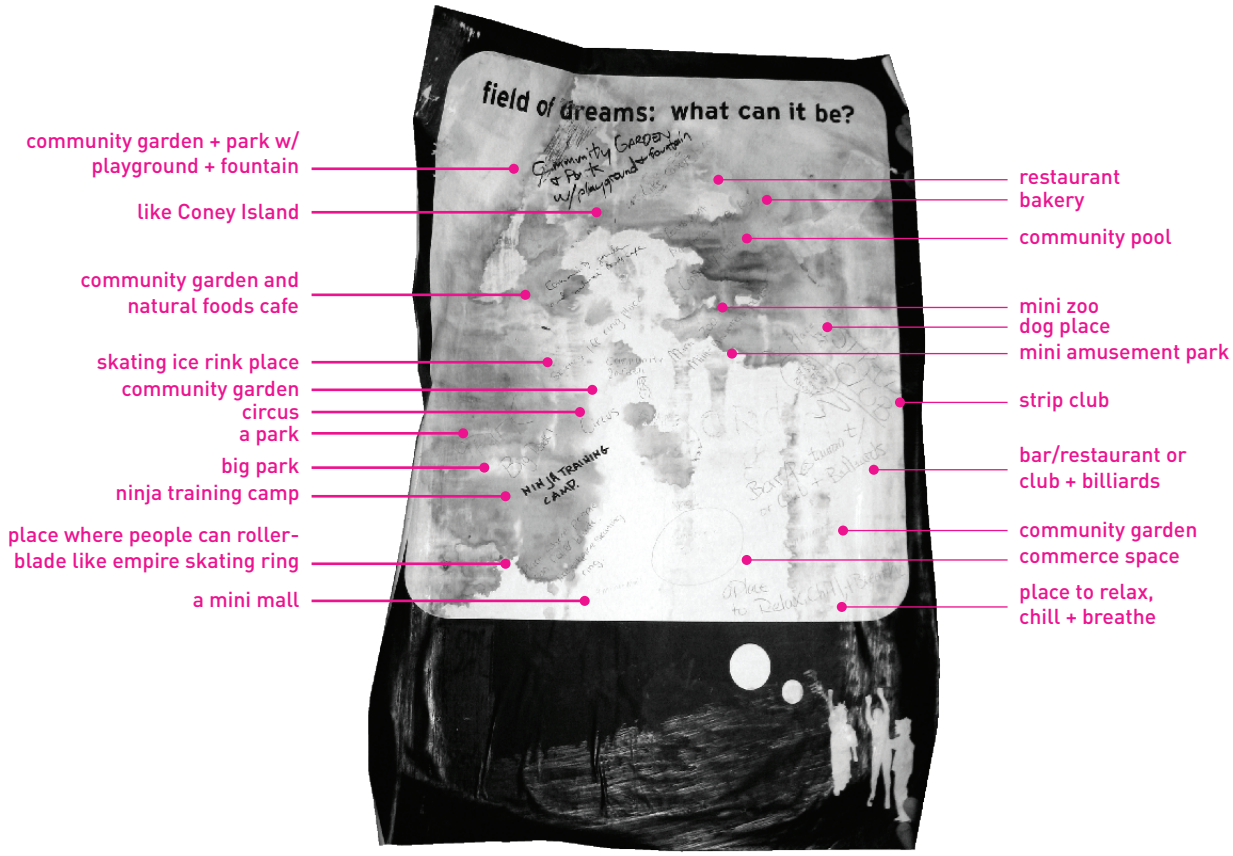
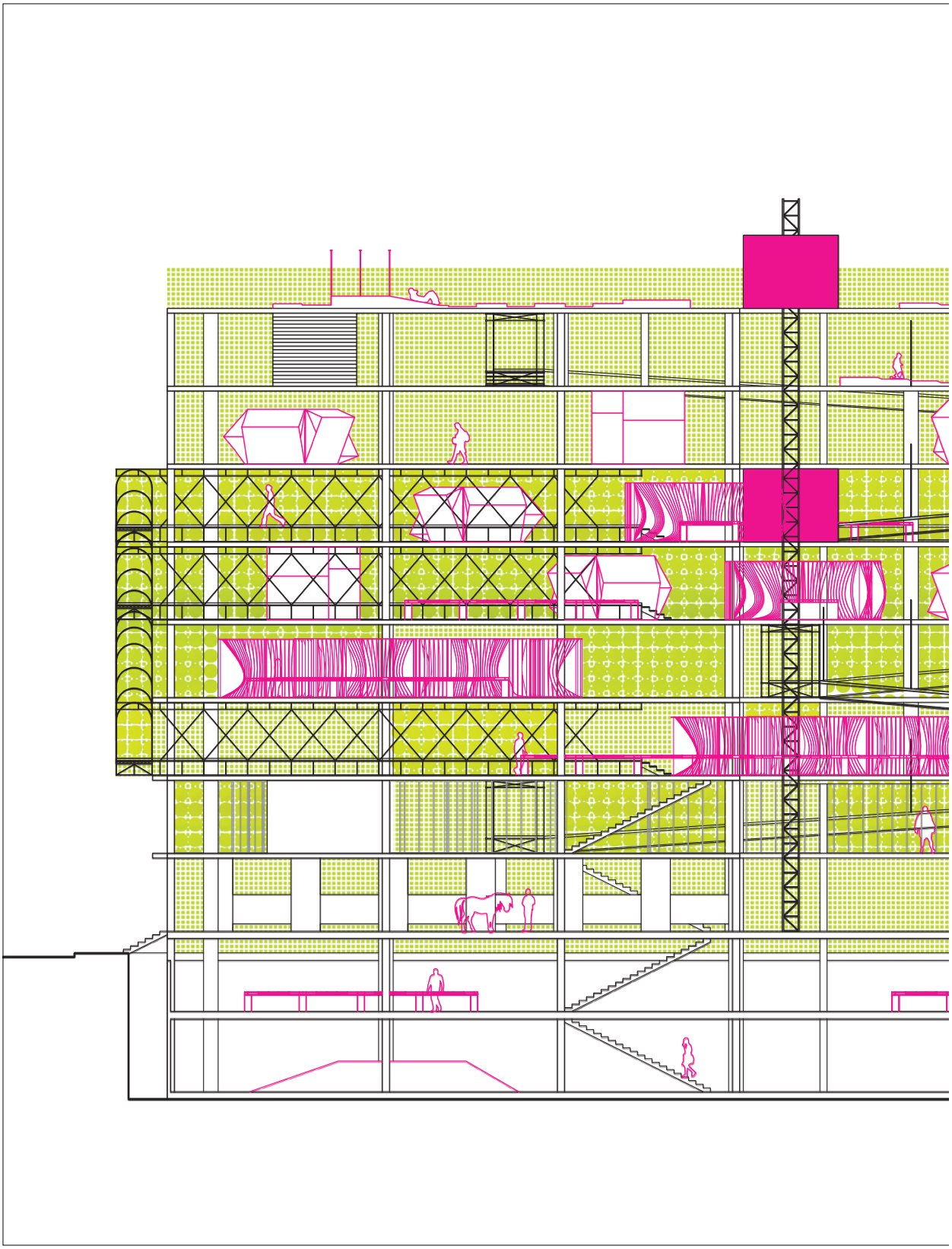
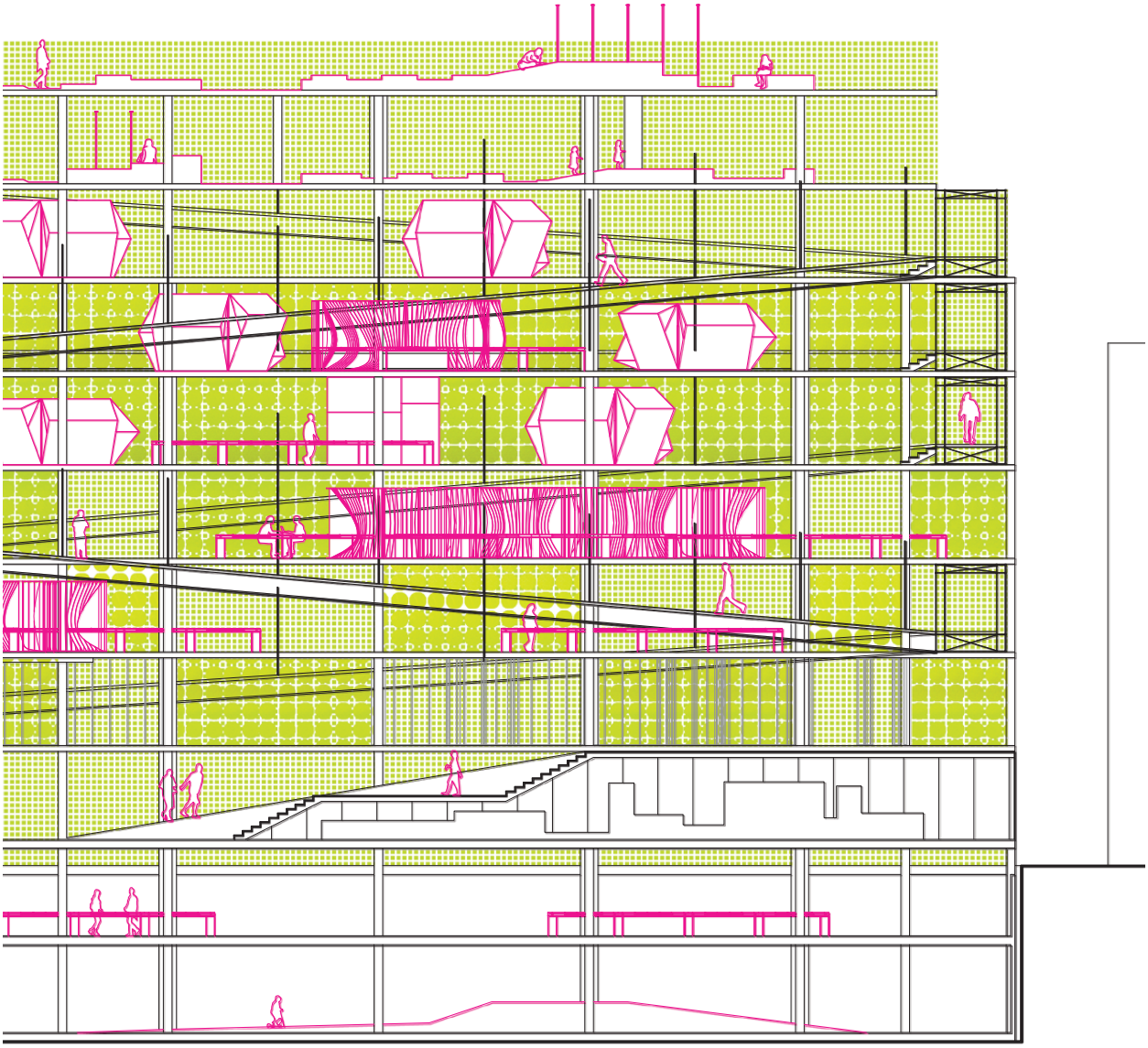
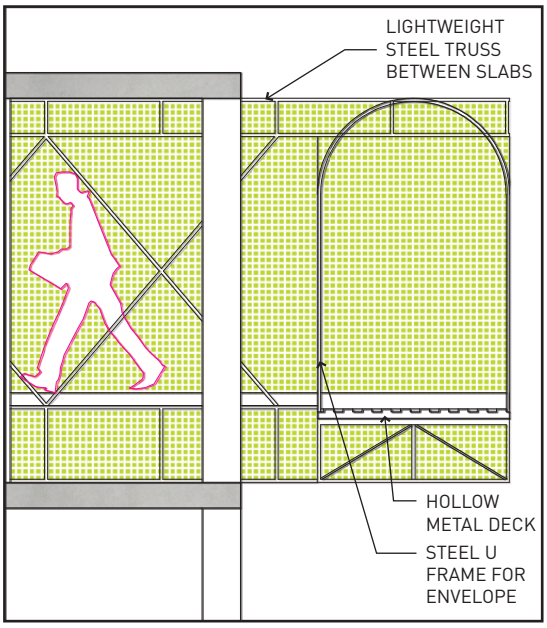


Figure 08 + 09. (above + right)
Photographs of the posters on site.

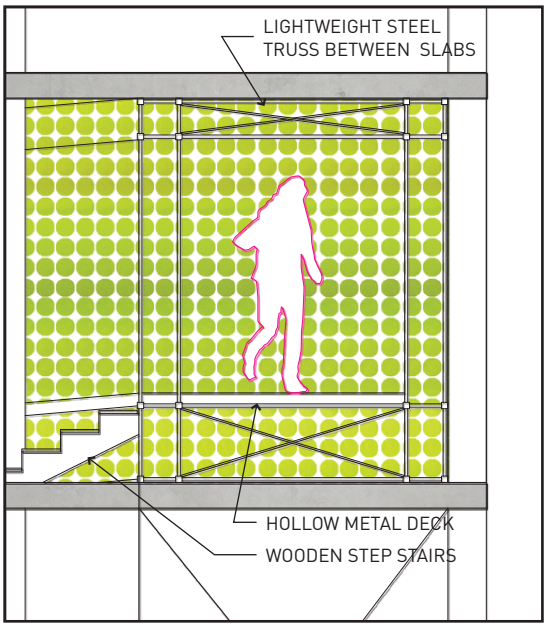


Longitudinal Section
*(N.T.S.) original drawing at 1/4" = 1'-0"





CIRCULATION STRUCTURE EXTERIOR

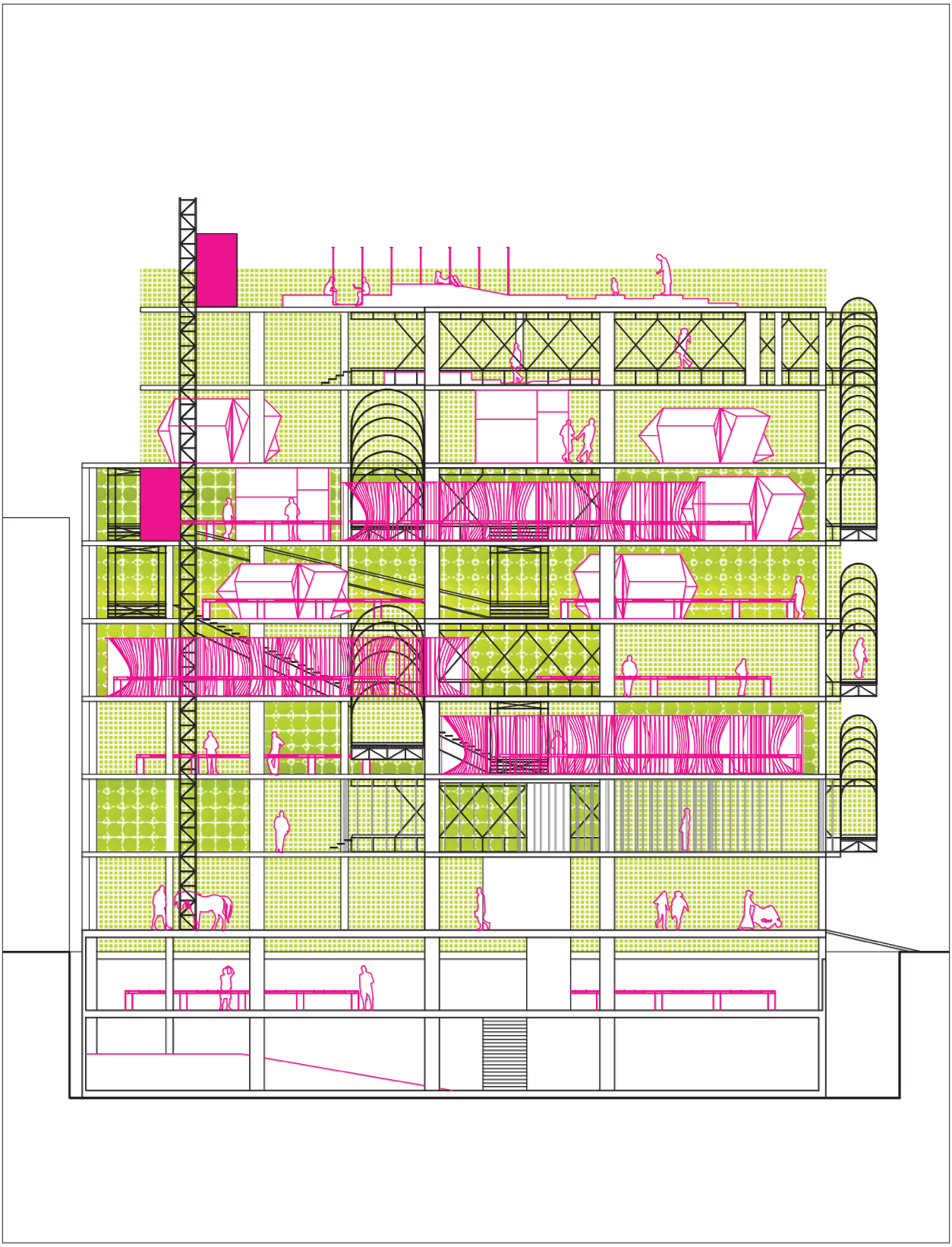


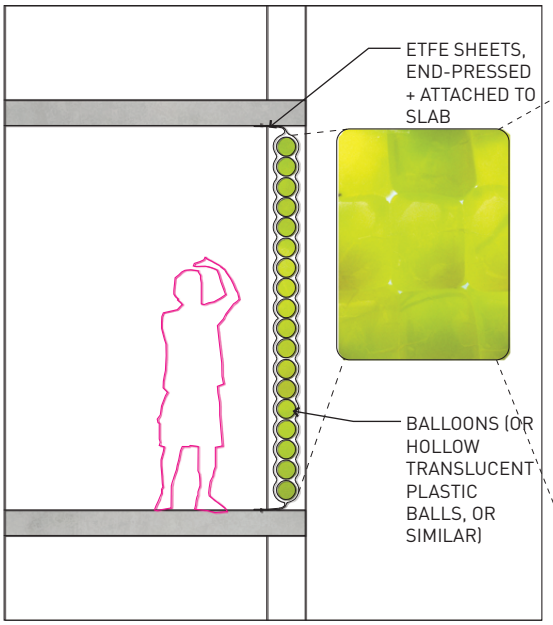
CIRCULATION STRUCTURE INTERIOR

Exterior Circulation Structure Detail (this page, top)
*(N.T.S.) original drawing at 1/2" = 1'-0"

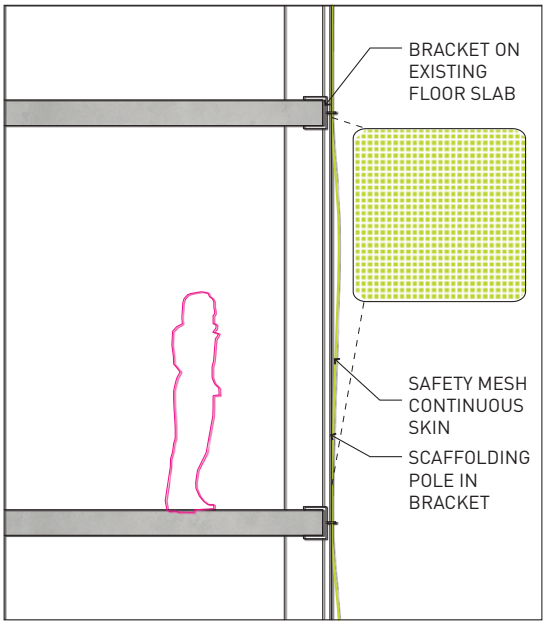
Interior Circulation Structure Detail (this page, bottom)
*(N.T.S.) original drawing at 1/2" = 1'-0"

Cross Section (opp. page)
*(N.T.S.) original drawing at 1/4" = 1'-0"





ENVELOPE TYPE #1: BUBBLE WALL



ENVELOPE TYPE #2: SAFETY MESH SKIN

Envelope Type #1: Bubble Wall (this page, top)
*(N.T.S.) original drawing at 1/2" = 1'-0"

Envelope Type #2: Safety Mesh Skin (this page, bottom)
*(N.T.S.) original drawing at 1/2" = 1'-0"

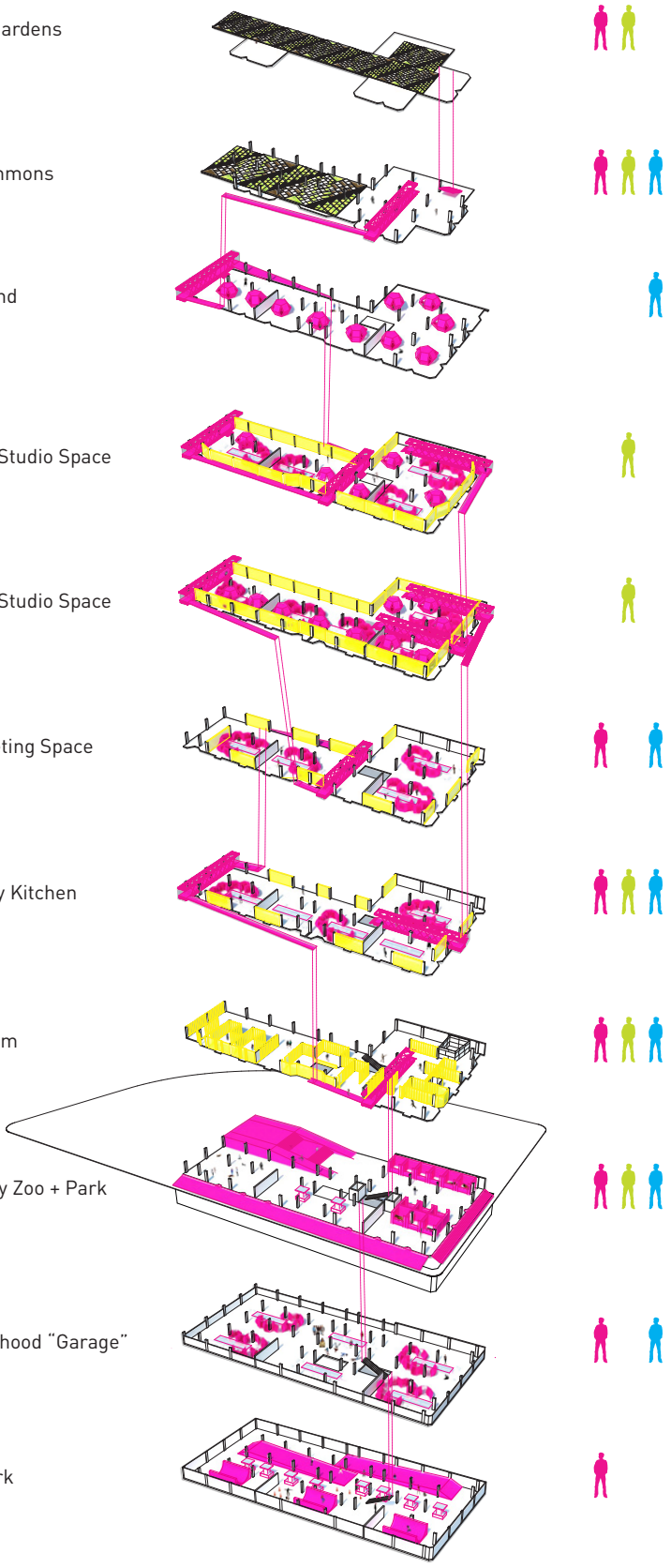
Bubble Wall Test Photo (opp. page)

USER TYPES:

A. Community Member: Frequent, Short Term Use.

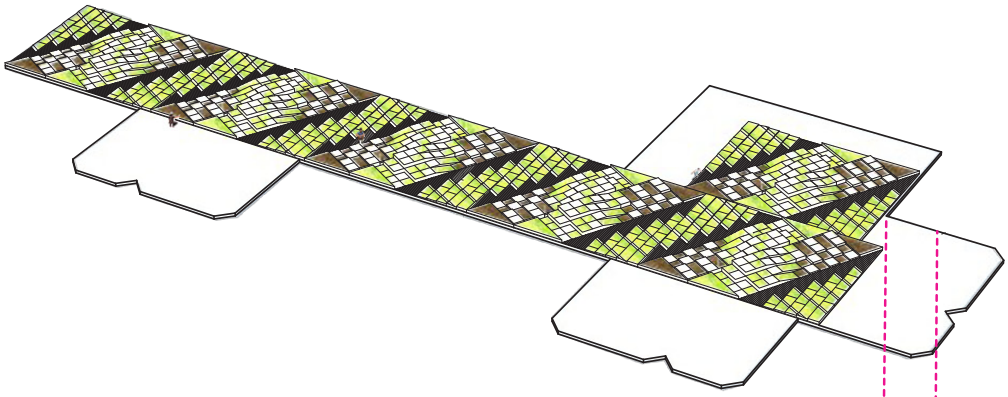
B. Creative Worker: Long Term Live/ Work Rental.

C. Tourist: One Time Use, From 1 Day To Overnight Stay.



Exploded Axon + User Types

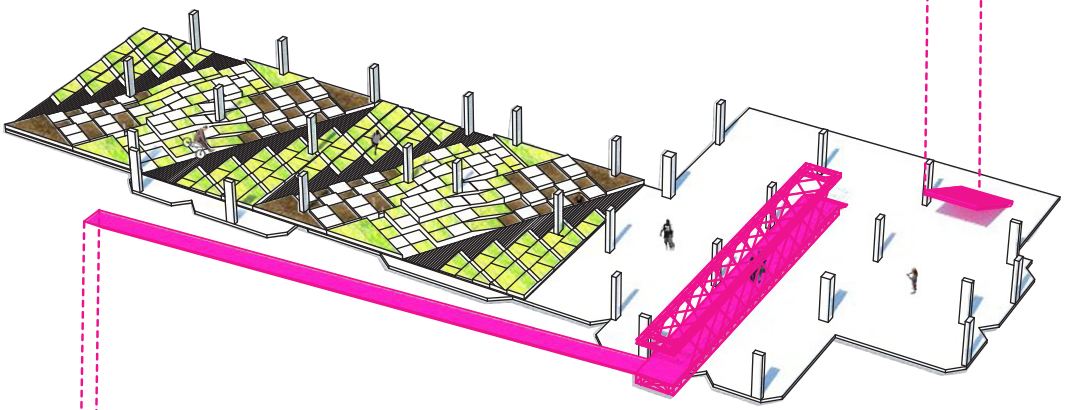
*(N.T.S.) shown in detail on pages immediately following.



ROOF: 10,867 sf

COMMUNITY GARDENS

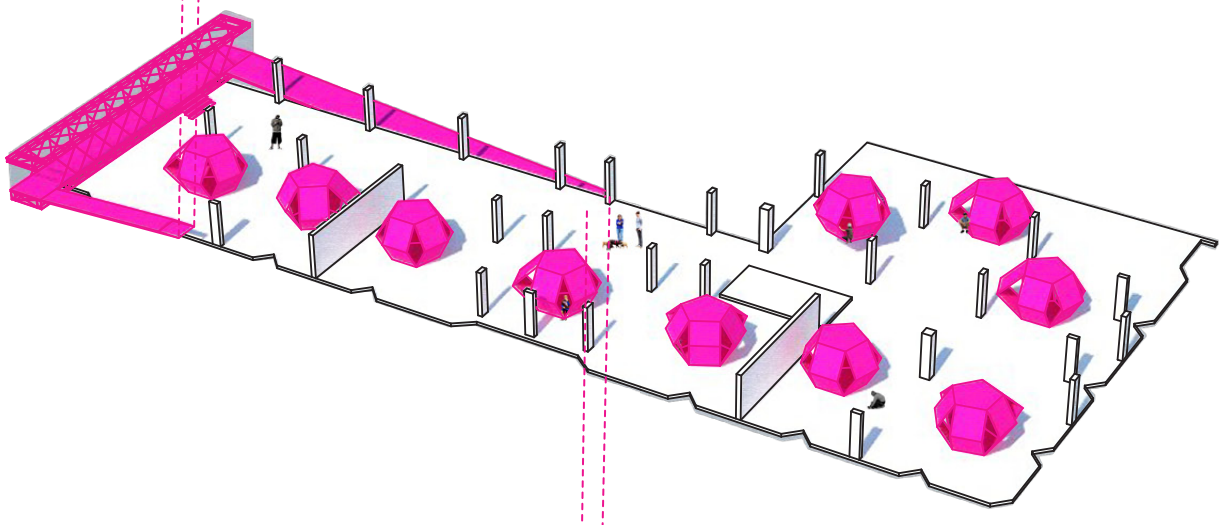
For the use of the community and the live/work residents. The modular system covers the roof with planting beds of various depths for growing flowers and vegetables. Rainwater is collected in cisterns for watering plants.



FLOOR 8: 12,943 sf

PUBLIC COMMONS

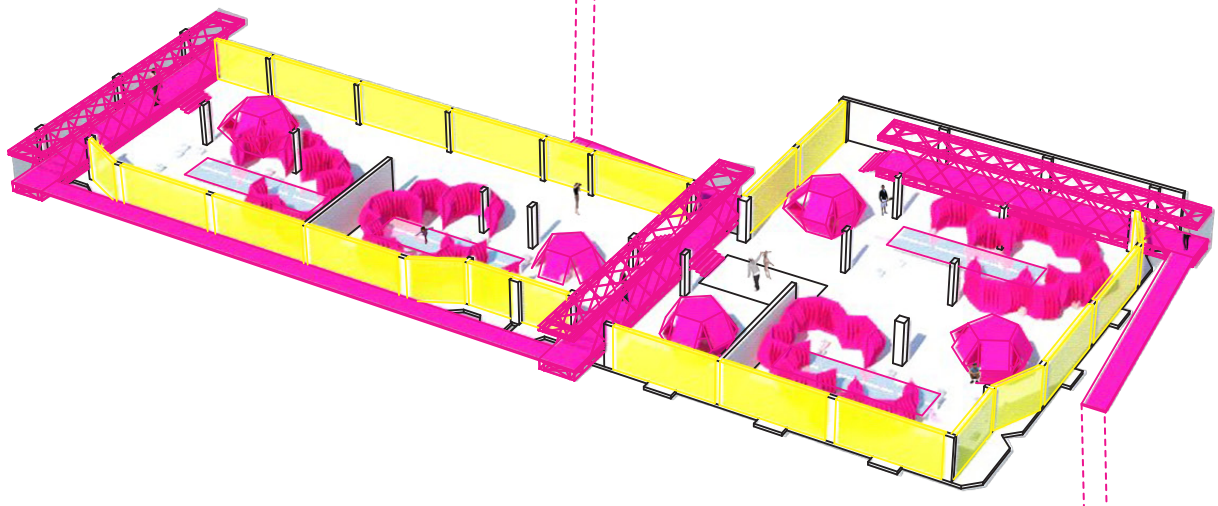
A public park in the sky. The same modular roof system as the community gardens, but with thin sedum mat instead of deep planting beds. Rainwater collected above is used periodically to keep the commons green.



FLOOR 7: 15,030 sf

CAMPGROUND

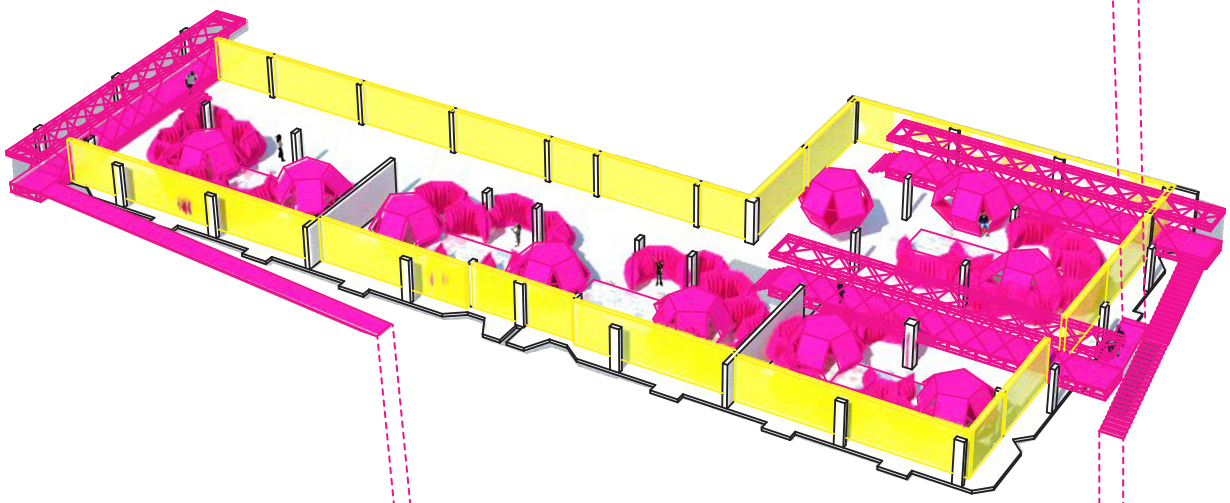
An outdoor campground in the sky. Furnished with Add-Pods, this floor is ideal for use by short-term overnight stays, especially untraditional conference or workshop participants.



FLOOR 6: 15,313 sf

LIVE/WORK STUDIO SPACE

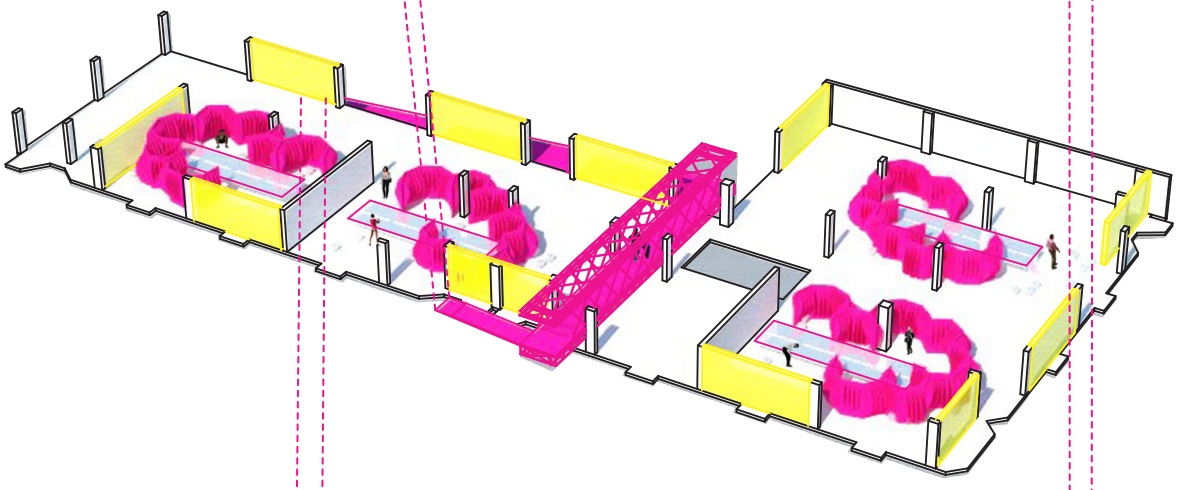
Filled with the infrastructure for Office 3.0 and Add-Pods for living, these live/work studio spaces can be rented for long-term periods. These creative workers also serve as the residents who provide a 24-hour presence on site.



FLOOR 5: 15,313 sf

LIVE/WORK STUDIO SPACE

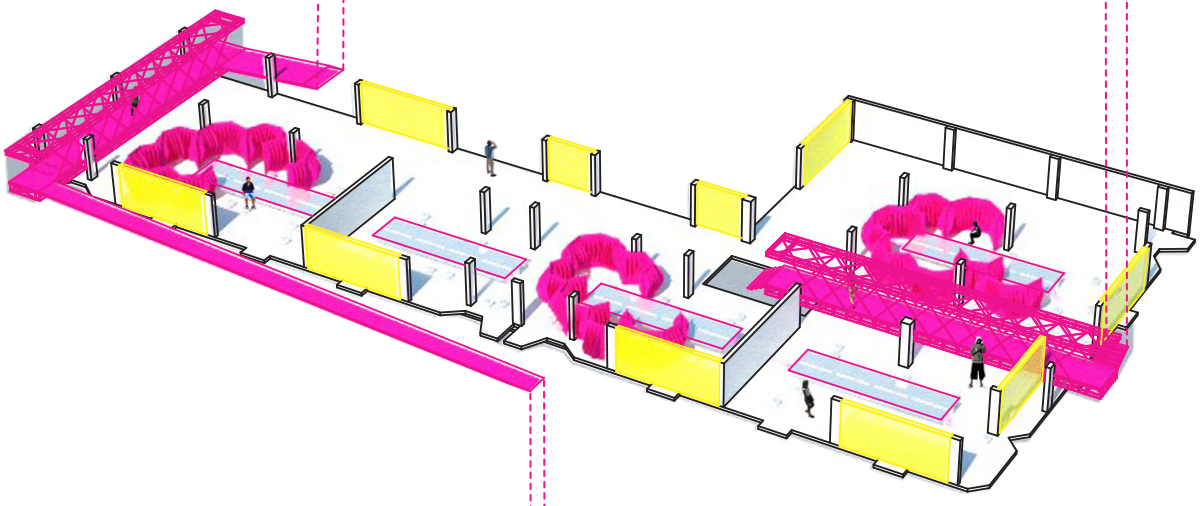
Filled with the infrastructure for Office 3.0 and Add-Pods for living, these live/work studio spaces can be rented for long term periods. These creative workers also serve as the residents who provide a 24-hour presence on site.



FLOOR 4: 15,313 sf

PUBLIC MEETING SPACE

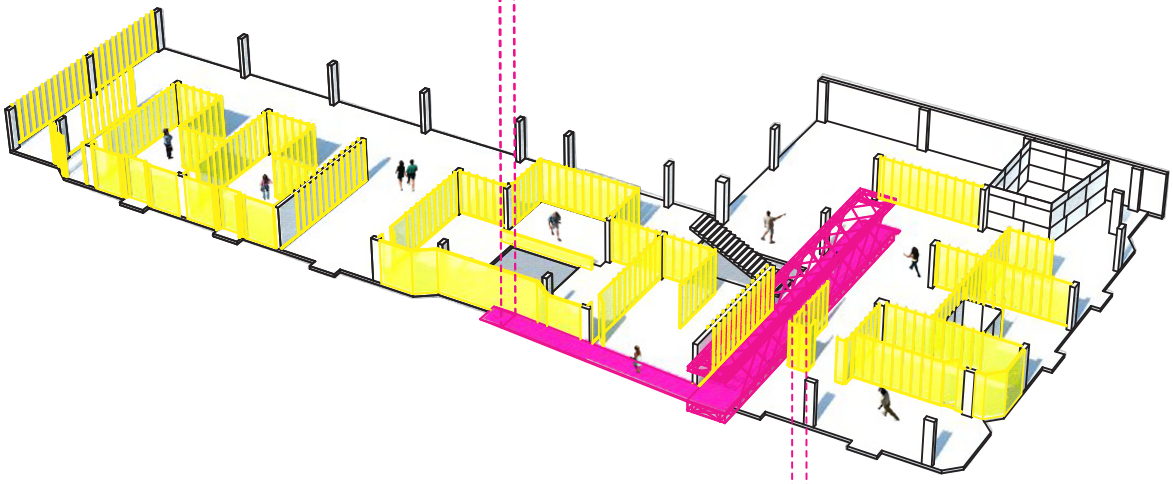
Super-tables and office dividers furnish this floor for large gatherings and meetings for the neighborhood and surrounding community.



FLOOR 3: 15,313 sf

COMMUNITY KITCHEN

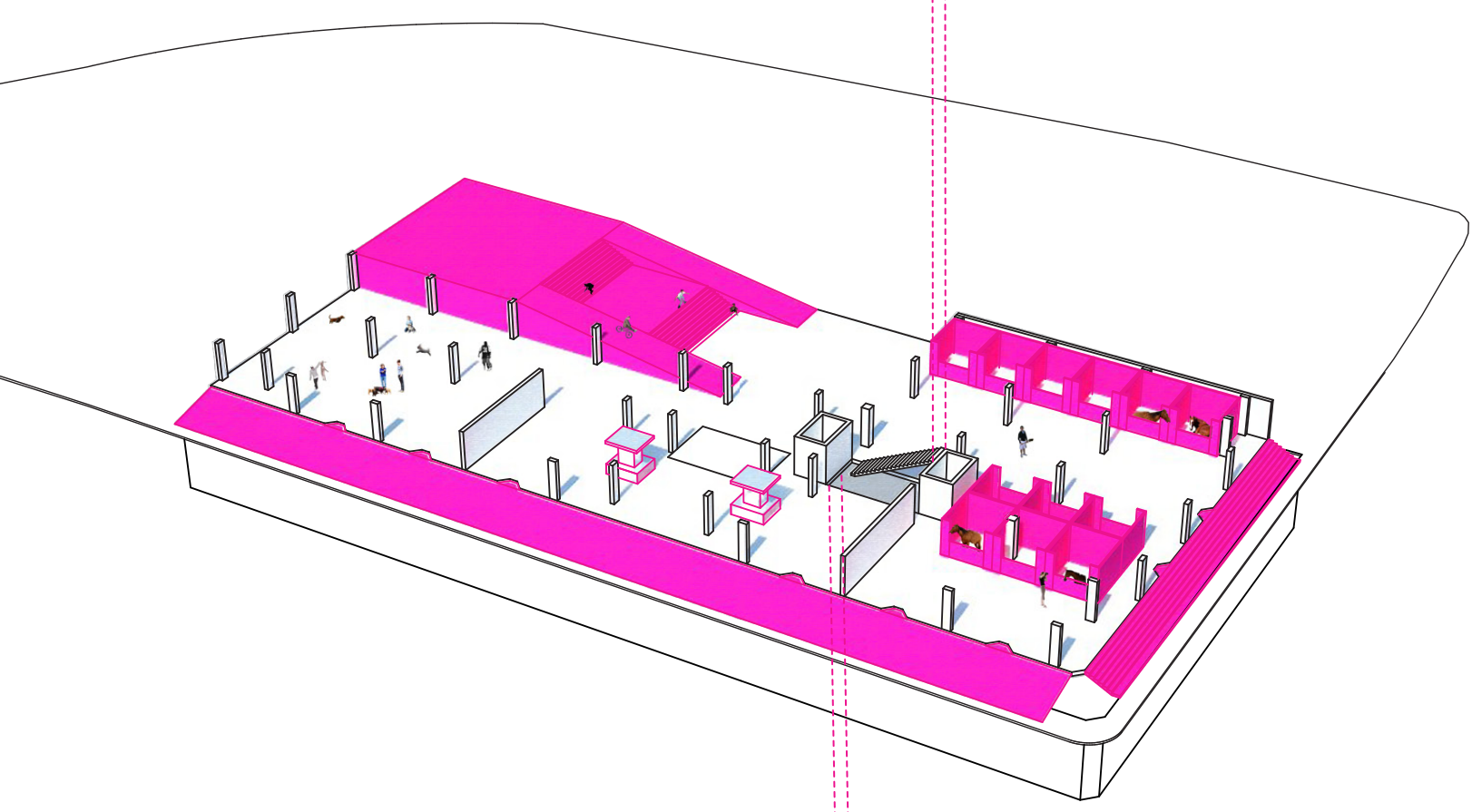
Super-tables and office walls furnish this floor for neighborhood-scale meals and special events. The artists who live + work above on floors 5 and 6 have direct access to a more private part of the community kitchen. Food vendors can also rent space to sell food on site.



FLOOR 2: 15,199 sf

BARTER ROOM

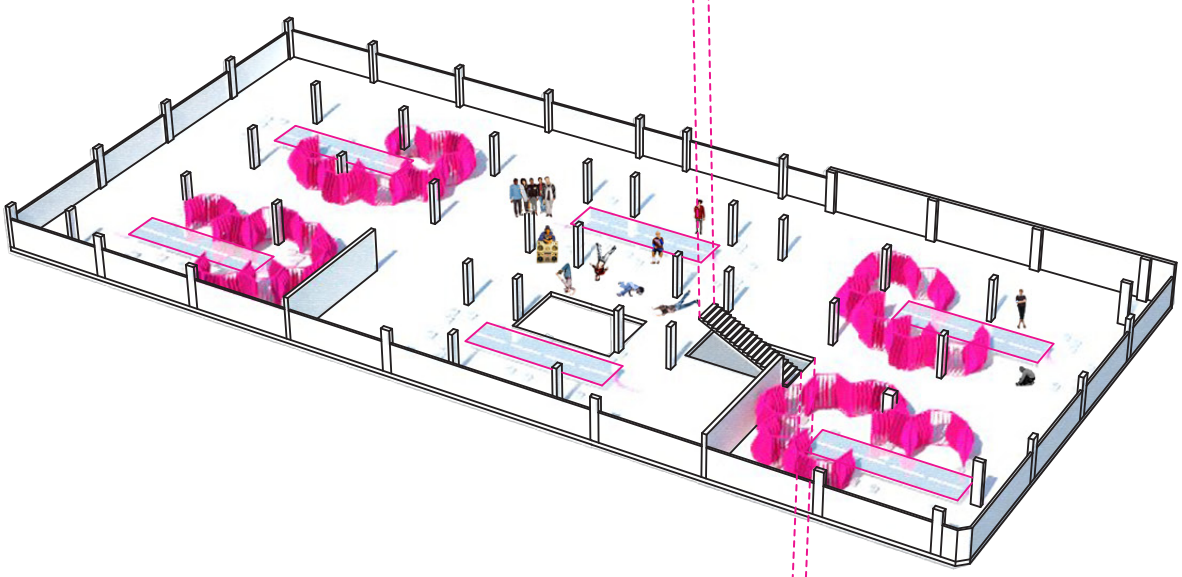
Utilizing the metal stud framing partition walls already existing, this room becomes a stage for commercial activity. Residents can exchange unwanted goods through bartering, or vendors can come sell their goods.



GROUND: 22,965 sf

COMMUNITY ZOO + PARK

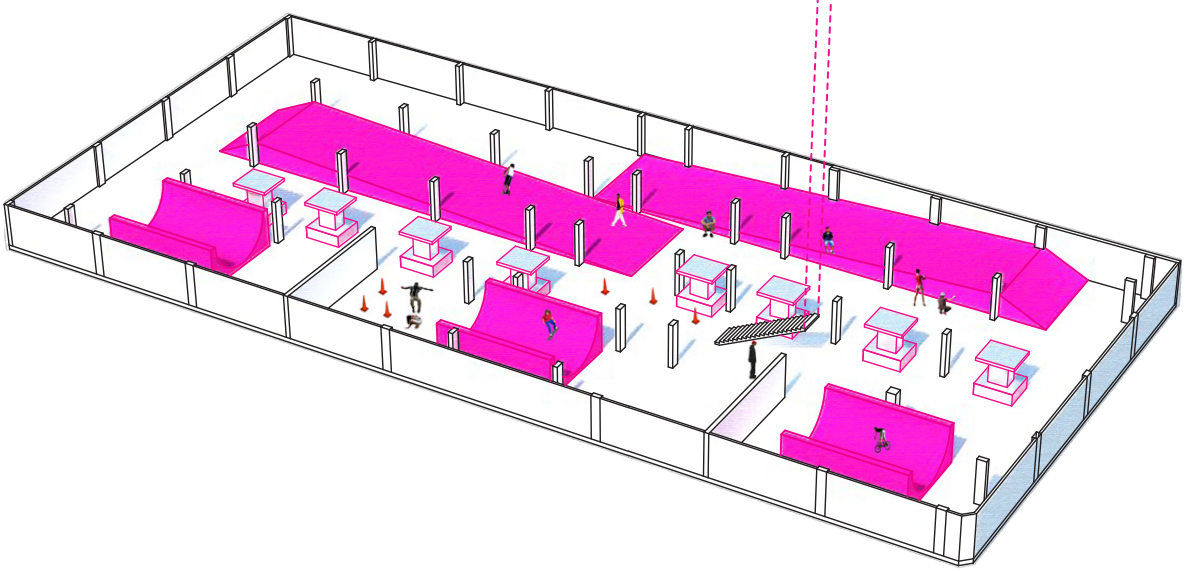
The "zoo" consists of new horse stables to replace the ones that were demolished when the current structure was built, as well as a new dog park (specifically requested by residents). This floor is completely public and accessible to all.



FLOOR B1: 22,965 sf

NEIGHBORHOOD "GARAGE"

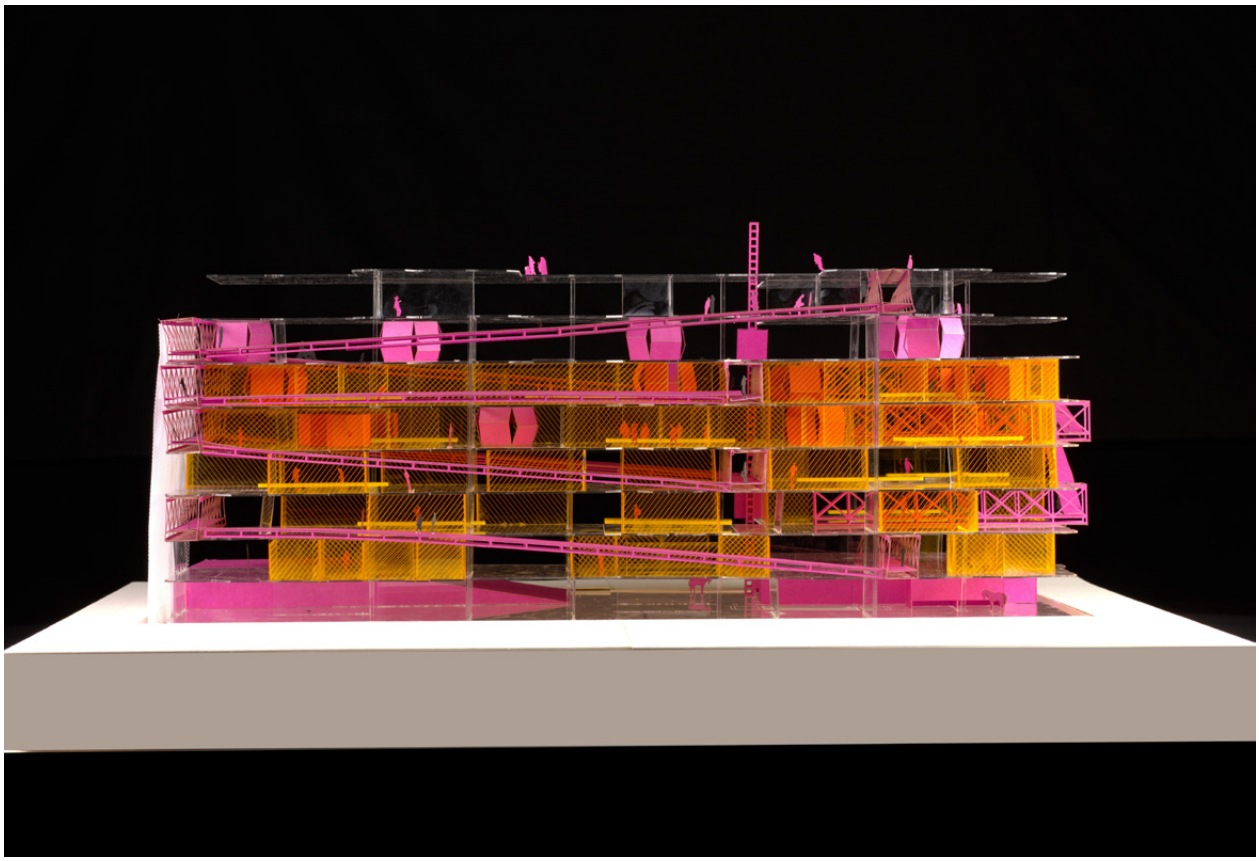
The first basement level, previously destined to be a parking garage, is now furnished with super-tables and office walls as workshop spaces. Members of the neighborhood can use this floor as their "garage" (i.e. practice with their bands, work on their motorcycles, etc.).

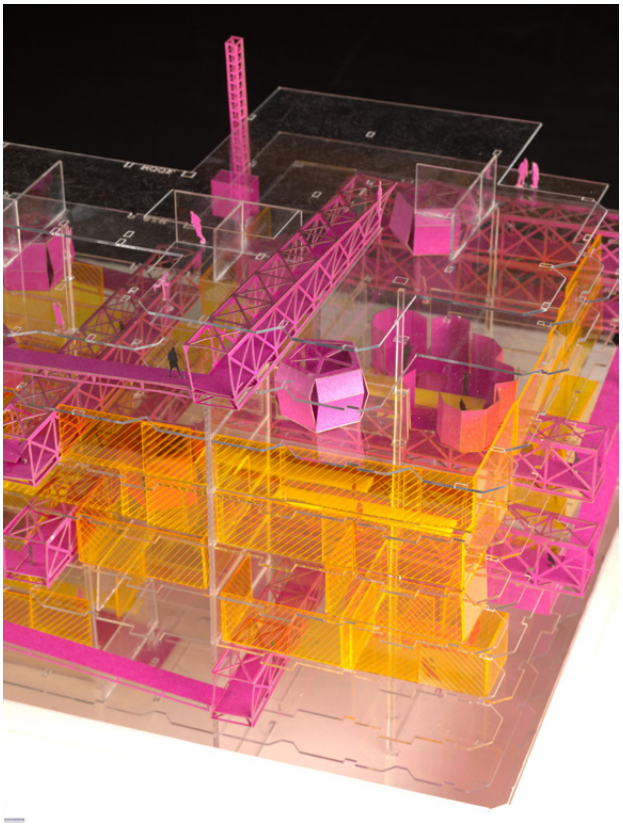


FLOOR B2: 22,965 sf

SKATE PARK

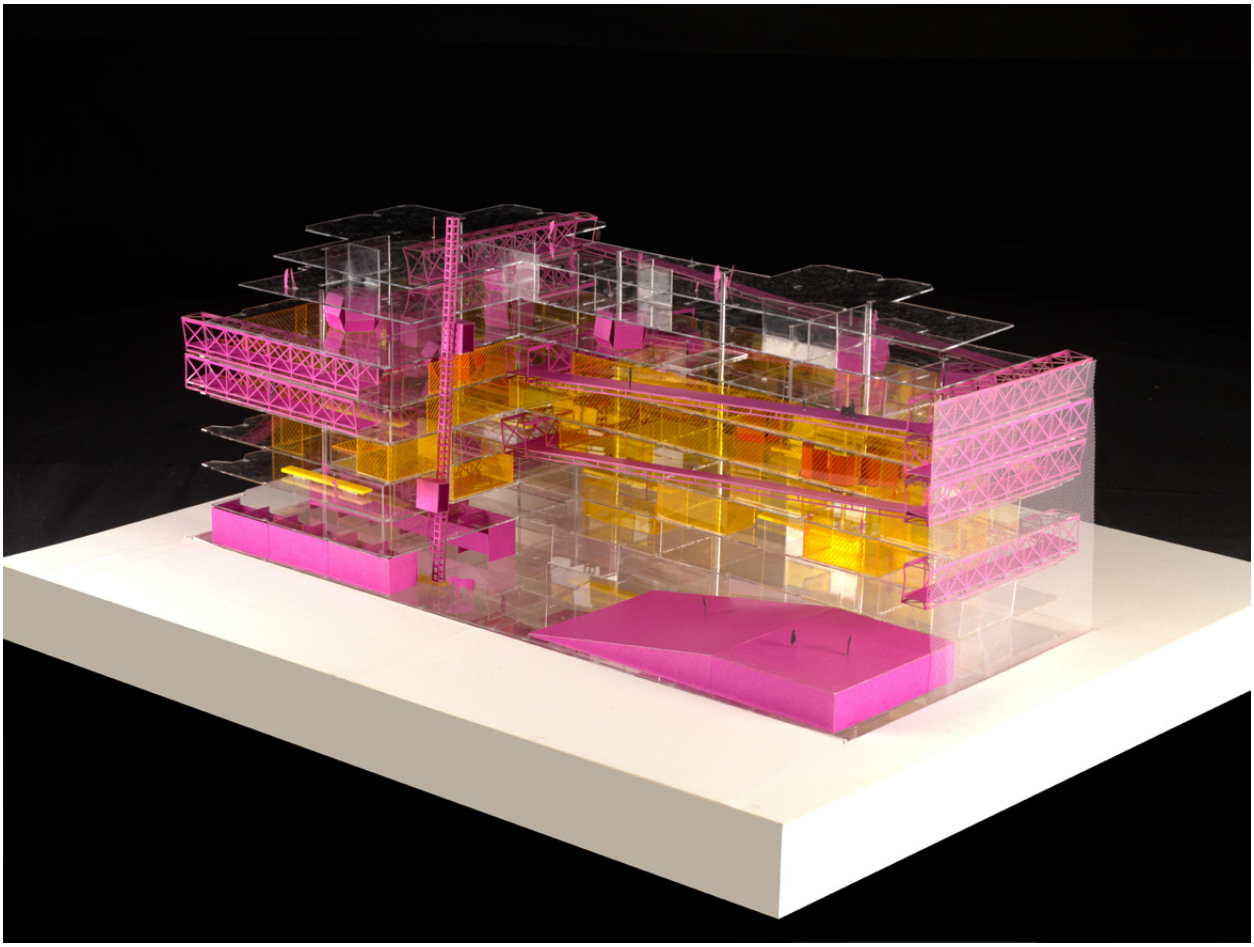
The second basement level is furnished with ramps and half-pipes for rollerblading and skateboarding.





Model photo (top)
Front elevation from Caton Place.

Model photo (bottom right)
View at the corner of Caton Place and East 8th Street, from above.



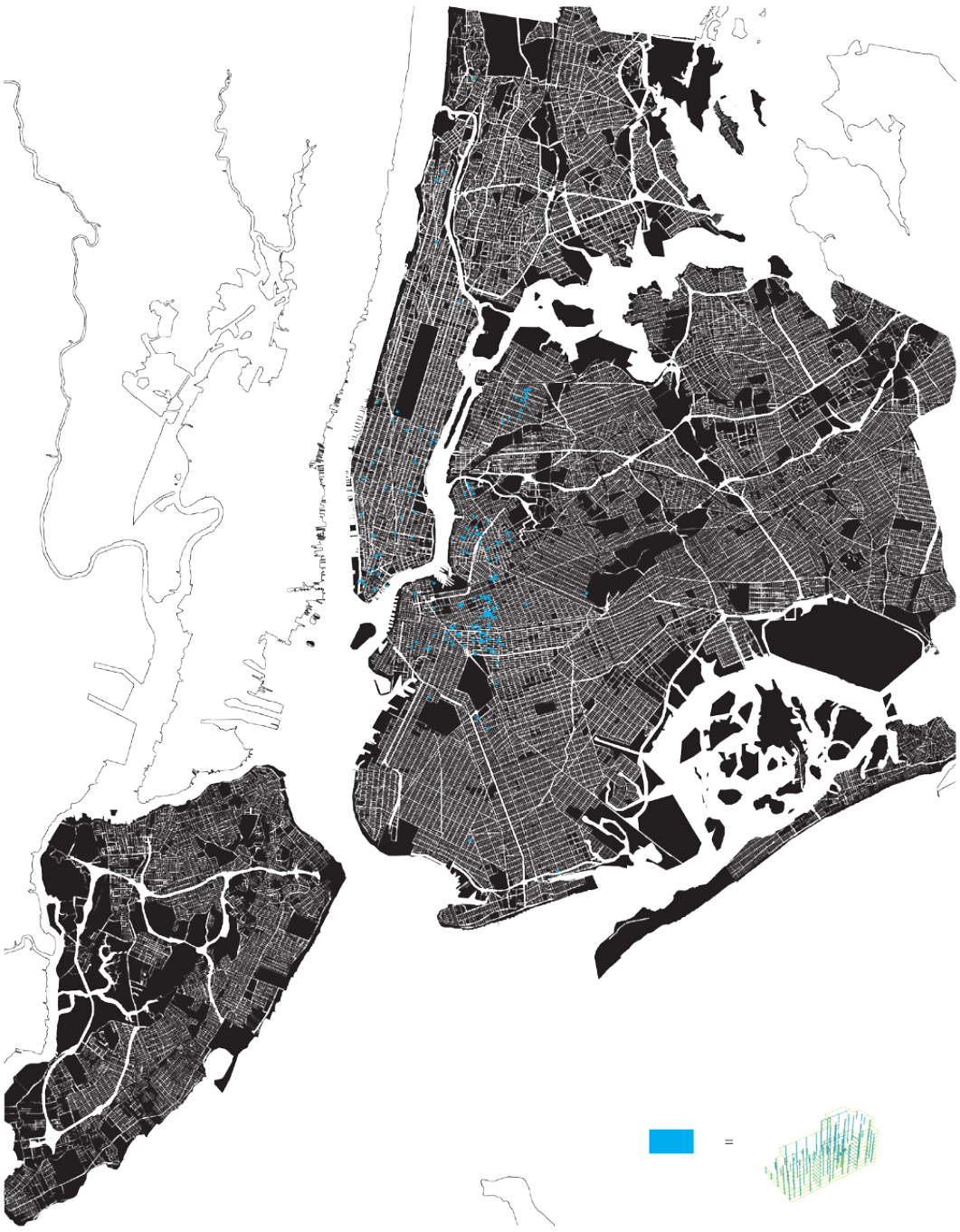
Model photo (above)
View from northwest corner of site. In this 1/8" = 1'-0" model of the proposal, the existing concrete structure is represented with clear plexiglass. All new infrastructure (including circulation, Office 3.0 supertables/walls, and Add-Pods). The yellow plexiglass represents locations of balloon walls, and thus where the interior spaces are. Though not shown throughout the entire model, the white mesh fabric on the western facade represents the mesh safety netting that surrounds the whole building.

Model photo (opposite)
Detail view of ramp circulation.

Campaign Poster for 23 Caton:

Activate a local stopped construction site!

Where can I post a campaign poster?



This map highlights all of the buildings across New York City that have been reported to be stopped or halted consruction sites by local residents. The locations were taken from the ongoing Google map project being conducted by WNYC's Brian Lehrer Show. (More information about the mapping project can be found at: http://blogs.wnyc.org/lehrer/2009/07/28/report-on-halted-development-in-your-neighborhood/).

LET'S ACTIVATE 23 CATON!
JOIN IN THE CAMPAIGN FOR PUBLIC SPACE

A stopped construction site in the Windsor Terrace neighborhood of Brooklyn, this some-day-to-be condo has been frozen at its current state for over a year. The financer has gone bankrupt and the developer has given up. The legal process to untangle the financial responsibilities means that the future of the site will remain unclear for at least another 2 years. However, the Department of Buildings has declared the concrete structure sound, and the neighborhood is mobilizing to explore different futures for the site.

The architectural design proposal shown here can come to the rescue and activate this dormant structure as a temporary public amenity for the neighborhood (and perhaps even change its trajectory for its permanent future)!

THE OPEN AGENCY PROJECT
http://openagencyproject.com

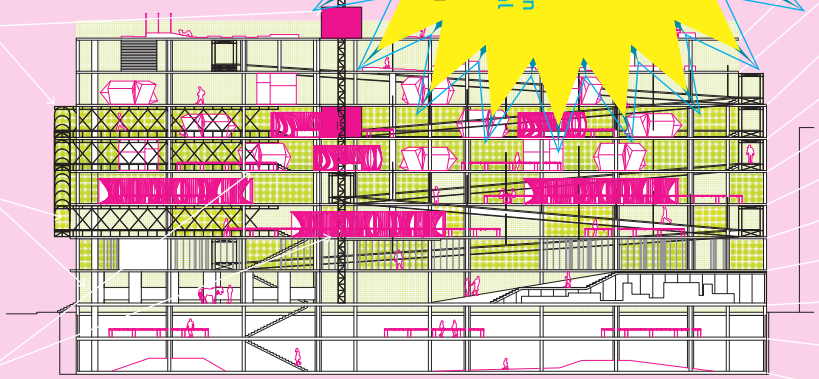
Please take the following campaign poster for 23 Caton and post it up near your local stopped construction site!*

* Or, you can make your own poster with locally relevant information and begin your own campaign to activate your site.

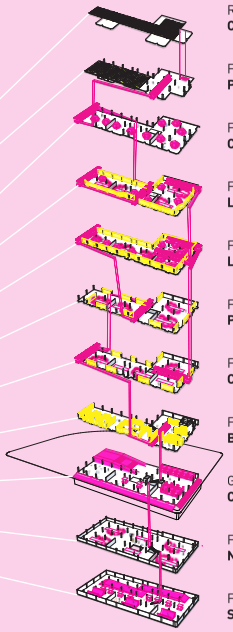
STEP 1. CIRCULATION

STEP 2. ENVELOPE

STEP 3. INFRASTRUCTURE



USER TYPES: A. Community member: frequent, short term use. B. Creative worker: long term live/work rental. C. Tourist: one time use, from 1 day to overnight stay.



ROOF: 10,867 sf **COMMUNITY GARDENS**

FLOOR 8: 12,943 sf **PUBLIC COMMONS**

FLOOR 7: 15,030 sf **CAMPGROUND**

FLOOR 6: 15,313 sf **LIVE/WORK STUDIO SPACE**

FLOOR 5: 15,313 sf **LIVE/WORK STUDIO SPACE**

FLOOR 4: 15,313 sf **PUBLIC MEETING SPACE**

FLOOR 3: 15,313 sf **COMMUNITY KITCHEN**

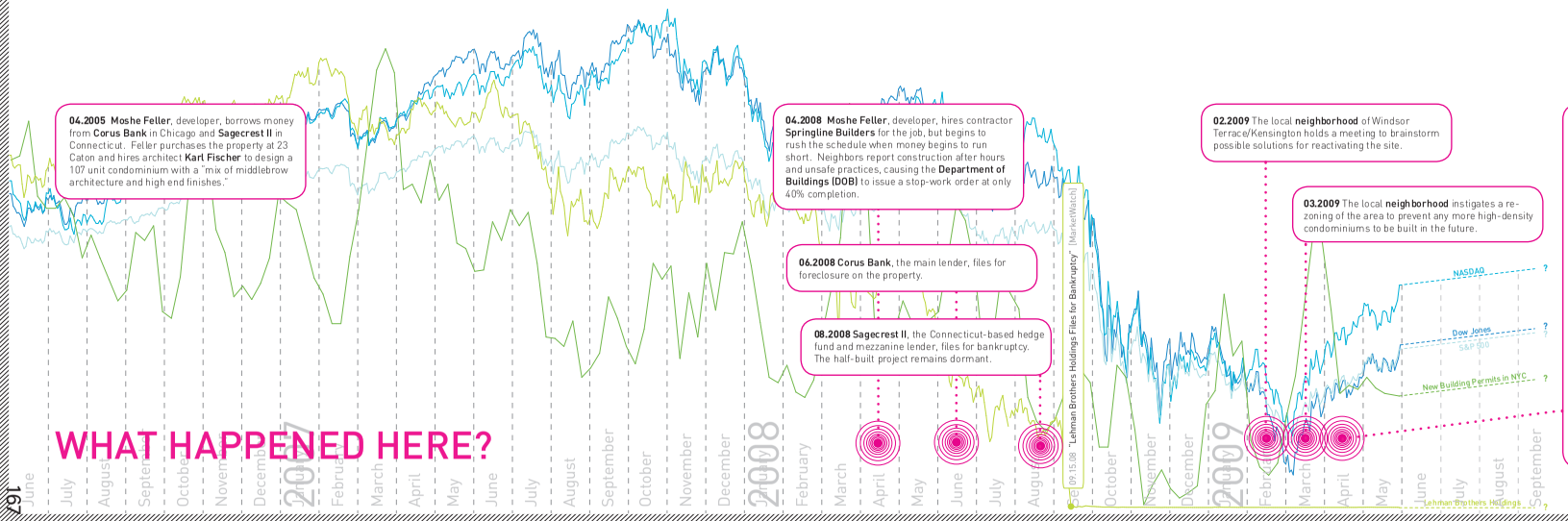
FLOOR 2: 15,199 sf **BARTER ROOM**

GROUND: 22,965 sf **COMMUNITY ZOO + PARK**

FLOOR B1: 22,965 sf **NEIGHBORHOOD "GARAGE"**

FLOOR B2: 22,965 sf **SKATE PARK**

WHAT HAPPENED HERE?



04.2005 Moshe Feller, developer, borrows money from **Corus Bank** in Chicago and **Sagecrest II** in Connecticut. Feller purchases the property at 23 Caton and hires architect **Karl Fischer** to design a 107 unit condominium with a "mix of middlebrow architecture and high end finishes."

04.2008 Moshe Feller, developer, hires contractor **Springline Builders** for the job, but begins to rush the schedule when money begins to run short. Neighbors report construction after hours and unsafe practices, causing the **Department of Buildings (DOB)** to issue a stop-work order at only 40% completion.

06.2008 Corus Bank, the main lender, files for foreclosure on the property.

08.2008 Sagecrest II, the Connecticut-based hedge fund and mezzanine lender, files for bankruptcy. The half-built project remains dormant.

02.2009 The local **neighborhood** of Windsor Terrace/Kensington holds a meeting to brainstorm possible solutions for reactivating the site.

03.2009 The local **neighborhood** instigates a re-zoning of the area to prevent any more high-density condominiums to be built in the future.

04.2009 The neighborhood, with the help of advocate **Brad Lander** (former head of the Pratt Center for Community Development) and a local politician **Christine Quinn** (Council Speaker) try to purchase the property and have a responsible developer transform the building into affordable housing. Unfortunately, converting the half-built structure into affordable housing will involve "dumbing down" some of the built-in high end customizations, adding expense to the rescue proposal. Another separate proposal for turning the site into a school is put forth.
The **DOB** determines the as-built structure to be sound.
Corus Bank claims that more than 100 different parties have expressed interest in buying the property, but the bankruptcy filing makes it virtually impossible to take action.
Christine Quinn announces ideas to leverage city financing to lower rents in completed buildings that remain currently vacant, as well as fiscal enticements for builders to complete half-finished projects across the city.

What is the future of 23 Caton?

THE OPEN AGENCY PROJECT
http://openagencyproject.com
Project #4

Outro

Learnings, Musings and Second Thoughts

The following pages contain some last lingering thoughts on the Open Agency Project to date, and is not in any way a concluding statement. Rather, these are a compilation of unresolved thoughts and questions, for the future and for others.

Learnings

* Through actively experimenting with the design process itself, one quickly learns that old habits die hard. However, the importance of consciously setting up distinct operational processes often pushes the designer out of her comfort zone, and may lead to the production of new ideas. It is important to be unafraid of questioning the intuitive, and sometimes ignoring pesky seeds of doubt.

* You cannot make use of outside expert design critique without an iteration of a developed design. Many times, I wanted to get technical feedback from an expert in a specific field, but found it difficult to communicate the exact type of critique I needed without having a finished design to show. This is a problem to be aware of with the idea of design loops, as inevitably, to complete one full iteration, one must make numerous leaps of assumption, only to find out later that they are completely wrong.

* Designing and implementing the dissemination strategy takes almost as much time and effort as the original design process. Though producing the original design feels like 90% of the battle, executing the communication of the design in multiple and distinct modes is almost just as challenging.

* Though knowing rules and regulations well is important when attempting to outsmart the rule writers, do not underestimate the power of the subconscious. Once your mind knows the rules which exist, it is difficult to work through, over or around them without a strong idea as to what the desired outcome is to be. Do not get trapped within rule sets, but learn how to dive in quickly and zoom out to gain perspective again, and always be on the lookout for the simplest solution.

Musings

* When embracing do-it-yourself attitudes and relying on bottom-up architectural activism, it is immensely difficult sometimes to propose a specific design solution as a top-down idea. Further, the question of the relationship between the designer and the doer constantly creates a sticky point in the design and dissemination process. Where does the designer fit in? Is the architect simply an enabler? Or an idea-giver? Or a tester of built ideas? Of course, the answer could be all or any of these, depending on which type of architect you want to be.

* If the Open Agency Project were a real office, and the sole full-time occupation of one or more architects, would it be possible to invent a realistic business model? What types of innovative operational models are out there for the creative industries? Can intellectual property law and the Creative Commons model provide adequate creative protection?

Second Thoughts

* The temporal pressures of reality meant that the current projects of the Open Agency Project were never publicly disseminated during the formal thesis process. The original goal was to produce designs that could then go out into the real world, get tested and tinkered with, then returned again to re-evaluate and assess. Unfortunately, this did not happen before the end of the academic time period of the thesis project. However, all of the work and designs here will be available through the web, and the various dissemination strategies will hopefully come to fruition. For continued updates and to see where the future of the Open Agency Project lies, please keep tuning in to the website: http://openagencyproject.com.

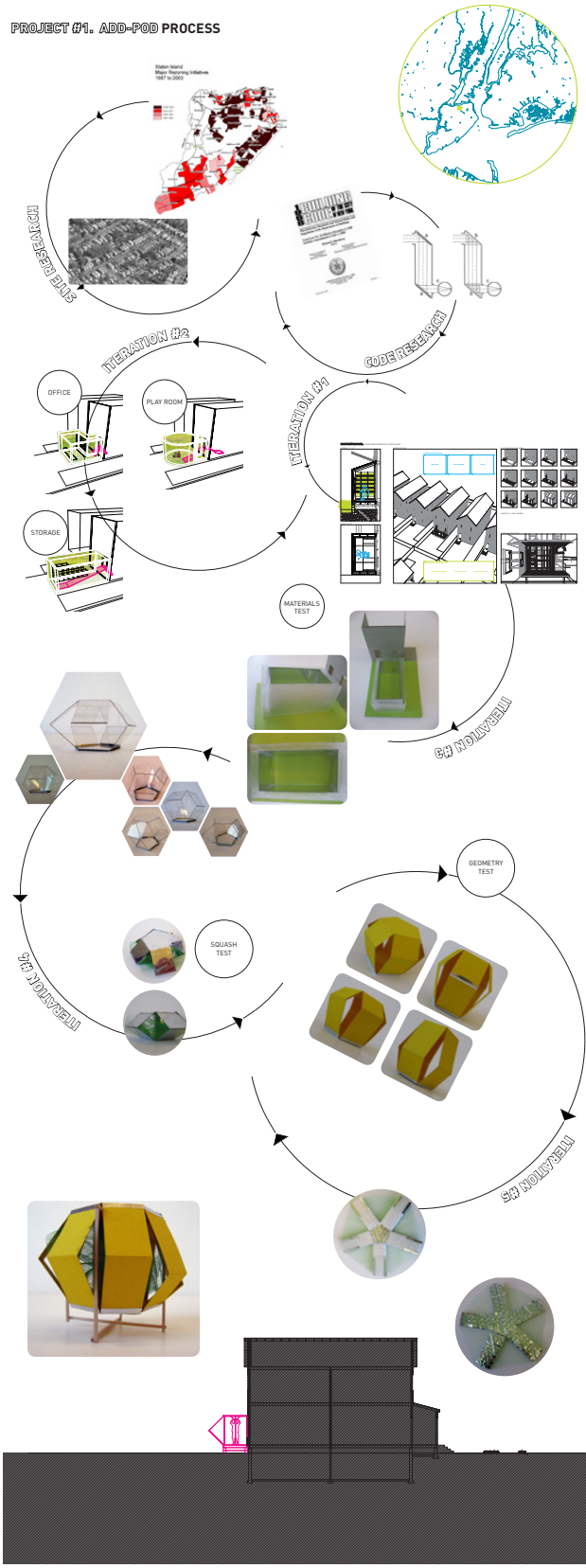
Appendix
Odds and Ends and Leftovers

The following pages were created and accumulated throughout the thesis prep and thesis process. Though many mini-trajectories of research did not find themselves incorporated into the major body of the thesis, these tidbits of information may find themselves useful to others, and - in the spirit of open-source sharing of both successes and failures - are included in the following appendix.

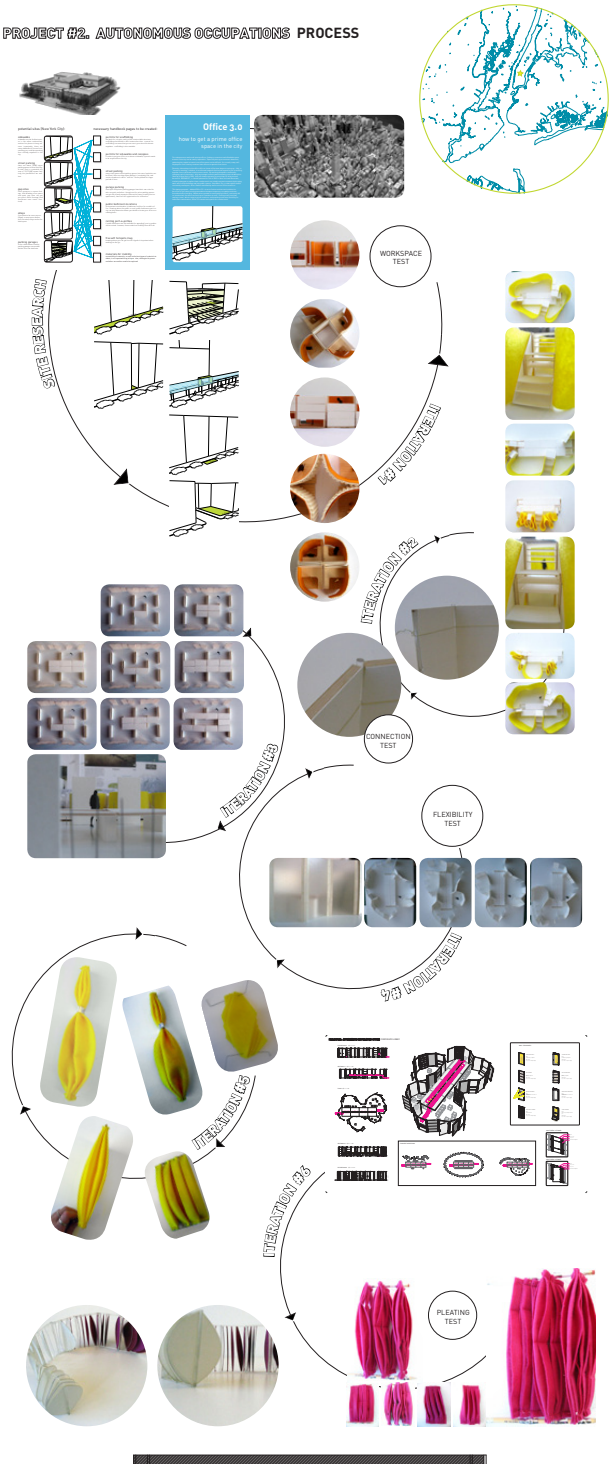
Tracings and Trails
The Design Process Exposed

The following pages contain the tracings and trails of the design process, without omitting the sidetracks and the spinoffs which never grew into becoming a part of a project. As part of an open operation, these trails are revealed here as proofs of various tests, as well as in the interest of sharing discoveries.

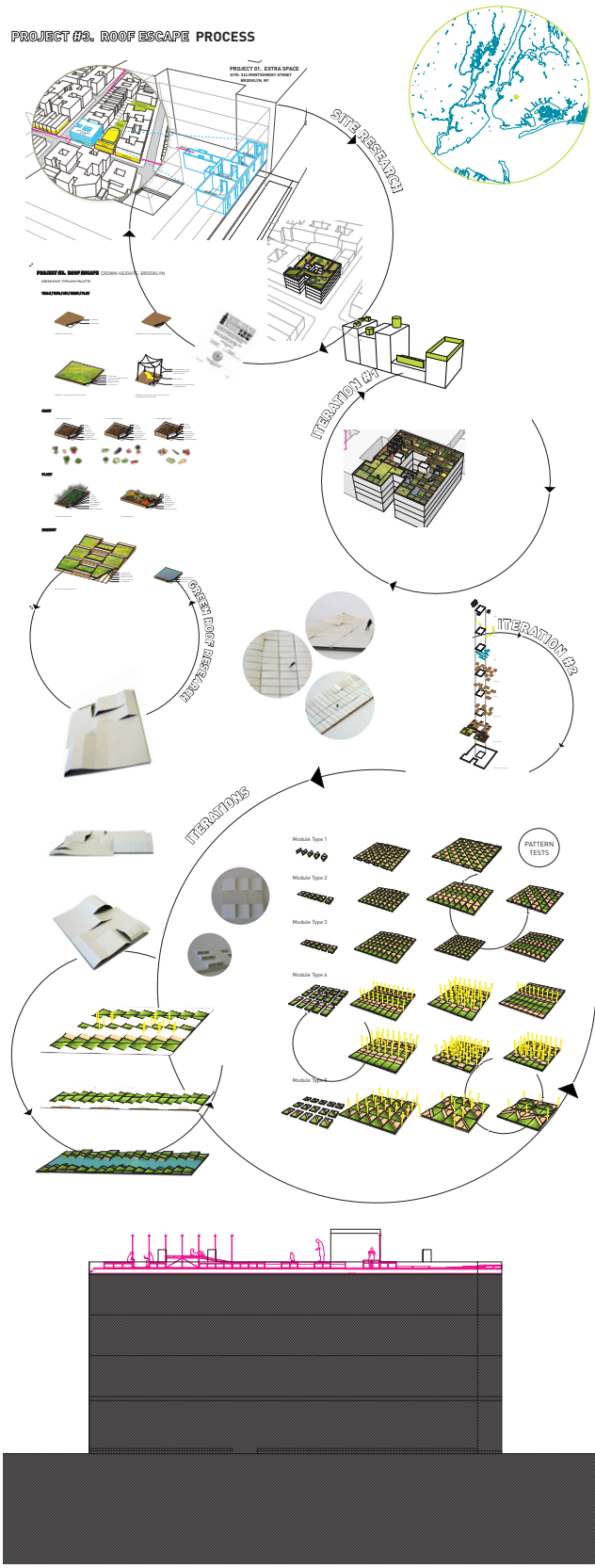
PROJECT #1. ADD-POD PROCESS



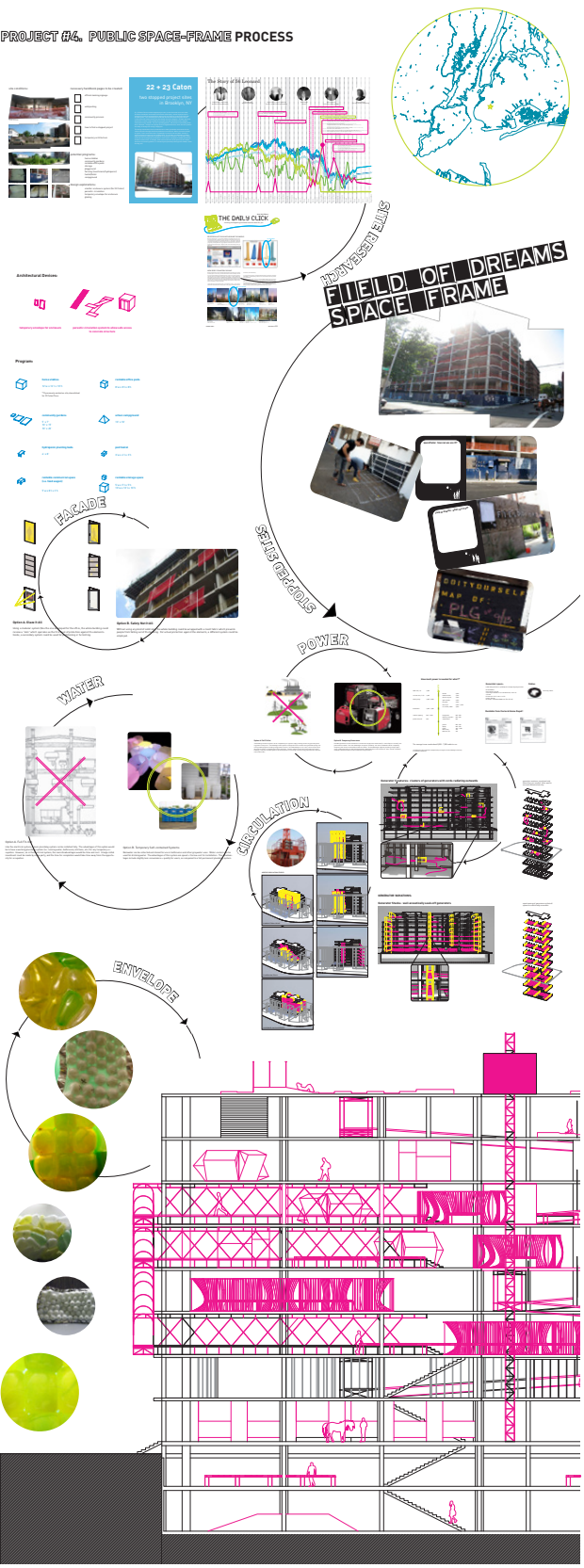
PROJECT #2. AUTONOMOUS OCCUPATIONS PROCESS



PROJECT #3. ROOF ESCAPE PROCESS



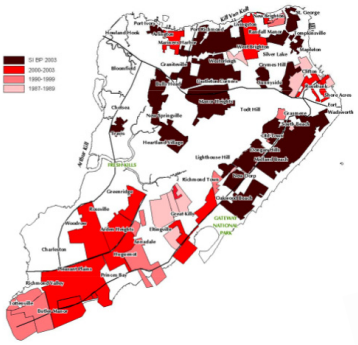
PROJECT #4. PUBLIC SPACE-FRAME PROCESS



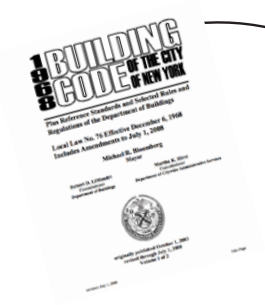
Project #1. Add-Pod

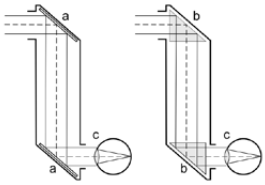
Port Richmond, Staten Island

Staten Island
Major Rezoning Initiatives
1987 to 2003



SITE RESEARCH

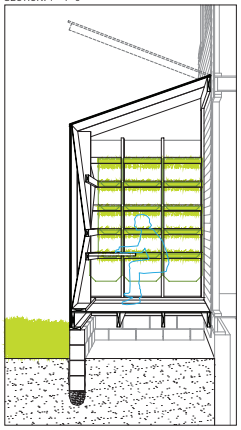




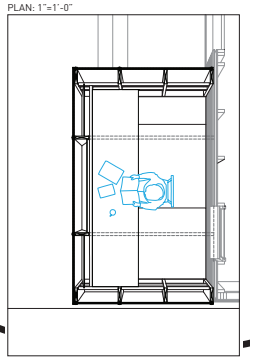
CODE RESEARCH

ITERATION #1

SECTION: 1"=1'-0"



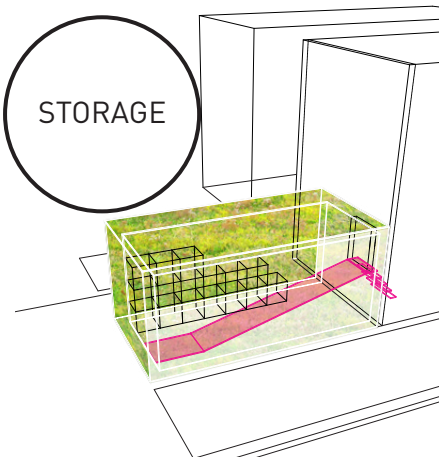
PLAN: 1"=1'-0"



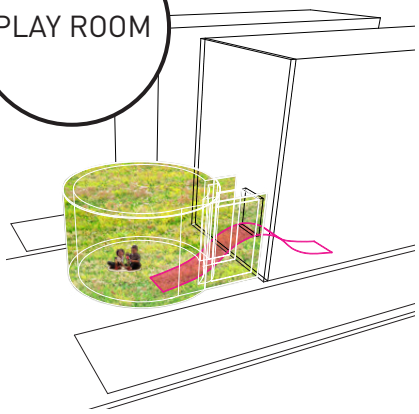
BIRD'S EYE VIEW

ITERATION #2

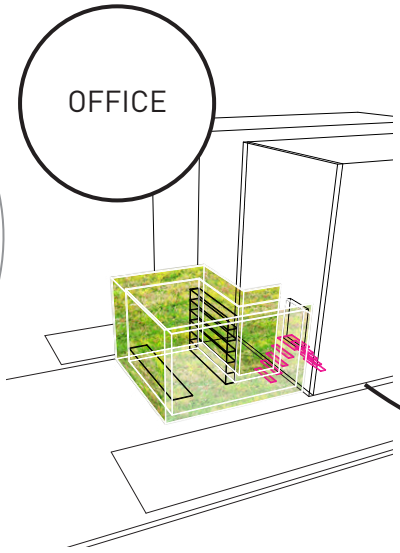
STORAGE



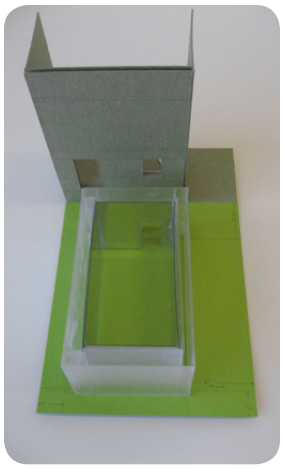
PLAY ROOM

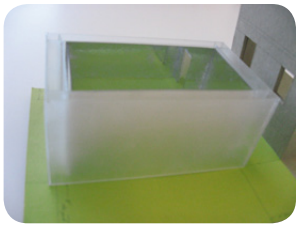


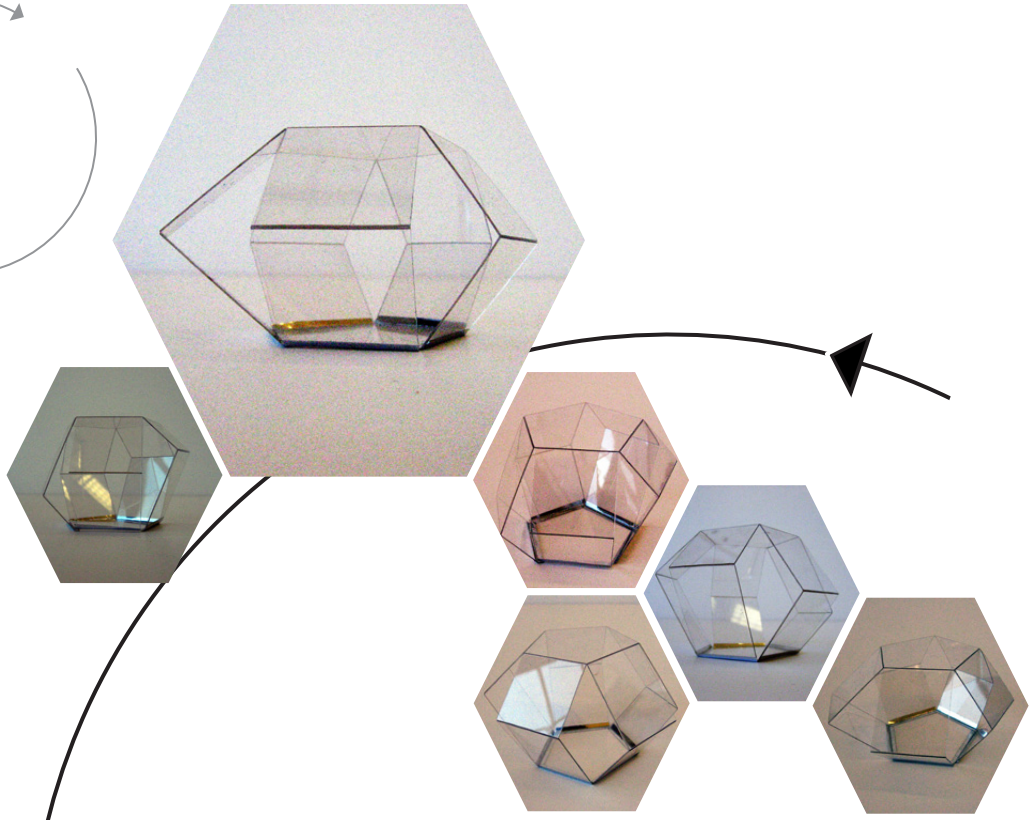
OFFICE



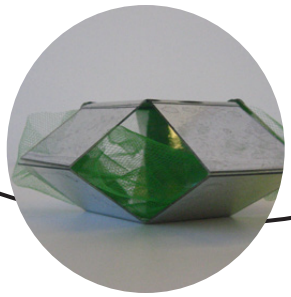
MATERIALS TEST





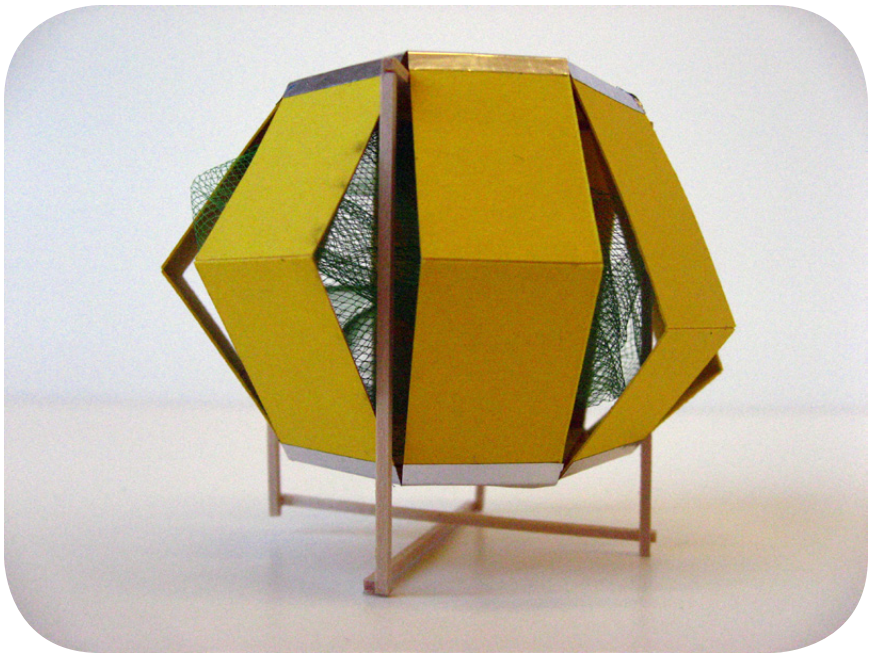


SQUASH
TEST



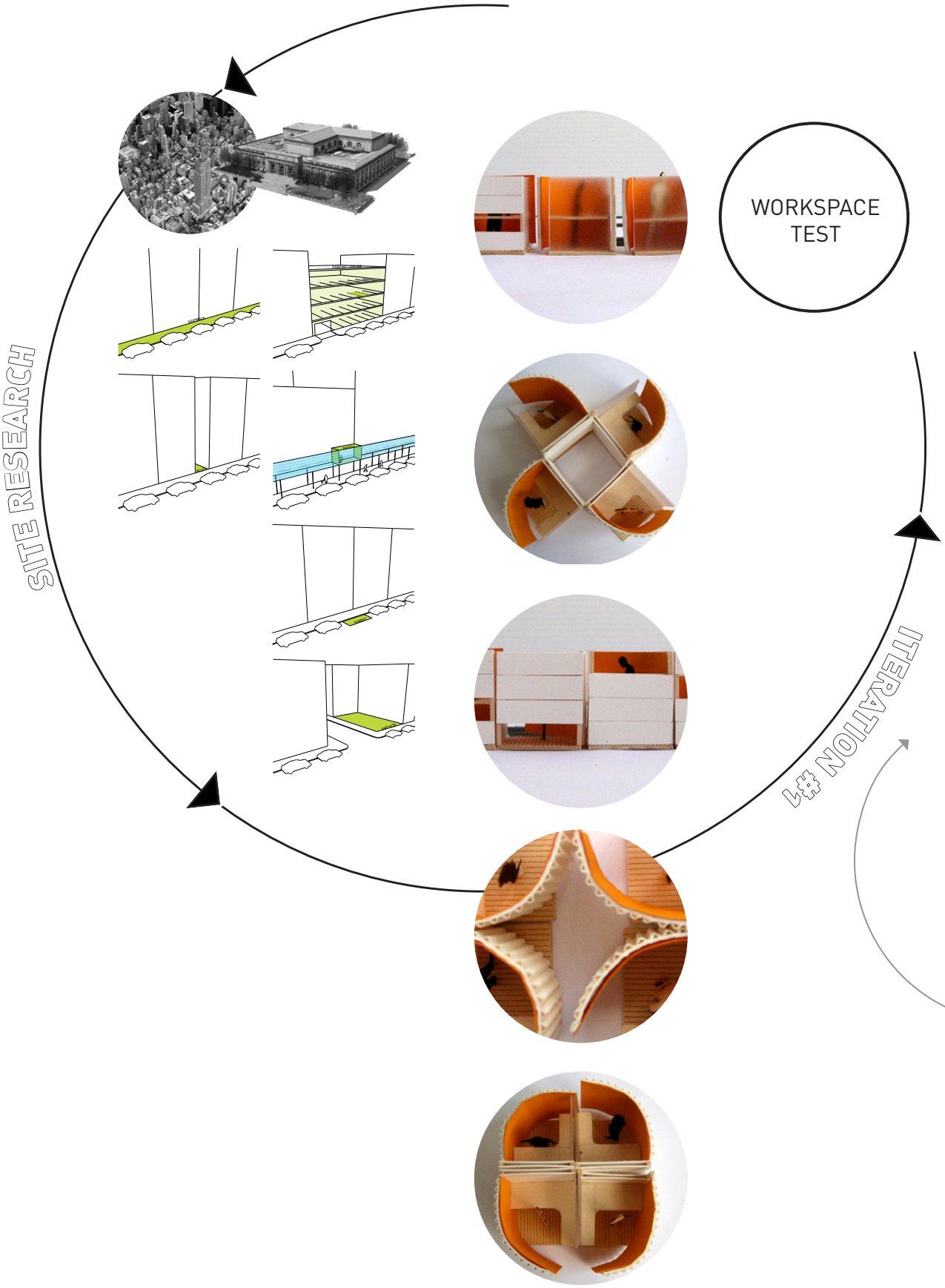
ITERATION #4

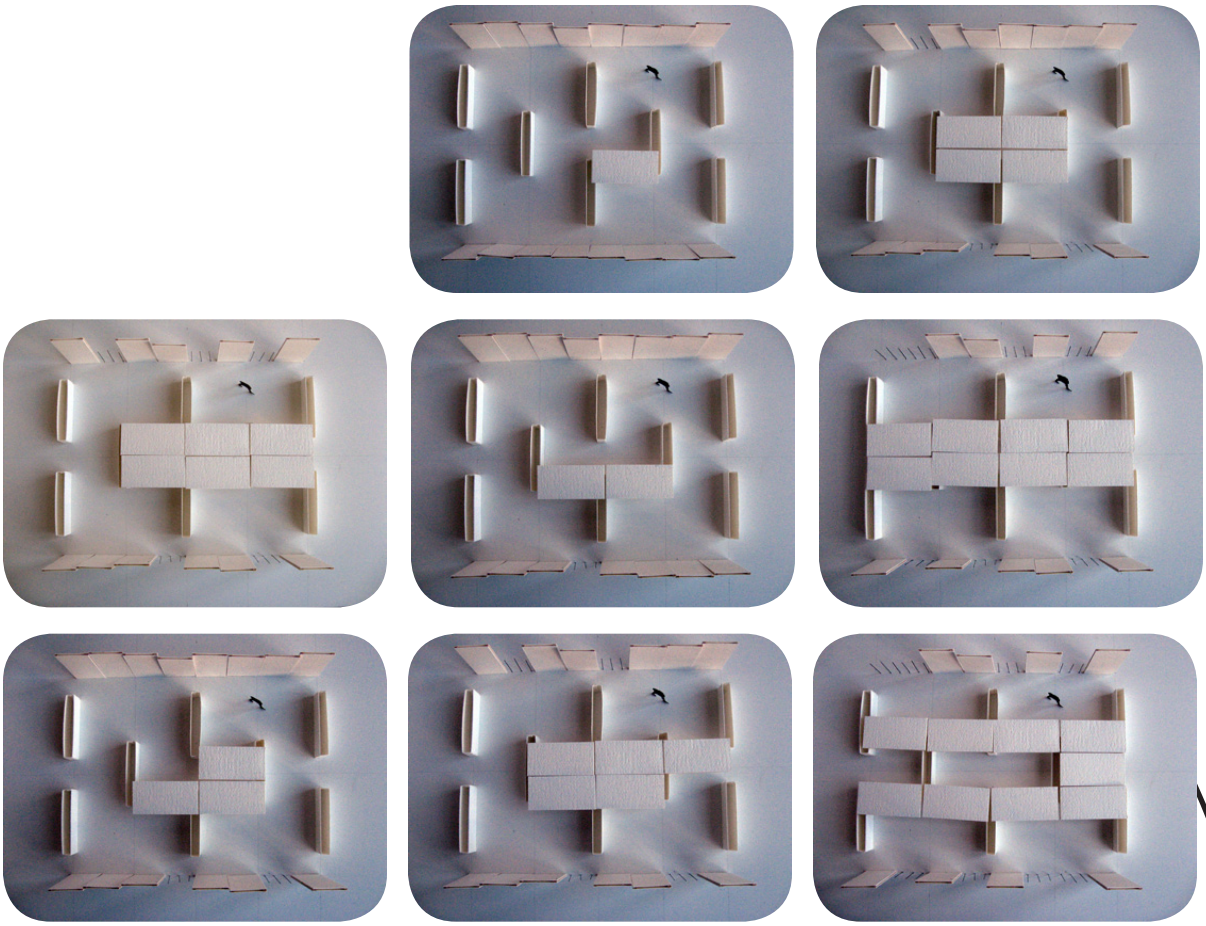
GEOMETRY
TEST



Project #2. Office 3.0

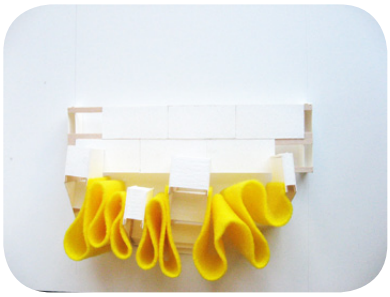
Common Office Lobby, Manhattan

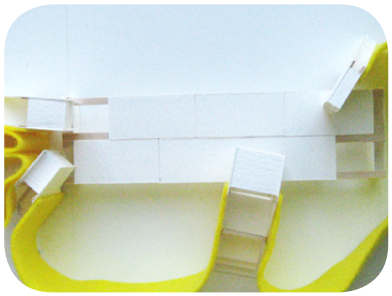

SITE RESEARCH
WORKSPACE TEST
ITERATION #1

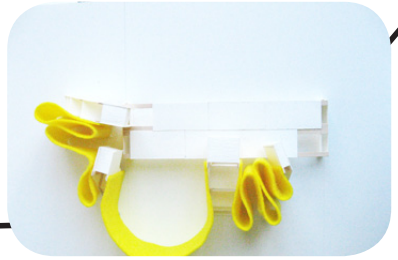


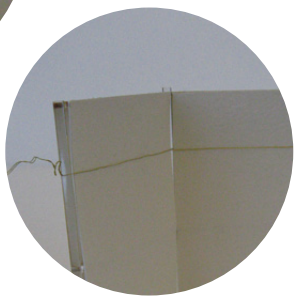
ITERATION #2

ITERATION #3

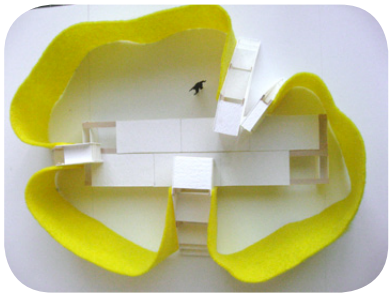


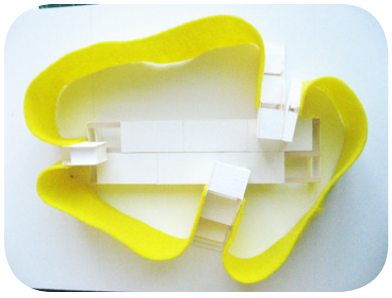


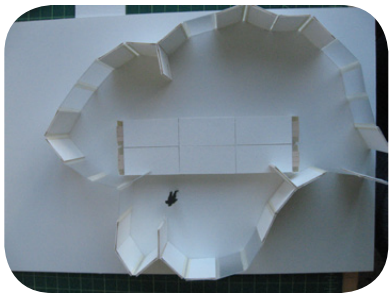


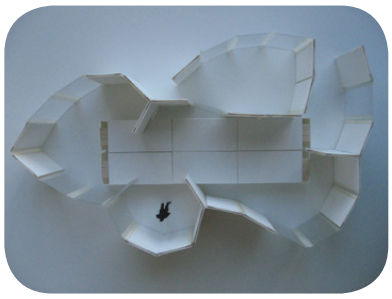


CONNECTION TEST

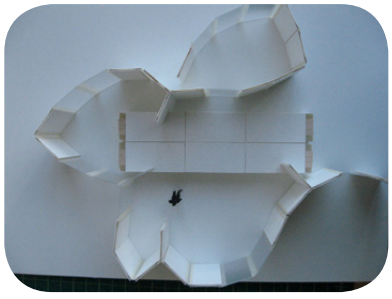


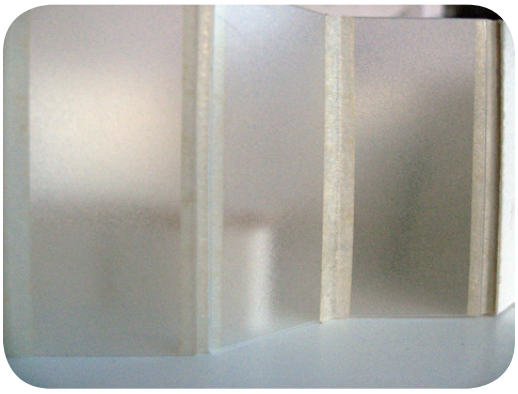


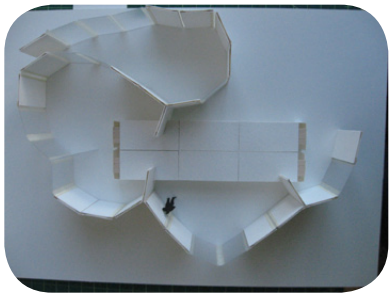




FLEXIBILITY
TEST







ITERATION #4

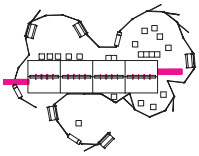
ITERATION #5

PROJECT 02. AUTONOMOUS COOPERATIVE OFFICE CORPORATE LOBBY

ELEVATION 01- 1/4" = 1'-0"

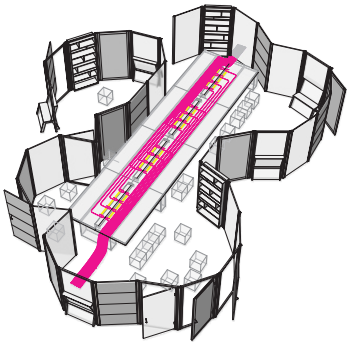
SECTION 01- 1/4" = 1'-0"

PLAN- 1/4" = 1'-0"

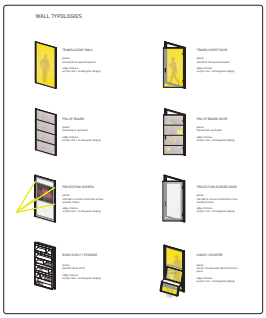


SECTION 02- 1/4" = 1'-0"

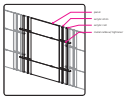
ELEVATION 02- 1/4" = 1'-0"



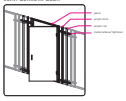
WALL TYPOLOGIES



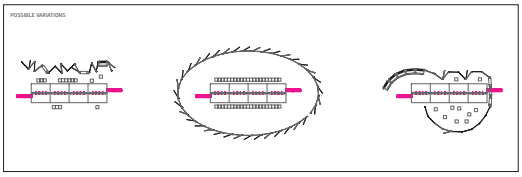
JOINT DETAIL AT PANEL



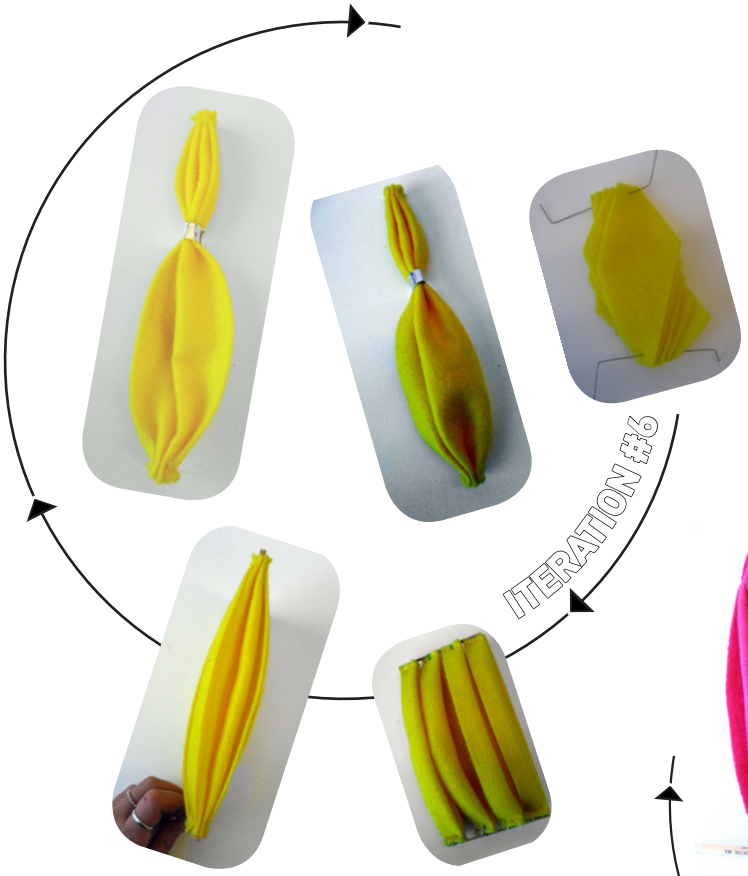
JOINT DETAIL AT DOOR

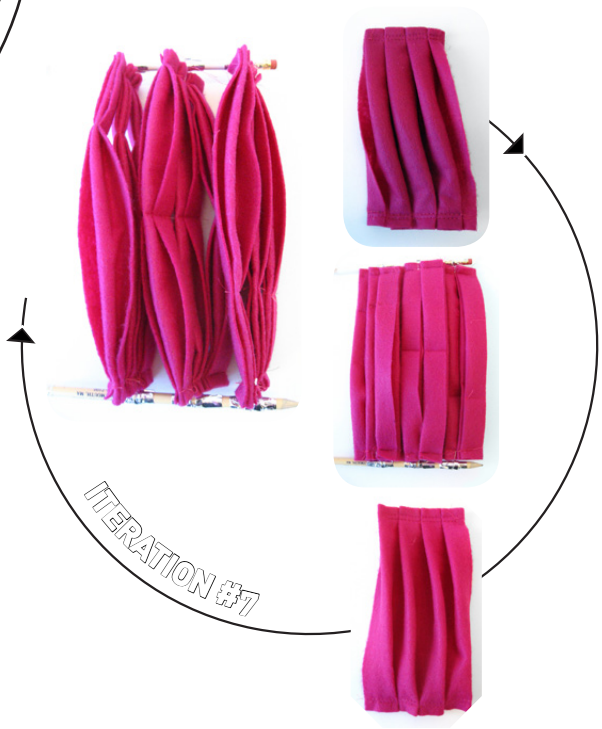


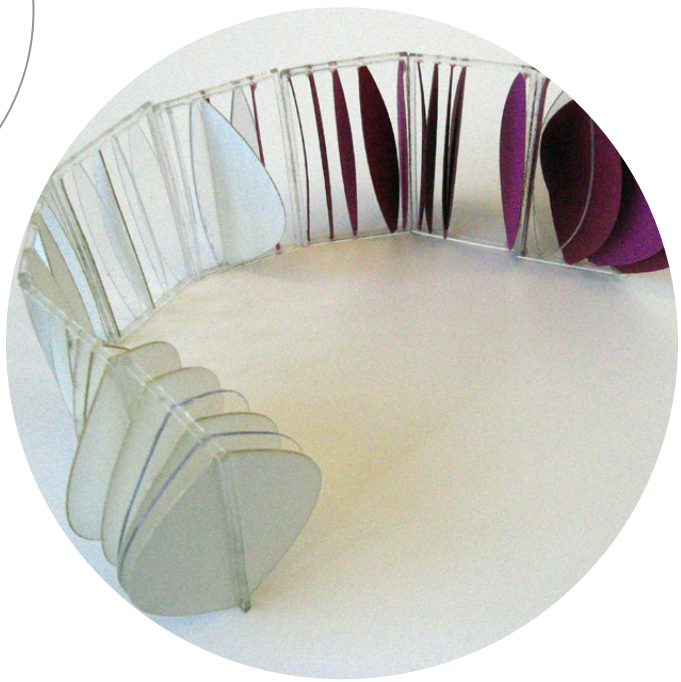
POSSIBLE VARIATIONS



PLEATING TEST



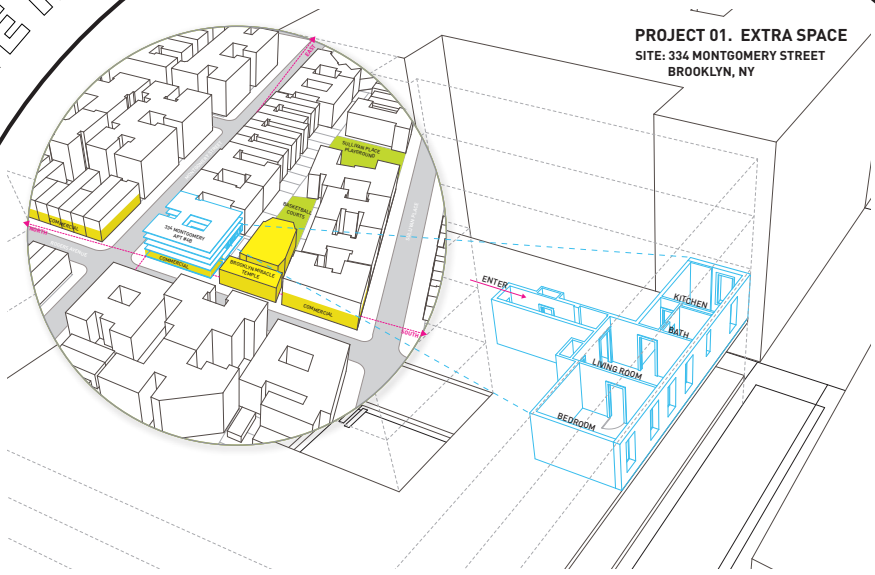


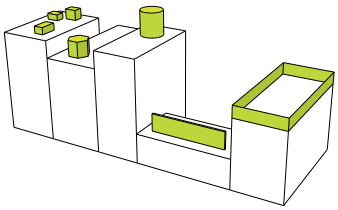


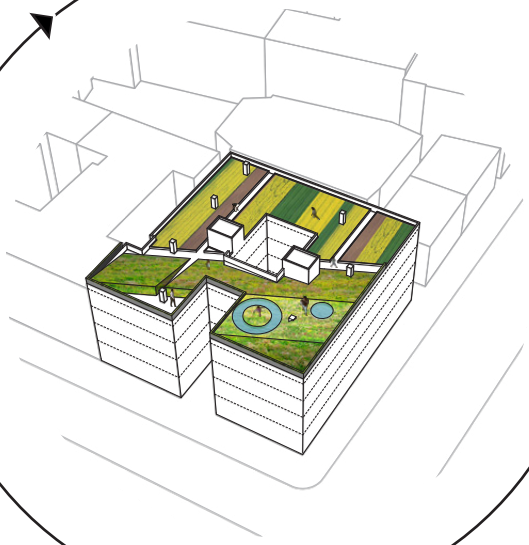
Project #3. Roof Escape

Crown Heights, Brooklyn

SITE RESEARCH



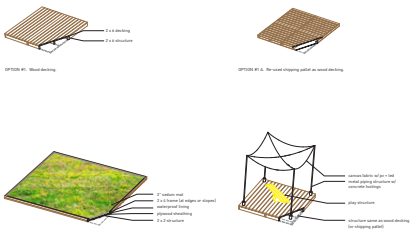




ITERATION #1

GREEN ROOF TYPOLOGY PALETTE

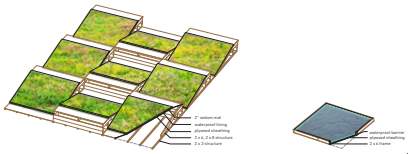
WALK / RUN / SIT / MEET / PLAY



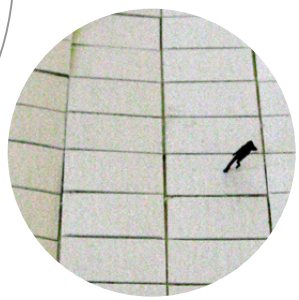
GROW

PLANT

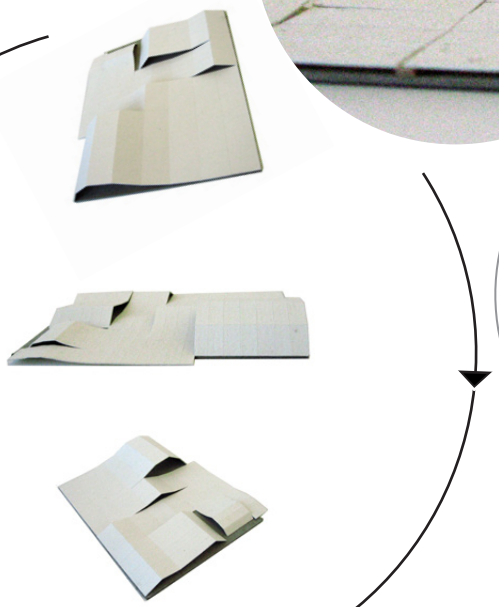
HARVEST

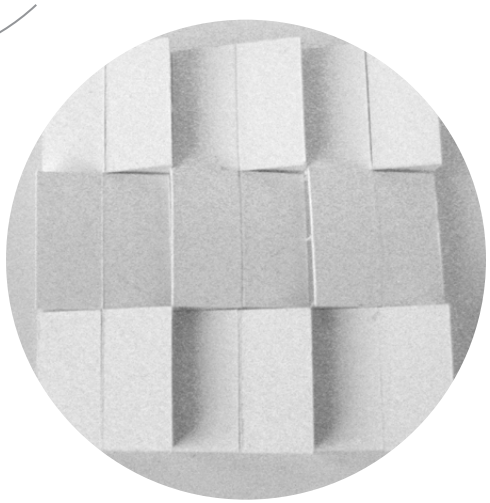


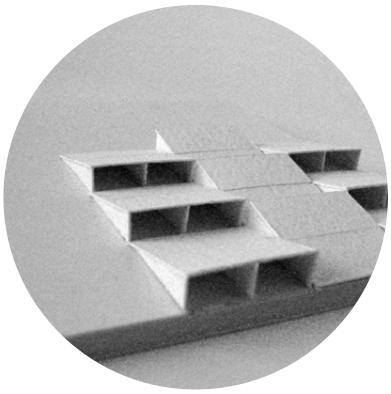
GREEN ROOF RESEARCH



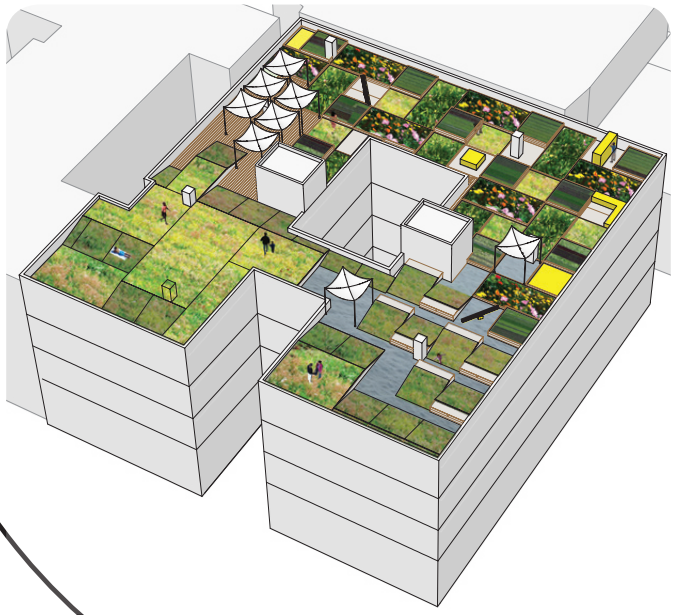
SURFACE STUDIES

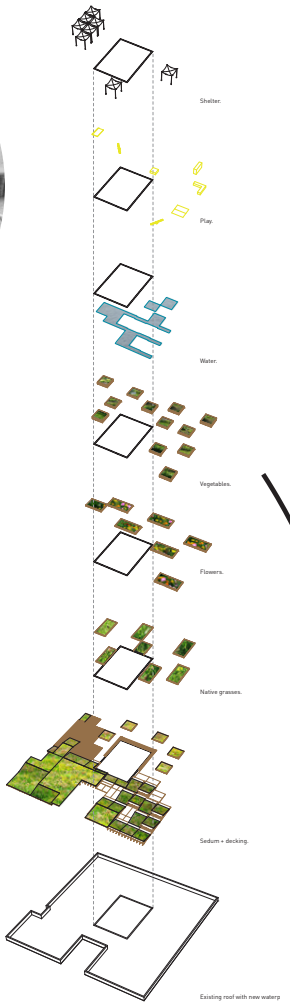


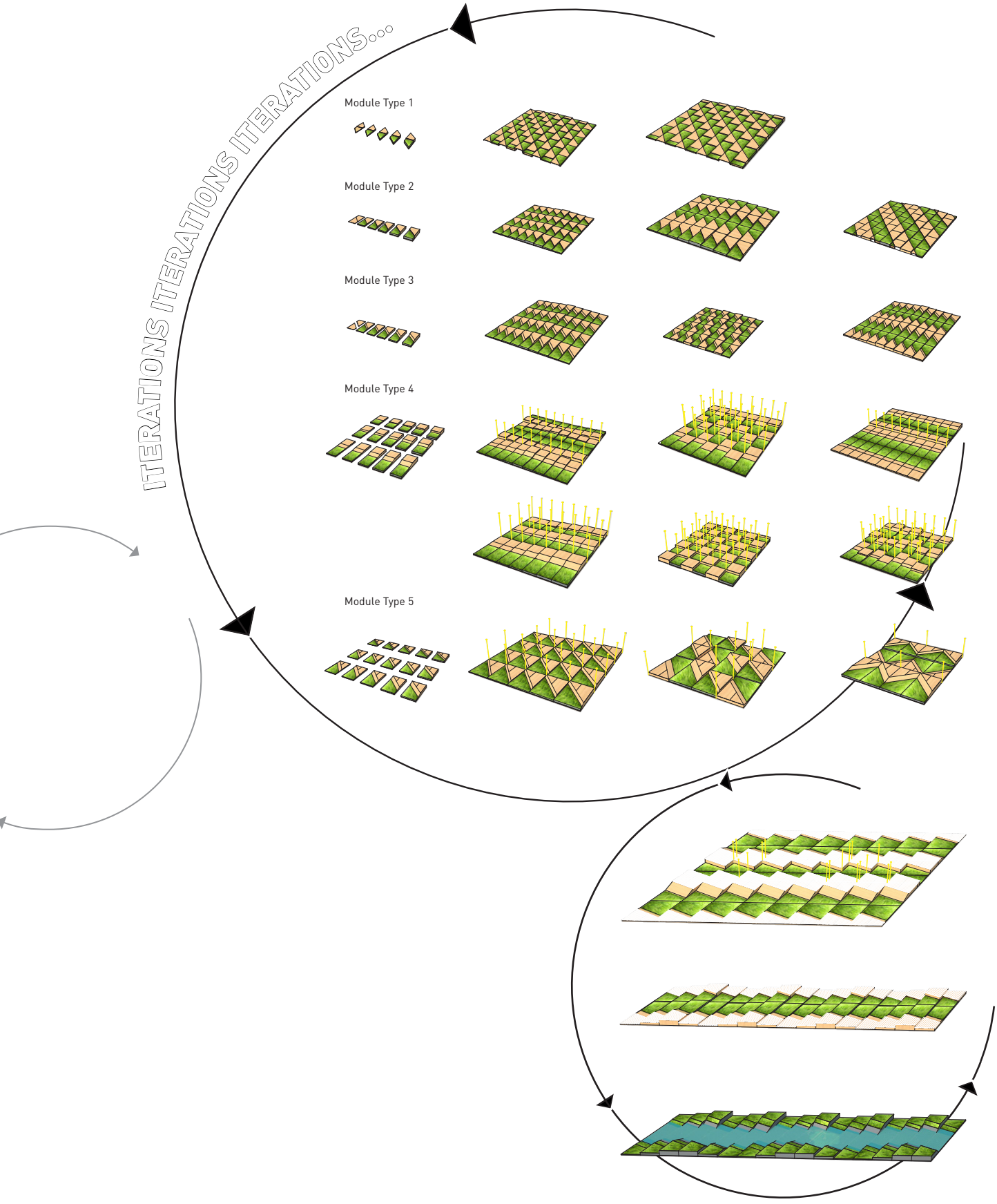




ITERATION #2




Shelter.
Play.
Water.
Vegetables.
Flowers.
Native grasses.
Sedum + decking.
Existing roof with new waterp


ITERATIONS ITERATIONS ITERATIONS...
Module Type 1
Module Type 2
Module Type 3
Module Type 4
Module Type 5

Project #4.
Public Space Frame

23 Caton Place, Brooklyn

site conditions:


inside 22 Caton


22 Caton


inside 22 Caton




shop work orders at 22 Caton



necessary handbook pages to be created:

- official-looking signage
- wild posting
- community process
- how to find a stopped project
- temporary architecture

potential programs:

horse stables
community gardens
rentable office pods
storage
playground
farming (mushroom/hydroponic)
hostel/hotel
campground

design explorations:

a better enclosure system (for 22 Caton)
parasitic circulation
temporary envelope for enclosure
glazing

22 + 23 Caton

two stopped project sites
in Brooklyn, NY

22 + 23 Caton Place are both stopped project sites, across the street from each other. 23 Caton's developers and lenders have filed for bankruptcy, and the legal process to untangle the financial responsibilities and free the site again for construction will take an indeterminate amount of time. 22 Caton's developer has recently put the site up for sale, but in the future, like the mid-rise building, the site is targeted for condominiums. Once planned for a similar large condominium project, but after demolition was complete, construction never started. The site is growing greener, and the fence surrounding it has been infiltrated. Though a fun playing area for neighborhood kids, locals also worry about the safety of having such a large, empty plot.

This design intervention aims to make the site a useful, productive architecture for the community while the legal and fiscal problems are sorted out. With a minimum window of 2 years, much can be done that is lightweight in material cost and labor, but with a significant positive impact for the neighborhood. For 22 Caton, an exploration of better ways of enclosure could lead to a proposal of a productive interface. For 23 Caton, some of the site can be temporarily enclosed for more interior occupation (rentable pod offices, hostels or hotel rooms, or storage), while much of the site can be put to use for outdoor amenities (community gardens, re-introducing the previously existing horse stables, urban farming, etc).

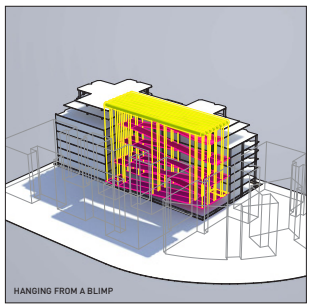
SITE RESEARCH

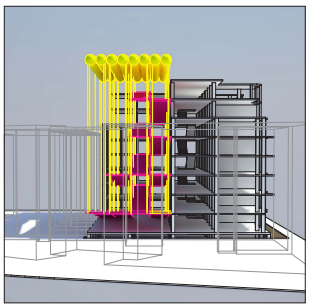
FIELD OF DREAMS
SPACE FRAME

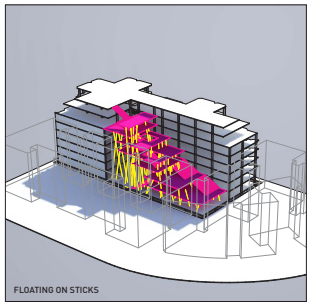
STOPPED SITES

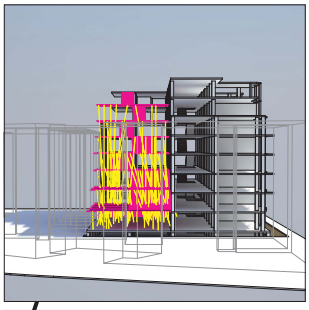
CIRCULATION

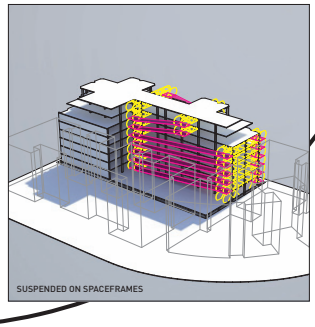
ADDITIVE CIRCULATION STUDIES

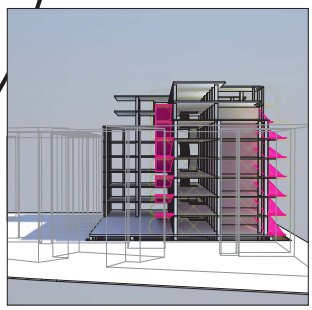




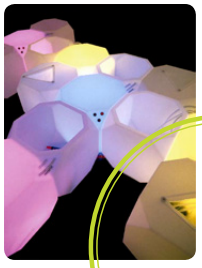


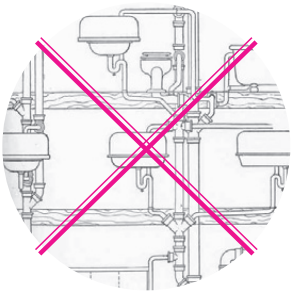




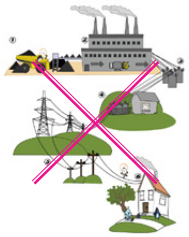


WATER





POWER



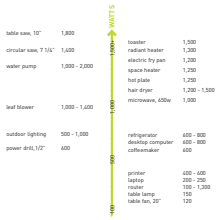
Option A. Full Fit-Out

The building's electrical system can be completed up to a generic stage, hooking into the city grid and providing power to every floor. The advantage of this system is that power does not have to be generated locally, and most possible programs needing energy will be covered. The disadvantage is cost + time; someone (the city?) will need to invest in completing the electrical system. Further, without a clear idea of the future use of the building, it may turn out that a generic electrical system is not enough, and the energy infrastructure will have to be redone later.

Option B. Temporary Generators

Portable generators can be rented from a construction equipment rental outfit (i.e. Home Depot or similar), and placed where needed. The main advantages are speed + flexibility: the entire installation will be completely temporary and can be increased/decreased as needed. The disadvantages might be providing enough capacity for certain programs, as well as keeping all the cables/extension cords sorted out. Also, acoustic insulation strategies will be needed to muffle sound from the generators.

How much power is needed for what?*



The average home needs about 5,000 - 7,000 watts to run.

*multiply the total needed for equipment by 2 to figure out the wattage necessary to start the equipment

Generator specs:

4,500 watt generator is probably the average largest generator

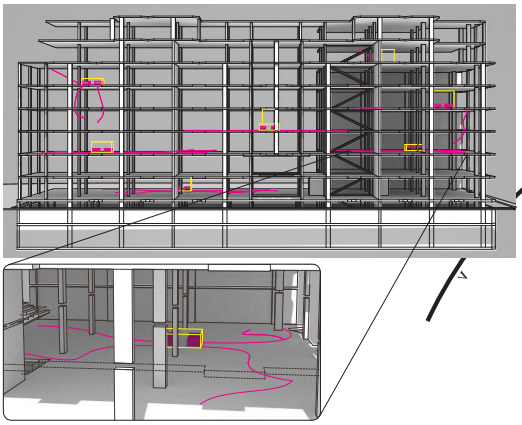
Honda GX390
tank capacity: 6.5 gal.
runtime per tank(s): 4.7 hrs @ rated load, 14 hrs at 1/4 load
dimensions: 33.5" x 26.4" x 27.5"
weight: 253 lbs
AC output: 120/240V 6500W max (54.1/27.1A)

Cables

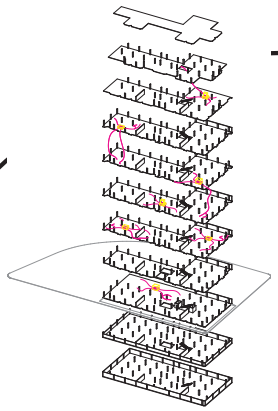
50 ft long cables

Rentable from the local Home Depot!

Generator Creatures: clusters of generators with cords radiating outwards



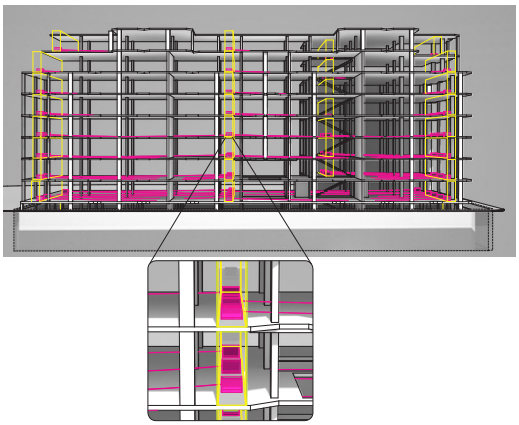
generator creatures are placed only where they are needed. other spaces are used without electricity.



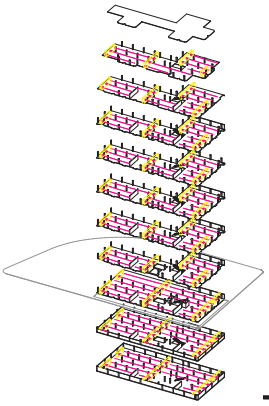
GENERATOR STUDIES

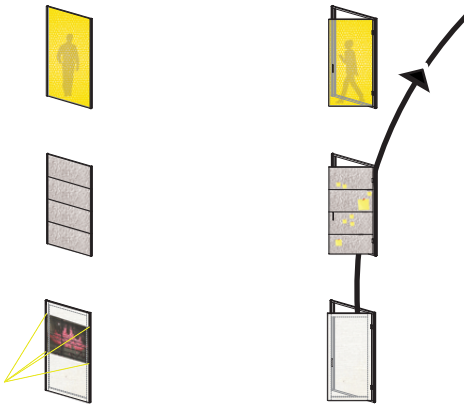
GENERATOR VARIATIONS:

Generator Stacks: wall acoustically seals off generators



equal spacing of generators so that all spaces are electrically accessible





Option A. Glaze It All

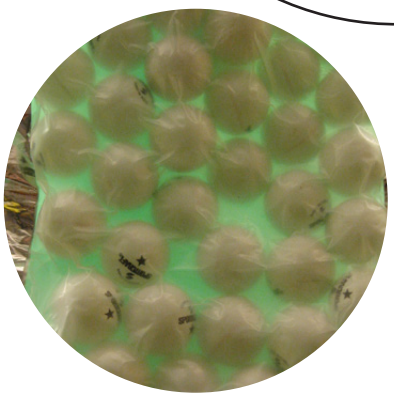
Using a modular system (like the one developed for the office, the whole building could receive a "skin" which operates as the first level of protection against the elements. Inside, a secondary system could be used for partitioning or furnishing.

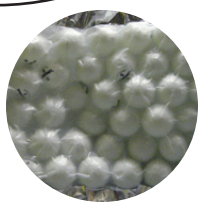
Option B. Safety Net It All

Without using any kind of solid skin, the whole building could be wrapped with a mesh fabric which prevents people from falling out of the building. For actual protection against the elements, a different system could be employed.

ENVELOPE

DEFLATABLES STUDIES





Catalog
of Inspirational Projects

ARCHITECTURAL SCALE

was the project carried out at an architectural scale?
did it provide shelter and/or habitable space?

MOBILITY

was mobility and temporality an important part of the project?

ACCESS

was the project about providing physical or theoretical access to a new space or territory?

MATERIALITY

did the project consist of 'real' tangible components?

INTERNET

was the project itself, or information about the project, disseminated through the world wide web?

BOOK

was a book or publication an important part of the project

Title of project

who?

by: who carried out the project?
for: for whom was the project for? to whom was the proposal directed?

what?

what were the constituent parts of the project?

where?

location

when?

date

why?

what was the impetus for the project?

how?

size: how big?
cost: how much?
low: < $1,000 // moderate: $1,000 < x < $10,000 // high: > $10,000
tools needed: what was needed to do the project?
legal framework: was the project within existing legal frameworks? did the project question/subvert the existing legal framework?
dissemination strategy: how was knowledge about the project made public?
open-source factor: was the project carried out with the intention of open-source knowledge for others?
diy factor: how much do-it-yourself spirit did the project embrace/encourage?

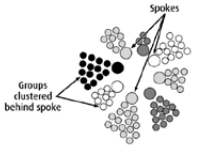


Figure 4.4 A typical spokescouncil

Source: Seeds for Change.

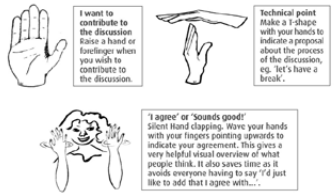


Figure 4.3 Consensus hand signals

Source: Seeds for Change.

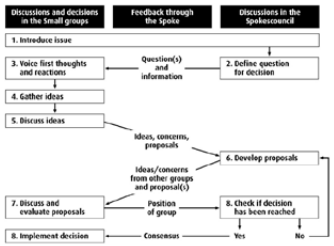


Figure 4.5 A model for spokescouncil consensus

Source: Seeds for Change.

"Do It Yourself: A handbook for changing our world"

who?

by: Trapese [Taking Radical Action through Popular Education and Sustainable Everything!]
for: like-thinking people [?]

what?

a book + a website
practical + dynamic ideas for radical social change
"this is not a book about what is wrong with the world [there are many fantastic books out there that do that already]. it's about what we can all do about the chal lenges we face in the world and how we can make governments and corporations increasingly irrelevant."

where?

UK

when?

published July 2007

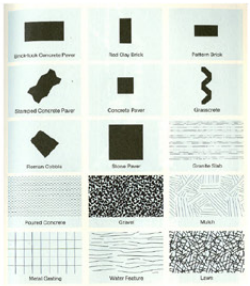
why?

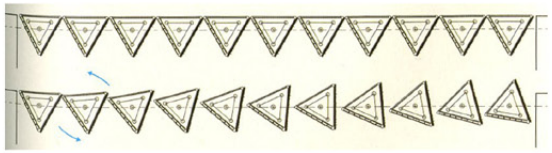
to describe the experiments and experiences of the global social justice movement through the eyes of activists and grassroots campaigners in an attempt to take back control from governments and corporations.

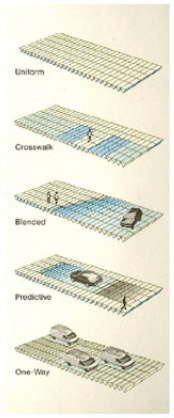
how?

going through topic areas and presenting the theory, as well as practical ways in which to execute your ideas

size: 7.9" x 6.7"; 306 pages
cost: low to moderate [self-published]
tools needed: paper, computer, printer
legal framework: legal
dissemination strategy: Pluto Press; sample chapter on website
open-source factor: +++ [Creative Commons license]
diy factor: +++++







"Public Works: Unsolicited Small Projects for the Big Dig"

who?

by: J. Meejin Yoon + Meredith Miller
for: the authority; the public

what?

a book
"a case study of contemporary public space and the unexpected impacts of urban landscapes altered by public works" with "graphic analyses, design interventions and alternative scenarios"

where?

Big Dig, Boston MA

when?

published December 2008

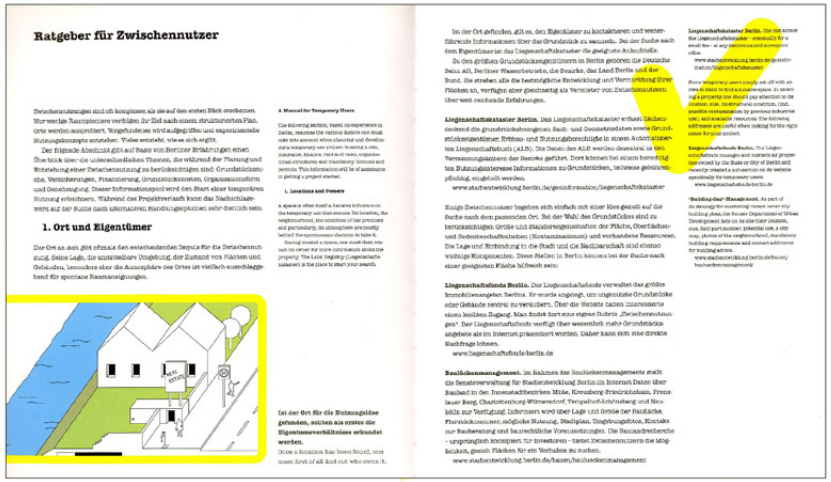
why?

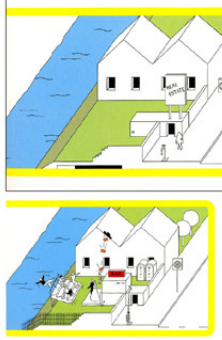
the unresolved public space resulting from the Big Dig was full of opportunities for intervention

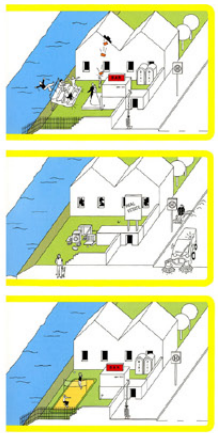
how?

physical analyses of site / historic research / diagrams + images of existing conditions / identification of problems + opportunities / drawings + renderings of intervention ideas + scenarios

size: 6.5" x 8.5"; 191 pages
cost: $7,500 [Graham Foundation]
tools needed: surveyors, cameras, ideas, illustrators
legal framework: legal
dissemination strategy: book launch + exhibition
open-source factor:
diy factor: +







"Urban Pioneers: Temporary Use and Urban Development in Berlin"

who?

by: Klaus Overmeyer (ed.)
for: potential temporary users of public spaces in Berlin; the public

what?

a book
documents 40 temporary use projects in Berlin and provides guidelines for both urban designers / policy makers and public space users

where?

Berlin, Germany

when?

published July 2007

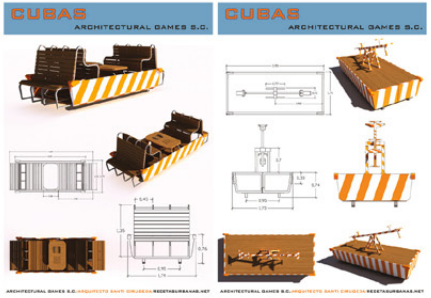
why?

"temporary use projects are increasingly of strategic importance for urban development, for space pioneers open up new development prospects at disused sites that defy the bounds of traditional urban planning"

how?

examination + diagrams of current trends in temporary use in Berlin, essays by urban thinkers, informative descriptions of past projects, examples of how to find / use a public space for a temporary use in Berlin.

size: 8.25" x 10.625"; 192 pages
cost: moderate
tools needed: surveyors, cameras, illustrators
legal framework: legal
dissemination strategy: publication
open-source factor: ++
diy factor: ++



How:

1.
Apply to the Urban Planning Department of your town for a permit to install a skip on the chosen site. Your application should include a detailed sketch (pavements, road, position, etc.), along with the 5.688 ptas / 35 euros it costs. The guarantee of the concession of the license comes given by the simultaneous justification from a supposed inner reform, which involves filling out a minor works application form (no technical design is required), with its corresponding cost (approximately 3.000 ptas / 18 euros).

2.
Once the permit for installation has been granted (a month later), proceed immediately to install the skip. You should preferably build it yourself, as in this way you will avoid any possible misunderstandings with the firm contracted.

3.
There is also the option of applying, free of charge, for the KUVA SC. 670-794409 skip, which will be loaned by friendly agreement to the people or groups of people wishing to create reserves of urban land.

4.
The functions and uses which can be created by these urban reserves are open to the imagination of those inhabiting them; they can be filled with the elements suggested or required by given functional and intellectual intentions: children's playground, information point, reading room, exhibition space, flamenco venue, giant

EXECUTION UNIT

Citizen who reviews, reinterprets and re-uses a city ordinance of the Seville General Urban Zoning Plan governing dumpster placement on public roads. He creates an Urban Public Ground Reserve, using the dumpsters as the physical base for installing temporary equipment that can be run autonomously by neighborhood residents without institutional control. In this way, citizens can practice their right to participate in the city's development. The project involves collecting dumpsters holding steel beams and sheets, painting them in striking colors, and labeling them appropriately, just as the ordinance demands. In place of rubble, the citizens fill the dumpsters with a variety of equipment of their choosing, such as: a wood floor used to build a Flamenco stage, steel benches and tables to form an area for reading and table games, various types of trees and plants for a garden, plasticized EPDM film with water and a trampoline for a swimming pool, and children's balance beams as part of a play area.

Subject > Citizen
Collaborators > Friends and neighbors and technics from the "Centro Andaluz de Teatro", especially Domi
Materials > Occupation license, steel beams and sheets, wooden boards, paint
Description > Skips with public furniture
Approximate surface area > 4 - 12 m2, depending on skip model

Taking the Street: SKIPS S.C.

who?

by: Santiago Cirugeda [Recetas Urbanas]
for / with: citizens of Seville, Spain

what?

a legally licensed dumpster turned into a park. illustrated instructions for how it was done and how to do it yourself provided on website.

where?

Seville, Spain

when?

June 1997

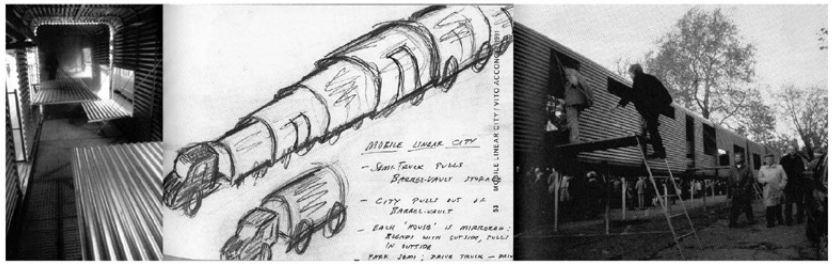
why?

many neighborhoods do not have enough open public space in their immediate vicinity. this intervention provides the opportunity for imagining a new public space.

how?

legal rental / license for installing a skip on the chosen site, creative decorating + filling of skip to fulfill the intended function [suggested uses include: children's playground, information point, reading room, exhibition space, flamenco venue, giant flowerpot, etc.]

size: 4 to 12 m², depending on skip model
cost: 35 euro for permit, 18 euro for minor works application form, additional cost depending on type of installation
tools needed: a pen, builders, materials
legal framework: legal
dissemination strategy: news coverage + website
open-source factor: +++++
diy factor: +++++



Mobile Linear City

who?

by: Vito Acconci
for: a performance, art, a statement

what?

a 'city' in storage.
six housing units telescoped together into a semi-trailer and hauled by a tractor. once parked, the 'city' can pull out. light enters through the steel grid floors such that spectators can walk underneath and see up through the floor.

where?

Gent, Belgium

when?

1991

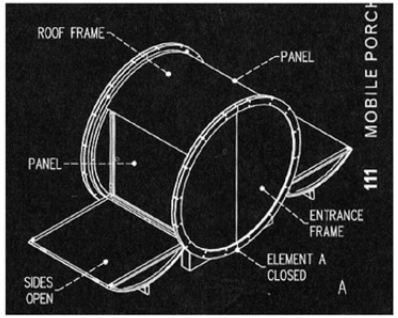
why?

"public space is 'space on the run', space that is slip ping away from life. here there is no place, and no need, for personal contact...like a snail [the body] car ries its own house everywhere to protect itself. it visits places but never remains there."

how?

unclear, but the project was built.

size: 54.1 ft long
cost: moderate
tools needed: corrugated steel, steel structure, furni ture, semi-trailer, tractor, lattice + chains
legal framework: legal [can escape]
dissemination strategy: S.M.A.K. [Stedelijk Museum Voor Actuele Kunst]
open-source factor:
diy factor:



Mobile Porch

who?

by: Böhm and Saffer [German artist + architect duo]
Andreas Lang [architect]
for: North Kensington Amenity Trust, London

what?

a mobile mini-architectural object.
an aluminum drum clad in triplex, sitting on two wheels. small + light enough for two people to move. wheels can be removed to make the floor surface larger. panels can be folded out in various configura tions.
"a 'place' that the public can use in many ways, ranging from a picnic site to a shop, and from an arts platform to a bar."

where?

under the Westway flyover; London, UK

when?

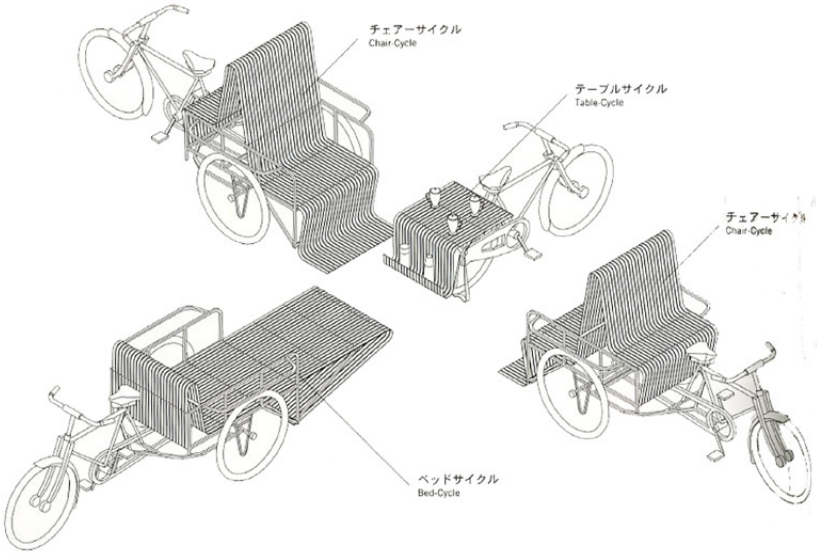
Nov - Dec 2000

why?

"a tool for lightheartedly exploring and activating pub lic open space. their findings can be a valuable source of information about day-to-day activity and for de veloping strategies for the future. in that sense it is every bit as much a planning tool."

how?

size: 2.3 m diameter drum, 2.1 m long
cost: low
tools needed: aluminum drum, triplex, wheels
legal framework: legal [mobile]
dissemination strategy: toured different cities
open-source factor: ++ [www.mobileporch.net]
diy factor: ++



Furnicycle

who?

by: Atelier Bow-Wow
for: Shanghai Biennale 2002, "Urban Creation"

what?

connecting furniture with bicycles to create a 'chair-cycle,' 'bed-cycle,' and 'table-cycle' which can come together to create spontaneous micro-public spaces.

where?

Shanghai, China

when?

2002

why?

taking advantage of the observed already-active cus tomized bicycle culture, as well as the fluidity of public space in this specific context.

how?

size: +/- 2 m long
cost: low
tools needed: iron furniture, bicycles
legal framework: legal [mobile]
dissemination strategy: performance + exhibition
open-source factor:
diy factor: +

Insertions Into Ideological Circuits: Coca-Cola Project

who?

by: Cildo Miereles
for: anyone who comes in contact with a coca-cola bottle

what?

oppositional messages [e.g. "yankees, go home!"] were transferred onto redeemable glass coca-cola bottles before they were refilled and recirculated. a later project stamped resistant slogans onto paper currency.

where?

Brazil

when?

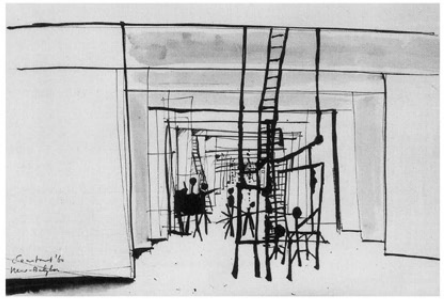
1970

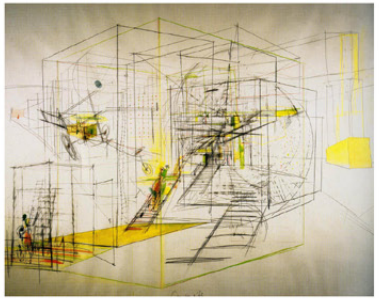
why?

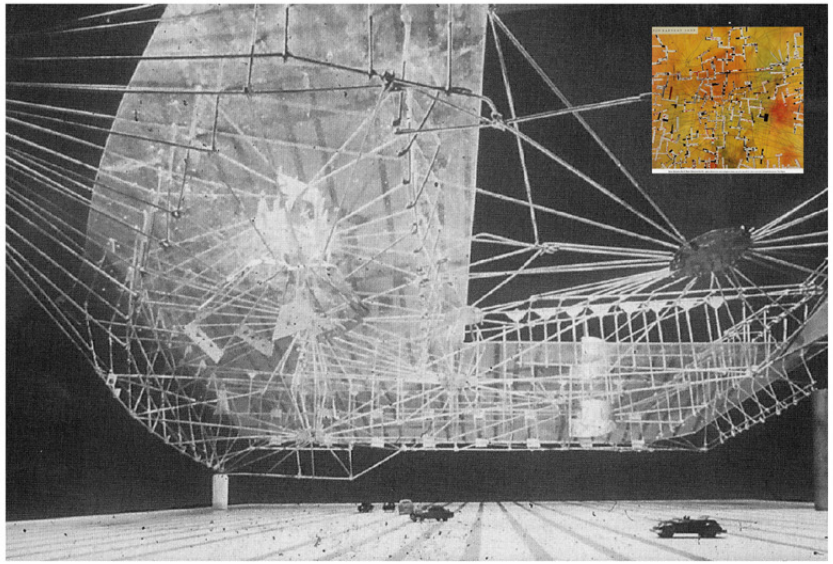
to make conscious the underlying circuits of global commodities and currency, and subvert the these systems during an era of strong censorship of government-controlled media.

how?

size: coca-cola bottle, paper bill
cost: very little
tools needed: white vitreous ink, stamp
legal framework: semi-legal / illegal
dissemination strategy: hidden action, later gallery exhibitions
open-source factor: +
diy factor: +++







New Babylon

who?

by: Constant Nieuwenhuis
for: society

what?

the utopian city of New Babylon.
a place where people can live "without hunger, with out exploitation, and also wihout labour." large sec tors structure the base of a raised city with completely flexible 'interior' architectural space. "a temporary, constantly remodeled living area; a camp for nomads on a planetary scale."

where?

theoretical

when?

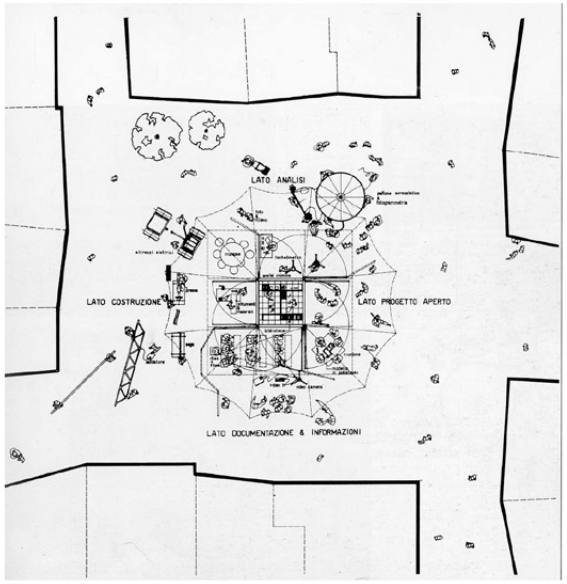
1949 - 1972 +?

why?

to break free of the static city and imagine a new way of living

how?

size: a city; sketches / models / texts
cost: low [proposal], high [if built]
tools needed: building materials, new society
legal framework: legal
dissemination strategy: exhibitions / publications
open-source factor:
diy factor: if realized, theoretically +++++



Neighborhood Workshop in Otranto: an experiment in urban reconstruction

who?

by: Renzo Piano + Associates
for: UNESCO [establishment division of human and socio-cultural environments]

what?

an experimental building workshop.
a cube-shaped container, covered by a cotton wrapper, arrives in the center of a neighborhood. this "multi-functional tool" is subdivided into four display sections [analysis and diagnosis, information and education, open design, work and construction] each corresponding to a phase of operations.

where?

Otranto, Italy

when?

1 week, 1979

why?

to reactivate the "intricate mechanism of craftsmanship" in ancient town centers where rehabilitation and reconstruction is needed.
"while walls are a given quantity, inside and outside of them it is possible to provide for a transformable space and the manner of using it. this is an educational task we have to undertake: inventing variables that can be controlled by the occupants."
"we want to reformulate architectural principles, from the process of design to the use of materials and instruments, seen in relation to the users; an architecture in use, seeking reality in the streets where there are no artificial screens to conceal the truth and you can learn what everyday needs really are."

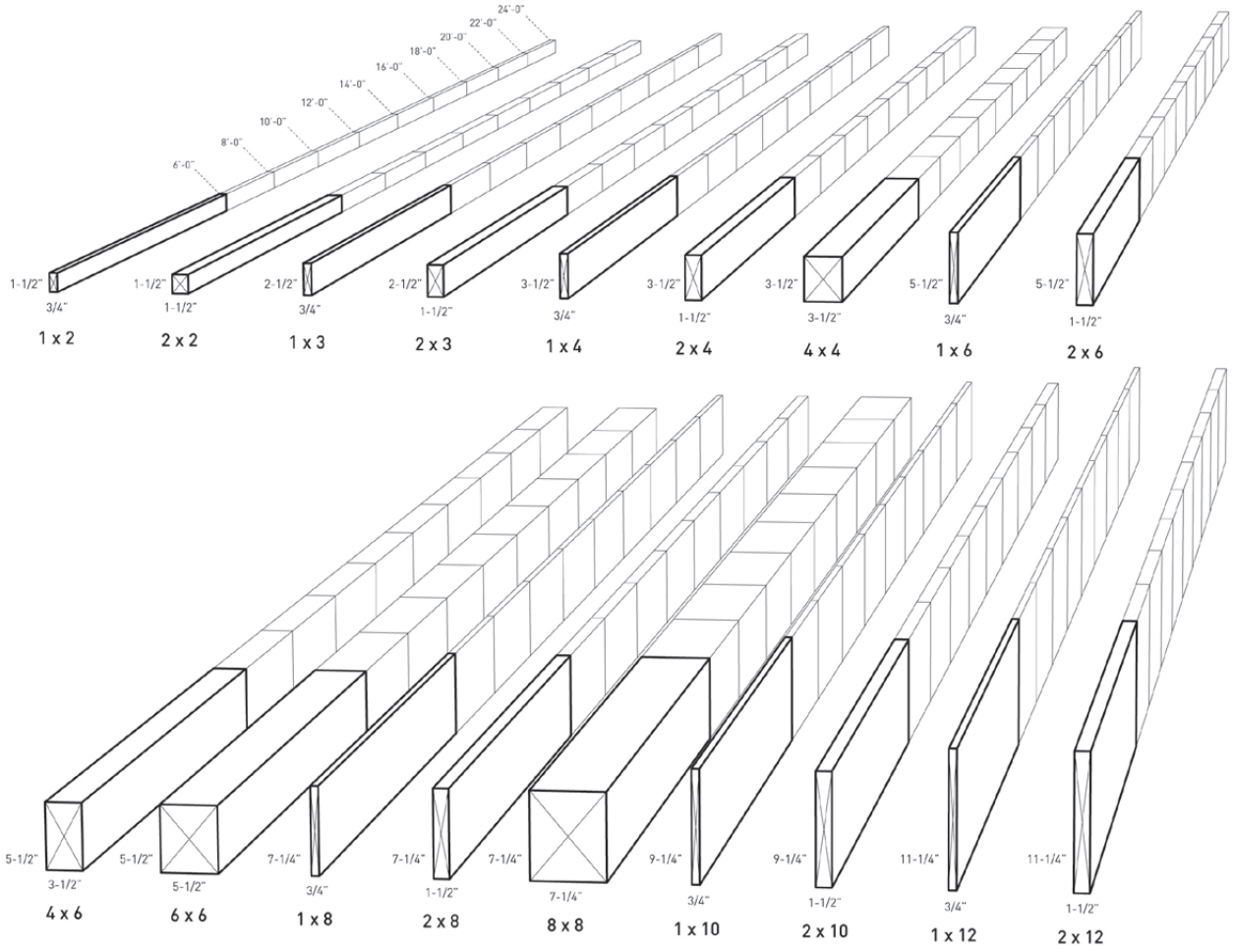
how?

size: approx. 3 m x 3 m cube [folded]
cost: moderate
tools needed: building materials, new society
legal framework: legal
dissemination strategy: exhibitions / publications
open-source factor:
diy factor: if realized, theoretically +++++

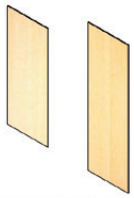
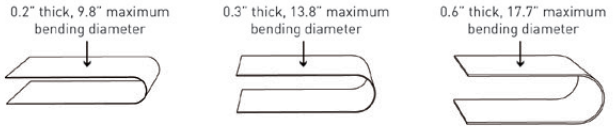
Catalog
of Standard Materials

In search of accessibility and encouraging the DIY factor of the design projects, a catalog of standard materials was begun in an effort to systematically document what types of materials are readily available to the average U.S. city dweller. This catalog did not go far enough to fully encompass all standard materials, but is a beginning. It is shared here freely in the hopes that others will add to it their knowledge and graphics.

DIMENSIONAL LUMBER



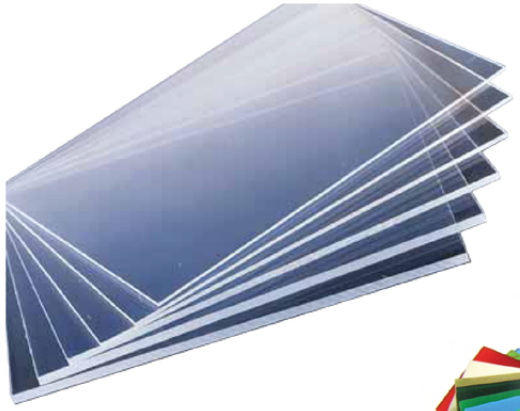
ENGINEERED WOOD

TYPE	USAGE	SIZE	THICKNESS
Construction Plywood	roofs walls subfloors	4' x 8', 4' x 10' 	1/4" 3/8" 7/16" 1/2" 5/8" 3/4" 1"
OSB	roofs walls subfloors	4' x 8' 	
Particleboard	underlay cabinets crafts	4' x 8' 	
MDF	cabinets crafts mouldings/trim shelving	49" X 97" 	
Bendy Ply	curved stair stringers marine construction furniture walls + ceilings landscaping	4' x 8' 	

PLASTICS

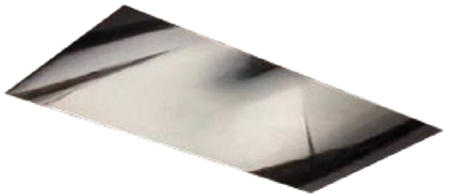
Clear Acrylic Sheet (Plexiglass)

	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"
24" x 48"	$33-$48	$64-$92	$85-$121	$145-$207	$190-$271	$369-$526		$688-$980	$726-$1034
24" x 96"	$66-$95	$129-$184	$170-$243	$291-$415	$381-$543	$739-$1053		$1376-$1960	$1452-$2069
48" x 48"	$66-$95	$129-$184	$170-$243	$291-$415	$381-$543	$739-$1053		$1376-$1960	$1452-$2069
48" x 72"	$100-$142	$194-$277	$256-$365	$437-$623	$571-$814	$1108-$1580		$2064-$2941	$2178-$3103
48" x 96"	$98-$167	$190-$324	$251-$427	$428-$728	$560-$952	$1086-$1848	$1612-$2742	$2022-$3440	$2134-$3630
48" x 120"	$122-$209	$238-$405	$313-$534				$2446-$4160		
60" x 96"			$313-$534	$535-$911					
72" x 96"	$147-$250	$285-$486	$376-$640	$642-$1093	$840-$1429		$2418-$4113		
72" x 120"	$266-$453				$1155-$1965				
100" x 125"	$521-$886								



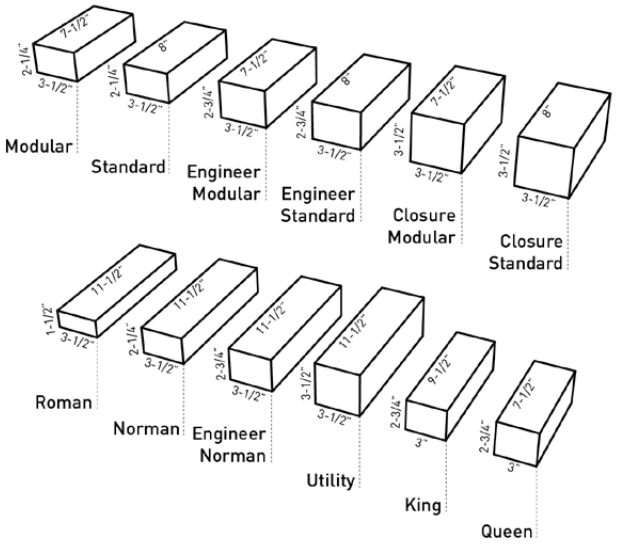
Two-Way Mirrored Acrylic

	1/8"	1/4"
12" x 12"	$19.50	$21.03
12" x 24"	$30.50	$37.98
13" x 24"	$35.00	$41.98
18" x 24"	$45.50	$49.98
24" x 24"	$58.00	$79.00
24" x 36"	$82.00	$145.00
24" x 48"	$114.00	$169.00
36" x 36"	$129.00	$219.00
36" x 48"	$149.00	$239.00
45" x 45"		$325.00



MASONRY

Brick



Glass Brick

4" x 8" x 3"
(16 per case)

6" x 8" x 3"
(12 per case)

8" x 8" x 3"
(10 per case)

8" x 8" x 4"
(8 per case)

12" x 12" x 4"
(3 per case)

4" x 8" x 3"
End Block
(6 per case)

8" x 8" x 4"
End Block
(4 per case)

8"
Tridron
(4 per case)

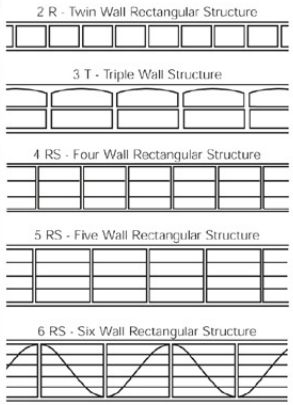
8"
Hedron
(4 per case)

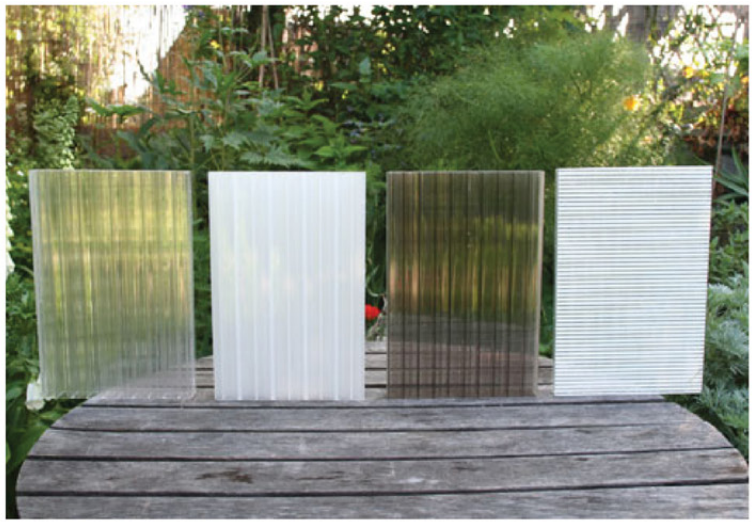
POLYCARBONATE

Lexan Multiwall Sheet

TYPE	SIZE	4′	6′	Wt.	COLOR
	3mm, 2 walls	Length to 39′	Length to 39′	.16 lbs/ft.	clear, opal, bronze, green, blue
	4mm, 2 walls	to 39′	to 39′	.16 lbs/ft.	clear, opal, bronze, green, blue
	4,5mm, 2 walls	to 39′	to 39′	.20 lbs/ft.	clear, opal, bronze, green, blue
	6mm, 2 walls	to 39′	to 39′	.27 lbs/ft.	clear, opal, bronze, green, blue
	8mm, 2 walls	to 39′	to 39′	.35 lbs/ft.	clear, opal, bronze, green, blue
	8mm, 3 walls	to 39′	to 39′	.35 lbs/ft.	clear, opal, bronze, green, blue
	10mm, 2 walls	to 39′	to 39′	.41 lbs/ft.	clear, opal, bronze, green, blue
	10mm, 3 walls	to 39′	to 39′	.41 lbs/ft.	clear, opal, bronze, green, blue
	16mm, 4 walls	to 39′	to 39′	.55 lbs/ft.	clear, opal, bronze, green, blue
	20mm, 5 walls	to 39′		.61 lbs/ft.	clear, opal, bronze, green, blue
	25mm, 5 walls	to 39′		.65 lbs/ft.	clear, opal, bronze, green, blue
	30mm, 6 walls	to 39′		.71 lbs/ft.	clear, opal, bronze, green, blue
	32mm, 6 walls	to 39′		.73 lbs/ft.	clear, opal, bronze, green, blue
	35mm, 6 walls	to 39′		.78 lbs/ft.	clear, opal, bronze, green, blue

LEXAN Multiwall Sheet Structures:





STORAGE:
Sheets must be padded and packaged in good condition during storage and transportation. Protect sheets from direct sunlight and shelter from rain and snow.

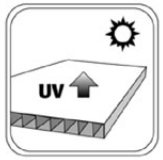
CLEANING:
Wash sheets with a solution of mild soap or household detergent, and lukewarm water, using a soft cloth or sponge to loosen any grime and dirt. Sheets must not come in contact with alkalines, alkali salts, amines, ketones, aldehydes, esters, ethers, chlorinated hydrocarbons, aromatic hydrocarbons, methanol and isopropanal, etc.

REMOVING FILM:
Remove approximately 2 inches of film from all sheet edges before installing. Remove all film immediately after the construction is completed.

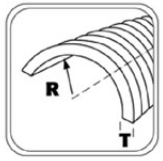
DRILLING:
Use only new or sharply ground steel or carbide tipped drills. All holes must be drilled more than 1-1/2" from the edge of the sheet. The diameter of drilled holes must be 50% larger than the screws diameter to allow for thermal expansion, providing enough space to allow for seasonal temperature fluctuation.

CUTTING:
Masking films should remain on the sheet to prevent scratching. Utility knives can cut thinner gauges. Sheets should be clamped for hand saw cutting to prevent vibration. Sheets can be cut with a circular saw using carbide triple-chip fine tooth panel blades. Remove dust from the surface with compressed air or a vacuum, & seal again with anti-dust tape.

THIS SIDE UP:
The UV-protected side of the sheet is covered with printed film and must face towards the sun.



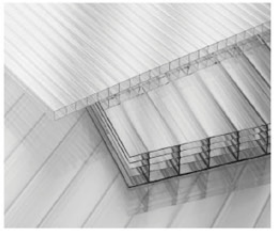
BENDING:
When cold bending Coverlite™ structured polycarbonate sheet, place the ribs following the desired arch. (Do not place the ribs parallel to the center of the arch, shown dashed line.) The radius of the curve must be more than 175 times the sheet thickness. Do not walk on Coverlite™ sheet at any time.



SILICON SEALANTS:
Sealants and gaskets must be compatible to polycarbonate.

END CLOSURE:
Coverlite™ Structured polycarbonate sheets must always be installed with ribs positioned vertically.
Seal ends with perforated aluminum tape and/or a perforated U profile.

GUARANTEE:
Coverlite™ Structured polycarbonate sheet is guaranteed for 10 years as outlined in the warranty. You are advised to Check with your local Coverlite™ representative to ensure that you have obtained the most up-to-date information.



Figures and Illustrations

Unless otherwise noted, all figures and illustrations are by the author, Haruka Horiuchi.

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Interlude. Open-Source City: Towards a Pragmatist's Utopia

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Bibliography
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The footnotes scattered throughout this book are the actual citations for the quotes used in situ, but the cited works are repeated here in a combined form. Also included are a collection of the works consulted which may not have been directly quoted or repeated, but nevertheless have had an impact on the thinking, designing and writing of this thesis. It is included here in the hopes that others may find it a useful reading list.

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Thank you for reading!

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