

Urban Temporal Storage

Re-thinking the Public Domain Using Interstitial Space in NYC

by Mio Uchida
Bachelor of Politics
Keio University, 2002

Submitted to the Department of Architecture in Partial Fulfillment of the Requirements for the Degree of Master of Architecture at the Massachusetts Institute of Technology

February 2010

©2010 Mio Uchida. All rights reserved.

The author hereby grants to MIT permission to reproduce and to distribute publicly paper and electronic copies of this thesis document in whole or in part in any medium now known or hereafter created.

Signature of Author: _____
Department of Architecture
January 15, 2010

Certified by: _____
Rahul Mehrotra
Professor of Architecture
Thesis Supervisor

Accepted by: _____
Julian Beinart
Professor of Architectural Design
Chair, Department Committee on Graduate Students

Thesis Supervisor:

Rahul Mehrotra, MAUD
Professor of Architecture

Thesis Reader:

Nasser Rabbat, BArch, MArch, PhD
Aga Khan Professor of the History of Architecture
Director, Aga Khan Program

Ute Meta Bauer, Dipl. of Visual Communication
Associate Professor of Visual Arts
Director, Visual Arts Program

Gediminas Urbonas, MFA
Associate Professor of Visual Arts

Urban Temporal Storage

Re-thinking the Public Domain Using Interstitial Space in NYC

by Mio Uchida

Submitted to the Department of Architecture on January 15, 2010 in Partial Fulfillment of the Requirements for the Degree of Master of Architecture.

Abstract :

This thesis aims to rethink the notion of public space and civic duty in the city. By using interstitial, under-used spaces, without disputing present urban and legal status, the thesis wants to accommodate services for the people who might otherwise be ignored in the city, while using the potential of the site itself to offset the cost of these services.

Looking at a site in New York City, between Pennsylvania Station and the Hudson River, the thesis introduces diverse and temporary programs in a sequence of interstitial spaces as a tool to integrate the homeless issue in the dynamic of the city.

The aim is to encourage public intervention that softens the threshold between disparate urban classes, while fulfilling several civic functions, the most important of which is to explore new, safe, and dignified designs for homeless shelters.

In the process, the thesis attempts to recognize the specificity of individual dealing with time and space, which are becoming more and more homogenized in the capitalist society.

Thesis Supervisor: Rahul Mehrotra
Title: Professor of Architecture

Thank You.

Rahul Mehrotra, for believing in us, understanding what I am trying to pursue even when I am not conscious about, and always pushing me forward with your great insight, positiveness and sincerity.

Nasser Rabbat, for your enthusiasm, helping me develop the core argument of the thesis from the very beginning, and constantly questioning if my design approach is being honest with my idea.

Ute Meta Bauer, for your positiveness and passion, great time in Berlin, and always giving me the inspiration to get out of the existing frame.

Gediminas Urbonas, for always encouraging me, spending hours to discuss the project, and giving me the capacity to think in a broader perspective.

Krzysztof Wodiczko, for giving me the opportunity to develop the seeds of this thesis.

Charlie Hagen-Cazes and Salome Francpourmoi, for being such a wonderful teammate, and supporting my mental sanity as well as my thesis.

Cynthia Sze Ngai Ting, Fajjar Tang, Najiyah Edun, Yushiro Okamoto, and Zhe Huang for helping me during the crazy time of thesis, and always being great company.

Norihiko Tsuneishi, for being a great listener and advisor from the very beginning of the project.

Shun Kanda, for being my mentor for the whole MIT life.

Yasuharu Sato and Kaoru Komi for giving me the great time during many NY stays.

My family, for always being there, caring me, and being supportive of my decisions.

My classmates, for supporting me for the whole three and a half years, having teas, listening and caring during the hardest times. Would have never survived without you!

"It is not a question of localizing in pre-existing space a need or a function, but on the contrary, of spatializing a social activity, linked to the whole by producing appropriate space."

Henri Lefebvre: Writing on Cities



Urban Temporal Storage

Re-thinking the Public Domain Using Interstitial Space in NYC

Table of Contents

Context

Notion of "Public" and "Private"	10
Site Analysis	12
Homelessness	20
Current Development Plans for the Hudson Yards	24

Project

Site Plan	30
Collapsing Time and Space	32
Program Locations and Potential Users	34
Cross Subsidy (social / economical)	35
Precedent Analysis: "the Bridge", Dallas, Texas	36
Initial Study for Spatial Relationship of Programs	40

Design

Site B Retrofitting the Abandoned Building under the High Line	44
Spatialization of Cross Subsidy (site B)	46
Interactive Walls	52
Site A Filling the Void	56
Spatialization of Cross Subsidy (site A)	58
Idea for Storage Walls	62
Drawings	64

Bibliography

86

Notion of “Public” and “Private”

The notion of “public” has transformed over time with the change of political and social structure. This thesis attempts to rethink the notion of “public” in the contemporary city, and determine the potentiality of interstitial space for expanding it. In this section, I will borrow the argument by Jeff Weintraub in order to point out some relevant aspects of modern notions of “public” and “private”.

In *The Public/Private Distinction*, Jeff Weintraub argues that there are a variety of ways to understand the distinction between the two, depending on what realm of human activity, life and space that is being discussed.¹ Here I will refer to two frameworks that Weintraub introduced, in order to map some of the relevant ideas. The first looks at “private” and “public” in relation to politics, and the other is in relation to sociability.

Regarding the first framework, its historical origin can be traced to the concepts of Ancient Greece and the Roman Empire.² While “Res publica” (“republic” or “public thing”) of Ancient Greece influenced our notion of “citizenship” in which individuals partake in the process of collective decision, the “sovereignty” of Roman Empire brought the idea of centralized “public” power that governs the society on behalf of individuals.³ Although these were less perceived during the Middle Ages, when personal relationships in the feudal system played a major role,⁴ they were reemphasized through the evolution of modernity.⁵

1. Jeff Weintraub and Krishan Kumar ed., *Public and Private in Thought and Practice* (Chicago, London: University of Chicago, 1997), 6-7.

2. *Ibid.*, 11.

3. *Ibid.*, 11.

4. *Ibid.*, 13.

5. *Ibid.*, 14.

Weintraub describes “modern civil society” that generated liberalism as one of the triggers to rediscover the idea of sovereignty.⁶ Since this social realm of “self-interested individuals” focusing on the market has a tendency to reduce itself to rational actions, the notion of sovereignty is reintroduced by the administrative state to play a complementary role.⁷ In this sense, the “public” / “private” distinction could be traced to the dichotomy of administrative state and the market-driven civil society.⁸

A different perspective reemphasizes the notion of citizenship, in which the public is not limited to the administrative state. In *The Structural Transformation of the Public Sphere*, Jurgen Habermas argues that the modern society aims to secure the “sphere of private autonomy” while limiting the public authority to several functions.⁹ At the same time, the public body is understood as the assemblage of “private individuals,” who “as citizens” convey “the needs of bourgeois society to the state” through the public sphere.¹⁰ In this case, the public is understood as a realm for active participation and “conscious collective decision making”¹¹ by different individuals. A similar perspective could be seen in Hannah Arendt’s notion of the “public realm”¹² as well. While these ideas are still influential on today’s notion of “public,” some argue that they also carry a risk of legitimating certain exclusions in order to defend the “public” for the majority.¹³ As Rosalyn Deutsche points out in “Uneven Development: Public Art in New York City,” when the “public” is understood as a sphere that pursues “unity” or “collective decision,” people who do not necessarily fit into this unifying process might be

6. *Ibid.*, 13.

7. *Ibid.*, 13.

8. *Ibid.*, 14.

9. Habermas, Jurgen, “The Public Sphere: An Encyclopedia Article (1964)”, 52-53, JSTOR.

10. *Ibid.*, 52-53.

11. Weintraub, *Public and Private in Thought and Practice*, 13.

12. *Ibid.*, 14.

13. Rosalyn Deutsche, “Uneven Development: Public Art in New York City”, 11, JSTOR.

ignored in order to meet “the need to harmonize the ‘natural’ differences and diverse interests characteristic of any society.”¹⁴

In the second framework, Weintraub introduces the idea of public in relation to sociability. Philippe Ariès describes the public realm before modernity as that of sociability, where “intense privatization of family and intimate relations” and “sharp separation from an impersonal ‘public’ realm” had not occurred.¹⁵ From this perspective, the public of the modern era could be understood as the opposite of intimate personal life and domesticity. In *The Fall of Public Man*, Richard Sennett points out that the family as a fundamental unit of private realm became a “refuge from the terrors of society,” and as a result public life was perceived not as a part of social relations but as “morally inferior” to the private realm.¹⁶ Sennett further explains this as the creation of “dead public space,”¹⁷ which as a consequence leads the public to be exclusive and dysfunctional.¹⁸

Urban theorists such as Jane Jacobs and William H. Whyte emphasized the importance of spatial organization of street, park, and plaza in order to restore sociability to the public realm.¹⁹ In her celebrated *The Death and Life of Great American Cities*, Jacobs writes:

“The tolerance, the room for great differences among neighbors -differences that often go far deeper than differences in color- which are possible and normal in intensely urban life, but which are so foreign to suburbs and pseudosuburbs, are possible and normal only when streets of great cities have built-in equipment allowing strangers to dwell in peace toge-

ther on civilized but essentially dignified and reserved terms. Lowly, unpurposeful and random as they may appear, sidewalk contacts are the small change from which a city’s wealth of public life may grow.”²⁰

Sociability in public space is thus considered as an important element for mediating between intimate personal life and impersonal outer society.²¹

14. Ibid., 11.

15. Weintraub, *Public and Private in Thought and Practice*, 18.

16. Richard Sennett, *The Fall of Public Man* (New York, London: W.W. Norton & Company), 20.

17. Ibid., 12.

18. Ibid., 12.

19. Weintraub, *Public and Private in Thought and Practice*, 23.

20. Ibid., 17.

21. Ibid., 22.

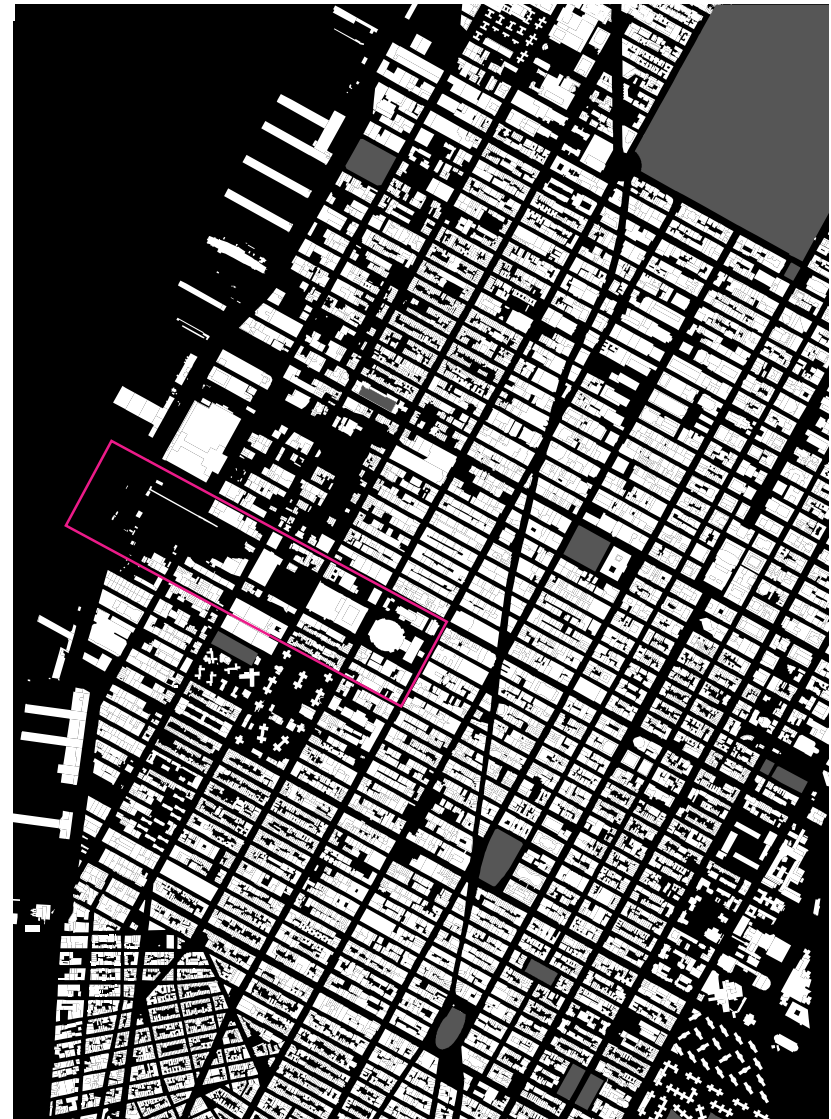
Site Analysis

As previously mentioned, the implications of “public” and “private” changes with time and context. In the context of contemporary city, where a continuous flow and migration of people generates a diversity of population and lifestyles, the issues regarding “public,” such as the clear distinction of impersonal public and intimate private described by Ariès, or the exclusive aspect of collective action pointed out by Deutsche, may become more relevant. From this standpoint, the thesis looks into specific area in New York City, in order to seek the possibility of challenging these limited notions of public.

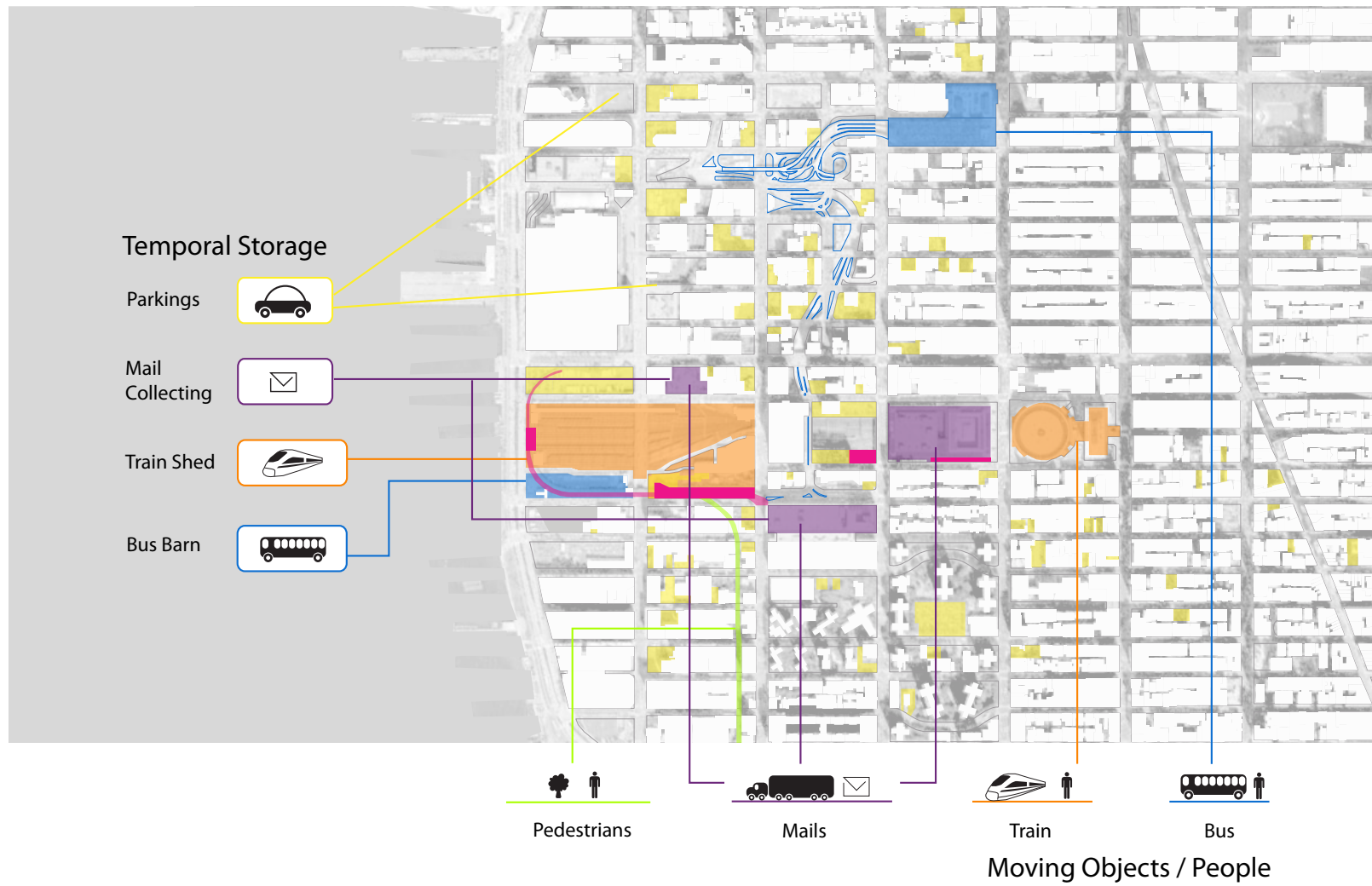
The site is located between Pennsylvania Station and the Hudson River, the area known as Hudson Yards, connecting sequence of underused spaces. This site is a locus of various transportation systems; trains, buses, cars, as well as pedestrian flow from both Pennsylvania Station and the Highline extending from south Manhattan. It is less dense compared to the surrounding areas which are occupied by groups of tall buildings, while the scale of the individual buildings is much larger but lower in height, since many of the buildings are for industrial or transportation use.



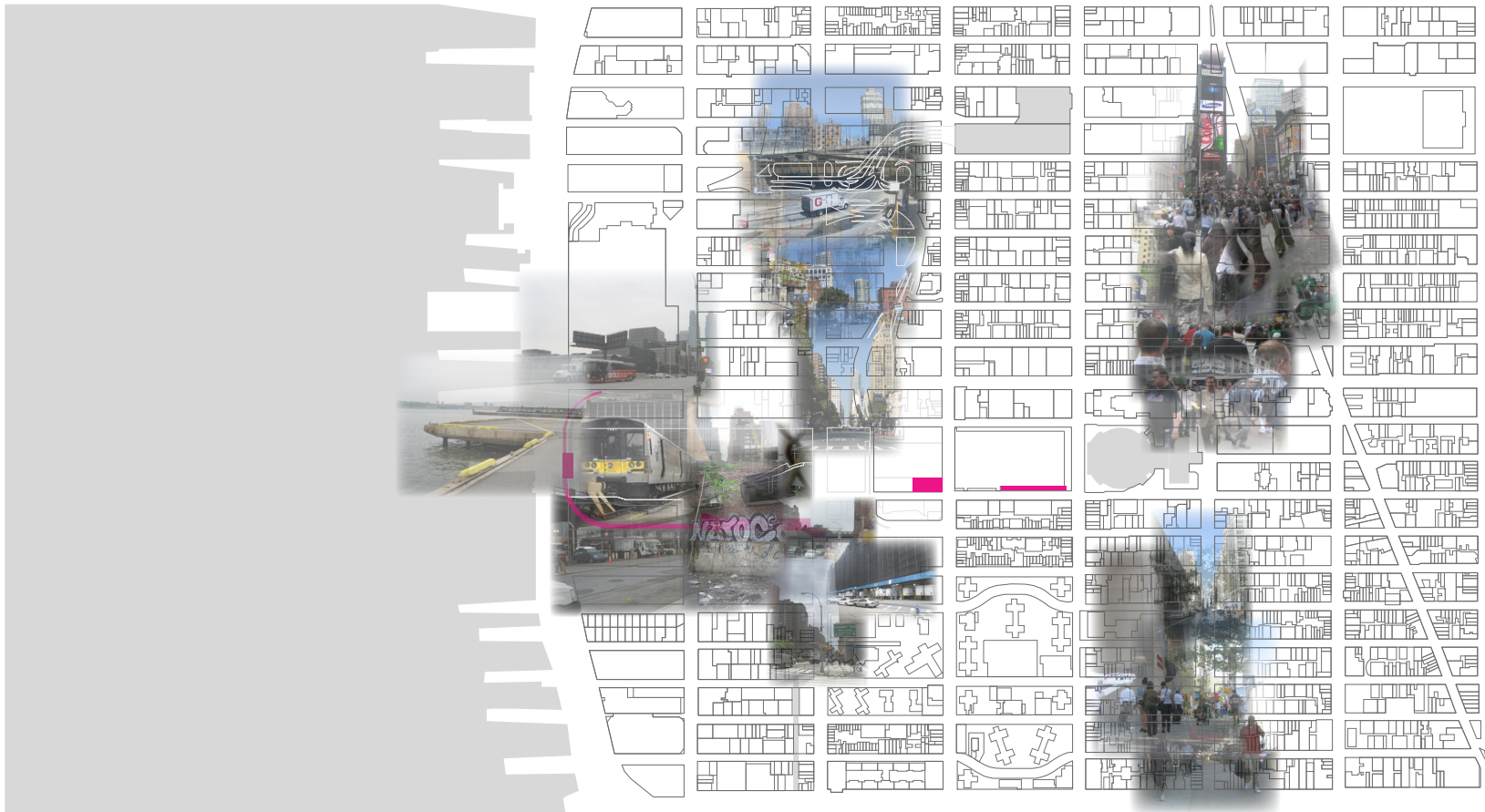
Pink areas in the map above are the underused, interstitial spaces for design intervention.



The site exists in mid-Manhattan, Clinton area, also known as Hudson Yards.

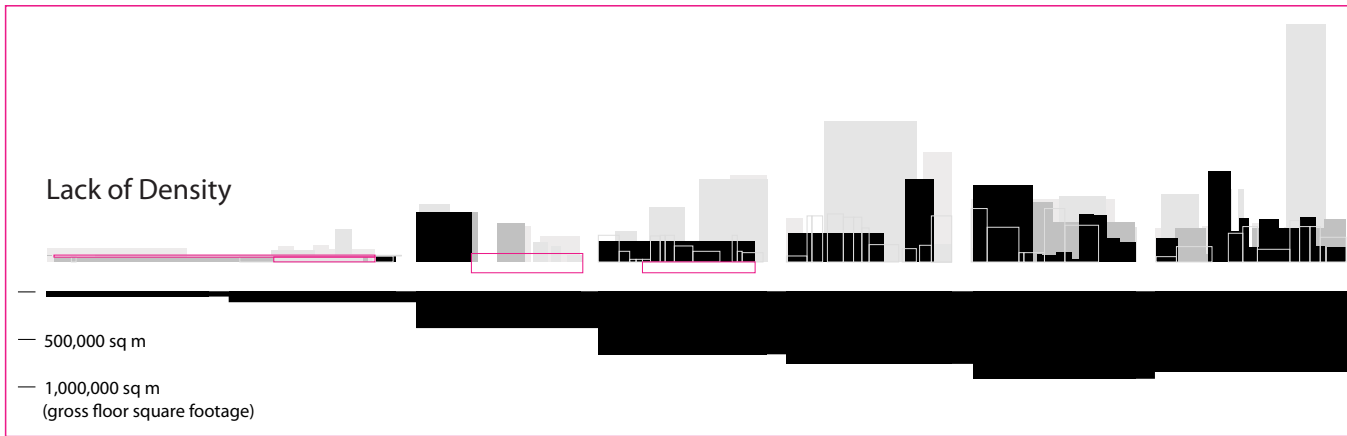


The site is a locus of various transportation movements and pedestrian flows from both Pennsylvania Station and the Highline which is planned to be completed in 2010. It is also surrounded by temporal storage of these moving objects and people, such as parkings and train shed.



Changing Atmosphere of the Neighborhood

The density / speed of people and the atmosphere of the surrounding area changes along each directions.



The diagram above shows the building density around the site. Both the building height and the gross floor square footage increases as we go further away from the site.

In this section, I will analyze the current condition of this site from three different points of view, public policy, physical condition, and ideological understanding, in order to determine the potentiality of interstitial space as a locus of movement within the city for expanding the notion of public.

The first is from the history of public policy, especially the influence of Robert Moses's works and the responses by his opponents. Robert Moses was one of the most influential figure in creating the current physical condition of New York, realizing numerous projects from 1934 until his resignation from public positions in 1969.¹ He gained heroic reputation during the 1930's and 40's, when he was appointed as commissioner of the Department of Parks and realized more than 350 federally funded projects from playgrounds, swimming pools, and bathhouses to beach pavilions.² His achievements received accolades

such as "leisure for everyone"³ and "the opportunity for every man to live,"⁴ and became ideal models that utilized public funds for facilities of everyday life.⁵

This changed since the 1950's, when his interstate highways and urban renewal projects started to cause demolition and social displacement in the city.⁶ They brought about strong objections not only from the residents but also from urban theorists such as Lewis Mumford, William H. Whyte, and Jane Jacobs.⁷ Jacobs's criticism that the city should be planned "by and for the neighborhoods" as opposed to Moses's "by and for traffic" shows the incompatible vision of the two.⁸ Moses certainly put emphasis on "public" from the viewpoint of grand urban policy, in Weintraub's words, from the viewpoint of state administra-

3. Ibid., 73.

4. Ibid., 73.

5. Ibid., 83.

6. Ibid., 65.

7. Ibid., 124.

8. Ibid., 125.

1. Hilary Ballon and Kenneth T. Jackson ed., Robert Moses and the Modern City (New York, London: W.W. Norton & Company, 2007), 65.

2. Ibid., 73.



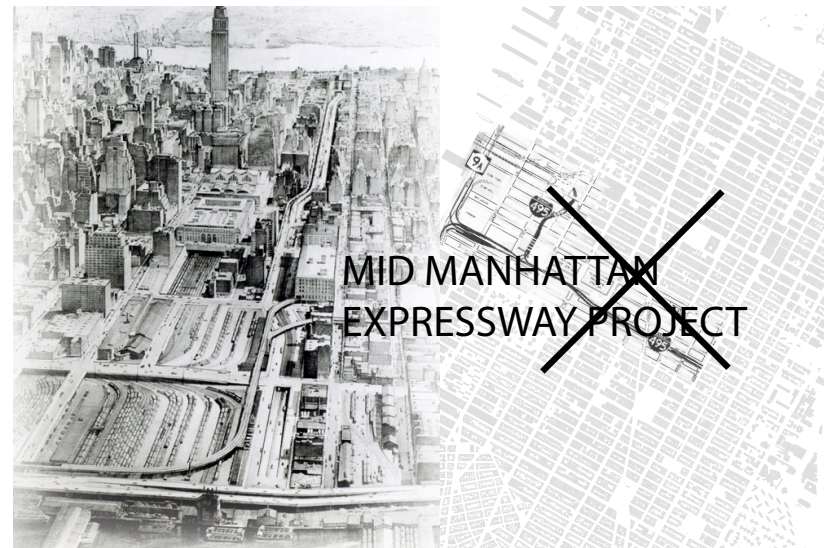
by and for traffics

by and for the neighborhood



tive, but not in terms of public in regard to sociability. Influenced by the modernist's urban propositions in the 1920's and 30's, such as Le Corbusier's Plan Voison for Paris, Moses was obsessed with automobile transportation.⁹ Although his emphasis on regional scale over human scale or local interests¹⁰ was the driving force for his grand achievements, it also revealed his limits. His opponents insisted on a "balanced system of transportation,"¹¹ arguing that only a pedestrian-oriented city could generate sociability and diversity.¹² They succeeded in defeating several of Moses's long planned projects, such as the tower housing project in Washington Square Park, Lower Manhattan Expressway and Mid-Manhattan Expressway.

The site is located in one part of the area where Moses's unrealized Mid-Manhattan Expressway was originally planned. It contains the history of getting away from Moses's grand urban scheme, but at the same time, because of the industrial nature of the area, it does not have the intimacy that his opponents advocated through neighborhood-oriented plans. Neighborhood social interaction acclaimed by Jacobs has proved its potential in certain areas of this scale, but as Jeff Weintraub points out in *The Public/Private Distinction*, there is also a difficulty when it comes to connecting to a broader scale, to the city lev-



Planned view of the Mid-Manhattan Expressway Project
(left image from *Robert Moses and the Modern City*)

el.¹³ Given the nature of the site, which is surrounded by various transportation hubs as well as generating mass pedestrian flow, it seems to possess the potentiality for pursuing the diversity and sociability that Jacobs insisted was possible within the neighborhood, without losing

13. Weintraub, *Public and Private in Thought and Practice*, 24.

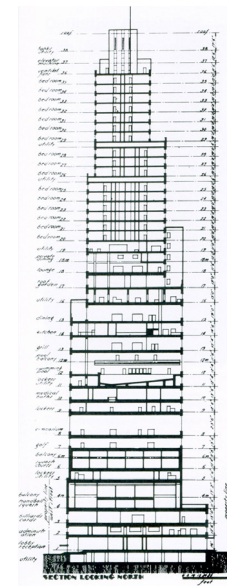
9. Ibid., 124.
10. Ibid., 70.
11. Ibid., 127.
12. Ibid., 129.

the regional vision that Moses had. In other words, it seems to be possible to broaden the scope of diversity to the regional scale, without falling into the traps of mega structure.

The weakening of Moses's modernist approach could also be seen from another viewpoint. In his legendary work *Delirious New York: A Retroactive Manifesto for Manhattan*, Rem Koolhaas describes New York as the product of an unformulated theory, Manhattanism, which emerged as a mutation from its physical nature as an island.¹⁴ According to Koolhaas, New York found its own way of surviving its congestion culture by creating a grid of 2028 blocks and extending vertically within these blocks.¹⁵ Ignoring the existing topography, the grid creates a neutrality that conquers nature and diminishes any system for differentiation.¹⁶ Each block is the largest unit for value, and skyscrapers become self-sufficient entities that overcome the limit of congestion.¹⁷ As one of the greatest inventions of the city, the elevator not only enables the vertical movement within this skyscraper but also permits each floor to create its independent universe.¹⁸ As previously mentioned, Philip Aries and Richard Sennett described how public became the opposite of intimate personal life and, as a consequence, perceived as an impersonal or "morally inferior" realm of the society.¹⁹ Koolhaas illustrates this private/public distinction from a different perspective, architectural "lobotomy," which is a division that happens between the interior and exterior of the skyscraper.²⁰ The monumental exterior facade that the building presents to its surrounding urban structures is completely separated from the fluid everyday life of the inside,²¹ and as a consequence the interior becomes hyper-dense private space that is

"The city is Permanent; there is no reason that the buildings should ever be replaced. The eerie calm of their exteriors is ensured through the Great Lobotomy. But inside, where the Vertical Schism accommodates all possible change, life is in a continuous state of frenzy. Manhattan is now quiet metropolitan plain marked by the self contained universes of the Mountains, the concept of the Real definitively left behind, superseded."

- Rem Koolhaas



protected from the outside reality.²² Congestion culture was the indispensable condition for this illusionary Manhattanism to exist, and even the master of modernism, Le Corbusier, could not find his way when he attempted to remove this congestion through his master plan.²³

Koolhaas's viewpoint helps to illuminate a different aspect of the site between Pennsylvania Station and the Hudson River, especially the lack of density compared to the surrounding area. In this sense, the area could be understood as having been left out of the mutant growth of Manhattanism. At the same time, it has the potentiality for responding to the congestion culture of New York City using a different method from the existing vertical extrusion within each block, and as a consequence blurring the boundary of the exterior and interior. And this

14. Rem Koolhaas, *Delirious New York*, trans. Keisuke Suzuki (Tokyo: Chikuma Press, 1999), 10.

15. *Ibid.*, 26.

16. *Ibid.*, 29.

17. *Ibid.*, 298-299.

18. *Ibid.*, 39.

19. Sennett, *The Fall of Public Man*, 20.

20. Koolhaas, trans. Suzuki, *Delirious New York*, 168.

21. *Ibid.*, 168.

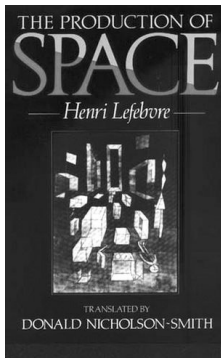
22. *Ibid.*, 176.

23. *Ibid.*, 466.

distinctive potential may also give the opportunity for questioning the clear private/public distinction.

The third viewpoint for analyzing the site is that of Henri Lefebvre introduced in *the Production of Space*, especially his notion of “abstract space” and “differential space.” Based on the idea that space is a “social (re)production,” Lefebvre suggests that each era produces its own way of comprehending and experiencing space, and thus architecture is constantly reproduced.²⁴ According to Lefebvre, capitalism produces spaces that redefine social relations.²⁵ “It is not only supported by social relations, but it also is producing and produced by social relations.”²⁶ Lefebvre calls the space of capitalism “abstract space,” which spreads out homogeneously, but could also be divided into exchangeable fragments, to be purchased and sold as commodities.²⁷

Since abstract space is hierarchical and generalized according to an abstract yardstick, it could be a space of domination that homogenizes different subjects and purposes of space.²⁸ However, contradiction appears when this homogenization happens in cities, where multitudes of differences come together.²⁹ When abstract space unifies the diversity by wielding centralized power within the everyday life of the city, resistance appears as “appropriation” of space for diverse individual objectives.³⁰ Lefebvre describes this process of appropriation as “the right to the city,” and introduces the idea of “differential space”: space that is reproduced to be freed from subordina-



24. Lain Borden, Joe Kerr, Jane Rendell, and Alicia Pivaro ed., *The Unknown City* (Cambridge: MIT Press, 2002), 7.

25. Deutsche, “Uneven Development,” 27.

26. *Ibid.*, 27.

27. *Ibid.*, 27.

28. *Ibid.*, 28.

29. *Ibid.*, 28.

30. *Ibid.*, 28.

tion and restored with diversity and specificity.³¹ This idea could also be seen as one of the possibilities for responding to the exclusive aspect of the collective action within the public sphere which Deutsche pointed out. Furthermore, Lefebvre emphasizes the importance of “spatial practice,” the actions people take and the physicality of life they generate, for interrupting abstract space.³²

Looking from Lefebvre’s perspective, abstract space appears in various forms in New York City. Moses’s urban renewal projects that were criticized for displacing residents and its non-human scale, or the monumental skyscrapers standing within neutral grids, creating their own universe inside, could also be seen as producing abstract spaces. As M.Christine Boyer points out in “The Double Erasure of Times Square,” the continuous illusionary signs that distract us from reality in Times Square also generate abstract space.³³ If we interpret New York City as a congregation of abstract spaces, the site between Pennsylvania Station and Hudson River is an interstitial space within these abstract spaces, which has a potential for disrupting them, or, in Lefebvre’s words, being reproduced as differential space through enabling appropriation for diverse individuals.

Looking from the previous three perspectives, the site’s character as being interstitial, when combined with being less dense or commercialized, and being a node of various movements, suggests the possibility to propose a new approach towards the public through design intervention: design that could respond to the dense diversity of the city without either creating an exclusive sphere or broadening the scope beyond human scale. In order to realize this possibility, and learning from Lefebvre’s understanding that architecture is “part of the flow of space and time,” intermingled with the everyday life of different social beings,³⁴ I consider that temporality and adaptability to diverse users

31. *Ibid.*, 28.

32. Borden, Kerr, Rendell, and Pivaro ed., *The Unknown City*, 17.

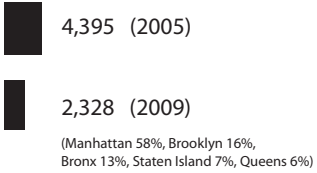
33. *Ibid.*, 37.

34. *Ibid.*, 11.

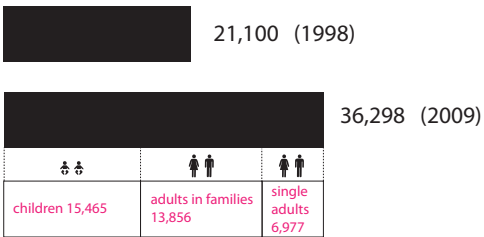
of the program would be crucial. By introducing temporality and diversity into its programs, the design intervention for this interstitial space may be able to let diverse individuals have their temporal spaces, in which they can fulfill their own needs while they engage in movement through the city in their everyday life. By allowing diverse people to come into contact or at least be aware of each other's existence, the interstitial space may be able to suggest a new, broader understanding of "public" in the contemporary city.

Total Population in NYC 8,363,710

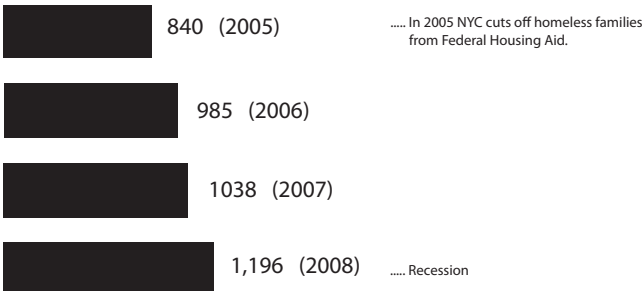
Number of People Living on Streets in NYC



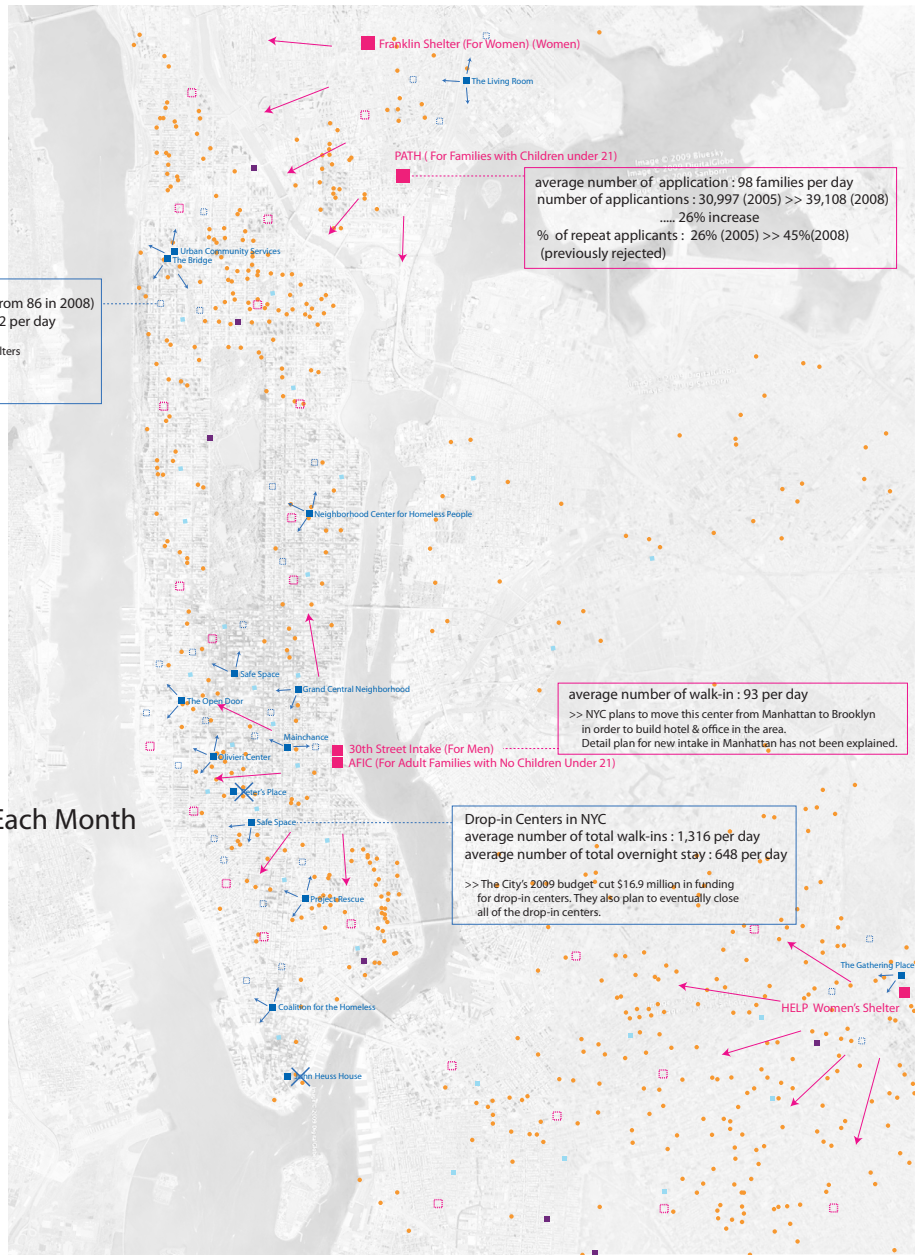
Number of People Using Temporal Shelters in NYC



Average Number of New Families Entering NYC Shelter Systems Each Month



Homeless Population in NYC



Homelessness

One of the significant issues that have been overlooked through the development of the city is homelessness, which is a common trend throughout the country. In NYC, while the number of people living on the streets has decreased by 52 % since 2005 (assumed to be 2,328 in 2009), that of people using temporal shelters has increased more than 170%, up to 36,298,¹ which indicates that this issue of homelessness is continuing to expand while it is becoming more and more invisible.

Furthermore, among the people using homeless shelters, almost half of them are children, and about a third are adults with children, many of which are single mothers.² While the number of single adults in shelters has decreased in the past five years, the number of families reached the highest, due to the change of federal housing aid policy and the current economic crisis.³

In this June, 2009, under Mayor Bloomberg, the state has determined a new rule to reduce funding for nonprofit agencies that operates shelters in order to have families move out more quickly. With this new rule, which will start from next January, each family, after six month of stay, will be payed by the city less than the standard rate.⁴ Although this is intended to encourage families overcome homelessness faster, with the current economic situation, it also has a high risk of leaving many of them without any place to go. And the most likely will be children with single mothers who have most difficulties finding jobs. This reduction of support also decrease the number of staffs for the shelters, which would cause insufficient cares and services as well.

1. NYC Department of Homeless Services <http://www.nyc.gov/html/dhs/html/home/home.shtml>

2. Ibid.

3. Coalition for the Homeless <http://www.coalitionforthehomeless.org>

4. NY times http://www.nytimes.com/2009/06/24/nyregion/24homeless.html?_r=1

INTAKE CENTER :

“front door” for municipal shelter system. city-contracted person determines if the applicant is eligible for shelters. the center itself serves as one of the shelters as well.



MUNICIPAL SHELTER SYSTEM



DROP-IN CENTER :

provide social services (some provide beds as well) and offers limited access to faith-based shelters.



FAITH-BASED SHELTER :

overnight shelters set up in churches that offers beds and meal.



SAFE HAVEN :

low-threshold shelters for people chronically (=more than 1 year) living on streets.



OUTREACH TEAM :

city-contracted individuals that help to connect chronically homeless people to shelters and drop-in centers.



SOUP KITCHEN and FOOD PANTRIES

Access to Shelters in NYC

This thesis wants to respond to this current situation of the homeless by incorporating diverse and temporal civic programs with homeless shelter programs in order to cross subsidize each other and overcome the economical disadvantage of homeless shelters. The idea of cross subsidy will be further explained in the later section.

Datas Consulted

NYC Department of Homeless Services

<http://www.nyc.gov/html/dhs/html/home/home.shtml>

Coalition for the Homeless <http://www.coalitionforthehomeless.org/>

Urban Pathways <http://www.urbanpathways.org/index.asp>

NYC Coalition against Hunger <http://www.nyccah.org/>

Covenant House <http://www.covenanthouse.org/>

Institute for Children and Poverty <http://www.icpny.org/>

Neighborhood Coalition for Shelter <http://www.ncsinc.org/>

the New York Times.com <http://www.nytimes.com/>

the New York Observer <http://www.observer.com/>

New York Press http://www.nypress.com/article-19475-no-soup-for-you_.html

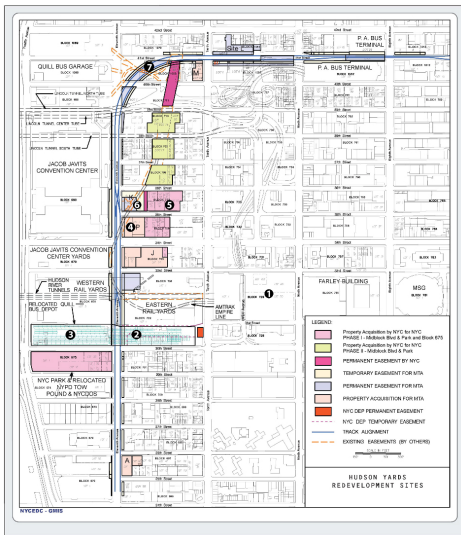
New York Post <http://www.nypost.com/>

NY1.com <http://www.ny1.com/>

City Limits.org <http://www.citylimits.org/>

Current Development Plans for the Hudson Yards

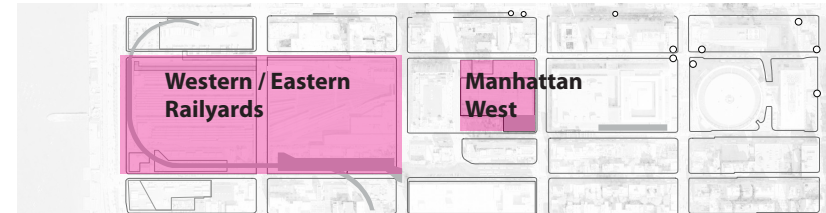
The site of this thesis is situated in the area known as Hudson Yards, which has attracted big attention as an opportunity to expand the Midtown Central Business District and promise the “economic future” of New York City.¹ The New York City Department of City Planning has described this area as “last frontier” for the office space, for which 45 million square feet is estimated to be needed in next 20 years.² The city started the development plan in 2003, which aims to transform this area into mix-used urban core, which includes “commercial, residential, open space, cultural and entertainment”³.



The Hudson Yards refers to the area which extends from West 28th Street on the south, Seventh and Eighth avenues on the east, West 43rd Street on the north, and the Hudson River on the west.

(Left image from NYC Department of City Planning)

Different groups of people have been involved in the development of this area. Below is the current situation of the development plans. (The plans described in this section are limited to the area that has direct relation to the site of the thesis.)



Western / Eastern Railyards

MTA (Metropolitan Transportation Authority), who owns this site held a competition in 2008 for developing the area. Among the five teams of developers and architects, Related Companies and Goldman Sachs with architects, Kohn Pederson Fox, Robert A.M. Stern and Arquitectonica was chosen as the winner. Related Companies agreed to pay 1 billion\$ for the development rights.⁴

However, because of economic recession and lack of tenants, the actual design has been pending for a while. On December 21st, 2009, the city council approved a new zoning of the area, which would enable the Related Companies and Goldman Sachs to build the planned eight towers which is to accommodate hotels, offices, and more than 5000 apartments.⁵ Among this 5000 apartments, the Related Companies promised on December 14th, 2009 to build 431 affordable-housing without expecting future return on the investment.⁶

1. NYC Department of City Planning <http://www.nyc.gov/html/dcp/html/hyards/hymain.shtml>

2. Ibid.

3. Ibid.

4. e-architect http://www.e-architect.co.uk/new_york/hudson_yards.htm

5. NY Times http://www.nytimes.com/2009/12/22/nyregion/22hudson.html?_r=1&partner=rss&emc=rss

6. Chelsea Now <http://chelseanow.com/articles/2009/12/31/news/doc4b2aa5e681580695047508.txt>

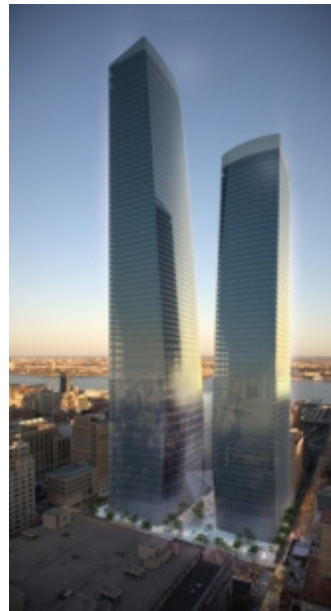


Left is a placeholder image for towers planned in Western / Eastern Railyards provided by the Related Companies.

Manhattan West

This area is owned by the Brookfield Properties, and SOM will be designing two office/mixed-use towers on a platform covering the whole void. One is planned to be 60 stories and the other 66.¹ One of the towers was originally planned to be completed by 2013, but the Brookfield Properties has mentioned in 2008 that the towers would not be built without finding tenant, and so far the design has been pending.²

Right is a placeholder image for towers planned in Manhattan West provided by the Brookfield Properties.



Position to the Current Plans

The thesis attempts to create a different proposition from the existing plans. It is not against the idea of developing this area, but is opposed to the current approach for the development.

As have been mentioned in the previous “Site Analysis” section, this area has a great potential for taking a new approach to the congestion culture of New York City, and accommodate people who have been ignored or segregated through the development of the city. The current plans that will cover the whole area with the same approach of grand developments as other areas in New York city will diminish this potentiality of the site. Although the existing plan will densify the area and generate economical benefit, it will no longer be for the people who have the most needs. It will create another “abstract space” in the city, and will broaden the exclusive public domain further out.

The affordable housing planned in the Western/Eastern Railyards is a positive aspect of the current plan. However, considering the people who cannot pay for the affordable housing, which is increasing more and more and for whose shelters Bloomberg has decided to decrease the financial support, this issue would be even more invisible behind the development.

The development plan has already affected one of the homeless shelters in this area. In order to make space for the extension of the No.7 Subway, which is one of the main infrastructural transformation of this area, New York City’s largest drop-in center, the Open Door is planned to be closed.¹ Approximately 200 people visit this center each day for having meals, showers, and counselings, and there is no plan for re-opening the center in a different location at the moment.²

1. the New York Observer <http://www.observer.com/2008/brookfield-taps-som-other-west-side-rail-yards>

2. Ibid.

1. NY Daily News http://www.nydailynews.com/ny_local/2009/11/07/2009-11-07_no_7_subway_extension_forces_eviction_of_open_door_homeless_shelter.html?r=ny_local

2. Ibid.

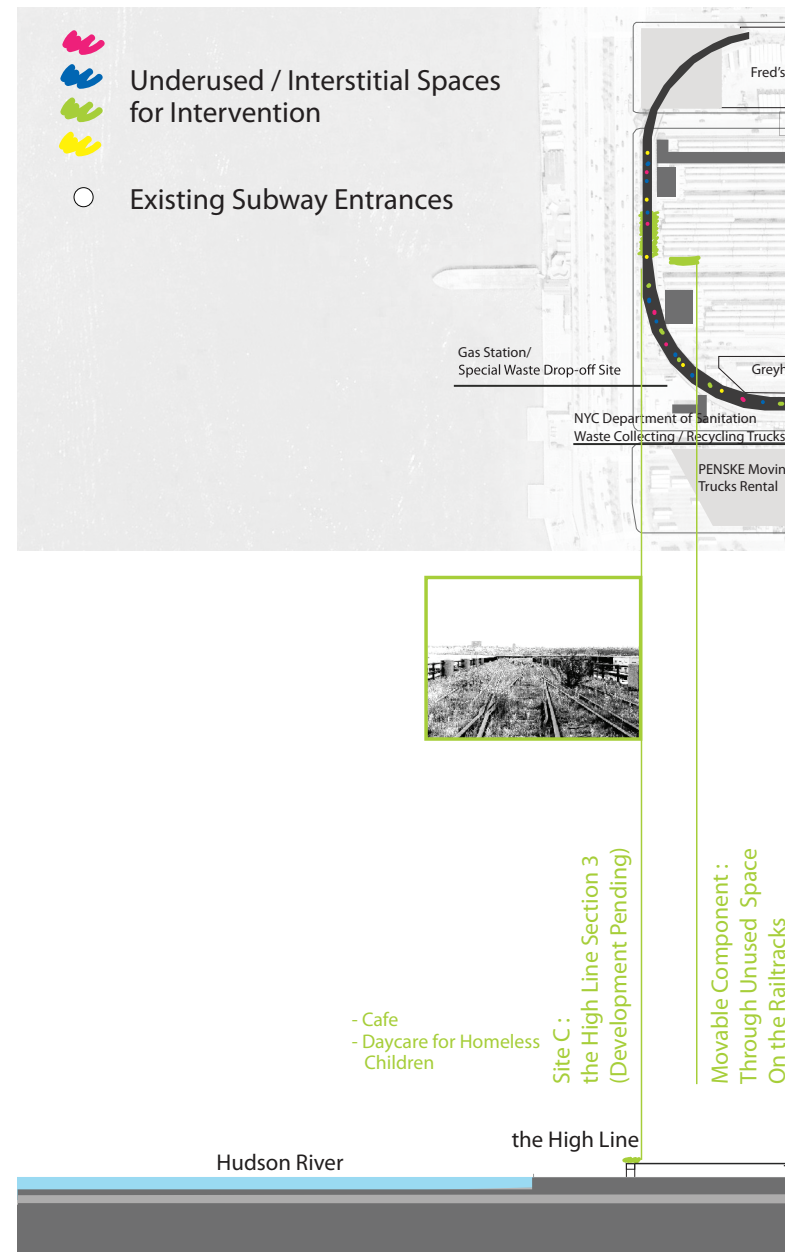
If this area is the “last frontier” for the office development, it also means that it is the “last frontier” for people who have lost their own spaces during the previous developments in other areas. And while all the current development plans are pending, the number of people without places to go is increasing more and more.

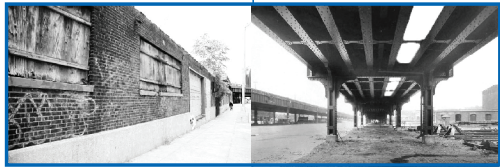
This thesis takes different approach for this site, based on the idea that the development of this area should start from less densified plan and combination of smaller scale interventions, fitting interstitial spaces, but connected to various movements of pedestrian and transportation system. It believes that this can integrate the urgent needs that haven't been responded in other developed areas, and could grow over time while determining the most necessary needs in the city.

Project

The site plan intends to connect the design interventions for four different interstitial / underused spaces in this area, each accommodating different programs for both homeless shelter and other civic use. It attempts to bring various movements of people into each design intervention by creating underground connection from the Pennsylvania Station as well as the access from the High Line. Each site is connected not only in terms of circulation, but also programmatically interrelated, which will be explained further in next pages.

Site Plan

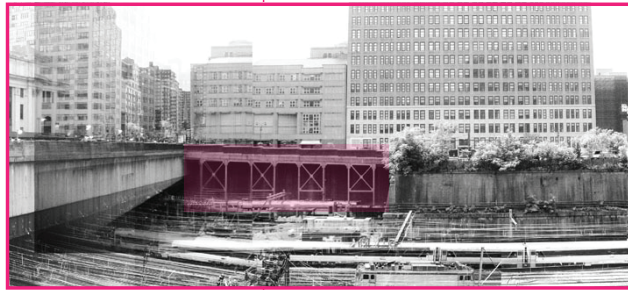




Connction between Site A and Site B

Site B :
Abandoned Building Under Highline

- Artist's Residence
- Daycare for Homeless Children
- Workshop for the Homeless People
- Storage for Moving Service



Site A :
Sunken Void Next to the Railtracks

- Homeless Shelter
- Cafe
- Exhibition/ Performance Space
- One-Day Luggage Storage
- Shower

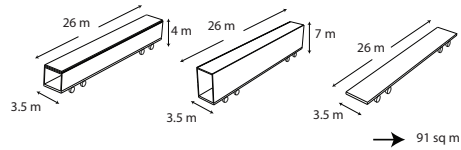
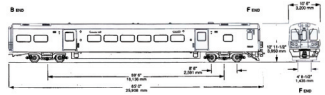


Sunken Area Next to Farley Post Office

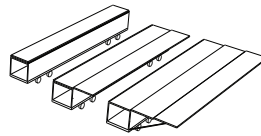
Connction between Penn Station and Site A



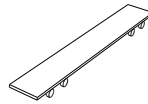
Movable Component (C') :
Connection Between Site A and C



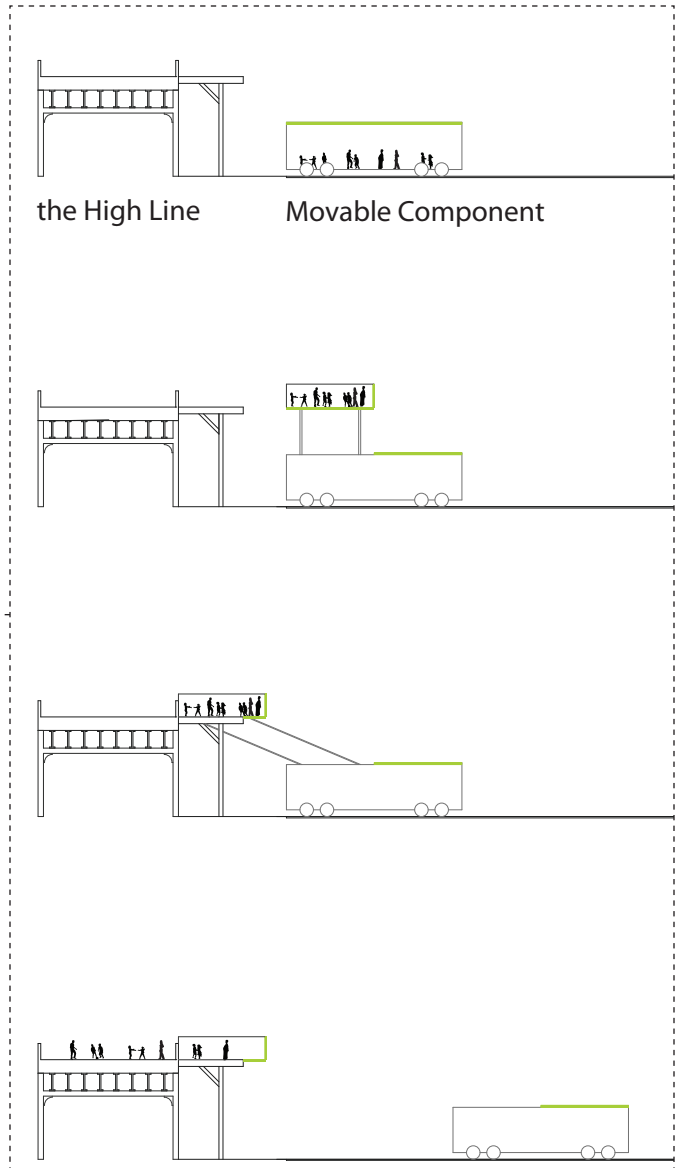
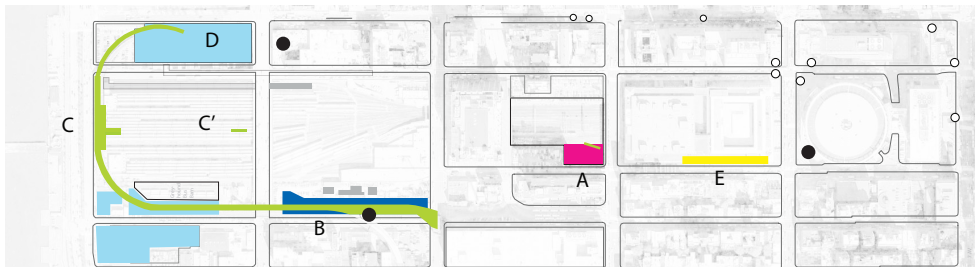
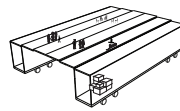
unfolding



insertion



connection



the High Line

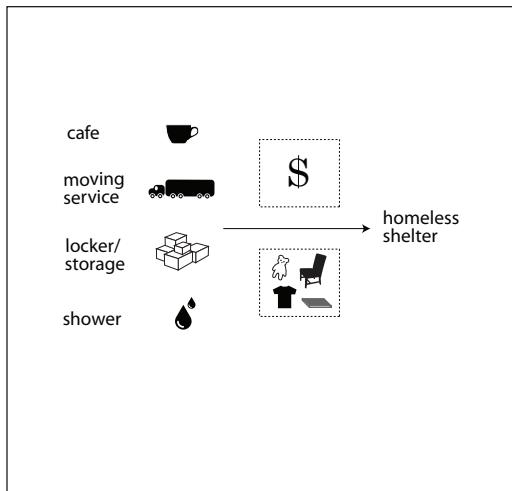
Movable Component



The diagram on the left shows how each site can be used in different ways by different users, and how they are interrelated with each other.

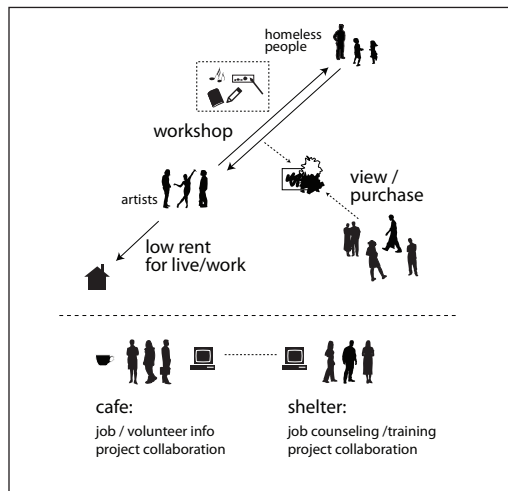
This interconnection of different programs is an attempt to realize the cross subsidy which is explained in the next page.

Program Locations and Potential Users



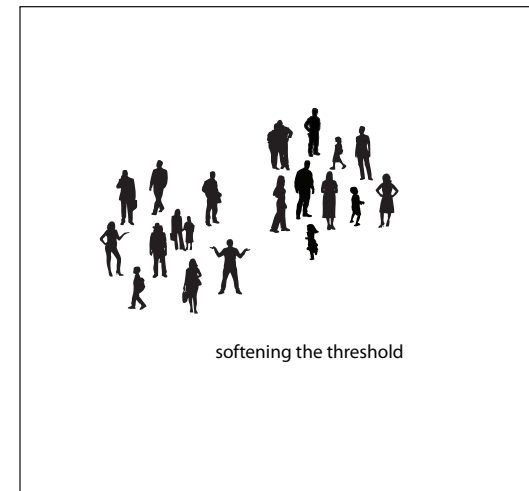
Income and Employment

Generate income and employment for the shelter program through other programs. For instance, income generated by the cafe (site A) and moving services (site B) could be used for the shelter program, while these services can also create employment for the homeless people. Furthermore, the used clothes and objects that is given away during the moving service could also be brought to the shelter.



Knowledge and Creativity

Sharing of knowledge and creativity. Through the artists' residence and daycare service for homeless children, which are accommodated in the same environment (site B), artists can live and work for low rent while they are responsible for offering workshops for homeless children in exchange. Through this, while the artists are given a good environment for work as well as an opportunity to show their work to bigger public, the homeless youth and children can cultivate their creativity and skills, which would broaden the options for future. The artworks can be viewed and purchased in the exhibition space, which is connected to both cafe and homeless shelter. (site A)



Dignity

Overcome the prejudice towards the homeless people who tend to be seen as one category of people who have negative impact to the society. In addition to job counselings, trainings, and workshops by artists, bringing back dignity and identity to each homeless person is also a significant step to recognize their own ability to change their situation and move forward. Providing the people who come through this site the opportunity to notice the homeless people, not as a threatening existence, but as each different individuals with different backgrounds who happened to lose their home for various different reasons, will also, in a long term, connect to more possibilities for creating a supportive environment for homeless people.

Cross Subsidy (social / economical)

Project: the Bridge Homeless Assistance Center
Location: Dallas, Texas
Architect : Overland Partners
Completion Date: March 2008, opened in May 2008
Size: 76,000 square feet

The new homeless shelter “the Bridge” in downtown district of Dallas, Texas, gives us an important insight about architectural possibility of shelters. Since the opening in May, 2008, it has been accepted by wide number of homeless people in Dallas, including those who had refused to be in a shelter for many years. The facility “designed for 400 now handles up to 1,000 people per day, and more than 500 people have received training, counseling and secured employment or permanent housing.”¹

Despite the strong oppositions from the neighborhood who were concerned about the negative impact to the area, since the opening of the shelter, “the downtown crime dropped 18 percent and violent crime fell by 40 percent” in a year.²

There seems to be two important factors for this successful shelter. One is the setting of three different type of sleeping rooms that the homeless people can choose, the visual and physical connections of which are architecturally carefully designed according to their necessities. (Please refer to the diagram next page.) The time element is introduced to the design so that each different homeless person can take their own pace to adjust to the shelter environment and eventually find a job and permanent housing. The second is the collaboration with other social services.

1. Dallas Observer
2. Ibid.

While the church in the neighborhood will come everyday to provide soup kitchen three times a day, and the police patrols the shelter for security, the mental and physical health programs, and job finding and training programs are part of the shelter programs to support the homeless people. A network with other shelters in the neighborhood was organized as well so that when this shelter is over capacity, people who could not get inside can be taken by bus to other surrounding shelters.

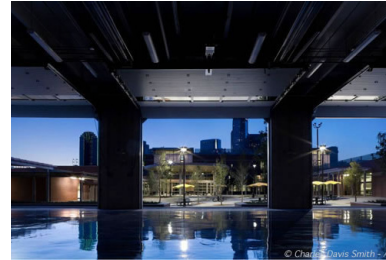
Articles Consulted

Metro Dallas Homeless Alliance <http://www.mdhadallas.org/>
ai archinnovations
<http://www.archinnovations.com>
forwardDallas! Comprehensive Plan Vision
<http://www.forwarddallas.org/files/up/20060830/Vision.pdf>
Dallas Observer News
<http://www.dallasobserver.com>
Dallas News.com
<http://www.dallasnews.com>

Precedent Analysis : “the Bridge” , Dallas, Texas



Service Building :
Contains cubicles and dormitory type sleeping rooms, as well as rooms for health care and workshops. The facade brings light to the street.



Pavilion (Emergency Shelter) :
Holds up to 300 people.
During the daytime, open air, connected with the outside courtyard.
At night, divided to men and women, seats will be replaced by mats for sleeping.



The Welcome Building :
Intake room for initial interviews and issue identification with other spaces for relaxing (watch TV, play checkers... etc) Showers, laundry facilities, bathrooms, a phone bank, and salon also incorporated. Clearly visible from the street and the courtyard



Main Courtyard :
Accessible by everybody. Connecting the Welcome Building, Pavilion, and the Service Building.

The diagram in the right is an analysis of how each room provides different degree of privacy and visibility according to the needs of the users and the spatial relationship within these rooms.

There are three different type of sleeping room combined with different amount of social programs; pavilion (emergency shelter), transitional cubicle (62), dorm type rooms (24). This introduces time element to the building, which enables each homeless person to adjust to the shelter environment in their own pace.

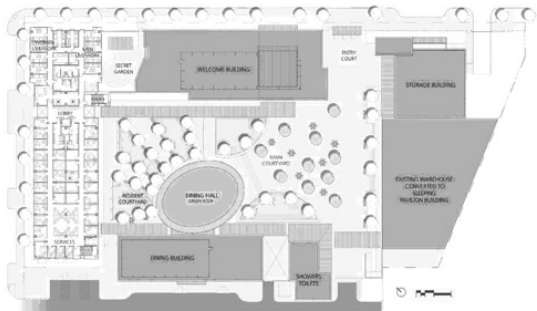
For instance, the pavilion (emergency shelter) is designed as half inside/outside environment opening out to the courtyard during the daytime, which responds to the street homeless people who tend to refuse to be in a confined shelter, while the rooms in the service building provides more privacy for the people who are more used to having their privacy at home.

There are limited access to some of the spaces, which responds to the needs of privacy. While the main courtyard is accessible by everybody, resident courtyard is only for the people staying in the service building, and the secret garden limited to women.

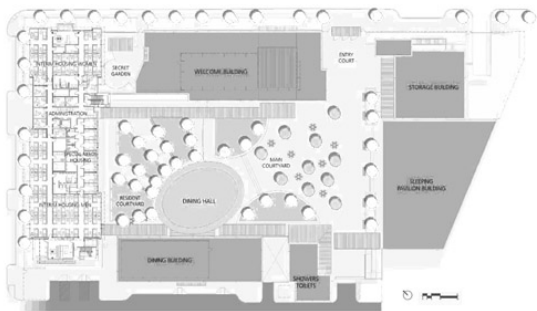
Precedent Analysis : “the Bridge” , Dallas, Texas



First Floor Plan

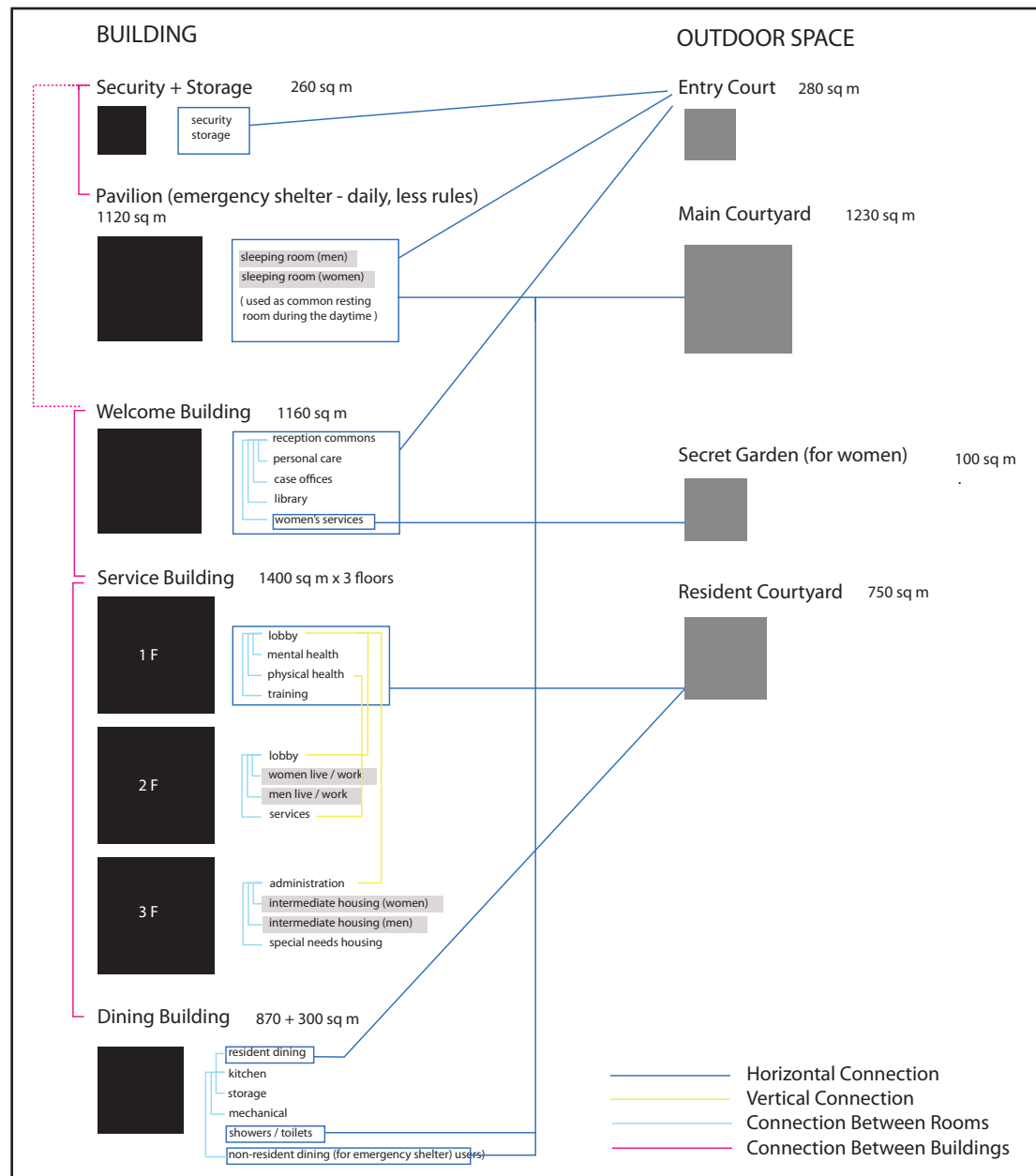


Second Floor Plan



Third Floor Plan

Plan Drawings by Overland Partners



The diagram in the right is an earlier study for determining the size and spatial relationship of different programs in site A, learning from the precedent.

For the homeless shelter, the sleeping rooms are divided to three different types; emergency shelter room for men and women (for people who prefer less confined spaces), cubicles for single adults, and family rooms. More privacy will be provided as you go down the building.

Here, the storage walls are considered as a connection between the public cafe and the homeless shelter that provides certain degree of visibility and interaction.

Initial Study for Spatial Relationship of Programs

Ground Floor

CAFE

HOMELESS SHELTER

OUTDOOR SPACE

Main Cafe Room

Main Office 250-300 sq m

Security 20 sq m

Street

Dining (for soup kitchen) 300 sq m

Physical / Mental Health 200 sq m

Work / Reading Room

storage wall
light well wall

Laundry 50 sq m

Shower 150 sq m

emergency shelter 300 sq m

Main Courtyard
(can be changed to indoor)
150 sq m

Sleeping Cubicle

bookshelf wall
light well wall

Counseling / Training / Study Room 300 sq m

Cubicles for Single Adults 500 sq m

Family Rooms 1500 sq m

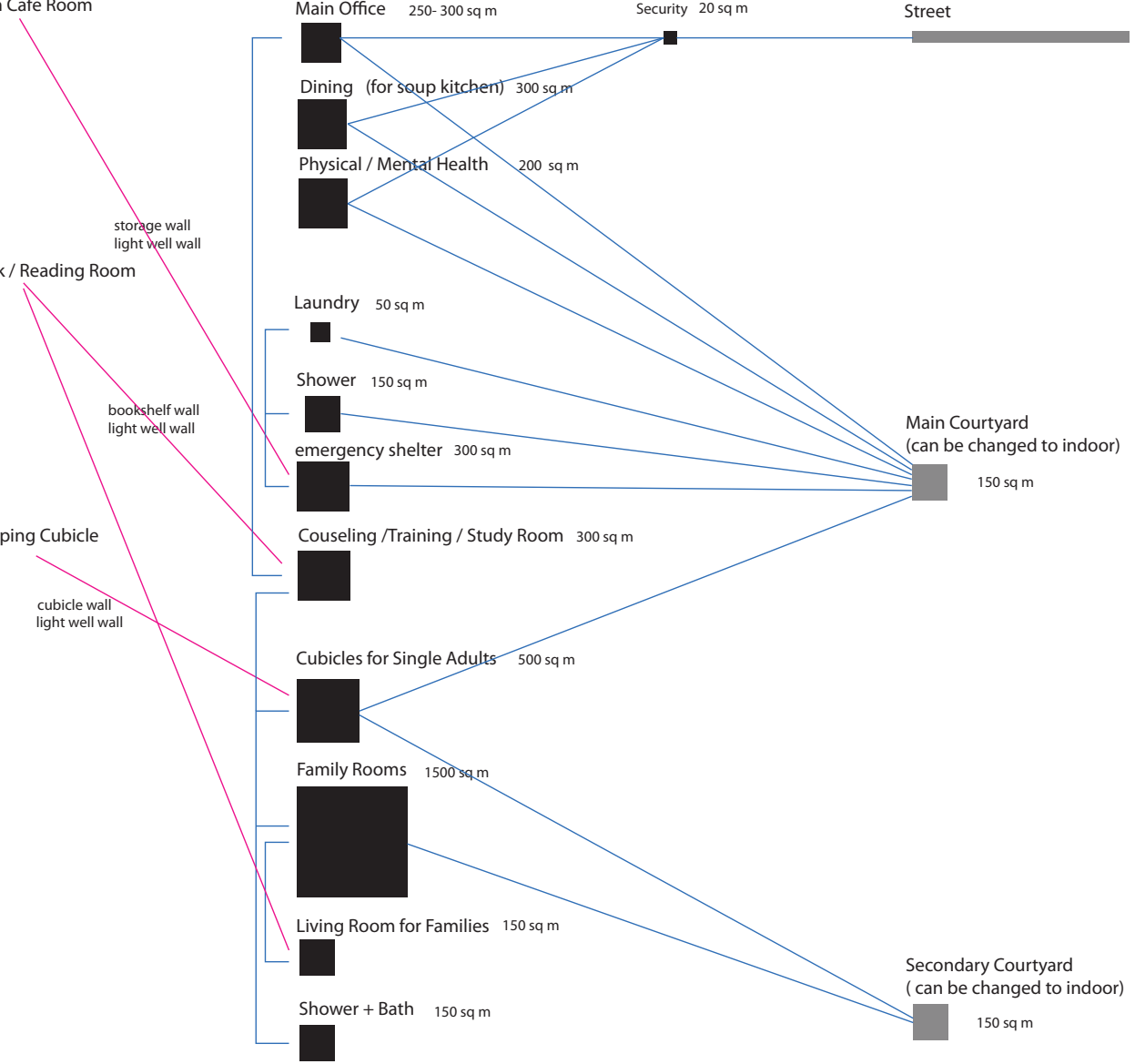
Living Room for Families 150 sq m

Secondary Courtyard
(can be changed to indoor)
150 sq m

cubicle wall
light well wall

Shower + Bath 150 sq m

B4 Floor



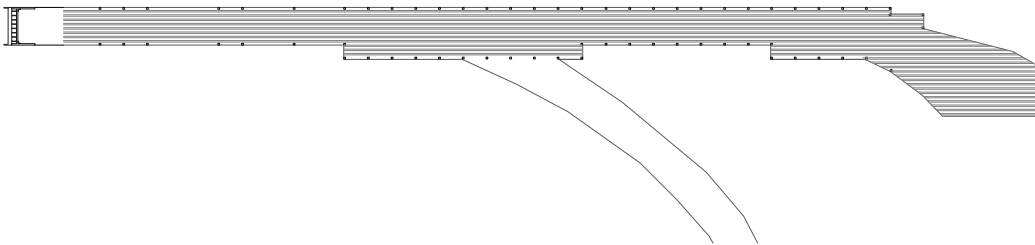
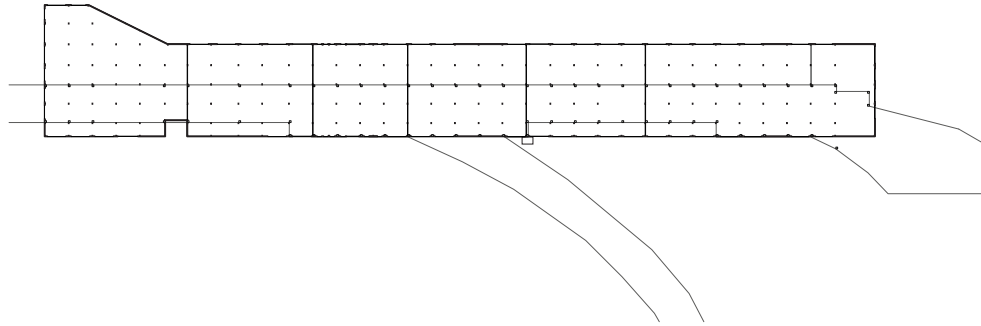
The design attempt to enable diverse individuals to have their temporal spaces, in which they can fulfill their own needs temporally while they engage in the movement through the city in their everyday life. At the same time, it aims to create different degrees of visibility and connection between the homeless people and the people who come through this site. By seducing more people to come to this site, and providing the opportunity to notice the existence of the others, it attempts to soften the threshold and change the existing preconception towards the homeless people.

Design



5500 m²

Site B Retrofitting the Abandoned Building under the High Line



Existing structure of the abandoned building under the Highline (drawing above) and the Highline (drawing below).

At the intersection of 10th Avenue and West 30th Street in site B, there is an abandoned building under the High Line.

This existing building will be retrofitted to accommodate artists' residence/ homeless children daycare program, public café and exhibition space.

It also aims to create public circulation that connects the pedestrian flow from the Highline and the two streets intersecting at the edge of the building.

While using the existing structures of the High Line and the building beneath, they will be partially taken out to create both vertical and horizontal porosity in order to provide visual connection as well as shared experience.

Public Program



Storage for Moving Service



Public Circulation / Cafe



**Homeless Children Daycare,
Artist Residence**



Artist's Residence / Work Studio,
Workshop Room, Gymnasium,
Study/ Inspiration room, Kitchen, Dining room



Shared



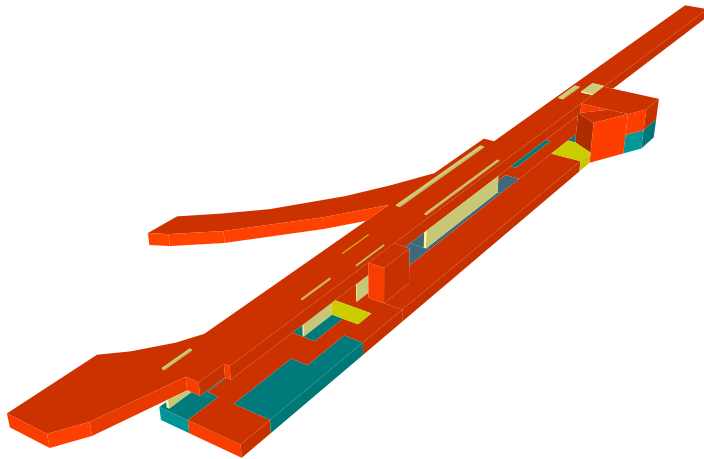
Exhibition Space /
Performance Space



Interactive Wall



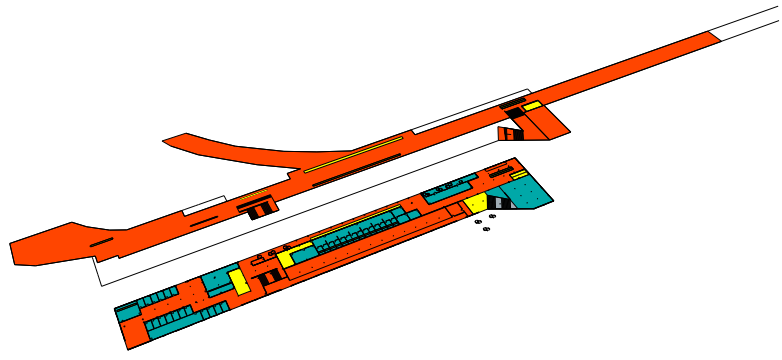
Spatialization of Cross Subsidy (Site B)



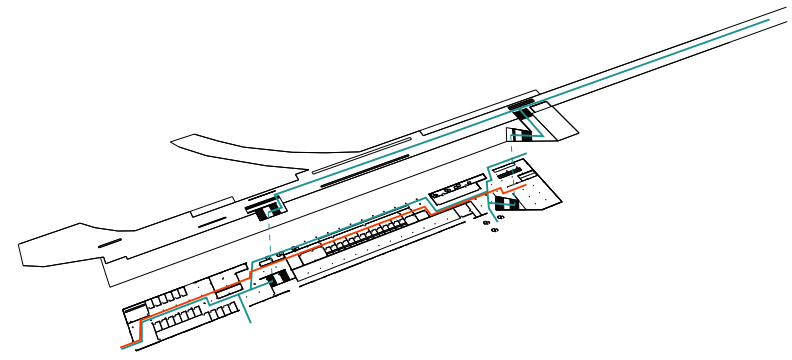
The architectural response to the idea of cross-subsidy is shown in this diagram.

The general design scheme consists of three components, space for artists and homeless children's program, space for other civic programs, and space shared by both. The shared areas are intended for spatially creating the opportunity for cross subsidy.

The artists' residence combined with homeless children's daycare and workshops will be sharing the same exhibition space and eating space with the pedestrians that come through the highline. The vertical interactive walls are for penetrating light and sound as well as creating the opportunity for shared experience.

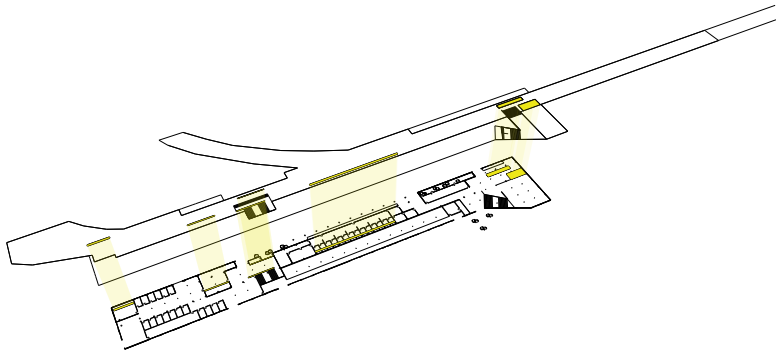


- space for homeless children daycare/
artist residence
- space for other public programs
- shared space

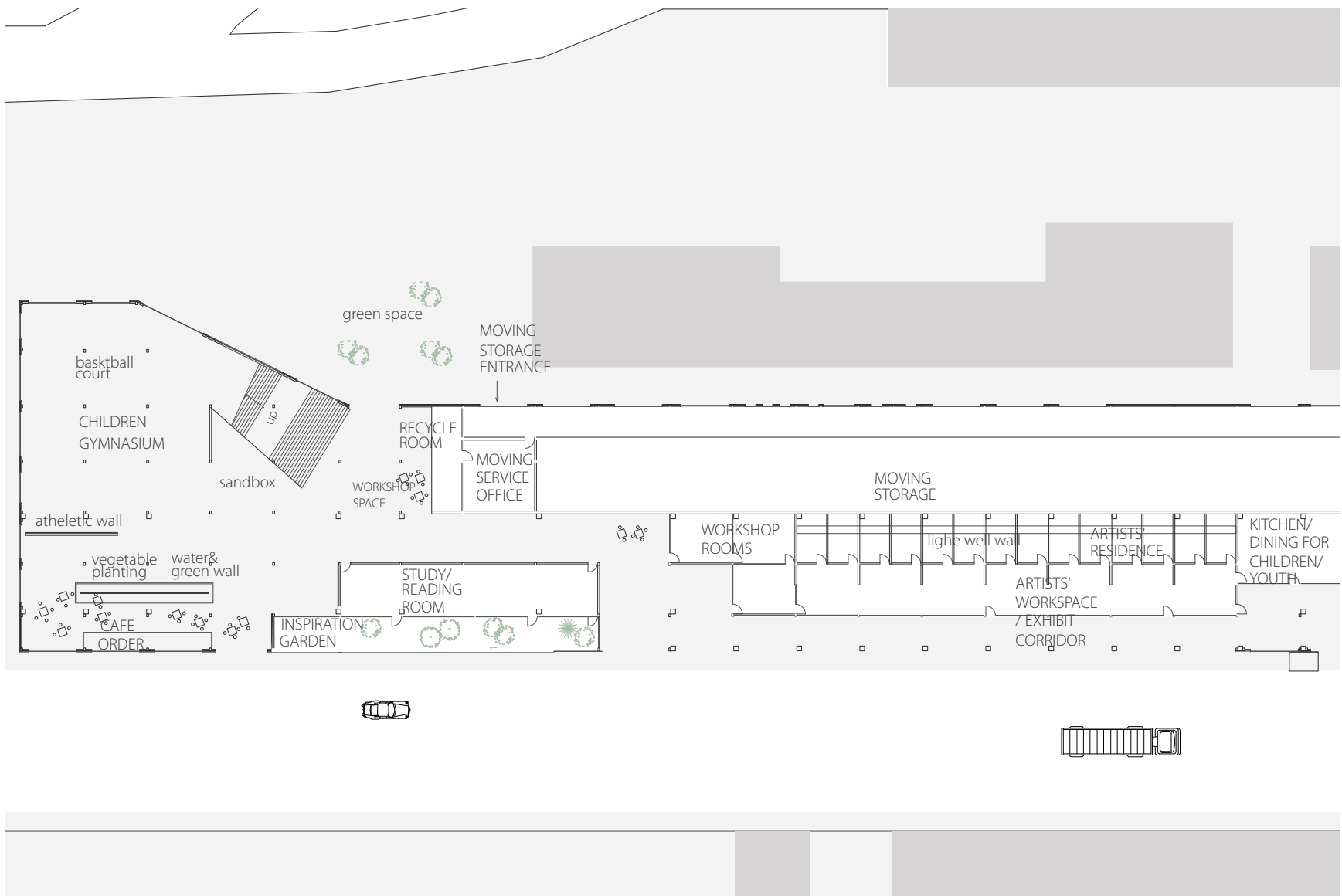


- circulation for homeless children/
artist residence program
- circulation for other public programs

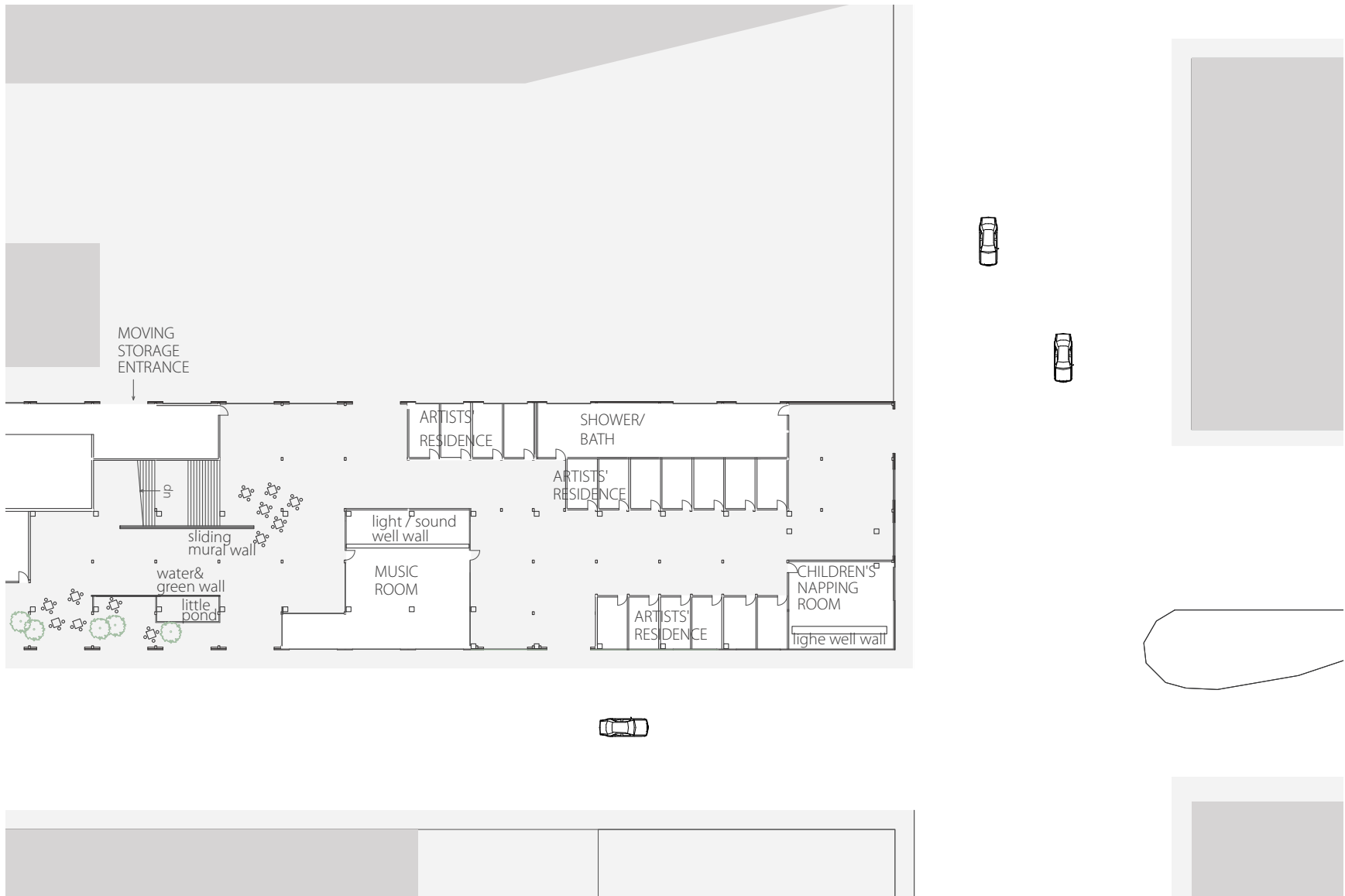
Spatialization of Cross Subsidy (Site B)



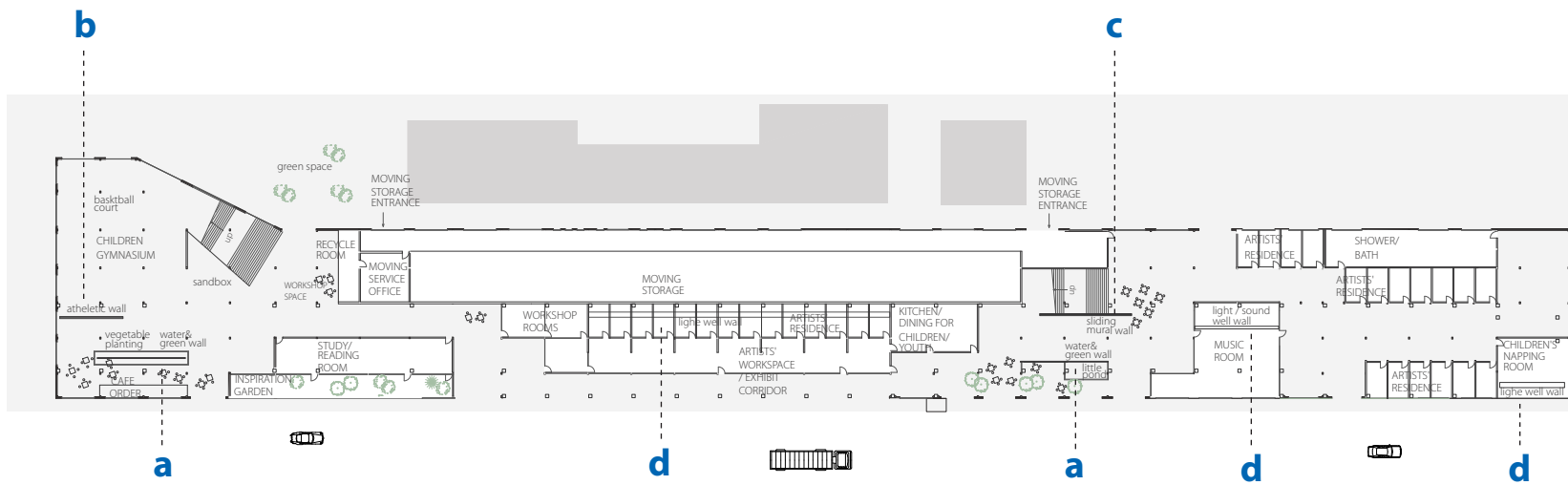
■ light penetration



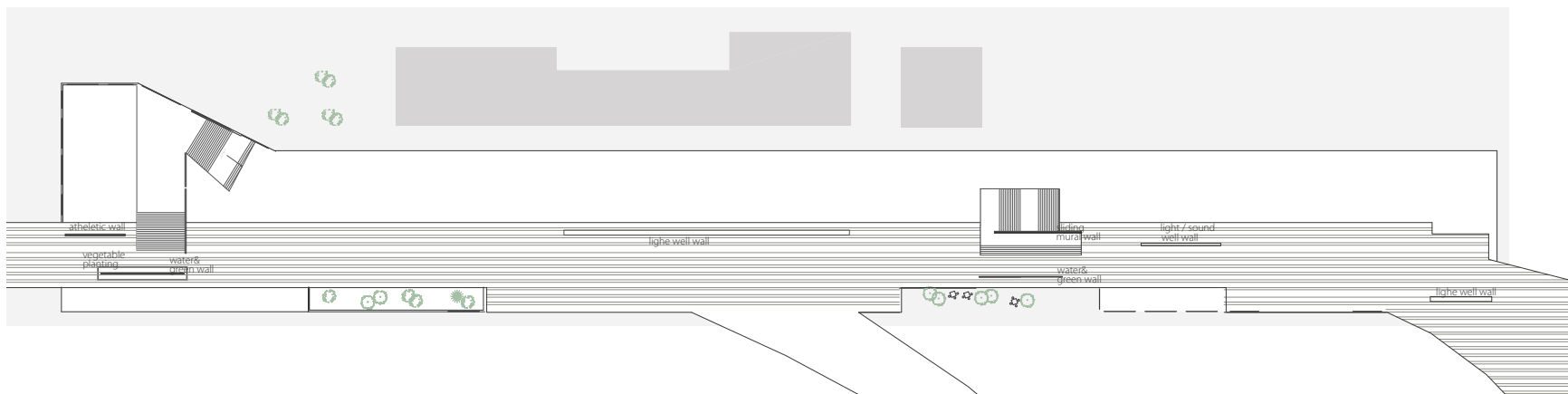
Plan : Ground Level



Part of the walls and structures of the existing building are taken out to create porosity that will bring the pedestrian street inside the building and have public circulation intermingle with other programs.

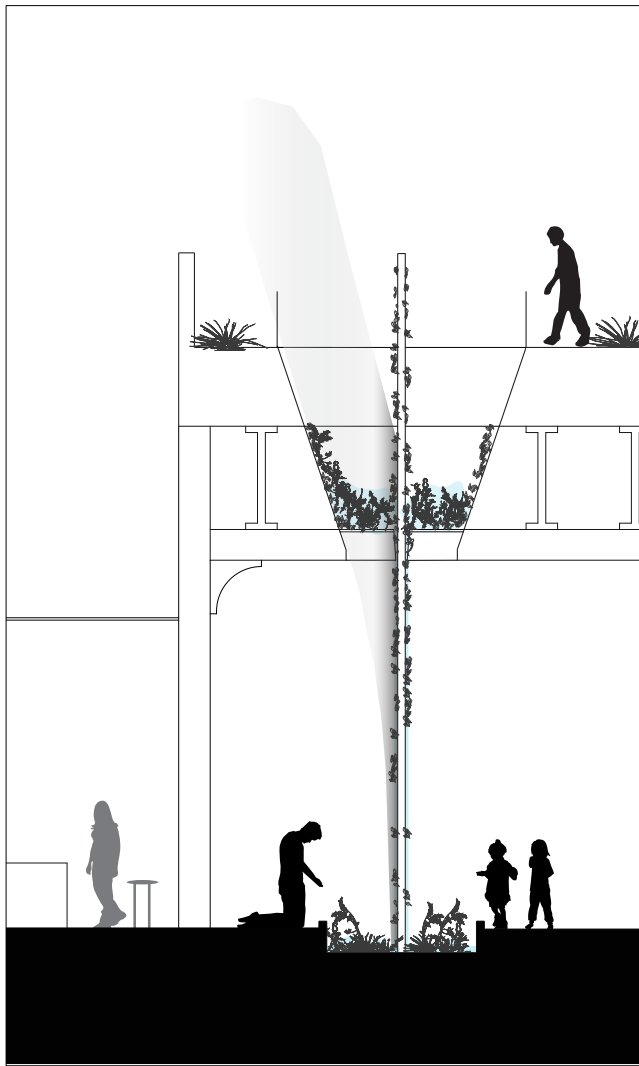


Ground Level Plan

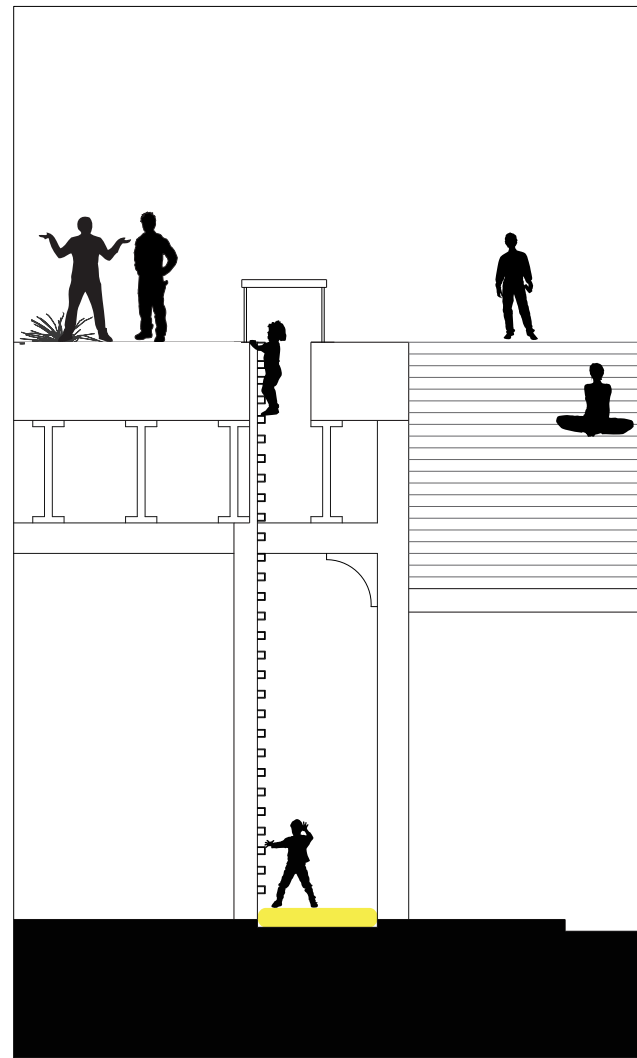


Roof Plan

Interactive Walls



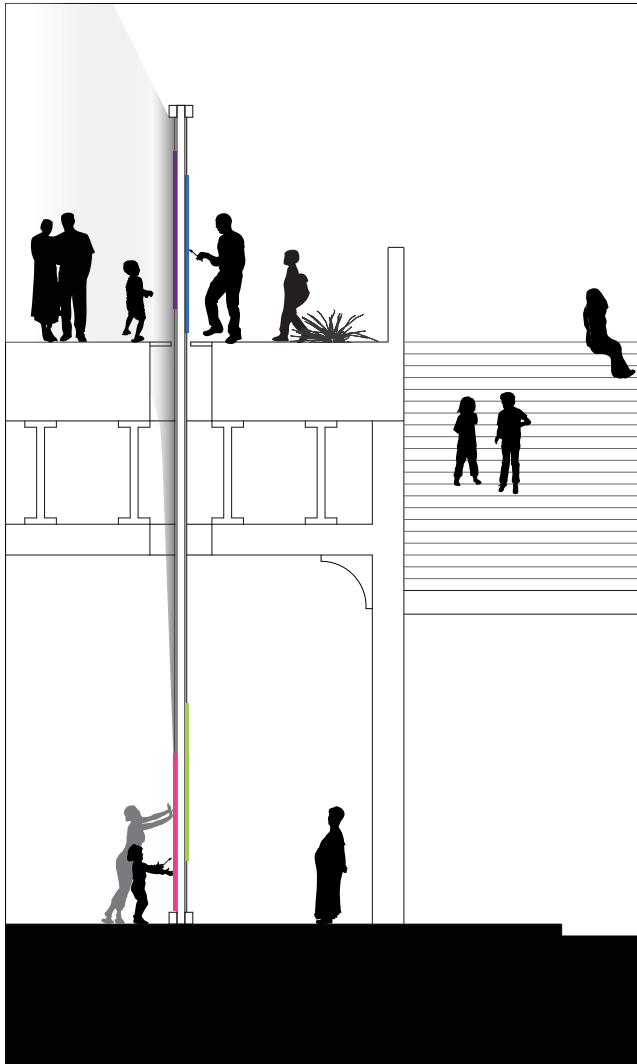
a. Water & Green Wall



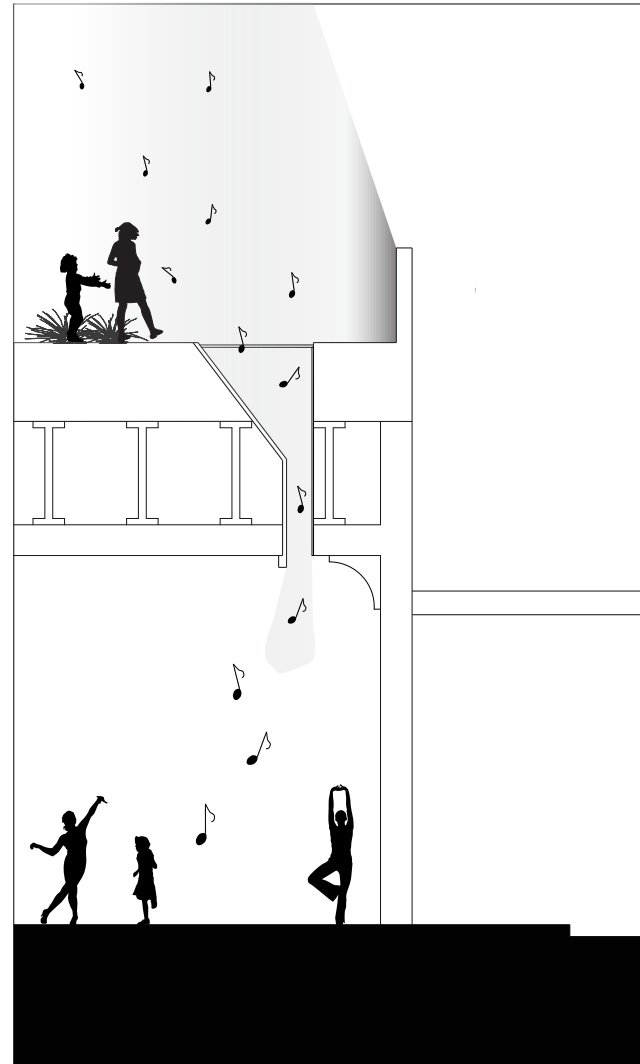
b. Athletic Wall

The idea of interactive walls was developed for creating a vertical connection between the High Line and the space below. It is intended to provide an opportunity to interact within the two as well as sharing the experience of light and sound.

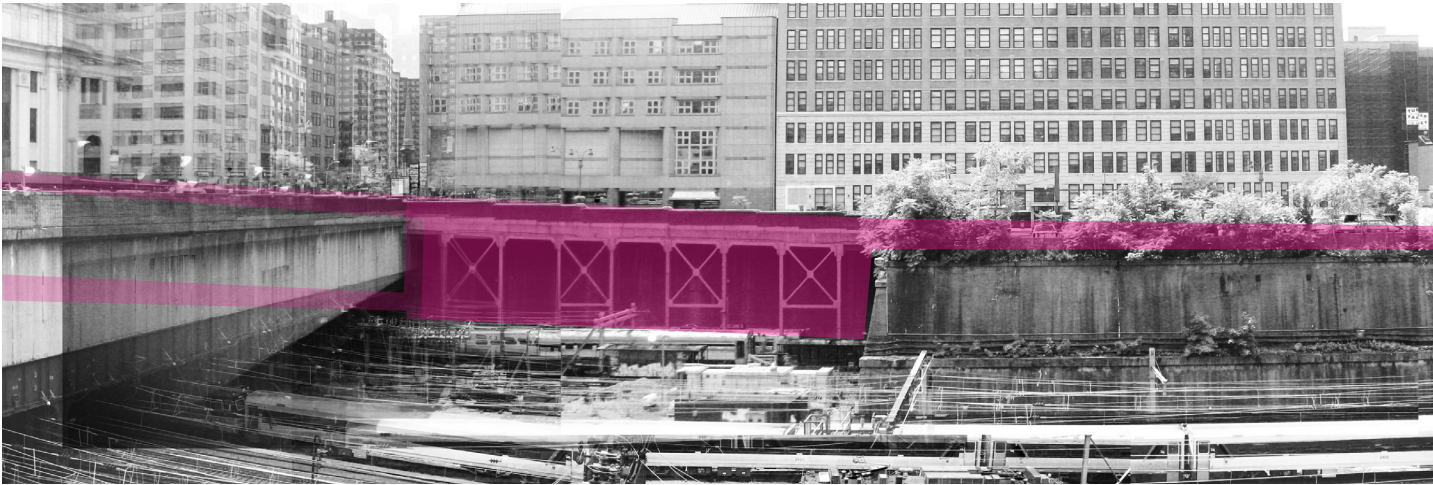
Interactive Walls



c. Sliding Mural Wall



d. Light & Sound Well Wall



View from point **a**

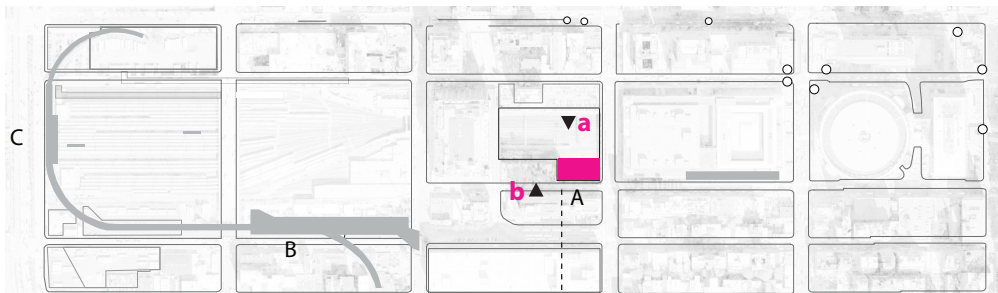
The railtracks from Pennsylvania Station appear to the outside between 9th Avenue and 10th Avenue next to the Fairly Post Office. It is creating a huge sunken space of approximately 15m depth. Along the edge of this sunken area, there is an underused crack with no railtracks going through. This void will be used as an opportunity to design homeless shelter and public cafe.

The building consists of five floors. The ground floor on the street level will bring the public circulation into the building, while the pedestrians from Pennsylvania Station can also access the building using the passage underground.

Site A **Filling the Void**



View from point **b**



1860 m²

Public Program



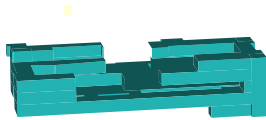
Cafe
(Eating, Working, Sleeping)



Public Circulation



Homeless Shelter



Office, Training / Counseling Room,
Health Care, Dining, Sleeping Rooms
Living Room



Internal Circulation



Shared



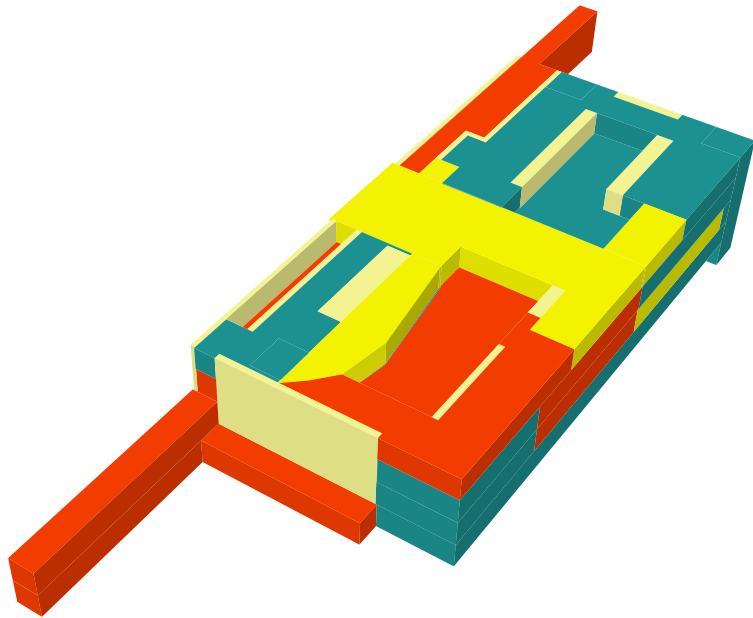
Exhibition Space /
Kitchen / Performance Space
Shower



Storage
(Light, Luggage, Books)



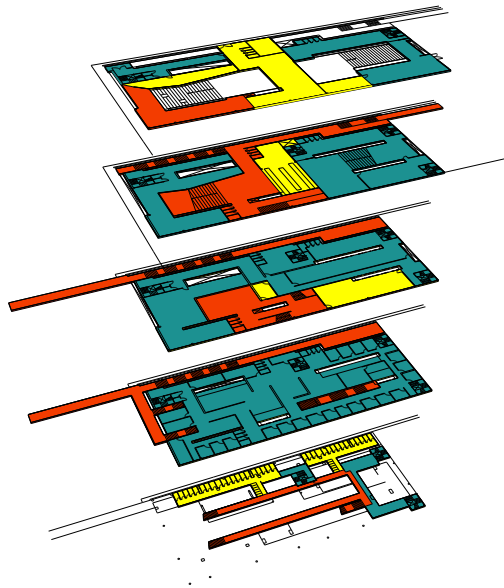
Spatialization of Cross Subsidy (Site A)



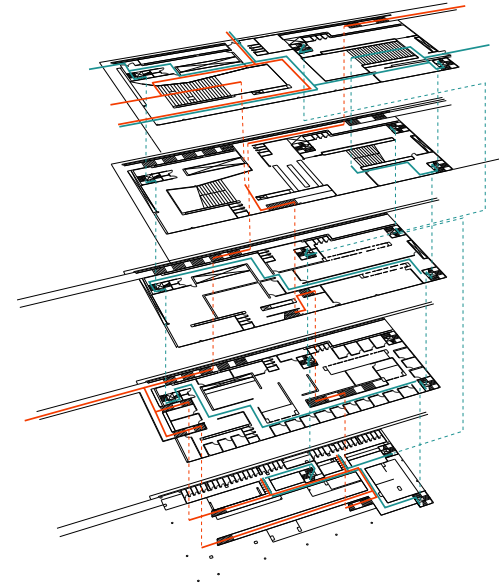
The architectural response to the idea of cross-subsidy is shown in this diagram.

The general design scheme consists of three components, space for homeless shelter program, space for other civic programs, and space shared by both. The shared areas are intended for spatially creating the opportunity for cross subsidy.

The homeless shelter programs are intermingled with the public cafe for the people who come through this site. The two share the same kitchen, exhibition space, and shower space, as well as little storages for luggages and bookshelves. In terms of architectural experience, the light will be shared through the light wells that penetrates through the building.



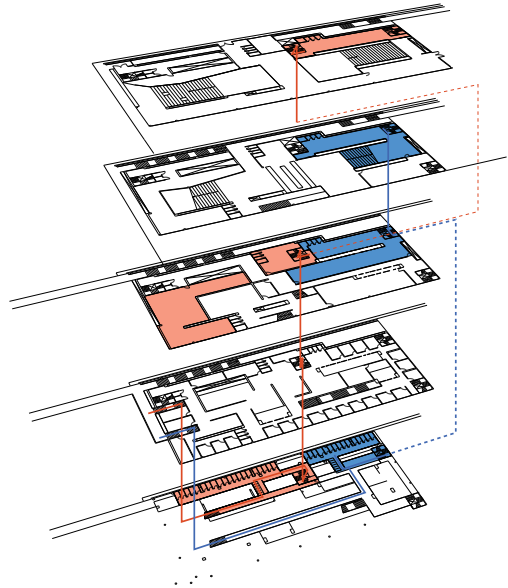
- space for homeless shelter program
- space for other public programs
- shared space



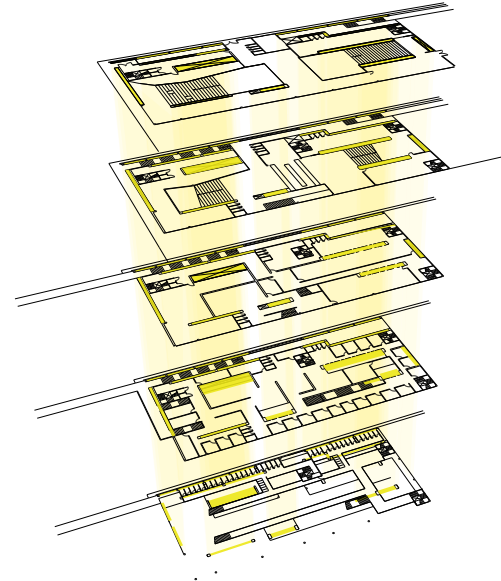
- circulation for the homeless shelter
- circulation for other public programs

Spatialization of Cross Subsidy

The top two floors have the most shared, intermingled spaces, while the space for homeless shelter will dominate more as you go down the building. While sharing spaces within the two programs, in order to respond to the anticipated security issues, there are rooms and internal circulation divided to men and women, which also has direct access to shower for men and women in the lowest level. At the same time, the light well that penetrates the building is to respond to the lack of light in the lower level.

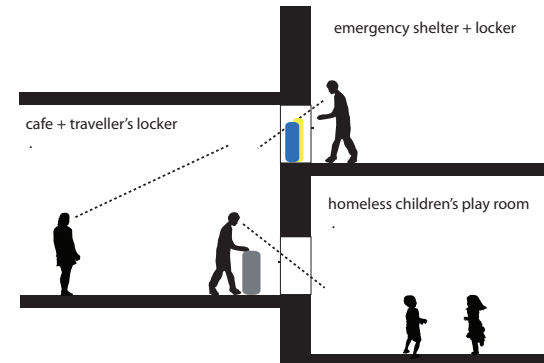


- female only
- male only



- light penetration

translucent storage embedded in wall structure

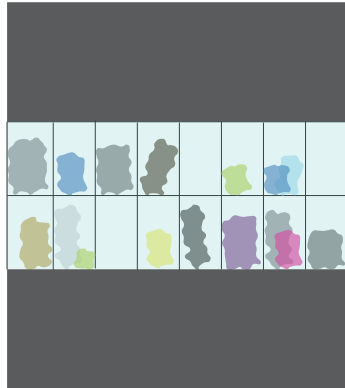


sharing the same locker, creating certain degree of visibility

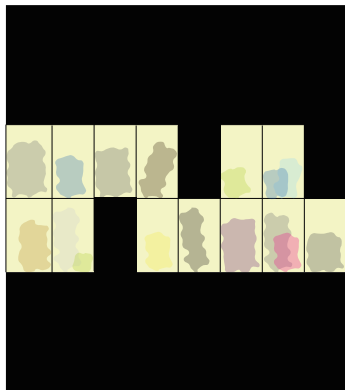
Idea of storage walls was developed while thinking about smaller-scale architectural elements that could provide different degree of visibility and connection, and soften the threshold between people who use it.

Ideas for Storage Walls

translucent storage facade



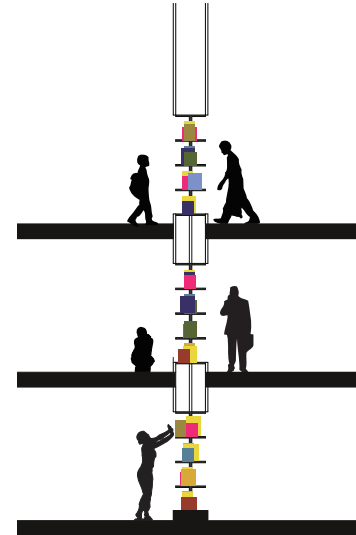
daytime



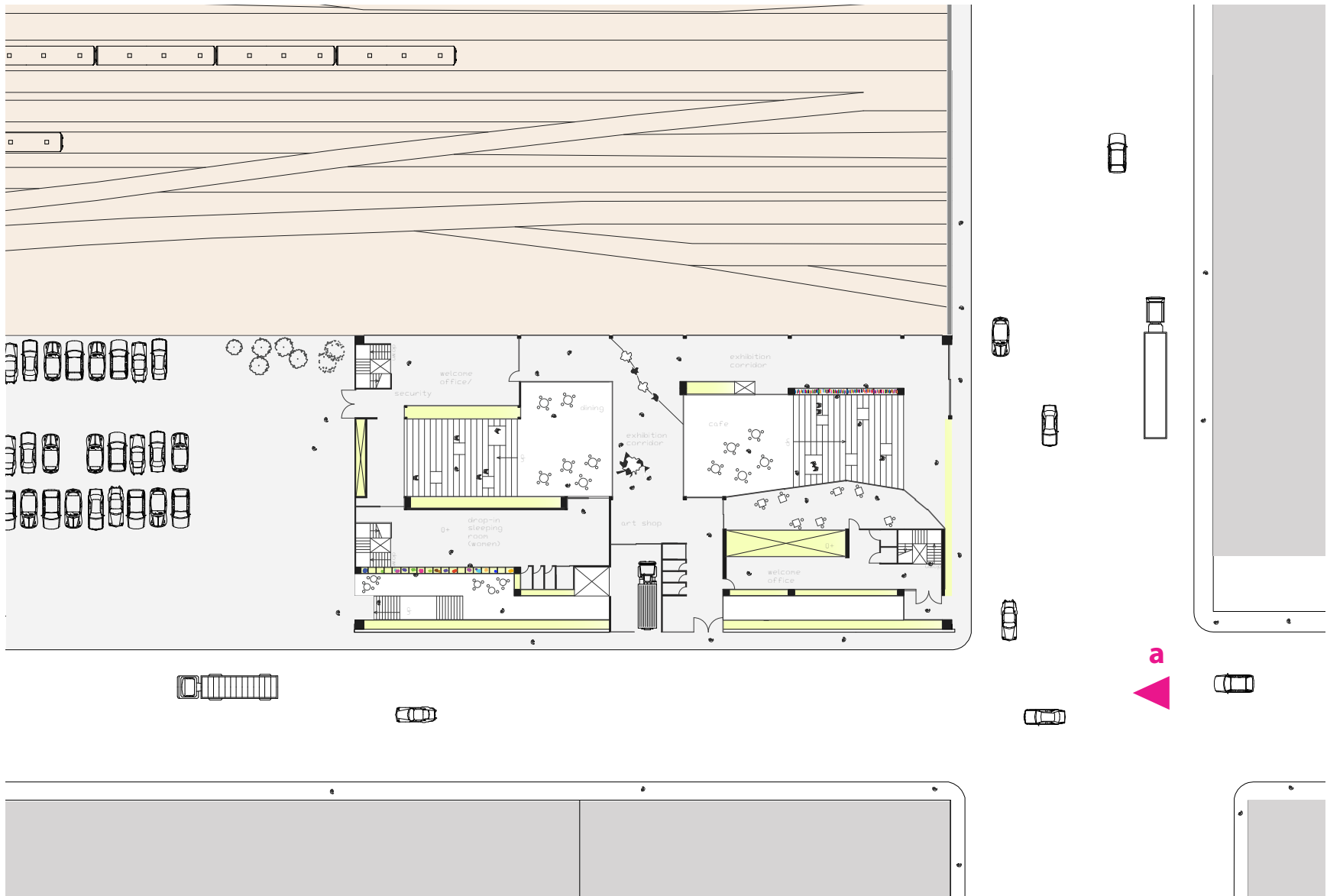
night time

facade reveals the people who use it

vertically slidable bookshelves

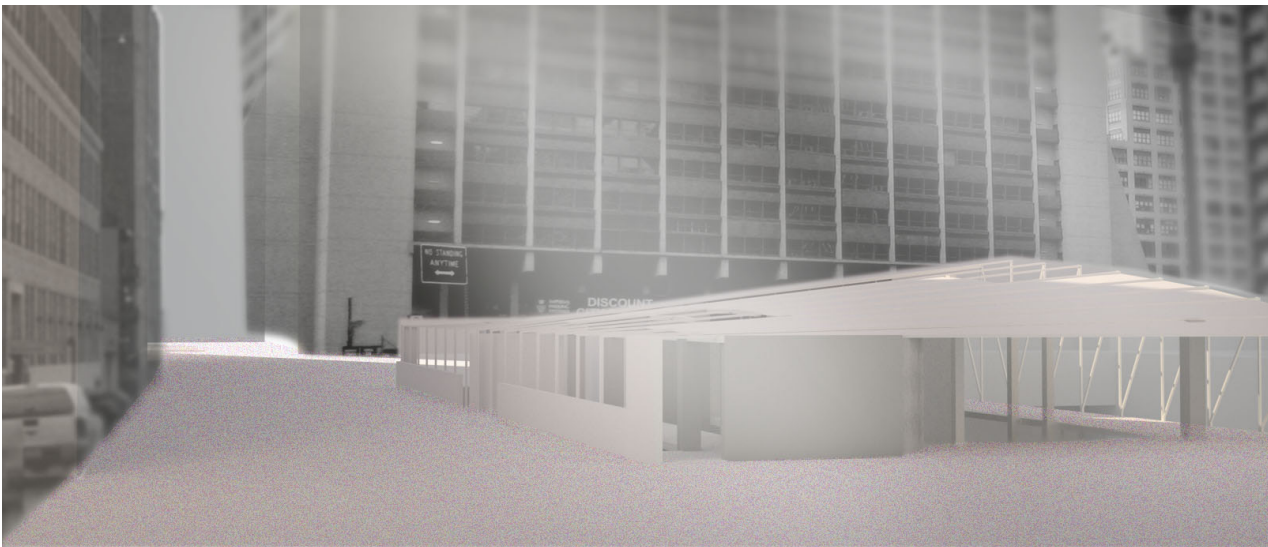


sharing books, creating certain degree of visibility and connection

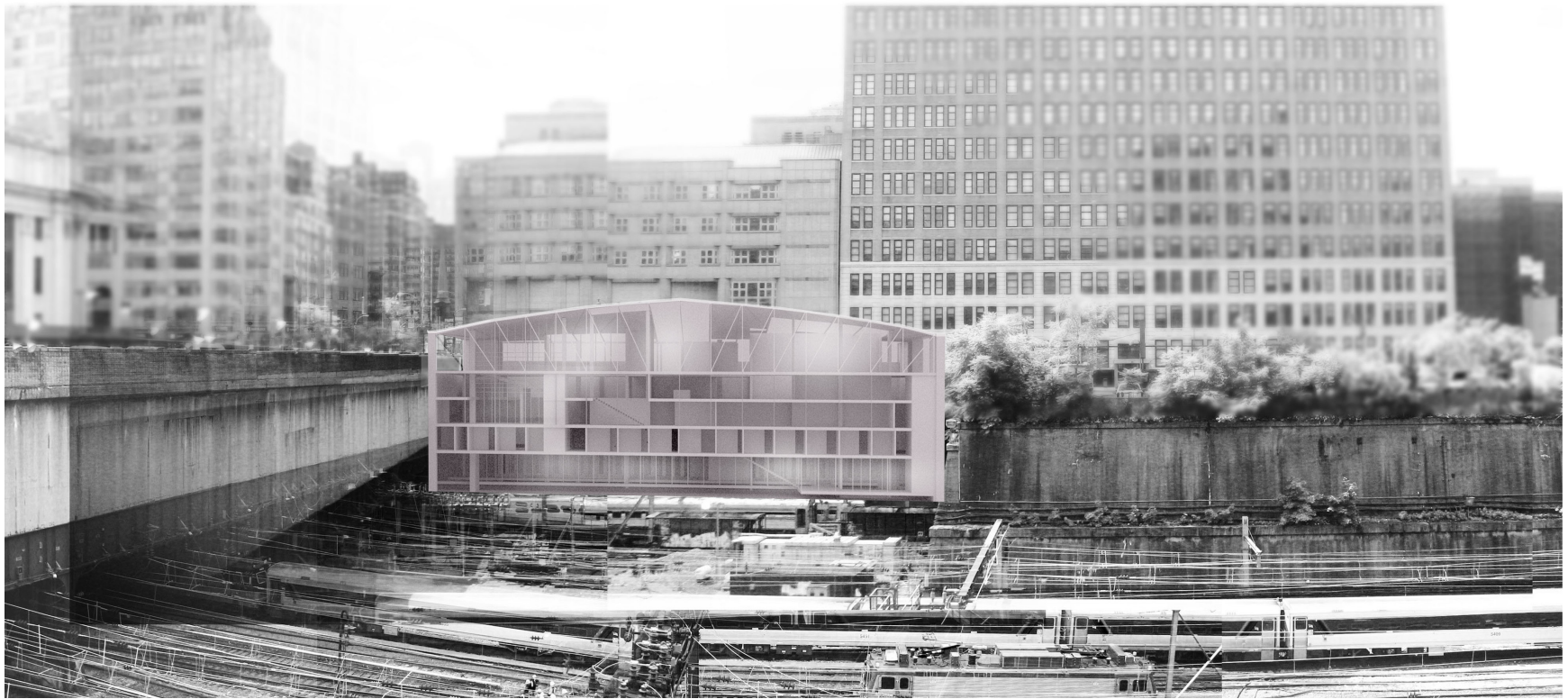


Plan : Ground Level

The ground floor is where the public circulation from the street is integrated to the building. The wide exhibition corridor in the middle, where the artworks done by the artists and homeless youth in site B will be exhibited and sold, will be part of the public circulation that connects one street to the other. The space for job counseling next to the welcome office for homeless shelter will be opened to the public after evening as part of the seating for the cafe that can view the theater space below.



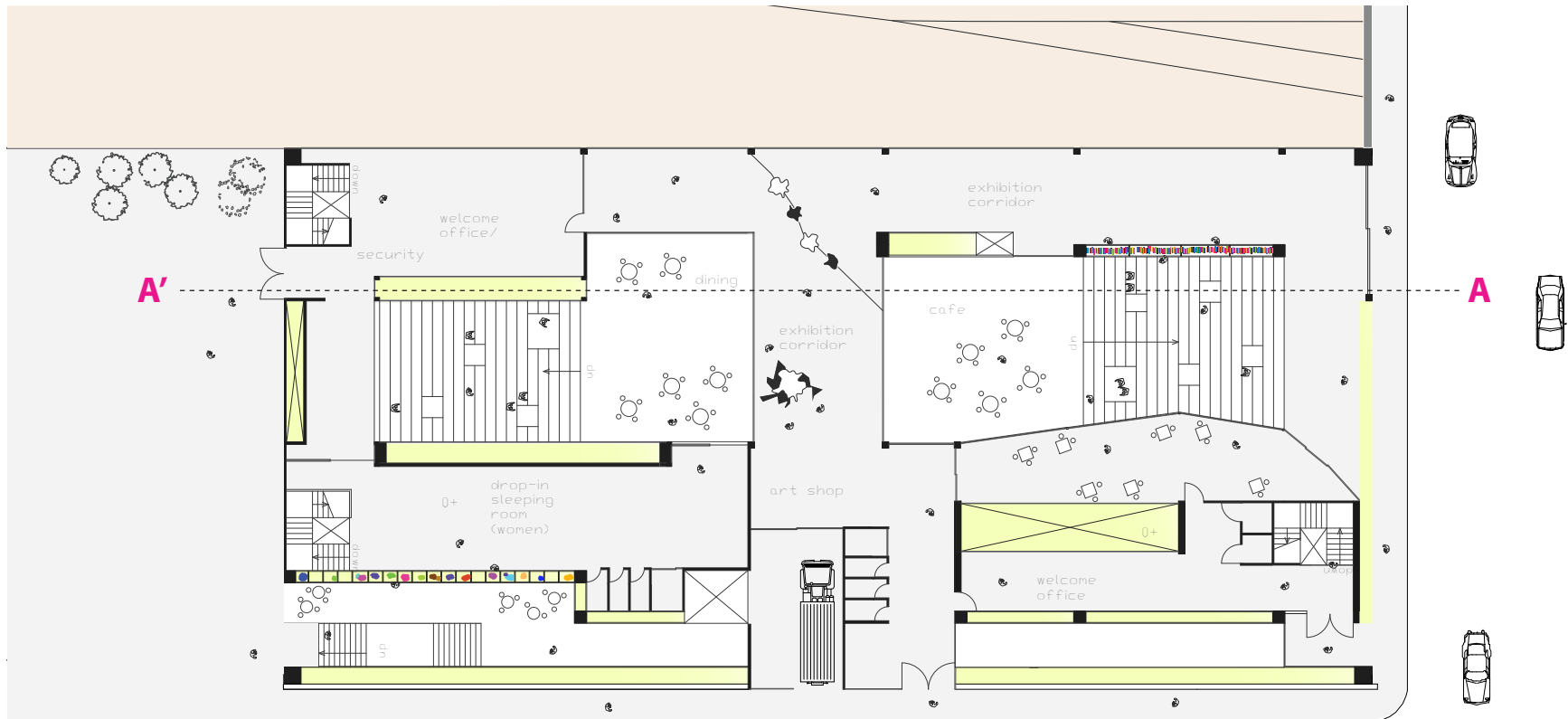
Street View from **a**



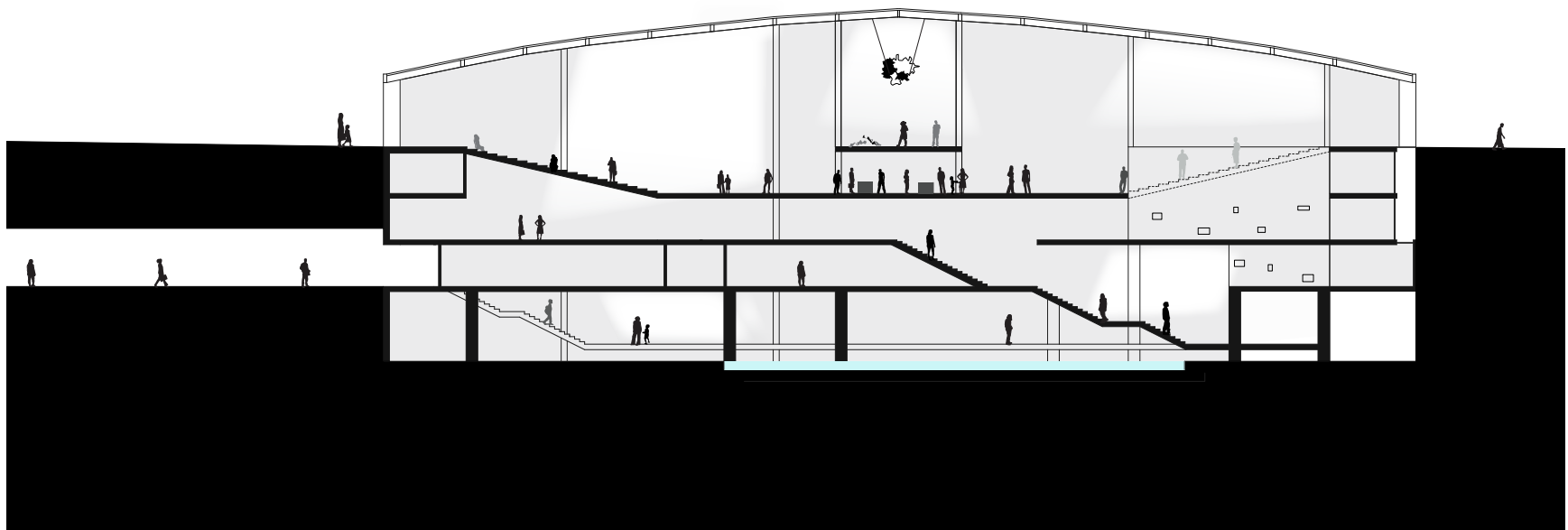
Top : View from the Other Side of the Sunken Railtracks
Right : View from the Train



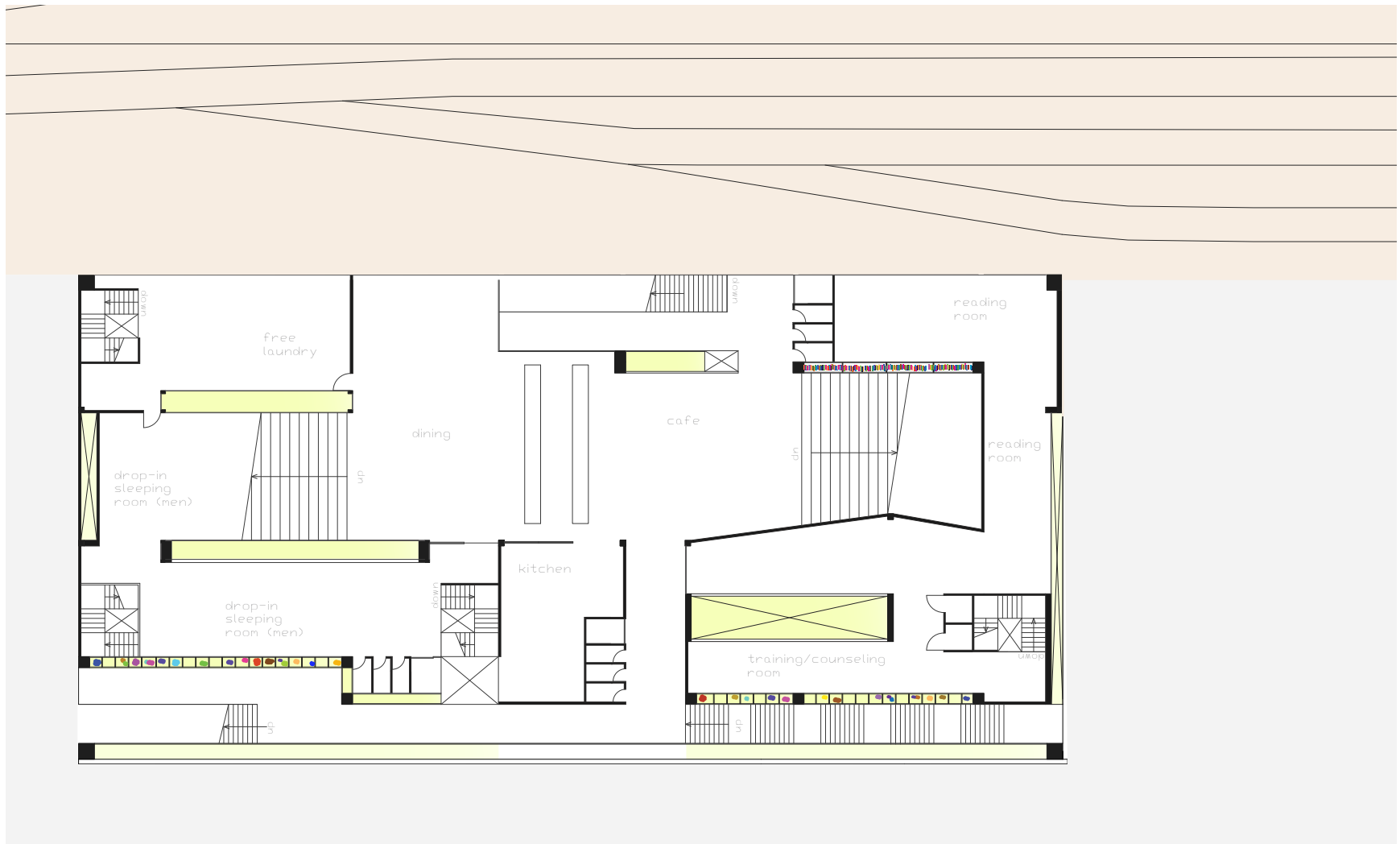
The ground floor is where the public circulation from the street is integrated to the building. The wide exhibition corridor in the middle, where the artworks done by the artists and homeless youth in site B will be exhibited and sold, will be part of the public circulation that connects one side of the street to the other. The space for job counsels next to the welcome office for homeless shelter will be opened to the public after evening as part of the seating for the cafe that can view the theater space below.



Plan :Ground Level



Section **A - A'**



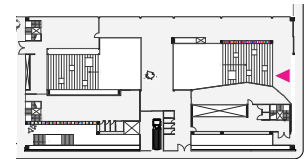
Plan : B1 Level

The second basement level will be approached by two big staircases from both sides, which are seatings for both eating and the theater. The kitchen in the middle will serve for both the soup kitchen for homeless shelter and the public cafe. This kitchen could be moved to create the space for performance in the evening.

The flexibility of the space in top two floors is enabled by the big steel arched roof supported by four columns at the corners and the truss structure in the front, while the lower three levels are supported by additional concrete columns from below.

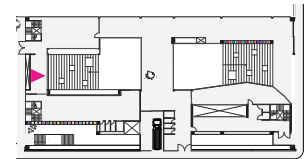


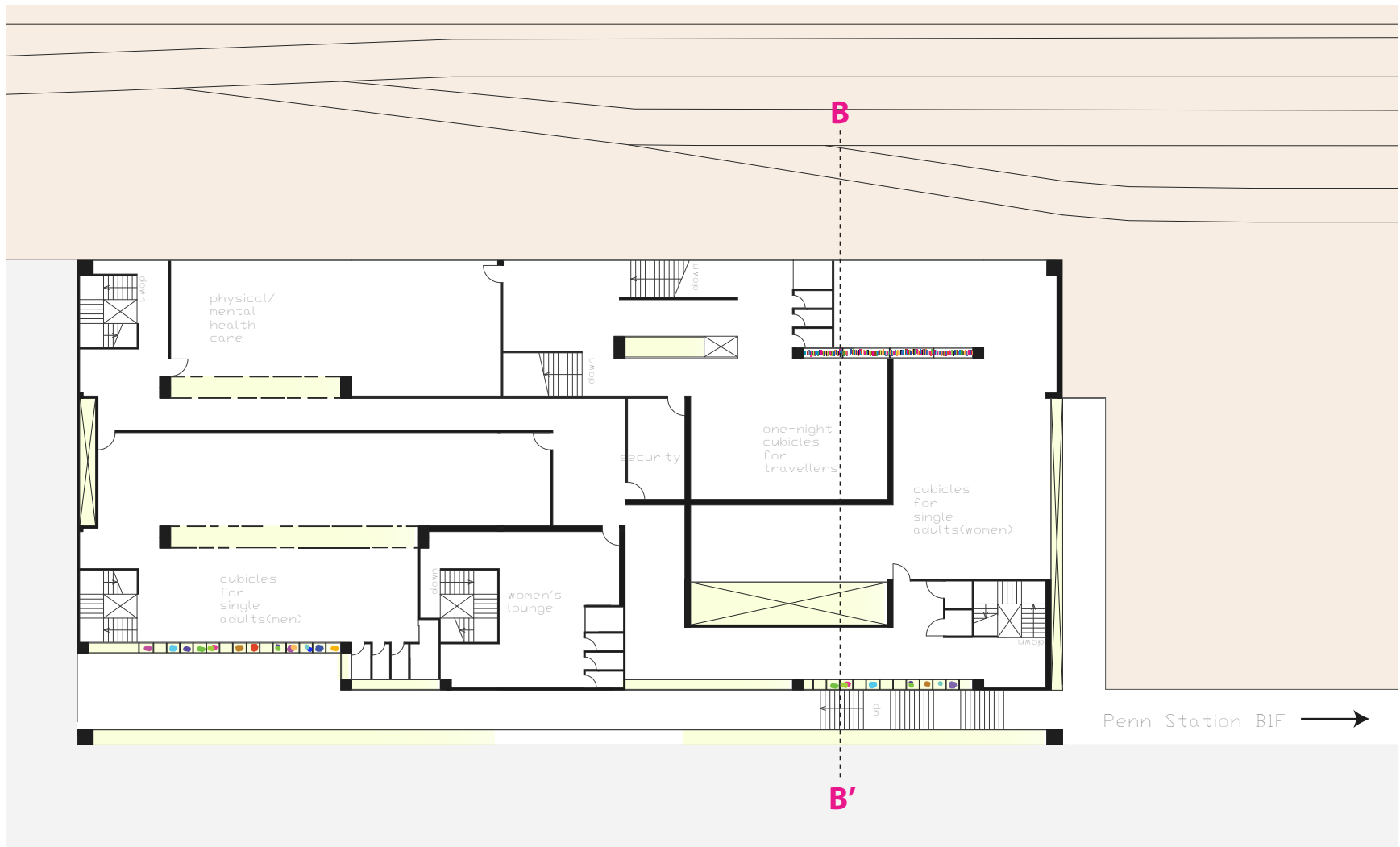
View from the Entrance of Cafe (Daytime)





View from the Entrance of the Homeless Shelter (Night Time)





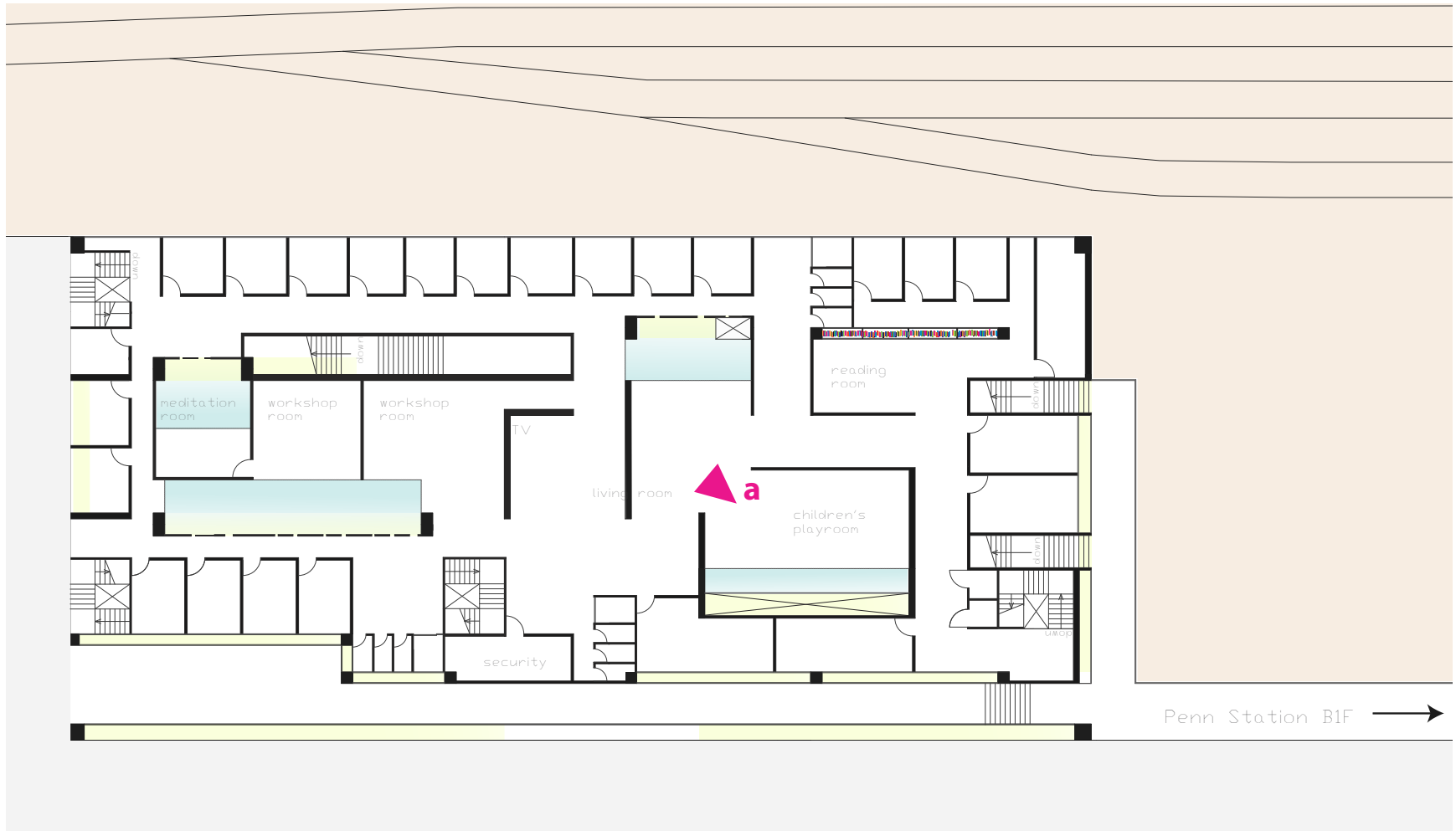
Plan : B2 Level

The homeless shelter provides more privacy as you go down the building. The drop-in sleeping rooms which are more for street homeless people who tend to refuse to be in a confined shelter are located on the top two floors, while more private rooms for single adults and family rooms are located on the 2nd and 3rd basement floor. This is also for introducing time element to the homeless shelter and providing opportunity for different homeless individuals who came for different reasons to be able to adjust to the environment in their own manner.

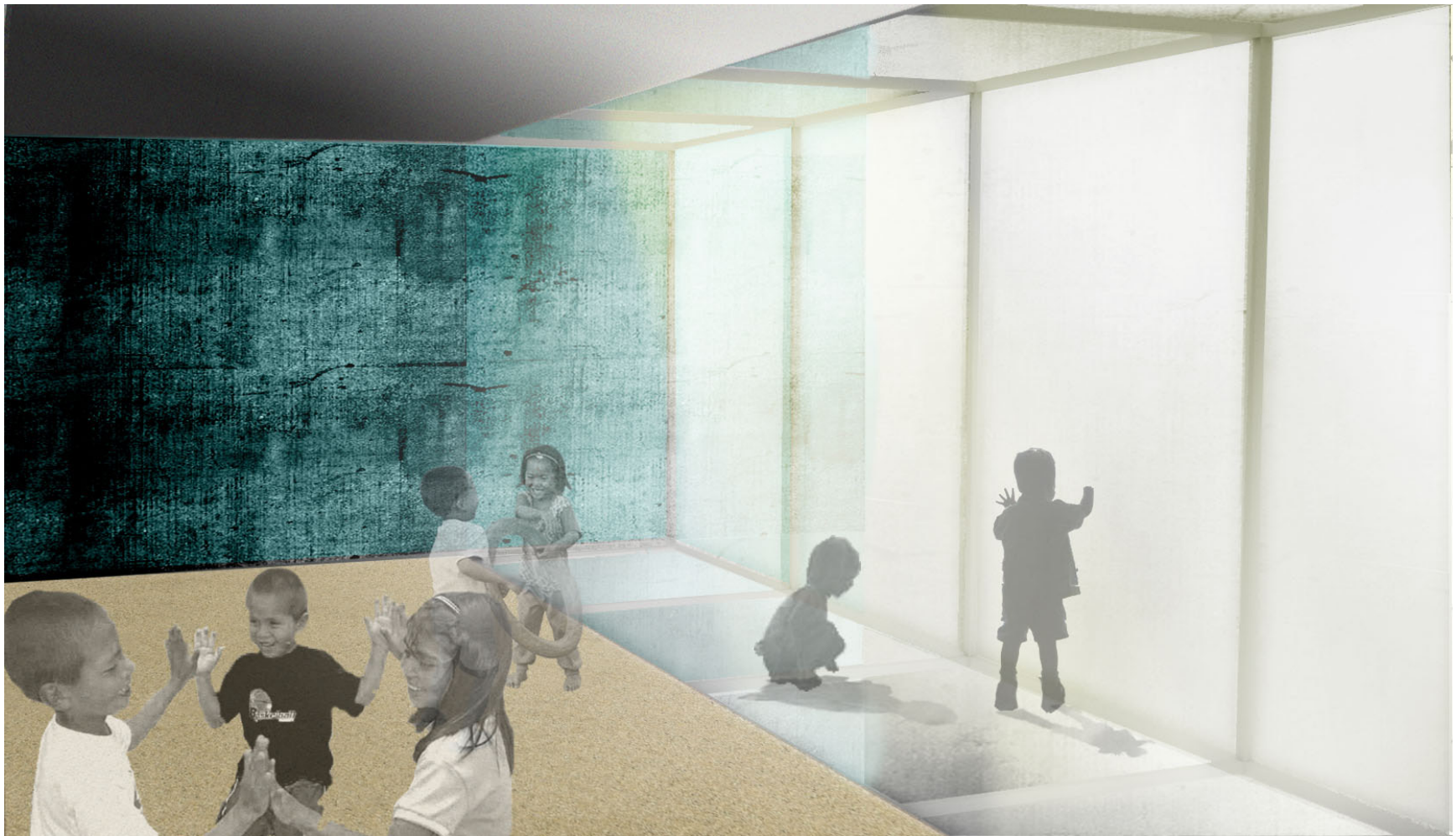


Section **B - B'**

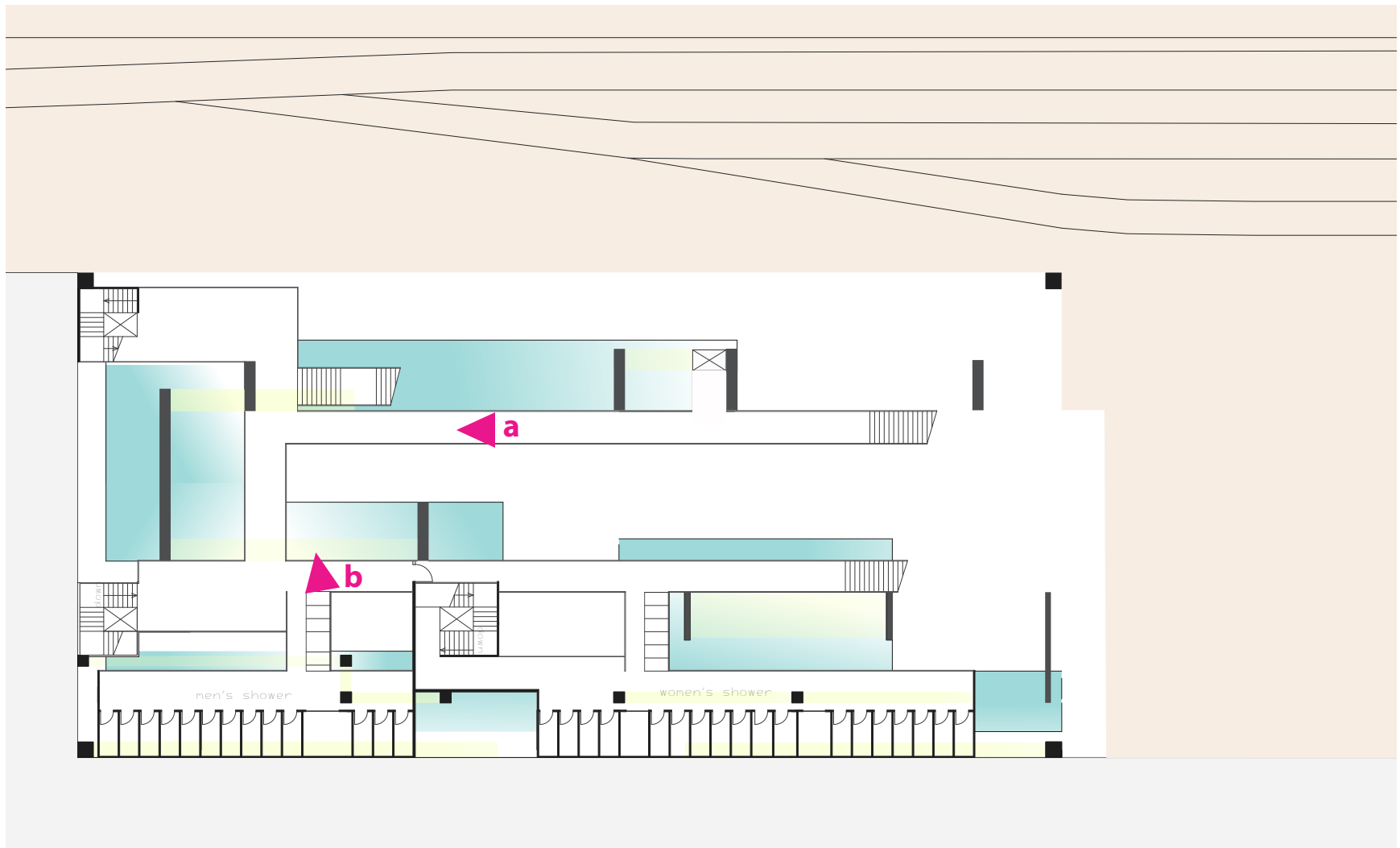
The light wells that bring light to the lower level attempts to celebrate the experience in lower basement floors. For instance, the children's room are embedded in the concrete light well that penetrates the building, where you can see the water in the lower level from the glass floor while receiving light from above.



Plan : B3 Level



View from the Entry of Children's Room **a**



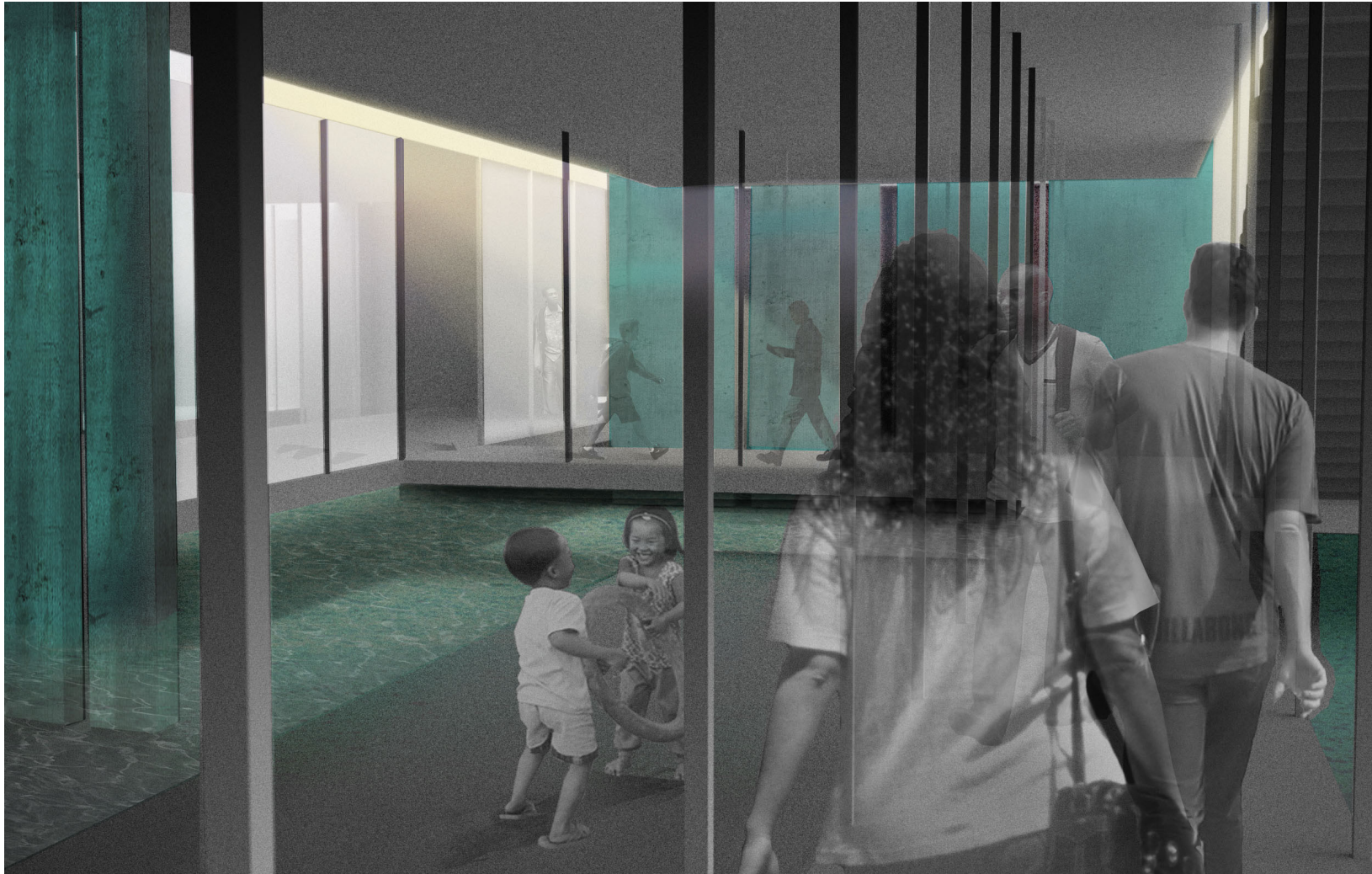
Plan : B4 Level

The lowest level of the building provides the shower rooms which are shared by all the people who come through this site.

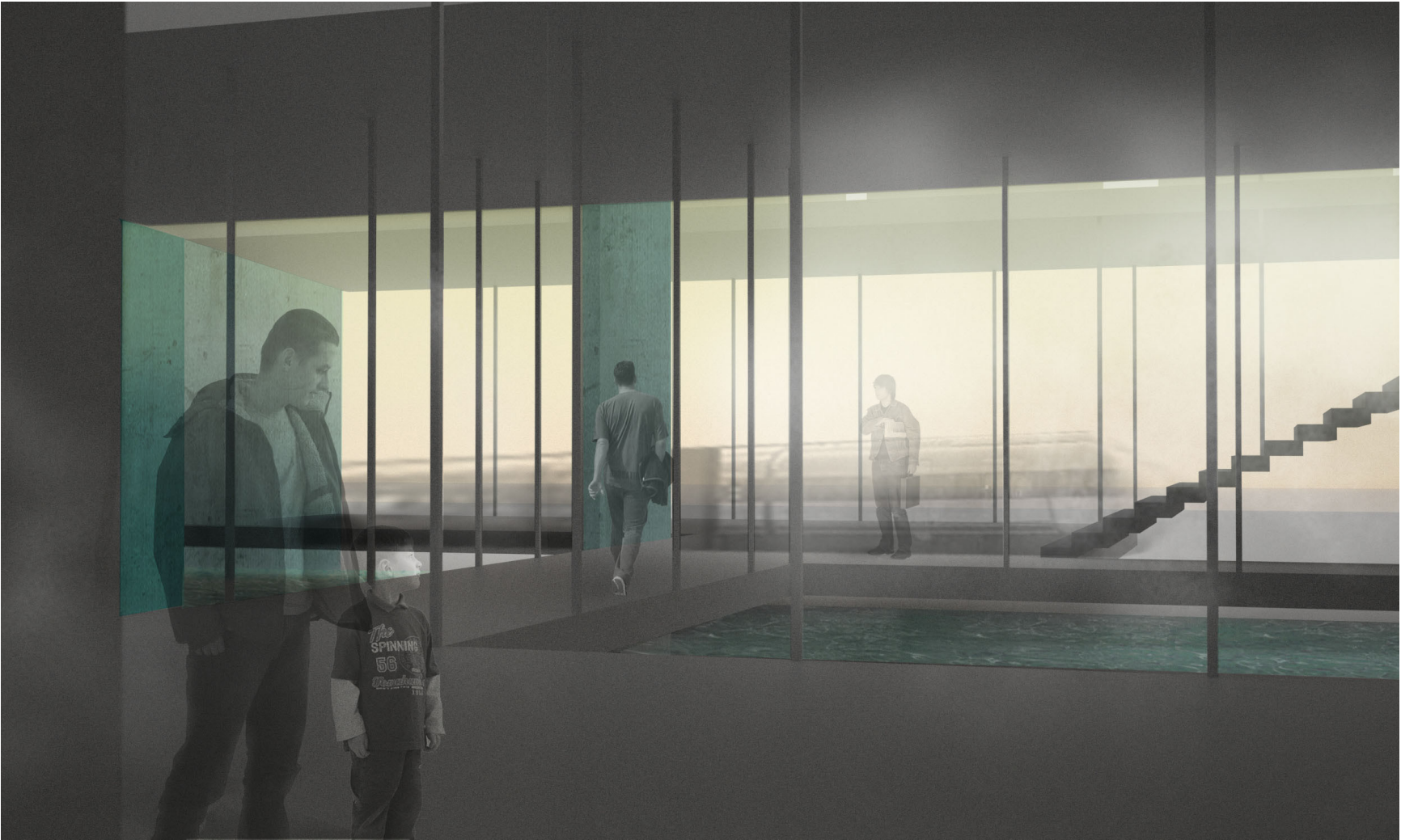
The shower is separated for men and women, each having the security to get into the shower rooms. There are two public circulations that lead to the shower, one from B1 floor of Pennsylvania Station and the other from the café on the ground floor. There are also internal circulation separated to men and women in the homeless shelter, which are directly connected to the sleeping rooms of homeless men and women.

The passage to the shower is celebrated with water, and the trains passing through the rail tracks can be seen from this passage as well as the shower.

Its goal is to manipulate the anticipated experience of the subterranean.



View Walking towards the Shower Rooms from **a**



View Looking out Towards the Rail Tracks Outside the Shower Rooms from **b**

Bibliography

Arendt, Hannah, *The Human Condition*.

Chicago: The University of Chicago Press, 1998.

Ballon, Hilary and Kenneth T. Jackson ed., *Robert Moses and the Modern City*. New York, London: W.W. Norton & Company, 2007.

Borden, Lain, Joe Kerr, Jane Rendell, and Alicia Pivaro ed., *The Unknown City*. Cambridge: MIT Press, 2002.

Crawford, Margaret. "Contesting the Public Realm: Struggles over Public Space in Los Angeles." *Journal of Architectural Education* 49, no. 1

Deutsche, Rosalyn. "Art and Public Space: Questions of Democracy" JSTOR

Deutsche, Rosalyn, "Uneven Development: Public Art in New York City," JSTOR.

Habermas, Jurgen, "The Public Sphere: An Encyclopedia Article (1964)," JSTOR.

Keeney, Gavin. "The Highline and the Return of the Irreal." *Competitions* Winter 2004-2005.

Koolhaas, Rem, *Delirious New York*, trans. Keisuke Suzuki
Tokyo: Chikuma Press, 1999.

Lefebvre, Henri, *Production of Space*, trans. Donald Nicholson-Smith
Malden: Blackwell Publishing Ltd., 1991

Sennett, Richard, *The Fall of Public Man*. New York,
London: W.W. Norton & Company.

Weintraub, Jeff and Krishan Kumar ed., *Public and Private in Thought and Practice*. Chicago, London: University of Chicago, 1997.

Websites:

ai archinnovations <http://www.archinnovations.com>

Chelse Now <http://chelseanow.com>

City Limits.org <http://www.citylimits.org/>

Coalition for the Homeless <http://www.coalitionforthehomeless.org/>

Covenant House <http://www.covenanthouse.org/>

Dallas News.com <http://www.dallasnews.com>

Dallas Observer News <http://www.dallasobserver.com>

e-architect http://www.e-architect.co.uk/new_york/

forwardDallas! Comprehensive Plan Vision

<http://www.forwarddallas.org/files/up/20060830/Vision.pdf>

Institute for Children and Poverty <http://www.icpny.org/>

Metro Dallas Homeless Alliance <http://www.mdhadallas.org/>

Metropolitan Transportation Authority <http://www.mta.info/>

Neighborhood Coalition for Shelter <http://www.ncsinc.org/>

NYC Coalition against Hunger <http://www.nyccah.org/>

NYC Department of Buildings

<http://www.nyc.gov/html/dob/html/bis/bis.shtml>

NYC Department of Homeless Services

<http://www.nyc.gov/html/dhs/html/home/home.shtml>

NYC Department of Planning

http://www.nyc.gov/html/dcp/html/census/nny_overview.shtml

NYC Department of Sanitation

<http://www.nyc.gov/html/dsny/html/home/home.shtml>

NY Daily News <http://www.nydailynews.com>

NY1.com <http://www.ny1.com/>

New York Post <http://www.nypost.com/>

New York Press

http://www.nypress.com/article-19475-no-soup-for-you_.html

the New York Observer <http://www.observer.com/>

the New York Times.com <http://www.nytimes.com/>

Urban Pathways <http://www.urbanpathways.org/index.asp>



