

Social Housing+

AFFORDABLE HOUSING AS A DRIVER FOR
URBAN REGENERATION

THE NOVA LUZ CASE STUDY

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Introduction

Executive Summary
About the Studio

EXECUTIVE SUMMARY

Exponential population growth worldwide, the unprecedented urbanization of cities, and an unequal distribution of economic profits, has intensified the need for affordable housing in city centers around the globe. Internationally referred to as social housing, the provision of such housing has traditionally been viewed as a burden by governments and developers alike. Plagued by pervasive negative social stigma and slim profit margins, development of social housing in desirable locations has struggled to materialize.

Mechanisms utilized to develop social housing differ from place to place, but the term social housing has historically referred to housing that is built, owned, and/or managed by the state, non-governmental

Social housing has traditionally been viewed as a burden.

organizations, or some combination of the two. At its most basic level, social housing provides a physical shelter for residents. Few examples exist, however, of more robust housing that offers inhabitants not just

stable shelter, but also supportive physical and social networks that facilitate social mobility for residents.

Additionally, despite rapid global economic growth, many citizens have not benefited from these profits, leading to an unequal distribution of resources and huge income inequalities. Furthermore, social housing has frequently been developed on less expensive tracts of land on the outskirts of cities-- far from job centers, infrastructure, and social services. This location on the periphery typically requires infrastructure and urban services to be extended at high costs, often resulting in sub-par public services for low-income residents and further taxing already overburdened infrastructure systems. Concurrently, many urban centers have seen a major exodus from the center, leading to massive disinvestment and low levels of activity on the streets after standard business hours. A lack of activity or eyes on the street has increased levels of crime and drug use in city centers, creating unsafe living conditions and further exacerbating this cycle of disinvestment.



While Nova Luz has been plagued by addiction, prostitution and disinvestment, it has a strong artistic and cultural history.

In order to disrupt this cycle and meet the needs of a growing worldwide population, the social housing paradigm must be shifted. Latin America, and Brazil in particular, is in tremendous need of a new social housing model. Currently, there is a deficit of over eight million housing units across the country, leaving even the region's economic powerhouse, São Paulo, in a major housing crisis. Massive inequalities and a growing cost of living, has left more than 62% of São Paulo's population unable to afford a home.

As the City of São Paulo works to provide affordable housing for its over 11 million residents, and embarks on a revitalization plan for the center of the city, the time is right for a new model of social housing. This innovative strategy utilizes social housing as a driver for, and catalyst of, downtown neighborhood reinvestment by encouraging social housing to do more than just provide a place to live. New housing will include supportive networks of social services and better access to amenities, while working to establish a sense of place, and address public health, safety, and environmental concerns.

Our vision for social housing, entitled Social Housing+, serves as a new model not only for São Paulo and Brazil, but also for city centers around the world that are struggling to provide adequate affordable housing options and revitalize their urban cores. We strongly believe that social housing has the potential to achieve multiple goals, making it an asset to governments and incentivizing its development. As will be discussed in the following sections, our vision for social housing will take

a holistic approach and include more than just the building structures we have seen in the past. This strategy will enable the Social Housing+ model to meet growing housing needs, facilitate social mobility for residents, and serve as a catalyst for the regeneration of city centers.

This innovative strategy utilizes social housing as a driver for, and catalyst of, downtown neighborhood reinvestment.



Empty sites, such as the one pictured above, are prime locations for redevelopment.

ABOUT THE STUDIO

This semester PennDesign architects, landscape architects, city planners, and urban designers came together to study and provide design interventions for global social housing trends in three diverse locations: Beijing, Toronto, and São Paulo. The goal was to develop comprehensive models for social housing cross-culturally. This studio was designed to develop strategies that help accommodate the massive amounts of growth these cities are expected to experience over the next few decades, with the provision that social housing is not simply a question of just how many housing units to build. Rather, it requires considering social housing holistically and from an interdisciplinary perspective. Creating housing

The goal was to develop comprehensive models for social housing cross-culturally.

problem, and one that requires critical analyses of precedent, careful study of culture and site, and creative design collaboration.

With this framework in mind, the students in the global social housing studio researched programs, technologies, case studies, and policies around the world, which could potentially be retrofitted and tested in each of the sites. The first step for the studio involved intense review into current housing policies and programs within each city, as well as architecture and design projects that have been influential, or have the potential to generate significant impact in each of the three locations. This stage culminated in a

three-day design charrette with each studio developing an approach to social housing, which would then be tested and modified for the remainder of the semester following site visits to the three locations.

Our initial design and planning approaches changed drastically after visiting our site in São Paulo in person, meeting local Paulistanos, and presenting our ideas to professional experts in the City. For the remainder of the semester we began to unpack the complexities of social housing, by developing and testing a variety of strategies and models, and using a specific study location, Nova Luz, as a testing ground. In this final stage our goal was to design an approach to social housing that would

not only be transformative in each of our case study locations, but which could also be replicable in similar environments

Our initial design and planning approaches changed drastically after visiting our site in São Paulo

around the world. With this framework in mind, and the knowledge we gained from precedent study research, site visits, and feedback from social housing and policy experts, we created a new vision for social housing. This vision is informed by an interdisciplinary approach and is ready to meet the challenges facing our rapidly urbanizing world.



Background

National Context
A Need for Social Housing
Downtown Disinvestment
Existing Social Housing Structure
Challenges to Development



NATIONAL CONTEXT

Brazil

In 2001, Brazil was appointed a member of B-R-I-C, one of four countries alongside Russia, India and China predicted to top the world's wealthiest economies before 2050. At the time of this prediction, Brazil's economy was rapidly expanding; however, its growth began to level off following the Wall Street financial crisis in 2008.¹

62% of Brazilians cannot afford to buy a home.³ Despite the country's period of rapid economic expansion, many citizens did not benefit from this growth; leading to unequal distributions of wealth and significant income inequality.² Spiraling real estate prices, low salaries and a growing population have produced a drastic national housing deficit.⁴ Brazil struggles to provide sufficient affordable housing for its most impoverished citizens.



HOUSING DEFICIT

Eligibility for social housing in Brazil is measured by a multiple of minimum wage, which is classified by income brackets. While incomes between zero and six times the minimum wage are eligible for social housing, the majority of those who qualify in São Paulo earn less than three times the minimum wage.

Brazil faces a housing deficit of over 8 million units, and struggles to provide affordable housing for all who qualify.



Paraisópolis favela, São Paulo

- More than 80% of this housing deficit qualifies for social housing
- 62% cannot afford to buy a home
- 30% live in Informal settlements, which take the form of *favelas* (slums), irregular developments, or tenement houses

HISTORY AND POPULATION GROWTH

São Paulo

During the nineteenth century, the city of São Paulo served as the academic and political epicenter of Brazil. The rise of the coffee industry over the next century further solidified the city's role as a major economic power.⁵ In 1867, the city built the Luz railway station to transport coffee from São Paulo to Port Santos for exportation to the United States and Europe.⁶

Luz Station not only facilitated commercial export activity, but also served as a new gateway to São Paulo's city center. At the end of the twentieth century, a wave of immigrants moved to São Paulo to work in the coffee industry, and by 1890, comprised more than a half of the city's 100,000 residents.⁷ By the 1920s, 80% of the world's coffee was produced in Brazil.⁸ The industry continued to attract workers to the city and in 1930, the population of São Paulo topped one million.

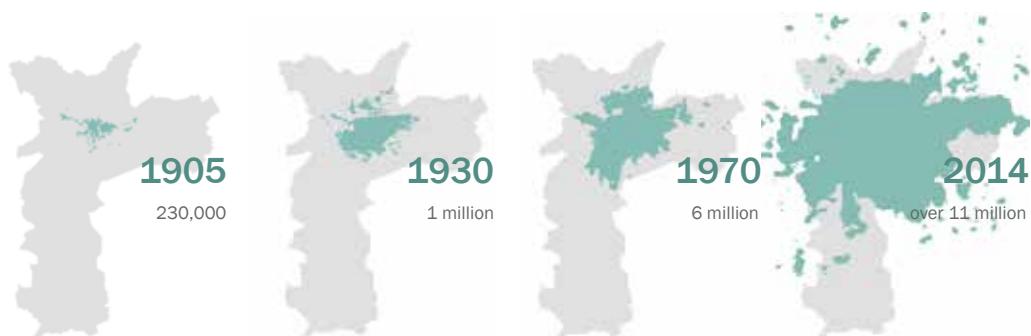
In the 1950s, São Paulo witnessed a surge in industrialization spurred by the durable consumer goods industry and additional migrants flocked to the city to work in the newly built factories.⁹ Highways were built to facilitate exports to other regions of the country and abroad. These highways

followed the city's historic hub-and-spoke road construction and served to encourage development outside of the urban core.

In the 1970s, industries located in the center city relocated to other cities in the region, further sprawling development beyond the center.¹⁰ With growing crime in the decentralizing core, wealthier Paulistas vacated the inner city to protected communities on the periphery.

At the same time, comparatively higher land prices in the city's center and a lack of sufficient financing options for homeownership proved cost prohibitive for Brazilians in the lowest income brackets. Without options, poorer families were forced to take up residency in peri-urban areas that often lacked basic infrastructure or public services.¹¹

Those that stayed in the center of the city frequently did so informally. In 2007, 48,000 São Paulo residents lived in slum tenements and an additional 10,000 on its streets.¹² In 2014, with over 11 million residents in the city and 20 million in the region, São Paulo is the largest metropolitan area in Brazil and the 10th largest in the world.¹³



From 1905 to 2014, Brazil's population grew exponentially. To date, over 80% of Brazil's inhabitants live in cities and their outlying areas.¹⁴

Income Disparity

There is a significant income disparity in São Paulo between residents in the inner city and those on the outer fringe. While the average income citywide is approximately

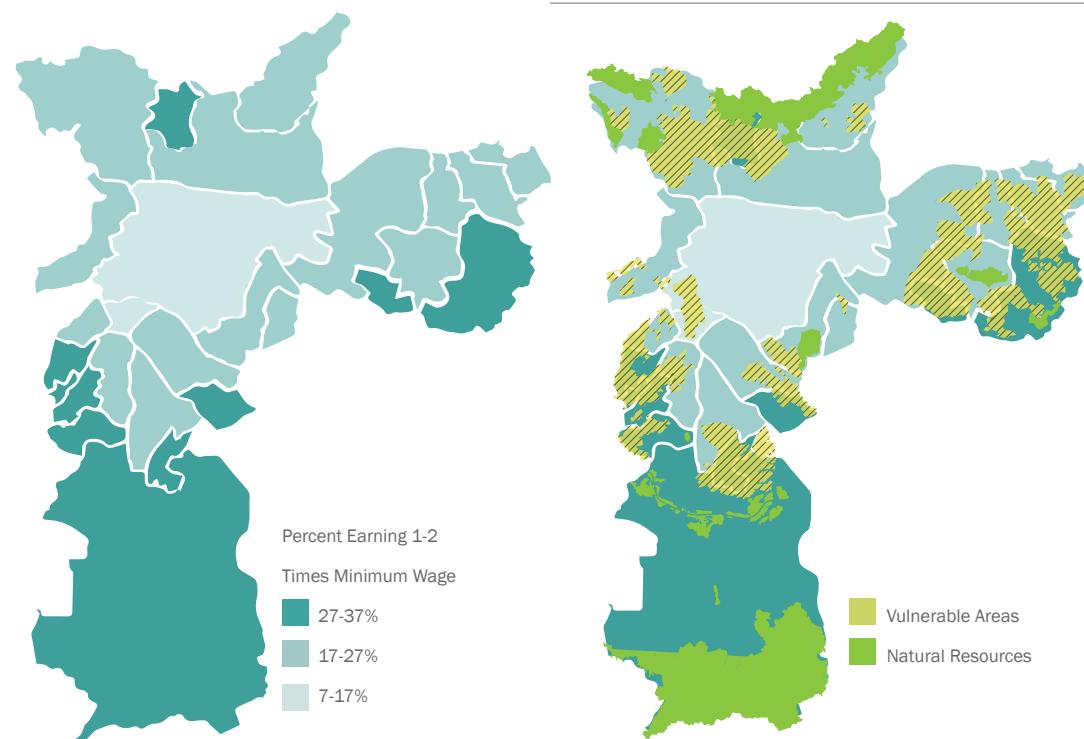
30% of the population lives in informal settlements.

nine times the minimum wage, people earning incomes below three times the minimum wage have been pushed to the periphery where land is cheaper.¹⁵

Nearly 30% of São Paulo's population lives in informal or irregular settlements. The majority reside in *favelas* (slums); with populations of approximately 380 inhabitants per hectare; these settlements are five times denser than the city as a whole.¹⁶

The informal settlements established on the periphery are often located in environmentally risky areas or zones marked as vulnerable for development. The large amount of unregulated development within watershed areas, for example, threatens the city's water quality with stormwater runoff and contamination.

In addition, this land is often very geographically unsuitable for development, and creates precarious living conditions; putting residents at risk.¹⁷ One of the major environmental consequence of São Paulo's urban sprawl is the endangerment of the Atlantic rainforest that rings the city. One of the world's most fragile ecosystems, São Paulo's unregulated expansion has contributed to its destruction.¹⁸



The Impacts of Sprawl

Sprawl has also created a disconnect between where people live and work. São Paulo's primary financial centers are clustered in the city's historic downtown as well as along Avenida Paulista in the Jardim, one of the city's wealthier neighborhoods. Economic centers are also emerging in Brooklin, along Avenidas Engenheiro Luís Carlos Berrini and Brigadeiro Faria Lima.

Traffic jams often total 112 miles in length every day.

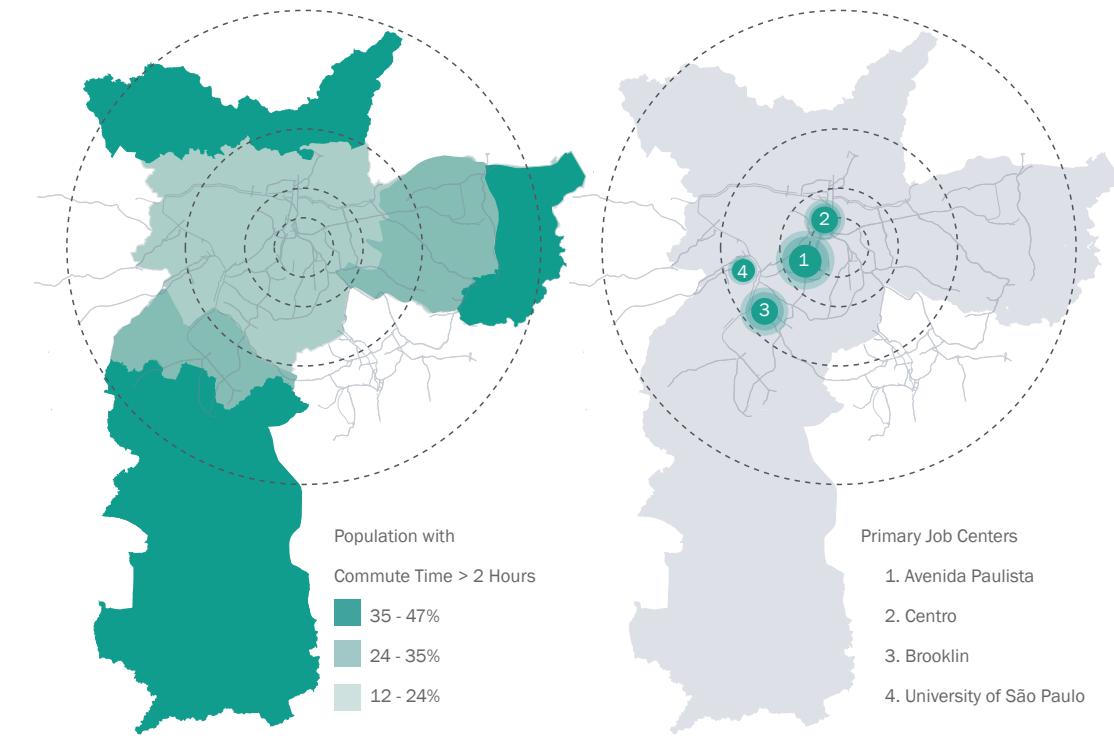
While jobs are primarily located within the city center, nearly 20 million of São Paulo's residents live in the megaregion. As a result, one-half of the city's population commutes over two hours from the periphery to jobs downtown. This pattern regularly results in traffic jams on average of 180-kilometers (112 miles) long and contributes to air pollution.¹⁹

Unsurprisingly, São Paulo is considered one of the most congested cities in the world.²⁰

Lower-income residents living on the periphery must also contend with the high cost of public transportation and are often forced to make multiple connections to get to work.

The siting of jobs in the city center, coupled with unaffordable land and housing prices, a national shortage of affordable housing units, and expensive public transportation make it difficult for lower-income residents to commute the long distances required for employment.

This double-bind contributes to the nearly 60,000 São Paulo residents who resort to living in slum tenements, squats, or on the city streets in order to afford to live close to employment opportunities.



DISINVESTMENT IN SÃO PAULO'S CENTRO

Context

The trend toward urban sprawl that began in the 1950s has contributed to the current decline of the city's center. Between the 1970s and 1990s, the São Paulo Metropolitan Area's reported an annual decrease in population growth from 4.5% to 1.5%.²¹

Over the last decade, the number of residents living in downtown São Paulo has continued to decline, leading to an uneven distribution of demographic growth. As the

Conditions on the periphery have exacerbated downtown disinvestment.

While most of the growth in the outer regions has occurred in low-income areas where land values are low, conditions on the periphery have only exacerbated problems of disinvestment downtown. In order to support residents living in outlying areas, the government must extend or build new infrastructure and services despite their underutilization in the center.²³

As population in the urban core decreases, the land left behind has remained unoccupied. Despite severe housing shortages, land prices in downtown areas remain prohibitively expensive for poorer residents and current public policies are insufficient in supporting the development of vacant and underutilized lots into affordable housing.²⁴ São Paulo's centro has suffered as a result.

Conditions of Disinvestment

The depopulation of São Paulo's city center along with zoning regulations restricting density have led to the concentration of single-use developments downtown. Commercial areas that lack housing and late night programming shut down after business hours, leaving few eyes on the street.

Downtown São Paulo suffers from poor infrastructure and insufficient stormwater management systems. These over-taxed facilities lead to flooding, raising public health concerns and creating poor public realm conditions.

Population decreases, land tenure conflicts, and tax delinquent landowners have further contributed to conditions of blight and overall disinvestment in downtown São Paulo. Underutilized vacant lots, abandoned buildings, and lack of eyes on the street have enabled drug use, sex work, and other illegal activities to take root.

The building form has responded to these security concerns by walling off apartment complexes, gating institutions, and shuttering storefronts. This response has only perpetuated the problem by removing eyes on the street.

Building form has responded to security concerns with shuttered storefronts.



Single-use development that is primarily commercial closes after business hours, leading to an inactive street life.



Poor infrastructure and inadequate stormwater management systems lead to flooding and other public health challenges.



Depopulation of downtown areas has resulted in vacant and underutilized public spaces. These spaces have attracted graffiti and other illicit activities.

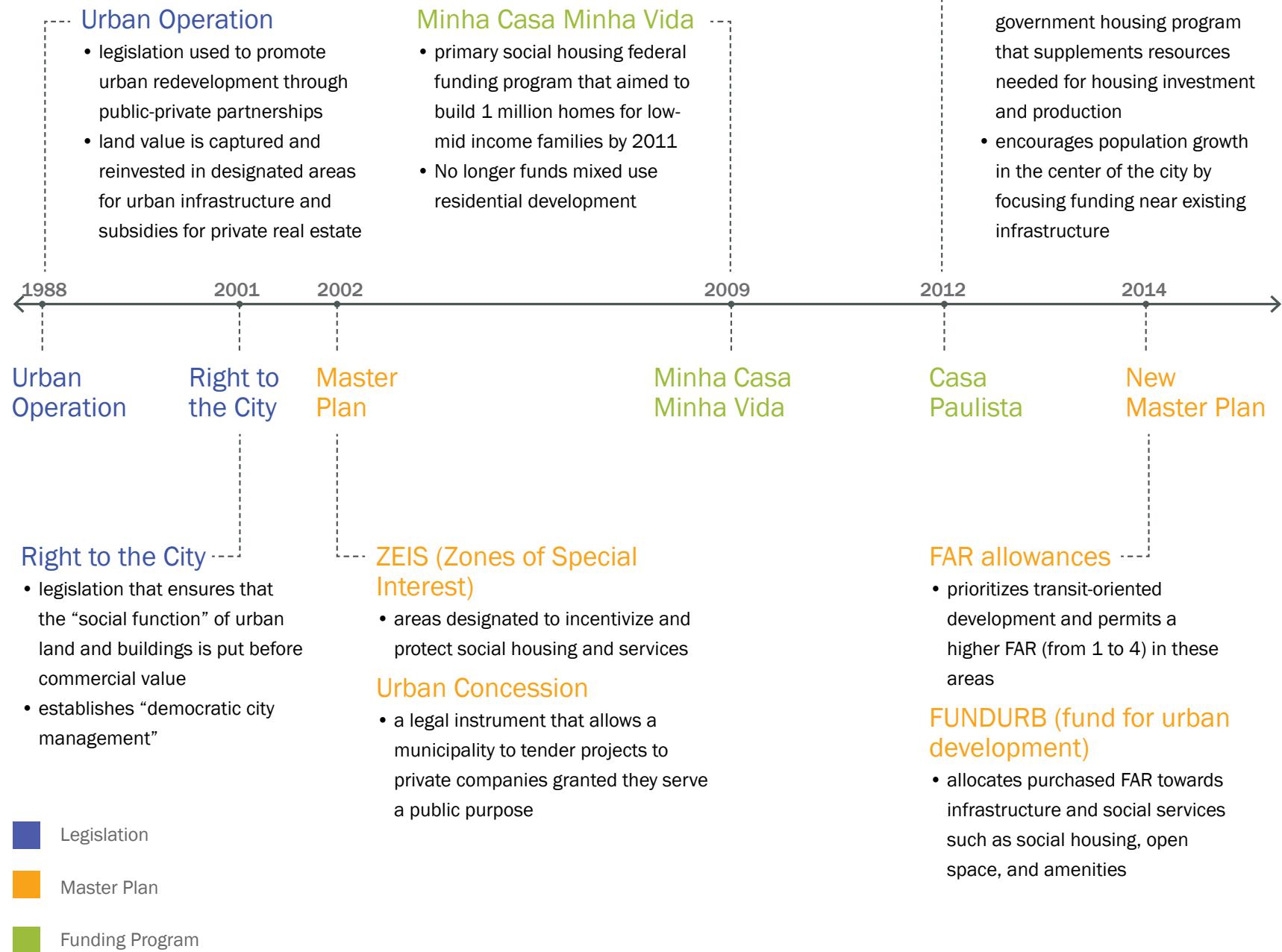


Lack of affordable housing near job centers and poor access to social services creates pockets of concentrated poverty.

EXISTING SOCIAL HOUSING STRUCTURE

Policies, Legislation, and Funding

A variety of different federal and municipal programs and policies implemented in the past several decades have shaped the current state of social housing development in São Paulo.



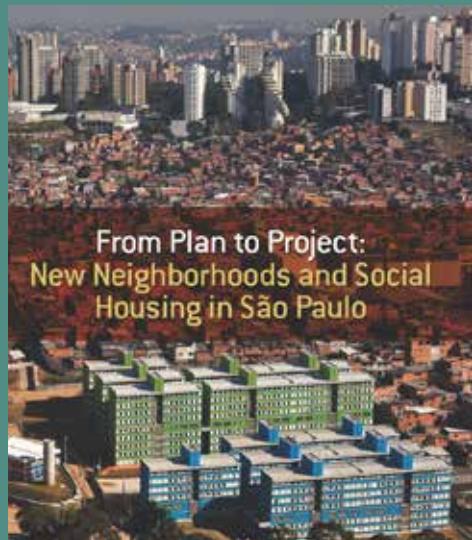
CASE STUDY

HABISP Social Housing Design Guidelines

In 2012 the City of São Paulo published design guidelines, specifically for social housing.

These guidelines specify metrics based on the ability for a project to address:

- stakeholder management
- quality of life and coexistence
- emphasis on design
- creation of jobs and income



EXISTING SOCIAL HOUSING STRUCTURE

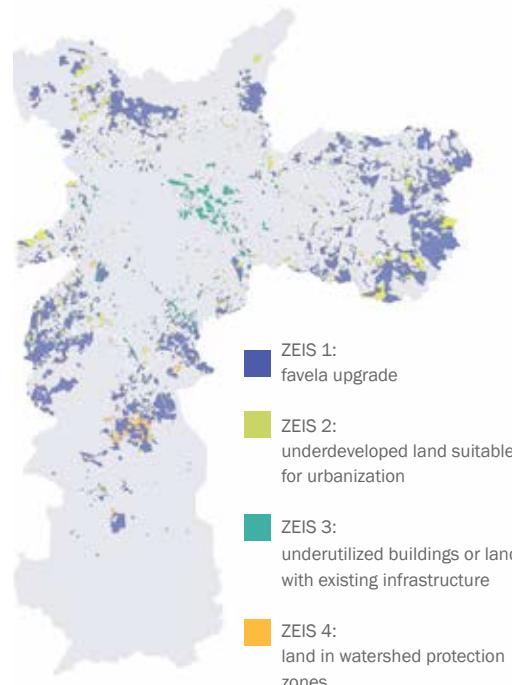
The Status Quo

Although São Paulo has made recent efforts to improve social housing, the status quo is still primarily low-cost tract development on the periphery funded by the federal Minha Casa Minha Vida program. This peripheral development exacerbates sprawl and works against the city's goal of revitalizing the center.

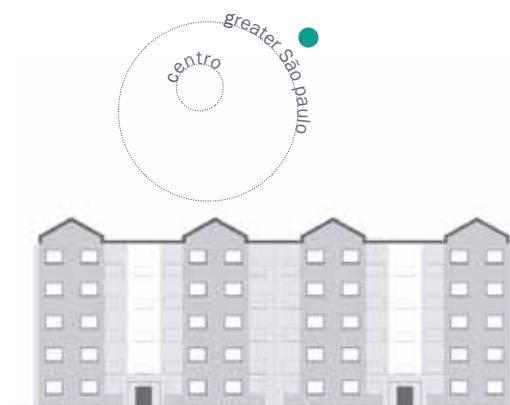
ZEIS

The 2002 Master Plan established one of the primary mechanisms for developing social housing. The Plan designated 964 Zones of Special Social Interest (ZEIS), which are categorized by land use and practicality for development.²⁵

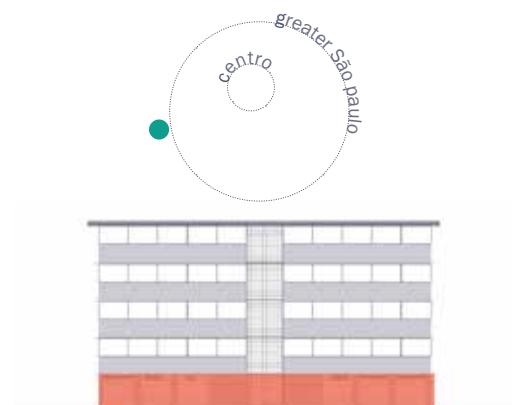
There are four levels of ZEIS, shown in the map on the adjacent page. While there have



Physical Forms of Social Housing



Cingapura Model: The traditional model of social housing development in São Paulo, consisting of low-quality, multi-family tract housing, with fast construction times and no services.



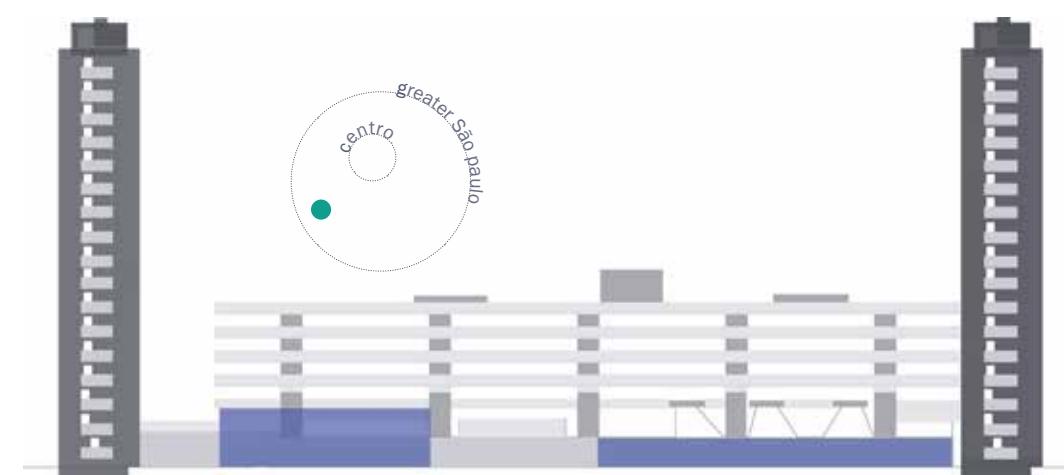
Paraisópolis: An example of a favela upgrade in a ZEIS 1 zone with integrated retail and services on the first-floor of residential buildings.

been a number of examples of social housing constructed in several levels of ZEIS, after 12 years there have been no social housing developments constructed in ZEIS 3, located in central urban areas.

Challenges to Downtown Development

Challenges of land tenure and title management are some of the primary reasons for the lack of social housing development in the center city. Because the market has failed to provide sufficient affordable housing, residents have developed squatter settlements in abandoned buildings.

A second reason is the pervasive negative perception of social housing. This is rooted in the connection between social housing as low-quality, or poor construction that has



Jardim Edite: An example of ZEIS 1, is a favela upgrade project which successfully integrates services into the social housing complex.

been long associated with the Cingapura housing model.

Additionally, there is a global perception that social housing is a burden on the city because it concentrates poverty, reducing property values and dissuading private investment. This perception creates a social stigma for residents who live in or have a need for social housing.

Perceptions of social housing as a burden on society have prevented its development in the city center.



End Notes

1. "The Man Who Named The Future; Cover Story- Insight." Financial Times (London, England). (January 16, 2010)
2. "The World Factbook." The Central Intelligence Agency, 2012. <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2172rank.html>.
3. "Room for Development: Housing Markets in Latin America and the Caribbean." Inter-American Development Bank, 4/10/2012, Palgrave Macmillan; 1st Ed. edition.
4. "International Housing Shortage Grips São Paulo as Brazil Spends Billions on World Cup." America Aljazeera, 4/13/2014, <http://america.aljazeera.com/articles/2014/4/13/housing-shortagegripsbrazilasitsspendsbillionsonworldcup.html>.
5. "History." Official Tourism Site of the City of São Paulo. <http://www.cidadedesaoaulo.com/sp/en/the-city-of-Sao-paulo..>
6. "São Paulo - Exhibitions." São Paulo Tour Guide : Arts, Exhibitions. <http://www.aboutsaoaulo.com/capital-city/fine-arts.html>.
7. Official Tourism Site of the City of São Paulo.
8. "Brazil: The High Cost of Coffee." Time. August 28, 1964, <http://content.time.com/time/magazine/article/0,9171,876132,00.html>.
9. The Cities Alliance.
10. Official Tourism Site of the City of São Paulo..
11. http://www.anpec.org.br/encontro/2013/files_1/i10-bd5e46f51fb1644c885b4ae711cdacf.pdf
12. The Cities Alliance.
13. "São Paulo Metropolitan Area Profile." Global Cities Initiative. Brookings Institute, 2012. <http://www.brookings.edu/>
14. Herling, Tereza. "Social Housing in São Paulo: Challenges and New Management Tools." The Cities Alliance, 2009, page 9. <https://www.citiesalliance.org/sites/citiesalliance.org/>.
15. França, Elisabete. Social Housing Policy in São Paulo. Presentation. MUNICIPALITY OF São PAULO HOUSING SECRETARY, Feb. 2008. Web. <http://www.habisp.inf.br/theke/documentos/outros/Social_Housing_Policy/files/pmh_apresentacao_ingles.pdf>.
16. França, Elisabete. Social Housing Policy in São Paulo.
17. Donaghy, Maureen M. Civil Society and Participatory Governance: Municipal Councils and Social Housing Programs in Brazil. New York, NY: Routledge, 2013. 83.
18. "São Paulo peri-urban dynamics: some social causes and environmental consequences." Environment and Urbanization, April 2007 vol. 19 no. 1 207-223.
19. Geromel, Ricardo. "All You Need To Know About São Paulo, Brazil's Largest City." Forbes. Forbes Magazine, 12 July 2013. <http://www.forbes.com/sites/ricardogeromel/2013/07/12/all-you-need-to-know-about-Sao-paulo-brazils-largest-city/>
20. "News." Changing Commuters' Choices Helps São Paulo Reduce Traffic Congestion. The World Bank, 1 May 2014. Web. 09 May 2014. <<http://www.worldbank.org/en/news/feature/2014/05/01/changing-commuter-choices-helps-Sao-paulo-reduce-traffic-congestion>>.
21. "São Paulo peri-urban dynamics: some social causes and environmental consequences." Environment and Urbanization, April 2007 vol. 19 no. 1 207-223.
22. Ibid.
23. Ibid.
24. Ibid.
25. Herling, Tereza. "Social Housing in São Paulo: Challenges and New Management Tools." The Cities Alliance, 2009. <https://www.citiesalliance.org/sites/citiesalliance.org/>.

A photograph of an urban landscape. In the foreground, there is a field of tall, dry grass. To the left, there is a large, weathered industrial building with a corrugated metal roof. To the right, there is a multi-story residential building with a clock tower on top. The sky is overcast.

Vision

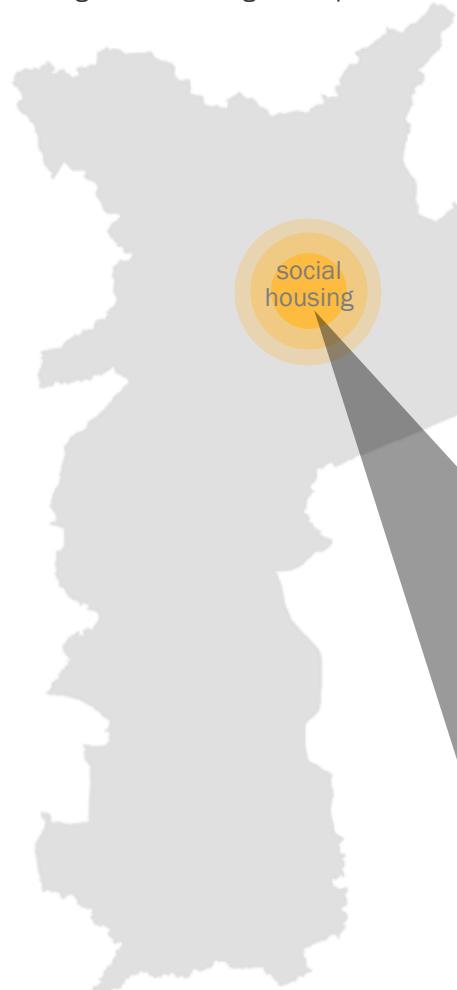
Shifting the Paradigm
Approach
Nova Luz: A Testing Ground

SHIFTING THE PARADIGM

Social Housing+

Our vision for social housing in São Paulo challenges existing preconceptions of social housing as a liability. Rather, we believe that social housing can be an asset and a driver of regeneration in disinvested downtown areas.

Existing downtown development strategies often either lead to rapid gentrification, or fail to meet regeneration goals. We believe there is another way. Our proposal utilizes social housing as a catalyst for regeneration while ensuring long-term affordability. Additionally, by focusing social housing development in



the center rather than at the periphery, the city can not only reduce sprawl, but also revitalize the center with density and more vibrant streetlife. To enable social housing to be successful and generate these benefits, it needs to go beyond the building. To meet this need, we found that social housing

developments should be more than just individual structures, as has been in the past. Our new model, called Social Housing+ is realized through a synergy between program, place, environment, and the building itself.

Social Housing+ harnesses existing assets, such as access to transit, job centers, and cultural amenities; while integrating new demographic-specific services and amenities within buildings and throughout the neighborhood. This framework creates an environment which will support the community, encourage social mobility, and serve as a catalyst for future investment.

- 1 revitalization
- 2 densification
- 3 commercial activity
- 4 24/7 streetlife
- 5 safety
- 6 private investment

SOCIAL HOUSING+



ACHIEVING SOCIAL HOUSING+

Approach

Social Housing+ establishes a nexus between social housing and the realization of regeneration potential in downtown areas. Rather than using the traditional approach of private investment as the driver for redevelopment, this vision proposes a new, alternative for the regeneration of downtown São Paulo.

We propose two strategies to implement this vision:

- (1) The development of Social Housing+ with a focus on physical form and targeted social programs and amenities, and
- (2) A Community Land Trust which ensures long-term affordability while empowering community residents in the process.

Social Housing+ consists of the following:

Program

- Housing that identifies programmatic needs for existing and future users, within the building and in the adjacent community.

Place

- Housing that incorporates amenities and social services as part of a larger system of activity that improves safety and increases connectivity.

Environment

- Housing that is performative and sustainable, and addresses major regional and site environmental challenges.

Building

- Housing that is spatially and programmatically flexible, and can adapt to a variety of different user groups.

Community Land trust

The Community Land Trust (CLT) sets the structural foundation for managing and protecting land for social housing+.

The CLT combats gentrification and displacement of community residents by ensuring land in a trust with restrictions on resale value. The CLT is managed by a tripartite structure which includes CLT residents, community residents, and the government, creating a more democratic development program in Nova Luz.

COMMUNITY LAND TRUST	
FORMATION	Trust buys or is gifted land, sometimes including buildings.
COLLECTIVE OWNERSHIP	Trust owns all land in perpetuity.
INDIVIDUAL OWNERSHIP	Homeowners purchase title apartment or property, but not land.
MUTUAL AID	Trust can help maintain property and ease new homeownership.
RESALE	Houses/Shares re-sold (or purchased) below market value, with value tied to inflation.
GOVERNANCE	Board composed of homeowners, community leaders and neighbors (to preserve status quo)

PERPETUAL AFFORDABILITY!



Nova Luz

A Testing Ground

TESTING SOCIAL HOUSING+ AND THE COMMUNITY LAND TRUST

Nova Luz Case Study

To test this model we looked to the center of São Paulo, and identified areas that would be ideal for social housing based on: existing amenities and opportunities to ameliorate urban decay, safety concerns, and environmental issues.

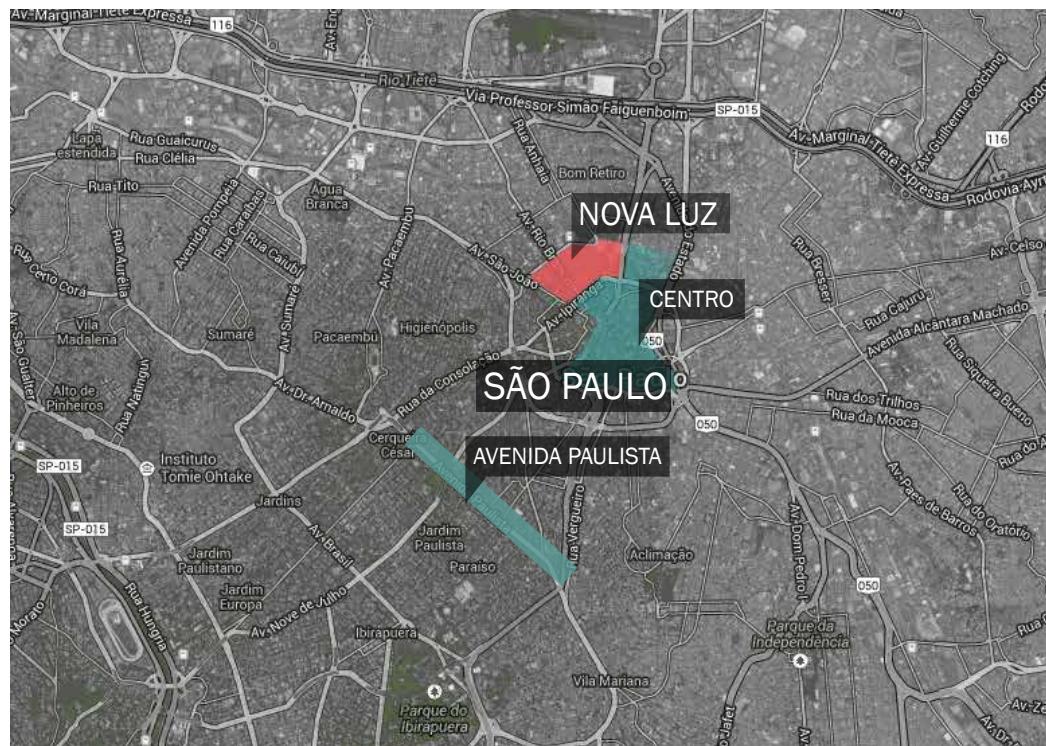
The city will not only benefit from developing social housing in areas where

Refocusing attention on the center has potential to limit sprawl.

development on the periphery. Nova Luz, in the Ifigênia neighborhood, is an ideal site

to test Social Housing+ and the Community Land Trust. This 45-block neighborhood is located in the heart of São Paulo's Centro, adjacent to the Luz Station, and surrounded by an abundance of rich amenities, such as cultural sites, open spaces, and anchor institutions.

As one of the first areas settled in São Paulo during the rise of the coffee industry, it has suffered years of disinvestment and population flight. This pattern is not exclusive to Nova Luz, but represents the decline of many areas in need of regeneration in São Paulo, Brazil, South America, and beyond.



Context: Nova Luz is adjacent to the historic Centro and close to the nearby financial center along Avenida Paulista.

AECOM PLAN

2005 Plan for Nova Luz

Over the past decade, Nova Luz has been the subject of several different redevelopment plans, which have ultimately not been implemented for various reasons.

In 2005, AECOM won a bid for the most recent major redevelopment plan.

The 2002 São Paulo Master Plan included a legal instrument to acquire land in Nova Luz, which had been a major barrier to redevelopment in the past due to unclear land tenure. The legal instrument used "urban concession" which enabled the government to acquire land and give it to a private developer, as long as the project served a "public purpose", similar

to the use of eminent domain in the United States.¹

The AECOM plan included a variety of infrastructure improvements and plans to develop Nova Luz into a technology center.

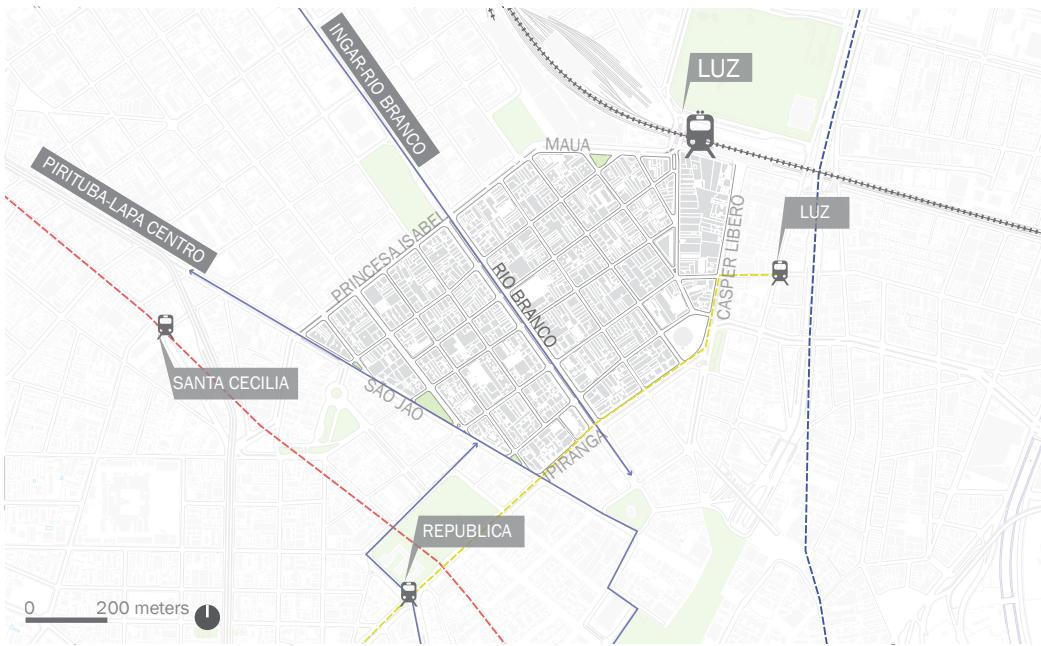
The plan received a significant amount of community resistance, and the urban concession tool is currently tied up in legal issues, which has put the project on hold for the time being.



NOVA LUZ

Neighborhood Assets

Public Transit



Nova Luz is well-served by public transit, with all blocks within 1.6 km (1 mi) of Luz Station. Luz Station connects with both the São Paulo Metrô system and the major regional rail network. In addition, Nova Luz is served by an extensive Bus Rapid Transit network, providing additional local and regional connections.



Luz Station during rush hour



The Bus Rapid Transit stop on Rio Branco

Open Space



The Nova Luz neighborhood is rich in open spaces, which provides opportunities for primarily passive recreation. The Jardim da Luz to the north of the site is the oldest public park and botanic garden in São Paulo, and Praça da República to the south draws visitors to an open air market. In response to safety concerns in this neighborhood, most public parks have gates, or a police presence.



Jardim da Luz



Praça de República's pedestrian plaza.

Anchor Institutions



Nova Luz is surrounded by many important cultural institutions, including the recently renovated Sala São Paulo Concert Hall, Municipal Theater, and Portuguese Language Museum. Other anchor institutions in the neighborhood include a new technical school in Nova Luz, and government offices such as the Secretary of Education.

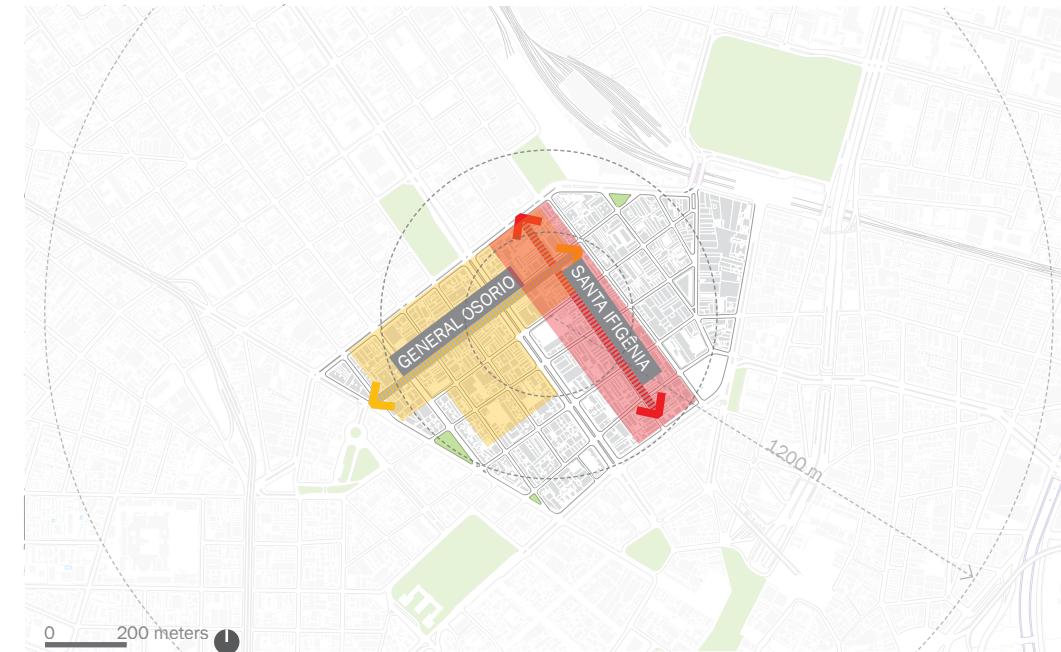


Technical School: Escola Técnica Estadual (Etec) Nova Luz



Sala São Paulo

Local Economy



Nova Luz is served by two specialized commercial corridors: General Osório Street, which sells motorcycle supplies and services, and Santa Ifigênia Street, which sells a variety of electronic goods. Shops specializing in these products are not limited to the primary corridors, and spill over into the surrounding side streets, creating small districts. In addition to this local economy, Nova Luz is less than 1 mile from the downtown central office district.



Motorcycle businesses on General Osório



Electronics businesses on Santa Ifigênia

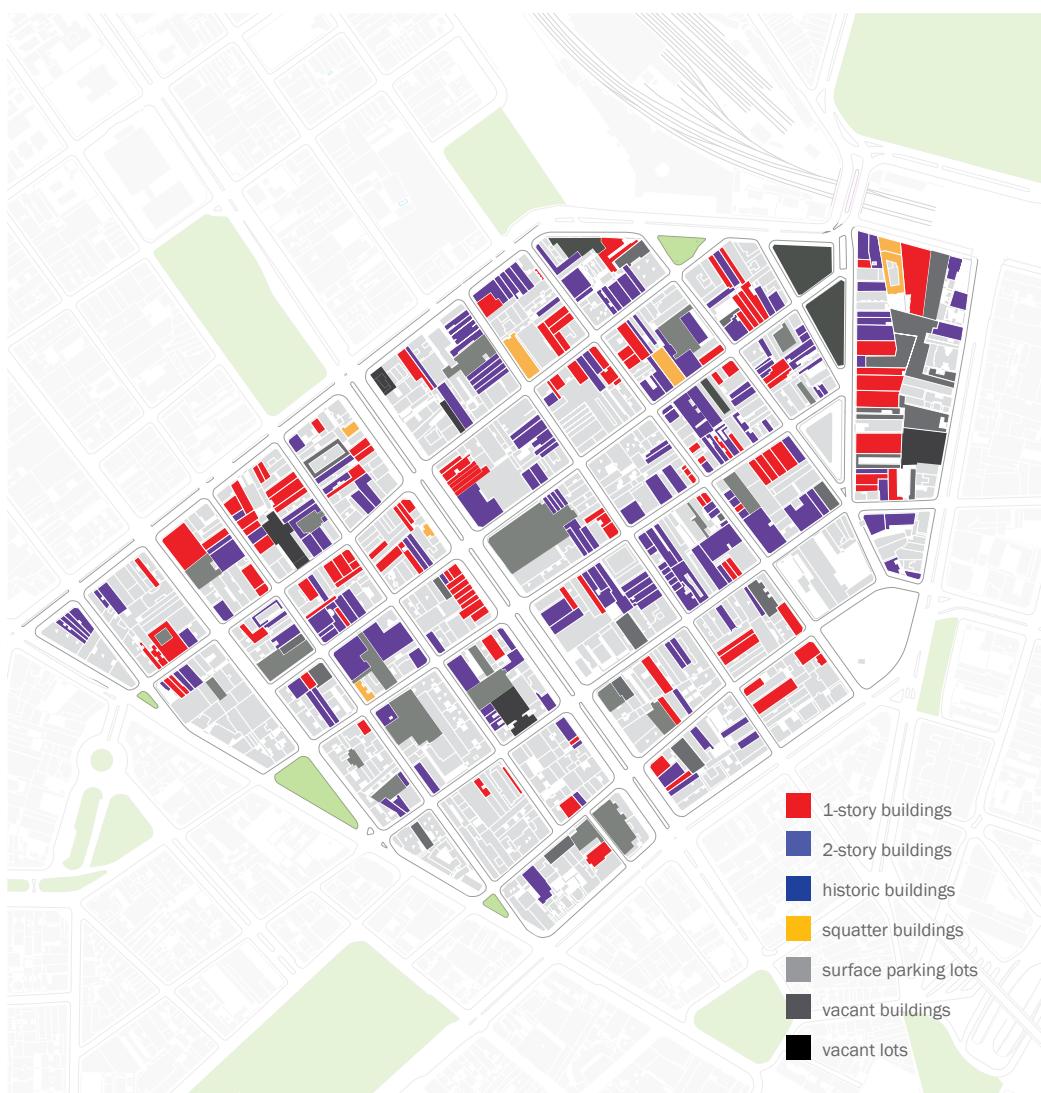
NOVA LUZ

Neighborhood Opportunities

While the majority of neighborhood assets are located in the blocks adjacent to Nova Luz, the

70% of the parcels in Nova Luz are considered underutilized “soft sites.” These parcels are considered “soft sites,” and have high potential for development. Soft sites include 1-2

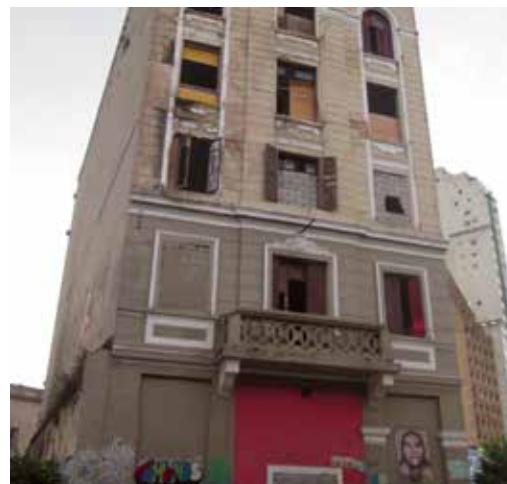
story buildings that are lower density than typical buildings in an urban environment; vacant lots and buildings; informal squatter settlements; and historic buildings that have the potential to be rehabilitated or adapted. These sites offer ample opportunities to develop Social Housing+ within the Community Land Trust, while targeting future sites for private investment in the long-term.



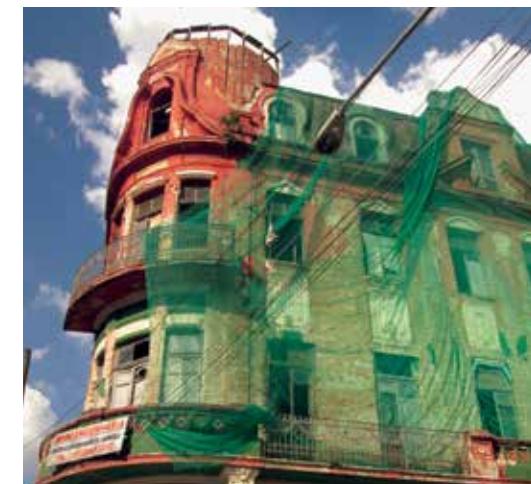
Underutilized vacant lots



Surface parking lots



Vacant and dilapidated buildings



Historic buildings



Squatter buildings



Single-story buildings

NOVA LUZ

Neighborhood Challenges

Although Nova Luz's proximity to transit, amenities, and job centers makes it an ideal location for urban revitalization, it is also plagued by the many barriers to redevelopment that is typical for distressed city centers. Social Housing+ works to address many of these issues.

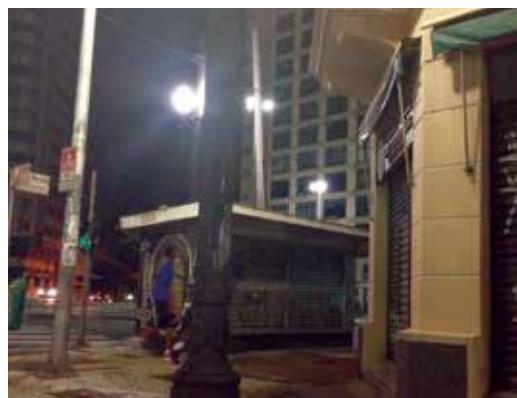
Among the most significant barriers are unregulated land tenure and single-use buildings that lead to low levels of activity and unsafe conditions at night. In addition, the area is well-known for its high level of drug use.

"Cracolândia"

Like other areas in downtown São Paulo, the lack of "eyes on the street" after sundown, and the abundance of vacant lots and buildings, has facilitated a concentration of blocks of crime and drug use in Nova Luz. The neighborhood has received the nickname "Cracolândia" or "crack land" as a result of this reputation, which has created a pervasive negative perception of the area.



Unclear land tenure creates significant barriers to development.

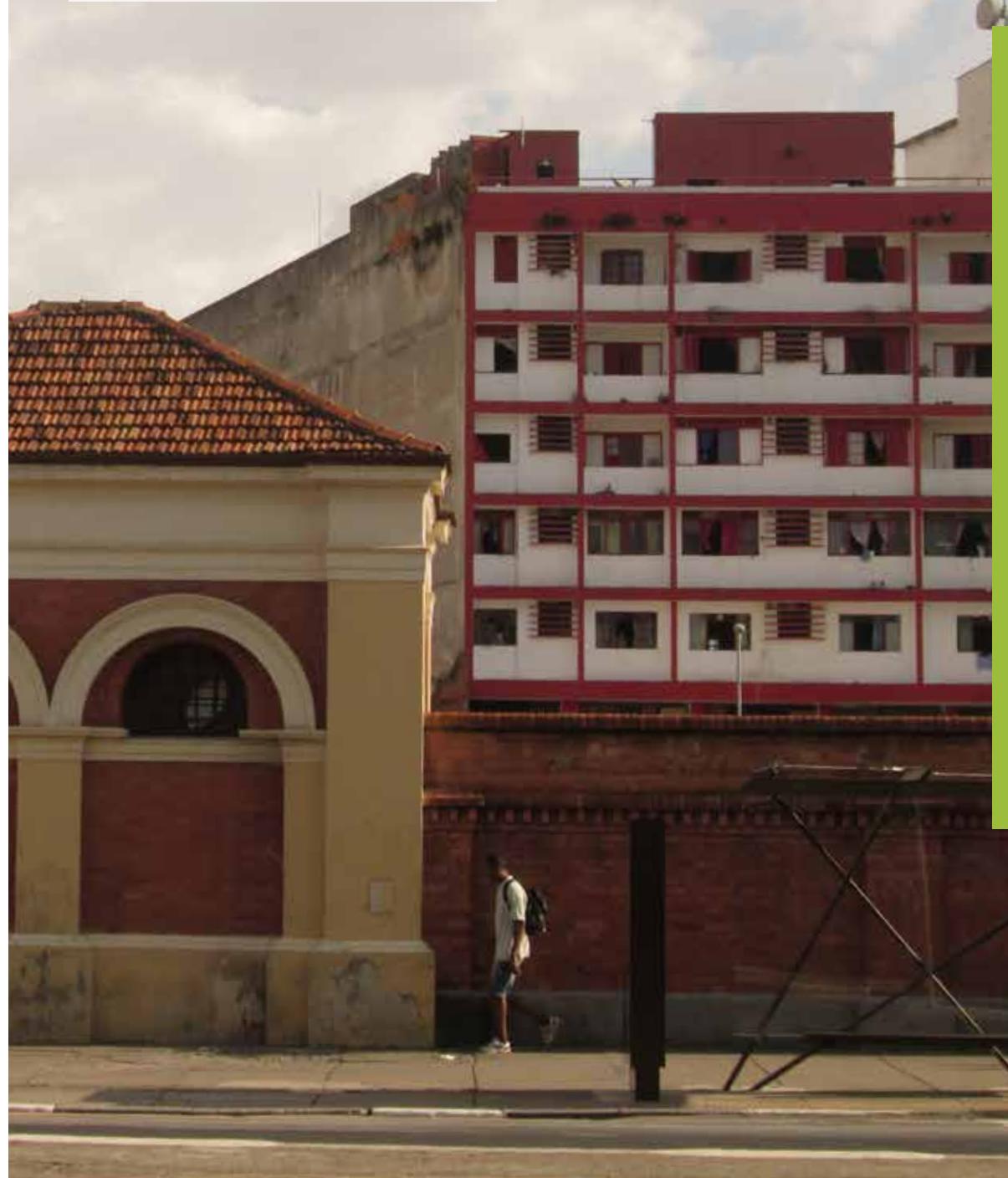


Single-use buildings have left the area devoid of activity at night, creating unsafe conditions.

End Notes

1. Scruggs, Greg. "The Many Lives of Luz: Fighting for the Future of a São Paulo Neighborhood." Next City, 21 Jan. 2013. <http://nextcity.org/forefront/view/the-many-lives-of-luz>.

Sao Paulo's Luz train station is directly adjacent to the Nova Luz neighborhood. Here, a man walks toward the station with the squatter-occupied Maua Hotel shown in the background.



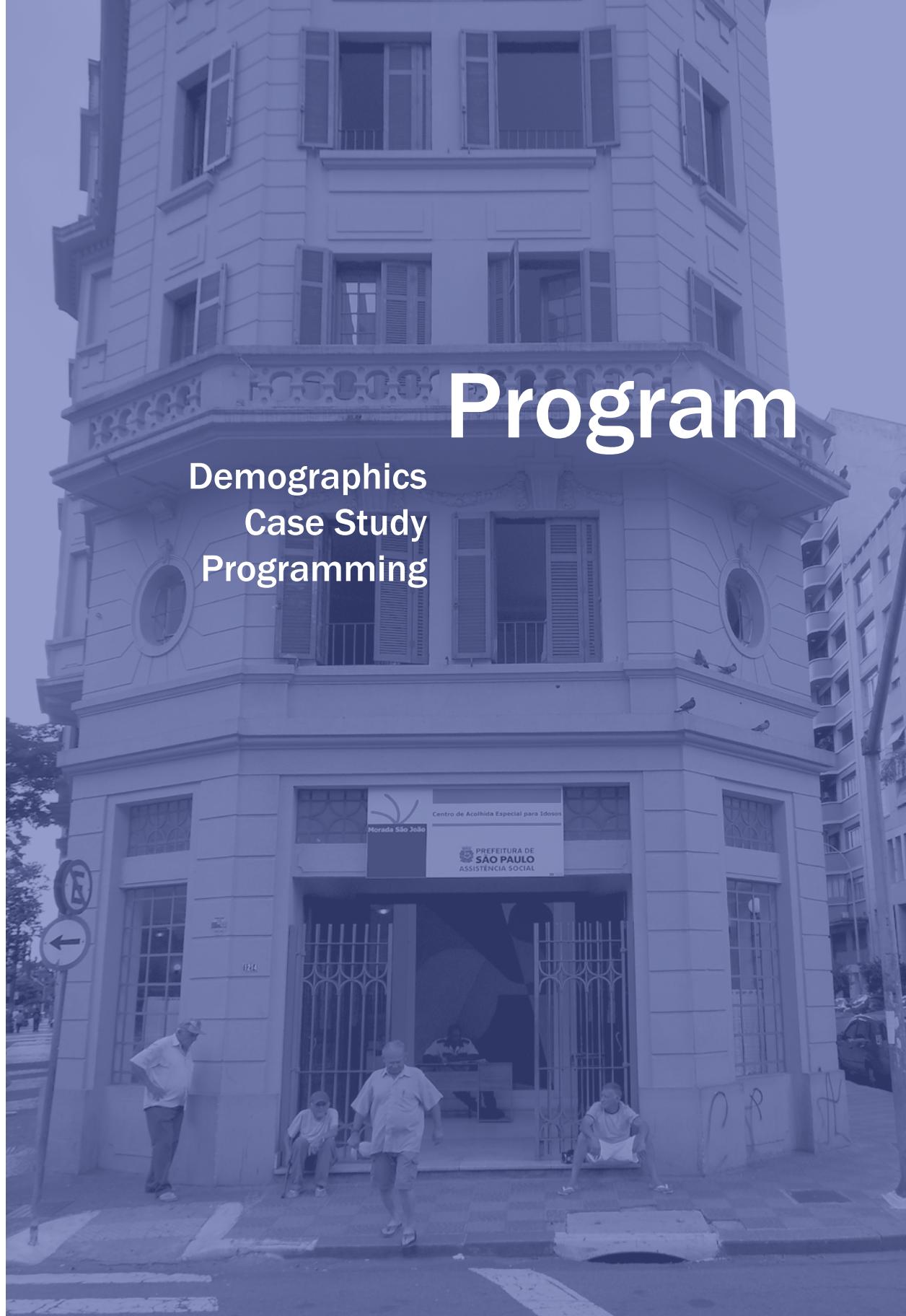


Approaches

Program
Place
Environment
Building

Program

Demographics
Case Study
Programming



PEOPLE PROGRAM AND PLACE

Best Practices

Social Housing+ starts with people. Through programming tailored to current and future residents, Social Housing+ provides the necessary services and amenities to build more vibrant and resilient neighborhoods. Buildings are designed to facilitate the success of these programs and better house populations with disparate needs. As part of the project, we developed a catalogue of programs and services based on relevant case studies of best practices and analyses of current demographics and users of Nova Luz. Programs were placed into categories and distributed along three scales: within housing, adjacent to housing (two minutes walking time), and nearby to housing (five minutes walking time).

Current Demographics

Nova Luz is currently home to 12,000 people as well as a thriving electronics district and motorcycle retail corridor.¹ Small business owners and low-income families living in squatter settlements share the neighborhood with the drug and sex trades.

Of Nova Luz's residents, 62% live and work in the area,² and 47% rent, in contrast to the 75% national homeownership rate.³ Nova Luz boasts 2,278 businesses that provide 16,806 jobs.⁴ A survey of 235 families living in a squatter settlement in the Maua Hotel across from Luz station found that almost 45% earned a monthly income of up to

three minimum wages and an additional 37% earned between three and six.⁵ 81% of the families qualify for social housing.⁵ Assuming these families are representative of area residents, a large percentage of current inhabitants would benefit from Social Housing+.

The survey also reported a total of 922 people who identified as homeless, which represents 7% of the city's total homeless population. Many of those respondents also reported struggles with drug addiction; an ongoing legacy of the area's battles with crack.⁶



musicians



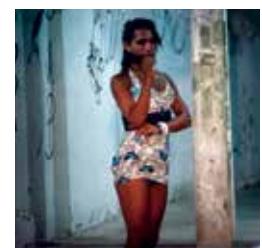
drug users



squatter settlements



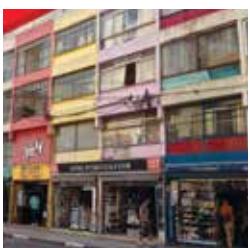
families



sex workers



artists



small business owners



trans population

Future Demographics



former favela residents



students



young singles

With the implementation of Social Housing+ combined with the recently built technical school Escola Técnica Estadual, Nova Luz has the potential to attract students and young singles to the area.

PROGRAM CATALOG

Building

- inner courtyard
- social housing
- market rate housing
- student housing

Services

- coffee shop
- retail
- 24 community center
- movie theatre
- convenience store
- library
- blue lights/phone
- public transit
- information center
- bar/restaurant
- supermarket
- clinic
- school/ kindergarten
- day-care/after school
- gallery/studio
- music practice
- colab/ entrepreneurship center
- social support
- gym
- lighting system

Open Space

- playground
- small park
- stormwater management
- sports field
- plaza
- community garden

Economy

- coffee shop
- retail space
- community center
- movie theatre
- convenience store
- bar
- restaurant
- supermarket
- library
- gym

PROGRAMMING CASE STUDIES

Family

The Harlem Children's Zone's comprehensive place-based and people-based social service strategy provides a wide variety of services and programs to families living in Harlem, New York. The urban zone's success in supporting low income residents helped inform program offerings for families in Nova Luz.

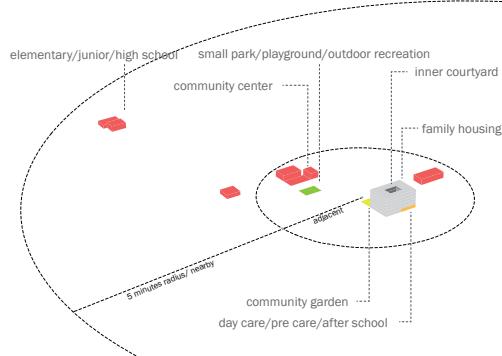
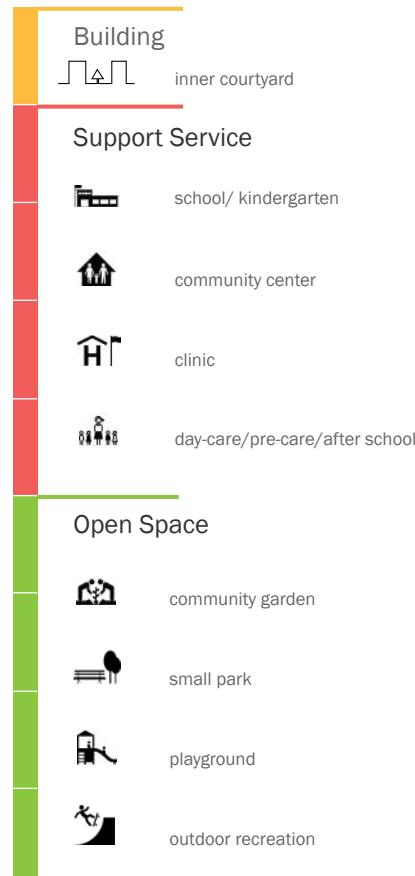
On the building-level scale, we developed an affordable housing typology for families; situated housing around an inner courtyard to provide children with safe places to play within eyesight of their parents. Due the unique needs of the population, we determined that families would

81% of families in Sao Paulo qualify for social housing.



Current access to important services and amenities for families in Nova Luz is insufficient. Families living in Nova Luz today need daycare centers to watch their children while they work, safe places for their children to play, access to after-school programming, and quality health clinics.

Programs



The above diagram illustrates the potential distribution of programs, services, and amenities in relation to a social housing development catering to families.

CASE STUDY

Harlem's Children's Zone, New York, NY

The Harlem Children's Zone (HCZ) is a 100 block comprehensive place-based and people-based social service strategy that serves 17,000 low-income children and their families.

HCZ offers programs like:

- Health care for students
- The Learn to Earn job skills/life skills center to support employment
- Parenting classes & health education
- Family counseling, support groups, and addiction recovery referrals
- Extensive after-school and summer programming
- Homeownership support programs
- 39 block associations
- Neighborhood revitalization and community building efforts



Students meet with CEO, Geoffrey Canada.



The newly built Harlem Children's Academy.

PROGRAMMING CASE STUDIES

Small Business Owner

The electronics district and motorcycle corridor in Nova Luz provide the majority of the area's employment opportunities. Small business owners in Nova Luz occupy a range of formal and informal spaces and activities;

Social housing could support small business development. from renting stalls in large electronics arcades to duplicating keys in hallways,

to searching through trash for recyclables, and engaging in sex work. With prohibitively high rental costs for access to retail space, many low-income resident's homes double as business and production spaces.

Social housing+ offers the opportunity for residents to receive business support and entrepreneurial mentorship, as well as,

access to co-working and retail spaces to further develop their small businesses.

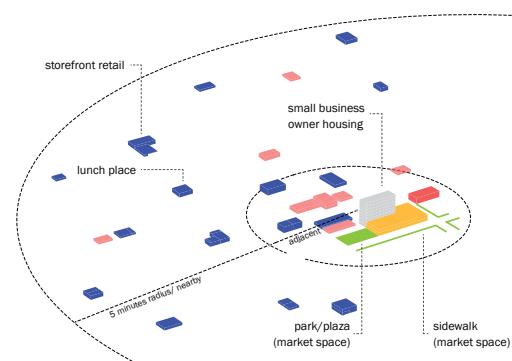
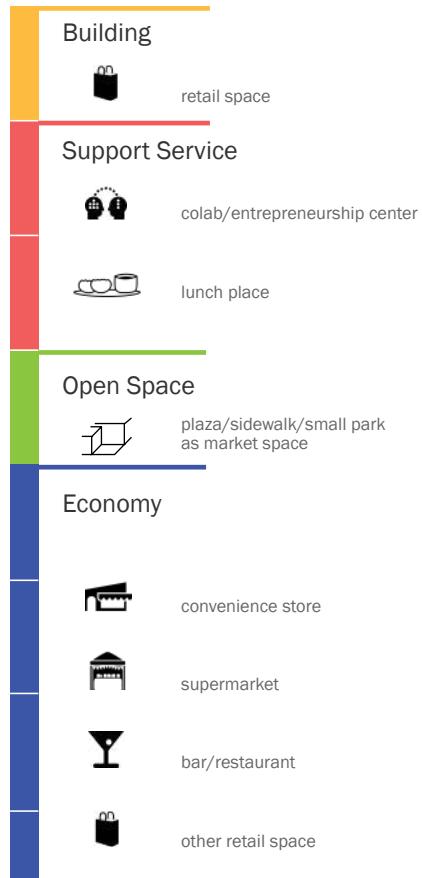
To facilitate this growth, we propose integrating arcade retail spaces into social housing developments and creating additional storefront retail. By siting business support centers adjacent to housing, we aim to make it easier to start and grow businesses.

The climate of São Paulo is also conducive to the development of outdoor market spaces that could be coupled with increased options for dining and recreation, further attracting potential customers to the area.



Nova Luz is currently the site of a significant amount of informal economic activity. Small business owners would benefit from entrepreneurship supports, access to indoor, outdoor, and storefront retail spaces, as well as, options for dining and socializing.

Programs



The above diagram illustrates the potential distribution of programs, services, and amenities in relation to a social housing development catering to small business owners.

CASE STUDY

The Enterprise Center, Philadelphia, PA

TEC provides access to capital, capacity building, and business education, and offers economic development opportunities to high-potential, minority entrepreneurs.

TEC's Community Development Corporation's mission is to build vibrant neighborhoods in economically distressed areas.

TEC also offers:

- Business-acceleration initiatives
- Rental space for private events
- Supports established and start-up food businesses
- Instructional and hands-on workshops
- Access to a facility 24/7
- Fundraising and partnership opportunities
- Mentoring and marketing support



PROGRAMMING

At-Risk Populations

As previously mentioned, Nova Luz is home to nearly 1,000 people who identified

We look to integrate health and social support systems.
as homeless; many of whom also struggle with drug addiction. A fair number of sex workers also live and work in the

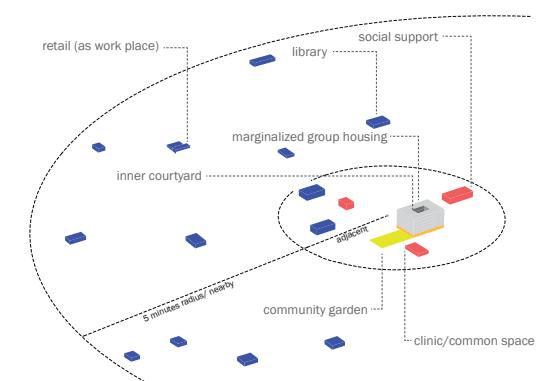
neighborhood. These groups are at increased risk for violence, health problems, and unemployment. As a result, it is especially important to provide them with convenient access to health care, social supports, and services.

Programs like Complexo Pratese in São Paulo illustrate the potential of integrated support systems for at-risk populations



Nicknamed Cracolandia, Nova Luz is home to a significant amount of drug use and homelessness. At risk populations struggling with addiction require more robust support services.

Programs



The above diagram illustrates the potential distribution of programs, services, and amenities in relation to a social housing development catering to at-risk populations. Social and recovery supports should be placed either on site or within close proximity to housing.

CASE STUDY

At-Risk Populations Complexo Pratese

Complexo Pratese is the first program in São Paulo that combines public health and social assistance for homeless and chemically independent individuals.



Programs offered:

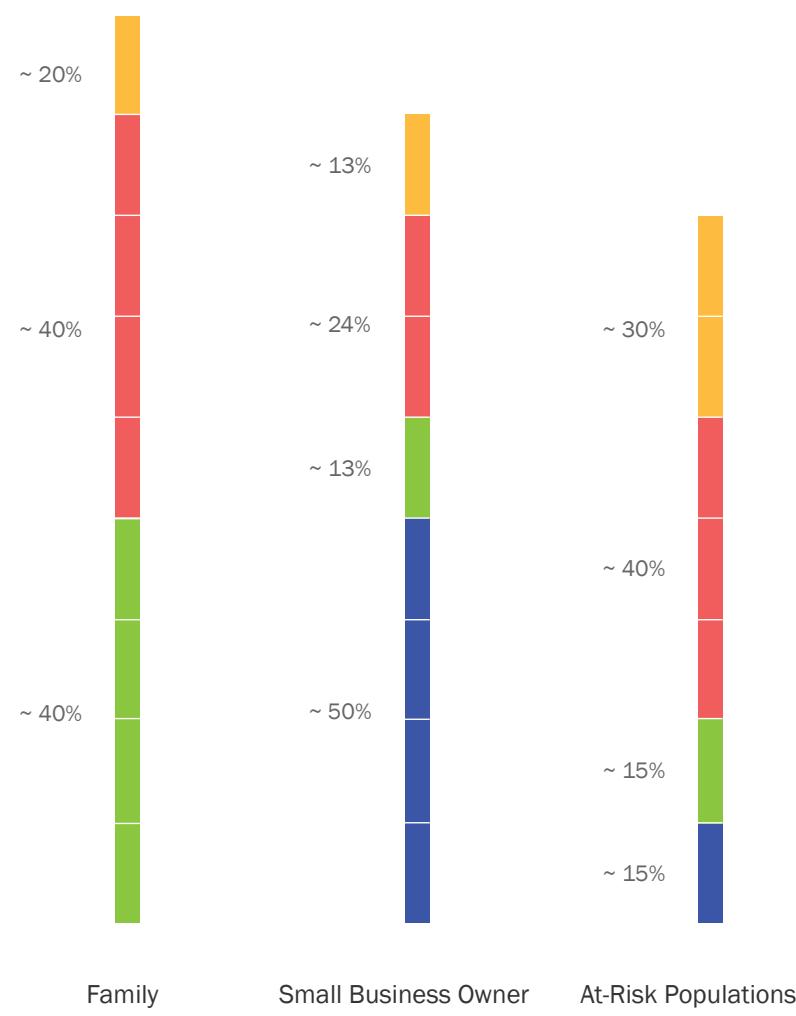
- Drug and alcohol recovery support services
- Sports, recreation, and community gardening
- On-site clinic
- 20 bed family shelter
- Dining room with four meals a day
- Art classes
- In-patient rehab services and counseling open 24/7
- Computer room
- Mental health care and counseling
- Remedial reading and writing classes

PROGRAMMING COMPARISON

The Make Up of Social Housing

While the programmatic needs of families, small business owners, and at-risk groups may differ, there are also many areas of overlap, which are only distinguishable by the anticipated percentage of use. For example, families might need as much as 40% of their programming to be within the category of open space; for small business owners, this number falls around 13%. At-

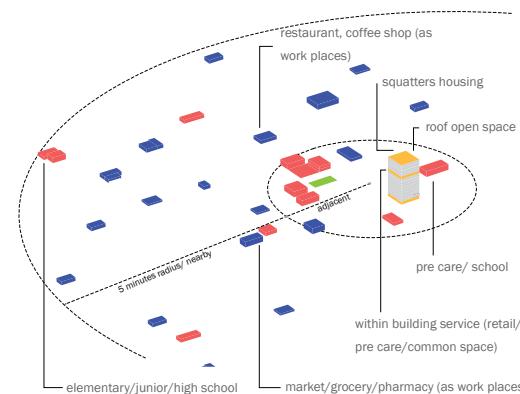
risk populations are likely to require 40% of their programming to be devoted to support services, whereas small business owners only require 24%. An analysis of these breakdowns supports the need for Social Housing+ that offers social and environmental programming in addition to housing.



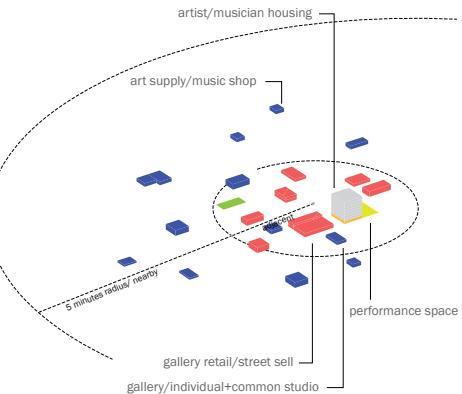
PROGRAMMING

Other Demographics

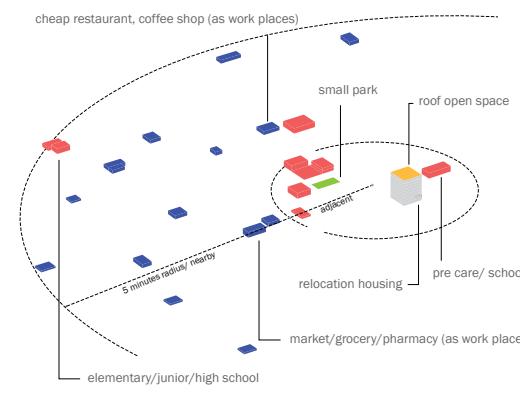
Squatter Housing



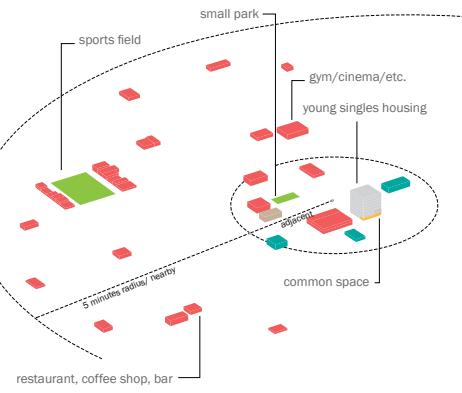
Artist/Musician Housing



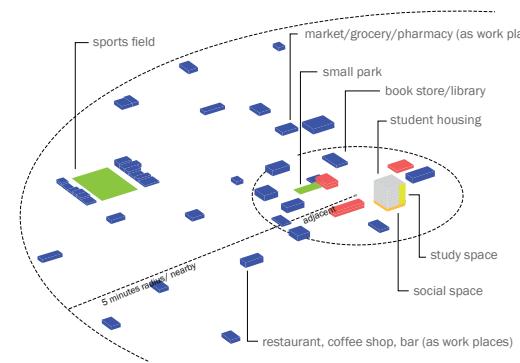
Relocation of Former Favela Residents



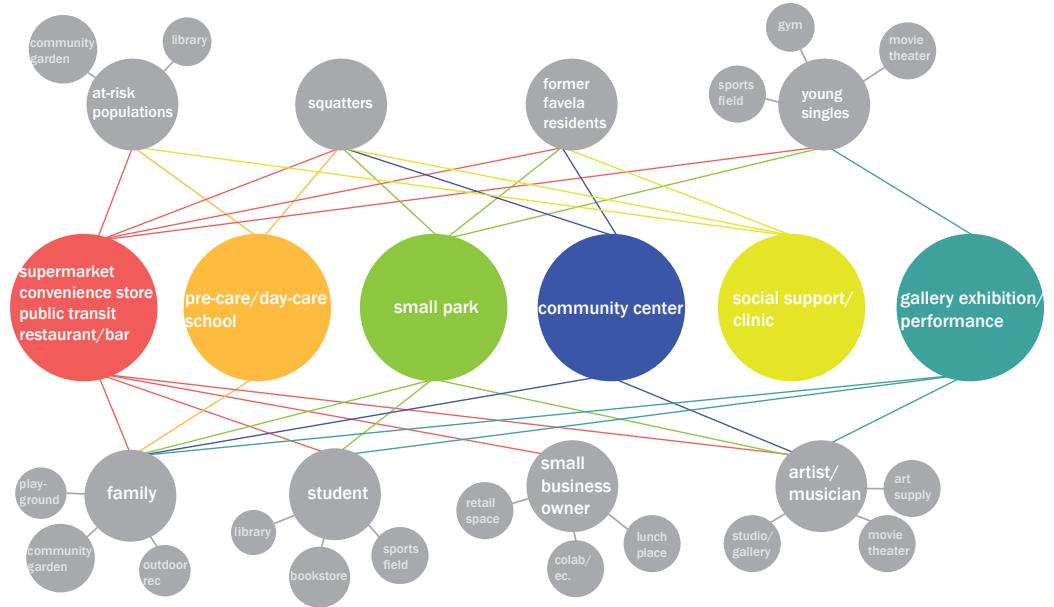
Housing for Young Singles



Student Housing



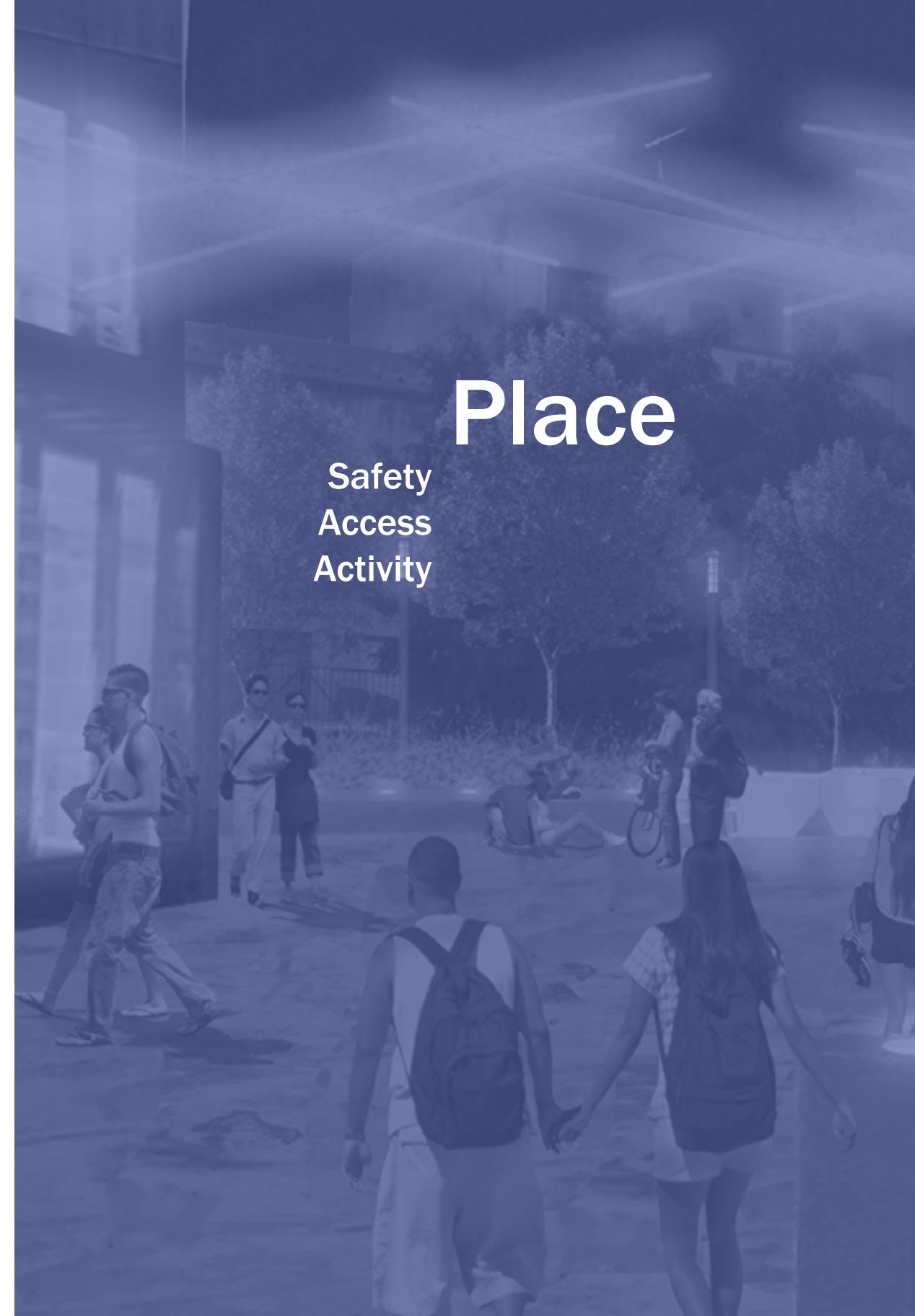
These diagrams illustrate the hierarchy of spatial relationships between programs and housing for additional demographics.



The above web illustrates the relationships between programs and demographic groups; highlighting the most used programs and services across populations. It is useful as a conceptual framework to map services across a site.

End Notes

1. "The Many Lives of Luz." Next City, 1/21/2013, <http://nextcity.org/forefront/view/the-many-lives-of-luz>.
2. "Misusing the City Statute in São Paulo: The Nova Luz Urban Renewal Project," Sustainable City 2012, p. 406-416. http://www.academia.edu/1807132/Misusing_the_City_Statute_in_S%C3%A3o_Paulo_The_Nova_Luz_Urban_Renewal_Project.
3. "Survey Results: Brazil Stays Strong in the face of the Crisis." World Bank, 1/14/2009, <http://blogs.worldbank.org/growth/survey-results-brazil-stays-strong-face-crisis>.
4. Sustainable City 2012.
5. Sustainable City 2012.
6. Sustainable City 2012.
7. Sustainable City 2012.



Place
Safety
Access
Activity

CREATING PLACE

Establishing a Network of Safety and Activity

Severely distressed neighborhoods often have major safety concerns resulting from long blocks of vacant parcels or buildings, stores that close after business hours, and overall inactive storefronts. These issues lead to a lack of eyes on the street and decrease safety as well as the perception of safety in a neighborhood. The place-based strategy works to create a web of activity and safety, which is the physical manifestation of the

The goal of this network is to increase safety and access to amenities.

neighborhood. Our design includes a new network generated through the addition of new nodes of activity, that create a more 24/7 community, increase livability for residents, and establish a sense of place.

In designing a network of activity, successful elements of a favela served as precedent for the project. While favelas are low in economic capital, they are high in social and community value. This value is generated by an active neighborhood structure, eyes on the street, local retail and services, a combination of flexible spaces, and an overall sense of community. Within this structure, there is a hierarchy of spaces,

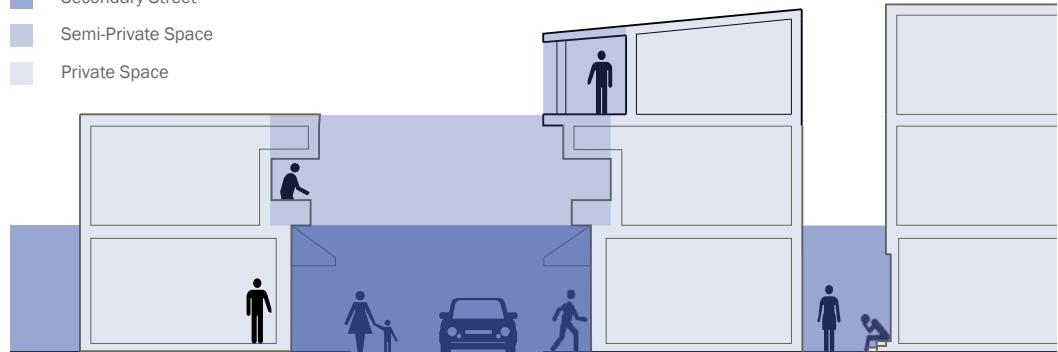
Favelas are high in social and community value.

programming elements discussed earlier in the book. The goal of this system is to create a safer neighborhood while also increasing access to social services and amenities in the



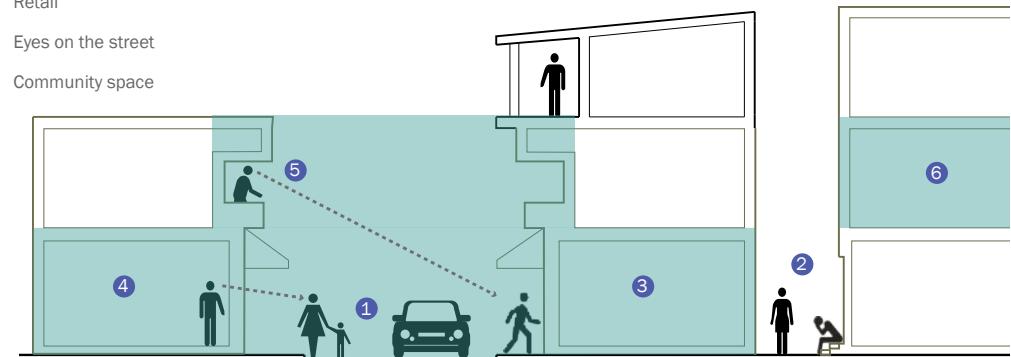
Favelas are low in economic capital, but high in social and community value. This value is generated by an active neighborhood structure, eyes on the street, local retail and services, and an overall sense of community.

- Primary Street
- Secondary Street
- Semi-Private Space
- Private Space



Social hierarchy in favelas include primary streets that contain local retail and lead to major destinations and transportation options; secondary streets that are shared alleyways between neighbors; and a mix of semi-private and private spaces that provide flexible spaces within the community

- ① Connections to major transit and destinations
- ② Neighborhood connections
- ③ Social Services
- ④ Retail
- ⑤ Eyes on the street
- ⑥ Community space



Social hierarchy establishes programming elements within the favela structure, such as ground floor retail and balconies that provide eyes on the street, social services along primary streets, and community spaces within the buildings

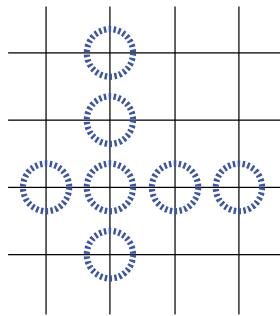
ranging from private areas, like peoples' homes, to semi-private balcony spaces, to secondary streets such as shared interior alleys, and finally, primary streets that include ground floor retail.

The programs create eyes on the street.
In addition, there is a system of programming elements within this structure.

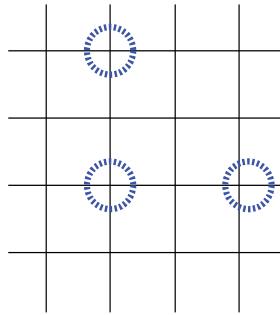
These programs help create a vibrant and active streetscape with ground floor retail and balcony spaces; establish major connections along primary streets to major destinations and transit options; and provide neighborhood streets that link people with local neighborhood amenities and community spaces.

CREATING PLACE

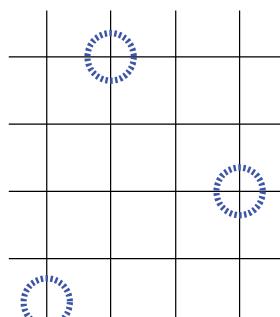
Hierarchy of Streets



Primary Connector Street
(node every block)



Secondary Connector Street
(node every other block)



Neighborhood Connector Street
(sporadically place)

Using this hierarchy of streets, we can start to develop a system for linking people throughout the neighborhood. Primary connector streets can connect people to major transportation options and destinations. Secondary connector streets feed into major commercial corridors in the neighborhood, and neighborhood connector streets provide access to local neighborhood amenities.

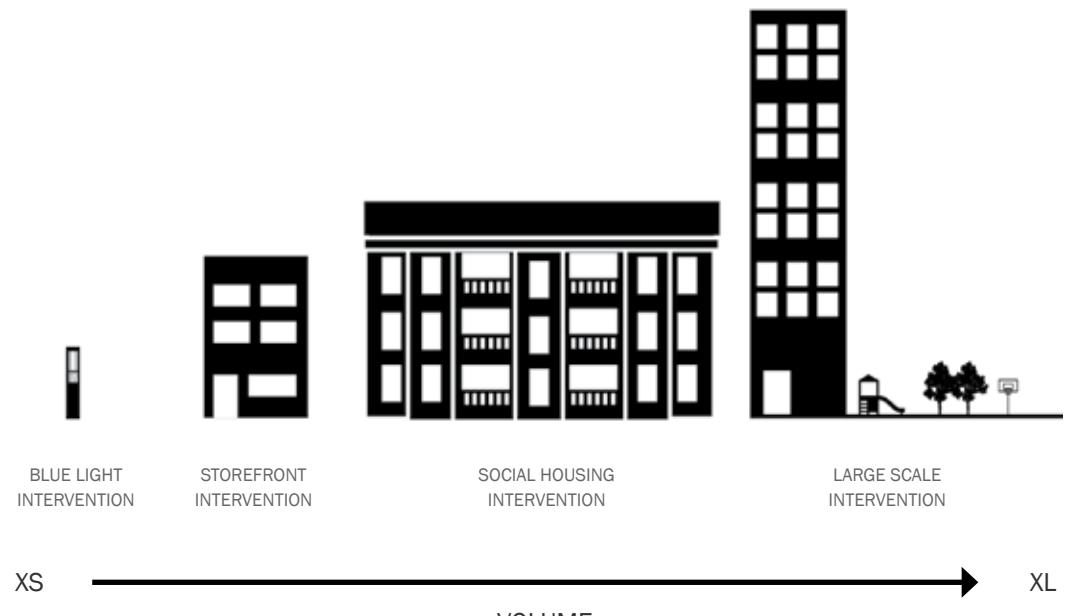
The type of connector street then establishes a system for the frequency of

nodes and new places of activity that should be added throughout a site. Primary streets, which have the most foot traffic, should include a

Connector streets establish a system for the frequency and volume of new nodes of activity.

node on every block, making the distance between the nodes a

one to two minute walk; secondary streets should have one every other block, making the distance between nodes approximately



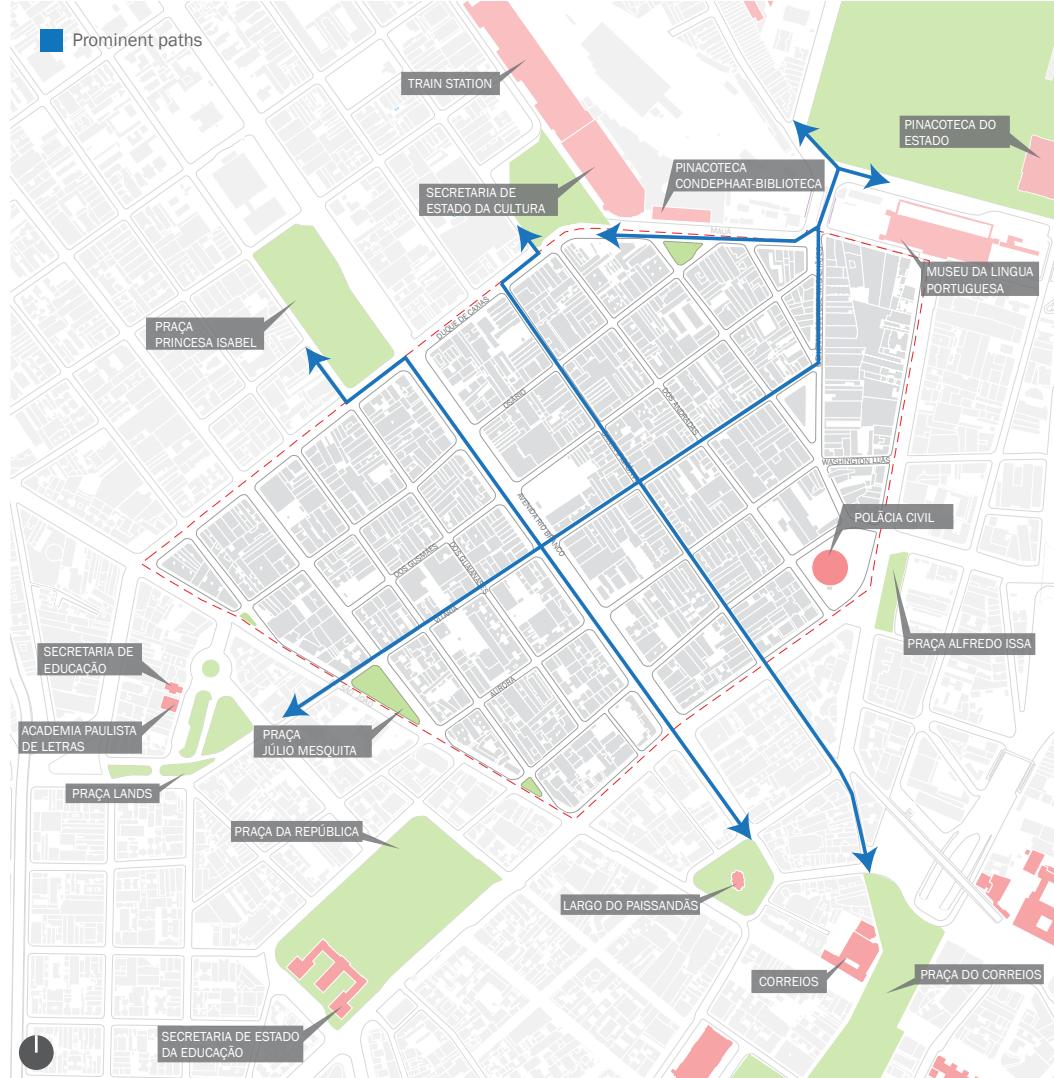
a three to five minute walk; and less-frequented neighborhood streets can include a more sporadic placement of nodes based on the location, neighborhood need, and local destinations.

The type of street and the location also help determine the volume of a new node of activity. This volume ranges from a very small intervention like the addition of a blue light, to a small storefront activation, to a larger intervention in social housing, and a very

large scale intervention that might include an entire site.

The location and neighborhood need dictate the program of the node, which might include anything from

Primary streets include a node on every block.
social services that are open twenty four-hours a day, to a coffee shop with late programming and an open façade, or a larger scale recreational space that is open late into the evening.



Major destinations and prominent paths in Nova Luz.

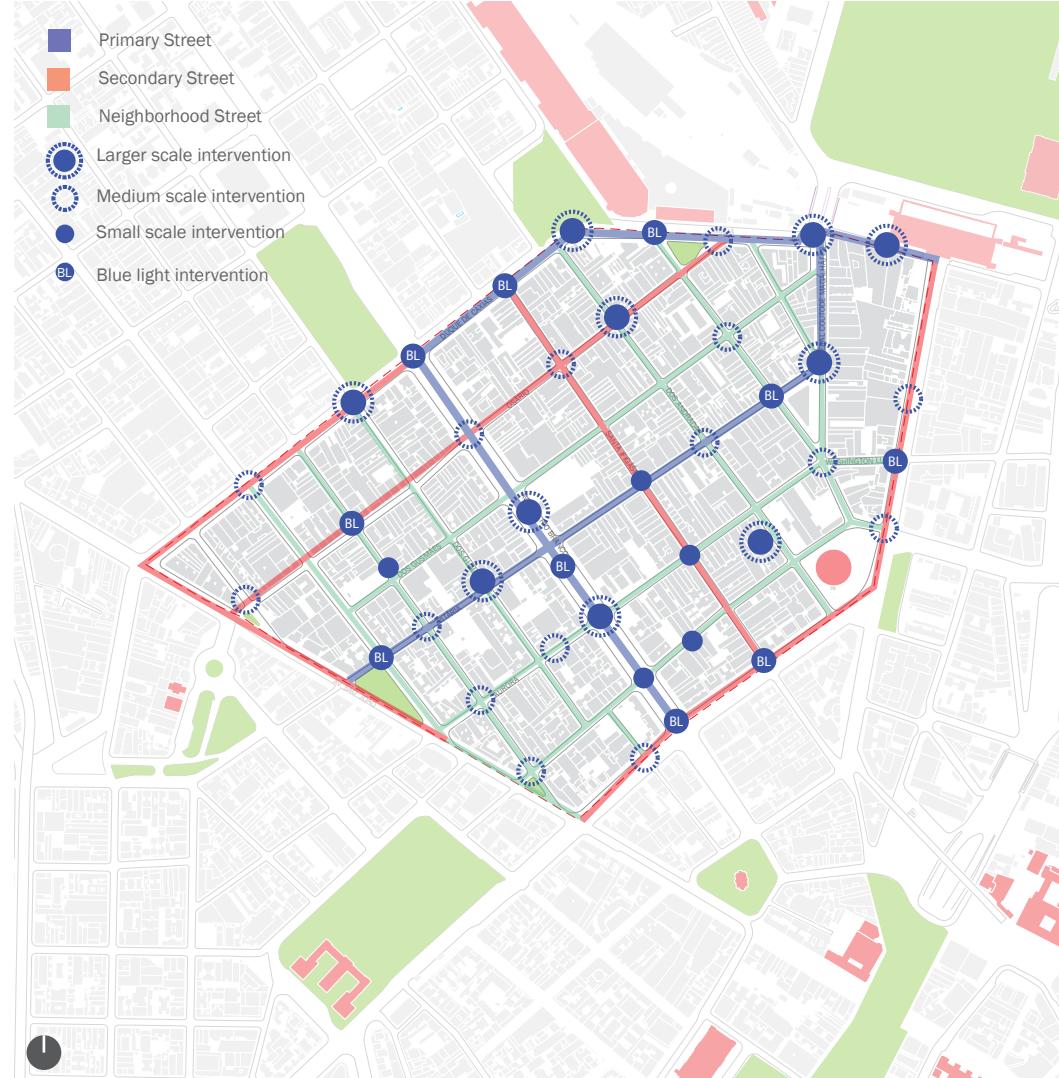
Utilizing Nova Luz as a testing ground, this system of activity can be implemented to create a safer and more accessible community. The first step in implementing

The typical structure of a street in Nova Luz has similarities to a favela structure.

residents are most likely to visit. Connecting individuals to these major destinations with

direct paths encourages people to frequent certain streets, concentrating foot traffic along those paths and increasing safety in the neighborhood.

The typical structure of a street in Nova Luz has some similarities to the favela structure, with various levels of paths and social spaces. This hierarchy can be used to implement programming elements as discussed in the program chapter. Based on the location and type of street, interventions throughout the neighborhood can be implemented creating a network of activity



Hierarchy of streets and volume of interventions.

that connects people to major destinations and social services, while also increasing safety by concentrating foot traffic and providing more eyes on the street.

The volume and program of the new nodes of activity are determined based on location, development potential, neighborhood needs, and their ability to activate an area. These interventions range from small streetscape additions, to store front activations, and finally, entire site renovations.



Woman uses blue light booth to look up bus route information.



Social housing with 24/7 entrepreneurial center and collaborative workspace.



Young Paulistanos enjoy a late night coffee shop and music venue. Activity on the street and better lighting create safer conditions.

The smallest intervention is a blue light booth. This streetscape addition will allow residents to push a button that connects them with the police in an emergency situation. The blue light will also include a touch screen with information about transportation options in the area, such as bus routes and train timetables.

The next level is a storefront activation, which would include something like a coffee shop and music venue that provides late night programming past business hours. The storefront would be very well lit and have activity late into the evening which provides activity on the street well past standard business hours.

Another intervention level is within one of the new social housing complexes. This intervention could include an entrepreneurial center and co-working space that is open 24 hours a day and would provide eyes on the street through increased activity, a security



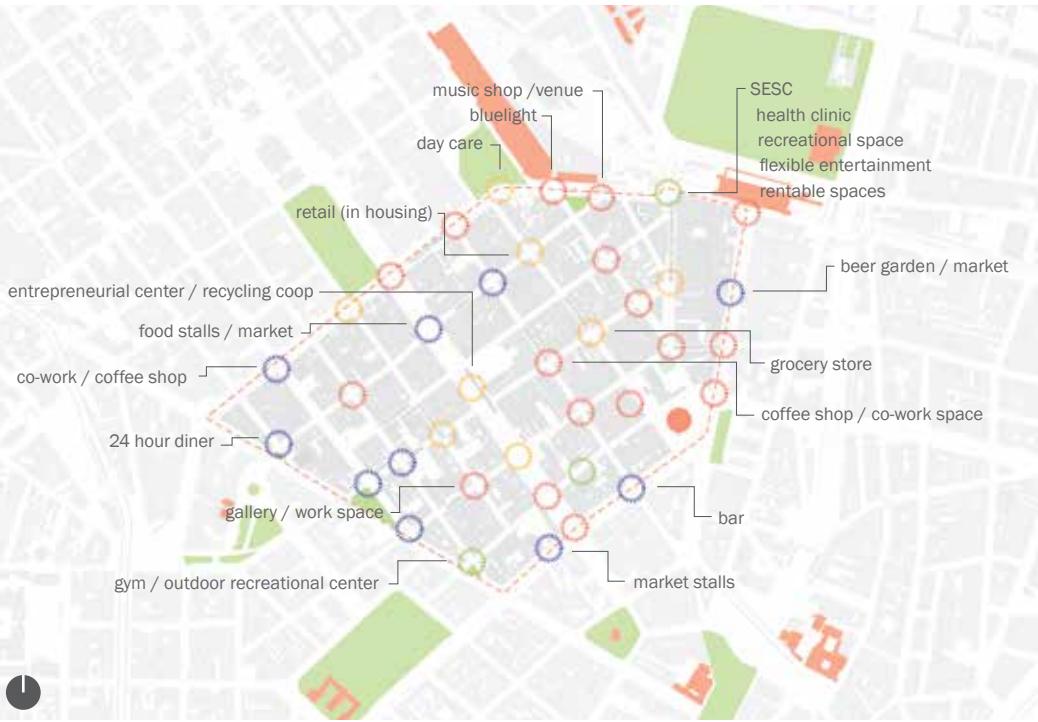
SESC with 24 hour health clinic, plaza space, public art lighting installation, flexible work spaces, studios, and recreational options.

guard, and an open façade that enables people working inside to see activity on the street.

Lastly, the largest intervention would be an entire site renovation and would host programming like a SESC, which is a social and cultural organization that is designed to provide social services, amenities, and recreational options for neighborhoods in São Paulo.

In this case, the SESC would include a health clinic that is open 24 hours a day and a large well lit plaza that could include a public art lighting installation, flexible work spaces, studios and gallery space, and recreational options. This site would serve as a place of activity throughout the neighborhood at all times of day.

Open façades enable people working inside to see activity on the street.



Sample programming in Nova Luz.

A web of activity helps distribute social housing, social services, and neighborhood amenities, connecting people safely throughout the site. An increase in safety

A web of activity helps distribute social housing and amenities. is accomplished through a system of well-lit places that have late night programming increased activity

on the street. This program will work in conjunction with the proposed phasing plan that will be discussed in the implementation section and works towards accomplishing the goals of Social Housing+, using social housing as a driver for change by establishing safer routes through the neighborhood and increasing livability with the addition of social services and other amenities.

IMPLEMENTATION

Nodes of Activity

A web of activity that increases safety and provides better access to social services and amenities in the neighborhood is created through the



Nodes of activity are implemented along with phasing, establishing networks of safety throughout the neighborhood.

addition of new places. As part of the Community Land Trust, new nodes of activity will be added throughout the community. These interventions will be funded both as part of public social housing projects, and also incorporated in private development projects. Every social housing complex will function as a node on site, containing late night programming, better lighting, and security measures. Additional nodes will be incorporated as private development occurs, based on location, neighborhood need, and overall safety in the area.



Environment

Strategy

Stormwater Management

Environmental Priority Areas

Performative Buildings

Recycling Cooperative

ENVIRONMENT

Strategy

São Paulo faces many pressing environmental issues, and social housing provides a unique opportunity to be a driver for positive change. Nova Luz offers an ideal testing ground for initiating environmental improvements through housing.

Social housing can be a model for environmental performance.

funds in order to address major local and regional issues at the residential scale through environmentally-performative housing. Next, there is a particularly strong capacity for community organization in Nova Luz, and São Paulo, which can be utilized for both education and maintenance of environmental investments. Finally, social housing in the urban context can serve as a model for more environmentally-friendly affordable and market-rate developments, both in its performative features, and in

its urban location, while actively deterring sprawl. As this comprehensive approach acts as a catalyst for neighborhood revitalization, future development can tackle some of the larger infrastructure challenges on a site-wide scale.

First, as a federal investment, social housing offers the possibility to leverage federal environmental management is such a challenge in Nova Luz that it was a major driver in the creation of the urban concession, which would have incentivized one developer to address site-wide stormwater infrastructure deficiencies.

The overall environmental approach taken at Nova Luz is to address environmental problems at strategic locations by using green performance standards. These interventions would then be secured within the Community Land Trust, to ensure long-term sustainability and maintenance.



Informal waste pickers, or “catadores” search through trash for recyclable materials, discarding the rest in the street.



Poor stormwater infrastructure in Nova Luz often leads to flash flooding and polluted waterways.

STORMWATER MANAGEMENT

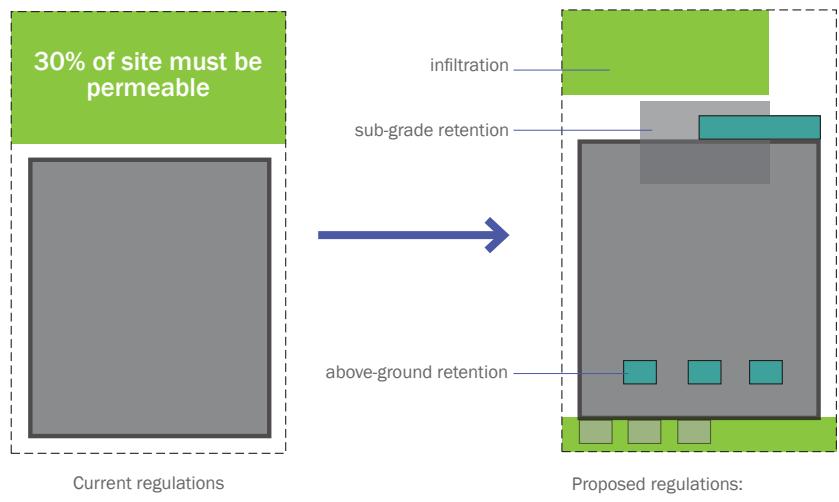
A New Approach

In the São Paulo region, rainfall has been increasing annually, in conjunction with rapid urbanization and the creation of impervious surfaces, which exacerbate polluted runoff and flooding.

Not only is total annual rainfall increasing, but the intensity of storms is also increasing, with more than 50% of rain events measured as moderate to severe in intensity.¹ On a

58% of all rain events in São Paulo are moderate to severe.

site scale, water is hitting impervious surfaces and flowing into the streets, which overwhelm the sewer systems and cause flooding. The environmental design approach will look to address this issue through the use of green infrastructure and a site water management performance standard.



Key design considerations include:

- Cost
- Climate, particularly the increasingly heavy and more frequent rainfall
- Spatial constraints of working in an urban environment
- Co-benefits, such as social benefits and reduced urban heat island effect

The current city regulations require that 30% of each site be permeable. However, this has not proven to be the most effective way to manage runoff.

This approach proposes instead to set a performance standard of managing the first 30mm of runoff on site, which would cover more than 90% of storms. This can be achieved by layering several different techniques, and utilizing a new federal funding program.

NEW APPROACH

Green Performance Standard

1 Permeable Spaces

- maximum area on site
- provides opportunity for social benefits

2 Sub-grade Cisterns

- best for heavy rainfall where the ground becomes quickly saturated

3 Tree Trenches

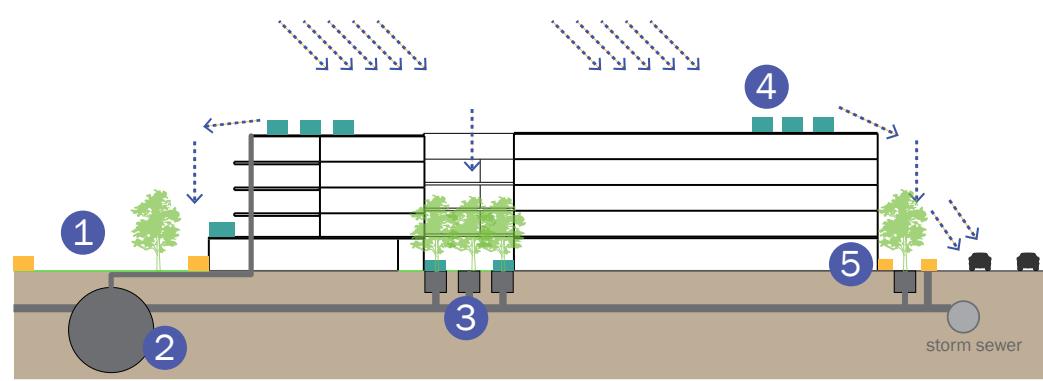
- water retained for trees, while additional water is slowly released into the system
- reduction in urban heat island effect

4 Retention

- water captured and stored for reuse
- includes rain barrels, planters, and on-site reservoirs

5 Bioswales

- filters pollutants, water retained and infiltrated
- work best in low lying areas, next to streets and directly under the roof



New scenario of 30mm on-site management



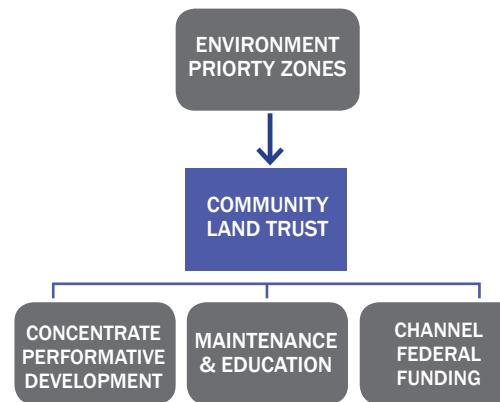
ENVIRONMENTAL PRIORITY ZONES

Secured in Community Land Trust

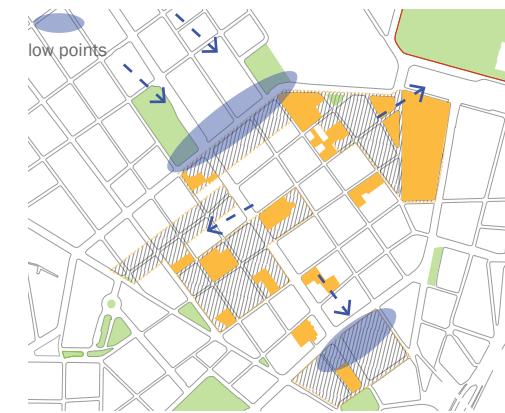
A site-wide analysis identified environmental priority zones in order to identify where environmental interventions would be most effective. These zones are based on several key attributes, which are illustrated on the opposite page.

An important part of this strategy is to take land in the environmental priority zones, and secure it in the Community Land Trust. This process has several benefits: It enables the concentration of new, more environmentally-performative development in areas where it could have the biggest impact, while providing a community structure

for maintenance and education. It also creates an entity to receive federal funding, which can then be redistributed for local environmental projects.



An overlay of the Community Land Trust in the Environmental Priority Zone



PERFORMATIVE BUILDINGS

A New Model

The Social Housing+ building design incorporates many environmentally-performative features to address energy and water issues, and serve as a model for new sustainable development. The features can be supported by both federal and private funds, which will be discussed in the implementation chapter.

Social housing provides a unique opportunity to achieve environmental goals

Rapidly growing population and increasing electricity demand has led to energy security concerns.

within the public sector by reducing energy and water consumption at the residential

level. The approach focuses on both individual units and building-wide features,

working together as a system to achieve higher performance.

Brazil's sunny climate provides a high capacity to capture solar energy. New development incentives coupled with an increased government focus on renewable energy provide an environment conducive to the inclusion of more ambitious solar technologies in social housing.



Renewable energy technologies can improve the environment and help reduce utility costs for residents.



Potential environmental strategies are incorporated into building designs.

① Units

- individual water metering for responsible water use
- energy-efficient and low-flow appliances
- maximized natural ventilation

② Roofs

- white roofs to deflect heat and reduce electricity demand
- solar panels
- solar water heaters

③ Rainwater Capture + Reuse

- incorporated into the stormwater management strategy
- water reused for vegetation and courtyards

CASE STUDY

Recycling Co-operatives in São Paulo

- Many non-governmental organizations in São Paulo have created recycling co-operatives as a means of both improving the environment by providing a safe work place for the large number of informal trash pickers in the city.²
- Filadélfia recycling co-op, a community-based organization led by a group of women, includes a sorting facility with offices and a truck garage. The women manage schedules and pickup routes, and divide profits based on working hours.



Recycling co-operatives can provide safe working conditions and green jobs for low-income populations.

RECYCLING

CO-OPERATIVE

In the Community Land Trust

Waste management continues to be a major challenge in São Paulo. However, there is a large informal market for recycled goods, and trash pickers, or “catadores,” can be seen sorting through trash on many street corners.

Less than 1% of all waste generated in São Paulo is recycled.⁴

The Community Land Trust provides strong leadership and organizational capacity to formalize this activity and create a recycling co-operative in Nova Luz. The recycling co-operative model has already been successful in other parts of São Paulo, and can create new jobs for residents.



Distinctive signage raises neighborhood awareness.



Educational signage informs residents and visitors of the community effort to increase recycling.

Recycling cooperative bins throughout the neighborhood form a part of larger targeted interventions.

IMPLEMENTATION

Environmental Interventions

While the Community Land Trust sets the organizational foundation to apply the environmental strategy, a variety of funding sources (discussed in detail later) exist to help finance some of the more capital-intensive interventions:

- Urban Development Fund (FUNDURB) has funds available for green infrastructure
- The Minha Casa Minha Vida program provides funding for solar water heaters
- Federal environmental funds for renewable energy



Nova Luz is surrounded by a number of parks, including Praça da República, adjacent to the República metro stop.



Praça Júlio Prestes adjacent to the Sala São Paulo Concert Hall could benefit the family populations we propose to build housing for in Nova Luz.

End Notes

1. "Average Weather for São Paulo, Brazil." Weatherspark. <https://weatherspark.com/averages/33424/São-Paulo-Brazil>.

2. Ponce, Leonel Lima. "Recycling Co-operatives In São Paulo, Brazil Light the Path for Sustainable Development." Inhabitat Sustainable Design Innovation, Eco Architecture, Green Building, 18 June 2012. <http://inhabitat.com/recycling-co-operatives-in-são-paulo-brazil-light-the-path-for-sustainable-development/sp-recycling-coop-coopere-01/?extend=1>.

3. Image Credit: https://unlphotожурнализмбразили.files.wordpress.com/2013/01/20130103_wilwerding_audioday004.jpg?w=630&h=431

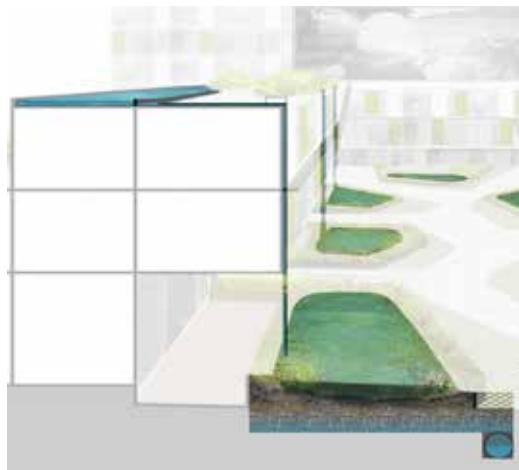
4. "Cities are Struggling to Recycle Urban Waste." Bom Dia Brasil. http://www.jurisway.org.br/en/article.asp?id_dh=2382

GREEN PERFORMANCE

As Socially Performative Spaces

Families

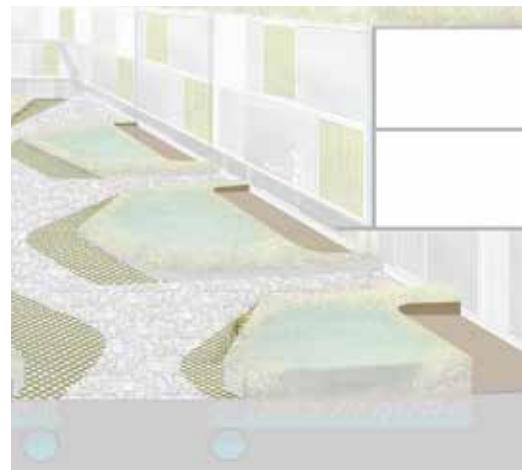
The green performance standards set the framework for environmental performance, and socially performative interventions are key aspects of these designs. These new spaces can be tailored to the existing and future demographics in Nova Luz, creating dynamic social spaces. The goal is to create a place where people want to maintain and take ownership of their environment.



Small reservoirs to collect rainwater

The first targeted demographic group is families. Key features of these spaces include:

- A mix of public and private spaces, with rain gardens and small reservoirs to provide spaces for rest and relaxation
- Areas for entertainment including a projected film screen
- Private roof gardens



Open space



Entertainment screen



Private outdoor spaces

GREEN PERFORMANCE

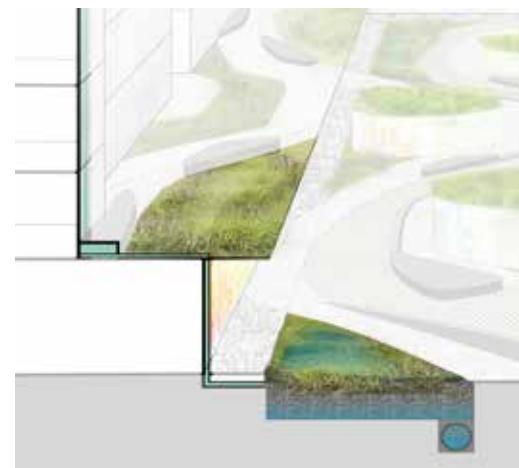
As Socially Performative Spaces

Small Business Owners, Artists, and Musicians

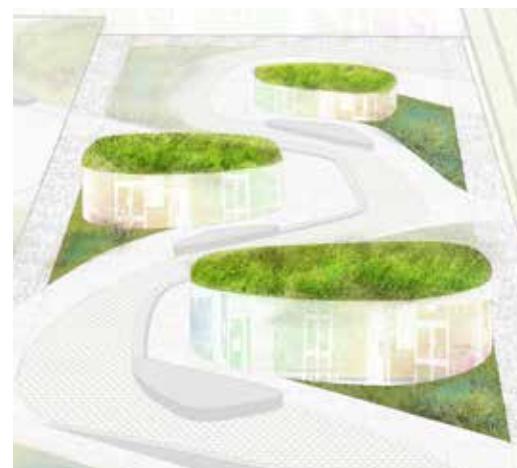
Spaces tailored to this demographic group will focus on creating high levels of social interaction and activity, as well as providing spaces for vendors to sell goods.

Key aspects of this design include:

- Flexible green space for markets and events
- Temporary business stands to serve as a rain collecting system
- Informal performance stages to increase site activity
- Pervious pavement in hardscape areas



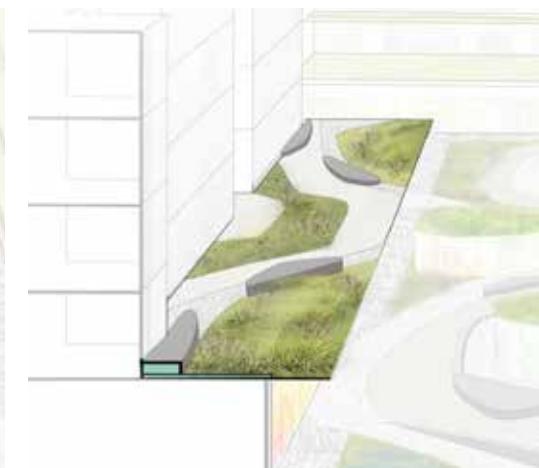
Multi-tiered water collection system



Temporary business stands that function to retain water



Pervious pavement and small performance areas



Seating areas provide spaces to watch performances and rest

GREEN PERFORMANCE

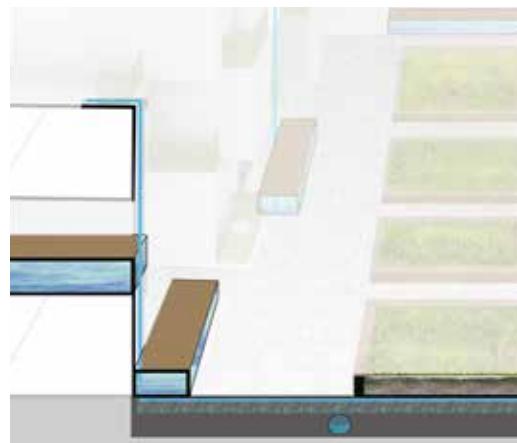
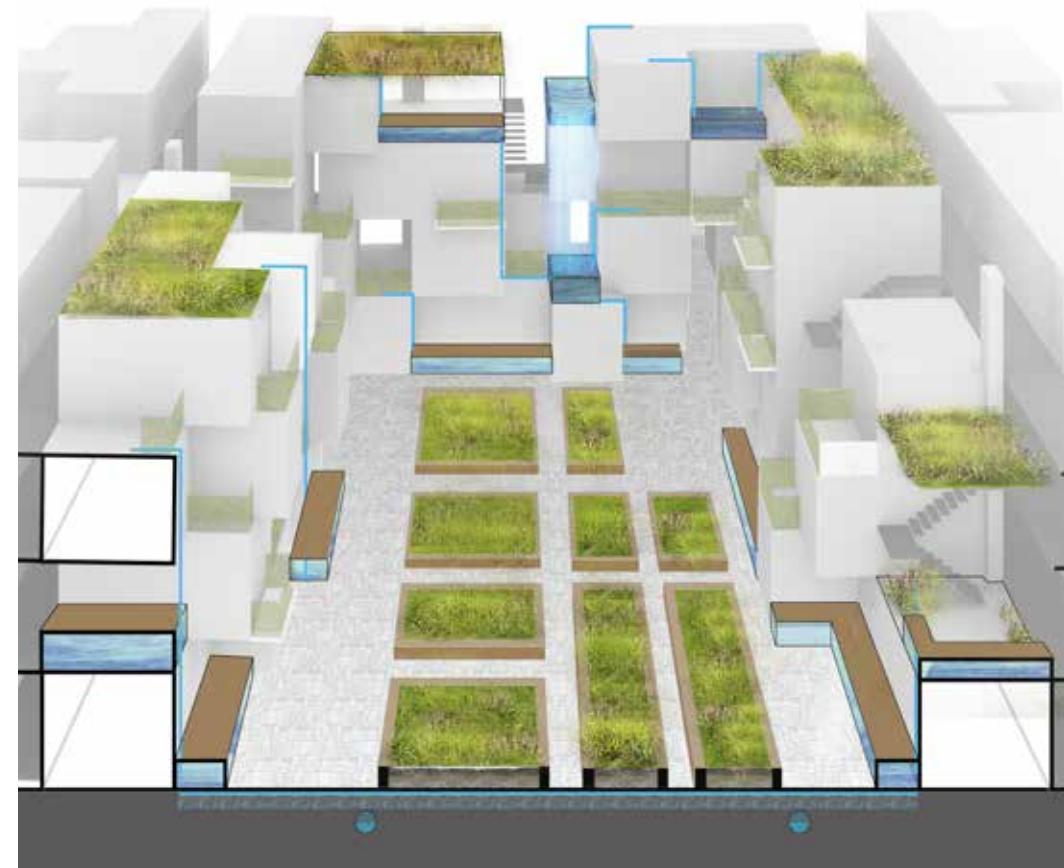
As Socially Performative Spaces

At-Risk Population

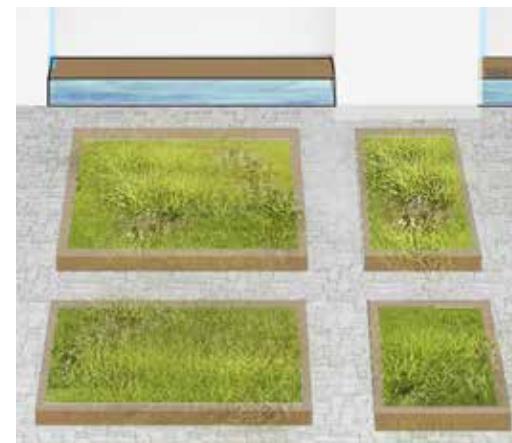
The design goal for this demographic group is to create supportive social spaces to encourage community engagement and new social networks.

Key aspects of this design include:

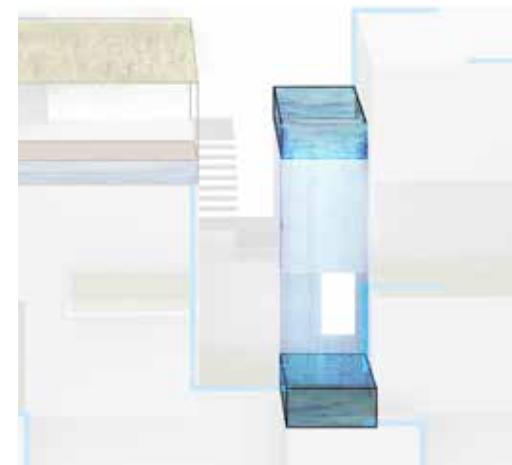
- Community gardens
- Rain collection and irrigation systems
- Green spaces for meditation and relaxation
- Community and meeting spaces



Community garden irrigation system



Community garden



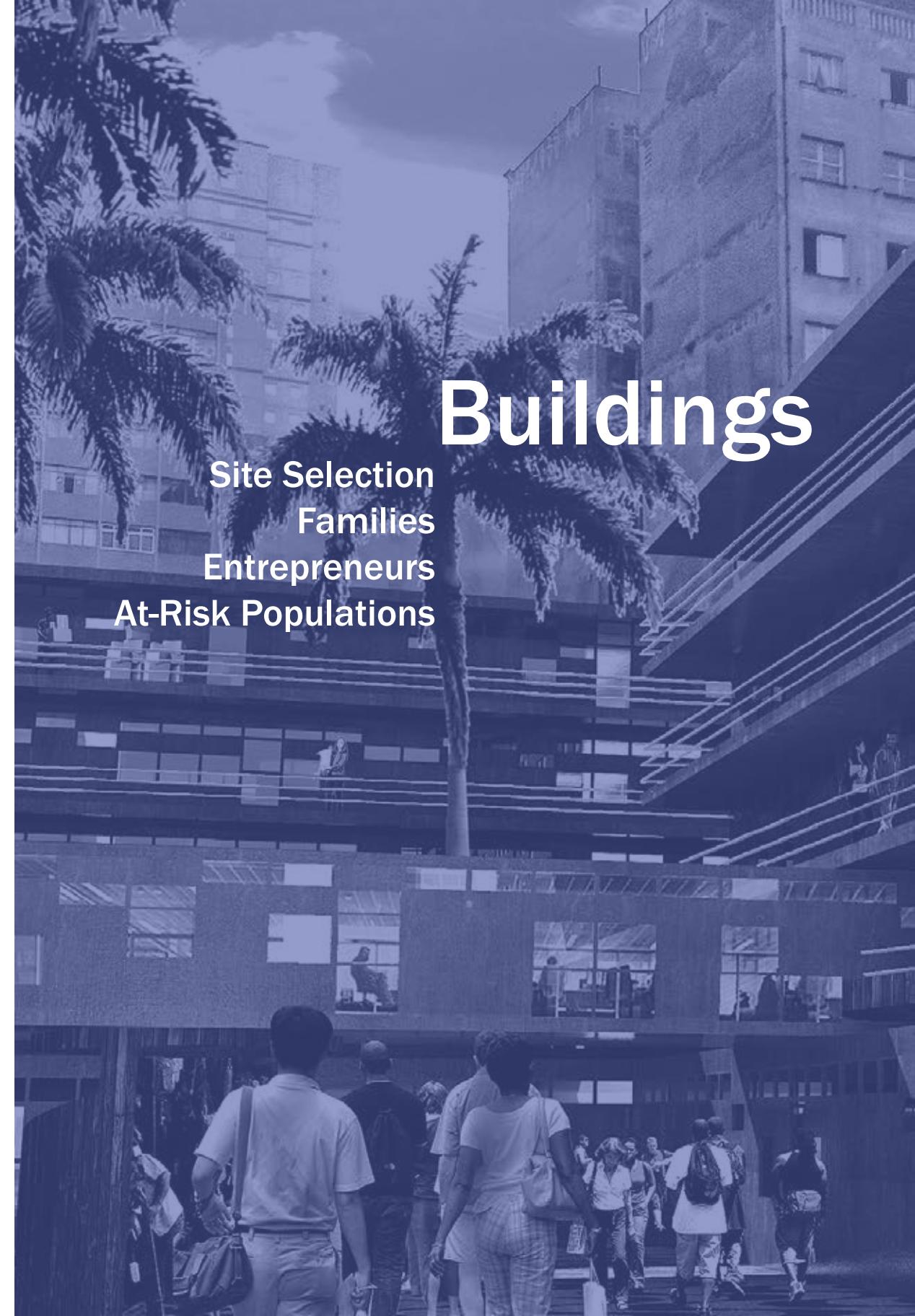
Rain barrels and a waterfall landmark



Collective meeting spaces

Buildings

Site Selection
Families
Entrepreneurs
At-Risk Populations



ADDRESSING THE NEEDS OF LOW-INCOME RESIDENTS IN SÃO PAULO

Low-income housing is often visually and functionally generic and does not well address the particular needs of its residents. São Paulo's Department of Housing and Urban Development (SEHAB) has made great strides toward progressive, supportive building design, notably including the recently-completed Jardim Edite project. The Jardim Edite social housing development replaced an existing favela, as part of the ZEIS 1 Urban Operation Espraiada Water and slum upgrade program.¹ The new development, which is sandwiched between a major thoroughfare and the Brooklin neighborhood's high-end apartment towers, consists of five mixed-use buildings; three high-rise and two mid-rise towers. The over 250 residential units are anchored by a clinic, daycare center and restaurant school on the ground floors, targeting both the needs of families living within the complex as well as the surrounding community.² This holistic approach is embodied in our vision of Social Housing+ in Nova Luz. In São Paulo's historic center, however, the significant at-risk population and unique structure of economic activity pose additional challenges for

building design that accommodates services and amenities. Furthermore, the lack of large, unencumbered parcels of land, as is typical in urban cores, limits the ability to achieve the necessary density to effectively support residents with social services.

These services for entrepreneurs, families and at-risk populations residing in Nova Luz require physical spaces that range in size

Services for different populations require physical spaces that range in size and function.

and function, from intimate meeting rooms to full-sized clinics, daycare centers and job training facilities. The proposals that follow address the

needs of each of these population groups through unit design, amenities and mixed-use facilities, while working architecturally to rehabilitate a decayed urban fabric.



In addition to an extensive electronics and motorcycle industry in Nova Luz, there are a large number of music, clothing, and other shops, as well as street vendors and small entrepreneurial businesses.

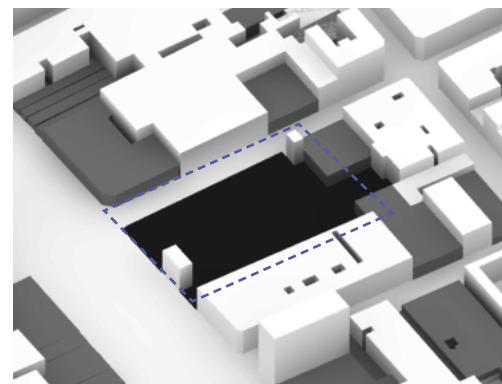


Although parents and children, as those picture above, reside in Nova Luz, the neighborhood does not adequately support families with services and amenities within close proximity.



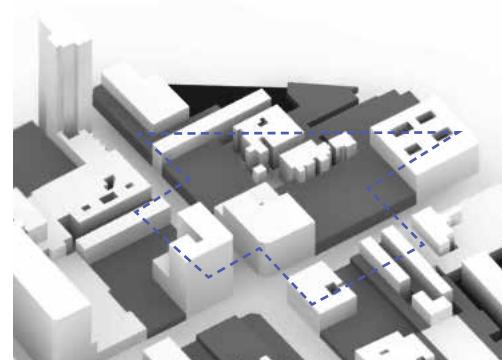
Many of the parks surrounding Nova Luz play host to an active sex trade and extensive drug use. Many of the populations within these communities lack formal housing or support services.

POSSIBLE SITES FOR DEVELOPMENT



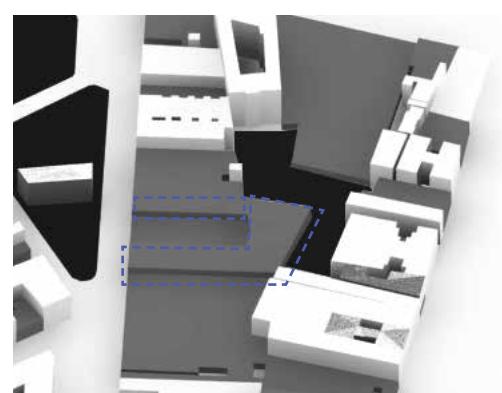
Empty Lots and Surface Parking

Over 10% of the land area in Nova Luz is vacant land or surface parking. While the vast majority is surface parking, this is still a drastic underutilization of land in what is otherwise a dense urban area, that is well-connected to public transit.



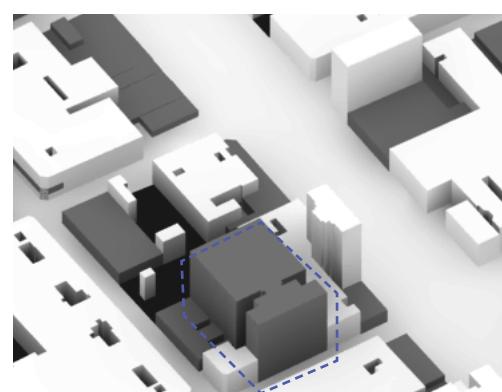
Large and Contiguous Parcels

Other blocks are dominated by large, somewhat contiguous parcels of "soft sites," which can be combined (with certain creativity) to allow for a larger scale of development than might be possible on a single site.



Small Parcels

Many blocks are currently subdivided into small, narrow parcels, where development is hampered by land title issues, in addition to a lack of financial feasibility for developing single parcels.



Vacant Buildings

Abandonment of buildings, either because of poor repair or legal and financial issues is rampant in Nova Luz, with a large number of apartment complexes boarded up, and others serving as homes for squatters.

BUILDING LIVE-WORK ENVIRONMENTS

As São Paulo continually expands, workers are forced farther and farther from their places of employment in the center of the city – a focal point for the new mayor Fernando Haddad.³ This is true of many urban environments and takes a particularly hard toll on low-income workers, the target of much social housing. In contrast to Haddad's proposal to decentralize jobs to reduce the burden of long commutes, we propose instead to construct social housing in São Paulo's urban core in order to allow workers to live closer to their current jobs. The Maua Hotel squatter occupation demonstrates a preference among Paulistanos to live in the Centro, close to work and studies, a feeling confirmed by a leader of the Movimento Sen Teto (Movement Without a Ceiling).⁴

Furthermore, Nova Luz is home to a vibrant economy, with countless small speciality shops lining arcades and

tucked into unused spaces in residential buildings. Anecdotal evidence suggests that exploitative business practices are common, with mafia-like building owners subdividing existing shops and charging inflated prices for micro-spaces.

There is a strong history in the United States of workers' cooperatives creating affordable housing, which is a model that has great potential to be expanded and incorporated into São Paulo's social housing initiatives.⁵ By creating housing for workers, as well as secure areas for entrepreneurial activity and street-front retail spaces, a live-

Constructing social housing in the urban core allows workers to live closer to their current jobs.

work building could truly support residents in their endeavors and lower the bar to entry for aspiring entrepreneurs. These "Social Housing+" buildings offer spaces for job-training services, classrooms or co-working

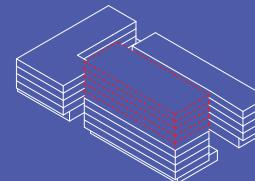
A live-work building would support residents and lower the bar to entry for entrepreneurs.

around-the-clock activity. Visual connections between residents' living, working and selling spaces would ensure safety and security of place, as well as create a sense of connection within the community.

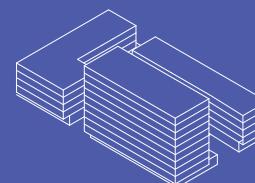
spaces that benefit not just their residents, but also the neighborhood as a whole, while maintaining

connection within the community.

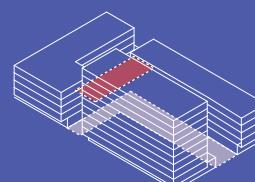
Typological Guidelines



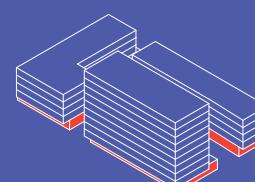
A market-rate building incorporated onto the parcel would be a good option for increased density on-site with elevator access.



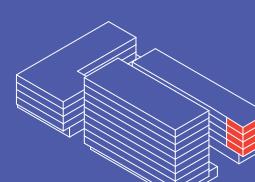
Intensive ground-floor retail and arcade uses likely preclude on-site parking.



Public space on the ground floor could be closed to public access after business hours, while second-floor terraces offer residents more privacy.



Almost all ground-floor space is devoted to retail, with maximum street or arcade access.



Social services should have 24/7 street access, whether for collaborative entrepreneurial spaces or for after-work job training.



One of the many dozen-plus lane highways that cut through São Paulo.

In São Paulo

Commutes in São Paulo often take over two hours, as many low-income residents live on the outskirts, but work in Centro.

- The current mayor proposes decentralizing employment, rather than building low-income housing in the urban core.

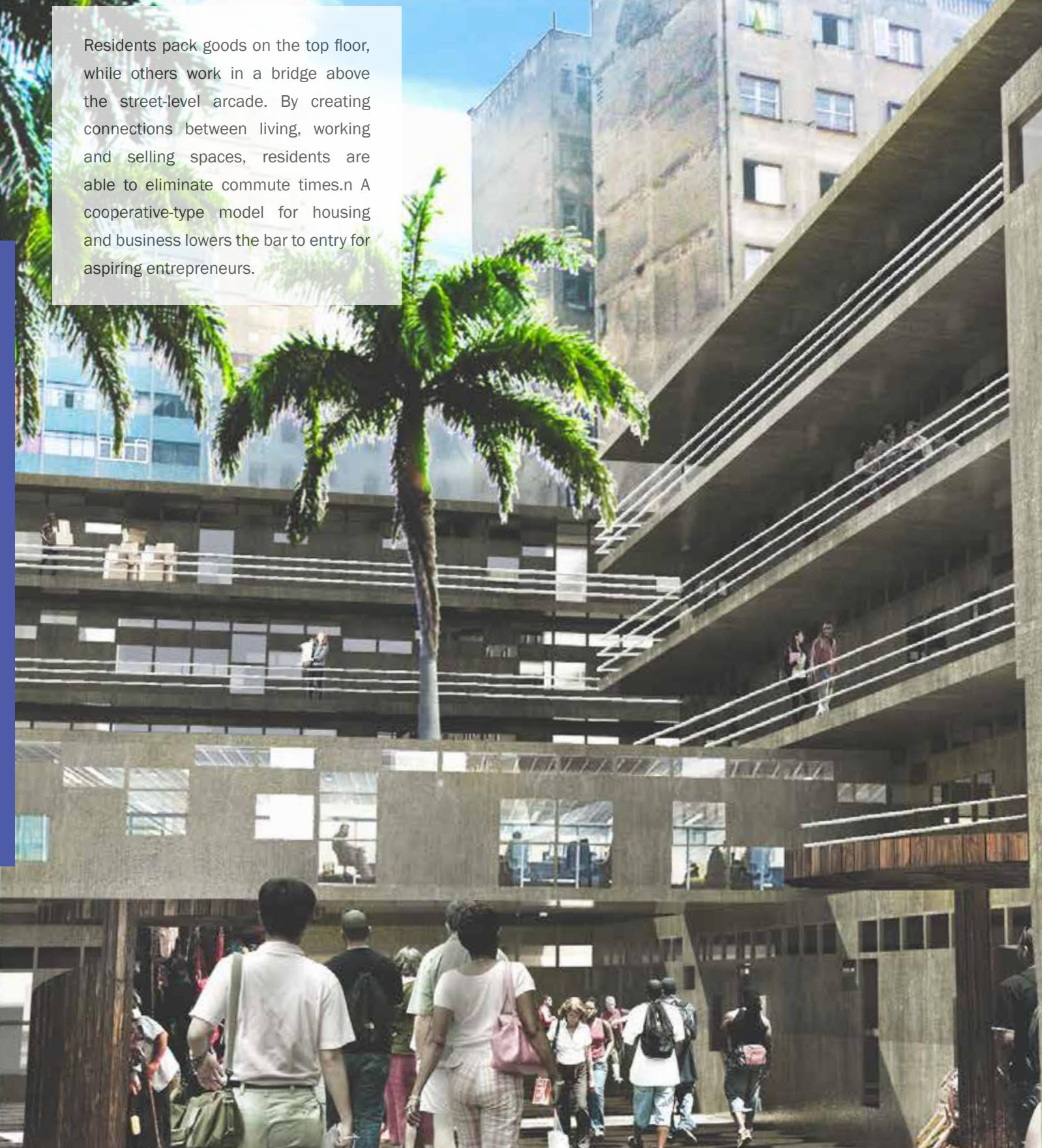


An entrepreneur sells keys in a niche of a hallway in Nova Luz.

In Nova Luz

- There is a vibrant electronics and motorcycle sales industry in Nova Luz, driven by specialty sellers who occupy small, subdivided stores.

Residents pack goods on the top floor, while others work in a bridge above the street-level arcade. By creating connections between living, working and selling spaces, residents are able to eliminate commute times. A cooperative-type model for housing and business lowers the bar to entry for aspiring entrepreneurs.



LIVE-WORK HOUSING IN NOVA LUZ

In contrast to the existing single-use developments permitted by Minha Casa Minha Vida, mixed-use buildings are important urban gestures, and in the case of workers in downtown São Paulo, can provide a unique opportunity for a live-work lifestyle. Larger lots, including the extensive surface parking currently in Nova Luz, offers the potential to create an internal arcade surrounded by ground-floor retail and upper-floor residential space, while maximizing street frontage and space available for retail uses. This has the secondary advantage of creating a public-private courtyard space which could be used by residents after business hours and bring light to inward-facing apartments.

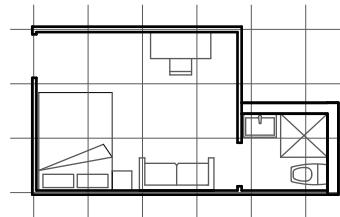
Exposed circulation along this arcade would create visual connections between residents' living, working and selling spaces and interior setbacks could create more private outdoor spaces on the second-floor or higher, above the arcade. Bridging buildings above the shopping street might

provide additional areas job-training facilities, co-working spaces or for entrepreneurs to work their crafts.

Additional space on the ground or upper floors along a lot-line would be well-suited for storage for store owners. Furthermore, an arcade could be used for outdoor seating by restaurants and cafes catering to both residents and neighbors, or closed at night to provide a secure space. Social services such as a job-training center facing the street would similarly activate the street after shops close for the benefit of both locals and building residents.

Mixed-use buildings can enable a live-work lifestyle for low-income workers who currently have lengthy commutes.

Unit Layouts

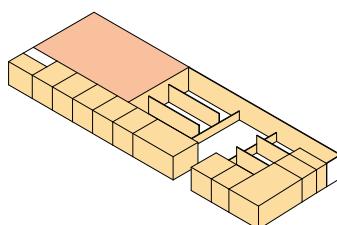


This small unit is suitable for either short-term residents who might be taking advantage of job training classes, or for workers whose families live further out in São Paulo and need weekday lodging closer to their jobs.

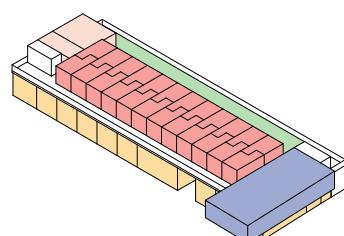
Similarly, students attending the new technical academy in Nova Luz would benefit from a similar-style unit with shared community facilities and classrooms just down the hall.

Sample Floorplans

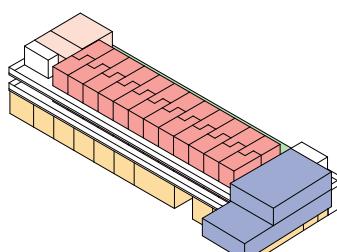
Legend: studio (light orange), one-bedroom (orange), two-bedroom (red), circulation (white), retail (yellow), parking (blue)



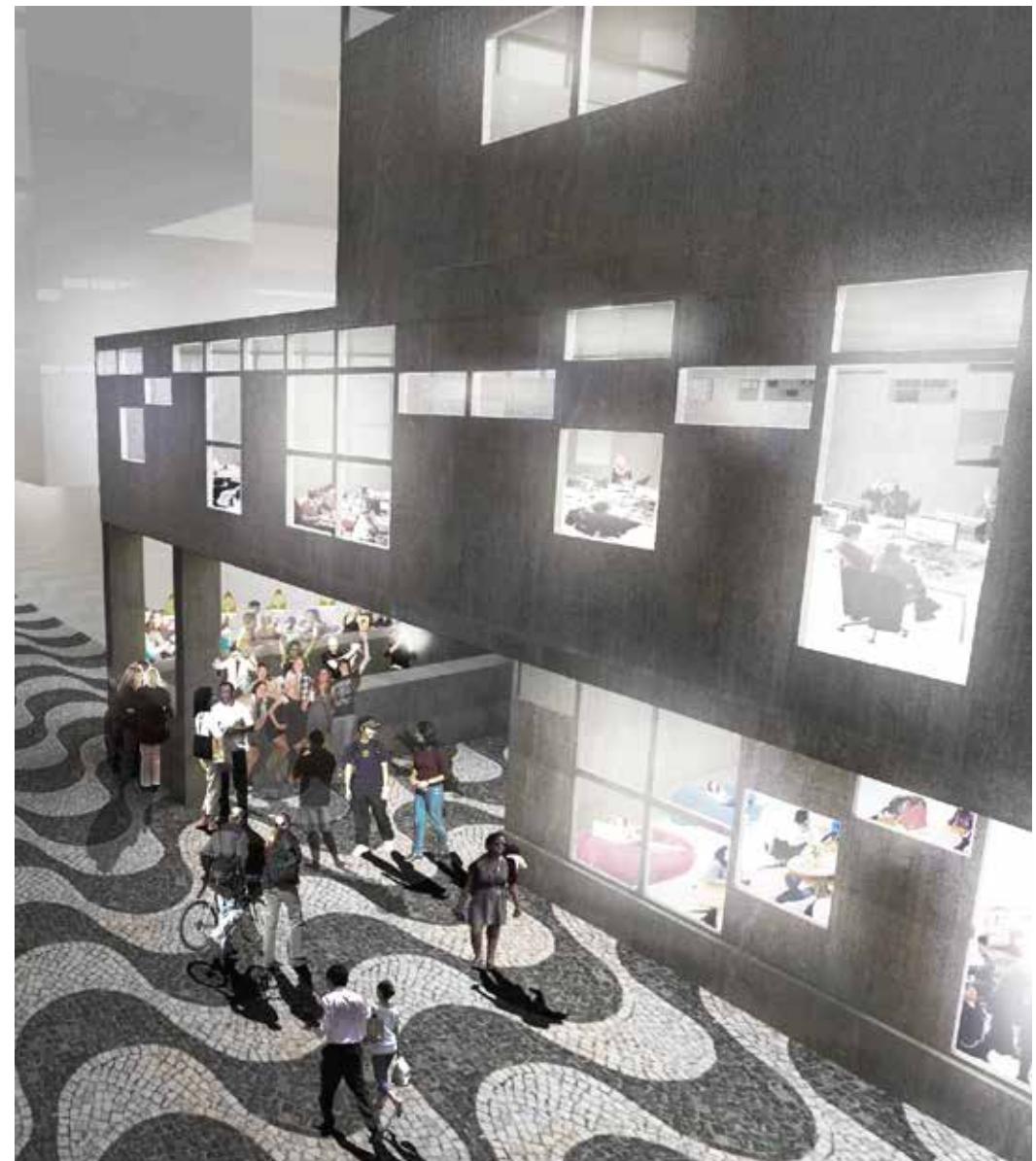
Ground-floor retail of a variety of sizes faces an interior shopping path, with storage located in areas without street or arcade frontage.



A job training facility faces the street, while apartment units share exterior circulation facing the courtyard, as well as community facilities at left.



These community spaces could be used alternatively for entrepreneurial activities, social services or as an extension of living space.



The shopping arcade at night turns into a social space for residents, neighbors and visitors. A job training center and co-working space look out onto the street from the ground and second floors.

BUILDING HOUSING FOR FAMILIES

Families are a common demographic throughout São Paulo and require different types of programming than economic cooperative housing, such as generous amounts of open space and specific support services. The building for families creates a composition of community spaces at varying scales and levels. Open spaces are staggered through the building to allow more residents to have direct access to the outdoors.

Families require generous amounts of open space and specific support services.

Public patios may be used for hanging laundry, dining outdoors, playing games, or tending a small garden. Outdoor spaces are dispersed throughout the building, complimented by wide pedestrian paths. These open areas create a potential for social connections driven by orientation and circulation routes.

The building typology is essentially an “o” with low-rise single-loaded corridors of five stories that run perpendicular to double-loaded high-rises that allow for more density without sacrificing open space. They also serve an important function as a barrier between the street and the inner courtyard.

Due to security concerns, it is common practice in São Paulo to erect a fence between the street and a residential building. The building is typically set back from the fence, distancing itself from the street.

In this design the fence and the setback are eliminated. This not only enlivens the street by providing shops and late night programming, but harbors a safe interior

space that can be used by the residents at all hours of the day. Like the economic cooperative programming, family housing addresses the specific demographic needs by providing additional social services

Family housing has both public and private supportive services. There is a public clinic facing the street on the second level, which is intermixed with the street-facing retail. This location for clinics is not only convenient for the tenants, but also provides a necessary service to the surrounding population. This type of program contributes to the Social Housing+ mission that social housing is more than just a building, but it has implications to make a broader impact on a community and catalyze change.

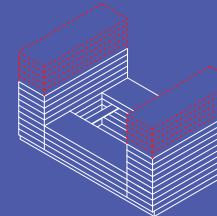
Family housing also has private programming, offering daycare and after-school services to the tenants. The private

The building creates a composition of community spaces at varying scales and levels.

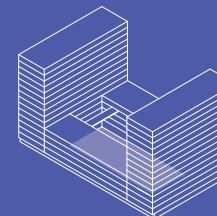
programs are located on different levels in the building adjacent to well-used circulation routes and green

spaces for children to play and learn. These programs, as well as overall maintenance, will be funded by the Community Land Trust.

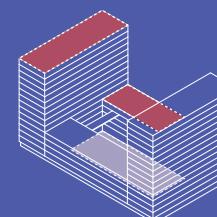
Typological Guidelines



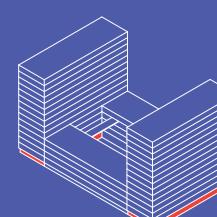
Towers have the ability to expand in height to increase density and FAR.



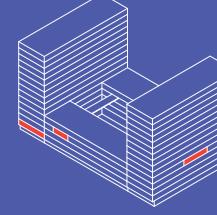
Parking is shared at the center of the courtyard, intermingled with social spaces.



Patios of differing scales and heights are staggered throughout the building.



Retail interfaces with the street at ground level providing a barrier between the courtyard and the street.



Support services such as daycare, a health clinic and after-school programming are placed throughout the building.



A residential unit in Paraisópolis, a new social housing development in São Paulo.

Social Housing Initiatives

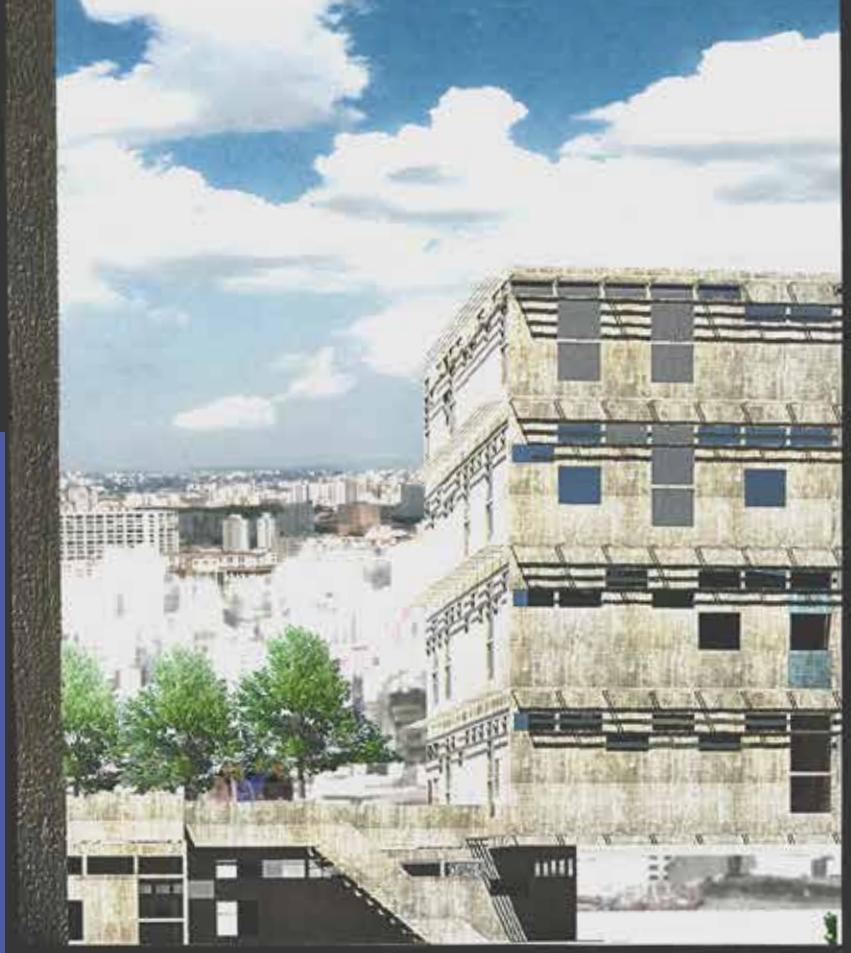
- São Paulo has projects in several favelas to add infrastructure and replacement housing units.
- The newly finished Paraisópolis development houses 954 families in replacement units.⁶
- Each building has community space for recreational activities and events.



A family outside of the Mauá Hotel occupation in Nova Luz

Families in Nova Luz

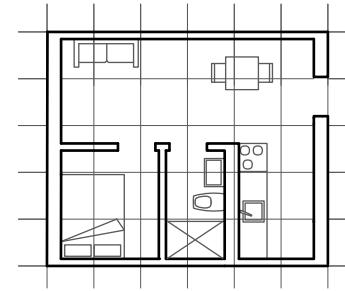
- Families require extra social support including access to a clinic, daycare, and after-school programs.
- These programs enable a single parent to go work while securing child care, allowing for more financial stability and upward mobility.



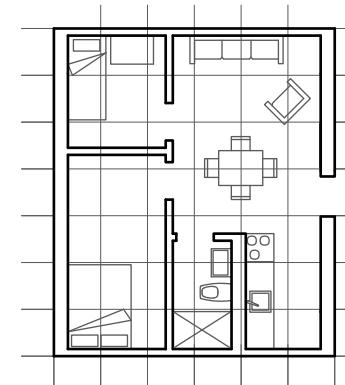
Open spaces are staggered throughout the building. Some are adjacent to programs such as child care, while others cater to everyday needs of families with places to hang laundry, or kick around a soccer ball.



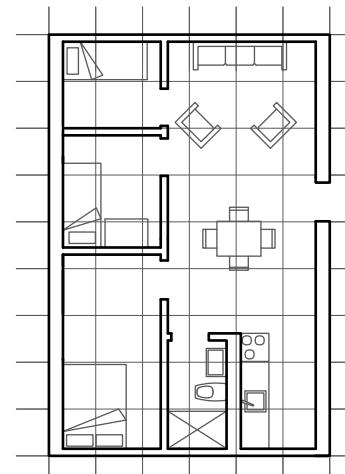
Unit Layouts



A small percentage of one-bedroom units are available. They are 30 square meters in size and cater to couples.



The two-bedroom is the most common unit in the building. On average, Brazilians have one to two children. The wet wall in each unit can attach to both one-bedroom and two-bedroom units.



Three-bedroom units are available for larger families, with a total of 54 square meters of living space.

FAMILY HOUSING IN NOVA LUZ

Two defining elements of this design are the building types. The interior buildings are five stories high, which is a typical height for social housing in Brazil because it allows for the elimination of elevators. The buildings span the perimeter of the parcel with open-air circulation and cascading stairs. These features are appropriate for the climate and allow for high visibility while creating safety through visual adjacency.

The buildings facing the street are scalable in height, with the capability to reflect the appropriate FAR requirement or market demands. The towers require elevators to reach higher levels and create more density. Providing elevators is essential for social housing in Brazil because it not only facilitates higher density, but it also allows for more open space. In the past elevators have been a source of vulnerability for social housing because of issues with maintenance and security. However, with funding from the Community Land Trust it will be possible

to overcome this obstacle by budgeting for appropriate upgrades and repairs.

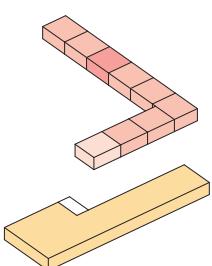
The fluid integration of support services and residential life is an important component of social housing.

component of social housing. The open spaces are flexible in use and can be used by a support service, such as daycare, during the day and become an open recreational area at night.

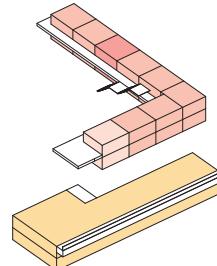
Programming and community spaces are intermixed with housing units in order to provide a fluid integration of services and residential life, an important

Sample Floorplans

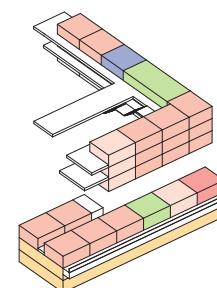
one-bedroom two-bedroom three-bedroom circulation retail green space day care



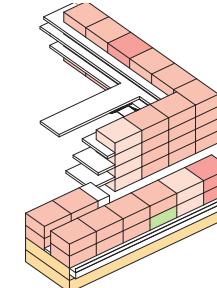
Retail creates a barrier between the street and the interior residential units.



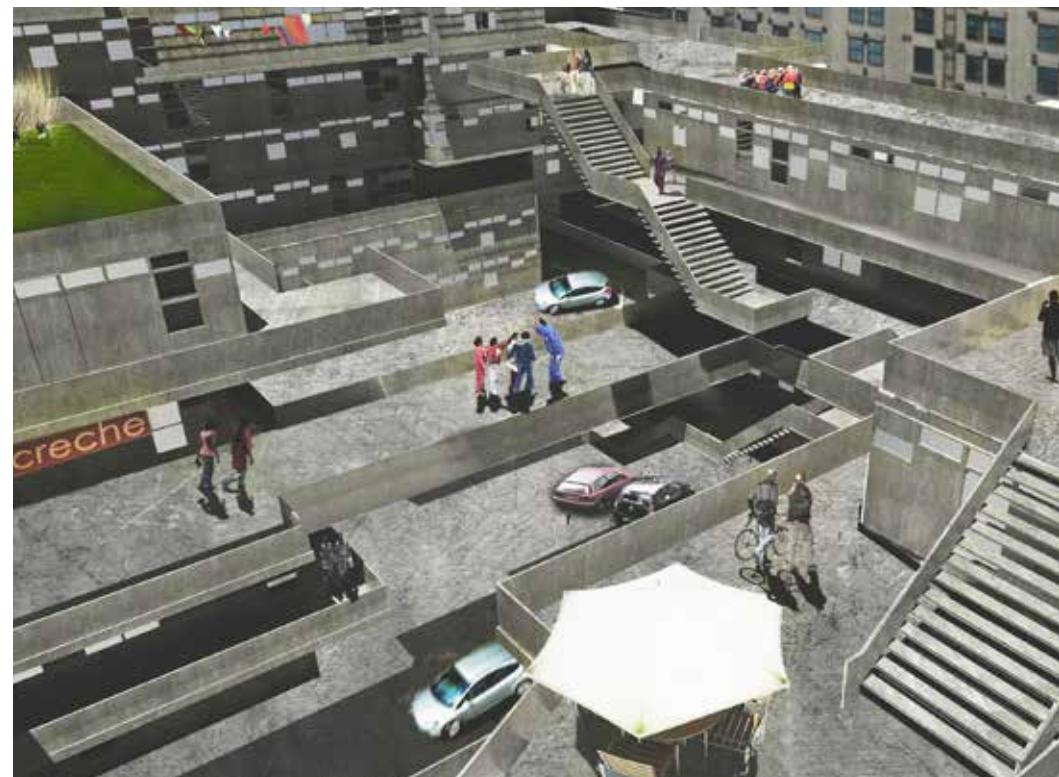
A second floor for retail is used for storage and additional workspaces. Open space and programming are intermixed with residential units.



Street-facing patios attach to residential units creating more street presence.



Interior units' circulation are oriented toward the courtyard, with wide paths connecting to other buildings on the site.



Balconies and wide circulation allow for optimum visual and physical connections in the courtyard. This fosters a safer social space for families, and allows children to play within sight of guardians who may be indoors.



A public health clinic located on the site is intermixed with street-facing retail. This is just one of the supporting services made available for families within the housing unit.

BUILDING HOUSING FOR AT-RISK POPULATIONS

Nova Luz is home to a number of at-risk populations, including workers in an active sex trade, drug users and squatters. It is important within Social Housing+ to provide residences to specifically address their needs and concerns.⁷ Unlike more typical social housing, which

These populations often live alone and can share social living space.
primarily addresses the needs of families, these at-risk individuals often live alone and thus it is possible to externalize and share much of the social living space that might otherwise be incorporated into an apartment. This is also true of younger singles and elderly residents, who benefit from shared community areas outside of their separate units. Reducing the size of individual apartments and increasing the size or amount of shared community spaces permits the construction of a larger number of units in each building.

These at-risk and single (both elderly and younger) populations will be able to flourish more effectively when living in discrete, intimate clusters where they can connect with their peers – whether for

At-risk individuals and singles are able to flourish when living in small clusters.

sharing a single hallway, including inviting shared spaces and encouraging visual adjacency between units within clusters.

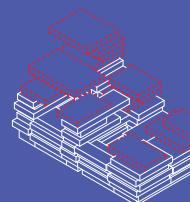
Some of these communal areas can play host to the programming needed by at-risk residents, including counseling, rehabilitation and educational services. Many of these similar services described in the case study of São Paulo's Complexo Pratese on page 51 are most effective in smaller, less anonymous spaces.

A flexible housing system can adapt to user demand, whether retrofitting existing units to provide a different function or allowing for expansion, to encourage these often-transient populations to remain anchored to their community and housing unit. A modular housing system constructed with a range of voids between units would permit the social spaces previously described, while also introducing the ability for

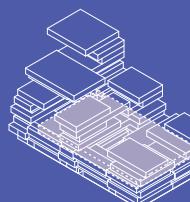
adjacent units to expand within a predefined space. This would allow younger people to grow their families without moving, or at-risk populations to adapt their housing as their needs change. Not unlike the ad-hoc construction of a favela, a flexible system could adapt, and be developed over time to include a mix of uses, with a systematic arrangement of units and structural stability through pre-engineered components.

Flexible housing adapts to changing needs to encourage residents to grow in place.

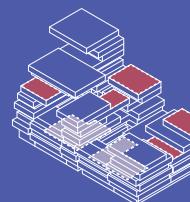
Typological Guidelines



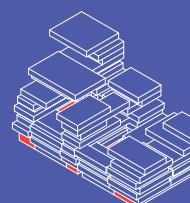
Ad-hoc expansion of clusters of apartments allow the building to respond to residential demand and gradually increase density.



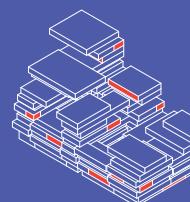
Parking can be tucked inside the building and serve to elevate shared courtyards for maximum natural light and ventilation.



Smaller outdoor areas facilitate a wide variety of uses by different resident groups.



Flexible ground-floor economic spaces can surround a parking structure and respond to user needs.



Distributed services can support unique groups of residents and provide intensive social assistance.



A woman involved with the Movimento Sen Teto discusses the squatter movement in central São Paulo.

In São Paulo

- Many Paulistanos live in precarious settlements, commonly favelas or squats.
- Basic social services are often included in social housing developments to help residents adjust to formal living.



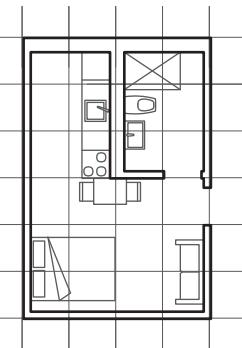
In addition to drug use, there is an active sex trade in Nova Luz and other at-risk groups, including transgender persons.

In Nova Luz

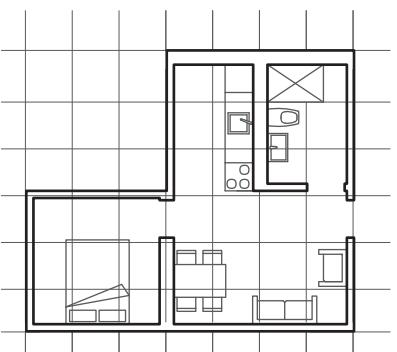
- While there are systems in place to support victims of addiction in São Paulo, many report high recidivism rates and many users live in Nova Luz, known colloquially as "Cracolândia."
- Squatters have already occupied at least three buildings in Nova Luz.



Unit Layouts



Four-meter by six-meter studio apartments have enough room for a small living space and a full-sized bed. The kitchen and bathroom share a wet wall, where the unit would connect to a utility stack.



An additional nine square meter bedroom could be constructed alongside the studio “core module” or added later, providing an expanded living space for a couple.



Two-bedroom units would have sufficient room for a small family, with a total of 42 square meters of living space.

AT-RISK HOUSING IN NOVA LUZ

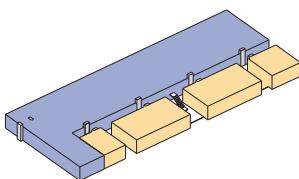
In this proposal, vertical cores carrying utilities (shown as grey in the diagrams below) structure the construction and distribution of housing units and allow for the continuous development of an apartment building. This expansion may be vertical or horizontal, an especially valuable possibility in urban environments, where it may be hard to acquire a mass of parcels, and will permit the building to grow in response to both demand and available urban space. São Paulo's temperate climate allows exposed circulation stairs and corridors, facilitating the gradual growth of the building.

The ability to continually expand is important in urban areas where parcels are hard to acquire.

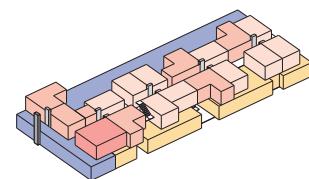
described on the previous page, which can be expanded to one and two-bedroom units through the addition of smaller modules.

Sample Floorplans

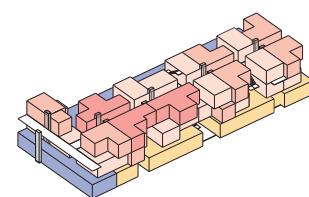
shared amenities dorms circulation storage retail green space collaboration space



Retail units face the street and provide access to interior circulation, while obscuring a parking structure from the street.



Anchored by utility cores, studios, various configurations of one-bedroom apartments and two-bedroom units share courtyard space above the parking, as well as an intimate community space.



The roofs of second-floor units form balconies and provide generous spaces for three-bedroom units, as well as views to the internal courtyard and street.

By placing these units irregularly, the roofs of lower modules become private balcony spaces or accommodate a range of green interventions to be used for planting and water capture.

Sun shades provide relief for apartments without overhangs above, and spaces between the units can be used for vertical circulation, community space or future expansion. These community spaces, which help define clusters of units, are especially important for the at-risk demographics in Nova Luz, and they provide additional areas for services within the social housing. The central courtyard provides space for a community garden and a late-night outdoor cafe to encourage socializing on a broader building scale.



A construction crane positions a new studio module, while workers install wall panels to partially-completed units. Nearby, residents use their balconies for rooftop gardens, drying clothes and socializing with neighbors.



Neighborhood residents take advantage of a cafe located adjacent to the building's community garden.

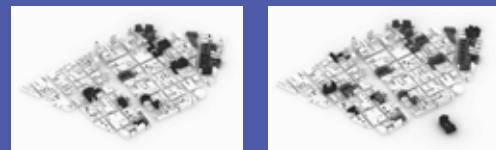
IMPLEMENTATION

Using Phasing to Rebuild Nova Luz

The image below highlights locations for the three buildings proposed before, with live-work housing towards the center, family housing at top-left and at-risk housing toward toward the right, most northeastern corner of Nova Luz. An additional community center and the rehabilitation of an existing building is shown outside of the blue dashes on the top right. The following phases prove that the Social Housing+ guidelines are applicable to a number of complex urban sites, while still creating supportive spaces for the populations that they serve. Furthermore, the phased development of these buildings is structured around a place-based network of safe and active spaces.



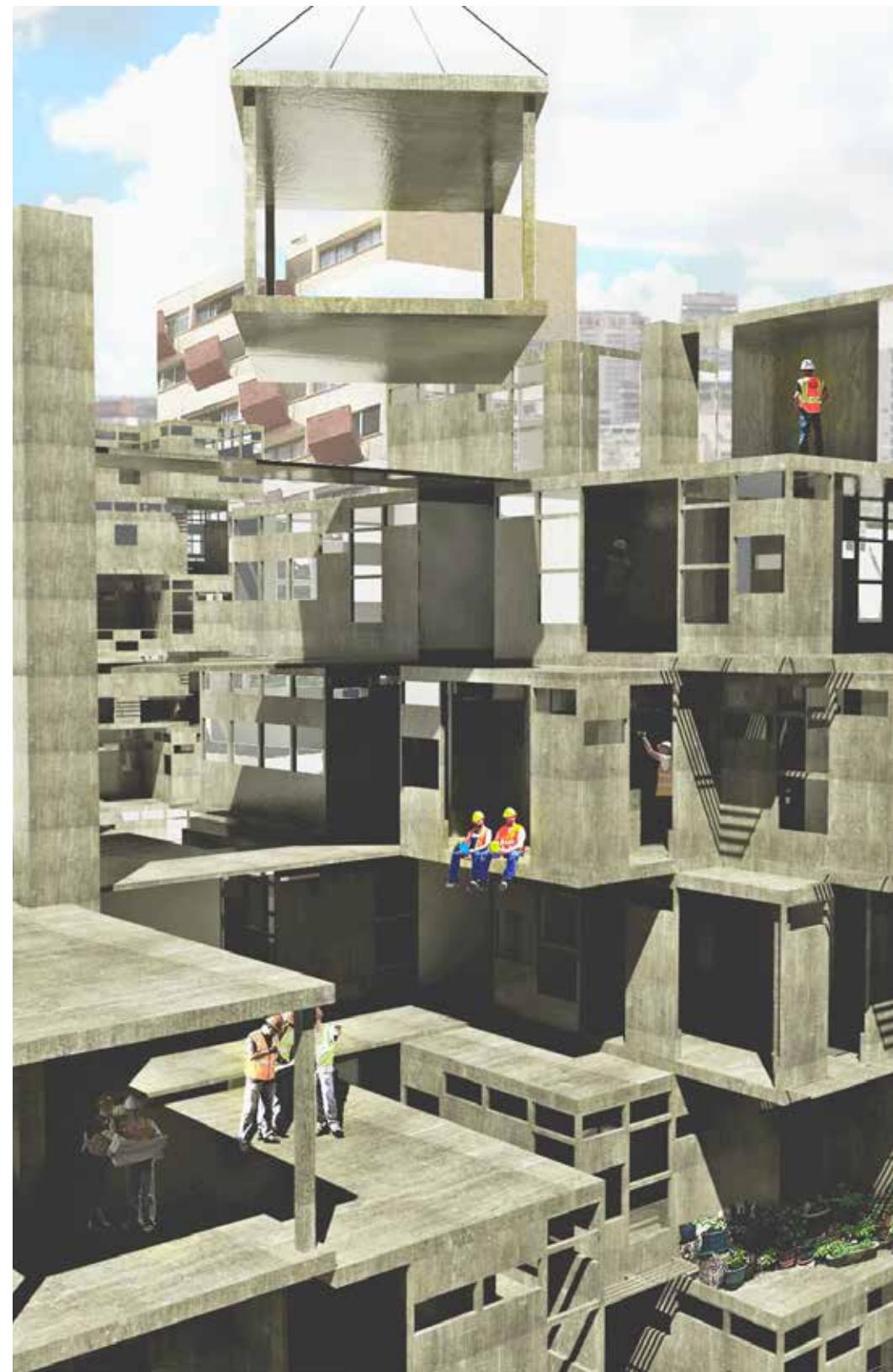
Phase 1 includes a Family, Live-Work and At-Risk building, as well as SESC (Serviço Social do Comércio) community center and a rehabilitated historic building.



Phases 2 and 3 include an additional 15 buildings, mixed between rehabilitated buildings and new construction.

End Notes

1. "Associação De Moradores Do Jardim Edith." Associação De Moradores Do Jardim Edith, 3/27/2009, <http://jardimedith.blogspot.com/>.
2. "Staying Put and Moving Up." Architectural Record, 3/1/2013, <http://archrecord.construction.com/projects/portfolio/2013/03/1303-jardim-edite-social-housing-mmbb-and-h-f.asp>
3. "Haddad and the Archway to the Future." YouTube, 12/11/2012, <http://youtu.be/KXzj3RzbgDQ>
4. "São Paulo ocupada: a rotina de quem vive em moradias irregulares na cidade." Marie Claire, 8/4/2014, <http://revistamarieclaire.globo.com/Mulheres-do-Mundo/noticia/2013/04/Sao-paulo-ocupada-rotina-de-quem-vive-em-moradias-irregulares-na-cidade.html>
5. "Cooperative Housing on the Lower East Side: a brief history." Cooperative Village, <http://coopvillage.coop/cvHistory.html>
6. "Elito Arquitetos — Paraisópolis Housing." Europaconcorsi. 2014, <http://europaconcorsi.com/projects/221586-Elito-Arquitetos-Paraisópolis-Housing>.
7. "Cracolândia: the crack capital of Brazil where addicts are forced to seek help." The Guardian, 5/9/2014, <http://www.theguardian.com/world/2013/may/09/cracolandia-crack-capital-brazil>



The background of the slide is a high-angle aerial photograph of a city, showing a dense network of streets and buildings forming a grid pattern. The image is slightly desaturated, giving it a sepia-toned appearance.

Implementation

Structure
Financing

CREATING A DEVELOPMENT STRUCTURE TO REBUILD NOVA LUZ

Challenges and Regulations

To achieve the programming, place-making, environmental and architectural proposals described in the previous sections, we are proposing a Community Land Trust to act as a public-private development vehicle, which can enable community members to participate in the redevelopment of Nova Luz, while ensuring affordability in perpetuity. This structure will support large-scale development, as well as a comprehensive vision for the community, and addresses many of the serious issues that have hampered the redevelopment of the area over the past decade. Most seriously, the Urban Concession, a private land-acquisition tool similar to Eminent Domain, was announced to be economically unfeasible in Nova Luz by the City of São Paulo – a striking blow to the most recent proposal, designed by an AECOM-led consortium, that would transfer property to a single private developer.¹

Other concerns included the lack of public areas for family and cultural activities or plans to insulate existing residents from higher rental prices due to development, as well as the lack of a positive increase in the number of affordable housing through government-funded social housing within designated areas.² The presence of a Zone of Special Interest (ZEIS), a geographical designation which exists to protect social housing for especially vulnerable populations, was not enough to mitigate concerns, as the proposed number of units within the zone would not even fully replace the amount of low-cost rental and ownership housing

proposed to be demolished within Nova Luz.³ The ZEIS, in this case a “ZEIS 3” designated for areas with existing infrastructure – and as opposed to the more commonly used ZEIS 1, which was created to formalize favela settlements, requires a minimum of 50% (80% until the 2014 Master Plan) of the site, for lots of more than 500 m², to be dedicated to social housing. This ratio is meant to

provide housing for residents earning under six times the minimum wage. At least 20% is to be dedicated for uses other than residential construction.⁴

However, we were unable to identify any instances of social housing within the ZEIS 3, due in part to the irregular land tenure in historic São Paulo, which diminishes the financial feasibility for development.

Community Land Trust

A Community Land Trust (CLT) would not only promote social housing, in that units within the trust’s purview would be “perpetually affordable,” but it would also alleviate concerns about local involvement by harnessing existing community structures to formulate and execute its goals. While primarily used in the United States, land trusts are flexible entities that can especially benefit low-income communities worldwide who are at risk of displacement due to gentrification and land speculation. CLTs can

A Community Land Trust can allow the community to participate in the redevelopment of Nova Luz and ensure perpetual affordability.



The map above illustrates the parcels, as well as underutilized or vacant buildings, that we are proposing to integrate into a Community Land Trust in Nova Luz. All are chosen based on current under-use, environmental conditions, location within the existing ZEIS and appropriateness for social programming.

take on a broad variety of responsibilities, although are primarily intended to hold land for the “common good,” and not necessarily with common ownership.⁵ In our proposal, the CLT would own and acquire land parcels in the trust and would initiate and manage new development, as well as maintain property. The Trust or associated non-profits would oversee some or all of the social programming elements described in previous sections, to ensure that the social housing developed continues to foster a supportive environment.

Although São Paulo, in particular, has recently completed a number of highly-successful projects designed and constructed under strict control by SEHAB, the municipal housing authority, including Jardim Edite, much social housing is built by private developers who are guaranteed returns on investment. These projects have been plagued by quality issues and residents are often forced to take legal action against construction companies after moving in as their complaints are rarely remedied in a “timely manner.”⁶ Our proposal is in direct

contrast with this profit-driven approach to constructing social housing. Furthermore, by primarily developing social housing through the Community Land Trust, our proposal differs from the “Urban Concession” model of private development. It maintains affordable housing options for current and future residents, giving them a voice in the development process, while regenerating Nova Luz. The centrally located ZEIS 3 areas have not yet attracted serious development and a Community Land Trust would foster housing development close to existing jobs, while preserving affordability as blighted areas such as Nova Luz begin to gentrify and price out low-income residents.

CLTs can take on a broad variety of responsibilities, including maintenance and social services.

CASE STUDY

The Dudley Street Neighborhood Initiative

The Dudley Street Neighborhood Initiative is an ambitious community revitalization project in a low-income area of Boston. The initiative began in 1984 from grassroots efforts, when Dudley Street area residents came together to revive their neighborhood and protect it from outside speculation. Eventually, the city of Boston gave the organization's CLT, Dudley Neighbors, Inc. the power of eminent domain to acquire privately-owned vacant land in the area designated as the "Dudley Triangle," which it combines with city-owned parcels to lease to private and non-profit developers for affordable housing.

At its worst, the neighborhood had 1,300 vacant parcels, a total of 21% of the area. More than half of these parcels have since been redeveloped through the efforts of the Dudley Street Neighbors, including over 400 residential units, 227 of which are considered to be within the land trust. The trust is unique in its approach to land acquisition, only using eminent domain to acquire unmaintained parcels held by absentee owners, most of whom are delinquent on taxes. These parcels have been turned into community centers, schools, a town common, a greenhouse, parks, playgrounds, community gardens and an orchard, in addition to the apartments and single-family houses mentioned before. New residential units within the trust have resale value limited to a .5% annual increase for first 10 years and 5% for

each year after.⁷ This not only encourages residents to stay longer, strengthening community ties, but it also prevents speculation.

Over half of the 35-member Board of Directors is composed of neighborhood residents, with a specific intent to include all major ethnic groups living in the neighborhood, while the remainder is comprised of residents of local nonprofits, churches, businesses and community-based organizations.



Site plan of the Dudley Street Community Land Trust, with developed parcels in black.



A building near Nova Luz, squatted by LMD, whose name means The Struggle for Decent Housing. The slogan at right reads, "To live is a right, to occupy is a duty."

The Structure

As typical of Community Land Trusts, we propose a board of directors governed by three primary groups. One-third of the board will be comprised of residents who live on land controlled by the trust, one-third will be residents within Nova Luz, but who do not live in CLT buildings, and a final third will be government and community leaders. The purpose of this tripartite structure is to not only ensure that all affected parties are able to participate, but to also preserve the status quo in ensuring the availability of affordable housing. This structure is important because Community Land Trusts often, as well as in our proposal, fix the increase in resale value of dwelling units well below market-rates; many other cooperative structures vote to remove price restrictions so that residents can capitalize on massive increases in home equity. Our CLT would, as is typical, peg the increase of property values to an inflation-type index to ensure that residents are able to recover their initial investment plus appreciation, but still allow future low-income residents to afford apartment units.

In addition to this governance structure, the CLT would work to maintain public spaces within the buildings and actively act to expand affordability within the neighborhood. While the CLT will require an initial public investment, it would ultimately be self-sustaining and independent of the government. These investments would take the form of commonly-used federal and state funding for the construction of social housing. Our proposal, not unlike previous plans for Nova Luz, relies on an initial grant of land from the city, which could be executed by use of the 2001 City Statute, a Federal Law that permits cities to incorporate into their Master Plans methods to redistribute land in the interest of preserving housing for low-income populations. Similar to the Dudley Street example, we propose first targeting parcels with delinquent taxes, absentee landlords and vacant buildings.

PROPOSED PROGRAM

Housing

We propose the construction of 20 residential buildings, with a mix of ownership-based low-income social housing and market-rate rental housing. All would be mixed-use, with a combination of first-floor retail, as well as space for community services. To reduce costs, we propose experimenting with modular construction – particularly advantageous for the smaller unit types used in the at-risk housing previously described. In addition, we have identified vacant or squatted buildings that can be rehabilitated, as well as several sites where a conventional construction method might be most appropriate. In total, we expect 6,000 residential units, with an average of 300 units per building. Each demographic can benefit from extensive shared space, and our building program dedicates 30% of all gross floor area to community and circulation space, a generous amount in comparison to more typical residential construction.

Retail and Community Space

As all of the buildings are mixed-use, our proposal incorporates over 100 ground-floor retail units (10% of constructed space) and an additional 18 dedicated community spaces – 7% of the total built area, in addition to the 30% shared space within buildings as noted above. As Nova Luz currently plays host to a vibrant, but homogeneous retail economy, we expect to

actively work to bring the stores needed by community residents.

Social Program

The Minha Casa Minha Vida program, which supports the construction of social housing, provides as much as R\$ 200,000 per building to construct space for social programs. While some services could be supported through the Community Land Trust, others would require public or private partnerships to ensure continuous operation. The SESC program has provided a model for funding a place-based approach to social service programming, building on support from institutional partners and philanthropies.⁸

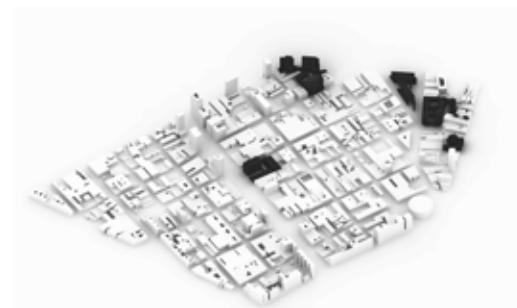
Environmental Program

We plan to tackle some of the serious environmental issues in Nova Luz through the Community Land Trust structure, and have planned for a 15% increase in costs for environmentally-conscious construction. Proposed solar water heaters will be funded through the Minha Casa Minha Vida program, which allots an additional R\$ 2,500 per unit with solar water heating.⁹ The structure of the trust, a semi-public authority operating at the scale of the neighborhood, could support the administration of projects such as the recycling co-op proposed for Nova Luz.

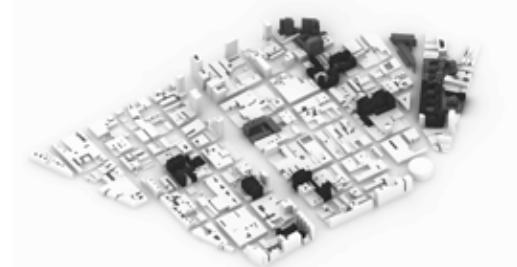
PHASING

The first phase of our proposed development would involve the construction of three residential buildings, to test our theories for three target demographics (Families, At-Risk Populations and Entrepreneurs), as well as a building for the SESC community center. In addition, we propose rehabilitating a vacant building, which would be incorporated into future construction. Total costs for this phase reach approximately R\$ 340 million (US\$ 150 million) for 130,000 square meters of space. The second phase would be more ambitious, providing a large number of retail and community spaces. Construction costs are estimated to be nearly R\$ 400 million (US\$ 180 million), for around 156,000 square meters of built space. Our final phase would flesh out our development on-site, reaching nearly every corner of Nova Luz and providing a broad range of social programs for current and future residents. Construction costs for this phase are estimated at R\$ 200 million (US\$ 90 million), for 81,000 square meters.

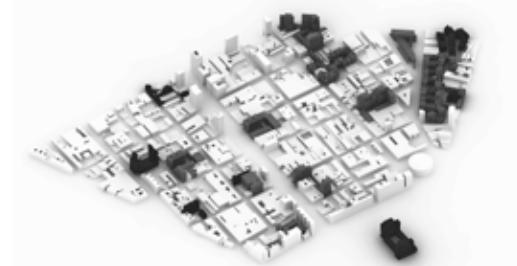
Total expected costs would reach nearly R\$ 940 million (US\$ 425 million) for over 360,000 square meters, or 3.8 million square feet of built space, just under half the size of Brooklyn's massive Atlantic Yards development project. We expect that this project, although focusing on social housing, would stimulate private development in Nova Luz. Assuming a conservative 20% increase in nearby property values, the city could expect R\$ 9 million in additional property taxes, which could pay off the expenditures expected for property acquisition in less than 3 years.



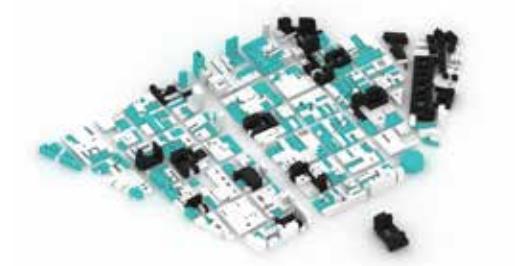
Phase 1 includes a Family, Live-Work and At-Risk residential building, as well as SESC (Serviço Social do Comércio) community center and a rehabilitated historic building.



Phase 2 includes 8 new buildings for a variety of demographics.



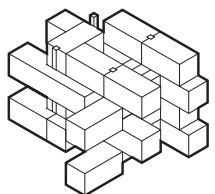
Phase 3 completes our vision, including one building outside of the more commonly understood boundaries of Nova Luz.



With our Community Land Trust fully built out, there are still a massive number of "soft sites" – parcels that are underused and prime for development, where we expect private investment to occur.

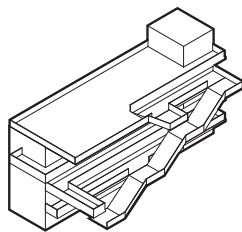
BREAKDOWN OF PROPOSED CONSTRUCTION

Modular Construction



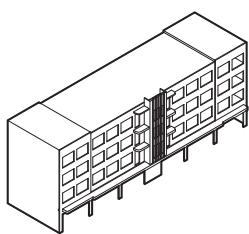
Housing Units	Total Area
2,300	130,000 m ²
Retail Area	Community
11,500 m ²	7,000 m ²

Standard Construction



Housing Units	Total Area
3,075	210,000 m ²
Retail Area	Community
20,000 m ²	3,000 m ²

Rehabilitation of Existing Buildings



Housing Units	Total Area
530	30,000 m ²
Retail Area	Community
5,000 m ²	0 m ²

Total	Housing Units	Retail Area	Total Area
	5,905	36,500 m ²	370,000 m ²

End Notes

1 “Prefeitura de SP afirma que projeto Nova Luz é tecnicamente inviável.” O Globo, 1/24/2013, <http://g1.globo.com/Sao-paulo/noticia/2013/01/prefeitura-de-sp-afirma-que-projeto-nova-luz-e-tecnicamente-inviavel.html>

2 Samora, P. “Misusing the City Statute in São Paulo: The Nova Luz Urban Renewal Project.” Seventh International Conference on Urban Regeneration and Sustainability, 5/9/2012 , 414.

3 Samora, P. 410.

4 “Entenda o Projeto de Lei 688/13.” <http://gestaourbana.prefeitura.sp.gov.br/novo-pde-zeis/>

5 “The Community Land Trust; A Guide to a New Model for Land Tenure in America.” Center for Community Economic Development, 1972, <http://cltnetwork.org/wp-content/uploads/2014/01/2007-A-Guide-to-a-New-Model.pdf>

6 Selvanayagam, Ruban. “The “Two Sides” of the Minha Casa, Minha Vida Program.” Brazil Investment Guide, 6/13/2013, <http://www.brazilinvestmentguide.com/blog/2013/06/the-two-sides-of-the-minha-casa-minha-vida-program-brazil-social-housing-technical-issues/>

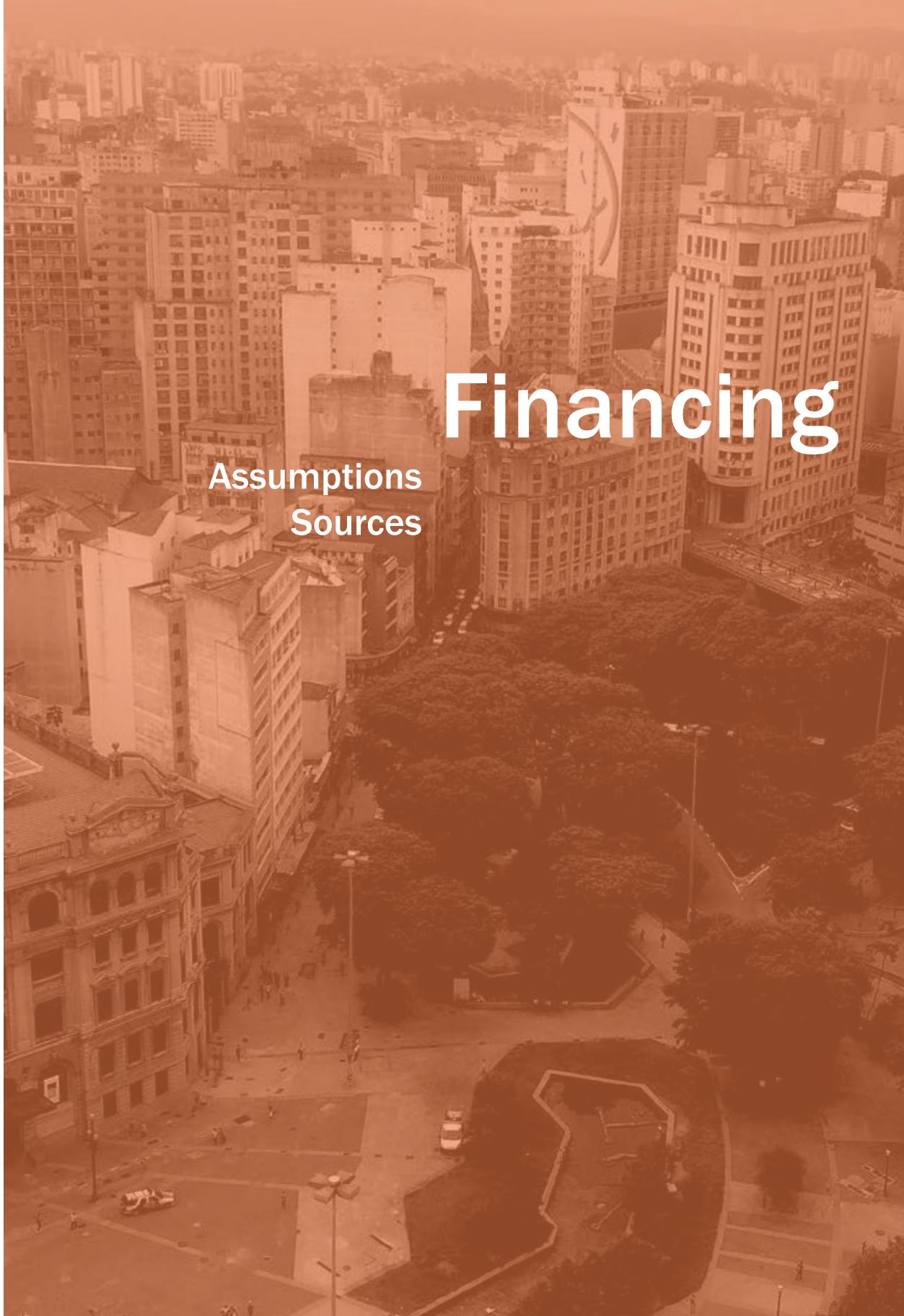
7 “DSNI 2013 Annual Report.” DSNI, <http://www.dsni.org/history>

8 “Brazilian Cultural Funding Model Generates Big Dollars, Enjoys Broad Support”, National Performing Arts Convention. Apr 2, 2012, <http://www.performingartsconvention.org/advocacy/id=602>

9 “Climate Change Mitigation and Adaptation Through Publicly-Assisted Housing.” Inter-American Development Bank Climate Change and Sustainability Division, 09/2014 http://publications.iadb.org/bitstream/handle/11319/6026/IDB-TN-593_en.pdf?sequence=2

Financing

Assumptions Sources



PRO FORMA

Assumptions

In addition to creating innovative design solutions, we also worked to leverage existing policies and programs when possible. By incorporating current structures and proposing changes when necessary, we were able to design a project that is both forward-thinking and truly feasible. While at least 28% of the units must be market rate to get the project off the ground, the vast majority remain affordable—well beyond the 50% of affordable units regulated by the ZEIS 3 quota. We assume that the floor area ratio (FAR) for each intervention will reach 4, which we believe is necessary to create the

72% of units will be affordable, well over the ZEIS 3 minimum of 50%.

necessary urban density to revitalize Nova Luz. Within the boundaries of the ZEIS, the minimum FAR is .3, with a base of 1 and a maximum of 4. This means that the few buildings beyond the existing ZEIS boundaries might require a variance to reach the proposed density.¹

As our Community Land Trust will take on more responsibilities than a typical landlord, we assume that maintenance and overhead expenses could reach a ratio of 36% of trust income from market-rate residential and retail rents, as well as condo fees. As previously discussed, all buildings include a generous 30% of common space to accommodate families and to compensate for smaller units in at-risk housing.

While our estimates were conservative to minimize a risk of cost overruns, we propose reducing costs by using modular construction and the rehabilitation of existing buildings. Because the land trust would hold a non-

profit status and additional benefits provided by the Minha Casa Minha Vida program, it is fair to assume that the CLT would be exempt from both property tax increases and income taxes. We also expect that the government would assume all acquisition and transfer taxes in acquiring parcels for redevelopment.

Because the Trust will take on extra responsibilities, we assume a 32% expense ratio.

SOURCES

Public Financing

We have described a number of existing programs and policies for funding social housing in São Paulo including Minha Casa Minha Vida and Casa Paulista. These programs will be important resources for funding this project as well. Market-rate rentals would provide a stream of income that could both support the ongoing work of the CLT, and be leveraged to obtain additional financing, either through a traditional permanent loan through a bank or a municipal bond. The largest source of funding is intended to come from the Minha Casa Minha Vida program, which was started in 2009 as a federal program to provide mortgages to families, and 100% construction financing to developers up to a predetermined construction cost.

By offering generous mortgages for low-income residents earning less than R\$ 5,000 (US\$ 2,200) a month, Minha Casa Minha Vida ensures a source of funding

SOURCES

Minha Casa Minha Vida

R\$ 485 m
(US\$220m)

Urban Fund

R\$ 153 m
(US\$70m)

Permanent Financing

R\$ 350 m
(US\$159m)

Cash Flow

R\$ 50 m
(US \$22m)

Land Transfer from the City

R\$ 27 m
(\$12m)

USES

Construction

R\$ 940 million
(\$427m)

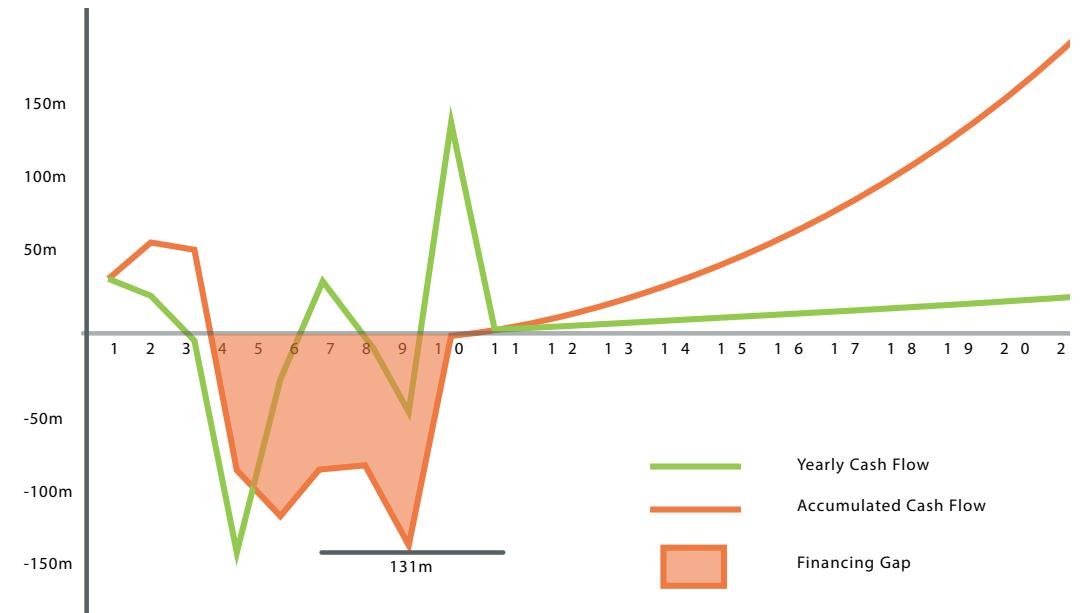
for developers of low-income housing. The program's financing is based on preset values by jurisdiction, rather than an

Minha Casa Minha Vida is not typically conducive for urban development.

appraisal of completed units. As such, the most common form of housing is single detached tract housing at the peripheries of cities, where land is cheap and units can be replicated en masse. While a small increase of construction costs is permitted in more developed areas, the program overall is not conducive for urban development. Furthermore the program does not permit rental housing, which is common in Nova Luz, and the maximum sale price of any unit can not exceed R\$ 75,000.^{2,3} We also propose taking advantage of Casa Paulista, a program created by the

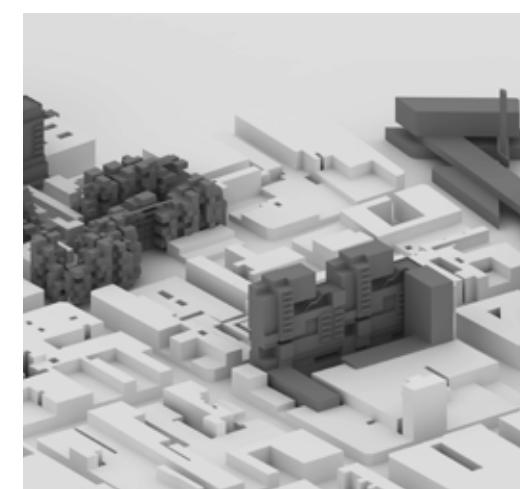
state government of São Paulo in 2012 to supplement existing federal programs. Geared toward local civil service and public sector workers, it operates in much the same manner as Minha Casa Minha Vida, but with increases in permitted unit values and relaxed income requirements to accommodate for public sector salaries.⁴

While Minha Casa Minha Vida and Casa Paulista are the primary sources of funding in São Paulo, there are a number of taxing strategies in place that benefit social housing development and social programming. One such tax is the Contribuição ao Programa de Integração Social – PIS, or the social integration tax, which is levied on gross corporate income. This funds social housing projects and is coordinated through the Ministry of Social Integration. Another tax takes the form of CEPACs (certificates for



(US\$ 60) million. The CLT has a few options for bridge financing, the most obvious involves a 10-year bond issue, which the trust would be able to fully repay when due. A bond would likely be backed by the city and thus the terms would be more ideal than traditional bank financing. Lastly, rather than the city issuing a bond, the CLT could offer equity to outside investors. This would be especially lucrative for companies if there were tax incentives involved, as is the case

in the United States through the Low Income Housing Tax Program. This has precedent in São Paulo, as Investment Tax Credits were created for the Estação da Luz (Luz Station) rehabilitation and could already be applicable to much of the site.⁷



A view of proposed developments in Nova Luz, including the SESC site at top right, as well as both modular and standard construction residential buildings.

End Notes

1 "Entenda o Projeto de Lei 688/13." <http://gestaourbana.prefeitura.sp.gov.br/novo-pde-zeis/>

2 "Minha Casa Minha Vida." Caixa, <http://www.caixa.gov.br/habitacao/mcmv/>

3 Samora, P. "Misusing the City Statute in São Paulo: The Nova Luz Urban Renewal Project." Seventh International Conference on Urban Regeneration and Sustainability, 5/9/2012 , 414.

4 "Programas Casa Paulista." Governo do Estado de São Paulo, Secretaria Da Habitação. http://www.habitacao.sp.gov.br/casapaulista/programas_habitationais_casa_paulista.aspx

5 "Fundo Municipal de Desenvolvimento Urbano." Prefeitura de São Paulo. 02/2014, http://www.prefeitura.sp.gov.br/cidade/secretarias/desenvolvimento_urbano/fundurb/balancos_orcamentarios/index.php?p=155891

6 "Prefeitura de SP afirma que projeto Nova Luz é tecnicamente inviável." O Globo, 1/24/2013, <http://g1.globo.com/São-paulo/noticia/2013/01/prefeitura-de-sp-afirma-que-projeto-nova-luz-e-tecnicamente-inviavel.html>

7 "Law No. 14096 of December 8, 2005" <http://cm-São-paulo.jusbrasil.com.br/legislacao/805826/lei-14096-05>

additional construction potential) and funds the FUNDURB (Urban Fund) through an series of municipal government bureaus. The City of São Paulo, in its master plan, has set a low floor area ratio of 1 throughout most of the city, and developers who wish to reach

FUNDURB would be a good source of funding for our comprehensive strategy of social housing.
the maximum development potential on their site (typically 2) need to purchase a CEPAC from the city. This becomes

effectively a tax on density, which finances cultural, environmental and social projects through FUNDURB. Due to its broad scope, such funding would be highly conducive to a comprehensive strategy of social housing and community programming. In 2014, the fund was allocated almost R\$ 500 million, a dramatic increase from past years, where it distributed R\$ 160 million.⁵

As we expect the city to use the city statute to transfer the land needed for construction, we do not anticipate additional costs related to parcel acquisition. The city proposed executing the previous AECOM-designed plan

for Nova Luz through the use of the "Urban Concession," a tool in which over 30% of the land in Nova Luz would be transferred directly to a private developer. When challenged in the courts, this process was found to be financially unfeasible and a change of mayoral administration led to project abandonment.⁶ Because of the Community Land Trust's status as a quasi-public entity, we expect to avoid the contention surrounding AECOM's plan.

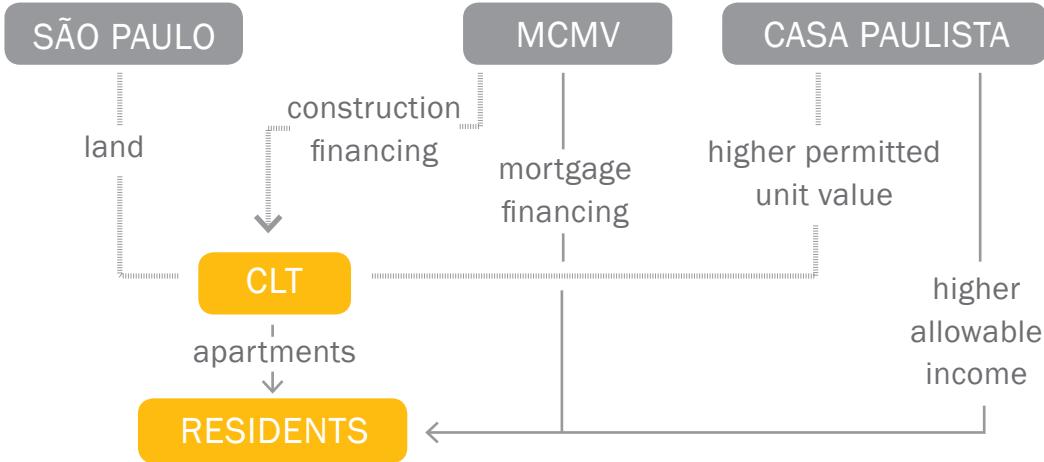
Gap Financing

The biggest limiting factor in implementing our proposal is that the Community Land

Trust is not equipped with existing equity to invest. Even assuming generous funding from FUNDURB or similar

organizations for social and community programming, the funding gap for the first two years would could be as high as R\$ 131

Because the CLT would be a quasi-public entity, we do not expect the same opposition that the previous plan received.





Conclusion

espaço coletivo

CONCLUSION

In order to meet the growing need for social housing around the world, it is essential that a new model is developed that addresses not only the necessity for shelter, but also works to alleviate challenges associated with distressed cities. As discussed in early sections, our studio believes that social housing is about more than just the building, and instead functions as a comprehensive network of social services and amenities that help create place and address public health, safety, and environmental concerns. Additionally, we view social housing as an asset for cities, enabling it to act as a driver of urban regeneration. Social housing has great potential to serve as a catalyst for revitalization, encourage densification, attract market-rate development, and improve safety conditions within neighborhoods.

As part of a holistic approach to social housing, called Social Housing+, we developed four strategies that address the needs of current and future residents, while also improving the public realm and mitigating environmental issues. These schemes focus on identifying programmatic needs, establishing a web of activity to increase safety, incorporating more

sustainable and performative features that address environmental concerns at all scales, and implementing buildings that are both spatially and pragmatically flexible for different user groups.

Utilizing Nova Luz as a testing ground, we refined the Social Housing+ model and worked to develop key implementation strategies and takeaways that can be applied in distressed cities around the world. Our scheme works to leverage existing policies and programming in order to fund implementation and attract market-rate development. In reviewing these policies and plans, we made modifications when necessary to ensure that procedures are flexible and align with our goals for social housing, including locating facilities in the center of cities and providing access to job centers, public transportation, and social services.

In addition to utilizing existing policies, our proposal includes establishing a Community Land Trust in Nova Luz, which encourages democratic development through community participation and guarantees affordability in the neighborhood in perpetuity. The Community Land Trust will build on existing

and future community assets, ensuring that all income levels enjoy the benefits of public investment.

Innovative approaches to social housing will be necessary to accommodate the growing demand for affordable housing. The Social Housing+ model establishes key strategies that not only provide housing facilities, but also shift the current social housing paradigm by changing negative perceptions and facilitating social mobility for residents. Nova Luz served as a prime location for these social housing interventions, but we believe this program is replicable in distressed cities around the world. By creating a comprehensive system of housing that includes access to social services while leveraging community assets, this model uses social housing as a catalyst for development and a driver of future investment. Social Housing+ will function as an asset in communities, creating stronger neighborhoods and leading to the regeneration of urban centers.

