FUTURE CITY LAB: MADRID

A STAKEHOLDER PLAYBOOK
FOR MADRID NUEVO NORTE

The group at MUSUEM | Francis Yu

PREFACE

Over a period of five months, our team of Master's students at Columbia University Graduate School of Architecture, Planning, and Preservation studied the 568-acre Madrid Nuevo Norte redevelopment project as part of the first-year urban planning studio course. Madrid Nuevo Norte is the latest plan for a site that has eluded intervention for over a quarter-century now. We have pored over maps and news articles, grappled with the complexities of a development plan of such physical and financial magnitude, and further explored urban planning themes during our studio trip to Madrid, where we met with experts and stakeholders. We share this Playbook as the product of our research: a prototyping process for collaborative engagement and inclusive planning in order to integrate long-term, large-scale urban projects into the fabric of Madrid.

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We want to thank our instructors Jose Luis Vallejo and Megan Marini and teaching assistant Francis Yu for their guidance in the course. We are also grateful to the organizations and individuals who contributed to our understanding of the project for their time and willingness to share their expertise and insight.

Authors:
Jacey Chon, Aline Estefam, Maya Ephrem, Shreya Ghoshal, Gizem Karagoz, Zhengzhe Jia, Ju Hwa Jung, Jean Kim, Anish Pendharkar, Luyun Shao, Chongyuan Wang, Rawnak Zaman

Desire lines on site.| Shreya Ghoshal

DCN Model of Madrid Nuevo Norte Plan. | Shreya Ghoshal
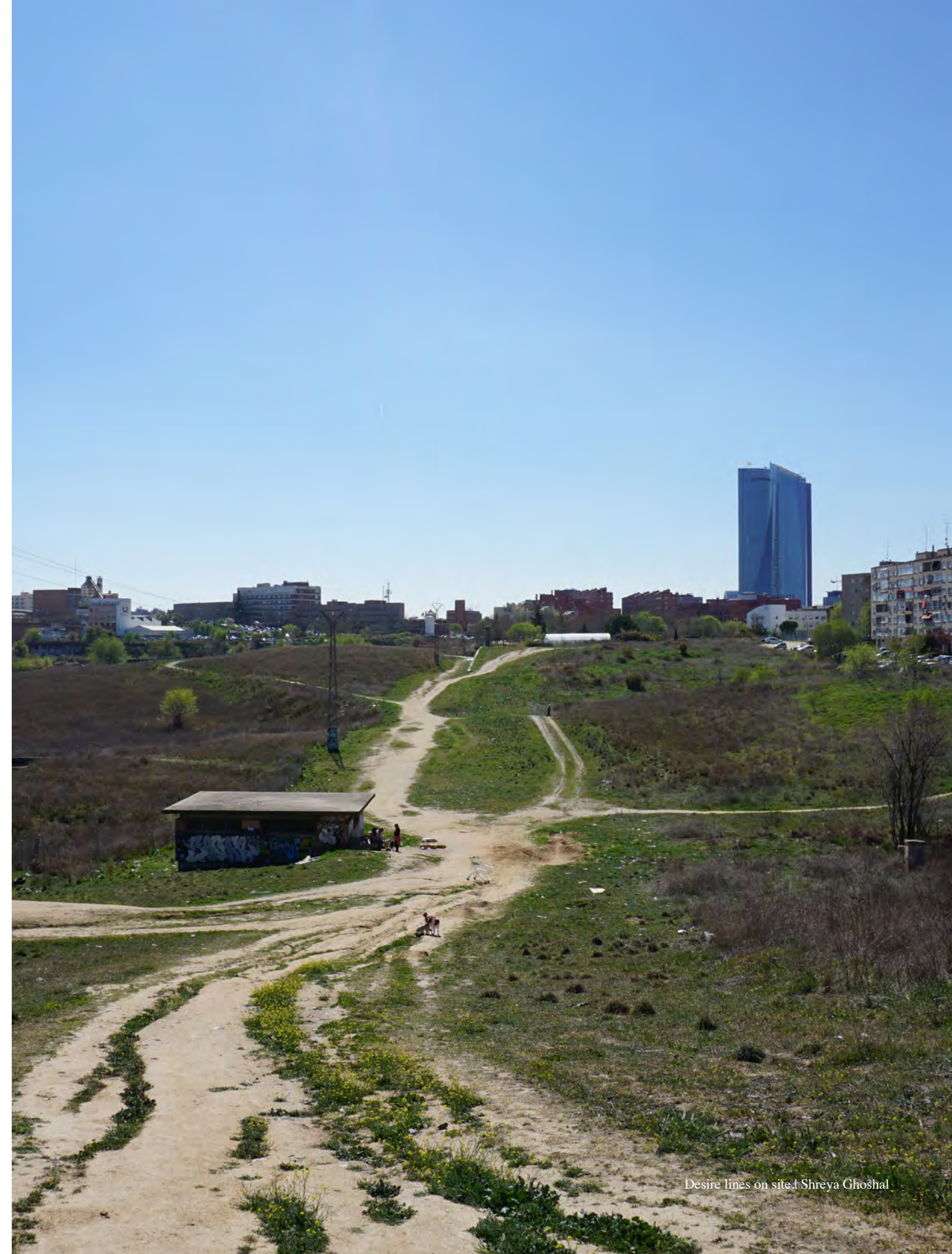
WHO? WHAT? WHERE?

INTRODUCTION

In 2018, Distrito Castellana Norte (DCN) released the most recent version of their development plan for the Chamartin Station site in the north of Madrid. Called "Madrid Nuevo Norte," the current plan features a central business center, high rise apartments, green spaces, and an expanded transportation network. DCN imagines the new development will be "the largest urban regeneration intervention in Europe" and claims that it will "reconfigure the north of the capital." "Chamartin Operation," as it was previously known, has been supported by the municipal government as a renewed commitment to new development in the city, but it has been called out for not integrating into the site's surroundings or the city as a whole.

The site has been used as a railway station and depot since the early 1970s, and has historically been called a scar or gash across the cityscape due to the heavy infrastructure and lack of community. The current proposal acknowledges that the existing tracks and other infrastructures associated with railway transport "form a physical and visual barrier over the area that de facto prevents the functional and perceptual relationship in an east-west direction," causing the overall area to lack a cohesive character.
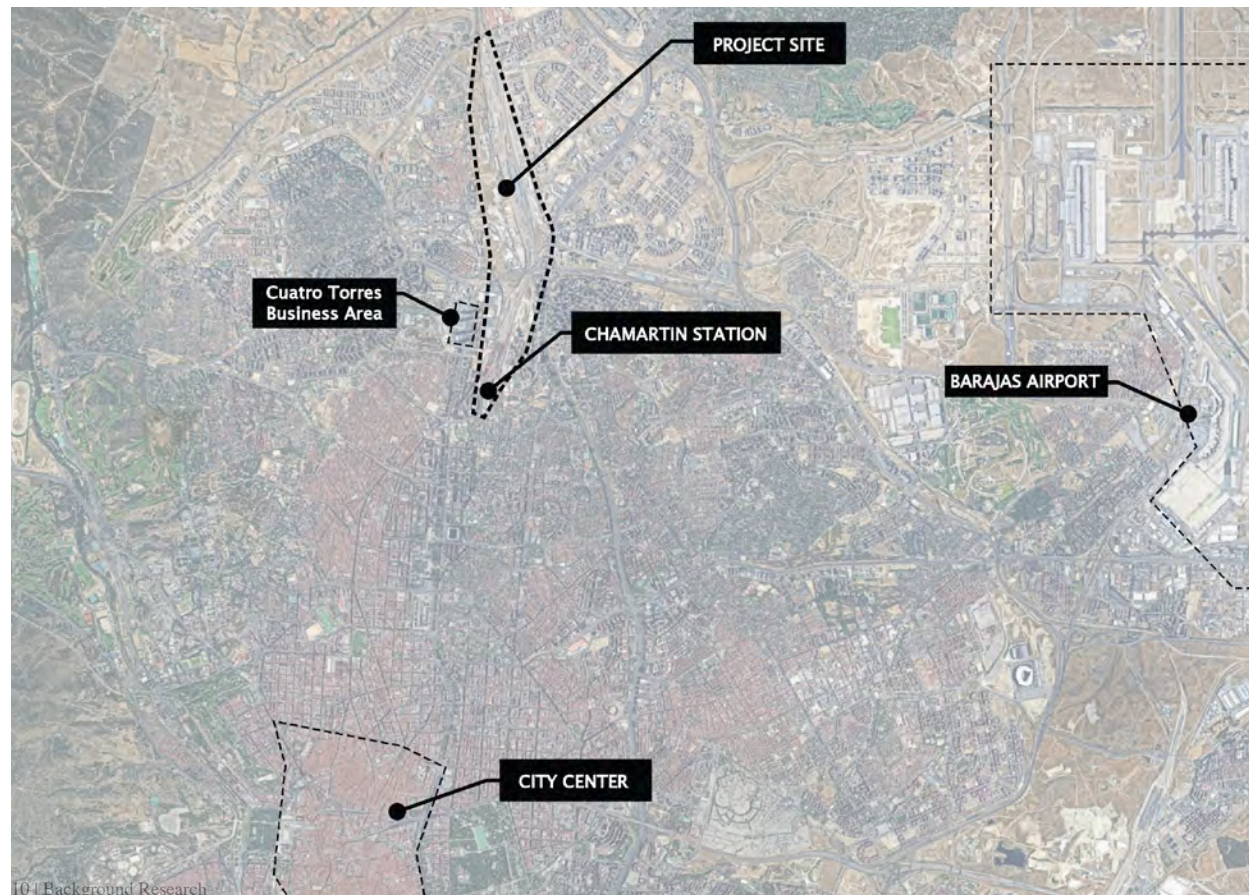
PROPOSED LAND USE

This diagram shows the changes in the site plan from 2015 (the plan "Distrito Castellana Norte") to 2018 ("Madrid Nuevo Norte").

"In this new neighborhood 10,485 homes will be built, in addition to around 1.5 million square meters of offices and another 103,119 square meters of commercial use, with an investment in developments of around 6,000 million euros in the 20 years in which the project will be extended. DCN is owned 75% by BBVA and 25% by Grupo San José. This company has the rights to the lands of the railway administrator Adif, in the vicinity of the Chamartín Station, for which it will pay more than 1.2 billion when the operation is ratified."

Discussions about redeveloping the underutilized transportation hub have been ongoing for over 26 years. The first plan was proposed in 1993. Redevelopment has been stalled due to a series of compounding political, social, and economic factors, many of which have not yet been resolved. Once the $___ is finally approved, it is still expected to take over 20 years to complete.

Total Area	3,114,336 sq m	1,744,549 sq m	2,680,000 sq m
Green Area	550,000 sq m	274,251 sq m	450,000 sq m
Households	17,000	4,600	11,000
Protected Households	1,900	1,000	4,100

TIMELINE

In the past four years alone, plans for the site underwent three overhauls, the most recent resulting in Madrid Nuevo Norte. But the earliest iteration of the project goes back to 1993, when the company that is now BBVA won the rights to develop on the site. Subsequently, modifications were made to Madrid's general land use plan to accommodate a proposed extension of La Castellana and land was expropriated for future development.

The 2008 recession both delayed the project and had wide-reaching impacts in the public sphere. As Spain's housing bubble also burst following decades of speculative construction, the housing crisis and Spain's historically high unemployment brought tens of thousands of citizens onto Madrid's streets in the start of a nationwide anti-austerity movement. Protesters demanded better wages, secure housing, education, and healthcare and rallied against a political system that they felt was corrupt and inadequate.
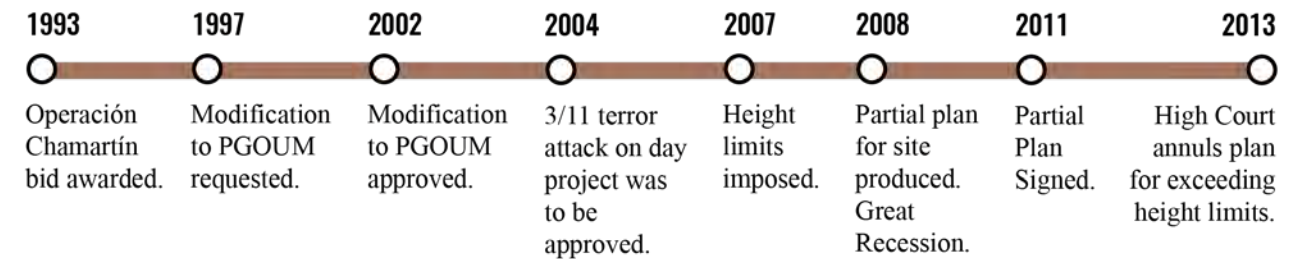
"On that day, everybody met in the streets from all across the social movements and many, many people...not involved in any of those social movements. Everybody had the same feeling, like, 'we have so many problems and we need to get together and think [about] how we want to build the future from now.' And that's called 'democracy.'"

—Pablo Soto, Madrid City Council

These protests and demands for government transparency and public participation in democracy were instrumental in the discourse around Madrid's local elections in 2015. That same year, a coalition formed under a new political platform, Ahora Madrid, which sought to incorporate citizen participation and promote transparency in the political process. The coalition captured enough votes to elect Manuela Carmena as mayor, ending 23 years of mayorship by members of Partido Popular (People's Party).

Madrid Nuevo Norte was unveiled by this current administration. The plan attempts to bridge a compromise between developer interests in profitability and community concerns about buildability and affordable housing—to mixed results. The plan has the support of the three levels of government—local (City Council), regional (Comunidad), and national. But although the plan polled at over 80% among residents, it nonetheless accumulated over 3,500 allegations during public review. Government officials have cited these comments as cause for delaying final approval of the project. Furthermore, a final City Council vote on the project and its ratification cannot occur before the Comunidad completes environmental review. With City Council elections slated for the end of May and candidates expressing desires to revise the plan, details of Madrid Nuevo Norte may yet change.
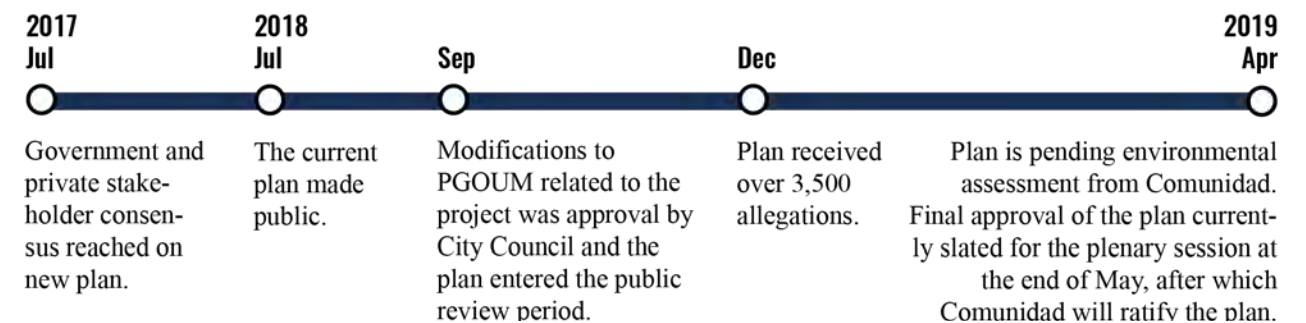
Original Plan: Operación Chamartín

1993	1997	2002	2004	2007	2008	2011	2013
Operación Chamartín bid awarded.	Modification to PGOUM requested.	Modification to PGOUM approved.	3/11 terror attack on day project was to be approved.	Height limits imposed.	Partial plan for site produced. Great Recession.	Partial Plan Signed.	High Court annuls plan for exceeding height limits.

New Plan: Distrito Castellana Norte

2015 Jan	Apr	May	May	Dec
Plan reformed under new name with support from Mayor Ana Botella Serrano.	Supreme Court overturns 2013 height ruling.	Plan received 2,200 allegations and was not approved before local elections. Manuela Carmena Castrillo of Ahora Madrid became the new mayor.	New administration held the first of four sessions with stakeholders and experts to review the project. Law limiting height Community-wide is repealed.	Carmena administration proposed changes to the current plan; Comunidad, Fomento, and BBVA opposed.

New Plan: Madrid Puerta Norte

2016 May	Sep	Nov	2017 Feb	Jun
Carmena administration released a new plan.	BBVA and Fomento filed an appeal against the annulment of the 2015 plan.	Commission of government and private stakeholders formed.	City Council agreed to develop a new plan.	DCN started their community engagement strategy.

New Plan: Madrid Nuevo Norte

| 2017 Jul	2018 Jul	Sep	Dec	2019 Apr
Government and private stakeholder consensus reached on new plan.	The current plan made public.	Modifications to PGOUM related to the project was approval by City Council and the plan entered the public review period.	Plan received over 3,500 allegations.	Plan is pending environmental assessment from Comunidad. Final approval of the plan currently slated for the plenary session at the end of May, after which Comunidad will ratify the plan.

STAKEHOLDER MAP

We realized during our trip that reality is much more complicated than we once thought, due in part to the project's long history, Madrid's rise in political and social activism, and the ever-growing list of stakeholders.

We put together this stakeholder map in order to better understand the complex relationships at play. It encompasses local, regional, and federal government, private interests, as well as community organizations and experts. As you can see there are a LOT of different and often competing interests in the site...there are conflicts between DCN and community groups like PZN, and even internal conflicts between the different community groups.

Here is a look at the entities we met, who gave voice to the differing opinions we had only read about in our research before our trip to Madrid. The bold outlines are stakeholders whom we met in person.
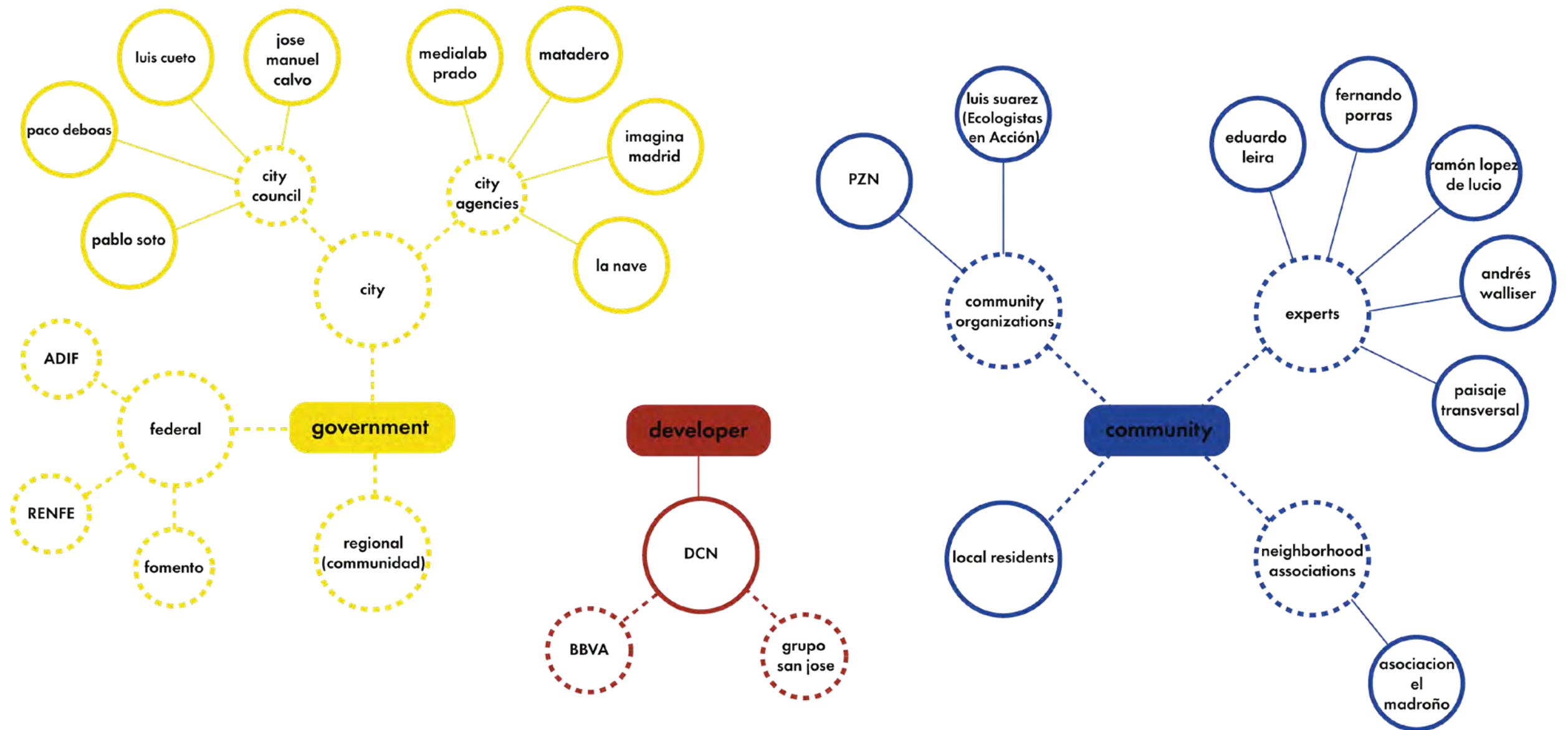
HOW TO USE THIS PLAYBOOK?

Why a Playbook?

One of our main goals as an academic studio was to create a process rather than a product that could be implemented by any of the various stakeholders involved with the Madrid Nuevo Norte plan. To that end, we decided to create a playbook rather than a final report—a sort of choose-your-own-adventure planning process—so that our research and recommendations can be taken as a set of tools to be considered when conducting a participatory design scheme. Our intention is not to produce a set of prescriptive methods, but instead to offer a toolkit to stakeholders who are interested in getting more involved in the goings-on of their communities. This set of tools can be particularly useful as Madrid continues to grow, and new development continues to happen.

How to Use the Playbook?

The playbook recommendations and tools are divided into three sections based on the main goals that we identified as vital for the success of future development plans of this scale.

EQUITY
COALITION BUILDING
SUSTAINABILITY

These goals were identified based on research and engagement both on-the-ground and remotely. Individual strategies and tools can be combined across the themes to achieve an overall participatory planning process. An "epilogue" at the end of the playbook combines strategies to exemplify the types of interventions that may be possible through the employment of these mechanisms.

Title of the Strategy

The Introduction of Relevant Cases

Supporting Images

Directional and Detailed Elaboration of Strategies
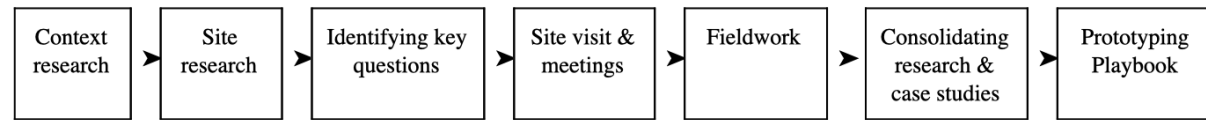
References or Illustrations

A glimpse of the site. | Shreya Ghoshal

WHY?

RESEARCH OVERVIEW

Madrid Nuevo Norte is the latest iteration of a project with both a long history and list of stakeholders. In order to analyze the various components of MNN, it was clear that we needed to adopt a research approach that was just as multifaceted.

Context research → Site research → Identifying key questions → Site visit & meetings → Fieldwork → Consolidating research & case studies → Prototyping Playbook

Before analyzing the project itself, it was necessary that we considered context, including the significance of the site's location, current events and conditions that may affect its viability beyond the planning stage, and the urban fabric of Madrid, broadly speaking, to offer a point of comparison.

Key to our understanding of the site was a review of news articles following the project from its conception to present day and an examination of the *Modification of the 1997 PGOUM (Modificación Puntual del PGOUM de 1997)*, which details the general planning parameters for MNN in a number of areas including use, construction phasing, engineering, and environment.

Then in March we traveled to Madrid where, over the course of one week, we meet with planning experts and stakeholders and did fieldwork through mapping and prototyping exercises and street interviews.

Meetings
Developer
Representatives from DCN

Governmental
Pablo Soto, City Council
Juan López-Aranguren, Imagina Madrid
Jose Manuel Calvo, City Council
Marcos Garcia, MediaLab-Prado
Luis Cueto, City Hall
Paco de Blas, City Hall
(name?), La Nave

Experts and Community Members
Ramón Lopez de Lucio, Professor of Urban Planning, E.T.S. de Arquitectura de Madrid
Luis Suarez, Ecologistas en Acción
Asociación El Madroño
Andrés Walliser, sociologist
(name?), Paisaje Transversal
Eduardo Leira, architect, husband of Mayor Manuela Carmena
Félix Arias, Platforma Zona Norte
Fernando Porras, architect

Interviews
Following meetings with certain stakeholders, we had the opportunity to interview them for our project. One question that we posed in every interview was that of Madrid's identity, namely, how they perceived the city and what they identified as characteristic of Madrid.

We also conducted 28 street interviews while in Madrid, including seven at the Cuatro Torres Business Area and four in Fuencarral. Four interviewees were visiting from outside Madrid while the others lived or worked within the city. In these interviews we sought to understand the person's use of and relationship to the space, the features that they value in a public space or city, their opinion of the Madrid Nuevo Norte project, and their thoughts on what makes Madrid unique. The latter was intended to inform our ongoing question about how people viewed Madrid's identity.

Cultural Mapping
In order to gather more socio-culturally informed observations from residents of Madrid, we conducted a series of cultural mapping exercises. Our research was largely based on Kevin Lynch's methods of mental mapping in cities. These mapping exercises involved different approaches depending on the subject of the map.

In one instance, we interviewed a sociologist in Madrid and asked a series of questions trying to understand how he saw the city, what he identified as landmarks or noteworthy buildings, areas, and pathways, and what his relationship to those sites were. We then created a hand-drawn map of the city entirely based on his personal observations—not grounded in the known reality of the cityscape, but instead on his personal experiences. This method of cultural mapping allows connections to be made across that may not exist on the ground, but do exist within the social map of Madrid. A key example is the mental divide he made between the historic city center and the outskirts of the city, calling it "the city center and the periphery" in his description.

In other more rapid mapping studies, we observed circulation patterns of people in public spaces around Madrid. By observing people in both the city center and the outskirts of Madrid, as well as small and large-scale plazas, we were able to understand how people interact with public spaces in the city. These interactions are important considerations for our own recommendations of what design features should be incorporated into future public spaces, especially seeing how important active streets and public spaces are to the identity of Madrid. Key design features include: benches with backs, trash cans, water fountains, shaded seating areas, etc.

Site Mapping and Observations

Site mapping studies were combined with observational studies during our week in Madrid. These research methods were focused more on the built environment. Mapping efforts were specifically focused on the street furniture and other elements in public spaces, while related observational studies examined the demographic breakdown of who was using the spaces, and for how long. Certain elements of the rapid cultural mapping exercises overlapped with the site mapping studies; combining social and demographic observations with the detailed maps of the built environment were an intentional decision in order to document the relationship people have with spaces in Madrid.

Prototyping Exercise

In urban planning, prototyping typically describes an interactive process through which users test a concept or model. Our fieldwork culminated in an exercise in which we prototyped engagement by performing a brief intervention in one of Madrid's most famous plazas, Puerta del Sol, on a Friday evening.

Our intention in carrying out this experiment was two-fold. Firstly, aimed to use a violin performance by a team member to attract the attention of passersby and point them to our posterboard, which asked three questions. First, 'Where do you think we should play next?' to learn about what other spaces they would like to see similarly activated. Then, 'What would you like to see in a square in Madrid?' and 'What would you like to see in the new area in the north of Madrid?' to consider what they would like to see in their own plazas and in Madrid Nuevo Norte. People were asked to write their answers on Post-Its and place them on the poster board, where their responses could be read by the next participant. This setup allowed us to crowdsource answers related to activating space in Madrid. About 30 people participated.

ISSUES

Through our research and fieldwork, we identified the following critiques—areas in which the current plan can be improved. The following pages in this chapter further detail our research.

1. Inadequate *[affordable housing]* options.

Our first critique speaks to Madrid and Spain's major housing issues: rents are rising and housing affordability is low. Housing costs have been rising steadily since the economy recovered from the 2008 recession, and there is a relatively high housing vacancy rate.Data regarding rent burden paints an even more grim picture about the state of housing in Madrid. For example: on average, tenants spend 49% of their monthly income on rent. Considering these existing problems, there are concerns that Madrid Nuevo Norte will exacerbate the current situation by driving up rents, displacing neighbors, and not providing enough affordable housing.

2. Questions about the viability of a *[CBD]*.

In fact, there is so little affordable housing available that people are converting commercial spaces into housing units with increasing frequency. And yet, DCN is proposing more office and commercial space than housing, even less of which is affordable housing. This begs the question: do we need as much office space as is being proposed? It took the Cuatro Torres 10 years to reach full capacity, so there is clearly not any immediate demand for this much office space.

3. Physical and social *[exclusion]*.

The neighborhoods surrounding our site are primarily residential, but each have different architectural and demographic characteristics, as can be seen on the slide. Fuencarral, for example, is a historic neighborhood from the late 19th century featuring narrow, winding streets and small-scale retail, while las tablas is a relatively new planned urban development from the late 1990s with very few public amenities. One of the most surprising responses to our question of whether these communities supported the project or not was their indifference to it. They felt that they would not have access to the site, based on its business-centric model of development.Their perception of the development plan made it clear that the planning process is happening in isolation from them, despite the fact that they could be some of the first users to activate the site.

4. Need for *[participatory feedback loop]* to integrate community input.

Despite the intent by government entities, and things like the 15-M movement, there has been no integration of participation into the plan. DCN hired the architecture firm Pasaje Transversal four years ago to engage with the surrounding communities. They conducted 4,000 interviews and collected residents' feedback about a former version of the project, which the firm presented to us when we visited—reciting back to us essentially our critiques we had presented at the midterm (to our shock). They even sent DCN a set of recommendations based on community feedback which got shoved into a 2,000 page document never to be seen again, except by

us during our research. Our own research yielded similar results about activity in public space and desire for green space, meaning feedback from the community has stayed the same in the past four years, despite a new proposal in 2015, 2016, and Madrid Nuevo Norte in 2018.

5. No *[accountability measures]* for promises being made.

DCN claims "we are done," which led us to realize that there are no accountability measures, l ike a CBA, to hold DCN to their promises for public infrastructure in the long run. While DCN has been very good at saying all the right things at the right time, there has been no visible integration of these promises into the plan.

6. Underutilization of *[local assets, strengths, and knowledge].*

One of the most important aspects that is missing from DCN's proposal is the integration of existing assets. The proposal as it stands seems to be building a new city within a city, without consideration of the 51 community-led initiatives already happening around the site. Unless the proposal leverages existing assets, it will be impossible to foster interest during the project's 20 year construction phase.

7. Underdevelopment of *[green areas]* and open spaces.

Finally, while the project claims to establish a strong ecological corridor and green network, DCN plans to level the existing topography and green areas of the site. And aside from the CBD's "central park," which will be built on a concrete slab covering the train tracks on the site, DCN has only proposed small green spaces in the leftover areas.

BACKGROUND RESEARCH

Location Context
The historic central core of Madrid, Centro, is among the most trafficked area of the city, due in part to the high concentration of diverse programmatic elements as well as parks, plazas and green spaces. Centro's high concentration of arts and cultural institutions, public spaces, and retail come together to create a vibrant cityscape with a mix of uses and users.

Madrid today has expanded well beyond the historic core. A radial street network, which originates in Centro district, is complemented by three circular highways built in the 1960s, completing the hub-and-spoke circulation network surrounding the city. These highways—the M30, M40, and M50—are the busiest roads in the city, and are intersected by the two major axes. The radial street pattern, visible in aerial images of the City, was envisioned as a network that connected the capital to other parts of the country.

Surrounding Neighborhoods
Madrid can be divided into two main zones of real interest to visitors: the old traditional Center, with the Puerta del Sol and Gran Vía at its heart and surrounding 17th-century Austrias, and Castizo (traditional) Argüelles, Chueca, Malasaña, Chamberí, and Lavapiés districts; and the newer Ensanche (extension) refers to all parts of Madrid built outside of the old city walls from the 18th century onward. This area includes the wide cosmopolitan Castellana Avenue, with its business offices and classy hotels; the grid-planned, once mansion-filled Salamanca barrio, home of some of Madrid's best shops and restaurants; and northern Chamartín district, with its easier-going residential atmosphere.

The neighborhoods surrounding our site are primarily residential.

Connectivity
Connectivity is one of the most important elements and stated goals of the development. The Madrid Nuevo Norte site lies at the intersection of the three highways and the N-S axis in the northern part of the city. Due to its proximity to Barajas Airport, the northern area has developed as the primary business destination of the city. And about one kilometer (0.6 mile) northwest of Chamartin Station is the Cuatro Torres Business Area, which features the four tallest skyscrapers in Madrid, with a fifth currently under construction.

Connectivity will play a pivotal role in shaping the social character of the space because it facilitates the flow of people and activities to and within our site. To analyze connectivity, we considered the proposed connections in DCN's site plan at two scales: connections with the central Madrid and the rest of the City and connections with the surrounding neighborhoods.

Located at the southern part of the site, Chamartin Station is the second largest railway station in Madrid. The 30-acre transport hub is inevitably one of the most important motivations for this plan. Through this important facility of interchange, the site has access to central Madrid or the suburb. Currently, metro lines are operated through the surrounding neighborhoods and form a loop between Chamartin and Las Tablas. The Madrid Nuevo Norte plan adds a new metro line that going directly through the site with south-north orientation, providing alternative access to Centro. The system is further complemented by two major roads in the site, which will connect Plaza de Castilla and the A-1 highway. Ultimately, the remodeled transportation hub's seven railway lines, three metro lines, and more than six priority bus lines will bind together at Chamartin Station to serve a larger population and a wider region. To accommodate an estimated 22 million riders by 2020 (compared to five million as of 2015), the plan will expand Chamartin Station by 20 acres.

The primary means of traveling between the east and the west of the site are by priority bus, cycling, and walking. To further facilitate the connection, pedestrian bridges will be designed with priority bus lines, cycling routes, or pedestrian sidewalks to accommodate correspondent traffic. Priority bus connects northern communities but does not traverse bridges at the south, which poses limitations on the connection gained by southern part, especially the southwest communities.

Considering that east-west connections are mainly serving the surrounding communities, we considered where these paths would be linking to, especially the destinations including parks, recreational land, hospitals and commercial area, all of which are used frequently by residents. The west side has more destinations, especially the area near Chamartin Station. The largest hospital of Madrid is located here, with the Norte Park and Cuatro Torres, the commercial landmark, at its side. Compared with the west, most of the eastern communities are residential areas with less-diverse attractions, and their size is relatively small, indicating that they are only serving the surrounding communities.

However, the existence of a corridor does not necessarily mean it is walkable or

cyclable, because its urban environment largely defines the level of walkability and cyclability. Some of the entrances where the bridges connect the neighborhood seems to lack the characteristics to encourage walking and cycling. For example, when a series of unfriendly fences and dull walls that lack interaction become the facade, or the area beside a sidewalk is occupied by parking, it does not create a favorable condition to attract people to walk more.

Identity

In our original analysis, identity was a focal point. Our thesis, before our trip, interrogated the plan's framework of intervention through connectivity, potential for mixed uses, and community participation. We concluded that the current plan is not doing enough to incorporate those areas of intervention--rather, the plan relies heavily on the generic renderings of the site that resemble business districts that could easily exist in any European city. Instead of acting as a reflection of Madrid's rich context, the plan paints an idealized image of contemporary urban life.

Contending with this, our studio chose to frame our role by reflecting on the question, "How can identity be 'developed'/ 'incentivized' / 'facilitated' / 'infused'?" A focal point, identity influenced how we approached the project, specifically with regards to what we interpreted as DCN's ignorance of the social elements that truly create and determine the success of an urban fabric. To that end, we identified our role as addressing the disconnect between the built environment and the social fabric of Madrid through our analysis of connectivity, activated spaces, and participation. Participation, for one, was something we grappled with throughout our time in Madrid. In our interviews with various stakeholders, we got competing answers to the question of whether this process of urban transformation was truly participatory.

As a way to attack this question of participation, we engaged in a prototyping exercise, where we introduced an input to a public space to capture the attention of those passing by. We asked them to answer questions about what they value most in their urban spaces. Through that exercise, it was not only clear how important public spaces are to Madrileños, but it also showcased their strong sense of civic engagement. From that exercise, we concluded, at least with the data we collected on post-its and through quick interviews, that the question of identity is the really a question about values.

Economic Considerations

No component of the project exists in isolation, least of all economic development. In our meeting with DCN, they spoke about using the new business district to connect the Madrid Nuevo Norte site to the Cuatro Torres Business Area and encouraging mobility through increased public transportation and transit-oriented development strategies. The public transportation network in particular, said one DCN representative, offers a "sophisticated value proposition."

But housing availability and prices are a chief concern. In the current plan 20% of housing units are protected, but protected housing risk the possibility of transferral to the private market in the hands of a new government. The law on this is "not the best," acknowledged City Councilmember Jose Manuel Calvo, "the main advantages [go] to the private sector, and the public sector is not receiving a good part of it, so the starting point of the negotiation does not have the best framework." Although he was pushing for 30%, consensus was reached at 20%. The business district was also a point of negotiation. "If you think the developer is not going to push for benefits," he said, "[that is] naive… if it's happening, there is a benefit. The benefits to the private sector have to be balanced with the public sector."

The debate about whether a central business district would work in the present climate was discussed by Professor Ramón Lopez de Lucio of E.T.S. Arquitectura de Madrid. He posed the question of whether its role—and that of the planned skyscrapers, which may be owned by banks—will be as a source of speculation or serve a functional use. The rationale of concentrating office buildings in the north is a valid critique, the Professor said, but it is also the case that private office buildings are hard to locate. Mobility continues to play a significant role. So much, he noted, is sited in the center of the city that it causes mobility issues. But balance is also necessary; he believes that the office density in Madrid Nuevo Norte could be lower.

Homeownership and rental costs in Madrid have increased steadily over the past decade since the recession of 2008. Given these numbers, there is major concern over the housing affordability offered in the new DCN plan.
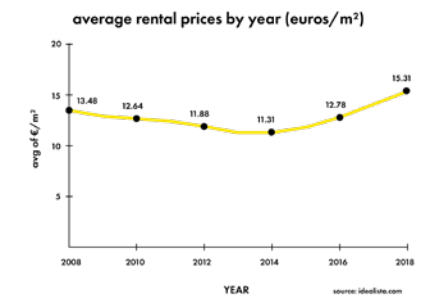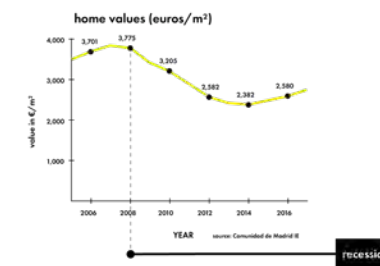
There is such a shortage housing in the city that people are actively converting storefronts from commercial units into housing units.
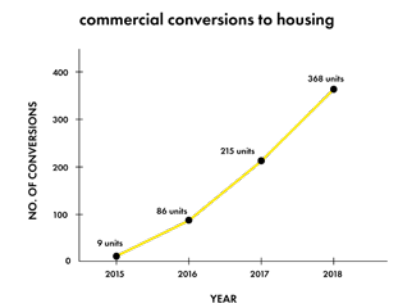
STAKEHOLDERS

The stakeholder map of a project as vast, expensive, and politically-charged as Madrid Nuevo Norte is complex and wide-reaching. This diagram is our attempt at mapping individuals, organizations, and institutions that appeared in our research. Though it is by no means comprehensive, this demonstrates the breadth of interconnectivity in a project that claims to be "the largest urban regeneration intervention in Europe."[1]

DCN envisions that new development will "reconfigure the north of the capital, providing new opportunities for the entire city."[2] While some local groups have touted the potential benefits that a development of this magnitude will bring, others are strongly opposed to the project, citing a lack of sufficient green space and affordable housing options.

The developer versus community members:
To date, DCN reports having worked with 97 collectives, carrying out 480 activities to date and more than 1,170 meetings, for a direct reach of 166,955.[3] DCN's engagement strategy thus far has comprised the following efforts:

- Two permanent information offices, in Fuencarral and Las Tablas, that have received over 3,000 unique visits since opening in 2016.[4]
- An online platform for submitting feedback about the project that opened in June 2017. As of April 2019, there have been only 19 complaints posted publicly and six suggestions to the public map.[5] (Note: As of May 2019 the website is under renovation.)
- Three neighborhood committees to further promote participation.
- Formation of a 'Madrid Nuevo Norte Active District program that organizes soccer matches and other activities to promote a healthy lifestyle in the area.
- Development of educational programs in local schools to engage with the youth.[6]
- Promoting events and feasts in public areas in the surrounding neighborhoods.[7]

1. Distrito Castellana Norte. (n.d.). The project - Madrid Nuevo Norte. Retrieved on 2019 May 15 from https://distritocastellananorte.com/el-proyecto/.

2. Ibid.

3. Distrito Castellana Norte. (2019 Mar). Memoria de Compromiso Social, 65. Retrieved from https://distritocastellananorte.com/compromiso-social/

4. Durán, R. (2019, Mar). The citizen as the center of urbanism of the 21st century. El País - Cinco Días. Retrieved from https://cincodias.elpais.com/cincodias/2019/03/15/companias/1552686751_179747.html; Distrito Castellana Norte. (2019 Mar). Memoria de Compromiso Social, 64.

5. Vecinos Madrid Norte [site]. Accessed on 2019 Apr 9.

6. Distrito Castellana Norte. (2018 Feb). Students from Las Tablas express with paint how they want their neighborhood to be. Retrieved from https://distritocastellananorte.com/alumnos-de-las-tablas-expresan-con-pintura-como-quieren-que-sea-su-barrio/.

7. Distrito Castellana Norte. (2018 Jul). Neighbors welcome Madrid Nuevo Norte dancing. Retrieved from https://distritocastellananorte.com/los-vecinos-dan-la-bienvenida-a-madrid-nuevo-norte-bailando/.

In March 2019, DCN published a report of this engagement strategy and their commitment to community relations. However, lacking in this document was a discussion of the community inputs that they received and how they were implemented in the project. Who DCN's community initiatives are serving and whose vision is being reflected in the project proposal are pertinent questions.

¡LO LOGRAMOS!

Hemos llegado a más de 100.000 personas y trabajamos con 97 colectivos y asociaciones. El resultado: la ciudadanía se ha movilizado.

A 2017 independent survey of 2,000 people found 91.7% support for the project among residents in neighboring areas.

Taken with the amount of outreach that DCN has reported, the endeavor certainly seems like a success.

However: outreach should not end at approval ratings. To that end, in the Playbook portion of this book are several coalition building strategies for sustaining interest and a collaborative spirit as the project proceeds into construction.

Screenshot (left) of DCN website claiming "We Did It!"

STAKEHOLDERS

Community versus community:
The project has the support of a number of neighborhood and business associations that have been vocal about delays in the plan's final approval. As some of these groups have followed the Chamartin project for years, Madrid Nuevo Norte is also seen as a breakthrough in talks, with consensus between the developer and government entities being viewed as a victory in and of itself.

> *"It is the first time that there is an agreement. We…are tired."*
>
> —*Asociación de Vecinos de Chamartín El Madroño*

The increase in public transportation is viewed from both a mobility and air quality perspective. The CBD meanwhile is anticipated for its potential to rival other European cities. The increase in protected housing and promise of green space and public utilities are also welcomed.[8]

Other community organizations have expressed have stated that, despite being in attendance at three meetings arranged by City Council, they did not feel that their comments were being heard.[9] They include Plataforma Zona Norte (PZN), a 2,500-member organization supported by FRAVM, the Regional Federation of Neighborhood Associations of Madrid, which numbers 274 groups[10], and the political association 15-M, which was involved in the eponymous anti-austerity movement in 2011. PZN first formed in 2016 in support of the Carmena administration's previous plan, Madrid Puerta Norte.[11] Of the last three iterations of the plan for the site, Madrid Puerta Norte exhibited the least buildability, but was scrapped due to opposition from the developer as well as government entities beyond the local level. With the introduction of Madrid Nuevo Norte, PZN has pushed back against DCN's claims and demanded more transparency in decision-making.

3500

The Madrid Nuevo Norte Plan accumulated 3,500 allegations during public review, more than the project's prior iteration.

The main demands of these groups include more subsidized housing and green zones, and a reduction in skyscrapers. A criticism echoed by other groups, including Ecologistas en Accion, a grassroots organization comprising 300 environmental groups[12], is the central green zone in the proposed business district. Because it is built atop a tunnel of rail lines, the park is not viewed as a true green zone. Paired with plans for skyscrapers, there is a belief that the project detracts

8. Moran, E. (n.d.). Why do the neighbors want Madrid Nuevo Norte? PYMES Chamartin. Retrieved on 2019 May 15 from http://pymeschamartin.softdream.es/los-vecinos-queremos-madrid-nuevo-norte/.

9. Medina, M.A. (2018 Sep). Neighbors and ecologists leave the table of Madrid Nuevo Norte "for lack of participation." *El País*. Retrieved from https://elpais.com/ccaa/2018/09/11/madrid/1536689464_601359.html.

10. Medina, M.A. (2018 Sep). Neighbors and ecologists leave the table… *El País*.

11. DPZN. (n.d.). About us. Retrieved on 2019 May 15 from http://chamartinverdeysintorres.es/quienes-somos/.

12. Ecologistas en Acción. (n.d.). About us. Retrieved on 2019 May 15 from https://www.ecologistasenaccion.org/?page_id=46828.

13. Europa Press. (2019 Feb). Associations warn that neighborhoods such as Chamartín or Begoña will be "boxed in" with Madrid Nuevo Norte. *La Vanguardia*.

from the identity of Madrid and more towards that of a "mini-Manhattan."[13]

> *"We think this should be in a much larger proportion of green spaces. This would…get all the people together and will let people interact, and they would have a beautiful area where they could enjoy the nature."*
>
> —*Luis Suarez, Ecologistas en Acción*

Because discussions about the site have spanned over two decades now, the developer has been the one constant in discussions about the project. Now with Madrid Nuevo Norte nearing final approval and commencing construction, there has yet to be an entity—governmental or otherwise—in the role of oversight to balance out the developer.

OUTSIDE RESEARCH (PAISAJE TRANSVERSAL)

In 2015 the architecture and planning firm Paisaje Transversal surveyed residents of Fuencarral-El Pardo, one of the city's most populated districts, for the City Council's District Board of Fuencarral-El Pardo in order to identify district priorities.[14] In the course of their study, they collected more than 3,000 responses through eight field visits, submissions via online forms, and submissions from individuals and companies who contacted the firm directly.

54 percent of responses were from residents of Las Tablas. Montecarmelo, Valverde, and El Pardo comprised 12 percent, 10 percent, and 10 percent respectively, with the other neighborhoods coming in at less than five percent each.[15] To analyze inputs across neighborhoods, the firm developed five "themes" for categorization. The distribution of feedback by theme follows, accompanied by the main findings reported in the Paisaje Transversal report[16]:

14. Paisaje Transversal. (2015). Diagnostico - Fuencarral-El Pardo, 4.

15. *Ibid*, 21.

16. *Ibid*, 22, 27, 43, 59, 75.

19% Public Space	Limited or degraded in some areas, excessive or "banal" in others; broken up by underdeveloped sites like that of Madrid Nuevo Norte.
35% Mobility	The district is well-integrated with the greater citywide network. But within the district, cars are more convenient than public transportation. There is also disparity in access, with newer neighborhoods having become more reliant on cars.
11% Productive and socioeconomic activity	The district has many offices serving the whole city and businesses in mixed use areas, but depends on the city for cultural/leisure activities.
31% Citizenship & Services	Concerns about cohesion or security only arose in the context of currently underdeveloped sites. Public equipment spaces, meanwhile, are sorely lacking.
4% Housing	Housing in new neighborhoods is unaffordable. There also exist areas where housing is negatively affecting quality of life. Meanwhile, in areas pending development, informal settlements are a concern.

OUR FIELDWORK RESULTS

Spurred by the debate about whether the 'central park' being proposed suffices as a park—and how open spaces can be designed with the community in mind—in both our prototyping exercise and interviews we collected people's input about what they would like to see in their own plazas and on the Madrid Nuevo Norte Site. Their responses, which ranged from urban gardens and green zones to public art and spaces for children, suggest three core priorities, which we categorized into 'values': environment and sustainability, an active public realm, and amenities.

"What would you like to see in a square in Madrid?"

Environment/ Sustainability	Green space, trees, urban garden	42%
Activities and active spaces	Music, painting, gathering spots, local markets, dog parks, cleaner streets, children's play areas	39%
Amenities	Fountains, potable water, banks, pipi-can	19%

n = 36

"What would you like to see in the new area in the north of Madrid?"

Environment/ Sustainability	Sustainable architecture, walking areas, gardens, parks, trees, landscaped areas, pedestrian zones, clean air, lake, animal welfare	52%
Activities and active spaces	Buildings that aren't too high, sports center, parks, bike zone, not being a 'dormitory town', pedestrian zone, employment campus for students, public art	24%
Amenities	Affordable housing, boulevards, businesses, children's recreation centers, public part, fountains	24%

n = 29

SELECTED INTERVIEW RESPONSES

"We are in the outskirts of the city. There is only the tower and nothing else. It would be good to have more things."

— *Street vendor near Cuatro Torres*

"Depends on the streets. If the streets are good enough for pedestrians, the project will be good for us."

— *Local business owner in La Paz*

"They want to build more business towers and the majority of companies will want to come here."

— *Local resident near hospital area*

"More cars, more pollution, I think. Hopefully I'll be wrong. Because they did it near the hospital, the prices went up, and nobody can afford to live there."

— *Local senior resident, Fuencarral*

We interviewed seven people in Fuencarral about their opinion of Madrid Nuevo Norte and how they expected it to influence their neighborhood. They were all either unfamiliar with the project or did not feel that it would have an impact on them. There was a sense that things would only change for the immediate area, like Chamartin Station.

"In Chamartin? No, that is not here!"
"I saw it in the news, but I don't know anything about the project."
"I don't like the skyscrapers. But this neighborhood is not going to be influenced or changed."
"If they do it, it's for the best, right?"

— *As heard during interviews in Fuencarral*

But there was, nonetheless, interest in participation; one local resident mentioned that she "would have liked to participate in the decisions" and suggested that DCN place a model of their project in the neighborhoods where she and local residents can see the proposal. Right now, DCN has a gallery space in Chamartin where people can visit to learn about the project, view an interactive model, and explore features that the development is promising. These conversations prompt questions about how to go about developing a more inclusive, effective participatory process.

EXISTING ASSETS

18. CIVICS. (n.d.). Citizen initiatives [interactive map]. Retrieved on 2019 Apr 7 from https://civics.cc/en/#!/iniciativas

Local advocacy groups, community organizations, and neighborhood associations in Madrid focus on a variety of issues and initiatives pertinent to their communities. The table below is but a sampling of the types of initiatives supported by groups in the neighborhoods around the site, as reported through the crowdsourced mapping project CIVICS.[17]

	Las Tablas	Sanchinarro	Castilla	La Paz	Valverde West *Inc. Fuencarral*	Montecarmelo
Arts/Culture			1		5	
Citizen Lab		1			2	
Community Garden	1				3	2
Education	3				2	1
Employment	1			1		
Health Support /Resources				2	8	
Neighborhood /Civic Group	1	3	1	2	7	1
Sports				1	2	

This Playbook is a compilation of our research and seeks to prototype strategies to actively and collaboratively engage stakeholders in creating meaningful spaces in a reality where the urban environment is in flux, as in the face of a new development project.

Seeing the site from the surrounding area. | Luyun Shao

HOW?

EQUITY

EQUITY

INTRODUCTION
GOALS:

Access: To provide equitable access to the site to the people in the surrounding neighborhoods.

Economic Development and Housing: To assess whether the site should be developed, and to propose a phasing plan that predicates development with real interest from the community.

Design Guidelines: To provide stakeholders with ideas and best practices for mixed use development that includes housing, commercial and essential social services.

In such a large project, it is important to consider how equitable planning and development would be implemented. Development strategies must be both economically viable and inclusive of all citizens. Development of site should also match demand so as not to leave parts of neighborhoods undeveloped and housing exists in isolation from essential services. The need to assess demand before developing is crucial in ensuring equity in our cities. Thus, construction must be phased and the programming of the initial phases must be carefully considered.

The equity section consists of recommendations focused on long term housing policies, formal development agreements, and design guidelines that will help the community actually benefit from the redevelopment.

MAPS OF INTERVENTIONS

PHASE 1:
Chamartin Station + Social Infrastructures

PHASE 2:
CLT + CDC development framework

TIMELINE & STAKEHOLDERS

SITE ACTIVATIONS　　　　**POLICIES + REGULATIONS**

Accessibility

Breaking barriers

Park-lets + Active Sreets

Economic Development

Construction phasing plan

CLT + CDC agreements

Housing policies & Design Guidelines

Affordable housing policies

Mixed-use design guidelines

EQUITY STAKEHOLDERS

GOVERNMENT AGENCIES

COMMUNITY ORGANIZATIONS

PRIVATE INTERESTS

Área de Gobierno de Economía y Hacienda

Oficina de Vivienda de Madrid (Dept. of Housing)

Empresa Municipal de Transportes de Madrid (EMT)

Madrid Paisaje Urbano

Distrito Castellana Norte

Local architects

Hospital Universitario La Paz

Adif + Renfe

CDC Support Organization

Existing Community Organizations

Potential CLT Residents

Community Experts

STRATEGY 1: BREAKING BARRIERS

Along the east side of our site,the peripheries have been walled off for 50 years. As a result, the surrounding neighborhoods do not have access nor interest about the site.

RECOMMENDATIONS

Involve the communities in placemaking activities such as breaking down the existing barriers to the site to reconnect it with the city and the surrounding neighborhoods.
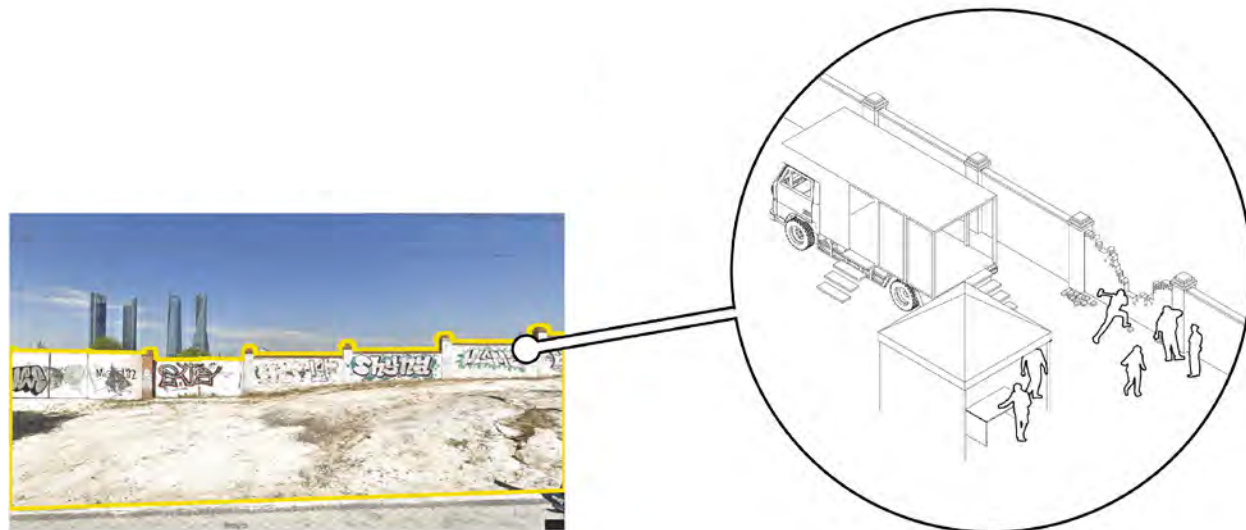
STRATEGY 2: ACTIVATE PERIPHERIES

EDGE PARKS

EXISTING CONDITIONS

Along the east side of our site, there exists strips of green areas that are walled off and under-utilized. According to DCN's Land Use Plan, these areas will eventually become green areas. However, these areas currently act as a physical barrier between Las Tablas neighborhood and the project site.

STRATEGY 2: ACTIVATE PERIPHERIES

RECOMMENDATIONS

The walls and fences need to be removed and be developed so that neighbors living in the vicinity (in Las Tablas) could use the green areas to jog or walk their dog. As these green areas are on a mound, design el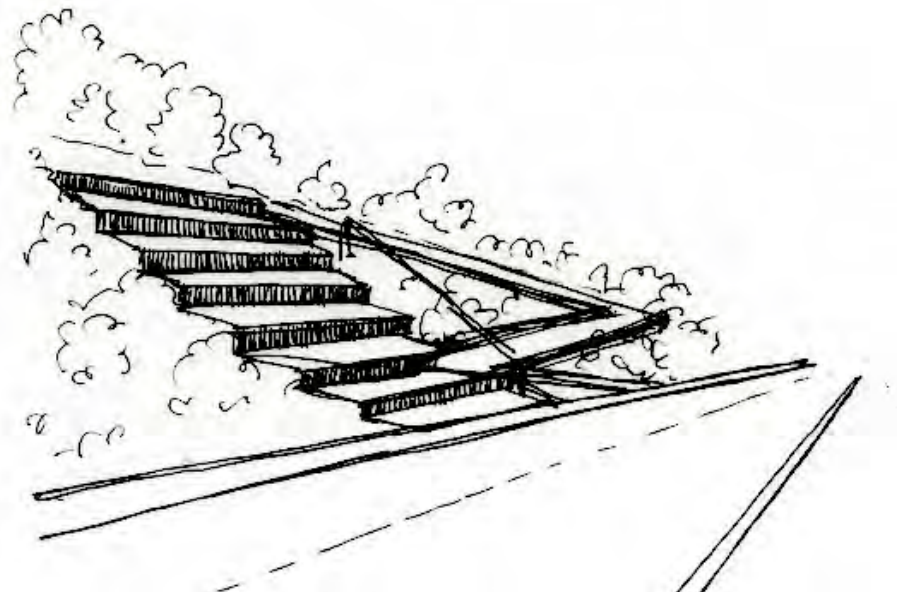ements such as steps and ramps could be introduced so that the site is more accessible and inviting to people. Taking down the walls/fences and opening up the green areas to the public would not only benefit the surrounding neighborhoods but also would be a great asset to the project site by bringing people -- social infrastructure -- to the site.

INTERIM PUBLIC PLAZAS AND PARKLETS

EXISTING CONDITIONS

Along the peripheries, there exists a lot of residual sidewalk spaces and refuge islands due to irregular road conditions or informal parking lots. These conditions create spaces that are not pedestrian friendly. These areas have the potential to attract people to near the site if right programming are put in place.

Provide access to green areas;
Demolish barriers;
Add steps, seating and ramps.

Under-utilized lot in Fuencarral. Example of where this strategy could be implemented.

Olympic Park in Stratford London, U.K.

Central Park New York City, U.S.

STRATEGY 2: ACTIVATE PERIPHERIES

RECOMMENDATIONS

Interim public plazas or parklets can be implemented to transform unused sidewalks and underused streets into vibrant social spaces. For the design and construction of these plazas, community input can be collected through public visioning workshops in order to create and develop spaces that meet the needs of the neighborhoods. Possible amenities include tables, seating, public art, lighting, etc.
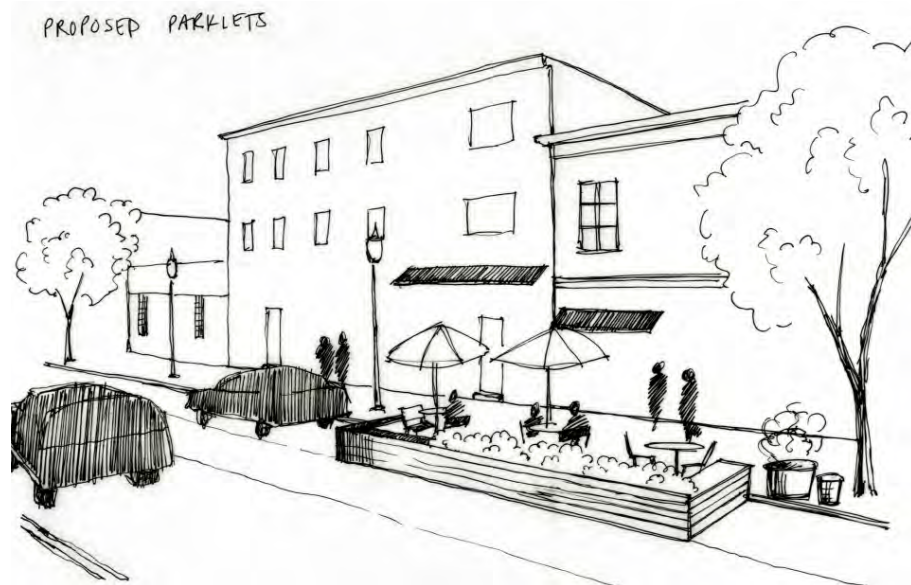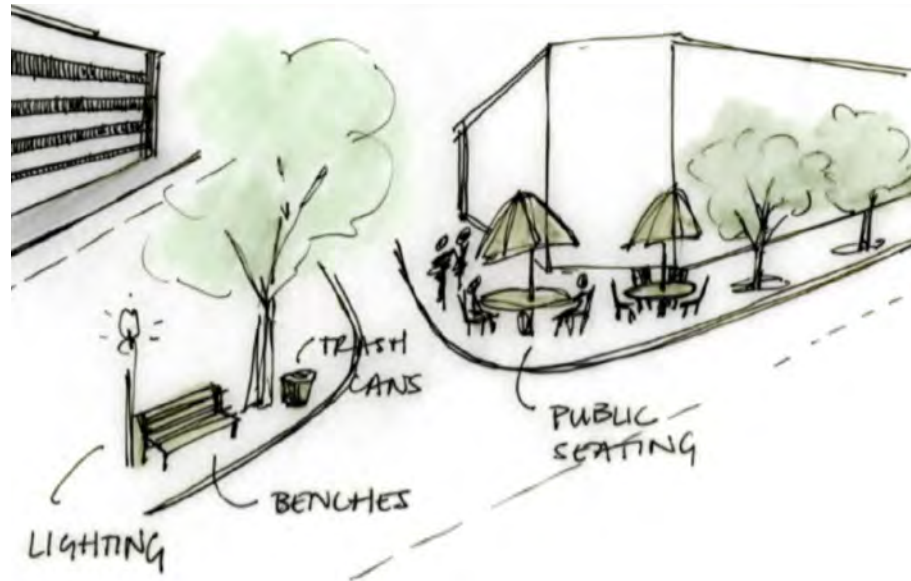
Provide access to green areas;
Demolish barriers;
Add steps, seating and ramps.

CASE STUDY

The before and after of Pearl Street Plaza in Brooklyn, New York City.
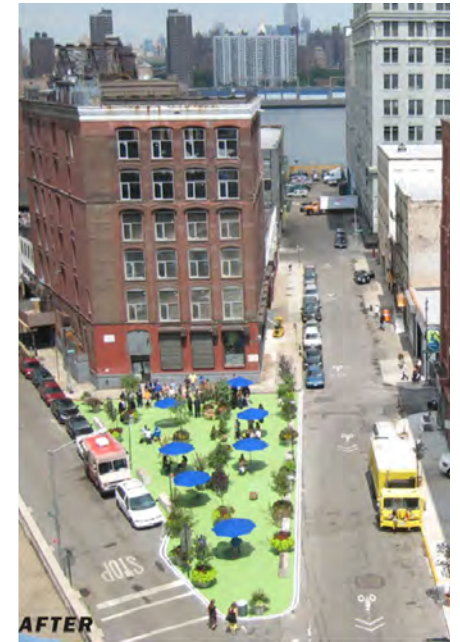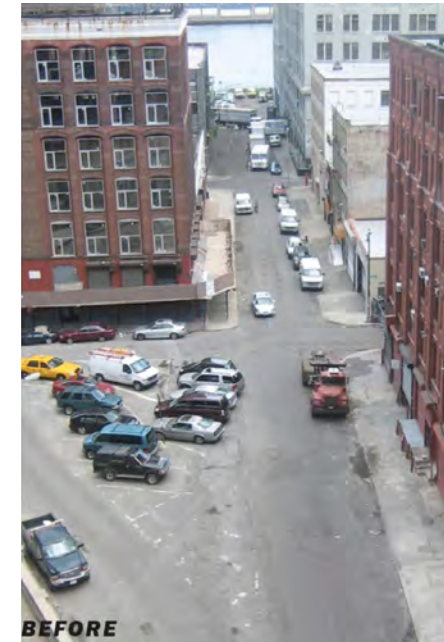
STRATEGY 2: ACTIVATE PERIPHERIES

INTERSECTIONS

EXISTING CONDITIONS
Some of the road situations around the site impose dangerous and undesirable conditions for pedestrians, as the multi lane roads suddenly transition into one-lane road.

RECOMMENDATIONS
Implementation of speed tables or raised crossings will reduce the speed of cars entering the smaller roads from higher speed roads. This will provide the pedestrians safer walking environment.
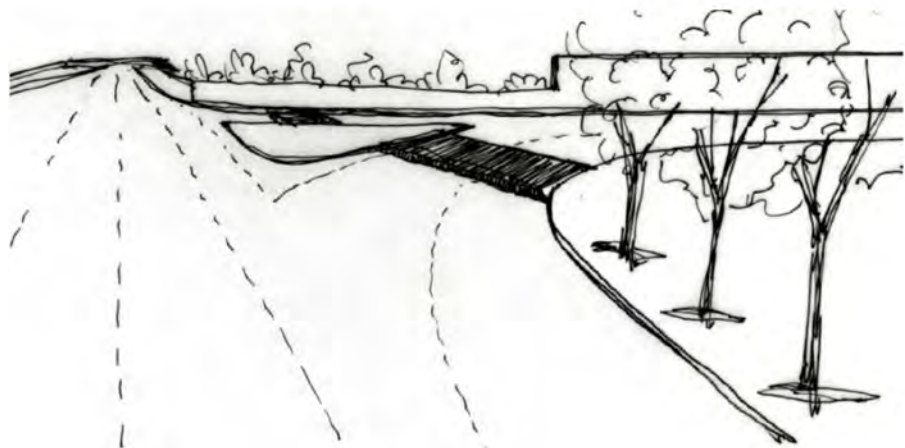
CASE STUDY

STRATEGY 3: COMMUNITY DEVELOPMENT CORPORATIONS

ISSUE

Social infrastructure is a crucial factor in economic development. It took the Cuatro Torres business center 10 years to reach full capacity. The site lacks the mechanism to gather social infrastructure to the site.

RECOMMENDATIONS

Community Development Corporations (CDCs) can help anchor capital in the community by developing residential, commercial or retail. CDCs gather funds from various public and private sources and work to help fund local businesses, education sectors and other community groups to revitalize local economies. CDCs could undertake economic development projects, developing real estate, attracting businesses, forming new businesses, providing job training, etc. There already exists community-led initiatives in the surrounding neighborhoods. Local CDCs can start by revitalizing the surrounding neighborhoods and eventually expand their activities onto the project site.

STRATEGY 4: MADRID CITY-WIDE HOUSING POLICY

ISSUE

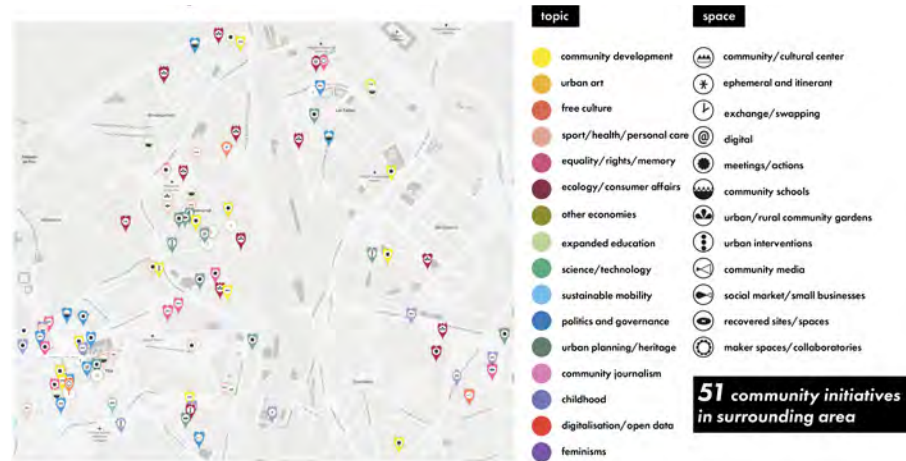Spanish housing market has some interesting characteristics to be distinguished from other European and other developed countries. The main traits can be categorized into three things: 1) small rental market, 2) low housing affordability and 3) inefficient housing market. First, according to the Eurostat, the portion of rental housing unit among the total housing stocks is 22.2% as of 2018, which is much lower than average EU (30.8%). Even though rental market portion has been increased a lot from 11% in 2011, it cannot be said that the ratio is enough to accommodate rental housing demand. And average rent keeps rising after the 2008 financial crisis; average rent rose 15.6% in 2Q. 2018 (El PAIS). What makes matters worse is that as Airbnb business in Madrid became vitalized, many housing units are turned into Airbnb usage, which facilitated the shortage of rental housing units in Madrid.

Second, after financial crisis in 2008, Spanish housing market has become heating. Especially, housing prices have showed serious increase. According to EL PAIS, housing property price has increased 3.6% in 2018 and is expected to increase another 6.1% in 2019. In addition, there are more than 1,900 homeless in Madrid as of 2018, and the number has increased 35% for the last five years (Imperial College London).Third, as of 2013, Spain has up to 815,000 unsold houses nationwide (CatalunyaCaixa), and it was estimated to have 3.4 million empty homes in 2011 (INE). What is worse is that eviction has been worse even despite recovering economic condition. The Guardian estimated 21,000 home eviction has occurred in Spain as of 2014.

RECOMMENDATIONS

Spain has limited amount of permanent social housing stock (2.5%) with controlled rental prices. In Chamartin area, there are only 2,075 housing units -- all of which are non-protected. More affordable housing units need to be included in order to prevent evictions spurred from the redevelopment. According to the development plan of Madrid Nuevo Norte, only about 2,100 units (20%) of housing is proposed as protected affordable housing, which is twice the legal minimum requirement of 10%. However, 20% protected housing is still not enough, given the size of this redevelopment project. A minimum requirement of 30% social housing is recommended.

RECOMMENDATIONS

CDCs can help organize different workshops, events, and activities to be held both in the neighborhoods surrounding the site and also in the project site. Through these regular activities and events, people can get to know the site more.

CASE STUDY

AUGUST

Some of possible events are:
- Market in the parking lots
- Yoga in the green areas
- Concert in the park
- Outdoor movie nights
- Kids arts and crafts

Market in Union Square
New York City, U.S.

Sites of interest:
Project site has plenty of unused, vacant and underutilized spaces. Having activities and events in these underutilized spaces will bring revitalization to the site that has been vacant for decades.

Yoga in the Park
Pittsburg, U.S.

STRATEGY 6: COMMUNITY LAND TRUST

ISSUE

There has been increasing number of vacant houses. Spain has estimated 3.4 million empty homes as of 2011 (Census, INE), and number of unsold houses ranged 675,000 and 815,000 as of 2013 (Savings bank CatalunyaCaixa). However, Madrid lacks number of affordable housing. It is estimated that Madrilenian spend an average of 49.1% of their income on rent. Current government and public sector's efforts to improve housing affordability are not sufficient to fulfill the demand for more affordable housing.

In addition, Currently, Madrid is one of the hottest cities that shows highest real estate price increase in European countries. In addition, the development of MNN project could exacerbate real estate market more seriously by inducing some speculative demands on housing market. Expected effects are like these. First, MNN development can be a trigger to further rent increase around the project site. Second, gentrification can happen; existing lower income households can be displaced. Third, inflow of young workers and families will increase the demand for new homes around the MNN site, which leads to the shortage of affordable housing.
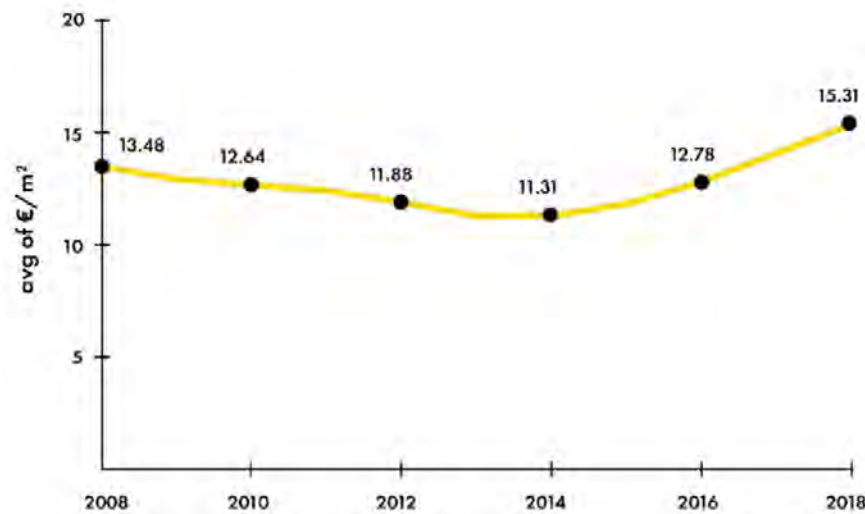
average rental prices by year (euros/m^2)

RECOMMENDATIONS

In order to address the shortage of affordable housing around the MNN site and facilitate community participation for the development, CLT can be recommended. CLT is community based organization to focus on provision of affordable housing. In this model, communities have control on the business operation, and community members share the relevant risks and benefits. Also Community Land Trust (CLT) program can alleviate the financial burden of Madrid City and Spain government related to social housing and affordable housing. Community Land Trusts (CLT) are often started by community groups or advocates that help to anchor land stewardship and capital in the community. CLTs own the land and lease it out to landlords or co-ops that then rent or sell individual units to residents. CLTs can buy smaller parcels of land from DCN at below market rate and provide more affordable housing. At least one-third of a land trust's board is composed of community residents, allowing for direct, bottom up participation and control of local assets. The program can also utilize existing empty and unsold houses in Spain as a source for affordable housing.
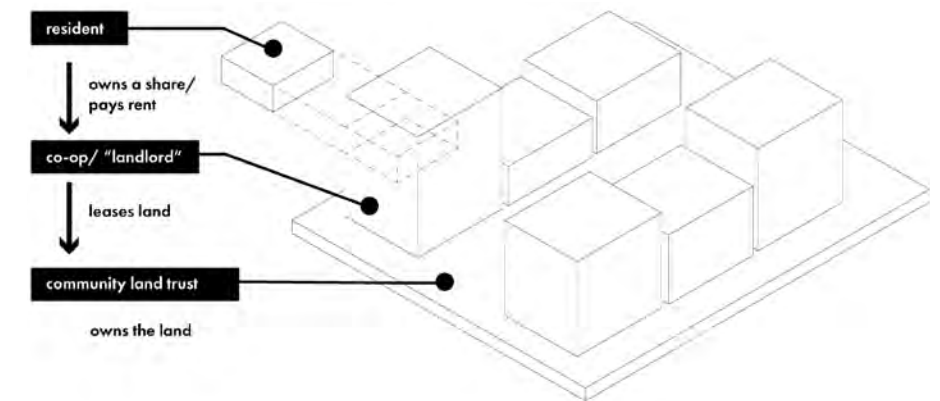
A wall of graffiti in Matadero Madrid. | Gizem Karagoz

HOW?
COALITION BUILDING

COALITION BUILDING

INTRODUCTION

GOAL: *Encourage accountability and collaborative engagement throughout the lifespan of the project and beyond.*

Information-sharing and participation are key components of engagement strategies, but they can easily become one-way conversations. Even when communities are able to share input, their impact on actual decision-making is not always clear.[1] Coalition building works as a mechanism for sharing resources and local knowledge as well as presenting a united front in advocating for community improvements or initiatives.[2] The Madrid Nuevo Norte project has promised a number of amenities, from affordable housing targets to new public equipment. Developing a channel for real accountability in the project can take the community from an advisory role to one of true partnership.

DCN reports working with almost 100 local collectives through its engagement strategy. Dozens of local community organizations, some of which are physically located near the peripheries, also advocate for a variety of initiatives in missions ranging from community gardening to an active lifestyle. Around the Madrid Nuevo Norte site there dozens of organizations with whom to collaborate and coordinate, whether in an accountability task force or urban interventions and community programming that help the site develop sense of place, something that it currently lacks.

In this chapter, we will explore the following strategies for strengthening coalitions during the construction of Madrid Nuevo Norte that emphasize accountability and collaboration.

1. Arnstein, S. (1969). A Ladder of Citizen Participation. *Journal of the American Institute of Planners*, republished in *The City Reader* (2011), ed. R. LeGates & F. Stout. New York, NY: Taylor & Francis Group.

2. Center for Community Health and Development at University of Kansas. (n.d.). Section 5. Coalition Building I: Starting a Coalition. Community Tool Box.

SITE ACTIVATIONS　　　　**POLICIES + REGULATIONS**

Capacity Building

Sense of Place

Accountability

Citizen lab on the go

Adaptive Reuse
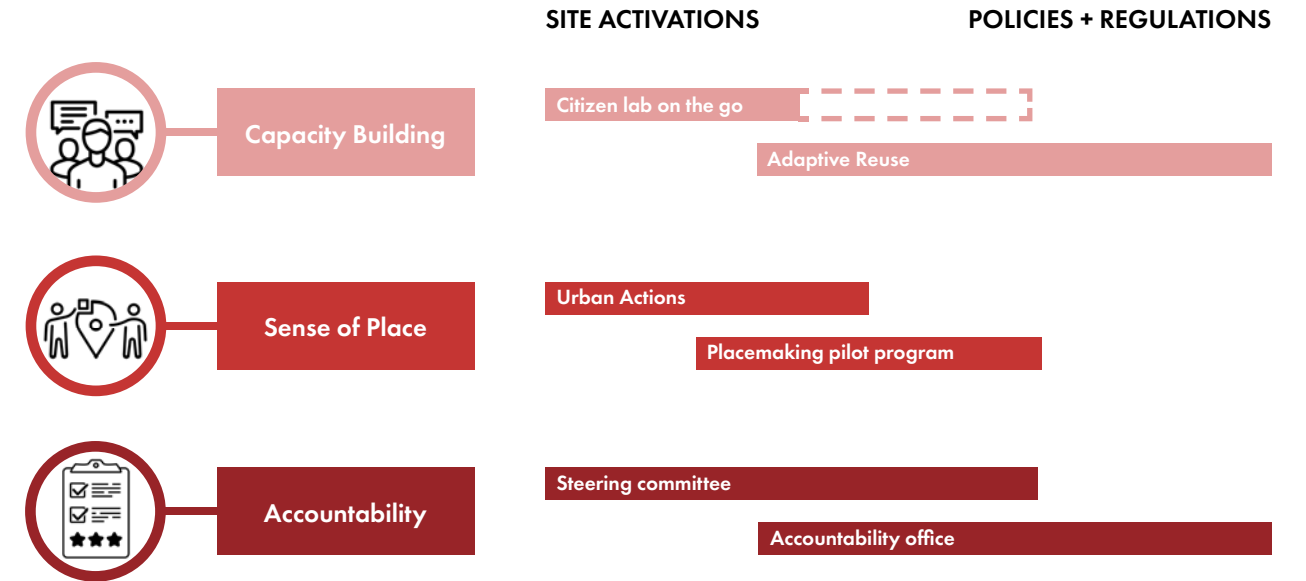
Urban Actions

Placemaking pilot program

Steering committee

Accountability office

COALITION BUILDING STAKEHOLDERS

GOVERNMENT AGENCIES — Dept. of Economy and Finance, Dept. of Citizen Participation, Transparency & Open Govt., Deptartment of Sustainable Urban Development, Dept. of Sports and Culture

COMMUNITY ORGANIZATIONS — MediaLab, Imagina Madrid, Neighborhood Associations, Youth Coalition, Local artists, Local schools, PZN

PRIVATE INTERESTS — Distrito Castellana Norte, Small Businesses

PLACEMAKING THROUGH TEMPORARY INTERVENTIONS

"Placemaking" describes the designing and management of public space through a community-based, collaborative process.[1] Through placemaking an empty lot can be transformed into a community resource that imbues a sense of place and stewardship of public space. These projects can use local knowledge and engage with local artists to identify sites for temporary interventions and activate spaces that may otherwise go vacant in between construction phases.

'Lighter, quicker, cheaper' projects in particular demonstrate to a community—or potential investors—how an otherwise underutilized space can be used differently in the short-term.[2]

- One-time events like a street fair, local farmers' market, or a community activity. Based on its success, such events may be adapted to recur.
- Projects to beautify a space through the installation of seating, planters, and public art.

1. Project for Public Spaces. (n.d.). "What is placemaking?"

1. Project for Public Spaces. (n.d.). "The lighter, quicker, cheaper transformation of public spaces."

PROMOTING ACTIVE STREET USE

PURPOSE: To repurpose public roads into pedestrian and bicyclist spaces that encourage people of all ages to be social and active.
ON SITE: To pedestrianize the roads between the neighborhoods and the site, to activate, bridge and connect critical throughways and highways through reclaiming interventions; include the Castellana.
LEADERS: Community groups, government, local businesses, urban practitioners.

Creative Wayfinding
Stratford, UK

Guerilla Bike Lanes
Mexico City, Mexico

Parking Day Pop-Ups
Portland, USA

CO-BUILT PUBLIC SPACES

PURPOSE: To repurpose underutilized small spaces through participatory design and building interventions. Programs include community gardens, playground and flexible space for public gathering.
LEADERS: Community organizations, property developers, local businesses, local designers and urbanists

Ponte Guapo Isidoro!
Seville, Spain

San Pablo Botanical Garden
Zaragoza, Spain

Pallet Pavillion
Christchurch, New Zealand

TEMPORARY SPACES FOR ECONOMIC AND SOCIAL DEVELOPMENT

PURPOSE: To temporarily activate vacant sites and promote economic development by filling vacant retail space with short-term businesses
ON SITE: To create commercial demand and value by bringing in small local businesses onto the site. Raises public awareness of the long term potential of the site
LEADERS: Local businesses, community organizations, creative industries, property developers

School of Life
Pop Up Space
Collingwood, Australia

Proxy Market
San Francisco, USA

Art Crawl, Hamilton
Ontario, Canada

STRATEGY 2: PLACEMAKING

PILOT PLACEMAKING PROGRAM

Once construction begins, the Madrid Nuevo Norte site may contribute to the disconnectedness that already persists in the area. The site, though enormous in size and adjacent to several distinct neighborhoods, has little in the way of activity to engage residents or demonstrate the potential of the space for anything besides redevelopment. For the project to not exist and be developed in isolation from its surrounding context, there need to be reasons for community members to care and opportunities for intrinsic value to be created in the site.

Temporary interventions, as the previous strategy details, work toward developing 'sense of place.' A successful placemaking project is a cross-sector endeavor that requires coordination.[3] This strategy seeks to include city agencies in the transformation of open spaces near the construction site through inclusion in a placemaking program, providing community groups with more resources that can be leveraged to ensure the success of these projects. Especially as Madrid sees more large development projects in its future, targeted community-based programming would alleviate disruption to neighborhoods due to construction.

> *"It's not about constructing a new city, it's about deconstructing how we perceive the existing city."*
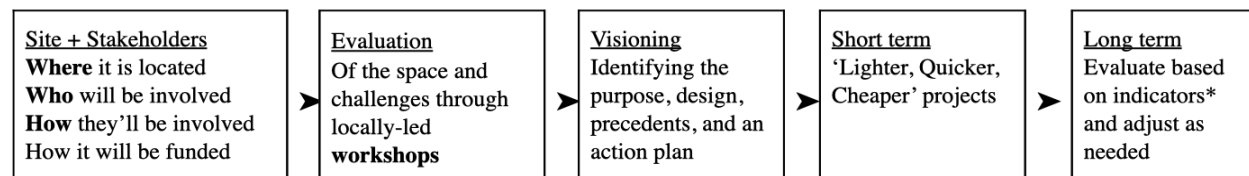>
> *—Juan López-Aranguren, Imagina Madrid*

An organization that has expertise and knowledge of local regulations can help to identify:

- Sites that are appropriate and safe for a project that will attract people, especially if it is within range of construction
- Necessary permits or permissions for use of the site
- Resources for mediation between community members, if necessary

Depending on the scale—whether it is a programming change, a capital improvement, or a small-scale beautification project, for example, costs may vary. A formal program offers financial support. Imagina Madrid, which operates citywide, has €60,000 budgeted for the implementation of each project.[4]

The organization Project for Public Spaces highlights these five steps for placemaking[5]:

Site + Stakeholders	Evaluation	Visioning	Short term	Long term
Where it is located **Who** will be involved **How** they'll be involved How it will be funded	Of the space and challenges through locally-led **workshops**	Identifying the purpose, design, precedents, and an action plan	'Lighter, Quicker, Cheaper' projects	Evaluate based on indicators* and adjust as needed

*Like attendance, how the new space is actually being used, what works and what does not.

3. Hardy, J. (2017, Apr). 10 best practices for creative placemaking. *Urban Land Magazine*.

3. Imagina Madrid. (n.d.). "Imagina Madrid—What is it?"

6. The Neighborhood Project. (2018, June). Neighbourhoods made by neighbours: a guide to community-led placemaking. CoDesign Studio:4.

4. Madrid Destino. (2017). Call for ideas for Imagina Madrid.

5. Project for Public Spaces. (2017, Dec). The placemaking process. Retrieved from https://www.pps.org/article/5-steps-to-making-places.

There are citizen initiatives already ongoing in the surrounding neighborhoods; the short term strategies proposed in this playbook could help gauge the level of interest from existing groups to collaborate on more permanent placemaking initiatives that not only reclaim underutilized spaces for temporary interventions during construction but evolve into longer-term installments. Capacity building efforts can be leveraged to collaborate with local artists and designers. A local placemaking initiative focused on activating spaces during construction can build on the work of communities and help sustain engagement in new areas.

Imagina Madrid, a creative placemaking program supported by Madrid City Council, already operates in communities across the city. To start, the program identified nine sites for intervention and began a collaborative process to design and implement programming, whether physical or performative. The program gathers people's impressions about their neighborhoods, connects with local organizations, and organizes working sessions for artists and other collaborators to work with stakeholders to develop the intervention.

A dedicated program can also support residents in tracking down the necessary permits to implement a vision. *The Neighborhood Project, a program based in Melbourne, Australia,* identifies this as a key component; community-led initiatives can be sustainable long-term if there are "engaged groups to run and manage them." But factors ranging from a lack of knowledge about what is feasible to challenges in navigating regulations may dissuade interested residents, which is where such support becomes critical.

STRATEGY 3: CITIZEN LAB ON THE GO

CITIZEN LAB ON THE GO
Goal:
A mobile platform created as a front runner to the community development phase of the project. It is designed and operated through 3 programs:

Co-designing is enabled by the open, flexible and collaborative physical space of the lab so participants can engage in workshops and pop-up activities.

Co-operating through a digital interface that will be transparent and accessible to the public. The knowledge collected through the programs can be shared on this platform and users can determine the next stop of the lab.

Co-learning is conducted with the resources and activites provided by the Lab.

This creates an iterative feedback loop where the stakeholders are collectively designing and knowledge sharing to create a shared vision for the project site. What challenge does the Lab address? It is a critique of DCN's exhibition space, which is stationary and exhibition based. In contrast, the Citizen Lab truck operates by meeting participants in their neighborhoods and is activity based. Why is this important? Our prototyping and interviews revealed that many local residents do not know the details of Madrid Nuevo Norte project or are not engaged with its future.

This is a method of prototyping for the permanent Citizen Lab. Allows us to build interest and create partnerships that can be carried over to the site.

SITES OF INTEREST
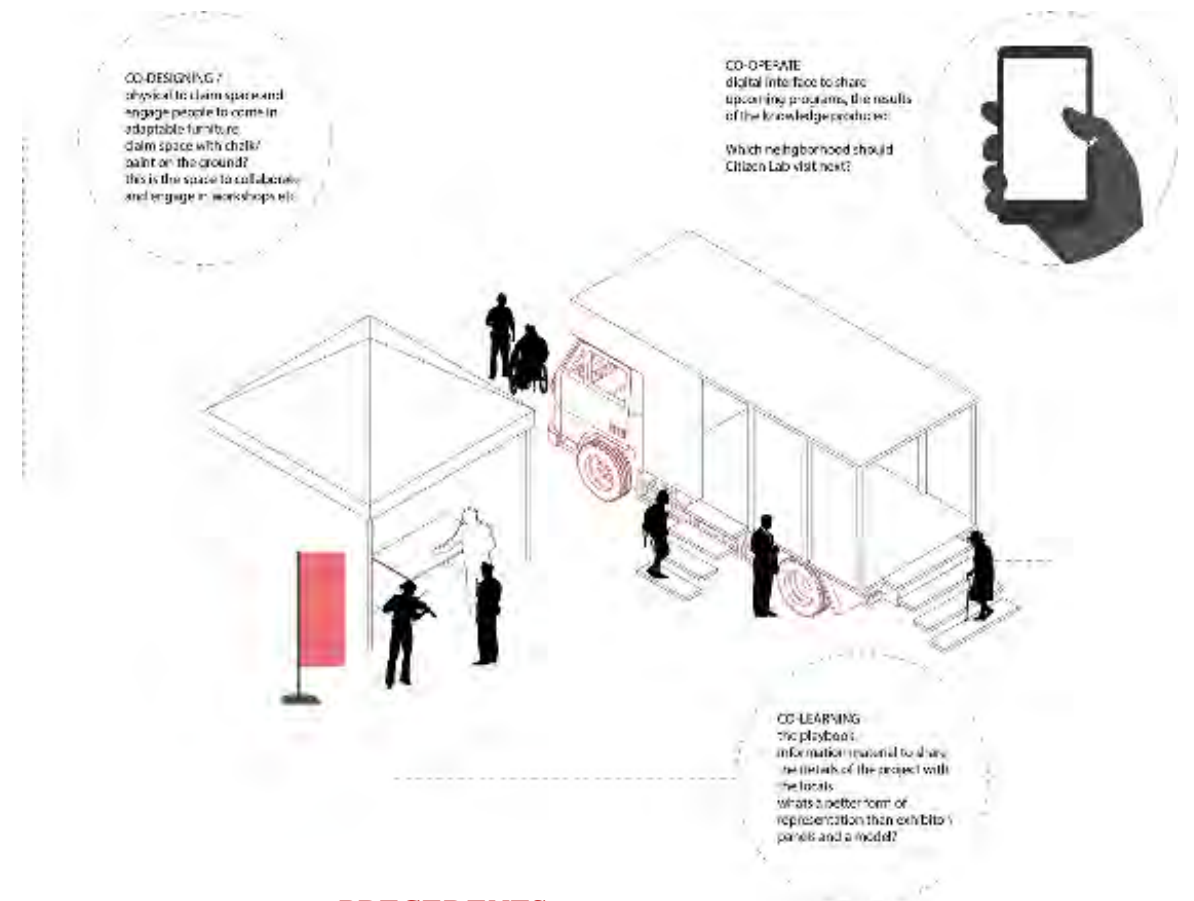
PRECEDENTS

Mobile Arts Library
Mexico City, Mexico

The Mobile Arts Library was developed by a civil society organization, in Mexico City. It was created to engage the community with the literary collection until the long term project to build the library was complete. The flexible and dynamic space in the truck enables different activities to take place within it as it explores different urban contexts. Book launches, exhibitions and workshops are some of the programs that encourage the public to come in and participate.

Public History Truck
Philadelphia, USA

The Public History Truck co-curates exhibitions about the experiences of the local communities. It is a platform about allowing communities to interact and listen to each other "in the hope of inspiring a citywide conversation." This program was initiated following Temple University's physical expansion in the city, disrupting the local social fabric and agency of the neighborhood. The truck operates as a platform to foster a communication with the community and university members.

DESIGN PROCESS + POLICY

Goal: *Identify what heritage assets exist within the area being considered for redevelopment.*

Identification should occur through an active community engagement processes: ask the surrounding neighborhoods what they would like to see preserved; if a certain building or site is cited numerous times, then some further research should be done in order to determine eligibility of preservation.

Evaluating a property as a potentially historic resource generally requires three steps:
1) understanding the property by understanding the larger historical context;
2) assessing whether the property is significant to the overall historic context based on its associative values;
3) determining whether the property retains a sufficient level of integrity to convey its significance.

After identifying the particular building/asset for preservation, determine which features/characteristics are necessary to convey the significance of the building. Depending on tangible versus intangible elements, different methods of preservation can be incorporated into a new development scheme.

Are they architectural features? Roofline, Materials, Decorative elements?
For preservation of built heritage: Prioritize architectural elements that cannot be sacrificed without compromising the integrity of the structure/the community's ability to appreciate the structure.

Is the reason for preservation more of an associative value?
For preservation of intangible elements: Interpretation and commemoration is a key element to preserving histories that are not necessarily explicit in the built environment. If the heritage asset identified is not tied to a single site, then some type of public arts initiative can be undertaken in order to design an interpretive and appropriate commemoration.

Questions To Consider During the Design Process

Sequencing/phasing of the rehabilitation?

How do you make it safe, accessible to all?

How will people interact with the architecture?

How does the circulation occur around the surroundings?

How much does it cost to stabilize a building?

What is the site going to look like in 1, 5, 10, 50 years?

How can the site be a connector for the city?

Relevant Stakeholders
MediaLab Prado Extension, Department of Arts, Sports, and Tourism of the Madrid City Council

CASE STUDY

The Empresa Municipal de Transportes Bus Depot, located at the southern edge of the site across from the Cuatro Torres Business Center and La Paz Hospital has been identified by community members as a site they would like to see integrated into the new development scheme. In the proposed land-use map, this area has been slated for demolition to make way for the new Central Business District. Due to the heavy critique debating the genuine need for a CBD, this strategy proposes saving parts of the EMT complex, and requiring the surrounding new construction maintain a contextual height and scale.

This complex was chosen as the site of the permanent Citizen Lab, following the success of the Citizen Lab-To-Go due to its large and open architecture, and the multitude of associated buildings. The need for a permanent Citizen Lab is based on critique of DCN's existing exhibit space in the City Center, meant to inform citizens about the new development.

DESIGN DETAILS

Programs
Citizen Lab
Arts/Cultural Center
Exhibit Spaces
Rental Spaces
Integrated Landscape

Buildings (sqft)
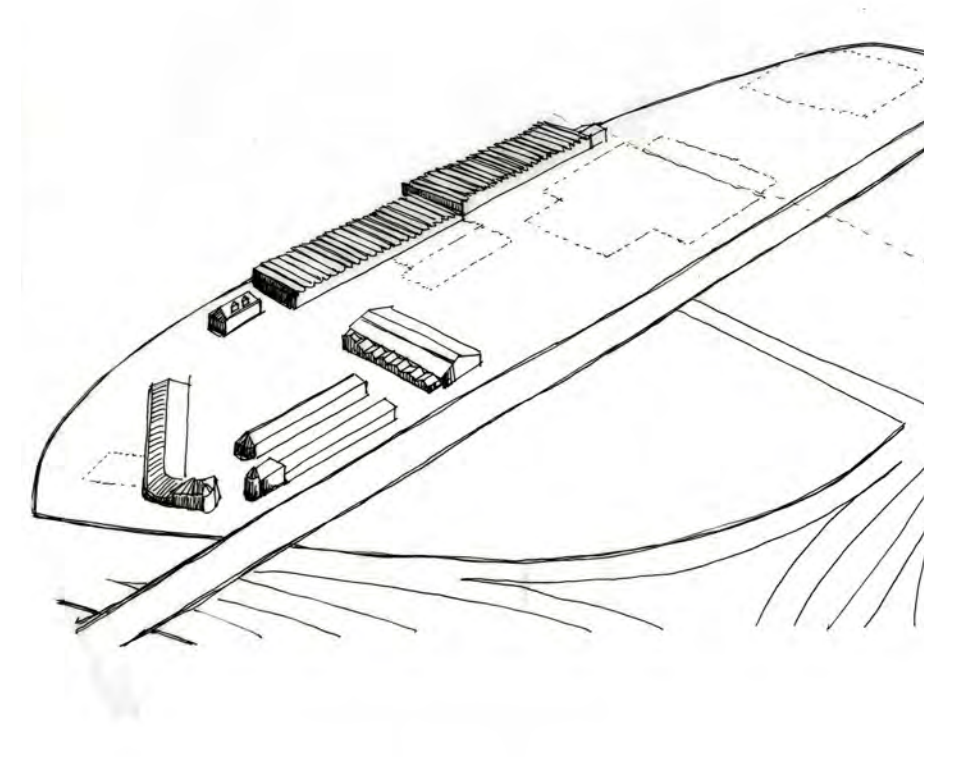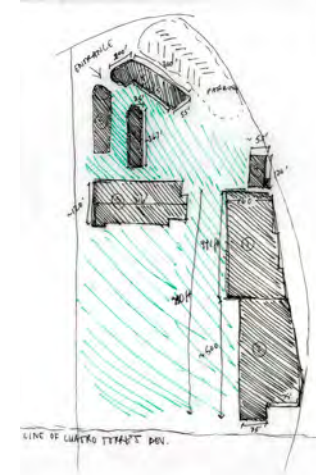
STRATEGY 5: STEERING COMMITTEE

Form a steering committee ('consorcios urbanisticos') that includes members from City Council, Comunidad de Madrid, local representatives, and DCN.

Goal: To formally ensure equal participation of the public sector and community in the two-decade long construction process and the transfer of responsibility of community outreach to the public sector.

'Consorcios urbanisticos', as the Comunidad de Madrid defines them, are public law entities with their own distinct legal identity, created through agreements signed by the Comunidad and/or City Council and different parties for the execution and development of urban projects.[7]

The consortiums can be understood as partnerships between various departments and levels of government, and may also involve important private partners and international organizations:

Figure 1: Examples of institutional and urban consortiums currently active in Madrid

Questions to be considered by the steering committee:

- How to ensure more accountability from the public sector for entire duration of the project
- How to integrate citizen participation in the process through meaningful outreach programs
- How to finance these outreach and participation programs
- How to create opportunities to integrate projects on the site with larger city initiatives
- How to phase various placemaking initiatives alongside construction process
-

RECOMMENDED DELEGATES IN MADRID

Area of Sustainable Urban Development; Area of Sports and Culture; Area of Citizen Participation, Transparency and Open Government; Area of Economy and Finance; Area of Environmental Mobility.

Role of community and neighborhood representatives is equally important.

7. Consorcios urbanísticos. (2017, May 18). Retrieved May 26, 2019, from Comunidad de Madrid website: http://www.comunidad.madrid/servicios/urbanismo-medio-ambiente/consorcios-urbanisticos

8. Municipal proposal to promote the northern development of Madrid - Ayuntamiento de Madrid. (n.d.).

9. Operation Chamartín takes shape | News | THE COUNTRY. (n.d.). Retrieved May 26, 2019, from https://elpais.com/elpais/2011/11/15/actualidad/1321348633_850215.html

PRECEDENT FROM THE CITY

Madrid City Council has hinted at the possibility of such urban consortium between the stakeholders of the Madrid Nuevo Norte (MNN) project, in order to facilitate smooth governance and quick decision making.[8] The new urban consortium that could be proposed, would be modelled after the first such consortium in Madrid, the Consorcio Urbanístico del Pasillo Verde Ferroviario de Madrid (C.U.P.V.F.M.). C.U.P.V.F.M functioned as an entity to expedite review of plans and distribution of contracts, ensuring a speedy construction process,

PRECEDENT FROM THE PROJECT

A similar urban consortium was formed for the previous version of the project, Operation Chamartin, between City Council, Comunidad de Madrid and Adif.[9] It was however dissolved after a draft plan was approved, to give way to compensation boards, which would supervise the sale of lands. Thus, the public sector had a managerial role, while the developers would drive the project.

However, many stakeholders demand a central role for the local government today, throughout the development process. The steering committee, therefore is expected to undertake the role of coalition building, upon itself, while ensuring the pace of operations is maintained. In addition to supervising and reviewing the construction process like the C.U.P.V.F.M, the steering committee would ensure transparency and continuous consultation with the community. These roles are further divided amongst the various departments of the city council as following.

Figure 2: Before and after images of the Green Railway Corridor, located near Atocha, the southern equivalent of Chamartin Station. Per City Council, MNN would follow a similar administrative structure.

Green Spaces at the current site. | Gizem Karagoz

HOW?
SUSTAINABILITY

SUSTAINABILITY

INTRODUCTION

Goal: *Construct a sustainable future for the area with broader ecological implications for Madrid as a whole.*

There is a huge ecological potential both within and surrounding the site. According to the Land Use Plan of Madrid[1], there are environmental preservation area. Also, in the immediate surroundings of this area, there are more than ten existing urban farming that aim to enhance the production and attractiveness of the local agriculture. Nevertheless, according to official municipal documents[2], the green areas in the site are still below the city average. The current green area per inhabitant (m2/hab) in the district is 3.91, while the city ratio is more than six times larger than that (18.26). This pattern is also present in green area related to landscapes, to sports facilities and to cultural areas.

The sustainability proposals aim to utilize current site resources by leveraging existing green resources including community urban gardens and proximity to El Pardo. It will also work within the existing topography rather than clearing the site to one grade for easy construction. Moreover, green infrastructure will be considered to facilitate the sustainable use of water and energy.

1. PGOUM. (1997). Plano de ordenación. Retrieved from https://datos.madrid.es.

2. Madrid City Council. (2016). Plan por Distrito de Las Zonas Verdes, Chamartin. Retrieved from https://www.madrid.es.

MAPS OF INTERVENTIONS

Interventions focus on leveraging existing green resources, revitalizing the surrounding areas, and providing sustainable policies and measures.

GREEN NETWORK

existing assets
☐ parks
⬤ urban gardens

TIMELINE & STAKEHOLDERS

SITE ACTIVATIONS   **POLICIES + REGULATIONS**

Utilize Current Site Resources

Revitalize Surrounding Areas

Broader Sustainable Policy and Measure

Movable urban gardens
Fixed Urban Gardens
Green corridor
Green streets
Sustainable mobility
Green buildings

STAKEHOLDERS

In this diagram, there are numbers of community groups under the category of Urban Farming Association. They include:

RAC Montecarmelo;
Huerto del Cid;
Montecarmelo;
Huerto de Montecarmelo;
Huerto de la Carra;
Huenkarral;
AMB Asociacion Bonsai;
Mirasierra;
Asociación de Hortelanos urbanos de Fuencarral;
El Huerto Sin Nombre;
El huerto de la bego;
Huerto Urbano Kupina Morera;
El Tablao de la Compostura.

DEFINITION

In the area, there are more than 12 community organizations that are focused on ecological agriculture, workshops and participatory actions related to gardening. In addition to that, the ratio of urban gathering by inhabitant is much higher than the rest of Madrid (21.04 m2/1000 inhabitants whereas in Madrid the ratio is 1.80). Therefore, using mobile urban gardening as a placemaking initiative can be a good way of activating the spaces and bringing community participation to the area.

GUIDELINES FOR IMPLEMENTATION

LOCATION

The movable urban gardens will be firstly placed on the surroundings neighborhood, near the already established urban gardens or community organizations that implement or advocate for that.

After this implementation, the movable urban gardening's will be translated to the site and be placed in empty or underutilized spaces at the peripheries, as well as places at the same level of housing facilities.

They will be placed on containers that will be displaced by trucks. Flowers, vegetables and fruits can grow on recyclable materials, such as plastic cranes, milk containers and recycled plastic bags.

PARTICIPATION

Community organizations will be responsible for maintaining the movable urban gardenings. The citizen lab will promote programming and initiatives to activate the spaces, such as open markets.

Images above shows the proposed locations of movable urban gardens, which incorporate and support existing green initiatives in the area. They also indicate how movable urban gardens could be transformed to fixed urban gardens.

STRATEGY 1: MOVABLE URBAN GARDEN

CASE STUDY

SKIP GARDEN, KING'S CROSS - LONDON

Skip Garden was established in 2009, one year into the redevelopment of the 67-acre King's Cross, and came out of community members' questions about what would happen during development[4]. Further, younger residents expressed concerns about the lack of resources for the youth. To engage the youth population and accommodate shifts in development phases, the project—which had an education component as well and is run by a nonprofit—was implemented using movable containers (skips) donated by construction companies. The Garden remained on the first site for two years; it has been moved several times since. The land lease is funded by the developer through Section 106, a legal agreement through which developers bear mitigation responsibility[5].

Skip Garden
London, U.K.

Skip Garden Kitchen
London, U.K.

Nomadish Grun
Berlin, Germany

NOMADISH GRUN (NORMANDIG GREEN) - BERLIN

In dirt and abandoned areas of Moritzplatz square, in Berlin, the non-profit organization Nomadish Grun, in 2009 took the initiative of revitalizing the area. They started cleaning up the area and, following that, they implemented movable urban gardens, that grew flowers, vegetables and fruits. They grow in plastic crates, milk containers, rice bags, and recycled plastic bags and are are moved to an indoor market in the winter. The cleaning and growing of the products are 100% made by community[6].

4. Kamvasinou, K. (2015, Sep). Temporary interventions and long-term legacy: lessons from London case studies. Journal of Urban Design 22(2): 190-192.

5. City of London. (n.d.). Community infrastructure levy and planning obligations. Retrieved from https://www.cityoflondon.gov.uk.

6. Slatalla (2015). A movable feast: Berlin's Portable Garden. Retrieved from https://www.gardenista.com

7. Francis, M. (1989). The Urban Garden as Public Space. Places, 6(1): 52-59.

8. Barthel, S., Folke, C., Colding, J. (2010). Social–ecological memory in urban gardens—Retaining the capacity for management of ecosystem services. Global Environmental Change, 20(2): 255-265.

9. Kingsley, J., Townsend, M. (2006). 'Dig In' to Social Capital: Community Gardens as Mechanisms for Growing Urban Social Connectedness. Urban Policy and Research, 24(4): 525-537.

STRATEGY 2: FIXED URBAN GARDEN

DEFINITION

Urban gardens are an important element of public spaces, being considered part of community movements aiming for more green areas in urban centers.[7] They differ from other public areas in several ways. For example, their development and management is connected engagement of population and community organizations. Considered places of encounter of people, both to socialize and to grow plants, bringing more social and environmental sustainability to urban areas,[8] and helping to increase social cohesion, social support, and social connections.[9]

GUIDELINES FOR IMPLEMENTATION

LOCATION

As a second phase of the gardening and implementation of green areas, the urban gardens will be implemented. They will be on the same location as the movable urban gardens were (vacant or underutilized lots). They will serve as nodes of the green network and function as an integration of the green corridor and street green facilities.They will also be close to existing urban gardens, which will make possible a connection between them.

When defining the location of them, residents should be considered. They should be able to access different kinds of public green spaces within 300 meters' linear distance, or around 5 minutes' walk, of their homes. Finally, they should be located near public transportation and connected to the green network, that will include accessible walking and bike paths.

DESIGN STRATEGIES

Design the green space should contemplate a diversity of functions to facilitate activities by various groups of different ages.It should also be placed in proximity to urban residents, and ensure it provides enough accessibility. So according to the surroundings demographics of the area, should have specific facilities according to age ranges for example, one of the surrounding neighborhoods has a high young population (El Goloso), so their needs can be prioritized. Other neighborhoods, such as La Paz has a higher quantity of aging population, so the priorities for this area should be designed taking elderlies into account. In addition to that, since they will be located within the green network, they will be universible accessible for all age ranges.

SUSTAINABILITY STRATEGIES

In order to reduce and optimize the consumption of water, an efficient irrigation system should be predicted, as well as an adequate selection of species, use of quilts and wastewater regenerated and the use of runoff water.[10] In addition to that, the movement of land should be minimized, assuring that the natural topography is maintained and,therefore, integrating the geomorphology of the area in the landscape design. All the furniture of the area should be either recycled or made of low environmental impact materials, that are permeable and reflexive.[11] Those materials allows the water to infiltrate and also help reduce air temperatures. Examples of those materials would be: recycled woods, sustainable-harvest wood, and recycled plastic or composite lumber, reused concrete, concrete that incorporates recycled materials, like crushed glass or wood chips.[12]

The design of the square should also maintain the natural water resources, especially near the water canal "IsabeL II", to avoid muds of watering, the protection of groundwater, the collection of rainwater, the installation of control and expenditure control devices and the correct identification of the irrigation system.[13]

PARTICIPATION STRATEGIES

In the activation step of the green areas (movable urban gardens), the community was engaged and, therefore, the urban gardens will serve as ways to eliminate barriers between neighborhoods and the site. They will be managed by the community organizations and also related to the citizen lab, that will create fixed and provisional. The first initiative will be to move the previous plants to the fixed infrastructure which will be made by the community, after that, the design of the urban garden will be co-decided by citizen lab and the community in workshops held in Citizen Lab. Additionally, all changes and programmings made in the area will be announced to the neighborhoods, through brochures and in the citizen lab. In addition to that, food festivals and markets can be developed, a gardening school and other community initiatives.

PROFIT STRATEGIES

With the purpose of getting support of the private investments as well as bringing community participation, we are proposing the adopt an urban garden program. The person that is interested in adopting the urban garden should write a letter of intention and submit it to the Citizen Lab. They will be responsible for taking care of the area for six months and will have to visit the area at least once a week.

10. Madrid City Council. (n.d.). Criterios de Jardineria Sostenible de Madrid. Retrieved from https://www.madrid.es.

11. ASLA. (n.d.). Professional Practice Sustainable Residential Design: Using Low-Impact Materials. Retrieved from https://www.asla.org.

12. The Sustainable Sites Initiative.(n.d.). Site. Retrieved from http://www.sustainablesites.org.

13. Madrid City Council. (n.d.). Criterios de Jardineria Sostenible de Madrid. Retrieved from https://www.madrid.es.

Case Study
Adopt an Urban Garden

This project has helped many people and communities to transform their gardens. Pictures at right shows the before and after of Fannie's Garden at Paradise on Earth, Bronx, NY.

CASE STUDY

ADOPT AN URBAN GARDEN - NEW YORK

Considering the right to have a beautiful and high-quality urban space and, giving the opportunity for people to adopt and take care of an urban garden, they managed to restore half of the 52 community gardens existing in the cities. In this program, people can donate money and receive name recognition in a garden, in the website and in commemorative books.

HUERTA MONTCARMELO - MADRID

Huerta Montecarmelo is one of the biggest urban farming's in the North of Madrid. It is managed by La Paz Institution, which is recognized by the UN as one of the most important community organizations of Madrid. Their goal is to assure participation and inclusion, specially of mentally ill people. They are located in the area since 1948 and currently promote weekly workshops for people of different ages. Their goal is to promote ecological education. In their area, they aim to promote an aesthetic pleasant area, as well as teach people about the possible profits they can have when working with urban farming.

STRATEGY 3: GREEN CORRIDOR

DEFINITION

A green corridor is one currently adopted an initiative to balance pollution and promote a healthier area in urban center and cities, as well as increasing vegetation tissue. It is described as a way of implementing green advantages into areas. It consists of open spaces, aggregating "parks, nature reserves, cultural features or historic sites with each other and with populated areas often through stream valleys and rivers".[14]

They are also considered as an important way of connecting green areas within the city with peri-urban areas, ensuring the biodiversity of green areas. The isolation of green areas is already considered as a problem in the current Land Use regulation, due to the urban sprawl, which resulted in the existence of isolated green areas. The Land Use regulation already has in its guidelines the intention of creating a connected green network, to assure the biological diversity.[15]

GUIDELINES FOR IMPLEMENTATION

Creation of a green corridor, connected to the green network and with the green spaces in the area. The proposed green corridor, by the developer, DCN, does not have any specification and appears only in some of their publications.

Aiming to integrate with the existing green spaces around the site, 3 green corridors will be proposed. The proposal has guidelines with the intention of creating a connected green network in order to assure the biological diversity to alleviate the separation in current land use. Thus, green corridors become a catalyst for harmonizing with surroundings, especially connecting El Pardo and other important green spaces in the north of Madrid and the city center.

Meanwhile, the green corridors play pivotal role in rainwater cycle with collecting, filting, purifying and utility system in order to address the problems of water resource and improve the ecosystem in site. With in-depth design for walking and cycling paths, green corridors will be the open spaces for communities to have leisure and activities.

14. Vicals, M.J., Morant, M., Alonso-Monasterio, P. (2012). Connecting urban and rural areas through a green corridor: Case study of the Parc Fluvial del Turia (Valencia, Spain). in Research Studies on Tourism and Environment. New York: Nova Science Publishers, 313-324.

15. Madrid City Council. (n.d.). Criterios de Jardineria Sostenible de Madrid. Retrieved from https://www.madrid.es.

16. Vicals, M.J., Morant, M., Alonso-Monasterio, P. (2012). Connecting urban and rural areas through a green corridor: Case study of the Parc Fluvial del Turia (Valencia, Spain). in Research Studies on Tourism and Environment. New York: Nova Science Publishers, 313-324.

Intended location of the green corridor, and its relationship with Monte de el Pardo.

STRATEGY 3: GREEN CORRIDOR

CASE STUDY

TURIA FLUVIAL PARK - VALENCIA

Aiming to create social and psychological benefits to the city, Valencia, in the Mediterranean coast of Spain, created in 1991, a green corridor facing the river. This corridor goes through 7 villages of the state and integrates natural, cultural and scenic areas. They aimed to provide visually pleasure areas, by restoring both the vegetation and the culturally important areas in the corridor. In addition to that, they managed to mobilize the natural and cultural resources for informal recreational purposes, as well as bringing environmental, health, and psychological benefits.[16]

STRATEGY 4: GREEN STREETS

DEFINITION

The streets offer space for movement and access and facilitate a variety of uses and activities. Streets are dynamic spaces that adapt over time to support environmental sustainability, public health, economic activity, and cultural significance.[17]

Green Streets is a stormwater management approach that incorporates vegetation (perennials, shrubs, trees), soil, and engineered systems (e.g., permeable pavements) to slow, filter, and cleanse stormwater runoff from impervious surfaces (e.g., streets, sidewalks). Green streets are designed to capture rainwater at its source, where rain falls. Whereas, a traditional street is designed to direct stormwater runoff from impervious surfaces into storm sewer systems (gutters, drains, pipes) that discharge directly into surface waters, rivers, and streams. Green streets protect water quality by removing up to 90% of pollutants. They replenish groundwater supplies, absorb carbon, improve air quality and neighborhood aesthetics, and provide green connections between parks and open space. Vegetated curb extensions improve pedestrian and bicycle safety, and calm traffic.[18]

17. Gloabl Designing Cities Initiative. (2016). Global Street Design Guide. Retrieved from https://globaldesigningcities.org.

18. United States Environmental Protection Agency. (n.d.). Learn About Green Streets. Retrieved from https://www.epa.gov.

GUIDELINES FOR IMPLEMENTATION

STREET TREES AND PLANTING

Trees provide shade and cool the air, benefitting the comfort of people using the street. While designing, find opportunities for plants and trees within the streetscape to reduce the amount of hard, impermeable surface. Plan and set aside adequate space for trees in the early stages of development to achieve better outcomes. Plant trees in green strips, parking bays, and rain gardens. High-quality plant stock and appropriate planting techniques are vital to the success of any planting.

Since the climate in Madrid is inland Mediterranean climate, the driest capital in Europe, filter media retains soil moisture with suitable media type and depth to sustain vegetation. Using a saturated zone bioretention system is the most effective way of maintaining planting health for longer periods between rainfalls. Drought-tolerant vegetation could be the best choice.

STREET TREES

RAIN GARDEN AND BIOSWALE

PASSIVE IRRIGATION

PERMEABLE PAVEMENT

RAIN GARDENS AND BIOSWALE

Rain gardens are scatter systems while bioswales are linear or strip ones. They are vegetated, shallow, landscaped depressions designed to capture, treat, and infiltrate stormwater runoff as it moves downstream. They are typically sized to treat the water quality event, also known as the "first flush," which is the first and often most polluted volume of water resulting from a storm event. They are the most effective type of green infrastructure facility in slowing runoff velocity and cleansing water while recharging the underlying groundwater table.

Rain gardens and bioswales are supposed to design associated with landscape when the spaces of streets are abundant enough.

PASSIVE IRRIGATION

Directing stormwater to the surface of landscaped areas and tree pits provides irrigation to the plants and reduces stormwater runoff into local drains and citywide systems. Passive irrigation is one of the simpler and easier ways to incorporate water-sensitive design. Additionally, the circulation takes advantage of stormwater to prevent waste of potential resource and sustain ecosystem of plants on streets.

Street trees can provide multiple benefits. Boston Transportation Department. (2013). Boston Complete Streets Design Guidelines. Retrieved from https://www. bostoncompletestreets.org.

Rain gardens can enhance the sustainable use of rain water. Boston Transportation Department. (2013). Boston Complete Streets Design Guidelines. Retrieved from https://www. bostoncompletestreets.org.

PERMEABLE PAVEMENT

Permeable pavement allows rainfall to move through the pavement to the soil beneath and provide water to landscape areas nearby. Alternate surfaces with permeable pavement to reduce stormwater runoff and recharge the water table. It effectively treats, detains, and infiltrates stormwater runoff where landscape-based strategies are restricted or less desired.

Previous pavements have multiple applications, including sidewalks, street furniture zones, and entire roadways (or just their parking lane or gutter strip portions). These may be in the form of block pavers with infiltration gaps between pavers, or porous material with infiltration gaps within the material.

There has already been different kinds of permeable pavement materials in Madrid.

DEFINITION

A sustainable mobility system is that: First allows the basic access needs of individuals and societies to be met safely and in a manner consistent with human and ecosystem health, and with equity within and between generations; Second is affordable, operates efficiently, offers choice of transport mode, and supports a vibrant economy; Third limits emissions and waste within the planet's ability to absorb them, minimizes consumption of non-renewable resources, limits consumption of renewable resources to the sustainable yield level, reuses and recycles its components, and minimizes the use of land and the production of noise.[19]

GUIDELINES FOR IMPLEMENTATION

NEW ENERGY VEHICLE

New energy vehicle is becoming one of approaches to mitigate the dependence of the auto industry on petroleum so as to reduce pollutant emissions. New energy vehicles do not restrict to private vehicles but also expand to other social aspects relative to mobility including other passenger vehicles, freight vehicles and utility vehicles. Financial incentives are a major tool by the government for decreasing the upfront costs and encouraging the technology's adoption. Additional charging stations and supporting infrastructure are also necessary when implementing due to limited capacity and corresponding travel range.

MODAL CHOICE SHIFT

When the place is shaped by the transit-oriented development, private motor vehicles become largely unnecessary in day-to-day life. Walking, cycling and the use of mass rapid transit are easy and convenient, and can be supplemented by a variety of intermediary transit modes and shared vehicles that are much less space-intensive. Scarce and valuable urban space resources can be reclaimed from unnecessary roadways and parking spaces, and can be reallocated to more socially and economically productive uses. The shift of sustainable modal choice is beneficial to reducing pollution emission, conserving energy consumption, relieving carbon footprint, establishing active and healthy communities.

19. Victoria Transport Policy Institute. (Feb, 2017). ustainable Transportation and TDM: Planning That Balances Economic, Social and Ecological Objectives. Retrieved from http://www.vtpi.org.

20. WWF Sustainable Mobility. (Mar, 2012). Amsterdam Cycling. Retrieved from https://wwf.panda.org.

21. Zuidas. (n.d.). Sustainability. Retrieved from https://zuidas.nl.

22. WWF Sustainable Mobility. (Nov, 2015). Paris Transport. Retrieved from https://wwf.panda.org.

23. Bliss, L. (Jan, 2018). The Automotive Liberation of Paris. City Lab. Retrieved from https://www.citylab.com.

CASE STUDY

BICYCLE-FRIENDLY AND TRANSIT-ORIENTED DEVELOPMENT - ZUIDAS IN AMSTERDAM, NETHERLANDS

Amsterdam, the world-famous bike-friendly city,[20] is now spreading the culture of sustainable mobility to the new development in Zuidas.[21] In order to guarantee long-term sustainability and support the establishment of business center, people in Zuidas are encouraged to travel at different times or choose forms of transport other than the car. Situated around a public transport hub, Zuidas is investing substantially in bicycle and public transit for users to make valid alternatives. There is enormous interest in sustainable mobility, such as bicycle paths, parking and sharing, diverse and accessible public transit, and electric scooters and vehicles, to deliver a healthy, clean and energy-neutral Zuidas.

LIMITING CAR USE - INNER CITY OF PARIS, FRANCE

The remarkable shift away from the car makes Paris lead the urban mobility revolution. In car-free days, Paris shut down 30% of the traffic inside the peripherique ring road, with cut of pollution levels by up to 40% and noise up to 50% in some areas.[22] Paris has implemented a ban on cars made before 1997 on roads during weekdays, pedestrianized the lower quays of the Seine, reduced the speed limit and introduced stricter parking policies.[23] Car-free days have been introduced annually as a form of publicity campaign for a future without automobiles. Paris also plans to ban diesel cars and limit select streets to electric cars soon.

Bike Paths in Zuidas
Amsterdam, Netherlands

Public Transit in Zuidas
Amsterdam, Netherlands

Car Free Zone
Paris, France

STRATEGY 6: GREEN BUILDINGS

DEFINITION

Buildings can limit environmental impacts. According to the UN,[24] about 40% of the global energy uses, 30% of greenhouse gas emission are in buildings. A great share of waste generation and use of natural resources is also related to buildings construction and usage.

A green building is a building that, in its design, construction or operation, reduces or eliminates negative impacts, and can create positive impacts, on our climate and natural environment. Green buildings preserve precious natural resources and improve our quality of life.[25]

There are a number of features which can make a building 'green'. These include: Efficient use of energy, water and other resources; Use of renewable energy, such as solar energy; Pollution and waste reduction measures, and the enabling of re-use and recycling; Good indoor environmental air quality; Use of materials that are non-toxic, ethical and sustainable; Consideration of the environment in design, construction and operation; Consideration of the quality of life of occupants in design, construction and operation; A design that enables adaptation to a changing environment; Any building can be a green building, whether it's a home, an office, a school, a hospital, a community centre, or any other type of structure, provided it includes features listed above.

GUIDELINES FOR IMPLEMENTATION

BUILDING TECHNOLOGIES

Living roof:
A living roof is the roof that is being covered with vegetations that are planted on a waterproofing materials. It might also include drainage and irrigation systems to better serve its ecological functions. There is a huge potential for using these empty spaces to generate economic, social, and environmental benefits. Living roofs reduce the heat island effect through surface albedo, reduced surface temperature and evapotranspiration and improve air quality.

Grey water system:
The system reconnects the hydrologic cycle by infiltrating clean water back into the ground. Water from sinks and showers is stored in greywater tanks and cleaned in a constructed wetland, which can filter hundreds of gallons per day. Functioning similar to the forest, the catch and slow release of water allows the green building to restore more than half of the water to the ecosystem either through ground infiltration or evaporation, and mitigate stormwater during and after rain events.

24. UN Environment. (n.d.). Sustainable Buildings. Retrieved from https://www.unenvironment.org.

25. World Green Building Council. (n.d.). About Green Buildings. Retrieved from https://www.worldgbc.org.

STRATEGY 6: GREEN BUILDINGS

Building Management System:
Green buildings integrate the Building Management System into the passive and active systems that help maintain a comfortable indoor environment setting with net zero consumption of energy and water.
The building management system senses the internal and external conditions, and engages the appropriate systems include Heating/Cooling, Passive/Mechanical Ventilation, daylighting and metabolic systems..

POLICY INCENTIVES: GREEN BUILDING STANDARD
There should be exclusive green building standards established in the site. The green building standards aim to maximize the environmental quality, economic vitality, and social health through the design, construction, operation, maintenance, renovation, and decommissioning of city-owned buildings and sites. Green buildings support objectives by making efficient use of energy, water, and material resources; reducing climate change; minimizing pollution and hazardous materials; creating healthy indoor environments; reinforcing natural systems; providing habitat; creating vibrant spaces for people; and contributing to the communities.
New public construction and major renovations must meet the highest requirement of standard, as well as key performance requirements for energy neutral and water management. All new and existing sites projects shall follow best management practices.

POLICY INCENTIVES: PERMIT INCENTIVES
Additional Development Bonus:
The green buildings that satisfy sustainable requirement, promote renewable energy will gain additional height, floor area or density.

Priority Green Expedited:
Available for all new construction projects. It will provide the developers faster building permit review and processing for projects that meet green building requirements with a focus on energy, water, resource conservation and indoor air quality.

Priority Green Facilitated:
A streamlined permitting process for master use permits in exchange for meeting the living building pilot or higher performing green building requirements.

Innovation Advisory Committee:
This group of experts will review energy-efficient proposals not covered in the technical codes and connect to the citizen lab to review detailed green building proposals.

STRATEGY 6: GREEN BUILDINGS

Residential Deconstruction:
Deconstruction is taking apart a building in order to save the maximum amount of reusable building materials. A residential deconstruction permit may allow developers to begin the process before a new building permit for the site is issued.

CASE STUDY

SOLAR AND LIVING ROOF - SAN FRANCISCO, U.S.

Effective January 1st, 2017, San Francisco became the first U.S. city to mandate solar and living roofs on most new construction.[26] The city identified that the rooftop consists of more than 30% of its total land area, and such amount indicates a huge potential for sustainable strategies. To better implement this strategy, the city also released a manual for whoever is implementing the roof to have a reference. Not only does this manual include knowledge about the permitting process and code compliance, it also provides detailed guidelines for the implementation and construction for the roof, including but not limited to irrigation system, plants, and rooftop agriculture.

26. City and County of San Francisco. (2017). San Francisco Better Roofs. Retrieved from https://sfgov.org.

Other Better Roof Types

Cool Roofs
Cool roofs, also known as "white roofs" are covered or painted with a material that reflects more of the sun's energy back into the atmosphere. These roofs are effective at cooling the building during summer months, and helping to reduce the urban heat island effect, which is partially caused by the absorption of heat by urban surfaces. White roofs are mandated for some types of new construction by the 2014 California Building Code.

Solar Roofs
Solar roofs utilize rooftop space for renewable energy production or hot water heating. Solar photovoltaic panels convert the sun's light into electricity, while solar thermal panels use sunlight to heat water for domestic use. When combined with living roofs, solar panels work more efficiently[1](due to lower rooftop temperatures) while reducing heat stress on plants by providing shading.

Blue Roofs
Blue roofs are composed of gravel or open trays which are designed to retain and slowly release the maximum amount of stormwater. New York City's Department of Environmental Protection has experimented extensively with blue roofs and found them to be effective at reducing the peak runoff from a roof during a storm event[2].

Usable Open Space
Usable open space is composed of an outdoor area designed for outdoor living, recreation or landscaping. This open space can include areas on decks, balconies, porches and roofs. Usable open space is often required in residential buildings in order to allow residents access to light and air. In commercial zoning districts, privately-owned public open spaces (POPOS) are sometimes located on rooftops, but are accessible to the public.

Living roof with solar system in San Francisco.
City and County of San Francisco. (2017). San Francisco Better Roofs. Retrieved from https://sfgov.org.

The Living Roof Manual of San Francisco provides comprehensive and practical knowledge for people who are implementing green roof. The left image shows a portion of this manual.

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27. Bullitt Center. (n.d.). Better, Faster, More: Toward Sustainable Cities. Retrieved from http://www.bullittcenter.org.

ENERGY AND CARBON NEUTRAL BUILDING - SEATTLE, U.S.

The Bullitt Center, a six-story, 52K square-foot office building designed to last for 250 years, opened in 2013.[27] The Bullitt Center employs innovative and novel practices for water, electricity and heating to be energy and carbon neutral. 14,000 square feet of rooftop solar panels produces more than 230,000-kilowatt hours of energy annually. The heat pump system takes solar heat amassed in the ground from hot summer days and transfers it back into the building during the winter. Holes on the roof of the building allow for rainwater to be collected, which is then reused for the building's needs. The large water tank in the basement can hold up to 56,000 gallons of water, even though only 500 gallons is needed for daily consumption. The building also has the world's only six-story composting toilets system, which transforms human waste into fertilizer.

Raiwater and greywater systems of Bullitt Center. Bullitt Center. Retrieved from http://www.bullittcenter.org.

Sunset in Madrid city center | Shreya Ghoshal

EPILOGUE

In summary, top down actions have led to a proposal by DCN that does not truly integrate any public feedback. Our site is a space caught in the crossfire of a 26-year long deliberation process, and the current plan does not afford space for diverse connections within, across, and beyond the site, nor does it integrate mixed use and multi-scalar design in a way that addresses the multiple voices and stakeholders.

The plan as it stands today invokes images of a generic large-scale development that could be anywhere in the world.

This stands in stark contrast with the energy and innovative spirit of the 15M movement, which demonstrated Madrid's commitment to challenging the ways in which cities have been developed in the past.

In this context, our site has represented an important opportunity to reconsider how we plan and develop cities to ensure that the values of citizens are prioritized. Cities are home to a diverse group of people who rarely agree with each other. In planning we often focus on how these differences divide us and cause conflict.

But in tackling these challenges together, there is also an opportunity to build community coalitions and create a shared sense of agency and belonging.

We, as a studio, are challenging DCN to be better about integrating the built environment with the social fabric, especially in the wake of the successful mass self-organization by different communities in Madrid during the 15M movement.

Heading towards farther places. | Chongyuan Wang