Market / Park — An architectural and public policy proposal that seeks to transform existing urban infrastructural problems into major public amenities. The Market / Park model capitalizes on the current economic climate to leverage private development interests towards the public good. As both a node and a link, Market / Park improves quality of life in its immediate neighborhood while also strengthening the regional farming community.

The incredible network of transportation infrastructure that connects America’s cities also harshly defines the experience of their inhabitants. In addition to highways, American city dwellers encounter bridges, tunnels, and trenches as well as railroads, marine terminals, and industrial infrastructure. Such elements often obstruct or even endanger pedestrian and bicycle traffic and inhibit the growth and vibrancy of adjacent neighborhoods.

Yet these pieces of infrastructure are fundamental to the society that has grown up around them, regardless of how they may depreciate our quality of life. Market / Park proposes the reinvention of one-dimensional infrastructure, turning what are now deterrents of public culture into magnets for civic life. As a hybrid infrastructural typology that unites social, economic, and environmental well-being into a mutually-beneficial solution, Market / Park stimulates both immediate and sustained improvement in American cities.

Market / Park was conceived in response to the specific problems of the Brooklyn-Battery Tunnel entrance in Lower Manhattan. We are interested in developing our design with research and additional case studies for serial implementation.
Over 9,000 feet in length, the Brooklyn-Battery Tunnel is the longest underwater vehicular tunnel in North America. Since its completion in 1950, the tunnel approach has figured a major void in Lower Manhattan. Pedestrian circulation is difficult, even hazardous. Tunnel traffic pours noise and noxious pollutants into the neighborhood. The trench itself remains a major physical obstacle, separating the Financial District, Battery Park City, Battery Park, and the World Trade Center. In a large part, due to the Tunnel operation, an entire Lower Manhattan neighborhood called Greenwich South is underutilized, its properties undervalued.

During a study of Greenwich South, we took a hard look at the Brooklyn Battery Tunnel entrance conditions. With a simple, strategic insertion over the Tunnel, we saw an opportunity to adapt this existing piece of one-dimensional infrastructure to the pedestrian scale. We introduced a park to the deck. Then we added a market to the park. Grafting this attractive destination over the Brooklyn-Battery Tunnel reverses the existing conditions. Not only does Market / Park dramatically improve pedestrian circulation, it acts as a magnet for public activity.
Infrastructure = Amenity

In the case of the Brooklyn-Battery Tunnel, Market/Park delivers two invaluable amenities to a challenged neighborhood while also resolving critical pedestrian circulation problems. Infrastructure has traditionally been understood as those physical structures that support the city by enabling flows of power, water, people, food, and waste. This makes infrastructure inherently public. But rarely has American infrastructure been designed to engage the human scale. Market/Park argues that American infrastructure can be readily hybridized for varying scales of use.
Good Food is Good for Cities

The introduction of a permanent farmers market does more than create a new landmark: it transforms the social space of a city and the surrounding region.

People interact over food. Whether it’s comparing the ripeness of a melon with a stranger in a grocery store, chatting with a co-worker over a sandwich, or just an informal exchange between customer and butcher, food brings people together. As a platform for this kind of social interaction, Market / Park is a piece of social infrastructure. It is the ideal place to promote sustainable practices, such as composting, new recycling and efficiency initiatives.

Farmers markets are more unique still. Regional flows of food, waste, and capital interface at a farmer’s market. They facilitate eating locally, strengthening not only the gastronomic but also the environmental and economic quality of the region. Market / Park serves as a hub for a burgeoning regional agricultural community, allowing New Yorkers to meet the farmers who grow their food, and providing farmers with a dedicate venue to sell their products.
Traffic streams along beneath the Brooklyn-Battery Tunnel's Market / Park. Underfoot, the original infrastructure continues its work while above ground are the market itself, the landscaped park, and the network of pathways carrying pedestrians to adjacent city streets.

We conceive of Market / Park as a space frame built up from a concrete deck in order to create a flexible, sustainable space within infrastructure. In our original case study scenario, Market / Park spans the Brooklyn-Battery Tunnel trench. We see the space frame as being optimized for seasonal performance. For example, a southern-oriented louver-like roof structure and operable windows allow the building to be passively heated and cooled year-round. Concrete engineered to absorb carbon monoxide is used for the deck, allowing the new construction to act as a scrubber for all traffic entering and leaving the Tunnel. Landscaping in the park buffers noise pollution and filters pollutants from vehicular exhaust.

In serial application, Market / Park's design and construction will necessarily respond to unique conditions of the given site. Yet the mere act of creating a new open space with embedded social networks elevates the quality of life and improves the performance of the urban fabric. This is the kind of rich matrix upon which community activism and sustainability movements can capitalize.
How Do We Pay For It?

The Market / Park espouses an innovative economic model that invests in the future for near- and long-term benefit to both the public and private sectors. Here’s how it works:

First, the void of an infrastructural trench represents potential transferable rights for future sale and development. In densely populated areas, these air rights embody great potential value.

Next, these potential development rights could be auctioned to the highest bidder or bidders to fund the immediate construction of a deck and Market / Park space frame.

While the public benefits in the short term, investors can benefit in the future by re-selling or utilizing these development rights themselves when financial markets turn. The public amenity and open space of the Market / Park increase the value of adjacent properties, further raising the value of the development rights.

If the air rights are eventually sold, investors collect a significant return on their initial investment. But the financing of the gain is structured such that the public benefits, too: the initial 8% of the return goes solely to the investor; thereafter, of the remaining return, 20% goes to the city, earmarked for public projects and the upkeep of the original infrastructure, the Market / Park deck and spaceframe, and the programs house therein.

To encourage new public spaces and amenities, cities have leveraged air rights incentives for decades. The linked development of both public and private realms will define the future of American infrastructure. The Market / Park model could be applied successfully to pieces of problematic infrastructure throughout the city, wherever potential development exists. This ensures that any expansion of the urban fabric will include public amenities.
Stage 2: Design Development

The Brooklyn-Battery Tunnel Market / Park demonstrates just one way that this hybrid model for infrastructure could be realized as a productive force in the social, physical and economic development of a city. Further work on Market / Park for serial deployment at multiple sites will refine the concept for public presentation.

If selected for the competition’s Design Development Stage, our work will take two complementary tracks, research and test cases.

The research track will work to substantiate and develop the model with expanded research and work with leading consultants in five key areas: Food, Sustainability, Financing, Structure, and Operation/Maintenance/Governance. Through this research, we will investigate the social, geographic, political and tectonic variables impacting our model of infrastructure as public amenity.

Simultaneously, we will explore the development of the Market / Park model in two well-known development sites in New York City: the Atlantic Yards site in Brooklyn and the Hudson Yards site in Manhattan. Both are the scenes of failed boom era mega-development projects. We have selected these sites because of widespread familiarity with them. Our work with the case studies will present Market / Park as a contrasting development strategy. We will propose site-specific programs tailored for both neighborhoods. While a farmers market seems to be ideal for all neighborhoods in New York City, there may be alternative or additional programs to install in our flexible, sustainable space inside infrastructure.

This approach is a feed-forward loop, where knowledge gained through the application of the model to new sites will inform new sets of questions and areas of inquiry. Meanwhile, the nuts-and-bolts research on Market / Park’s implementation will introduce new constraints and demands into our design.
Research

Our research will begin by addressing the following key questions:

**FOOD**
*Potential Consultant: Robert LaValva, New Amsterdam Market*
- How can the Market / Park best be leveraged as a productive node to connect urban residents with locally-farmed and produced food products?
- Given local climate and agricultural conditions, is 365-days-of-the-year operation feasible?

**SUSTAINABILITY**
*Potential Consultant: David White, DCW Energy Consultants*
- How can the Market / Park be systematically designed so that it takes best advantage of form, materials, orientation, and infrastructural flows to be both internally and externally sustainable?
- Is there an opportunity to explore the Market/Park as a node for composting and waste-recycling to improve sustainability practices throughout the city?

**FINANCING + PUBLIC POLICY**
*Potential Consultant: James Lima, HR&A Advisors*
- How can the schematic financing structure put forth here be expanded and substantiated?
- Who are the key players that would participate in this type of financing and what are the roles of each?

**STRUCTURE**
*Potential Consultant: Guy Nordenson, Structural Engineer*
- How can the spanning structure be optimized for minimal cost and maximum capacity?
- How can the system be developed for serial application?

**OPERATION / MAINTENANCE / GOVERNANCE**
*Potential Consultant: Jennifer Falk, Union Square Partnership*
- What are the key issues at hand related to the long-term maintenance of such a large public amenity?

Two Case Studies

Two former rail infrastructure sites in New York City are well known for their mega-development proposals. These projects would have invested vast private wealth to create high-rise residential and commercial office towers. But these sites are also especially well-suited for Market / Park. We will tailor our concept to each of these sites as a demonstration of the value Market / Park might deliver in contrast.

**HUDSON YARDS, NEW YORK, NY**
*Site Overview:* Hudson Yards is a vast, undeveloped 360-acre site in Manhattan, bounded roughly by West 42nd Street and West 30th Street, Eighth Avenue and the Hudson River. In the wake of several failed attempts to develop this mega-site with public funding, bids were solicited from developer-bank teams for the air rights to the railroad yards. The $15 billion project was indefinitely postponed in early 2009.

*Market / Park Goals:* In this tabula-rasa site on the edge of the island, a large (approximately 25-acre) Market / Park should be developed as a magnet of activity and seed of future development.

**ATLANTIC YARDS, BROOKLYN, NY**
*Site Overview:* Atlantic Yards is a 22-acre site at the nexus of four Brooklyn neighborhoods (Prospect Heights, Fort Green, Park Slope, and Boerum Hill). The embattled $4.9 billion development project included plans for a mixed-use commercial and residential project and basketball stadium.

*Market / Park Goals:* In this highly-contested site above one of New York’s major transit hubs, a small (approximately 10-acre) Market / Park should be developed as a major urban node—linking together the urban fabric and creating a much-needed open space.

WPA 2.0—For November 10, 2009

Design Development for Market / Park will produce a multimedia overview of the three case study sites—Brooklyn Battery Tunnel, the Atlantic Yards, and the Hudson Yards. We will present key issues for design and construction, its day-to-day operation, and the novel financial model that might make Market / Park a reality. We aim to promote multifunctional infrastructure and a development model that elevates the value of our physical and social world.