New Vision for Transportation is Key to Development
by Lou Venech

The most important insight of the transportation team came during the first hour, when Dutch participants stressed that success in implementing a sustainable vision for waterfront redevelopment depended largely on starting with a multi-modal transportation program as the foundation for redevelopment planning.

"What transportation program was envisioned for the area?" Pex Langenberg of the Dutch Ministry of Transportation, Public Works, and Water Management wanted to know. New York team members explained that many projects and plans were underway, but that transportation agencies typically found themselves following, rather than leading, decisions about major development plans in the United States.

"In the Netherlands, we develop the strategic transportation framework with or even ahead of the specific development plans," according continued on page 6

Environmental sustainability became a common ideal underlying the themes of economic development, transportation, and land and water use planning at the Brooklyn-Rotterdam Waterfront Exchange.

Linking the blue and the green networks: A shared vision quickly emerged from the team of expert environmental professionals, including engineers, planners and architects that environmental sustainability along the SW Brooklyn waterfront will be achieved by linking the “blue network” with the “green network,” or water with land. In the heyday of the maritime industry, the area was defined by this link to the water. However, as the shipping activity that once crowded the harbor shifted away, parts of the waterfront were left to dilapidate.

The opportunity that lies ahead is to once again connect blue and green, to create a welcoming waterfront to bring residents and visitors back to the water.

In order to achieve this goal, the environmental quality of the land continued on page 4
The Regional Economic Team was tasked with the job of identifying economic development opportunities that would be relevant and beneficial to the SW Brooklyn waterfront and its adjacent communities.

The team’s deliberations started by looking at SW Brooklyn’s assets and identifying its strengths. It concluded that the key asset of the area is SW Brooklyn’s location at the heart of a great metropolis, surrounded by a vibrant and diverse regional economy with significant connections to commerce, retail, tourism and entertainment sectors. Other strengths are its residential communities, many huge warehouses, affordable space, and good marine and rail freight handling facilities. While these are significant strengths indeed, their potential has not been fully realized.

The team held extensive discussions about what direction to follow for the economic proposition and reviewed many potential approaches to the future of the area. The main directions considered were prospects for large-scale container shipping, development potential for creative industries, and requirements for a possible innovative green and clean recycling and energy infrastructure. The team felt that all three development directions could be beneficial for the surrounding neighborhoods as well as the larger New York area. But the team was unsure if the infrastructure of the area would be able to support large-scale container handling.

Guided by the experiences of Rotterdam, in particular the recent development at Stadshavens where the formation of “Clean Tech Delta” kick-started the transformation of the Vierhavens area, the team concluded that an economic proposition in the form of “Green Tech Brooklyn” had the best chance to deliver a viable economic future for the area and its surrounding neighborhoods.

Green Tech Brooklyn would address New York’s regional future needs including clean energy, dealing with climate change and, most importantly, the need to recycle and reuse waste. The team emphasized the need to enhance transportation infrastructure (in particular, water-in/water-out) and highlighted opportunities for using available commercial space and sites as commercial incubators and start-up spaces, including for light manufacturing and creative industries.

In terms of the Road Map for implementation of the economic proposition, the team identified the need to build partnerships across the whole platform of stakeholders. Government organizations at city, state and federal levels have to work with community leaders, technical innovators, private companies, and educational institutions. From the ‘lessons learned’ in Rotterdam, the team suggests building an organization that is small, flexible and strategic. The team also considers it important to start early with the implementation of pilot projects; it encourages the involved parties not to wait until all problems are resolved, but to develop and test prototypes almost from Day One.

“Water-in/water-out” means bringing goods in and shipping them out by water, rather than by rail or truck.

From Container Port to Cleancycling

by Bill Ellis and Luc Vrolijks

Dutch Urban Solution for a Brooklyn Waterfront

by Luc Vrolijks

As a Dutch urban designer who is based in New York, I have always had a keen interest in the SW Brooklyn waterfront. I got to know New York through bicycle trips, and I liked the wide-open views - "low skies" - we say in Dutch - the massive waterfront buildings, the clear skies and the occasional view of Manhattan in the background, so close and yet so far. And I was surprised how underutilized the waterfront was. Despite the big chunky buildings suitable for just about every use, not very much seemed to be happening in the area. Even now that I understand the complexities of New York waterfront development better, I am surprised at how little of the potential of the area is as yet realized.

So I was very keen to be part of a Dutch-American team to think about the area’s future. In my Dutch planning practice I have always worked on the regeneration of waterfronts, and industrial not-working-so-well-anymore waterfronts are my favorite places. I see them as a huge potential for their cities, almost as a promise that new and better futures lie within the boundary of the cities. We came up with a proposition that is very close to the Rotterdam Stadshavens “Clean Tech Delta” concept. It is for a working waterfront, focusing on innovation for clean recycling and clean and renewable energy for 21st century New York. We termed it “Green Tech Brooklyn” and the proposal suggests that Red Hook develops into innovative mixed-use urban laboratory and that the Sunset Park waterfront becomes the New York center for cleancycling.

To me, “Green Tech Brooklyn” may well be the right direction for two main reasons. First, I think it is good for this particular waterfront to move away from a reliance on residential development as the ‘savior’ for waterfronts. In the case of the Netherlands, particularly in Amsterdam and Rotterdam, regeneration used to consist primarily of the conversion of industrial harbor areas into prime waterfront real estate for residences. It took a while, but recent proposals have broadened, also addressing the need to deliver jobs and to innovate the urban economy. That is a positive development, and one that also fits the SW Brooklyn context.

The second reason I think that “Green Tech Brooklyn” will be good for New York is that it is an economic proposition that looks forward rather than backward. One of the key lessons the Dutch harbor regeneration specialists have learned over the last decades is that most attempts at keeping ailing industries alive against the economic tide can only be successful if the industries transform thoroughly.

I was surprised by the insistence in some of the discussions to try to keep distribution logistics in the area, although the scale of the area - and the employment benefits for that matter - are clearly limited. It seems to me that proposing large scale logistics as a future for the area would be the wrong way. “Green Tech Brooklyn” is the more viable option; it looks ahead delivering business opportunities and jobs that suit the area and its future.
Waterfront Gems
continued from page 1

Erie Basin is a unique area of some 90 acres (36.4 hectares) of water situated at a key location in SW Brooklyn between Red Hook and Sunset Park. With the skyline of Manhattan and downtown Brooklyn as a backdrop, it offers one-of-a-kind possibilities for attractive developments that respond to both the city's housing needs, as well as promoting public awareness by showcasing New York City's sustainable policy.

Due to the unpredictability of the effects of climate change, normal land use or landfill programs are hardly sustainable solutions to avoid the problem, but living 10ft above the water certainly spoils the special attraction that contact with the water has in terms of living quality. Direct experience of the water is a potential waiting to be utilized: boating, canoeing, and lounging on a terrace at the waterfront. Using the water could provide unique selling points for branding the Erie Basin development.

The true significance of such a floating development, however, would be its environmental potential. Imagine a floating development where school buses from all over the country would come to see about climate change and NY's solutions to deal with that change. People would come to learn about taking responsibilities for preventing climate change by seeing the necessity of adapting our built environment to rising water levels, as well as solutions to do so. And all of this is outside with the water right there at your fingertips, not framed in a slideshow under the protective roofs of a dusty museum.

Floating developments could consist of walkways, parking garages and even roads, ranging in total size from 500,000 to approximately 2,000,000 ft² (185,806 m²). On top of these structures apartment buildings, single houses, offices, and leisure up to 5 stories high can be realized, all exactly the same way as usual in Brooklyn and according to actual demand. All designed based on technology that is tested and approved by certification institutions on Marine Safety with guaranteed insurance and mortgage possibilities.

Currently, the world's largest development of this kind is the project called "The New Water" in a former greenhouse area near Rotterdam, the Netherlands. In this high level development, a total of 1,200 houses will be built within 2 to 8 years, of which some 600 will be floating. Going even another step further, the Erie Basin project could be fully self-supporting, meaning that all power, clean water and climate control utilities are fully provided for within the developments themselves, without needing additional external resources. Electrical power can be generated using tidal energy; heating and cooling by means of heat exchanging systems using the surrounding water; and potable water can be made on the spot by desalination.

By combining the living quality of the waterfront with the latest environmentally-friendly technologies, Erie Basin could be a world leading education center demonstrating sustainable solutions for adapting to climate change, as well as actively contributing to preventing further climate change.

Java Island in Amsterdam is an example of how Erie Basin could look and feel (Photo by Waterstudio.NL).

Floating apartment complex in "The New Water" (Design & image by Waterstudio.NL)

As a conclusion, it is clear that there is high potential for the development of the Atlantic Basin area, with a focus on tourism, both international and local. The competitive edge of this area is the opportunity to use the water at the waterfront and the beautiful views from the site, providing a "Door to Brooklyn" and a gateway to New York.

Michael de Jong is a Senior Project Manager at DHV Consultancy and Engineering based at Delta University of Technology.

Waterfront Gems

Erie Basin showcases sustainability
by Rolf Peters

Floating an idea: Erie Basin showcases sustainability

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New Blue/Green Life in SW Brooklyn

continued from page 1

and water must be restored. Residential and recreational opportunities will need to be created in formerly industrial areas while spurring innovation and jobs in existing and new industrial facilities.

Water quality has improved considerably in recent decades and will continue to improve with added investments to reduce sewage flows along the waterfront and assist with restoration of the heavily polluted Gowanus Canal. Remedial activities will also allow new land uses where pollution from industrial activities still lingers, such as the Bush Terminal Piers, some of which are proposed to become a new waterfront park.

Creating new habitat for plants and animals: In addition to current and planned remediation, restoring the natural ecological functions of the waterfront can be achieved through eco-engineering concepts introducing new plant and animal life. Species can be introduced to improve water quality and provide habitat for the rich biodiversity of the New York harbor between and under piers, and attached to quay walls or other structures. A shallow area just south of Red Hook and west of Sunset Park, known as the Bay Ridge Flats, may also provide a base for creation of a new reef. "Floating wetlands" can provide an additional platform for wetland growth at the surface of the water, supplementing new growth below. Recent initiatives also provide opportunities for new livelihood programs making use of recycled materials.

The restored areas and ecological initiatives will become an attraction, beckoning people to the waterfront for wildlife viewing and onto the water for an even closer perspective by canoe or kayak. These new offshore habitats have the added benefit of providing protection to landward areas from the direct effects of storm waves, which may impact the waterfront more frequently as climate change increases vulnerability to sea level rise and extreme weather.

Easing the transition from land to water: Traditionally, New York City has created "hard" shorelines, such as bulkheads, at the waterfront in order to protect buildings and infrastructure from storm-induced flooding. This new "soft" approach creates a more natural buffer between land and water. Additional buffering will be created along the waterfront by enhancing the land's capacity to absorb and drain water. Areas that are often covered with impervious surfaces, such as parking lots, roads, and trails, can become permeable with the use of innovative materials and design techniques. Trees, shrubs, and grasses can also absorb water as they enhance the appearance of the shoreline and provides additional wildlife habitat.

These features can gradually transition to the aquatic vegetation along the waterfront and in the water by introducing plant species that will be resilient to salinity from occasional storm and tidal flooding. By blurring distinctions between land and water, flood waters will more easily recede. Any development in the flood zone should be built or retrofitted to withstand occasional flooding while minimizing impacts on the surrounding environment when the water recedes.

Bringing people to the revitalized waterfront: Development in SW Brooklyn will complement the region's sustainability goals. By generating wind, solar, and geothermal power onsite, industry can move toward achieving carbon neutrality. There are numerous opportunities for energy efficiency, including capturing heat generated by industry for use in residences and even swimming pools. Furthermore, the community can generate its own food in greenhouses and fish farms; the large warehouses of SW Brooklyn can provide ample space for agriculture and aquaculture while using electricity and heat from local sources. These environments can even be used to generate algae for biofuel and oysters that can be transplanted to the Harbor.

To capture the maritime past, present, and future of SW Brooklyn and attract more residents and visitors, the waterfront will be lined with educational features that highlight the area's history as well as the vision for a sustainable future. Visitors will be guided to sites of historical significance and descriptions of the restoration work that brought new life and prosperity. In addition to markers along the waterfront, this maritime center, nestled within the sustainable technology and climate innovation lab, will become a launching point for a day at the water's edge. The proposed Brooklyn Waterfront Greenway will provide a link from neighboring communities to each other and to the water, and create a network of destinations ranging from parks to historical sites to sustainability demonstration projects. Co-locating a network of permeable surfaces and vegetation along the Greenway will help capture stormwater and make it more green and enjoyable. In addition, roads to and from SW Brooklyn can utilize similar practices to absorb water and create greenery. Visitors coming by water can also arrive in an environmentally sustainable fashion using boats powered by renewable energy sources.

Ultimately, SW Brooklyn can embrace its past while becoming a showcase of sustainability for New York City and the world. In keeping with the region's maritime history, the water can once again become a part of the land and life of SW Brooklyn.

Angela Licata is Deputy Commissioner of Environmental Planning & Assessment at the New York City Department of Environmental Protection; Tjitte Nauta is an environmental planner at Delfina; Alan Cohn is Director of Climate Change Planning at the New York City Department of Environmental Protection.

SUSTAINING THE ENVIRONMENT

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Industrial heat for recreational use (Image by DeUrbansten, Gemeenteweken en APPM)

Artist impression of piles in substrate (by RWS South Holland)

Adapting green building concepts to Sunset Park (Artist impression by DSA and JK Architecture)
BEING PROACTIVE ABOUT CLIMATE CHANGE

Waterproofing Brooklyn

continued from page 1

By proactively redeveloping SW Brooklyn’s waterfront into climate-resilient communities, this green innovation will also stimulate the local economy. These climate resilient communities will be able to recover quickly from climate impacts while maintaining their economic and social viability.

Within SW Brooklyn, three remarkable areas can be distinguished: Gowanus Canal, Red Hook and Sunset Park. These areas were the maritime port industrial backbone of the greater New York area throughout the 19th and 20th centuries. Containerized shipping has resulted in a fundamental shift to these areas’ economies, making them the perfect place to integrate a green industry into the existing fabric of the neighborhoods.

The climate vulnerabilities in Red Hook, Gowanus and Sunset Park include increased precipitation and temperature, and flooding due to sea level rise and storm surge. Of particular concern is toxic runoff when industrial neighborhoods are flooded. Flooding can also cause considerable damage to existing housing stock and industrial buildings and infrastructure. Additionally, portions of the waterfront are on landfill, and flooding may cause increased degradation of waterfront infrastructure. Increased rainfall intensity can impair stormwater systems and cause additional sustained flooding following a rain event. With higher temperatures, these neighborhoods will experience increased heat stressors due to heat island effect and lack of green space.

Each area of SW Brooklyn provides different and unique opportunities for climate resilience and showcasing and producing strategies for adaptation. These details are discussed below: Representatives from the Netherlands brought their expertise and real life experiences on how climate adaptation can transform neighborhoods.

Gowanus Area: This area divides two residential neighborhoods and is defined by its waterway, the Gowanus Canal, which has recently become an EPA Superfund National Priorities List site. The opportunities for climate change adaptation include a small flood barrier (vertical lifting gate type), suitable also as a bridge at the mouth of the canal, which can be an important connection between the Gowanus and Sunset Park communities. The green spaces along the Canal can be formed as a linear park and will serve as a neighborhood-friendly storm water retention and treatment facility. Due to the low elevation of the area surrounding the Canal, the existing housing stock will be retrofitted and flood proofed.

Red Hook: The Red Hook area’s vulnerability to flooding creates a storm water storage areas that double as ornamental water parks and provide environmental education to youngsters in the area. In Rotterdam, a similar innovation lab has been created to revitalize the local community at the RDM Campus in Stadhavens, or City Harbors, a redeveloped, former dock area. RDM now stands for “Research, Design and Manufacturing.” Rotterdam University for Applied Sciences is developing RDM, with support from the City of Rotterdam and the Port of Rotterdam, as an innovation lab for “moving, powering and building” in cooperation with innovative, young and small companies. Workforce education for “blue collar” scholars can contribute to innovations, from new innovative water transport, floating homes and hydrogen-driven, green racing cars in the reconstructed old warehouses and dock buildings. In Red Hook, a comparable campus, the heart of the Climate Innovation Lab, could be developed.

Sunset Park: Sunset Park, with its existing industrial structure, is an ideal location to provide manufacturing support for the Climate Innovation Lab. Additionally, this neighborhood could benefit from the existing highway becoming a super levee to protect the neighborhood from flooding. This super levee with the highway hidden inside could provide needed green space and, acting like a bridge, would allow safer access to the waterfront for neighborhood residents and visitors. The levee is not a barrier but an important connection between two areas and invites residents and tourists alike to walk along its crest and enjoy the views of the skyline.

In Rotterdam, these strategies for climate resilience are already under construction or in place. People from the local community at the RDM campus and other nearby waterfronts study there, have their jobs here, enjoy the waterfront, use new public water transport, and visit recreational facilities in the lively surroundings of the campus that attract restaurants, bars and other facilities.

In Brooklyn, a similar transformation can happen where water retention basins are now water parks, super levees connect residents to the waterfront, and floating apartments have become the hottest real estate. Through knowledge sharing between Rotterdam and SW Brooklyn, these effective strategies can be integrated into a planning effort that will protect against the inevitable effects of climate change while preserving and stimulating viable communities.

Proponents of this plan hope to show how SW Brooklyn can become the first planned waterfront climate resilient community.

Resources

Alan Cohn
Dennis Lombardi
Christopher Zeppe
Multi-Modal Mobility by Lou Venech

Achieving a successful and sustainable future for the SW Brooklyn waterfront depends on developing improved and carefully integrated multi-modal transportation connections. Transportation decision-makers must step up efforts to coordinate planning on separate projects and work together to create an interagency framework that can move people and goods effectively and efficiently. This in turn would help define the scope and limits of potential improvement projects.

Reflecting the Dutch experience, the Multi-Modal Transportation team reported that a comprehensive mobility strategy would include standards for sustainable transportation and would adapt multi-modal capacity to move people and goods. This in turn would help define the scope and limits of potential improvement projects.

Building on Historic Assets: SW Brooklyn presents an exciting combination of revitalizing commercial zones, diverse local businesses, historic working-waterfronts, and industrial properties that can be adapted for a wide range of uses. The area’s transportation assets include facilities vital to local and regional transportation today, and in the future. Economic investment in essential near-term reconstruction and consideration of replacing some segments as a long-term goal.

Other key transportation improvements include extension of a “greenway” for cyclists through the entire study area, modernization of freight rail car float service for cross-harbor movement and enhanced public access to working waterfront sites in Sunset Park. Plans to attract more diverse activities to the dense mix of uses already in SW Brooklyn presents real challenges to transportation agencies in safely and efficiently managing auto, truck, bus, transit, bicycle, and pedestrian needs.

The overall workshop’s vision for SW Brooklyn requires a transformative strategy for mobility of people and goods — introducing services that encourage shifting to a more sustainable mix of modes for commuter, recreational, and freight transportation.

The team identified four main layers for the mobility strategy (see Diagram). Each of these layers can provide both internal circulation within SW Brooklyn, and external links to major centers and neighboring areas.

INVESTING IN MULTI-MODAL TRANSPORTATION SYSTEMS

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Multi-modal framework also provides alternatives to auto and truck dependence than most parts of the region. Supporting the Overall SW Brooklyn Vision: Many details remain to be filled in, but the transportation team agreed that its conceptual strategy offered the capacity and flexibility to support the ambitious goals for economic and community benefits, sustainability, and management of climate-change impacts.

The major transportation corridors to and through the area are overlaid here. Black lines indicate the primary vehicular routes as well as the rail car float track and Bay Ridge rail line extending into Brooklyn. Red lines show the main routes for internal circulation parallel to the waterfront, and along the Brooklyn waterfront itself.

Rail freight transfer at the car float terminal, highlighted in brown, links the cross-harbor barge service with transfer inland as well as along the existing Avenue rail freight line to support the working waterfront. The planned Brooklyn Waterfront Greenway route promises attractive bicycle and pedestrian access throughout the area.

By deploying this range of transportation options across SW Brooklyn, it becomes possible to support a more intense and varied range of uses.

Within the study area, transportation planning for each redevelopment zone would depend on the access needs of the uses prioritized for each sub-area. For example, the vision emphasizes recreational uses at Brooklyn Bridge Park and nearby waterfront sites, supported with bikeway and pedestrian paths and ferry connections. To serve the educational complex and innovative manufacturing incubators in Red Hook, the network must deliver improved local circulation and an enhanced regional access by road, transit, and water. That should include adjacent vehicular connections to the BQE/Brooklyn-Battery Tunnel.

To support manufacturing and work-force access in Sunset Park, the mobility plan calls for enhanced access to the highway network, better truck routing through local streets, and expanded rail and waterborne goods movement to reduce truck dependence. Sunset Park needs improved pedestrian and local-transit access for residents working at industrial and waterfront job sites. Bush Terminal Pier Park also requires pedestrian and bus transit links to help residents safely across the transportation corridor and commercial zone between the community and the park.

New Vision from page 1

to Michiel Couperus, a transportation planner for Rotterdam Metropolitan. “Look at the economic, environmental, and community development goals set out for this Workshop; an integrated and co-ordinated transportation system is essential to achieve any of them, especially to meet standards of sustainability.”

The team worked together from this starting point. Key steps included an inventory of the existing transportation assets serving the area and several important — but largely uncoordinated — plans to upgrade them. How they might be integrated to support different needs and minimize conflict was considered, and the most sustainable options available to provide access for people and goods to this area was discussed.

In parallel with the other teams, a conceptual plan was developed for coordinated multi-modal transportation serving the SW Brooklyn waterfront that could deliver the services most critical to support the preferred mix of land uses and community needs at each location. The conceptual transportation plan also builds in flexibility to evolve as new land uses and new opportunities for improved regional access unfold over the next 20-30 years.

Lou Venech is the General Manager, Regional Transportation, at the Port Authority of New York & New Jersey.
Global Solutions / Local Innovations

By Hans Scheepmaker

If we look at things from a wider perspective, it might be justified to assume that the impact of the challenges facing us is so enormous that our society can solve them on its own. The climate and energy issues are now even more challenging, to some extent, we might even say that they are inextricably linked with the need for a shift in human society that needs to be made.

But these solutions have to be invented and implemented. The expected collaboration between delta’s main ports might be of great value in securing our future. However, we face the same challenges and we could greatly benefit from joining forces by working together on finding the right solutions.

There’s no doubt that the combination of global warming and the shortage in energy supply will drastically change the way the world works. Currently our economy is completely dependent on fossil fuels to generate energy. We have to learn to manufacture products, to transport products and people using electricity.

If we want to reduce the effects of climate change, we will have to fundamentally restructure our economy: reduce of CO2 emissions drastically, and also change the infrastructure to be effective enough in the long term.

So we will need to implement renewable energy, and there is no other way. We have to use low carbon (building) materials, create energy efficiency through smart buildings, design climate design proof constructions, and establish clean transportation systems. These are the key areas where a socially and economically sustainable society will be shaped. In order to make this happen we will have to make the right choices to install clean transport on a grand scale.

Rotterdam has set an ambition to become the most sustainable port in the world. The importance of our port for the Dutch economy and the contribution it makes to the economic competitiveness of the region is clear. This urgency is the reason that we are gathering knowledge institutes, the local and national government, the business community, and the public.

Therefore we have combined our resources and have jointly set up the Clean Tech Delta. The regional Green Deal for innovation and clean technology in the Rotterdam-Delft Delta has been established. The objective is to design and apply clean tech innovations in the fields of energy, water, mobility, and materials to create a sustainable and resilient delta.

The Clean Tech Delta aims to invigorate the region economically and socially, while offering sustainable and competitive solutions.

The lowest lying industrialized delta in Europe is called SW Brooklyn. The development and realization of clean tech solutions for the SW Brooklyn niche market is the focus of the Clean Tech Delta.

SW Brooklyn has the space available to make this happen: Statendam (City Harbours) is a 4,000 acres (1,600 hectares) area that will be employed as a testing ground for the application of clean tech solutions and will be made into a paragon of sustainable & climate proof urban regions.

Of course we realize that we can’t do this on our own. The exchange of expertise with other cities & regions throughout the world with similar ambitions is mandatory if we want to be successful. Finding the right solutions will require the collaboration of all the other local initiatives. SW Brooklyn might be one of these.

The Clean Tech Delta has confirmed that there is a common agenda and that there are many similarities between Statendam and SW Brooklyn. This has resulted in an economic proposition for SW Brooklyn that is comparable to the Clean Tech Delta. The workshops have provided the term “Green Tech Brooklyn”. This concept is explained further in the next section.

It is important that New Yorkers have acknowledged that clean tech innovation might be the first step in securing a sustainable future for the city. To coin a phrase, we may be living in the “green rush”. The limitless energy and vitality of New York are perhaps a common practice to the SW Brooklyn, which has the ambition to sustain the city will have to come up with new and innovative approaches to the challenges.

Hans Scheepmaker is Deputy Director and Area Development Manager for Statendam Rotterdam.

Economies of Scales by Michiel de Jong

Waterfronts appear in all shapes and sizes. This is particularly true for ‘old’ waterfront cities and makes modern day waterfront development a complex matter. Decision-makers and planners have to balance all the claims put on the waterfront, from large-scale port facilities and commercial developments to public parks. The right scale of development needs to be applied to each waterfront. Not to try to fit everything in the plan, but to dare to choose. In that aspect, the following might be concluded for the SW Brooklyn Waterfront:

1. The current scale of port function in SW Brooklyn is modest, compared to modern-day container port facilities. For instance, a new post-panamax container terminal with 2.5M TEU throughput would be more suitable for the adjacent community. Such a terminal would offer a large piece of the current Sunset Park waterfront and therefore significant investments for developing deep draft quay walls, extensive earth works, and transport infrastructure.

2. Large scale port facilities, such as the Suez Canal Container Terminal and shows how it would impact the Sunset Park waterfront.

3. Anticipating that such a terminal would employ up to 700 people, it’s not unlikely that new and innovative approaches to waterfront development and the utilization of container vessels, rather than adding value to the contents of the container. When containing the terminal, thousands of trucks dog the upland routes. Here that are adjacent to a low-scale residential community and not suited to receive such volumes. This alone will reduce the competitiveness of this terminal: other terminals in the port with better transportation connections will be able to operate more efficiently.

4. Finding niche segments along the waterfront would therefore be a more valuable proposition.

5. Nicole markets generally require larger numbers of skilled and dedicated labor than large container terminals.

6. Value-added activities often complement niche terminals.

7. Opportunities for joint use of the waterfront, including public access, open space, and tailored tourism industry and urban/leisure functions, since the waterfront area is not claimed by the “cleaning” industry. This is an industry with relatively high numbers of employees.

8. Diversification of port activities, including cargo commodities and niche activities, calls for more than container terminals alone. SW Brooklyn, due to its position in the port and city network, could offer this diversification.

One such niche was identified during the New York Workshop: the “clean-cy- cling” industry. This is an industry with relatively high numbers of employees. Facilities can be fed mostly by barge or rail carts. Products are produced and distributed in modern industrial facilities with low carbon footprint. Output products are delivered to a wide customer base both by truck, rail and barge. A similar niche could be the biotech industry creating clean tech.

The Rotterdam-Delft Delta is an inspiring example for other delta cities in the world. Rotterdam has set an ambition to be the “clean-tech delta.” This is an industry with relatively high numbers of employees. Facilities can be fed mostly by barge or rail carts. Products are produced and distributed in modern industrial facilities with low carbon footprint. Output products are delivered to a wide customer base both by truck, rail and barge. A similar niche could be the biotech industry creating clean tech.

Supporters include ARCADIS, Delft City Council, Delft University of Technology, DeltaX, Rotterdam City Council, and Rotterdam University.

Future of the South West Brooklyn Waterfront

by "Born in Brooklyn"

I was born in Brooklyn in 1949 and my Mom was born in Brooklyn in 1925. My grandfather ran his medical practice on the first floor of his home, as was a common prac-

tice by “family doctors” in those days. My uncle worked in the Navy Yard and many of his friends, and my grandfather’s ballroom was a favorite hang-
dling, as did many Brooklyn residents in those days. Most of them walked to the station, or took the bus, or used their bikes. It was much simpler and a return to the simplicity of those days is a nice thing to dream about. But the reality is that "the dreams that stuff is made from.”

There has been much talk over the last decade of trying to recreate this golden past by building mega-containerport in SW Brook-

lyn. It’s good to have a vision for the future, but it’s also important to do something to strive for. But, let’s face it folks, this is one vision that is not likely to happen. Too much has changed over the past 50 years, economically and structurally, in the shipping, inland transport and the distribution/logistics industries. Times have changed. Our streets, our neighborhoods, and our critical infrastructure in the neighborhoods are already too con-

gested. We don’t need 5,000 more trucks a day passing through SW Brooklyn.

Thus, there is a common agenda and that there are many similarities between Statendam and SW Brooklyn. This has resulted in an economic proposition for SW Brooklyn that is comparable to the Clean Tech Delta. The workshops have provided the term “Green Tech Brooklyn”. This concept is explained further in this next section.

It is important that New Yorkers have acknowledged that clean tech innovation might be the first step in securing a sustainable future for the city. To coin a phrase, we may be living in the “green rush”. The limitless energy and vitality of New York are perhaps a common practice to the SW Brooklyn, which has the ambition to sustain the city will have to come up with new and innovative approaches to the challenges.

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What is the Brooklyn-Rotterdam Waterfront Exchange?

During this time of urgent global economic and environmental challenges, a central question facing many port cities is how to combine economic development with environmental sustainability - a question with many facets from modernization of industry and innovations in international shipping to reconfiguration of transportation systems and mitigation of climate change. In response to this need, the City of Rotterdam, the Port Authority of New York & New Jersey, and Dutch Government jointly agreed to structure a cross-Atlantic cooperation to exchange waterfront expertise.

The Brooklyn-Rotterdam Waterfront Exchange is a forum for American and Dutch leaders and experts to share experiences, innovative solutions, new strategies, development models, and best practices about the potential of redeveloping port areas for new life. Some of the most strategically positioned waterfronts in many port cities are undergoing redevelopment. Among these districts in Brooklyn’s southwestern waterfront, located in the mouth of the New York harbor, and Rotterdam’s Stadshavens (City Harbors), being redeveloped as newer port areas move farther west into the North Sea.

The Exchange is taking place in both New York and Rotterdam and started with a 3½-day professional workshop from April 14 to 17, 2010 in New York. The first Workshop examined waterfront development in the context of SW Brooklyn with the goal of bringing together and growing cross-disciplinary knowledge about key challenges for port-related areas and applying international best practices to long-range decisions for SW Brooklyn. In June, policy-makers will spend 2½ days visiting the Netherlands to share expertise about public policies that have been instrumental in implementing innovative solutions in both cities. Stadshavens in Rotterdam will provide the counterpoint case study.

The ideas, images and materials generated by the New York Workshop are summarized in this edition of the newspaper. A similar newspaper will be produced after the Rotterdam Workshop and both will be edited into a publication in October or November 2010. The ultimate goal is to uncover concepts and solutions that result in world-class redevelopment of port-related areas in both New York and the Netherlands.

Along the way, we are generating a fresh and lively dialogue and helping forge international business relationships that will grow into meaningful long-term partnerships. The New York delegation in the first Workshop included representatives of both New York City and State public agencies that play major roles in shaping the waterfront - from the Port Authority of New York & New Jersey, Empire State Development Corporation and New York State Department of Environmental Conservation to the New York City Departments of City Planning, Economic Development, and Environmental Protection. In addition, there were leaders from SW Brooklyn, prominent New York non-profit organizations, and top professional consulting firms. From the Netherlands, we were honored to be joined by members of the Dutch Embassy, national government and City of Rotterdam, as well as civic leaders and professionals in architecture, landscape architecture, water management, civil engineering, transportation, and urban planning.

Together, we are exploring how the reshaping of outdated port-related areas can contribute to the economic prosperity and environmental sustainability of the surrounding metropolitan regions.

Bonnie A. Harken, AIA

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