

# Long Bridge Park Master Plan for Park and Recreation Facilities

Adopted 2004

Draft Revised March 16, 2013

with Project Background and Design Guidelines



# Credits

## **Arlington County Board:**

J. Walter Tejada, Chair  
Jay Fiset  
Libby Garvey  
Mary Hughes Hynes  
Christopher Zimmerman

## **Arlington County Manager:**

Barbara Donnellan

## **Department of Parks and Recreation Director:**

Jane Rudolph

## **County Staff:**

Erik Beach, Project Manager, DPR  
Wilfredo Calderon  
Robert Capper  
Deirdre Ehlen  
Ward Foley  
Lisa Grandle  
Joan Kelsch  
Kurt Louis  
George May  
Katherine Youngbluth

## **Consultants:**

Hughes Group Architects  
LSG  
Hargreaves Associates  
Barker Rinker Seacat  
Christopher Consultants  
CH2M HILL  
Kimley-Horn and Associates, Inc

## **Long Bridge Park Design Advisory Committee:**

Tobin Smith, Chair  
Carrie Johnson, Vice-Chair  
Christer Ahl  
Dean Amel  
Suzanne Bolton  
Eric Cassel  
Don Clarke  
Scott Dicke  
Peter Fallon  
Bill Gearhart  
Terri Prell  
Doug Ross  
Bonnie Ryan  
Ted Saks  
Alonzie Scott  
Anthony Taylor  
Nancy Weinberg

## **Photographs:**

JS - Jessi Snyder  
LW - Lloyd Wolf  
RF - Roger Foley

*An undertaking of this scope and duration is the work of many minds and hands. In addition to the current leadership listed, many others -- former Board members, County Managers, County staff, North Tract Task Force members, members of other advisory panels, and interested Arlingtonians -- have made significant contributions of time and talents to the creation of Long Bridge Park.*

## **Prepared by:**

Division of Planning, Design, and Development (PDD)  
Department of Parks and Recreation (DPR)  
Arlington County, Virginia



# Table of Contents

## A. Introduction

## B. Location and Site History

## C. Plans and Policies

1. Planning
2. County Board Actions
3. 2004 Master Plan for Park and Recreation Facilities
  - i. Adopted 2004 North Tract Master Plan Map
  - ii. Recreation Program
  - iii. Transportation and Parking
  - iv. General Policies and Phasing
  - v. Remediation
4. North Tract Special Planning District and Area Plan Study

## D. Planning and Key Steps Since 2004

1. History
2. Key Steps Since 2004

## E. 2013 Updated Master Plan for Park and Recreation Facilities

1. 2013 Long Bridge Park Master Plan Map
2. Changes in Site and Layout
3. Recreation Program
4. Transportation and Parking
5. General Policies
6. Phasing

## Appendices

1. Design Guidelines
2. Major Events in the History of Long Bridge Park
3. Site Assembly and Map
4. Constraints
5. Site Remediation
6. Parking Analysis



# A. Introduction

Long Bridge Park, Arlington County's award-winning new park, stands along the Potomac riverfront at the historic gateway between Virginia and the District of Columbia. Its 30-acre site, formerly an industrial brownfield, is being transformed into a model of environmentally sensitive recreational re-use. This document is intended to provide a summary of the project's vision and goals, a brief history of the park's development to date, and an overview of the 2004 adopted Master Plan and the 2013 revised Master Plan.

The Long Bridge Park project is a long-term undertaking. The site was first identified as a future park in the early 1990s. Land assembly and park planning began in 2001. The park's first phase opened in November 2011 with three large rectangular fields, green spaces, public art, and walking and biking paths with panoramic views of monumental Washington. Construction of the second phase, Arlington's first comprehensive aquatics, health and fitness center, is scheduled to start in fall 2013. Other planned indoor and outdoor elements are yet to come.

The conceptual framework for the park's development is derived from two documents, the North Tract Small Area Plan and the park's Master Plan. Since those plans were adopted in 2004, the park site has been enlarged and shifted northward through the exchange of County property between 6th and 10th Streets South for the former Twin Bridges Marriott site. The Master Plan has therefore been updated to include the refined site design and additional features made possible by that long-sought acquisition.

Because Phase 1 of Long Bridge Park has been developed, and Phase 2 (the first part of the Aquatics, Health & Fitness Facility) is in final design, the updated Master Plan has been augmented with design guidelines that summarize and illustrate the landscape and building design concepts and vocabulary employed so far. These guidelines should inform the work on future phases and promote the harmonious, sustainable, high-quality design for which the park has already been praised.

Brief background on the site and planning processes is also included for the benefit of future planners, managers, supporters and users of Long Bridge Park.

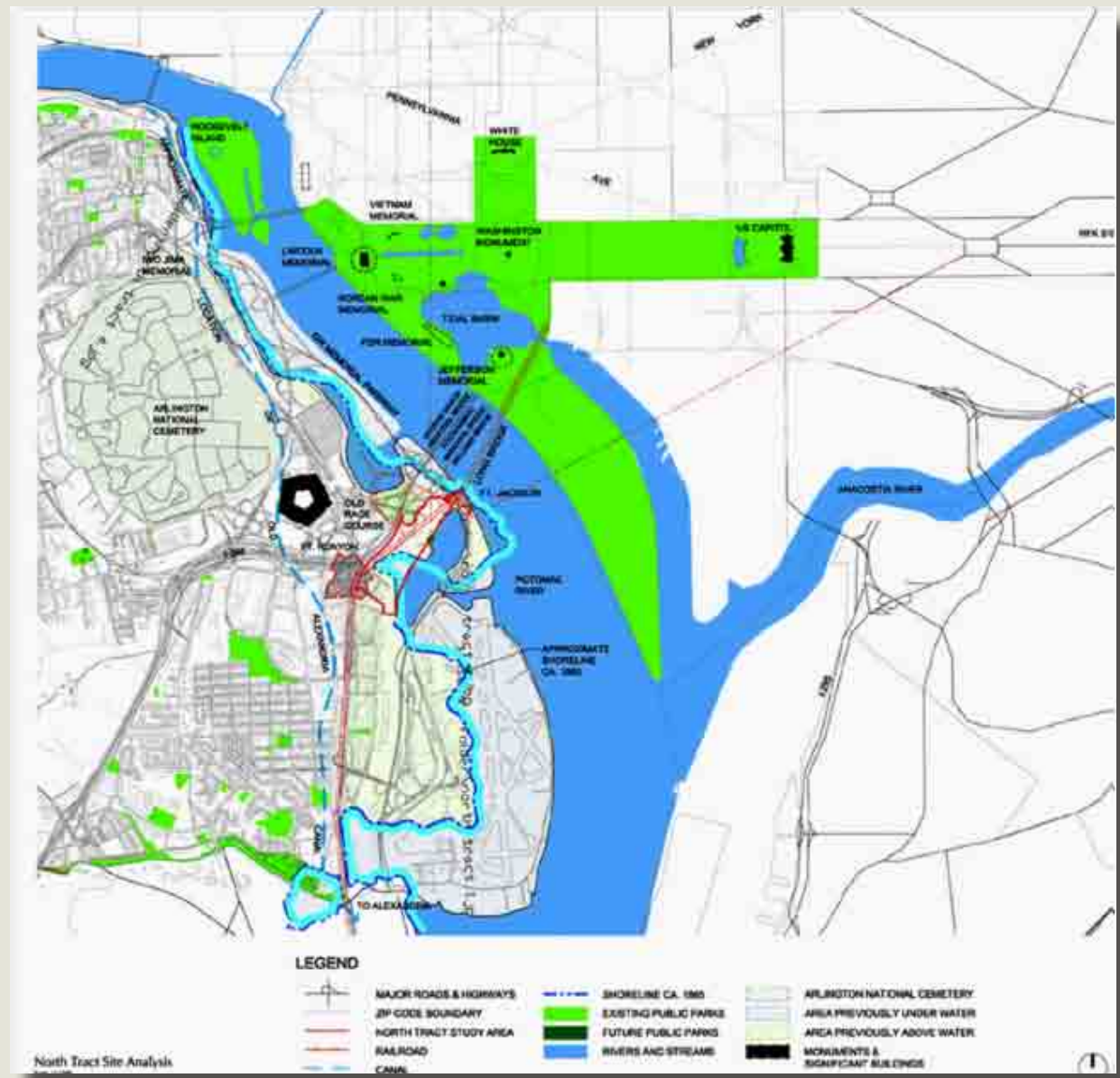


## B. Location and Site History

Long Bridge Park is located in the most heavily used passageway between Virginia and the District of Columbia, where the first Long Bridge spanned the Potomac River in 1809. The 30-acre site, 3,632 feet (or 0.7 mile) long, is sandwiched between the main north-south rail corridor and the elevated I-395/US 1 highway lanes. To its south is Crystal City; to the west, the Pentagon reservation; to the east, the Roaches Run Waterfowl Sanctuary and Reagan Washington National Airport; and to the north, the George Washington Memorial Parkway, the Potomac River and the monumental vistas of the nation's capital.

This riverfront retains few traces of the marshy shore that John Smith sailed past in 1608. It has been dredged, filled and reshaped numerous times by generations of transportation improvements, commercial and industrial activities, and large federal projects, notably construction of the George Washington Memorial Parkway and the Pentagon.

By the late-20th century, the area between the freeway and the railroad tracks, known as the North Tract, was a worn down commercial-industrial strip occupied by the Twin Bridges Marriott (demolished in 1990),



Location of Long Bridge Park and Major Landmarks

storage companies, warehouses, and environmentally damaging operations such as a service station, a concrete batch plant, parking lots, a trucking company and the Davis Industries scrap yard. Nonetheless, in 2001 the National Capital Planning Commission, noting the central location of the Twin Bridges property, called it “an important and highly visible site” for a future memorial or other public gathering place.

Reclamation of the area began in the early 1990s through a multi-party agreement to clean up the Davis site. As an adjunct to that, Arlington County and the R.F.&P. Railroad, then owner of most of the industrial area, agreed to allocate future development capacity to Potomac Yard in exchange for County acquisition of the railroad’s North Tract lands for environmentally protective recreational use. (For a full summary of site assembly, see Appendix 3.)



# C. Plans and Policies

## 1. Planning

The North Tract's potential as an important recreational asset was noted in the Open Spaces Master Plan in 1994. In May 2001 the County Board created the North Tract Task Force, comprised of representatives of key advisory commissions and nearby residents, to work with staff and consultants to analyze the property and its constraints, identify prime recreation needs and opportunities, and develop both a park master plan and redevelopment and transportation plans for the North Tract area overall.

The data collection, analysis and planning took two and a half years. Extensive community input was gleaned through more than fifty open meetings, three large public forums, surveys, and two work sessions with the County Board.

The Task Force's February 2004 report can be found on the County's website by searching for "Long Bridge Park".

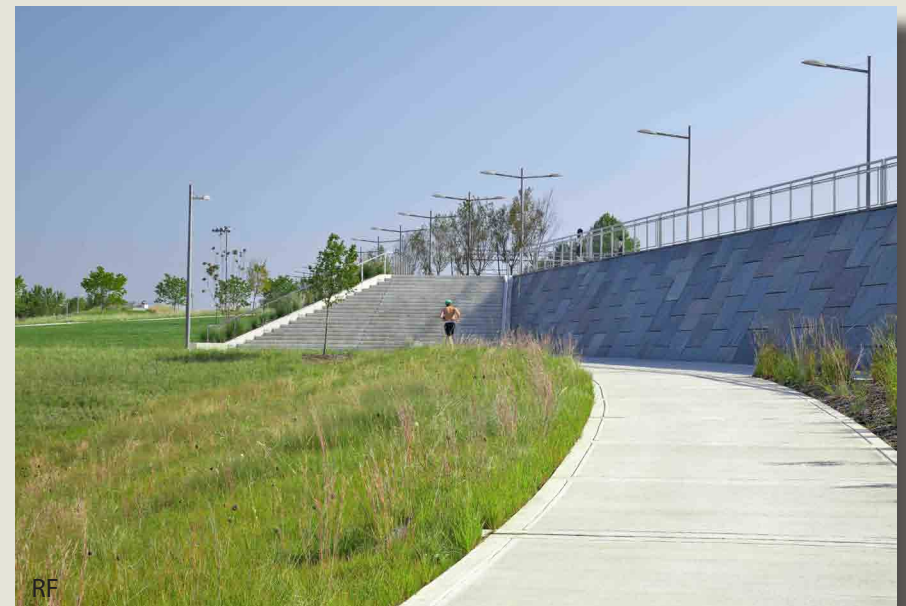
Key points included:

- Regarding site conditions, extensive testing identified a number of areas with soil contaminants, primarily lead, left by industrial operations and old fill. A thorough clean-up program was developed and submitted to the Virginia Department of Environmental Quality for review through its Voluntary Remediation Program. (For details, see Appendix 5.)
- The Davis tract, more severely polluted, was being separately



remediated and partially capped so that the surface would be safe for recreational use.

- Nearby transportation facilities would affect park design. Airport runway-related restrictions would limit the height of structures, light poles and trees near 6th Street South. (See Appendix 4) Also, berms or walls would be needed along the railroad tracks for public safety and reduction of dirt and noise from rail operations.
- Regarding recreation priorities, community surveys and needs assessments showed strong unmet demand for aquatics facilities, large rectangular playing fields, and opportunities for passive recreation such as walking and biking trails. The park should provide a balanced response to these needs.
- Transportation to and within the park should emphasize multi-modal access with efficient transit service, a reconstructed street and safe routes for walking and biking.
- Because the new park would embody a substantial community investment in a prominent location, it should be a model of accessibility, high-quality facilities, and environmentally sensitive design.
- The County should seek public-private partnerships to complement county investments in park facilities and promote compatible uses of privately-owned properties adjacent to the park.



The Task Force recommended both a Master Plan for Park and Recreational Facilities, and a North Tract Area Plan Study setting forth a vision, goals and policies for the 46-acre North Tract as a whole.

## 2. County Board Actions

On February 21, 2004, the County Board:

1. Accepted the North Tract Task Force's report, "A Master Plan for the North Tract Park and Recreational Facilities and Surrounding Area", which included the draft North Tract Area Plan Study;
2. Adopted the North Tract Master Plan for Park and Recreational Facilities, and;
3. Adopted amendments to the Master Transportation Plan that supported the master plan.

On April 27, 2004, the Board added Note 20 to the General Land Use Plan, establishing the "North Tract Special Planning District". The note states that within the district, the vision, goals and policies in the area plan should be achieved incrementally through coordinated public and private initiatives.

## North Tract Vision and Goals

### Vision:

The North Tract area will be transformed into a distinctive showplace of environmentally sound redevelopment, with a central expanse of attractive public green spaces and high-quality indoor and outdoor recreation facilities that are accessible to all Arlingtonians, conveniently linked with nearby urban corridors and the Potomac riverscape, and coupled with complementary private redevelopment.

### Goals:

- To redevelop this longtime industrial area into a green urban oasis that will be a model of effective environmental reclamation and community-oriented reuse.
- To establish and maintain a great urban park with appealing spaces, facilities, and natural and manmade features in an integrated design that offers opportunities for sport, recreation and relaxation for people of diverse ages, interests and skills.
- To provide convenient multi-modal access to and within the area, with emphasis on efficient mass transit and safe passageways for pedestrians and bicyclists.
- To recognize the site's location and exploit its potential as a gateway between Arlington and the nation's capital, as a greenway near the historic Potomac shore, and as a gathering place for the community.
- To forge creative partnerships with private entities, non-profit organizations, and other public agencies to complement direct County investments in the park and help to achieve, in cost-effective ways, the planned community facilities and the compatible, high-quality redevelopment of adjacent privately-owned sites.

## Twin Bridges Site Was Not Part of Original Master Plan

### 3. 2004 Master Plan for Park and Recreation Facilities

#### i. Adopted 2004 North Tract Master Plan Map

#### ii. Recreation Program

The Master Plan encompassed a balanced program of outdoor and indoor facilities for people of diverse ages, interests and skills.

The new urban park, stretching between 6th Street South and the Twin Bridges property, would feature four adult-sized, synthetic turf athletic fields, flanked by open lawn areas, gathering places, playgrounds, over a mile of on-site walking trails, and platforms for viewing monumental Washington and watching trains. Bicycle lanes would connect with the Mount Vernon Trail. A future bridge over the railroad tracks would provide pedestrian access to a nature trail along the edge of Roaches Run.

The Plan included fields on the Davis site but noted that recreational use of that area had not yet been secured.

At the north end of the site, the narrow county-owned strip between the Twin Bridges property and the tracks would be landscaped as a future link to the riverside. Its design would be coordinated with the public spaces in any future Twin Bridges development. In the short term, its programming would be flexible.



North Tract Schematic Design

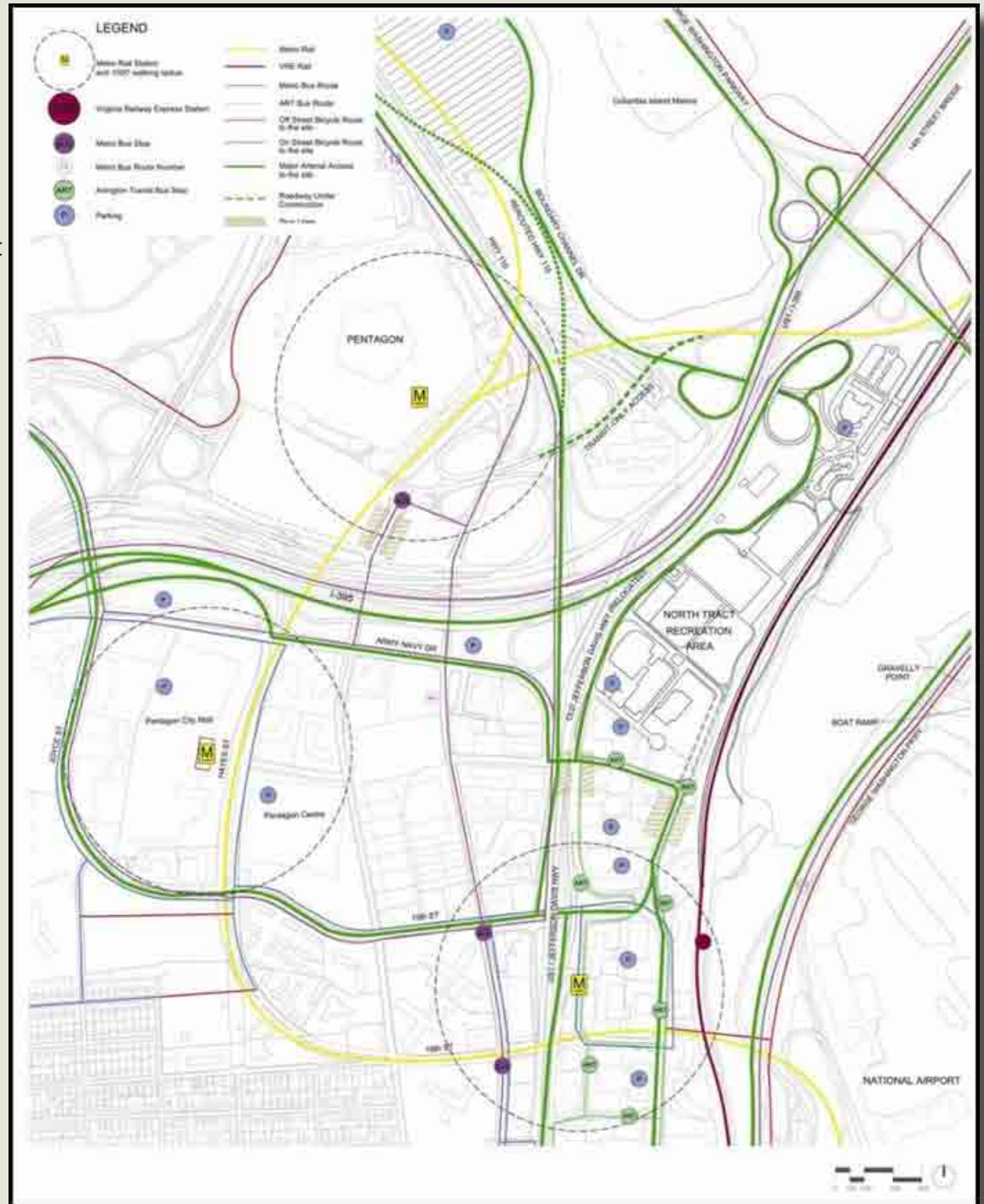


With approval from the Virginia Department of Transportation, Old Jefferson Davis Highway north of 6th Street South would be shifted westward, as close to I-395 as possible. This would widen the site, reduce airport runway-related restrictions on field lighting, and allow consolidation of parking areas.

The indoor facilities would be built on the block bounded by Old Jefferson Davis Highway, 6th St. South, South Ball St. and 10th St. South. The first phase, a comprehensive aquatics and fitness center, would include the county's first 50-meter pool, a 10-meter dive tower, a teaching pool, a therapeutic pool, a recreational water play area, and spaces for fitness and aerobics activities. The second component would primarily house a multi-purpose activity center, or MAC, which is a large space that could be flexibly programmed for indoor sports such as soccer, basketball, volleyball, tennis, and programs and other types of events. The second component would greatly expand the facility's health and fitness space for weight training, cardio equipment, and strength improvement. It also would include meeting rooms, courts for handball and squash, and an indoor track. Underground parking would be included.

### iii. Transportation and Parking

The plan's transportation components reflected recommendations in the multi-modal transportation study prepared in 2004. The overall goal was to develop



a balanced approach to transportation needs, in line with the County's general policy of reducing vehicular trips and encouraging transit use, bicycling and walking. Highlights included:

- Old Jefferson Davis Highway between 10th Street South and the Boundary Channel intersection would be realigned, as close to I-395 as possible, and rebuilt as a complete street with two travel lanes, bicycle lanes, on-street parking, and sidewalks. Turn lanes, islands and landscaping could be added to calm traffic and enhance operations.
- An extension of Crystal Drive north of 12th Street South, still in the Master Transportation Plan in 2004, would not be necessary and should not be pursued. However, a pedestrian-bicycle-emergency entrance from 12th St. and Crystal Drive would be appropriate and useful.
- Transit service to the park would be expanded and enhanced with multiple stops along the park, high-quality shelters, and other amenities for riders.
- Everyday parking demand would be accommodated through on-site surface lots and structured parking, with facilities phased along with the build-out of the recreation elements. The plan called for an eventual total of 800 to 1000 spaces, of which 300 to 400 would be in the Aquatics, Health & Fitness Facility garage, 400 to 500 in above-ground structured parking west of the fields near 6th Street South, and 100 in a surface lot north of the fields. Shared parking with nearby private facilities should be encouraged, especially for major events.
- Planned bicycle trail connections with Crystal City and the Mount Vernon Trail would enhance the area's network of multi-use trails and should be developed as soon as possible.
- For major events such as swim meets, sports tournaments and the Fourth of July, everyday transit and parking resources would be supplemented by steps such as shuttle service to Metro and to private parking garages and lots in Crystal City and Pentagon City.

#### **iv. General Policies and Phasing**

Policies: The park would be developed in phases, starting with two large rectangular fields and the Aquatics, Health & Fitness Facility. To insure that the park would maintain high quality and a consistent character over time, the Master Plan set forth general policies to guide all phases. These included:

- Each phase should be fully realized, and should include all the walkways and trails, landscaping and gardens, parking, gathering spaces, restrooms, signage, and provisions for maintenance needed to support its operations and promote maximum community enjoyment.
- All parts of the park should be fully accessible.
- As a model of reclamation, the park should include and interpret environmentally friendly elements such as rain gardens, native plants, and low-impact materials.
- Because the park's land has been so extensively disturbed, re-sculpted and reclaimed, most natural features have been lost. The Roaches Run Wildfowl Sanctuary, on the other hand, is a natural refuge harboring diverse species along remnants of the historic Potomac shoreline. The park should emphasize visual, interpretive and, to the extent feasible, physical connections with this important resource.
- Public art should be integrated into the design of each park phase, rather than being added later.

Phasing: The timing and sequence of subsequent phases would be determined by public and private funding and partnership opportunities.

#### **v. Remediation**

Environmental cleanup of this industrial brownfield was conducted through the Virginia Department of Environmental Quality's Voluntary Remediation Program. After extensive analysis, the design team and

consultants CH2MHill developed an innovative strategy for testing contaminated areas, treating and stabilizing the soil, and storing it securely on site within the overlook, Esplanade and other landforms created for the park. This eliminated the high costs of transportation and offsite disposal.

For a full summary of the remediation program, see Appendix 5.

#### **4. North Tract Special Planning District and Area Plan Study**

The North Tract Special Planning District established by the General Land Use Plan (GLUP) Note 20 encompasses the 46-acres north of 10th Street South and generally bounded by I-395 on the west and the George Washington Memorial Parkway on the north and east. The district was created to ensure that the vision, goals and policies in the North Tract Area Plan Study will be achieved, incrementally, through a series of coordinated public and private initiatives.

The vision and goals for the district are on p. 9 of this document. The Area Study's policy recommendations focused on the six parcels in the district that were privately owned in early 2004:

- 333 and 335 Old Jefferson Davis Highway (Twin Bridges)
- 399 Old Jefferson Davis Highway (Self Storage)
- 901 S. Clark Street (Crystal Motel)
- 301 6th Street South (New Self Storage)
- 607 S. Ball Street (Superior property)
- 600 6th Street South (Morauer)

For each parcel, the Study considered three situations – public acquisition, joint or collaborative redevelopment, and private proposals requiring County Board action – and briefly outlined potential scenarios for reuse or redevelopment that would contribute to or be compatible with the recreational uses and facilities planned for the public park. The scenarios did not include massing studies or detailed guidelines for streetscapes and other public spaces.

# D. History and Key Steps since Early 2004

## 1. History

For a complete chronology of the major events in the development of Long Bridge Park, please see Appendix 2. For a description of the land assembly for Long Bridge Park, see Appendix 3.

## 2. After 2004 Master Plan Adoption

In November 2004 Arlington voters approved a park and recreation bond referendum that included \$50 million for development of the first phases of the North Tract park and aquatics and fitness center. A multi-disciplinary design team with broad experience, headed by Hughes Group Architects, was selected in 2005.

Shortly thereafter, the County and Monument Realty, owner of the Twin Bridges property, negotiated an agreement to swap the county-owned parcels between 6th and 10th Streets South for the Twin Bridges acreage plus a developer contribution of \$25 million toward the park. The design team, staff and the task force pivoted to analyzing the revised site and evaluating new options for siting the aquatics facility, fields and other park elements.

At a County Board work session in October 2005, Board members reviewed several options and confirmed that the best location for the aquatics and fitness facility would be on the Twin Bridges property. Because of the prominence and sensitivity of that site, Board guidance emphasized the need for exceptional architecture and design.

A revised Master Plan reflecting that guidance and other changes was informally approved by the County Board at a work session in February 2006, along with a budget of \$75 million, including the \$25 million in private funds. The Board did not take formal action on the Master Plan because the Twin Bridges exchange had not been completed.

The next few years saw steady progress on the first phase of outdoor facilities on the County-owned acreage and former Davis Industries site. In January 2008 the Board adopted the name, Long Bridge Park, which recognizes the North Tract's historic gateway location and transportation theme. Old Jefferson Davis Highway was later renamed Long Bridge Drive. In 2009, Marymount University agreed to contribute \$2 million for immediate construction of the third large field with an agreement for priority use during the seasons for men's and women's varsity soccer and lacrosse.

After 21 months of site remediation and construction, and despite utility-related delays in rebuilding the road, Phase 1 of the park opened for community use in November 2011.

Meanwhile, the Twin Bridges exchange ran into a series of setbacks due to the era's economic vicissitudes. Ultimately the developer was unable to commit to the negotiated \$25 million contribution. In a work session in August 2007 the County Board decided to continue with the outdoor park as envisioned in the revised Master Plan, but suspended work on the Aquatics Health & Fitness Facility. The design process did not resume until negotiations between the County and Monument Realty were revived in late 2010. At that point the design team, staff, and the task force (now called the Long Bridge Park Design Advisory Committee) met with the Board in a work session in December 2010 to review the facility's proposed parameters in light of changes in county policies, primarily regarding energy efficiency.

Final design of the Aquatics, Health & Fitness Facility was restarted in February 2011. Since then, community input has been obtained through regular Long Bridge Park Design Advisory Committee meetings, three meetings with the Public Facilities Review Committee (PFRC), briefings of several advisory commissions, one open public forum, presentations to several local organizations, and individual Board member briefings. In November 2011, Arlington voters approved the parks bond referendum including \$42.5 million toward construction of the Aquatics, Health & Fitness Facility and associated park elements. That sum is to be combined with the balance of the 2004 bond funds and a \$20 million developer contribution in exchange for a Transfer of Development Rights (TDR) to finance this phase of the park.

During 2011 the exchange of interests with Monument Realty was finally completed when the County Board approved a revised site plan for office development on the property between 10th and 6th Streets South to accommodate the Boeing Company. The Twin Bridges property was transferred to county ownership in September 2011.

The status of most of the adjacent properties discussed in the Area Plan Study has also changed since 2004. The Morauer property has been redeveloped as the residential complex, North Tract Lofts. That project provided some parking benefits to the county and, funds for trail connections, and includes a community plaza integrated with the former turnaround at the end of 6th Street South. The Crystal Motel was acquired by the County and consolidated into the Boeing site as part of the property exchange between Monument Realty and the County. With the County acquisition of the Twin Bridges site only the two self-storage companies, and the small, vacant Superior parcel, remain as un-redeveloped neighbors of the park.

# E. 2013 Updated Master Plan for Park and Recreation Facilities

## 1. 2013 Revised Long Bridge Park Master Plan for Park and Recreational Facilities

The property exchange agreement between the County and Monument Realty in 2005 touched off discussions about corresponding revisions to the 2004 Master Plan. Staff, the design team, and the North Tract Task Force reviewed options through a community process that included multiple public meetings and three County Board work sessions. In 2007 a revised Master Plan for the modified park site was informally agreed upon. That Plan, shown below, has been the basis for the construction of the first phase of the outdoor park and the design work on the second phase."

*Long Bridge Park Master Plan for Park and Recreation Facilities*



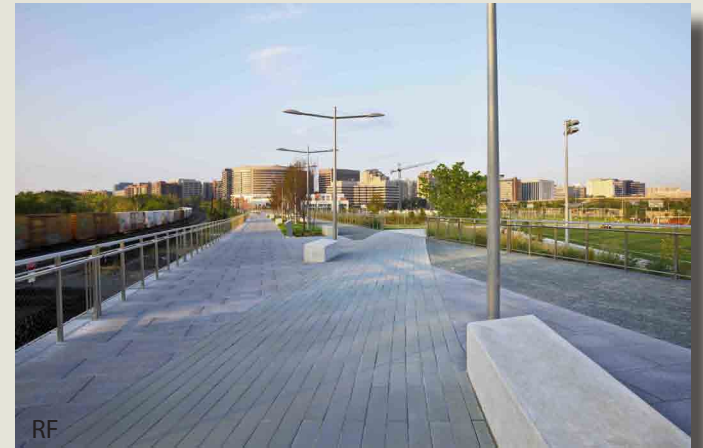
## 2. Changes in Site and Layout

As a result of the land exchange and related analysis of options, the Aquatics, Health & Fitness Facility has been moved to the north end of the site. Other elements have been reconfigured as well:

- Long Bridge Drive, instead of being relocated, is being rebuilt in its existing alignment.
- Two athletic fields have been repositioned.
- On-site parking has been moved to serve the Aquatics, Health & Fitness Facility and provide more centrally located parking for field users.
- With the land swap producing a net gain of two acres, features such as picnic lawns, event spaces, play areas and rain gardens can be expanded and better integrated with major facilities.

The other major change is the addition of the Esplanade, the wide, elevated promenade along the east side of the park next to the railroad right-of-way. The Esplanade is the park's unifying element, connecting all park areas and providing pedestrian and bicycle access from the south entrance at Crystal Drive and 12th Street South north to the Aquatics, Health & Fitness Facility, with a planned bridge across the George Washington Memorial Parkway to the Mount Vernon Trail and routes to D.C. The Esplanade provides panoramic views of park activities, trains, planes, wildlife in Roaches Run, and national monuments. It also functions as a secure repository for remediated soil, thus avoiding the costs of storage offsite.

Phase 1 of the park included construction of the Esplanade from 12th Street South to the overlook. As part of Phase 2, it will be extended north to the "front porch" or second-floor entrance to the Aquatics, Health & Fitness Facility. Because its construction is coordinated with other earth-moving operations on site, the final section of the Esplanade is scheduled to be built in Phase 4 along with the multi-activity center (MAC).



### **3. Recreation Elements**

The major outdoor and indoor elements remain as in the original Master Plan. As noted above, the land exchange and the addition of the Esplanade have expanded the opportunities for event spaces, sloping lawns next to the fields, and other places for passive recreation and play.

The program of aquatics and fitness components in the first phase of the facility is basically the same as originally planned in 2004. Space allocated to fitness activities, including classes and individual workouts, has been expanded in order to increase revenues and improve cost recovery. Locating the building within the park, rather than across 6th Street South, promotes integrated design and good transitions between the central indoor public spaces and the outdoor event areas and gathering places nearby.

### **4. Transportation and Parking**

The transportation goals remain as stated in the 2004 Master Plan (see p. 11): to develop a balanced approach in keeping with the County policy of reducing vehicular trips and encouraging transit use, bicycling and walking. The Multi-Modal Study has been updated and its recommendations refined as the basis for development of detailed transportation and parking management plans for the aquatics, health and fitness facility.

Multi-modal access will be enhanced through several strategies and design elements. The first cluster of efforts would improve major routes to and from the park. Much of this work is under way as of early 2013:

- Long Bridge Drive is being rebuilt as an attractive “complete street” with two travel lanes, bike lanes, on-street parking, sidewalks and street trees.
- Most of 6th Street South has been improved with new curbs, sidewalks and metered parking.
- The Esplanade provides easy connections with Crystal City for pedestrians and cyclists.

- The County is engaged with other agencies in studies of potential road and trail improvements at the end of Boundary Channel Drive, plus options for the long-sought direct bike and pedestrian connection between the Esplanade and the Mount Vernon Trail.

The second set of initiatives addresses transit service, and includes:

- Securing regular bus service along Long Bridge Drive, including weekend and evening service, to connect the facility and fields with Crystal City, Pentagon City, Rosslyn and other higher-density areas of Arlington.
- Providing high-quality shelters at multiple stops serving the facility and fields.
- Giving priority to transit users, pedestrians and bicyclists whenever possible, and improving transit and pedestrian access to the facility.
- For special events and major competitions, working with event organizers to provide shuttle services to Metro and to off-site parking.

The third category involves design features and on-site amenities for park users who do not drive themselves there. In addition to good bus shelters, these include convenient, safe areas for drop-off and pickup, ample, well-located bicycle parking, and Capital Bikeshare stations at the facility and the fields.

The general policies regarding parking have also been carried forward from the 2004 Master Plan. These include:

- On-site parking supplies should address routine, everyday parking needs, not special events.
- On-street parking on Long Bridge Drive and 6th Street South can and should be managed as parts of the park's everyday parking resources, since neighboring properties generate very low street parking demand.
- On-site and street parking should be priced and managed by the County to discourage commuter parking and accommodate park users.

- For large events such as major swim meets, soccer tournaments, cultural gatherings and the Fourth of July, parking should utilize the private garages and lots in Crystal City and Pentagon City, with event organizers providing shuttles to off-site parking and Metro. The requirements and expectations for events at the Aquatics, Health & Fitness Facility will be detailed in its Transportation Management Plan.

For a summary of the parking analysis see Appendix 6.

## 5. General Policies

The general policies listed on p. 12 above have been carried forward into the updated Master Plan. For example, public art is being integrated into the design of a plaza area next to the aquatics facility, just as Doug Hollis' "Wave Arbor" was coordinated with the structures edging the fields.

The major policy addition is that, in keeping with current County policies on sustainable design and energy conservation, the Aquatics, Health & Fitness Facility will be designed to a LEED Silver level with additional emphasis on energy efficiency. The facility's heating and cooling systems will also be designed to meet or exceed the Community Energy Plan's emission reduction goals.

## 6. Phasing

Given its size and scope, Long Bridge Park is intended to be built in multiple phases. The phasing is designed to manage the fiscal impact of a public investment of this magnitude. Much of the infrastructure, utility work, and environmental remediation will be constructed in the first and second phases. Subsequent phases will add to the park's features until the whole vision is accomplished.



**Phase 1:** Phase 1 of Long Bridge Park was completed in November 2011 and contains much of the infrastructure upon which the remainder of the park will be built. Environmental remediation of this portion of the site has been completed. Utilities to manage stormwater and provide on-site electricity, water and sewer service have been installed. Three full size, rectangular, lighted, synthetic grass athletic fields have been constructed. The first section of the Esplanade has been built, along with picnic groves, rain gardens, the overlook, walkways, and surface parking between fields 1 and 3. Phase 1 also includes two restroom facilities and a storage building that contains a staff office and vending services. Public art and an interpretive program have been integrated into the overall design. Long Bridge Drive is being renovated to become a two-lane road with on-street bike lanes, sidewalks, on-street parking, medians, and street trees. Significant utility relocations have been required during the renovation of Long Bridge Drive.

**Phase 2:** Phase 2 will begin the development of the north end of Long Bridge Park. Public gathering areas, trails, public art, interpretive signs, and walkways will be constructed. The Esplanade will be continued to the front door of the first part of the Aquatics, Health & Fitness Facility. The facility itself will contain a 50-meter pool with a 10-meter diving tower, as well as 25-yard teaching, leisure, and therapy pools. Approximately 700 permanent spectator seats will be available for competitions. Support spaces such as locker rooms, family cabanas, staff offices, child watch room, party rooms, and meeting rooms will compliment the recreational spaces. The health and fitness space will provide room for cardiovascular and weight equipment, plus two group exercise rooms. Large, bright, airy public lobby spaces will provide gathering areas, restrooms and vending of healthy snacks for facility and park users. Parking will be accommodated through a surface parking lot. Bicycle parking will be provided in the surface lot and at the Esplanade entrance.

**Phase 3A:** This Phase will add children’s play areas to the green areas of Long Bridge Park next to 6th Street South. Imaginative play features and structures will offer opportunities for creative play for children of various ages. Landscaping, lighting, seating, and fencing may support the play areas.

Allocation of Space Aquatics, Health & Fitness Facility <i>Phase 2 (first half of facility)</i>	
Uses	Area
Aquatic Zone: <i>Pools, deck, spectator seating</i>	54,900 sf
Specialized Activity Zone: <i>Weight, fitness, support</i>	16,000 sf
Enterprise Zone: <i>Snack bar, vending, child care</i>	1,800 sf
Community Zone: <i>Meeting rooms, storage</i>	10,500 sf
Support: <i>Administration, lockers, maintenance</i>	10,900 sf
Project Total:	94,100 sf
HVAC and Mechanical:	26,320 sf
<b>Total GSF:</b>	<b>120,420 sf</b>

**Phase 3B:** Phase 3B will complete the outdoor park components of Long Bridge Park. A fourth full size, rectangular, lighted, synthetic grass athletic field will be constructed over the surface parking that was built in Phase 1. The current sloping sides of that lot will be cut back under the new field, expanding the lot to about 254 spaces. Lastly an elevated walkway will be extended from the overlook east across the adjacent railroad tracks to an observation platform to be built on County-owned property to the east of the tracks. The observation platform will have panoramic views of the Roaches Run Waterfowl Sanctuary and the Washington DC skyline and will provide opportunities for interpretation. The walkway and platform will be designed to harmonize with other park features and their surroundings. To protect sensitive plant and animal species in and along Roaches Run, the platform will be built carefully and will not provide any public access to the ground.

**Phase 4:** Phase 4 will complete the Aquatics, Health & Fitness Facility by adding a large Multiple Activity Center (MAC) and additional fitness and recreational components on the site of the Phase 2 surface parking lot. The MAC will be a large space that can accommodate indoor soccer, basketball, volleyball, tennis, and community events among other activities. Additional fitness space and group exercise rooms will be included. An elevated indoor walking/jogging trail will be constructed around the MAC. The Facility will also include racquetball and/or squash courts and a climbing wall. On the north end of the building, two meeting rooms with full views of the monumental skyline will be available for rental and events. Five hundred and forty seven (547) parking spaces for the facility will be provided in an underground structure below the new addition. The Esplanade will be completed to its most northern reach and access to it will be extended around the indoor facility.

Full realization of the updated Master Plan also involves transportation improvements that are not included in the above phases because they are not within the boundaries of the park or the County's control, but depend on planning, design and funding decisions by other parties such as VDOT, the National Park Service, the Federal Highway Administration,

Allocation of Space Aquatics, Health & Fitness Facility Phase 4 (second half of facility)	
Uses	Area
Aquatic: <i>Pools, deck, spectator seating</i>	0 sf
Specialized Activity Zone: <i>Weight, fitness, indoor sports, support</i>	68,511 sf
Enterprise Zone: <i>Snack bar, vending, child care</i>	0 sf
Community Zone: <i>Meeting rooms, storage</i>	16,875 sf
Support: <i>Administration, lockers, maintenance</i>	8,850 sf
Project Total:	94,236 sf
HVAC and Mechanical:	13,114 sf
<b>Total GSF:</b>	<b>107,350 sf</b>

and CSX. These improvements include:

- Redesign of the intersection of Boundary Channel Drive, Long Bridge Drive and I-395 to improve safety, rationalize ramps, and accommodate bicycle lanes and links.
- Construction of a bicycle/pedestrian bridge over the George Washington Memorial Parkway between the north end of the Esplanade and the Mount Vernon Trail.
- Improved pedestrian/bicycle facilities crossing the Potomac River in the 14th Street Bridge corridor.
- New Arlington-DC transit service in the Route One/Long Bridge corridor that includes stops serving the park.

# Appendix 1 Design Guidelines

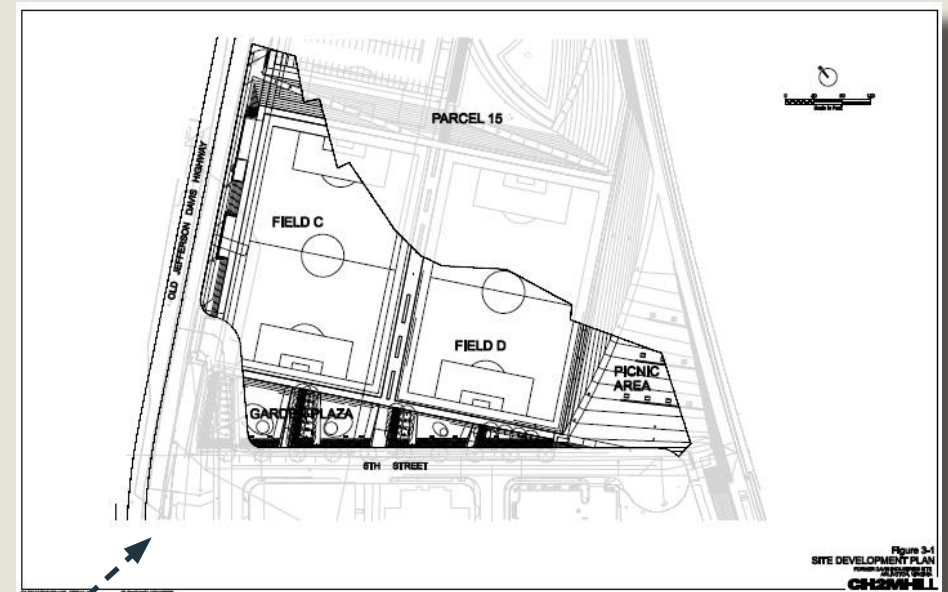
Separate Document

# Appendix 2 - Major Events in the History of Long Bridge Park

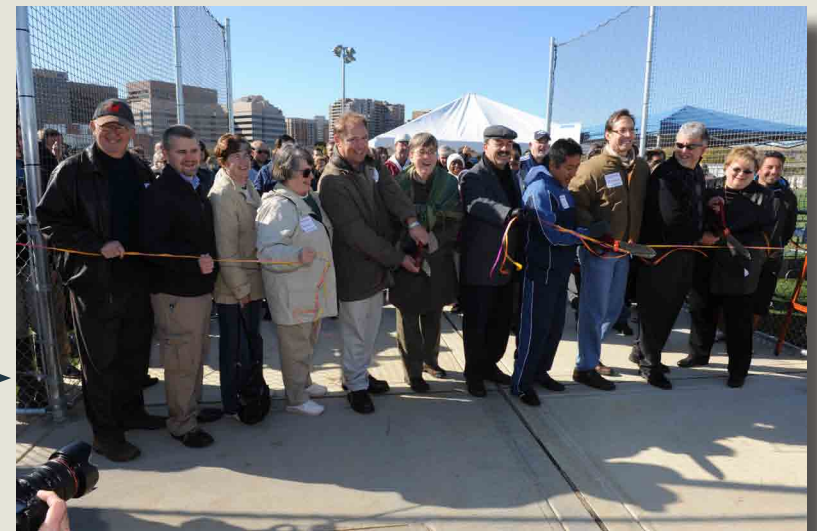
Date	Event
1993	Settlement of lawsuit involving contamination on former Davis Site structures the agreement in which the County will receive the North Tract properties and private entity will move density to the South Tract (Potomac Yards).
2000 - October	County Board approves Potomac Yard PDSP which allows for the planning of the North Tract properties for public recreational uses to begin.
2001 - June	North Tract Task Force (NTTF) appointed.
2003 - June	At work session, NTTF reviews progress and Board provides guidance on balance of active versus passive spaces.
2004 - February	County Board adopts North Tract Master Plan.
2004 - November	Voters pass \$50 million bond referendum to allow construction to begin.
2005	An agreement between Monument Realty and Arlington County (signed in January 2006) gives the County control ownership of Twin Bridges property and adds \$25M to the project.
2005 - October 28	Design Work Shop with County Board explores redesign of the Master Plan due to impacts of the land swap. Board provides guidance on building and site options.



Date	Event
2006 – February 27	Due to land swap, Redesigned Master Plan presented at a County Board work session. Board endorses new plan and confirms \$75M budget. (Includes \$25M from Twin Bridges swap)
2006 – Early to Mid-Year	Monument seeks to restructure the land swap agreement. Result is that the properties will be exchanged, but \$25M will not be conveyed to the County.
2007 – August 14	Discussion of impact of loss of \$25M with the collapse of the land swap at a County Board work session. Review of Master Plan and Facility. Board confirms plan and architecture and remains committed to full program.
2008 – January 29	County Board approves the Long Bridge Park name. North Tract changes to Long Bridge Park and NTTF changes to Long Bridge Design Advisory Committee (LBPDAC).
2008 - September	Lehman Brothers file for Bankruptcy. Action by Monument's lender places Twin Bridges Property into limbo. The County and Monument Realty are unable to close on the properties and swap land.
2010 Spring	County purchases the former Davis Industry Site, which allows for Phase 1 (outdoor amenities) construction to begin.
2010 – Fall	The land swap agreement is restructured to address the Lehman Brothers Bankruptcy. This action allows for Monument to file a site plan for the County properties.



Date	Event
2009 – May	Marymount agrees to contribute \$2M to construct a 3rd athletic field. County agrees to provide Marymount a dedicated portion of the use time of the field.
2010 – December 7	County Board work session confirms changes to County policies and provides direction to LBPDAC on impacts to site and facility.
2011 - February	Upon receiving guidance from the Board on how to address changes in County policies since 2006 and with acquisition of Twin Bridges imminent, design work restarts.
2011	After the County Board approval of the Boeing building site plan, the land exchange is completed.
2011 - November 5	Outdoor Park Grand Opening.
2012 – November 6	\$42.5 million in bond funds passed by voters allows construction to take place.



# Appendix 3 - Site Assembly and Map

County planners identified the North Tract as potential parkland in the early 1990s. Site assembly had several components, all time-consuming and complex:

- In 1993, Arlington County and about 40 other parties agreed to a court-ordered plan for environmental cleanup of the former Davis Industries scrapyard site, just north of 6th Street South. In a supplemental agreement, the County and the R.F.&P. Railroad, then owner of much of the North Tract, established a framework for allocating the North Tract's redevelopment potential to the Arlington portion of Potomac Yard south of Crystal City (South Tract). In exchange, the County would obtain the North Tract acreage for open space and recreational use. The agreement was implemented with adoption of the Potomac Yard Phased Development Site Plan and General Land Use Plan amendments in October 2000, followed by County acquisition of the North Tract property in 2002.
- The 4.5-acre Davis site was addressed separately. Remediation of that property, including placing an asphalt cap over a 1-acre containment area, was completed by the previous owner. This made the area safe for uses such as parking and non-recreational uses. As part of the planning process it was determined that Arlington County would enter

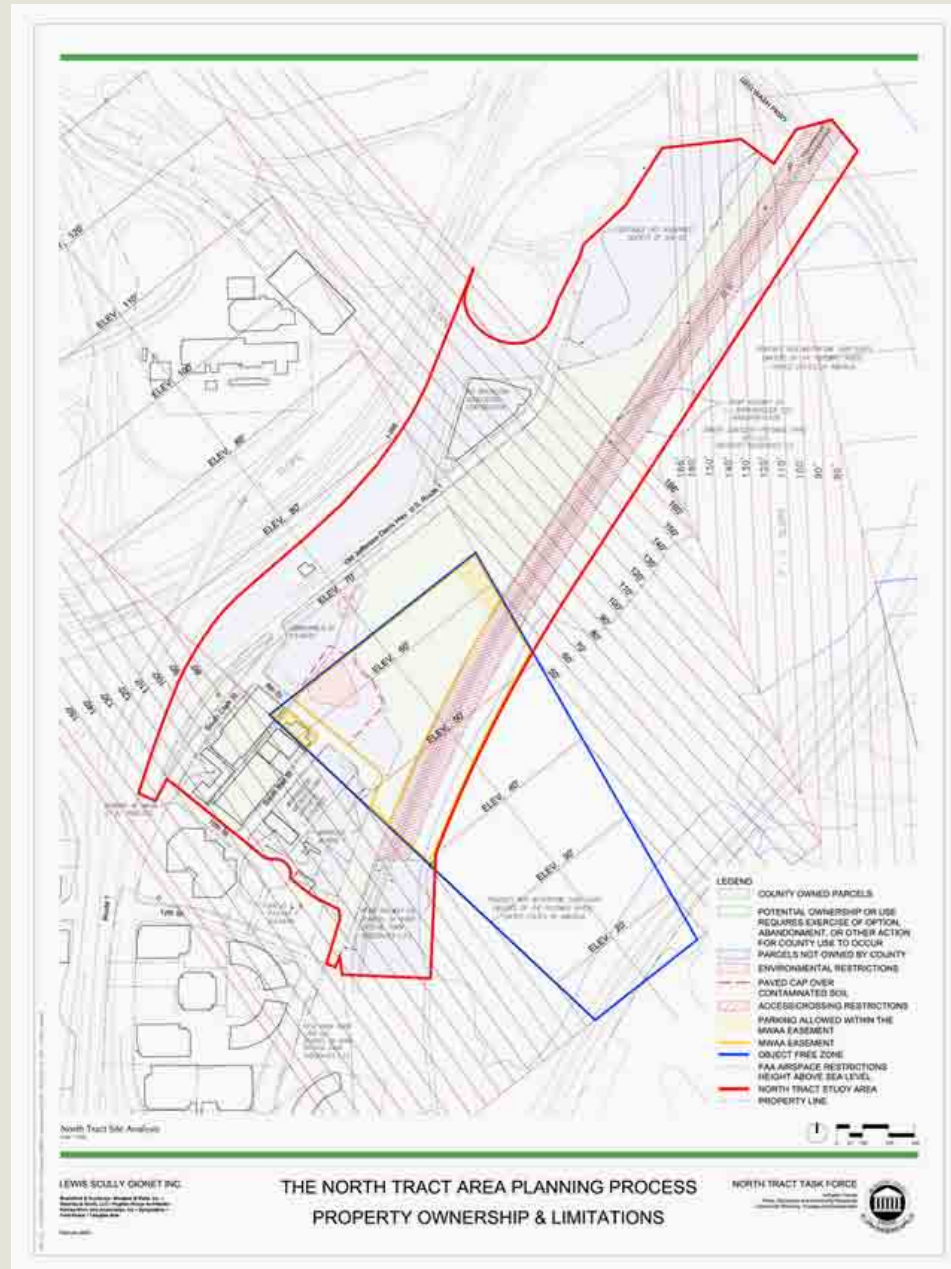


into the State of Virginia's Department of Environmental Quality's Voluntary Remediation Program. After prolonged negotiations, the County acquired the Davis site in 2010. As approved by the state and as part of the construction of Long Bridge Park, the County added additional safeguards and improvements to the original remediation plan that allowed recreational uses such as walkways and playing fields with artificial surfaces and drainage systems which could be installed above the cap.

- The 2002 transfer included several warehouse properties along Old Jefferson Davis Highway between 6th and 10th Streets South. In the 2004 Master Plan, that area was designated for the future Aquatics, Health & Fitness Facility. However, in 2006 the County and owners of the Twin Bridges site agreed to an exchange of interests that would add the 7-acre Twin Bridges property to the north end of Long Bridge Park and shift private development to the warehouse area next to Crystal City. The exchange was finally completed through County approval of the Boeing site plan and exchange of property in 2011.
- Other elements of site assembly included reaching understandings with the National Park Service and CSX Railroad, and persuading the Virginia Department of Transportation (VDOT) to transfer control of Old Jefferson Davis Highway to Arlington County to facilitate utility improvements and rebuilding of the road, now renamed Long Bridge Drive.

The County's General Land Use Plan (GLUP) designates the entire park as "Public". All park acreage west of the rail corridor is zoned "P-S," for public spaces and facilities. A county-owned strip on the east side of the rail corridor is zoned "S-3-A," or open space.

# Appendix 4 - Constraints



# Appendix 5 - Site Remediation

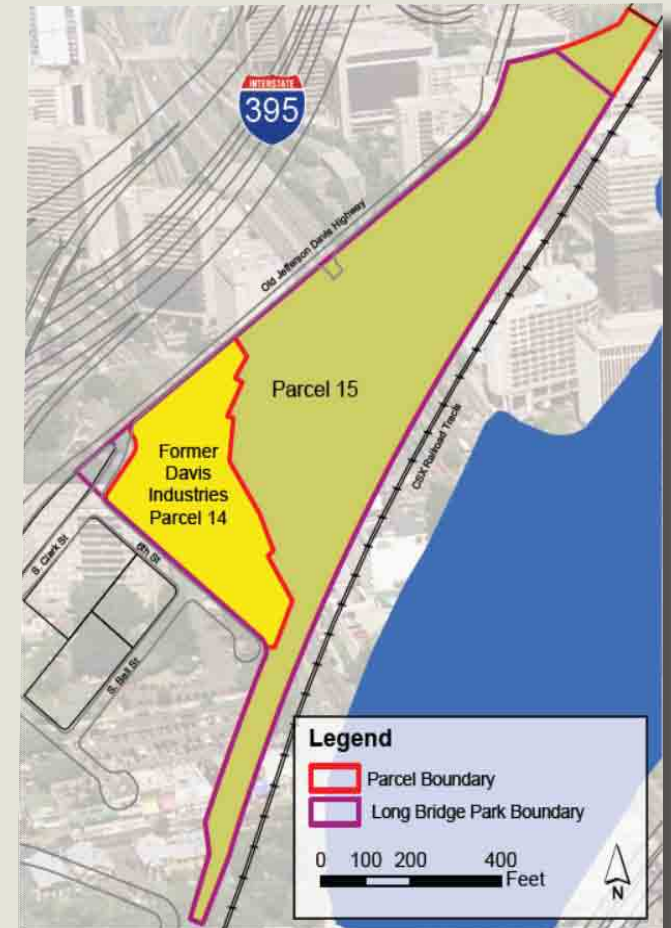
## Background

Before County acquisition began in 2001, the area then known as the North Tract was a light industrial district with areas of moderate contamination from decades of dumping, railroad-related activities and operations such as a scrapyards, a concrete batch plant, trucking and vehicle storage. Through a careful process of site investigations, human health risk assessments, and remediation, this former brownfield has been made safe for public recreational use.

In essence, the cleanup process begins with site research and testing to locate concentrations of contaminated soil, which may be several feet underground. Soil excavated during park construction is then screened, treated if necessary, and then deposited onsite in pre-determined, regulator-approved areas known as Remediation Waste Management Units and referred to as Placement Zones. These zones have been constructed to enclose or cover soil that has been treated or has contaminants at levels below regulator-approved thresholds. A covering of one to two feet of clean fill dirt is then spread to separate park users from the underlying soil.

This integrated remediation and redevelopment approach protects human health during and after construction and remediation. It is also an environmentally sustainable approach. By managing most of the material onsite, the County has avoided additional truck trips to dispose of contaminated soil offsite and did not consume landfill space. As a result, less non-renewable diesel fuels have been used and the associated emission of particulates and greenhouse gasses into the air has been significantly decreased. A similar approach will be taken for those parcels yet to be remediated.

The County has managed this effort through the Voluntary Remediation Program of the Virginia Department of Environmental Quality (VDEQ). That program provides state oversight for properties where clean-up of hazardous substances has not been ordered but is being carried out voluntarily by the owner or developer. As an independent party, the state



agency reviews work plans, decides if human health is adequately protected and when remediation is complete, and then issues a Certificate of Satisfactory Completion of Remediation. This provides additional assurance to the public that the site is safe for its designated future uses.

The following summarizes the work completed for the two parcels (14 and 15a) comprising the first phase of the park, and the investigations and planned remediation activities as of early 2013 for the remaining parcels (15b, 1 and 2).

### **Parcel 14**

Parcel 14 is a 4.5-acre parcel located just north of 6th Street South. Known as the Davis site, it was used as a scrap yard from 1952 to 1988. Scrapyard operations included recycling batteries containing lead and reclaiming electric equipment, some of which contained polychlorinated biphenyls (PCBs). These operations were later identified as the source of soil at the site that was contaminated with lead and PCBs.

The Davis site was originally enrolled in the Voluntary Remediation Program (Site ID Number VRP00089) as the result of a court-approved agreement in 1993 among about forty parties, mostly former users of the scrap yard. The original state-approved remedy involved:

- Excavating soil with the highest concentrations of PCBs and lead and removing it from the site.
- Placing a protective cap over the area with the most residual contamination.
- Establishing site controls, including a “no dig” zone under the center of the cap.

This work was completed in 2003.

The asphalt cap prevents people or wildlife from being exposed to the soil and keeps contaminants from moving offsite. Non-capped areas were covered by clean topsoil and grass. VDEQ issued the Certificate of Satisfactory Completion in 2006. Site closure and the certificate were

Clean Fill being Placed on the Asphalt Cap, Parcel 14



based on future industrial use and on maintaining the cap and the “no dig” zone. Surface parking was allowed on the capped area.

To convert the land from industrial to recreational use, Arlington County acquired Parcel 14 and re-entered it into the Voluntary Remediation Program, with a new case number. Although the earlier investigation and remediation had been very thorough, the County decided to take additional actions to further protect construction workers and park users from any residual lead, PCBs, and total petroleum hydrocarbons that might be present at the site.

As soil was excavated during park construction, the County screened it for contamination. Soil that exceeded regulatory limits for contaminants (for example, soil with PCBs greater than one part per million) was disposed of offsite. The remainder of the excavated soil was reused onsite in a designated Placement Zone. One to two feet of clean fill dirt was placed as a cover over the entire Parcel 14 site. Two synthetic grass playing fields and associated drainage systems were then installed on top of the clean fill.

The County also put in place the following long-term site controls:

- Maintain the new cover and the original cap.
- Establish and document health and safety requirements for any future ground-disturbing work outside the established “clean working zones” on the site.
- Uphold the existing prohibition on using groundwater at the site.
- Uphold deed restrictions prohibiting disturbance of the “no dig” zone.

These long-term measures will protect the environment and the health of park users, park workers, construction workers, and utility workers in the future.

### **PARCEL 15a**

Parcel 15a encompasses the rest of the first phase of Long Bridge Park. It was enrolled in the VRP in 2003 (Site ID Number VRP00334).

Excavation of Contaminated Soils, Parcel 15



Investigations identified the primary contaminant in the soil as lead, attributed to past industrial practices and to the slag and possibly ash within the urban fill that underlies the site. Lead tends to cling to soil. People become exposed to it primarily by accidentally swallowing soil or inhaling dust containing lead.

During park development, lead-contaminated soil was removed from areas where industrial activities occurred. The excavated areas were then backfilled and graded. The excavated soil was screened, to determine whether lead levels in the soil were hazardous, and then treated as appropriate. Finally, the soil was stored onsite in designated Placement Zones, where it is covered with clean soil.

The plan beneficially reused this excavated soil within the secure cores of new land features on Parcel 15. The synthetic grass playing field, the Esplanade, and the 43-foot-high scenic overlook at the northeastern end of the first phase are all Placement Zones.

During remediation and site redevelopment, possible risks to the public and construction workers were minimized. Lead-containing dust or silt was kept from being transported offsite by several means, including controlling construction traffic by using signs and flagmen, spraying exposed soil with water to suppress dust, decontaminating vehicles before they left the site, and maintaining sediment and erosion controls.

As on Parcel 14, Arlington County has established and will maintain long-term site controls for future protection of human health and the environment. These controls include deed restrictions, a prohibition on using groundwater at the site, and other engineering controls, similar to those at other redeveloped brownfield sites across the U.S.

Excavation of Contaminated Soils and Treatment Facility, Parcel 15



Excavation of Contaminated Soils and Treatment Facility, Parcel 15



## Parcel 1

Parcel 1, the Twin Bridges property, was the location of a former Marriott Hotel that operated from the 1950s until it was razed in the 1990s. The facility consisted of six buildings with a total of 376 units and associated surface parking lots. There are no known environmental releases during its history of operation.

Several environmental reports have been generated for this parcel. After performing a soils investigation at select locations in January 2004, ECS Ltd. concluded that petroleum contaminated soils were found at varying depths and that the contamination may indicate the presence of isolated pockets of contamination rather than a coherent plume across the site. ECS stated that “low to moderate” concentrations of “petroleum compounds” were found in all of the five soil borings investigated. In 2006, CH2M HILL conducted a Phase I study which revealed the presence of one current recognized environmental condition (REC), and a few areas of potential interest based on historic uses which may or may not have impacted the site’s environmental quality. The current REC is the presence of petroleum contaminated soil at depth. Other areas of potential interest at the time of the study were former tanks and a steel facility documented in old County maps and a former underground fuel oil storage tank at the former Marriott Hotel. As a result, a Phase II study was conducted, focusing on determining the presence and concentrations of total petroleum hydrocarbons (TPH), semi-volatile organic compounds (SVOCs), and metals in site media potentially associated with the tanks and steel facility.

## Parcel 2

Parcel 2, next to Parcel 1, was a former Exxon Service Station that operated the 1950s until it was razed in the 1990s. A release from a leaking 12,000-gallon underground storage tank (UST) that contained unleaded gasoline was reported on January 10, 1984. A Pollution Complaint (PC) was opened and the investigation, remediation and ultimate project closure in September 2003 were managed under the Virginia Department of Environmental Quality.

Following the closure of the petroleum case, several environmental reports have been generated for this parcel. In 2003 ECS, Ltd. concluded that there was petroleum contamination associated with the former Exxon Station. In 2006 a Phase I study performed by CH2M HILL revealed the presence of one historic REC (the Exxon Station which was closed under the state program). The study also identified several areas of potential interest, including the former petroleum filling stations, bulk storage tanks, and industrial facilities on properties along Old Jefferson Davis Highway. As a result, the Phase II ESA focused on determining the presence and concentration of TPH and SVOCs associated with the underground fuel storage tank and petroleum facilities, and the presence of these constituents and benzene, toluene, ethylbenzene, and

xylenes (BTEX) associated with the Exxon Station. Phase II ESA findings revealed benzene, naphthalene, and toluene concentrations in groundwater at the former Exxon Station that exceeded the VRP Tier III criteria. However, state regulators are not concerned with these residual concentrations as they are indicative of a petroleum release that is undergoing natural attenuation. TPH levels in excess of the “clean fill” threshold were detected across much of the Site.

### **Parcel 15b**

Before being created by subdivision, Parcel 15b was part of the larger site that was addressed under VRP00334. A complete record of the investigations performed can be found in that VRP file. A focused investigation of the soil and groundwater near the boundary of Parcel 2 was performed in 2009. The results indicate that residual contamination from Parcel 2 appears to have migrated to the groundwater and the subsurface soil in this area. However, state regulators are not concerned with these concentrations as they are indicative of a petroleum release that is undergoing natural attenuation.

During future park development on these three parcels, remediation will employ the same approaches used in the first phase. Soil will be isolated, screened, treated if necessary, and beneficially reused onsite in designated Placement Zones, where it will be covered with clean dirt or hard materials. This process will also be reviewed by VDEQ.

# Appendix 6 - Parking Analysis

In developing a parking program for the Aquatics, Health & Fitness Facility, the on-site and street parking in the 2004 Master Plan have been reviewed in the context of the facility's current program of uses and anticipated use patterns; updating of the 2004 multi-modal study; and a review of parking policies and practices at similar multi-use recreation facilities in Fairfax County, Montgomery County, Loudoun County, North Carolina and California.

These reviews confirmed the 2004 findings that 800 to 1000 parking spaces should be provided at full buildout of all indoor and outdoor elements of the park. The Master Plan calls for these spaces to be phased along with park facilities, as follows:

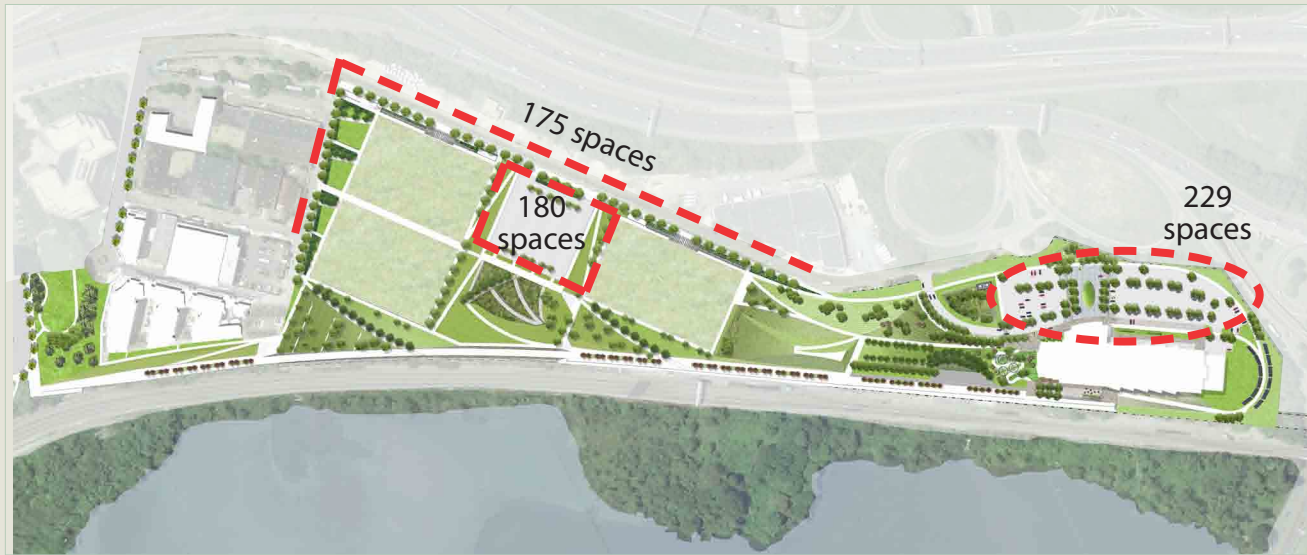
Phase and Description	Number of Parking Spaces
<i>Phase 1 - Three Fields / Esplanade</i>	
Surface Parking Lot:	180 spaces
On-Street Parking:	175 spaces (built with park)
<i>Phase 2 - Aquatics, Fitness &amp; Health Facility</i>	
Surface Parking Lot:	229 spaces
<i>Phase 1 &amp; 2 Total Parking:</i>	584 spaces
<i>Phase 3 - Fourth Field</i>	
Structured Parking:	Additional 74 spaces (254 total)
<i>Phase 4 - Aquatics, Fitness &amp; Health Facility (Remaining Uses)</i>	
Structured Parking:	Additional 318 spaces (547 total)
<i>Phase 3 &amp; 4 Total Parking:</i>	392 spaces
<b>All Phases - Total Parking:</b>	<b>971 spaces</b>

The specific parking needs for the first phase of the Aquatics, Health & Fitness Facility were analyzed in the 2004 Multi-Modal Study and reviewed in 2012. That analysis calculated a daily average peak occupancy of 548 facility users and staff. Regarding modal split, the analysis assumed relatively low percentages for transit (10%) and biking and walking (5%). For those using cars, the analysis assumed an average vehicle occupancy of 1.2 facility users per vehicle. These factors point to a daily average peak parking need of 388 spaces. However, the consideration of variables such as users' length of stay and weather conditions for walking and biking suggests that the everyday parking need is somewhere between 180 and 450 spaces.

The parking designed for the facility accords with that analysis. The surface lot adjacent to the building will have 229 spaces, including handicapped spaces. An additional 131 spaces will be available on Long Bridge Drive nearby. This amounts to 75% of the total on that street, leaving 44 plus the entire 180-space lot south of Field 1 for other park users. The total of 360 spaces should be sufficient to meet everyday needs for users of the facility without impinging on parking resources for those enjoying other parts of the park. The use of on-street spaces also reduces the amount of park acreage given over to vehicle storage, providing more room near the Aquatics, Health & Fitness Facility for event lawns, unprogrammed green space, rain gardens and other environmentally sound amenities.

For major events, organizers will be expected to arrange for the use of private off-site parking in Crystal City and Pentagon City, to provide shuttles to those garages and Metro, and to inform participants about logistical arrangements in advance.

### Phase I - Parking Sites and Spaces



### Phase II - Parking Sites and Spaces

