

Docket Item #20
Potomac Yard - Landbay K
DSUP2006-0013

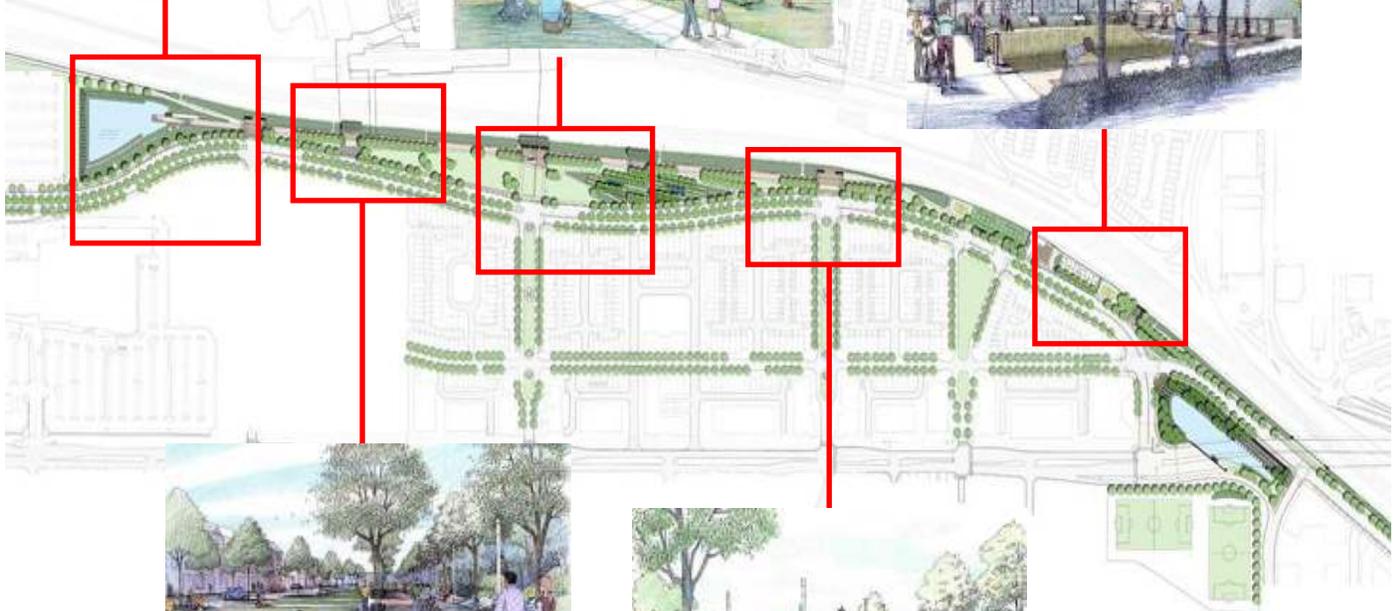
Northern SWM
Pond



Belvedere- Central
Stage



Canal Feature



Promenade



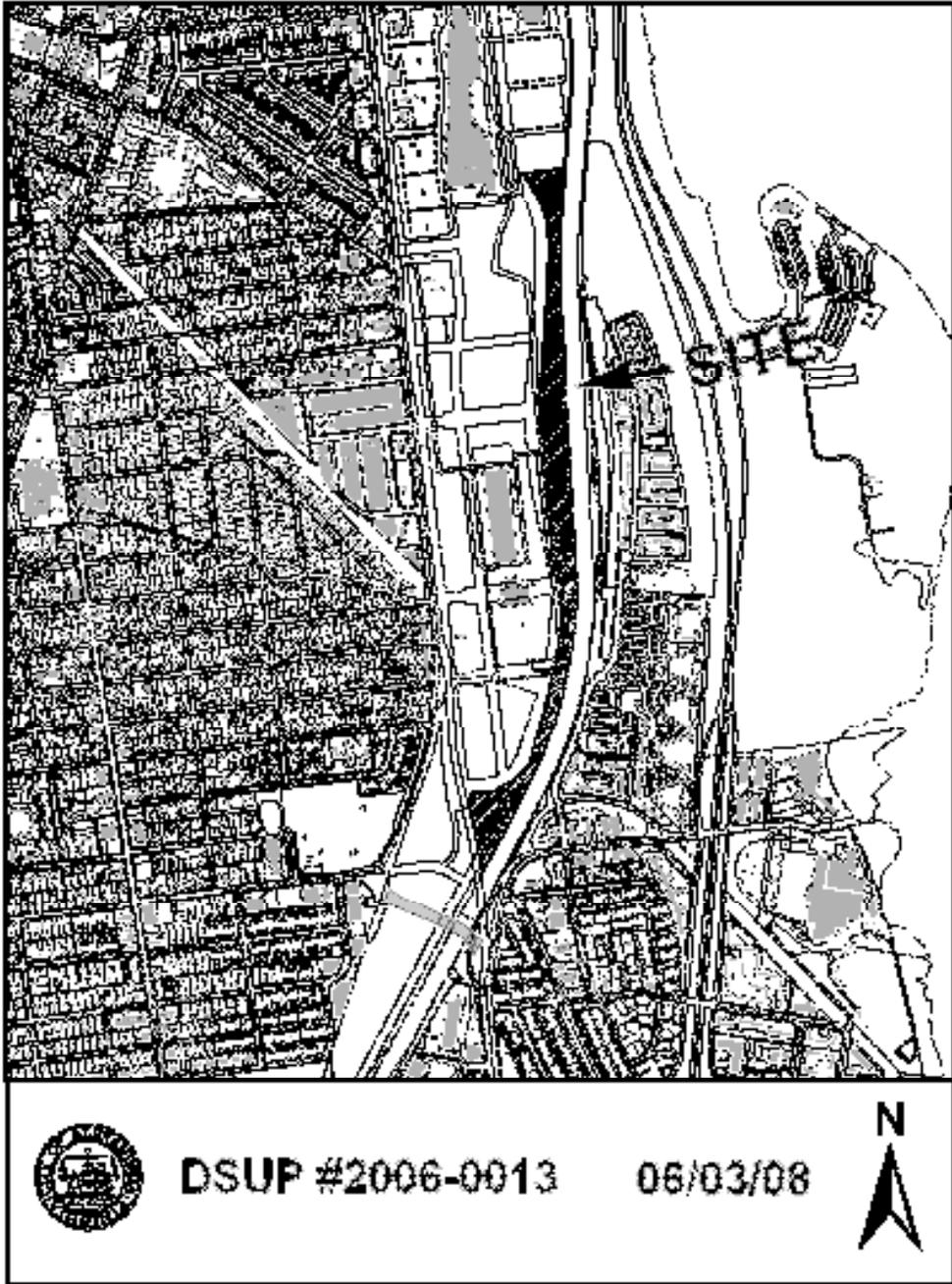
Promontory

Planning Commission
June 3, 2008

Docket Item #19
Dev. Special Use Permit #2006-0013
Potomac Yard Park – Landbay K

Planning Commission Meeting
June 3, 2008

- REQUEST:** Consideration of approval for a 24 acre park, within Potomac Yard development.
- APPLICANT:** Potomac Yard Development, LLC
by M. Catherine Puskar and Duncan Blair, attorneys
- LOCATION:** Potomac Yard-Landbay K (Potomac Yard is the area bordered by the Arlington County line on the north, Jefferson Davis Hwy. to the east, George Washington Parkway on the west and Braddock Road on the south.)
- ZONE:** CDD #10/Coordinated Development District
-



I. IMPACT/BENEFIT CHART

IMPACT/BENEFIT	COMMENTS
Consistency with Strategic Plan	<ul style="list-style-type: none"> • The proposal is consistent with the Strategic Plan due to provided open space that will utilize pedestrian trails and walkable green spaces to link Landbay K to Four Mile Run, Braddock Road, and the Finger Parks to create connectivity to the surrounding open spaces. Active and passive recreational activities will enhance the development at Potomac Yard and the City of Alexandria.
Use	<ul style="list-style-type: none"> • Public Park/open space • 70% Passive Recreation • Open lawn, pedestrian plazas, observation platforms. • 30% Active Recreation • Two (2) basketball courts, two (2) tennis courts, two (2) volleyball courts, two (2) multi-purpose fields, multi-purpose lawn with picnic areas, par course stations/fitness trails, playground and vegetative buffer.
Open Space/Streetscape	<ul style="list-style-type: none"> • Approximately 24 acres of public open space. • Connects to City and regional trail and open space network.
Pedestrian	<ul style="list-style-type: none"> • A twenty (20) foot wide promenade that will allow pedestrians access to Four Mile Run and Braddock Road. • The central promenade will entail historical/cultural belvederes encouraging people to congregate and interact. • Incorporation of historic interpretative elements such as a canal, stage, hump yard and under the bridge landscaping. • Three (3) miles of multi-use trails with fitness course stations.
Building Compatibility	<ul style="list-style-type: none"> • Design incorporates and addresses the Potomac Yard Pump Station, submitted and approved under separate plan. • Maintenance building for Park Operations Staff
Traffic/Transit	<ul style="list-style-type: none"> • Main vehicular access to site is from the approved Potomac Avenue. • Portions of the site are also accessed by Route 1, Braddock Road, Monroe Avenue and <i>proposed</i> South Main Street. • BRT stops proposed at adjacent Town Center. Bus stop access from Braddock Road, Metro stop at Braddock Station.

Parking	<ul style="list-style-type: none"> • Accessible parking and lay-by provided under cover of Potomac Avenue Plan.
Environment/Ecology	<ul style="list-style-type: none"> • Integration of overall design with future park operations/maintenance to provide realistic labor needs and reduce environmental impacts from grounds maintenance equipment emissions • Use of numerous products composed of post-consumer recycled content including play surfaces, specialty finishes, steel components, benches, trash receptacles, exercise equipment, specialty pavers and pavement subbase/ballasts. • Use of adapted/native, indigenous plantings to reduce consumption of potable water for landscape irrigation, reduce need for fertilizers/application of chemical herbicides, and reduce long term maintenance by mechanical equipment. • Use of adapted/native, indigenous plantings procured regionally to reduce environmental impacts from transportation costs. • Use of reforestation techniques on large portions of the
Fiscal	<ul style="list-style-type: none"> • Constructed by the applicant and dedicated to the City.

II. EXECUTIVE SUMMARY

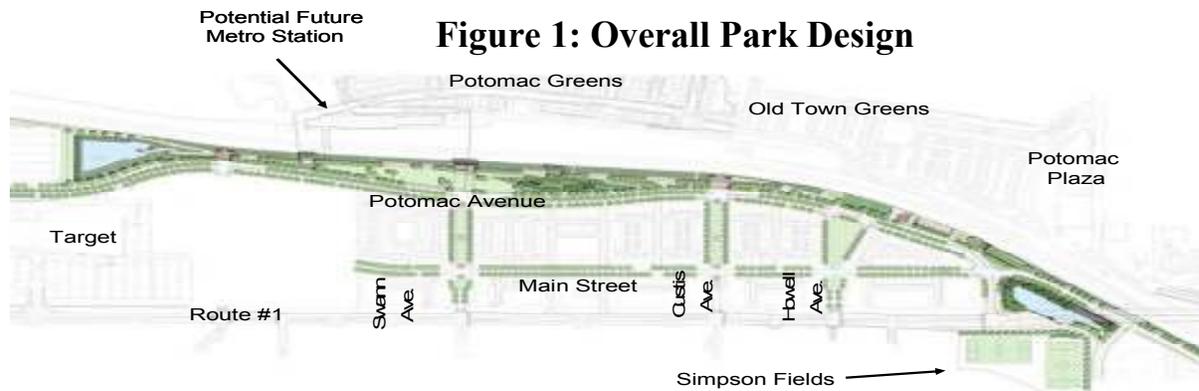
A. *Overview*

The main portion of Potomac Yard linear park is bounded by the CSX railroad on the east, approved Potomac Avenue on the west, and is located between the existing Potomac Yard Retail Center movie theater southern parking lot and the new Route 1 Bridge. Three additional sections of the park include the new portion of Simpson Fields, the south trail extending from the Route 1 Bridge south to Braddock Road, and the north trail which extends from the movie theater southern parking lot north to Four Mile Run.

Significance of Potomac Yard Linear Park

The site is long and narrow, spanning three linear miles within the City. The park is approximately 24 acres and varies in width with the widest sections east of Route 1 and south of the Potomac Yard Retail Center. The proposed open space is considered a City wide park that will serve as for the residents of Potomac Yard, but also the City of Alexandria. In comparison, the Potomac Greens Park is 16 acres, and Ben Brenman Park at Cameron Station is 50 acres.

The linear nature of the park creates a unique opportunity to connect the Four Mile Run Trail to the Braddock Metro Station and other bikeways within the city. The park will provide pedestrian paths with amenities along the way, and will serve as an important link by providing a safe pedestrian connection in the eastern portion of the City. The inclusion of a pedestrian bridge across the rail lines will provide a pedestrian connection from Potomac Yard to Potomac Greens and connect east and west portions of the City that are currently inaccessible to each other due to the rail lines.



CDD Criteria

The Potomac Yard CDD establishes specific criteria for the park design and layout. According to the CDD, the park must have connectivity to existing and proposed trails within and outside the CDD boundaries; be a minimum of 20 acres, and incorporate both passive and active recreational uses. All of these criteria have been met as discussed in greater detail later in this report. It should be noted that the CDD allows the park to be constructed in phases as each of the adjacent landbays are constructed. The park will be constructed in three phases as conditioned in Section VII of this report.

Public Benefit

The proposal provides a range of assets to the public including economic, ecological, and recreational benefits. Landbay K will be constructed by the applicant and dedicated to the City upon final acceptance of the completed phases. The project will develop this valuable open space into active and passive recreational amenities; improving the quality of life for the citizens of Alexandria. The size and shape of the proposed park will help to integrate the Potomac Yard development into the larger City and link existing recreational spaces in the surrounding neighborhoods and jurisdictions.

The plan also provides significant ecological benefits to the neighborhood and the City, and responds to Alexandria’s focus on environmental stewardship. Tree coverage is more than 40% of the site will contribute to greener views, cleaner air and a reduction in the urban heat index. The site contains two storm water management ponds and a series of sand filters that will treat the storm water from the development and improve the water quality before it is released into the Potomac River.

The plan provides improvements to address the need for additional recreation facilities. Users across all ages are accommodated in the proposal. Park space and trails enable and encourage residents to exercise and participate in outdoor activities. Active and passive uses within the proposal promote outdoor recreation at all levels. The park’s regional playground accommodates children of multiple age groups and is fully ADA accessible. The playground was designed in concert with the City’s Therapeutic Recreation Division of Recreation, Parks and Cultural Activities. The active recreation courts are designed to accommodate children and adults, as well as all abilities through adjustable height basketball goals and multi-use courts.

B. Community Process

The applicant and staff have conducted a full and open public process in the preparation of this proposal. The following is a list of meetings over the past three years with various public groups including the Park and Recreation Commission (PRC) and the Potomac Yard Design Advisory Committee (PYDAC).

March 17, 2008	Site Plan Presentation – Open Public Meeting
February 21, 2008	Fields Presentation to PRC
January 17, 2008	Update Presentation to PRC
January 9, 2008	Update Presentation to PYDAC
May 09, 2007	Update Presentation to PYDAC
March 14, 2007	Update Presentation to PYDAC
November 08, 2006	Update Presentation to PYDAC
October 21, 2006	Update Presentation to PRC
October 11, 2006	Update Presentation to PYDAC
March 11, 2006	Initial Concept Review – Open Public Meeting
February 28, 2006	Initial Concept Review with PYDAC
February 16, 2006	Initial Concept Review with PRC
November 15, 2005	Site Analysis Presentation to PYDAC

November 02, 2005	Site Analysis Presentation – Open Public Meeting
October 20, 2005	Site Analysis Presentation to PRC
June 15, 2005	Special Public Meeting/Presentation & Forum by Jennifer Guthrie of Gustufson, Guthrie & Nichol PRC/PYDAC joint meeting
May 12, 2005	Project Kickoff Meeting PRC/PYDAC Joint Public Meeting

C. Issues and Concerns

The applicant has refined the proposal over the last three years to respond to public and interdepartmental staff input, and address site specific challenges of the project. Concerns identified by the community have included:

- Bicycle and pedestrian connections to adjacent development;
- Visual and noise pollution from the adjacent railroad; and
- Site security and public safety.

To address these concerns, staff has worked with the applicant to include connections to adjacent development including safe crosswalks, pedestrian crossing signals and traffic

calming measures. The applicant has coordinated this plan with the pedestrian safety measures included in the Potomac Avenue Infrastructure Plan.

The proposal includes a vegetative border along the rail corridor that complies with the CDD conditions and provides a buffer between the park and the rail lines. To address concerns about public safety, the park is designed with a surveillable layout, limiting the number of shrub plantings and including lighting along the major paths. Additionally, the applicant has worked with the Police Department and other City staff to locate structures and vegetation to increase security and visibility throughout the site.

Park and Recreation Commission input regarding the park design and its sustainability over time has been extensive. PYDAC review for conformance with the Potomac Yard Urban Design Guidelines, overall design, and coordination with other Potomac Yard landbays has been significant. The Park and Recreation Commission and the Potomac Yard Design Advisory Committee have written letters of approval for the proposal as presented (Attachments 1-3).

D. Staff Recommendations

Staff is recommending approval of Landbay K (DSUP 2006-0013) with conditions.

III. BACKGROUND

A. *Site and Surrounding Context*

The park extends the entire length of the Potomac Yard development site adjacent to the existing rail corridor. The northern most portion of the park encompasses the north trail that runs from Four Mile Run to the north stormwater management pond. The main portion of the park lies to the east of the proposed Town Center (Landbay G) and the planned mixed-use development of Landbays H, I and J. Across the railroad tracks east of the Town Center is land reserved for a future Metro rail station, which was selected during the review process for Potomac Greens and agreed upon based on the existing

Figure 2: Potomac Yard Illustrative



track alignment. The southern trail is bordered by the vacant parcel of Landbay L and George Washington Middle School. The southern trail extends southward from the Route 1 Bridge to Braddock Road. The new extension of Simpson Field will be bound by existing park land, Monroe Avenue and the new Route 1 alignment.

The site contains intermittent steep slopes directly adjacent to the rail corridor, but is otherwise generally lacking in topography. The previous rail yard uses on site have removed all significant vegetation. It is currently vacant with the exception of infrastructure elements previously approved through the development site plan process.

These elements include the Pump Station and On-site Forcemain (DSP 2004-0042), and two stormwater management ponds. This plan proposes modifications to both of the ponds. The Pump Station site plan is sensitive to the surrounding open space as well as the architecture of the adjacent Landbays. The proposed cluster of active recreation uses surrounding the building addresses the structure's scale and mass and incorporates it into the park fabric. The site is bordered on the west edge by the approved South Main Street (DSP #2005-0044), and Potomac Avenue (DSP #2005-0038), which is currently under construction.

Trail Connections

The plan is integrated with Alexandria's park and trail network as well as the open space network created within the Potomac Yard development through trail heads and streetscape amenities. The park connects with the finger parks planned for Custis, Swann and Howell Avenues. The park also provides a north-south connection between the recreational amenities along Four Mile Run and recreational trails and amenities at Braddock Metro Station, and a pedestrian connection across the railroad lines, providing access between Potomac Yard and Potomac Greens. The proposed bridge will be located in northern portion of the development, near the future Metro reservation site and landing at the pedestrian bridge reservation site in Potomac Greens. The pedestrian bridge will be integrated into Landbay K's design as discussed in more detail in the Pedestrian Bridge (SUP # 2008-0027) staff report.

Figure 3: Trail Connections



B. History of Potomac Yard: Significant Periods and Transportation

The area that became Potomac Yard has a long history of serving as a trade and transportation corridor. From prehistoric times through the present, these level terraces paralleling the Potomac River provided a north/south pathway for moving people and goods. While the modes of transportation changed--from foot to horse and stagecoach, then to canal boats, and later to trains and automobiles, the landform remained an important link in the route connecting people and places throughout the course of history. As discussed in the following section, staff worked with the applicant to integrate the history of the site into the design approach for the park.

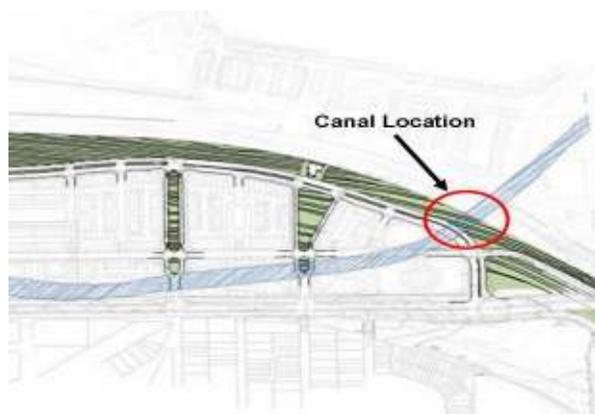
Native American Occupation, 13000 to 400 years ago- Bands of Native American hunters and gatherers may have traversed the area that became Potomac Yard as early as 13,000 years ago. More intensive occupation undoubtedly began about 5000 years ago as Native Americans would have established seasonal camp sites to fish for shad and to exploit the resources of nearby marshes.

Tobacco Plantations, Farms, Towns, and Turnpikes, 1669-1830- The area that became Potomac Yard was part of a 6,000-acre grant awarded to ship captain Robert Howsing (Howson) for the transport of 120 settlers to the Virginia colony in 1669. Howsing immediately sold the property to planter John Alexander for 6 hogsheads (6000 pounds) of tobacco. Beginning in the 1730s, members of the Alexander family subdivided the property and began to establish plantations on it. Charles Alexander probably built Preston Plantation in the 1750s or 1760's at the northern end of what would become Potomac Yard, shortly after the establishment of the Town of Alexandria in 1749. River and overland travel linked the plantations and early town, but roads were haphazardly constructed and poorly maintained. In 1809, the Washington and Alexandria Turnpike opened, following the path of present-day Route 1 to a new bridge constructed over Four Mile Run, with tolls collected just south of the bridge.

Canal and Railroads, The Civil War, and the Seeds of Suburbanization, 1830-1905-

The Alexandria Canal Company was chartered in 1830, and the canal opened in 1843. Rail transportation came to Alexandria in 1851 with the opening of the Orange and Alexandria. The first line to traverse the Potomac Yard property, the Alexandria and Washington Railroad, linked the two cities in

Figure 4: Historic Canal



1857. The Alexandria, Loudoun and Hampshire railroad opened in 1860 between Alexandria and Leesburg. During the Civil War, the Union Army connected the three rail lines, which were considered crucial for the war effort. In 1894, two planned

residential developments, Del Ray and St. Elmo, were established on the west side of the turnpike and laid the groundwork for the suburbanization that was to occur around Potomac Yard in the succeeding century.

Potomac Yard, 1906-1987- Potomac Yard opened in 1906 and became the largest freight transfer station on the east coast with 136 miles of track crammed into a 2.5 to 3 mile stretch of land. By 1987, a decision was made to route freight trains around Washington, and Potomac Yard officially ceased operations. Metro and Amtrak trains still carry passengers through this corridor, and with the development of the linear park, walkers, joggers and bikers will continue to travel the north-south transportation corridor that was first traversed by Native Americans thousands of years ago.

C. Description of Proposal

With the approval of the Potomac Yard/Potomac Greens CDD99-001, the Planning Commission indicated the need for substantial public open space in the City and expressed the belief that having public parks within the development would help to integrate it into the larger city.

Programmatic Elements

Landbay K is part of a hierarchy of open spaces within Potomac Yard Development that connects existing and proposed open spaces in the region through a system of bike trails and pedestrian connections. The approved CDD99-001 requires that this long, linear park include a mix of active and passive areas and add significant open space. The City has worked with the applicant's landscape architectural firm and engaged a full public process over the past three years to refine the park design. Significant features of the linear park include:

- **Promenade-** The main axial north-south pathway within the main body of the park. This broad pedestrian avenue terminates at a viewing deck over the north stormwater management pond and south at the Promontory plaza. The promenade is primarily intended for passive use, but is also designed to provide emergency access to the adjacent rail corridor

Figure 5: Promenade



Figure 6: Belvedere - Central Stage



and main body of the park. Access to the promenade from Potomac Avenue occurs at the belvedere locations

- **Belvederes-** Passive plazas with interpretive components inspired by Potomac Yard's history. The belvederes are located along the promenade where the east-west streets of Potomac Yard intersect Potomac Avenue.
- **Multi-Purpose Lawn-** Un-programmed lawn area for the passive enjoyment of the public. The main body of the park is primarily open with trees placed to give the park scale and provide shade. The open spaces surround other components of the park lend continuity to the park. The flexible design of these spaces allows them to be used for group gatherings or approved special events.
- **East Buffer-** A vegetated edge intended to separate the park from the rail corridor. The eastern edge of the park is heavily planted with native evergreen and deciduous trees to provide a visual and audio buffer from the rail corridor.
- **Best Management Practice Area (BMP)-** Improvements to the existing stormwater management ponds approved under separate plans. The ponds are designed to be an aesthetic amenity in addition to accomplishing their intended function. An ADA pedestrian bridge will cross over the southern pond, facilitating access to the park for western neighborhoods.
- **Playground-** Regional playground located near the center of the park. This playground is 3/4 acre and incorporates two separate fenced play areas for pre-school and school children with a portion between them containing an interactive fountain and intergenerational game tables. The playground is designed to interpret the character and architecture of the railroad through the play equipment and safety play surfacing. The playground is fully accessible and incorporates elements for musical and imaginative play as coordinated with the Therapeutic Recreation Division. Each area within the playground is readily surveillable and includes furnishings, storage and shade to accommodate groups and caregivers.
- **Active Recreation Courts-** Surrounding the approved Pump Station and On-site Forcemain building (DSP 2004-0042) are a series of active recreation courts. The active court complex includes two volleyball courts, two tennis/multi-use courts, and two basketball courts. The tennis/multi-use and basketball courts are fully

Figure 7: Northern SWM Pond



Figure 8: Playground & Promenade



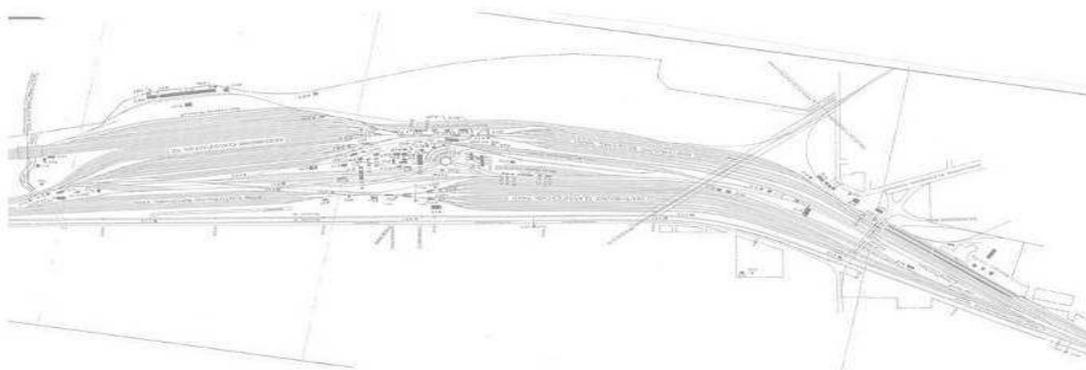
fenced and lit, and incorporate elements to accommodate challenger baseball and multi-modal basketball.

- **Play Fields-** Additional active recreation facilities are located adjacent to Simpson Fields (known as the Monroe Field in CDD) on land created from the realignment of the Route 1/Monroe Avenue Bridge. The new multi-use fields will replace the existing temporary fields in compliance with the CDD conditions. Additional infrastructure at Simpson Fields includes the maintenance/restroom facility. The maintenance building will replace the existing structure in its current location. The new structure will include modern updates including ADA compliant restrooms, an office for the park manager and storage space for equipment necessary to maintain the park.
- **North-South Spine-** Ten foot wide multi-use trails that connect the main body of the park with regional amenities. Extending north and south from the main body of the park are segments containing multi-use trails that connect the promenade in the main body of the park from Four Mile Run through to Braddock Metro. Along the trail there are amenities such as fitness course stations, trailhead plazas and lighting.

Interpretive Elements

The history of the Potomac Yard site has been an integral part of the development and design of the park from the earliest schemes. The site is designed with a series of layers which invoke and interpret the history. The railroad track pattern of Potomac Yard is reflected through the sidewalks and other circulation paths, using the historical land use as the base for the park design. Many of the spaces within the yard are designed to recognize and integrate the historical value of the Yard's past use with this new chapter

Figure 9: Track Pattern



as parkland and core public amenity. Each belvedere is designed to showcase culturally and historically significant elements of the site's history, spanning from the Pre-Columbian exploration through to today. Additionally many of the parks features, such as the playground, train-spotting platform, sorting yard, and site furniture recall the influence of the railroad and its connections with transportation and moving people.

Construction Timing

Currently construction within Landbay K is underway for the stormwater management ponds under cover of the Potomac Avenue Plan (DSP 2005-0038) and Route 1 Bridge (DSP 2005-0037). Additional construction is currently occurring adjacent to Landbay K for Potomac Avenue, and the Four Corners Infrastructure Plan (DSP 2005-0039).

In conformance with the CDD, the two (2) temporary recreational fields at Potomac Yard will not be taken out of service until the new fields are playable and accepted by the City.

Infrastructure and Phasing Plan

Condition #13 of the 1999 CDD approval requires that an updated Infrastructure Phasing Plan be submitted with the preliminary plan for each landbay. The Phasing Plan submitted with Landbay K outlines anticipated dates of construction for the following framework streets:

Framework Street	Expected Date of Completion
Potomac Avenue (south of the Retail Center to Swann Avenue), Main Street (between East Glebe Road and Swann Avenue), temporary East Glebe Road and Swann Avenue	September 2008
Four Corners (Route 1 Bridge, Main Street and Potomac Avenue to the south of Howell Avenue, portion of South Main Street and the regraded and realigned Monroe Avenue)	November 2008
Potomac Avenue (at the Retail Center)	December 2008
Route 1 Improvements	December 2009
Potomac Avenue (over Four Mile Run)	June 2010
Potomac Avenue and Main Street (between Swann and Howell Avenues), Custis Avenue and Howell Avenue	June 2010
South Main Street	September 2011

IV. ZONING

The Potomac Yard Coordinated Design Development (CDD), approved by the City in September, 1999, encompasses approximately 295 acres. At the time of approval, there were 165 remaining acres to be developed. The CDD was envisioned as a mixed use development, consisting of residential, retail, office, hotel and open space. The CDD proposed numerous locations for the open space, with approximately 58 acres dedicated to public parks. These park areas have been defined within the CDD and the Guidelines with respect to the approximate size, location and types of uses. The Potomac Yard Linear Park encompasses approximately 24 acres, including the Simpson Fields. The

park's uses are listed within the CDD and discussed in more detail with the CDD Guidelines. The proposed park design and associated uses conform to the CDD requirements.

Project Location: Total Site Area: Zone: Current Use: Proposed Use:	Potomac Yard-Landbay K 23.66 acres or 1,030,679 square feet Coordinated Development District 10 (CDD 10) Vacant Public Park		
	<u>Potomac Yard CDD-10</u>	<u>Potomac Yard Urban Design Guidelines</u>	<u>Provided</u>
Coordinated Trail Network and Design	Connectivity with existing and proposed trails within and outside of the CDD.	Open space link from Braddock Road to Four Mile Run. The trail and pedestrian circulation shall be continuous. Trails will be asphalt and designed to accommodate light vehicular traffic and 10-12 feet in width with rest nodes.	Three miles of pedestrian and bicycle trail linking Four Mile Run to Braddock Road. Trails will conform to specifications; rest nodes will be provided along the trail and will be integrated into the park design.
Public Open Space	Twenty plus acre park.	Collection of open spaces, some of which are tree-covered, shady areas and some that are sunny spaces.	Grand Promenade with plazas and historical interpretative elements, open spaces with trees and picnic areas. The plan will provide 40% tree/crown coverage in 10 years.
Recreational Activities	Linear Park will include playfields, active and passive recreation.	Active recreation shall make up 30% of the park space and passive recreation 70%.	2 tennis/multi-purpose courts, 2 basketball courts, 2 volleyball courts, fitness course, playground, picnic areas, play field, large passive lawn areas, and 5 belvederes with interpretive designs.

Parking

Potomac Avenue runs parallel to the linear park and serves as the main artery for vehicular traffic utilizing Landbay K. No onsite parking is proposed or required in the park. However, Potomac Avenue will provide parking opportunities for park users with the inclusion of parking on the west side of the street and twenty nine (29) parking spaces designated on the eastern side of Potomac Avenue. Staff believes that some parking is viable, but has concerns that these large spans with no street trees will lessen the pedestrian experience and compromise the overall park design. Staff is recommending a combination of parallel parking and bulb outs with street trees be provide to keep continuity of the streetscape. The parallel parking spaces shall include a mix of accessible, standard, and designated City use spaces for maintenance vehicles. Bicycle parking will be provided throughout the site.

V. STAFF ANALYSIS

A. Park Design

This application provides a tremendous opportunity for the City to increase its open space inventory with addition of a high quality community-based park design. The present day design is derived from, and interprets the historically significant eras of Potomac Yard's past, while integrating future maintenance needs. This proposal demonstrates a comprehensive approach to park planning that balances design with future operational/maintenance requirements. The design includes site furnishings, pavement and other components comprised of recycled post consumer products and native/adapted indigenous plantings that reduce the need for potable water and introduction of fertilizer into the City's ecosystems. Landbay K will be the first significant public park constructed in the City since Ben Brenman in 1998-2000. The park is consistent with the goals of the City's draft Urban Forestry Master Plan, and its design/implementation is consistent with the City's Landscape Guidelines.

The proposed use is directly reflected in the City's Open Space Chapter of Alexandria's Master Plan. The park use was approved as part of the Potomac Yard Coordinated Development District and was included in the Open Space Master Plan as planned open space at the time of the Plan's approval in 2003. The park planned for Landbay K helps the City to address a number of the goals stated within the plan, including specifically Goals 2,5,9,10, and 11.

Goal 2: Develop innovative opportunities for creating additional open space.

Goal 5: Create an open space network in new development areas.

Goal 9: Create public open space from vacant land.

Goal 10: Link and expand pedestrian, bicycle, and trail systems.

Goal 11: Enhance streetscapes and gateways.

In particular, the linear park is a key component of the "Green Crescent" described in Goal 5 and is highlighted as such throughout the Plan. As prescribed in Goal 5 of the Plan, the park provides an open space network in a new development area and also incorporates historical and archeological resources in planning for the open space within the new development.

This proposal combines a variety of active and passive recreation facilities in a balanced, carefully composed layout and historically interpretive manner. The plan addresses the need for a green environment, and provides the City with beneficial recreational amenities through its flexible and sustainable design. The design, planting pallet and site furnishings respond to the need for sustainability through the use of native plants and recycled materials, and also evoke the site's rich and colorful past.

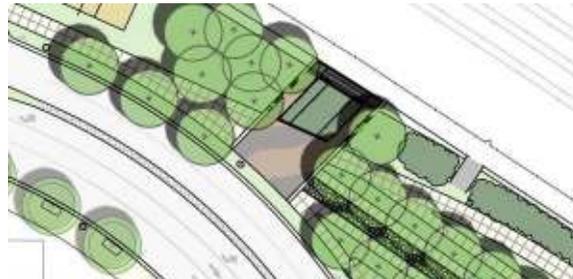
Interpretive Historical Elements

In coordination with other development activities in Potomac Yard, the proposal incorporates historical and interpretive elements. The design development of Landbay K has embraced the historical significance of its transportation corridor identity from the beginning, utilizing historical references to create a sense of place. A timeline of significant historical time periods and events is conveyed through the design of the belvederes as they progress from the north pond south to the new Route 1 Bridge. The design of the belvederes will include educational elements to highlight the significance of the transportation corridor that the Potomac Yard site is a part of beginning thousands of years ago and continuing through today and tomorrow. The subject matter for each belvedere has been identified and the physical expression of the history will be finalized in conjunction with the Comprehensive Interpretive Plan for Potomac Yard. Other historical references to the rail era at Potomac Yard are included in the proposal through indicative site furniture, playground equipment, circulation patterns, and diminishing vistas.

Figure 10: Interpretative Element



Figure 11: Canal Feature



Active Recreation

The active recreation facilities are strategically located to provide amenities for the public while maximizing the dimensional characteristics of the parcel. The multi-purpose fields are located on land reclaimed from the re-alignment of the Route 1/Monroe Avenue Bridge, adjacent to the existing Simpson Fields. This consolidated location optimizes the City's ability to maintain and secure the fields. The two proposed fields fulfill the requirements set forth in the CDD #10 and are designed to accommodate a number of field sports. The demand for multi-purpose fields of this type far exceeds the number of existing fields in the City's inventory, and the temporary Potomac Yard Fields are currently used to capacity. The plan illustrates improvements to the temporary fields including lighting that will help to extend the play capacity to meet the needs of the community. The applicant and the City are developing an agreement to provide synthetic turf fields. The installation of synthetic turf in this location will help the City to meet the demand for playing time in a variety of sports.

The location of the active courts also addresses limitations of the landbay's shape. The courts are clustered at the terminus of the Howell Avenue extension where space is not sufficient for more significant usable passive space. These courts are designed to address a variety of needs within the community in addition to tennis, basketball, and volleyball. The tennis or multi-purpose courts are designed and marked to accommodate Challenger baseball and the basketball courts have adjustable height goal standards for multi-age use. These are just two of the ways that the proposal encourages people of all ages and abilities to utilize the public amenities and enjoy the positive effects of outdoor recreation. The courts will be lit to encourage working professionals to use the amenities in the evenings and will be set on timers in coordination with park hours.

Figure 12: Active Recreation



The playground is designed to accommodate individuals of all abilities and is Alexandria's first fully accessible playground through coordination with the Therapeutic Recreation Division. The playground is divided into three major areas. The two main play areas are designed to provide separate zones for pre-school and school aged children. Each of the play areas is designed with fully accessible equipment and play structures suited for the scale and development level of the target age group. Both playground sections include musical and other sensory stimulation elements as well as small, mazes. Both playground areas are surfaced with rubberized safety play surface for easy mobility and safety, and enclosed with fences that have one gate opening to the third and central section of the playground. The third portion of the playground is an open plaza between the two play zones which serves as a gathering and entry location, and houses a fountain, game tables and shade trees.

Passive Recreation

The proposed design of the landbay incorporates a significant amount of passive open space in compliance with the Potomac Yard Urban Design Guidelines. A multi-use trail provides an important link between Four Mile Run and Braddock Road. The paved trail will provide a lit path for cyclists and pedestrians complete with resting nodes, trash receptacles and fitness course stations. The trails extend approximately one (1) mile in each direction from the main body of the park and provide a major access route between the surrounding neighborhoods and the amenities within Landbay K. The trails

Figure 13: Belvedere - Central Stage



connect to the Promenade which becomes the main path through the park. The 18 foot width of the Promenade is designed for passive enjoyment and incorporates site furnishings and points of interest to accomplish this aim. Interpretive belvederes and seating at regular intervals overlooks the open lawns that make up the majority of the park. The open lawn areas within the park are designed to accommodate passive recreation including, picnicking and special events, in coordination with interpretive nodes throughout the main body of the park.

B. Circulation, Parking and Pedestrian Linkage

Landbay K is located to the east of Potomac Avenue, which is defined in the “Potomac Yard Urban Design Guidelines” (PYUDG) as a “primary north-south arterial road serving Potomac Yard.”¹ This location provides both opportunities and constraints to pedestrian linkages since the following criteria are assigned to Potomac Avenue²:

- Two-way traffic
- “*Medium*” movement patterns
- 4 lanes + left-turn lanes
- 25-35 mph design speed
- 90’ right-of-way
- 54’ pavement width
- 15’ median width
- 14’ sidewalks (building side (“West” side of the street) only)
- on-street parking (building/West side only)
- Striping
- Raised curb w/25’ radius
- Street trees to be placed 35’ on center

In addition, the staff report presented to the Planning Commission on June 15, 1999 for Special Use Permit #99-0020 references the “Traffic Impact Study for Potomac Yard/Potomac Greens Mixed Use Development” prepared for the City by PBSJ and presented May 20, 1999. This report states: “Construction of Potomac Avenue is the most significant transportation improvement proposed within the Potomac Yard development. Without this facility, all the traffic growth in the corridor would have to be handled on US Route 1... New traffic capacity is essential to service the proposed new development on Potomac Yard. Potomac Avenue, as proposed, could provide additional capacity of 1,500 to 2,000 vehicles per hour in the corridor.”

The characteristics of the roadway, as well as the anticipated traffic volume and design speed, determine treatments available to provide safe, accessible pedestrian mobility from Potomac Yard to Landbay K. Similarly, the location of park activity centers and access points has been oriented toward signalized intersections. By making the signalized intersections the logical crossing points, park design supports pedestrian safety goals.

¹ PYDUG, p 26

² PYUDG, p 33

Potomac Avenue currently has six signals (in order, south to north) at Rte. 1, Main Street, East Howell Ave., E Custis Ave., Swann and E Glebe. The distance between the signals ranges from approximately 210 feet to 1,080 feet. During the site plan review, City Staff ensured the following:

1. Accessible and safe pedestrian crossings are provided at each signalized intersection. The crossings include well-marked crosswalks, pedestrian countdown timers, audible pushbuttons, accessible curb ramps and adequate lighting.
2. The median on Potomac Avenue has been continuously crowned in the middle and will be landscaped to discourage midblock crossings.
3. During construction of Potomac Avenue, the developer has been instructed to bury conduit and wiring at 300 foot intervals between each crosswalk to allow the City to later add pedestrian-actuated signals in these locations in the event it is determined these measures are needed. The City anticipates installation of at least one (and possibly two) such signals on Potomac Avenue.
4. The roadway is posted for a speed of 25 miles per hour.

Additionally, just as it does for all city streets, City Staff will actively monitor Potomac Avenue to make operational decisions that affect traffic decisions and seek to balance the need for mobility of all transportation modes. This would include signal optimization, active police enforcement and other measures to be determined by city traffic engineers.

C. Stormwater Detention Ponds and Sand Filters

Two wet ponds and seven sand filters provide the water quality function for Landbay K. The phosphorous removal requirement required by Environmental Management Ordinance is fulfilled by these structures. In addition to providing a necessary function for the development, the storm water management ponds provide an aesthetic and ecological resource for the public. The north storm water management pond is used as a terminal point for the promenade to mimic the vanishing point one sees when looking down railroad tracks. Both ponds are designed with landscape buffers to limit physical

Figure 14:
North SWM Pond



Figure 15:
South SWM Pond



access while maintaining visual access. The ponds are also an ecological resource. They are designed with an Integrated Wetland Filter that will replace chemical treatment within the systems. The filter utilizes a constructed wetland along the perimeter of the pond which consists of a gravel barrier, wetland plants and microbial organisms. Together, these elements remove nutrients and contribute to the clarity of the water. Airlifts within the pond also improve the clarity of the water by circulating the water and assisting contact between nutrients in the water and the wetland filter.

D. Soil Contamination Mitigation Plan

The applicant has submitted the required site characterization which analyses the soil contaminants on site. Based on this, a health and safety plan has been submitted and approved to ensure safety of the general public and site workers. All soil which is exposed to human contact shall be composed of certified clean fill and all other will be capped with impervious surface.

E. Park Operations and Maintenance

The park design has been developed through an integrated process of design and review with City Park Operations and Maintenance personnel from the Department of Recreation, Parks & Cultural Activities and Transportation & Environmental Services. Based on input by Park Operations and Maintenance personnel, components of the park have been designed to optimize usability and reduce the need for extensive maintenance and manicure. These include, use of indigenous plantings that reduce the need for potable water and fertilizer, remotely controlled landscape irrigation to minimize potable water use, oversight of design details and techniques to reduce excessive detail mowing, hand trimming and edging, and maintenance staging areas for snow and debris removal. Standard City site furnishings including, benches, trash receptacles, drinking fountains, play/exercise equipment, and signs are incorporated into the project. Site lighting, fencing, special paving and other similar features are specified based on long-term durability, warranty, resistance to vandalism and projected life cycle costs. Emergency access easements are designed for dual use as maintenance access for the park and adjacent rail corridor.

Maintenance Building

The existing maintenance building at Simpson Field will be replaced with this proposal. This new building will serve as a base for City Operations staff working on the park at Landbay K and the remainder of the Simpson Park Operations District. It will also provide a secure office for the district, including the telecommunication devices necessary for operations. The building will house tools, equipment and basic materials that are needed to maintain the City's recreational amenities. Upgraded bathrooms and OSHA showers will also be included in the new building. These restrooms will be ADA compliant and include design components to reduce energy demands within the facilities.

Storm water Management Ponds

The Storm water Management Ponds and other BMP infrastructure will be maintained by the applicant until transferred to the Home Owners Association in accordance with the Master Storm water Quality Plan (DSP 2004-0044). An agreement will be made between the City and the applicant to establish levels of maintenance for the BMP's.

F. Pedestrian Bridge (Rail Park)

The applicant proposes to locate a pedestrian bridge (SUP # 2008-0027) at the existing WMATA Metro Station reservation area in compliance with the CDD conditions. The bridge, which will span approximately 240 feet over the existing rail lines, will provide pedestrian connectivity between the east and west portions of the Yard. This location will link community amenities such as Potomac Greens Park, Landbay K, and the proposed Town Center (Landbay G).

Staff has worked with the applicant to ensure coordination between the pedestrian bridge proposal and the proposed park in Landbay K. Staff has conditioned the integration of this bridge to the proposed design for Landbay K as shown here with special emphasis on the ramps and the landscaping under and around the landings in Landbays K and Potomac Greens.

Figure 16: Ped. Bridge Landing in Landbay K

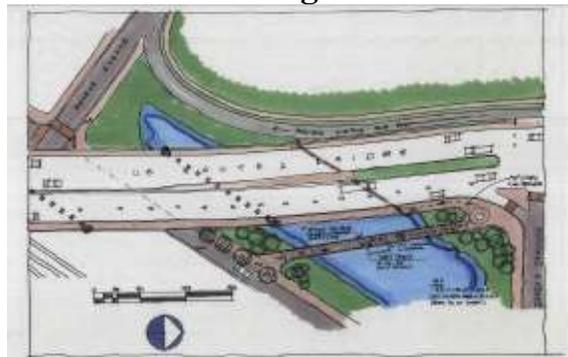


On December 12, 2007, PYDAC unanimously passed a motion that they “support(s) the bridge location and conceptual design and integration into Landbay K and Potomac Greens.”

G. Pedestrian Bridge at Monroe Avenue

As part of the approval for the straightened Monroe Avenue Bridge in 2003, a condition was included that required a direct pedestrian access from the bridge to the adjoining open space to enhance pedestrian connectivity for residents and communities to the east of the realigned bridge. On December 6, 2005, an application by the Departments of Transportation & Engineering Services (T&ES) and Planning & Zoning (P&Z) to amend the City of

Figure 17: Monroe Ave. Ped. Bridge



Alexandria Zoning Ordinance to revise the CDD Zone regulations, Section 5-600, to eliminate the requirement for a pedestrian connection for the Monroe Avenue Bridge was deferred unanimously by the Planning Commission. Staff contended that because of the height of the bridge (approximately 30 ft.) above the open space and the fact that ramps would need to be handicap accessible, the ramps would become long and circuitous, and provide little benefit for pedestrians in terms of distance traveled and time saved. Additionally, the ramps from the bridge would have significant visual impacts on the bridge and raise safety concerns. After numerous follow-up meetings and alternatives presented to Planning Commission and City Council, on April 22, 2006, staff was instructed that the pedestrian connection to Route 1-Jefferson Davis Highway shall be constructed as depicted in the Alternative Concept Plan, approved by City Council in 2003, with design accommodations.

Pursuant to this Council directive, the Department of Transportation & Engineering Services has procured the necessary funds and is willing to proceed with providing this connection. Upon further evaluation of the grades on the east side of the bridge, the northern intersection of Potomac Avenue with Route 1 and a potential landing point at S. Main Street, the Department of Planning and Zoning came up with a proposal for a pedestrian/bike ramp built over the detention pond in Landbay K. This ramp would serve the same purpose in terms of connectivity and time saved, and would be ADA compliant. Additionally, it will be treated as a design element of Landbay K and would not detract from the aesthetics of the Route 1 Bridge. It is anticipated that the design will be finalized this summer and construction to commence this fall.

This scheme has been shared with the community at the following meetings and has been the preferred alternative of all the meetings:

Del Ray Citizens' Association: December 4, 2007

PYDAC: January 9, 2008

North East Civic Association: January 30, 2008

VI. CONCLUSION AND RECOMMENDATIONS

In an effort to ensure the integrity of the park in the future, staff has included 100+ conditions intended to assist City of Alexandria Park Operations and Maintenance staff with future care of the park and attend to the following areas which staff believe need to be addressed:

- Construction and Conveyance to the City – Phasing
- Future Long Term Maintenance of Design
- Design of Active and Passive Recreation Areas
- Storm Water Management and Infrastructure

Staff concludes that the proposed development conforms to the Potomac Yard CDD and Design Guidelines, and therefore recommends that the Planning Commission approve DSUP 2006-0013 with the following conditions.

Staff: Faroll Hamer, Director, Planning and Zoning;
Kirk Kincannon, Director, Recreation, Parks & Cultural Activities
Jeffrey Farner, Chief, Development;
Beth Carton, Park Planner, RP&CA
Ron Kagawa, Landscape Architect, RP&CA
Patricia Haefeli, Principal Planner, P&Z;
Matthew North, Urban Planner I, P&Z

VII. CONDITIONS

Staff recommends approval subject to compliance with all applicable codes, ordinances, and the following conditions:

A. GENERAL PROCEDURE

1. The applicant shall develop, provide, install and maintain until acceptance by the City an integrated Park and Landscape Plan. (P&Z) (RP&CA)
2. All work as outlined in the project DSUP conditions shall be in general compliance with the proposed preliminary plan as provided and dated November 9, 2007 and the Memo with attached exhibits prepared by EDAW and Dated February 16, 2008.(Attachment #5) Work shall be further developed in design/detail to fix and describe project components such that each can be constructed (and maintained by the Applicant until acceptance by the City) to the satisfaction of the Directors of Recreation, Parks & Cultural Activities, Planning & Zoning, and Transportation & Environmental Services. Review of specifications by Recreation, Parks & Cultural Activities is required for work items including materials/manufacture, finishes, joints/connections/fastening methods as noted in the items as outlined below: (T&ES) (P&Z) (RP&CA)
 - a. Site paving including concrete, asphalt, specialty paving/pavers, metal decks, ramps and steps. (P&Z) (RP&CA)
 - b. Masonry including retaining, seat, decorative, screening, and active recreation related walls.(P&Z) (RP&CA)
 - c. Site furnishings including trash receptacles, benches, tables, (2) drinking fountains and bicycle racks. (P&Z) (RP&CA)
 - d. Site lighting including pedestrian and active recreation. (P&Z) (RP&CA)
 - e. Metalwork including fences, handrails, bollards, and gates. (P&Z) (RPCA)
 - f. Site utilities including landscape irrigation/water management system, water, and site electrical. (P&Z) (RPCA)
 - g. Active recreation facilities including lights, surfaces, materials, fences, walls, equipment and other components including their and warranty. (P&Z) (RP&CA)
 - h. Site signage including entrance, directional, instructional and informative. (P&Z) (RP&CA)
 - i. Plumbing fixtures including decorative fountain and water filtration system, if provided. (RP&CA)
 - j. Specialty landscape items including Geoweb/greenwalls, landscape sculptures, site interpretive features/elements. (RP&CA)
3. Prior to release of the Final Plan, the applicant shall provide an anticipated construction schedule for the Park. Applicant shall record and report construction progress to the City in the form of; written reports; construction submittal review

- and testing services; concrete, retaining wall, geotechnical, soil, etc. reviews; and scheduled project meetings with City staff. The Construction Schedule shall be updated on a regular basis as needed. On site reviews with City staff shall be conducted to monitor progress of all project components. (RP&CA)
4. The applicant shall have the right to construct and dedicate to the City the Landbay K Park, in three development phases as generally shown on Attachment #4. As part of the approval of the final site plan, the applicant shall submit a plat of subdivision to resubdivide Parcels 512 and 513 Potomac Yard into three lots corresponding to the three development phases. Separate final site plans for each phase shall be submitted and approved, bonded and released for construction to permit phased construction, dedication, acceptance and as-built approval. The Main Body of construction shall be the parcel designated on Attachment #4. Notwithstanding the provisions of section 5-606 (H) of the AZO the applicant shall have 24 months from City Council approval to commence construction of the first phase before the application approval shall expire and become null and void. A subsequent second phase, either the north or southern portion shall commence construction 12 months after the acceptance by the City of the first phase. A subsequent third phase, (the remaining north or southern portion), shall commence construction 12 months after acceptance by the City of the second phase. For the purpose of this condition, replacement of the interim rectangular athletic fields with final/replacement rectangular athletic fields will be constructed, dedicated and accepted pursuant to the requirements of Condition 70 (e), for acceptance by the City. Upon commencement of construction for each area, work shall be diligently pursued without interruption until completion and City acceptance.
 5. Prior to City acceptance of each phase the applicant will post a landscape warranty bond for a minimum of 12 months for each phase.
 6. Each phase of the park shall be maintained by the applicant to the satisfaction of the Directors of Planning & Zoning, Transportation & Environmental Services and Recreation Parks & Cultural Activities until such time that construction of each phase is completed by the applicant, and approved and accepted by the City. Upon acceptance, each phase shall be conveyed to the City by recordation of a special warranty deed. (P&Z) (T&ES) (RP&CA) (ARCH)
 7. Prior to commencement of the construction for each phase, the applicant shall provide a detailed Project Maintenance Plan for the approval by the City. Staff will work jointly with the applicant in program development of the Project Maintenance Plan. The Maintenance Plan shall guide execution of work, labor and materials for maintenance of new and established plantings in a vigorous, flourishing growth and attractive appearance. The approved Maintenance Plan for each phase shall be continuously implemented by the applicant/successor until

- final acceptance of each phase by the City. The Maintenance Plan shall include scheduling and provision of all labor and materials for the following: (RP&CA)
- a. Daily, weekly and seasonal facilities maintenance for all project components including irrigation system, stormwater management ponds and active recreation features.
 - b. Daily, weekly and seasonal grounds maintenance including litter/debris/solid waste/recycling removal and general policing of grounds.
 - c. Product warranty and anticipated replacement schedules.
8. As-built drawings for all project components/constructed work shall be submitted by the applicant using a current version of AutoCAD as produced by AutoDesk Inc. and approved by the City. As-built drawings shall clearly identify, fix and describe all variation(s) and changes from approved drawings including location, quantity, and specification of project elements. (P&Z) (RP&CA)
 9. Applicant shall provide construction and as-built geotechnical reports, and construction submittal records, operation and maintenance manuals, and communicate specialty procedures to designated City staff for all components, systems, subsystems, equipment and maintenance procedures including active recreation facilities, interpretive elements, structures, fountains, irrigation/water management systems, lighting equipment, electrical systems and winterization procedures. (RP&CA)
 10. The applicant shall provide extra materials for lighting system components (bulbs and ballasts) and irrigation system components (heads and valves) equal to 10% of the amount installed for each type and size indicated but no fewer than two units to match products installed (not inclusive of conduits, wiring, poles or footings), that are packaged with protective covering for storage and identified with labels describing items. Materials shall be delivered to a location in coordination with City staff. (RP&CA)
 11. Potomac Yard Linear Park shall be coordinated with all ongoing projects on the applicants property known as Potomac Yard including Potomac Avenue Infrastructure, South Main Street, Route 1/Monroe Avenue Bridge, Pedestrian Bridge, Pump Station and On-Site Force Main, East-West Streets including access points at Potomac Avenue and Finger Parks, adjacent landbays owned and controlled by the applicant and Simpson Fields. (RP&CA) (P&Z)
 12. Temporary structures for construction including a construction trailer shall be permitted and the period such structures are to remain on the site, size and site design for such structures shall be subject to the approval of the Directors of Planning and Zoning and Recreation, Parks & Cultural Activities.

B. FINAL LANDSCAPE PLAN/SITE PLAN AND OPEN SPACE

13. Shift the sidewalk at East Monroe Avenue adjacent to the stormwater management pond to the north four (4) feet and provide landscape strip with additional street trees. (P&Z) (RP&CA)
14. The Planting Plan and Planting Index shall be provided as follows to the satisfaction of the Directors of Planning & Zoning and Recreation, Parks & Cultural Activities.
 - a. The applicant shall provide an enhanced level of information planting information throughout the site. Plantings shall include a simple mixture of seasonally variable, evergreen and deciduous shrubs, ornamental and shade trees, groundcovers and perennials that are horticulturally acclimatized to the Mid-Atlantic and Washington, DC National Capital Region.
 - b. Provide detail planting plans of all specialty planting areas, such as the interpretive area plantings.
 - c. Provide locations, specification/designation and quantities for all proposed plantings as determined by City staff.
 - d. Provide planting details for all proposed conditions including street trees, park trees, multi-trunk trees, evergreen trees, sapling plantings, shrubs, grasses, perennials, bulbs, aquatic plantings, and groundcovers.
 - e. Tree canopy coverage of the site shall be 40% at 10 years from the time of installation.
 - f. Clearly indicate limits of lawn and planting areas.
 - g. Turf grass areas to be maintained by mowing or other mechanical means shall not exceed 4:1 maximum slope, 5:1 slope maximum where possible.
 - h. Provide slope retention fabric or other measures for planted slope areas 3:1 or greater as coordinated with staff
 - i. Tree wells shall be planted with a hardy evergreen groundcover as coordinated with staff.
 - j. Provide detail, section and plan drawings of tree wells showing proposed plantings and associated materials, adjacent curb/pavement construction, including edge restraint system, dimensions, drainage, and coordination with site utilities. Demonstrate that tree wells provide 300 cubic feet of arable soil per tree
 - k. Spacing for street trees along Potomac Avenue and South Main Street shall be consistent with the Potomac Yard Urban Design Guidelines and coordinated with the Potomac Avenue Infrastructure Plan. All street trees along the east side of Potomac Avenue shall be no less than 25 feet apart, an average of 35 feet on center and three (3) feet from the back of the curb. Additional street trees shall be planted on the east side of Potomac Avenue where gaps exist on the preliminary plan, where possible. The

- location of all pole mounted lights shall be coordinated with all trees. Light poles shall be located a minimum of 10 feet from the base of all trees.
- l. Street trees and plantings shall be coordinated with above and below grade site utilities, site furnishings, fences, architecture, lights, signs and site grading to avoid conflicts. The applicant shall provide fully coordinated final plans of site grading, topography and site utilities throughout the drawing set.
 - m. Ensure positive drainage in all planting areas.
 - n. Provide additional plantings at the north trail head to create a definitive point at the trail end.
 - o. Provide additional street trees within the planting strip along the perimeter of the Simpson Fields parcel along East Monroe Avenue and Monroe Avenue bridge slip ramp an average of 35' on center. (P&Z) (RP&CA)
 - p. Planting Index; provide substitutions for the following plants:
 - i) Rhododendron maximum
 - ii) Rhododendron catawbienses
 - iii) Myrica cerasifera
 - iv) Ilex glabra
 - q. Provide additional information and specifications for the following:
 - i) Vines and groundcovers
 - ii) Grass seed or sod
 - iii) Meadow mix
 - iv) Slope mix
 - v) Ornamental grasses
 - vi) Aquatic plantings
 - vii) Seedling and reforestation plantings
 - viii) Ornamental trees as single or multi-trunk
 - ix) Specialized planting palette for Geoweb wall (RP&CA)
 - r. All Street Trees shall be 3" – 3 ½" in. caliper at the time of planting. (RP&CA)
 - s. Slope planting mix shall include a variety of indigenous evergreen, ornamental and large shade trees. (RP&CA)
 - t. Amend planting index to include crown coverage allowance and proposed crown coverage. (RP&CA)
 - u. All plants shall be subject to selection, inspection and approval for conformity to approved drawings (including identification tagging/selection of plants) by the City at the collection growing location, storage facilities and/or upon delivery to the project site. Such approval and selection shall not impair the right of inspection and/or rejection of plants during progress of the work or throughout the acceptance process. (RP&CA)
15. Drawings shall be prepared and sealed by a Landscape Architect certified to practice in the Commonwealth of Virginia. (RP&CA)

16. Provide the following notes on drawings per the City of Alexandria Landscape Guidelines:
- a. "At time of Final Site Plan approval, Specifications for plantings shall be in accordance with the current and most up to date edition of ANSI-Z60.1, The American Standard for Nursery Stock as produced by the American Association of Nurserymen; Washington, DC." (RP&CA)
 - b. "The applicant has made suitable arrangements for pre-selection tagging, pre-contract growing, or is currently undertaking specialized planting stock development with a nursery or grower that is conveniently located to the project site, or other procedures that will ensure availability of specified materials. In the event that shortages and/or inability to obtain specified plantings occurs, remedial efforts including species changes, additional plantings and modification to the landscape plan shall be undertaken by the applicant. All remedial efforts shall, with prior approval by the city, be performed to the satisfaction of the Directors of Planning & Zoning, Recreation, Parks & Cultural Activities, and Transportation & Environmental Services."
 - c. "In lieu of more strenuous specifications, all landscape related work shall be installed and maintained, until acceptance by the City, in accordance with the current and most up-to-date edition (at time of final site plan approval) of Landscape Specification Guidelines as produced by the Landscape Contractors Association of Maryland, District of Columbia and Virginia; Gaithersburg, Maryland." (RP&CA)
 - d. "Prior to commencement of landscape installation/planting operations, a pre-installation/construction meeting will be scheduled and held with the City's Arborist and Landscape Architects to review plant installation procedures and processes." (RP&CA)
 - e. "A certification letter for tree wells, tree trenches, planting soils and plantings above structures will be provided by the applicant's General Contractor. The letter shall certify that all below grade construction is in compliance with approved drawings and specifications. The letter shall be submitted to the City Arborist and approved prior to final acceptance of the project by the City. The letter shall be submitted by the owner/applicant/successor and sealed and dated as approved by the general contractor's Landscape Architect." (RP&CA)
17. Provide the following calculations on the drawings:
- a. Total site open space area/acreage including breakdown of 30% active recreation/70% passive recreation areas. (P&Z) (RP&CA)
 - b. Provide a narrative demonstrating compliance with the Open Space requirements of the Potomac Yard Coordinated Development District and Potomac Yard Urban Design Guidelines. (P&Z) (RP&CA)

- c. There shall be a mix of shade trees, understory trees and evergreen trees. Large deciduous parkland trees shall make up 50% to 75% of the total canopy coverage, medium deciduous parkland trees shall make up 5% to 10%, understory parkland trees 5% to 10%, large evergreen parkland trees shall make up 0% to 15% and small evergreen parkland trees 0% to 5%. (P&Z) (RP&CA)
 - d. Crown area coverage tabulation in compliance with City of Alexandria Landscape Guidelines. (RP&CA)
 - e. Provide pre-development and post development calculations. (RP&CA)
18. Interpretive Landscape Elements:
- a. Applicant shall continue to work with City staff to refine the historic and interpretive design components of the belvederes, plazas and other features and coordinate with the Potomac Yard Interpretive Plan. Interpretive elements shall be as and where shown on the plans and memo referenced in Attachment #5.
 - b. The applicant shall coordinate with City staff in the signage for the Landbay K linear park and belvederes. Seating, walls, structures and paving shall be designed to enhance the interpretive message for each identified space in compliance with the Potomac Yard Interpretive Plan. (P&Z) (RP&CA) (ARCH)

C. SITE FEATURES

19. Parking along the east side of Potomac Avenue shall be amended to accommodate a mix of handicap, standard and City use dedicated spaces. The final plan shall supply a number and quantity of each type of parking space provided along Potomac Avenue. Reconfigure the parallel parking spaces on the east side of Potomac Avenue to include two handicapped spaces and one bulb out with appropriate landscaping and street trees. The remaining parking shall be standard parking spaces. (P&Z) (RP&CA) (T&ES)
- a. City use dedicated spaces shall be surfaced with concrete. Up to three 8 x 22 foot spaces shall be provided.
20. The applicant shall provide details on the handicap parking, accessibility, and handicap access on the east side of Potomac Avenue to the park and trail. The complete park design shall comply with all Access Board and Americans with Disabilities Act Accessibility Guidelines (ADAAG). (T&ES)
21. The park operations/maintenance facility building shall comply with the following to the satisfaction of the Director of Planning & Zoning and Recreation, Parks & Cultural Activities:

- a. Shall be constructed with the first phase and completed prior to acceptance.
 - b. The proposed overhead door shall be solid core metal and incorporate an electronic security system. (RP&CA)
 - c. Final color architectural elevations (front, sides, and rear, including roof, exterior finishes/materials and colors) shall be submitted with Final Site Plan #1. (P&Z) (RP&CA)
 - d. All floors within the building and the ground plane at the entrance to the restrooms shall be sealed concrete. (RP&CA)
 - e. All entrances shall comply with Americans with Disabilities Act Accessibility Guidelines (ADAAG) for Buildings and Facilities. (P&Z) (RP&CA) (T&ES)
 - f. The vehicular entrance to the maintenance portion shall include a concrete approach the width of the building and extending out 5 feet from the building face. (RP&CA)
 - g. Existing conditions sheet shall include a building location and utilities. (P&Z) (RP&CA)
 - h. Proposed building footprint shall be shown in context with Simpson Fields. (P&Z) (RP&CA)
 - i. Existing park building shall be demolished and removed from site. The proposed building shall be constructed in the same general location. (P&Z) (RP&CA)
 - j. Utility service to the building shall include electric, internet and water. (RP&CA)
 - k. All building hardware, fixtures, and appurtenances shall be metal industrial fittings appropriate for use in high-traffic/volume, heavy use public facilities. (RP&CA)
 - l. Provide one hose bib on each side of the park maintenance building. (RP&CA)
22. The following items shall be provided to the satisfaction of the Directors of Code Enforcement, Recreation, Parks & Cultural Activities and Transportation & Environmental Services:
- a. Install emergency access gates in fencing between parkland and CSX rail corridor.
 - b. Access gates shall be designed as personnel access gates.
 - c. Gates shall be located in relation to hydrant spacing along the east side of Potomac Avenue to the greatest extent possible.
 - d. Where there is a hydrant, an access gate shall be provided along the fence line.
 - e. Access gates shall be locked and keyed to the Fire Department Knox Box key system.
 - f. Architecture including park operations/maintenance facility building, and trellises. (P&Z) (RP&CA)

23. Americans with Disability Act (ADA) ramps shall comply with the requirements of Memorandum to Industry No. 03-07 on Accessible Curb Ramps dated August 2, 2007 with truncated domes on the end of the ramp with contrasting color from the rest of the ramp. A copy of this Memorandum is available on the City of Alexandria website. (T&ES)
 - a. The width of all curb ramps that provide access to the shared-use path, particularly those at spine-roads and trailheads, shall be 10'. The truncated dome shall extend for the width of the ramp. All detectable warnings (truncated domes) that are intended for dual use by shared-use path users and maintenance/emergency vehicles shall be slip resistant. Potential manufacturers of such detectable warnings are available here: <http://www.access-board.gov/Adaag/dws/manufacturers.htm>
24. Provide all pedestrian and traffic signage in accordance with the *Manual of Uniform Traffic Control Devices* (MUTCD), latest edition to the satisfaction of the Director of T&ES. (T&ES)
25. All entrances, sidewalks, curbing, etc. in the public ROW or abutting public ROW shall meet City design standards. (T&ES)
26. The applicant shall be responsible for construction/installation of missing or upgrading the existing public infrastructure, including but not limited, to streets, alleyways, sewers, street lighting, traffic and pedestrian signals, sidewalks, curb and gutter, and storm water drop inlet structures to the satisfaction of the Director of T&ES. (T&ES)
27. The applicant shall provide a Traffic Control Plan for construction detailing proposed controls to traffic movement, land closures, construction entrances, haul routes, and storage and staging at the time of Building Permit application, to the satisfaction of the Director of T&ES. All Traffic Control Device design plans, Work Zone Traffic Control plans, and Traffic Studies shall be signed and sealed by a professional engineer, registered in the Commonwealth of Virginia. (T&ES)
28. The applicant shall provide thermoplastic ladder-style pedestrian cross walks at all street crossings at the proposed development, which must be designed to the satisfaction of the Director of Transportation and Environmental Services. (T&ES)
29. Provide an 18' wide emergency vehicle access along the length of the promenade. The promenade, belvederes and other designated paths and walkways shall conform to AAHTSO H20 loading standards to accommodate service and emergency vehicles. Turning radii for entering and exiting rated promenade shall

- be at least R25. Mountable curbing shall be installed at both entry, and departure points and designated access points.(Code) (RP&CA)
30. Trellises shall be constructed of high quality tubular or common dimensional metal members. Scale, character, color, finishes, gauge and materials shall be approved by the City. Provide six (6) trellises. (RP&CA)
 31. Access points shall include mountable vehicular curb consistent with VDOT standards and have a minimum width of sixteen (16) feet. (RP&CA)
 32. Provide removable decorative bollards at park entrances to discourage unauthorized vehicular access. (RP&CA)
 33. Promenade, shared-use paths shall be built according to AASHTO “shared-use path” standards to accommodate use by bicyclists and pedestrians. A minimum 2-foot wide graded area with a maximum 1:6 slope should be maintained adjacent to both sides of the path; however, 3 feet or more is desirable to provide clearance from trees, poles, walls, fences, guardrails or other lateral obstructions. Where the paths are adjacent to ditches, canals or slopes steeper than 3:1, a wider separation should be considered. A minimum 5-foot separation from the edge of the path pavement to the top of the slope is desirable. Depending on the height of the embankment and condition at the bottom, a physical barrier, such as dense shrubbery, railing or chain link fence may need to be provided. (RP&CA) (T&ES)
 34. The trail from Four Mile Run to Braddock Road shall be continuous and implemented with each project phase.
 - a. The Main Body trail shall include a shared-use path immediately adjacent to Potomac Avenue between East Monroe and East Glebe and shall be revised to include a ten (10) feet in width City-approved continuous flexible surface and base material, with a minimum of exposed surface joints, and a continuous concrete shore-edge restraint. (T&ES) (RP&CA)
 - b. The North Trail behind the retail center (excluding the trail heads) and extending to the north pond shall be installed by the applicant contingent upon offsite easements being obtained. Trails shall be ten (10) feet in width to accommodate two-way bike traffic and loaded to accommodate City maintenance and emergency vehicles. (P&Z) (RP&CA)
 - c. The South Trail extending from East Monroe to Braddock Road (excluding the trail heads) shall be asphalt pavement. Trails shall be ten (10) feet in width to accommodate two-way bike traffic and loaded to accommodate City maintenance and emergency vehicles. (P&Z) (RP&CA)
 - d. Identify a clear “through” bicycle route along the entire section of Landbay K from the South Trail Plaza on East Braddock Road to the North Trail Plaza on Potomac Avenue. Bicycles shall be encouraged to

- ride on the shared-use path immediately adjacent to Potomac Avenue by the use of striping and signing, including applications to the trail surface designed to delineate two-way travel areas. (T&ES) (RP&CA)
- e. The shared-use path shall include a 4-inch yellow thermoplastic center line stripe to separate opposite directions of travel. This stripe shall be broken where adequate passing sight distance exists and solid in other locations, or where passing by bicycles may be discouraged. The shared-use path shall include white thermoplastic edge lines on curves with restricted sight distance, particularly north of East Glebe Road. (T&ES) (RPCA)
35. Configure pathways, retaining walls and topography to ensure that adjacent grade conditions do not drain or over wash pathways with debris, soil, water or other materials. (RP&CA)
36. Configure pathways and topography to ensure immediate positive drainage without ponding, or water collection areas. (RP&CA)
37. Provide information on the final site plan that demonstrates changes in pathway materials, colors and finishes. Stone dust and decomposed fines are not approved materials. (P&Z) (RP&CA)
38. Unless specified otherwise, cast in place concrete sidewalks shall be finished with a light broom finish applied perpendicular to the predominant pedestrian travel direction. Such sidewalks shall comply with the Potomac Yard Urban Design Guidelines and City of Alexandria standards. (RP&CA)
39. Cast in place concrete sidewalks shall incorporate reinforcing and be 3000 psi rated where emergency vehicle access routes are currently shown in the Preliminary Plans to cross over said concrete sidewalks. (RP&CA)
40. Unless specified otherwise asphalt paths shall be in compliance with VDOT standards for pedestrian trails. In areas where adjacent grades exceed 4:1 slope a continuous flush concrete shore shall be provided between asphalt and adjacent grade. (RP&CA)
41. Provide note on the final plans indicating that concrete sidewalks shall conform to the City of Alexandria standards as unreinforced sidewalks and include color additive per District of Columbia standard sidewalks “lamp black” as specified by the District of Columbia Standard Specifications for Highways and Structures. (P&Z) (RPCA)
42. The applicant shall coordinate with the Potomac Avenue infrastructure development and incorporate the pedestrian crossing comments from the Potomac Avenue plans and provide pedestrian access at the east-west connector roads

- using appropriate signage. The applicant shall ensure smooth pedestrian access transitions between the Landbays and north-south connections. (T&ES) (P&Z)
- a. All curb ramps on Potomac Avenue that provide access to the shared-use path shall confirm to VDOT and city standards.
43. Include proposed geometry for different Landbays for approved plans along west side of Potomac Avenue. Pedestrian crossings on Potomac Avenue shall be provided at the intersections and shall be signalized. (Transportation)
 44. The applicant shall ensure provision of MUTCD and Access Board/Universal Trail Assessment Process-approved pedestrian signage to encourage use by those with mobility impairments. Adequate signage along paths and trails is essential to alert users to potential conflicts (bicycles vs. pedestrian), indicate directions, destinations and location of crossing streets:
 - a. Entrance, directional, informational, instructional and security information. (RP&CA)
 - b. Coordination with City and regional trail system. (P&Z) (RP&CA) (T&ES)
 - c. Footings and connections that are concealed from view when located in pavement. Footings for ground set signs in plantings or turf areas shall be flush to adjacent finish grade. (P&Z) (RP&CA)
 45. The applicant shall use slip resistant surfaces for boardwalks. On boardwalks, the overall width should be the same as the approach path. (RP&CA)
 46. Revise the trailheads to provide the following:
 - a. Coordinate the location of the north trailhead and entrance plaza features, including pedestrian lighting and site utilities with EVE. (RP&CA)
 - b. Coordinate the location of the south trailhead and entrance plaza features with improvements and access to Braddock Road. (RP&CA)
 - c. Coordinated location and design of seat/entrance walls with park signage. (RP&CA)
 - d. Provide two (2) City standard trash receptacles at each trailhead. (RP&CA)
 47. The applicant shall coordinate site access and construction with Alexandria City Public Schools, CSX and neighboring property owners to ensure minimal disruption to adjacent uses. (RP&CA)
 48. All park entrances shall be coordinated with the approved Potomac Avenue and South Main Street Infrastructure Plan. (RP&CA)

49. Revise sidewalk along South Main Street between Potomac Avenue and East Monroe to show an 8' sidewalk with a 6' planting strip/buffer adjacent to the roadway.
50. Provide information of sufficient detail and development to demonstrate relationships between fitness stations, retaining walls, bike/pedestrian path, site lighting and travel ways with Final Site Plan #1. (RP&CA)
51. Fitness station equipment, mounting, materials, finishes, fall/exercise area, ground surfacing and accessibility shall be approved by the Director of Recreation, Parks & Cultural Activities. (RP&CA)
52. Each fitness station shall include instructional signage. (RP&CA)
53. Decks, handrails, appurtenances and fasteners shall be heavy gauge metal construction. (RP&CA)
54. Deck footings and connections shall be concealed from view when located in pavement. Footings for ground set posts in plantings or turf areas shall be flush to adjacent finish grade. (RP&CA)
55. Provide information of sufficient detail and development to demonstrate relationships between decking, handrails, site lighting, interpretive elements and adjacent pavement and grade conditions. (RP&CA)
56. Provide sections showing water surface elevations, above and below grade conditions including footings and site utilities. (RP&CA)
57. Decks shall possess live/dead load capability to support City gator/Cushman or similar at approved vehicle access. (RP&CA)
58. Provide information that demonstrates the material, finish, character and architectural details of retaining walls, seat walls, decorative walls, screen walls, fencing around the active recreation components and guardrails/fencing. Indicate methods for grade transitions including top of wall and bottom of wall elevations at each directional change, handrails if required by code and above/below grade conditions including coordination with site utilities. Design and construction information shall include: (P&Z) (RPCA)
 - a. Concrete walls with Formliner facing as depicted on the preliminary plans. Formliner facing and wall cap shall be consistent with the approved plans for the Pump Station and Onsite Forcemain using Chester Drystack 1548 as manufactured by Spec Formliners.
 - b. Above and below grade conditions for Geoweb wall plantings.
 - c. Masonry stone walls throughout the project site.

- d. Interpretive masonry walls.
 - e. Seat walls throughout the project site.
 - f. Site walls associated with active recreation facilities.
 - g. Handrails and guardrails where required by code.
 - h. Handrail and fence footings and connections in pavement areas shall be concealed from view. Support posts shall be imbedded and shielded with matching escutcheon plates. Surface mount post/plate connections are not acceptable. Footings for ground set posts in plantings or turf areas shall be flush to adjacent finish grade. Footings shall incorporate positive drainage away from posts.
 - i. Connections between differing wall construction systems.
 - j. Drainage for walls shall not be expelled onto adjacent paved areas/surfaces.
 - k. Wall finishes shall incorporate surfacing or surface treatments that ensures ease of general cleaning, and removal of defacing marks and graffiti.
 - l. A continuous and uninterrupted 5 foot wide access path shall be provided at the base of the retaining walls and slopes adjacent to the rail corridor. The access path shall be 21B VDOT stone or City approved equal, 8 inches in continuous depth with filter fabric, soil separator between soil and subgrade.
59. Provide information that demonstrates the material, finish, character and architectural details of site security, active recreation and code related barrier fences throughout the project site. Indicate methods for grade transitions, directional changes, above and below grade conditions including coordination with site utilities. Design and construction information shall include: (RP&CA)
- a. Site Security (RP&CA)
 - b. Maintenance access for areas on west side of the rail corridor fence. (RP&CA)
 - c. Access gates at playgrounds and Simpson Field and approaches shall be sized and designed to accommodate adequate clearances for maintenance vehicles and emergency equipment. (RP&CA)
 - i) Double gates shall incorporate six inch diameter posts with full framed diagonally braced gate leaves and center drop post with tamperproof locking mechanisms. (RP&CA)
 - ii) Single gates shall incorporate six (6) inch diameter posts with full framed diagonally braced gate leaf and tamperproof locking mechanisms. (RP&CA)
 - iii) Double and single gates shall incorporate a continuous six (6) foot width (three feet on each side of fence) concrete threshold that extends two (2) feet beyond each gate post and incorporates the gate post footings. (RP&CA)

- d. Chain link and wire fabric fences and gates shall incorporate a continuous top and bottom rail between posts. All fabric, gates, posts, rails and appurtenances shall be dark green and vinyl coated. (RP&CA)
 - e. Multipurpose/tennis and basketball courts shall be fenced with chain link in accordance with the Potomac Yard Urban Design Guidelines. Fence type, material, gauge and finish shall match approved final Pump Station and Onsite Forcemain fencing. (RP&CA)
 - f. Code related barrier fences including concrete walls along the rail corridor. (RP&CA)
 - g. Demonstrate compliance with the Potomac Yard Urban Design Guidelines which indicate, "...Fencing required for playgrounds and recreational areas shall be architectural metal fencing similar to Legi fencing, manufactured by OuterSpace Landscape Furnishings. With the exception of active recreation court enclosures, chain link fencing shall be prohibited from public view." (P&Z) (RP&CA)
60. Applicant shall continue to work with staff to develop the location and specification for site furnishings including seating, trash receptacles, frost free drinking fountains, signs, bike racks, fitness course stations, bollards, art and interpretive pieces (by others) that are accommodated within the design of the park as coordinated with the applicant. (P&Z) (RP&CA)
61. Paving, walls, steps, seating and structures shall incorporate design components that discourage skate and skateboard damage. (RP&CA)
62. All site furnishings shall be installed on pavement. (RP&CA)
63. All footings for site furnishings shall be fully concealed from view when located in pavement. Surface mount post/plate connections are not acceptable. (RP&CA)
64. Stored bicycles shall not interfere with adjacent pedestrian or vehicle travel ways. (RP&CA)
65. The preferred bicycle parking detail is the black, double-powder-coated "Bike Circle" available through Creative Metalworks LLC. Racks shall be embedded in concrete. (T&ES)
66. Applicant shall work with staff to design and develop a palette and coordinate the location, and character of site-use related signs or wayfinding graphics as a comprehensive site sign and interpretive plan for the project site that is coordinated with other portions of the Potomac Yard development and the City's comprehensive overall wayfinding system. (RP&CA)
67. The pedestrian bridge and approaches shall be fully accessible in compliance with ADA requirements. (RP&CA)

D. ACTIVE RECREATION

68. All active recreation courts shall be fully accessible. (RP&CA)
69. Provide materials including paving/play surfacing, vegetation, planters, fencing, standards, netting, and lighting (for tennis courts). (RP&CA)
70. The applicant shall provide a coordinated design palette for the active recreation courts including the following:
- a. Tennis Courts:
 - i) Court surface material and construction shall comply with the United States Tennis Association standards (RP&CA)
 - ii) Court surface, line materials, and colors shall be approved by the City. (RP&CA)
 - iii) Court lights shall be equipped with shields, fixtures, internal louvers or other sharp cutoff devices to limit spill into adjacent areas and be fitted with GE, Hubbell or Musco, metal halide 1,000 watt lamp fixtures, or equal as approved by the City. (RP&CA)
 - iv) Provide a detailed photometric plan of the tennis courts demonstrating a minimum of 100 foot candles maintained. (RP&CA)
 - v) Play surfaces shall have immediate positive drainage. Courts shall be dimensionally constructed and graded consistent with United States Tennis Association standards for slope, pitch and direction. (RP&CA)
 - vi) Central court net system shall be vandal resistant, adjustable tension with top and bottom cable stays. (RP&CA)
 - b. Volleyball:
 - i) Net system shall include permanent sleeving for installation of net posts. Sleeves shall be aluminum, steel or brass with screw lock covers set in self draining concrete footings flush to grade. (RP&CA)
 - ii) Applicant shall provide two sets of nets, stanchions, and components for City use. Manufacturer shall be BSN & Collegiate Pacific, or equal as approved by the City. (RP&CA)
 - iii) Play area shall have immediate positive drainage. Court surface shall be natural turf grass with an underlaid sand cap drainage system. (RP&CA)
 - iv) No surface drains or other impediments shall be placed in the play or runout areas. (RP&CA)

- c. Basketball:
- i) Court surface material and construction shall comply with the National Federation of State High School Athletic Associations standards. (RP&CA)
 - ii) Court surface, line materials and colors shall be approved by the City. (RP&CA)
 - iii) Goals, post, backboard, rim and net assemblies shall be high-use recreation quality and comply with National Federation of State High School Athletic Association Standards, as manufactured by Gametime, Rawlings, Landscape Structures or equal as approved by the City. (RP&CA)
 - iv) Play surfaces shall have immediate positive drainage. Courts shall be graded consistent with National Federation of State High School Athletic Associations standards for slope, pitch and direction. (RP&CA)
- d. Play Area(s):
- i) Provide a coordinated design palette of play area related site structures/equipment. (RP&CA)
 - ii) Specification, location, finish, color, material, and character of site structures and equipment shall be approved by the City. (RP&CA)
 - iii) Continue to work with staff to design and develop materials suitable for the maze walls. Maze walls shall be constructed of a high quality material appropriate for outdoor use, vandal resistant, child-safe and finished with a level of detail suitable for its location. (RP&CA)
 - iv) Work with staff to design a root barrier and curb system for tree wells to the satisfaction of the City Arborist.
 - v) Playground equipment and site furnishings shall be appropriate for year round outdoor use. (RP&CA)
 - vi) The play area, play equipment, and playground safety surfacing shall comply with the most recent guidelines, specifications and recommendations of the Consumer Product Safety Commission (CPSC) Handbook for Public Playground Safety, ASTM Specification for Playground Equipment for Public Use (ASTM F1487) and ASTM Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment (ASTM F1292). Applicant shall provide certification that the play areas have been designed, reviewed and approved by a certified playground safety inspector (CPSI professional) with current certification. (RP&CA)
 - vii) Play area and equipment shall comply with Americans with Disabilities Act Accessibility Guidelines (ADAAG) for Buildings and Facilities; Play Areas 36DFR Part 1191; Final Rule. (RP&CA)

- viii) The final fountain design shall be approved during final site plan review with City staff based on concept provided in Memo dated February 16, 2008 and Exhibit D prepared by EDAW and dated. The jets shall be located in such a way to avoid conflicts with entrances to play areas. (RP&CA)
 - ix) Provide location, and dimensions for mechanical systems vault(s) related to the fountain. (RPCA, PZ)
 - 1. All mechanical systems shall be located below grade.
 - 2. Vault enclosure/hatch shall be vandal resistant metal, of a color and finish complimentary to adjacent pavement and set flush to adjacent finish grade.
 - x) Play surface material shall be poured in place unitary rubber safety surface or approved equal to the satisfaction of the Director of Recreation, Parks & Cultural Activities. (RP&CA)
 - xi) The compacted aggregate subbase used in the poured in place rubber surfacing shall be a consistent depth throughout the playground. The minimum depth shall be six inches. (RP&CA)
 - xii) Play surface shall be lined/marked as approved by the City and incorporate a continuous 6" wide flush concrete shore in locations where it abuts plantings or other turf areas. (RP&CA)
 - xiii) Fences shall be architectural metal fencing similar to Legi fencing, manufactured by Outer-Space Landscape Furnishings, in accordance with the Potomac Yard Urban Design Guidelines. Fabric, posts and gates shall be dark green vinyl coated. Fence height shall be 42 inches continuous. Fence shall incorporate 12 foot wide gates with (1) 4 foot wide leaf, and (1) 8 foot wide leaf, as generally depicted in the Preliminary Plan. (RP&CA)
 - xiv) Play surfaces shall have immediate positive drainage. No surface drains or other impediments shall be placed in the fall zone, play or runout areas. (RP&CA)
- e. Rectangular Athletic Fields:
- i. In compliance with CDD 99-001, Condition #15(o), City access, use and programming of existing rectangular interim fields shall continue until such time that replacement/final fields are designed, constructed and fully accepted for use by the City. (RP&CA, PZ)
 - ii. The applicant shall provide playing fields and associated items to include the following:
 - a. Immediate positive surface and subsurface drainage. No surface drains or other impediments shall be placed in the play field or runout areas.
 - b. Enclosure by a 6' tall green chain link fence incorporating (2) double leaf 16' wide maintenance gates with a setback from the playing surface in locations as approved by the City.

- c. Primary power service and transformer(s) with capacity to power six (6) athletic field lights per athletic field (see iv, as below), each as fitted with GE, Hubbell or Musco, metal halide 1,500 watt lamp fixtures, or equal as approved by the City. Transformer(s) and power source shall be located in coordination with City staff.
 - d. Water source and service for irrigation, including meter(s), backflow prevention devices, connections and conveyance piping to the field location(s). Static pressure shall be determined in coordination with City staff.
 - e. Playing field surface and subgrade composed of one of the following:
 - 1. Patriot species natural turfgrass sod/overseeded with annual rye, or equal as approved by the City on an engineered field section including turf rotor irrigation system, specialty growing media (3 inches minimum depth), washed/clean sand drainage cap (6 inches minimum depth), and drainage subbase course (8 inches minimum depth), and filter fabric between the sand and subbase.
 - 2. Synthetic infill turf system from the City's prequalified vendor/product list, using an engineered underdrain system, concrete perimeter retainer, perimeter loop irrigation system, and permanent field lining, each as approved by the City.
- iii. The applicant shall continue to work with Staff to enter into a Memorandum of Agreement that establishes a cost sharing arrangement and construction schedule to ensure that the City's desire to have synthetic infill turf system fields rather than natural turfgrass fields - at this site is accomplished. The terms of the Memorandum of Agreement shall include, but are not limited to, the following: dimensional design, location and, notwithstanding CDD 99-001, Condition #15(o), a construction schedule that coordinates construction of the synthetic infill turf system fields with the removal from service of the interim fields and the development of Potomac Yard. The field playing surface dimensions including runouts will be approximately 380x200 and 380x230 feet. Field dimensions and runout areas (10 feet minimum continuous) for soccer, lacrosse and field hockey shall be consistent with National Federation of State High School Athletic Association standards. (RP&CA, PZ)
- iv. Locate six (6) athletic field lights per field as generally depicted on the plan in coordination with City staff. Lights shall be installed by others in the future and equipped with shields, fixtures, internal louvers or sharp cutoff devices to limit spill into adjacent areas.

Fixtures will be fitted with GE, Hubbell or Musco, metal halide 1,500 watt lamp fixtures, or equal as approved by the City. (RP&CA, PZ)

E. SUBDIVISION/EASEMENTS/PROCEDURES

71. Provide location and label for all easements and property boundaries within project. (RP&CA)
72. Applicant shall be solely responsible for submitting obtaining and or maintaining all easements construction access easements, dedication plats, documentation and permissions to work areas that overlap or abut adjacent properties. The applicant shall obtain all required temporary and permanent easements prior to the commencement of any construction activities on the subject property. Such easement shall be submitted for final review and approval by the director of Planning and Zoning and the City Attorney prior to the release of any final site plan for the project.
73. Applicant shall demonstrate acceptance/ratification of all necessary easements and permissions with adjacent property owners prior to City release/approval of Final Site Plan. (RP&CA)

F. STORMWATER MANAGEMENT

74. The applicant must comply with the approved Master Stormwater Quantity Plan and Article XIII of the City of Alexandria Zoning Ordinance.
75. The storm water collection system is located within the Potomac River Watershed. All on-site storm water curb inlets and public curb inlets within 50 feet of the property line shall be duly marked using standard City markers. (T&ES)
76. Per the requirements of the City of Alexandria Zoning Ordinance (AZO) Article XIII, the applicant shall comply with the peak flow requirements and prepare a Stormwater Management Plan so that from the site, the post-development peak runoff rate from a two-year storm and a ten-year storm, considered individually, shall not exceed their respective predevelopment rates. If combined uncontrolled and controlled stormwater outfall is proposed, the peak flow requirements of the Zoning Ordinance shall be met. (T&ES)
77. The Storm Flow Screens shall be installed at end-of- the line to treat water quality and remove trash and floatables because in the event of flooding, there is higher possibility of flooding only the stormwater management pond than the public right of way or other structures overlain by the storm sewers. The responsibility

- of maintenance of the storm water management ponds shall be as per the BMP agreement. (T&ES) (P&Z) (RP&CA)
78. Flow from downspouts, foundation drains, and sump pumps shall be discharged to the storm sewer outfall as per the requirements of Memorandum to the industry on Downspouts, Foundation Drains, and Sump Pumps, Dated June 18, 2004 that is available on the City of Alexandria's web site. The downspouts and sump pump discharges shall be piped to the storm sewer outfall, where applicable after treating for water quality as per the requirements of Article XIII of Alexandria Zoning Ordinance (AZO). (T&ES)
 79. All stormwater designs that require analysis of pressure hydraulic systems, including but not limited to the design of flow control structures and storm water flow conveyance systems shall be signed and sealed by a professional engineer, registered in the Commonwealth of Virginia. The design of storm sewer shall include the adequate outfall, inlet, and hydraulic grade line (HGL) analyses that shall be completed to the satisfaction of the Director of T&ES. Provide appropriate reference and/or source used to complete these analyses. If applicable, the Director of T&ES may require resubmission of all plans that do not meet this standard. (T&ES)
 80. Provide proposed elevations (contours and spot shots) in sufficient details on grading plan to clearly show the drainage patterns. (T&ES)
 81. If the park design supersedes the Potomac Avenue approved BMP and Pipe Structures, Storm Sewer, and Infrastructure Plan then the applicant shall insure to coordinate with other developments to synchronize various plans in respect to BMP's, storm sewer, and infrastructure, including but not limited to storm water management ponds, and sandfilter, with the proposed design of the Park. The respective applicants for the affected developments shall submit the as built drawings by synchronizing various plans with Landbay K for review and approval by the City of Alexandria. (T&ES)
 82. Provide BMP narrative and complete pre and post development drainage maps that include areas off site that contribute surface runoff; to include adequate topographic information, locations of existing and proposed storm drainage systems affected by the development, all proposed BMP's and a completed Worksheet A or B and Worksheet C, as applicable. In addition, drawdown calculation tabulation shall be provided. (T&ES)
 83. The storm water Best Management Practices (BMPs) required for this project shall be constructed and installed under the direct supervision of the design professional or his designated representative. Prior to release of the performance bond, the design professional shall submit a written certification of the Director of T&ES that the BMPs are: (T&ES)

- a. Constructed and installed as designed and in accordance with the approved Final Site Plan.
 - b. Clean and free of debris, soil and litter be either having been installed or brought into service after the site was stabilized.
84. Surface-installed storm water Best Management Practice (BMP) measures, i.e. Bio-Retention Filters, Vegetated Swales, etc. that are employed for this site, require installation of descriptive signage to the satisfaction of the Director of T&ES. (T&ES)
 85. Prior to release of the performance bond, a copy of the Operation and Maintenance Manual shall be submitted to the Division of Environmental Quality on digital media.
 86. Prior to release of the performance bond, the Applicant is required to submit a certification by a qualified professional to the satisfaction of the Director of T&ES that any existing storm water management facilities adjacent to the project and associated conveyance systems were not adversely affected by construction operations and that they are functioning as designed and are unaffected by construction activities. If maintenance of the facility or systems were required in order to make this certification, provide a description of the maintenance measures performed. (T&ES)
 87. Applicant shall continue to work with City staff to refine the design of the stormwater management ponds. (P&Z) (RP&CA) (T&ES)
 88. The Applicant shall submit a storm water quality BMP Maintenance Agreement with the City to be reviewed as part of the Final #2 Plan. It must be executed and recorded with the Land Records Division of Alexandria Circuit Court prior to approval of the final site plan. (T&ES)
 89. In compliance with the Stormwater Quality Master Plan and coordinated with the Departments of Planning & Zoning, Transportation & Environmental Services and Recreation, Parks & Cultural Activities, applicant shall formalize an agreement of maintenance for systems for each of the stormwater management facilities including the north and south stormwater management ponds and sand filters. (RP&CA) (T&ES)
 90. The applicant shall coordinate with the Potomac Avenue Plan to ensure that the sand filter locations are located such that the manholes are flush with adjacent grade and fully enclosed by the paved surface of pathways, trail system, promenade or other hard surface and include:

- a. Sand filters shall have sufficient cover to ensure that the pavement elevation is not affected by heaving, subsidence or differential settlement and installed such that only the manhole(s) are visible above grade.
 - b. Perimeter of manholes shall not be located closer to the edge of pavement than a dimension equal to the diameter of the manhole.
 - c. Manholes and supporting systems constructed partially in paved/grass/planted areas or not flush to adjacent grade shall be removed and relocated to satisfaction of the City.
91. Boat launches for the North and South Ponds shall include:
- a. Non-slip approach and use surfacing such as H-20 load rated ribbed concrete. Concrete shall be ribbed perpendicular to use/travelway. (RP&CA)
 - b. Applicant to achieve as much vertical and horizontal clearance as possible with 25 foot minimum turning radii for approaches and accessible routes for intended uses. Access from street shall include a drop curb. (RP&CA)
 - c. Slope and grade transition as approved by the City. (RP&CA)
 - d. Required maintenance access turns as approved by the City. (RP&CA)
92. North and South Ponds:
- a. Provide plant details and species for storm water filtration/wetland plants. (RP&CA)
 - b. Provide narrative information demonstrating strategies for control of algae formation in pond. (RP&CA)
 - c. Provide shoreline design/treatment to discourage access by geese. (RP&CA)
 - d. Drawings shall indicate disposition of storm water structures-headwalls/outfalls and risers to be removed, replaced or remain. (RP&CA)
 - e. Amend planting and landscape plan to accommodate in-line trash collection vaults. (RP&CA)
 - f. Storm structures including headwalls, outfalls and risers shall be screened to the maximum extent possible
 - g. Provide information that demonstrates pond edge stabilization techniques and pond construction. (RP&CA)
 - h. Provide approved trash collection screen system at each outfall into the pond. (RP&CA)
 - i. Provide reinforced slopes in lieu of a rip-rap. Slope stabilization methods shall be designed, installed and maintained until acceptance by the City to the satisfaction of the City. (RP&CA)

93. North Pond:
- a. The final plans shall demonstrate coordination between deck piers and pond bed. (RP&CA)
 - b. At the North Pond the final plans shall provide details for water level interpretative masts including material, finish. (RP&CA)
 - c. Relocate light pole that obstructs the boat launch ramp entrance on the preliminary plan. (RP&CA)
94. South Pond:
- a. The ground treatment at storm structures shall be of an appropriate planting and construction material suitable to withstand the water flow and storm conditions. Slope mix shall not be permitted. (RP&CA)
 - b. Provide sections and other supporting drawings that depict character of the park beneath the Route 1/Monroe Avenue Bridge. (RP&CA)
 - c. Provide information that demonstrates coordination between pond, site design and new Route 1/Monroe Avenue Bridge including grading, lighting, finishes and materials. (RP&CA)

G. INFRASTRUCTURE

Site Electrical

95. Provide readily accessible two phase 120 volt power at each belvedere, trailhead entrance, play area (2 per side), promontory, deck, active recreation use (tennis, multiuse court, basketball, volleyball, athletic fields) and park entrance. (RPCA, TES)
- a. Incorporate power source locations with light fixtures or other electrical systems to the maximum extent possible.
 - b. Power sources shall be waterproof UL approved enclosures/receptacles.
 - c. Conduit beneath paved surfaces shall be placed in UL approved sleeving.
96. Provide approved electrical enclosures at the tennis courts that house controls for the active recreation lights. Controls shall incorporate remote access/activation using a City approved system. Incorporate electrical enclosures into adjacent construction. (RPCA)
97. Provide a photometric point grid site lighting plan that includes all existing and proposed light fixtures with lighting calculations. Demonstrate coordination between street lights including ones on the opposite side(s) of all adjacent streets, trail, promenade, active recreation court lights, bridge and building mounted fixtures (such as those located on the Pump Station). Photometric calculations must extend from proposed building face(s) to property line and from property

- line to the opposite side(s) of all the adjacent streets and/or 20 feet beyond the property line on all adjacent properties, and right-of-way. Show existing and proposed street lights and site lights. Full cut-off lighting shall be used at the development site to prevent light spill over onto adjacent properties. (RPC&A)(T&ES)(P&Z)(Police)
- a. Provide a lighting schedule that indicates the manufacturer's specifications for height, light source, strength of fixture in Lumens or Watts, pole type and mounting/footing connection and quantity.
 - b. Provide detail information indicating proposed light pole and footing in relationship to adjacent grade or pavement. All light pole foundations shall be concealed from view.
 - c. All proposed street lights and pedestrian scale lights shall be located, at minimum, 3' from the edge of all shared-use paths, pedestrian walkways and promenade to comply with AASHTO, Virginia Department of Transportation and City of Alexandria to provide adequate clear width.)
 - d. Light fixtures that require separately located ballast box are not permitted.
 - e. Provide a lighting schedule that specifies the height, light source, strength of fixture in Lumens or Watts, manufacturer, pole type and mounting/footing connection and quality. (RPC&A)(T&ES)(P&Z)(Police)
 - f. Light fixtures that require separately located ballast box are not permitted. (RP&CA)
98. Provide location of on-site utilities with other site conditions to the satisfaction of the Directors of Planning & Zoning, Transportation & Environmental Services, and Recreation, Parks & Cultural Activities, including:
- a. Location and orientation of site utilities including above grade service openings and required clearances for items such as transformers, telephone, HVAC units and cable boxes. (P&Z) (RP&CA)
 - b. Location and orientation shall be field-approved by the City prior to release of Final Site Plan. (RP&CA)
 - c. Do not locate above grade utilities in open space areas or adjacent to active recreation, playground or interpretive areas, runouts, fall zones, or other areas where they may be impediments to use. Adjust to active recreation use requirements. (P&Z) (RP&CA)
 - d. Above grade utilities located in planting or turf areas shall have footings flush to adjacent grade and be installed to minimize conflicts with adjacent plantings, pedestrian areas and major view sheds. (RP&CA)
 - e. All cabinets and enclosures shall be approved by the City and corresponding utility companies and incorporate tamperproof security systems. (RP&CA)
 - f. Site utilities' structures (except fire hydrants) shall be located in least visual prominent locations. There will be no shrubbery planted around transformers for screening purposes. Where transformers are in visual locations, and if required by the City, the transformers shall be screened

- using an alternate method to the satisfaction of the Directors of RP&CA and P&Z.
- g. All private utilities shall be located outside of the public right-of-way and public utility easements. (T&ES)
 - h. Show all existing and proposed public and private utilities and easements and provide a descriptive narration of various utilities. (T&ES)
 - i. Applicant shall underground all of the utilities serving the site. (T&ES)
99. In compliance with the City of Alexandria Zoning Ordinance Article XI, the applicant shall complete a sanitary sewer adequate outfall analysis as per the requirements of Memorandum to Industry No. 02-07 New Sanitary Sewer Connection and Adequate Outfall Analysis dated June 1, 2007. (T&ES)
100. All sanitary laterals and/or sewers not shown in the easements shall be owned and maintained privately. (T&ES)
101. Provide approved electrical enclosures at the tennis courts that house controls for the active recreation lights. Controls shall incorporate remote access/activation using a City approved system. Incorporate electrical enclosures into adjacent construction (RP&CA)

Site Irrigation

102. Develop, install and maintain until acceptance by the City, a site irrigation/water management plan as generally as depicted on the preliminary plans. (RPCA)
- a. Site irrigation plan, details and specifications shall be prepared by a certified irrigator who is licensed to practice in the Commonwealth of Virginia and possesses demonstrated experience in system design for recreation facilities.
 - b. Continue to work with staff to develop details and specific design criteria.
 - c. Provide hose bibs/yard hydrants at 150 feet on-center along the promenade between the north and south stormwater management ponds.
 - d. Incorporate one hose bib/yard hydrant at each belvedere, play area (per side), deck and active use court.
 - e. Provide all hardware and software necessary to install a remote station, including sensors, transmitters, and other equipment.
 - i) Controllers and water service connections shall be located as approved by the City.
 - ii) The system shall incorporate and be fully coordinated with the City's Maxicom Central Control System.
 - f. All irrigation system components shall be approved by the City.
 - i) Valves, splices, meters, hose/yard hydrants, flow devices, pumps and similar components shall be placed in underground boxes.

- ii) Underground boxes shall be Carson, Inc., H-20 load rated with black covers, or equal as approved by the City.
 - iii) All irrigation system components shall be Rainbird, Inc., or equal as approved by the City.
 - iv) Hose bibs, yard hydrants and valves shall be solid brass. Galvanized irrigation components or fittings are not acceptable.
 - v) System components beneath paved surfaces shall be installed as sleeved connections (schedule 40 minimum gauge-class 200 pipe is not acceptable) extending 24 inches beyond edge of nearest paved surface. Demonstrate, field locate and permanently mark sleeve connections as approved by the City.
103. The applicant shall provide City Standard trash receptacles as generally shown on the Preliminary Plan and in a quantity and location to the satisfaction of the Directors of RP&CA and T&ES. (TES) (RPCA)

H. SITE CHARACTERISTICS

104. The applicant shall provide a geotechnical / hydrogeology report, including recommendations from a geotechnical professional for proposed cut slopes, embankments, and groundwater regime. (T&ES) (RP&CA)
105. Plan does not indicate whether or not there is any known soil and groundwater contamination present as required with all preliminary submissions. Should any unanticipated contamination, underground storage tanks, drums or containers be encountered at the site, the Applicant must immediately notify the City of Alexandria Department of Transportation and Environmental Services, Division of Environmental Quality. (T&ES)
106. The final site plan shall not be released, and no construction activity shall take place until the following has been submitted and approved by the Director of T&ES:
- a. Submit a Site Characterization Report/Extent of Contamination Study detailing the location, applicable contaminants, and the estimated quantity of any contaminated soils and/or groundwater at or in the immediate vicinity of the site. (T&ES)
 - b. Submit a Risk Assessment indicating any risks associated with the contamination. (T&ES)
 - c. Submit a Remediation Plan detailing how any contaminated soils and/or groundwater will be dealt with, including plans to remediate utility corridors. "Clean" backfill shall be used to fill utility corridors. (T&ES)
 - d. Submit a Health and Safety Plan indicating measures to be taken during remediation and/or construction activities to minimize the potential risks to workers, the neighborhood, and the environment. (T&ES)

- e. Applicant shall submit 5 copies of the above. The remediation plan must be included in the Final Site Plan. (T&ES)
- 107. All exterior building mounted loudspeakers are prohibited. (T&ES)
- 108. Contractors shall not cause or permit vehicles to idle for more than 10 minutes when parked. (T&ES)
- 109. A “Certified Land Disturber” (CLD) shall be named in a letter to the Division Chief of C&I prior to any land disturbing activities. If the CLD changes during the project, that change must be noted in a letter to the Division Chief. A note to this effect shall be placed on the Phase I Erosion and Sediment Control sheets on the site plan. (T&ES)
- 110. During the construction phase of this development, the site developer, their contractor, certified land disturber, or owners other agent shall implement a waste and refuse control program. This program shall control wastes such as discarded building materials, concrete truck washout, chemicals, litter or trash, trash generated by construction workers or mobile food vendor businesses serving them, and all sanitary waste at the construction site and prevent offsite migration that may cause adverse impacts to neighboring properties or to the environment to the satisfaction of Directors of Transportation and Environmental Services and Code Enforcement. All wastes shall be properly disposed offsite in accordance with all applicable federal, state and local laws. (T&ES)
- 111. All drainage facilities must be designed the satisfaction of Code. Drainage divide maps and computations must be provided for approval. (T&ES)
- 112. The applicant shall comply with the City of Alexandria’s Noise Control Code, Title 11, Chapter 5, which sets the maximum permissible noise level as measured at the property line. (T&ES)
- 113. The applicant must comply with the Article XIII of the City of Alexandria Zoning Ordinance, which includes requirements for storm water pollutant load reduction, treatment of the water quality volume default, and storm water quantity management. (T&ES)
- 114. The applicant must comply with the City of Alexandria, Erosion and Sediment Control Code, Section 5, Chapter 4. This includes naming a Responsible Land Disturber on the Erosion and Sediment Control sheets prior to engaging in land disturbing activities in accordance with Virginia Erosion and Sediment Control Law. (T&ES) (RP&CA)

115. Environmental Protection Agency, Army Corps of Engineers, Virginia Marine Resources permits must be in place for all project construction and mitigation work prior to release of the final site plan. This includes the state requirement for a VSMP permit for land disturbing activities greater than 2500 SF. (T&ES)
116. The Contractor shall prepare and submit a plan that delineates a detailed construction management plan for the entire project for review and approval by the Directors of P&Z, T&ES, and Code Enforcement prior to commencing any clearing or grading of the site. The applicant shall hold a meeting with the liaison committee to review the location of construction worker parking, plan for temporary pedestrian and vehicular circulation, and hours and overall schedule for construction. (P&Z) (T&ES) (CE)
117. The applicant shall identify a person who will serve as liaison to the community throughout the duration of construction. The name and telephone number, including an emergency contact number, of this individual shall be provided in writing to residents, property managers and business owners whose property abuts the site and shall be placed on the project sign, to the satisfaction of the Directors of Planning & Zoning and Transportation & Environmental Services. (P&Z) (T&ES) (CE)
118. Applicant shall meet with Planning & Zoning, Recreation, Parks & Cultural Activities and T&ES to discuss construction staging activities prior to release of any permits for ground disturbing activities. (P&Z) (T&ES) (RP&CA)

I. ARCHEAOLGY

119. All required archaeological preservation measures shall be completed in compliance with Section 11-411 of the Zoning Ordinance. (Note: The applicant has begun the process of compliance with preparation of a draft Resource Management Plan and draft Documentary Study for Potomac Yard. The conditions below outline the applicant's outstanding obligations to satisfy the code requirements.) (ARCH)
 - a. To ensure that significant information is not lost as a result of the current development project, the applicant shall hire an archaeological consultant to complete an Archaeological Evaluation of the portions of Landbay K where construction disturbance will penetrate the historical land surfaces, as delineated in the draft Resource Management Plan for the entire project area that was prepared by Thunderbird Archaeology in November 2007. The applicant shall hire a consultant to prepare a scope of work for this investigation. The scope shall be subject to approval by Alexandria Archaeology. If significant resources are discovered, the consultant shall complete a Resource Management Plan specific to Landbay K, as outlined in the City of Alexandria Archaeological Standards. Preservation

- measures presented in the Landbay K Resource Management Plan, as approved by the City Archaeologist, shall be implemented. (ARCH)
- b. All required archaeological preservation measures shall be completed prior to ground-disturbing activities (such as coring, grading, filling, vegetation removal, undergrounding utilities, pile driving, landscaping and other excavations as defined in Section 2-151 of the Zoning Ordinance) or a specific Resource Management Plan for Landbay K must be in place to recover significant resources in concert with construction activities. To confirm, call Alexandria Archaeology at (703) 838-4399. (ARCH)
 - c. The final site plan shall not be released until the City archaeologist confirms that all archaeological field work has been completed or that an approved Resource Management Plan for Landbay K is in place. (ARCH)
 - d. The applicant/developer shall call Alexandria Archaeology immediately (703-838-4399) if any buried structural remains (wall foundations, wells, privies, cisterns, etc.) or concentrations of artifacts are discovered during development. Work must cease in the area of the discovery until a City archaeologist comes to the site and records the finds. (ARCH)
 - e. The City will not accept ownership of this property until the final archaeological report and documentary study have been received and approved by the City Archaeologist. (ARCH)
 - f. The applicant/developer shall not allow any metal detection to be conducted on the property, unless authorized by Alexandria Archaeology. (ARCH)
120. The statements in Conditions 114c, 114e, 114g above shall appear in the General Notes of all site plans and on all site plan sheets that involve demolition or ground disturbance (including Erosion and Sediment Control, Grading, Landscaping, and Sheet piling and Shoring) so that on-site contractors are aware of the requirements. (ARCH)

CITY DEPARTMENT COMMENTS

Legend: C - code requirement R - recommendation S - suggestion F - finding

Transportation & Environmental Services:

- F-1 Since the record drawings, maps, and other documents of the City of Alexandria, State, and Federal agencies show the true north pointing upwards, therefore, the Site Plan shall show the true north arrow pointing upward as is customary; however, for the sake of putting the plan together and/or ease of understanding, the project north arrow pointing upward, preferably east, or west may be shown provided it is consistently shown in the same direction on all the sheets with no exception at all. The north arrow shall show the source of meridian. The project north arrow pointing downward will not be acceptable even if, it is shown consistently on all the sheets. (T&ES)
- F-2 The plan shall show sanitary and storm sewer, and water line in plan and profile in the first final submission and cross reference the sheets on which the plan and profile is shown, if plan and profile is not shown on the same sheet. Clearly label the sanitary and storm sewer, or water line plans and profiles. Provide existing and proposed grade elevations along with the rim and invert elevations of all the existing and proposed sanitary and storm sewer at manholes, and water line piping at gate wells on the respective profiles. Use distinctive stationing for various sanitary and storm sewers (if applicable or required by the plan), and water line in plan and use the corresponding stationing in respective profiles. (T&ES)
- F-3 The Plan shall include a dimension plan with all proposed features fully dimensioned and the property lines clearly shown. (T&ES)
- F-4 Include all symbols, abbreviations, and line types in the legend. (T&ES)
- F-5 All storm sewers with in the public ROW shall be constructed to the following City of Alexandria standards and specifications. The minimum diameter for storm sewers shall be 18-inches in the public Right of Way (ROW) and the minimum size storm sewer catch basin lead shall be 15". The acceptable pipe material will be Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 or Reinforced Concrete Pipe (RCP) ASTM C-76 Class IV. For roof drainage system, Polyvinyl Chloride (PVC) ASTM 3034-77 SDR 35 and ASTM 1785-76 Schedule 40 pipes will be acceptable. The acceptable minimum and maximum velocities will be 2.5 fps and 15 fps, respectively. The storm sewers immediately upstream and downstream of the first manhole in the public Right of Way shall be owned and maintained privately (i.e., all storm drains not shown within an

- easement or in a public Right of Way shall be owned and maintained by the property owner). (T&ES)
- F-6 All sanitary sewers shall be constructed to the City of Alexandria standards and specifications. The minimum diameter of sanitary sewers shall be 10” in the public Right of Way and sanitary lateral 6”. The acceptable pipe materials will be Polyvinyl Chloride (PVC) ASTM 3034-77 SDR 35, ASTM 1785-76 Schedule 40, Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52, or reinforced concrete pipe ASTM C-76 Class IV (For 12” or larger diameters); however, RCP C-76 Class III pipe may be acceptable on private properties. The acceptable minimum and maximum velocities will be 2.5 fps and 10 fps, respectively. Lateral shall be connected to the sanitary sewer through a manufactured “Y” or “T” or approved sewer saddle. Where the laterals are being connected to existing Terracotta pipes, replace the section of main and provide manufactured “Y” or “T”, or else install a manhole. (T&ES)
- F-7 Lateral Separation of Sewers and Water Mains: A horizontal separation of 10’ (edge to edge) shall be provided between a storm or sanitary sewer and a water line; however, if this horizontal separation cannot be achieved then the sewer and water main shall be installed in separate trenches and the bottom of the water main shall be at least 18” above of the top of the sewer. If both the horizontal and vertical separations cannot be achieved then the sewer pipe material shall be Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 and pressure tested in place without leakage prior to installation.
- F-8 Maintenance of Vertical Separation for Crossing Water Main Over and Under a Sewer: When a water main over crosses or under crosses a sewer then the vertical separation between the bottom of one (i.e., sewer or water main) to the top of the other (water main or sewer) shall be at least 18”; however, if this cannot be achieved then both the water main and the sewer shall be constructed of Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 with joints that are equivalent to water main standards for a distance of 10 feet on each side of the point of crossing. A section of water main pipe shall be centered at the point of crossing and the pipes shall be pressure tested in place without leakage prior to installation. Sewers crossing over the water main shall have adequate structural support (concrete pier support and/or concrete encasement) to prevent damage to the water main. Sanitary sewers under creeks and storm sewer pipe crossings with less than 6” clearance shall be encased in concrete.
- F-9 No pipe shall pass through or come in contact with any part of sewer manhole. Manholes shall be placed at least 10 feet horizontally from the water main whenever possible. When local conditions prohibit this horizontal separation, the manhole shall be of watertight construction and tested in place.

- F-10 Crossing Existing or Proposed Utilities: Underground telephone, cable T.V., gas, and electrical duct banks shall be crossed maintaining a minimum of 12" of separation or clearance with water main, sanitary, or storm sewers. If this separation cannot be achieved then the sewer pipe material shall be Ductile Iron Pipe (DIP) AWWA C-151 (ANSI A21.51) Class 52 and pressure tested in place without leakage prior to installation. Sewers and water main crossing over the utilities shall have adequate structural support (pier support and/or concrete encasement) to prevent damage to the utilities.
- F-11 The rip rap shall be designed as per the requirements of Virginia Erosion and Sediment Control Handbook, Latest Edition.
- F-12 Provide typical sections of the trails and wherever the width varies.
- C-1 Bond for the public improvements must be posted prior to release of the plan.
- C-2 All downspouts must be connected to a storm sewer by continuous underground pipe or day lighted within 100 feet to an adequate outfall.
- C-3 All easements and/or dedications must be recorded prior to acceptance of the City..
- C-4 Plans and profiles of utilities and roads in public easements and/o public Right of Way must be approved prior to release of the plan.
- C-5 All drainage facilities must be designed to the satisfaction of T&ES. Drainage divide maps and computations must be provided for approval.
- C-6 All utilities serving this site to be underground.
- C-7 Provide site lighting plan.
- C-8 Plan shall comply with the Chesapeake Bay Preservation Act in accordance with Article XIII of the City's zoning ordinance for storm water quality control.
- C-9 Provide a phased erosion and sediment control plan consistent with grading and construction plan.
- C-10 Per the Memorandum To Industry, dated July 20, 2005, the applicant is advised regarding a requirement that applicants provide as-built sewer data as part of the final as-built process. Upon consultation with engineering firms, it has been determined that initial site survey work and plans will need to be prepared using Virginia State Plane (North Zone) coordinates based on NAD83 and NAVD88. Control points/Benchmarks which were used to establish these coordinates should be referenced on the plans. To ensure this requirement is achieved, the applicant

is requested to prepare plans in this format including initial site survey work if necessary. (Site Plans)

- C-11 Americans with Disability Act (ADA) ramps shall comply with the requirements of Memorandum to Industry No. 03-07 on Accessible Curb Ramps dated August 2, 2007 with truncated domes on the end of the ramp with contrasting color from the rest of the ramp. A copy of this Memorandum is available on the City of Alexandria website. (T&ES)

Archaeology Findings:

- F-1 Undisturbed sections of Potomac Yard have the potential to provide insight into the historical themes and time periods outlined in the background history section.

Code Findings:

- F-1 The proposed Preliminary Plan has been verified as complete by Code Enforcement.

DEQ Findings:

- F-1 Plan needs a BMP computation for Landbay K as proposed as well as the overall approved drawdown impervious area calculations throughout the development. Onsite pump station shall be included in Landbay K computations.
- F-2 BMP Drainage Divide map is unreadable – contours can not be read so it is impossible to verify divides.
- F-3 There may be some drainage flowing to the 42 inch pipe that is untreated. Investigate. Applicant is encouraged to carefully explore mechanisms to treat this volume. Should this be impossible applicant is referred to City of Alexandria, Article XIII, Environmental Management Ordinance, Section 13-110(A), *Alternate stormwater management equivalency options and establishment of the Alexandria Water Quality Improvement Fund*. To employ either option, applicant shall follow the guidance provided in Section 13-110(D) and submit a letter to Claudia Hamblin-Katnik, Watershed Program Administrator, 301 King Street, Room 3000, Alexandria, VA 22314 outlining his intent.