

Appendix I: Background

Background

The Planning Area

The Potomac Yard/Potomac Greens site is a 295-acre brownfield located in the northeast area of the City, immediately south of downtown Washington, D.C. and Ronald Reagan Washington National Airport. The area has served as a north-south trade and transportation corridor since prehistoric times, and most recently as the site of an active railroad (See *Appendix 3: History*). Today, the site is divided into two main parcels – Potomac Yard and Potomac Greens – by a 120 foot wide active railroad corridor running north-south through the tract. Potomac Yard is further divided into smaller portions or “landbays.” The focus of this plan is Landbay F (Figure 33).

Figure 33. Potomac Yard Landbays



is divided into two main parcels – Potomac Yard and Potomac Greens – by a 120 foot wide active railroad corridor running north-south through the tract. Potomac Yard is further divided into smaller portions or “landbays.” The focus of this plan is Landbay F (Figure 33).

Landbay F – Current Uses

At 69.07 acres in size, Landbay F (Potomac Yard Center) is the largest property in Potomac Yard/Potomac Greens. Landbay F is located in the northern portion of Potomac Yard, is roughly rectangular in shape, and is approximately one-half mile in length from north to south. It is bordered by Landbay E and Four Mile Run to the north, Landbay G (Town Center) to the south, Landbay K (Potomac Yard Park), CSX Railroad tracks, Washington Metropolitan Area Transit Authority (WMATA) Metrorail tracks, and Landbay A (Potomac Greens) to the east, and Route 1 to the west.

Landbay F was developed in the mid-1990s as an automobile-oriented, approximately 600,000 sq. ft., retail shopping center with predominately “big box” national retailers, pad sites, a 16-screen cinema, and surface parking. When it was developed it was intended to be an interim use, and not a long-term use.

In early 2009, the City Council approved an urban, mixed-use Town Center in Landbay G, with a total of 1,766,868 square feet, a relative floor area ratio (FAR) of 2.2, and building heights between 45 and 110 feet. In addition, to the north across Four Mile Run, the development of Potomac Yard Arlington is well under way, with a planned total gross square footage of 4,409,835, an FAR of 2.03, and building heights of approximately 120 to 160 feet.



Status of Other Potomac Yard Landbays

Landbay A (Potomac Greens): Final Development Special Use Permit (DSUP) approved for up to 244 residential units and approximately 20 acres of open space. Potomac Greens construction is nearly completed.

Landbay C (Potomac Plaza): Developed with 15,000 square feet of street retail.

Landbay D (Rail Park): Requires subsequent approval for design and programming of the park.

Landbay E (Four Mile Run): Revised CDD conditions related to the dedication of and improvements to Landbay E approved. Dedication pending. Approval has been granted for bridge demolition.

Landbay G (Town Center): Preliminary DSUP approved for up to 800,000 square feet of office space, 625 hotel rooms, 80,000 square feet of street retail, 414 residential units, and 1.6 acres of open space. Construction has not commenced. A portion of Landbay G is developed with “The Station,” a City-owned, collocated fire station and 64 affordable housing units.

Landbay H: Final DSUP approved for the construction of office space, street retail, and residential units. Transfer of 765,000 square feet of office space to Landbay H from Landbay J and L subsequent to the approval of the Final DSUP.

Landbay I: Preliminary DSUP approved for a portion of Landbay I for the construction of 116 townhouse and stacked townhouse units.

Landbay J: Preliminary DSUP approved for a portion of Landbay J for the construction of 60 townhouse and stacked townhouse units.

Landbay K (Potomac Yard Park): Preliminary DSUP approved for an approximately 24-acre park.

Landbay L: SUP approved for a portion of Landbay L for a dog park. No plans submitted for development.

Landbay M: A multipurpose athletic field plan approved as part of a DSUP.

Landbay N: Plans submitted for dedication to the city.

Prior Planning History

Plans for the redevelopment of Potomac Yard have been underway for over 20 years. Starting in the late 1980s, the City began updating the 1974 Master Plan and the Richmond, Fredericksburg & Potomac (RF&P) Railroad began to explore development alternatives for Potomac Yard because it was no longer being used as a rail yard. The first proposal (for the entirety of Potomac Yard), Alexandria 2020, was a mixed-use, neighborhood development which continued the street grid of the adjacent neighborhoods and replicated typical setbacks, heights and architectural styles. The plan included a tree-lined interior boulevard, parks, and pedestrian gathering places. The plan included a Metrorail station near the center of Potomac Yard, with the potential for commuter rail service and bus connections. The total amount of development proposed in the 2020 plan was approximately 16 million sq. ft.

Alexandria 2020 was never formally submitted to the City for approval; however, the City approved new zoning for the site in the context of updating the Master Plan in 1992. The new zoning, Coordinated Development District (CDD), provided for a lower level of development than was proposed in the Alexandria 2020 plan, with approximately 8.8 million sq. ft. of development.

In the early 1990s, the property owner of Potomac Yard pursued a proposal to locate Jack Kent Cooke football stadium at Potomac Yard. This proposal did not go forward.

In 1997, the property owner submitted a proposal for changes to the Master Plan and CDD to allow the location of the Patent and Trademark Office (PTO) at Potomac Yard. However, the request was denied by the Planning Commission and withdrawn by the applicant prior to the City Council hearing. The PTO subsequently located its offices elsewhere in Alexandria at Carlyle.

Landbay F was developed in the mid-1990s in accordance with its underlying zoning: Commercial Service Low (CSL) and Industrial (I).

Current Land Use and Zoning

In 1999, City Council approved an updated Potomac Yard/Potomac Greens Small Area Plan and rezoned the property to Coordinated Development District (CDD #10).

The City has approved a number of revisions to this plan since 1999, but it remains the current operative plan for Potomac Yard and allows for approximately 6.4 million sq. ft of development overall. In accordance with this plan, Landbay F is limited to 600,000 sq. ft. of retail uses.

Potomac Yard/Potomac Greens is subject to the Potomac Yard Urban Design Guidelines (the “Design Guidelines”) which were adopted in 1999 as part of the Small Area Plan. The Potomac Yard Design Advisory Committee (PYDAC) reviews plans for conformance with the Design Guidelines as part of the DSUP process required by the CDD zoning.

To date, construction is complete in Landbay C (Potomac Plaza) and nearing completion in Landbay A (Potomac Greens). In addition, “The Station” is recently completed. A number of infrastructure improvements are in place throughout Potomac Yard/Potomac Greens, including the Monroe Avenue Bridge and portions of the framework street network.

Appendix II: Context for Plan

Context for Plan

Role of The Plan

The City Council established the Potomac Yard Planning Advisory Group (PYPAG) in October 2008 to function, in part, as a conduit for community values, knowledge and ideas, and to advise City staff on the development of the small area plan and plan recommendations. The purpose of the Plan, as outlined in the PYPAG Vision Statement, is to establish the City's vision for North Potomac Yard as an environmentally and economically sustainable and diverse 21st Century urban, transit-oriented, mixed-use community that is compatible with adjacent neighborhoods and which is a regional destination with diverse built and natural spaces. Additional information concerning the PYPAG can be found in *Appendix 4: Community Outreach*.

The Plan lays the foundation which will guide development in North Potomac Yard for the next 30 years. Keeping its functional life in mind, the Plan is intentionally flexible in order to accommodate new approaches (such as new technologies, policies, or methods) to achieve the Plan's goals. As the City plans its future, Potomac Yard will play an important role in helping Alexandria achieve its goal of being a world-class, environmentally and economically sustainable city.

History and Historical Character

Potomac Yard has a long history of serving as a major north-south trade and transportation corridor from prehistoric times through the present. Detailed information concerning Potomac Yard's colorful history can be found in *Appendix 3: History*.

Existing Conditions and Policies

This planning effort has been guided by the principles, goals, and recommendations of City policy documents which lay the foundation upon which the recommendations of the North Potomac Yard Small Area Plan are based. These policy documents include:

- Potomac Yard/Potomac Greens Small Area Plan (1992)
- Historic Preservation Plan (1992)
- Potomac Yard/Potomac Greens Small Area Plan (1999), as amended through June 2008
- Open Space Plan (2002)
- Strategic Master Plan for Recreation, Parks and Cultural Activities (2003)
- City Council's 2004-2015 Strategic Plan (2004)
- Mayor's Economic Sustainability Work Group Final Report (October 2007)
- Transportation Master Plan (2008)
- Pedestrian & Bicycle Mobility Plan (2008)

- Eco-City Environmental Charter (2008)
- Four Mile Run Restoration Master Plan (2006) and Four Mile Run Design Guidelines (2009)
- Green Building Policy (2009)
- Environmental Action Plan 2009-2030 (2009)
- Urban Forestry Master Plan (2009)

Demographics and Forecasts

There are currently no residential units in North Potomac Yard, therefore, there is no demographic data available for the area. However, 1999 Census data is available for the adjacent areas of Potomac West and Crystal City.

Potomac West is located to the west of Potomac Yard. It is an approximately 2.13 square mile area which roughly includes the Arlandria, Del Ray, Lynhaven, Mount Jefferson, and Rosemont neighborhoods (Census Tracts 2012.02, 2012.03, 2012.04, 2014.00, and 2015.00). Key characteristics of the Potomac West area are as follows:

- Population: 22,331
- Race: White non-Hispanic, 44%; Hispanic, 27.9%; Black non-Hispanic, 23%
- Age: Under 18, 20.3%; 18-64, 73.9%; Over 65, 5.8%
- Mean Household Income: \$69,684
- Tenure: Owner-occupied, 44.2%; renter-occupied, 55.8%
- Housing Type: single-family detached, 25.3%; single-family attached, 31.5%; 2+ units attached, 43.1%.

Crystal City is an approximately 1.71 square mile area located to the north of Potomac Yard in Arlington County (Census Tract 1034.02). Key characteristics of the Crystal City area are as follows:

- Population: 3,012
- Race: White non-Hispanic, 72.9%; Asian, 9.9%; Black non-Hispanic, 7.9%, Hispanic, 5.8%
- Age: Under 18, 3.3%; 18-64, 83.5%; Over 65, 13.2%
- Mean Household Income: \$86,274
- Tenure: Owner-occupied, 15.3%; renter-occupied, 84.7%
- Housing Type: single-family detached, 1.4%; 2+ units attached, 98.6%

Analysis of Market Conditions

Robert Charles Lesser & Co. (RCLCO) completed a retail market study for North Potomac Yard (Potomac Yard Center) and Landbays G and H/I (Town Center). For the purposes of the study, a development program was assumed for North Potomac Yard including: 900,000 to 1,100,000 square feet of office uses; 800,000 to 900,000 square feet of retail uses; 4,500 to 5,000 residential dwelling units; and 250 to 300 hotel rooms. The study also considered approved densities for Landbays G and H, and part of Landbay I, and the greater market area.

Based on projections of future households and workers in the market area, the study concludes that there is sufficient market support for approximately 1.27 million square feet of retail uses in North Potomac Yard and Landbays G and H/I including approximately:

- 495,000 square feet of Major Comparison Retailers, such as department and general merchandise stores, and electronics, home furnishings, and book stores.
- 230,000 square feet of In-line Comparison Retailers, including smaller tenants selling specialty goods, such as apparel and apparel accessories, jewelry, home goods and furniture, books and music, and electronics.
- 325,000 square feet of Neighborhood Retailers which serve every day consumer needs, such as grocery stores, pharmacies, and other convenience retailers.
- 220,000 square feet of Food and Beverage, including full-service sit-down restaurants; limited-service, take-out, fast-food, and fast-casual restaurants, and bars and clubs.

The study envisions North Potomac Yard and the Town Center as two distinct and complementary retail districts. North Potomac Yard would function as a regional “lifestyle” retail destination which combines all four of the above-named retail uses, plus entertainment options. In contrast, retail uses in Landbays G and H/I (Town Center) would cater primarily to local residents, workers, and transit users.

The study concludes that retail projects in North Potomac Yard and the Town Center would fill a gap in the retail market in Alexandria and surrounding areas which currently lacks new, large-scale, urban retail options. In addition, retail projects at Potomac Yard would enable the City to better capture retail sales dollars that are currently lost to neighboring jurisdictions.

Opportunities and Constraints

Opportunities

A number of opportunities present themselves at Potomac Yard. These opportunities are rare in an urban location and include:

- **Size:** Potomac Yard is one of the largest developable properties in the City and the region. North Potomac Yard is over 69 acres in size.
- **Location:** Potomac Yard is located in close proximity to downtown Washington, D.C. and Ronald Reagan National Airport. It is a natural “gateway” into Alexandria.
- **Transportation:** Potomac Yard is accessible from Route 1, a major north-south route for local and regional traffic in the eastern area of the City. In terms of public transit, Potomac Yard is part of the greater Potomac Yard/ Crystal City Transit Corridor for which there are plans for dedicated transit lanes, and there is the potential for the location of a Metrorail station at Potomac Yard.

Constraints

In order to take advantage of the opportunities of the site, certain constraints must be mitigated or managed. These constraints include:

- **Existing Infrastructure:** The existing road network and stormwater and sanitary sewage treatment capacity systems have limited capacity. Unless expanded, these capacities will limit the densities that can be accommodated at Potomac Yard.

- Financing: In order to finance the needed transportation infrastructure, significant developer participation is imperative but not easily achieved given costs and the realities of the current development financing market.
- Federal Aviation Administration (FAA) Height Restrictions: North Potomac Yard is impacted by FAA height restrictions which have been imposed on properties in the vicinity of Ronald Reagan National Airport.
- Neighborhood Impacts: Potomac Yard is surrounded by many residential neighborhoods of historic significance (See *Chapter 4: Existing Neighborhoods*). Development at North Potomac Yard could have impacts on the adjacent neighborhoods, particularly in terms of traffic generation and building heights.
- Accessibility: Accessibility to North Potomac Yard is limited. The property is surrounded by water to the north (Four Mile Run) and CSX railroad and Metrorail tracks to the east. In addition, road connections to the north and south are limited, and there are no connections to the east.

Appendix III: History

Potomac Yard History

The History of Potomac Yard: A Transportation Corridor through Time

By Francine W. Bromberg, Alexandria Archaeology

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.



Native American Occupation

The word “Potomac” is thought to derive from an Algonquian Indian term meaning “where things are brought in” or a place for trade (National Museum of the American Indian 2008). Thus, even before the arrival of Europeans, the area was recognized as a transportation hub and center for the exchange of goods. While the river itself served as the major natural transportation corridor for Native Americans in their canoes, an old Indian trail purportedly followed the ridge from the Rappanhannock to the Potomac and developed into present-day Telegraph Road in the local area (Netherton et al. 1978:20).

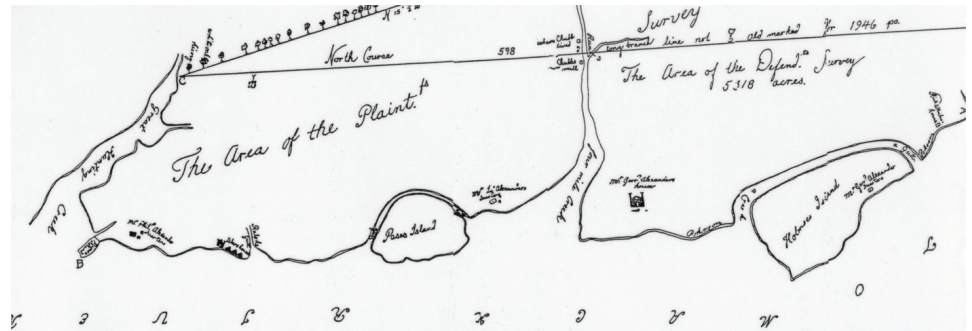
Bands of Native American hunters and gatherers may have traversed the area that became Potomac Yard as early as 13,000 years ago. More intensive occupation undoubtedly began about 5000 years ago when anadromous fish became abundant in the Potomac (Bromberg 1987). In addition, the nearby marshes, which formed as the glaciers melted, provided a wide variety of resources. Temporary encampments to exploit the marsh resources and take advantage of the reliable spring fish runs probably continued on the Potomac Yard terraces into the historic period, which begins with John Smith’s voyage up the Potomac River in 1608. At that time, Smith recorded the locations of two nearby agricultural hamlets, Nameraughquend to the north (on what is now National Airport) and Assaomeck to the south (near Belle Haven), from which foraging parties could have departed for exploitation of the swamp and fish resources of the Potomac Yard property (Smith 1608).

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. Not a settler himself, Howsing wasted no time in converting his property to the currency of the time, and sold the acreage to John Alexander, a planter residing in what is now King George County, for 6 hogsheads (6,000 pounds) of tobacco (Miller 1992a:107; Walker and Harper 1989:3-4; Mullen 2007:28). From the 1670s until the 1730s, John Alexander and his descendants leased the property to tenants. Thus, the earliest historical settlement of the

land that became Potomac Yard consisted of tenant farms on large landholdings owned by absentee landlords (Walker and Harper 1989:3-4; Mullen 2007:28). In the 1730s, members of the Alexander family began subdividing the property and established plantations on it (Mullen 2007:28). John Alexander's great grandson John and his wife Susannah Pearson Alexander set up a quarter in the northern section of what was to become Potomac Yard. It is likely that enslaved African Americans lived in the quarter and worked the tobacco fields under the supervision of an overseer (Mullen 2007:30). Other plantations were established on adjacent properties by Alexander's descendants, including the Dade plantation to the southeast and Abingdon north of Four Mile Run. It is likely that John and Susannah's son Charles built the Preston plantation house in the 1750s or 1760s, in roughly the same location as the original quarter (Mullen 2007:30). The family cemetery was situated nearby (Miller 1992a:109). The river still served as a transportation artery, and the large landholdings had been subdivided to allow each plantation frontage on the Potomac.

Historic Waterfront



Overland travel also linked the early plantations. A branch off the old Indian trail running closer to the river became known as the Potomac Path and developed into the present-day Route 1 (Netherton et al. 1978:20). In 1749, Alexandria was established south of the Potomac Yard property on a portion of Alexander's land around a tobacco warehouse and inspection station built to facilitate shipment of the cash crop to England. With the formation of the town, roads such as the Potomac Path took on new importance as stage and post roads.

Sometime during the second half of the eighteenth century, a road was extended north from Alexandria, incorporating portions of what is now Route 1, to the vicinity of present-day Rosslyn. There, a ferry shuttled passengers and goods across the Potomac to Georgetown. Known as the Georgetown Road, it was the route taken by the French army, led by Comte de Rochambeau, on their way to and from Yorktown to fight with the Americans against the British in 1781. A sketch map indicates that a portion of the French army camped adjacent to the road, probably near the southern end of what was to become Potomac Yard (Mullen 2007:32).

As the eighteenth century progressed, farmers abandoned the cultivation of tobacco for wheat, and the large plantations were subdivided into smaller farms. The growth of the town of Alexandria, along with the establishment of Washington, D.C., in 1791, created markets for the foods that could be cultivated on these smaller farmsteads and necessitated additional improvements in the transportation corridor. Wealthy townspeople also kept gardens, orchards and small farms on the outskirts of the town. One such farm, owned by the Fendalls, who resided in town on Oronoco Street, extended into the area that was to become Potomac Yard. In 1805, it was leased to innkeeper John Gadsby, who undoubtedly carted the produce to town for use in his tavern and hotel (Miller 1992:110; Mullen 2007:31).

Recreational and institutional facilities arose along this transportation corridor in the rural community to serve the growing town. In the late 18th and early 19th centuries, a horse-racing track was located north of town, and around 1800,

Alexandria constructed an alms house at the northwest corner of present-day Monroe Avenue and Route 1, just outside of the property that would become the rail yard. The poorhouse provided shelter, food and clothing to indigent residents of town and functioned as a work house and farm. In addition, local courts sentenced petty criminals to serve time in the work house (Mullen 2007:31).

Good roads through the area that would become Potomac Yard became crucial to the town's economy; however, most were haphazardly constructed and poorly maintained. In 1785, a group of Alexandrians received permission from the Virginia General Assembly to erect toll gates on the Georgetown Road in order to raise money for road maintenance. This strategy proved inadequate, and by the 1790s, some local residents began forming private companies to build turnpikes to raise capital for road maintenance and improvements. In 1808, the Washington and Alexandria Turnpike Company received a charter to build a turnpike between Alexandria and Washington, and the turnpike opened in 1809. It began on Washington Street in Alexandria, then headed north following the route of the Georgetown Road, and continued along the present-day path of Route 1 toward a new bridge constructed over Four Mile Run. The toll house was situated on the south side of the bridge (Mullen 2007:33; Miller 1992a:114-115).

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

Despite the construction of the turnpikes, overland travel remained slow. The level terraces that were eventually developed into Potomac Yard became the site of transportation innovations that connected Alexandria to the north, west, and south--first cutting through the rural landscape and then helping to transform it into suburban communities.

The Alexandria Canal

As cities and towns on the east coast began to grow, competition for trade with the agricultural lands to the west intensified, and merchants became anxious to improve navigation around the falls along the Potomac River. For Alexandrians, competition with Georgetown was always an issue. With plans for the construction of the Chesapeake and Ohio Canal connected to



Georgetown on the Maryland side of the river, Alexandrians became concerned that trade would bypass their wharves and that the town would lose its connection to the west, which was so vital to its economic interests. To connect Alexandria with the Chesapeake and Ohio, the Alexandria Canal Company was chartered in 1830, and the canal opened for navigation in 1843. It crossed the Potomac via an aqueduct bridge, an amazing feat of engineering for its time, with a 1,000 foot-long trough resting on 8 masonry piers. Canal boats were then pulled for 7 miles along the flat ground that would later become Potomac Yard, and lowered to the level of the Potomac through four lift locks at the north edge of town. With the completion of the canal, business flourished for a time with wheat, corn, flour and whiskey carried downstream and fish, salt, plaster, and lumber transported on the upstream journeys. After 1850, when the C&O Canal reached Cumberland, Maryland, coal became the major commodity for downstream transport. When the coal reached Alexandria's port, much of it was loaded onto

seagoing vessels for export to cities along the east coast and in Europe (City of Alexandria n.d.; Mullen 2007:34).

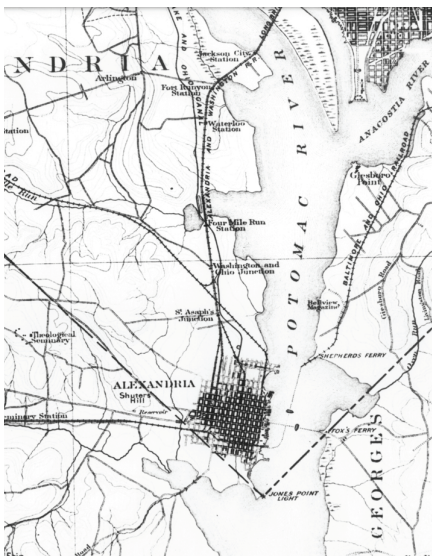
The Railroad Era Begins

While the canal was successful for a while, it was no match for the railroads, and ceased operation in 1886. Towns like Baltimore, which had invested in the railroad industry in the early nineteenth century, became the industrial centers of the northeast. Rail transportation finally came to Alexandria in 1851 with the opening of the Orange and Alexandria rail line, which headed west along tracks that ran parallel to Duke Street.

The first line to traverse the Potomac Yard property was built to link Alexandria and Washington. Completed in 1857, the Alexandria and Washington Railroad had six trains daily, leaving from a station on St. Asaph Street. Passengers found it a fast and convenient way to travel between the two cities and to connect with trains headed north. In addition, food and other products could be transported by rail for sale in Washington or transferred to northbound trains in the capital (Mullen 2007:34).

Plans for another railroad had begun to take shape in 1853, when a group of local residents, hoping to help Alexandria compete with Baltimore for trade with the west, secured a charter for the Alexandria, Loudoun and Hampshire railroad. Construction began in 1855, and trains began running between Alexandria and Leesburg in 1860, crossing from the southeast toward the northwest through what would become Potomac Yard (Mullen 2007:34, 39).

Historic street grid with context



The Civil War: Rail Connections Improved

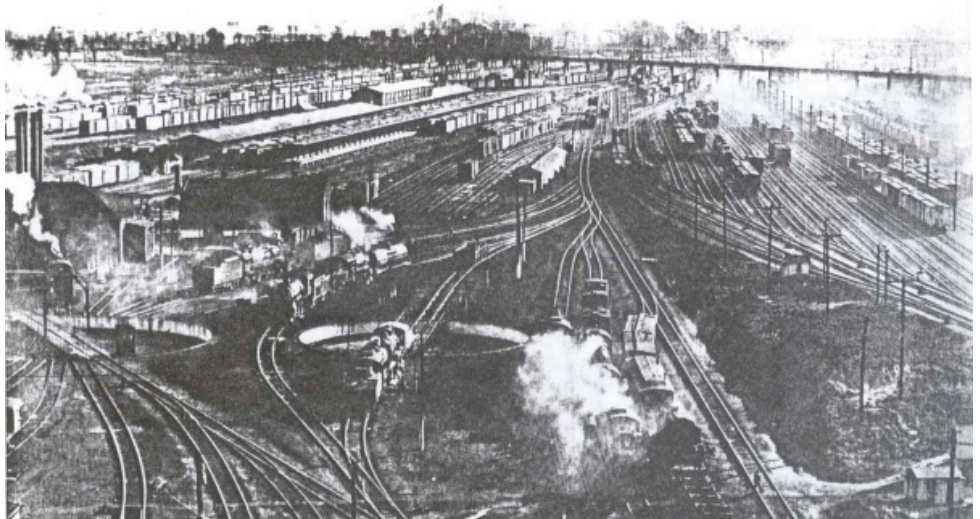
The connection of the north and south railroad lines through Alexandria occurred as a result of the Civil War. On March 24, 1861, the day after Virginia seceded from the Union, Federal troops entered by city, and it remained an occupied town throughout the course of the war. Tens of thousands of soldiers passed through the area, and during the early years of the war, the 5th Massachusetts may have camped on what would become Potomac Yard property (Mullen 2007:40-41). Control of the railroads leading out of Alexandria to the west and south probably served as the major impetus for this occupation. Alexandria became a major depot for shipment of supplies and troops to the front as well as a hospital and convalescent center for those injured. The U.S. Military Railroad complex, a secure and stockaded 12-block area enclosing the facilities of the Orange and Alexandria, was constructed. The three rail lines to enter the city were connected and expanded during the occupation, and the rail connection with the North was made complete when tracks were laid across Long Bridge to the Baltimore & Ohio Railroad (Mullen 2007:39-40).

Post-War Seeds of Suburbanization

Throughout the nineteenth century, land use in the area that would become Potomac Yard remained largely agricultural. The Swanns, descendants of the Alexanders, lived near the former location of Preston Plantation, which was burned down during the Civil War. The Daingerfields owned much of the land, and Susan Barbour, daughter of Henry Daingerfield and wife of U.S. Congressman and then Senator John Barbour, erected a house on the property in the 1870s. A small community, which included a school house by 1878, grew up near the intersection of what is now Monroe Avenue (Poorhouse Lane) and the turnpike. 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. The proximity to the railroads made it possible for residents to commute to jobs in Alexandria and Washington. On the A&W rail line, St. Asaph Junction station served the community of Del Ray, and the Washington and Ohio station served St. Elmo (Mullen 2007:40-47).

Potomac Yard, 1906-1987

In the late nineteenth and early twentieth centuries, the Washington, D.C. area became a major point for the transfer of freight between northern and southern rail networks. The railroads carried perishable goods, such as fruits, vegetables, and livestock, from the southern states to urban markets in the North, and transported manufactured goods from northern factories to the South. With multiple rail companies serving each region at the turn of the twentieth century, there was no central location for the transfer of freight between the northern and southern lines (Mullen 2007:47). The situation was particularly difficult in Alexandria, where a significant bottleneck occurred with all these rail lines trying to pass through town. East/west City streets were blocked, as 20 to 30 trains per day came through on Fayette and Henry streets. With the rising volume of rail traffic, the system became increasingly unwieldy, and a movement to beautify Washington took up the cause to get the railroads out of the cities (Griffin 2005). The solution took shape as an unusual business undertaking, when six competing railroads agreed to band together to construct the rail yard and facilitate the movement of freight between the northern and southern rail lines. Potomac Yard, known as the “Gateway Between the North and the South,” became the largest railroad yard for freight car interchange on the east coast. When Potomac Yard opened on August 1, 1906, it had 52 miles of track that could handle 3,127 cars. The yard grew to a maximum of 136 miles of track crammed into a 2 ½ to 3 mile stretch of land. At its peak, it serviced 103 trains daily (Griffin 2005; Carper 1992; Mullen 2007:47, 49).



The yard was divided into two main areas—a northbound classification yard and a southbound classification yard. In the northbound yard, freight destined for the north came into the yard, was classified and made up into trains for the northern markets. The routine was the same in the southbound yard. Trains would come in, climb what was called the hump, and be directed toward the appropriate track to form outbound trains by the throwing of switches. Initially, gravity took the cars down the hump with brakemen riding on the sides of the cars and manually putting on the brakes (Griffin 2005; Mullen 2007).

While the main function was freight classification, the yard had numerous support buildings and facilities. These included an 800-foot long transfer shed to consolidate freight from cars that were not full, facilities for pit inspection of the cars, a 12-stall round house and engine house for repairs and maintenance, and a 135-foot high coal tipple that could load over 1500 tons of coal per day to satisfy the needs of the steam locomotives. There were also facilities for feeding and resting livestock in transit. In addition, a huge icing facility could service 500 cars of perishable goods per day with ice manufactured by the Mutual Ice Company of Alexandria. As the twentieth century progressed, the yard changed

with increased mechanization and the advent of electric and diesel electric trains (Griffin 2005; Carper 1992; Miller 1992; Mullen 2007; Walker and Harper 1989).

To operate the classification yard and associated facilities, Potomac Yard employed approximately 1200 people in 1906 and about 1500 at its peak. Employees included mechanics and carpenters who worked on the rail cars, car inspectors, brakemen, switch operators, and locomotive engineers, as well as clerks who managed the huge amount of paperwork associated with the freight transfer. The work force consisted of both whites and African Americans, but the yard enforced racial segregation in employee facilities. In the early twentieth century, the workers were primarily male, but by mid-century African American women, and perhaps white women, had become part of the labor force (Mullen 2007:49).

By the 1970s, the heyday of the railroad era began to wane and the need for a classification yard between the North and South lessened. Technological improvements in the rail cars allowed for longer periods of use without maintenance. There was a decrease in the flow of agricultural goods from south to north, and competition from the trucking industry took its toll. By 1987, a decision was made to route freight trains around Washington, and Potomac Yard officially ceased operations (Miller 1992:115). 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.



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Appendix IV: Climate Change, Emissions and Energy

Climate Change, Emissions and Energy

What are the Local Impacts of Climate Change?

The Earth's climate has changed many times during the planet's history, with events ranging from ice ages to long periods of warmth. Historically, natural factors such as volcanic eruptions, changes in the Earth's orbit, and the amount of energy released from the Sun have affected the Earth's climate. While not all scientists agree, evidence indicates that human activities may be accelerating climate by the dramatic increase in man-made GHG emissions. The consensus of the Intergovernmental Panel on Climate Change (IPCC, 2007), the National Academy of Sciences (NAS, 2008) and other scientific organizations is that there is little doubt climate will continue to change in the 21st century and is likely to bring harmful effects across the globe and in particular to people in coastal communities. Climate change will have many kinds of impacts – both positive and negative – and will vary from region to region. In general, the larger and faster the changes in climate are, the more difficult it will be for human and natural systems to adapt.

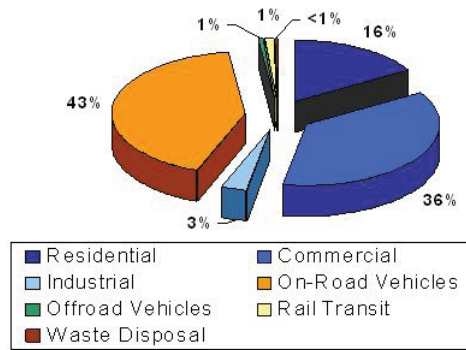
Assessments have been made of the potential impacts of climate change in the mid-Atlantic region. These impacts can be summarized as follows (MWCOG, 2008):

- Higher Sea Levels - increased flooding and shoreline loss, especially in populated areas such as Alexandria that have seen flooding damage from water inundation and are at greater risk due to sea level rise; salt water intrusion that will degrade both surface and groundwater sources
- Higher Air Temperatures - increased air pollution and health risks, changing plant and animal species, more frequent forest fires.
- Higher Water Temperatures - decrease in some living resources, increase in harmful algal blooms, degraded water quality.
- Changes in Precipitation - Patterns heavier rainfall, flooding, erosion, prolonged droughts, increased pollutant runoff, degraded water quality.

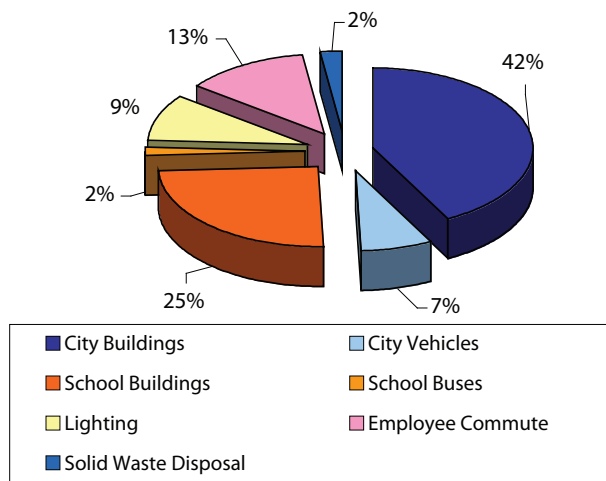
Greenhouse Gas Emissions in the City

In June of 2009, the City completed its first comprehensive greenhouse gas emissions (GHG) inventory report. Community-wide GHG emissions for the selected baseline year of 2005, were approximately 2.6 million metric tons of which the City government operations resulted in approximately 79,820 metric tons of GHGs. As depicted below, the largest sources of GHG emissions in the community are from on-road vehicles at 43%, commercial buildings at 36%, and residential building at 16%. City government's largest source is the operation of its building stock including schools.

2005 CO2e Emissions by Sector



FY 06 Government CO2e Emissions by Sector



The City adopted the following GHG emissions reduction targets based on the scientific evidence published by the Intergovernmental Panel on Climate Change and its consistency with the Metropolitan Council of Government’s regional GHG reduction goals.

- 2012 Target: Reduce Greenhouse Gas Emissions (GHG) to 2005 levels
- 2020 Target: Reduce GHG emissions by 20 percent below 2005 levels
- 2050 Target: Reduce GHG emissions by 80 percent below 2005 levels

Meeting these targets will present many challenges. It will require implementation of the sustainable measures in this Plan coupled with the cooperation and enthusiasm of other residents, businesses, and governmental entities.

Energy Consumption

Energy consumed in private buildings and homes totaled 11,301,523 million Btu in 2005. The City’s goals are to: 1) reduce per capita energy use 15% by 2015 (about 2.5% per year) and 2) have 50% of the City’s energy portfolio consist of clean, renewable energy by 2030. New developments will be required (when appropriate) to be 30% more energy efficient than the adopted energy code. This may be achieved by installing (1) more effective air sealant, insulation, and leakage prevention; (2) energy efficient fenestration systems; (3) energy star appliances; (4) energy efficient building lighting and streetlights; (5) onsite solar, geothermal, wind, or other renewable energy technology; etc.

Appendix V: Community Outreach



Community Outreach

Potomac Yard Planning Advisory Group

The City began an intensive, 17-month community planning process in October 2008 that resulted in this Plan. On October 14, 2008, the City Council adopted Resolution No. 2297 establishing the Potomac Yard Planning Advisory Group (PYPAG). The City Manager selected 20 individuals to serve on PYPAG, and to represent the diverse interests in the Potomac Yard area. The group was comprised of:

- Residents of surrounding neighborhoods;
- The property owners;
- Members of the business community, including the Alexandria Economic Development Partnership (AEDP);
- The Alexandria City Public Schools;
- Representatives of interest groups such as affordable housing, transportation, the environment, and others; and
- A member of the Planning Commission.



The functions of the PYPAG included:

- Identify and study the issues, challenges and opportunities presented by the redevelopment of Potomac Yard;
- Bring community values, knowledge and ideas into the process of creating a plan that takes advantage of opportunities to improve the area in ways that provide lasting benefit to the local community and the City as a whole;
- Based on the members' interests, local knowledge, values and ideas, advise City staff on options for the future of the planning area, and assist staff in developing policy recommendations in the variety of subject areas required for a plan;
- Weigh the desirability of a new Metrorail station in comparison to the impacts of the density needed to support it; and
- Keep the public informed about the Potomac Yard planning processes and issues, advising groups the members represent of the progress of the plan and issues raised that are of interest.

The PYPAG met as a group monthly while the plan was being developed (excluding January, and July-September) for a total of 13 PYPAG meetings. In addition, the Plan Principles subcommittee met three times from December 2008 to February 2009, the Transportation subcommittee met four times from March to August 2009, and the Summer Check-In group met twice in July and August 2009. All the meetings were open to the public and were attended by neighborhood citizens and other interested parties. In addition to these meetings, a number of PYPAG members participated in a tour of the site and surrounding neighborhoods in November 2008.



Topics covered at the various PYPAG meetings and PYPAG subcommittee meetings included:

- Site influences and opportunities;
- Planning best practices;
- PYPAG mission and plan principles;
- Circulation, connectivity, and neighborhood impacts;
- Metrorail station locations;
- Land use, massing, and height;
- Open space network;
- Sustainability; and
- Civic Uses.

List of PYPAG Meetings and City Work Sessions

Date	Event
10/21/08	PYPAG meeting
11/6/08	Planning Commission Work Session
11/8/08	Site tour
11/18/08	PYPAG meeting
12/16/08	PYPAG meeting
12/30/08	Plan Principles subcommittee meeting
1/21/09	Plan Principles subcommittee meeting
2/5/09	Plan Principles subcommittee meeting
2/17/09	PYPAG meeting
3/11/09	Transportation subcommittee meeting
3/26/09	PYPAG meeting
4/21/09	PYPAG meeting
5/13/09	Transportation subcommittee meeting
5/21/09	PYPAG meeting
6/2/09	Planning Commission Work Session
6/9/09	City Council Work Session
6/16/09	PYPAG meeting
7/16/09	Summer Check-In Group
7/27/09	Transportation subcommittee meeting
7/16/09	Summer Check-In Group
8/25/09	Transportation subcommittee meeting
10/1/09	PYPAG meeting
10/5/09	PYPAG meeting
11/5/09	Planning Commission Work Session
11/24/09	City Council Work Session
11/30/09	PYPAG meeting
12/15/09	PYPAG meeting
2/4/10	PYPAG meeting
2/23/10	Joint Planning Commission & City Council Work Session
4/6/10	Planning Commission Work Session

Engaging the Greater Community

All PYPAG and PYPAG subcommittee meetings were open to the public, and were advertised to the greater community on the City web site and by means of the City news bulletin (eNews), to which users can subscribe for free on the City web site. Materials from each meeting were posted on the City web site.



The City held two community workshops. The first community workshop was held on a Saturday in January 2009. During this workshop, the community discussed the Plan Principles and overall themes, and participated in a design exercise in which the concepts of connections and streets, the open space network, and land use and amenities were discussed. A second workshop was held in October 2009. This workshop, which was hosted by the PYPAG, commenced with an open house, followed by two rounds of break-out conversations concerning Transportation and Neighborhood Impacts; Open Space, Civic Uses and Housing; and Site Planning and Sustainability.

In addition, City staff met with civic leaders and associations throughout the community planning process. In addition, individual PYPAG members were responsible for reporting back to their respective boards and associations. Many associations also prepared Potomac Yard-related articles in their newsletters, and provided their memberships with Potomac Yard meeting announcements.

List of Greater Community Meetings

Date	Event
9/24/08	Alexandria Federation of Civic Associations
1/5/09	Lynhaven Citizens' Association meeting
1/22/09	Meeting with Civic Leaders on Potomac Yard
1/31/09	Community Workshop
3/9/09	Del Ray "Meet-n-Greet"
3/12/09	Rosemont Citizens' Association meeting
4/13/09	Del Ray Citizens' Association meeting
10/12/09	Del Ray Citizens' Association meeting
10/20/09	Community Workshop
11/2/09	Lynhaven Citizens' Association
11/9/09	Del Ray Citizens' Association meeting
11/18/09	Northeast Citizens' Association meeting
11/19/09	Rosemont Citizens' Association meeting
3/8/10	Del Ray "Meet-n-Greet"
3/11/10	West Old Town Citizens' Association
3/25/10	Rosemont Citizens' Association
3/31/10	Alexandria Federation of Civic Associations

Potomac Yard Metrorail Station Feasibility Work Group

Although separate and distinct from the Potomac Yard small area community planning process, the work of the parallel Potomac Yard Metrorail Station Feasibility Work Group was integral to and informed this process. Three members of PYPAG also served on the Potomac Yard Metrorail Station Feasibility Work Group. A total of five Potomac Yard Metrorail Station Feasibility Work Group meetings were held from February to November 2009. Additional information concerning the Potomac Yard Metrorail Station Feasibility Work Group can be found in *Appendix 2: Context for Plan*.



List of Potomac Yard Metrorail Station Feasibility Work Group Meetings

Date	Event
2/19/09	Metrorail Station Feasibility Work Group
4/15/09	Metrorail Station Feasibility Work Group
5/19/09	Metrorail Station Feasibility Work Group
9/21/09	Metrorail Station Feasibility Work Group
11/9/09	Metrorail Station Feasibility Work Group
12/14/09	Metrorail Station Feasibility Work Group