EXHIBIT NO. 1

9
3-15-08

Docket Item #12

MASTER PLAN AMENDMENT #2007-0004
SECTION 9.06 CASE # 2007-0004

Planning Commission Meeting
March 4, 2007

Alexandria Sanitation Authority

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MASTER PLAN AMENDMENT #2007-0004
SECTION 9.06 CASE #2007-0004

Planning Commission Meeting
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ISSUE: Consideration of a request for 1) to amend the Eisenhower East Small Area Plan ("EESAP") Chapter of the Master Plan to include public utility as an allowable principle use for Blocks 29 and 30 of the EESAP, currently owned by Hooff-Fagelson Tract, LLC, and other amendments to allow the Alexandria Sanitation Authority to expand the wastewater treatment plant onto Blocks 29 and 30 of the EESAP with a Special Use Permit; 2) to amend the Eisenhower East Design Guidelines with applicable amendments to match the Master Plan Amendment; and 3) for the Planning Commission to approve the general location of a public utility on Blocks 29 and 30 of the EESAP pursuant to Section 9.06 of the Charter for the City of Alexandria.

APPLICANT: Alexandria Sanitation Authority
by Jonathan P. Rak, Esq.

STAFF: Jeffrey Farner, Division Chief, Development
Jeffrey.Farner@alexandriava.gov
Katye Parker, Urban Planner
Katye.Parker@alexandriava.gov

LOCATION: 310, 350, 414, 454, and 514 Hooffs Run Drive

ZONE: Coordinated Development District/CDD #11

PLANNING COMMISSION ACTION, MARCH 4, 2008: On a motion by Mr. Komoroske, seconded by Ms. Fossum, the Planning Commission voted to adopt Master Plan resolution #2007-0004. The motion carried on a vote of 7 to 0.

On a motion by Mr. Komoroske, seconded by Mr. Jennings, the Planning Commission voted to approve Section 9.06 Cases #2007-0004. The motion carried on a vote of 7 to 0.

On a motion by Ms. Fossum, seconded by Mr. Komoroske, the Planning Commission made a finding that staff work in conjunction with ASA to begin preparation of a master plan or similar documentation to evaluate the wastewater treatment needs within the City.

Reason: The Planning Commission agreed with the staff analysis.

Speakers:

Jonathan Rak, representing Alexandria Sanitation Authority.

Sean Caldwell, Vice President of Carlyle Centre LP who owns Block 27 to the north of the property spoke in support of the amendment, but requested that three issues be considered for the eventual design of any expansion. First, appropriate buffers need to be installed, including a combination of walls, vegetation, and administrative office uses. Second, the design of the expanded facility must be sensitive the residential use on Block 27. Finally, the transportation routes into the site and the hours that traffic goes to the site should also be sensitive to the residential nature of the neighboring properties.

Tom Thomas, representing Hooff-Fagelson, the owners of Blocks 29 and 30, emphasized the need to come to a conclusion on the possible expansion and urged the Commission to get ASA to show a commitment to purchasing the property. He requested that ASA change the condemnation case to a quick take action and also show that the Authority has adequate funding to fund the purchase of the land.

I. PROPOSAL

The Alexandria Sanitation Authority (ASA) has requested approval of the following:

- a Master Plan amendment to include public utility/wastewater treatment facility as an allowable principal use for Blocks 29 and 30 within the Eisenhower East Small Area Plan (EESAP);
- an amendment to the Eisenhower East Design Guidelines; and
- Section 9.06 approval.

Currently, ASA operates the wastewater treatment facility just outside of the Eisenhower East Plan boundaries, immediately east of Blocks 29 and 30. This facility was expanded in 2000 to comply with the last round of discharge regulations and as a result, the 33 acre site is almost entirely built-out. However, with stricter Federal and State environmental regulations regarding wastewater treatment becoming effective in 2011 and continued development in the City, the facility will need to expand. Given ASA's location between the Capital Beltway, historic cemeteries, a City recreation and office building (Lee Center), and electric substations, there are limited opportunities for contiguous expansion. The applicant is proposing that the plant expansion occur on Block 29 and Block 30, as designated by the Eisenhower East Plan.

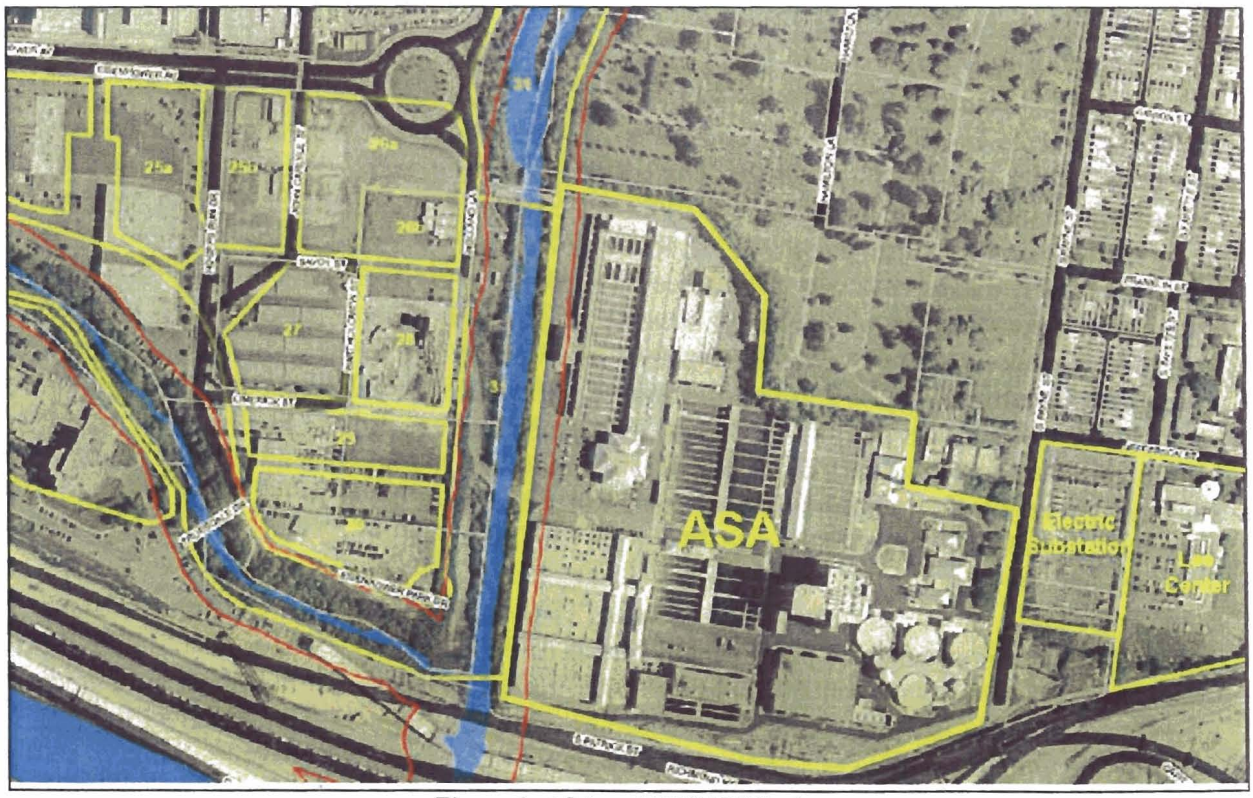


Figure 1: ASA and EESAP Blocks

The five parcels that make up these two blocks, which are currently owned by Hooff Fagelson Tract, LLC, are approximately 10.6 acres, but nearly 5 acres are within a Resource Protection

Area (RPA). ASA has studied expansion options and has determined that 5 acres will provide an adequate amount of land for the expansion to address the new regulations. Since wastewater treatment facilities require a special use permit and approval by the City Council, ASA intends to submit a development special use permit following the approval of the Master Plan amendment so design can be completed and construction can begin to meet the 2011 regulations. At this time a site plan for expansion of the wastewater treatment facility has not yet been submitted to the City for review.

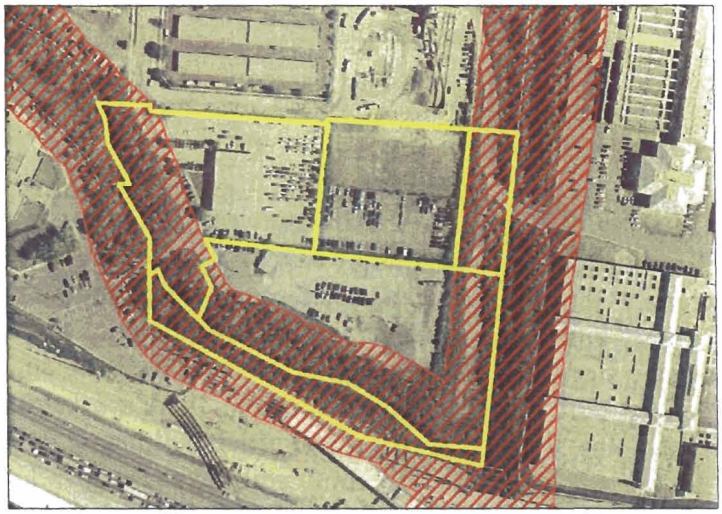


Figure 2: Hooff Fagelson Parcels and RPA

II. BACKGROUND

A. Alexandria Sanitation Authority

ASA was created in 1952 by City Council to construct, operate, and maintain a wastewater treatment facility that would serve the Alexandria sewershed, which encompasses most of the City of Alexandria and portions of Fairfax County. Prior to the creation of ASA, Alexandria discharged its sewage into the Potomac River and its tributaries. The existing wastewater treatment facility has been in operation since its approval in 1954. No approval by City Council for the initial construction was required because the site was zoned I-2/Heavy industrial, which permitted essentially any use without approval of a special use permit. In 1972, although the zoning for the site was still I-2, given the size of the expansion, the Planning Director required approval of a special use permit (SUP#864) to upgrade and expand the facility from 18 million gallons per day to 54 million gallons per day. At that time, by agreement with Fairfax County, the facility was sized to accommodate the wastewater treatment needs of the entire Cameron Run watershed as well as the service area needs for the City of Alexandria.

In the last decade, ASA has requested approval of various improvements and upgrades to the site and facility through special use permits. On June 6, 1998, City Council approved SUP #98-0037 to construct a 105 foot tall Solids Processing Building and four smaller buildings to upgrade the facility. On June 12, 1999, City Council approved an amendment (DSUP#99-0020) for constructing a "Primary Weir Observation Building" (located over existing primary settling tanks), demolition of the "Sludge Dewatering Building", construction of an additional "Sludge Digester (Tank #4) with a Digester Complex" structure, and relocation and construction of a new "Waste Gas Burner Station" (Flare Station) at the southwest corner of the main building with a 60 foot tall stack. On May, 13, 2000, City Council approved an amendment to construct a 1,334

square foot building addition to the Main Building, located on the east side of the site along the frontage of South Payne Street, to house conveying equipment for transferring materials to dumpsters which are picked up by a truck drive-through at the north and south building ends.

Recently, in light of the new regulations which will require facility expansion, ASA approached the owner of Blocks 29 and 30 about purchase of their property. ASA and the property owner have been in negotiations for nearly three years, but to date, have not been able to come to a purchase agreement. As a result, ASA has filed a petition to condemn the property, thus giving ASA a legal interest in the property and standing to file a request for a master plan amendment.

B. Facility Overview

The main purpose of a wastewater treatment facility is to remove wastewater pollutants that would harm the aquatic environment. In the past, the primary goal of wastewater treatment process was to remove organic waste, which is known to cause oxygen depletion in water streams. More recently, greater attention is also being paid to the removal of nutrients such as nitrogen and phosphorus because they reduce the quality of aquatic bodies by promoting excessive algal and plant growth.

The ASA facility effluent discharges into Hunting Creek, which flows into the Potomac River and the Chesapeake Bay. The amount of nutrients that can be discharged by the facility is governed by the operating permit issued by the State of Virginia Department of Environmental Quality. By limiting the amount of organic waste, nitrogen, and phosphorus, the wastewater facility helps to preserve and protect the Chesapeake Bay environment.

ASA achieves nutrient removal through a combination of biological and chemical-flocculation treatment processes. A high level of nutrient removal is required under the operating permit, which specifies limits for nitrogen and phosphorus concentrations in the plant effluent. The main goals of the biological nutrient removal system are to reduce the concentrations of organic waste and nitrogen to permitted values. The main goal of the chemical flocculation treatment process is to remove excess phosphorus to permitted values.

The most recent plant upgrade was completed in phases between 1999 and 2006 and it includes the following enhancements:

- Reduces the nutrient levels (nitrogen and phosphorous) in the plant effluent to meet the water quality requirements of the Potomac Embayment Standards and the voluntary requirements of the 1987 Chesapeake Bay Agreement.
- Reduces of the odor impact on adjacent neighbors by collecting and treating odorous air in an advanced odor control system.
- Produces high quality reclaimed water by providing advanced final treatment, including plate settlers and polishing filters.
- Uses of state-of-the-art ultraviolet light (UV) for disinfection of final effluent, thus reducing the potential for chlorine byproducts.
- Produces exceptional quality Class A biosolids that have beneficial use in land-application.

- Provides continuous and automatic monitoring and control of all the systems in the plant through a Supervisor Control and Data Acquisition System (SCADA).

Major Interceptor Sewers

The major Interceptor sewers conveying wastewater to the plant include the following: these Holmes Run Trunk Sewer, which is approximately 6.4 miles long, is a separate sewer and conveys sewage collected from the western half of the City of Alexandria and the Dowden Terrace and Cameron Run areas of Fairfax County; the Commonwealth Interceptor is approximately 3.2 miles long, extends from the Four-Mile Run Pump station force main discharge to the Hooff's Run Junction Chamber and through the ASA plant site, ending at the first treatment process. The separate sewer serves the Four Mile Run Pump Station and most of the western portion of Old Town Alexandria, as well as the Jones Point area of Fairfax County (which discharges into the Commonwealth Interceptor at Junction Chamber A inside the plant site). The Duke Street combined sewer area also discharges to this interceptor; the Potomac Interceptor, which is approximately 2.4 miles long and conveys sewage collected in a combined sewer system in the eastern portion of the City of Alexandria; and the newly constructed Potomac Yard Trunk Sewer, which is approximately 1.6 miles long and collects in a separate sewer system in the Potomac Yard development site. This site is located in the eastern portion of the City of Alexandria.

Pumping Stations

Several pumping stations convey the sewage in the collection systems to the treatment facility. These are the Four Mile Run Pumping Station, the River Road Pumping Station, the Slater's Lane Pumping Station and the Potomac Yard Pumping Station, currently under construction.

For additional information on the specific operations and functions of the facility, see *Attachment #1*

C. Need for Plant Expansion

The existing facility east of Blocks 29 and 30 is the only wastewater treatment facility in the City. The facility has a design capacity of 54 million gallons per day (MGD) and treats sewage for approximately 350,000 people within the 51 square mile treatment area. Wastewater for most of the City is treated at this location, in addition to sewage from areas of Fairfax County to the west and south. A small portion of the City of Alexandria is served by the Arlington County wastewater

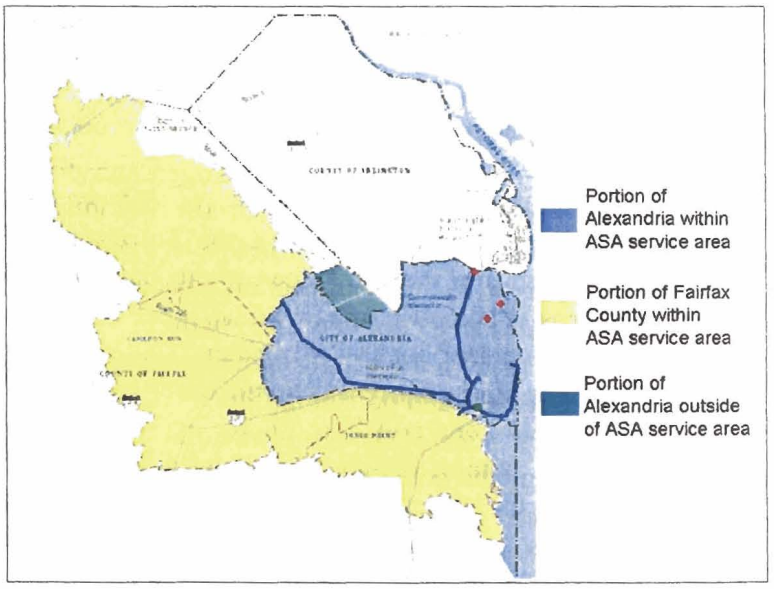


Figure 3: Service Areas

treatment facility. The current agreement[1] between ASA and Fairfax County allocates 60% of the plant capacity to Fairfax County with the remaining 40% to the City. Therefore, the City has rights to 21.6 MGD of the plant capacity and Fairfax County has the rights to 32.4 MGD. Any change to that allocation would require the consent of Fairfax County and likely would require Alexandria to reimburse Fairfax County for a proportionate amount of its share of capital costs invested in ASA. Furthermore, Fairfax County representatives have recently told ASA that they need all of the allocated capacity to meet their needs.

There are several factors contributing to the need for expansion of the plant, which are discussed below.

Capacity

The increase in development the City has experienced over the last decade and will likely continue to see through the next several decades has some implications on ASA's overall treatment capacity. While this is not the immediate reason for an expansion, it will be an issue that must be analyzed and addressed within the next ten to twenty years. Since this issue has serious consequences for the future of growth in the City, development capacity and long term expansion needs are discussed in more detail in the staff analysis.

Changes in Federal and State Regulations

The factor requiring the need to expand is the effect of stricter Federal and State environmental regulations. ASA is subject to the requirements of the Clean Water Act and operates under these regulations. In 1999, ASA began expansion of their facility to construct technologies to meet the requirements to reduce nitrogen and ammonia discharges. In November 2006, the Virginia Department of Environmental Quality (VDEQ) adopted new regulations that required further reduction in the nitrogen discharge from the plant and ASA must comply with these requirements by January 2011. A comparison of the effluent requirements in 1974, 1986, current, and future is provided in *Table 1* below with significant changes shown in bold text.

Table 1: ASA Water Effluent Requirement Comparison

	1974 Water Effluent Requirements	1986 Water Effluent Requirements	Current Water Effluent Requirements (2004 thru 2009)	After January 1, 2011 *
Total Permitted Plant Flow	27.0 MGD	54 MGD	54 MGD	54 MGD
Flow (city allocation)	10.8 MGD	21.6 MGD	21.6 MGD	21.6 MGD
Biochemical Oxygen Demand	46 mg/l	10 mg/l	5 mg/l	5 mg/l
Total Suspended Solids	51.0 mg/l	10 mg/l	6.0 mg/l	6.0 mg/l
Ammonia as Nitrogen (Apr-Oct)	Not regulated	Not regulated	1.0 mg/l	1.0 mg/l

[1] The joint, shared sewer service arrangement between the City and Fairfax County is historic and fundamental. When ASA was created by the City in 1954, service to portions of Fairfax County was contemplated. The relationship between Fairfax County and the City has been the subject of a number of Service Agreements over the years. The January 1973 Agreement, and the 1976 Trust Agreement, last were incorporated in the current Amended and Restated Service Agreement dated as of October 1, 1998.

	1974 Water Effluent Requirements	1986 Water Effluent Requirements	Current Water Effluent Requirements (2004 thru 2009)	After January 1, 2011 *
Ammonia as Nitrogen (Nov-Jan)	Not regulated	Not regulated	8.4 mg/l	8.4 mg/l
Ammonia as Nitrogen (Feb-Mar)	Not regulated	Not regulated	7.4 mg/l	7.4 mg/l
Total Nitrogen (concentration)	Not regulated	Not regulated	**8.0 mg/l**	**3.0 mg/l**
Total Nitrogen (pounds/year)	Not regulated	Not regulated	**Not regulated**	**493,381**
Total Phosphorus (concentration)	Not regulated	0.18 mg/l	0.18 mg/l	0.18 mg/l
Total Phosphorus (pounds/year)	Not regulated	Not regulated	**Not regulated**	**29,603**
Dissolved Oxygen (minimum)	Not regulated	6.0 mg/l	6.0 mg/l	6.0 mg/l
pH (standard units)	6.0 to 9.0	6.0 to 9.0	6.0 to 9.0	6.0 to 9.0
Fecal Coliform	200/100 mls	200/100 mls		
E. Coli	Not regulated	Not regulated	126 n/100 mls	126 n/100 mls
Whole Effluent Toxicity	Not regulated	Not regulated	No toxic effect	No toxic effect

* This covers a change in nutrients only. Current permit to be reissued in 2009, which may include reductions in existing requirements or additional limits for new parameters.

In addition to these requirements, additional requirements have been discussed and are likely to be implemented. Later this year ASA anticipates that DC, Virginia, and Maryland will produce a water quality requirement for PCB discharge. VDEQ has also recommended regulating nonylphenol, which is commonly found in wastewater. New processes will be designed to remove this chemical pursuant to the standard. Following the declining conditions of the Chesapeake Bay and the Potomac River, VDEQ has also recommended regulating discharges of chlorophyll *a* which is a chemical that fosters algal blooms. This may require even further reductions to nitrogen and phosphorus discharges as well as an increase in the minimum dissolved oxygen required to be discharged to the Potomac River.

Increased Needs for Processing Solids

Another factor influencing the need for expansion of the wastewater treatment facility is the increased amount of solid material the plant must process. Over the last decade the amount of suspended solids in the liquid waste has increased by approximately 66%. At the same time, the new treatment processes implemented to comply with the stricter discharge limits result in the extraction of more solids. The increased quantities of solids results in the need for additional solids processing facilities.

Currently, after the solids are processed at the ASA facility, they are temporarily stored on site before being trucked to places outside of Alexandria for disposal, typically on agricultural land. In response to Virginia regulations, the localities that accept the solids are imposing restrictions on what can be accepted, which then requires ASA to further treat the solids on site before shipping offsite for disposal. In addition, the new Nutrient Management Plan regulations have severely limited the amount of land that is available for the solids disposal. The implications of this mean ASA will have to treat and dispose of additional quantities of solids on-site.

Power Supply

The last factor influencing the need for ASA expansion pertains to the supply of electric power. All of the wastewater treatment facilities on the ASA site are operated by electric power. The new processes that will be implemented to comply with the stricter pollutant removal regulations will require additional electric service. Ideally, this additional service would be provided by a new substation on site. ASA is also evaluating the need for a back-up power supply to ensure that the facility continues operating in the event of a power outage. With the next upgrade to the facility, ASA anticipates the construction of a backup generator next to the new substation. ASA estimates that the substation and the backup generator will require approximately a half acre.

D. Implications of not expanding the Wastewater Treatment Facility

If ASA is not permitted to expand its treatment facilities onto Blocks 29 and 30, it will not be able to comply with the enhanced nutrient removal requirement by the deadline of January 2011 and be in violation of Federal and State law. As previously discussed, the existing 33 acre ASA property is completely built-out. Without additional land for expansion, ASA would be forced to demolish existing structures and stack additional treatment facilities. ASA estimates indicate that expanding the plant on-site would be the most expensive option resulting in these costs being based onto the ratepayers in the City served by the plant. In addition, the demolition and reconstruction of existing facilities would also result in extended periods during which effluent is discharged without complying with current permit requirements. The consequence of these violations would include fines of up to $32,500 per day per violation. The discharge of sewage that does not meet permit requirements would also adversely affect water quality in Hunting Creek, the Potomac River and Chesapeake Bay. The City also relies on the nitrogen removal by the ASA plant to comply with limits on combined sewer discharges.

Although the purpose of the expansion onto Blocks 29 and 30 is to comply with treatment requirements for existing sewage flows, ASA will also need additional land if the City requests more capacity to accommodate development. With development of Eisenhower East and Potomac Yard at current and anticipated usage rates, the City will fully utilize the 21.6 million gallons per day available at the ASA treatment plant. In other jurisdictions, the lack of available sewage treatment capacity has necessitated a moratorium on further development. A similar outcome is foreseeable in Alexandria, with the result that development and re-development outside Eisenhower East and Potomac Yard would be substantially delayed if not altogether precluded.

E. Condemnation of Block 29 and Block 30

Blocks 29 and 30 are owned by Hooff Fagelson Tract LLC. Based on new and anticipated regulatory requirements, ASA determined in 2005 that the property is needed to meet treatment requirements. The USEPA and VDEQ require compliance with the new, more stringent effluent limitations by January 1, 2011. ASA began negotiations with the owner in early 2005 for a purchase or lease of the property. These negotiations continued through 2006. Because the negotiations did not produce an agreement, the ASA Board of Directors held a public hearing on April 17, 2007 to document and affirm the public need and to authorize the use of eminent

domain. A bona fide offer of $20,400,000 was made to Hooff Fagelson based on a third party appraisal. This offer was not accepted, so a petition to acquire the property was filed in Alexandria Circuit Court on June 19, 2007.

Hooff Fagelson objected to the condemnation alleging that the condemnation could not proceed because the Eisenhower East Small Area Plan does not designate Blocks 29 and 30 for expansion of the sewage treatment plant. ASA requested an amendment to the EESAP to allow expansion of the treatment plant as an option for the property in June 2006 but could not file a formal amendment without the consent of the property owner. The City Attorney has determined that the filing of the condemnation petition creates a legal interest in the property sufficient to allow ASA to file a master plan amendment pursuant to section 11-902 of the Zoning Ordinance. ASA filed this application to amend the Small Area Plan on August 9, 2007. The trial of the condemnation case is currently scheduled for July 2008. ASA and Hooff Fagelson have continued to discuss a possible settlement of the condemnation case.

F. EESAP and Proposed Uses for Blocks 29 & 30

In November 2001, in response to the development pressures in East Eisenhower, the City initiated a small area planning process to develop a plan for development in this area. During the following two years, the City encouraged input and participation from many of the stakeholders in Eisenhower East, including property owners, business owners, civic associations, the Eisenhower Partnership, and ASA. Through this cooperative process, a vision for East Eisenhower was developed which called for an urban extension of Old Town and Carlyle that maximized transit options, established Eisenhower Avenue as a grand boulevard, created a network of urban streets, and created a coordinated open space system. The Plan was adopted by City Council in April 2003 as a chapter of the 1992 Master Plan.

The Plan has created a shared vision among the community, property owners and the City concerning the future direction of this neighborhood. The Eisenhower East planning effort is now well into the implementation stage and the Plan's overall vision is being realized. The EESAP anticipated ultimate build-out through 2020. Today there is approximately 5 million square feet of building space currently in the development planning process in the concept, final,

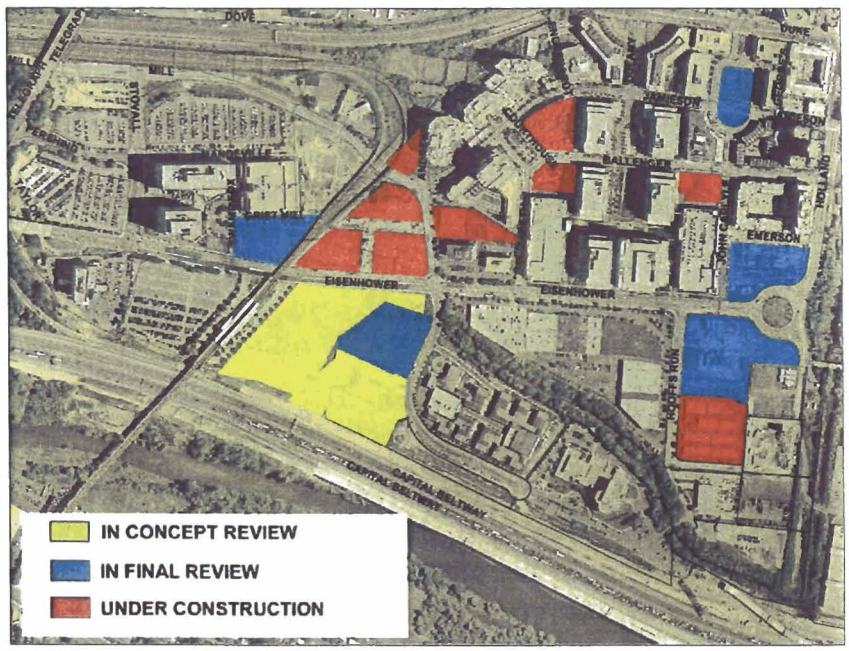


Figure 4: Development Activity in Eisenhower East and Carlyle

or construction stages.

The area around the Eisenhower Metro Station and the area south of Eisenhower Avenue and Carlyle (referred to as South Carlyle) were two areas the Plan focused on and provided specific recommendations. For South Carlyle, the Plan called for a mix of residential, office, and retail uses, the implementation of a street network, and a neighborhood park that connected to a larger park. In addition to the City, South Carlyle is comprised of land owned by five different property owners. Of these five property owners, Hooff Fagelson owns Blocks 29 and 30, which are the two southernmost blocks in South Carlyle.

The Plan identified Block 29 as a location for 170,000 sf of residential use. Considering its southernmost location and adjacency to the Capital Beltway, Block 30 was slated for a maximum of 512,000 sf of office use in the form of 10-15 story buildings. The total allowable floor area for these two blocks is 682,000 sf which is a significant portion of the 2.6 million sf allowed by the Plan for South Carlyle. Additionally, the Plan identifies several new or extended streets surrounding these blocks to contribute to the overall street network in South Carlyle that is currently nonexistent.

Figure 5: South Carlyle

Prior to adoption of the Plan, the Hooff Fagleson parcels were zoned OCM, which is a medium office and commercial zone that allows an FAR of 1.5. For a 10.6 acre site, a maximum of 692,604 square feet of development could be permitted. However, since the RPA occupies a large portion of these parcels, development of the entire permitted floor area could not be possible on these parcels. While the Plan did not significantly increase the permitted floor area for these two blocks, the Plan did permit an increase in height from 100 feet to 200 feet on the southern block primarily in response to the required grid of street and open space required by the Plan.

III. REVISIONS TO THE EISENHOWER EAST SMALL AREA PLAN

Table 2 summarizes the revisions to the EESAP as a result of this amendment. See *Attachment #2* for the revised pages to the EESAP.

Table 2: Revisions to EESAP

Page / Section	Revision
v / Infrastructure	Add "Additionally, the wastewater treatment facility may need to expand in response to long term development and stricter environmental regulations."
2-9 / Infrastructure and Public Facilities	Change last sentence of second paragraph to state "While recent upgrades…Eisenhower East area, projections for potential development indicate the need for additional capacity."
4-5/ The Grid Pattern East of Mill Road	Add "An access road crossing Hooff's Run shall be permitted. Such a road would be constructed by ASA. If Blocks 29 and 30 are developed as an expansion of the wastewater treatment facility, the proposed street between Blocks 29 and 30 and the portions of Eisenhower Park Drive and Holland Lane to the west, south, and east of Blocks 29 and 30 shall not be required to be constructed or dedicated to the City for public use. "
4-14 / *Figure 4-10: Development Controls CDD 11*	Add a third asterisk to the table to the Principal Use for Block 29 and 30 stating "The Principal Use for these blocks may also be wastewater treatment facility/Public Utility if approved by a special use permit."
4-17 / Alexandria Sanitation Authority (new section)	New section discussing the expansion of the wastewater treatment facility and development controls that would be required for the special use permit.
4-27 / Land Use and Development Controls	New paragraph stating "In the event blocks 29 and 30 are acquired for expansion of the wastewater treatment facility, a transfer of the planned office and residential floor area to other sites within the Eisenhower East boundaries may be considered. Any such transfer should maintain the overall balance of uses set forth in the Plan.

Staff is also recommending revisions to the Eisenhower East Design Guidelines to reflect the proposed amendment to the Master Plan. The amendment to the Design Guidelines, as depicted in *Table # 3*, requires approval by the Planning Commission. See *Attachment #3* for the revised pages of the Design Guidelines.

Table 3: Revisions to EE Design Guidelines

Page / Section	Revision
9 / Development Controls Chart	Add a third asterisk to the table to the Principal Use for Block 29 and 30 stating "The Principal Use for these blocks may also be wastewater treatment facility/Public Utility if approved by a special use permit. Refer to Page 4-17 of the EESAP for general development guidelines."

Page / Section	Revision
15 / Street Frontage Design Principles	Add "An access road crossing Hooff's Run shall be permitted. Such a road would be constructed by ASA. If Blocks 29 and 30 are developed as an expansion of the wastewater treatment facility, the proposed street between Blocks 29 and 30 and the portions of Eisenhower Park Drive and Holland Lane to the west, south, and east of Blocks 29 and 30 shall not be required to be constructed or dedicated to the City for public use."

IV. STAFF ANALYSIS

The proposed Master Plan amendment raises several fundamental policy questions for the City to consider that include:

- Provision of adequate City infrastructure;
- Short-term and long-term City infrastructure needs;
- Maintaining the intent of the Eisenhower East Small Area Plan; and
- Maintaining appropriate densities near the metro stations.

This proposal puts the intent of the Eisenhower East Plan to achieve higher density, mixed use development near the metro station against the need for sewage capacity and treatment within not only Eisenhower East but the entire City. It is unfortunate ASA did not indicate to the City that future expansion would be needed on a short-term or long-term basis as part of the Eisenhower East planning process. Now less than four years after the adoption of the Plan, ASA is proposing a five acre expansion of the existing facility. If the need for the proposed expansion of ASA had been known or at least anticipated during the planning process, elements such as uses, street, heights, and open space would most likely have been allocated differently than the current Plan.

While it would have been ideal to have known about the need for an expansion, the fact is that because of Federal and State requirements the plant needs to expand in order to comply with upcoming statutory requirements. As discussed in more detail below, staff was initially concerned about the loss of development for Blocks 29 and 30 and impacts to the intent of the Eisenhower East Plan. However, after analysis of all the potential alternatives, staff believes that currently the most viable location for the plant expansion would be Block 29 and Block 30.

As part of the proposed expansion, staff wanted to ensure that the proposed expansion would accommodate the long-term sewage needs for the City, in addition to the short-term regulatory requirements. However, as part of the staff analysis it became apparent that even with the expansion on Blocks 29 and 30, the facility would exceed capacity based on projected development by the year 2030.

Staff is recommending approval of the proposed Master Plan amendment, with the understanding that the proposed expansion would require a special use permit and would have requirements to mitigate the potential impacts, as discussed in more detail below. Staff is also recommending

that the City and ASA undertake a comprehensive and long-term analysis of the future sewage treatment needs of the City. Staff believes this could be accomplished through an infrastructure master plan for the City or a comparable long-term analysis.

A. Current and Long Term Expansion Needs

A major concern of staff was not only the short term impact of this proposal but also the long-term implications for the City. With the build-out of the Eisenhower East Plan, the facility will eventually be land locked preventing future expansion options, even with the expansion of Block 29 and Block 30. Therefore, as part of this effort, staff compiled short-term (until 2030) and longer term (until 2050) growth projections.

The immediate need of the ASA for use of blocks 29 and 30 is for the purpose of complying with increased regulatory requirements, not for expansion of capacity. Expansion of capacity of the treatment plant above the current 54 MGD will require extensive lead time for design, state and federal permitting and construction. ASA estimates that such an expansion will take approximately ten years from beginning of construction until the completion of the proposed expansion. This lengthy timeframe emphasizes the importance of analyzing and addressing the capacity issue as soon as possible.

The existing facility can accommodate development in areas with recently approved small area plans, such as Eisenhower East and Potomac Yard, and ASA accounted for this additional development when determining adequate capacity. However, as the City continues to adopt small area plans for other areas of the City, such as Braddock Metro, Landmark-Van Dorn, and Eisenhower West, as well as grow in other areas of the City, this new construction will have significant implications for the capacity of the plant. Staff believes that this proposed expansion must consider not only the growth anticipated for the short-term, but also the long-term needs, to ensure that the City can meet environmental obligations for the facility and realize the small areas plans as they are adopted by the City. This long term planning is especially important given that due to the complexity of the design, construction, and permitting process, a plant expansion take nearly ten years to complete. For comparison, the most recent plant expansion began in 1997 and was completed in 2006.

It is clear that Alexandria has experienced a great deal of growth in the last decade and projections indicate this trend will continue. When the request for the Master Plan amendment was originally made, the primary reason for the expansion was to provide for the additional facilities to comply with the new 2011 regulations. While meeting with ASA about this amendment, City staff asked ASA to research the facility's capacity to treat future development projected out 20 to 40 years. To do this, staff identified areas that are likely to develop in the short term (by 2030) and the long term (by 2050) (see map). Through this analysis, staff estimates approximately 66 million square feet of new development by 2030 and an additional 60 million square feet by 2050. Using established industry standards and flow requirements as dictated by the Virginia Sewage Collection and Treatment Regulations, ASA staff converted the estimated square footages provided by the Planning staff into projected million gallons of

wastewater generated and then determined the additional land that would be need to treat this amount of wastewater. *Table 4* summarizes these findings.

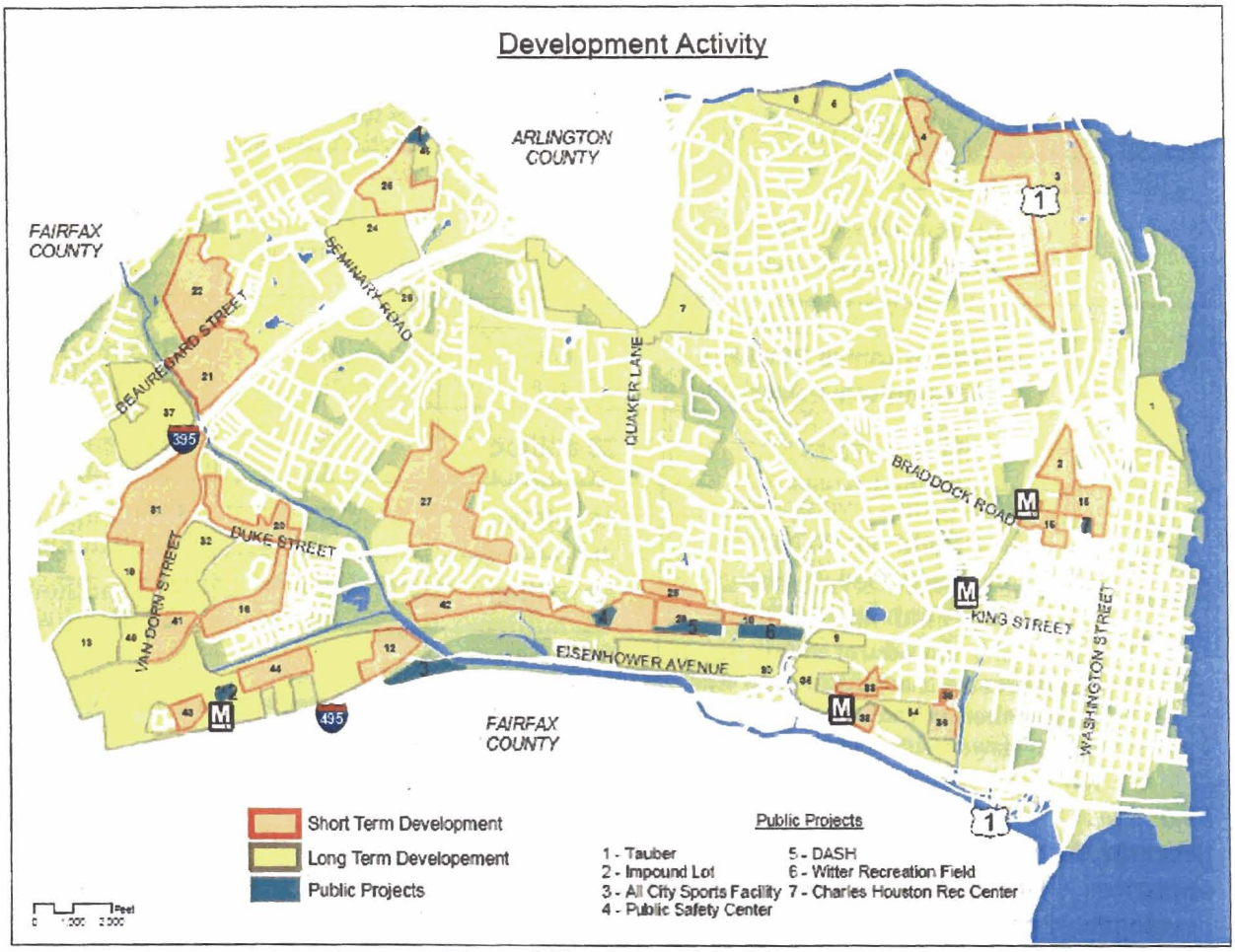


Figure 6: Development Activity

The initial capacity calculations and expansion analysis in *Table 4* does not take into account the existing buildings in the redevelopment areas. A preliminary review shows that there is approximately 17 million square feet of development in these areas, which would offset the total increase in capacity based on the development projections. ASA does not see a significant "savings" from the existing development in the short term. The possible change in uses and intensities and improved conservation technologies make it difficult to determine the exact savings the existing capacity would have on future demands. However, this highlights the need for an in depth analysis of development projections and a more detailed determination of how much additional land will be needed to sustain long term growth.

The challenge with growth projections is that they involve certain assumptions. To determine whether the projected development figures were reasonable, staff reviewed recent growth

patterns and approved and anticipated small area plans. In the past ten years, the City has grown an average of three million square feet per year. This number serves as a reasonable benchmark, which would equate to approximately sixty million square feet of additional development in the next twenty years, which is consistent with the short term development estimate discussed above.

Table 4: Development Capacity

Scenario	Development Capacity	New Development (sf)	Total Land needed (acres)	Additional Cost
A	Current Development (includes Potomac Yard and Eisenhower East)	n/a	33 (existing)	$356 million (actual cost of 1997 expansion)
B	Current Development (includes Potomac Yard and Eisenhower East)	n/a	36*	$125 million
C	Planned Areas **	20 million	38	$175 million
D	Short Term Development - Build out 2030	66 million	38	$400 million
E	Long Term Development - Build out 2050	60 million	45-48 ***	$570 million

* Additional land needed to comply with 2011 requirements
** Upper Potomac Yard, Eisenhower West, Landmark-Van Dorn, Braddock Road
*** More analysis on the impact of existing development on the cumulative capacity is needed to determine the actual amount of land needed to accommodate the long term development.

Scenario A
Scenario A provides a benchmark for comparison of the four other development capacity scenarios. The facility's capacity on the existing 33 acre site can accommodate current development projections, including future development in Potomac Yard and Eisenhower East under the existing discharge requirements. These calculations take into consideration the impact of the recent expansion completed in 2006.

Scenario B
By 2011, the facility must comply with the new Federal and State requirements. In order to meet these regulations, additional treatment structures must be constructed and since the existing 33 acre site is nearly built-out, additional land will be needed. Scenario B shows that in order to provide for the current development and comply with the 2011 requirements, an additional 3 acres will be needed. An assumption is made that the additional land is contiguous to the existing facility.

Scenario C
There are three areas within the City that are at various stages of the planning process: Braddock Road, Landmark/Van Dorn, and Eisenhower East. In addition, redevelopment of the existing

Potomac Yard shopping center is also a possibility that could occur around the same timeframe as redevelopment in these three areas. Scenario C estimates the potential development in these areas to be approximately 20 million square feet. In order to accommodate this additional floor area, ASA would need approximately 5 additional acres above what they currently have, for a total of 38 acres.

Scenario D

As part of this analysis, the City identified the areas that are likely to redevelop in the short term and long term. Scenario D uses the estimate of approximately 66 million square feet of new development by 2030, in addition to the planned areas discussed in Scenario C. ASA will need 5 acres above the existing 33 acre site, for a total of 38 acres to support this additional development. This is the same amount of land required to accommodate Scenario C, but given that the additional development is three times more, there will be a greater cost to upgrade the facility.

Scenario E

The final scenario illustrates the situation for the potential long term development (up to 2050). Staff estimates that there is a potential of approximately 60 million square feet of long-term development. According to preliminary calculations, ASA has determined that 48 total acres would be needed to accommodate this additional development, which is 15 acres more than the existing 33 acre site and 10 acres more than an expanded facility on the 5 acres of Blocks 29 and 30. Scenario E highlights the need to study this further, to ensure that when the time comes, adequate land and/or technology is available to sustain the growth that is possible in the City.

B. Short-Term (2008 to 2030) Expansion Options

With significant future growth likely, the new regulations for allowable discharges, requirements for solids processing, and the need for an electric power supply on site, it is unavoidable that ASA will need to construct additional wastewater processing and treatment structures. Considering the requirement for compliance with the new regulations by January 2011, ASA explored the possible options for providing these structures, including additional construction on the current site, plant relocation, and expansion onto the surrounding properties. Staff from various departments also explored the possible expansion options as discussed in more detail below. However, upon review, it was determined than the only feasible option is expansion onto Blocks 29 and 30.

Construction on Site

As seen in the aerial of the ASA site, the facility has expanded to occupy nearly all 33 acres of their property. After the most recent expansion, there is very little room to construct additional wastewater processing structures. Even with the previous expansion, ASA had to implement non-traditional practices such as vertical construction

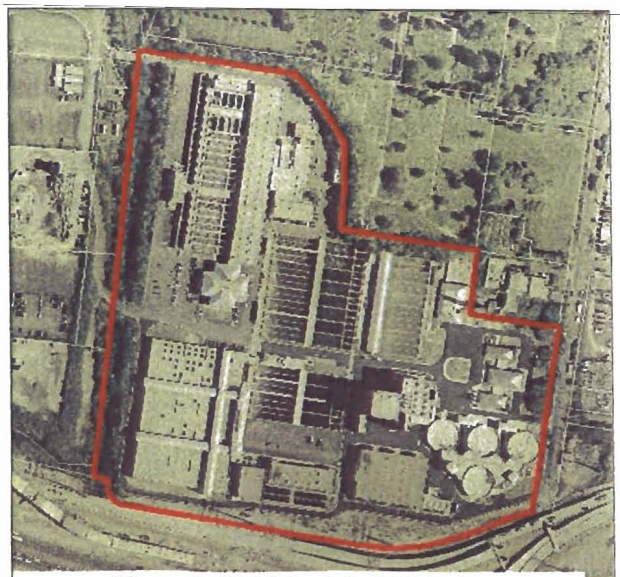


Figure 7: 2006 Aerial of ASA site

of the solids processing building. If additional construction could somehow be added to the existing site, it could not be done without interrupting sewage treatment. The result of this would be untreated sewage discharging into Hunting Creek and the Potomac River in violation of Federal and State regulations. In addition to significant environmental damage, non-compliance with these regulations would lead to considerable fines on a per day basis.

Facility Relocation

Relocation of the wastewater facility is not a feasible option for ASA for several reasons. The sewer infrastructure throughout the City and portions of the Fairfax County service area has been installed and designed to flow to the current location. This particular location was chosen for its position as a lowest point in the watershed which makes gravity sewage flow more efficient by minimizing sewage pumping. Additionally, there is not a large enough tract of land within the watershed to relocate the plant. More importantly, relocation of the facility and the relevant infrastructure would be financially infeasible. Alexandria and Fairfax County have invested over half a billion dollars in the existing plant. Even if a new site were available, relocating the treatment plant would effectively abandon that investment and impose unsustainable costs on ratepayers.

Staff has also asked whether ASA could accommodate its expansion needs with a separate, additional treatment plant elsewhere in the city. According to ASA, this is not feasible for several reasons. First, the cost of a new treatment plant would far exceed the cost of expanding the existing plant, because capital facilities and operating expenses would be duplicated. Furthermore, the cost of a new plant would not be shared by Fairfax County and would be paid for entirely by Alexandria. Second, the primary reason for ASA's expansion proposal is because with the existing plant they cannot meet the limits on the rate of nitrogen discharge that become effective in 2011. It would not be possible to acquire land, obtain Federal and State permits, and design and construct a new treatment plant in less than three years. Third, Federal and State environmental laws are much more stringent on new treatment plants and on treatment plants that discharge into non-tidal streams. Finally, establishing a new sewage treatment plant in a different location will likely encounter considerable community opposition. If the amount of long term growth occurs in the West End based on the highest projections, it is conceivable that a second treatment plant might be part of that solution. However, a second treatment plant would not relieve the need for the current expansion proposal.

Surrounding Property

The next option for providing the additional processing structures for the facility is to expand to an adjacent property. The land immediately to the north of the facility is occupied by a number of historic cemeteries. Expansion into the cemetery property is not a feasible option. The property to the east is owned by Virginia Dominion Electric Company, who uses the site as an electric substation. Beyond that is the Lee Center, which is one of the City's recreational facilities. ASA is bordered by the Capital Beltway to the south, which precludes expansion in that direction.

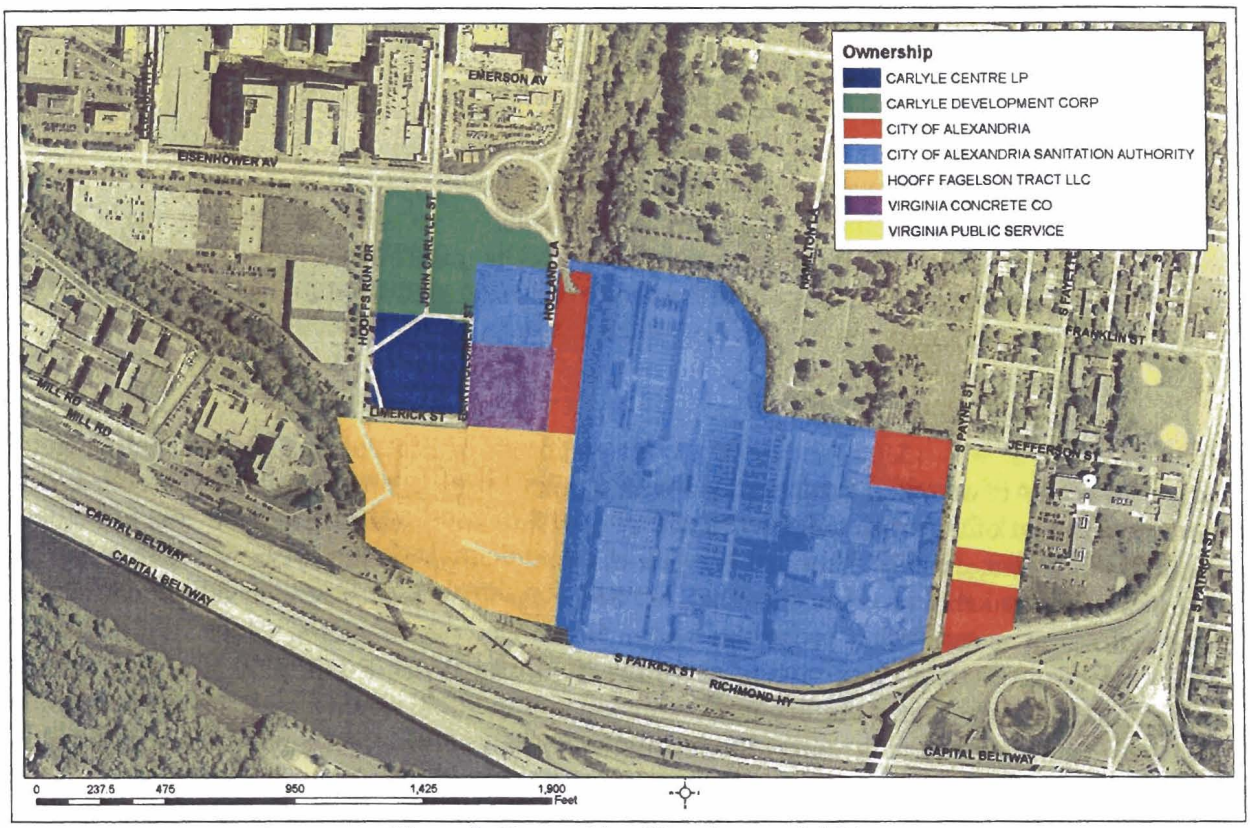


Figure 8: Ownership of Land around ASA

Finally, to the west there are several vacant properties ASA analyzed. ASA owns a two acre parcel west of the facility at 1500 Eisenhower Avenue. However, this parcel would not be large enough for the additional processing operations associated with the expansion. Also, this parcel is close to Eisenhower Avenue and would have the greatest impact on the surrounding area. A second parcel is the Virginia Concrete site at 340 Hooff's Run Drive. As with the previous parcel, this two acre site would not be large enough for the intended expansion and would also impact the intended residential, office, and retail development to the north, west, and south of the site. Both the two acre ASA parcel and the Virginia Concrete parcel have a higher elevation than the existing treatment plant, requiring an additional pumping station to convey the sewage from the main plant to the expansion.

The last site to the west is five parcels identified as Blocks 29 and 30 in the EESAP. Collectively, these five parcels are approximately 10.6 acres, although portions would not be usable due to the Resource Protection Area running along the western, southern, and eastern boundaries of the site. While not ideal, the expansion of the ASA facility onto these Blocks would have the least impact on the surrounding area since it the southernmost property in the Plan and is bordered by the Public Safety Center to the west, the Capital Beltway to the south, and the existing ASA facility to the east. Blocks 29 and 30 have an elevation equal to or less than the existing treatment plant which allows for connection to the plant without additional pumping stations. Additionally, the site can currently be accessed by Hooff's Run Drive on the west and Holland Lane to the east.

C. Long-Term Expansion (2031 to 2050)

Preliminary projections show that ASA will not have enough land to accommodate the City's projected long-term development. This raises considerable concern for impacts to future growth within the City and impacts to the Eisenhower East area. To ensure coordination the City and ASA for future sewage capacity and infrastructure, staff is recommending that a comprehensive analysis of short-term and long-term development trends and infrastructure needs be done.

D. Impact on the EESAP

When the EESAP was adopted in 2003, the vision for all of Eisenhower East, including South Carlyle, was that of an urban neighborhood with a mix of uses, a street network, and coordinated open space. Block 29 was slated for 170,000 sf of residential use and Block 30 was to be up to 512,000 sf of office use. The planning process for developing this plan was extensive and involved many stakeholders, including ASA. Since the Plan's adoption, development activity has occurred on several other properties within South Carlyle, including Block 27 (300,000 sf residential use), which is currently under construction, and Block P (342,000 sf office use with 30,000 sf retail), which plans to begin construction spring 2008. Along with the construction of these buildings, each block is required to install the portion of the street grid within each block.

East of Block 27 is the existing Virginia Concrete facility, still in operation. Due to the nature of this use, the original approval stated the use could continue only as long as it remained compatible with nearby commercial areas. The special use permit was approved with the condition that it be reviewed every five years. Most recently, the SUP was reviewed by the City Council in January 2007 and considering the approval of the residential use at Block 27, a condition was imposed that allowed the use to continue up until the first occupancy permit for Block 27 was issued. The Plan has identified this block for a maximum of 282,000 sf of residential use, similar to what is permitted for Block 27.

The Plan also calls for a neighborhood park for the South Carlyle community, to be comprised of land contributions from Block P, Block 27, Hoffman, and the City (Hooffs Run Drive right-of-way). A condition of approval for Block 27 required the applicant to begin development of a plan for the park. At this time, a consultant has been hired and is working with the City on the design of the park. Since a portion of the land for the park is owned by Hoffman, who currently does not have any immediate plans for redevelopment, the park will be developed in two phases. Phase 1 will be implemented with the construction of Block 27 and Block P and Phase II will be implemented upon the future redevelopment of the Hoffman property to the west.

Approximately 26% (682,000 sf) of the development for South Carlyle was proposed on Block 29 and Block 30. The elimination of these blocks from a development standpoint does create some problems for the success of the plan, but with careful planning and consideration these problems can be mitigated to some extent. The street network is a key component of the Plan, particularly for South Carlyle as the network was previously non-existent. With ASA expanding onto Blocks 29 and 30, the full extension of Eisenhower Park Drive and Holland Lane as well as

the new east-west street between the two blocks will not occur. However, Limerick Street, the east-west street immediately north of Block 29, will still be installed, thus creating the connection between the Eisenhower Park Drive and Holland Lane to complete a cohesive network.

With regard to open space, development occurring on Blocks 29 and 30 would have been required to dedicate a substantial portion of the original parcels to the City for the Eisenhower Park, the linear park connecting the African American Heritage Park to South Carlyle and western Eisenhower East. Since much of this land is within the RPA, development is not permitted, regardless of whether it's used for commercial, residential or the wastewater facility. Dedication of this property would fulfill the owner's open space contribution to the Eisenhower East Open Space Fund, since the value of the land exceeds the amount of the contribution that would be required. If ASA acquires these blocks, the City will still require dedication of the area identified in the Plan for open space, which is approximately 4 acres. The dedication of this property will help fulfill a significant component of the open space that was envisioned in the Plan.

E. Development Controls for Future ASA Expansion

While ASA has yet not proposed a specific development plan for expansion, staff believes it is important to incorporate development parameters for the future plant expansion to maintain the intent of the Eisenhower East Plan for South Carlyle.

Figure 9: Eisenhower Park

Open Space

As part of the amendment, staff has proposed language for the Plan to ensure that a proposed plant expansion on Blocks 29 and 30 would not preclude or reduce the required area for open space for the future Eisenhower Park. In addition, staff has proposed language for the Plan that will require appropriate screening and buffers adjacent to the future Eisenhower Park. This may involve walls, fencing and/or landscaping and will need to be evaluated as part of the subsequent development special use permit that would be required for the plant expansion.

A condition of the earlier approvals for the expansion of the ASA facility required ASA to provide a bike trail along the southern boundary of the property. This

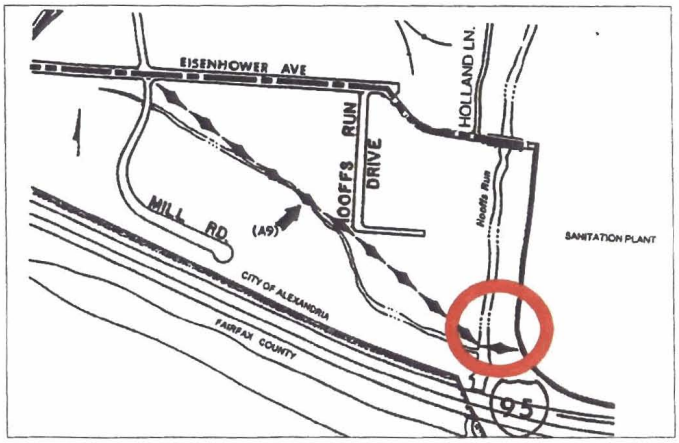


Figure 10: Alexandria Bike Plan - Mill Race Connector

bike trail will be a segment of the larger bike trail that will eventually link Eisenhower to the Mount Vernon trail. VDOT is currently constructing the Route 1 ramps for the Beltway immediately south of the ASA facility and have agreed to install this trail segment once construction is complete. If ASA expands onto Blocks 29 and 30, a likely condition of the special use permit will be the requirement to construct the portion of this trail adjacent to the expansion property and include a bridge across Hooff's Run to connect to the other segment of the trail.

Street Construction and Dedication

A key element of EESAP is the creation of a street network, especially in South Carlyle where it is non-existent. With the construction of Block 27, Limerick Street, the east-west street north of Block 29 will be partially constructed. When Block 28 redevelops, the applicant will be required to complete the street segment. While most of the right-of-way for Limerick Street falls within the northern properties, it is important that ASA provide the additional land necessary to complete the street as called for in the Design Guidelines with on-street parking and sidewalks.

Since the full extension of Eisenhower Park Drive and Holland Lane will not be constructed if ASA expands onto Blocks 29 and 30, the design of the intersections of these two streets with Limerick Street must be carefully planned. ASA will be required to coordinate with the owners of both blocks to ensure the connections are designed appropriately.

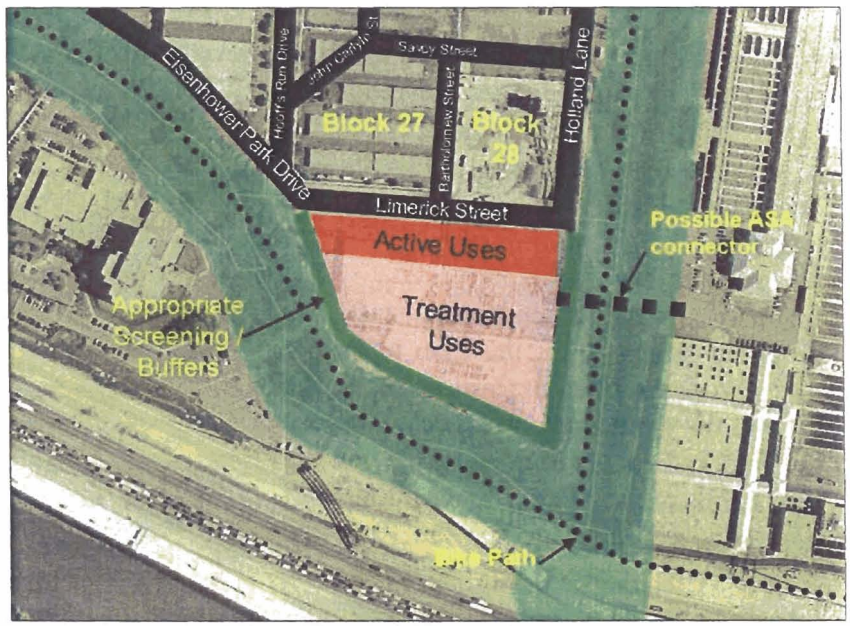


Figure 11: Street Network and Uses

Uses – Design

In order to lessen the impact of a wastewater treatment facility on the neighboring residential uses, any expansion proposal will be required to provide active uses, buildings, and/or structures/walls along the northern portion of the site. One option would be to relocate the administration building to this site. Screening walls can also include architectural elements to make them appear as buildings adjacent to the street. Additionally, as these two blocks are part of Eisenhower East, the design of the buildings and structures must be reviewed and approved by the Eisenhower East Design Review Board (DRB), with the final design subject to the review and approval by the Planning Commission and City Council.

The view of the plant and associated structures from the Beltway is a considerable concern of staff because this is a view that will be visible from many motorists and will contribute to the

overall perception of the Eisenhower East/Carlyle area. It is for this reason that so much attention has been paid to building tops, such as the recently approved west building on Block P and the ATA residential building on Block 19. Staff believes that a high architectural standard must be applied to any plant on Block 29 and 30 to ensure that the plant be designed to appear as buildings rather than a typical sewage treatment plant. While staff does have concerns about the possible design of the plant, with the added recommendations regarding design review, staff believes the design and compatibility issues can be addressed through the standard special use permit review process. In addition, the existing plant has successfully integrated into the neighborhood with the majority of the facilities designed as "buildings" and with many of the operations occurring within enclosed structures.

Figure 12: Block P Building Top

F. Potential Loss of Floor Area

Another concern of staff was that the use of Blocks 29 and 30 for an expansion to the wastewater treatment facility would result in the loss of approximately 170,000 sf of residential use and 500,000 sf of office use. It was envisioned that these residents and office employees would provide much needed additional patrons for the retail uses on John Carlyle Street and contribute towards the 50/50 mix of office and residential uses anticipated by the EESAP.

Providing a wastewater treatment facility within close proximity of a metro station is not necessarily the highest and best use for the two blocks. However, as discussed, Blocks 29 and 30 are the only viable sites for the proposed expansion. A unique element of Carlyle and Eisenhower East is that floor area can be "transferred" from one block to another with special use permit approval by the Planning Commission and City Council. Therefore, some or all of the floor area could potentially be "transferred" to some of the adjoining blocks. While the transferring of floor area would require several technical zoning approvals, the transfer would potentially enable the City to retain some of the floor area that would be displaced from Blocks 29 and 30.

There are several possible receiving sites in the area that the floor area from Blocks 29 and 30 could be transferred to. For example, based on a conceptual analysis of Block P and Block 26B, staff believes that approximately 300,000 to 400,000 sf

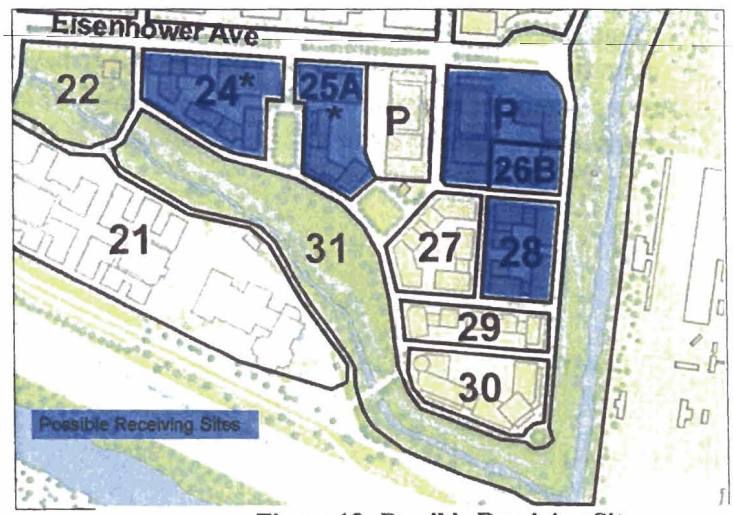


Figure 13: Possible Receiving Sites

could potentially be transferred to these blocks and still maintain acceptable heights. Several of the adjoining blocks in South Carlyle, such as Block 26B (the 2 acre ASA property), Block 28 (Virginia Concrete), or Blocks 24 and 25A (Hoffman) could also potentially receive a portion of the allocated office and residential floor area for Blocks 29 and 30. However, a transfer of floor area to any of these blocks may require additional building height. Therefore any proposed transfer would need to be closely reviewed to ensure the overall design is not comprised by any additional height and/or floor area.

While there is a potential for transferring the floor area to some of the adjoining blocks, there is also the potential that for market reasons, or other reasons, that none of the floor area would or could be transferred, thereby resulting in a loss of approximately 650,000 sf near the Eisenhower Metro station. While staff does not consider this a likely scenario, it is a possibility since the transfer of floor area is a negotiation between the owner of the block that would be transferring floor area (ASA) and the owner of the block receiving the floor area.

G. Section 9.06 Approval

Section 9.06 of the Alexandria City Charter states "no public utility, whether publicly or privately owned, shall be constructed or authorized in the city or in the planned section or division thereof until and unless its general location, but not its character and extent, has been submitted to and approved by the commission". As part of the request for the master plan amendment, the applicant has requested that the Commission review and approve the general location of the proposed expansion to the wastewater treatment facility. Upon approval of the master plan amendment, the location of the wastewater treatment facility on Blocks 29 and 30 would be consistent with the City's Master Plan and it would be appropriate for the Commission to approve the location per Section 9.06 of the Charter.

H. Community

In September 2007, ASA and City Staff met with the Eisenhower Partnership to discuss the proposed master plan amendment and possible expansion. The existing ASA facility is located in an area of town with very few established community associations. Taking this into consideration, on November 17, 2007, ASA invited the Planning Commission, City staff, and other community members to tour the ASA facility. The tour took participants through the various areas of the plant and provided a sense of scale for the additional components that would be needed for the expansion.

V. CONCLUSION AND RECOMMENDATION

Staff recommends **approval** of the master plan amendment, amendment to the Eisenhower East Design Guidelines, and a Section 9.06 case, as outlined in *Attachment # 1* and *Attachment # 2* (Note: new text is indicated by underline).

STAFF: Faroll Hamer, Director, Planning and Zoning;
Rich Baier, Director, Transportation and Environmental Services;
Jeffrey Farner, Chief, Development, P&Z;
Emily Baker, City Engineer, T&ES; and
Katye Parker, Urban Planner, P&Z.

CITY DEPARTMENT COMMENTS

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

Archaeology

F-1 A preliminary assessment of this property indicates that during prehistoric times this property may have been in an environment that was conducive to occupation and use by Native Americans. However, the potentially significant soil layers are now covered with at least 10 to more than 20 feet of fill.

C-1 Archaeological work shall be required on this project if the impacts will penetrate the fill that overlies the site. It is recommended that the applicant work with Alexandria Archaeology as early as possible so that the necessary conditions below can be satisfied and the required work can be completed in a timely fashion.

RESOLUTION NO. **MPA 2007-0004**

WHEREAS, under the Provisions of Section 9.05 of the City Charter, the Planning Commission may adopt amendments to the Master Plan of the City of Alexandria and submit to the City Council such revisions in said plans as changing conditions may make necessary; and

WHEREAS, an application for amendment to the **Eisenhower East Small Area Plan** chapter of the 1992 Master Plan was filed with the Department of Planning and Zoning on **August 8, 2007** for changes in the land use designations to the parcels at **310, 350, 414, 454, and 514 Hooffs Run Drive**; and

WHEREAS, the Department of Planning and Zoning has analyzed the proposed revision and presented its recommendations to the Planning Commission; and

WHEREAS, a duly advertised public hearing on the proposed amendment was held on **March 4, 2008** with all public testimony and written comment considered; and

WHEREAS, the Planning Commission finds that:

1. The proposed amendment is necessary and desirable to guide and accomplish the coordinated, adjusted and harmonious development of the **Eisenhower East Small Area Plan** section of the City; and

2. The proposed amendment is generally consistent with the overall goals and objectives of the 1992 Master Plan and with the specific goals and objectives set forth in the **Eisenhower East Small Area Plan** chapter of the 1992 Master Plan; and

3. The proposed amendment shows the Planning Commission's long-range recommendations for the general development of the **Eisenhower East Small Area Plan**; and

4. Based on the foregoing findings and all other facts and circumstances of which the Planning Commission may properly take notice in making and adopting a master plan for the City of Alexandria, adoption of the amendment to the **Eisenhower East Small Area Plan** chapter of the 1992 Master Plan will, in accordance with present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and general welfare of the residents of the City;

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Alexandria that:

1. The following amendment is hereby adopted in its entirety as an amendment to the **Eisenhower East Small Area Plan** chapter of the 1992 Master Plan of the City of Alexandria, Virginia in accordance with Section 9.05 of the Charter of the City of Alexandria, Virginia:

   Wastewater Treatment Facility/Public Utility is an allowable principal use for Blocks 29 and 30 of the EESAP.

2. This resolution shall be signed by the Chairman of the Planning Commission and attested by its secretary, and a true copy of this resolution forwarded and certified to the City Council.

ADOPTED the **4th day of March, 2008.**

Eric K. Wagner

Eric Wagner, Chairman
Alexandria Planning Commission

ATTEST: Faroll C Hamer

Faroll Hamer, Secretary

Attachment #1

Overview of Liquid Treatment Processes

Preliminary/Primary Treatment

Coarse Screening
The raw sewage entering the plant first goes through coarse screens to remove trash 3 inches in diameter and larger that may clog or damage downstream equipment. The trash is disposed in dumpsters and taken to a landfill.

Raw Sewage Pumping
The raw sewage pump station consists of six pumps with a total peak capacity of 130 MGD with all pumps in service. The pump station discharges through two 60-inch pressure headers to the influent channel in Preliminary Treatment Building K.

Fine Screening
The fine screening system consists of four belt-type rotating screens with ¼ inch openings, removing smaller solids. The screenings are washed with plant effluent water, compacted and moved by screw conveyors to a truck loading bay for landfill disposal.

Grit Removal
The grit removal system consists of four vortex chambers that settle the heavy inorganic solids, such as sand, gravel and other heavy materials, to the bottom of the inner chamber. The grit is washed and dewatered and then moved by screw conveyors to a truck loading bay for disposal.

Primary Treatment
The primary treatment system consists of eight primary settling tanks where the smaller solids settle to the bottom by gravity and are pumped out as sludge to the gravity thickeners. Grease, oils and other floating solids rise to the surface of the tanks and are removed by a skimming mechanism. The clear water goes over weirs at the end of the tanks and is pumped to the Biological Reactor Basins (BRBs). The suspended solids removed in the primary settling tanks contain particulate organic matter, phosphorus and organic nitrogen (TKN).

Ferric chloride and polymer can be added to the primary influent. Adding ferric chloride improves phosphorus removal in the primary by precipitating soluble phosphorus as ferric phosphate which settles out into the sludge blanket. Ferric chloride and polymer are also used to aid settling and improve suspended solids removal by coagulating smaller solids into larger solids that settle faster.

Primary scum contains grease, oil, food particles, paper particles and other small light organic materials that are not readily biodegradable and therefore will not be eliminated in the Biological Reactor Basins. This material tends to float so it cannot be removed with the settling solids as primary sludge. The scum accumulates at the surface of the tank and is collected with skimmers

and troughs in the Primary Settling Tanks and dewatered prior to disposal. Concentrated scum is sent to the truck bays for disposal to a landfill.

Secondary Treatment

Primary Effluent Pumping
The primary effluent pump station, located in the basement of Building L, consists of six pumps and discharges through two 48-inch pressure headers to the BRB operating gallery where the flow is split into each one of the reactor basins.

Biological Nitrogen Removal (BNR)
The BNR system consists of five biological reactor basins (BRBs) and six secondary settling tanks. Each BRB has a volume of 4 million gallons and is divided into anoxic and aerobic zones. The aerobic zones, which are aerated by fine bubble air diffusers, grow micro-organisms that transform ammonia nitrogen to nitrate. Because ASA has one of the most restrictive summer ammonia limits in the country, full nitrification is required to meet the limit, which increases the amount of aerobic zones needed to meet quality limits. The anoxic zones grow micro-organisms that transform the nitrate to nitrogen gas, which is released into the atmosphere. Methanol can also be added as a food source for the micro-organisms to aid them in converting the nitrogen compounds and increase the nitrogen removal. The current nitrogen removal goal for ASA requires us to denitrify, again requiring 50% more anoxic biological volume as well as chemical addition with methanol, to meet the quality limits consistently. The water and micro-organism mix is called mixed liquor.

After the biological reactor basins, the mixed liquor flows into six secondary settling tanks. These tanks allow the micro-organisms to settle by gravity. The settling process is aided by adding ferric chloride and/or polymer, which also helps remove phosphorous from the water. The solids, which are rich in micro-organisms, are removed from the bottom of the settling tanks and returned to the biological reactor basins. A portion of the solids is diverted to the solids handling system as waste activated sludge (WAS).

The Process Air Compressor System provides the Biological Reactor Basins (BRBs) with sufficient low-pressure air to oxygenate the mixed liquor and maintain the activated solids in suspension. The Process Air Compressor System also provides a small amount of air to the influent channel of the Secondary Settling Tanks to agitate the solids and prevent the solids from settling in the bottom of the channel.

Tertiary Treatment

The Primary, Secondary, Tertiary Settling Tanks, and the Rapid Mix/Flocculation Tanks are the key units of the chemical-flocculation treatment process. The treatment is known as a multi-point addition system because ferric chloride, alum, or polymer can be added at different points between the primary and the tertiary settling tanks. The multi-point system provides for flexibility and enhanced efficiency of the phosphorus removal process.

Intermediate Pumping
The intermediate pump station consists of 6 pumps and lifts the water from the secondary tanks to the tertiary treatment processes.

Tertiary Settling
The tertiary settling process consists of eight tanks. Each tank is sub-divided into a rapid mix tank, a flocculation tank and plate settling tank. The flow first enters the rapid mix tank where a coagulant (normally alum or alternatively, ferric chloride) is added to the water and thoroughly mixed. The flow then passes through the flocculation tank where gentle mixing is provided to allow the suspended solids in the water to form a cluster or floc. In the final tank, the flow passes through inclined plate settlers, where the flocs settle by gravity thus removing suspended solids and phosphorous from the water.

Filtration
The filtration system consists of twenty two sand gravity filters to remove fine solids as it passes through the fine filter media. The flow through the filter is controlled by an effluent valve. The filters are equipped with a backwashing and air scouring system that periodically removes the particles accumulated in the filter media and recycles this flow to the intermediate pump station.

Final Treatment

UV Disinfection
The UV disinfection system consists of six parallel channels. The UV light inactivates the various pathogens found in the water as it passes through the lamp banks.

Post-Aeration
The post-aeration system consists of two long rectangular channels with fine bubble diffusers along the bottom. Air can be introduced through these diffusers to increase the dissolved oxygen concentration in the water prior to discharge to Hunting Creek.

Overview of Solids Handling Processes

Federal regulations (40 CFR Part 503) as well as the Virginia Department of Health biosolids regulations (12 VAC 5-585) require that biosolids are stabilized to a Class A or Class B level before being applied to land. The Alexandria WWTP is designed with the capability to pre-pasteurize and digest sludge to a Class A level and to lime stabilize sludge to a Class B level.

Gravity Thickening
The gravity thickening system consists of five circular tanks with sloped cone bottoms. Primary and tertiary sludge are pumped to these tanks and thickened by allowing the solids to settle by gravity to the bottom. The thickened sludge is then pumped out of the bottom of the cone to the thickened sludge equalization tanks. The clarified water at the surface of the tank overflows a weir and is drained by gravity to the primary effluent pump station.

Mechanical Thickening
The mechanical thickening system consists of four thickening centrifuge trains. The centrifuges spin the sludge at high velocities, causing the heavier solids to travel to the outside of the bowl and the clarified water, or centrate, to remain in the center. Polymer is added to the sludge to aid the liquid/solid separation process. The solids are then discharged to the thickened sludge equalization tanks where they are blended with the gravity-thickened sludge and pumped to the pre-pasteurization facility.

Pre-Pasteurization
The sludge pre-pasteurization system reduces the pathogens in the sludge by heating it. The blended thickened sludge passes through two sludge screening presses to remove any fibrous materials that can damage other equipment. The sludge is then pumped through heat exchangers where it is heated to a temperature of 158 °F. The hot sludge is held in a heated sludge holding tank at the target temperature for at least 30 minutes. The sludge is then cooled and sent to the digesters.

Digestion
The digestion system consists of four anaerobic digesters. The digesters reduce the pathogenic organisms, reduce the mass of solids for disposal and produce methane gas which can be utilized for mixing and for fuel. The sludge is pumped to the digesters and is continuously recirculated for heating and mixing. The sludge must be maintained at a temperature of 95°F. The digester gas is withdrawn from the top of the tanks and returned to the digesters for mixing. Excess gas is utilized for operation of the steam boilers or burned in the waste gas flares.

Centrifuge Dewatering
The centrifuge dewatering process consists of three dewatering centrifuge trains, similar in operation and nature to those in sludge thickening. The purpose of this process is to convert the digested sludge, which has a solids concentration of 3 to 10 percent (3 to 10% TS) into a dewatered sludge cake with a solids concentration of 30 percent (30% TS) and above.

Biosolids Storage and Handling
The biosolids storage and handling system consists of six biosolids storage silos. The biosolids are discharged from the centrifuge into the biosolids silos and from there, loaded into trucks for land application or other beneficial reuse.

Odor Control and Process Chemicals

Odor Control
Odorous air is collected from various sources throughout the plant with one main goal: to provide centralized treatment of plant odors. Odorous air is conveyed using above ground and buried collection ductwork to the Solids Processing Building for treatment. Three odor control treatment systems in the building provide removal of particulates and odors:

Particulate scrubbers are used remove particulate matter in select odorous air-streams in the Solids Processing Building. Removal of the particulates helps to prevent fouling of downstream odor control ductwork and equipment.

An acid scrubber is used to remove ammonia odors from the particulate scrubber exhausts, as well as other potentially ammonia-laden odorous air streams in the Solids Processing Building.

Packed tower scrubber systems are used to remove hydrogen sulfide and ammonia from all odorous air streams, including the acid scrubber exhaust.

Process Chemicals
The ASA plant uses several chemicals in the liquids and solids treatment processes and for process support. The main chemical unloading and storage facility for all plant chemicals is located in the Solids Handling Building L. In addition, the plant has a methanol storage facility (Methanol Building M) and chemical day tanks in the Advanced Wastewater Treatment (AWT) Facility (G).

Plant Utilities
In addition to process-related systems and facilities, the plant uses several other systems that support these process-related facilities. These include storm drain and sanitary systems; potable water; natural gas, electrical, SCADA and phone systems.

The planning for Eisenhower East echoes the 18th-century challenge that faced Alexandria's forefathers in designing the blueprint for the City's origins at the edge of the Potomac River. The City founders wisely chose to carefully lay out a harmonious street grid system adjacent to the waterfront, providing room for the growth of commerce and domicile. Today, in the current planning effort, the City looks back to these sound urban design principles as the basis for the forward looking approach encompassed in this Plan.

Eisenhower East represents transportation opportunities and challenges. In terms of opportunities, the area is at the confluence of major regional thoroughfares and is serviced by two Metro lines and rail service. In terms of challenges, large undeveloped parcels of land must be configured to take advantage of the location of the Metro stations, incorporate pedestrian-friendly amenities, and minimize the impacts of traffic and parking. A major focus of this planning effort is to ensure that the combination of transit services, highway access, and local streets will be adequate to support the anticipated level of development, while mitigating the traffic on the streets and minimizing the impact on the surrounding neighborhoods.

Neighborhood Context

Eisenhower East includes about 230 acres bounded on the north by Duke Street and the Metro rail yard, on the east by Holland Lane and the African-American Heritage Park, on the south by the Capital Beltway (I-95/I-495), and on the west by Telegraph Road. The planning area includes the 76.5-acre planned Carlyle community (including the 17-acre, 2.5 million square foot U.S. Patent and Trademark Office complex), and the Eisenhower Avenue Metro Station.

The area suffers from limited points of vehicular ingress and egress; however, improvements to the Capital Beltway will connect the area to the east at Mill Road and the west at Stovall Street.

Historical Context

The Eisenhower East area is integral with the City's history. The area was the location of the 18th-century Village of Cameron, which included a grist mill, and later the West End Village was created as the City's first "suburb."

The Orange and Alexandria Railroad came to the area in the 1850s, setting the stage for the industrial activity that would occupy the area for the next 140 years. Much of the southeastern portion of Eisenhower East was marshland that has since been filled, first, with sediment and later, with soil from the construction of the Capital Beltway. Portions of the area were in the Cameron Run flood plain, and as recently as the 1940s, small boats could navigate part of the marsh area.

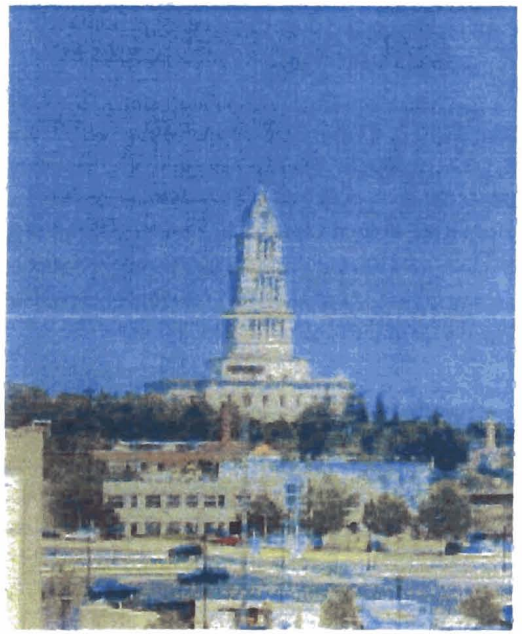
In the 1980s, the Washington Metropolitan Area Transit Authority (WMATA) constructed the Eisenhower Avenue Metro station as part of the "Yellow Line" of the region's heavy rail transit system. Eisenhower East's proximity and exposure to the Beltway, the presence of large vacant sites, and the availability of buildings with ample parking and less expensive rents compared to downtown Alexandria locations all brought relatively low density, back office space, flex space, government office users, and warehousing to the area.

Eisenhower East is unusual in that the land is held by very few ownership entities. As parcels within Carlyle are sold, more ownership parcels are created, but the undeveloped land is generally held by fewer than 10 parties.

Infrastructure

Water, sanitary sewer, and storm water systems are generally in place to serve Eisenhower East; however, some are aging and need to be relocated to reflect the pattern of ownership and the proposed road system. Additionally, the wastewater treatment facility may need to expand in response to long term development and stricter environmental regulations.

The City's Public Safety Center, constructed in the 1980s along Mill Road, houses the City of Alexandria Police Department and serves the



Masonic Temple

Unfortunately, Telegraph Road interrupts the eastern end of this community resource and it is difficult to cross to Eisenhower East through the maze of roads and ramps.

To the east of the study area and Holland Lane, a ;arge green buffer is provided between Eisenhower East and the Southwest Quadrant neighborhood by the African-American Heritage Park, the Hooff's Run watercourse, and the cemeteries.

Within Eisenhower East, urban squares are provided at Carlyle. The John Carlyle Square is designed to provide an active green area surrounded by retail and office uses and the Dulany Gardens, contained within the PTO complex, will provide a green respite anchored on one end with a large atrium building housing the PTO museum.

The Eisenhower East area contains opportunities to recapture and restore natural areas within the area that have been designated by the City as Resource Protection Areas (RPA). The area identified as Mill Run, the extension of the race from the historic mill location, courses parallel to Eisenhower Avenue for several hundred feet just to the east of Mill Road before it bends south and connects with Hooff's Run at the southeast corner of the area. While these areas have largely been neglected, or in some cases built over, they offer the potential for creating natural passive open space, restoring wildlife habitat and providing recreation opportunities.

Infrastructure and Public Facilities

Water, sanitary sewer, and storm water systems are in place to serve Eisenhower East. Major sanitary and storm sewer systems bisect the area. The Holmes Run sanitary sewer trunk line runs in an east-west direction through the area and handles a very large volume from areas of the City further to the west. This line was constructed prior to the construction of Eisenhower Avenue, and for the most part, is located within easements on private property outside of the right-of-way for Eisenhower Avenue.

The eastern segment of this line has been evaluated and found to be in need of upgrading as it will exceed its design capacity by 2020. Improvement to this line has already been funded as part of the City's Capital Improvement Program. Relocation of portions of the line may be necessary as new development takes place, where the location of the line is found to conflict with the proposed location of new construction. While recent upgrades to the Alexandria Sanitation Authority's treatment plant have ensured a design capacity to handle the needs of new development in the Eisenhower East area, projections for potential development over the next 20-40 years indicate the need for additional capacity.

Major storm water systems flow through the Eisenhower East area, carrying water from north of the study area into the natural run on the south side. For the most part, this system is located within public rights-of-way; however, in a few instances, relocation may be necessary as part of new development projects.

The City's Public Safety Center, constructed in the 1980s along Mill Road, houses the City's Police Department, serving the entire City. The Police Department have raised concerns about the size

within the grid supplement Eisenhower Avenue in peak hours when greater capacity is needed. The street grid provides alternative routes and provides supplemental locations to accommodate turning movements that slow traffic flow in peak hour conditions.

The Grid Pattern West of Mill Road

The Eisenhower East Plan calls for three primary east-west streets in the western portion of the study area. Mill Road from its intersection with Jamieson Street turns westward and follows along the northern boundary of the Hoffman property and under Telegraph Road, with alternative connections back to Eisenhower Avenue and to Telegraph Road. The existing private Grist Mill Road that exists on the south side of the AMC theater complex is extended eastward under the Metro tracks and through the recently approved Mill Race development to Mill Road.

On the south edge of the Hoffman parcel, a new southern boundary road connects through the ATA property to Mill Road on the east and extends to the west across Stovall Street (or in the future under the Stovall ramps) and then turns northward and passes under Eisenhower Avenue where it is known as Taylor Drive which ends in a cul-de-sac.

A key component of the grid is the northward extension of Swamp Fox Road which lies between the Hoffman One office building and the AMC theater building. This street is currently closed to through vehicular traffic to meet Department of Defense (DOD) security requirements that require vehicle "stand-off" distances from DOD-occupied buildings.

The intent of the Plan is to "harden" the east end of the Hoffman One building, which would obviate the need for a standoff setback along Swamp Fox Road. Swamp Fox would then be extended northward, around a small park that visually terminates Swamp Fox, to meet Mill Road at the north end of the Hoffman properties. Also key to completing the grid is Mandeville Lane that lies on the north side of the Hoffman One Building.

To provide security setbacks for the Hoffman One building, the existing roadway is offset to the north, providing the required standoff distance from the roadway to the building. The street is then extended eastward to intersect with Mill Road. The space created by the standoff distance is in-filled by retail at street level.

The Grid Pattern East of Mill Road

North of Eisenhower Avenue the grid is established by the roadway pattern of Carlyle. An extension of Elizabeth Lane southward to Mill Road is proposed to add capacity for left hand turns from Eisenhower Avenue to Mill Road, and conversely, right turns from Mill Road to Eisenhower Avenue.

South of Eisenhower Avenue, Hooff's Run Drive is vacated and replaced by the extension of John Carlyle Street southward, terminating in South Carlyle Square and connecting around the square to a new roadway, Park Road – that generally runs east and west – and parallels a resource protection area and new park. Dulany Street is also extended from Eisenhower Avenue to the park, and provides a visual extension of Dulany Gardens within the PTO complex to the new park along Mill Run. Additional east-west and north-south streets are created south of Eisenhower Avenue to establish circulation and access, as well as, reasonable development blocks.

The land in the southeast corner of the Eisenhower East Study Area is owned by five private parties and the City. The City will coordinate with the property owners to ensure appropriate rights-of-way for the new roadway pattern. The locations of the new roads have been established to facilitate equitable land trades that will create new rights-of-way to accomplish the new street pattern (see Figure 4-4, Land Ownership and New Rights-of-Way.)

An access road crossing Hooff's Run shall be permitted. Such a road would be constructed by ASA.

If Blocks 29 and 30 are developed as an expansion of the wastewater treatment facility, the proposed street between Blocks 29 and 30 and the portions of Eisenhower Park Drive and Holland Lane to the west, south and east of Blocks 29 and 30 shall not be required to be constructed or dedicated to the City for public use.

Retail Centers

The City commissioned a market study by a national real estate economist to assess the potential for retail within the Eisenhower East study area (see discussion above - Real Estate Market Context). The results of the study indicate that, given the proposed scale and development intensity of Eisenhower East, the central location of the Metro and the potential for a regional draw with the existing and potential entertainment venues, there is a market for a regional serving retail/entertainment center focused on the Metro and contained within the Hoffman Town Center, as well as a neighborhood serving convenience retail center at the east end of the study area south of Eisenhower Avenue and located on the extension of John Carlyle Street.

Figure 4-11 indicates the primary concentrations of retail/entertainment uses and the general street frontages where ground floor retail must be located.

The Plan envisions retail/entertainment uses as an integral part of the development of Eisenhower East. The intent is to create carefully planned retail centers integrated into the other uses to create the desired vibrant mixed-use community.

The retail and entertainment uses must be carefully planned to create a modern, cohesive urban retail environment, rather than just accommodating retail in the ground floor of buildings along street frontages. Several quality retail environments have recently been constructed in the Washington, DC

Property Name/Owner	Block	Net Development Site Area*	Principal Use	Allowable Gross Floor Area	Building Height (Stories)	Maximum Tower Height (in feet)	Ground Floor Retail
Park	22	116,000	Open Space				
Hoffman	24	61,100	Office	176,007	10-15	200	
Hoffman	24	48,200	Residential	224,920	10-15	200	
So. Dulany Gardens		15,300	Open Space				
Hoffman	25A	60,400	Residential	175,840	10-15	200	
Carlyle	25B	66,800	Office	204,000	10-15	200	22,000
Carlyle Block P	26	92,600	Office	411,000	10-15	200	34,000
Alex. Sanitation Authority	26	41,000	Residential	124,000	4-8	100	
So. Carlyle Square			Open Space				
Alex Mini-Storage	27	73,300	Residential	350,000	4-8	100	
Virgina Concrete	28	63,600	Residential	282,000	4-8	100	
Hooff-Fagelson	29***	55,500	Residential	170,000	4-8	100	
Hooff-Fagelson	30***	114,000	Office	512,000	10-15	200	

Figure 4-10 Development Controls CDD 11

***The Principal Use for these blocks may also be wastewater treatment facility/Public Utility if approved by a special use permit.

extend eastward on the north and south sides of Eisenhower Avenue, with retail space at the ground floor of the Mill Race residential buildings (Blocks 13 & 18) and the new buildings on Block 12.

A new urban plaza, Eisenhower Station Square, in the northeast corner of Block 9 (shown illustrated in Figure 4-13), is faced with retail on two sides and open to the north to the Town Center. New retail is added between the south side of Eisenhower Avenue and the Metro station is revised to facilitate the interface with other transit while surrounding the station with retail.

John Carlyle South Retail Center

A neighborhood retail center is planned for the foot of John Carlyle Street south of Eisenhower Avenue as part of Blocks 25B & 26. As opposed to the Hoffman Town Center, which will focus on entertainment, restaurants, and regional serving retail, the John Carlyle Center is thought to provide for the retail and service needs of the immediate residential neighborhood and Eisenhower East in general.

Alexandria Sanitation Autority

Based on upcoming State and Federal requirements, the Alexandria Sanitation Authority(ASA) facility on the existing 33 acre site will need to expand. The plant expansion is also needed to accommodate the long-term growth of the City. The ASA anticipates that the proposed expansion of the existing facility will occur within Block 29 and Block 30. While a wastewater treatment facility is permitted with a special use permit in any zone within the City, such a use within Eisenhower East must be designed and constructed in a manner that is consistent with the Plan, applicable special use requirements, and the following:

- To the extent possible, the northern portion of the site shall be designed with an active use(s), building(s), and/or walls to create an appropriate transition to the planned residential uses within Block 27 and Block 28. The building(s) and/or walls shall be designed to be integrated as part of Limerick Street and shall function and/or be architecturally designed to appear as building(s).
- The design of the any future facility shall take into account visibility from the Capital Beltway and associated roadways, adjoining streets, and parkland, and shall include all necessary screening or design elements to minimize the visual impact of such a use, comparable to the existing facility.
- The proposal will not preclude the implementation of Limerick Street, including all sidewalks and appropriate connections as determined by the Directors of P&Z and T&ES. The possible removal and/or relocation of other streets required by the Plan shall be evaluated as part of the special use permit process.
- The proposal shall not preclude or reduce the required area for open space for the Eisenhower Park from development on Block 29 and Block 30. In addition, the design of any future facility within Block 29 and/or Block 30 shall include appropriate screening and/or buffers to minimize impacts to the future Eisenhower Park.

While the expansion of the wastewater treatment facility within Block 29 and/or Block 30 is necessary to accommodate future growth within the City and to comply with applicable State and Federal requirements, it is essential that the design of the facility be done in a manner that is compatible with the adjoining residential blocks, and open space and that it be designed in a manner to fulfill the intent of the Plan to the extent possible.

Parking Strategy

Parking is a significant land use component of any neighborhood and the parking for Eisenhower East has been carefully considered in the Plan. The key is to provide sufficient parking to serve the economic and convenience needs of the neighborhood, while limiting the parking commensurate with a well-planned transit-oriented neighborhood.

Most planning ordinances establish a minimum parking requirement for each land use, which can have the tendency to provide parking in excess of what is necessary and thus increasing the use of the private automobile as the primary mode of travel. To encourage the use of transit the Eisenhower East Plan limits the parking for each land use based upon an analysis of the existing parking in the area, the existing parking program in Carlyle and parking ratios employed in similar transit served areas on the Metro system.

The following are the maximum parking standards

37

Attachment #2

consistent with the principles and intent of the Plan. A change resulting in the transfer of an equal amount of square footage from one parcel to another may be done as part of the development approval process. A change that increases the amount of building area on a parcel shall be made as an amendment to the Master Plan.

The development figures outlined in Figure 4-10 reflect the transfer of density for original underlying parcel(s) to a smaller net development area. Development is prohibited on any portion of the property delineated in the Plan for public open space or roadways.

In the event Blocks 29 and 30 are acquired for expansion of the wastewater treatment facility, a transfer of the planned office and residential floor area to other sites within the Eisenhower East boundaries may be considered. Any such transfer should maintain the overall balance of uses set forth in the Plan.

Design Guidelines
The area shall include a variety of architecture and building heights that are in general conformance with the height guidelines and architectural principles outlined in this Plan. All above-grade parking structures shall be screened by either active uses or architectural treatment, depending on the type of street on which they are located and visible, as outlined in the urban design section of this Plan. New development projects shall comply with any detailed design guidelines subsequently adopted pursuant to this Plan.

Transportation and Parking Management Plans
All new development project shall participate in any established Transportation Management District for the Eisenhower East area. The amount of parking provided with new development projects shall not exceed the maximum amount outlined in the Plan.

Street, Open Space and Other Public Improvements
All new development in the District shall participate in any program adopted by the City Council for the equitable distribution of costs associated with the implementation of street, streetscape, open space, parks, and other public improvements necessary to support development in the Eisenhower East area.

4. BOUNDARY & BLOCK ASSIGNMENTS: CHART- SOUTH CARLYLE

This chart reflects the development controls for each block in th South Carlyle neighborhood.

Refer to "Boundary & Block Assignments: Key" on p. 7 for location of block assignments.

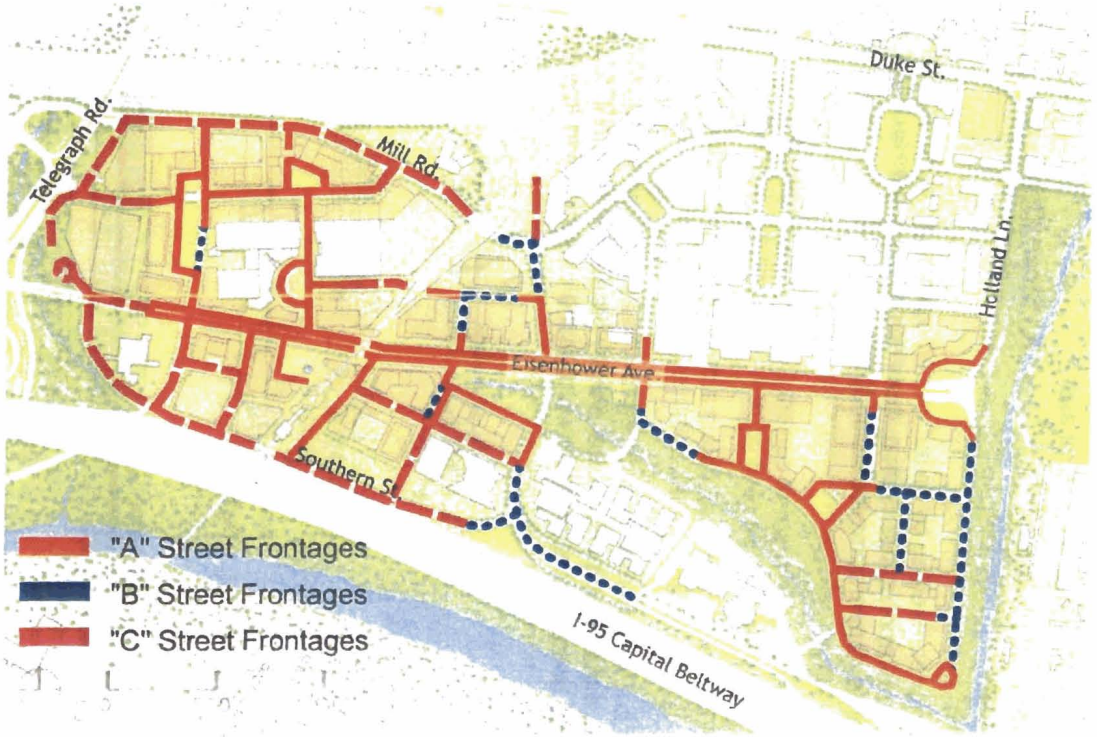
PROPERTY NAME/ OWNER	BLOCK	NET DEVELOPMENT SITE AREA*	PRINCIPAL USE	ALLOWABLE GROSS FLOOR AREA (gsf)	BUILDING HEIGHT (Stories)	MAXIMUM TOWER HEIGHT (Feet)	GROUND FLOOR RETAIL** (gsf)
Park	22	116,000	Open Space				
Hoffman	24	61,100	Office	151,000	10-15	200	
Hoffman	24	48,200	Residential	144,000	4-8	100	
So. Dulany Gardens		15,300	Open Space				
Hoffman	25A	38,500	Office	135,000	10-15	200	
Hoffman	25A	60,400	Residential	96,000	4-8	100	
Carlyle	25B	66,800	Office	204,000	10-15	200	22,000
Carlyle Block P	26A	92,600	Office	411,000	10-15	200	34,000
City of Alex	26B	41,000	Residential	124,000	4-8	100	
So. Carlyle Square		28,200	Open Space				
Alex Mini-Storage	27	73,300	Residential	350,000	4-8	100	
Virginia Concrete	28	63,600	Residential	282,000	4-8	100	
Hooff-Fagelson	29***	55,500	Residential	170,000	4-8	100	
Hooff-Fagelson	30***	114,000	Office	512,000	10-15	200	

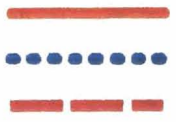
* The net development site area does not reflect surveyed information and is based on best available information.

** Reflects desired location and amounts. Accessory retail may be provided on sites not noted for retail.

***The Principal Use for these blocks may also be wastewater treatment facility/Public Utility if approved by special use permit (refer to page 4-17 of the EESAP for general development guidelines)

Attachment #3





A Street Frontage

B Street Frontage

C Street Frontage

STREET FRONTAGE DESIGN PRINCIPLES: STREET FRONTAGE PLAN

The Street Frontage Plan designates the design classification for each block in the Eisenhower East area. For each type of street frontage (A, B and C), these guidelines outline specific design requirements for new buildings and the adjoining streets, including:

- Build-to-Line
- Building Setbacks
- Building Entry
- Curb Cuts
- Parking Structures
- Facade Guidelines
- Landscape Guidelines
- Street Tree Species

The following sections discuss the guidelines for building along the various street frontage types.

An access road crossing Hooff's Run shall be permitted. Such a road would be constructed by ASA.

If Blocks 29 and 30 are developed as an expansion of the wastewater treatment facility, the proposed street between Blocks 29 and 30 and the portions of Eisenhower Park Drive and Holland Lane to the west, south and east of Blocks 29 and 30 shall not be required to be constructed or dedicated to the City for public use.

Attachment #3

APPLICATION

MPA 2007-0004

[ ] Master Plan Amendment MPA # _____

[ ] Zoning Map Amendment REZ # _____

PROPERTY LOCATION: 414, 454, 514, 310, & 350 Hooffs Run Drive, Alexandria, VA

APPLICANT

Name: Alexandria Sanitation Authority
Address: 1500 Eisenhower Avenue Alexandria, VA 22314

PROPERTY OWNER:

Name: Hooff-Fagelson Tract LLC
Address: c/o Charles R. Hooff, 1707 Duke Street, Alexandria, VA 22314

Interest in property:

[ ] Owner [ ] Contract Purchaser

[ ] Developer [ ] Lessee [X] Other Condemnor

If property owner or applicant is being represented by an authorized agent such as an attorney, a realtor, or other person for which there is some form of compensation, does this agent or the business in which they are employed have a business license to operate in Alexandria, VA:

[x] yes: If yes, provide proof of current City business license.

[ ] no: If no, said agent shall obtain a business license prior to filing application.

THE UNDERSIGNED certifies that the information supplied for this application is complete and accurate, and, pursuant to Section 11-301B of the Zoning Ordinance, hereby grants permission to the City of Alexandria, Virginia, to post placard notice on the property which is the subject of this application.

Jonathan P. Rak, Esq.
Print Name of Applicant or Agent

Jonathan P. Rak
Signature

McGuireWoods LLP
1750 Tysons Blvd., Suite 1800
Mailing/Street Address

(703) 712-5411 (703) 712-5231
Telephone # Fax #

McLean, VA 22102
City and State Zip Code

August 8, 2007
Date

DO NOT WRITE IN THIS SPACE – OFFICE USE ONLY	
Application Received: _____	Fee Paid: $ _____
Legal advertisement: _____	
ACTION – PLANNING COMMISSION _____	ACTION – CITY COUNCIL: _____

MPA # 2007-0004

REZ # _____

SUBJECT PROPERTY

Provide the following information for each property for which an amendment is being requested. (Attach separate sheets if needed.)

Address **Tax Map – Block Lot**	**Land Use** Existing - Proposed		**Master Plan Designation** Existing – Proposed		**Zoning Designation** Existing – Proposed		**Frontage (ft.)** **Land Area (acres)**
1. 079.02-01-17.L1	Repair services	Public utility facility waste water treatment facility	Eisenhower East Small Area Plan (EESAP)	Eisenhower East Small Area Plan (EESAP)	CDD-11	CDD-11	_____ 126,867 sq. ft.
2. 079.02-01-17.L2	Vacant land	Public utility facility waste water treatment facility	Eisenhower East Small Area Plan (EESAP)	Eisenhower East Small Area Plan (EESAP)	CDD-11	CDD-11	_____ 172,818 sq. ft.
3. 079.02-01-17.L3	Vacant land	Public utility facility waste water treatment facility	Eisenhower East Small Area Plan (EESAP)	Eisenhower East Small Area Plan (EESAP)	CDD-11	CDD-11	_____ 43,189 sq. ft.
4. 079.02-01-17.L4	Vacant land	Public utility facility waste water treatment facility	Eisenhower East Small Area Plan (EESAP)	Eisenhower East Small Area Plan (EESAP)	CDD-11	CDD-11	_____ 29,303 sq. ft.
5. 079.02-01-09	Vacant land	Public utility facility waste water treatment facility	Eisenhower East Small Area Plan (EESAP)	Eisenhower East Small Area Plan (EESAP)	CDD-11	CDD-11	_____ 85,429 sq. ft.

PROPERTY OWNERSHIP

[ ] Individual Owner [X] Corporation or Partnership Owner

Identify each person or individual with ownership interest. If corporation or partnership owner, identify each person with more than 10% interest in such corporation or partnership.

1. Name: _____ Extent of Interest: _____
   Address: _____
2. Name: _____ Extent of Interest: _____
   Address: _____
3. Name: _____ Extent of Interest: _____
   Address: _____
4. Name: _____ Extent of Interest: _____
   Address: _____

MPA # 2007-0004

REZ # _____

JUSTIFICATION FOR AMENDMENT

(attach separate sheets if needed)

1. Explain how and why any proposed amendment(s) to the Master Plan are desirable, beneficial to surrounding properties, in character with the applicable Small Area Plan and consistent with City policies:

This proposal is to add a waste water treatment facility as a future land use in the Master Plan as part of the recommendation for Blocks 29 and 30 of the Eisenhower East Small Area Plan (EESAP). This would be an expansion of the existing Alexandria Sanitation Authority (ASA) located to the east. The plant expansion project is necessary to comply with enhanced federal and state environmental regulations regarding the treatment of waste water. Compliance with these new regulations will require the construction of improved waste water treatment facilities. It is in the public interest to locate and operate the improved waste water treatment facilities on the subject property. Blocks 29 and 30 are located immediately adjacent to the ASA's existing treatment plant. Expansion of the plant site on this property will have the least impact on surrounding land uses. The location is also the best location to connect with the existing treatment processes.

This change to the Master Plan is consistent with the EESAP vision for a new, urban, mixed-use community centered around the Eisenhower Avenue Metro Station. This vision is predicated on adequate services such as the treatment of waste water being available. For this reason, the provision of adequate public resources, the proposal is consistent with the Small Area Plan and City policies.

2. Explain how and why the proposed amendment to the Zoning Map(s) is consistent with the proposed amendment to the Master Plan, or, if no amendment to the Master Plan is being requested, how the proposed zoning map amendment is consistent with the existing Master Plan:

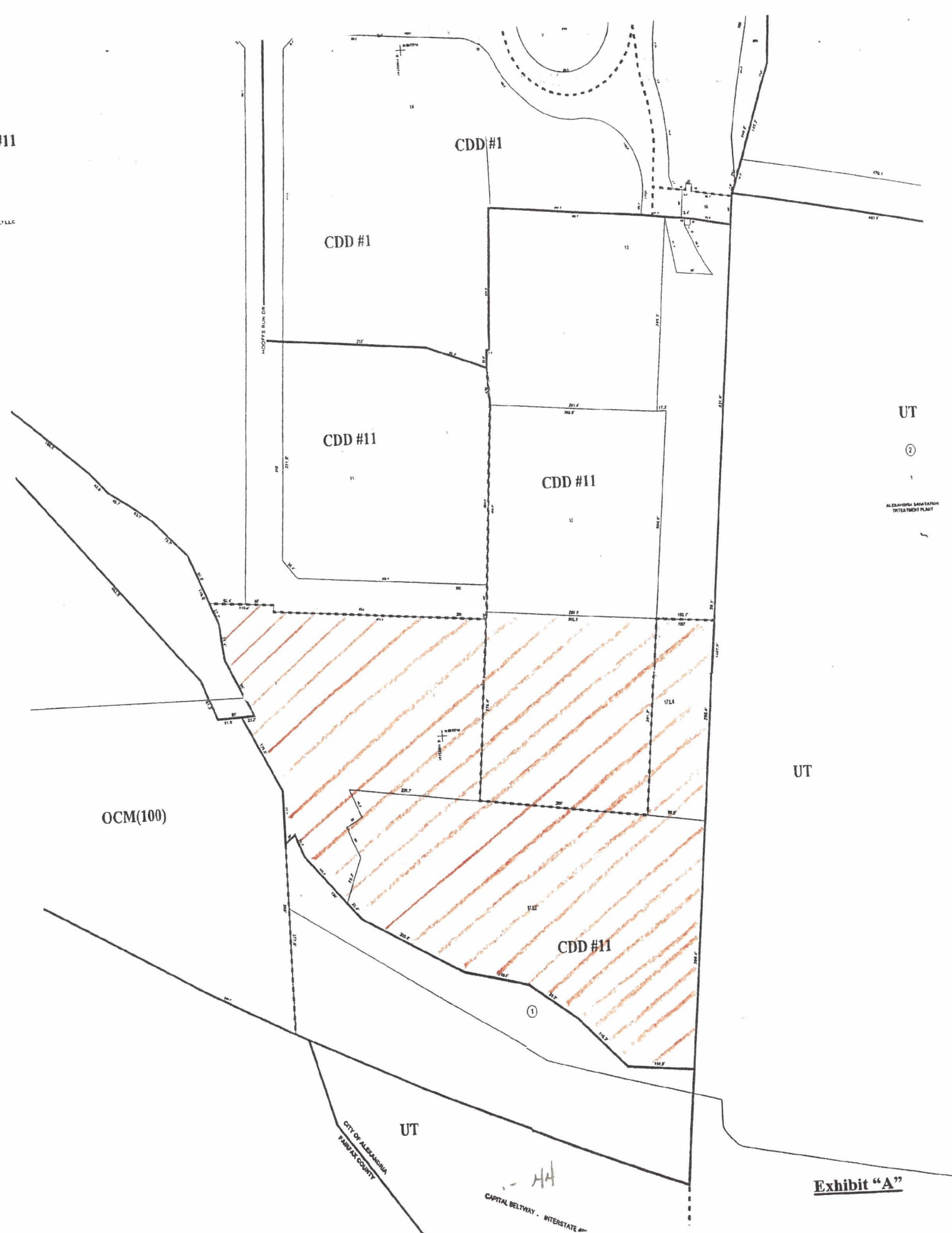
No change to the Zoning Map is being proposed at this time.

3. Explain how the property proposed for reclassification will be served adequately by essential public facilities and services such as highways, streets, parking spaces, police and fire, drainage structures, refuse disposal, water and sewers, and schools.

The proposed waste water treatment plant will expand the treatment facilities of the existing waste water treatment plant to service the waste water treatment needs of the City's current and future residents. Adequate public facilities and services are anticipated to continue to service the existing facility along with the expansion.

4. If this application is for conditional zoning approval pursuant to Section 11-804 of the Zoning Ordinance, identify all proffered conditions that are to be considered part of this application (see Zoning Ordinance Section 11-804 for restrictions on conditional zoning):

Not Applicable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CITY OF ALEXANDRIA
FAIRFAX COUNTY
CAPITAL BELTWAY - INTERSTATE

HH

Exhibit "A"

PC Docket Item # 12
Case # MPA 2007-0004

CHESAPEAKE BAY FOUNDATION
Environmental Protection and Restoration
Environmental Education

February 29, 2008

City of Alexandria Planning Commission
301 King Street, Room 2100
Alexandria, Virginia 22314

Subject: Alexandria Sewage Authority Wastewater Treatment Plant Expansion

Dear Commission Members:

On behalf of the Chesapeake Bay Foundation (CBF), please accept this letter of support for the Alexandria Sewage Authority (ASA) Wastewater Treatment Plant expansion that will allow it to provide state-of-the-art nutrient treatment in accordance with Federal and state requirements. We very much appreciate the opportunity to express our support for this important action to the City of Alexandria Planning Commission.

CBF is an independent 501(c)(3) organization solely dedicated to the protection and restoration of the Chesapeake Bay and its tributaries, with over 194,000 members, more than 66,000 of whom reside in Virginia. CBF staff works throughout the Bay's 64,000-square-mile watershed—from Pennsylvania to Virginia—to develop and implement environmental policy, provide on-the-water education, and participate actively in the public debate on issues that affect the Bay watershed.

Across Virginia, nearly 9,000 miles of streams were listed as impaired in Virginia's most recent "dirty waters" list submitted to the U.S. Environmental Protection Agency.[1] In the Bay watershed, excess nitrogen and phosphorus ("nutrient pollution") is the most serious pollution problem. Point source discharges from wastewater treatment plants are the source of one-third of the nitrogen and one-quarter of the phosphorus pollution to the Bay watershed that produces the dead zones, algal blooms, and fish kills that increasingly plague the region.[2,3] As such, our efforts in Virginia over the last decade have focused on advocating for policies and programs that deliver reduced point and nonpoint source nutrient pollution that will restore and sustain the long-term health of the Bay ecosystem.

Earlier this decade, the Bay states committed via the *Chesapeake Bay 2000 Agreement*[4] and the Tributary Strategies[2] to reduce nutrient pollution sufficiently to remove the Bay and tidal tributaries from the dirty waters list by 2010. Further, new regulations in Virginia became effective in 2005 and 2007 that required wastewater treatment plants that discharge to the Bay watershed to meet stringent advanced nutrient reduction requirements by January 1, 2011.[5] Plants that discharge to the Potomac River also must meet strict ammonia and phosphorus requirements in the Potomac Embayment Standards.[6]

It has recently come to CBF's attention that ASA is planning to expand the wastewater treatment plant to achieve state-of-the-art nutrient reductions. Further, we understand that ASA has applied for over

[1] *2006 Water Quality Assessment, 305(b)/303(d) Integrated Report.*
[2] Commonwealth of Virginia. 2005. *Chesapeake Bay Nutrient and Sediment Reduction Tributary Strategies.*
[3] CBF. 2007. Bad Waters: Dead Zones, Algal Blooms, and Fish Kills in the Chesapeake Bay Region in 2007.
[4] *Chesapeake 2000 Agreement*, June 2000.
[5] 9VAC-25-720 and 9VAC25-820
[6] 9VAC25-260-310b.

$800,000 in state funding for this expansion from the Water Quality Improvement Fund (WQIF).[7] Specifically, we gather that the focus of this expansion will be to add basin and tank capacity to reduce total nitrogen to the state-of-the-art level of 3 mg/L.

CBF strongly supports ASA's construction and implementation of state-of-the-art nutrient removal technologies and their consideration for state cost-share grant funding. We have advocated for similar level of treatment and adequate cost-share funding for installation of such treatment technologies throughout the Bay watershed in Virginia. Significantly reducing nutrient levels at all municipal and industrial discharges is critical to improving the health of Bay watershed and the Commonwealth meeting its obligation to clean up the Bay watershed by the close of the decade.

With the willingness of City's such as Alexandria, and recent allocation of over $600 million to the WQIF for use by dischargers throughout the Commonwealth, CBF strongly believes that the water quality goals for the Bay and its tributaries can be met.

If you have any questions regarding this letter, please feel free to contact me at (804) 780-1392 or mgerel@cbf.org.

Sincerely,

Mike Gerel
Virginia Staff Scientist

Cc: Karen Pallansch, General Manager, Alexandria Sanitation Authority
Ann Jennings, Virginia Executive Director, Chesapeake Bay Foundation

[7] 10.1-2118, Code of Virginia.

PC Docket Item # 13
Case # MPA 2007-0004

N·V·B·I·A
NORTHERN VIRGINIA BUILDING INDUSTRY ASSOCIATION

February 29, 2008

Mr. Eric Wagner
Chairman,
City of Alexandria Planning Commission
301 King Street,
Suite 2100
Alexandria , VA 22314

Via email: erwagner@comcast.net
Kendra.jacobs@alexandriava.gov

Dear Chairman Wagner;

The Northern Virginia Building Industry Association has been asked to comment on the proposed Master Site Plan Amendment to permit expansion of the Alexandria Sanitation Authority ("ASA") facility. Due to timing and the relative complexity of the issues presented, NVBIA is unable to comment in detail regarding the specific parcels and properties involved and whether these two specific parcels must be an integral part of any planned expansion of capacity. NVBIA would generally note its strong support for the concept that the City of Alexandria can and should plan and provide for expansion of capacity of the ASA facility. NVBIA is concerned that in the future, the City will face serious impediments in its ability to provide for reasonable development and planning without providing for that expansion of capacity.

In making this general statement, NVBIA is expressly not adopting a position regarding the merits of the positions of the various effected landowners with regards to compensation, valuation of the property, or the interaction of potential expansion with adjoining parcels. These matters would appear to be issues to be addressed in other forums or at other times. We appreciate your consideration of our commentary in your decision-making process."

Sincerely

James S. Williams, CAE
Executive Vice President

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PC Docket Item # 12
Case # MPA 2007-0004
Section 906 2007-0004

MEMORANDUM **CH2MHILL**

Site Impact of ASA Plant Process Needs

TO: Karen Pallansch/ASA

COPIES: Liliana Maldonado/CH2M HILL
Paul DeKeyser/CH2M HILL

FROM: Paula Sanjines/WDC
Rich Voigt/WDC

DATE: November 9, 2007

This memorandum summarizes regulatory requirements and other drivers for ASA's facility expansion needs and discusses different site options for locating new facilities.

Background

CH2M HILL has been providing engineering services for the Alexandria Sanitation Authority (ASA) since 1992. Design and construction of the Advanced Wastewater Treatment Facility (AWTF) Upgrade, based on early Chesapeake Bay and state voluntary nutrient removal requirements, was completed in 2006. Preliminary planning for ASA's future Enhanced Nutrient Removal (ENR) was conducted which evaluated the ability of the existing plant to meet new water quality regulations and identified current facilities and processes that would need to be upgraded.

Regulatory Requirements

Prior to the updated *Chesapeake 2000* agreement, the Chesapeake Bay Program and the Virginia Department of Environmental Quality (VA DEQ) required wastewater treatment plants to meet a voluntary effluent discharge limit of 8 mg/l of total nitrogen. ASA undertook to meet this voluntary agreement by beginning concept and detailed plant design in 1997 to upgrade its existing facilities. During this process, ASA and its consulting engineers added in flexibility to the new nutrient removal facilities so that the plant could potentially further reduce the nitrogen effluent concentration in the future.

The *Chesapeake 2000* agreement then set new goals for nutrient reduction in the Chesapeake Bay. In order to meet these goals the VA DEQ set regulations in 2006 to limit the amount of phosphorous and nitrogen that major municipal wastewater treatment plants, such as ASA, can discharge to the tidal Potomac River. Based on these regulations the ASA facility will have to consistently and reliably meet an annual average Total Nitrogen (TN) concentration of 3 mg/L and a Total Phosphorous (TP) concentration of 0.18 mg/L in the final effluent. The facility will have to begin complying with these new regulations by January 1, 2011.

The existing facility was designed to meet a TN discharge limit of 8 mg/L at design flows and loads. The design included flexibility in several process units which would allow the plant staff to further optimize the system's operation in efforts to reduce the TN concentration in the effluent below the target limit of 8 mg/L. However, even with the

added flexibility, the current system cannot consistently meet the new TN discharge limit of 3 mg/L and a process upgrade will be required. Additional treatment volume is also needed because the amount of solids and organic material flowing into the plant has been increasing over the last decade above what had been originally designed into the existing processes. The new process upgrades will have to be sized to treat the additional projected loadings at design flow conditions.

New Facilities

CH2M HILL has determined, on a conceptual basis, that ASA will require several facilities to meet the new regulatory requirements. Preliminary sizing of these facilities indicates that they will need about 4 acres of usable land, which is not available on the existing plant site. Additional space will be needed both for contractor lay down during construction and for adequate constructability of new units for pilings and minimum laybacks. The following is a list of the additional facilities:

- **Biological Reactor Basin (BRB)** – Additional volume is needed in order to increase the amount of time that the biomass (microorganisms) stays in the system to remove nitrogen at design flows and loads. On a conceptual basis, CH2M HILL recommends that an additional 4.2 million gallon tank (matching existing tank size) be constructed to provide the necessary volume increase. The approximate footprint of this tank would be 300 ft long by 90 ft wide, including influent and effluent channels.

- **Methanol Storage** – Additional methanol, or a comparable carbon source, will have to be added to the nutrient removal process in order to reduce the nitrogen concentration to the required limits. On a conceptual basis, CH2M HILL recommends that three additional methanol storage tanks be installed.

- **Secondary Settling Tank (SST) 7** – ASA's original four (4) SSTs were retrofitted for biological treatment, as part of the AWTF Upgrade. In addition, two new identical SSTs were added for additional capacity. The design loading under maximum month conditions was 30 pounds/day/square foot (lbs/d/sf). After the systems were placed in service, ASA's operational data indicated that the tanks would often experience solids carryover at loadings above 25 lbs/d/sf. This effectively downgrades the capacity of the existing SSTs. In order to maintain needed treatment redundancy and flexibility at design flows and loads, CH2M HILL recommends that an additional SST be constructed. The approximate footprint of this tank would be 290 feet long by 83 feet wide, including influent and effluent channels.

- **Flow Equalization -** By removing diurnal peaks in loading, the nutrient removal process will be able to operate more efficiently and remove more nitrogen. It will also have less exposure to toxic substrates that could affect the biological activity of the micro-organisms and potentially result in a process upset. Most wastewater facilities in the area that have to comply with the same TN limit of 3 mg/L as ASA have flow equalization as part of their process. These include Arlington, UOSA, Loudoun County Sanitation Authority, Noman Cole Pollution Control Plant (Fairfax County) and DC WASA (currently under construction). The recommended volume for diurnal flow equalization is 20% of the average plant flow plus an additional 4% to account for un-usable volume in the tank. At ASA's rated design flow of 54 MGD, this would translate

into a storage volume of approximately 13 MG. Ancillary facilities for flow equalization include a pump station (approximately 15 MGD capacity), and an odor control system. The footprint required for the flow equalization system varies depending on the tank geometry, but the approximate footprint needed would be for 6 tanks, each 130 feet long by 75 feet wide. The pump station would be approximately 60 feet by 60 feet and the odor control system would be 100 feet by 70 feet.

- **Pre-pasteurization Process** – Analysis of the future loadings to the solids treatment process indicate that the existing pre-pasteurization process does not have enough capacity to treat the projected future solids loads with the necessary redundancy. On a conceptual basis, CH2M HILL recommends that an additional pre-pasteurization process train (sludge press, pumps and heat exchangers) be added to the existing system.

- **Back-up Power Supply** - CH2M HILL conducted a Power Generation Study in October 2004 to assess the best option for emergency back-up power generation. The recommendation is to provide four 2,000 kW power generators to provide a total standby power capacity of 8,000 kW for continued plant operations in case of an interruption in utility-generated power. The estimated footprint required for a new facility to house four generators and ancillary equipment would be approximately 60 feet by 60 feet. Locating this facility within the existing plant site is preferred because it would avoid having to install large electrical duct banks to bring the power to the site. The standby power generation facility could be located in the north end of the existing AWT Building (alternatively, a new facility could be constructed adjacent to the AWT Building). However, construction of standby power generation at the existing main plant may further constrain the site.

Based on this conceptual evaluation, the Authority will need approximately an additional 4 acres to construct the facilities it needs to meet new regulatory requirements. This is equivalent to the footprint needed for the above-listed facilities plus an additional 40% for roads and access.

Siting Scenarios for Required Facilities

Use of the following properties was considered to site the new facilities required:

- ASA Main Site
- ASA 2-Acre Site (west of Hooffs Run)
- Properties East of ASA Main Site (Lee Center/Animal Shelter/incinerator)
- Hooff Fagelson Property (west of Hooffs Run)

Scenario 1 - ASA's Main Plant Site: As with any major industrial processing facility, the optimal location for new facilities would be on ASA's Main Plant site; however, the needed acreage does not currently exist on site. The additional methanol capacity and the additional pre-pasteurization treatment train do not require a large footprint and it appears that in concept these can be accommodated in the existing plant site. Either the new BRB or the new SST could be located in the open area adjacent to SST 6 and the BRBs. However, there is only enough unused space to facilitate locating either BRB 6 or SST 7, not both

which are needed. Constructing both facilities on ASA's main plant site would require conversion of an existing clarifier to a stacked clarifier configuration. Building stacked clarifiers would involve complex construction sequencing, increased construction costs, and increased potential for interruptions to plant operations which could result in non-compliance with permit regulations during the construction phase, with construction lasting anywhere from 3 to 5 years. Flow equalization could not realistically be constructed on the existing plant site. Approximately 8 MG of below-grade storage volume could be included in ASA's 2-acre site west of Hooff's Run. Odor control and a pump station would also have to be sited there as well and would include above grade facilities.

Scenario 2 - ASA's 2-acre site west of Hooffs Run: This site only has 0.81 acres available for above-ground construction because of planned city streets and adjacent planned development. This area could be used for locating the new BRB. However, the site is much higher in elevation (about 15 feet) than the Main Plant site, which would require a very large pump station (190 MGD) to transfer the water for treatment. Building a fourth pump station, which would need to be 1.5 times larger than each of the existing three pump stations will not be feasible for numerous reasons: the existing power supply is not adequate to support this large load, there is no space in the existing site to adequately place this pump station and this above-ground 1-story facility will be a source of noise and odors which will need to be attenuated.

Scenario 3 - Properties East of ASA Main Site: Use of these properties would involve pumping and routing of large piping/conduits across the plant site to and from the new facilities. Routing of the piping and conduits will be dictated by the existing site constraints. These properties have the added disadvantage of having access only through narrow residential streets, making the site inaccessible for mobilization of construction equipment and other large truck traffic needed in the future for deliveries or repairs. The community center is currently zoned for Public Open Space and would require re-zoning for industrial use.

Scenario 4 - **Hooff-Fagelson Property**: This property, located directly west of ASA's Main Plant site, offers the advantage of being the closest site to the existing BRBs and SSTs of any of the non-Main Plant sites under consideration while providing the needed acreage for facility construction. It will require the least amount of piping or conduits to convey the process flow. The property is also at an elevation similar to the Main Plant site, which will reduce or possibly eliminate pumping requirements.

Future Needs

Current regulatory trends indicate that ASA is very likely to face stricter effluent limits in the future. Upcoming regulations could include the following:

- Reduced TN and TP concentrations to 1 mg/L and 0.01 mg/L respectively
- TMDL restrictions on substances that are becoming of increasing concern (such as cancer-causing or endocrine disrupting chemicals, personal-care products and pharmaceuticals, chlorophyll, temperature and dissolved oxygen among others) that could become regulated in the future.

- Current practice of land application of biosolids might be curtailed or completely unavailable in the future

Stricter limits would necessitate additional facilities to provide increased process reliability or alternative disposal methods in the case of biosolids. These would include:

- **Sidestream Treatment:** The dewatering centrate being recycled to the BRBs has a high nitrogen concentration. By treating this stream in a separate reactor, the nitrogen loading to the BRBs would be reduced, thus resulting in more reliable operation. Different technologies are available for this process. Conceptually, CH2M HILL recommends that two reactors, each 0.5 MG be constructed for this purpose. The estimated footprint for both tanks would be 63 ft wide x 85 ft long.

- **Water Reuse:** Being able to divert plant effluent water of high quality for other beneficial uses (for example irrigation of parks or golf courses or as industrial cooling or heating water) will reduce the mass of nutrients released to the receiving waters. In addition, water reuse is an environmentally sustainable practice that would benefit the community by reducing the consumption of treated drinking water for these non-drinking purposes. Conceptually, the authority would have to build a pump station with a capacity of 5 to 10 MGD and a sodium hypochlorite dosing facility. The estimated footprint for this facility would be 30 ft x 50 ft.

- **Micro-Constituent Removal Facilities:** Because of the uncertainty as to which substances may be regulated in the future and the technological advances that might be available for treatment, a firm recommendation has not been made with regards to the type of process that should be planned for at the site. Based on the current level of technological development, the two processes that are currently being used for removal of organic compounds are 1) activated carbon in combination with ozonation and 2) reverse osmosis. Both of these alternatives have large footprint requirements. The estimated footprint for the activated carbon facility is 264 feet by 33 feet (8 tanks, each 33 feet by 33 feet) and the ozone facility is 200 feet by 90 feet. The estimated footprint for a reverse osmosis facility is 210 feet by 240 feet.

- **Biosolids Disposal Options:** If ASA cannot continue the current practice of land-applying Class A biosolids, new alternatives for solids disposal will have to be considered. Two possible alternatives would be for the plant to further treat the biosolids in a dryer or in a soil-blending facility to convert the product into a soil-additive or fertilizer. The estimated footprint for a dryer facility is approximately 120 feet by 190 feet, including an electrical room, HVAC and other ancillary equipment. The facility would also require a 40-foot wide truck drive and truck access.

- **Additional Power Needs:** If the facilities listed above are required, an additional electrical substation is likely to be needed to supply the electricity needed for these processes. The assumed footprint for a new electrical substation is assumed to be 60 ft by 100 ft.

Based on this conceptual evaluation, the Authority will need approximately 3 additional acres to construct the facilities it may need in the foreseeable future. This is equivalent to

the footprint needed for the above-listed facilities plus an additional 40% for roads and access and additional area for contractor lay-down during construction.

Conclusions/Recommendations

Based on the evaluation of the existing plant to meet the new regulatory limits and conceptual estimates of the needed facility size upgrades, it is CH2M HILL's assessment that ASA will not be able to construct the facilities needed to effectively and consistently meet a TN of 3 mg/L and a TP of 0.18 mg/L using only the land available on the existing site without incurring excessive construction costs and facing potential operational disruptions that could result in non-compliance with permit requirements. Based on a conceptual evaluation, the Authority will need approximately an additional 4 acres of usable land to construct the facilities it needs to meet new regulatory requirements and an additional 3 acres for the facilities needed to meet foreseeable future regulations, for a total land requirement of at least 7 acres.

Having additional land in which to build the facilities currently required, as well as those that are likely to be needed in the future, would be of great benefit to the rate-payers, to the citizens of Alexandria and to the environment.

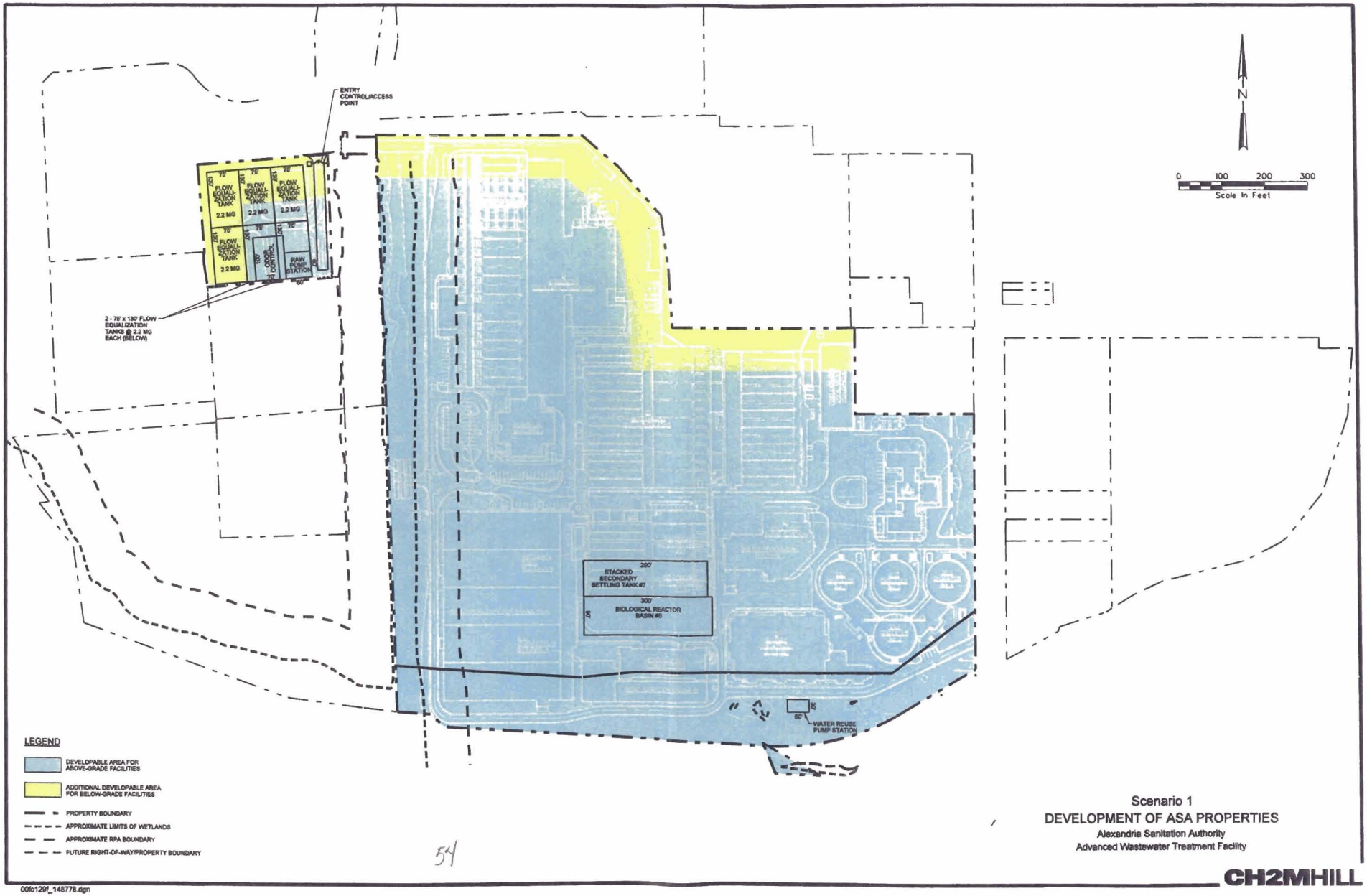
Attachments

Scenario 1 - Layout of Facilities within ASA's Main Plant Site

Scenario 2 – Layout of Facilities in ASA's 2-acre site west of Hooffs Run

Scenario 3 – Layout of Facilities in Properties East of ASA's Main Plant Site

Scenario 4 – Layout of Facilities in Hooff-Fagelson property



Scenario 1
DEVELOPMENT OF ASA PROPERTIES
Alexandria Sanitation Authority
Advanced Wastewater Treatment Facility

CH2MHILL

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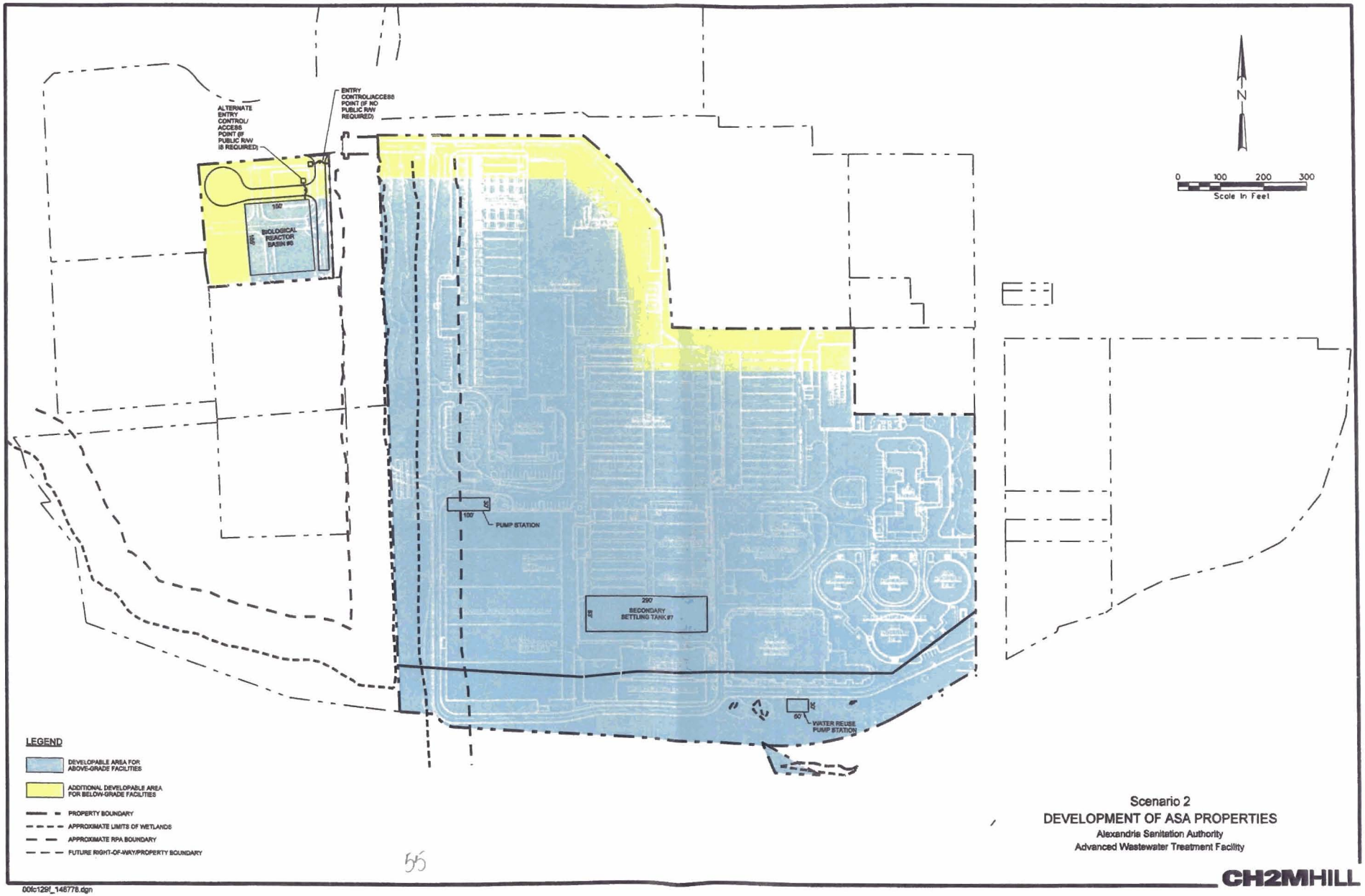

Scenario 2
DEVELOPMENT OF ASA PROPERTIES
Alexandria Sanitation Authority
Advanced Wastewater Treatment Facility

CH2MHILL

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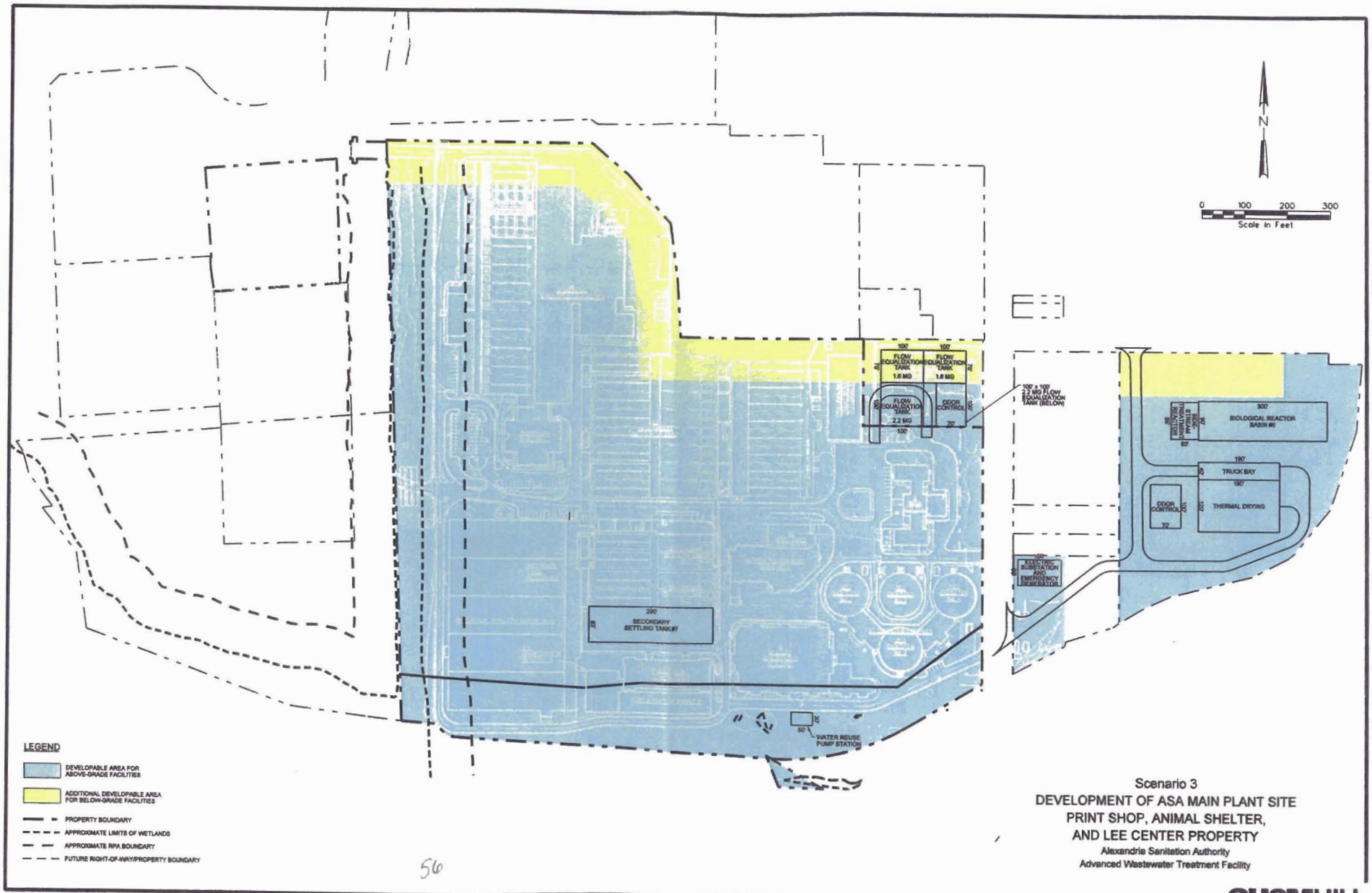

Scenario 3
DEVELOPMENT OF ASA MAIN PLANT SITE
PRINT SHOP, ANIMAL SHELTER,
AND LEE CENTER PROPERTY
Alexandria Sanitation Authority
Advanced Wastewater Treatment Facility

CH2MHILL

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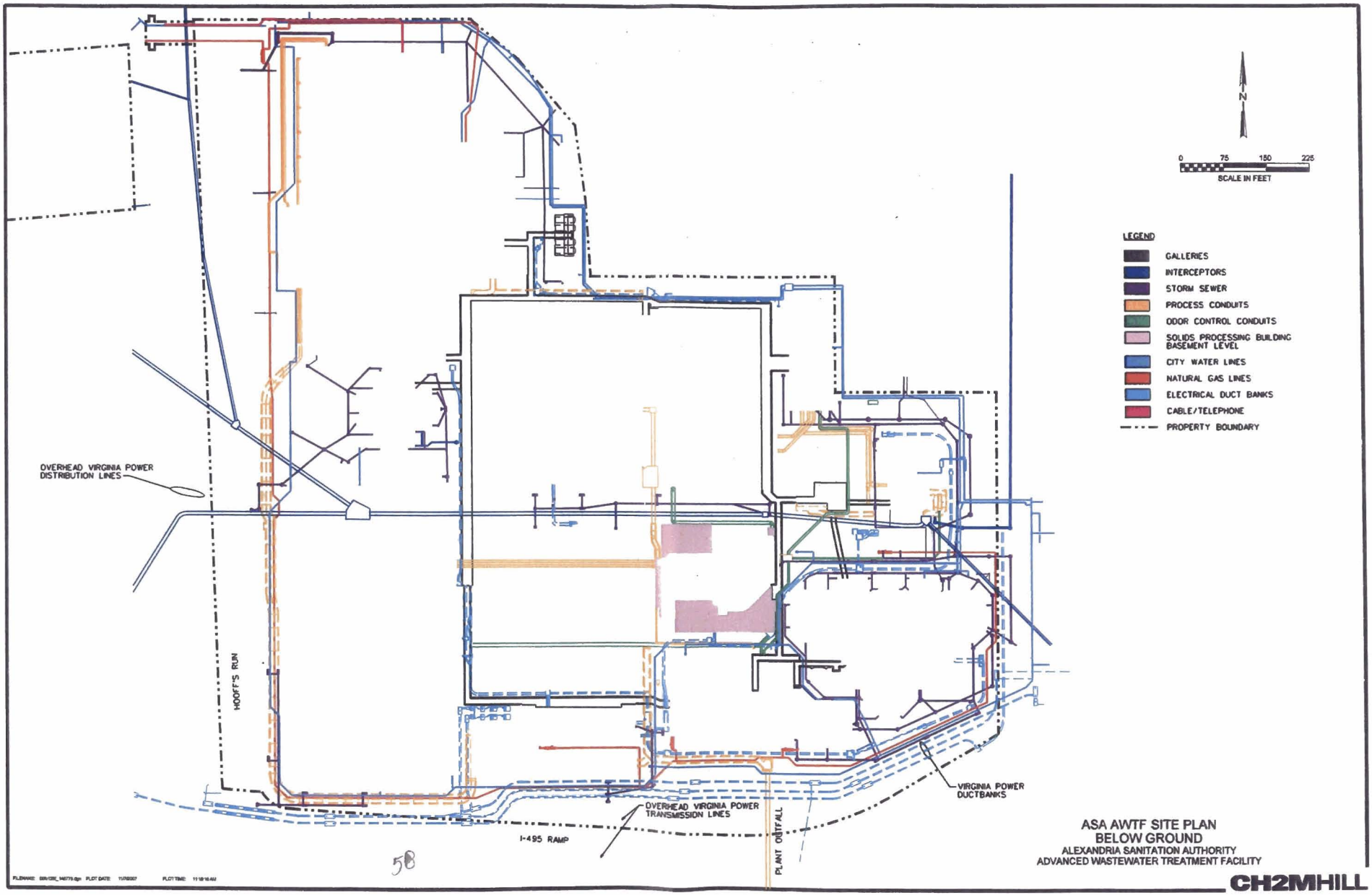
Scenario 4

DEVELOPMENT OF ASA MAIN PLANT SITE AND HOOFF-FAGELSON TRACT

Alexandria Sanitation Authority

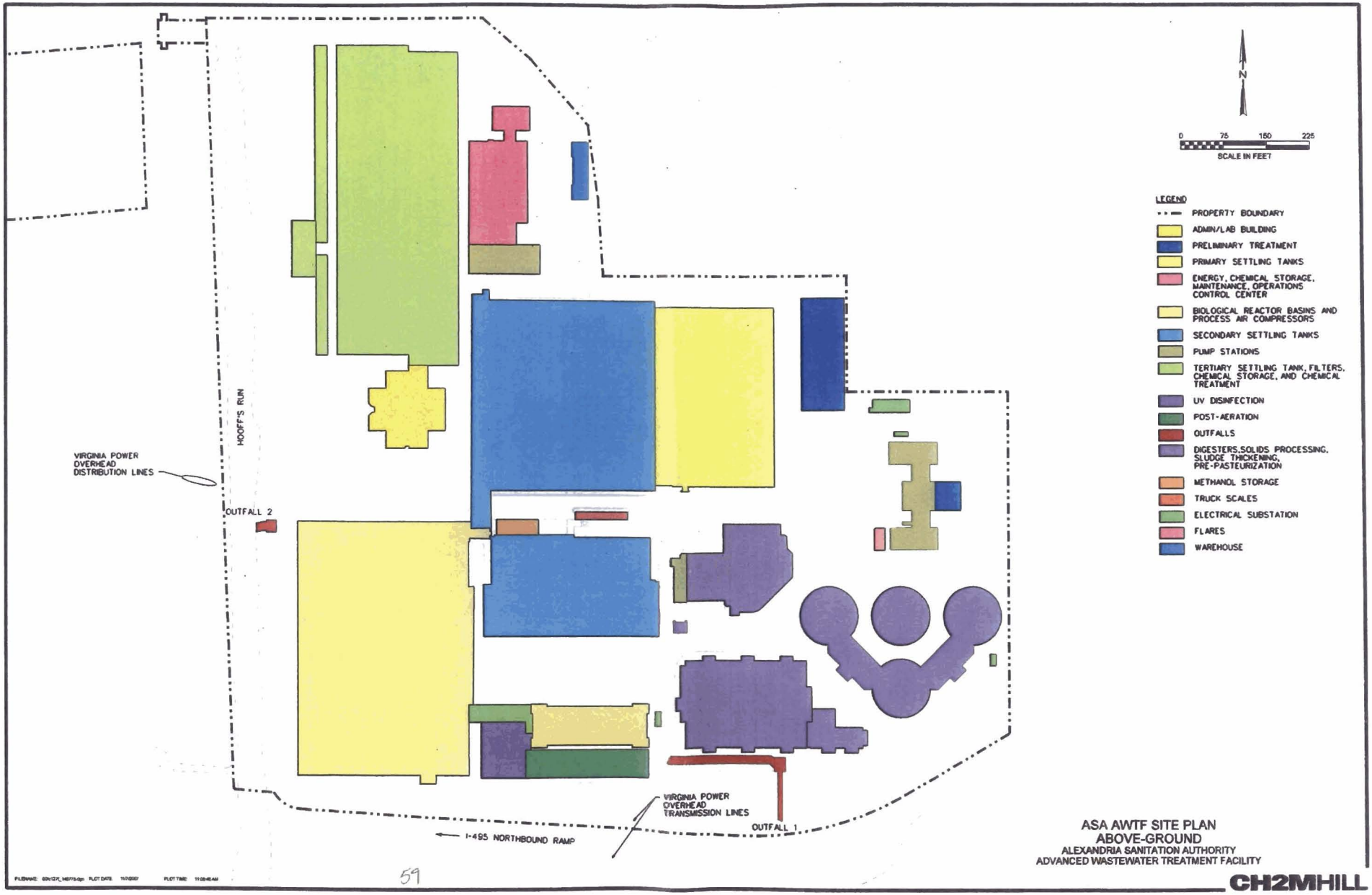
Advanced Wastewater Treatment Facility

CH2MHILL



ASA AWTF SITE PLAN
BELOW GROUND
ALEXANDRIA SANITATION AUTHORITY
ADVANCED WASTEWATER TREATMENT FACILITY

CH2MHILL



ASA AWTF SITE PLAN
ABOVE-GROUND
ALEXANDRIA SANITATION AUTHORITY
ADVANCED WASTEWATER TREATMENT FACILITY

CH2MHILL

Statement of Justification
Master Plan Amendment
Alexandria Sanitation Authority
October 1, 2007

The City of Alexandria, Virginia, Sanitation Authority, (ASA) proposes to amend the Eisenhower East Small Area Plan (EESAP) land use recommendations to add a waste water treatment plant facility as an optional land use recommendation for Blocks 29 and 30. This amendment would accommodate the proposed expansion of the existing waste water treatment plant onto blocks 29 and 30, known as the Hooff Fagelson Tract.

I. Background

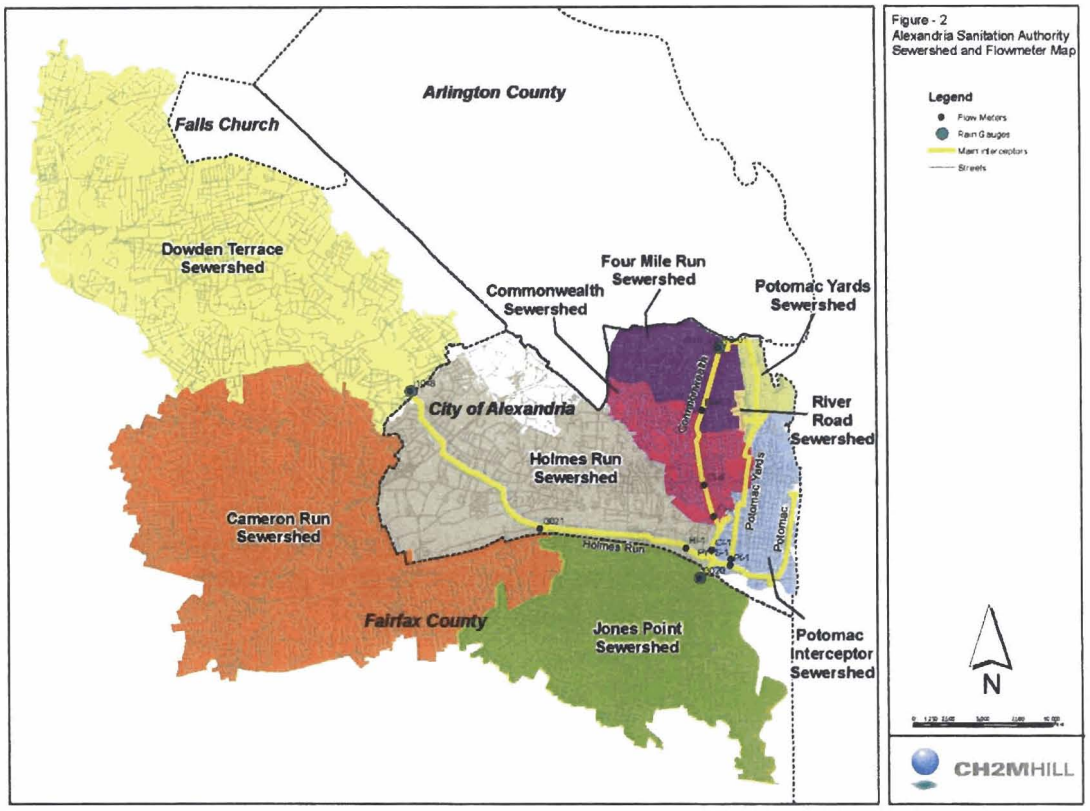
The ASA was created in 1952 by the Alexandria City Council to construct, operate and maintain a sewage disposal system to serve Alexandria and portions of Fairfax County. Prior to the creation of ASA, Alexandria discharged its sewage untreated into the Potomac River and its tributaries.

The existing ASA plant is an Advanced Waste Treatment (AWT) facility with a design capacity of 54 million gallons per day (MGD). It is located on a 33-acre site on the north bank of Hunting Creek near its junction with the Potomac River. ASA provides sewage treatment for approximately 350,000 people in a service area of 51 square miles, which includes the City of Alexandria and portions of Fairfax County (see Figure 1). The Authority also operates three pump stations and three interceptor sewers.

The original plant, which was placed in service in 1956, was an 18 MGD trickling filter facility. In 1984, ASA completed construction of an expansion and upgrade project to provide additional capacity and advanced treatment.

ASA began construction to upgrade the 54 MGD design flow facilities in 1999 to meet the water quality requirements of the State Water Control Board Water Quality Standards, Potomac Embayment Standards and the Chesapeake Bay Agreement. Initial operation of the new Biological Nutrient Removal (BNR) system was achieved in December 2002. This system has reduced nitrogen discharges from the plant by approximately 80 percent. Part of the upgrade included the construction of a 119-ft tall solids processing building.

Figure 1 ASA Service Area



Plant Capacity

The existing AWT is designed to process 54 million gallons of sewage per day. Fairfax County has shared in the cost of building and operating the ASA plant and trunk sewers since the ASA was formed. 21.6 MGD of the total plant flow capacity is allocated to the City of Alexandria and the balance to eastern Fairfax County. In exchange for its allocation, Fairfax County contributes 60% of the ASA budget for both operating and capital expenditures. The partnership with Fairfax County was the result of watershed planning for sewage disposal in the 1950s. Because gravity sewers in both jurisdictions drain to a common low point, combining facilities into one treatment plant has resulted in great efficiencies and saved millions of dollars for the ratepayers of both jurisdictions.

ASA has not received any request from the City of Alexandria to increase the allocated capacity above 21.6 MGD. However, flow capacity is only one of the parameters that determine the necessary size of a waste water treatment plant.

asa
Alexandria Sanitation Authority

II. Need for Facility Expansion

Although ASA is not planning for increased flow capacity, several factors require expansion of the treatment processes. These factors are:

1. Changes in federal and state regulations requiring the removal of more pollutants;
2. An increase in the total solids in the sewage influent which must be treated; and
3. A need for a new electric power substation to power the enhanced nutrient removal process and a back up power supply for emergency service.

These factors are described in detail below.

A. Changes in Regulation

Since the adoption of the federal Clean Water Act in the1970s, the ASA has operated pursuant to federal and state regulations on the discharge of pollutants. These requirements are summarized in Table 1 below.

Table 1 **ASA Effluent Treatment Requirements**

ASA Water Effluent Requirement Comparison

	1974 Water Effluent Requirements	1986 Water Effluent Requirements	Current Water Effluent Requirements (2004 thru 2009)	After January 1, 2011 *
Total Permitted Plant Flow	27.0 MGD	54 MGD	54 MGD	54 MGD
Flow (city allocation)	10.8 MGD	21.6 MGD	21.6 MGD	21.6 MGD
Biochemical Oxygen Demand	46 mg/l	10 mg/l	5 mg/l	5 mg/l
Total Suspended Solids	51.0 mg/l	10 mg/l	6.0 mg/l	6.0 mg/l
Ammonia as Nitrogen (Apr-Oct)	Not regulated	Not regulated	1.0 mg/l	1.0 mg/l
Ammonia as Nitrogen (Nov-Jan)	Not regulated	Not regulated	8.4 mg/l	8.4 mg/l
Ammonia as Nitrogen (Feb-Mar)	Not regulated	Not regulated	7.4 mg/l	7.4 mg/l
Total Nitrogen (concentration)	Not regulated	Not regulated	8.0 mg/l	3.0 mg/l
Total Nitrogen (pounds/year)	Not regulated	Not regulated	Not regulated	493,381
Total Phosphorus (concentration)	Not regulated	0.18 mg/l	0.18 mg/l	0.18 mg/l
Total Phosphorus (pounds/year)	Not regulated	Not regulated	Not regulated	29,603
Dissolved Oxygen (minimum)	Not regulated	6.0 mg/l	6.0 mg/l	6.0 mg/l
pH (standard units)	6.0 to 9.0	6.0 to 9.0	6.0 to 9.0	6.0 to 9.0
Fecal Coliform	200/100 mls	200/100 mls		
E. Coli	Not regulated	Not regulated	126 n/100 mls	126 n/100 mls
Whole Effluent Toxicity	Not regulated	Not regulated	No toxic effect	No toxic effect

* This covers a change in nutrients only. Current permit to be reissued in 2009, which may include reductions in existing requirements or additional limits for new parameters.

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Alexandria Sanitation Authority

New regulations adopted by the Virginia Department of Environmental Quality (VDEQ) in November 2006 require a significant reduction in nitrogen discharge from the plant. ASA must comply with these new limits by January 2011. These new limits are shown in the column headed "After January 1, 2011." In addition, ASA must prepare for new effluent limits currently under consideration for pollutants that are not now regulated.

The following list describes some of the likely new requirements:

- The District of Columbia, Maryland, and Virginia will produce a water quality requirement for PCB discharge in late 2007. ASA anticipates new, but as yet specifically unknown, permit conditions that will become effective in future permit reissuances.

- With its pending update of the Water Quality Standards, VDEQ has recommended regulating nonylphenol, a chemical commonly found in wastewater and the general environment. Additional testing will be needed to determine the impact of this new regulation. Additional treatment processes will be needed to remove nonylphenol to the newly regulated levels; it is unclear at this time the exact process that will need to be added to insure removing this chemical.

- The VDEQ is also looking to regulate chlorophyll *a*, a chemical that fosters algae growth. Worsening algae blooms in the Chesapeake Bay and Potomac River are driving this new regulation. Nitrogen and phosphorus discharge requirements could be set even lower than mentioned previously in order to meet a chlorophyll *a* water quality standard. Additional treatment processes such as ozonation and reverse osmosis systems may be needed in order to meet these requirements of sewage. These systems require large special treatment units as well as additional units for ozone production and recycle treatment and handling.

B. Increased Needs for Processing Solids

Sewage treatment removes solid materials from the waste stream. These solids must be processed, temporarily stored on site, and then trucked to sites outside of Alexandria for disposal. Three factors are affecting the need for larger facilities to handle the solids at the ASA plant.

First, the amount of solid material removed from the waste stream is increasing because a) the percentage of solids contained in the liquid waste is increasing and b) the new treatment processes will extract more solids to meet more stringent effluent limits. ASA and other urban treatment facilities have experienced an unexpected increase in the amount of solid waste that is suspended in the sewage received at the plant. As shown on the graph below, the total amount of suspended solids in the waste stream have increased by approximately 66% over the last ten years, even though the flow has remained relatively constant.

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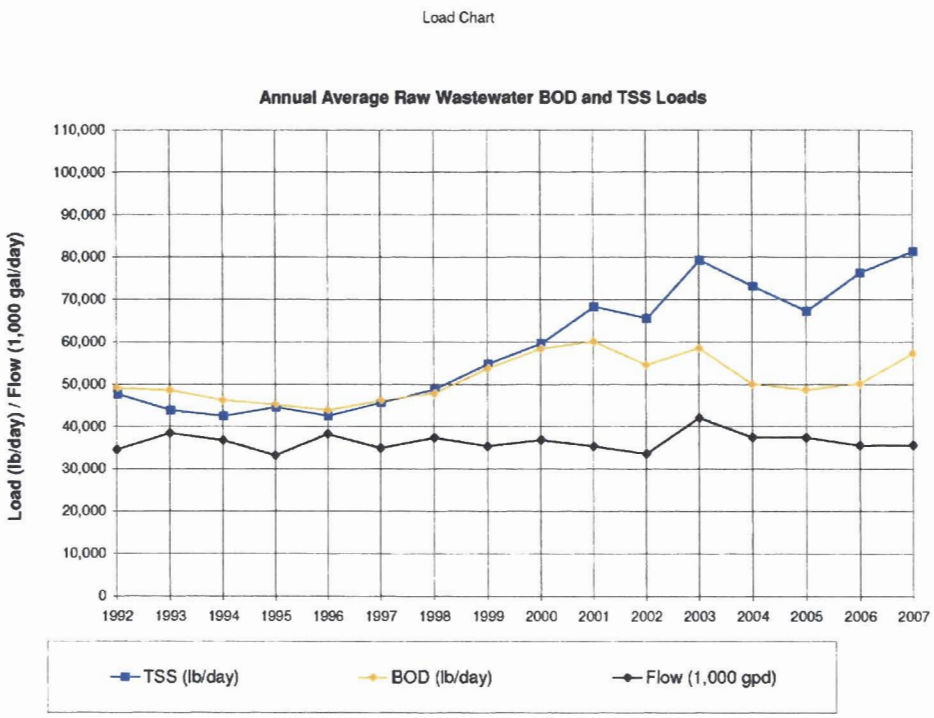
Figure 2 ASA Average Daily Influent Volumes



The additional nutrient removal processes that need to be built to meet the new nutrient limits (noted above) will also result in increased quantities of solids being removed from the water. Additional solids processing facilities must be built just to treat the increased load from the upgraded biological systems.

Second, places that accept the ASA's solids are imposing more restrictions on what they will accept. This is required in Virginia localities by state regulation. The ASA must build new refinement facilities to meet these requirements.

Third, much of the solid material is spread on agricultural land. New Nutrient Management Plan regulations for land application of sewage solids are severely limiting the amount of land available where the material can be spread. This will require either drying of the solids produced or a different disposal option. Both of these options will require additional land intensive processes to be constructed. This requirement may also require a new phosphorus recovery process be constructed to insure that a viable solids disposal option continues to exist. The ASA also needs the new facilities to provide 45 days of storage of the solids during the winter, or wet, months when land application is not feasible.

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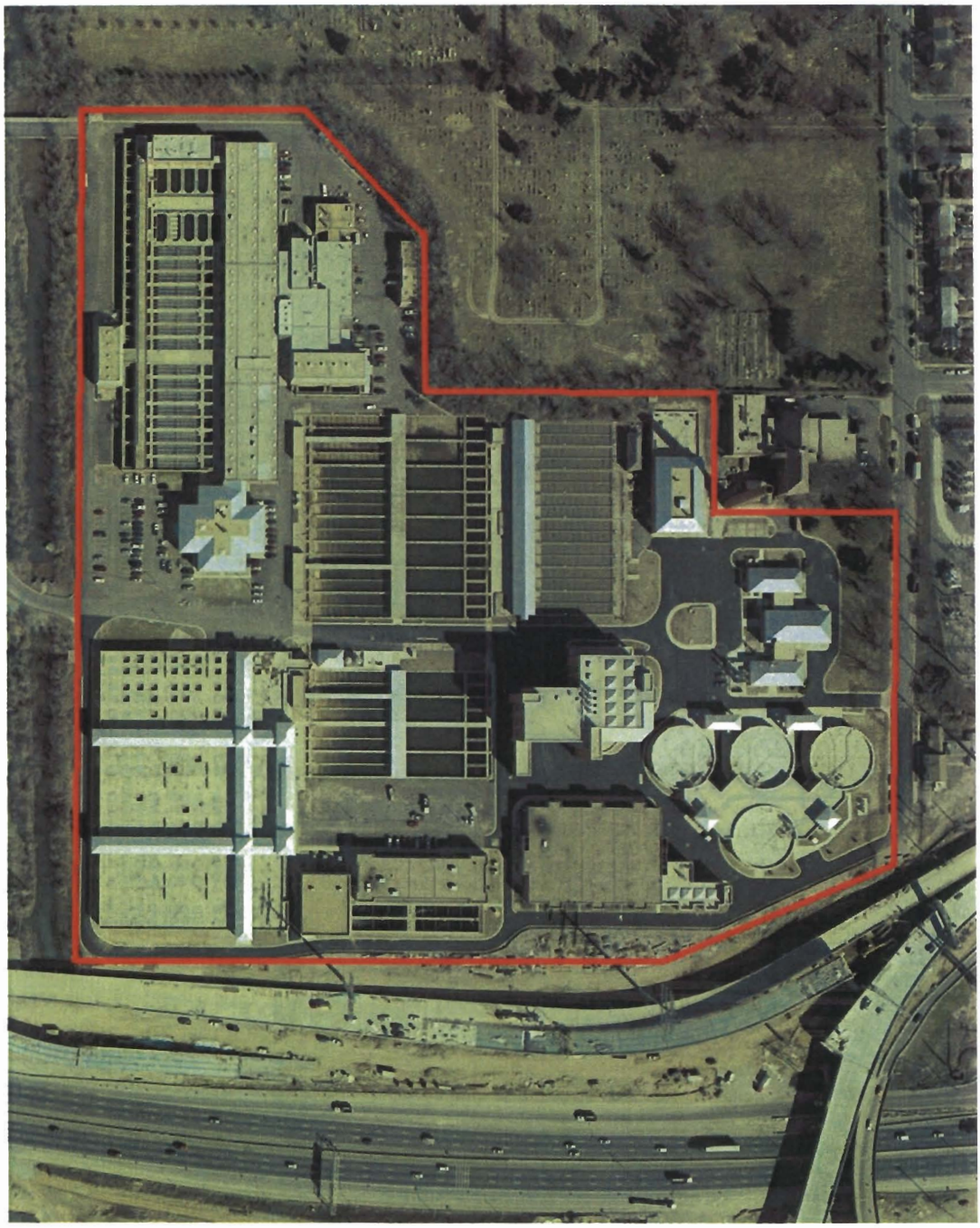
C. Power Supply

Operation of the ASA plant requires electric power. The enhanced nutrient removal process required by the regulations described above requires additional electric service which will be supplied by a new substation on site. In addition, as required by recent federal legislation, ASA has evaluated the need for an emergency electric power supply. All of the treatment processes at the plant require an uninterrupted power supply. Dominion Virginia Power has recently advised ASA to consider contingency plans for blackouts and brownouts. ASA plans to include construction of a back up power generator in its next upgrade of the plant. Collectively, the new substation and back up power generator will require nearly ½ acre of land.

III. Necessity of Acquiring the Hooff Fagelson Tract

As described above, the ASA needs to expand its existing facility to meet additional demands. The existing 33 acre parcel is completely built out (see aerial photograph of the existing property). All areas either contain free-standing structures or substantial underground infrastructure.

Figure 3 Aerial Photo of ASA Property – March 2006



As part of the recent upgrade completed in 2003, ASA included vertical construction of the solids processing building to maximize the use of its existing land. Additional vertical facilities on the existing land are not feasible. Vertical facilities are not only much more expensive to construct (the cost of constructing the solids processing building

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doubled from $30 million to $60 million because of vertical construction), they are also impractical to operate and maintain for the treatment processes needed.

Even if additional construction on the existing plant were feasible, it could not be done without interrupting sewage treatment. This means that sewage would be discharged during construction in violation of federal law, resulting in substantial fines and environmental damage. Non-compliance with effluent limits carries a potential fine of $32,500 per day per violation. Because of the very restrictive permitted effluent limits, ASA could potentially violate all of its permitted effluent limits on a continual basis during this construction period. This would seriously add to the degradation of Hunting Creek, the Potomac River and the Chesapeake Bay for several years. Construction on the existing land would also require new foundations that could not be built without destroying existing infrastructure at great cost to replace.

A. Analysis of Plant Relocation

Relocation of the ASA plant is not possible. All of the sewers served by the ASA are designed to flow to the existing plant. In addition to the huge cost of building a new treatment plant, the cost of relocating the sewers leading to the plant would be enormous. Most importantly there is no large tract of land within the watershed on which to relocate the plant.

B. Analysis of Surrounding Property for Expansion

Given the need for additional land that is contiguous to the existing treatment plant, the ASA analyzed all surrounding property and concluded only one property is feasible.

North

The land north of the plant is occupied by the Alexandria National Cemetery and other historic cemeteries listed or eligible for listing on the National Register of Historic Places. Acquisition of this land is not possible.

East

The land east of the plant is occupied by the Lee Center and existing residential neighborhoods. The site of the former city animal shelter was investigated but is too small and constrained by easements and VDOT restrictions.

South

The land south of the plant is occupied by Interstate 95 and the Route 1 interchange.

Figure 4 EESAP Map of South Carlyle Land Ownership

Figure 4-4 Land Ownership and New Rights-of-Way

West

There is only one site west of the plant which meets the needs for ASA expansion. The other adjacent sites to the west are not feasible for the following reasons:

1. 1500 Eisenhower Avenue - ASA
   EESAP Block 26B and 28 (northern part)
   1.9 acres

   The Authority's separate two acre parcel (labeled "City Right of Way" on Figure 4) is inadequate for expansion. Only about 0.81 acres are usable once setbacks and other buffers are considered. This size does not provide enough land to build the additional necessary treatment facilities and does not provide enough land to build the new electric facilities. This parcel is also closest to Eisenhower Avenue and its use for treatment facilities would have the greatest impact on surrounding planned development.

2. 340 Hooff's Run Drive – Virginia Concrete
   EESAP Block 28 (southern part)

2.1 acres

The Virginia Concrete site is also too small for the ASA expansion. Treatment facilities on this site would be bounded by future residential development on three sides, requiring extensive use of land for buffers.

C. Attributes of Hooff Fagelson Site

The Hooff Fagelson Tract is the best alternative for plant expansion. It comprises 8.6 acres of land and is the largest parcel adjacent to the existing plant. The site is presently occupied by automobile storage uses. Its location surrounded on three sides by the existing treatment plant, Interstate 95, and the Alexandria Detention Center minimizes the impact on future uses and reduces the need for buffer yards. The frontage of the property on Hooff's Run Drive provides direct access for vehicles serving the existing and future treatment facilities. Portions of the Hooff Fagelson site are already encumbered by easements for ASA trunk sewers and other major utility lines. The development special use permit for EESAP block 27 (Alexandria Mini-Storage site) includes a requirement to disclose the potential future expansion of the ASA treatment plant to all prospective tenants or purchasers. ASA has agreed to provide a landscaped buffer and other mitigation to minimize the impact of the expansion on the future residents.

Figure 5 EESAP Map of Block Numbers

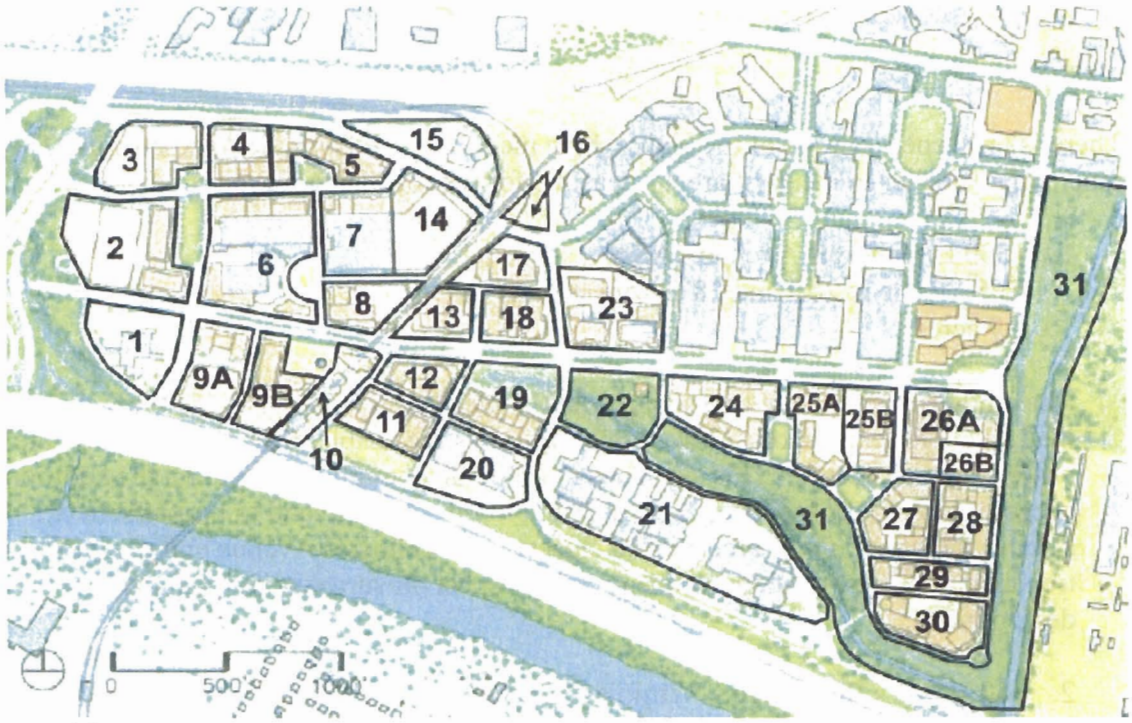

Figure 4-8 Block Numbers

IV. Eminent Domain

The ASA began negotiations with the owners of the Hooff Fagelson Tract nearly three years ago. Unfortunately, the parties have not reached an agreement on the price of the property acquisition. Because the ASA must begin design work to meet the 2011 deadline for enhanced nutrient removal, ASA filed a condemnation petition on June 19, 2007 to acquire the Hooff Fagelson Tract. By law, ASA must pay fair market value for the property. ASA has filed an independent appraisal and requested an appraisal from the land owner. The proposed master plan amendment will not affect the current development rights on the property and is not intended to affect the fair market value.

V. Fiscal Impact

One of the reasons that the Alexandria City Council created the ASA in 1952 was to relieve the city government of the capital funding needs for sewage treatment. ASA is empowered to issue its own revenue bonds to finance the construction of treatment facilities. Since it is a corporate entity separate from the city of Alexandria, neither the full faith and credit nor the taxing power of the city are pledged for the payment of such bonds. The 60/40 cost share with Fairfax County also reduces the burden on Alexandria ratepayers. If Alexandria had a separate treatment plant that served its residents, the costs of the upgrades needed to the plant would be greater than the proportional share of the upgrades to the larger shared plant.

ASA has calculated the impact of the proposed land acquisition on the sewer rates it must charge. The rate model shows that the acquisition can be accomplished with a manageable increase in sewer rates. This increase compares favorably with the cost of any other alternative. If it were possible to construct the additional facilities on the existing land, the incremental cost of vertical construction, the ongoing additional costs for operations and maintenance, and the costs of non-compliance with effluent limitations during construction would dwarf the acquisition cost for the additional land.

ASA does not have the information necessary for a comprehensive fiscal impact analysis of the proposed land acquisition at this time. Such analysis would compare a detailed calculation of the net fiscal impact of potential office and residential development on the Hooff Fagelson Tract against the benefits of the ASA plant expansion. Calculation of the net fiscal impact of potential office and residential development must include deducting the estimated cost of public services from the estimated revenue generation. This analysis will also be affected by the potential to transfer the office and residential development rights currently assigned to blocks 29 and 30 to other blocks in the EESAP. Such transfers are contemplated in the EESAP and vacant land is available to receive such transfers. This could greatly mitigate the impact of removing blocks 29 and 30 from the tax rolls.

Analysis of the fiscal impact of the ASA plant expansion must include both the negative impact of removing the land from the tax rolls and the beneficial impacts including the long term cost savings that will be passed on in lower sewer rates.

Finally, a fiscal impact analysis should factor in the risk that ASA may not be able to meet the sewer needs of planned development in the city without additional land to expand its treatment facilities. Although there is adequate capacity for additional sewage flow in the existing plant, the expansion is needed for ASA to meet increased treatment requirements. If the ASA plant is unable to expand to meet the increased treatment requirements, it may be unable to accept the additional sewage generated by large scale development planned for Eisenhower East, Potomac Yard and other areas of the city.

VI. Conclusion

The ASA provides essential services to the residents of Alexandria and parts of Fairfax County and serves a vital role in protecting the environment. ASA's existing treatment plant must be expanded in order to continue providing the current level of service and to meet more stringent requirements for pollutant removal. ASA has maximized its use of its existing land. The treatment plant cannot be relocated.

The Hooff Fagelson Tract is the only feasible site which is adjacent to the existing plant and large enough to meet ASA needs. It would provide for the ASA expansion with minimal impact on existing neighborhoods, historic resources and planned development. ASA, therefore, requests an amendment to the EESAP to show the expansion of the waste water treatment plant as an alternative use for blocks 29 and 30.

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3-15-08

FACSIMILE TRANSMISSION

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To:	The Honorable Mayor and City Council Members Faroll Hamer, Planning Director	**Date:**	March 13, 2008
Fax No.:	(703) 838-6433 (Council) (703) 838-6393 (Hamer)	**Pages:**	3, including this cover sheet.
From:	William C. (Tom) Thomas, Jr	**Client No.:**	00076.02

Subject: Alexandria Sanitation Authority/Hooff-Fagelson Property/Master Plan Amendment 2007-0004

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HERBERT G. GILLOWITZ (1910-1987)
VICTOR G. TRAPASSO (1935-1989)

*SENIOR COUNSEL
+ALSO ADMITTED IN D.C.

March 13, 2008

The Honorable Mayor and City Council Members
City of Alexandria
301 King Street
Alexandria, Virginia 22314

Attention: Faroll Hamer, Planning Director

Re: Alexandria Sanitation Authority/Hooff-Fagelson Property
Master Plan Amendment 2007-0004

Dear Mayor Euille and City Council Members:

In supplement to the work session held March 10th on the ASA Master Plan Amendment (MPA) request on the property owned by the Hooff/Fagelsons, and based on concerns we have shared over the course of the application process, we offer the following for your consideration:

As succinctly as we can put it, please challenge the ASA commitment to purchase this property. With the condemnation action framed the way it is, the ASA can walk away from the purchase if the fair market value is determined by the court to be higher than they desire to pay. If they do this, then the fall back plans come into play and the concerns raised about a potential 10 year building moratorium in Alexandria and part of Fairfax become particularly pertinent. We ask that the Council consider requiring the ASA to come to the Council with a deal in hand before granting the Master Plan Amendment. Though we agree that time is of relative essence, and we have reason to also believe that the parties may be able finally to consummate a deal outside of condemnation litigation (i.e., by mediation), we think that the stakes are too high for the City not to push for conclusion of the deal to purchase the property before giving approval of the MPA.

Two questions for the ASA; 1) Is ASA fully committed to pay fair market value for the property that is so significantly needed for ASA and the City's sewer needs? 2) Has ASA, given its need to move this project forward, requested adequate funds from the Virginia Resource Board to meet possible fair market value or mediated value determinations? If not, how will ASA close on the property?

With due respect, we disagree with the position of the ASA that they must have the MPA before they reach settlement. They could have a Master Plan contingency. Further, we disagree that the owners refused to allow a master plan amendment contingency as part of any agreement to sell the property. Since 2005, when the ASA began their negotiations with the property owners, the major sticking point "contingency" after fair price became the owner's concern that ASA wanted an exceptionally long period before settlement and so the owners required an escalator to reflect market changes over the possible several years before settlement. As to the reference that the owners stopped the MPA from proceeding in 2006, it was a clear mistake for ASA to proceed without the legal interest in the property needed to make the application. Given the options allowed in the present framing of the condemnation action, and given the City's long standing insistence on having legally vested, committed parties before them on Mater Plan applications, this issue we believe is still unsatisfactorily resolved.

The interests of the City in insuring that the needs of the City are being met in this matter, and the interests of the owners in obtaining a fair price, and being treated fairly, in the sale to ASA, are dependent on the unequivocal commitment by the ASA to acquire this property. The City can insure the commitment by requiring a consummated deal before allowing the MPA.

Thank you for your kind consideration of and attention to this matter.

Respectfully submitted,

FAGELSON, SCHONBERGER, PAYNE & DEICHMEISTER, PC

William C Thomas by [illegible]

William C (Tom) Thomas, Jr.

c. Bernard M. Fagelson
Jonathan M. Rak

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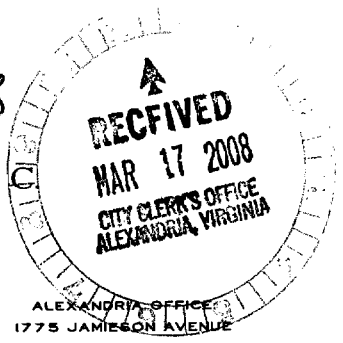
3-15-08



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FAGELSON, SCHONBERGER, PAYNE & DEICHMEISTER, PC

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c. Bernard M. Fagelson
Jonathan M. Rak

9
3-15-08

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March 15, 2008

City Council of Alexandria
301 King Street
Alexandria, VA 22314

RE: Alexandria Sanitation Authority
Section 9.06 Case #2007-004
City Council Hearing

Mr. Chairman and Members of the Council,

My name is Sean Caldwell and I am the Vice President of Carlyle Centre, LP the owner of Alexan Carlyle. Alexan Carlyle is the 280 unit residential community approved under DSUP 2006-0012, located at the future address of 800 John Carlyle Street, Block 27 of Eisenhower East and directly across Limerick Street from the potential ASA expansion.

Almost three years ago, we began working closely with the City of Alexandria staff on implementing the vision of the Eisenhower East Master Plan with our Alexan Carlyle project. Almost two years ago we learned of the possible ASA expansion. So clearly, we are a well informed developer and owner. We certainly understand and support the need for the plant to expand and understand the benefits for all of us who live and work in the City of Alexandria. Over the past years, we have had many discussions with ASA and McGuireWoods to better understand the following questions: 1) the need for expansion, 2) how the current ASA management operates and 3) how the expansion would be implemented.

Two of the three questions have been answered. Recently, I toured the ASA plant with many of you. I, like you, was very much impressed with the Karen Pallanch and her staff and the care that has been taken to design and operate a sewage treatment plant in the urban context. The professionalism of Karen and her staff, the design standard that was maintained and the overall capacity need that has been articulated this evening are the reasons I am not here to oppose ASA as my neighbor.

My concerns are related to the implementation of this vision. The three areas for discussion are very simple, buffers, below grade facilities and transportation:

The first concern is regarding appropriate buffers. While the existing plant is in the urban context, the plant is on an island on to itself. The existing plant is primarily buffered by Hoofs Run, the Capital Beltway, an electric substation and historic cemeteries. The possible expansion would be 66' from residential homes. This measurement is both from our site and the future residential development of the Florida Rock/Virginia Concrete facility. It should be noted, that in ASA'a presentation dated 04-16-07 called "Public Use and Necessity for Land Acquisition", ASA did not think the Florida Rock/Virginia Concrete site was adequate for expansion. Among their reasons was:

"Their property("Florida Rock") is in close proximity to residential areas".

It should be noted, the development on the Florida Rock site is as close to our community as a development on the Hooff-Fagelson property. Therefore, the design care that was taken with the previous expansions will need to be enhanced, both from Planning, Architectural AND USE perspectives due to proximity to residential uses.

On Page 22 of the staff report for the Master Plan Amendment, staff does speak to these concerns. The report identifies active and passive uses. As an example, it is suggested the relocation of the administration office buildings along Limerick Street. We agree that the relocation of the administrative offices could provide adequate buffering and be the active use.

The staff report also suggested an alternative could be walls, which would suggest more industrial uses in the proposed active area. I cannot accept a wall an adequate buffer. Administrative buildings not only provide the buffering required on a pedestrian level, but also provide the depth. In short, there needs to be buffers in height, depth, architectural appeal AND USE. We do understand one continuous administrative building along Limerick

Street would be inefficient, and a combination of administrative buildings and walls might be required to accomplish the goal of an active use.

My second concern is the design of the facilities. When we first learned of the possible expansion, we were told the facilities would be primarily below grade facilities. Over time, the terms have evolved from "below grade facilities" to "no open pools" to "possible above grade structures". Most recently, I was told that ASA required an additional "Brown Jacuzzi". I am certainly not an expert in sanitation engineering, but I speculate this is not an amenity. We have yet to see a plan, but these are the concerns we need to be acutely aware of, BEFORE, DURING and AFTER the design process.

My last concern is transportation. Over the past ten years, ASA has gone to great lengths to accommodate their truck routes from going through existing residential neighborhoods. ASA has modified their routes to primarily stay on Eisenhower Avenue and the Capital Beltway. Clearly, these routes were established prior to most, if not all, of the existing and proposed residential homes. But as a Master Plan can change the proposed use of land from office/residential to a possible sewer treatment expansion, I believe it is both reasonable and responsible to re-evaluate truck routes and be proactive for both our existing and future residents. This topic may have limited options available regarding actual routes, but I believe hours of operations for truck routes should be discussed in great detail.

I have expressed three very specific concerns and I am sure I have left many concerns out. Coupled with the preservation of the RPA on the southern property, there are limited areas available for actual expansion. It is in all of our interest to maintain a high standard on ALL of these issues. Which does beg the question, have we studied the proposal enough to understand the implications? I certainly believe ASA will operate as a responsible neighbor, I certainly believe we have studied the capacity question, but I believe we need to better understand compatibility risks.

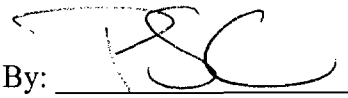
I understand some of these issues are better evaluated during the DSUP process, but I believe it to be prudent to vest our concerns before the design process commences. I am confident the critical eye and the responsible

sensibilities of both the City of Alexandria and the Alexandria Sanitation Authority will be heightened to these design and operational concerns.

Thank you for your time this evening.

Sincerely,

Carlyle Centre LP, a Delaware LP
By: MA 106 Carlyle Centre Limited Partnership, a Delaware LP, its general partner
By: MA 102 Apartments GP LLC, a Delaware LLC, its general partner



By: _____
P. Sean Caldwell, Vice President

SPEAKER'S FORM

DOCKET ITEM NO. 8 & 9

PLEASE COMPLETE THIS FORM AND GIVE IT TO THE CITY CLERK BEFORE YOU SPEAK ON A DOCKET ITEM

PLEASE ANNOUNCE THE INFORMATION SPECIFIED BELOW PRIOR TO SPEAKING.

1. NAME: ENGIN ARTEMEL

2. ADDRESS: 120 MADISON PLACE

TELEPHONE NO. 703-683-3838 E-MAIL ADDRESS: engin@artemel.com

3. WHOM DO YOU REPRESENT, IF OTHER THAN YOURSELF? Jaguar Development

4. WHAT IS YOUR POSITION ON THE ITEM?
FOR: ✓ AGAINST: _____ OTHER: _____

5. NATURE OF YOUR INTEREST IN ITEM (PROPERTY OWNER, ATTORNEY, LOBBYIST, CIVIC INTEREST, ETC.):
Planning Consultant

6. ARE YOU RECEIVING COMPENSATION FOR THIS APPEARANCE BEFORE COUNCIL?
YES ✓ NO _____

This form shall be kept as a part of the permanent record in those instances where financial interest or compensation is indicated by the speaker.

A maximum of three minutes will be allowed for your presentation, except that one officer or other designated member speaking on behalf of each *bona fide* neighborhood civic association or unit owners' association desiring to be heard on a docket item shall be allowed five minutes. In order to obtain five minutes, you must identify yourself as a designated speaker, and identify the neighborhood civic association or unit owners' association you represent, at the start of your presentation. If you have a prepared statement, please leave a copy with the Clerk.

Additional time not to exceed 15 minutes may be obtained with the consent of the majority of the council present; provided notice requesting additional time with reasons stated is filed with the City Clerk in writing before 5:00 p.m. of the day preceding the meeting.

The public normally may speak on docket items only at public hearing meetings, and not at regular legislative meetings. Public hearing meetings are usually held on the Saturday following the second Tuesday in each month; regular legislative meetings on the second and fourth Tuesdays in each month. The rule with respect to when a person may speak to a docket item at a legislative meeting can be waived by a majority vote of council members present but such a waiver is not normal practice. When a speaker is recognized, the rules of procedures for speakers at public hearing meetings shall apply. If an item is docketed *for public hearing* at a regular legislative meeting, the public may speak to that item, and the rules of procedures for speakers at public hearing meetings shall apply.

In addition, the public may speak on matters which are not on the docket during the Public Discussion Period at public hearing meetings. The mayor may grant permission to a person, who is unable to participate in public discussion at a public hearing meeting for medical, religious, family emergency or other similarly substantial reasons, to speak at a regular legislative meeting. When such permission is granted, the rules of procedures for public discussion at public hearing meetings shall apply.

Guidelines for the Public Discussion Period

(a) All speaker request forms for the public discussion period must be submitted by the time the item is called by the city clerk.

(b) No speaker will be allowed more than three minutes; except that one officer or other designated member speaking on behalf of each *bona fide* neighborhood civic association or unit owners' association desiring to be heard during the public discussion period shall be allowed five minutes. In order to obtain five minutes, you must identify yourself as a designated speaker, and identify the neighborhood civic association or unit owners' association you represent, at the start of your presentation.

(c) If more speakers are signed up than would be allotted for in 30 minutes, the mayor will organize speaker requests by subject or position, and allocated appropriate times, trying to ensure that speakers on unrelated subjects will also be allowed to speak during the 30 minute public discussion period.

(d) If speakers seeking to address council on the same subject cannot agree on a particular order or method that they would like the speakers to be called on, the speakers shall be called in the chronological order of their request forms' submission.

(e) Any speakers not called during the public discussion period will have the option to speak at the conclusion of the meeting, after all docketed items have been heard.

SPEAKER'S FORM

DOCKET ITEM NO. 9

PLEASE COMPLETE THIS FORM AND GIVE IT TO THE CITY CLERK BEFORE YOU SPEAK ON A DOCKET ITEM

PLEASE ANNOUNCE THE INFORMATION SPECIFIED BELOW PRIOR TO SPEAKING.

1. NAME: Jonathan Rak

2. ADDRESS: 1750 Tysons Blvd. #1800 McLean VA 22102

TELEPHONE NO. 703 712 5000 E-MAIL ADDRESS: jrak@mcguirewoods.com

3. WHOM DO YOU REPRESENT, IF OTHER THAN YOURSELF?

Applicant

4. WHAT IS YOUR POSITION ON THE ITEM?
FOR: ✓ AGAINST: _____ OTHER: _____

5. NATURE OF YOUR INTEREST IN ITEM (PROPERTY OWNER, ATTORNEY, LOBBYIST, CIVIC INTEREST, ETC.):

Attorney

6. ARE YOU RECEIVING COMPENSATION FOR THIS APPEARANCE BEFORE COUNCIL?
YES ✓ NO _____

This form shall be kept as a part of the permanent record in those instances where financial interest or compensation is indicated by the speaker.

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