

EXHIBIT 1

URBAN TREE ASSESSMENT

MEMORANDUM FOR RECORD

SUBJECT: Brooklyn Navy Yard (BNY), Admiral's Row Urban Tree Assessment performed on July 14, 2009

1. Purpose. To provide an assessment of the tree species present, condition and potential for retention in support of the BNY land disposal and future use. The area assessed is boarded by Flushing Ave., Navy St., Forth Street and Park Street.
2. NGB Personnel. Ms. Kristin Leahy and MAJ Steve Stadelman, NGB-ARE-C.
3. Background. Admiral's Row is a group of historic buildings and structures that will be modified as a result of the BNY land disposal. At present, building B and the timbershed (#16) are to be preserved and used as office/commercial space. All other buildings will be removed with a follow-on land use of commercial development and parking. The future use of both the preserved buildings and others to be removed is important as it influences the risks associated with protecting and maintaining existing trees.
4. Summary.
 - a. Species present: The open space in and around Admiral's Row include large shade trees and smaller trees that have naturally regenerated in the housing units yard space. Species present include American elm (*Ulmus Americana*), Norway maple, (*Acer platanoides*) red and white mulberry (*Morus rubra* and *alba* respectively), black cherry (*Prunus serotina*), paulownia (*Paulownia tomentosa*), tree-of-heaven (*Ailanthus altissima*), scarlet oak (*Quercus coccinea*), aspen (*Populus spp.*), horse chestnut (*Aesculus hippocastanum*), and sycamore (*Platanus occidentalis*). In addition there is an extensive network of vines which includes wisteria and poison ivy among others.
 - b. Condition: Many of the larger trees are in poor condition due to storm damage and improper pruning. Dying limbs, open bark wounds with advanced decay, epicormic sprouting, root girdling, basal wounds, poor branch structure, poor tree architecture and included bark were commonly observed. These defects indicate structural defects within the trees as well as reduced vigor. Many of the larger trees were located at least 12 feet from the structures however many of the smaller trees that became established by natural regeneration were growing very close to the buildings. In some cases, the trees were only a few inches from the side of the structure.

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- c. Age: Although some trees are large it is unlikely any are greater than 100 years in age. However, the large sycamore south of building K and the large American elm south of building C may be approaching the 100-year mark.
- d. Disease: All the sycamore trees exhibited signs of being infected with sycamore anthracnose. The horse chestnut exhibited leaf spots but I was unable to determine the cause.
- e. Surrounding Community: This grouping of urban trees benefit the surrounding community. The trees provide direct shade along Flushing Ave. and Navy Street along with green scenery within the community urban viewshed. The trees also provide significant habitat for avian species.

5. Recommendations:

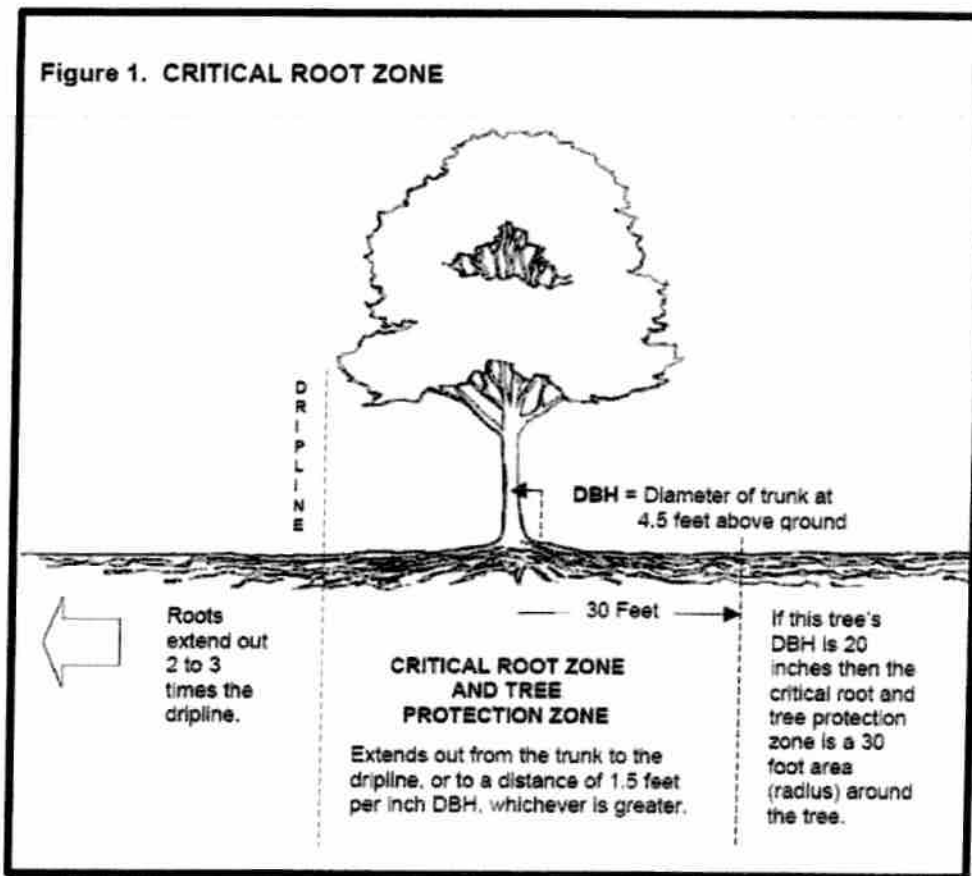
- a. Trees located around the timbershed and building B may have less soil and root zone disturbance since these buildings will be preserved. Three trees located on the south side of the timbershed were marked for protection and possible preservation. One tree on the east side of building D was marked for protection. The mark consists of orange paint spots on all four sides of the tree. No trees suitable for protection and preservation were found around building B. These trees are located farther from potential soil/site disturbance and are in good health:

Tree Species	Diameter	Location
Scarlet Oak	20 inches	South of timbershed
American Elm	14 inches	South of timbershed
American Elm	6 inches	South of timbershed
American Elm	14 inches	East of building D

- b. It is recommended the critical root zone of these trees be protected during subsequent preservation and development of Admiral's Row. The critical root zone is an area which extends out from the tree, normally 1.5 feet for every inch of diameter (diameter measured at 4.5 feet from the ground) and contains the surface roots of the tree. Construction fencing can be placed around this zone to help identify and protect the area. See Figure 1, Critical Root Zone, for more information on determining the critical root zone.
- c. The large American elm located on the south side of building C is quite large and may be a candidate for the State of New York Big Tree Register. It is recommended (not required) the tree be measured to determine if it is larger than the current American elm and thus be the largest American elm in the State of

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New York. The New York Dept. of Environmental Conservation maintains the big tree register and can be reached at NYSDEC, Lands and Forests, 625 Albany, NY, 12233-4253, (518) 402-9425.



- d. The remaining trees are strong candidates for removal during the redevelopment process. This is due to several factors. First, the defects observed on many of the larger trees and some of the smaller trees are structural and indicate a risk of unpredictable tree failure. With the planned future use of a parking lot, it is not recommended to retain trees with existing structural defects. These structural defects cannot be removed by pruning. Second, many of the trees are undesirable species for the planned future use of the area. A few examples are sycamore (vulnerability to sycamore anthracnose, London Plane Tree, *Platanus acerifolia*, is a more appropriate tree), blackcherry (vulnerability to insects and disease) and tree-of-heaven (brittle wood). Third, many of the existing trees have extensive surface root systems and are highly vulnerable to disturbance.

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It is predicted many of the buildings to be removed cannot be done without greatly disturbing the critical root zone of many of the trees. The undesirable disturbance will not cause an immediate death of the trees but rather a delayed death, likely occurring three to four years after disturbance. The delayed impacts (or tree death) inadvertently create hazardous trees after the development or construction has been completed. For more information on hazard trees see: http://www.na.fs.fed.us/spfo/pubs/howtos/ht_haz/ht_haz.htm

- e. It is recommended to plan for replanting of desirable trees as early as possible. The State of New York Department of Environmental Conservation can provide recommended species. Because removal of this greenspace affects the local community, it is also recommended to work with tree planting groups to generate local support for replanting and species selection. One example group is Million Trees NYC, web site: <http://www.milliontreesnyc.org/html/home/home.shtml>

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EXHIBIT 2

NEW YORK STATE BREEDING BIRD ATLAS



NYS Breeding Bird Atlas

Block 5850A

2000-2005



Navigation Tools

- [Perform Another Search](#)
- [Show All Records](#)
- [Sort by Field Card Order](#)
- [Sort by Taxonomic Order](#)
- [View 1985 Data](#)

Block 5850A Summary

Total Species:	10
Possible:	1
Probable:	4
Confirmed:	5

Click on column heading to sort by that category.

List of Species Breeding in Atlas Block 5850A

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status
Peregrine Falcon	<i>Falco peregrinus</i>	NE	4/6/2004	Endangered
Rock Pigeon	<i>Columba livia</i>	ON	6/13/2004	Unprotected
Mourning Dove	<i>Zenaida macroura</i>	FL	6/13/2004	Protected
Chimney Swift	<i>Chaetura pelagica</i>	P2	6/13/2004	Protected
Downy Woodpecker	<i>Picoides pubescens</i>	X1	6/12/2004	Protected
American Robin	<i>Turdus migratorius</i>	T2	6/12/2004	Protected
Northern Mockingbird	<i>Mimus polyglottos</i>	P2	6/13/2004	Protected
European Starling	<i>Sturnus vulgaris</i>	FL	6/13/2004	Unprotected
Northern Cardinal	<i>Cardinalis cardinalis</i>	T2	6/13/2004	Protected
House Sparrow	<i>Passer domesticus</i>	ON	6/13/2004	Unprotected



NYS Breeding Bird Atlas

Block 5850A

1980-1985



Navigation Tools

- [Perform Another Search](#)
- [Sort by Field Card Order](#)
- [Sort by Taxonomic Order](#)
- [View 2000 Data](#)

Block 5850A Summary

Total Species:	20
Possible:	4
Probable:	2
Confirmed:	14

Click on column heading to sort by that category.

List of Species Breeding in Atlas Block 5850A

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status
Ring-necked Pheasant	<i>Phasianus colchicus</i>	FL	1981	Game Species
American Kestrel	<i>Falco sparverius</i>	DD	1984	Protected
Rock Pigeon	<i>Columba livia</i>	FY	1981	Unprotected
Mourning Dove	<i>Zenaida macroura</i>	FL	1983	Protected
Common Nighthawk	<i>Chordeiles minor</i>	FL	1981	Protected-Special Concern
Chimney Swift	<i>Chaetura pelagica</i>	P2	1984	Protected
Northern Flicker	<i>Colaptes auratus</i>	X1	1980	Protected
Blue Jay	<i>Cyanocitta cristata</i>	FL	1980	Protected
American Crow	<i>Corvus brachyrhynchos</i>	X1	1981	Game Species
Barn Swallow	<i>Hirundo rustica</i>	FL	1981	Protected
American Robin	<i>Turdus migratorius</i>	FL	1980	Protected
Gray Catbird	<i>Dumetella carolinensis</i>	X1	1981	Protected
Northern Mockingbird	<i>Mimus polyglottos</i>	NE	1980	Protected
European Starling	<i>Sturnus vulgaris</i>	NE	1980	Unprotected
Common Yellowthroat	<i>Geothlypis trichas</i>	X1	1980	Protected
Northern Cardinal	<i>Cardinalis cardinalis</i>	FL	1981	Protected
Common Grackle	<i>Quiscalus quiscula</i>	FL	1980	Protected
House Finch	<i>Carpodacus mexicanus</i>	NE	1980	Protected
American Goldfinch	<i>Spinus tristis</i>	T2	1984	Protected
House Sparrow	<i>Passer domesticus</i>	NE	1980	Unprotected

EXHIBIT 3

AGENCY CORRESPONDENCE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



Alexander B. Grannis
Commissioner

September 17, 2010

Jennifer Morris
A K R F Environmental and Planning Consultants
440 Park Ave. South, 7th floor
New York City, NY 10016

Dear Ms. Morris:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment for the proposed Mixed Use Development – Admirals Row Plaza, site as indicated on the map you provided, located in Brooklyn, Kings County.

We have no records of rare or state-listed animals or plants, significant natural communities or other significant habitats, on or in the immediate vicinity of your site.

The absence of data does not necessarily mean that rare or state-listed species, natural communities or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities and other significant habitats maintained in the Natural Heritage Data bases. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,
Tara Salerno *js*
Tara Salerno, Information Services
New York Natural Heritage Program

Enc.
cc: Reg. 2

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