



MONTGOMERY COUNTY DEPARTMENT OF PARKS
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCBP Item # 14
02/05/09

MEMORANDUM

February 2, 2009

TO: Montgomery County Planning Board

VIA: Mary R. Bradford, Montgomery County Director of Parks *MRB*
Michael F. Riley, Deputy Director of Parks *MFR*

FROM: John E. Hench, Chief, Park Planning and Stewardship Division *JHench*
Doug Redmond, Principal Natural Resources Specialist *DRedmond*
Park Planning and Stewardship Division

SUBJECT: Site Selection for future Relocation of the Department of Parks' Shady Grove Central Maintenance Facility

STAFF RECOMMENDATION:

- 1) Approve submission of a Project Description Form (PDF) to the County Council to fund feasibility analysis and site selection for the relocation of the Parks' Shady Grove Central Maintenance Facility.
- 2) Present, for the Planning Board's review, the process and results of the Department of Parks' preliminary efforts to find a potential site on parkland for relocation of the Shady Grove Central Maintenance Facility.

BACKGROUND:

The Funding Request

The County Executive has submitted a number of PDFs to the County Council to fund the planning, design, construction, and /or land acquisition necessary to relocate 11 publically owned facilities at the County Service Park at Shady Grove in anticipation of implementation of the

Shady Grove Master Plan. The funding requests are presently under review by the joint Public Safety / Transportation, Infrastructure, Energy, and Environment Committees of the County Council. The effort is called the Property Use Study / Smart Growth Initiative. The committees' next work session is February 12th.

One of the facilities to be relocated is the Department of Parks' Central Maintenance Facility. It is located on the east side of Shady Grove Road on approximately 12 acres of county owned land. As recently as six months ago, County Executive staff informed the Department of Parks that the facilities on the east side would likely move as part of a later phase and there was little urgency to begin planning the move. Most recently, the plan is to vacate the east side facilities as soon as possible, perhaps as early as three years. In order to meet this aggressive schedule, immediate planning and design work needs to occur which requires capital funding. Funding is needed to:

- Prepare a detailed program of requirements;
- Identify and assess available publically and privately owned sites;
- Prepare conceptual layout of proposed facilities on the preferred sites;
- Conduct due diligence activities such as preliminary environmental, geotechnical, and traffic studies at the preferred sites;
- Solicit community / stakeholder input;
- Develop preliminary construction and (if needed) land acquisition cost estimates;
- Fund necessary consultants and the salary of the Commission's project manager; and
- Present findings to Planning Board and County Council.

The PDF # 360902 submitted by the Executive titled "Smart Growth Initiative – Facility Planning" included \$295,000 for various studies to relocate the Parks facility, in addition to funding planning studies for other county owned facilities. Since the evaluation of sites for the Parks facility will entail careful consideration of parkland in order to avoid land acquisition costs, it is preferable to have the Department of Parks lead the site selection studies. Therefore, staff recommends that the planning funding for the parks facility be appropriated in a separate PDF in the Parks Capital Improvements Program. If the Planning Board concurs, a PDF will be transmitted to the Council with the expectation that the appropriation will be shifted from the PDF #360902 submitted by the Executive. The new PDF will be handed out at the Planning Board meeting.

Preliminary Site Selection Efforts

The Central Maintenance complex at Shady Grove currently contains the Shady Grove Maintenance and Training Facility, as well as elements of the Northern Park Region and the Horticultural Services Division. These functions are housed in several buildings totaling approximately 76,000 square feet on 12 acres on Crabbs Branch Way (Figure 1). A more complete description of the facilities and functions of the complex can be found in Attachment A.

The Central Maintenance Division provides support to the Department of Parks, and indirect services to park patrons, by providing services that enhance the quality of park facilities for the

enjoyment of County residents and visitors. The division is composed of three functional sections. The Fleet Maintenance Section provides centralized maintenance and repair to allow the other divisions to perform park maintenance and planning functions more efficiently. The Trades/Construction Management Program provides centralized maintenance, repair, and remodeling services for facilities and utility systems. Additionally, this unit is responsible for construction of new facilities and exhibits. Administration provides leadership, general support, and administrative services for the division.

The Shady Grove Maintenance and Training Facility was designed and constructed in the early 1970s, when the park system was approximately 18,000 acres, or half the size it is today. The current 1970s era facility is undersized and was not built to accommodate future growth. Nevertheless, over the years Central Maintenance staff has added “second story loft areas” inside many of the buildings in order to provide additional storage and/or work space.

In 2004, Central Maintenance staff contracted with Loiederman Soltesz Associates, Inc. to prepare a Space Utilization and Land-use Study for possible relocation of the maintenance yard (Attachment B). The report details current patterns of space utilization, notes the addition of loft areas for storage space in many of the buildings, and projects the acreage needed for future relocation. On page 11 of Attachment B, the consultants recommended a future site of 18-22 acres.

Independently, park staff (Hench, Astorga, and Riley) used information similar to that contained in the Loiederman Soltesz Associates’ report, along with estimated growth in the County park system (including land and future capital improvements) projected out to the year 2020 to estimate acreage needed for the relocation. Staff’s estimate was 20-25 acres (Attachment C). This estimate included land necessary for parking, stormwater management, and reforestation. See Attachment D for related calculations.

Rationale for Move: Relocation of the Shady Grove complex is required as part of the implementation of the County’s Smart Growth Initiative. One of the elements of the initiative will be accomplished by the implementation of the Shady Grove Sector Plan, which will create thousands of new housing units near the Shady Grove Metro Station, as well as cleaning up a brownfields site, modernizing public facilities (including, but not limited to the Shady Grove complex), reducing payments for rented facilities, and creating opportunities to protect the Agricultural Reserve by providing an attractive alternative to sprawl development.

Possible Relocation to Parkland: As requested by the County Executive, Department of Parks’ staff performed an analysis of existing park sites to determine if an appropriate site could be found on existing parkland; GIS was used for this effort. The basic requirements for a suitable site were that it be at least 25 acres in size, that it not contain Best Natural Areas, Biodiversity Areas, Stream and Wetland Buffers, historic resources (including Locational Atlas Resources, Master Plan Historic Districts, Master Plan Historic Sites, Master Plan Individual Sites, National Register Historic Districts, National Register Individual Sites, and Park owned historic sites), that it be located within the WSSC Water and Sewer Envelope, and it be accessible from an appropriate sized roadway (larger than Primary Residential and not Controlled Access).

Using these criteria, 14 potential park sites were identified and subjected to further analysis. Nine of the sites were determined to be geographically unsuitable, primarily from the standpoint of remoteness (too far from the center of the County and/or major highways) and another site has conflicts with planned Park amenities and the Intercounty Connector. The remaining four sites were subjected to additional study. Two sites in the Lois Y. Green Conservation Park were deemed unusable due to deed restrictions attached to the donated property, a site in the Crabbs Branch Stream Valley Park would require construction of an access road through either an environmentally sensitive area or through the Needwood Golf Course, and a site in Rock Creek Stream Valley Unit 6 would require substantial improvements to an existing park road which is located in an environmentally sensitive area as well as the construction of a bridge over the mainstem of Rock Creek.

Detailed analysis, including maps of the 14 potential park sites, can be found in Attachment E.

Possible Non-Park Sites: When it became evident that none of the park sites evaluated was likely suitable for the relocation of the Shady Grove Complex, two non-park sites were looked at as possible alternatives. These sites are the Centerpark development (formerly the Webb tract), which is located adjacent to the Lois Y. Green Conservation Park, and a site on Travilah Road, part of which is currently occupied by a landscaping business.

The Centerpark site is already being developed as a commercial/industrial area, and a portion of the site, large enough to house the central maintenance complex, is available (Figure 2).

At the Travilah Road site, there are four parcels, totaling 21.88 acres, which are currently available for purchase, with another four parcels, totaling 6.32 acres, which might be available in the future (Figure 3). The combined 28.20 acres contain 15.47 developable (environmentally unconstrained) acres.

Conclusion: Staff requests the Planning Board's approval to transmit a PDF to the County Council to complete the feasibility analysis and site selection for the Parks Central Maintenance Facility at Shady Grove.

Pc: Al Astorga
Sue Edwards
Mike Horrigan
Gene Giddens

**ATTACHMENT A. Montgomery County Service Park – Crabbs Branch Way.
Existing Facility Inventory.**

Facility	Lot Area (Acres)	Building Size (Square Feet)	Existing Buildings and Uses	Current Employees and Parking Requirements
<p>M-NCPPC Shady Grove Maintenance and Training Facility: Central Maintenance Division (Administration, Fleet Management, Trades/Construction Management); Northern Park Region (Shady Grove Area, Northern Landscape Crew); Natural Resources Division (Up-County Tree Crew, Division Landscape Crew)</p>	<p>12* *Not including stormwater management</p>	<p>76,000</p>	<p>Indoor facilities for service and repair of autos, police vehicles, light trucks, tractors and implements, large mowers, heavy trucks, large construction equipment, trailers, golf carts, ATVs, small engines, etc. Tires, parts, and fluids storage. Trades shops including Carpentry, Painting/Finishing, Masonry, Asphalt Paving, Plumbing, Electrical, Welding, HVAC, Locksmith, and Alarm. Materials storage and fabrication areas.</p>	<p>Approximately 200 employees from three Park Divisions; A maximum of 280 staff participating in a training exercise; Heavy truck and trailer circulation. Tractor – trailer loading and unloading at docks.</p>

Facility	Lot Area (Acres)	Building Size (Square Feet)	Existing Buildings and Uses	Current Employees and Parking Requirements
			<p>Warehouse facilities. Stock room. Indoor and outdoor bulk storage facilities. Covered outdoor equipment storage bays. Hazardous materials storage. Fueling station for gasoline and diesel. Two-vehicle indoor wash facility.</p> <p>Separate indoor work and storage areas for Northern Region maintenance staff and Natural Resources Division arboriculture/horticulture staff.</p> <p>Paved Lot Space and Roadways: Employee and Visitor Parking; Parking for M-NCPPC's Autos, Light Trucks, Tractors and</p>	<p>20 automobiles, 75 light trucks, 15 tractors and implements, 20 large mowers, 25 heavy trucks, 20 pieces of large construction equipment, 30 trailers, 3 construction trailers, 20 deadline vehicles, and 20 vehicles undergoing repair.</p>

Facility	Lot Area (Acres)	Building Size (Square Feet)	Existing Buildings and Uses	Current Employees and Parking Requirements
			<p>Implements, Mowers, Heavy Trucks, Heavy Construction Equipment, and Trailers Assigned to the Shady Grove Facility; Deadline Vehicles; Vehicles Undergoing Repair.</p> <p>Offices. Conference Rooms. Restrooms, Lockers, and Showers. Lunch Room. Storage Areas for Office Supplies and Materials. Mail Room. Copy Room. Reception Area.</p> <p>Departmental Training Facility with a large classroom designed to accommodate up to 280 people and related Storage Area.</p>	



Attachment B

**RELOCATION
OF
SHADY GROVE PARK
MAINTENANCE FACILITY**

SPACE
UTILIZATION
and
LAND USE
STUDY

MARYLAND-NATIONAL PARK AND PLANNING COMMISSION

Prepared by:
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Lofederman
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**CRABBS BRANCH WAY
MAINTENANCE FACILITY**

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1.0 PURPOSE OF STUDY

The Maryland-National Capital Park and Planning Commission (MNCPPC) Maintenance Facility is currently located on Crabbs Branch Way, south of its intersection with Shady Grove Road, in Montgomery County. The property is within the Shady Grove Master Plan Area, currently undergoing revision. The land on which the facility is located (approximately 12 acres) is a valuable piece of real estate, in close proximity to the Shady Grove Metro Station and major transit routes. As such, M-NCPCC has been offered other site locations for the relocation of the functions currently located within the facility.

The purpose of this study is to identify user and site requirements should M-NCPCC agree to relocate based upon current and projected needs and uses, as well as, zoning and land development requirements. This report is intended only as a guideline based on currently available information and development requirements.

Information contained in this report is based upon data provided by M-NCPCC, Montgomery County Zoning Regulations, Abstract Trees Approved Technical Manual and best professional judgment. Future land acquisition decisions must evaluate the current situation with updated requirements as compared to specific opportunities and constraints for any given parcel.

A draft report was prepared for review, in July 2004; this report revises some of the estimates from the previous submitted report to update it with information obtained from site observation and departmental questionnaires.

2.0 EXISTING PROGRAMMATIC REQUIREMENTS

The current building uses and associated loading areas cover approximately 2.5 acres. Land improvements such as parking and circulation and outdoor vehicle storage cover approximately 4.5 acres. In addition, there are various "portables" - shipping containers currently being used for parts storage, and outdoor storage of materials such as gravel and mulch, some that would be better preserved under cover. These uses along with buffers and tree cover, and landscape areas make up the remainder of the acreage. Parking spaces were calculated at 10 feet by 20 feet spaces with 50% circulation or 330 square feet (SF) per space. Light truck loading spaces were calculated at 33 feet by 12 feet spaces with 40% circulation or 555 SF. per space Trailer loading was calculated at 45 feet by 12 feet spaces with 40% circulation or 760 SF per space.

The following tables, Table 1 and Table 2, show the current programmatic requirements, associated square foot area and land and site requirements as had been previously identified by Park and Planning with all uses on the ground floor.



Table 1: Existing Building Program

Use	Existing Area (SF)	Existing Site Requirements/ (SF)	Required Land Area (SF)
Storage Building # 1	4,030	2 loading/1,520	5,550
Storage Bldg #2	5,704	5 loading/3,800	9,504
Auto Shop	12,567	12 loading/9,120	21,687
Build B (Shops, conference rooms, employee areas (3), offices (17))	17,836		17,836
Building B Annex	9,015		9,015
Lock Shop	442		442
Heavy Equipment Bldg	5,264	3 loading/2,280 2 drive through/3,040	10,584
Car Wash	1,134	2 drive through/3040	4,174
Tire Bldg	3,898	2 loading/1520	5,418
Offices	5,130		5,310
TOTAL	65,020		89,520

Table 2: Existing Site Program

Site Improvements	Existing Number/ Required Area (SF)
Parking employees/training	350/115,500
Visitor Parking	20/6,600
Light trucks	75/41,625
Large trucks	25/19,000
Trailers	30/22,800
Tractors	30/9,900
Riding Mowers	20/6,600
Deadline Vehicles	20/6,600
Repair Vehicles	20/11,100
Total	239,725



3.0 FUTURE PROGRAMMATIC REQUIREMENTS

The future expansion of existing uses was originally projected with a 10% growth or at a rate of one additional service area whichever was greater. With these assumptions, the projected building coverage would be approximately 2.5 acres and the projected site improvements would require approximately five acres.

Table 3, on the following page, shows existing area, growth and associated site requirements. Uses which may be appropriate to locate on a second floor in order to conserve on land coverage have been identified with an asterisk (*). Table 4 shows programmed site improvements based upon a 10% growth. Tables 3 and 4 do not include immediate needs for space.

Table 3: Future Building Programmatic Requirements

Use	Existing Area (SF)	Existing Site Requirements/ (SF)	Required Land Area (SF)	Anticipated Growth (SF)	Additional Site Requirements/(SF)	Anticipated Land Area (SF)
Storage Building # 1	4,030	2 loading/ 1,520	5,550	403	none	5,953
Storage Bldg #2	5,704	5 loading/ 3,800	9,504	570	1 loading/555	10,629
Auto Shop	12,567	12 loading/ 9,120	21,687	1,260	2 loading/1110	24,057
Build B (Shops, conference rooms*, employee areas (3*), offices (17*))	17,836		17,836	1785		19,621
Building B Annex	9,015		9,015	900		9,915
Lock Shop*	442		442	50		492
Heavy Equipment Bldg	5,264	3 loading/ 2,280 2 drive through/ 3,040	10,584	530	1 loading/555	11,669
Car Wash	1,134	2 drive through/ 3040	4,174	567	1 drive through/1520	6,261
Tire Bldg	3,898	2 loading/ 1,520	5,418	400		5,818
Offices	5,130		5,130	530		5,660
Mechanics Bay	2,000		2,000	1,350		3,350
Weld Shop	2,200 ¹		2,200	1,025		3,225
Exhibit Shop	6,200 ¹	2 Loading/ 1,500	7,700	1,200		8,900
Trailer Replacement				5,795		5,795
TOTAL	75,420		101,240	16,365	3,740	121,345

¹Currently off-site



Table 4: Future Site Programmatic Requirements

Site Improvements	Existing Number/ Required Area (SF)	Proposed growth number/area (SF)	Total Anticipated Growth (SF)
Parking employees/training	350/115,500	35/11,550	385/127,050
Visitor Parking (Administration)	20/6,600	2/660	22/7,260
Light trucks	75/41,625	8/4,440	83/46,065
Large trucks	25/19,000	3/2,280	28/21,280
Trailers	30/22,800	5/3,800	35/26,600
Tractors	30/9,900	5/1,650	23/11,550
Riding Mowers	20/6,600	3/990	23/7,590
Deadline Vehicles	20/6,600	3/990	23/7,590
Repair Vehicles	20/11,100	5/2,775	25/13,875
Total	239,725	29,135	268,860

As mentioned above, since the original report was presented to M-NCPPC, a more detailed assessment has been prepared based on field visits and user interviews. It was found that many of the shops have created loft space for storage of material. In some cases, storing heavy materials that would be more suitably stored at ground level. Overall, the immediate need of the various departments averages an increase of 33% of the space they now occupy, some requiring more than others. This translates into an increase of 60,500± square feet, including the need for additional covered vehicle and equipment space and circulation, and interior storage space. The total then of the anticipated area including anticipated growth is 448,400± square feet – 10.30± acres, not including land requirements for stormwater management or environmental considerations.

4.0 ZONING AND DEVELOPMENT REQUIREMENTS

The current and anticipated uses are compatible with Industrial zones. Publicly owned or publicly operated uses are permitted in all industrial zones. Zoning requirements for each zone vary. Following are the Development standards for the various industrial zones.

Table 5: Zoning & Development Requirements

Sec. 59-C-5.3. Development standards.

	I-1	I-2	I-3	I-4	R&D	LSC
59-C-5.31 Building height.						
No building shall exceed the following height limits:						
(a) Normally:						
-In stories	3	5		3		
-In feet	42	70	100	42	50	100
(b) In the I-1 zone this height may be increased in accordance with the requirements of section 59-C-5.41.						
59-C-5.32. Coverage limitations. (Percent of gross tract area)						
-Green area shall be provided for not less than	10	10	35	20	30	25
-Off-street parking is not allowed to occupy more than			45 ¹			
59-C-5.321. Maximum density of development. ² The maximum density of development must not exceed the following FAR which is to be based on and may be averaged over the gross tract area.					0.30	
In the I-3 and LSC zones, the maximum density of development must not exceed the following FAR, based on gross tract area, which may be averaged over 2 or more lots created by the same subdivision plan if the density is recorded by covenant in the land records for all affected lots. When averaging is used for previously approved subdivision plans the total development density must not exceed the density for which Facility approval was previously granted, unless a new Adequate Public Facility test is applied. In such situations, the shift of density must be recorded in the land records for all affected lots. Adequate Public Facility approval was previously granted, unless a new Adequate Public Facility test is applied. In such situations, the shift of density must			0.50			0.30



be recorded in the land records for all affected lots.						
In the I-3 zone, the maximum density may be increased up to a maximum FAR of 0.60 provided that the applicant for development obtains approval of a traffic mitigation agreement at the time of site plan review that will result in traffic generation equal to or less than a project with a FAR of 0.50.						
59-C-5.322. Requirement for landscape plan. In the R&D zone, the preliminary plan of subdivision must include a landscape plan and a plan for the preservation of natural features.						

1 In unusual circumstances, may be waived by the planning board at the time of site plan approval upon a finding that a more compatible arrangement of uses would result.

2 An entire floor or story or a portion of a floor or story used exclusively for mechanical equipment is excluded from the maximum density of development calculation, and no portion of any floor or story excluded from the maximum density calculation that exceeds the FAR of the zone may be used for any other purpose. The aggregate area of any partial floors or stories excluded from the maximum density of development calculation must not exceed the gross floor area of any full floor of the building.

59-C-5.33. Setbacks in the I-1 and I-2 zones.

All buildings shall be set back from lot lines at least as follows:

- (a) From any street right-of-way:
 - (1) Ten feet if the right-of-way line is established on a master plan.
 - (2) Sixty feet from the center line of the street if there is no master plan showing the right-of-way line.
- (b) From any other lot line:
 - (1) If the lot adjoins a residential zone which is not:
 - Recommended on a master plan for commercial or industrial zoning, or
 - Used as a public parking lot
 then the setback shall be not less than that required in the adjoining zone.
 - (2) In all other cases, no setback is required.
 - (3) If a yard is provided, it shall not be less than 10 feet in width.



59-C-5.34. Setbacks in the I-3 and R&D zones.

(a) All buildings, off-street parking, loading and maneuvering areas must be set back from lot lines in accordance with the standards shown in the following schedule:

	<i>Buildings</i>	<i>Parking, Loading, and Maneuvering Areas</i>
(1) From abutting residentially zoned property:		
-Recommended for one-family zoning and development on the applicable master plan.	200'	100'
-Recommended for residential zoning and development, other than one-family, on applicable master plan.	100'	100'
-Recommended for nonresidential development in the I-3 or R&D zone on the applicable master plan:	20'	20'
However, if proposed building is more than 40 feet in height then 1 foot of additional building setback for each 2 feet of height	1:2	20'
-Recommended for non-residential development in a commercial or industrial zone other than I-3 or R&D on the applicable master plan.	25'	25'
-Developed with nonresidential uses, including off-street parking.	50'	50'
If the abutting residentially zoned property is developed with residential uses, the Planning Board may require greater than the minimum setback, not to exceed 200 feet, to achieve compatibility between the residential development and the proposed industrial development.		
(2) From abutting commercial or industrial zoning other than the I-3 or R&D zones.	25'	25'
(3) From an abutting lot classified in the I-3 or R&D zones:	20' ³	20' ⁴
-If proposed building is more than 40 feet in height then 1 foot of additional building setback for each 2 feet of height.	1:2 ³	20' ⁴
(4) From the following roadways as shown on the approved and adopted master plan:	200'	100'
-An existing or planned limited access freeway ¹	200'	100'
-A major highway in the I-3 zone.	100'	100'
-A major highway in the R&D zone	50'	50'
-An arterial road separating the I-3 and R&D zones from:		
-Existing one-family residential zoning and development	100'	50'
-Residential zoning or development other than one-family residential	50'	50'



-An arterial road that separates the zone from a commercial or industrial zone.	25'	35' ²
-An arterial road, local street, or private street within the I-3 or R&D zones	25'	35' ²
-A transitway	25'	25'

(b) Two buildings on the same lot must be set back from each other a distance of at least 30 feet.

1 One hundred feet from interchange ramp for buildings and 50 feet from interchange ramp for parking. The setback for parking structures may be reduced below 200 feet but not below 100 feet upon approval by the planning board.

2 Off-street parking is permitted between a building and a street identified on an approved preliminary plan of subdivision as providing access for public transit service unless the Planning Board determines that the location of the parking will discourage or adversely affect public transit use.

3 Where development in the I-3 Zone consists of multiple lots created by the same subdivision plan, the setback requirement from abutting lot lines for all buildings may be reduced by the Planning Board during site plan review pursuant to the applicable provisions of Division 59-D-3 if it is demonstrated that the reduced setback is compatible with existing and proposed development. The Planning Board must not reduce the building setback to less than 10 feet.

4 Where development in the I-3 Zone consists of multiple lots created by the same subdivision plan, the setback requirement from abutting lot lines for all parking loading and maneuvering areas may be reduced by the Planning Board during site plan review pursuant to the applicable provisions of Division 59-D-3 if it is demonstrated that the reduced setback is compatible with existing and proposed development.

59-C-5.35. Normal setbacks in the I-4 zone.

All buildings shall be set back at least as follows:

(a) One hundred feet from any residential zone. If the lot adjoins a residential zone which is recommended on an approved and adopted master or sector plan for commercial or industrial zoning, then the setback shall be not less than 10 feet.

(b) Ten feet from any commercial or industrial zone.

(c) Fifty feet from:

(1) A railroad or utility right-of-way or an arterial road that separates the industrial park from a residential zone;

(2) A limited-access freeway or parkway; or

(3) A major highway.

(d) Twenty-five feet from:

(1) An arterial road that separates the industrial park from a commercial zone; or

(2) An arterial road, local street or private right-of-way within the industrial park.

In addition to the setback requirements for the zone, it is anticipated that an on-site stormwater management facility of approximately 3 to 4 acres based on the land use and coverage may be required.

Forest Conservation is required on all sites in Montgomery County. The acreage of forest conservation required will be dependent on the zone of the future site, the amount of existing forest cover and the amount of forest being cleared. Based upon the intensity of use and the required land area for development, approximately 3 to 4 acres should be anticipated to meet the forest conservation thresholds and requirements.



5.0 FUTURE LAND AREA REQUIREMENTS

Future land required would be based on the general configuration and layout of the site and buildings. Based upon existing uses, on and off-site, immediate needs for space, forecasted growth and zoning and land development requirements, it is anticipated that the Maintenance Facility will require a net site area between 18 and 22 acres. If all buildings remain single story, the larger site would be required.

Net Site area is defined as developable areas with little or no soil constraints, reasonably flat topography (less than 6% slope) and generally rectangular in shape so as to maximize efficient development. Net site area calculations exclude road dedication, floodplains, wetlands, and environmental buffers.

The independent nature of the functions of each department makes consolidation of storage and office space difficult although not impossible. Any proposed site should be analyzed as to how well it can accommodate all the immediate and forecasted needs of the various departments, as well as to location, i.e. Is the site centrally located?, will the road network serving the facility be convenient and appropriate for the nature of the use?

Integrating administrative uses and creating a cohesive campus like feel should be an important part of the design of any future facility and may facilitate the joint use of space.

**ATTACHMENT C: Potential Relocation Land Needs
Shady Grove Service Park¹**

Agency	Facility	Existing Land Area (Acres)	Preferred Net Land Area (Acres) for Relocation to Meet Future Program Needs ² ,	Operational Requirements	Location Requirements
M-NCPPC	Shady Grove Maintenance and Training Facility: Central Maintenance Division (Administration, Fleet Management, Trades/Construction Management); Northern Park Region (Shady Grove Area, Northern Landscape Crew); Natural Resources Division (Up-County Tree Crew, Division Landscape Crew)	12 ³	20-25 ⁴	Maintenance Facility potentially open 24 hours for emergencies and during severe weather. Noise from heavy trucks, tractor-trailers, and large construction equipment. Fueling station for gasoline and diesel. Lighting, perimeter security fencing. Training Facility must be off-line from the Maintenance Facility and include sufficient parking.	Must be centrally located and near major highways. Easy ingress and egress. Two entrances desirable. Transit friendly.

¹This information is an estimate only and may change as program needs are further evaluated and opportunities explored.

²Environmental constraints and requirements for stormwater management and forest conservation may necessitate additional acreage whereas multistory administrative buildings and/or structured parking may reduce land needs.

³The Department of Park's Shady Grove Maintenance and Training Facility was constructed in the early 1970s when the County Park System was half the size it is today.

⁴ Preferred Net Land Area corrects current deficiencies in facility infrastructure and assumes a 15% increase in size and complexity of the park system through 2020.

Attachment D John Hench Shady Grove Maintenance Yard Relocation and Facility Expansion Decision Matrix

Facility Number	Year	2000	2005	2010	2015	2020	2025	2030	% change 2005- 2020
1	County Population	873,341	942,000	1,000,000	1,040,000	1,077,100	1,115,300	1,155,800	14.34%
2	Park Acreage	30,337	32,830			38,683			17.83%
3	Playgrounds		285			317			11.23%
4	Tennis Courts		411			415			0.97%
5	Basketball Courts		317			329			3.79%
6	Youth Diamonds		91			91			0.00%
7	Multi-purpose Youth Baseball/Adult Softball Diamonds		164			179			9.15%
8	Baseball Fields with 90' Base Paths		35			55			57.14%
9	Multi-purpose Rectangular Field		103			176			70.87%
10	Youth Rectangular Field		70			85			21.43%
11	Permitted Picnic Shelters		78			99			26.92%
12	County-wide Group Picnic Areas		3			4			33.33%
13	Nature Centers		4			6.3			57.50%
14	Roller Hockey (Game Facilities)		2			2			0.00%
15	Skate Parks (Including Informal Use Areas)		0			16			#DIV/0!
16	Dog Exercise Areas		3			18			500.00%
17	Natural Surface Regional Trails - Miles		115.6			221			91.18%
18	Hard Surface Regional Trails - Miles		73.5			96			30.61%
19	Natural Areas in M-NCPPC Parks - Acres		17,682			21,177			19.77%
	Total		994,267			1,139,069			14.56%

GIS-based Analysis of Candidate Sites within the Montgomery County Park System Suitable for a New Maintenance Facility

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Montgomery County Department of Parks
August 5, 2008 (Updated January 30, 2009)

Introduction:

Implementation of the 2006 Approved and Adopted Shady Grove Sector Plan requires relocation of the Montgomery County Services Park, an industrial area that includes the Maryland-National Capital Park and Planning Commission's Shady Grove Maintenance Facility. This facility has been in service since 1976 on land owned by the Montgomery County Government. Serving as headquarters for the Central Maintenance division and the Northern Region's Shady Grove sub-region, the current maintenance facility contains trade shops, vehicle maintenance bays, office space, supplies and materials storage, a large fuel handling facility and the Department's training facility. Any site chosen for the replacement facility must be able to accommodate all current uses with space for future expansion. The Department of Parks was directed by Montgomery County's Shady Grove redevelopment project managers to identify candidate sites for a new maintenance facility on currently-held parkland.

Site Selection:

The Department of Parks used a GIS-based methodology to examine all unimproved land within its park system. The first criteria was that candidate sites must be free of environmental constraints as identified in the 2005 Land Preservation, Parks and Open Space Plan (LPPRP). These constraints include:

Best Natural Areas – Large areas of contiguous, high quality forest, marsh or swamp with generally more than 100 acres, relatively little evidence of past land-use disturbance, and few or no exotic invasive plant species. The known presence of rare, threatened, endangered, or watch-list species. The best example of a unique plant community type found in Montgomery County, e.g., river-rock outcrops of the Potomac River Basin; Serpentine influenced plant communities; diabase influenced plant communities; plant communities on soils derived from Triassic shales, siltstone, sandstone, and conglomerate; central Maryland floodplain forest; central Maryland swamp forest; mesic forest on acidic bedrock; dry forest on acidic bedrock; and limestone influenced plant communities. High quality wetlands, including those of Special State Concern as noted in COMAR Title 26. Aquatic communities rated as good or excellent in the Countywide Stream Protections Strategy. Special Trout Management Areas as noted in COMAR Title 08. This layer also includes areas of exceptional scenic beauty. (M-NCPPC 2005) http://www.mc-mncppc.org/ppra/Park_Planning/LPPRP_2005.shtm

Biodiversity Areas – Areas of contiguous, high quality forest, marsh, or swamp with relatively little evidence of past land-use disturbance and few or no exotic, invasive, plant species. Areas with known presence of rare, threatened, endangered, or watch-list species. An area that generally represents the best examples of unique plant community types found in Montgomery County, i.e., river-rock outcrops of the Potomac River Basin; serpentine influenced plant communities; diabase influenced plant communities; plant communities on soils derived from Triassic shales, siltstone, sandstone, and conglomerate; central Maryland swamp forest; mesic forest on acidic bedrock; dry forest on acidic bedrock; and limestone influenced plant communities. An area of exceptional scenic beauty. (M-NCPPC 2005) http://www.mc-mncppc.org/ppra/Park_Planning/LPPRP_2005.shtm

Stream and Wetland Buffers – A Stream/wetland buffer is a State Mandated protective boundary between non-tidal wetlands and development. The State of Maryland requires a 25' buffer regardless of the Use Class. Montgomery County however, has a more stringent policy. We require different buffer widths depending on slope range, State water use designation, Stream order, and Location in a Special Protection Area (table 1, table2 and table3). (M-NCPPC 2000) http://www.mcmncppc.org/Environment/forest/guidelines_0100/toc_envirion_guide.shtm

Table 1. Recommended Stream Buffer Widths* by Slope Range and State Water Use Designation**
(Expressed in feet from the stream bank)

Slope Range (%)	Use I/I-P (Water Contact Rec. and Aquatic Life)	Use III/III-P (Natural Trout Waters)	Use IV/IV-P (Recreational Trout Waters)
0 to <15	100	150	125
15 to <25	125	175	150
25 and greater	150	200	175

**Stream buffer widths may be greater if floodplains, wetlands, or steep slopes extend beyond the buffer line, or as noted in Section VII. In agricultural zones, the requirement for the buffer may be waived when the land will be used for farming. This waiver will be conditioned upon the applicant getting an approved soil and water conservation plan from the Montgomery Soil Conservation District. These instances will be determined on a case-by-case basis.*

***Stream Water Use will be determined by the MDE Water Use designation.*

NOTE: These buffers apply to intermittent and perennial streams only. Plans located in Council-designated Special Protection Areas are subject to the guidelines specified in table 2.

Table 2. Recommended Buffers for Wetlands Springs and Seeps Outside of Special Protection Areas

Stream use & Order	Wetlands of Special State Concern	Wetlands with Steep Slopes**	Wetlands with Erodible Soils***	Other Wetlands
Use III, First & Second Order	100'	50-100'	50-100'	50'
Use III, Third & Higher Order Streams	100'	25-100'	25-100'	25'
Use IV, First & Second Order Streams	100'	40-100'	40-100'	40'
Use IV, Third & Higher Order	100'	25-100'	25-100'	25'
Use I, First & Second Order	100'	25-100'	25-100'	25'
Use I, Third and Higher Order	100'	25-100'	25-100'	25'

NOTE: Isolated farm ponds, existing stormwater management ponds or man-made drainage ditches are exempt from these expanded buffer recommendation.

**Wetlands of special State concern, as identified by the Maryland Department of the Environment and the Maryland Department of Natural Resources, are subject to a minimum 100-foot buffer by State regulations*

***Buffer for wetlands adjacent to steep slopes will be expanded to include the steep slopes up to 100 foot maximum. For wetlands outside SPSs, steep slopes are defined as 25% or greater on the steepest 50 feet within the 100 feet adjacent to the wetland.*

****Buffer for wetlands adjacent to erodible soils will be expanded to include the erodible soils up to 100 foot maximum.*

Table 3. Recommended Buffers for Wetlands Springs and Seeps within Special Protection Areas

Stream use & Order	Wetlands of Special State Concern*	Wetlands with Steep Slopes**	Wetlands with Erodible Soils***	Other Wetlands
Use III, First & Second Order	150'	150'	150'	150'
Use III, Third & Higher Order Streams	100'	60-100'	25-100'	25'
Use IV, First & Second Order Streams	100'	75-125'	76-125'	75'
Use IV, Third & Higher Order	100'	60-100'	25-100'	25'
Use I, First & Second Order	100'	60-100'	50-100'	50'
Use I, Third and Higher Order	100'	60-100'	25-100'	25'

NOTE: Isolated farm ponds, existing stormwater management ponds or man-made drainage ditches are exempt from these expanded buffer recommendation. The buffer widths for Use III first and second order streams are in accordance with the recommendations of the Upper Paint Branch Technical Work Group.

**Wetlands of special State concern, as identified by the Maryland Department of the Environment and the Maryland Department of Natural Resources, are subject to a minimum 100-foot buffer by State regulations*

***Buffer for wetlands adjacent to steep slopes will be expanded to the outer edge of the steep slopes up to the maximum distance shown in the table. For wetlands inside SPAs, steep slopes are defined as greater than 15% on the steepest 50 feet within the 100 feet adjacent to the wetland.*

****Buffer for wetlands adjacent to erodible soils will be expanded to include the erodible soils up to the maximum distance shown in the table.*

Locational Atlas Resource- A district, site, building, structure or object, including its appurtenances and environmental setting, which is significant in national, state or local history, architecture, archaeology or culture. This includes, but is not limited to, all properties on the "Locational Atlas and Index of Historic Sites in Montgomery County." <http://www.mc-mncppc.org/historic/index.shtm>

Master Plan Historic Districts- A group of historic resources which are significant as a cohesive unit and contribute to the historical, architectural, archaeological or cultural values within the Maryland-Washington Regional District and which has been so designated in the master plan for historic preservation. <http://www.mc-mncppc.org/historic/index.shtm>

Master Plan Individual Sites- Any individual historic resource that is significant and contributes to the historical, architectural, archaeological or cultural values within the Maryland-Washington Regional District and which has been so designated in the master plan for historic preservation.

<http://www.mc-mncppc.org/historic/index.shtm>

National Register Historic Districts- A district possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. http://www.nps.gov/history/nr/publications/bulletins/nrb15/nrb15_4.htm#district

National Register Individual Site- A site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archeological value regardless of the value of any existing structure. http://www.nps.gov/history/nr/publications/bulletins/nrb15/nrb15_4.htm#district

Park Owned Historic Sites- Cultural Resources in Parks encompass historic properties that may or may not be designated. While some of these properties are listed on the *Locational Atlas of Historic Sites* or the *Master Plan for Historic Preservation*, others are not. But they all have been deemed to contribute to the unique telling of Montgomery County's history. Stewardship of these resources involves acquisition, research, stabilization, interpretive or activity programming, architectural and engineering programming, restoration/rehabilitation, and maintenance. The Cultural Resources in Parks inventory is meant to be a living, changing repository, wherein new acquisitions of a cultural or historical nature can be added to the inventory. These additions will occur as new parkland is acquired and/or as buildings come of age.

WSSC Water and Sewer Envelope- It was decided that any new maintenance facility of this scale must have access to public water and preferably public sewer. WSSC's service area is documented in M-NCPPC's GIS system and GIS analysis was used to exclude candidate sites not inside the water or sewer service area.

Adequate Transportation Infrastructure- The Department of Parks consulted with the Montgomery County Planning Department, Transportation Planning division on the suitability of certain categories of roads to handle the type of traffic generated by a new maintenance facility. Their opinion was that this new facility may only be located along roads larger than Primary Residential category and that the road must not be Controlled Access (Personal Communication with Division Chief Dan Hardy; June 22, 2008). Road categories are available in the GIS system. Any site without an adjacent suitable road was eliminated from consideration.

In 2003 the Department contracted with Loiederman Soltesz Associates to study maintenance facility operations and determine a program of requirements for a new maintenance facility. To accommodate future growth of the park system, Loiederman Soltesz recommended that the new facility comprise twenty acres (Loiederman Soltesz Associates; 2004).

Description of the GIS-based Methodology:

A GIS model was built using ESRI's ArcMap 9.2 software and M-NCPPC and WSSC data layers available on M-NCPPC's GIS system. The initial dataset comprised all M-NCPPC parkland in either the Natural Resources Management or Managed Open Space budget programs. These programs contain the department's unimproved land. Data layers for each site selection criteria were then overlaid, each acting as a razor shaving out unsuitable areas. Once all of the Environmental Constraints were accounted for, the surviving areas were checked for water and sewer service, suitability of adjacent roads and then whether they met the size criteria. At this point, visual inspection of the candidate sites removed any that were not of a shape conducive to maintenance yard operations i.e.- long, thin, sinuous sites with a high surface area to volume ratio were discarded in favor of more round or square sites with a lower surface area to volume ratio.

Results of the GIS Analysis

Fourteen sites were identified by the GIS as meeting the site selection criteria. Visual examination of the selected sites resulted in either a recommendation to officially designate as a candidate site or recommend rejection. These sites were presented to senior Department of Parks Staff during a work-session held at the Shady Grove maintenance facility on August 5, 2008. Results of the analysis and comments as to the next step are shown in Figure 1 and Table 4. Detailed resource maps of each candidate site are included.

Figure 1 - Candidate sites and suitable adjoining roads according to the Masterplan of Highways.

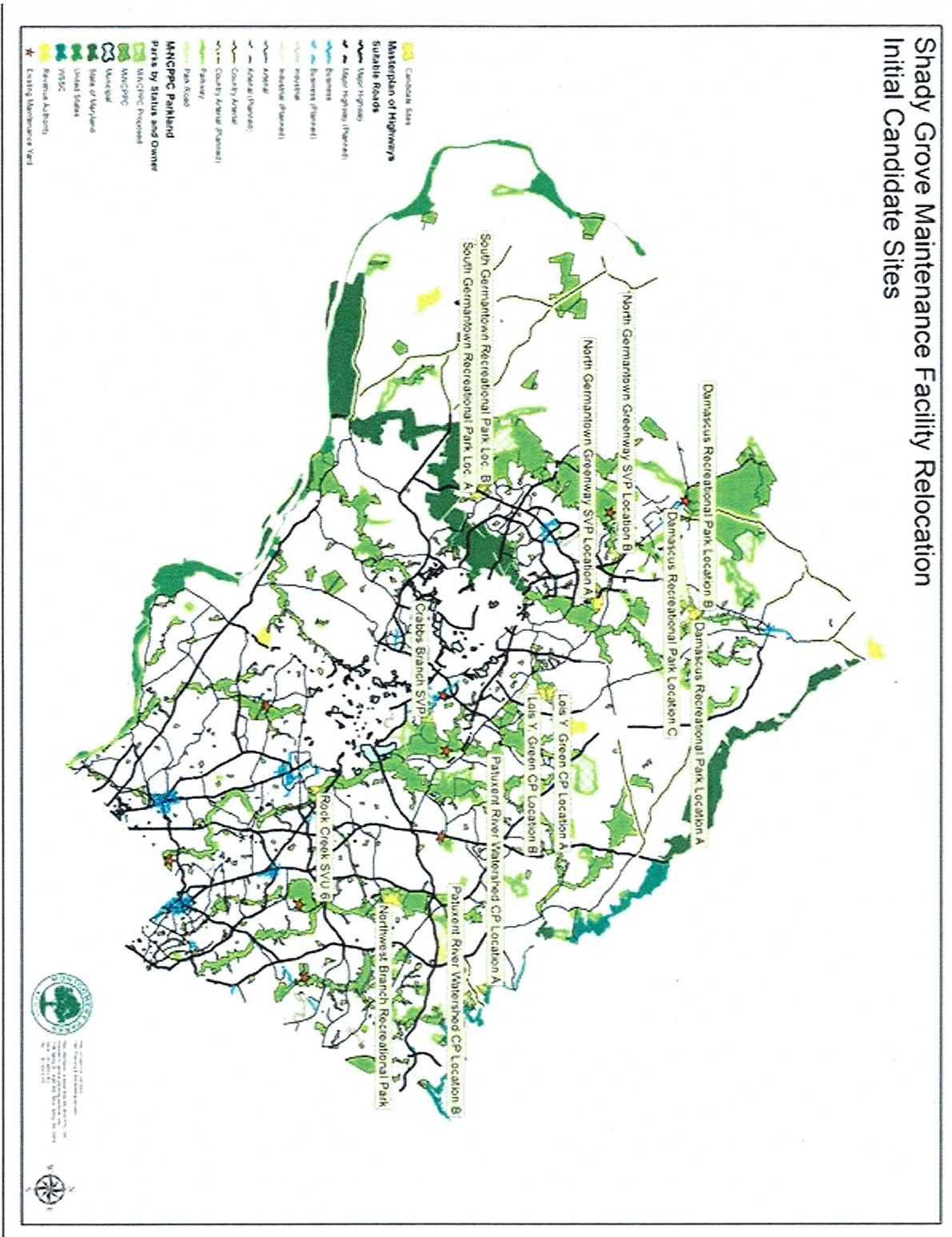


Table 4 - Results of the GIS-based analysis and comments

Site #	Site Name	Park Type	Region	Acreage of Site	Comments/Recommendations
1	Crabb's Branch SVP	Stream Valley	N-RC	32.4	Designate Candidate C
2	Damascus Recreational Park Location A	Recreational	N-LB	65.3	Site not geographically suitable, too remote
3	Damascus Recreational Park Location B	Recreational	N-LB	29.0	Site not geographically suitable, too remote
4	Damascus Recreational Park Location C	Recreational	N-LB	25.9	Site not geographically suitable, too remote
5	Lois Y. Green CP Location A	Conservation	N-SG	65.2	Designate Candidate A
6	Lois Y. Green CP Location B	Conservation	N-SG	46.6	Designate Candidate A
7	North Germantown Greenway SVP Location A	Stream Valley	N-LB	96.9	Site not geographically suitable, too remote
8	North Germantown Greenway SVP Location B	Stream Valley	N-LB	37.2	Site not geographically suitable, too remote
9	Northwest Branch Recreational Park	Recreational	N-OM	135.0	Conflicts with planned amenities/planned ICC
10	Patuxent River Watershed CP Location A	Conservation	N-OM	31.0	Site not geographically suitable, too remote and in Patuxent Primary Management Area
11	Patuxent River Watershed CP Location B	Conservation	N-OM	30.4	Site not geographically suitable, too remote and in Patuxent Primary Management Area
12	Rock Creek SVU 6	Stream Valley	S-WH	40.9	Designate Candidate B
13	South Germantown Recreational Park Location A	Recreational	N-BH	48.8	Site not geographically suitable, too remote
14	South Germantown Recreational Park Location B	Recreational	N-BH	33.8	Site not geographically suitable, too remote

Discussion of Results:

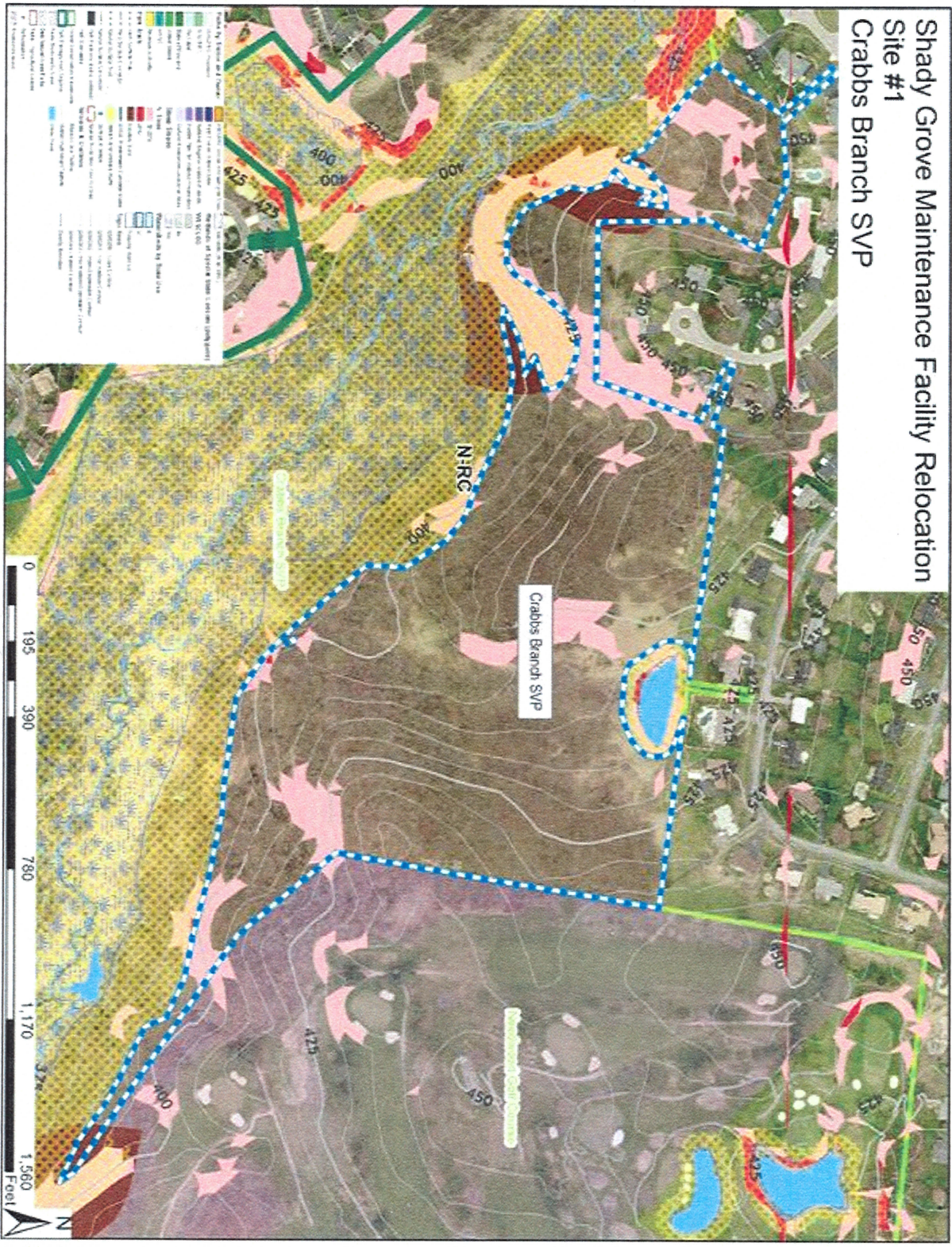
The GIS-based site selection process initially identified fourteen sites as possible candidates. Careful examination of each site with an eye towards the planned goals for this facility winnows that list down to three Candidates (4 sites). Lois Y. Green Conservation Park (2 sites) should be considered the best due to its proximity to the existing yard and geographically central location. It is designated Candidate A. Rock Creek SVU 6 is the second-most suitable site due to its relatively centralized location and access to a major road. It should be designated Candidate B. Crabb's Branch SVP is the third-most suitable site and should be designated Candidate C.

The other sites identified as potential candidates are too far removed from the major county transportation routes and will add to higher fuel costs as longer trips will be necessary to reach job sites. An isolated site is not conducive to the mission of a Central Maintenance facility and these sites should be discounted from consideration.

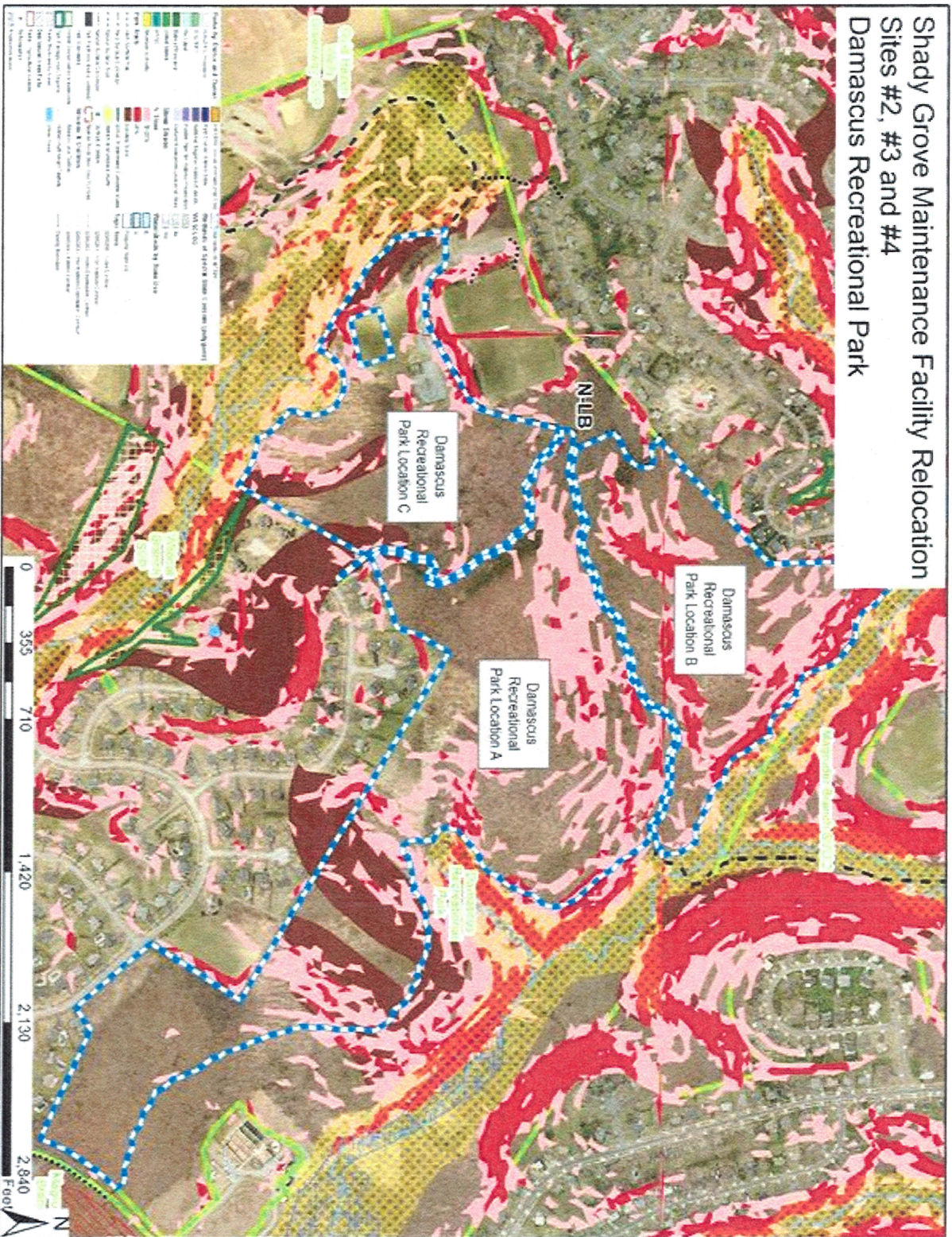
In addition to being far removed from the rest of the park system, some of the discounted candidates have other issues that make them even less suitable candidates. Specifically, the Patuxent River Watershed Conservation Park sites are within the Patuxent River Primary Management Area, a designation similar to a Special Protection Area which strictly limits the amount of impervious surface that may be constructed. Northwest Branch Recreational Park is currently in the final stages of the park master-planning process. The addition of a maintenance facility is not consistent with this park master plan and with the plans for the proposed Inter-county Connector (ICC) which is planned for the area.

Further analysis of candidate sites A, B and C revealed additional problems. Access to the site in Crabb's Branch SVP (Candidate C) is impossible without building a road either through the environmentally sensitive areas of the stream valley or through the adjacent Needwood Golf Course. Rock Creek SVU 6 (Candidate B) would require substantial improvements to an existing park road which travels through environmentally sensitive areas as well as construction of a larger bridge across the main stem of Rock Creek. Also, 1.6 acres of land in Rock Creek SVU 6 has been reserved as a reforestation site as part of the mitigation package for the planned pedestrian bridge carrying the Rock Creek Trail over Veirs Mill Road. The exact location of the 1.6 acre parcel has yet to be determined. Lastly, certain future improvements at Lois Y. Green Conservation Park (Candidate A) are precluded by deed restrictions.

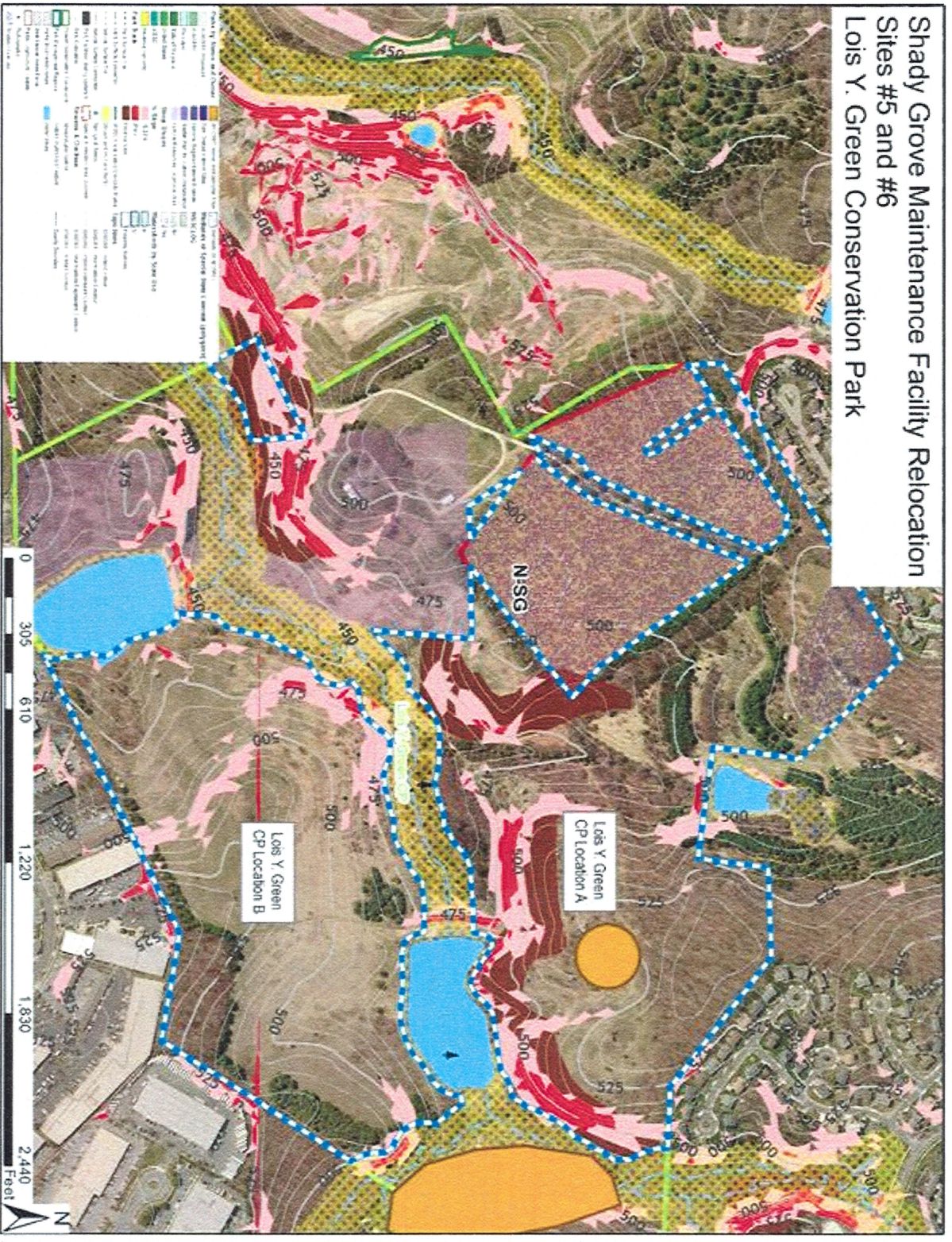
Shady Grove Maintenance Facility Relocation Site #1 Crabbs Branch SVP



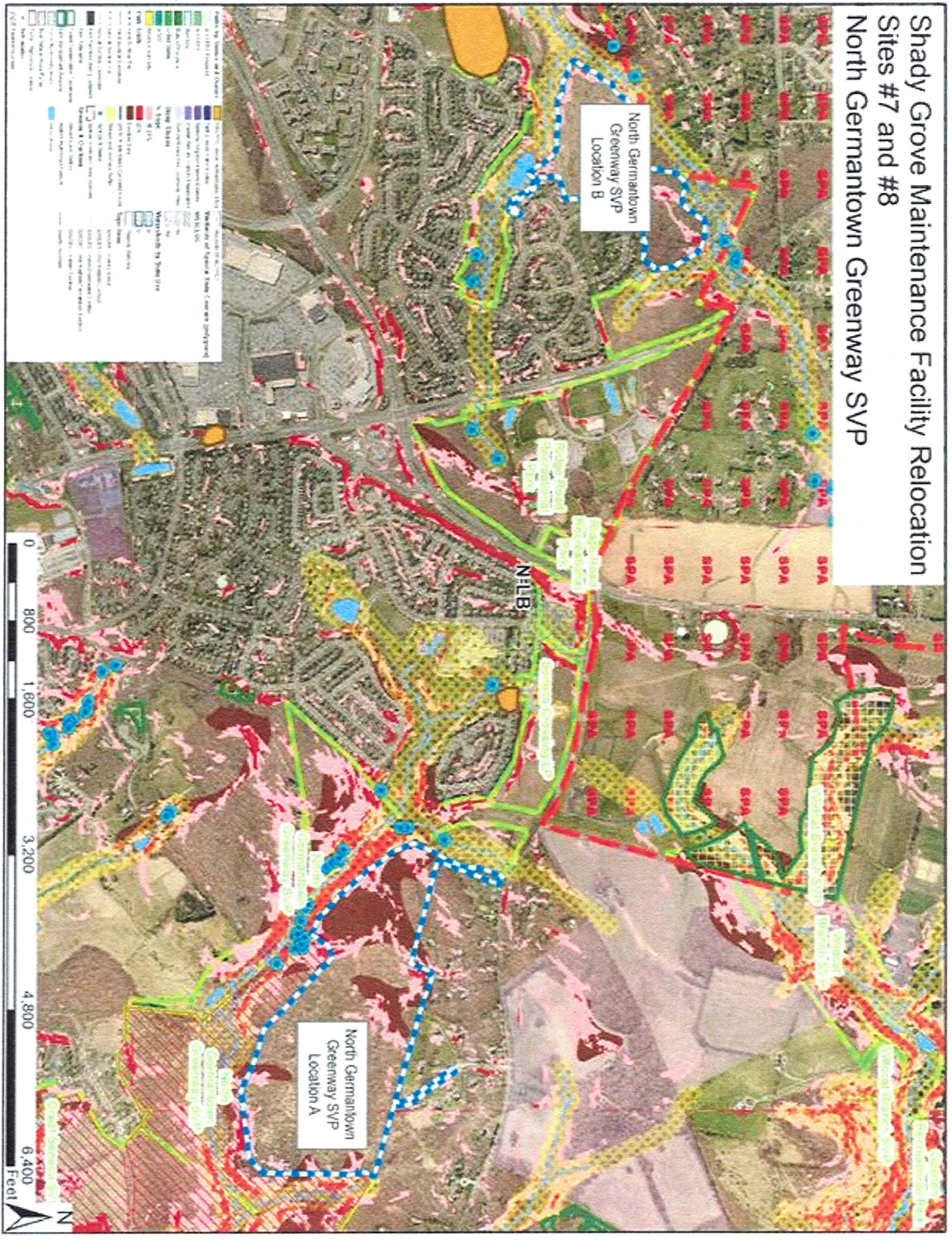
Shady Grove Maintenance Facility Relocation Sites #2, #3 and #4 Damascus Recreational Park



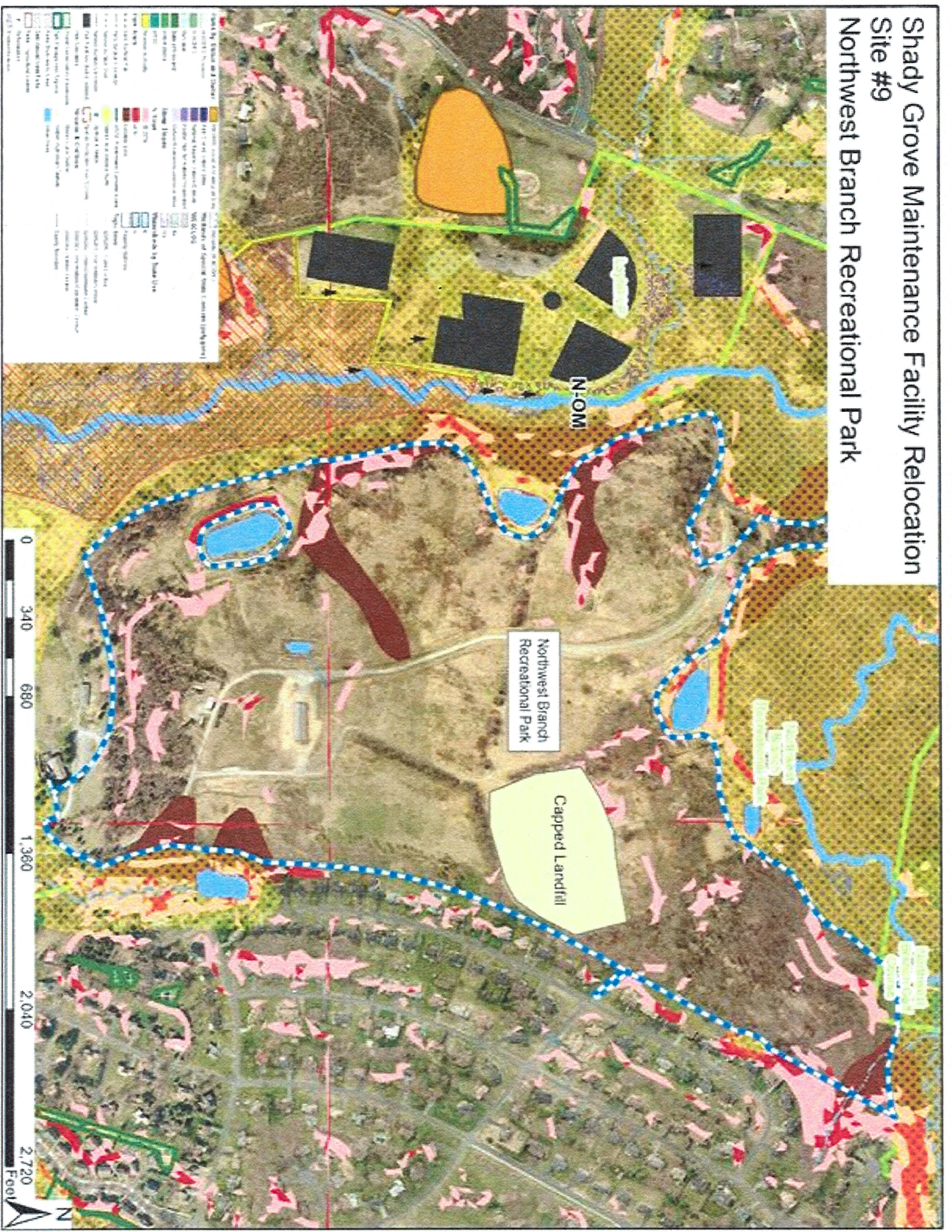
Shady Grove Maintenance Facility Relocation Sites #5 and #6 Lois Y. Green Conservation Park



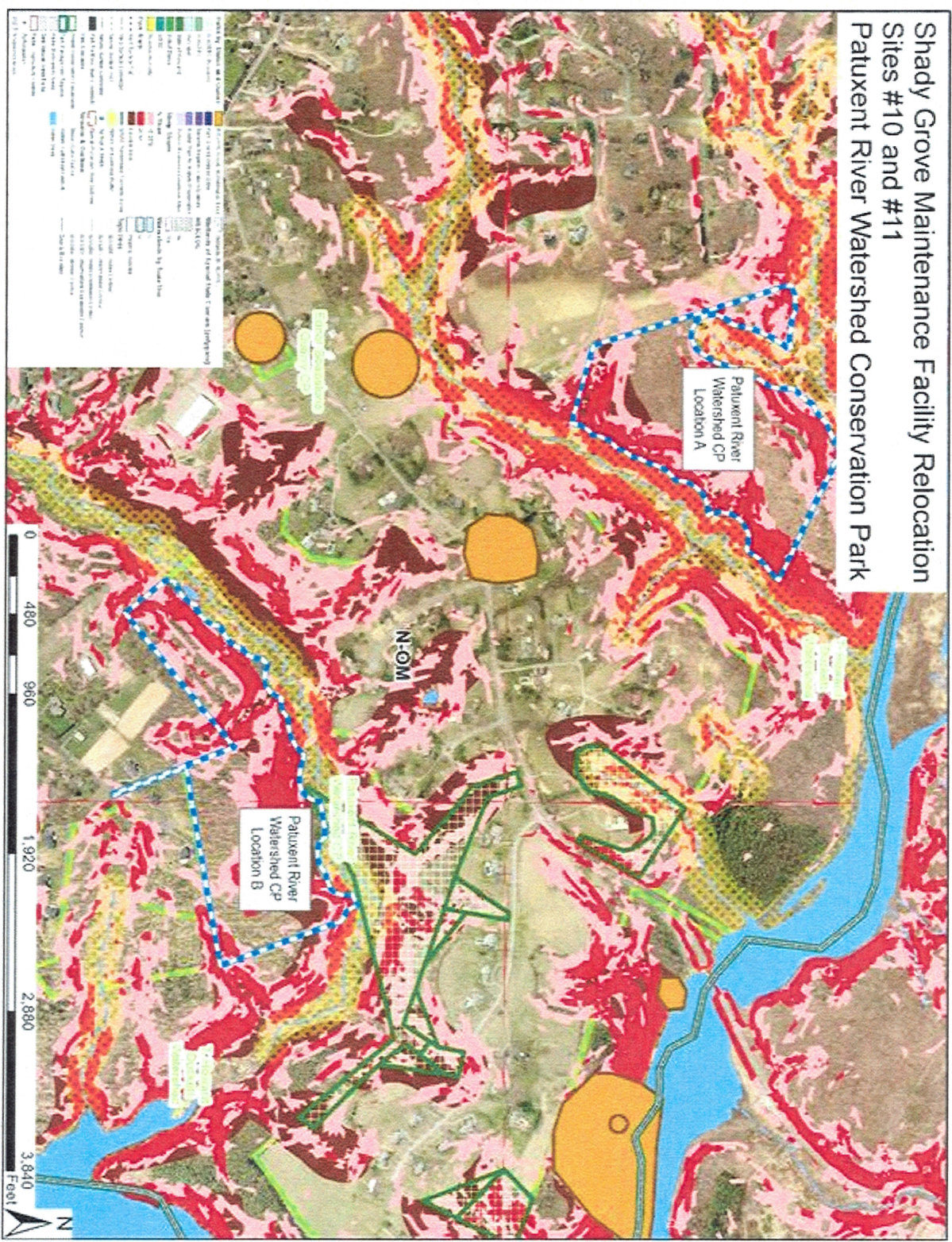
Shady Grove Maintenance Facility Relocation Sites #7 and #8 North Germantown Greenway SVP



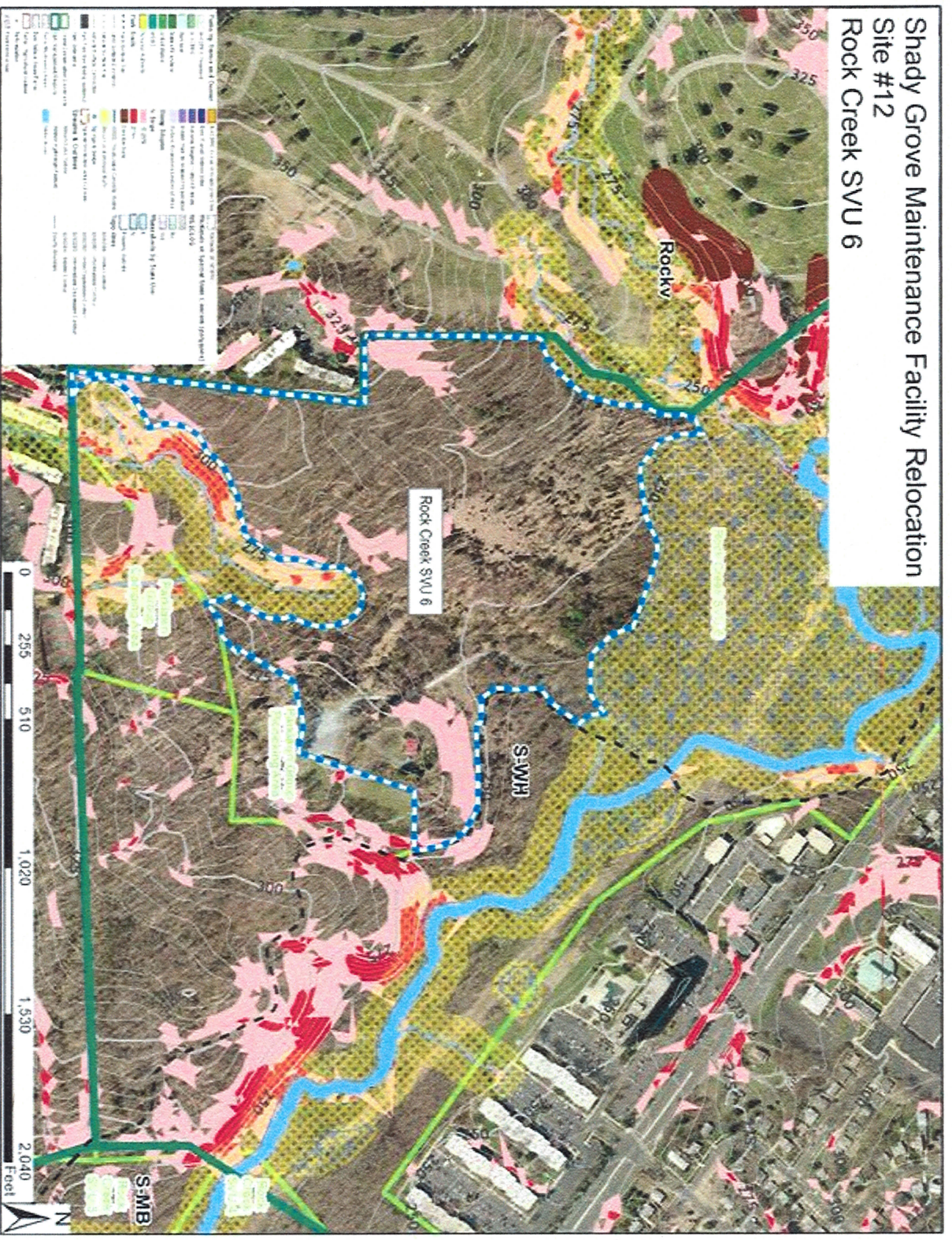
Shady Grove Maintenance Facility Relocation Site #9 Northwest Branch Recreational Park



Shady Grove Maintenance Facility Relocation Sites #10 and #11 Patuxent River Watershed Conservation Park



Shady Grove Maintenance Facility Relocation Site #12 Rock Creek SVU 6



Shady Grove Maintenance Facility Relocation Sites #13 and #14 South Germantown Recreational Park

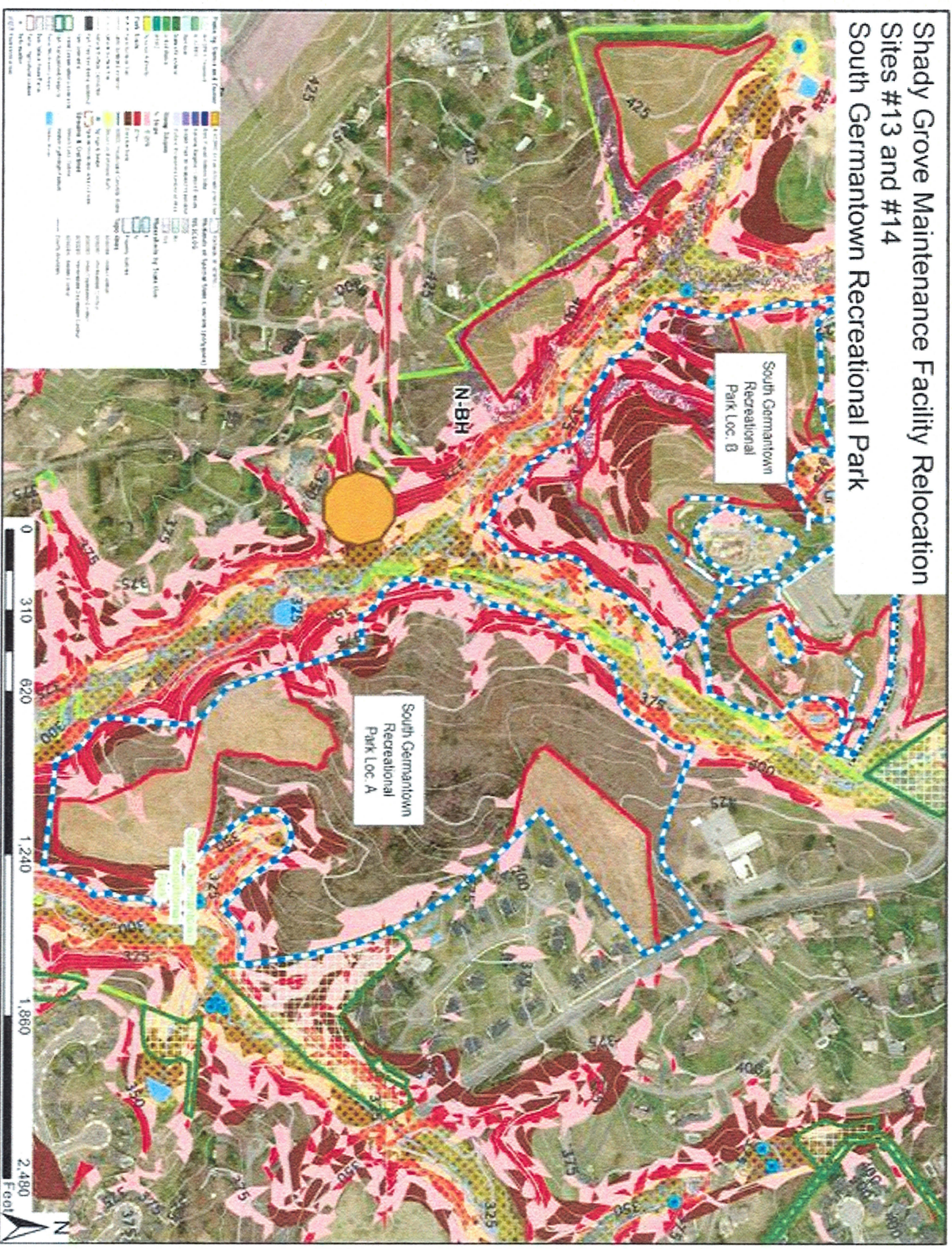


Figure 1
Shady Grove Complex

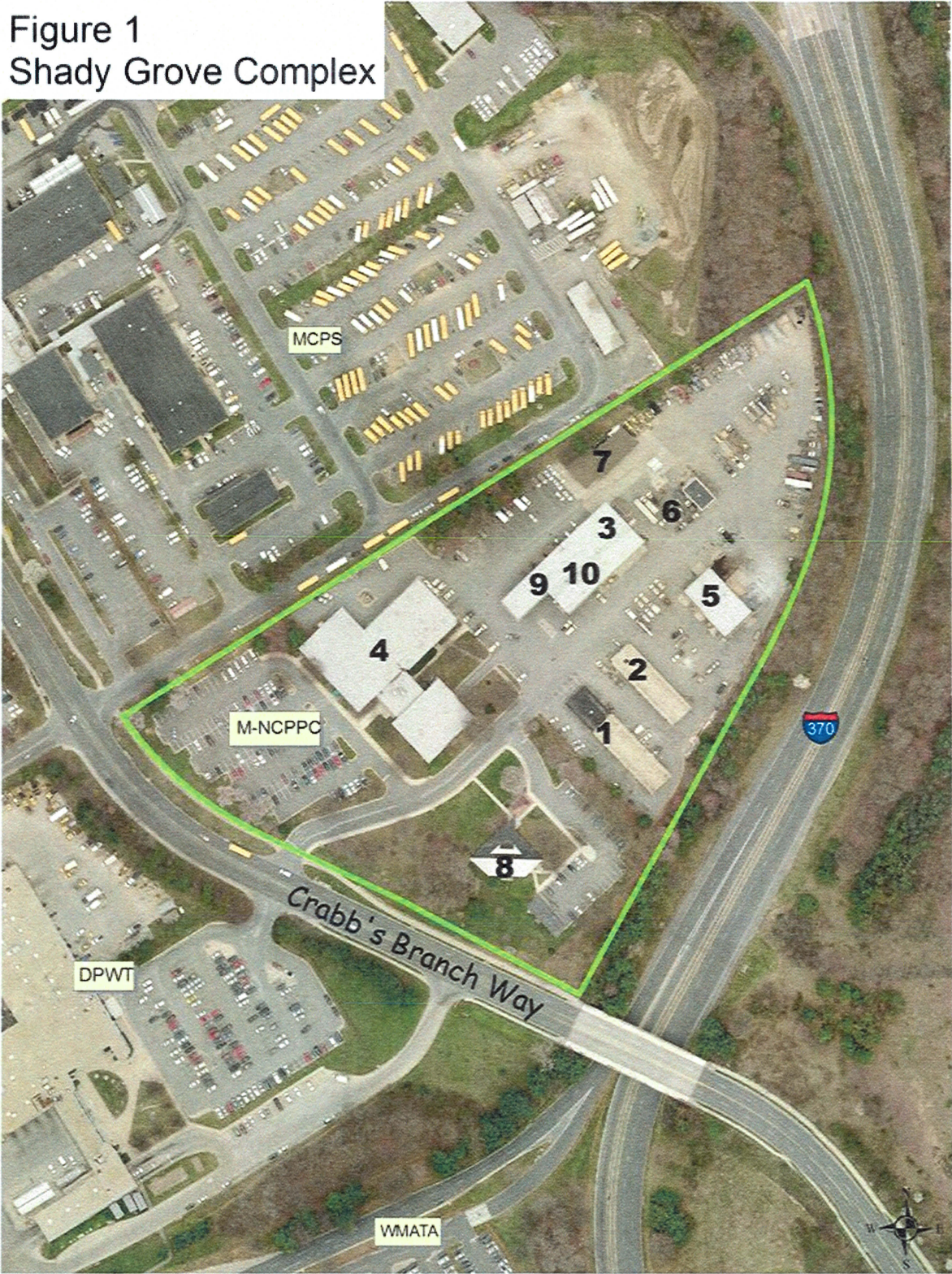


Figure 1 (continued)

Key to Numbered Buildings	
Facility Name	Number
Dry Storage Building	1
Landscaping and Equipment Storage Building	2
Fleet Management Building	3
Trades Management Building	4
Heavy Equipment Building	5
Vehicle Wash	6
Tire Storage Building	7
Administrative Offices	8
Mower Mechanics Bay	9
Welding Shop	10

Figure 2

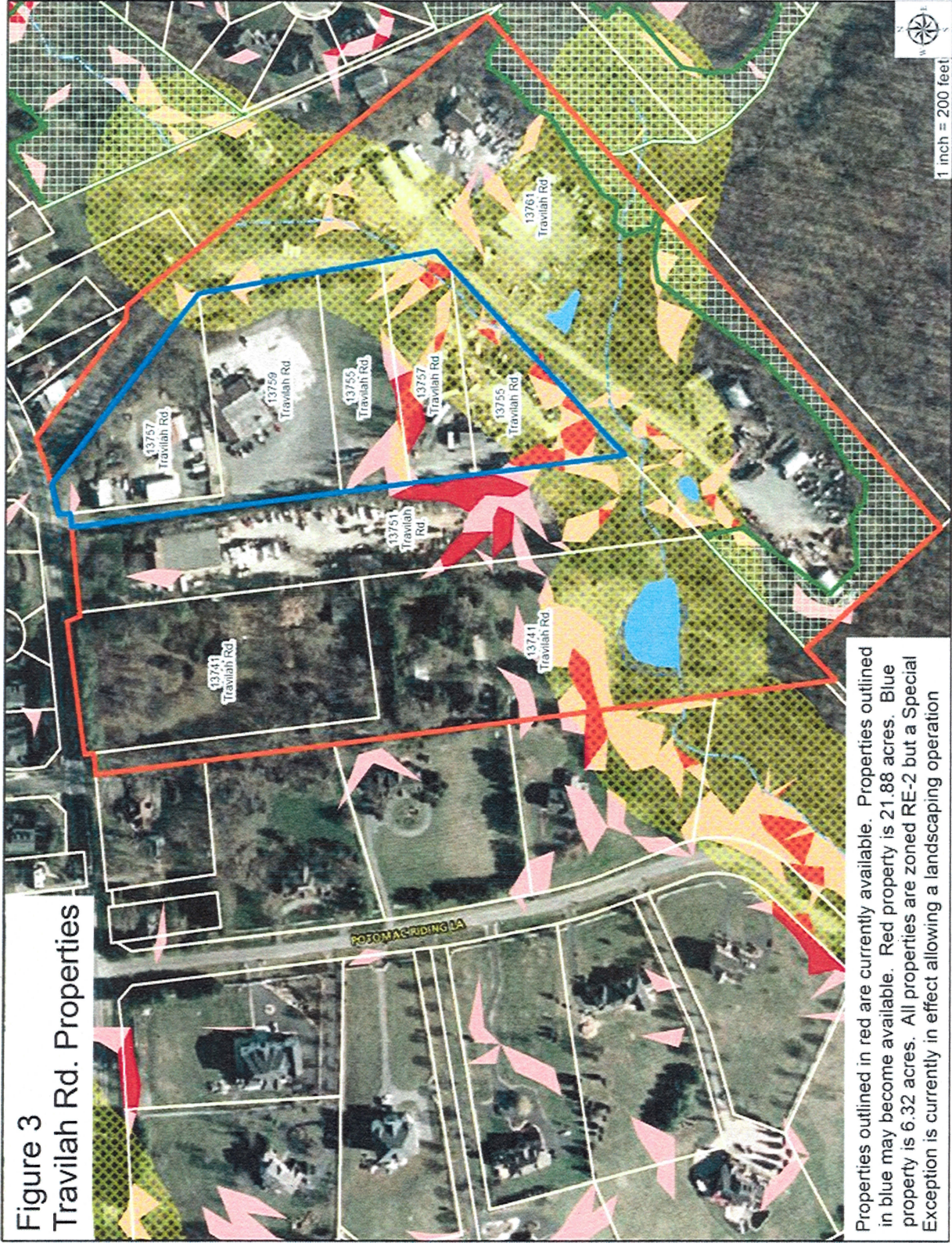


6/14/05/256
August 22, 2005

Miller and Smith
2401 Greenboro Drive, Suite 500
McLean, Virginia 22102

CENTER PARK
AIRPARK NORTH BUSINESS PARK
PRELIMINARY PLAN # L-0408
Montgomery County, Maryland

Figure 3
Travilah Rd. Properties



Properties outlined in red are currently available. Properties outlined in blue may become available. Red property is 21.88 acres. Blue property is 6.32 acres. All properties are zoned RE-2 but a Special Exception is currently in effect allowing a landscaping operation