

## IV. Context and Threats

While the previous pages offer an understanding of the twenty-five viewsheds selected for this study, including their histories and existing conditions, a broader context is needed. The following pages provide an overview of their context in terms of public policies, development trends, and the primary threats that endanger the integrity of these viewsheds.

### State and Federal Policies

#### State Level

Virtually all state regulations intended to protect historic and archeological resources are limited to actions taken on state lands. An example of such a law is the Virginia Antiquities Act. Consequently, such laws are not very relevant to viewshed preservation efforts for the Manassas Battlefield. Although protective regulations are limited at the state level, there are several funding programs for preservation related activities. These regulations will be considered later in this study when specific recommendations are provided for viewshed protection. Also, there is one particular state initiative that could negatively impact battlefield viewsheds – the proposed Tri-County Parkway. It is discussed later on page 131 in the section regarding threats to viewsheds.

#### Federal Level

One reason for the limited number of state-level regulations for protecting historic resources and associated viewsheds is the variety of such regulations at the Federal level. In fact, in some cases, full or partial responsibility for enforcing Federal regulations and implementing associated processes is delegated to the State of Virginia. In general, however, most Federal laws currently existing are designed to prevent the Federal government from damaging historic resources, so preservation is an issue integrated into its planning and review processes. Federal regulations that are supportive of Civil War resource protection efforts include the following:

#### *National Environmental Policy Act*

The National Environmental Policy Act (NEPA) and its various allied laws constitute a wide variety of regulations to protect the natural environment with respect to air, land and water pollution, and the protection of ecologically valuable resources from disturbance. Examples of key environmental laws which might inadvertently protect battlefield lands and their associated viewsheds are those which prohibit development within floodplains and/or wetlands. While these laws are not related directly enough to battlefield protection to serve as a major component of a viewshed preservation strategy, it is important that they not be overlooked in those instances when they may be the only means for saving historic viewsheds.

*National Historic Preservation Act*

Section 106 of the National Historic Preservation Act (NHPA) requires that a process be followed intended to offer protection to any historic resources either listed on, or determined eligible for, the National Register of Historic Places. This process is designed to identify and avoid, or at least mitigate, adverse impacts on historic resources. Unfortunately, “Section 106 Review” is limited to those projects involving Federal funds or licensing, such as Federal transportation funding, Community Development Block Grant (CDBG) funding, or an Army Corps of Engineers permit. In Virginia, the process is carried out by the Virginia Department of Historic Resources (DHR), with the Federal Advisory Council on Historic Preservation having the final word. While it offers little help for private sector activities not involving Federal funding or licensing, Section 106 Review can be a potentially valuable tool with regard to Federally licensed and funded projects. While it cannot always save an historic site or viewshed, Section 106 Review usually, at a minimum, allows for the documentation of the resource for future generations.

*Cooperative Agreements with Property Owners*

Although cooperative agreements would not technically be considered “regulatory tools” because they are a potential public policy vehicle for resource preservation, they have been included in this plan section. Cooperative agreements between the National Park Service (NPS) and private individuals and entities are one of

the most cost-effective methods for protecting historic resources and viewsheds, but also the least safeguarding. A typical scenario would be a farmer who will agree to preserve earthworks on his property and accept technical assistance from the NPS on their preservation in return for limited public access to the earthworks. The greatest limitation is that such written agreements can generally be terminated on relatively short notice.

*National Register/Landmark Designation*

While the Section 106 Review benefits of National Register designation or eligibility were previously addressed, there are additional benefits to such status. Listing or eligibility for the National Register also makes available Federal investment tax credits for the qualified rehabilitation of historic buildings. National Landmark designation is very similar to National Register designation, but it is applied to only the most nationally significant resources. As truly unique resources that played a key role in American history, many of Virginia’s Civil War battlefields are designated as National Landmarks. Under some state and local historic preservation grant programs, National Historic Landmarks receive a higher priority for funding than National Register properties.

In researching national designations through the National Register Information System (NRIS) database, a number of sites related to the battlefield were found. Properties listed under “Civil War

Properties in Prince William County MPS” (Multiple Property Submission) that may relate to this project include the following:

<u>Property Name</u>	<u>Municipality</u>
Cannon Branch Fort	Manassas
Louisiana Brigade Winter Camp	Manassas Park
Mayfield Fortifications	Manassas
Mitchell’s Ford Entrenchments	Manassas Park
Orange & Alexandria RR Bridge Piers	Manassas Park
Signal Hill	Manassas

Two of these sites, Mayfield and Signal Hill, are among the fifteen historically based viewsheds (HBV) that are a focus of this study. Within the list of properties in Fairfax, one is the “Manassas Battlefield Historic District” and the other is the “Manassas National Battlefield Park.” Despite how the park is geographically designated within the National Register listings, it is noteworthy that most of the park lies within Prince William County.

*Condemnation*

This regulatory tool exists not only at the Federal level, but at the state and local levels of government as well. Condemnation is based upon the concept of “eminent domain,” which asserts that it is acceptable for a government to take private property, or specific property rights, from property owners if: 1) the taking is in the best interest of the public welfare, and 2) the owner is fairly compensated. Although condemnations can result in years of legal maneuvering in order to arrive at a fair market value price, the actual acquisition of the land can occur at the front end of the

process in a relatively short period of time. The most common forms of condemnation are for road building and utility easements. It can also be used for acquiring battlefield lands and their associated viewsheds, although the National Park Service has rarely elected to use this tool in recent years. Whether done at the Federal, state or local level, condemnation is generally very unpopular, and considered an option of last resort.

*NPS General Management Plan*

A draft General Management Plan (GMP) was completed for the battlefield park in September of 2005 to guide policy decisions for the next fifteen to twenty years. As with most GMPs, it offers multiple alternatives. The three alternatives for this plan include Alternative A, the “no action alternative,” and two “action” alternatives. Alternative B – “The Two Battles of Manassas” – interprets the battles as two distinct events. Considered to be the preferred alternative, it would utilize the existing visitors center at Henry Hill to interpret the First Battle of Manassas, while a new second visitors center would interpret the Second Battle of Manassas. Alternative C – “The Defining Moments of the Battles of Manassas” – would focus on “watershed” events from both battles. It would remove the existing visitors center and build a single new visitors center near the Stone Bridge. Both Alternatives B and C propose removing commuter and truck traffic from US Route 29 and VA Route 234.

Perhaps the most significant recommendation of the draft GMP relative to this viewshed preservation study is the ‘revitalization” of the historic landscape. As the GMP map contained on page 13 of this study reflects, the battlefield’s landscape during the 1860s was different than today’s landscape. In general, there were fewer

wooded areas, although some open areas today were wooded during the battles. Consequently, the NPS has a plan to at least partially restore the historic landscape. Illustrated on page 14 of this study, the revitalization plan has already begun.



The Brawner Farm is one of several areas within the park where the historic landscape is being partially recreated.

**Local Policies**

The national battlefield park exists within two counties – Prince William and Fairfax. However, based upon the many viewsheds being studied, the local policies within Loudoun and Fauquier are relevant, as are the policies of the City of Manassas. Below is a summary of their comprehensive plans, zoning and development regulations to the extent they impact the viewsheds. It is also noted for each local government which of the ten identified Public Vantage Points (PVPs) have viewsheds that extend beyond the NPS boundaries and into their jurisdictions. While the NPS is immune to local land use laws, most of these viewsheds extend well beyond the NPS boundaries.

Prince William County

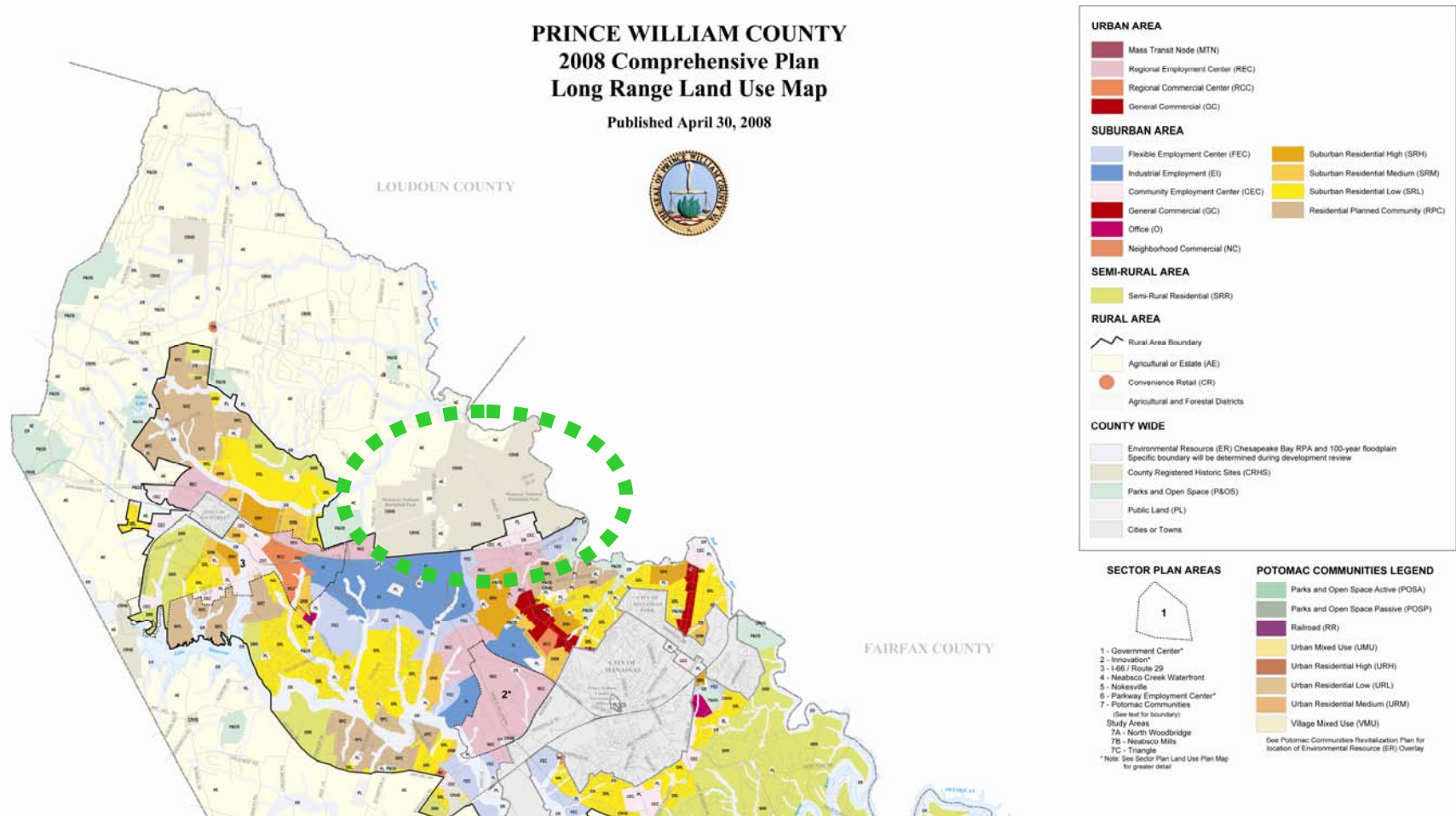
Lands in this county lying outside of the NPS boundaries can be viewed from all ten (10) of the Public Vantage Points (PVPs), as follows:

- Matthews Hill
- Henry Hill
- Van Pelt
- Brawner House
- Deep Cut
- Sudley
- Stuart’s Hill
- Artillery Position
- Chinn Ridge
- Portici

*Comprehensive Plan*

The 2008 Prince William County Comprehensive Plan was officially adopted by the Board of County Supervisors on March 18, 2008. The land use element of the plan starts by distinguishing between “The Development Area” of the county and “The Rural Area.” Each of these two key categories has numerous sub-categories based upon existing and proposed land uses, densities and character. As the map on the following page indicates, lands to the immediate north and west of the national park are proposed for Agricultural and Estate uses, which are relatively favorable designations in light of viewshed preservation. However, the lands to the immediate south of the park, capitalizing on I-66 access, are proposed for industrial and office park development. Such uses are clearly incompatible with viewshed preservation efforts.

Another issue of concern included in the land use element of the comprehensive plan is the existing and proposed route for high voltage electrical transmission lines. This issue will be addressed in more detail later in this chapter under the heading “Key Threats to Viewsheds.” However, as the map page 131 reflects, an existing/proposed route traverses the national park along a north-south axis. Given their existing average height of 100 feet, these lines and their supporting frameworks are a primary threat to the integrity of the battlefield’s viewsheds.



Northern half of the Prince William County land use plan - 2007 .

Source: Prince William County Comprehensive Plan

While the comprehensive plan's community design element does address numerous gateways and corridors, such as the Buckland segment of Route 29 lying west of the battlefield, it does not address areas within close proximity to the battlefield. This element includes a section on office development. Although it does not specifically address building heights, it suggests a "human scale" at the street level, and the images of positive examples tend to be in the five-story range.

The cultural resources element of the plan recommends that the County develop a "viewshed policy around County Registered Historic Sites (CRHS) and criteria for implementing that policy." The national park and Bristoe Station are both designated as CRHSs, but adjacent lands around them, including their viewsheds, are not. The element goes on to recommend other policies supportive of battlefield viewshed preservation, including conducting a viewshed analysis, buffering to protect the integrity of historic resources, preserving vegetation, utilizing clustered development to preserve open space, and considering low-impact land uses near historic lands, including battlefields.

#### *Zoning & Development Regulations*

The publication date of the county's zoning map is May of 2007, nearly a year before the most recent comprehensive plan. Given the comparative dates, some differing land use category names, and differences between how various parcels have been classified, it is apparent that the current zoning has yet to be updated to reflect the

latest comprehensive plan.

In contrasting the comprehensive plan with the existing zoning, much of the land use classification has remained the same north of the battlefield (low-density residential and agricultural) and to the southwest (industrial). However, the comprehensive plan has reclassified some lands to the southeast of the battlefield from general business zoning to office uses. Although office developments are often designed in a manner that yields more landscaping and open spaces relative to retail, office buildings tend to be taller than retail buildings. Nevertheless, based upon the current zoning, buildings in the General Business zone and in the Office zone are both limited to a maximum of 45 feet. Industrial lands, on the other hand, are currently allowed to go as high as 75 feet with their buildings.

Two provisions within the existing zoning that may have good potential for future viewshed protection efforts include: 1) the proffer system for achieving certain planning and design concessions as part of the development approval process; and 2) battlefield viewshed protection area designation, which could conceivably be tailored for viewshed protection for comprehensive plan amendments, rezoning and Special Use Permits.

#### Fairfax County

Lands in this county lying outside of the NPS boundaries can be viewed from the following eight (8) Public Vantage Points (PVPs):

Matthews Hill  
Henry Hill  
Van Pelt  
Deep Cut  
Sudley  
Artillery Position  
Chinn Ridge  
Portici

*Comprehensive Plan*

The “Policy Plan” of the county’s comprehensive plan is the 2007 “edition.” This plan is based upon a 1988 plan that was edited through 2002. In accordance with state planning laws, it covers the same basic issues (plan elements) that are addressed in Prince William County’s comprehensive plan. This plan also splits the county up into four distinct planning areas, and Area III is the one that borders the battlefield along Bull Run Creek and the county’s southwestern edge. Objective #14 within the plan’s land use element includes multiple policies that are supportive of viewshed protection, including:

Policy c. – Achieve compatible transitions between adjoining land uses through the control of height and the use of appropriate buffering and screening.

Policy d. – Employ a density transfer mechanism to assist in establishing distinct and compatible edges between areas of higher and areas of lower intensity development, to create open space...

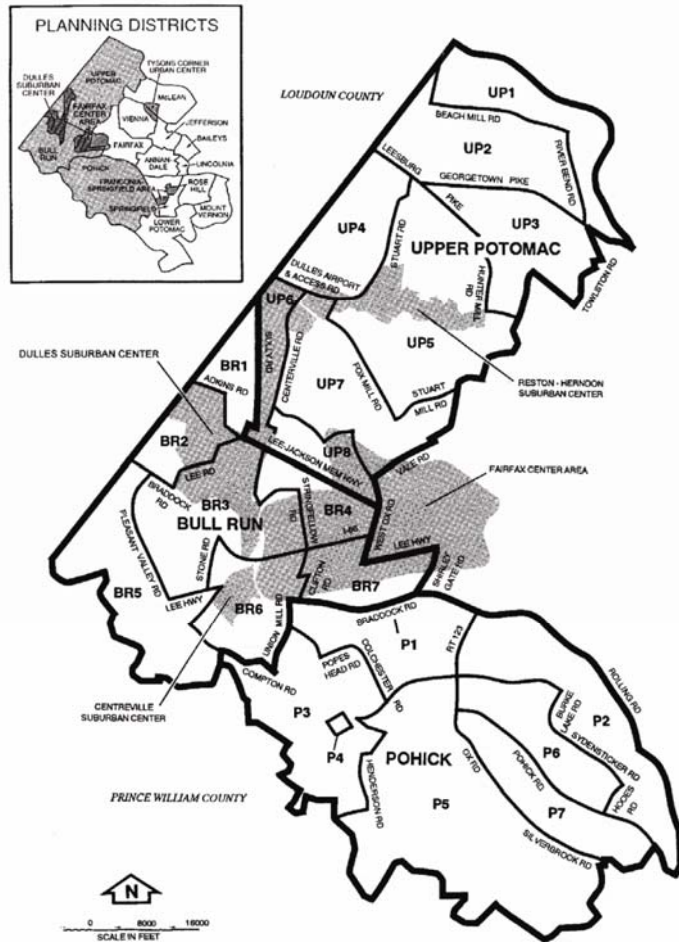
Policy j. – Use cluster development as one means to enhance environmental preservation...

Under the subject of Conservation the Fairfax County Open Space / Historic Preservation Easements Program is discussed as part of Objective #17. Also, Appendix 9 of the plan – Residential Development Criteria – includes a section 8: Heritage Resources. This section encourages preservation, including the use of easements to protect historic resources. There is also a separate Heritage Resources element to the plan that is very general in nature and does not specifically address battlefield viewsheds.

Although there are separate plan elements for the county’s four planning areas, including Area III (closest to the battlefield), there are no specific policies relative to viewshed protection. There is also no proposed land use map. There are height provisions for lands near the Dulles Airport, but because they entail height limits of 200 feet and 500 feet (depending upon various circumstances), they are not very helpful to viewshed protection. Likewise, the subject of historic resources is deferred to the Heritage Resources plan element.

*Zoning & Development Regulations*

While an overlay zoning district map is available for review via the County’s website, the underlying land use zoning map is not. Until such a map can be obtained, no conclusions can be drawn relative to the county’s zoning and how it might relate to battlefield viewshed protection.



Planning Area III – Fairfax County.

Source: Fairfax County Comprehensive Plan – Area III Plan Element, pg. 2

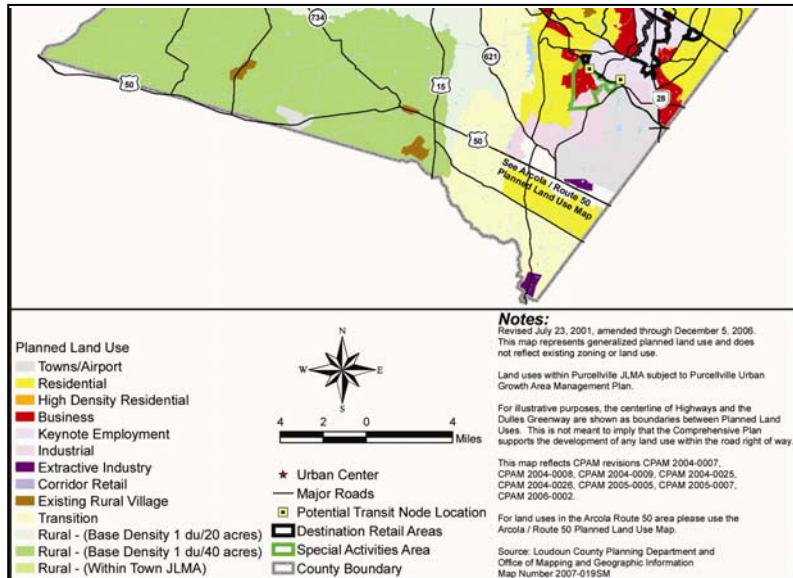
Loudoun County

Lands in this county lying outside of the NPS boundaries can be viewed from the following four (4) Public Vantage Points (PVPs):

- Henry Hill
- Van Pelt
- Sudley
- Portici

Comprehensive Plan

Loudoun County's comprehensive plan was last updated in 2007 (see map on following page). The proposed land use map designates the most southerly corner of the county – the lands closest to the battlefield park – as “Extractive Industry.” This classification reflects the existing rock quarry. The balance of lands closest to the park is designated as “Transition.” The plan describes this classification, which is a subset of the broader “Suburban” category, as areas that are now relatively undeveloped and served by wells and/or septic systems, but the plan is for them to transition to “central” sewer and water systems for more substantial residential development. While more intensive zoning categories are located to the immediate north of the Transition area, including Residential, Towns/Airport, and Industrial, it is noteworthy that an extensive area located to the immediate west of this area is designated as Rural with a density of one (1) dwelling unit per forty (40) acres. For the purposes of battlefield viewshed protection, it is unfortunate that such a designation could not have been extended further east and adjacent to the battlefield park.



Southern half of the Loudoun County land use plan - 2007 .  
 Source: Loudoun County Comprehensive Plan

**Zoning & Development Regulations**

The County’s current zoning ordinance was prepared in 1993 and features revisions through 2007. With the exception of the southeast corner of the county, the southern end of the county is zoned AR-2. This area is geographically consistent with the area designated as “Rural” (one dwelling unit per 40 acres) in the county’s comprehensive plan. AR-2 allows agricultural uses (including agriculture-related businesses such as wineries and equestrian centers), certain institutional uses, and low-density residential uses. A broad range of special exception uses are also tied to AR-2 zoning, including radio

and/or television towers and telecommunication transmission towers. Consistent with the comprehensive plan, AR-2 zoning has a density limit of one dwelling unit per acre and a building height limit of 35 feet. There is also a “cluster subdivision option” that permits a lot yield up to one lot per 15 acres. This option requires that a minimum of 70% of the property consist of “Rural Economy Lots” and/or common open space, and lots shall be configured in clusters of 5 to 25 lots. Minimum cluster lots sizes range from 40,000 square feet to having no minimum, depending upon the approach to the provision of water and sewer.

Although the AR-2 zoning is relatively friendly toward viewshed preservation efforts, zoning for the southeast corner of the county, as reflected by the land use plan at left, is more challenging. The key zoning districts existing in the southeast corner of the county, which is the portion closest to the national park, include the MRH1, TR3UBF, PDH3 and TR3LF. Below is a brief summary of each:

**Mineral Resource - Heavy Industry (MR-HI)**

This zoning is designed to permit the existing rock quarry and similar uses, such as agriculture, asphalt plants and saw mills.

**Transitional Residential – 3 (TR-3UBF)**

The intent of the overall TR-3 zone is to provide a transitional area between suburban and rural areas. The UBF sub-district features a required minimum of 50% open space and allows a wide variety of residential and agriculture-related uses. It also has a maximum 0.05 floor area ratio (FAR) and a 40 foot building height limit.

Transitional Residential – 3 (TR-3LF)

This sub-district of the Transitional Residential zone is nearly identical to the TR-3UBF sub-district described above.

Planned Development – Housing (PD-H3)

The PD-H3 sub-district allows a wide variety of housing types at a low-density, as well as other supporting uses such as retail and offices. There is a maximum FAR of .40 for all non-residential uses, a minimum of 30% of the site must be open space, and retail and office uses may not exceed 3% of the site’s total land area.

Fauquier County

It is noteworthy that this county is located a substantial distance from the battlefield park and no portion of it directly abuts the park. However, because of high elevations existing along its easterly edge, portions are visible with several battlefield viewsheds. Lands in this county lying outside of the NPS boundaries can be viewed from the following four (4) Public Vantage Points (PVPs):

- Matthews Hill
- Henry Hill
- Van Pelt
- Artillery Position

*Comprehensive Plan*

Fauquier County has prepared a total of three comprehensive plans over the years – 1967, 1977 and 1989. The current plan is referred to as the “1992-2010 Plan Review,” which is an update of the 1989 plan.

Rather than having a specific land use plan within their comprehensive plan, they simply refer to their existing zoning map, which is summarized below.

*Zoning & Development Regulations*

The majority of lands located closest to the battlefield park – the eastern portion, are zoned Agricultural. There are also several locations in this area designated as Conservation and Service District. The latter includes residential areas with densities of .9 units per acre or higher. While specific densities are not defined for Agricultural lands, the plan indicates that “agriculture and forestry are the predominant uses,” along with “large lot farmette type residential development.” The Conservation classification is described as “mountains which are environmentally sensitive, have physical limitations, and contain much of the County’s timber resources.” While conservation is emphasized in such areas, this zoning does allow “compatible very low density residential uses.” The zoning ordinance indicates that a minimal (but unspecified) amount of open space is required for both conventional residential development and clustered development. Such open spaces are typically protected through conservation easements, most of which are held by the Virginia Outdoors Foundation (VOF). A total of 31,000 acres were protected by easements at the time of the comprehensive plan’s writing.

City of Manassas

Lands in this independent city lying outside of the NPS boundaries can

be viewed from the following four (4) Public Vantage Points (PVPs):

Deep Cut  
Artillery Position  
Chinn Ridge  
Portici

*Comprehensive Plan*

The City's 2002 plan is currently being updated per state laws. While the process is intended to be a plan update rather than a rewrite, it is expected that the next update in approximately 2013 will be a complete rewrite. Because of the "moving target" nature of the current plan, this summary of the City of Manassas's planning policies will be on the existing zoning, even though it too will eventually change following the updated plan's adoption.

*Zoning & Development Regulations*

The zoning map for the City of Manassas is unavailable.

City of Manassas Park

The vast majority of Manassas Park is already developed. Lands in this city lying outside of the NPS boundaries can be viewed from the following three (3) Public Vantage Points (PVPs):

Artillery Position  
Portici  
Signal Hill

*Comprehensive Plan*

The City's previous plan was adopted in 1984 and had major updates in 1990. The current plan was adopted in November of 2007. The land use element proposes nine different land use categories. Most categories entail relatively intensive land uses (commercial, industrial, multi-family, etc.), with the exception of Open Space and Recreation. The main area designated Recreation is an existing golf course on the northerly edge of the city, while areas where Open Space has been applied are very limited and peripheral to single-family residential areas.

*Zoning & Development Regulations*

While a zoning map for this city is not available on their website, given the "built-out" nature of this community, the zoning districts are (or soon will be) undoubtedly consistent with the 2007 comprehensive plan designations summarized above. The most significant zoning issue related to viewshed preservation in Manassas Park is permitted building heights. The General Business, Multi-Family, Mixed Use, and Public Facilities districts permit a maximum height of 45 feet. PUDs allow buildings as high as 58 feet, and the Industrial district has a height limit of 60 feet. Most other areas, such as single-family residential, have a maximum height of 35 feet. While zoning provisions exist for industrial uses and planned unit developments, no such areas have been designated on the comprehensive plan's land use map. There are significant areas designated on the land use plan as commercial and multi-family, and a substantial area centrally located

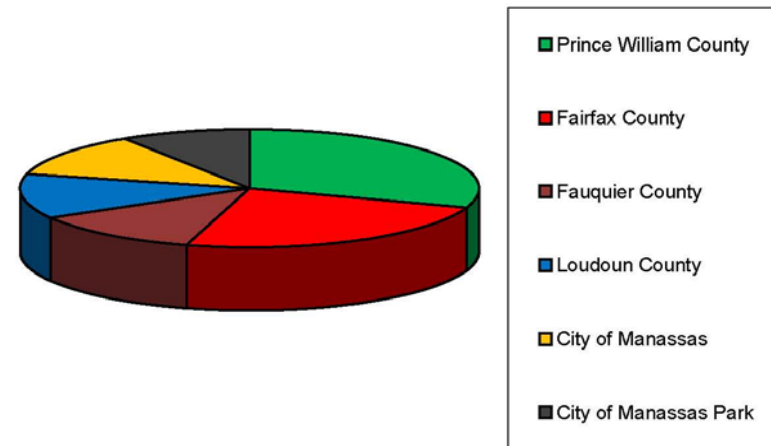
within the city is designated in the comprehensive plan as “Town Center,” which is a classification not presently existing in the zoning ordinance. This designation is being applied to a proposed town center development called “Park Center,” but building heights are not included within the description of this development in the comprehensive plan.

Summary

Of the four counties and two independent cities that have land lying outside of the NPS boundaries, but within the viewsheds of one or more of the subject PVPs, below is a list of the number of PVP viewsheds per municipality:

- Prince William County - 10
- Fairfax County - 8
- Loudoun County - 4
- Fauquier County - 4
- City of Manassas - 4
- City of Manassas Park - 3

**Number of PVP Viewsheds Per Municipality**



These numbers are significant in that this study’s subsequent preservation recommendations will likely include revisions to certain land use and development regulations of the relevant local governments. Such an approach will require substantial time and effort on the part of this plan’s implementing parties, perhaps causing a need to prioritize and phase efforts. These numbers indicate that the greatest priority, at least initially in order to pick the “low hanging fruit,” should be given to the policies of Prince William and Fairfax Counties.

**Growth and Development Trends**

The greatest threat to this nation’s Civil War battlefields and their viewsheds is development. According to the Civil War Preservation Trust, a non-profit nation-wide battlefield preservation group, “Thirty acres of Civil War battlefield land are destroyed every day.” While many of the Manassas Battlefield’s viewsheds are currently intact, they are clearly threatened by future growth and development. Thus, below is a summary of the area’s growth and development trends.

Although the Manassas Battlefield and its viewsheds are tied to multiple counties and cities, the single county most directly impacting this viewshed study is Prince William County. Not only does most of the national park lie within this county, but it is the only jurisdiction with lands that are visible from all ten Public Vantage Points (PVPs) being studied here. Furthermore, the growth and development trends here are generally consistent with that of other relevant counties, such as Fauquier and Loudoun Counties (it is acknowledged that much of Fairfax County is already built out). Thus, much of the focus on growth and development trends impacting the battlefield will be based upon data from Prince William County.

***“Thirty acres of Civil War battlefield land are destroyed every day.”***

Civil War Preservation Trust

Demographics

The following data is from the Prince William County Department of Economic Development.

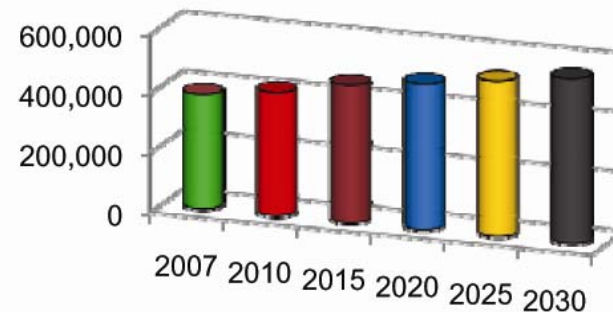
*General Demographics – Prince William County*

Current Population:	346,790
Median Age:	32
Median Household Income (2006):	\$80,783
Per Capita Income (2006):	\$33,319

*Population Growth – Prince William County*

Dec. 2007 population (estimate)	386,047
2010 population (forecast)	415,763
2015 population (forecast)	463,343
2020 population (forecast)	491,456
2025 population (forecast)	523,668
2030 population (forecast)	555,012

**Population Growth Projections: Prince William County**



As of 2000, Fairfax County had the largest population of all Virginia counties (969,749), while Prince William County had the third largest

population (280,813). However, the latter is catching up. Between 1990 and 2000, Fairfax County experienced a 18.5% population growth, while Prince William County had a 30.2% growth rate for the same period. These statistics are from the U.S. Department of Commerce, Bureau of the Census.

Housing Development

According to the U.S. Census, there were 98,052 housing units in Prince William County in 2000. That number reflected an increase of over 23,000 units between 1990 and 2000. That 31% increase mirrored the 30.2% population growth. As of December 2007, there were an estimated 134,516 housing units in the county, representing a 36,464 unit increase since 2000.

*Occupancy & Tenure – Prince William County (2000)*

Occupied Units	94,570 (96.4%)
Owner-Occupied Units	67,787 (71.7%)
Renter-Occupied Units	26,783 (28.3%)

*Housing Types – Prince William County (2006 – Bureau of the Census)*

Single-Family Detached	76,708 (57.0%)
Townhouses	35,009 (26.0%)
Multi-Family Units	22,799 (16.9%)

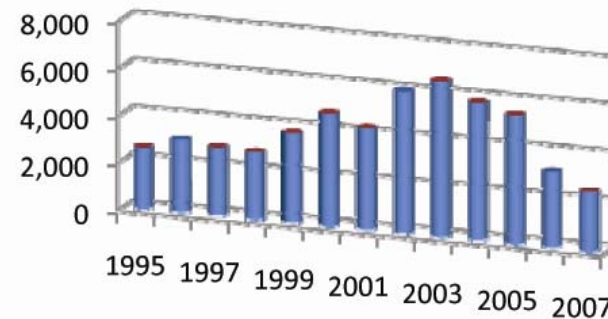
*Median Value: Owner Occupied Units – Prince William County (2006 – Bureau of the Census)*

Prince William County	\$441,400
Virginia	\$244,200
United States	\$185,200

*Housing Building Permits: # Units – Prince William County (Bureau of the Census)*

2007	2,491	2000	4,758
2006	3,191	1999	3,776
2005	5,427	1998	2,825
2004	5,822	1997	2,881
2003	6,572	1996	3,061
2002	6,012	1995	2,581
2001	4,301		

**Housing Building Permits: Prince William County**



**Key Threats to Viewsheds**

At present, most of the viewsheds associated with the Manassas Battlefield, as viewed from within the national park, are relatively well preserved. In fact, many have a very high level of integrity. Those having the lowest level of visual integrity are located along the southern edge of the park where development associated with I-66 is visible, such as Portici (PVP #10) and the W. Lewis House (HBV H). On the other hand, most of the historically based viewsheds (HBV) having viewshed anchors located outside of the national park currently have a low level of visual integrity, including Centreville Heights (HBV K),

Signal Hill (HBV L), Mayfield Fort (HBV J) and Bristoe Battlefield (HBV O). There are four primary threats to the battlefield's viewsheds: 1) development, 2) overhead utilities and towers, 3) road expansions, and 4) a landfill.



*Despite the well-intended name of this business park, development on the perimeter of the battlefield is the greatest threat to its viewsheds.*

### **Development**

The two key issues related to development – local land use regulations and current growth trends, have both been addressed previously. With respect to growth trends, the rate of residential development has declined from its peak in 2003, particularly during the past year because of the nation-wide economic downturn. However, even in this national residential market slump currently existing, the area's location within the D.C. metro area insures that significant residential growth will

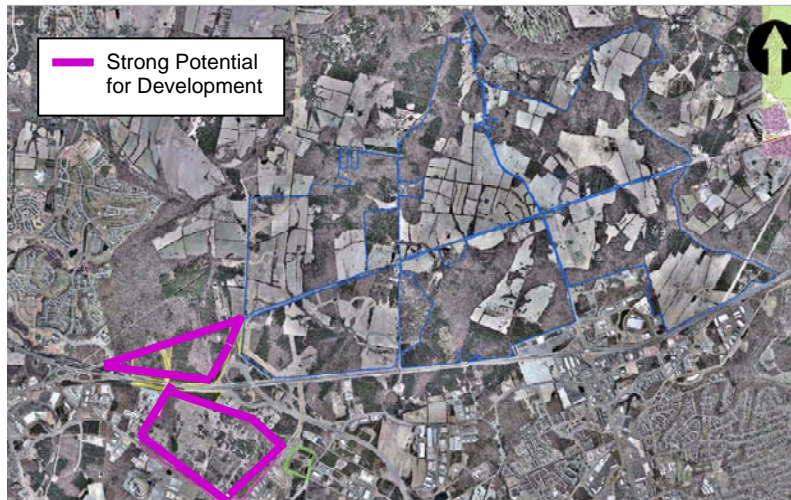
resume in the future. Likewise, there will again be healthy growth in the retail, office and lodging sectors. With respect to local land use and development policies, it is clear that none have been written with battlefield viewshed protection in mind. In the case of Prince William County, the current zoning immediately southwest of the battlefield park is agricultural, which allows low-density residential development (minimum 10-acre lots). However, because the new comprehensive plan designates this area as commercial, the door is opened for uses that will negatively impact viewsheds.

Threats to the integrity of viewsheds from development come in two dimensions: horizontally and vertically. To the extent that the ground level is visible within a given viewshed, even low-rise development can negatively impact the viewshed, as the natural terrain is replaced by buildings, parking lots, and similar contemporary man-made intrusions. Even when certain lands within a given viewshed are visually screened by tree cover, mid to high-rise development can create a vertical intrusion to the extent that buildings rise above the tree line. Three potential tools that will be explored later in this study to address the negative impacts of development include building height limits, open space development zoning ("clustering") to preserve open space, and conservation easements, among other potential tools.

### Potential Development

While there are currently no known major developments being proposed close to the national park that have the potential to negatively

impact battlefield viewsheds, there are still key sites that will have a high probability of development due to location. Two sites stand out as being particularly vulnerable because of past development proposals for them. Both are located immediately southwest of the park (see aerial photograph map below).



*The two sites having the strongest potential for development near the park are located immediately southwest of it.*

Both sites are under-developed relative to their potential development yield based upon their excellent access, current zoning, and/or likelihood for rezoning at a greater intensity level. Both sites have also had proposals within the past few years for mixed use transit-oriented development. The larger of the two sites comprises 415 acres and is bound by Wellington Road on the south, Norfolk Southern Railroad track (immediately south of I-66) on the north,

University Blvd. on the west, and Piney Branch Lane on the east. The property has been developed and occupied by the Atlantic Research Corporation (ARC) for the past fifty years. ARC conducts research, development and manufacturing of rocket propellants, rocket motors, and gas generators. It is currently zoned Heavy Industrial (M-1), but it has potential for a rezoning to some type of mixed use category, such as Planned Mixed Residential District (PMR) or Planned Mixed Use District (PMD). The conditions applied with a Special Use Permit (SUP) are another potential regulatory mechanism to accommodate the properties' development. In Prince William County, a rezoning proffer runs with the land, while the SUP conditions are retained within the use area for as long as the use continues. The other site is located immediately west of the park, south of Route 29, and north of I-66. This 192-acre undeveloped site is somewhat triangular in shape, as its west end tapers down to a point where Route 29 and I-66 intersect at Heathcoate Boulevard. The site is split by University Blvd., which runs along a north-south axis. The vast majority of the property is currently zoned A-1 (agricultural), with a small sliver on the side being M-2 (manufacturing). However, the comprehensive plan designates the property primarily Regional Employment Center (REC), with a small portion being Industrial Employment (EI), potentially accommodating a future rezoning. If either of these sites were developed, the impacts to viewsheds would most likely be greatest for the PVPs of Stuart's Hill, Brawner House, and the Artillery Position, as well as the HBVs of Pageland, Battery Heights, and the W. Lewis House.

### Utilities & Towers

Another significant threat to battlefield viewsheds is above-ground utilities and telecommunications towers. Unlike buildings, they do not entail a great deal of solid mass, but their height can be particularly troublesome with respect to viewsheds. However, according to Lee Dickinson, special park uses program manager with the National Park Service, “utility companies have to get a permit from the National Park Service before they can run power lines through a national park” (“Area Power Needs Could Trump View of Antietam Battlefield” – Hagerstown Herald, Dan Dearth - August, 10, 2007).

### Cell Towers

Hosting antennas for cell phone companies can be a lucrative business. According to a Washington Post article about cell towers installed in Fairfax County schools, the Fairfax school system receives an initial \$25,000 payment for each new pole that is installed, as well as \$5,000 each time another cellular phone company adds an antenna to a pole. The phone companies also pay roughly \$2,000 in monthly rent (“In Cell Towers’ Shadows, Anxiety” – Maria Glod, September 20, 2004).

At the Federal level, the industry is regulated by the Federal Communications Commission (FCC) and the Federal Aviation Administration (FAA). In Prince William County, the zoning code provisions regulating cell towers are found in Part 240: Mobile and Land Based Telecommunications Facilities. When they meet all performance standards, cell towers are permitted as-of-right. If they



*This view from Portici (PVP #10) looking south toward I-66 reveals a cell tower that detracts from the viewshed.*

fail to meet one or more standard, they are permitted as a special use. Cell towers are permitted in any zoning districts and any public rights-of-way so long as they meet the relevant standards. However, the same ordinance section states that cell towers must be at least 200 feet from any public street, so there is clearly conflicting language. They may not exceed a height of 199 feet, which is roughly equivalent to a 20-story building. It is the stated intent of the regulations to minimize the visual impact of towers by concentrating antennas on as few towers as possible, as well as to avoid residential areas. While there is a requirement that the base of cell towers be screened from public streets and adjoining properties, that standard obviously does little good above the ground level.

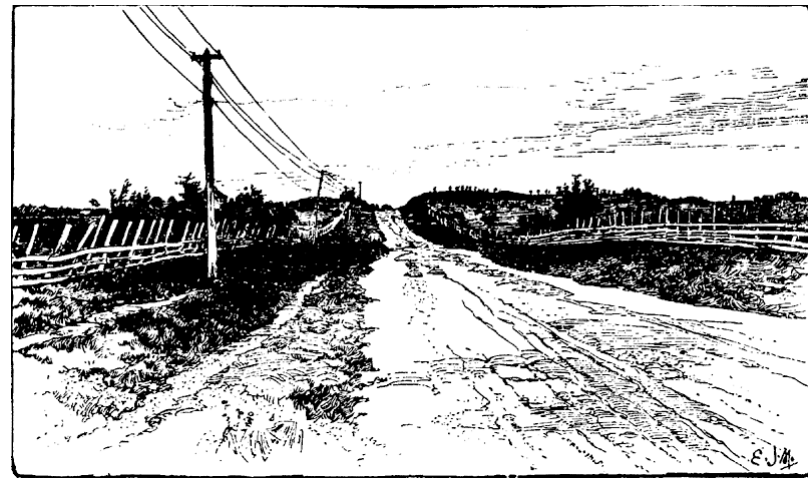
Utility Poles & Wires

Simple wooden utility poles supporting electrical and telecommunications lines are a common condition throughout this country in all types of areas – urban, suburban, exurban and rural. They typically exist within public rights-of-way along streets. Not surprisingly, they occur along most of the roadways throughout the Manassas Battlefield, both within and beyond the national park. On Routes 29 and 234, the only place where they are buried underground is in the vicinity of the intersection of these two roads by the Stone House. Despite efforts to enhance this highly-significant location, a traffic signal necessarily exists.

As the historic sketch on the following page reflects, the existence of simple wooden utility poles and overhead wires is not a foreign element to the historic landscape. Even during the Civil War, some of the key roads featured wooden poles supporting telegraph wires, although such infrastructure was generally limited to railroad lines. In short, given their relatively low height, as well as somewhat of a historic precedent for their existence on battlefields, they are not considered a primary threat to battlefield viewsheds relative to other threats, such as buildings.



*This type of conventional utility pole and overhead wiring exist throughout the battlefield area along roadways.*



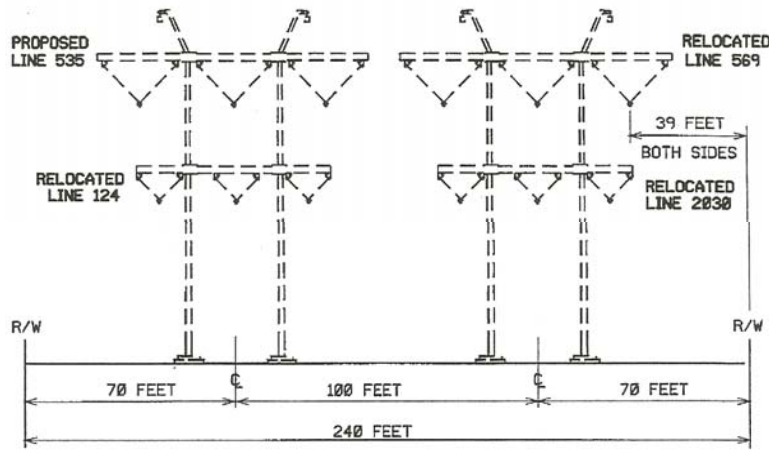
*This historic sketch of the Nashville Highway through the Stones River Battlefield near Murfreesboro, Tennessee, was made shortly after the battle. The wooden utility poles and telegraph lines are prominent. Source: Stones River: Bloody Winter in Tennessee – James Lee McDonough (1980), pg. 147*

High Voltage Power Lines

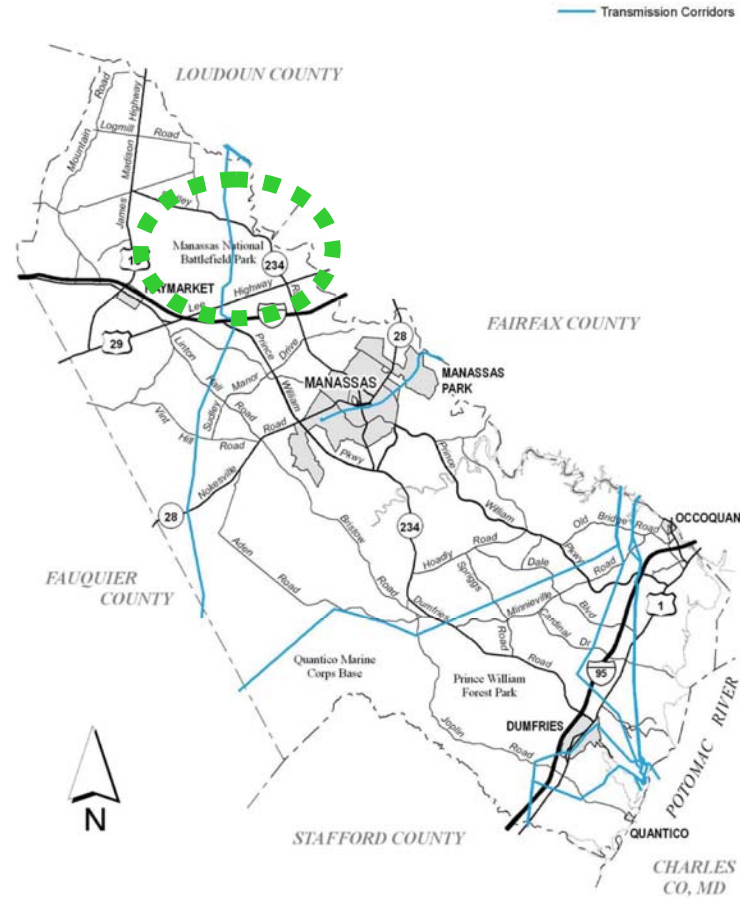
The following page features two maps illustrating the existing and planned route for high voltage power lines. As these maps show, the existing/planned line runs along a north-south axis through the western edge of the national park. As the photograph below illustrates, there are currently two types of “H” frame support structures within the battlefield. Both are approximately 100 feet in height and have an average span length of 885 feet between supporting structures. However, one type has a width of 93 feet at the cross-arms and the other has a width of only 53 feet (see diagram on the following page). It is presently being proposed by Dominion Virginia Power that some of the existing “H” structures be relocated and others be replaced by a new set of structures. The new structures would be nearly identical to the wider of the two existing types. They would have a 90 foot width, which is three feet less than the current support structures. However, they would be approximately 15 feet taller (115 feet) and be spaced 135 feet closer together (750 foot spacing).



*Both types of high voltage power lines now existing on the battlefield are shown above. Both types average approximately 100 feet in height.*



It is being proposed by Dominion Virginia Power that the narrower of the two existing H-frame structure types be replaced with the wider type, as illustrated above. Source: Dominion Virginia Power



Designated routes for electric transmission lines of 150 kilovolts or more. Source: Prince William County Comprehensive Plan – pg. LU-24



The blue line above delineates the route of the high voltage power lines. The most westerly segment follows Pageland Lane on the parks western boundary.

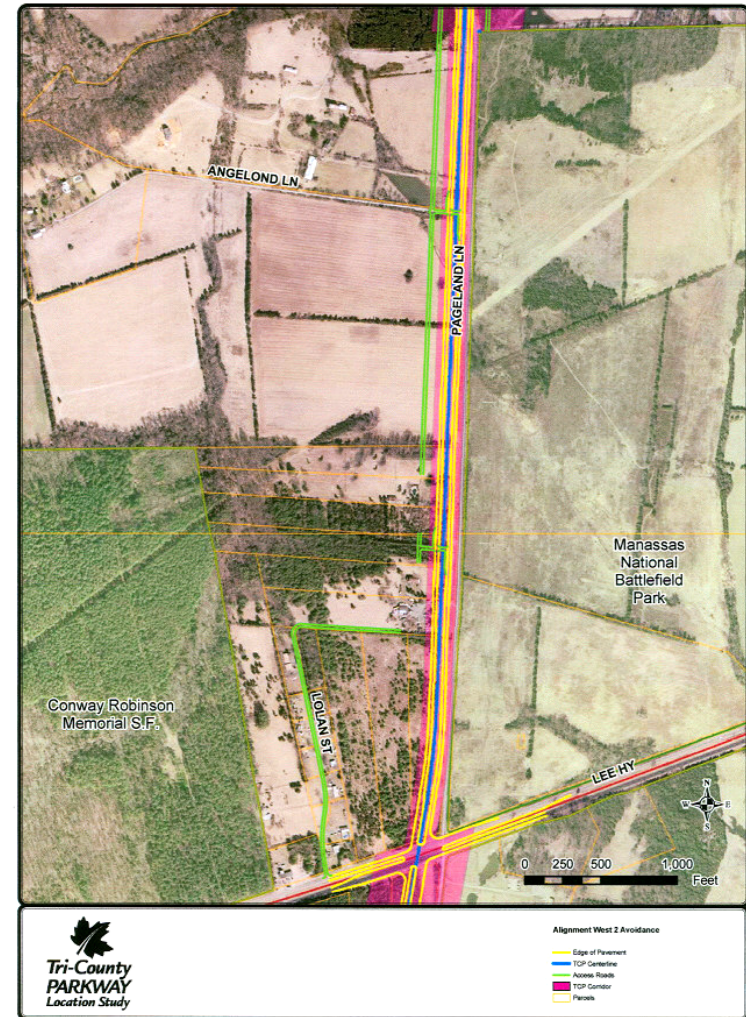
**Road Expansions**

As the battlefield’s surrounding built environment continues to grow and traffic levels increase, pressure will grow to expand the physical capacity of roads around and traversing the battlefield park. In fact, one such proposal is now in the planning stage.

Tri-County Parkway

This VDOT project is intended to transform the historic Pageland Lane into a higher capacity north-south thoroughfare. It is currently undergoing environmental impact review as part of the planning process, including the Section 106 process led by the Virginia Department of Historic Resources (VDHR) to potentially mitigate impacts to historic resources. See the plan graphic at right.

Not only would this project result in the alteration of the alignment and profile of a historic road, but it would negatively impact multiple viewsheds. In particular, the Stuart’s Hill and S. D. Lee Artillery Position PVP viewsheds and the Pageland HBV would be substantially impacted because of their close proximity to the propose “parkway.” On the other hand, this road’s improvement might serve as a “pressure release valve” for traffic on Route 29, potentially lessening the odds of that critical road ever being widened.



Proposed Tri-County Parkway

Source: VDOT

### Routes 29 & 234

Just as these two north-south and east-west roads were important for troop movements during both battles, today they are important for moving vehicles throughout the region. There are no known plans to widen either road through the battlefield area. However, keen attention should always be paid in anticipating any future efforts to seek such roadway expansions, which would undoubtedly degrade the integrity of several of the battlefield's viewsheds.

Also, the visual impacts of the traffic signal at the intersection of Rt. 29 and Rt. 234 (see photograph below) have been raised as a viewshed issue. While its negative impact is acknowledged, there are no reasonable alternatives. Even if the proposed bypass along the Pageland Lane route is effectuated and traffic levels at this intersection measurably decrease, a need for traffic control will likely continue. No alternatives have been identified that might have less of a visual impact. For example, the use of ground-mounted pedestrian-scale traffic signals would require one per corner of the intersection, resulting in more visual clutter than the current arrangement. Similarly, the provision of a traffic circle would require additional right-of-way and yield an intersection configuration completely foreign to the original rural road intersection. Consequently, no changes are being recommended for this intersection's traffic control.



*The intersection of Routes 29 and 234, located in the heart of the national park, experiences substantial traffic congestion during peak hours.*

### **Landfill**

Although it occurs in the distance, one blemish on historic battlefield viewsheds as seen from key locations, such as Henry Hill, is a landfill located north of the battlefield in Loudoun County (see map at right). It is owned and operated by Ticonderoga Farms, Inc. The fill materials in the landfill consist of soil, broken concrete, asphalt, brick and perhaps other similar materials. The average base elevation of the property is approximately 350 feet, yet the landfill's elevations appear to be as high

as 521 feet, meaning that the landfill itself is approximately 170 feet in height.

It is difficult to predict the ultimate potential height of the landfill because it is unregulated. The landfill and its operations have been the subject of litigation during the past decade or so. The owner/operator claims that it is a permitted agricultural use, as the landfill provides shade to shield their Christmas tree farm from the southern sun exposure.

