



## Chapter 3: Community Impact Issues

Joint Base Andrews Naval Air Facility Washington began as an isolated military installation, but over time development has encroached upon the base, creating conflicts between the military and civilian communities. The residential neighborhoods and commercial and employment centers surrounding the base today are the natural results of suburban development in the metropolitan area. Permitted by local land use policy over the past six decades, these uses take advantage of the proximity to Washington, D.C., and the Capital Beltway, and some also benefit specifically from the base's location.

In the 1970s and 1980s the Department of Defense began to recognize the impacts suburban development was having on many of its military installations. Encroachment, defined by the Department of Defense as external influences that restrict the military mission, became a concern. Conversely, local governments of these base area communities also expressed concerns about the impacts of military bases on residential neighborhoods, businesses, and public facilities. The Air Installation Compatible Use Zones program (AICUZ) and the Joint Land Use Study program (JLUS) both began as measures to help bases work cooperatively with their nearby communities to implement land use policies and noise restrictions that balance base missions and operations with community needs (**See Chapter 1**).



This chapter discusses encroachment issues associated with development around Joint Base Andrews (JBA), focusing primarily on land use incompatibilities that create safety hazards, noise impacts, and the need for height restrictions. The chapter also discusses non-encroachment issues, including economic development and redevelopment in the base vicinity, transportation issues, cultural resource preservation, and environmental protection. If these development issues, which impact both the base and area communities, are not mitigated, conflicts between the base and the community could become so serious that the military would not be able to continue all or portions of its mission.

## 3.1 LAND USE COMPATIBILITY

### Safety Zones

Defined by the Department of Defense, safety zones are areas around airfields that have a statistically higher exposure to the possibility of aircraft accidents than other nearby areas. These accident potential zones (APZs) were developed from an analysis of over 800 major Air Force accidents that occurred within ten miles of an Air Force installation between 1968 and 1995.<sup>1</sup> APZs relate to flight tracks at an air base (arrivals, departures, and patterned flights) and extend outward from the base's runways. The AICUZ program includes compatibility guidelines to ensure that land uses in these zones will minimize the risk of damage to life and property from aircraft accidents. A key principle underlying these guidelines involves limiting uses that concentrate large numbers of people in a small area. The 2007 Andrews AFB AICUZ Study contains a table of land use compatibility guidelines, but the guidelines, which are used by military installations nationwide, were updated in 2008 (See Appendix 3).<sup>2</sup>

Joint Base Andrews has three safety zones: a Clear Zone (CZ), Accident Potential Zone I (APZ I), and Accident Potential Zone II (APZ II). Each end of the base runways has an approximately 3,000-foot by 5,000-foot CZ, a 5,000-foot by 5,000-foot APZ I, and an approximately 7,000-foot by 5,000-foot APZ II. The safety zones at Andrews were first delineated in the 1974 AICUZ, after some of the land uses currently in the zones north and south of the base had already been established.

**Map 3–1** depicts the CZs and APZs for the two runways at Joint Base Andrews. The safety zones are described as follows:

- ❖ The **Clear Zone** has the highest accident potential of the three zones. Placing structures, buildings, or above-ground utility lines in the CZ is limited by military policy and discouraged in a majority of CZs around the country.<sup>3</sup> At Andrews, the Clear Zone at the end of the southern runway is entirely on base. However, the Clear Zone adjacent to the northern runway lies partially off-base, extending across MD 4 into the Penn-Belt South Industrial Center (See Map 3–1).
- ❖ Accident potential in **Accident Potential Zone I** is lower than in the CZ, but this area still carries a significant risk factor. The AICUZ land use compatibility guidelines for APZ I areas are more flexible than those for CZs and are intended to allow reasonable economic use of the land while discouraging residential and non-residential uses that concentrate people in small areas.
- ❖ Accident potential in **Accident Potential Zone II** is even lower than that in APZ I, but the potential for accidents still exists in this area. Under the AICUZ land use compatibility guidelines, acceptable APZ II uses include those of APZ I, as well as low density single-family residential uses.<sup>4</sup> High density uses such as multistory buildings and places of assembly, including theaters, churches, schools, restaurants, and high density office uses, are not considered appropriate uses for APZ II.

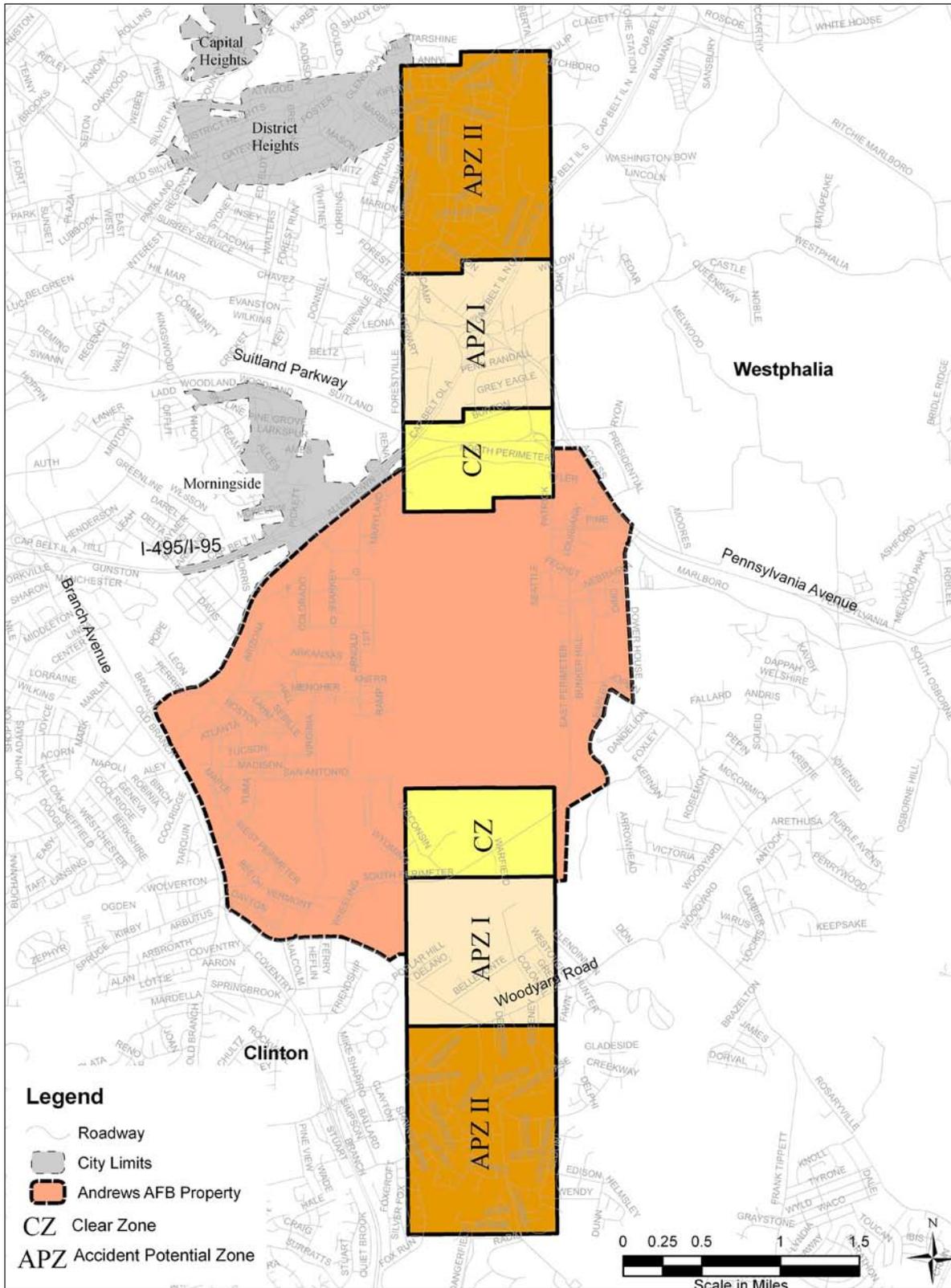
<sup>1</sup> For a more detailed description of the analysis see Appendix B of the 2007 Andrews AFB AICUZ Study (<http://www.pgplanning.org/Resources/Publications/>).

<sup>2</sup> Unified Facilities Criteria, UFC 3-260-01, Department of Defense November 17, 2008.

<sup>3</sup> Most military Clear Zones lie entirely within installation boundaries and thus are governed exclusively by military policy and actions. Joint Base Andrews, however, is a fairly unique case in which a portion of the northern Clear Zone extends beyond the base boundary.

<sup>4</sup> The AICUZ guidelines suggest a maximum density of 1–2 dwelling units per acre, with exceptions made for higher-density Planned Unit Developments.

Map 3–1. Safety Zones at Joint Base Andrews, 2009



Source: 2007 Andrews AFB AICUZ Study, page 4–11.

## Off-Base Aircraft Accidents at Andrews

There have been very few off-base aircraft accidents at Joint Base Andrews. One occurred in the 1950s and caused a fatality when a plane crashed into a house north of the base in Forestville. Another occurred in the 1970s when a plane crashed into a building used for firefighter training.

The most recent accident related to the base was a Maryland State Police medevac helicopter crash in September 2008. Of the five people on board the helicopter, only one survived. The helicopter, based at Joint Base Andrews, was transporting two car-accident victims to Prince George's Hospital Center when it attempted to land at the base due to deteriorating weather. The helicopter crashed in Walker Mill Regional Park, about three miles north of the base.

## Existing Land Use

As discussed in **Chapter 2**, most of the land in the CZs and APZs is developed. The base is surrounded by industrial uses on the northern side near the Capital Beltway, commercial uses along Allentown Road and Branch Avenue, and residential neighborhoods on all sides of the base. Few large undeveloped tracts remain, with the exception of a tract north of the base and north of Flowers Road in Westphalia zoned for employment, one residential tract south of the base off Sweeny Drive (part of the approved Killiecrankie subdivision), and another residential tract west of Dangerfield Road (part of the approved Chesterfield Estates subdivision).

Many of the properties in the Joint Base Andrews vicinity were developed prior to the creation of the AICUZ guidelines in the 1970s. These properties, including residential neighborhoods constructed in the 1950s and 1960s, do not meet the AICUZ criteria for acceptable base area uses, generally because they are built at densities or intensities that concentrate too many people in the Clear Zone and Accident Potential Zone areas. A majority of plan area land uses in 2008 were compatible under the 2007 AICUZ guidelines; however, 32 percent of the existing uses within the Clear Zone, Accident Potential Zone I, and Accident Potential Zone II are prohibited under the guidelines.

### *Northern Side of the Base*

#### *Clear Zone*

The Clear Zone north of the base contains approximately 32 acres of incompatible developed property north and south of Burtons Lane in the Penn-Belt South Industrial Center (**See Table 3-1**). Of the 32 acres, approximately 19 acres include a mix of automobile uses, industrial uses, and business services; nine acres comprise part of a PEPCO storage, maintenance, and office facility; and three acres are devoted to single-family residential uses. **Appendix 5** provides detail about each parcel in the Clear Zone. These incompatibilities are the most serious, as the Clear Zone area, which lies immediately adjacent to the base runways, proportionally has a higher risk of aircraft accidents than the other safety zones.

#### *Accident Potential Zone I*

APZ I on the northern side of the base contains mostly business and employment uses that are compatible with the AICUZ guidelines, including businesses in the Penn-Belt South Industrial Center, Westphalia Center, and Forestville Center. These businesses are low-intensity uses, such as contractors' offices and warehouses. However, 19 percent of northern APZ I uses are incompatible, including:

- ❖ Approximately 23 acres of residential property scattered east and west of Forestville Road, Forestville Plaza, and the Marlo shopping center.

- ❖ Scattered office and professional service uses, including a cheerleading academy, insurance and real estate offices, computer repair services, several churches, and a day care center. All of these are on land zoned for employment or commercial use. They are permitted under zoning but are incompatible with the AICUZ land use guidelines.
- ❖ Fire and Rescue Company 23 (Forestville) on Old Marlboro Pike and Maryland State Police Barrack L on Forestville Road.<sup>5</sup>

**Table 3–1. Land Use in the North Side Safety Zones**

North Side Safety Zones Joint Base Andrews							
	CZ		APZ 1		APZ 2		Total
Existing Land Use: Compatible	Acres	Percent	Acres	Percent	Acres	Percent	Acres
<i>Developed</i>	10	7%	334	58%	285	36%	629
<i>Undeveloped (bare ground)</i>	1	1%	33	6%	18	2%	52
<i>Other (roads)</i>	93	68%	94	16%	98	12%	285
Existing Land Use: Incompatible							
<i>Residential</i>	3	2%	23	4%	347	43%	373
<i>Commercial</i>	0	0%	56	10%	18	2%	74
<i>Employment</i>	19	14%	20	3%	0	0%	39
<i>Institutional</i>	10	7%	14	2%	37	5%	61
<b>Total</b>	<b>136</b>	<b>99%*</b>	<b>574</b>	<b>99%*</b>	<b>803</b>	<b>100%</b>	<b>1513</b>
Future Land Use: Compatible							
<i>Employment</i>	0	0%	410	71%	143	18%	553
<i>Park</i>	0	0%	2	0%	49	6%	51
<i>Commercial</i>	0	0%	0	0%	18	2%	18
<i>Other (roads)</i>	81	60%	98	17%	117	15%	296
Future Land Use: Incompatible							
<i>Employment</i>	54	40%	0	0%	0	0%	54
<i>Commercial</i>	0	0%	38	7%	0	0%	38
<i>Residential</i>	0	0%	16	3%	409	51%	425
<i>Institutional</i>	0	0%	9	2%	68	8%	77
<b>Total</b>	<b>135</b>	<b>100%</b>	<b>573</b>	<b>100%</b>	<b>804</b>	<b>100%</b>	<b>1512</b>

\*Due to rounding, numbers do not total 100 percent.

**Source:** Prince George's County Existing Land Use Data, November 2008; Prince George's County Master and Sector Plans, February 2009.

**Note:** These charts are a representation of existing land use data by property parcels compared with generalized future land use maps that may not be exact. Direct comparisons may be inconsistent. Existing and future land use acreages are not directly comparable, as (i) land use classifications differ; and (ii) existing land use data are parcel-based (i.e., collected for each property) whereas future land use data are area-based.

<sup>5</sup> The County CIP includes a project to relocate Company 23 to the vicinity of Melwood Road and MD 4.

### ***Accident Potential Zone II***

Approximately 50 percent of the development in Accident Potential Zone II is compatible with the AICUZ guidelines (See Table 3–1). Compatible business and employment uses occupy most of the eastern third of the Accident Potential Zone II on the northern side of the base. However, the northern APZ II also contains large single-family residential areas (such as North Forestville, Sunny Acres, and Forestville Estates). These areas are incompatible with the guidelines, as they were developed at higher densities than permitted by the AICUZ guidelines: approximately three to four dwelling units per acre, which exceeds the AICUZ density recommendation of one to two dwelling units per acre. Over 86 percent of the incompatible uses in the northern APZ II are residential uses. As noted previously, much of this area developed before the first Joint Base Andrews AICUZ study in 1974. Other incompatible uses in the northern APZ II include:

- ❖ North Forestville Elementary School, constructed in 1954
- ❖ The Forestville Park townhouse complex off Forest Park Drive and south of Ritchie Road
- ❖ The northern portion of the Forestville Plaza shopping center
- ❖ Several churches and day care centers
- ❖ The Veterans of Foreign Wars (VFW) meeting post on Ritchie Road

### ***Marlboro Pike Development District Overlay Zone (DDOZ)***

The Marlboro Pike Development District Overlay Zone covers much of the area that is designated as APZ I and APZ II on the northern side of JBA. This DDOZ is intended to control the design and character of industrial development while the JLUS has a more limited purpose, that of limiting density for safety purposes. The JLUS staff worked closely with the Marlboro Pike team in developing a DDOZ that supports the land use concepts of the JLUS. In general, the DDOZ is more restrictive in terms of uses than is the JLUS since its purpose is to create a business/office park with uses that are typical for that setting. The DDOZ also has specific design standards to address the appearance of the buildings. It requires that all buildings have high quality façades and includes requirements for specific materials such as brick, stone, stucco or tilt-up masonry finish. Specific landscaping standards, lighting, fencing and other design standards are also included in the DDOZ.

### ***Southern Side of the Base***

#### ***Clear Zone***

The Clear Zone on the southern side of the base runways lies entirely on JBA property. The Air Force controls all activities within the Clear Zone; thus, no land use incompatibilities exist in this area.

#### ***Accident Potential Zone I***

Accident Potential Zone I on the southern side of the base contains a mix of business, employment, residential, and institutional uses. Almost 56 percent of existing land uses in this safety zone are compatible with the AICUZ guidelines. The zone's employment uses are largely compatible with the AICUZ guidelines, with two exceptions: 1) a day care center on industrially-zoned land north of Old Alexandria Ferry Road; and 2) a liquor store on the northern side of the intersection of Old Alexandria Ferry Road and MD 223 (Woodyard Road). APZ I contains many low-density single-family homes north and south of Bellefonte Lane. These are not compatible with the land use compatibility guidelines, as no residential uses are permitted in APZ I. Residential uses account for 85 percent of the land use incompatibilities in APZ I (See Table 3–2).

Several incompatible institutional uses exist in the southern APZ I, including Tanglewood Special Education Center on the north side of MD 223 and west of Old Alexandria Ferry Road. However, plans exist to close the center in 2013 and transfer the students to a new elementary school in Clinton. The Camp Springs Community Church, which lies at the eastern edge of the southern APZ I, also constitutes another incompatible land use in this safety zone.

**Table 3–2. Land Use in the South Side Safety Zones**

South Side Safety Zones Joint Base Andrews								
	CZ		APZ 1		APZ 2		Total	
Existing Land Use: Compatible	Acres	Percent	Acres	Percent	Acres	Percent	Acres	
<i>Developed</i>	<b>Clear Zone is entirely on JBA</b>		159	46%	500	62%	659	
<i>Undeveloped (bare ground)</i>			4	1%	41	5%	45	
<i>Other (roads)</i>			31	9%	104	13%	135	
<b>Existing Land Use: Incompatible</b>								
<i>Residential</i>				132	38%	133	17%	265
<i>Commercial</i>				2	1%	0	0%	2
<i>Employment</i>				7	2%	0	0%	7
<i>Institutional</i>				14	4%	26	3%	40
<b>Total</b>				<b>349</b>	<b>101%*</b>	<b>804</b>	<b>100%</b>	<b>1153</b>
<b>Future Land Use: Compatible</b>		<b>Clear Zone is entirely on JBA</b>						
<i>Employment</i>				156	45%	0	0%	156
<i>Park</i>				6	2%	55	7%	61
<i>Commercial</i>				0	0%	12	1%	12
<i>Other (roads)</i>				24	7%	96	12%	120
<b>Future Land Use: Incompatible</b>								
<i>Employment</i>				0	0%	0	0%	0
<i>Commercial</i>				1	0%	0	0%	1
<i>Residential</i>				153	44%	626	78%	779
<i>Institutional</i>				8	2%	15	2%	23
<b>Total</b>			<b>348</b>	<b>100%</b>	<b>804</b>	<b>100%</b>	<b>1152</b>	

\*Due to rounding, numbers do not total 100%.

**Source:** Prince George's County Existing Land Use Data, November 2008; Prince George's County Master and Sector Plans, February 2009.

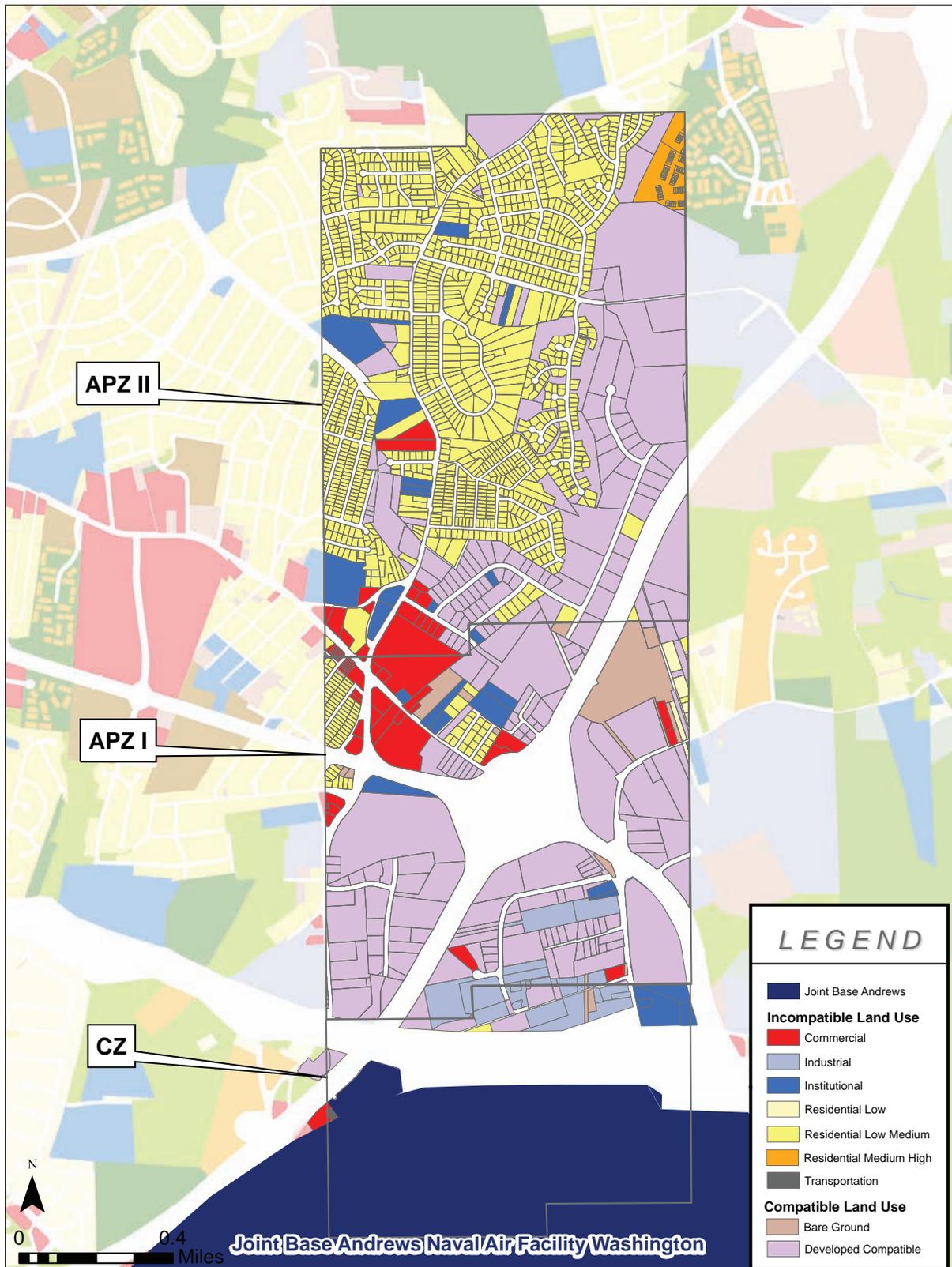
**Note:** These charts are a representation of existing land use data by property parcels compared with generalized future land use maps that may not be exact. Direct comparisons may be inconsistent. Existing and future land use acreages are not directly comparable, as (i) land use classifications differ; and (ii) existing land use data are parcel-based (i.e., collected for each property) whereas future land use data are area-based.

### ***Accident Potential Zone II***

In the southern APZ II, only 20 percent of existing land uses are incompatible with the AICUZ guidelines (See Table 3–2). Existing land uses in APZ II south of the base are nearly all residential, and residential uses comprise almost 84 percent of the land use incompatibilities.<sup>6</sup> While the majority of these residential uses are single-family detached homes, some neighborhoods contain densities higher than two dwelling units per acre (which exceeds AICUZ-recommended densities). Development in this area dates back to the 1940s, but most area residences were constructed after the AICUZ program was established in the 1970s.

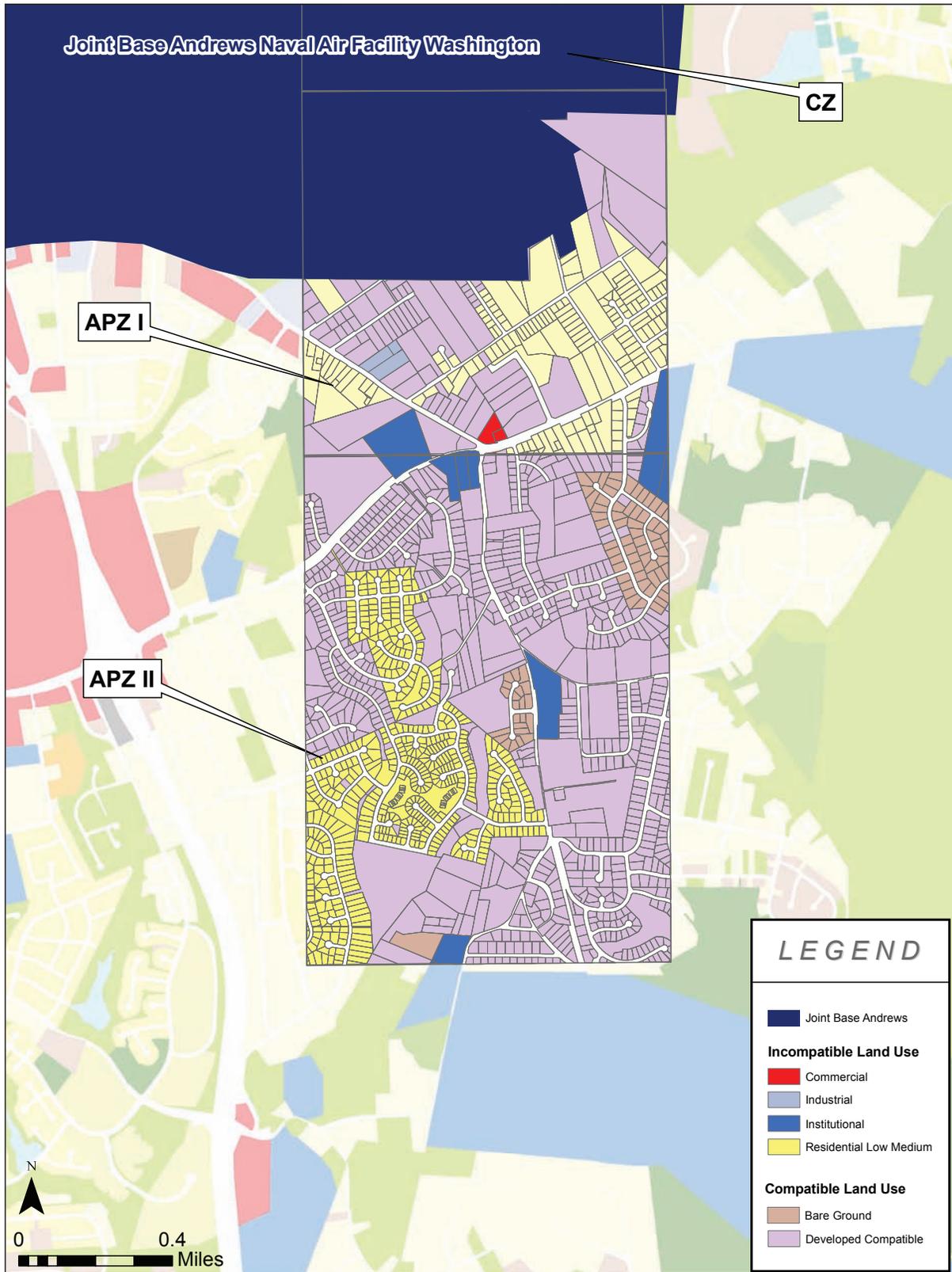
<sup>6</sup> No commercial or industrial uses exist in the southern APZ II.

Map 3–2. Existing Land Use Compatibility, Northern Side of Joint Base Andrews



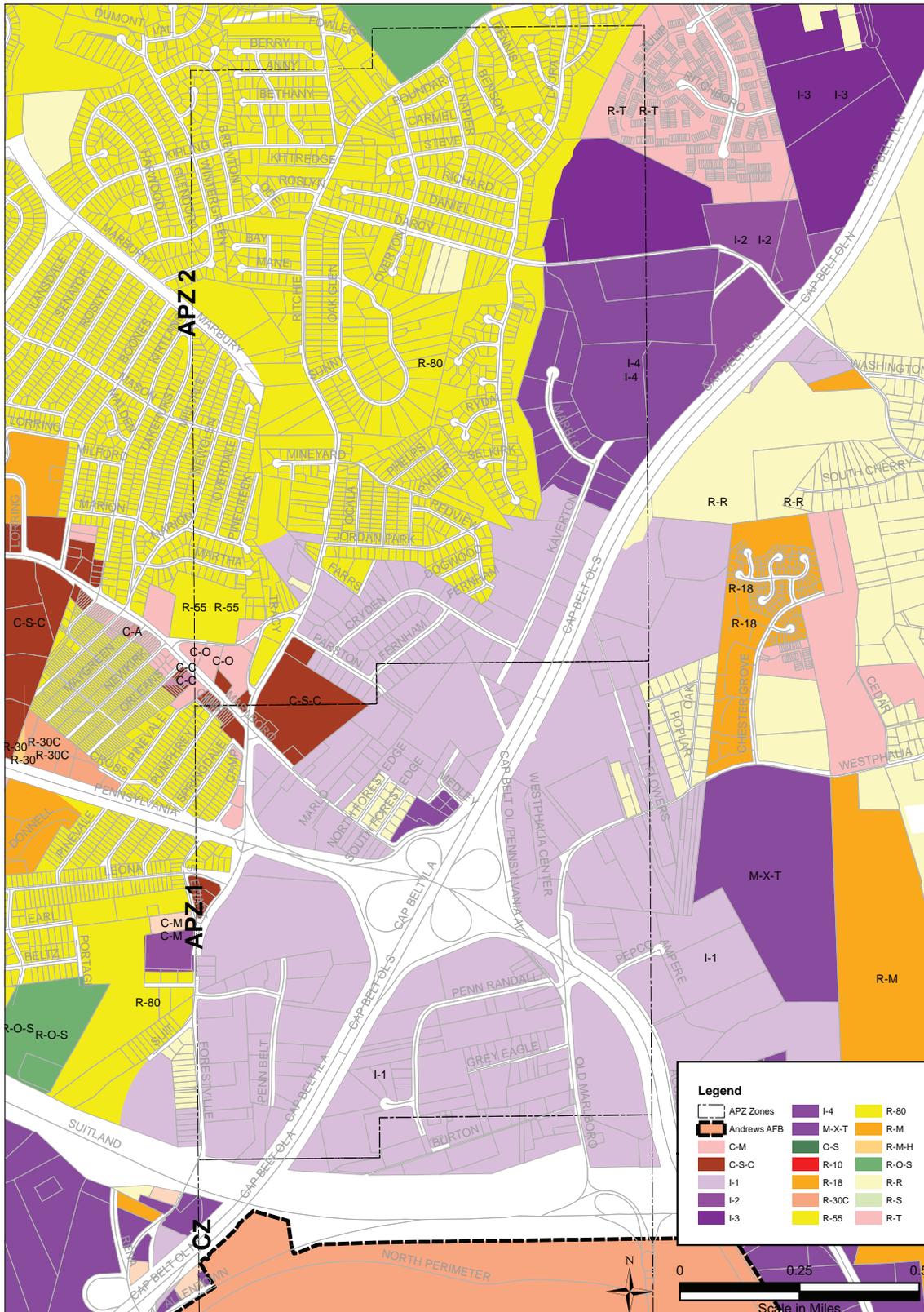
Source: M-NCPPC and ERM

Map 3–3. Existing Land Use Compatibility, Southern Side of Joint Base Andrews



Source: M-NCPPC and ERM

Map 3-4. Existing Zoning Districts, Northern Side of Joint Base Andrews



Source: M-NCPPC



The southern APZ II also contains several institutional uses that are incompatible with AICUZ guidelines: New Horizon Baptist Church south of MD 223, the southern portion of the Camp Springs Community Church site, Bladensburg Baptist Church east of Dangerfield Road, and the Upper Room Fellowship Church at the southern end of the zone.

## Future Land Use

As noted in Chapter 1, proposed future land use around Joint Base Andrews is in a dynamic state with several subregion and sector plans in various stages of preparation and approval. Proposed future land use is best described as either “generally compatible” or “generally incompatible” with the Air Force land use guidelines contained in the 2007 Andrews AFB AICUZ Study. This is because future land use categories are expressed broadly in local plans, with general categories such as “industrial,” “institutional,” or “residential low.” These broad uses can be described as compatible or incompatible, but particular uses within each larger land use category may actually be incompatible due to density, intensity, or safety hazards on the property. For example, industrial uses are generally compatible, but an industrial use that includes material processing that uses flammable chemicals would violate the AICUZ guidelines.

On the northern side of the base, proposed future land uses generally parallel existing land uses. A few areas will be more compatible with the AICUZ guidelines if they develop in accordance with their future land use designations. These include the Forestville Plaza and Marlo Plaza sites (existing use—commercial, proposed future use—industrial). The Clear Zone’s proposed future land uses—“industrial” properties—would remain incompatible, as no development is permissible in the Clear Zone under AICUZ guidelines. Residential areas in APZ II, such as North Forestville, Sunny Acres, and Forestville Estates, will remain incompatible, as their proposed future land use designation of “residential medium” (3.5 to 8 dwelling units per acre) is denser than recommended in the AICUZ guidelines. Areas designated “institutional” will be generally incompatible since they include North Forestville Elementary School and several churches, uses which concentrate large numbers of individuals on a particular property on a regular basis.

On the southern side of the base, the extensive residential areas are shown as generally compatible because the existing zoning designation meets the recommended residential density in the AICUZ guidelines.

## Issues with Application of AICUZ Land Use Compatibility Guidelines

The basic criteria for APZ I and APZ II land use guidelines are the prevention of uses that:

- ❖ Promote the concentration of a large number of people for an extended duration of time or on a regular basis.
- ❖ Specifically cater to people who may not be able to respond to an emergency situation such as children, the elderly, handicapped individuals, and those requiring medical attention.
- ❖ Are highly labor-intensive.
- ❖ Create a hazard to the public by involving the storage or use of explosive, flammable, or toxic material in outdoor above-ground storage tanks.

Low density land uses are defined by the Department of Defense as those which limit commercial, service, or industrial building or structure occupancy to 25 persons per acre in APZ I and 50 persons per acre in APZ II.<sup>7</sup>

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<sup>7</sup> OPNAV Instruction 11010. 36b, Chief of Naval Operations, AICUZ Programs (December 19, 2002).

The land use guidelines in the AICUZ study serve as a starting point for a detailed assessment of what land uses are appropriate for the areas around Andrews. Given the fact that most land around the base is currently developed and lies in visible areas near key transportation routes, including the Capital Beltway, a strict application of the AICUZ land use guidelines is not feasible in most areas around Andrews.

The AICUZ guidelines tend to emphasize the development of low intensity industrial uses in the APZ-designated areas. This strategy works well for bases that are located in relatively undeveloped rural areas. Joint Base Andrews' location near the Capital Beltway and the long-established neighborhoods surrounding the base (which were developed before the creation of the AICUZ guidelines) constitute a very different situation. It is not feasible to plan for industrial uses in such close proximity to well-established, stable residential neighborhoods, nor is it realistic to think that these neighborhoods should be forced to convert to industrial land uses. In 2008 there were 228 single-family homes in APZ I and 2,504 single family homes in APZ II. This JLUS recommends a policy of allowing the existing residential neighborhoods to remain but prohibiting an increase in permitted residential density. The report also recommends legislation that would restrict some land uses in the APZ areas but allow others that limit the number of people gathered in one area, a recommendation that does not strictly follow the AICUZ guidelines (**See Chapter 4**).

## 3.2 NOISE

Noise, often defined as unwanted sound from man-made or natural sources, is the most apparent and common impact for people living and working near an airport or airfield. However, the Noise Control Act of 1972, which was intended “to promote an environment for all Americans free from the noise that jeopardizes their health or welfare,” exempts military weapons systems from its regulations.<sup>8</sup> Furthermore, local jurisdictions find noise regulations around military bases difficult due to ever-changing weapons technologies, which can quickly make local ordinances obsolete. Noise from military operations is an ongoing problem for citizens in the Joint Base Andrews vicinity. Current and projected impacts of noise in relation to land use were an important component of the discussions leading to the development of this JLUS.

### Definitions and Measurement of Noise

Noise modeling in the 2007 Andrews AFB AICUZ Study forms the basis for this section’s noise discussion. The AICUZ study contains a more detailed discussion and explanation of noise terminology, measurement, and guidelines.<sup>9</sup>

Sound levels are represented in decibels (dB). A sound level of 0 dB is approximately the threshold of human hearing and is barely audible under extremely quiet listening conditions. Normal speech has a sound level of approximately 60 dB. A noise level of 65 dB is the commonly accepted threshold above which noise-reduction measures are recommended for residential development.<sup>10</sup> The AICUZ study states that sound levels above 120 dB begin to be felt inside the human ear as discomfort and higher sound levels become painful.<sup>11</sup> **Figure 3–1** on the following page compares common noise levels.

### Noise Contours at Joint Base Andrews

Noise levels in and around Joint Base Andrews are represented in DNL noise contours. DNL refers to Day-Night Average A-Weighted Sound Level and represents average busy day noise levels over a 24-hour period, based on aircraft operations data collected in 2007.<sup>12</sup> Noise contours reflect only an average of noise exposure over a period of time and do not identify decibel “peaks” associated with a particular event or day.

**Map 3–6** shows the noise contours for JBA defined by the 2007 AICUZ Study. The contours were generated by a computer modeling program that maps noise zones in five dB increments ranging from DNL 65 dB to above DNL 80 dB. A DNL of 65 dB is the accepted maximum dB level for outdoor activity noise areas.<sup>13</sup> Sustained noise levels above 65 dB have been shown to cause eardrum damage and hearing loss.<sup>14</sup>

<sup>8</sup> 42 U.S.C. §4901–42 U.S.C. §4918.

<sup>9</sup> See pages 4-4-4-9 and Appendix C of the 2007 Andrews AFB AICUZ Study.

<sup>10</sup> Andrews AFB AICUZ Study, December 2007, p. C-9.

<sup>11</sup> This refers to sudden or intermittent sounds, not sound levels sustained over a period of time.

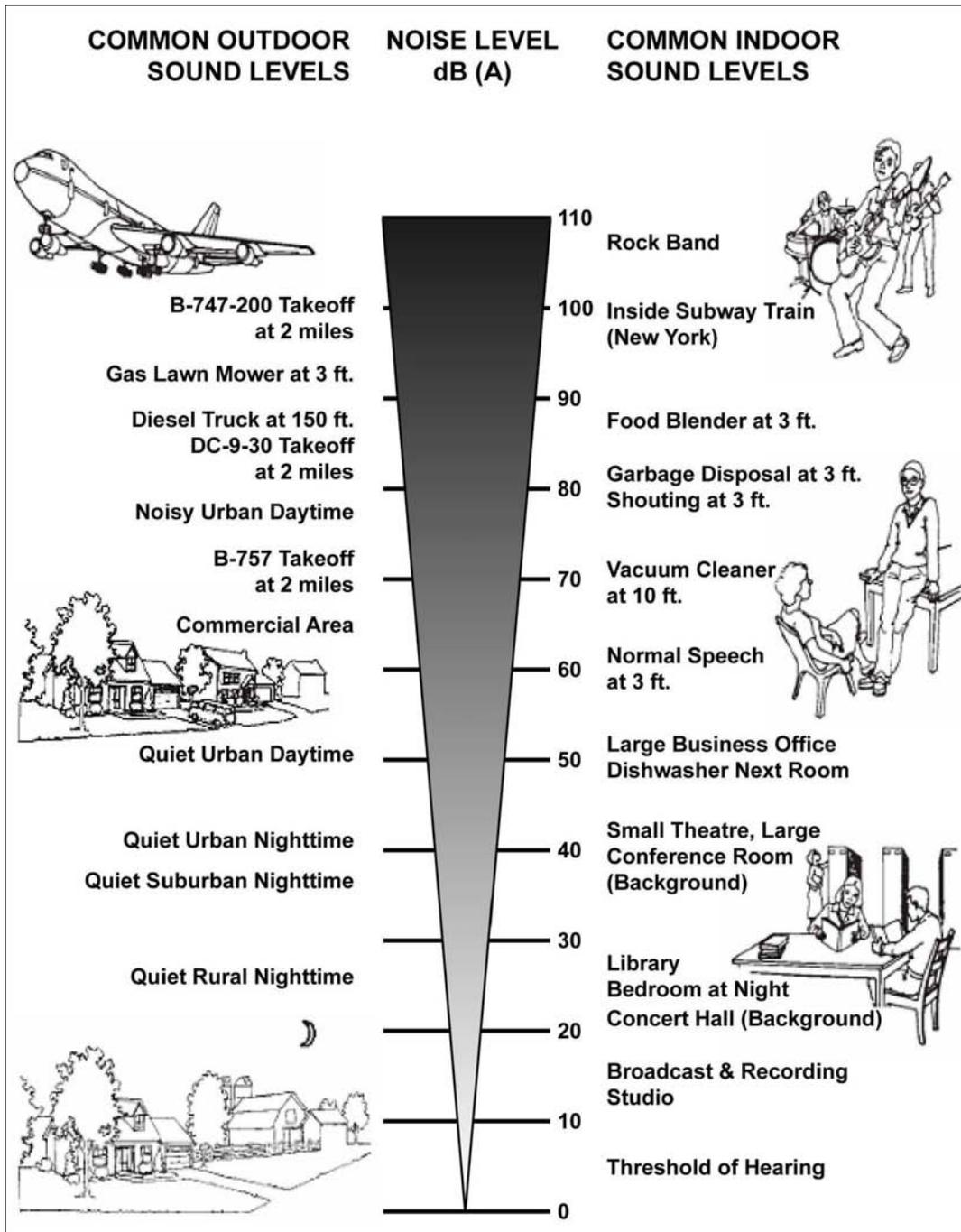
<sup>12</sup> “A-weighted” refers to a filtering of the sound signal to emphasize frequencies in the middle of the audible spectrum and to de-emphasize low and high frequencies in a manner corresponding to the way the human ear perceives sound. DNL includes a 10-dB adjustment added to noise events that take place between 10:00 p.m. and 7:00 a.m. (local time). This 10-dB “penalty” represents the added intrusiveness of sounds that occur during normal sleeping hours.

<sup>13</sup> Consistent with the AICUZ study, where the term dB is used in this JLUS it means DNL dBA, including the A-weighting.

<sup>14</sup> In the Code of Maryland Regulations, Title 26, Subtitle 2, Chapter 3, Section 3, the State of Maryland sets parameters of 0 dB to 65 dB for acceptable outdoor noise levels and 0 dB to 45 dB for acceptable indoor living area noise levels.

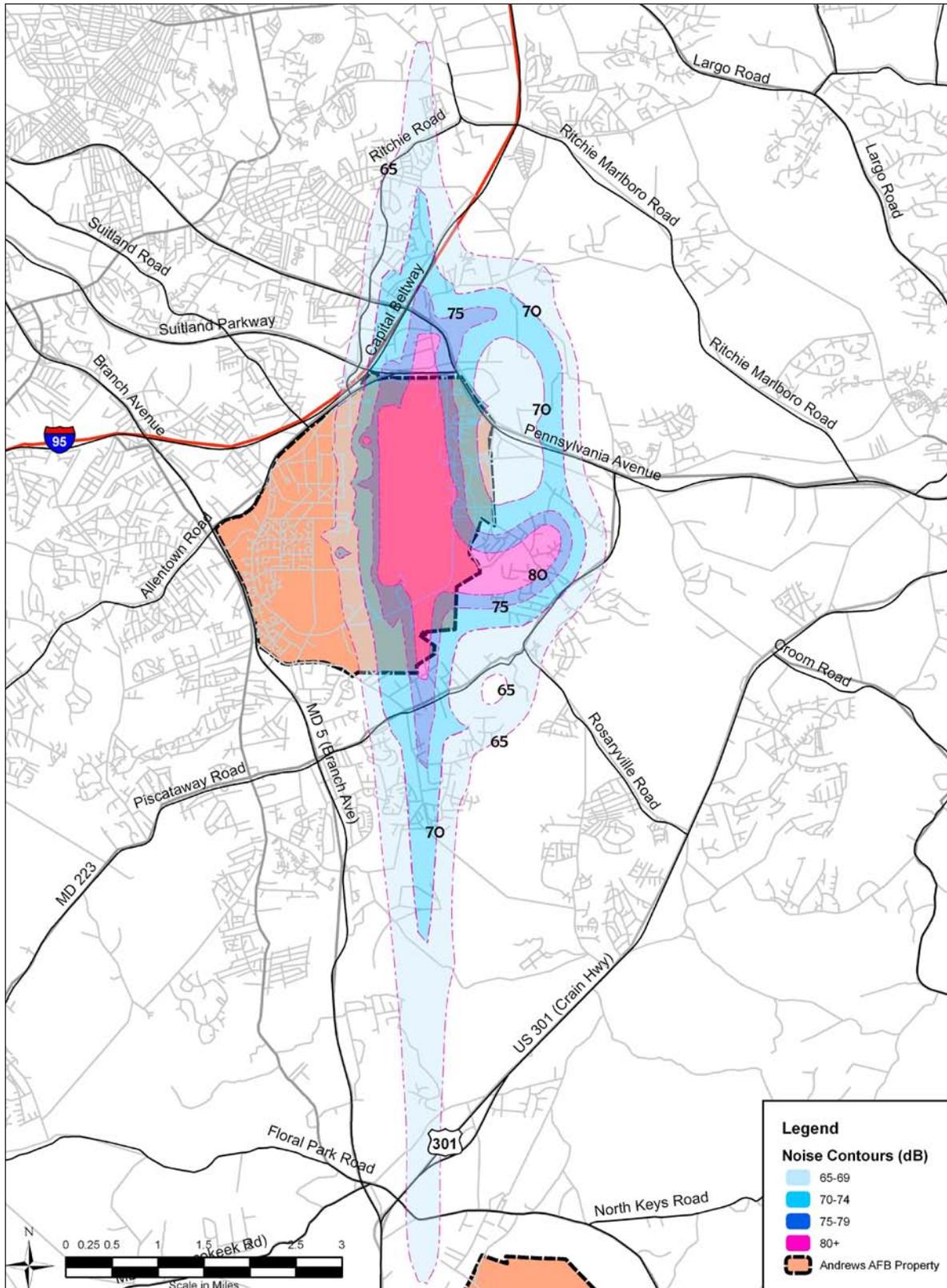
The noise exposure area for Joint Base Andrews covers more than 8,000 acres, as the contours extend approximately four miles north and seven miles south of the base. The areas exposed to noise are primarily north, south, and east of the base, consistent with the orientation of the base runways and the take-offs, landings, and flight tracks at Joint Base Andrews. Approximately 60 percent of the noise exposure area (65 dB and above) is in the 65 to 69 dB zone (See Table 3-2). Areas exposed to higher noise levels (70 dB and above) are in the safety zones immediately north and south of the base, as well as in portions of Clinton, Melwood, and Westphalia.

Figure 3-1. Common Sound Levels



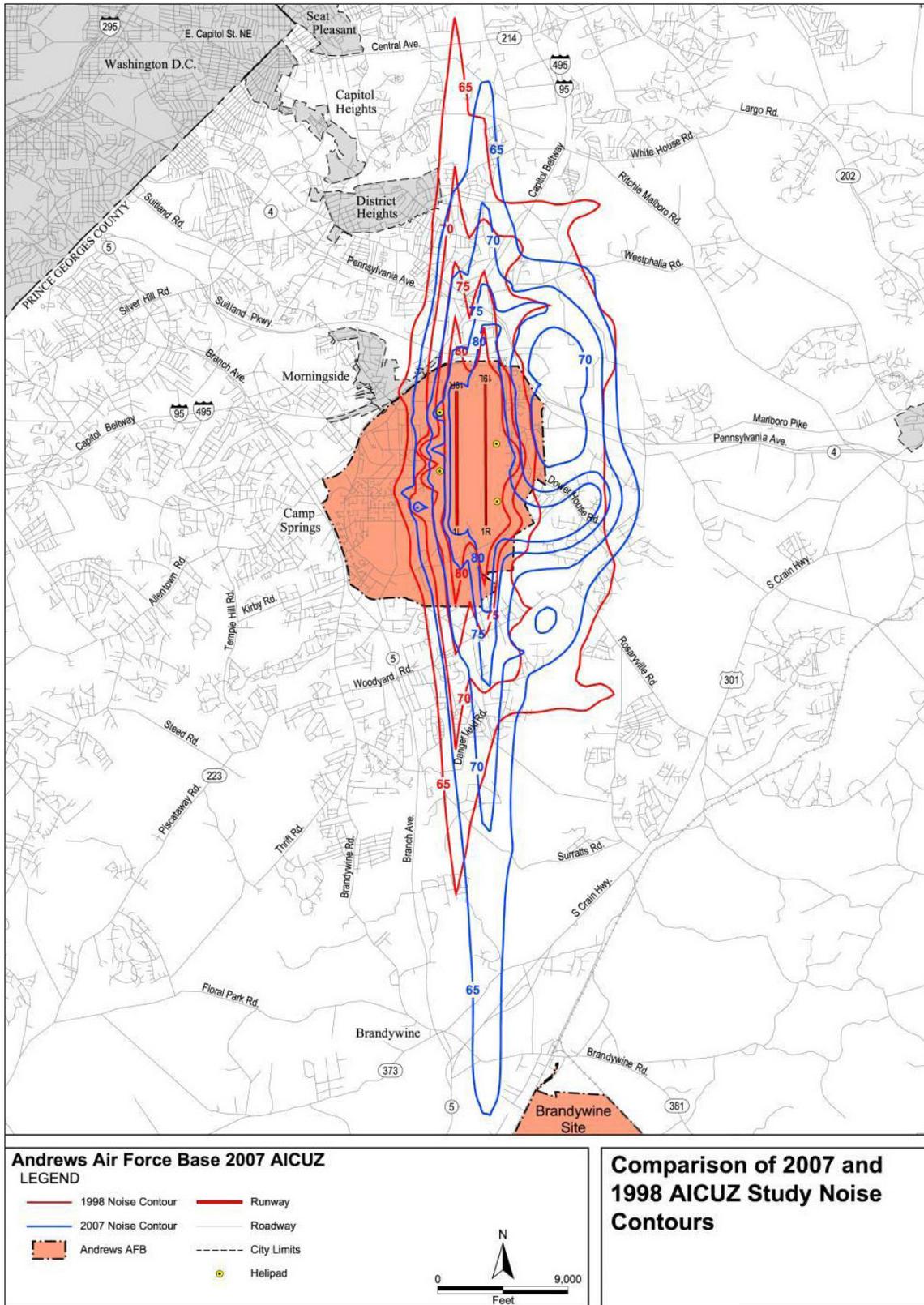
Source: Landrum and Brown, 2002.

Map 3–6. 2007 Andrews AFB AICUZ Study Noise Zones



Source: 2007 Andrews AFB AICUZ Study, page 4–5.

Map 3-7. Comparison of 2007 and 1998 Noise Contours



Source: 2007 Andrews AFB AICUZ Study, page 4-8.

**Table 3–3. Noise Exposure Area**

DNL Noise Zone	Acres	Percent of Total
65-69 dB	5,008	60
70-74 dB	2,187	26
75-79 dB	701	9
80 dB and above	394	5
<b>TOTAL</b>	<b>8,290</b>	<b>100</b>

*Source: 2007 Andrews AFB AICUZ Study*

## Change over Time

Noise contours shift over time due to technical improvements to the noise model as well as ongoing changes to aircraft types, equipment technology, numbers of flying operations, and modifications to flight tracks. Noise contours at Joint Base Andrews have changed over the past decade. The 2007 and the prior 1998 noise contours are similar in shape and general configuration, but the 2007 contours show some significant differences (See Map 3–7):<sup>15</sup>

- ❖ The overall area of Westphalia exposed to noise levels exceeding 70 dB decreased between 1998 and 2007.<sup>16</sup>
- ❖ Immediately south of MD 4 the 2007 contours extend farther east of the 1998 contours, up to MD 223. In contrast, in the Rosaryville Road vicinity the 2007 contours do not extend as far east.
- ❖ The 2007 contours do not extend as far north as the 1998 contours and do not extend north of MD 214.

As discussed in Chapter 2, no significant changes in aircraft operations at Joint Base Andrews are anticipated in the next 10 years. While this might imply no changes in noise exposure will occur, the contours did change between 1998 and 2007, and prudent future land use planning should take into account the possibility that they may expand or contract again.

## Complaints about Base Area Noise

Complaints or concerns about noise by citizens in the base vicinity should be directed to the Prince George’s County Health Department’s Division of Environmental Health and the Joint Base Andrews Public Affairs Office. Despite the noise emanating from regular base operations, these agencies have received few complaints in recent years. Between 2004 and 2008 the Joint Base Andrews Public Affairs Office received a total of 13 noise complaints. Of these, seven were complaints about UH-1N helicopters and came from the Davidsonville area in Anne Arundel County. The Division of Environmental Health received no complaints during this period.<sup>17</sup>

<sup>15</sup> According to the 2007 AICUZ, the changes in the contours result from a greater number of operations on Runway 19L/01R in 2007, plus a greater number of closed pattern flight tracks on the eastern side of the airfield.

<sup>16</sup> The *Approved Westphalia Sector Plan and Sectional Map Amendment* was developed based on the 1998 noise contours.

<sup>17</sup> It is likely that persons with concerns about noise may not know who to contact and may contact other public officials such as their elected representatives. Such complaints are not tracked consistently. No one on the Policy or Technical Committee reported hearing of complaints, and at public meetings several participants commented that aircraft noise is an “accepted part of daily life when living near the base.”

## Noise Compatibility Land Use Guidelines

Given the noise levels associated with air base operations, some local land uses may not be appropriate in areas around Joint Base Andrews. The 2007 Andrews AFB AICUZ Study includes land use compatibility guidelines for the noise zones around the base. The guidelines, however, are national and not specific to Joint Base Andrews. For example, a uniform set of guidelines applies to all areas in the noise contour of 65–69 dB at bases across the country. The guidelines identify specific land use categories and indicate whether they are deemed compatible and under what circumstances or conditions.<sup>18</sup> Residential uses are the most sensitive land use with regard to noise due to the potential length of daily exposure. As stated above, regular exposure to noise levels above 65 dB can lead to hearing damage. The AICUZ guidelines discourage residential uses in the 65–69 dB zones, strongly discourage them in the 70–74 dB zones, and consider them incompatible in zones with noise levels exceeding 75 dB.

Recognizing that the AICUZ guidelines are not regulations, the Department of Defense states in the AICUZ study that where a local community determines that residential uses should be allowed in the 65–74 dB zones, measures to achieve outdoor to indoor noise level reduction should be incorporated into building codes and considered in individual development approvals.<sup>19</sup>

Commercial uses (such as retail trade and business areas, which include office and service uses) are considered compatible in the 65–69 dB zones and generally compatible in 70–79 dB zones, provided outdoor to indoor noise level reduction is incorporated into building design. This higher degree of compatibility is attributable to the fact that many commercial uses attract transient users, thus preventing sustained exposure to noise levels exceeding 65 dB. However, commercial uses are considered incompatible in 80 dB and above zones.

Employment uses (such as manufacturing, industrial, and intensive business services) are generally considered compatible in all noise zones provided outdoor to indoor noise level reduction is incorporated into building design. However, the AICUZ guidelines suggest that noise-sensitive uses such as manufacturing scientific equipment not locate in 70 dB and above zones.

Public, quasi-public, and institutional uses, including schools, hospitals, parks, and government services, can be sensitive to noise and need to be reviewed against the AICUZ guidelines on a use-by-use basis. Outdoor to indoor noise level reduction may need to be incorporated into building design.

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<sup>18</sup> The guidelines are summarized in this section and the full guidelines are reproduced in **Appendix 3**.

<sup>19</sup> These noise reduction measures are discussed in more detail in the following sections and **Chapter 4**.

## Land Use Compatibility in Noise Zones

### *Existing Land Use*

Approximately 910 acres of existing land uses are not compatible with the AICUZ guidelines (**See Map 3–8 and Table 3–4**).<sup>20</sup> Most of this land lies south of the base in Clinton and east of the base in Melwood, with a few scattered pockets of incompatible uses north of the base. Almost 80 percent of the incompatible land use is low-medium and low density residential, developed between 1970 and 2005.<sup>21</sup>

Two areas of medium-high and high-density residential fall in the 70–75 dB noise zone. The largest area is the Flower Village mobile home park south of Dower House Road and Marwood Elderly Apartments on Marwood Boulevard South. The Melwood Mobile Home Park lies approximately one mile north of Flower Village. It falls within the 65-69 dB noise zone but is shown on **Map 3–10** since manufactured homes are considered incompatible in any noise zone.

**Table 3–4. Incompatible Existing Land Uses in 70+ dB Noise Zones (Off-Base)**

Land Use Type	Acres within Noise Zones			Total	
	70-74 dB	75-79 dB	80 dB and above	Acres	Percent
Rural	56	14	0	70	8%
Residential Low	317	99	27	443	49%
Residential Low-Medium	109	45	35	189	21%
Residential Medium	32	3	17	52	6%
Residential Medium-High	23	33	4	60	6%
Residential High	7	0	0	7	1%
<b>Total Residential</b>	<b>544</b>	<b>194</b>	<b>83</b>	<b>821</b>	<b>90%</b>
<b>Commercial</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0%</b>
<b>Institutional</b>	<b>79</b>	<b>9</b>	<b>0</b>	<b>88</b>	<b>10%</b>
<b>TOTAL</b>	<b>623</b>	<b>203</b>	<b>84</b>	<b>910</b>	<b>100%</b>

*Source: ERM*

It is not known how many of the homes in the noise zones have noise level reduction (NLR) soundproofing. NLR typically involves special windows and doors, additional caulking and weather stripping, tight-fitting closures or baffles on exterior vents, increased insulation, and thicker, heavier walls. One recent subdivision where NLR was required was Chesterfield Estates, south of the base at Shackelford Way and Dangerfield Road.

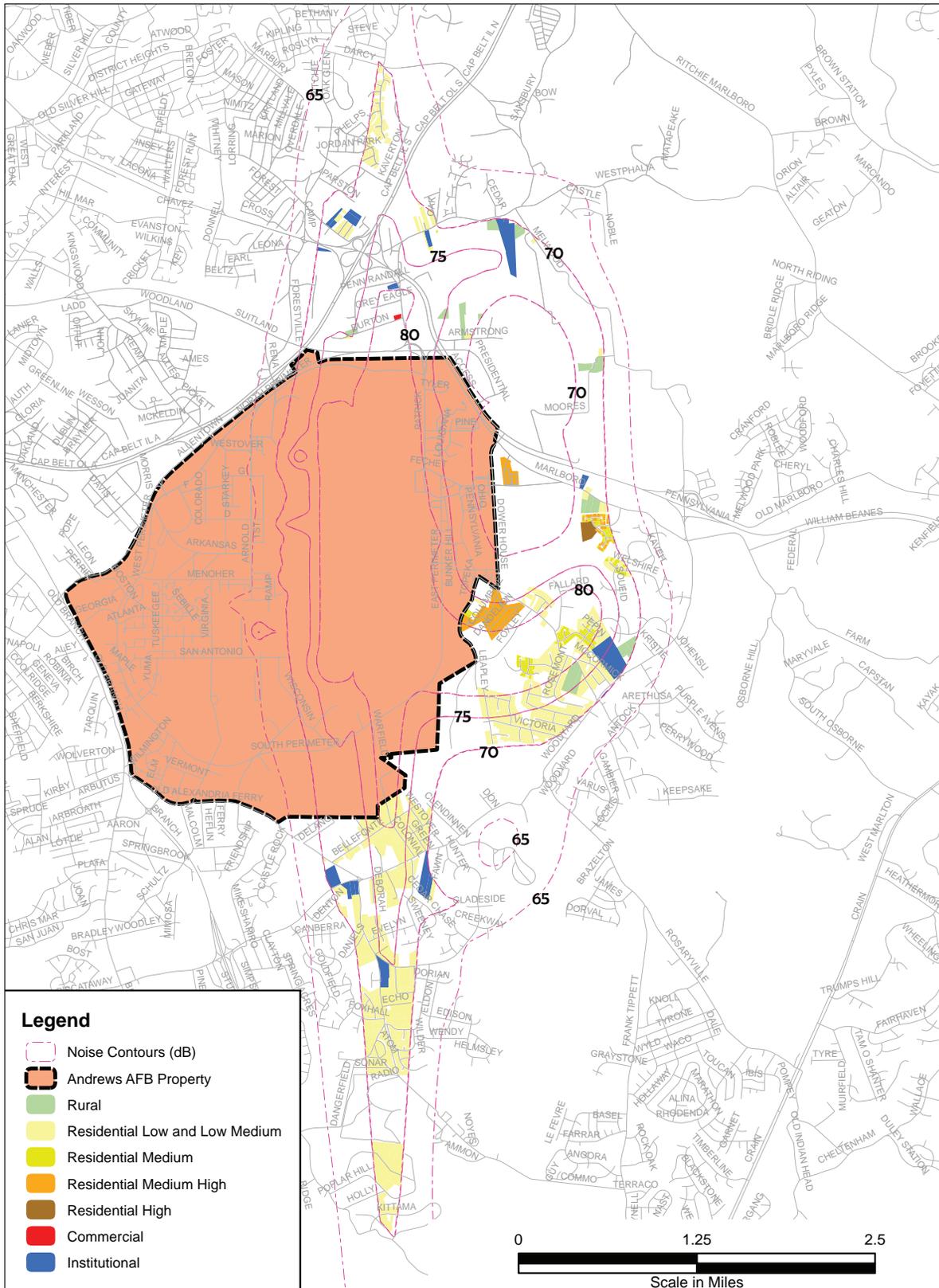
Most non-residential land uses considered incompatible are institutional uses. Many of these are churches. Other institutional uses in the 70 dB and above zones are the Maryland State Police Barrack L on Forestville Road, Fire and Rescue Company 23 (Forestville) on Old Marlboro Pike, and Tanglewood Special Education School.

The only incompatible commercial use is an office building in the Penn-Belt South Industrial Center, which lies just north of the base in the 80 dB noise zone.

<sup>20</sup> The existing and future land maps in this JLUS have been updated compared to the existing and future land use maps in the 2007 Andrews AFB AICUZ Study. As a result the acres of incompatible uses in this JLUS differ from the acreages in the 2007 Andrews AFB AICUZ Study (**Table 5.5, page 5–11**).

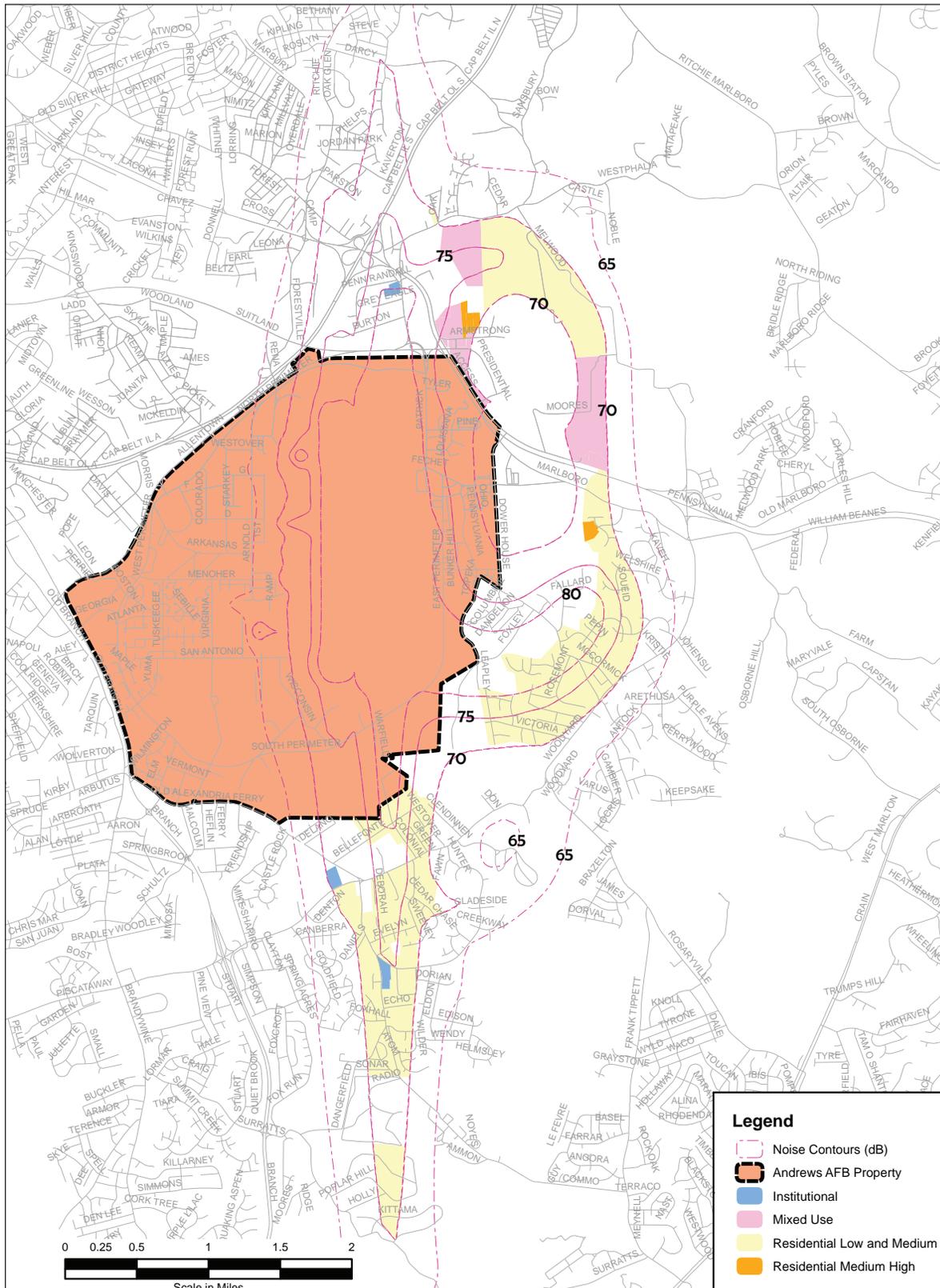
<sup>21</sup> See **Appendix 4** for definitions.

Map 3–8. Incompatible Existing Land Use within DNL 70 dB And Above Noise Contours



Source: 2007 Andrews AFB AICUZ Study and ERM.

Map 3-9. Incompatible Future Land Use within DNL 70 dB And Above Noise Zones



Source: 2007 Andrews AFB AICUZ Study and ERM.

### ***Future Land Use***

Approximately 1,700 acres of land on the future use map are not compatible with the AICUZ guidelines (See Map 3–9 and Table 3–5). This land is clustered in Clinton, Melwood, and Westphalia. Compared to incompatible existing land uses, the future land use map shows some expansions and also some reductions in areas incompatible with the noise compatibility guidelines.

While expansion of incompatible areas is undesirable, the new future incompatible uses are either found in established residential areas, most of which have developed relatively recently, or in future master planned areas. South of the base in Clinton, the existing and future incompatible areas are very similar. The incompatible future land use map shows a small expansion of incompatible area, as some existing undeveloped land in the 70–74 dB noise zone is designated for future residential use. Noise level reduction (NLR) will be required (See Chapter 4).

**Table 3–5. Incompatible Future Land Use in 70 dB And Above Noise Zones (Off-Base)**

Land Use Type	Acres within Noise Zones			Total	
	70-74 dB	75-79 dB	80 dB and above	Acres	Percent
Residential Low	1,166	238	123	1,527	74%
Residential Medium and Medium-High	87	-	-	87	4%
Residential High	-	-	-	-	0%
<b>Total Residential</b>				<b>1,614</b>	<b>78%</b>
Commercial	29	-	-	29	1%
Mixed Use	376	28	-	404	19%
Institutional	22	2	3	27	1%
<b>TOTAL</b>	<b>1,680</b>	<b>268</b>	<b>126</b>	<b>2,074</b>	<b>100%</b>

*Source: ERM*

East of the base in Melwood, the future incompatible land use map shows expansions and reductions in incompatible area. Expansion of incompatible area occurs in the 70–74 dB and 75–79 dB noise zones, as some existing undeveloped land is designated for future residential use (see, for example, the area north of Bible Baptist Church and Clinton Christian School). The future incompatible land use map reduces the incompatible area in the 75–79 dB and 80 dB and above area noise zones by designating existing residential areas as employment/industrial uses (see Flower Village and Dower Village to its east). The Melwood Mobile Home Park, north of Old Marlboro Pike, is not shown as incompatible since, in the future, it could be redeveloped consistent with its current Commercial Miscellaneous (C-M) zoning and, as a result, become compatible with the noise guidelines.

Northeast of the base, in Westphalia, the future incompatible land use map reflects a large expansion of land incompatible with the noise compatibility guidelines. As noted above, planning for Westphalia was based on the 1998 AICUZ noise contours, which included Westphalia in the 65–69 dB noise zone. The entire Westphalia Sector Plan, which includes land east of the noise zones, envisions more than 14,000 homes and 5.3 million square feet of commercial, office, and retail space. (For reference,

the conceptual site plan, a developer-produced document that adds more specificity to the sector plan's framework, is provided in **Appendix 7**.)<sup>22</sup> The town center portion of Westphalia is proposed as a mixed-use area that would lie partially in the 65–69 dB noise zone and partially in the 70–74 dB noise zone. The commercial and employment components would be compatible with the noise guidelines.

The Westphalia Sector Plan includes a policy that recommends minimizing the effects of noise on all land uses. This policy is reinforced by a strategy that reads: “Provide for the use of appropriate attenuation measures when noise issues are identified.”<sup>23</sup> To achieve the highest possible level of compatibility, noise level reduction (NLR) will be required in buildings, redesign will be required where possible to ensure noise sensitive land uses are not located in the highest noise zones, and enhanced buyer/renter notification requirements will be instituted.

### **Application of AICUZ Compatibility Guidelines**

Strict application of the AICUZ land use compatibility guidelines for noise zones is not feasible in the areas around the base chiefly because much of the existing development predates the AICUZ program. New development applications have been analyzed using the AICUZ noise contours and noise reduction conditions are placed on those projects to achieve compliance with the guidelines. The county's building codes contain noise standards that all development is required to meet, regardless of its location.<sup>24</sup>

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<sup>22</sup> The Planning Board approved the conceptual site plan for the town center portion of Westphalia in December 2008.

This plan guides detailed development plans for sections of the master plan area.

<sup>23</sup> *Approved Westphalia Sector Plan and Sectional Map Amendment*, p. 22.

<sup>24</sup> See **Appendix 6** for details of the county's development review procedures on noise.

### 3.3 HEIGHT OF STRUCTURES

The height of buildings, structures, and other natural or man-made objects is a significant issue at airfields and airports because such objects can intrude into the airspace used by aircraft. According to the 2007 Andrews AFB AICUZ Study, obstructions to air navigation around the base are considered to be any natural objects or man-made structures that protrude into the airspace where aircraft fly.

The airspace above airfields that must be obstacle-free is defined by “imaginary surfaces,” which are surfaces in space around airfields in relation to runways. Joint Base Andrews has Class B runways and seven different associated imaginary surfaces (**See Map 3–10**). These are described in detail in **Chapter 4** of the 2007 Andrews AFB AICUZ Study. The outermost surfaces extend approximately eight miles from the base. In general, the vertical height of the bottom of the surface increases as horizontal distance from the runways increases. To the layperson the imaginary surface can be pictured as a large bowl with shallow sloping sides perched between zero and 750 feet above the airfield and the surrounding area.

The chief concern for Joint Base Andrews and Prince George’s County officials regarding new development around the base is the potential for buildings and structures to protrude above the imaginary surfaces described in the preceding paragraph (**See Map 3–10 and Figure 3–2**). However, as discussed in **Chapters 1 and 2**, most land around the base is already developed. Under Prince George’s County zoning regulations, approximately 30 different zoning districts lie in the area under the imaginary surfaces. The residential zoning districts have a maximum height limit between 35 and 50 feet. The comprehensive design zones and mixed use zones have maximum height limits of 80 and 110 feet, respectively. Commercial and industrial zones do not have specified height limits. (**See Appendix 4 for a detailed zoning district analysis.**) Currently, no buildings or structures that pose a navigation hazard for aircraft exist in these developed areas.

The only area in the base vicinity that is not extensively developed is the Westphalia area, located to the northeast of the base. A large-scale mixed-use development, known as the Westphalia Town Center, is planned for the part of Westphalia just northwest of the intersection of MD 4 (Pennsylvania Avenue) and Woodyard Road. Based on information available about the Town Center, as well as the ground elevation and the imaginary surface levels at this location, no height conflicts between the planned Town Center and the base’s imaginary surfaces are foreseen at this time.

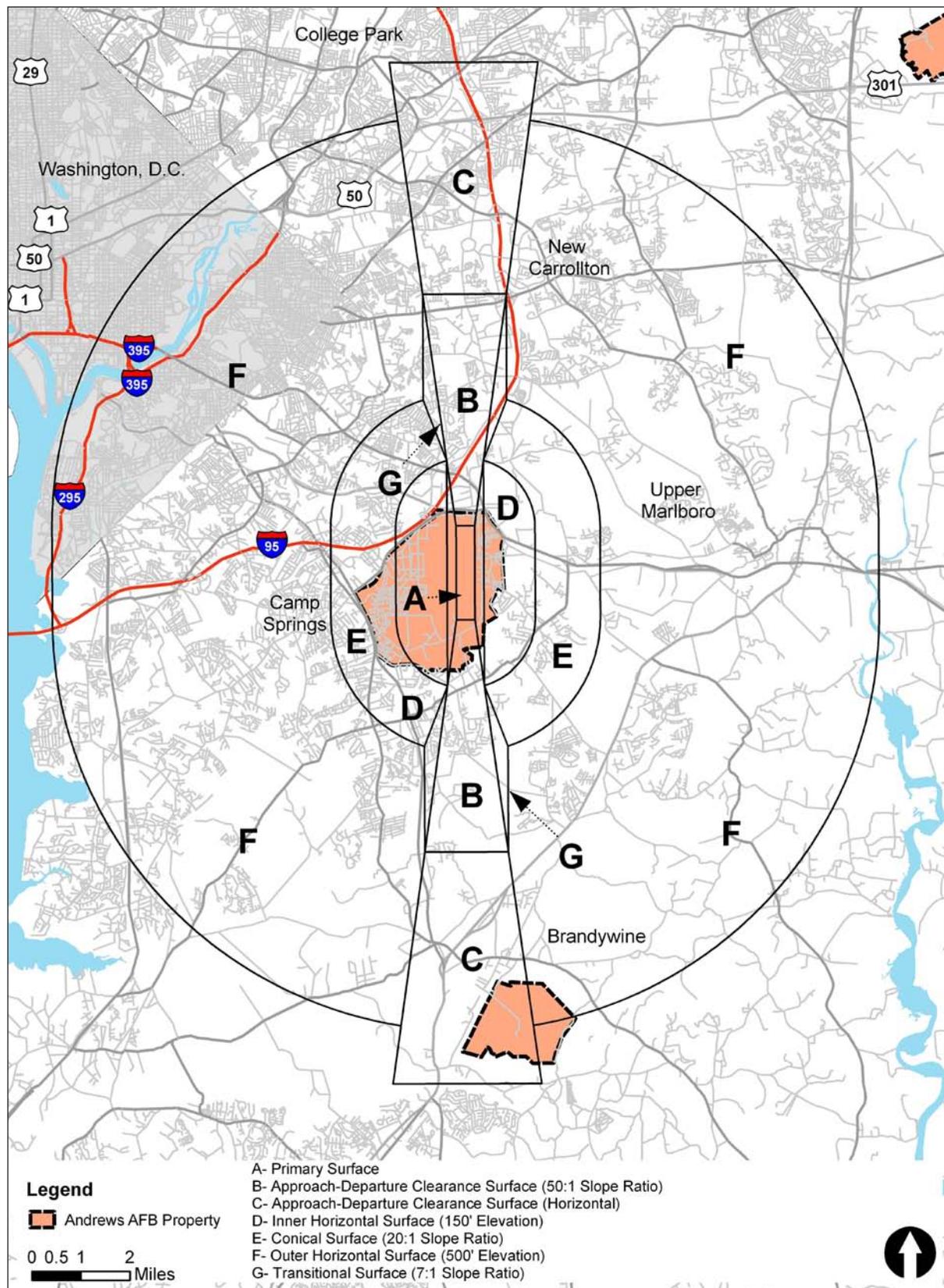
Natural obstacles, especially trees growing close to the runways, are also a concern. Joint Base Andrews holds easements on land near the base that allows the base, for example, to trim trees to a height that will not obstruct aircraft operations. Most of these landscape-control areas are located within the northern Clear Zone. Federal Aviation Regulations require a party proposing construction of a building over 200 feet in height above ground level or one that would protrude into an imaginary surface to submit the project for federal review.<sup>25</sup> This review ensures that a violation of the imaginary surface will not occur.

For this plan, a study was conducted to identify potential maximum heights for structures in the vicinity of the northern and eastern sides of Joint Base Andrews (given that this is where future development is most likely to occur). To determine these potential allowable heights, measurements were taken between the

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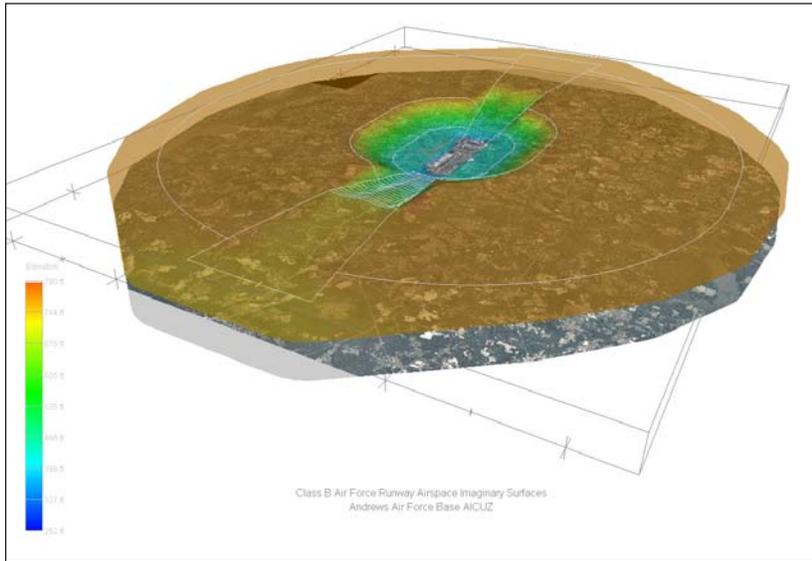
<sup>25</sup> Title 14, Part 77: Notice of Proposed Construction or Alteration. These regulations apply nationwide. Joint Base Andrews is covered under (a)(5)(iii) as an airport that is operated by an armed force of the United States. Some exceptions to the notification requirement apply. See <http://www.faa.gov/airports/central/engineering/part77/>.

Map 3–10. Joint Base Andrews Imaginary Runway Surfaces

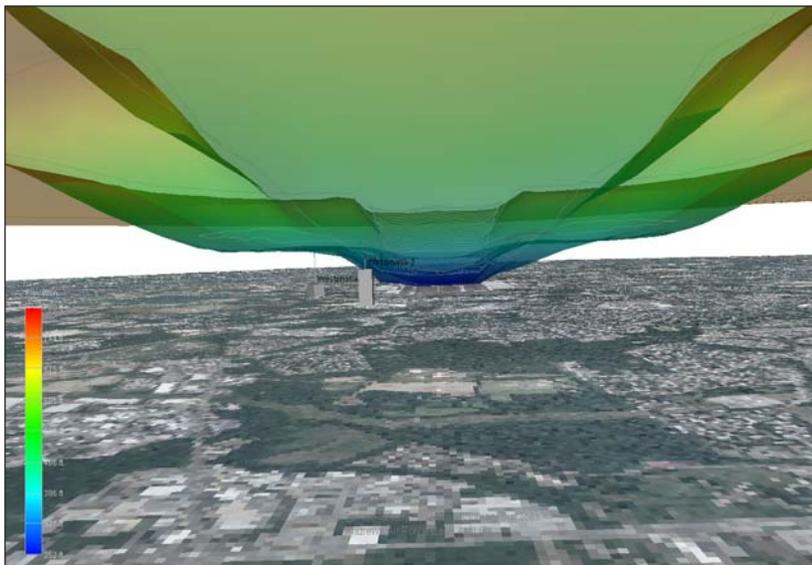


Source: 2007 Andrews AFB AICUZ Study, page 4–3.

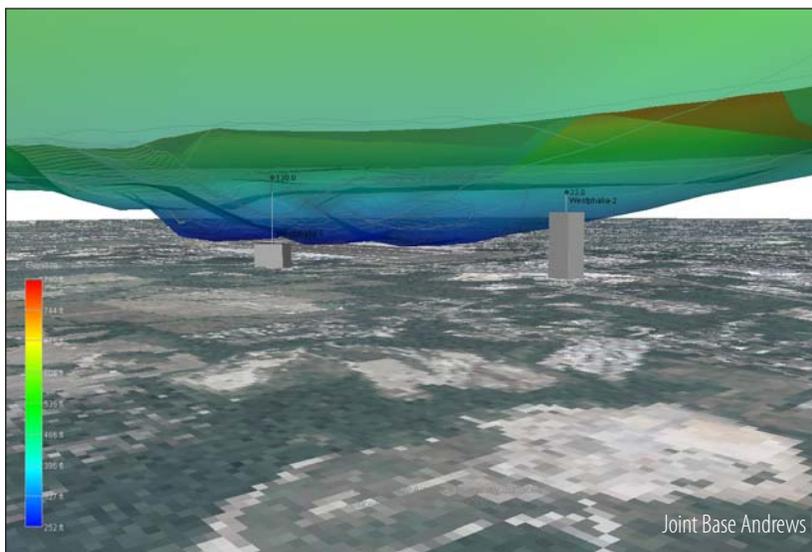
Figure 3–2. Imaginary Surfaces



This is a bird's eye view of the imaginary surfaces around JBA. The vantage point is northwest of the base in the vicinity of College Park/ Takoma Park, looking southeast over the Joint Base Andrews area. The colors in the figure are different elevations; the gray in the middle of the figure is the runways area, the blues and greens are lower elevations above ground level (up to approximately 600 feet) and the oranges and browns are the higher elevations (refer to the color-coded elevation bar in the left of the figure).



This is a view from north of the base in the vicinity of Central Avenue (MD 214), looking south toward JBA. Two hypothetical buildings (the gray cuboid shapes just left of the runways) have been added in the vicinity of Westphalia to illustrate how tall buildings could intrude into the imaginary surfaces. Both buildings are the same height, approximately 100 feet tall. They appear to be different only because the surface elevations where they are located are different.



This is a side view of the same buildings as in Figure 3b, showing the height from the top of the buildings to the bottom of the imaginary surface (33 feet and 130 feet).

surface elevation and the elevation of the imaginary surface.<sup>26</sup> Approximately 1,200 points were sampled, and maximum height contours were created. (Figure 3–2 shows these contours, and Appendix 9 includes a map with the sample points.) The legend alongside Figure 3–2 shows the potential maximum height a building/structure could reach before intruding into a particular imaginary surface. Table 3–6 summarizes these heights for points at 5,500 feet away from the base and in the Westphalia Town Center.

Variations in allowable height occur due to differences in elevation at various points around the base and the pattern of imaginary surfaces, which aligns with flight paths. As shown on Figure 3–2, the lowest potential allowable heights would occur in areas immediately north and south of the base (due to the proximity to aircraft takeoffs and landings). The maximum potential allowable height would be above the height of existing structures in the study area, with the exception of the Clear Zone on the northern side of the base. In general, though, the maximum allowable height figures should not significantly restrict development around the base, particularly in the proposed Westphalia Town Center.<sup>27</sup>

**Table 3–6. Sample Maximum Allowable Heights for Points Around Joint Base Andrews**

Location	Direction	Maximum Allowable Height
5,500 feet from base	Northeast	300 feet (20–25 stories)
	East	300 feet (20–25 stories)
	North	150 feet (10–12 stories)
	Northwest	250 feet (17 – 21 stories)
Westphalia Town Center (approximately 1,500 feet from base)	Northeast	190 feet (12 – 16 stories)

*Source: ERM*

<sup>26</sup> JBA provided detailed LIDAR (Light Detection and Ranging, an optical remote sensing technology) of the surface elevations for the analysis.

<sup>27</sup> The proposed Westphalia Town Center lies in an area with lower elevations than Joint Base Andrews. The development proposal for Westphalia contains buildings that range from 8–10 stories, well under the maximum potential allowable height for this area.

## 3.4 TRANSPORTATION

The size and location of Joint Base Andrews contribute to many base-area traffic and transportation issues. With close to 17,000 military and civilian personnel, the base itself is a major traffic generator. In addition, the area within 1.5 miles of the base is home to over 67,000 residents and 28,000 jobs (excluding the on-base jobs). Considering these factors, transportation demands in relation to land use are a key concern of Prince George's County, the military, residents, and businesses, with particular concern focused on ensuring the military mission is not impacted by traffic congestion.

### Roadways

Three major regional roads serve Joint Base Andrews: the Capital Beltway (I-95/495), MD 4 (Pennsylvania Avenue), and MD 5 (Branch Avenue). All three are classified as freeways. Other important roads carrying local traffic to and from the base include the Suitland Parkway, a freeway owned by the National Park Service; Suitland Road, MD 337 (Allentown Road), and MD 223 (Woodyard Road), all arterials; Old Alexandria Ferry Road, a collector; and Dower House Road, classified as an arterial along its northern portion and a collector near its intersection with MD 223 (Woodyard Road) (**See Map 3-11**). **Table 3-7** identifies 2008 traffic volumes for these roads.

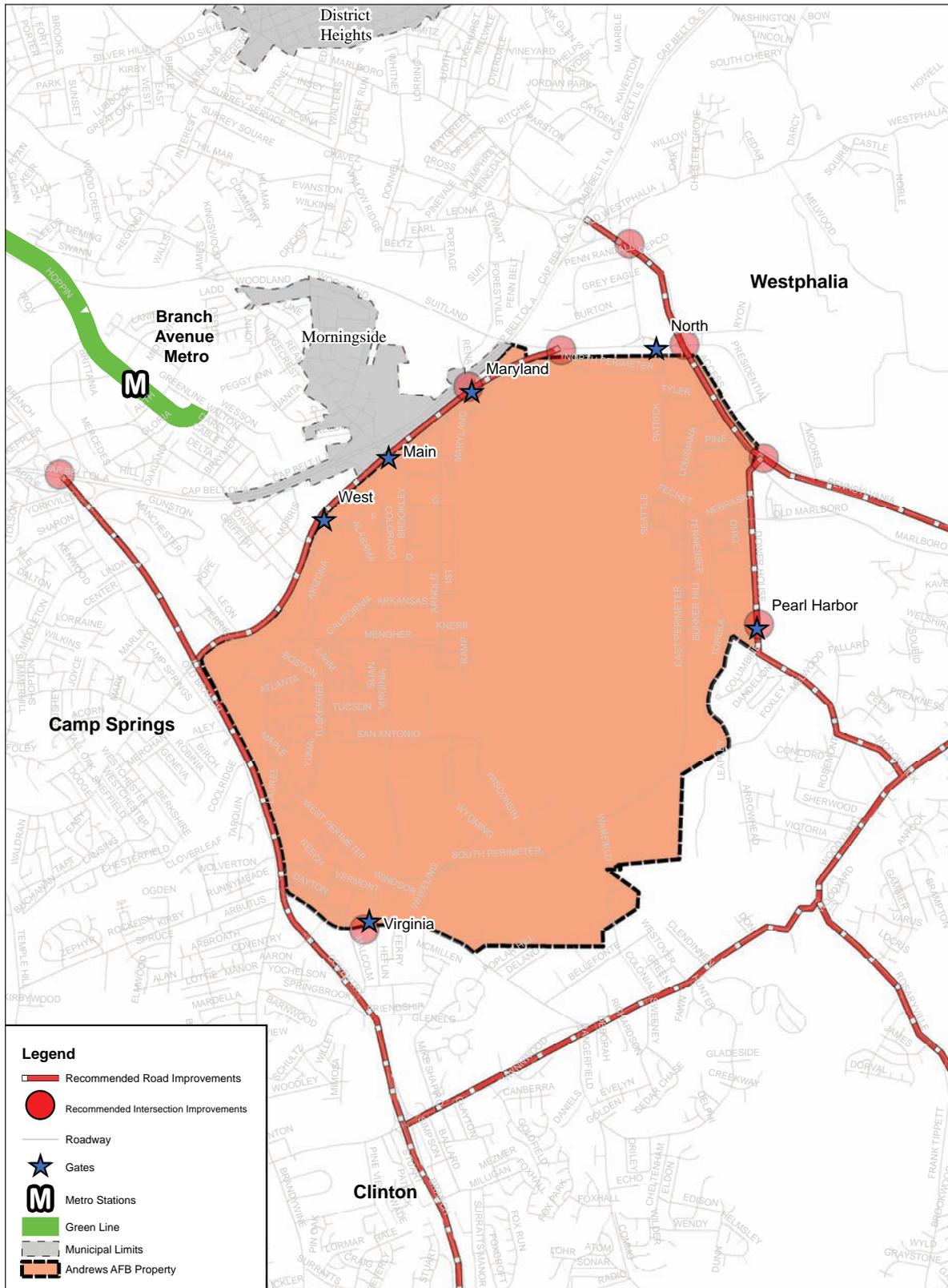
The Capital Beltway (I-495/I-95) serves regional traffic circumnavigating Washington, D.C., as well as local Prince George's County traffic. Average annual daily traffic volume near Joint Base Andrews totals over 180,000 vehicles. The base is accessible from the Capital Beltway by four exits at MD 5 (Branch Avenue), Suitland Road, MD 337 (Allentown Road), and MD 4 (Pennsylvania Avenue). At peak times, the exit ramps to the base from the Capital Beltway inner loop experience high flows and congestion.

MD 5 (Branch Avenue) runs north-south and links Washington, D.C., with southern Prince George's, Charles, and St. Mary's Counties. MD 5 carries an average of over 100,000 vehicles per day near Joint Base Andrews. MD 4 (Pennsylvania Avenue) runs northwest to southeast from Washington, D.C., serving eastern Prince George's County, Anne Arundel County, and Calvert County. Both MD 4 and MD 5 carry high traffic volumes during peak periods.

Allentown Road (MD 337), which runs along the base's northern boundary between MD 5 (Branch Avenue) and Suitland Parkway, provides access to the base's West, Main, and Maryland Gates. Traffic volume on Allentown Road is nearly 30,000 vehicles per day with the majority of traffic occurring during peak hours. Much of this traffic is base-related. Traffic entering the base at the Main Gate causes congestion on Allentown Road, especially in the mornings.

Old Alexandria Ferry Road connects MD 5 (Branch Avenue) with MD 223 (Woodyard Road), providing access to the Virginia Gate located on the southern side of the base. Traffic weaving to access this gate creates problems along this road due to the short spacing between the Malcolm Road–Old Alexandria Ferry Road and Virginia Avenue–Old Alexandria Ferry Road intersections. During some peak hours, queuing from the gate's checkpoint extends through the Malcolm Road intersection. In 2006, traffic volume on Old Alexandria Ferry Road north of MD 223 (Woodyard Road) was 16,712 vehicles per day and east of MD 5 (Branch Avenue) was 10,193 vehicles per day.

Map 3–11. Joint Base Andrews Vicinity Transportation Facilities



Source: M-NCPPC

**Table 3–7. Average Annual Daily Traffic, 2008**

Roadway Name	Average Number of Vehicles Per Day
I-95/495 south of MD 4 exit	180,242
MD 5 (Branch Avenue) south of MD 337	107,591
MD 5 (Branch Avenue) north of MD 337	106,841
MD 5(Branch Avenue) north of MD 223	97,871
MD 4 (Pennsylvania Avenue) north of Dower House Road	74,071
MD 4 (Pennsylvania Avenue) at Westphalia Road	52,261
Suitland Parkway at the base's North Gate	29,960
MD 337(Allentown Road) at the base's Main Gate	28,300
MD 223 (Woodyard Road) north of Marlboro Pike	22,791
MD 223 (Woodyard Road) east of MD 5	18,181
MD 223 (Woodyard Road) east of Rosaryville Road	17,951

*Source: Maryland State Highway Administration*

MD 223 (Woodyard Road) south and east of the base is regionally important, as it connects Old Alexandria Ferry Road with Dower House Road, completing a circular route around the base. However, MD 223 is a two-lane road for most of its length. It has several failing intersections near the base and continuous traffic flows make turning onto or off the road difficult.

Suitland Parkway was conceived during World War II to link the then-planned Joint Base Andrews with the military facilities of Bolling Air Force Base and the Pentagon. Built in 1943-1944, the roadway is owned by the National Park Service and is listed on the National Register of Historic Places. This road runs through the base's northern Clear Zone and connects the base area to MD 4 (Pennsylvania Avenue).

Dower House Road frames the eastern boundary of the base, extending from MD 4 (Pennsylvania Avenue) south to MD 223 (Woodyard Road). The Dower House Road/MD 4 intersection, one of the busiest intersections on MD 4 east of the Capital Beltway, fails at peak hours. Recent changes to the base's Pearl Harbor Gate have brought extensive commercial traffic to this otherwise two-lane rural-section roadway. Left-turning traffic trying to enter the Pearl Harbor Gate causes congestion on Dower House Road. Sight distance is also a problem due to the topography near the Pearl Harbor Gate. In 2006, traffic volume on Dower House Road west of Ballard Drive was 8,478 vehicles per day.<sup>28</sup>

## Base Entrances

Six gates line Joint Base Andrews' perimeter and provide access to the base (See Map 3–11). The functional operation of each gate has changed over time due to security considerations and/or access to base facilities. The gates and their functionality directly impact traffic volumes and patterns around the base.

<sup>28</sup> DPW&T Traffic Count Book.

The Main Gate, located at the terminus of Suitland Road, receives more than half the traffic entering or exiting the base.<sup>29</sup> As of 2006, traffic counts at this access point exceeded 20,000 vehicles per day.<sup>30</sup> Heavy traffic flows during peak hours create queuing problems along the Capital Beltway's exit ramp for vehicles exiting the Capital Beltway from the north. The Main Gate is expected to continue for the foreseeable future as the base's main entrance and exit. After BRAC is implemented this gate is anticipated to handle approximately 61 percent of future base traffic.

The Virginia Gate off Old Alexandria Ferry Road serves vehicles entering and exiting the southern side of the base and is the second most utilized base gate. Traffic problems occur at this gate, including traffic weaving on Old Alexandria Ferry Road due to short intersection spacing and queuing at the checkpoint. High traffic flows also occur during midday peak hours, due in part to base personnel leaving the base to frequent the shopping nodes in Clinton. After BRAC is implemented this gate is expected to handle approximately 20 percent of future base traffic.

The Pearl Harbor Gate is located on the east perimeter along Dower House Road. Since 2007 commercial traffic has been directed to this gate, which has resulted in increased commercial traffic and heavy vehicles on Dower House Road. This two-lane road needs improvements to be able to safely handle the increased traffic load. At peak hours, northbound traffic on Dower House Road often queues for almost a quarter of a mile as left turning traffic attempts to enter the gate. After BRAC is implemented this gate is anticipated to handle approximately 15 percent of future base traffic.

Slightly northeast of the Main Gate, the Maryland Gate is the secure access for national and foreign dignitaries and is not used for routine day-to-day operations at the base. The North Gate, located east of the Allentown Road-Suitland Parkway intersection, is subject to restricted hours and is rarely used.

The West Gate, currently closed, is located along Allentown Road in front of the main administration building on Command Drive. Traffic previously using this gate has been diverted to the Main Gate. The West Gate has been considered for the possibility of a pedestrian-only gate.

## Transit

Transit service is provided to the perimeter of Joint Base Andrews, but no direct transit service onto the base exists, as security concerns do not permit transit vehicles to enter the base gates. The Branch Avenue Metro Station is located about 2.5 miles from the base's Main Gate by the shortest route. The Prince George's County Department of Public Works and Transportation's bus system ("TheBus") connects the Metrorail Green Line with the base, stopping outside the base perimeter near the West Gate. The Bus also connects the base via the Virginia Gate to the surrounding community. In addition, the Washington Metropolitan Area Transit Authority (WMATA) operates bus routes on nearby Pennsylvania Avenue and Branch Avenue, along with three routes that stop at the base's Main Gate and West Gate. One of these routes connects the base with the Branch Avenue Metro Station. The closest park-and-ride commuter lot is located south of the base in Clinton. Within the base, perimeter shuttle service is provided for base personnel.

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<sup>29</sup> Most of this section is derived from two studies: "Andrews Air Force Base Comprehensive Transportation Study" (2006) and "Andrews Air Force Base BRAC Traffic Study" (February 2007).

<sup>30</sup> "Andrews Air Force Base BRAC Traffic Study" (February 2007).

## Pedestrian/Bicycle Access

Existing pedestrian and cyclist access to the base is very limited. Security concerns constrain non-motorized vehicle access, and the location of employment and residential centers within the base are a long walk from existing entrances. In addition, no sidewalks exist on the base side of Allentown Road, Old Alexandria Ferry Road, Branch Avenue, and Dower House Road. Improving pedestrian and cyclist access would help reduce automobile trips on roadways, easing base area congestion and reducing energy use.<sup>31</sup>

The base's internal strategic plan identifies the West Gate as a possible pedestrian gate for those entering the base on foot, by bicycle, or by transit. Additionally, the base would like to make other gates accessible to pedestrians, but currently lacks enough security personnel to staff these gates. One alternative proposed is the creation of an entry card system that would allow automated access of other operating gates by foot, bicycle, or transit. The proposed on-base Town Center redevelopment is planned to create a more intimate pedestrian environment, an approach that has been utilized successfully at other military bases across the country. The *Andrews AFB Comprehensive Transportation Study* (2006) identified two base interior roads, Perimeter Road and Virginia Avenue, as locations prone to pedestrian and vehicular conflicts. Sidewalks and pedestrian safety devices are planned to be installed as part of the base's strategic plan implementation effort.

## Planned Transportation Improvements

### *Roadways*

Growth and development at and around JBA—especially in Westphalia and due to BRAC—will have a considerable impact on roads in the JLUS study area in the next two decades. Planned projects include:

- ❖ **MD 5 (Branch Avenue):** The section of MD 5 along the southwestern boundary of Joint Base Andrews south to Surratts Road has been upgraded to freeway condition. The MD 5/Capital Beltway intersection is programmed for reconstruction to improve access to the Branch Avenue Metro station (the terminus of the Green Line) and the general base vicinity.<sup>32</sup> The Subregion 5 Master Plan recommends a freeway condition for the entire roadway in Prince George's County, and one project in Brandywine has been funded for construction. A transit line along MD 5 is in the early planning stages (see the following "Transit" section).
- ❖ **MD 4 (Pennsylvania Avenue):** The *Approved Subregion 6 Master Plan and Sectional Map Amendment* recommends MD 4 from I-95/495 (Capital Beltway) to the Anne Arundel County line for freeway status, with interchanges at Suitland Parkway, Westphalia Road, and Dower House Road. The plan also recommends upgrading the MD 4/MD 223 interchange. Funding for the reconstruction of the MD 4/Suitland Parkway interchange was removed from the Maryland Department of Transportation's Consolidated Transportation Plan in 2008, but this project is still planned for the long term.
- ❖ **MD 223 (Woodyard Road):** The Subregion 6 plan also recommends MD 223 for upgrade to a four- to six-lane roadway between MD 4 and MD 5. Portions of MD 223 were recently included in a feasibility study by the State Highway Administration.
- ❖ **Dower House Road:** Prince George's County has identified Dower House Road improvements for the length of roadway abutting the base as a top priority.

<sup>31</sup> A goal of the county's approved Master Plan of Transportation (MPOT) involves providing a continuous network of sidewalks, bikeways, and trails throughout the county that provide opportunities for residents to make some trips by walking and biking, particularly to mass transit, schools, employment centers, and other community destinations.

<sup>32</sup> The project is in the State's Consolidated Transportation Plan but is not funded for construction.

As described in Chapter 2, Joint Base Andrews' 25-Year Strategic Plan identifies changes to over 600 acres of on-base military facilities. Several road improvements are envisioned to support these changes, including construction of a north-south corridor and relocation of East Perimeter Road.

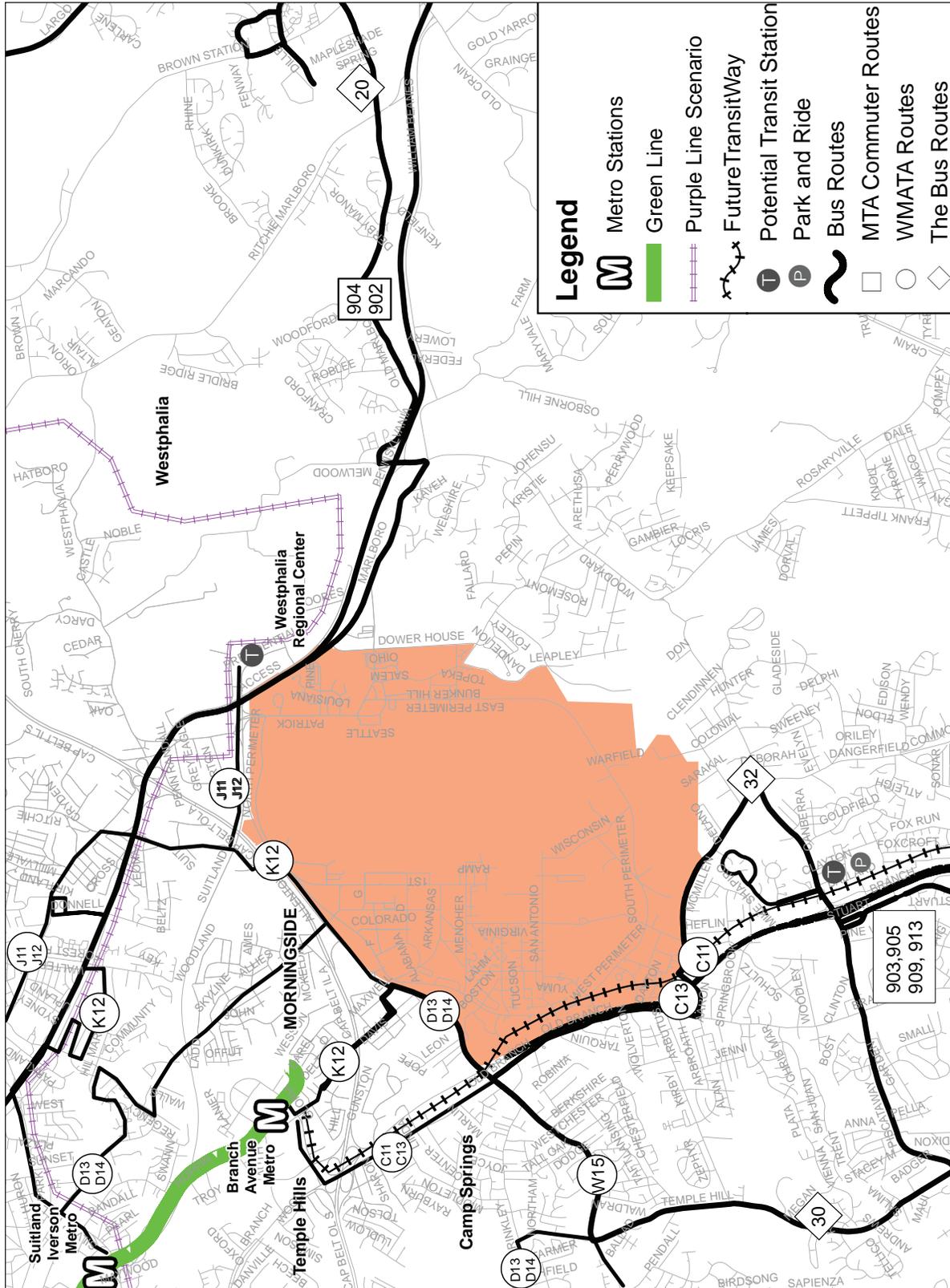
### ***Transit***

Three fixed guideway transit expansion projects affecting Joint Base Andrews have been proposed by local, state, and metropolitan transportation agencies:

- ❖ The county's approved Master Plan of Transportation proposes to evaluate extensions of the planned Purple Line Metro from New Carrollton to National Harbor that could serve the Joint Base Andrews-Westphalia Center area (**See Map 3-14**). This, however, is a longer-range transit option; the first phase of the Purple Line is not scheduled to open to the public until early 2017. An extension would take correspondingly longer to serve the area of the county that includes Joint Base Andrews.
- ❖ The Maryland Transit Administration (MTA) is evaluating a bus rapid transit (BRT) or light rail transit line on Branch Avenue (MD 5) within its ongoing Southern Maryland Transit Corridor Preservation Study along the Branch Avenue (MD 5)/Crain Highway (US 301) corridor in Prince George's and Charles Counties. This study will examine alternative alignments for a BRT or light rail system along this corridor. This study also will evaluate a potential transit stop serving the base near the Virginia Gate.
- ❖ The *Approved Westphalia Sector Plan and Sectional Map Amendment* recommends a possible Green Line Metro extension to the proposed Westphalia development, including reservation of land for a future Green Line Metro station. Although this particular Metro extension is not shown in the county's approved Master Plan of Transportation (MPOT), such an extension can be included in future evaluations of fixed guideway transit options as part of the MPOT strategic transportation planning process.

Existing and proposed transit service and projects are shown in **Map 3-12**.

Map 3–12. Existing and Proposed Base Area Transit Service



Source: M-NCPPC and WMATA

## 3.5 ECONOMIC AND COMMUNITY DEVELOPMENT

Joint Base Andrews is a major economic engine for the Greater Washington metropolitan area and is the largest employer in Prince George's County. When the base was first established in the 1940s, nearby settlements such as Morningside and Clinton were little more than crossroads communities, but during the ensuing decades, these communities supplied many of the military community's off-base needs, including accommodations, restaurants, stores, and entertainment. Today several areas, some relatively far from the base, compete for the base's business and economic spin-off activity. These include Clinton, Largo, Suitland, and Upper Marlboro in Prince George's County and Waldorf in Charles County. In some cases these places offer newer housing and commercial and business centers compared to the older areas in the immediate base vicinity that developed in earlier decades. As a result, some of these older commercial and employment areas struggle with economic viability.

The partners in the JLUS generally agree that the community surrounding the base has the opportunity to benefit economically from the presence of the base to a much larger extent than it currently does. Existing economic development issues include:

- ❖ An apparent lack of base-related employment opportunities in the area surrounding the base.
- ❖ Limited reinvestment in existing developed areas around the base, which has led to some underperforming commercial areas, particularly along Allentown Road.
- ❖ Lack of diversity in restaurant choices.
- ❖ Lack of higher-end retail options in areas around the base.
- ❖ Presence of blighting influences in some key, high-visibility locations.
- ❖ The absence of easy, safe, and attractive pedestrian connections between the base and nearby services.

### Economic Development Recommendations in Related Plans

Economic development is one of the highest priority goals in the 2002 *Prince George's County Approved General Plan*, which encourages this development at appropriate locations to increase employment opportunities, personal income, and the Prince George's County tax base. To achieve this goal the General Plan designates centers and corridors to attract new employment and commercial development, while stressing the importance of retaining existing businesses. Accordingly, recommendations in land use and development plans for the planning areas around Joint Base Andrews reflect this broad countywide economic development goal:

- ❖ ***Adopted Subregion 4 Master Plan and Endorsed Sectional Map Amendment:*** This plan encourages redevelopment and revitalization of older areas. Rather than developing new activity centers, the main economic development focus is reinvestment in declining commercial areas. For areas near Joint Base Andrews, the plan emphasizes creating a flex space campus north of the base in the Forestville Plaza area, redeveloping the Silver Hill area as a cultural hub, and revitalizing the Great Eastern Shopping Plaza on Marlboro Pike.
- ❖ ***Approved Subregion 5 Master Plan and Sectional Map Amendment:*** This plan recommends upgrading the quality of area development in order to retain existing jobs and attract new jobs to the base vicinity. Particular emphasis is placed on infill and redevelopment along MD 223 (Woodyard Road) in Clinton, redevelopment of land near a future MTA bus rapid transit or light rail transit stop, most likely on the east side of MD 5 (Branch Avenue), and retention of existing office/employment areas along Old Alexandria Ferry Road and Kirby Road.
- ❖ ***Approved Subregion 6 Master Plan and Sectional Map Amendment:*** This plan emphasizes the importance of Joint Base Andrews and associated employment as the major economic driver for the

area. In order to take advantage of the base, the plan recommendations direct economic development to strategic locations, especially to Westphalia, given its proximity to the base.

- ❖ **Various Subregion 7 Sector Plans:** Economic development strategies in Subregion 7 focus on creating commercial centers and visually-appealing corridors to attract quality development that provides jobs, goods, and services. This would help increase base-area employment opportunities, personal income, property values, and assessable tax base. These sector plans recognize revitalization of existing commercial areas near the base as a high priority including revitalization of the Branch Avenue Corridor, redeveloping Andrews Manor along Allentown Road, and ensuring continued investment in the Camp Springs town center mixed-use activity center.

## Base Realignment and Closure (BRAC) Zone

The State of Maryland designated a Base Realignment and Closure Revitalization and Incentive Zone (BRAC Zone) in Subregion 7.<sup>33</sup> BRAC Zones benefit local governments affected by the Base Realignment and Closure Act of 2005 through financial assistance for public infrastructure as part of a coordinated state effort to make these zones the focus of growth due to base realignments. Under the BRAC Zone program, Prince George's County may receive 100 percent of the state real property tax increment and 50 percent of the local jurisdiction's real property tax increment. Funds can be used to pay back bonds issued for infrastructure improvements in a particular BRAC Zone.

The Prince George's County BRAC Zone for Joint Base Andrews includes portions of the Town of Morningside, Suitland Road, the Allentown Road commercial corridor, and the Branch Avenue Metro station (**See Map 3-12**). Prince George's County intends to use the BRAC Zone to incentivize infrastructure improvements in these areas and, in turn, attract private investment.

## Enterprise Zone

Portions of Subregions 4 and 7 are located in an Enterprise Zone, a state designation which allows businesses located in this area to become eligible for income tax credits and real property tax credits in return for job creation and investment in the area. The program is designed to foster economic development in areas that are economically disadvantaged. Camp Springs, adjacent to the base, can use the Enterprise Zone program to further economic development in the community.

## The Andrews Business and Community Alliance

The Andrews Business and Community Alliance (ABCA) is a non-profit organization whose membership includes representatives from the base-area business, civic, faith, and public sector communities. ABCA advocates for and supports the base mission while fostering successful economic and community relations between its members. ABCA's vision for the JBA area is set forth in its publication titled *Expanding the Andrews National Defense and Technology Corridor*. Components of the vision include:

- ❖ Revitalization of the Allentown Road and Suitland Road corridors.
- ❖ Redevelopment of the Old Alexandria Ferry Road corridor.

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<sup>33</sup> The BRAC Revitalization and Incentive Zone program was established by the State of Maryland in 2008 (SB206 BRAC Community Enhancement Act). Each year, the amount to be shared among all local jurisdictions is the amount appropriated in the state budget up to \$5.0 million. As of December 2008 five BRAC zones, including two in Prince George's County, had been created in Maryland.

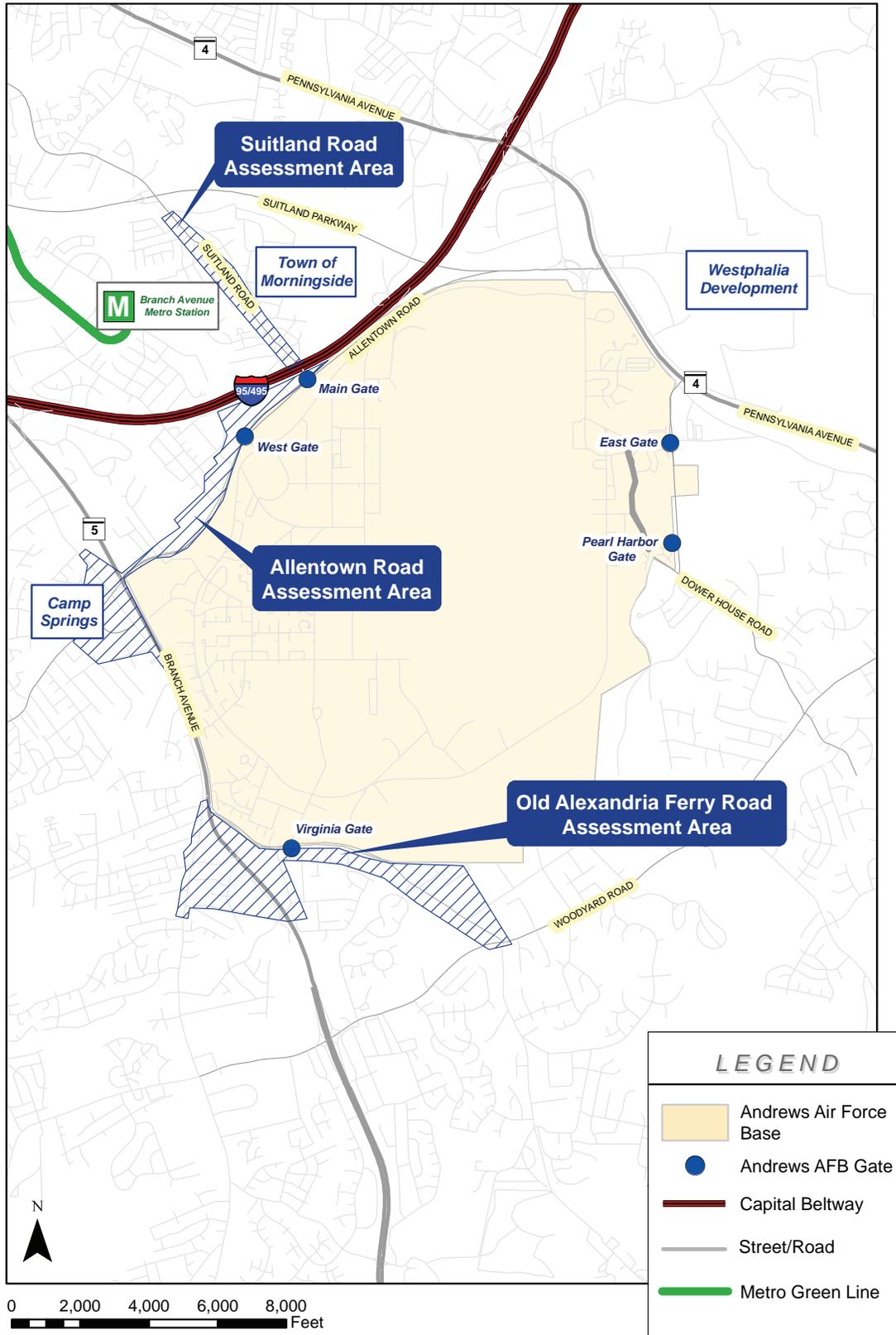
- ❖ Department of Defense acquisition of 200 to 300 acres of land for future base expansion.
- ❖ Development of Westphalia, including a high density commercial center with over five million square feet of office buildings, two million square feet of retail space, 15,000 residential units, hotels and hospitality services, and six new schools.
- ❖ Support for growth, creation of a greatly expanded and interconnected road network, and an extension of the Metro Green Line to Andrews and Westphalia.

### Survey of Commercial and Industrial Land Uses

As part of the JLUS, the consultant team conducted a survey of the commercial and industrial areas around Joint Base Andrews in February 2009. This survey focused on vacancy and general appearance and condition of these properties. It also considered the effects of potential JLUS land use policies and opportunities for economic synergies with the base. Please see **Appendix 10** for a map of the survey areas and a detailed description of survey results.

The survey found that three areas in the immediate base vicinity qualify as areas in need of revitalization: the Allentown Road corridor, the Suitland Road/Morningside area, and a portion of Old Alexandria Ferry Road. Each area has high vacancy rates, lower-end retail/commercial uses, and an unattractive public realm. **Map 3-13** shows the location of these three commercial areas. The Allentown Road corridor and the Suitland Road/Morningside area are of particular interest, given their roles as the main gateways to Joint Base Andrews. In both instances, targeted revitalization efforts could improve community appearance and help attract businesses that would serve JBA personnel and the needs of the local community. Both areas lie within a designated Enterprise Zone and the BRAC Revitalization and Incentive Zone.

Map 3-13. Economic Survey Assessment Areas



Source: M-NCPPC and Joint Base Andrews (2007, 2008)

## 3.6 ENVIRONMENTAL/NATURAL RESOURCES

Joint Base Andrews and Prince George's County share responsibility for protecting environmental resources in the base's vicinity. The health, safety, and welfare of the public are directly impacted by environmental conditions, and both the base and the county must ensure that their policies and activities have a beneficial impact on local environmental resources.

### Environmental Context

Joint Base Andrews is located atop a naturally formed plateau that has an elevation ranging from 215–281 feet above mean sea level. The base straddles the Potomac River Basin and the Patuxent River Basin, two tributary basins that flow into the Chesapeake Bay. The portion of the base in the Potomac River Basin includes parts of the three subwatersheds: Henson Creek, Tinkers Creek, and Piscataway Creek. The portion of the base in the Patuxent River Basin includes parts of two subwatersheds: Western Branch and Charles Branch. In addition, a sixth watershed, Southwest Branch, is located north of Joint Base Andrews within the JLUS study area. **Map 3–15** offers a graphic representation of the base's location within local river basins and subwatersheds.

### Prince George's County Environmental Plans and Studies

Prince George's County adopted the *Approved Countywide Green Infrastructure Plan* in 2005. The plan identifies a contiguous network of environmentally-sensitive areas throughout the county and sets forth a goal, objectives, policies, and strategies to preserve, protect, and enhance these elements. Several Green Infrastructure (GI) corridors begin on Joint Base Andrews in the headwaters of the five watersheds (**See Map 3–14**).

### Joint Base Andrews Environmental Plans and Studies

Guidelines for environmental planning at Joint Base Andrews include Natural Infrastructure Management (NIM) and an Integrated Natural Resources Management Plan (INRMP).

NIM is a management philosophy that extends environmental responsibility to organizations that control aspects of the environmental resources or “natural infrastructure” on the base. The NIM allows the Air Force to utilize and manage environmental resources on the base while complying with and supporting their military mission.

The INRMP fulfills the requirements of the Sikes Act Improvement Act of 1997 by providing management activities that include the conservation and rehabilitation, as well as the sustainable multipurpose use, of natural resources on Joint Base Andrews. The objective of the INRMP is to facilitate the integration of natural resources management into other plans and activities across the base. Goals of the INRMP include reducing loadings of toxic substances to surface water and providing high quality natural resources-based recreational opportunities.

### Environmental Concerns

#### *Wetlands and Streams*

Wetland surveys conducted at Joint Base Andrews have identified approximately 87 acres of wetlands, most of which are located in forested, natural watercourses and marshlands northeast and southeast of the base. The base maintains a 25-foot buffer boundary around delineated wetlands.

Joint Base Andrews has a Water Program Manager who facilitates wetland and stream restoration projects on base. In the past the base undertook stream restoration projects on Cabin Branch, part of the Western Branch watershed. Future restoration projects are planned for this tributary.

Joint Base Andrews has an ongoing wetland restoration and enhancement project near the southern border in the Piscataway Creek watershed that is monitored annually. A stream restoration project is underway for a section of Piscataway Branch located near the end of the runway. In the Tinkers Creek watershed Joint Base Andrews has a stream restoration project underway on Meetinghouse Branch.

### ***Forestry Management***

Trees can interfere with the base mission because they can grow into airspace used by aircraft for navigation. Joint Base Andrews, in conjunction with the National Park Service and affected off-base landowners, has a management plan that identifies trees requiring trimming or removal as well as locations for planting replacement trees (**See Section 3.1**). Off-base tree trimming or removal to prevent conflicts with the base's mission does not require a Prince George's County Tree Conservation Plan.

Joint Base Andrews has an Arbor Plan that includes a tree planting plan and requirements for tree replacement. For the past 15 years Joint Base Andrews has been awarded the "Tree City, U.S.A." designation, which is sponsored by the Arbor Day Foundation in cooperation with the USDA Forest Service and the National Association of State Foresters. To receive this designation, a community must, among other requirements, have a viable tree management plan and program.

### ***Rare, Threatened, and Endangered Species***

No state or federally listed rare, threatened, or endangered plant or animal species are found on JBA. The original location of one previously identified plant species is being managed as a preservation area.

### ***Bird/Wildlife Aircraft Strike Hazard (BASH)***

Birds and wildlife can hamper the base mission by interfering with aircraft operations. Joint Base Andrews is located near the Atlantic Flyway bird migratory route, which increases the potential for conflicts between birds and wildlife and air operations. The potential for a Bird/Wildlife Aircraft Strike Hazard (BASH) incident is highest during the bird migratory periods, with most BASH incidents occurring between August and October. Each year approximately 30 reportable BASH incidents occur on Joint Base Andrews.

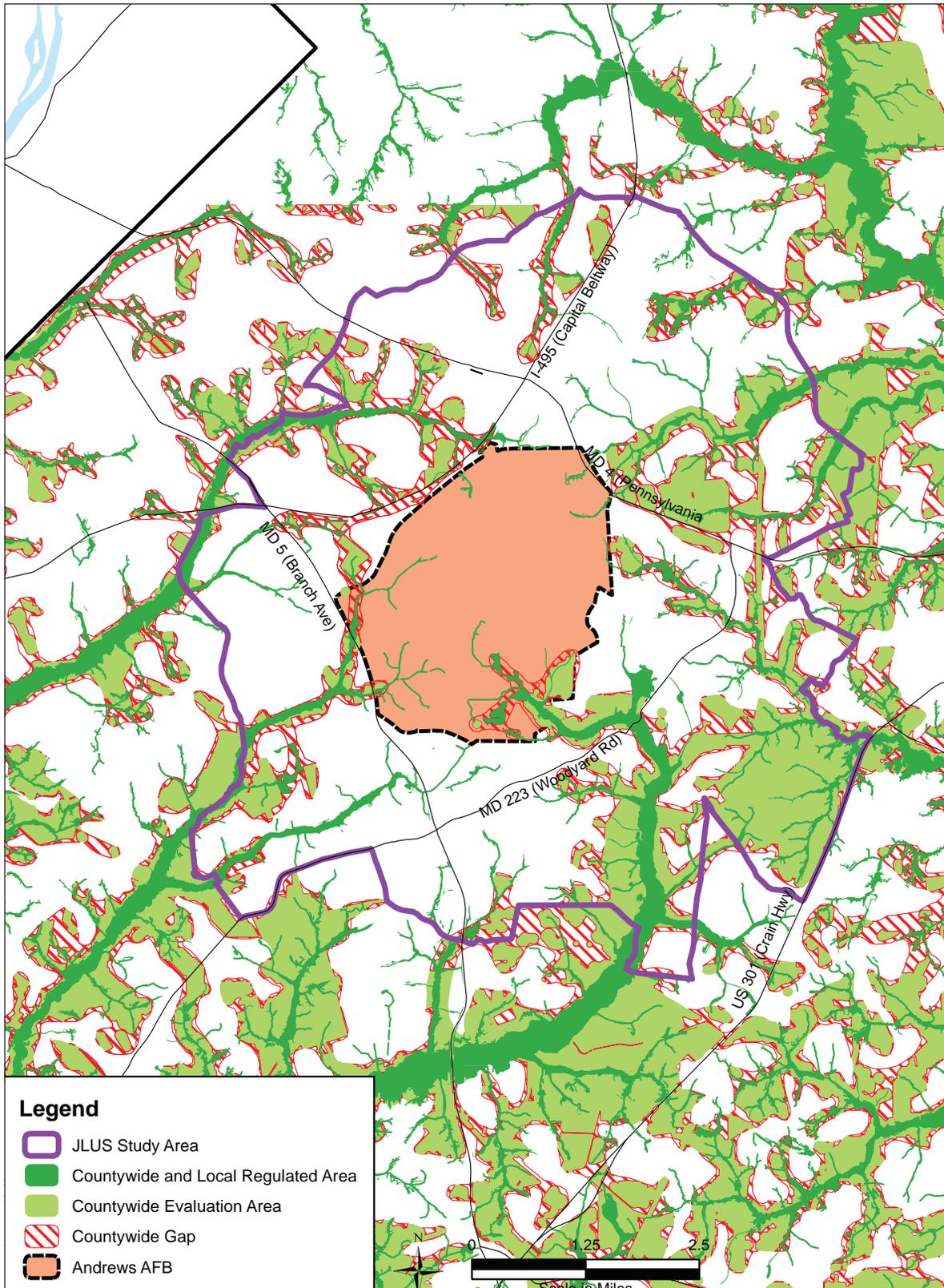
While most BASH incidences occur off base at altitudes of 500–3,000 feet, birds, especially those in flocks like starlings and seagulls, can be dangerous on the airfield and may cause damage to equipment and injure personnel. Canada geese and other water birds tend to congregate on or near water bodies, including the Base Lake and Belle Chance ponds near the northern Clear Zone, and are rarely seen on the airfield except when the wetland at the north end of the field fills with water during high rain events.

Joint Base Andrews has a bird and wildlife airstrike hazard (BASH) plan, the goal of which is to reduce BASH. The BASH management plan includes grounds maintenance, physical removal of birds by implementing bird harassment measures, reduction of wet areas within the airfield boundary, and improving flight crew awareness.

### ***Groundwater Contamination***

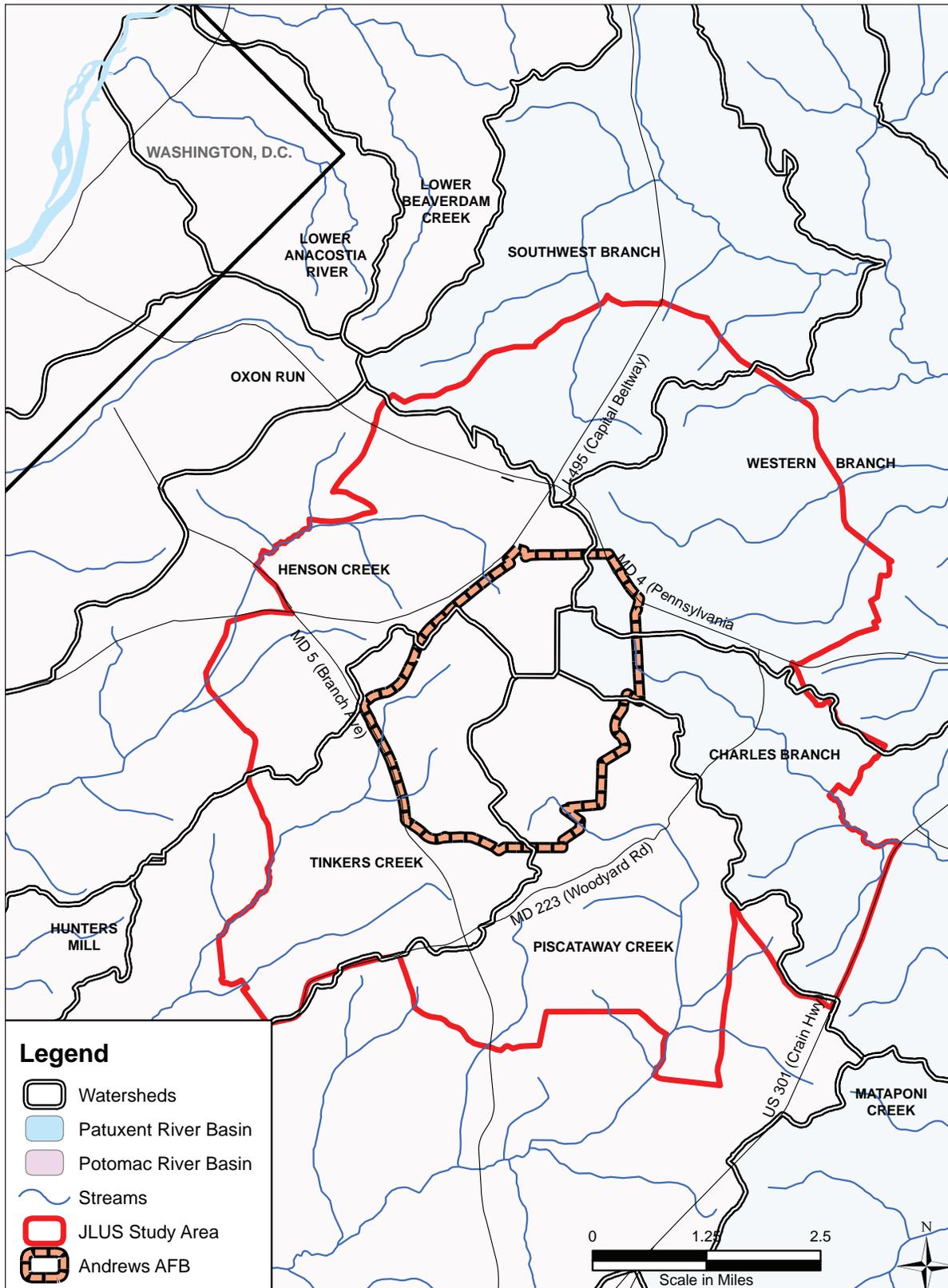
A former landfill located on the southeastern part of the base near Foxley Road is a source of groundwater contamination that has migrated off base. This area, including the off-base area, is being remediated and will need to be continued and monitored for the next 10-15 years. Prince George's County will need to condition permits for development in the off-base area to take account of this remediation and long term monitoring.

Map 3–14. Green Infrastructure Network



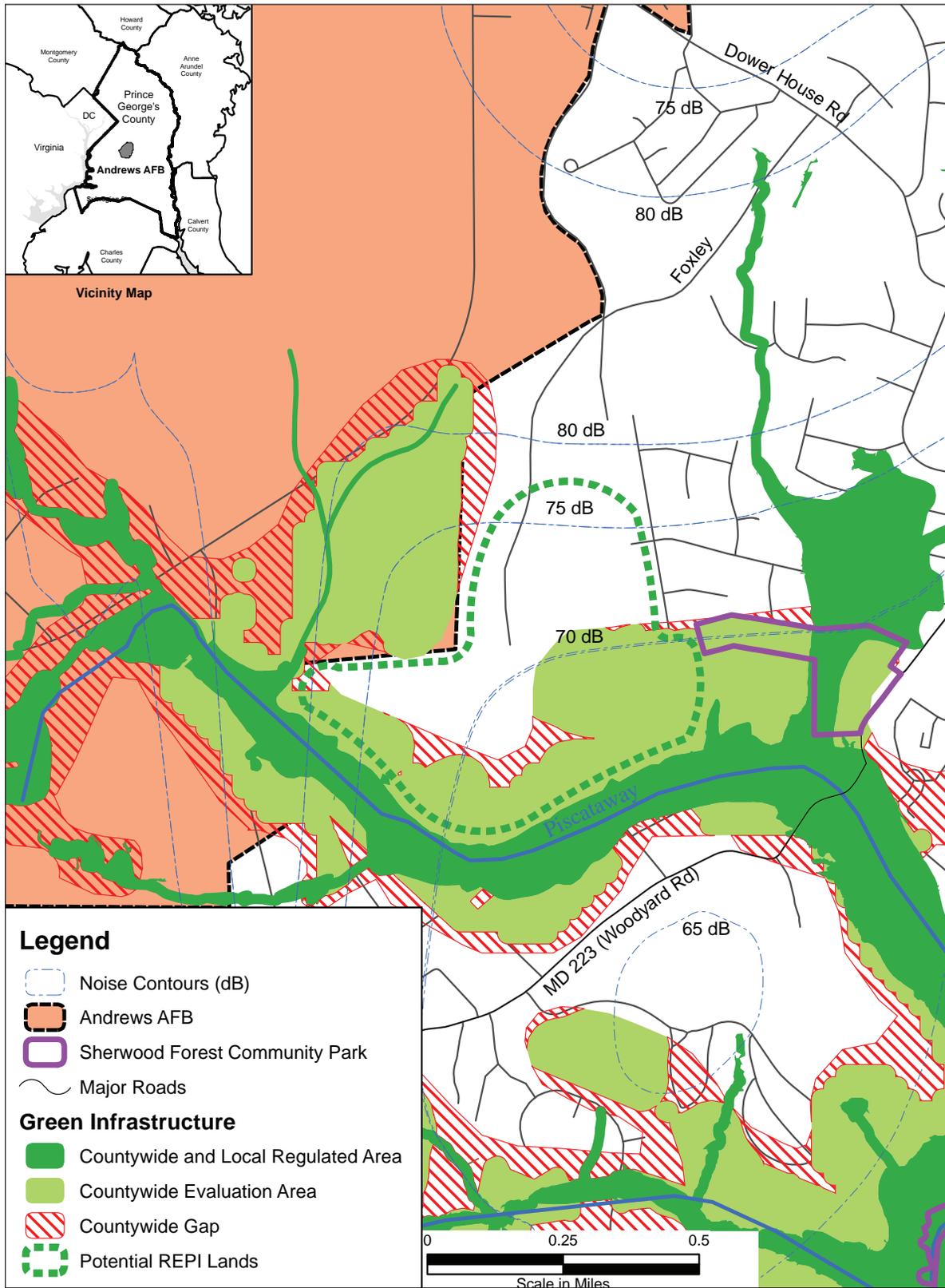
Source: M-NCPPC

Map 3–15. Study Area Watersheds



Source: M-NCPPC

Map 3–16. Piscataway Creek Area



Source: M-NCPPC

## Potential Funding for Environmental Initiatives

### *Coordination Opportunities and the Readiness for Environmental Protection Initiative (REPI)*

Joint Base Andrews contains the headwaters of several streams that form components of the county's Green Infrastructure network. Potential opportunities exist to meet both the base's Natural Infrastructure Management objectives and the County's Green Infrastructure Plan policies and strategies.

The Office of the Secretary of Defense (OSD) created the Conservation Partnering Program (now known as the Readiness for Environmental Protection Initiative, or REPI) to implement the authority to establish buffer areas near training and testing areas. The REPI program is a potential source of funding for eligible projects that limit incompatible development and protect valuable open space and habitat. Under the program, OSD funds services to implement compatible land use partnering projects to relieve encroachment pressures on training, testing, and support operations at U.S. military bases from either incompatible development or loss of natural habitat.<sup>34</sup>

One opportunity exists on the southeastern side of the base along Piscataway Creek (**See Map 3-16**). The base's long term development plans call for a munitions storage area in this location. The Piscataway Creek headwaters area is on base property, and M-NCPPC's Sherwood Forest Community Park lies approximately one mile downstream on the northern side of the creek. Between the two is a largely forested area that, if protected, could serve as an additional environmental buffer for the base and expand the buffer along Piscataway Creek outside the base. This area is labeled "Potential REPI Lands" on **Map 3-16**. Another consideration is that this area is slightly south of a former landfill located on the southeastern part of the base near Foxley Road. This former landfill is a source of groundwater contamination that has migrated off-base.

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<sup>34</sup> The primary authority for the program is 10 U.S.C. §2684a. Projects may also be implemented under the Sikes Act, 16 U.S.C. §§ 670(a)-670(o). (Readiness and Environmental Protection Initiative Program Guide, v.2 [May 2008].)

## 3.7 HISTORIC AND CULTURAL RESOURCES

As noted in Chapter 2, shortly after the United States entered World War II a portion of the largely rural Maryland countryside in Camp Springs was transformed into a military airfield. President Franklin D. Roosevelt directed the Secretary of War to acquire land in the vicinity of Camp Springs, MD, for the establishment of an army airfield to protect Washington, D.C. Then named Camp Springs Army Air Field, the base was renamed as Andrews Army Air Field in honor of Lt. Gen. Frank Andrews in early 1945.

To connect Joint Base Andrews with the military facilities of Bolling Field and the Pentagon, the federal government constructed Suitland Parkway between 1943 and 1944. The parkway travels through an extensively landscaped corridor of 400 acres today owned and maintained by the National Park Service. The parkway was listed in the National Register of Historic Places in 1995.

Several historic sites remain from the pre-World War II era, including three from the nineteenth century. **Table 3–8** summarizes these sites. Two of the sites are located on Joint Base Andrews: Belle Chance and Forest Grove Methodist Church (**See Map 3–17**).

**Table 3–8. Historic Sites in the Joint Base Andrews Vicinity**

Site Number*	Site Name	Year Built	Prince George's County Historic Site Type***	National Register Status
75A-006	Epiphany Episcopal Church and Cemetery	1862	Historic resource	Eligibility not yet determined
77-012	St. Luke's Church Site and Cemetery	1893	Historic resource	Eligibility not yet determined
77-013	Leapley House	1896	Documented property	Determined eligible, 1996
76B-017	Old Bells Methodist Church	1910	Historic site	Determined eligible, 1997
77-014	Belle Chance**	1912	Historic site	Determined eligible, 2000
77-001	Forest Grove Methodist Church**	1914	Historic site	Unclear
75A-007	Forestville School	1922	Historic resource	Eligibility not yet determined
76A-022	Suitland Parkway	1943-1944	Historic site	Listed, 1995
75A-008	Forestville Methodist Episcopal Church Site and Cemetery	Unknown	Historic resource	Eligibility not yet determined

\* Prince George's County Identification Number

\*\* Located on Joint Base Andrews

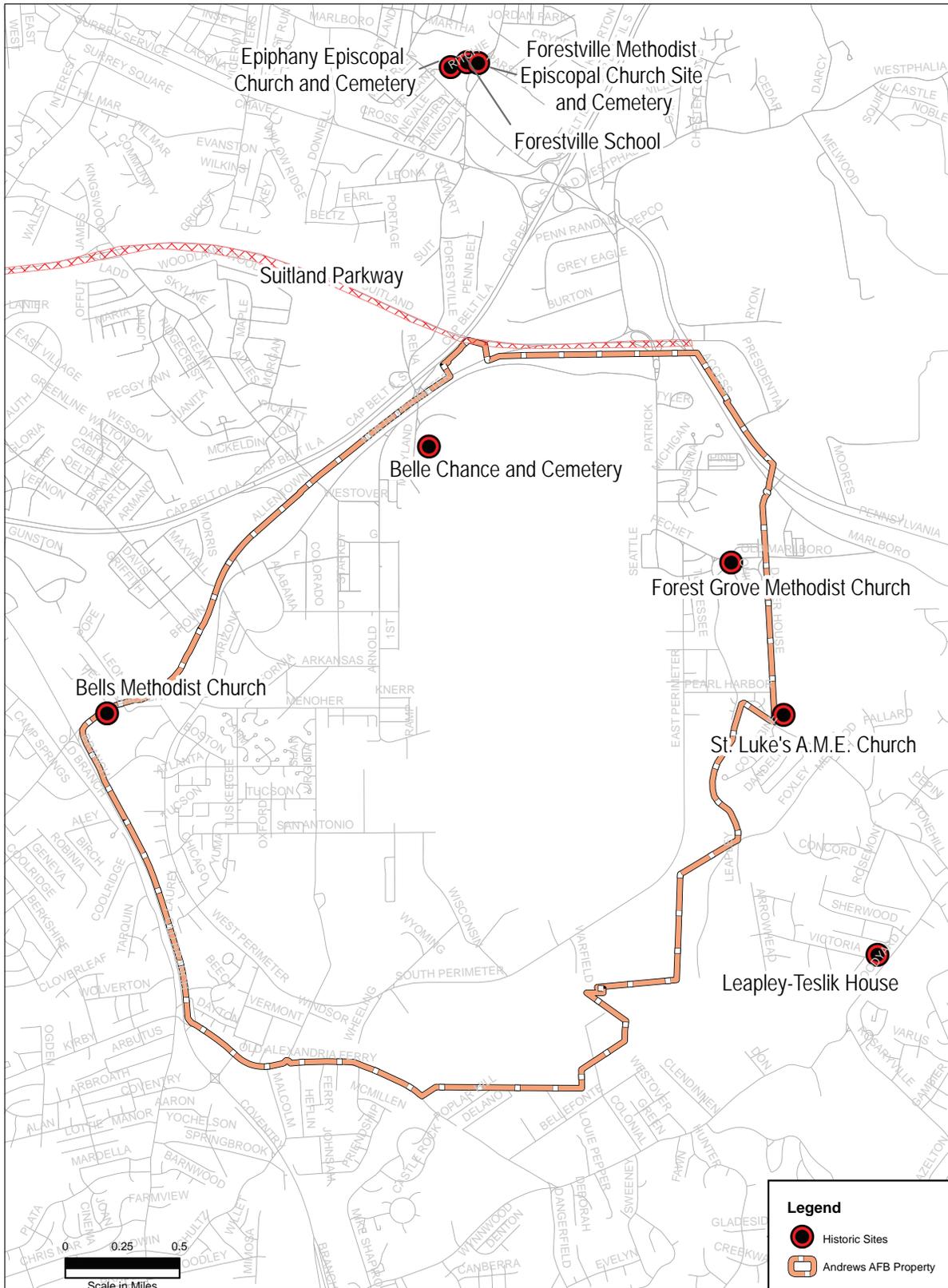
\*\*\* The National Register of Historic Places is the federal government's list of the nation's cultural resources worthy of preservation. Properties listed on the National Register (or determined eligible to be listed on the National Register) receive a degree of protection from federally licensed or funded projects that might adversely affect them. This is commonly known as the Section 106 Process and is administered through the State Historic Preservation Office, also known as the Maryland Historical Trust.

Historic site means any individual historic resource that has been evaluated according to the process called for in the Prince George's County Historic Preservation Ordinance (Subtitle 29 of the County Code) and found to be significant. Historic sites are protected by the ordinance and by other regulations. Exterior changes must be approved by the county Historic Preservation Commission administered through M-NCPPC's Historic Preservation Section, Countywide Planning Division.

Historic resources are historic properties listed in the county's Inventory of Historic Resources. A historic resource is an area of land, building, structure, or object, or a group or combination thereof, including appurtenances and environmental setting, which may be significant in national, state, or local history, archeology, or culture.

Documented properties are properties not listed on the county's Inventory of Historic Resources. Documented properties may or may not meet the criteria for county or National Register designation.

Map 3-17. Study Area Historic Resources



Source: M-NCPPC

## Historic Sites, Historic Resources, and Inventoried Properties on and in the Vicinity of JBA

The following list of historic sites, historic resources, and inventoried properties catalogues culturally significant buildings, structures, and sites on the base and in the base vicinity.

### *Historic Properties Located on Joint Base Andrews*



**77-001 Forest Grove Methodist Church**  
**Chapel 2 Fechet Avenue, Joint Base Andrews**

Historic site status: Historic Site 77-001

National Register Status: Unclear; there is no formal date of eligibility (DOE) according to MHT. Correspondence in M-NCPPC files between the Maryland Historic Trust (MHT) and Joint Base Andrews indicates a mutual understanding and/or assumption that the resource is eligible. Built in 1914, the church is an example of a modest rural chapel in the vernacular Gothic Revival style. In the church graveyard are stones dating from 1874 to 1938. The present church, erected in 1914 on the site of two earlier church buildings, served the small defunct community of Centreville. Federally-owned structures are not subject to provisions of the county's preservation ordinance; however, as a courtesy, Joint Base Andrews consults with M-NCPPC's Historic Preservation Section before undertaking changes.



**77-014 Belle Chance**  
**Maryland Drive, Joint Base Andrews**

Historic Site Status: Historic Site 77-014

National Register Status: Eligible (MHT, 2000)

Belle Chance was built in 1912 for Dr. William Stewart, who employed modern fireproof technology to construct the dwelling and its related outbuildings after an earlier house on the property was destroyed by fire in 1910. The property is part of the tract known as Chance that had belonged to the Darcey family, and the Darcey family burial ground, with stones dating from 1807 to 1843, is located a short distance from the house.

### *Properties Located in the Vicinity of Joint Base Andrews*



**76A-022 Suitland Parkway**  
**From the North Gate of Joint Base Andrews to Bolling Air Force Base**

Historic Site Status: Historic Site 76A-022

National Register Status: Listed 1995

Constructed from 1943–1944, Suitland Parkway consists of nine miles of roadway (of which more than six run through Prince George's County) and is a dual-lane parkway with concrete-arch bridges faced with stone. Planned before the outbreak of World War II, the project came to fruition with the entrance of the United States into the war in December 1941 and the establishment of Joint Base Andrews a few months later.



**76B-017 Old Bells Methodist Church**  
**6016 Allentown Road, Camp Springs**

Historic Site Status: Historic Site 76B-017

National Register Status: Eligible (MHT, 1997)

Built in 1910, Old Bells Church is a large front-gabled frame church building with an inset corner bell tower and gothic-arch stained-glass windows. It was the third church on the site, and is adjoined by a large graveyard and a new (1954) church building. The church is a good example of a Gothic Revival style church, of a type popular in Prince George's County early in the twentieth century.



**77-012 St. Luke's Church Site and Cemetery**  
**9007 Dower House Road West**

Historic site status: Historic resource; not yet determined eligible.  
 National Register status: No formal determination of eligibility is on file.  
 Also known as Niles Chapel, only the graveyard remains. A gable-roofed chapel stood here from 1893 into the 1970s. This is a significant site of an early black church and marker for a complete post-Civil War community known as Meadows, which grew up around Niles Chapel and an old schoolhouse. Early in the 20th century, a lodge or "colored hall" was constructed south of the church. By 1928 the Board of Education had replaced the old schoolhouse with a new Rosenwald-funded school. The new school, the social hall, and the church were the center of the Meadows community, which was short-lived, for in August 1942, in a Declaration of Taking by the United States of America, several thousand acres of land, including Meadows, were acquired for the building of Camp Springs Army Air Field (now Joint Base Andrews). Many families, both black and white, were required to vacate their homes and farms.



**75A-006 Epiphany Episcopal Church and Cemetery**  
**3111 Ritchie Road**

Historic site status: Historic resource; not yet determined eligible.  
 National Register status: No formal determination of eligibility on file.  
 The first Episcopal Chapel in the town of Long Old Fields (now Forestville) was established in 1862 by Henry Kershaw, Rector of Trinity Church, Upper Marlboro. The tower was constructed in 1904. A good example of Gothic Revival ecclesiastical architecture, it retains much of its historic character.



**75A-008 Forestville Methodist Episcopal Church Site and Cemetery**  
**3111 Forestville Road**

Historic Site Status: Historic resource; not yet determined eligible.  
 National Register Status: No formal determination of eligibility is on file.  
 The old Methodist church was demolished sometime between 1938 and 1965; only the old church cemetery, containing approximately 185 grave markers dating from c. 1830 to 1970, remains.



**75A-007 Forestville School**  
**3101 Ritchie Road**

Historic Site Status: Historic resource; not yet determined eligible.  
National Register Status: No formal determination of eligibility is on file.  
A schoolhouse was located on this property before the Board of County School Commissioners was established in 1865. It was rebuilt, as were all early school buildings, in the 1880s. The current building was built in 1922 and closed in 1942. It is particularly significant for the intact molded patterned tin ceiling in the original classroom. The portico is a modern, non-significant addition.



**77-013 Leapley House**  
**9410 Victoria Drive**

Historic Site Status: Determined eligible 1996; documented property.  
National Register Status: No formal determination of eligibility is on file.  
Built in 1896 for George and Nellie Leapley, this property was sold out of the Leapley family in 1935 and the house was restored/renovated in the 1980s. Distinguished by the unusual lines of its projecting cross-gable, the Leapley House is one of the county's best examples of late Victorian I-house form.