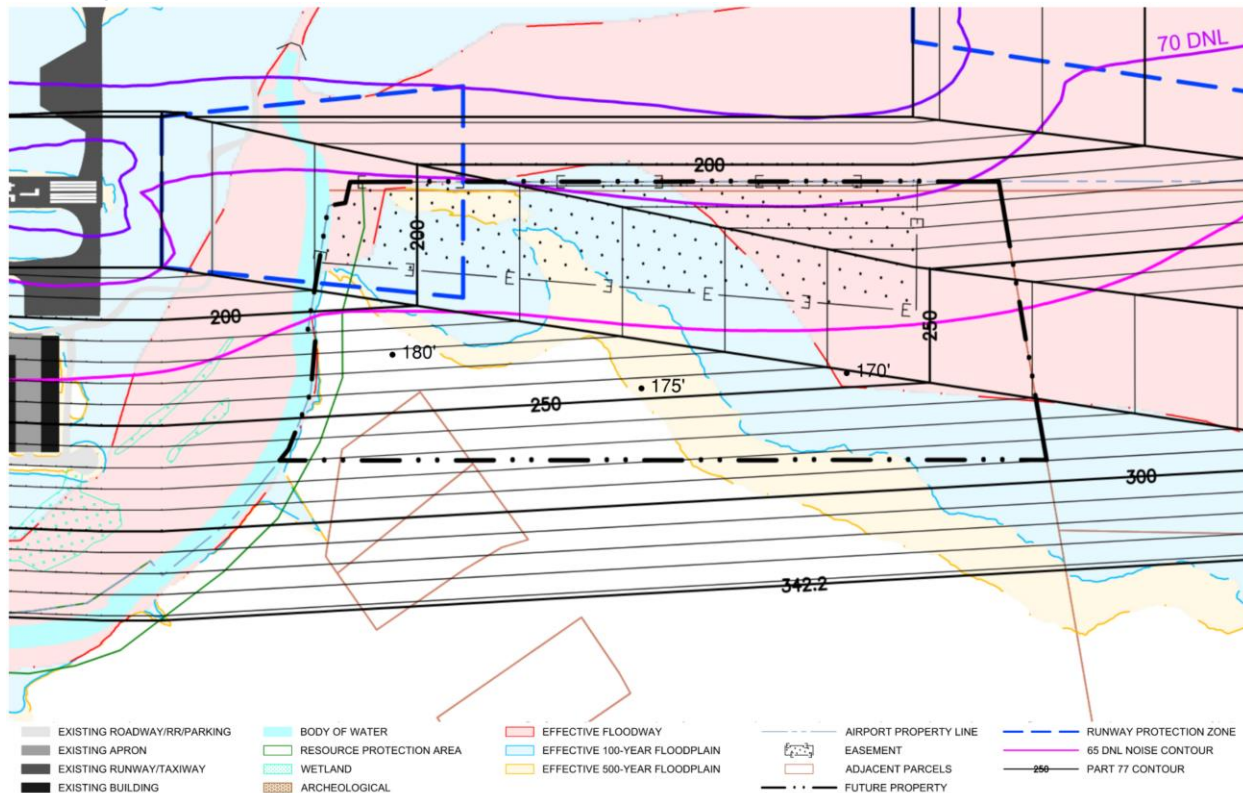


*APPENDIX E*  
*SOUTHWEST QUADRANT LAND*  
*ACQUISITION*

# MEMORANDUM:

This memo provides a summary of elements essential to preserving and protecting the airport environs, specifically in relation to Runway 34L approach end and the parcel of land in consideration for donation to the Airport. The memo also provides a high-level framework for potential development. **Figure 1** depicts the Runway Protection Zone (RPZ), floodplains, Part 77 imaginary surface, and noise contours over the 50-acre parcel identified as "future property".

Figure 1  
HEF SW Quadrant



## Runway Protection Zone

3.7 acres of the "future property" area falls under the runway protection zone (RPZ) for Runway 34L approach end. Per FAA guidance congregation of people and new construction of building or other improvement obstructions are not permitted in an RPZ and therefore development in this parcel is not permitted. There is currently an aviation easement for the 3.7 acres outside of airport property.

## Floodplain

Due to the airport's location between Broad Run and Cannon Branch, a large portion of the 50-acre site is within regulated flood hazard areas. 14.5 acres is in the effective floodway, 17.8 acres is in the 100-year floodplain, and 7.1 acres is in the 500-year floodplain. The Base Flood Elevation within the site is approximately 175 feet.

## Part 77 Imaginary Surfaces

The “future property” parcel sits under the non-precision approach surface and transitional surface which range from 200 feet to 290 feet within the parcel. Any proposed construction/alterations within the “future property” with heights up to or exceeding this level would be determined a hazard and thus objectionable. A notice of proposed construction or alteration (FAA Form 7460) would need to be formally submitted prior to development in the area.

## Noise

Approximately 24-acres of the “future property” parcel sits within the 65 to 70 DNL contour. Non-Aeronautical compatible land uses within the 65 DNL include Commercial, Industrial and Agricultural use. Most commercial and industrial uses, especially those associated with the airport, are good neighbors to airports. Agricultural land is compatible with airport operations if the use is not a wildlife attractant. Prince William County’s zoning classification for the 50-acre parcel is Agricultural.

## Overview

Per FAA guidance in Advisory Circular 150/5300-13C, “All existing and planned airport elements including the following should be on airport property. (A) Object Free Areas, (B) Runway Protection Zones, (C) Areas under Part 77 imaginary surfaces out where the surfaces obtain a height of at least 35 feet above the primary surface, and (D) Areas, other than those which can be adequately controlled by zoning, easements, or other means to mitigate potential incompatible uses.” Therefore, as a prevention and mitigation technique, acquisition of the land is recommended to eliminate the chance of the landowner developing conflicting land use. Acquisition of the property would essentially limit future incompatible uses.

Approximately 17-acres of the “future property” area is usable for development without requiring mitigation actions as this area does not fall under the RPZ, effective floodway, and 100-year floodplain. 34.8 acres can be used for development; however, flood storage mitigation on-site or elsewhere on airport property would be needed for development in the 100-year floodplain (17.8 acres).

A floodplain analysis would be required to codify impacts to flood elevations prior to development in the “future property” area. Based on the floodplain depicted in **Figure 1**, any development in the area identified as an effective floodway or 100-year floodplain would require floodplain mitigation to minimize impacts on the existing floodplain boundaries and flood elevations. Encroachment on the floodway requires a Conditional Letter of Map Revision (CLOMR) with FEMA prior to construction. The proximity of usable land to the effective floodway presents an opportunity to use a portion of the land for floodwater storage to compensate for floodplain impacts to development in the southeast site or northwest parcel south of Broad Run Station if acquired. Both sites sit partially in the 100-year floodplain; therefore, a floodplain analysis will be required to determine the extent of compensation needed to develop either site. The dirt excavated from the “future property” area can also be repurposed and used as fill at either site to bring the grade above the base flood elevation.

Planning and development in the “future property” is eligible for AIP grant reimbursement with the caveat that improvements are related to enhancing airport safety, capacity, security, and environmental concerns. Professional services necessary for eligible projects (such as planning, surveying, and design) are also eligible. Improvements for commercial enterprises or industrial park development would not be eligible for AIP reimbursement. As a reliever GA airport an AIP grant could reimburse 90-95 percent of eligible project costs. The appraised value of the donated land can be considered as the airport sponsor’s local contribution to a development project in the “future property” area, southeast site, or northwest site south of Broad Run Station. Although this local contribution can only be used for one development of

aeronautical purpose, this flexibility allows the Airport to pursue necessary development in areas outside of the "future property".

Reimbursement for an access bridge to the airport would need to show justification related to enhancing airport safety, capacity, security, or environmental concerns. Improvements beyond those related to enhancing airport safety, capacity, security, or environmental concerns would be in-eligible for AIP funding and could be transmitted to the landowner if the two parties (the Airport and landowner) agree. If a development project used for aeronautical purposes occurs, environmental studies, traffic study, and FEMA coordination may best be served completed through the Airport as AIP funds can be used to reimburse associated costs. Also, due to familiarity and prior agency coordination, the Airport may assist in streamlining the permit process.