National Capital Planning Commission
Final Submission Review for
Arlington National Cemetery
Southern Expansion Project

November 5, 2020
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Project Overview

NCPC Plans & Policies
The proposed project, henceforth referred to as the Arlington National Southern Expansion (ANCSE), is the expansion of Arlington National Cemetery (ANC) to the south. This expansion will include the integration of the Air Force Memorial (AFM) into the secure boundary of ANC and the development of the South Parcel. The Defense Access Road (DAR) re-alignment and the Future 9/11 Visitor Education Center (VEC) are integral projects ongoing that will be developed outside of the ANC property. The South Parcel is designated as the land south of the relocated Columbia Pike and will serve as the location for a new cemetery operations complex (Ops Complex) and parking garage for visitors to ANC, AFM, and ANC Employees. At the time of this report, the DAR Project, led by the Federal Highways Administration, is in concurrent progression with the ANCSE project and the 9/11 VEC project is in conception. This ANCSE Project follows the National Environmental Policy Act (NEPA) and complies with Section 106 of the National Historic Preservation Act (NHPA). The National Capital Planning Commission (NCPC) serves as a cooperating advisory agency to Arlington National Cemetery during the development of the ANCSE.

Description of Project Area
The project site will occupy property formerly utilized as the location for the Navy Annex building and its associated parking areas adjacent to the AFM. The buildings and pavement on this property were demolished in 2012-2013, leaving open green space in its absence. The expansion will also occupy portions of land currently used by Columbia Pike, South Joyce Street, and Southgate Road, all of which will be re-aligned as part of the DAR Project. The existing cemetery Service Complex will be demolished for the expansion and relocated to the proposed South Parcel.

Figure 1: Existing Site Condition
Description of the Proposed Development and Alternatives

The ANCSE is a 70-acre expansion site with a primary purpose to increase the capacity for future interment at the cemetery. Per the conclusions of the Center of Army Analysis (CAA) Report (May 27, 2015), without the ANCSE, Arlington National Cemetery is projected to run out of in-ground interment space by 2043 and columbaria space by 2038. The CAA Report accounts for the columbaria and interment spaces made available by the recently completed Millennium Project.

At the time of this report, the project has been developed thru the 65% design. During the 35% and 15% design phase, many alternatives were explored to reach an optimized interment yield program in conjunction with the needs and goals of the operational facilities, all while respecting and balancing the nature and character of Arlington National Cemetery.

The 65% design represents the refinement of the 35% design alternatives and includes the following primary elements:

**Cemetery Expansion** - The proposed interment area south of the existing cemetery and north of Columbia Pike. The expansion will include sections for casket burials (5’ x 10’), pre-set crypts (3’ x 8’), in-ground cremated remains (3’ x 6’), and columbaria. The site will include one committal service shelter for funeral service participants in the columbaria area. Supporting facilities include a restroom/storage building in the columbaria area, new and relocated utilities (water, sanitary sewer, storm drainage, underground electrical and communications/information systems), landscape plantings, retaining walls, boundary walls, secured vehicular/pedestrian entry points, vehicle access roads, pedestrian walkways, and security measures.

**Air Force Memorial** - After the 15% Design, the Army and Air Force District Washington collaborated to realize the potential of including the Air Force Memorial (AFM) within the secure boundary of ANC. After the 35% Design, the Army and Air Force District Washington (AFDW) collaborated to more fully integrate the Cemetery Expansion and the AFM by combining the proposed internal cemetery drive (running parallel with the AFM) with Air Force Memorial Drive. The updated plan enhances the overall integration both visually and functionally between the Cemetery Expansion and the AFM, while creating an edge and boundary to maintain the AFM as a distinct and dignified place.

**South Parcel** - ANC Leadership designated the land located south of the relocated Columbia Pike and west of South Joyce Street for cemetery use. This land development strategy optimizes the mission and functionality of the cemetery for both interment and operations by relocating the existing Service Complex. The new Operations Complex (Ops Complex) south of Columbia Pike and a tunnel under Columbia Pike will allow for the seamless expansion of the cemetery while maintaining current service requirements. It will include a new parking garage for visitors and employees of ANC and the AFM. A new access control point will provide screening capability for all vehicles.
Master Plan Alignment
The Real Property Master Plan (RPMP) for ANC was completed in 2013 to plan future development, sustainment, and operations across all lines of effort for a 25-year period from 2013 through 2037. The RPMP contains many major initiatives including the development of the former Navy Annex site for interment uses in effort to extend the active life of ANC beyond the planning horizon for the RPMP. The development plan for the former Navy Annex site evolved into the current Southern Expansion Project. The RPMP guidance is for the property within the ANCSE to be developed in a manner that represents the best use of the land with consideration of mission requirements and environmental sustainability while promoting the serenity, beauty, iconic image, and tranquility found in the existing cemetery. It is expected that the development of the property will occur in a phased manner in response to cemetery needs and pending the outcome of ongoing discussions between ANC, Arlington County and the Virginia Department of Transportation regarding realignment of roadways, abandonment of surplus road rights-of-way in the area, and land parcel consolidation.

As part of the RPMP, ANC explored potential development options at the former Navy Annex site based on multiple scenarios at a conceptual planning level. The current 65% design for the ANCSE is derived from the RPMP Full Development Scenario that assumed Columbia Pike has been realigned by Arlington County and the Southgate Road right-of-way would be acquired by ANC to create a large contiguous parcel of land for interment and cemetery uses north of a realigned Columbia Pike. The RPMP conceptually planned for the parcels south of Columbia Pike to be utilized for other cemetery uses such as a new administration Building, spoils area and space for grounds maintenance contractors.

*The most significant changed developments from the RPMP Full Development Scenario to the 65% ANCSE design include:*
  - The integration of the existing Air Force Memorial with the Cemetery.
  - The full relocation of the service complex to the South Parcel with a tunnel to provide direct access for service vehicles into the Cemetery.
  - The inclusion of a visitor parking garage for the southern entry.
  - The addition of an Access Control Point (ACP) for visitor, staff and contractor entry to the Southern Parcel.

Proposed Schedule
The preliminary schedule is as follows:
100% Design: October 2020 – August 2021
Solicitation: November 2021 – June 2022
Construction: October 2023 – 2027

Preliminary Project Cost Estimate
Current Preliminary Project Construction Cost Estimate at the 65% Design is $220 million.
Updates to Previous Submissions

Following the ANCSE Preliminary Review submission on December 5, 2019, the NCPC Executive Director made the following requests and recommendations. The 65% design incorporates appropriate design responses with the current design.

**New Visitor Entrance to the Cemetery and Memorial**

**Requests** the applicant continue to work closely with Arlington County to address curbside management along Columbia Pike and ensure the pedestrian crossing of this road will be safe and clear via traffic calming measures such as incorporating a median, a signal, or other features to slow or stop traffic.

**Response** – The design of the Columbia Pike realignment is part of the Defense Access Road Project (DAR) which is a Department of Defense (DOD) funded roadway and utility realignment project being led by the Federal Highway Administration (FHWA). The design effort currently underway by FHWA has included close coordination and communication with Arlington County throughout the life of the project. Fully signalized with pedestrian signals and accessible crosswalk are designed for the intersections at South Nash Street, South Joyce Street and South Washington Boulevard ramps. The intersection at South Joyce Street will include a raised island and raised median to accommodate pedestrian refuge in the larger turning lane cross section. The Columbia Pike Pedestrian Access Point which links the parking garage with the cemetery will have a dedicated pedestrian activated crossing and traffic signal to accommodate the pedestrian crossing for the accessible mid-block crosswalk.

**Recommends** the applicant either integrate the parking garage access control point into the topography or more closely associate this building with the architecture of the rest of ANC.

**Response** – The For the visitors arriving at the South Parcel the ID Check Booth and Gate House becomes the first stop in a transition into the cemetery. The design of the structure directly relates to the next transition points, Building E-Parking Garage pavilion and Building K-Pedestrian Access Point. The slim columns, light colored glazing, and stainless-steel panels are simple forms creating a backdrop to the main destination. A canopy extends over the truck inspection location. Slate panels and dark masonry relate to the other buildings within the Ops Complex.

![Figure 2: Building F- South Joyce Access Control Point](image1)

![Figure 3: Building E- Parking Garage Pavilion](image2)

![Figure 4: Building K- Columbia Pike Pedestrian Access Control Point](image3)
Recommends that USACE create either a design element or wayfinding or both that helps to provide a sense or arrival and guidance for visitors to the cemetery or the memorial.

Response – After the 35% Design, the Army and Air Force District Washington (AFDW) collaborated to more fully integrate the Cemetery Expansion and the AFM by combining the proposed internal cemetery drive (running parallel with the AFM) with Air Force Memorial Drive. The updated plan enhances the overall integration both visually and functionally between the Cemetery Expansion and the AFM, while creating an edge and boundary to maintain the AFM as a distinct and dignified place.

The Dedication Wall will be relocated from its present position west of the current AFM entrance to just west of the restroom at the north end of the AFM. The design integrates the AFM with the ANC landscape by bringing an open lawn and an allee of large flowering trees between the AFM and the columbaria. The AFM is further integrated into the cemetery by framing views of the AFM spires with an axial east/west walkway. The result is a dignified setting of the columbaria that is respectful of the memorial.

Arrival Plaza and Pioneer Quotes Wall - The Pedestrian Access Point (PAP) building is designed to accommodate limited numbers of pedestrian visitors to ANC and the AFM. As visitors pass through the PAP building, they will be greeted by a plaza distinguished by three features: a granite plaza with a grouping of shade trees that frame the Pioneer Quotes Wall; an allee of flowering trees and walkway that links one to the cemetery and columbaria; and access to the runway leading to the AFM.

The Pioneer Quotes Wall will be relocated east of its present position and reconfigured to have the quotations stacked vertically and centered on the western terminus of the AFM runway. The west facing side of this wall will greet visitors with five seals that are representative of each military branch. These adjustments will create a more pedestrian-scaled space enabling all visitors to experience quotations on both the President and Pioneer Quotes Walls while maintaining the relationship of the runway to the quotes.
**Operation Center and Columbarium**

Requests the USACE develop site sections through the columbarium area, both east/west and north south, to understand the grade changes in this area more fully. In addition, sections through the in-ground burial areas and through the Air Force Memorial would also be helpful in understanding the visibility of and access to these areas.

**Response** – The columbaria have been developed as a series ‘outdoor rooms with a view’ with a 1.5% cross slope falling from west to east. The columbaria are visually enhanced by creating three large lawn areas that form separate groupings of columbaria structures. The lawn areas interspersed with trees that create a sense of openness and a place for visual engagement with the broader cemetery landscape. The north/south oriented niche walls are five units tall to enable most visitors to touch the face of the highest niche plaque. These have an overall height of 8’-0” +/- . The east/west oriented two-unit tall columbaria have an overall height of 4’-0” +/- and are placed between the taller rows of columbaria to define the courtyard-like spaces and provide for views out toward the north burial areas.
Air Force Memorial
Recommends the applicant evaluate landscape screening around the high retaining wall of the memorial overlook to soften the transition to adjacent burial areas.

Response – Grading has been developed to minimize the height of the north end retaining wall while also trying to minimize the gradient to 10% of the interment area as it falls to meet the grade of the proposed Theta Drive north of the Air Force Memorial. The north end terminus of Air Force Memorial Drive serves as a viewing prow to the expansive views northward with strategically planned tree planting to frame these outward views across the Southern Expansion over to hillside of Section 8.

Figure 11: View south to the Air Force Memorial and the Air Force Memorial Drive Prow

Recommends the USACE further develop the plans to reduce the prominence of the vehicular gate and demonstrate how the driveway can serve as a pedestrian area when not used for vehicles.

Response – This entrance will be gated to security specifications, kept locked except for special events when the gate will be opened, and guarded with appropriate personnel. Provisions have been made for motorcade vehicles to have easy entry and exit capability from Air Force Memorial Drive (entering and exiting the Memorial will also be possible from the cemetery). The entry design will be integrated with the landscape to deter the general public from turning into the drive from Columbia Pike (Figure 12). Arrival from Columbia Pike is on a 30’ wide driveway of asphalt paving blocks and granite cobbles like the road inside the gate at the AFM driveway. The gate and security fence are a simple, modern, high strength, metal picket design painted in dark gray to blend with the adjacent walls. The gate opening is further reinforced for security by the installation of hydraulic, retractable bollards salvaged from the existing AFM entry.
Figure 12: View of AFM Limited Access Drive at Columbia Pike Entrance

Figure 13: View north along Air Force Memorial at the Pioneers Quote Wall

Figure 14: View south along Air Force Memorial Drive at the Dedication Wall
Outreach and Coordination

Public Engagement/Coordination with State, Federal, and Local Jurisdictions

Early agency coordination was accomplished in accordance with the NEPA process through cooperating agency invitations to five agencies with legal interest and/or jurisdiction over the Proposed Action – FHWA-EFLHD, EPA, NCPC, VDOT, and Arlington County.

All five agencies accepted and participated as such. A cooperating agency kick-off meeting was held on 9 March 2016, and coordination was conducted at key points in the process. A Notice of Intent to prepare an EA was published in the Federal Register on 20 April 2016. ANC issued a press release, and public notices were also published in the Washington Post, the Washington Times and the El Tiempo Latino newspapers, and on ANC’s and the US Army Corps of Engineers’ (USACE) websites. Brochures regarding the Proposed Action were mailed to approximately 250 property owners, agencies, and civic leagues located near the project site and Columbia Pike. ANC and USACE also posted information on their respective websites for the expansion project during the NEPA process. On 27 April 2016, a press conference and an open-house-style NEPA public scoping meeting were held at the Sheraton Pentagon City, Arlington, Virginia. Representatives from USACE, ANC, and the five cooperating agencies, and consultant’s staff, as well as a Spanish-language interpreter were available to answer questions and obtain comments. Project brochures were also available. More than 75 people attended the scoping meeting. The public had an opportunity to provide written comments during the meeting, as well as throughout the comment period from 20 April through 31 May 2016. In accordance with Section 106 of the National Historic Preservation Act (NHPA), ANC also used the NEPA scoping process to notify 50 potentially interested agencies (including State Historic Preservation Office), organizations (including Native American Tribes), and individuals of the scoping meeting, and to invite them to be consulting parties with respect to cultural and historic properties. Six responded affirmatively: National Park Service (NPS) – George Washington Memorial Parkway; VDOT Northern Virginia District; Arlington County; Catawba Indian Nation; Arlington Historical Society; and the PMF.

The Draft EA was released on 16 August 2018 for public review, and a public meeting was held on 22 August 2018. Fifty-one people attended the public meeting. The public had an opportunity to provide written comments during the meeting, as well as throughout the comment period from 16 August through 22 September 2018. Approximately 157 comments were submitted. Approximately 90% of the comments related to the dimensions, design, and safety of the bicycle and pedestrian trails. All public and agency comments were addressed in Appendix A of the Final EA.

USACE released the Final EA and Draft Finding of No Significant Impact (FONSI) on 30 August 2019 for public review. Comments received on the Draft FONSI will be responded to and included in release of the Final FONSI. ANC will sign the Final FONSI following completion of the Section 106 Memorandum of Agreement between the State Historic Preservation Officer, Air Force District of Washington, and ANC.

FHWA intends to adopt the Final EA and issue its own FONSI if appropriate, following completion of traffic studies related to the modified access to Route 27 (Washington Boulevard) with Columbia Pike.
Detailed Project Information and Drawings

Description of Buildings

*The only existing building(s) on the site that will remain are part of the AFM.*

Proposed buildings within the AFM:

**Columbaria** – The Columbaria are designed as a grand, stately series of outdoor rooms. All interment niches will be set level to the eye, and the land around the columbaria will be graded level to provide a dignified base. Additionally, the level ground in the columbaria will complement the level plaza spaces of the AFM, especially as the two areas are connected along the shared edge. Contributing to the openness of the columbaria is the design of the structures themselves. The structures have been reduced to the minimum necessary size and elegantly sheathed with bright Chelmsford granite. The niche walls are five units tall to allow most visitors to touch the face of the highest niche plaque of their loved one, with an overall height of 8’-0”. Lower, two unit tall, segments at an overall height of 4’-0” are placed between the tall rows to both define the space and allow views out.

**Committal Shelter** – The Committal Shelter complements the overall quality of increased openness and the design of the columbaria with a simple design of thin stone columns and stone fascia. The plaster ceiling is accented with an oculus with curved, translucent clerestory glass to allow more natural light into the space. The structure is made of light-colored stone matching the columbaria material and is set just off the road on a broad plaza paved in granite.

**Restroom/Storage Building** – To provide amenities for visitors and functionality for Cemetery Operations, a 975-square foot building is located at the south end of the Committal Shelter lawn. The building contains two universally accessible restrooms for visitors and a storage area for cemetery operations. The storage area can be used for two electric vehicles, charging stations and niche replacement parts. The low, single story structure has a perimeter arcade with benches on the north side, offering a welcoming facade with a shaded respite and contemplative vantage point.

**Columbia Pike Pedestrian Access Point** – The Pedestrian Access Point (PAP) building is designed to accommodate limited numbers of pedestrian visitors to ANC and the AFM. The primary entry point for visitors to ANC will continue to be the Memorial Avenue Welcome Center. Tour groups and visitors will access the AFM or the southern and western reaches of the cemetery via the tram or by foot from the Welcome Center.

The building is modest in scale and character to complement the architecture of the AFM. It is a simple, dignified building, with floor to ceiling windows providing views of the cemetery and AFM landscapes. The façade materials were selected to relate to both the AFM and ANC: A Chelmsford granite wall, which will be used throughout the new Columbaria, will contain the ANC identification sign. This entrance is intended to serve pedestrians/cyclists and those who park in Parking Garage.

The building is designed to accommodate a maximum of 10-12 people under the assumption that two full passenger vehicles may arrive to the parking garage at the same time. It features three magnetometer screening aisles with one in-line baggage screening conveyor; separate doors for entering and exiting; and convenient screening areas for visitors in wheelchairs. When the need arises to use this entrance on high visitation days or special events such as Wreaths Across America, the forecourt and walkway is designed to accommodate approximately 100-150 people.
Proposed buildings within the South Parcel - The Operations Complex consists of four primary buildings and their supporting uses located on a 9.12 acre site. The South Parcel is bounded by Columbia Pike to the north, the VDOT Maintenance Complex to the west, I-395/VA 27 to the south, and South Joyce Street to the east. The buildings on the South Parcel include the Office Building D, Parking Garage E and Buildings A, B, C, G, H, J which will serve as shops, vehicle maintenance, and ANC Operational facilities including a warehouse and storage space. The buildings are configured based on functional needs and relationships around a centralized courtyard to execute the various activities and requirements in an efficient manner. The proposed arrangement accommodates existing grades, in order to support operation functions and minimizes views from the adjacent roadways and cemetery into the complex. The proposed Ops Tunnel under Columbia Pike will provide direct access for personnel into the Cemetery from the Ops Complex for daily cemetery operations and functions. A significant portion of the site has been depressed below the existing grade, providing the added benefit of visually screening the complex and its operational activities from the adjoining roadways and cemetery.
Site Plan

Figure 15: Site Plan
Vicinity Map

Figure 16: Arlington National Cemetery – Proposed Southern Expansion
The Operations Complex has a total of 87,552 gross square feet in eight separate building structures in addition to 93,329 gross square feet parking garage (Figure 17).

The Operations Complex Program Requirements associated with the South Parcel include: an office building (D), maintenance shops (B), material storage (A), warehouse (C), access control point (F), a parking garage (E), and the Columbia Pike pedestrian access point (K). Where appropriate, the buildings will include climate control, interior lighting, toilet facilities, elevators suitable for personnel, and security systems. Building construction shall be suitable for the environment and compliment the architectural theme and considerations of ANC.

Exterior site improvements involve an ornamental security and boundary fence, landscaping and all supporting utilities including; water, sanitary sewer, storm sewer, natural gas, underground electrical service, paving, pedestrian walks, curbs and gutters, communications/information systems, and security considerations and systems. Structural foundations will be designed to address the varying soil conditions on the site. All facilities shall comply with ADA requirements and considerations.

The Operations Complex will be coordinated with the proposed tunnel under realigned Columbia Pike to implement the design goal of cemetery access for ANC Operations. The buildings will be commercial/industrial type structures with mechanic bays, storage bays for vehicles, material storage bays (salt, soil, sand), a receiving and loading dock, drive-thru car wash, fabrication and repair area, equipment wash bay, paint booth, supervisor offices, break area, employee locker room, parts and storage rooms, restrooms, and a parking area for trucks and equipment. The buildings will include necessary electrical, heating, cooling, lighting, plumbing, venting, and any other utility and construction related items.

The program also includes a 3-level 261 total space parking structure to be located adjacent to the Ops Complex. The parking garage (E) will be used by employees, government sedans, and visitors to ANC and the AFM.
Landscape Plan
The overarching goal of Cemetery Expansion project is to create a seamless extension of the existing cemetery into the new interment areas to the south. This means building a landscape of rolling terrain, tree shaded grounds linked with a clear, functional, curvilinear road network and a columbarium that is engaged with the in-ground burial sections (Figure 18). Within this new landscape, plantings will increase species diversity within ANC and will help define a sense of identity for each interment section.

Furthermore, the South Parcel project is to be compatible with the landscape character of the Cemetery. The Columbia Pike streetscape and buffer are designed with similar landscape treatments and plant materials to present a unified image of the Cemetery from Columbia Pike.

At the 65% Design stage, the focus is on tree locations and relationships as well as sizes. Analysis of tree density distribution throughout ANC informed the tree layout strategy for the ANCSE. The plan includes various strategies for design, and strategies for promoting tree health. Design strategies include:

• Establishing groupings of mixed species of plant communities of trees amongst the burial sections
• Continuing the groupings of trees within the setback areas and adding additional groupings of trees adjacent to the setback areas to create larger tree groupings
• Establishing a mixed species allee along Eisenhower Drive
• Establishing distinctive, identifiable planting designs for each burial section
• Using evergreen trees effectively to buffer areas of cemetery support and undesirable off-site views
• Establishing a varied canopy of trees in the Columbarium to create a special sense of solemnity.

Figure 18: Landscape Plan
Transportation and Circulation

A Transportation Management Plan will not be required for this project, as there will not be an increase of employment on the work site. The following circulation plan has been outlined as part of the 65% Design:

Cemetery Roads
The primary function of the cemetery roads is to support interment service and provide access for maintenance/landscape vehicles. A 4-inch mountable curb and gutter section is used to allow landscape equipment easier access to the grounds. The roadway typical section is designed to be consistent with the existing roads so that the ANCSE will match the aesthetics of the cemetery. The design team identified cemetery roads and sections with placeholder names and letters for ease of orientation and reference. These will be updated as the project develops.

Ops Tunnel
The Ops Tunnel connects the new Ops Complex to the cemetery to provide uninterrupted access for operations and landscape vehicles. Larger vehicles that are used less frequently will be directed to one of the main gates for entry into the cemetery.

Parking Garage
All arriving traffic will enter the South Parcel through the South Joyce Street Access Control Point (ACP). Commercial vehicles will be directed on Ops Service Drive, south of the parking garage. Visitors’ vehicles will be directed to the garage entrance on the first floor at the east end of the garage. Inside the garage, signage and markings will direct visitors to parking on the second and third floor parking decks. The first-floor parking deck is reserved for ANC Employees and GOV parking.

Parking Garage Plaza
The Parking Garage Plaza at the northwestern side of the Parking Garage is designed as an introductory open space for the visitors to the cemetery and the AFM. The plaza is oriented orthogonally to the cemetery layout. It consists of a granite paved plaza beneath a canopy of trees, 8-10’ high bluestone walls on the south and west sides that direct visitors on axis to the Columbia Pike Pedestrian Access Point located on the north side of Columbia Pike.

Columbia Pike Crosswalk
A signalized crosswalk will be constructed to facilitate safe pedestrian access across Columbia Pike between the parking structure and new cemetery entrance. The DAR project will construct the crosswalk in the public right-of-way in accordance with VDOT, Arlington County, and FHWA standards with a cross slope to match the gradient of the roadway and ROW.

Patton Walk
A portion of Patton Drive will be vacated as a roadway and will be replaced with a 10’ wide pedestrian path that will also function as an operations maintenance path. This pathway provides a more direct connection from the existing Eisenhower Drive walkway into the Southern Expansion Columbaria and the AFM. The additional land gained from the road removal will be utilized for the conveyance of ground and surface water run-off, as well as additional interment area.
Perimeter Security

South Joyce Street will provide traffic entry to the Ops Complex and parking garage (Figure 19), replacing public vehicular access to the AFM. The ANCSE project will result in the removal of the existing Service Complex gate, requiring a complete review and adjustment of access to ANC. The Design Team has worked with ANC, Joint Base Meyer Henderson Hall and the Protective Design Center to develop the proposed site plan at the 65% Design stage.

Pedestrian visitors will be screened at the Columbia Pike Pedestrian Access Control Point (PAP). The Arrival Zone will include access for a cemetery tram stop and special access buses such as Honor Flights. Freedman’s Gate entrance will be card-controlled access equipped with a camera. Historical Sheridan Gate will not be operational; however, it may allow pedestrian access at ANC’s discretion and under temporary security methods.
The boundary wall is an 8’ high wall; 3’ stone and 4’ picket (Figure 20) that is to be provided around the cemetery expansion area (including AFM), as well as the perimeter of the Ops Complex and Parking Facility.

**Figure 20: Existing Boundary Wall**

**Illustrations**

**Figure 21: View of In-Ground Headstones and Rolling Topography**
Figure 22: View of South Joyce Street Entrance

Figure 23: View within Columbaria
Environmental and Historical Considerations

Historic Preservation Section 106 of the NHPA mandates that federal agencies consider the impact of their undertakings on historic properties within the project’s Area of Potential Effect (APE). This project’s APE can be seen in the figure below.
The project would result in adverse effects to the AFM site and the NRHP-listed ANC historic district; as both the southern boundary wall and the Operations Complex are considered contributing elements. The adverse effects will be resolved through mitigation measures stipulated in a Memorandum of Agreement, which is being finalized. The impacts include the removal of the boundary wall along Southgate Road, conversion of part of Patton Drive to a pedestrian trail and relocation of the Operations Complex, all contributing to the ANC NRHP-listed historic district; and modification of the Air Force Memorial site, which has been determined NRHP eligible. The Memorandum of Agreement between the State Historic Preservation Officer, Air Force District of Washington, and ANC resolves adverse effects to cultural and historical resources. This Memorandum of Agreement includes the mitigation necessary to offset the adverse effects, and is located in the Appendices of the EA. With the conclusion of this agreement there will be no significant impacts to cultural resources.

Additionally, an impact assessment of thirty vantage points, both inside and outside of ANC, concluded that there would be no adverse visual effects to any NRHP listed or eligible properties resulting from the project.

Natural Resources

Water Resources

The project area was investigated for the presence of jurisdictional waters and wetlands using the three criteria espoused by the USACE – hydric soils, vegetation, and hydrology. The investigation found no evidence of wetlands or surface waters in the project area. Geotechnical investigations discovered groundwater at the project site. Due to the soil conditions, specifically the dense clay layer, there are perched groundwater conditions resulting in groundwater being found close to the ground surface, as shallow as 4-8 feet below ground surface (bgs) in some locations. The depth to the lower groundwater table, based on soil samples, ranged from approximately 16-56 feet bgs. The geotechnical report indicated the depth of groundwater, especially perched groundwater, is expected to fluctuate with season, variations of rainfall, and/or adjacent construction activities such as dewatering and pumping.

All development would be planned and designed to avoid sensitive areas and would be consistent with the Virginia Coastal Zone Management Program to the maximum extent practicable. There would be no direct impacts to surface water bodies, groundwater, floodplains, or wetlands. There would be a significant reduction in impervious surfaces from the 2006 condition, resulting in a reduction of stormwater runoff and pollutant loads. Additionally, the potential for the project to impact groundwater is negligible. The proposed crypt fields would utilize an underdrainage system designed to keep water from reaching the inside of the lowest crypt. As a result, operation of crypt fields is not anticipated to encounter groundwater; therefore, no impact to groundwater quality is anticipated.

Biological Resources

The project area includes maintained fields, manicured lawn, grassy highway right-of-way; the Columbia Pike/South Joyce Street/Southgate Road roadway system, parking areas, highway ramps to VA-27, the Operations Complex, and the AFM. Based on Google Earth aerial photography, there are scattered forested uplands, in the form of linear bands of trees lining the steep embankments along Southgate Road, Columbia Pike, and I-395. There are also scattered young trees along the slope of the AFM. Most
of the existing trees in the action area are planted or are pioneer species, rather than remnants of natural forests. In addition, numerous invasive species are present in the wooded areas.

There are no federally-listed threatened or endangered species, nor any critical habitat within the project area. The Virginia Department of Game and Inland Fisheries identifies state listed species which have the potential to occur within a three-mile radius of the project area. Of these listed species, the Virginia Department of Conservation and Recreation (VDCR) indicated the wood turtle has documented occurrences in Four Mile Run, a stream located approximately 1.5 miles south of the project area. Because the primary habitat requirement is the presence of water, and there are no surface water bodies present in the project area, the wood turtle would not be impacted by the project.

The bald eagle is protected under the American Bald and Golden Eagle Act and Migratory Bird TREAT Act, and is a state-listed threatened species. The bald eagle is known to or have the potential to occur in the project area. However, the nearest documented nest is over two miles away from the Southern Expansion area and would not be affected by the project. USFWS provides a list of other migratory birds that could occur within the vicinity of the project area.

There would be no impact on any federally-or state-listed threatened or endangered species. The project site was disturbed previously and does not contain natural habitat. Regardless, there would be a temporary disruption to wildlife inhabiting the Southern Expansion site. Upon the start of construction, wildlife species instinctively would move to adjacent areas. The temporary impact would be offset at the project completion by providing permanent positive impacts with new landscaping including turf, trees, shrubs, and other plant material in planting beds that will be native to and compatible with the geographic region. There would be a net increase in vegetation as native wildlife species re-inhabit the site upon completion.

BMPs would be used during construction to avoid or minimize introducing invasive species inadvertently. ANC’s Invasive Species Management Plan – prepared by the ANC horticulturalist and master arborist provides recommendations for the long-term management of invasive species.

Energy and Sustainability
The project supports the Army’s sustainability policies by: reducing the amount of impervious surface and increasing the amount of open space when compared to the 2006 conditions, which included the removal of Navy Annex facilities; reusing previously developed land; using Best Management Practices (BMPs) during construction; and using a location that provides multimodal transportation options.

The project includes opportunities for sustainable design elements. Also, the project will provide the important asset of extending the cemetery’s longevity for future generations. Finally, the project will not stimulate additional development.
Public Realm and Viewsheds

Temporary effects: Construction activity would occur within the entire project area. Heavy equipment would be used for many features of the roadway construction and cemetery expansion. Construction materials would be staged onsite. All of this would represent a temporary impact to aesthetic and visual resources.

Permanent effects: The AFM and the slope that it sits upon serve as a visual wedge separating the eastern and western areas of the Southern Expansion Site. This works to an advantage to obscure the southwest quadrant from view (the area of the proposed Operations Complex), and to visually interrupt the interment area within the Southern Expansion Site. This provides a future benefit whereby more than one interment would be able to occur simultaneously within the Southern Expansion.

Also, the removal of the Operations Complex from the current location would provide an uninterrupted view of the existing ANC interment area to the north from the AFM and the southeast quadrant. This is important as it conforms to the character of the cemetery as an important feature of its historic district designation:

*Under Criterion C of the NRHP, the ANC historic district reflects “design characteristics associated with the picturesque/rural cemetery movements or the establishment of national cemeteries” and a picturesque landscape of gently rolling hills following natural contours in an important aspect of the design (Smith et al. 2014).*

The centrally located AFM, coupled with proposed landscaping and earth moving, would act as visual barrier to shield the relocated Operations Complex from most of the Southern Expansion site. The project would result in long-term impacts to the setting of the AFM, as it would be incorporated into and connected to the Cemetery. As noted under the Historic Preservation section, the impacts due to integration of the AFM will be resolved through mitigation measures stipulated in a Memorandum of Agreement between the State Historic Preservation Officer, Air Force District of Washington, and ANC. With the conclusion of this agreement there will be no significant impacts to the AFM.

The viewshed study completed as part of the Final Environmental Assessment (August 2019) concluded that no adverse effects are anticipated, either on the surrounding area or the historical views or vistas within or outside of the cemetery that contribute to its NRHP status. The viewshed is also being addressed through the Section 106 process and the finalization of the MOA.

All measures to preserve aesthetic quality would be carefully designed and maintained so that they are fully compatible with the project purpose and would not compromise the safety, integrity, or function of the project. There would be a long-term positive impact on the viewsheds.
Stormwater Management

The project is subject to meet requirements established in Section 438 Of Energy Independence and Security Act (EISA), design objective two, restoring pre-development hydrology. Virginia DEQ’s Virginia Stormwater Management Plan (VSMP) is the authorizing agency for land disturbing activities performed by federal entities. The project will address quantity control and quality control of stormwater runoff from the site as required by Virginia DEQ. In addition, the site is subject to the Chesapeake Bay Preservation Act since the site is in the Chesapeake Bay watershed and the area of land disturbing activities exceeds 2,500 square feet. Therefore, VSMP regulations take precedence over EISA 438 regulations.

The stormwater management design is developed to effectively collect, convey, treat, and release the stormwater runoff from the proposed site following the requirements of UFC 3-201-01, UFC 3-201-10, Section 438 of the EISA, Virginia DEQ Stormwater Management Regulations, and VDOT Drainage Manual. The primary goal for stormwater management is to honor the existing drainage characteristics of the site to the maximum extent technically feasible while following low-impact site development strategies. Any permanent BMP’s proposed for the site will comply with Virginia approved stormwater BMP Standards and Specifications. The stormwater management approach has been sufficiently sized and located per the above-mentioned requirements and will not trigger any site plan changes barring programmatic modification.
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