



CHAPTER II

Alternatives



Chapter II – Alternatives

EXPLANATION OF THE ALTERNATIVES PROCESS

This General Management Plan/Environmental Impact Statement evaluates two alternative concepts for the development and future management of the national memorial. Each alternative provides a different approach to honoring the actions of the passengers and crew; protecting and preserving the resources at the site; providing visitor facilities and a compelling experience; and continuing partnerships with the families of the passengers and crew, the local community and the public. A complete description of the Flight 93 National Memorial site is found in Chapter III.

As an integral component of this planning process, the National Park Service is required to explore a reasonable range of alternatives in developing and managing the Flight 93 National Memorial. Under National Park Service policies, the General Management Plan is considered a major Federal action. Preparing an Environmental Impact Statement that evaluates these alternatives is a legal requirement that all Federal agencies must meet, pursuant to the National Environmental Policy Act of 1969 (NEPA), whenever a major Federal action is proposed.

Through the agency and public scoping process (refer to Chapter I), the National Park Service and its partners explored a reasonable range of options for developing the memorial. Some of these options were considered infeasible or were determined to not fully meet the mission of the memorial or the challenges of the site. The alternatives that were considered infeasible were subsequently eliminated from further consideration and are summarized later in this chapter. Five preliminary alternatives – the finalists in the international design competition – were explored in greater detail through the competition. The selected design from the international competition is presented in this plan as the Preferred Design Alternative.

This chapter evaluates the No Action Alternative (existing conditions) and the Preferred Design Alternative. A discussion of actions common to both alternatives is presented, as well as a narrative discussing management zones and a management zoning map for each alternative. Each alternative addresses the following elements required in a General Management Plan—

- An overall management concept.
- Management zoning—decisions about which potential resource conditions and visitor experience opportunities should be emphasized in particular areas of the park.
- Area-specific management prescriptions that describe the desired resource conditions and visitor experience opportunities within each area; the appropriate management practices, proposed development, and visitor uses; and the appropriate actions necessary to achieve desired conditions.
- Boundary modifications – No boundary modifications are proposed for either of the alternatives.
- Projected costs.

PRELIMINARY ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER CONSIDERATION

Memorial on Mall in Washington, DC. When planning began for the Flight 93 National Memorial in 2003, the idea of establishing a memorial on the Mall in Washington, DC, instead of in Pennsylvania was discussed. This idea was not considered further because the Flight 93 National Memorial Act states that a memorial should be developed at the crash site in Somerset County, Pennsylvania, and because this site is the final resting place of the 40 passengers and crew members of Flight 93.

Memorial to Commemorate All Victims of September 11, 2001. The concept of developing a memorial to collectively commemorate the events and all victims of September 11, 2001, was discussed. The Flight 93 National Memorial Act is specific in its authorization to create a national memorial to commemorate the passengers and crew of Flight 93. However, the Partners believe visitors to the Flight 93 National Memorial need to understand the other events that occurred on September 11. They anticipate that interpretive materials and displays would make such connections and complement the presentations at the memorials in New York City and the Pentagon in Arlington, Virginia, both of which had been initiated before planning began for the Flight 93 National Memorial.

International Design Competition Concepts
Through an open International Design Competition process, the Partners offered design professionals and the public an opportunity to

The National Park Service and its Partners joined with the public to explore a range of ideas for creating a fitting tribute to the passengers and crew of Flight 93.

This plan evaluates two alternatives: Alternative 1 – No Action and Alternative 2 – Preferred Design Alternative, which is the selected design from the international design competition.



Exhibition of design concepts in the international competition
(Chuck Wagner 2005)

actively participate in the creation of the memorial by submitting their idea for the Flight 93 National Memorial. A total of 1,011 entries met the mandatory criteria set forth in the competition regulations. These entries were on public display in Somerset, Pennsylvania, and on the project's website for public viewing and comment. The competition entries were evaluated by a Stage I jury, which met on January 24-26, 2005, to review the Partner and public comments, analyze each submittal and determine which concepts best fulfilled the Mission Statement. The jury selected five entries that represented a range of concepts that they determined to have the greatest potential to appropriately interpret the Mission Statement.

In Stage II, the five finalists refined their Stage I design concepts to fully explain the spatial and symbolic attributes of their concept so that any of the submittals could be considered an alternative in this document. On February 24 and 25, 2005, the five finalists toured the site and participated in a master plan workshop to explore the site's resource conditions, understand potential visitor experiences, and determine a range of actions that would be needed throughout the national memorial site to support their designs. In April 2005, the finalists met the Partners and participated in a second site visit in which they were given complete access to all areas of the site for several days.

The deadline for Stage II entries was June 15, 2005. These entries included a model of the entire site and a model of a specific site feature; up to six boards explaining the design; a PowerPoint presentation and a companion document that provided additional information on the design, cost estimates, and a proposed team to execute the design. Each submittal depicted a master plan for the site and an accompanying description of the uses and management actions proposed for five management zones that composed the entire site. The public and the partners were given the opportunity to review and comment on the designs – the preliminary alternatives for this plan – at an exhibit in Somerset, Pennsylvania, and on the project website between July 1 and September 25, 2005.

The Stage II jury evaluated the five final designs during the first week of August 2005. They toured the site and used the Mission Statement, the Stage I Jury Report (2/3/2005), the Stage I Jury Compliance Review Report (7/8/2005) and Partner and public comments as guidelines. The Stage II jury selected the final design by a majority vote. Their recommendation was forwarded

to and approved by the Partners. On September 7, 2005, the selected design for the Flight 93 National Memorial, created by the design team of Paul Murdoch Architects and Nelson Byrd Woltz Landscape Architects, was publicly announced by the Partners.

ALTERNATIVES UNDER CONSIDERATION

This chapter evaluates two alternatives: Alternative 1 – No Action and Alternative 2 – Preferred Design Alternative, which is also the agency's preferred alternative and the environmentally preferred alternative. The No Action Alternative provides a baseline from which change can be measured through comparison and evaluation of the Preferred Design Alternative. *The No Action Alternative does not freeze all activity at the site, rather it assesses how the memorial would be maintained under existing management practices and how the National Park Service would continue to manage the site's resources and visitor use over the next 15-20 years.*

The Stage II Jury found that the design created by the design team of Paul Murdoch Architects and Nelson Byrd Woltz Landscape Architects best embodied the Mission Statement. In their report, the Stage II jury wrote:

There is a dimension along which design succeeds – functionally, interpretively, symbolically. Designs that interpret without needing interpretation have the strongest potential of success. The circular form in this design focuses the visitor in the empty meadow – the elegance of the void.

The design addresses and resolves each step of the visitor experience, from entry to the point of arrival at the bowl. The view of the crash site is first seen in the distance and then is amplified as the visitor gradually descends down the broad pathway to the Sacred Ground. The gentle slope and bridging over multiple ecologic zones provides not only a singular journey but also multiple pathways to the Sacred Ground.

This design best addresses the interface between the public realm of the visitor and private realm of the Sacred Ground while keeping the focus on the content, not on words or imposed symbolism. The design reflects careful consideration of how the place will feel during different seasons and different times of day.

The Tower of Voices begins the journey and the interpretation. The integration of pathways and vehicular movement/parking as part of the design is superior...making the entire memorial accessible and mitigating the effect of automobiles. The symbolic embrace gives a message of collective agreement and heroism.

We have strived to understand why this land has spiritual content; it wasn't that way until it became the crash site. Now it is a cemetery, a place of honor and a transformed site. This design will transform it into another chapter of the story. The design is a simple and beautiful expression that sets the stage for understanding the actions of the 40 passengers and crew members to understand the impact their actions had on history.

ACTIONS COMMON TO BOTH ALTERNATIVES

The following discussion summarizes actions that are common to both alternatives. National Park Service actions and management decisions are guided, in general, by Federal laws and agency policies (see **Appendix A**). Title 36 of the Code of Federal Regulations (36 CFR) governs many allowable uses and activities on federally owned lands within national park sites. The Superintendent's Compendium prepared for this park unit will explain how those regulations pertain specifically to the Flight 93 National Memorial. The actions listed below are not comprehensive of all National Park Service operations and management actions relating to Flight 93 National Memorial, but are of specific importance to the management of the memorial or address questions raised by the public or other agencies during the scoping process.

Management of Flight 93 National Memorial. Congress designated the National Park Service as the agency responsible for administering and managing the Flight 93 National Memorial (sec. 5, Flight 93 National Memorial Act of 2002). As such, under both alternatives, the National Park Service serves as the administrator and managing agency for the memorial. The National Park Service will continue to work in partnership with the Partners including the families of the passengers and crew, as well as the local community.

Access to the Crash Site. Due to the volatility of the crash, most of the human remains from the passengers and crew were never recovered. As a

result, the crash site and adjacent hemlock grove comprise the area that is considered the final resting place for these victims. Access to the crash site for this planning period will be limited to family members and authorized personnel. Any change to this policy will be pursued through a process involving the Partners, the National Park Service, the family members, the community and the public.

Land Acquisition. The National Park Service is in the process of acquiring the core resource lands within the national memorial boundary (refer to Chapter I, Figure I-2). *The Flight 93 National Memorial Act* authorizes the National Park Service to purchase lands from willing sellers or through donations. The official boundary map (Figure I-2) for the national memorial shows two principal areas: 1) resource protection and visitor use areas, which will be protected through fee-simple acquisition by the National Park Service, and 2) resource protection and setting areas, which will be protected in partnership with local landowners, organizations, or agencies through less-than-fee acquisition (i.e., easements), or through fee acquisition where necessary. Acquisition of these properties is dependent on the availability of funds.

For both alternatives, land acquisition will be conducted pursuant to Federal land acquisition laws and regulations with willing sellers or with persons desiring to donate or exchange land or interests in land. The National Park Service will prepare a Land Protection Plan to guide land acquisition and management of fee simple properties, rights-of-way, easements and other less-than-fee acquisitions. Specific land acquisition priorities and related costs are discussed for each alternative later in this chapter.

Contaminants. Carbon dioxide, heavy metals, and lubricants remain from past mining and industrial uses of the site. Under both alternatives, the site will be remediated to Federal environmental and health standards before any land is acquired by the National Park Service. Remediation of the site will focus in key areas where people are expected to walk and congregate. Peripheral areas, such as the buffer zones, will receive less attention.

Draglines and Industrial Mining Structures. Several privately-owned industrial structures and buildings remain on the site from the mining and industrial operations. Two mining draglines, a Marion 7500, manufactured in 1976, and a Marion 7400, manufactured in the 1960s, have been onsite since the mid-1990s. Although



Contrails over the Flight 93 National Memorial (Jason Cohn 2004)



Mining Dragline (Jason Cohn 2004)

Flight 93 was initially believed to have flown over these draglines, information provided by the National Transportation Safety Board later proved that was incorrect. Other industrial structures, including a scrap and recycling facility, welding shops and storage sheds from the mining operations, also are located onsite. The welding shop complex served as the headquarters of the recovery and investigation efforts into Flight 93.

Although the structures and buildings were “witness” to the crash of Flight 93 and are important resources from the site’s past, they did not contribute to or affect the events that occurred on September 11, 2001, and are not central to the mission of the national memorial. The costs to acquire, stabilize, and remove hazardous materials from these structures are significant. The estimated purchase price for the two draglines is approximately \$800,000. A conservator of outdoor industrial equipment estimates that it could cost the National Park Service approximately \$850,000 to stabilize the draglines and provide stable footings. Annual maintenance of the draglines could consume up to 10% of a maintenance person’s time each year and cyclical maintenance and stabilization costs could be \$700,000 and incurred every 15-20 years. These maintenance activities would not involve restoration of the draglines to operation, but would stabilize them as markers on the landscape.

It is likely that some of the mining and industrial structures and equipment will be removed prior acquisition of the properties by the National Park Service. The scrap and recycling operation is currently in operation and will be relocated to a new site to continue its operation. Many of the buildings associated with the mining operation are in very poor condition and the surrounding ground is contaminated from the former mining operations. Most of these structures will be removed as part of reclamation. Several companies have expressed interest in purchasing and retrofitting the draglines and returning them to operation.

The National Park Service does not intend to acquire the draglines or preserve the other mining buildings under either alternative because they are not central to the mission of the national memorial and the acquisition, stabilization, and maintenance costs are prohibitive. The history of the site will be explained to visitors through site markers and interpretive media. The landscape of much of the site will retain vestiges of the site’s mining history, even under the designed memorial landscape proposed in Alternative 2. However, neither alternative

would directly impact the welding shop complex or the draglines. Should the National Park Service determine that these structures are significant to the story of Flight 93 and should funding to acquire and protect these resources become available, they could be retained without disrupting the landscape condition desired under either alternative.

Structures in Hemlock Grove. Four homes are located within the hemlock grove adjacent to the crash site, three of which are seasonal log homes and one is an ashlar stone, year-round residence. Human remains and debris from Flight 93 were found in the hemlock grove. The National Park Service desires to acquire these lands and the associated structures under both alternatives. Due to the inherent sensitivity of this area, the ongoing land negotiations, and the restricted uses of the area, the National Park Service will conduct a more thorough study of appropriate uses of these structures once the memorial design has been completed and the land acquired.

Acid Mine Drainage (AMD). Under both alternatives, the National Park Service will not purchase the subsurface mineral rights where AMD exists. Per State and Federal law, the liability for treatment of such contaminants will remain the responsibility of the generator of the pollution and the respective subsurface mineral owner, which in many cases, is PBS Coals, Inc. The National Park Service will work with property owners, subsurface mineral owners, Pennsylvania Department of Environmental Protection, other agencies local groups to pursue solutions to AMD within the national memorial boundary. The National Park Service will support efforts to improve regional water quality where feasible. Once the land is acquired, the National Park Service will permit authorized staff access to the treatment ponds and facilities to monitor and appropriately treat AMD.

Accessibility. The National Park Service must comply with the requirements of *The Americans with Disabilities Act* and DO-42, *Accessibility for Park Visitors* to ensure that all visitors have access to the park. National Park Service Management Policy 8.2.4 addresses accessibility for persons with disabilities and states that all reasonable efforts will be made to ensure that National Park Service facilities, programs and services are accessible to and usable by all people.

Security. During this planning period, the National Park Service has no plans to install fencing around the entire boundary of the

federally owned portions of the national memorial but may fence certain areas for resource protection or public safety purposes. The National Park Service will not block access to the private property of adjacent landowners or the property of landowners within the national memorial boundary. Security at the crash site is currently provided by deputies from the Somerset County Sheriff's Office and general security is provided by the Pennsylvania State Police and by Shade Township police for those portions of the national memorial that lie north of U.S. Route 30. The National Park Service will have concurrent jurisdiction and will provide safety and security with its visitor protection staff in cooperation with these police forces.

Aircraft Overflights. Aircraft noise and overflights can distract from the intended purpose of and desired visitor conditions at the national memorial. National Park Service Director's Order #47, "Soundscape Preservation and Noise Management," signed by the Director in December 2000, articulates the National Park Service operational policies that protects, maintains or restores the natural soundscape in a condition unimpaired by inappropriate or excessive noise sources.

The Federal Aviation Administration (FAA) is the Federal agency responsible for regulating and restricting airspace. The National Park Service will work with PennDOT, Bureau of Aviation; the Air National Guard; and the FAA to discourage sightseeing tourist flights and military maneuvers over the memorial. Retention of a peaceful and tranquil setting and a contemplative, reflective environment is important to achieving the mission of the Flight 93 National Memorial.

Permissible and Permitted Uses and Activities. Through the National Park Service Organic Act of 1916 and Chapter 8, National Park Service Management Policies, the National Park Service is committed to providing appropriate, high-quality opportunities for visitors to experience the site and maintain an atmosphere that is open, inviting, and accessible to every segment of society. The National Park Service will—

- provide opportunities for public enjoyment and use that are uniquely suited and appropriate to the natural and cultural resources found at the site; and
- defer to Federal, State and local agencies; private industry; and non-governmental organizations to meet the broader spectrum of recreational needs and demands.

The National Park Service will encourage and permit activities that—

- are appropriate to the purpose for which the memorial was established;
- are inspirational, educational or healthful and otherwise appropriate to the park environment;
- will foster an understanding of, and appreciation for, park resources and values, or will promote enjoyment through a direct association and interaction with or relation to park resources; and
- can be sustained without causing unacceptable impacts to park resources or values.

USES OF THE SITE

Uses and activities on federally-owned lands within the boundary that may be permitted include, but are not limited to, the following:

- **Special Uses and Events** – Chapter 8 of the National Park Service Management Policies guides special uses and events within the national memorial. Special events may be permitted by the Superintendent (36 CFR 2.50) when there is 1) a meaningful association between the park and the event, and 2) the event will contribute to visitor understanding of the park's significance. Each request to permit a special park use or to renew authorization of existing uses will be reviewed and evaluated by the Superintendent according to the terms of applicable legislation, regulations, the Superintendent's Compendium, and criteria and procedures outlined in Director's Order #53: Special Park Uses. A special park use is a short-term activity that –
 - provides a benefit to an individual, group or organization rather than the public at large;
 - requires written authorization and some degree of management control from the National Park Service in order to protect park resources and the public interest;
 - is not prohibited by law or regulation;
 - is not initiated, sponsored or conducted by the National Park Service; and
 - is not managed under a National Park Service concession contract, a recreation activity for which the National Park Service charges a fee or a lease.



Visitors to an early temporary memorial at the site (NPS 2001)



Tributes on the Temporary Memorial fence (Chuck Wagner 2005)

- **Placement of Temporary Memorial Tributes.** Placement of temporary memorial tributes and other mementos will be permitted in designated areas and in a manner prescribed by the park's Collections Management Plan. Items containing hemlock wreaths or boughs will be prohibited.
- **Returning Recovered and Cremated Remains to the Sacred Ground.** Upon request by family members and approval by the Superintendent, recovered remains of the passengers and crew of Flight 93 may be returned to the Sacred Ground. All other burials may be prohibited by the Superintendent (National Park Service Management Policies, Chapter 8.6.10.3 and Director's Order #19, Records Management, provide park guidance regarding actions related to family cemeteries). The scattering of human ashes from cremation is prohibited, except pursuant to the terms and conditions of a permit or in designated areas, according to conditions established by the Superintendent (36 CFR 2.62).
- **Sorber Cemetery.** The burial of Sorber family members will be permitted to the extent practicable, pursuant to applicable regulations, until space allotted to the cemetery has been filled. Family members (or their designees) will be allowed access for purposes of upkeep and commemoration (such as wreath-laying and religious rituals) provided visitor safety and park resources are not jeopardized. The Superintendent will keep an active file on the cemetery for the purpose of responding to requests and inquiries (National Park Service Management Policies, Chapter 8.6.10.2).
- **First Amendment Assemblage.** Requests to assemble and express public views under the First Amendment of the United States Constitution will be accommodated by permit in a specified location to ensure public safety, to protect the park's resources and to avoid conflict with other users. The First Amendment permit will regulate the time, number of participants, use of the facilities and number and type of equipment used, but not the content of the message presented. The Superintendent may issue or deny a First Amendment permit request under 36 CFR 2.51.¹ A specific location for groups to exercise their First Amendment rights will be presented in each alternative.
- **Picnicking.** Picnicking will be permitted only in designated areas and only at levels

that will not impact the solemn setting of the national memorial.

Prohibited Uses and Activities. Chapter 8, National Park Service Management Policies prescribes the general types of uses permitted and prohibited at national park units. As such, the National Park Service would prohibit visitors from conducting activities that—

- would impair the memorial's resources or its desired values;
- would create an unsafe or unhealthful environment for other visitors or park employees;
- are contrary to the purposes for which the park was established; or
- would unreasonably interfere with—
 - an atmosphere of peace and tranquility;
 - interpretive, visitor service, administrative, or other activities;
 - National Park Service contractor operations or concession services; or
 - other existing and prohibited park uses.

Under either alternative, the park would not be open to visitors before dawn or after dark. Due to the commemorative nature of the Flight 93 National Memorial and the desire to offer a tranquil, contemplative visitor experience, the park will prohibit certain recreational uses on federally owned lands within the boundary. These prohibited uses include, but are not limited to, the following activities:

- riding of motorized vehicles off designated roads,
- hunting, trapping or shooting weapons,
- snowmobile riding, recreational horseback riding, fishing, swimming, camping, skateboarding, inline skating, cross country skiing and ice skating,
- riding of bicycles off designated routes, and
- flying of kites, model airplanes and model rockets.

Unless permitted by the Superintendent, other prohibited park activities or uses on federally-owned land include, but are not limited to, the following:

- **Commercial Activities.** The sale or distribution of commercial material or advertising will be prohibited unless a permit has been obtained from the Superintendent (36 CFR 2.52(a)). The National Park Service may allow, through the use of concession contracts, commercial visitor services that are

¹2001 National Park Service Management Policies, Chapter 8: Use of the Parks, sec. 8.6.3.

necessary and appropriate for visitor use and enjoyment. Concession operations will be consistent with the protection of park resources and must demonstrate sound environmental management and stewardship (National Park Service Management Policies, Chapter 10).

- **Placement of Commemorative Installations.** The installation of a monument, memorial, table, structure, planting or other commemorative installation will be prohibited unless approved by the Superintendent and authorized by the Director of the National Park Service (36 CFR 2.62). The Superintendent will develop a process and evaluation criteria for reviewing such requests with the Partners. This process will be included in the Superintendent's Compendium. This policy applies to memorial or commemorative installations within the Sacred Ground. This prohibition does not apply to the placement of temporary memorial tributes and other commemorative items left in designated areas.
- **Placement or Planting of Hemlock.** A resource management plan will be prepared to identify actions necessary to protect the hemlock grove against pests and diseases. Use of hemlock in any manner outside the approved management plan, such as wreaths, plantings or other tributes, especially at the Sacred Ground, will be strictly prohibited to reduce the risk of infestation of the hemlock grove by hemlock wooly adelgid and other pests. This prohibition does not apply to plantings that are necessary to stabilize the hemlock grove at the Sacred Ground.

MANAGEMENT ZONES

The General Management Plan identifies the resource conditions and visitor experience opportunities that should ultimately be achieved throughout the memorial. The National Park Service uses management zoning as a method to identify and describe the appropriate range of desired resource conditions and visitor experiences to be achieved throughout the park. Management zoning—

- provides for some variety of resource conditions and visitor experiences consistent with the memorial's purpose and significance;
- establishes an overall character for the memorial consistent with a distinctive alternative or management concept by emphasizing some potential conditions and experiences over others;

- reflects decisions about which resources and values are pre-eminent in each particular area of the memorial;
- considers the relationships among resources and experiences in adjacent zones and in areas outside the memorial boundary; and
- prescribes rather than describes.

During a design workshop conducted February 24-25, 2005, in Somerset, PA, representatives of the Partners and the design finalists defined initial management zones for all areas of the national memorial. Management zones preserve the memorial's fundamental resources and ensure the integrity of the memorial design is not compromised. A zoning map and description of 1) desired resource conditions, 2) desired visitor experience opportunities, and 3) kinds and intensity of development and use are presented for each alternative.

The following management zones and their functions were established for the Flight 93 National Memorial—

1. **Gateway**—The entrance(s) to the national memorial.
2. **Approach/Return**—Ingress/egress from the Gateway to the Bowl and the core portion of the memorial.
3. **The Bowl**—The natural, bowl-like topographic feature that surrounds and provides views to and from the Sacred Ground.
4. **Sacred Ground**—The crash site, debris field and adjacent hemlock grove. Access is restricted to family members and authorized personnel.
5. **Perimeter/Viewshed**—The area encircling the core resource and visitor use lands of the memorial. This land includes the wooded hillsides that provide the setting for the memorial and serve as a visual and auditory buffer between the memorial core and adjacent lands. The National Park Service plans to protect these areas in partnership with local residents, organizations, or other partners through the purchase of conservation easements and other non-fee acquisition options where possible. Visitor use and park facilities are not proposed for the perimeter/viewshed areas.

The General Management Plan divides the entire memorial site into management zones and identifies the resource conditions and visitor experiences envisioned for each of those zones.

Alternative 1 involves retaining the existing Temporary Memorial and implementing minimal improvements to the site.

Alternative 1 – No Action

CONCEPT

Alternative 1 is predicated upon the National Park Service and the Partners continuing current efforts and practices at the memorial. The National Park Service would focus on preserving and protecting the crash site and the adjacent areas. Minimal investments would be made in visitor services and facilities. The No Action Alternative assesses how the memorial would be maintained if existing projects and management practices continue over the next 15-20 years.

Alternative 1 involves retaining the existing Temporary Memorial and implementing minimal improvements to the site. Visitors to the Temporary Memorial would continue to view the Sacred Ground from this site and would be allowed to leave tributes, as well as view items left by others. Orientation to the site and interpretation of the events would be offered mainly through volunteers, a site brochure, and several wayside exhibits. The Temporary Memorial site would be upgraded to improve the appearance of the area and the parking areas redesigned to safely accommodate visitors. A more permanent shelter would also be developed. The site would continue to be operated and staffed from dawn to dusk only. Given the limited opportunities to experience the site or learn more about Flight 93 and the events of September 11, 2001, visitation would be expected to decline to and stabilize to about 87,000 visitors annually.²

MANAGEMENT ZONES

Figure II-1 illustrates the management zones established for Alternative 1 – No Action. The following section describes the intended uses of

these zones. Table II-1 summarizes the desired resource conditions and intended uses for each zone. Because Flight 93 is a newly created memorial and because the design concept offers additional definition not usually available at this level of planning, the descriptions of the following management zones may be more detailed than for most General Management Plans.

Gateway

The Gateways to the site would continue to be at the intersections of Skyline Road and Lambertsville Roads from the west or Skyline Road and Buckstown Road from the east. The current directional signs would be replaced with traditional National Park Service entrance signs. Skyline Road would continue to be owned and maintained by Stonycreek Township.

Approach/Return

This zone would lead visitors from the Gateway zones to the Bowl. From the west, the Approach zone would include the fields on both sides of Skyline Road and the hill that leads up to the Bowl. From the east, the approach zone would include the wooded areas along Skyline Road that lead visitors to the bottom of the Bowl.

Bowl

The Bowl would remain open and grasses that have been established would be maintained. Visitor use would continue to be limited to the site of the Temporary Memorial. The National Park Service would make minimal improvements to the existing Temporary Memorial site, and would focus on short-term measures to improve safety and the appearance of the site. All parking would be relocated to the north side of Skyline Road and overflow car and bus parking would be created. Vault toilets and a more permanent shelter or kiosk would be installed.

²Bruce E. Lord, Ph.D., May 27, 2005. Flight 93 National Memorial Economic Impacts, p. 13.

View of the existing
Temporary Memorial
(Jason Cohn 2004)



Figure II-1: Alternative 1 – No Action Management Zoning



Alternative 1: No Action

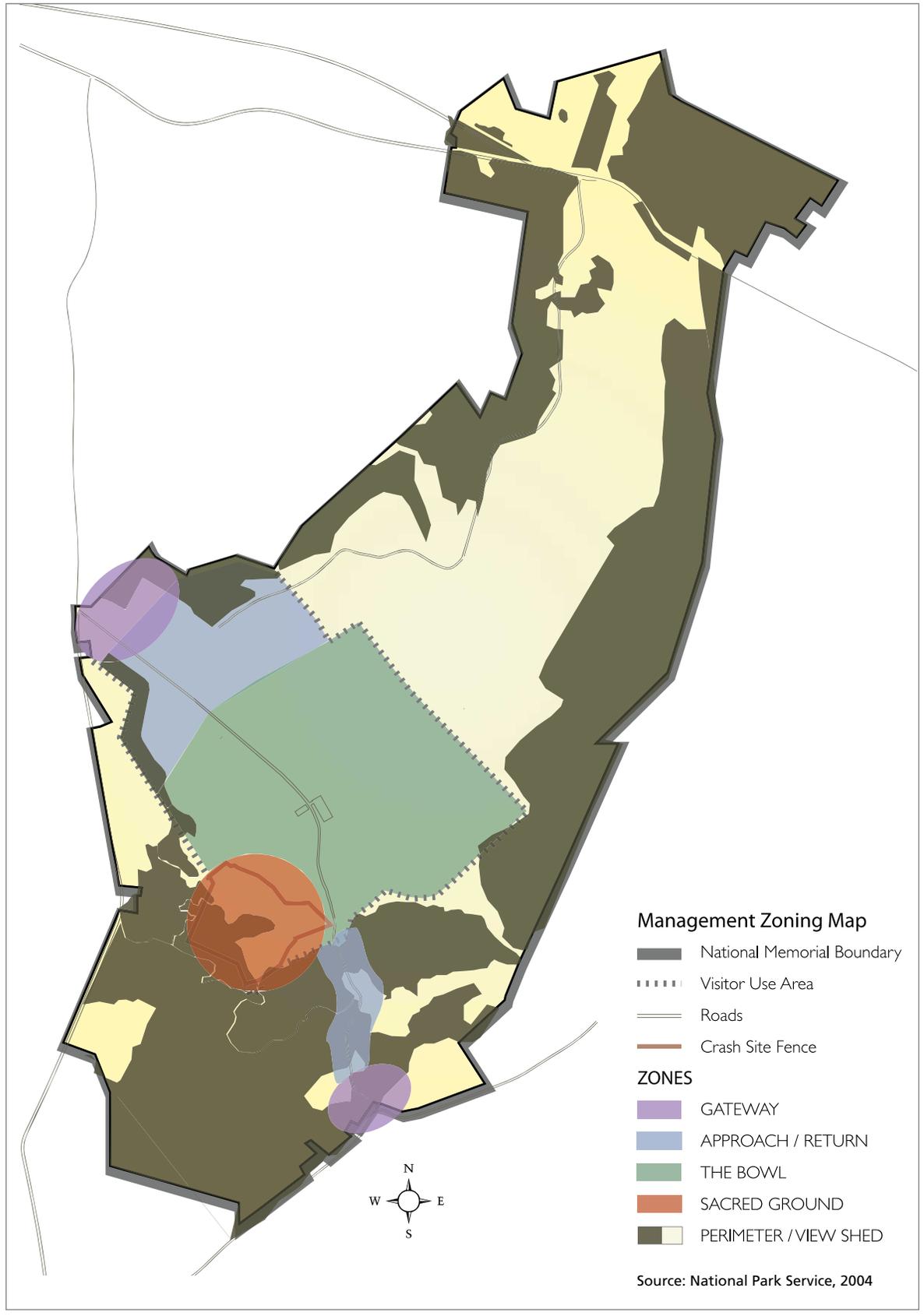


Table II-1: Alternative 1 – No Action Management Matrix			
Management Zone	Desired Visitor Conditions	Desired Resource & Landscape Conditions	Types and Intensity of Development and Use
Gateway	<ul style="list-style-type: none"> • Introduction and orientation to the site • Visitors have a sense of arrival 	<ul style="list-style-type: none"> • Current pattern of open fields retained in the western Gateway and wooded buffers added along edge of fields to screen Lambertsville Road and adjacent development • Current pattern of open fields and woodlots retained in eastern Gateway, through conservation easements where possible 	<ul style="list-style-type: none"> • No structures or facilities would be developed • Entrance and orientation signs would be added • Visitor use would be limited to driving, biking or walking along Skyline Road
Approach/Return	<ul style="list-style-type: none"> • Approach and return from the Bowl • Visitors have sense of anticipation on the approach and opportunities for contemplation on the return 	<ul style="list-style-type: none"> • Current pattern of open fields retained in the western Gateway zone; wooded buffers added along edge of fields to screen adjacent development. Fields maintained through annual cutting or lease • Wooded approach from Lambertsville Road retained; lands protected by easements where possible 	<ul style="list-style-type: none"> • No structures or facilities would be developed • Skyline Road would provide direct two-way approach and return to the Temporary Memorial. Stonycreek Township would continue to maintain Skyline Road • Visitor use would be limited to driving, biking or walking along Skyline Road
Bowl	<ul style="list-style-type: none"> • Temporary Memorial serves as a memorial to the passengers and crew • Explanation of the Flight 93 story and opportunity to view the crash site and the rural Pennsylvania countryside • Visitors have opportunities to understand events of Flight 93 and Sept 11, 2001 through site brochure, wayside exhibits, and volunteer interpreters • The peaceful, tranquil, quiet setting of the area is respected • Visitors can leave written messages and tributes and read and view those left by others 	<ul style="list-style-type: none"> • Views of surrounding hillsides reflect Pennsylvania landscape and provide a respectful setting for the memorial • Current vegetation retained and woody successional growth periodically removed • Tributes at Temporary Memorial cleaned, catalogued, and stored • Sediment ponds retained as wildlife habitat 	<ul style="list-style-type: none"> • Temporary Memorial would remain focus of a visit and would be improved for visitor safety • Interpretive displays would be provided • Parking relocated to and expanded on north side of Skyline Road • Visitors would continue to view the crash site, learn about Flight 93 from volunteers, leave tributes, and read messages left by others • No water supply or permanent restroom facilities provided
Sacred Ground	<ul style="list-style-type: none"> • Quiet, reverent, reflective atmosphere provided for family members • Opportunity for public to view crash site in its natural state 	<ul style="list-style-type: none"> • Open field at crash site retained with wildflowers and grasses • Hemlock grove regenerated through natural processes; hemlocks and mixed plantings established adjacent to crash site to protect hemlock grove • Structures in hemlock grove retained 	<ul style="list-style-type: none"> • No development • Access would be restricted to family members and authorized personnel • Security fencing and staging area for security staff would be retained
Perimeter/Viewshed	<ul style="list-style-type: none"> • Natural landscape offers appropriate setting for visitors to experience the memorial and is representative of Pennsylvania countryside 	<ul style="list-style-type: none"> • Lands protected in rural state through partnerships with others (conservation easements and less-than-fee) where possible 	<ul style="list-style-type: none"> • No memorial-related development or visitor use would occur

Source: National Park Service, 2005.

The Temporary Memorial would be retained in its current location. Tributes would continue to be catalogued and archived by National Park Service personnel and stored in an offsite location.

The National Park Service would not purchase the mining draglines due to prohibitively high acquisition, stabilization, and long-term maintenance costs. At least one of the draglines is expected to be retrofitted and returned to use at another mining site. The scrap and recycling facility is also expected to be relocated and its operation continued. The existing mining structures would most likely be removed as part of the mining reclamation prior to National Park Service acquisition, as many of the buildings are visibly in poor condition and present a liability in their current state. The National Park Service would consult with the Pennsylvania State Historic Preservation Office and comply with Section 106 of the National Historic Preservation Act before taking any action that would affect these structures.

September 11th Commemoration events would continue to be held in the Bowl. In the past, the gravel pad site along the eastern end of Skyline Road has been the site of these events and would continue to be the location for large, public events. Smaller events could also be staged at the Temporary Memorial.

First Amendment assemblies would be permitted in an area to the north and west of the Temporary Memorial. This First Amendment area would be managed to ensure public safety, to avoid or minimize conflict with other users, to avoid disruptions or distractions to visitors from viewing the crash site, and to preserve a dignified setting. A First Amendment permit would be required to regulate the time, number of participants, type of equipment used, and the type or use of the facilities. The content and the intended message would not be altered or modified. The Superintendent is authorized to issue or deny a First Amendment permit under 36 CFR 2.51.

Sacred Ground

The Sacred Ground would continue to be maintained as it currently exists and would be protected with security fencing. Access would continue to be restricted to family members and authorized personnel. Existing wildflower and grass cover would be retained. The edge of the hemlock grove would be buffered by a proposed thin band of hemlocks and hardwoods to protect the stand from the wind.

Perimeter/Viewshed

Currently, the viewshed is comprised of woodlots and agricultural farms with scattered residences. Protection of the setting for the memorial would be achieved through acquisition of conservation easements by the National Park Service and other partners, conservation groups, and agencies where possible. Acquisition of easements or other less-than-fee interests in land would focus on those areas visible from the Temporary Memorial. Potential threats to this zone include incompatible land uses, such as wind farms and cell towers. Because a new entrance to the site would not be developed under Alternative 1, the perimeter/viewshed zone would be expanded to include the areas north of the draglines to U.S. Route 30. The purpose in protecting this land is to ensure that potential incompatible industrial or commercial development and visual intrusions do not impact the integrity of the site and its setting.



(Jason Cohn 2004)

VISITOR CARRYING CAPACITY

With Alternative 1, visitor use would continue to be centered at the Temporary Memorial. Visitation primarily occurs between April and October, mainly on weekends, creating high peak periods. The average number of visitors between August and October in 2004 was 4,500 per week, not including the week of September 11th. The number of visitors on weekdays ranged between 250 and 500 daily, increasing to 750 to 1,600 visitors per day on weekends. In 2004, 88.7 percent of the visitors (115,101) visited the memorial between April and November, while only 11.3 percent (14,592) visited the site during the rest of the year.³

The primary approach to the memorial is a two-way route along Skyline Road. Existing visitor parking would be proposed for expansion. Overflow parking would occur to the west of the Temporary Memorial in the grassy areas of the Bowl. To accommodate these facilities, all visitor parking would be relocated to the north side of Skyline Road. Visitor carrying capacity in this area would be congested and restricted. Although it is assumed that without a permanent memorial, visitation would decline from its existing level of approximately 129,000 visitors a year to about 87,000 visitors over the planning period. However, there would most likely be periods of high loading which would create congestion. Although increasing the parking area would improve safety, it would not necessarily improve the visitor experience to the memorial during peak periods.

³Donna Glessner, Briefing to TMM Committee, Oct. 2004.



Visitor to the Temporary Memorial (Jason Cohn 2004)

Under Alternative 1, the length of the visitor stay would also be expected to remain relatively short with most visits extending from 30 minutes to one hour. Improvements to visitor facilities would be minimal under Alternative 1. Public rest facilities would be upgraded to vault toilets. Electricity would not be extended to the site and there would be no heated facilities, though a more substantial kiosk or shelter would be installed. There would be no lights before or after the park operating hours. The visitor experience would remain focused on the outdoors. However, once the site improvements are completed and visitation levels are better understood, the National Park Service would revisit the carrying capacity of the area and explore new standards and management strategies as follows:

- **Indicator:** The percentage of visitors reacting unfavorably to crowded conditions at the memorial site.
- **Standard:** No more than 10 percent of visitors express in a visitor survey that other visitors noticeably detracted from their experience.
- **Management Action:** The National Park Service would explore management actions such as redesigning elements of the site to disperse visitors and alter visitor flow or adopt policies to limit visitor activities or practices that disrupt the solemn setting of the site.

COSTS

Development

Alternative 1 would include only minimal improvements to the existing site. The Temporary Memorial would continue to be the focus of the memorial visit. Modest facilities and interpretive programs would continue to be offered. Skyline Road would continue to be owned and maintained by Stonycreek Township. Upgrading Skyline Road and the intersections with Lambertsville and Buckstown Roads is estimated to cost \$2.1 million. Extensive improvements outside the boundary to Lambertsville and Buckstown Roads would also be needed to safely accommodate bus and vehicle traffic. Although little development is proposed for Alternative 1, it is likely that minimal private funds could be raised. Table II-2 presents the estimated net costs for Alternative 1.

Item	Estimated Net Cost*
Memorial Feature(s)	\$ 0
Visitor Center	\$ 0
Utilities and Parking**	\$ 450,000
Roads	\$ 0***
Total	\$ 450,000

*Based on 2005 costs.
 **Includes improvements to Temporary Memorial site
 ***Estimated \$2.1 million cost to upgrade Skyline Road would be borne primarily by Stonycreek Township, with assistance anticipated from the Commonwealth of Pennsylvania. Extensive improvements to Lambertsville and Buckstown Roads would also be necessary.

Source: National Park Service, 2005.

Staff and Operations

While visitation would be expected to decline under this alternative and development costs would be lower compared with Alternative 2, many of the costs related to operating a national memorial would be retained. The National Park Service would continue to work cooperatively with the Partners, local agencies and the community to serve visitors and tell the story of Flight 93. Some park functions would be achieved in cooperation with other park sites and with the assistance of a large volunteer force.

As of 2005, the park staff is currently comprised of four full-time park personnel, three interns, and several contract staff. For Alternative 1, the number of staff would most likely increase to eight full-time staff as the demands of operating the national memorial would increase (volunteer coordination, law enforcement, etc) even though visitation levels would decrease and proposed development would be at a modest level. Park positions would most likely include a Superintendent, administrative assistant, interpretive/cultural resource specialist, volunteer coordinator, curatorial, maintenance and law enforcement staff. Collections and tributes are currently being cataloged and archived by NPS staff, interns and volunteers. Security and police protection would be maintained through agreements with local law enforcement and the Pennsylvania State Police. Additional staff support would be available from other local national park units.

The park offices would continue to be located off-site, presumably in leased space in Somerset. However, Somerset Borough is approximately 18 miles from the national memorial, which makes it more difficult to manage, operate and maintain, and respond to visitor needs.

The National Park Service would continue to rely on the Ambassadors, a corps of local volunteers, for interpretation and greeting visitors to the memorial. Interpretation of the site, education and public outreach would be modest. Curatorial services would continue to be provided at the park offices with long-term storage at an off-site facility. Maintenance functions would be provided in cooperation with volunteers, other regional National Park Service sites, and with local partners. The costs of these functions are included in the operations item of the staff operating budget presented in Table II-3.

Table II-3: Estimated Operating Costs for Alternative 1 – No Action

Item	Estimated Cost*
Salaries and Benefits (8 Full-time Staff)	\$600,000
Operations	\$150,000
Total	\$750,000

*Based on 2005 costs. These estimates are for comparing the alternatives and planning purposes only.
Source: National Park Service, 2005.

The National Park Service would prepare a landscape management plan to guide maintenance of approximately 600 acres of open fields. It is assumed in this plan that current vegetation would be allowed to grow and woody successional growth would periodically be removed. Productive agricultural lands in the western

Approach zone could possibly be maintained through agricultural lease. These maintenance costs would be part of the park's annual operating budget.

Life Cycle Costs

Life cycle costs are not provided for Alternative 1 because no new long-term facilities are proposed. Currently, the total worth of annual costs (staffing and operations) over the 25-year planning period is estimated to be \$13.2 million.⁴

Land Acquisition

Currently, all land within the national memorial boundary is in private ownership. Land acquisition for Alternative 1 would focus on acquiring parcels within the Sacred Ground, the Bowl, and the approaches to the site along Skyline Road. Scenic easements or other less-than-fee acquisition strategies would be pursued where possible for those hillsides within the boundary that protect the setting for the memorial and for the wooded areas along the approach to the site from Buckstown Road. A total of 657 acres would be acquired in fee for resource protection and visitor use and an additional 1,605 acres would be protected through partnerships with others to protect the setting of the memorial.

Based on a total of 2,262 acres proposed for acquisition for Alternative 1, the total cost to acquire these lands, including relocation of the existing recycling facility, is estimated at approximately \$8 million. The difference in land acquisition costs between Alternative 1 and Alternative 2 reflects the smaller amount of land purchased for core visitor use. These estimates are based on 2005 land values. Acquisition of these lands would be contingent on willing sellers and availability of funding.



Temporary Memorial in winter
(Donna Glessner 2004)

⁴Reflects a 4% per year increase in salary costs and operational costs over the 25 year study period brought back to present worth assuming a discount rate of 7%. This represents the amount of money that would be required today to cover this year's annual costs with the balance invested and withdrawn over the next 25 years to meet annual costs when required.



View from 40 Memorial Groves
(Paul Murdoch Architects and Aleksander Novak-Zemplinski, 2005)

Alternative 2 – Preferred Design Alternative

(Agency's Preferred Alternative and Environmentally Preferred Alternative)

CONCEPT

Alternative 2 would commemorate the actions of the passengers and crew of Flight 93 by transforming the site into a designed memorial landscape. The design blends with the contour of the land and enhances the physical features of the site. It does not attempt to introduce symbolism, but rather focuses a visitor's attention on the crash site and presents a variety of opportunities for experiencing the site. A visitor center would provide basic visitor facilities and services and would facilitate interpretation of the actions of the passengers and crew and the stories of the events that occurred on September 11, 2001.

A tree-lined allée and curving landform would give definition to the edge of the Bowl. Additional plantings in an irregular pattern complete the inner ring of the landscape circle. This circle responds to the circular landform of the Bowl, engenders a gesture of collective embrace, and focuses on the crash site. The final flight path and crash site would be delineated as they break the circle of the Bowl.

The allée would lead visitors to a plaza extending to the crash site, which would serve as a ceremonial entrance to the Sacred Ground. Visitors could also reach the crash site along a ring road behind the curved landform or from trails that lead through the Bowl. The plaza extending toward the Sacred Ground would allow for a view of the crash site. Designed niches built into the sloped walls of the plaza would serve as a venue where tributes could be left. Visitors would also be encouraged to leave written expressions in books located in the visitor center.

All visitors would enter and exit the site at a new entrance off U.S. Route 30. Based on discussions with local residents, Stonycreek Township and Somerset County officials, the Pennsylvania Department of Transportation, and transportation consultants, direct access to U.S. Route 30 was determined to be the safest, most cost-effective and least disruptive option to access the site. A tower would mark the entrance and exit to the memorial. Visitors would follow an approach road or pedestrian trails through the site's former mining landscape to reach the Bowl and the crash site. All roads currently crossing the site would be terminated and closed to through-

traffic. An estimated 400,000 visitors are expected to visit the memorial in the years immediately after its opening; thereafter, annual visitation is expected to stabilize at 230,000 visitors a year.

MANAGEMENT ZONES

The following discussion addresses the desired resource and visitor conditions, as well as the types and intensities of development within the five prescribed management zones. Figure II-2 illustrates the management zoning proposed for Alternative 2. Table II-4 summarizes the specific management prescriptions in a matrix located after the description of these zones. Where appropriate, detail is provided from the design concept to illustrate the design intent. The final selection of finish materials, plant species, and design details will occur as the concept evolves and is given greater definition through the design development process, but all refinements should be consistent with the general direction provided in the below management prescriptions.

Gateway

The proposed entrance and exit to the memorial would be from U.S. Route 30. This Gateway would be marked with a tower set on a planted mound in a clearing with a pattern of evergreen trees radiating out from the tower. Based on the design concept, the tower would be 93-feet tall and house 40 white aluminum wind chimes. The outside of the curved concrete tower wall would be constructed of white glass mosaic tiles to create a reflective, ephemeral quality. Blue plaster would appear inside to evoke the sky. The tower would be surrounded by rings of white pines.

The purpose of the tower would be to celebrate the memory of those who are honored by the memorial. An information/orientation kiosk would be established in this zone. A small visitor parking area and limited visitor amenities would be constructed near the tower. Pedestrian trails would begin at the tower and lead to the Approach/Return Zone where a two-lane entrance road would continue into the park.

The desired visitor experience opportunities for this zone would involve visitor orientation, park entrance/exit, and feelings of reflection, anticipation and reverence.

Figure II-2: Alternative 2 – Preferred Design Alternative Management Zoning



Alternative 2: Preferred Design

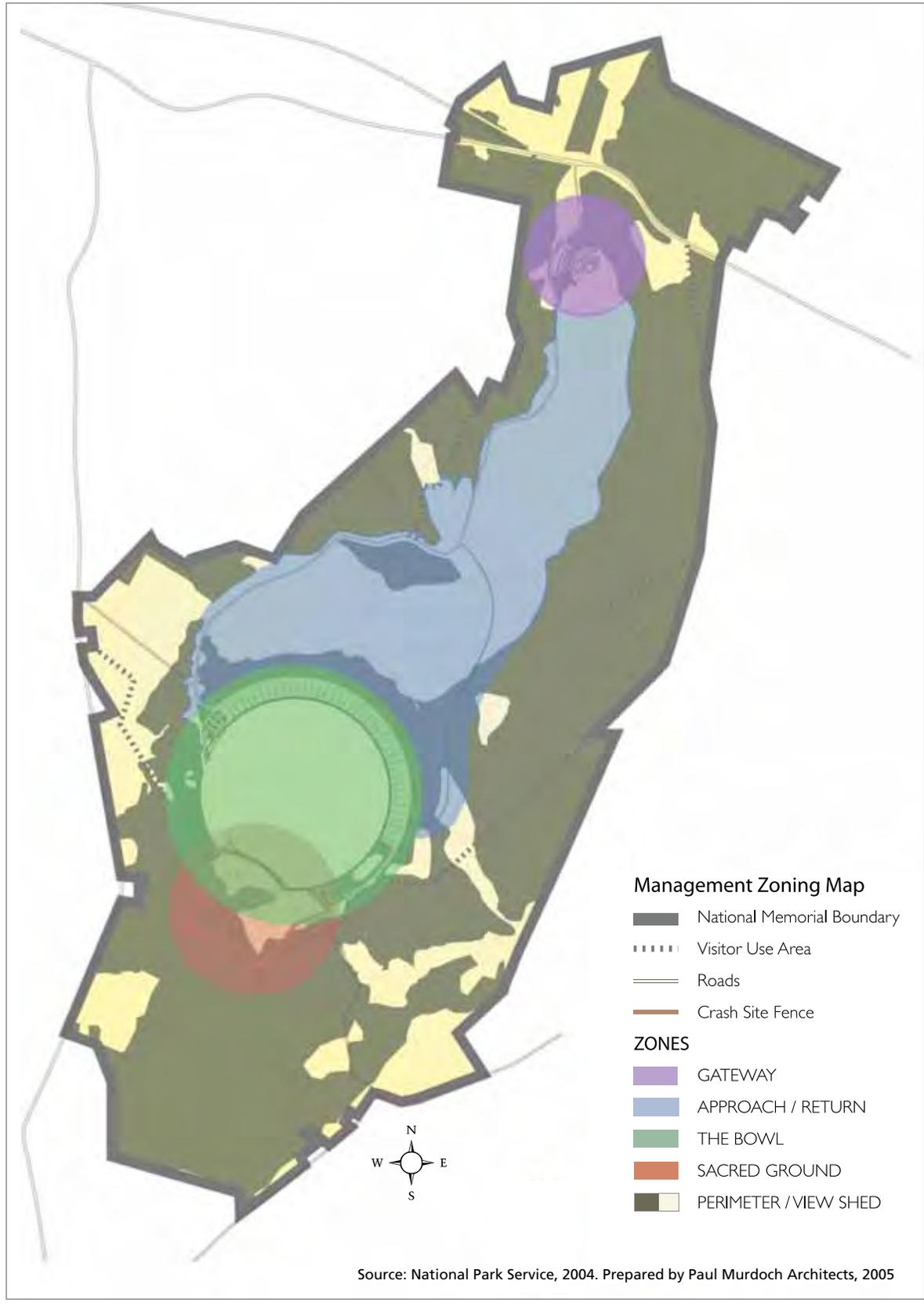


Table II-4: Alternative 2 – Preferred Design Alternative Management Matrix			
Management Zone	Desired Visitor Conditions	Desired Resource & Landscape Conditions	Types and Intensity of Development and Use
Gateway	<ul style="list-style-type: none"> • Memorial introduction and exit • Orientation • Reverence • Visitors have a sense of arrival • Memory of passengers celebrated through song of wind chimes 	<ul style="list-style-type: none"> • Evergreen plantings resonate out from tower and maintained as a designed landscape • Landscape surrounding tower and the plantings are maintained as a wildflower meadow • US 30 screened and quieted by additional tree and shrub plantings 	<ul style="list-style-type: none"> • New entrance would be developed at US 30 near intersection with Haul Road • Entrance would be marked by a tower that houses wind chimes • Tower set on a planted mound in a clearing surrounded by rings of evergreens • Information kiosk and parking would be provided • Visitor uses would include driving, biking, and visiting the tower. Tower would be originating point for pedestrian trails
Approach	<ul style="list-style-type: none"> • Approach to/from the Memorial • Preparation for Memorial • Experience the healing of the landscape • Visitors have opportunity to experience sense of anticipation 	<ul style="list-style-type: none"> • Management focuses on healing the landscape • Remediation ponds retained with mixed woodland plantings for screening • Structures necessary for remediation screened and reduced in visibility • Open fields managed for wildlife habitat with existing successional planting allowed to reduce field area over time 	<ul style="list-style-type: none"> • No structures built that would impede views or hinder anticipation of the Memorial • Two-lane, partially tree-lined approach road between the Gateway and portal plaza at the Bowl • One-way return road would exit Sacred Ground and the Bowl from the east • Pedestrian trails would lead to and return from: an overlook at the northeast corner of the site, the high ground at the site's eastern edge, and through the woodlands to the site's western edge; small seating areas are provided at the overlooks • Existing Skyline Road to the east and west of Bowl would provide only emergency access • Visitor uses would include driving, walking, biking (along approach and exit road only)
Bowl	<ul style="list-style-type: none"> • Entrance to Bowl and framed views to the Sacred Ground • Orientation and education at visitor center • Honor the passengers and crew • Respect and appreciation for Flight 93 passengers and crew • Visitors have opportunities to experience the Bowl in varied ways, including: pride, humility, and in particular, a sense of reverence at the portal platform overlooking the Bowl and Sacred Ground; solitude along the curving walkway; contemplation of the crash site; and awe at scale of Bowl 	<ul style="list-style-type: none"> • Formal planting groves along the curving landform created and maintained as a designed landscape to focus visitors on the Sacred Ground • Mixed hardwoods and evergreens planted and maintained as a windscreen and backdrop on outside of ring road • Views from curving landform and the Sacred Ground remain open and unobstructed • Views of surrounding hillsides are representative of Pennsylvania countryside • Interior of Bowl planted with wildflower mix and maintained as a meadow; woody successional growth removed • Sediment ponds retained for wildlife habitat • Curved landform and the ring road cross the existing wetland 	<ul style="list-style-type: none"> • Primary memorial feature is a curving landform that defines the Bowl; ground would be regraded. • A walkway and an allée of trees would descend around the Bowl to the crash site; behind the walkway are 40 groves of trees and a ring road (two-lane with parallel parking) that leads to the Sacred Ground. Irregular native plantings complete circular form to the south of the visitor center. • The first and main entrance into the Bowl and first view of the crash site would be through a portal and viewing platform that follow the flight path of Flight 93 • The visitor center would be integrated into the curving landform • Temporary Memorial would eventually be removed and the location marked by benches along a trail. Visitors would be encouraged to leave tributes at Sacred Ground plaza and written comments at the visitor center.

(Continued on next page)

Table II-4: Alternative 2 – Preferred Design Alternative Management Matrix *(continued)*

Management Zone	Desired Visitor Conditions	Desired Resource & Landscape Conditions	Types and Intensity of Development and Use
<p>Bowl <i>(continued)</i></p>		<ul style="list-style-type: none"> • Uncovered outside eating area, screened from view, located near visitor center parking area 	<ul style="list-style-type: none"> • Welding shop structures would be removed but the footprints of the buildings would be marked. Pedestrian path would lead through this area to the Sacred Ground plaza. • Parking area would be provided at the portal • Pedestrian trails would lead from the allée to overlooks at the ridge and through the Bowl to the crash site; seating would be provided along trails and along curving walkway • Visitor uses would include walking, driving, biking (on roadways), sitting, gathering at portal plaza, leaving written tributes at visitor center • Motor vehicles would be prohibited in Bowl inside curving landform • Screened outside, uncovered eating area would be provided for visitors on west side of visitor center near parking area.
<p>Sacred Ground</p>	<ul style="list-style-type: none"> • Honor the passengers and crew • Revere the Sacred Ground as a cemetery • Provide family members quiet, reverent atmosphere and access to the Sacred Ground • Provide public opportunity to view the crash site and pay their respects closer to the Sacred Ground • Visitors have opportunity to experience sense of contemplation, reverence and remembrance 	<ul style="list-style-type: none"> • Plaza plantings maintained as designed landscape • Mix of grasses, wildflowers, and bulbs maintained at crash site • Hemlock Grove allowed to regenerate through natural processes; new edge of Hemlock and mixed plantings established adjacent to crash site to protect hemlock stand • Structures in hemlock grove retained 	<ul style="list-style-type: none"> • Public plaza would extend toward crash site; re-grading at plaza edge to create drop-off for protection and security of Sacred Ground • Walls would frame the flight path and ceremonial gateway for entry to the crash site • Home and seasonal cabins in hemlock grove would be retained • Security barrier around crash site would include grassy mound along the western limit • Parking area with plantings would be provided at terminus of curving landform • Visitor uses would include walking, sitting, gathering, ceremonies, and leaving tributes
<p>Perimeter Viewshed</p>	<ul style="list-style-type: none"> • Northern perimeter includes woodland buffer to preserve a planted context for the entrance • Southern viewshed preserves rural backdrop for the Hemlock Grove and Sacred ground • Provides visitors with an appreciation for the area as part of the Laurel Highlands 	<ul style="list-style-type: none"> • Landscape of farms and woodlots preserved to maintain views to and from the memorial and decrease outside disturbances 	<ul style="list-style-type: none"> • No visitor facilities • Pedestrian trails would be proposed on federal lands only • Existing roads would provide emergency access

Source: National Park Service, 2005.



The Bowl surrounding the Sacred Ground at the bottom of the illustration (Paul Murdoch Architects and Aleksander Novak-Zemplinski, 2005)

Approach/Return

Visitors would be directed to drive or bike through this zone on a two-lane approach route, approximating the route of the existing Haul Road to the entrance of the Bowl. Pedestrian trails originating from the tower in the Gateway zone would lead through woods at the site's western edge and at higher elevations to the east, allowing for a view overlooking the national memorial. A one-lane return road would provide visitors with elevated views of the tower to the north and views back to the Bowl.

The "healing of the land" would be used as a metaphor for emotional healing. Areas of the mining landscape would be allowed to regenerate over time. Sedimentation ponds, open fields and the core meadow would be retained for wildlife habitat with existing successional growth allowed to reduce field area over time. Sediment and AMD treatment ponds would remain with some mixed woodland plantings for screening. The desired visitor experience for this zone includes an approach and departure from the memorial, preparation for the memorial and a healing landscape.

Bowl

The focal point of the memorial would be contained within a naturally occurring Bowl surrounding the crash site. This area would be lined by an allée composed of deciduous plantings. The allée would gently descend around the Bowl, extending through the wetlands toward the crash site. Behind the allée, 40 groves of maples or other deciduous trees and a ring road leading to parking near the crash site would be established. A backdrop and buffer of mixed evergreen and deciduous trees would be planted as a windscreen behind the groves and the ring road. Pedestrian trails through the Bowl would offer a variety of ways to experience the memorial, while benches situated around the allée would provide areas for quiet contemplation.

The main entrance to the Bowl would be through a walkway at the end of the western edge of the curving landform. Two walls would create a portal that frames the sky along the final flight path of Flight 93 to the crash site. A walkway would lead visitors through a plaza and portal onto a platform to give them their first look at the expanse of the Bowl and the crash site below. The end of the plaza would be open, giving a feeling of release to the overall curving landform. Based on the design concept, the portal walls would be made of warm-toned concrete, textured like the local cabins. The proposed plaza walkway would be black slate,

terminating at a sloped and lighted glass plaque that would be inscribed with the memorial's Mission Statement.

Under Alternative 2, the visitor center would be integrated into the proposed landform and would serve as the interpretive and educational hub of the park. The visitor center would feature exhibits explaining interpretive themes and stories, such as the events of Flight 93, the passengers and crew who died aboard Flight 93, the collective events that occurred on September 11, and the history of the site. Tributes that have been left at the site would be displayed and visitors would be encouraged to leave written tributes. The program for the visitor center will be determined during the design development phase and interpretive media developed through future interpretive planning.

Proposed plantings of deciduous trees to the south of the visitor center would complete the inner ring of the circle. Unlike the allée, the ground in this area would not be regraded. The design elements, most likely red maples blended with a variety of other native species, would be planted in a loose, irregular pattern. Trails through this area would lead visitors through the welding shop complex to the crash site, enhancing the range of visitor experiences along the edge of the Bowl.

In this zone, visitors would learn about Flight 93 and the events of September 11, 2001, and would be provided opportunities to experience solitude, contemplation, reverence and awe of the landscape.

Temporary Memorial. Under Alternative 2, the Temporary Memorial would be retained in situ as long as visitation does not conflict with the construction of the memorial, but in the long-term, this feature would be removed to open views of the Bowl and crash site. The location of the Temporary Memorial would be marked by benches along a trail extending through the Bowl.

Draglines and Mining/Industrial Structures. The National Park Service would not acquire the draglines or preserve the other mining or industrial buildings under this alternative. At least one of the draglines is expected to be retrofitted and returned to use at another mining site and the Rollock scrap and recycling facility is also expected to be relocated and operations continued. In addition, many of the mining structures will be removed as part of the final site reclamation. Alternative 2 would utilize the

site's mining legacy as a metaphor for the "healing landscape" and would explain this history through site markers and interpretive media. The location of the welding shop buildings would be marked and a meandering path would allow visitors to access this area. Two of the building footprints would be within the trees marking the center of the investigation efforts, and one would be in the open, marking the location where the families first viewed the crash site. Some buildings, such as the miners' shower house, may be temporarily retained for storage or other functions. The National Park Service has documented the mining and industrial structures and will determine their significance as part of a separate effort. The agency will consult with the Pennsylvania State Historic Preservation Office and comply with Section 106 of the National Historic Preservation Act before taking any actions that would affect these structures.

September 11th Commemorations. With Alternative 2, September 11th commemoration events would continue to be held in the Bowl. Small-scale events could occur at or near the proposed visitor center and larger events would occur in the vicinity of the proposed parking near the Sacred Ground plaza. This could be in the form of a flat plinth within the Bowl adjacent to the parking area, with a stabilized base and grass/meadow as the surface. This area would be designed to blend in with the surrounding features and have minimal markings at its edges and corners.

First Amendment Assemblies. An area would be designated for First Amendment assemblies to the west of the visitor center parking area. This location would allow staff to monitor activities while preserving the sanctity of the Bowl and crash site inside the walls. This area would ensure public safety, avoid conflict with other users, and not detract from the visitors' view of the crash site. A First Amendment permit would regulate the time, number of participants, use of the facilities and number and type of equipment used, but not the content or the intended message.

Collections Facility and Maintenance Complex. The costs of developing the memorial and associated infrastructure proposed in this alternative make it unlikely that funding will be available for a separate collections facility or maintenance complex within the life of this plan. The collection is expected to continue to be stored in a secure off-site facility. Should it be determined that a new onsite facility is desirable and if

funding becomes available, the facility could be located in the general area of the visitor center parking area. This location would minimize new infrastructure and development costs and could be screened from view. Existing buildings or off-site facilities are expected to be used to meet maintenance storage, staging, and work area needs. Should funding become available for a maintenance facility, it is anticipated that such a complex could be located in the wooded areas to the west and south of the visitor center parking area. This location could be screened from view and could provide necessary space and access options.

Sacred Ground

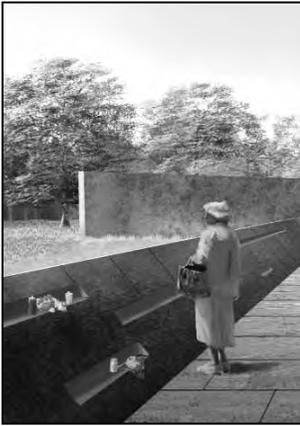
With Alternative 2, the Sacred Ground would be the focus of the memorial as it constitutes the final resting place of the passengers and crew of Flight 93 and holds the memory of their courage. The crash site and hemlock grove would be open only to family members of the passengers and crew and authorized personnel, but the public would be able to view the area from a plaza, framed by a sloped wall. Niches for tributes left by visitors would be carved into the wall separating the plaza from the Sacred Ground. The field at the crash site would be planted with low-maintenance grasses and seasonally blooming bulbs and wildflowers. Walls along the western edge of the plaza would align with the flight path and the viewing platform near the visitor center.

The design concept shows that the portal plaza would be constructed of black slate and benches would be placed at each end of the plaza. A 12-foot vertical drop would occur behind the sloped wall to prohibit intrusion into the Sacred Ground. The ground would then incline to the edge of the crash site. Offset concrete walls would frame a gate, opened only for ceremonies or family visits, through which families could enter the Sacred Ground and then proceed to a white stone slab along the flight path. The offset walls would serve as a screen from public view. The western wall would hold a folded band of polished, translucent white marble inscribed with the names of those honored and the date of the crash. A cluster of American beech trees would be planted at the walls to provide shade and shelter, and benches would be installed for visitor seating.

The location of the security fencing at the crash site would be shifted to enclose the existing earth mound within the Sacred Ground for family seating and contemplation. The hemlock grove and the cabins would be retained to



Ceremonial entrance to the Sacred Ground (Paul Murdoch Architects and Aleksander Novak-Zemplinski, 2005)



Plaza overlooking Sacred Ground
(Paul Murdoch Architects and Aleksander Novak-Zemplinski, 2005)

provide solitude and temporary shelter from weather to family members and for park uses.

The desired visitor conditions for this zone would be contemplation, reverence and accommodation of remembrances.

Perimeter/Viewshed

The existing landscape would be maintained to preserve memorial and landscape views, and to minimize noise and disturbances from sources outside the park. Visitor uses would occur only on lands owned by the Federal government. Pedestrian trails are proposed at the eastern and western perimeter. The northern perimeter would include woodland buffers to preserve a planted context for the park entrance. The southern viewshed would preserve the rural backdrop to the hemlock grove and the Sacred Ground. This zone would protect the setting of the memorial and would create opportunities for visitors to experience contemplation and reverence for the site.

VISITOR CARRYING CAPACITY

Indicators and standards for user capacity are identified in the General Management Plan to meet the legislative requirement for including “identification of and implementation commitments for visitor carrying capacities.” Indicators of user capacity are variables that can be measured to track change in conditions caused by human activity, so that progress toward desired conditions can be assessed. These indicators translate the desired conditions into something that can later be measured. Generally, indicators used to determine carrying capacity are obtained from existing park information and visitor surveys.

Because Flight 93 National Memorial has not been fully developed, nor has the land been acquired, reliance on existing visitation figures, comments from visitors to the Temporary Memorial and resource surveys were considered. As the park develops and matures, monitoring of visitor use, experiences and trends, as well as assessing the park’s fundamental resources and other resource values, will be conducted. Supplemental resource surveys will also be conducted to determine whether conditions that warrant additional resource protection exist.

Current visitation levels and patterns will change significantly if Alternative 2 is implemented. Annual visitation is estimated to be

230,000 after the projected peak of 400,000 visitors that are expected in 2011. Table II-5 describes the desired visitor experience for each zone. Visitor use would be concentrated in the Gateway, the Bowl and at the plaza along the edge of the Sacred Ground. Based on these estimates measured against the size of the landscape, visitation levels should be achievable without measurable impacts to the park’s natural and cultural resources. However, due to the solemn nature of the site, the visitor experience could be particularly sensitive to intensities of visitor use, patterns and behavior. Refinement of the design concept during the design development process could affect visitor patterns and use levels. Therefore, specific indicators, standards, and management actions are not included in this General Management Plan. The National Park Service would complete a study of visitor carrying capacity once the design has been finalized and the memorial has been constructed.

COSTS

Development

As part of the design competition, all submittals were required to be achievable within a set project budget. This budget was for planning and comparison purposes. The budget for the memorial feature was \$27 million gross. The cost estimates for the visitor center and infrastructure were developed through the use of the National Park Service Facility Planning Model, which estimates facility and infrastructure needs based on visitation projections, comparable National Park Service facilities, industry standards and regional conditions.

The Partners initiated a fundraising feasibility study that showed \$30 million in private funds could be raised for the memorial feature. For Alternative 2, the cost estimate for the memorial feature includes development of the tower and associated plantings; the portal plaza; the curving landform including the allée and 40 groves of trees; and the plaza at the Sacred Ground. In the spring of 2006, the Partners will launch a national fundraising campaign to raise funds for the Flight 93 memorial.

Since the conclusion of the competition, the project cost estimates for the visitor center and infrastructure have been refined (Table II-5). Based on the National Park Service’s facility planning model, the visitor center assumes a modest 8,000-square-foot facility that would be used to educate the public and interpret the

Table II-5: Development Costs, Alternative 2– Preferred Design Alternative, 2005

Item	Budget*	Funding Source
Memorial Feature	\$27.00 million	Private
Visitor Center	\$ 6.00 million	State, Federal
Utilities and Parking	\$ 4.97 million	State, Federal
Roads	\$ 6.73 million	State, Federal
Total (Gross)	\$44.70 million	Private, State, Federal

*These figures are for planning and comparison purposes only and represent gross costs. These costs are based on 2005 estimates. Actual costs will be determined through the design development process. Development of the proposed facilities and infrastructure is dependent on availability of funding.

Source: National Park Service, 2005.

story of Flight 93, provide basic visitor services, provide shelter from the weather, and house staff offices. Actual costs for the selected design will be refined through the design development process. Development of the proposed facilities and infrastructure is dependent on the availability of funds and the success of the private fundraising campaign.

The cost estimates shown in Table II-5 include almost \$650,000 for the illumination of the memorial features and the park during regular park hours. In the design concept, an extensive lighting program was proposed. The tower would be glazed with interior lighting and the exterior would be illuminated as a beacon. Lighting of the curving landform would occur through recessed lights in radiating markers that face the Bowl. Benches along the allée would have a recessed lighting source to illuminate the path and each of their radiating extensions through the groves is terminated at the ring road with a pole-mounted downlight.

The visitor center would provide a lantern-like image by means of diffuse, glowing light through an etched enclosure. A white stone slab set on the flight path would mark a separate entrance to the Sacred Ground for family members. This area would be illuminated with recessed in-grade linear blue lines of gentle light that are perpendicular to the path flown at the portal

plaza and the plaza at the Sacred Ground. Site elements, such as the Mission Statement plaque at the portal viewing platform and the list of names at the Sacred Ground plaza, would be illuminated. The western wall would hold a folded band of polished, translucent marble, with the 40 names of the passengers and crew and the date September 11, 2001, inscribed. This marble band would be backlit from within the surrounding wall.

It is not anticipation that the memorial would be open to the public before dawn or after dark. The lighting proposed in the design concept would be dramatic and effective during overcast days and during winter when darkness falls before 5 p.m. Although this alternative could include extensive lighting, final determinations on illuminating the memorial and park hours of operation will be based on available funding and will be made during final design development phase.

The National Park Service conducts facility cost indexing and asset priority indexing to understand the relative condition and importance of existing structures. These analyses have not been undertaken in this General Management Plan because all structures within the core of the memorial are privately owned and many will be removed as part of the site reclamation or prior to land acquisition by the National Park Service.



Entry portal
 (Paul Murdoch Architects and Aleksander Novak-Zemplinski, 2005)



Allée leading to the Sacred Ground (Paul Murdoch Architects and Aleksander Novak-Zemplinski, 2005)

Life Cycle Costs

Life cycle costs are used to make design and construction decisions, which reflect the aggregated one-time construction costs and any recurring costs into the future. The National Park Service typically uses a 25-year planning horizon to project life-cycle costs in design and construction projects. The present worth method is used to convert present and future expenditures into an equivalent expenditure today. This method is based upon the time value of money or the principle that a dollar spent today is worth more in the future because if it was invested it would yield a return.

To calculate the present worth of future annual and recurring (replacement) expenditures, a “discount rate” of 7 percent was used. The life cycle costs of the Flight 93 National Memorial are presented in Table II-6.

Table II-6: Life Cycle Costs over a 25-year Planning Horizon, Alternative 2 – Preferred Design Alternative

Item	Cost ¹
Total Initial Cost (Net)	\$37.8 million ²
Total Replacement Cost/ Salvage Value	\$ 6.3 million
Total Present Worth of Annual Costs (Staffing and Operations)	\$17.5 million ³
Total Life Cycle Costs	\$61.6 million⁴

¹Based on 2005 estimates.
²Includes net costs for initial construction of visitor center, memorial feature, interpretive displays and infrastructure
³Reflects a 4% per year increase in salary costs and operational costs over the 25 year study period brought back to present worth assuming a discount rate of 7%. This represents the amount of money that would be required today to cover this year’s annual costs with the balance invested and withdrawn over the next 25 years to meet annual costs when required.
⁴Represents the total amount of money that would be required today to cover initial costs and this year’s annual costs with the balance being invested and withdrawn over the next 25 years to meet annual and replacement costs when required.

Source: National Park Service, June 6, 2005.

Staff and Operating Costs

Under Alternative 2, 14 full-time staffpersons would be necessary to effectively manage and operate the memorial. This staffing level assumes some functions would be achieved in cooperation with other national park sites in the region and that a large volunteer force would continue to be active and support operation of the memorial. National Park Service positions would include a Park Superintendent and staff for operations, administration, resource protection, interpretation, volunteer coordination,

curatorial, maintenance and law enforcement. The National Park Service would continue to utilize the service of the Ambassadors, a corps of local volunteers, and create additional opportunities for service through an official Volunteer-in-Parks Program.

The memorial would be open from dawn until dusk with extended summer hours. Should the National Park Service and the Partners decide through the design development process that illuminating the design is desirable and if funding is available, the National Park Service would revisit the operating hours and evaluate the increased utility costs and any increased staffing levels necessary to provide for resource and visitor protection.

For Alternative 2, park offices would be located in the visitor center or in an existing building within the park. Offsite space would no longer be leased and the park staff would be on the memorial grounds and closer to visitors and the park resources. Because of the development costs associated with creating the memorial, it is assumed that for the life of this plan, funding would not be available for new collections or maintenance facilities. Collections would continue to be stored at an offsite location and maintenance operations would be based in one of the existing buildings on the site with materials and equipment storage provided through a partnership with local governments, organizations and other national park sites in the region.

The park would prepare a landscape management plan to guide management of the open fields. The fields in the Bowl would receive the greatest attention and be managed as a meadow. For the Approach zone, natural regeneration would be allowed to continue and woody successional growth would be periodically removed. Productive agricultural lands in the western Approach/Return zone could be maintained through agricultural lease. These maintenance expenses are included in the park’s annual operating costs and would be accomplished through the use of park staff, contractors, and volunteers (see Table II-7). It is assumed that the National Park Service will enter into an agreement with local nurseries to propagate trees to be used as replacements for plantings that are important in the memorial design and that an onsite nursery will not be created.

Table II-7: Estimated Operating Costs for Alternative 2 – Preferred Design Alternative

Item	Estimated Net Cost*
Salaries and Benefits (14 Full-time Staff)	\$ 800,000
Operations	\$ 200,000
Total	\$1,000,000

*Based on 2005 costs. These estimates are for comparing the alternatives and planning purposes only.
Source: National Park Service, 2005.

Land Acquisition

The National Park Service is in the process of acquiring the core resource and visitor lands within the national memorial boundary (refer to Chapter I, Figure I-2). All of these lands are currently in private ownership. The Flight 93 National Memorial Act authorizes the National Park Service to purchase lands from willing sellers. The official boundary map (Figure I-2) for the national memorial shows two principal areas: 1) 1,355 acres for resource protection and visitor use areas, which will be protected through fee-simple acquisition by the National Park Service, and 2) 907 acres for resource protection, which would be protected in partnership with landowners, conservation groups and other agencies through less-than-fee acquisition (i.e., easements), or through fee acquisition if necessary. The total cost to acquire land for Alternative 2, including relocation expenses, is expected to be approximately \$10 million, based on 2005 dollars. Acquisition of these properties would depend on availability of funds.

CONCLUSIONS

Alternative 1 would protect the crash site and surrounding setting and memorialize the passengers and crew by maintaining the current Temporary Memorial and the practice of leaving tributes. The National Park Service would continue the present management practices of relying on local volunteers to provide interpretation, visitor greeting and minimal site maintenance at the Temporary Memorial. A visitor center would not be constructed, and there would be no interpretive, public education or outreach programs. Visitors would continue to experience the site in the open as it currently exists. Public toilet facilities would be upgraded from “port-a-johns” to vault toilet facilities. Utilities would not be extended to the site.

Local residents would be impacted by the continued use of local roads to access the memorial. Some residents would be directly impacted by necessary improvements to Lambertsville and Buckstown roads. The danger of buses and high volumes of visitor traffic using narrow, local roads would continue as would the annoyances of visitors traveling along local roads, turning around in private driveways, disturbing private property and asking for driving directions or the location of local services. Within the boundary, the cost of upgrading and maintaining Skyline Road would be borne by Stonycreek Township and the Commonwealth of Pennsylvania.

If Alternative 1 is selected, the site may not be adequately protected from adjacent land development along US Route 30, especially those lands north of the existing draglines. There are no zoning or land use controls in Stonycreek Township. Before September 11, 2001, this land was considered for development as an industrial park or a wind farm. Alternative 1 would involve about 657 acres in fee simple acquisition, with approximately 1,355 acres acquired as scenic or conservation easements or through other partnership arrangements if possible. The total budget for a staff of eight full-time employees to operate and maintain the park would be about \$750,000 per year.

Alternative 2 is the preferred design alternative, as selected by the Partners, as well as the agency’s preferred alternative and the environmentally preferred alternative. Alternative 2 would memorialize the passengers and crew and attempt to more fully achieve the Mission Statement. It would protect the final resting place of the passengers and crew and place special attention on providing an appropriate setting for the memorial. It would commemorate the passengers and crew of Flight 93 through the creation of a designed memorial landscape.

The focal point of the memorial would be contained within a naturally occurring Bowl surrounding the crash site. This area would be lined by trees and 40 memorial groves of trees. The walkway would gently descend around the Bowl, extending through the wetlands toward the crash site. This alternative would not attempt to introduce symbolism into the site, but would add definition to the Bowl and focus visitors on the Sacred Ground, the final resting place of the passengers and crew of Flight 93. A visitor facility would be constructed to provide public

Alternative 2 is the Preferred Design Alternative, which creates a designed memorial landscape and more fully achieves the Flight 93 National Memorial mission.

education and interpretation. The public would be informed about the valor and deeds of 40 passengers and crew members on September 11, 2001.

Alternative 2 would entail construction of the memorial design and an approximately 8,000-square-foot visitor facility. Alternative 2 also would involve acquisition of about 1,355 acres in fee simple and 907 acres in scenic or conservation easements to protect the crash site, provide for visitors, and provide an appropriate setting for the memorial. Access to the memorial under Alternative 2 would be provided directly from U.S. Route 30. Visitor-related traffic would no

longer use local roads such as Lambertsville Road and Buckstown Road to access the memorial.

Alternative 2 would require employment of 14 full-time employees to administer and maintain the memorial. The total construction cost to develop the memorial feature, the visitor center, and related roads and infrastructure is estimated to be \$44.7 million. The total operating cost is estimated at \$1 million per annum and the proposed land acquisition costs are expected to be about \$10 million, based on 2005 estimates. Table II-8 compares the estimated costs of the two alternatives.

Table II-8: Comparison of Estimated Costs¹ by Alternative		
Costs	Alternative 1 – No Action	Alternative 2 – Preferred Design Alternative
Development Costs¹:		
Memorial Feature	\$ 0	\$27.00 million (Private)
Visitor Center	\$ 0	\$ 6.00 million (State and Federal)
Utilities and Parking	\$450,000 ²	\$ 4.97 million (State and Federal)
Roads	\$ 0 ³	\$ 6.73 million (State and Federal)
Total (Gross)	\$450,000	\$44.70 million (State, Federal & Private)
Estimated Operating Costs:		
Salaries and Benefits	\$600,000	\$ 800,000 (14 full-time staff)
Operations	\$150,000	\$ 200,000
Total	\$750,000	\$1,000,000
Total Land Acquisition Costs	\$ 8.0 million	\$10.0 million
Total Land Acquisition	657 acres core resource and visitor use 1,605 acres viewshed protection	1,355 acres core resource and visitor use 907 acres viewshed protection
¹ These figures are for planning and comparison purposes only and represent gross costs. These costs are based on 2005 estimates. Actual costs will be determined through the design development process. Development of the proposed facilities and infrastructure is dependent on availability of funding. ² Includes improvements to Temporary Memorial. ³ Estimated \$2.1 million cost to upgrade Skyline Road would be borne primarily by Stonycreek Township, with assistance anticipated from the Commonwealth of Pennsylvania. Source: National Park Service, 2005.		