

NATIONAL ENDOWMENT FOR THE HUMANITIES



SAMPLE APPLICATION NARRATIVE

Preservation and Access: Sustaining Cultural Heritage Collections
Institution: University of North Carolina

Fire Protection for Special Collections at the University of North Carolina

Introduction

The University of North Carolina at Chapel Hill requests \$400,000 from the Sustaining Cultural Heritage Collections program at the National Endowment for the Humanities to assist in the installation of sprinklers in the Louis Round Wilson Special Collections Library. The collections in Wilson Library are among the most significant research resources at the University and serve a wide range of educational and research purposes for humanities scholars at UNC-Chapel Hill and beyond. Developed over more than a century and a half, the special collections in Wilson Library reflect a tremendous investment of thought, dedication, and resources in building one of the nation's preeminent research collections.

The Wilson Special Collections Library currently has a permanent staff of 28 professional and 10 support staff, plus 8 term appointments. In FY 2008-2009, the collections spent \$572,439 on new acquisitions; most manuscript and archival collections - in all formats - were acquired through gifts. Normal operating expenses, including equipment, supplies, building maintenance and repair services are supported from central Library funds. Similarly, much of special collections operations are integrated into the central Library's business, personnel, development, and technological infrastructure.

For the past three years, Wilson Library has been engaged in an initiative to improve the use and management of its special collections resources through the consolidation of selected services and functions across its component collections. Prior to this time, each special collection was an independent department with minimal formal coordination of their activities. As part of this recent effort, both technical services and research and instructional services have been consolidated into Wilson-wide departments, combining staffs formerly assigned to each of the individual collections. This effort is aimed at improving access to collections by rationalizing, consolidating, and streamlining policies and workflows and by using resources in more effective ways. The result will be a better experience for researchers as they discover and use the collections. More effective and centralized management of building resources, including environmental, fire safety, and security controls will also be enhanced through this process.

Initiatives within Wilson Library to extend the reach of special collections have been reinforced by strategic planning for the University Library as a whole. Throughout this process, the University Librarian has emphasized the importance of prioritization in an effective plan. Following this directive, the Library adopted five goals that emerged from the first phase of planning as the highest priorities. One of these key goals is "continue to strengthen the collection of and access to unique resources." Central to this goal, the Wilson special collections provide a research-based learning environment in which faculty can help students, undergraduate as well as graduate, develop interpretive skills

that can be applied across humanities disciplines. The Library sees providing resources for the development of new knowledge in the humanities—through intensive study with rare books, personal papers, organizational records, sound and graphic archives, and moving image collections—as a critical role that special collections serve for the research community. Acquiring and preserving these collections, as the documentary heritage of our society and culture, is one of the core missions of the Library in its service to the university, state, and nation. Ensuring that these collections are housed and managed in an environment secure from natural and man-made disasters is essential to their ongoing availability for these purposes.

The Library has a long-standing commitment to the preservation of its special collections. As it makes special collections discoverable and available for study by current and future patrons, it has developed policies and devoted resources to ensuring their proper use and long-term survival. Supervised reading rooms provide secure spaces for using the collections. Regular monitoring of environmental conditions ensures that unanticipated and potentially damaging changes in temperature or humidity are discovered quickly and can be dealt with expeditiously; the Library is currently installing networked data loggers to improve further our capacity to identify and respond to changing conditions. Based on a report by a security consultant, the Library is moving ahead with upgrading its current security system to improve its reliability and coverage. Most importantly, special collections has a dedicated Conservation Lab, staffed by two professionals, that is responsible for managing the overall environment for special collections as well as for developing policies governing the physical use of collections and performing conservation treatment as needed.

One of the most critical needs for protection of the collections is the installation of a building-wide sprinkler system for Wilson Library. Recognizing the importance of this need, the University's Facilities Department has been working with special collections staff and outside architects and consultants to plan comprehensive fire safety renovations for Wilson Library. Funded by the University, design work has been completed and is awaiting final approval by the North Carolina State Construction Office. A major component of that effort will be the installation of sprinklers throughout the building. While the total sprinkler cost for the entire building is estimated at just over \$2 million, installation of sprinklers in nearly all of the special collections shelving areas can be accomplished for approximately \$800,000. Recognizing the value of the collections housed in Wilson Library, the University has agreed to fund the costs for this first phase of the sprinkler project (i.e., special collections stack areas) beyond those available from NEH. Given the current challenging economic climate, this commitment speaks to the high regard in which special collections are held at UNC. More details on the history of this project are given later in this proposal.

Significance of the Collections

The Louis Round Wilson Library is the home of five distinct, but interrelated, special collections. Unique research and special collections are an essential part of the fabric of

the University of North Carolina, and Wilson Library is well-positioned to enhance these materials' role in teaching, learning, and research in the evolving educational and scholarly landscape of the humanities. While critical to the teaching and learning mission of the University, they also serve the research needs of the larger scholarly research community, with nearly half of the researchers using the collections coming from outside UNC. The Library is also committed to expanding access to these rich collections through its online digital program featuring some of its most significant rare and unique holdings and through public programming aimed at both scholarly audiences and the general public. The five special collections in Wilson Library are described individually below; common threads among the collections will be apparent in examples of the ways they are used.

Southern Historical Collection

The Southern Historical Collection (SHC) has long been at the center of inquiry into the history and culture of the American South. Since 1930, its resources have served the research needs of the most eminent southern historians—C. Vann Woodward, John Hope Franklin, Eugene Genovese, and Anne Firor Scott are examples—as well as thousands of other academics and individuals with research projects and curiosity concerning the past of the southern region and the nation.

The SHC holds more than sixteen million items and includes letters, diaries, oral histories, photographs, film and sound recordings, born-digital materials, financial records, and literary manuscripts. These documents reflect the lives of leaders, workers, plantation owners, slaves, educators, activists, lawyers, writers and musicians, and others from all walks of life. They document life from the late 18th century through the last decade, chronicling plantation culture, the Civil War, politics, African-American life and race relations, business and labor, rural life, and family relations. Materials include some of the largest and richest collections of antebellum plantations anywhere, representing all southern states (the Cameron Family Papers run to over fifty thousand items, for instance). There are also papers of nationally prominent politicians of the 19th and 20th centuries (including U.S. senators Tom Watson of Georgia and Sam Ervin of North Carolina); records of social change organizations like the Southern Tenant Farmers Union and the Penn Center, Inc.; and materials relating to civil rights leaders such as Floyd McKissick and Allard Lowenstein. Among the most heavily used materials are thousands of interviews with individuals ranging from politicians to textile workers conducted by the university's Southern Oral History Program.

Materials from the SHC are used extensively in undergraduate teaching. For example, the SHC's holdings are used as the text for a first-year seminar co-taught each fall semester by an English professor and an SHC archivist. The seminar, titled "Interpreting the South from Manuscripts," gives the students the opportunity to conduct original research in manuscript collections on a variety of historical topics, including antebellum slavery, Civil War soldiers, tenant farmers in the Depression, and civil rights activism in the 1970s.

The SHC grows continually and works to expand access to its holdings. Materials from the collections were microfilmed beginning in the 1930s, and demand has been such that hundreds of collections were filmed with grant funds from the National Endowment for the Humanities, the National Historical Publications and Records Commission, and the Rockefeller Foundation. Other collections have been filmed commercially. One project, for example, University Publications of America's *Records of Antebellum Southern Plantations*, included the pre-Civil War portions of 255 SHC collections, far more than were included from any other repository. A recently completed grant from the Mellon Foundation allowed staff to develop a plan for digitizing the SHC, and systematic digitization is now underway.

It is no surprise that the bibliography of any published work of southern history almost invariably includes a long list of SHC collections. These collections are rich enough to be used repeatedly by researchers with varying questions and perspectives, and the staff is determined that they will be openly and easily accessible far into the future.

Southern Folklife Collection

The Southern Folklife Collection (SFC) is an archival resource dedicated to collecting, preserving, and disseminating traditional and vernacular music, art, and culture related to the American South. The SFC holds hundreds of thousands of unique and rare audio/visual materials, personal papers, photographs, posters, sheet music, and ephemera. With over 250,000 sound recordings, the SFC is among the nation's foremost collections of American vernacular music. When combined with the SHC (discussed above), Wilson Library's holdings on southern history, life, and culture are the finest in the United States.

The SFC contains the collections of prominent figures in American folklore including those of William R. Ferris, Archie Green, Mike Seeger, and D.K. Wilgus, and of organizations like the John Edwards Memorial Foundation and the Music Maker Relief Foundation. These materials greatly complement the holdings of the American Folklife Center at the Library of Congress, the Ralph Rinzler Archives at the Smithsonian Institution, and the collections of the Country Music Hall of Fame and Museum.

The SFC is used by undergraduate and graduate students, researchers, scholars, authors, musicians, and media producers for projects ranging from student papers to documentary films. Researchers in the fields of African-American studies, American studies, folklore, history, musicology, and southern studies are frequent users.

Notable uses of the collection's sound recordings in 2009 included Dolly Parton's 4 CD Box set *Dolly (Sony Legacy)* and a 6 CD box set of Roy Rogers and the Sons of the Pioneers: *Way Out There: The Complete Recordings 1934-1943* (Bear Family). This year has also seen the use of the collection in numerous books including Ronald D. Cohen's *Work and Sing: A History of Occupational and Labor Union Songs in the United States* (Fund for Labor Culture. Carquinez Press. 2010) and Tim Barnwell's *Hands In Harmony: Traditional Crafts and Music in Appalachia* (Norton Press. 2009).

SFC holdings are frequently exhibited both in Wilson Library and other venues. The

Smithsonian Institution borrowed photographs from the William R. Ferris collection this year for a travelling exhibit on American roots music. In late 2009, the SFC mounted an exhibit in Wilson Library titled *Seeing Sound: Sheet Music Illustration From 1890 to 1940*. Using a selection of sheet music cover illustrations, this exhibit provided a snapshot view into the material culture of America during several transitional periods. By examining and interrogating the images depicted on the sheet music, viewers were asked to consider issues of exoticism, race, industrial anxiety, and iconic personifications of "American" values such as freedom, romanticism, and individualism.

Rare Book Collection

The Rare Book Collection (RBC) had its beginnings in 1929 with the gift of 400 Incunabula. A second donor provided a major collection of lifetime editions of Samuel Johnson, James Boswell, and their circle, followed shortly by a collection of Charles Dickens lifetime editions and Dickensiana. The fourth foundational gift was a collection of several thousand bibliographical items by or about George Bernard Shaw. These four collections formed the core of the original RBC, which has since grown to 250,000 printed volumes, 18,000 broadsides and prints, and 1,200 manuscripts.

The RBC's holdings of medieval and Renaissance manuscripts include such important items as leaves from a 9th-century *Tours Bible*, a 13th-century illuminated *Psalter* from the scriptorium at the monastery of Saint-Denis, and Guibert de Nogent's *Prophets*. Gifts to the RBC celebrating millionth-volume milestones for the University Library have included such high spots as John Gower's *Confessio Amantis* printed by William Caxton, a collection of 300 imprints of the Estienne dynasty of scholar-printers, and a collection of 1,200 works of W.B. Yeats.

The RBC supports research in American, British, Irish, and Continental European literatures from the early modern period into the 21st century. Travel narratives, *cronistas*, cosmographies, geographies, atlases, and other illustrated materials document discovery and European and colonial expansion. The history of printing and publishing is documented with publishers' archives from such firms as Ticknor and Fields, John Murray-Smith Elder, and J.M. Dent and Sons, as well as counter-culture presses such as Olympia Press and the Grove Press. In addition to the disciplines mentioned above, the RBC is used for research in area studies; art history; U.S., European, Latin American, and women's history; African American and women's studies; cultural geography; and classics, among others.

The RBC supports growing collections of African American writing. An extensive collection of slave narratives was digitized as part of *Documenting the American South* (DocSouth), the Library's award-winning online digital publishing initiative. "North American Slave Narratives" documents the individual and collective story of the African American struggle for freedom and human rights in the 18th, 19th and early 20th centuries. These narratives are essential to the study and understanding of 18th- and 19th-century American history and literature. The texts also reveal the complexities of the dialogue between whites and blacks in this country over the last two centuries, particularly for African Americans. DocSouth makes these texts widely available by

digitizing them and publishing them on the Internet, where they are available worldwide at no charge to anyone with Internet access. During May through October 2009 alone, the slave narratives had 172, 649 “visits” from 195 countries/territories.

Undergraduates, graduate students, faculty, and researchers from beyond the University use the RBC. Outreach ranges from first-year seminars to scholarly colloquia. RBC holdings complement the collections at Duke and Emory universities. Exhibitions utilizing materials from the RBC are mounted several times a year in Wilson Library, and the collection regularly loans materials to other institutions for exhibition. A recent exhibit, *Joycean Generosity, Joycean Books*, celebrated a major University Library gift.

The RBC has supplied inspiration for a diverse group of scholars working in the humanities, as a few recent publications demonstrate: Marc Shacter, *Voluntary Servitude and the Erotics of Friendship: From Classical Antiquity to Early Modern France* (Ashgate, 2008); Inger Brody, *Ruined By Design: Shaping Novels and Gardens in the Culture of Sensibility* (Routledge, 2008); and Oswaldo Estrada, *La Imaginación Novelesca: Bernal Díaz Entre Géneros y Épocas* (Iberoamericana/Vervuert, 2009).

University Archives

Among the collections housed in Wilson Library are the archival records of the University of North Carolina at Chapel Hill, chartered in 1789, and the archival records of the General Administration of the University of North Carolina System, established in 1932. These records comprise approximately 5,500 linear feet and date from 1757 to the present day.

The University of North Carolina at Chapel Hill is the nation's oldest publicly chartered university, and its records provide rich documentation of 18th- and 19th-century college life. The correspondence and minutes of the Board of Trustees of the University chronicle every aspect of its founding: selection of the site, finances, construction of the buildings, curriculum, and recruitment of the faculty. The minutes of the faculty, beginning in 1799, detail efforts to enforce academic and social regulations and to deal with cases of student misconduct. The records of the Dialectic Society and of the Philanthropic Society, student debating societies established in 1795, are unsurpassed in their documentation of antebellum student life and include not only minutes of meetings, but also catalogs and circulation records of the societies' libraries. Scattered throughout all the University's antebellum records are references to slavery and the role of slaves in the construction and maintenance of the campus.

More recent University records include the correspondence of presidents, chancellors, deans, and department heads. The presidents' and chancellors' records from the 1930s through the 1950s provide especially good documentation of the desegregation of public higher education in North Carolina.

The University's archival records have been used by students, faculty, staff, visiting scholars, and the general public for research in all the areas mentioned above as well as medical education, academic freedom, curriculum development, protest movements,

college athletics, architectural history, and town and gown relations. The records have been used in conjunction with numerous class projects, exhibits, and with digital projects published in DocSouth, including “The First Century of the First State University” and “True and Candid Confessions: The Lives and Writings of Antebellum Students at the University of North Carolina.”

One particular exhibit displayed in Wilson Library, “Slavery and the Making of the University,” introduced viewers to materials that recognize and document the contributions of slaves, college servants, and free persons of color primarily during the University's antebellum period. The physical exhibit was part of a larger project that also included an online exhibit and a printed bibliography of sources. Both exhibits inspired a number of student projects and papers, including a walking tour of the campus created by a public history student at UNC-Greensboro. That tour is now available online for anyone to print out and use while strolling the campus on their own to learn about the contributions of enslaved people to the University.

North Carolina Collection

The North Carolina Collection (NCC) is believed to be the largest and most comprehensive collection of published materials related to a single state. With more than 300,000 books, pamphlets, government publications, printed maps, and periodicals related to North Carolina by content or authorship, it supports in-depth research into the rich history, literature, and culture of the state. Its holdings of published North Caroliniana complement nicely the rich manuscripts and government archives collections of the SHC and the North Carolina Office of Archives and History. The NCC is not only unrivaled in breadth and depth of publications documenting the history of the state, but also in its holdings of Tar Heel fiction, poetry, religion, natural history, and publications of civic, cultural, and business organizations.

With more than 1.3 million photographic images, the NCC also offers unique and irreplaceable visual documentation of the state's people, places, and culture. Files exist for all 100 of the state's counties, and holdings of historical images of the University of North Carolina at Chapel Hill are also extensive. The NCC's collection of North Carolina state government publications includes many titles not preserved elsewhere. The NCC also includes especially deep holdings of maps, postcards, and newspapers on microfilm, not only the larger urban dailies, but also small town and county seat weeklies. These materials have been mined for an online digital project in DocSouth titled “Going to the Show,” which explores the experience of movies and moviegoing in North Carolina from the introduction of projected motion pictures (1896) to the end of the silent film era (circa 1930).

Through its innovative use of more than 750 Sanborn® Fire Insurance maps of 45 towns and cities between 1896 and 1922, the project situates early moviegoing within the experience of urban life in the state's big cities and small towns. It highlights the ways that race conditioned the experience of moviegoing for all North Carolinians – white, African American, and American Indian. Contemporaneous newspaper articles and ads have been gathered to illustrate the ways that moviegoing and movie venues were

represented in the local press. Several hundred picture postcards drawn from the more than 8,000 postcards held by the NCC contribute a visual record of movie venues and their locations. Extensive historical commentaries supply context and background, and to reach an even wider audience, lesson plans for K-12 teachers are also presented.

The North Carolina Collection Gallery mounts three exhibitions yearly. Gallery exhibits are aimed at both University and public audiences. One recent example was titled, *Lines of Humor, Shades of Controversy: A Century of Student Cartooning at UNC*. Traveling exhibitions of facsimiles created from collection materials have recently been provided to a regional art museum, college art gallery, and several historic house museums.

The NCC is used by a broad array of researchers, including students, faculty, independent scholars, community historians, journalists, creative writers, genealogists, and general public researchers. The NCC regularly provides photographic images for use by newspapers, other periodicals, book publishers, television programs, and websites and other digital publishing projects. Notable recent publications that reflect significant use of the collection include Anna R. Hayes, *Without Precedent: the Life of Susie Marshall Sharp* (University of North Carolina Press, 2008); Richard Starnes, *Creating the Land of the Sky: Tourism and Society in Western North Carolina* (University of Alabama Press, 2005); and *Windows of the Heart: The Correspondence of Thomas Wolfe and Margaret Roberts*, edited by Ted Mitchell (University of South Carolina Press, 2007).

Current Conditions

Preservation

The Library's investment in a strong and comprehensive preservation program reflects a deep commitment to providing enduring access to its collections. Fire suppression, however, is a serious gap in the protective environment for collections in Louis Round Wilson Library.

Wilson is an air-conditioned building primarily dedicated to special collections stacks, reading rooms, exhibit spaces, and offices. Public spaces and offices occupy four levels, and there are ten stack levels. It comprises 213,981 assignable square feet spanning three generations of architecture, including a landmark 1929 structure and two later additions built in 1952 and 1977. The special collections are primarily housed in the 1929 and 1952 sections of the building, although the Southern Historical Collection, Southern Folklife Collection, and University Archives also extend into the 1977 stacks on levels 9 and 10. The Rare Book Collection stacks cover levels 7, 8, and part of level 6. North Carolina Collection storage areas occupy the remaining part of level 6, down to level 3. The lower levels and most of the 1977 addition house general collections and related services (see Appendix A for representative photographs of stack areas and floor plans).

Temperature and relative humidity are carefully monitored using a combination of stand-alone HOBO data loggers and regularly calibrated recording hygrothermographs. Installation and testing is in progress for a system of networked HOBO data loggers that

will replace most offline devices in the coming year, making it feasible to monitor a greater number of locations within the building and enable staff to check conditions remotely when the Library is closed. The Library maintains an active enclosure program to protect collection materials in the stacks. Custom boxes are constructed for books and other three-dimensional items that need additional support or protection in storage. Archival collections are stored in high quality document boxes and various other types of boxes determined by format or size. Staff in the Library are trained to watch for and promptly report signs of mold or pests, and the Library fosters a strong working relationship with housekeeping staff who are central to pest control. As another preventive measure, when needed, the Library has used freezing for new special collections acquisitions when previous storage conditions or evidence in shipping materials suggest a risk of infestation.

The Library maintains a written disaster plan and a trained disaster response team composed of staff in multiple Library departments with complementary expertise and working hours. In addition to conservators in special collections and the head of the preservation department, the disaster plan includes contact information for all special collections curators. Equipment such as wet/dry vacuums and heavy-duty fans and disaster response supplies for protecting, drying, and packing out materials are stocked and readily available within the Library. As another safeguard, the University Libraries at UNC-Chapel Hill have a mutual assistance cooperative disaster response agreement with peer institutions in the Triangle Research Libraries Network (UNC-Chapel Hill, Duke University, North Carolina Central University, and North Carolina State University).

The renovation of Wilson Library for special collections began at a time when leaders in the field advised against sprinkler systems in libraries due to the perceived risk of water damage, especially from accidental discharge. Wilson was equipped with a standpipe fire hose system and very liberal placement of fire extinguishers throughout the building. A system of smoke detectors and fire alarms automatically notifies the Chapel Hill Fire Department, and the truck can reach Wilson Library within 5-7 minutes. An Emergency Preparedness Committee has worked closely with the campus fire marshal to reduce risks of fire. Conservators conducted a census of hazardous materials throughout the building (including stacks and office areas, reprographic and conservation labs, etc). Through this process, they assured proper storage of actively used chemicals and arranged for environmentally safe disposal of those not currently needed for Library activities. All staff in Wilson Library have received training in fire safety, and further training in the use of extinguishers is ongoing. All such measures are essential elements of fire protection, and the Library's efforts have mitigated many risks, but without a sprinkler system the collections remain vulnerable to perhaps the greatest threat to library and archival materials.

Intellectual and Administrative Control

All materials in the Wilson Library special collections are controlled either bibliographically or archivally, as described below.

Materials controlled bibliographically: These materials make up the bulk of the North Carolina Collection (NCC) and the Rare Book Collection (RBC), but are also found in the Southern Folklife Collection (SFC), primarily in the form of commercially produced recorded sound and subject-relevant books and serials. Intellectual control is typically provided through item-level MARC records in the University Library's online catalog and in OCLC's WorldCat. Records conform to all national cataloging standards. Full authority work is routinely performed on name access points with NACO-trained catalogers. Subject access points are chiefly, though not exclusively, from *Library of Congress Subject Headings*. In order to provide greater access to materials dealing with and held by the NCC, local headings are also routinely added.

Administrative control of these materials is chiefly provided through the acquisitions module in the Library's ILS, with supporting documentation maintained in hardcopy. The NCC and the RBC also maintain shelf lists that contain administrative information.

Materials controlled archivally: These materials comprise the bulk of Southern Historical Collection (SHC), the Southern Folklife Collection (SFC), the University Archives (UA), and the North Carolina Collection Photographic Archives, but are also present in the other collections. Intellectual control is typically provided through collection-level MARC records in the Library's online catalog and finding aids on the web that more fully describe collections. All description conforms to the national archival content standard, and all special collections finding aids conform to the EAD data structure standard. MARC records are produced in a similar fashion to those described above and conform to the same standards. The Library's Endeca catalog has powerful search capabilities for the researcher. When a collection is represented by both a finding aid and a MARC record, the entire finding aid is subjected to Endeca's robust indexing capabilities, thereby making information from its detailed description searchable through the online catalog. The Endeca catalog record for such a collection displays information from both the MARC record and the finding aid in clearly marked tabs with search terms bolded.

Administrative control of these materials typically involves maintenance of hardcopy files of documentation relating to acquisition, appraisal, and processing decisions that impact how the materials are used and preserved. There is also an extensive database that tracks collection and accession numbers, use, and physical locations of materials.

History of the Project

Wilson Library was originally opened in 1929 as the University's main library. Outgrowing the space provided by the additions in 1952 and 1977, the main library moved to a new building in 1983. Wilson Library was then renovated and dedicated primarily to special collections. Interest in preservation intensified in the 1980s, and the Library recruited a conservator and established a conservation lab. The Library subsequently recruited a preservation administrator, enabling the conservator to spend more time on the conservation of special collections. Since then, the Library has added a full-time assistant conservator position, established an audio preservation studio staffed

with skilled technicians, and converted an obsolete microfilming lab into a sophisticated digital production center. The Library has also transferred some collection materials in formats that are especially sensitive to their environment to an offsite high-density storage facility maintained at 50° F and 35% RH. Continuing this history of investment in preservation for its outstanding collections, the Library is now turning attention to environmental control and the risk of fire. The entire building is air-conditioned with functioning but aging systems. The Library sees HVAC upgrades on the horizon, but the most pressing and challenging current preservation need is a sprinkler system.

When Wilson Library was renovated to become primarily a special collections facility in the 1980s, leaders in the field advised against sprinkler systems in libraries due to the perceived risk of water damage. The University followed these best practices of the time. Today, informed by research and improvements in fire suppression technology, the field views sprinkler systems as a highly effective way to reduce damage and loss in a fire. This change in thinking was also influenced by the magnitude of loss in major library fires, such as the Los Angeles Public Library fire in 1986. There is now widespread recognition that the benefits of sprinklers outweigh, by far, the risk of accidental discharge.

The Library has long recognized the need for retrofitting this building with a modern fire suppression system, but the cost and complexity of such a project have been daunting. Yet the outlook is improving. Public concerns about fire safety in Wilson, combined with fire code-related obstacles to modifying the building for improved access to collections, have drawn attention and a critical mass of advocates for fire suppression. In April 2008 the University funded the planning phase of this project and hired architectural firm Davis Kane Architects, P.A. to work on fire safety improvements to the building.

On the Library's recommendation, the architects contracted with Nick Artim of Heritage Protection Group, a fire protection consultant with extensive experience working in cultural institutions, to recommend a sprinkler system design for the building (see *Methods and Standards* for more detail). The architects have incorporated Artim's design into plans and cost estimates for installing sprinklers and building new emergency exit stairways. Thus far the planning phase of this project has proceeded without implementation funding in place, and there is growing competition for resources at a time of layoffs and staff furloughs. An NEH grant will make a fundamental difference in the Library's ability to move forward with this project with a phased approach. Estimated at \$2.1 million for sprinklers for the entire building, the potential of this grant has already been effective as leverage to secure the University's first commitment of \$400,000 (contingent upon a grant award). With the NEH grant, we will be able to sprinkle approximately 70,000 square feet on seven stack levels. This will cover the stack areas for the Southern Historical Collection, Southern Folklife Collection, Rare Book Collection, and the University Archives. Most of the North Carolina Collection will also be included in this phase. The scope of this project represents a significant step toward establishing fire protection commensurate with the national significance of Wilson Library's collections.

Methods and Standards

Fire protection for Wilson Library has been on the Library's agenda for several years, and the Library's conservation and preservation leadership has long recognized that effective planning would require a deeper understanding of best practices for sprinkler installation, particularly in collection storage areas. In March 2008, conservator Jan Paris attended a conference titled "The ABC's of Modern Fire Suppression in Cultural Institutions," sponsored by the National Archives and Records Administration. This conference provided information about the state of the art and helped the Library identify potential consultants. Based on conversations with peer institutions, the Library identified Nick Artim as someone with experience and expertise well suited to Wilson Library's needs.

An interdisciplinary group that included Library administration, architects, a fire protection consultant (Nick Artim), University and Library facilities managers, conservators, and the University's historic preservation officer was formed. The implications of construction in the stacks and the pros and cons of a range of available fire suppression systems were carefully considered. The planning group also considered pursuing HVAC upgrades and installation of sprinkler systems simultaneously. After assessing the implications of such a project, two salient factors led the group to believe it would be best to pursue these projects separately. Because the sprinkler system will be predominantly surface-mounted and the HVAC upgrades will reuse existing ductwork, there is limited efficiency gained by combining these projects. Even more important, the sheer scale of a combined project proved unrealistic for the Library to undertake at this time. HVAC upgrades remain part of the long-range preservation plan, but the higher priority is the installation of a sprinkler system for special collections storage areas.

For most stack situations, wet-pipe sprinklers are the preferred fire suppression technology due to their quick response time, reliability, and the fact that their installation can be adapted to accommodate pre-existing lighting and HVAC elements in the stacks. Although dry-pipe sprinklers sound like a good idea, in practice they have many drawbacks. They are more complex, with higher installation and maintenance costs and lower design flexibility. More critical still is the delay in response time while the water gets to the sprinkler head. Finally, there is increased potential for corrosion, which could result in contaminated water being sprayed on the materials—or in the worst-case scenario, create holes in the pipes causing water to be diverted to other areas. One promising new technology that has been used in some historic property applications is a water mist system that utilizes less water than wet-pipe systems. Unfortunately, these systems do not yet have the approvals required by most fire and building authorities. They can also be as much as 50-100% more expensive to install, and there are a limited number of contractors familiar with the technology. The following specifications were the result of planning group discussions.

The Library's plan calls for a wet-pipe system designed to meet current codes and standards for protection of cultural resource properties (NFPA-909) in addition to required life safety standards (NFPA-13). The overall design for the stack areas

minimizes loss of valuable shelving space, and at the same time protects sprinkler heads against accidental damage. Standard pendent sprinkler heads along major aisles will be used in combination with sidewall sprinkler heads at the end of each aisle between the ranges. “[T]he sprinkler heads will be located to direct the water spray down the aisles to attack flames and wet the unburned items to prevent flame spread by radiant heat” (Artim report, see Appendix B). Some areas will have additional sprinkler heads where needed due to ductwork that would block the spray from a source located at the end of the aisle.

Artim specified the Tyco SW-20 sprinkler head for the critical sidewall installations at each end of every range of shelves (Appendix B). The SW-20 provides protection for areas up to 16’ x 20’, more than adequate coverage for an aisle between ranges. Artim considered use of copper tubing, water quality permitting; however, tests of the Chapel Hill water system indicate traces of copper-specific corrosive elements. For this installation, therefore, steel piping is the best choice for protecting the Wilson Library collections.

The Library has considerable experience protecting special collections during major facilities projects, including in recent years a roof replacement and a building-wide data infrastructure project that entailed construction work throughout the stacks. Contracts for the sprinkler project will articulate the importance of Library collections, specifications for collection protection measures (materials and techniques), and security restrictions. The cost of professional security guards will be included in the contractor’s bid, and a construction fire watch will be put in place for any interior construction that involves flames. Library staff who have worked closely and effectively with contractors in the past will communicate with construction managers on a daily basis for problem-solving and will regularly observe work in progress to verify adherence to Library requirements for general safety and collection security.

Sprinkler installation will progress one stack level at a time, and the Library’s conservators, curators, and facilities managers will assess the nature of the work to be done, potential risks, and how to best protect the collections in each specific area. Stack levels are divided into 4-7 groupings of 8-16 ranges each (see Appendix A for representative floor plans). Working closely with the Library’s conservators, a contractor specialized in dust and debris containment will be hired to enclose the groups of ranges, floor to ceiling, with heavy-duty polyethylene to isolate the collections from dust, debris, and potential water hazards. In most areas of the stacks, materials will be moved from the end of each range before installing the construction barriers (see Work Plan).

Prior to the start of construction work, the Project Coordinator and the Collection Protection Team will work with curators and public services staff to ensure that everyone understands the work plan and that patrons are apprised of temporary changes in access to specific collections. Materials will be unavailable during construction on their respective stack levels for approximately 6-8 weeks during site preparation, installation of sprinklers, testing, and removal of the protective barriers. Advance notice of the closing of specific collection areas will be posted in reading rooms and communicated

broadly to user communities. The Library will accommodate advance requests for materials from affected areas.

Library staff regularly monitor the environment throughout the building and will be especially vigilant in areas where construction may temporarily disrupt environmental control and where protective measures may create temporarily adverse microclimates.

All contracts with the University of North Carolina at Chapel Hill have rigorous standards for appropriate recycling of construction materials. Library building and facilities staff will be made aware of the guidelines and will work to assure that they are followed. The Library and University understand that the project is subject in its entirety to the Davis-Bacon Act. All persons employed by contractors or subcontractors on this project will be paid wages at rates that are not less than those prevailing on similar construction projects in the Chapel Hill area.

The University's Campus Historic Preservation Officer has consulted with the State Historic Preservation Office (SHPO) to determine the Library's eligibility for the National Register of Historic Places. The Library is submitting written comments from the SHPO regarding the project for the Wilson Library building (Appendix H).

Work Plan

NEH notification of grant award (June 2010)

Final state approval of drawings and other bid documents (July 2010)

University Facilities Planning and the architects (advised by Nick Artim) will be involved at this stage. The Project Coordinator and Collection Protection Team will work closely with them to be certain that all Library requirements have been included and will review all documents before they are released for bids.

Project bidding (begins August 1, 2010)

Contractors considering submitting a bid will visit Wilson Library to see the site and be briefed on special requirements for collection safety and security. This visit is mandatory for all contractors submitting a bid. The UNC Facilities Liaison, the Project Coordinator, and Collection Protection Team will be present to emphasize critical points and answer questions.

30-day bidding period concludes (September 1, 2010)

Bids will be reviewed by University Facilities Services for compliance with University requirements and reviewed by the PI, Project Coordinator, and Collection Protection Team to be sure collection safety and security measures have been adequately specified in the bid proposals.

Contract awarded (October 1, 2010)

Phased Construction (October 2, 2010 – October 31, 2011)

This timeline incorporates a liberal lead time to procure specialized pumping equipment. The estimate is based on previous experience in UNC construction projects, and it is very possible that this project will proceed ahead of schedule. The installation itself will be done in segments, one stack level at a time. The major steps of this project are described below.

- Water main connection and riser:
Prior to beginning a cycle of floor-by-floor installation, construction will start with excavation and plumbing to establish a new line from the water main into the Library building, which does not currently have an adequate water line for a fire suppression system. This phase will also include installation of pumping equipment and a riser that will supply water vertically through the building. The beginning of floor-by-floor installation will start midway through this phase. Work will proceed for each stack level with a cycle of preparation and installation outlined below.
- Move materials from immediate work area:
As a first step in preparation of the stacks for construction, materials and shelves in the end sections of ranges will be moved. This will allow adequate space around the zone of installation to prevent accidental damage and to facilitate more efficient installation of protective barriers. Materials removed will be relocated to shelves within the protective barrier or to a secure swing space in another part of the Library, not affected by this phase of the project. Under supervision of the Collection Protection Team, student assistants who already work for each of the curatorial departments will move the materials in their respective areas. By building these activities into the work of existing student personnel, the Library will always have trained people available for repeated cycles of moving. The Library has anticipated the labor involved and will schedule student hours accordingly.
- Protective barriers:
In a second step, a contractor specializing in dust and debris containment will enclose each group of ranges, floor to ceiling, with heavy-duty polyethylene to create sealed and waterproof barriers.
- Sprinkler installation:
Once each level has been prepared, the sprinkler contractor will proceed with installation and testing in that area. Protective barriers will remain in place on each level until pressure testing for leaks has been carried out for that portion of the system. To reduce risk, this testing will be done in a two-step process—first using pressurized air, followed by a final test with water in the system.
- Removing protective barriers and reshelving:
As testing is completed on each stack level, the contractors who installed the protective barriers will remove them. Student assistants will return to that level and reshelve shifted materials.

Student assistants and containment contractors will prepare the next stack level while installation work is underway on the previous level. In this way, the work of the sprinkler installation contractors will flow smoothly.

Throughout the project, the Project Coordinator, UNC Facilities Liaison, and contractors will meet weekly to review progress and verify compliance with all collection safety and security measures.

Final testing and inspection (October 2011)

Final testing and inspections will verify the tie-ins with the alarms and other building systems.

Project Team

Principal Investigator – Richard Szary, Director of the Louis Round Wilson Library and AUL for Special Collections (1% FTE)

The PI will provide primary administrative and fiscal oversight for the project and serve as liaison to the University Librarian.

Project Coordinator – Jan Paris, Conservator for Special Collections (10% FTE)

This position will serve as coordinator for the project. Responsibilities include: keeping the PI informed about progress, serving as a liaison for curators and public services staff to make plans and establish workflows for areas of the Library becoming temporarily inaccessible, communicating with the University and Library facilities staff and contractors on a regular basis, performing quality-control and verifying compliance with all specific library requirements outlined in the contract.

Collection Protection Team – Andrea Knowlton, Assistant Conservator for Special Collections (5% FTE) and Andrew Hart, Head of Preservation (3% FTE)

The Team will work on-site with contractors to ensure protection of the collections for the duration of the renovation and will supervise student assistants and coordinate workflow in areas where moving collection materials is required.

Student Assistants (4 students @ 40 hours per month for 7 months)

Special collections student assistants will move materials that must be relocated as part of this project. After installation of the sprinkler system has been completed on each level and protective barriers have been removed, the student assistants will reshelve the materials in their original locations.

Library Construction Liaison – Susan Wrenn, Library Facilities Manager (5% FTE)

This position will serve as a liaison between the Library and contractors.

Wilson Library Building Manager – Eileen Lewis, Business Services Coordinator (3% FTE)

This position is responsible for day-to-day operation of Wilson Library and will work with all project personnel in the building, making arrangements for building access, assuring security measures are being followed, and communicating with other Library staff as necessary.

UNC Facilities Liaison – Michael Pierce, Facility Planner (8%FTE)

The Facilities Liaison who has been involved in developing this project will continue to work directly with architects, contractors, and the Project Coordinator, serving as a liaison with appropriate University and state offices.

Architect – Kevin Kane, AIA-licensed architect and President of Davis Kane Architects, P.A., has been the project architect since the planning stages and will continue to work with University departments and contractors as needed, including final design work required for state approval.

Fire Protection Consultant – Nick Artim, fire protection engineer at Heritage Preservation Group, designed the sprinkler system for Wilson Library as a consultant to Davis Kane Architects, P.A. and will continue to advise, as needed, as the project moves forward.

Note: This participant does not appear in the budget because his ongoing services were contracted in the planning phases of this project.