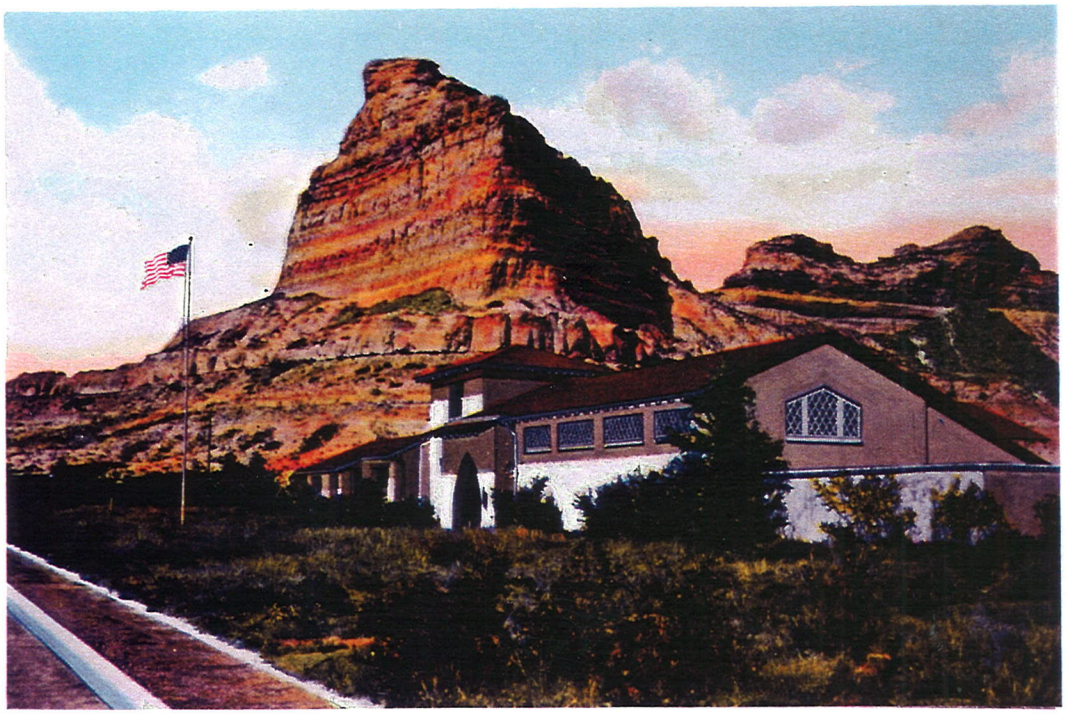
TRAIL OASIS

HISTORIC STRUCTURE REPORT
VISITOR CENTER (HS-2)

Scotts Bluff National Monument
Gering, Nebraska



November, 2001

Prepared by
Alan W. O'Bright
Midwest Regional Office
National Park Service
United States Department of the Interior

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Midwest Regional Office
National Park Service
United States Department of the Interior

May, 2002

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EXECUTIVE SUMMARY

STATEMENT OF PURPOSE

The purpose of this document is to provide advance planning for the eventual rehabilitation of the Scotts Bluff Visitor Center. The existing visitor center is significant with respect to its association with early interpretation of Oregon Trail heritage and the structure's architectural design. The structure has value with respect to the site, and therefore should be incorporated into any future design proposals. This document is intended to provide alternative concepts for rehabilitation of the structure for continued use as the park's primary visitor contact station. Selection of an ultimate treatment will take place during future design development and value analysis phases of the project. Note that the Nebraska State Historic Preservation Officer recommends Treatment Alternatives 3 and 4 as the preferred alternatives for further development (see Appendix C).

PROJECT TEAM MEMBERS

Information and management assistance:
Scotts Bluff National Monument
Valerie Naylor, Superintendent
Dean Knudsen, Park Historian
Robert Hamann, Facility Manager

Collections management consultation:
Carolyn Wallingford, Curator, Midwest Archeological Center

Archeological issue consultation:
Bruce Jones, Archeologist, Midwest Archeological Center

Cultural landscape consultation:
Sherda Williams, Historical Landscape Architect, Midwest Regional Office

Structural investigation:
Tom Fitzpatrick, Structural Engineer, Fitzpatrick Structural Engineers, Ann Arbor, Michigan

Adobe consultant:
Jake Barrow, Restoration Specialist, Intermountain Region, National Park Service

INVESTIGATION HISTORY AND METHODOLOGY

No comprehensive architectural study has previously been completed for the Visitor Center, although various research documents and data bases have outlined major construction developments and identified problems. In 1976 Scotts Bluff was included in a study of National Park Service visitor centers. That study identified internal and external visitor congestion areas, and minor maintenance challenges, but offered few viable recommendations. About that same time a Master Plan being developed by the Denver Service Center stirred controversy by suggesting that the present visitor center be demolished and that function be relocated near the periphery or outside of the park to return the landscape to its natural state. While the recommendation to demolish the structure obviously went unfulfilled, that same document also identified the absence of a decent auditorium as a major interpretive weakness, and the crowded conditions within the building.

The 1983 Scotts Bluff administrative history authored by National Park Service Historian Ron Cockrell, succinctly sequences the above-mentioned studies and plans, and naturally includes Visitor Center construction history. A Determination of Eligibility study, approved in 1995, generally reiterates the structural history presented by Cockrell, but for the first time analyzes the characteristic style of the building and identifies its significance in relationship to the interpretation of the Oregon Trail. Approved in 1996, a cultural landscape Determination of Eligibility study contains relevant justification on the integrity of the structure as a component of the development complex.

The park's revised General Management Plan, approved in 1998, offers a recommendation to relocate administrative and maintenance functions away from the park to alleviate overcrowded conditions at the Visitor Center. The recommendation indicates the two vacated buildings are then to be rehabilitated for use as interpretive exhibits.

This report relies heavily on previously-mentioned studies and construction drawings for primary information on building history and development. This study proceeds a step further by identifying significant building features, condition and functional problems, and building code and handicap accessibility violations through a thorough inspection. Treatment and program requirements are based upon interviews with park staff.

Public restrooms are located in a small adobe structure separate from the Visitor Center. However, because the public restrooms are an integral part of the visitor services and physically located very close to the Visitor Center, the public restroom building is specifically included within this analysis. All other structures within the complex are addressed only in terms of their indirect impact on the administrative operation of the Visitor Center.

Structural and adobe analysis has been completed with this investigation. Due to severe funding constraints electrical and mechanical engineering analysis and design could not be fully developed with this document. It is understood that should ultimate treatment recommendations be implemented in the future, these specialized services will be handled by the National Park Service or contracted private sector professionals.

USE PROGRAM

The Visitor Center will continue to be used as the primary site visitor contact building. Ancillary functions such as administrative offices, and collection and general storage will be evaluated against what other site structures can offer to relieve presently overcrowded conditions. Treatment alternatives relative to use are addressed and evaluated elsewhere in this document.

PROJECT GOALS

The goal of this project is to evaluate existing use functions and fabric condition to develop viable conceptual treatment alternatives for the anticipated long-term service of the Visitor Center for public use and enjoyment.

PART ONE: DEVELOPMENTAL HISTORY

HISTORIC PHOTOGRAPHS

The following photographs were selected from the extensive archival photographic collections at Scotts Bluff NM. The intent of these images is to demonstrate Visitor Center building development, construction methods, details of now missing elements, and appearance and character of modified interior spaces. The photos are arranged in chronological order. Other historic photographs illustrating specific elements or construction episodes are presented elsewhere in this document.

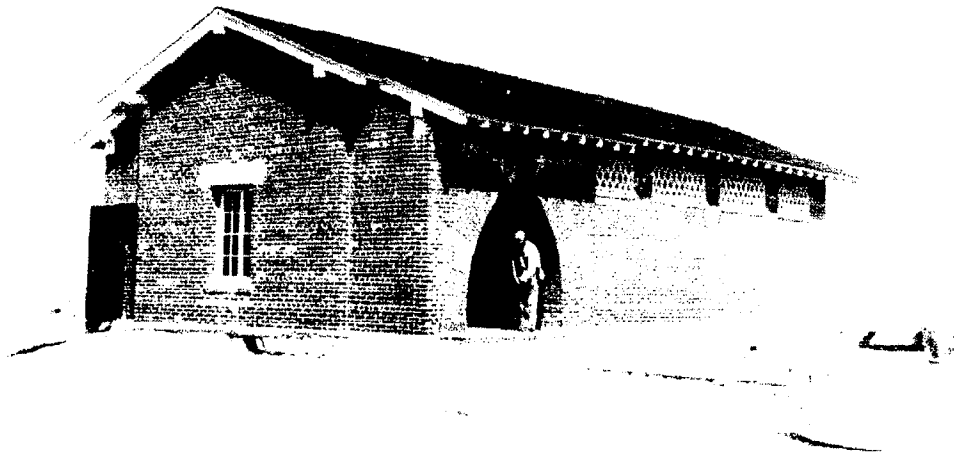

Figure 1 - Museum - 1935-1936. This view from the southwest was apparently taken toward the end of construction. The brick walls are unpainted. (SCBL photo archive, No. 69).

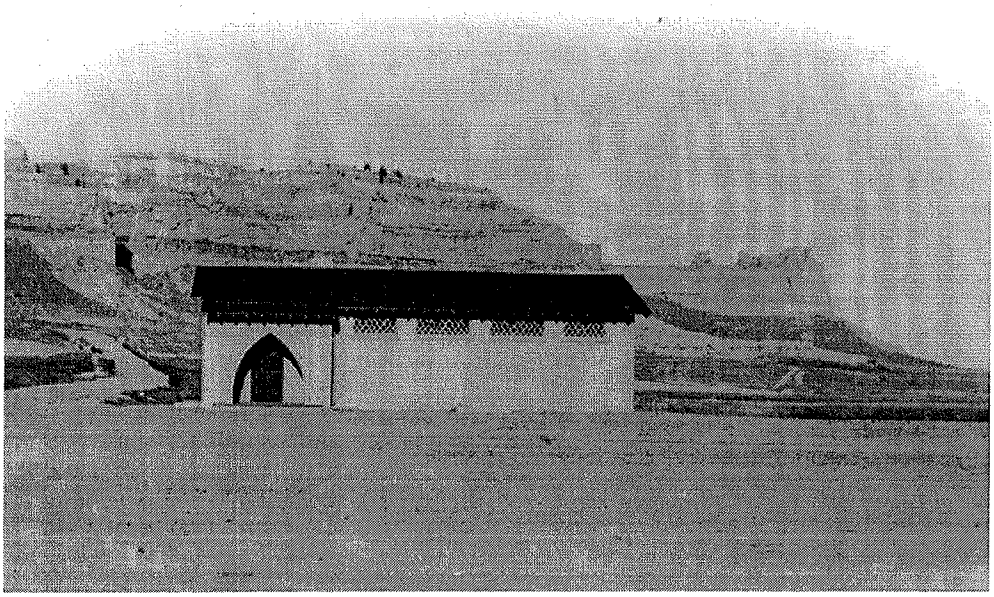

Figure 2 - Museum Building, about 1935. In this view directly to the north, the structure appears to have been painted soon after construction. (SCBL photo archive, Drawer 2, No. sb2427).

Figure 3 - Museum Building Exhibits. Interior view of Room 102 to the east. Note the exposed timber trusses at the ceiling that are now concealed by a suspended ceiling, and the curtained windows that are presently blocked. At the very end of the room is a pair of dioramas that now reside in the Jackson Room. (SCBL photo archives, Drawer 2).

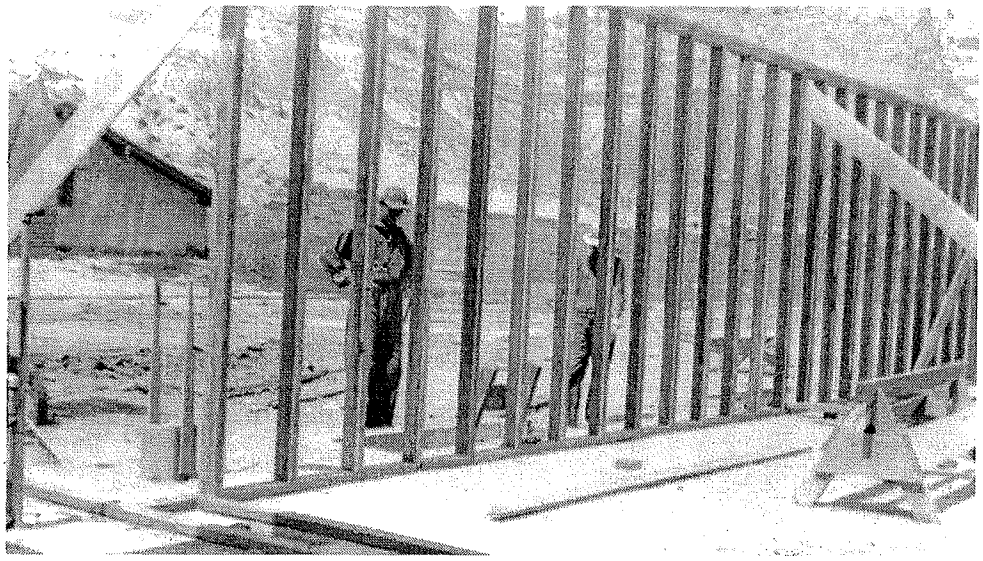

Figure 4 - Museum Building Addition Construction, 1937. In this view to the northwest from the interior of the Landmark Room (110), CCC workers are seen erecting an internal wooden frame of the west wall. Adobe bricks would later be laid up against the frame at the exterior. (SCBL photo archives, Drawer 2, No. sb1145).

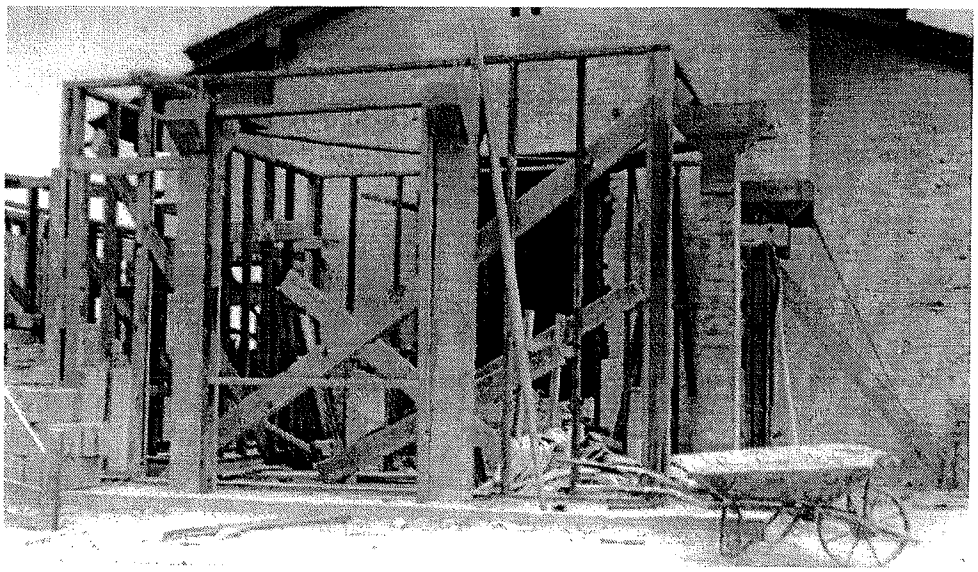

Figure 5 - Museum Building Addition Construction, 1937. View to the northeast toward tower framework. Concrete posts rather than adobe brick provide structural support of the tower. Later, adobe will be infilled between the posts. (SCBL photo archives, Drawer 2, No. sb1131).

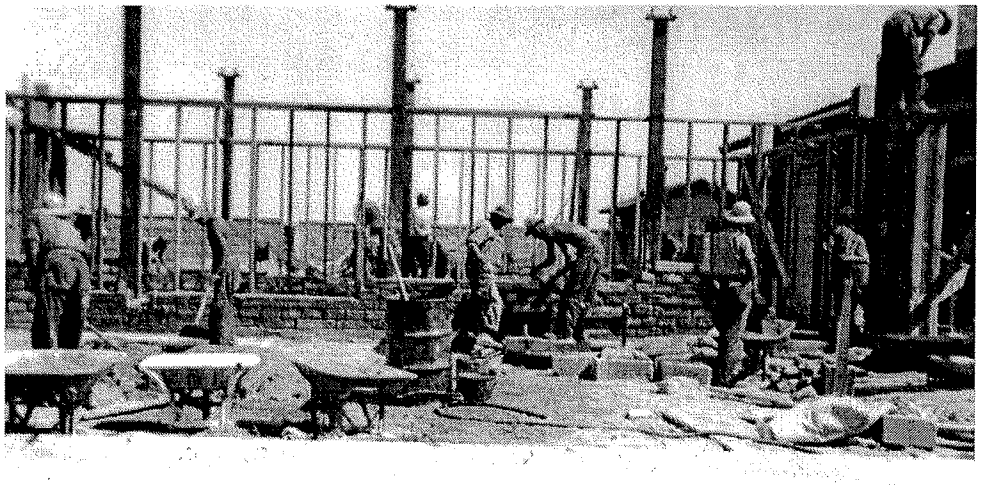

Figure 6 - Museum Building Addition Construction, 1937. View to the east toward the Landmark Wing. The tall concrete posts serve to support a concrete bond beam supporting the roof. In this image CCC workers are laying up the adobe brick. (SCBL photo archives, Drawer 2, No. sb242).

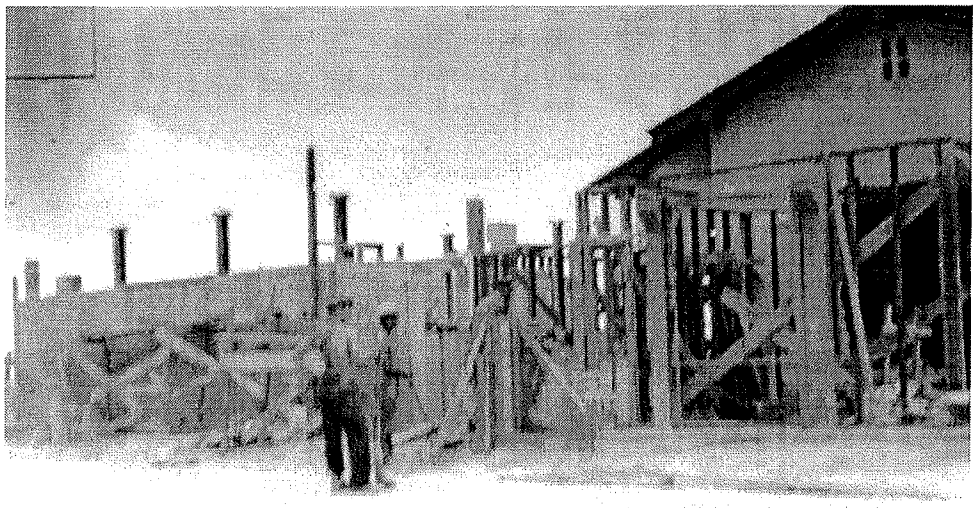

Figure 7 - Museum Building Addition Construction, 1937. View to the northeast toward tower and Landmark Room. In this view adobe bricks are completed to the window sill level at the Landmark Room west elevation. (SCBL photo archives, Drawer 2, No. 1082).

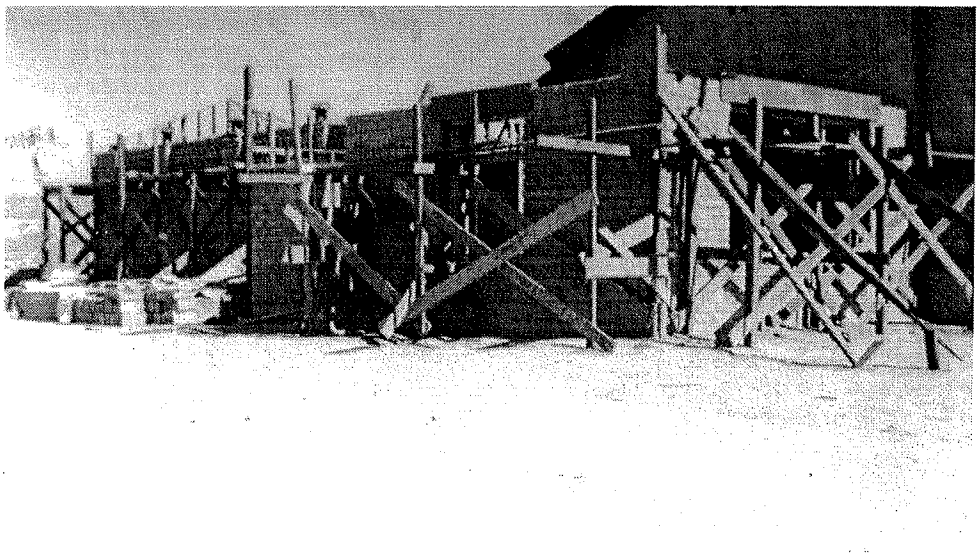

Figure 8 - Museum Building Addition Construction, 1937. View to the northeast toward the tower and Landmark Room. In this view adobe bricks are installed nearly to the second floor level of the tower, and window lintels have been installed. (SCBL photo archives, Drawer 2, No. sb1074).

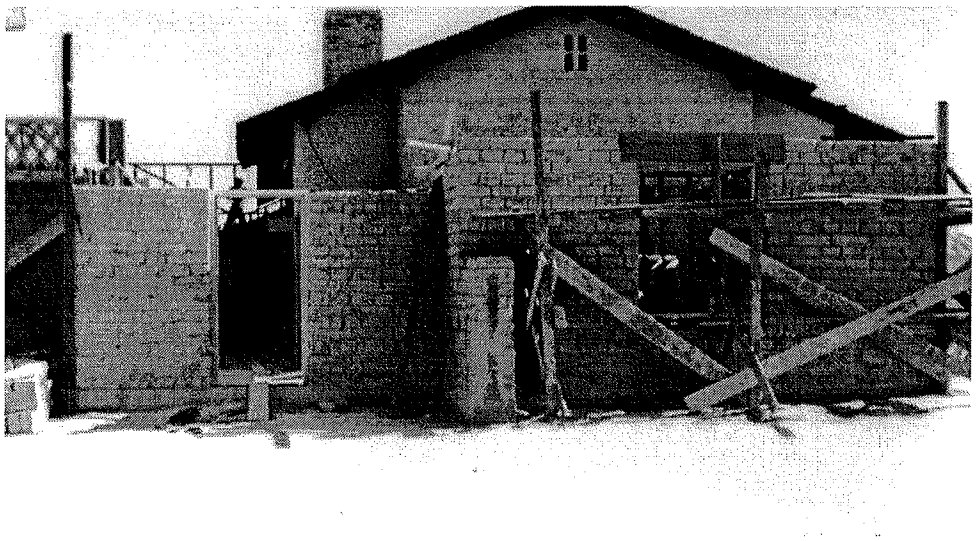

Figure 9 - Museum Building Addition Construction, 1937. View to the east of tower and west entrance area. (SCBL photo archives, Drawer 2, No. sb1155).

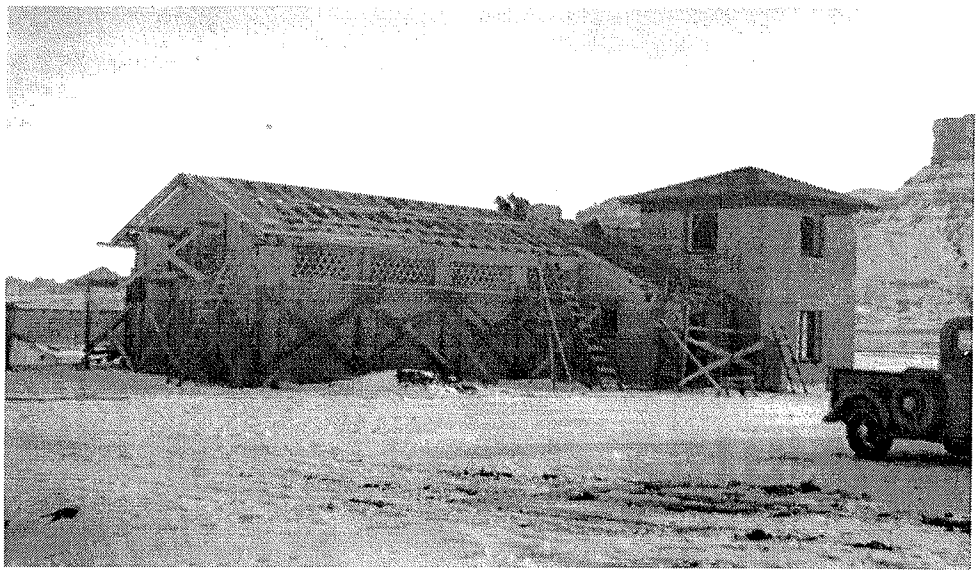

Figure 10 - Museum Building Addition Construction, 1937. View to the southeast. In this view Landmark Room and tower walls are completed, and the Landmark Room roof is under construction. (SCBL photo archives, Drawer 2, No. sb573).

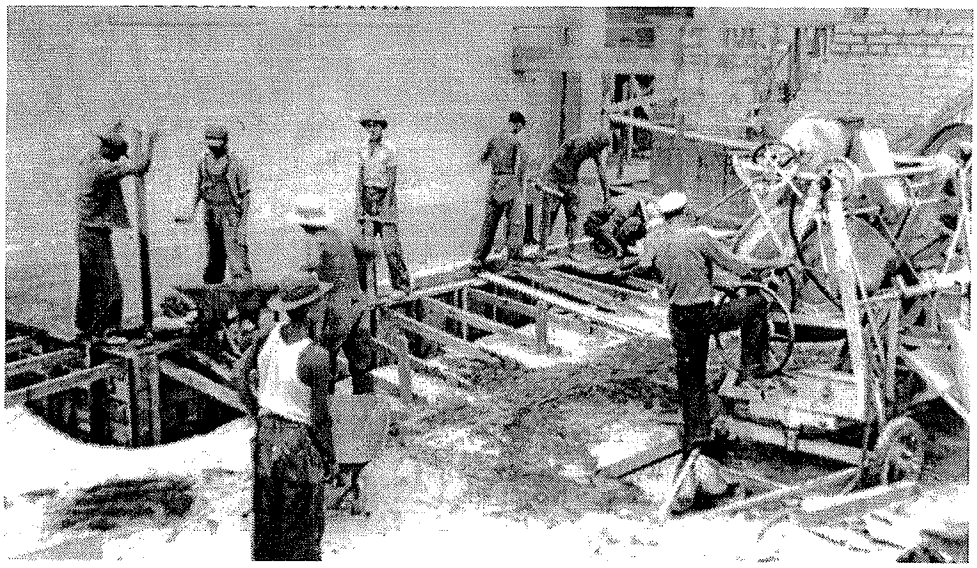

Figure 11 - Museum Building Addition Construction, 1937. View of the office wing (rooms 111 & 112) to the southwest. Here the CCC construction crew is placing the concrete foundations. (SCBL photo archives, Drawer 2, No. sb1130).

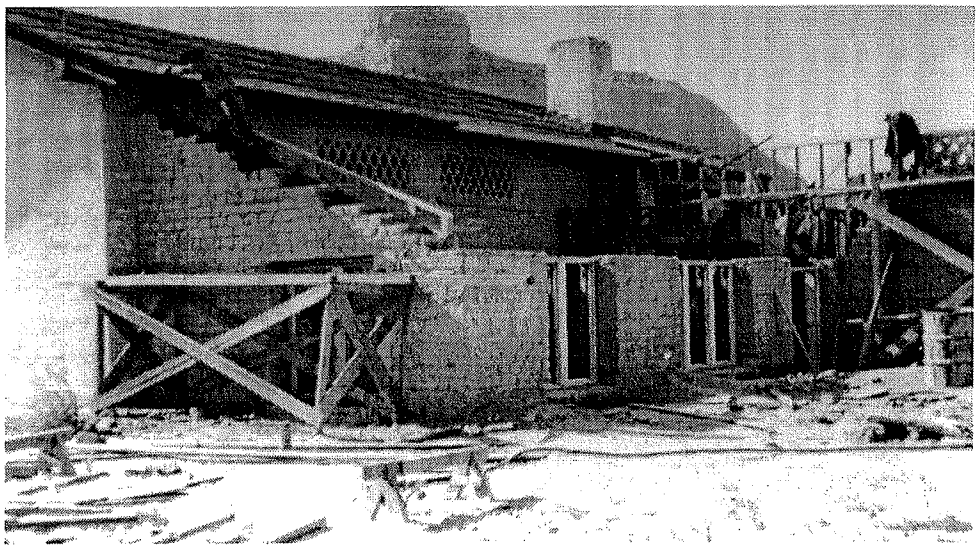

Figure 12 - Museum Building Addition Construction, 1937. View of the office wing (rooms 111 & 112) toward the southwest. In this view construction of the adobe walls is nearly complete, and window frames have been installed. Reinforcing rod or bolts protruding from the wall top between windows and addition corners indicates that concrete posts were installed in these walls prior to adobe installation. The grilled windows of the Museum Room north elevation were permanently concealed when this addition was constructed. (SCBL photo archives, Drawer 2, No. sb1154).

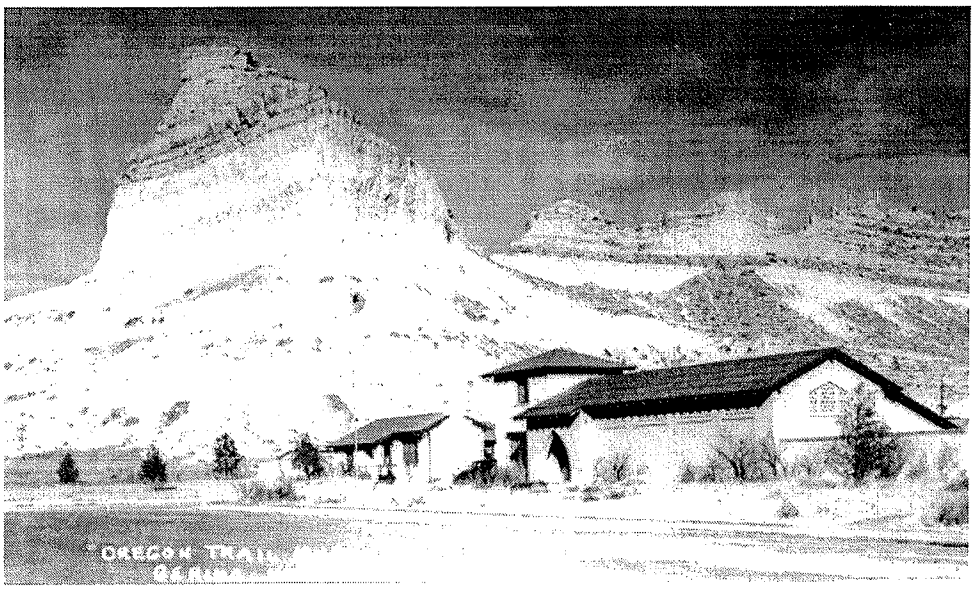

Figure 13 - "Oregon Trail Museum, Gering, Nebr." View to the northwest of Visitor Center with recently-completed tower and ranger quarters. (SCBL photo archives, No. 53).

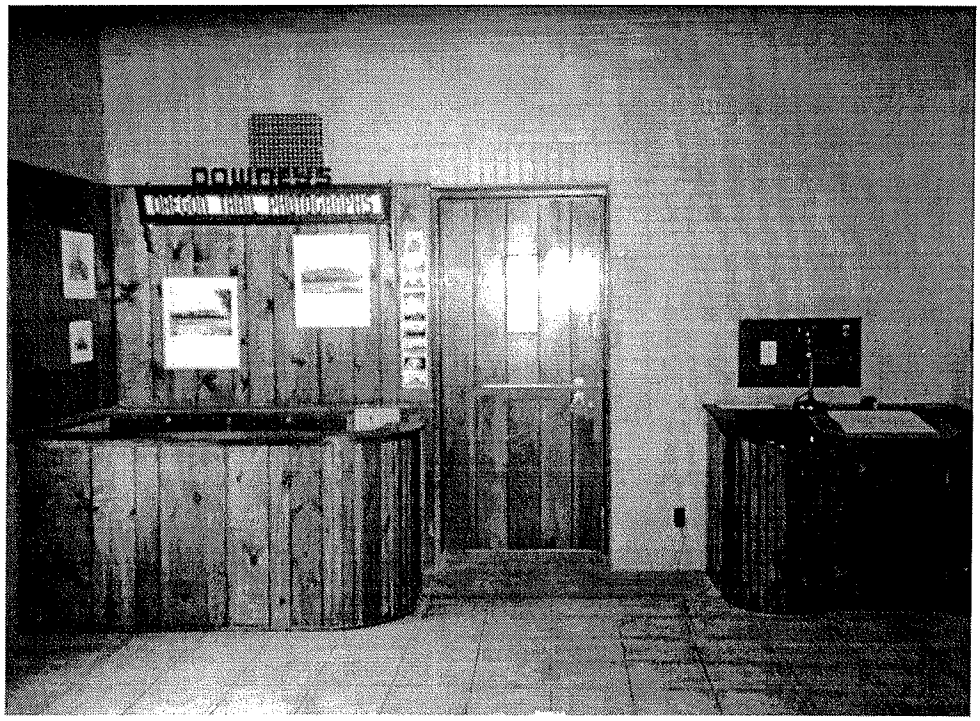

Figure 14 - Museum Building Lobby (101), June 1941. View toward the west wall. At the time this image was taken a small visitor contact counter and visitor sign-in stand were located against the west wall. A vertical board Dutch door with window separated the Lobby from the Ranger Office, and the floor was finished with scored concrete that emulated tile. (SCBL photo archives, Drawer 2).

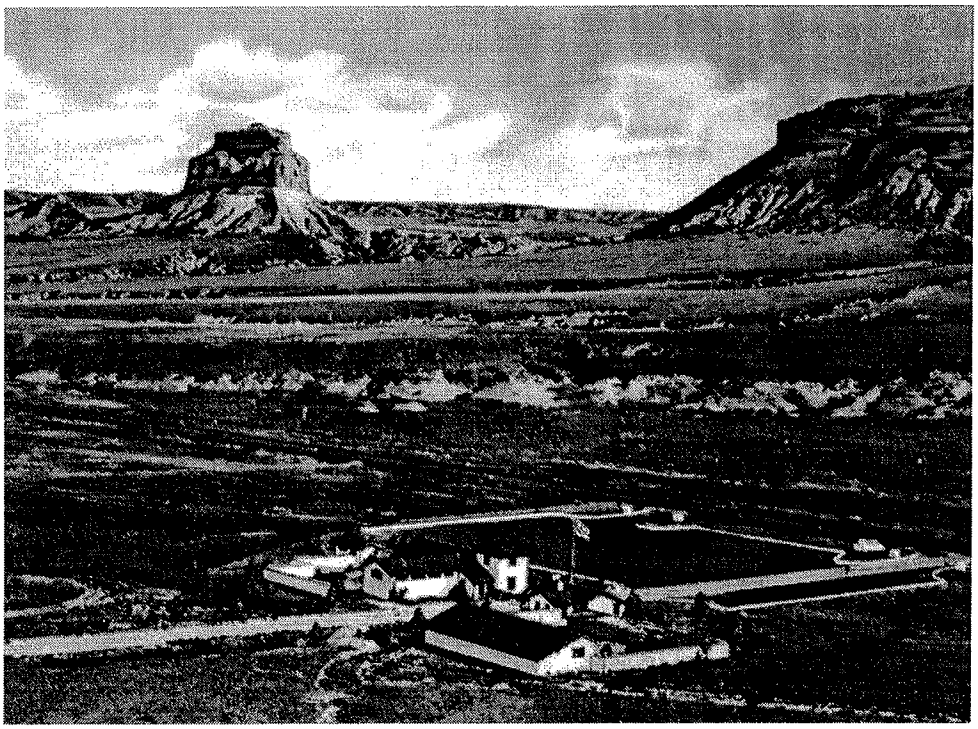

Figure 15 - Colorized postcard view of the visitor center complex from Scotts Bluff to the southeast, circa 1941. Except for the Jackson Wing addition, the ranger quarters at the southwest corner of the complex, and construction of a free-form parking lot east of the Visitor Center, the view remains relatively the same today. (SCBL photo archives).

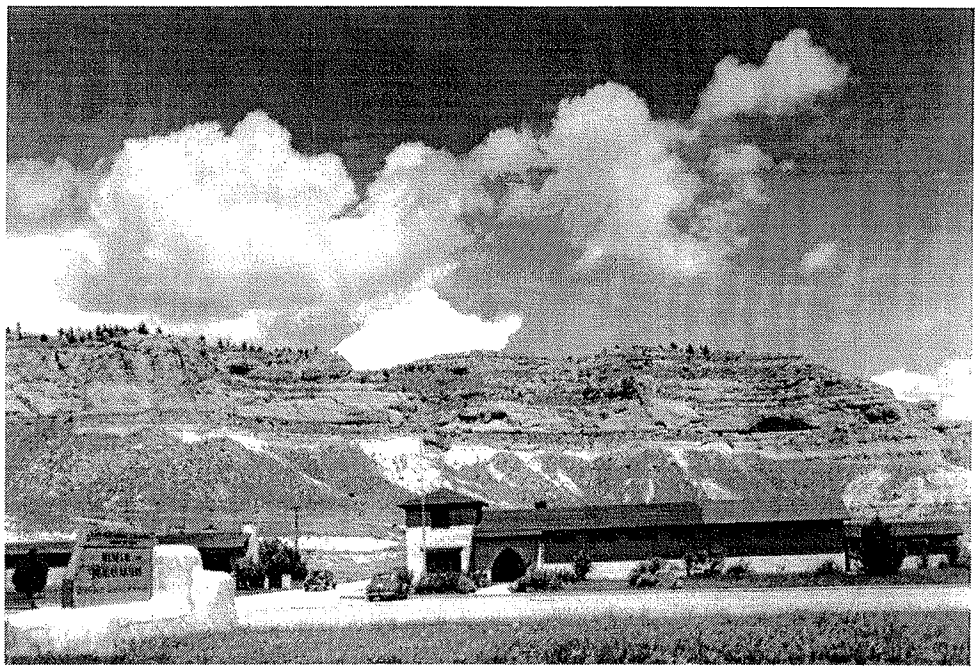

Figure 16 - Administration and Museum Building, May, 1949. View to the north immediately after completion of the Jackson Wing. (SCBL photo archives, Drawer 1, No. sb3134).

Figure 17 - Administration and Museum Building, May 22, 1949. View to the northeast immediately after completion of the Jackson Wing. (SCBL photo archives, Drawer 1, No. sb3215).

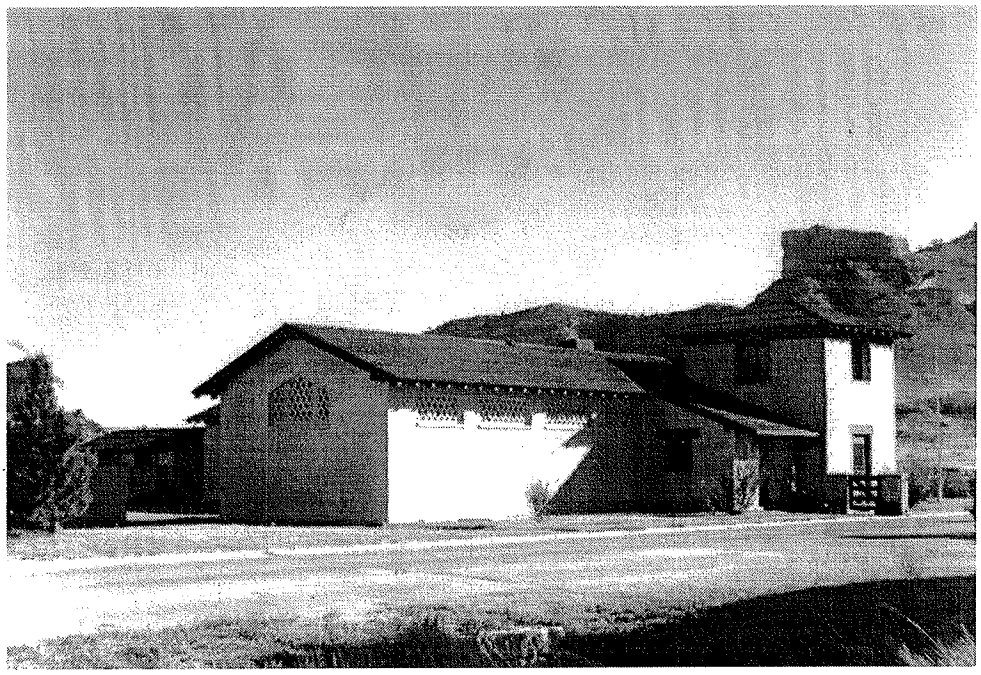

Figure 18 - Administration and Museum Buildings, September 26, 1949. View to the southeast of the Landmark Wing and tower. Note the pedestrian gate just outside of the west entrance. (SCBL photo archives, Drawer 1, No. sb3126).

HISTORY

Administrative Background

Constructed in 1935 the visitor center was initially referred to as the Administration and Museum Building until 1956 when it was formally renamed the Visitor Center. The building has always functioned to provide visitor services including site information, museum and special exhibits and events, and restrooms. Over time various spaces were adapted to provide administrative offices and collections storage.

In 1975 the Visitor Center was listed in the National Park Service's List of Classified Structures (LCS) under the LCS identification number (IDLCS) 70068. In the updated 1995 LCS inventory the structure is listed as Historic Structure (HS) 2, with a revised IDLCS number of 101264.[1] The structure is entered in the site's 1978 National Register of Historic Places nomination form as a non-contributing structure.[2] A consensus in the 1995 Determination of Eligibility study recommends that the structure be included as a contributing feature of the historic district of the 1920 to 1948 period of significance.[3] As of this writing the Visitor Center remains unlisted in the National Register of Historic Places, although it is eligible for listing.

The park's 1998 General Management Plan recommends that administrative and maintenance functions be moved off site to provide additional interpretive space in those vacated buildings.[4]

Construction History

Established late in 1919, Scotts Bluff National Monument had few essential visitor services until construction of the Administration and Museum Building in 1935 to house the Oregon Trail Museum. Designed by National Park Service landscape architect Howard Baker, and constructed by the Civilian Conservation Corps, the simple structure consisted of a visitor contact lobby and a museum room extending from the lobby to the east, and measuring twenty feet by thirty six feet.[5] A full basement housed a work room beneath the lobby and a large furnace room beneath the museum room.[6] Apparently, another wing was to have been built at the same time, but insufficient project funds delayed construction until 1938.[7] Drawings produced in 1935 reflect only construction of the lobby and Museum Room however.

---

[1] National Park Service, "List of Classified Structures Single Entry Report, Oregon Trail Museum," 17 March, 1995.

[2] "National Register of Historic Places Inventory – Nomination Form, Scotts Bluff National Monument," (Date entered, 3 October, 1978), Item 7, page 2. The Oregon Trail wagon wheel ruts are listed as the only significant historic feature. All other structures are listed as "non contributing."

[3] Dena Sanford, "Determination of Eligibility, Scotts Bluff National Monument," (Date approved, 1995).

[4] "Scotts Bluff National Monument General Management Plan," (Omaha, Nebraska: United States Department of the Interior, National Park Service, Midwest Support Office, 1998), 18.

[5] Ron Cockrell, *Scotts Bluff National Monument, Nebraska: An Administrative History, 1960-1983*, (Omaha, Nebraska: National Park Service, Midwest Regional Office, November 1983), (hereafter cited as Cockrell, 1983 *Administrative History*), 26. Although Baker is the design architect cited in Cockrell's work, Baker's name curiously appears nowhere on the drawings.

[6] "Administration Building & Museum, Scotts Bluff National Monument," NPS Drawing No. SB-3007, sheet 2 April, 1934. According a notation on the drawing, the building was completed on 22 June, 1935.

[7] S. Serrano, Assistant Landscape Architect to Howard W. Baker, Landscape Architect, letter, 23 June, 1936.

Resembling the Spanish Colonial style or the folk sod construction predominant in nineteenth century Nebraska plains (see *Comparative Analysis*), the building consisted of a reinforced concrete foundation, and brick walls topped by a shallow-pitched wood shingle roof (Figures 1 and 2). From the early images it appears that the building was painted a light shade soon after construction. Windows were placed high on the museum room wall and covered on the exterior with a concrete grill. Visitors approaching from the parking lot south of the building passed through a brick segmental arch into a small foyer flanked by built-in concrete seats, before entering the lobby through the front door. The Museum Room ceiling featured exposed wooden trusses and the floor was bare concrete scored to simulate square tile according to the construction drawings (Figure 3).

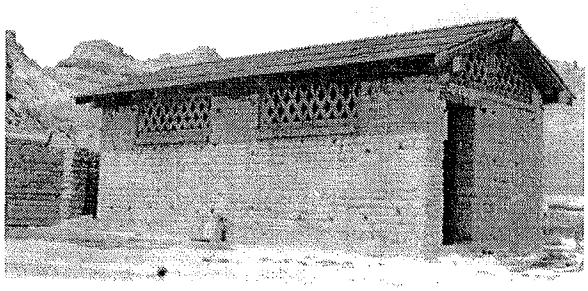

Figure 19 - Comfort Station, July, 1937. View to the northwest prior to application of a cement plaster coat over the adobe bricks. (SCBL photo archives, Drawer 3, No. sb1144).

Museum designers must have anticipated future additions to that building, as blind door openings with concrete lintels were designed and apparently constructed into the east and north walls.[8] Indeed, between 1937 and 1938 the first addition to the Museum Building was constructed under private contract, in addition to a Ranger's residence, a public restroom building, and a maintenance yard. Although not documented, the designer is suspected to have been Howard Baker. A gated road entrance from the parking lot south of the building site to the bluff was created between the ranger's residence and museum. A public restroom, or comfort station, was built east of and separate from the museum wing (Figure 19).[9]

All of these structures were to have been completed in 1935, but the project was delayed due to insufficient funds. Project completion as originally envisioned was in jeopardy until a revision was made in the use of a primary building material. All structures were initially designed to be constructed of fired brick as reflected in the construction drawings. But the idea was floated that if adobe was substituted as an alternate material, the entire project could be completed without securing additional funds.[10]

A discussion ensued as to how to treat the adobe surface on the addition. There was concern that the addition may appear different from the existing Museum Building because of the change in building material. The Museum Building was constructed of exposed, nominally-sized fired brick measuring roughly 2½ inches by 4 inches by 8 inches with joints to ½ inch thick. Traditional adobe brick was

[8] "Administration Building & Museum, Scotts Bluff National Monument," NPS Drawing No. SB-3007, sheets 4 and 5, April, 1934. See south and east elevations for opening locations.

[9] "Addition to Museum Building," NPS Drawing No. SB-2501-A, 16 March, 1937, sheet 1, and S. Serrano, Assistant Landscape Architect to Howard W. Baker, Landscape Architect, letter, 14 July, 1937.

[10] S. Serrano, Assistant Landscape Architect to Howard W. Baker, Landscape Architect, letter, 23 June, 1936, 1, see Appendix A for full content.

historically much larger, 4 inches by 9 or 12 inches by 18 inches with joints averaging 1 inch thickness.[11] Bricks used in construction of the addition and other structures at the site measure 4 inches by 8 inches by 16 inches (see *Wall Systems*). Discussion centered on revising the size of the adobe bricks to match the exposure of the Museum Building brick.[12] Ironically, the Museum Building was constructed of fired brick emulating an adobe-style design. Now that the more affordable adobe was considered for the addition, ideas were developed to form adobe bricks to match the initial fired brick construction. But the proposal to employ adobe was apparently protested by local contractors unfamiliar with adobe's temperament, as the material had not been employed in western Nebraska for many years.[13]

Another alternative floated by the designers to visually tie the brick to adobe was to plaster all of the exterior walls. Historically, adobe walls were plastered, or stuccoed, with an adobe mud veneer as a sacrificial finish to protect the inner bricks from the effects of weathering. The veneer gives traditional adobe structures their soft, monolithic appearance. However, there was concern as to how adobe would adhere to the Museum Building bricks without special preparation of the brick surfaces.[14]

Work proceeded in 1937 to construct the addition and other structures in the compound with traditionally-sized adobe brick rather than fired clay brick, and cover all adobe exterior wall surfaces with a cement stucco that had the appearance of an adobe veneer.[15] With this solution the size of the adobe brick was inconsequential as all size-distinguishing masonry joints were concealed. But to unify the appearance of all adobe and masonry surfaces the entire stucco and brick exterior was painted a color matching the surrounding bluff clay.

Adobe had previously been quarried and processed at a pit located near the north boundary of the park by the CCC for construction of their camp (Figure 26). It is unclear if the CCC was supplying a contractor with the brick to construct the addition, which would have saved materials costs, or if the CCC was totally involved with adobe supply and building construction.

Adobe walls were strengthened with steel or cast-in-place concrete posts, and concrete bond beams in response to the tall, thin adobe walls that could not be expected to carry heavy roof loads without collapsing. The posts were placed directly between windows and at corners of the new additions (Figures 5, 6, and 7).[16]

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[11] M. R. Harrington, *How to Build a California Adobe*, (Los Angeles: The Ward Ritchie Press and the Southwest Museum, 1948), 12.

[12] S. Serrano, Assistant Landscape Architect to Howard W. Baker, Landscape Architect, letter, 23 June, 1936, 3. This concern extend to the other structures as well.

[13] S. Serrano, Assistant Landscape Architect to Howard W. Baker, Landscape Architect, letter, 23 June, 1936, 2.

[14] S. Serrano, Assistant Landscape Architect to Howard W. Baker, Landscape Architect, letter, 23 June, 1936, 3. The brick surface preparation method was not specified.

[15] Addition to Museum Building," NPS Drawing No. SB-2501-A, 16 March, 1937, sheet 4. A few window details indicate core walls of adobe, yet a number of other details in the drawing set still carry brick notations. Window details probably had to be revised to reflect special anchoring methods in the softer adobe.

[16] Addition to Museum Building," NPS Drawing No. SB-2501-A, 16 March, 1937, sheet 2. Steel posts were placed between windows of the Landmark Wing, and concrete posts elsewhere.

The new museum addition consisted of a wing combining paleontology and geology exhibits, site custodian (superintendent) and ranger offices, workroom, and full basement beneath the wing. An adobe garden wall was constructed north and east of the building. This wall and the ell-shape of the building enclosed a large courtyard.

The new wing, closely resembling the size and detailing of the museum wing, extended north from the lobby. A hip-roofed, two-story tower added to the west side of the lobby housed the ranger office and a lookout room at the second floor (Figure 10). To the north of the tower a small staff restroom and basement stairwell was created. A workroom and superintendent's office were tucked in the ell created by the two wings. Since this area was protected by a continuous extension of the museum wing roof, a concession had to be made to accommodate ceiling head height in the workroom and office by lowering the floor level three feet (Figure 12). Sets of steps were provided between the Landmark Wing and the north wall of the ell addition down into the workroom.[17] The basement beneath the Landmark Wing probably only functioned as mechanical access space at this time, as the floor was exposed dirt according to the construction drawings.

The 1938 construction work necessitated removal of various portions of the 1935 structure to provide access to the new addition. A window on the lobby west wall was replaced by a door to the ranger's office, and the basement stair was relocated to create a wide doorway between the lobby and Landmark Wing.

[17] "Addition to Museum Building," NPS Drawing No. SB-2501-A, 20 February, 1937.

The public had no view of the western Nebraska landscape from inside the building. Access to the tower was restricted due to the placement of tower stairs within the ranger's office, and the use of the tower room as living quarters. The exterior could only be viewed from the office areas, and even then, Scotts Bluff could not be seen from most ground floor windows.

Two other constructions associated with the Museum Building were added in 1937. According to historic photos an adobe garden wall joined the east elevation. It is suspected that this was an extension of the courtyard that enclosed an area north of the Museum Building (Figure 20). That same year the latrine, or present public restroom, was constructed (Figure 19). The walls and floor of this structure may have been built over a toilet vault.[18]

The last major building episode occurred in 1949 with funds provided by the American Pioneer Trails Association to construct a new wing to display works of early western art by William Henry Jackson.[19] Named after Jackson, the wing essentially extended the museum wing east by twenty nine feet (Figures 16 and 17). The style and detailing of the new addition rubber stamped the older

[18] NPS Architect Mike Fees to Alan O'Bright, 16 June, 2000, and "Addition to Museum Building," NPS Drawing No. SB-2501-A, 20 February, 1937, Sheet 1. Vault stories were related to Fees by others in the 1980s. Although there are no construction details, the Museum Building drawings label the building as "latrine," a name more closely related with vault construction. The vault was undoubtedly abandoned when more reliable water and sewer service was installed at the site.

[19] Cockrell, 1983 *Administrative History*, 26. A 1942 drawing shows that the wing was apparently planned well ahead of construction. (see "Headquarters Area Utilities Layout, Part of the Master Plan for Scotts Bluff National Monument," NPS Drawing No. NM-SB-4965-C, 1 January, 1942.

museum wing except at the interior. Here structural roof trusses were concealed with a skim coat plaster ceiling trimmed with redwood cove moulding. There was no basement beneath the Jackson Wing. The concrete slab floor in the room was covered with asbestos floor tiles.[20]

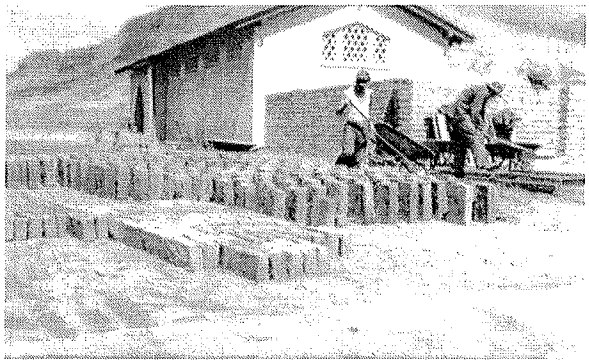

Figure 20 - Courtyard adobe garden wall under construction, June, 1937. View to the northwest toward the Museum Building. (SCBL photo archives, Drawer 3, No. sb183).

To construct the new addition, the east gable end cast concrete grill was moved from museum wing to the new gable end of the Jackson Wing. A wide doorway centered on the museum wing gable end wall was cut through the brick to access the new addition. In addition, a portion of the adobe courtyard wall built in 1937 was demolished to make way for the Jackson Wing. New ducts were brought up at the adjoining corners of the Museum Room to heat the Jackson wing. The Jackson Wing must have been unevenly heated as there was no return air ducts and all supply air vents were concentrated at the western end of the room.

Except for utility and mechanical systems, and exhibit repair or replacement, completion of the Jackson Wing signaled the end of major construction at the Visitor Center. However, serious discussion took place in 1975, during development of the site draft Master Plan, over whether the entire administrative and visitor complex should be removed to return the landscape to its natural state. A determination was made that the present complex was serviceable until such time that "the present structures have lived beyond their normal life under appropriate maintenance, to the point where expensive major rehabilitation would be necessary."[21] There is no evidence of any movement to remove the structures since that discussion.

The absence of a dedicated auditorium and cramped administrative offices were identified as Visitor Center weaknesses in the 1975 Master Plan. The recommendation to construct an addition to provide improved interpretation and relieve office crowding was recommended, but not approved by the reigning Regional Director.[22]

Since that 1975 report several modifications have been made to improve tight space at the site. The ranger's quarters, located just across Summit Road from the visitor center, was renovated for use as an administrative building to house the superintendent's and administrative officer's offices, and storage for park files. The superintendent's quarters then reverted to the ranger's quarters. Within the visitor center, first floor offices vacated by the superintendent are presently occupied by three support staff members. The basement beneath the Landmark Wing was rehabilitated for use as an office, workroom, sales office and storage, and a

[20] "William H. Jackson Memorial Wing Addition to the Administration Building and Museum," NPS Drawing No. NM-SB-2501-J, 16 July, 1946, sheet 1 and 2.

[21] Beal to Hendrix, memo, 15 January, 1975, see Cockrell, 1983 *Administrative History*, 28-29, for full discussion.

[22] Cockrell, 1983 *Administrative History*, 29.

small kitchen. Basement space beneath the Museum Wing now functions as a conference room and library, seasonal locker space, and employee break room.

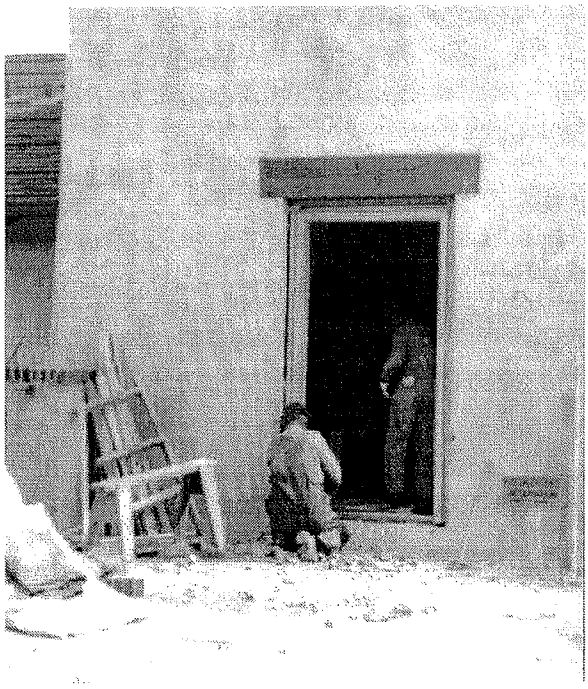

Figure 21 – Replacement of tower west window with a door, March, 1941. This door was in turn replaced with a window in the 1970s. (SCBL photo archives, Drawer 2, No. sb1193).

Other work has played a part in the appearance, comfort level, and serviceability of the Visitor Center structure. In 1941 the west ranger office window was replaced with a door to facilitate ranger contact with autos entering and exiting the bluff road (Figure 21).[23] That door was replaced by a window around the 1970s at the same time that most wooden windows were replaced with double-glazed, fixed aluminum sash.[24] Around 1957 air conditioning was first installed in the building, with condenser coils located within a fenced area just outside visitor center offices. In 1958 the amphitheater stage, fire ring and wooden fence were constructed.[25] A sump pit and pump were constructed in the Museum Room basement in 1962.[26] In 1978 exhibit redesign within the Jackson Wing resulted in the installation of a suspended acoustical ceiling, lowering the floor-to-ceiling height from twelve to nine feet.[27] It is assumed that the same ceiling alterations occurred in the Landmark room at that time. In 1984 the site water distribution system was replaced.[28] Around 1988 a projection booth was built within the amphitheater to facilitate evening presentations.

In 1990 all heating systems at the park were converted from propane to natural gas.[29] The wood shingle roof was replaced about that same year.[30] A restroom meeting contemporary standards and codes to replace the existing public facility was designed in 1990, but never constructed.[31]

[23] Scotts Bluff NM photo files, Drawer 2, photos sb1192, sb1193 and sb1194, March 1941.

[24] Park staff to Alan O'Bright, 19 April, 2000. The door was nearly impossible to operate during high winds from the west.

[25] Scotts Bluff NM photo files, Negative No. 2426.

[26] "Installation of Air Conditioning System, Administration Building and Museum," NPS Drawing No. NM-SB-2501-M, 30 August, 1957 and "Installation of Sump Pump, Administration Building," NPS Drawing No. NM-SB-2501-N, 8 May, 1962. The reason for installation of the sump pit is not entirely understood, but may have been placed to pump out condensed water from the nearby air conditioner.

[27] "Visitor Center Remodeling, Jackson Wing," NPS Drawing No. 317-41000, 1 November, 1977.

[28] "Replacement of headquarters Water Distribution System, Scotts Bluff National Monument," NPS Drawing No. 317-80015, 13 June, 1984.

[29] "Conversion of HVAC Systems to Natural Gas, Visitor Center," NPS Drawing No. 317-80025, 1 September, 1990.

[30] NPS Architect Mike Fees to Alan O'Bright, 16 June, 2000.

[31] "Proposed Restroom, Scottsbluff [sic] N.M.," NPS Drawing No. 317-80026, 19 September, 1990.

Changes and additions to the administrative complex have had an impact on use and appearance of the site. A two room addition was constructed to the ranger's quarters in 1949. Later, this house was rehabilitated for use as park administrative offices. A second quarters was constructed at the southwest corner of the complex in 1958 as a result of the Mission 66 program.[32] Also under the Mission 66 program, the 1936 maintenance shop was expanded in 1958, then again in 1981 to accommodate additional vehicles. A vaulted metal storage building was built north of the two quarters in 1958.[33]

Figure 22 – Maintenance yard garden wall collapse, May, 1942. View to the north toward the maintenance facility. A similar fate was met by the Museum Building courtyard walls. (SCBL photo archives, Drawer 3, No. sb1482).

Around 1942 the adobe garden walls began to collapse, probably as a result of direct exposure to weather (Figure 22).[34] Most of the remaining adobe walls were demolished in 1951 and later replaced with stuccoed concrete walls and a wooden fence.

A deteriorating parking lot precipitated a 1988 analysis to improve parking conditions and circulation. The three proposed design alternatives presented kidney-shaped, free-form lots.[35] The selected design retained and improved the original rectangular lot and added a kidney-shaped lot to the immediate east of the visitor center that caters principally to buses and recreational vehicles. Unfortunately, the organic shape of the new lot and associated sidewalks conflict with the ordered, rectilinear character of the remainder of the administrative complex. While difficult to perceive from the ground, the lot is not in character with the complex when viewed from visitor lookouts at the top of Scotts Bluff.

Figure 23 - Example of frontier Nebraska sod house. Note the simple form, low-pitched roof, and few window openings. (Nebraska State Historical Society, Solomon D. Butcher Collection).

Comparative Analysis

As initially constructed in 1935 the Museum Building attained the look of folk adobe Spanish Colonial residences typical of early examples found in coastal California, but with eclectic features. One might also argue that the building had the scaled-up appearance of sod houses indigenous to late nineteenth century western Nebraska (Figure 23). It is unknown if landscape architect Howard Baker was influenced to design the

[32] Cockrell, 1983 *Administrative History*, 26.
[33] Cockrell, 1983 *Administrative History*, 27.
[34] Scotts Bluff NM photo files, Drawer 3, sb1482 and sb1483.
[35] "Entrance and Visitor Center Parking," NPS Drawing No. 317-41005, 1 May, 1988.

complex based upon similar sites he experienced in the southwest, whether he was caught up in the Spanish colonial revival style of the time, or swayed by historical ties to the humble dwellings of the early Nebraska settlers.[36]

The stylistic demeanor established on the first building was transferred to subsequent additions. These later additions forming the complex of visitor service, maintenance facility, ranger dwelling, and other support structures seem directed toward the development of a rustic style that would be one with the land. This was a prominent design ideal in the development of many state and federal park projects of the Depression era, particularly in the southwestern United States.[37] Park administrative complexes of Spanish colonial design influence typically featured structures arranged in rectilinear fashion extending to meet a sparse landscape. Areas between buildings were enclosed with adobe or masonry garden walls to create patios and maintenance courtyards. Often, the grouping was arranged to also serve as a gateway into the park as was done at Scotts Bluff National Monument.

Yet another influence in the overall design of the Visitor Center may have been rooted in a long lost structure. Fort Mitchell was recorded as being one of many outposts protecting Oregon Trail travelers. Located along the bank of the North Platte River near Scotts Bluff, Fort Mitchell was in existence only three years before abandonment by the Army. Constructed of sod in 1864, the fort quickly reverted back to the soil from which it came soon after desertion.[38] Two surviving drawings of the Fort Mitchell by William Henry Jackson show striking resemblance in layout and massing in comparison with the present Visitor Center (Figure 24).[39] Each drawing depicts a two-story guard tower with narrow, gable roofed structures set at right angles to the tower. The buildings also served as the defendable walls of the fort. Depending upon the artist's interpretation a parade ground was enclosed by the sod structures at all quadrants, or sod structures at three sides and a single wall enclosure of log pickets. In the 1933 drawing window openings are set high on walls facing the prairie. Whether Baker knew of these drawings prior to his design work is unknown.

At present, the administrative complex at Scotts Bluff National Monument still retains the characteristic design elements established in the late 1930s. Few exterior alterations have been made since then; the most prominent being the replacement of the adobe garden walls with a wooden fencing, addition of Mission 66 quarters and maintenance buildings, and replacement of the parking lot.

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[36] *see* Roger L. Welsch, *Sod Walls, The Story of the Nebraska Sod House*, (Broken Bow, Nebraska: Purcells, Inc., 1968), for numerous examples from Solomon Butcher photo collection.

[37] *See* Albert Good, *Park and Recreation Structures*, (Boulder, Colorado: Graybooks, 1990), and Laura Soullière, *Architecture in the Parks, National Historic Landmark Theme Study*, (Washington D.C.: Department of the Interior, National Park Service, 1986), for several examples of adobe structures and districts.

[38] Dean Knudsen, *An Eye For History, The Paintings of William Henry Jackson,* (Gering, Nebraska: Scotts Bluff National Monument & The Oregon Trail Museum Association, 1997), 32.

[39] Dean Knudsen, *An Eye For History, The Paintings of William Henry Jackson,* (Gering, Nebraska: Scotts Bluff National Monument & The Oregon Trail Museum Association, 1997), 32-33. Each of the original drawings are in the Scotts Bluff William Henry Jackson collection.

Not unlike Spanish colonial revival structures of the era, the Visitor Center features massive, monolithic-appearing adobe and brick masonry walls that have been uniformly plastered. The low-pitched roof with extended eaves is more closely situated with California adobes that received light to moderate rain not unlike that found in western Nebraska. Few, deep-set wall penetrations are also characteristic of adobe constructions.

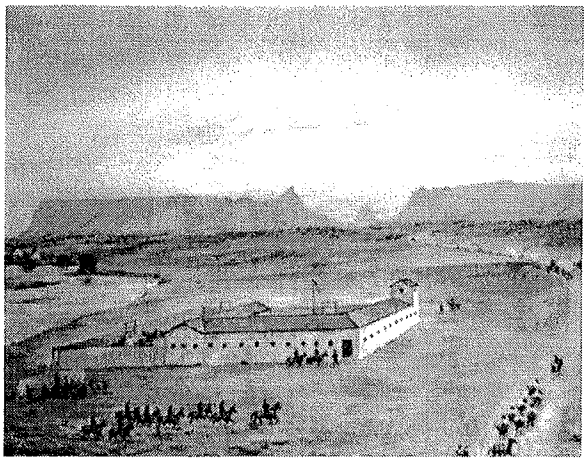


Figure 24 - *Fort Mitchell.* This bird's-eye view of an early sod or adobe fort along the North Platt River is reminiscent of the park Visitor Center in lines and form. Fort Mitchell was abandoned around 1867; there are no above-ground remains. (Signed and dated by William Henry Jackson, SCBL collections, No. SCBL 28).

Eclecticism is reinforced through the use of concrete brick window grills and the segmental arched doorway. The indigenous nature was strengthened through the use of wood shingles rather than clay tile typically found on gable-roofed adobe structures in the southwest. The interior reflects contemporary use, although the exposed roof trusses in the Museum and Landmark wings are a characteristic feature of gable-roofed adobes. Unfortunately, the open trusses are presently concealed from view owing to 1970s renovation work.

SIGNIFICANT FEATURE IDENTIFICATION

Overall, design integrity presides over material integrity in the case of the entire Scotts Bluff administrative complex. Elements of the Spanish colonial style for most of the present-day complex is by far the most important feature. Although not necessarily indigenous to western Nebraska, Spanish colonial design is traditionally rooted to the landscape by its sprawling construction and use of site-derived earthen materials. The style arranges buildings and garden walls to capture surrounding space, creating rooms without roofs. Traditionally, these outdoor spaces were used for everyday work and social activities, not unlike the use of the administrative complex today.

Visitor approach from the highway and view of the administrative complex from Scotts Bluff are important considerations. From the highway the complex is seen as a sprawling, low-lying series of structures that serve as a middle ground focus to the bluffs beyond (Figure 16). From the bluff top the complex appears as an oasis on the prairie, giving visitors a reference to scale, direction, and altitude they have traveled (Figure 15). Unfortunately, some of the design cohesiveness of the present complex has been compromised through replacement of adobe garden walls by wooden fencing, and addition of a free-form parking lot.

The arrangement of structures and circulation provides a gateway to the bluff monument. From the parking lot, vehicles are directed through a narrow channel between the Visitor Center at the east and the ranger quarters and maintenance facility at the west. Although an arm gate signifies this pass as a control point, the act of driving from the open parking lot, squeezing between building confines, and continuing

into the open prairie imparts on the visitor that this is a special place.

The uniformity of scale in the entire complex is also an important consideration. No building within the complex is wider than twenty eight feet, and no taller than a one-and-one-half story residence, with the exception of the Visitor Center tower. Typical complex characteristics include the employment of shallow gable and shed roofs, deep-set windows against stucco walls, and low garden walls.

Specifically, the Visitor Center features linear wings uniformly twenty-two feet wide. The two story lookout tower that provides a fulcrum for the two wings furnishes a visual cue to the visitor entering the site as to the location of the primary entrance. Significant, typical design features include shallow-pitched roofs with overhanging eaves, exterior walls painted the color of the bluffs, and concrete grilled windows set high upon wing walls. The few windows at office spaces are also deep-set but no longer operable.

Upon approach to the Visitor Center entrance the visitor is figuratively squeezed into the arched porch before entering the dark, tall-ceiling lobby space. Passing from the tight space into the larger space imparts a feeling that the lobby is larger than it actually is. Other unique, significant design features within the interior include beamed ceilings in Hall (103) and the Ranger Office (104), and the now-concealed varnished timber trusses in the Landmark and Museum Wings.

To a certain degree the scale of interior rooms is also an important consideration. The initial design intent to provide above-average ceiling heights within the exhibit rooms imparts a degree of importance to the space, a characteristic that has been lost in part through the addition of suspended ceilings.

While true adobe brick construction is unusual for Nebraska, its partial use in the case of the Visitor Center appears to stem from an economic necessity and not a indigenous design requisite. The dichotomy between the use of brick and adobe in this structure is of minor value as the designers chose to stucco the adobe and paint the entire structure a uniform color to tie the two materials visually.

In summary the principal significant features of the administrative complex include:

- Design integrity, or the sustained adherence to elements of the Spanish colonial style of construction.
- Appearance from the highway in terms of silhouette against the backdrop of the bluffs and continuity of a complex of structures spread into the landscape.
- Sustained design appearance from the bluff lookout.
- Gateway to Scotts Bluff.
- Uniformity of building scale and materials.

The principal significant features of the Visitor Center proper are identified as follows:

- Continuity with Spanish colonial design style.
- Uniformity of wing massing, scale, and balance.
- The use of shallow gable roofs with exposed eaves
- Visual cues to the entrance including the tower and arched entrance.

- Uniformity in the use of materials including stucco walls, concrete window grills, and deep-set casement windows.
- The Lobby (101) that features a tall boarded ceiling, chandelier and painted brick walls.
- Ranger Office (104) featuring a beamed ceiling and tower stair millwork.
- Beamed ceiling in the Hall (103)
- Exposed timber roof trusses within the Landmark and Museum Wings.
- Interior exhibit hall room scale.

EXISTING CONDITIONS

Site Context

Climate

Summers in the area are characterized as hot and dry with occasional heavy thundershowers late in the season. Winter is usually cold and windy. Winds are usually out of the west passing between the bluffs before reaching the visitor center. These winds can be variable at times, and gusts can exceed 80 miles per hour. Special construction considerations must be taken to insure that the wood roof on the buildings do not blow off.

The average annual precipitation is fourteen inches, with occasional heavy snows in the winter, and hail storms. No lightning strikes have been known to directly strike the complex, but lightning has affected power service on occasion. Tornadoes are a frequent visitor to western Nebraska, but none have been recorded in the immediate vicinity of the complex.

Grade and Drainage

Grade in the immediate area of the Visitor Center is relatively flat with a slight sharp decline just north and east of the amphitheater.

Few drainage problems have been recorded around the building. An unusual seven inch rainfall was recalled to have occurred sometime in the 1940s or 1950s that resulted in large flows of water rushing off the bluffs into the surrounding prairie, but no flooding occurred at the visitor center complex.[40]

Vegetation

Arid conditions of western Nebraska limits natural vegetative growth surrounding the visitor center complex to short prairie grasses, low-lying shrubs, and succulents. Plantings in the immediate area of the complex are intended to control erosion and wind. Surrounding most of the east, south and west elevations of the Visitor Center are gravel beds with a selection of shrubs. Between the beds and sidewalks are mown lawns watered by an underground sprinkler system. Immediately to the east of the Visitor Center is a small stand of mature, healthy pine trees.

Pavement

All roads, parking lots and sidewalks surrounding the Visitor Center are of concrete. All are in good condition.

Amphitheater surfaces are covered by pea gravel possibly laid over broken asphalt paving. Nearby trails and a short section of walk at the west amphitheater entrance are paved with asphalt. There is a small area of brick paving surrounding the flag pole.

Fencing

No adobe walls remain. A small section of six foot garden wall between the Jackson Wing and public restroom building and another wall extending 40 feet north from the restroom building are constructed of

[40] From Ron Cockrell interview with Merrill J. Mattes, 8, in Cockrell, 1983 *Administrative History*, 74.

concrete with a stucco finish. These walls are in fair to good condition. Except for the adobe garden wall, the remainder of the east and north faces of the amphitheater are enclosed with a wooden, vertical plank fence in good condition.

Exterior Seating
The only seating available is on the stuccoed masonry, serpentine sign and time capsule pedestal directly in front of the building. Built in seats flank the entrance porch, but one of them is occupied by a pay telephone.

Flag Pole Area
The flagpole sits almost directly in front of the primary building entrance. The area consists of a 5 inch diameter, 35 foot spun aluminum pole, brick paving surrounding the pole, and a brick with granite cap time capsule that also serves as a seat. All are in good condition.

Amphitheater
Amphitheater seating consists of wood plank benches on steel framing set into concrete piers (Figure 25). The benches have been replaced on several occasions according to the park; they are presently in good condition.

The stage, fire pit and fixed screen were constructed in 1958 to facilitate evening programs. The stage is constructed of concrete slab and is good condition. The brick fire pit is in poor condition. The wood-framed screen with plastered surface is supported by heavy steel posts. The screen also supports speakers. The entire unit is in good condition.

A small projection booth, added in 1988 to facilitate slide and movie projections, is constructed of stucco over wood frame. It is in good condition.

Site Lighting
General lighting is provided by sodium vapor fixtures fastened to the Visitor Center tower cornice and to various elevations of the building. Laminated wood bollard-type fixtures light parking lot edges and key sidewalk intersections.

Signage
A 40 foot long serpentine-shaped sign greets visitors approaching the Visitor Center entrance from the parking lot. The thick, low lying construction also provides impromptu seating. Constructed of cement stucco over masonry, the sign features battered sides with soft, rounded corners more in character with the mission style of adobe construction. The sign is in generally good condition with a single crack at an inflection point and hairline cracks throughout.

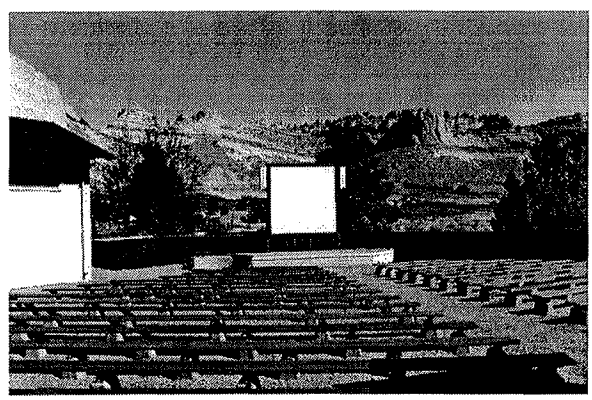


Figure 25 - Amphitheater at rear of the Visitor Center, April, 2000. This view to the northwest shows the plank benches in the foreground, the large permanent movie screen in the middle ground, with the bluffs well beyond. (Photo by the author, SCBL 01-11).

A sign reading "Oregon Trail Museum" is located just in front of the ranger office south-facing window. Constructed of metal fastened to heavy wooden posts, the sign is in good condition.

A collection of three bronze plaques commemorating the Pony Express is fastened to a stuccoed masonry block just southeast of the public restroom building. It is in good condition with a few hairline cracks.

Various other traffic control and informational signs are mounted to 4 by 4 stained posts around the area.

Miscellaneous Site Furniture
Other site furniture include a bike rack at the south edge of the parking lot, a traffic control gate at the bluff road entrance, and a recycling receptacle, anchored trash can, and cigarette cans clustered around the front entrance. A public pay phone is located within the front entrance porch. In April 2000 soda machines were relocated from the building interior to the amphitheater.

Structural Systems

Foundation Systems
All Visitor Center foundations are constructed of reinforced concrete with spread footings. Foundation wall thickness generally matches that of first floor walls. All foundations exposed to view appear to be in good condition with few detectable cracks.[41]

Foundations beneath the public restroom building are unknown, but believed to be of concrete. It is believed that an abandoned toilet vault underlies the concrete floor system.

Floor Systems
Floors within the Museum and Landmark Wings consist of one way cast-in-place concrete slabs over integrally cast, reinforced concrete beams. These systems appear to be in good condition where exposed to view. Live loading for these floors is limited to between 80 and 85 pounds per square foot.[42]

Floor systems beneath the Jackson Wing, tower first floor, the rear offices (rooms 112 and 113), and public restroom building are concrete slab on grade. There is no indication of heaving or movement beneath the finishes.

The tower second floor is believed to be wood framing supported by a pair of 8 inch by 10 inch finished beams exposed in the ranger office (104). Exterior stucco finishes bulging at the second floor level are not indicative of any deflection in that floor system. The live load capacity is limited to 74 pounds per square foot.[43]

Wall Systems
Museum and Jackson Wing walls consist of three wythe fired brick laid in a common bond (header course every six courses) set in Portland cement mortar. Joints are tooled shallow concave. A reinforced, cast-in-place concrete bond beam tops the walls according to the construction drawings. Generally, the painted brick walls are in good condition with no indication of mortar or brick failure as a result of moisture penetration.

There are indications of structural movement between the joining of the Museum and Jackson Wings. At the south

[41] Fitzpatrick, Thomas R. "Structural Evaluation, Visitors Center (HS-2), Scotts Bluff National Monument, Gering, Nebraska," (Ann Arbor, Michigan: Fitzpatrick Structural Engineering, 16 October, 2001), (hereafter cited as Fitzpatrick, *Structural Evaluation*), 12.

[42] Fitzpatrick, *Structural Evaluation*, 14-16.
[43] Fitzpatrick, *Structural Evaluation*, 16-17.

elevation a generally vertical crack extends from the foundation through the bond beam. Another crack at the opposite side of the building extends from the bond beam and jags through several brick courses. These cracks may be an indication that the building is creating its own expansion joint at the bond point of the two wings along the entire 69 foot length of solid brick masonry. There are two minor horizontal cracks just beneath the bond beam at the north elevation near the northeast corner of the Jackson Wing. The reason for those cracks is not understood at this point.

Figure 26 - Adobe Brick Factory, 1936. This quarry was located on park land at the base of the Scotts Bluff near the north boundary. (SCBL photo archives, Drawer 3, No. sb492).

The remainder of Visitor Center bearing walls including Landmark Wing, tower, rear offices (Rooms 112 and 113), and the public restroom building consist of sun-dried adobe bricks fabricated from native soils quarried and manufactured within park boundaries, (Figures 26 and 27). According to one source western Nebraska is within the low rainfall region in which adobe can be used.[44] An entire brick found in an attic space measures 4 inches by 8 inches by 16 inches. The brick is composed of native clay mixed with straw that abrades easily to the touch.

The bricks are protected from weathering with a stucco coat of Portland cement-based mortar, and the broad roof eave line. These walls are topped with a reinforced concrete bond beam. Ranger office (104) and bathroom (108) windows and the west entrance are headed by wood and steel composite lintels.

Figure 27 - Adobe Brick Factory, 1936. CCC workers are forming adobe bricks and setting them out to dry. (SCBL photo archives, Drawer 3, sb518).

Traditional adobe construction requires very thick walls to support dead and live loads due to adobe's relatively low bearing capacity. In other words adobe loads must be spread out over a much larger area than fired brick construction. Contemporary codes require adobe bricks to sustain an average compressive load of 300 pounds per square inch, as compared with a standard 2,500 pounds per square inch compressive load of brick.[45] Designers of the adobe additions must have realized the material's load limitations as they supplemented the

[44] Elbert Hubbell, Earth Brick Construction, (Washington D.C.: United States Department of the Interior, 1943), 24-25.

[45] *State of New Mexico Construction Industries Division 1997 New Mexico Building Code*, (Santa Fe, New Mexico: Regulation & Licensing Department, Construction Industries Division, 31 December, 1998, 51.

relatively thin 18 inch walls with steel and concrete posts and concrete bond beams (Figures 6 and 7). The designers may have been familiar with post adobe construction style popular with California residential adobes.[46] In essence, the post and beam form a framework infilled with adobe bricks. The adobe is left only to support its own weight and a couple of lintels. With this method the walls are able to be kept thin to provide a greater amount of interior space that normally would have been taken up by thick, traditional adobe walls.

The tower and Landmark Wing north elevation appear to be exceptions to the post and beam construction method used in the other adobe additions. At the first floor tower walls are 27 inches thick to carry 18 inch thick second floor walls. Construction drawings and photographs indicate that concrete posts were placed flanking each of the tower windows (Figures 5 and 7). The posts appear to terminate at the second floor level and may not carry into the second floor walls.[47] No bond beams are called out at the second floor level in the drawing, and none are exposed on the tower at the second floor level, although from the photograph the flared post caps seem to insinuate that a bond beam was to have been constructed. At the Landmark Wing the north end bearing wall is exceptionally thick to accommodate ducts concealed within the wall.

Interior surfaces are concealed by exhibits and framed walls, so all condition observations were made at the exterior. Examination of exterior stuccoed adobe surfaces revealed many hollow-sounding areas. There is also evidence that stucco surfaces have been patched with various cement mixes in the past. Some walls surfaces appear bulged, but the causes for this condition are only speculative at this time.

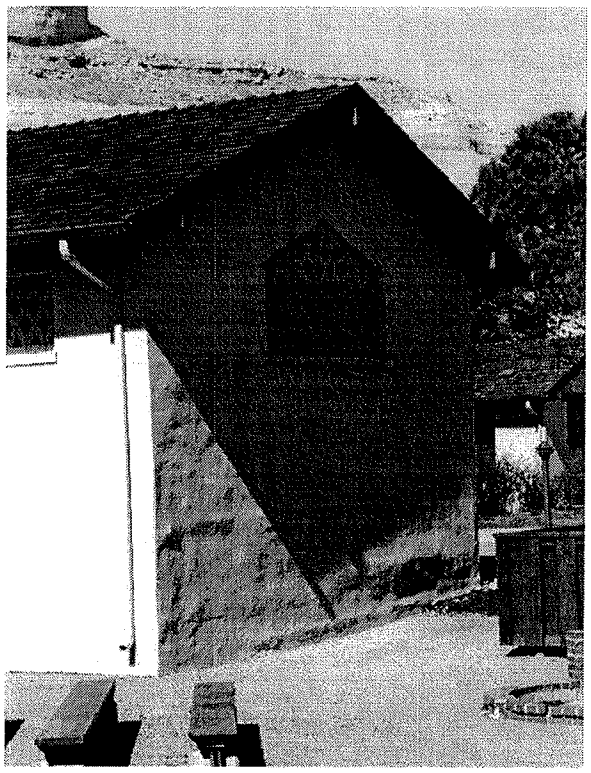


Figure 28 - Landmark Wing, north facade, April, 2000. Note the bulges and deformations in the stucco surface. (Photo by the author, SCBL 01-7).

At the tower the exterior surface is bulged at the second floor level with numerous hairline cracks at the west façade. The bulging may be due original construction methods rather than a structural settlement problem. A 1937 construction drawing and a photograph (Figure 7) indicates that concrete posts flank the windows, but it is unknown if any horizontal reinforcing is present at the second floor level. West

[46] Duane Newcomb, *The Owner-Built Adobe House*, (New York: Charles Scribner's Sons, 1980), 68. Contemporary examples of the post adobe system expose the wooden posts at the exterior surface.

[47] "Addition to Museum Building," NPS Drawing No. SB-2501-A, 20 February, 1937, Sheet 1, First Floor Plan, and Sheet 5, Section C-C.

façade cracks may be a result of climate extremes on that surface. A reoccurring crack at the sill of the first floor tower window may be the result of differential movement between the shallow tower foundations and the adjacent deeper Museum foundations.[48]

The east and west façades of the Landmark Wing exhibits a pronounced bulge at the window sill level, and open joints between the concrete grill and bond beam at the window heads. There are also hairline cracks near the ground. Paint failure in the area where the wall is flashed to the Museum Wing roof indicates that moisture is penetrating the wall system. At the north façade pronounced bulges were detected at the window sill level and another approximately two feet above grade (Figure 28). Numerous hairline cracks are also evident across the surface.

At the Visitor Center north elevation outside of offices 112 and 113 there is a horizontal crack emanating at the east jamb of window 113-W2 just above grade level that continues around the corner to window 113-W1. There is also a slight degradation of stucco at grade on the north and east façades probably as a result of moisture infiltration.

The public restroom building is constructed of adobe, but it is unknown if there are any vertical reinforcing elements concealed within the walls. Wooden beams appear to top the north and south walls. The stucco surface appears to be in fair to good condition.

Roof and Ceiling Systems

The entire Visitor Center features medium-slope roofs with a five in twelve pitch. Live load capacities for all roofs exceed that required by code for snow loading.[49] At the exterior all extended eaves are supported by rough sawn rafters measuring 3½ inches by 7 inches and set at 24 inches on center. The species is unknown but suspected to be a western soft wood. Exposed rafter tails extend 30 inches beyond building faces. However, these hefty rafters are more decorative than structural. According to the construction drawings the "false ends" carry only eave loads, while the remainder of the roof is carried by nominally-sized wood members and decorative trusses. Roof framing systems exposed to view appear to be in excellent condition except for two minor construction flaws in a section of roof above hall (108) (see *Appendix D*)

Museum Wing construction drawings indicate that rafter tails terminate at the bond beam, and the bulk of the roof structure is supported by nominally-sized 2 inch by 8 inch framing bearing at the wall top by an anchored wooden plate.[50] According to the drawing detail solid bridging was to be installed at mid-span and the ridge. Supplemental support is provided by timber purlins at rafter mid-span and ridge, which are in turn supported by timber trusses. The trusses and purlins were initially intended to be exposed but are now concealed by a suspended ceiling. Purlin ends appear to extend beneath rake eaves at the exterior. All structural members exposed to view appear to be in very good condition.

The Landmark Wing addition features a roof structural system virtually identical to that found in the Museum Wing. The only difference is a slight detail modification at

[48] Fitzpatrick, *Structural Evaluation*, 9.

[49] Fitzpatrick, *Structural Evaluation*, 13-14.

[50] "Administration Building & Museum, Scotts Bluff National Monument," NPS Drawing No. SB-3007, 2 April, 1934, Sheet 7, Museum Truss Detail.

the rafter to wall connection. The tower roof features the false rafter tails with 2 inch by 6 inch nominal framing for the remainder of the roof and ceiling system according to the 1937 drawings. Ceiling framing in Hall 103 consists of exposed finished 6 inch by 10 inch beams at 24 inches on center. Ceiling framing above the Hall 106 and Bathroom 108 area is believed to be 2 inch by 4 inch nominal members. Ceiling framing in the lobby (101) is unknown. Portions of thirteen rafter tails were sawed off at the north elevation of the office addition sometime after 1941 to presumably prevent head injuries from the low-lying eave line. Otherwise Landmark Wing roof systems appear to be in good condition.

The Jackson Wing roof appears identical to other Visitor Center roofs at the exterior. Framing viewed from a cavity at the east end of the wing confirmed that the roof matches the construction drawings that consist of a site-built repetitive truss system of nominal lumber. False rafter tails extend 4 feet beyond the wall to a header nailed between trusses. Trusses consist of 2 inch by 8 inch rafters, 2 inch by 6 inch bottom chords, and 1 inch and 2 inch by 6 inch web members. Trusses are set at 24 inches on center but vary slightly from the location of the false rafters. Rafters are stabilized with doubled 2 inch by 8 inch beams set at the top of the bottom chord. A 2 inch by 10 inch ridge board tops out the roof framing. There appears to be no deterioration in the Jackson Wing roof framing.

Exterior Envelope

Wall Finishes

Additions constructed of adobe are coated with a Portland cement-based stucco. The stucco is bonded to a heavy gauge wire mesh, but details of how the mesh is held to the adobe is unknown. The stucco does not cover concrete bond beams. The original stucco mix is not indicated in the construction drawings. Stucco mix tests conducted during the 1990s could not be found in park files.

Numerous topical repairs have been made to the stucco surfaces. Bulges in the finish were observed in several areas including at the north elevation of the Landmark Wing and the south and west elevations of the tower. However, it is suspected that these bulges are the result of original workmanship and not indicative of structural distress.[51] No structural cracks are associated with the bulges indicating that the adobe bricks have not settled.

All exterior wall surfaces, including the Museum and Jackson Wings, and the public restroom building are painted. A textural difference was noted between the Museum and Jackson Wings. It appears that the Museum Wing has experienced more paint episodes or paint failure than the Jackson Wing, as the surface is rougher. According to park maintenance staff paint finishes continuously fail from around the front entrance area and therefore must be painted every few years.[52]

During attic investigations a section of the north exterior elevation of the Museum Wing with circa 1935 exposed finishes was discovered. This portion of the brick wall was concealed by the office extension only three years after construction of the Museum Wing. The exposed finish is a light gray, or

[51] Jake Barrow to Alan O'Bright, 24 January, 2001, during adobe scoping investigation.

[52] According to park maintenance staff this section of the building was sandblasted prior to 1970 in an attempt to make the paint stick. However, the brick appears smooth and undamaged.

putty, color that differs from the present building color mimicking the bluffs clay.

Roof
Construction drawings indicate that asbestos shingles were to have been installed on the Museum and Landmark Wing constructions, but wood shingles seem to be in place when the Landmark Wing was constructed (Figure 10). It is unknown if the asbestos shingles were initially installed then removed by 1937, or never installed in the first place. A section of original wood shingles was discovered in an attic space above Hall 108 adjacent to the chimney. These shingles were little exposed to the elements before they were covered by the Landmark Wing construction. They demonstrate a 7½ inch exposure.

Regardless, the roof is presently sheathed with 24 inch sawn wood shingles. Every fourth course is doubled to accentuate the horizontal lines of the building. In the 1934 drawings the asbestos shingles were indicated to be doubled every fifth course. Existing shingles are painted or stained dark brown.

According to park maintenance staff, the roof was replaced about 1985.[53] Special details ensure that the shingles remain in place during frequent high velocity winds. Even then, shingles occasionally blow off; several were found in the prairie during this inspection. Special construction includes the use of 24 inch shingles, and extra long nails to provide better holding power. Although some shingles are missing, the roof is in generally good condition.

Investigations in attic crawl spaces confirm construction drawing details showing shingles nailed to 1 inch by 6 inch board sheathing. At overhangs where soffit sheathing is exposed at the underside, finished 1 inch by 6 inch V-groove boards are used. Cornice and rake trim consists of simple rectangular trim in good condition.

All rafters, purlins, soffits, trim, and roof shingles are painted dark brown.

Flashing
All roof flashing appears to consist of painted galvanized sheet metal. Step flashing, at roof to wall intersections, is set into the stucco. At the tower step flashing received a stucco coating presumably to conceal it from view. Step flashing at the intersection between the Landmark Wing east wall and the Museum Wing roof may be allowing water to enter beneath the stucco.

Gutters and Downspouts
Historic photographs indicate that the Visitor Center received no gutters until perhaps the last time the building was re-roofed. Five inch aluminum ogee-style gutters are presently on the building. These direct water to corrugated rectangular downspouts that deposit water at grade. There are no leaders at downspout terminations to direct water away from the building.

A sheet metal water stop integrated with the roof shingles was added above the front entrance. This directs water through the roof to a three inch diameter downspout.

All gutter systems are painted the same dark brown as the rafter tails and trim, and appear to be in good condition.

[53] Robert Hamann to Alan O'Bright, 24 January, 2001. Shingles removed in 1985 were believed to have dated to construction of the additions.

Windows
Windows that appear high on exhibit wings of the Visitor Center faced at the exterior with faceted concrete brick mortared into a grill pattern. According to construction documents wooden hopper-type sash backed each of the concrete grills. The original sash are believed to be concealed behind plywood at the interior. Sash at the north wall of the Museum Room that were concealed upon construction of the office extension in 1938 were found to be in excellent condition when viewed from the attic crawlspace above the office. Over time the windows were louvered, curtained and finally sealed to prevent the entrance of ultraviolet light that could degrade interior exhibits. Hardware cloth is bolted to the exterior of the concrete grills to prevent birds from nesting in grill cavities according to the park. Insect screen can also be seen just beyond the grills. Most brick sills require repointing.

The lone exposed sash at the east gable end of the Jackson wing can be viewed only by crawling into a cavity behind the diorama exhibits. Here the intact sash were found to be of stained and varnished wood with clear glass. The general condition appeared to be good although a detailed inspection could not be made.

Hopper-type windows very similar to those seen in the Visitor Center construction drawings, are within the public restroom building. The sash are tucked behind concrete grills and have screen windows. The sash are heavily painted but seem to operate.

When Visitor Center wings were initially constructed, windows in office rooms 104, 112 and 113 consisted of operable wood casement windows with deep-set mullions. Each sash was divided into eight lights. These were replaced by fixed, anodized aluminum, double glazed windows around the 1970s or 1980s. The initial wooden frames remain in place; some of the old screen hardware still remains. The aluminum windows probably save energy, but they do not have the depth and richness of the previous wood windows. The aluminum windows also provide occupants no ability to open them to promote ventilation. Plexiglas was screwed to the exterior frames of windows 112-W1 and 113-W2 as a safety precaution, as the sills rest near the ground. Window 104-W1 has a broken seal, there is some minor spalling of brick sills, and the wooden frames need painting. But otherwise these windows are in good condition.

Second floor tower windows have been replaced by wood double hung windows. From historic photographs the original windows were casement-style with six lights per sash. The existing windows appear to function and are in generally good condition.

Basement windows at the Landmark and Museum Wings have been sealed from view behind interior partitions and exterior shed roofs over window wells. According to construction drawing window schedules these were to be steel window with wire glass. The northernmost Landmark Wing basement window sash was modified to accommodate a crude fire escape up through the window well. It is unknown if the other two window sash remain, or what their condition may be.

Exterior Doors
Over time all exterior doors have been replaced. From early photographs front entrance door 101-D1 was a massive vertical

plank door with long strap hinges. The door also had a wood framed screen door that opened to the interior.[54] Although there are no photographs, west entry door 106-D1 may have been a wooden Dutch-style door. Both of these doors were replaced with painted steel flush doors with a large single window. The windows are accentuated with false diamond muntins. An emergency push bar is installed on the front entrance door. The west entrance door has a combination heavy aluminum screen door. The existing doors appear to be in good condition although these entrances do not meet accessibility standards (see *Accessibility Assessment*).

The door pair at 112-D1 leads from the office directly to the amphitheater. The door is not used by the public and rarely used by park staff. The door set is flush steel with large windows and each has an aluminum combination screen door. A desk currently blocks the west door. The doors appear to be in good condition.

Door 115-D2 is used for emergency egress only from the Jackson Wing. The steel flush door features a push bar with an exit alarm. It appears to be in good condition.

Interior Finishes and Use

Because of the diverse finishes, functions, and needs of each space within the Visitor Center, this section will assess each space with regard to historic and existing finishes, general appearance, function, and functional deficiencies. Basement spaces currently reflect rehabilitation of the past two or three decades in an effort to alleviate overcrowded offices. Historically, basement spaces were devoted mostly to storage and mechanical. Therefore, this analysis will address only current general finishes, function, and functional deficiencies. Other code deficiencies for hall and stairways are addressed in *Life Safety Evaluation.*

Break Room 001

Employee break room finishes consist of painted wall board and concrete walls with a ceiling of exposed ducts. There are plywood cabinets against the south wall and a counter against the west wall for coffee pots and a microwave oven.

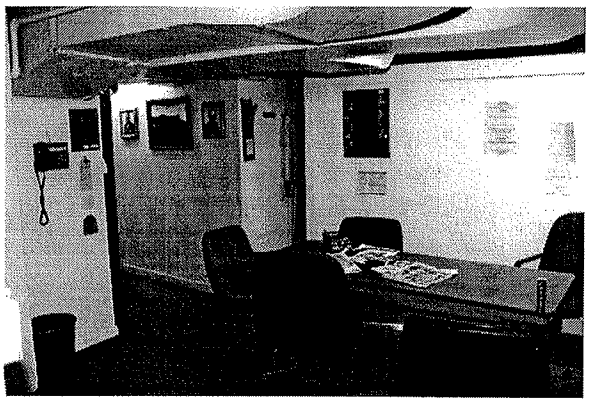


Figure 29 - Break Room (001), April, 2000. In this view to the southeast, low-lying ceiling ducts and circulation route through this space make for crowded conditions. (Photo by the author, SCBL 04-20).

The space is not at all adequate in size for the site; employees must east in shifts due to the cramped space (Figure 29). The break room can accommodate only about five seated people at a small table. The traffic route from the stair to the conference room also compacts the usefulness of the space. Ceiling ducts are within 6 feet 6 inches of the floor in about a quarter of the area, and pose a safety hazard to tall employees. The space is not ventilated.

[54] *see* Scotts Bluff NM photograph archives, photos 2425 and 2426. Portions of the screen and wood door details can be seen.

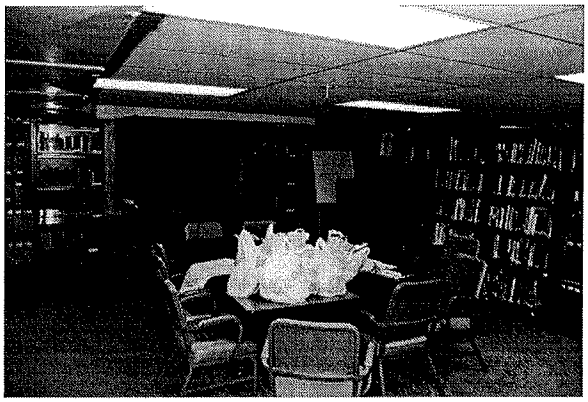


Figure 30 - Conference Room/Library (002), April, 2000. This multi-function space features a very low suspended ceiling. (Photo by the author, SCBL 04-18).

Conference/Library 002

This multi-function space as a general conference room, park library, two computer stations, map files, and audio video equipment storage. Walls are furred and paneled and the ceiling consists of suspended acoustical tiles and lighting. There is a blackboard centered at the east wall. A built in cabinet at the southeast corner houses the phone panel box, and there is a sump pit and pump centered along the north wall and now located beneath a computer desk. A window well against the south wall has been sealed over so that no natural light now penetrates the room.

The size of the area seems to serve the park well during general meetings (Figure 30). However, conflicts occur when employees need to use the space for other functions during ongoing conferences, or when employees travel from Stair 114 to the break room. The computer stations are used by several employees for Internet access. The ceiling generally measures 7 feet from the floor with soffits at 6 feet 6 inches. This height possesses safety problems particularly at the single riser to Stair 114.

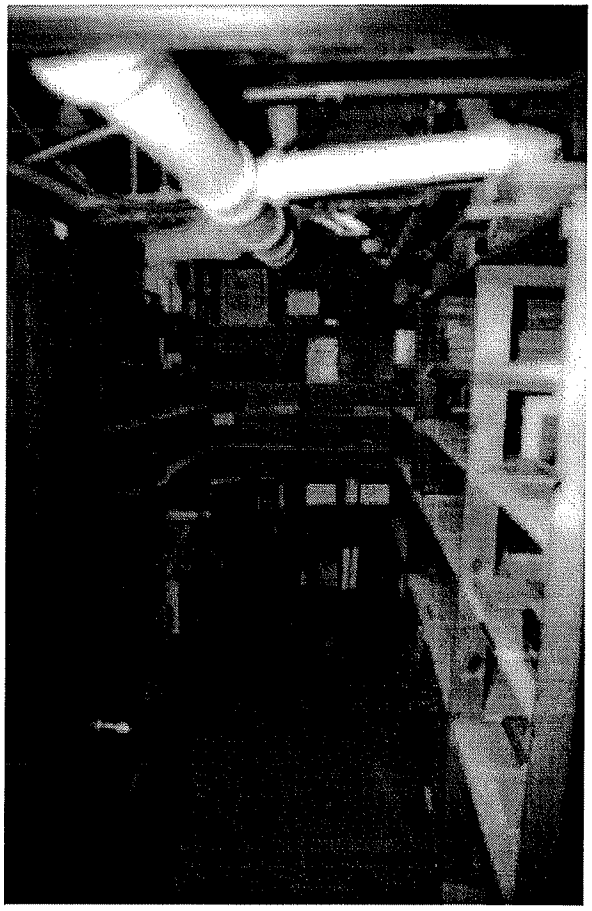


Figure 31 - Sales Storage (007), April, 2000. This view to the west shows the head-banging pipes at the ceiling and cramped storage conditions. (Photo by the author, SCBL 04-22).

Approximately 140 lineal feet of library materials are shelved within metal barrister-type bookcases against the walls. The collection holds about 5,000 books on Oregon trail and western history that is available to the public upon request. The large map cases hold fifteen drawers of aerial photographs, utility drawings, topographical site plans, and master plan drawings. There are also sets of Civilian Conservation Corp blue prints that may be the only drawings in existence. The conference room is heated and cooled but not climate-controlled for the benefit of the

paper collections. Audio visual equipment is scattered throughout the space.

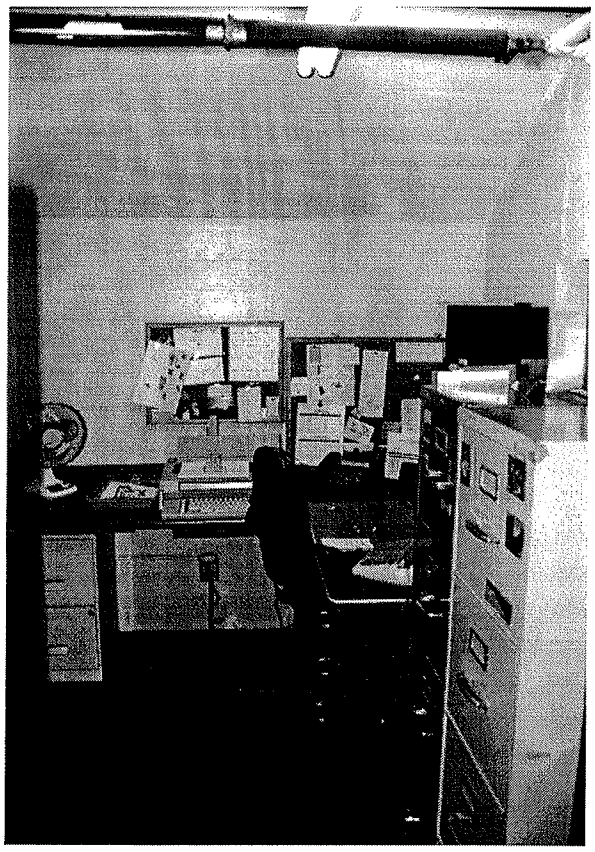


Figure 32 - Sales Office (008), April, 2000). View to the east of cramped office conditions. (Photo by the author, SCBL 04-23).

Mechanical Room 003
This room was partitioned off from the large space beneath the Museum Wing to enclose the building's forced air furnaces. While most of the space is occupied by mechanical equipment, the park must use the space to store folding chairs and tables. To service the furnaces the chairs and tables must be removed.

Locker/Storage 005
This small space functions to provide seasonal interpreters with locker storage space, and is used for general storage. There are only four lockers for eight seasonals hired annually; most seasonals store their personal items in their car trunks due to cramped spaces. The space offers no privacy for changing clothes.

Hall 006
This narrow corridor provides access to the collections and general storage areas. The hall's headroom is constricted to less than 6 feet 2 inches due to the quantity of pipes and ducts at the ceiling.

Sales Storage 007
This space is used by the Oregon Trail Museum Association for storage of sales items, and houses the Association's floor safe and the Visitor Center's electrical panel boxes. The space contains approximately 200 lineal feet of open wooden wall shelves storing post cards, posters, books, maps and games. Sewer pipes intruding from the ceiling offer only 6 feet 2 inches of head room (Figure 31). While there is a flush door into the room it has no lock.

Sales Office 008
This space is an office for the Oregon Trail Museum Association manager. The room houses a small desk, two file cabinets, a small wardrobe, and about twelve lineal feet of books. The windowless, claustrophobic conditions are exasperated by a sloping ceiling due to the stair at the first floor (Figure 32). There is no secure door.

Sales Storage 009
This small space was carved out of adjacent Office 011 to provide additional storage space for the Oregon Trail Museum Association, and a large park-owned gun safe. The 90 lineal feet of shelving stores postcards, toys, and film for sale to the public. The room is very cramped and unsecured.

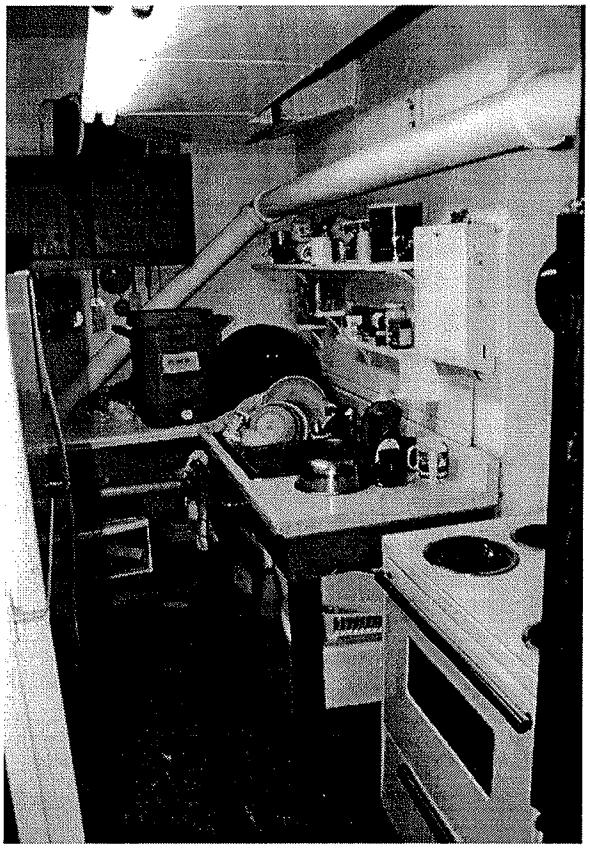


Figure 33 - Employee Kitchen (110), April, 2000. View to the east of extremely cramped conditions. (Photo by the author, SCBL 05-2).

Kitchen 010
This employee kitchen includes a double sink, range, full-size refrigerator and L-shaped counter top all within a room measuring less than 60 square feet. Light fixtures and ducts are within 6 feet 7 inches of the floor, and there is a primary sewer line routed directly over the range and sink (Figure 33). Only one person can occupy the space at a time, and only then, with difficulty.

Office 011
Until early 2000, this space was used as the park historian's office. It is currently used as a collections workshop, graphics workshop, and office storage. The space contains a desk, small drafting table, fireproof file cabinet, photocopier, about twelve lineal feet of book cases, collections cleaning tools, and some ranger storage. Natural light entered the space through two window wells until the wells were covered over and the windows sealed at the interior. Approximately forty percent of the ceiling is covered with ducts that hover 6 feet 4 inches above the floor, offering tall employees the chance to bump their heads. The space is generally cluttered with mismatched furnishings and stored items.

Collections Storage 012
The important William Henry Jackson collection, that includes about 400 drawings and paintings, is stored in this space in addition to approximately 5,000 other objects. Map files, rare gun collection, rare books, the park photo and slide collection, dry pressed plants, and wooden, ceramic, glass, metal, and bone objects round out the collection. A small table provides some space for object cleaning and examination.

When constructed about 1958 the vault was about half its present size, and featured a heavy vault door set into a heavy steel frame.[55] The vault was expanded in 1979 in response to concerns over deterioration of the collection.[56] The west and south walls are constructed of eleven inch brick masonry, and the north and east walls are the eighteen inch thick foundation walls. The ceiling is the exposed concrete structure of the Landmark Wing floor system. A double-locked, heavy steel flush door is the only entrance. No pipes or ducts pass through the space.

There is no auxiliary climate control or ventilation within the space other than a

[55] Scotts Bluff NM photo files, Negative No. 2249.
[56] Cockrell, 1983 *Administrative History*, 32.

dehumidifier that is operated only during wet seasons. Hygrothermograph charts indicate a steady 67 degree Fahrenheit annual temperature with 49 percent relative humidity that drops to 45 percent during the summer season. Security is provided by smoke and motion detectors, and a door contact.

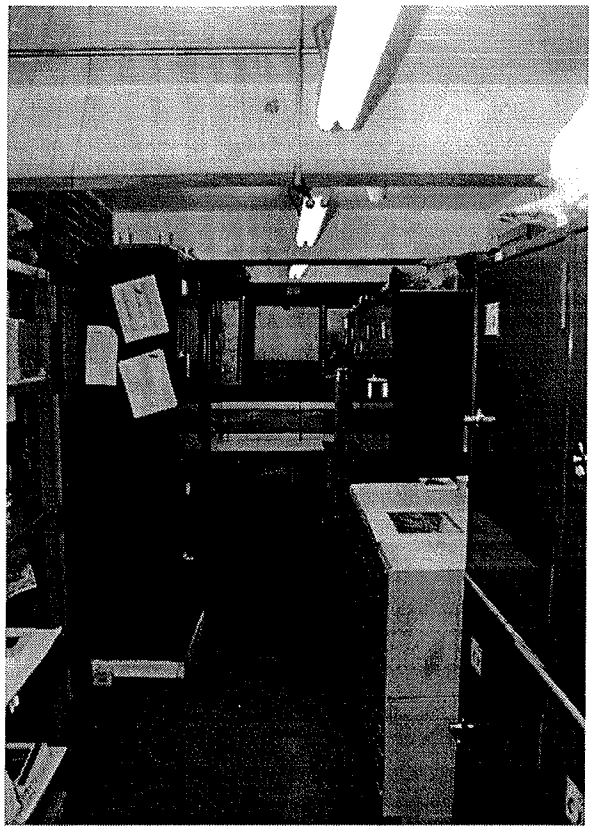


Figure 34 - Collections Storage (012), April, 2000. View to the north along the only corridor through the space. (Photo by the author, SCBL 05-11).

About 40 percent to 50 percent of the total volume of the room is occupied by collections storage cases, racks, and shelves (Figure 34). According to the park the collections storage room has reached its maximum capacity. Space to open cases and maneuver large objects within the vault is very tight.

Storage 013

Living history clothing and other objects are stored within this space that was carved from the Office 110 space within the past couple of decades. The room is also used occasionally as a dressing room. About 300 cubic feet of stored items create cramped conditions.

Lobby 101

Upon entry into the building, visitors are greeted by this cubic-shaped space that was constructed with the 1935 Museum Building (Figure 14). The lobby currently functions as primary entrance into the building, visitor contact, a small amount of sales space, with a single bench for visitors. The area also is the primary traffic focal point between the entrance, theater and exhibit areas. Exhibit room lighting controls are located on the west wall in a small built in cabinet.

Lobby walls consists of painted brick, and the ceiling of stained beaded boards. The floor is carpet over concrete. Lighting is provided by a single historic chandelier centered on the ceiling, and a small amount of natural light from the entrance door and doorway to the ranger office. Animal heads grace walls above door height. Visitors entering the space immediately encounter a contact counter along the west wall that features two cash registers; one for fee collection and the other for Association sales (Figure 35). The counter is not accessible to employees and the public (see *Accessibility Assessment*).

According to the park the space is too dimly lit. Visitors entering the room from bright sunlight have difficulty adjusting their eyes to the interior surroundings. During the summer the lobby is extremely crowded with poor circulation.

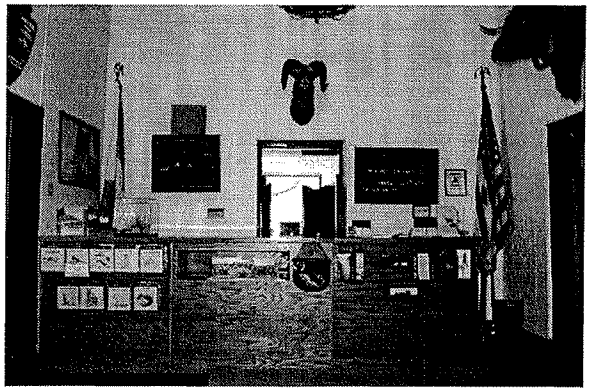


Figure 35 - Lobby (101), April, 2000. This view of the west wall is similar to the 1941 image seen in Figure 13. The contact counter stretches across the space, and is shoe-horned between the front entrance and west wall. (Photo by the author, SCBL 03-0).

Figure 36 - Museum Room (102), April, 2000. The sales area is crammed into the middle of the space in this view to the east. Note the suspended ceiling that now conceals timber trusses (see Figure 3 of same view). (Photo by the author, SCBL 03-4).

Museum Exhibit Room 102

This space currently functions to exhibit various artifacts related to the Oregon Trail, and provide room for Oregon Trail Museum Association sales (Figure 36). Except for a full-size Mormon cart reproduction and an unfixed wood and glass case, all artifacts are exhibited behind large glass cases built against the north and south walls. Unfixed sales display shelves are arranged in an open manner on the eastern half of the floor.

Present-day finishes consist of wallboard walls, plywood and glass display cases, an acoustical suspended ceiling, and carpeted floor. Small portions of the east and west walls are painted brick. The room was painted off-white in the 1990s to brighten dark green surfaces.

Display cases conceal windows at the south elevation, while the office addition sealed two north wall windows. It is unknown if the window sash are yet in place. No natural light enters the space. General lighting is provided by a few incandescent fixtures hung from the ceiling, and supplementary light is provided in each of the display cases.

The suspended ceiling was installed as a result of Federal energy-saving mandates of the 1970s according to the park. Yet, when the ceiling cavity was examined it was found that batt insulation is tossed and upturned negating the bulk of those savings. Finished timber roof trusses, intended to be exposed in the original design, remain concealed above the suspended ceiling (Figure 37). The trusses appear to be in good condition although with a hefty dust accumulation and a little damage from fasteners supporting the suspended ceiling. Original painted fiber board ceiling finishes between the trusses appears to be in good condition.

Combined exhibit viewing and sales activities within the space makes for some very crowded conditions during the summer season. Sales display shelves and exhibits at the middle of floor tends to push circulation routes into areas needed to view exhibit cases.

According to the park exhibits in this space are at least fifteen years past their prime. Their installation date is estimated to be during the 1960s.

The Association rightly complains that there is not enough sales display space. While shelving arrangements are disabled-accessible, there is little maneuvering room for more than three or four people. Crowded conditions also make for decreased ability to monitor the sales area. During the busy season visitors are often confused as Association sales and park fees are handled by separate cash registers at the lobby counter.

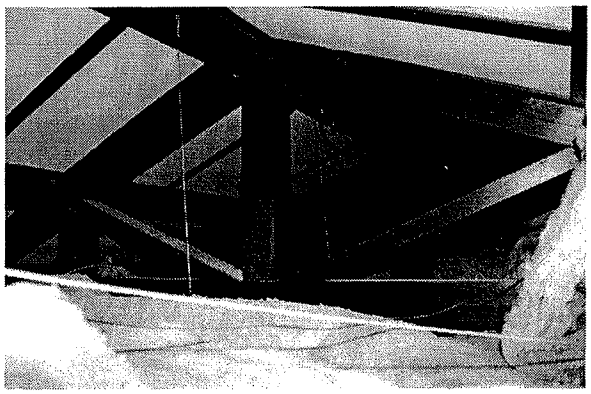


Figure 37 - Attic above Museum Room (102), April, 2000. In this view to the west he timber trusses are a bit dusty, but in good condition. Note the overturned batt insulation. (Photo by the author, SCBL 02-3).

Hall 103

The hall was constructed in 1938 as a kind of anteroom to the Landmark Wing exhibits, and to provide access to the two park offices. Multiple functions within this area combined with its use as a primary traffic way, combine to create very crowded conditions in the hall. Functions include visitor register book stand, NPS passport stamping station, pamphlet case, donation box, interactive computer exhibit available to the public, and a drinking fountain (Figure 38). Until recently a small niche in the west wall housed a soda machine.

Hall finishes include faux-grain Masonite paneling on the walls, carpeted floor, and an exposed beam ceiling with fiberboard infill between beams. Lighting is provided by a single 1950s fluorescent fixture centered on the ceiling. The dark finishes combined with extremely poor lighting make for a cave-like atmosphere.

The hall is extremely crowded during the peak visitor season, as it serves as a primary traffic way between the lobby and theater. To a minor extent there is a cross-traffic problem created by the park office doors against the east wall. Congestion also occurs between people using the drinking fountain, register, and computer display, and those entering or leaving the theater.

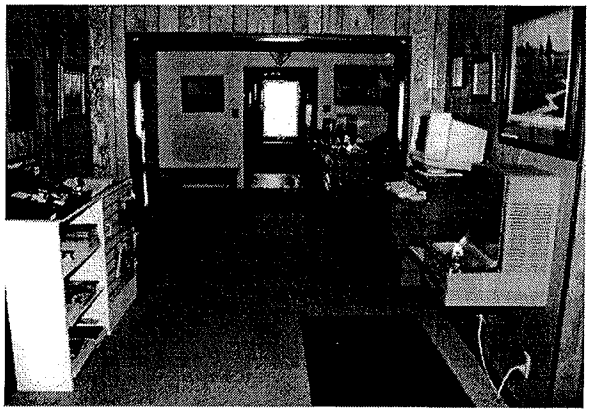


Figure 38 - Hall (102), April, 2000. A number of visitor functions in this small space, including computer, drinking fountain, and stamp station, tends to jamb circulation between the lobby and theater. (Photo by the author, SCBL 03-16).

Ranger Office 104

This space was constructed as part of the Visitor Center tower, and has always functioned as a ranger office. It is located in a the fulcrum point with respect to the Visitor Center and the park. Current activities within the room include the park ranger office, manning the visitor contact counter, monitoring the bluff road access point, first aid station, credit card scanning, park radio base station, and securing fee money. The office provides space for two

rangers and as many as six seasonals during the high season (Figure 39). The office contains a counter top desk, four two-drawer file cabinets, weather station, permits fee computer, laminator for park passes, credit card scanner, base station, typewriter, and about ten lineal feet of built in book shelves. First aid equipment is stored in a small cramped closet in the hall (106), and hand set radios are kept in a cubby hole opposite the closet. The safe is tucked beneath the tower staircase.

Figure 39 - Ranger Office (104), April, 2000. This view to the west shows the crowded conditions in a space normally occupied by two full-time employees and as many as six seasonals. (Photo by the author, SCBL 03-20).

In terms of fabric little has changed since construction. The room yet retains its plaster wall finishes and darkly-stained, cross-beamed ceiling. The tower wooden staircase remains intact (Figure 40). Changes include the replacement of original wood casement windows with fixed aluminum, and replacement of a vertical plank, Dutch door separating the lobby from the office with a saloon-type door. The floor is carpeted. All finishes appear to be in good condition. According to employees lighting and temperature control are good.
Overcrowding is the chief complaint of this space, especially during the summer. The high quantity of tasks performed within the office often leads to confusion and congestion. Although Association sales functions should be separate from park functions, the two overlap here. Because of congestion the park ranger has no quiet space to complete day-to-day office assignments. Visitors seeking first aid are in full view of a supposedly secure area. The office does not meet accessibility codes.

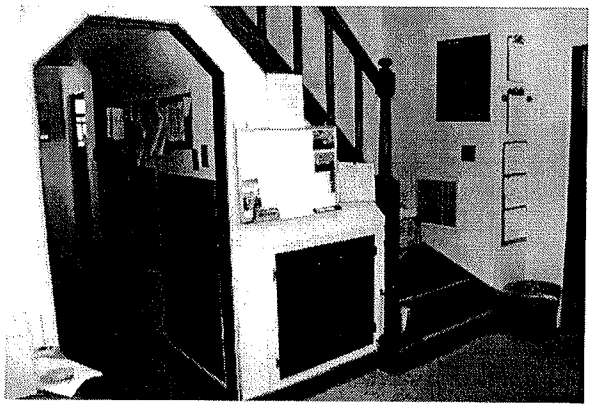


Figure 40 - Ranger Office (104), April, 2000. The tower staircase is seen in this view to the northeast. Cabinets beneath the staircase house a safe and park radios. (Photo by the author, SCBL 03-21).

Employee Restroom 108
This space was constructed with the 1937 Landmark Wing addition, and serves as the only restroom within the Visitor Center. The restroom is principally used by employees. The facility is occasionally used by disabled visitors as the public restrooms are inaccessible, but the room does not meet accessibility standards. Refer to *Accessibility Assessment* for details on this room.

Closet 109
Until April 2000 this space housed a soda machine accessible to the general public. The machine was moved to the amphitheater to keep food items out of the exhibit rooms. The interactive computer was then moved into the space. Spare soda cans were stored

in a secured closet at the south wall. At this writing a use for the space has yet to be determined.

Theater/Landmark Exhibit 110
The Landmark Room was built to display the geologic and paleontological history of the Scott Bluff region. While the room continues to serve as such, it now also doubles as a 36 seat theater. The room features exhibit wall-mounted cases, a projection booth that also doubles as a baffle between the hall (103) and the theater, and a unfixed screen (Figure 41). There is a small amount of visual equipment storage in the booth.

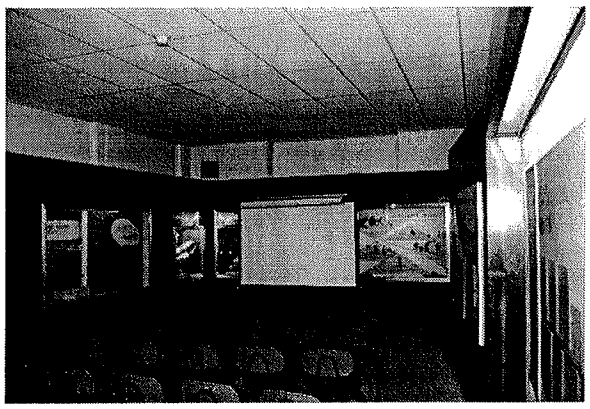


Figure 41 - Theater (110), April, 2000. The 36 seat theater also functions as exhibit space. Exhibits cannot be viewed while a program is in progress. Note the suspended ceiling concealing finished timber trusses in this view to the north. (Photo by the author, SCBL 04-4).

All original interior finishes are concealed from view by contemporary constructions. In 1962 windows were sealed to make way for new exhibit cases that reach nearly to the ceiling. As in the Museum Room (102) a suspended ceiling was installed during the 1970s. Examination of the ceiling cavity confirmed the existence of finished timber trusses in apparent good condition. The floor is carpeted. Lighting is provided by fluorescent lights built in to soffits above the exhibit case perimeter. Additional lighting is provided by exhibit case fixtures.

Combining theater and exhibit functions in one space naturally causes confrontation when lights are turned off for video presentations. This conflict occurs at least three times each hour during heavy summer visitation periods. The presence of theater chairs, projection booth, and the screen compresses visitor circulation routes at the exhibit cases. Theater seating is deemed inadequate to handle bus-loads of visitors arriving at the site during the summer tour season and when school groups come to call. Since the room also functions as exhibit space, the exhibits are closed to viewing during presentations and training sessions. Ventilation is very poor especially during the summer when the room is full of visitors. Because there are no doors between the theater and hall, unwanted noise interrupts theater presentations. Visitors seated within the low-clearance video sight lines frequently block portions of the presentation. The room does not meet life safety codes as it has only a single means of egress (see *Life Safety Evaluation*).

Cases exhibit fossils, Plains Indian artifacts, and geologic specimens sampled at the park. Exhibit cases are well past their prime. According to the park some of the displayed items are not from the Scotts Bluff region. One case displaying a fossil skull tested high for the presence of radon according to the park (see *Hazardous Materials*).

Office 112
This office is a portion of the 1938 adobe addition to the Museum Building. The office served to provide space for early park rangers and administrators. Presently it houses the park historian and resource

manager (Figure 42). The historian occupies a small desk against the north doors and a file cabinet. The resource manager retains the remainder of the space with two desks, a computer desk, three file cabinets, a credenza with bookcase, and a very large bookcase cabinet against the south wall. Employee cross traffic through is generated by a circulation route to the second basement stair. The double doorway to the amphitheater is rarely used.

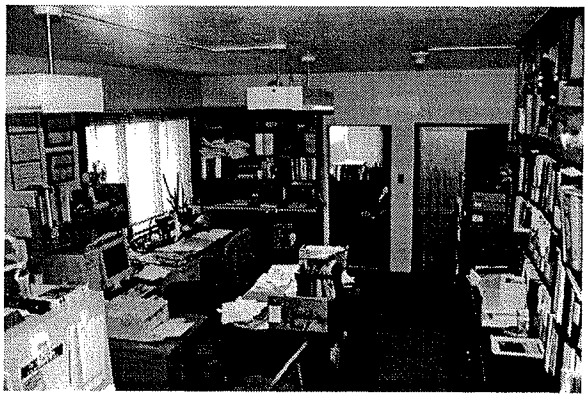


Figure 42 - Office (112), April, 2000. Two employees are housed in very crowded conditions in this view to the east. Employees must pass through this office to access the basement staircase at the rear wall right. (Photo by the author, SCBL 04-8).

Spartan finishes reflect the utilitarian nature of the space. Walls and ceilings are plastered and the floor is carpeted; all appear to be in good condition. The panel door set (111-D1) at the head of the stair is original to the 1938 addition, but it has been modified at the Hall (103) face to match surrounding finishes. Wood casement windows were replaced with fixed aluminum units. Lighting is furnished by a pair of contemporary fluorescent ceiling fixtures, and an ample amount of natural light through north-facing windows.

Some of the existing crowded and chaotic conditions in this space can be solved through more efficient furniture arrangement and relocating and tossing old files and materials. The office is not disabled accessible (see *Accessibility Assessment*), and the basement stair cannot be considered as a viable means of egress (see *Life Safety Evaluation*).

Office 113

Initially, this office housed the site administrator. The office currently provides space for the park chief ranger. Office equipment includes a desk, computer desk, file cabinet, credenza, typing table, and bulletin boards. Finishes are the same as in Office 112. Wood casement windows were replaced with fixed aluminum units. The two panel door is the only intact and untouched example of an early door in the building. Lighting is provided by a single ceiling fluorescent fixture and two windows. The space appears adequately-sized for its purpose, although the door must remain open to ensure adequate heating and cooling reaches the space.

Jackson Exhibit Room 115

This space has been dedicated to the display of drawings and paintings by William Henry Jackson since its 1949 construction. From time to time changing displays are erected in the middle of the room. In addition to the Jackson displays, there are two dioramas in part dating to the 1935 Museum Wing exhibits and two glass-encased display tables (Figure 43). The dioramas do not fit with the Jackson collection, but are popular with children according to the park. When the Jackson Wing was constructed a time capsule is said to have been placed within the brick wall at the southeast corner.

While the exterior matches that of the neighboring Museum Wing the interior has always been plainly finished. All walls, save the east wall, are of wallboard or

plaster, and the latter of painted brick. A suspended acoustical ceiling was installed probably about the same time as the other two galleries. According to construction drawings the original ceiling was intended to be plastered and include a deep wooden crown mould. This has yet to be verified. The floor consists of carpet over concrete slab on grade.

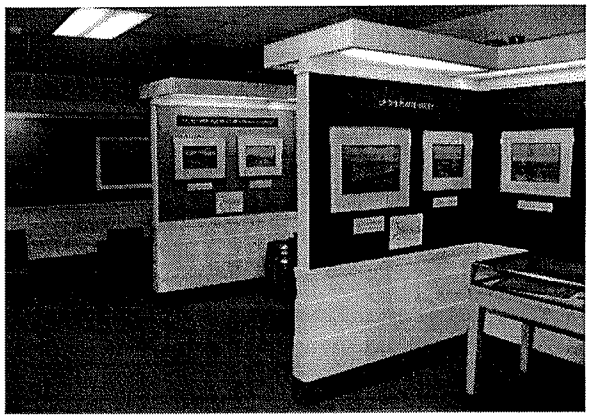


Figure 43 - Jackson Room (115), April, 2000. The panel exhibit walls seen in this view to the southeast were installed when the Jackson Wing was constructed in 1949. The suspended ceiling conceals a plaster ceiling with redwood trim. (Photo by the author, SCBL 03-10).

Windows at the north and south elevations were sealed with construction of the exhibits and suspended ceiling around 1978. It is unknown if any portions of the windows and double louvers shown in the construction drawings remain intact. The east gable end window that was moved from the Museum Building to the Jackson Wing in 1949 remains intact, but concealed behind a false wall (see *Windows*).

A roll up steel fire door separating the Museum and Jackson Rooms was installed at the time the Jackson Wing was constructed. Park staff indicate that the door is never operated or even tested in fear that it may not roll back into place.

Environmental conditions within the Jackson Room are poorly controlled and balanced. When constructed in 1949, two supply air ducts were merely drawn up from the basement at the eastern corners of the Museum Room, and pushed through the brick wall. Return air is essentially the doorway between the two galleries. As a consequence, conditioned air hardly reaches the eastern-portion of the Jackson Room.

Prior to 1999 lighting was supplied by fluorescent soffit fixtures directly above display walls. The cave-like atmosphere of the room prompted the park to install fluorescent fixtures into the suspended ceiling.

The valuable Jackson collection displayed in this gallery cannot be adequately monitored from the counter in the front hall. The way in which the displays are designed to maximize wall space also conceals visitor movement. The park fears that someone could grab an exhibit piece and quickly exit through the emergency door or have enough time to conceal the piece while leaving the primary entrance. The room is monitored during closed hours with motion detectors, and the emergency door sounds an alarm when opened at any time.

Uncontrolled environmental conditions, harsh lighting, and poor security sight lines prompted the park to display only duplicate works by Jackson beginning in 1980.[57] Many of the original displayed paintings showed signs of deterioration due to the poor environment. Occasionally one or two original Jackson pieces are displayed for a month or two only to prevent deterioration.

[57] Cockrell, 1983 *Administrative History*, 32.

Tower 201

The single room at the tower second floor is accessed by a steep winder-type stairwell from the ranger office (104) (Figure 40). According to the park historian the room was used for a time as a park ranger's living quarters, and as an office. Today it is used for miscellaneous storage for items such as park and local informational brochures, mailing tubes and envelopes, computer equipment, cash registers, and first aid equipment (Figure 44). There are approximately 230 lineal feet of shelves against the walls. The tower is not open to the public.

Figure 44 - Tower Room (201), April, 2000. This space has been used as quarters, an office, and now general office storage. The room is unheated. (Photo by the author, SCBL 04-1).

Finishes include plastered ceiling and walls and a wood strip floor all in apparent good condition. A finished wooden railing surrounds the stairwell, and a finished plywood hatch covers the stair at the second floor level. The space has minimal electrical power and lighting, and is not heated or cooled. Most lighting is provided by windows at the north and west walls.

Amphitheater

Although not specifically deemed an interior space, the amphitheater none-the-less is an integral part in the presentation of the Oregon Trail story to visitors. Some form of outdoor presentations have taken place on special occasions since construction of the Landmark Wing in 1938. At that time the ell formed by the two building wings, in combination with adobe garden walls at the east and north elevations formed an enclosure.

Over time most of the garden walls collapsed and were replaced by wooden fences, and a more formal stage, fire pit, and screen followed in 1958. A forty foot length of adobe wall remains intact at the east enclosure. Equipment within a small projection booth added in 1988 can be remotely controlled from the screen area. Seating for approximately 200 persons is provided by wooden benches fixed to the ground (Figure 25). Seats are oriented to take full advantage of the view to the bluffs to the north and west, but the large screen hinders some of the view. The grade is covered by loose pea gravel over broken asphalt paving.

According to the park the amphitheater has been used during summer months for Thursday evening special programs. An average of 70 people attend each program; most are from the Gering and Scotts Bluff area. According to the park program attendance has slowly receded over the years. Occasionally, special permits are issued for weddings and Easter services.

The amphitheater can only be accessed from two exterior gates. The only access directly from the Visitor Center is through a doorway passing through a private park office.

Public Restrooms
This small, utilitarian building provides the only public restrooms in the entire park. Constructed in 1938 of adobe, the building is separate from the Visitor Center, yet an integral part of its operation (Figure 45). The building may be founded over a latrine vault that was abandoned when reliable water service and a septic system was established.

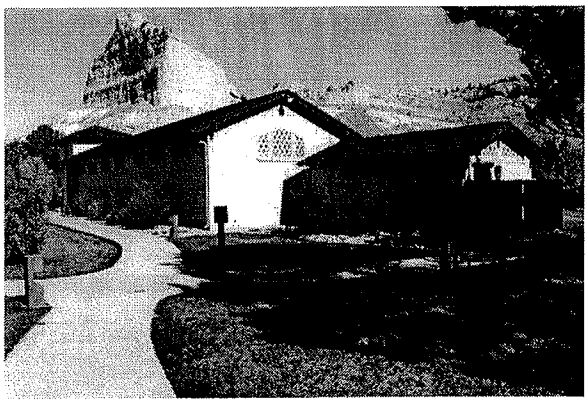


Figure 45 - Public Restroom Building, April, 2000. The public restroom building, seen at right in this view to the northwest, was constructed prior to addition of the Jackson Wing. The facility does not meet accessibility standards. (Photo by the author, SCBL 01-0).

Fixtures, water closet partitions, and plumbing have undoubtedly been replaced over the years, but its basic function remains intact. The last major rehabilitation of the building's plumbing may have occurred in 1966.[58]

Interior finishes include ceramic tile floor and plaster walls and ceilings in each restroom. A wood frame plumb wall with a two foot wide cavity separates the two restrooms. Each restroom is heated by a electric radiant unit, and ventilated during warm months by opening windows and doors.

[58] Cockrell, 1983 *Administrative History*, 63.

In general the building is in good condition, but the restrooms fail to meet accessibility standards (see Accessibility Assessment).

Plumbing Systems
When initially constructed well water was supplied to the complex. Contamination of this water supply during the early 1960s prompted installation of water chlorination equipment in 1964.[59] Between 1964 and 1983 the well was abandoned in favor of city water service. Most of the water distribution system and fire hydrants were replaced in 1984. The water distribution system within the Visitor Center has been upgraded from time to time and is in good operating condition.

Waste from the entire complex is piped to a leach field located about 100 feet northeast of the Visitor Center. According to park maintenance staff the system is in good condition, but will need to be inspected.

A sump pit and pump and a floor drain was installed in basement room 002 in 1962.[60] Air conditioner condensate lines currently run to the pit, but it is unknown if there was another motive for its installation. According to the drawings water is discharged outside of the south window well to grade.

Fire Suppression
Except for hand-held fire extinguishers and two hoses in rooms 001 and 103, there is no fire suppression system in the Visitor Center.

[59] Cockrell, 1983 *Administrative History*, 61.
[60] "Installation of Sump Pump, Administration Building, Scotts Bluff National Monument," NPS Drawing No. NM-SB 2501-N, 8 May, 1962.

Heating/Cooling Systems

The Visitor Center retains much of the forced air distribution system that was installed with the various construction phases. Furnaces were fueled by propane gas until a conversion was made to natural gas in 1990 at the time the existing high efficiency, dual furnaces were installed. The distribution is single zone, and air is filtered at the units. Galvanized steel ducts exposed to view are not insulated and the joints are not sealed. Supply and exhaust flues consist of PVC pipe drawn up the old masonry chimney stack. Air conditioning was first introduced to the building in 1957. Condensers are located within a fenced area north of the Jackson Wing.

The existing single zone distribution system is unbalanced and conditioned air does not reach certain areas of the building. The Jackson exhibit room relies upon the doorway to the Museum exhibit room as a return air port. Conditioned air consequently does not efficiently reach the east end of the Jackson room. Insufficient cooling is noted with particular regard to the theater (110) during the summer. The chief ranger office (113) apparently receives no direct conditioned air. According to park maintenance staff because very fine dust enters the building, public spaces must be dusted every other day.

Electrical & Lighting Systems

Electrical service is currently furnished by Roosevelt Public Power. Service at the panel consists of 120-240 volt, 3 phase, 150 amps power. According to the park the existing electrical power is sufficient for current requirements. The main panel and three sub-panels have been installed within the past two decades. Occasional, storm-induced power outages are of short duration according to the park. The electrical distribution system has been modified over the years. It was not closely inspected.

Most of the historic light fixtures were replaced by fluorescent and track-mounted fixtures since the 1970s as a result of exhibit and office rehabilitation work. Historic decorative fixtures include the lobby (101) chandelier, and exterior, incandescent craftsman-style sconces at door 106-D1 and each of the public restroom doors.

Lighting within offices is somewhat adequate, but lighting conditions within public areas is harsh, uneven, and poorly focussed. According to the park, visitors frequently comment on poor lighting conditions, particularly in the sales area. Visitors entering the lobby (101) directly from the bright, sunlit exterior suddenly encounter a space dimly lit by only the decorative chandelier. Visitors must usually take time for their eyes to adjust to the interior light levels before orienting themselves to the interior layout.

High ultraviolet light levels in the Jackson room was the primary reason that no original Jackson works are currently displayed. Lighting controls for the exhibit areas have always been concentrated in a recessed panel at the west wall of the lobby (101). These controls can be accessed by the public. Controls for Jackson room (115) ceiling fixtures are located seven feet above the floor.

No lightning protection is installed on the building, and there is no surge protection on the electrical system.

Communication & Security Systems

According to the park the existing phone system is adequate for employee use. There

is a public pay phone located at the front entrance porch.

The fire alarm system was installed in 1975 and improved in 1990.[61] Existing detectors consist of hard-wired smoke and rate of rise devices. The intrusion detection system, installed in 1990, consists of motion heads in the collections area, exhibit rooms, and primary entries. Control panels for each system, located at the north end of hall (106), operate on a dialer system. The control panels are a hindrance to door 106-D1 and restroom (108) accessibility (see *Accessibility Assessment*).

Hazardous Materials

Basement areas and certain exhibits tested for the presence of radon revealed that one exhibit case in the Landmark Room (110) had high levels of radon due to off-gassing from a large fossilized skull.

A small section of asbestos pipe insulation was sealed in the ranger office (104). Apparently, there have been no tests for the presence of asbestos in building materials.

According to the park no lead paint tests have been completed on the buildings.

Hanta virus was detected in six of 100 mice sampled near the Visitor Center in 1994. The presence of mouse activity above the basement conference room suspended ceiling precipitated a clean up of that space in 2001.

Archeology

There are no recorded prehistoric or historic features or sites in the immediate confines of the Visitor Center complex.[62] Archeological deposits have been detected in various locations of park grounds.

Accessibility Assessment

According to the park six to ten wheelchair users visit the site during summer months, and about one per month during the off season. Once past the parking lot the Visitor Center, disabled visitors encounter a number of barriers that impede their use and enjoyment of the site. In summary, there are no accessible restrooms on site for public and employee use, and all Visitor Center offices, the library, building entrances, and the visitor contact counter are not accessible under current standards.

The following handicap accessibility assessment is based upon conditions set forth in *the Uniform Federal Accessibility Standards*, 1985 edition, adopted by the National Park Service. Notations in brackets for this analysis refer to the specific referenced standard.

Site

Parking and sidewalks to the Visitor Center and public restroom building comply with current standards.

Doors

The primary public entrance into the Visitor Center, door 101-D1, meets width and threshold requirements. However, persons using wheelchairs or other assistance devices usually require help to open the heavy door to enter or exit the building. Two reasons for the required assistance include, a strong opening force is required [4.13.11], and the visitor contact counter does not provide the required twelve inch

[61] Cockrell, 1983 *Administrative History*, 64.

[62] Midwest Archeological Center Archeologist Bruce Jones to Alan O'Bright, email message, 20 June, 2000.

clearance for pushing the door open at the latch side [4.13.6].

Employee entrance door 106-D1, does not meet standards on several counts. The exterior screen door requires excessive force to open [4.13.11]. The threshold exceeds the standard ¾ inch height and slope [4.13.8]. For a side approach at the interior the present hall 106 does not meet the minimum requirement of 48 inch width [4.13.6]. While the door exceeds clear opening requirements, operation is hindered by security panel boxes on the north hall wall. This hindrance in turn partially blocks entrance to the employee restroom 108.

Emergency egress door 115-D1 does not meet the minimum 32 inch clear width opening [4.13.5]. The double leaf door 112-D1 meets no accessibility standards due to the stairs, and blocked door.

The Visitor Center fails to meet the minimum standard for at least one accessible route into the building.

Accessible Routes
All routes within Visitor Center exhibit rooms meet accessibility standards. The hall (106) use by employees only does not meet requirements for minimum passage width [4.3.3]. Congestion is also caused by the frequently-used stair doors swinging into the hall.

Positioning of the visitor contact counter does not provide minimum clearance for disabled employees attempting to service the counter or enter ranger office 104 [4.3.3]. Door 104-D1 fails to meet the minimum clearance width opening [4.13.5]. In summary, the ranger office is inaccessible according to the standards.

No elevators exist within the Visitor Center. Therefore, all basement rooms including the conference/library room, employee break room and kitchen, sales office and storage, and collections storage fail to meet accessibility standards with regard to the public and employees. Offices 112 and 113 do not meet the standard for accessible routes due to the stair barrier. The library specifically is considered open to the public by permission, but fails to meet the standard [8.1].

Visitor Contact Counter
The existing visitor contact counter exceeds the required minimum height for service counters [7.2]. According to the standard, an auxiliary counter of a maximum 34 inches in height shall be provided.

Stairs
All stair sets within the Visitor Center are constructed of concrete and have not been modified since construction of the building. All stair sets fail to meet the required 11 inch tread depth [4.9.2]. Although each of the stairs feature uniform risers, stair 114 exceeds the recommended maximum height of around 7½ inches.

Restrooms
The public restroom building fails to meet accessibility standards on numerous counts. The sidewalk approach to the women's room does not meet requirements as an accessible route due to the constricted nature of passageway between the buildings and garden wall [4.3.3]. The doors are extremely narrow [4.13.5] and do not meet minimum maneuvering clearances [4.13.6]. The interior of each room does not meet maneuvering requirements [4.2.3], and there are no accessible toilet stalls, urinals, and lavatories [4.17, 4.18 & 4.19].

According to the park whenever a wheelchair user needs access to a restroom, employee restroom 108 is made available. The user requires substantial assistance to access the restroom however. The restroom fails to meet the standards in several areas. Exterior door 106-D1 does not provide an accessible route (see *Accessible Routes*). While the restroom door meets opening requirements, the passageway to that door is partially blocked by the door 106-D1. Full extension of the exterior door is blocked by security panel boxes protruding from the north wall of hall 106. The door latch side of 108-D1 does not meet the minimum clearance requirement of 12 inches [4.13.6]. The restroom fails to meet minimum wheelchair turning requirements [4.2.3].

Two other employee restrooms located in the administration and maintenance buildings likewise do not meet accessibility standards for various reasons.

Drinking Fountain
The only drinking fountain available on site to the public and employees is located in hall 103 of the Visitor Center. The fountain does not meet accessibility standards [4.15].

Public Telephone
The only public telephone on the site is located above a bench within the front entrance porch. The phone is placed in an awkward position in relationship to operation of entrance door 101-D1. The phone does not meet height and reach clearance standards [4.31].

Exhibits & Sales Area
Most exhibits in the Visitor Center were installed prior to legislation of accessibility standards. Many exhibits, and particularly the text cards, may be difficult for most disabled persons to view or read. Light conditions of some exhibits are spotty and uneven. The computer exhibit on the west wall of hall 103 is mounted too high for use by wheelchair users. Arrangement of sales shelves is very restrictive and does not allow wheelchair users the opportunity to turn or maneuver. A wheelchair user within the confines of the sales shelves virtually precludes other people from occupying the space.

Administration Building
Although the administration building is not specifically included in this report, functions within the building may have a bearing on Visitor Center design issues. The building contains receptionist, administrative officer, and superintendent offices, mail and photocopy room, administrative files, and miscellaneous office storage. The primary entrance meets accessibility standard requirements except for the elevated threshold [4.13.8]. Because of steps and tight maneuvering space at a back hall, the rear door is not accessible. The administrative officer's and superintendent's office doors fall far short of the minimum required opening [4.13.5]. The restroom and restroom door are too small, and the hall too constricted to comply with the standards. The mail and administrative file room, and the receptionist office are the only accessible spaces in the building.

Accessibility Summary
Site parking and circulation surrounding the Visitor Center are essentially the only accessible areas of the complex. While primary exhibit spaces within the building are accessible, the routes to them are not. According to the given standards, disabled persons must have *unassisted* accessible routes. There are no accessible public or employee restrooms in the park. There is only one accessible office space in the park,

the receptionist office in the administrative building, if the door threshold is corrected. While some minor items can be corrected to meet the standards, major work will be required to bring the building up to standard.

Life Safety Evaluation

Nebraska adopts the Uniform Building Code (UBC) administered by the International Conference of Building Officials. Notations in brackets for this analysis refer to the specific referenced standard.

Occupancy

The Visitor Center is considered a mixed use occupancy consisting of Group A-3, assembly and Group B, business. Group A-3 occupancy is characterized as "a building or portion of a building having an assembly room with an occupant load of less than 300 without a legitimate stage, including such buildings used for educational purposes..." [303.1.1]. Group B occupancy is characterized as "...buildings, structures, or portions thereof, for office, professional or service-type transactions..." [304.1].

Fire Separation

According to the code no fire separation is required between Group A-3 and Group B occupancy [Table 3-B], except when Group B occupancies are located below Group A-3. For the Visitor Center a one hour fire rating is required between the basement and first floor; a requirement by the first floor heavy concrete slab.

Egress

The following occupancy load factors were used in the calculation of existing egress requirements [Table 10-A]. Existing fixed exhibit cases were not included in the area calculations.

Occupancy	Load Factor ft^2	Total Net Area ft^2
Group A-3, Room 110	7	470
Group A-3, Exhibit areas	15	1,330
Group B, 1st floor offices	100	500
Group B, basement offices	100	1,650

For theater 110 a minimum of two exits are required for the room. At present there is only one exit passing through hall 103 and lobby 101.

For the exhibit areas including rooms 101, 102, 103, and 115 a minimum of two exits are required. The current exits at doors 101-D1 and 115-D1 satisfy this requirement.

For first floor offices the minimum requirement of one exit is required. Current exits satisfy this requirement provided that door 112-D1 is kept clear of office equipment.

For the basement offices the minimum requirement of two exits is satisfied by the code. The travel distance from conference room 102 to door 112-D1 is less than the maximum of 150 required by the code [1003.4.1]. However, the path from stair 114 through office 112 to egress door 112-D-1 must remain clear of office furniture and equipment [1003.5], and the door must remain unlocked during normal business hours with a posted sign stating this fact [1004.3]. The basement window escape hatch at office (011) does not qualify as a means of egress.

Corridors

There are a number of deficiencies in existing hallways in the building. A five foot length of hall 106 does not comply with a minimum corridor width of 36 inches [1005.2]. The swing of door 107-D1 projects within that same hall well beyond

the maximum 7 inches allowed by the code. [1005. 4].

Basement corridors comply with width but not height requirements. Substantial ceiling projections within halls 004 and 006 measure almost one foot less than the 7 feet minimum required by code for corridors [1005.3]. Large ducts and plumbing pipes are the primary protrusions.

Stairways
All stairs exceed the required 36 inch minimum width. While handrails on stairs 107 and 114 meet the requirements, there are no handrails on stair 111 [1006.9]. Stairs 107 and 114 fail to meet the maximum required riser height of 7 inches and minimum tread depth of 11 inches [1006.3]. Stair 111 has a uniform riser height 6 inches which is allowed by the code, but the 10 inch tread depth does not comply.

Exit Signs
Exit signs are required where two or more exits are required from a story [1013.1]. There are exits signs for door 115-D1 and stair 114 at the basement, but nowhere else in the building.

Water Closets
The current quantity of fixtures, including water closets and lavatories is sufficient according to the code [2905, Table A-29-A]. However, all restrooms are not accessible as required by the code [1105.2.2].

Existing Space Allocation

The following tabulates existing gross floor area by room within the Visitor Center.

Visitor Center

Basement

Room	Function	Area (sf)
001	Break Room	160
001A	Closet	17
002	Lockers/Storage	65
003	Mechanical	88
004	Hall	47
005	Conference/Library	498
006	Hall	194
007	Sales Storage	194
008	Sales Office	64
009	Sales Storage	38
010	Kitchen	65
011	Office	300
012	Collections	249
013	Storage	90
	Total Basement Area	2,069

First Floor & Tower

Room #	Function	Area (sf)
101	Lobby	191
102	Exhibit	620
102	Sales	120
103	Hall	97
104	Ranger Office	110
105	Tower Stair	15
106	Hall	48
106A	Closet	4
107	Stair	30
108	Employee restroom	45
109	Closet	27
110	Theater/Exhibit	673
111	Stair	39
112	Resource Management/Historian Office	276
113	Chief Ranger Office	110
114	Stair	41
115	Exhibit	558
201	Tower Storage	130
	Total First Floor & Tower	3,134

Exterior Space

Function	Area (sf)
Amphitheater	4,900

Visitor Center by Function

The following tabulates existing gross area within the Visitor Center by function.

Function	Area (sf)
Exhibit/Visitor Contact	1,921
Sales	416
Office	796
Conference/Library	498
Collection Storage	249
Employee Services	270
General Storage	333
Mechanical	88
Circulation	632
Total	5,203

Administrative Building

The following tabulates existing gross area within the administrative and maintenance buildings.

Function	Area (sf)
Clerk Office & Foyer	216
Superintendent's Office	200
Administrative Officer's Office	156
Mail and File Room	143
General Storage	230
Total	755

Maintenance Building

The following tabulates existing gross area of the maintenance building offices.

Function	Area (sf)
Chief of Maintenance Office	125
Maintenance Mechanic Leader Office	90
Restroom	40
Misc. Storage	70
Garage Bays (estimated)	3,500
Total	3,825

Public Restroom Building

Function	Area (sf)
Mens' Room	84
Women's Room	82
Janitor Storage	18
Total	184

Existing Space Analysis

Built decades ago during a period of low visitation, it is obvious that contemporary visitor loads and demands have far outpaced the inelastic space offered by the Visitor Center. Expansion into the basement may have relieved some of the pressure, but these areas were not initially intended for office functions and consequently provide spaces not in compliance with contemporary building codes and egress standards. As time progressed spaces were delegated multiple tasks. This has lead to a diminished visitor experience and crowded employee working conditions.

Visitor Contact

The lobby (101) is the first space visitors see upon entering the Visitor Center. The lobby is also a focal point of visitors circulating between the theater and exhibit areas. Visitor egress is impeded by the contact counter that is pushed to the edge of the entrance door. Lines forming at the counter by visitors seeking information, paying entrance fees, or purchasing sales items, are a hindrance to free flow of traffic in and out of the building. Additional crowding is caused by sales items displayed on walls and the corner bench.

In the hall (103) lines forming at the display case, computer display, and drinking fountain impedes the flow of visitors between the lobby and theater. Dark wall paneling also implodes the perceived size of this space.

Exhibit Spaces

Overall, exhibit space appears adequate to interpret the story of the Oregon Trail and related issues. However, multi-tasking of those spaces has lead to crowded circulation and diminished presentation of the actual exhibits. In the Landmark Room (110) lights must be extinguished every half hour for slide presentations, eliminating any chance of visitors to view the exhibits. There is no sound barrier to noise filtering from the lobby and hall into the theater during presentations. The projection window is so low that the heads of seated visitors frequently intrudes on the presentation.

The sales area is located in the middle of the Museum Room, pushing circulation to perimeter exhibit cases and occupying space that might have been used for exhibits. Lowered ceilings in the three exhibit rooms also add a touch of claustrophobia to the already crowded spaces. Visitors are also shunned from viewing anything to the outside as all windows have been sealed.

Exhibits are deemed well beyond their prime. The only interactive computer exhibit is not accessible.

Sales

The sales area within the Museum Room (102) can only accommodate a few visitors at a time. Display shelves and racks must be turned in rather than out toward the exhibit cases so as to protect the free flow of traffic around the sales area. According to the park, the Oregon Trail Museum Association frequently complains of the lack of display space in the Visitor Center.

Sales items are purchased at a sales-dedicated cash register located at the visitor contact desk. According to the park visitors are frequently confused by which register in which to queue for sales. Credit card sales are verified at a machine located within the ranger office. This causes security concerns as the sales cash register is out of sight during credit verification activities, and

Association personnel have access to the park office for this process.

The basement sales office and storage areas are remotely located from the sales area. This prevents Association employees from manning the sales register and with direct access to the office. The sales office can best be described as a hole in the wall. Storage rooms are organized but crowded. There are no security locks on the doors; the sales office has no door.

Public Restrooms
Public restrooms are in a building separate from the Visitor Center, and are not accessible (see *Accessibility Assessment*). Visitors using wheelchairs are forced to use an employee restroom with assistance from others. That restroom is also not accessible.

Offices
Offices within the Visitor Center are characterized as cramped and cluttered. Cleaning out old files and manuals, removing redundant office furniture and equipment, and reorganizing furniture and equipment that remains could provide additional space. But the fact remains that too many employees are crowded into spaces that were designed for only a few. Tasks within those offices have become more complex and diversified over time. The quantity of park files and manuals increases with time resulting in occupation of vital space with file cabinets. During the peak summer visitation period incoming seasonal employees have no space for personal articles.

The ranger office (104), focal point for many activities, is especially overcrowded during the summer. This area that should be secure is open to access by Association employees, and at times by visitors seeking minor first aid. None of the Visitor Center offices are accessible for people with mobility impairments.

Conference/Library
The approximate 5,000 item library collection outgrew its bounds decades ago. This necessitated the rehabilitation of what was essentially a basement furnace room for use as combination library and conference room. However, recent technological advances in concert with spatial constraints have prompted the park to locate their email server and an email station in this space. Audio visual equipment is stored in the open wherever it fits.

The room is characterized as sufficiently open for small meetings, but cave-like due to the very low ceiling and absence of windows.

Books are stored in steel, glass-faced barrister cases located along the walls. Since the furnace is only a single-zoned unit, temperature and humidity are principally geared for human comfort rather than book preservation.

According to the park the library is open to the public for research purposes, but the space is not accessible. The nature of the room and bookcases do not afford adequate security.

Collections Storage
Enclosed by concrete and brick, the collections storage vault (012) is considered virtually indestructible. But the addition of artifacts over time has outstripped available space. There is no climate control within the vault, but hygrothermograph readings indicate that temperature and humidity are maintained at constant, ideal levels.

Employee Services
The employee lunch room and kitchen were carved out of space within the basement probably in the 1970s. Both rooms are out of bounds to wheelchair users. Ducts and pipes hanging from the ceiling prove to be a challenge to fairly tall people. The lunch room is so small that groups of employees must eat designated in shifts. The crowded conditions are also amplified by the fact that the table is in a direct line of circulation between the stair and conference room.

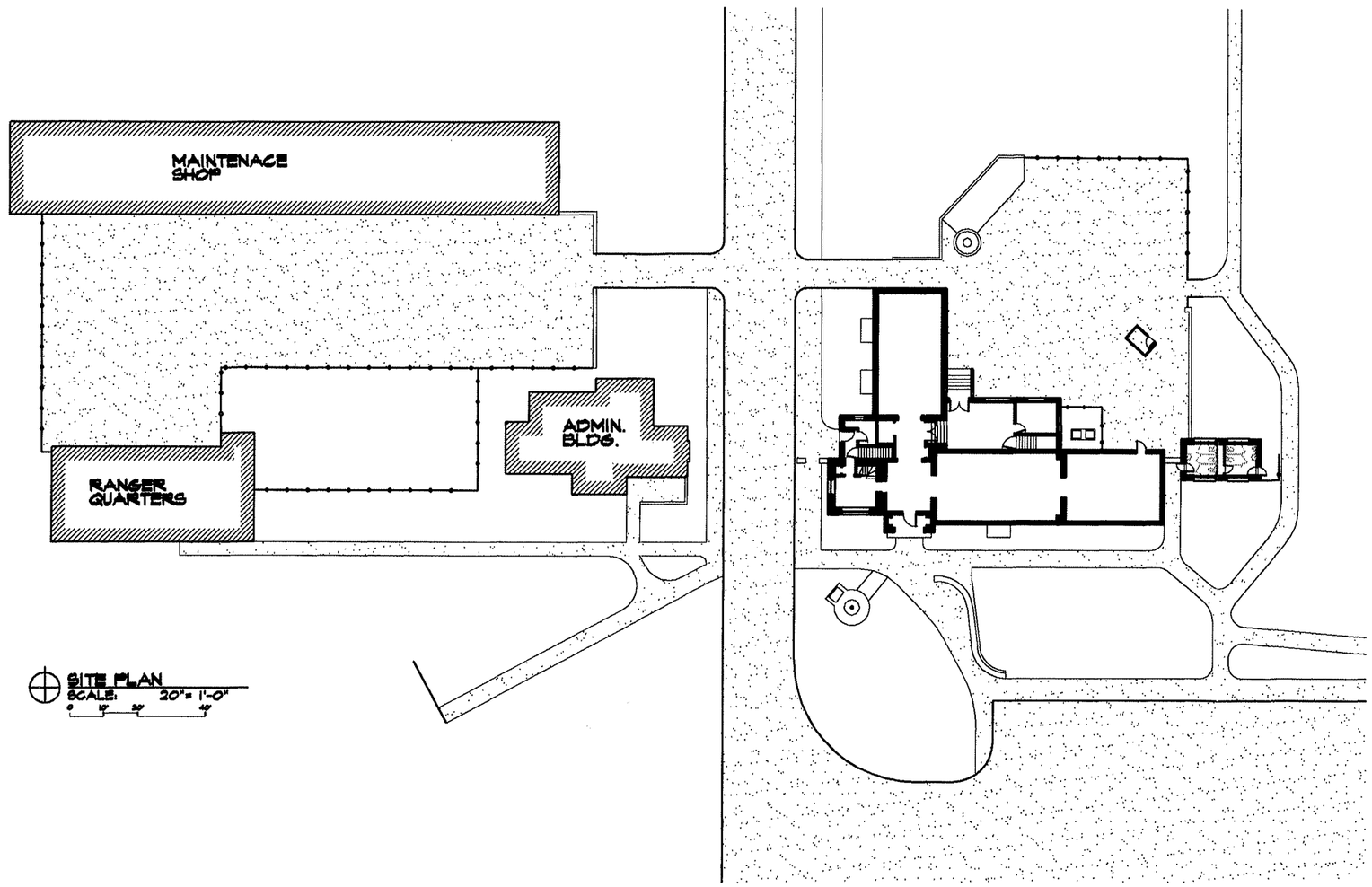
The kitchen is but a hole in the wall; only one person can occupy the space at a time. A sewer pipe is suspended directly over the stove and sink.

A single unisex restroom is the only one available to employees within the Visitor Center. The room does not conform to current accessibility standards.

Storage
What little storage available in the Visitor Center is completely full. As a result miscellaneous equipment, files, and manuals must be stored in offices out in the open or tucked away in whatever spaces are available. A small basement storage room (013) was intended to be a dressing room, but now is so packed with costumes and other interpretive gear that dressing is nearly impossible. Even residual space in the furnace room (003) is used as storage for folding tables and chairs.

Amphitheater
The amphitheater features wonderful views of the bluffs to the north. The place is certainly functional for occasional special events, but underused. There is no direct circulation path from the interior except from private offices. The presence of fixed benches tends to preclude any event requiring open ground. The board fence, large screen, and concrete stage are not in keeping with the design of the building.

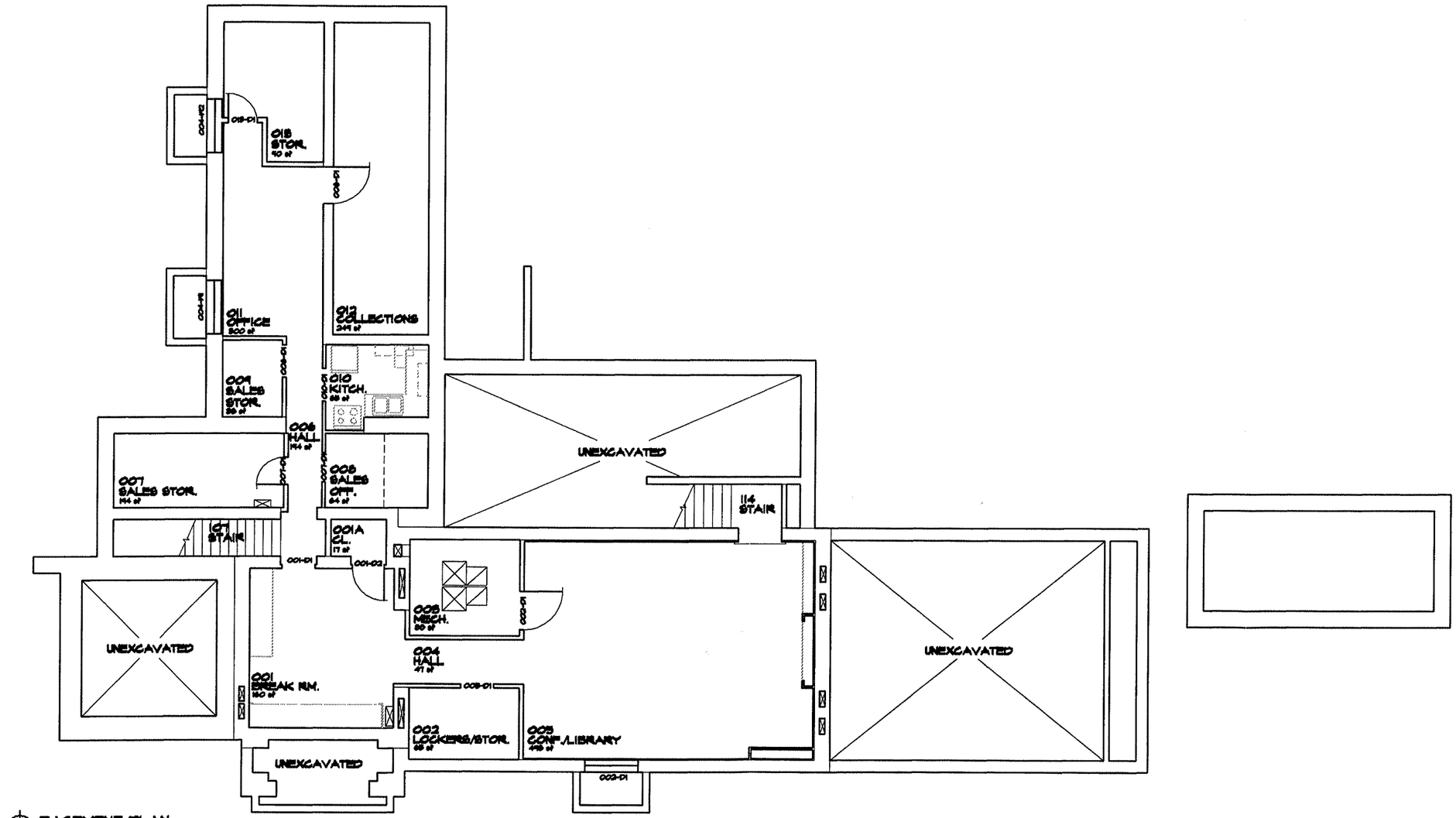
Existing Conditions Drawings
The following drawing set was developed using archived construction drawings, site plans, and field notes taken April 2000. These drawings are in AutoCAD.



SITE PLAN
SCALE: 20" = 1'-0"
0 10' 20' 40'

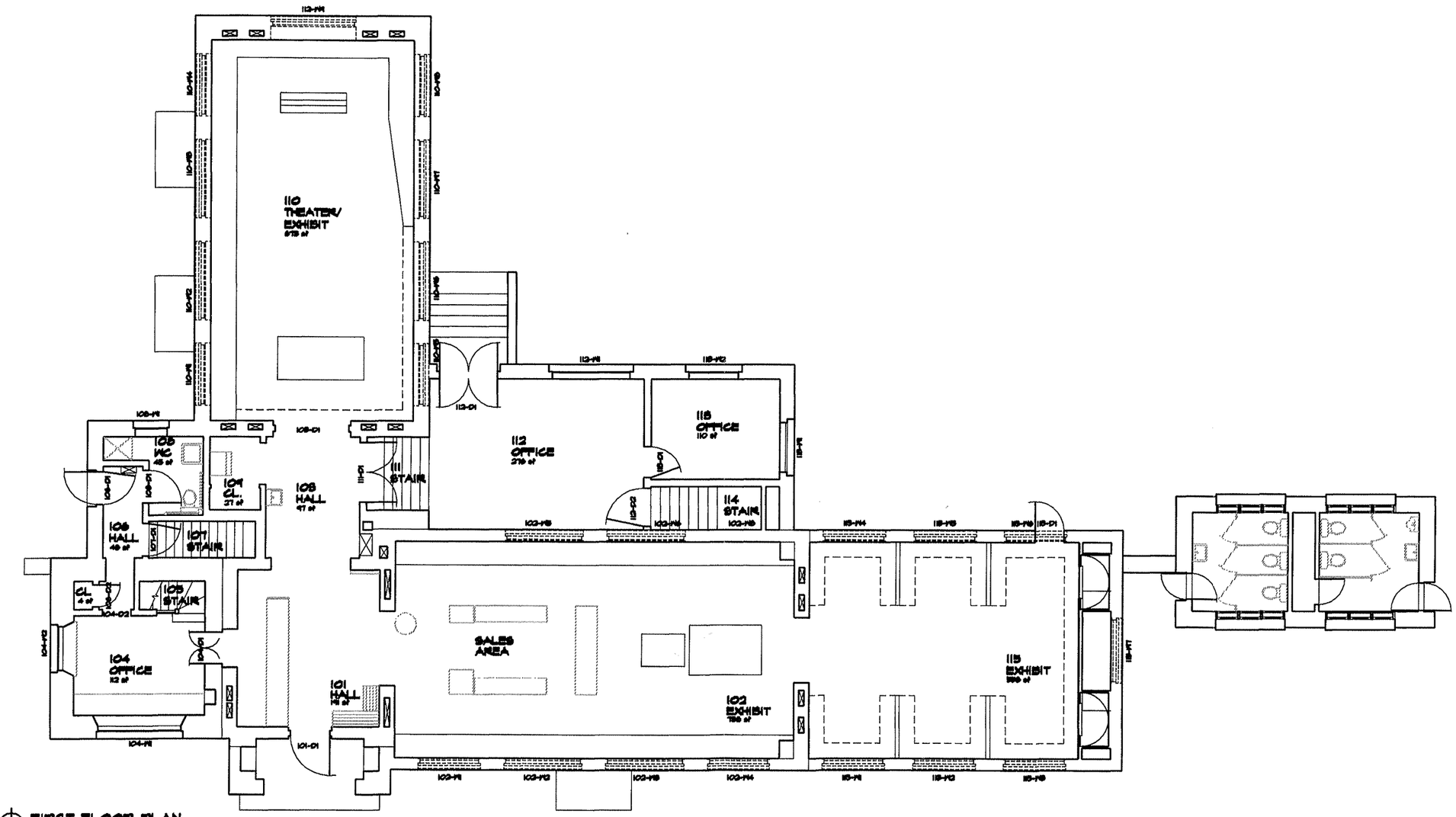
SITE PLAN DERIVED FROM NM-SB/3002-1, 317/41005 & 317/80019, AND 2000 FIELD NOTES

REVISED		PREPARED	RECOMMENDED	UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE REGIONAL DIRECTOR'S OFFICE	DRAWING NO. 317/80081
DATE	INITIAL	DESIGNED A.M. O'BRIGHT	PARK SUPERINTENDENT DATE		ACAD NO. 317-80081-01
		DRAWN A.M. O'BRIGHT	CONCURRED	EXISTING CONDITIONS VISITOR CENTER SCOTTS BLUFF NATIONAL MONUMENT GERING, NEBRASKA	SHEET 1
		CHECKED 9/27/2000	MWRO SUPERINTENDENT DATE		OF 7
		DATE	APPROVED MWR DIRECTOR DATE		



BASEMENT PLAN
SCALE: 3/16" = 1'-0"

REVISED		PREPARED		
DATE	INITIAL	DESIGNED A.H. O'BRIGHT	EXISTING CONDITIONS VISITOR CENTER SCOTTS BLUFF NATIONAL MONUMENT GERING, NEBRASKA	DRAWING NO. 317/80081
		DRAWN A.H. O'BRIGHT		ACAD NO. 317-80081-02
		CHECKED		SHEET 2 OF 7
		9/21/2000 DATE		



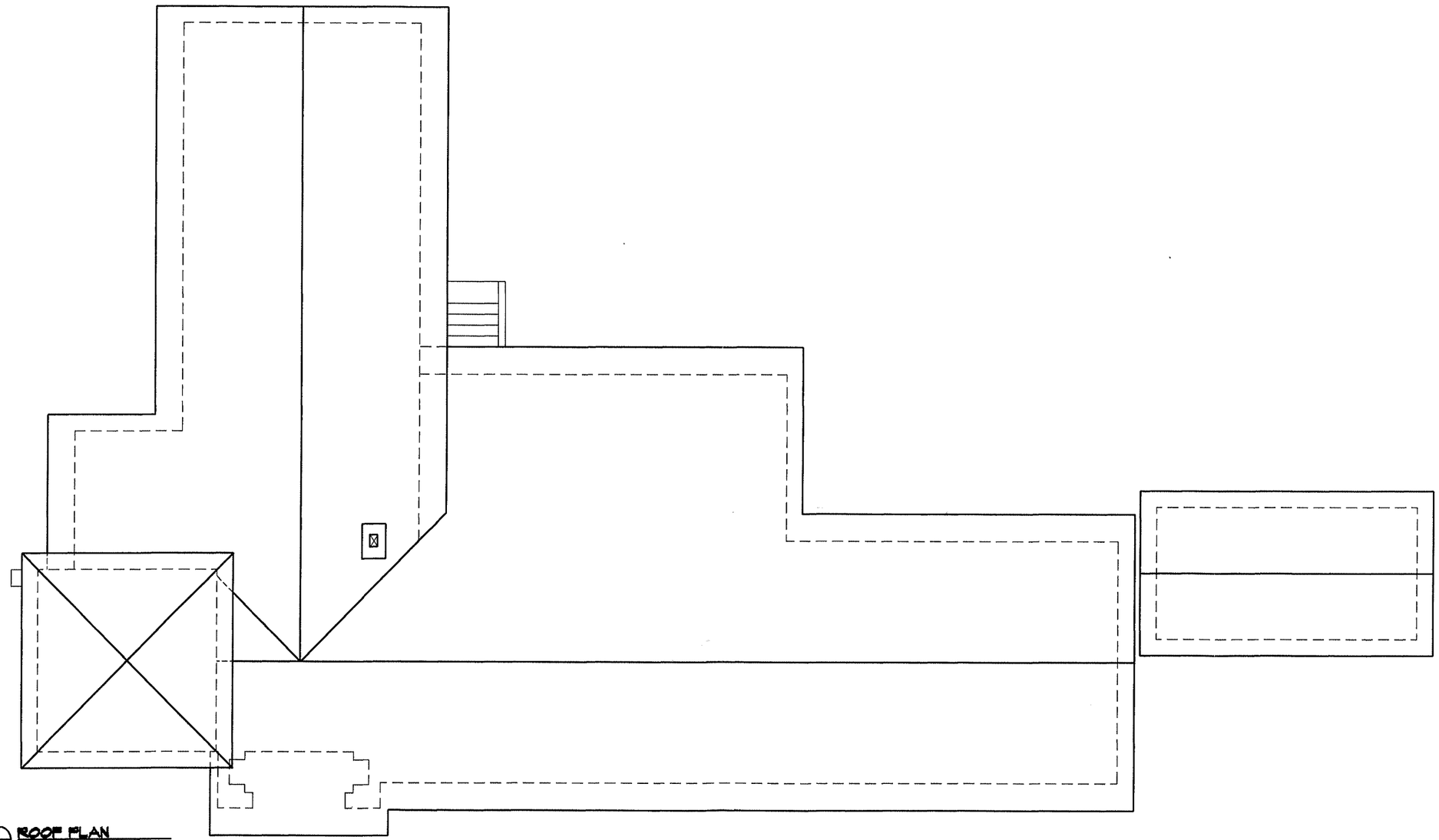
FIRST FLOOR PLAN
SCALE: 3/16" = 1'-0"
0 1' 2' 4' 8'

REVISED	
DATE	INITIAL

PREPARED
DESIGNED A.R. O'BRIGHT
DRAWN A.R. O'BRIGHT
CHECKED
4/21/2000
DATE

EXISTING CONDITIONS
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO. 317/80081
ACAD NO. 317-80081-08
SHEET 3 OF 7



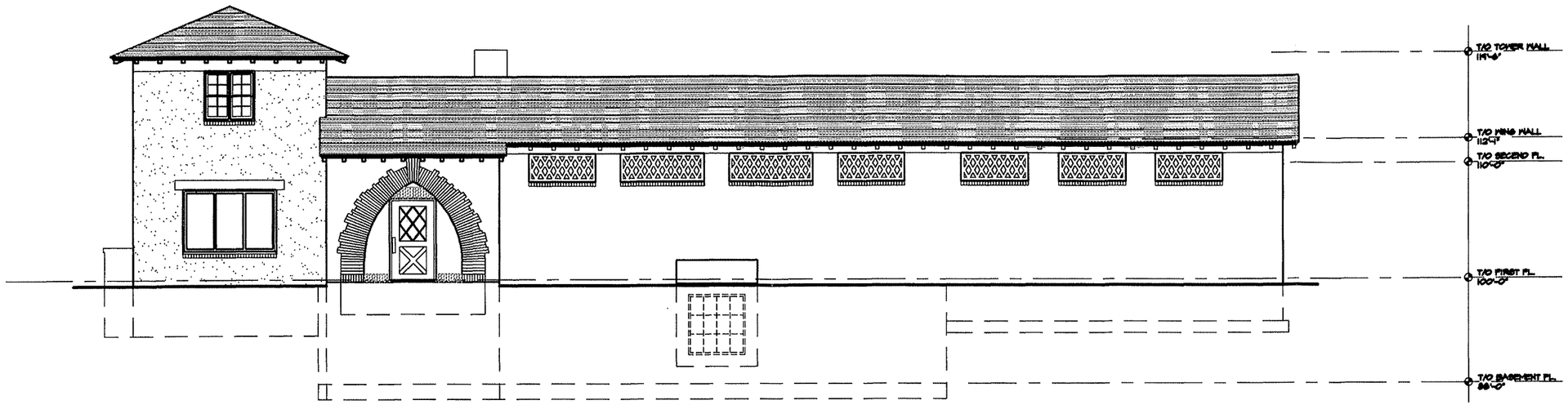
ROOF PLAN
SCALE: 5/16" = 1'-0"
0 1' 2' 5' 10'

FLOOR PLAN DERIVED FROM 317/80101 & 317/80071, AND FIELD NOTES DEVELOPED APRIL 2000

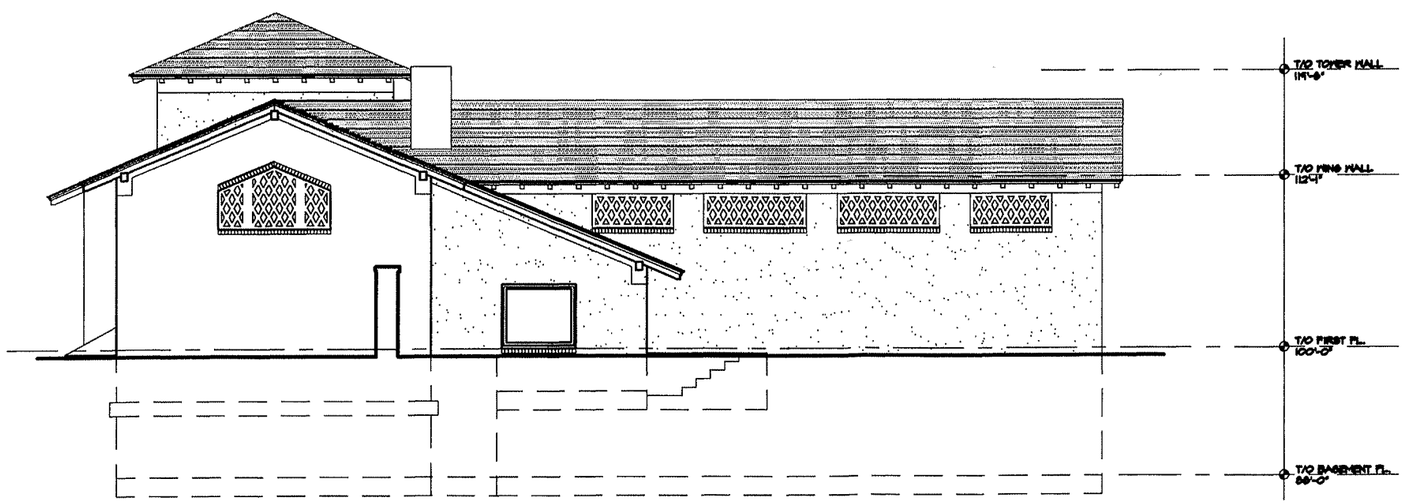
REVISED		PREPARED		
DATE	INITIAL			
		DESIGNED	A.H. O'BRIGHT	
		DRAWN	A.H. O'BRIGHT	
		CHECKED	4/27/2000	
		DATE		

EXISTING CONDITIONS
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO. 317/80081
ACAD NO. 317-80081-04
SHEET 4 OF 7



SOUTH ELEVATION
SCALE: 3/16" = 1'-0"



EAST ELEVATION
SCALE: 3/16" = 1'-0"

REVISED	
DATE	INITIAL

PREPARED

DESIGNED A.M. O'BRIGHT
DRAWN A.M. O'BRIGHT
CHECKED
4/21/2000
DATE

EXISTING CONDITIONS
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO. 917/80081
ACAD NO. 917-80081-03
SHEET 5 OF 7

NORTH ELEVATION
SCALE: 3/16" = 1'-0"
0 1' 2' 5' 10'

WEST ELEVATION
SCALE: 3/16" = 1'-0"
0 1' 2' 5' 10'

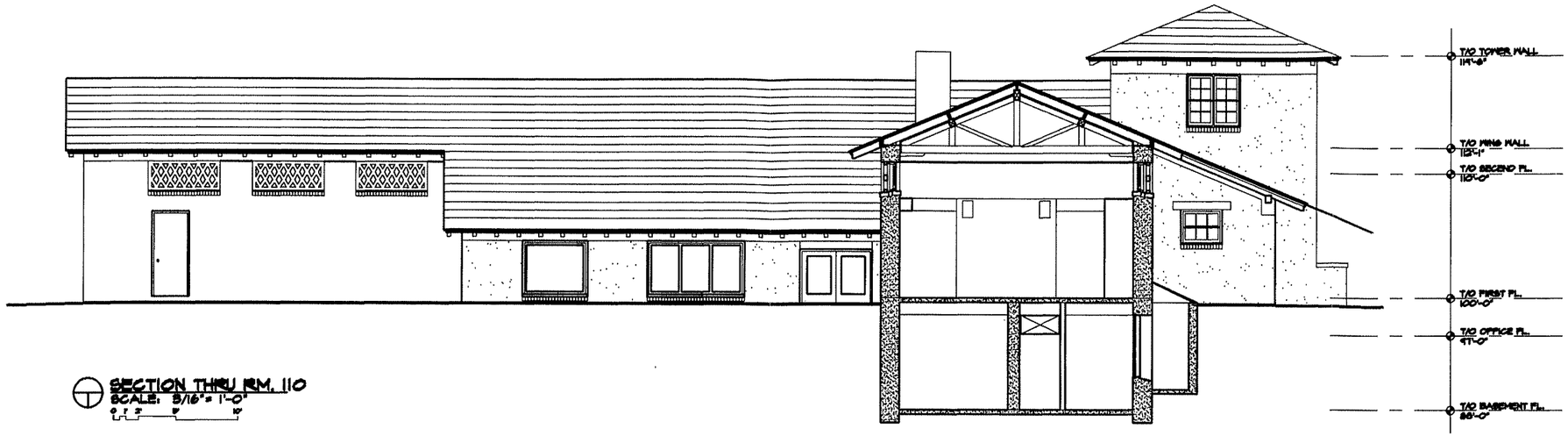
REVISED	
DATE	INITIAL

PREPARED

DESIGNED
A.M. O'BRIGHT
DRAWN
A.M. O'BRIGHT
CHECKED
4/27/2000
DATE

EXISTING CONDITIONS
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO.
917/80081
ACAD NO.
917-80081-06
SHEET 6
OF 7



SECTION THRU RM. 110
SCALE: 3/16" = 1'-0"
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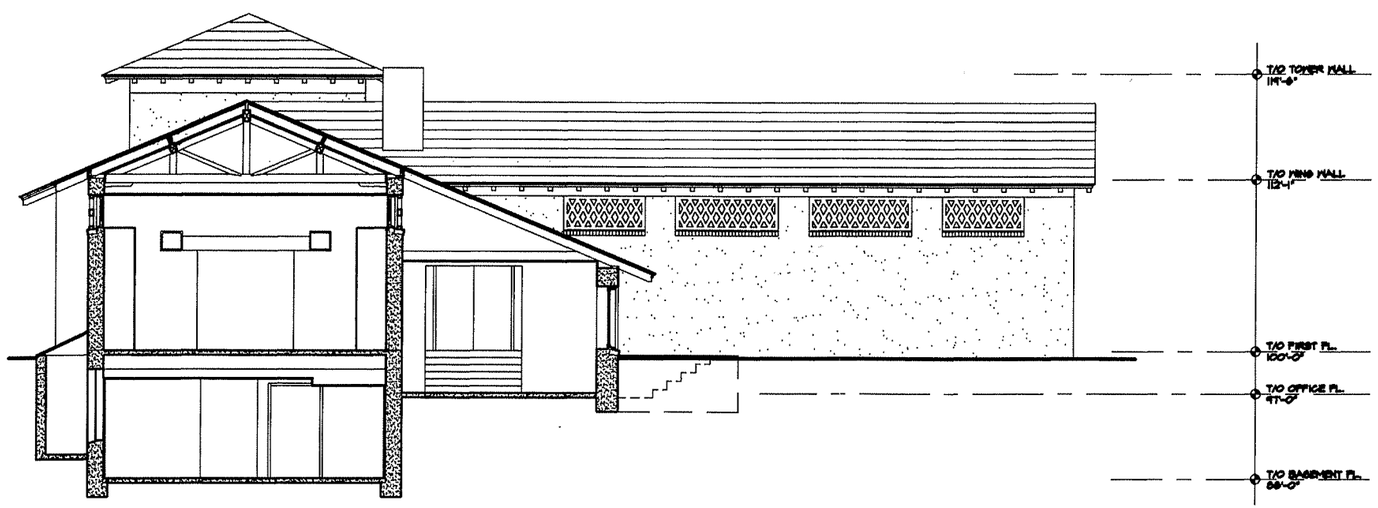

SECTION THRU RM. 102
SCALE: 3/16" = 1'-0"
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REVISED	
DATE	INITIAL

PREPARED

DESIGNED: AJL O'BRIGHT
DRAWN: AJL O'BRIGHT
CHECKED:
9/27/2000
DATE

EXISTING CONDITIONS
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO. 817/80081
ACAD NO. 817-80081-07
SHEET 7 OF 7

PART TWO: TREATMENT AND USE

DESIGN PROGRAM

Site

Any alterations made to the Visitor Center should be compatible with the complex of buildings. The view of the Visitor Center from the bluff overlook and trails must also be considered. When viewed from the trail, distance and the broad natural vistas diminish the clarity and perception of massing and detail of the complex.

Building

The Visitor Center should appear unified as visitors approach the site from the highway, enter the parking lot, and park their vehicles. Any new additions should stay within the footprint of the existing building and amphitheater. Any alterations or additions to the building should be in character and scale with the heavy massing, simple lines, and detailing of the existing Spanish Colonial structure. Exterior fenestration, texture, and colors of any additions should also closely match that of the existing structure, yet be distinguishable from the older structure. Attaching new constructions to adobe facades should be avoided as much as possible to ease detailing challenges around the fragile adobe.

Interior View

A view of the bluffs should be provided from the interior, provided that natural light does not interfere with conservation of light-sensitive exhibits.

Entrance

The existing south doorway should be retained as the primary visitor entrance. The tower and arched doorway serve to draw visitor attention to the primary entrance.

Visitor Contact

The visitor contact counter should be placed in an area visible to the visitor entering the lobby. The counter should have a view into the sales and exhibit area, and access to the theater. Queues at the counter should not impede general circulation patterns. All fee transactions should take place at the counter without having to move to another room. Floor and wall space should be provided for the park passport stamp, brochures, and informational displays. Seating for weary or waiting visitors should be provided in the vicinity of the lobby and visitor contact counter.

Exhibit Rooms

Exhibit room area should remain at about the existing 1,900 square feet total exclusive of its present dual use as theater and sales. Original trussed ceilings in existing exhibit rooms 102 and 110 should be exposed to view. The original ceiling height in room 115 may be re-established. Windows may be exposed and restored depending upon use of the rooms. Should new exhibit rooms be constructed, the area should be open to accommodate new exhibit design. Exhibit spaces should be uniformly heated and cooled to assist in protection of displayed materials. Lighting should enhance visitor enjoyment of the exhibits yet provide visual security of objects on display.

Theater

A room solely dedicated for use as a theater should be provided. The theater should seat at least 75 persons, each of whom have an unobstructed view of the screen. The theater should be acoustically isolated from adjacent noisy areas. Seats may be unfixed so the space can be flexibly used for

occasional special events or meetings. Adjacent space should be set aside for storage of audio visual equipment.

Sales
If possible, a space should be dedicated for the sales area only. The sales office and storage can be segregated from the sales area, but should be readily accessible to the sales area. The visitor contact counter will include a register for sales items. Therefore, sales should be located near the visitor contact area for security purposes. Sales office and storage should be securable.

Amphitheater
Some form of outdoor meeting place has been in association with the Visitor Center since construction of the first addition in 1938. The trend should continue to provide visitors with a place for at least 100 persons to comfortably gather for special events and presentations. The place should have a view of the bluffs to the north and west.

Public Restrooms
Accessible public restrooms should be provided within the visitor center. The restrooms should be located as close as possible to the front entrance. Each restroom should include at least three toilet fixtures, two lavatories, and a baby changing station.

Visitor Services
Vending machines should be isolated from all interior public spaces to prevent accidental spills in sales and exhibit areas. Recycling and trash cans should be located within the vending machine area. The existing public pay telephone should be relocated to an accessible place out of primary circulation pathways.

First Aid
Space should be dedicated as a public first aid station located near an entrance but not within a secure area or private office.

Offices
It is assumed for this design exercise that offices for the secretary, administrative officers, superintendent, chief of maintenance, and maintenance mechanic leader will remain in their existing locations or be moved outside of the park as directed by the GMP. Permanent office spaces should be located on the ground floor to ready access and support to the exhibit and visitor contact areas. All Visitor Center office spaces should at least accommodate a desk and/or computer desk, work table, file cabinets, book shelves, and space for general storage. The ranger office (104) should remain in its existing, pivotal location. Each office should have adequate electrical power and phone terminals. Artificial lighting and environmental controls meet contemporary standards. The Visitor Center should contain the following office spaces:

Park ranger office (104)
Chief ranger office
Resource management specialist
Interpreter office
Park historian

Office Storage Room
A room or space should be provided to house a photocopier, and general office supplies, files, and equipment. The space should be readily accessible to the offices.

Seasonal Locker Room
An area should be designed to accommodate at least eight summer seasonals. The space should include lockers for each seasonal for personal items. The space may include a desk. Costume storage should be adjacent to

the locker room, but the locker room can be isolated from the general office area.

Conference Room
A conference room accessible to all employees should be provided. The room should be able to comfortably seat all park employees for meetings and training. A table should be provided in the middle of the room for meetings and presentations. Wall space should be dedicated for a screen and blackboard. The conference room can double as a lunch room.

Library
A space should be dedicated for the shelving of the existing collection of 5,000 books, with expansion capacity for 1,000 additional volumes. A reading/layout table, a desk for library computer catalog, the email server computer desk, desk for a microfilm reader, a map file, and one file cabinet should be accommodated within the room. The library should be accessible to approved researchers, yet be secure. The library should have environmental controls to conserve the materials.

Collections Storage
Collections storage space should be expanded to relieve overcrowding and provide for additional future acquisitions. The existing storage area (112) may remain in its present location, although another new basement area should be considered. The existing area is secure and appears to be in an ideal environment to conserve artifacts. However, expansion of the existing space may be difficult due to the quantity of existing ducts and pipes at the ceiling. A work space that includes a layout table and computer desk should be located adjacent to the collections storage room. Collections storage should have a dedicated mechanical system, and fire suppression system.

Employee Services
An accessible lunch room with integral or adjacent kitchenette should be provided for employees. The lunchroom may be sized to accommodate employee meetings. All employee restrooms should be accessible, and should be located as close as possible to employee offices. A unisex restroom is acceptable although the design should strive for separate men's and women's rooms.

Janitor Closet
A small space should be dedicated near the public restrooms for a slop sink and storage of cleaning products.

General Storage
Ample space should be provided for the storage of folding chairs and tables, interpretive props, office supplies, the gun safe, and other items.

Mechanical System
Alternatives should be explored to provide a multiple-zone mechanical system for the Visitor Center. The system should provide uniform heating and cooling throughout the designated zones, especially within the theater and exhibit rooms. Space should be provided to accommodate mechanical equipment. Consideration should be given toward installing a ground source heat pump to heat and cool the structure. The closed loop system would operate by extracting energy from deep holes bored into the ground. No exterior condenser units are required, thus eliminating a visual intrusion. Ground source heat pump systems typically halve space heating and cooling energy consumption, but installation costs are approximately twice that of conventional systems. The anticipated system life is over 50 years.

Fire Suppression
The entire interior of the building should be protected with a fire suppression system. Pipes and heads within restored public spaces should be concealed as much as practically possible.

Lighting
Artificial lighting that enhances public spaces and exhibits should be designed. Existing historic fixtures should be retained. Lighting within the lobby (101) should be elevated to provide a transition for visitors entering the building from bright sunlight.

Security Systems
Intrusion and fire detection and alarm systems should be installed throughout the structure.

Lightning Protection
A certified lightning protection system should be installed on the building.

Accessibility
All primary entrances, the visitor contact counter, exhibit rooms, sales area, restrooms, visitor and employee services shall be accessible. All new offices should be accessible, and existing offices should be made accessible if possible. The park ranger office (104) should be made accessible.

Life Safety
All existing and new spaces within the Visitor Center should conform to contemporary building and egress codes.

Comfort Station
The existing Comfort Station should be renovated.

New Space Allocation

The new visitor center should include at a minimum the following space allocations.

Function	Area (sf)
Visitor Services	
Lobby (101)	190
Visitor Contact Station Area	200
Theater (75 persons)	530
Exhibit	1,900
Public Restrooms & Janitor Closet	400
Vending Area	50
First Aid	10
Subtotal	3,280
Sales	
Sales Area	240
Sales Office	100
Sales Storage	240
Subtotal	580
Administration	
Park Ranger Office (104)	110
Chief Park Ranger Office	140
Resource Management Office	140
Historian Office	140
Seasonal Lockers/Desk	220
Library	400
Conference/Break Room	220
Collections Storage	400
Employee Restroom	70
General Storage	1,000
Subtotal	2,870
Other	
Amphitheater (100 persons)	1,000
Mechanical	600
Circulation	800
Subtotal	2,400
Totals	
Visitor Center	7,920
Amphitheater	1,000

TREATMENT ALTERNATIVES

The following alternatives address programmatic and building code requirements for the Visitor Center. The intent of these schematic designs is to conceptually explore potential alternatives with regard to site and building circulation and spatial adjacencies within the context of implied physical limitations and historic preservation principles. Upon selection of a specific alternative concept, or ultimate treatment, that alternative will be more fully developed in the following chapter.

Alternative 1 addresses recommendations put forth by the approved General Management Plan for use of other extant structures rather than construction of new buildings or additions. [63] The Alternative 2 investigates a core addition for the Visitor Center building that essentially infills space between the existing wings. Alternatives 3 and 4 explores the concept of new wing additions encompassing a central courtyard. In addition two options are posited for each of Alternatives 3 and 4 to show a range of possibilities.

Each of the alternatives is briefly described and analyzed. In addition, immediately known special construction is itemized, and followed with a developmental and construction cost estimate. These Class 'C' estimates are based upon accepted year 2000 costs per square foot, and are intended as a comparative guide to selection of an alternative.

[63] The general management plan team did not include an architectural consultant, nor was the need to include such a discipline on the team ever indicated as a result of the agency's reviews of any phase of this plan's development, from the initial Project Agreement to the Final GMP/EIS. This situation conceivably resulted in a number of incorrect assumptions concerning code compliance, site circulation and historic preservation principles during development of the recommendation.

Treatment Alternative 1

Expand Exhibits Into Other Buildings

Description

This alternative reflects the park's current general management plan recommendation that administrative and maintenance functions be moved off site and the resulting vacated buildings be rehabilitated for use as interpretive space. The recommendation gives no specifics as to how the present buildings will be used or altered to perform a new function. It is assumed that exhibits would be located within portions of the existing visitor center and the maintenance shop.

This alternative assumes that the first floor of the present Visitor Center would be rehabilitated. The visitor contact counter and sales would be located in room 101, visitor restrooms in the Jackson Wing (115), and the theater would remain in its present location in the Landmark Wing. Collections storage would remain in the basement, but all other basement spaces would revert to general storage and mechanical rooms. The present administrative building would be used as office space and the maintenance facility would be rehabilitated as exhibit space. Ample space available in the maintenance building would provide for more than the required area for exhibits and additional mechanical and storage space.

Analysis

Additional space provided by the administration and maintenance buildings would provide more space than required by the program. Continued use of all existing structures rather than adding a new addition or structure to attain space requirements satisfies building preservation practice. However, several disadvantages are noted with this alternative.

- Site circulation confusion and pedestrian danger would be greatly increased. Much more frequent bluff road crossings by visitors traveling from the Visitor Center building to other structures is not recommended.
- Locating the visitor program within two buildings would cause confusion for visitors navigating the site.
- Exhibit security would be more difficult to attain by locating exhibits within two structures. Either more employees would be deployed within the structures or a sophisticated visual monitoring system would be installed.
- Extensive work would be required to rehabilitate the present administrative and maintenance buildings for office and exhibit space respectively. The administrative office was constructed as a residence with small rooms. The maintenance facility is essentially a windowless, unheated, shed-roof garage with large garage doors. Both of these structures are principally constructed of load-bearing adobe which would present challenges to create new required wall penetrations.
- Anticipated radical rehabilitation of these two structures for use as exhibit space could impact a National Register determination for them. The complex of buildings is not currently listed on the National Register.
- Basement and sunken office area remain inaccessible due to the difficulty of installing an elevator.
- Maintenance and administration space would need to be constructed in a secluded area on existing park land or leased elsewhere.

Special Construction

- The condition and structural reliability of the maintenance shop walls is presently unknown.
- Adaptability of the maintenance shop for use as exhibit rooms.
- Multi-zone ground source heat pump HVAC system in Visitor Center, Maintenance Facility, and Administrative Office.

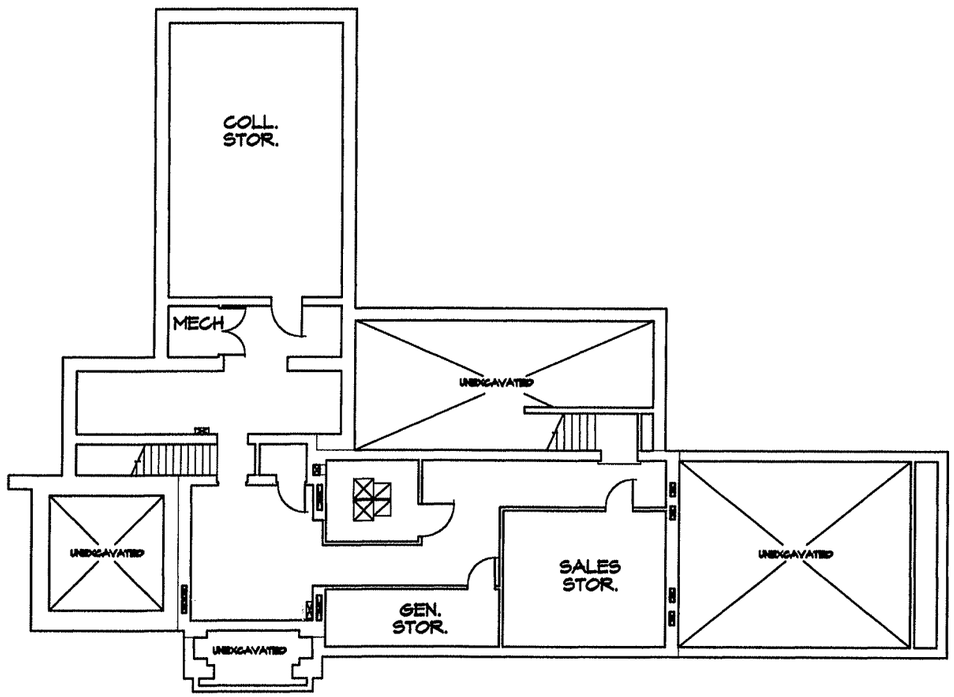
Cost Estimate – Alternative 1

The following Class 'C' estimate reflects rehabilitation of the Visitor Center, Administrative Office, and Maintenance Facility for use as exhibit, theater, sales, and ranger/interpretive office space. Costs to construct new office and maintenance facilities within another area of the park is included as an add-on figure. Successfully leasing existing space within Scottsbluff and Gering area that satisfies program requirements is debatable given the limited availability of suitable space and the propensity of owners to build new space rather than lease it. A market analysis would need to be completed to determine long-term costs to lease space constructed to park specifications, assuming that land and buildings outside of the park cannot be purchased by policy. Costs to move administrative and maintenance functions to another location are not included within this cost analysis.

Item	*Area (sf)*	*$/sf*	*Est. Cost*
Visitor Center	5,200	154	$801,000
Administrative Office	755	154	116,000
Maintenance Facility	3,825	184	704,000
Ground source heat pump	9,780	6	59,000
Old Public Restroom	190	154	29,000
Site Work			150,000
Subtotal (construction)			$1,859,000
Architectural design (A/E Tit. 1&2)			
(HSR, exist. cond. dwgs., add 27%)			502,000
Value analysis			40,000
Archeology mitigation			5,000
Exhibits incl. Design	2,200	350	770,000
Subtotal			$1,317,000
Total			**$3,176,000**

Approximate cost to construct new maintenance and administration facility within park boundaries, add:

	4,500	184	$828,000



BASEMENT PLAN
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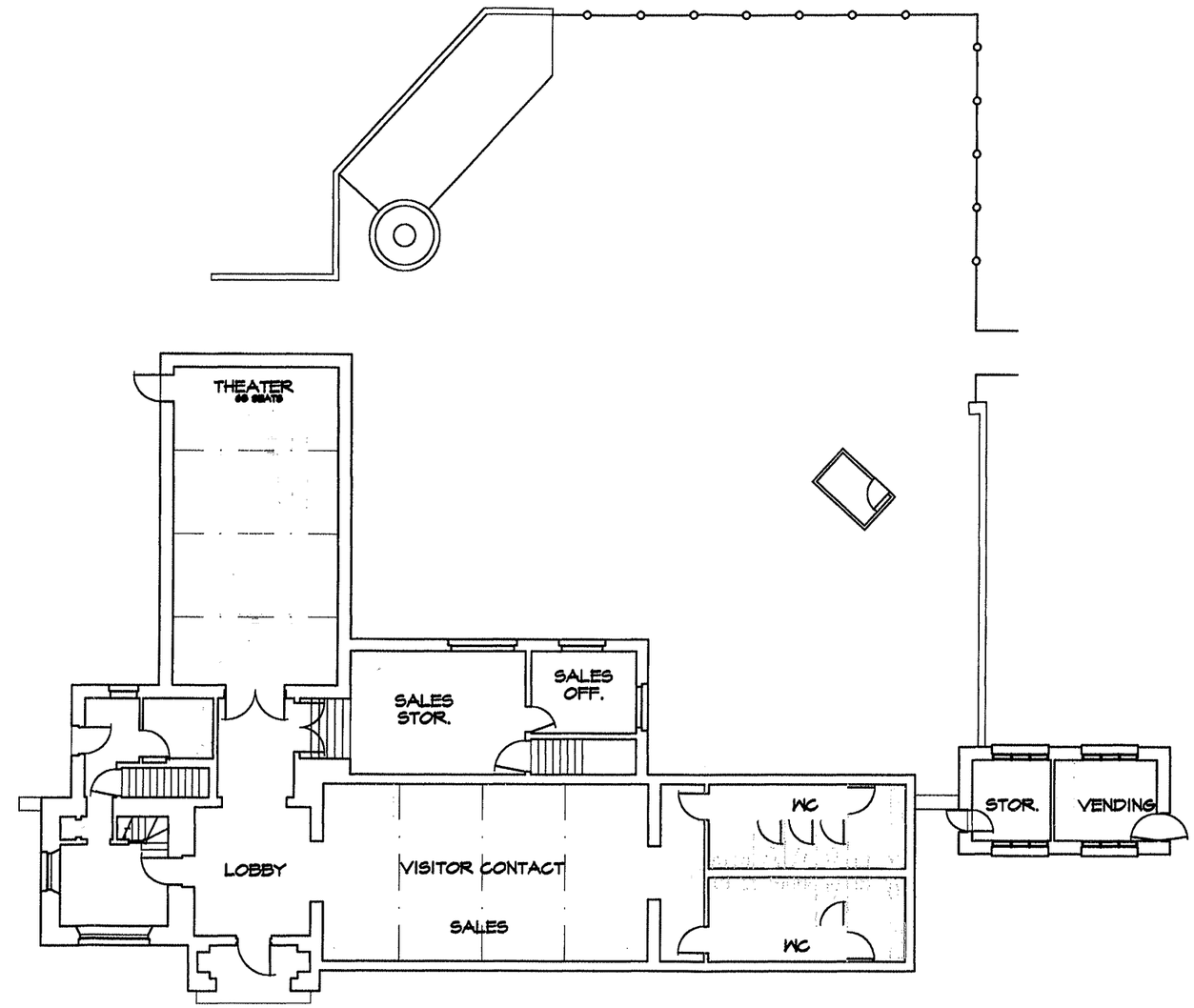

FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"
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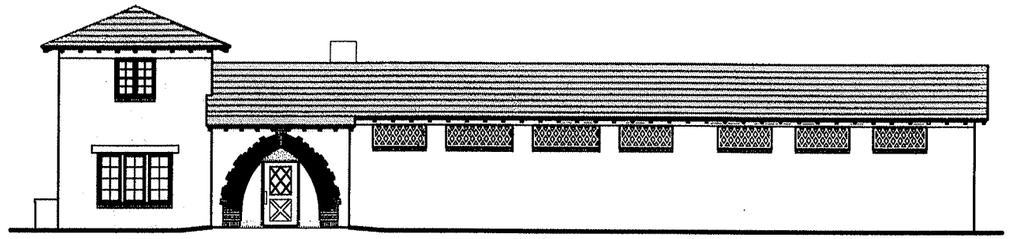
REVISED		PREPARED	RECOMMENDED	UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE REGIONAL DIRECTOR'S OFFICE	DRAWING NO. 917/80082
DATE	INITIAL	A.H. O'BRIGHT DESIGNED	PARK SUPERINTENDENT DATE		ACAD NO. 917-80082-01
		A.H. O'BRIGHT DRAWN	CONCURRED		
		A.H. O'BRIGHT CHECKED	MWRO SUPERINTENDENT DATE	ALTERNATIVE I TREATMENT ALTERNATIVES VISITOR CENTER SCOTTS BLUFF NATIONAL MONUMENT	SHEET 1
		10/26/2001 DATE	APPROVED		OF 16
			MWR DIRECTOR DATE		



SOUTH ELEVATION
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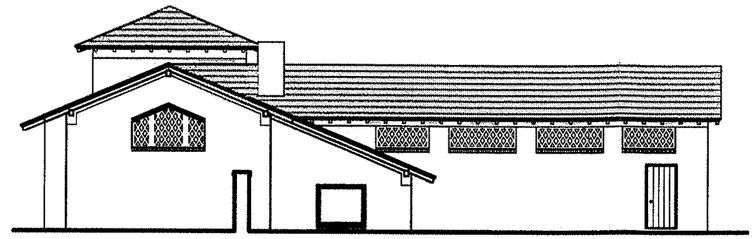

EAST ELEVATION
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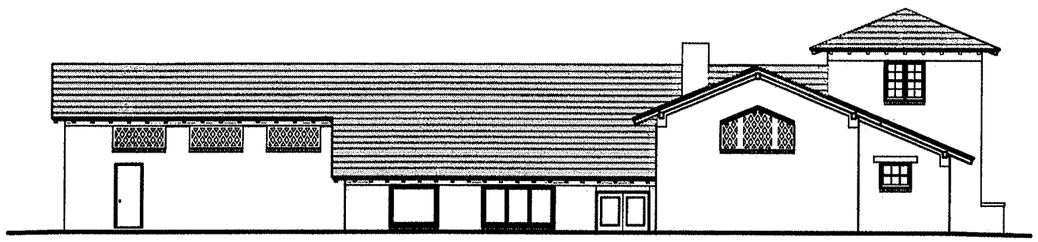

NORTH ELEVATION
SCALE: 1/8" = 1'-0"
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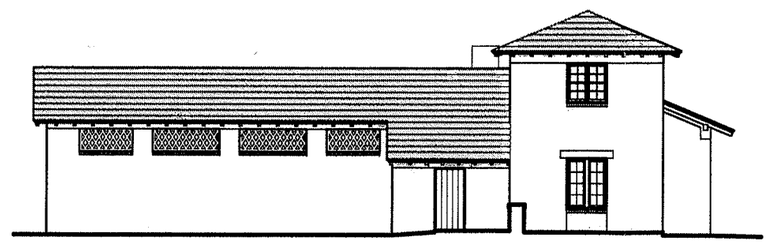


WEST ELEVATION
SCALE: 1/8" = 1'-0"
0 5' 10' 20'

REVISED	
DATE	INITIAL

PREPARED
A.H. O'BRIGHT
DESIGNED
A.H. O'BRIGHT
DRAWN
A.H. O'BRIGHT
CHECKED
10/24/2001
DATE

EXTERIOR ELEVATIONS
ALTERNATIVE I
TREATMENT ALTERNATIVES
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO.
SNT/80082
ACAD NO.
SNT-80082-02
SHEET 2
OF 16

Treatment Alternative 2

Construct Core Addition

Description

This alternative features a new addition that would generally infill the space between the Visitor Center wings that is now occupied by the amphitheater. Visitor contact and sales would be placed in room 102, sales in the Jackson Wing (115), and a theater in the Landmark Room (110). New restrooms would be constructed within the addition. Exhibits and primary staff offices would be placed at the first floor of the new addition where they would offer easier access to the public and a view of the bluffs to the north from the interior. The basement would be used for some offices, employee break room, collections and general storage, and mechanical space. Collections storage would be expanded to encompass the entire basement area beneath the theater. Both levels would be accessible by elevator.

The sunken office area would be removed and the floor level raised to the first floor level. Most if not all of the roof system above these offices would need to be removed to provide for a new addition roof.

A small outdoor area enclosed by a masonry garden wall would be located north of the new addition. The outdoor area would be accessible to visitors from the exhibit area. The sunken offices (112 and 113) would be replaced with new space at the same floor level as the first floor. The existing public restroom building would be rehabilitated for use as a vending area and storage.

Analysis

This alternative offers advantages in circulation since the entire visitor experience is contained under one roof in close proximity to the visitor contact desk. The new addition would feature a single large exhibit space rather than a series of galleries as now exists. Several disadvantages are noted for this alternative:

- The large block of new construction would detract from the linear, Spanish colonial design that currently exists.
- The new addition would be seen from the bluff trails and possibly from the road.
- It may be technically challenging to integrate new construction with the existing building, particularly at the roof and adobe walls.
- Construction of the new addition eliminates the chance to provide an outdoor area sheltered by the structure as occurred with Spanish colonial structures. A new outdoor area would need to be fenced outside of the existing building footprint.
- The office addition including walls and roof would be totally demolished.
- Portals would need to be cut through fired brick and adobe walls to provide new circulation paths and means of egress.

Special Construction

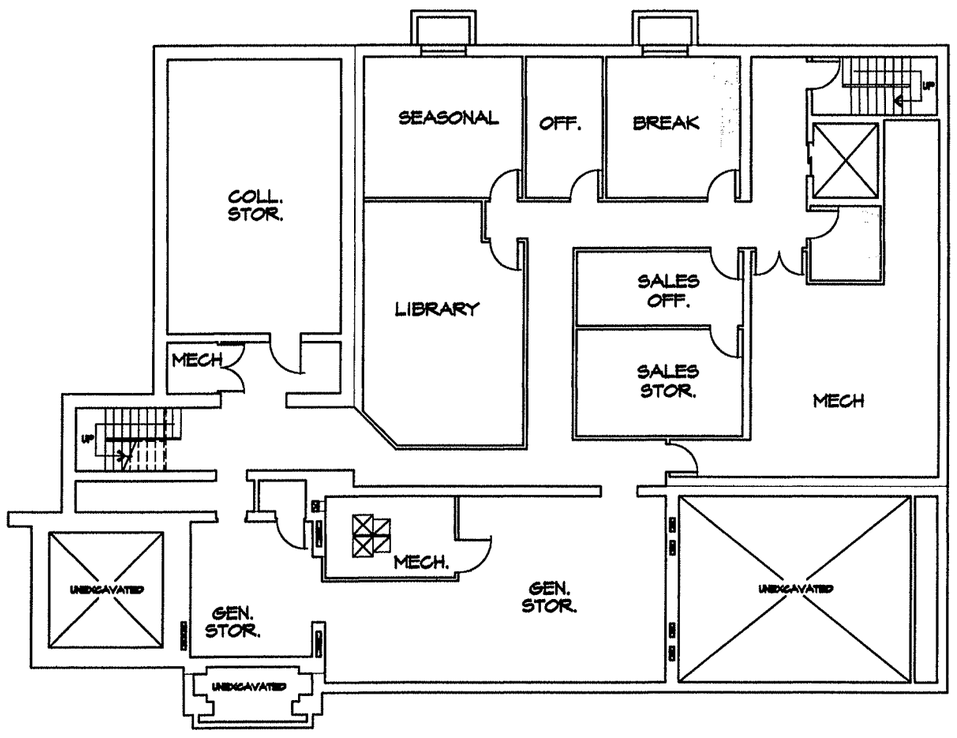
- Demolition of existing sunken office area including foundation and roof systems.
- Integration of new addition to adobe-portion of structure.
- Integration of new roof with existing roofs.
- Installation of new passageways through existing brick and adobe wall systems.
- Installation of a new enclosed stairwell at the location of existing employee restroom (108) and closet (109). West entrance door 106-D1 will need to be moved to accommodate the new stairwell.

- Possible installation of a traction-mounted elevator to eliminate an equipment tower that may protrude above the roof line.

Cost Estimate – Alternative 2

The following Class 'C' estimate reflects rehabilitation of the existing Visitor Center and construction of a new two level addition onto the structure.

Item	*Area (sf)*	*$/sf*	*Est. Cost*
VC-new construction	6,080	184	$1,119,000
VC-rehabilitation	4,750	154	732,000
Grnd source heat pump	10,830	6	65,000
Old Public Restroom	190	154	29,000
Site work			100,000
Subtotal (construction)			$2,045,000
Architectural design (A/E Tit. 1&2) (add 18%)			368,000
Value analysis			40,000
Archeology mitigation			5,000
Exhibit design & constr.	1,950	350	683,000
Subtotal			$1,096,000
Total			**$3,141,000**



BASEMENT PLAN
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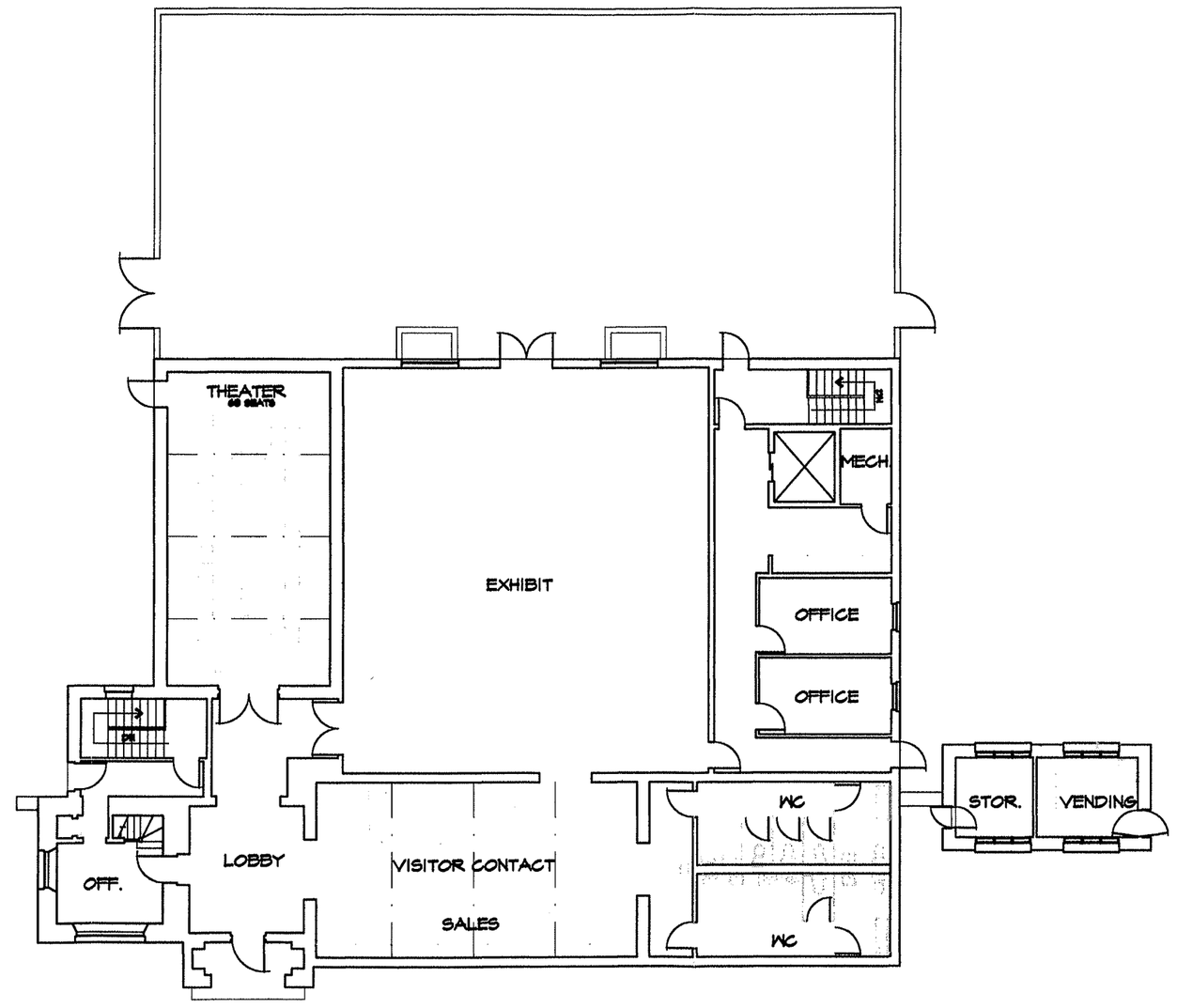
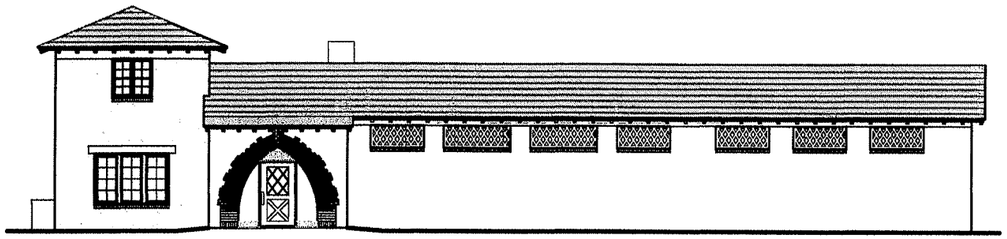


FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"
0 5' 10' 20'

REVISED		PREPARED	FLOOR PLANS ALTERNATIVE 2 TREATMENT ALTERNATIVES VISITOR CENTER SCOTTS BLUFF NATIONAL MONUMENT GERING, NEBRASKA	DRAWING NO.
DATE	DETAIL	A.H. O'BRIGHT DESIGNED		817/80082
		A.H. O'BRIGHT DRAWN		ACAD NO.
		A.H. O'BRIGHT CHECKED		817-80082-08
		10/26/2001 DATE		SHEET 5 OF 16



SOUTH ELEVATION
SCALE: 1/8" = 1'-0"
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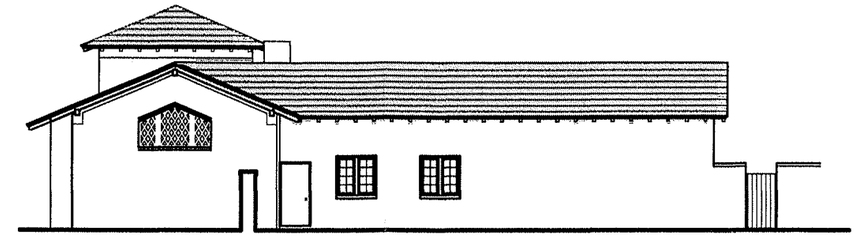

EAST ELEVATION
SCALE: 1/8" = 1'-0"
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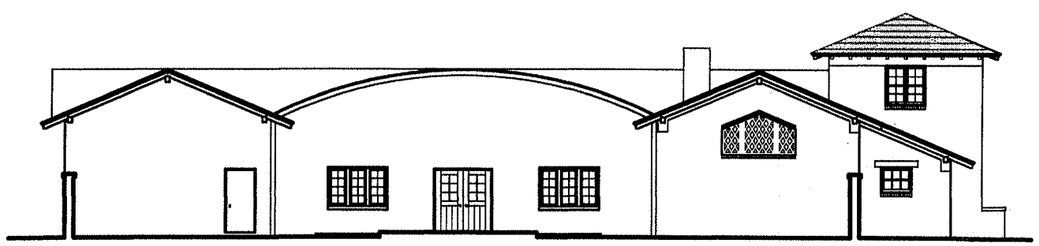

NORTH ELEVATION
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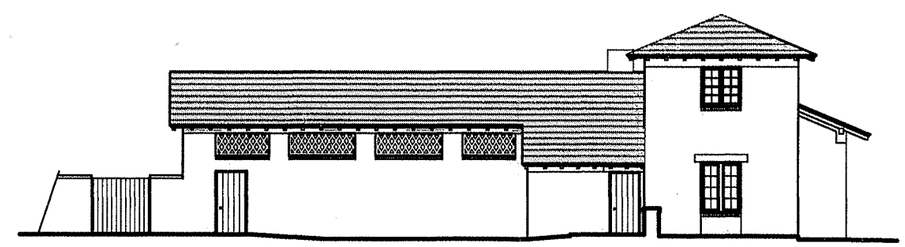


WEST ELEVATION
SCALE: 1/8" = 1'-0"
0 5' 10' 20'

REVISED	
DATE	DETAIL

PREPARED
A.M. O'BRIGHT
DESIGNED
A.M. O'BRIGHT
DRAWN
A.M. O'BRIGHT
CHECKED
10/26/2001
DATE

EXTERIOR ELEVATIONS
ALTERNATIVE 2
TREATMENT ALTERNATIVES
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO.
SNT/80082
ACAD NO.
SNT-80082-04
SHEET 4
OF 16

Treatment Alternative 3a

Open Courtyard and Wing Addition

Description

Alternative 3a evokes the traditional layout of Spanish colonial architecture through wing additions that compliment the present visitor center design. The addition is within the present amphitheater footprint, and uses the building to shelter a courtyard that can be used for presentations, special occasions, and casual use by daily visitors. The bluffs would be seen from the courtyard. The eastern edge of the courtyard would be protected by a porch roof extension from the exhibit wing roof. The new wings would match the width of the Museum and Jackson Wings.

The north wing would be held back from the Landmark Wing to provide required emergency egress from the courtyard, access for moving equipment into the courtyard, surface drainage from the courtyard, and to avoid joining new construction to the fragile Landmark Wing adobe walls. A tall masonry garden wall with wide doors would enclose the space between the Landmark Wing and new north wing. The courtyard would be paved with brick or tile, and a fountain could provide a focal point for the courtyard.

With this alternative the visitor contact counter and sales area would be located within the Museum Room (102), and a theater in the Landmark Wing (110). Public restrooms would be located within the Jackson Wing (115). All exhibits would be located in a new wing addition extending north from the present Jackson Wing. The exhibit space ceiling would be open to reveal new laminated or timber trusses set at an interval similar to what is found in the existing Museum and Landmark Wings. At the northeast corner of the building would be an exhibit room dedicated to the Jackson Collection. This room would feature a heightened ceiling with clerestory windows facing north and east.

The two offices (111 and 112) would be removed and the floor level brought up to meet that of the first floor. A portion of the roof over the two offices would need to be removed to provide required head room within the south porch. A new portal would need to be created between Room 102 and the south porch. Administrative offices would be located in a new wing forming the north enclosure of the building.

A full basement can be constructed beneath the new addition to provide storage and mechanical space, and area beneath the administrative office wing for an employee break room and other office functions, and an elevator.

The existing public restroom building would be rehabilitated for use as a vending area and storage.

Analysis

The Alternative 3a addition would be compatible with the design style and massing of the existing building. Creation of the courtyard through the wing additions maintains an exterior space that can be used for public gatherings. Most new addition work is segregated from the fragile adobe constructions. The exhibit room would be isolated from exterior entrances, except for emergency exits, that would provide increased control of internal environmental conditions. Placement of the exhibit room to the northeast offers the possibility of an interior view of the bluff.

Disadvantages to this alternative include:

- Placing public restrooms within the Jackson Wing may appear inappropriate balanced against the original intent of the room to display works by Jackson.
- The design falls slightly short of the 1,900 square feet goal for exhibit space.
- Placing the Jackson collection at the northeast corner of the new wing would pose a security concern in view of the long distance from the visitor contact area.
- The design requires removal of original adobe walls and a portion of the roof system at the office area (Rooms 111 and 112).
- Portals would need to be cut through fired brick and adobe walls to provide new circulation paths and means of egress.

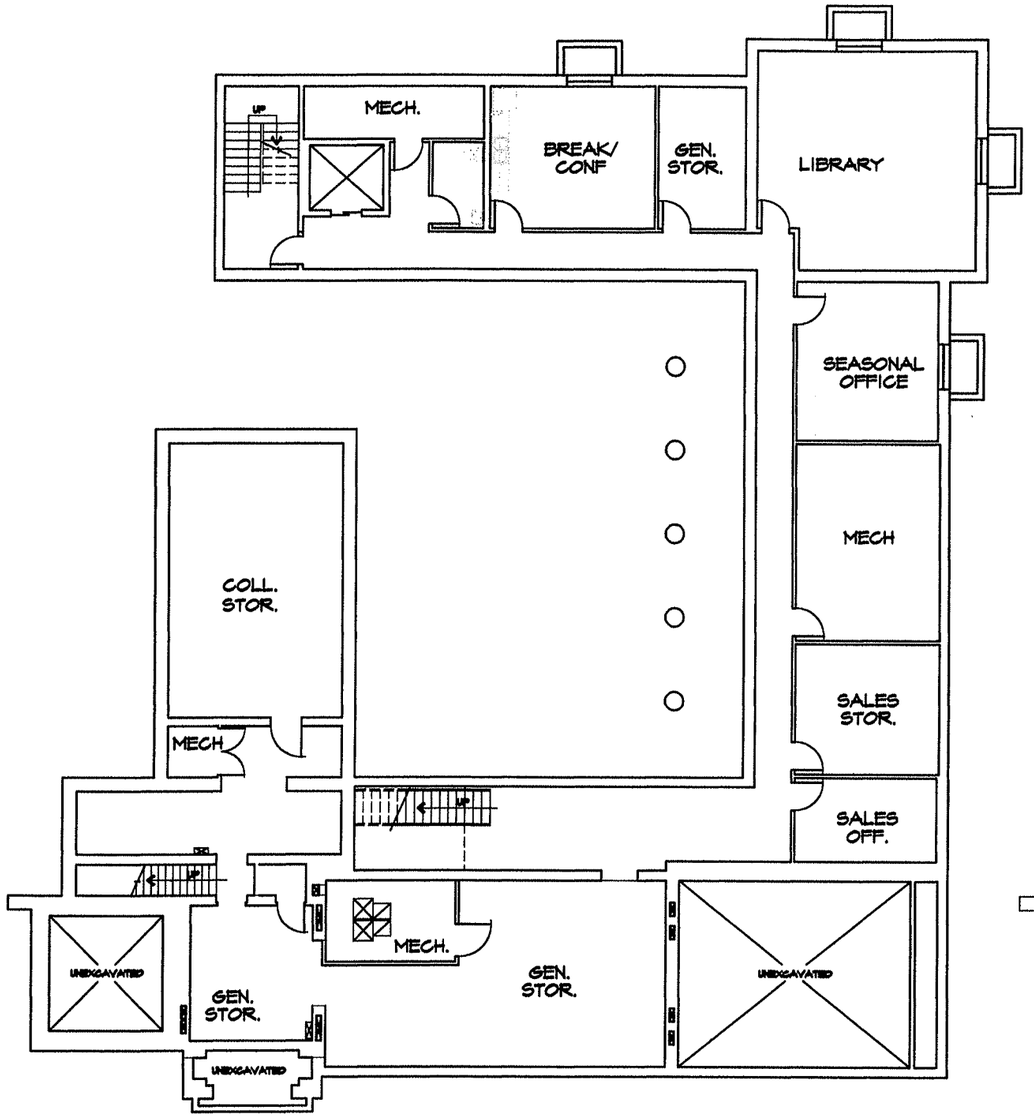
Special Construction

- Demolition of existing sunken office area including foundation and a portion of the roof system to provide adequate headroom.
- Construction of a new enclosed stairwell within the sunken office area.
- Installation of new passageways through existing brick and adobe wall systems.
- Installation of a basement-mounted traction elevator to eliminate an equipment tower that may protrude above the roof line.
- Installation of new glue-laminated timber trusses within exhibit space.

Cost Estimate – Alternative 3a

The following Class 'C' estimate reflects rehabilitation of the existing Visitor Center and construction of a new two level addition, including a central courtyard, onto the structure.

Item	*Area (sf)*	*$/sf*	*Est. Cost*
VC-new construction	7,580	184	$1,395,000
VC-rehabilitation	4,750	154	732,000
Grnd source heat pump	12,330	6	74,000
Traction elevator			150,000
New timber trusses	1,270	9	11,000
Courtyard	2,480	40	99,000
Old Public Restroom	190	154	29,000
Site work			50,000
Subtotal (construction)			$2,540,000
Architectural design (A/E Tit. 1&2) (add 18%)			457,000
Value analysis			40,000
Archeology mitigation			5,000
Exhibits incl. Design	1,844	350	645,000
Subtotal			$1,147,000
Total			**$3,687,000**



BASEMENT PLAN
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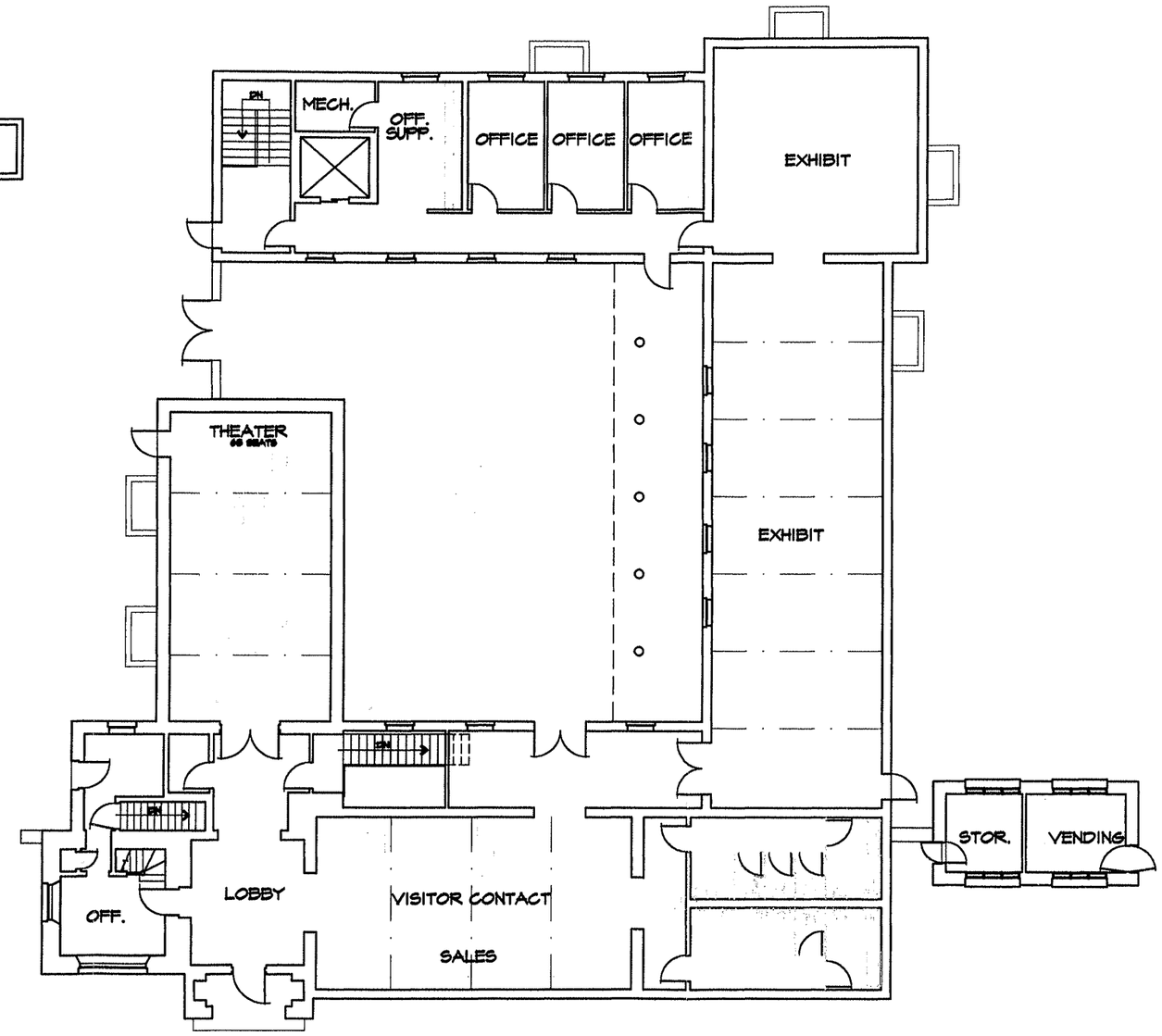


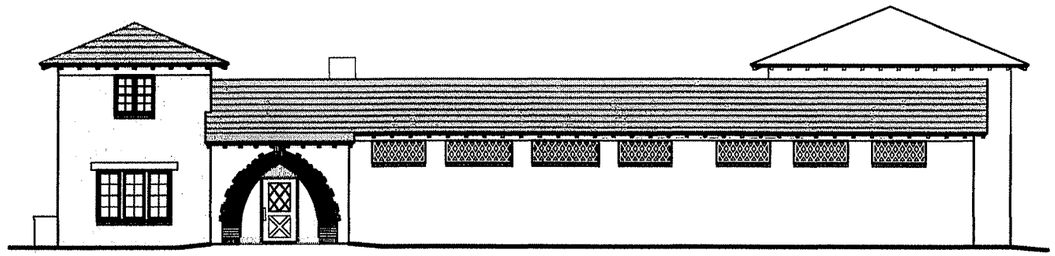
FIRST FLOOR PLAN
SCALE: 1/8"= 1'-0"

REVISED	
DATE	INITIAL

PREPARED
A.M. O'BRIGHT
DESIGNED
A.M. O'BRIGHT
DRAWN
A.M. O'BRIGHT
CHECKED
10/26/2001
DATE

FLOOR PLANS
ALTERNATIVE 5a
TREATMENT ALTERNATIVES
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO. 817/80082
ACAD NO. 817-80082-05
SHEET 5 OF 16



SOUTH ELEVATION
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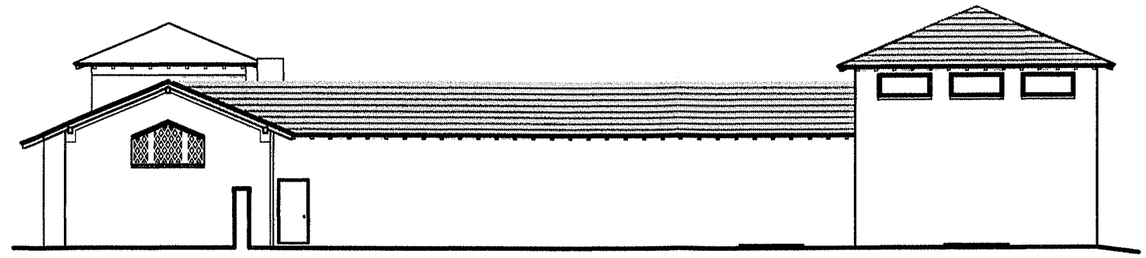

EAST ELEVATION
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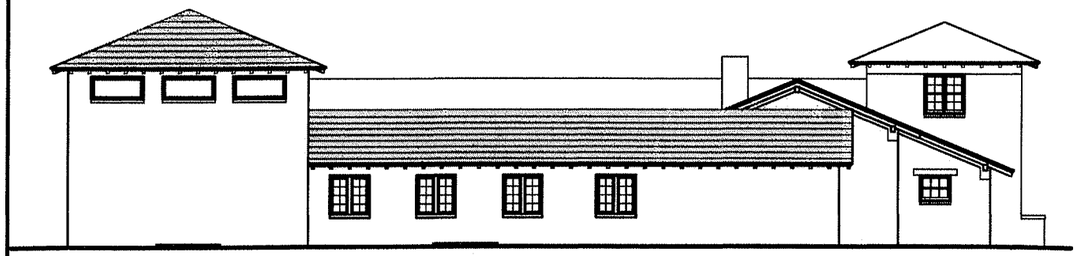
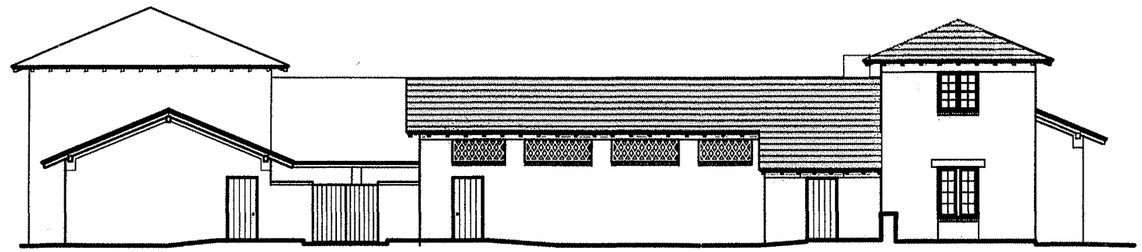


NORTH ELEVATION
SCALE: 1/8" = 1'-0"



WEST ELEVATION
SCALE: 1/8" = 1'-0"

REVISED	
DATE	INITIAL

PREPARED
A.M. O'BRIGHT
DESIGNED
A.M. O'BRIGHT
DRAWN
A.M. O'BRIGHT
CHECKED
10/26/2001
DATE

EXTERIOR ELEVATIONS
ALTERNATIVE 3a
TREATMENT ALTERNATIVES
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO.
SNT/80082
ACAD NO.
SNT-80082-06
SHEET 6
OF 16

Treatment Alternative 3b

Open Courtyard and Wing Addition

Description

This alternative generally mimics that of Alternative 3a but with some revisions. A circulation route between the theater and exhibit hall would be established by moving the stairwell to the area now occupied by the employee restroom (108) and closet (109) at the first floor, and sales storage (007) at the basement level. Existing stair (107) would be removed.

The relationship between the visitor contact area and the public restrooms would be revised in Alternative 3b. The visitor contact counter would be moved to the east end of the Museum Wing. The doorway between the Jackson and Museum wings could provide a rear access to the counter or be completely infilled as indicated in the design drawing. A hall would be created between the public restrooms and the west wall of the Jackson Wing.

The open courtyard porch area would be enclosed to expand adjacent exhibit space by 475 square feet. Placement of the exhibit room to the northeast offers the possibility of an interior view of the bluff. The basement level area beneath the expanded exhibit space can be either slab on grade, as presented in the current design, crawlspace, or full basement for more storage space. The dioramas now located in the Jackson Wing could be moved to the south end of the new exhibit hall.

A theater seating arrangement option is provided in this design. A center isle would provide about 78 seats as compared to 63 seats in Alternative 3a.

Analysis

With this alternative circulation within the visitor contact space and between the theater and exhibit hall is improved over that in Alternative 3a. Upon leaving the theater visitors would have the option of moving to the exhibits without traveling back through the visitor contact area. Space behind the visitor contact counter would be expanded over the previous design. The counter would be pocketed into the end of the room rather than projecting into the space, allowing more room for queued visitors.

Separating public restroom access has the advantage of segregating daily restroom cleanup and potential lines from forming within the visitor contact area. But the restroom entries in this design would require longer travel by visitors to access the restrooms.

Disadvantages to this alternative include:

- Placement of the visitor contact desk at the east end of History Room (102) removes them from the front door and complicates visitor access to the new interior restrooms.
- Installing the stairwell in the area now occupied by the employee restroom would require that west entry (106-D1) be moved south on the adobe wall system. This will have an impact on the appearance of the west exterior elevation.
- Placing public restrooms within the Jackson Wing may appear inappropriate balanced against the original intent of the room to display works by Jackson.
- The design requires removal of original adobe walls and a portion of the roof system at the office area (Rooms 111 and 112).

- Portals would need to be cut through fired brick and adobe walls to provide new circulation paths and means of egress.

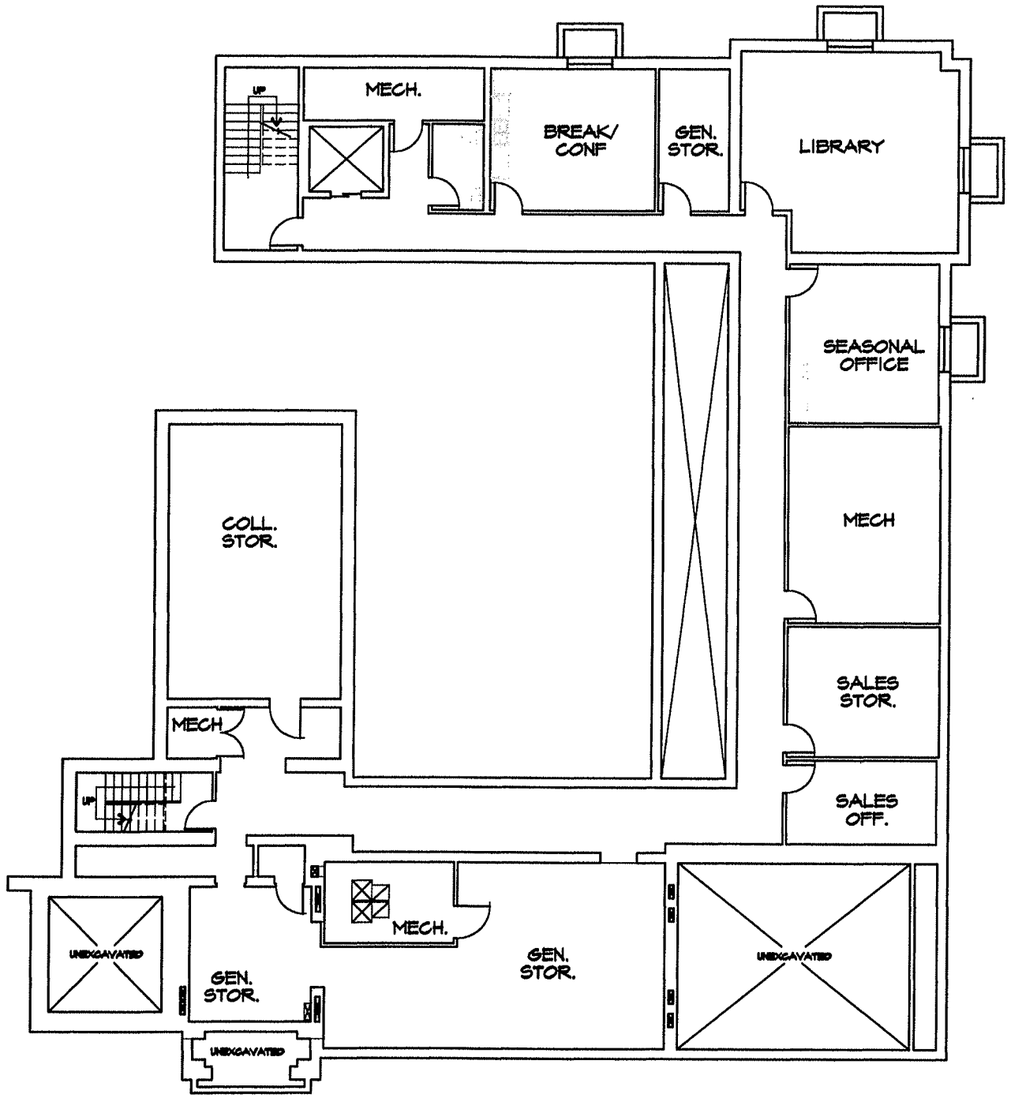
Special Construction

- Demolition of existing sunken office area including foundation and a portion of the roof system to provide adequate headroom.
- Construction of a new enclosed stairwell at the west entry will require removal of a structural concrete floor system and moving the west entrance.
- Installation of new passageways through existing brick and adobe wall systems.
- Back-lit screen or large screen television required in the theater for presentations.
- Installation of a basement-mounted traction elevator to eliminate an equipment tower that may protrude above the roof line.
- Installation of new glue-laminated timber trusses within exhibit space.

Cost Estimate – Alternative 3b

The following Class 'C' estimate reflects rehabilitation of the existing Visitor Center and construction of a new two level addition, including a central courtyard, onto the structure.

Item	*Area (sf)*	*$/sf*	*Est. Cost*
VC-new construction	8,090	184	$1,489,000
VC-rehabilitation	4,750	154	732,000
Grnd source heat pump	12,840	6	77,000
Traction elevator			150,000
New timber trusses	1,180	9	11,000
Courtyard	2,140	40	86,000
Old Public Restroom	190	154	29,000
Site work			50,000
Subtotal (construction)			$2,624,000
Architectural design (A/E Tit. 1&2) (add 18%)			472,000
Value analysis			40,000
Archeology mitigation			5,000
Exhibits incl. Design	2,040	350	714,000
Subtotal			$1,231,000
Total			**$3,855,000**



BASEMENT PLAN
SCALE: 1/8" = 1'-0"
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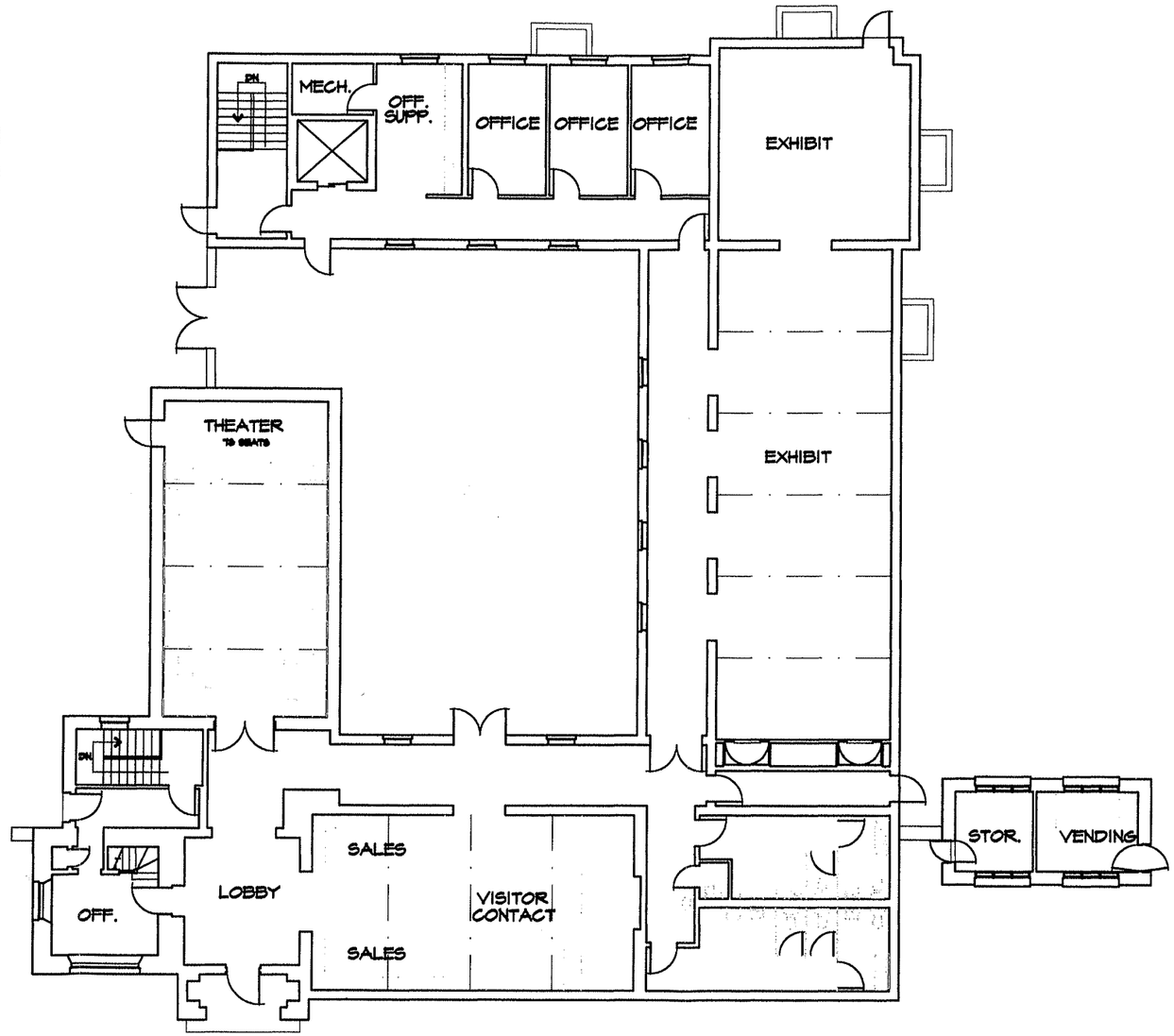
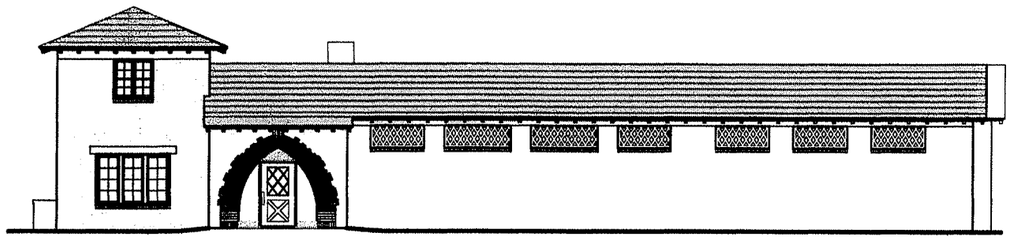
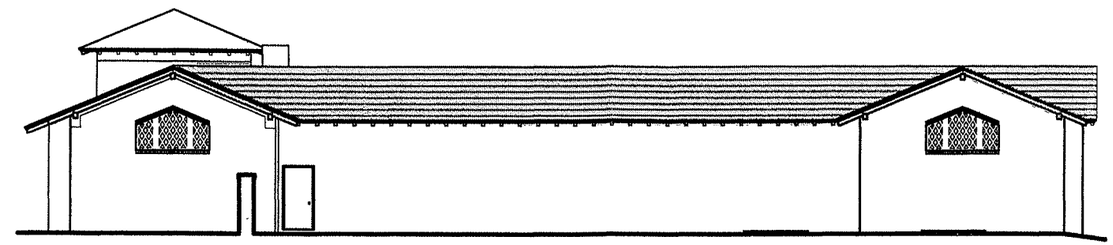


FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"
0 5' 10' 20'

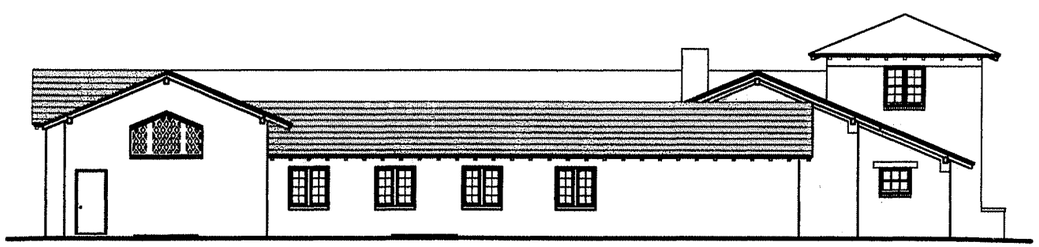
REVISED		PREPARED	FLOOR PLANS ALTERNATIVE 5b TREATMENT ALTERNATIVES VISITOR CENTER SCOTTS BLUFF NATIONAL MONUMENT GERING, NEBRASKA	DRAWING NO.
DATE	INITIAL	A.M. O'BRIGHT DESIGNED		817/80082
		A.M. O'BRIGHT DRAWN		ACAD NO.
		A.M. O'BRIGHT CHECKED		817-80082-07
		10/26/2001 DATE		SHEET 7 OF 16



SOUTH ELEVATION
SCALE: 1/8" = 1'-0"
0 5' 10' 20'



EAST ELEVATION
SCALE: 1/8" = 1'-0"
0 5' 10' 20'



NORTH ELEVATION
SCALE: 1/8" = 1'-0"
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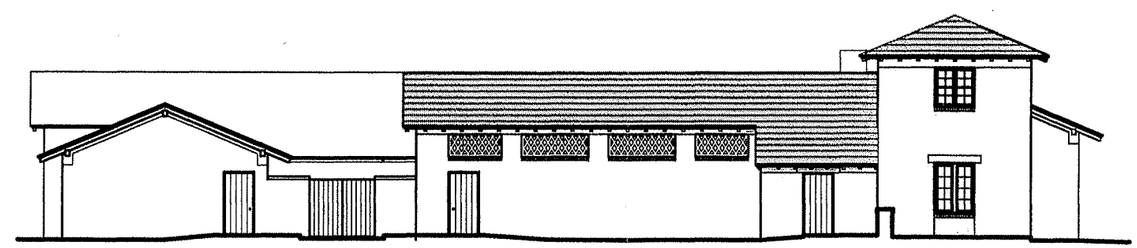


WEST ELEVATION
SCALE: 1/8" = 1'-0"
0 5' 10' 20'

REVISED		PREPARED		
DATE	INITIAL	A.H. O'BRIGHT DESIGNED	EXTERIOR ELEVATIONS ALTERNATIVE 5b TREATMENT ALTERNATIVES VISITOR CENTER SCOTTS BLUFF NATIONAL MONUMENT GERING, NEBRASKA	DRAWING NO. 517/80082
		A.H. O'BRIGHT DRAWN		ACAD NO. 517-80082-05
		A.H. O'BRIGHT CHECKED		SHEET 8
		10/26/2001 DATE		OF 16

Treatment Alternative 3c

Open Courtyard and Wing Addition

Description

This alternative is again a variation of the open courtyard concept, but with revisions to the exhibit area. In this alternative the north end of the exhibit space would once again terminate with an exhibit gallery that could feature the Jackson collection, changing exhibits, or continue with the overall exhibit theme. The central core exhibit gallery would be scaled to the proportions of the old timber ceiling exhibit rooms, but feature glue-laminated timber beams. The corridor west of the core exhibit room would also have space for exhibits. Placement of the exhibit room to the northeast offers the possibility of an interior view of the bluff.

Analysis

Exhibit would be environmentally segregated from the remainder of the structure. The close proximity of offices to the exhibit rooms would provide a measure of security.

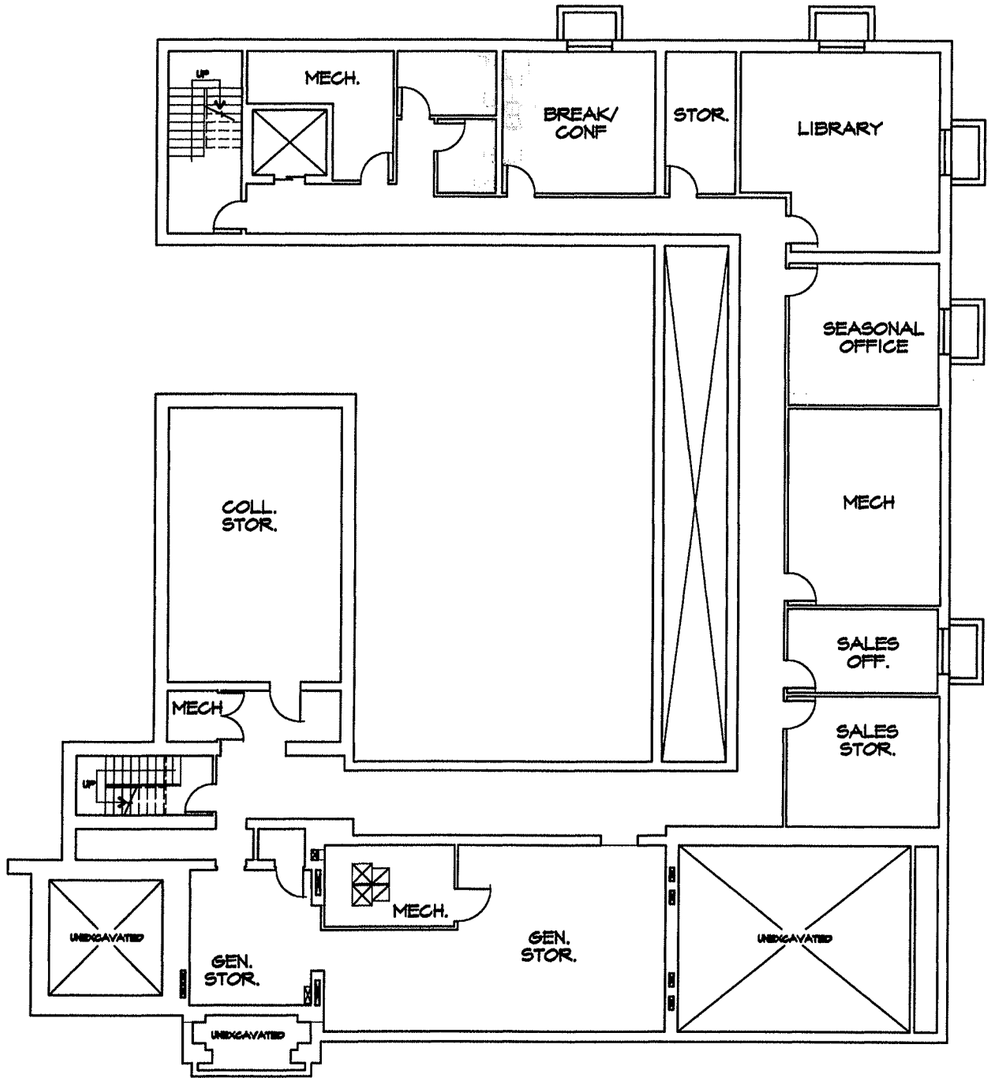
Special Construction

- Demolition of existing sunken office area including foundation and a portion of the roof system to provide adequate headroom.
- Construction of a new enclosed stairwell at the west entry will require removal of a structural concrete floor system and moving the west entrance.
- Installation of new passageways through existing brick and adobe wall systems.
- Back-lit screen or large screen television required in the theater for presentations.
- Installation of a basement-mounted traction elevator to eliminate an equipment tower that may protrude above the roof line.
- Installation of new glue-laminated timber trusses within exhibit space.

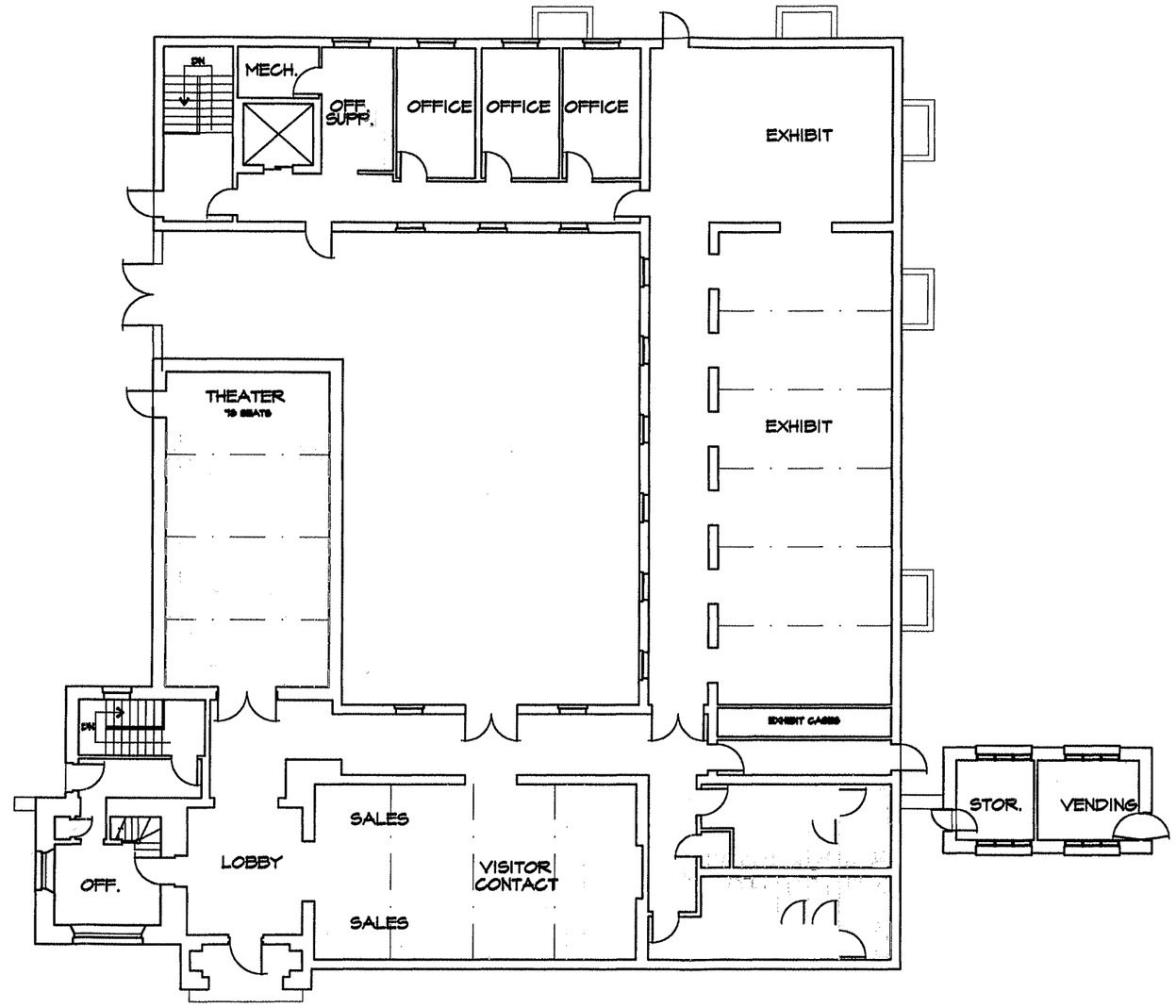
Cost Estimate – Alternative 3c

The following Class 'C' estimate reflects rehabilitation of the existing Visitor Center and construction of a new two level addition, including a central courtyard, onto the structure.

Item	*Area (sf)*	*$/sf*	*Est. Cost*
VC-new construction	7,770	184	$1,430,000
VC-rehabilitation	4,750	154	732,000
Grnd source heat pump	12,520	6	75,000
Traction elevator			150,000
New timber trusses	1,150	9	10,000
Courtyard	2,160	40	86,000
Old Public Restroom	190	154	29,000
Site work			50,000
Subtotal (construction)			$2,562,000
Architectural design (A/E Tit. 1&2) (add 18%)			461,000
Value analysis			40,000
Archeology mitigation			5,000
Exhibits incl. Design	2,090	350	732,000
Subtotal			$1,238,000
Total			**$3,800,000**



BASEMENT PLAN
SCALE: 1/8" = 1'-0"
0 8' 16' 32'



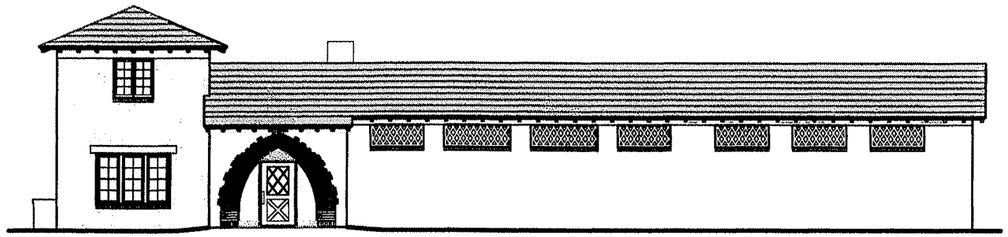
FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"
0 8' 16' 32'

REVISED	
DATE	INITIAL

PREPARED
A.M. O'BRIGHT
DESIGNED
A.M. O'BRIGHT
DRAWN
A.M. O'BRIGHT
CHECKED
10/26/2001
DATE

FLOOR PLANS
ALTERNATIVE 5C
TREATMENT ALTERNATIVES
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO.
SNT-80082
ACAD NO.
SNT-80082-01
SHEET 9
OF 16



SOUTH ELEVATION
SCALE: 1/8" = 1'-0"
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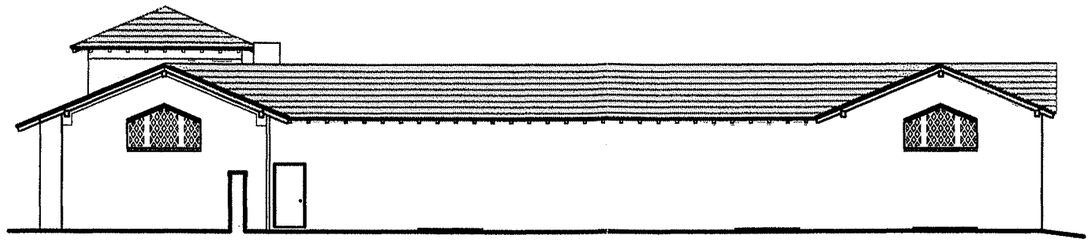

EAST ELEVATION
SCALE: 1/8" = 1'-0"
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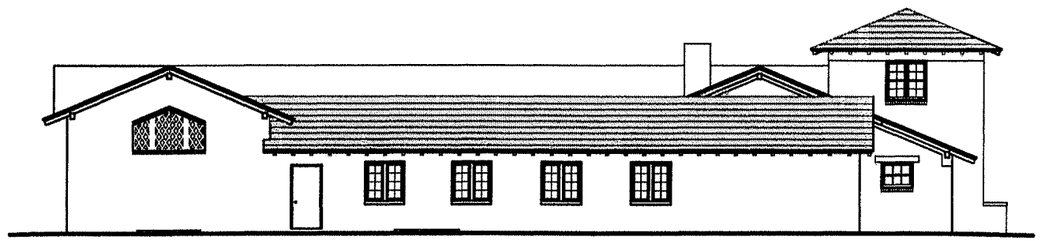

NORTH ELEVATION
SCALE: 1/8" = 1'-0"
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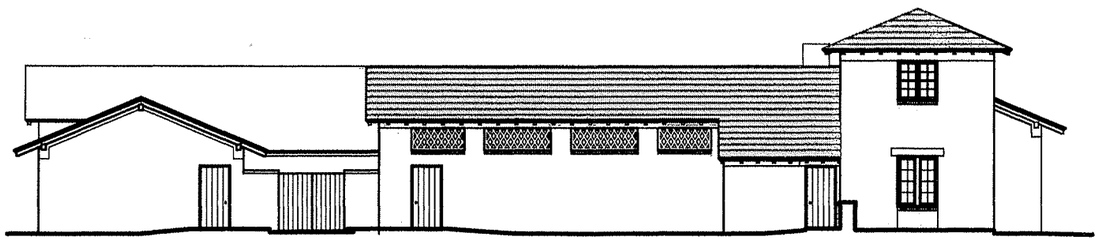


WEST ELEVATION
SCALE: 1/8" = 1'-0"
0 8' 16' 32'

REVISED	
DATE	INITIAL

PREPARED
A.M. O'BRIGHT
DESIGNED
A.M. O'BRIGHT
DRAWN
A.M. O'BRIGHT
CHECKED
10/26/2001
DATE

EXTERIOR ELEVATIONS
ALTERNATIVE 8c
TREATMENT ALTERNATIVES
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO.
817/80082
ACAD NO.
817-80082-10
SHEET 10
OF 16

Treatment Alternative 3d

Open Courtyard and Wing Addition with Second Entrance

Description

This alternative is again a variation of the open courtyard concept, but internal functions and lines of circulation vary. In this alternative the Jackson Room would continue to serve as traditional exhibit display, and public restrooms would be placed within the new east wing. A second entrance and lobby through the east elevation ties the bluff walking trail more closely to the building. This lobby would be more closely associated with the restrooms. Both lobbies would be monitored from a contact counter that passes through an opening created in the north wall of the museum wing. The theater would be accessed off an enclosure overlooking the courtyard, formed by the extension of the theater east roof line. The theater projection room would be directly accessed from behind the visitor contact counter. A large exhibit area would be located in the new east wing. A large window overlooking the bluffs could be placed in the north elevation of that room.

Analysis

The dual lobbies would provide more flexibility in accessing the structure from either the south or east parking lots, and the building would be more closely associated with the bluff walking trail. Opening the north masonry wall of the present Museum Room would provide more of a connection between the visitor contact and sales area and the theater and courtyard areas. Both visitor entrances could be monitored from the same visitor contact counter. Close proximity of the counter to the Jackson Room collection would provide additional security. Construction of public and employee restrooms in the same area would reduce plumbing costs.

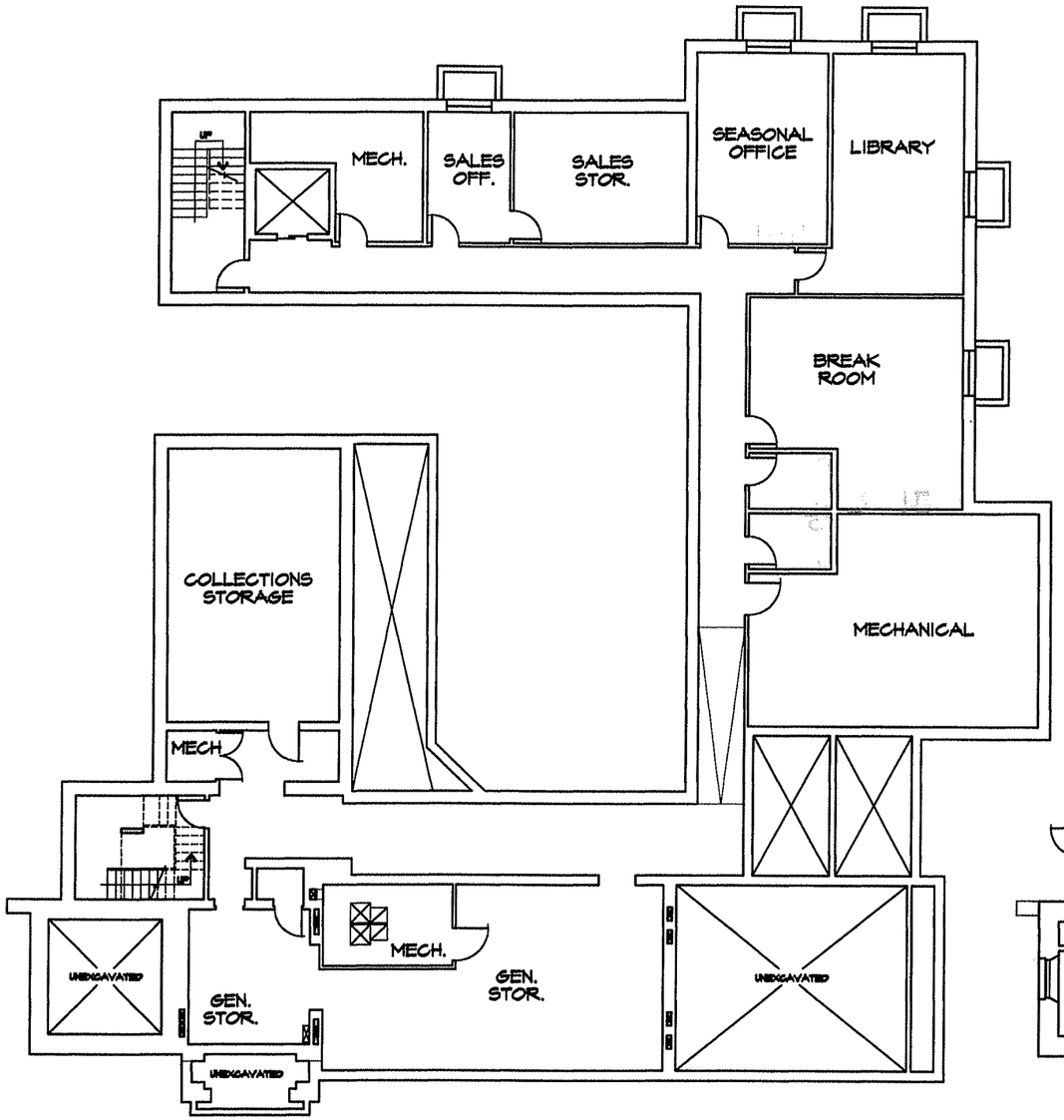
Special Construction

- Demolition of existing sunken office area including foundation and a portion of the roof system to provide adequate headroom.
- Construction of a new enclosed stairwell at the west entry will require removal of a structural concrete floor system and moving the west entrance.
- Installation of new passageways through existing brick and adobe wall systems.
- Installation of a basement-mounted traction elevator to eliminate an equipment tower that may protrude above the roof line.

Cost Estimate – Alternative 3d

The following Class 'C' estimate reflects rehabilitation of the existing Visitor Center and construction of a new two level addition with two visitor entrances, and a central courtyard.

Item	*Area (sf)*	*$/sf*	*Est. Cost*
VC-new construction	9,200	184	$1,693,000
VC-rehabilitation	4,750	154	732,000
Grnd source heat pump	13,950	6	84,000
Traction elevator			150,000
Courtyard	1,850	40	74,000
Old Public Restroom	190	154	29,000
Site work			50,000
Subtotal (construction)			$2,812,000
Architectural design (A/E Tit. 1&2) (add 18%)			506,000
Value analysis			40,000
Archeology mitigation			5,000
Exhibits incl. design	2,000	350	700,000
Subtotal			$1,251,000
Total			**$4,063,000**



BASEMENT PLAN
SCALE: 1/8" = 1'-0"
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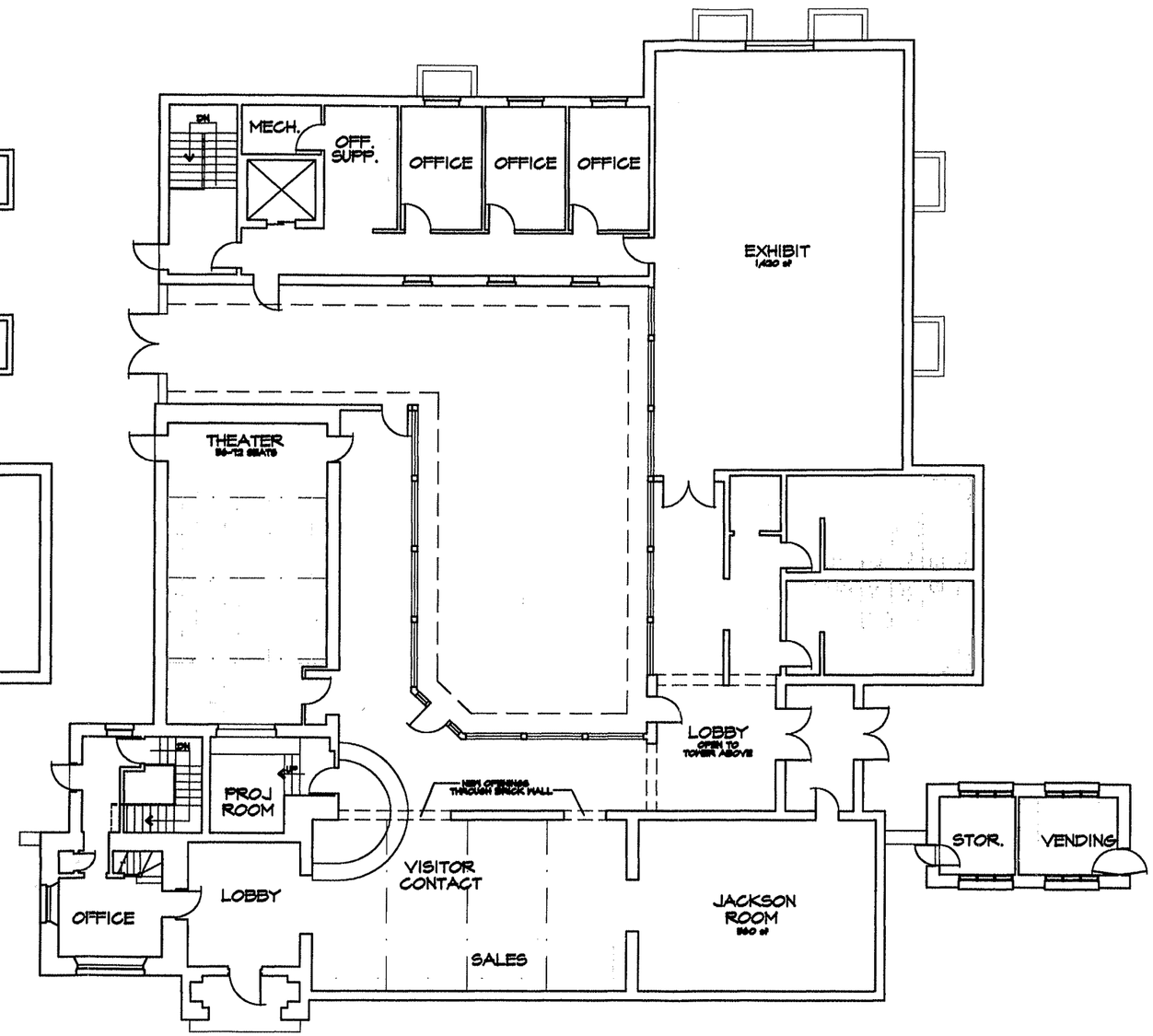


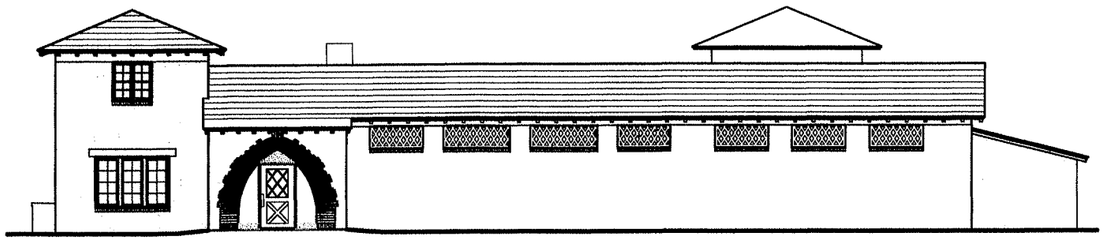
FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"
0 5' 10' 20'

REVISED	
DATE	INITIAL

PREPARED
A.M. O'BRIGHT
DESIGNED
A.M. O'BRIGHT
DRAWN
A.M. O'BRIGHT
CHECKED
10/26/2001
DATE

FLOOR PLANS
ALTERNATIVE 3d
TREATMENT ALTERNATIVES
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO.
317/80082
ACAD NO.
317-80082-11
SHEET 11 OF 16



SOUTH ELEVATION
SCALE: 1/8" = 1'-0"
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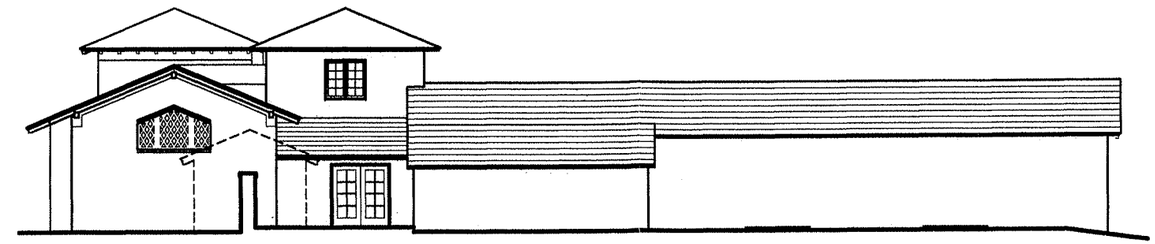

EAST ELEVATION
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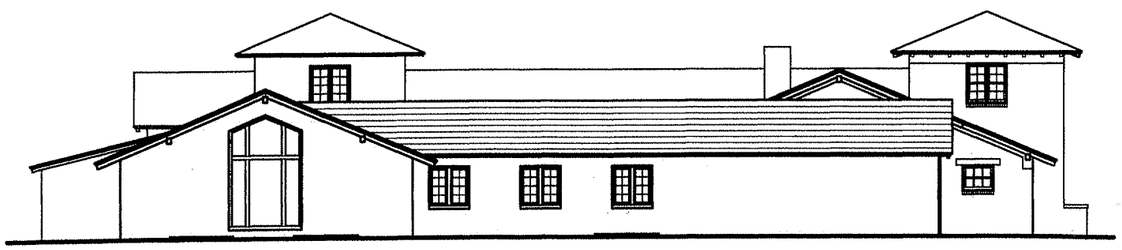
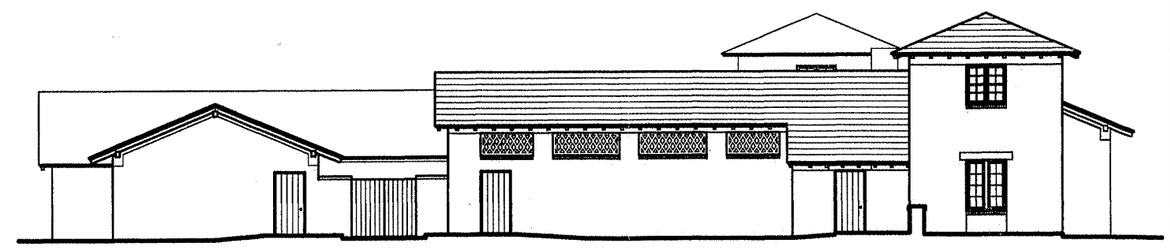


NORTH ELEVATION
SCALE: 1/8" = 1'-0"
0 5' 10' 20'



WEST ELEVATION
SCALE: 1/8" = 1'-0"
0 5' 10' 20'

REVISED	
DATE	DETAIL

PREPARED
A.M. O'BRIGHT
DESIGNED
A.M. O'BRIGHT
DRAWN
A.M. O'BRIGHT
CHECKED
10/26/2001
DATE

EXTERIOR ELEVATIONS
ALTERNATIVE 3d
TREATMENT ALTERNATIVES
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO.
SN1/80082
ACAD NO.
SN1-80082-12
SHEET 12
OF 16

Treatment Alternative 4a
Closed Courtyard and Wing Addition

Description

This alternative builds upon the wing and courtyard concept presented in Alternatives 3a and 3b. The principal difference is the promotion of a circular visitor circulation route centered around a courtyard core. This alternative would require construction of an addition attached to the north end of the Landmark Wing to make a complete internal circulation route. Width of the new addition wings would be sized to that of the existing wings.

Visitors would enter the primary entrance and head straight into the Landmark Wing to the visitor contact and sales areas. Public restrooms would be located just north beyond a new lobby attached to the Landmark Wing. Continuing clockwise around the courtyard, visitors would encounter the theater and three exhibit rooms. Two of the exhibit rooms would be located in the Museum and Landmark Wings.

Because nearly all first floor space is occupied by visitor functions, most office, administrative, and storage space would be located in the basement.

The existing public restroom building would be rehabilitated for use as a vending area and storage.

Analysis

This alternative would offer the visitor an opportunity to continue through all phases of the visitor center experience without doubling back to the front entrance. A straight-ahead approach upon entering the structure would be less confusing than requiring to turn into the initial contact area as in previous alternatives. The series of exhibit galleries is more in line with the present visitor center exhibit presentation.

Placing public restrooms within the new addition would ease possible tension over locating that function within the Jackson Wing. The theater and public restrooms placed in new construction would allow for more flexibility in how these spaces are designed and used in comparison with the previous alternatives placing these functions within the historic wings. However, placement of the restrooms and theater to the north removes any possibility of an interior view of the bluffs and makes for an awkward traffic flow.

A new enclosed stairwell would be required by code near the west entrance. This would necessitate moving the west entrance south. Stairwell 107 would then be removed.

Disadvantages with this alternative include:

- Inefficient use of interior space due to long and wide hallways.
- The remote location of the theater away from the visitor contact area would hinder operation of the theater with minimum staffing. The location of the theater also diminishes the importance of the feature audio-visual program in the visitor experience.
- Courtyard drainage could be a technical challenge given that surface drainage is eliminated.
- The need to penetrate the old adobe and brick wings, especially through the Landmark Wing.
- Installing the stairwell in the area now occupied by the employee restroom would require that west entry (106-D1) be moved south on the adobe wall system. This will have an impact on the

appearance of the west exterior elevation.

- Exposing the elevator within a public corridor.

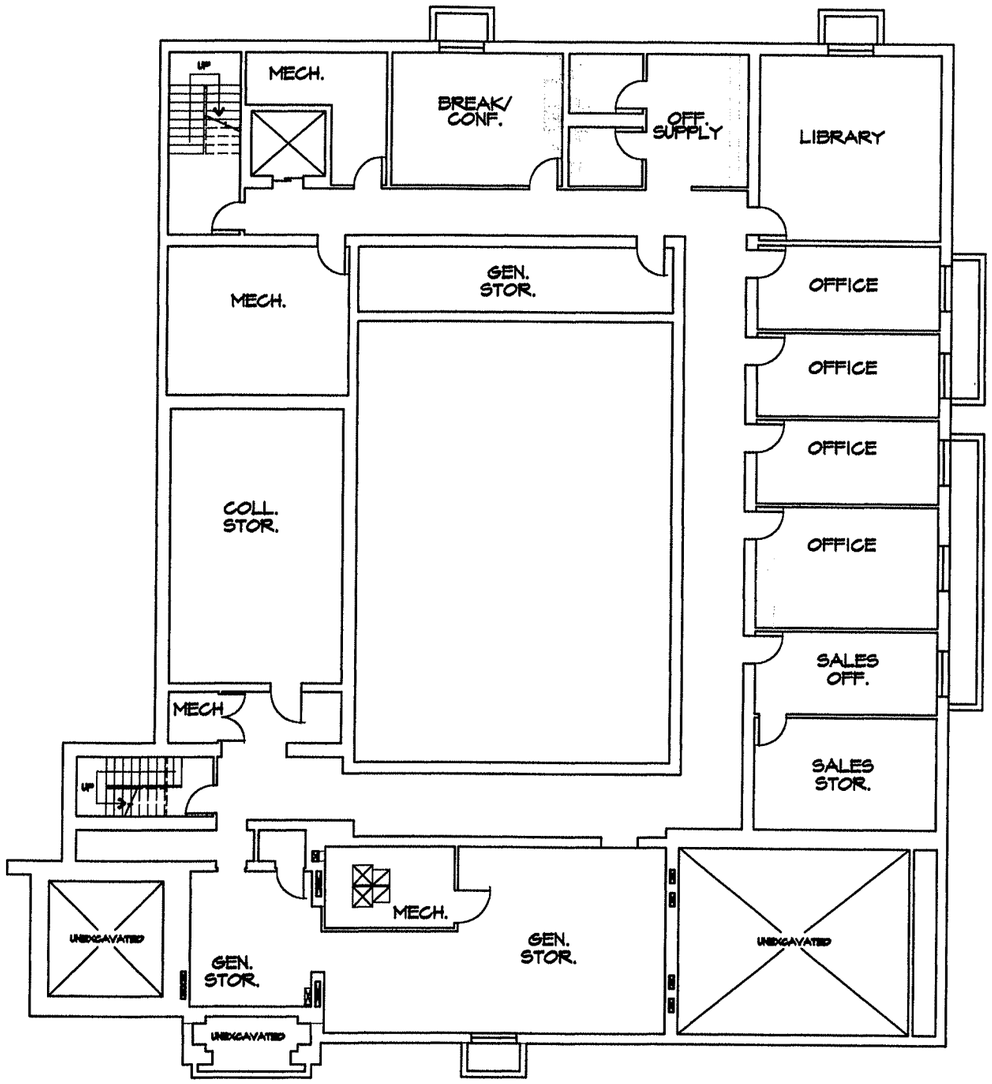
Special Construction

- Demolition of existing sunken office area including foundation and a portion of the roof system to provide adequate headroom.
- Construction of a new enclosed stairwell at the west entry will require removal of a structural concrete floor system and moving the west entrance.
- Installation of new passageways through existing brick and adobe wall systems.
- Installation of new glue-laminated timber trusses within new exhibit space.

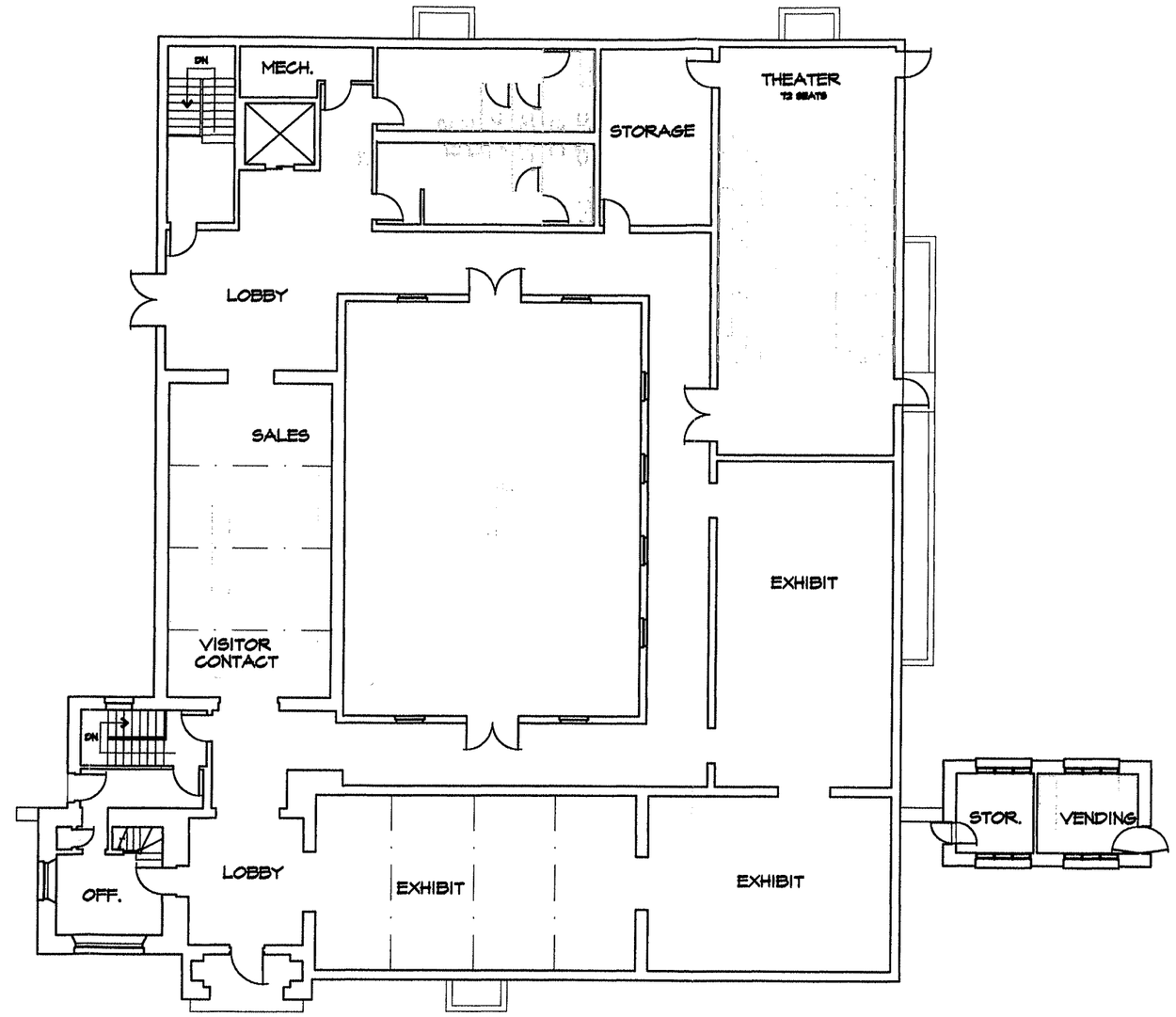
Cost Estimate – Alternative 4a

The following Class 'C' estimate reflects rehabilitation of the existing Visitor Center and construction of a new two level addition, including a central courtyard, onto the structure.

Item	*Area (sf)*	*$/sf*	*Est. Cost*
VC-new construction	9,420	184	$1,734,000
VC-rehabilitation	4,750	154	732,000
Grnd source heat pump	14,170	6	85,000
Traction elevator			150,000
Courtyard	1,620	40	65,000
Old Public Restroom	190	154	29,000
Site work			50,000
Subtotal (construction)			$2,845,000
Architectural design (A/E Tit. 1&2) (add 18%)			512,000
Value analysis			40,000
Archeology mitigation			5,000
Exhibits incl. Design	2,050	350	718,000
Subtotal			$1,275,000
Total			**$4,120,000**



BASEMENT PLAN
SCALE: 1/8" = 1'-0"
0 5' 10' 20'



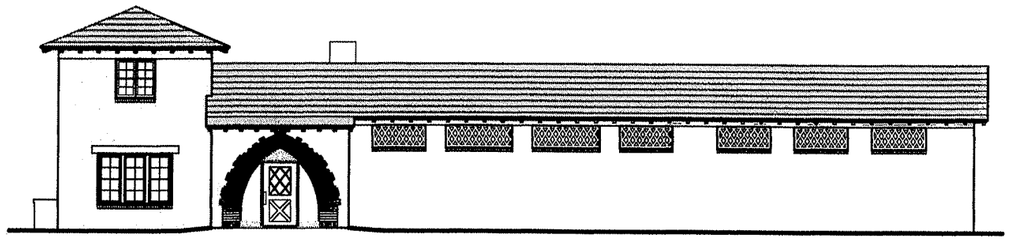
FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"
0 5' 10' 20'

REVISED	
DATE	INITIAL

PREPARED
AJL OSBRIGHT
DESIGNED
AJL OSBRIGHT
DRAWN
AJL OSBRIGHT
CHECKED
10/26/2001
DATE

FLOOR PLANS
ALTERNATIVE 4a
TREATMENT ALTERNATIVES
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO.
817/80082
ACAD NO.
817-80082-15
SHEET 15
OF 16



SOUTH ELEVATION
SCALE: 1/8" = 1'-0"
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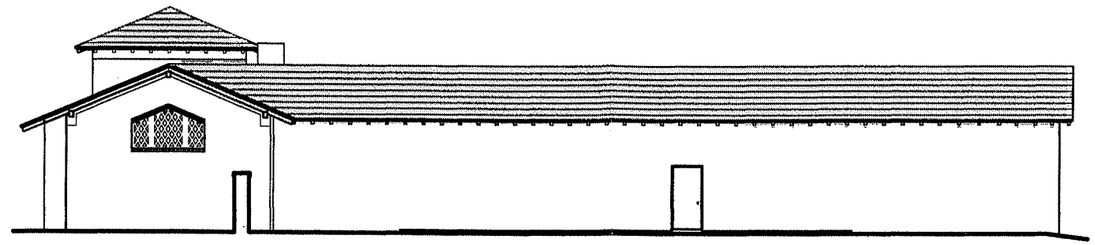

EAST ELEVATION
SCALE: 1/8" = 1'-0"
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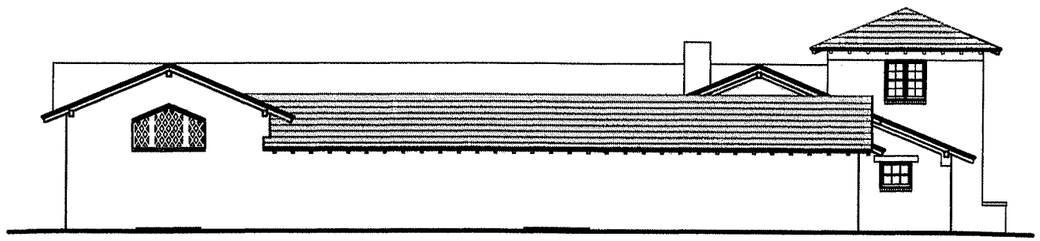
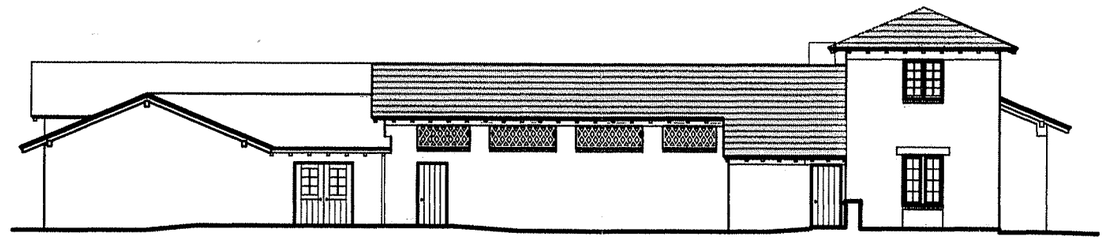


NORTH ELEVATION
SCALE: 1/8" = 1'-0"
0 8' 16' 32'



WEST ELEVATION
SCALE: 1/8" = 1'-0"
0 8' 16' 32'

REVISED		PREPARED		
DATE	INITIAL	A.H. O'BRIGHT DESIGNED A.H. O'BRIGHT DRAWN A.H. O'BRIGHT CHECKED 10/26/2001 DATE	EXTERIOR ELEVATIONS ALTERNATIVE 4a TREATMENT ALTERNATIVES VISITOR CENTER SCOTTS BLUFF NATIONAL MONUMENT GERING, NEBRASKA	DRAWING NO. 917/80082 ACAD NO. 917-80082-14 SHEET 14 OF 16

Treatment Alternative 4b

Closed Courtyard and Wing Addition

Description

This alternative would continue the visitor circulation path seen in Alternative 4a, but with some variations. Upon entering the building visitors would turn right into the visitor contact and sales area. Public restrooms would be located within the Jackson Wing, segregated from the visitor contact area by a hallway. Visitors would proceed north, or counterclockwise through the building, to the theater for a presentation, or have the option of proceeding directly to an exhibit hall in the north portion of the building. Passing through a lobby connecting the new addition to the Landmark Wing, visitors would enter the Landmark Wing exhibit room, before exiting through the front lobby.

With this alternative the elevator, sales office, and storage would be clustered at the first floor near the public restrooms. In the basement offices would be located at the north wing, and the employee break room and restrooms in the east wing.

Analysis

The footprint of this alternative is slightly larger than Alternative 4a, and about four feet beyond the north boundary of the amphitheater. The slightly larger space provides for a few more amenities such as increased storage space at the first floor level, a larger theater, and a kitchen segregated from the employee break room at the basement level. However, exhibit space falls short of the program by a little over 100 square feet. While the circulation path is circular with respect to the courtyard, the exhibit rooms are separated by a lobby required to provide egress from the courtyard. Placement of the exhibit room and theater to the north offers the possibility of an interior view of the bluff.

As with Alternative 4a, a new enclosed stairwell would be required by code near the west entrance. This would necessitate moving the west entrance south. Stairwell 107 would then be removed.

Disadvantages with this alternative include:

- The remote location of the theater away from the visitor contact area would hinder operation of the theater with minimum staffing. The location of the theater also diminishes the importance of the feature audio-visual program in the visitor experience.
- Courtyard drainage could be a technical challenge given that surface drainage is eliminated.
- The need to penetrate the old adobe and brick wings, especially through the Landmark Wing.
- Installing the stairwell in the area now occupied by the employee restroom would require that west entry (106-D1) be moved south on the adobe wall system. This will have an impact on the appearance of the west exterior elevation.
- Exposing the elevator within a public corridor.

Special Construction

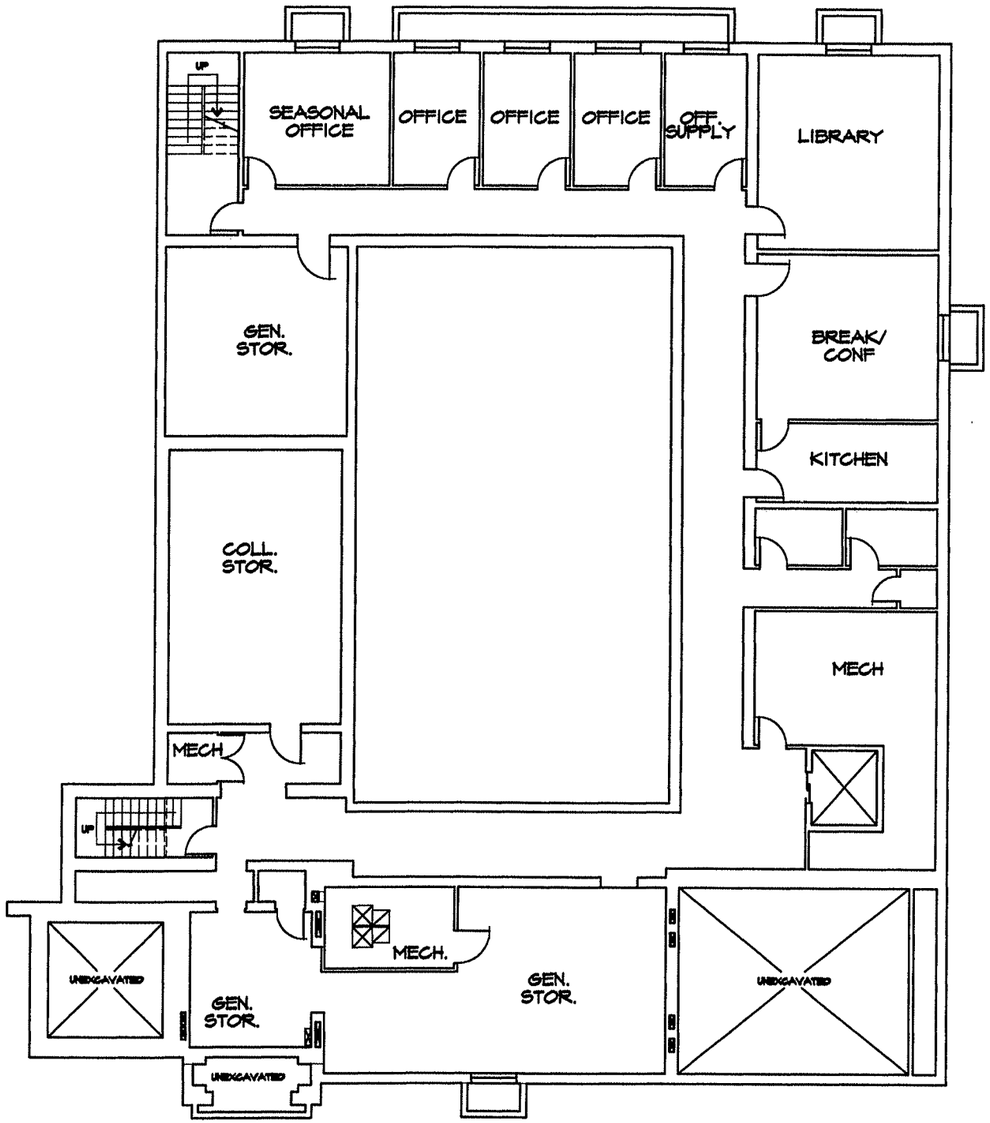
- Demolition of existing sunken office area including foundation and a portion of the roof system to provide adequate headroom.
- Construction of a new enclosed stairwell at the west entry will require removal of a structural concrete floor system and moving the west entrance.
- Installation of new passageways through existing brick and adobe wall systems.

- Installation of a basement-mounted traction elevator to eliminate an equipment tower that may protrude above the roof line.
- Installation of new glue-laminated timber trusses within new exhibit space.

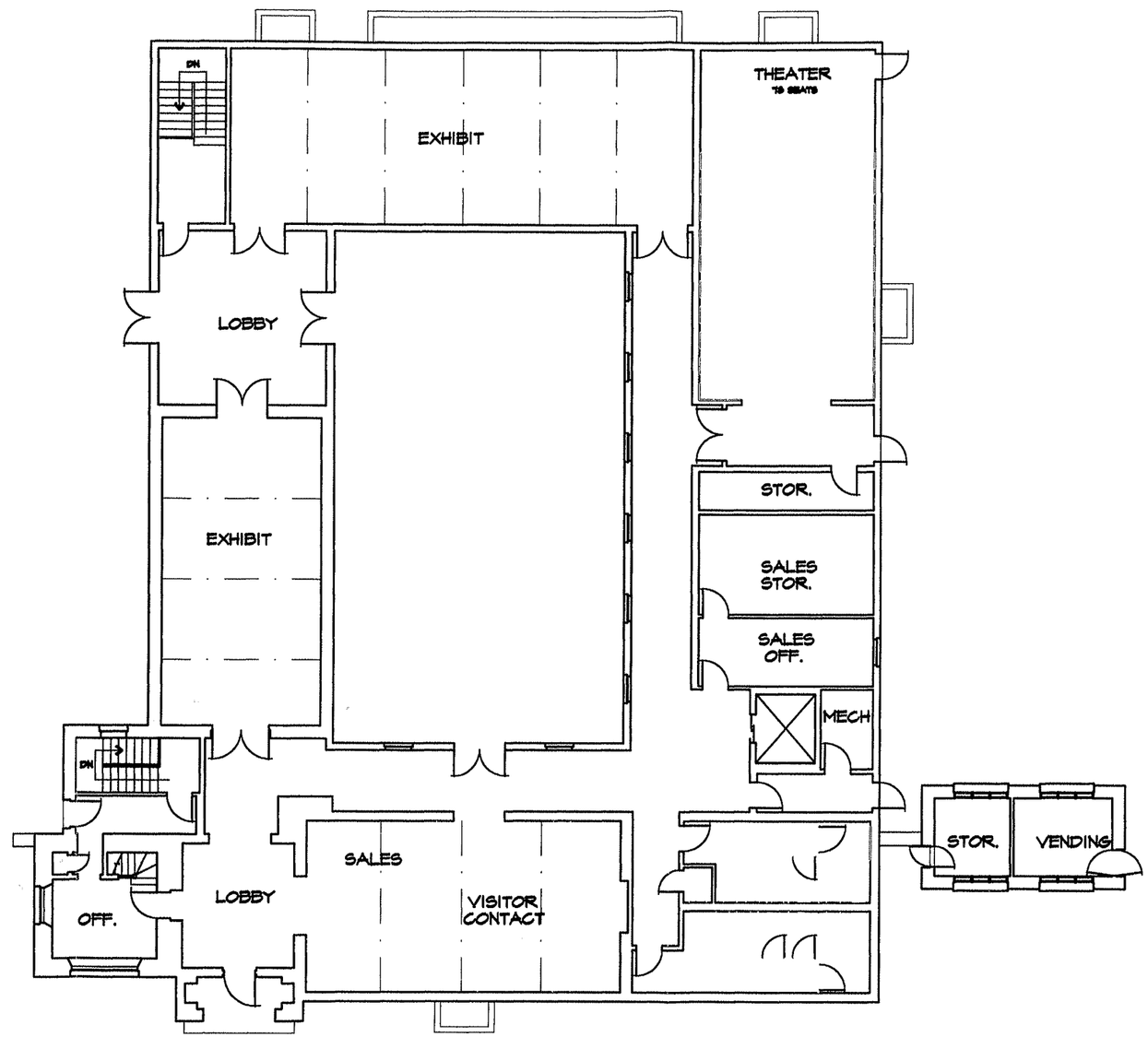
Cost Estimate – Alternative 4b

The following Class 'C' estimate reflects rehabilitation of the existing Visitor Center and construction of a new two level addition, including a central courtyard, onto the structure.

Item	*Area (sf)*	*$/sf*	*Est. Cost*
VC-new construction	9,330	184	$1,716,000
VC-rehabilitation	4,750	154	732,000
Grnd source heat pump	14,080	6	84,000
Traction elevator			150,000
New timber trusses	1,120	9	10,000
Courtyard	2,040	40	82,000
Old Public Restroom	190	154	29,000
Site work			50,000
Subtotal (construction)			$2,853,000
Architectural design (A/E Tit. 1&2) (add 18%)			414,000
Value analysis			40,000
Archeology mitigation			5,000
Exhibits incl. Design	1,790	350	627,000
Subtotal			$1,186,000
Total			**$4,039,000**

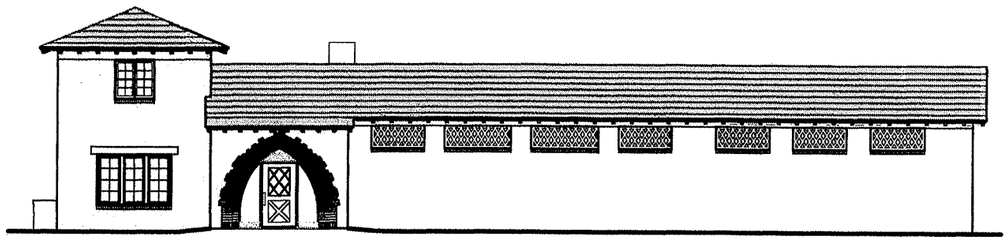


BASEMENT PLAN
SCALE: 1/8" = 1'-0"



FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

REVISED		PREPARED		
DATE	INITIAL	A.M. O'BRIGHT DESIGNED	FLOOR PLANS ALTERNATIVE 4b TREATMENT ALTERNATIVES VISITOR CENTER SCOTTS BLUFF NATIONAL MONUMENT GERING, NEBRASKA	DRAWING NO. 817/80082
		A.M. O'BRIGHT DRAWN		ACAD NO. 817-80082-15
		A.M. O'BRIGHT CHECKED		SHEET 15
		10/26/2001 DATE		OF 16



SOUTH ELEVATION
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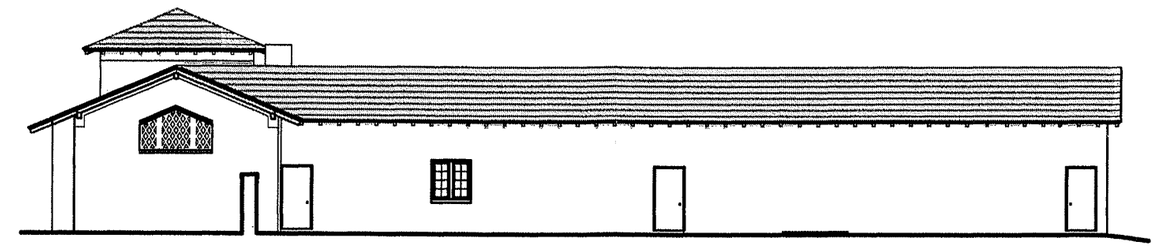

EAST ELEVATION
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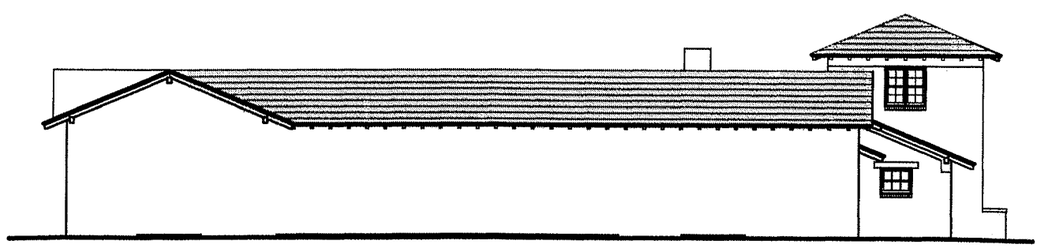

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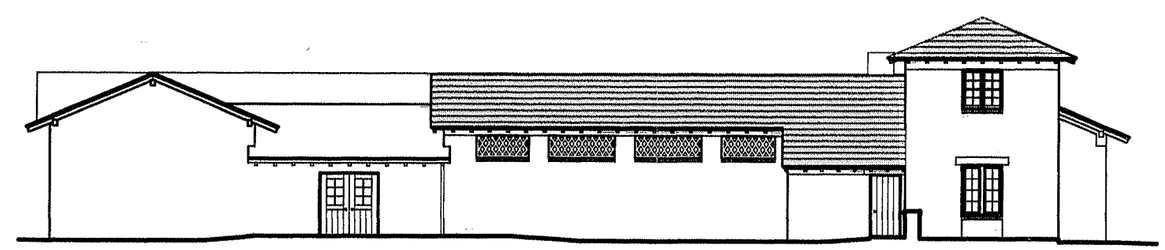


WEST ELEVATION
SCALE: 1/8" = 1'-0"
0 5' 10' 20'

REVISED	
DATE	INITIAL

PREPARED
A.M. O'BRIGHT
DESIGNED
A.M. O'BRIGHT
DRAWN
A.M. O'BRIGHT
CHECKED
10/26/2001
DATE

EXTERIOR ELEVATIONS
ALTERNATIVE 4b
TREATMENT ALTERNATIVES
VISITOR CENTER
SCOTTS BLUFF NATIONAL MONUMENT
GERING, NEBRASKA

DRAWING NO.
SNT/80082
ACAD NO.
SNT-80082-16
SHEET 16
OF 16

FURTHER INVESTIGATIONS

Substantial design work will be required beyond production of this document. Upon successful selection of an ultimate treatment planning will need to be initiated to procure funds to complete the project. Specialized professional assistance will be required for the following tasks:

- Analyze stucco coat on adobe walls.
- Initiate A/E Title I (design development) design services. This work may also include a soils analysis.
- Initiate value analysis process.
- Initiate A/E Title II (construction documents) design services.
- Archeological survey/mitigation of proposed construction site.

APPENDIX A

1936 Letter

The following letter from Assistant Lanscape Architect S. Serran to Landscape Architect Howard W. Baker summarizes the use of adobe brick as a substitute for fired brick in the construction of the Landmark Wing and tower.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WIND CAVE NATIONAL PARK
HOT SPRINGS, S. DAK.

OFFICE OF THE SUPERINTENDENT

RECEIVED JUN 25 1936 SECOND REGIONAL OFFICE N. P. S.

June 23, 1936.

Mr. Howard W. Baker
Resident Landscape Architect
National Park Service
U. S. National Bank Building
Denver, Colorado

Dear Mr. Baker:

I visited Scotts Bluff National Monument during the two day period June 20 and 21. While there I discussed with Acting Custodian Randels the contemplated headquarters area development which involves the construction of a number of adobe buildings, courtyard walls, and adobe extensions to the existing museum building. Concerning this matter I wish to comment as follows:

This adobe headquarters area development is now in progress. To date the concrete foundation for the equipment shed has been poured, and some adobe bricks have been made and are now undergoing the necessary curing process. It has never been definitely decided to the satisfaction of every one concerned exactly how the exposed adobe surfaces are to be finished and exactly what appearance we should attempt to effect.

Before continuing further I should like to explain why the use of common brick as a building material for the headquarters area development was abandoned and adobe recommended in its place. Last summer the existing museum unit was completed at an approximate cost of $9,000.00. The funds were secured through a P.W.A. allotment. Only a portion of the proposed museum building was completed because the lack of funds made its completion impossible at that time. In spite of repeated efforts necessary additional P.W.A. funds for completing the structure could not be obtained.

Shortly after the completion of that portion of the museum building of which I have spoken Chief Architect Vint visited Scotts Bluff National Monument. Feeling that it would be extremely difficult and perhaps impossible to ob-

tain additional P.W.A. allotments for the completion of the museum and other proposed headquarters area buildings; the idea occurred to him that our plans for the contemplated combined headquarters and utility groups could be made to materialize by adopting adobe as a building material and doing the work under E.C.W. He reasoned that in that way and that way alone could our plans for a completed headquarters development become a reality.

We all know that Scotts Bluff lies in an area ~~the~~ where sod house civilization prevailed in the early days when Nebraska was in its first stage of development. We are also aware of the fact that adobe buildings are typical of southwestern United States and decidedly foreign to the Scotts Bluff region. Mr. Vint recommended the adoption of adobe as a building material not because he considers it appropriate for that area, but because it was the only way in which comparatively long lasting headquarters buildings could be constructed under the existing E.C.W. limitations. The use of adobe was suggested only as a last resort. If adequate funds had been available regular brick would have been used throughout the entire headquarters development.

The question with which we are now concerned is the manner in which the adobe brick for the museum additions and other headquarters buildings and walls are to be made and laid. That is, should we follow the customary method of adobe construction wherein comparatively large rough bricks with wide joints are used or should we make the adobe bricks smooth, and of such dimensions and so laid as to resemble regular brick? I, personally believe that we should do the latter.

Since adobe construction is so foreign to the Scotts Bluff region I believe that it would be a serious mistake to so construct the building side walls as to make them appear like typical adobe. Quoting Mr. Randels some of the interested local people are already protesting the use of adobe brick on the monument. I believe that this can be accomplished if the adobe bricks are made sufficiently smooth, no protruding straw ends showing, laid with narrow joints, and so bonded as to show only 8" faces. If possible we might even go further in our effort to imitate regular brick by treating it in some manner which will make painting possible. Whether or not that will be possible I do not know. Since the existing museum building has outer walls of painted common brick I am of the opinion that if adobe bricks are used in making necessary additions to this existing structure the adobe bricks should be made to resemble regular brick in every way possible so that the change in building materials will not be apparent. This should be done not only in making additions to the museum but also in the construction of the other buildings and walls in the proposed compactly arranged headquarters and utility groups.

At the present time we are primarily concerned with the equipment shed whose adobe side walls will soon be under construction. I noted that the plans indicate 1" vertical and $\frac{3}{4}$" horizontal joints. The plan also indicates the use of 3"x8"x10" adobe bricks. Since the thickness of the walls is to be 17" one can readily see that difficulty will be experienced on those courses wherein the 8" faces show and the 10" side runs right angles to the face of the wall. I believe that it would be far better to make the adobe brick 3"x8"x17" with the 8" face showing except in the header courses wherein the bricks would be reversed and the 17" faces would show. However, a false joint can be made in the center of the 17" face and obtain the affect of 8" faces. In that way all exposed brick faces will be 3"x8".

I believe that the vertical and horizontal joints should be changed from 1" and $\frac{3}{4}$" to $\frac{1}{2}$" so as to simulate regular brick construction. If the bricks are constructed, laid, and possibly painted as I have suggested the addition to the existing museum and new buildings and walls can be made to closely resemble and conform in appearance with the existing unit. The idea of imitating brick does not particularly appeal to me. However, I believe that in this instance we are justified in doing so because the necessity of making the additions to the existing museum building and other proposed buildings conform in outward appearances is of paramount importance.

Mr. Randels suggested making additions to the museum and other proposed buildings of typical adobe construction with the idea of possibly later covering the exterior walls of the existing museum unit with adobe veneer. I personally feel that that would not be a satisfactory solution to our problem. The addition of such a veneer would require considerable alterations on the completed unit. The architectural design of the existing structure is such that adobe could not be applied to its exterior without creating an architectural mostrosity unless the existing structure is subjected to many changes. Furthermore, as I have mentioned, the adoption of typical adobe construction would be a serious mistake because it is so utterly foreign to the area.

Under the new set up there is some question concerning authority. I presume that building construction at the moment henceforth will primarily concern the district and regional architects and the Custodian. I am taking the liberty of commenting on the proposed developments at Scotts Bluff because I am familiar with what has transpired to the present date in the way of plans and numerous discussions which have taken place regarding the proposed headquarters development.

I simply wish to stress the point that the work is now in progress, and that all parties concerned should in some way agree upon the ultimate affect desired. I believe it would be an excellent idea if Acting Custodian Randels in some way can arrange

to obtain comments from the various parties concerned and determine definitely how the adobe side walls are to be constructed and finished before the work in progress goes further.

Comments from you concerning this matter will be greatly appreciated.

Sincerely yours,

S. Serrano
Ass't. Landscape Architect

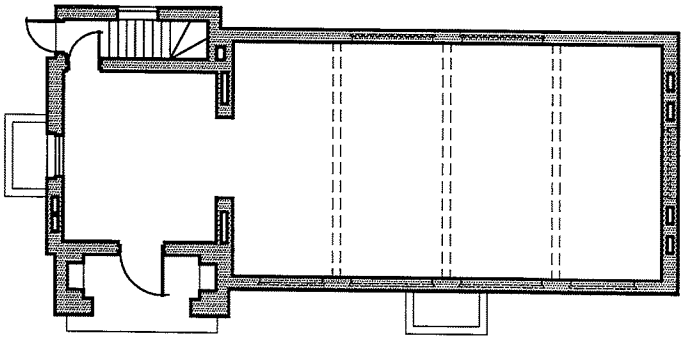
cc: Brown
Bagley
Randels

SS/EH

APPENDIX B

Historic Building Chronology Drawings

The following drawing set summarizes changes made to the Visitor Center from its initial 1935 construction to the present.



1935–1938

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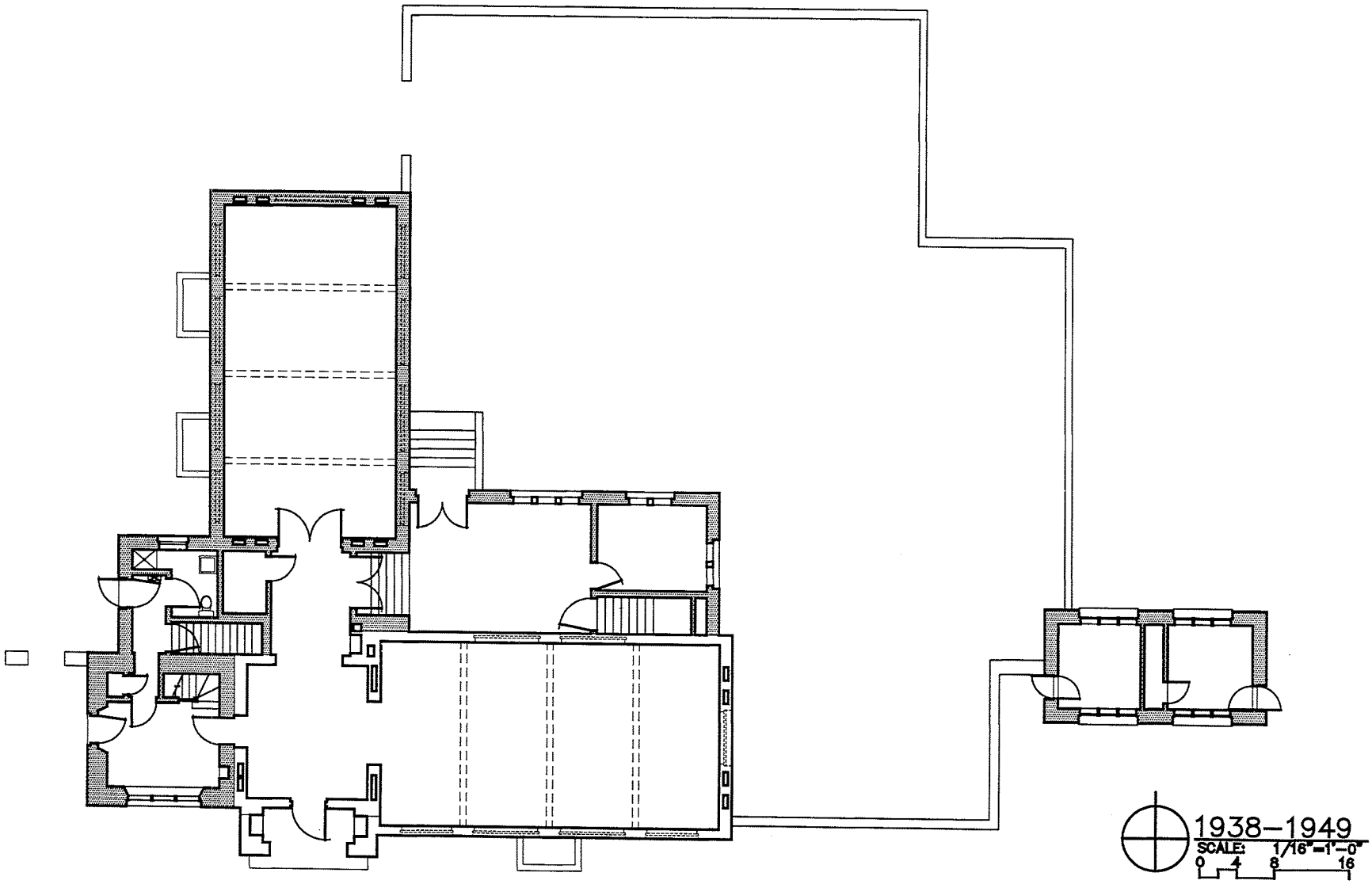
0 4 8 16


1938–1949
SCALE: 1/16"=1'-0"
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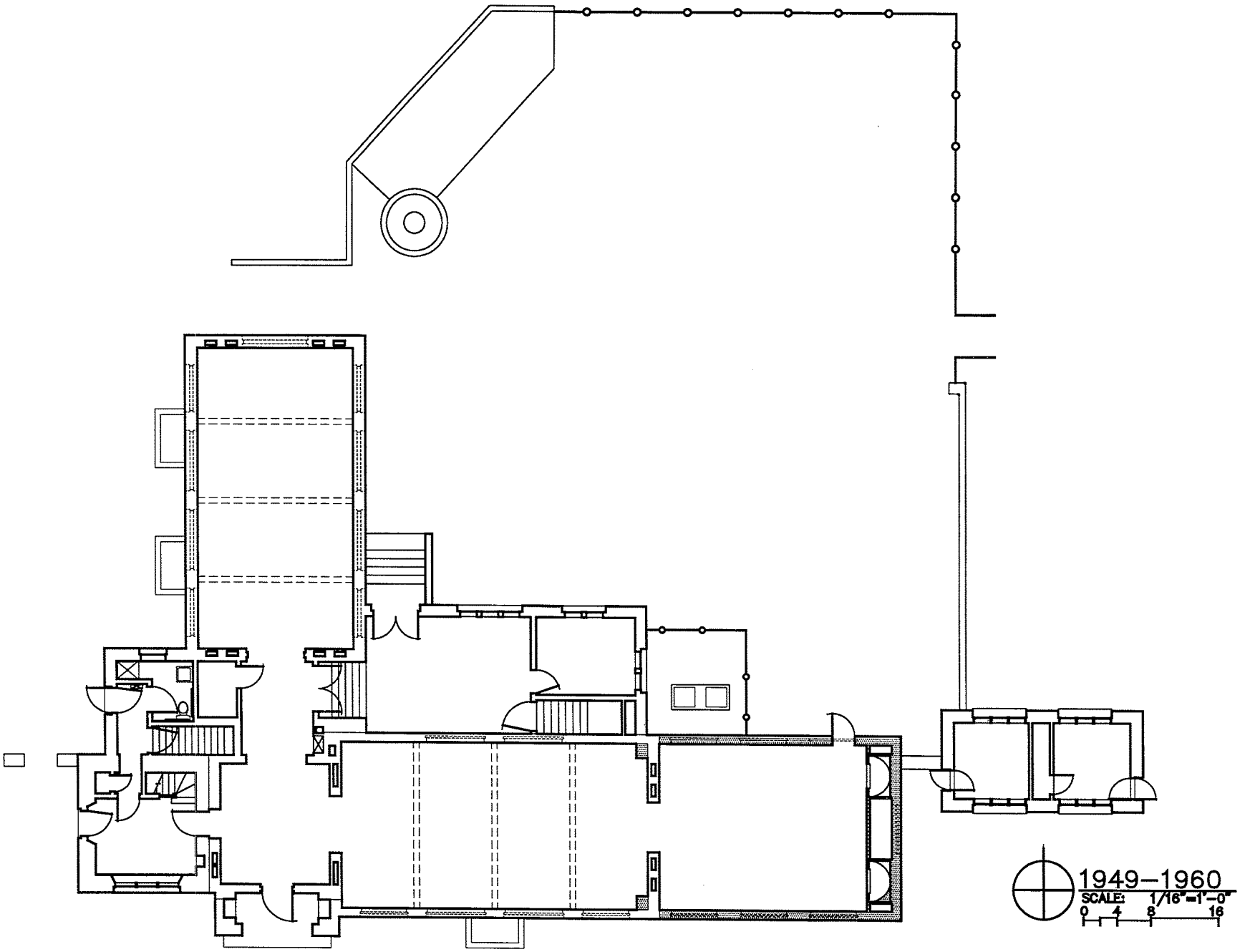
1949–1960
SCALE: 1/16"=1'-0"
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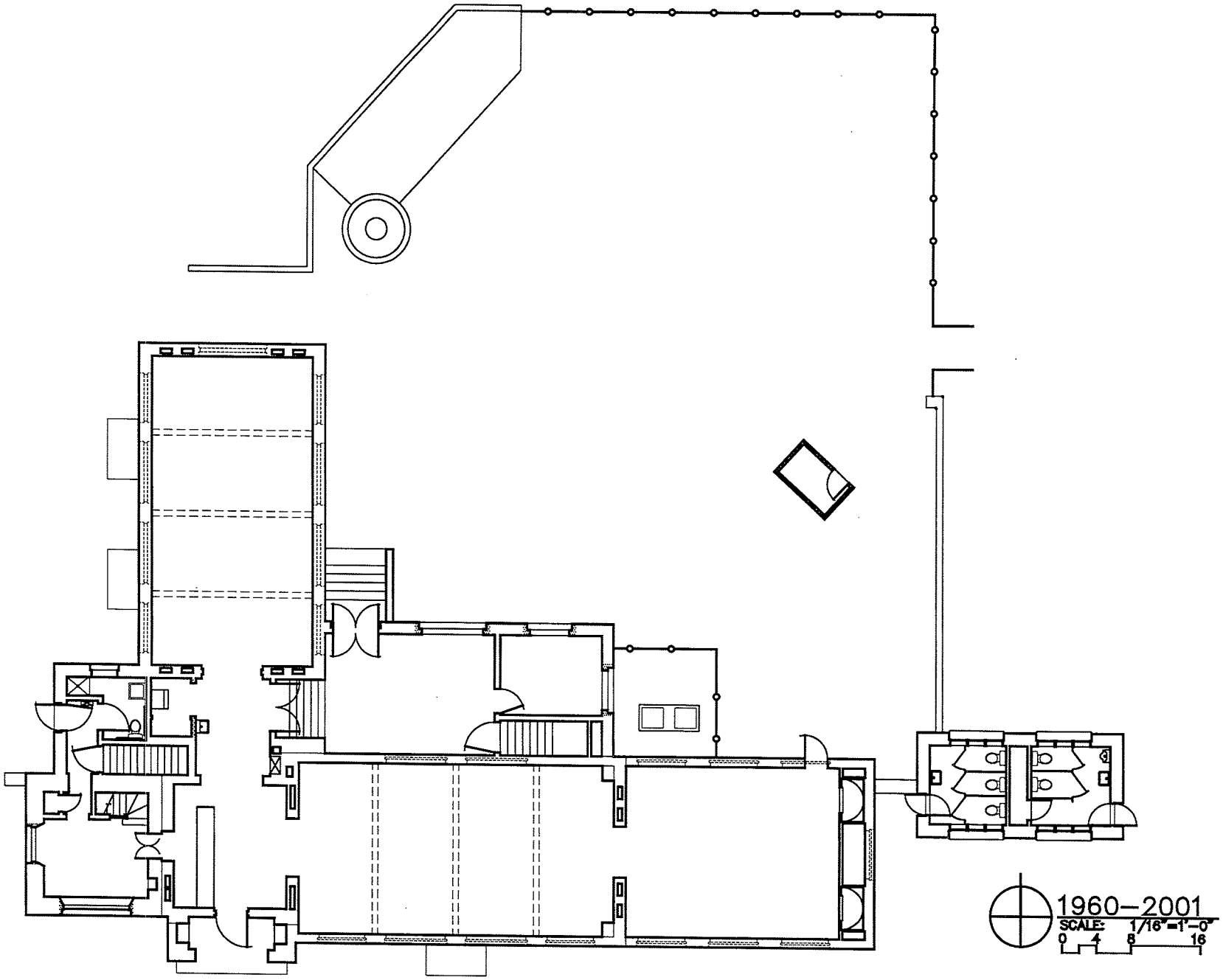
1960–2001
SCALE: 1/16"=1'-0"
0 4 8 16

APPENDIX C

Review Correspondence

The following correspondence exchanged between the Midwest Regional Office and the Nebraska State Historic Preservation Officer pertain to review of this document. The State's response indicates their preference for Treatment Alternatives 3 and 4.

H42 (MWR-CRSP-CR)

Mr. Lawrence Sommer
State Historic Preservation Officer
Nebraska State Historical Society
1500 R Street
Lincoln, Nebraska 68501

Dear Mr. Sommer:

Enclosed for your review and comment is Alan W. O'Bright's *Trail Oasis: Historic Structure Report, Visitor Center (HS-2), Scotts Bluff National Monument, Gering Nebraska.*

The historic structure report (HSR) provides advance planning for rehabilitation of the Scotts Bluff visitor center, constructed by the Civilian Conservation Corps in 1935. This building is significant for its association with early interpretation of Oregon Trail heritage and the structure's architectural design. The HSR provides alternative concepts for the structure's rehabilitation for continued use as the park's primary visitor contact station. Selection of an ultimate treatment will take place during the future design development and value analysis phases of the project.

The HSR presents four alternatives for rehabilitation of this historic structure. Alternative 1 addresses recommendations in the General Management Plan for use of other extant structures rather than construction of new buildings or additions. Alternative 2 investigates a core addition for the visitor center building that essentially infills space between the existing wings. Alternatives 3 and 4 explore the concept of new wing additions encompassing a central courtyard. In addition, two options are posited for each of alternatives 3 and 4 to show a range of possibilities. While we do not yet have a preferred addition design, we believe all four alternatives discussed in the HSR are sympathetic to the historic scene and conform to *The Secretary of the Interior's Standards for Rehabilitation,* demonstrating conceptually that an addition is feasible.

The National Park Service has, with this HSR, evaluated the appropriateness of an addition to the Scotts Bluff visitor

center in accordance with section 106 of the National Historic Preservation Act of 1966, as amended, and the Advisory Council's procedures on historic preservation (36 CFR 800). We have determined this future undertaking will have no adverse effect on the qualities for which Scotts Bluff National Monument is listed on the National Register of Historic Places. We respectfully request your comments on the concept of an addition to the visitor center as well as on the design alternatives. Your comments will guide us during future design development, and we will consult with you again on our ultimate addition design. Please send your comments within 30 days to Craig Kenkel, Chief, Cultural Resources Division, at this office address. If you have questions regarding the HSR, contact Mr. Kenkel at 402-514-9368 or craig_kenkel@nps.gov.

Sincerely

/s/ (Sgd) David N. Given

for William W. Schenk
Regional Director

Enclosure

bcc: w/o enclosure
~~Al O'Bright, Ulysses S. Grant~~
Superintendent, Scotts Bluff
Mark Engler, Homestead

Ckenkel/aec/18 Mar 02
c://mydoc/kenkel/TrailOasis.doc

NEBRASKA STATE HISTORICAL SOCIETY
1500 R STREET, P.O.BOX 82554, LINCOLN, NE 68501-2554
(402) 471-3270 Fax: (402) 471-3100 1-800-833-6747 www.nebraskahistory.org

April 24, 2002

Craig Kenkel
Chief, Cultural Resources Division
National Park Service
1709 Jackson Street
Omaha, NE 68102-2571

RE: Historic Structures Report, Scotts Bluff National Monument Visitor Center
HP#0203-112-01

Dear Mr. Kenkel:

We are in receipt of the Historic Structures Report for the proposed addition to the Scotts Bluff National Monument Visitor Center. We appreciate the opportunity to comment on the proposed project. It is apparent from the report presented that there is a need for additional space at this location.

We concur with your opinion that the project as proposed will have no adverse effect to the Visitor Center, however, it is our position that alternatives three and four and their options are the most sensitive to the existing building. Obviously using all the existing buildings in a discontiguous fashion is not practical for the purposes of a museum/interpretive center. Alternative two, proposing a core addition, would effectively infill the right angles of the building and reduce the ability to read the original massing of the building. Therefore, the proposals in alternatives 3 and 4 that create a courtyard experience and retain the original feel of the building would be preferred alternatives.

Again, we appreciate the ability to comment on the report and if you have any further questions do not hesitate to contact Melissa Dirr at 402-471-4408 if you have any questions regarding this letter.

Sincerely,

L. Robert Puschendorf
Deputy State Historic
Preservation Officer

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

REFERENCES

Primary Sources

Cockrell, Ron. *Scotts Bluff National Monument, Nebraska: An Administrative History, 1960-1983.* Omaha, Nebraska: National Park Service, Midwest Regional Office, November 1983.

Fitzpatrick, Thomas R. "Structural Evaluation, Visitors Center (HS-2), Scotts Bluff National Monument, Gering, Nebraska." Ann Arbor, Michigan: Fitzpatrick Structural Engineering, 16 October, 2001.

Good, Albert H. *Park & Recreation Structures.* Boulder, Colorado: Graybooks, 1990.

Harrington, M. R. *How to Build a California Adobe.* Los Angeles: The Ward Ritchie Press and the Southwest Museum, 1948.

Hubbell, Elbert. Earth Brick Construction. Washington D.C.: United States Department of the Interior, 1943.

Knudsen, Dean. *An Eye For History, The Paintings of William Henry Jackson.* Gering, Nebraska: Scotts Bluff National Monument & The Oregon Trail Museum Association, 1997.

National Park Service, "List of Classified Structures Single Entry Report, Oregon Trail Museum," 17 March, 1995.

Mattes, Merrill. *Scotts Bluff National Monument.* Washington D.C.: National Park Service, U.S. Department of the Interior, 1983.

McAlester, Virginia and Lee. *A Field Guide to American Houses.* New York: Alfred A. Knopf, 1984.

Newcomb, Duane. *The Owner-Built Adobe House.* New York: Charles Scribner's Sons, 1980.

Newcomb, Rexford. *Spanish-Colonial Architecture in the United States.* New York: Dover Publications, Inc., 1990.

Park Structures and Facilities. n.p.: National Park Service, 1935.

Sanford, Dena. "Determination of Eligibility (form), Scotts Bluff National Monument." 1995.

Soullière, Laura. *Architecture in the Parks, National Historic Landmark Theme Study.* Washington D.C.: Department of the Interior, National Park Service, 1986.

Tiller, de Teel Paterson. *Preservation of Historic Adobe Buildings – Preservation Brief 5.* Washington D.C.: National Park Service, U.S. Department of the Interior, 1978.

"Scotts Bluff National Monument General Management Plan." Omaha, Nebraska: United States Department of the Interior, National Park Service, Midwest Support Office, 1998.

Soule, Winsor. *Spanish Farm Houses and Minor Public Buildings.* New York: Architectural Book Publishing Co., 1924.

Southwick, Marcia. *Build With Adobe.* Chicago: The Swallow Press, Inc., 1965.

State of New Mexico Construction Industries Division 1997 New Mexico Building Code. Santa Fe, New Mexico: Regulation & Licensing Department, Construction Industries Division, 31 December, 1998.

Uniform Building Code. Whittier, California: International Conference of Building Officials, 1994.

Uniform Federal Accessibility Standards. Washington D.C.: General Services Administration, 1985.

Welsch, Roger L. *Sod Walls, The Story of the Nebraska Sod House.* Broken Bow, Nebraska: Purcells, Inc., 1968.

Uncited Sources

Adobe Codes From Around the Southwest. n.p.: Adobe News, Inc., 1985.

Aller, Paul and Doris. Build Your Own Adobe. Stanford, California, Stanford University Press, 1948.

Cultural Landscape Inventory, Scotts Bluff National Monument, Nebraska. Omaha, Nebraska: National Park Service, Great Plains Support Office, Cultural Landscapes Program, 1996.

Stedman, Myrtle. *Adobe Remodeling & Fireplaces.* Santa Fe, New Mexico: Sunstone Press, 1986.

Stedman, Myrtle and Wilfred. *Adobe Architecture.* Santa Fe, New Mexico: Sunstone Press, 1987.

Correspondence

Given, David N., Acting Regional Director to Lawrence Sommer, Nebraska State Historic Preservation Officer. Letter. 18 March, 2002.

Puschendorf, Robert L., Deputy Nebraska State Historic Preservation Officer to Craig Kenkel, Chief Cultural Resources Division, National Park Service. Letter. 24 April, 2002.

Serrano, S., Assistant Landscape Architect to Howard W. Baker, Resident Landscape Architect. Letter. 23 June, 1936.

Drawings

"Administration Building & Museum, Scotts Bluff National Monument." NPS Drawing No. SB-3007. 14 July, 1934. Eight sheet set. Denver Service Center drawing archives.

"Addition to Museum Building." NPS Drawing No. SB-2501-A. 16 March, 1937. Seven sheet set. Denver Service Center drawing archives.

"Conversion of HVAC Systems to Natural Gas, Visitor Center." NPS Drawing No. 317-80025. 1 September, 1990. Two sheet set. Denver Service Center drawing archives.

"Entrance and Visitor Center Parking." NPS Drawing No. 317-41005. 1 May, 1988. Four sheet set. Denver Service Center drawing archives.

"Headquarters Area Utilities Layout, Part of the Master Plan for Scotts Bluff National Monument." NPS Drawing No. NM-SB-4965-C, 1 January, 1942. Single

sheet. Denver Service Center drawing archives.

"Installation of Air Conditioning System, Administration Building and Museum." NPS Drawing No. NM-SB-2501-M. 30 August, 1957. Single sheet. Denver Service Center drawing archives.

"Installation of Sump Pump, Administration Building." NPS Drawing No. NM-SB-2501-N. 8 May, 1962. Single sheet. Denver Service Center drawing archives.

"Proposed Restroom, Scottsbluff [sic] N.M." NPS Drawing No. 317-80026. 19 September, 1990. Single sheet. Denver Service Center drawing archives.

"Replacement of headquarters Water Distribution System, Scotts Bluff National Monument." NPS Drawing No. 317-80015. 13 June, 1984. Single sheet. Denver Service Center drawing archives.

Visitor Center Remodeling, Jackson Wing," NPS Drawing No. 317-41000, 1 November, 1977. Three sheet set. Denver Service Center drawing archives.

"William H. Jackson Memorial Wing Addition to the Administration Building and Museum," NPS Drawing No. NM-SB-2501-J, 16 July, 1946, Five sheet set. Denver Service Center drawing archives.