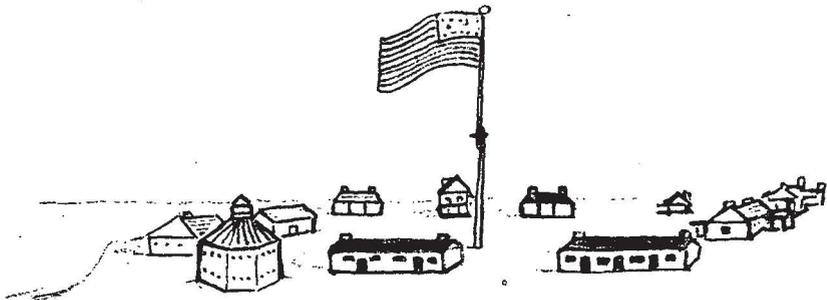


FT. LARNED

KANSAS

HISTORIC STRUCTURES REPORT

PART I



1868

Approval Sheet

Recommended: 13/ Elbert W. Smith 7-12-67
Superintendent Date

Recommended: 14/ Fred C. Jorgensen 7-26-67
Regional Director Date

Approved: 15/ Ernest Allen Connally 8-24-67
Chief, Office of Archeology and
Historic Preservation Date

Received in Library July 1967

Fort Larned National Historic Site, Kansas

Historic Structures Report
Part I

by
Don Rickey, Jr., Historian
Thomas N. Crellin, Historical Architect

Division of History
Office of Archeology & Historic Preservation

National Park Service

Department of Interior

April, 1967

MIDWEST REGIONAL OFFICE LIBRARY
NATIONAL PARK SERVICE

Table of Contents

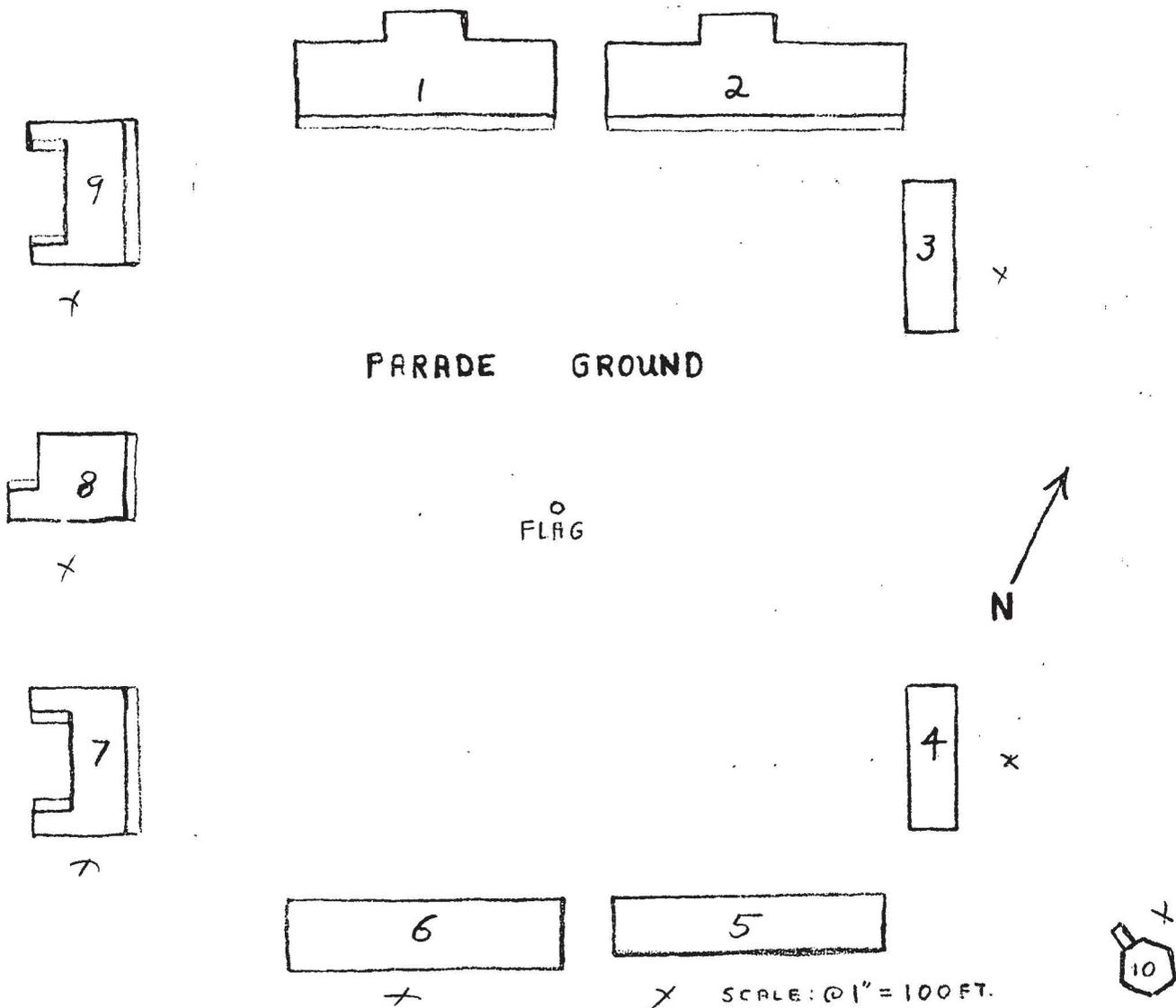
	Page
Administrative Data	1
Diagram of Fort Layout	Following 1
Photograph of Fort Larned, 1867-68	Following 10
Historical Data	13
Photograph Showing View From the Northeast	Following 14
Architectural Data	15
Archeological Data	21
Landscape Data	21
Furnishing and Exhibition Data	23

Fort Larned

Administrative Data

Names and Numbers of Structures

- (a) This report embraces all the existing 9 historic structures, one non-existing building proposed for reconstruction, and one minor non-historic outbuilding proposed for removal. All historic structures have been entered on the lists of the Historic American Buildings Inventory as Class BBB structures. These buildings are numbered on the Fort Larned Master Plan, and referred to in this report, as follows:
1. Enlisted Barracks
 2. Enlisted Barracks
 3. Shop Building and Bakery
 4. New Commissary (1868)
 5. Old Commissary (1866)
 6. Quartermaster Storehouse
 7. Officers' Quarters
 8. Commanding Officer's Quarters
 9. Officers' Quarters
 10. Blockhouse
 114. Ice House
 29. Defensive Earthwork & trench.



BUILDINGS LAYOUT DIAGRAM

- | | |
|----------------------|-------------------------------|
| 1. BARRACKS | 6. QUARTERMASTER |
| 2. BARRACKS | 7. OFFICER QUARTERS |
| 3. SHOPS & BAKERY | 8. COMMANDING OFFICER'S QTRS. |
| 4. COMMISSARY (1868) | 9. OFFICER QUARTERS |
| 5. COMMISSARY (1866) | 10. BLOCKHOUSE |

114. ICE HOUSE

(ALL BUT NO. 10 STILL IN PLACE)

(b) The nine historic stone buildings will be restored to their appearance as of late 1868. The blockhouse will be reconstructed, filling out the 1868 historic scene at the southeast corner in the same period. The flag staff will be restored and placed as it was in 1868. Uses for individual buildings are proposed as follows:

No. 1 - Enlisted Barracks

This building will be restored to its external appearance, but the interior will be utilized for a visitor center and administrative offices.

No. 2 - Enlisted Barracks

The west half of this building will be restored and refurnished, as occupied by a company of soldiers in the fall of 1868; to serve as a focal point for exhibiting and interpreting the activities and lives of the enlisted men at Fort Larned when it was most significant as a base for campaigns against the Southern Plains Indians.

The larger, east end of the building is proposed for restoration and refurnishing to its function as the post hospital, to

which use it was put in 1871. This will provide exhibit interpretation of the important role and functions of the post hospital in the life of the garrison.

No. 3 - Shops & Bakery

Restoration, inside and out, to accommodate refurnishing and exhibition as the carpenter, wheelwright, painter, and blacksmith shops - including reconstruction of the bakery ovens. The refurnished shops will interpret the variety of operations and services provided to the military and to civilians at Fort Larned in 1868.

No. 4 - New Commissary

Interior and exterior restoration - with interim use as storage space for the furnishings being acquired for other structures. Existing visitor comfort stations will be improved and maintained as an interim facility.

No. 5 - Old Commissary

Oldest of the existing structures, this 1866 building will be restored, in and out, as it appeared in the fall of 1868, with special attention to the rifle ports through the walls, which comprise one of

the building's prime interpretive features.

No. 6 - Quartermaster Storehouse

Proposed use of this building is twofold: the west half will be restored, inside as well as out, for exhibit as the transportation and supply center of Fort Larned in the fall of 1868; the east half of the building will be structurally restored on the outside, and the inside remodeled for use as a maintenance shop.

No. 7 - Officers' Quarters

To be structurally restored inside and out to its fall of 1868 appearance, when lived in by married and bachelor officers. One of the two sets of 4-room captain's quarters and one of the four single-room lieutenant's quarters will be refurnished to exhibit and interpret the lives and activities of the post's officers and their families.

No. 8 - Commanding Officer's Quarters

To be structurally restored to its appearance as of 1868; as an integral part of the historic scene.

No. 9 - Officers' Quarters

Structural restoration to 1868, on the outside only, with reservation of at least one half of the building for use as a museum workshop.

No. 10 - Blockhouse

To complete and fill out the historic scene, as it was in the fall of 1868, the blockhouse will be reconstructed on its original site; for exhibit and interpretation of the important military functions of creating and preserving law and order on the frontier. This structure was the primary defense feature of the fort during its period of most intense Indian harassment and danger. A fairly simple building, its reconstruction will not be difficult or unduly expensive.

No. 114 - Ice House

Since this building was erected after 1902, but creates an erroneous impression that it was part of the historic fort scene, it should be removed as an intrusion.

No. 29 - Defensive Earthwork & Trench

Since this feature was most likely removed before 1868, it should not be reconstructed.

Flag Staff

To be reconstructed at its 1868 site, to fly a large garrison flag as part of the historic scene and interpretive program.

(c) Master Plan Justification for Proposed Use

The Master Plan approved August 30, 1966, includes the following decisions and statements supporting restoration of the fort to its period of maximum historical significance in 1868.

Purpose (p.3) "To commemorate the role of Fort Larned and the United States Army in the opening of the West; to identify evaluate, and conserve the Fort's physical features..., and to provide visitors with optimum opportunities to understand and appreciate the significant aspects of western American history related to the Historic Site."

Objectives (p.3) "To devise programs that will preserve area resources...[and] to fit needs of specific structures, as well as on a Site-wide basis; with special attention to recreating the historic scene in the fort area as it appeared in 1868."

Management Programs - Land (p.4)

Under the heading of "Restoration," a program is called for to conduct research on the 1868 appearance of the fort and

each of the nine existing and one non-existing stone buildings in order to restore them to their 1868 aspects; so far as more detailed planning may seem practical and desirable. The stone blockhouse is planned for reconstruction, as is the 1868 flag staff.

Visitor Use & Resource Management Plan (p.5)

Bldg. 1 - External restoration only. Interior use for visitor orientation, exhibits, comfort station, and office space.

Bldg. 2 - One half to be restored and refurnished as an 1868 company quarters. Restoration of the east half to its 1871 use as a hospital has been proposed since the master plan was approved.

Bldg. 3 - Restoration (in and out), as post shops and bakery. Bldg. 4, was originally thought to have been the bakery and bakery restoration was planned for it in error.

Bldg. 4 - Structurally restore (but not as bakery, since research reveals it was never used as such).

Bldg. 5 - Restore and exhibit.

Bldg. 6 - External restoration and use of interior for maintenance shops. However, since the plan was approved it has been suggested that only one half of this structure be used for maintenance purposes, and the other half restored internally and furnished, as an interpretive exhibit feature.

Bldg. 7 - Restore and refurnish as 1868 officers' quarters.

Bldg. 8 - Exterior restoration only.

Bldg. 9 - Exterior restoration, with interior planned for additional and interim (until Bldg 1 is available) office space and National Park Service contact center. This was planned because the Fort Larned Historical Society was expected to retain use of Bldg. 1 for quite some time after area establishment.

Bldg. 10 - Blockhouse to be reconstructed, as a primary exhibit and interpretive feature and as an intrinsic part of the 1868 historic scene.

(d) Provisions for Operating Structures

These will be manned and unmanned interpretive stations, served by National Park Service personnel in period costumes, where interpretive talks and demonstrations will be given.

(e) Cooperative Agreements for Operation of Selected Fort Buildings

The Fort Larned Historical Society has operated its museum, gift shop and other exhibits in different areas of the Fort under lease from the owner for several years prior to authorization of the Historic Site. A "Memorandum of Understanding", providing for the continued use of portions of the fort, was entered into by the Regional Director, Midwest Region, October 18, 1965, with the Fort Larned Historical Society, Mr. Robert R. Frizell and Mrs. Verne Frizell. This agreement was replaced

by a Special Use Permit in June, 1966, allowing continued Historical Society use of selected buildings until May 31, 1967, and guaranteeing extension of such use for a period of one year after establishment of the Historic Site. Stipulated permitted building uses are:

Bldg. 1 - Gift shop, information and tour sales counter; and museum exhibits of pioneer relics. Entire building is in use.

Bldg. 3 - The section of this building exhibited as a blacksmith shop.

Bldg. 4 - All of this building is used by the Historical Society as a hostel for visiting Scout troops.

Bldg. 5 - A section of this unrestored building is used for exhibit and interpretive purposes.

Bldg. 6 - The east half of the building houses large exhibit objects belonging to the society, which do not relate to the army period of the Fort's history.

Bldg. 7 - The north half of this officers' quarters is used for the exhibit of some Fort Larned and related relics, in a beginning at refurnishing the rooms used.

By the terms of the Special Use Permit, the foregoing buildings will not be available to the Service for restoration until at least one year after the area becomes established.

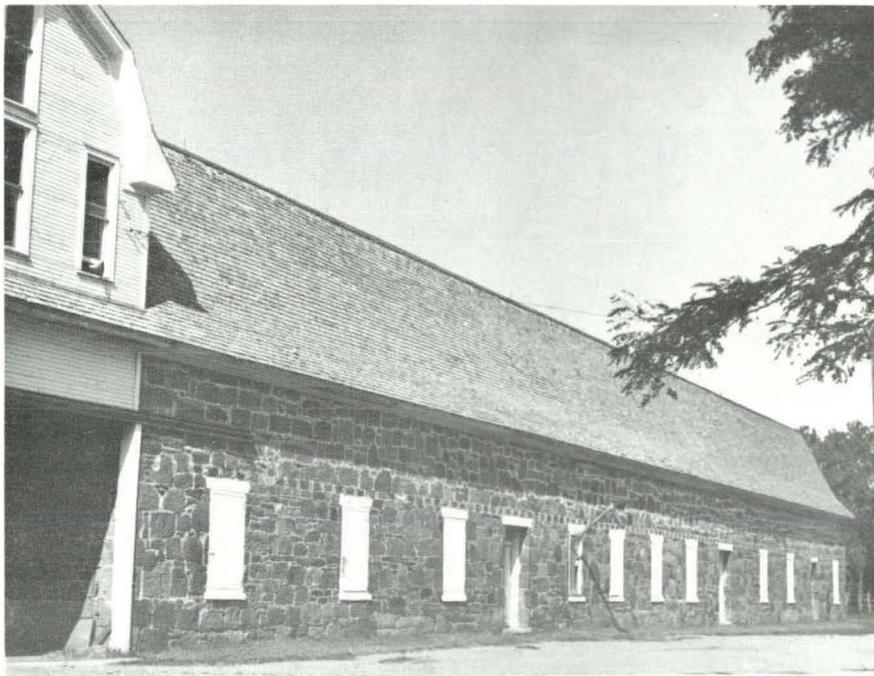
(f) Preliminary Estimate of Cost of Proposed Construction Activity

<u>Building Number</u>	<u>Lump Sum</u>
#1 - Interior \$77,000	\$94,000
- Exterior \$17,000	
#2 - Interior \$51,500	\$70,500
- Exterior \$19,000	
#3 - Interior \$15,000	\$19,000
- Exterior \$ 4,000	
#4 - Exterior \$ 3,500	\$ 3,500
#5 - Interior \$ 6,800	\$10,000
- Exterior \$ 3,200	
#6 - Interior \$25,500	\$42,000
- Exterior \$16,500	
#7 - Interior \$ 3,000	\$10,000
- Exterior \$ 7,000	
#8 - Exterior \$10,000	\$10,000
#9 - Interior \$ 3,000	\$10,000
- Exterior \$ 7,000	
#10 - Interior \$ 2,600	\$14,000
- Exterior \$11,400	
Flagpole \$ 3,000	
	Total
	\$283,000
	\$ 3,000
	\$286,000



Building 1, Enlisted Men's Barrack, 1867.

Walls heightened and barn roof added after 1902. Roof structure connects this building with no. 2, the east barrack, at the far right of the picture. View is of the west end of the structure.



Building 2, Enlisted Men's Barrack, 1867.

Picture shows the south side of the building.



Building 3, Shop Building and Bakery, 1867.

Originally housed, blacksmith, wheelwright, painter, and saddler shop, plus the post bakery. Seen from the west.



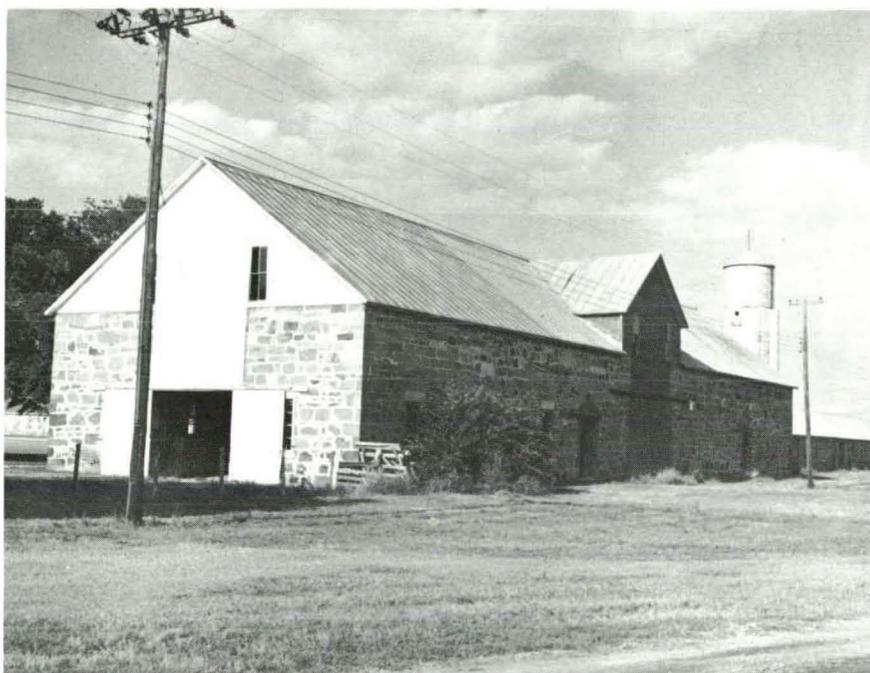
Building 4, New Commissary, 1868.

Original use was as a warehouse. View from the west side.



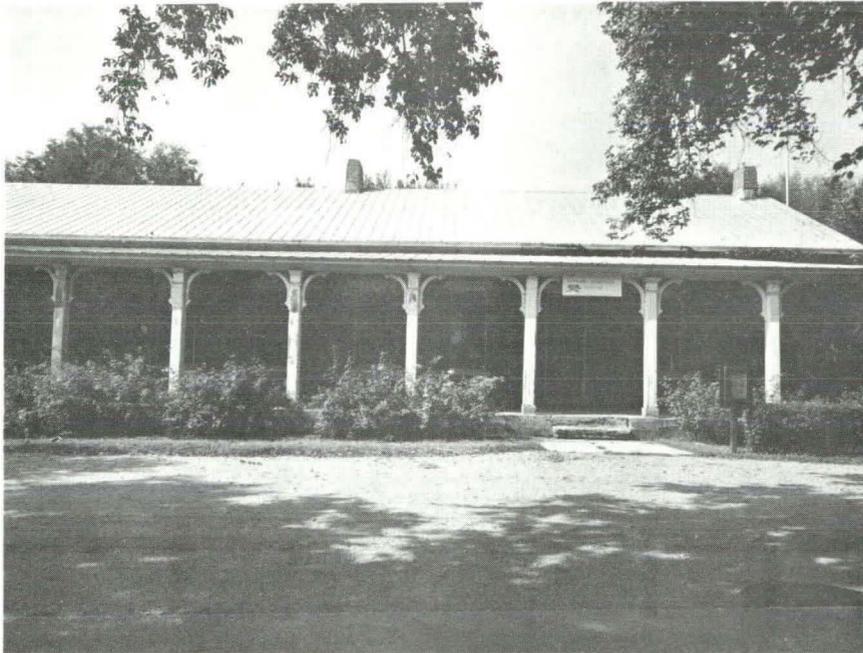
Building 5, Old Commissary, 1866.

Used as a storehouse and a defense strong point, by loop-holing the outer walls with gun ports. Picture shows the north side of the building.



Building 6, Quartermaster Storehouse, 1868.

Walls heightened and barn roof added after 1902. Outer (south) wall seen here is loop-holed for rifle fire. Seen from the southwest.



Building 7, Officer Quarters, 1868.

Currently used for display of furniture and other historic artifacts, by the Fort Larned Historical Society. View from the east.



Building 8, Commanding Officer's Quarters, 1868.

Extensively added to since 1902. Residence of R. R. Frizell. Photograph shows the eastside of the house.



Building 9, Officers' Quarters, 1868.

As seen from the east.



Building 10, Blockhouse, 1865.

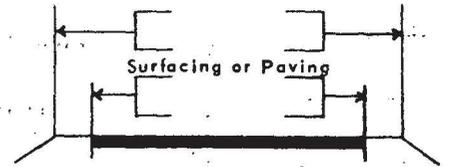
As seen from the southeast corner of the fort in 1886. Structure was dismantled before 1900.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

PROJECT CONSTRUCTION PROPOSAL

1. Statement of requirements, proposed work and construction data, justification, etc. (Use additional sheets as necessary.)

Length _____ Miles _____
Finished width shoulder to shoulder _____



\$ 300,000
\$ 3,000

2. Land Status (If Govt.-owned, what agency), Water Rights, Research, Etc.

Government owned.

3. PCP Data Prepared by (Name, Title & Date) T. N. Crellin 4/21/67 Hist. Archit.	4. Cross-reference PCP's to this Project: PCP numbers of previously completed portions:	6. CLASS B ESTIMATE		
		Construction.....	\$	
	5. Construction by: Day Labor <input type="checkbox"/> Contract <input checked="" type="checkbox"/>	Plans, Surveys, & Supervision.....	\$	\$
	Work supervised by: Park <input type="checkbox"/> Reg. <input type="checkbox"/> Design Office <input checked="" type="checkbox"/>	Contingencies.....	\$	\$
		SUB TOTAL		
		Exhibits, Audio-Visual Installations, etc.....		
		GRAND TOTAL \$		

7. DISTRIBUTION OF COPIES No. To	8. Recommended by Park Office (Signature, title, date)
	9. Approved by Regional Office (Signature, title, date)
	10. Reviewed by D&C Field Office (Signature, Title, Date)
	(Blank space for signature)

11. Location within Area or Termini Fort Area		12. Master Plan No.	13. Bldg. or Rt. # and Sec. All Historic Bldgs.
14. Region MW	15. Park Fort Larned National Historic Site		17. PCP Index No.
16. Project Restoration and stabilization of historic buildings. X			
		Marion (County)	18. P. S. & S. by BPR <input type="checkbox"/> NPS <input checked="" type="checkbox"/>
		Kansas (State)	

CLASS (A) - Estimate based on working drawings
 CLASS (B) - Estimate based on preliminary plans
 CLASS (C) - Estimate based on similar facilities in other parks

19. ESTIMATE

Item	Quantity	Cost
	Lump Sum	Lump Sum
Building #1:		
Interior	\$77,000	\$94,000
Exterior	\$17,000	
Building #2:		
Interior	\$51,500	\$70,500
Exterior	\$19,000	
Building #3:		
Interior	\$15,000	\$19,000
Exterior	\$4,000	
Building #4:		
Exterior	\$3,500	\$3,500
Building #5:		
Interior	\$6,800	\$10,000
Exterior	\$3,200	
Building #6:		
Interior	\$25,500	\$42,000
Exterior	\$16,500	
Building #7:		
Interior	\$3,000	\$10,000
Exterior	\$7,000	
Building #8:		
Exterior	\$10,000	\$10,000
Building #9:		
Interior	\$3,000	\$10,000
Exterior	\$7,000	
Building #10:		
Interior	\$2,600	\$14,000
Exterior	\$11,400	
Flagpole		
		\$3,000
Estimate Totals		\$ 3,000
Construction.....		\$ 286,000
Plans, Surveys, and Supervision.....		\$
Contingencies.....		\$
SUB TOTAL		\$
Exhibits, Aud.-Vis. Installations, Etc.....		\$
GRAND TOTAL		\$

*Increased per (attached)
 Increased from
 286,000 to 421,500*

(i) Brief Description of Proposed Construction Activity

1. Demolish existing roof and approximately 5' of stone along top of walls.

Restore roof and porch to original profile.

Remodel interior for modern use, providing space for visitor center and administrative offices.

2. Demolish existing roof and approximately 5' of stone along top of walls.

Restore roof and porch to original profile.

Restore interior; west end as barracks, east end as post hospital.

3. Demolish connecting link to number 4.

Remove metal roofing and replace with wood shingles.

Restore windows and doors.

Restore interior as shops.

4. Remove metal roofing and replace with wood shingles.

Restore windows and doors.

Interior to remain as is with rest rooms available for public use.

5. Demolish connecting link to number 6.

Remove metal roofing and replace with wood shingles.

Restore west room interior as commissary offices; remainder of building as storage.

6. Demolish existing roof and approximately 5' of stone along top of walls.
Restore roof to original profile.
Restore west half interior as quartermaster offices and storage.
Remodel east half interior as maintenance shop.
7. Remove metal roofing and replace with wood shingles.
Replace sash and doors as required and provide shutters.
Replace concrete porch floors with wood.
Restore interior as officers quarters.
8. Demolish non-historic additions and restore stonework.
Reshingle roof.
Replace sash and doors as required and provide shutters.
Replace concrete porch floors with wood.
9. Same as number 7 interior to be used as office space.
10. Variously described as a hexagon, octagonal, or "sexangular", the last term being used to describe a ground plan in heptagonal form. Further described as having wall faces measuring 22 feet, 2 foot thick stone walls, and an inside diameter of 34 feet. A hexagon is the only form that satisfies these latter dimensional conditions.
Reconstruct hexagonal stone blockhouse with shingle roof topped by lookout tower.
Provide covered cellar and tunnel.
Reconstruct 1868 wooden flag staff.

History of Fort Larned

Historical Data:

The post was first established as Camp On Pawnee Fork, in 1859, to protect an overland mail station and serve as the base for military operations along the eastern half of the Santa Fe Trail. In 1860 the post was designated Camp Alert, and later in the same year relocated three miles west to its present site and its name changed to Fort Larned. During the 1860's, the post served as a focal point for Government relations with the southern plains Indians, and as a base for intensive military operations against them from 1867 to 1869. Until the Santa Fe Railroad was completed through Kansas, the post served as the base for policing the Santa Fe Trail, vital commercial artery to the southwest.

When established in 1860 at its permanent location, Fort Larned was hastily built of adobe, picket-post, and rough frame. By 1865, most of these buildings were badly decayed and falling down, and none of these earliest structures remain. To make the post usable as a permanent installation, a program was adopted to rebuild it in more durable stone. The first stone building, the blockhouse (Bldg. #10), was completed in 1865, but was dismantled during the post's early years of civilian ownership, probably between 1893 and 1902. The existing nine historic stone buildings around the

parade ground were built from 1866-68, and comprise the major physical historical resource of the area, one of the outstanding existing examples of a frontier army post. The 1867-68 general appearance of the post is illustrated in the accompanying photograph.

Fort Larned was abandoned as an active army post in 1878, the need for it having ceased to exist. In 1883, the post's lands and buildings were transferred to the administration of the General Land Office, Department of Interior, and sold to civilians. In 1902, the lands and buildings were acquired by E. E. Frizell, whose family has continued to own and occupy the site.

In addition to the fact that so many of the historic fort's buildings have survived, the fort's major historical significances derive from the following:

1. Its role as guardian and major way-station on the eastern segment of the Santa Fe Trail, from 1859 to 1872.
2. Fort Larned's history as command post and base of operations for U. S. Army and Indian Bureau control and pacification of the Southern Plains Indians, from 1859 to 1869, with the peak year having been 1868.

The ethno-history of the Indians most affected by these developments, especially the Southern Cheyenne and Arapaho, and the Kiowa and Comanche, also forms an important aspect of the fort's history resources.



AERIAL VIEW OF FORT LARNED, looking northeast.

3. Fort Larned's history as an outpost of American government, culture, and law and order promoting the American occupation and settlement of south-central Kansas from 1870 to 1878.
4. Finally, its use as a farming and ranching development nucleus, from 1878 to the present time.

Architectural Data:

Individual Structures

A reconstruction program, aimed at rebuilding the first ramshackle post in the form of substantial sandstone and frame structures, was launched in 1866 and completed by the end of 1868. Captain Almon F. Rockwell, Quartermaster Department, United States Army, supervised the design and construction of the existing 9 buildings from June 1867 to May 1868, by which time the construction program was substantially completed. All of the buildings were single story, of locally quarried sandstone, had shingled gable roofs, and had exterior woodwork and trim painted white. All chimneys appear to have been built of brick.

Building No. 1. Enlisted Barracks

Built during the last half of 1867, the kitchen wing on the north side was added before July 9, 1868. A roof extension originally covered a 10 1/2 foot porch on the south side, supported by 16 wooden posts. This structure was designed to house two companies of soldiers, including dual kitchens,

orderly rooms, mess halls and bunk rooms for each company, and was so utilized in late 1868.

Soon after transfer to civilian ownership in 1884, the porches were removed, and, between 1902 and 1917, the hay barn roof was added, the walls were heightened about 5 feet, and the structure was connected with building No. 2. When built, this barracks had four chimneys and measured 150 feet long by 43 feet wide and was about 12 feet high at the eaves. A double-kitchen wing, 34 feet by 36 feet, extended to the rear at the center of the building.

Building No. 2. Enlisted Barracks

This structure was almost a duplicate of No. 1, built nearly simultaneously with it, as quarters for two companies. The major difference is at the east end of the building, where the barracks room was 22 feet longer, resulting in the overall dimensions being 172 feet by 43 feet, and 12 feet high at the eaves. The added length required 18 porch roof posts rather than the 16 used in No. 1. A double-kitchen wing, 34 feet by 36 feet, extended to the rear near the center of the building.

In 1871, the east half of the building was converted to house the post hospital. A small cellar was dug under the hospital

section before 1875. Like No. 1, the walls were raised about 5 feet after 1902, and the barn roof added to cover a hayloft.

Building No. 3. Shops and Bakery

Begun late in 1867, this building was completed in 1868, with dimensions of 84 feet long by 30 wide, and about 12 feet high at the eaves. The bakery was probably at the north end of the building, in a space about 26 feet by 28 feet. Other rooms were partitioned off for use as carpenter, wheelwright, painter, and blacksmith shops. The structure underwent no known major alterations prior to abandonment by the Army, but since 1902 it has been connected to No. 4 by a long shed.

Building No. 4. New Commissary

Built in 1868, this structure measured 84 by 30 feet, with a height at the eaves of about 12 feet. During the summer of 1868 a partition may have been added to the original plan, to provide a guardroom in addition to the building's primary purpose and use as a storehouse. Local tradition has erroneously designated this building as a messhall and bakery, which it was not, and local Boy Scouts built a completely non-historic "tunnel" from its cellar to the ox-bow pond bank after 1957.

Building No. 5. Old Commissary

Begun in July, 1866, this building was completed in December of the same year. It is the oldest surviving structure at

Fort Larned, and the second stone building put up there. As built, it measured 155 feet long by 27 feet wide and about 12 feet high at the eaves. Designed primarily as a storehouse for commissary supplies, it was also intended to serve an auxiliary purpose in defense of the post; rifle ports being spaced waist-high through all but the interior or north walls. During the last half of 1867, a small office space was partitioned off, flooring was installed, and a cellar was dug underneath part of it. A stone wall connecting this building to No. 6 was added after 1902.

Building No. 6. Quartermaster Storehouse

Completed by January 31, 1868, this structure had been commenced early in August 1867. Like No. 5, its south wall was pierced with a row of rifle ports for defense of the post's vulnerable south side. By 1869, an office area had been partitioned off and ceiled. Its original roof was torn off in a windstorm in 1880. Originally a little higher at the roof eaves than No. 5, its walls were raised about 5 feet and a hayloft and barn installed after 1902. Outside dimensions originally were about 157 feet long by 40 feet wide.

Building No. 7. Officer Quarters

This structure was intended to house two captains (4-room apartments) and 4 lieutenants (single interior rooms). Begun

in 1867, it was completed in the spring of 1868, including a wooden porch across the front and a small porch in the rear next to the kitchen. A cellar was dug under each kitchen. A separate frame kitchen and dining room structure was built in the rear, occupying the open end of the building's "U," late in 1869 and early 1870. Outside measurements of no. 7 were 84 feet by 33 with the 20 feet by 20 feet kitchen "L's" extending to the rear at each end. A sink, or latrine, was in the backyard which, like the 1869-70 kitchen building, has vanished long ago. A concrete porch base was added sometime after 1902.

Building No. 8. Commanding Officer's Quarters

This structure was begun and completed in 1867, including a cellar under the kitchen "L". Like the other officer quarters, this one had a latrine in the backyard. Having been used as the owner's residence since 1902, this building has undergone several alterations and had additions made to it. Original dimensions were: 36 feet by 47 feet with the 18 feet by 20 feet kitchen extending to the rear at the south end.

Building No. 9. Officer Quarters

Same construction history as no. 7.

Building No. 10. Blockhouse

This was the first stone structure built at Fort Larned, having been started in 1864 and completed in 1865 as a defense bastion.

Unfortunately, it was dismantled shortly after 1886. Descriptions of it are vague as to its exact shape: being variously described as 6, 7, and 8-sided, and sometimes designated as the "roundhouse". As originally built, the roof was of poles, hay, brush and earth.

Captain Rockwell repaired and altered the blockhouse during his tenure as post construction supervisor in 1867-68. A shingle roof was added, as was a small wooden watch tower. As of 1868, it was used as the guardhouse, with a rough lumber room added as an extension from the door area for the use of the guard. Two rows of rifle ports pierced the walls on all sides; one near the ground and the other up close to the eaves. The building is mentioned as having had a cellar (where some post prisoners may have been lodged), with an interesting tunnel feature, or "covered way", extending about 14 feet from it to a well, making water available in the event of a siege or extended attack. Archeological research will be required to determine the location, ground plan, and other data about this interesting structure. As built, the walls were 11 1/2 feet high and about 22 feet on a side. Height of the original roof peak was 16 feet; increased to 20 1/2 feet by the watch tower addition.

Building No. 114. Ice House

Research has developed that this small stone structure was built after 1902, by the Frizell family, and that it has no

connection with the historic army period.

Structure No. 29. Defensive Earthwork and Trench

Long since removed, this defense work flanked the Blockhouse and, if still in place by 1866, the Old Commissary on the south. No descriptions have been found of this work, and it very likely had been removed by 1868. No evidence of it remains.

(j) Further Architectural Research and Part II - \$2,000

Archeological Data

No research has been done at Fort Larned. Archeological research is scheduled to locate and excavate the site of the non-existing stone blockhouse planned for restoration. Investigations will also be needed to develop information on the architectural ground plans, historical additions, and now vanished features of nearly all the buildings. Interpretive and refurnishing programs could also be greatly assisted if the post dump site, latrine sites, and other fruitful sites were investigated at the same time.

A six-month's project is estimated to cost about \$8,000.

Landscape Data

(a) All of the physical elements comprising the interior and exterior landscape of the fort are still in existence, though modified in some degree. Pawnee Creek, and its adjacent abandoned ox-bow channel immediately east of the fort, are

the main features in the flat prairie landscape. The main creek channel is much the same as it was in 1868, but the ox-bow has been dammed at each end and used as a stock pond by pumping water into it. During army occupation of the fort the ox-bow was a dry ravine, except at times of very high water.

There are also far more trees and brush along the creek than in 1868, as Santa Fe trail travelers, soldiers, and visiting bands of Indians had virtually denuded the area of trees and heavy brush by 1868.

(b) Of course, the existing 9 stone buildings and the parade ground were prominent landscape features in 1868, as was a tall wooden flag staff. However, in 1868 the stone block-house was in place, as were several frame, picket-post and adobe buildings that were part of the fort. The sutler's stone store, frame messhall, stables, a wooden bridge, a ferry, and a frame civilian store formed part of the view south and southwest of the post.

Inside the post, the parade ground was covered with tough buffalo grass, with wide gravel walks circling the parade in front of the buildings. The first attempts at tree planting inside the fort were not undertaken until April, 1870, and

no trees were inside the parade ground as of late 1868.

High white board fences surrounded the three officer quarters backyards in 1868.

A run-down post cemetery was in the central part of the "island" formed by the creek and the ox-bow in 1868, but was moved to a new location, about 1/4 mile northeast of the flag staff in 1869.

(c) Further landscape research will be part of the over-all research program, and not costed separately.

Furnishing and Exhibition Data

Buildings No. 2, 3, 6, and 7 will be furnished in whole or part to the uses they were put to in 1868.

(a) Building No. 2 contains no historic furnishings, but original gun racks are still attached to the wall in building No. 1, and could be used in No. 2.

Building No. 3 contains a conjectural reproduction of a blacksmith shop, with tools and materials; some of which may be authentic 1868 artifacts, but most of which (horseshoes, etc.) date from much later.

Building No. 6 houses a collection of old horse furniture, tools, farm gear, and horse-drawn vehicles, very little or

none of which relates to the 1868 period at Fort Larned.

Building No. 7 contains some artifacts and furniture items that could be used in refurnishing to the 1868 period, but most of this material dates from later than 1868.

(b) A research project for a furnishing study will be arranged for by the Branch of Park History Studies, Office of Archeology and Historic Preservation, WASO. A furnishing plan will be prepared, from the study, by the Museum Branch, Division of Interpretation & Visitor Services, WASO.

(c) Refurnishing will be funded by funds appropriated for development of the Historic Site.

(d) No very realistic cost estimate can be made until the furnishing study has been completed. However, for preliminary planning purposes it is estimated that this program will cost at least \$75,000.