

# Army Lodging Wellness Recommendation



Fort Carson

August 12, 2003

**3D/I**

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## Introduction

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# Section 1 Wellness Recommendation

The Army Lodging Wellness Program is conducted under the direction and guidance of Headquarters Army, Lodging Division (CFSC). The goal of the Fort Carson Lodging Wellness Plan is to provide a comprehensive assessment and planning tool to support long term capitalization of Army Lodging facilities. The Demand Analysis determines installation Lodging requirements, and reviews off-post Lodging availability and cost, arriving at the most economical solution for meeting total transient requirements and providing a final determination of the appropriate number and configuration of on-post Lodging rooms. Individual Lodging facility condition (building and building systems) and functional assessments are included with both recommendations and costs. Facility improvement and renovation versus replacement/new construction recommendations are developed based on the individual facility assessments and cost. A Lodging Master Plan for the installation is developed including renovation, replacement/new construction, and proposed new facility siting. A final recommendation defines the method for achieving the final wellness solution for the installation and will assist with project planning.

## Methodology

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### ***Demand***

- Demand for Lodging facilities is analyzed and adjusted for atypical past occurrences and for expected changes in the installation's population, housing, or mission. Two primary methods are used to calculate the optimum number of rooms: the number necessary to meet 80% of official demand and the number projected to be the most efficient from an operating cost perspective.
- The off-post private market is assessed for capacity and representative rates. A determination is made if the private market has the capability to handle overflow requirements of official demand.
- Room mix recommendation is based on the segmentation of the Permanent Change of Station (PCS)/Temporary Duty (TDY) mix and the expected lengths of stay. This produces the final determination of the appropriate number and configuration of rooms for the installation.

### ***Assessment***

- Existing Lodging facilities are assessed based on building and building system conditions followed by an assessment for conformance to the Army Lodging functional standards. Facilities

assessed to be in fair to good condition, and meeting the majority of functional requirements, are considered for renovation. Renovation of Lodging facilities found in poor condition and configured significantly different than current standards will typically exceed 50% of the replacement costs and are recommended for replacement/new construction. This decision is supported by renovation cost comparisons as well as the assessment documentation.

- The age, condition, and existing configuration of all of the existing Lodging buildings support a finding of replacement through new construction in lieu of renovation.
- Force protection construction criteria has a significant impact on new construction. This Wellness recommendation, including building assessment, site analysis, and proposed Lodging construction, incorporates these requirements from the UFC 4-010-01, in our analysis and recommendations. Consistent with this guidance, force protection mitigation is not considered in renovation unless the renovation cost exceeds 50% of the replacement cost for a facility.

## Demand Summary

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Based on the historic and expected demand pattern at this facility, it is our recommendation that the number of rooms be sized using the “Most Economically Efficient” criterion. Using this criterion, we expect an occupancy rate of 83% which meets 91% of the projected official demand.

### ***Room Count and Mix Recommendation***

164 rooms

Proposed room mix:

- 21 standard guest rooms;
- 37 extended-stay guest rooms offering a kitchenette;
- 106 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette.

The demand analysis has determined a need of 164 rooms; however, based on existing and proposed building configurations, the actual number recommended for the Fort Carson Wellness Plan will be 166 rooms.

## Lodging Summary

The following Lodging for Fort Carson is summarized by building, including number of existing rooms and number of proposed rooms determined as part of the installation Wellness recommendation. The table also indicates the number of rooms required for a new Lodging facility based on buildings not proposed for re-use due to poor existing conditions and high renovation costs. The number of rooms for the new proposed Lodging facility reflects the proposed layout and does not match the exact demand numbers, because of building configuration.

Building Number	Existing Rooms					Wellness Recommendation (FY 08)			
	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf	Other Rooms	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf
<b>Wellness Recommendation based on Demand Analysis</b>									
						164	21	37	106
<b>Existing Lodging Facilities</b>									
1919	1				1	0			
6215	3				3	0			
7301	18	18				0			
7302	78		78			0			
7304	78		78			0			
7305	8			4	4	0			
<b>Totals</b>	<b>186</b>	<b>18</b>	<b>156</b>	<b>4</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>New Proposed Lodging Facility</b>									
						166	21	37	108
<b>Total Lodging Rooms</b>									
						166	21	37	108

### Summary of Room Count and Mix based on Configuration

- 166 rooms
  - 21 standard guest rooms;
  - 37 extended-stay guest rooms offering a kitchenette;
  - 108 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette.

## Cost Summary

### Project Cost

The following table summarizes the Condition Analysis, Renovation, and Replacement Cost by individual Lodging facilities. The Wellness Recommendation indicates cost by building based on recommendation, including the proposed facility cost.

Building Number	Existing Facilities					New Construction Facility			
	Total Rooms	Condition Analysis Cost*	Renovation Cost**	Replacement Cost	% Condition Analysis or Renovation Cost Ratio	Total Rooms	Total Cost	Renovation Cost	New Construction Cost
<b>Existing Lodging Facilities</b>									
1919	1	***	\$ 342,210	\$ 444,150	77.05%	0			
6215	3	***	\$ 723,655	\$ 668,805	108.20%	0			
7301	18	***	\$ 2,588,425	\$ 3,864,450	66.98%	0			
7302	78	***	\$ 4,919,845	\$ 7,149,250	68.82%	0			
7304	78	***	\$ 4,919,845	\$ 7,149,250	68.82%	0			
7305	8	***	\$ 1,520,035	\$ 2,236,950	67.95%	0			
<b>Totals</b>	<b>186</b>					<b>0</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>New Proposed Lodging Facility</b>									
						<b>166</b>	<b>\$ 21,670,765</b>		<b>\$ 21,670,765</b>
<b>Total</b>									
						<b>166</b>	<b>\$ 21,670,765</b>	<b>\$ -</b>	<b>\$ 21,670,765</b>

- \* The Condition Analysis Cost is for making the building well based on Army Lodging Standards without changing how the building functions.
- \*\* The Renovation Cost is for making the building well based on Army Lodging Standards including making functional changes.
- \*\*\* If the Condition Analysis Cost is under 50% of the Replacement Cost, the Renovation Cost is used.
- \*\*\*\* If the Condition Analysis Cost is over 50% of the Replacement Cost, a Renovation Cost is not included.
- \* \* \* \* \* Renovation Cost includes Condition Assessment items and Renovation Cost to meet Army Lodging Standards.

### Cost per Room Comparison

The Wellness Recommendation includes review of off-post Lodging costs compared to the new construction costs on-post. The new construction costs include operating costs, capital assessment costs, and sustainment capital expenditures. The following table summarizes this comparison per room for FY08.

	New Building
Cost per Room at Fort Carson	\$ 67.18
Off Post Cost per Room	\$ 68.68
Difference between On-Post and Off-Post Lodging per room	\$ 1.51
% Savings of On-Post to Off-Post Lodging	2.2%

The Cost Per Room at Fort Carson is based on:  
 Renovation / New Construction Cost w/ inflation to FY 08  
 Current Operating Cost w/ inflation to FY 08  
 Cap Ex Cost  
 Capital Assessment Cost to FY 08  
 Off Post Cost is based on current room rate average with inflation to FY 08

Due to this cost difference and the savings of 0.4%, it is our recommendation that the Army construct a new Lodging facility to replace all existing facilities at Fort Carson in lieu of using off-post lodging to support the determined demand requirement. Off-post lodging will continue to be used for demand beyond the on-post room requirement.

### Recommendations / Conclusions

The Wellness Recommendation for Fort Carson is to construct a new main Lodging facility on-post with 166 rooms to replace all of the existing lodging buildings and consolidate the public and back-of-the house

spaces, to meet the 164 room requirement. Because of the demand for family suites, reconfiguration of the existing buildings is above the 50% replacement cost threshold. Therefore a new Lodging facility is the Wellness Recommendation to meet the demand requirement. The number of rooms for the new proposed Lodging facility reflects the proposed layout and does not match the exact demand numbers, because of building configuration. Existing Lodging facilities that do not meet condition and functional requirements based on cost shall be removed from the Lodging inventory. A synopsis of recommended building actions follows:

- Construct a new Lodging facility prior to removing existing Lodging facilities from inventory.
- Remove existing Lodging buildings 1919, 6215, 7301, 7302, 7304, and 7305 from the Lodging inventory due to the condition of the existing building systems and/or the cost to renovate to meet Army functional criteria.

***Cost Summary***

The cost for this recommendation will be:

New Lodging Facility	\$21,670,765
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***Phasing***

Recommend the following phasing as funding is identified.

- Minimize investment in infrastructure for buildings 1919, 6215, 7301, 7302, 7304, and 7305.
- Construct new Lodging facility prior to removing existing Lodging facilities from inventory and removing back-of-the-house and public spaces from building 7301.
- Remove buildings 1919, 6215, 7301, 7302, 7304, and 7305 from Lodging inventory.

# Section 2 Lodging Master Plan



Fort Carson, the Mountain Post, is located on the south side of the City of Colorado Springs, Colorado, in El Paso County. The installation stretches south along Interstate 25 into Pueblo and Fremont counties. The cantonment area of Fort Carson is located in the northern part of the installation. This installation is recognized as one of the world's premier locations to lead, train, and maintain soldiers, while preparing them to win on the battlefield. This proud team fosters personal and professional growth by providing a command climate that attracts, develops, and retains quality people.

In 1999, the 7th Infantry Division was reactivated at Fort Carson. It is the first Active component-Reserve component Army division. Fort Carson houses the 3 Armored Cavalry Regiment (ACR), 3rd Brigade, 4th Infantry Division (ID), 43 ASG, and 10 Special Forces (SF). As a result, the Base has several vehicle maintenance facilities for tanks and other tracked and wheeled vehicles. A complete tank engine depot maintenance and dynamometer testing facility is also located at Fort Carson. The Butts Army Air Field (AAF) is an active runway and hangar facility used primarily by Army rotary-wing aircraft.

The Fort Carson Installation Design Guide, completed in 2002, incorporates specific installation requirements. Land use, future development, and architectural compatibility are integral components of the guide. Current Lodging room night requirements, Army guidance on Lodging facility design standards, and force protection construction standards required additional analysis and were incorporated into the recommendations of this Lodging Wellness Plan.

Fort Carson has been developed over the years without the development of a regional architectural character. Design opportunities do exist, though, to produce an overall continuity of visual identity. This cohesive architectural character is developed by careful design responses to the unique climate, regional influences, and use of a uniform but varied palette of materials, color, forms, and other detailed elements. These elements should be carefully considered in the siting and design of a new Lodging facility.

## Master Plan Summary

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With the exception of two World War II era DVQ buildings, Lodging at Fort Carson is consolidated centrally on the installation. A thorough condition and functional assessment of the existing buildings noted significant deficiencies. The primary Lodging area at Fort Carson is well defined and offers ample room for expansion. This site is recommended for planning future Lodging growth.

The proposed Fort Carson Lodging Master Plan reflects the 166 Lodging rooms with replacement of all existing buildings in a new Lodging facility. The number of rooms for the new proposed Lodging facility reflects the proposed layout and does not match the exact demand numbers, because of building configuration. This new facility will combine required rooms, public areas and service functions into a cohesive Lodging physical plant in support of the installation requirements. Siting of the new 166 room Lodging facility is recommended adjacent to the existing Lodging campus.

## Existing Lodging Facilities

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### ***Lodging Building T-1919***

Building T-1919, the Corley House, constructed in 1942, currently has one DVQ room. It is the oldest residential facility on Fort Carson, and although this historic building has been well preserved, it exceeds Army Lodging size requirements. Converting this building to meet the current standards will require significant construction and will exceed the 50% replacement cost.

Our recommendation is to remove building T-1919 from the Lodging inventory, allowing the installation to determine an alternate use for the facility. Corley House will be removed from the Fort Carson Wellness Solution and Lodging Master Plan.

### ***Lodging Building T-6215***

Building T-6215, the Scrub Oak Lodge, constructed in the 1940's, contains 3 suites. This facility currently exceeds Army Lodging size requirements. Converting Scrub Oak Lodge to meet the current standards will require significant construction and will exceed the 50% replacement cost.



Our recommendation is to remove building T-6215 from the Lodging inventory, allowing the installation to determine an alternate use for the facility. Scrub Oak Lodge will be removed from the Fort Carson Wellness Solution and Lodging Master Plan.

### ***Lodging Building 7301***

Building 7301, The Colorado Inn, constructed in 1970, currently serves as the primary Lodging facility for Fort Carson. In addition to 18 standard rooms, Lodging administrative offices, and back-of-house functions, the Colorado Inn also contains offices for Installation Housing staff. The rooms in this building are approximately 250 square feet. Converting these rooms to current Army Lodging standards will exceed the 50% replacement cost.

Our recommendation is to remove building 7301 from the Lodging inventory, allowing the installation to determine an alternate use for the facility. Administrative and back-of-house functions will be relocated into the new proposed facility. The Colorado Inn will be removed from the Fort Carson Wellness Solution and Lodging Master Plan.

### ***Lodging Buildings 7302 & 7304***

Buildings 7302 and 7304, constructed in 1970, both contain 78 extended stay rooms. Converting these rooms to meet demand requirements and Army Lodging standards will exceed the 50% replacement costs.

Our recommendation is to remove buildings 7302 and 7304 from the Lodging inventory, allowing the installation to determine an alternate use for these facilities. These buildings will be removed from the Fort Carson Wellness Solution and Lodging Master Plan.

### ***Lodging Building 7305***

Building 7305, Aspen Lodge, constructed in 1970, currently houses 8 DVQ suites. Four of these are 1-bedroom suites and four are 2-bedroom suites. As indicated in the Facility Assessment, the building's structure and systems are in fair condition; however, converting these rooms to current Army Lodging standards will exceed the 50% replacement cost.

Our recommendation is to remove building 7305 from the Lodging inventory, allowing the installation to determine an alternate use for the facility. Aspen Lodge will be removed from the Fort Carson Wellness Solution and Lodging Master Plan.



## New Lodging Building

The proposed replacement/new Lodging facility includes 166 rooms: 21 standard, 37 extended stay, and 106 family suites at Fort Carson. The number of rooms for the new proposed Lodging facility reflects the proposed layout and does not match the exact demand numbers, because of building configuration. The lobby and back-of-the-house spaces are sized for the 166 total Lodging rooms on the installation.

The proposed new construction will be sited adjacent to the existing Lodging campus at the intersection of Woodfill Road and Sheridan Avenue. This site will allow it to serve as a consolidated support building for Lodging at Fort Carson. The new facility will be oriented to take advantage of the mountain views and to help define it as a focal point for Lodging on the installation. The proposed building construction is steel frame with CMU infill walls, sloped standing seam roof, and a brick exterior veneer. The design of the proposed building should be carefully considered to promote interest and character, while providing a sense of human scale to the facility. This can be achieved by allowing the three-story building core to tier down to two-story wings. The entrance can be accentuated with a single story covered drop-off area.

### Areas and Occupancy

The following chart indicates all spaces and size for the proposed new construction based on program and the proposed conceptual building plan.

ROOM / SPACE	PROGRAMMED FLOOR AREA			PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area	
<b>Total Area including 9% Add On Factor</b> (does not include Outside Areas)*			<b>114,010</b>	<b>119,561</b>
<b>Public Areas</b>			<b>30,148</b>	<b>31,220</b>
Exterior Entrance	N/A	N/A	-	-
Vestibule	1	1	-	-
Lobby (includes vestibule)	1	500-800	500-800	1,133
Front Desk	3 stations	150	150	174
Bell Cart Station	3	12	36	115
Breakfast Bar (Seat/Svc) - min.	1	550	550	630
Passenger Elevators	2 elev. @ 3 floors	64	384	384
Stairs	6	230	4,140	3,226
Public Corridors	-	-	21,600	21,640
Public Telephone Area	2	6	12	12
Vending - Full Service	2	70	140	563
Vending - Ice Only	1	30	30	178
Women - Lobby	1	200	200	198
Men - Lobby	1	200	200	198
Multi-Purpose Room - (250 s.f. min.)	1	250	250	286
Study Rooms (1 per 25 ext stay units)	-	250	-	-
Guest Laundries (2 sets w/d per 75 units)	3	192	576	1,075
Gear Wash Rooms - (170 s.f. min.)	-	170	-	-
Guest Bulk Storage (1 per 4 family suites)	27	25 ea. 40 w/circ.	1,080	1,408

ROOM / SPACE	PROGRAMMED FLOOR AREA			PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area	
<b>Guest Rooms</b>	<b>166</b>		<b>66,000</b>	<b>66,000</b>
Guest Room - Standard	21	300	6,300	6,300
Guest Room - Ext. Stay	37	300	11,100	11,100
Guest Room - Family Suites	108	450	48,600	48,600
<b>Back-of-House Areas</b>			<b>8,448</b>	<b>12,147</b>
Manager's Office	1	180	180	201
Assistant Manager Offices	1	120	120	121
Front Office Manager	1	100	100	100
Admin. Offices	2 staff	200-250	200-250	483
Cash Room	1	75	75	99
Luggage Storage	1	75	75	76
Admin. Conference Room	1	250	250	286
Housekeeping Office	1	120	120	120
Dirty/Clean Linen Storage	-	50	-	-
In-House Laundry - (500 s.f. minimum)	1	500	500	654
Receiving Office	1	75	75	80
Maintenance Area	1	175	175	341
Kitchen Prep Room	1	150	150	159
Break Room	1	210	210	212
Staff Toilet - Men	1	100	100	88
Staff Toilet - Women	1	100	100	88
Access Corridor	-	-	1,000	978
Receiving -min.	1	150	150	187
Housekeeping Rooms	1 per 15 units	128	1,536	2,355
Service Elevator	1	80	240	255
Data/Commo Room	1	100	100	136
Switch Closets	4	16	64	858
Janitor Closet	1	50	50	115
Mechanical Room	-	-	1,324	1,296
General Storage Room - (500 s.f. min.)	1	500	500	1,178
Bulk Storage Room - (500 s.f. min.)	1	500	500	1,173
Electrical Room	3	140	420	423
Elevator Equipment Room	1	84	84	85
<b>Exterior</b>			<b>400</b>	
Playground (Outdoor)	1	-	-	-
Grounds Maintenance	1	400	400	-

\* Add on factor to cover s.f. for partitions and any space not included in numbers above.

### Cost Summary

The New Construction Cost \$21,670,765

- The cost is for a building of 166 rooms.
- All costs are adjusted by the Area Cost Factor of 111% for Fort Carson.

### Cost Analysis

Summary of Project Replacement Cost (based on 119,461 s.f.)

CSI	Percent	Amount
<b>02 Site Work</b>	<b>3.10%</b>	<b>\$453,199.40</b>
Parking Lots		\$154,378.80
Site Earthwork		\$298,820.60
<b>03 Concrete</b>	<b>21.17%</b>	<b>\$3,099,416.75</b>
Floor Construction		\$2,149,012.55
Slab on Grade		\$221,284.05
Stair Construction		\$65,268.00

Standard Foundations		\$663,852.15
<b>04 Masonry</b>	<b>4.52%</b>	<b>\$661,908.28</b>
Exterior Walls		\$661,908.28
<b>07 Thermal &amp; Moisture Protection</b>	<b>6.24%</b>	<b>\$912,766.08</b>
Roof Construction		\$370,038.46
Roof Coverings		\$542,727.63
<b>08 Doors &amp; Windows</b>	<b>7.13%</b>	<b>\$1,043,725.23</b>
Exterior Doors		\$23,855.01
Exterior Windows		\$781,440.00
Interior Doors		\$238,430.22
<b>09 Finishes</b>	<b>17.29%</b>	<b>\$2,530,629.60</b>
Ceiling Finishes		\$600,089.05
Floor Finishes		\$787,079.37
Partitions		\$622,120.24
Wall Finishes		\$521,340.94
<b>10 Specialties</b>	<b>0.03%</b>	<b>\$3,762.35</b>
Fittings		\$3,762.35
<b>11 Equipment</b>	<b>3.98%</b>	<b>\$582,233.30</b>
Commercial Equipment		\$16,788.75
Other Equipment		\$565,444.55
<b>13 Special Construction</b>	<b>5.46%</b>	<b>\$799,277.99</b>
Communications & Security		\$359,807.87
Sprinklers		\$439,470.12
<b>14 Conveying Systems</b>	<b>1.63%</b>	<b>\$238,428.00</b>
Elevators and Lifts		\$238,428.00
<b>15 Mechanical</b>	<b>15.97%</b>	<b>\$2,337,343.65</b>
Cooling Generating Systems		\$1,062,163.44
Domestic Water Dist		\$443,556.00
Plumbing Fixtures		\$831,624.21
<b>16 Electrical</b>	<b>7.82%</b>	<b>\$1,144,671.41</b>
Electrical Service & Distribution		\$1,137,362.06
Site Lighting		\$7,309.35
<b>19 FF&amp;E</b>	<b>5.67%</b>	<b>\$830,000.00</b>
Interior FF&E allowance		\$830,000.00
Total Raw Cost	100.00%	\$14,637,362.04

**Additional Hard Cost (Template: Army Lodging New Construction)**

Parameter Name	Percent	Amount
Spirit	0.50%	\$80,505.49
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$1,463,736.20
<b>Total Additional Hard Cost</b>		<b>\$1,544,241.69</b>

**Soft Cost (Template: Army Lodging New Construction)**

Parameter Name	Percent	Amount
Contingency	5.00%	\$809,080.19
SIOH Conus	6.50%	\$1,104,394.45
Design	10.00%	\$1,618,160.37

08 MYr Inflation Fct	9.93%	\$1,957,524.61
<b>Total Soft Cost</b>		<b>\$5,489,159.62</b>
<b>Total Project Cost for Replacement</b>		<b>\$21,670,763.35</b>

**INSERT PROPOSED CAMPUS AREA ANALYSIS DRAWING HERE**

**INSERT LODGING MASTER PLAN DRAWING HERE**

**INSERT PROPOSED LODGING FACILITY DRAWINGS (FLRS. 1-3) HERE**

## Overview

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### Section 3 Demand Analysis

Fort Carson, the “Mountain Post”, is located at the base of the Rocky Mountains near Colorado Springs, Colorado. Fort Carson’s mission is to train, mobilize, deploy, and sustain ready forces.

Fort Carson’s total population was generally consistent over the last five years. Military decreased slightly and civilian increased; neither change impacted lodging demand significantly. The installation expects a slight population decrease over the next five years.

Data show the installation’s training mission was the primary driver of Lodging utilization prior to 2002. Typically, training exercises lasted 30 days to six months. In 2002, demand was skewed toward personnel seeking hotel rooms for shorter durations for activities related to Operations Noble Eagle, Enduring Freedom, and Iraqi Freedom.

Normally, personnel on Temporary Duty (TDY) accounted for 30% of lodging demand. Permanent Change of Station (PCS) personnel and unofficial travelers represented 55% and 15%, respectively. Currently, stays are shorter and demand segmentation is 72%TDY, 19% PCS and 9% unofficial travelers. Unofficial demand is not used in the calculation of recommended room inventory. The table below describes Fort Carson’s official demand population in 2002.

<b>Fort Carson Official Market Demand Analysis (2002)</b>		
	<b>TDY</b>	<b>PCS</b>
<b>Total Demand:</b>	72%	19%
<b>Market Segmentation:</b>		
Individuals	100%	< 10%
Families	0%	> 90%
<b>Average Length of Stay (Days):</b>		
14 days or less	35% (3 days)	73% (5 days)
More than 14 days	65% (57 days)	27% (23 days)

*Source: Fort Carson Lodging Administration, compiled by 3D/I*

## On Post Inventory

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Fort Carson has 186 Lodging rooms in six buildings. Most rooms share kitchens; nine DVQ rooms have full kitchens.

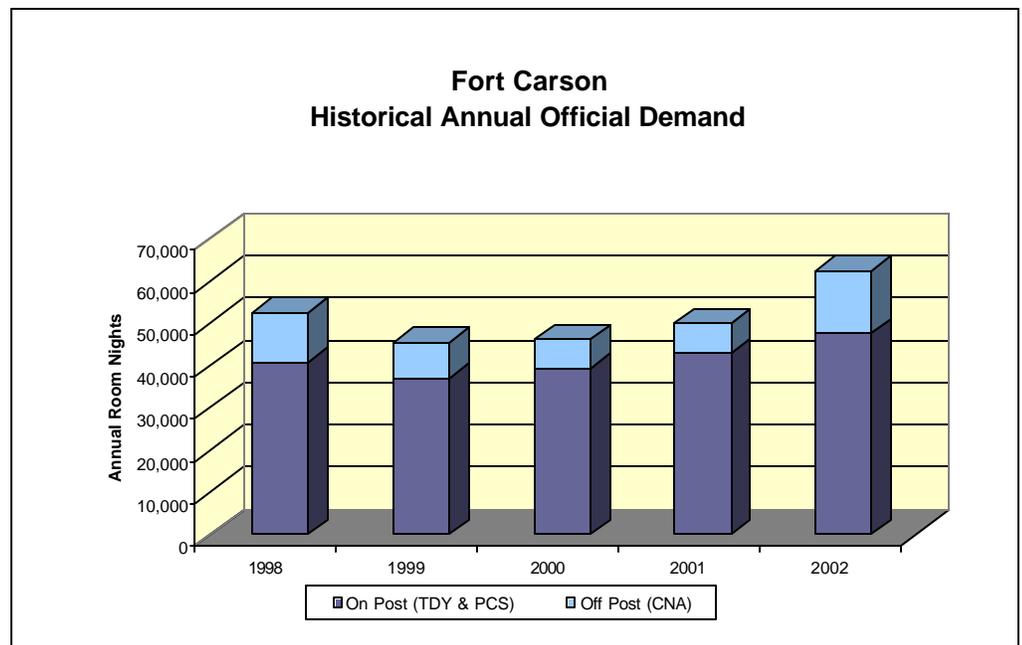
## Demand and Utilization

### Data Summary

For the four years prior to 2002, on post lodging demand, inclusive of Certificates of Non-Availability (CNAs), averaged 151 room nights per day. In 2002, demand increased to approximately 181 room nights per day and CNAs increased by 76%.

These changes were a result of the increase in the operations tempo experienced nationwide in 2002 rather than a change in mission or activity. Mobilized soldiers associated with urgent military operations preempted other military personnel for lodging. Off post lodging accommodated a considerable portion of the demand increase. The changes experienced in 2002 are not expected to be sustained.

The following chart summarizes Fort Carson's historical data; it identifies the annual official demand both on and off post.



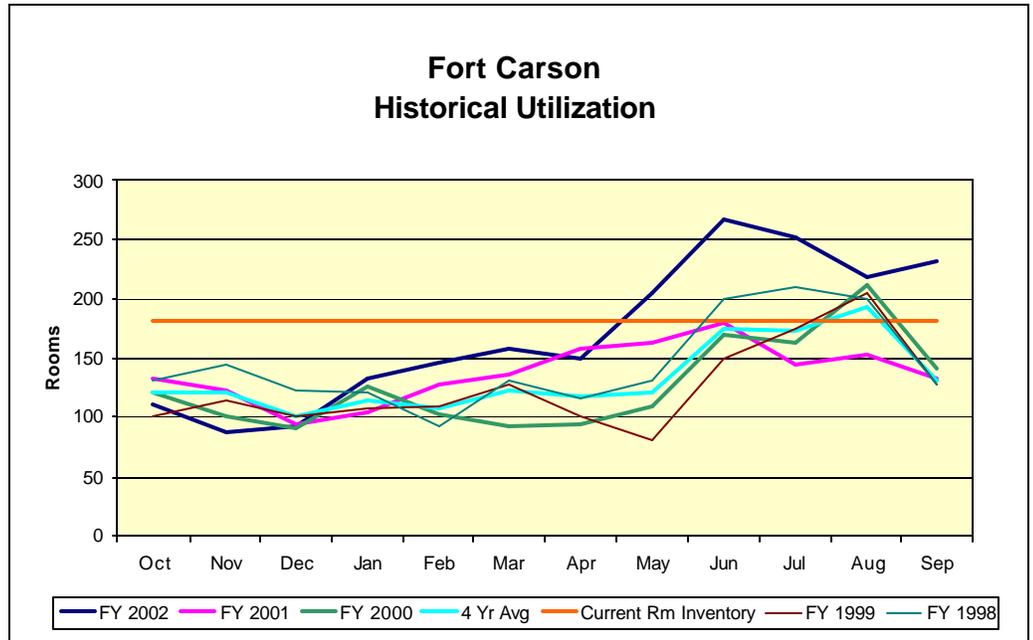
Source: Fort Carson Lodging Administration, compiled by 3D/I

Occupancy was also higher in 2002 than in the three prior years. From 1999 to 2001, occupancy averaged 70%; it reached nearly 78% in 2002.

A primary factor limiting lodging occupancy levels is the scheduling of exercises that last one to three weeks. The exercises are not scheduled

back-to-back and time between courses increases vacancy. Unofficial demand is typically minimal and insufficient to fill the vacancies between exercises.

The following chart summarizes historical utilization data by month.



Source: Fort Carson Lodging Administration, compiled by 3D/I

From 1998 to 2001, the monthly variance between years was minimal. As discussed earlier, the 2002 increase was primarily due to increased operations tempo.

**Seasonality**

Fort Carson’s lodging demand cycle experienced definite seasonality. Peak demand occurred in June, July, and August.

**Factors Influencing Demand**

Fort Carson has 1,065 family housing units and is participating in the Residential Communities Initiative (RCI) to privatize the installation’s housing. In November 1999, Fort Carson contracted with a private company to operate and maintain 2,663 housing units. The contract called for the revitalization of 1,823 existing units, the construction of 840 new units, and the operation of about 2,400 of the units. There is a projected reduction in wait time for family housing from 18 months to 9 months, but even with the reduced wait, PCS lodging demand is expected to remain.

As noted previously, the installation expects no demographic or mission changes; this suggests the current market segmentation will revert back to its pre-2002 component mix.

## Private Market Capability

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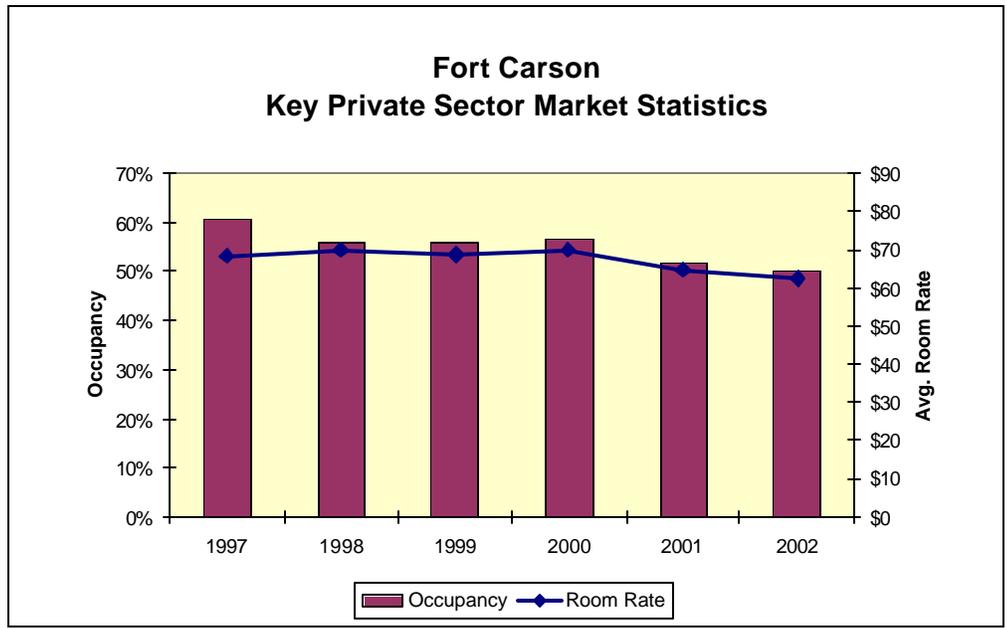
The commercial lodging market within a 30-minute radius of the installation has approximately 7,000 rooms. It is estimated more than 75% are located in properties representing the major lodging chains. The market expanded the past several years; a 27% increase from 1997 to 2002 added about 1,450 rooms. The additional rooms prompted occupancy and average rates to soften. Because Colorado Springs remains an expanding area, occupancy is expected to return to historical levels; rates should also recover.

The Air Force Academy is within a 30-minute radius of the installation. Personnel on orders from the Academy do not affect Fort Carson's lodging demand. Air Force football games can affect weekend demand at Fort Carson and the commercial market. While weekend demand improved over the past year at Fort Carson, weekends remain a relatively slow demand period.

A review of proximate major hotel chains' monthly occupancies showed peak demand in June, July, and August and low demand November through February. Room rates reflected the high summer demand.

Lodging per diem rates in this area are seasonal. Summer per diem rates are \$73, covering the cost of nearly any off post facility; the highest average off-post rate during the summer was \$76. Fort Carson's winter per diem of \$53 easily covers the winter \$48 Average Daily Rate for off post lodging. Actual government rates paid in each season are \$53 in the winter and \$61 in the summer.

The following chart describes key private market statistics.



Source: Smith Travel Research, compiled by 3D/I

In summary, it is reasonable to assume from the data the private market has sufficient capacity to support the overflow lodging requirements Fort Carson personnel may encounter.

## Demand Requirement Determination

Operations and demand were consistent prior to 2002. Official demand averaged 175 to 193 rooms per night from 1998 to 2001, but was lower December through February averaging 102 to 108 rooms per night. Expecting demand to return to its pre-2002 volume and pattern, we used the 1998 to 2001 history, after being normalized, to determine average annual and monthly demand.

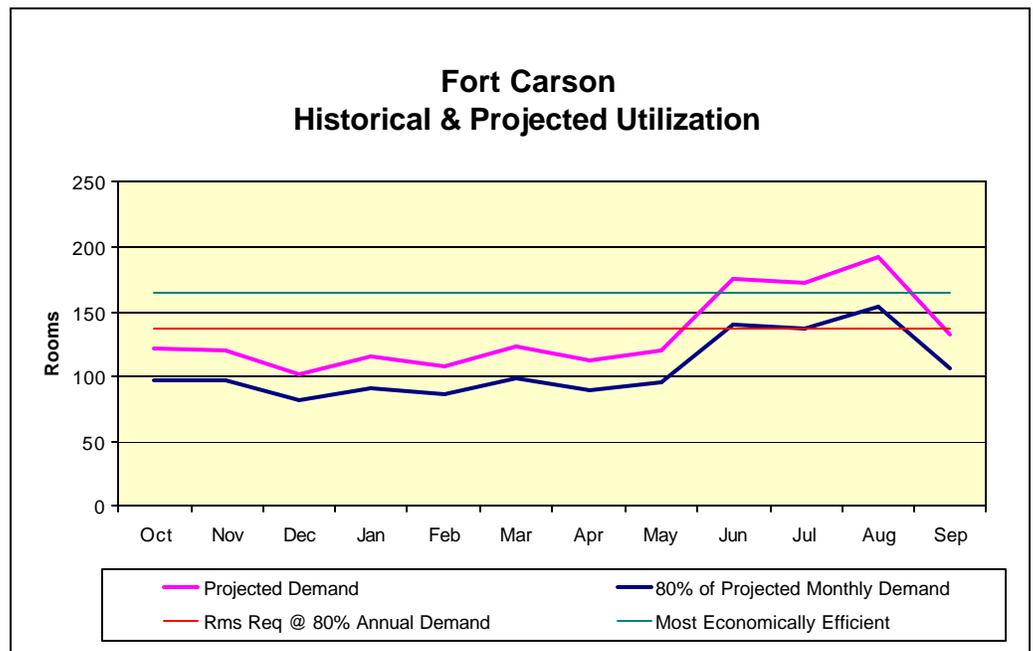
The lodging demand normalization process eliminated monthly demand peaks or valleys where official demand was 20% greater or 20% less than average demand of the four years. Variances greater or less than 20% of this average are atypical and unlikely to reoccur. Normalization had little effect on Fort Carson's lodging demand.

The Core Lodging Requirement objective is to provide sufficient Lodging capacity to meet 80% of the official demand. Using this criterion, the total number of rooms required on an annualized basis is 137, generating an occupancy level of 73%. This occupancy level assumes minimum occupancy on the weekends, weak demand periods between exercises

of one to three weeks, and an expected occupancy of 90% to 95% when exercises are occurring.

Another method used to determine the number of rooms to be provided at the installation is the “Most Economically Efficient” number of rooms. This measure compares the cost of having a vacant room to the incremental cost of lodging personnel off post. When the costs of these scenarios are at equilibrium, the most cost efficient number of rooms will be provided from an operating cost perspective. The number of rooms required to achieve this equilibrium for the installation is 164 rooms. With a room inventory of 164 rooms, the expected occupancy is 83% and 91% of the official demand is met.

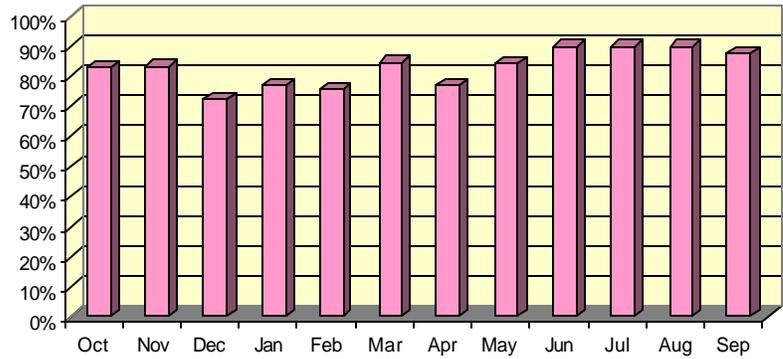
The following chart compares pertinent potential alternatives to room inventory to projected demand.



Source: Fort Carson Lodging Administration and 3D/I

We recommend the number of rooms be sized using the “Most Economically Efficient” method. The next chart presents expected occupancy percentages on a monthly basis.

### Fort Carson Year 5 Projected Occupancy Most Economically Efficient Criterion



Source: 3D/I

Using the “Most Economically Efficient” criterion, the average occupancy is 83%, and 91% of official demand is met. On a monthly basis, occupancy has a variance from 72% in December to 90% in the summer months.

## Summary and Recommendation

- Fort Carson activity increased in 2002 but is expected to normalize in future years
- The private market has sufficient capacity to support overflow lodging requirements Fort Carson personnel may encounter; off-post hotel rates are economical
- Official demand was generally very consistent prior to 2002. The 2002 lodging demand increase is not viewed as sustainable. The 1998 to 2001 average official demand is the best basis for estimating future demand
- The appropriate number of rooms supported by demand analysis at Fort Carson is 164. This “Most Economically Efficient” inventory generates an expected occupancy rate of 83%, and 91% of the official demand is met.

### ***Room Count and Mix Recommendation***

- 164 rooms
  
- Proposed room mix:
  - 21 standard guest rooms
  - 37 extended-stay guest rooms offering a kitchenette
  - 106 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette

# Section 4 Facility Assessment and Plans

Each Lodging facility on-post is detailed in this section of the report. The outline of the detail is described below:

- **Summary of Existing Lodging Facility**
- **Significant Assumptions**, identifies criteria used for renovation / replacement cost models.
- **Cost Analysis**, summarizes recommendation based on cost.
- **Attributes**, describes number of rooms and configuration.
- **Condition Analysis and Recommendations** for each of the major systems of the building.
- **Major Functional Criteria Deficit**, describes any major Functional inadequacy based on Army standards.
- **Condition Assessment / Renovation / Replacement Analysis**
  - **Condition Assessment**, summarizes building system deficiencies grouped by CSI with additional hard cost and soft cost.
  - **Renovation**, summarizes building system costs plus functional renovation costs grouped by CSI with additional hard cost and soft cost.
  - **Replacement**, summarizes replacement cost grouped by CSI with additional hard cost and soft cost.



*Building 1919  
1919 Specker  
Fort Carson, Colorado*

## **Building 1919**

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Building 1919 was constructed before 1900. The 2,035 square foot facility contains 1 DVQ lodging unit with a full kitchen. The building is functioning as a family suite for high ranking visitors.

### **Significant Assumptions**

The replacement and renovation cost models are based on 3 family suites.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 111% for Ft Carson.

### **Cost Analysis**

Renovation Cost	\$342,210.00
Replacement Cost	\$444,150.00
Renovation to Replacement Cost Ratio	77.05%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 1919 is not recommended.

## **Attributes**

01.Number of Units Constructed	1
02.Number of Units Used	1
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	1
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	1
13.Renovated to Standard	0
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	3
16.Delta renovation	2

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Hard goods: 3 headboards, 3 end tables, 6 night stands, 4 TV's, 4 TV stands, 1 dining table, 8 dining table chairs, 4 couches, 4 lounge chairs and 2 ottomans.

Soft goods: 3 mattresses and box springs, 3 bedspreads, curtains and rods, 10 lamps, linens for two bathrooms and 18 pictures. All in poor condition..

- Recommendation: Replacement is recommended.

### **Foundations**

#### **Standard Foundations**

- Analysis: Foundation is masonry piers on concrete spread footings in fair condition.

- Recommendation: No action is recommended.

#### **Slab on Grade**

- Analysis: Small basement is a mechanical room with a slab on grade in fair condition.

- Recommendation: No action is recommended.

### **Superstructure**

#### **Floor Construction**

- Analysis: Floor construction is wood beams and joists supporting wood decking. Floor structure is in fair condition.

- Recommendation: No action is recommended.

#### **Roof Construction**

- Analysis: The roof construction is wood trusses, beams and joists. The roof structure is in fair condition.

- Recommendation: No action is recommended.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: Exterior walls are wood stud with wood sheathing and vinyl siding. Walls are in fair condition.

- Recommendation: No action is recommended.

#### **Exterior Windows**

- Analysis: Exterior windows are aluminum and in poor condition.

- Recommendation: Replacement is recommended.

#### **Exterior Doors**

- Analysis: Exterior doors are wood in wood frames in fair to poor condition.

- Recommendation: Replacement is recommended.

## **Roofing**

### **Roof Coverings**

- Analysis: Roof covering is asphalt shingle and in fair condition.
- Recommendation: No action is recommended.

## **Interior Construction**

### **Partitions**

- Analysis: Partitions are wood stud with gypsum board covering in fair condition.
- Recommendation: No action is recommended.

### **Interior Doors**

- Analysis: Interior doors are wood in wood frames in fair condition.
- Recommendation: No action is recommended.

## **Interior Finishes**

### **Wall Finishes**

- Analysis: Interior wall finishes are painted gypsum board in fair to poor condition.
- Recommendation: Replacement is recommended.

### **Floor Finishes**

- Analysis: Floor finishes are carpet and sheet vinyl and are in fair to poor condition.
- Recommendation: Replacement is recommended.

### **Ceiling Finishes**

- Analysis: Ceiling finishes are painted gypsum board in fair to poor condition.
- Recommendation: Replacement is recommended.

## **Plumbing**

### **Plumbing Fixtures**

- Analysis: Plumbing fixtures are in fair condition.
- Recommendation: No action is recommended.

### **Domestic Water Distribution**

- Analysis: Domestic water lines are copper in fair condition.

Water heater is gas fired in fair condition.

- Recommendation: No action is recommended.

## **HVAC**

### **Cooling Generating Systems**

- Analysis: Cooling is provided by window units in poor condition.

Heating is provided by a gas fired unit manufactured in 1990 in fair condition.

- Recommendation: Replacement of window unit air conditioners is recommended.

No action is recommended for the heating system.

## **Fire Protection**

### **Sprinklers**

- Analysis: There are no fire sprinklers in this building.
- Recommendation: Install sprinkler system as required by code.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The main electrical service is a 125 amp, 120/240 volt, single phase, 3 wire, 24 spaces panel in poor condition.
- Recommendation: Replacement is recommended.

### **Communications and Security**

- Analysis: Telephone and smoke/alarm detector are in fair condition.
- Recommendation: No action is recommended.

## **Equipment**

### **Other Equipment**

- Analysis: Other equipment items are 1 microwave oven, 1 dishwasher, 1 four burner range/oven with hood and clothing washer and dryer. All items are in fair condition.
- Recommendation: No action is recommended.

## **Site Preparation**

### **Site Earthwork**

- Analysis: Site earthwork is in good condition.
- Recommendation: No action is recommended.

## **Major Functional Criteria**

### **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most of the back-of-the-house spaces are required at the main lodging building on post. Presently these are located in Building 7301, and are not included in this building.

- **Family Guest Suite**

The following are existing conditions that do not meet the Functional Criteria that are considered major deficits. Listed is the recommendation or solutions for remedying the deficit.

Room Size and Configuration: The rooms do not meet size and configuration requirements.

Recommendation: A Renovation Cost estimate is used to indicate a total redo of the building into 3 family suites. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in Building 7301, and are not included in this building.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>16.45%</b>	<b>\$9,457.20</b>
Parking: AC Pavement Damaged or Failing		\$9,457.20
<b>08 Doors &amp; Windows</b>	<b>24.38%</b>	<b>\$14,022.20</b>
Al. Windows - Beyond Useful Life		\$11,150.40
Wood Door - Beyond Useful Life		\$2,871.80
<b>09 Finishes</b>	<b>23.50%</b>	<b>\$13,513.20</b>
Carpet: Beyond Useful Life		\$5,042.18
Interior ceilings: Paint Failing		\$1,332.72
Interior walls: Paint failing		\$2,292.15
VCT: Beyond Useful Life		\$929.85
Vinyl Wall Covering: Beyond expected useful life		\$3,916.30
<b>13 Special Construction</b>	<b>15.57%</b>	<b>\$8,956.43</b>
Fire Sprinklers: Missing or Inadequate		\$8,956.43
<b>15 Mechanical</b>	<b>4.60%</b>	<b>\$2,647.35</b>
Unit A/C: Beyond expected useful life		\$2,647.35
<b>16 Electrical</b>	<b>6.80%</b>	<b>\$3,910.53</b>
Panelboard: Beyond expected useful life		\$3,120.21
Wall mounted fixture: Beyond expected useful life		\$790.32
<b>19 FF&amp;E</b>	<b>8.69%</b>	<b>\$5,000.00</b>
Hard and soft goods: Beyond expected useful life		\$5,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$57,507.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$316.29
Force Protection	9.00%	\$5,721.66
General Conditions	10.00%	\$5,750.70
<b>Total Additional Hard Cost</b>		<b>\$11,788.65</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$6,929.56
SIOH Conus	6.50%	\$4,954.64
Design	10.00%	\$6,929.56
08 MYr Inflation Fct	9.93%	\$8,749.27
<b>Total Soft Cost</b>		<b>\$27,563.03</b>
<b>Total Project</b>		<b>\$96,858.68</b>

## Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

### Summary of Project Renovation Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>4.65%</b>	<b>\$9,457.20</b>
Site Development		\$9,457.20
<b>07 Thermal &amp; Moisture Protection</b>	<b>1.52%</b>	<b>\$3,079.16</b>
Roof Construction		\$3,079.16
<b>08 Doors &amp; Windows</b>	<b>22.74%</b>	<b>\$46,194.87</b>
Exterior Doors		\$6,843.15
Exterior Windows		\$31,080.00
Interior Doors		\$8,271.72
<b>09 Finishes</b>	<b>24.71%</b>	<b>\$50,206.50</b>
Ceiling Finishes		\$9,157.33
Floor Finishes		\$11,685.01
Partitions		\$11,210.06
Wall Finishes		\$18,154.09
<b>11 Equipment</b>	<b>3.28%</b>	<b>\$6,660.00</b>
Other Equipment		\$6,660.00
<b>13 Special Construction</b>	<b>6.69%</b>	<b>\$13,598.28</b>
Communications & Security		\$6,121.48
Sprinklers		\$7,476.79
<b>15 Mechanical</b>	<b>19.75%</b>	<b>\$40,119.62</b>
Cooling Generating Systems		\$26,383.37
Domestic Water Dist		\$3,996.00
Plumbing Fixtures		\$9,740.25
<b>16 Electrical</b>	<b>9.28%</b>	<b>\$18,861.12</b>
Electrical Service & Distribution		\$18,070.80
Site Lighting		\$790.32
<b>19 FF&amp;E</b>	<b>7.38%</b>	<b>\$15,000.00</b>
Interior FF&E allowance		\$15,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$203,176.74</b>

### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,117.47
Force Protection	9.00%	\$20,215.07
General Conditions	10.00%	\$20,317.67
<b>Total Additional Hard Cost</b>		<b>\$41,650.22</b>

### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$24,482.70
SIOH Conus	6.50%	\$17,505.13
Design	10.00%	\$24,482.70
08 MYr Inflation Fct	9.93%	\$30,911.84
<b>Total Soft Cost</b>		<b>\$97,382.36</b>

**Total Project Cost for Renovation**

**\$342,209.31**

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>5.00%</b>	<b>\$15,004.70</b>
Site Earthwork		\$15,004.70
<b>03 Concrete</b>	<b>11.07%</b>	<b>\$33,200.10</b>
Floor Construction		\$11,100.00
Slab on Grade		\$11,050.05
Standard Foundations		\$11,050.05
<b>04 Masonry</b>	<b>11.74%</b>	<b>\$35,216.77</b>
Exterior Walls		\$35,216.77
<b>07 Thermal &amp; Moisture Protection</b>	<b>11.42%</b>	<b>\$34,260.72</b>
Roof Construction		\$6,394.17
Roof Coverings		\$27,866.55
<b>08 Doors &amp; Windows</b>	<b>15.25%</b>	<b>\$45,735.33</b>
Exterior Doors		\$6,843.15
Exterior Windows		\$31,080.00
Interior Doors		\$7,812.18
<b>09 Finishes</b>	<b>13.07%</b>	<b>\$39,220.96</b>
Ceiling Finishes		\$6,431.13
Floor Finishes		\$11,260.50
Partitions		\$11,210.06
Wall Finishes		\$10,319.27
<b>11 Equipment</b>	<b>3.89%</b>	<b>\$11,655.00</b>
Other Equipment		\$11,655.00
<b>13 Special Construction</b>	<b>4.43%</b>	<b>\$13,304.26</b>
Communications & Security		\$5,989.13
Sprinklers		\$7,315.13
<b>15 Mechanical</b>	<b>12.14%</b>	<b>\$36,411.33</b>
Cooling Generating Systems		\$17,680.08
Domestic Water Dist		\$8,991.00
Plumbing Fixtures		\$9,740.25
<b>16 Electrical</b>	<b>7.00%</b>	<b>\$20,988.44</b>
Electrical Service & Distribution		\$20,988.44
<b>19 FF&amp;E</b>	<b>5.00%</b>	<b>\$15,000.00</b>
Interior FF&E allowance		\$15,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$299,997.61</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,649.99
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$29,999.76
<b>Total Additional Hard Cost</b>		<b>\$31,649.75</b>

### Soft Cost (Template: Army Lodging New Construction)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$16,582.37
SIOH Conus	6.50%	\$22,634.93
Design	10.00%	\$33,164.74
08 MYr Inflation Fct	9.93%	\$40,120.12
<b>Total Soft Cost</b>		<b>\$112,502.15</b>
<b>Total Project Cost for Replacement</b>		<b>\$444,149.51</b>

**INSERT BUILDING 1919 FLOOR PLANS HERE**



*Building 6215  
6215 Mekong Street  
Fort Carson, Colorado*

## **Building 6215**

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Building 6215 was constructed before 1900. The 3,500 square foot facility contains 3 DVQ lodging units with a full kitchen. The building is functioning as 3 family suites for high ranking visitors.

### **Significant Assumptions**

The replacement and renovation cost models are based on 7 family suites.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 111% for Ft Carson.

### **Cost Analysis**

Renovation Cost	\$723,655.00
Replacement Cost	\$668,805.00
Renovation to Replacement Cost Ratio	108.20%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 6215 is not recommended.

## **Attributes**

01.Number of Units Constructed	3
02.Number of Units Used	3
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	3
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	3
13.Renovated to Standard	0
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	7
16.Delta renovation	4

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Hard goods: 9 headboards, 3 dinner tables, 7 TV's, 6 TV cabinets, 17 dinner table chairs, 3 microwave ovens, 6 couches, 3 lounge chairs, 3 desks, 3 desk chairs, 1 wall table, 18 end tables, 2 coffee tables and 5 four drawer dressers. All in poor condition.

Soft goods: 9 mattresses and box springs, 9 bedspreads, curtains and rods, 21 lamps, linens for three bathrooms, 46 pictures and 10 decorative wall hung mirrors. All in poor condition..

- Recommendation: Recommend replacement.

### **Foundations**

#### **Standard Foundations**

- Analysis: The foundation consists of masonry piers on spread footings. No settlement was observed.

- Recommendation: No action is recommended.

#### **Slab on Grade**

- Analysis: The mechanical room has a slab on grade. No problems were observed with the slab.

- Recommendation: No action is recommended.

### **Superstructure**

#### **Floor Construction**

- Analysis: Floor construction is wood beams and joists supporting wood decking. Floor structure is in fair condition.

- Recommendation: No action is recommended.

#### **Roof Construction**

- Analysis: The roof construction is wood trusses, beams and joists. The roof structure is in fair condition.

- Recommendation: No action is recommended.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: Exterior walls are wood stud with wood sheathing and vinyl siding. Walls are in fair condition.

- Recommendation: No action is recommended.

#### **Exterior Windows**

- Analysis: Exterior windows are wood in fair to poor condition.

- Recommendation: Replacement is recommended.

#### **Exterior Doors**

- Analysis: Exterior doors are wood in wood frames in fair to poor condition.

- Recommendation: Replacement is recommended.

## **Roofing**

### **Roof Coverings**

- Analysis: Roofing is asphalt shingles in poor condition.
- Recommendation: Replacement of roofing is recommended.

## **Interior Construction**

### **Partitions**

- Analysis: Partitions are wood stud with gypsum board covering in fair condition.
- Recommendation: No action is recommended.

### **Interior Doors**

- Analysis: Interior doors are wood in fair condition.
- Recommendation: No action is recommended.

## **Interior Finishes**

### **Wall Finishes**

- Analysis: Interior wall finishes are painting and vinyl covered wall panels in fair to poor condition.
- Recommendation: Repainting and replacement of wall covering is recommended.

### **Floor Finishes**

- Analysis: Floor finishes are sheet vinyl, VCT and carpet in poor condition.
- Recommendation: Replacement of flooring is recommended.

### **Ceiling Finishes**

- Analysis: Ceiling finishes are painted gypsum board in poor condition.
- Recommendation: Repainting os ceilings is recommended.

## **Plumbing**

### **Plumbing Fixtures**

- Analysis: Bathroom plumbing fixtures are in fair condition.
- Recommendation: No action is recommended.

### **Domestic Water Distribution**

- Analysis: Water heater is a Rheem 75 gallon gas fired unit in fair condition.

Piping is copper in fair condition.

- Recommendation: No action is recommended.

## **HVAC**

### **Cooling Generating Systems**

- Analysis: Cooling is provided by window units in fair to poor condition.

Heating system is in fair condition.

- Recommendation: Replacement or window unit air conditioners is recommended.

No arction is recommended for the heating systems.

## **Fire Protection**

### **Sprinklers**

- Analysis: There are no fire sprinklers in this building.
- Recommendation: Install sprinkler system as required by code.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The building has three electrical services. Each service is a 125 amp, 124/240 volt, single phase, three panel in poor condition.
- Recommendation: Replacement is recommended.

### **Communications and Security**

- Analysis: The telephone system is in fair condition.

The smoke detector/alarm is in fair condition.

- Recommendation: No action is recommended.

## **Equipment**

### **Other Equipment**

- Analysis: There are 3 microwave ovens, 3 four burner range ovens with exhaust hoods, 3 refrigerators and 3 clothing washer/dryers. All are in fair condition.
- Recommendation: No action is recommended.

## **Site Preparation**

### **Site Earthwork**

- Analysis: Site earthwork is in good condition.
- Recommendation: No action is recommended.

## **Major Functional Criteria**

### **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most of the back-of-the-house spaces are required at the main lodging building on post. Presently these are located in Building 7301, and are not included in this building.

- **Family Guest Suite**

The following are existing conditions that do not meet the Functional Criteria that are considered major deficits. Listed is the recommendation or solutions for remedying the deficit.

Room Size and Configuration: The rooms do not meet size and configuration requirements.

Recommendation: A Renovation Cost estimate is used to indicate a total redo of the building into 7 family suites. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in Building 7301, and are not included in this building.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>25.93%</b>	<b>\$44,133.60</b>
Parking: AC Pavement Damaged or Failing		\$44,133.60
<b>07 Thermal &amp; Moisture Protection</b>	<b>17.03%</b>	<b>\$28,980.77</b>
Asphalt Shingle Roof: Beyond Useful Life		\$28,980.77
<b>08 Doors &amp; Windows</b>	<b>9.39%</b>	<b>\$15,980.17</b>
Wd. Casement - Beyond Useful Life		\$8,322.06
Wood Door - Beyond Useful Life		\$7,658.11
<b>09 Finishes</b>	<b>21.19%</b>	<b>\$36,054.63</b>
Carpet: Beyond Useful Life		\$14,531.88
Interior ceilings: Paint Failing		\$3,594.08
Interior walls: Paint failing		\$5,533.92
VCT: Beyond Useful Life		\$1,549.61
Vinyl Wall Covering: Beyond expected useful life		\$10,845.14
<b>13 Special Construction</b>	<b>9.03%</b>	<b>\$15,374.61</b>
Fire Sprinklers: Missing or Inadequate		\$15,374.61
<b>15 Mechanical</b>	<b>3.11%</b>	<b>\$5,294.70</b>
Unit A/C: Beyond expected useful life		\$5,294.70
<b>16 Electrical</b>	<b>5.50%</b>	<b>\$9,360.63</b>
Panelboard: Beyond expected useful life		\$9,360.63
<b>19 FF&amp;E</b>	<b>8.81%</b>	<b>\$15,000.00</b>
Hard and soft goods: Beyond expected useful life		\$15,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$170,179.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$935.98
Force Protection	9.00%	\$16,931.96
General Conditions	10.00%	\$17,017.90
<b>Total Additional Hard Cost</b>		<b>\$34,885.84</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$20,506.48
SIOH Conus	6.50%	\$14,662.14
Design	10.00%	\$20,506.48
08 MYr Inflation Fct	9.93%	\$25,891.48
<b>Total Soft Cost</b>		<b>\$81,566.58</b>
<b>Total Project</b>		<b>\$286,631.43</b>

## Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

### Summary of Project Renovation Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>10.27%</b>	<b>\$44,130.60</b>
Site Development		\$44,130.60
<b>07 Thermal &amp; Moisture Protection</b>	<b>3.85%</b>	<b>\$16,537.34</b>
Roof Construction		\$7,184.70
Roof Coverings		\$9,352.64
<b>08 Doors &amp; Windows</b>	<b>16.17%</b>	<b>\$69,469.35</b>
Exterior Doors		\$6,843.15
Exterior Windows		\$48,840.00
Interior Doors		\$13,786.20
<b>09 Finishes</b>	<b>27.25%</b>	<b>\$117,074.96</b>
Ceiling Finishes		\$21,367.11
Floor Finishes		\$27,191.49
Partitions		\$26,156.80
Wall Finishes		\$42,359.55
<b>11 Equipment</b>	<b>3.62%</b>	<b>\$15,540.00</b>
Other Equipment		\$15,540.00
<b>13 Special Construction</b>	<b>5.44%</b>	<b>\$23,387.70</b>
Communications & Security		\$10,528.35
Sprinklers		\$12,859.35
<b>15 Mechanical</b>	<b>18.02%</b>	<b>\$77,428.05</b>
Cooling Generating Systems		\$45,376.80
Domestic Water Dist		\$9,324.00
Plumbing Fixtures		\$22,727.25
<b>16 Electrical</b>	<b>7.23%</b>	<b>\$31,080.00</b>
Electrical Service & Distribution		\$31,080.00
<b>19 FF&amp;E</b>	<b>8.15%</b>	<b>\$35,000.00</b>
Interior FF&E allowance		\$35,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$429,648.00</b>

### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$2,363.06
Force Protection	9.00%	\$42,747.83
General Conditions	10.00%	\$42,964.80
<b>Total Additional Hard Cost</b>		<b>\$88,075.69</b>

### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$51,772.37
SIOH Conus	6.50%	\$37,017.24
Design	10.00%	\$51,772.37
08 MYr Inflation Fct	9.93%	\$65,367.77
<b>Total Soft Cost</b>		<b>\$205,929.75</b>

**Total Project Cost for Renovation**

**\$723,653.44**

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

<b>CSI</b>	<b>Percent</b>	<b>Amount</b>
<b>02 Site Work</b>	<b>6.30%</b>	<b>\$28,449.58</b>
Site Earthwork		\$28,449.58
<b>03 Concrete</b>	<b>12.54%</b>	<b>\$56,649.89</b>
Floor Construction		\$25,286.52
Slab on Grade		\$13,065.02
Standard Foundations		\$18,298.35
<b>04 Masonry</b>	<b>9.41%</b>	<b>\$42,513.38</b>
Exterior Walls		\$42,513.38
<b>07 Thermal &amp; Moisture Protection</b>	<b>3.49%</b>	<b>\$15,754.58</b>
Roof Construction		\$7,371.18
Roof Coverings		\$8,383.40
<b>08 Doors &amp; Windows</b>	<b>11.37%</b>	<b>\$51,360.81</b>
Exterior Doors		\$4,811.85
Exterior Windows		\$35,520.00
Interior Doors		\$11,028.96
<b>09 Finishes</b>	<b>18.22%</b>	<b>\$82,304.22</b>
Ceiling Finishes		\$10,738.45
Floor Finishes		\$25,913.61
Partitions		\$26,835.71
Wall Finishes		\$18,816.45
<b>11 Equipment</b>	<b>6.02%</b>	<b>\$27,195.00</b>
Other Equipment		\$27,195.00
<b>13 Special Construction</b>	<b>4.14%</b>	<b>\$18,700.91</b>
Communications & Security		\$6,587.41
Sprinklers		\$12,113.51
<b>15 Mechanical</b>	<b>14.61%</b>	<b>\$65,990.61</b>
Cooling Generating Systems		\$29,277.36
Domestic Water Dist		\$13,986.00
Plumbing Fixtures		\$22,727.25
<b>16 Electrical</b>	<b>6.16%</b>	<b>\$27,821.04</b>
Electrical Service & Distribution		\$27,821.04
<b>19 FF&amp;E</b>	<b>7.75%</b>	<b>\$35,000.00</b>
Interior FF&E allowance		\$35,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$451,740.03</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$2,484.57
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$45,174.00
<b>Total Additional Hard Cost</b>		<b>\$47,658.57</b>

### Soft Cost (Template: Army Lodging New Construction)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$24,969.93
SIOH Conus	6.50%	\$34,083.95
Design	10.00%	\$49,939.86
08 MYr Inflation Fct	9.93%	\$60,413.36
<b>Total Soft Cost</b>		<b>\$169,407.11</b>
<b>Total Project Cost for Replacement</b>		<b>\$668,805.71</b>

**INSERT BUILDING 6215 FLOOR PLANS HERE**



Building 7301  
7301 Woodfill Road  
Fort Carson, Colorado

## Building 7301

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Building 7301 was constructed in 1970. The 21,725 square foot facility contains 18 units without a full kitchen. The building is functioning as 18 standard stay units. The building also contains housing administrative offices and support functions.

### Significant Assumptions

The replacement and renovation cost models are based on 27 family suites.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 111% for Ft Carson.

### Cost Analysis

Renovation Cost	\$2,588,425.00
Replacement Cost	\$3,864,450.00
Renovation to Replacement Cost Ratio	66.98%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 7301 is not recommended.

### Attributes

01.Number of Units Constructed	18
02.Number of Units Used	18
03.Back of House Function	No
04.Single Room w/o FullKitchen	18
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	18
11.Operating as Extended Stay	0
12.Operating as Family Suite	0
13.Renovated to Standard	0
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	27
16.Delta renovation	9

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Guest Rooms: The hard goods are 1 desk, 1 desk chair, 1 lounge chair, 1 TV/entertainment cabinet, 2 end tables, 2 table lamps and 1 head board. The soft goods are window curtains and drapes including rods, 2 wall hung pictures, 1 TV, 1 microwave oven, 1 mattress, 1 box spring and coverings for 1 bed. All are in poor condition.

The lunch room has 1 dining table, 6 dining chairs and 14 lf of base and wall cabinets. Soft goods are window curtains and curtain rod, 1 microwave oven and 1 commercial ice maker.

Lobby area: The hard goods are 5 lf of base cabinets, 3 lf of wall cabinets, 2 lounge chairs, 1 lamp table, 1 table lamp, one small round coffee table and one small rectangular table. The soft goods are window drapes and rods and vertical blinds.

- Recommendation: Replacement is recommended.

### **Foundations**

#### **Standard Foundations**

- Analysis: The foundation consists of concrete piers and suspended beams. No cracking or settling was observed.
- Recommendation: No action is recommended.

#### **Slab on Grade**

- Analysis: The basement mechanical room has a slab on grade and no failure was observed.
- Recommendation: No action is recommended.

### **Superstructure**

#### **Floor Construction**

- Analysis: The floors are reinforced concrete slabs. No failures were observed.
- Recommendation: No action is recommended.

#### **Roof Construction**

- Analysis: The roofs are reinforced concrete slabs. No failures were observed.
- Recommendation: No action is recommended.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: The exterior walls are concrete block with exterior brick facing. No failures were observed.
- Recommendation: No corrective actions are recommended.

#### **Exterior Windows**

- Analysis: The exterior windows are bronze anodized aluminum and are in fair condition.
- Recommendation: No action is recommended.

#### **Exterior Doors**

- Analysis: The exterior doors and frames are steel and are in fair condition.
- Recommendation: No action is recommended.

### **Roofing**

#### **Roof Coverings**

- Analysis: Single ply rubber roofing material appears to be in fair condition. Wind causes large sections of roofing to ripple.
- Recommendation: Recommend having roofing manufacturer's representative inspect roofing for proper installation.

### **Interior Construction**

#### **Partitions**

- Analysis: There are concrete block and studs with drywall partitions. They are in fair condition.
- Recommendation: No action is recommended.

#### **Interior Doors**

- Analysis: The interior doors are solid core wood in steel frames. Both are in fair condition.
- Recommendation: No action is recommended.

#### **Fittings**

- Analysis: The lavatory cabinet, counter top, mirror, medicine cabinet and restroom shower curtain are in fair condition.
- Recommendation: No action is recommended.

### **Stairs**

#### **Stair Construction**

- Analysis: Stairs are reinforced concrete and no failure was observed.
- Recommendation: No action is recommended.

### **Interior Finishes**

#### **Wall Finishes**

- Analysis: Wall finishes are paint and wall covering in rooms and corridors in fair to poor condition.
- Recommendation: Replacement of wall coverings and repainting is recommended.

#### **Floor Finishes**

- Analysis: Floor covering is mostly carpet in guest rooms and corridors in fair to poor condition.
- Recommendation: Replacement is recommended.

#### **Ceiling Finishes**

- Analysis: Ceilings are suspended acoustic panels in common areas and painted gypsum board in the guest rooms. The acoustic ceilings are in fair condition. The painted ceilings are in need of painting.
- Recommendation: Repaint the existed painted ceilings.

## **Plumbing**

### **Plumbing Fixtures**

- Analysis: The plumbing fixtures are in good condition.
- Recommendation: No action is recommended.

### **Domestic Water Distribution**

- Analysis: The domestic water piping is copper and in good condition.
- Recommendation: No action is recommended.

## **HVAC**

### **Cooling Generating Systems**

- Analysis: The room cooling is provided by window units in fair to poor condition.

Hot water is supplied by 2 Rheemglas 115 gallon water heaters manufactured in about 1989 in fair to poor condition.

The heating system is circulating hot water. The water is heated by a Teledyne Laars natural gas boiler built in 1994 in good condition. The bathrooms are internal and have exhaust fans in fair condition.

- Recommendation: Replacement of the window units and domestic water heaters is recommended.

## **Fire Protection**

### **Sprinklers**

- Analysis: There were no problems observed with the fire sprinkler system.
- Recommendation: No action is recommended.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: Electrical service is 208Y/120 volt, 3 phase, 4 wire, 600 amps bu Square D manufactured in about 1993.

No problems were observed with the electrical systems or devices.

- Recommendation: No action is recommended.

### **Communications and Security**

- Analysis: The telephone and smoke and heat detector systems are operating properly and appear to be in good condition.
- Recommendation: No action is recommended.

## **Equipment**

### **Other Equipment**

- Analysis: Other equipment was not observed.
- Recommendation: No action is recommended.

## **Site Preparation**

### **Site Earthwork**

- Analysis: Site work is in good condition.
- Recommendation: No action is recommended.

## **Major Functional Criteria**

### **• Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

#### **• Back-of-House Spaces**

Building is shared with Housing. Most of the areas that are part of the back-of-the-house do not exist or do not meet standards.

Renovation Recommendation: Incorporate all Main Lodging back-of-the-house spaces in new lodging building recommended as part of Wellness Solution.

#### **• Public Spaces**

Building is shared with Housing. Most of the areas that are part of the public spaces do not exist or do not meet standards.

Renovation Recommendation: Incorporate all Main Lodging back-of-the-house spaces in new lodging building recommended as part of Wellness Solution.

#### **• Standard Guest Room**

The following are existing conditions that do not meet the Functional Criteria that are considered major deficits. Listed is the recommendation or solutions for remedying the deficit.

Room Size and Configuration: The rooms do not meet size and configuration requirements.

Recommendation: A Renovation Cost estimate is used to indicate a total redo of the building into 27 family suites. This renovation will cost more than 50% of the building's replacement cost.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>23.30%</b>	<b>\$53,590.80</b>
Beyond Useful Life		\$53,590.80
<b>09 Finishes</b>	<b>21.64%</b>	<b>\$49,767.17</b>
Acoustical Ceiling & Grid: Beyond expt useful life		\$7,429.42
Carpet: Beyond Useful Life		\$18,960.22
Interior ceilings: Paint Failing		\$3,536.46
Interior walls: Paint failing		\$1,178.82
VCT: Beyond Useful Life		\$2,235.54
Vinyl Wall Covering: Beyond expected useful life		\$16,426.71
<b>15 Mechanical</b>	<b>6.91%</b>	<b>\$15,884.10</b>
Unit A/C: Beyond expected useful life		\$15,884.10
<b>16 Electrical</b>	<b>6.86%</b>	<b>\$15,784.20</b>
Pole mounted fixture: Beyond expected useful life		\$15,784.20
<b>19 FF&amp;E</b>	<b>41.30%</b>	<b>\$95,000.00</b>
Hard and soft goods: Beyond expected useful life		\$95,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$230,026.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,265.14
Force Protection	9.00%	\$22,886.44
General Conditions	10.00%	\$23,002.60
<b>Total Additional Hard Cost</b>		<b>\$47,154.18</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$27,718.02
SIOH Conus	6.50%	\$19,818.38
Design	10.00%	\$27,718.02
08 MYr Inflation Fct	9.93%	\$34,996.76
<b>Total Soft Cost</b>		<b>\$110,251.17</b>
<b>Total Project</b>		<b>\$387,431.35</b>

## Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

### Summary of Project Renovation Cost

<b>CSI</b>	<b>Percent</b>	<b>Amount</b>
<b>02 Site Work</b>	<b>3.49%</b>	<b>\$53,590.80</b>
Site Development		\$53,590.80
<b>03 Concrete</b>	<b>0.53%</b>	<b>\$8,158.50</b>
Stair Construction		\$8,158.50
<b>07 Thermal &amp; Moisture Protection</b>	<b>1.80%</b>	<b>\$27,712.42</b>
Roof Construction		\$27,712.42
<b>08 Doors &amp; Windows</b>	<b>2.72%</b>	<b>\$41,818.14</b>
Interior Doors		\$41,818.14
<b>09 Finishes</b>	<b>29.37%</b>	<b>\$451,423.29</b>
Ceiling Finishes		\$82,416.00
Floor Finishes		\$104,729.92
Partitions		\$100,890.53
Wall Finishes		\$163,386.85
<b>11 Equipment</b>	<b>3.90%</b>	<b>\$59,940.00</b>
Other Equipment		\$59,940.00
<b>13 Special Construction</b>	<b>9.45%</b>	<b>\$145,170.80</b>
Communications & Security		\$65,350.97
Sprinklers		\$79,819.82
<b>15 Mechanical</b>	<b>26.37%</b>	<b>\$405,286.53</b>
Cooling Generating Systems		\$281,660.28
Domestic Water Dist		\$35,964.00
Plumbing Fixtures		\$87,662.25
<b>16 Electrical</b>	<b>13.58%</b>	<b>\$208,702.20</b>
Electrical Service & Distribution		\$192,918.00
Site Lighting		\$15,784.20
<b>19 FF&amp;E</b>	<b>8.78%</b>	<b>\$135,000.00</b>
Interior FF&E allowance		\$135,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$1,536,802.68</b>

### Additional Hard Cost (Template: Army Lodging Renovation)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$8,452.41
Force Protection	9.00%	\$152,904.18
General Conditions	10.00%	\$153,680.27
<b>Total Additional Hard Cost</b>		<b>\$315,036.87</b>

### Soft Cost (Template: Army Lodging Renovation)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	10.00%	\$185,183.95
SIOH Conus	6.50%	\$132,406.53
Design	10.00%	\$185,183.95
08 MYr Inflation Fct	9.93%	\$233,813.17

<b>Total Soft Cost</b>	<b>\$736,587.60</b>
<b>Total Project Cost for Renovation</b>	<b>\$2,588,427.15</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

<b>CSI</b>	<b>Percent</b>	<b>Amount</b>
<b>02 Site Work</b>	<b>2.09%</b>	<b>\$54,662.51</b>
Site Earthwork		\$54,662.51
<b>03 Concrete</b>	<b>21.59%</b>	<b>\$563,470.81</b>
Floor Construction		\$393,607.51
Slab on Grade		\$40,426.20
Stair Construction		\$8,158.50
Standard Foundations		\$121,278.60
<b>04 Masonry</b>	<b>5.86%</b>	<b>\$152,988.24</b>
Exterior Walls		\$152,988.24
<b>07 Thermal &amp; Moisture Protection</b>	<b>6.35%</b>	<b>\$165,751.96</b>
Roof Construction		\$65,942.15
Roof Coverings		\$99,809.81
<b>08 Doors &amp; Windows</b>	<b>7.66%</b>	<b>\$199,940.97</b>
Exterior Doors		\$14,968.35
Exterior Windows		\$137,640.00
Interior Doors		\$47,332.62
<b>09 Finishes</b>	<b>14.30%</b>	<b>\$373,316.49</b>
Ceiling Finishes		\$66,497.20
Floor Finishes		\$104,266.47
Partitions		\$107,611.68
Wall Finishes		\$94,941.14
<b>10 Specialties</b>	<b>0.06%</b>	<b>\$1,673.88</b>
Fittings		\$1,673.88
<b>11 Equipment</b>	<b>4.02%</b>	<b>\$104,895.00</b>
Other Equipment		\$104,895.00
<b>13 Special Construction</b>	<b>5.59%</b>	<b>\$146,019.43</b>
Communications & Security		\$65,733.00
Sprinklers		\$80,286.43
<b>15 Mechanical</b>	<b>19.14%</b>	<b>\$499,712.01</b>
Cooling Generating Systems		\$194,045.76
Domestic Water Dist		\$80,919.00
Plumbing Fixtures		\$224,747.25
<b>16 Electrical</b>	<b>8.15%</b>	<b>\$212,783.67</b>
Electrical Service & Distribution		\$212,783.67
<b>19 FF&amp;E</b>	<b>5.17%</b>	<b>\$135,000.00</b>
Interior FF&E allowance		\$135,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$2,610,214.97</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$14,356.18
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$261,021.50

**Total Additional Hard Cost** **\$275,377.68**

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$144,279.63
SIOH Conus	6.50%	\$196,941.70
Design	10.00%	\$288,559.26
08 MYr Inflation Fct	9.93%	\$349,076.56
<b>Total Soft Cost</b>		<b>\$978,857.16</b>
<b>Total Project Cost for Replacement</b>		<b>\$3,864,449.80</b>

**INSERT BUILDING 7301 FLOOR PLAN HERE**



*Building 7302  
7302 St. Lo Drive  
Fort Carson, Colorado*

## **Building 7302**

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Building 7302 was constructed in 1970. The 36,027 square foot facility contains 78 units with a full kitchen. The building is functioning as 78 extended stay units.

### **Significant Assumptions**

The replacement and renovation cost models are based on 30 family suites, 10 standard stay units and 18 extended stay units.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 111% for Ft Carson.

### **Cost Analysis**

Renovation Cost	\$4,919,845.00
Replacement Cost	\$7,149,250.00
Renovation to Replacement Cost Ratio	68.82%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 7302 is not recommended.

### **Attributes**

01.Number of Units Constructed	78
02.Number of Units Used	78
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	78
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	78
12.Operating as Family Suite	0
13.Renovated to Standard	10
14.Renovated to Extended Stay	18
15.Renovated to Family Suite	30
16.Delta renovation	-20

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Guest Rooms: The hard goods are 1 desk, 1 desk chair, 1 lounge chair, 1 TV/entertainment cabinet, 2 end tables, 2 table lamps and 1 head board.

The soft goods are window curtains and drapes including rods, 2 wall hung pictures, 1 TV, 1 microwave oven, 1 mattress, 1 box spring and coverings for 1 bed. All are in poor condition.

- Recommendation: Replacement is recommended

### **Foundations**

#### **Standard Foundations**

- Analysis: The foundation consists of concrete piers and suspended concrete beams. No cracking or settling was observed

- Recommendation: No action is recommended

#### **Slab on Grade**

- Analysis: The basement mechanical room has a slab on grade and no failure was observed.

- Recommendation: No action is recommended

### **Superstructure**

#### **Floor Construction**

- Analysis: The floor structures are steel joists supporting metal decking with concrete topping. No failures were observed.

- Recommendation: No action is recommended.

#### **Roof Construction**

- Analysis: The roof structure is steel joists supporting metal decking with concrete topping. No failures were observed.

- Recommendation: No action is recommended.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: The exterior walls are concrete block with exterior brick facing. No failures were observed.

- Recommendation: No corrective actions are recommended

#### **Exterior Windows**

- Analysis: The exterior windows are bronze anodized aluminum and are in fair condition.

- Recommendation: No action is recommended.

#### **Exterior Doors**

- Analysis: The exterior doors and frames are glass and aluminum and hollow metal and are in fair condition.

- Recommendation: No action is recommended.

## **Roofing**

### **Roof Coverings**

- Analysis: Built-up roofing with gravel topping is in poor condition
- Recommendation: Replacement is recommended.

## **Interior Construction**

### **Partitions**

- Analysis: There are concrete block and studs with drywall partitions. They are in fair condition.
- Recommendation: No action is recommended.

### **Interior Doors**

- Analysis: The interior doors are solid core wood in steel frames. Both are in fair condition.
- Recommendation: No action is recommended.

### **Fittings**

- Analysis: The lavatory cabinet, counter top, mirror, medicine cabinet and restroom shower curtain are in fair condition.
- Recommendation: No action is recommended.

## **Stairs**

### **Stair Construction**

- Analysis: Stairs are reinforced concrete and no failure was observed.
- Recommendation: No action is recommended.

## **Interior Finishes**

### **Wall Finishes**

- Analysis: Wall finishes are paint and wall covering in rooms and corridors in fair to poor condition.
- Recommendation: Replacement of wall coverings and repainting is recommended.

### **Floor Finishes**

- Analysis: Floor covering is mostly carpet in guest rooms and corridors in poor condition.
- Recommendation: Replacement is recommended.

### **Ceiling Finishes**

- Analysis: Ceilings are suspended acoustic panels in common areas and painted gypsum board in the guest rooms. The acoustic ceilings are in fair condition. The painted ceilings are in need of painting.
- Recommendation: Repaint the existed painted ceilings.

## **Conveying**

### **Elevators and Lifts**

- Analysis: There are no elevators in this building. They would be required for a building of this size if it were to be replaced.
- Recommendation: No action is recommended.

## **Plumbing**

### **Plumbing Fixtures**

- Analysis: The plumbing fixtures are in fair condition. The water heater is a Ajax gas fired boiler manufactured in 1996 in good condition.
- Recommendation: No action is recommended.

### **Domestic Water Distribution**

- Analysis: The domestic water piping is copper and in good condition. The hot water is supplied by a natural gas fired Ajax boiler manufactured in 1996 and is in good condition.
- Recommendation: No action is recommended.

## **HVAC**

### **Cooling Generating Systems**

- Analysis: The room cooling is provided by window units in fair to poor condition. The heating system is circulating hot water. The water is heated by a Ajax natural gas boiler and appears to be the original boiler. The boiler is in poor condition. The bathrooms have exhaust fans which are in fair condition.
- Recommendation: Replacement of the window units is recommended. Replacement of the boiler is recommended.

## **Fire Protection**

### **Sprinklers**

- Analysis: There are no fire sprinklers in this building.
- Recommendation: Install sprinkler system as required by code.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The dorm manager reports circuits breakers for dorm rooms trip often. She reports this happens when three major electrical appliances are being used. The main electrical service is Federal Pacific, 1200 amps ,3 pole, 120/208 volts and appears to be original equipment.
- Recommendation: Recommend replacing and increasing the electrical service.

### **Communications and Security**

- Analysis: The telephone and smoke and heat detector systems are operating properly and appear to be in good condition.
- Recommendation: No action is recommended.

## **Equipment**

### **Other Equipment**

- Analysis: There is a 4 burner stove and oven with an exhaust hood, a refrigerator and a small sink. All are in poor condition
- Recommendation: Replacement is recommended.

## **Site Preparation**

### **Site Earthwork**

- Analysis: Site work is in good condition.
- Recommendation: No action is recommended.

## **Site Improvements**

### **Parking Lots**

- Analysis: The parking lot is adequate for the building. The surfaces are in poor condition.
- Recommendation: Resurface parking area.

## **Site Electrical Utilities**

### **Site Lighting**

- Analysis: Site lighting is provided by area bollards. These are in good condition.
- Recommendation: No corrective action required.

## **Major Functional Criteria**

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most of the back-of-the-house spaces are required at the main lodging building on post. Presently these are located in Building 7301, and are not included in this building.

- **Extended Stay Guest Room**

The following are existing conditions that do not meet the Functional Criteria that are considered major deficits. Listed is the recommendation or solutions for remedying the deficit.

Room Size and Configuration: The rooms do not meet size and configuration requirements.

Recommendation: A Renovation Cost estimate is used to indicate a total redo of the building into 30 family suites, 10 standard stay rooms and 18 extended stay rooms. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in Building 7301, and are not included in this building.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>5.03%</b>	<b>\$53,590.80</b>
Beyond Useful Life		\$53,590.80
<b>07 Thermal &amp; Moisture Protection</b>	<b>5.13%</b>	<b>\$54,703.51</b>
Built-up Roof: Beyond Useful Life		\$54,703.51
<b>09 Finishes</b>	<b>12.10%</b>	<b>\$128,911.76</b>
Acoustical Ceiling & Grid: Beyond expt useful life		\$12,622.17
Carpet: Beyond Useful Life		\$26,941.58
Interior ceilings: Paint Failing		\$4,341.99
Interior walls: Paint failing		\$654.90
Vinyl Wall Covering: Beyond expected useful life		\$84,351.12
<b>11 Equipment</b>	<b>14.23%</b>	<b>\$151,558.29</b>
Unit Kitchen: Beyond Useful Life		\$151,558.29
<b>13 Special Construction</b>	<b>14.87%</b>	<b>\$158,427.10</b>
Fire Sprinklers: Missing or Inadequate		\$158,427.10
<b>15 Mechanical</b>	<b>6.46%</b>	<b>\$68,831.10</b>
Unit A/C: Beyond expected useful life		\$68,831.10
<b>16 Electrical</b>	<b>5.57%</b>	<b>\$59,336.16</b>
Main service: Beyond expected useful life		\$35,659.86
Pole mounted fixture: Beyond expected useful life		\$23,676.30
<b>19 FF&amp;E</b>	<b>36.61%</b>	<b>\$390,000.00</b>
Hard and soft goods: Beyond expected useful life		\$390,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$1,065,359.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$5,859.47
Force Protection	9.00%	\$105,997.89
General Conditions	10.00%	\$106,535.90
<b>Total Additional Hard Cost</b>		<b>\$218,393.27</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$128,375.23
SIOH Conus	6.50%	\$91,788.29
Design	10.00%	\$128,375.23
08 MYr Inflation Fct	9.93%	\$162,086.50
<b>Total Soft Cost</b>		<b>\$510,625.24</b>
<b>Total Project</b>		<b>\$1,794,377.51</b>

## Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

### Summary of Project Renovation Cost

<b>CSI</b>	<b>Percent</b>	<b>Amount</b>
<b>02 Site Work</b>	<b>1.83%</b>	<b>\$53,590.80</b>
Site Development		\$53,590.80
<b>03 Concrete</b>	<b>0.84%</b>	<b>\$24,475.50</b>
Stair Construction		\$24,475.50
<b>07 Thermal &amp; Moisture Protection</b>	<b>3.44%</b>	<b>\$100,571.11</b>
Roof Construction		\$58,127.31
Roof Coverings		\$42,443.81
<b>08 Doors &amp; Windows</b>	<b>3.35%</b>	<b>\$97,810.98</b>
Interior Doors		\$97,810.98
<b>09 Finishes</b>	<b>30.51%</b>	<b>\$891,161.08</b>
Ceiling Finishes		\$155,237.36
Floor Finishes		\$223,837.46
Partitions		\$211,619.73
Wall Finishes		\$300,466.52
<b>10 Specialties</b>	<b>0.19%</b>	<b>\$5,436.23</b>
Fittings		\$5,436.23
<b>11 Equipment</b>	<b>4.41%</b>	<b>\$128,760.00</b>
Other Equipment		\$128,760.00
<b>12 Furnishings</b>	<b>0.14%</b>	<b>\$3,996.00</b>
Fixed Furnishings		\$3,996.00
<b>13 Special Construction</b>	<b>8.24%</b>	<b>\$240,739.62</b>
Communications & Security		\$108,372.82
Sprinklers		\$132,366.80
<b>15 Mechanical</b>	<b>25.36%</b>	<b>\$740,876.56</b>
Cooling Generating Systems		\$467,082.85
Domestic Water Dist		\$77,256.00
Plumbing Fixtures		\$196,537.71
<b>16 Electrical</b>	<b>11.76%</b>	<b>\$343,596.06</b>
Electrical Service & Distribution		\$319,919.76
Site Lighting		\$23,676.30
<b>19 FF&amp;E</b>	<b>9.93%</b>	<b>\$290,000.00</b>
Interior FF&E allowance		\$290,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$2,921,013.93</b>

### Additional Hard Cost (Template: Army Lodging Renovation)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$16,065.58
Force Protection	9.00%	\$290,626.28
General Conditions	10.00%	\$292,101.39
<b>Total Additional Hard Cost</b>		<b>\$598,793.25</b>

### Soft Cost (Template: Army Lodging Renovation)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	10.00%	\$351,980.72
SIOH Conus	6.50%	\$251,666.21
Design	10.00%	\$351,980.72
08 MYr Inflation Fct	9.93%	\$444,410.68
<b>Total Soft Cost</b>		<b>\$1,400,038.33</b>
<b>Total Project Cost for Renovation</b>		<b>\$4,919,845.51</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

<b>CSI</b>	<b>Percent</b>	<b>Amount</b>
<b>02 Site Work</b>	<b>3.85%</b>	<b>\$186,024.21</b>
Parking Lots		\$53,990.40
Site Earthwork		\$132,033.81
<b>03 Concrete</b>	<b>15.58%</b>	<b>\$752,440.57</b>
Floor Construction		\$434,747.47
Slab on Grade		\$97,741.05
Stair Construction		\$24,475.50
Standard Foundations		\$195,476.55
<b>04 Masonry</b>	<b>4.89%</b>	<b>\$236,127.70</b>
Exterior Walls		\$236,127.70
<b>07 Thermal &amp; Moisture Protection</b>	<b>7.36%</b>	<b>\$355,208.34</b>
Roof Construction		\$115,036.01
Roof Coverings		\$240,172.34
<b>08 Doors &amp; Windows</b>	<b>7.92%</b>	<b>\$382,618.11</b>
Exterior Doors		\$10,905.75
Exterior Windows		\$275,280.00
Interior Doors		\$96,432.36
<b>09 Finishes</b>	<b>14.43%</b>	<b>\$696,730.54</b>
Ceiling Finishes		\$106,698.33
Floor Finishes		\$216,887.12
Partitions		\$205,305.93
Wall Finishes		\$167,839.17
<b>10 Specialties</b>	<b>0.08%</b>	<b>\$3,762.35</b>
Fittings		\$3,762.35
<b>11 Equipment</b>	<b>3.86%</b>	<b>\$186,480.00</b>
Other Equipment		\$186,480.00
<b>13 Special Construction</b>	<b>4.87%</b>	<b>\$235,353.77</b>
Communications & Security		\$105,948.29
Sprinklers		\$129,405.48
<b>14 Conveying Systems</b>	<b>4.94%</b>	<b>\$238,428.00</b>
Elevators and Lifts		\$238,428.00
<b>15 Mechanical</b>	<b>19.19%</b>	<b>\$926,582.49</b>
Cooling Generating Systems		\$312,762.48
Domestic Water Dist		\$145,854.00
Plumbing Fixtures		\$467,966.01
<b>16 Electrical</b>	<b>7.02%</b>	<b>\$339,153.29</b>
Electrical Service & Distribution		\$336,716.84
Site Lighting		\$2,436.45
<b>19 FF&amp;E</b>	<b>6.01%</b>	<b>\$290,000.00</b>
Interior FF&E allowance		\$290,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$4,828,909.37</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$26,559.00
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$482,890.94
<b>Total Additional Hard Cost</b>		<b>\$509,449.94</b>

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$266,917.97
SIOH Conus	6.50%	\$364,343.02
Design	10.00%	\$533,835.93
08 MYr Inflation Fct	9.93%	\$645,793.20
<b>Total Soft Cost</b>		<b>\$1,810,890.12</b>
<b>Total Project Cost for Replacement</b>		<b>\$7,149,249.42</b>

**INSERT BUILDING 7302 FLOOR PLAN HERE**



*Building 7304  
7304 St. Lo Drive  
Fort Carson, Colorado*

## **Building 7304**

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Building 7304 was constructed in 1970. The 36,027 square foot facility contains 78 units with a full kitchen. The building is functioning as 74 extended stay units.

### **Significant Assumptions**

The replacement and renovation cost models are based on 30 family suites, 10 standard stay units and 18 extended stay units.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 111% for Ft Carson.

### **Cost Analysis**

Renovation Cost	\$4,919,845.00
Replacement Cost	\$7,149,250.00
Renovation to Replacement Cost Ratio	68.82%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 7304 is not recommended.

### **Attributes**

01.Number of Units Constructed	74
02.Number of Units Used	74
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	74
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	74
12.Operating as Family Suite	0
13.Renovated to Standard	10
14.Renovated to Extended Stay	18
15.Renovated to Family Suite	30
16.Delta renovation	-16

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Guest Rooms: The hard goods are 1 desk, 1 desk chair, 1 lounge chair, 1 TV/entertainment cabinet, 2 end tables, 2 table lamps and 1 head board.

The soft goods are window curtains and drapes including rods, 2 wall hung pictures, 1 TV, 1 microwave oven, 1 mattress, 1 box spring and coverings for 1 bed. All are in poor condition.

- Recommendation: Replacement is recommended

### **Foundations**

#### **Standard Foundations**

- Analysis: The foundation consists of concrete piers and suspended concrete beams. No cracking or settling was observed

- Recommendation: No action is recommended

#### **Slab on Grade**

- Analysis: The basement mechanical room has a slab on grade and no failure was observed.

- Recommendation: No action is recommended

### **Superstructure**

#### **Floor Construction**

- Analysis: The floor structures are steel joists supporting metal decking with concrete topping. No failures were observed.

- Recommendation: No action is recommended.

#### **Roof Construction**

- Analysis: The roof structure is steel joists supporting metal decking with concrete topping. No failures were observed.

- Recommendation: No action is recommended.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: The exterior walls are concrete block with exterior brick facing. No failures were observed.

- Recommendation: No corrective actions are recommended

#### **Exterior Windows**

- Analysis: The exterior windows are bronze anodized aluminum and are in fair condition.

- Recommendation: No action is recommended.

#### **Exterior Doors**

- Analysis: The exterior doors and frames are glass and aluminum and hollow metal and are in fair condition.

- Recommendation: No action is recommended.

## **Roofing**

### **Roof Coverings**

- Analysis: Built-up roofing with gravel topping is in poor condition
- Recommendation: Replacement is recommended.

## **Interior Construction**

### **Partitions**

- Analysis: There are concrete block and studs with drywall partitions. They are in fair condition.
- Recommendation: No action is recommended.

### **Interior Doors**

- Analysis: The interior doors are solid core wood in steel frames. Both are in fair condition.
- Recommendation: No action is recommended.

### **Fittings**

- Analysis: The lavatory cabinet, counter top, mirror, medicine cabinet and restroom shower curtain are in fair condition.
- Recommendation: No action is recommended.

## **Stairs**

### **Stair Construction**

- Analysis: Stairs are reinforced concrete and no failure was observed.
- Recommendation: No action is recommended.

## **Interior Finishes**

### **Wall Finishes**

- Analysis: Wall finishes are paint and wall covering in rooms and corridors in fair to poor condition.
- Recommendation: Replacement of wall coverings and repainting is recommended.

### **Floor Finishes**

- Analysis: Floor covering is mostly carpet in guest rooms and corridors in poor condition.
- Recommendation: Replacement is recommended.

### **Ceiling Finishes**

- Analysis: Ceilings are suspended acoustic panels in common areas and painted gypsum board in the guest rooms. The acoustic ceilings are in fair condition. The painted ceilings are in need of painting.
- Recommendation: Repaint the existed painted ceilings.

## **Conveying**

### **Elevators and Lifts**

- Analysis: There are no elevators in this building. They would be required for a building of this size if it were to be replaced.
- Recommendation: No action is recommended.

## **Plumbing**

### **Plumbing Fixtures**

- Analysis: The plumbing fixtures are in fair condition. The water heater is a Ajax gas fired boiler manufactured in 1996 in good condition.
- Recommendation: No action is recommended.

### **Domestic Water Distribution**

- Analysis: The domestic water piping is copper and in good condition. The hot water is supplied by a natural gas fired Ajax boiler manufactured in 1996 and is in good condition.
- Recommendation: No action is recommended.

## **HVAC**

### **Cooling Generating Systems**

- Analysis: The room cooling is provided by window units in fair to poor condition. The heating system is circulating hot water. The water is heated by a Ajax natural gas boiler and appears to be the original boiler. The boiler is in poor condition. The bathrooms have exhaust fans which are in fair condition.
- Recommendation: Replacement of the window units is recommended. Replacement of the boiler is recommended.

## **Fire Protection**

### **Sprinklers**

- Analysis: There are no fire sprinklers in this building.
- Recommendation: Install sprinkler system as required by code.

## **Electrical**

### **Electrical Service/Distribution**

- Analysis: The dorm manager reports circuits breakers for dorm rooms trip often. She reports this happens when three major electrical appliances are being used. The main electrical service is Federal Pacific, 1200 amps ,3 pole, 120/208 volts and appears to be original equipment.
- Recommendation: Recommend replacing and increasing the electrical service.

### **Communications and Security**

- Analysis: The telephone and smoke and heat detector systems are operating properly and appear to be in good condition.
- Recommendation: No action is recommended.

## **Equipment**

### **Other Equipment**

- Analysis: There is a 4 burner stove and oven with an exhaust hood, a refrigerator and a small sink. All are in poor condition
- Recommendation: Replacement is recommended.

## **Site Preparation**

### **Site Earthwork**

- Analysis: Site work is in good condition.
- Recommendation: No action is recommended.

## **Site Improvements**

### **Parking Lots**

- Analysis: The parking lot is adequate for the building. The surfaces are in poor condition.
- Recommendation: Resurface parking area.

## **Site Electrical Utilities**

### **Site Lighting**

- Analysis: Site lighting is provided by area bollards. These are in good condition.
- Recommendation: No corrective action required.

## **Major Functional Criteria**

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most of the back-of-the-house spaces are required at the main lodging building on post. Presently these are located in Building 7301, and are not included in this building.

- **Extended Stay Guest Room**

The following are existing conditions that do not meet the Functional Criteria that are considered major deficits. Listed is the recommendation or solutions for remedying the deficit.

Room Size and Configuration: The rooms do not meet size and configuration requirements.

Recommendation: A Renovation Cost estimate is used to indicate a total redo of the building into 30 family suites, 10 standard stay rooms and 18 extended stay rooms. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in Building 7301, and are not included in this building.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>02 Site Work</b>	<b>5.13%</b>	<b>\$53,590.80</b>
Beyond Useful Life		\$53,590.80
<b>07 Thermal &amp; Moisture Protection</b>	<b>5.23%</b>	<b>\$54,703.51</b>
Built-up Roof: Beyond Useful Life		\$54,703.51
<b>09 Finishes</b>	<b>12.33%</b>	<b>\$128,911.76</b>
Acoustical Ceiling & Grid: Beyond expt useful life		\$12,622.17
Carpet: Beyond Useful Life		\$26,941.58
Interior ceilings: Paint Failing		\$4,341.99
Interior walls: Paint failing		\$654.90
Vinyl Wall Covering: Beyond expected useful life		\$84,351.12
<b>11 Equipment</b>	<b>14.50%</b>	<b>\$151,558.29</b>
Unit Kitchen: Beyond Useful Life		\$151,558.29
<b>13 Special Construction</b>	<b>15.16%</b>	<b>\$158,427.10</b>
Fire Sprinklers: Missing or Inadequate		\$158,427.10
<b>15 Mechanical</b>	<b>6.58%</b>	<b>\$68,831.10</b>
Unit A/C: Beyond expected useful life		\$68,831.10
<b>16 Electrical</b>	<b>5.68%</b>	<b>\$59,336.16</b>
Main service: Beyond expected useful life		\$35,659.86
Pole mounted fixture: Beyond expected useful life		\$23,676.30
<b>19 FF&amp;E</b>	<b>35.39%</b>	<b>\$370,000.00</b>
Hard and soft goods: Beyond expected useful life		\$370,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$1,045,359.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$5,749.47
Force Protection	9.00%	\$104,007.99
General Conditions	10.00%	\$104,535.90
<b>Total Additional Hard Cost</b>		<b>\$214,293.37</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$125,965.24
SIOH Conus	6.50%	\$90,065.14
Design	10.00%	\$125,965.24
08 MYr Inflation Fct	9.93%	\$159,043.65
<b>Total Soft Cost</b>		<b>\$501,039.26</b>

<b>Total Project</b>		<b>\$1,760,691.63</b>
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## Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

### Summary of Project Renovation Cost

<b>CSI</b>	<b>Percent</b>	<b>Amount</b>
<b>02 Site Work</b>	<b>1.83%</b>	<b>\$53,590.80</b>
Site Development		\$53,590.80
<b>03 Concrete</b>	<b>0.84%</b>	<b>\$24,475.50</b>
Stair Construction		\$24,475.50
<b>07 Thermal &amp; Moisture Protection</b>	<b>3.44%</b>	<b>\$100,571.11</b>
Roof Construction		\$58,127.31
Roof Coverings		\$42,443.81
<b>08 Doors &amp; Windows</b>	<b>3.35%</b>	<b>\$97,810.98</b>
Interior Doors		\$97,810.98
<b>09 Finishes</b>	<b>30.51%</b>	<b>\$891,161.08</b>
Ceiling Finishes		\$155,237.36
Floor Finishes		\$223,837.46
Partitions		\$211,619.73
Wall Finishes		\$300,466.52
<b>10 Specialties</b>	<b>0.19%</b>	<b>\$5,436.23</b>
Fittings		\$5,436.23
<b>11 Equipment</b>	<b>4.41%</b>	<b>\$128,760.00</b>
Other Equipment		\$128,760.00
<b>12 Furnishings</b>	<b>0.14%</b>	<b>\$3,996.00</b>
Fixed Furnishings		\$3,996.00
<b>13 Special Construction</b>	<b>8.24%</b>	<b>\$240,739.62</b>
Communications & Security		\$108,372.82
Sprinklers		\$132,366.80
<b>15 Mechanical</b>	<b>25.36%</b>	<b>\$740,876.56</b>
Cooling Generating Systems		\$467,082.85
Domestic Water Dist		\$77,256.00
Plumbing Fixtures		\$196,537.71
<b>16 Electrical</b>	<b>11.76%</b>	<b>\$343,596.06</b>
Electrical Service & Distribution		\$319,919.76
Site Lighting		\$23,676.30
<b>19 FF&amp;E</b>	<b>9.93%</b>	<b>\$290,000.00</b>
Interior FF&E allowance		\$290,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$2,921,013.93</b>

### Additional Hard Cost (Template: Army Lodging Renovation)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$16,065.58
Force Protection	9.00%	\$290,626.28
General Conditions	10.00%	\$292,101.39
<b>Total Additional Hard Cost</b>		<b>\$598,793.25</b>

### Soft Cost (Template: Army Lodging Renovation)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	10.00%	\$351,980.72
SIOH Conus	6.50%	\$251,666.21
Design	10.00%	\$351,980.72
08 MYr Inflation Fct	9.93%	\$444,410.68
<b>Total Soft Cost</b>		<b>\$1,400,038.33</b>
<b>Total Project Cost for Renovation</b>		<b>\$4,919,845.51</b>

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

<b>CSI</b>	<b>Percent</b>	<b>Amount</b>
<b>02 Site Work</b>	<b>3.85%</b>	<b>\$186,024.21</b>
Parking Lots		\$53,990.40
Site Earthwork		\$132,033.81
<b>03 Concrete</b>	<b>15.58%</b>	<b>\$752,440.57</b>
Floor Construction		\$434,747.47
Slab on Grade		\$97,741.05
Stair Construction		\$24,475.50
Standard Foundations		\$195,476.55
<b>04 Masonry</b>	<b>4.89%</b>	<b>\$236,127.70</b>
Exterior Walls		\$236,127.70
<b>07 Thermal &amp; Moisture Protection</b>	<b>7.36%</b>	<b>\$355,208.34</b>
Roof Construction		\$115,036.01
Roof Coverings		\$240,172.34
<b>08 Doors &amp; Windows</b>	<b>7.92%</b>	<b>\$382,618.11</b>
Exterior Doors		\$10,905.75
Exterior Windows		\$275,280.00
Interior Doors		\$96,432.36
<b>09 Finishes</b>	<b>14.43%</b>	<b>\$696,730.54</b>
Ceiling Finishes		\$106,698.33
Floor Finishes		\$216,887.12
Partitions		\$205,305.93
Wall Finishes		\$167,839.17
<b>10 Specialties</b>	<b>0.08%</b>	<b>\$3,762.35</b>
Fittings		\$3,762.35
<b>11 Equipment</b>	<b>3.86%</b>	<b>\$186,480.00</b>
Other Equipment		\$186,480.00
<b>13 Special Construction</b>	<b>4.87%</b>	<b>\$235,353.77</b>
Communications & Security		\$105,948.29
Sprinklers		\$129,405.48
<b>14 Conveying Systems</b>	<b>4.94%</b>	<b>\$238,428.00</b>
Elevators and Lifts		\$238,428.00
<b>15 Mechanical</b>	<b>19.19%</b>	<b>\$926,582.49</b>
Cooling Generating Systems		\$312,762.48
Domestic Water Dist		\$145,854.00
Plumbing Fixtures		\$467,966.01
<b>16 Electrical</b>	<b>7.02%</b>	<b>\$339,153.29</b>
Electrical Service & Distribution		\$336,716.84
Site Lighting		\$2,436.45
<b>19 FF&amp;E</b>	<b>6.01%</b>	<b>\$290,000.00</b>
Interior FF&E allowance		\$290,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$4,828,909.37</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$26,559.00
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$482,890.94
<b>Total Additional Hard Cost</b>		<b>\$509,449.94</b>

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$266,917.97
SIOH Conus	6.50%	\$364,343.02
Design	10.00%	\$533,835.93
08 MYr Inflation Fct	9.93%	\$645,793.20
<b>Total Soft Cost</b>		<b>\$1,810,890.12</b>
<b>Total Project Cost for Replacement</b>		<b>\$7,149,249.42</b>

**INSERT BUILDING 7304 FLOOR PLANS HERE**



*Building 7305  
7305 St. Lo Drive  
Fort Carson, Colorado*

## **Building 7305**

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Building 7305 was constructed in 1970. The 12,746 square foot facility contains 8 units with a full kitchen. The building is functioning as 8 family suites for high ranking visitors. .

### **Significant Assumptions**

The replacement and renovation cost models are based on 16 family suites.

The renovation uses the existing foot print, with the plan reworked to meet current lodging size requirements.

The renovation cost includes all condition assessment costs.

The renovation and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.

All costs are adjusted by the Area Cost Factor of 111% for Ft Carson.

### **Cost Analysis**

Renovation Cost	\$1,520,035.00
Replacement Cost	\$2,236,950.00
Renovation to Replacement Cost Ratio	67.95%

Because the Renovation to Replacement Cost Ratio is greater than 50%, renovation of Building 7305 is not recommended.

### **Attributes**

01.Number of Units Constructed	8
02.Number of Units Used	8
03.Back of House Function	No
04.Single Room w/o FullKitchen	0
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	8
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	0
11.Operating as Extended Stay	0
12.Operating as Family Suite	8
13.Renovated to Standard	0
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	16
16.Delta renovation	8

## **Condition Analysis/Recommendation**

### **FF&E**

#### **FF&E Allowance**

- Analysis: Two bedroom Guest Rooms: The hard goods are 2 headboards, 3 lounge chairs, 4 end tables, 7 table lamps, 2 luggage racks, 2 chest of drawers, 1 stacked washer/dryer combination, 2 exercise machines, 1 dinner table, 5 dinner table chairs, 2 bar stools, 1 liquor cabinet, 2 entertainment center cabinets, 2 couches, 1 coffee table, 1 dining room hutch cabinet, 1 couch table and 1 floor lamp.

The soft goods are 2 mattress and box springs, 3 TV's, 3 VCR players, 2 bedspreads, curtains and drapes with hanger rods, 2 large decorator mirrors, bath linens for 2 baths, 2 clock radios, 9 wall hung pictures, 2 microwave ovens, 1 coffee pot, dishes, pots and pans, flatware, 1 ironing board, and 1 iron.

One bedroom Guest Rooms: Hard goods are the same as the two bedroom except all items more than 1, are half as many except for 2 TV's, 2 VCR's, 4 dinner table chairs, 2 lounge chairs, 4 end tables, 5 table lamps and 5 wall hung pictures.

Soft goods are also half as many as the two bedroom quantities.

- Recommendation: Replacement is recommended.

### **Foundations**

#### **Standard Foundations**

- Analysis: The foundation consists of concrete piers and suspended concrete beams. No cracking or settling was observed.

- Recommendation: No action is recommended.

#### **Slab on Grade**

- Analysis: The mechanical room has a slab on grade and no failure was observed.

- Recommendation: No action is recommended.

### **Superstructure**

#### **Floor Construction**

- Analysis: The floors are wood beams, joists and decking. No failures were observed.

- Recommendation: No action is recommended.

#### **Roof Construction**

- Analysis: The roof is wood frame joists, beams and wood decking. No failures were observed.

- Recommendation: No action is recommended.

### **Exterior Enclosure**

#### **Exterior Walls**

- Analysis: The exterior walls are wood studs with exterior brick facing. No failures were observed.

- Recommendation: No actions are recommended.

#### **Exterior Windows**

- Analysis: The exterior windows are bronze anodized aluminum and are in fair condition.
- Recommendation: No action is recommended.

#### **Exterior Doors**

- Analysis: The exterior doors and frames are steel and are in fair condition.
- Recommendation: No action is recommended.

### **Roofing**

#### **Roof Coverings**

- Analysis: Roofing is built-up with gravel topping. Estimated installed in 1990.
- Recommendation: Replacement of the roofing is recommended.

### **Interior Construction**

#### **Partitions**

- Analysis: The partitions are wood stud with gypsum board. They are in fair condition.
- Recommendation: No action is recommended.

#### **Interior Doors**

- Analysis: The interior doors are solid core wood in steel frames. Both are in fair condition.
- Recommendation: No action is recommended.

#### **Fittings**

- Analysis: The lavatory cabinet, counter top, mirror, medicine cabinet and restroom shower curtain are in fair condition.
- Recommendation: No action is recommended.

### **Stairs**

#### **Stair Construction**

- Analysis: Stairs are wood framing with wood treads and risers. No failure was observed.
- Recommendation: No action is recommended.

### **Interior Finishes**

#### **Wall Finishes**

- Analysis: Wall finishes are paint and wall covering in rooms and corridors in fair to poor condition.
- Recommendation: Repainting and replacement of wall covering is recommended.

#### **Floor Finishes**

- Analysis: Floor covering is mostly carpet in guest rooms and corridors in fair to poor condition.
- Recommendation: Replacement of carpet is recommended.

### **Ceiling Finishes**

- Analysis: Ceilings are suspended acoustic panels in common areas and painted gypsum board in the guest rooms. The acoustic ceilings are in fair condition. The gypsum board ceilings are in need of painting.
- Recommendation: Repaint the existing gypsum board ceilings.

### **Plumbing**

#### **Plumbing Fixtures**

- Analysis: The plumbing fixtures were installed in about 1990 and are in good condition.
- Recommendation: No action is recommended.

#### **Domestic Water Distribution**

- Analysis: The domestic water piping is copper and is in good condition. There are 2 Payne 100 gallon water heaters in fair condition built in about 1990.
- Recommendation: No action is recommended.

### **HVAC**

#### **Cooling Generating Systems**

- Analysis: The room cooling is provided by window units in fair to poor condition.

The heating system is circulating hot water. The water is heated by a Weil McLain natural gas boiler built in 1990. The bathrooms are internal and have exhaust fans. All equipment is in fair condition.

- Recommendation: Replacement of window units is recommended.

### **Fire Protection**

#### **Sprinklers**

- Analysis: There are no fire sprinklers in this building.
- Recommendation: Install sprinkler system as required by code.

### **Electrical**

#### **Electrical Service/Distribution**

- Analysis: The electrical service is 120/208 volts, 3 phase, 4 wire, 400 amps manufactured about 1990. There is a combination fire alarm/smoke detector system by Notifier manufactured about 1990. All equipment is in fair condition.

- Recommendation: No action is recommended.

#### **Communications and Security**

- Analysis: The telephone and smoke and heat detector systems are operating properly and appear to be in good condition.
- Recommendation: No action is recommended.

### **Equipment**

#### **Other Equipment**

- Analysis: Refrigerators, 2 burner cook tops, ranges and hoods, disposals, washers and dryers and ice machine. All are in fair to poor condition.
- Recommendation: Replacement is recommended.

#### **Site Preparation**

##### **Site Earthwork**

- Analysis: Site work is in good condition.
- Recommendation: No action is recommended.

### **Major Functional Criteria**

- **Major Functional Criteria Analysis**

The following are existing conditions that do not meet the Functional Criteria and are considered major deficits. Listed are the recommendations or solutions for remedying each deficit.

- **Back-of-House Spaces**

Most of the back-of-the-house spaces are required at the main lodging building on post. Presently these are located in Building 7301, and are not included in this building.

- **Family Guest Suite**

The following are existing conditions that do not meet the Functional Criteria that are considered major deficits. Listed is the recommendation or solutions for remedying the deficit.

Room Size and Configuration: The rooms do not meet size and configuration requirements.

Recommendation: A Renovation Cost estimate is used to indicate a total redo of the building into 16 family suites. This renovation will cost more than 50% of the building's replacement cost.

- **Public Spaces**

Most of the public spaces are required at the main lodging building on post. Presently these are located in Building 7301, and are not included in this building.

## Condition Assessment/Renovation/Replacement Analysis

### Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

#### Summary of Project Cost

CSI	Percent	Amount
<b>07 Thermal &amp; Moisture Protection</b>	<b>8.75%</b>	<b>\$30,633.96</b>
Built-up Roof: Beyond Useful Life		\$30,633.96
<b>09 Finishes</b>	<b>24.56%</b>	<b>\$85,969.65</b>
Acoustical Ceiling & Grid: Beyond expt useful life		\$6,707.59
Carpet: Beyond Useful Life		\$36,329.81
Interior walls: Paint failing		\$11,788.20
Sheet Vinyl: Beyond Useful Life		\$4,031.19
Vinyl Wall Covering: Beyond expected useful life		\$27,112.86
<b>11 Equipment</b>	<b>34.75%</b>	<b>\$121,664.88</b>
Oven: Beyond Useful Life		\$114,552.00
Stove: Missing or inadequate		\$7,112.88
<b>13 Special Construction</b>	<b>16.01%</b>	<b>\$56,052.79</b>
Fire Sprinklers: Missing or Inadequate		\$56,052.79
<b>16 Electrical</b>	<b>4.51%</b>	<b>\$15,784.20</b>
Pole mounted fixture: Beyond expected useful life		\$15,784.20
<b>19 FF&amp;E</b>	<b>11.43%</b>	<b>\$40,000.00</b>
Hard and soft goods: Beyond expected useful life		\$40,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$350,105.00</b>

#### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,925.58
Force Protection	9.00%	\$34,833.70
General Conditions	10.00%	\$35,010.50
<b>Total Additional Hard Cost</b>		<b>\$71,769.77</b>

#### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$42,187.48
SIOH Conus	6.50%	\$30,164.05
Design	10.00%	\$42,187.48
08 MYr Inflation Fct	9.93%	\$53,265.89
<b>Total Soft Cost</b>		<b>\$167,804.89</b>
<b>Total Project</b>		<b>\$589,679.66</b>

## Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Unless otherwise stated, this cost also includes all building deficiencies listed under the Condition Assessment Cost.

### Summary of Project Renovation Cost

CSI	Percent	Amount
<b>03 Concrete</b>	<b>0.90%</b>	<b>\$8,158.50</b>
Stair Construction		\$8,158.50
<b>07 Thermal &amp; Moisture Protection</b>	<b>3.54%</b>	<b>\$31,961.50</b>
Roof Construction		\$16,422.17
Roof Coverings		\$15,539.33
<b>08 Doors &amp; Windows</b>	<b>2.95%</b>	<b>\$26,653.32</b>
Interior Doors		\$26,653.32
<b>09 Finishes</b>	<b>29.64%</b>	<b>\$267,534.22</b>
Ceiling Finishes		\$48,839.11
Floor Finishes		\$62,086.30
Partitions		\$59,786.98
Wall Finishes		\$96,821.84
<b>11 Equipment</b>	<b>3.94%</b>	<b>\$35,520.00</b>
Other Equipment		\$35,520.00
<b>13 Special Construction</b>	<b>9.44%</b>	<b>\$85,171.32</b>
Communications & Security		\$38,341.24
Sprinklers		\$46,830.08
<b>15 Mechanical</b>	<b>26.43%</b>	<b>\$238,509.34</b>
Cooling Generating Systems		\$165,249.34
Domestic Water Dist		\$21,312.00
Plumbing Fixtures		\$51,948.00
<b>16 Electrical</b>	<b>14.29%</b>	<b>\$128,968.68</b>
Electrical Service & Distribution		\$113,184.48
Site Lighting		\$15,784.20
<b>19 FF&amp;E</b>	<b>8.86%</b>	<b>\$80,000.00</b>
Interior FF&E allowance		\$80,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$902,476.89</b>

### Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$4,963.62
Force Protection	9.00%	\$89,791.94
General Conditions	10.00%	\$90,247.69
<b>Total Additional Hard Cost</b>		<b>\$185,003.25</b>

### Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$108,748.01
SIOH Conus	6.50%	\$77,754.83
Design	10.00%	\$108,748.01
08 MYr Inflation Fct	9.93%	\$137,305.19
<b>Total Soft Cost</b>		<b>\$432,556.05</b>

**Total Project Cost for Renovation**

**\$1,520,036.18**

## Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

### Summary of Project Replacement Cost

<b>CSI</b>	<b>Percent</b>	<b>Amount</b>
<b>02 Site Work</b>	<b>2.81%</b>	<b>\$42,520.91</b>
Site Earthwork		\$42,520.91
<b>03 Concrete</b>	<b>16.04%</b>	<b>\$242,308.48</b>
Floor Construction		\$139,849.93
Slab on Grade		\$31,435.20
Stair Construction		\$8,158.50
Standard Foundations		\$62,864.85
<b>04 Masonry</b>	<b>6.36%</b>	<b>\$96,091.67</b>
Exterior Walls		\$96,091.67
<b>07 Thermal &amp; Moisture Protection</b>	<b>7.59%</b>	<b>\$114,672.63</b>
Roof Construction		\$36,881.63
Roof Coverings		\$77,791.00
<b>08 Doors &amp; Windows</b>	<b>8.45%</b>	<b>\$127,737.69</b>
Exterior Doors		\$10,905.75
Exterior Windows		\$88,800.00
Interior Doors		\$28,031.94
<b>09 Finishes</b>	<b>14.51%</b>	<b>\$219,230.55</b>
Ceiling Finishes		\$34,129.74
Floor Finishes		\$62,552.85
Partitions		\$65,611.97
Wall Finishes		\$56,935.98
<b>10 Specialties</b>	<b>0.11%</b>	<b>\$1,673.88</b>
Fittings		\$1,673.88
<b>11 Equipment</b>	<b>4.11%</b>	<b>\$62,160.00</b>
Other Equipment		\$62,160.00
<b>13 Special Construction</b>	<b>5.01%</b>	<b>\$75,689.28</b>
Communications & Security		\$34,072.75
Sprinklers		\$41,616.53
<b>15 Mechanical</b>	<b>22.34%</b>	<b>\$337,568.76</b>
Cooling Generating Systems		\$100,583.76
Domestic Water Dist		\$47,952.00
Plumbing Fixtures		\$189,033.00
<b>16 Electrical</b>	<b>7.36%</b>	<b>\$111,276.95</b>
Electrical Service & Distribution		\$111,276.95
<b>19 FF&amp;E</b>	<b>5.29%</b>	<b>\$80,000.00</b>
Interior FF&E allowance		\$80,000.00
<b>Total Raw Cost</b>	<b>100.00%</b>	<b>\$1,510,930.79</b>

### Additional Hard Cost (Template: Army Lodging New Construction)

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Spirit	0.50%	\$8,310.12
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$151,093.08

**Total Additional Hard Cost** **\$159,403.20**

**Soft Cost (Template: Army Lodging New Construction)**

<b>Parameter Name</b>	<b>Percent</b>	<b>Amount</b>
Contingency	5.00%	\$83,516.70
SIOH Conus	6.50%	\$114,000.29
Design	10.00%	\$167,033.40
08 MYr Inflation Fct	9.93%	\$202,064.02
<b>Total Soft Cost</b>		<b>\$566,614.41</b>
<b>Total Project Cost for Replacement</b>		<b>\$2,236,948.40</b>

**INSERT BUILDING 7305 FLOOR PLANS HERE**

## Army Lodging Wellness Recommendation

# Appendix

ROOM / SPACE	1-10 Units	11-49 Units	50-149 Units	150-199 Units	200-299 Units	300-399 Units	400-599 Units	600-799 Units	800+	At Main Facility on Post Only	Note
<b>Public Areas</b>											
Exterior Entrance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Vestibule	100	100	150	150	200	200	200	200	200		In Main Lodging facilities square footage included in Lobby
Lobby (includes vestibule at Main Lodging facilities)	300-500	300-500	500-800	500-800	800-1000	800-1000	1,000-1,200	1,000-1,200	1,200-1,500	X	Includes square footage of vestibule at Main Lodging facilities
Front Desk	2 station / 100 s.f.	2 station / 100 s.f.	2 station / 100 s.f.	3 station / 150 s.f.	3 station / 150 s.f.	3 station / 250 s.f.	3 station / 250 s.f.	4 station / 300 s.f.	4 station / 300 s.f.	X	
Bell Cart Station	2 carts / 24 s.f.	2 carts / 24 s.f.	3 carts / 36 s.f.	3 carts / 36 s.f.	4 carts / 48 s.f.	4 carts / 48 s.f.	6 carts / 72 s.f.	6 carts / 72 s.f.	8 carts / 96 s.f.		Not required at facilities w/out interior corridors if building is retained.
Breakfast Bar (Seat/Svc)	550	550	550	550	550	550	550	750	1,000	X	Needed at secondary facility, if it is a remote location. CFSC requirement min 550
Passenger Elevators			1 @ 64 s.f. 50-99 rooms 2 @ 64 s.f. 100-149 rooms	2 @ 64 s.f. each	2 @ 64 s.f. 400-499 rooms 3 @ 64 s.f. 500-599 rooms	3 @ 64 s.f. each	3 @ 64 s.f. each	If building is over two stories high			
Stairs	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	
Public Corridors	**	**	**	**	**	**	**	**	**		Minimum 6' wide
Public Telephone Area	2 phones / 12 s.f.	2 phones / 12 s.f.	2 phones / 12 s.f.	2 phones / 12 s.f.	3 phones / 18 s.f.	3 phones / 18 s.f.	4 phones / 24 s.f.	4 phones / 24 s.f.	4 phones / 24 s.f.		House phone in secondary buildings. Pay phones & house phones at Main facility
Vending - Full Service	1 per building / 70 s.f.	1 per building / 70 s.f.	70	70	70-105	105-140	140-210	210-280	280+		1 for every other floor to support up to 200 units / 70 s.f. each
Vending - Ice Only	1 per building / 30 s.f.	1 per building / 30 s.f.	30	30	30-45	45-60	60-90	90-120	120+		1 for every other floor to support up to 200 units / 30 s.f. each
Women - Lobby	100	100	200	200	260	260	315	315	350	X	
Men - Lobby	100	100	200	200	260	260	315	315	350	X	
Multi-Purpose Rm	250	250	250	250	250	250	250	250	250	X	
Study Rooms	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note		1 per 25 extended stay units of 250 s.f. each at posts with schools facilities
Guest Laundries	192	192	192-384	384-576	576-768	768-1152	1152-1536	1536-2112	2112+		CFSC requirement 2w/d for every 75 guest rooms
Gear Wash Rooms	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each		Only at facilities with outdoor training
Guest Bulk Storage	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note		1 unit for every 4 family suites of 25 ea. 40 w/circ.
<b>Guest Rooms</b>											
Guest Room - Standard	300	300	300	300	300	300	300	300	300		
Guest Room - Ext. Stay	300	300	300	300	300	300	300	300	300		
Guest Room - Suites	450	450	450	450	450	450	450	450	450		

ROOM / SPACE	1-10 Units	11-49 Units	50-149 Units	150-199 Units	200-299 Units	300-399 Units	400-599 Units	600-799 Units	800+	At Main Facility on Post Only	Note
<b>Back-of-House Areas</b>											
Manager's Office	180	180	180	180	180	180	180	180	180	X	
Assist. Mgr. Off.	-	-	0 50-99 units 120 100-149 units	120	120	120	120	120	120	X	
Front Office Mgr.	100	100	100	100	100	100	100	100	100	X	
Admin. Offices	2 space / 200-250 s.f.	2 space / 200-250 s.f.	2 spaces / 200-250 s.f.	2 spaces / 200-250 s.f.	5 spaces / 500-600 s.f.	5 spaces / 500-600 s.f.	7 spaces / 800-900 s.f.	7 spaces / 800-900 s.f.	10 spaces / 1,100-1,200 s.f.	X	
Cash Room	50	50	75	75	100	100	125	125	150	X	
Luggage Storage	-	-	75	75	100	100	100	100	100	X	
Admin. Conf. Rm.	250	250	250	250	350	350	350	350	350	X	
Housekeeping Off.	120	120	120	120	120	120	120	120	120	X	
Dirty/Clean Linen Stor.	50	50	50	50	100	100	200	200	400	See Note	At all facilities w/out in-house laundry
In-House Laundry	500	500	500	500	500	500	750	750	900	X	CFSC requirement min 500 s.f
Receiving Office	75	75	75	75	75	75	75	75	75	X	
Maintenance Area	100	100	175	175	250	250	400	400	600	X	
Kitchen Prep Room	150	150	150	150	150	150	150	150	150	X	facility, if it is a remote location.
Break Room		140	210	210	280	280	350	350	420		
Staff Toilet - Men			200	100	100	100	150	150	200		
Staff Toilet - Women		100	100	100	150	150	200	200	250		
Access Corridor	**	**	**	**	**	**	**	**	**		
Receiving	150	150	150	150	150	150	150	150	200	X	
Housekeep. Rms.	128	128-512	512-1280	1280-1792	1792-2560	2560-3456	3456-5120	5120-6912	6912+		128 s.f. for each 15 guest rooms
Service Elevator	80	80	80	80	80	80	80	80	80		
Data/Commo Rm.	100	100	100	100	150	150	150	150	150		
Switch Closets	16 *	16 *	16-48 *	48-64 *	64-96 *	96-128 *	128-144 *	144-256 *	256+ *		1 closet of 16 s.f. for approximately 50 guest rooms
Janitor Closet	50	50	50	50	50	50	50	50	50	X	Only at first floor of Main Lodging facility.
Mechanical Room	*	*	*	*	*	*	*	*	*		
General Stor. Rm.	500	500	500	500	500	500	500	500	500	X	
Bulk Storage Rm.	500	500	500	500	500	500	500	500	500	X	
Electrical Room	140 *	140 *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *		One electrical room to serve no more than 100 rooms.
Elevator Equip.Rm.	84	84	84	84	84	84	84	84	84		
<b>EXTERIOR</b>											
Playground (Outdoor)										X	Play ground required at facilities with family stays.
Grounds Maintenance	400	400	400	400	400	400	400	400	400	X	

\* Mechanical/electrical/equipment Spaces to be determined by contractor based on appropriate code and recommended systems.

\*\* Corridors to be determined based on building layout.