

Example I

# VAMC COST GUIDE - BUILDING TYPE

## VISN 18: VA Southwest Health Care Network

CURRENT BUILDING ONLY CONSTRUCTION UNIT COST PER SQUARE FOOT - VALID THROUGH OCTOBER 2014.  
 USE FOR PLANNING PURPOSES ONLY - NOT FOR BUDGETING

PREPARED BY: Office of Construction & Facilities Management, Cost Estimating Service (003C2C)  
 Date Prepared: JUNE, 2014

Location	Medical Center			Ambulatory Care			Clinical Improvements		
	New	Renovation	Light Renovation	New	Renovation	Light Renovation	New	Renovation	Light Renovation
Albuquerque, NM	\$348	\$271	\$176	\$301	\$235	\$153	\$338	\$262	\$170
Amarillo, TX	\$307	\$240	\$156	\$266	\$207	\$135	\$299	\$232	\$151
Big Spring, TX (Ft. Worth, TX)	\$324	\$253	\$164	\$281	\$219	\$142	\$316	\$245	\$159
El Paso, TX	\$305	\$238	\$155	\$264	\$206	\$134	\$297	\$230	\$149
Mesa, AZ (Phoenix, AZ)	\$371	\$289	\$188	\$321	\$250	\$163	\$361	\$280	\$182
Phoenix, AZ	\$371	\$289	\$188	\$321	\$250	\$163	\$361	\$280	\$182
Prescott, AZ (Phoenix, AZ)	\$371	\$289	\$188	\$321	\$250	\$163	\$361	\$280	\$182
Tucson, AZ	\$361	\$282	\$183	\$312	\$244	\$158	\$351	\$272	\$177
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

**NOTES:**

Costs shown are for building construction only. Additional costs to be considered include: Pre-Design allowance; escalation to contract award date; construction contingencies; technical services; impact costs; utility agreements; site improvements; site utilities; CM fees; and current local market conditions.

Allow additional funds for known adverse sub-surface conditions, seismic, hurricane loading and phasing, etc.

Federally mandated Physical Security, Sustainability, and Energy Reduction requirements are INCLUDED in the building unit costs. For new sites that are required to meet Mission Critical security standards allow additional funds for increased site utility requirements and protective features outside the building line.

Site work and site utility costs will vary greatly for each project. Early identification of requirements is critical. For conceptual estimates on projects up to \$25M, 15% added building cost is a reasonable rule of thumb for site work and site utilities. Factor may decrease to 10% for larger projects.

**MARKET CONDITIONS:**

Changes in market conditions will impact pricing. Estimators must conduct research into conditions such as: construction volume expected in the area; probable bid competition; availability of labor, materials, and equipment; and impacts of national and international markets.

For additional assistance, contact [estimating@va.gov](mailto:estimating@va.gov)

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Location	Bed Tower Replacement				Domiciliary				Community Based Outpatient Clinic (CBOC)			
	New	Renovation	Medium Renovation	Light Renovation	New	Renovation	Medium Renovation	Light Renovation	New	Renovation	Medium Renovation	Light Renovation
Albuquerque, NM	\$359	\$287	\$187	\$98	\$208	\$143	\$93	\$49	\$287	\$221	\$144	\$76
Amarillo, TX	\$317	\$254	\$165	\$87	\$184	\$126	\$82	\$43	\$254	\$195	\$127	\$67
Big Spring, TX (Ft. Worth, TX)	\$335	\$268	\$174	\$91	\$194	\$133	\$87	\$45	\$268	\$206	\$134	\$70
El Paso, TX	\$315	\$252	\$164	\$86	\$182	\$125	\$81	\$43	\$252	\$194	\$126	\$66
Mesa, AZ (Phoenix, AZ)	\$383	\$306	\$199	\$104	\$222	\$152	\$99	\$52	\$306	\$236	\$153	\$80
Phoenix, AZ	\$383	\$306	\$199	\$104	\$222	\$152	\$99	\$52	\$306	\$236	\$153	\$80
Prescott, AZ (Phoenix, AZ)	\$383	\$306	\$199	\$104	\$222	\$152	\$99	\$52	\$306	\$236	\$153	\$80
Tucson, AZ	\$372	\$298	\$194	\$102	\$216	\$148	\$96	\$51	\$298	\$229	\$149	\$78
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

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Location	Acute Psychiatric			Mental Health			Polytrauma		
	New	Renovation	Light Renovation	New	Renovation	Light Renovation	New	Renovation	Light Renovation
Albuquerque, NM	\$356	\$285	\$185	\$295	\$230	\$149	\$340	\$268	\$174
Amarillo, TX	\$315	\$252	\$164	\$281	\$203	\$132	\$300	\$237	\$154
Big Spring, TX (Ft. Worth, TX)	\$332	\$265	\$173	\$275	\$214	\$139	\$317	\$250	\$162
El Paso, TX	\$312	\$249	\$162	\$258	\$201	\$131	\$298	\$235	\$153
Mesa, AZ (Phoenix, AZ)	\$380	\$303	\$197	\$314	\$245	\$159	\$362	\$285	\$186
Phoenix, AZ	\$380	\$303	\$197	\$314	\$245	\$159	\$362	\$285	\$186
Prescott, AZ (Phoenix, AZ)	\$380	\$303	\$197	\$314	\$245	\$159	\$362	\$285	\$186
Tucson, AZ	\$370	\$295	\$192	\$306	\$238	\$155	\$352	\$278	\$181
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

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## **INTRODUCTION**

### ***Scope***

This document presents the functional and space requirements for a replacement Crisis Treatment Center. The purpose of this Functional and Space Program document is to describe the facility requirements in sufficient detail to allow development of the facility through a design-build process.

### ***Report Organization***

This Functional and Space Program report is structured with four main sections: The first is the Project Overview that summarizes the background of the project, its general goals and objectives and overall space characteristics. Second is the Departmental Program that is the narrative and tabular functional and space description for the unit. Third is the narrative describing Facility Systems and fourth is the assessment of Site Characteristics.

### ***Terminology***

**FUNCTIONAL PROGRAM:** a description of activities, processes, people, and equipment necessary to perform a service at a projected workload level. Functional programs are usually organized to describe departments in medical institutions.

**NET SQUARE FEET (NSF):** The space within the walls of a room or the usable floor area assigned to a function in an open area e.g., cubicles or workstations. The space includes casework, fixtures and door swings but does not include wall thicknesses.

**DEPARTMENTAL GROSS SQUARE FEET (DGSF):** the space inside the centerline of the walls separating a department from adjoining areas. The calculation includes internal walls, shafts, corridors, etc.

**BUILDING GROSS SQUARE FEET (BGSF):** the total area of the facility including outside walls, mechanical space and canopies.

**GROSSING FACTORS:** multiplication factors applied 1) to net areas for each room or element within a department, and 2) to gross departmental areas. These factors allow for space requirement not included in original net measurements.

The areas in the space listings may or may not be separate rooms. The intent of the lists is to show the aggregation of functional components and their space requirements. The grossing factors provide a "space budget" within which the project should be designed.

Block diagrams are intended to relate functional relationships only and are not floor plans. No evaluation has been conducted regarding egress requirements or other building code compliance issues.

## **PROJECT OVERVIEW**

### **Project Description**

This facility is to support an expanded treatment program incorporating crisis and sub-acute step-down beds. The purpose of the facility is to provide an alternative setting for 24/7 care for consumers who can manage outside of an acute psychiatric hospital setting. The program does not include detox services.

The clinical programming will be recovery-based and it is envisioned to be a flexible use facility. The base concept is for 8 beds in an open unit and 8 beds in a semi-secure unit (delayed/monitored egress), but the ability to swing beds from one category to another should be maintained.

The current planning is to house this unit in the ground floor, west wing of the old API building. It is anticipated that the service will be completely separate from other tenant areas with its own public and service entries.

The facility is not expected to be JCAHO accredited. However, it should meet most of the criteria for an inpatient psychiatric facility.

### **Goals and Objectives**

This document summarizes the characteristics of the replacement CTC facility to meet contemporary standards for resident care. The replacement facility should:

- provide a safe and secure environment for residents and staff in the context of an unlocked or semi-secure facility.
- provide for resident privacy and confidentiality by screening areas from the entry and windows in the adjacent office building space.
- convey a non-institutional character and reflect simplicity and informality.
- appear welcoming and unassuming.
- provide support space and environment that is sensitive to cultural differences and native values.
- support family visitation and participation in the recovery process.
- use natural daylight to create an open feeling in resident spaces; maximize the ability to see outdoors from all areas.
- bring daylight to the interior of the facility and minimize the number of rooms with no external windows.
- develop an environment that insures dignity of the individual and allows for resident choice and control whenever possible.
- allows ready access to information and education programs to enhance the consumer's ability to develop individual recovery plans.

## **CTC Replacement Facility**

Anchorage, Alaska

Alaska Department of Transportation and Public Facilities

Project Number: 56276

01000-PO-2

- provide visually private courtyards/covered porches that can allow maximum freedom of movement to the outdoors by all residents; allow separate smoking and non-smoking yard areas.
- enhance staff observation of residents on all shifts by creating "night zones" (sleeping rooms) and "day zones" (activity spaces) visible to nursing stations and charting/group therapy areas.
- meet medical needs of clients through referral to adjacent medical hospitals for acute or infectious disease care.
- consider ease and costs of maintenance in the selection of and variety of finishes, fixtures, systems and furnishings.

### **Design Considerations**

The population referred to the CTC is not generally considered to be at high risk of injuring self or others. However, in accordance with the *Guidelines for Design and Construction of Hospital and Health Care Facilities* (2001) paraphrased below, special consideration for injury and suicide prevention shall be given to the following elements:

- Visual control of residential units and passive activity areas such as dayrooms and outdoor areas.
- Hidden alcoves or enclosed spaces.
- Areas secured from residents such as staff areas and mechanical space.
- Door closers, latch handles, and hinges.
- Door swings to private resident bathrooms.
- Shower, bath, toilet, and sink plumbing fixtures, hardware and accessories including grab bars and toilet paper holders.
- Windows, including interior and exterior glazing.
- Light fixtures, electrical outlets, electrical appliances, nurse call systems, and staff emergency assistance systems.
- Ceilings, ventilation grilles, and access panels in resident bedrooms and bathrooms.
- Sprinkler heads and other protrusions.
- Fire extinguisher cabinets and fire alarm pull stations.

**UNIT PROGRAM: Crisis Treatment Center**

**A. FUNCTIONAL CONSIDERATIONS**

*1. Scope/Operations*

- a) The Crisis Treatment Center is currently operated through a State grant by the Anchorage Community Mental Health Services, Inc.
- b) The existing facility is 12 beds (8 operational in 2005) with expansion planned to 16 with this project.
- c) The current Center is a residential service that provides short-term treatment for individuals in crisis. The target length of stay is in the 3 to 7 day range. Services offered include: a safe place to begin coping with crises; supportive professionals who listen and help with problem solving; nursing/psychiatric staff to assist with medical needs; case management services, including referrals to other services and programs; and coping skills and training.
- d) The future program will add capacity to accommodate more transfers from API for sub-acute care, which will allow short term monitoring of residual symptoms prior to full discharge. Structured programming or treatment for step-down consumers may include use of facilities and staff in API.
- e) The emphasis in the recovery concept is on resident choice and participation in treatment. In support of this, provision of multiple meeting spaces and access to reference material are needed. In addition, an objective is to minimize barriers between residents and staff and to foster a team approach to the recovery process.
- f) Admissions to the facility are usually known in advance of transport. In general, the capacity required is for one admission processing at a time.
- g) The facility will not require nurse call systems, medical gases or standby power. The operating entity will need to create a plan for relocation of residents in case a disaster makes the building uninhabitable.
- h) At the new facility, meals will be provided by a contract service; facility maintenance will be provided by Providence. Laundry/linen services will be contracted out to a private vendor. The unit will be responsible for providing its own housekeeping staff.

*2. Staffing*

- a) Staffing of the new unit will be the responsibility of the contracted operating entity. It is expected that there will be a nurse on duty 24/7 and that, generally, the ratio of staff to residents will be 1:4. A director and an administrative person will likely support the facility management.

*3. Workload*

- a) The unit will provide a total of 16 beds. All will be housed in private rooms to minimize problems with incompatibility and maximize flexibility.

- b) **Historical Workload:** The existing CTC has been reduced to 8 beds in recent months for staffing reasons and experiences significant seasonality in demand. The additional capacity will help support the system with the decrease in capacity in the new API facility.

## **B. DESIGN CONSIDERATIONS**

### *1. Environment/Configuration/Layout Issues*

- a) The resident rooms should be arranged to maximize ease of supervision on night shift.
- b) It is preferred that 8' corridors be constructed in the residential areas; 6' would be the minimum acceptable.
- c) At least two bedrooms need to have the capacity to shut off the water to the toilet rooms and to have video monitoring of the sleeping area.
- d) The program provides only toilets and lavatories contiguous to the bedrooms with corridor accessible private shower rooms.
- e) The main and service entries to the unit will need to be locked to prevent intrusion. Visual monitoring and remote door release from the Administration Office and Monitoring Desk/Team Work Suite will be required.
- f) Client assessments/meetings will occur in the consult, conference, conversation or intake rooms; secured computer cabinets will be required in each if the facility will be using a wired PC-based system.
- g) An open Monitoring Desk is provided instead of a more institutional nurses' station. This is envisioned to be a desk or small table positioned to support observation of the unit on night shift. During the day, it is anticipated to function as a meeting/conversation space.
- h) The Team Work Suite has 4 workstations for clinical staff and a conference area for treatment planning and record documentation.
- i) Space for multiple therapy or discussion sessions occurring simultaneously will be required. One sub-dividable room should accommodate a very large group; in addition, three rooms for small group or individual sessions are provided. The smaller Conversation Rooms should be furnished with couch or loveseat and lounge chairs. The objective is to provide a relaxed, informal environment.
- j) The Library/Media Room will provide a quiet area for reading reference materials, Internet access and viewing (with headphones) of DVD or other visual material.
- k) Resident coats, clothing and belongings will be stored in wardrobes in the bedrooms. A lockable compartment is needed for storage of valuables.
- l) Staff will use the kitchen for meal management and distribution; a separate refrigerator in the dining area will be required for resident use. There will also be a second kitchen for visitor and resident use with the visitors' lounge.

- m) The medication room is required to hold and dispense residents' own medications; residents should arrive with a three-day supply of their existing medications. The rooms should have a hand-wash sink, under-counter refrigerator, and counter space.
- n) Any additional medications will be purchased from local retail pharmacies. In the long term, automated dispensing, similar to Pyxis, may be added; the room should be wired for one cabinet.
- o) Residents use the laundry room to wash their own clothing. Commercial grade equipment is to be provided and installed; 2 washers and 3 dryers will be required.
- p) Recreation and exercise equipment, including a ping pong table, will be housed in the Activity/Recreation/Dining room.
- q) Two resident Lounge/TV rooms are provided for the two populations expected.
- r) Both the Lounge/TV Rooms and the Activity/Recreation/Dining Room may be partially open to the corridors to allow visibility and free access.
- s) The telemedicine network equipment will be stored on a moveable cart in the Team Work Suite.
- t) To the maximum extent feasible, the plan should bring daylight into the internal spaces in the building. Windows into the corridor at the ends of the building are desirable as is borrowed light for the Activity/Recreation/Dining space.
- u) Long corridors should be "broken up" using finish treatments in floors, walls and ceilings.

## 2. *Location/Adjacencies*

- a) Outdoor space surrounded by a privacy fence is desired. Separation of the smoking shelter from other outdoor activity space is required. The outdoor area should be visible from the Monitoring Desk, if possible. A covered and screened porch adjacent to the living areas is desired.
- b) The Monitoring Desk should be contiguous and accessible to the glass enclosed Team Work Suite room.
- c) The Lounge/TV rooms should be adjacent to bedrooms and visible from the Monitoring Desk.
- d) The Activity/Recreation/Dining Room should be adjacent and visible to the Monitoring Desk
- e) Block diagram of desired adjacencies within the API wing floor plate is shown on the following page



**C. SPACE REQUIREMENTS**

<i>Room/Functional Area</i>	<i># of Areas</i>	<i>NSF/ Area</i>	<i>Total NSF</i>	<i>Comments</i>
<i>Residential Area</i>				
1 Resident Bedrooms	16	120	1,920	
2 Toilet	14	25	350	
3 ADA Toilet	2	50	100	wheelchair access
4 Tub Room	1	100	100	
5 Shower Room	3	50	150	
6 Lounge/TV Room	2	240	480	
7 Activity/Recreation/Dining	1	560	560	
8 Recreation Storage	1	60	60	
9 Library/Media Room	1	160	160	
10 Kitchen	1	100	100	
11 Monitoring Desk	1	40	40	open, in corridor, no counter
12 Team Work Suite	1	380	380	4 workstations, conference table
13 Staff Break Room	1	100	100	incl. staff lockers
14 Staff Coat Closet	1	20	20	
15 "Exam" Room/Clean Utility	1	120	120	
16 Medication Room	1	60	60	
17 Toilet	2	50	100	
18 Multipurpose Room	1	320	320	conferences/training
19 Conversation Room	3	140	420	
20 Laundry	1	100	100	
21 Soiled Utility	1	80	80	linen, trash hampers
22 Housekeeping Closet	1	40	40	
23 Linen Storage	1	80	80	
24 Server/Telecom Room	1	80	80	
25 Storage Room	1	180	180	
26 Clothing Bank	1	60	60	closet; incl. supplies
27 Director's Office	1	120	120	
28 Administration/Records Office	1	180	180	
29 Office Support	1	100	100	copier, fax, office supplies
30 Admission/Intake Interview	1	100	100	
31 Visitors' Lounge	1	180	180	two seating areas/alcoves
32 Visitors' Kitchen	1	80	80	
33 Play Area	1	80	80	
34 Consult Room	1	100	100	
<i>Main Entry</i>				
35 Entry Vestibule	1	100	100	
36 Lobby/Waiting	1	120	120	
37 Public Toilet	1	50	50	
<i>Service Entry</i>				
38 Receiving/Materials Staging	1	240	240	
39 Soiled Linen Holding	1	80	80	
40 Furniture/Equipment Storage	1	100	100	
41 Environmental Services Storage	1	80	80	
<b>Total NSF</b>			<b>7,870</b>	
<b>x Departmental Grossing Factor</b>	<b>1.45</b>			
<b>Total DGFSF</b>			<b>11,412</b>	
<b>x Building Grossing Factor</b>	<b>1.20</b>			
<b>Total BGSF</b>			<b>13,694</b>	