VA

U.S. Department of Veterans Affairs

Office of Construction & Facilities Management

PACT Space Module design guide

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FOREWORD

The PACT (Patient Aligned Care Team) Space Module Design Guide (2015) represents a significant change in VA's approach to the environment of care for the delivery of Primary Care Services to our Nation's Veterans. VA's transformation of care to PACT, a Veteran-centric, medical home model of care, required a new space planning and design paradigm. The PACT Space Module Design Guide is an extremely important addition to the series of Design Guides produced by the Office of Construction and Facilities Management (CFM) in support of the planning and design of healthcare facilities for the United States Department of Veterans Affairs.

This Design Guide formalizes conceptual planning and design information that has been gathered during the past three years through extensive collaboration, among VHA Central Office, VISN Leadership, and CFM, augmented with countless hours of meeting and consultation with clinical staff and frontline leadership in the field. This effort was also supplemented with lengthy interaction with private sector healthcare providers and site tours of their facilities. Those providers have undergone a similar transformation and have implemented facility solutions to support their version of the medical home care delivery model.

This Design Guide was developed under the guidance of W. Ward Newcomb, MD, MMM and Gary Fischer, AIA with support from Major Projects Staff at the VA Palo Alto Healthcare System and the consulting services of MEI and CannonDesign. It's success and excellence is attributed to the extensive development and input provided by the individuals listed in the Acknowledgement Section of this Design Guide. Staff from Primary Care Services and CFM worked together closely to lay the foundation for this Design Guide. This effort included literature reviews, strategic workgroups and meetings, engagement of key stakeholders, and multiple site visits to facilities demonstrating space redesign innovations. During this extensive process, the essential connection between function and form was continually highlighted, and lean processes identified to optimize the potential for space design to enable the health care team to provide outstanding clinical care. This ongoing CFM/Primary Care journey of collaboration and teamwork will facilitate continuous development and innovation of PACT space as it is fully adapted to meet the clinical needs of our Veterans.

This Design Guide is the standard for the development of PACT – Primary Care space within all VA facilities. It contains planning and design concepts that support the patient centered care delivered and illustrates concepts for creating functional, efficient, nurturing, pleasing, and adaptable environments for our Nation's Veterans, as well as those who serve and honor the Veteran patients.

These concepts illustrate facility planning possibilities, allowing room for adjustments as necessary, to facilitate incorporation of the needs of each specific clinic location. The utilization of a consistent PACT Clinical Space Module for planning and design of all VA facilities in which Primary Care services are provided will contribute significantly to an environment of standard effective and efficient care. Those who have served the Nation will utilize these facilities more than any other VA facility for the remainder of their lives, and they deserve no less.

Lloyd H. Siegel, FAIA
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1.0 EXECUTIVE SUMMARY

PACT SPACE MODULE

PATIENT ALIGNED CARE TEAM

1.0 EXECUTIVE SUMMARY

1.1 PACT Space Module Design Standards

Background:

In 2009, the Department of Veterans Affairs (VA) Universal Services Task Force Report, "Veterans Health Care: Leading the Way to Excellence," recommended formal adoption of a team-based model of care. To apply this recommendation within Primary Care, the Veterans Health Administration (VHA) adopted the patient-centered medical home model of care and then customized and branded a VA version of the patient-centered medical home model as the Patient Aligned Care Team (PACT). In late 2010, VHA and the Office of Construction and Facilities Management (CFM) combined resources to begin the process of defining and developing space requirements and standards to support the new care delivery paradigm, while at the same time VHA continued to develop and fine-tune the operational components of PACT. After extensive, on-going collaboration between a VHA/CFM Core Team, and Veterans Integrated Service Network (VISNs) facilities across the VA enterprise, it was determined that a formalized Space Design Standard document was needed for use across the system. This PACT Space Module Design Guide is the result of this effort.

PACT Space Module Design Guide:

This PACT Space Module Design Guide is an initial document illustrating the planning and design standards that have been identified and developed by VHA and CFM. As PACT represents a cultural transformation to a 'patient-centered – team based' model for the enhanced delivery of Primary Care Services to veterans, the VA planning and design standards for Primary Care also required transformation to support the new care delivery paradigm.

PACT as a care delivery model will evolve over time; likewise, the planning and design standards to support PACT will evolve as well. Thus this version of the PACT Space Module Design Guide is envisioned as an initial standard that will also evolve as necessary to provide the most current direction to planners, designers, and VA clinicians who are involved with project planning and design in the field.

PACT Space Planning and Design Guiding Principles:

During the course of the development of these space planning and design standards, facilities around the country were identified as models of care sites. Site visits were conducted with numerous VA/VHA staff and architectural and engineering (A/E) consultants attending. Where site visits were not conducted, facility floor plans and other anecdotal information has been gathered. Direct face-to-face and virtual meetings also were held in over 15 VISNs and dozens of Medical Centers. Through these visits, extensive input, as well as an understanding of operations, space issues, and opportunities specific to applying PACT were gathered.

Based on these combined experiences, the following design objectives for PACT space planning and design were developed based on VHA's guiding principles of providing Patient-Centered Care, Coordination of Care, and Access to Care:

I. Design objectives focused on Patient-Centered Care:

A. *Create a calm, healing environment.*

B. *Reduce waiting and wasteful or redundant actions and activities.*

C. *Focus on adding value to the veteran:*
- Facilitate processes that allow veterans to be seen when they want to be seen.
- Increase caregiver face-to-face time with veteran.
- Right-size patient care areas to facilitate "rooming the veteran" and reduce waiting.
- Convert excess waiting room space to value-added space such as patient care rooms, group care rooms, teamwork space, and patient education space.

1.0 EXECUTIVE SUMMARY

1.1 PACT Space Module Design Standards

— Provide the appropriate number of examination rooms to accommodate volume of veterans based on a time analysis of integrated primary care visits.

D. *Room the veteran with family member/caregiver participation in mind:*
— Create a 'right-sized' examination room to accommodate family members/caregivers that accompany the veteran.
— Ensure examination rooms are large enough to accommodate scooters and larger wheelchairs.

E. *Create a veteran-centered "one stop shop" approach:*
— Collocate team members and services.
— Bring services to the veteran in the examination room.
— Provide flexible/adaptable space to support a variety of care modalities.

F. *Create a balanced approach to care delivery tailored to the veteran's level of need:*
— Telephone/Virtual Care including telehealth modalities.
— Shared Medical Appointments (SMAs), group care, and peer-to-peer support.
— E-consultation and real-time provider-to-provider consultation.
— Face-to-face care.

II. Design objectives focused on Team-Based Care:

A. *Collocate staff caring for a population of veterans in the outpatient setting:*
— Support direct staff communication/consultation and face-to-face hand-offs.
— Promote collegiality.

B. *Create team-based office work space:*
— Ensure logical and efficient flow between exam rooms and care team work settings.
— Ensure direct visual connection among staff.
— Accommodate quiet and engaging workspace supported by IT/communications technologies.
— Provide for a range of work spaces, which can support team-based work, huddles, and quiet/solo activities.
— Support rearrangement and changes in staffing and work flow.

C. *Enhance work flow:*
— Separate on-stage from off-stage work (Dual corridor model recommended).
— Collocate staff to enhance real time decision making
— Allow immediate access to quick turnover supplies and equipment.

D. *Enhance privacy through space planning:*
— Reduce foot/equipment/cart traffic in patient care areas.
— Control access to patient care areas and team work areas.
— Establish zones/hierarchy of use to improve privacy.

III. Design Objectives focused on Access to Care:

A. *Standardize room designs:*
— Create universal exam/consult rooms.
— Create universal procedure rooms.
— Design all patient care rooms to support virtual care/telehealth capabilities.

B. *Provide space for Shared Medical Appointment group care and/or group education, with telehealth capability.*

C. *Support a modular approach to overall clinic design and space planning:*
— Standardized adaptable modular planning:
1. Universal/base clinical care module.
2. Adaptable to other services; i.e., laboratory, radiology, eye clinic, etc.
3. Adaptable to future re-tasking of space with minimal construction.

1.0 EXECUTIVE SUMMARY

1.1 PACT Space Module Design Standards

D. Develop a space/planning grid that minimizes intrusions into clinical space by the structural framing grid (columns and bracing) and location of building utility spaces (HVAC, electrical IT/communications).

Team Accomplishments:

Using these principles the VHA/CFM Team was invited to assist in conveying these principles and concepts on several million square feet of outpatient VHA clinical infrastructure. The team has gained insight into the needs of PACT teams, which favor clinical integration, team care, collocation of staff, and the one-stop-shop approach to care delivery. Most recent design and construction projects have increasingly adopted many of these recommendations as design experience has been gained.

Next Steps:

- Create a multidisciplinary team which includes, but is not limited to: PACT, Mental Health, Specialty Care, Women Veterans Care, and other Facility and Design Subject Matter Experts (SME).
- Broaden direct PACT field consultation activities to promote information exchange.
- Form a broad-based education program for leadership, VISNs, local facilities, and front-line clinical staff to include on-site and virtual facility tours, standardized presentations, and virtual university seminars. Develop a practical manual that will focus on clinical operations and facility interface.

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2.0 INTRODUCTION

PACT SPACE MODULE

PATIENT ALIGNED CARE TEAM

2.0 INTRODUCTION

2.1 Design Guide Introduction

Recognizing the need for a highly-developed, efficient, and integrated health care system, the Veterans Health Administration (VHA) authorized a team-based primary care model in 1994 emphasizing provision of care that is accessible, timely, coordinated, continuous, comprehensive, and compassionate. This transformed VHA from a health care delivery system that revolved around the hospital to one with primary care as the foundation of health care delivery.

In early 2009, the Department of Veterans Affairs Universal Services Task Force report "Veterans Health Care: Leading the Way to Excellence," recommended the formal adoption of a team-based model of care featuring three major principles: patient-centered care, coordination of care, and access to care. To apply these principles more completely within Primary Care, VHA adopted and customized the patient-centered medical home model of care and branded VHA's patient-centered care model as the Patient Aligned Care Team (PACT). The PACT care model is based on a team of health care professionals that provides comprehensive primary care in partnership with the veteran (and the veteran's personal support person(s)) and manages and coordinates comprehensive health care services consistent with agreed upon goals of care (Figure 2.1-1).

The major roll-out of PACT occurred in 2010. Since that time, the VHA and Office of Construction and Facilities Management (CFM) have been investigating how the planning and design of primary care clinical space will best accommodate and support PACT. Analysis of the practices from the private health care sector and extensive development within VHA has resulted in the PACT Clinical Space Module ("PACT Space Module") - a single planning unit that contains the components and facilitates the operational flows needed to support PACT.

This guide provides a brief overview of PACT (Section 2), an introduction to how PACT is operationalized (Section 3), and guidelines for the translation of PACT Operations into the PACT Space Module (Section 4). Technical considerations (Section 5) and case study examples (Section 6) are also included.

Figure 2.1-1
PACT Integrated Teams

2.0 INTRODUCTION

2.2 Introduction to VHA Patient Aligned Care Team for Primary Care

The VA health care system and VHA are committed to providing the highest levels of health care to the nation's Veterans by being patient-centered, team-based, data driven, evidence-based, and continuously improving. PACT is a patient-driven, team-based model of care that responds to this commitment. Care is delivered by integrated teams, called Patient Aligned Care Teams (PACT) (Figure 2.2-1). The goals of PACT Primary Care teams are to improve the veteran experience, clinical quality, safety, and efficiency by ensuring that VHA is delivering the highest level of health care possible.

Figure 2.2-1
Patient Aligned Care Team Rendering

2.0 INTRODUCTION

2.2 Introduction to VHA Patient Aligned Care Team for Primary Care

PACT, as a care model, is a partnership between the veteran and the health care team with an emphasis on prevention, health promotion, and self-management. PACT uses an engaged, collaborative team-based approach, with various members of the team stepping in at different points in time to provide needed care. Veterans are the center of the care team that also includes family members, caregivers, and health care professionals. The four person teamlet is the basic functional unit of PACT supporting the veteran. It is comprised of the Provider, the RN-Care Manager, the Clinical Associate, and the Administrative Associate. When more specialized services are needed, other members such as discipline-specific (i.e., Clinical Pharmacy, Social Work, Nutrition, Behavioral Health, etc.), specialty (i.e., Cardiology, Neurology, etc.), or non-VA team members step in to assist the veteran and teamlet, together making up the PACT Primary Care Team.

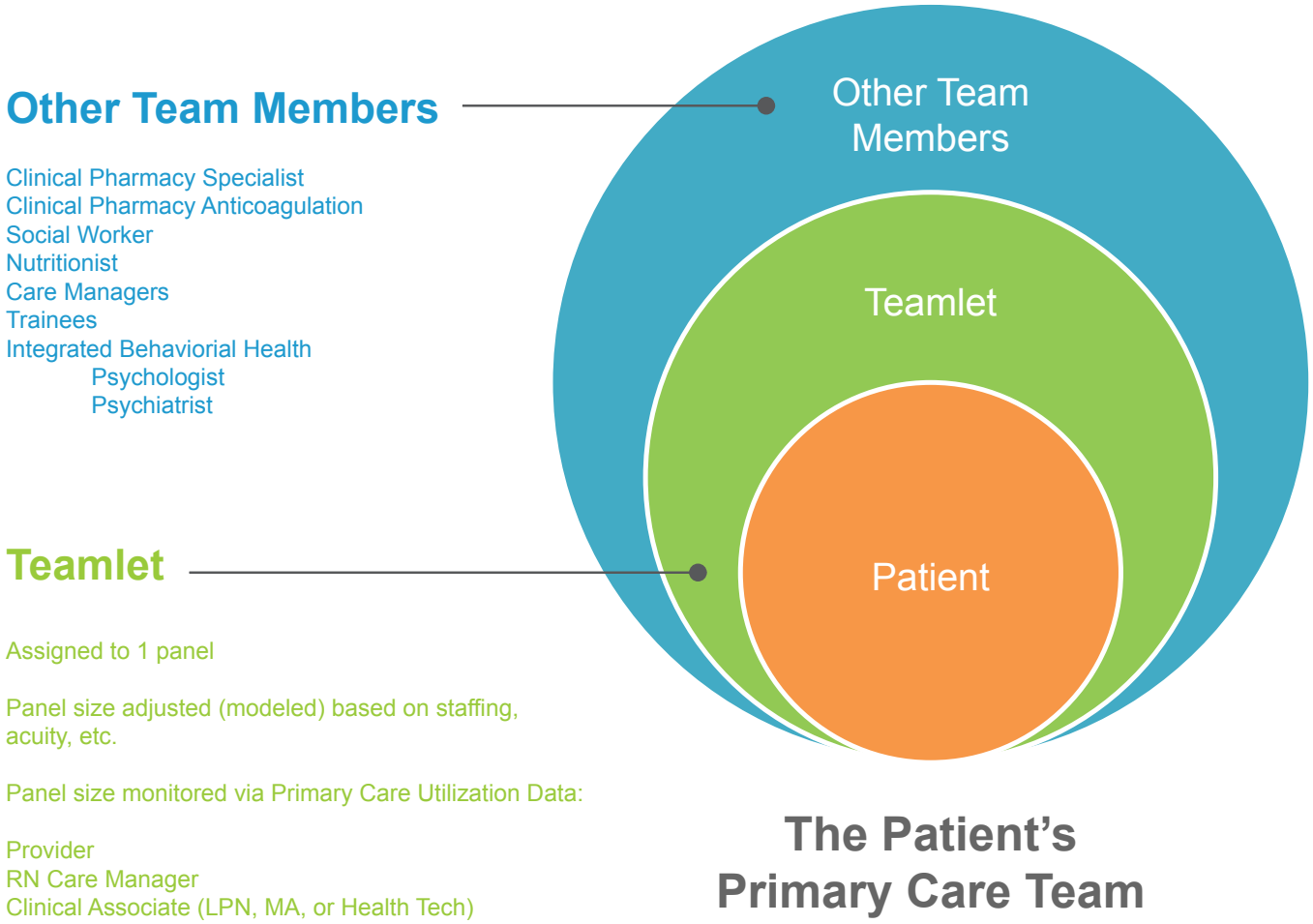

Figure 2.2-2
The Patient's Primary Care Team

2.0 INTRODUCTION

2.2 Introduction to VHA Patient Aligned Care Team for Primary Care

The entire PACT Primary Care team is focused on helping the veteran meet his/her health care goals. PACT offers improved ways to access health care. In addition to personal visits with their own primary health care teamlet, veterans may schedule visits with other members of a PACT team or may select group clinic appointments and/or educational classes. To further improve health care access, virtual health care is available to veterans utilizing modalities such as the telephone contacts, secure messaging, or Telehealth technology. Veterans may access a personal health vault, selected portions of their electronic health record, and a wealth of health information using My HealtheVet.

Implementation of PACT represents a practice change. It is a new paradigm requiring strategic assessment and redeployment of resources, realignment of priorities, and a major cultural change from system-centered to patient-centered care. The successful implementation of PACT also requires a paradigm shift in the physical environment to meet the needs of the integrated, collaborative care team, and the deployment of care delivery modalities (shared medical appointments, Telehealth, and other virtual scenarios) other than the traditional face-to-face visit (Figure 2.2-3). Improved access and efficiency may be achieved by further increasing virtual and group care across service lines and through further integration of patient care services in the outpatient setting.

Since the roll-out of PACT in 2010 to July 2012, telephone visits with veterans have increased dramatically, use of secured messaging has increased moderately, use of shared medical appointments (SMA) has had limited increase in use, and face-to-face visits have remained relatively stable (Figure 2.2-4).

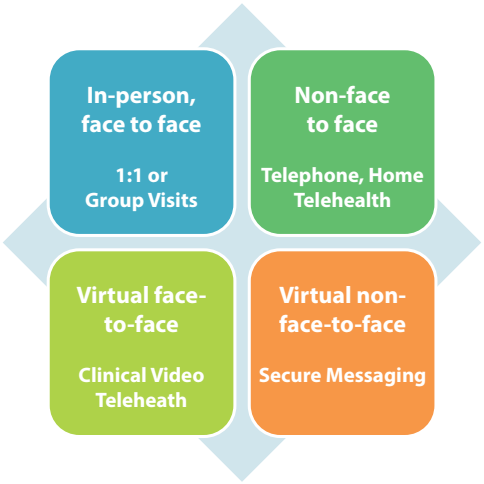

Figure 2.2-3
PACT Access and Care Delivery Diagram

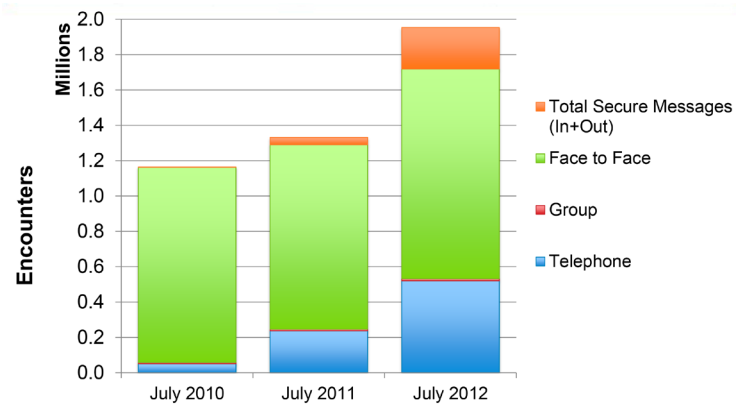

Figure 2.2-4
PACT Appointment Trends

2.0 INTRODUCTION

2.3 Introduction to Guiding Principles of the PACT Approach

Three principles guide the translation of PACT into an operational model (Section 3) and a physical space module (Section 4). These include Patient-Centered Care, Coordination of Care, and Access to Care.

Patient-Centered Care starts with the veteran and focuses on discovering the veteran's vision of living life fully and helping them fulfill their health goals. The PACT team, including the veteran and personal support persons, come together as partners to create the veteran's plan for health. Whether the veteran is fundamentally healthy, or whether the veteran is in the end stages of life, patient-centered care ensures that veterans are offered all of the care they need and PACT staff provide or arrange for care consistent with the veteran's preferences. To understand those preferences, PACT staff establish a caring longitudinal relationship with veterans and personal support persons that exists beyond a single episode of care. The teamlet is the veteran's point of contact for his/her health care, meaning one teamlet cares for and coordinates health conditions that occur over time and throughout the health care setting.

Coordination of Care embraces the strong practice of teamwork among members to support highly coordinated care, dedicated to achieving the common goal of excellent, comprehensive primary care for veterans. The synergistic efforts of an effective team surpass the ability of any single individual to meet the health care needs of a panel of veterans. PACT staff employ continuous improvement strategies and active learning to improve the team's function, increase efficiency, encourage standardization, improve health outcomes, and optimize the quality of care they deliver. Care coordination involves open communication among health care providers, legally permissible exchange of health care information, and logistical integration of desired care encounters.

Access to Care is essential to high quality customer service and supports VHA's goal to provide prompt and appropriate treatment for veterans' health concerns. PACT staff, working as a team, will provide the care veterans want and need, when and how they want and need it. In other words, PACT staff work as a team to provide the right care at the right time in the right place by the right person, incorporating the full range of care modalities: face-to-face, group care, and virtual care. Accessible care also requires care to be coordinated, facilitating integration of health care services and navigation through complex health care systems. It involves working across care settings—accessing health care providers and other services such as community programs to help veterans receive the care they need and want without unnecessary duplication of services or avoidable inconveniences.

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3.0 THE PATIENT EXPERIENCE

PACT SPACE MODULE

PATIENT ALIGNED CARE TEAM

3.0 THE PATIENT EXPERIENCE

3.1 PACT Functional Goals

As different clinics have explored the translation of PACT operations into the planning of physical clinic space, seven key functional goals have emerged. These align with the three major principles outlined in Section 2: Patient-Centered care, Team-Based Care, and Accessible Care (Figure 3.1-1). The operational goals include:

Bring Care to the Patient
Placing the veteran at the center of the care model has fundamental implications for planning. In the PACT care model, care is provided to the veteran in a singular location wherever possible, with PACT staff doing the majority of the traveling as opposed to having the veteran go to multiple locations to receive care during a single visit.

Support Flexibility and Adaptability
Veterans' care needs and our responding models of care evolve over time. In the PACT care model, care processes need to be able to adapt to meet the future needs and demands of veterans. This is facilitated through physical clinical space that accommodates changes in departments and services.

Provide Privacy and Security
Veterans deserve and require privacy and security in all of their interactions with the VA. In the PACT care model, care is provided in a manner that is sensitive to veteran and staff privacy and security concerns.

Streamline Processes
With the veteran in the center of the PACT care model waste, redundancy, and delays need to be relentlessly removed from workflows while improving care quality. In the PACT care model, care is delivered in an efficient manner that eliminates redundancies without dissolving care quality.

Enhance Teamwork
Veterans deserve the best care that can be provided through a coordinated care team-based model. In the PACT care model, care is provided in ways that support a team-based approach, providing opportunities for PACT staff to meet for quick huddles, share important information with one another, and optimize veteran hand-offs.

Simplify Wayfinding
The veteran experience is enhanced through easy physical access and wayfinding. In the PACT care model, care is provided in ways that support veterans and staff's ability to quickly orient to their surroundings.

Promote Healing and Well-Being
The veteran and staff care experiences are enhanced through creation of calm, quiet, and private clinical spaces. In the PACT care model, care is enhanced by design features that promote healing and well-being in veterans, families, and staff such as: patient only corridors, simplified wayfinding, access to natural light, etc.

	Patient-Centered	Team-Based	Accessible
Bring Care to the Patient			
Support Flexibility and Adaptability			
Provide Privacy and Security			
Streamline Processes			
Enhance Teamwork			
Simplify Wayfinding			
Promote Healing and Well-being			

Figure 3.1-1
PACT Principle and Operational Goal Matrix

3.0 THE PATIENT EXPERIENCE

3.2 PACT Process

The PACT care model is centered on creating a best-in-class patient experience. For the benefit of design teams new to PACT, this section briefly examines the processes and environments of care that support the patient experience during each aspect of a veteran's visit, starting with their initial interaction with the clinic.

Appointments:

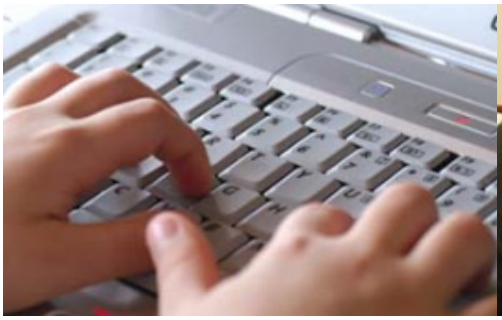
Multiple access points or channels facilitate faster appointment scheduling, including on-line scheduling and streamlined phone access. Steps required to access the right clinic staff are minimized. In some cases, staff call centers may be utilized to adequately manage call volumes. The goal is to answer calls and resolve issues in real time. When volumes are heavy, veterans are given the choice to wait for the next available staff member or to leave a voicemail.

EMR Patient Portal:

In addition to current functionality, "My HealtheVet" may be enhanced to include appointment scheduling, virtual patient visits, and three-way consultations (veteran-PCP-specialty providers). Access to computers and/or Wi-Fi for veteran use in "waiting areas" is becoming common place.

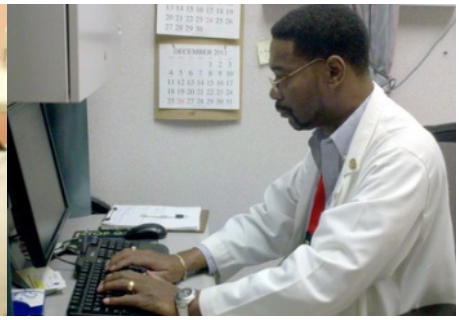
Follow-Up/Reminder Communication:

Specifics currently vary by location. Appointment(s) are usually confirmed with veterans via 24 hour callbacks and secure messaging. Veterans may be encouraged to complete their pre-appointment forms (on-line if possible) and/or asked if they require any further assistance or directions to their appointment.



Online Scheduling

My HealtheVet Online



Online Secure Messaging

Figure 3.2-1

3.0 THE PATIENT EXPERIENCE

3.2 PACT Process

Face-to-Face Clinic Visit:

Veterans are most familiar with traditional face-to-face visits. These visits currently require travel to the clinic for a face-to-face provider/RN/other team member visit. They provide high value, but entail large time investments for both staff and veterans. They are the most space intensive form of routine outpatient primary care.

Shared Medical Appointment:

The shared medical appointment (SMA) is an appropriate option for many care situations, especially those with strong self-management and educational components such as diabetes, congestive heart failure, chronic pain, smoking cessation, weight loss, and dietary education. Some sites also use as a format for minor medical walk-in/drop-in care - the Drop-In Group Medical Appointment (DIGMA). These appointments add value through peer-to-peer interaction and they are a very efficient form of care delivery from a time and space standpoint. Due to the high volume of veterans that can be served at one time, they also significantly improve access to care. VHA has established a Shared Medical Appointment 'stop code' to track SMA workload volume.

Telehealth Virtual Visit:

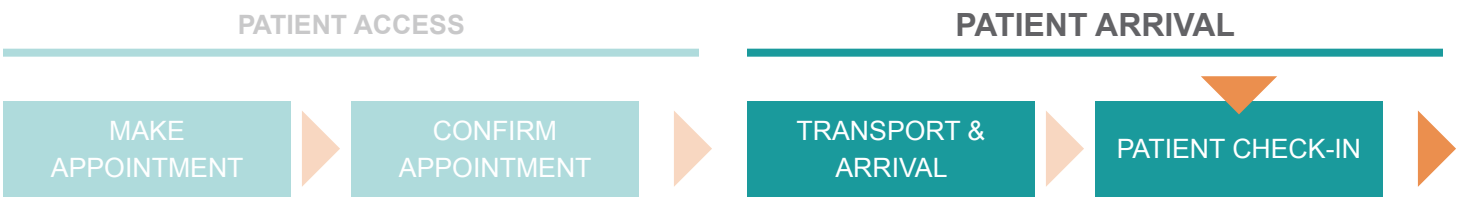
The use of telephone care, secure messaging, and other forms of virtual care is rapidly expanding across the VA. Formal telehealth visits use technology to connect a veteran in one location to a provider at another. Multiple specialties can be summoned to remotely provide diagnostic and consultative services for the veteran. In most cases the veteran will travel to a VA Community-Based Outpatient Clinic (CBOC) locally while the provider is at a central site or medical center. Telehealth is gaining use across many service lines such as eye care, geriatrics, mental health, among others. VHA has established a clinical 'stop code' for tracking telehealth workload.

Face-to-Face Clinic Visit | Shared Medical Appointment | Telehealth Appointment

Figure 3.2-2

3.0 THE PATIENT EXPERIENCE

3.2 PACT Process



First Entry:

First impressions and personal contact are made. VA branding elements are incorporated into the entry portal. Veterans should be able to clearly define wayfinding and sense a calm, quiet and healing environment.

Reception, Greeting, and Check-in:

The Veteran's first contact with staff is critical to the care experience. The reception area should be designed to support a warm greeting, assisted kiosk check-in, minimize staff and veteran distractions, and support close engagement between staff and veteran. Reception stations should be modular and flexible to meet changing workflows and technology.

Patient Transition Area:

In patient-centered care, reducing time spent waiting by Veterans is a top priority. Fundamental to PACT is "rooming the patient", and strong adherence to maintaining the schedule grid. These allow the move to smaller seating areas with choices in arrangements and locations for Veterans, caregivers, and family members should be provided. Opportunities for interactive patient education and wireless connectivity are encouraged. Family and children's areas are included, as well as MyHealtheVet workstations.

Corridors and Connections:

The clinic is easily navigated with simplified signage for enhanced wayfinding. Appropriately-sized (six foot minimum width) corridors accommodate wheelchair and/or equipment movement. The separation of patient and staff corridors enhances privacy and creates a quiet environment in clinical care areas. Security-sensitive planning and design concepts are incorporated into each clinic, such as controlled access points and visualization of patient transition areas.

Separation of Flow:

Patient spaces and circulation are visually and physically separated from staff and backstage circulation and space. This reduces congestion, noise, and stress for both veterans and staff which is critical for veterans experiencing post traumatic stress disorder (PTSD). Privacy, security, and acoustics are improved while minimizing interruption of care and exposure to "off-stage" activities.

Clear Point of Entry

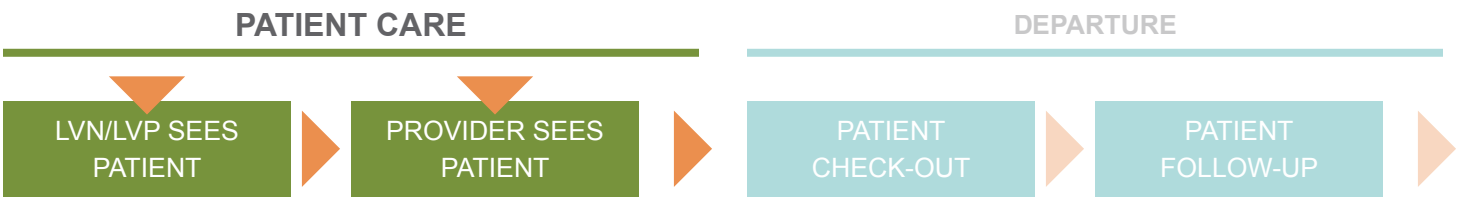
Patient Greeting and Assistance

Corridors and Connections

Figure 3.2-3

3.0 THE PATIENT EXPERIENCE

3.2 PACT Process



Visual Control:

Visual control enhances the patient's care experience through simplified wayfinding. The design of the open teamwork zone enables visual control for staff; at a glance, the team can determine the availability of staff, supplies, and equipment. This approach speeds care to the patient, optimizing and supporting teamwork.

Bring Services to the Veteran:

Patient travel is minimized by bringing services to the patient care room. The Veteran is initially roomed and the staff will come to that room to deliver care whenever practical. Blood draws, EKGs, after-visit summaries, pharmacy and other consults, and referrals may be discussed in the room. Individual printers in each patient care room will enhance efficiency, saving staff and patient time.

Standard Work:

Standardization of workflow is facilitated through the use of standard room layouts and application of the PACT Space Module. Standard work improves quality, safety, and efficiency, minimizing the number of patient hand-offs.

Universal Care Room:

Standardized rooms based on modular/same-handed design readily adapt for use by different specialty services and evolving information/technologies. Identical layout and outfitting improves efficiency and reduces errors.

A change from primary care exam to specialty exam such as podiatry/orthopedics is facilitated by bringing in the appropriate mobile supply carts. The patient care room can be easily re-tasked between primary care, mental health consulting, optometry, or other uses by changing out furniture and equipment.

Visual Control

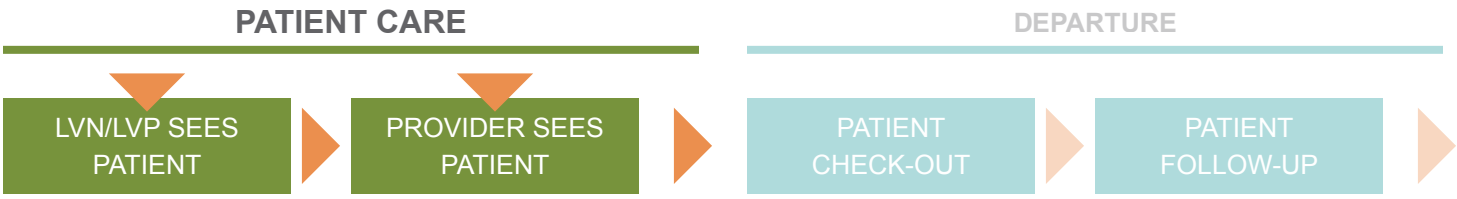
Bring Services to the Veteran

Standard Work

Figure 3.2-4

3.0 THE PATIENT EXPERIENCE

3.2 PACT Process



Patient-Centric Care Room Functional Requirements:

The Veteran is supported by the delineation of consultation and examination areas within the care room. The design of the room emphasizes the ability to share information between staff, the Veteran, and family.

Equipment and Supplies:

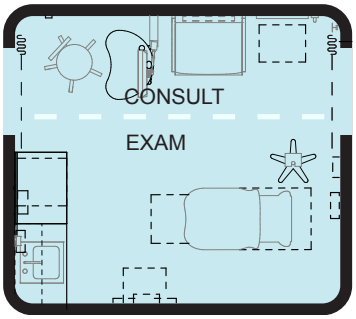
Commonly used supplies consistent with the primary use of the room are kept in a mobile cart in the patient care room. These are easily supplemented or changed out using additional carts with care specific supplies. Additional equipment is located in the teamwork zone, stored near their point of use and shared between multiple rooms.

Patient Relocation:

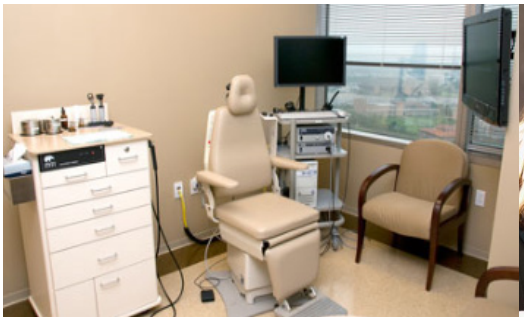
Rooming the Veteran is a primary operational objective in patient-centered care. When additional services cannot be delivered in the initial patient care room or the veteran would be more comfortably served in another location, the Veteran will need to travel to another location/room. These services should be conveniently located within the clinic. Services may include extended consultation or education services, specialty procedures, diagnostic imaging, and the acquisition of lab specimens.

Non-Provider Services:

When Veterans are only visiting to receive diagnostic imaging, lab, or pharmacy services, the design provides the flexibility for Veterans to access those services directly.



Patient-Centric Care Room



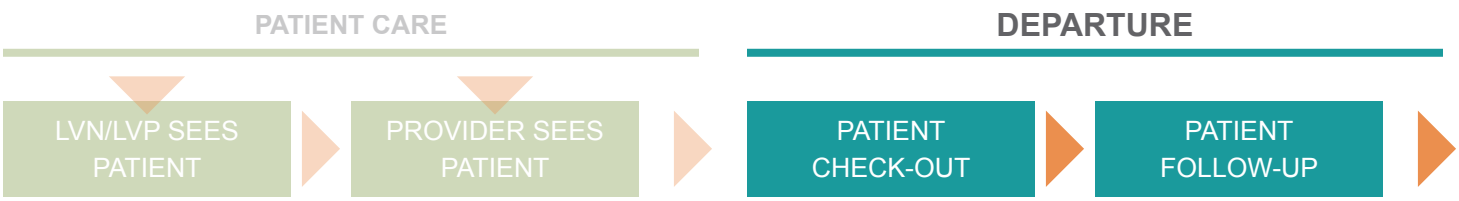
Equipment and Supplies at Point-of-Use

Diagnostic Services

Figure 3.2-5

3.0 THE PATIENT EXPERIENCE

3.2 PACT Process



Appointment, Follow-Up Planning, and Check-Out:

In the PACT Model, these activities ideally take place in the patient care room. Alternatively, a checkout kiosk/station may be located on the way out of the clinical care area. Practice may vary from location to location.

Graphic and written materials for veterans can be printed during or after each appointment. This assists in providing the most recent and accurate information to veterans and their families. Materials may include test results, health education, provider instructions, and after-visit summaries.

Providing printers in patient care rooms enhances patient centered care as Veterans feel that the information was printed just for them. Veterans are encouraged to become more involved with their care, ask questions, and follow the provider's directives. In addition, this also reduces the need to source and store handouts and forms.

Follow-Up Planning Provider Summary and Instructions In-room Printing

Figure 3.2-6

U.S. Department of Veterans Affairs

Office of Construction & Facilities Management

4.0 PLANNING AND DESIGN

PACT SPACE MODULE

PATIENT ALIGNED CARE TEAM

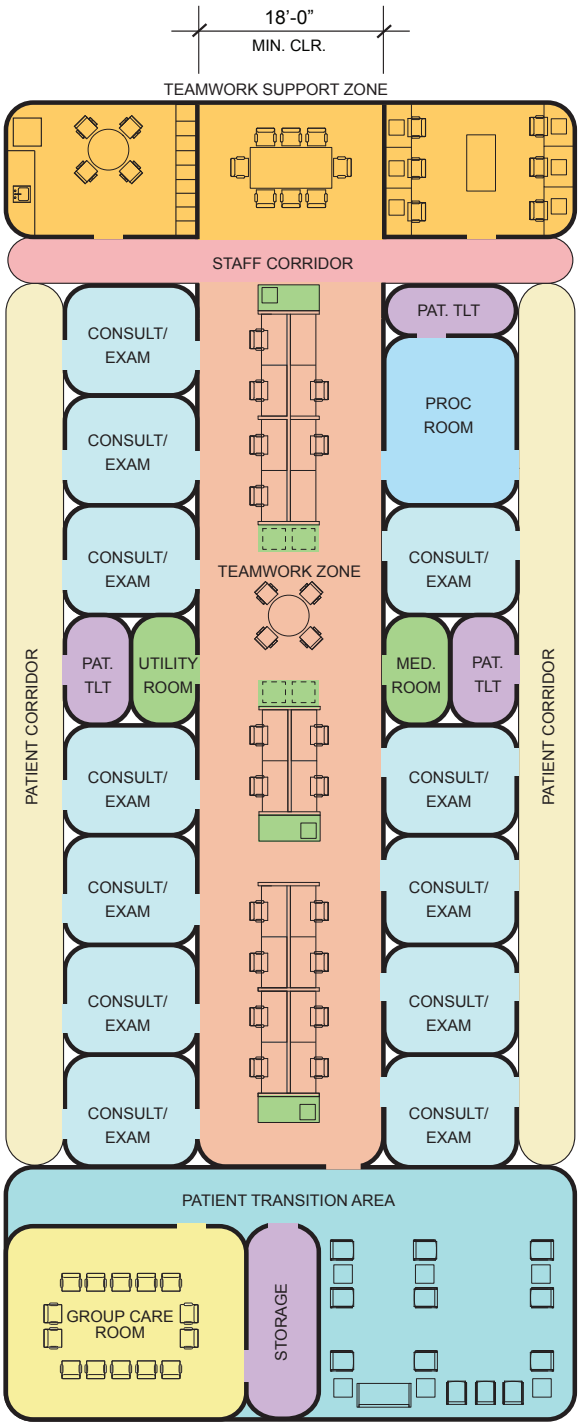
4.0 PLANNING AND DESIGN

4.1 Clinic Organization

The translation of the PACT care delivery model into a complementary planning and design concept resulted in the PACT Clinical Space Module ("PACT Space Module") (Figure 4.1-1). The PACT Space Module is a single planning unit that contains the functional elements that support the operational flows needed to utilize PACT. The functional elements support the seven major operational goals introduced in Section 3 of this guide:

Bring Care to the Patient
Support Flexibility and Adaptability
Provide Privacy and Security
Streamline Processes
Enhance Teamwork
Simplify Wayfinding
Promote Healing and Well-being

While this PACT Space Module Design Guide is focused on the PACT Space Module, it is important to understand the relationship of the PACT Space Module within the context of an entire outpatient clinic. Therefore, this section also includes a brief introduction to the Integrated Clinic - a planning approach that fluidly connects clinical areas across a given building - setting up the context in which the PACT Space Module will be utilized.



LEGEND

- PATIENT TRANSITION AREA
- PATIENT CORRIDOR
- TEAMWORK ZONE
- EXAM ROOM
- PROCEDURE ROOM
- CORE SUPPLIES
- GROUP CARE ROOM
- MISCELLANEOUS SUPPORT
- TEAMWORK SUPPORT
- STAFF CORRIDOR

Figure 4.1-1
PACT Space Module Design Diagram

4.0 PLANNING AND DESIGN

4.1 Clinic Organization

In parallel to the development of the PACT Space Module, VA-CFM was conducting a CBOC Prototype Study through a VA Innovation Project. This Study arrived at a variation of the PACT Space Module; the Team Work Zone is approximately 30 feet wide in the Prototype developed in the Study.

This width provides a greater net square foot area in the Team Work Zone. With this wider spacing, the Team Work Zone in the future could be reconfigured to include two 6'-0" wide corridors and enclosed functional space.

Utilization of the CBOC Prototype requires additional PACT Care Team members to be located in this Zone. To maintain the program level of net square foot area in the Team Work Zone, the length of the zone is shorter as compared to the PACT Space Module's Team Work Zone. This results in approximately six (6) patient care rooms being located along the Patient Corridor with single door access vs. the dual door access as provided in patient care rooms that are located adjacent to the Team Work Zone. Staff in turn will utilize the Access Hallway and co-mingle with patients in the Patient Corridor to access these outer rooms.

If this outer layer of patient care rooms is positioned adjacent to the Team Work Zone, the length of the Team Work Zone would become greater, providing an excess of net square foot area in the Work Zone.

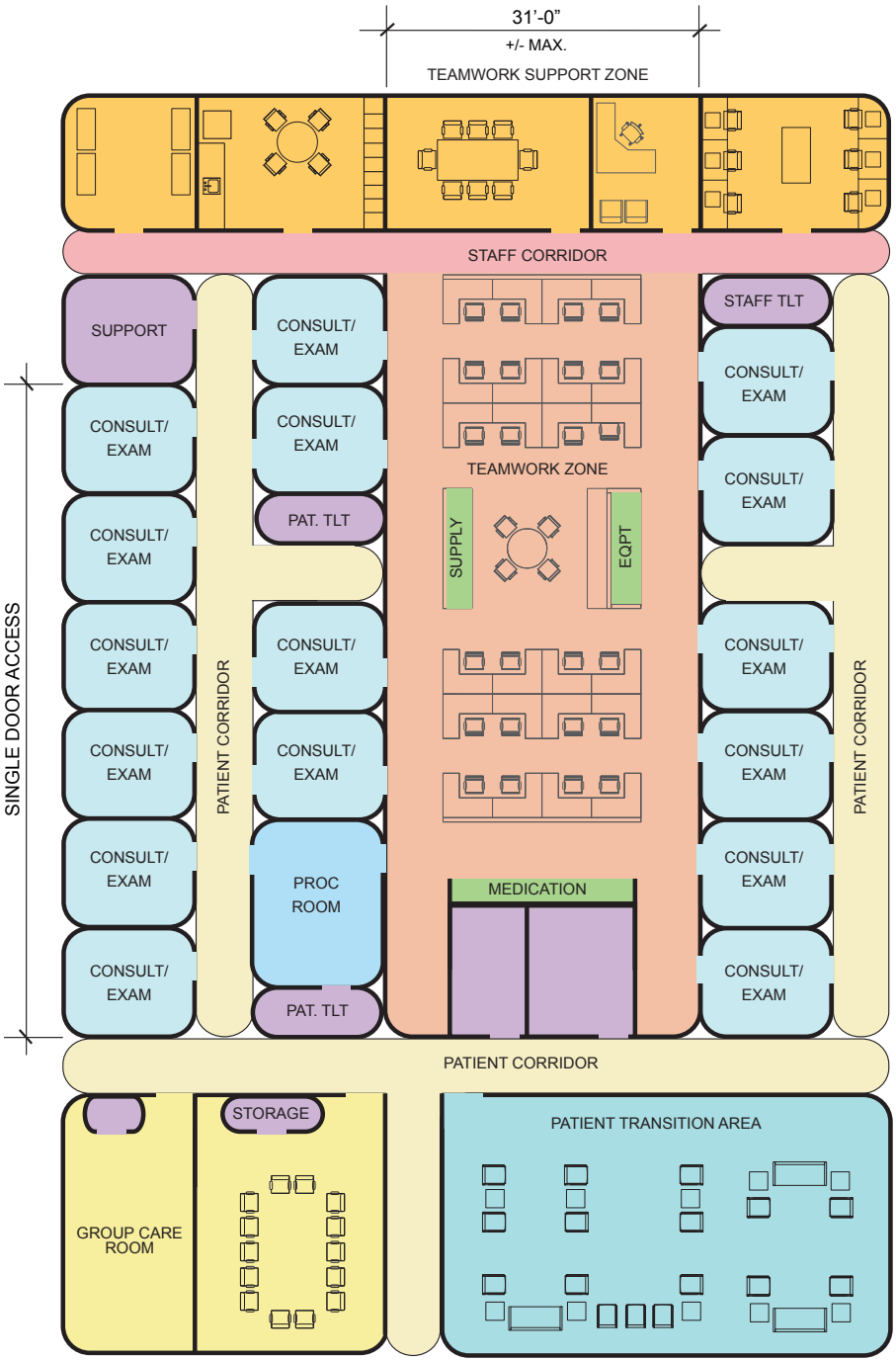


Figure 4.1-2
PACT Prototype Design Diagram

4.0 PLANNING AND DESIGN

4.1 Clinic Organization

Past clinic configurations that segregate clinical services have limitations with regard to supporting smooth clinical flows of veterans and staff across clinics and by this segregation, have evolved into isolated clinics. Solutions developed on a department-by-department basis have often led to disjointed flows and created inefficiencies and impediments to the patient experience (Figure 4.1-3). Additionally, a single, shared corridor for staff, veterans, equipment, supply, and circulation has resulted in congestion leading to interruptions, breaches in privacy, and increased security risks. Issues associated with ***legacy clinic configurations*** include but are not limited to:

- Increased travel distance and time for veterans
- Mismatches in demand and capacity
- Duplication of space, inventory, processes, and staffing
- Impeded communication, delays in care, dropped hand-offs
- Lack of collegiality and teamwork
- Amplification of error rates

The PACT Space Module creates circulation and flows that create Integrated Clinics (Figure 4.1-4). The layout streamlines patient flow and allows public functions and certain staff functions to span across multiple modules (Figure 4.1-5). The module establishes intuitive connections that simplify Veteran, staff, and public circulation both within and across clinical areas. The space configuration creates separate Patient Care Zones (on-stage) and Teamwork Zones (off-stage) which improves workflow and privacy. Using on-stage and off-stage strategies and thoughtfully developed operational adjacencies, the integrated clinic design configurations are flexible and adaptable and can readily respond to care system evolution, allowing clinical services to change over time without major disruption to the patient experience.These strategies and adjacencies support processes that bring care to the veteran. Benefits of the ***Integrated Clinic*** include:

- Shorter travel distance and time for staff and Veterans
- Consultation and issue resolution in real time
- Alignment of demand and capacity
- Communication and transitions among staff
- Warm hand-offs between staff and Veterans
- Reduced wasteful and redundant activities
- Enhanced adaptability and flexibility
- Improved privacy

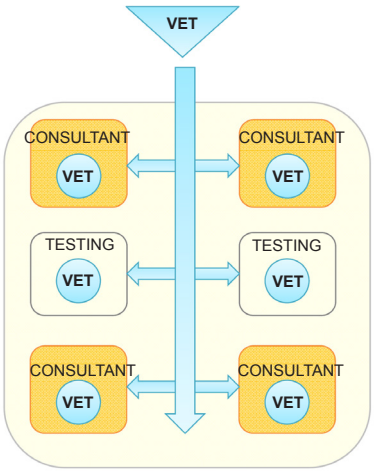


Figure 4.1-3
Legacy Clinic Patient Flow

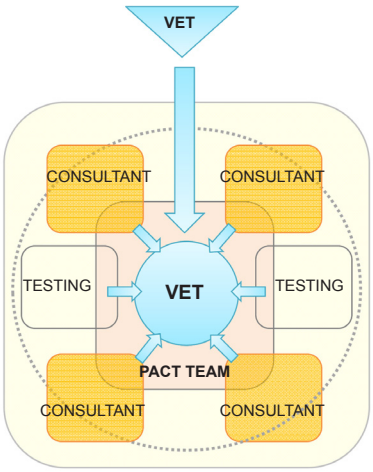


Figure 4.1-4
Integrated PACT Clinic Patient Flow

4.0 PLANNING AND DESIGN

4.1 Clinic Organization

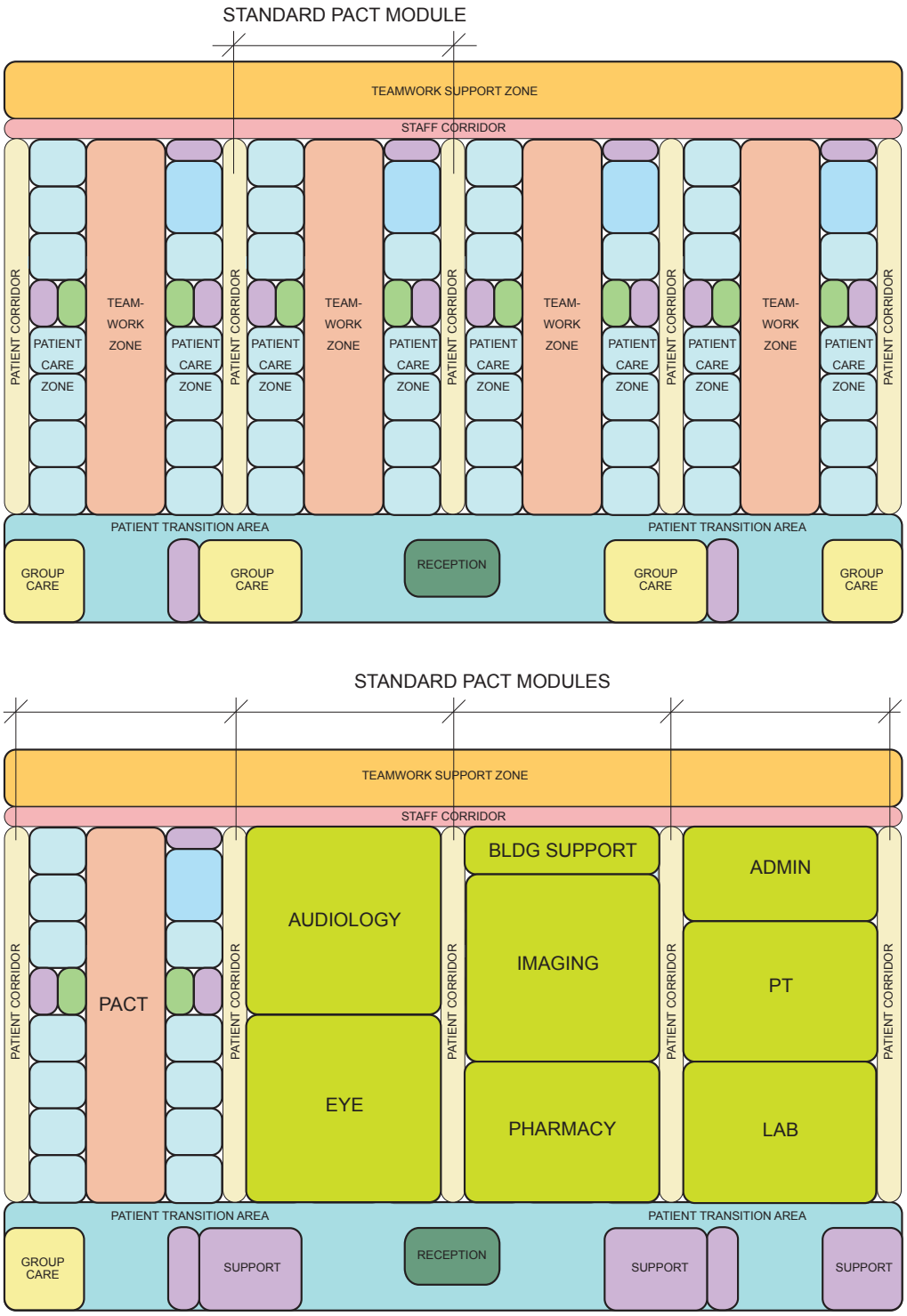


Figure 4.1-5
Integrated Clinic Utilizing PACT Modules

4.0 PLANNING AND DESIGN

4.2 PACT Space Module Core Design Strategies

The PACT Space Module has been developed to support the PACT Guiding Principles of Patient Centered Care, Coordination of Care and Access to Care. From the guiding principles, seven PACT Functional Goals were established. These are:

- Bring care to the patient
- Support Flexibility and Adaptability
- Provide Privacy and Security
- Streamline Processes
- Enhance Teamwork
- Simplify Wayfinding
- Promote Healing and Well-being

The following three Core Design Strategies were developed to support the PACT Guiding Principles and the Functional Goals. The PACT Core Design Strategies are:

- **Collaborative Work Environment**
- **Separation of Patient and Staff Flows**
- **Modular, Adaptable Design**

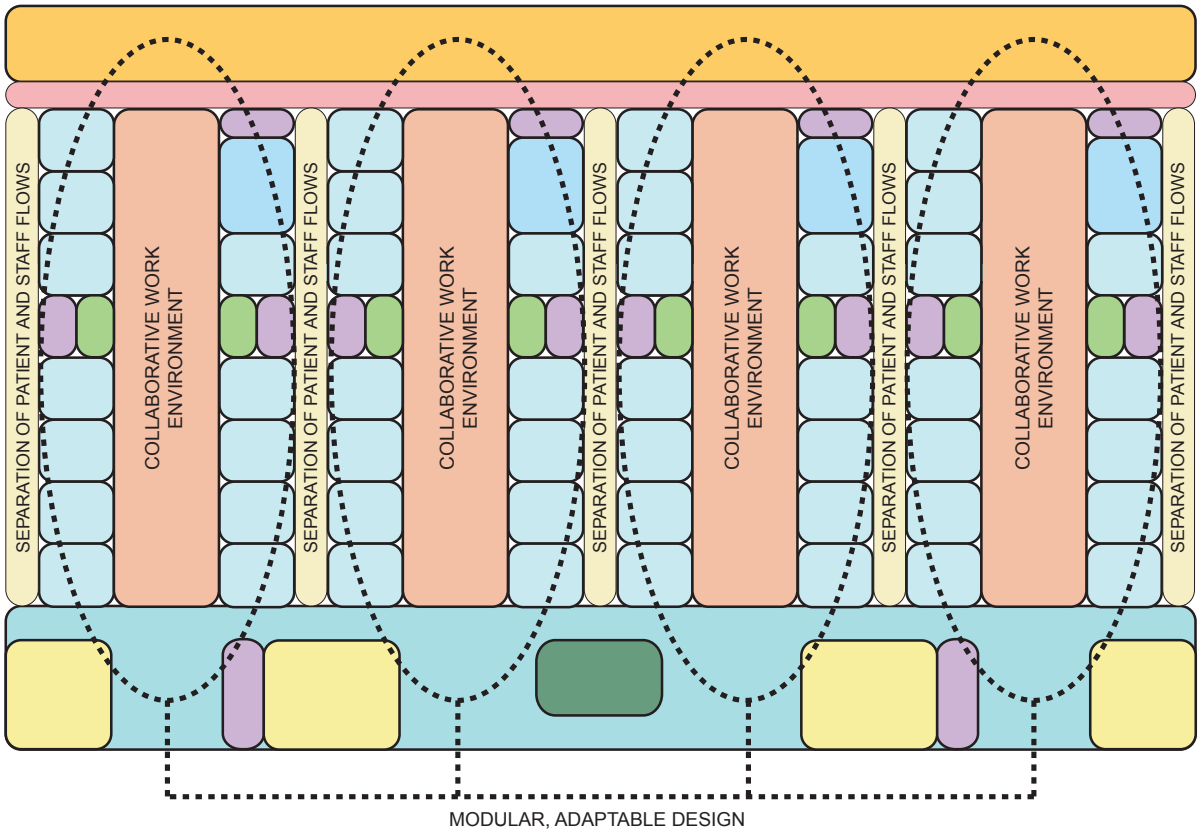


Figure 4.2-1
Three Core Design Strategies for PACT

4.0 PLANNING AND DESIGN

4.2 PACT Space Module Core Design Strategies

4.2.1 Collaborative Work Environment

Teamwork environments that are derived from open office work environments designed with enhanced acoustic elements provides collaborative workspace for PACT teamlet members as well as extended care team members. Removing functional silos and transforming individual offices into an open environment places team members in close proximity to each other. This design increases access, coordination, communication, and continuity of care. The open environment supports consultation and issue resolution with other care providers in real time as it facilitates peer-to-peer interaction that is common and productive. This includes quick small team huddles as well as rapid, efficient, smooth hand-offs.

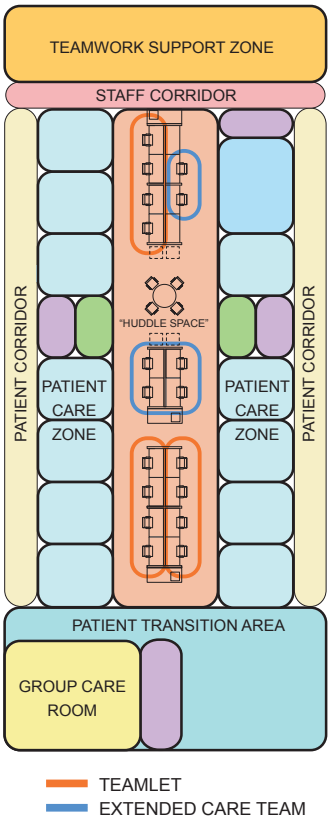
Multiple teamlets are accommodated in the Teamwork Zone provided by a single PACT Space Module (Figure 4.2-2). Different staffing models with collocation of various numbers of teamlets and allied clinical staff are supported. The collocations can be readily reconfigured as needed. The recommended depth of the PACT Space Module patient corridor is +/- eight Patient Care Rooms. This depth minimizes both patient and family travel distances while maintaining a workable number of PACT teamlets per module.

NOTE:
The number of extended care team members will vary from site to site and project specific space planning will need to account for these staff and their workloads. The PACT Space Criteria used for the VA- Space and Equipment Planning System (SEPS) allows for a base presence of allied staff. These numbers are based on field observations of common practice and need to be evaluated and determined at each specific site. The criteria provide consultation and teamwork space of an average of one extended team member per teamlet in the space allocations. Optimally, these extended care providers will be collocated with the PACT teamlets.

For more information on Teamwork and Teamwork Support Zones see Section 4.3.

Guidelines for Collaborative Work Environment:

- Utilize an open plan in the “Off-stage” staff Teamwork Zone to enhance communication among PACT teamlets.
- Provide touchdown zones for extended care staff to hotel and for PACT teamlets to huddle (Figure 4.2-3).
- Limit PACT Space Module to a maximum depth of eight patient care room units to minimize travel distances.



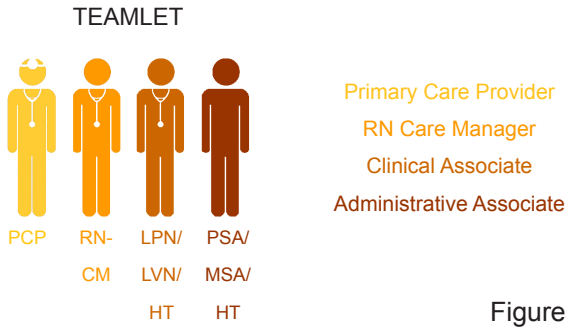


Figure 4.2-2
4-5 Teamlets per PACT Module

4.0 PLANNING AND DESIGN

4.2 PACT Space Module Core Design Strategies

4.2.1 Collaborative Work Environment

Figure 4.2-3
Touchdown Zones for PACT Teamlets and Extended Care Team Members

4.0 PLANNING AND DESIGN

4.2 PACT Space Module Core Design Strategies

4.2.2 Separation of Patient and Staff Flows

Separating patient and staff flows is critical to creating a more pleasant experience and reducing bottlenecks for patients, families, and staff (Figure 4.2-5 & 4.2-6). This separation increases efficiency by decreasing disruptions, reducing walking distances, and placing staff Teamwork Zones immediately adjacent to Patient Care Rooms. This design supports rooming the patient.

A dual corridor design is the preferred method of separating flows for the PACT Space Module. Veterans and families experience their care in the "on-stage" areas which include the Patient Corridor (Figure 4.2-4 & 4.2-7) and the Patient Care Room. Staff prepare for visits with Veterans and families in the "off-stage" areas which include the Teamwork Zone and Teamwork Support Zone. The staff then meet the Veteran "on-stage" in the Patient Care Room.

For more information on Patient Corridors, Patient Care Rooms, and Teamwork Zones see Section 4.3.

Guidelines for Patient and Staff Flows:

- Separate patient and staff flows utilizing a dual corridor design.
- Provide "on-stage" and "off-stage" areas
- Locate the Teamwork Zone immediately adjacent to the Patient Care Rooms.

Figure 4.2-4
Photo of a Patient Corridor
*Courtesy of CollinsWoerman Architects

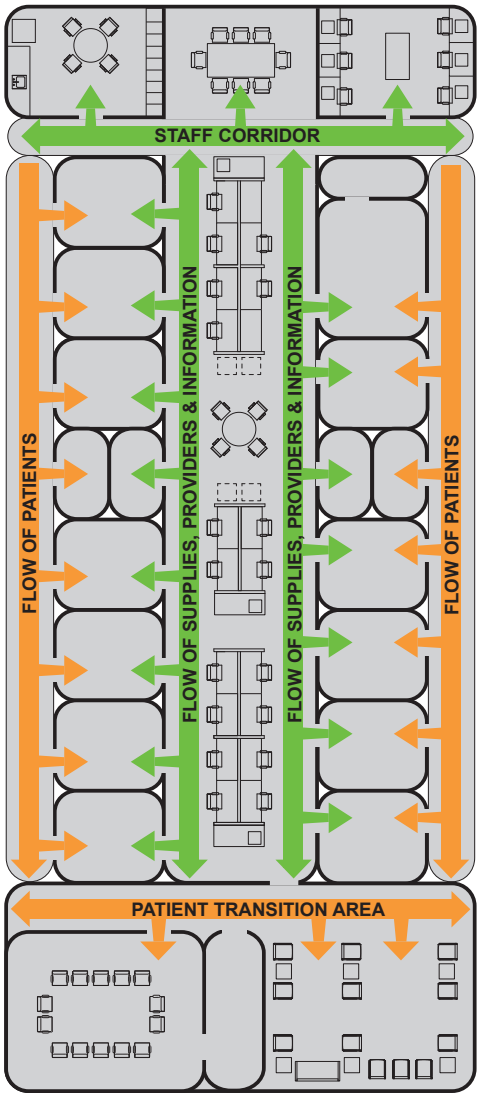


Figure 4.2-5
Three Flows in the Dual Corridor System

4.0 PLANNING AND DESIGN

4.2 PACT Space Module Core Design Strategies

4.2.2 Separation of Patient and Staff Flows

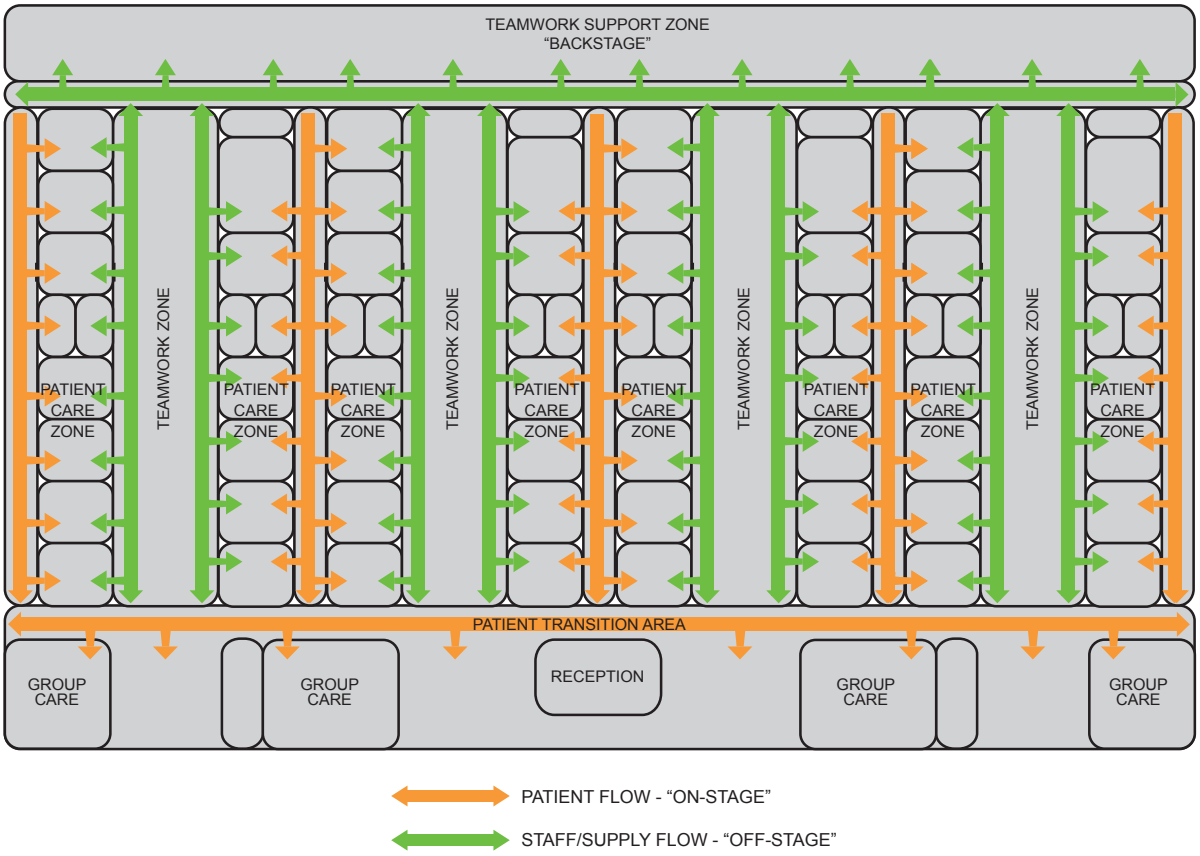


Figure 4.2-6
Separation of Patient and Staff Flows

4.0 PLANNING AND DESIGN

4.2 PACT Space Module Core Design Strategies

4.2.2 Separation of Patient and Staff Flows

Figure 4.2-7
Patient Corridor Rendering

4.0 PLANNING AND DESIGN

4.2 PACT Space Module Core Design Strategies

4.2.3 Modular, Adaptable Design

Modular, adaptable design allows spaces to be reconfigured over time as patient needs, clinical processes, and staffing models evolve. Additional staff and services can be added, removed, or adjusted without major construction.

The PACT Space Module standardizes spaces where patient care is delivered to facilitate current operational efficiency and future flexibility. Patient Care Rooms are designed as universal rooms that can be set up to perform examinations, consultations, and treatments as needed. The function of the rooms can easily be changed by simply rolling in a mobile cart with specialty supplies or, if needed, changing out the furniture/equipment. With these minor modifications, the same room can be utilized by all patient care providers. An Exam Room can be modified to a Consultation Room by replacing the equipment in the room with consultation furnishings (Figure 4.2-9). The Patient Care Room is designed as a 125 sq. ft. unit. An Exam Room or Consultation Room is 125 sq. ft. and a Procedure, Bariatric, or Treatment Room is (1.5) room units (Figure 4.2-8). One Procedure Room with a dedicated toilet equals (2) room units.

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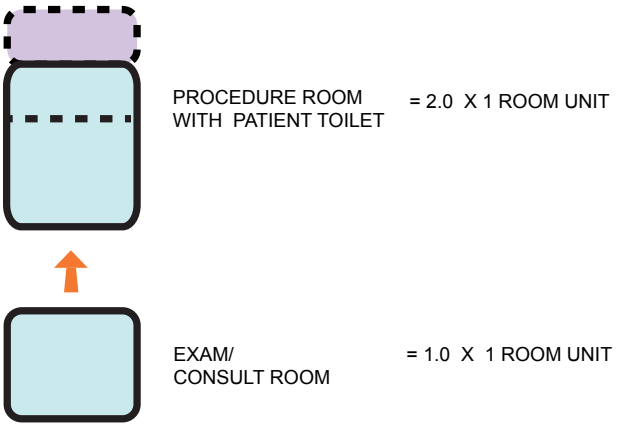

Figure 4.2-8
Relationship Between Exam/Consult and Procedure Room Units

Guidelines for Modular, Adaptable Design:

- Exam and Consultation Rooms = 125 sq. ft.
- Procedure Rooms = 1.5 x the size of Exam Room
- Dedicated Procedure Room + Toilet Room = 2.0 x the size of Exam Room
- Design the PACT Space module based off a universal structural or planning unit that is based on a standardized grid system.
- Use multiple PACT Space modules to configure the clinic adapting them to specific functions as needed.

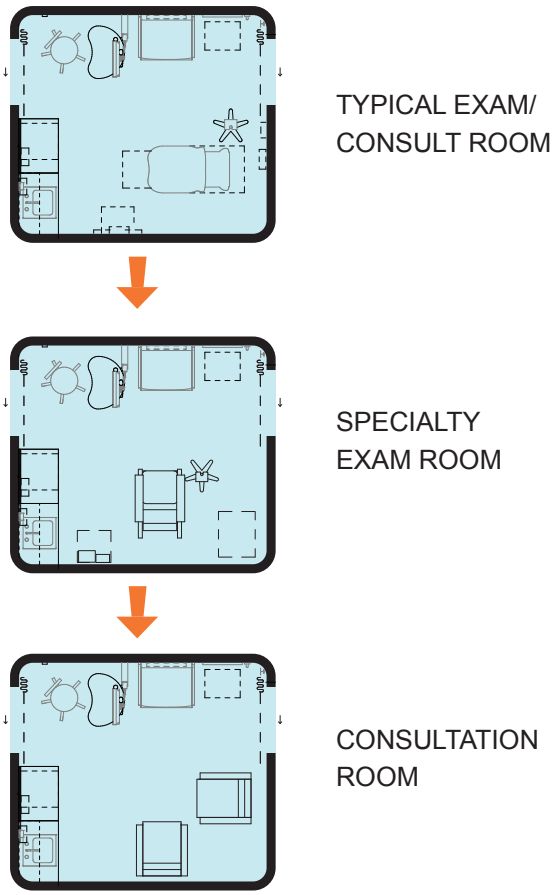

Figure 4.2-9
Adaptability of the Universal Room

4.0 PLANNING AND DESIGN

4.2 PACT Space Module Core Design Strategies

4.2.3 Modular, Adaptable Design

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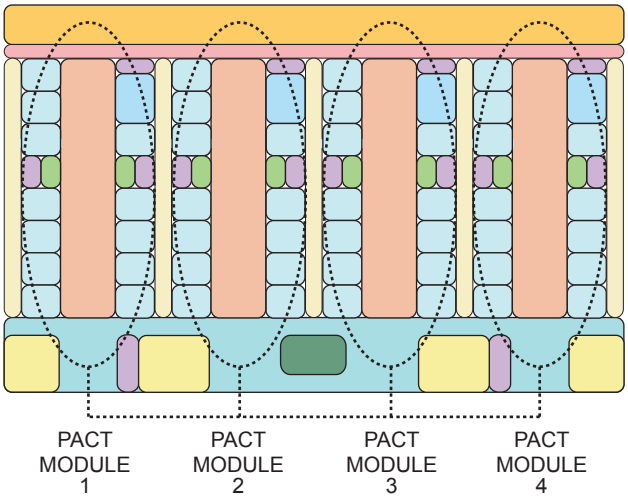
The PACT Space Module is designed as a universal structural or planning unit based on a standardized grid system. The module can be repeated and adapted for different service lines/departments throughout the building supporting a truly integrated clinic. Ideally all departments in the clinic would be designed using this clinical space module (Figure 4.2-10). This configuration provides flexibility and adaptability for the future. Standardized modular designs facilitate the ability to quickly change the services provided without wholesale renovations.

For more information on Patient Care Rooms see Section 4.3.4



LEGEND

- PATIENT TRANSITION AREA
- PATIENT CORRIDOR
- TEAMWORK ZONE
- EXAM ROOM
- PROCEDURE ROOM
- CORE SUPPLIES
- GROUP CARE ROOM
- MISCELLANEOUS SUPPORT
- TEAMWORK SUPPORT
- STAFF CORRIDOR
- RECEPTION/ CHECK-IN
- ANCILLARY MODULE (PHARMACY, RADIOLOGY, LAB, ETC.)

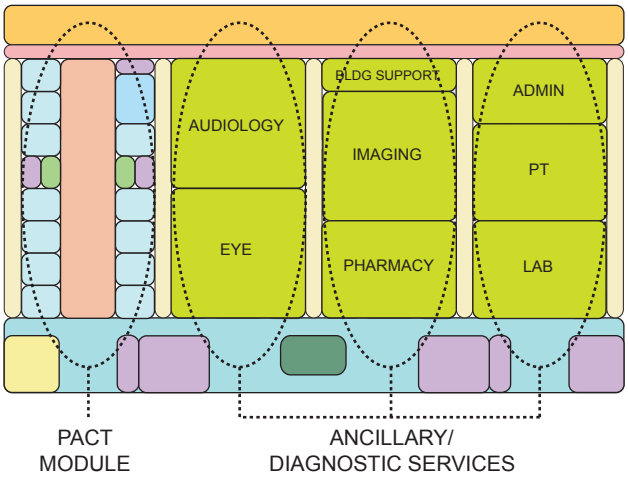


Figure 4.2-10
Multiple Departments in an Integrated Clinic

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.1 Core Components

Each PACT Space module (Figure 4.3-1 & 4.3-2) includes the following Core Components:

- Patient Corridor
- Patient Care Room
    - Exam/ Consultation Room
    - Procedure Room
- Teamwork Zone
- Core Supplies
- Teamwork Support Zone
- Group Care Room
- Patient Transition Area

LEGEND

- PATIENT TRANSITION AREA
- PATIENT CORRIDOR
- TEAMWORK ZONE
- EXAM ROOM
- PROCEDURE ROOM
- CORE SUPPLIES
- GROUP CARE ROOM
- MISCELLANEOUS SUPPORT
- TEAMWORK SUPPORT
- STAFF CORRIDOR

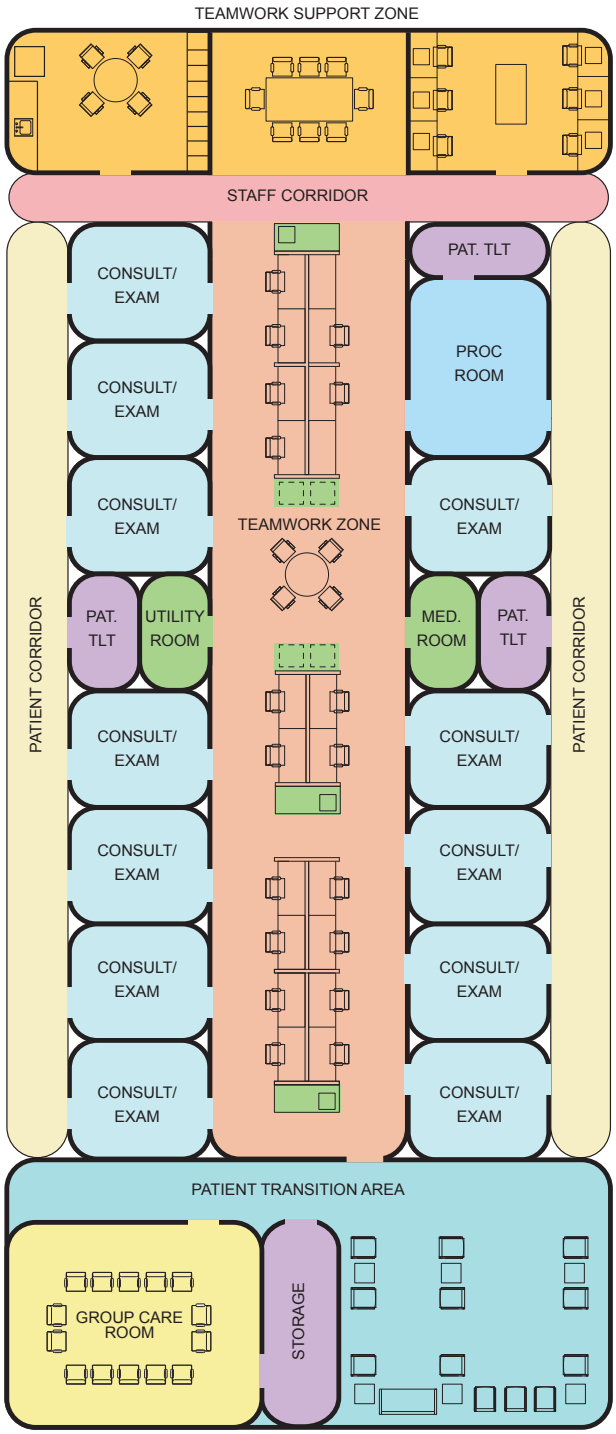


Figure 4.3-1
PACT Space Module Diagram with Core Components

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.2 PACT Space Module Dimensions

Develop a floor plan or space/planning grid that minimizes intrusions into clinical space by the structural framing grid (columns and bracing) and location of building utility spaces (HVAC, electrical IT/communications).

All stated dimensions are inside clear dimensions.

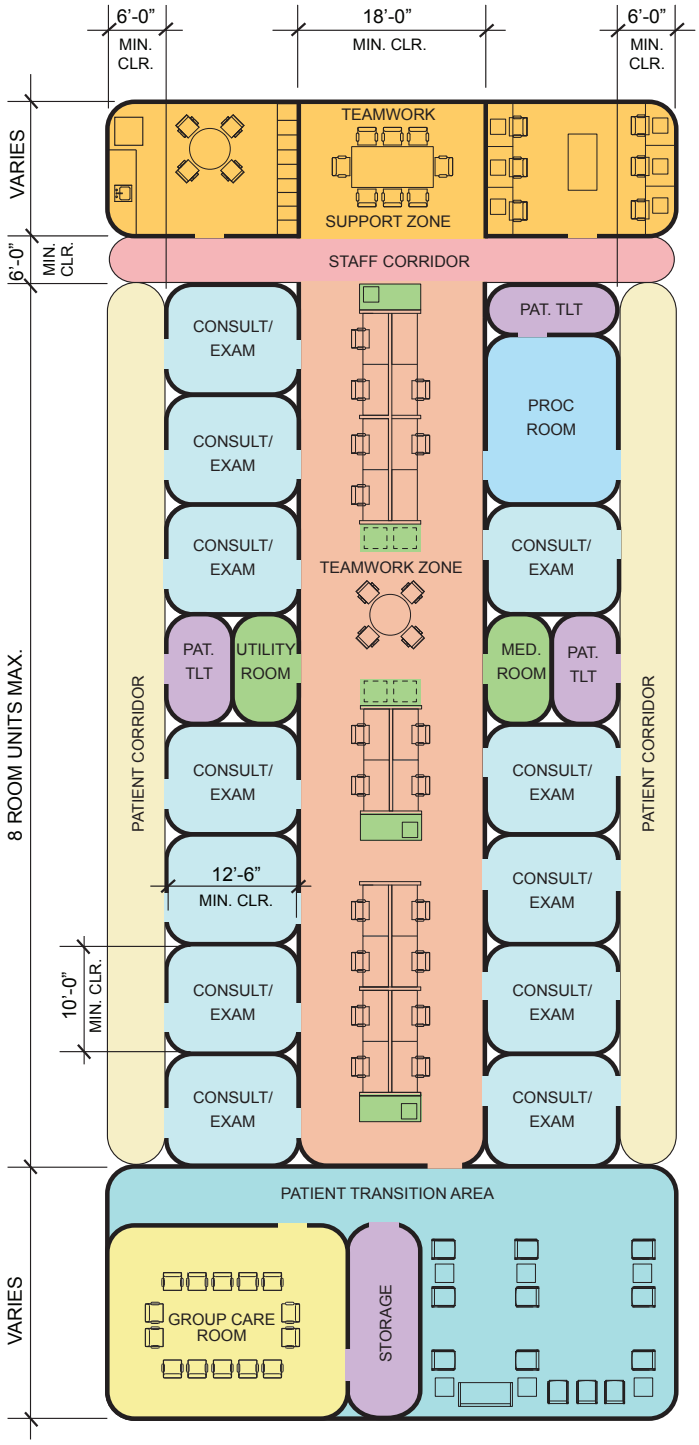


Figure 4.3-2
PACT Space Module Dimensions

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.3 Patient Corridor

A dedicated Patient Corridor creates a more pleasant experience for Veterans and families. The patient care process is streamlined as circulation bottlenecks are eliminated. Wayfinding is simplified by relocating staff work areas, equipment, and supplies from the Veterans' circulation area creating a more quiet, calming environment. Wayfinding is enhanced by distinguishing design features such as the Patient Portal (Figure 5.1), potential views to the exterior, and utilizing inviting lighting, colors, finishes, etc.

For more information on Separation of Patient and Provider Flows see Section 4.2.

Patient Corridor Design Objectives

- Separate Patient Corridors from staff and/or supply corridors.
- Utilize color schemes and artwork to define Patient Corridors and enhance wayfinding.
- Place glazing and views to the exterior at the end of hallways to further enhance wayfinding.
- Secure staff zones with a card access door from Patient Corridors to assure veteran and staff privacy and security.

Bring Care to the Patient
Support Flexibility and Adaptability
Provide Privacy and Security
Streamline Processes
Enhances Teamwork
Simplify Wayfinding
Promote Healing and Well-being

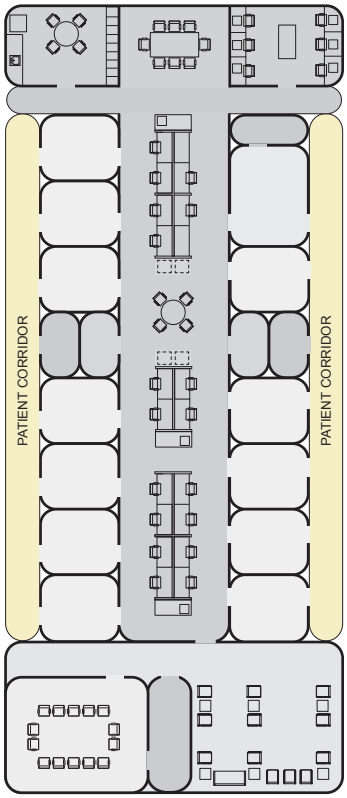


Figure 4.3-3
Patient Corridor PACT Space Module Layout

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.3 Patient Corridor

Figure 4.3-4
Photo of a Patient Corridor
*Image from University of Utah

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.4 Patient Care Room

The Patient Care Room is the primary building block for the PACT Space Module. It serves as the Veteran's "home base" where all operationally appropriate and practical services are brought to them. The arrangement of the Patient Care Rooms optimizes both patient and staff flows within the module. When approaching the Patient Care Room, veterans and families enter through the on-stage Patient Corridor. Staff enter through a second door from the off-stage Teamwork Zone. Use of surface mounted sliding doors maximizes floor space and is strongly encouraged. Use of swinging doors leads to loss of functionality/useable area. Special attention is paid to the acoustic design of Patient Care Rooms to assure both patient privacy.
(Cont'd on next page)

Patient Care Room: Design Objectives

- In dual-entry Patient Care Rooms, provide surface-mounted sliding doors to eliminate the space requirements for door swings. Doors should have an opening of at least 3'-6" for scooter and bariatric access.
- Organize Patient Care Rooms in the module to be same-handed to maximize staff efficiency and patient safety.
- Provide comfortable seating for the patient and family.

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Streamline Processes
Enhance Teamwork
Simplify Wayfinding
Promote Healing and Well-being

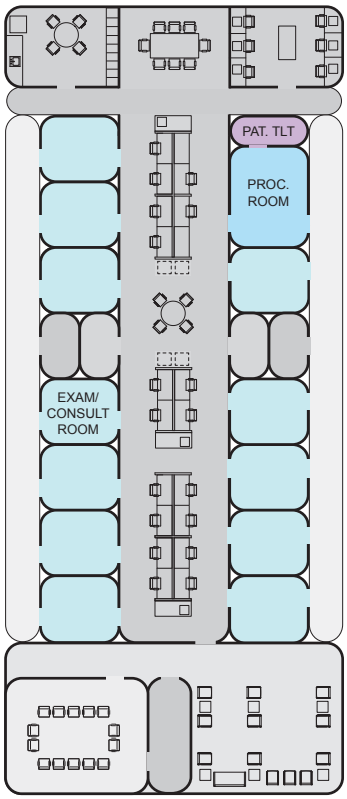

Figure 4.3-5
Patient Care Room PACT Space Module Layout

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.4A Patient Care Room, Exam Function ("Exam Room")

Exam Rooms are functionally divided into two zones - the consultation zone and the examination zone - to provide room for comfortable patient-provider interaction (Figure 4.3-9).

The consultation zone contains a moveable computer work station that allows for staff to face the exam table and patient-family seating simultaneously. Workable solutions have included both mobile computing work stations and a moveable "table" that can rotate against the wall or rotate out to form a consult surface for a keyboard or educational material to be viewed with the veteran and family members (Figure 4.3-7). The latter is typically combined with an armature system. These configurations help empower Veterans and families to be active participants in their health and wellness and breaks down perceived barriers between staff and Veterans.

(Cont'd on next page)

Exam Room: Design Objectives

- Design Exam Rooms at 125 sq. ft.
- Consider providing a small scale and measurement standard in each Exam Room. Exam tables that are capable of weighing the veteran are another popular option that can be considered.
- Plan for future Telehealth capability.
- Provide one mobile, modular supply cart in each Patient Care Room that can be stored under the counter.
- Develop an acoustic design that includes finishes, furniture systems, and sound masking technologies.

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Support Flexibility and Adaptability
Provide Privacy and Security
Streamline Processes
Enhance Teamwork
Simplify Wayfinding
Promote Healing and Well-being

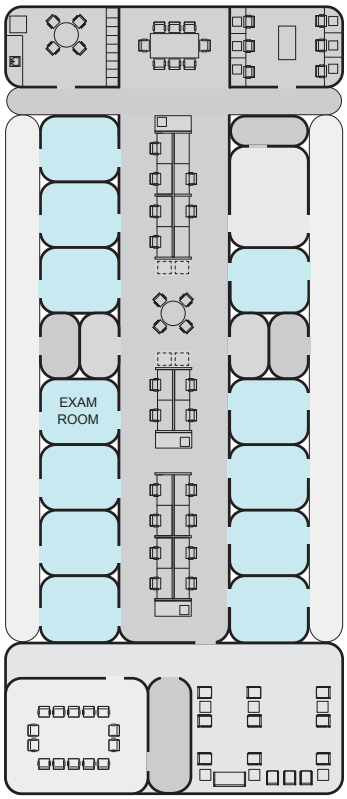

Figure 4.3-6
Exam Room PACT Space Module Layout

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.4A Patient Care Room, Exam Function ("Exam Room")

In the examination zone, the exam table is positioned so the provider approaches the veteran from the front, on the right side. Avoid positioning the foot of exam table towards a door. Locating the sink and casework on the wall shared with the Teamwork Zone allows easy access for the care team members and also allows maximum flexibility in the module for future modification.

Each PACT Space Module utilizes a ratio of approximately 3 Exam Rooms per teamlet. All Patient Care Rooms should use a standard layout, with equipment and supplies planned in standard quantities and locations (see Figure 4.3-8).

For additional Patient Care Support Components see Section 4.4.

Exam Room: Design Objectives (cont'd)

- Mobile cart and cabinetry are sized to accommodate point-of-use supplies
- Locate the sink and casework on the wall shared with the Teamwork Zone to facilitate easy access for the care team members and maximize flexibility in the module for future modification.
- Standardized/modular casework consists of a counter with a sink, upper cabinets, and open space below for mobile cart storage (see Figure 4.3-8).
- Avoid facing the foot of the exam table toward a door.
- Standardize the layout of Exam Rooms so staff can walk into any room and be able to quickly locate everything they require for the exam.

Figure 4.3-7
Photo of a Typical Exam Room
*Courtesy of CollinsWoerman Architects

Figure 4.3-8
Photo of a Typical Exam Room
*Courtesy of CollinsWoerman Architects

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.4A Patient Care Room, Exam Function (“Exam Room”)

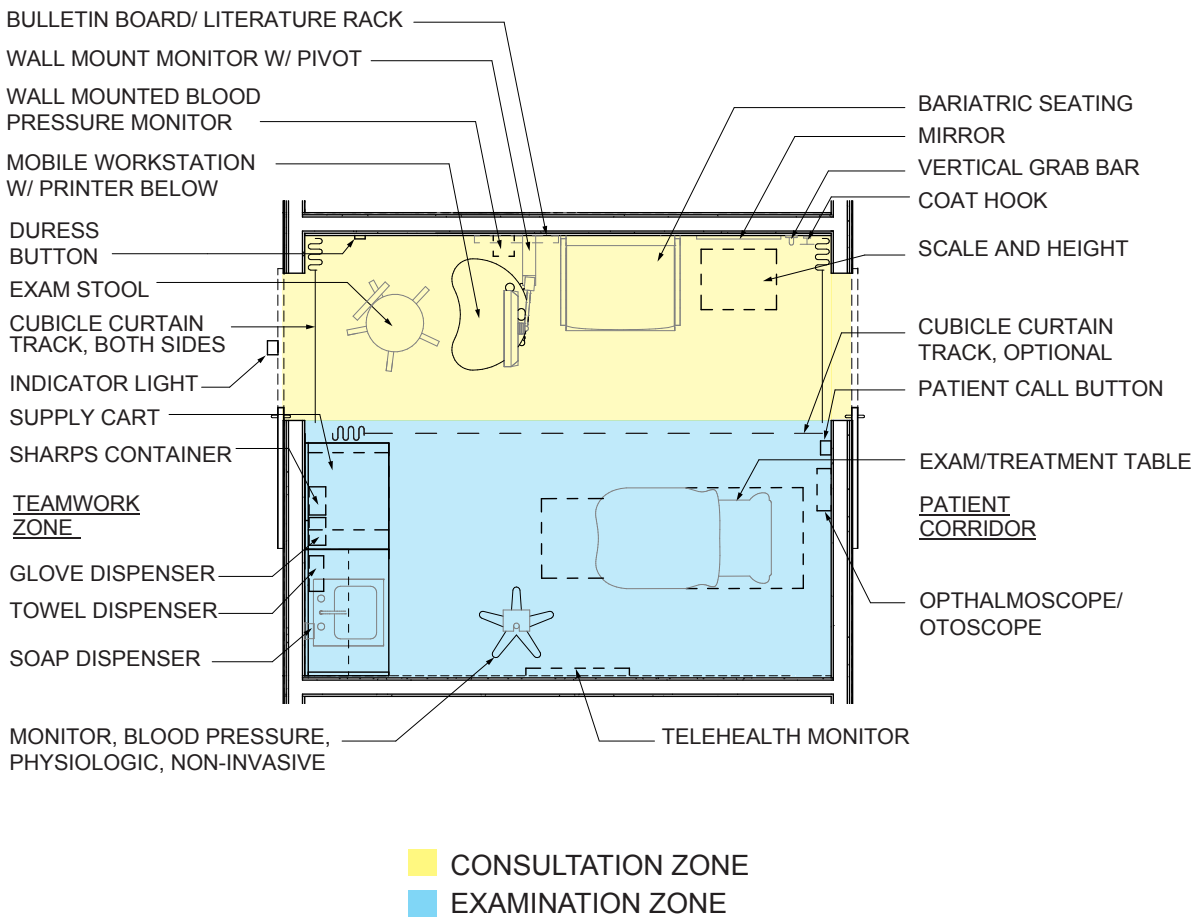

Figure 4.3-9
Example of a Exam Room Floor Plan

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.4B Patient Care Room, Consultation Function ("Consultation Room")

Consultation Rooms are used by the PACT teamlet as well as the Mental Health Providers and other care team members to have private conversations with patients and families. These rooms are utilized for multiple functions and are not assigned to any particular service. One Consultation Room is allocated per teamlet in the PACT Module.

Consultation Rooms are similar in design to the Exam Rooms with regard to layout, dimensions, and permanent fixtures. As a general rule, the provider's back should never face the Veteran in a Consultation or Exam Room while at the computer work station.

For more information on Patient Care Support Components see Section 4.4.

Consultation Room: Design Objectives

- Design Consultation Rooms at 125 sq ft.
- Furnish Consultation Rooms with furnishings appropriate for various forms of consultation interactions.
- Provide a work station with a computer for staff and arrange furniture in a face-to-face interaction between staff and patient.
- Locate the computer workstation in close proximity to the door to facilitate staff egress.
- Develop an acoustic design that includes finishes, furniture systems, and sound masking technologies.

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Support Flexibility and Adaptability
Provide Privacy and Security
Streamlines Processes
Enhances Teamwork
Simplifies Wayfinding
Promote Healing and Well-being

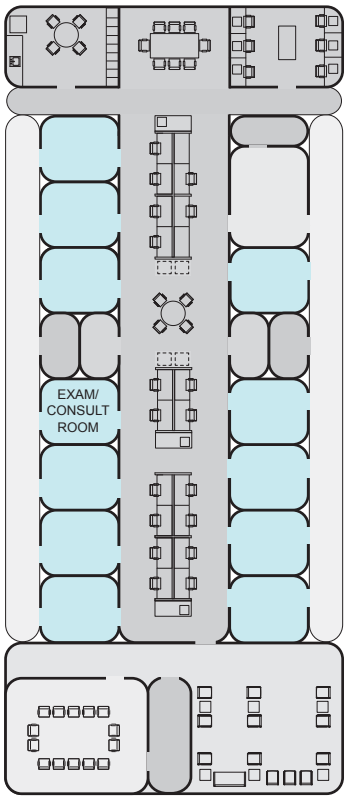

Figure 4.3-10
Consultation Room PACT Space Module Layout

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.4B Patient Care Room, Consultation Function (“Consultation Room”)

Figure 4.3-11
Consultation Room Rendering

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.4B Patient Care Room, Consultation Function (“Consultation Room”)

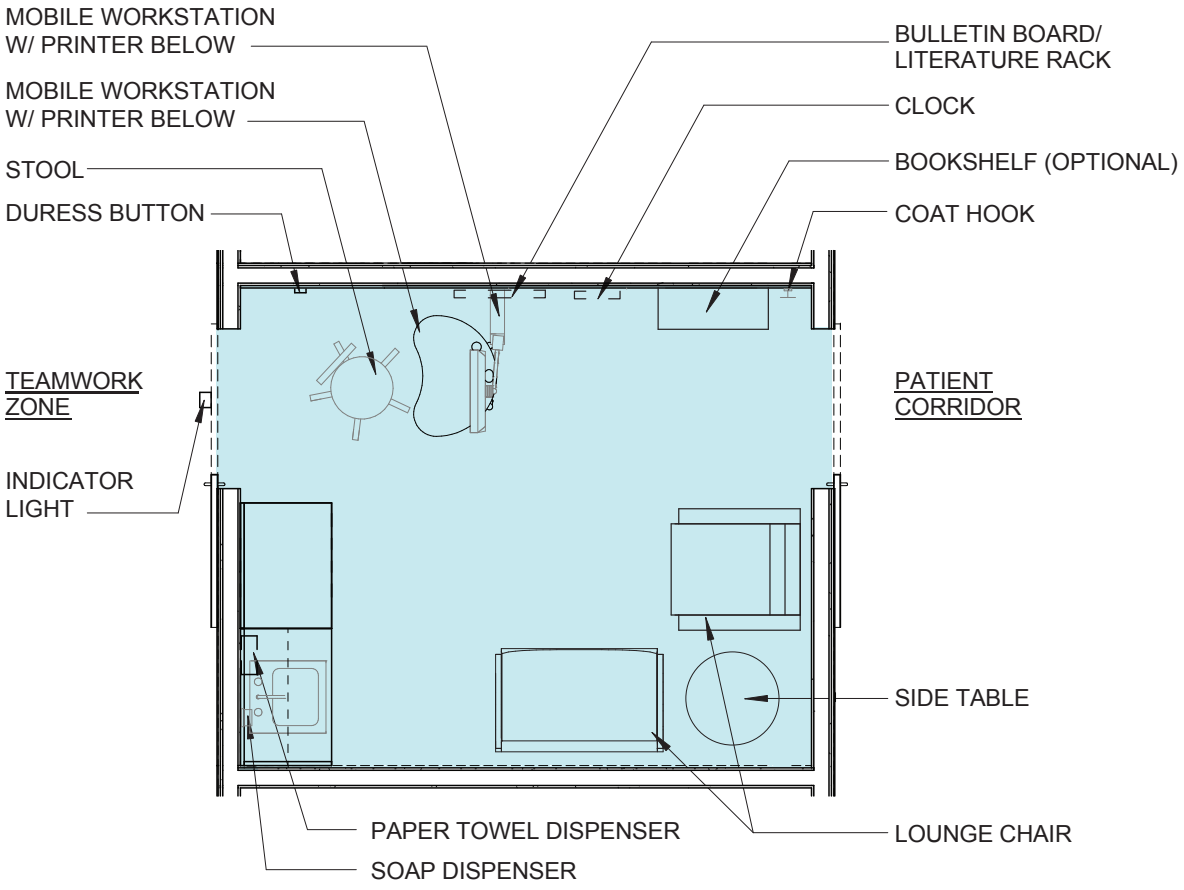

Figure 4.3-12
Example of a Consultation Room
Floor Plan Located in Module

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.4C Patient Care Room, Procedure Function ("Procedure Room")

Each PACT Space Module is allocated one Procedure Room with in-suite toilet. The Procedure Room is utilized for many patient care activities. These may include GYN procedures, bariatric patient visits, and other uses including regular exam visits.

For more information on Patient Care Support Components, see Section 4.4.

Procedure Room: Design Objectives

- Design procedure rooms at 180 sq. ft.
- Provide one Procedure Room in each PACT module.
- Locate a dedicated patient toilet accessed directly from the Procedure Room at approximately 60 sq. ft.
- Equip Procedure Room with overhead lift equipment.
- Develop an acoustic design that includes finishes, furniture systems, and sound masking technologies.

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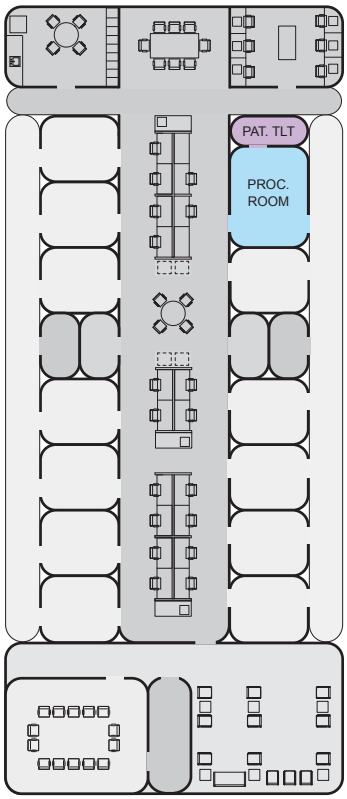

Figure 4.3-13
Procedure Room PACT Space Module Layout

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.4C Patient Care Room, Procedure Function (“Procedure Room”)

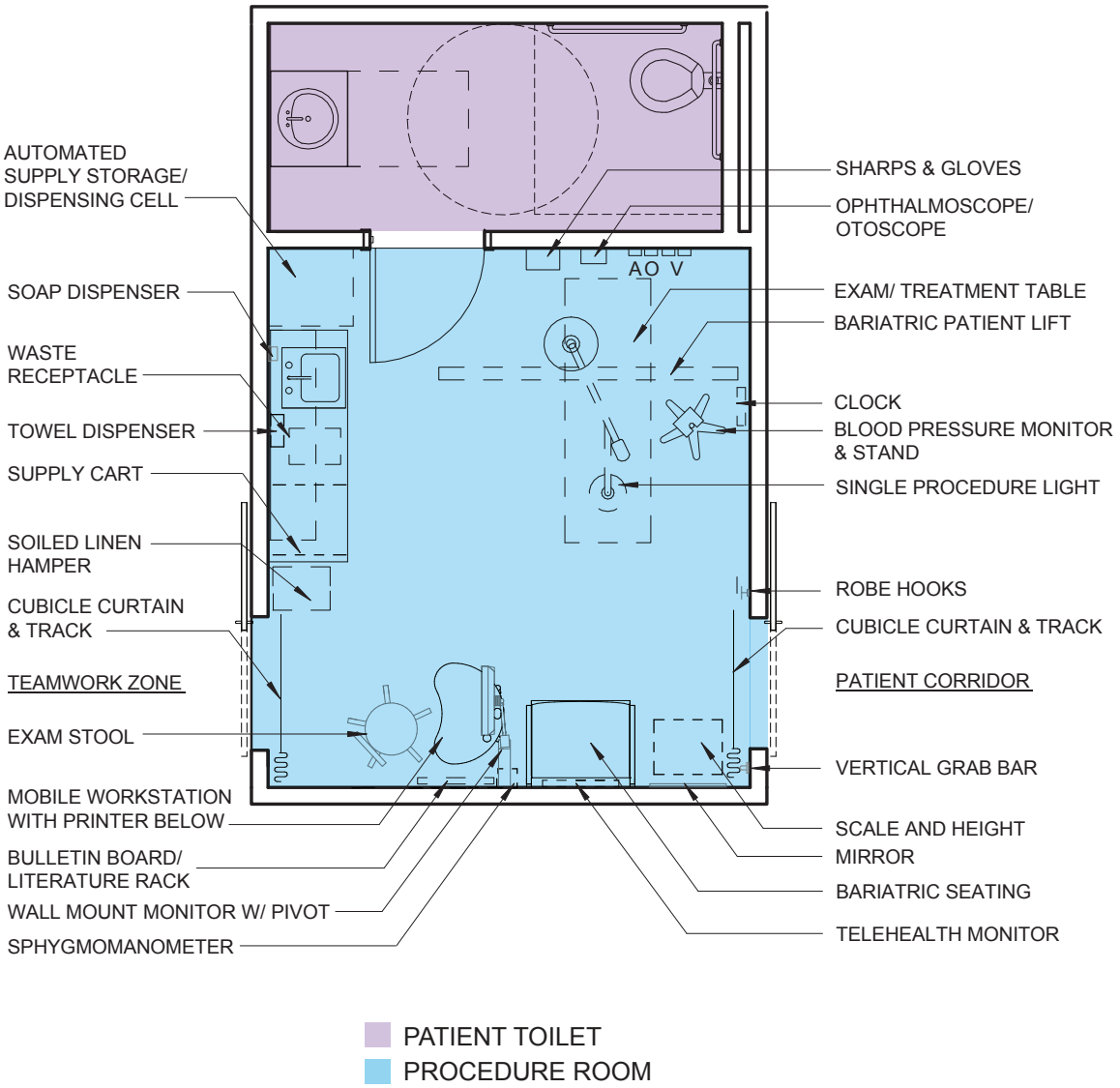

Figure 4.3-14
Example of a Procedure Room Floor Plan

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.5 Group Care Rooms

Each PACT Space Module is allocated one Group Care Room (Figure 4.3-18). Group Care Rooms of multiple size and configuration allow for flexibility and support the integration of mental health into primary care. These rooms provide space where groups of veterans and families can be scheduled for multiple forms of Group Care including shared medical appointments (SMA). Group Care Rooms (across an entire clinical floor) are ideally located near the front of the modules along the patient transition area. This will shorten travel distances for a large influx of Veterans and their families and minimize disruption of the clinic flow. Storage is provided for furniture, mobile carts with materials, and equipment to maximize flexibility. Computer workstations are provided for virtual care and telehealth capability.

Group Care Rooms: Design Objectives

- Provide storage capacity for educational supplies and furnish rooms with movable stackable furniture to facilitate multiple group configurations.
- Locate Group Care Rooms along the Patient Transition Area.
- Provide an exam room in close proximity.
- Provide connectivity for computer workstations and telehealth as needed.
- Consider providing an acoustically appropriate room divider to allow a subdivision for smaller group use.

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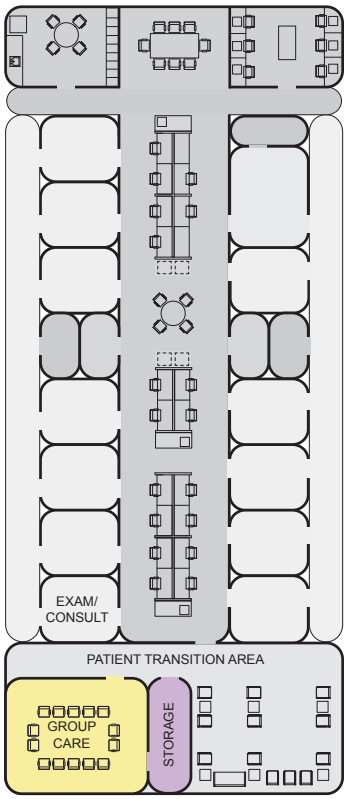

Figure 4.3-15
Group Care Room PACT Space Module Layout

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.5 Group Care Rooms

Figure 4.3-16
Photo of a Group Care Room

Figure 4.3-17
Photo of a Group Care Room

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.5 Group Care Rooms

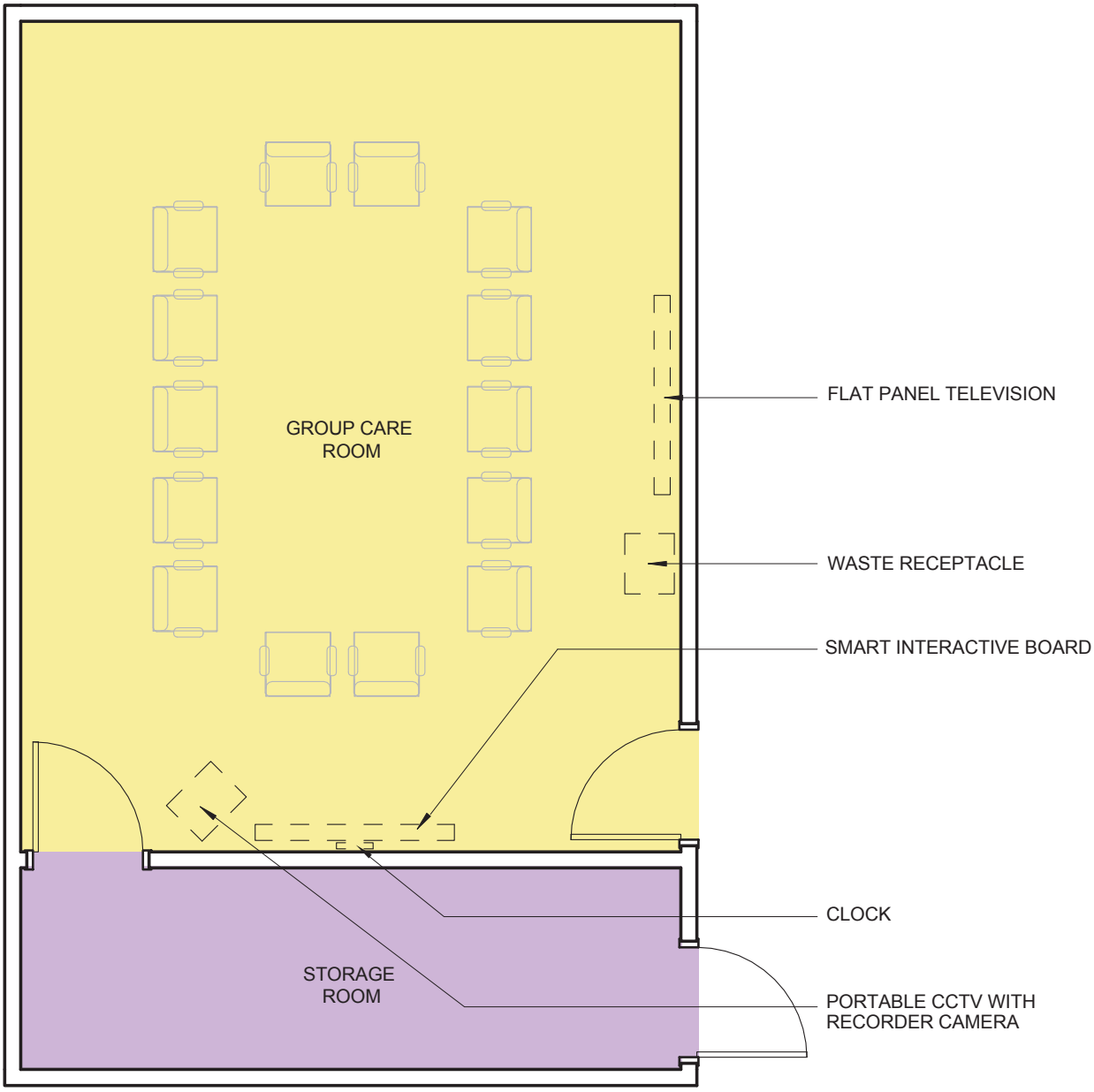

Figure 4.3-18
Example of a Group Care Room Floor Plan

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.6 Teamwork Zone

The Teamwork Zone (or 'Off-stage' zone) is a collaborative work environment for members of the teamlet as well as extended care team. In the PACT module, the Teamwork Zone (approximately 18 feet wide) is flanked by dual-entry Exam and Procedure Rooms, giving staff a dedicated entrance into these spaces.

The Teamwork Zone supports individual teamlet workstations, promotes ready-access of supplies, equipment, and medication, reducing staff travel distances. The open environment supports consultation and issue resolution with other care providers in real time (Figure 4.3-23). Each member of the teamlet has their own workstation, which includes a computer, phone, and personal storage space. Other team members who may be assigned to multiple PACT teams can utilize touchdown work areas, placing care team members in close proximity to the patient. Locating supplies in close proximity to the point-of-use maximizes efficiency. Access to views and daylight is an essential feature to the Teamwork Zone (Figure 4.3-22) .

For more information on Teamwork Support Zone Components see Section 4.3.8. For more information on Collaborative Work Environments see Section 4.2.

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Teamwork Zone: Design Objectives

- Create Teamwork Zones that are a minimum of 18 feet wide.
- Develop an acoustic design that includes finishes, furniture systems, and sound masking technologies.
- Provide individual workstations for all teamlet members and extended team members consistent with local staffing and operational plans. Assure Teamwork Zone is maximally responsive and reconfigurable in the event of staffing or process changes.
- Develop ergonomic furniture solutions that promote both team collaboration and individual work.
- Provide direct access to natural light.
- Consider maintaining visual connection to patient transition area and reception for patient observation.

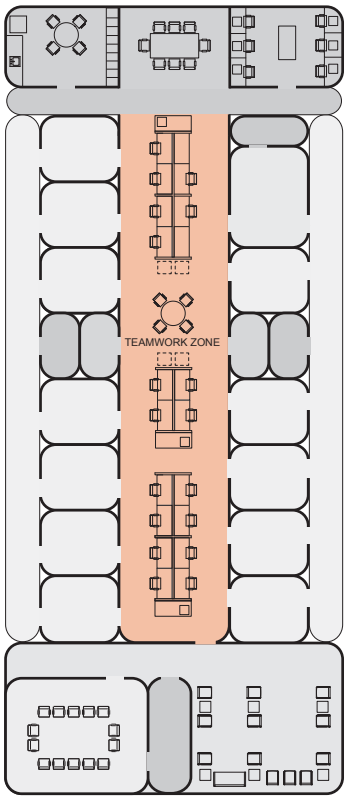

Figure 4.3-19
Teamwork Zone PACT Space Module Layout

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.6 Teamwork Zone

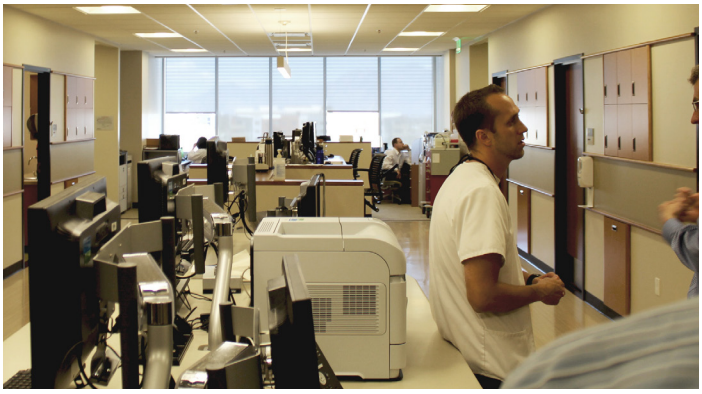

Figure 4.3-20
Photo of a Teamwork Zone Daylighting
*Image from University of Utah Healthcare
- South Jordan Health Center

Figure 4.3-21
Photo of a Teamwork Zone Daylighting
*Image from University of Utah Healthcare
- South Jordan Health Center

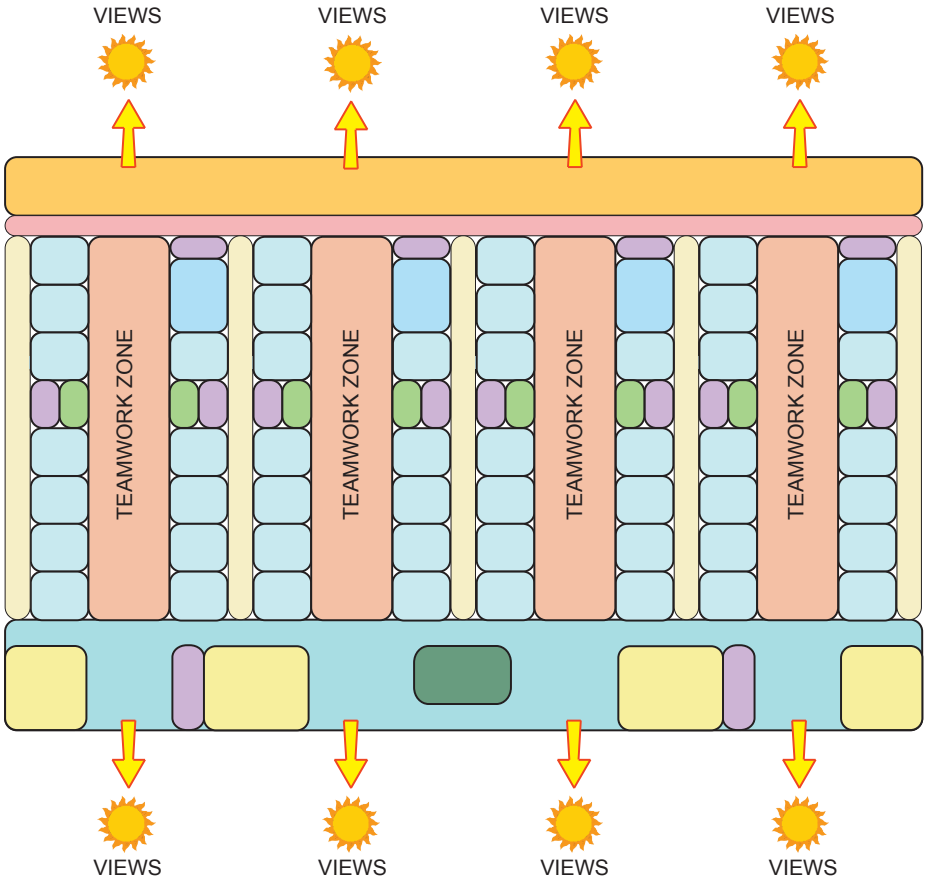

Figure 4.3-22
Views and Daylight for Staff Spaces

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.6 Teamwork Zone

Figure 4.3-23
Teamwork Zone Rendering

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.7 Core Supplies

Core Supplies are positioned within the Teamwork Zone to maximize availability of quick turnover supplies, equipment, and medications and reduce staff walking distances (Figure 4.3-25 - 27). The majority of quick turnover supplies needed are kept in each Patient Care Room. Alternative and infrequently used supplies, specialty carts, and equipment are kept in this centralized area. These supplies can be customized depending on the clinic specialty. Equipment such as EKG machines and ultrasound machines are also parked in this area for easy access by all PACT team members. Medication is stored and prepared in the Medication room, which may be a separate room or set up in an alcove.

For more information on PACT Space Module Support Components see Section 4.4.

Core Supplies: Design Objectives

- Decentralize the Core Supplies in the Teamwork Zone.
- Determine the type of supplies and the storage system (fixed shelving or an automated supply system such as Omni Cell or Pyxis) based on specific facility needs.
- Provide a sink, computer, under-counter refrigerator with freezer compartment, and an automated medication dispensing unit in the Medication room which may be a separate room or set-up in an alcove.
- Utilize storage systems with low profiles to avoid view obstructions.
- Provide power and data connections in alcoves for equipment and supply storage units.

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Streamline Processes
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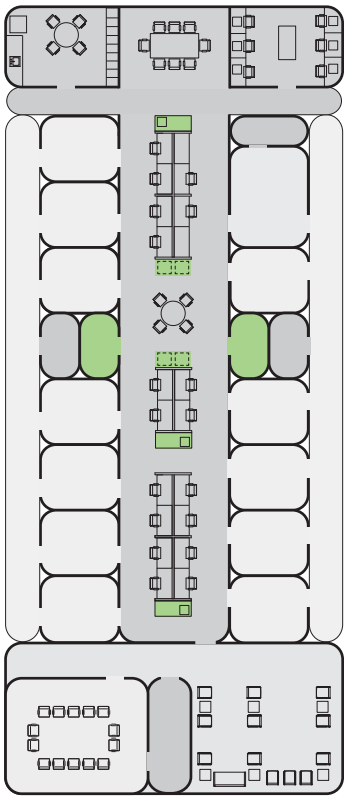

Figure 4.3-24
Core Supplies PACT Space Module Layout

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.7 Core Supplies

Figure 4.3-25
Photo of a Medication Room
*Courtesy of CollinsWoerman Architects

Figure 4.3-26
Photo of Core Supplies
*Courtesy of CollinsWoerman Architects

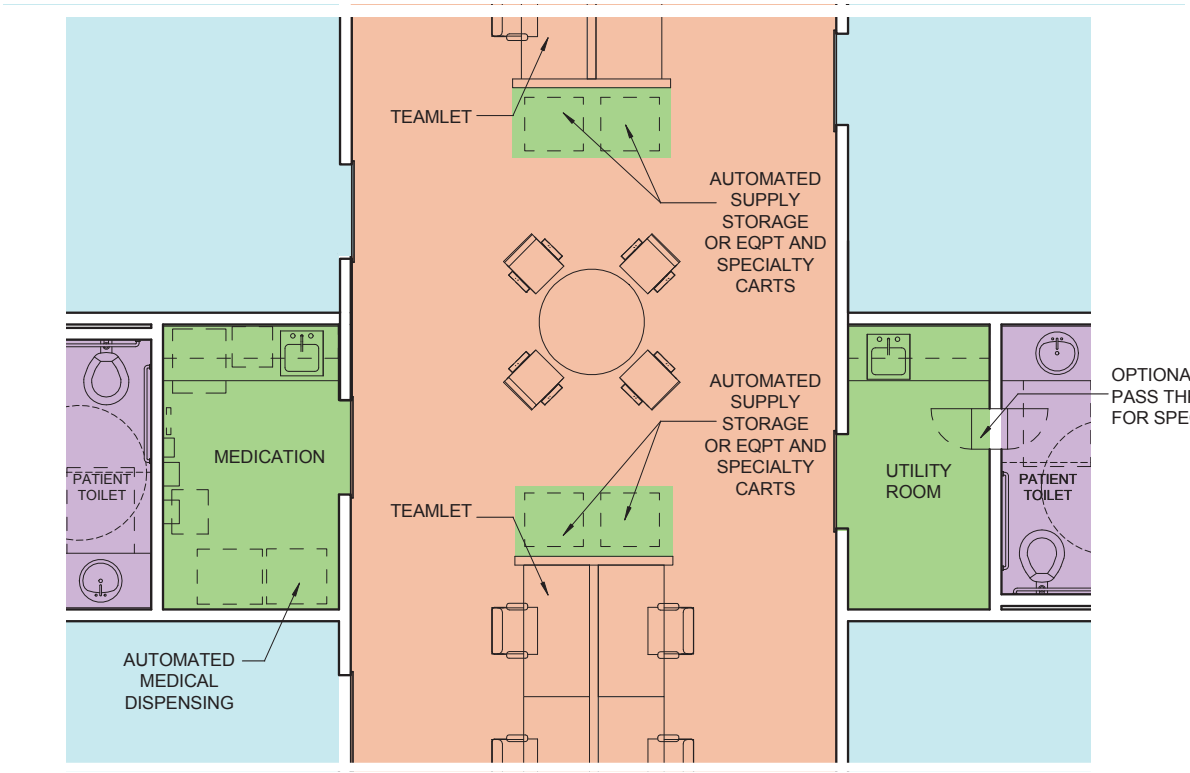

Figure 4.3-27
Enlarged Floor Plan of Core Supplies

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Core Components

4.3.8 Teamwork Support Zone

The Teamwork Support Zone is an area located adjacent and connected to the Teamwork Zone. This zone is utilized as a backstage area for staff and also serves as the spine that connects the Teamwork Zones of multiple PACT Space Modules on a floor. In addition, it provides the connection to service and supply flows. Different types of staff spaces support different types of work throughout the Teamwork Support Zone - from group collaboration to private quiet work areas (Figure 4.3-30).

Demountable or easily moved partitions can enhance future adaptability of the Teamwork Support Zone in lieu of standard drywall/stud partition systems. Additionally, building functions such as electrical rooms, data rooms, supply/staff elevators, and equipment and supply rooms are located in this zone.

For more information on Teamwork Zone and Support Components see Section 4.4.

For more special considerations related to demountable partitions see Section 5.

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Streamline Processes
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Teamwork Support Zone: Design Objectives

- Provide area for team collaboration and individual work in the Teamwork Support Zone.
- Locate electrical rooms, data rooms, supply/staff elevators, equipment and supply rooms, utility shafts, and stairs in this zone.
- Develop an acoustic design that includes finishes, furniture systems, and sound masking technologies.

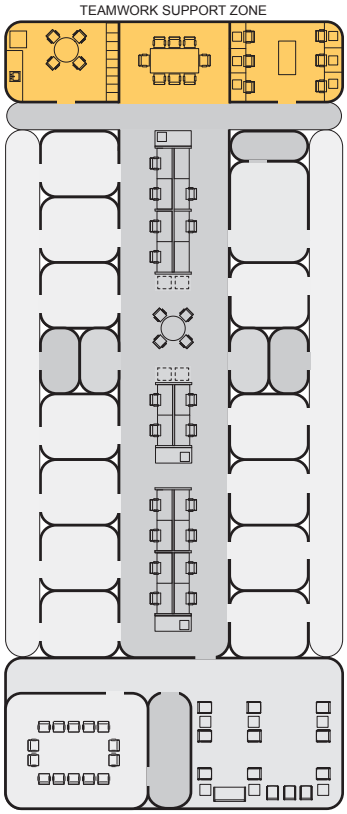


Figure 4.3-28
Teamwork Support Zone PACT Space Module Layout

4.0 PLANNING AND DESIGN

4.3 PACT Space Module Components

4.3.8 Teamwork Support Zone

Figure 4.3-29
*Photo of a Teamwork Support Zone
*Image from Group Health Puyallup Medical Center

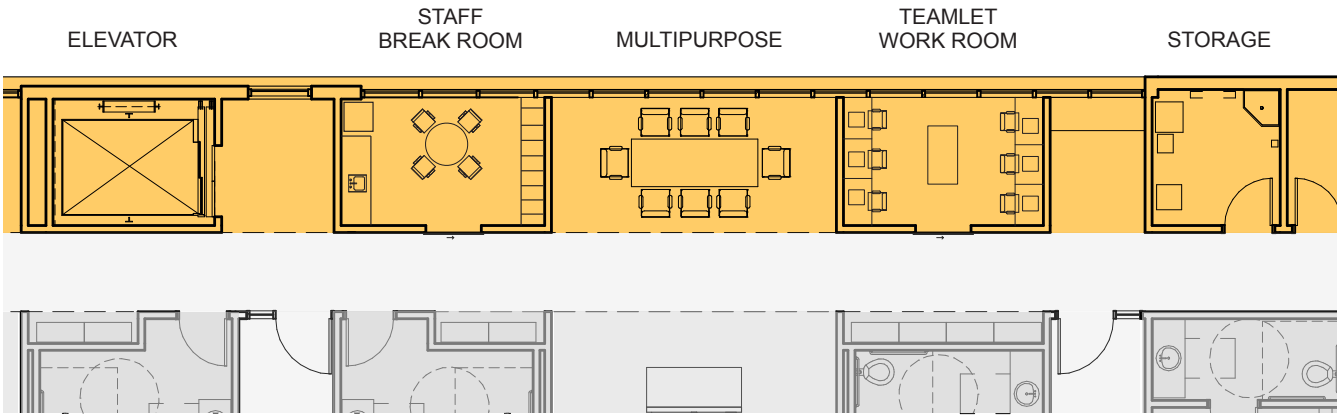


Figure 4.3-30
Example of a Teamwork Support Zone

4.0 PLANNING AND DESIGN

4.4 PACT Space Module Support Components

Introduction:

The PACT Space Module Support Components are spaces that may or may not be provided for every PACT Space Module, but are nonetheless important to the operational success of the PACT approach.

Figure 4.4-1
Reception/Greeting/Check-In Kiosk Rendering

4.0 PLANNING AND DESIGN

4.4 PACT Space Module Support Components

Public Areas

Reception/Greeting/Check-In

In the Integrated Clinic, Reception/Greeting/Check-in can occur at multiple locations in the building. These may be **centralized** in the building entrance lobby, **decentralized** per floor or wing of building, **distributed** per PACT Space Module, or shared between two PACT Space Modules. Figure 4.4-2 represents these locations.

The design may be required to support multiple registration scenarios. The veterans may register by phone, secured electronic messaging, or on-site. Veterans may be directed to a nearby kiosk to complete registration activities. Kiosks should be strategically placed to encourage independent and staff supported use by veterans (Figure 4.4-1).

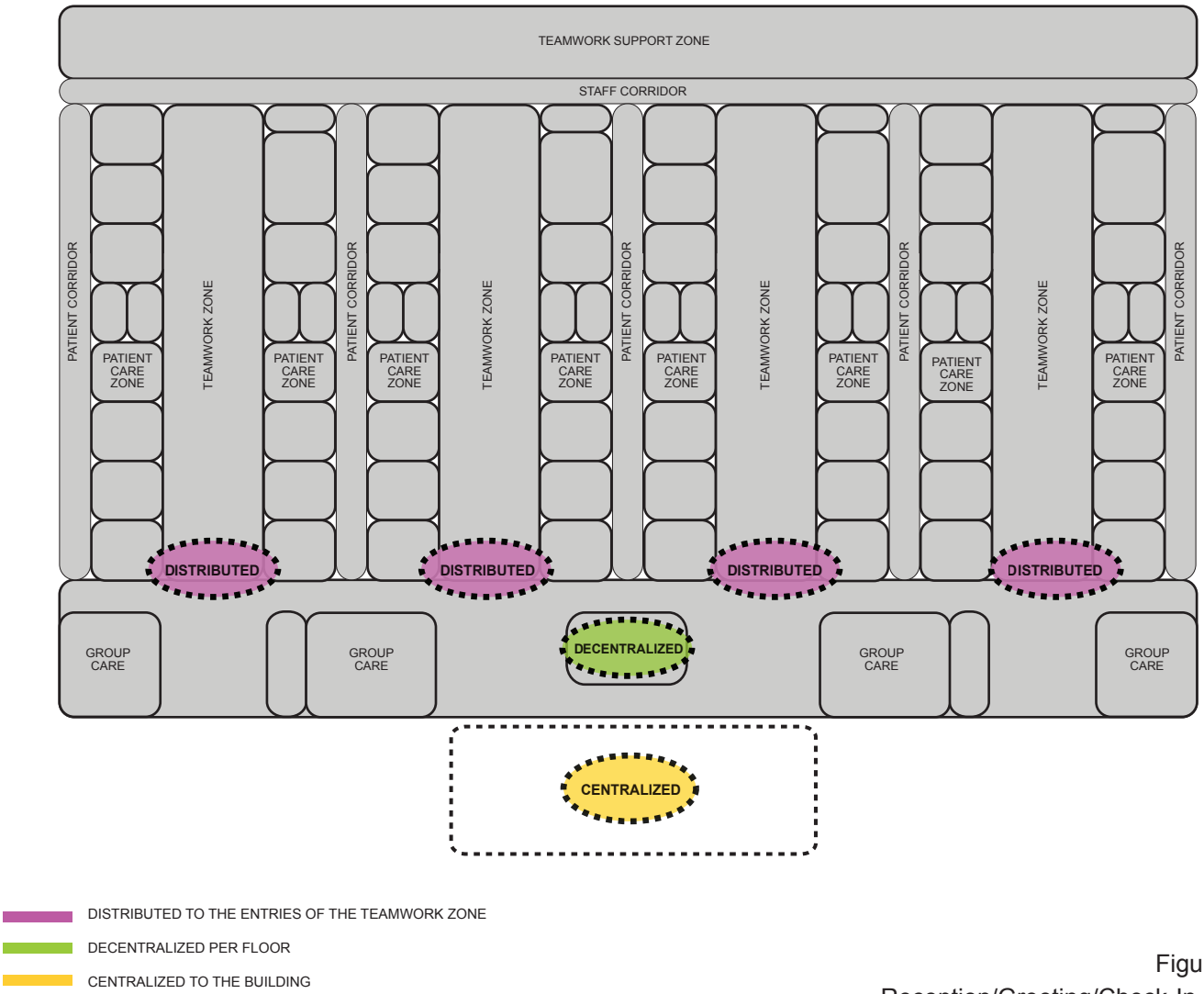


Figure 4.4-2
Reception/Greeting/Check-In Options

4.0 PLANNING AND DESIGN

4.4 PACT Space Module Support Components

Public Areas

General Seating Areas

A patient-centered environment should facilitate a "no-wait" clinic whenever possible. Veterans are roomed as they arrive for their appointments, reducing the demand for waiting area space.

- Provide opportunities for "active waiting," such as patient education materials or a computer workstation offering opportunities to engage in group or self-directed education for those that do wait.
- Provide a Clinic/Building waiting area for veterans awaiting transportation and those that arrive early for an appointment.
- Promote a calming environment in the waiting room to welcome veterans and families.
- Provide smaller Family Waiting Areas adjacent to the PACT Space Module main waiting areas.
- Consider wall-mounted, cleanable patient education activities for children.
- Provide seating arrangements that accommodate private seating for individuals and group seating for families.
- All waiting areas should have access to natural light and views.

Patient Education Workstation

- Provide a Patient Education Workstation near the reception area to promote "active" patient waiting/education.
- Include connectivity for a computer, printer, and printed resource materials adjacent to the Workstation.

Public Toilets

- Allocate public toilets based on clinic size and patient volume.
- Provide family assist toilet rooms.

Figure 4.4-3
Example of a Main Lobby/Waiting
*Courtesy of CannonDesign

Figure 4.4-4
Example of a Main Lobby/Waiting
*Courtesy of CollinsWoerman Architects

4.0 PLANNING AND DESIGN

4.4 PACT Space Module Support Components

Patient Care Areas

Accessible Height/ Weight Station

- Provide Weight Station for wheelchair and scooter patients.
- Locate to be accessible to one or more PACT Space Modules (see Figure 4.4-5).

Women's Health Exam

- Women's Health can utilize the Procedure Room with dedicated toilet room provided in a standard PACT module.
- Utilize three exam room units to create two Women's Health Exam Rooms with dedicated toilets (see Figure 4.4-6).

Patient Toilet

- Provide up to two accessible Toilet Rooms in each PACT Module.
- Provide a specimen pass-through (optional) to the Utility Room in the PACT Space Module Supply Core (see Figure 4.3-27).

Figure 4.4-5
Photo of an Accessible Height/ Weight Station

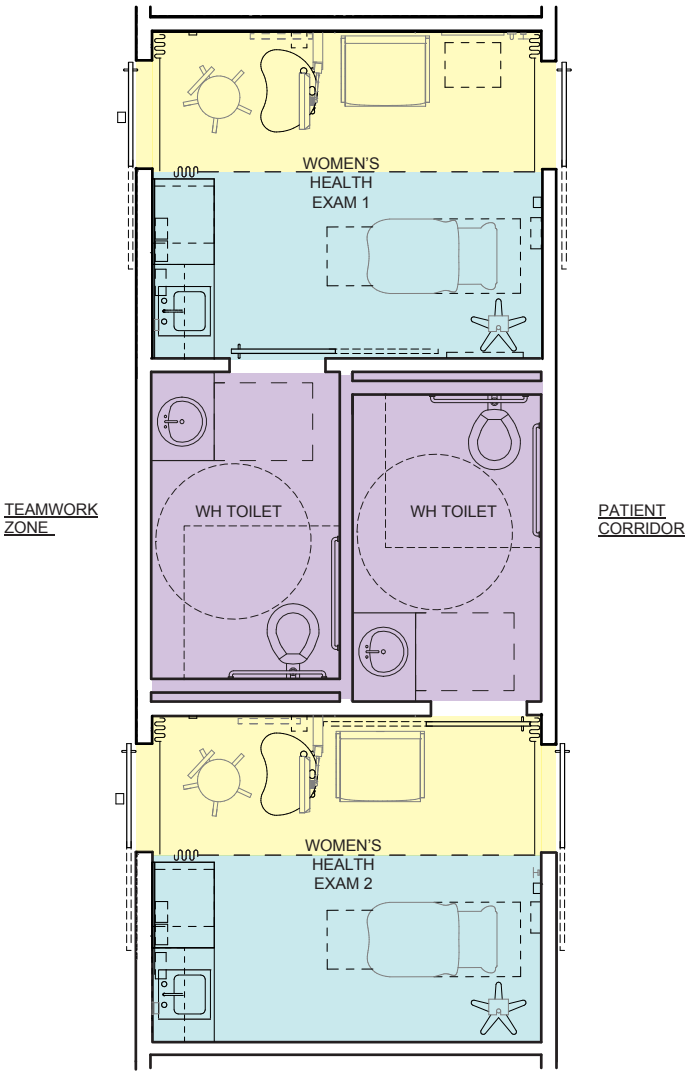


Figure 4.4-6
Women's Health Exam - Two Room Option

4.0 PLANNING AND DESIGN

4.4 PACT Space Module Support Components

Teamwork Areas

Conference/Multi-purpose Room

— Provide a multi-purpose team/conference space per PACT Space Module. Locate the Conference Room in the Teamwork Support Zone.

Staff Break Room

— Provide staff break room for each PACT Space Module. Depending on clinic size, there may be an opportunity to centralize this function for each clinic floor.

Staff Lockers

— Provide Staff Lockers for each PACT Space Module. These may be centralized on a floor and/or located in the Staff Break Room.

Staff Toilet

— Provide a Staff Toilet for each PACT Space Module.

Support Areas

Clean Utility

— Provide a Clean Utility to support multiple PACT Space Modules for holding less frequently used supplies and reserve stock.

— This can be located in the Teamwork Support Zone.

Soiled Holding

— One Soiled Holding is provided in each PACT Space Module.

— Many sites are opting to not store waste on their clinic care units and instead remove waste completely from the care units to a central waste/soiled holding.

Equipment Storage

— Provide Equipment Storage to support multiple PACT Space Modules for holding less frequently used equipment and supplies.

— This can be located in the Teamwork Support Zone.

Elevator

— If required in a multi-story clinic configuration, provide a Service/Staff Elevator separate from the Public Elevator. This elevator may be located in the Teamwork Support Zone to support operational efficiency and separate the flow of supplies/staff from the public. This allows a direct route for supplies and staff from areas such as Logistics and EMS. In addition, this elevator provides a private and direct route for ambulance access.

Pneumatic Tube

— If a Pneumatic Tube is used it may be located in the Supply Core of the Teamwork Zone. This will support operational efficiency between the PACT Space Module and support areas such as Lab, Pharmacy, and Logistics.

4.0 PLANNING AND DESIGN

4.5 Approach to Renovation

This design guide has outlined the ideal module to integrate the operational goals of PACT into the architecture of a building. However, the ideal state might not always be achievable, especially in a renovation or remodeling project.

If the architectural barriers of a remodel of an existing facility make the full PACT Space Module unobtainable, it is important to understand where facilities should place their priorities in terms of the strategies and components outlined in this guide.

This section serves as a priority road map for moving forward in supporting the guiding principles of PACT — Patient-Centered Care, Coordination of Care, and Access to Care in an existing facility. While all of the operational goals identified in Section 3.1 are important, the following four goals are key and should be considered in the order they are presented. For example, the very first priority of any renovation work should be to "Bring the Care to the Patient." Related design considerations are listed for each priority.

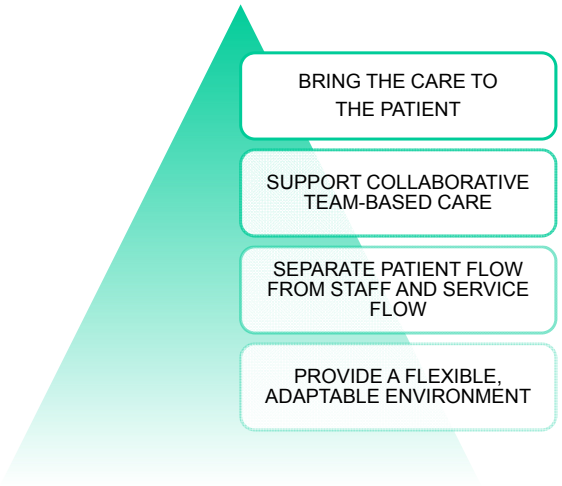


Figure 4.5-1
Diagram of Renovation Priorities

1. Bring the care to the patient.

- Provide the appropriate number of Patient Care Rooms per teamlet so there is no back log and limited waiting.
- Institute operational processes that bring all members of the care team to the Veteran with adequate resources so the veteran does not have to make repeat appointments or move around to multiple locations.

2. Support collaborative team-based care.

- Provide space for the teamlet and the extended care team to come together.
- Replace private offices with a collaborative working environment.
- Support team-based care through the arrangement of team workstations in close proximity to Patient Care Rooms.
- Develop an acoustic design that includes finishes, furniture systems, and sound masking technologies.

3. Separate patient flow from staff and service flow.

- Establish a dual corridor system or another means of separation for Veterans and family flows from staff and supply circulation.
- Design patient flows that enhance wayfinding and privacy and reduce anxiety.

4. Provide a flexible, adaptable environment.

- Providing universal care rooms that enable standardized care and are laid out in a repetitive module.
- Arrange rooms within a module that is flexible and adaptable for a system in evolution.

U.S. Department of Veterans Affairs

Office of Construction & Facilities Management

5.0 SPECIAL CONSIDERATIONS

PACT SPACE MODULE

PATIENT ALIGNED CARE TEAM

5.0 SPECIAL CONSIDERATIONS

5.1 Interiors and Finishes

5.1.1 Interior Finishes: Color, Texture, and Pattern

Refer to VA Standard PG-18-14 for specific details relating to Interior Finishes.

5.1.2 Wayfinding

Refer to VA Standard PG-18-10 for specific details relating to Signage and Wayfinding.

The simplicity and modularity of the PACT Space Module reinforces wayfinding clarity for veterans, visitors, and staff. The dual corridor system functions to separate "on-stage" and "off-stage" functions and provides easy, and apparent choices for the path of travel for veterans and visitors to and from the Exam and Patient Care Consult Rooms. To reinforce the design as a critical component in the wayfinding system it is important to highlight specific elements of the design such as the entry to the Patient Corridor. Creating a highly recognizable "portal" at the entry to the Patient Corridor utilizing the architectural design, and including the use of signage, and the appropriate selection of materials, colors, texture, and patterns serves to establish a highly patient centered approach to wayfinding.

Signage design and location at the portal should take into consideration the acute angles at which the public will view the portals along the linear Patient Transition Zone, and be positioned at close to right angles to the path of travel. The location of windows providing natural daylighting and the positioning of artificial lighting should be studied to eliminate glare and to add the readability of the signage at the "portal". The portal design should also support veterans exiting Patient Care Rooms and returning to the Patient Transition Zone.

Consider simple, clear designations for Patient Corridor "portals" (for example using alpha characters) and for patient care rooms (for example using numeric characters). This provides the opportunity to establish a more simplistic room naming convention (such as corridor/portal "D", Exam Room "4", ie D-4) for the Veteran and/or family member to be looking for.

The walls at the front of the module's Teamwork Zone, adjacent to the Patient Transition Area, can also be incorporated into the wayfinding system. These walls can be solid and opaque incorporating finishes to enhance the wayfinding system or these walls can incorporate glazing (translucent and/or one-way) with design motifs (patterns, graphics, etc.) to support wayfinding.

Figure 5.1-1
Photo of Entrance Portal
*Courtesy of CollinsWoerman Architects

5.0 SPECIAL CONSIDERATIONS

5.1 Interiors and Finishes

5.1.3 Sliding Door and Hardware

A. *Sliding Doors:*
- The entry door into the patient care rooms is an assembly comprised of the door, the door frame and the door hardware.
- Door: Surface mounted sliding doors provide an improved solution to the entry door. A key improvement is the space gained within the room, a result of the door sliding on the outside of the room demising wall and not swinging into the room. This also aids in the positioning of privacy curtains within the room as the curtain track can be located adjacent to the inside of the room wall; the curtain track does not protrude into the room to accommodate the arc of a swinging door.
- Acoustics: Doors should be specified as solid core wood with side and top sweeps, and acoustical bottom seal. This will enhance the acoustical performance of the door assembly.
- Door Size: Provide a minimum 42” clear opening.

Figure 5.1-2
Photo of Sliding Door
*Courtesy of CollinsWoerman Architects

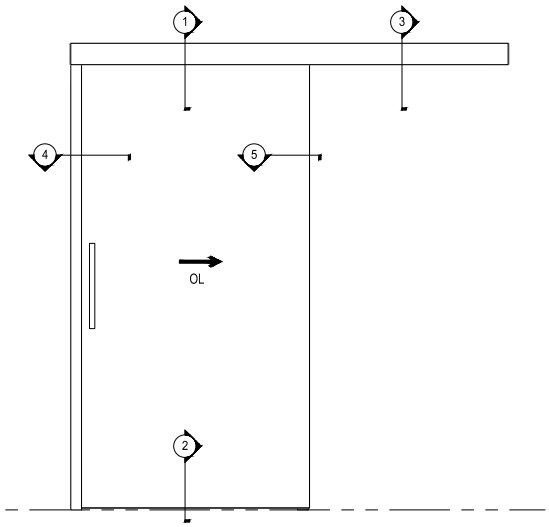
B. *Hardware:*
- The doors shall be equipped with privacy locks and push/pull handles that comply with accessibility requirements.

C. *Frames:*
- Door frames shall be constructed to wrap the door perimeter to cover the gaps between the edge of the door and the frame to assist in reducing sound transmission.

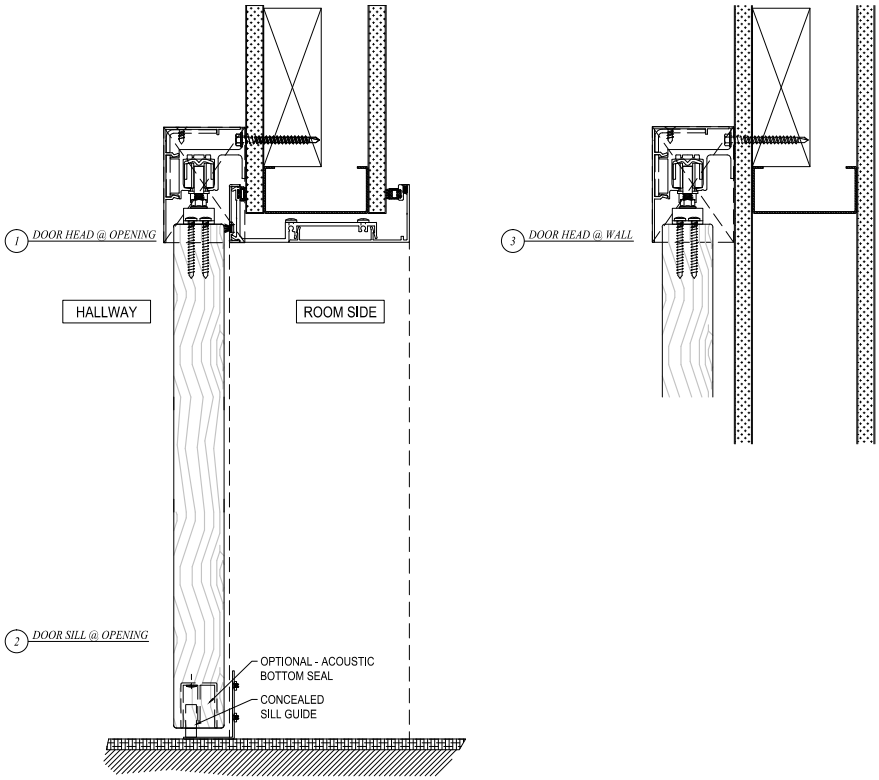
Figure 5.1-3
Photo of Sliding Door
*University of Utah Health System

5.0 SPECIAL CONSIDERATIONS

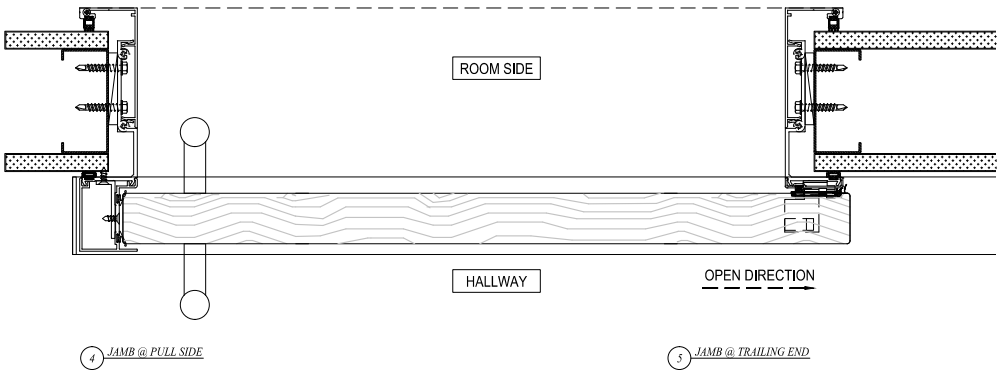
5.1 Interiors and Finishes



Elevation View - Flush Wood Door, Open to Left



Sill and Head Sections - Flush Wood Door



Jamb Section - Flush Wood Door

Figure 5.1-4
Example of Sliding Door Details

5.0 SPECIAL CONSIDERATIONS

5.1 Interiors and Finishes

5.1.4 Security and Safety

A. *PACT Space Module Planning Concept:*

— The separation of patient/public (on-stage) and staff (off-stage) zones is a planning concept that has security and safety inherently built in. The controlled access leading from the patient transition area into the patient corridor enhances both patient and staff security and safety as this restricts unnecessary and errant traffic into the patient care area. The Teamwork Area is also controlled from unnecessary traffic which adds to the personal security and safety of staff and also to the security and safety of patient care related information being accessed and worked on in this area.

- Door Control: Doors leading into Teamwork areas and between the Patient Corridor and Staff Corridor can be controlled utilizing a number of different technologies: cypher locks, card readers among the most common.

B. *Patient Care Rooms:*

— The dual door entry access into the patient care room increases security and safety as two exit routes are provide for staff if a risk event occurs. Duress buttons should also be located in these rooms as required by staff. The duress indicator light will illuminate above the Patient Care Room door and will transmit to a central location such as the Teamwork Area, Reception Check-in, and/or the central Security station.

— Room condition indicator light system: An 'in-use' indicator light system also enhances security and safety by providing a visual indication of the activity in the patient care room. The patient may use the system to indicate that he/she is has completed gowning/ungowning and staff can enter the room. The system can also inform staff working outside of the room which staff member is currently in the room with the patient. The color of light illuminated identifies ether the Provider, Nurse, Health Tech or other staff is with the patient.

C. *Resource Locator Systems:*

— GPS tracking systems can be utilized in the clinic design as a security and safety feature. These systems can assist staff in determining the location of a scheduled patient, equipment, and other flow related resources. These tracking systems can also display on individual workstations and/or on monitors in the Teamwork area.

D. *Glazing:*

— Glazing can be used to increase and enhance security and safety. At the Medication Room, even though located in the Teamwork Zone, glass panel inserts in the wall and/or door allow for visualization into and out of the room. Glass panels in corridor doors allow staff and patients to view whether or not there is activity/traffic on either side of the door.

Room sliding doors, see Figure 4.3-24.

Figure 5.1-5
Photo of One-way Glass from
Teamwork Zone to Patient Transition Area
*Courtesy of CollinsWoerman Architects

5.0 SPECIAL CONSIDERATIONS

5.1 Interiors and Finishes

5.1.5 Patient Care Room Modular Casework

A. *Modular Casework:*
- Modular casework solutions vs built in casework solutions, for Patient Care Rooms for the sink and supply cart area for flexibility in supply strategies and in the use of the room.
- Provides the opportunity for variation in departmental needs such as the size of the mobile cart and/or storage requirements.
- Provides potential flexibility in the location of sink unit (directly adjacent to staff-side door entry or inboard).
- Facilitates adaptability when converting between Exam and Consult Rooms.
- Modular systems incorporate items such as gloves and paper towel dispensers in the upper units which minimizes visual "clutter" and reduces the number of clinical appearing components visible in the room.

Figure 5.1-6
Example of Modular Casework with Mobile Cart Storage

5.1.6 Furniture Systems and Equipment

A. *Teamwork and Teamwork Support Workstations:*
- Furniture systems that provide maximum potential of flexibility and adaptability for the wide range of clinical users, should be considered for the Teamwork workstations. Careful consideration should be given to:
  - Size of individual workstation.
  - Orientation of the individual teamlet workstation "clusters".
  - Number of clustered workstations to best support the Patient Care Rooms.
  - Workstation panels:
    -Provide panels (center spine and sides) of a height that encourages team collaboration while supporting a level of individual auditory privacy.
    -Utilize glazing in panels to allow natural light to penetrate throughout the space and maintain visual contact between teamlet and extended team members.
    -Utilize panels with material finishes the enhance acoustical performance of the Teamwork spaces.
  - Use of powered, height adjustable workstations.
  - Provide a monitor support bracket that positions that monitor to allow for full use of the work surface.
  - Provide lockable storage for personal items.

B. *Core Supplies:*
- Consider height of any items, equipment, or furniture located within the Teamwork Zone to be low in height to allow daylight to filter into as much as possible and that does not to serve to block visualization within the space.

5.0 SPECIAL CONSIDERATIONS

5.1 Interiors and Finishes

C. Public Waiting:

— Consider use of furniture and furniture systems that provide maximum potential for flexibility and adaptability for the wide range of users. Give careful consideration to:

- A variety of seating types
  -Individual and group settings
  -Standard seats; seating for bariatric patients; seating for patients having hip-impairments or other skeletal conditions.
- Locations of monitors for viewing education, general information.

Figure 5.1-7
Photo of Public Waiting
*Courtesy of CollinsWoerman Architects

5.1.7 Wall Systems

A. Modular Wall System:

— Modular wall systems provide considerable flexibility and adaptability and may be a viable alternative to the use of metal stud and drywall wall systems in the Teamwork Area and the Teamwork Support Area. Modular Wall Systems have the potential to reduce the construction period vs traditional metal stud and drywall systems while providing a high quality of workmanship due to factory produced components

— Some benefits of modular wall systems are:

- Ability to reconfigure spaces with a minimal amount of construction;
- housing of electrical and communication systems allowing changes in the need or requirement of a space can be more readily accommodated;
- support of wall mounted equipment and furnishings that can readily be moved or modified and are not constructed into the wall;

— Modular wall systems are offered with a wide variety of options, some of which include:

- incorporation of glass to allow vision as well as natural light; glass panels in wall systems may include full wall panels to partial wall panels depending on the visibility desired for the specific spaces being enclosed;
- surfaces of modular wall panels range from hard surfaces, to soft tackable surfaces to surfaces that incorporate writing surfaces;
- door options: doors may be swing or sliding and may be opaque, translucent or full vision glass;

— Modular Walls at Exam and Consult Rooms: Modular wall systems may be considered for use at patient care rooms provided acoustical performance is not compromised. VA standards call for an STC rating of 40 at patient care rooms; this standard must be met when considering the use of modular wall systems.

Figure 5.1-8
Example of Modular Wall System

5.0 SPECIAL CONSIDERATIONS

5.1 Interiors and Finishes

5.1.8 Daylight and Artificial Lighting

A. *Daylight:*

— PACT patient care delivery emphasizes the need for and benefits of natural lighting throughout a facility. Incorporating natural light into as many spaces as practicable is desired with a particular emphasis on the Consultation Rooms, Teamwork Area, Teamwork Support Area, and Corridors.

— Natural light has a significant impact on the mental and emotional well-being of patients and staff and greatly enhances the day-to-day experience for all users of a facility. The ability of users in a facility to have views to the outdoors or experience daylight coming into a room/space is calming, relaxing and assists in reducing stress and anxiety. Daylighting is a major element in a comprehensive Wayfinding System as noted in Section 5.1.4 (Reference PG-18-XX for additional requirements for a VA Wayfinding System).

— Specific applications for interior glazing that will assist in adding to the benefit of daylighting in a facility:

- Use of glazing panels (adjacent to the door or in a clerestory location figure 4-3.12) in Consultation Rooms where the use of such panels, when balanced with the need for privacy, will provide the opportunity of additional natural light harvested from an adjacent space. In addition, the use of glazing panels will serve to provide a sense of a space being larger than it's actual size.
- Where an enclosed space is required in the Teamwork Support Area the incorporation of glazing in the demising wall separating the Staff Corridor will add daylight to the corridor and give the sense of added volume to both

B. *Artificial Lighting:*

— Artificial lighting levels and light fixture types should be carefully considered on every facility design project to fully meet general room/space illumination and lighting needs required to carry out specific tasks and patient care. Refer to VA Standard PG-18-10, Electrical Design Manual for further details.

— Consider varying light levels and sources for artificial lighting throughout the PACT Space Module to enhance the user experience. Varying the type of light source, the illumination pattern in individual spaces augmented with dimming or multiple switching patterns can support clear wayfinding, and support general space lighting for cleaning and other overall tasks

Figure 5.1-9
Photo of Daylighting
*Courtesy of CollinsWoerman Architects

5.0 SPECIAL CONSIDERATIONS

5.1 Interiors and Finishes

5.1.9 Acoustics, Noise Control

During initial project planning, consider engaging an acoustical consultant as part of the architect/engineer design team to evaluate sound transmission properties of the concepts and ideas proposed. The acoustical consultant works with the design team to carry ideas forward to detail and specify materials that meet clinic sound isolation goals. The acoustical performance of all Patient Care Rooms is a critical design element for creating calm and quiet care environments, maintaining patient privacy and creating a positive work environment. Every aspect of design should consider acoustic impacts.

Furniture and wall system mock-ups can help demonstrate the acoustical isolation necessary for patient privacy.

Sound masking systems should be considered in the approach to ensure STC ratings are achieved and the rooms functionally operate as planned. Some sound masking systems can serve the dual purpose of overhead paging.

At the Teamwork Zone, consider the use of sound absorbent materials such as carpet, acoustical ceiling tiles, and acoustical wall panels to assist achieve acoustical control. See Figure 5.1-9.

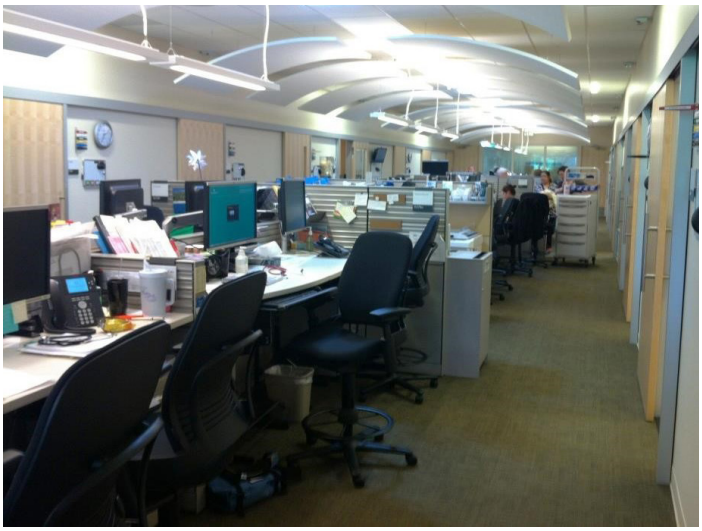


Figure 5.1-10
Absorbent Materials
*Courtesy of CollinsWoerman Architects

Figure 5.1-11
Sound-Proofed Wall and Door System
*Courtesy of CollinsWoerman Architects

5.0 SPECIAL CONSIDERATIONS

5.1 Interiors and Finishes

5.1.10 Evolving Technology

A. Evolving Technology Considerations:

- Provide optimum flexibility for technology and supporting infrastructure.
- Consider using quad electrical outlets in lieu of duplex outlets to avoid the use of strip extension cords.
- At Exam/Consult Rooms, it is highly recommended to utilize personal laptops, tablets, and/or other mobile computer devices allowing staff to move more readily between patient care rooms.
- At Exam/Consult Rooms, it is highly recommended to provide printers at each room to allow printing of patient educational information.
- Consider building-wide Wi-Fi systems for separate public and staff use.
- Consider providing voice/data outlets at marker board locations to accomodate an upgrade to electronic information boards/monitor in the future.

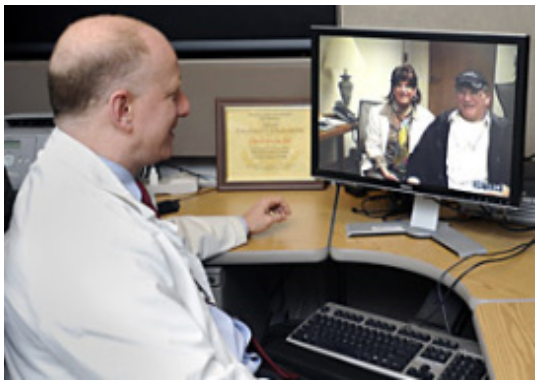


Figure 5.1-11
Telehealth Appointment

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6.0 CASE STUDIES AND BENCHMARKS

PACT SPACE MODULE

PATIENT ALIGNED CARE TEAM

6.0 Case Studies and Benchmarks

6.1 Case Study - VA/DOD Monterey

The VA/DOD Monterey is a 150,000 BGSF three story Community Based Outpatient Clinic (CBOC) and was planned with input from both the VA and the DOD leadership. This clinic is one of the first on the west coast to service both Veteran and Department of Defense patient populations. The clinic was planned prior to the development of the PACT Space Module. The design team was originally directed to support the PACT initiative by providing two offices and two exam rooms directly adjacent to each other for the use of the teamlet. This arrangement provided collaboration for the teamlet but isolated them from other teamlets and extended care providers. The design team attended a PACT workshop and redesigned the clinic floors to represent a PACT Space Module design. Constraints were placed on the team to minimize changes to the shell and core and to not modify the BGSF of the building. Later the developer team participated in a process improvement workshop and the final plan was developed.

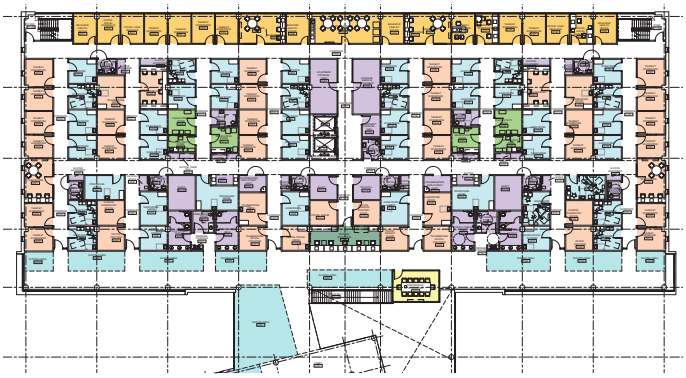

Figure 6.1-1
VA Monterey Pre-PACT

Figure 6.1-2
VA Monterey Floor Plan

6.0 Case Studies and Benchmarks

6.2 Case Study - VA Stockton

The VA Stockton/Livermore is a 158,000 BGSF four story Community Based Outpatient Clinic (CBOC). The clinic was planned prior to the development of a PACT Space Module. The design team attended a PACT workshop and attempted to redesign the clinic floor to represent a PACT Space Module design. Constraints were placed on the team to minimize changes to the shell and core and to not modify the BGSF of the building. Figure 6.2-2 represents a preliminary test fit and is the most recent reiteration. Expected construction start date is 2017.

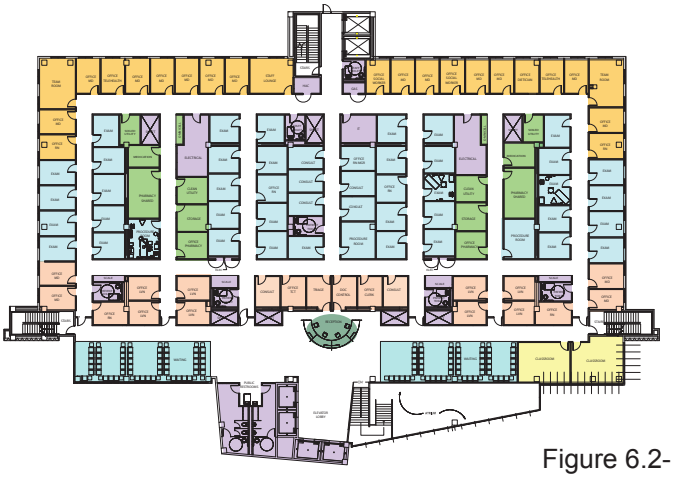

Figure 6.2-1
VA Stockton Pre-PACT

Figure 6.2-2
VA Stockton PACT Test Fit

6.0 Case Studies and Benchmarks

6.3 Case Study - VA San Jose

The VA San Jose is a 94,781 BGSF three story Community Based Outpatient Clinic (CBOC) and was planned with input from the VA leadership and the end users. The clinic was designed with the PACT module as a core design feature. The building provides ancillary services on the ground floor and two floors of primary Care and specialty care clinics which all utilize the PACT Module.

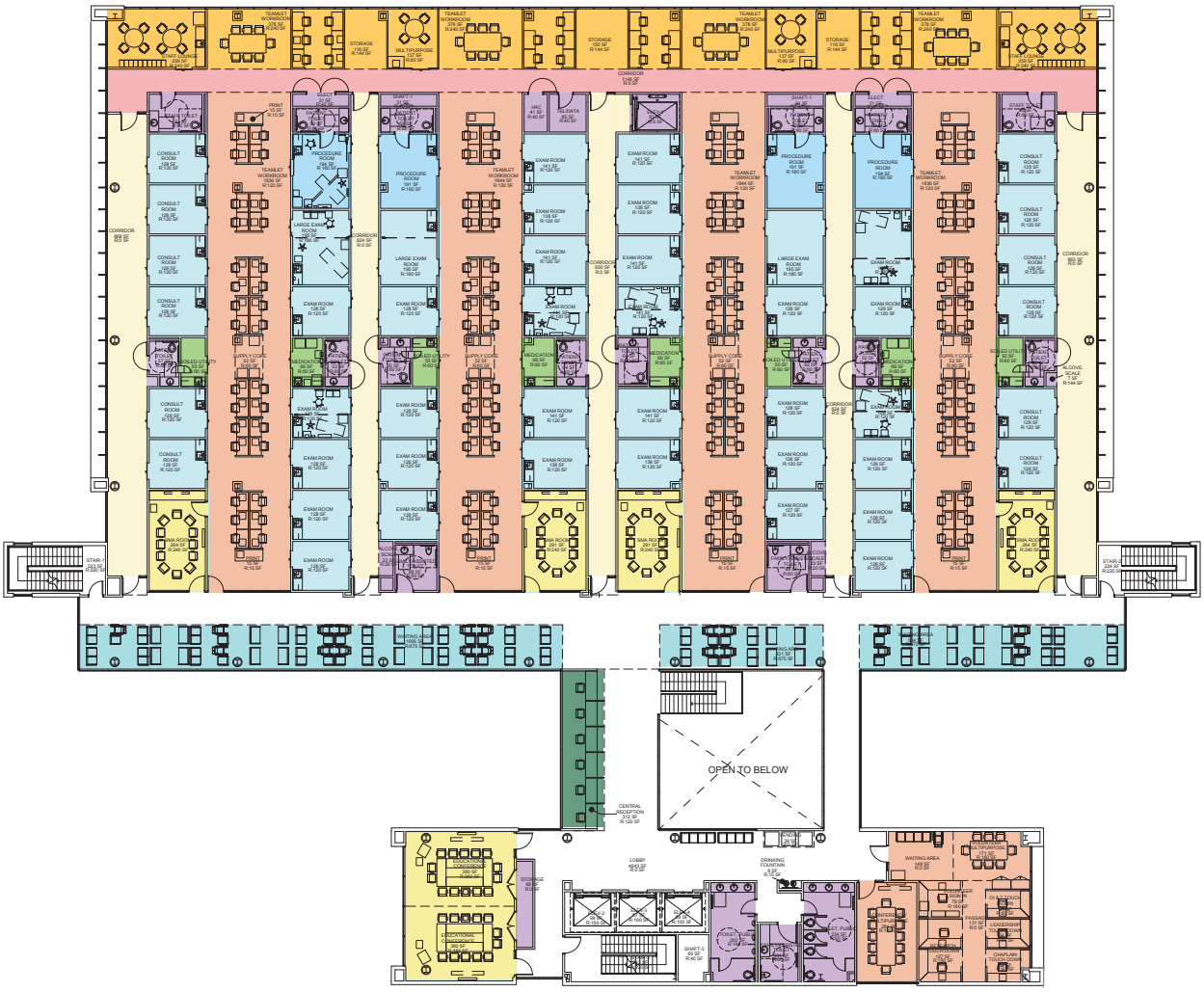

Figure 6.3-1
VA San Jose PACT Test Fit

6.0 Case Studies and Benchmarks

6.4 Benchmark - Group Health Puyallup Medical Center

CollinsWoerman developed the 52,000 square foot, two-story outpatient medical center prototype based on lean design principles to provide a new, effective “medical home” model for patient care.

Services at the outpatient medical center include eye care and retail glasses shop, family medicine, nutrition, obstetrics, pediatrics, pharmacy, lab, X-ray, physical therapy, and social work services.

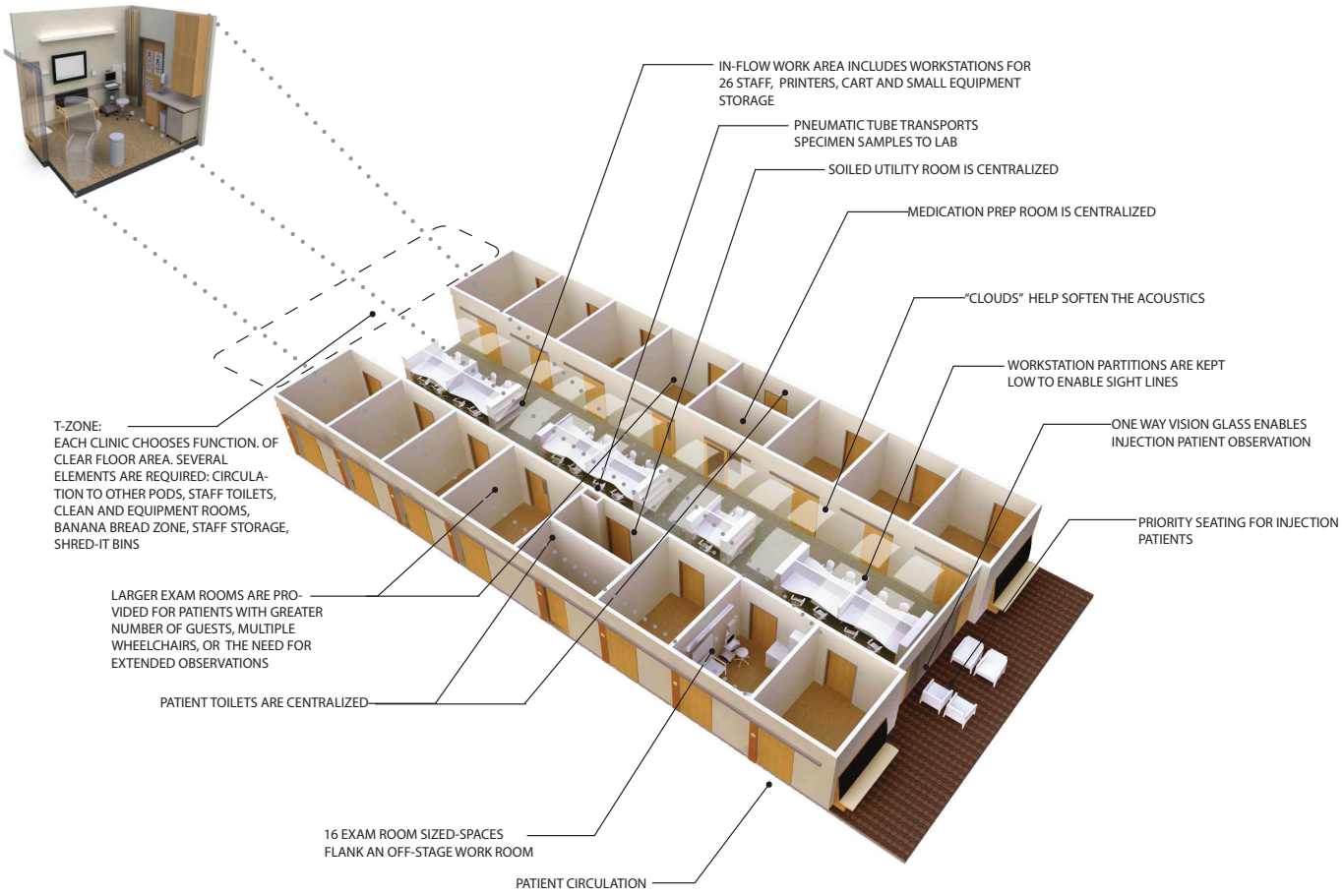

Figure 6.4-1
Group Health Puyallup Medical Center - Axon

6.0 Case Studies and Benchmarks

6.4 Benchmark - Group Health Puyallup Medical Center

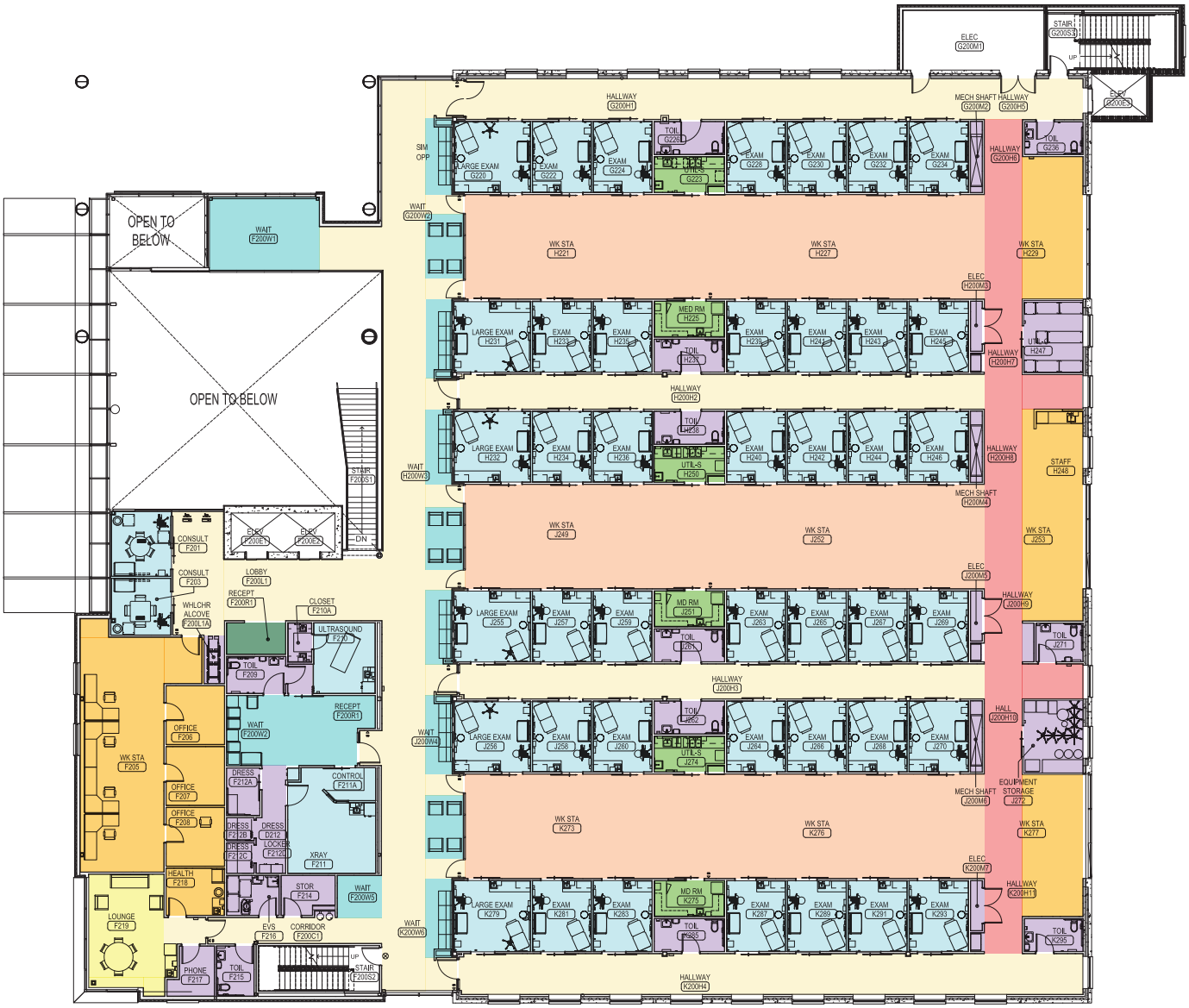

Figure 6.4-2
Group Health Puyallup Medical Center - Floor Plan

6.0 Case Studies and Benchmarks

6.5 Benchmark - University of Utah Healthcare - South Jordan Health Center

This is a 208,000 gross sq. ft., three-story medical care facility within the Daybreak development built by the developer Kennecott Land and designed by Dixon + Associates. The facility was designed as a multiservice medical office building including specialty care in the areas of cardiology, dermatology, gastroenterology, neurology, obstetrics and gynecology, oncology, optometry, orthopedics, physical therapy, psychiatry, radiology and other support services such as a full service emergency room, pharmaceutical services and cafeteria. The space distribution includes both surgical and clinical. The building opened in late fall 2011.

Figure 6.5-1
University of Utah Healthcare
- South Jordan Health Center Floor Plan

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U.S. Department of Veterans Affairs

Office of Construction & Facilities Management

7.0 APPENDIX

PACT SPACE MODULE

PATIENT ALIGNED CARE TEAM

7.0 Appendix

7.1 The Lean Design Process

Department of Veterans Affairs Strategic Plan Initiative:

> *"Design a Veteran-centric health care model to help Veterans navigate the health care delivery system and receive coordinated care."*

The lean design approach can be a value added method for aligning process innovation with space allocation, planning and design to enhance service delivery to our veterans. It can support our goal of continuous improvement. Design guides and standardization have powerful roles in building the VHA clinic of the future, but they cannot specify the fine nuances that can separate a workable design from one that truly accelerates flow and enhances the care experience. Guided engagement between the A&E Team and a clinical team representing frontline staff and clinical leadership can support excellence. The benchmark organizations that developed the dual corridor model did exactly that and their results reflect the effort.

The Lean Approach:

Definition: Simply stated, the Lean approach is: Systematically examining the process of health care delivery from the patient's perspective. This approach establishes a prioritized framework by which design teams are aligned in purpose and intended outcomes.

Figure 7.1-1
Lean Workshop

The Lean Workshop:

The Tools: The Integrated Lean Design Process relies upon time-tested Lean processes and tools. This approach blends many of the tools used in Lean "Kaizen" events, "Rapid Process Improvement" workshops, and "Production Preparation Process" (3P) workshops. These tools include current-state/future-state flow maps, identifying waste, and simulation.

The Workshop: 3P is an effective Lean process improvement method for restructuring an organization's service delivery process. 3P results are measured by the removal of waste, the implementation of higher-quality, value-added services, and resulting increased customer satisfaction.

The Process: The 3P design team includes organizational leadership, medical staff, and the care team, along with the organization's Lean advocates. Designs are based on the "Flows of Medicine." Functional programs are developed by the team only after they have redesigned their care delivery processes. Interior designs and finishes emphasize patient flow, visual control, and intuitive way-finding. Care teams are encouraged to practice their new processes in their existing space, making the transition to their new space that much easier.

The process combines both operational and facilities design in one workshop. A design process based on planned operational improvements is far superior to the "guessing game" that plays out so often in traditional design. And, by including more health care team members in the design process, "the back door is closed," so the designs are not reworked (waste).

A powerful space planning tool is created when the workshop is designed to simultaneously improve service delivery and

7.0 Appendix

7.1 The Lean Design Process

the built environment. The teams create spaces that support a patient-centered clinic/hospital experience. The results have been measured by increased patient satisfaction scores, increased market share, and increased hospital/clinic throughput.

Figure 7.1-2
Flow Diagram Exercise

At least one current patient (preferably two or three) should attend each workshop. The patient's perspective keeps participants focused on patient-centered outcomes. Workshop results gain credibility when the organization can assert that their patients had a part in the design.

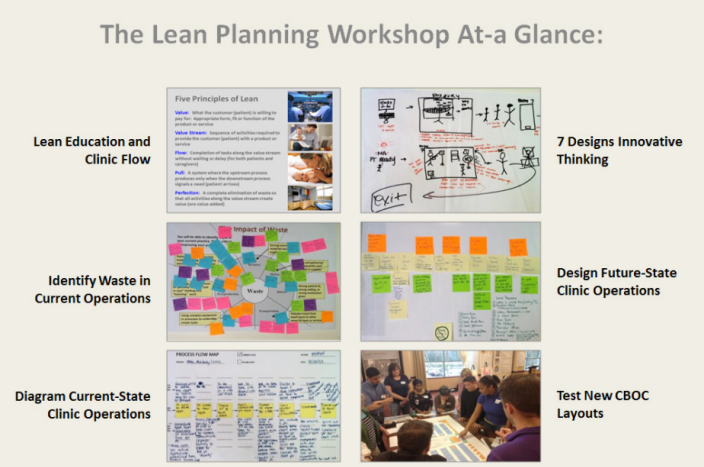

Figure 7.1-3
Example of "7 Designs"

The Workshop Team:

Participants: Workshop participants should include physicians, other providers, RNs, technicians, MAs, PSRs, receptionists, etc. as many individuals as practical to represent all steps of the care delivery process.

Practice leaders in related patient care areas add immense value to each workshop. Examples include: IT, supplies/logistics, diagnostic imaging, laboratory, and facilities management.

Practice managers and other key leaders should participate in Lean workshops. Knowledgeable Lean leaders can provide support and reassurance that workshop outcomes will be implemented.

Flexible Approach:

Workshop Strategy: Integrated Lean Design workshops are not "one size fits all" events. Even though standard processes and standard workshop tools are used, each event is designed around organizational and service line needs.

Whether two days or four days in length, each workshop uses divergent/convergent methodology to stimulate innovative thinking and focus on specific solutions. Essential workshop tools include:

- A walk through the clinic "shop floor" to identify waste in existing processes
- Flow diagrams that document current-state and future-state flow
- "7 Designs" innovation exercise to identify process improvement opportunities

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- 2-D space plan development using standard templates that document the “Flows of Medicine” on the plans
- Flow and capacity simulation using a waterfall chart and space layouts
- Develop 3-D model development and/or full-scale mock-ups

All Integrated Lean Design workshops share solution development and testing using flow and capacity simulation. Where time and space permit, full-scale mock-ups are highly recommended, as scale plans and models are not universally understood.

The approved final designs represent definitive team design solutions. The Lean design process requires participation by representatives from all steps of the care delivery process. The design is a product of their collaborative efforts. Unless there are significant program revisions, no further design changes are required.

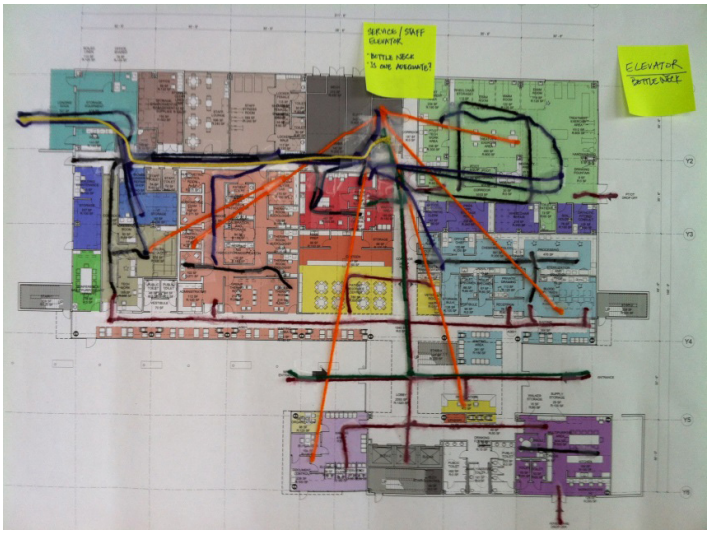

Figure 7.1-4
Flow Diagram Photo

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