

# Strategic Planning Committee

December 20, 2005



**PALOMAR POMERADO HEALTH**  
A California Health Care District

## Agenda

December 20, 2005

### Review project budget & scope status

Pomerado

Palomar West

Palomar East

### Speakers

Joe Hook, Chief Estimator



Tom Chessum, Principal Architect

ANSHEN+ALLEN ARCHITECTS  
FOR PALOMAR POMERADO HEALTH

## Glossary

### Escalation

Increase in construction costs over time due to inflation of labor rates, material prices and other costs.

**Market Conditions** - Supply of and demand for contracting services.

**Components of demand include**

- Quantity of current and anticipated work
- Types of available work and their relative desirability to contractors

**Hard bid or lump sum bid** - A traditional contracting method.

- Usually not carried out until design is complete.
- Bidders submit fixed prices for a defined scope of work.
- The work is awarded to the low bidder
- The low bidder bears the risk of costs overruns.

**\$/BGSF** - Cost per building gross square feet, also cost per square foot. A common measure of construction cost.

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## Escalation

**ENR Building Cost Index (BCI) increased 5.0% in 2005.**

**Future escalation will be affected by**

- Global markets – Asia and other
- U.S. Public construction
  - Currently at \$249 Billion / year
  - Transportation bill = \$288 Billion over six years
- Gulf coast rebuilding & other

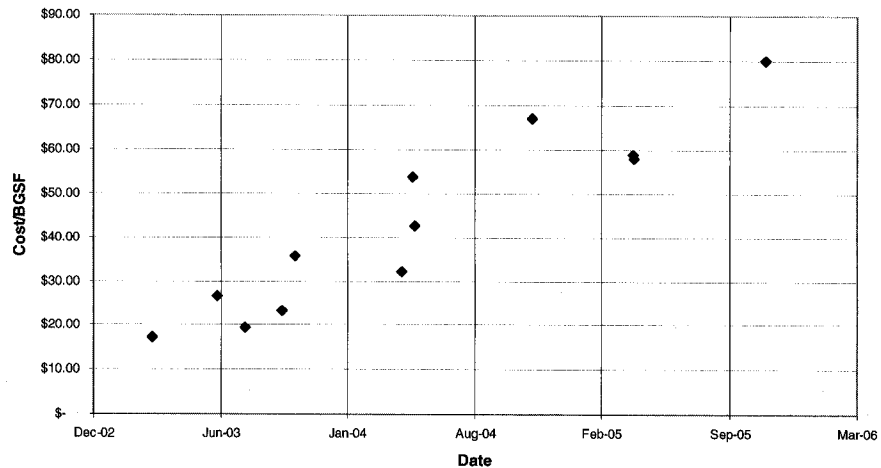
**Perspective**

**\$600 Million x 5% per year = \$2.5 million per month**

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## Market Conditions

### California Hospital Market Data Metal Framing & Gypsum Board (TRADITIONAL HARD BID APPROACH)



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## Cost Data - California Hospitals

Cost/BGSF	Construction Schedules									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
\$600										
\$500										
\$450										
\$400										
\$350										
\$300										

#### Status

- A = Actual
- B = Bidding, some bids received
- C = Under construction
- E = 2005 Estimate plus escalation

## **Typical of California Hospital Projects**

**Complexity**

**OSHDP requirements**

**Variation in application of codes**

**Size and duration of projects, carrying costs**

**Low productivity on past & current projects (= risk)**

**Strong market for other project types**

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## **Market Conditions**

**Strong demand for construction services**

- **Hospital projects driven by SB 1953 and demographics**
- **Concurrent growth in other sectors**

**Limited supply of qualified labor = productivity risk**

**Limited number of trade contractors who are qualified and interested in hospital work**

- **Major trade scopes often range \$30 - \$60 million**
- **Many trade contractors are sole proprietors or closely held private companies**
- **Large hospital projects put a strain on contractors' financial, bonding and human resources**

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## Market Conditions

**California hospitals pay substantial market premiums in construction costs.**

**Contractor capacity will continue to be the biggest cost challenge for California hospital projects.**

**We must develop ways to make PPH work attractive to contractors.**

- **Project delivery methods**
- **Design**

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## Strategies – Delivery Methods

**Alternative (and early) procurement**

- **Competition based on pricing structure in lieu of hard bid / lump sum**
- **Consider sharing the risk**
- **Start procurement during the design development stage**

**Prepare complete and “buildable” documents; Minimize OSHPD related changes.**

- **Study lessons from other OSHPD projects**
- **Select teams with OSHPD experience**
- **Include trade contractors in the design process**

**Demonstrate to the contracting community that we have effective measures in place to manage the risks**

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## Strategies - Design

### New Site

- Ample staging & parking areas
- Fabrication & work space

### Multiple Buildings / Optimized Work Increments

- Optimize contract size
- Shorter incremental schedules
- Reduce carrying costs

### Constructability / Off-site Fabrication

- Panelized exterior
- Uniform layouts – i.e. nursing, surgery

### Benefits

- Enhanced productivity
- Labor costs become more predictable
- More contractor participation & competition

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## Facility Master Plan - July 2004

PROJECT BUDGET/SCOPE		Beds	Budget
Program / Scope of Work		FMP	\$ x 1,000,000
<b>PALOMAR MEDICAL CENTER SECOND CAMPUS</b>		453 (70 shell)	\$561.0
383 Bed Facility w/ Women's & Children's Center (assumes \$40M equip. reuse / annual cap.)			\$473.0
Shell - 60 M/S & 10 ICU Beds / D&T			\$20.0
Outpatient Women's Center			\$8.0
Land Acquisition			\$30.0
<b>PALOMAR MEDICAL CENTER DOWNTOWN</b>		72	\$73.0
72 Bed Psych / Rehab Facility Reuse			\$47.0
Outpatient Surgery Center			\$1.0
Outpatient Oncology / Infusion Center			\$1.0
McLeod Improvements (Warm Shell)			\$24.0
<b>POMERADO HOSPITAL</b>		211 (68 shell)	\$138.0
143 Bed Facility			\$81.0
Shell - 60 M/S & 8 ICU Beds			\$22.0
Women's Floor			\$16.0
Outpatient Imaging Center			\$7.0
Outpatient Women's Center			\$4.0
Outpatient Surgery Center			\$9.0
<b>SATELLITE CENTERS</b>			\$10.0
<b>TOTAL</b>		<b>736</b>	<b>\$753.0</b>

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## Project Budget Update

Facilities Master Plan- July 2004 = \$753.0 M

Additional Costs - Dec. 2005 = \$229.6 M

- **Market & Schedule Conditions** = \$124.0 M

(Does not include Building Materials Increases projected for 2006 = \$17.3 M)

- **Program Revisions** (Increases/Reductions) = \$ 31.3 M

- **Soft Costs** (Plan Check Fees) = \$ 3.2 M

- **Land** = \$ 19.0 M

- **Equipment** (Acuity Adaptability) = \$ 52.1 M

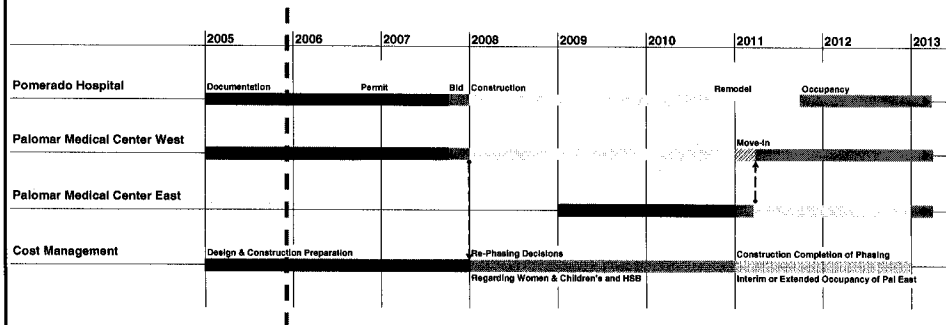
(Program Additions)

(Increasing Medical Technology Use)

(Reuse of Equipment)

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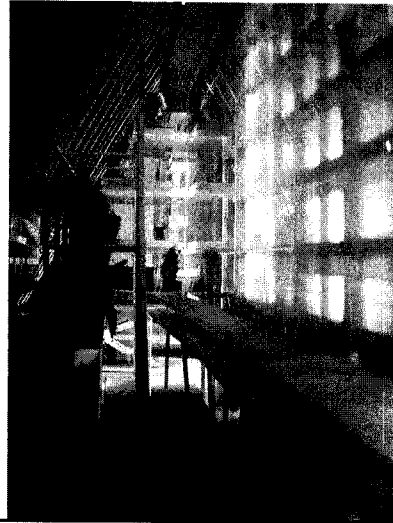
## Schedule



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## Program Revisions - Principles

1. Maintain Vision
2. Re-Phase Construction
  - meet 2010 projections
3. Protect Future
  - avoid compromise to effective land use
4. Incorporate Innovations



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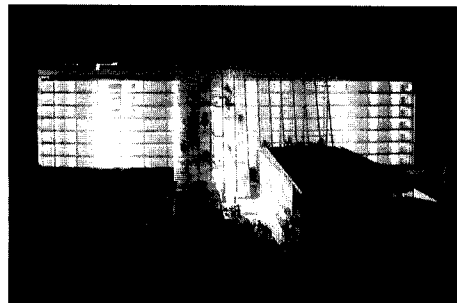
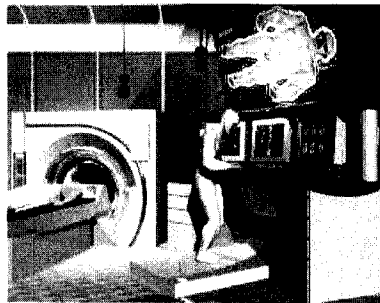
## 1. Maintain Vision

**Implement Facility Master Plan Scope & Concepts**

**Achieve National Recognition for**

- "...Highest Quality of Clinical Care..."
- "...Access to Comprehensive Services..."

**Implement "Best-Practices" of Evidence Based Design**



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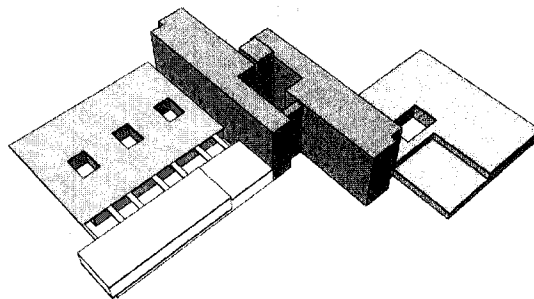
## 2. Projected Needs

### Combined Palomar Medical Center West & East

	M/S	ICU	Women's	Rehb	Psy	Total Beds	ED Obs.	OR/IP
<b>2010</b>								
<b>Total</b>	255	52	75	11	32	425	47	14
<b>2013</b>								
<b>Total</b>	298	59	87	12	34	490	60	17

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## 3. Protect Future – Flexibility / Expandability



- Maintain effective land use
- Maintain long term build out strategy through interim occupancies
- Maintain site organization for future growth

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## 4. Incorporate Innovations

### Clinical Planning

(Additional quality of care / patient safety benefits)

- Acuity Assignable Units

- Same Handed Room

- Distributed Nursing

- Integrated  
Interventional Services

Sustainable / Green Building

Healing Environments



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## Innovations – Acuity Assignable Units

### Benefits

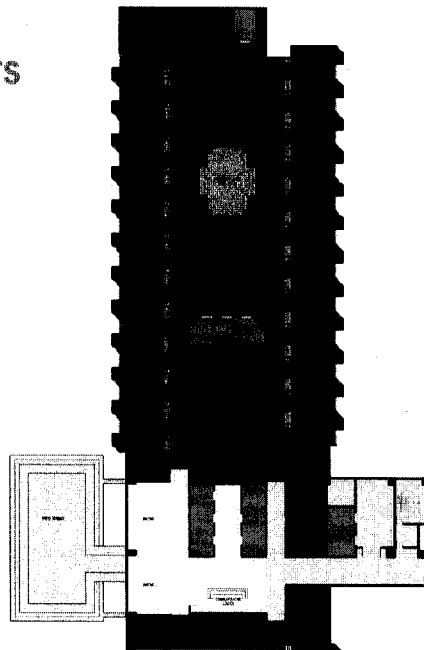
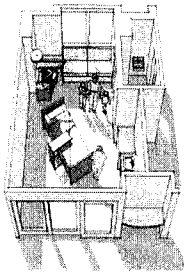
Reduces Patient Transfers

Improves Continuity of Care

Decreases Medical Errors

Improves Patient Satisfaction

Improves Patient Safety



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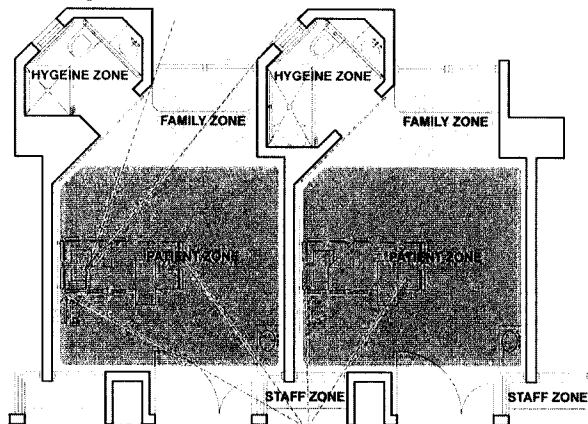
## Innovation - Home Based Rooms

### Benefits

Standardization Decreases Error

Optimal Patient Toilet Adjacency

Improves Safety of Patient & Staff



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## Innovations - Distributed Nursing/Storage

### Benefits

Improves Observation of Room

- Reduces patient falls
- Improves patient satisfaction/safety

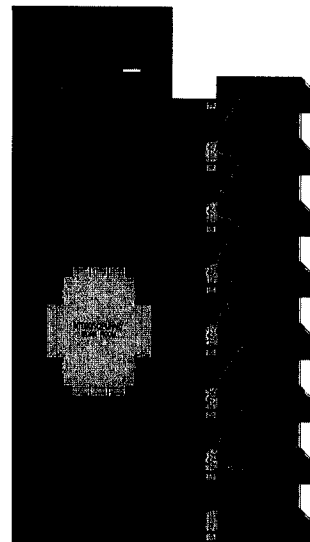
Shorter Walking Distances

- Reduces "hunting and gathering"
- Increases time spent with patients

Supports Multiple Staffing Ratios



NURSING STATION  
WITH STORAGE



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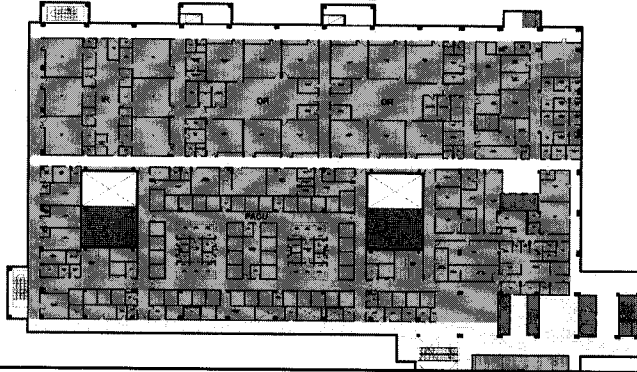
## **Innovations - Integrated Interventional Services Benefits**

**Reinforces Interdisciplinary Patient Care**

**Supports Shared Resources – staff & space**

**Enhances Opportunity for Service Lines**

**Improves Adaptability for New Technologies**



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## **Innovations – Sustainable/Green Building**

### **Benefits**

**Enhanced Energy & Water Efficiency**

**Reduced Environmental Impact**



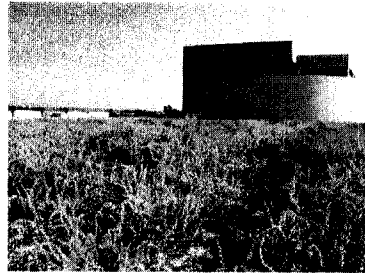
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## Innovations - Healing Environment

### Garden Hospital Concept

#### Benefits

- Reduces stress
- Lowers blood pressure and heart rate
- Lessens pain
- Reduces use of strong medications
- Improves medical outcomes
- Decreased length of stay
- Reduces staff absenteeism
- Reduces staff turnover rate
- Improves ability to deliver high quality care
- Improves ability to attract quality staff
- Improves job satisfaction



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## Pomerado Hospital

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## Pomerado Hospital Budget Update

Facilities Master Plan - July 2004 = \$139.0 M

Additional Costs - Dec. 2005 = \$ 50.7 M

- **Market & Schedule Conditions** = \$ 21.2 M

- **Program Revisions** (Additions/Reductions) = \$ 15.4 M

- **Soft Costs** (Plan Check Fees) = \$ 1.0 M

- **Equipment** (Program Additions) = \$ 13.1 M

(Increasing Medical Technology Use)

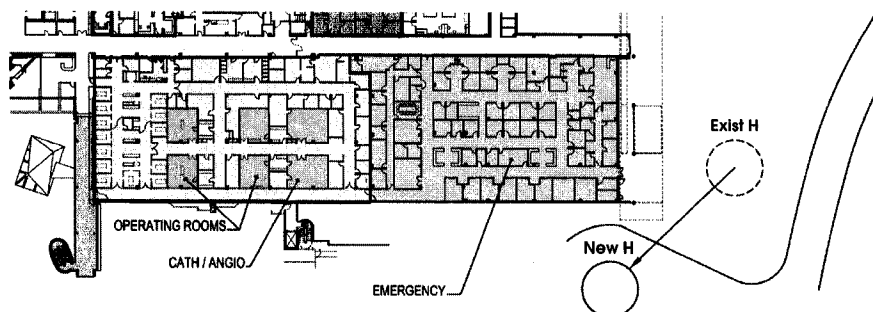
(Reuse of Equipment)

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## Diagnostic & Treatment Expansion – Integrated Interventional Services

Consolidate Surgery, PACU, Cath Lab, and  
Angiography Services

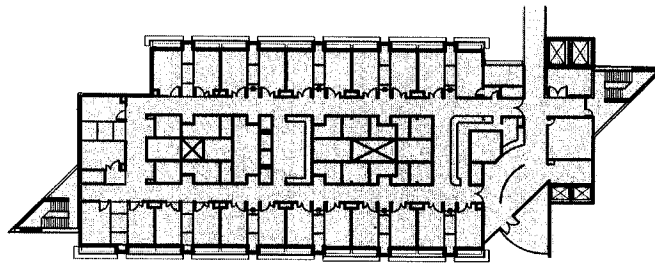
Increase size of existing Operation Rooms



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## New Patient Tower – Acuity Assignable & Distributed Nursing

**All floor plates sized for Acuity Adaptability &  
Distributed Nursing  
Standardized w/ 24 beds for future flexibility**



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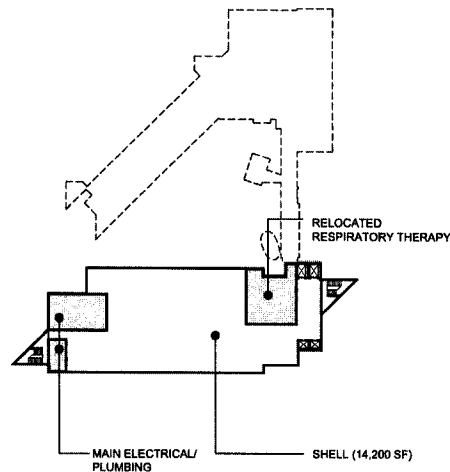
## New Patient Tower – Addition of Basement

**Maximizes use of land**

**Mitigates fill soils  
conditions**

**Provides location for  
support functions  
adjacent to beds**

**Adds space for storage  
and support**



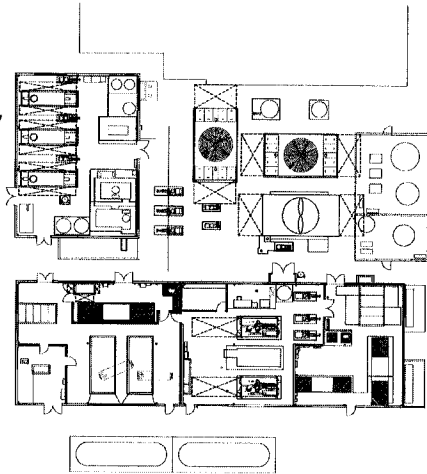
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## Central Plant – Increased Serviceability

Provides additional capacity for future

Replaces existing equipment that is beyond viable life

Provides backup/redundancy not available in current systems

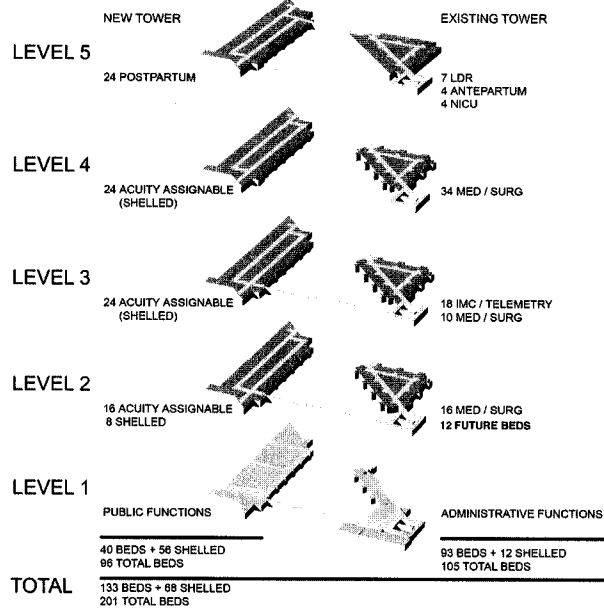


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## Stacking – Pomerado

Total Beds

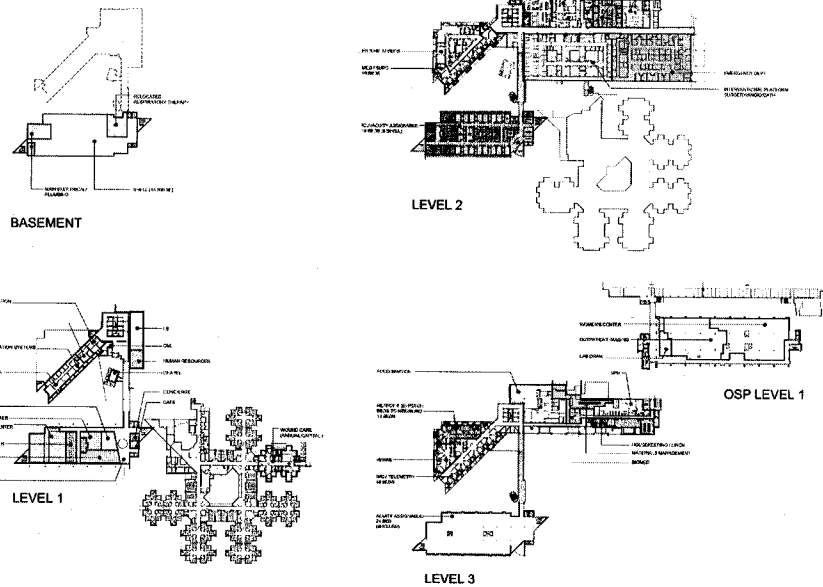
133 BEDS  
+68 SHELLS  
201 TOTAL BEDS



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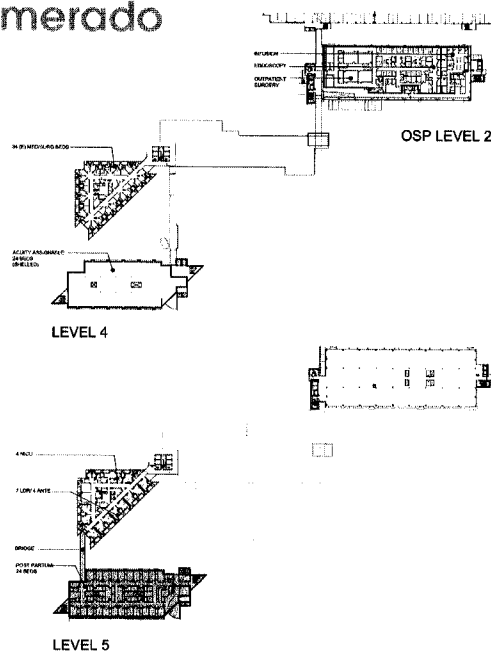


## Stacking – Pomerada



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## Stacking – Pomerado



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# Summary Pomerado Hospital

Function	FMP	Proposed
<b>Patient Beds</b>		
Intensive Care Beds	24 (8 shelled)	0
Acuity Assignable	0	72 (56 shelled)
Medical / Surgical Beds Shelled / Unassigned Level 2	124 (60 shelled)	72 (12 shelled)
IMC / Telemetry Beds	24	18
Labor & Delivery / Antepartum	11	11
Postpartum / GYN Beds	24	24
Neonatal Intensive Care Beds	4	4
<b>Subtotal Beds</b>	<b>211</b>	<b>201</b>
<b>Diagnostic &amp; Treatment Functions</b>		
Cath. Lab / Interventional Radiology	1	2
Operating Rooms Existing	4	0
Expanded by Remodel	0	4
ED / OBS Stations	22	26
<b>Project Building Areas</b>		
	<b>SF</b>	<b>SF</b>
New Construction	145,000	161,000
Remodel Construction	33,150	60,000

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# Change Summary Pomerado Hospital

PROGRAM / SCOPE	COST	Beds
<b>CONSTRUCTION BUDGET (July 04)</b>	<b>\$ 97,049,000</b>	<b>211</b> (56 shelled)
<b>COST INCREASES (Dec 05)</b>	<b>\$ 21,200,000</b>	
Market Conditions Schedule (10 months added)		
<b>SUBTOTAL</b>	<b>\$ 118,249,000</b>	
<b>PROGRAM REVISIONS</b>	<b>\$ 15,401,000</b>	
<b>Increases</b>		
Consolidate Integrated Interventional Services		
Increase Existing (4) OR Size		
Basement @ New Tower		
Distributed Nursing Model		
Increased Central Utility Plant Serviceability		
Misc. Revision		2
SPD / Materials Management		
Biomed / Pharmacy / IS / Corridor Connections		
Additional Site Development		
Site Area / Additional Fill Depth		
<b>Reductions</b>		
24 Bed Acuity Assignable Unit @ Level 3 & 4		-12 (48 shelled)
Reduce from 30 to 24 Beds		
Lease OSP Level 1 & 2 Improvements		
<b>CONSTRUCTION COST SUBTOTAL</b>	<b>\$ 133,650,000</b>	<b>201</b> (56 shelled)
<b>SOFT COST BUDGET (July 04)</b>	<b>\$ 14,198,166</b>	
<b>SOFT COST REVISIONS</b>	<b>\$ 4,186,000</b>	
Equipment (Medical & General)		
Administrative (Permit)		
<b>SOFT COST SUBTOTAL</b>	<b>\$ 56,066,166</b>	
<b>TOTAL PROJECT COST</b>	<b>\$ 189,716,166</b>	

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## Palomar Medical Center West

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### Palomar MC West Budget Update

Facilities Master Plan - July 2004 = \$531.0 M

Additional Costs - Dec. 2005 = \$159.2 M

- **Market & Schedule Conditions** = \$ 90.8 M

- **Program Revisions** (Additions/Reductions) = \$ 15.9 M

- **Soft Costs** (Plan Check Fees) = \$ 2.0 M

- **Land** = \$ 17.0 M

- **Equipment** (Acuity Adaptability) = \$ 31.5 M

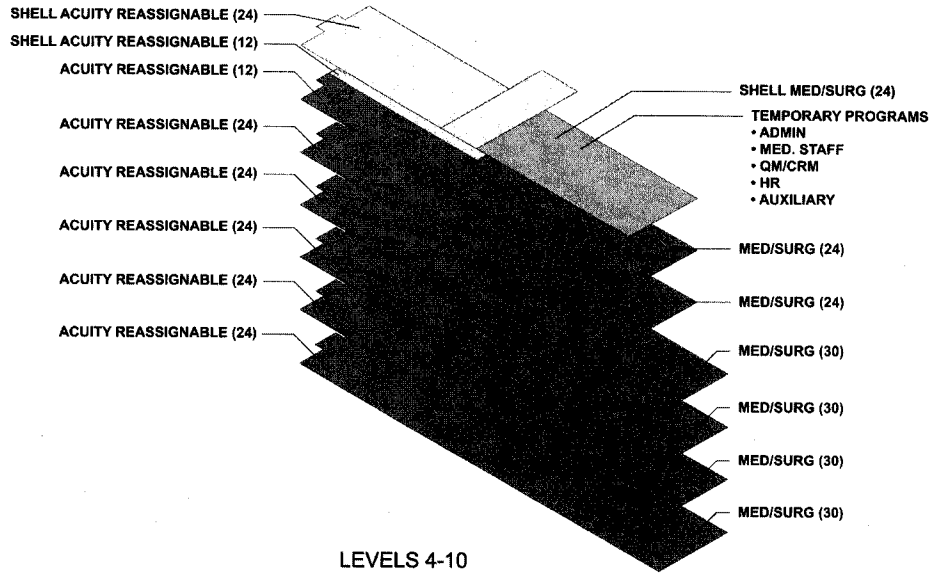
(Program Additions)

(Increasing Medical Technology Use)

(Reuse of Equipment)

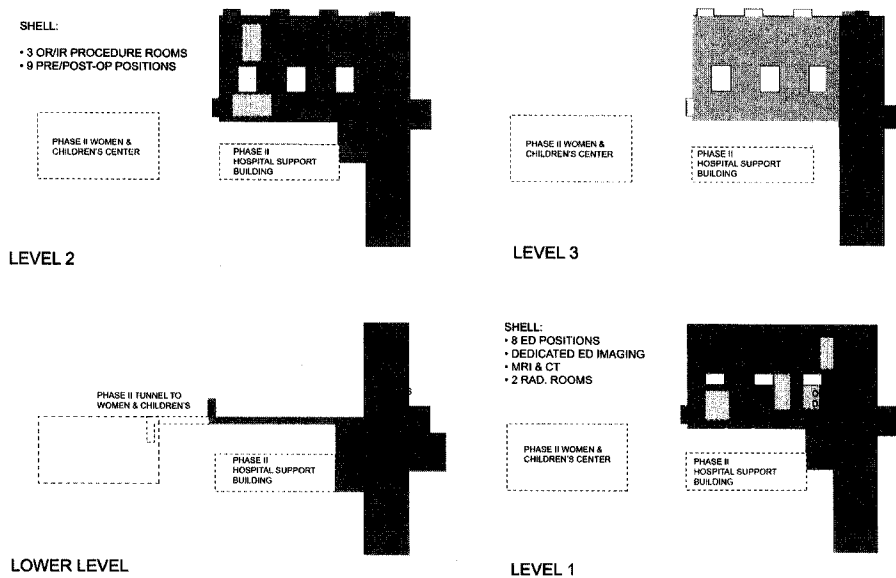
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## Stacking - Potential Phase I



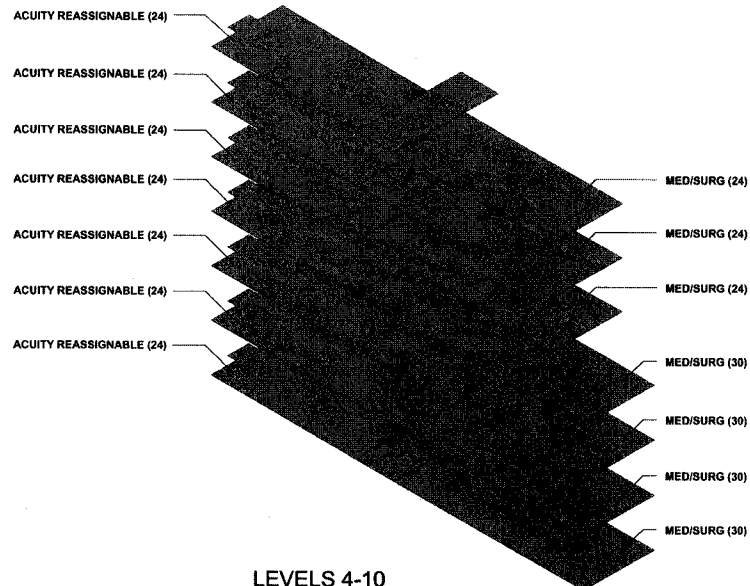
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## Stacking - Potential Phase I



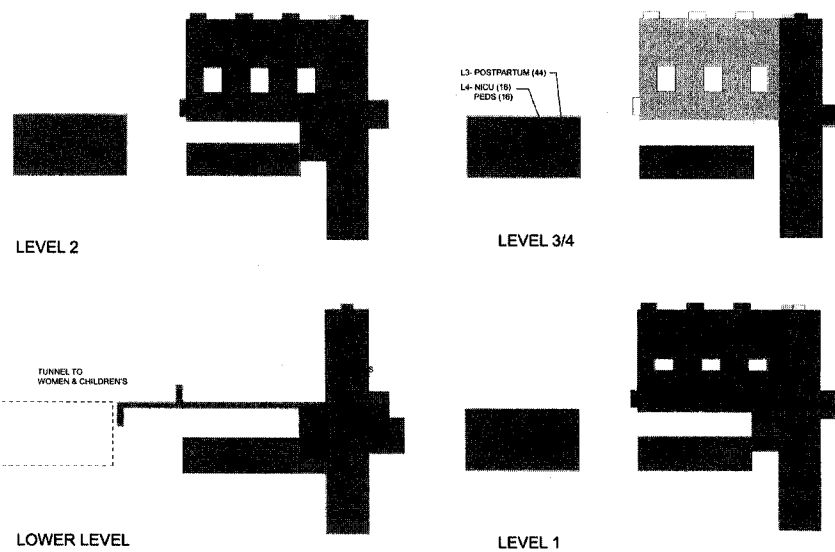
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## Stacking - Phase 2



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## Stacking - Phase 2



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# Summary Palomar MC West

Function	FMP	Phase 1	Phase 2
<b>Patient Beds</b>			
Intensive Care Beds	60 (10 shelved)	0	0
Acuity Assignable	0	168 (36 shelved)	168
Medical / Surgical Beds	300 (60 shelved)	192 (24 shelved)	192
Labor & Delivery / Antepartum	21	0	20
Postpartum / GYN Beds	44	0	44
Pediatric Beds	16	0	16
Neonatal Intensive Care Beds	12	0	16
<b>Total Beds</b>	<b>453</b>	<b>360</b>	<b>456</b>
<b>Diagnostic &amp; Treatment Functions</b>			
Cath. Lab / Interventional Radiology	5	5 (1 shelved)	5
Operating Rooms	11 (1 shelved)	13 (2 shelved)	13
Imaging Rooms	15 (2 shelved)	15 (7 shelved)	15
ED / Observation Stations	60	60 (6 shelved)	60
<b>Project Building Areas</b>			
	<b>SF</b>	<b>SF</b>	<b>SF</b>
<b>New Construction</b>	<b>800,000</b>	<b>725,000</b>	<b>879,000</b>

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# Change Summary Palomar MC West - Phase 1

PROGRAM / SCOPE	COST	Beds
CONSTRUCTION BUDGET (00/00)	\$ 371,886,000	453
COST INCREASE (00/00)	\$ 400,920,000	(79 shelved)
Market Conditions Schedule (13.5 months added)		
<b>SUBTOTAL</b>	<b>\$ 462,508,000</b>	
Palomar Division	\$ 1,350,000	
<b>Increases</b>		
Distributed Nursing Model w/ Same Handed Room		
Acuity Assignable (168) Rooms / (7) Floors		
Additional clinical capacity		
OR/IR Room & Support Shell / ED Support		
Interim Use of OSHPD Space		
Interim housing of Hospital Support Building functions		
Central Plant Future Equipment Bays		
Misc. Additions in Program		
Additional Healing Environment / Sustainability		
Energy Efficiency Enhancements / Green Roof etc.		
<b>Reductions</b>		
Women's / Children's to Remain Phase 1 at Palomar East		-93
Programs to Remain at Palomar East		
Core Lab / Cardiac Rehab.		
Shell Additional Diagnostic & Treatment Areas		
1 OR/IR Room & 9 Pre-Post Stations		
5 Imaging Rooms / 8 ED/OBS Stations		
<b>CONSTRUCTION COST SUBTOTAL</b>	<b>\$ 478,398,000</b>	<b>360</b>
SOFTCOST BUDGET (00/00)	\$ 1,000,000	(60 shelved)
SOFTCOST INCREASE (00/00)	\$ 1,600,000	
Equipment (Medical & General)		
Administrative & Other (Permit)		
Additional Land Cost / Offsite Costs		
<b>SOFTCOST SUBTOTAL</b>	<b>\$ 211,611,934</b>	
<b>TOTAL PROJECT COST</b>	<b>\$ 690,209,934</b>	

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## Palomar Medical Center East

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### Palomar MC East Phase 2 Budget Update

Facilities Master Plan - July 2004 = \$ 73.0 M

Additional Costs - Dec. 2005 = \$ 19.7 M

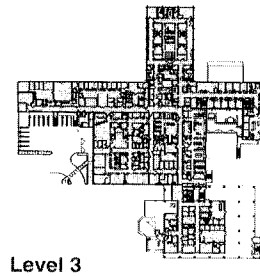
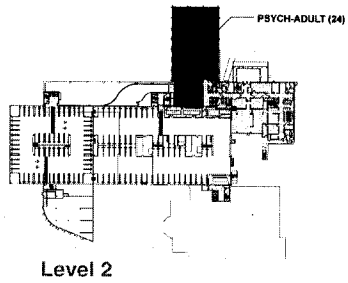
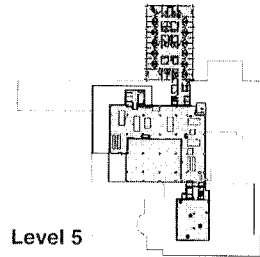
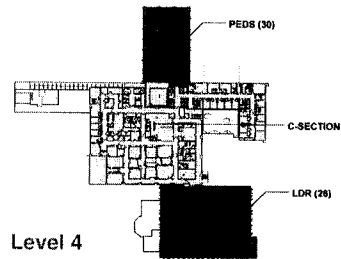
- **Market & Schedule Conditions** = \$ 12.0 M

- **Soft Costs** (Plan Check Fees) = \$ .2 M

- **Equipment** (Increasing Medical Technology Use) = \$ 7.5  
(Reuse of Equipment)

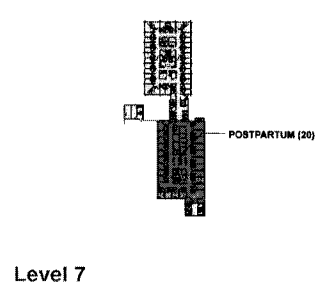
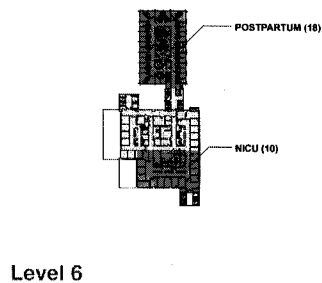
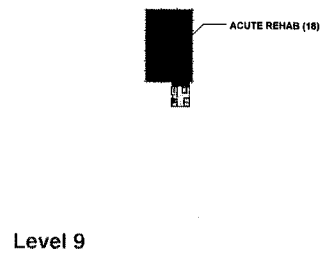
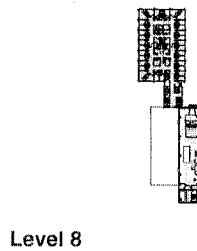
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## Stacking - Phase 1



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## Stacking - Phase 1



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## Summary -- Palomar MC East

Function	FMP	Phase 1	Phase 2
<b>Patient Beds</b>			
Adult & Geriatric Behavioral Health	42	24	42
Acute Rehabilitation Beds	30	18	30
Labor & Delivery / Antepartum	0	26	0
Postpartum / GYN Beds	0	38	0
Pediatric Beds	0	30	0
Neonatal Intensive Care Beds	0	16	0
<b>Total Beds</b>	<b>72</b>	<b>152</b>	<b>72</b>
<b>Project Building Areas</b>			
	SF	SF	SF
New Construction	16,000	0	16,000
Remodel Construction	39,000	0	39,000
McLeod Tower Upgrade	85,000	0	85,000

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## Change Summary Palomar MC East - Phase 2

PROGRAM / SCOPE	COST	Beds
CONSTRUCTION (01/01/04) - (01/01/04)	\$ 30,16,000	72
COST INCREASES (01/01/04)	\$ 12,000,000	
Market Conditions Schedule (13.5 months added)		
<b>CONSTRUCTION COST SUBTOTAL</b>	<b>\$ 68,115,000</b>	
EQUIPMENT (01/01/04)	\$ 10,895,169	
SOFTWARE REVISIONS	\$ 2,710,000	
Equipment Administrative & Other (Permit)		
<b>TOTAL PROJECT COST</b>	<b>\$ 92,710,169</b>	

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# Summary

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## Project Budget Update

Facilities Master Plan - July 2004 = \$753.0 M

Additional Costs - Dec. 2005 = \$229.6 M

- **Market & Schedule Conditions** = \$124.0 M

- **Program Revisions** (Increases/Reductions) = \$ 31.3 M

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- **Equipment** (Acuity Adaptability) = \$ 52.1 M

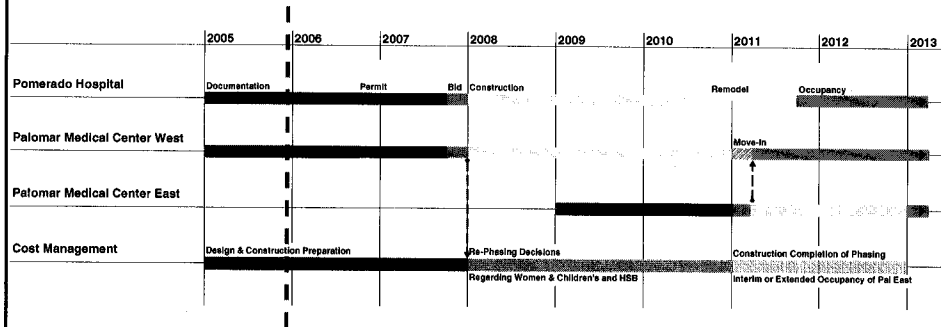
(Program Additions)

(Increasing Medical Technology Use)

(Reuse of Equipment)

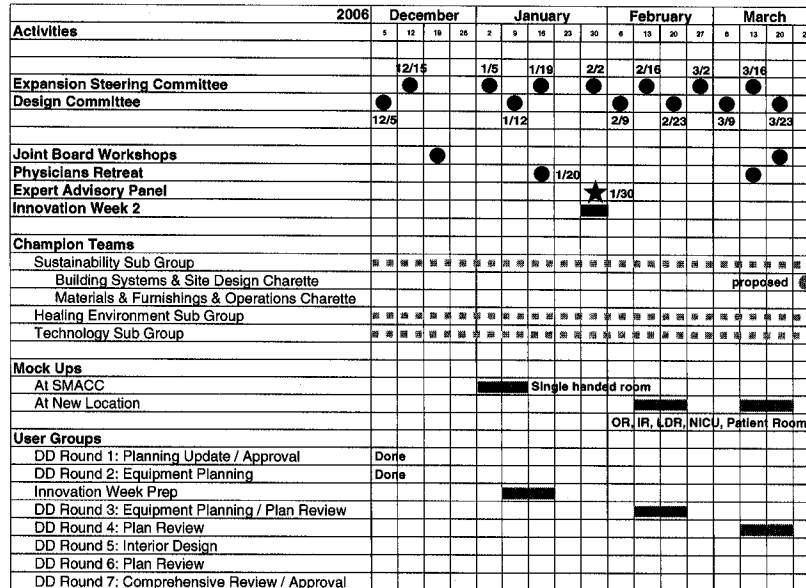
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## Schedule



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## Look Ahead Schedule



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