


Peace Island Medical Center

Friday Harbor, San Juan Island, Washington



SQ FT

39,000 BGSF



OWNER/AFFILIATION

PeaceHealth



ARCHITECT(S)

Mahlum



COMPLETION DATE

October, 2012



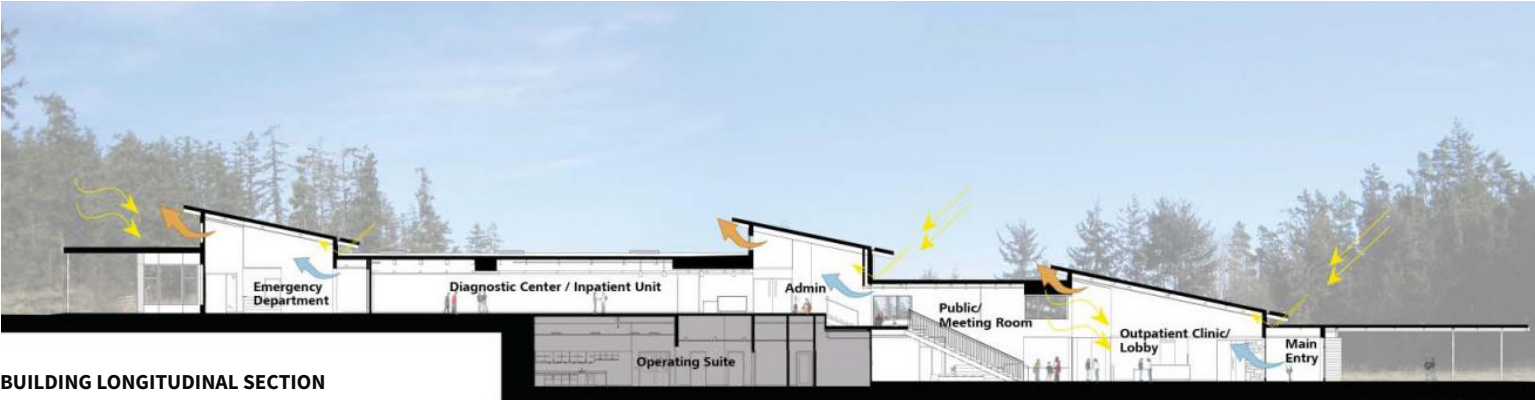
VIEW OF EMERGENCY ENTRY FROM THE WEST



NATURAL LANDSCAPE



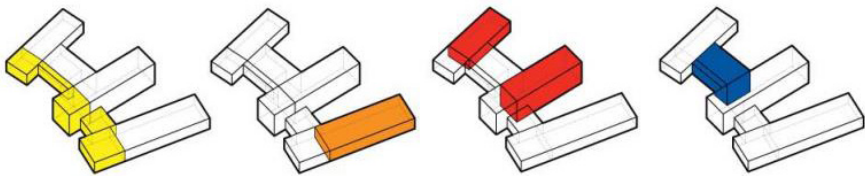
ISLAND ATMOSPHERE



BUILDING LONGITUDINAL SECTION



LOCATION MAP



| MEDICAL PLANNING DIAGRAM | | | | COOLING | HEATING | BOTH |
|--------------------------|-----------|-----------|--|---------------------|-------------------|-----------------------------|
| Zone | Intensity | Hours/day | | Natural Ventilation | Hydronic Radiator | Evaporator or Heat Recovery |
| Public | 1 | 12 | | x | x | |
| Outpatient | 1 | 12 | | x | x | |
| Inpatient | 2 | 24 | | x | | x |
| Emergency | 2 | 24 | | x | | x |
| Radiology | 3 | 12 | | | | x |
| Surgery | 3 | 12 | | | | x |

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ABOUT | DESIGN INTENTIONS

A small, remote island community joined forces to turn their vision of rural healthcare into the very first hospital in San Juan County.

The hospital blends discreetly into its surroundings, flanked by old-growth forest, basalt slopes and thriving wetlands. The site’s ecology, topography and vegetation were carefully preserved. Island resources are extremely limited, making sustainable choices fundamental. Decoupled building systems and natural ventilation connect occupants with fresh air, daylight and views.

The hospital reflects the values of the caregivers and broad community, embodying humility, environmental sensitivity and innovative healthcare delivery.



INTIMATE SCALE

The stakeholders were not in the market for a traditional hospital. **They were seeking a design that motivated staff and put patients at ease with an “island appropriate” response.** This is one of the largest buildings in the county, but it’s important that it didn’t feel like it. Spaces are carefully scaled to balance the messaging of high-quality healthcare with the intimate scale that islanders, both staff and patients, respond positively to.



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THE PATIENT'S VOICE

A committee of islanders was formed to foster the project through from inception to design and construction. They provided a strong and insightful patient's voice, void of preconceived notions, which weighed heavily in each design decision. The team looked at every detail from the patient's perspective. **As a result of engaging the community as a partner in the design process, they are overwhelmingly proud of the facility.**



PATIENT ROOM

SITE PLAN



TOUCH THE SITE LIGHTLY

Constructed on a former farmstead site, the hospital sits only on land that was previously developed. **Remaining property is preserved in perpetuity and any disturbed areas restored back to native condition.** Site paving is minimized by using a “county road” approach without curbs and gutters so that stormwater runs through raingarden treatment areas to existing wetlands. Excavation cut/fill for the building footprint is perfectly balanced.

ON-SITE MATERIALS

Though every effort was made to preserve existing trees, each tree that was taken down was milled on island by local craftsmen and made its way back into the building in the form of flooring, stair treads, trim, and custom millwork. The portions that were not appropriate for milling were used as nurse logs within the landscape design.

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SHARED SPACES

Innovative planning reduced square footage and staffing needs by supporting a multi-disciplinary approach to space assignments. For instance, pre/post-operative outpatient surgical services are also performed in the inpatient unit. As another example, a shared care team station is located at the intersection of the emergency department and the inpatient unit to allow staff to flex between the two.

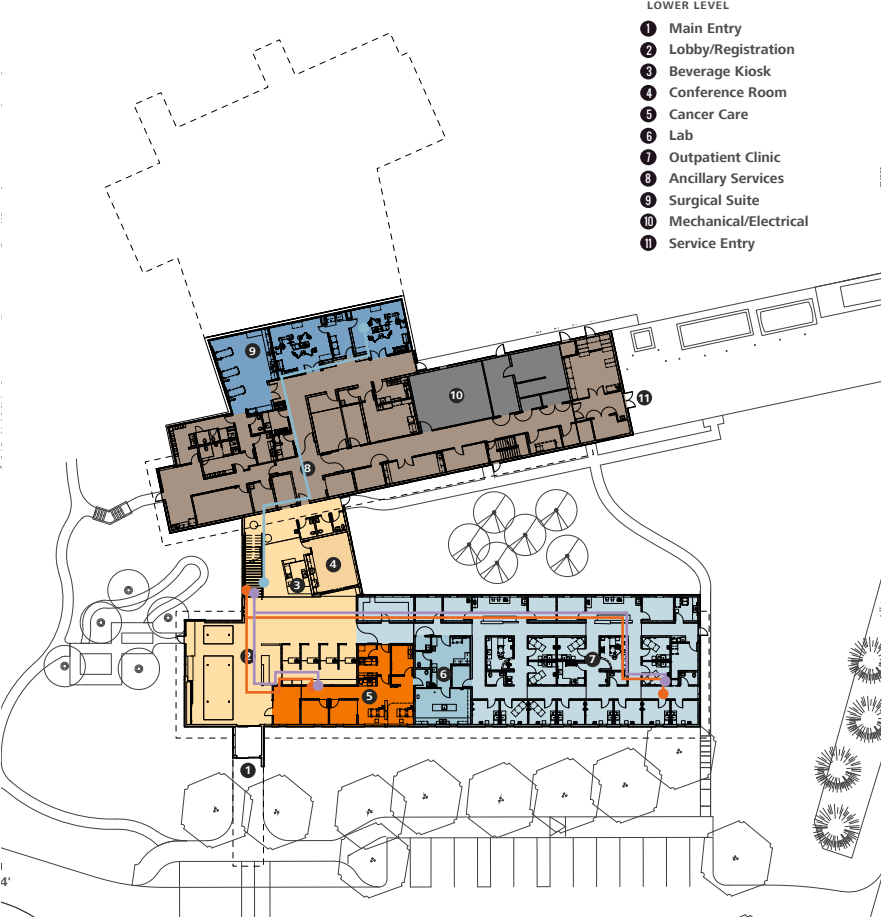
KEY SPACE :

| | |
|------------------------|----------|
| Surgical Suite | 2,142 SF |
| Ancillary Services | 5,896 SF |
| Lobby/ Registration | 3,720 SF |
| Conference Room | 425 SF |
| Cancer Care | 1,336 SF |
| Laboratory | 924 SF |
| Outpatient Clinic | 5,176 SF |
| Mechanical/ Electrical | 1,350 SF |

LOWER LEVEL:



TRAVEL DISTANCE ANALYSIS



KEY SPACES:

- ▶ Exam Rooms (106 nsf)
- ▶ Operating Room (445 nsf)

DEPARTMENTAL GROSS SQUARE FOOT

| TAKE-OFFS | Net | Gross |
|------------------------|----------|----------|
| Surgical Suite | 1,541 SF | 2,142SF |
| Ancillary Services | 3,461 SF | 5,896 SF |
| Lobby/ Registration | 3,720 SF | 3,720 SF |
| Cancer Care | 1,021 SF | 1336SF |
| Laboratory | 705 SF | 924 SF |
| Outpatient Clinic | 1,181 SF | 1,697 SF |
| Mechanical/ Electrical | 1,181 SF | 1,697 SF |

TRAVEL DISTANCE ANALYSIS

- Patient 41 ft - 102 ft
- Family 41 ft - 102 ft
- Staff 65 ft - 102 ft

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KEY SPACE :

| | |
|-----------------------|----------|
| Emergency Department | 4,135 SF |
| Diagnostic Imaging | 2,916 SF |
| Waiting/ Public Space | 2,155 SF |
| Inpatient Pharmacy | 849 SF |
| Inpatient Unit | 5,340SF |
| Quiet Space | 200 SF |
| Administration | 739 SF |

UPPER LEVEL:



TRAVEL DISTANCE ANALYSIS



- KEY SPACES:
- ED Exam Rooms (108 nsf)
 - Inpatient Room (220 nsf)
 - Inpatient Toilet Room (60 nsf)

| DEPARTMENTAL GROSS SQUARE FOOT TAKE-OFFS | Net | Gross |
|--|----------|----------|
| | | |
| Emergency Department | 2,362 SF | 4,135 SF |
| Diagnostic Imaging | 1,851 SF | 2,916 SF |
| Waiting/ Public Space | 2,052 SF | 2,155 SF |
| Inpatient Pharmacy | 585 SF | 849 SF |
| Inpatient Unit | 3,359 SF | 5,340 SF |
| Quiet Space | 188 SF | 200 SF |
| Administration | SF | 739 SF |

- TRAVEL DISTANCE ANALYSIS
- Patient 30ft - 150ft (60 ft from main entrance)
 - Family 30ft - 150ft
 - Staff 12ft - 185ft

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ENVIRONMENTAL IMPACT

Energy Conservation

Energy consumption is minimized by driving down internal loads, utilizing natural ventilation and active heat recovery strategies. Building orientation minimizes cooling and lighting needs; roughly 80% of interior spaces have access to operable windows, daylight and views. Distributed mechanical systems, are tuned for specific clinical needs and hours of operation. Ground source heat pumps are fed from closed loop geothermal borings. Heat recovery ventilators utilize equipment-generated heat for space heating needs. **Annual EUI usage is estimated to be about 45% of the average for a typical hospital in the region.**

Water Conservation

High efficiency fixtures and equipment are expected to reduce water demand to 52% of the code requirement. Stormwater is collected and treated on-site via raingarden and infiltration areas to avoid burdening the aging town infrastructure.

Operable Windows

Commitments were made to slash energy consumption and provide patients with control over their environment. This translated into a goal of maximizing natural ventilation through operable windows. This is a very difficult proposition in a hospital, especially in clinical spaces, despite fresh air being intuitively healthier than mechanical ventilation. **Through careful planning and collaboration with patients, staff and authorities having jurisdiction, this project takes a bold step forward by providing operable windows in all public areas, outpatient clinic, cancer care, emergency department and the inpatient unit.**



LOBBY / REGISTRATION



INTERIOR DETAILS



AIA/AAH DESIGN AWARD WINNER

Category: Innovations in Planning and Design Research, Built and Unbuilt

JURY COMMENT

- ▶ What a wonderful solution. The finished product is creative and soulful. Peace Island Medical Center takes the identity of the community and reinforces care through healthcare. It really breaks ahead of the pack by truly addressing its environment and population through careful integration of materials, view, natural light and lighting. The sharing of spaces across adjacent departments is used successfully as a strategy to reduce the footprint.
- ▶ The strength of this project is the integration of the facility into the community and what could have been a very challenging site. The site planning, by fanning and stepping in section, negotiates the sloped site well. This integration is carried right into the planning and the beautiful character of the patient and public spaces.

PROJECT SUMMARY:

Project Name: Peace Island Medical Center

Project owner: PeaceHealth

Project location: Friday Harbor, San Juan Island, WA

Architect: Mahlum

Interior Designer: Mahlum

General Contractor: Howard S. Wright Constructors

MEP Engineer: CDi Engineers (MP), Hargis Engineers (E)

Civil Engineer: 2020 Engineering

Photographer: Benjamin Benschneider

Additional Team Members: PCS Structural Solutions

Construction Cost: \$18M

Building Area (gross square feet): 39,000 SF

Construction Start date (month/year): July 2011

Substantial completion date (month/year): October 2012



NURSE STATION



LOBBY / REGISTRATION