

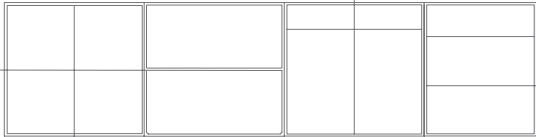
# UCSD HEADWALL

CANNON DESIGN  
SHIELD CASEWORK  
MODULAR SERVICES



Cannon Design’s Yazdani Studio was commissioned to plan and design the Jacobs Medical Center, a 10-story multi-specialty hospital, in a major expansion for UC San Diego Health System. Shield partnered with Cannon and Modular Services Company to turn an institutional medical product, the patient headwall, into an architectural element that is as functional as it is beautiful.

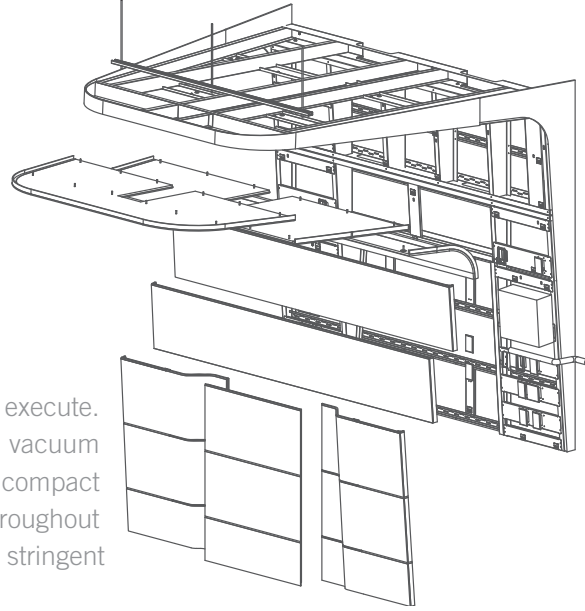
Together, Cannon, Modular and Shield delivered a design that truly innovates but is grounded in real-life data. This team will deliver 242 headwalls to the hospital in 2015.



# PROBLEM

**1** FITTING **HUNDREDS** OF FEET OF INFRASTRUCTURE INTO ONE **COMPACT, FUNCTIONAL HUB**

**2** EXECUTING THE HEADWALL'S **COMPOUND CURVE DESIGN** TO STRINGENT HEALTHCARE STANDARDS



The innovative design was complicated to execute. Hundreds of feet of data, electrical, oxygen, vacuum and other medical gases had to fit in a compact package. Additionally, the complex curves throughout the headwall had to fit precisely to meet stringent healthcare standards.

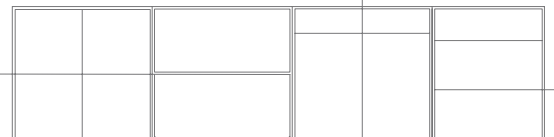
Utility connection and curvature details were problematic, stalling progress and driving up cost. Initially, the headwall was fabricated with plastic laminate but the compound, tapering radius meant achieving smooth surface was impossible without adding seams.

The design and fabrication team used an intensive prototyping process to deliver the headwall as originally designed. Prototyping quickly revealed issues with detailing and materials.



*The headwalls are all prefabricated offsite, allowing the team to be more precise and ensure the structures are built on time, to meet the project timeframe.*

## CASE STUDY



SEEING TECHNOLOGY EVERYWHERE YOU TURN DOESN'T HELP HEALING

State-of-the-art facilities use evidence-based design to devise solutions. The UCSD headwall used measurable data on hospital use, patient needs, other projects and most importantly, critical user group testing.

Cannon used design research to devise a way to house the room's technology within the innovative canopy through optimal port placement and extensive user testing.

The canopy's organic and flowing nature softens the space while its high-tech core smoothly links all of the devices. It evokes a greater hospitality feel than traditional headwalls that simply take the place of drywall, and keeps patients from feeling dwarfed by a cavernous ceiling. The canopy grounds the room in an envelope of warmth through ambient light and comfortable curving lines.

Not just reducing clutter and the potential for errors, the headwall also adds control: patients can make comfort decisions and access information without physical exertion.

At the same time, nurses and care staff have a standard work zone. When patients check out, the room is quickly and easily reset for the next use.



CASE STUDY




# SOLUTION

SOLID SURFACE THERMOFORMS TO THE HEADWALL'S CURVES AND CUSTOM FEATURES

Shield Casework's solid surface fabrication fit the complex requirements and preserved the headwall's design. Modular and Shield simplified utility connections and worked through the complex build to meet the budget and design intent.

This versatile, modular headwall is also inherently clean: Shield Casework's proprietary solid surface fabrication clads Modular's framework to reduce the risk of infection.

The headwall's thermoformed solid surface material is nonporous and seamless, making it easy to sanitize and resistant to the spread of pathogens. The team even designed and made custom outlet covers to meet the gentle slope of the headwall for a completely nonporous finish.



**CASE STUDY**
