



# Surfside

*Process Engineering the 21st  
Century Outpatient Center*

Studio+

Opus Solutions

DeAngelis Diamond  
Healthcare Group

# Background

Studio+ is a healthcare design firm with a history of success developing acute, ambulatory, and behavioral healthcare projects for some of the nation's most respected healthcare providers. By committing to a collaborative design process, the firm work with clients to convert the vision of a project to a completed space.

Opus Solutions, LLC provides performance improvement consulting across the healthcare industry. Opus Solutions employs a unique methodology that engages staff and senior leadership in a proactive design process. The goal is to produce a design that eliminates waste and bottlenecks in the flow of patients, providers, materials and information. In doing so, capacity and the efficient use of capital are enhanced.

The combination of Studio+ Opus creates value beyond either individual offer, enabling clients to design, build and operate highly efficient healthcare facilities. The return on investment is measurable gains in productivity for the life of the building.

Studio+ Opus sustains its expertise by participating in a perpetual conversation with some of the nation's most innovative healthcare providers, collaborating with our design peers, and contributing crucial insight to national committees that help build the future of healthcare in the United States and abroad. All of these experiences are then packaged into the Studio+ Opus methodology, which is combined with healthcare clients' visions to create truly unique designs that push architecture, construction, and process to greater heights.

## Client's Challenge

Lee Memorial Health System (Fort Myers, FL) sought to develop a distinctive outpatient healthcare facility that not only provided optimal health services to its patients, but also pushed its internal procedures and operations to higher standards of operational efficiency. Surfside, the outpatient clinic in question, would house multiple specialties across two floors, providing a large array of services to the surrounding community. LMHS theorized that increased efficiencies through Lean Design/Build/Operate could translate directly into decreased waste, employee engagement, and patient satisfaction.

Healthcare design experts Studio+ and Lean operational specialists Opus Solutions partnered as Studio+ Opus and presented extensive research to LMHS that supported their theories on design and operational efficiencies. The selected team began to develop a specially tailored process for LMHS to determine the methods and metrics that would quantitatively measure the levels of staff efficiency and the effectiveness of the patient care provided.

# Team-building

Studio+ Opus was tasked with determining the range of end users required to establish a genuinely collaborative design team. This vetting procedure included the input of the owner (LMHS), designer (Studio+), and Lean specialists (Opus) to ensure that the project stakeholders and end users involved in the design process would positively impact the end product.

Due to the varied collective of medical practices that the Surfside Outpatient Center would contain, the design team determined that a large number of end users should be included to provide as many differing perspectives as possible. Employees from several of these departments—radiology, MRI, information technology, administration, and more—were included to accommodate any specialty or practice that would potentially cohabitate within the finished Surfside Center.

## Expertise Matrix

A large, varied collective of perspectives benefited a project of Surfside’s complexity because of the potential strengths each type of project member could bring to the design table. The team posited that if the biases of the builder or the architect are not balanced by the personalized experience of the master radiologist or chief nurse, the building will in turn be at risk to operate according to the tastes of the builder or the architect as opposed to the individual actually working in the clinic.

Healthcare design expertise synthesized with the operational expertise of owners and end users would help design a space free of the biases of one type of overinvolved design partner—whether it was the bias of the operator, architect, builder, or owner. A balanced team would create a balanced design and promote a variation of team strengths.

Role	Expertise (+)	Bias (Δ)
Designer	Design Expertise Intellectually Capable Knowledge of Code and Regulation Ability to Lead Team	Must Adhere to all FGI Guidelines Influenced by Past Experience Over-aware of Existing Design Trends Impatient/Focused on Fast Completion
Builder	Hands-on Expertise Physical Capability Fiscal Knowledge on Building Process Provides & Supervises Labor	Restricted by Building Code Influenced by Past Experience Focuses on Saving Time & Money Efficiency over Innovation
Owner	Fiscal Provisioning Establishes Vision for Team Holds Team Accountable to Vision Provides Process Expertise	Some Design Knowledge Aversion to Risk Constrained by Front Line Reluctant to Include All End Users

Role	Expertise (+)	Bias (Δ)
End Users	Patient/Professional Familiarity Will Utilize Finalized Space Contributes Personal Experiences Contributes Unique Ideas	No/Limited Design Knowledge Expectations May Be Unrealistic No/Little Financial Investment Brings Personal or Subjective Bias

## Conditions of Satisfaction

The following Conditions of Satisfaction were developed between all consultants involved to create a stern system of accountability and encourage a faster speed to market.

1. Open for Business by August 2015
2. No Requests for Information (RFI)
3. No Change Orders Past Frozen Date
4. No Community Complaints
5. Make a Fee
6. Finished Product Reflects Design
7. No Surprises
8. No Overtime

The Conditions of Satisfaction hold all project team members to an elevated sense of accountability, providing clear standards that must be met to consider the project a genuine success.

## The Big Room: Macro Design

LMHS and Studio+ Opus theorized that keeping the core collaborative roster consistent through the entire design and build process was critical to meeting the unique goals set forth for the Surfside Outpatient Clinic. The end users chosen—the technicians, nurses, and doctors—were then invited to participate in the first phases of macro design. This phase detailed the large ideas surrounding the project.

A budget was established and the team committed to the projected cost. The size of the facility—projected to be around 27,000 SF—was carefully plotted. The structure’s shape was discussed, debated, and tested to assure the form of the building would optimize staff work routes and provide clear wayfinding for patients. The design team split into sub-committees to discuss the necessary parameters for designing facilities specific to their own specialties—the lab draw team members met with builders and equipment planners, administration met with space planners to fine tune the patient’s check-in process, and doctors met with architects to ensure that their working spaces were uniquely designed.

The majority of the macro big room meetings took place during one week. The team met daily at an existing LMHS facility in an employee conference room, collaborating together for nearly 8 hours a day on the Surfside

Clinic’s design. The impact of the big room meeting was immediately observable. Communication between disciplines was drastically strengthened by having the entire team sharing a singular space. Drawings did not leave the room to sit in an architect’s office for weeks of revision. If a space did not work or if an idea was misaligned with LMHS’s vision, it was immediately refined to fit into the appropriate scope of work.

The time/cost-benefit of the macro design process was immediately observable. Through combining many processes into a single series of meetings, time, cost, client involvement, and communication flow were all improved upon. According to Studio+ Opus metrics, the improvements and savings from the initial big room process compared to a typical design process are as follows:

Process & Procedure	Estimated Timeframe	Client Involvement
Conceptual Work	45-60 Days	Low—the design process typically involves creating drawings, receiving feedback, and redrawing designs until the client is satisfied.
Planning		
Pre-design		
Schematic Design		
Redesign		
<b>Big Room Process</b>	<b>5 Days</b>	<b>100%</b>

As demonstrated above, LMHS saved a great deal of time throughout the inaugural steps of the Surfside design process, saving them crucial labor costs and increasing their speed to market.

## Micro Design and Process Simulation

Typically, when a staff member first walks the halls of his or her new workplace, the layout is finalized and permanent. Walls are immovable. Equipment must be maneuvered to accommodate the design.

Studio+ Opus and LMHS determined that an untested, immovable space was wasteful. This method of design did not support end users or superior patient care. Instead of relying solely on drafting software, drawings, and concepts for the micro design and fine-tuning of the Surfside Outpatient Clinic, the design team adapted an increasingly popular 3P (“People, Process, Product”) method of Lean Design—cardboard space simulation.

A large department store space was used to simulate the design of Surfside on a 1:1 scale. The entire design team from the macro process, including the LMHS employees and owner representatives, worked directly on constructing the simulation space. Walls, doors, furniture, and equipment was all constructed according to existing specifications. Upon completion, the LMHS staff members were encouraged to simulate their daily tasks in the space provided.

This process was equally enlightening to the designers, owners, and operators. Some furniture felt too close. Some pathways caused lengthy walks between patient stations. The equipment shifted and the furniture was swapped many times until everything met the client’s aesthetic and operational expectations. The evidence for redesign was not made on architectural assumptions—it was based on direct feedback from the types of individuals that would be regularly using the finished space.

# Summary

A fully collaborative process is an investment in saved time. A minimal 5 day macro design process trimmed 15+ days from the project timeframe. 3P simulation allowed real time modifications instead of back-and-forth delayed communication between the architect and client. The increased availability of open communication between client, consultants, and designers also allowed the team to make a drastic commitment—a pledge to avoid requests for information (RFI's) entirely. Open channels of communication would ensure that all specifications and drawings are translated clearly between the multiple disciplines working on the project site.

The outpatient center's groundbreaking took place in January 2015 in Cape Coral, FL. In addition to the refreshing aesthetics associated with its design and the operational excellence it promises to its future staff and clients, it also brought 38 jobs to a city that has only recently began rebounding from recession. Surfside will bring the most technologically advanced healthcare ever seen in Cape Coral, and will enable residents to cease long commutes to distant clinics. Additionally, it will ease the long, frustrating lines that already hamper the operations of existing urgent care facilities in the city.

The clinic was designed for further expansions that will provide another 100 jobs to local residents, and will have a capacity for expanding its multi-specialty practice.

The Outpatient Center at Surfside is scheduled to complete construction in July 2015.

