

CCIC Annual Forum June 12, 2018

**Value Driven Campus Transformations through
Integrated Design and Construction**

Presenters



Nicholas Macy, CCM, PMP
Director, Planning & Construction
University of Hartford



Mark Rhoades, AIA
Principal
SLAM Collaborative



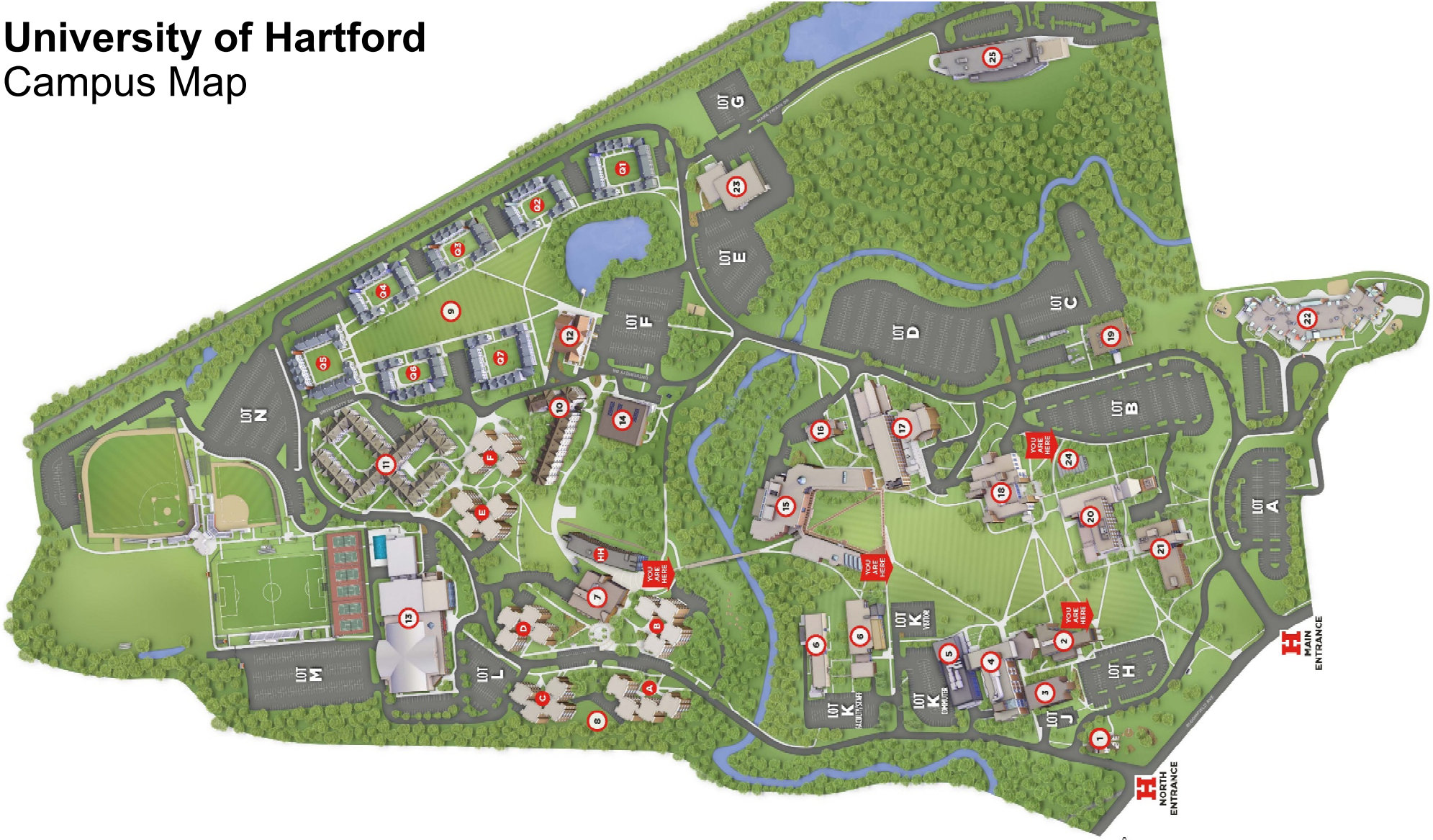
Eugene Torone, DBIA
President
SLAM Construction Services



Workshop Objectives

1. Learn from another CCIC member the financial successes of integrated design & construction
2. Understand how efficient planning & collaboration can lead to big impact projects on a limited budget
3. Recognize potential efficiencies in smaller phased renovations/additions within occupied buildings

University of Hartford Campus Map



University of Hartford Campus Map

Master Plan

N/A

Park River Apartments

Construction Cost: \$329,000

Sports Center Natatorium

Construction Cost: \$553,491

Greenberg Center for Judaic Studies

Construction Cost: \$625,000

Campus Bookstore & School of Architecture

Construction Cost: \$1,398,902

Regents Park Residence Hall

Construction Cost: \$1,801,636

Shaw Center at Hillyer College

Construction Cost: \$3,199,164

Renee Samuels Art & Technology Ctr.

Construction Cost: \$3,548,693

Gengras Student Union

Construction Cost: \$3,837,000



SLAM-opoly



Small Projects

Shouldn't Mean

SMALL Thinking

University of Hartford Challenges



Limited budget
for new projects

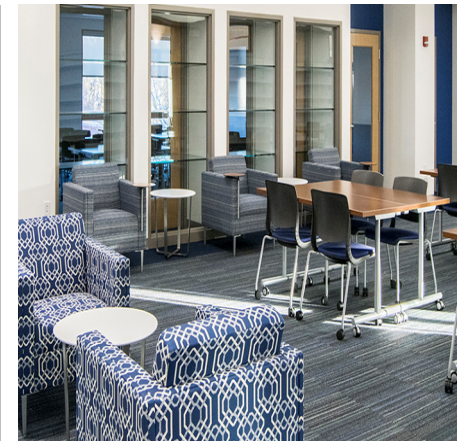


Constant
infrastructure
upgrade needs

7 College
University with
own individual
funding sources



Conservative
capital
improvement
funding



SLAM
PLAN DESIGN **BUILD**

DESIGN-BUILD SOLUTION

Challenges with Small Projects

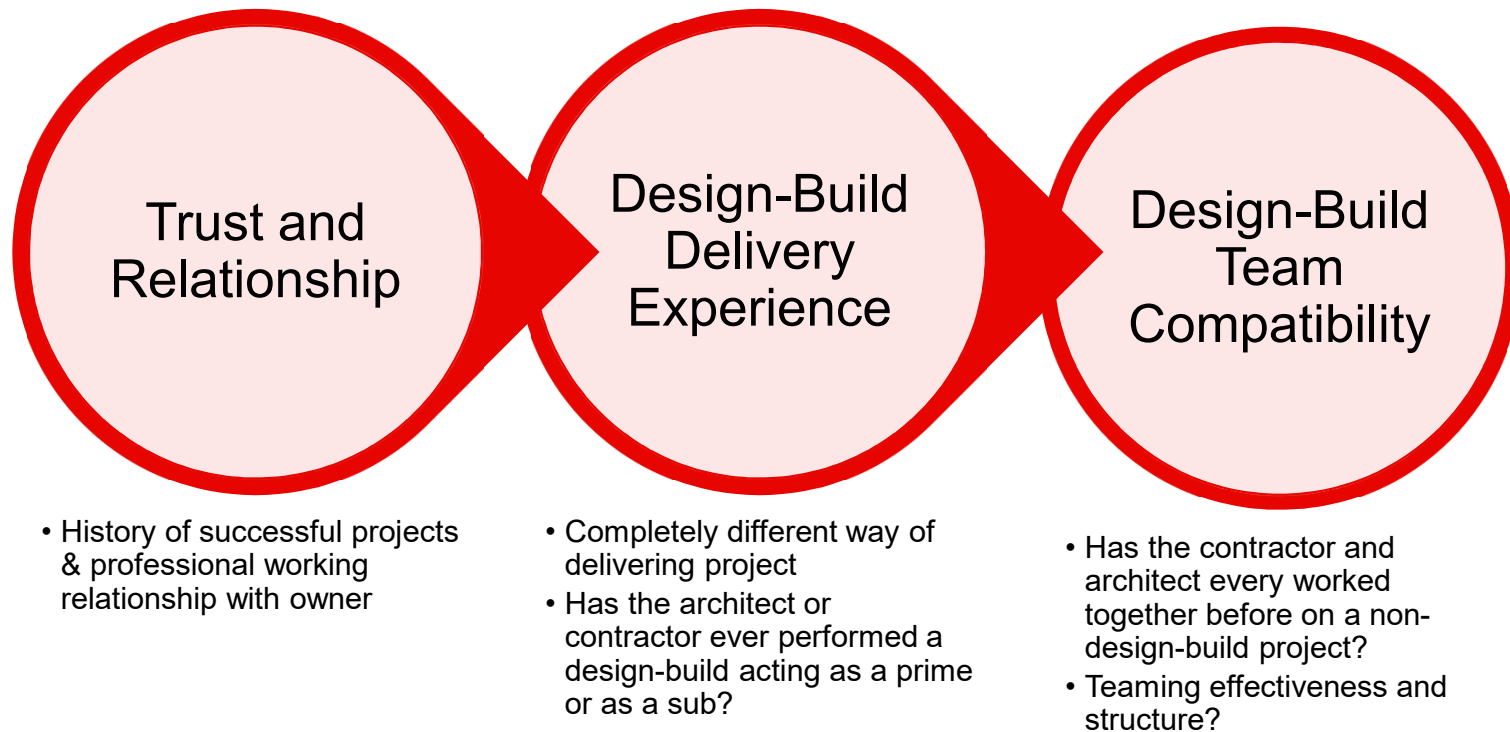
Tighter budgets

Less schedule flexibility

Lower contingencies

Reaction time for changes

Team Attributes

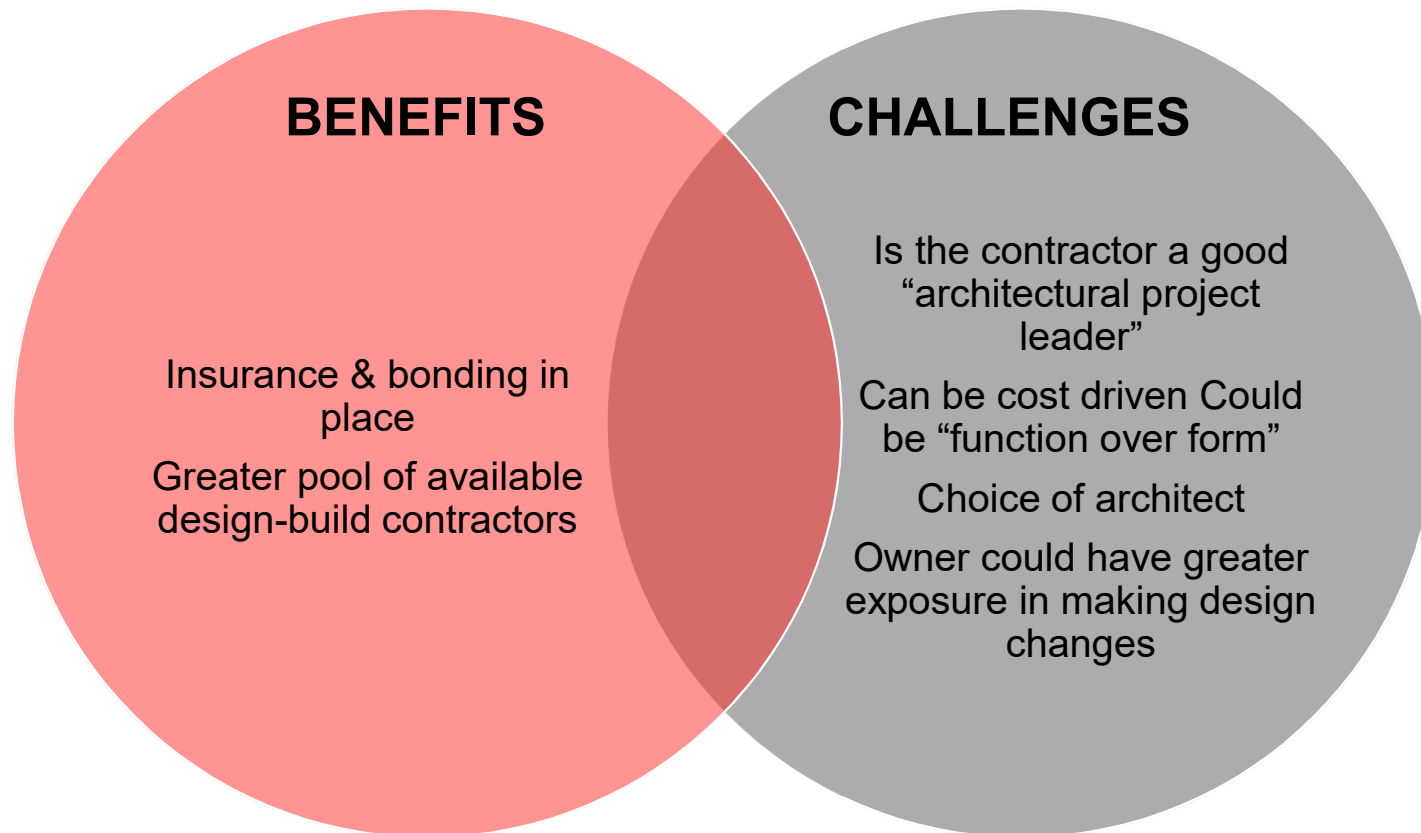


3 Main Variations of Design-Build



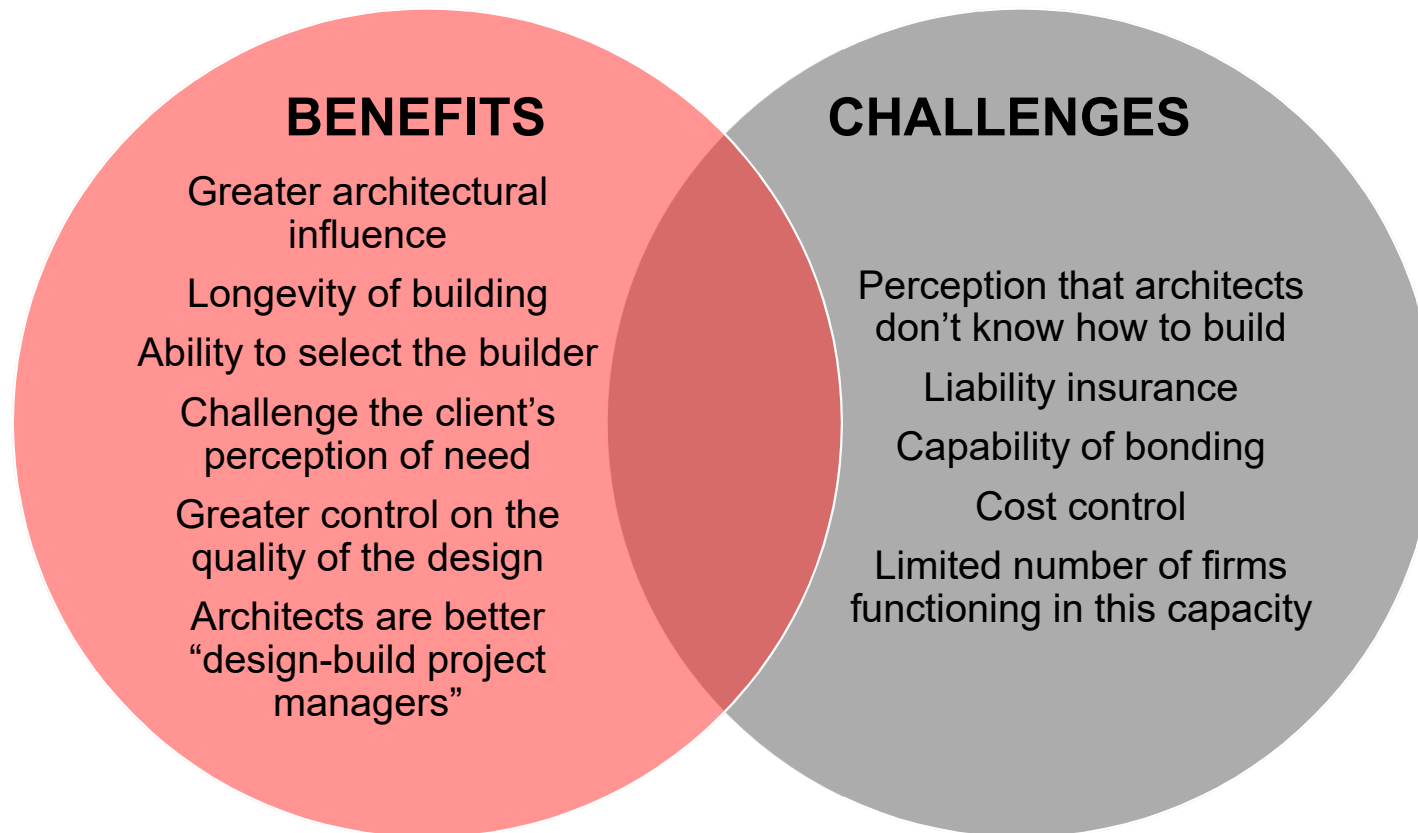
Contractor Led Design-Build

GC serves as the prime with the owner and has single point of responsibility for both design and construction of the project. The GC engages an architect.



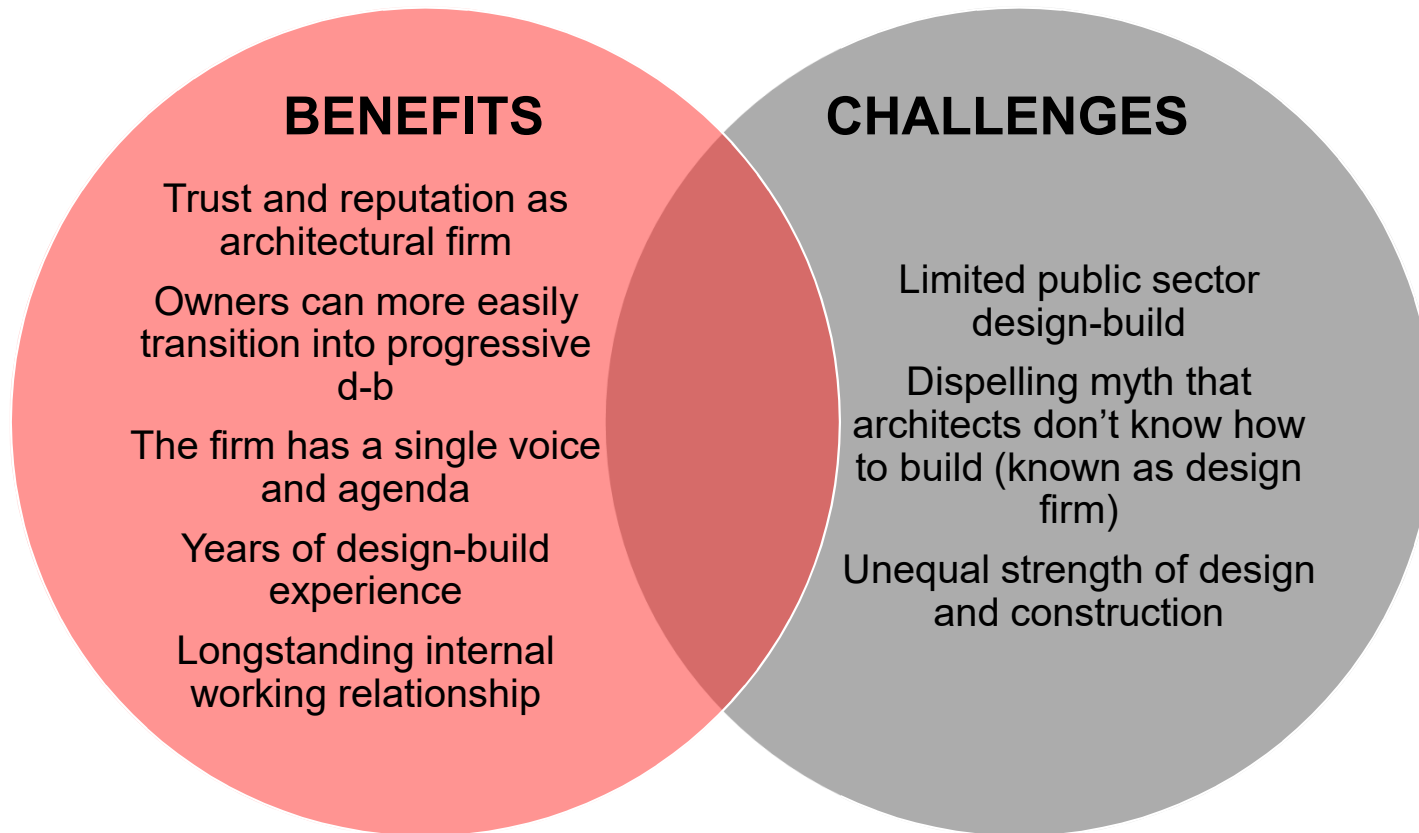
Designer Led Design-Build

The architect serves as the prime with the owner, acting as the design-builder and engaging a construction firm to act as the builder.



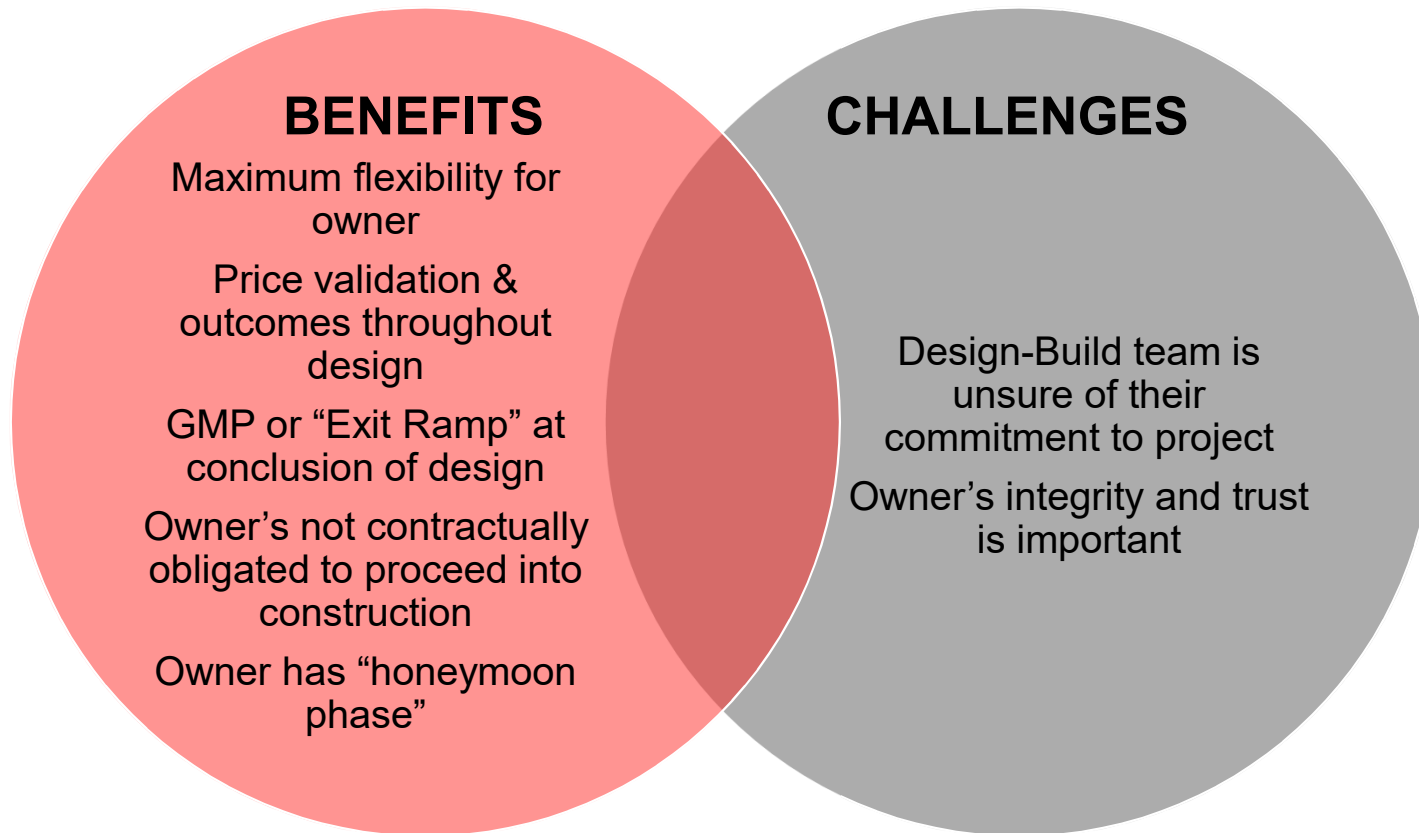
Integrated Design-Build

An integrated design-build firm has both Architectural and construction management teams in house, providing all services under one firm.

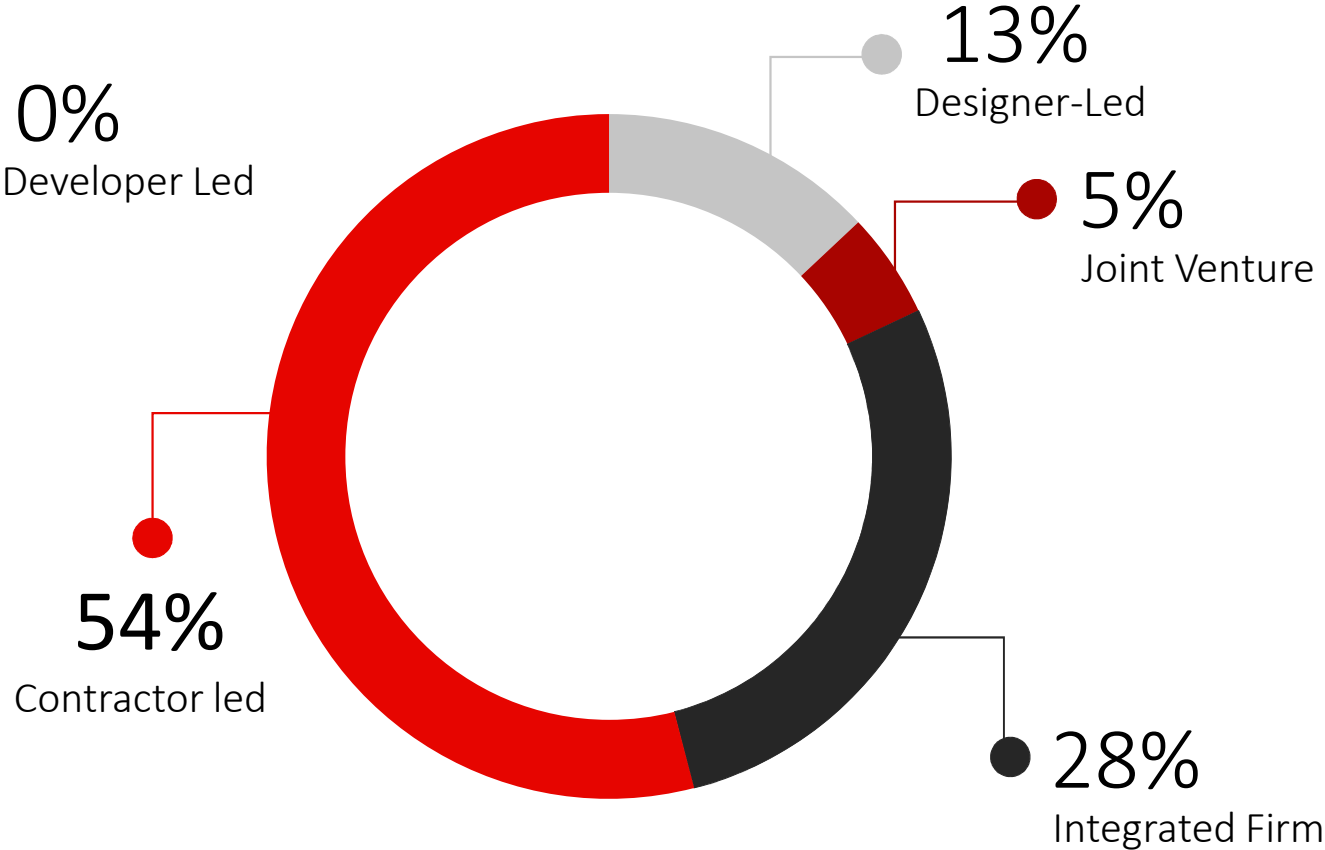


Progressive Design-Build

Design-build firm (of any form) is selected based on qualifications. Design and budgeting progress to a point in which the owner has the option to continue into construction or dissolve the relationship; a phased approach.



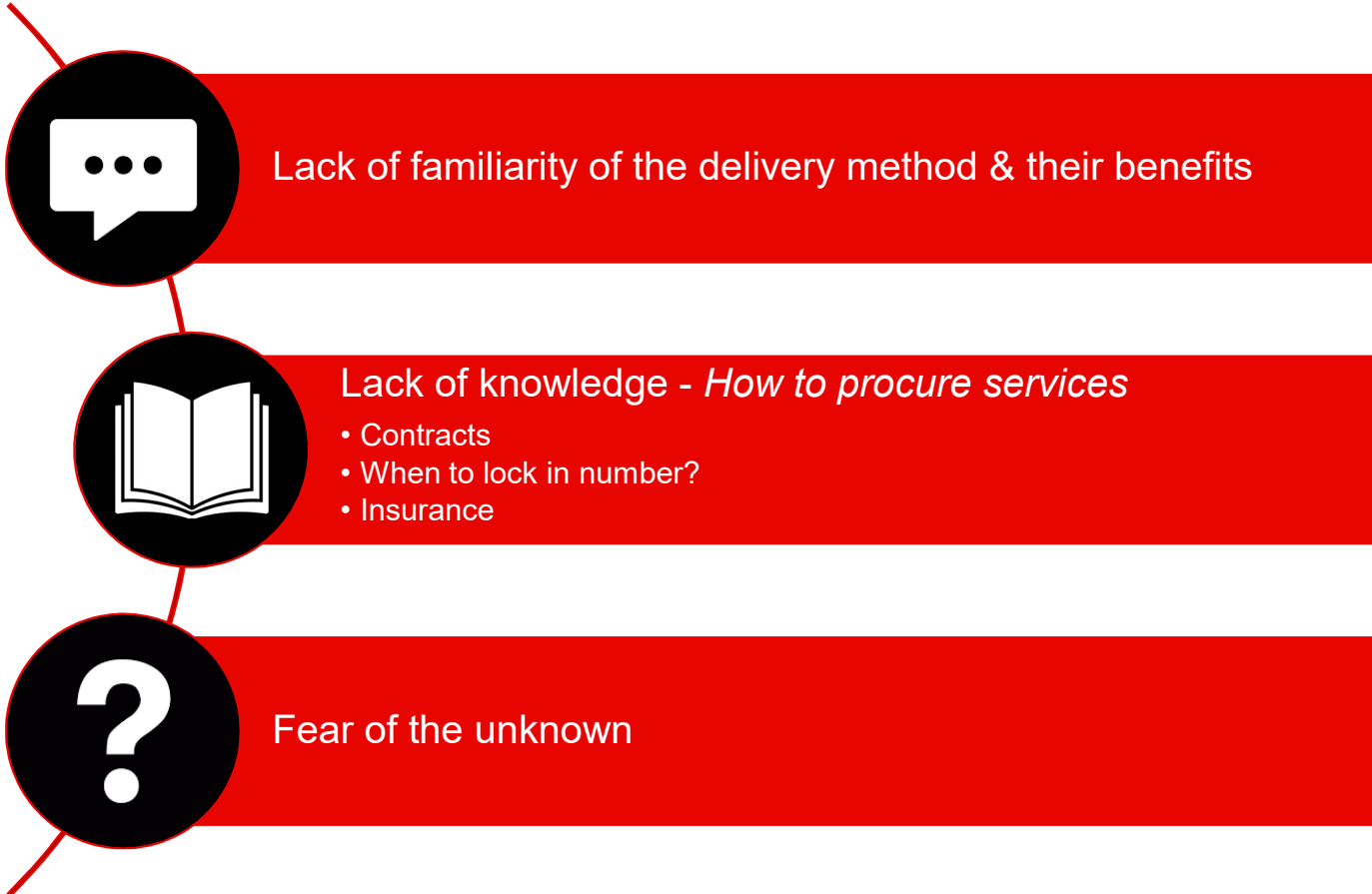
Design-Build Allocation



Source: Zweig White

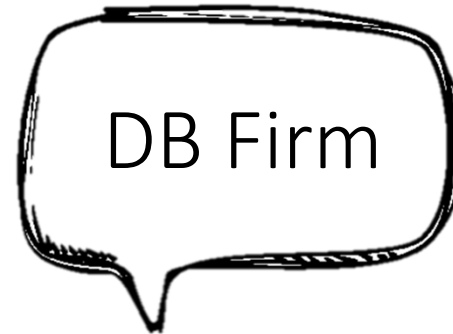
Design-Build Solution

Common Owner Questions



Design-Build Solution

Common Owner Questions



Why take the risk?
What's in it for me?

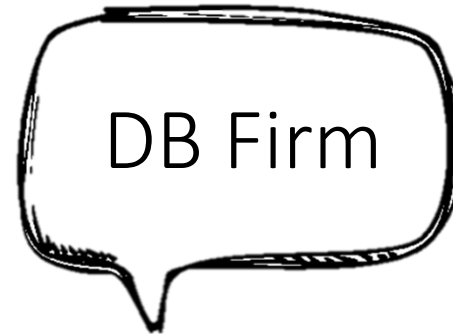
Less expensive, faster, less change orders, less claims, less lawsuits

Fox watching the hen house
- Conflict of Interest
- No checks and balances

Single source of responsibility
With GMP, Open Book, and Owner Participation

Design-Build Solution

Common Owner Questions



**Need dynamic interface
between Architect and CM**

*Relationship dynamic exists but
should be a common goal*

**Need to competitively
bid the project to hire
a design-build firm**

*Two step best value method
available through DBIA selection.
Cost is only 1 factor.*

Design-Build Solution Advantages



Maximize
Budget



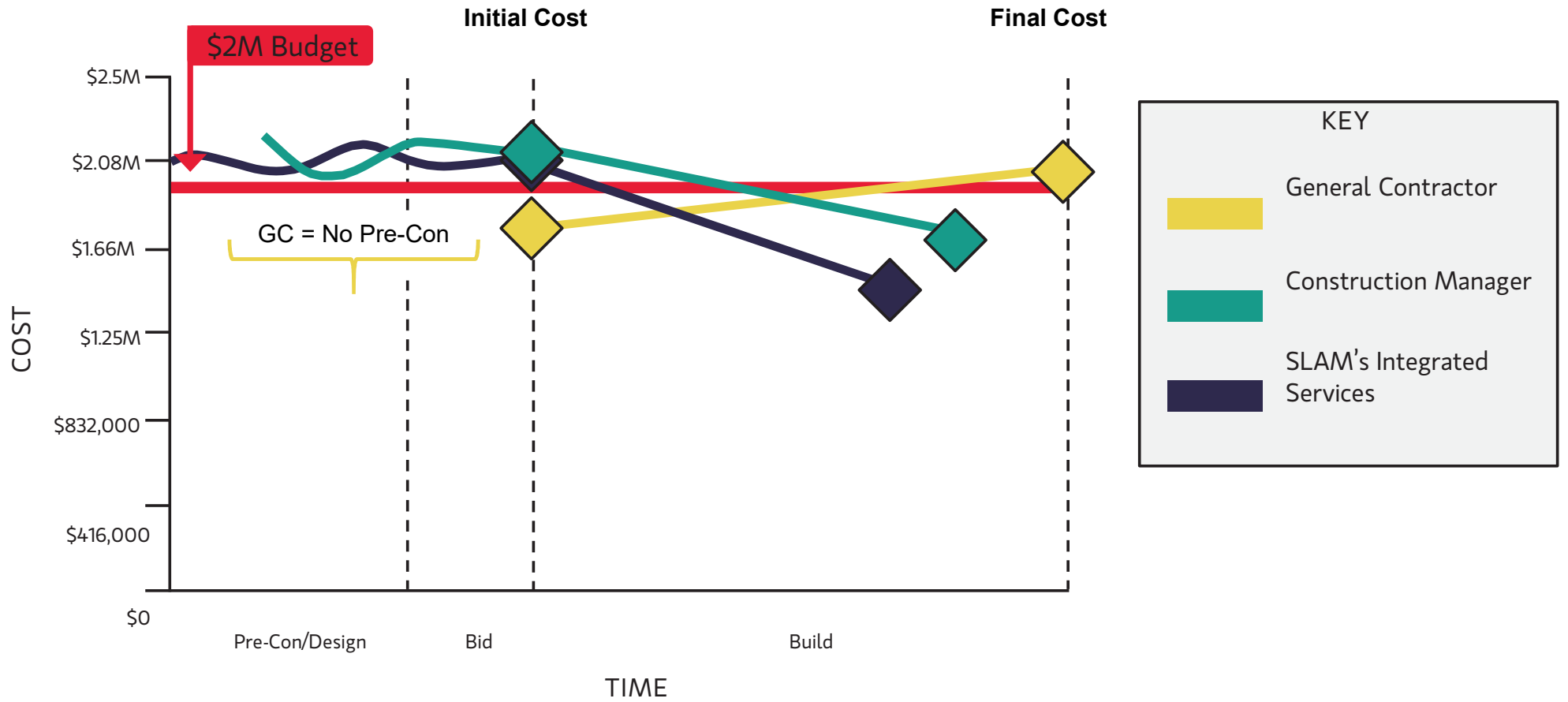
Reduced
Schedule



Less Risk &
Liability

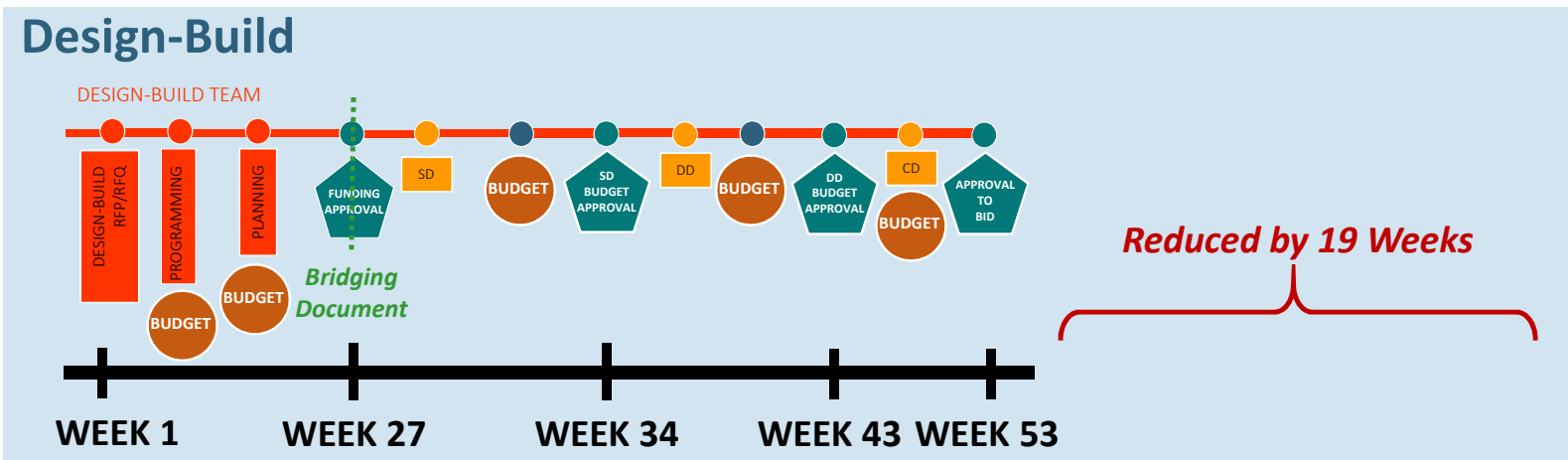
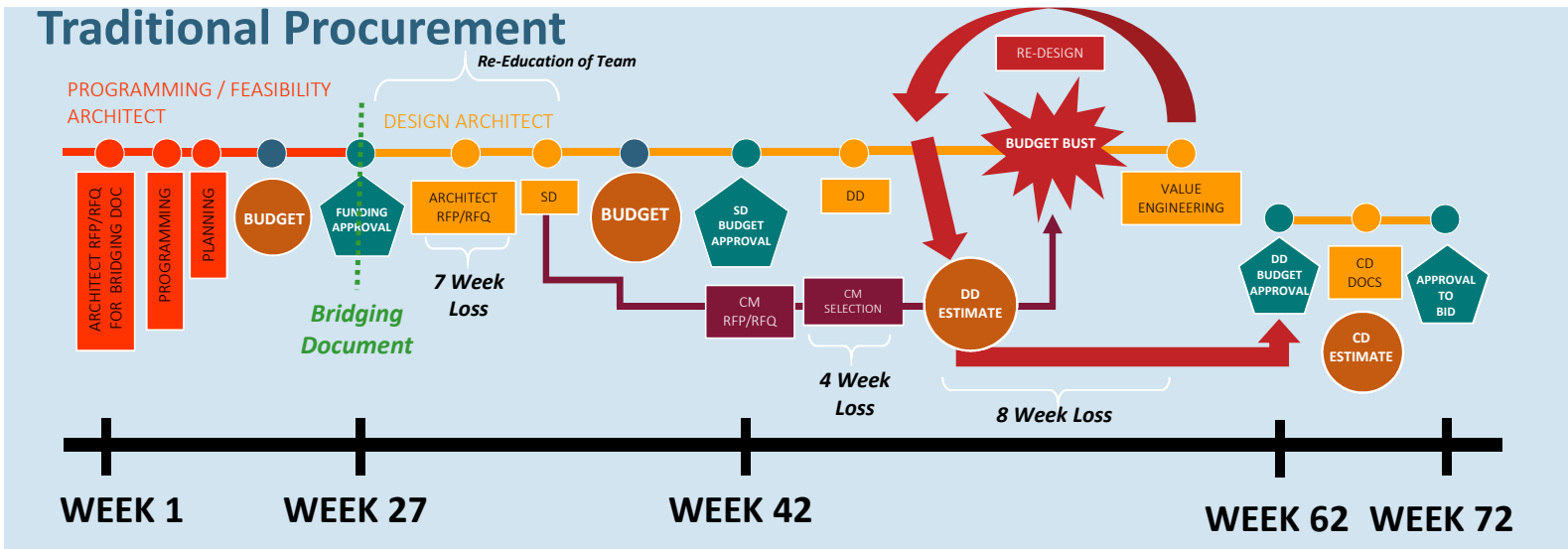
Design-Build Solution

Maximize Budget



Design-Build Solution

Reduced Schedule



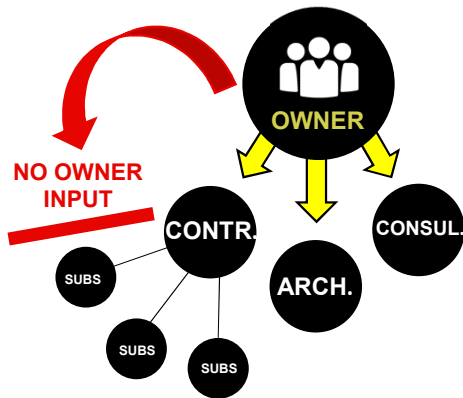
SLAM
PLAN DESIGN **BUILD**

SLAM DESIGN-BUILD

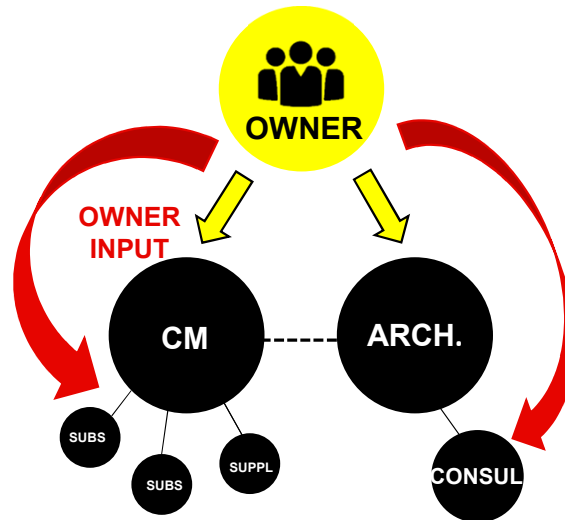
SLAM Design-Build

SLAM is an **integrated design-build firm**. SLAM places emphasis on the role of an architect in the design and functionality of a building, factoring in the client's needs, quality of materials and performance in the life of a building.

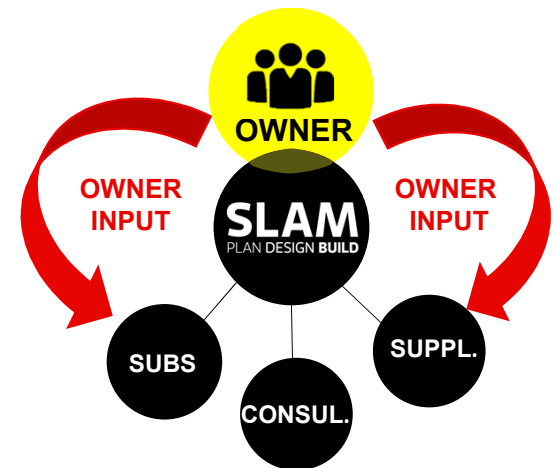
General Contractor



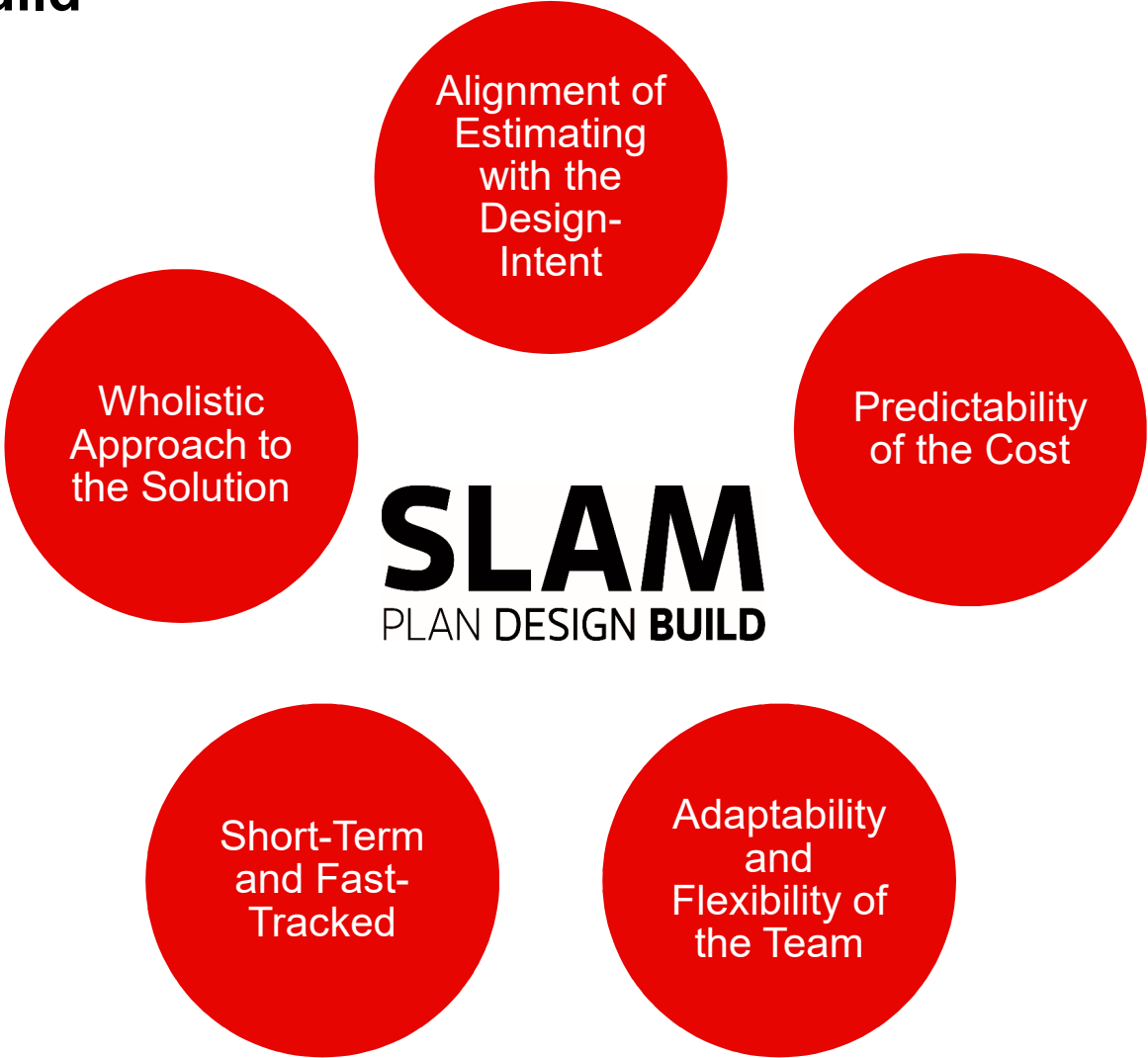
Construction Manager



SLAM Design-Build



SLAM Design-Build



SLAM
PLAN DESIGN **BUILD**

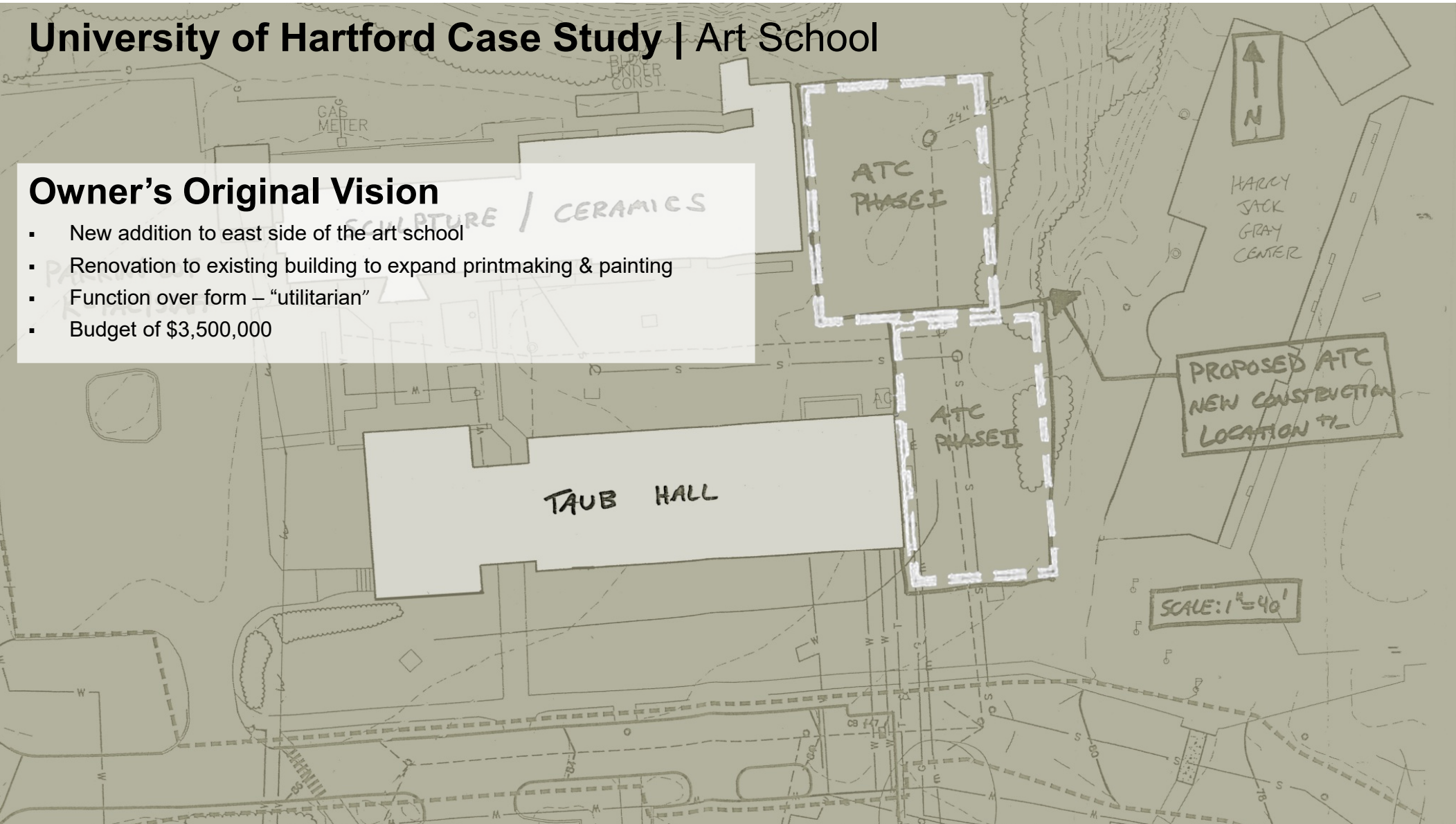
UNIVERSITY OF HARTFORD CASE STUDIES

- University of Hartford Art School
- Shaw Center

University of Hartford Case Study | Art School

Owner's Original Vision

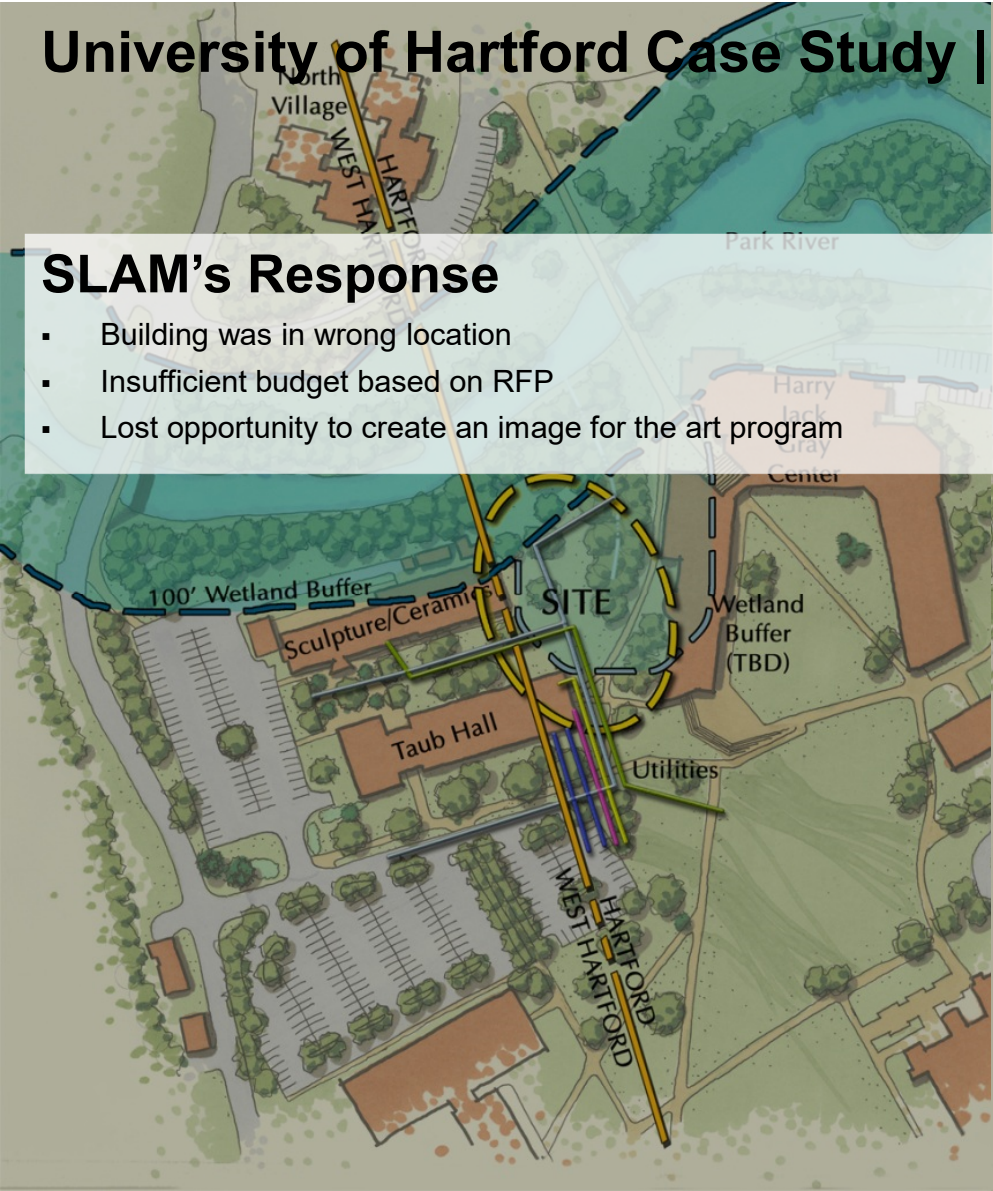
- New addition to east side of the art school
- Renovation to existing building to expand printmaking & painting
- Function over form – “utilitarian”
- Budget of \$3,500,000



University of Hartford Case Study | Art School

SLAM's Response

- Building was in wrong location
- Insufficient budget based on RFP
- Lost opportunity to create an image for the art program



University of Hartford Case Study | Art School

SLAM's Solutions

- Re-use of existing spaces eliminated need for new program space
- Renovated stairs
 - Savings of \$100,000
 - No new elevator needed
- Renovated existing bathrooms savings
 - No new bathrooms needed
- Used existing building circulation to minimize SF of addition
 - Relocation avoided major buried mech/elec feeds
 - Savings of hundreds of thousands



University of Hartford Art School | Before



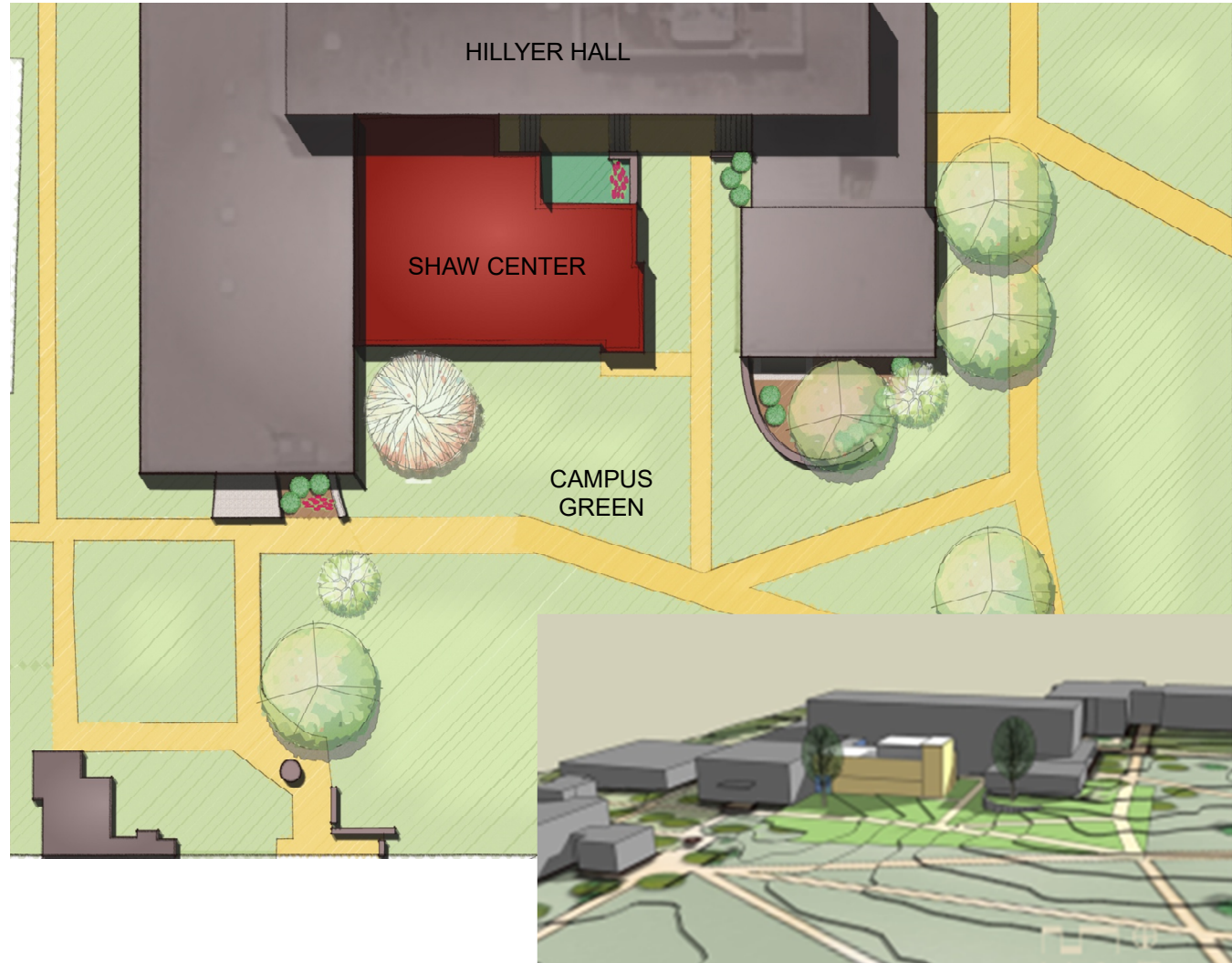
University of Hartford Art School | After



University of Hartford Case Study | Shaw Center

Proposed University Feasibility Study Assumptions

- 7,000 SF
- New toilets
- Two stairs
- Offices and Conference Room



University of Hartford Case Study | Shaw Center

SLAM's Proposed Solution to the RFP:

- 7,800 SF
- Solves programmatic needs

SLAM's Observations:

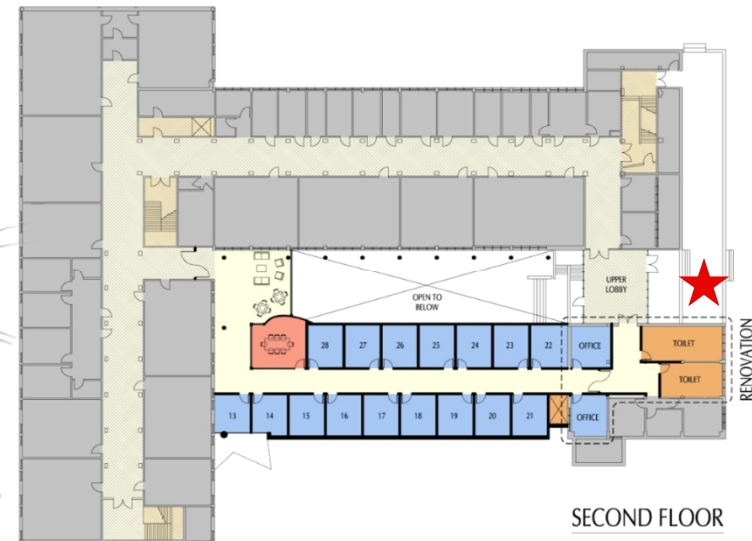
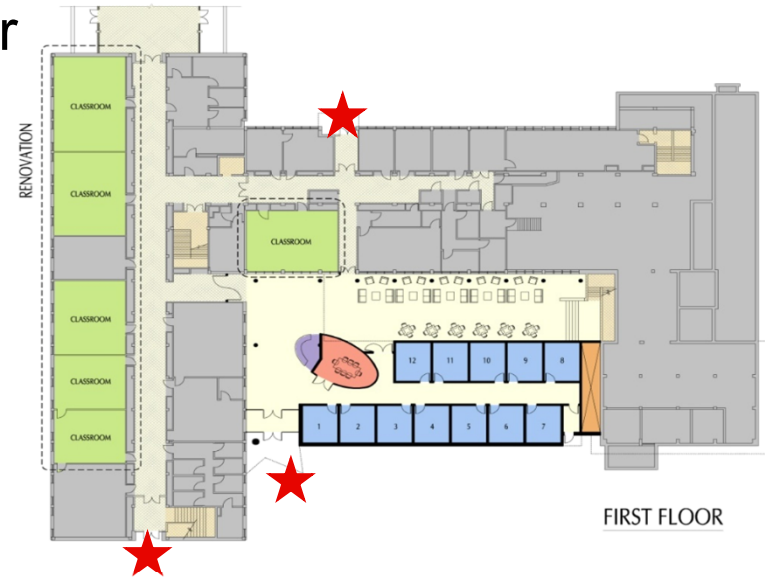
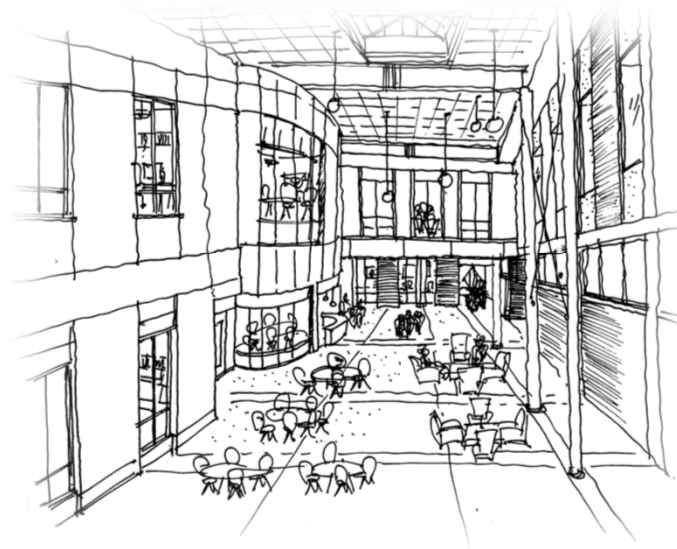
- Small Social Space
- Disconnected Faculty Offices
- New Toilets
- Requires Additional Egress Stair
- Limited presence on quadrangle
- Lacks campus connection/entrance
- Results in comprised courtyard



University of Hartford Case Study | Shaw Center

SLAM's Solution:

- 10,000 SF
- Maximizes social heart of Hillyer
- Increased connectivity between faculty offices and Hillyer Hall
- Increase number of offices
- More seminar space
- Utilizes existing stairs/elevator
- Renovates existing toilets
- Identifies further opportunities in RFP
- Significant presence on quadrangle
- Strong campus connection/entrance



University of Hartford Shaw Center | Before

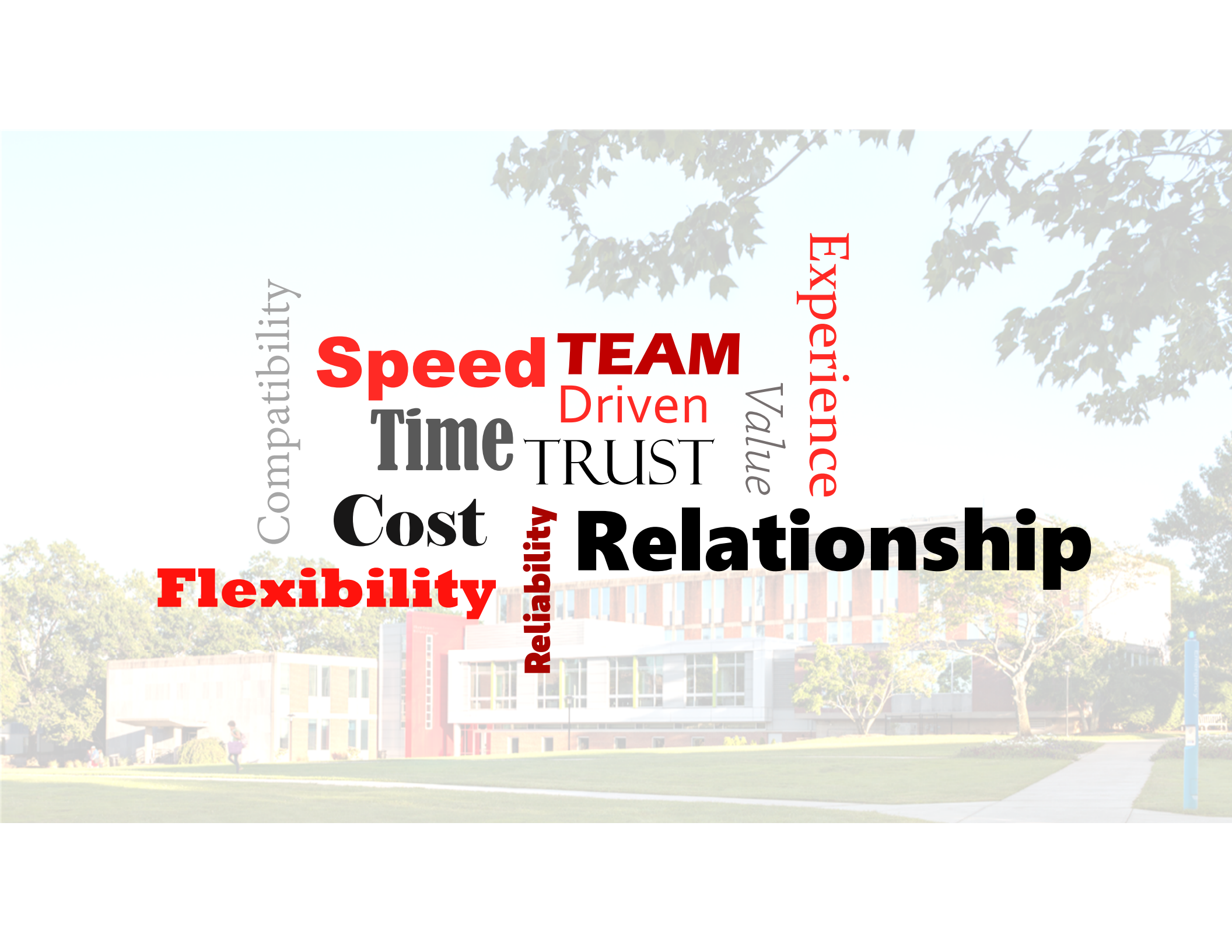


University of Hartford Shaw Center | After



University of Hartford Shaw Center | After





Compatibility

Speed **TEAM**

Driven

Time

TRUST

Value

Experience

Cost

Reliability

Relationship

Flexibility

A photograph of a modern university building with a red banner overlaid. The building features a mix of brick, concrete, and large glass windows. A prominent red vertical element is visible on the left side of the building. The foreground shows a green lawn and a paved walkway. The sky is clear blue, and some tree branches are visible in the upper right corner.

Thank You!

Keep in Touch!



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