Project Delivery for a New Paradigm

Harper College’s Library Transformation

2018
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Campus Goals

- A more effective and welcoming campus
- Space for academic programs to meet current and future needs
- Space for student services to meet current and future needs
- A strategic, cost-effective approach to the entire campus
Building F

Vision Statement

- Enhance the College’s Mission
- Serve the Community
- Contribute to Student Success
- Fostering the Knowledge
- Promoting Active Learning
- Critical Thinking
Building F

Project Goals / Objectives

- Inviting
- Creation Spaces
- Enhanced Collaboration
- Third Place Concept
The “Third Place” Concept

Ray Oldenburg’s
The Great Good Place

1st Place
HOME

2nd Place
WORK

3rd Place
COFFEE HOUSE, GYM, BAR, Etc.

Academic Campus

STUDENT HOUSING

CLASSROOM

STUDENT CENTER, LIBRARY
The “Third Place” Characteristics

- Neutral Ground
- Accessible and Accommodating
- Low Profile
- Mood is Playful

- Conversation is the Main Activity
- Act as a Leveler
- A Home Away from Home
- There are Regulars
Library Paradigm Shift

Production, Storage & Distribution of Content
Source of Information
Spatial Focus: Books (Stacks)
Spending Focus: Print Materials
Quiet Study Space
Library Paradigm Shift

- Creation of Content
- Commitment to Student Success
- Spatial Focus: People (Collaboration)
- Spending Focus: Electronic Resources
- Enticing Destination, Community & Collaboration
## Existing Conditions

<table>
<thead>
<tr>
<th>50 Year Old Building</th>
<th>Exposed Concrete Spandrels</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Occupiable Stories</td>
<td>Uninsulated Steel Framed Glazing Systems</td>
</tr>
<tr>
<td>97,800 SF on Interior Floor Area</td>
<td>Original Mechanical Systems</td>
</tr>
<tr>
<td>Before Renovation</td>
<td>Original Plumbing &amp; Electrical</td>
</tr>
<tr>
<td></td>
<td>Infrastructure</td>
</tr>
<tr>
<td></td>
<td>Original Elevator</td>
</tr>
</tbody>
</table>
## Scope of Work

<table>
<thead>
<tr>
<th>Replace All Mechanical, Electrical &amp; Plumbing Systems</th>
<th>Merge Faculty Support Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace All Wall, Floor and Ceiling Systems</td>
<td>Create 21st Century Library</td>
</tr>
<tr>
<td>Replace All Glazing and Entrance Systems</td>
<td>Modernize Building Interiors</td>
</tr>
<tr>
<td>Repoint All Exterior Masonry</td>
<td>Develop New Building Entrance</td>
</tr>
<tr>
<td>Replace Existing Elevator</td>
<td>Increase Student Common Area</td>
</tr>
<tr>
<td>Re-organize Building Occupancies</td>
<td>Enlarge Program Areas</td>
</tr>
<tr>
<td>Unify Academic Support Centers</td>
<td>Design for LEED Silver Certification</td>
</tr>
</tbody>
</table>
Building F Existing Floorplans

1ST FLOOR

2ND FLOOR

3RD FLOOR
Building F Existing Floorplans

1ST FLOOR
LIBRARY
SUPPORT
ACADEMY

2ND FLOOR
LIBRARY

3RD FLOOR
WRITING
TUTORING
Building F Existing Floorplans

1ST FLOOR
- LIBRARY
- SUPPORT
- ACADEMY

2ND FLOOR
- LIBRARY

3RD FLOOR
- WRITING
- TUTORING

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Building F Existing Floorplans

1ST FLOOR

2ND FLOOR

3RD FLOOR
Building F Existing Floorplans
Building F Existing Floorplans

1ST FLOOR

2ND FLOOR

3RD FLOOR
Building F Existing Floorplans

1ST FLOOR

TUTORING & WRITING

2ND FLOOR

ACTIVE LIBRARY

3RD FLOOR

QUIET LIBRARY & ACADEMY
Building F Existing Floorplans

1st Floor: Tutoring & Writing

2nd Floor: Active Library

3rd Floor: Quiet Library & Academy
1st Floor

Foster the Knowledge

CONNECT
TUTOR
SUPPORT
LEARN
WRITE
RECORD

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LEGAT ARCHITECTS

Pepper Construction
Natural Light
3rd Places
Social
Transparency
Engaging
Activate the Learning
Instructional
Mystery
Safe
Comfortable
Easy to Find
Views
Fun
Easy to Find
Breaks
Enjoy Solitude
Support
Personal
Best place to hide

Critical Thoughts

Brain Power
Project Delivery for a New Paradigm

Integrated

Transparent

Inviting
How We Did It
Target Value Design

Early Involvement of the PROJECT TEAM

Keep the focus on the STUDENTS, FACULTY AND THE COMMUNITY.

Re-Think every SINGLE SPACE

Logistical PLANNING

TARGET VALUE DESIGN = Right cost, right program, right quality
## Pepper Construction Harper College Library (Building F) Library Benchmark Comparison

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Description</th>
<th>Location</th>
<th>Year Built</th>
<th>Type</th>
<th>Total SF</th>
<th>Total Cost</th>
<th>$ / SF</th>
<th>$ Escalated to 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haish Memorial Library</td>
<td>Project includes renovating the existing, 19,000SF library and a multi-story 41,000SF addition.</td>
<td>DeKalb, IL</td>
<td>Under Construction</td>
<td>Addition</td>
<td>41,000 SF</td>
<td>$15.5M</td>
<td>$378 / SF</td>
<td>$393 / SF</td>
</tr>
<tr>
<td>Poplar Creek Public Library</td>
<td>Three-story, 60,000SF addition features tall ceilings, meeting rooms and study spaces.</td>
<td>Streamwood, IL</td>
<td>2007</td>
<td>Addition</td>
<td>60,000 SF</td>
<td>$18.5M</td>
<td>$308 / SF</td>
<td>$343 / SF</td>
</tr>
<tr>
<td>Loyola Information Commons</td>
<td>New construction of a four-story ‘library without books’ on Loyola University’s Lakeshore Campus.</td>
<td>Chicago, IL</td>
<td>2007</td>
<td>New Construction</td>
<td>72,000 SF</td>
<td>$30.8 Million</td>
<td>$428 / SF</td>
<td>$476 / SF</td>
</tr>
<tr>
<td>Christopher Center Library</td>
<td>New construction of a four-story university library center.</td>
<td>Valparaiso, IN</td>
<td>2003</td>
<td>New Construction</td>
<td>105,000 SF</td>
<td>$25.6 Million</td>
<td>$244 / SF</td>
<td>$375 / SF</td>
</tr>
<tr>
<td>Harper College Building F</td>
<td>Renovation of an existing 107,000 SF 3-story building, with 3 story atrium, 2 floors of library and 1 floor of student services.</td>
<td>Palatine, IL</td>
<td>2017</td>
<td>Renovation</td>
<td>107,000 SF</td>
<td>$22 Million</td>
<td>$205 / SF</td>
<td>$205 / SF</td>
</tr>
</tbody>
</table>
Preconstruction Process

- Program
- SD documents
- DD documents
- CD documents

- Program Estimate
- Schematic Design Estimate
- Design Development Estimate
- Construction Documents Estimate

VISION
ARCHITECT

BUILD

Project cost + scope

Target Value Design

[Control Estimate]
Sitework: $288,237
Structure: $1,329,255
Building Enclosure: $2,249,871
Interior Finishes: $8,482,440
MEP: $9,584,579
Soft Costs: $5,065,615
100 percent transparency
An open book approach from start to finish.
What is Lean Construction?

New way to design and build capital facilities
Changes the way work is done throughout the delivery process
Maximize Value and Minimize Waste
# Top Construction Wastes

<table>
<thead>
<tr>
<th>Rework</th>
<th>Shop Drawings</th>
<th>Excess Material or Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waiting on Supplies</td>
<td>Inadequate Resources</td>
<td>Safety Losses</td>
</tr>
<tr>
<td>Waiting on Another Trade</td>
<td>Inefficient Work Flow</td>
<td>Improper Sequencing of Work</td>
</tr>
<tr>
<td>Requests for Information</td>
<td>Work-Arounds</td>
<td></td>
</tr>
<tr>
<td>Change Orders</td>
<td>Multiple Handling of Material</td>
<td></td>
</tr>
</tbody>
</table>
Built on Conversations
Pull Planning Components  Phase Pull Plan

- **MASTER SCHEDULE**
  - Should Do
  - Can Do

- **PHASE SCHEDULE**
  - Improving Feedback & Learning

- **LOOK-AHEAD PLAN**
  - Improving Feedback & Learning

- **WEEKLY WORK PLAN**
  - Will Do
  - Doing & Done

- **PROGRESS TRACKING**
  - Will Do
  - Doing & Done
Pull Planning Components

Weekly Work Plan
Six Week Look-ahead
Paperless Benefits

Field drawings are actually up to date

Multiple screens across the site, saves subs time

Time saved in findings RFI's, submittals, etc.

Field foreman / workers drive through BIM model to review other MEPFP trades systems

Field trades can actually see the drawings

Historical Set | Field notes
Building F Before
“I just wanted to stay...”
— Gary Pece, Current Harper Student