Start Your Lean Journey With AGC’s Lean Construction Education Program
Lean Construction Forum
Quality, Efficiency, and Expediency Through Collaboration

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AGC Lean news

96th Annual AGC Convention: Lean Construction for Executives
Speaker: Bill Seed, Walt Disney Imagineering
Wednesday, March 18, 2:30pm – 4:00pm

Webinar: The Role of Communication in Supporting the Development of a Lean Culture

16th Annual Lean Construction Institute Congress – October 7-10, 2014 – San Francisco, CA

Lean Construction 101 Course Re-released!

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Are you looking to complete projects faster and at lower costs? Lean Construction is driven to minimize costs and maximize value on each project completed, challenging all stakeholders to
agcleanforum.org/resources

Resources

- Seeing Value - Application of Lean Thinking to Construction
- Lean Construction from a Specialty Contractors' Perspective
- Lean Workstructuring - Perspectives from Miron and Boldt
- Three Lean Tools to Help Your Company be More Competitive
- Lean Construction in Practice Through “Real World” Applications

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Webinar: Lean Problem Solving to Improve Contractors Operations
August 5, 2014 | 2:00PM - 3:30PM ET
Learn more about AGC’s Lean Construction Education Program
AGC’s Lean Construction Education Program will provide a comprehensive and practical look at Lean Construction practices examining the concepts pivotal to Lean Construction, including:

- Variation in production systems
- Pull in production
- Lean Workstructuring
- Lean supply chains and assembly
- The Last Planner® System
- Lean design and preconstruction
- Problem-solving principles and tools

For more details on the program content and structure visit the Course Content and Credentialing page.

Now Available

- **Lean Construction 101.** This one-hour online course provides a solid introduction for those in the construction community who are looking to gain knowledge and understanding of Lean Construction principles. This course is offered free to AGC members. (Temporarily under construction.)

- **Unit 1: Variation in Production Systems.** A four-hour in-seat course describes the different types of variation that can occur in a production system and lists practical solutions to reduce variation. This course is available for AGC members. (Temporarily under construction.)
Why Lean?

- Lean focuses on maximizing the whole NOT on maximizing individual performance
- Maximize Value + Reduce Waste
- Improve processes to be more competitive
- Provides consistency throughout company
Why Lean?

• Toyota’s Goal
  “Give customers what they want, deliver it instantly, with no waste.”

Toyota Plant – San Antonio, TX
Why Lean?

• It brings solutions!
Sundt’s Lean Journey
Sundt’s Lean Journey

- **2005**: Test pilot LPS at Apollo RiverPoint
- **2006**: Lean Expectations set at Executive Level
- **2007**: Lean Seminars
  - PMs, Superintendents, Engineers, Precon
  - LPS included in ‘Instructions to Bidders’
  - LPS incorporated into Subcontracts
  - Operational & Corporate Value Stream Mapping
- **2008**: Sundt Academies
  - Grass roots implementation
  - Sundt Lean Committee
Buy in at the Executive Level

✓ Driven by the CEO

✓ Key people sent to LCI Congress for 1st hand view of Lean – What are we getting into?

✓ Provided resources for success

✓ Hired 3rd party Lean consultant
Test Pilot Projects
Apollo RiverPoint & Butler WWTP

- Pilot projects selected for implementing LPS™
- Used 3rd party consultant
- Pilot project team trained on LPS™
Train, Train, Train…

✓ Lean Seminars
  ✓ Subcontractors/Sundt
  ✓ Owners/Architects/Sundt Preconstruction

✓ Train the Trainer

✓ Sundt Academies
  ✓ PM, PS, PE, Preconstruction
  ✓ Self-perform groups

✓ Attended Lean Conferences
  ✓ Lean & Infrastructure - UCLA Berkeley
  ✓ Lean UK Congress – Manchester, England
  ✓ Lean Congress – San Francisco & Mumbai, India
  ✓ Lean Design Congress - Chicago
  ✓ Benchmark Session with Vision Alliance - Helsinki, Finland

And when your done... train some more
Incorporated Lean in Subcontracts

✓ Instructions to Bidders
✓ Subcontract language section 8.3

8.3 Lean Construction. Contractor will employ lean construction principles on this Project.

8.3.1 Use of the Last Planner System™.

.1 The Last Planner System™ (“LPS”) is a lean production-based project planning and management system developed by the Lean Construction Institute.

.2 Subcontractor shall actively participate in the implementation and use of lean construction principles and Last Planner System on this Project. At a minimum, Subcontractor shall (a) attend LPS scheduling meetings in addition to normal weekly subcontractor coordination meetings, (b) regularly submit Weekly Work Plans, and (c) attend and participate in pull planning sessions as required by Contractor.
Sundt’s Lean Journey

Establish Kaizen Committee
Sundt Way/Best Practices
Ideas@sundt.com

Companywide Training Consultant
Mastering Change & Achieving Results

2009

2010

2011

2012

1st Kaizen Director
1 year full time rotating position
Change Management Model
The Kaizen Process

Introduce A3 Form

Company Presentations
Introduce Kaizen Process
Focus on high impact ideas
Submitting Ideas

✓ Collecting ideas from employees companywide & posting in a central location

✓ Ideas reviewed by Committee

✓ Communicating decisions
Training on Mastering Change & Achieving Results

- Hired 3rd party change consultant
- Develop Sundt’s Change Management Model
- Develop process to evaluate ideas
- Encouraged the use of lean tools (A3, Value Stream Mapping)
Dedicated Director

- Dedicated resource to lead the charge
- Growth opportunity as a rotating position
- More ideas being implemented
- Opportunity to pursue high impact ideas
Introduce 2 Second Lean

LPS mandatory for all Sundt projects

Kaizen Director position extended 2 year tour

Introduce 2 Second Lean

‘Continuous Improvement’ movement is created

2014 Lean Summit

Corporate Director of CI permanent full time position

2013

2014

2015

AGC Lean Training Sessions

CI Leaders are identified

CI Strategic Plan is implemented

Sundt’s Lean Journey
2 Second Lean

- Small incremental improvements
- Empowering employees - making improvements within their scope of influence
- 5 S’s being utilized at the enterprise and project levels
- Books presented to all Admin employees
- Presented at orientation
Develop a Strategic Plan

Continuous Improvement (Lean and Kaizen) Strategic Plan

C: Current State
- No current CI baseline metrics
- Revenue per Employee-Owner (Admin) = 40th percentile
- Revenue per Employee-Owner (Craft) = 60th percentile
- Operating Income per Employee-Owner (Admin) = Per Success Scorecard

D: Bridging Strategies
1. Develop skilled continuous improvement **leaders**
2. Develop Sundt’s continuous improvement **toolbox**
3. Nurture a **culture** of continuous improvement

A: Ideal Future
Sundt’s CI culture inspires better performance every day. Sundt is the industry leader in productivity.

B: Measures (by 2020...)
1. On the internal customer survey:
   - At least 75% of respondents report understanding tools and methods of CI
   - At least 75% of respondents report feeling empowered to make improvements to their own work or that of their team
   - At least 85% of respondents feel CI group is accessible
   - At least 75% of respondents report CI implementations positively impact their work
2. Each continuous improvement leader acquires AGC’s Lean Management credential
3. Measurements for process Improvement (appropriate measures for each process)
4. Shared metric: Revenue per Employee-Owner for Craft and Admin (each) in the 75th percentile or higher (PriceWaterhouseCooper)
5. Operating Income per Employee-Owner (Admin) for each business unit (TBD)
AGC’s CM-Lean Credential

✓ Identified employees companywide that were passionate about improvement

✓ Develop lean knowledge & skills; taking that experience & putting it to use

✓ 29 employees participated in initial training

✓ 17 employees eligible to take exam
Leadership Development

2016 and beyond

17 CI Leaders earned AGC’s Certificate of Management Lean Construction CM-Lean

2nd group of CI Leaders start AGC Lean training

CI Leaders start improvement projects
AGC’s Lean Construction Education Program

• The overall aims of the LCEP are to:
  – Develop Lean Construction champions within construction firms
  – Advance the use of lean practices in construction through development of a consistent nomenclature and practices
  – Provide an industry-recognized credential that creates a common standard of knowledge
AGC’s Lean Construction Education Program

agc.org/learn/education-training/lean-construction

Lean Construction Education Program

What people are saying about AGC’s credentialing program and find out how you can earn your own certificate.

Everyone related to the construction process has incentive to get the project done faster and at a lower cost - from the project owners who want to see tangible results for their investment to the contractors and designers who want to do their job well and move on to the next project. Lean Construction is based on the holistic pursuit of continuous improvements aimed at minimizing costs and maximizing value on a construction project: planning, design, construction, activation, operations, maintenance, salvaging, and recycling.

To help contractors develop the knowledge needed to build lean, the Associated General Contractors of America developed the Lean Construction Education Program.

Now Available on: amazon.com
AGC’s CM-Lean Credential

- 8808 total attendees since inception
- 593 students have completed All 7 Units
- 225 have earned the CM-Lean credential
- 87 instructors approved to date
Don’t give up…it’s a continuous journey!
Q & A

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