Doing More with Less

Creating the capacity for innovation and growth
Impact Washington is a non-profit organization whose mission is to improve manufacturing performance in the state of Washington through a public private partnership offering consulting, educational and advocacy services in order to contribute to a healthy Washington economy.

In pursuit of our mission, Impact Washington supports governmental and educational institutions in their continuous improvement efforts which help to create an environment where manufacturing can thrive.
What is Lean?

1. The absolute elimination of waste
2. Based on two pillars:
   a. Autonomation
   b. Just-in-time
Origins of Lean

Gilbreth

Taylor

Gilbreth

Deming

Training Within Industry

Ohno
Budget
Paradigms of Government

<table>
<thead>
<tr>
<th>Time</th>
<th>19th Century</th>
<th>20th Century</th>
<th>21st Century</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paradigm</td>
<td>Spoils</td>
<td>Bureaucracy</td>
<td>Reinvention</td>
</tr>
<tr>
<td>Primary accountability</td>
<td>Loyalty</td>
<td>Rules</td>
<td>Results</td>
</tr>
</tbody>
</table>

Source: Jim Chrisinger, Lean Director; King County, WA
Why Lean Office?
The impact of Lean Office
Why the focus on waste?
Why the focus on waste?

<table>
<thead>
<tr>
<th>Value Added</th>
<th>Non-value Added</th>
</tr>
</thead>
</table>

Time
Why the focus on waste?

50% improvement in value-added work
Why the focus on waste?

50% improvement in value-added work

50% improvement in non-value-added work
Overproduction
Over-processing
Transportation
Movement
Waiting
Defects
Wastes in the office

- Incompatible systems
- Manual checking electronic data
- Data dead ends
- Re-entering data
- Converting formats
- Unnecessary data
- Unavailable data
- Unknown data
- Missing data
- Unclear or incorrect data
- Data discrepancies
- Redundant input of data
- Redundant input of data
- Unsafe conditions
- Unclear sponsorship, norms, & boundaries
- Useless information
- Workarounds
- Approvals
- Reviews
- Signatures
- Inspections
- Searching
- Waiting / delays
- Variable flow in a process
- Incomplete work
- Unclear roles
- Lack of training
- Interruptions
- Competition (within the organization)
- Lack of training
- Ineffective meetings
- Lack of project management
- Multitasking
- Underutilized talent
- Rigid hierarchy
- Extra features
- Relearning
- Handoffs
- Task switching
- Moving / transportation
- Defects
- Communication barriers
- Unnecessary complexity
- Lack of useful metrics/measures
- Lack of useful feedback
- Turnover
- Mishandled conflict
### What does success look like?

Initiating maintenance orders

<table>
<thead>
<tr>
<th>Measure</th>
<th>Before</th>
<th>After</th>
<th>% improved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idle time</td>
<td>16 days</td>
<td>12 days</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Cycle time</strong></td>
<td><strong>5 days</strong></td>
<td><strong>3 days</strong></td>
<td><strong>40%</strong></td>
</tr>
<tr>
<td>Rework loops</td>
<td>6</td>
<td>4</td>
<td>33%</td>
</tr>
</tbody>
</table>
What does success look like?

**Procurement**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Before</th>
<th>After</th>
<th>% improved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idle time</td>
<td>6.75 days</td>
<td>6 hours</td>
<td>90%</td>
</tr>
<tr>
<td>Cycle time</td>
<td>1.9 hours</td>
<td>1.75 hours</td>
<td>9%</td>
</tr>
</tbody>
</table>
What does success look like?

Accounts payable

<table>
<thead>
<tr>
<th>Measure</th>
<th>Before</th>
<th>After</th>
<th>% improved</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Idle time</strong></td>
<td>24 days</td>
<td>6 hours</td>
<td>85%</td>
</tr>
<tr>
<td>Cycle time</td>
<td>9 hours</td>
<td>6 hours</td>
<td>33%</td>
</tr>
<tr>
<td>Total steps</td>
<td>19</td>
<td>9</td>
<td>53%</td>
</tr>
</tbody>
</table>
Department of Community Development

Single Family Residence Permit Kaizen Workshop

90 Day Report
# Kaizan 90 Day Report

## The Charter

<table>
<thead>
<tr>
<th>Subject</th>
<th>Single Family Residence (R-SFR)</th>
</tr>
</thead>
</table>

**Background**

- **Why a priority**: High volume, customer perspective (client thinks the process is ‘broken’)
- **Defects**: Customer submittal, submittal is ‘broken down’ at intake, unclear process, triage

**Cost of current condition**

- Time, perception/credibility, delays $ in the economy

**Process customer (internal & external)**

- Staff, builders, next generation (silent customer, future ownership), neighbors, community.

**Targets** *(what/how much/by when)*

- Reduce Lead Time
- Define Customer Satisfaction
- Develop Survey to track Customer Satisfaction

**Boundaries**

- Includes: New Single Family Residence
- Excludes: Non-SFR Permits, Basics, Expedited Review

**Timeline**

- Preparation: What is current timeline? Now – 7/9/12
- Kaizen: 7/9/12 – 7/13/12

**The Team**

<table>
<thead>
<tr>
<th>Sponsor: Larry Keeton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team leader: Mary Seals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Team members:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kim Shadbolt</td>
</tr>
<tr>
<td>2. Greg Spears</td>
</tr>
<tr>
<td>3. Tina Turner</td>
</tr>
<tr>
<td>4. Shawn Alire</td>
</tr>
<tr>
<td>5. Heather Adams</td>
</tr>
<tr>
<td>6. Lisa Lewis</td>
</tr>
<tr>
<td>7. Tina Rice</td>
</tr>
<tr>
<td>8. Dave Lynam</td>
</tr>
<tr>
<td>9. Jim Way, Pristine Homes</td>
</tr>
<tr>
<td>10. Karla Cook, Cook Construction</td>
</tr>
<tr>
<td>11. Justin Ingalls, Trident Homes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Observers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commissioner Brown</td>
</tr>
<tr>
<td>Commissioner Gelder</td>
</tr>
<tr>
<td>Commissioner Garrido</td>
</tr>
<tr>
<td>Doug Bear</td>
</tr>
<tr>
<td>Meredith Green</td>
</tr>
<tr>
<td>State Performance Measurement Observer</td>
</tr>
</tbody>
</table>
## Report

<table>
<thead>
<tr>
<th>Measure</th>
<th>Start 7/13/12</th>
<th>Target</th>
<th>Target Change (%)</th>
<th>Actual Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. R-SFR Permit Lead Time (to approval)</td>
<td>26.1 Days</td>
<td>18 Days</td>
<td>31%</td>
<td>81% 69% 81%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 Days 8 Days * 5 Days</td>
</tr>
<tr>
<td>2. Define Customer Satisfaction</td>
<td>No</td>
<td>Yes</td>
<td>100%</td>
<td>100% 100% 100%</td>
</tr>
<tr>
<td>3. Develop New Survey</td>
<td>No</td>
<td>Yes</td>
<td>100%</td>
<td>100% 100% 100%</td>
</tr>
</tbody>
</table>

26.1 days → 5 days

* Excludes 2 exceptions with complicated reviews that took 41 and 42 days to review.
90 Days 2011 vs. 90 Days 2012

R-SFR’s Submitted by Year
7/23 – 10/15

2011
48

2012
67
Achievements (partial)

- Lobby Signage
- Check-In Station
- Information Wall
- Educational Presentations in Lobby
- WiFi in the Lobby
- Established Residential Pod
  - KanBan Board
  - Equipment for station
  - Phones at each review desk
Kaizan 90 Day Report

Continuous Improvements (partial)

- Lobby
  - Utilize scanners at intake
  - More Educational Presentations
- Resource Room / Kiosk
  - Maps and Computer for Clients
- Quality of Review/Deficiency Reports
- Evaluate How Other Work Areas Impacted
- Evaluate Project Lead Time
- Measure Variance
Kaizen 60 Day Report

Before

After
30 Days

60 Days
Department of Community Development

Code Compliance
Intake Kaizan

DCD Management Report Out
Goals

**Establish Intake Process**
- Use existing resources outside of Code Compliance.
- Standard, more complete intake information.

**Decrease Lead Time for Eyes On**
- Use existing talent.
- Use eyes already in the field.

**Develop Assignment Method and Metrics**
- How cases are assigned and tracked.
- Appropriate metrics for issues.
Kaizan 60 Day Report

Process
- Current Process and Value Mapping
- Problem Identification
- Root Cause Analysis
- Complainant Profile
- Intake Identification
- Future Process Value Mapping
- Future Process Metrics
Current Intake Process

Issues

- Multiple entry points.
- Rework intake information.
- Rework assignment and research steps.
- Coordination of all interested party visit.
- All complaints were the same.
- No expectation for resolution.
- New technology didn’t work with existing process.
Kaizen 60 Day Report

Proposed Intake

Benefits

- Fewer steps and opportunities to “get lost”.
- Fewer rework loops in design.
- Relies on expertise in other areas.
- Reduces tie to eyes on site.
# Kaizan 60 Day Report

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Old</th>
<th>New</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steps</td>
<td>29</td>
<td>18</td>
<td>-38</td>
</tr>
<tr>
<td>Value Added</td>
<td>4</td>
<td>4*</td>
<td>0</td>
</tr>
<tr>
<td>Decisions</td>
<td>11</td>
<td>6</td>
<td>-45</td>
</tr>
<tr>
<td>Loop Backs *</td>
<td>6</td>
<td>3</td>
<td>-50</td>
</tr>
<tr>
<td>Hand Offs</td>
<td>6</td>
<td>4</td>
<td>-33</td>
</tr>
<tr>
<td>Delays TT/FT</td>
<td>6 %</td>
<td>4 %</td>
<td>-33</td>
</tr>
<tr>
<td>Maximum Lead Time from Mapping</td>
<td>8.2 W Days</td>
<td>4.1 W Days</td>
<td>-50</td>
</tr>
</tbody>
</table>
Surprises / Lessons Learned

- Don’t break up process / delay effort.
- Anticipate strong feelings and ownership.
- Following some rabbits is good medicine.
- Existing internal process takes 1/3 more lead and tac. time than external.

Realizations.
1. VIDEO (20 minutes)

Time: the next dimension of quality

2. EXERCISE (10 minutes)

Value flow analysis on a work process of your own
An activity is value added if:

- The customer cares about it
- Physically changes the thing
- Done right the first time

“Be the thing.”
## Process Flow Analysis: an example

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take application</td>
<td>3 minutes</td>
</tr>
<tr>
<td>Move application to inbox</td>
<td>1 minute</td>
</tr>
<tr>
<td>Wait</td>
<td>1 day</td>
</tr>
<tr>
<td>Enter application online</td>
<td>10 minutes</td>
</tr>
<tr>
<td>Log application</td>
<td>1 minute</td>
</tr>
<tr>
<td>Wait</td>
<td>3 days</td>
</tr>
<tr>
<td>Review application</td>
<td>23 minutes</td>
</tr>
</tbody>
</table>
Document your process
Go to [www.LeanOfficeInnovation.com/tools](http://www.LeanOfficeInnovation.com/tools) to download a Work Breakdown template

**Instructions**

1. Write your name at the top.
2. Fill in the date.
3. State the job or process you are documenting.
4. Enter the name of the organization.
5. Briefly describe the work as its done today.
6. Fill in the page numbers at the bottom of the sheet.
7. List, step by step, everything the “thing” goes through. “Be the thing.”
8. Make sure you note when the “thing” waits or sits idle.
9. Write down the times for each step, including waiting.
10. Show the distance traveled for each step.
11. Write down all the ideas that come to you.

### Work Breakdown Form

**By:** Ben Williams  
**Date:** 06-12 2017

**Job:** Permit Application Process

**Organization:** Permitting Department

**Brief description:** Accept and process permits submitted by the public

---

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Time</th>
<th>Walk/Move</th>
<th>Notes / Ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Take the application and review for completeness</td>
<td>3 m.</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Initial the application</td>
<td>.1 m.</td>
<td>--</td>
<td>Why do we do this?</td>
</tr>
<tr>
<td>3</td>
<td>Take the application upstairs and place into the Inbox</td>
<td>5 m.</td>
<td>400’</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Wait</td>
<td>1 d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Log in the application</td>
<td>1 m.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Enter the application into the PDQ system</td>
<td>20 m.</td>
<td>Create an online application</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>File the hardcopy</td>
<td>2 m.</td>
<td>33’</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Wait</td>
<td>3 d.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Review application in the system</td>
<td>23 m.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Stamp application electronically</td>
<td>1 m.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Stamp the hardcopy</td>
<td>7 m.</td>
<td>33’</td>
<td></td>
</tr>
</tbody>
</table>
Exercise

1. Name the steps and times.

Then in pairs (or groups of 3):

2. Tell your neighbor your steps.  
   “Be the thing.”

3. Identify the value-added steps. 
   Discuss and get feedback.

4. Switch.
Exercise Review: things to think about

1. Who was your customer?
2. What did you notice about your process?
3. How many steps does your process have?
4. How many steps are value-added?
5. What else have you noticed?
Tips

- Watch your scope
- Be the “thing”
- Experiment
If you forget everything else, remember:

1. Use the work breakdown form
2. Be the thing
3. Get rid of the waste

www.LeanOfficeInnovation.com