Department of Rehabilitation and Correction (DRC) & Department of Transportation (DOT)
Truck Assembly Process

May 15 – 19, 2017
How Did We Get Here?

• Chillicothe Correctional Institute (CCI) and the Department of Transportation (DOT) partnered together on a project that provides CCI inmates a chance to learn a job skill in building ODOT dump trucks.

• Same process has existed for over 50 years and it was time to look for ways to make improvements around quantity of trucks being built and level of quality when they leave the facility.
Event Scope

• What is the first step in the process?
  – Our process begins when the trucks are delivered to CCI.

• What is the final step in the process?
  – Our process ends when the vehicle completes final inspection outside of CCI gate.
• Number of customers:
  ➢ 12 Districts, 88 Counties

• Number of new trucks per year:
  ➢ Between 160 and 163

• Number of refurbished trucks per year:
  ➢ Between 10 and 12
Event Baseline Data

2016 Average District Truck Costs

2017 Average District Truck Costs

state average — red line
average goal — green line
Process Improvement Goals

- Identify a standard production time on new and refurbished trucks in order to identify bottlenecks and align appropriate resources.
- Decrease errors made in the refurbished and new truck production process.
- Reduce % of rejected trucks at final inspection.
Change for the Better

- Customer focused
- Right people changing the process
- One week-quick and action oriented
- Necessary resources available immediately
- New process implementation begins next week
Day One

- Level setting
- Scope of event
- Customer identification
- Current state mapping
Day Two

- Finish current state mapping
- Waste identification
- Value added discussion
- Lean training
- Brainstorming
Day Three

- Tool demo
- Problem solving
- Process redesign
- Common / unique
Day Four

• Future State Process
• Discussion and consensus
• Implementation planning
• Details
Today - Day Five

• More implementation planning
• Celebration
• Sharing results
Current State

New Truck

Refurb
Issues with the Current Process

• Lack of storage space for inventory / tools / equipment
• Facility limitations impacting flow
• Too many delays in the process
• Tool control issues
• Purchasing constraints
• Paper process
Major Improvements

- Centralizing inventory
- Blanket purchasing
- Tool boxes / tool policy
- Facility modifications
- Sequencing and planning
Simpler

- Centralized inventory control system
- Better tracking of parts / tools /equipment
- Less confusion for everyone involved in the process
- Increased transparency, visibility, and communication
- Piggy back ODOT materials contract
Faster

• Materials readily available with new inventory system
• On-demand inventory
• Global Solutions System provides real-time inventory tracking
  – No guesswork
• Better planning upfront
• Fewer delays and flow interruptions with advanced planning and prep
Better

• Improved communication
  – Daily huddles
  – Monthly meetings with ODOT
  – Radio communication system

• Better quality and updated tools for inmates

• More space to work

• Improved building restructures
Less Costly

- Less cost of tools after initial purchase (lifetime warranty)
- Less wasted inventory
- Less paper in process
Implementation Plans

• Communication
• Tools
• Facility Changes
• Inventory
## Communication Plan

**TOPIC: COMMUNICATION**

<table>
<thead>
<tr>
<th>WHAT</th>
<th>WHO</th>
<th>WHEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Meetings (Roll Call Room w/Agenda)</td>
<td>PWS, Super Ind, Manager</td>
<td>6:20 am</td>
</tr>
<tr>
<td>Notification of MOD Office opening/Closing</td>
<td>Manager and/or SI notify PWS in VA (Radio?)</td>
<td>Whenever the Office will be empty (Leave the office)</td>
</tr>
<tr>
<td>Secure outside line</td>
<td>PWS, SI, Manager</td>
<td>When Manager is not in the office</td>
</tr>
<tr>
<td>Monthly Meetings (MOD Office)</td>
<td>PWS, Super Ind, Manager</td>
<td>3:30 - 4:00 pm (Staff) At end first of each month To be run person to person</td>
</tr>
<tr>
<td>Monthly meeting (Gardening Staff)</td>
<td>CDOT, SI, Manager</td>
<td>First Wed. of every month</td>
</tr>
<tr>
<td>Follow-up meeting w/LEAN Ohio</td>
<td>LEAN Ohio, Tom, Bob</td>
<td>July 2017</td>
</tr>
</tbody>
</table>
# Tools Plan

<table>
<thead>
<tr>
<th>What</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardized Policy Between OPI &amp; MBD Shops</td>
<td>G. Clever, Mayor Tool Control Lt.</td>
<td>30 Days</td>
</tr>
<tr>
<td>Individual Tool Boxes &amp; Specific Customized</td>
<td>PWS's</td>
<td>45 Days</td>
</tr>
<tr>
<td>Tool &amp; Lock Ordering</td>
<td>Ind. Manager</td>
<td>(After Approval)</td>
</tr>
<tr>
<td></td>
<td>S/I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CC: Product Manager</td>
<td></td>
</tr>
<tr>
<td>Tool Replacement</td>
<td>PWS's J</td>
<td>180 Days?</td>
</tr>
<tr>
<td></td>
<td>CC: Ind. Manager Tool Control Lt.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Continuous</td>
</tr>
</tbody>
</table>

**Notes:**
- Contract: 45 Days
- Monday 22, May
- Continuous
### Facility Plan

#### Topic: Facility

<table>
<thead>
<tr>
<th>What</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combine Mach. and (move to the NEW Fab. building)</td>
<td>Warden, ODOT</td>
<td>ASAP... fire can?</td>
</tr>
<tr>
<td></td>
<td>OPI</td>
<td>6 to 8 months...</td>
</tr>
<tr>
<td></td>
<td>Managers</td>
<td></td>
</tr>
<tr>
<td>Change weld</td>
<td>Warden</td>
<td>ASAP</td>
</tr>
<tr>
<td>School location</td>
<td>OPI</td>
<td>30 days...</td>
</tr>
<tr>
<td></td>
<td>Managers</td>
<td></td>
</tr>
<tr>
<td>Remove wall</td>
<td>Warden</td>
<td>ASAP</td>
</tr>
<tr>
<td>between Fab and Va</td>
<td>OPI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Managers</td>
<td></td>
</tr>
<tr>
<td>Set up bags Tap &amp; Dye. bags by (new one room wall)</td>
<td>Warden</td>
<td>ASAP</td>
</tr>
<tr>
<td></td>
<td>OPI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Managers</td>
<td></td>
</tr>
<tr>
<td>Need dim. on new building</td>
<td>T. Cordial</td>
<td>ASAP</td>
</tr>
</tbody>
</table>

**Simpler. Faster. Better. Less Costly.**

[lean.ohio.gov](lean.ohio.gov)
# Inventory Plan

## Topic: Inventory

<table>
<thead>
<tr>
<th>WHAT</th>
<th>WHO</th>
<th>WHEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move Mach. (Floor Maintenance)</td>
<td>OPI/C&amp;I Facilities or Cont.</td>
<td>Late fall 2017</td>
</tr>
<tr>
<td>Consolidate OPI Inv. &amp; Integrate GSS</td>
<td>OPI Mgr, Sept, IT, ODOT PWS's,</td>
<td>Winter 2017/Early 2018</td>
</tr>
<tr>
<td>Staff/Inmate Training in new Inv. System</td>
<td>GSS IT Staff, Mgr, Sept, PWS's</td>
<td>Winter 2017/Early 2018</td>
</tr>
<tr>
<td>Implementing New Inv. System (Initial Trial Period)</td>
<td>OPI Mgr, Sept, PWS's, ODOT, Inmates</td>
<td>Spring 2018</td>
</tr>
</tbody>
</table>
What Begins Monday?

**Timeline Tree**

**Next Week**
- Start daily meetings between PWS, I, I & More
- Monthly meetings by 9/07
- Research getting a second outside line
- Change west side wall location
- Setup 8/14, 8/17 double doors by removing west room wall
- Send recommendation to OHD office, opening/closing

**3 mos.**
- Combine Machine & Fab (move to West building)
- Get individual toolboxes that are job specific
- Easily reconfigured

**6 mos.**
- Consolidate M2L, inventory & integrate GSS
- Staff/leader training in new inventory system
- 7/14 tool lead ordering

**9 mos.**
- Follow-up meeting with LeanOhio
- Implement new inventory system (until 4-5 month period)
- Follow-up meeting with LeanOhio
Special Thanks to...

**Senior Leadership:**
- Steve Masters, DOT Deputy Director of Facilities and Equipment Management
- Michelle Miller, DRC SW Director
- Kevin Stockdale, DRC Deputy Director of Administration
- Gary Clever, SW Regional Operations Manager
- Charlotte Jenkins, CCI Warden
- Major Paul Arledge

**Sponsors:**
- Sheri Duffey, DRC/OPI Chief
- Todd Cordial, DRC/OPI Assistant Chief
- Doug Burke, DOT Section Manager

**Team Leaders:**
- Tom Justus, DOT
- Bob Starkey, DRC/OPI