

# Wisconsin Department of Transportation

## Let Project Closeout Process Lean Initiative

### Reduce Material Certification Lead Time Summary Report



#### Project Summary

The Division of Transportation System Development (DTSD) oversees highway construction projects statewide. One of the responsibilities of DTSD is to oversee the closing out of road construction projects and making final payment to the contractor.

The let project closeout process requires material quantities and tests to be certified before the contract can be closed out and final payment made to the prime contractor.

More than 50 percent of contracts completing work during 2011 and 2012 took more than six months to receive their materials certification.

The goal of this project is to reduce the lead time from "Substantially Complete" to "Materials Certification," which was previously identified at one of the major impediments preventing Let projects from meeting the six-month closeout goal.

#### Improvements

- Established procedures to complete interim materials review during the construction process
- Identified fields to be added to the Materials Tracking System and Project Tracking
- Recommended online training for the WisDOT and Contractor Designated Materials Persons
- Reduced average lead time from "Substantially Complete" to "Materials Certification" by 49 percent (180 days to 91 days)

#### MAPSS Core Goal Area

- Accountability

#### Statewide Goal Area

- Customer satisfaction
- Cost of government

#### Issue

During 2011 and 2012, only 30 percent of regional and local program construction projects closed within six months of all construction work being completed. Material certification lead time is a significant factor in determining whether regional or local program projects are able to achieve the six-month let project closeout goal.

Thirty-nine percent of regional construction projects that reached "final estimate submitted" during 2011 and 2012 had a material certification lead time greater than six months measured from "All Contract Work Complete" through "Material Certification." Thirty-four percent of completed projects took three to six months to issue material certification; making it likely that 50 percent or more of all completed projects did not achieve the closeout lead time goal of six months due to long material certification lead times.

#### Lean Six Sigma Process

- Reviewed and analyzed material certification data for 2011, 2012, and 2013
- Created swim lane process map for materials certification pre- and post-construction
- Identified sources of process variation and time bottlenecks using data and analysis

#### Results

Cost of Government: Reducing the average "Materials Certification" lead time to 91 days helped realize a 54 percent reduction (307 days to 141 days) in the average lead time for the entire let project closeout process, outperforming the 180-day lead time goal. Fiscal year 2015 also saw 900 hours of process time saved and redirected toward other departmental initiatives.

Customer satisfaction: The team, advisory personnel and staff involved with the process indicated increased employee satisfaction due to the clearer goals of each step and a better understanding of the process itself.

#### Next Steps

- Provide results to lean work group working on implementing changes to Project Tracking, Field Information Tracking, and Materials Tracking
- Provide results to the lean work group working on updating the "2015 Standard Specifications" and "Construction and Materials Manual"
- Develop curriculum for the online training for project materials coordinators
- Develop interim materials review process documentation guidelines