



# Lean 6-Sigma Program



## *Employment Development Department*

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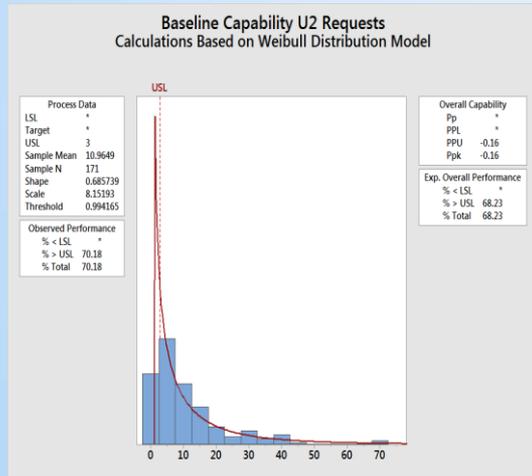


# *Reduction of Facility Request Processing Time*

- ❖ **Problem Statement:** *The average time to process facility related service requests can be lengthy; resulting in high levels of staff dissatisfaction.*
- ❖ **Objective:** *Reduce the processing time so that 95% of requests are completed within 3 – 5 business days.*
- ❖ **Project Team:**
  - ❖ *Bob Holwell – EDD Facility Analyst*
  - ❖ *Kim Jungemann – EDD Facility Analyst*
  - ❖ *Elliot Stevenson – EDD Analyst*
  - ❖ *Stephanie Dodge – EDD Facility Customer Contact*
  - ❖ *Tony Scheeler – EDD Facility Management Team Member*
  - ❖ *Amanda Ross – DGS Facility Office Technician*
  - ❖ *Kevin Mayugba – DGS Regional Building Manager*

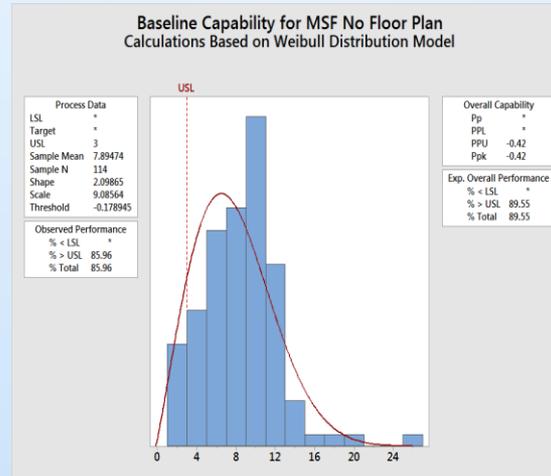
# Baseline Capability

## DGS Requests



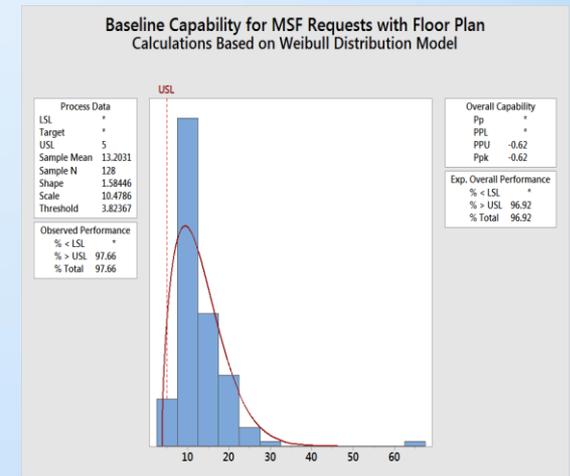
- ❖ Current Average = 11 Days
- ❖ Current Maximum = 70 Days
- ❖ Upper Spec. Limit = 3 Days
- ❖ 12% within Spec. Limit

## MSF Requests No Floor Plan



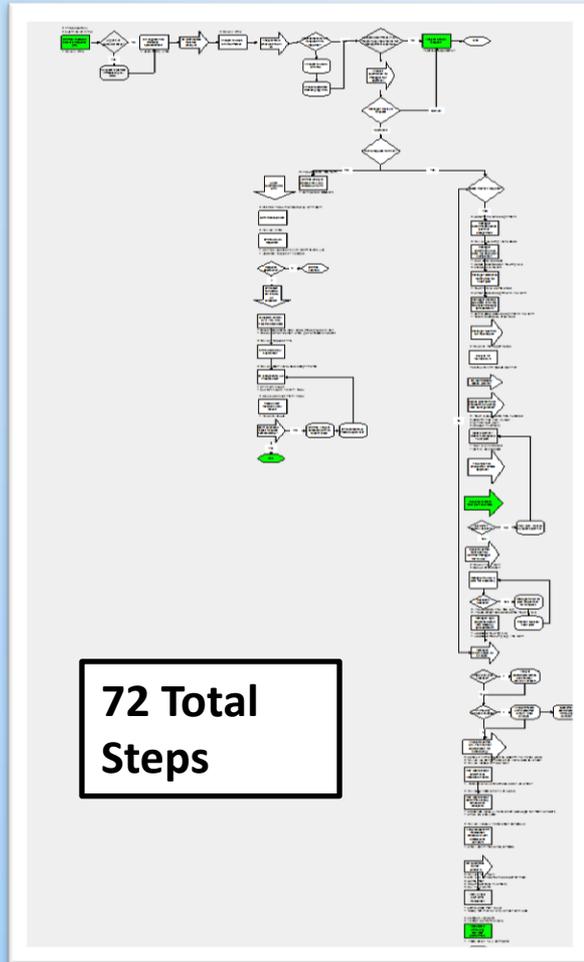
- ❖ Current Average = 8 Days
- ❖ Current Maximum = 86 Days
- ❖ Upper Spec. Limit = 3 Days
- ❖ 14% within Spec. Limit

## MSF Requests - Floor Plan



- ❖ Current Average = 13 Days
- ❖ Current Maximum = 98 Days
- ❖ Upper Spec. Limit = 5 Days
- ❖ 2% within Spec. Limit

# Initial Process Map



- ❖ U2 requests: 20 steps
  - ❖ 18 non value added steps
  - ❖ 2 value added steps
- ❖ MSF requests no planner: 19 steps
  - ❖ 17 non value added steps
  - ❖ 2 value added steps
- ❖ MSF requests planner: 33 steps
  - ❖ 30 non value added steps
  - ❖ 3 value added steps

# *Analysis Tools*

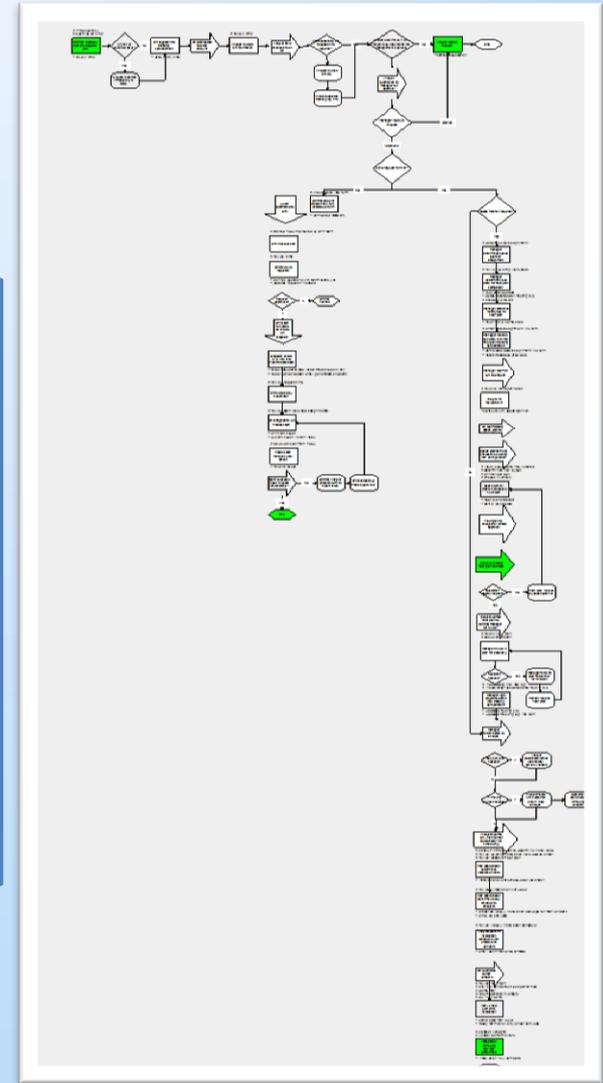
- ❖ Business Process Map
- ❖ Graphical Summaries
- ❖ Boxplots
- ❖ Capability Six Pack
- ❖ 3-Parameter Weibull
- ❖ Variable Gauge Study
- ❖ Fishbone Diagram
- ❖ Failure Modes and Effects Analysis (FMEA)
- ❖ Mood's Median Hypothesis Tests
- ❖ Business Process Map Time Analysis



# Key Analytical Finding 1

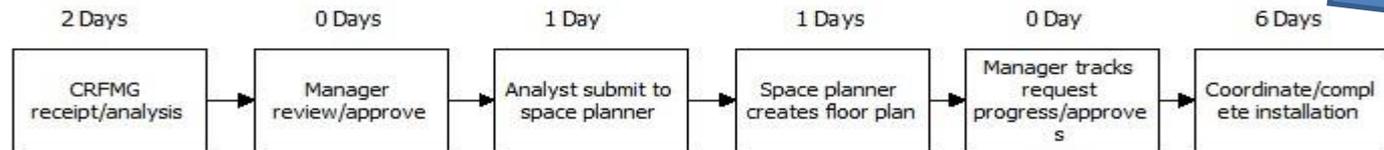
## Excessive Non-Value Added Steps

- ❖ 2 – 3 *value-added* steps in process
- ❖ 17 – 30 *non value-added* steps in each branch of the process
- ❖ Excessive layers of review/analysis/tracking:  
9 – 12 steps

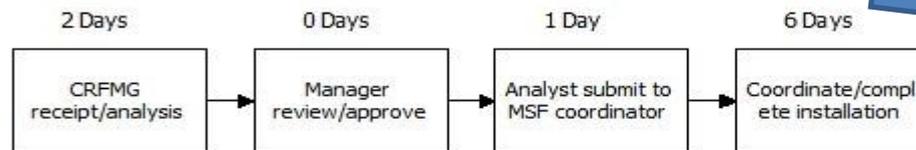


# Key Analytical Finding 2 – Process Time Analysis

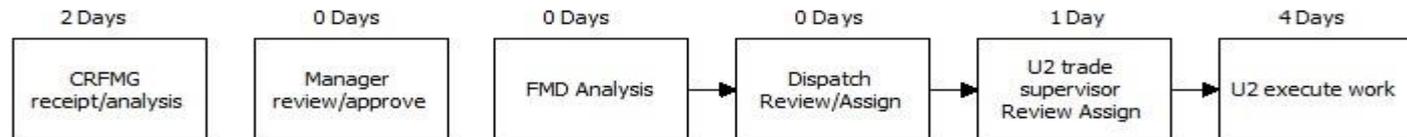
## MSF Floor Plan Service Requests - Median 10 Days



## MSF Service Requests - No Floor Plan - 8 Days



## Service Requests - Unified Trades - Median 7 Days



❖ 6 days of bottleneck at vendor scheduling step

# *Critical X's (root causes of problems)*

- ❖ **Excessive non value-added process steps**
  - ❖ Layered management approvals
  - ❖ Layered analyst and space planner review steps
  - ❖ Multiple forms
  
- ❖ **Excessive review and analysis time upon service request submission**
  - ❖ Batch processing
  - ❖ Staff accountability
  - ❖ Lack of documented standardized work and service expectations
  - ❖ Lack of customer education/training
  
- ❖ **Vendor scheduling constraints**

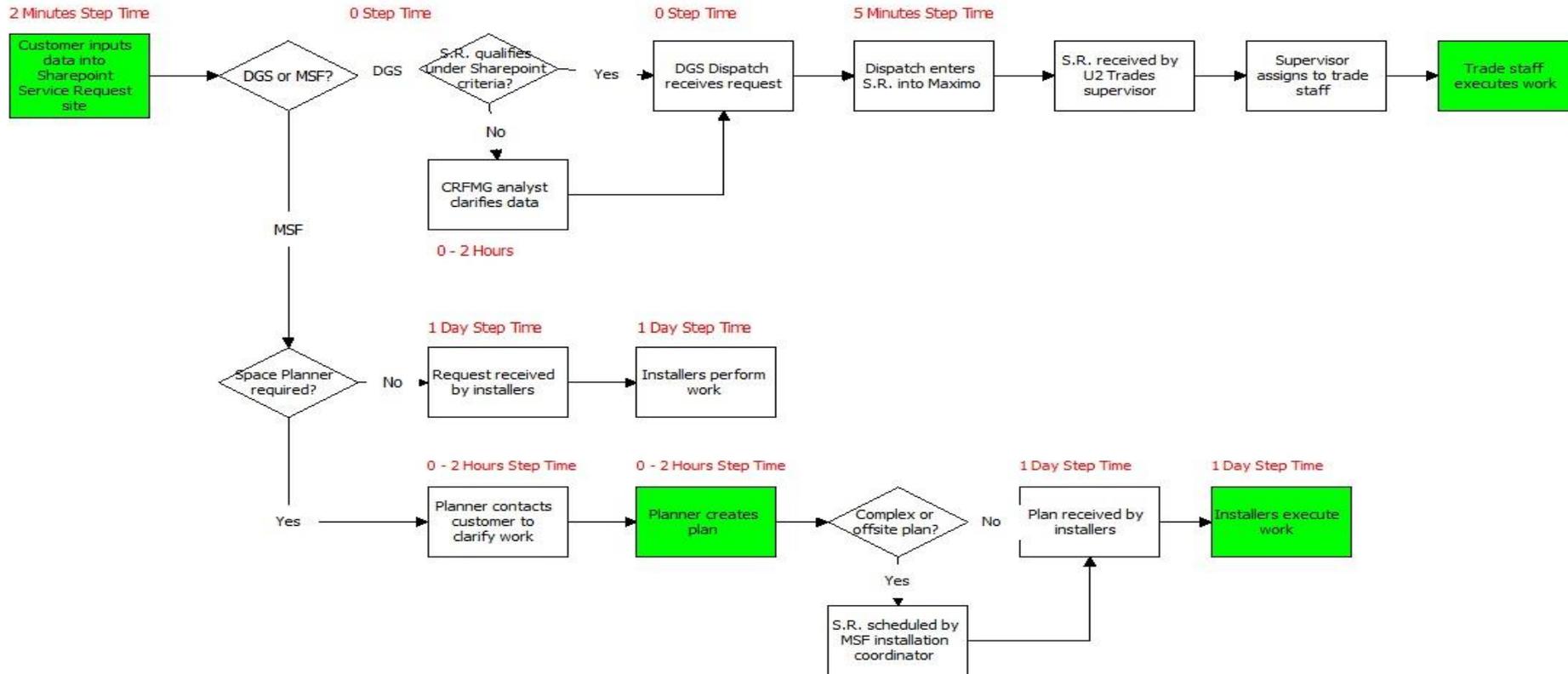


# *Improvement Techniques*

- ❖ **Eliminate non value-added steps from business process map**
- ❖ **Create electronic service request submission and tracking tool utilizing Sharepoint**
  - ❖ Eliminate need for multiple non value added steps
  - ❖ Mistake-proof service request submission in first step of the process
  - ❖ Provide tracking transparency enhancing customer service and staff accountability
  - ❖ Eliminate two manual entry forms
  - ❖ Eliminate two separate tracking spreadsheets
- ❖ **Revise service vendor contracts**
  - ❖ Consolidate modular systems furniture (MSF) and moving services contracts. Eliminates need for three separate vendor services: MSF, movers, onsite IT support
  - ❖ Increase daily availability
  - ❖ Revise contractor scope of work and requirements to improve service efficiency
- ❖ **Create and document standard work for request processing and space planning**
  - ❖ Develop criteria to reduce number of floor plans required prior to installation
- ❖ **Create and document ongoing customer training and education program for service request submission**
  - ❖ Emphasize form submission accuracy and justification criteria



# New Process Map



- ❖ DGS requests reduced from **20 steps**→ **6 steps**
- ❖ MSF requests no floor plan reduced from **19 steps**→ **3 steps**
- ❖ MSF requests with floor plan reduced from **33 steps**→ **5 steps**

# ***New Capability Analysis - Predicted Completion Times***

- ❖ **DGS Requests: from 11 days → 8 days (27% improvement)**
  - ❖ Additional improvement expected pending completion of the DGS' Facilities Management Division process improvement project
- ❖ **MSF Requests no Floor Plan: from 8 days → 2 days (75% improvement)**
- ❖ **MSF Requests with Floor Plan: from 13 days → 3 days (77% improvement)**



# Control Plan

- ❖ Automated mistake-proof Sharepoint submission to include tracking and progress notifications for all stakeholders
- ❖ Continuous improvement plan to include quarterly reviews of:
  - ❖ Time stamped data collected by Sharepoint
  - ❖ FMEA – identify new risks and potential failures
  - ❖ Process issues
  - ❖ Customer feedback
  - ❖ Service request justification validity audits
  - ❖ Asbuilt floor plans
- ❖ Perform new worker activity analysis to determine workload redistribution or PY savings
- ❖ Utilize I-Chart quarterly to display the completion time data collected by Sharepoint
  - ❖ Individual charts to track each discipline



# *Additional Benefits*

- ❖ Increased customer satisfaction
- ❖ Increased staff morale
- ❖ Increased facility staff and customer communication on front-end of request submission
- ❖ Positive collaboration and reduction of siloes amongst EDD internal programs and Department of General Services
- ❖ Potential PY savings or positive workload redistribution
- ❖ Department wide enthusiasm for future Lean Six Sigma projects



# ***Green Belt Contact Information***

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