Project Team: Tazewell County Health Department Food Inspection Process
Timeline: Kaizen Event March 17 – 21, 2014

SOLVE

What is the Gap?
1. Starting Point
2. Vision
3. Current State

What is the Goal for Improvement?
4. Goal or Target Condition
5. Customers & Beneficiaries
6. Benefit
7. Measures & Targets
8. Conditions

What is the Approach?
9. Team Members & Roles
10. Project Schedule
11a. Data and Information Collection

What are your Conclusions?
13. Improvement Hypotheses & Problem Solving Summary

SOLVE

Understanding the Problems:
11b. Current and Future State Process Maps
12. Cause and Effect Diagram

TRY, LEARN, INSTALL

Try Solutions; what did you learn?
14. Construct & Execute tests
15. Document Results
16. Analyze Results & Extract Learning

How will you make the new way happen?
17. Plan Rollout & Execute
18. Measures of Success

SOLVE

1. Starting Point

a. **What is the need (e.g. outcome) or gap that caused this project to be considered in the first place?**
We feel there is more time spent on the administration pieces of the food inspection process than necessary within the food program. With approximately 727 restaurants to inspect which entails 1500+ inspections per year and limited resources we need to make the process as efficient as it can possibly be.

b. Who is establishing the need?
Health Department Staff

c. How is the need being measured and is it possible for this project to make an impact on that measure? By decreasing the time it takes to do food inspections minus the time of the inspection itself. This includes prep time, travel time, and end of the year administration time. We will gather baseline data by having staff complete time logs for each section of their inspection process from beginning to end. Also, we will track amount of time spent on end of the year process. We believe we can reduce the administrative inspection time by 33%.

d. What data or analysis was used to establish that this project will make a key impact?
Discussion with staff about inefficient workplace processes within the food inspection program.

e. What scope (e.g. geographic, organization, customer) are you expected to impact?
The food program; 7-8 food program staff; ultimately serving the customers of Tazewell County more efficiently.

f. What conditions are being placed on this project?
- Do not want to negatively affect the quality of the food inspection itself
- Avoid putting any undue burden on the customer
- No additional waste can be generated

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2. Vision

(What do you want to achieve in the long range and without any restrictions? *Generate a picture or description of your ideal condition.* How will it look for the customers, our team, and for the taxpayers/funding sources?)

- To significantly reduce the amount of time spent on the administrative portion of food inspections and significantly reduce the paper/material waste within the food program.

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3. Current State (Description of how the process and organization is operating now; Quantitative if possible, always factual and based on observation)

Stakeholder	Description	How do you know? (Data if available)
Customers	• Inconsistencies from one inspection report to another at times especially if inspected by different inspectors each time. • Most strive to do the best job possible and seemed receptive to the inspector's information.	Heard it from the customers while gathering knowledge
Financial	• Hidden administrative costs and unnecessary burden on staff • Paper/material costs	Time study and all the duplicate paperwork
Your Team	• Often complain about software slowness in the field • End of year process is extremely time consuming	Heard it from staff while gathering knowledge.

4. Goal or Target Condition (What is the objective? Which piece of the gap are you addressing?)

TO: Reduce the costs associated with the administrative work steps of the food inspection process.

5. Customers and Beneficiaries (Who benefits from achieving the goal? What populations are targeted?)

- Food program staff (9 environmental health staff)
- Health Department Administration (Budget)
- Tazewell County Food Facility Managers

6. Benefit (What are the benefits from achieving the goal?)

SO THAT:

- There is a reduction of the overall time associated with running the food program allowing time for inspectors to complete all food inspections with limited resources along with the other EH work that they are assigned; thus saving costs spent on the food program
- There is a reduction in the material/paper supplies used in the food program thus saving costs spent on the food program.
- The food facility managers receive a food inspection that is consistent regardless of which food inspector performs the process.

7. Measures and Targets (What quantitatively will be achieved?)

Beneficiaries	What Measured	How Measured	Target		
			How Much	By When	Actual
Staff	Administrative time	Time it takes to complete a food inspection minus the inspection itself	33% reduction in administrative time	By the end of the Kaizen project	
Health Department Administration	Materials saved	Amount of materials for each food inspections	50% reduction in material use	By the end of the Kaizen project	

8. Conditions (What do you need to be successful?)

- The quality of steps 2, 4, and 8 of food inspection itself is not negatively impacted

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9. Team Members and Roles (Who is directly involved and How?; Training Needs?)

Name	Role	Work process related interests / concerns	Project Expectations	Project, QI skills
Karen Irons	Process Owner	Food Program Supervisor		
Karla Burress	QI Leader	QI		
Ev Neavear	Decision maker for labor and funds available for the proposed process improvements	Director of Environmental Health.		
Eric Bakota	Epidemiologist, QI team Co-leader and has done food inspections. Can execute suggested improvements	QI and Food Inspections		
Kim Sams	Food Inspector—can execute suggested improvements	Food Inspections		
Katie Traekenschuh	Food Inspector—can execute suggested improvements	Food Inspections		
Emily Starzynski	Food Inspector; Health educator for EH	Food Inspections		
Vicki Tyler	Will assist with the creative process and data collection	QI		
Pam Vecellio	Kaizen Expert--Will Assist in leading the event	Continual Impact LLC partner; Kaizen Coach		
Grace Gorenflo	Will assist with the creative process	An Independent public health consultant		

Training Needs

10. Project Schedule (Activities to go about solving the problem)

- By: What is the approach to the problem?
- High level activities:
  - Preparing for the kaizen event
  - Conducting the kaizen event
  - Institutionalizing the improvements
  - Microsoft Excel 97-2003 Worksheet

11a. Data and Information Collection (What will you collect? Who? When?)

WHAT	WHO	WHEN
Time within each step of the process will be tracked	Inspectors and Supervisor	January and February 2014
Gathering Practical Knowledge	QI Team leader and QI team members	December 2013, January and February 2014
Supplies used within each step will be tracked	EH Staff	March 2014

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Date3/11/2014
Page 1

Current Food Inspection Process

INPUT
What starts: Restaurants needing food inspections
Who starts: EH Director
Frequency: Monthly
Who receives: Indoor Supervisor
Quality of Input:
Other Data:

Focus
Goal of redesign: Completed Food Inspection Report
Map boundaries: Food Inspection Schedule to Completed Food Inspection Report Filed
Owner of improvement effort: Ev Neavear

Value Add Analysis
Total work content time:
Total elapsed time:
Value add ratio:

Information System Flow Computer Systems, Forms / Templates, Procedures / Policies per step

STEP 1:
What starts: Food Inspection Schedule
What is done:
1. Review monthly Food day calendar for # of food days each inspector has.
2. In Access, assign facilities (from all classifications) to each inspector .
3. Develop individual inspector lists.
4. Pass individual inspector lists out to the assigned inspectors
Who does it: Indoor EH Supervisor
Deliverable:
- Master food inspection list
- Individual inspector lists
- Food inspection Template

Systems: Access program, Printer, Word program
Data:

Work content time:
Elapsed time:

Wait time:

STEP 2:
What starts: Review of the individual inspection list
What is done:
1. Check individual monthly schedule for assigned food days/times
2. Review assigned restaurant files for past history
3. If it is a catering or seasonal facility, call ahead to get open hours for the month.
4. Check and restock supplies in food inspection bags

Who does it: Food Inspector
Deliverable: Stocked food inspection bag
Systems: Garrison, internet, hard copy/food files, internal communication between inspectors
Data:

Work content time:
Elapsed time:

Wait time:

STEP 3:
What starts: Inspection
What is done:
1. Travel to Facility/Enter Facility
2. Introduction to PIC
3. Get items out of bag that are needed for inspection
4. Do Inspection (includes washing hands, inspecting, reviewing notes, walking through with PIC)
5. Set up computer/printer
6. Look up facility # and check off list
7. Type or write report
8. Conduct exit interview with PIC (could include scheduling reinspection)
9. Pack up and exit facility
10. Travel

Who does it: Food Inspector
Deliverable:
- 2 copies of the report (one for TCHD and one for manager)
- Completed HACCP Checklist/notes

Systems: Garrison, printer, Word, Inspection supplies
Data:

Work content time:
Elapsed time:

Wait time:

STEP 4:
What starts: Complete computer/paperwork
What is done:
1. If have a written report from the field, enter data from form into the Garrison system. If no written report, this step is skipped.
2. Sync laptop to Garrison @ TCHD (this could be done in steps 2-4 but is to be done once every 5 days)
2. Verify that forms are completed/stapled
3. Place completed forms in bin in cube farm

Who does it: Food Inspector
Deliverable:
- Completed food inspection report

Systems: Garrison
Data:

Work content time:
Elapsed time:

Wait time:

STEP 5:
What starts: Supervisor follow-up
What is done:
1. Gather reports from bin in cube farm
2. Review every Inspection (for criticals, necessary follow up, spelling, violation verification)
3. Completed report is placed in bin to be filed in chart.
4. Combine any follow-up reports to the original report

Who does it: Indoor EH Supervisor
Deliverable:
- Completed Food Inspection Report.

Systems: Access
Data:

Work content time:
Elapsed time:

Wait time:

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Current Food Inspection Process

Date 3/11/2014
Page 2

OUTPUT
Who is Customer: Indoor EH Supervisor
Customer Expectations: Timely completion of assigned restaurant inspections that is filed
What is Output: Completed Food Inspection Report that is filed
How Much is Supplied:
Frequency:
Overall Lead Time:
Current Performance / Defect Rates:
Other Data:

Information System Flow Computer Systems, Forms / Templates, Procedures / Policies per step

STEP 6:
What starts: Completed inspections are in bin waiting to be filed
What is done:
1. File the Inspection forms in the right files
2.
3.
4.

Who does it: Administrative Assistant
Deliverable:
- Complete food files
-

Data:

Work content time:
Elapsed time:

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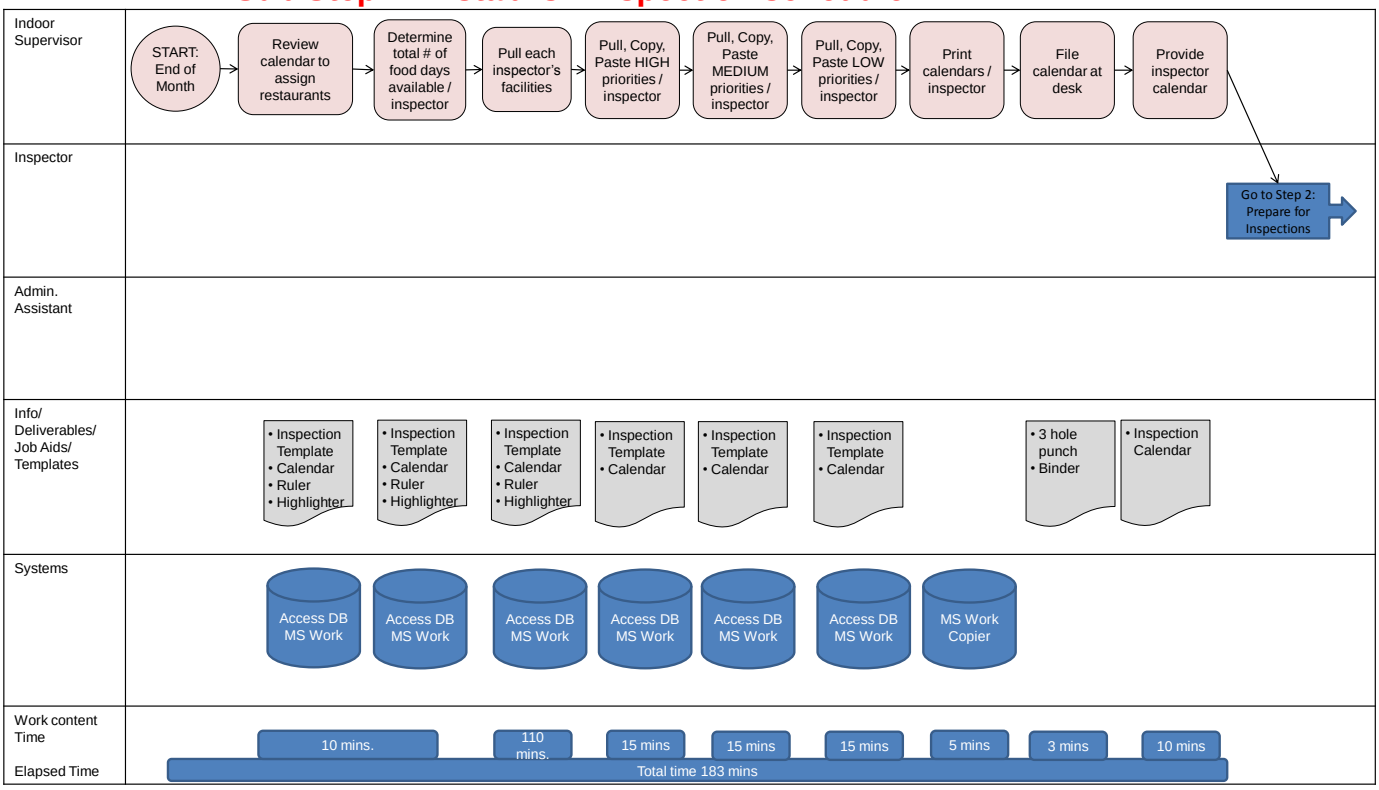
Food Inspection Process (Current Process)

Date created March 17, 2014

Sub Step 1: Establish inspection schedule



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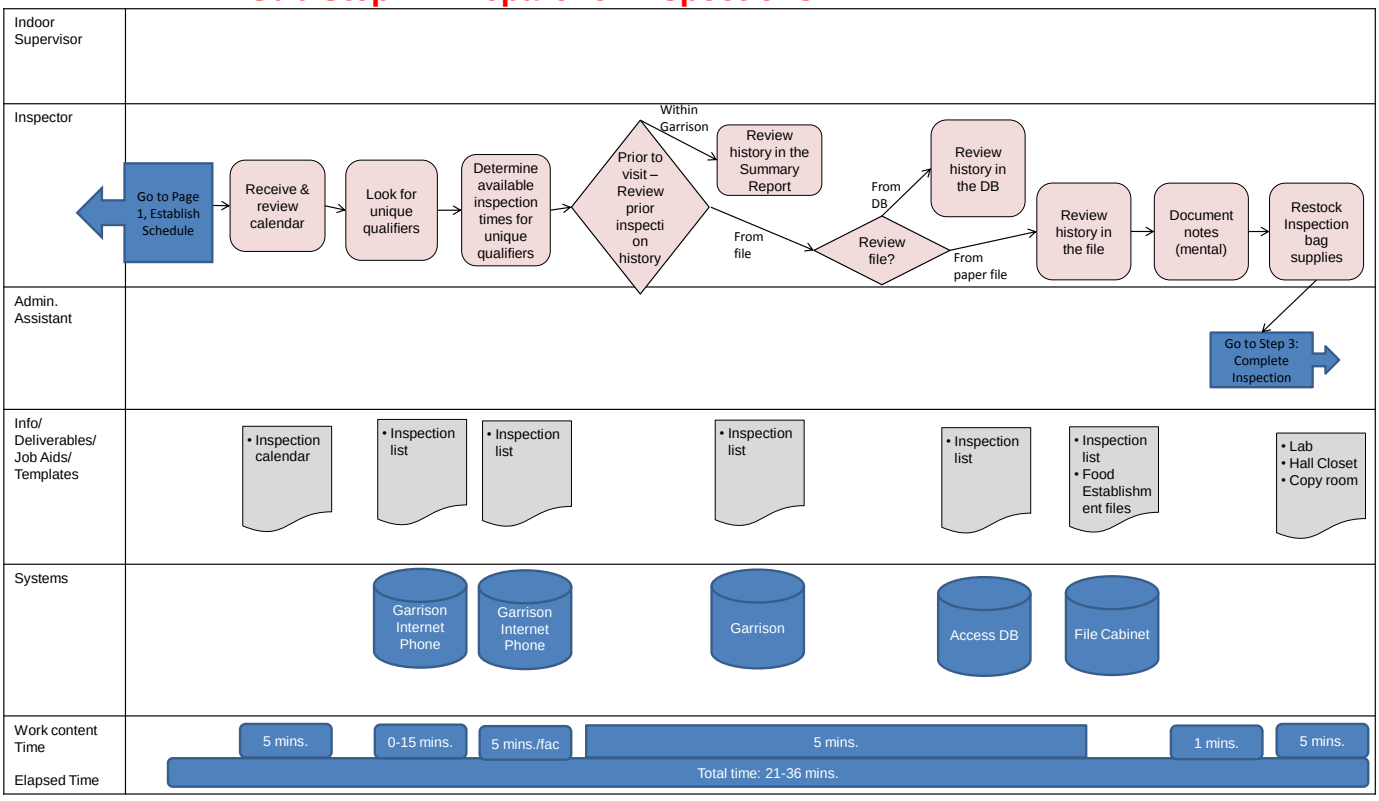
Food Inspection Process (Current Process)

Date created March 17, 2014

Sub Step 2: Prepare for Inspections



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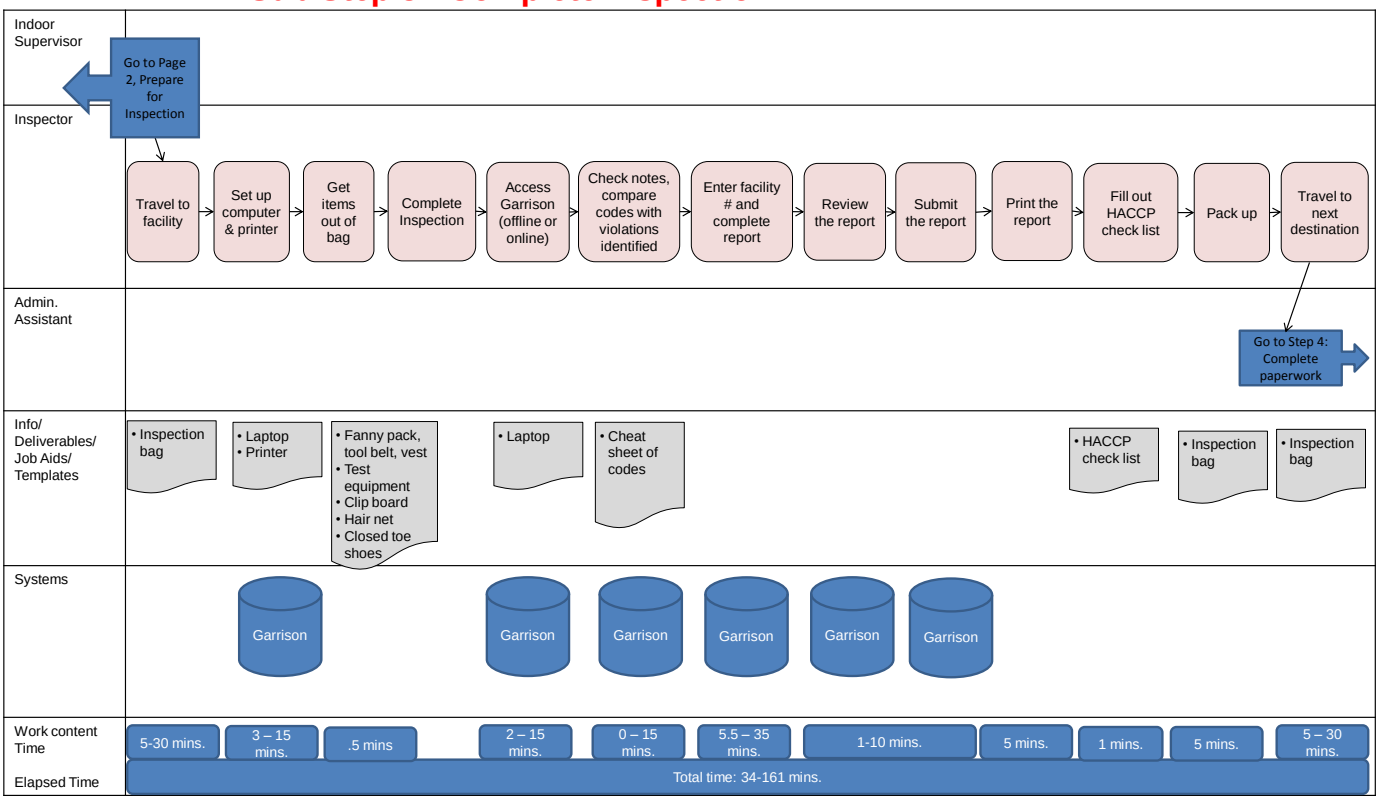
Food Inspection Process (Current Process)

Date created March 17, 2014

Sub Step 3: Complete Inspection



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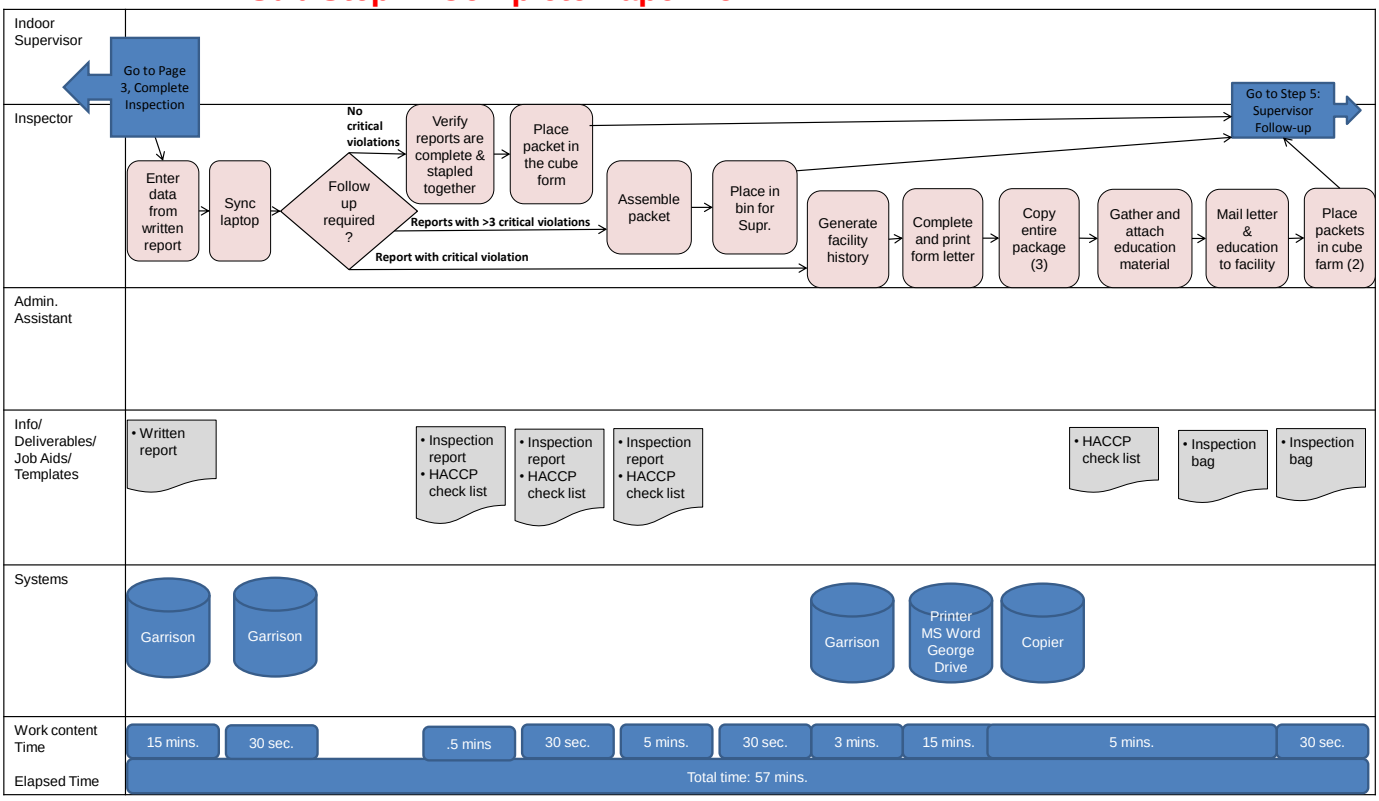
Food Inspection Process (Current Process)

Date created March 17, 2014

Sub Step 4: Complete Paperwork



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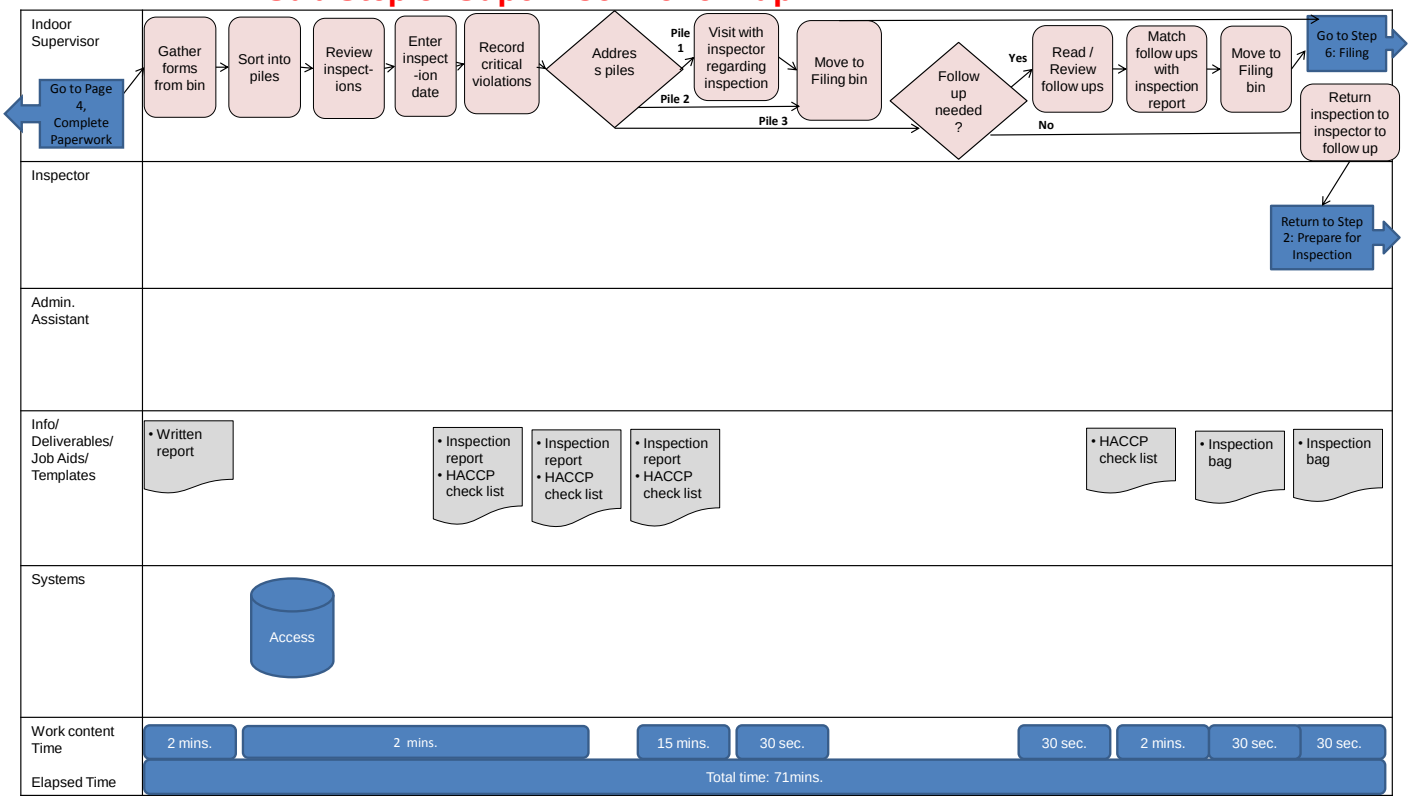
Food Inspection Process (Current Process)

Date created March 17, 2014

Sub Step 5: Supervisor Follow-up



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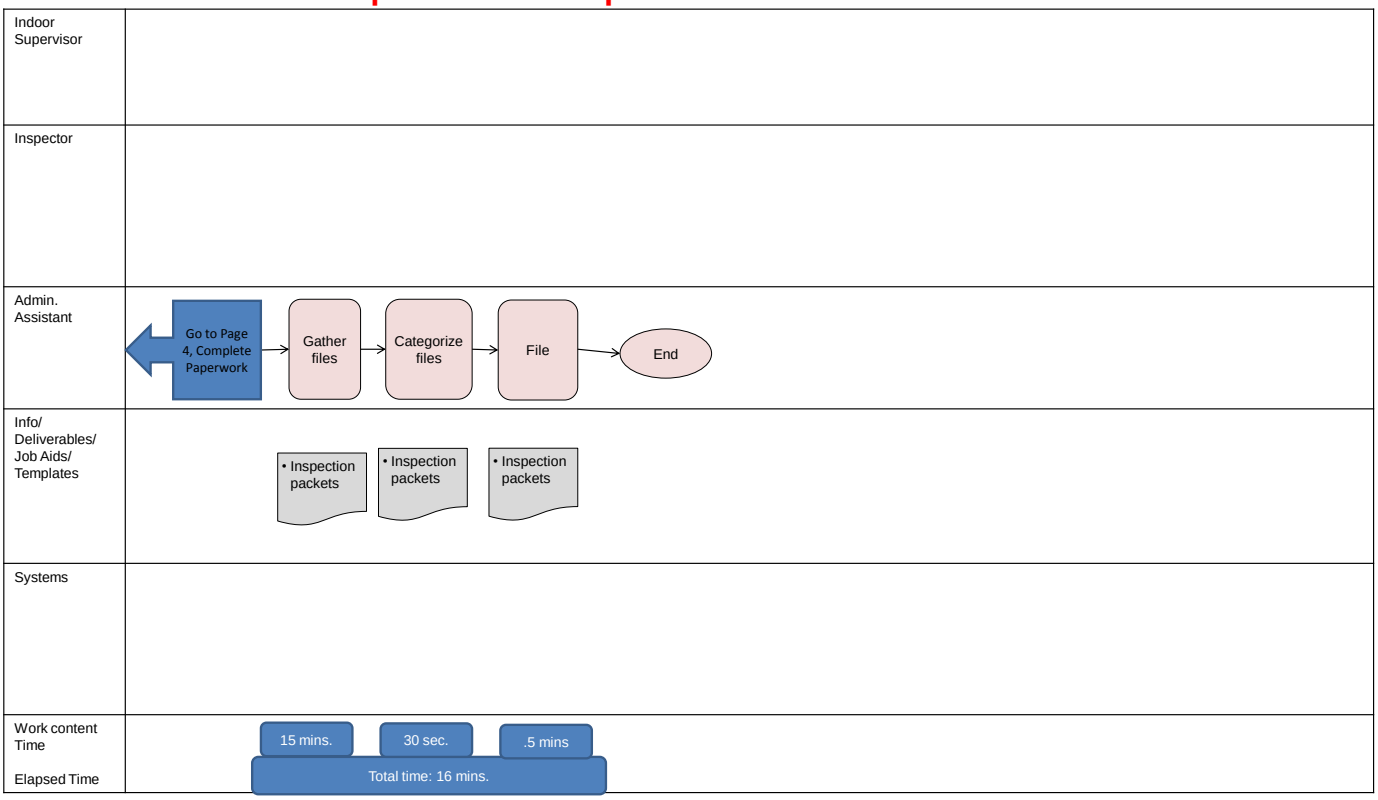
Food Inspection Process (Current Process)

Date created March 17, 2014

Sub Step 6: File the Report



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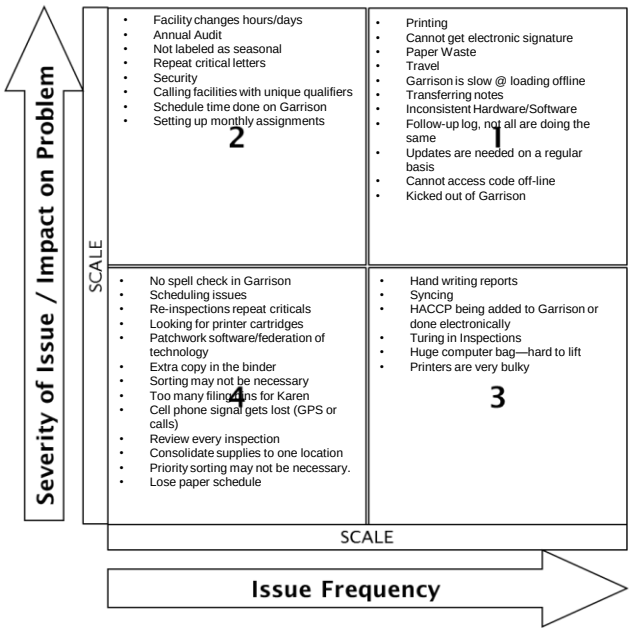
Prioritize Issues: 2x2 Ranking Matrix



12. Conduct Cause and Effect Analysis (Priority issues and solutions from Cause and Effect Analysis)

Category	Issues/Wastes	Root Causes	Solutions or Additional CI Methods to use	Speed and Cost to Implement
Garrison	Time for Garrison to load	1. Using offline version 2. Don't have WIFI in the field a. Don't have own WIFI 3. Computer doesn't have enough power a. Lower cost, low ram computer b. Don't know the ram required to run Garrison	Use online version with air cards in the field Determine ram requires for future devices	Priority 1
Garrison	Getting kicked out of Garrison	1. Using offline version a. Known Garrison offline glitch b. Get kicked out in the middle of submitting report 2. Lose wireless 3. Lose Garrison	Use online version	Priority 1
Garrison	Can't access codes offline	Using offline version	Use online version	Priority 1
Too much paper	Too much paper in the process	This is the way we have always done it!	On-line reporting	Priority 1
Printer Issues	Printers do not perform as needed	1. Inconsistently performing printers 2. Different printers due to tech changes 3. Printers are low quality 4. Lack of available printer 5. Printers are not charged a. Printers don't retain charge	Eliminate on-site printing Email report Mail report, when email is not accepted	Priority 1

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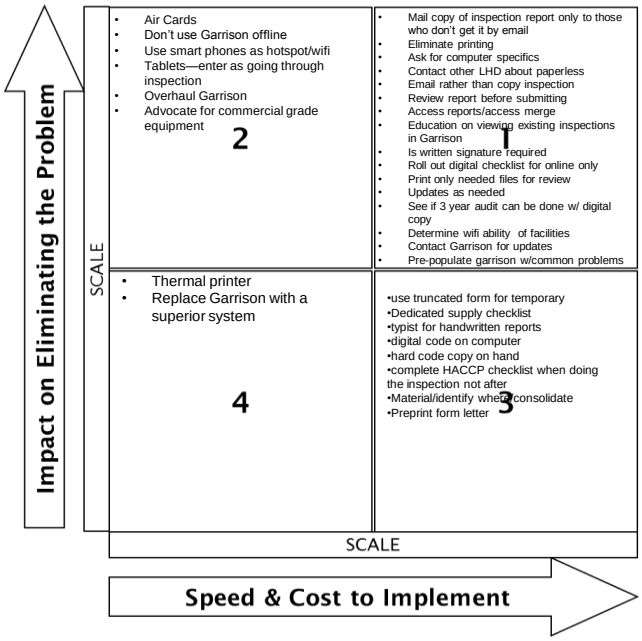
Prioritize Solutions: 2x2 Ranking Matrix



13. Improvement Hypothesis (Summary of potential means to achieve goal)

Issue	Improvement	Expected Results
Too much paper	Eliminate **paper** printouts by • enabling inspection reports online • electronic signature • digital HACCP check list Only print out reports for the 3 year audit	• Decrease in paper costs, paper management • Food establishments sign inspection report electronically • Food establishments accept mailed inspection report (email or paper mailed later) • Decrease amount of filing
Garrison performance (offline & online)	Enable inspectors to always have Garrison **on-line access** Provide inspectors hand held device to use during the inspection Predefined options available on Garrison	• Eliminate online issues • Eliminate offline use • Eliminate syncing • Decrease typing up hand written report • Access to most current facility information, other pertinent EH data • Inspection is recorded as the inspection occurs • Decrease write up time of inspection report
Printers do not perform as needed	Eliminate on-site inspection **printing**	• Decreased material costs • Printer issues eliminated • Email report to facilities • Decrease amount of filing

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TRY

14. Test Hypotheses (How will you test the potential solutions?)

- Update the project schedule For trial and learning)

Tests	How	When	Who	Successful if…
1.Test proposed technology (tablet, air card, laptop, signature, Garrison)	Out in the field on inspection	Thurs.	Katie and Kim	Use online Garrison in the field to complete the inspection form and attach the HACCP checklist.
2. Test existing laptop with aircard to see if we can capture electronic signatures in order to be paperless.	Here in the conference room	Thurs.	Kim	Can capture and email
3. Test the Inspection Drop down boxes in Garrison as if we were doing an inspection.	Out in the field on inspection	Thurs.	Katie and Kim	If Dropdown boxes work without glitches
4. Test the process for viewing reports in Garrison with an inspector.	In Conference Room	Wed.	Emily	Emily was able to view reports without glitches
5. Test the process of attaching the HACCP report to the Inspection Report	In The Field on an Inspection	Thurs.	Katie, Kim	HACCP form is attached to the inspection report within Garrison

15. Results: attach graph/table of actual trial performance

LEARN

16. Learning (For the trials, what worked and did not, why and what are you doing as a result? Is the result repeatable?)

Reasons	Learning: Why?	Direction: Actions to be taken
Air card worked	Disconnected from network when tried to install on own	Jim needs to install on new technology
Signature Works	It is hard to do with stylist with this computer	Worked with the finger, maybe hold the button down for the customer while they sign.
Report emailed	Signature did not show up on their copy; if they do not have outlook express they could not open the attachment; internet capability of the facilities may be an issue.	Verify that inspectors know how to PDF and their system can PDF; Transmit it as a PDF
HACCP form	Was not user friendly	Has been fixed and tested no action necessary.
Drop down boxes	General statements so still had to type in	Add the green “x” box into the

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	comments but they are shorter	training
Was able to access the code and get online		
Worried about dropping the tablet		Wanting to make the tablet more secure
Formatting issues with Garrison and the tablet.	Entering data it got bigger Location would jump across the screen.	Contact Garrison about hardware and software interfacing issues Verify that our system can run Garrison without glitches
Curser would move unexpectedly		
Typing lag	Made typing slower because of waiting for it to load	Verify that our hardware does not have that lag
Did not initially know what the code was	To look up the code on garrison was not the easiest and it took a lot of time	Scanned document of the Code short cut sheet
Wasn't able to enter the information all at once using the touch screen so needed to go back and use the blue tooth	This added time on the end of the inspection due to having to type in additional information Sometimes clicked the wrong date Had to go back and delete extra copy.	Possible talk to text later so insure our technology has a microphone.
Date was small		
Predefined dropdown comments were duplicated at times.		

INSTALL

17. Installation Plan (Steps to operationalize the new process and make it stick. Attach new process map below.)

- See the project schedule

What	When
Inspector Training	**Today, 9 AM, March 21st**
Go-Live Monday, March 24th	
Define, Purchase, & Prepare new tablets	**April 30, 2014**
Deploy new tablets/ Future Process 100% implemented.	**May 30, 2014**

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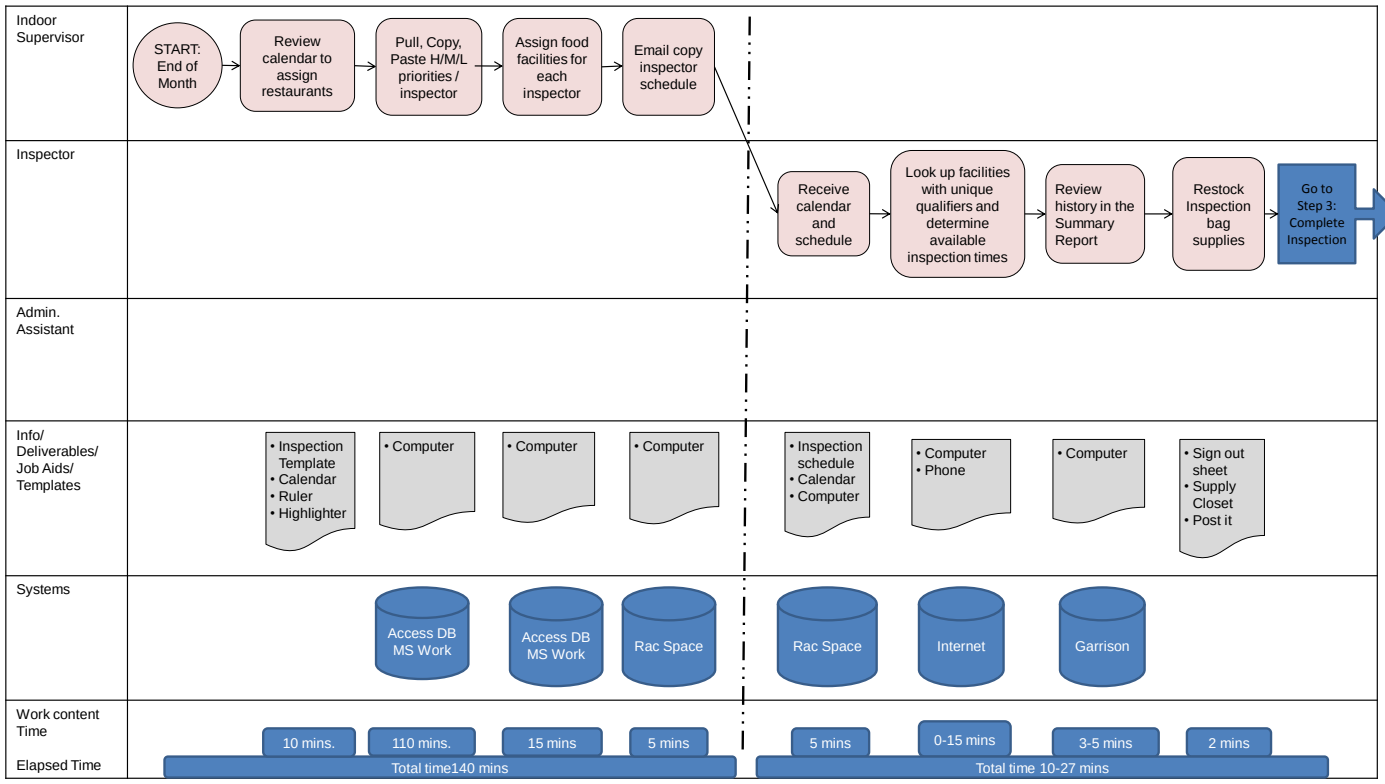
Food Inspection Process (Future Process)

Date created March 21, 2014

Sub Step 1: Establish inspection schedule Sub Step 2: Prepare for Inspections



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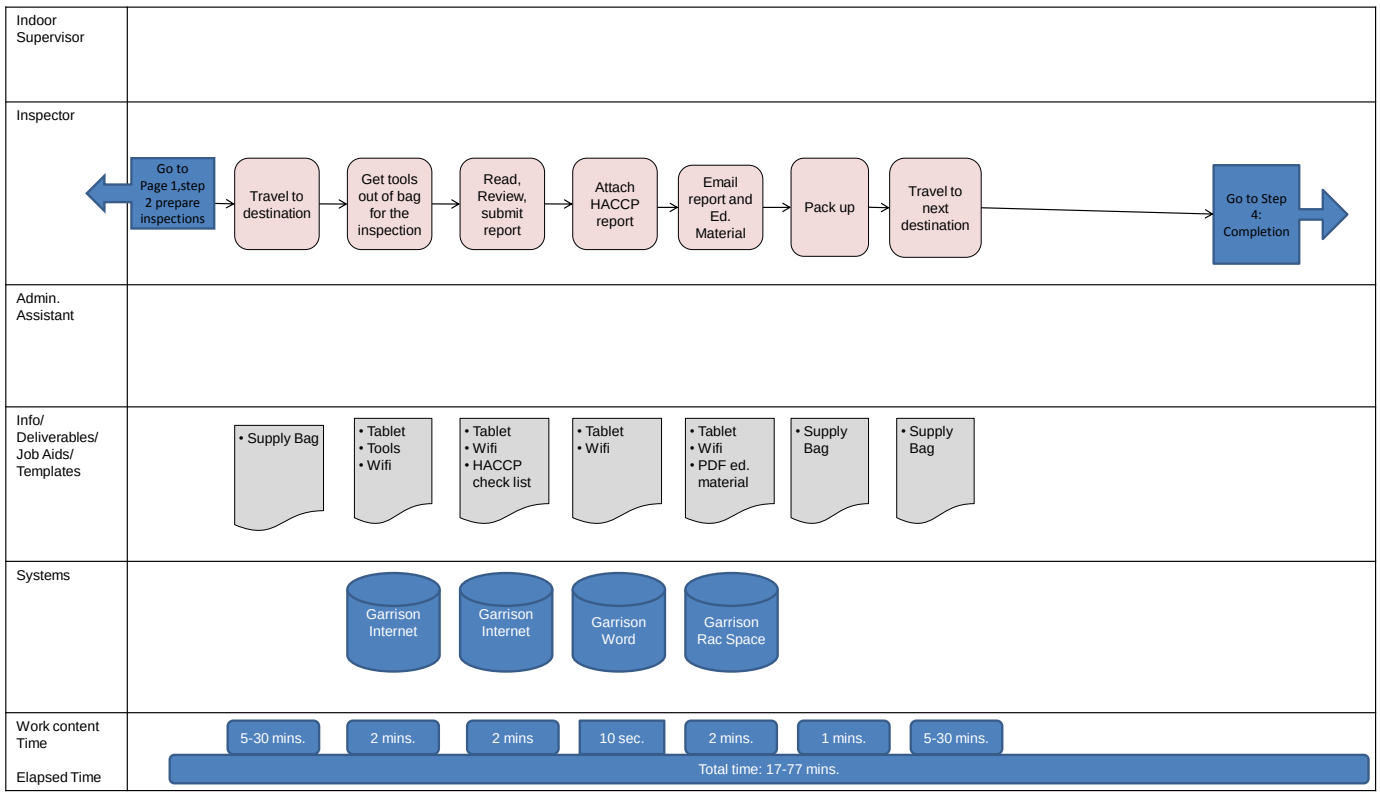
Food Inspection Process (Future Process)

Date created March 21, 2014

Sub Step 3: Inspection



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Food Inspection Process (Future Process)

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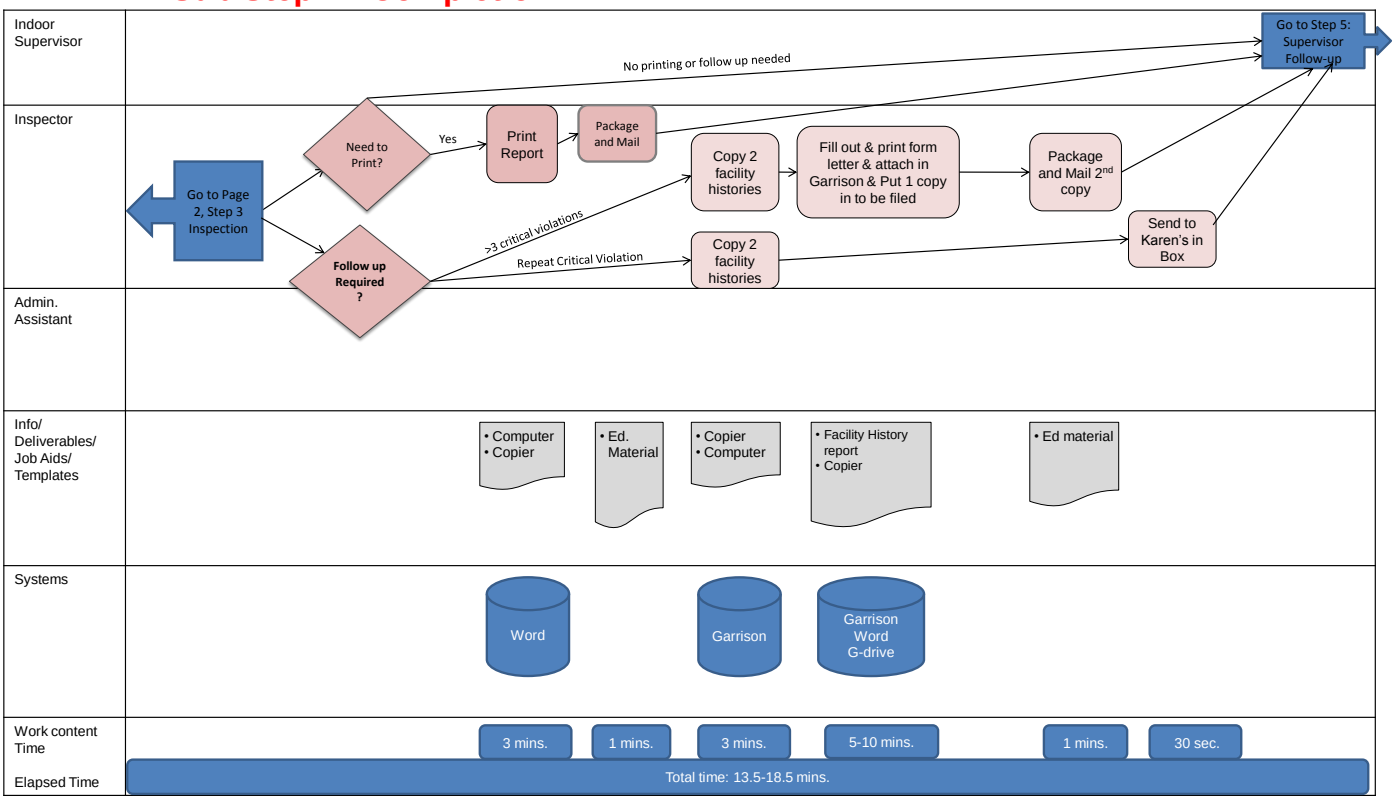
Sub Step 4: Completion



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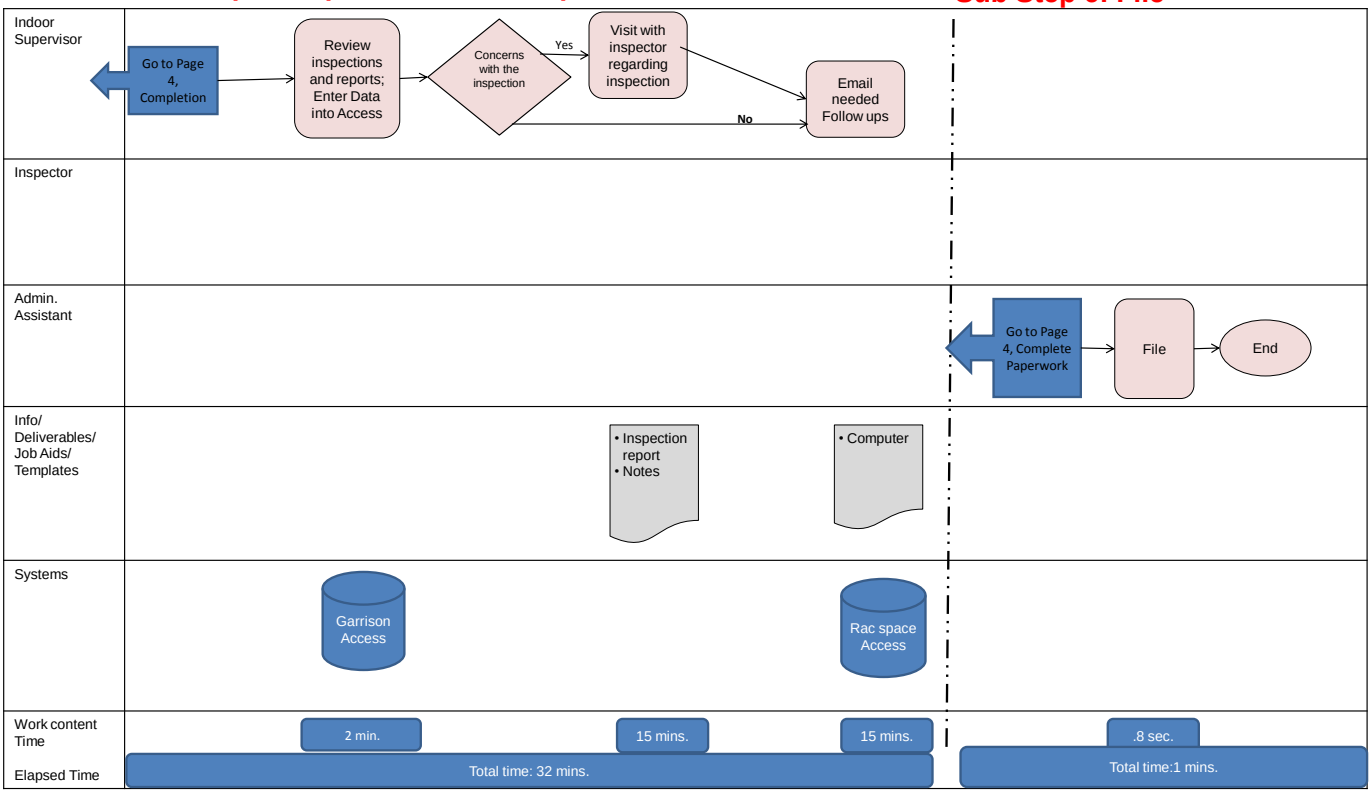
Food Inspection Process (Future Process)

Date created March 21, 2014

Sub Step 5: Supervisor Follow-up

Sub Step 6: File



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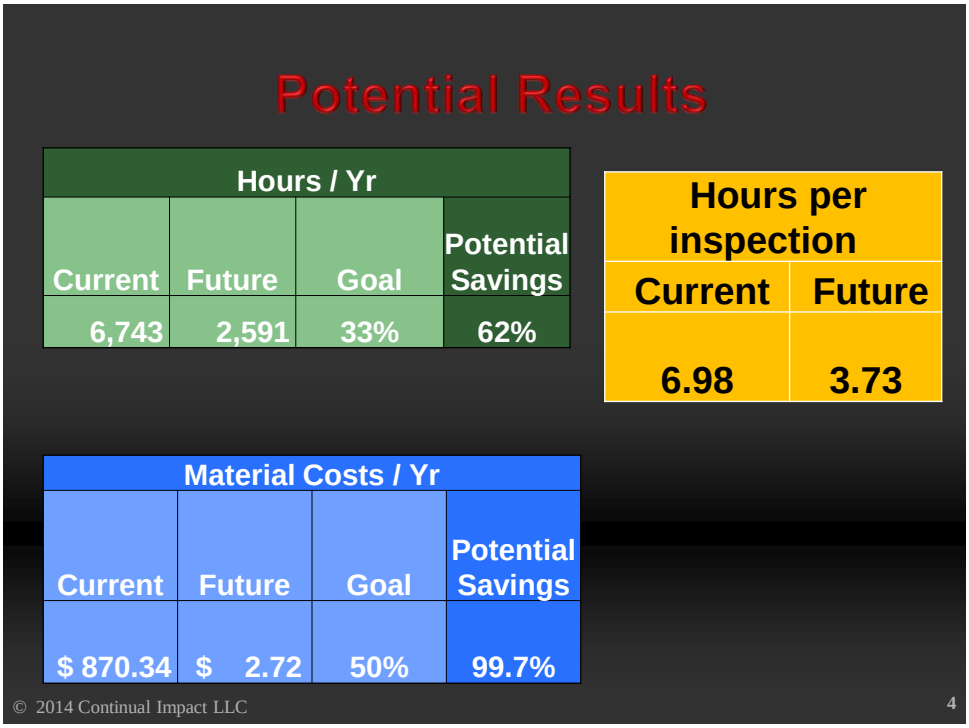

18. Measure Success attach graph/table of installed performance

Documents below will be used in measuring our success. We will do a time study the Week of 4/27/2014 and an additional time study the Week of 5/25/2014. At that point we will have data to upload to our Food Inspection Measures table.

Measure Definition

Background: • What is the measure name? • Who is the measure owner?	• Time • Karen Irons	• Material • Karen Irons
Alignment & Decision Making • What Strategy or Tactic does this measure align with? • What Cause or Effect are you trying to address? • What decisions/actions are required if the measure's goal is not achieved?	• System Stability, maximizing resources(goal 1) • Efficiency • CIS	• System Stability, maximizing resources(goal 2) • Efficiency • CIS
Type • Perspective (Strategic, Tactical, Operating) • Focus (Results, Activities, Resources) • View (Internal, External facing)	• Tactical, Operating • Increase programmatic capacity with existing resources • Internal	• Tactical, Operating • Increase programmatic capacity with existing resources • Internal
Definition • Anchor • How is it defined? • What is the target? • Scope of Measure (e.g. which products/processes, geographies,	• Administration time • Time it takes to complete a food inspection minus the inspection itself • 33% reduction in	• Paper waste • Amount of materials for each food inspections • 50% reduction in material

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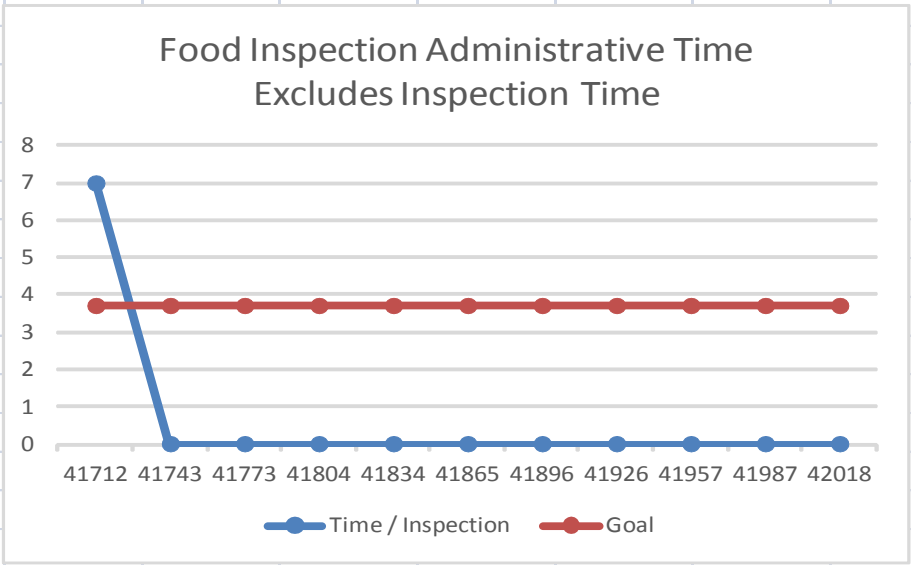
population group): • Time the target is to be achieved: • Trend: • Expected accuracy of measure (+/- %):	administrative time • 5/30/14 • •	used • 5/30/14
Procedure • Who collects the information? • When (frequency and timing)? • How collected? • How verified?	• Karen Irons • Once a month • Time study • Review w/employee	• Karen Irons • Once a week, report once a month • Inventory paper used •
Analysis • Who analyzes the data? • How (steps, statistical methods applied, statistics generated)?	• Karla Burress/QI, KI • Statistics generated	• Karla Burress/QI, KI • Statistics generated
Reporting • Who? • When (timing) and frequency of report? • Visual representation (e.g. graph, number) (Insert sample graph) • How transmitted (e.g. posted where, email to who, where are results stored)?	• Karen Irons • Once a month • Graph • Posted G drive, Kaizen	• Karen Irons • Once a month • Graph • Posted G drive, Kaizen

	Time / Inspection	Goal	Raw Data
14-Mar	6.98	3.70	
Apr-14	0	3.70	
May-14	0	3.70	
Jun-14	0	3.70	
Jul-14	0	3.70	
Aug-14	0	3.70	
Sep-14	0	3.70	
Oct-14	0	3.70	
Nov-14	0	3.70	
Dec-14	0	3.70	
Jan-15	0	3.70	
Feb-15		3.70	
Mar-15		3.70	
Apr-15		3.70	
May-15		3.70	
Jun-15		3.70	
Jul-15		3.70	
Aug-15		3.70	
Sep-15		3.70	
Oct-15		3.70	



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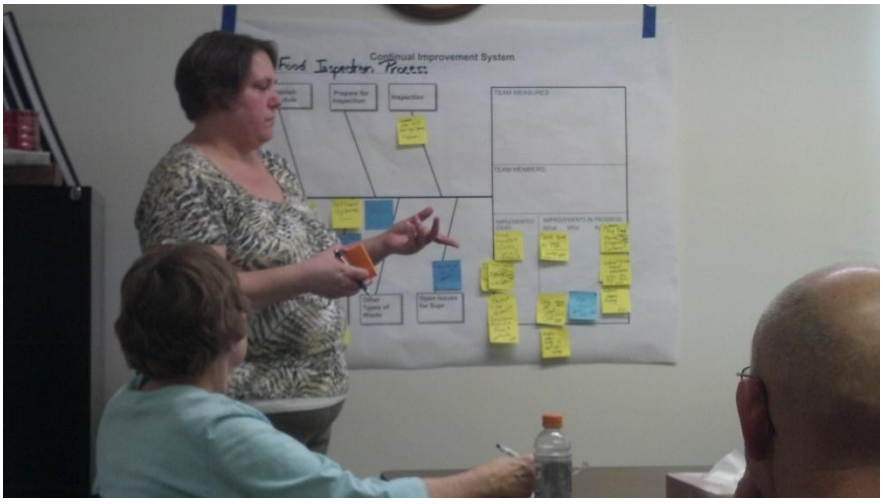
PROJECT TEAM PROBLEM SOLVING

	# Pages received by supervisor	$ Spent	Goal	Paper	Cartridge
14-Mar	787	$ 72.50	$ -		
Apr-14		$ -	$ -	$ -	$ -
May-14		$ -	$ -	$ -	$ -
Jun-14		$ -	$ -	$ -	$ -
Jul-14		$ -	$ -	$ -	$ -
Aug-14		$ -	$ -	$ -	$ -
Sep-14		$ -	$ -	$ -	$ -
Oct-14		$ -	$ -	$ -	$ -
Nov-14		$ -	$ -	$ -	$ -
Dec-14		$ -	$ -	$ -	$ -
Jan-15		$ -	$ -	$ -	$ -
Feb-15		$ -	$ -	$ -	$ -

2.95	ream of paper
500	pages per ream
43.99	printer cartridge
110000	pages per cartridge



4/7/2014 (2 weeks since process implementation) Process Owner Karen Irons holds a CIS meeting to find out how implementation has gone thus far. Karen later states, "I couldn't have done standardization of this process without Kaizen".

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