

Enabling Success

Creating Alignment Between the Field and the Office



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Contents

| Introduction | .2 |
|--|----|
| Aligned Vision | .3 |
| Definition of Success | .4 |
| Complexity of Construction Operations | .6 |
| Tools to Enable Success | .8 |
| That was good, and completely necessary. This is even better | 17 |
| Speaker Bio | 18 |





Introduction

Maxim Consulting Group Overview



Agenda

- Aligned Vision
- Definition of Success
- Complexity of Construction Operations
- Tools to Enable Success
- That was good, and completely necessary. This is even better





Aligned Vision

Four Tenants of the Most Successful Construction Firms

- 1. Hire the Right People
- 2. Strong Organizational Culture
 - a. Communication
 - b. Leadership
 - c. Consistency
- 3. Financial Aptitude
 - a. Understanding how "MY" actions create an impact
- 4. Discipline
 - a. We do things one way, the best way

Us vs. Them - Cause and Effect

Lack of:

- Trust
- Discipline
- Defined processes
- Role definition
- Involvement
- Incentives
- Training

Us vs. Them – Root Causes

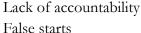
- Ego
- Loyalty to "One Side"
- Status
- Greed
- Control

Collaboration gone wrong

- 1. Who should have been consulted?
- 2. What different input may have been shared?

Overcomplication ≠ Success





Confusion

Impatience

Anger

Causes:

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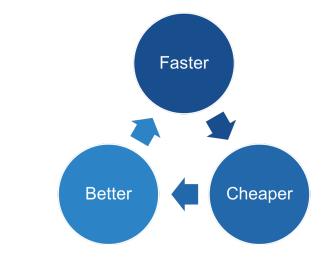
Lack of motivation

Disengagement



Definition of Success

What Does the Client Want?



Types of Clients

- Internal Clients
 - Estimating
 - Design
 - Manufacturing
 - Project Operations
 - Field Operations
 - Etc.
- External Clients

How Do We Drive Customer Satisfaction?

- Behaviors:
 - Trust
 - Discipline
 - Defined processes
 - Role definition
 - Involvement
 - Incentives
 - Training

- Results:
 - Operational Excellence
 - Superior Company Culture
 - Financial Opportunity
 - Etc.





What Does the Field Want From Operations?

| Desired: | Accomplished by: |
|-------------------|---------------------|
| | |
| Right information | Defined processes |
| Right tools | Great communication |
| Right materials | Effective structure |
| Furnished: | Strong leadership |
| > When needed | |
| How needed | |
| > Where needed | |
| | |



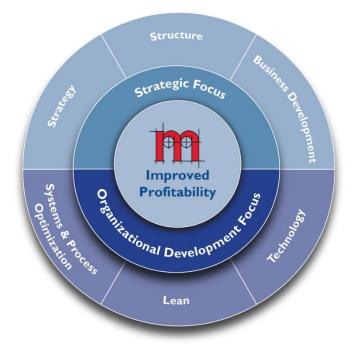


Complexity of Construction Operations

Four Tenants of the Most Successful Construction Firms

- 1. Hire the Right People
- 2. Strong Organizational Culture
- 3. Financial Aptitude
- 4. Discipline

Construction Operations - an Overview



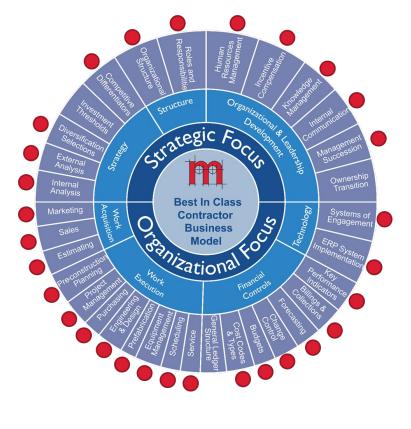




Construction Operations – Detail



The Field Performs/Uses/Contributes to These:

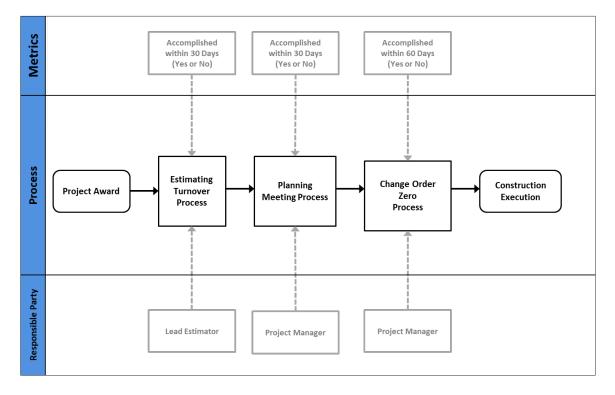






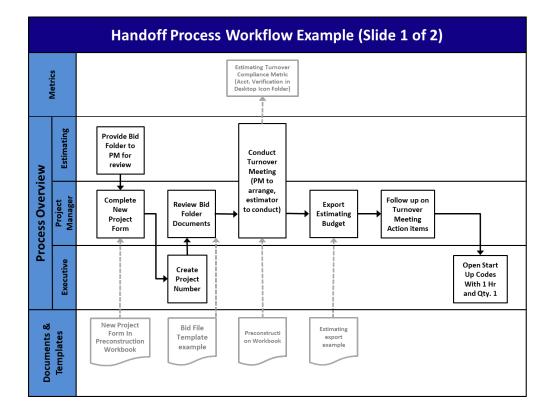
Tools to Enable Success

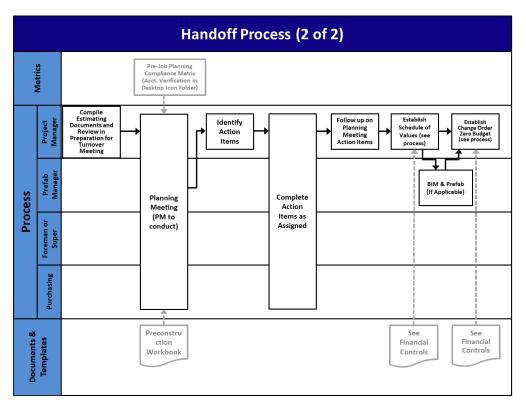
Pre-Job Planning Process Overview













Short Interval Plans

• 3 week look aheads are done to communicate the plan including materials, equipment, tools, other needs that are not yet on site for the work, as well as production targets

Short Interval Plans – Underutilization

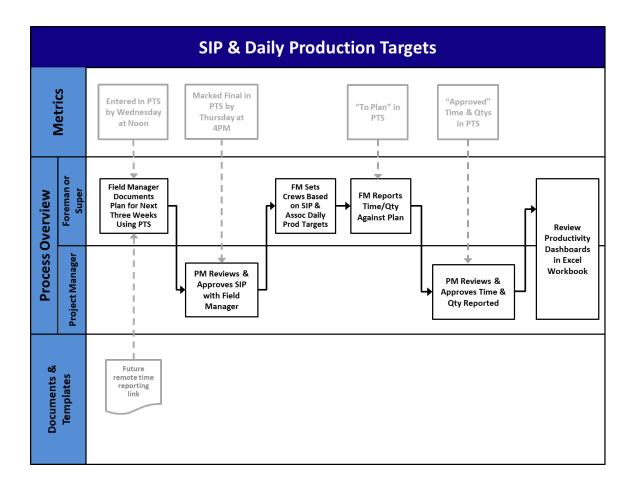
- Obstacles to excellence:
 - "I don't have time"
 - "I don't see the value"

Short Interval Plans

| Sho | rt Interval Plan - | Entry | | | | | | | | | | | | | | | |
|-----|--------------------|--|----------|--------|--------|-------|------------|-----------|-----|-----|-----|----------|------|-----|-----|------------|--------|
| | | Area Phase Code | | _ | | | | | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Plan is Fi | nal? 🗹 |
| SI | low Activity for: | • | Show All | | | | Daily Shif | t Length: | 8 | 8 | 8 | 8 | 8 | 0 | 0 | Save | Plan |
| | Activi | Activities planned for week STARTING: 03/11/2019 | | | | Tools | Productio | n Rate | | | Dai | ly Man H | ours | | | Target | |
| | Phase Code | Description | Area | Source | Status | Eqp | Qty | UM | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Qty | UM |
| | 00-00-703 | DIRECT JOB SUPERVISION | 00 | | | | 1.00 | HR | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 40.00 | HR |
| | 00-00-711 | SAFETY TRAINING | 00 | | | | 1.00 | HR | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 5.00 | HR |
| | 00-01-230 | 1 WALL ROUGH IN | 01 | V | R | Y | 11.26 | LF | 16 | 16 | 16 | 16 | 16 | 0 | 0 | 901.08 | LF |
| | 00-01-241 | 1 OH COND 1 & SM | 01 | v | D | Y | 16.49 | LF | 15 | 15 | 15 | 15 | 15 | 0 | 0 | 1,236.72 | LF |
| | 00-01-350 | 1 BRNCH WIRE #8 & SM | 01 | V | D | Y | 182.70 | LF | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 7,308.18 | LF |
| | 00-01-416 | 1 FLANGED LINEAR LIGHTING | 01 | v | в | Y | 3.81 | EA | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 152.28 | EA |
| | 00-UG-211 | UG UG COND 1 & SM | UG | V | R | N | 12.49 | LF | 16 | 16 | 16 | 16 | 16 | 0 | 0 | 999.51 | LF |
| | 00-UG-212 | UG COND 1 1/4 & LG | UG | v | R | N | 6.23 | LF | 16 | 16 | 16 | 16 | 16 | 0 | 0 | 498.20 | LF |
| | 00-02-440 | 2 WALL DEVICES & TRIM | 02 | | | | 2.45 | EA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | EA |
| | | | | | | | | | | | | | | | | | |







Short Interval Plans - Done Poorly

| Unplanned Calls to Shop | Planned Calls to Shop |
|-------------------------|-----------------------|
| <48 Hours Notice | >48 hours Notice |
| 70% | 30% |

This means that 70% of the time, we are using HOPE as a strategy to achieve excellence.



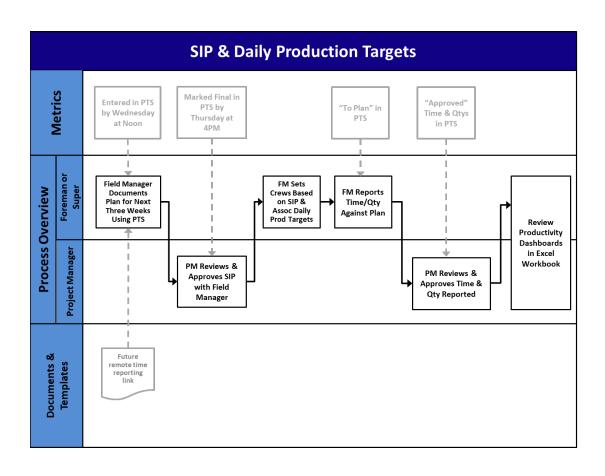


Short Interval Plans – Done Well



How different would this be?

Operationally? Culturally? Financially?







Time Reporting

• Time reporting should be accurate

| | Employee Time - All Employees on . | Job | Trade / Mon 02/11 Tue 02/12 | | | | 2/12 | Wed 02/13 Thu 02/14 | | | Fri 02/15 | | Sat 02/16 | | Sun 02/17 | | Final? | | |
|-------|------------------------------------|------|-----------------------------|------|----|------|------|---------------------|----|------|-----------|------|-----------|------|-----------|------|--------|--|-------|
| | Phase Code | Area | Skill | Reg | от | Reg | ОТ | Reg | от | Reg | ОТ | Reg | от | Reg | от | Reg | от | | |
| 0 | | | | 8.00 | | 8.00 | | 8.00 | | 8.00 | | 8.00 | | 0.00 | | 0.00 | | | 40.00 |
| CLEA | AN UP | 00 | | 0.25 | | 0.25 | | 0.25 | | 0.25 | | 0.25 | | 0.00 | | 0.00 | | | |
| SAFE | TY TRAINING | 00 | | 0.25 | | 0.25 | | 0.25 | | 0.25 | | 0.25 | | 0.00 | | 0.00 | | | |
| P1 BR | RNCH WIRE #8 & SM | P1 | | 7.50 | | 7.50 | | 7.50 | | 7.50 | | 7.50 | | 0.00 | | 0.00 | | | |
| 2 | | | | 8.00 | | 8.00 | | 8.00 | | 8.00 | | 8.00 | | 0.00 | | 0.00 | | | 40.00 |
| CLEA | AN UP | 00 | | 0.25 | | 0.25 | | 0.25 | | 0.25 | | 0.25 | | 0.00 | | 0.00 | | | |
| SAFE | TY TRAINING | 00 | | 0.25 | | 0.25 | | 0.25 | | 0.25 | | 0.25 | | 0.00 | | 0.00 | | | |
| P1 BR | RNCH WIRE #8 & SM | P1 | | 7.50 | | 7.50 | | 7.50 | | 7.50 | | 7.50 | | 0.00 | | 0.00 | | | |
| 0 | | | | 8.00 | | 8.00 | | 8.00 | | 8.00 | | 8.00 | | 0.00 | | 0.00 | | | 40.00 |
| DIRE | CT JOB SUPERVISION | 00 | | 2.00 | | 2.00 | | 2.00 | | 2.00 | | 2.00 | | 0.00 | | 0.00 | | | |
| CLEA | AN UP | 00 | | 0.25 | | 0.25 | | 0.25 | | 0.25 | | 0.25 | | 0.00 | | 0.00 | | | |

Quantity Reporting

- Quantity reporting should be accurate
- Analysis of planned activities versus unplanned must be completed

| Activities Planned for week STARTING: 02/11/2019 | | | | Budget Previous JTD | | | | | Week | Target | Week Act | JTD | |
|--|------------|--------------------------|------|---------------------|----|-----------|----|---------|-----------|-----------|-----------|-----|---------|
| | Phase Code | Description | Area | Quantity | UM | Quantity | UM | % Comp | per Plan | per Time | Quantity | UM | % Comp |
| 0 | 00-00-703 | DIRECT JOB SUPERVISION | 00 | 2,080.00 | HR | 1,112.80 | HR | 53.50% | 15.00 | 14.00 | 20.80 | HR | 54.50% |
| 0 | 00-00-709 | CLEAN UP | 00 | 470.00 | HR | 267.90 | HR | 57.00% | 10.00 | 9.25 | 11.75 | HR | 59.50% |
| 0 | 00-00-711 | SAFETY TRAINING | 00 | 374.00 | HR | 374.00 | HR | 100.00% | 10.00 | 9.25 | 0.00 | HR | 100.00% |
| 0 | 00-D1-410 | D1 LIGHTING | D1 | 555.00 | EA | 555.00 | EA | 100.00% | 0.00 | 41.14 | 0.00 | EA | 100.00% |
| 0 | 00-NC-360 | NC FEED WIRE #6 & LG | NC | 7,737.00 | LF | 0.00 | LF | 0.00% | 2,481.25 | 0.00 | 0.00 | LF | 0.00% |
| 0 | 00-P1-350 | P1 BRNCH WIRE #8 & SM | P1 | 65,151.00 | LF | 45,279.95 | LF | 69.50% | 18,690.86 | 23,319.07 | 16,613.50 | LF | 95.00% |
| 0 | 00-P1-360 | P1 FEED WIRE #6 & LG | P1 | 4,309.00 | LF | 0.00 | LF | 0.00% | 1,776.90 | 666.34 | 689.44 | LF | 16.00% |
| 0 | 00-P1-410 | P1 LIGHTING | P1 | 146.00 | EA | 94.90 | EA | 65.00% | 42.16 | 47.44 | 29.20 | EA | 85.00% |
| 0 | 00-P1-440 | P1 WALL DEVICES AND TRIM | P1 | 351.00 | EA | 0.00 | EA | 0.00% | 78.28 | 0.00 | 0.00 | EA | 0.00% |

Productivity Data

• Proving the impact

| | | | | Budget | | Hou | rs | Qua | antity | |
|------|----------------|--|---|---|--|---|---|--|---|---|
| Area | Phase Code | Description | Labor | Quantity | <u>UM</u> | Actual | Earned | Week | To Date | % Comp |
| 00 | 00-00-703 | DIRECT JOB SUPERVISION | 2,080.00 | 2,080 | HR | 14.00 | 20.80 | 20.80 | 1,133.60 | 54.50% |
| | 00-00-709 | CLEAN UP | 470.00 | 470 | HR | 9.25 | 11.75 | 11.75 | 279.65 | 59.50% |
| | 00-00-711 | SAFETY TRAINING | 374.00 | 374 | HR | 9.25 | 0.00 | 0.00 | 374.00 | 100.00% |
| D1 | 00-D1-410 | D1 LIGHTING | 371.00 | 555 | EA | 27.50 | 0.00 | 0.00 | 555.00 | 100.00% |
| NC | 00-NC-360 | NC FEED WIRE #6 & LG | 343.00 | 7,737 | LF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% |
| P1 | 00-P1-350 | P1 BRNCH WIRE #8 & SM | 366.00 | 65,151 | LF | 131.00 | 93.33 | 16,613.50 | 61,893.45 | 95.00% |
| | 00-P1-360 | P1 FEED WIRE #6 & LG | 97.00 | 4,309 | LF | 15.00 | 15.52 | 689.44 | 689.44 | 16.00% |
| | 00-P1-410 | P1 LIGHTING | 277.00 | 146 | EA | 90.00 | 55.40 | 29.20 | 124.10 | 85.00% |
| | 00-P1-440 | P1 WALL DEVICES AND TRIM | 269.00 | 351 | EA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% |
| | 00 D1 NC | 00 00-00-703 00-00-709 00-00-711 D1 00-D1-410 NC 00-NC-360 P1 00-P1-350 00-P1-360 00-P1-410 | 00 00-00-703 DIRECT JOB SUPERVISION 00-00-709 CLEAN UP 00-00-711 SAFETY TRAINING D1 00-01-410 D1 LIGHTING NC 00-NC-360 NC FEED WIRE #6 & LG P1 00-P1-350 P1 BRNCH WIRE #8 & SM 00-P1-360 P1 FEED WIRE #6 & LG 00-P1-410 P1 LIGHTING | Area Phase.Cool Description Labor. 00 00-00-703 DIRECT JOB SUPERVISION 2,080.00 0 00-00-709 CLEAN UP 470.00 0 00-00-711 SAFETY TRAINING 374.00 0 0-01-1410 D1 LIGHTING 371.00 NC 0-0-0-360 NC FEED WIRE #6 & LG 343.00 P1 0-01-350 P1 BRNCH WIRE #8 & SM 366.00 0-01-360 P1 FEED WIRE #6 & LG 97.00 0-01-410 P1 LIGHTING 277.00 | Area Phase Code Description Labor Outstand 00 00-00-703 DIRECT JOB SUPERVISION 2,08.00 | 00 00-00-703 DIRECT JOB SUPERVISION 2,080.00 2,080 HR 00-00-709 CLEAN UP 470.00 470 HR 00-00-711 SAFETY TRAINING 374.00 374 HR D1 00-D1-410 D1 LIGHTING 371.00 555 EA NC 00-NC-360 NC FEED WIRE #6 & LG 343.00 7,737 LF P1 00-P1-350 P1 BRNCH WIRE #8 & SM 366.00 65,151 LF 00-P1-360 P1 FEED WIRE #6 & LG 97.00 4,309 LF 00-P1-410 P1 LIGHTING 277.00 146 EA | Area Phase Code Description Labor Ouantity UM Actual 00 00-00-703 DIRECT JOB SUPERVISION 2,080.00 2,080.01 RA 14.00 00 00-00-709 CLEAN UP 470.00 470 HR 9.25 00-00-711 SAFETY TRAINING 374.00 374 HR 9.25 D1 00-D1-410 D1 LIGHTING 371.00 555 EA 27.50 NC 00-NC-360 NC FEED WIRE #6 & LG 343.00 7,737 LF 0.00 P1 00-P1-350 P1 BRNCH WIRE #8 & SM 366.00 655.151 LF 131.00 00-P1-360 P1 FEED WIRE #6 & LG 97.00 4,309 LF 15.00 00-P1-410 P1 LIGHTING 277.00 146 EA 90.00 | Area Phase Code Description Labor Quantity UM Actual Earned 00 00-00-703 DIRECT JOB SUPERVISION 2,080.00 2,080 HR 14.00 20.86 00-00-709 CLEAN UP 470.00 470 HR 9.25 11.75 00-00-711 SAFETY TRAINING 374.00 374 HR 9.25 0.00 D1 00-D1-410 D LIGHTING 371.00 555 EA 27.50 0.00 NC 00-NC-360 NC FEED WIRE #6 & LG 343.00 7,737 LF 0.00 0.00 P1 00-P1-350 P1 BRNCH WIRE #8 & SM 366.00 65,151 LF 131.00 93.33 00-P1-360 P1 FEED WIRE #6 & LG 97.00 4,309 LF 15.00 15.52 00-P1-410 P1 LIGHTING 277.00 146 EA 90.00 55.40 00-P1-440 P1 WALL DEVICES AND TRIM 269.00 351 EA 0.00 0.00 | Area Phase Code Description Labor Quantity UM Actual Earned Week 00 00-00-703 DIRECT JOB SUPERVISION 2,080.00 2,080.01< | Area Phase Code Description Labor Quantity UM Actual Earned Week To Date 00 00-00-703 DIRECT JOB SUPERVISION 2,080.00 2,080.00 2,080.01 14.00 20.00 20.00 11.33.60 00 00-00-709 CLEAN UP 470.00 470.01 RR 9.25 11.75 279.65 00-00-711 SAFETY TRAINING 374.00 374.01 9.25 0.000 0.00 374.00 D1 00-D1-410 D1 LIGHTING 371.00 555 EA 27.50 0.000 0.00 555.00 NC 00-NC-360 NC FEED WIRE #6 & LG 343.00 7,737 LF 0.00 0.000 0.000 0.000 P1 00-P1-300 P1 BRNCH WIRE #8 & SM 366.00 65,151 LF 131.00 93.33 16,135.30 61,893.45 00-P1-300 P1 EED WIRE #6 & LG 97.00 4,309 LF 15.00 15.55 689.44 689.44 00-P1-410 P1 LIGHTING 277.00 |



| | | | | | Budget | | Hour | s | Qua | antity | |
|------------|------|------------|--------------------------|----------|----------|-----------|--------|--------|-----------|-----------|---------|
| Week of | Area | Phase Code | Description | Labor | Quantity | <u>UM</u> | Actual | Earned | Week | To Date | % Comp |
| 02/11/2019 | 00 | 00-00-703 | DIRECT JOB SUPERVISION | 2,080.00 | 2,080 | HR | 14.00 | 20.80 | 20.80 | 1,133.60 | 54.50% |
| | | 00-00-709 | CLEAN UP | 470.00 | 470 | HR | 9.25 | 11.75 | 11.75 | 279.65 | 59.50% |
| | | 00-00-711 | SAFETY TRAINING | 374.00 | 374 | HR | 9.25 | 0.00 | 0.00 | 374.00 | 100.00% |
| | D1 | 00-D1-410 | D1 LIGHTING | 371.00 | 555 | EA | 27.50 | 0.00 | 0.00 | 555.00 | 100.00% |
| | NC | 00-NC-360 | NC FEED WIRE #6 & LG | 343.00 | 7,737 | LF | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% |
| | P1 | 00-P1-350 | P1 BRNCH WIRE #8 & SM | 366.00 | 65,151 | LF | 131.00 | 93.33 | 16,613.50 | 61,893.45 | 95.00% |
| | | 00-P1-360 | P1 FEED WIRE #6 & LG | 97.00 | 4,309 | LF | 15.00 | 15.52 | 689.44 | 689.44 | 16.00% |
| | | 00-P1-410 | P1 LIGHTING | 277.00 | 146 | EA | 90.00 | 55.40 | 29.20 | 124.10 | 85.00% |
| | | 00-P1-440 | P1 WALL DEVICES AND TRIM | 269.00 | 351 | EA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00% |
| | | | | | | | 296.00 | 196.80 | | | |

Productivity Data as a Tool

Spent 296 hours. Should have spent 196.8 hours. Impact is 99.2 hours

Daily Project Report

• First-hand account of what happens on the jobsite

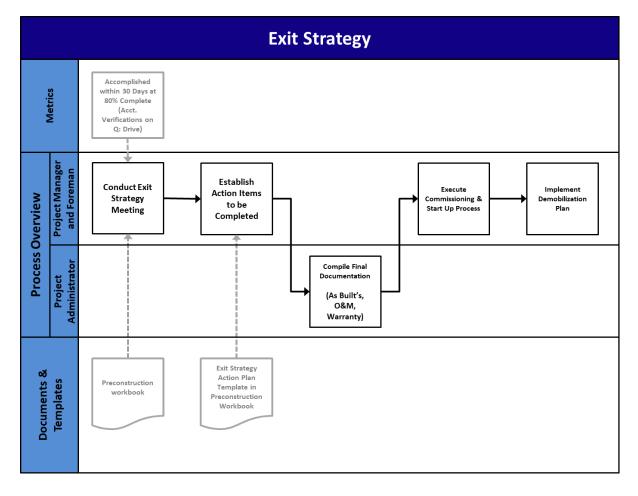
| | s: | | | | | | | | |
|----------|---------------|--|---------------------|--|--|--|--|--|--|
| | Contractor | | Crew Size | Comments | | | | | |
| | | | 7 | running conduit to tie in ceilings and rooms , pulling branch wires . | | | | | |
| ipment | Used: | | | | | | | | |
| 5 | Source | Туре | Hours U | Used Date Rented Comments | | | | | |
| N | I/A | | 0.00 |) | | | | | |
| erials R | eceived: | | | | | | | | |
| | Quantity | Description | Source | Problems | | | | | |
| | 2 | Panel interiors, covers , and fuses . | CRAWFOI electric | RD and wholesale | | | | | |
| ety Issu | les: | | | | | | | | |
| | Description | ı | | Responsibility | | | | | |
| s | lips , trips, | cuts , and falls . | | wear ppe's , and clean up areas. | | | | | |
| rk Accol | mplished: | | | | | | | | |
| pulle | d branch w | ires, and ran conduits for tieing in roo | ms and lighting | ıg. | | | | | |
| iys: | | | | | | | | | |
| | | | | completed.Also need Slack to complete storm lines at Nicks to be able to run | | | | | |





Opportunities for Communication – Driven by Processes

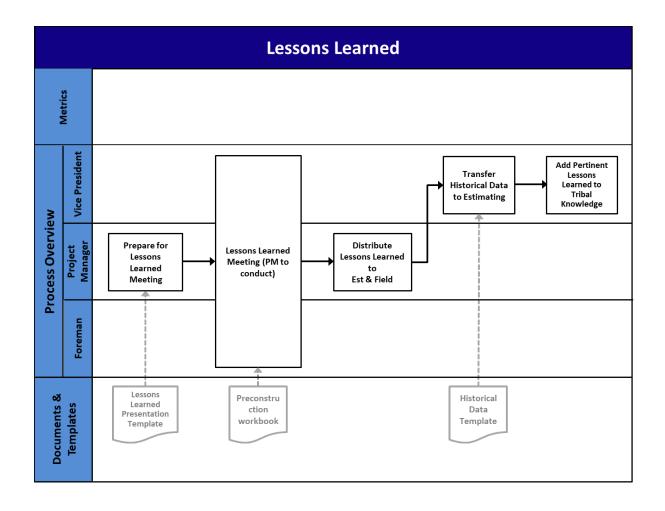
- 1. Short Interval Plan
 - Documents what the field is planning on working on, with needs and obstacles identified for the team to solve
- 2. Time Reporting
 - Record of what we spent our time doing
- 3. Quantity Reporting
 - Record of what we were able to get installed
- 4. Daily Project Report
 - Record of site conditions, delays, and other relevant facts for the operations team to know
- 5. Production Reports
 - Proving the impact on labor of what we spent versus what we should have spent







Enabling Success





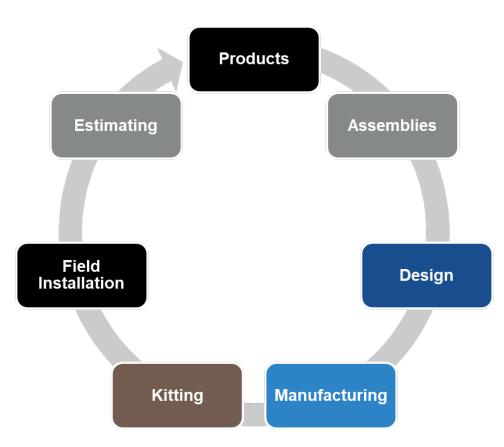


That was good, and completely necessary. This is even better Making it Happen

The crews in the field are the consumer of the product. Therefore, they should have input as to the upstream activities

Imagine This – It isn't Just a Dream

Imagine that every job title involved contributed in defining/implementing STANDARDS for the following:







Enabling Success

Speaker Bio



STEPHANE MCSHANE *Director*

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Career History

- Maxim Consulting Group Director (2011-current)
- Turnupseed Electric Division Manager (2010-2011)
- A-C Electric Company, Inc. *Division Manager* (1998-2010)
- Gates Electric Company (1985-1998)

Background

Stephane McShane is a Director at Maxim Consulting Group responsible for the evaluation and implementation processes with our clients. Stephane works with construction related firms of all sizes to evaluate business practices and assist with management challenges. With a large depth of experience working in the construction industry, Stephane is keenly aware of the business and, most specifically, operational challenges that firms face. Her areas of expertise include: Leadership development, executive coaching, organizational assessments, strategic planning, project execution, business development, productivity improvement, and training programs. Mrs. McShane is an internationally recognized speaker, mentor, author, and teacher. Her ability to motivate, inspire, and create confidence among your work groups is extremely rare and very effective.

Professional and Industry Experience

Stephane possesses the rare combination of talent from being in the field as an apprentice, electrician, foreman, then working her way through each operational chair within a successful electrical construction firm. Her ability and drive defined her to be "best in class" at each position held. This talent is what makes her tremendously effective at operational and organizational assessments today. She has successfully conquered every operational position from being an estimating trainee through executive management. She has built, trained, and led her teams to become the undisputed leaders in their markets. She is able to quickly identify organizational positives and negatives and assess appropriate action steps and throughputs.



