



# INNOVATION IN ACTION: REAL-WORLD APPLICATIONS


Kyle Witte  
Kevin Moses  
Sam Rokowski  
Colby Bruce  
Crystal Wagner

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For these hours to appear on your certificate, you must:

- Have your badge scanned at the door
- Attend 90% of this presentation
- Fill out the online evaluation for this session



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## Industry Innovation Mission

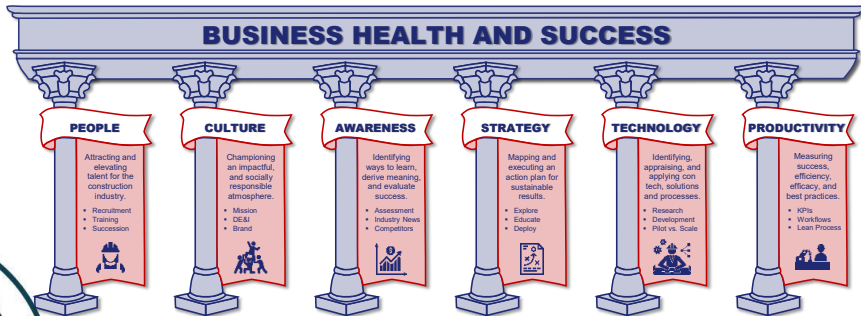
Empower NECA Contractors to **increase market share** through strategic application of **industry trends** and **emerging technologies**

Eliminate **today's challenges** and explore **tomorrow's opportunities**



## Pillars of Innovation


How do you ensure resilience in uncertain environments?

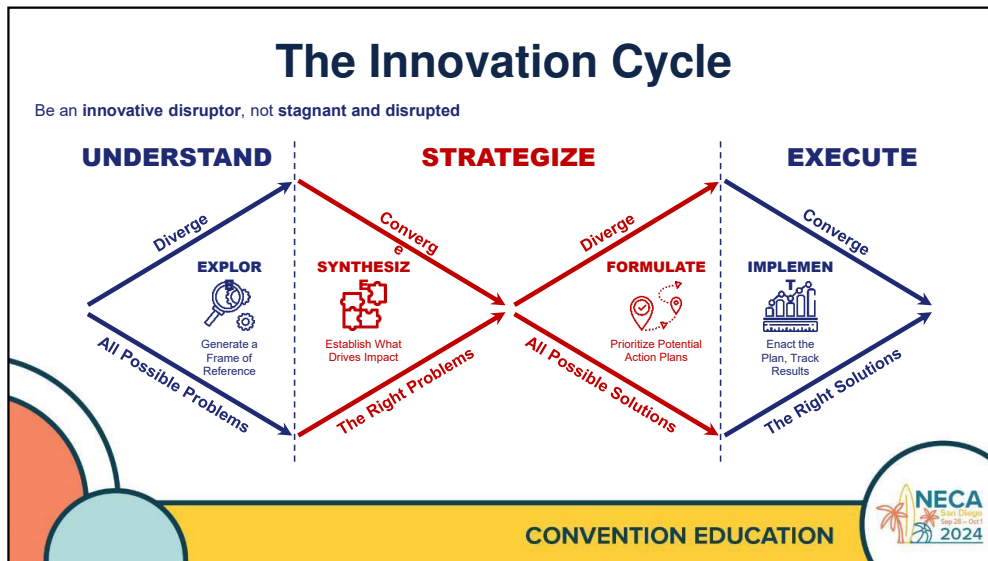


**BUSINESS HEALTH AND SUCCESS**

PEOPLE	CULTURE	AWARENESS	STRATEGY	TECHNOLOGY	PRODUCTIVITY
Attracting and elevating talent for the construction industry. <ul style="list-style-type: none"> <li>• Recruitment</li> <li>• Training</li> <li>• Succession</li> </ul>	Championing an impactful, and socially responsible atmosphere. <ul style="list-style-type: none"> <li>• Mission</li> <li>• DEI/ Brand</li> </ul>	Identifying ways to learn, derive meaning, and evaluate success. <ul style="list-style-type: none"> <li>• Assessment</li> <li>• Industry News</li> <li>• Competitors</li> </ul>	Mapping and executing an action plan for sustainable results. <ul style="list-style-type: none"> <li>• Explore</li> <li>• Educate</li> <li>• Deploy</li> </ul>	Identifying, appraising, and applying con tech, solutions and processes. <ul style="list-style-type: none"> <li>• Research</li> <li>• Development</li> <li>• Pilot vs. Scale</li> </ul>	Measuring success, efficiency, and best practices. <ul style="list-style-type: none"> <li>• KPIs</li> <li>• Workflows</li> <li>• Lean Process</li> </ul>

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## NECA Innovation Institute

One-year executive innovation program designed to strengthen the core skills of existing pioneers within your organization.

**Outperform your personal best through:**

- Foundational executive training
- One-on-one coaching in strategic problem solving
- Intimate peer group discussions
- Capstone Project tailored to company needs
- Recognition as an innovative pioneer

**Ideal Candidate:**

- High Potential Future Executive
- Positioned to Accelerate Your Company
- Nominated by Executive Sponsors

**Join an elite group of innovators poised to take electrical construction to the next level.**

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**NECA**  
San Diego  
Sep 23 - Oct 1  
2024

## Today's Speakers

**Kyle Witte**  
President  
Lemberg Electric Company

**Colby Bruce**  
Operations Manager  
Stewart Electrical Contracting

**Sam Rokowski**  
Director of the Maddox Training Institute & Construction Technology  
Maddox Electric

**Kevin Moses**  
Vice President of Preconstruction  
Big State Electric

**Crystal Wagner**  
Executive Director of Finance  
Gerke Electric

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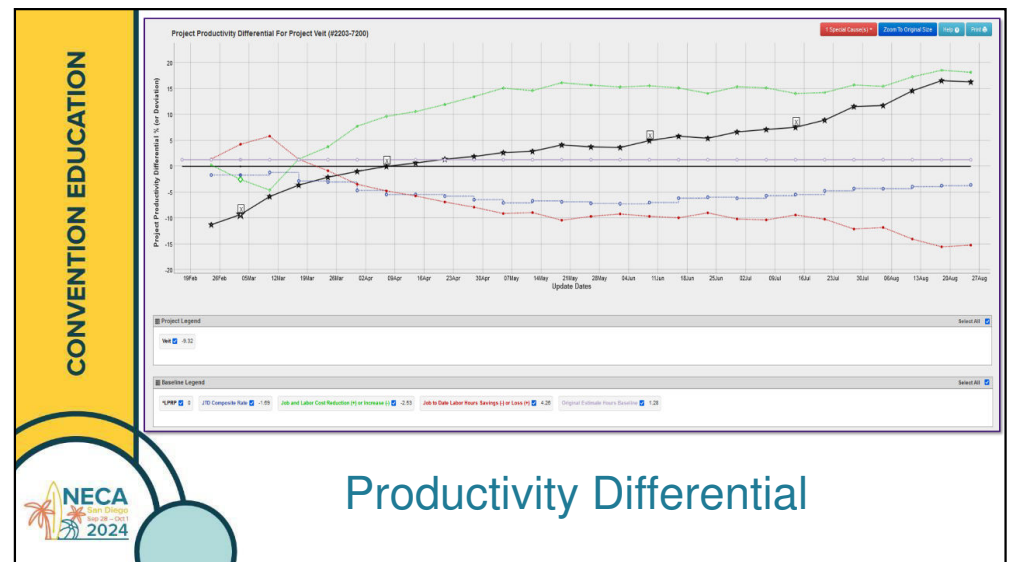
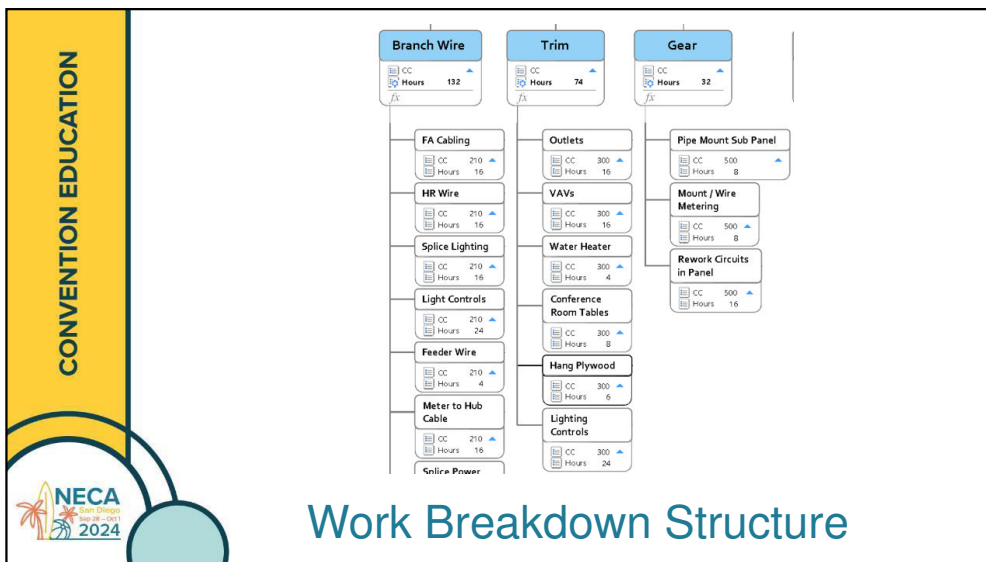
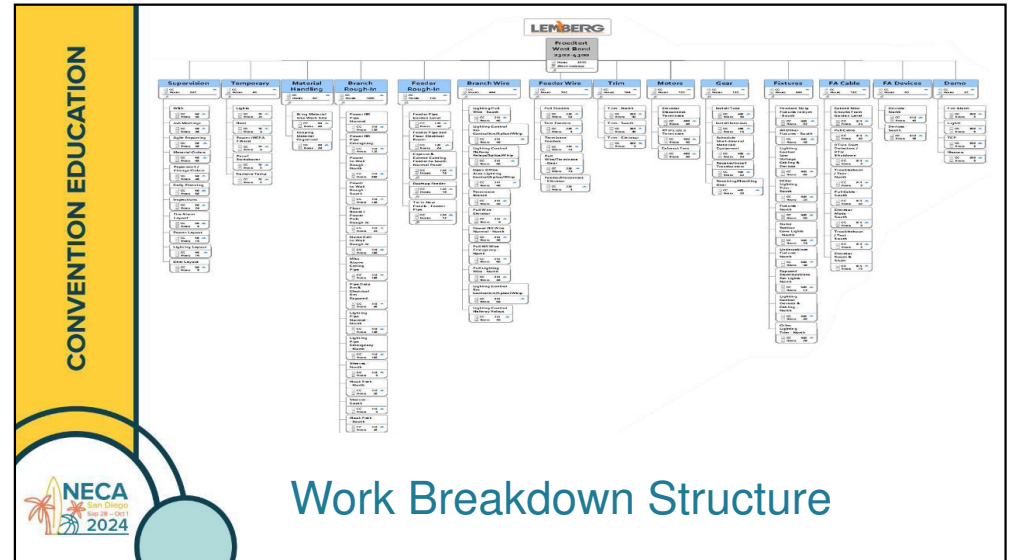
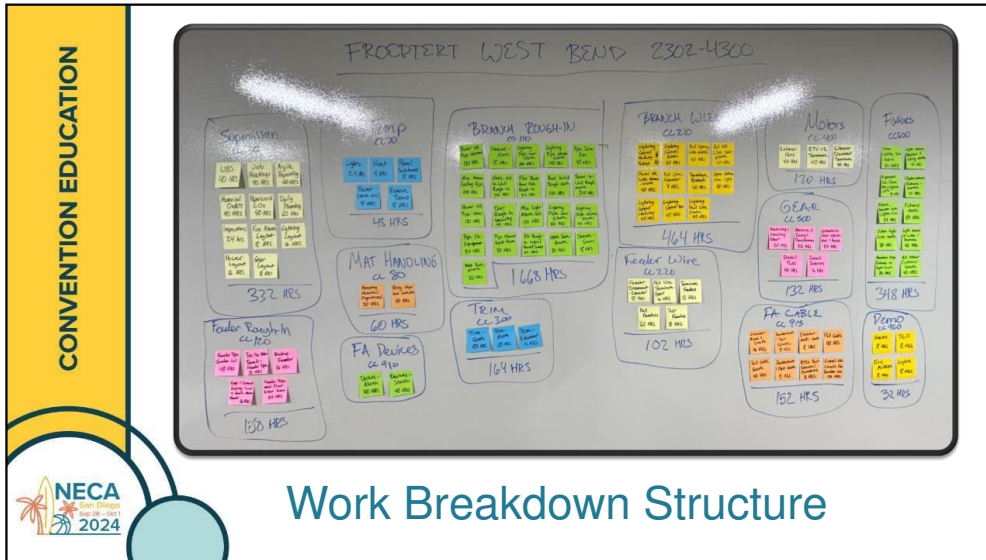
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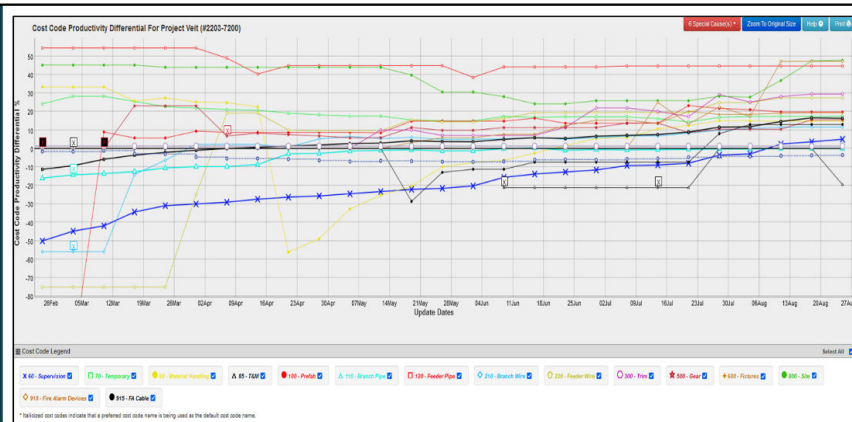
## Project Management

**Kyle Witte**  
President  
Lemberg Electric Company

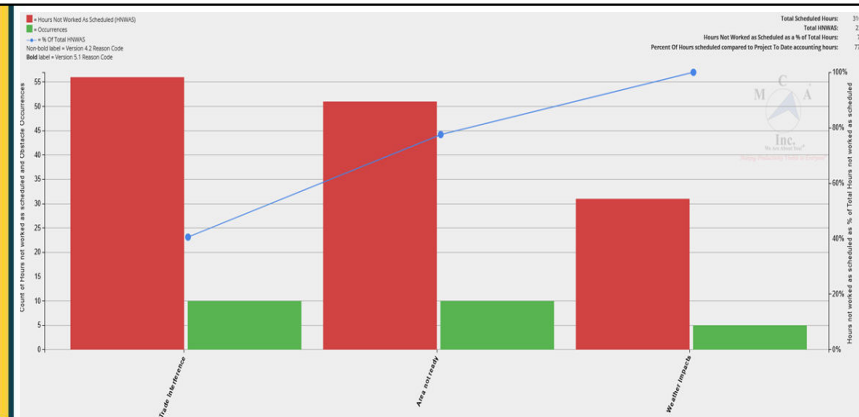
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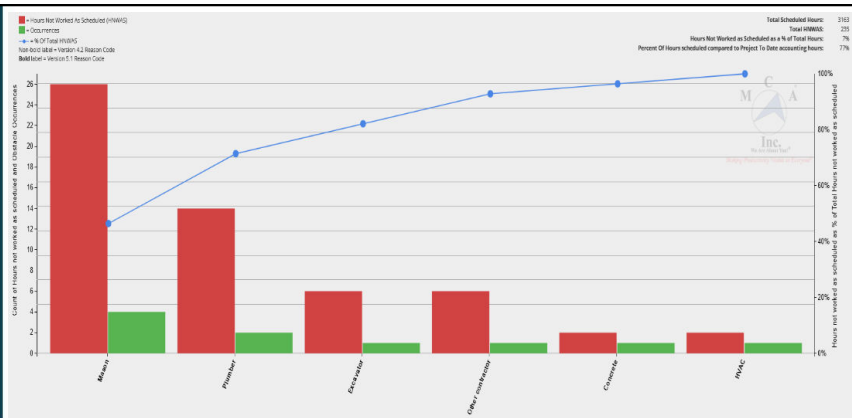




## Cost Code Analysis



## Productivity Obstacles



## Productivity Obstacles

## Supply Chain Challenges



**Colby Bruce**  
Operations Manager  
Stewart Electrical  
Contracting



## Procurement & Inventory Management

- Company Owned/Managed Inventory
  - Request For Quote (RFQ's) for Bulk Buys
  - Inventory Management Software (IMS)
  - Cycle Counts – Staying Ahead Of High-Volume Products
  - Min-Max On-Hand Quantities
  - Staying ahead of Long Lead Equipment



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## Dedicated Procurement Team

Hire a Procurement or Purchasing Specialist

- Dedicated team outside of the PM/APM Team

- Management of Equipment Lead Times
- Forecasted Delivery Dates
- Off-site Storage (if necessary)
- Final Job-site Delivery Coordination



**José Morales**  
Procurement Specialist  
Stewart Electrical Contracting, Inc.

- Procurement Oversight

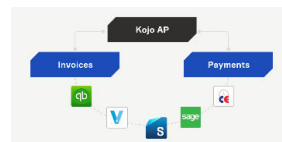
- Guarantee you are getting the best price possible
- Making sure you only pay for what you receive
- Eliminate duplicate orders or over-ordering
- Ability to inspect for damage and verify quality of product before accepting delivery or shipping to the job

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## Procurement Management

- Inventoried and Non-Inventoried Materials
  - Request For Quote (RFQ's) for Bulk Buys
  - Tracking Orders and Back-Orders
  - Managing Invoices and Discrepancies
  - Managing Shipments and Job-Site Deliveries
  - Coordination with Dock Managers and Hoists
  - Integrations with ProCore & Other PM Platforms



Images Courtesy of:  
**KOJO**  
Booth 1853

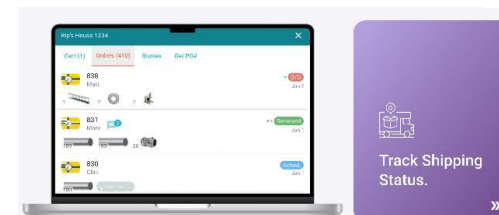
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## Inventory Management

- Company Owned/Managed Inventory
  - Tracking Inventory Levels
  - Ability to Set Automatic Re-Order Triggers
  - Tracking Orders and Back-Orders
  - Ability to View Live Time Inventory Levels
  - Technician Are Able to Order From Field

Adaptable to any ERP system.



Images Courtesy of:  
**Remarcable**  
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## Long Lead Equipment – Best Practices

- **Early Identification of Equipment Needs:** As soon as a job is sold, identify all the long lead-time equipment required. This includes items like transformers, switchgear, and custom panels. Understanding these needs early helps you plan their procurement and delivery.
- **Design and Submittals Readiness:** Work closely with your engineering and design teams to ensure that equipment submittals are finalized as early as possible. The more complete your submittals are, the smoother the procurement process will be.
- **Project Coordination:** Coordinate with other trades and project teams to ensure that the arrival of long lead equipment is integrated smoothly into the overall project schedule.
- **Logistics Planning:** Plan for logistics and installation ahead of time. Ensure that your site can accommodate and store the equipment properly until it is needed for installation.
- **Regular Follow-Ups:** Stay in constant contact with your equipment suppliers to track the status of your orders. Regular follow-ups can help you catch potential delays early and adjust your plans accordingly.
- **Technology and Tools:** Use innovative project management software and tools to track equipment orders, delivery schedules, and overall project progress. This can help you stay organized and anticipate issues before they become problems.

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## VMI –Vendor Managed Inventory

- Benefits to VMI
  - Powerful web-based dashboard analytics
  - Manage multiple vendors and storerooms
  - Field requisitions
  - Approval processes
  - VDC/Pre-Fab Materials – The project doesn't pay for it until its used, and only for what's used!
  - Staging
  - Kitting



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## Technological Advancement



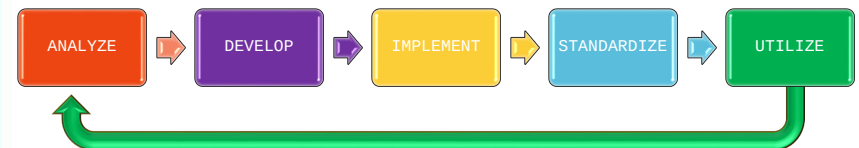
**Sam Rokowski**  
Director of the Maddox  
Training Institute &  
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## Pathway to Success



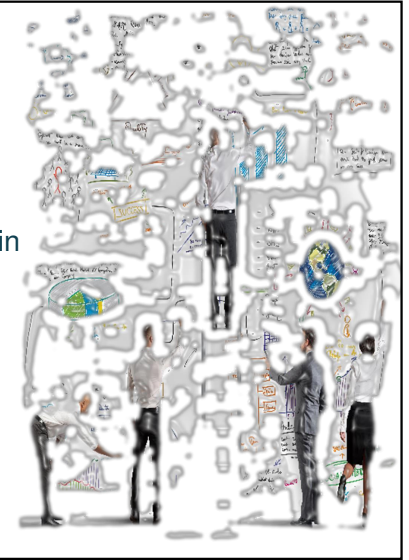
## Analyze Technology

- Why are you looking at technology? Is it a requirement or a desire?
- The return on investment (ROI)
- Who, What, When, and Where
- Are you creating efficiency or adding labor?
- How do you envision the technology working for you?

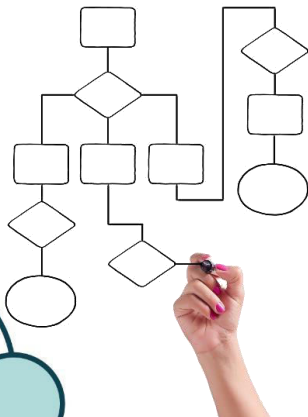


## Development Process

- Document how the technology should replace the process
- The plan to guide the technology in a specific direction
- Establish costs of technology and expectations
- Figure out how many users and licenses will be needed



## Implementation and Testing



- Set a pilot project and plan of action
- Establish a team for the pilot and ways the technology will be tested
- Documentation and feedback conduit
- Milestone timeline with expectation overview
- Training standards and application



## Standardize Use of Technology



- Create user expectations
- Specify how the technology should be utilized and expected output delivery
- Set boundaries for use of technology: when it should be used and when it should not be used
- Focus on value engineering at every level: Avoid the EASY button





## Collect and Utilize Data

- Alter your technology to generate useful data
- Implement techniques to capture, store, and reutilize that data
- Set permeameters within your data collection to tell a story
- Establish data milestones to critique the technology in a direction to enhance operations



## Virtual Design Construction - VDC

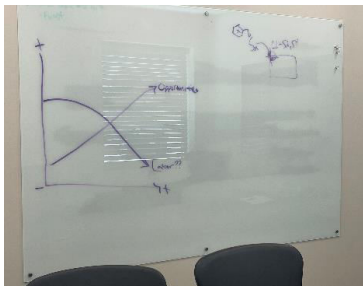


**Kevin Moses**  
Vice President of  
Preconstruction  
Big State Electric

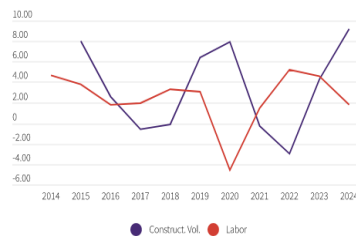
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## Why Virtual Design Construction (VDC)



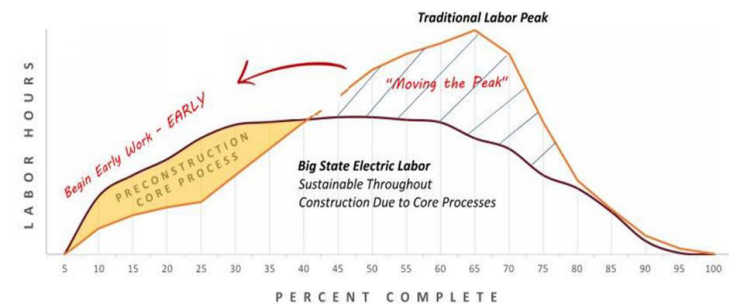
Construction Volume vs Labor - Annual Increase/Decrease



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## Planning



"Begin with the end in mind!"

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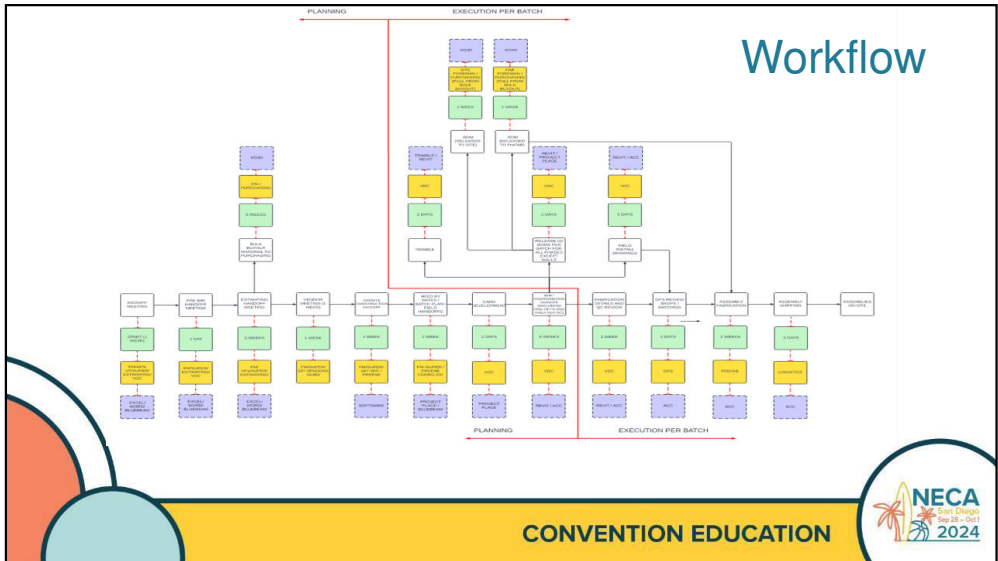
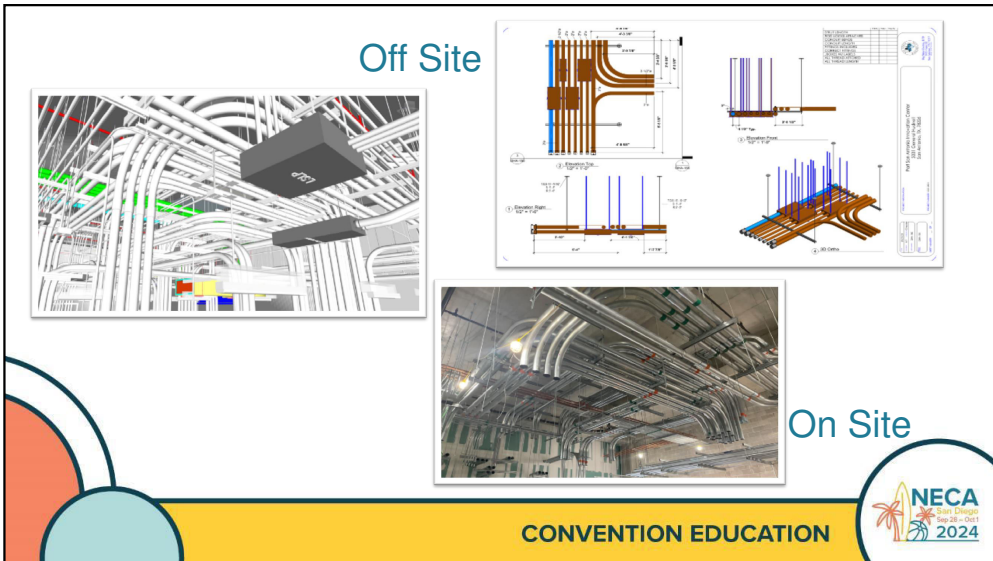
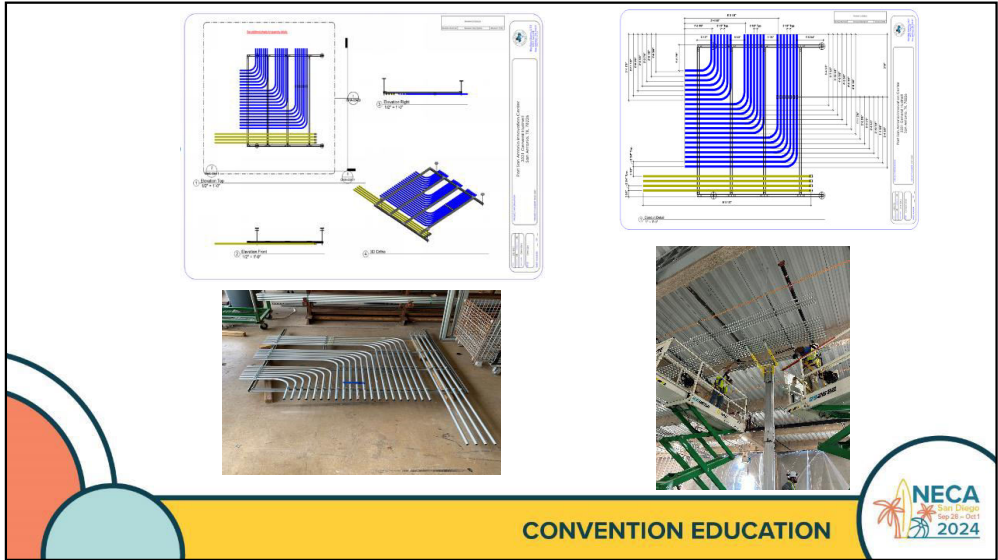
# Goal #1 - LEGO Concept



**LEGO**

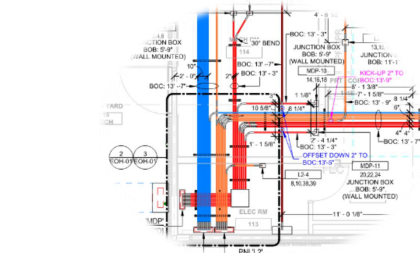
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2024

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## Goal #2 – Net Zero Cost

- Planning Through VDC
  - Estimate Validation
  - Securing Manpower
  - Bulk Buy Out
- Production Optimization Through VDC
  - Early RFI's / Design and Scope Clarification
  - Prefabrication
  - Installation Drawings
- Procurement Optimization Through VDC
  - Buy What We Need
  - Reduction In Surplus Materials
  - Optimize Material Management (Offsite / On Site)



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## Goal #2 – Net Zero Cost

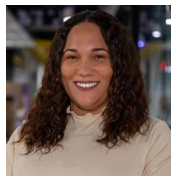
- Quality Control Through VDC
  - Early Spec Review
  - Open Space
  - Loose Ends
- Safety Through VDC
  - § Model Safe / Install Safe
  - § Hours Reduced On Jobsites
- Workforce Management Through VDC
  - Recruitment
  - Retention
  - Builds Team Culture
- Business Development Through VDC
  - Industry Is Helping Win Future Projects
  - Early Trade Partner Negotiated Work Has Increased
  - Recruitment And Retention



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## Workforce Management



**Crystal Wagner**  
Executive Director of  
Finance  
Gerke Electric

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## Workforce Management

- Recruitment
  - Local Halls
  - Employment Websites
    - Indeed, LinkedIn, ZipRecruiter
  - Headhunters
  - Initiatives with Schools and Districts
    - Job/Career Fairs
    - Partnerships



## Workforce Management

- Retention
  - o Culture
    - Core Values
    - Attitudes
    - Behaviors
    - Beliefs
    - Practice
  - o Rewards/Incentives
    - Motivating Factors
  - o Advancement Opportunities
    - Mentorship
    - Networking
    - Promotions



## Workforce Management

- Training & New Hire Competence
  - o Job Rotation
    - Rotating between Residential, Commercial, and Industrial
    - Cross-Training Specific Roles
  - o Job Shadowing
    - Pairing Electricians
    - Allow observation and feedback
  - o Simulated Environments
    - Real-World Tasks
  - o Evaluations & Assessment
    - Regular Assessments
    - Constructive Feedback



## Workforce Management

- Adopting Changes
  - o Give clear rules and expectations
  - o Be Mindful of Messaging
    - Reasons for Changing
    - Benefits for the Techs
  - o Pick a Champion
    - Your most difficult tech
    - Pilot the program before full implementation
  - o Be Intentional with Implementation Schedule
    - Consider your project schedules
    - Consider your tech's workload



## Workforce Management

- o Provide Multiple Training Opportunities
  - Virtual Trainings
  - In-Person Group Trainings
  - In-Person Individual Training
  - Written Instructions
  - Pick a tech to be an expert
- o Implement Incentives & Consequences
  - Be Intentional
  - Be Consistent
  - Be Fair





## Questions?



**Kyle Witte**  
President  
Lemberg Electric  
Company



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"Everything we are talking about is permeated with the most recent and **new trends in the market** and what the scholars are presenting in **universities...to succeed in the future**"

"It has challenged me to **step out of my comfort zone and complacency** and look internally at...how can I help us **move forward and grow**."

"It's giving us an opportunity to learn **industry-wide strategies, concepts, and relevant and applicable tools** amongst other things, that I can bring back to make our company more **efficient and ultimately more successful**."

"I have no doubt that the cohort that's being developed here will be a **relational asset throughout the rest of my career**. There is no substitute for a well-developed **professional network**, and I feel very fortunate to have this **kick-start**."



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