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# National Postal Forum

*Monday, May 4, 2026*

# Collaborative Design of Modern Network Facilities

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Coin image (Courtesy of Valor Coins)

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**Logistics Network Transformation**

# How We Partner to Create a Modern Network Facility

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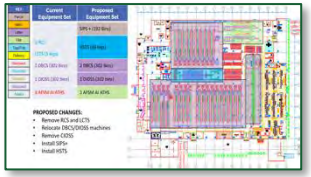
## Applied Engineering

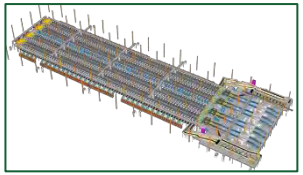
- Data driven engineered facility design, and project management
- Engineering Systems- collaborating to deploy best in class sorting technology
- Maintenance- designing maintenance work areas, process flows
- Facilities- design, build best in class processing plants
- Logistics, collaborative yard, dock, THS design ensuring best in class product flow

## Facilities

- Create a built environment that accommodates mail processing and sorting technology,
- Space to support administrative and maintenance functions,
- Parking and maneuvering areas that allow the safe and efficient movement of vehicles and pedestrians



PPM Concept PowerPoint Slide



System (Microsoft Stock Images)

## Maintenance Operations

- Equipment set driven maintenance modernization concept
- Collaborate with Applied Engineering on workroom floor layouts, incorporating maintenance work cells into the design
- Partner with Facilities to ensure adequate stockroom, workshop, custodial & administrative space
- Collaborate with Engineering Systems on future state equipment set for spare parts inventory & training for technicians

Tool Bag, HQ Bldg & USPS Truck (Microsoft Stock Images)

## Engineering Systems

- Design and deploy processing equipment
- Collaborate with Applied Engineering on design optimal equipment sets
- Partner with Facilities to ensure buildings can support new equipment
- Collaborate with Maintenance Operations on long term equipment support

## Logistics

- Partner with Applied Engineering to translate facility design into an executable site plan
- Work with Facilities to ensure site, yard, docks & parking support transportation operations
- Aligns with Processing to support mail flow, staging & operating requirements
- Coordinate HQ, division & field logistics work in coordination from planning to activation and stabilization

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# Applied Engineering

*Eric Dolloff*


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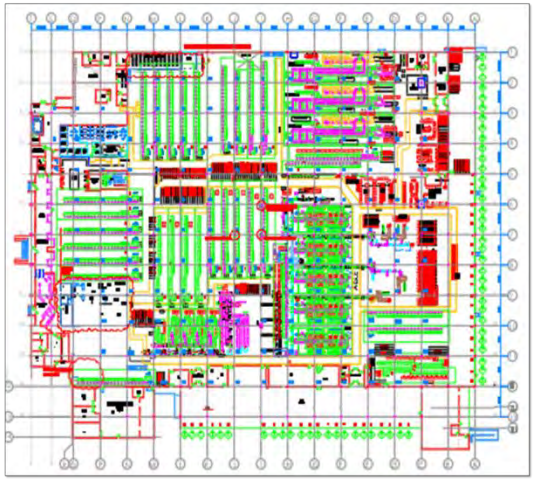
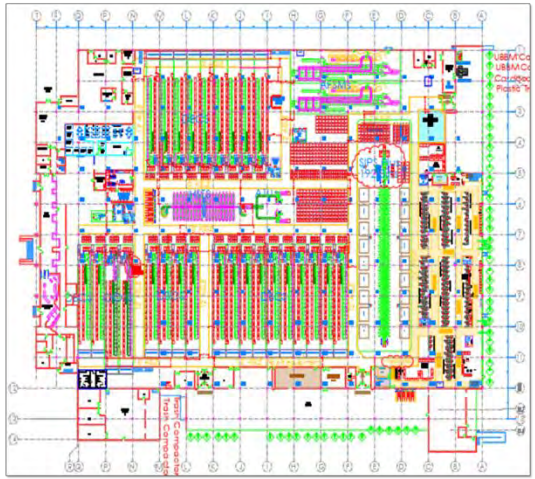
# Plant & Process Modernization (PPM) - Mission

Our mission is to design and activate best-in-class processing facilities that facilitate operational success through standardized design of operational spaces and product flows, optimal machine sets based on data analysis, development of standard work and training, and the fit out and modernization of equipment and facility from project concept through activation.

- *Inconsistent machine layout*
- *Complex flows*
- *Redundant equipment*
- *Outdated infrastructure*





- *Standardized design*
- *Streamlined, simple flows*
- *Engineered machine set*
- *Modernized workplace*

Layout Images (AutoDesk Vault)

# Facility Design

## Capacity Analysis

**140+ Sites Analyzed Q1 FY25 through Q1 FY26**

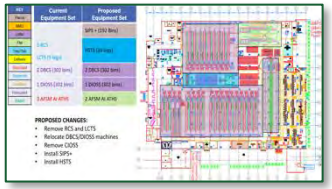
| Parcel Assessment | | Machinable | | Non-Machinable | |
|---|---|---|---|---|---|
| 85% | Percentile | OG: | 43,869 | OG: | 3,071 |
| | Parcel Volume | Dest: | 86,854 | Dest: | 6,080 |
| Total Parcel Volume | | Total: | 130,723 | Total: | 9,151 |
| Lunch & Break Factor | | 85% | | 85% | |
| Operating Window | | OG: 10 hr<br>Dest: 15.5 hr | | OG: 10 hr<br>Dest: 15.5 hr | |
| | | OG: | 5,161 pph | OG: | 361 pph |
| Throughput Requirement (pph) | | Dest: | 8,592 pph | Dest: | 461 pph |
| | | Total: | 11,753 pph | Total: | 823 pph |
| Current State | | 1 ADUS, 2 APBS-5, 1 SIPS | | 1 HSUS | |
| Capacity (HR / 20 HR Day) | | 11,800 / 236,000 | | 1,000 / 20,000 | |

Every site design begins with a capacity analysis comparing current and future growth to identify critical deficiencies. The goal is to design a future state facility with the capacity to handle last fiscal year's 85th percentile volume with added market growth adjustments for all mail types.

Data Table
(PPM Data Standardization)

## Engineered Design

**170+ Facilities Designed Q1 FY25 through Q1 FY26**




Facility design utilizes an iterative process to optimize operational design and mail flow. Best practices and flow analysis have led to standardized design principles that become the backbone of every design. Transport work and SIMIO modeling are used to validate design efficiency.

PPM Concept PowerPoint Slide
(Courtesy Robert Widelock)

## Project Management

PPM project leads facilitate weekly touchpoints and discussions with all functional groups. Other responsibilities include coordination between stakeholder functions and timeline management to track milestones and mitigate risk.

PPM MS Project Schedule
(Courtesy Rosalyn Julio)

## Site Support

**29 Active Projects**

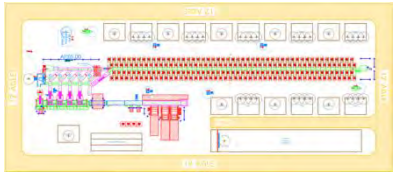
Project leads provide site readiness support and assist with all the prep work required for "Go-Live" execution. This preparation includes employee coaching and mentoring to ensure process understanding, local management coaching, and documentation handoff for continued success.

Single Induction Package Sorter Machine
(Courtesy PPM Team)

# Standardization

## Standard Blocks

**70 Equipment Blocks Published Q1 FY25 through Q1 FY26**



All machine sets are designed to incorporate supporting spaces that are necessary for the operation to function at its designed effectiveness. These include ample spaces for flows, mail staging, and mail transport equipment staging.

Parallel Induction Linear Sorter Layout (AutoDesk Vault)

## Supporting Materials

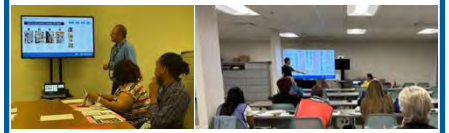
**424 Standard Work Instructions Published Q1 FY25 through Q1**


All operational spaces are supported with posted visual aids describing key operational roles and functions and detailed standard work instructions are made available to all employees.

Operations Standard Work Instruction and Visual Aids (Courtesy Calvin Zheng )

## Training

**349 Training Classes Completed Q1 FY25 through Q1 FY26**

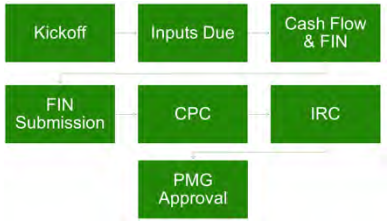


Managers, Supervisors, and On-The-Job Instructors are trained through classroom and floor sessions to understand operations as well as flow within the facility.

PPM onsite training (Courtesy Calvin Chun)

## Funding

**$657M in approved funds Q1 FY25 through Q1 FY26**




PPM projects progress due to funding approvals obtained using standardized processes to document investment requests and track spending.

PPM Funding Flow Chart (PPM Funding Standardization Workbook)

# Fit Out

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**Procurement**


Surface Visibility Scanners


Cardboard Baler


Manual Cases


MTEL


PIT Equipment and Charging Stations


Shrink Wrap Machine


Cardboard Racks

**Onsite Activation and Fit Out**


Informed Facility Monitors


Painted Staging Areas


Conference Room Furniture


Cafeteria Furniture

**Coordinate IT Infrastructure Installation**


Server and Core Setup


Telecommunications Enclosure


Admin Core Reck


Core Rack

Pictures taken at Dallas RTH and Kansas City RPDC/RTH
(Courtesy of Michael Kennedy & Douglas Coulter)

- Procurement of all supplies and equipment except Mail Processing Equipment
- Onsite Activation includes abating issues for multiple groups while onsite
- IT Coordination with WAN, LAN/WiFi, and MPE Networks teams
- Collaboration with various groups on Equipment Mapping across various Systems/Applications
- 18 RPDCs/RTHs/LPCs have been Fit Out and Activated by MI team through Q1 FY26

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# Engineering Systems

*Brad McCullough*


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# Engineering Systems - Mission

- Develop and enhance technology solutions to improve service, operational effectiveness, and promote revenue generation through timely delivery of integrated systems in support of performance management
- Our role in network projects is to design and deploy the best-fit equipment set to meet the needs of the operation.

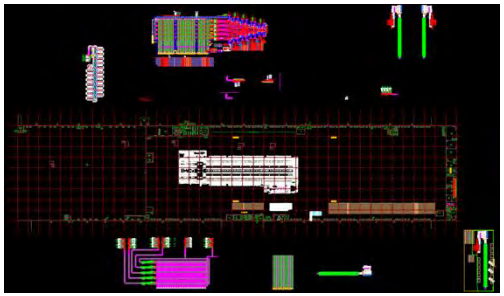
# System Design

## Requirements Analysis

| Requirement | Outgoing | Destinating | RTH | Total |
|---|---|---|---|---|
| Throughput (base) | 33,395 | 9,277 | 37,882 | 80,554 |
| Throughput (design) | 36,000 | 10,000 | 41,000 | 87,000 |
| Separations | 190 | 510 | 29 | 729 |
| Operating Window (Hr.) | 10 | 15.5 | 20 | |
| Daily capacity (TPH) | 360,000 | 155,000 | 820,000 | 1,335,000 |

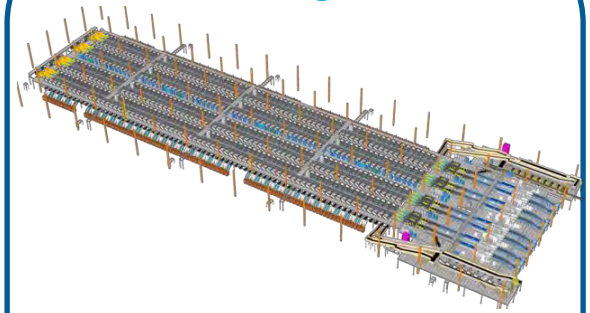
Determining the needed machine capacity to meet the daily production requirements

## Preliminary Design



Engineering starts with the base design from PPM with standard equipment blocks and begins modeling out various machine types and configurations to optimize the design.

## Critical Design Review



Once Engineering has selected the equipment sets, we work with the suppliers to continue refining the design and generate the equipment models. The Final step in the design is the Critical Design Review (CDR) during this, all stakeholders are assembled for a detailed walkthrough of the design.

# System Installation

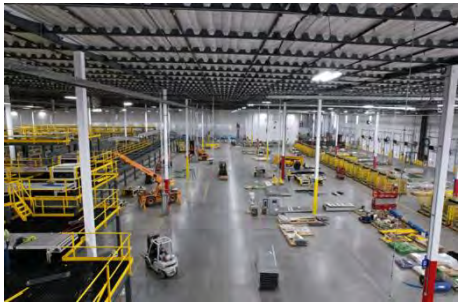
## Site Prep

| | A | B | C | D | E |
|---|---|---|---|---|---|
| 1 | COLUMN LOADS | | | | |
| 2 | MARK | LIVE LOAD | DEAD LOAD | TOTAL LOAD | BASE SHEAR |
| 3 | A | 1.0 | 0.1 | 1.1 | 0.03 |
| 4 | B | 2.94 | 1.96 | 4.9 | 0.51 |
| 5 | C | 4.8 | 3.2 | 8.0 | 0.83 |
| 6 | D | 9.21 | 6.14 | 15.35 | 1.21 |
| 7 | E | 10.0 | 3.5 | 13.5 | 0.91 |
| 8 | F | 20.0 | 7.0 | 27.0 | 1.82 |
| 9 | LOADS ARE UNFACTORED SERVICE LOADS IN KIPS. UNFACTORED SERVICE LOADS INCLUDE ALL APPLICABLE SEISMIC, WIND, AND SNOW LOADS. BASE SHEAR IS SEISMIC BASE SHEAR AT FLOOR. | | | | |
| 10 | | | | | |

| Circuit # | Trip Amps | Description | Load (kVA) | Per Phase (kVA) A | B | C | Load (kVA) | Description | Trip Amps | Circuit # |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | 6.1 | 14.2 | | | 8.0 | | | 2 |
| 3 | 100 | LP1 | 5.1 | | 13.2 | | 8.0 | COMP1 | 40 | 4 |
| 5 | | | 6.4 | | | 14.5 | 8.0 | | | 6 |
| 7 | | | 9.1 | 18.3 | | | 9.1 | | | 8 |
| 9 | 50 | SLS-4 | 9.1 | | 18.3 | | 9.1 | SLS-5 | 50 | 10 |
| 11 | | | 9.1 | | | 18.3 | 9.1 | | | 12 |
| 13 | | | 7.8 | 15.7 | | | 7.9 | SMS-3A..C, SMS-2A..B | 30 | 14 |
| 15 | 40 | AGS.PDP | 7.8 | | 15.7 | | 7.9 | | | 16 |
| 17 | | | 7.8 | | | 15.7 | 7.9 | | | 18 |
| 19 | | | 5.9 | 12.6 | | | 6.7 | | | 20 |
| 21 | 30 | SMS-3, SMS-3R | 5.9 | | 12.6 | | 6.7 | SLS-2, SLS-3 | 30 | 22 |
| 23 | | | 5.9 | | | 12.6 | 6.3 | | | 24 |
| 25 | | | 6.3 | 11.4 | | | 5.1 | KFS-5, KFS-6, KFS-7, KFS-8, KFS-9 | 30 | 26 |
| 27 | 30 | KFS-2, KFS-3, KFS-4 | 6.3 | | 11.4 | | 5.1 | | | 28 |
| 29 | | | 6.3 | | | 11.4 | 5.1 | | | 30 |
| 31 | | | 5.2 | 9.0 | | | 3.8 | | | 32 |
| 33 | 25 | IFS-3, IFS-4, IFS-5 | 5.2 | | 9.0 | | 3.8 | SMS.PDP | 20 | 34 |
| 35 | | | 5.2 | | | 9.0 | 3.8 | | | 36 |

Provide power and data drop requirements along with point load analysis to Facilities and PPM to begin readying site for equipment installation

## Mobilization



Engineering coordinates efforts between equipment suppliers, PPM, and Facilities to ensure equipment installation

## Commissioning

Engineering oversees the commissioning, testing, and hand over of the machine to operations.

MEWS Installation (Courtesy of Stefano Turbati)

# Post Installation

## Training


Coordinates supplier training for onsite operations and maintenance personal. Ensures all required documentation is received from equipment supplies. Reviews and accepts required equipment deliverables

## System Turnover

Works with supplier and all internal stakeholders to ensure equipment is turned over as designed and meets the needs of operations

## Lifecycle support

| | | 4/30/25 | 5/31/25 | 6/30/25 | 7/31/25 | 8/31/25 | 9/30/25 | 10/31/25 | 11/30/25 | 12/31/25 | 1/31/26 | 2/28/26 | 3/31/2026 | Dept. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IR (PR) | Backlog / Assigned to DCO Manager | 3 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | PST |
| | • Safety | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | PST |
| | • High Demand | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | PST |
| | • Enhancements | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | PST |
| | • Alternate Source | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | PST |
| | • End of Life | 3 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | PST |
| | • Quality Control | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | PST |
| | • TOP Discrepancy | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | PST |
| CR (ECR) | Assigned for Tech Review (being worked - Engineering) | 56 | 52 | 48 | 48 | 48 | 48 | 48 | 48 | 47 | 51 | 52 | 56 | PST |
| | Open (waiting on CM Impact Analysis) | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | CM |
| | Impact Analysis (undergoing CM Team Lead evaluation) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | CM |
| | Deliverables being vaulted in CM under CN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | CM |
| CN (ECN) | In-Work (Assigned CN — could be assigned to drafter or checker) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | CM |
| | Concurrence (Concurrence received, returned for rework or signed) | 1 | 4 | 3 | 1 | 2 | 1 | 2 | 3 | 3 | 2 | 1 | 2 | CM |
| | On Hold | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | PST |

Engineering works closely with Maintenance throughout the life of the equipment to ensure continued optimal operation

MEWS Installation (Courtesy of Stefano Turbati)

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# Logistics

*Erika Randel*

# Logistics: The Integrator of Modernization

In the USPS environment, logistics is transportation. This deck positions Transportation as the HQ implementation function working with field and division transportation teams to deliver successful change.

**Core message**

**Transportation is not separate from logistics in the USPS world. Our HQ Logistics implementation team works in lockstep with field and division teams to align facility readiness, operational needs, and transportation execution for successful modernization.**

HQ Team | Division Teams | Field Teams

One transportation organization, aligned from planning through go-live.

Postal Truck (image generated by OpenAI)

## How Logistics connects the work

**1 Assess**
Site, dock, yard, parking, safety

→

**2 Coordinate**
Field, division, staffing, schedules

→

**3 Validate**
Schedules, dock assigmments, staffing, and go-live readiness

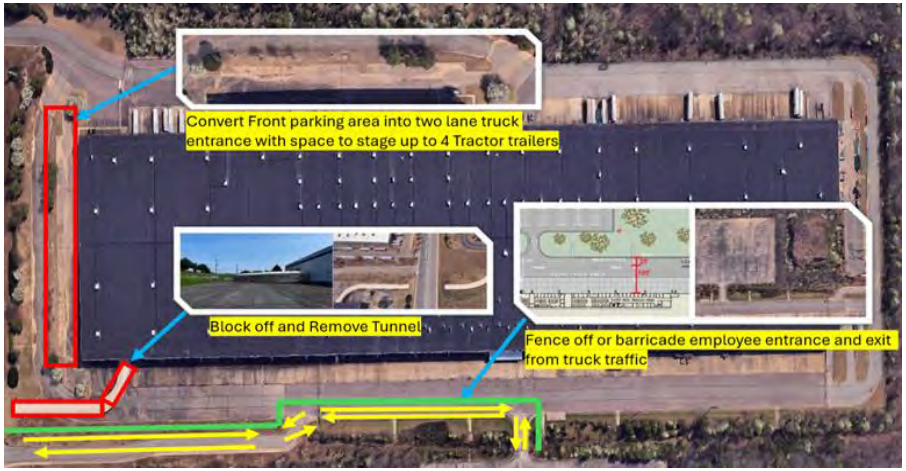
→

**4 Execute**
Activation, validation, stabilization

**Logistics makes modernization operationally real.**

# What We Evaluate Before a Site Can Succeed

The checklist shows Logistics is a full-site readiness function, not just a transportation function




Land/road/yard/building (Courtesy of Cesar Lopez)

**Yard circulation, docks, parking, queuing, signage, and safe separation all shape implementation risk.**

1. **Facility readiness**
   Building conditions, electrical capacity, docks, structural constraints, and support spaces.
2. **Yard & traffic readiness**
   Truck circulation, trailer parking, employee parking, queuing, signage, and striping.
3. **Operational readiness**
   Dock assignments, staging alignment, mail flow support, staffing impacts, and workspace needs.
4. **Safety & security**
   Lighting, fencing, gates, crosswalks, camera coverage, and traffic control measures.
5. **Activation readiness**
   Schedules validated, stakeholders aligned, dependencies tracked, and go-live support planned.

# What Strong Logistics Integration Delivers

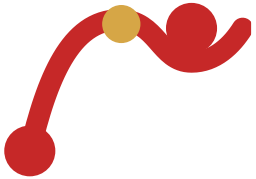
When Logistics is engaged early and stays aligned through activation, modernization performs better in the field.

**Safer site movement**
Better separation of truck and employee flow, clearer circulation, and improved yard safety.

**Stronger activation readiness**
Dock use, schedules, staffing, and local execution are aligned before go-live.

**Fewer implementation surprises**
Dependencies are surfaced earlier and resolved with the right partners.

**Better post-go-live stability**
Transportation performance is easier to sustain after implementation.



**Logistics turns modernization from a design concept into day-to-day operating reality.**

Site | Schedules | Staffing

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# Maintenance

*Kevin Couch*


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# Maintenance Space Standardization

- **Goals**
  - Standardize maintenance spaces on the workroom floor
  - Standardize satellite spare parts storage on the workroom floor
  - Utilize new technology and methods for accountability and asset management
  - Standardized multi-platform tool bag

- **Benefits**
  - Safer and organized workroom floor
  - Improve satellite parts storage integrity and accountability
  - Improve response time from maintenance work areas
  - Provide space for processing and maintenance to seamlessly work together to improve customer service
  - Improve maintenance engagement by having maintenance be the authority on how to run and maintain our equipment

# Previous Toolbox Storage

## Issue – One per employee

- Individual Toolbox
  - Creates clutter while stored
  - Eliminates floor space for Processing
  - Not secured
  - Lacking accountability

Legacy Toolboxes (Courtesy of Matt Carter, USPS)

# Multi-Platform Tool Bag

## Community Toolbox Solutions

Tool Bag Stock Photo from MSC Industrial Supply – courtesy eBuy+

- Multi-Platform Tool Bag
  - Supports reactive and preventive maintenance
  - Improve response time from maintenance work areas
- Community Toolbox Integrity
  - Automated login
  - Asset management controls
  - Safe and secure tool management


Snap-On toolbox Stock photo courtesy of Snap-On

# Satellite Parts and Supply Storage

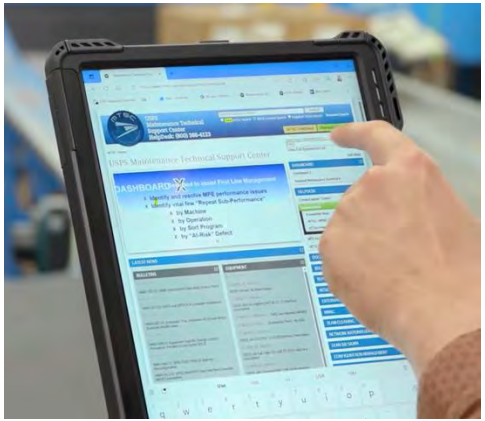
- **Satellite Parts Storage**
  - 24-7 parts availability with accountability
  - Quickly configure on-site
  - Issue delicate items without dropping
  - Fast issue time 10 seconds or less
  - Automated restocking messages
  - Universal search - Find any item plant-wide
  - Automated login and issue - RFID Proximity cards, key fobs, mag-stripe cards, barcodes, & keypad/PINs
  - Absolute accountability to item level supporting reliable stock integrity
  - Upper and lower Tambor doors behind locked exterior door support dispensing 48” long items

AutoCrib Parts Cabinet, Photo courtesy of Matt Carter, USPS

# Digital Tools

- Footprint of Charging Cabinets
- Where to put Docking Stations/Monitors/Wired keyboard/Wired mouse
- Device Issuing / Accountability process
- Accountability of Employee Accessory Items
- Label each Laptop with a name

Tablet Photo courtesy of MTSC, USPS



Tablet Photo courtesy of MTSC, USPS

Headset Stock photo from HP

Charging Cabinet Stock photo from Eaton / Tripp Lite


External Battery Stock photo from Targus

Tablet Photo courtesy of MTSC, USPS

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# Facilities

*George Schramm*


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# Creating the Built Environment

## Applied Engineering

- **Building Designs**
  - Building Geometry
  - Equipment Sets
  - Power Requirements

## Engineering Systems

- **Machine Placement**
  - Power Distribution
  - Connection Points
  - Supervisor Platforms

## Logistics

- **Yard Design**
  - Gatehouses
  - Speed Mitigation Strategies
  - Pedestrian Crossings
- **Driver Support**
  - Logistics Control Room
  - Security Enclosures

## Maintenance

- **Support Spaces**
  - Maintenance Work Cells
  - Parts Storage

# Creating the Built Environment

## Updated Design Standards

- **As the operational functions within USPS facilities continue to evolve, the design criteria has updated to provide relevant guidance**
- **Updated facility classifications, removing obsolete types**
- **Develop new design guidance:**
  - Power requirements
  - Optimized vehicle flow & pedestrian safety
  - Maintenance workflow

## Project Strategy

- **Objective**
  - Leverage existing contracted services
  - Utilize the expediency of design/build
  - Develop ongoing partnerships to wash/rinse/repeat
- **Solution**
  - Dual Project Management Services Contracts (PMSC)

# Creating the Built Environment

## PMSC Contract 1

- Investigation phase
- Develops project requirements
- Prepares preliminary cost estimates
- Oversees design, quality control, standards compliance
- Functions as CM during construction

## PMSC Contract 2

- Functions as Design/Build contractor
- Completes design
- Phased construction