

# MEP ENGINEERING DIVISION

## ENGINEERING EXCELLENCE

MECHANICAL • ELECTRICAL • PIPING

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HVAC Design • Fire Protection • Piping Systems  
BIM Coordination • Sustainable Engineering



## Project Portfolio

Delivering high-performance mechanical systems for commercial, high-rise, hospitality, and mixed-use developments across US.

**490K+**

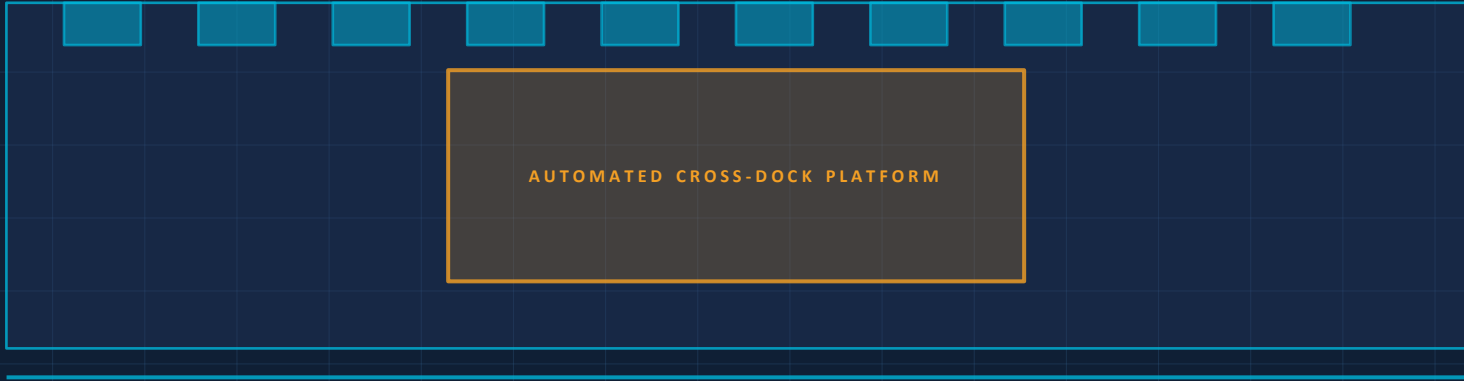
sq ft  
Walmart DC

**5+**

Project  
Sectors

**6**

Design  
Tools



# Walmart Distribution Center

Minooka, Illinois · First Two-Story Automated Cross-Dock Distribution Facility in the US

**490K+**

Square Feet

**2**

Story Structure

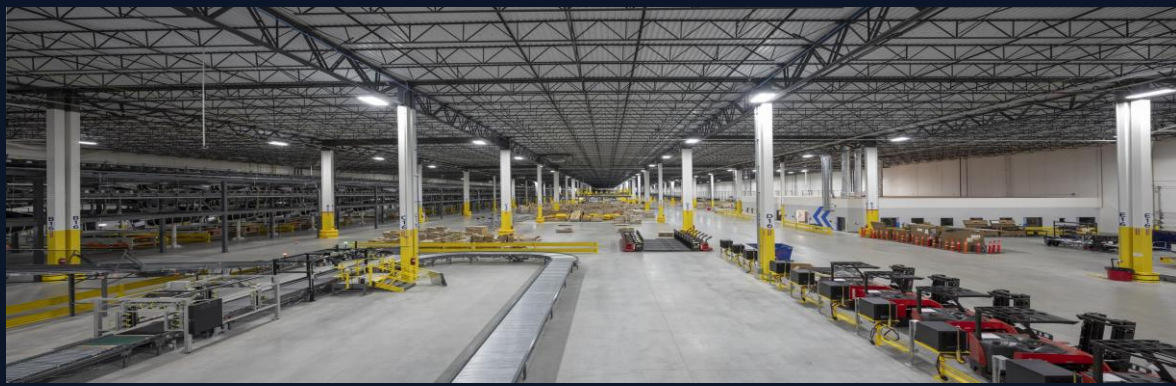
**300**

Drawing Pages

**100%**

Air Conditioned

# Design Methodology



**Step 02**

HVAC Load & System  
Analysis

**Step 04**

Revit MEP / BIM 3D  
Modeling

**Step 06**

Technical  
Documentation



**Step 01**

**Step 03**

**Step 05**

**Step 07**

Requirement Study &  
Design Criteria

Equipment Sizing &  
Selection

Multidisciplinary  
Coordination

Compliance  
Validation

*Seamless transition from concept design to authority-approved construction documents.*

# Mechanical Design Scope



## HVAC Systems

Advanced system design and load calculations for optimal thermal comfort and efficiency.



## Plant Room

Boiler system design and booster pump coordination for multi-storey water supply.



## Life Safety

Comprehensive fire protection system coordination ensuring 100% code compliance.

**Expertise Areas:** Commercial Towers, Mixed-Use Skyscrapers, Hospitality & Entertainment Hubs

# MEP SYSTEMS DESIGNED & DELIVERED

End-to-end mechanical, fire, and piping system design for large-scale building projects

## HVAC SYSTEMS



### Heating, Ventilation & Air Conditioning

- ASHRAE load calculations
- Equipment sizing & selection
- High-rise & commercial VAV systems
- Energy-efficient AHU design
- Indoor air quality optimization
- Cooling tower & chiller plants

85% High-Rise Projects

## FIRE PROTECTION



### Suppression & Life Safety Systems

- NFPA 13 sprinkler design
- FM-200 clean agent systems
- Fire detection & alarm layouts
- Smoke control & pressurization
- Hydraulic calculations
- Authority Having Jurisdiction coord.

NFPA Code Compliant

## PIPING



### Water, Sanitary & Mechanical Piping

- SMEP piping system design
- Booster pump & boiler sizing
- Domestic hot/cold water systems
- Steam generator design
- AutoCAD MEP & Revit models
- IBC & US code compliance

100% Code Compliance

# PROJECT SECTOR PORTFOLIO

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MEP engineering across major development typologies

## HIGH-RISE & COMMERCIAL

HVAC · Fire pipping for towers, offices & retail



## HOSPITALITY & ENTERTAINMENT

Hotels, resorts & venues



## MIXED-USE DEVELOPMENTS

Integrated residential & commercial



## INDUSTRIAL & DISTRIBUTION

Warehouses & logistics



## RESIDENTIAL & PUBLIC USE

Apartments, civic & public facilities



## BIM WORKFLOW

### Design-to-Construction Pipeline

01

#### Concept & Load Calc

ASHRAE · HVAC calcs · Energy analysis

02

#### 3D BIM Modeling

Revit MEP · AutoCAD · SolidWorks

03

#### Clash Detection & Coord.

BIM 360 · Navisworks · MEP coordination

04

#### Construction Docs

AutoCAD MEP · Revit · 300+ page sets

05

#### Site Admin & Handover

Newforma · RFI responses · As-builts

## Why Hire Me

### Full Lifecycle

Concept to construction admin I own every project phase.

### Multi-Sector Expert

Typologies: high-rise, hospitality, mixed-use, industrial.

### Sustainability Focus

Energy-efficient HVAC & smart building aligned with standards.

### Collaborative by Design

Proven coordination with architects, consultants & contractors.