

# MECHANICAL ELECTRICAL PLUMBING FIRE PROTECTION

H 2 M



# MECHANICAL

- Heating, Ventilation and Air-Conditioning
- Central Heating and Boiler Plants
- Chiller Plants
- Cooling Towers
- Process Piping
- Energy/Building Systems Management
- Vehicle Exhaust Systems
- Steam and Hydronic Systems
- Compressed Air Systems
- Kitchen Hood Exhaust Systems
- Radiant Floor Heating
- Variable Refrigerant Flow (VRF) Systems
- Dedicated Outdoor Air Systems
- Energy Recovery Systems



## LEED Sustainable Design

- Light Pollution Reduction
- Photovoltaic (PV) Design
- Innovative Wastewater Technologies
- Geothermal Heating and Cooling Design
- Solar Domestic Hot Water Heating Design
- Water Use Reduction
- Optimize Energy Performance
- On-Site Renewable Power
- Enhanced Refrigerant Management
- Outdoor Air Delivery Monitoring
- Indoor Chemical + Pollution Source Control
- Indoor Air Quality Management Plan
- Increased Ventilation
- Green Power



# ELECTRICAL

- Interior/Exterior Lighting
- Sports Lighting Systems
- Power Distribution Systems
- Emergency Generator Systems
- Motor Control Centers
- Uninterruptible Power Supply Systems
- SCADA Systems
- PLC Control Systems
- Instrumentation and Controls
- Communication Systems
- Security and Access Control Systems
- Electrical Substation Design
- Public Address Systems
- Synchronized Clock Systems
- Lightning Protection Systems

- Power and Communication Surge Suppression
- Site Utilities
- Utility Coordination
- Energy Efficiency Surveys
- Utility Rate Surveys
- Theatrical Lighting/Controls
- Arc Flash Hazard Analysis
- Coordination Studies
- Internet of Things (IoT)
- Intrusion Detection Systems
- Electrical Evaluations
- Photovoltaic (PV) Design
- VOIP Phone



# PLUMBING

- Plumbing Systems
- Emergency Plumbing Fixtures
- Domestic Water Heating Systems
- Backflow Prevention
- Sanitary Systems and Drainage
- Natural Gas Distribution
- Water Supply and Distribution
- Vehicle Wash Systems
- Swimming Pool Filtration and Control Systems
- Pump Stations
- Storm Drainage
- Specialty Waste Piping and Collection Systems
- Specialty Gas Piping Systems
- Compressed Air Distribution Systems
- Traps, Interceptors and Separators
- Fuel Storage and Distribution Systems
- Automated Fluid Storage and Dispensing Systems

# FIRE PROTECTION

## Perform Life Safety Plan and Code Review

- Occupant Load Calculations
- Egress Arrangement and Sizing
- Travel Distances
- Egress Components

## Review of Fire-Rated Assemblies

- Construction Type and Materials
- Protection of Openings
- Penetrations and Joints

## Hazard Analysis

- Hazardous Materials
- Storage and Equipment

## Design of Water-Based Suppression Systems

- Sprinkler
- Standpipe
- Fire Pump Systems

## Design of Special Hazard Suppression Systems

- Clean Agent
- Carbon Dioxide
- Foam, Wet, and Dry Chemical Systems

## Design of Emergency Communication Systems (ECS)

- Fire Alarm Systems
- Mass Notification Systems

## Coordination/Sequencing

- Building Control Functions
- System Interfaces

## Smoke Control Design

- Pressurization
- Natural Venting
- Mechanical Exhaust
- Control Equipment
- Initiating Mechanisms





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## New Jersey

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