DESIGN GUIDELINE 8.4
ELECTRICAL PREFERRED MANUFACTURERS LIST

SCOPE

The Electrical Trades Preferred Manufacturers List identifies manufacturers and suppliers who are known to provide good quality products, meet specification and schedule requirements, provide technical support, and provide service after the sales. This list is intended to regulate product quality, standardize electrical designs, and simplify maintenance activities. It is not intended to limit competition. It is not all inclusive. It is a list of manufacturers whose products are well known to the University due to their frequent and successful use.

This List shall be used by A/E’s when selecting manufacturers for specification in electrical designs. A/E’S SHALL SPECIFY ONLY THE LISTED MANUFACTURERS THAT MEET THEIR PROJECT’S REQUIREMENTS, AND SHOULD SPECIFY A MINIMUM OF THREE MANUFACTURERS WHENEVER POSSIBLE. A/E’s may specify manufacturers not on this list to satisfy project requirements, BUT SHALL OBTAIN UNIVERSITY APPROVAL IN ADVANCE.

This List SHALL NOT be used by Contractors to justify making substitutions for products specified in the construction documents. CONTRACTORS SHALL PROVIDE THE PRODUCTS SPECIFIED IN THE CONSTRUCTION DOCUMENTS UNLESS THE UNIVERSITY APPROVED THEIR PROPOSED SUBSTITUTIONS AT THE TIME OF BID IN ACCORDANCE WITH THE PROJECT’S STANDARD GENERAL CONDITIONS.

THIS LIST DOES NOT APPLY to purchases by the University Plant Department of replacement electrical products required to match or maintain existing installations.

This List is revised as needed. Before using it, check the AEC Website for the latest revision.

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SECTION 260513 - MEDIUM, LOW & CONTROL VOLTAGE CABLES

Cables (Medium Voltage)
- General Cable, a Brand of Prysmian Group
- Kerite
- Okonite
- Prysmian Group

Cables and Wire (600 Volts)
- Alan Wire and Cable
- American Insulated Wire
- Cerro Wire
- CME Wire and Cable, Inc.
- Encore
- General Cable
- Republic Wire
- Rockbestos-Surprenant
- Service Wire
- Southwire

Type MC Cables (600 Volts)
- AFC
- Encore
- Kaf-Tech
- Northern Cable Incorporated
- Rockbestos-Surprenant
- Service Wire
- Southwire

2-Hour Fire Rated Cables (600 Volts)
- Pyrotenax Mineral Insulated (Type MI) by Pentair

Control Cables and Wire
- Belden
- Coleman

Cable Splices for Medium Voltage Cable
- Raychem

Cable Terminations for Medium Voltage Cable
- Raychem

SECTION 260526 - GROUNDING & BONDING FOR ELECTRICAL

Ground Connections
- Burndy Hyground (Proper dies must be used)
- Cadweld
- Harger Lightning & Grounding
- Thermoweld
- Thomas & Betts Blackburn (Above grade only)
SECTION 260533 - ELECTRICAL MATERIALS AND METHODS

Cable Trays - Center Spline and Wall Mount Types (Use only where ladder and wire basket trays cannot be used, and only with ITCS (Campus projects) or MCIT (UMHHC projects) approval)
- B-Line
- Legrand Cablofil
- Mono-Systems
- Thomas & Betts

Cable Trays - Ladder Type
- B-Line
- Chalfant
- Cope, a brand of Atkore International
- Globetray (GS Metals)
- Legrand Cablofil
- Mono-Sysems
- MP Husky
- Thomas & Betts

Cable Trays – Wire Basket Type (Use only with ITCS (Campus projects) or MCIT (UMHHC projects) approval)
- Basor Electric Inc.
- B-Line
- Chalfant
- Cope, a brand of Atkore International
- Legrand Cablofil
- Mono-Systems
- MP Husky
- WBT

Conduits, Raceways and Accessories -
EMT, liquid-tight flexible metallic conduit, and/or non-liquid-tight flexible metallic conduit/raceway; plus associated accessories, fittings, junction and pull boxes, and related products
Products of all manufacturers are acceptable as long as they are electro-galvanized steel, have a smooth interior, and are NRTL labeled for the application.

Rigid (galvanized metal), and IMC (intermediate metal) conduits/raceway, plus associated accessories, fittings, junction and pull boxes, and related products
Products of all manufacturers are acceptable, as long as they are hot-dipped galvanized steel inside and out, have a smooth interior, and are NRTL labeled for the application. Boxes shall be cast, not formed. IMC may only be used when tools specifically designed for IMC are used.

PVC conduit/raceway (Type DB, Schedule 40, and Schedule 80), plus associated accessories, fittings, junction and pull boxes, and related products
Products of all manufacturers are acceptable as long as they are sunlight resistant, and NRTL labeled for the application. Products from manufacturers making both the conduit and the fittings are preferred whenever possible.

Fiberglass Reinforced Epoxy (FRE) conduit/raceways, accessories, fittings, and related products
- Champion
- FRE
Cord Reels
Appleton
Hubbell
Reel-O-Matic Systems
Woodhead

Electrical Enclosures
Carlon (For use with PVC raceways)
Hammond
Hoffman
Park Metal
Rittal

Fire Stop Compounds
A. D. Fire Protection Systems
Flame Safe
Hilti
Nelson
STI SpecSeal
3M Company

Structural Support Materials
Aickinstrut, a brand of Atkore International (Fiberglass)
B-Line
Champion (Fiberglass)
G-Strut
Hilti
Powerstrut, a brand of Atkore International
Unistrut, a brand of Atkore International

Surface and Underfloor Wireways
Carlon
Hubbell
Legrand Evolution Floor Boxes
Legrand Wiremold
Panduit

SECTION 260543 - UNDERGROUND SERVICES FOR ELECTRICAL
Underground Hand Holes, Junction Boxes and Pull Boxes
Carson, a brand of Oldcastle Infrastructure
CDR, a brand of Hubbell Power Systems
Quazite, a brand of Hubbell Power Systems

SECTION 260800 - ELECTRICAL ACCEPTANCE TESTS
Nationally Recognized Testing Laboratory Services
CSA
ETL
MET Laboratories
UL (Northbrook, IL)

Testing Services
Bisbee Infrared Services (Penny Wilson, (517) 787-4620)
SECTION 261100 - UNIT SUBSTATIONS

Non-Current Limiting Fuses (Primary)
Eaton/Cutler-Hammer Type RBA-400 (With high interrupting capacity adapter)
S & C Type SM-5SS (With high interrupting capacity adapter)

Current Limiting Fuses (Primary)
Eaton/Cutler-Hammer Type CLE
Mersen, Type CL-14

KWHR/Demand Meters
Schneider Electric PowerLogic ION8650 (With options per Master Spec 261100)

15 kV Fused and Unfused Primary Switches (5kV rated switches may only be used for 5 kV (4,160 volt) class motors)
Eaton/Cutler-Hammer
Powercon
Square D

15kV Metal Clad Switchgear and/or Circuit Breakers (5kV rated circuit breakers may only be used for 5 kV (4,160 volt) class motors)
ABB (ASEA Brown Boveri); note that this does NOT include GE heritage products from the June 2018 acquisition
Eaton/Cutler-Hammer
Park Detroit – Park Electric

Circuit Breakers for 600-volt Class Secondary Switchgears and Switchboards
ABB (ASEA Brown Boveri); note that this does NOT include GE heritage products from the June 2018 acquisition
Eaton/Cutler-Hammer

Transformers
ABB (ASEA Brown Boveri); note that this does NOT include GE heritage products from the June 2018 acquisition
Eaton/Cutler-Hammer
MGM
Olsun
Square D
Siemens

Substation Assemblers (Using components from Preferred Manufacturers only)
ABB (ASEA Brown Boveri); note that this does NOT include GE heritage products from the June 2018 acquisition
Eaton/Cutler-Hammer
Park Detroit – Park Electric
Powell Industries

Addresses of above Assemblers
ABB (ASEA Brown Boveri)
12040 Regency Parkway

Northern Electrical Testing (Lyle Detterman, (810) 689-8980)
Utilities Instrumentation Services (David Wheeler, (734) 482-1450)
SECTION 262000 - LOW VOLTAGE ELECTRICAL DISTRIBUTION

**Bus Ducts**
- Eaton/Cutler-Hammer
- Siemens
- Square D

**Fuses (600 Volts and Below)**
- Bussmann
- Mersen Electrical Power (formerly Ferraz-Shawmut)
- Littlefuse

**Surge Protective Devices**
- Current Technology
- Eaton/Cutler-Hammer-Tycor
- Intermatic (For protection of individual loads and receptacle panels only)
- Leviton (For protection of individual loads and receptacle panels only)
- Liebert
- L.E.A. Dynatech
- Square D

**Switchboards, Panelboards and Circuit Breakers**
- Eaton/Cutler-Hammer (Only with U of M Lugs - confirm on shop drawings)
- Industrial Electrical Manufacturing (For custom and retrofit applications only)
- Siemens
- Square D
Time Switches
- Intermatic
- Paragon
- Sangamo
- Tork

Transformers (Liquid Filled and Dry Pad-Mounted Type)
- Eaton/Cutler-Hammer
- Olsun Electrics
- Pennsylvania
- Pioneer

Transformers (Distribution Dry Type)
- Acme
- Eaton/Cutler-Hammer
- Hammond Power Systems
- Hevi-Duty
- MGM
- Olsun Electrics
- Siemens
- Square D

SECTION 262726 - WIRING DEVICES

Line Voltage Lighting Controls

120/277 Volt, 20-Ampere Light Switches (Do not specify modular wiring switches, such as the Arrow Hart “ArrowLink”, Hubbell “Snap Connect”, Legrand “PlugTail”, Leviton “Lev-Lok”, etc. systems)
- Arrow Hart (Cooper)
- Bryant
- Hubbell
- Legrand Pass & Seymour
- Leviton

Dimmer Switches
- Leviton
- Lithonia
- Lutron

Occupancy Sensors (Infrared, Ultrasonic, Combination Infrared/Microphonic Dual Technology and Combination Infrared/Ultrasonic Dual Technology)
- Cooper Controls (Eaton)
- Hubbell
- Legrand WattStopper
- Leviton
- Lutron
- Sensor Switch
- Tork

Low Voltage, Stand-Alone Room Lighting Control System
The following room control systems are intended to be utilized in spaces in which line voltage controls are unable to comply with ASHRAE 90.1 and other building codes. The intent is to provide simple
control solutions in classrooms, offices, toilet rooms, corridors, small conference rooms, and similar spaces. The following systems are not intended to meet sophisticated control system criteria that may be required in auditoriums, theaters, arenas, executive level conference rooms, and similar complicated spaces. The following systems are low voltage, hard-wired, simple to maintain, user friendly, cost effective, and secure; they are not wireless and they do not require software, building networks, servers, firewalls, clouds, or specialty knowledge to operate or maintain.

- AcuityControls nLight nPP16 Series
- Eaton Cooper RC3 Series Room Controllers
- Hubbell NXRC Series
- Legrand Wattstopper LMRC Series Room Controllers

**Pin & Sleeve Connectors**
- Crouse-Hinds
- Hubbell
- Killark
- Legrand Pass & Seymour
- Leviton

**Power Poles**
- Hubbell
- Legrand Wiremold
- Mono-Systems
- Steelcase

**120-volt, 20-ampere Receptacles and Plugs (Do not specify modular wiring receptacles, such as the Arrow Hart “ArrowLink”, Hubbell “Snap Connect”, Legrand “PlugTail”, Leviton “Lev-Lok”, etc. systems)**
- Arrow Hart (Cooper)
- Bryant
- Hubbell
- Legrand Pass & Seymour
- Leviton

**120-volt, 20-ampere Receptacles (GFCI, Hospital Grade, TVSS & Child Resistant) (Do not specify modular wiring receptacles, such as the Arrow Hart “ArrowLink”, Hubbell “Snap Connect”, Legrand “PlugTail”, Leviton “Lev-Lok”, etc. systems)**
- Arrow Hart (Cooper)
- Bryant
- Hubbell
- Legrand Pass & Seymour
- Leviton

**Special Power Receptacles and Plugs**
- Arrow Hart (Cooper)
- Bryant
- Hubbell
- Legrand Pass & Seymour
- Leviton

**USB Charging Port Receptacles**
- Arrow Hart (Cooper)
SECTION 262900 - MOTOR CONTROLS
Capacitors for Power Factor Correction
Aerovox
Eaton/Cutler-Hammer
Myron Zucker
Siemens
Square D

Motor Controls (MCC’s, Starters, Contactors, Disc. Switches and Control Devices)
Allen-Bradley
Eaton/Cutler-Hammer
Siemens
Square D

Motor Starters (Electronic Soft Starter Type)
Allen-Bradley
Eaton/Cutler-Hammer
Sprecher & Schuh

SECTION 263000 - ENGINE-GENERATOR SYSTEMS
Natural Gas Fired Engine-Generator Sets
Caterpillar
Cummins
Generac Industrial Power
Kohler
Olympian

Automatic and Manual Transfer Switches (Open and Closed Transition Types)
ASCO
Cummins
Eaton/Cutler-Hammer
GE Zenith Controls
Kohler

Automatic Transfer Switches (Soft-Loading Type)
ASCO
Eaton/Cutler-Hammer
Kohler

Resistive Load Banks
Avtron
Sephco
Simplex
**SECTION 263300 - BATTERY EQUIPMENT**

**Batteries**
- Chloride Plante
- Enersys
- Johnson Controls

**Battery Chargers**
- C & D Technologies
- Enersys
- Hi-Tran
- LaMarche
- SCI

**Uninterruptible Power Supply Systems (Battery type)**
- A.P.C
- Best (Individual small load units only)
- Controlled Power
- Liebert
- MGE
- Mitsubishi (Totally solid-state)
- Toshiba

**Rotary UPS Systems**
- Designed Power Solutions International (DPSI)

**SECTION 264100 - FACILITY LIGHTNING PROTECTION**

**Lightning Protection Services**
- Guardian Equipment, Novi, MI (248) 449-5200
- Harger Lightning & Grounding (via distributor Young & Champagne, 313-491-6500)
- Michigan Lightning Protection, Grand Rapids, MI (616) 453-1174
- Orion Services, Wixom, MI (248) 624-2120

**SECTION 265100 - INTERIOR LIGHTING**

**Lighting Representatives**
Each of the following lighting representatives serves over one hundred lighting manufacturers. After the Design Development phase, the lighting designer shall send a copy of the lighting fixture schedule to each of the lighting representatives below to request comments and recommended equivalents. The lighting designer shall evaluate the proposed recommendations to ensure design compliance and then incorporate equivalents into the lighting fixture schedule. The proposed lighting equivalents shall meet or exceed the design requirements as well as any other requirements in the U of M Design Guidelines.

- Clarus Lighting & Controls
  Madison Heights, MI
  Paul Brennan, 248-677-0850
  [www.clarus-lighting.com](http://www.clarus-lighting.com)

- Gasser Bush Associates
  Livonia, MI
  Lance Barnes, 313-550-0012
  [www.gasserbush.com](http://www.gasserbush.com)
Ballasts (Electronic Compact Fluorescent)
  Aculite
  Advance Smart Mate
  Lightolier
  Prescolite

Ballasts (Electronic Rapid Start T-8 Fluorescent)
  Signify Advance Optanium
  Signify Bodine (For emergency lighting only)
  Osram/Sylvania Quicktronic Professional
  Universal AccuStart

Ballasts (Electronic Dimming T-8 Fluorescent)
  Signify Advance Mark X (5% dimming type)
  Signify Lightolier (1% dimming type)
  Osram/Sylvania (10% dimming type)

Emergency Power Ballasts (Electronic Rapid Start T-8 Fluorescent)
  Signify Bodine (For emergency lighting only)
  Lithonia

Ballasts (H.I.D.)
  Signify Advance
  MagneTek
  Universal

Dimming Systems
  AMX
  Crestron Electric, Inc.
  E.T.C.
  Leviton (Small single room systems only)
  Lithonia
  Lutron
  Strand (Stage lighting only)
Emergency Lights
Signify Chloride
Dual-Lite
Emergi-Lite
Exide Lightguard
Lightalarms
Lithonia
Sure-Lite

Exit Signs (LED)
Signify Chloride
Dual-Lite
Emergi-Lite
Exide Lightguard
Lightalarms
Lithonia
LSI Industries
Prescolite
Sure-Lites

Lamps
General Electric Ecolux
Osram/Sylvania Ecologic
Philips Alto
Venture (H.I.D. only)

Lighting Fixtures (Fluorescent)
Alkco (Signify)
Bartco
Columbia
Cooper (Metalux)
Day-Brite (Signify)
Fail-Safe (Cooper)
Finelite
Focal Point
Guth (Signify)
Harris
Holophane (Acuity)
Hubbell
Keene
Kennall
Kirlin
Lightolier (Signify)
Linear Lighting
Lithonia (Acuity)
LSI Industries
Peerless (Acuity)
Prudential
Quality (Signify)
Visa
Williams
Zumtobel

Lighting Fixtures (H.I.D.)
Best
Crouse-Hinds (Cooper)
Day-Brite (Signify)
Fail-safe (Cooper)
General Electric
Guth (Signify)
Harris
Holophane
Hubbell
Kennall
Lightolier (Signify)
Lithonia (Acuity)
LSI Industries
Lumark (Cooper)
McGill
Quality (Signify)
SPI
Lighting Fixtures (Compact Fluorescent and Incandescent)

- Globe
- Gotham (Acuity)
- Halo
- Harris
- Kenall
- Kirlin
- Lightolier (Signify)
- Lithonia (Acuity)
- LSI Industries
- Omega (Signify)
- Prescolite (Hubbell)
- Quality (Signify)
- Swivelier

Lighting Fixtures (LED)

- LED fixtures with a DesignLights Consortium (DLC) listing
- LED fixtures with a U.S. Department of Energy (DOE) “LED Lighting Facts” label
- LED fixtures with a U.S. Environmental Protection Agency (EPA) ENERGY STAR label
- CREE
- Man-D-Tec (Elevator cab lighting)

SECTION 265600 - EXTERIOR LIGHTING

Lighting Fixtures (Outdoor Building, Parking Lot and Roadway with poles by fixture supplier)
- BEGA (Conditional Approval)
- Gardco (Signify)
- Holophane
- Kim (Hubbell) (Conditional Approval)
- Lithonia Hi-Tek
- LSI Industries
- McGraw-Edison
- Sterner
- Wide-Lite (Signify)

Lighting Fixtures (Outdoor Pedestrian Area with poles by fixture supplier)
- Lumec

Photoelectric Lighting Controls
- Crouse-Hinds
- Holophane
- Hubbell
- Intermatic
- Tork

SECTION 273523 – EMERGENCY RESPONDER RADIO COVERAGE

Bi-Directional Amplifiers
- ADRF – Advanced RF Technologies, Inc.
- CommScope
- Westell Technologies, Inc.

Emergency Responder Radio Services
- Comsource Inc. (Mike Hilverding, 248-853-5430)
- Continental Wireless (Breogan Link, 800-527-2000)
- Extreme Engineering, Inc. (Jon Hintz, 734-709-1858)
- Motor City Electric Technologies, a division of Motor City Electric Co. (David Krausman, 313-957-3459)
- RF Connect (Patrick Rhatigan, 734-891-5950)
Emergency Responder Radio Signal Survey
JDRM Engineering (Dave DesJardins, 419-824-2400)

SECTION 275116 - PUBLIC ADDRESS & MASS NOTIFICATION SYSTEMS
Public Announcement and Sound Systems
Aiphone Communications Systems
Atlas/Soundolie
Dukane
Rauland-Borg

SECTION 275126 - ASSISTIVE LISTENING SYSTEM
Hearing Assistance Systems
Phonic Ear (for classroom applications)
Sound Associates (for auditorium and theater applications)

SECTION 275313 - CLOCK SYSTEMS
Central Clock Systems
Primex (GPS synchronous wireless)
Simplex Time Recorder (through Simplex/Grinnell)

Clocks (Battery Powered)
Edwards
Franklin
Howard Miller
Primex (GPS synchronous wireless)

SECTION 281300 - ACCESS CONTROL & MONITORING SYSTEMS
Card Access Control Systems
Diebold/CBORD (for Housing facilities)
Software House (for Campus buildings)

Card Access Control System Designers/Installers
Cabling Concepts (Tim Grady, 248-363-4200)
i2G Systems (248-979-4451, 248-977-1220)
JCI (John Keith, 248-427-5050)
Siemens (Chris Tingley, 734-456-3800 main, 734-386-6741 cell)

SECTION 281600 - SECURITY SYSTEMS
Security Camera Systems
Refer to the University of Michigan Division of Public Safety and Security (DPSS) web site https://dpss.umich.edu/content/services/property-protection/security-cameras/ for technical requirements and a compatible hardware list.

Security Systems
ADT Security Systems
Faraday
Radionics (For small systems only)
Simplex Time Recorder
SECTION 283100 - FIRE DETECTION & ALARM SYSTEMS

Fire Alarm Systems
- EST (through Riverside Fire and Security only)
- Honeywell (UMHHC only)
- National Time & Signal
- Notifier
- Siemens
- Simplex (Tyco SimplexGrinnell)
- VESDA by Xtralis (for smoke sampling systems only; subsidiary of Honeywell)