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
- Kerite
- Okonite
- Prysmian

Cables and Wire (600 Volts)
- Alan Wire
- Alan Wire and Cable
- American Insulated Wire
- Cerro Wire
- Encore
- General Cable
- Republic Wire
- Rockbestos-Surprenant
- Service Wire
- Southwire
- United Copper Industries

Type MC Cables (600 Volts)
- AFC
- Encore
- Kaf-Tech
- Rockbestos-Surprenant
- Service Wire
- Southwire
- United Copper Industries

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
- 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
- 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
  Haoffman
  Park Metal
  Rittal

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

Structural Support Materials
  Aickinstrut (Fiberglass)
  B-Line
  Champion (Fiberglass)
  Hilti
  Powerstrut
  Unistrut

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-Brooks
  CDR Systems
  Quazite

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)
  Northern Electrical Testing (Lyle Detterman, (810) 689-8980)
Utilities Instrumentation Services (David Wheeler, (734) 482-1450)

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)
Eaton/Cutler-Hammer
Square D

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
Siemens

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
Siemens

Addresses of above Assemblers
ABB (ASEA Brown Boveri)
12040 Regency Parkway
Cary, North Carolina 27518
Phone: 919 856 2360
FAX: 919 807 5022

Eaton/Cutler-Hammer  
McNaughton-McKay Electric Co.  
4670 Runway Blvd, Ann Arbor, MI 48108  
Phone: 734-327-6251  
Fax: 734-327-6285

Eaton/Cutler-Hammer  
Service Electric Supply Co.  
15424 Oakwood Drive, Romulus, MI 48174  
Phone: 734-229-9100  
Fax: 734-229-9101

Siemens EM  
501 Fountain Parkway  
Grand Prairie, Texas 75050  
Phone: 817-656-6527

SECTION 262000 - LOW VOLTAGE ELECTRICAL DISTRIBUTION

Bus Ducts  
  Eaton/Cutler-Hammer  
  General Electric  
  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)  
  General Electric  
  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
General Electric
Olsun Electrics
Pennsylvania
Pioneer

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

SECTION 262726 - WIRING DEVICES
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

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
Arrow Hart (Cooper)
Bryant
Hubbell
Legrand Pass & Seymour
Leviton

**120-volt, 20-ampere Receptacles (GFCI, Hospital Grade, TVSS & Child Resistant)**
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)
Bryant
Hubbell
Legrand Pass & Seymour
Leviton

**120/277 Volt, 20-Ampere Light Switches**
Arrow Hart (Cooper)
Bryant
Hubbell
Legrand Pass & Seymour
Leviton

**SECTION 262900 - MOTOR CONTROLS**

**Capacitors for Power Factor Correction**
Aerovox
Eaton/Cutler-Hammer
General Electric
Myron Zucker
Siemens
Square D

**Motor Controls (MCC’s, Starters, Contactors, Disc. Switches and Control Devices**
Allen-Bradley
Eaton/Cutler-Hammer
General Electric
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
  C & D Technologies
  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

  - Gasser Bush Associates
    Livonia, MI
    Laura McRandall, 734-266-6705 x108
    www.gasserbush.com

  - Michigan Lighting Systems – East
    Troy, MI
    Shawn Schiappacasse, 248-542-2200
    www.mls.lighting

  - Resource Lighting Group
    Berkley, MI
    Shawn Stevenson, 248-545-9555
    www.resourcelightinggroup.com

Ballasts (Electronic Compact Fluorescent)
  - Aculite
  - Advance Smart Mate
  - Lightolier
  - Prescolite

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

Ballasts (Electronic Dimming T-8 Fluorescent)
  - Advance Mark X (5% dimming type)
  - Lightolier (1% dimming type)
  - Osram/Sylvania (10% dimming type)
Emergency Power Ballasts (Electronic Rapid Start T-8 Fluorescent)
Bodine (For emergency lighting only)
Lithonia

Ballasts (H.I.D.)
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
Chloride
Dual-Lite
Emergi-Lite
Exide Lightguard
Lightalarms
Lithonia
Sure-Lite

Exit Signs (LED)
Chloride
Dual-Lite
Emergi-Lite
Exide Lightguard
Lightalarms
Lithonia
LSI Industries
Morlite (High abuse areas) (Philips)
Prescolite
Sure-Lites

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

Lighting Fixtures (Fluorescent)
Alkco (Philips)
Bartco
Columbia
Cooper (Metalux)
Day-Brite (Philips)
Fail-Safe (Cooper)
Kenall
Kirlin
Lightolier (Philips)
Linear Lighting
Lithonia (Acuity)
LSI Industries
Finelite
Focal Point
Guth (Philips)
Harris
Holophane (Acuity)
Hubbell
Keene

Peerless (Acuity)
Prudential
Quality (Philips)
Visa
Williams
Zumtobel

**Lighting Fixtures (H.I.D.)**

Best
Crouse-Hinds (Cooper)
Day-Brite (Philips)
Fail-safe (Cooper)
General Electric
Guth (Philips)
Harris
Holophane
Hubbell

Kenall
Lightolier (Philips)
Lithonia (Acuity)
LSI Industries
McGill
Quality (Philips)
SPI

**Lighting Fixtures (Compact Fluorescent and Incandescent)**

Globe
Gotham (Acuity)
Halo
Harris
Kenall
Kirlin
Lightolier (Philips)

Lithonia (Acuity)
LSI Industries
Omega (Philips)
Prescolite (Hubbell)
Quality (Philips)
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
Holophane
Kim (Hubbell) (Conditional Approval)
Lithonia Hi-Tek
LSI Industries
McGraw-Edison
Sterner
Wide-Lite (Philips)

**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

Emergency Responder Radio Services  
Advance Wireless Telecommunications (Joe Campbell, 248-295-4600)  
Comsource Inc. (Mike Hilverding, 248-853-5430)  
Continental Wireless (Breogan Link, 800-527-2000)  
Extreme Engineering, Inc. (Jon Hintz, 734-709-1858)  
Motor City Technologies, a division of Motor City Electric Co. (David Krausman, 313-957-3459)

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/Soundolier  
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)  
Siemens (Chris Tingley, 734-456-3800 main, 734-386-6741 cell))  
Simplex/Grinnell (John Keith, 248-427-5050)
SECTION 281600 - SECURITY SYSTEMS
Security Camera Systems
Refer to the University of Michigan Division of Public Safety and Security (DPSS) web site http://www.dpss.umich.edu/topics/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)