

FEEDER AND BRANCH CIRCUIT SIZING SCHEDULE - GENERAL PURPOSE												
OVERCURRENT DEVICE RATING (AMPERES)	COPPER CONDUCTORS					KEYED NOTES	ALUMINUM CONDUCTORS					
	WIRE SIZE (AWG OR KCMIL)		CONDUIT SIZE				WIRE SIZE (AWG OR KCMIL)		CONDUIT SIZE			
	PHASE & NEUTRAL	GROUND	SINGLE PHASE 2 WIRE+G (1PH, 1N, 1G, 2PH, 1G)	SINGLE PHASE 3 WIRE+G (2PH, 1N, 1G)	THREE PHASE 3 WIRE+G (3PH, 1G)		THREE PHASE 4 WIRE+G (3PH, 1N, 1G)	PHASE & NEUTRAL	GROUND	SINGLE PHASE 3 WIRE+G (2PH, 1N, 1G)	THREE PHASE 3 WIRE+G (3PH, 1G)	THREE PHASE 4 WIRE+G (3PH, 1N, 1G)
15-20	12	12	3/4"	3/4"	3/4"							
25-30	10	10	3/4"	3/4"	3/4"							
35-40	8	10	3/4"	3/4"	3/4"							
45-50	8 (6)	10	3/4"	3/4"	3/4"	1						
60	6 (4)	10	3/4" (1")	3/4" (1")	3/4" (1")	1						
70	4	8	1"	1 1/4"	1 1/4"							
80	4 (3)	8	1"	1 1/4"	1 1/4"	1						
90-100	3 (2)	8	1 1/4"	1 1/4"	1 1/4"		1	6	1 1/2"	1 1/2"	1 1/2"	
110	2 (1)	6	-	1 1/4"	1 1/4"	1 1/4" (1 1/2")	1	1/0	4	1 1/2"	1 1/2"	2"
125	1 (1/0)	6	-	1 1/4" (1 1/2")	1 1/4" (1 1/2")	1 1/2"	1	2/0	4	1 1/2"	1 1/2"	2"
150	1/0	6	-	1 1/2"	1 1/2"	1 1/2"		3/0	4	2"	2"	2 1/2"
175	2/0	6	-	2"	2"	2"		4/0	4	2"	2"	2 1/2"
200	3/0	6	-	2"	2"	2 1/2"		250	4	2"	2"	3"
225	4/0	4	-	2"	2"	2 1/2"		300	2	2 1/2"	2 1/2"	3"
250	250	4	-	2 1/2"	2 1/2"	2 1/2"		350	2	2 1/2"	2 1/2"	3"
300	350	4	-	2 1/2"	2 1/2"	3"		500	2	3"	3"	3 1/2"
350	500	3	-	3"	3"	3"		2-4/0	2-1/0	2-2"	2-2"	2-2"
400	500	3	-	3"	3"	3"		2-250	2-1/0	2-2 1/2"	2-2 1/2"	2-2 1/2"

GENERAL NOTES:
 1. CONTRACTOR TO SIZE FEEDERS AND BRANCH CIRCUITS BASED ON THIS SCHEDULE AND OVER CURRENT DEVICE SIZE, UNLESS NOTED OTHERWISE.
 2. CONTRACTOR MAY COMBINE 20A CIRCUITS AS NOTED IN SPECIFICATION.
 3. COPPER CONDUCTORS ARE BASED ON THHN/THWN-2 UP TO AND INCLUDING #4/0. COPPER CONDUCTORS LARGER THAN #4/0 AND ALUMINUM CONDUCTORS ARE BASED ON XHHW-2.
 4. CONDUIT SIZES ARE VALID FOR EMT OR RSC. CONDUIT SIZES SHALL BE ADJUSTED AS REQUIRED FOR OTHER TYPES OF CONDUIT.
 5. SIZE OF DISCONNECT SWITCH LOCATED AT EQUIPMENT SHALL BE SIZED BASED UPON OVERCURRENT PROTECTION OF THAT DEVICE.
 6. OBTAIN APPROVAL FROM ENGINEER PRIOR TO INSTALLING DIFFERENT SIZE/QUANTITY OF CONDUCTORS TO OBTAIN AN EQUIVALENT AMPACITY.

KEYED NOTES:
 1. CONDUCTORS ARE BASED ON 90C, 600V INSULATED WIRE APPLIED AT 75C FOR TERMINATION RATED 60/75C OR 75C. FOR TERMINATION RATED AT 60C, USE CONDUCTORS AND CONDUIT SIZES INDICATED IN PARENTHESES.

RACEWAY / CONDUCTOR / CABLE APPLICATION SCHEDULE																	
	WIRE		RACEWAY					CABLE / CORD									
	COPPER, TYPE THHN/THWN-2	COPPER, TYPE XHHW-2	ALUMINUM, TYPE XHHW-2 (100A AND ABOVE ONLY)	ELECTRICAL METALLIC TUBING (EMT)	INTERMEDIATE METAL CONDUIT (IMC)	RIGID STEEL CONDUIT (RSC)	PVC COATED RIGID STEEL CONDUIT	RIGID NON-METALLIC CONDUIT (RNC) TYPE EPC-40	RIGID NON-METALLIC CONDUIT (RNC) TYPE EPC-80	HIGH DENSITY POLYETHYLENE (HDPE) SCHEDULE 40	HIGH DENSITY POLYETHYLENE (HDPE) SCHEDULE 80	REINFORCED THERMOSET RESIN CONDUIT (RTRC) TYPE AG	REINFORCED THERMOSET RESIN CONDUIT (RTRC) TYPE BG	FLEXIBLE METAL CONDUIT (FMC)	LIQUID TIGHT FLEXIBLE METAL CONDUIT (LFMC)	METAL CLAD TYPE CABLE WITH INSULATED GROUND WIRE (TYPE MC)	PHOTOVOLTAIC CABLE (TYPE PV)
FEEDERS - EXTERIOR																	
EXPOSED, SURFACE MOUNTED TO STRUCTURE	X	X		X	X	X						X					
EXPOSED, WITH FREESTANDING SUPPORT	X	X		X	X	X						X					
CONCEALED IN RETAINING WALL OR SIMILAR ELEMENT	X	X		X	X	X											
BELOW PARKING LOTS AND ROADWAYS	X	X		X	X	X					X	X					
BELOW GREEN SPACE	X	X		X	X	X											
WITHIN 5' OF FOUNDATION WALL	X	X		X	X	X						X					
ROOFTOPS (WHEN APPROVED BY ENGINEER)	X	X		X	X	X											
FEEDERS - INTERIOR																	
CONCEALED, ACCESSIBLE CEILINGS	X	X		X	X	X											
CONCEALED, INACCESSIBLE CEILINGS	X	X		X	X	X											
CONCEALED IN GYPSUM BOARD PARTITION WALLS	X	X		X	X	X											
CONCEALED IN CMU WALLS	X	X		X	X	X											
EXPOSED, BELOW 10' AFF AND SUBJECT TO DAMAGE	X	X		X	X	X											
EXPOSED, BELOW 10' AFF AND NOT SUBJECT TO DAMAGE	X	X		X	X	X											
EXPOSED, ABOVE 10' AFF UNFINISHED SPACES	X	X		X	X	X											
EXPOSED, FINISHED SPACES	X	X		X	X	X											
BELOW SLAB ON GRADE	X	X		X	X	X											
DAMP AND WET LOCATIONS	X	X		X	X	X											
BRANCH CIRCUITS - EXTERIOR																	
EXPOSED, SURFACE MOUNTED TO STRUCTURE	X			X	X	X	X										
EXPOSED, WITH FREESTANDING SUPPORT	X			X	X	X	X										
CONCEALED IN RETAINING WALL OR SIMILAR ELEMENT	X			X	X	X	X										
BELOW PARKING LOTS AND ROADWAYS	X			X	X	X	X										
BELOW GREEN SPACE	X			X	X	X	X										
WITHIN 5' OF FOUNDATION WALL	X			X	X	X	X										
ROOFTOPS (WHEN APPROVED BY ENGINEER)	X			X	X	X	X										
BRANCH CIRCUITS - INTERIOR																	
CONCEALED, ACCESSIBLE CEILINGS	X			X	X	X	X										X
CONCEALED, INACCESSIBLE CEILINGS	X			X	X	X	X										X
CONCEALED IN GYPSUM BOARD PARTITION WALLS	X			X	X	X	X										X
CONCEALED IN CMU WALLS	X			X	X	X	X										X
EXPOSED, BELOW 10' AFF AND SUBJECT TO DAMAGE	X			X	X	X	X										X
EXPOSED, BELOW 10' AFF AND NOT SUBJECT TO DAMAGE	X			X	X	X	X										X
EXPOSED, ABOVE 10' AFF UNFINISHED SPACES	X			X	X	X	X										X
EXPOSED, FINISHED SPACES	X			X	X	X	X										X
BELOW SLAB ON GRADE	X			X	X	X	X										X
EMBEDDED IN ELEVATED CONCRETE SLAB	X			X	X	X	X										X
DAMP AND WET LOCATIONS	X			X	X	X	X										X
SPECIAL APPLICATIONS																	
PHOTOVOLTAIC PANELS																	X

GENERAL NOTES:
 1. TRANSITION FROM PVC/HDPE AND PROVIDE RIGID STEEL OR RTRC SWEEPS WHERE CONDUITS PENETRATE WALLS, CONCRETE SLABS, CONCRETE BASES, AND ASPHALT.
 2. REFER TO SPECIFICATIONS FOR RESTRICTIONS ON MC/AC CABLE INSTALLATION.
 3. EMT SHALL NOT BE USED ON THE EXTERIOR OF A BUILDING OR IN AREAS SUBJECT TO DAMAGE BELOW 10' AFF.
 4. INSTALL SURFACE RACEWAYS ONLY WHERE INDICATED ON DRAWINGS.

REVISION

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PROJECT TITLE
**DETROITWAYNE COUNTY
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130 E. Atwater Street Detroit, MI 48226

SHEET TITLE
**ELECTRICAL STANDARD
 SCHEDULES**

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 08-02-2024

ISSUE
 BIDS

SHEET No.

E0.02