

THIS RISER DIAGRAM SHOWS THE ELECTRICAL ROUGH-INS REQUIRED FOR A TYPICAL POINT OF SALE (POS) SYSTEM IN A FREE STANDING 2 BOOTH RESTAURANT. VERIFY ALL POS ROUGH-INS AND MOUNTING HEIGHTS WITH THE ELECTRICAL ROUGH-IN PLAN, NOTES AND INFORMATION DRAWINGS.

GENERAL/MATERIALS

- ## INSTALLATION

- CABLE SUPPORTS SHALL BE PROVIDED WITHIN 24 INCHES OF THESE STUB-UP LOCATIONS
ALL STUB-UP CONDUITS SHALL BE PROVIDED WITH AN INSULATED BUSHING TO PROTECT
CABLES DURING INSTALLATION.

AS OF THE DATE BELOW, I HEREBY CERTIFY THAT ALL ELECTRICAL WORK, ELECTRICAL SERVICE AND ELECTRICAL SYSTEMS, MATERIALS AND LABOR RELATED TO THE POS ELECTRICAL INSTALLATION IN WHICH THE UNDERSIGNED ARE DIRECTLY OR INDIRECTLY RESPONSIBLE HAVE BEEN PROPERLY INSTALLED IN FULL COMPLIANCE WITH ALL CONSTRUCTION DOCUMENTS AND ALL NFPA, BUILDING, ELECTRICAL AND OTHER APPLICABLE CODES, ALONG WITH ALL OF THE REQUIREMENTS OUTLINED ON THIS DRAWING. I FURTHER CERTIFY THAT THE ELECTRIC SERVICE POWERING THE POS SYSTEM HAS BEEN PROPERLY INSTALLED BY A QUALIFIED ELECTRICIAN, SKILLED, KNOWLEDGEABLE AND TRAINED TO INSTALL ALL THE REQUIRED ELECTRICAL DISTRIBUTION COMPONENTS NECESSARY TO POWER THE POINT OF SALE (POS) SYSTEM.

ELECTRICAL CONTRACTOR:

BY: _____

DATE: _____

PRIOR TO BID, THE CONTRACTOR SHALL REVIEW THE MECHANICAL, ELECTRICAL AND KITCHEN EQUIPMENT DRAWINGS. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL RELEVANT WORK IN THE ENTIRE SET OF DOCUMENTS AND REPORT ALL DISCREPANCIES BETWEEN THESE DRAWINGS TO THE ENGINEER PRIOR TO BIDDING FOR CLARIFICATION. IF DISCREPANCIES REMAIN UNRESOLVED DUE TO A SHORT TIME FRAME, THE CONTRACTOR SHALL INCLUDE THE MOST WORK AND THE HIGHER COSTS IN THE BID. SOLUTIONS TO UNREPORTED DISCREPANCIES WILL BE DETERMINED BY THE ARCHITECT/ENGINEER, WITH NO ADDITIONAL COMPENSATION DUE TO THE CONTRACTOR.

AS PART OF THIS PROCESS, THE EC AND THE GC WILL BE REQUIRED TO SIGN THE ELECTRICAL CERTIFICATION DOCUMENT INDICATING THAT THE INSTALLED ELECTRICAL SYSTEM MEETS MCDONALD'S SPECIFICATIONS.

IF CHANGES ARE MADE TO THE POS ELECTRICAL SYSTEM **AFTER** THE CERTIFICATION PROCESS HAS BEEN COMPLETED, THEN A SYSTEM RE-CERTIFICATION SHALL BE REQUIRED.

REWORK ELECTRICAL
SYSTEM TO BRING
INTO COMPLIANCE
WITH MCDONALD'S
SPECIFICATIONS

START HERE

DESIGNER: Wendy Wenborg
PHONE: 952-540-4047
EMAIL: wwenborg@epinc.com

- | YES NO N/A | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. IS AN EQUIPMENT GROUND BAR INSTALLED SUCH THAT IT IS ELECTRICALLY CONNECTED TO THE PANEL? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. DO ALL NEUTRAL CONDUCTORS TERMINATE ONLY TO THE NEUTRAL BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. DO ALL EQUIPMENT GROUND CONDUCTORS TERMINATE ONLY TO THE EQUIPMENT GROUND BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. DOES THE ISOLATED GROUND CONDUCTOR (GREEN W/YELLOW STRIPE) TERMINATE ON THE EQUIPMENT GROUND BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. IS THERE AN APPROPRIATE ELECTRICAL CONNECTION (BOND) BETWEEN THE NEUTRAL BAR AND THE EQUIPMENT GROUND BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. DOES THE GROUNDING SYSTEM COMPLY WITH MCDONALD'S "BUILDING ELECTRICAL GROUNDING DETAIL"? |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. IS A SURGE PROTECTOR INSTALLED THAT COMPLIES WITH MCDONALD'S "TVSS INSTALLATION GUIDE" OR DETAIL? |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. ARE ALL ELECTRICAL CONNECTIONS (WIRING & BUSING) PROPERLY TIGHTENED? |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. ARE ALL CIRCUIT BREAKERS CLEARLY LABELED? |

- | YES NO N/A | | | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. IS AN EQUIPMENT GROUND BAR INSTALLED SUCH THAT IT IS ELECTRICALLY CONNECTED TO THE PANEL? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. IS AN ISOLATED GROUND BAR INSTALLED SUCH THAT IT IS ELECTRICALLY INSULATED FROM THE PANEL? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. DO ALL NEUTRAL CONDUCTORS TERMINATE ONLY TO THE NEUTRAL BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. DO ALL EQUIPMENT GROUND CONDUCTORS TERMINATE ONLY TO THE EQUIPMENT GROUND BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. DO ALL ISOLATED GROUND CONDUCTORS (GREEN W/YELLOW STRIPE) TERMINATE ONLY TO THE ISOLATED GROUND BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. ARE ALL ELECTRICAL CONNECTIONS (WIRING & BUSING) PROPERLY TIGHTENED? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. ARE ALL POS AND COD CIRCUIT BREAKERS ON THE SAME PANEL? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. ARE ALL CIRCUIT BREAKERS CLEARLY LABELED? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. DO ALL POS & COD CIRCUIT BREAKERS HAVE A LOCKING MECHANISM ON THEIR HANDLES TO PREVENT THEM FROM BEING SHUT OFF BY MISTAKE? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. DOES THE FEEDER CIRCUIT FOR THIS SUBPANEL CONTAIN PHASE, NEUTRAL ONE EQUIPMENT GROUND AND ONE ISOLATED GROUND CONDUCTORS THAT ARE PROPERLY TERMINATED (SEE POS & COD ISO GND/DED CKT DETAIL)? |

- | | | |
|--------------------------|--------------------------|---|
| YES NO N/A | | |
| <input type="checkbox"/> | <input type="checkbox"/> | 1. IS AN EQUIPMENT GROUND BAR INSTALLED SUCH THAT IT IS ELECTRICALLY CONNECTED TO THE PANEL? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. DO ALL NEUTRAL CONDUCTORS TERMINATE ONLY TO THE NEUTRAL BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. DO ALL EQUIPMENT GROUND CONDUCTORS TERMINATE ONLY TO THE EQUIPMENT GROUND BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. ARE ALL ELECTRICAL CONNECTIONS (WIRING & BUSING) PROPERLY TIGHTENED? |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. ARE ALL CIRCUIT BREAKERS CLEARLY LABELED? |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. DOES THE FEEDER CIRCUIT FOR THIS SUBPANEL CONTAIN PHASE, NEUTRAL AND ONE EQUIPMENT GROUND CONDUCTORS THAT ARE PROPERLY TERMINATED? (SEE BUILDING ELECTRICAL GROUNDING DETAILS) |

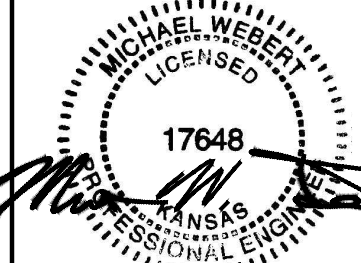
- YES NO N/A
- | | | | |
|--------------------------|--------------------------|----|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. | ARE THE POS BRANCH CIRCUITS ROUTED IN THEIR OWN CONDUIT BY THEMSELVES? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. | IF THE POS BRANCH CIRCUIT IS ROUTED ABOVE GRADE, IS IT IN A METALLIC CONDUIT? |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. | DOES EACH POS BRANCH CIRCUIT CONTAIN: ONE PHASE (BLACK COLORED INSULATION) ONE NEUTRAL (WHITE COLORED INSULATION) ONE EQUIPMENT GROUND (GREEN COLORED INSULATION) ONE ISOLATED GROUND (GREEN W/YELLOW STRIPE COLORED INSULATION). |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. | DO ALL POS BRANCH CIRCUITS TERMINATE AT EITHER AN IG4710, IG4710, IG5261, IG5262 RECEPTACES OR ANY COMBINATION OF THESE? |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. | ARE ALL ELECTRICAL TERMINATIONS TO IG RECEPTACES MADE WITH SOLID #12 AWG WIRE CAPTURED AROUND THE SCREW BARREL AND SUITABLY TIGHTENED? |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. | ARE ALL BRANCH CIRCUIT CONNECTIONS PROPERLY TIGHTENED? |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. | ARE THE CORRECT AMOUNT AND TYPE OF IG RECEPTACES PROVIDED AS SHOWN IN THE ELECTRICAL ROUGH-IN PLAN, NOTES AND INFORMATION? |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. | DO ALL POS RECEPTACES HAVE ORANGE "COMPUTER ONLY" COVERPLATES? |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. | DO ALL POS BRANCH CIRCUITS COMPLY WITH THE "POS & COD ISOLATED GROUND/DEDICATED CIRCUIT" DETAIL? |

- | YES | | NO | | N/A | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. ARE THE COD BRANCH CIRCUITS ROUTED IN THEIR OWN CONDUIT BY THEMSELVES? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. DOES EACH COD BRANCH CIRCUIT CONTAIN;
- ONE PHASE (BLACK COLORED INSULATION),
- ONE NEUTRAL (WHITE COLORED INSULATION),
- ONE EQUIPMENT GROUND (GREEN COLORED INSULATION),
- ONE ISOLATED GROUND (GREEN W/YELLOW STRIPE COLORED INSULATION). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. IS THE COD POWERED FROM THE SAME PANEL AS THE POS? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. DOES THE BREAKER FOR THE COD HAVE A LOCKING MECHANISM ON ITS HANDLE THAT WILL PREVENT IT FROM BEING SHUT OFF? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. DO THE COD BRANCH CIRCUIT(S) COMPLY WITH THE "POS & COD ISOLATED GROUND/DEDICATED CIRCUIT" DETAIL? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. IF THE COD HAS AN OPTICAL ISOLATOR, IS A STRAIGHT BLADE ISOLATED GROUND RECEPTACLE ON AN ISOLATE GROUND/DEDICATED CIRCUIT PROVIDED FOR IT? |



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3801.0037



01/23/20

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DRAWN BY	MRW
ESTD	ISSUE DATE

DRAWN BY	MRW
STD ISSUE DATE	

2019_11

REVIEWED BY
WILLIAMDATE ISSUED
WFLM

01-23-20

TITLE	2019 STANDARD BUILDING – BB20 4597F10–WOOD/WOOD
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 DESCRIPTION |

WOOD BEARING WALLS W/FIBER CEMENT SIDING & CI
WOOD ROOF TRUSS FRAMING

WOOD ROOF TRUSS FLOWING
FIBER CEMENT PANEL/BATTEN/ALPOLIC PANEL/BRICK EXT. FINISH

[illegible]

SHEET NO.

SHEET NO. **E**
POS

R12

1

• DIA

C

AM