

REVISIONS				
SYM	DESCRIPTION	PREPARED BY	DATE	APPROVED

FEEDER SCHEDULE NOTES

1. CONDUCTORS AMPACITIES ARE BASED ON 60° C INSULATION OR 75° C INSULATION AS REQUIRED TO COMPLY WITH NEC 110–13(C).
2. CONDUIT SIZES ARE BASED ON "FHHN" INSULATION. IF DIFFERENT INSULATION TYPE IS USED THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUIT SIZES AT NO ADDITIONAL COST TO OWNER.
3. SYMBOL "⌞15⌟<sub>2N</sub>" INDICATES NEUTRAL HAS BEEN SIZED AT 1.73 TIMES THE AMPACITY OF THE PHASE CONDUCTORS TO COMPENSATE FOR HIGHER CURRENTS ON THE NEUTRAL FROM NON–LINEAR LOADS.
4. THIS FEEDER SCHEDULE APPLIES TO EMT, IMT, RIGID STEEL, PVC–SCH. 40, FLEX.(METAL), AND LIQUID TIGHT FLEX.(METAL) CONDUIT ONLY. IF ANOTHER TYPE OF CONDUIT IS USED IT MUST BE APPROVED BY THE CONTRACTING OFFICER AND THE CONTRACTOR IS RESPONSIBLE FOR SIZING AND PROVIDING THAT CONDUIT AT NO ADDITIONAL COST EVEN IF CONDUIT SIZE INCREASES. AN ASTERISK (\*) INDICATES THAT FOR EMT CONDUIT, THE CONTRACTOR MAY UTILIZE ONE TRADE SIZE SMALLER THAN THAT SHOWN IN THE SCHEDULE. HOWEVER, IF THE EMT CONNECTS TO FLEX. (OR ANOTHER CONDUIT TYPE), THE FLEX. (OR OTHER CONDUIT TYPE) MAY NOT BE REDUCED IN SIZE.

EXAMPLES OF HOW TO USE FEEDER SCHEDULE ABOVE WITH SINGLE LINE DIAGRAM				
FROM	TO	BREAKER SIZE	FEEDER SYMBOL	CONDUCTORS
MS	F42B	250	⌞15⌟	4–250 KCMIL & 1#4(GND)., 63mm CONDUIT.

SINGLE LINE DIAGRAM NOTES:

1. UNLESS NOTED OTHERWISE ALL SINGLE LINE DIAGRAM FEEDER SIZES SHALL BE AS SHOWN IN "FEEDER TABLE" ON THIS SHEET.
2. ALL CIRCUIT BREAKERS SHOWN ARE 3 POLE UNLESS NOTED OTHERWISE.
3. SEE PANELBOARD SCHEDULES AND DISTRIBUTION PANELBOARD SCHEDULE SHEETS FOR SPACES PER PANELBOARD.
4. THE CONTRACTOR SHALL SUBMIT ALL CIRCUIT BREAKER INFORMATION TO THE CONTRACTING OFFICER FOR SETTINGS FOR PROPER BREAKER COORDINATION.
5. AS A MINIMUM ALL CIRCUIT BREAKERS IN DISTRIBUTION PANELS RATED 70 AMPS AND ABOVE SHALL HAVE ADJUSTABLE INSTANTANEOUS TRIP. ELECTRONIC CIRCUIT BREAKERS TO BE 9 FUNCTION TYPE.
6. COORDINATE SURGE SUPPRESSION CIRCUIT BREAKERS WITH MANUFACTURERS RECOMMENDATIONS.
7. AT END OF PROJECT, CONTRACTOR TO MEASURE VOLTAGE AT 208V PANELS UNDER MAXIMUM BUILDING DEMAND LOAD AND SET TAPS OF TRANSFORMERS AS REQUIRED FOR PROPER VOLTAGE. CONTRACTOR SHALL RECORD VOLTAGE READINGS AT ALL PANELS AFTER SETTING TRANSFORMER TAPS. CONTRACTOR SHALL MEASURE VOLTAGE AT 208V PANELS AGAIN UNDER "NORMAL" LOAD TO ENSURE THAT THERE IS NOT AN OVERVOLTAGE PROBLEM, RE–ADJUST TAPS IF NECESSARY, AND AGAIN RECORD VOLTAGE READINGS.
8. CONNECT TRANSFORMER NEUTRAL TO NEAREST AVAILABLE COLD WATER PIPE AND TO BUILDING STEEL WITH GROUNDING ELECTRODE CONDUCTOR OF SIZE SHOWN. LABEL BOTH GROUNDED ELECTRODE CONDUCTOR CONDUITS AT TRANSFORMER WITH PERMANENT BLACK MARKER AS TO WHICH ELECTRODE IT IS CONNECTED TO.
9. ALL DRY TYPE TRANSFORMERS TO HAVE K–RATING OF K–4 UNLESS NOTED OTHERWISE.
10. A CIRCUIT BREAKER RATED 70A., OR HIGHER SHALL HAVE AN ADJUSTABLE INSTANTANEOUS TRIP SETTING UNLESS OTHERWISE NOTED.
11. ALL PANELBOARDS, THE SWITCHBOARD, DRY TYPE TRANSFORMERS AND DISCONNECTS SHALL BE FROM THE SAME MANUFACTURER.

WHERE THE TERMS BELOW ARE USED IN PANELBOARD SCHEDULES, SWITCHBOARD SCHEDULE, THEY ARE DEFINED AS FOLLOWS:

1. SPARE – A CIRCUIT BREAKER PROVIDED IN THE EQUIPMENT TO WHICH NO CIRCUIT IS CONNECTED.
- A.) PANELBOARDS – A CIRCUIT BREAKER OF THE RATING INDICATED.
- B.) SWITCHBOARD – A CIRCUIT BREAKER OF THE RATING INDICATED, FURNISHED WITH SENSORS.
2. SPACE ONLY – A FULLY BUSSED SPACE FOR A CIRCUIT BREAKER OF THE SIZE NOTED, ARRANGED SO THAT THE APPROPRIATE DEVICE MAY BE INSTALLED AS FOLLOWS:
- A.) PANELBOARD – BOLT TO PREDRILLED AND TAPPED BUS. PROVIDE BLANKING DEVICE.
- B.) SWITCHBOARD – PROVISIONS TO INSTALL INDIVIDUALLY MOUNTED MOLDED CASE CIRCUIT BREAKERS BY BOLTING TO PREDRILLED AND TAPPED BUS. PROVIDE BLANKING COVER.

TRANSFORMER GROUNDING ELECTRODE SCHEDULE	
30KVA	1#8 (GND) – 21mmC.
112.5KVA	1#1/0 (GND) – 21mmC.
150KVA	1#1/0 (GND) – 21mmC.
225KVA	1#2/0 (GND) – 21mmC.

IF SHEET IS LESS THAN 28"x42", IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY.

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MEDICAL/DENTAL CLINIC				
ELECTRICAL SCHEDULES & NOTES				
SIZE	CODE IDENT. NO.	DRAWING NO.		
F	XXXXX	8144791		
		CONST. CONTR. NO.		
SCALE:	AS SHOWN	SPEC.	11996048	SHEET 286 OF 316