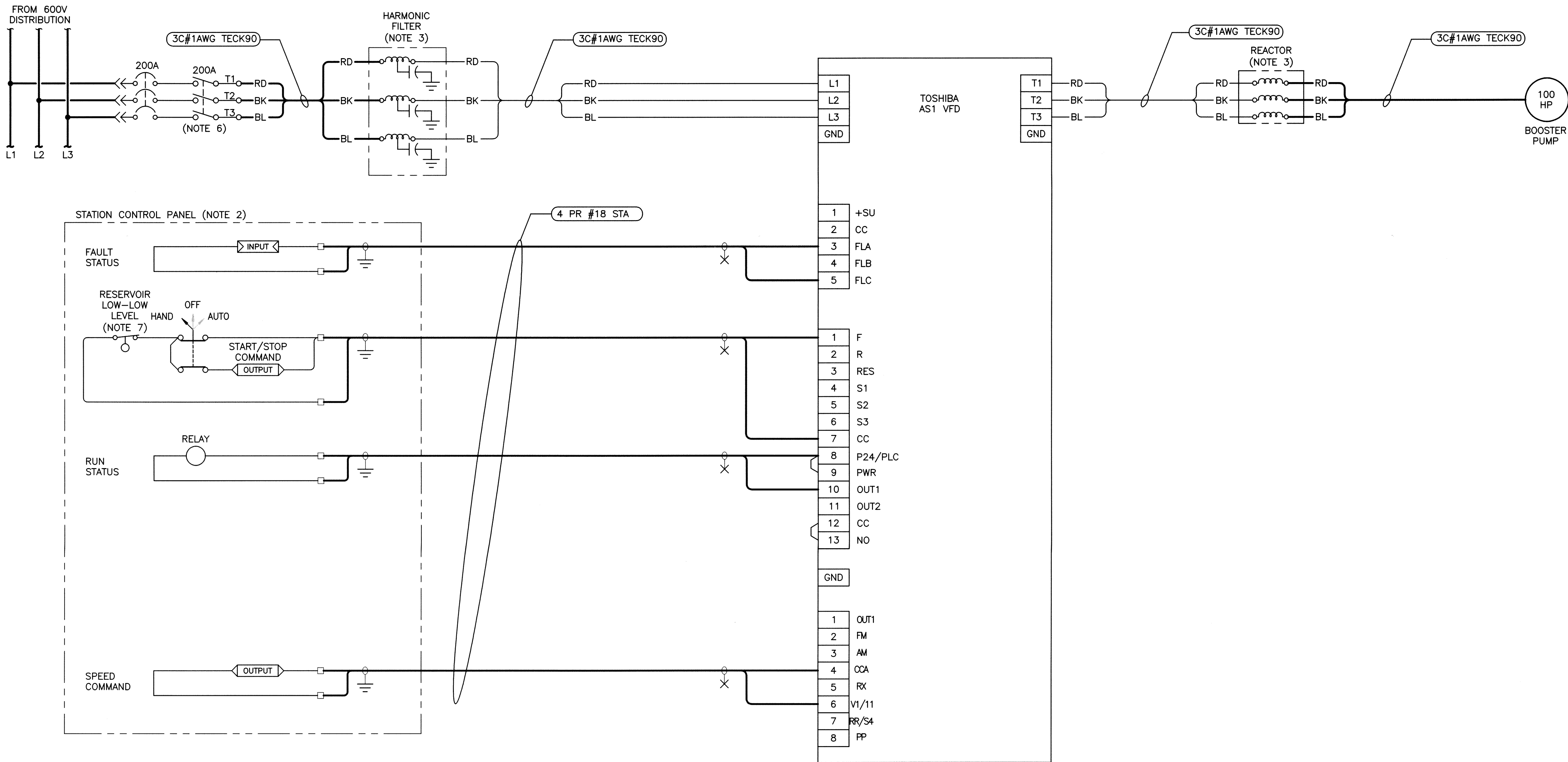
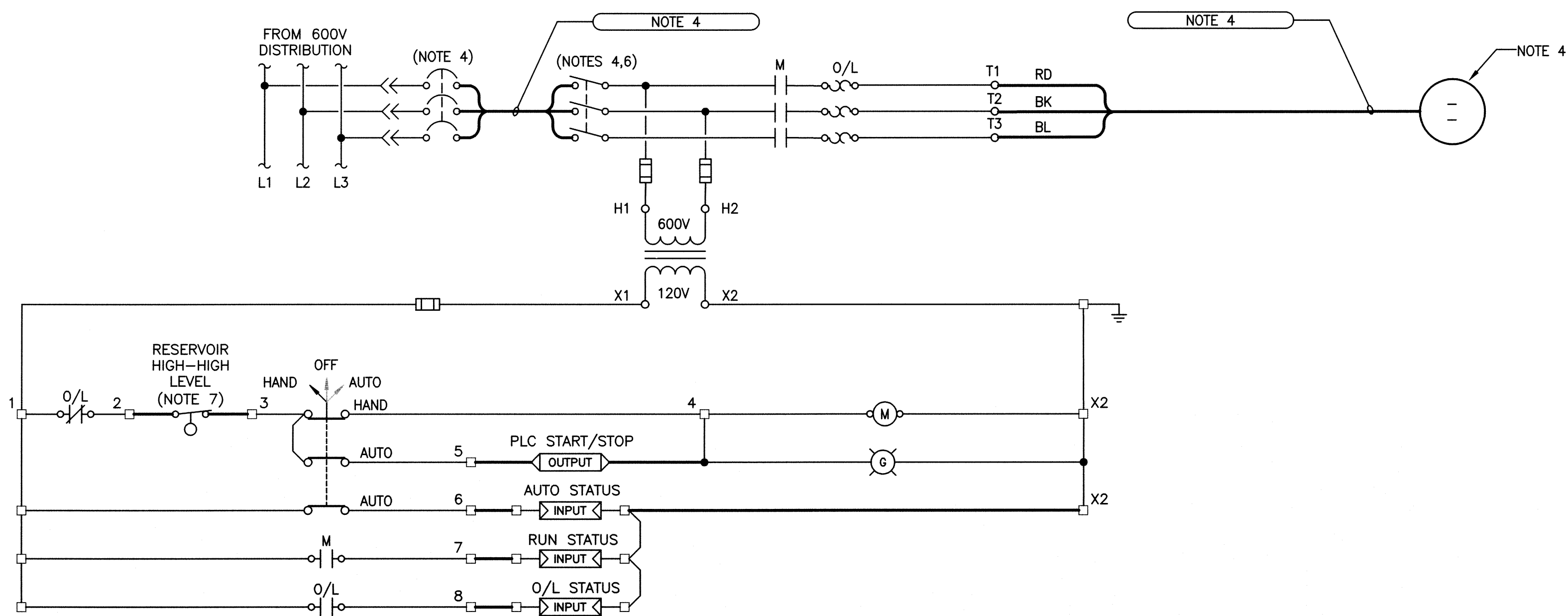


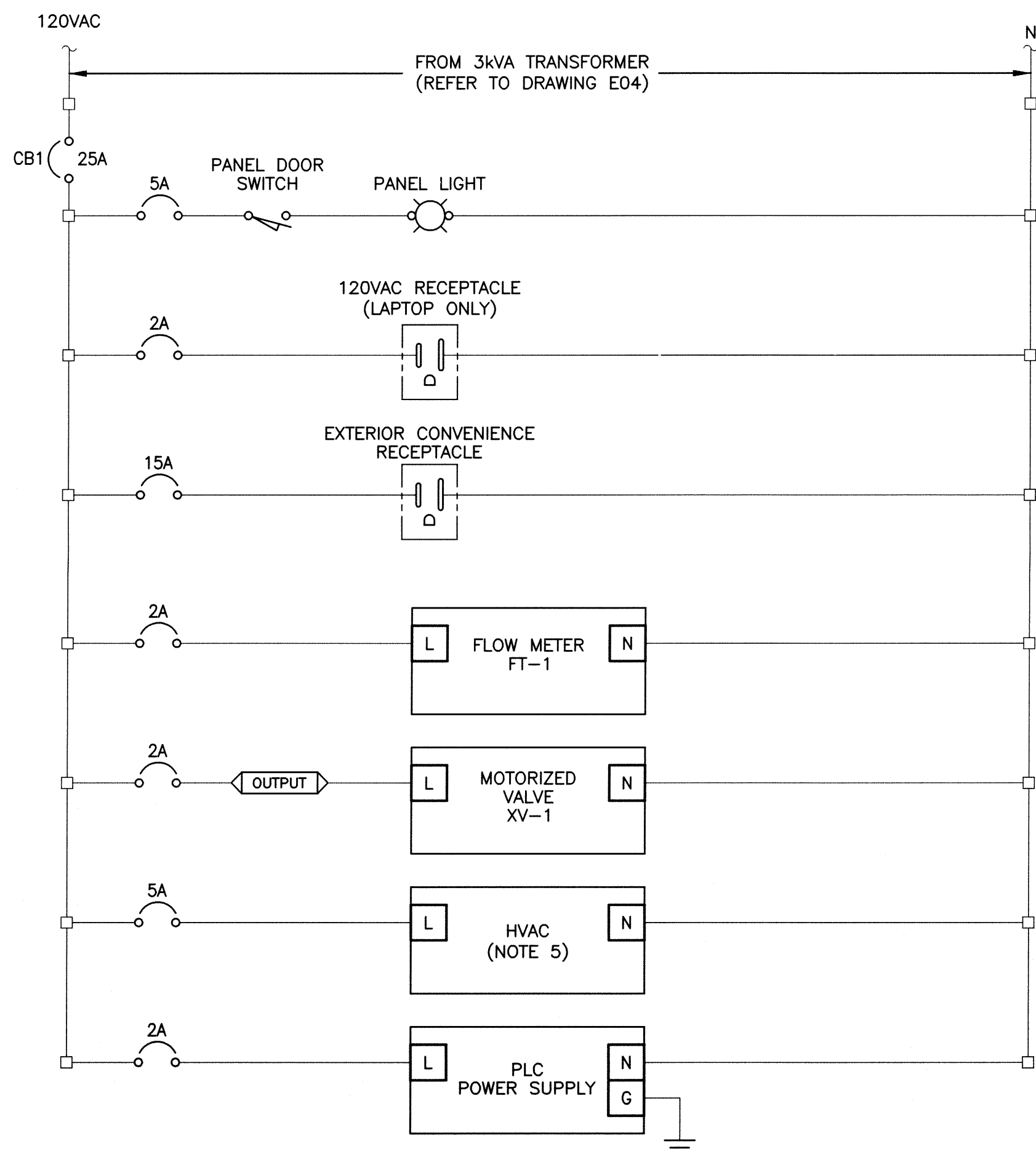
File Name: P:\Projects\2015\15-0006-008.Dwg Elec\15-0006-008.E05.dwg -- Tab: E05 Plotted By: dderoché 16/07/19 [Tue 9:45am]



1 TYPICAL VFD WIRING DIAGRAM (NOTE 1)
SCALE: N.T.S.



2 TYPICAL FVNR STARTER WIRING DIAGRAM (NOTE 2)
SCALE: N.T.S.



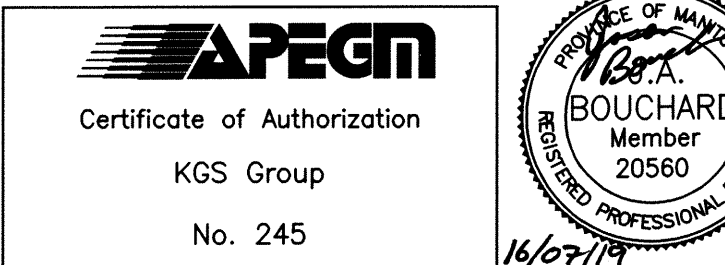
3 CONTROL PANEL 120 VOLT POWER DISTRIBUTION
SCALE: N.T.S.

NOTES:

1. WIRING SCHEMATIC IS BASED ON A TOSHIBA AS1 VARIABLE FREQUENCY DRIVE (VFD). MODIFY SCHEMATIC AS REQUIRED IF ALTERNATE VFD IS PROVIDED.
2. WIRING WITHIN CONTROL PANEL IS TYPICAL FOR ALL PUMPS.
3. HARMONIC FILTERS AND REACTORS MAY BE INSTALLED OUTSIDE TO LIMIT HEAT GENERATION WITHIN THE BOOSTER STATION CONTROL PANEL PROVIDED THE ENCLOSURE RATING IS NEMA 3R.
4. REFER TO SINGLE LINE DIAGRAM FOR HORSEPOWER, BREAKER RATING, DISCONNECT SWITCH RATING, LABELS AND ALL POWER CABLE SIZES.
5. PROVIDE ENCLOSURE ENVIRONMENTAL CONTROLS TO SUIT REQUIREMENTS FOR ALL EQUIPMENT PROVIDED WITHIN THE ENCLOSURE. BASED ON AMBIENT TEMPERATURE RANGE OF -40°C TO +40°C.
6. DISCONNECT SWITCH SHALL BE PADLOCKABLE IN THE OPEN POSITION AND ACCESSIBLE FROM OUTSIDE STATION CONTROL PANEL.
7. RESERVOIR LEVEL SIGNALS MAY BE THROUGH A RELAY TO ALSO PROVIDE A LEVEL SIGNAL TO THE PLC.

LEGEND

- MOTOR STARTER TERMINAL
- CONTROL PANEL TERMINAL
- INPUT ➤ PLC INPUT
- OUTPUT ➤ PLC OUTPUT
- ⊥ GROUNDED SHIELD
- ⊥ ISOLATED SHIELD
- STA SHIELDED/TWISTED/ARMoured
- FIELD WIRING
- PANEL WIRING



KGS GROUP
CONSULTING ENGINEERS

ISSUED FOR TENDER 2016/07/19

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