OMIC R&D requires the following electrical work to be performed:

Building 1 – Subtractive.

1. Cobot Welding: See Attachment A Item 1. Location SE quadrant of building. New 480v 3Ø 50 amp (NEMA L8-50) receptacle wall mounted on strut. Provide and install new 50 amp breaker in existing Siemens panel (HPV-7). Provide and install new 120V 20Amp (NEMA 5-20R) fourplex outlet receptacle mounted on wall mounted strut. Utilize existing spare 20Amp breaker in Siemens panel (LP-11).

2. Haimer Equipment: See Attachment A Item 2. Location NE quadrant of building. Relocate existing 480v 3Ø 30Amp (NEMA L16 – 30) receptacle to new wall mounted box below. Utilize the existing overhead receptacle box as a junction box and provide cover plate. Provide approximately 8' feet of wire and conduit to new wall mounted box to house the existing receptacle and faceplate.

3. Automatic Low Point Air Drops: See Attachment A items 3.a/3.b/3c. Relocate three (3) Existing 120V 20Amp circuits from high on wall to new fourplex box below. Provide new or use existing junction boxes and conduit and install 25' feet of new conduit and wire to new strut mounted receptacle approximately 2' feet off the ground in the three locations.

4. Compressor Room Receptacle Add: See Attachment A Item 4. Provide and install new 120V 20Amp (NEMA 5-20R) fourplex outlet box/receptacle mounted to wall. Utilize existing wall mounted outlet to extend the existing circuit.

Building 2 – Additive

1. Zoller Equipment: Attachment B Item 1. Location NE corner of building 2. Install two (2) New 480v 3Ø 30Amp (NEMA L16 – 30) receptacles mounted to the underside of the cable tray in two locations. Provide 2 new 30 amp breakers in Panel 4C. Run TC wire from the panel in conduit to exit the main electrical room in the NW corner. Provide fire seal for wall penetration and extend the conduit out to the existing cable tray. Provide seal-off where the TC wire exits the conduit and hits the cable tray. Assume 45' feet for the initial conduit run inside the electrical room and out to the cable tray. Once the TC wire hits the cable tray, the length of the runs are 25' feet and 35' feet respectively.

2. Hydropac Gas Pressurizer: See Attachment B Item 2. New 480v 3Ø 30Amp circuit from Panel 4C in the electrical room to the South end of the building, - exiting the building and directly wired to skid mounted 10 HP motor. This new conduit will penetrate the wall of the electric room and travers to the South end of the building on an existing building perlin. The motor end will be connected with roughly 12-14" inches of flex conduit suitable for all weather conditions after the ridged metal conduit is fastened to the skid. Provide new 30 Amp breaker in Panel C4. The length of the run is as follows: Assume 30' feet from Panel 4C to where it exits the electrical room and routes to the perlin; 145' feet along the perlin to where it exits the South end of the building; and 60' feet outside to connect to the skid and motor with flex 12"-14 " of flex conduit, - for a total of 237' feet of new wire and conduit.

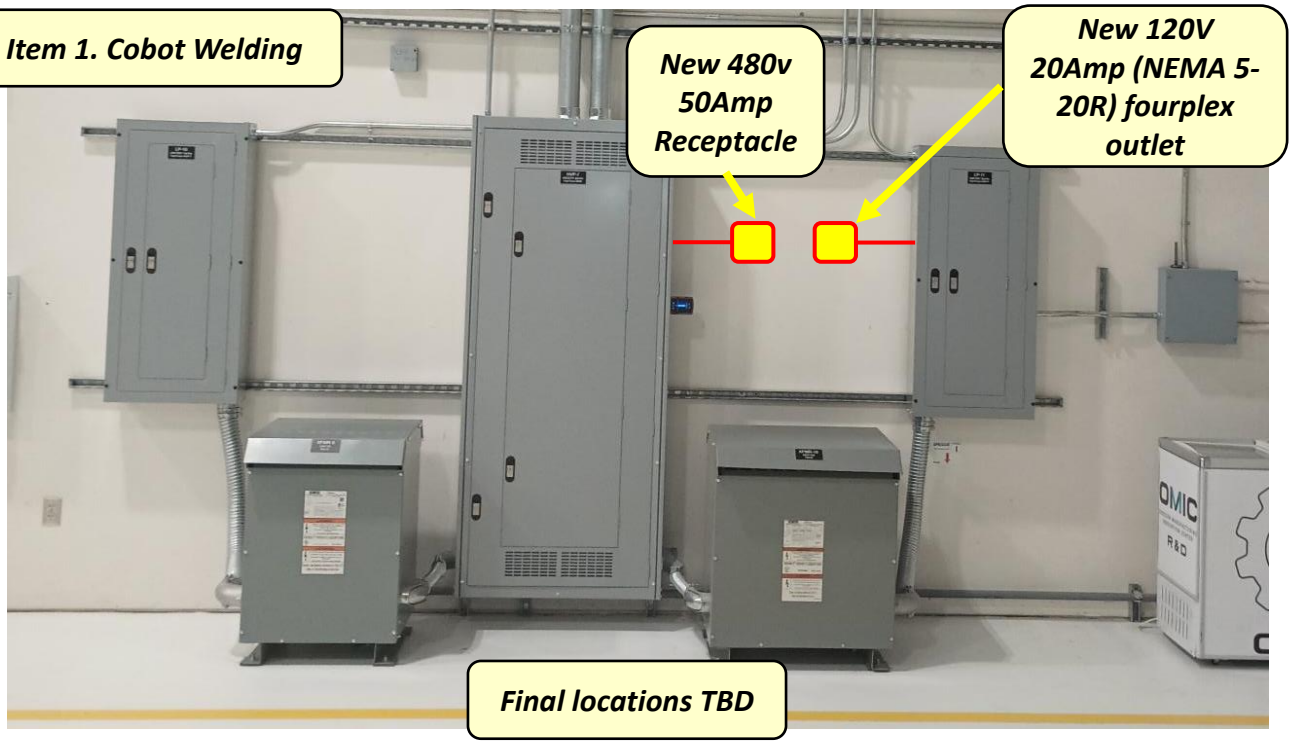
3. HP Jet Fusion 5200 3D Printer: See Attachment B Item 3. Install new 240v 1Ø 20Amp TC cable run and breaker from Panel 240B to West Center machine area. Assume the length of the run is 100’ feet. Provide NEMA L5 – 20 receptacle mounted to the underside of the cable tray.

4. DMG Mori 4300: See Attachment B Item 4. New 65K 200 Amp circuit from the Eaton Pow-R-Line PRL-C Switchboard panel electrical room to the Southwest machine area, - via existing 2” embedded conduit. This embedded conduit runs diagonally from the electrical room stub ups under the panel to the embedded floor plugs/caps. Provide new Eaton HFD 65K 200Amp breaker (Style 6604C37G30). Provide standard electrical disconnect panel (Eaton DH264URK 200A/2P HD NF Safety SW 600V NEMA3R Eaton Heavy duty single-throw non-fused safety switch, Single-throw, 200A, NEMA 3R or approved equal) and floor mounted strut tower at the machine site. Assume the conduit run is 160’ feet and adding 8’ feet on each end for final makeup for a total run of 176’ feet. Connect provided 140 kVA transformer to DMG Mori machine with provided cable.

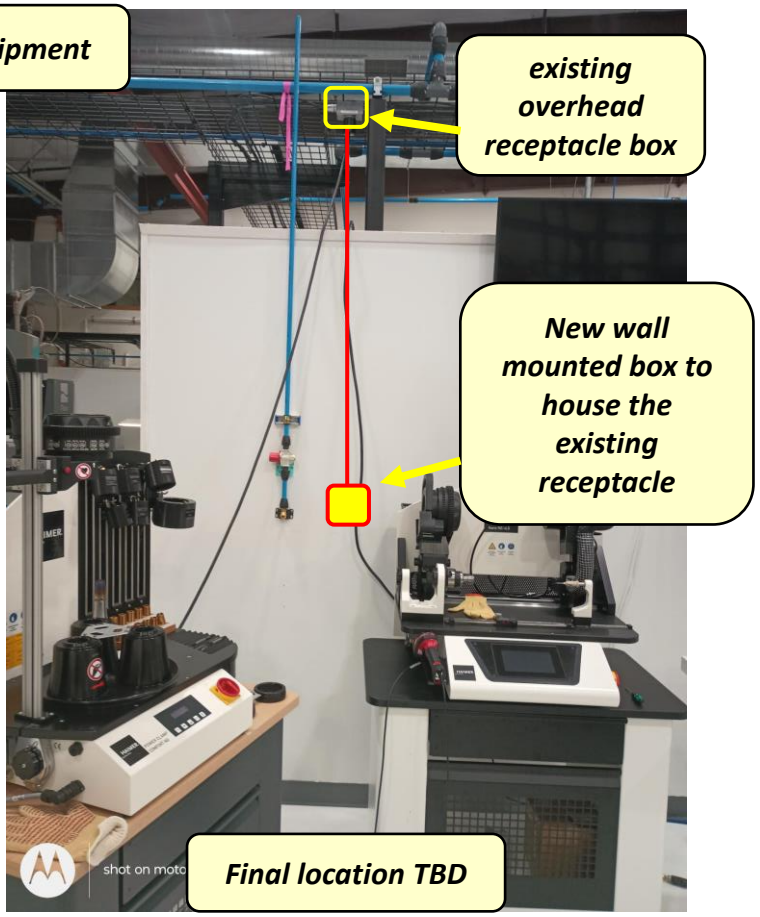
5. IDF Security: See Attachment B Item 5. Extend existing 110V fourplex outlet to inside the rack enclosure. Wall mount on pack-panel.

Building 1 - Subtractive

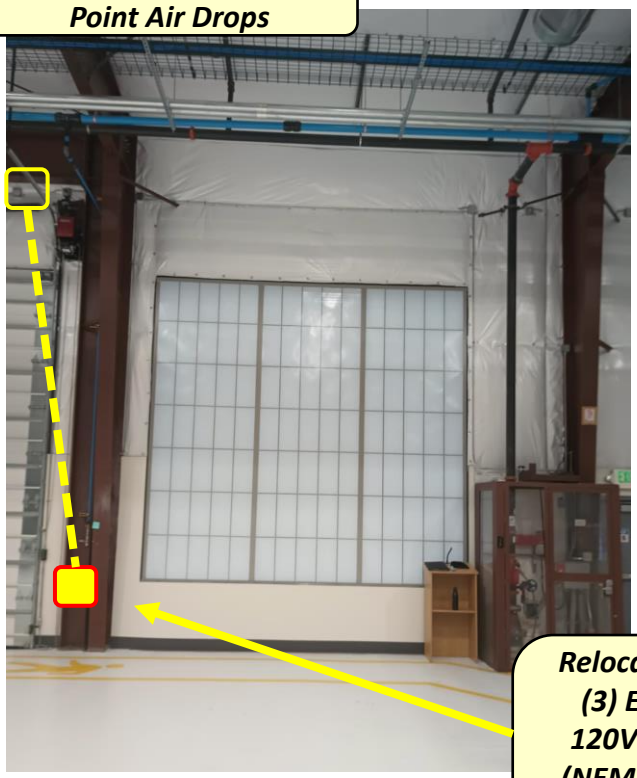
Item 1. Cobot Welding

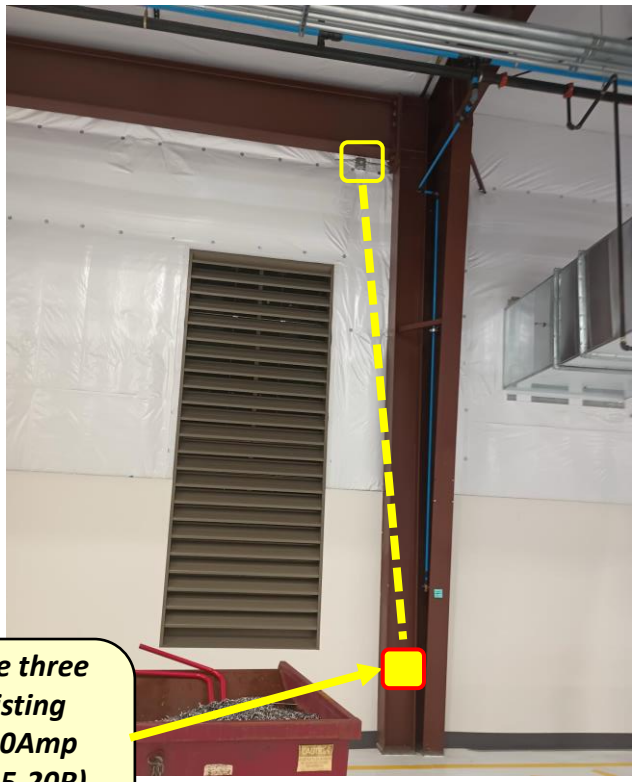


Item 2. Haimer Equipment



Item 3. Automatic Low Point Air Drops

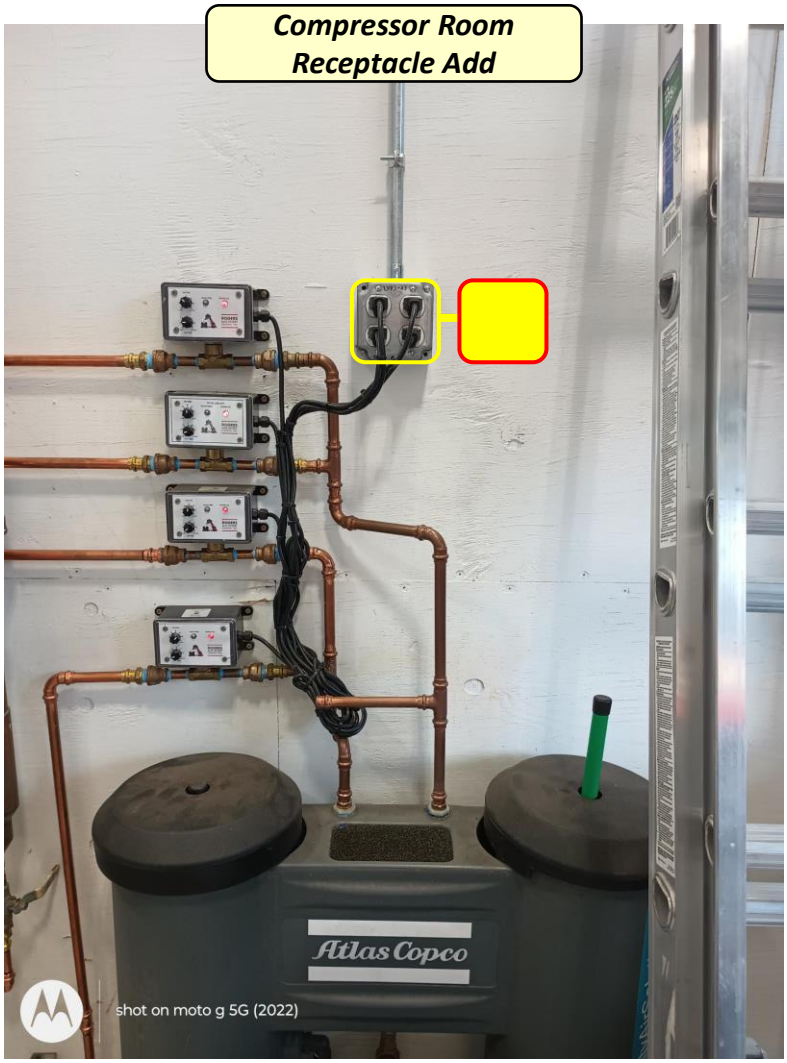




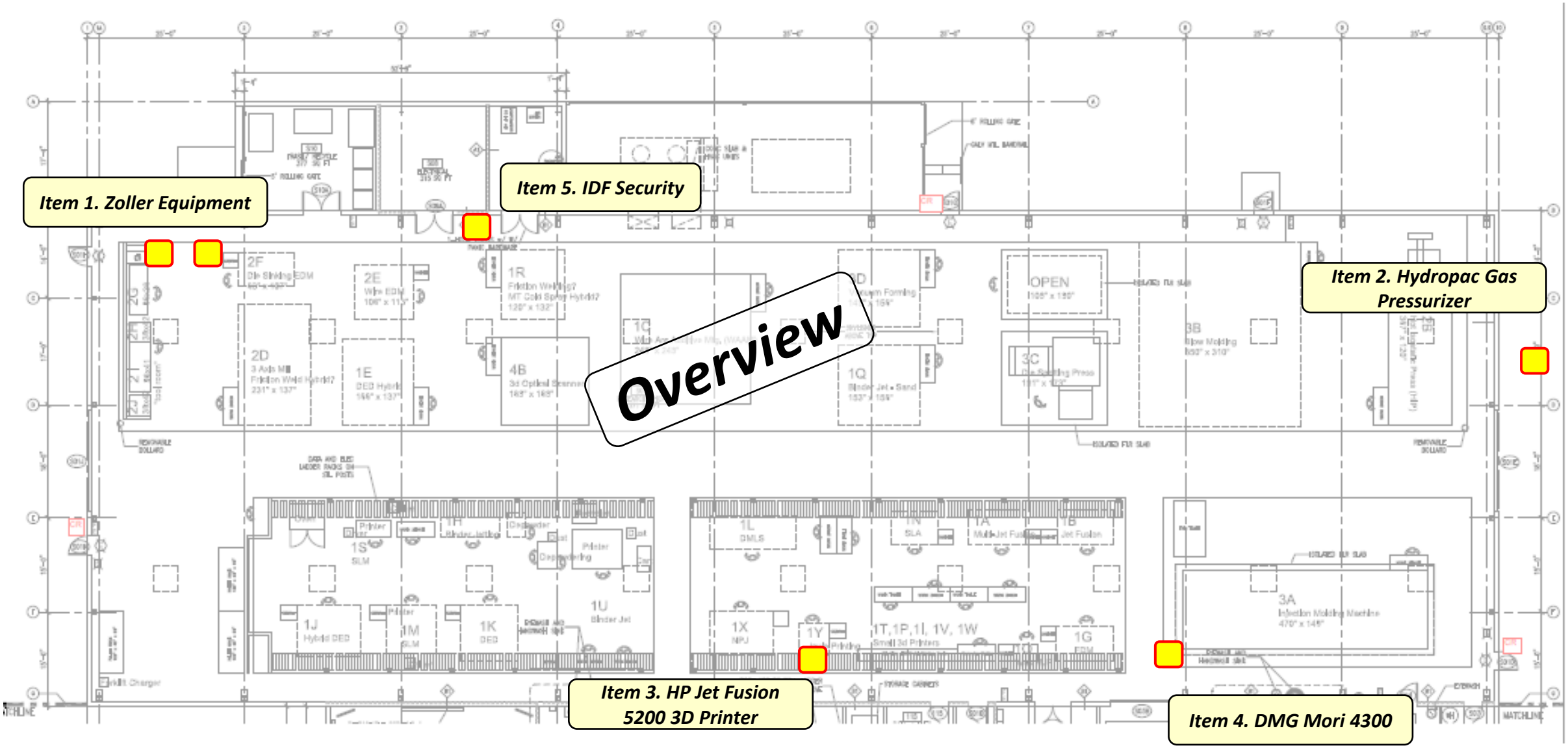
Relocate three (3) Existing 120V 20Amp (NEMA 5-20R) fourplex outlet (X3)

Final locations of tie-ins to existing conduit and circuits TBD

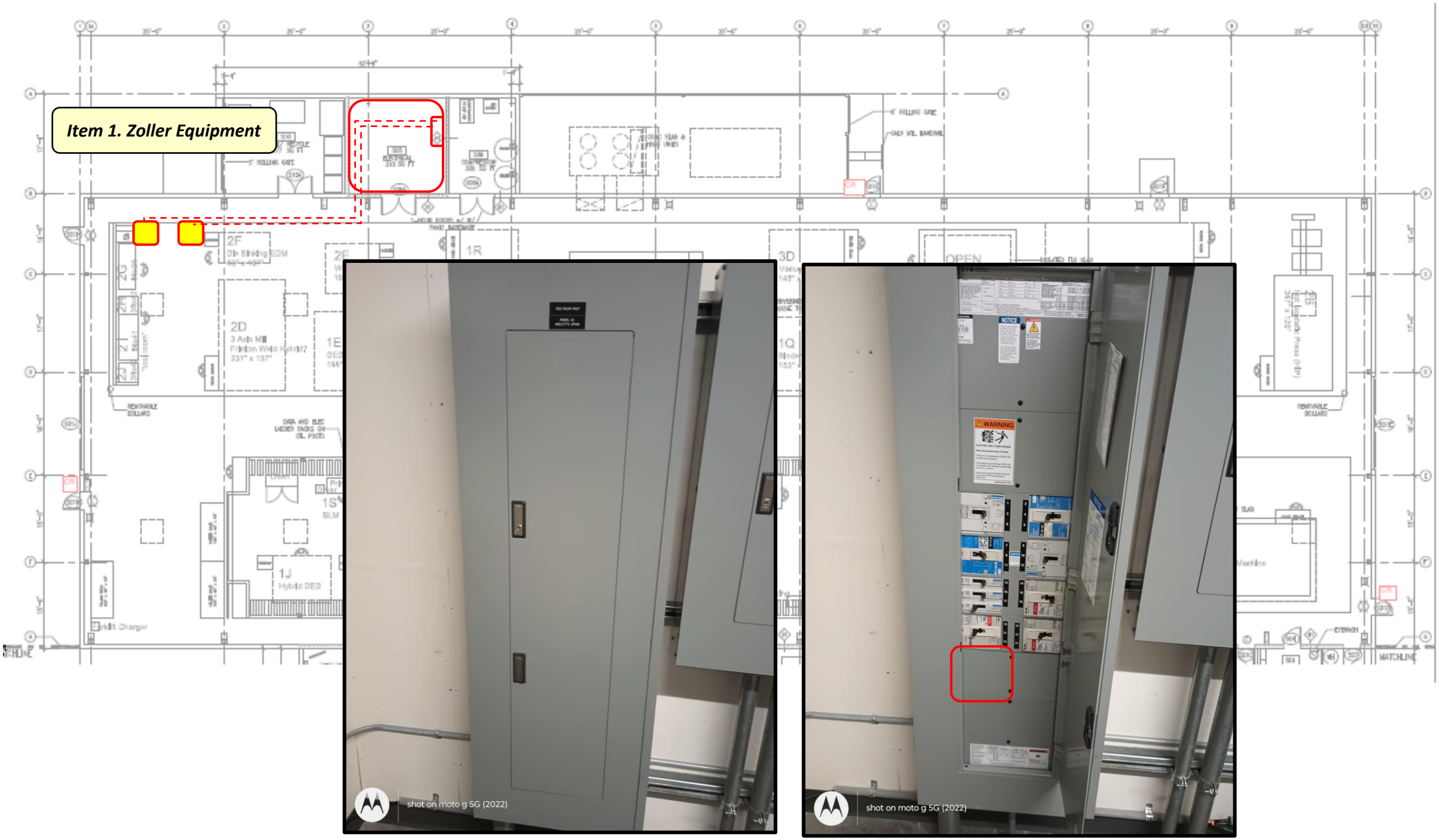
Building 1 - Subtractive



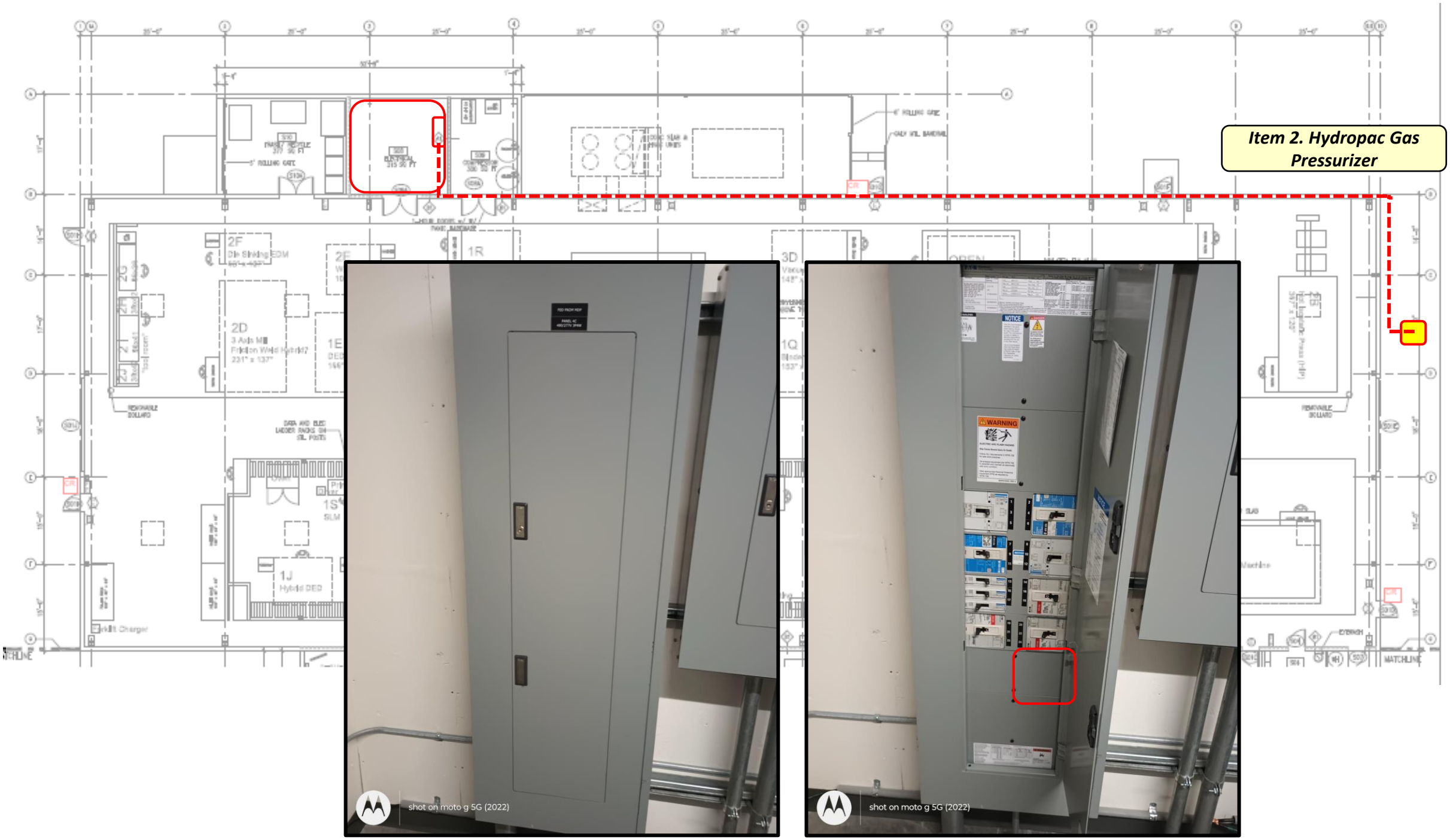
Building 2 - Additive

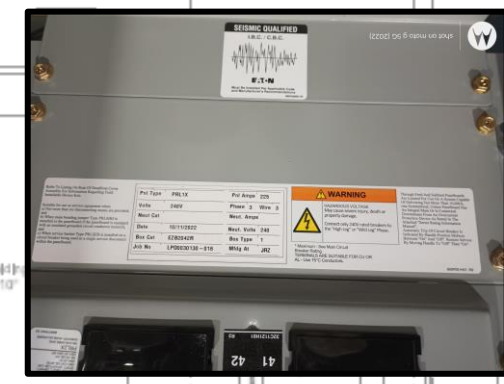


Building 2 - Additive



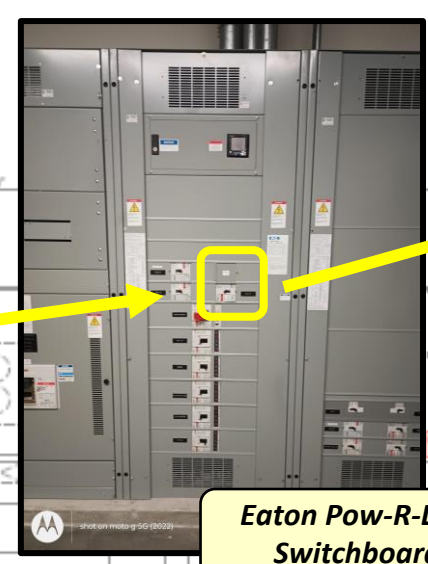
Building 2 - Additive

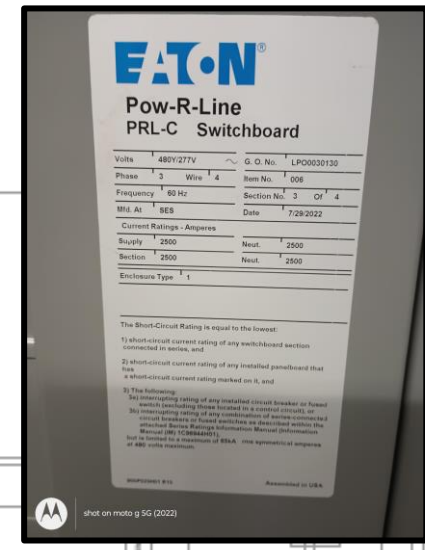




Item 3. HP Jet Fusion 5200 3D Printer

Building 2 - Additive

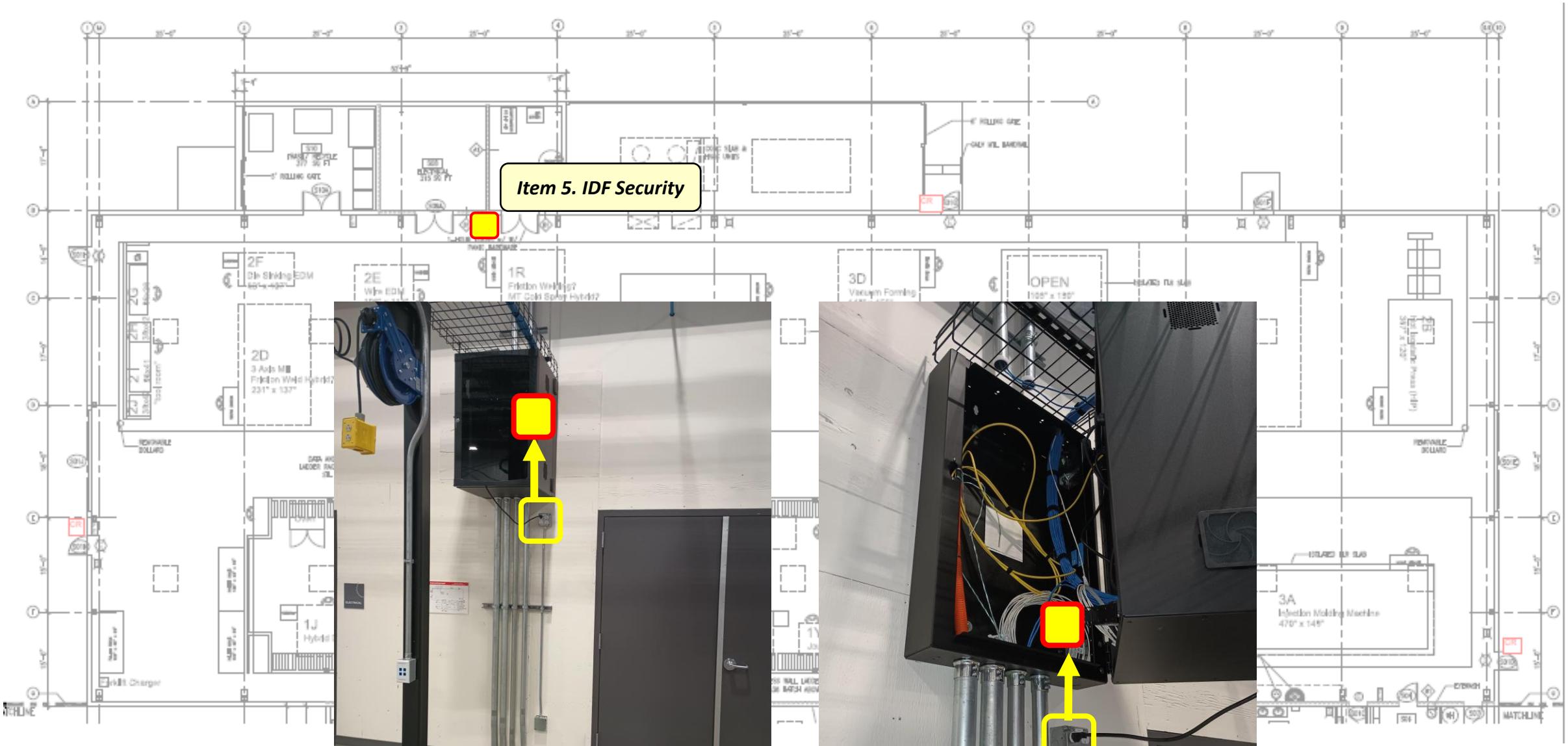




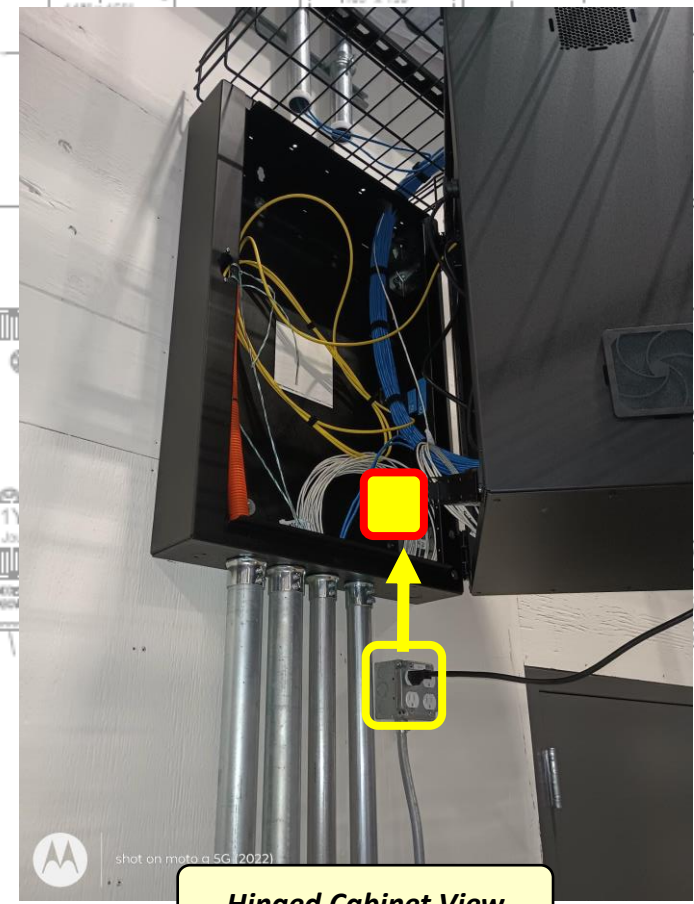
Eaton Pow-R-Line PRL-C Switchboard panel

Item 4. DMG Mori 4300

Building 2 - Additive



Extend 110v outlet to inside the IDF enclosure.



Hinged Cabinet View