



## Punch List

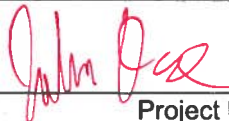
Project: Vault Improvements – CGA PN 4482.06  
 Location: Marshalltown Municipal Airport  
 Contractor: Van Maanen Electric  
 Date of Initial Inspection: May 5, 2021 – December 12, 2021  
 Those in Attendance: Josh Dank, Garrett Jacobs, Steve Larson, Larry Miller, Cameron Smith, Dave Daters, Steve Valbracht

This is the Final Punch List prepared by the Project Manager during the check inspections held on the dates listed below. All items on this Punch List and any prior Punch List must be corrected prior to acceptance of the contract.

Item Number	Date Inspected	Location	Description of Corrective Items	Status
1	5-5-21	ASOS Service	The door lock on the general duty ASOS fused service disconnect does not include an interlocking mechanism to keep the door from opening when the safety switch is energized. In order to provide a safety mechanism to prevent opening while in the ON position, please provide a pad lock with key (to be stored in Vault) to lock the ASOS disconnect from non-authorized personnel while on. Provide a hazard label on the outside warning personnel with key access that an interlocking mechanism is not installed.	Complete
2	5-5-21	ASOS Service	Provide and install a label for the ASOS service meter base and disconnect.	Complete
3	5-5-21	Vault Building Service	Provide and install a label for the Vault Building service meter base to identify what it is powering.	Complete
4	5-5-21	Beacon Tower	The obstruction light is currently ON at night when the beacon is ON. It should ONLY be on when the Tell-Tale Relay in the rotating beacon detects a lamp failure. Also, please lower the Tell-Tale light to the base of the rotating beacon platform.	Complete
5	5-5-21	Beacon Tower	The beacon tower must be provided with NFPA 780 Class II lightning "down connector" which is properly attached to the tower base (or other approved method). This appears to be missing. Only a #6 AWG bare ground wire and green equipment grounding conductor can be seen in the tower base. Please provide evidence of compliance with this requirement. (Ref. Item #8 on Sheet C.01 of the plans, and L-101-3 and L-103-2-3)	Complete
6	5-5-21	Beacon Tower	Remove Sonotube off the beacon foundation.	Complete
7	5-5-21	Junction Cans/Plaza	The L-867 Size D cans are all to have both internal and external ground lugs. Some of them do not have the internal ground lugs. Please provide internal ground lugs for those that are missing. (Ref. L-115-2.4 Junction boxes)	Complete
8	5-5-21	Junction Cans/Plaza	Equipment grounding conductors (EGC) must be connected to the internal ground lug on the L-867 Size D cans. Verify EGC's in all L-867 cans are properly connected to the internal grounding lug. (Ref. NEC 250, Plan Sheet E.03 detail)	Complete
9	5-5-21	Junction Cans/Plaza	The cables in the L-867 junction cans need to be identified. (Ref. L-108-2.8 Cable identification tags ; L-108-3.1 General, NEC.)	Complete
10	5-5-21	Junction Cans/Plaza	Assist CGA with verifying As-Built drawings identifying the circuits located in each handhole.	Complete
11	5-5-21	Jet Fuel Disconnect	Wire the motor starter so the Start & Stop buttons that power the fuel island. Adjust the overload setting per the pump motor requirements.	Complete

12	5-5-21	Jet Fuel Disconnect	Provided and install an Emergency Fuel Shutoff sign for the new disconnect enclosure.	Complete
13	5-5-21	Vault Building	The surge protective device is not installed yet. The 30 Amp, 2-pole circuit breaker has been installed but the SPD has not.	Complete
14	5-5-21	Vault Building	The airfield photocontrol (photo eye) on the outside of the building does not appear to be the FAA Series photo control specified or the one submitted. The installed unit is white with "277" marked on the side, which looks like a standard street light fixture photocontrol. Please verify the submitted photo control is installed. The photocontrol should also be raised so it is mounted at least 18" above the roof and aimed to the north per the FAA specifications.	Complete
15	5-5-21	Vault Building	A bonding jumper needs to be installed from the ground bus in Panel "VP" to the ground bus bar below the panel. Please make it the same size as the main bonding jumper (ie: Ref. NEC Table 250.102(C)(1) which is based on the size of the largest ungrounded conductor (ie: 350 kcmil) making the minimum bonding jumper size #2 AWG.)	Complete
16	5-5-21	Vault Building	Connect equipment grounding conductors between the vault bus bar and each equipment panel, including the Series Circuit Junction Box. Use #6 AWG (min.). (Ref. Sheet V.04)	Complete
17	5-5-21	Vault Building	The equipment grounding conductors (EGC) to the equipment seem to generally undersized or connected to EG busses in the wiring ducts that do not have properly sized conductors from the EG bus in Panel VP. To alleviate confusion, Larry suggested running individual EGC's from the EG bus in Panel VP for each load connected which the group agreed. The EGC's would be sized basis upon the branch circuit breaker sizes feeding the equipment loads (or feeders) served. (Ref. NEC Table 250.122 for sizing)	Complete
18	5-5-21	Vault Building	The CCR's (...airfield series circuit regulators) need to be labeled as to the runway circuit they serve. <b>Label 'Taxiway 1 Future' on Relocated CCR.</b>	Complete
19	5-5-21	Vault Building	The series circuit cutout enclosures need to be labeled as to the runway circuit they serve. <b>Label 'Taxiway 1 Future' on Relocated CCR Cutout.</b>	Complete
20	5-5-21	Vault Building	The 5 KV patch panel needs to be labeled and a high voltage warning label applied to the door.	Complete
21	5-5-21	Vault Building	The cables in the 5 KV Patch Panel need to be labeled with permanent labels on both the field cables and the internal cables from the CCR's. <b>Label 'Taxiway 1 Future' Wires.</b>	Complete
22	5-5-21	Vault Building	Verify that the drawings and manuals are collected and inserted into a binder or folder as per the requirements listed in the project manuals/specifications. Also verify that they are not covering the base of the CCR's (as we found in one of the CCR's)...the base needs to be open to allow proper airflow though the CCR's.	Complete
23	5-5-21	Vault Building	Install the ventilation equipment, damper controls, interlocks, fan relay controls (with Hand-Off-Auto control), fan speed control and ON/OFF switch on the wall.	Complete
24	5-5-21	Vault Building	***CHANGE ORDER*** The two duplex receptacles should be replaced with Industrial/Spec Grade WR & TR rated GFCI receptacles and raised industrial covers. This will require a Change Order as it was not specified on the plans or project manual.	Complete
25	5-5-21	Vault Building	Label the outlets as to the circuit number providing the power to the receptacle.	Complete
26	5-5-21	Vault Building	Verify that ALL wireways are bonded to the ground bus bar below the wireways (in addition to the EG bus in Power Panel VP).	Complete
27	5-5-21	Vault Building	Circuit breaker #13 in Panel VP was labeled "Radio", but did not turn off the radio. Please verify that each circuit is tested as to the load served and is properly identified on the Panel Schedule Card. Provide a typed (or printed) Panel Schedule Card for Panel VP per the specifications. <b>Update Panel with SPD Installed.</b>	Complete
28	5-5-21	Vault Building	Mount and install the spare CCR on top the new regulator (...or stack the new regulators and install the "spare" on the floor in the right hand position).	Complete
29	5-5-21	Vault Building	Seal the openings between the bottom of the vault building floor and the foundation walls. Close any and all gaps to the underside of the vault building floor. ***Do NOT fill the cutouts with rock or other materials...only seal off the gaps between the foundation walls and the underside of the vault building floor.***	Complete

30	5-5-21	Vault Building	Install the diamond plates (tread plates) to cover the floor cutouts around the conduits, on the top of the vault building floor.	Complete
31	5-5-21	Vault Building	Clean the inside and outside of the vault building. The interior floors and walls are very dirty.	Complete
32	5-5-21	Vault Building	Sheet V.03 of the plans called for a junction box for the conduit leading to the antenna. This junction box is to house a lightning arrester and have a ground wire and ground rod installed. This does not appear to be constructed per the plans.	Complete
33	5-5-21	FBO Hangar	Panel MDP (new panel): The main bonding jumper is required between neutral bus and the equipment grounding bus. It does not appear to be installed. (Ref. NEC Table 250.102(C)(1))	Complete
34	5-5-21	FBO Hangar	Panel MDP (new panel): Verify the supply side equipment bonding jumper has been installed. This could not be visually verified during the site visit.	Complete
35	5-5-21	FBO Hangar	Panel MDP (new panel): Verify that required bonding jumper(s) are installed to the building steel, gas pipes, water pipes, etc... They did not appear to be installed during the site visit.	Complete
36	5-5-21	FBO Hangar	Panel MDP (new panel): Provide a typed (or printed) Panel Schedule Card for Panel MDP per the specifications. <b>Update Panel Schedule with SPD.</b>	Complete
37	5-5-21	FBO Hangar	Panel MDP (new panel): the surge protective device is not installed yet.	Complete
38	5-5-21	FBO Hangar	"Terminal Panel" (existing, old): The Main bonding jumper needs to be removed between the neutral bus and the equipment grounding bus.	Complete
39	5-5-21	FBO Hangar	"Terminal Panel" (existing, old): Any equipment grounding conductors connected to the neutral bus need to be moved to the equipment grounding bus.	Complete
40	5-5-21	FBO Hangar	"FBO Panel" (existing, old): The Main bonding jumper needs to be removed between the neutral bus and the equipment grounding bus.	Complete
41	5-5-21	FBO Hangar	"FBO Panel" (existing, old): Any equipment grounding conductors connected to the neutral bus need to be moved to the equipment grounding bus.	Complete
42	5-5-21	FBO Hangar	FBO Fused Disconnect (new)/Transfer Switch(existing)/East Disconnect/FBO Panel (existing, old): An equipment grounding conductor needs to be installed from the (new) FBO Fused Disconnect, to the transfer switch, East Disconnect and FBO Panel. It was installed from the (new) MDP Panel to the (new) FBO Disconnect, but not thru to the other panels.	Complete
43	5-5-21	FBO Hangar	The platform needs to be constructed in front of Panel MDP. It should be at least 30" wide, 48" deep and a minimum of 3" tall but no more than 7" tall. It must be tall enough and be constructed to meet any NEC requirements, but should at a minimum be constructed to support at 500 lbs load. Please provide an industrial platform or platforms that comprise an overall meeting the description above. Paint edge of platform yellow for potential tripping hazard or provide platform in yellow color.	Complete
44	5-5-21	FBO Hangar	Cover an opening in the top of the junction box below the East Hangar disconnect.	Complete
45	5-5-21	FBO Hangar	Cover an opening in the side of the old FBO Main Panel to the right of East Hangar disconnect.	Complete
46	5-5-21	FBO Hangar	The new electrical service ground rods and cables have two issues: 1) The ground rods are not a minimum of 6 feet apart. 2) The ground rods and grounding electrode conductor seem to be installed above the finished grade. They need to be installed below the finished grade per the NEC, the Alliant Energy Service Manual and project plans & specifications.	Complete
47	5-5-21	General	Please provide an Operations and Maintenance Manual (O&M) for the project. Please provide multiple copies so they can be kept in the vault, the office at the airport and at City Hall (per the project specifications).	Complete
48	5-5-21	General	Provide two (2) copies of all manufacturer's warranties specified for materials, equipment, and installations.	Complete
49	5-17-21	General	Provide As-Built drawings/sketches of interior vault walls identifying equipment and conduits with services.	Complete
50	5-17-21	General	Remove Monument Rock Foundation and Flag Pole Foundation per bid item 6.	Complete



Project Manager

2/7/2022

Date

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