



MEMORANDUM

FROM | Larry L. Vorba
TO | Thomas Chandler, Marsha Hinds, Mark Hogan, Roger Acebo
TOPIC | AFP3 Building Assessment – Navistar Asset Maintenance Priority List
DATE | 11/11/2019

To provide an aid in prioritizing the maintenance issues at the AFP3 Building Facility (Buildings 001,001,118 and 119), tables of the issues identified in the Building/Site Assessment Report issued 30 September 2019 were developed for each tenant. In that report, narratives were written by each of the reporting disciplines assessing the maintenance status of specific assets. From those narratives we prioritized each asset maintenance issue that needs to be addressed as required by the leasing contracts for tenant supplied maintenance (refer to the attached Asset Maintenance Priority List table for Navistar). We grouped the asset maintenance issues into 3 priority categories. Priority 1 issues affect the health, safety and/or welfare of the occupants of the facility; Priority 2 issues affect the ability of the building infrastructure to function properly; and Priority 3 issues require attention, but are not in categories 1 or 2. In general, areas that have deferred maintenance issues are paving, storm drainage, the age of mechanical and electrical equipment and interior and exterior finishes. More detailed narratives can be found in the Building/Site Assessment Report, but condensed narratives for issues we feel need emphasis are provided in this memorandum as follows:

Navistar Tenant Space Priority Maintenance Issues

1. All issues in Priority Category 1 should be addressed immediately due to the potential risk to the health, safety and welfare of the occupants of the facility.
 - 1.1 The distressed mezzanine curb near column 88 needs repair to prevent falling debris hazards.
 - 1.2 An arc flash study needs to be performed and all equipment labeled to identify the level of hazard and the level of protective gear required by maintenance personnel. As the system is modified the arc flash analysis should be updated and new labels applied.
 - 1.3 An annunciator panel was found near the ATS for the emergency generator. This annunciator should either be relocated or another annunciator added in a staffed area to allow building personnel to monitor the generator status.
 - 1.4 Emergency egress lighting was not found. Egress lighting powered from a battery or generator source should be provided to meet code.
 - 1.5 Interior exit and emergency lighting fixtures are connected to the generator power distribution system. Operation of these fixtures could not be verified. Exit signs at some of the exterior doors are blocked by equipment. The operation of exit and emergency fixtures should be tested and exit signage added to meet the building code.
2. All issues in Priority Category 2 should be addressed as soon as possible. Further degradation or loss of any of these items would prevent the facility from being fully functional.
 - 2.1 Access roads and driveway pavements have surface deterioration, rutting, longitudinal cracking, transverse cracking, block cracking, raveling, broken curbs, corner cracking, spalling and patching. Milling and resurfacing of asphalt paving and patching or full depth reconstruction for concrete paving is needed as well as new pavement markings.
 - 2.2 Drainage structures, curbs and gutters are full of debris or damaged preventing adequate storm water drainage. The storm water drainage system should be cleaned, flushed and inspected to insure it performs as designed. Standing water promotes premature deterioration of the paving and creates potential hazards to both pedestrian and motor traffic.



- 2.3 None of the six (6) freight elevators within the Navistar tenant space are currently in use. Since these elevators facility access to the mezzanines as well as provide code required ADA services to these levels they should all be restored to working order.
 - 2.4 Overhead doors accessing the building that have become damaged or in disrepair should be returned to working order.
 - 2.5 Multiple electrical panelboards along the perimeter walls and center mezzanine columns have been damaged by apparent forklift traffic. Panelboards that have received damage should be replaced and bollards installed if not currently in place to prevent future damage to this equipment.
 - 2.6 The electrical distribution equipment is primarily Square D with some Cutler Hammer. Some of this equipment is well past its median life expectancy and may no longer have parts available. It is recommended that all equipment that has exceeded the median life expectancy be replaced. New equipment installed has been Square D. Standardizing to one brand will make maintenance easier.
 - 2.7 As distribution equipment is replaced, it is recommended that the condition of associated conductors be evaluated as well and replaced as needed.
 - 2.8 The existing natural gas emergency generator and associated distribution system appears to operate the egress lighting only when the generator is running. It is recommended to revise the generator safety distribution to both simplify and fully coordinate the system and increase reliability.
 - 2.9 Preventive maintenance such as thermal scans and proper torqueing has not been performed within the last several years. Proper torqueing and thermal scanning should be performed to identify potential connections and equipment prone to failure.
 - 2.10 There are expansion joints covers at intervals within the ground floor system that are damaged. To prevent further deterioration at the joint and prevent them from becoming trip hazards repair is recommended.
 - 2.11 An epoxy floor coating has been applied to a large section of the floor area. Due to moisture migration coming thru the slab, the epoxy coating has blistered and separated from the concrete substrate. Currently areas of ground concrete surfacing with a breathable sealer appear to be performing much better. It is recommended that future resurfacing continue with this method.
 - 2.12 Although this is more of a tenant function than a facility requirement, it was noted that areas of floor striping for pedestrian ways, drive lanes etc. have been lost due to resurfacing and/or repairs. These areas should be restriped.
 - 2.13 There is still a large section of the upper roof between expansion joints noted as 7 and 10 within the Roof Consultants report that requires replacement. Tarps hung within the interior space from the roof framing are in place to capture the leaks.
3. Several issues in Priority Category 3 require more emphasis than others, but all should be addressed to properly maintain the facility.
 - 3.1 Parking lot pavement has potholes, rutting, alligator cracking, longitudinal cracking, transverse cracking, water ponding, broken curbs, deteriorated pavement markings, surface deterioration, block cracking, pavement slopes, corner cracking, broken slabs, spalling and patching. Paving should be repaired by a combination of crack sealing, fog seal/coal tar and full depth reconstruction for concrete parking as needed as well as new pavement markings.
 - 3.2 The exhaust fans are not operating in the first floor restrooms and should be returned to working order.
 - 3.3 One of the six MAU's has been decommissioned. This unit should be replaced with a new functional unit.
 - 3.4 Piping in several areas had significant surface rust that should be cleaned and painted to mitigate damage to the piping.
 - 3.5 Unlike the Spirit tenant area, the original hydronic air handling units (AHU's) are not operating in the Navistar tenant space. Navistar indicated they had no intention of putting them in service, but if they were, the air distribution system should be inspected to insure it is suitable for use.
 - 3.6 Several of the men's restrooms have nonfunctional water closets and two did not have hot/warm water. The fixtures within these restrooms should be returned to working order.
 - 3.7 Tiered surge protection devices should be provided at the 480V distribution panelboards and the first panelboard on the secondary of the 480-208Y/120V transformers to protect the equipment. The emergency distribution panels are required to have surge protection by code.



- 3.8 The exterior upper metal wall panels and lower concrete masonry, brick veneer and stone capped walls are all showing signs of wear and in spots require minor repairs. Metal panels are faded in color, exhibiting rust primarily along the bottom stone ledge, and streaked with oils and dirt. Repainting needs are definitely in evidence. There are also patches where holes were once present and old attachments left hanging. The brick veneer should be cleaned and mortar joints that were patched with mismatching joint colors should be raked out and replaced with mortar of the color and texture to match the original. The joint between the metal panels and the precast concrete trim atop the masonry lower walls should be sealed as well as sealer applied to the precast trim following cleaning.
- 3.9 Although Navistar has replaced much of the roofing over their space on B001, there were locations of trapped moisture found from the roof thermal scans performed by Roof Consultants of Tulsa within the reroofed areas. Spot repairs to these areas should be performed as soon as possible to prevent further deterioration of the roofing or damage to the metal roof deck.

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