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Subject: Site Inspection Mitigation Reports for First United Methodist Church WO#3351 (Parking Lots, Playgrounds, & Triangle Park)

Date: June 7, 2019 at 6:19 PM

To: Westbrook, Laurel laurel.westbrook@fema.dhs.gov, Karl@psjumc.org

Cc: Lamperez, George George.Lamperez@fema.dhs.gov, Kipfer, John (CTR) john.kipfer@associates.fema.dhs.gov, NEICHTER, PATRICK patrick.neichter@fema.dhs.gov

Hi Laurel and Karl,

Please be advised that five 406 SI Mitigation Reports (attached - DI#s 248731, 248753, 248754, 248755, and 264089) associated with the subject Work Order were uploaded into Grants Manager this afternoon.

Based on our site visit on Tuesday, 05/28/19, the following summarizes our assessments with respect to potential mitigation opportunities:

- DI# 248731 (Parking Lots, Lot Areas, and Surrounding Structures, Lot Signage, and General Church Signage) – Based on the presumed cause of some of the damages, discussion with the Applicant, and the nature and/or minimal extent of the items damaged, no practical, potential mitigation measures have been identified for this DI, nor are any sought by the Applicant.
- DI# 248753 (Playground Elementary) Based on the cause of the damage, discussion with the Applicant, and the nature of the items damaged, no practical, potential mitigation measures have been identified for this DI, nor are any sought by the Applicant.
- DI# 248754 (Playground Bayside All Age) Based on the cause of the damage, discussion with the Applicant, and the nature of the items damaged, no practical, potential mitigation measures have been identified specific only to this DI, nor are any sought by the Applicant. However, the Applicant's comprehensive mitigation approach for the FUMC campus would potentially mitigate some of the types of damages that occurred under this DI. Specifically, as part of the Applicant's overall mitigation strategy for the campus, FUMC envisions constructing a fortified wall with strategically located floodgates around the campus building complex that would also encompass the Bayside Playground. In addition, a seal would be placed on the manhole in the playground to prevent backflow, and the playground drainage system would be enhanced.
- DI# 248755 (Historic Triangle Park) There are several potential 15% mitigation opportunities as follow:
 - Providing a more secure embedment system for the flagpole when it is reset.
 - Repairing or replacing damaged ornamental and structural metal components at the historic bell tower monument with corrosion-resistant coatings and materials.
 - To mitigate against a similar recurrence regarding any benches at Triangle Park that were lost due to the storm surge, consideration should be given to anchoring these benches to a concrete slab; given the proximity to St. Joseph Bay, stainless steel fasteners should be used.
 - One bait station destroyed, and the other bait station damaged, by extreme high winds, rain, and windblown debris during the hurricane. Proposed mitigation is to replace equalin-kind, but to anchor and strap the station to the pier railing.
 - The pull-down partitions at the entrance and exit to the pier access structure were destroyed when they were whipped back-and-forth during the high winds associated with Hurricane Michael. For public safety they are required to be in a deployed (down) position during storm events to prevent unauthorized access to the pier. Potential mitigation is to install emergency shutter provisions. As an example, slotted metal frames fastened vertically to the exterior face of the structure at the entrance and exit locations, coupled with aluminum, reinforced fiberglass, or other wind-resistant panels maintained in storage for horizontal insertion through the slots prior to storm event are one

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- DI# 264089 (Playground Contents and Equipment) There exists a potential 15% mitigation opportunity as follows:
 - Five picnic tables formerly existing at the Elementary Playground were lost because of the storm surge. To mitigate against a similar recurrence, consideration should be given to anchoring these tables to a concrete slab; given the proximity to St. Joseph Bay, stainless steel fasteners should be used.
 - Over 80% of the remaining items associated with this DI are/were at either the Preschool Playground or the Bayside Playground; based on the cause of the damage and the nature of the items damaged, no practical, potential mitigation measures have been identified specific only to items at those two locations, nor are any sought by the Applicant. However, at these two playgrounds, the Applicant's comprehensive mitigation approach for the FUMC campus would potentially mitigate some of the types of damages that occurred under this DI. Specifically, as part of the Applicant's overall mitigation strategy for the campus, FUMC envisions constructing a fortified wall with strategically located floodgates around the campus building complex that would also encompass both the Preschool Playground and the Bayside Playground.

In addition to the mitigation opportunities summarized above there is another important issue related to DI# 248755 (Triangle Park), although at this time it does not directly involve potential mitigation measures. The most complex damage at Triangle Park, both physically and administratively, is the drainage system. Formerly a modest drainage system coupled with numerous mature pines functioned to adequately address drainage and erosion concerns at Triangle Park. With the loss of trees and ground cover due to Hurricane Michael winds and storm surge, coupled with the complete destruction of the drainage system due to uprooted trees, an entirely new approach must be developed that will most likely require significant FEMA EHP involvement and an engineered solution. Applicant envisions that such a solution could entail regrading Triangle Park, constructing new drainage structures and conveyance pipes, and installing a pump to transfer collected drainage to the water retention pond; damage issues associated with the water retention pond are being documented under DI# 248732, but the additional flows that may be received in the future from Triangle Park could require enlarging the existing retention pond. Until the myriad of administrative and logistical issues associated with the foregoing concept are better defined and resolved, it is premature to determine if or how mitigation would fit into the envisioned solution.

Let me know if you have any questions, or need any additional information.

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