NEW EXPERT TESTIMONY
TO BE CONSIDERED BY THE OAH
FOR THE INSTANT RECORD
2019-DCRA-00135

- Charles Lockett
- Sarah Jorgenson

PERSONAL AFFIDAVIT

My name is Charles T. Lockett, and I am over the age of 18. I make the following statements to the best of my knowledge and under penalty of perjury under the law.

1. My name is Charles Lockett and I live at 4900 11th Street NE, Washington, DC, 20017 and I have lived in Ward 5 since 1975.

2. I have been an Engineering Technician with the U.S. Naval Facilities Engineering Command in Washington D.C. between 1982 and 2010. During that time, I oversaw the application of concrete used at government facilities as I was certified to inspect concrete structures and materials with my training from the Army Corps of Engineers for Concrete in Vicksburg, Mississippi.

3. One highlight in my career was when I oversaw a project at the Vice President's residence at the Naval Observatory regarding the driveway, asphalt and granite curving. I am also one of several government employees who had the expertise to inspect the construction and maintenance of U.S. Government vehicle barriers.

4. I was at the McMillan Park site in the southern court in August 2019. I was not able to access down into the Water Filtration cell but I observed the concrete of the walls of the water cells set above ground along the southern court, as well as the concrete for the porticos that lead down into the Water Filtration cells. I would like access to this amazing historic site to do a much more detailed review of the current conditions as I am startled by the reporting and testimony on the record giving rise to the excuse to demolish this site.

5. In my opinion at least 60% of the underground water cells and structures therein can be preserved and re-purposed using modern day concrete reinforcement techniques such as PVC sleeves, epoxy re-bar reinforcement, inside and out, and other techniques like tie-rods at the groins.

6. The city and the developer should have contacted the Army Corps of Engineers to understand the mixture of the concrete and gather information for durability of the concrete and the site overall. It is my belief as a concrete materials technician, that given the era of construction in the early 1900's, it is likely the the concrete was woven with asbestos as it was applied. Tests must be conducted and shared with the community to avoid any impacts to the health and well-being of the surrounding community if the most damaged cells need to be removed, if at all.

7. I have reviewed the record as to the engineering reports and testimony discussing the integrity of the underground water filter structures. I am surprised by the recent conclusions that the concrete water

filtration cells underground may collapse at any moment and is quite dangerous for those working at the site and pedestrians walking around the site. The key reasons for my skepticism is based on evidence of what has already happened at the site.

McMillan Sand Filtration Site | Historic Preservation Plan
May 2016

EHT Traceries

Collapsed Vaults
There are three areas of collapse, concentrated along the eastern bays adjacent to North Capitol Street located in Filter Beds 19 and 24.

Severe Damage
This level of damage includes filters with minor and moderate damage, but with more significant conditions such as areas where collapse appears imminent. Filters within this category are Filters 22, 23, 26, 27, 28 and 29.

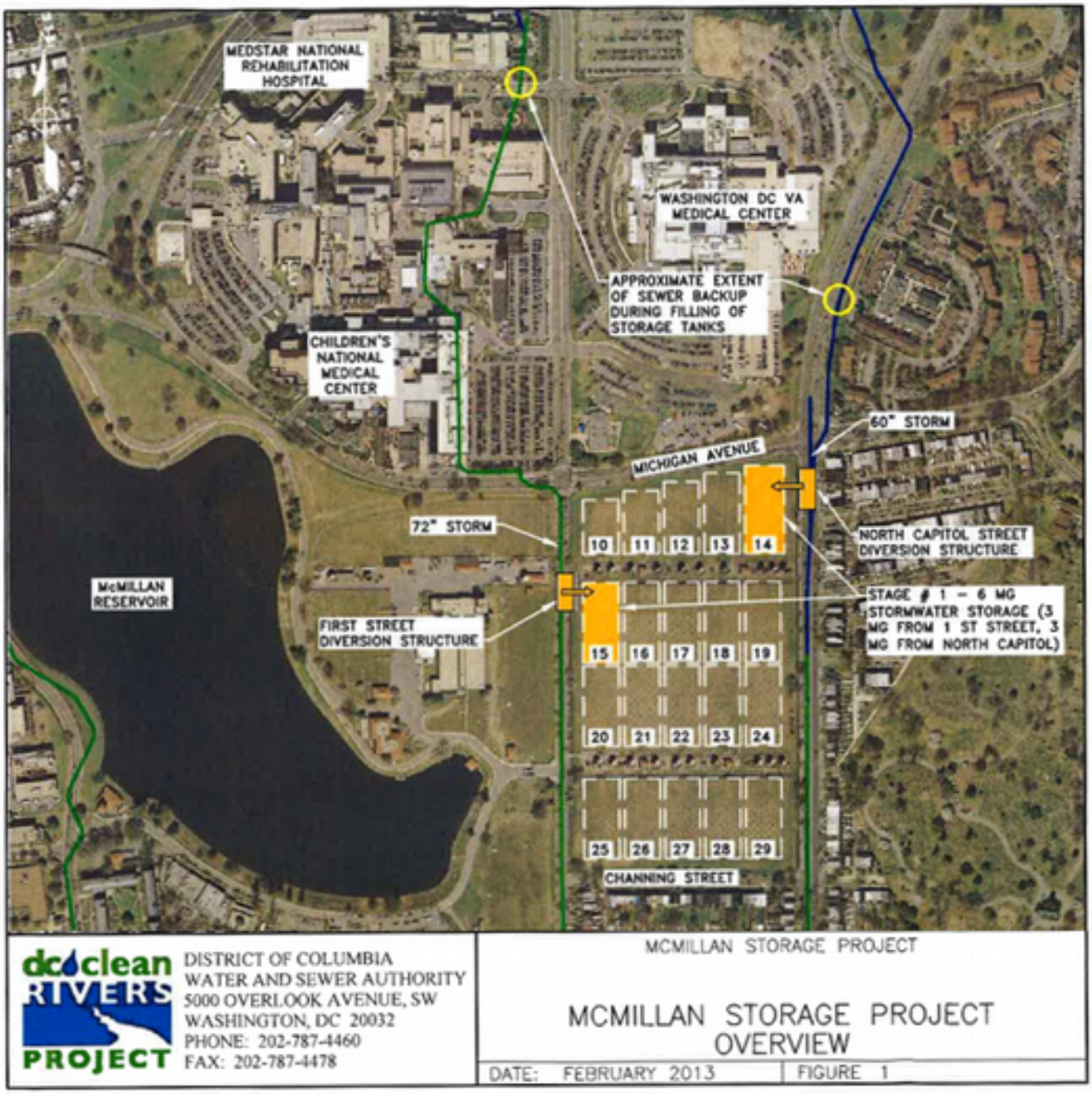
Moderate Damage
Filters within this category have cracks having widths measuring 1/16 to 3/16 inch, and typically exhibit moderate shifting at vault joints, concrete spalls, and rotations at the pier-to-ceiling slab interface. Filters assessed within this category are Filters 10, 11, 12, 13, 14, 15, 18, 20, and 25.

Minor Damage
Damage at these filters is limited to hairline cracking. Minor damage noted on previous surveys from 1944, 1967, and 2000 appears to have increased only marginally.

Filter Bed conditions diagram; X denotes demolished Filter Beds per DC Water project.

8. It is my understanding that DC Water has re-purposed Cell 14, a "Type II" or yellow-coded cell in the north-east corner of the site and is reusing it now and has been for years without a problem to the cell integrity or any of the adjacent cells. Moreover, the vibrations from the demolition and cutting of the two cells in the most southern-west portion for the DC Water 1st Street Tunnel report would have collapsed the adjacent cells to the east if they were in such an alleged delicate condition. They did not collapse.

9. I've read the testimony of Mr. Ruiz of the Silman engineering before the Mayor's Agent on Historic Preservation dated July 14, 2017. I've also looked at the Water cells conditions Map in the 2014 Silman report. As after reading his testimony I am supposed to believe that DC Water in re-purposing Cell 14 is not taking safety precautions by Mr. Ruiz's alleged testimony that Cell 14 could collapse at any moment. In a video online, its clear, DC Water engineers state that the water cells are in strong condition even after many decades of use and even after being left abandoned for decades more.



10. Mr. Ruiz and the Silman engineers did not mention for the record that over 60% of the cells on the site at McMillan Park can be reused right now just as Cell 14 is being used right now. Mr. Ruiz also could not or would not answer when the cells would or could collapse even though he admitted that in the 14 years between the 2000 CCJM structural report and the 2014 Silman report nothing has really changed in terms of the conditions at the site.

11. I also see that Mr. Ruiz did not do his homework in looking at other structures in Washington DC which does not have reinforcement like the Taft Bridge on Connecticut Avenue.

12. If the project to demolish this site almost entirely were to proceed there will be significant dust made airborne, perhaps with asbestos fibers.

I, Charles Lockett, attest to the above statements within the realm of my expertise with concrete as an Engineering Technician, recalling to the best of my ability, without fear or favor, and in hopes of furthering the record in all matters of McMillan Park.

Signed:

Charles Lockett

Charles Lockett

4900 11th Street NE,

Washington, DC, 20017

202-468-5112

Date: Oct 25, 2020

PERSONAL AFFIDAVIT

My name is Sarah Jorgenson, and I am over the age of 18. I make the following statements with the best of my knowledge and under penalty of perjury under the law.

1. My name is Sarah Jorgenson and I live at 88 V Street NW and I have lived in Ward 5 for more than a decade, only a couple of blocks from McMillan Park.

2. I have a Masters Degree in Museum Studies from New York University and I am currently pursuing my Doctorate in Art History at New York University.

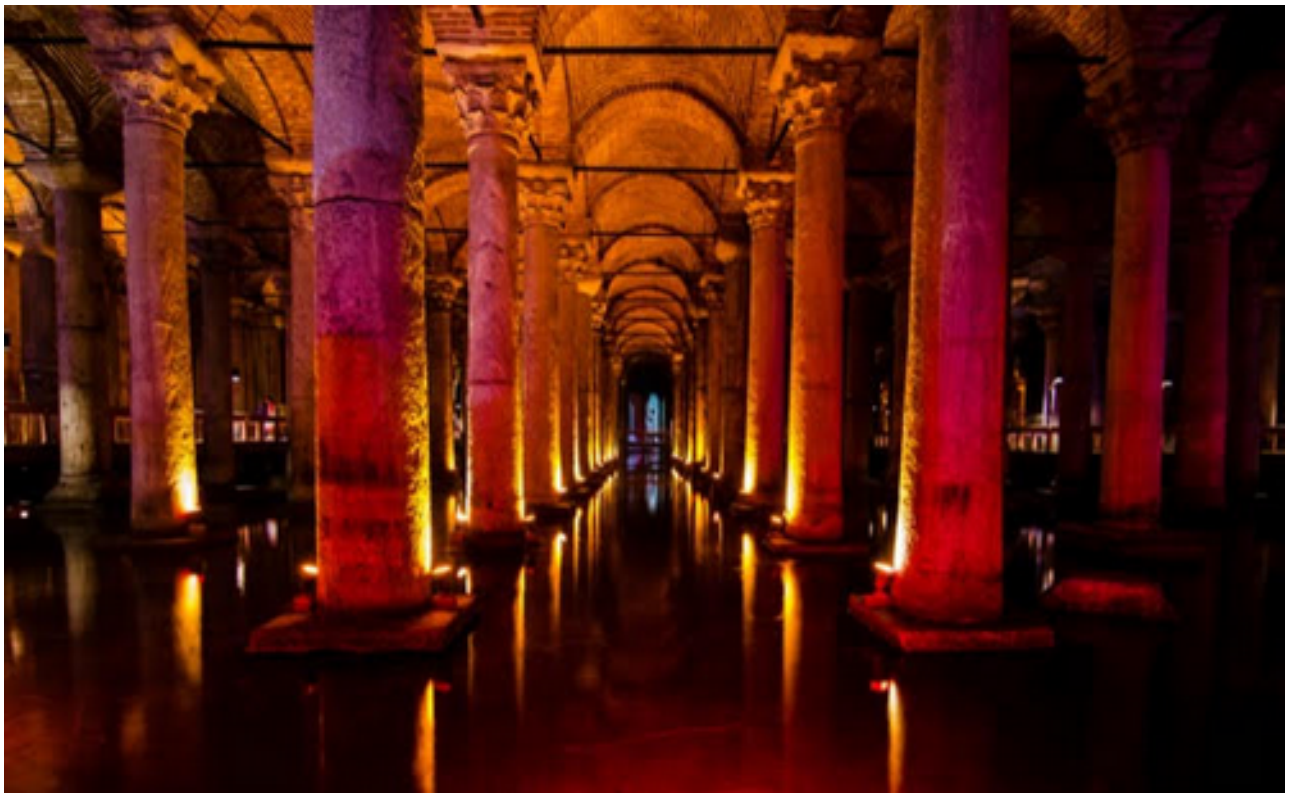
3. I am well-versed in architectural history and the history of public spaces and historic structures around the world.

4. I am familiar with historic structures consisting of support systems based on the arch including relieving arches, domes, vaults, barrel vaults, groin vaults, ribbed vaults, fenestrated vaults, and more modern forms of vaults such as Gaustavino vaults. I know all these structure-types and vaults can and have been retro-fitted and strengthened regardless of original integrity.

Gaustavino vaults in New York City

5. I'm upset at the threat upon the underground McMillan water filter cells and its hundreds of beautiful protected vaults. This is an engineering feat lost to contemporary engineers and only rivaled by Istanbul's that built such structures which to this day provide space for commerce, are open to the public, and receive visitors from around the world.

6. Istanbul has several cisterns, one of them is the 1600-year old Theodosius cistern and the other is the Basilica cistern made in 542 A.D, all constructed with un-reinforced concrete. They both have gone under restorations as what can happen at McMillan Park.



Basilica Cistern in Istanbul with tie-rods at top of columns

7. The Istanbul cisterns have had their cracks repaired. All columns have been wired with steel rings and steel tie-rods to strengthen them in place without interruption of the overall cistern space. "[A]ll 32 columns were strengthened by steel ring to avoid any further damages, and steel tie rods are placed to give a structural support to the cistern. ...Missing parts of the domes are completed with similar but distinguishable materials. The missing bricks on the wall are completed again with similar material but 5cm inside to indicate that they are added later. Cracks on the walls are filled with hydraulic lime mortar and the capillary cracks in the marble columns are filled by epoxy injection. All these interventions are totally visible on purpose to give visitors the feeling of discovering the layers." - Architect Magazine, April 25, 2019, https://www.architectmagazine.com/project-gallery/theodosius-cistern-restoration

Theodosius cistern in Istanbul with steel reinforcing rings

8. Just like the Instanbul cisterns, undeniably and as expected by city planners in 2002, DC can preserve and protect the stable and semi-stable vaults and columns at McMillan Park. In fact, the city set a price of restoration of about $2M per cell. This would ensure compliance with the Historic Preservation Covenants that are attached to the McMillan Park deed and would thus ensure conformance of any project at the site with the Secretary of the Interior Standards as to treatment of historic sites like McMillan Park.

McMillan Park Underground Water Cells

TABLE 8-1
STRUCTURAL/GEOTECHNICAL REQUIREMENTS FOR DEVELOPMENT OF McMILLAN FILTER SITE

DESIGNATION	CELL DESIGNATION		
	TYPE I	TYPE II	TYPE III
CELLS	19,22,23,24,26,27,28,29	10,11,12,13,14,15,20,25	16,17,18,21
DESCRIPTION	Built on fill, active cracking, some failures, additional failures likely	Built in cut areas, active cracking observed around perimeter	Interior cells, built in cut areas, no apparent new cracking has occurred in last 30 years
CONDITION	Unstable, Unsafe	Stable except at edges	Stable
OPEN SPACE			
PRESERVE FILTERS			
Struct. Req'ments	Not Feasible	Reinforced top slab and exterior walls	Reinforced top slab
Geotech. Req'ments	N/A	None	None
Cost Estimate	N/A	$2,020,000 per cell	$1,790,000 per cell
DEMOLISH FILTERS			
Struct. Req'ments	None	None	None
Geotech. Req'ments	None	None	None
Cost Estimate	$860,000 per cell	$860,000 per cell	$860,000 per cell
FILL FILTERS			
Struct. Req'ments	None	None	None
Geotech. Req'ments	None	None	None
Cost Estimate	$440,000 per cell	$440,000 per cell	$440,000 per cell
SINGLE STORY BUILDING			
PRESERVE FILTERS			
Struct. Req'ments	Not Feasible	Reinforced top slab, columns and exterior walls	Reinforced top slab and columns
Geotech. Req'ments	N/A	Spread footers	Spread Footers
Cost Estimate	N/A	$2,250,000 per cell	$2,020,000 per cell
DEMOLISH FILTERS			
Struct. Req'ments	None	None	None
Geotech. Req'ments	Pile Foundation	Spread Footers	Spread Footers
Cost Estimate	$1,330,000 per cell	$1,240,000 per cell	$1,240,000 per cell
FILL FILTERS			
Struct. Req'ments	None	None	None
Geotech. Req'ments	Pile Foundation	Spread Footers	Spread Footers
Cost Estimate	$920,000 per cell	$790,000 per cell	$790,000 per cell
FOUR STORY BUILDING			
PRESERVE FILTERS			
Struct. Req'ments	Not Feasible	Reinforced top slab, columns and exterior walls.	Reinforced top slab and columns
Geotech. Req'ments	N/A	Spread Footers	Spread Footers
Cost Estimate	N/A	$2,560,000 per cell	$2,330,000 per cell
DEMOLISH FILTERS			
Struct. Req'ments	None	None	None
Geotech. Req'ments	Pile Foundation	Spread Footers	Spread Footers
Cost Estimate	$2,000,000 per cell	$1,370,000 per cell	$1,370,000 per cell
FILL FILTERS			
Struct. Req'ments	None	None	None
Geotech. Req'ments	Pile Foundation	Spread Footers	Spread Footers
Cost Estimate	$1,610,000 per cell	$920,000 per cell	$920,000 per cell

C.C. JOHNSON & MALHOTRA
ENVIRONMENTAL ENGINEERS AND SCIENTIST
WASHINGTON, D.C.

8-4

STRUCTURAL/GEOTECHNICAL
ENGINEERING EVALUATION OF THE
McMILLAN FILTER SITE

Matrix from the CC Johnson structural report (circa 2000) showing the economy of restoration at McMillan Park

8. McMillan Park is some of the last green open space along the North Capitol corridor. Simultaneoulsy, it is the last artifact of a slow sand filtration site in the country. While it cannot be replaced, we can repurpose it. The proposed structures and plan, while dubious in legality, do not reflect the historic nature of the site.

9. The historic preservation covenants at McMillan Park are critical: “Any rehabilitation and renovation work at the parcel will be undertaken following ‘The Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Building’ (Standards),” one of the existing covenants read.

10. The Department of the Interior’s standards and guidelines have four main components: preservation, rehabilitation, restoration, and reconstruction. The VMP plan would build large new structures that drastically shroud the existing above ground historic assets like the McMillan Sand bins and Regulator houses. Moreover, the proposed demolition plan would dismantle and remove nearly all of the perfectly stable and semi-stable below-ground historic sand filtration structures, leaving just one and one-half cells in a false sense of the prior historic form and exactly what Interior recommends against: “Giving the building’s site a false appearance by basing the reconstruction on conjectural designs or the availability of features from other nearby sites; Changing the historic spatial relationship between the building and historic site features, or reconstructing some site features, but not others, thus creating a false appearance.”

11. Furthermore, the guidelines list ten general “Standards for Rehabilitation” of historic properties, and the first three, alone, demonstrate just how far removed the VMP plans are with the McMillan purchase agreement’s covenant for historic preservation: *"1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships; 2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided; 3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken."*

12. This McMillan Park site is historically designated as a park by a president. To this point, the city should not break the existing preservation covenants at McMillan Park. There are plenty of examples of re-purposing historical sites that are advantageous to the community, commerce, and a broader vision. This is a site that can be repaired, and re-purposed to magnificent effect as demonstrated by other projects around the world.

12. The McMillan Park site is historically designated as a Olmsted-designed park by President Taft and named after City Beautiful champion, Senator James McMillan. There are plenty of examples of re-purposing historical sites that are advantageous to the community, commerce, and a broader vision. This is a site that can be repaired, and re-purposed to magnificent effect as demonstrated by other projects around the world.

I, Sarah Katherine Jorgensen, attest to the above statements with all available knowledge that I am aware of and within the realm of my personal expertise, recalling to the best of my ability, without fear or favor, and in hopes of furthering the record in all matters of McMillan Park.

Signed:

Sarah K Jorgensen

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Date: Oct 24, 2020