III. D – FLOODING & FLOOD ZONE IMPACTS

D-1 **Comment:**

And then I have some questions about the flooding, and what I don't understand -- I understand that the building is going to be built on slabs, so it's merely being built just on top of the ground and on slabs. I suppose then that -- I couldn't see and I didn't understand is there any gates for flooding? Is the water just displaced? Is it going to be a stone slab and then the building put on top?

(Board Member Yergin, Public Hearing, April 1, 2021)

D-1 **Response:**

The proposed building design will fully comply with all applicable Federal Emergency Management Agency ("FEMA") and Village of Mamaroneck Floodplain Development Standards. Based on the flood volumes outlined in Chapter IV.D of the DEIS, storage of flood waters is not required within the building. However, under the FEIS Plan, the buildings will be wet floodproofed to maximize flood storage on-site. Therefore, flood gates/vents will be included. The flood gates will launch automatically without the need for electricity. The complete development of the FEIS Plan results in an increase of 31,091 cubic feet of storage within the floodplain.

D-2 **Comment:**

Because in my mind, it's really quite expansive this building. It takes up the entire width, if you want to call it, of the lot, pretty much when it's added to the other building. I think that would basically prove to just displace the water. In my mind, it's like putting something in the bathtub and all the water would spill out, so I understand that they are going to put pervious surface there so eventually things will drip down. Things evaporate, but during an actual flooding event, I don't think you can rely on it will all go down into the ground, and I do feel that the slab structure without any other way of allowing the water to move across the lot will just displace it, and I think it's a little bit of a rise in the area and it will probably push the water down into neighboring lots.

(Board Member Yergin, Public Hearing, April 1, 2021)

D-2 **Response:**

In the existing conditions, the footprints of the buildings are not included as storage because they are not wet flood-proofed buildings; i.e. they are not designed to flood. The flood storage provided under existing conditions on the lot consists of the parking and landscape areas. Under the FEIS Plan, the proposed buildings will be wet floodproofed; therefore, the footprints of the proposed buildings are included as storage under proposed conditions. The flood waters stored on-site will, over time, enter the municipal drainage system as they do in the existing conditions. The FEIS Plan results in an increase of flood storage of 31,091 cubic feet, a theoretical reduction of the 100-year flood elevation and thus reduces the impact of the flood event on surrounding properties.

D-3 **Comment:**

I'm not sure if this committee or I should say this board was actually in receipt of the standards but in any event it was made reference to by the reports by Cuddy and Feder that would be most impacted by runoff, flooding, change of grade, it would be me and/or my buildings located that abuts this. The applicant represents that there is a reduction in the total impervious surfaces at the premises. And we're going to rely on the guidance provided by the consultants that they have utilized as well as the village's consultants with regards to the efficiency of the storm water retention and storage of storm water that's installed at the property. And equally as important will be the determination that the existing municipal infrastructure would be able to accommodate the runoff water per the rates that were reflected in the reports provided by the applicant and their consultants. And, obviously chair and members of the zoning board will defer and rely on the consultants' guidance that the project with respect to the regrading proposed will not result in a net increase of runoff from the property that could contribute additional ponding and standing water not only on Finamore Road but also on Railroad Way. I do know that I saw in the reports that that was addressed.

(Andrew Spatz, Public Hearing, May 6, 2021)

D-3 **Response:**

The project will not negatively impact the Village's stormwater system. The FEIS Plan results in a reduction of impervious coverage over the existing condition, as well as wet floodproofed buildings to maximize on-site storage. Due to the decrease of impervious area on the Site and the increased flood storage, the FEIS Plan reduces the total volume and rate of runoff from the site tributary to the Village's system. The Stormwater Design was reviewed by the Village's consultants for conformance with the Village code and a memorandum dated October 1, 2021 from Mr. John Kellard to the Zoning Board of Appeals notes that all outstanding engineering issues were addressed for the purposes of SEQRA. Additional revisions may be required as the Project moves through the site plan approval process. See also response to comment D-2.

D-4 **Comment:**

My name is Sue McCrory. I'm not within the notice area for this property but am concerned about flood zone compliance and what's going be done. It's a very, very large building in an area that floods historically.
(Sue McCrory, Public Hearing, May 6, 2021)

D-4 **Response:**

The "mitigation measures" section of Chapter IV.D of the DEIS outlines the steps taken to alleviate the impact of the development on flooding and the flood zone. The mitigation measures included in the FEIS Plan include a reduction of impervious cover, wet floodproofing the proposed buildings resulting in an increase in 31,091 cubic feet of storage within the floodplain, and additional construction measures to protect the building from flood damage, including as elevating the lowest floor elevation 2 feet above the flood elevation.

D-5 **Comment:**

The misinformation involves the DEIS calling minimum flood zone rules mitigation. Minimum flood zone rules have to met, they're not mitigation efforts so I felt that that was misrepresentative.
(Sue McCrory, Public Hearing, May 6, 2021)

D-5 **Response:**

See Response to Comment D-4. While some of these items are required based on the Village's or FEMA's regulations, they remain mitigation measures to reduce the development's impact. Compliance with the Village's or FEMA's regulations does not exclude the practice from being considered a mitigation measure.

D-6 **Comment:**

There something in the EIS that said the owners needed flood insurance. My understanding is there's not a requirement for people to purchase flood insurance. There is, however, in the Village of Mamaroneck an absolute requirement that we meet flood construction standards. With respect to that latter point, I can't tell -- the EIS kind of says we'll do that and it repeats the standards but it doesn't explain how the project will meet the standards.
(Sue McCrory, Public Hearing, May 6, 2021)

D-6 **Response:**

In accordance with the applicable FEMA regulations, the property requires flood insurance. The Proposed Action will comply with the building standards under Chapter 186 Flood Damage Protection of the Village of Mamaroneck Code and will be enforced through the requirements and inspections associated with the Floodplain Development Permit.

D-7 **Comment:**

In particular, I was looking for a foundation plan which is absolutely critical for evaluating flood zone compliance in a rivering flood area. I couldn't find a foundation plan. I couldn't find confirmation whether the project was going to be wet or dry flood proofed, and I couldn't find confirmation as to whether or not the existing building has been certified as an engineer or by an engineer of being flood zone compliant. Those are missing attributes, I think. So, before we double the

size or more than double the size of this storage facility, I think we need to make sure that the existing one is flood zone compliant.
(Sue McCrory, Public Hearing, May 6, 2021)

D-7 **Response:**

The existing buildings on the Site that are proposed to be demolished contain no floodproof features. However, the existing self-storage building, which will remain, is designed in accordance with Chapter 186 Flood Damage Prevention, including that the lowest floor elevation will be 2 feet above the Base Flood Elevation. A Floodplain Development Permit for the existing self-storage building is on file with the Building Department, and a copy is included in Appendix C. For the proposed building, the FEIS Plan has the lowest floor elevation set 2 feet above the flood elevation Further, its design has been revised to include wet floodproofing, which will maximize flood storage on-site, within the building. Outside of the building, additional on-site flood storage includes the parking and landscaped areas, including a rain garden. The Floodplain Development Permit, necessary for construction, requires certification from a licensed engineer or architect that certifies the design and methods of construction are in accordance with accepted standards of practice. See also, FEIS Chapter I, Section I.D for details on the volumetric calculations and Chapter IV.D of the DEIS which outlines the steps taken for flood mitigation.

D-8 **Comment:**

And I'm very worried that these large buildings are just going to push flood waters elsewhere in an area that's not well equipped to deal with them.
(Sue McCrory, Public Hearing, May 6, 2021)

D-8 **Response:**

There will be an increase of 31,091 cubic feet in the total on-site flood storage, provided by wet floodproofing within the proposed building, as well as exterior measures to increase permeability and reduce off-site runoff .. The increase in flood storage volume on the Site would result in a theoretical reduction of the 100-year flood plain and thus reduce the impact of a flood event on surrounding properties. See response to comment D-2.

D-9 **Comment:**

I understand flooding was being addressed by the village engineer. I don't know if we have heard anything from the village engineer on that yet. I was told that it was being reviewed. I'd like to know what that -- occurred, what the results of that were.
(Board Member Neufeld, Public Hearing, May 6, 2021)

D-9 **Response:**

A revised flood storage analysis, which is included in full in Appendix F, was reviewed by the consulting engineer. Per Mr. Kellard's October 1, 2021 memorandum to the Zoning Board of Appeals, all outstanding engineering comments have been addressed to their satisfaction for the purposes of SEQRA. Additional revisions may be required as the Project moves through the site plan approval process.

D-10 **Comment:**

The FEIS should clarify the amount of flood volume storage. On page IV.D-3 under Section IV.D.3, there is a typo in the discussion of the increase in flood volume storage. The text states "56,6549" but should be updated to "54,649" as provided in Table IV.D-1. In addition, page IV.D-2 under Section IV.D.1.b, refers to the flood volume storage analysis by Hudson Engineering & Consulting as Appendix C; however, this is actually Appendix D. In addition, the letter report included as Appendix D references an "attached volumetric analysis (Sheet C-5)" which is not included in Appendix D. This document should be included in full in the FEIS.
(AKRF Memorandum, April 30, 2021)

D-10 **Response:**

The revised Flood Storage Analysis is included in Appendix F.

D-11 Comment:

The definition of the 500-year floodplain on Page I.-11 should be changed to "0.2% chance of flooding".
(Kellard Sessions Memorandum, February 4, 2021)

D-11 Response:

The text on Page I-11 of the DEIS defining the 500-year floodplain should have read "0.2% chance of flooding".

D-12 Comment:

The Flood Storage Volumetric Analysis Figures (Chapter IV.D) for both the existing and proposed conditions shall be revised to remove the buildings from the provided storage volume. If the existing and proposed buildings provide some sort of flood storage, this should be clarified. The volumetric analysis calculations should be revised accordingly.
(Kellard Sessions Memorandum, February 4, 2021)

D-12 Response:

Flood Storage Volumetric Analysis figures in Chapter IV.D were revised to remove the existing and proposed buildings from the calculations. No flood storage is provided within the existing buildings that are proposed to be demolished. The proposed buildings will be wet floodproofed and as such will provide flood storage; therefore, the proposed buildings are included in the revised flood storage analysis that is included in Appendix F.

D-13 Comment:

Do we need a supplemental EIS to address flooding that occurred subsequent to the preparation of the draft FEIS?
(Chairman Neufeld, November 16, 2021 Work Session)

D-13 Response:

A supplemental EIS is not required to address flooding that occurred subsequent to the preparation of the draft FEIS. The ZBA's attorney, Charles Gottleib, advised the ZBA at the November 16, 2021, meeting that a supplemental EIS is not required to address flooding issues and additional information regarding flooding at the property should be incorporated into the FEIS.[1] The Village's Planning Consultant, Ashley Ley (AKRF), also advised that the ZBA can simply request more information on the flooding concerns and that there is no need for a supplemental FEIS because these comments are consistent with comment raised previously during DEIS process.[2] The additional documentation on flooding, and specifically Ida, is included in this FEIS.

Pursuant to page 138 of the 2020 DEC SEQRA Handbook, "newly discovered information . . . previously undisclosed, or unevaluated impacts that may or may not have a significant adverse impact" should be examined to determine whether a supplemental EIS is required. While there was flooding throughout the Village, and in the project area, during Hurricane Ida in September of 2021, which occurred after the first draft of the FEIS was submitted to the ZBA, flooding in this area of the Village is not a new fact that has been recently discovered. Flooding occurred throughout the Village, and in the project area, in prior storms. Indeed, flooding was addressed in detail in the Applicant's DEIS[3] and responses to specific ZBA concerns regarding flooding were included in the FEIS.[4] Flooding in the project area is not a new discovery and a SEIS is not required. Moreover, the ZBA acknowledged the foregoing at this meeting and agreed that additional information may be requested and required to be included in the FEIS and thus a SEIS is not required.[5]

D-14 Comment:

[1] Village ZBA Attorney Charles Gottleib, comments during November 16, 2021 Work Session, see LMCTV recording starting at 22:03.
[2] Village Planning Consultant Ashley Ley comments during November 16, 2021 Work Session, see LMCTV recording of at 24:43.
[3] Chapter IV.D (Flooding & Flood Zone Impacts), pages IV.D-1—4 of the March 21, 2021 DEIS.
[4] Response to Comments on Flooding & Flood Zone Impacts, Section III.D (pages III.D-1—7) of the September 9, 2021 FEIS.
[5] ZBA comments during November 16, 2021 Work Session, see LMCTV recording starting at 23:59.

Flooding is not adequately addressed. 1st phase of the self-storage building did not work. What damage occurred and why didn't it work with new construction. How will the current proposal be different so flood damage will not take place. A FEMA compliant design is OK, but what else has been done to prevent damage?
(Chairman Neufeld, November 16, 2021 Work Session)

D-14 **Response:**

Chapter IV.D. of the DEIS, entitled Flooding & Flood Zone Impacts is entirely devoted to addressing flooding issues. It included a Flood Volume Storage Analysis that was prepared by Hudson Engineering & Consulting, P.C., which has subsequently been revised, reviewed and accepted by the Village's consulting engineer. The DEIS and this FEIS has documented that the proposed building design will fully comply with all applicable Federal Emergency Management Agency ("FEMA") and Village of Mamaroneck Floodplain Development Standards as set forth in Chapter 186 of the Village Code. The FEIS Plan includes a reduction of impervious cover on the Site, an increase in 31,091 cubic feet of storage within the floodplain and construction measures to protect the building from flood damage such as elevating the lowest floor elevation 2 feet above the flood elevation and providing wet floodproofing.

Recent storm events, such as Hurricane Ida represent unprecedented conditions. Based upon data collected at the Westchester County Airport Weather station, Hurricane Ida produced in excess of 10-inches of rainfall during a 4-hour period from 6:48-pm to 10:56-pm). The NYSDEC provides rainfall data for this area based upon the Type III 24-hour storm event and the 100-year storm generates 9.5-inches rainfall during a 24-hour period. The Type III storm event is a bell-shaped curve spanning a 24-hour period. While the rain generated by Hurricane Ida is slightly more than the 100-year storm event total, the rainfall intensity occurred over a 4-hour period as compared to a 24-hour period. This resulted in the intensified flooding that was experienced throughout the Village.

Flooding on the Site resulting from Hurricane Ida varied due to the change in elevations across the property. The storm produced 8 feet of floodwater in the Barn (522 Fenimore Road), 6 feet of floodwater in the corner building (560 Fenimore Road), 4 feet of floodwater in the office/shop (416 Waverly Avenue) and 4 inches of floodwater in the Self-Storage Building (426 Waverly Avenue). An approximation of Hurricane Ida flooding levels for the existing Self-Storage building and the proposed addition is depicted on Sheet A-201A in Appendix K.

There was a substantial loss of equipment, tools, inventory, etc. suffered by Murphy Brothers Contracting and other renters of first floor spaces in the barn at 522 Fenimore, the corner building at 560 Fenimore, and 408 & 416 Waverly. The FEIS Plan will eliminate all of those buildings that were so severely impacted by the flooding, and replace them with the self-storage addition that will fully comply with Chapter 186 Flood Damage Prevention, with the lowest floor elevation 2 feet above the Base Flood Elevation.

The existing self-storage building received approximately 4 inches of floodwater, which is far less than most buildings in the neighborhood. The building was closed to customers on September 2nd for safety reasons. Starting September 3rd the Applicant assisted the approximately 45 first-floor tenants with removing, drying, cleaning, and repacking the entire contents of their units. The floors and walls were thoroughly cleaned before repacking. Items too damaged to be put back into the units were disposed of. The electronic key fob system tenants use to access the facility was temporarily malfunctioning and was subsequently repaired. The elevators were also inoperable, so during the first week after the storm, the Applicant discouraged the upper floor tenants from utilizing the facility during which time the first-floor clean-up was prioritized.

A NYS DOL certified mold assessor came to the facility on multiple occasions to track the situation. The building is constructed primarily of concrete and steel. Only the office area and stairwells have sheetrock to the floor, of which the affected portions were removed immediately. Not having to remove and replace all of the interior walls between each unit played a significant role in the ability to manage the turnaround of units so quickly, unlike the other buildings on the property, which are made mostly with wood and sheetrock. Because the building is climate-controlled with a sophisticated HVAC system designed for both energy-efficiency as well as indoor air quality, adjustments to the humidification were made to essentially "dry out" the building.

D-15 **Comment:**

Has the Village Engineer reviewed the new plan?
(Chairman Neufeld, November 16, 2021 Work Session)

D-15 **Response:**

Please refer to Kellard Sessions October 1, 2021 memorandum, which states that all technical engineering comments have been satisfactorily addressed for the purposes of SEQRA. Additional revisions may be required as the Project moves through the site plan approval process.

D-16 **Comment:**

Flooding impacts – want a grading plan for the site with elevations – want to ensure we are not diverting water into Fenimore Road or Railroad Way because of our work
(Board Member Glattstein, November 16, 2021 Work Session)

D-16 **Response:**

Existing grading and proposed grading have been included on the Existing Conditions Plan and Stormwater Management Plan within the site plan drawings (Appendix I). Additionally, a SWPPP was provided demonstrating stormwater flow paths and calculations demonstrating compliance with the Village's stormwater management requirements (Appendix J). Lastly, at the request of the Village's Engineering Consultant, a comparison of the pre-developed and post-developed flood storage volumes have been provided (Appendix F). These documents have been reviewed by the Village's consultants for conformance to the Village's code for stormwater and flooding. Based upon the October 1, 2021, memorandum from John Kellard of Kellard Sessions to The Village of Mamaroneck Zoning Board of Appeals, any comments pertaining to stormwater mitigation or flooding have been addressed to their satisfaction for the purposes of SEQRA. Additional revisions may be required as the Project moves through the site plan approval process.

D-17 **Comment:**

Can the Applicant be required to apply for a floodplain development permit first? Can the ZBA request that the Project be reviewed by the Floodplain Development Manager before continuing with the Lead Agency's review of the Project?
(Board Member Yergin, November 16, 2021 Work Session)

D-17 **Response:**

Pursuant to Village Building Department procedure, the Applicant's floodplain development permit application will be reviewed concurrently with the building permit application upon obtaining the requested area variances and site plan approval. Kellard Sessions, the Village's Engineering Consultants, is designated as the Village's Floodplain Administrator, and all floodplain development permits are issued by the Village Building Department. The Village Acting Building Inspector issued a Floodplain Development Permit for the existing self-storage building on September 26, 2014.

In the event that the Project does not comply with floodplain development standards, the Applicant would be required to amend the project or request a variance from the Planning Board, pursuant to the Village Floodplain Development Code Section 186-6(A).

Kellard Sessions has reviewed the Project and issued several comment memoranda. None of those memoranda raised concerns with floodplain development or cited areas of noncompliance with applicable FEMA or Village floodplain construction standards. To the contrary, the October 1, 2021, Kellard Sessions memorandum identifies that all comments have been addressed for the purposes of SEQRA. Additional revisions may be required as the Project moves through the site plan approval process. The Building Inspector, upon issuing a Notice of Disapproval for the Project which noted that several area variances are required, did not indicate noncompliance with the floodplain development standards.

D-18 **Comment:**

Was a permit issued for the original building? Was the Applicant required to get a floodplain permit for the existing self-storage building?
(Board Member Yergin, November 16, 2021 Work Session)

D-18 **Response:**

Yes. Copies of the approved site plan, Certificate of Occupancy and Floodplain Permit are included with this submission. Refer to Appendix C.