Redevelopment Study and Preliminary Investigation Report

Block 15, Lot 2 and Block 53, Lot 1

Prepared: January 16, 2023

Prepared for:



Borough of Keansburg Monmouth County, New Jersey



The original of this document has been signed and sealed in accordance with New Jersey Law.

Kerter

Caroline Reiter, PP, AICP NJ Professional Planner No.: 33LI00534300

Dane RE

Robert Dare, PP, AICP, MCIP NJ Professional Planner No.: 33LI00596400

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Introduction

The purpose of this Redevelopment Study and Preliminary Investigation Report (hereinafter referred to as "Redevelopment Study") is to determine whether the properties identified as Block 15, Lot 2 and Block 53, Lot 1 (hereinafter referred to as the "Study Area") in Keansburg Borough qualify as an area in need of redevelopment as defined in the Local Redevelopment and Housing Law, P.L. 1992, Chapter 79 (commonly and hereinafter referred to as the "LRHL"). The Study Area is shown on the accompanying regional location map (Map 1) and aerial location map (Map 2).

This Redevelopment Study is written pursuant to Section 6 of the LRHL (N.J.S.A. 40A:12A-6a), which states the following:

No area of a municipality shall be determined to be a redevelopment area unless the governing body of the municipality shall, by resolution, authorize the planning board to undertake a preliminary investigation to determine whether the proposed area is a redevelopment area according to the criteria set forth in Section 5 of P.L. 1992. C.79 (C.40A:12A-5). ... The governing body of a municipality shall assign the conduct of the investigation and hearing to the planning board of a municipality.

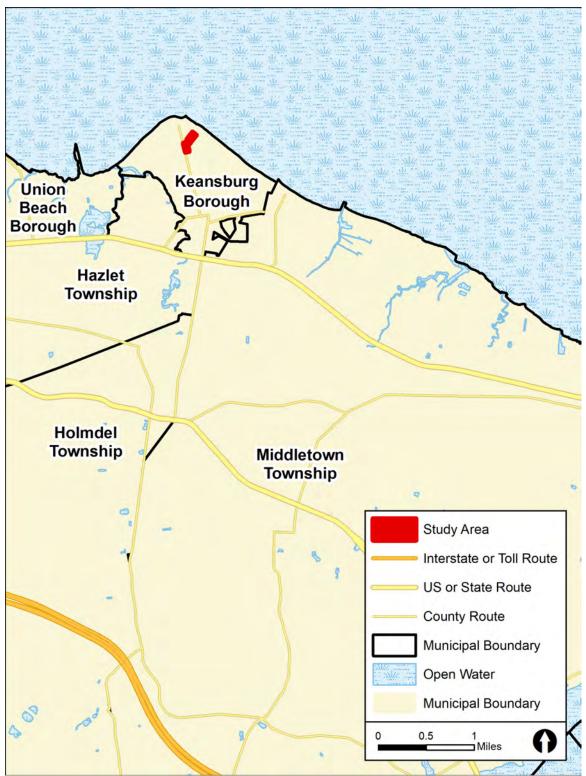
The Keansburg Borough Council adopted Resolution No. 2022-100 on September 21, 2022, which authorized the Planning Board to prepare a Redevelopment Study for Block 15, Lot 2 and Block 53, Lot 1. A copy of Resolution No. 2022-100 is included in this Redevelopment Study as Appendix A.

This Redevelopment Study serves as the "statement setting forth the basis for the investigation," which is required by the LRHL [N.J.S.A. 40A:12A-6b(1)]. In accordance with N.J.S.A. 40A:12A-6b(5):

After completing its hearing on this matter, the planning board shall recommend that the delineated area, or any part thereof, be determined, or not be determined, by the municipal governing body to be a redevelopment area. After receiving the recommendation of the planning board, the municipal governing body may adopt a resolution determining that the delineated area, or any part thereof, is in need of redevelopment.

It is noted that in directing the Planning Board to prepare this Redevelopment Study, Resolution No. 2022-100 specified that the Study Area shall <u>not</u> be subject to a condemnation redevelopment area designation.

Map 1: Regional Location Map



Study Area (Block/Lot) Parcel Boundary 200 Feet 50 100 0 0 121 Denter Ave 53/1 ch C Q

Map 2: Aerial Location Map

Study Area Description

The Study Area (see Map 2) is comprised of Block 15, Lot 2 and Block 53, Lot 1.

The Study Area properties are noncontiguous. Block 15, Lot 2 contains a total area of 3.27 acres and has frontage on Beachway Avenue, Belleview Avenue and Center Avenue. Block 53, Lot 1 contains a total area of 2.35 acres and has frontage on Center Avenue, Raritan Avenue, Oak Street and Carr Avenue. The ownership of both Block 15, Lot 2 and Block 53, Lot 1 is "Grandview Apartments Affordable Housing" with offices at 104 Carr Avenue in Keansburg.

Existing conditions, as observed during a site visit conducted on December 15, 2022, are depicted in the photos of Appendix B and described in the following subsections.

Block 15, Lot 2

Block 15, Lot 2 is developed with 65 garden apartments distributed among five buildings (viz., Building 1 through Building 5 of the Grandview Apartments complex), which were constructed in 1968. Associated site improvements (e.g., waste collection areas, outdoor recreational amenities, landscaping, walkways, and 75 off-street parking spaces) are also located on Block 15, Lot 2.

Information from the Affordable Housing Alliance, which manages the property, indicates that the bedroom distribution of the 65 garden apartments is as follows: 16 onebedroom; 47 two-bedroom; and two (2) three-bedroom.

Block 53, Lot 1

Block 53, Lot 1 is developed with 66 garden apartments distributed among four buildings (viz., Building 6 through Building 9 of the Grandview Apartments complex), which were constructed in 1968. Associated site improvements (e.g., a waste collection area, outdoor recreational amenities, landscaping, walkways, and 42 off-street parking spaces) are also located on Block 53, Lot 1.

Information from the Affordable Housing Alliance, which manages the property, indicates that the bedroom distribution of the 66 garden apartments is as follows: 13 onebedroom; 45 two-bedroom; and eight (8) three-bedroom.

Land Use Analysis (Land Use/Land Cover and MOD IV)

Existing land uses within the Study Area were evaluated through investigation of property tax land use classifications and land use/land cover data as mapped by the New Jersey Department of Environmental Protection (NJDEP). Land uses were subsequently confirmed by on-site observation.

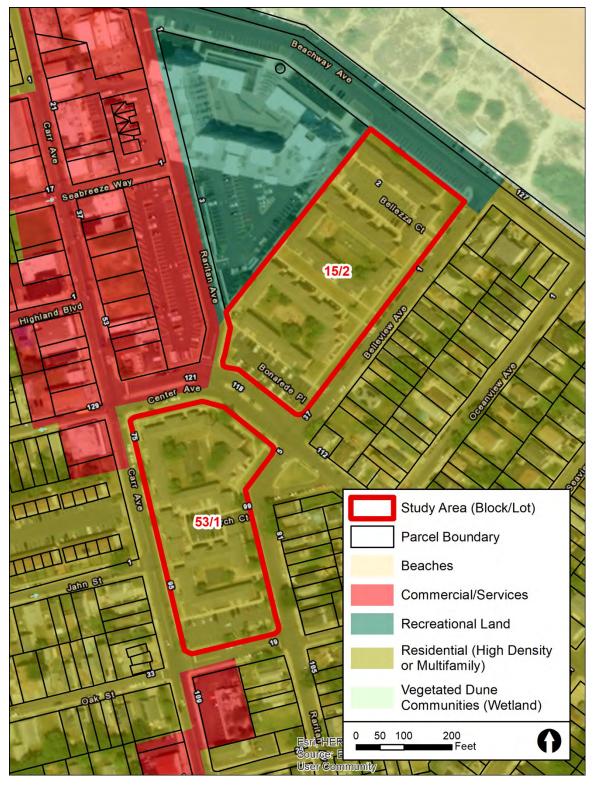
The New Jersey Property Tax System, known as MOD-IV, provides for the uniform preparation, maintenance, presentation, and storage of statewide property tax information. MOD-IV is the mechanism to maintain and update all property tax assessment records and produce all statutorily required tax lists. In 2022, the MOD-IV land use classification for both Block 15, Lot 2 and Block 53, Lot 1 was "Class 15F (Other Tax Exempt)." Said property tax land use classification is reserved for tax exempt properties other than school property (incl., public and other), public property, church and charitable property, and cemeteries and graveyards.

According to NJDEP's land use/land cover (LU/LC) data, last updated in 2015, the land use of the Study Area is "Residential (High Density or Multifamily)."

Land uses and covers in the vicinity of the Study Area include:

- Beaches;
- Commercial/Services;
- Recreational Land (n.b., since creation of the NJDEP's land use/land cover data in 2015, recreational lands to the west of Block 15, Lot 2 have been converted to residential use);
- Residential (High Density or Multifamily); and
- Vegetated Dune Communities (Wetland).

Map 3 shows the LU/LC data for the properties in the Study Area and vicinity thereof.



Map 3: Land Use/Land Cover (2015)

Environmental Constraints

A review of mapping from the New Jersey Department of Environmental Protection (NJDEP) and Federal Emergency Management Agency (FEMA) indicates that the Study Area is entirely within a Special Flood Hazard Area (SFHA). SFHAs are defined as the area that will be inundated by the flood event having a one-percent chance of being equaled or exceeded in any given year. The one-percent annual chance flood is also referred to as the base flood or 100-year flood. There are no other mapped environmental constraints within the Study Area.



Map 4: Environmental Constraints

Current Zoning

The Study Area properties are located in the RMF (Multifamily Residential) Zone District. As provided in Section 22-5.7 of the Code of the Borough of Keansburg, the RMF (Multifamily Residential) Zone District permits multifamily dwellings at a density not to exceed 16 dwelling units per developable acre; community residences for the developmentally disabled; and shelters for victims of domestic violence.

Planning Context

Keansburg Borough Master Plan

The Borough of Keansburg adopted its last comprehensive Master Plan in 1988. The Borough subsequently adopted reexamination reports in 2003, 2012, and 2015. The 2015 Reexamination Report identifies several planning objectives, which would be supported by redevelopment in the Study Area. These include:

- Encourage the most appropriate use of land consistent with its suitability for development.
- Establish appropriate population densities and control the intensity of development to ensure neighborhood, community, and regional well-being and to preserve the natural environment.
- Provide sufficient space in appropriate locations for residential, recreational, commercial, and open space use.
- Promote a desirable visual environment.
- Encourage development that contributes to the revitalization of the community.

In addition to the above, the 2015 Reexamination Report provides the following policy statement related to housing and neighborhood improvement:

In order to maintain and improve residential areas, the Borough should encourage rehabilitation of the existing housing stock with new construction at appropriate densities, elevations and other relevant design standards. The enforcement of building and land use codes, as well as FEMA flood mapping, to protect and maintain properties should be aggressively pursued. Municipal action should facilitate the improvement of the livability of residential areas. The Borough should continue to seek public funding and explore innovative mechanisms and incentives for housing and neighborhood improvement.

Redevelopment in the Study Area would provide the Borough with an important opportunity to advance the foregoing policy statement.

It is further noted that the 2015 Reexamination Report provides the following regarding expansion of redevelopment initiatives in Keansburg:

Additionally, a study should be considered to explore the possibilities of designating other areas of the Borough as redevelopment areas with special attention on the waterfront.

Designation of the Study Area would be consistent with the foregoing statement of the 2015 Reexamination Report. Though the Study Area is not part of the waterfront, it is directly across Beachway Avenue from waterfront portions of the Borough.

Monmouth County Master Plan

Monmouth County prepared a comprehensive master plan in 2016. Redevelopment of the Study Area would support the realization of the following overall goals of the 2016 Monmouth County Master Plan:

- 1. Promote a comprehensive approach to planning and coordinate these efforts among all levels of government and with community stakeholders.
- 2. Promote the protection and conservation of natural and cultural resources to help guarantee long-term sustainability.
- 3. Promote beneficial development and redevelopment that continues to support Monmouth County as a highly desirable place to live, work, play and stay.

While Redevelopment of the Study Area would support the realization of all three of the foregoing overall goals, Goal 3 (above) is most important. Indeed, the purpose of Goal 3, as stated in the 2016 Monmouth County Master Plan, is to assist municipalities in determining the best use of increasingly scarce undeveloped land resources and to help identify opportunities for the redevelopment of other areas in ways that will best meet the demands of the evolving marketplace and needs of the community.

New Jersey State Development and Redevelopment Plan

The New Jersey State Development and Redevelopment Plan (SDRP) contains a series of smart growth goals and policies, and mapping that reflects desired growth patterns within a series of state planning areas.

As provided in the SDRP, the Study Area is located within Planning Area 1, which is also known as the Metropolitan Planning Area. In the Metropolitan Planning Area, the SDRP's intention is to:

- Provide for much of the State's future redevelopment;
- Revitalize cities and towns;
- Promote growth in compact forms;
- Stabilize older suburbs;
- Redesign areas of sprawl; and
- Protect the character of existing stable communities.

Redevelopment of the Study Area is compatible with, and will advance, the intent and purpose of the Metropolitan Planning Area.

Plans of Contiguous Municipalities

The Study Area comprises only about 5.62 acres and is located approximately 2,100 feet from the nearest contiguous municipality (viz., Hazlet Township). It is, therefore, anticipated that there would be no impact on contiguous municipalities if the Study Area were redeveloped.

Redevelopment Designation Statutory Requirements

Pursuant to Section 5 of the LRHL (N.J.S.A. 40A:12A-5), an area may be determined to be in need of redevelopment if it meets one or more of the following statutory criteria:

- A. The generality of buildings is substandard, unsafe, unsanitary, dilapidated, or obsolescent, or possess any of such characteristics, or are so lacking in light, air, or space, as to be conducive to unwholesome living or working conditions. (N.J.S.A. 40A:12A-5[a]).
- B. The discontinuance of the use of a building or buildings previously used for commercial, retail, shopping malls or plazas, office parks, manufacturing, or industrial purposes; the abandonment of such building or buildings; significant vacancies of such buildings or buildings for at least two consecutive years; or the same being allowed to fall into so great a state of disrepair as to be untenantable. (N.J.S.A. 40A:12A-5[b]).
- C. Land that is owned by the municipality, the county, a local housing authority, redevelopment agency or redevelopment entity, or unimproved vacant land that has remained so for a period of ten years prior to adoption of the resolution, and that by reason of its location, remoteness, lack of means of access to developed sections or portions of the municipality, or topography, or nature of the soil, is not likely to be developed through the instrumentality of private capital. (N.J.S.A. 40A:12A-5[c]).
- D. Areas with buildings or improvements which, by reason of dilapidation, obsolescence, overcrowding, faulty arrangement or design, lack of ventilation, light and sanitary facilities, excessive land coverage, deleterious land use or obsolete layout, or any combination of these or other factors, are detrimental to the safety, health, morals, or welfare of the community. (N.J.S.A. 40A:12A-5[d]).
- E. A growing lack or total lack of proper utilization of areas caused by the condition of the title, diverse ownership of the real properties therein or other similar conditions which impede land assemblage or discourage the undertaking of improvements, resulting in a stagnant and unproductive condition of land potentially useful and valuable for contributing to and serving the public health, safety and welfare, which condition is presumed to be having a negative social or economic impact or otherwise being detrimental to the safety, health, morals, or welfare of the surrounding area or the community in general. (N.J.S.A. 40A:12A-5[e]).
- F. Areas, in excess of five contiguous acres, whereon buildings or improvements have been destroyed, consumed by fire, demolished or altered by the action of storm, fire, cyclone, tornado, earthquake or other casualty in such a way that the aggregate assessed value of the area has been materially depreciated. (N.J.S.A. 40A:12A-5[f]).

- G. In any municipality in which an enterprise zone has been designated pursuant to the "New Jersey Urban Enterprise Zones Act," P.L.1983, c.303 (C.52:27H-60 et seq.) the execution of the actions prescribed in that act for the adoption by the municipality and approval by the New Jersey Urban Enterprise Zone Authority of the zone development plan for the area of the enterprise zone shall be considered sufficient for the determination that the area is in need of redevelopment pursuant to sections 5 and 6 of P.L.1992, c.79 (C.40A:12A-5 and 40A:12A-6) for the purpose of granting tax exemptions within the enterprise zone district pursuant to the provisions of P.L.1991, c.431 (C.40A:20-1 et seq.) or the adoption of a tax abatement and exemption ordinance pursuant to the provisions of P.L.1991, c.441 (C.40A:21-1 et seq.). The municipality shall not utilize any other redevelopment powers within the urban enterprise zone unless the municipal governing body and planning board have also taken the actions and fulfilled the requirements prescribed in P.L.1992, c.79 (C.40A:12A-1 et al.) for determining that the area is in need of redevelopment or an area in need of rehabilitation and the municipal governing body has adopted a redevelopment plan ordinance including the area of the enterprise zone. (N.J.S.A. 40A:12A-5[g]).
- H. The designation of the delineated area is consistent with smart growth planning principles adopted pursuant to law or regulation. (N.J.S.A. 40A:12A-5[h]).

Furthermore, the LRHL permits the inclusion of parcels that do not meet the statutory criteria if they are necessary for effective redevelopment of the proposed redevelopment area:

A redevelopment area may include land, buildings or improvements which of themselves are not detrimental to the public health, safety or welfare, but the inclusion of which is found necessary with or without change in their condition, for the effective redevelopment of the area of which they are a part (N.J.S.A. 40A:12A-3.).

Redevelopment Analysis

In preparing this Redevelopment Study, the project team analyzed and considered the applicability of the aforementioned statutory criteria for designation of a redevelopment area. An analysis of relevant criteria is provided in the following subsections. The analysis presented herein is supplemented by the photographs of Appendix B.

"a" Criterion

A property may be found in need of redevelopment under the "a" Criterion when:

a. The generality of buildings is substandard, unsafe, unsanitary, dilapidated, or obsolescent, or possess any of such characteristics, or are so lacking in light, air, or space, as to be conducive to unwholesome living or working conditions. (N.J.S.A. 40A:12A-5[a]).

Thus, based on the above, the focus of the "a" Criterion is on the condition of *buildings*. The "a" Criterion is not to be confused with the "d" Criterion, which, as discussed later, focuses on *areas* with buildings or improvements).

Block 15, Lot 2

Block 15, Lot 2 contains five buildings with a combined total of 65 garden apartments. Information provided to T&M Associates for the purpose of preparing this Redevelopment Study indicates that the buildings sustained significant damage as a result of Hurricane Sandy, with varying degrees of structural and water damage (incl., mold growth) first documented in all buildings in a post-hurricane survey performed on November 21, 2012 (see: Appendices C and D). In the period since Hurricane Sandy, there have been continued reports of structural issues and water damage, notably including significant settlement and subsidence of Building 1 (n.b., Building 1 fronts on Beachway Avenue), significant damage to façade surfaces, rusted lintels, presence of fungal organisms (i.e., mold) and similar issues (see: Appendices E, F and G).

As observed by T&M Associates during a site visit conducted on December 15, 2022, the buildings on Block 15, Lot 2 were found to be in poor condition and many of the issues identified in appendices C, D, E, F and G, as referenced above, were found to persist. Indeed, as shown in the photographs of Appendix B, the buildings of Block 15, Lot 2 show: extensive step and other cracking in building façades; cracking and breakage of concrete building foundations and resulting exposure of rebar (n.b., rebar was observed to be rusted); numerous rusted and bowed lintels; portions of damaged and apparently decayed soffits; portions of partially unattached soffits; portions of partially unattached soffits; portions of precipitation; and, mispositioned windows (n.b., windows were askew). In addition, T&M Associates gained entry to interior portions of Building 1 (i.e., the northernmost building, which has frontage on Beachway Avenue) and Building 2 (i.e., the building directly to the south of Building 1), and observed: extensive signs of mold and water damage; decayed flooring; and cracking on walls and gaps between floors and walls, which indicate settlement and

subsidence consistent with appendices E, F and G. T&M Associates was also able to access the crawl space of Building 2, and observed: unsecured, substandard wiring; partially disconnected plumbing fixtures; evidence of water damage (incl., corrosion on plumbing fixtures); and generally unsanitary conditions.

Based on the above, it is found that the overall condition of the buildings on Block 15, Lot 2 satisfies the "a" Criterion. The significant structural issues and water damage, combined with the presence of fungal organisms (i.e., mold), result in unsafe and unsanitary conditions, and dilapidation that is conducive to unwholesome living conditions.

Block 53, Lot 1

Block 53, Lot 1 contains four buildings with a combined total of 66 garden apartments. As was the case with the buildings on Block 15, Lot 2, the buildings on Block 53, Lot 1 sustained significant damage during Hurricane Sandy. This is reflected in the previously described post-hurricane survey of November 21, 2012 (see: Appendices C and D), which indicates that the buildings sustained structural and water damage (incl., mold growth). In the period since Hurricane Sandy, there have been continued reports of damage to façade surfaces, rusted lintels, presence of fungal organisms (i.e., mold) and similar issues (see: Appendices F and G).

A site visit of exterior building conditions was conducted by T&M Associates on December 15, 2022 (n.b., T&M Associates was unable to access to interior portions of buildings). As observed during said site visit, the buildings on Block 53, Lot 1, like those on Block 15, Lot 2, were found to be in poor condition and many of the issues identified in appendices C, D, F and G, as referenced above, were found to persist. Indeed, as shown in the photographs of Appendix B, the buildings of Block 53, Lot 1 show: extensive step and other cracking in building façades; cracking and breakage of concrete building foundations and resulting exposure of rebar (n.b., rebar was observed to be rusted); numerous rusted and bowed lintels; portions of damaged and apparently decayed soffits; portions of partially unattached soffits; portions of partially unattached building trim; unsecured crawl space entries; and severe weathering of window and door casing, and resulting damage thereto.

Based on the above, it is found that the overall condition of the buildings on Block 53, Lot 1 satisfies the "a" Criterion. The issues described above result in a level of dilapidation that is conductive to unwholesome living conditions.

"d" Criterion

A property may be found in need of redevelopment under the "d" Criterion when:

d. Areas with buildings or improvements which, by reason of dilapidation, obsolescence, overcrowding, faulty arrangement or design, lack of ventilation, light and sanitary facilities, excessive land coverage, deleterious land use or obsolete layout, or any combination of these or other factors, are detrimental

to the safety, health, morals, or welfare of the community. (N.J.S.A. 40A:12A-5[d]).

Thus, based on the above, the focus of the "d" Criterion is *areas* with buildings or improvements, and not the *buildings* contained therein (n.b., the "a" Criterion focuses on *buildings*).

Block 15, Lot 2

Waste collection areas on Block 15, Lot 2 are poorly maintained and lack adequate enclosures (e.g.: fencing; walls), with one enclosure showing evidence of fire destruction (n.b., burn marks are clearly evident on verticle fence posts) and another enclosure unable to be closed due to a damaged gate. In addition, one of the waste collection areas is located directly adjacent to Raritan Avenue and the only means of waste collection results in entry into the public right-of-way by waste collection vehicles because there is insufficient space for said vehicles to perform turning movements and similar maneouvers onsite. The waste collection area that is located directly adjacent to Raritan Avenue is situated near a fire hydrant, which is potentially at risk of damage by waste collection vehicles. Also, the waste collection area that is located directly adjacent to Raritan Avenue appears to be insufficiently sized as a waste collection receptacle (i.e., dumpster) was unenclosed and within approximately four feet of a public sidewalk along said roadway. The foregoing conditions are not only substandard and unsanitary, but also also have the potential to result in unsafe roadway conditions.

The lack of adequate enclosures also has the potential to result in debris and unsafe conditions in the event of a coastal storm or associated flood (n.b., the Study Area is located within a Special Flood Hazard Area [SFHA]). Indeed, the Office of Response and Restoration of the National Oceanic and Atmospheric Administration (NOAA) notes that:

During the 2012 hurricane season, Sandy inflicted severe damage to communities and coastal resources over large areas of the Mid-Atlantic and Northeast states, leaving a swath of destruction and large amounts of debris in the waters and marshes of affected states. This debris poses hazards to navigation, commercial fishing grounds, and sensitive ecosystems. (See: https://marinedebris.noaa.gov/our-work/emergencyresponse/hurricane-sandy-marine-debris).

In addition to the above, it is noted that Block 15, Lot 2 is significantly underparked. Indeed, given the total of 65 garden apartments on Block 15, Lot 2 (incl.: 16 onebedroom units; 47 two-bedroom units; and two (2) three-bedroom units), a total of 127 parking spaces is required according to the current standards of the New Jersey Residential Site Improvement Standards (RSIS) provided at N.J.A.C. 5:21-4.14 (n.b., the RSIS were adopted after the development of Grandview Apartments). However, only 75 off-street parking spaces are provided. This results in a deficiency of 52 parking spaces. Though some of this deficiency may be accommodated by available on-street parking, on-street parking spaces are not restricted for use by residents of Grandview Apartments. The parking deficiency is a concern because it not only results in an inconvenience to surrounding areas as residents may search for on-street parking, but also has significant potential to create dangerous conditions via double and stacked parking, which may impede emergency access and evacuation. The potential for such parking issues is increased during the summer months, when the Keansburg Amusement Park and Runaway Rapids are operational, and beaches are in use.

It is further noted that paved surfaces and exterior building entry steps located on Block 15, Lot 2 were frequently in poor condition, with extensive cracking and buckling resulting from uneven settlement or weathering. There were also several segments of loose wiring draped across exterior surfaces of building façades and within reach from the ground surface. Additionally, exposed and substandard electrical wiring was observed on or near the ground surface in a chain-link, mechanical equipment enclosure. Graffitti was also observed on Block 15, Lot 2.

Based on the above, the "d" Criterion is met for reasons of dilapidation, faulty arrangement or design, and obsolete layout that pose clear and direct threat to the public health, safety and welfare.

Block 53, Lot 1

Block 53, Lot 1 contains a single waste collection area with three bays for waste collection receptables (i.e., dumpsters) located near the corner of Raritan Avenue and Oak Street. The overall state of this waste collection area is poor, with one of the bays for waste collection receptables being unfenced (i.e., unenclosed) and the fencing on the remaining two bays being severelly dilapidated. In addition, it is noted that the fenced bays were locked and contained refuse (incl., at least one mattress and boxspring set) that were located on the ground and not within a waste collection receptable. The unfenced bay contained a discarded microwave and other material located outside of waste collection receptables. It is further noted that two waste collection receptables were located in the unfenced bay, with partial encroachment into the drive aisles of the adjacent off-street parking area.

The overall condition of the waste collection area of Block 53, Lot 1 is substandard. Moreover, it has the potential to result in unsanitary conditions, particulary as a result of the location of refuse on the ground surface and outside of waste collection receptables (n.b., the observed mattress and boxsping set could potentially host rodents and similar pests).

In addition to the above, it is noted that Block 53, Lot 1 is significantly underparked. Indeed, given the total of 66 garden apartments on Block 53, Lot 1 (incl.: 13 onebedroom units; 45 two-bedroom units; and eight (8) three-bedroom units), a total of 131 parking spaces is required according to the current standards of the New Jersey Residential Site Improvement Standards (RSIS) provided at N.J.A.C. 5:21-4.14 (n.b., the RSIS were adopted after the development of Grandview Apartments). However, only 42 off-street parking spaces are provided. This results in a deficiency of 89 parking spaces. Though some of this deficiency may be accommodated by available on-street parking, on-street parking spaces are not restricted for use by residents of Grandview Apartments. The parking deficiency is a concern because it not only results in an inconvenience to surrounding areas as residents may search for on-street parking, but also has significant potential to create dangerous conditions via double and stacked parking, which may impede emergency access and evacuation. The potential for such parking issues is increased during the summer months, when the Keansburg Amusement Park and Runaway Rapids are operational, and beaches are in use.

It is further noted that paved surfaces and exterior building entry steps located on Block 53, Lot 1 were frequently in poor condition, with extensive cracking and buckling resulting from uneven settlement or weathering. There were also several segments of loose wiring draped across exterior surfaces of building façades and within reach from the ground surface. Graffitti was also observed on Block 53, Lot 1.

Finally, it is noted that the parking area located adjacent to the waste collection area was being used for the storage/parking of heavy equipment, including a Bobcat excavator and what appears to be a snow plow attachment. The storage/parking of such equipment in this area should be abated.

Based on the above, the "d" Criterion is met for reasons of dilapidation, faulty arrangement or design, and obsolete layout that pose clear and direct threat to the public health, safety and welfare.

Summary of Redevelopment Analysis

The findings of this Redevelopment Study are summarized in Table 1:

			Cri	Needed for					
	"a"	"b"	"c"	"d"	"e"	"f"	"g"	"h"	Effective Redevelopment
Block 15, Lot 2	\checkmark	_		\checkmark	_	_	_		
Block 53, Lot 1	\checkmark			\checkmark					

Conclusion

Based on the assessment that is provided in this Redevelopment Study, it is concluded that the entire Study Area meets statutory criteria for being designated as a noncondemnation area in need of redevelopment.

In accordance with the above, the Planning Board may recommend that the Borough Council adopt a resolution declaring that Block 15, Lot 2 and Block 53, Lot 1 are in need of redevelopment. It is reiterated that in directing the Planning Board to prepare this Redevelopment Study, Resolution No. 2022-100 specified that the Study Area shall <u>not</u> be subject to a condemnation redevelopment area designation.

Appendix A: Resolution 2022-100

RESOLUTION 22-100

RESOLUTION OF THE BOROUGH OF KEANSBURG, COUNTY OF MONMOUTH, NEW JERSEY AUTHORIZING THE BOROUGH'S PLANNING BOARD INVESTIGATE TO WHETHER THOSE **CERTAIN** PARCELS, CONSISTING OF BLOCK 15, LOT 2 and BLOCK 53, LOT 1 ON THE BOROUGH TAX MAPS SHOULD BE DESIGATED AS AN "AREA IN NEED OF **REDEVELOPMENT (NON-CONDEMNATION)"**

WHEREAS, the Local Redevelopment and Housing Law, *N.J.S.A.* 40A:12A-1 *et seq.* (the "**Redevelopment Law**"), authorizes the Borough of Keansburg (the "**Borough**") to determine whether certain parcels of land in the municipality constitute areas in need of redevelopment; and

WHEREAS, pursuant to the Redevelopment Law the Borough (the "Borough Council") may authorize the planning board of the Borough (the "Planning Board") to conduct a preliminary investigation and public hearing to evaluate the area pursuant to the Redevelopment Law and make recommendations to the Borough Council; and

WHEREAS, the Borough Council believes it is in the best interest of the Borough that an investigation occur with respect to certain parcels within the Borough and therefore authorizes and directs the Planning Board to review and make recommendation whether the Study Area (as defined below) meets the criteria set forth in the Redevelopment Law, specifically *N.J.S.A.* 40A:12A-5, and should be designated as an area in need of redevelopment (non-condemnation), concerning the parcels commonly known on the Borough tax maps as:

- Block 15, Lot 2;
- Block 53, Lot 1 (collectively, the "Study Area"); and

WHEREAS, pursuant to the redevelopment law, specifically, *N.J.S.A.* 40A:12-6, the Borough Council shall state whether the redevelopment area shall be a "non-condemnation redevelopment area", which is defined as a redevelopment area that shall not use the power of eminent domain authorized by the Redevelopment Law or whether the redevelopment area shall be a "condemnation redevelopment area", which is defined as a redevelopment area that may use the power of eminent domain authorized by the Redevelopment area", which is defined as a redevelopment area that may use the power of eminent domain authorized by the Redevelopment Law; and

WHEREAS, the redevelopment area determination requested hereunder authorizes the Borough and the Borough Council to use all those powers provided by the Redevelopment Law for use in a redevelopment area, other than the power of eminent domain (hereinafter referred to as a "Non-Condemnation Redevelopment Area").

NOW THEREFORE, BE IT RESOLVED BY THE BOROUGH COUNCIL OF THE BOROUGH OF KEANSBURG, NEW JERSEY AS FOLLOWS:

1. The foregoing recitals are incorporated herein as if set forth in full.

2. The Planning Board is hereby authorized and directed to conduct an investigation pursuant to N.J.S.A. 40A:12A-6 to determine whether the Study Area satisfies the criteria set forth in N.J.S.A. 40A:12A-5 to be designated as an area in need of redevelopment.

3. Any redevelopment area created pursuant to this authorization shall be a "non-condemnation" redevelopment area pursuant to *N.J.S.A.* 40A:12-6.

4. As part of its investigation, the Planning Board shall prepare a map showing the boundaries of the Study Area and the location of the parcels contained therein and appended thereto shall be a statement setting forth the basis of the investigation.

5. The Planning Board shall conduct a public hearing in accordance with the Redevelopment Law, specifically *N.J.S.A.* 40A:12A-6, after giving due notice of the proposed boundaries of the Study Area and the date of the hearing to any persons who are interested in or would be affected by a determination that the Study Area is an area in need of redevelopment. The notice of the hearing shall specifically state that the redevelopment area determination shall not authorize the Borough or Borough Council to exercise the power of eminent domain to acquire any property in the delineated area, for the Study Area is being investigated as a possible Non-Condemnation Redevelopment Area.

6. At the public hearing, the Planning Board shall hear from all persons who are interested in or would be affected by a determination that the Study Area is a redevelopment area. All objections to a determination that the Study Area is an area in need of redevelopment and evidence in support of those objections shall be received and considered by the Planning Board and made part of the public record.

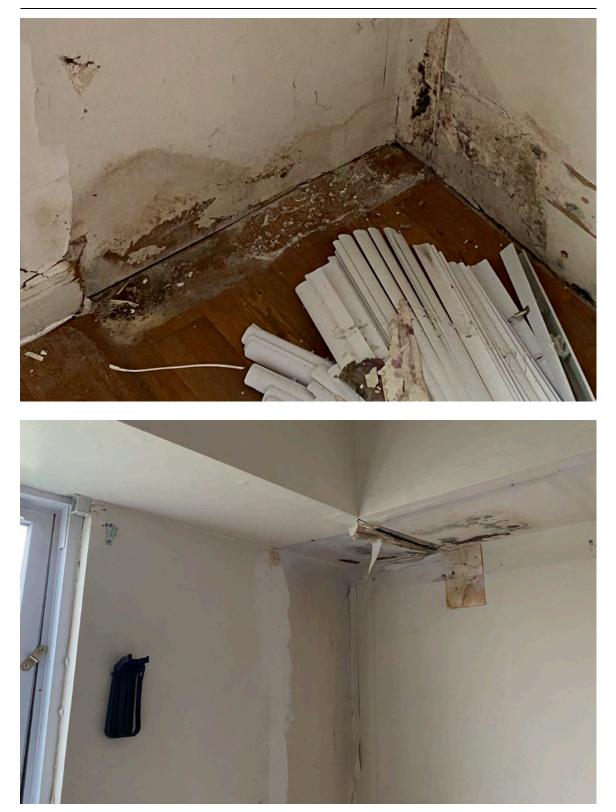
7. After conducting its investigation, preparing a map of the Study Area, and conducting a public hearing at which all objections to the designation are received and considered, the Planning Board shall make a recommendation to the Borough Council as to whether the Borough Council should designate all or some of the Study Area as an area in need of redevelopment.

8. This Resolution shall take effect immediately.

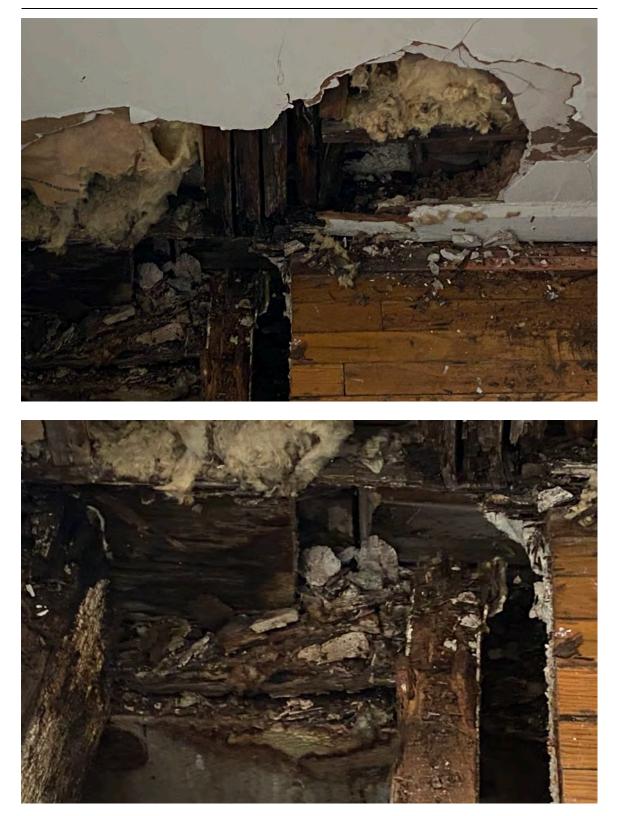
							CERTIFICATION
	Moved	Seconded	Ayes	Nays	Absent	Abstain	I, Jo-Ann O'Brien, Clerk of the Borough of Keansburg, in the County of Monmouth,
Mr. Donaldson			1				New Jersey, do hereby certify that the foregoing is a true copy of a resolution duly adopted by the
Mr. Tonne			1				Borough Council at its regularly scheduled public meeting on September 21, 2022
Mr. Cocuzza			1				Jan Brie
Mr. Foley	1		 Image: A second s				Jo-Ann O'Brien
Mr. Hoff		1	1				Deputy Municipal Clerk

Appendix B: Study Area Photographs

Appendix B, Part 1 — Pictures of Block 15, Lot 2



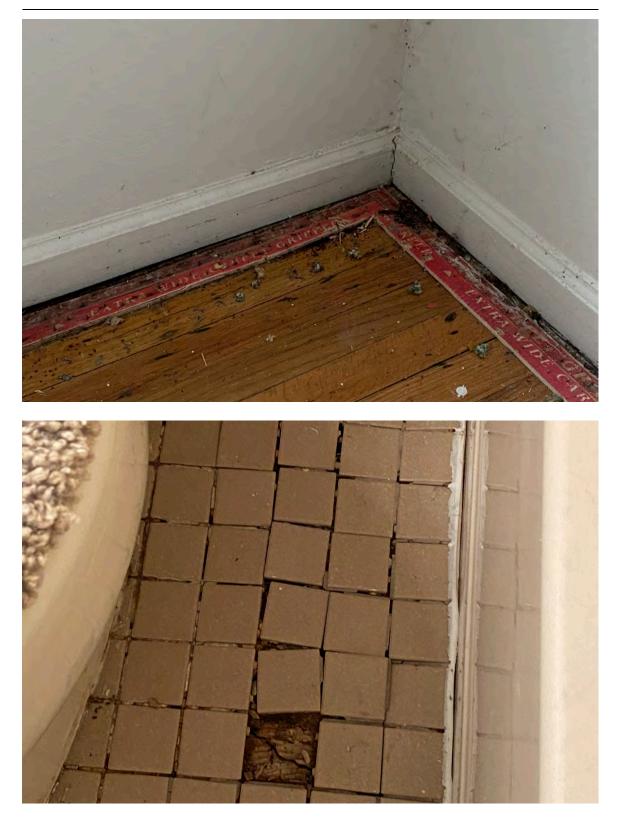




















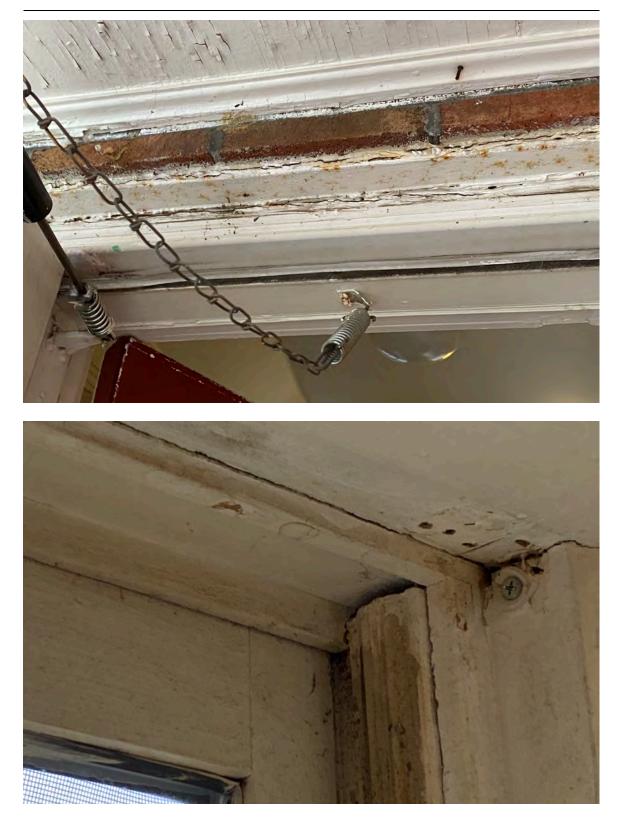






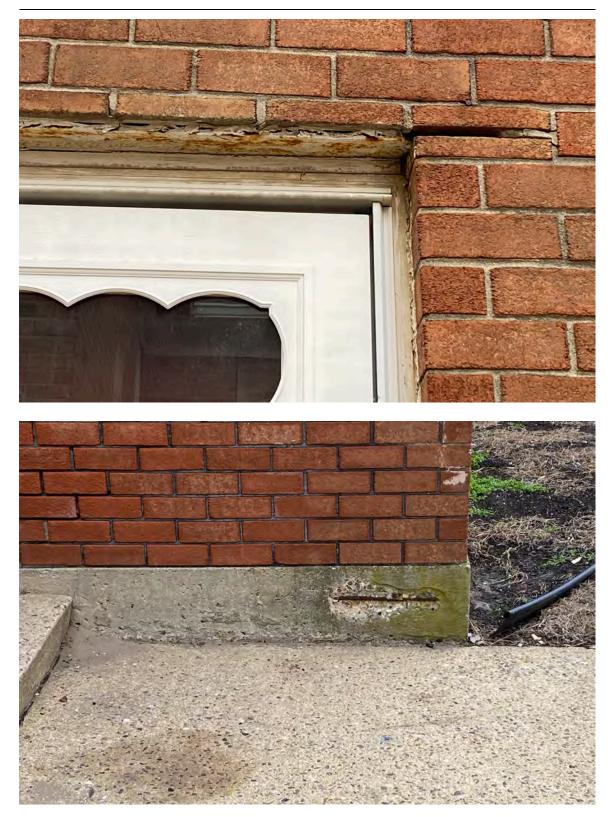




















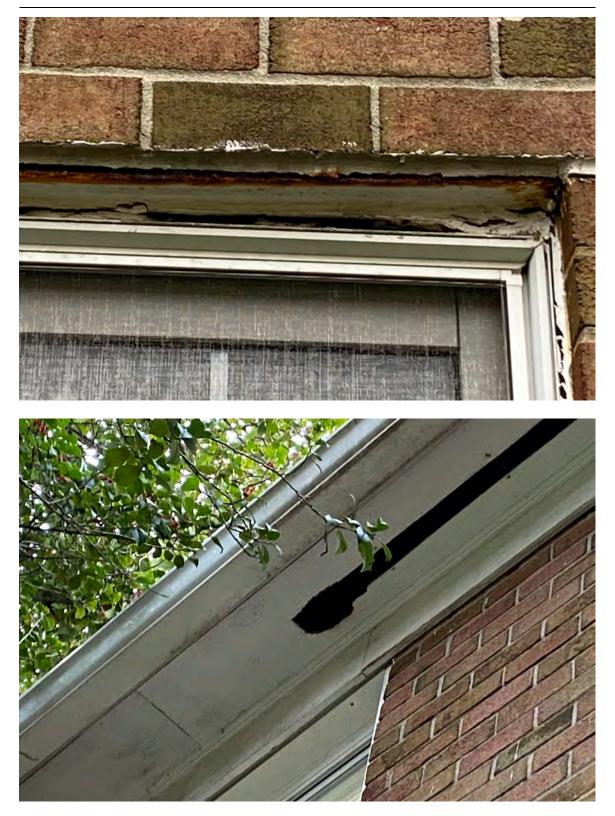


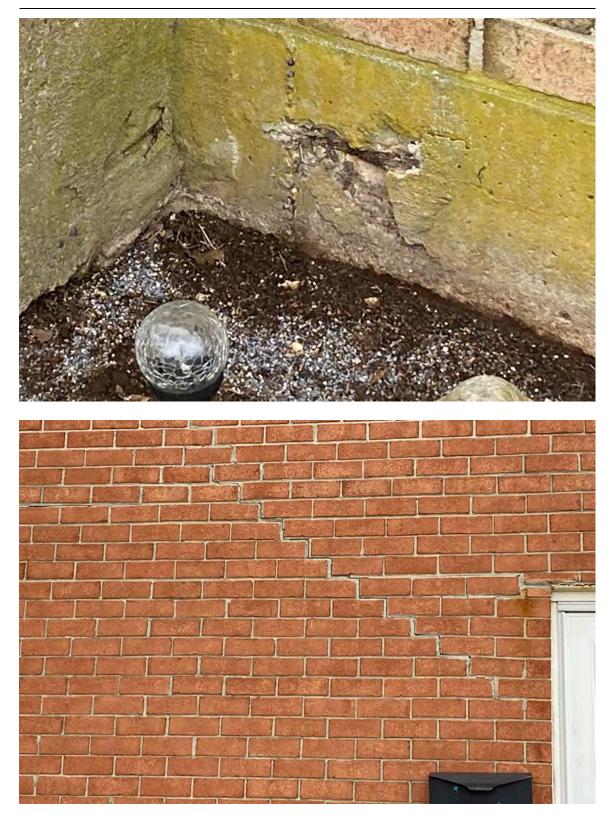




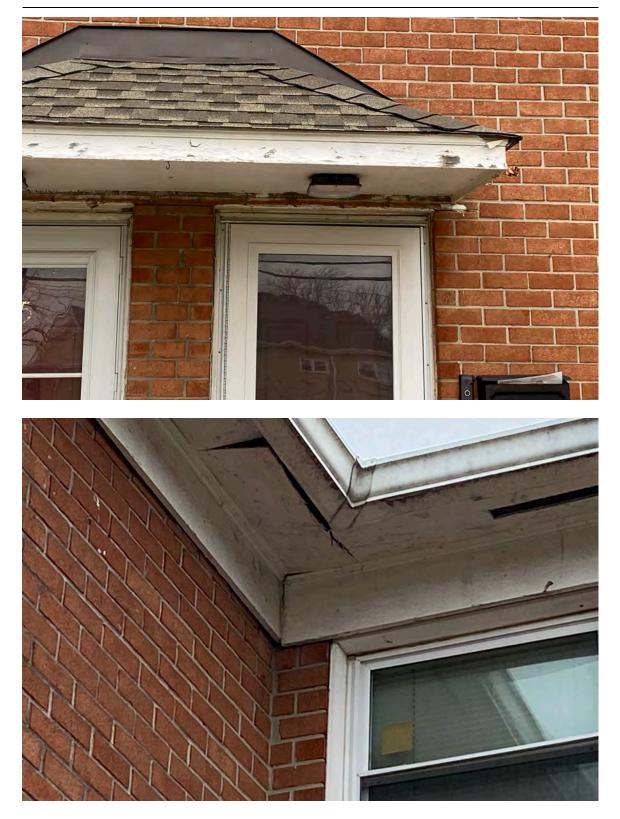












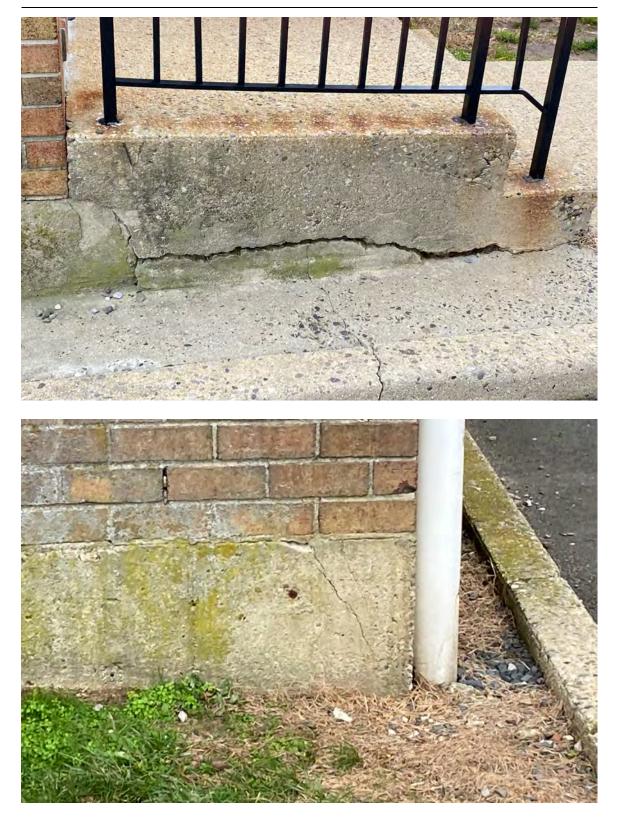


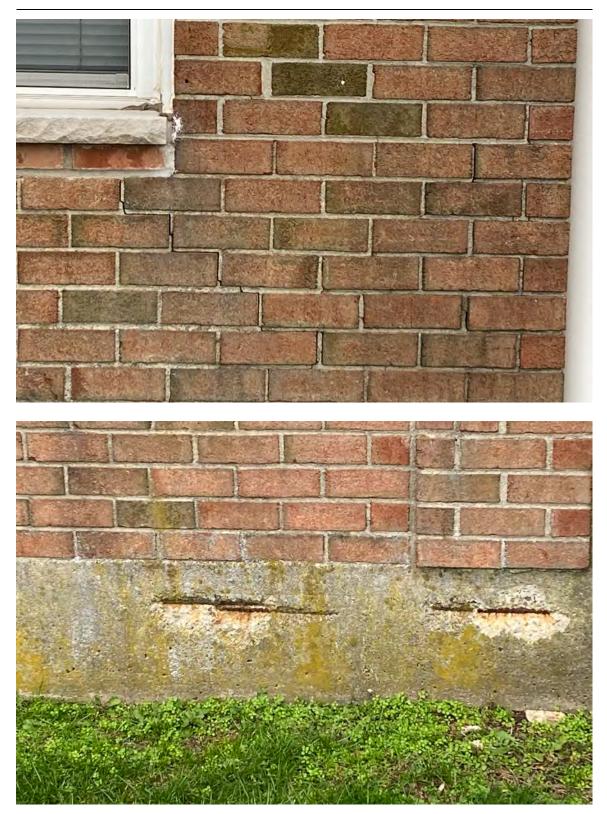




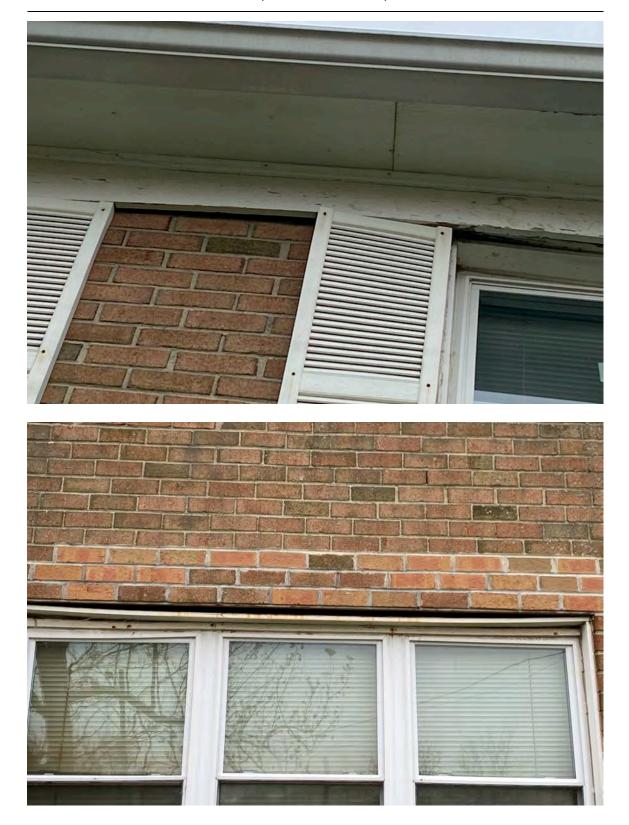


















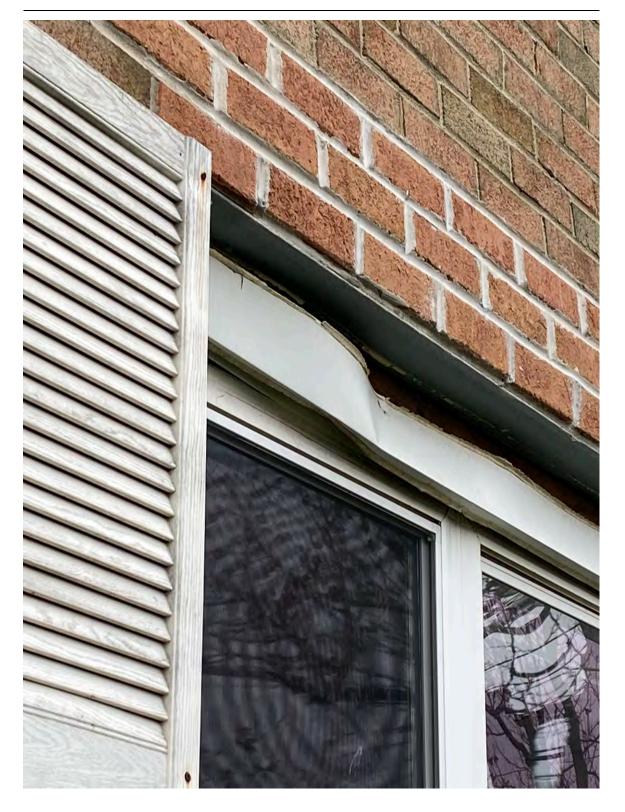


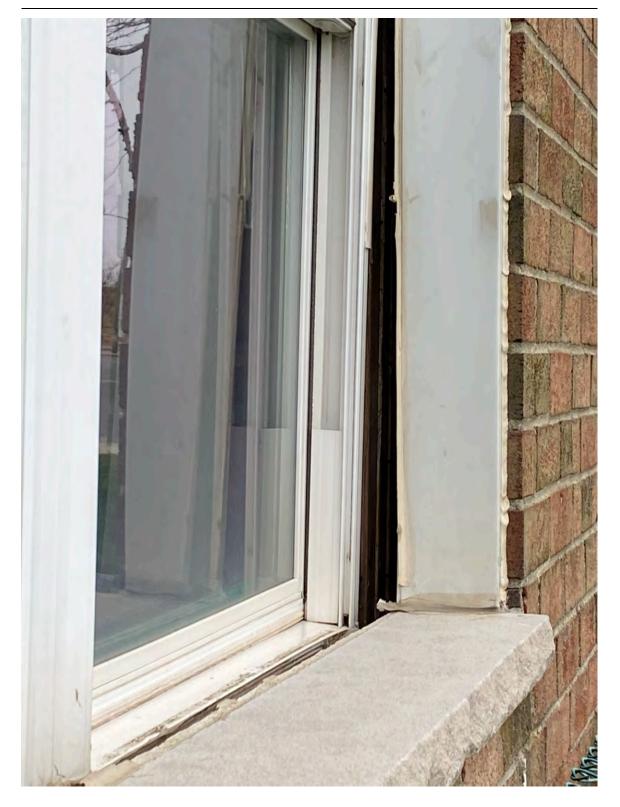




















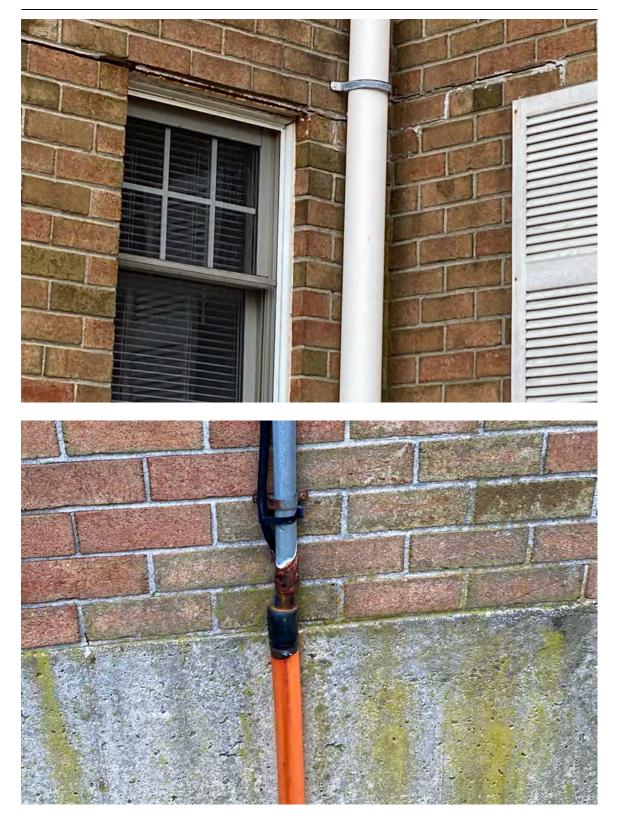




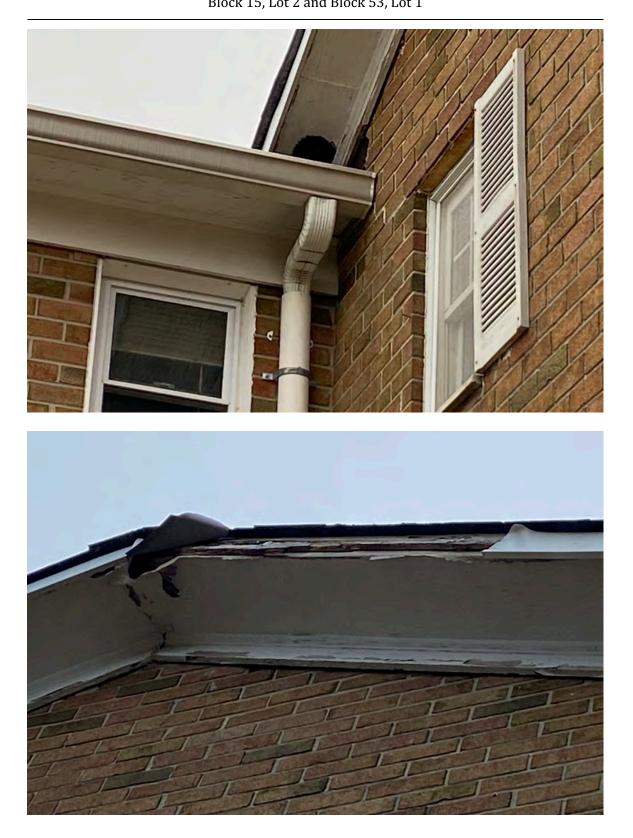
Appendix B, Part 2 — Pictures of Block 53, Lot 1

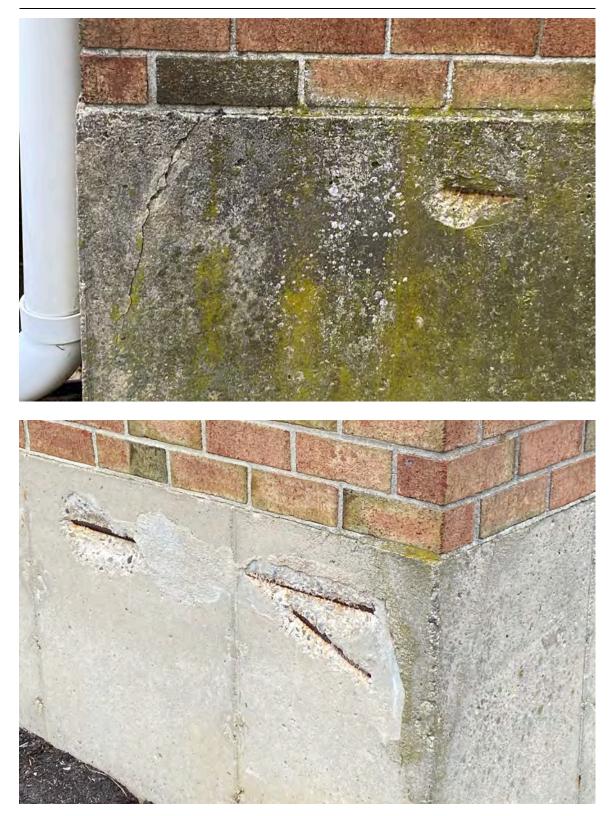


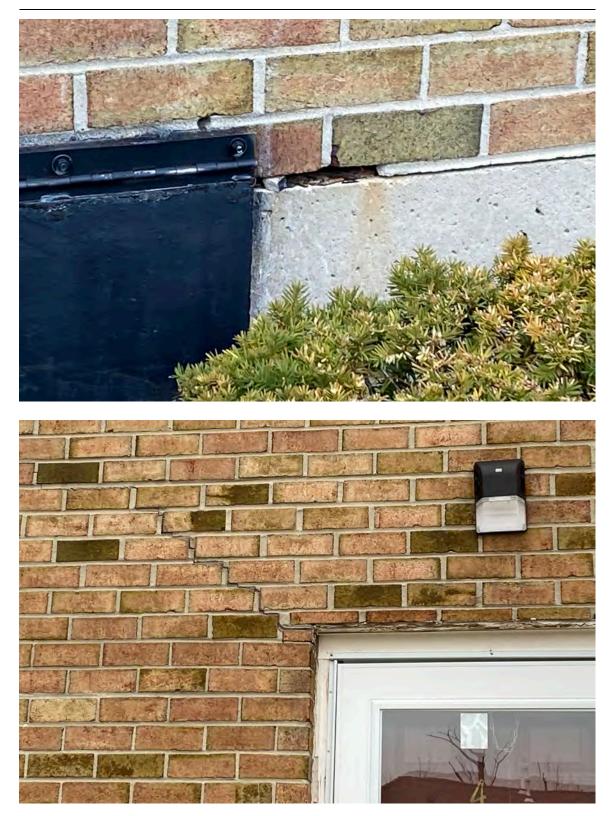


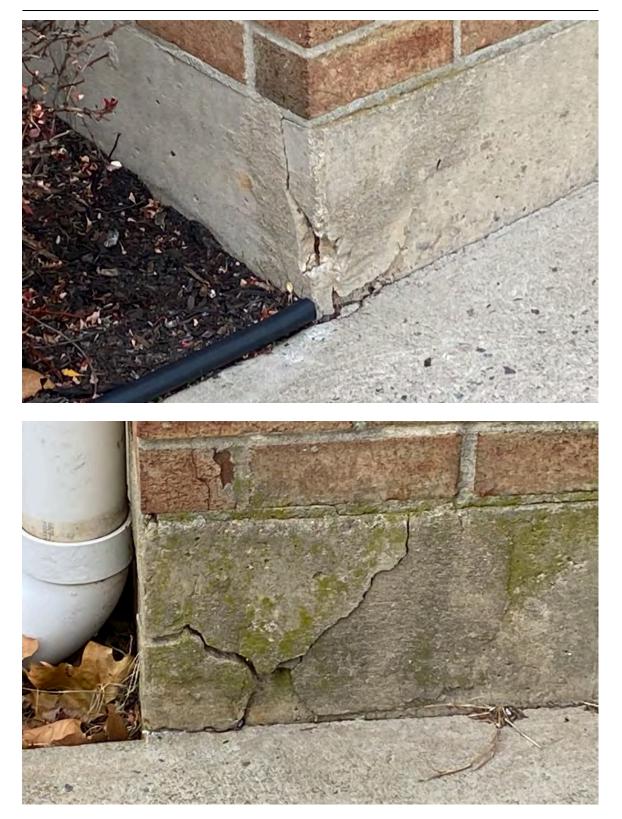


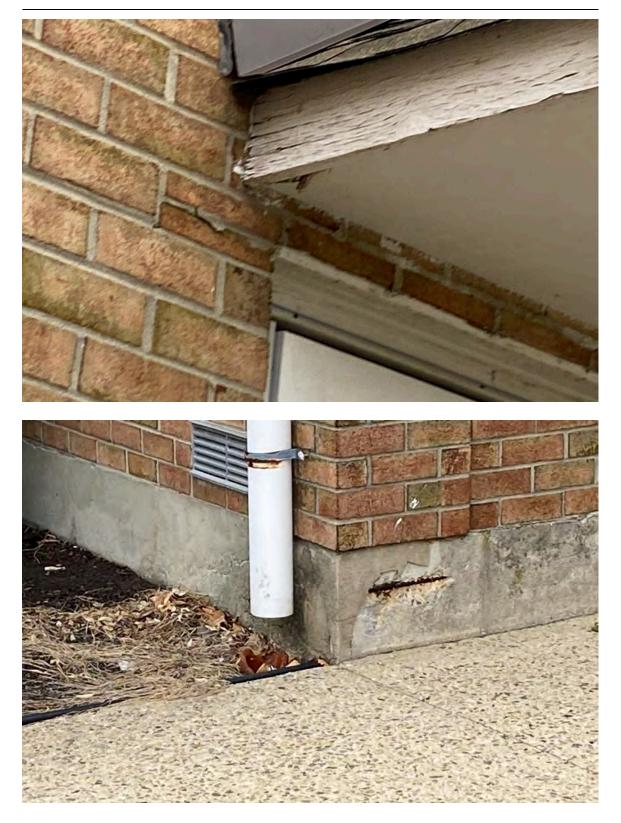




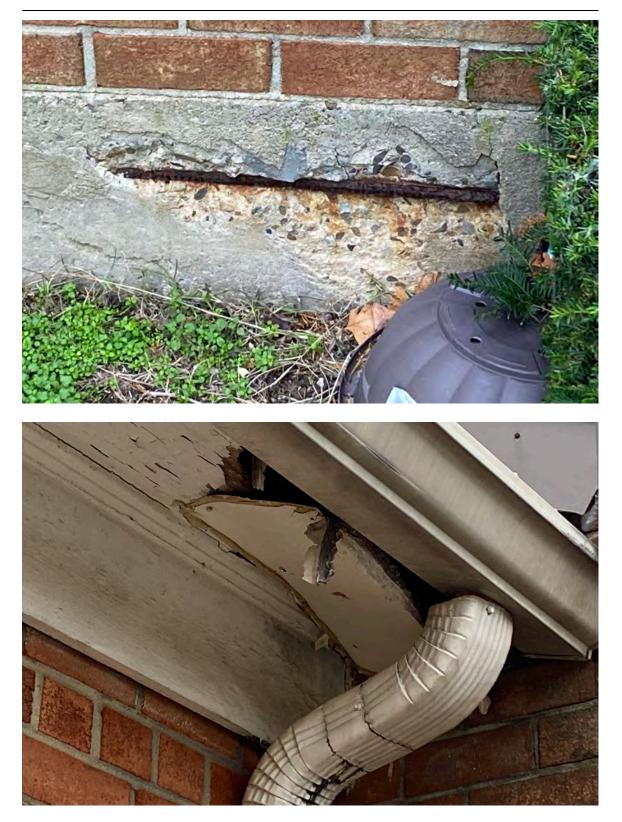




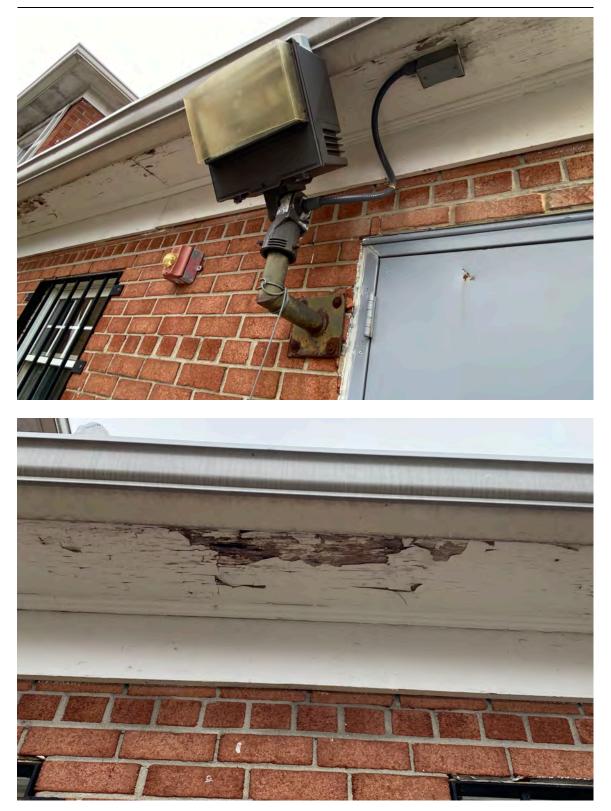




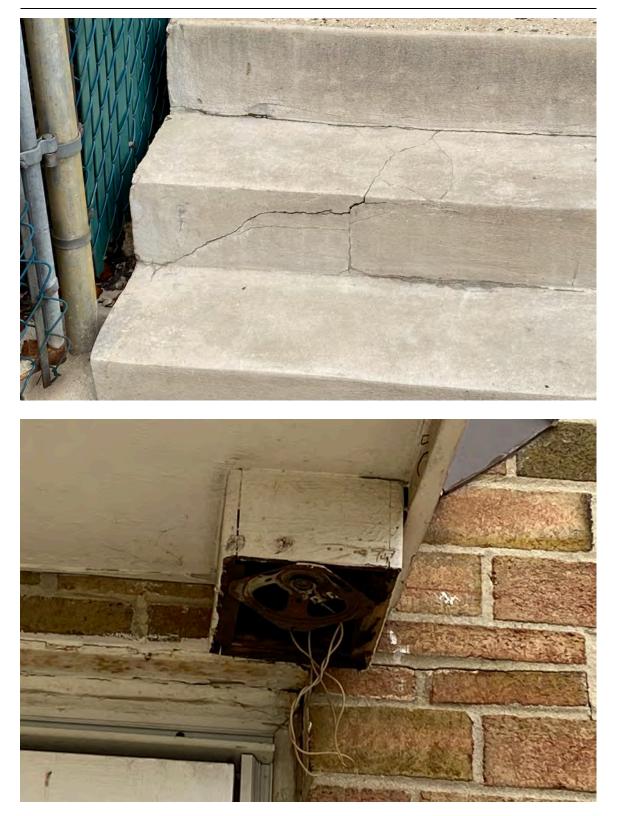


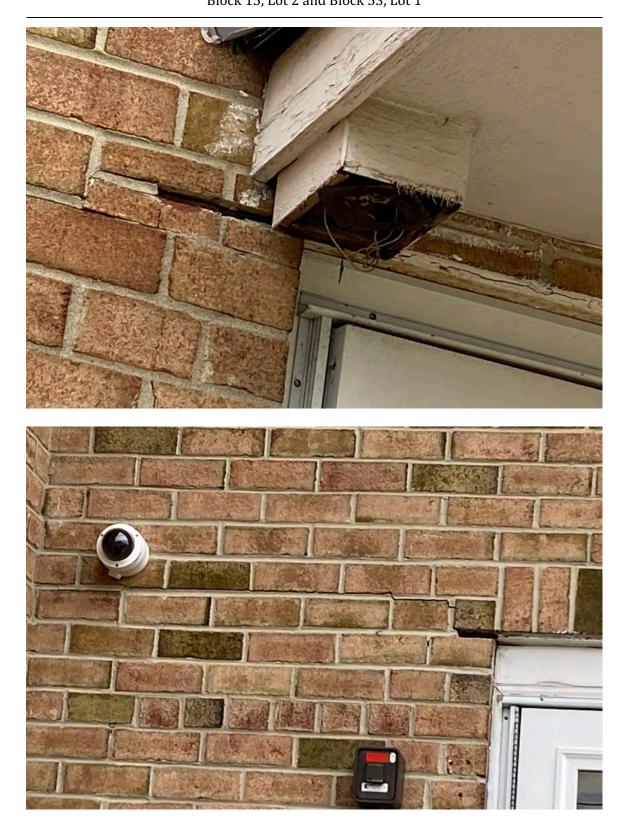




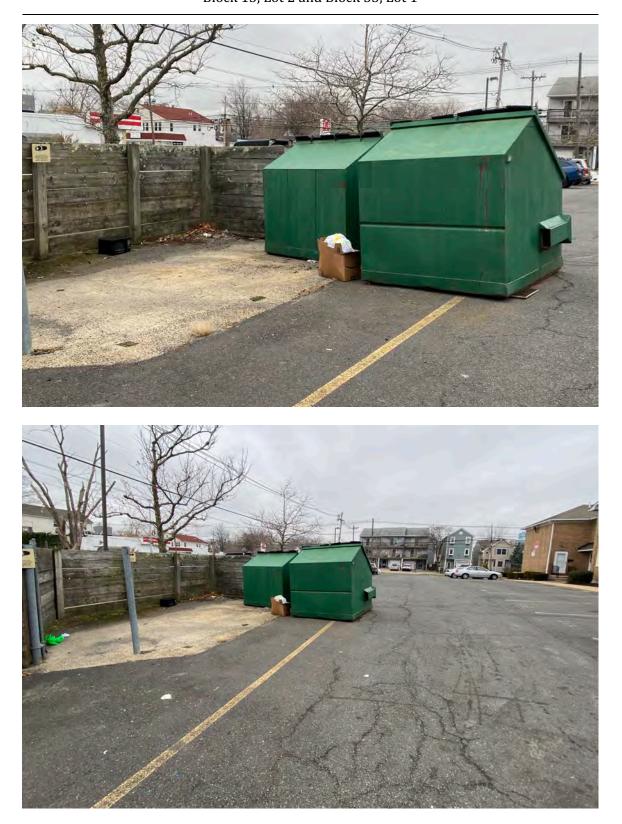














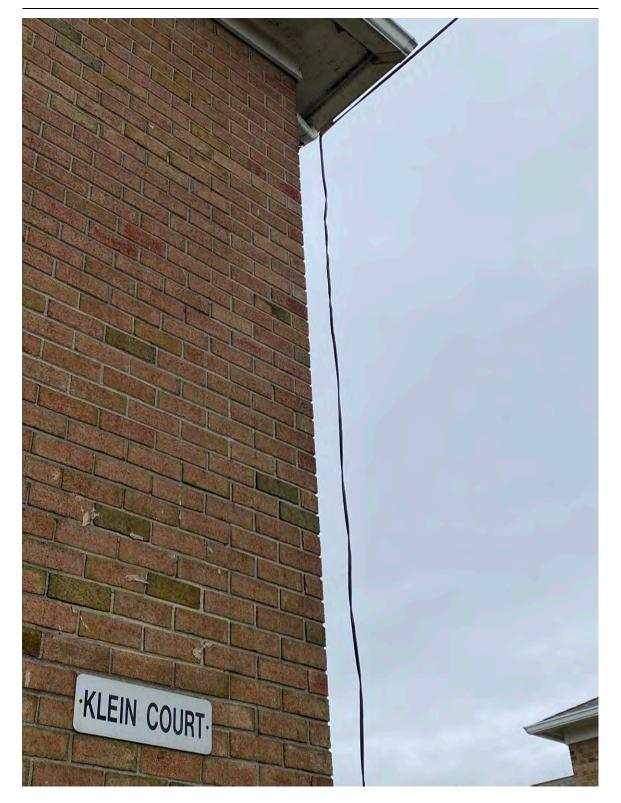








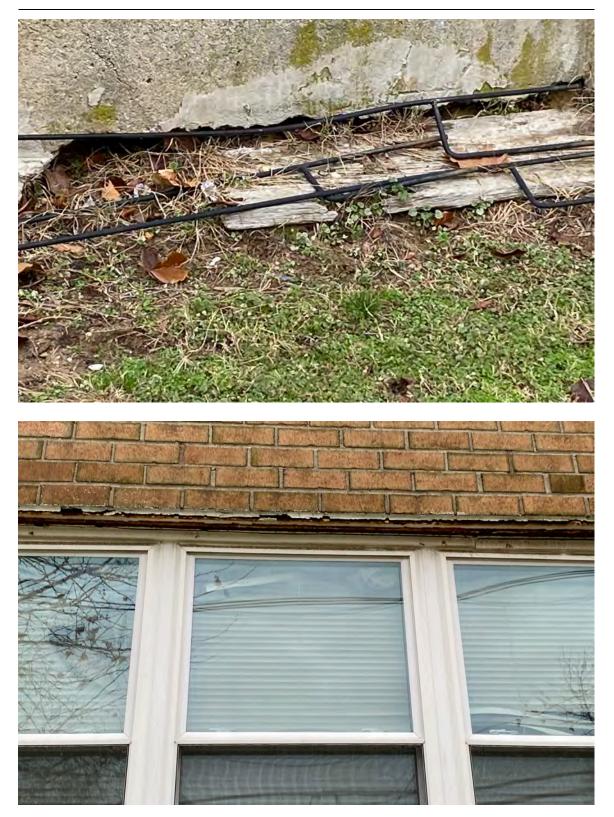


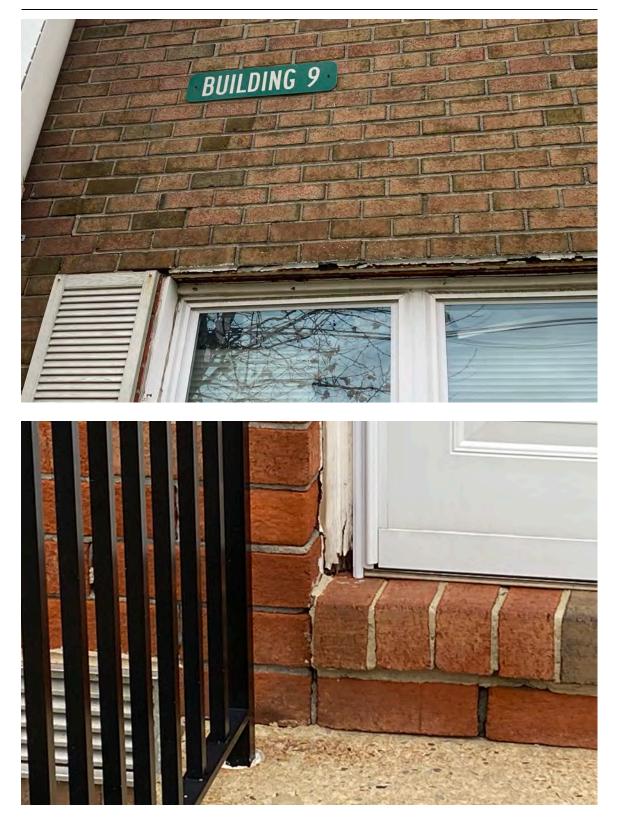


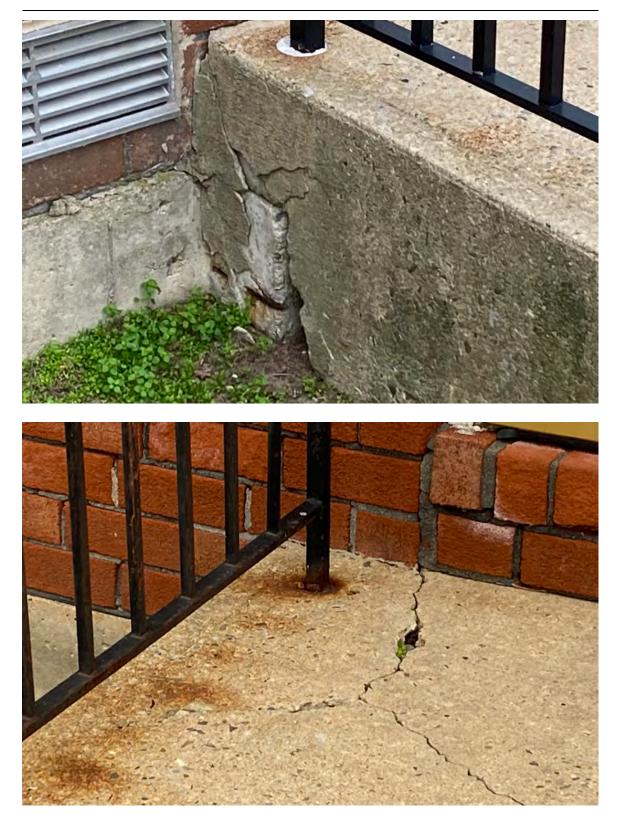


















Appendix C: 2012 Condition Assessment by DLB Associates (1 of 2)

GRANDVIEW APARTMENTS

HURRICANE DAMAGE CRAWLSPACE FOLLOW-UP EVALUATION

Executive Summary

DLB Associates was hired to perform a visual inspection of the crawlspace areas at the Grandview Apartment complex as a follow up to the initial post hurricane survey performed on November 21st 2012.

During the initial post-storm survey the conditions prevented full access to the crawlspace areas. Upon return to the site the conditions were found have improved greatly since the November 21st survey and access was no longer an issue. The crawlspaces had been cleaned of debris and although water was still present in isolated areas it did not hinder the survey.



The purpose of the survey was to gain a holistic understanding of the conditions present after the initial round of clean-up and repairs and determine any outstanding issues including: leaking or damaged piping, mold / moisture, health safety concerns, structural decay, and other issues. Each building was found to have areas of concern and they are documented within this report.

This information will allow the Affordable Housing Alliance (AHA) to make an accurate assessment of the remaining storm damage and to take prudent next steps towards resolving the issues found in a logical, cost effective manner.

Survey work was performed on January 17th of 2013. On the day of the site investigation, the weather was clear and cool.

Executive Summary

Evaluating the buildings overall we have ranked / categorized them into one of four ratings in order to give a general sense of the existing conditions.

The results are as follows:

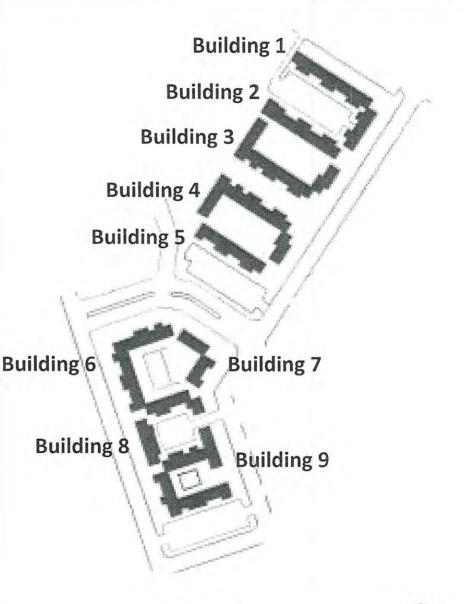
No Damage: None

Minor Damage: Building 2,5,7,8

Moderate Damage: Buildings 1,3,9

Major Damage: Buildings 6, 4

While these rankings are somewhat subjective, the intent is to provide the AHA a quick means to identify problem buildings and allocate resources accordingly.



Site Key Plan

Executive Summary

Proposed Next Steps:

- 1. Repair Damaged Piping Support In Building 4
- 2. Repair Sanitary Leaks Noted In This Report
- 3. Investigate Mold And Moisture Issue Near Building 9 Laundry Room
- 4. Investigate Water Retention Issue In Building 2 and Building 8 Pipe Well
- 5. Repair Domestic Water And Heating System Piping Leaks.
- 6. Investigate Causes of Standing Water (Leaking Pipes, Storm Water Drainage, Groundwater, etc..)
- 7. Evaluate Mold Treatment Options
- 8. Evaluate Insulation Application Options
- 9. Have Structural Engineer Examine Concrete Cross Support Ground Erosion
- 10. Add Additional Piping Supports To Piping System And Sanitary System

Structure Of This Report

This report includes a holistic executive summary for the entire site and then a more detailed evaluation of each building. The information presented for each building includes:

Overview - Includes some statements about the most significant issues found as well as a table identifying the most common concerns found throughout the site and how they relate to this specific building

Accessibility - Identifies the crawlspace entry points, which greatly impacts constructability / pricing of repair work, as well as any areas that could not be accessed by the survey team where hidden issues may still exist.

Details - Provides a visual understanding of the existing conditions found (via photographs) and a reference key plan in order to orient the reader / locate these issues.

Additional Information – Shares some more insights about the building that could be beneficial knowledge / data to have for the AHA.

Grandview Apartments – Building 1

CRAWLSPACE SURVEY / EVALUATION

Building 1 – Overview

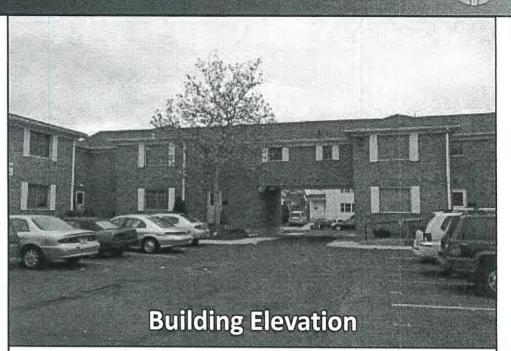
Damage Assessment: Minor – Moderate – Major

The damaged section of the foundation on the southeast side of the building was repaired.

The ground was very saturated and the soil was mushy. There were still pools of standing water and some debris.

Ground supported piping may need reinforcement and there is potentially serious corrosion to the valves.

Additional Conditions Rating				
Торіс	Minor	Moderate	Major	
Debris	Х			
Mold Growth		Х		
Moisture		Х		
Piping Damage		Х		
Structural / Erosion		X		





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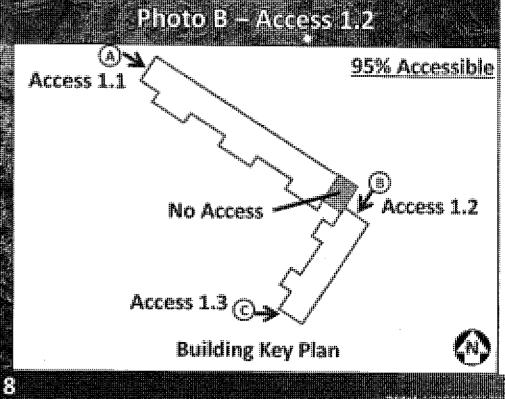
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Building 1 – Accessibility



Photo C – Access 1.3

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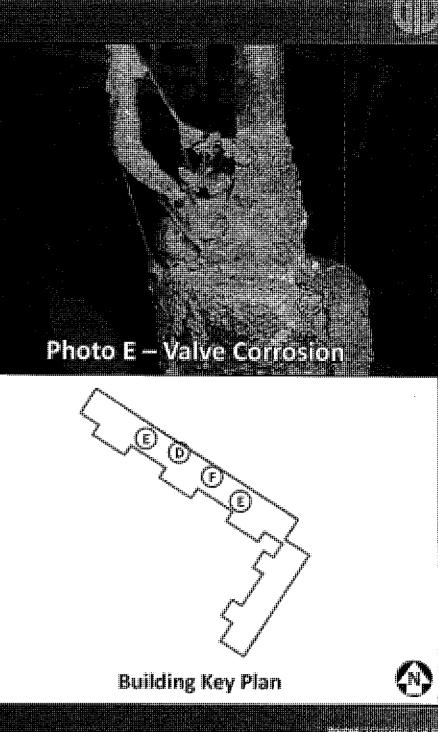


Building 1 – Details



Photo F – Poor Ground Support

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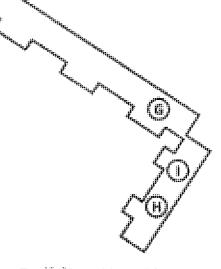
Building 1 – Details



Photo H – Standing Water



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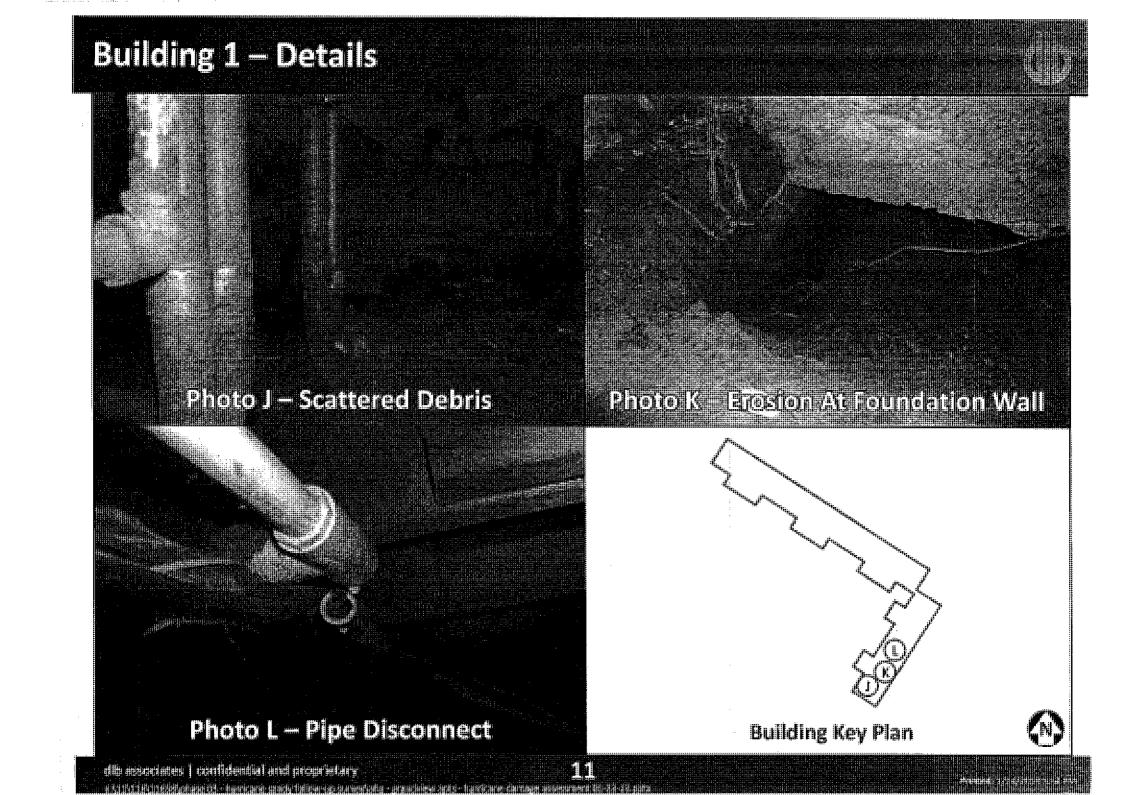


Building Key Plan



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The ground was heavily saturated with water, and the East foundation walls were still showing signs of water penetration. This may inhibit the reliability of ground-supported piping.

There was a heavy musty smell and an excess of moisture and standing water, particularly along the foundation walls. This may contribute to mold growth in the warmer weather.

Most of the valves were experiencing heavy corrosion. There was also a break in PVC piping towards the southern end of the building.

Heavy erosion, standing water, and remaining debris created a blockage at the corner of the building and this should be addressed.

Grandview Apartments – Building 2

CRAWLSPACE SURVEY / EVALUATION

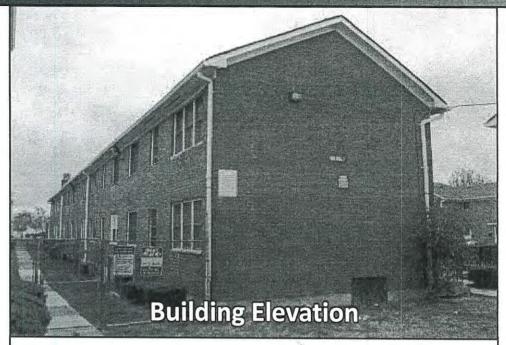
Building 2 – Overview

Damage Assessment: <u>Minor</u> – Moderate – Major

Some of the soil was still saturated while other sections have started to dry up.

There were a few pools of standing water, with one large pool at the southeast end.

Valve corrosion and debris were evident throughout the building.



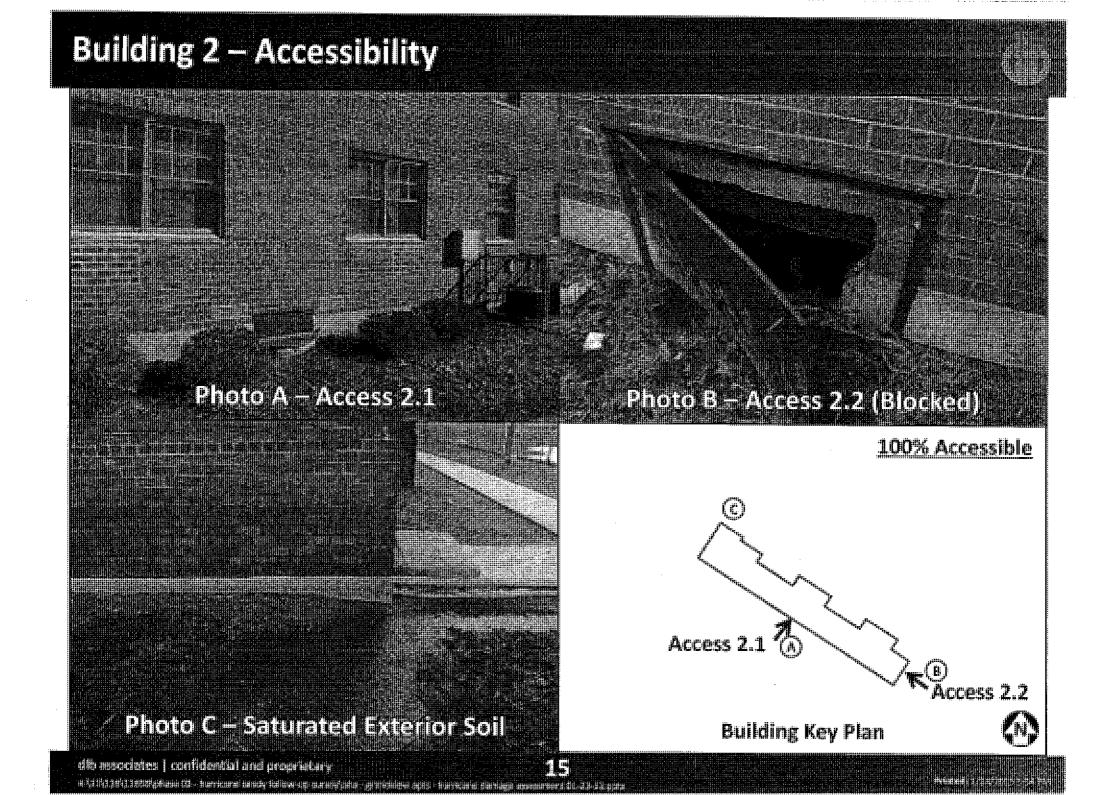
Additional Conditions Rating				
Торіс	Minor	Moderate	Major	
Debris	x			
Mold Growth		Х		
Moisture		х		
Piping Damage		х		
Structural / Erosion	X			



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Building 2 – Details

Photo D Pool Of Standing Water

- Photo F – Heavy Mud

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Photo E – Valve Corrosion

Building Key Plan



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Building 2 – Details



Photo I – Poor Ground Support

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Building Key Plan

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Photo H = Standing Water

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There was one blocked access point at the southeast end of the building. Even if this entrance was accessible, there was a large pool of standing water behind it that should be pumped out. Entrance to the crawl space was limited to the central point (Access 2.1).

Much of the soil was dry relative to the previous assessment, and the majority of debris was cleared away.

As with the other buildings, the integrity of the piping is in jeopardy due to initial saltwater exposure and continued moist conditions.

One CMU foundation support shown in Photo I should be reevaluated.

Grandview Apartments – Building 3

CRAWLSPACE SURVEY / EVALUATION

Building 3 – Overview

Damage Assessment: Minor - Moderate - Major

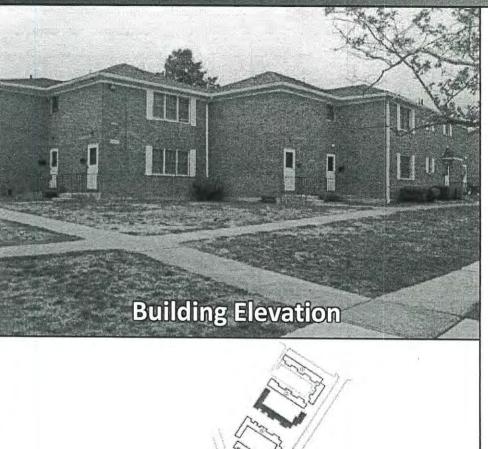
The major soil erosion along the exterior has been taken care of.

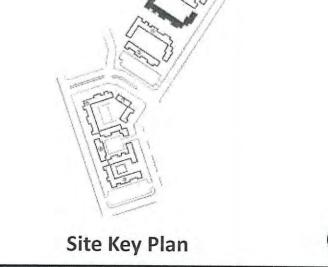
The ground in the crawlspace was saturated and contained various pools of standing water.

Beyond valve corrosion, there were two small pipe leaks.

Erosion was prevalent along inner foundation walls.

Additional Conditions Rating				
Торіс	Minor	Moderate	Major	
Debris	X			
Mold Growth		х	1	
Moisture			х	
Piping Damage		х		
Structural / Erosion		Х		



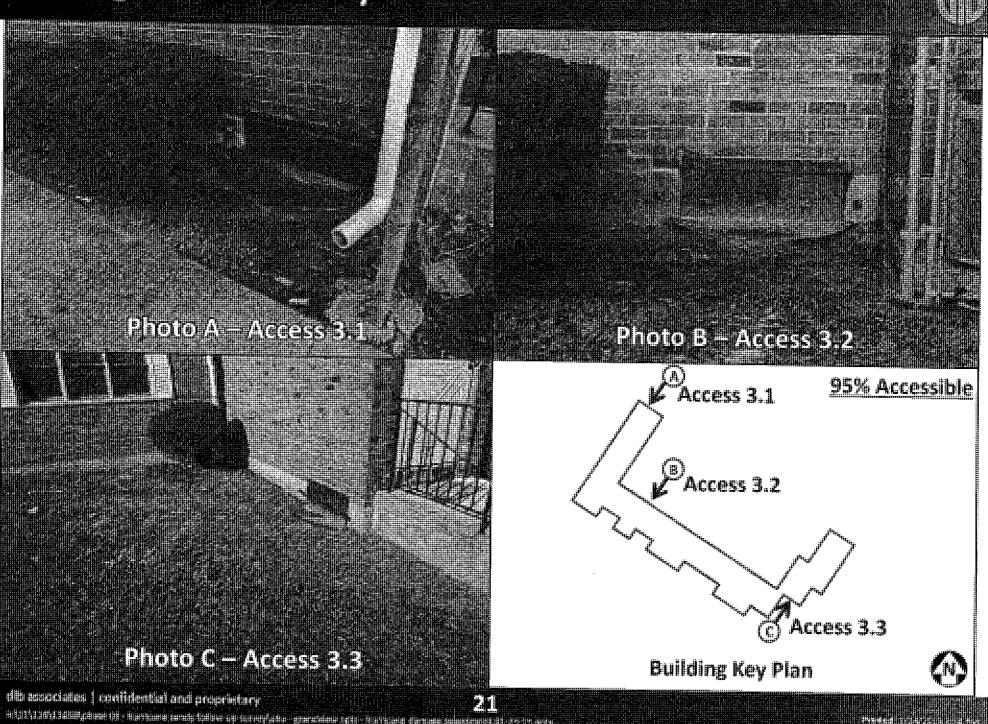


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Building 3 – Accessibility



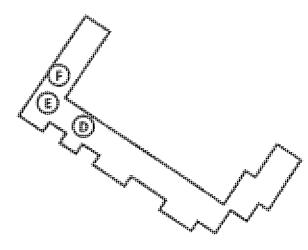
Building 3 – Details

Photo D – Poor Ground Support



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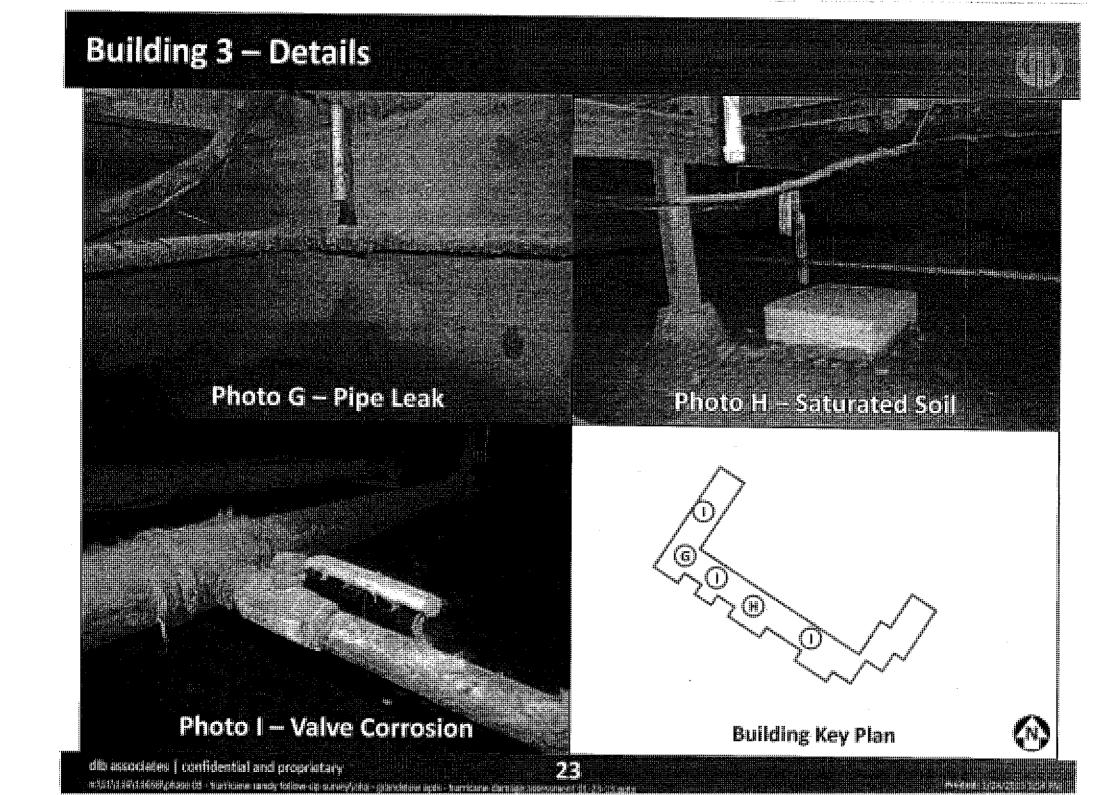
Photo E – Erosion At Foundation Wall



Building Key Plan



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Building 3 – Details

Photo J – Sanitary Leak

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Photo K -- Standing Water Pools

Building Key Plan

Photo L – Scattered Debris

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Building 3 – Additional Information

This building had a high level of moisture in the air and very saturated soil. Multiple pools of standing water were observed throughout the space, particularly near the corners of the building.

There were two leaks shown in Photo G and J that require attention. Ground supported piping may need additional support. Valve corrosion was widespread.

It seems that the water damage to the wood floor structure in the northwest corner of the building has been addressed. The rotted wood floor baseboards and the wood sill plate appear to have been replaced.

The erosion along the foundation on the southwest corner and water ponding has been addressed as

Grandview Apartments – Building 4

CRAWLSPACE SURVEY / EVALUATION

Building 4 – Overview

Damage Assessment: Minor – Moderate – Major

Erosion on north end was repaired.

There was some major pipe deflection in the middle of the building that needs to be addressed.

A sanitary leak along the southeast face of the foundation also requires attention.

Minor mold growth, standing water, and debris were observed throughout the building.

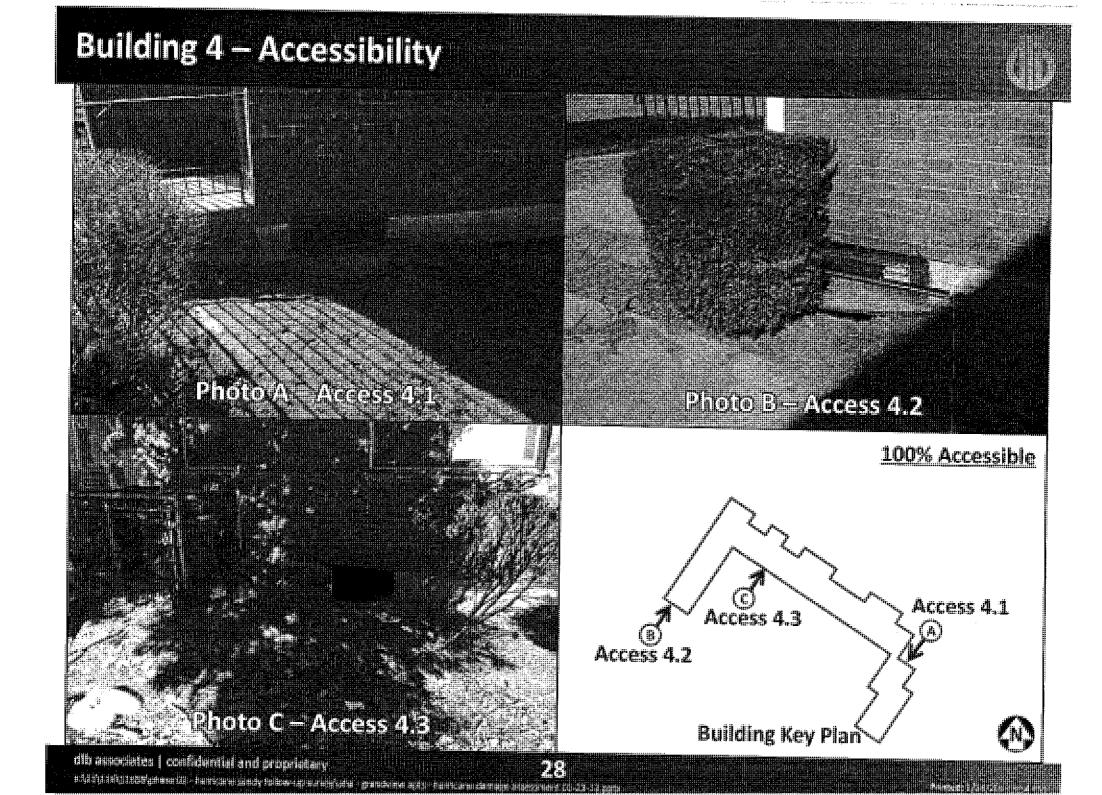
Additional Conditions Rating			
Торіс	Minor	Moderate	Major
Debris	X		
Mold Growth		Х	
Moisture			Х
Piping Damage			Х
Structural / Erosion		X	





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Building 4 – Details

Photo D – Repaired Erosion

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Photo F - Valve Corrosion

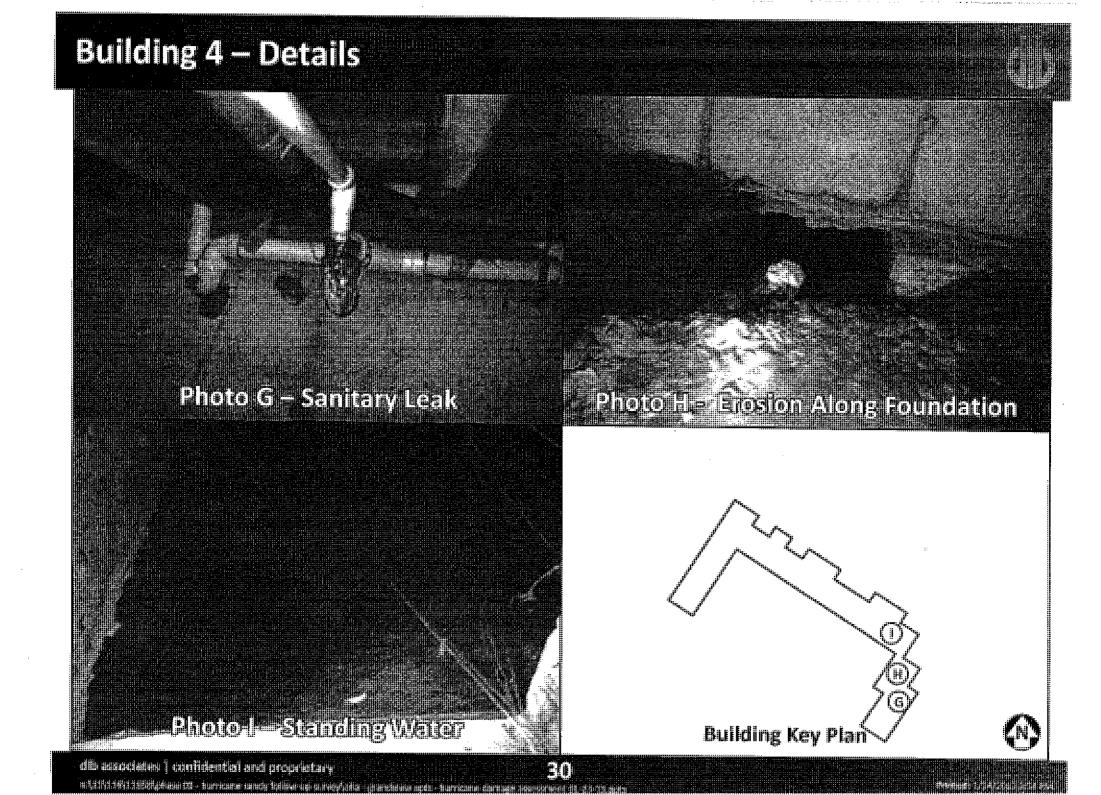
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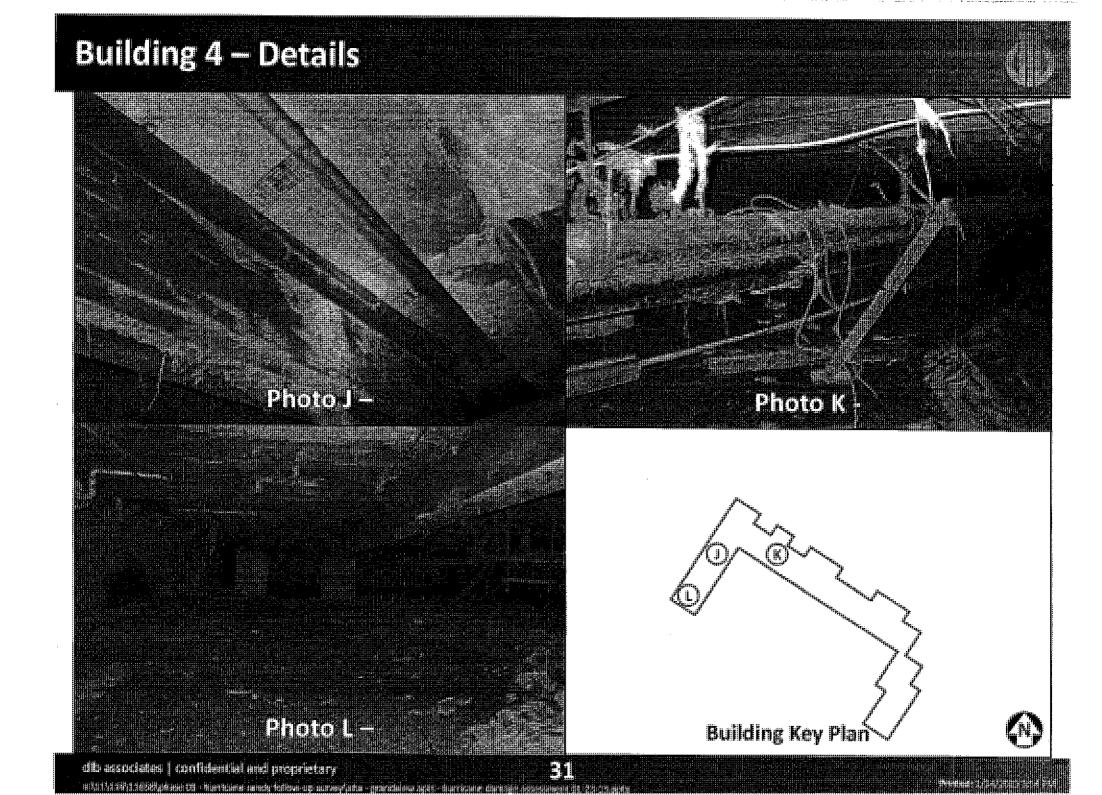
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Building Key Plan



Photo E - Poor Ground Support





The soil adjacent to a section of the building foundation on the northwest corner has been repaired.

There was still some mold growth in the crawlspace near Access 4.1.

Stressed piping near Access 4.3 and the sanitary leak along the southeast face of the building requires attention. As with all of the buildings, valve corrosion was common.

While standing water and soil erosion was not as prevalent as some of the other buildings, instances were noted along some of the southeast foundation walls.

Grandview Apartments – Building 5

CRAWLSPACE SURVEY / EVALUATION

Building 5 – Overview

Damage Assessment: Minor – Moderate – Major

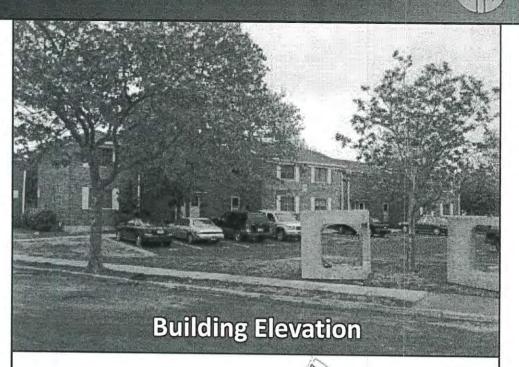
This building seemed to be in better shape than the others. Exterior erosion has been addressed.

The spray foam insulation was intact.

The soil was relatively dry and there was no evidence of standing water.

Some mold was visible along on the ground towards the southeast side of the building.

Additional Conditions Rating				
Торіс	Minor	Moderate	Major	
Debris	X			
Mold Growth		Х		
Moisture		X		
Piping Damage	х			
Structural / Erosion	Х			





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Building 5 – Accessibility





Photo C – Repaired Erosion

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Access 5.1

Photo B - Access 5 1

Building Key Plan



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Building 5 – Details

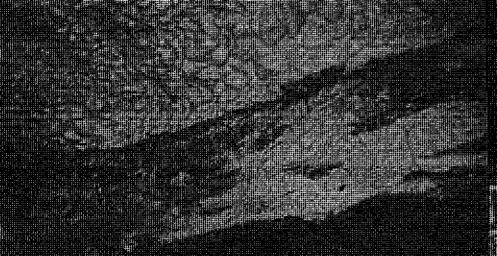
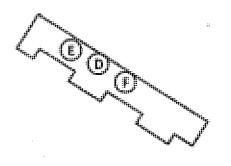


Photo D – Waterline Along Spray Foam







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The foundation erosion repairs at the northwest corner of the building have been made.

The spray foam insulation was found to be visibly intact and remained bonded to the sub floor. This insulation most likely will NOT need to be replaced. Measuring the moisture content of some core samples is recommended.

Some mold was observed towards the southeast side of the building. It has started forming along objects scattered on the ground.

The waterline was distinctly marked along the top of the foam on the beams. Although the first five buildings all had about the same level of water, this space seemed to be the most dry.

Valve corrosion was seen throughout the building.

Grandview Apartments – Building 6

CRAWLSPACE SURVEY / EVALUATION

Building 6 – Overview

Damage Assessment: Minor – Moderate – Major

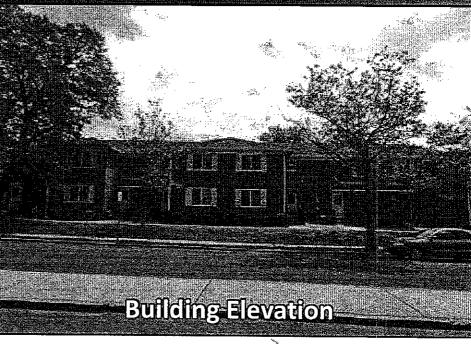
Significant number of leaks in domestic water and heating piping observed.

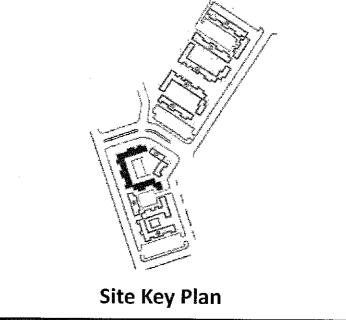
Leaking pipes contributing to moist environment resulting in evidence of mold growth.

Piping system observed to be sagging and in need in additional supports.

Standing water observed in numerous locations.

Additional Conditions Rating				
Торіс	Minor	Moderate	Major	
Debris	Х			
Mold Growth		X		
Moisture			Х	
Piping Damage			X	
Structural / Erosion		x		





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Building 6 – Accessibility



Photo C – Access 6.3

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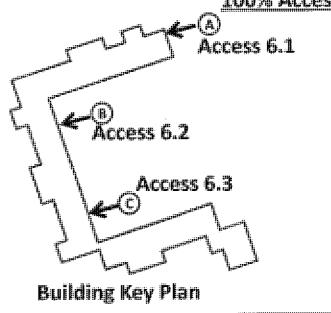


Photo B – Access 6.2

100% Accessible

Building 6 – Details

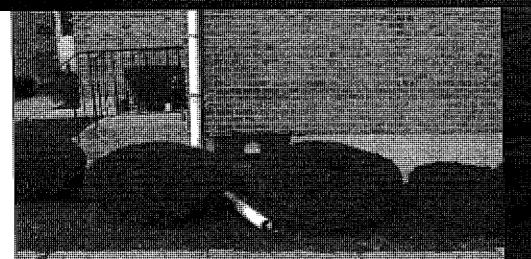


Photo D - Access 6.4

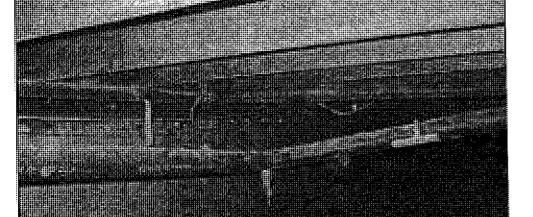
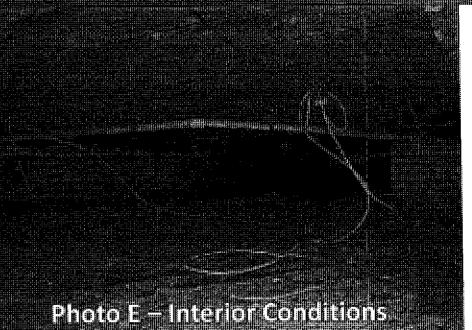


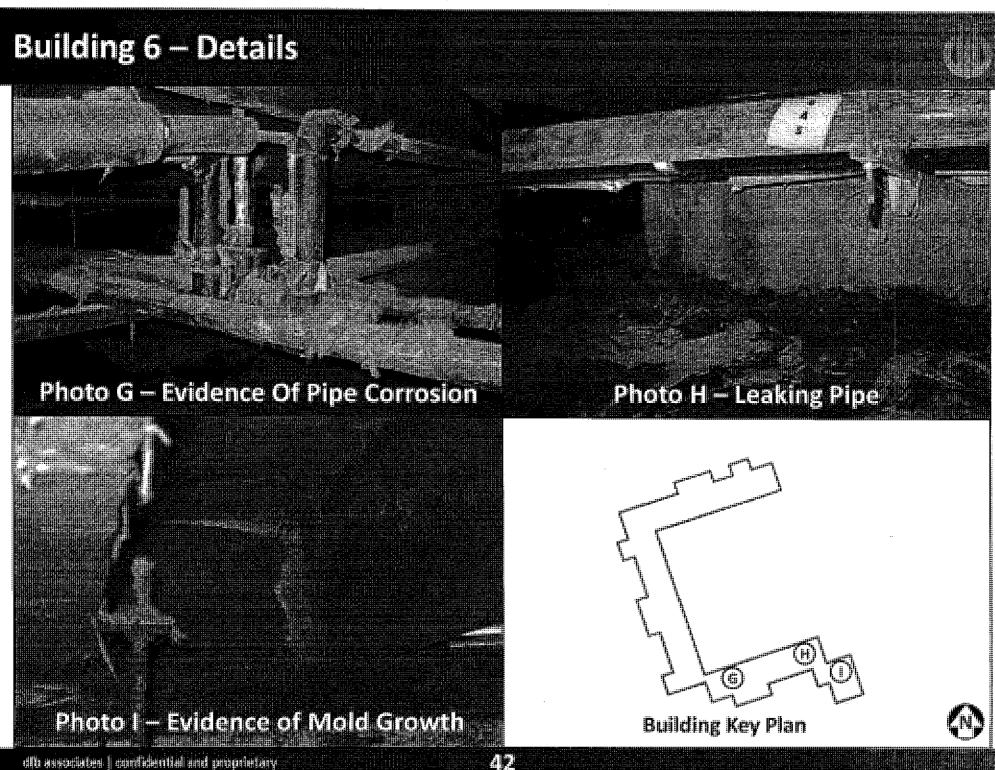
Photo F – Damaged Piping Support

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Erosion Erosion Access 6.4 Building Key Plan



Building 6 – Details

Photo J – Sill Damage

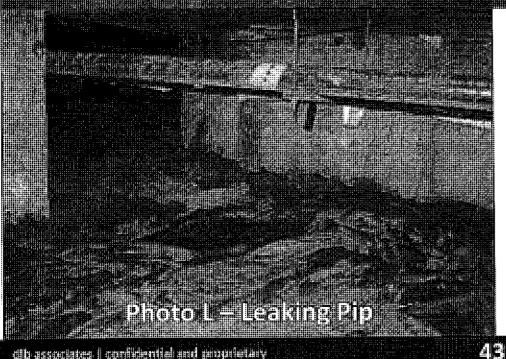
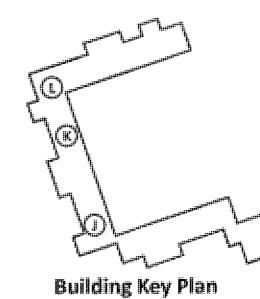


Photo K – Standing Water



Frank Statistics

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Building 6 appeared to have a significant number of leaks in the domestic water and heating piping. This was probably caused by a combination of the added stress put on the piping system after the insulation fell on the piping and the damaged piping supports.

The leaking pipes are contributing to the moist environment resulting in evidence of mold growth. There is a heavy musty smell is the crawlspace which is further evidence of mold growth.

The piping system was observed to be sagging in many areas and in need of additional supports.

Standing water was observed in numerous locations along with evidence of ground erosion in the interior of crawlspace.

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Grandview Apartments – Building 7

CRAWLSPACE SURVEY / EVALUATION

Building 7 – Overview

Damage Assessment: Minor – Moderate – Major

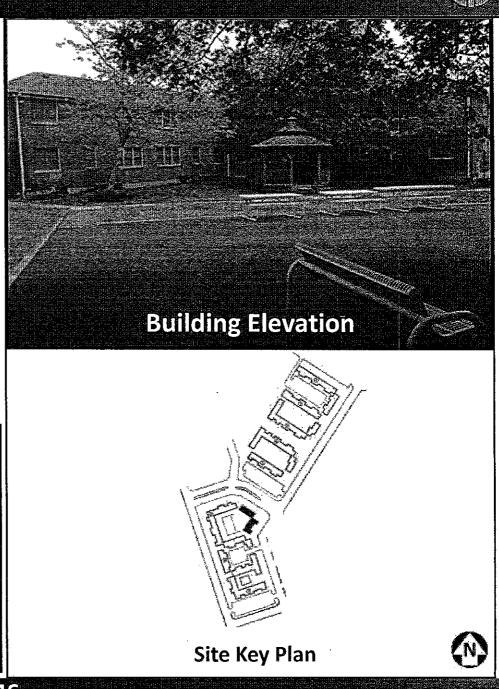
Sanitary pipe supports need to be added.

Leak observed in large diameter heating distribution piping.

Slight evidence of early mold growth.

Overall building is clean and very dry.

Additional Conditions Rating				
Торіс	Minor	Moderate	Major	
Debris	X		-	
Mold Growth		Х		
Moisture	x			
Piping Damage		Х		
Structural / Erosion	X			



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Building 7 – Accessibility

Photo A – Access 7.1

Photo C - Interior Conditions

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Photo B – Access 7.2

Access 7.1 🔿 Access 7.2 (9→)(

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100% Accessible







Photo F – Leaking Heating Piping

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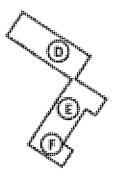


Photo E Improperly Supported Piping

Building Key Plan

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Ceress in the

Overall Building 7 is one of the least damaged buildings in the complex. The crawlspace was clean and very dry and only a few minor issues were noted.

The Sanitary pipe that used to be buried was exposed and is no longer buried. The exposed piping is not properly supported and this is causing stress on the sanitary piping system.

A steady leak was observed in large diameter heating distribution piping.

Slight evidence of early mold growth was observed.

Grandview Apartments – Building 8

CRAWLSPACE SURVEY / EVALUATION

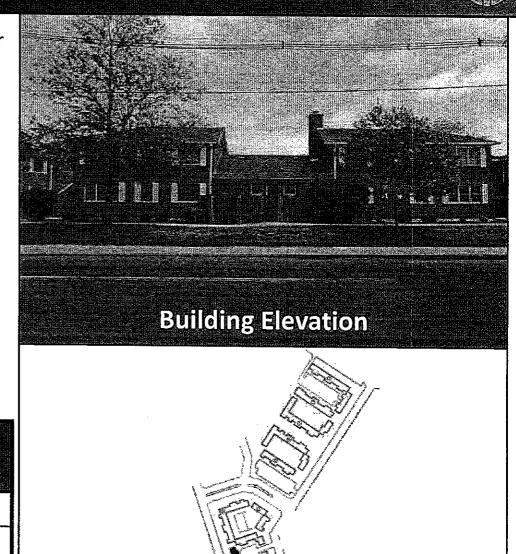
Building 8 – Overview

Damage Assessment: <u>Minor</u> – Moderate – Major

Relative to the other buildings, only minor damage to the building was observed.

Piping leak observed coming from water riser.

Standing water observed in piping well.



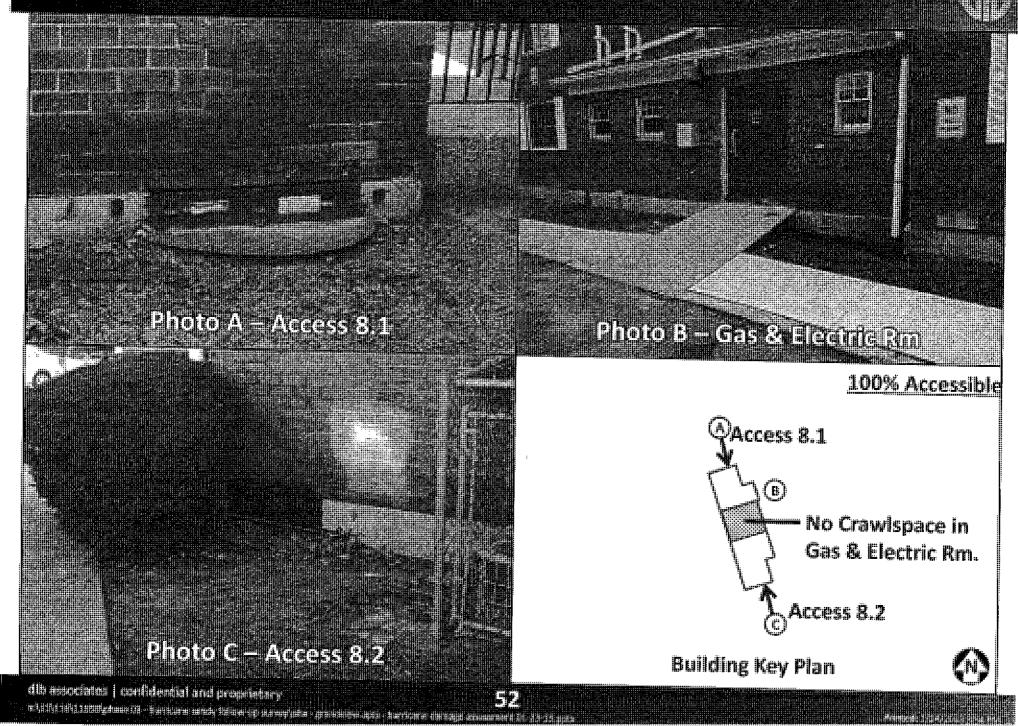
Site Key Plan

Additional Conditions Rating				
Торіс	Minor	Moderate	Major	
Debris	X			
Mold Growth	x			
Moisture	X			
Piping Damage		Х		
Structural / Erosion		X		

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Building 8 – Accessibility

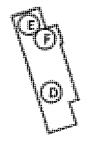


Building 8 – Details



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Photo E – Interior Conditions



Building Key Plan



The piping leak observed in the Piping Well at first looked similar to the issue discovered in Buidling 3 a few months back, however upon closer inspection the water was not hot so it is not likely to be coming from the heating system.

It is recommended that the water be pumped from the well and and observation made to see if it come back and/or how quickly it comes back.

Grandview Apartments – Building 9

CRAWLSPACE SURVEY / EVALUATION

Building 9 – Overview

Damage Assessment: Minor – Moderate – Major

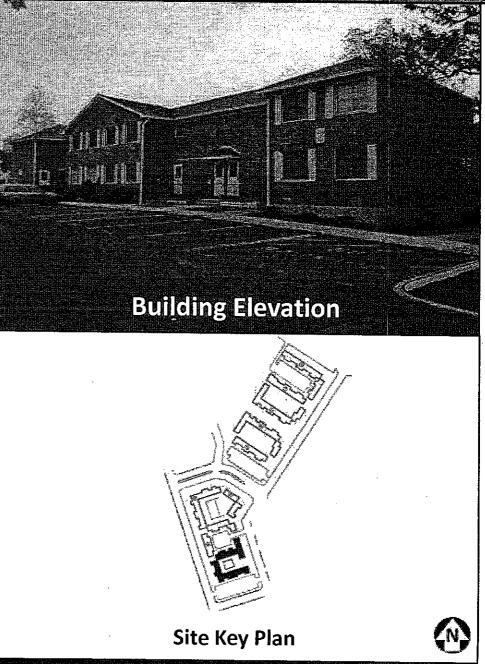
Isolated signs of significant moisture and mold growth near laundry area.

Isolated areas of moisture/standing water.

Signs of piping corrosion

Evidence of soil erosion in interior of crawlspace.

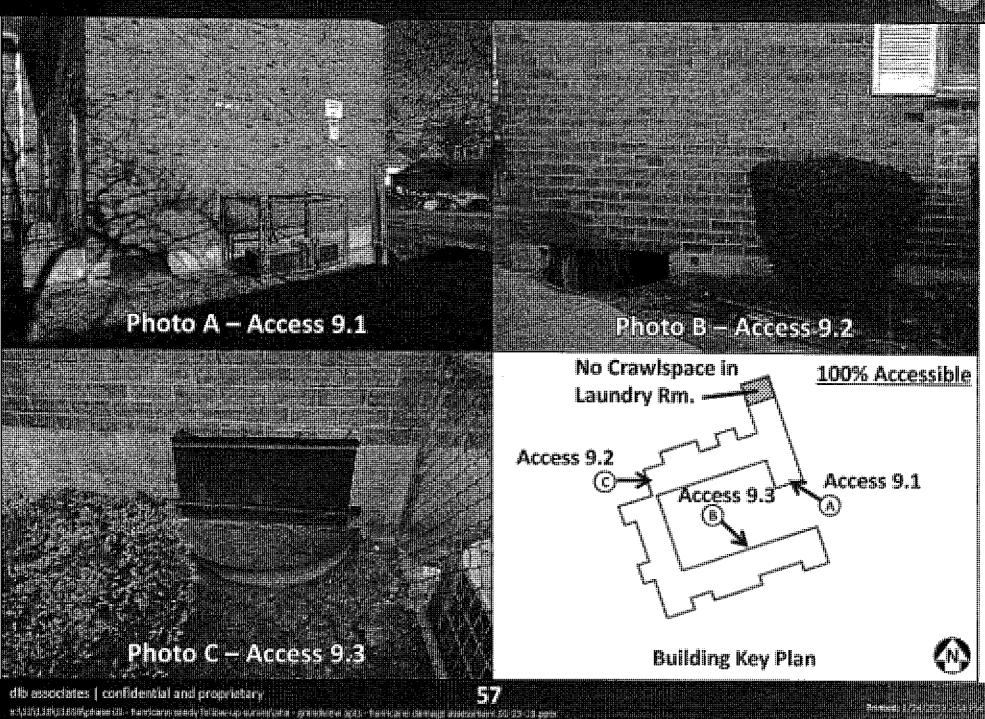
Additional Conditions Rating				
Торіс	Minor	Moderate	Major	
Debris	Х			
Mold Growth		X		
Moisture		X		
Piping Damage		Х		
Structural / Erosion		X		



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Building 9 – Accessibility



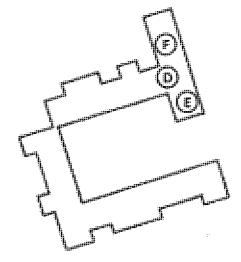
Building 9 – Foundation Erosion

Photo D – General Condition

Photo F - Mold And Water Damage Near Laundry Room

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Photo E - Interior Erosion



Building Key Plan

Building 9 – Details

. Photo 6 - Interior Fresion

Photo I – Piping Corrosion

Photo H – Interior Erosion



Building Key Plan



Building 9 – Details

Photo J – Assumed Water Level

Photo L – Damage Storm Downspout

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Photo K – Unsupported Sanitary Piping



Building Key Plan

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Building 9 – Additional Information

There was a significant amount of erosion around the building foundation. In several locations, water ponding was observed around the footings which were left exposed after the storm.

In several locations around the building perimeter, significant cracking of the brick façade was observed.

Based upon the sediment left on the wood floor beams, the crawlspace is assumed to have been completely submerged in water during the storm event.

Stray wires were found hanging from the underside of the floor structure.

END OF SLIDES

The ground was heavily saturated with water, and the East foundation walls were still showing signs of water penetration. This may inhibit the reliability of ground-supported piping.

There was a heavy musty smell and an excess of moisture and standing water, particularly along the foundation walls. This may contribute to mold growth in the warmer weather.

Most of the valves were experiencing heavy corrosion. There was also a break in PVC piping towards the southern end of the building.

Heavy erosion, standing water, and remaining debris created a blockage at the corner of the building and this should be addressed.

Building 2 – Overview

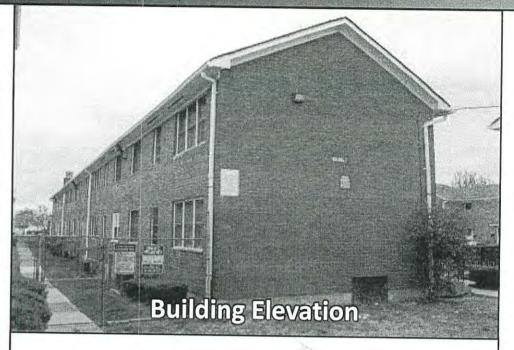
Damage Assessment: Minor – Moderate – Major

Some of the soil was still saturated while other sections have started to dry up.

There were a few pools of standing water, with one large pool at the southeast end.

Valve corrosion and debris were evident

Additional Conditions Rating				
Торіс	Minor	Moderate	Major	
Debris	Х			
Mold Growth		X		
Moisture		х		
Piping Damage		Х		
Structural / Erosion	х			





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There was one blocked access point at the southeast end of the building. Even if this entrance was accessible, there was a large pool of standing water behind it that should be pumped out. Entrance to the crawl space was limited to the central point (Access 2.1).

Much of the soil was dry relative to the previous assessment, and the majority of debris was cleared away.___

As with the other buildings, the integrity of the piping is in jeopardy due to initial saltwater exposure and continued moist conditions.

One CMU foundation support shown in Photo I should be reevaluated.

Building 3 – Overview

Damage Assessment: Minor – Moderate – Major

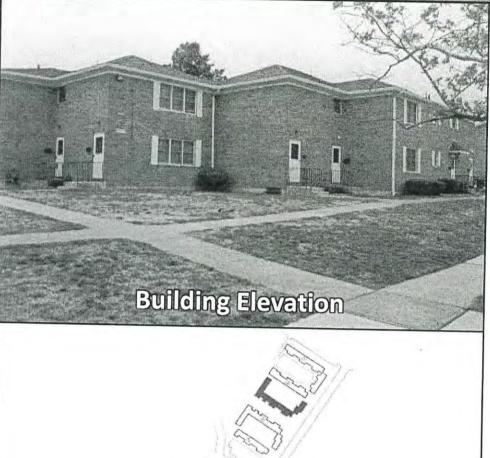
The major soil erosion along the exterior has been taken care of.

The ground in the crawlspace was saturated and contained various pools of standing water.

Beyond valve corrosion, there were two small pipe leaks.

Erosion was prevalent along inner foundation walls.

Additional Conditions Rating				
Торіс	Minor	Moderate	Major	
Debris	X			
Mold Growth		_X_		
Moisture		-	X	
Piping Damage		Х		
Structural / Erosion		X		





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This building had a high level of moisture in the air and very saturated soil. Multiple pools of standing water were observed throughout the space, particularly near the corners of the building.

There were two leaks shown in Photo G and J that require attention. Ground supported piping may need additional support. Valve corrosion was widespread.

It seems that the water damage to the wood floor structure in the northwest corner of the building has been addressed. The rotted wood floor baseboards and the wood sill plate appear to have been replaced.

The erosion along the foundation on the southwest corner and water ponding has been addressed as well.

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Building 4 – Overview

Damage Assessment: Minor – Moderate – Major

Erosion on north end was repaired.

There was some major pipe deflection in the middle of the building that needs to be addressed.

A sanitary leak along the southeast face of the foundation also requires attention.

Minor mold growth, standing water, and debris were observed throughout the building.

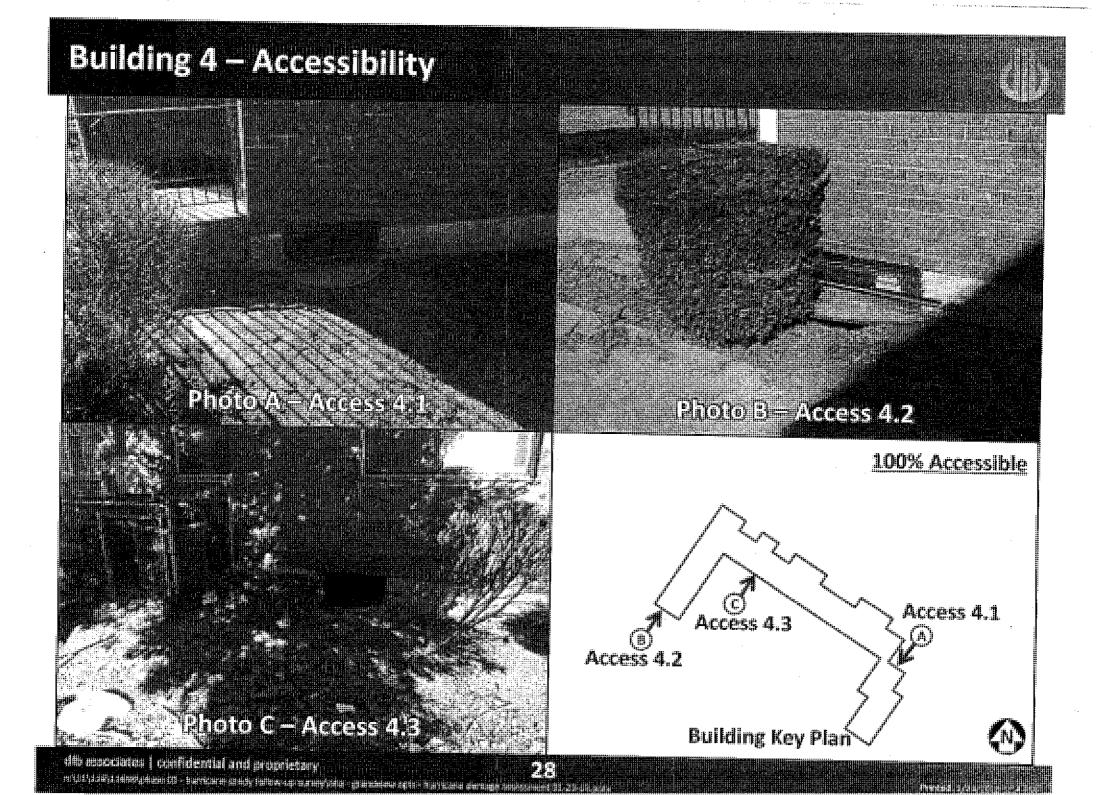
Additional Conditions Rating				
Торіс	Minor	Moderate	Major	
Debris	Х			
Mold Growth		X		
Moisture			х	
Piping Damage			Х	
Structural / Erosion		Х		





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The soil adjacent to a section of the building foundation on the northwest corner has been repaired.

There was still some mold growth in the crawlspace near Access 4.1.

Stressed piping near Access 4.3 and the sanitary leak along the southeast face of the building requires attention. As with all of the buildings, valve corrosion was common.

While standing water and soil erosion was not as prevalent as some of the other buildings, instances were noted along some of the southeast foundation walls.

Building 5 – Overview

Damage Assessment: Minor – Moderate – Major

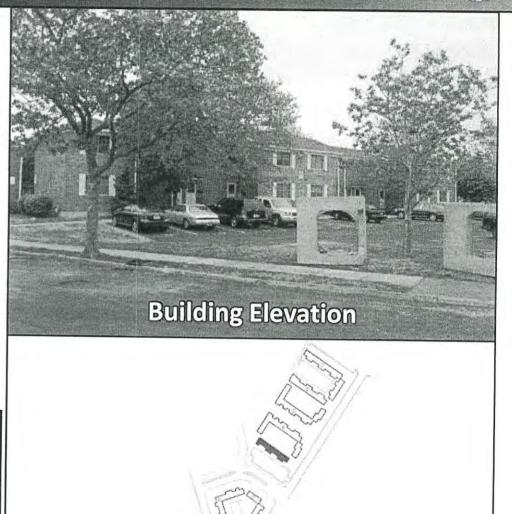
This building seemed to be in better shape than the others. Exterior erosion has been addressed.

The spray foam insulation was intact.

The soil was relatively dry and there was no evidence of standing water.

Some mold was visible along on the ground towards the southeast side of the building.

Additional Condition	s Rating		
Торіс	Minor	Moderate	Major
Debris	Х		
Mold Growth)	X	
Moisture		X	
Piping Damage	х		
Structural / Erosion	х		1



Site Key Plan

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The foundation erosion repairs at the northwest corner of the building have been made.

The spray foam insulation was found to be visibly intact and remained bonded to the sub floor. This insulation most likely will NOT need to be replaced. Measuring the moisture content of some core samples is recommended.

Some mold was observed towards the southeast side of the building. It has started forming along objects scattered on the ground.

The waterline was distinctly marked along the top of the foam on the beams. Although the first five buildings all had about the same level of water, this space seemed to be the most dry.

Valve corrosion was seen throughout the building.

Building 6 – Overview

Damage Assessment: Minor – Moderate – Major

Significant number of leaks in domestic water and heating piping observed.

Leaking pipes contributing to moist environment resulting in evidence of mold growth.

Piping system observed to be sagging and in need in additional supports.

Standing water observed in numerous locations.

Additional Conditions Rating			
Торіс	Minor	Moderate	Major
Debris /	x 7		
Mold Growth	R	X	
Moisture			Х
Piping Damage	-		Х
Structural / Erosion		Х	





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Building 6 – Details

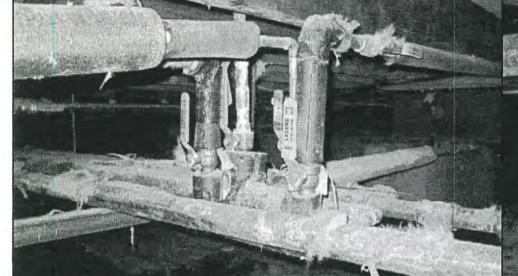


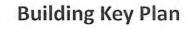
Photo G – Evidence Of Pipe Corrosion



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Photo H – Leaking Pipe



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Building 7 – Overview

Damage Assessment: Minor – Moderate – Major

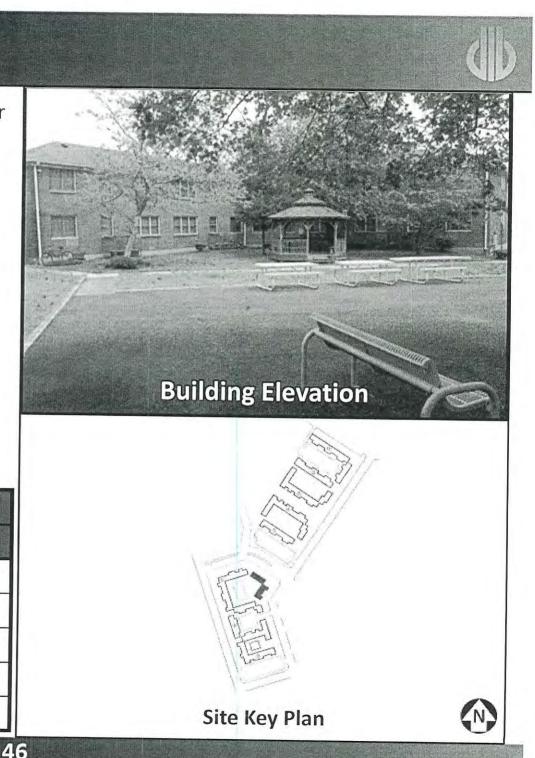
Sanitary pipe supports need to be added.

Leak observed in large diameter heating distribution piping.

Slight evidence of early mold growth.

Overall building is clean and very dry.

Additional Condition			
Торіс	Minor	Moderate	Major
Debris	X×	1	
Mold Growth		X	
Moisture	X		
Piping Damage		Х	
Structural / Erosion	Х		



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Building 7 – Details

Photo D – Flood line and Early Signs of **Mold Growth**

Photo F – Leaking Heating Piping

Building Key Plan

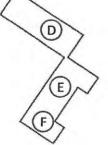
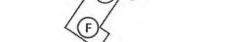




Photo E - Improperly Supported Piping



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48 n:\11\116\11658\phase 03 - hurricane sandy follow-up survey\aha - grandview apts - hurricane damage assessment 01-23-13.pptx Overall Building 7 is one of the least damaged buildings in the complex. The crawlspace was clean and very dry and only a few minor issues were noted.

The Sanitary pipe that used to be buried was exposed and is no longer buried. The exposed piping is not properly supported and this is causing stress on the sanitary piping system.

A steady leak was observed in large diameter heating distribution piping.

Slight evidence of early mold growth was observed.

Building 8 – Overview

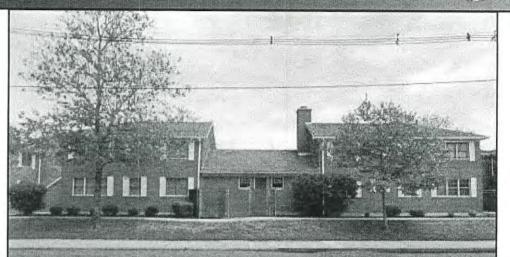
Damage Assessment: <u>Minor</u> – Moderate – Major

Relative to the other buildings, only minor damage to the building was observed.

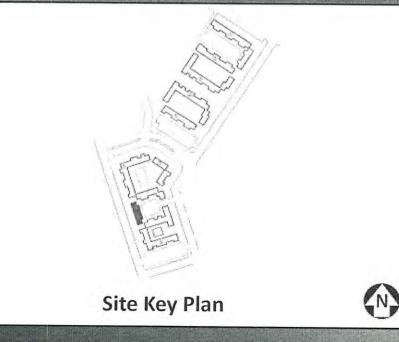
Piping leak observed coming from water riser.

Standing water observed in piping well.

Additional Conditions Rating				
Торіс	Minor	Moderate	Major	
Debris	XT	ſ		
Mold Growth	X			
Moisture	х			
Piping Damage		Х		
Structural / Erosion		Х		



Building Elevation



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The piping leak observed in the Piping Well at first looked similar to the issue discovered in Buidling 3 a few months back, however upon closer inspection the water was not hot so it is not likely to be coming from the heating system.

It is recommended that the water be pumped from the well and and observation made to see if it come back and/or how quickly it comes back.

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Building 9 – Overview

Damage Assessment: Minor – Moderate – Major

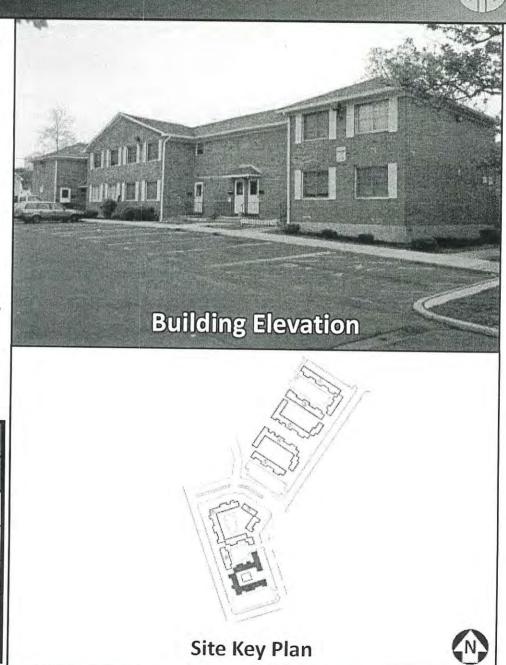
Isolated signs of significant moisture and mold growth near laundry area.

Isolated areas of moisture/standing water.

Signs of piping corrosion

Evidence of soil erosion in interior of crawlspace.

Additional Conditions Rating				
Торіс	Minor	Moderate	Major	
Debris	X			
Mold Growth		- X -		
Moisture		х		
Piping Damage		Х		
Structural / Erosion		Х		



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Building 9 – Foundation Erosion

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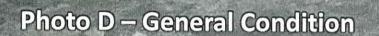
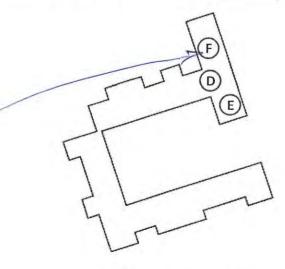


Photo F – Mold And Water Damage **Near Laundry Room**

Photo E - Interior Erosion



Building Key Plan

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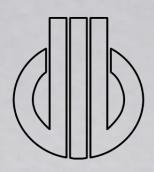
There was a significant amount of erosion around the building foundation. In several locations, water ponding was observed around the footings which were left exposed after the storm.

In several locations around the building perimeter, significant cracking of the brick façade was observed.

Based upon the sediment left on the wood floor beams, the crawlspace is assumed to have been completely submerged in water during the storm event.

Stray wires were found hanging from the underside of the floor structure.

Appendix D: 2012 Condition Assessment by DLB Associates (2 of 2)



GRANDVIEW APARTMENTS

Super Storm Damage - Initial Findings – 11-21-12



Α **Building 1 – Exterior Erosion**

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Batt Insulation Issues





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Blocked Access Points



Building 6 Building 6 Building 2 Building 4 10

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Building 5 - Spray Foam Insulation





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Building 4 - Mold Growth





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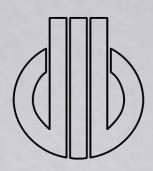
Observed Water Level Markings





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END OF SLIDES

Appendix E: Monitoring Report by Suburban Consulting Engineers, Inc.

SUBURBAN CONSULTING ENGINEERS, INC.

SURVEY MONITORING ASSESSMENT

PROJECT: **GRANDVIEW APARTMENT COMPLEX - BUILDING 1** BLOCK 15, LOT 2 LOCATION: BOROUGH OF KEANSBURG, COUNTY OF MONMOUTH, STATE OF NEW JERSEY

POINT IDENTIFICATION			SCHEDULED MONITORING EVENTS												
			#1 OBSERVATION INITIAL (09-28-2021)			#2 OBSERVATION EPISODE (03-31-2022)					#3 OBSERVATION EPISODE (09-25-2022)				
POINT NUMBER		POINT LOCATION ¹	NORTHING (Y)	EASTING (X)	ELEVATION (Z)	NORTHING (Y)	EASTING (X)	Δ HORIZ. (ft)	ELEVATION (Z)	Δ ELEV. (ft)	NORTHING (Y)	EASTING (X)	Δ HORIZ. (ft)	ELEVATION (Z)	Δ ELEV. (ft)
CONCRETE BUILDING FOUNDATION	1	BUILDING FOUNDATION	590,523.35	594,378.15	7.58	590,523.37	594,378.15	0.02	7.57	-0.01	590,523.37	594,378.15	0.03	7.57	-0.01
	2	BUILDING FOUNDATION	590,535.48	594,362.38	7.51	590,535.50	594,362.40	0.02	7.50	-0.01	590,535.51	594,362.38	0.02	7.50	-0.01
	3	BUILDING FOUNDATION	590,542.54	594,353.22	7.53	590,542.56	594,353.24	0.02	7.53	-0.01	590,542.57	594,353.23	0.02	7.53	0.00
	4	BUILDING FOUNDATION	590,555.12	594,336.93	7.35	590,555.13	594,336.92	0.01	7.34	-0.01	590,555.14	594,336.93	0.02	7.34	0.00
	5	BUILDING FOUNDATION	590,562.33	594,327.57	7.29	590,562.33	594,327.57	0.01	7.29	-0.01	590,562.35	594,327.57	0.02	7.29	-0.01
	6	BUILDING FOUNDATION	590,582.01	594,302.03	7.63	590,582.03	594,302.02	0.01	7.61	-0.01	590,582.03	594,302.03	0.02	7.62	-0.01
	7	BUILDING FOUNDATION	590,614.66	594,259.69	8.02	590,614.65	594,259.69	0.01	8.00	-0.02	590,614.68	594,259.68	0.02	8.00	-0.02
	8	BUILDING FOUNDATION	590,633.98	594,234.65	7.73	590,633.97	594,234.66	0.01	7.71	-0.02	590,634.00	594,234.64	0.02	7.71	-0.02

¹ ALL ELEVATIONS ARE BASED ON BENCHMARK SET AT INITIAL OBSERVATION:

- BENCHMARK #1 (MAG NAIL SET IN SIDEWALK) ELEV. = 6.24 (NAVD-1988)

- BENCHMARK #2 (X-CUT IN CORNER OF TYPE "A" INLET) ELEV. = 5.12 (NAVD-1988)

- BENCHMARK #3 (X-CUT IN CORNER OF TYPE "A" INLET) ELEV. = 4.97 (NAVD-1988)

- BENCHMARK #5 (X-CUT IN RIM OF MANHOLE) ELEV. = 5.02 (NAVD-1988)

JOSEPH D. PHIL, PLS

NJPLS Lic. No. 24G04336300

10/5/2022 DATE

10/6/2022

Appendix F: 2015 Engineering Report by KSI, PC

January 19, 2015

Mr. James Aravecz Affordable Housing Alliance 59 Broad Street Eatontown, NJ 07724



Re: Structural Assessment of Existing Brick Façade Grandview Apartments 104 Carr Avenue, Keansburg NJ KSI Project Number: 1400_209

Dear Mr. Aravecz,

Pursuant to your request we performed a site visit to the above referenced apartment complex on Wednesday, December 17th, 2014 to review the existing damage to the brick façade for all 9 apartment buildings. The purpose of our visit was to provide a visual review of the brick façade damage and to provide global repair recommendations for the damaged facade.

STRUCTURAL OBSERVATIONS:

The apartment complex consisted of 9 separate buildings. All buildings were located within a quarter mile of the ocean. All buildings were two-story structures with an exterior non-load bearing brick façade envelope. We were informed on site all buildings were conventionally framed wood structures with vertical wood studs behind the brick façade envelope. Existing structural drawings were not available to us at the time of this report.

Building 9 had the most severe brick façade damage of all 9 buildings. Most lintels we observed on the exterior walls were severely rusted. Deflection was visible to the naked eye at most lintels spanning double and triple wide window openings. There was a continuous horizontal separation crack in the mortar joint up to ½" wide aligned with the first floor lintels along the entire south and west courtyard walls (see photo A). We observed a vertical crack approximately ½" wide about 2'-0" from the south east corner of the building between the upper corner of the first floor window to the lower corner of the second floor window (see photo B). We also observed multiple "step" cracks approximately ¼" wide or less on the exterior brick walls of the building (see photo C). We did not observe any vertical brick expansion joists at Building 9.

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Photo A: Continuous horizontal crack and rusted lintel at Bldg 9 west courtyard wall

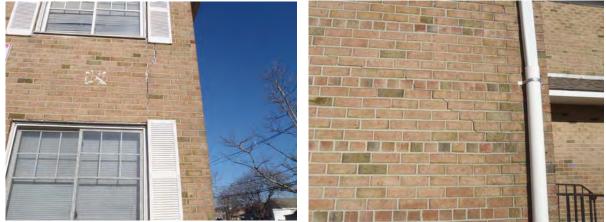


Photo B: Vertical crack at corner Bldg 9

Photo C: Step Crack Bldg 9

We observed some areas of substantial brick façade damage at Buildings 6 and 8. The lintel supporting the brick façade over the Electrical Boiler Storage room at Building 8 had compromised bearing at one end (see photo D). It's possible the door opening was widened sometime after the building was built judging by the mortar patching at the left side of the door. This lintel will require removal and replacement. Some, but not most lintels had rust damage at Building 8. We estimate approximately 25% of the lintels had rust damage.

The brick façade at Building 6 had damage similar to Building 9, but to a lesser extent. Some lintels observed at Building 6 had rust damage, and deflection was noticeable to the naked eye over some lintels spanning double and triple wide window openings. There was a continuous

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horizontal separation in the mortar joint up to ¼" wide aligned with the first floor lintels along most of the south and west courtyard walls (see photo E). We observed a continuous horizontal mortar joint along the north courtyard wall which had been repaired. We observed multiple step cracks approximately ¼" wide or less on the exterior walls of the building similar to ones found at Building 9. We also observed multiple instances of exposed rebar in the foundation wall below the brick façade (see photo F). We did not observe any vertical brick expansion joints at Buildings 6 or 8.





Photo E: Horizontal Crack Bldg 6.

Photo D: Lintel with no support Bldg 8

Photo F: Exposed Rebar Bldg 6

We observed mostly minor instances of brick façade damage at Buildings 2 through 5 and Building 7. Most step cracks and horizontal cracks at these buildings had been repaired (see photos G and H). We observed some unrepaired horizontal cracks between lintels in some areas. The cracks measured less than ¹/₄" wide and were similar to the cracks at Building 6. We observed some unrepaired step cracks less than ¹/₄" wide similar to the ones in Buildings 9 and 6. Some lintels observed had rust damage, and some lintels spanning double and triple wide openings had deflection visible to the naked eye. We also observed some instances of exposed rebar in the foundation wall below the brick façade similar to Building 6. We did not

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observe any vertical brick expansion joints at any buildings. We estimate approximately 15% of lintels had rust damage at Buildings 2 through 5 and Building 7.



Photo G: Repaired Step Crack

Photo H: Repaired Horizontal Crack

We observed some areas of substantial brick façade damage at Building 1. Building 1 was located closest to the ocean. Most lintels on the north exterior wall facing the ocean had severe rust damage and lintels spanning double and triple window openings had deflection noticeable to the naked eye. There was a continuous horizontal crack approximately ¹/₄" wide between lintels along this wall similar to Building 6. Rebar was exposed in some instances in the foundation wall below the brick façade similar to other buildings.

There was a 20' wide carport connecting Belleview Road to the parking lot in the courtyard of Building 1. We observed deteriorated brick at the south corner of the lintel spanning the carport (see photo J). We observed some rust on the bottom of the existing lintels and noticeable deflection on both sides of the carport.

We also observed some minor step cracks and horizontal cracks under ¼" wide similar to cracks on other buildings on exterior walls other than the north exterior wall. Some lintels had rust damage on exterior walls other than the north exterior wall. We did not observe any vertical brick expansion joists at Building 1.

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Photo J: Crushed brick and rusted lintel over carport

RECOMMENDATIONS:

It is our professional opinion the main cause of the damage observed was water penetration through the existing brick. The existing brick façade is porous as is any brick and will allow water to penetrate through the brick. In addition, over time the brick masonry has developed cracks which have allowed more water to become trapped in the cavity. Once the water becomes trapped in the cavity of the wall it must be managed and, in some cases this water has not been managed.

The water found its way down the wall and became trapped at the steel lintel which then rusted. The rusted lintel expanded and pushed the brick resulting in both horizontal cracks and stair step cracks. This process then became self-perpetuating and will continue to worsen resulting in eventual partial brick collapse. Also, some of the longer span lintels have experienced what appeared to be deflection. It is possible the movement or deflection observed was due to a rusted lintel pushing downward.

The absence of vertical expansion joists in the brick façade has also lead to cracks due to thermal expansion of the façade. It is common building practice to install vertical joints in a brick façade wall to manage the thermal movement of the façade. Vertical expansion joints spaced at proper intervals would allow the brick façade to expand and contract due to seasonal temperature and moisture cycles without causing cracks along mortar joints. Without vertical expansion joists, the long stretches of brick façade walls found in most buildings had no capacity to expand and contract without causing damage to the wall. Over time this movement has led to cracking along the weakest mortar joints and at corners of openings.

We recommend the areas of damaged brick façade walls and lintels on the south and west courtyard walls of Building 9 be locally removed and rebuilt. The prudent repair for this building is the replacement of the angle lintels with new angle lintels followed by the patch replacement of the brick façade. We also recommend proper weep holes be installed at the

new lintels to allow water to escape the wall. A galvanized steel angle lintel would also be a long lasting option but with greater cost.

We recommend the $\frac{1}{2}$ " vertical crack at Building 9 be saw cut, cleaned, and filled with a backer rod and elastomeric sealant to allow future movement of the crack while preventing moisture from entering the crack.

We recommend the damaged lintel with minimal bearing at one end at Building 8 be removed and replaced with a new lintel with minimum 6" bearing on both ends.

We recommend the 20' long existing lintels supporting brick above the carport at Building 1 be investigated further to determine if they are structurally sound, as these lintels represent a danger to human life and safety if they fail.

We recommend all severely rusted and degraded lintels be removed and replaced for all buildings. We estimate approximately 25% of existing lintels for Buildings 1 through 8 fall under this category. Any existing lintels deemed structurally sound, but with crushing or degradation of mortar at either end should be addressed as well. We recommend the existing mortar be routed out, cleaned, and packed with new mortar.

We recommend all unrepaired step cracks and horizontal cracks be routed out, cleaned, and filled with an elastomeric sealant to allow future movement of the crack while preventing moisture from entering. The exposed rebar at the foundation walls is not a structural concern at present and should be cosmetically repaired to prevent further damage.

Our observations and recommendations are based on our visual review of the exposed areas of the buildings and our experience reviewing this type of damage. If you have any questions or need clarification, please do not hesitate to contact us.

Sincerely,

Kevin C. Sommons, PE Principal

Appendix G: 2020 Engineering Evaluation by Suburban Consulting Engineers, Inc.

ENGINEERING EVALUATION							
GR	ANDVIEW APARTMENT COMPLEX						
BOROUGH OF KEA	BOROUGH OF KEANSBURG, COUNTY OF MONMOUTH, STATE OF NEW JERSEY						
Prepared For:	Affordable Housing Alliance 3535 Route 66, Building 4 Neptune, New Jersey 07753						
Prepared By:	SUBURBAN CONSULTING ENGINEERS, INC. 2430 Highway 34, Building A Wall, New Jersey 08736						
File No.:	SCE-R11295.011 August 2020						
SUB	URBAN CONSULTING ENGINEERS, INC. 2430 Highway 34, Building A, Wall, New Jersey 08736 732-282-1776; Fax 973-398-2121						

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APPENDICES

APPENDIX A - Mold Investigation Report

APPENDIX B - Preliminary Estimate of Probable Construction Cost

1.0 BACKGROUND

SUBURBAN CONSULTING ENGINEERS, INC. (SCE) was retained by the Affordable Housing Alliance (AHA) to perform an evaluation of the nine (9) buildings in the Grandview Apartment Complex which is located in the Borough of Keansburg, County of Monmouth, State of New Jersey. The purpose of the evaluation was to determine the condition of the existing buildings and what repairs and capital improvement work is needed as well as the estimated cost of these capital improvements. In particular, the evaluation included the structural condition of the buildings, window lentils, air conditioning system condensing lines, subfloor stability, condition of spray foam insulation in each crawl space and count and condition of exterior building lights. Based on the evaluation, SCE was also asked to provide recommendations of alternatives for the building façade.

SCE conducted site inspections to evaluate the Grandview Apartment Complex during March, April and May of 2020. This engineering evaluation report has been prepared to document, assess, and recommend repair options for building issues observed and identified during the site inspections.

The Grandview AHA apartment complex is located in the Borough of Keansburg, County of Monmouth, State of New Jersey. The complex consists of 131 apartments throughout nine (9) buildings with surrounding green space, parking lots, courtyard areas and walkways. The complex is divided into two (2) main areas with a total of five (5) buildings located in the northern parcel and four (4) buildings located in the southern parcel. The northern parcel is bound by Beachway Avenue and the Keansburg Borough Beach to the north, Belleview Avenue to the east, Center Avenue to the south and Raritan Avenue and the Cove on the Bay Apartments to the west. The southern parcel is bound by Center Avenue to the north, Raritan Avenue to the east, Oak Street to the south and Carr Avenue to the west.

The buildings within the complex are two (2) stories with crawl spaces and consist of brick masonry walls set atop concrete foundations. The crawl spaces have soil/sand floors with plastic vapor barrier installed in some areas. As stated by the AHA and as observed during site inspections, there are various issues with the buildings ranging from cosmetic (damage to building facades) to more serious issues which pose a risk to tenants including the presence of mold in crawl spaces and building foundation settlement.

It was noted that each crawl space was flooded in 2012 by Superstorm Sandy. No remediation or structural drying was performed following the flooding event. During the site inspections, a maintenance representative noted that the crawl spaces will flood during heavy rainfall events. Stagnant water often remains after these events until it slowly drains and evaporates.

2.0 ON-SITE INSPECTIONS

SCE conducted five (5) site inspections for the building envelope assessment and two (2) site inspections for crawl spaces.

As part of the scope of services, an Industrial Hygienist from our environmental testing subconsultant, *Garden State Environmental*, was on site on April 30, 2020 and May 21, 2020 to perform the mold inspection in each of the crawl spaces. The investigation of the crawl spaces consisted of a detailed visual inspection of accessible areas of concern, moisture mapping and collection of environmental samples which were sent to a certified laboratory for analysis. Their report can be found in Appendix A.

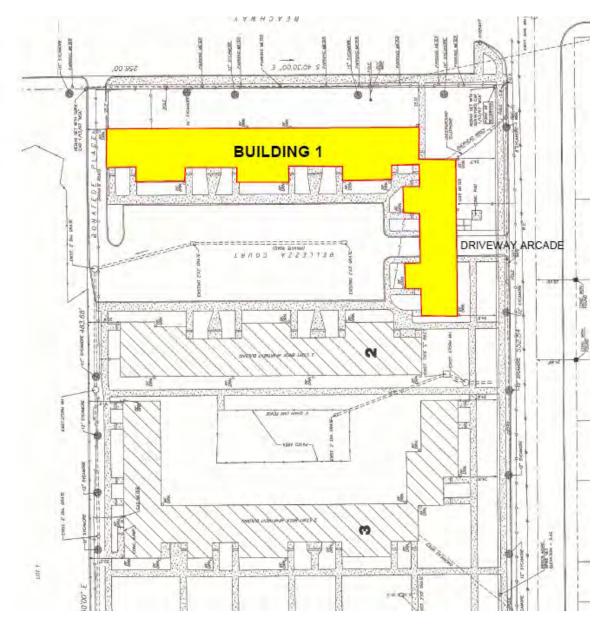
The structural assessments were conducted by a member of SCE's staff who is a Professional Engineer licensed in the State of New Jersey and the crawl space inspection was conducted by a technician of SCE.

3.0 OBSERVATIONS AND RECOMMENDATIONS

For ease of understanding, SCE has organized the summary of observations and recommendations in this report by building.

SUBURBAN CONSULTING ENGINEERS, INC.

4.0 BUILDING 1



4.1 Observations

- 4.1.1 Building Envelope
 - Overhead bricks above the driveway arcade at the entrance from Belleview Avenue are bowed out approximately two inches (2") on the east side and approximately one inch (1") on the west side.
 - Cracks and broken concrete were observed on concrete foundation walls. Some of these cracks and broken concrete areas expose reinforcing steel.
 - Cracked bricks and mortar joints were observed throughout the façade.
 - Many steel lintels were rusted.
 - Decayed soffits were observed.
 - In Apartment No. 21, the floors located in the kitchen and bathroom are softened. Upon further inspection in the crawl space, it was determined that the softened floor is due to

decay of the subfloor board. SCE believes the cause of the decay is excess moisture from the bathroom and kitchen. In addition, there is a horizontal gap, approximately $\frac{1}{2}$ inch wide between the living room floor and the north exterior wall.

- In Apartment No. 23, there are gaps between the kitchen, bedroom and living room floors and the north exterior wall. The gaps range from ³/₄ inch in the kitchen to 1½ inches in the living room.
- In Apartment No. 13, there is a horizontal ³/₄ inch gap between the living room floor and the north exterior wall. The tenant in this apartment also noted that termites were observed on the property.
- The floor and north foundation wall in Apartment No. 13 were also inspected and it was observed that the floor joists slope downward toward the north. A laser leveling device was used on the twelve-inch (12") concrete foundation wall to confirm that the north side of the building foundation had subsided.

4.1.2 Crawl Space

- Eight (8) double air conditioning (A/C) units and one (1) single A/C unit were observed. Three (3) of the electrical boxes for these units appeared to have been tampered with.
- Three (3) ³/₄ inch PVC condensate drain pipes were identified to be broken or disconnected.
- Insulation between floor joists is the blown-in type with an average thickness of two inches (2"). Coverage and condition of insulation was good in most visible areas, however there were three (3) locations where there was no insulation.
- Foundation walls had one inch (1") thick foam board type insulation attached with no visible "R" rating. Insulation board was sparse and missing in many areas.
- Subfloor was mostly not visible. Areas of visible subfloor, mostly around plumbing, are compromised and rotted. An estimate of visible damage is about four feet by eight feet (4'x8') in each location, but most likely extends slightly into the areas covered by insulation.
- The ground within the crawl space is very damp with areas of standing water observed.
- Strong persistent mold-like odors were detected in the crawl space. Structural steel was corroded and visible nails in the wood framing and subfloor were rusted suggesting signs of chronic moisture.
- Visible mold growth was observed on areas of structural wood, spray insulation and debris left in the crawl space from previous construction.
- All of the passive air vents were found to be heavily covered with dust, debris and dirt.
- No visible evidence of a drainage system or mechanical ventilation was observed.
- Many of the pipes were observed to have potentially asbestos-containing insulation.

4.2 Recommendations

- 4.2.1 Building Envelope
 - The building entrance should be barricaded until repair work is completed. Tenants should temporarily access the building from the entrance on Beachway Avenue. Warning signs indicating a "Fall Hazard" should be installed at the building entrance immediately.
 - Overhead bricks above the driveway arcade should be removed. The subbase wallboard should be inspected to confirm that the wallboard is fastened securely to the wall frames.

- A new light weight façade such as an exterior insulation and finishing system (EIFS) should be applied.
- Concrete foundation walls should be patched.
- Cracked bricks and mortar joints should be re-pointed.
- Steel lintel surfaces should be cleaned and a rust prohibitive paint should be applied.
- The existing decayed soffit should be replaced.
- The subfloor board in the kitchen and bathroom of Apartment No. 21 should be replaced and new vinyl flooring or ceramic tile should be installed over the new subfloor to match existing.
- Further evaluation of the north foundation wall is required to better understand the settlement issue. To accomplish this, SCE recommends the following:
 - A thorough 3-D scan of the lower floor and north foundation wall to obtain adequate data of the north foundation wall settlement. To expedite the assessment and any potential future design of repair work, SCE can perform a 3D LiDAR scan of the unit's first floor and crawl space to capture an accurate data point cloud of each units' interior space. The data point cloud can analyze elevations of the ceiling and floor areas to determine deflections at various locations. The 3D point cloud also allows for capture of all site conditions including all dimensions visible and accessible at the time of our on-site inspection.
 - Establish observation points along the foundation wall to be periodically measured over a minimum of six (6) months to determine if settlement is on-going. If the measurements show no change, then it can be assumed that the underlying bearing soils have been consolidated and no further settlement should occur. If the observation points show a measured change over the observation period, then it would show that the underlying bearing soil would continue to settle after the raising of the floor until it reached equilibrium associated with the rebalanced weight of the building. Continued monitoring of the observation points after repairs have been completed will verify that the bearing soil is adequate to support the rebalanced load and no future settlement will occur
- The gaps between the floors and the north exterior wall are the result of settlement of the foundation wall. SCE recommends raising the lower floor at the north side to level the floor and eliminate the gaps. This is a relatively inexpensive repair when compared to the cost of performing further geotechnical assessments. This repair should only be completed after it is verified based on data collected from the observation points that the bearing soil has completed the consolidation stage below the north wall foundation. It should be noted that leveling of the first floor will cause minor movement of the upper floors which has the possibility to cause minor surficial flaws such as cracking of sheet rock and trim movement. These resulting cosmetic issues would need to be repaired after the floor leveling process is complete.
- A pest control specialist should be consulted to investigate the termite concern.
- 4.2.2 Crawl Space
 - Hardware on electrical covers should be replaced with tamper-proof fasteners to prevent unwanted access.
 - All damaged ³/₄ inch PVC pipe should be removed and replaced.

- Additional blown-in type insulation should be applied in areas lacking coverage. Prior to placing the insulation, the areas should be inspected and repaired to ensure that they are free of any defects, rot or moisture damage.
- New one-inch (1") insulation board should be applied to foundation walls in areas lacking coverage.
- Deteriorated subfloor should be removed and replaced. As part of this repair, remove additional insulation as need from the area to ensure all deteriorated subfloor is removed and replaced. Primary flooring material should be replaced to match existing.
- Damaged drain pipes should be replaced. Need to ensure piping is terminating in drain funnels to reduce the chance of ponding water and decrease moisture levels in the crawl space.
- The services of a qualified and experienced microbial contamination remediation company should be retained to implement the following improvements:
 - Install and operate commercial dehumidifiers and HEPA equipped air scrubbers to facilitate structural drying. Vent at least one 2000 cfm HEPA equipped air scrubber directly outside to create negative air pressure.
 - Remove and properly dispose of all debris in minimum six (6) mil plastic bags. Place the bags in a closable dumpster for disposal at an approved landfill.
 - Treat all exposed wood with mold-like discolorations by soda blaster or an equivalent method to remove visible surface contamination. Spray the cleaned surfaces with an EPA-registered disinfectant cleaning solution and allow to fully dry.
 - Thoroughly clean all air vents to improve air flow.
 - Maintain continuous HEPA air scrubbing under negative pressure for at least 48 hours after the completion of all remediation activities.
 - Schedule a final clearance inspection and testing to ensure that the mold exposure is no longer an issue.
- Retain the services of a qualified and experienced asbestos consultant to sample and test the pipe insulation for asbestos. If asbestos is confirmed in the insulation, label it as asbestos-containing pending abatement or encapsulate it in accordance with applicable Federal and State regulations.
- Completely seal all pipe penetrations and other openings through the subfloor with spray foam or an equivalent.
- Install humidstat controlled vent fans to control relative humidity and create low level negative air to help minimize upward migration of airborne mold.

4.3 Building 1 Photos



Overhead Bricks Bowed Out 2" on East Side



Overhead Bricks Bowed Out 1" on West Side



Exposed Rebars in Concrete

Broken Concrete and Bricks



Cracked Mortar Joints



Rusted Lintel



Cracked Brick and Rusted Lintel



Decayed Soffit



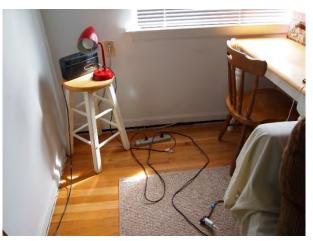
Softened Floor at Bathroom, Apt 21



Softened Floor at Kitchen, Apt 21



Gap at Living Room Wall, Apt 23



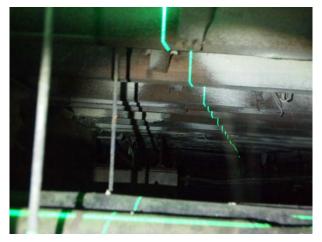
Gap at Bed Room, Apt 23



Gap at Kitchen Wall, Apt 23



Gap at Living Room Wall, Apt 13



Laser Leveling in Use in Crawl Space

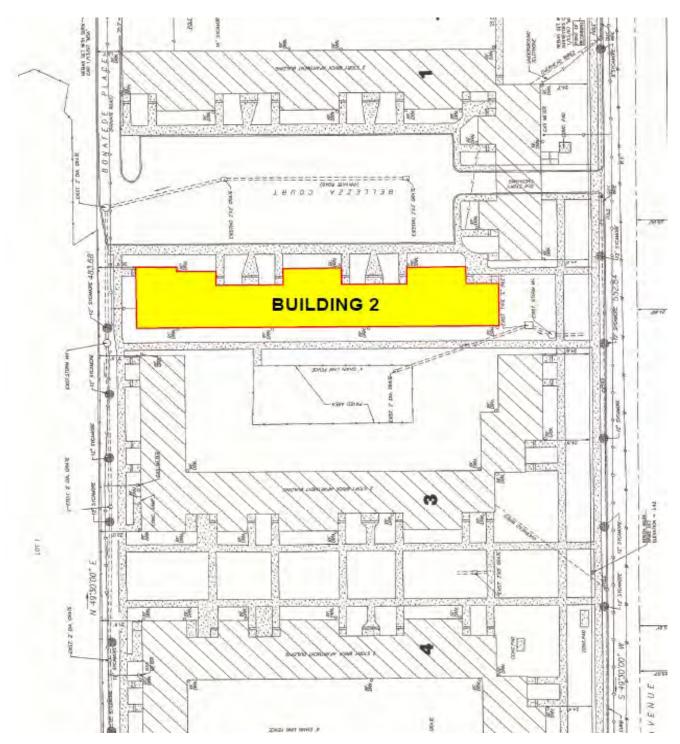


Compromised Flooring Around Plumbing



Broken 3/4 inch Piping

5.0 BUILDING 2



5.1 Observations

- 5.1.1 Building Envelope
 - Cracks and broken concrete were observed on concrete foundation walls, exposing reinforcing steel in some areas.
 - Cracked bricks and mortar joints were observed throughout.
 - Rusted steel lintels were observed throughout.

- A downspout was found to be missing segments and was not connected to the gutter above.
- A cracked chimney cap was observed.
- Loose metal flashing was observed on the lower roof.
- 5.1.2 Crawl Space
 - Five (5) double A/C units were observed. One (1) unit had a missing electrical cover.
 - Entrance to the crawl space was not safely accessible during the first visit. At the time of the inspection, there was approximately twelve inches (12") of standing water at entrance. A second attempt was made and while standing water still observed at the entrance it was lower than first attempt. Obvious water issues exist in the crawl space possibly due to the elevation of the property and regular flooding.
 - ³/₄ inch PVC drain pipe was found to be broken or damaged in two (2) locations. Pipe is not going into drain funnel.
 - One (1) drain pipe entry was found to be clogged.
 - Visible insulation on subfloor appears to be intact.
 - No visible insulation was found on the foundation walls.
 - The ground in the crawl space was very damp and areas of standing water were observed throughout. As noted above, it appears that this crawl space floods frequently.
 - Strong persistent mold-like odors were detected in the crawl space. Structural steel was corroded and visible nails in the wood framing and subfloor were rusted suggesting signs of chronic moisture.
 - Visible mold growth was observed on areas of structural wood, spray insulation and debris left in the crawl space from previous construction.
 - All of the passive air vents were found to be heavily covered with dust, debris and dirt.
 - No visible evidence of a drainage system or mechanical ventilation was observed.
 - Many of the pipes were observed to have potentially asbestos-containing insulation.

5.2 *Recommendations*

- 5.2.1 Building Envelope
 - Patch the concrete foundation walls.
 - Re-point cracked bricks and mortar joints.
 - Clean the steel surface of the steel lintels and apply rust prohibitive paint.
 - Replace the missing downspout segments or supply a new downspout and connect to the gutter.
 - Repair the chimney cap.
 - Replace the loose metal flashing at the lower roof.
- 5.2.2 Crawl Space
 - Replace the missing electrical cover and replace existing hardware on all electrical covers with tamper-proof fasteners.

- Replace damaged ³/₄ inch PVC drain pipe and ensure piping terminates in drain funnel.
- Remove debris blocking clogged drain cover and ensure all other drain covers are free of debris.
- Install new one-inch (1") thick insulation board on foundation walls lacking coverage. Ensure walls are clean and free of defects, debris, and moisture prior to installation.
- Repair and replace damaged drain pipes and ensure piping is terminating in drain funnels to reduce the chance of ponding water and decrease moisture levels.
- The services of a qualified and experienced microbial contamination remediation company should be retained to implement the following improvements:
 - Install and operate commercial dehumidifiers and HEPA equipped air scrubbers to facilitate structural drying. Vent at least one 2000 cfm HEPA equipped air scrubber directly outside to create negative air pressure.
 - Remove and properly dispose of all debris in minimum six (6) mil plastic bags. Place the bags in a closable dumpster for disposal at an approved landfill.
 - Treat all exposed wood with mold-like discolorations by soda blaster or an equivalent method to remove visible surface contamination. Spray the cleaned surfaces with an EPA-registered disinfectant cleaning solution and allow to fully dry.
 - Thoroughly clean all air vents to improve air flow.
 - Maintain continuous HEPA air scrubbing under negative pressure for at least 48 hours after the completion of all remediation activities.
 - Schedule a final clearance inspection and testing to ensure that the mold exposure is no longer an issue.
- Retain the services of a qualified and experienced asbestos consultant to sample and test the pipe insulation for asbestos. If asbestos is confirmed in the insulation, label it as asbestos-containing pending abatement or encapsulate it in accordance with applicable Federal and State regulations.
- Completely seal all pipe penetrations and other openings through the subfloor with spray foam or an equivalent.
- Install humidstat controlled vent fans to control relative humidity and create low level negative air to help minimize upward migration of airborne mold.
- 5.3 Building 2 Photos



Exposed Rebars in Concrete

Cracked or Missed Grout



Rusted Lintels



Loose Metal Flashing



Cracked Chimney Cap

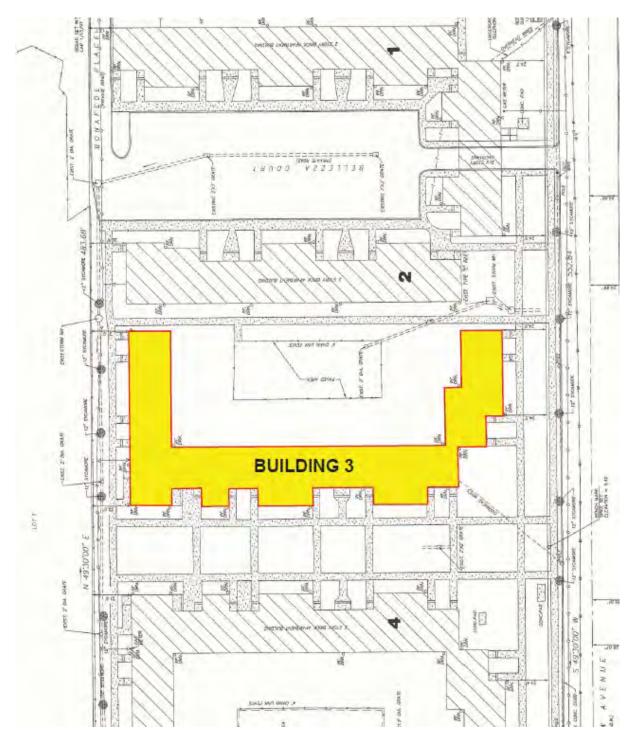


Missed Downspout Parts



Area of Standing Water in Crawl Space

6.0 BUILDING 3



6.1 Observations

- 6.1.1 Building Envelope
 - Cracks and broken concrete were observed on concrete foundation walls exposing reinforcing steel in some areas.
 - Most of the cracked mortar joints and damaged bricks have been repaired, however there are a few areas which still need to be repaired.

- Rusted steel lintels were observed.
- Decayed wood was observed at one (1) canopy eave.
- A water-stained and decayed soffit was observed at one (1) canopy.
- 6.1.2 Crawl Space
 - Eight (8) double A/C units, one (1) triple A/C unit were observed. Six (6) units had missing electrical covers.
 - Three (3) very noticeable water leaks were observed in a suspected hot water line.
 - No visible insulation was observed on the foundation walls.
 - Ground in crawl space was very damp with areas of standing water observed.
 - Along Belleview Avenue under Apartment Nos. 17 and 19, there is roughly a one-foot by one-foot (1'x1') hole in the subfloor. This area appears to be in a stairwell.
 - Under Apartment Nos. 13 and 15, there is an area of subfloor approximately twelve feet by fourteen feet (12'x14') that is extremely rotted. This subfloor is located between the foundation and the joists and contains no insulation.
 - At the crawl space entrance near the entrance to the courtyard, there is approximately 30 feet of exposed subfloor (no insulation) along the foundation that appears compromised and the wood sill on top of the foundation appears rotted and is missing in places.
 - In the courtyard crawl space access, there are large areas of missing blown-in insulation. It appears that the subfloor may have been replaced at some point in this area.
 - Strong persistent mold-like odors were detected in the crawl space. Structural steel was corroded and visible nails in the wood framing and subfloor were rusted suggesting signs of chronic moisture.
 - Visible mold growth was observed on areas of structural wood, spray insulation and debris left in the crawl space from previous construction.
 - All of the passive air vents were found to be heavily covered with dust, debris and dirt.
 - No visible evidence of a drainage system or mechanical ventilation was observed.
 - Many of the pipes were observed to have potentially asbestos-containing insulation.

6.2 *Recommendations*

- 6.2.1 Building Envelope
 - Patch concrete foundation walls.
 - Re-point cracked bricks and mortar joints.
 - Clean the steel surface and apply rust prohibitive paint to the steel lintels.
 - Replace the wood eave.
 - Check for leakage in the roof and replace soffit. If leaks are found in the roof, repair or replace the roof.
- 6.2.2 Crawl Space
 - Replace the missing electrical cover and replace all existing hardware with tamper-proof fasteners.

- Cut sections of the leaking hot water pipe and replace it with a repair sleeve.
- Install new one inch (1") thick insulation board on the foundation walls lacking coverage. Ensure walls are clean and free of defects, debris, and moisture prior to installation.
- Repair leaks in drain piping noted above and ensure all drain piping is terminating in drain funnels and that drains are free of debris to reduce the chance of ponding water and decrease moisture levels in the crawl space.
- Replace damaged subfloor and install new primary flooring above to match existing in Apartment Nos. 17 and 19.
- Under Apartment Nos. 13 and 15, replace deteriorated subfloor. Remove additional insulation as needed from the area to ensure all deteriorated subfloor is removed and replaced. Install new primary flooring material to match existing. Apply new blown-in type insulation to subfloor.
- Replace missing and rotted areas of wooden sill on top of the foundation near the crawl space entrance.
- Apply additional blown-in type insulation in areas lacking coverage in the crawl space entry area. Ensure areas are free of any defects, rot or moisture before application of insulation.
- The services of a qualified and experienced microbial contamination remediation company should be retained to implement the following improvements:
 - Install and operate commercial dehumidifiers and HEPA equipped air scrubbers to facilitate structural drying. Vent at least one 2000 cfm HEPA equipped air scrubber directly outside to create negative air pressure.
 - Remove and properly dispose of all debris in minimum six (6) mil plastic bags. Place the bags in a closable dumpster for disposal at an approved landfill.
 - Treat all exposed wood with mold-like discolorations by soda blaster or an equivalent method to remove visible surface contamination. Spray the cleaned surfaces with an EPA-registered disinfectant cleaning solution and allow to fully dry.
 - Thoroughly clean all air vents to improve air flow.
 - Maintain continuous HEPA air scrubbing under negative pressure for at least 48 hours after the completion of all remediation activities.
 - Schedule a final clearance inspection and testing to ensure that the mold exposure is no longer an issue.
- Retain the services of a qualified and experienced asbestos consultant to sample and test the pipe insulation for asbestos. If asbestos is confirmed in the insulation, label it as asbestos-containing pending abatement or encapsulate it in accordance with applicable Federal and State regulations.
- Completely seal all pipe penetrations and other openings through the subfloor with spray foam or an equivalent.
- Install humidstat controlled vent fans to control relative humidity and create low level negative air to help minimize upward migration of airborne mold.

6.3 Building 3 Photos



Broken Concrete



Cracked Brick and Grout



Exposed Rebars in Concrete



Rusted Steel Lintel



Decayed Canopy Eave



Water-Stained and Decayed Canopy Soffit

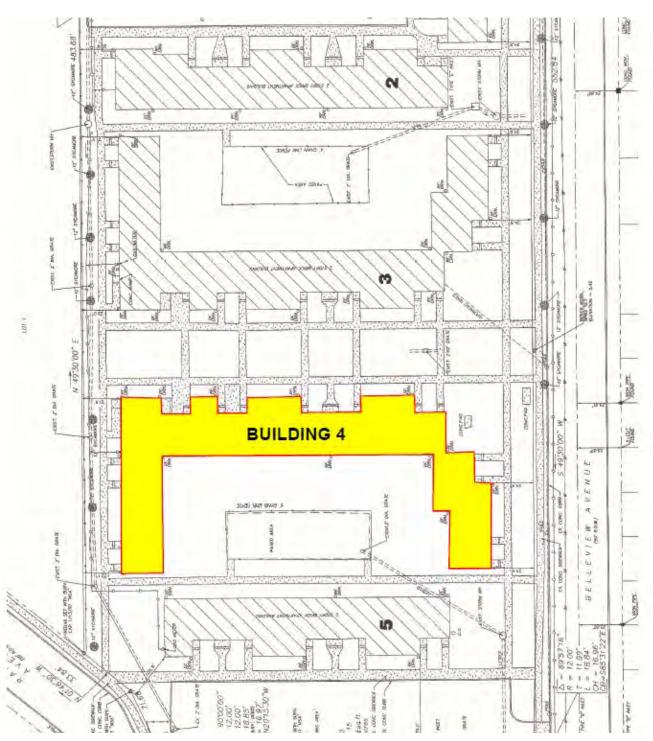


1'x1' Hole in Subfloor



Compromised Subfloor and Sill

7.0 BUILDING 4



7.1 Observations

- 7.1.1 Building Envelope
 - Cracks and broken concrete were observed on the concrete foundation walls exposing reinforcing steel in some areas.
 - Most of the cracked mortar joints and damaged bricks have been repaired, however there are a few areas which still need to be repaired.

- Rusted steel lintels were observed, some of which are severely rusted.
- Loose and decayed wood boards were observed at the soffits.

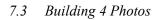
7.1.2 Crawl Space

- Eight (8) double A/C unit and one (1) triple A/C unit were observed. Four (4) missing electrical covers were observed.
- One (1) broken ³/₄ inch PVC drain pipe and one severed and disconnected ³/₄ inch PVC drain pipe were visible from crawl space entrance along Belleview Avenue.
- One (1) ³/₄ inch drain pipe was found to be not directed into the collection tube visible from the rear of the building crawl space access. Some dripping was observed around the collection tube.
- The ground in the crawl space was lightly damp with the exception of one area of standing water visible from the courtyard crawl space access. Standing water had a sewage odor.
- Two (2) areas of exposed subfloor that appear to be adjoining were found to be rotted and compromised. The areas of exposed subfloor is approximately three feet by three feet (3'x3') and is visible from the crawl space access at the rear of the building.
- Two (2) areas of exposed subfloor around what appears to be bath tubs were observed. Large holes for plumbing were observed. Each area is approximately two feet by three feet. (2'x3').
- Four feet (4') of wood sill on the foundation was found to be rotted or missing and is visible from crawl space access at the rear of the building.
- No visible insulation was found on the foundation walls.
- Strong persistent mold-like odors were detected in the crawl space. Structural steel was corroded and visible nails in the wood framing and subfloor were rusted suggesting signs of chronic moisture.
- Visible mold growth was observed on areas of structural wood, spray insulation and debris left in the crawl space from previous construction.
- All of the passive air vents were found to be heavily covered with dust, debris and dirt.
- No visible evidence of a drainage system or mechanical ventilation was observed.
- Many of the pipes were observed to have potentially asbestos-containing insulation.

7.2 Recommendations

- 7.2.1 Building Envelope
 - Patch concrete foundation walls.
 - Re-point cracked bricks and mortar joints.
 - Clean the steel surface and apply rust prohibitive paint to the steel lintels. Replace the severely rusted steel lintels.
 - Secure the loose wood soffit board and replace the decayed wood soffit board.
- 7.2.2 Crawl Space
 - Replace the missing electrical cover and replace the existing hardware with tamper-proof fasteners on all electrical covers.

- Replace broken portions of the drain pipes.
- Ensure drain pipes terminate into proper drainage channels and/or area drains.
- Replace deteriorated subfloor. Remove additional insulation as need from the area to ensure all deteriorated subfloor is removed and replaced. Reinstall primary flooring material to match existing. Apply new blown-in type insulation to subfloor.
- Replace rotted and missing wooden sill on the foundation.
- Install new one-inch (1") thick insulation board on foundation walls lacking coverage. Ensure walls are clean and free of defects, debris, and moisture prior to installation.
- The services of a qualified and experienced microbial contamination remediation company should be retained to implement the following improvements:
 - Install and operate commercial dehumidifiers and HEPA equipped air scrubbers to facilitate structural drying. Vent at least one 2000 cfm HEPA equipped air scrubber directly outside to create negative air pressure.
 - Remove and properly dispose of all debris in minimum six (6) mil plastic bags. Place the bags in a closable dumpster for disposal at an approved landfill.
 - Treat all exposed wood with mold-like discolorations by soda blaster or an equivalent method to remove visible surface contamination. Spray the cleaned surfaces with an EPA-registered disinfectant cleaning solution and allow to fully dry.
 - Thoroughly clean all air vents to improve air flow.
 - Maintain continuous HEPA air scrubbing under negative pressure for at least 48 hours after the completion of all remediation activities.
 - Schedule a final clearance inspection and testing to ensure that the mold exposure is no longer an issue.
- Retain the services of a qualified and experienced asbestos consultant to sample and test the pipe insulation for asbestos. If asbestos is confirmed in the insulation, label it as asbestos-containing pending abatement or encapsulate it in accordance with applicable Federal and State regulations.
- Completely seal all pipe penetrations and other openings through the subfloor with spray foam or an equivalent.
- Install humidstat controlled vent fans to control relative humidity and create low level negative air to help minimize upward migration of airborne mold.





Broken Concrete and Exposed Rebar



Cracked Brick Wall



Cracked Brick Wall



Broken Bricks



Rusted Steel Lintel



Severely Rusted Steel Lintel



Loose Wood Board at Soffit



Decayed Wood Board at Soffit



Standing Water in Crawl Space



Rotted and Missing Wood Sill in Crawl Space



Exposed Bathtub and Missing Subfloor

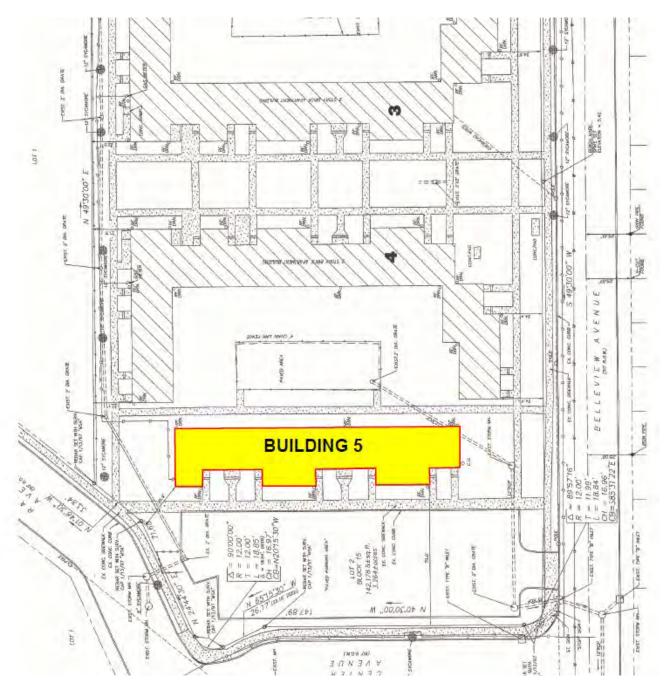


Exposed Bathtub and Missing Subfloor



Damaged Subfloor in Crawl Space

8.0 BUILDING 5



- 8.1 Observations
 - 8.1.1 Building Envelope
 - Cracks and broken concrete were observed on concrete foundation walls exposing reinforcing steel in some areas.
 - Cracked bricks and mortar joints were observed on the building facade.
 - Steel lintels were found to be rusted, some severely rusted.
 - The aluminum soffit was observed to be missing in one location. Another missing soffit location was observed to have a temporary covering.
 - 8.1.2 Crawl Space
 - Five (5) double A/C units were observed. One (1) of these units was missing the electrical cover.
 - Ground in the crawl space was dry with the exception of one area of standing water in a low spot.
 - No visible insulation was observed on the foundation walls.
 - Visible blown-in insulation looked to be in good condition and intact.
 - Subfloor not visible due to insulation.
 - Strong persistent mold-like odors were detected in the crawl space. Structural steel was corroded and visible nails in the wood framing and subfloor were rusted suggesting signs of chronic moisture.
 - Visible mold growth was observed on areas of structural wood, spray insulation and debris left in the crawl space from previous construction.
 - All of the passive air vents were found to be heavily covered with dust, debris and dirt.
 - No visible evidence of a drainage system or mechanical ventilation was observed.
 - Many of the pipes were observed to have potentially asbestos-containing insulation.

8.2 Recommendations

- 8.2.1 Building Envelope
 - Patch concrete foundation walls.
 - Re-point cracked bricks and mortar joints.
 - Clean steel lintel surfaces and apply rust prohibitive paint where possible. Replace steel lintels that are severely rusted.
 - Re-install all missing aluminum soffit panels.
- 8.2.2 Crawl Space
 - Replace the missing electrical cover and replace all existing hardware with tamper-proof fasteners on the A/C units.
 - Fill the low spot in the crawl space floor to eliminate ponding water.
 - Install new one-inch (1") thick insulation board on the foundation walls lacking coverage. Ensure walls are clean and free of defects, debris, and moisture prior to installation.

- The services of a qualified and experienced microbial contamination remediation company should be retained to implement the following improvements:
 - Install and operate commercial dehumidifiers and HEPA equipped air scrubbers to facilitate structural drying. Vent at least one 2000 cfm HEPA equipped air scrubber directly outside to create negative air pressure.
 - Remove and properly dispose of all debris in minimum six (6) mil plastic bags. Place the bags in a closable dumpster for disposal at an approved landfill.
 - Treat all exposed wood with mold-like discolorations by soda blaster or an equivalent method to remove visible surface contamination. Spray the cleaned surfaces with an EPA-registered disinfectant cleaning solution and allow to fully dry.
 - Thoroughly clean all air vents to improve air flow.
 - Maintain continuous HEPA air scrubbing under negative pressure for at least 48 hours after the completion of all remediation activities.
 - Schedule a final clearance inspection and testing to ensure that the mold exposure is no longer an issue.
- Retain the services of a qualified and experienced asbestos consultant to sample and test the pipe insulation for asbestos. If asbestos is confirmed in the insulation, label it as asbestos-containing pending abatement or encapsulate it in accordance with applicable Federal and State regulations.
- Completely seal all pipe penetrations and other openings through the subfloor with spray foam or an equivalent.
- Install humidstat controlled vent fans to control relative humidity and create low level negative air to help minimize upward migration of airborne mold.

8.3 Building 5 Photos



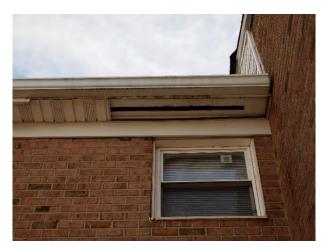
Broken Concrete and Exposed Rebar





Rusted Steel Lintel



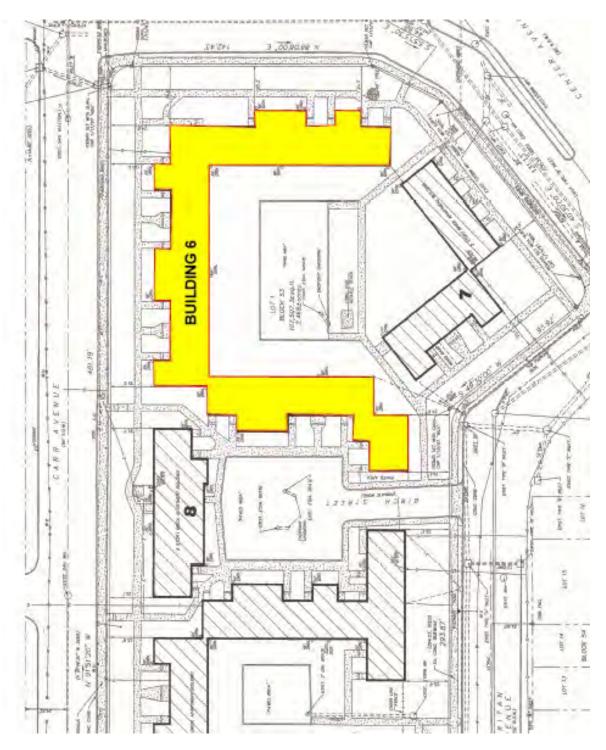


Missing Aluminum Panels at Soffit



Temporary Repair at Soffit

9.0 BUILDING 6



9.1 Observations

- 9.1.1 Building Envelope
 - Cracks and broken concrete were observed on the concrete foundation walls exposing reinforcing steel in some areas.
 - Cracked bricks and mortar joints were observed along the building facade.

- Rusted steel lintels were observed throughout with at least two (2) lintels being severely rusted.
- Missing handrail were noted at the stairs.
- The sidewalk surface in one location is uneven as a result of tree root heave and is a tripping hazard.
- 9.1.2 Crawl Space
 - Ten (10) double A/C units, one (1) triple A/C unit and one (1) single A/C unit were observed. One (1) A/C unit was found to be missing the electrical cover.
 - The ground in the crawl space was relatively dry.
 - One (1) leaking water pipe (suspected hot water) was observed. This pipe is visible from the first crawl space access in courtyard.
 - One (1) collection tube from the $\frac{3}{4}$ inch drain pipe is clogged and leaking.
 - Blown-in insulation intact wherever visible.
 - Subfloor not visible due to insulation.
 - Strong persistent mold-like odors were detected in the crawl space. Structural steel was corroded and visible nails in the wood framing and subfloor were rusted suggesting signs of chronic moisture.
 - Visible mold growth was observed on areas of structural wood, spray insulation and debris left in the crawl space from previous construction.
 - All of the passive air vents were found to be heavily covered with dust, debris and dirt.
 - No visible evidence of a drainage system or mechanical ventilation was observed.
 - Many of the pipes were observed to have potentially asbestos-containing insulation.

9.2 Recommendations

- 9.2.1 Building Envelope
 - Patch concrete foundation walls.
 - Re-point cracked bricks and mortar joints along the facade.
 - Clean steel surface and apply rust prohibitive paint to the steel lintels. Replace severely rusted lintels.
 - Install missing handrail at the stairs.
 - Post warning signs at the location of the heaved sidewalk immediately indicating the tripping hazard. Remove heaved sidewalk, expose and remove tree roots below existing sidewalk. Replace concrete pavement sidewalk flags.

9.2.2 Crawl Space

- Replace missing electrical cover on the A/C unit and replace existing hardware with tamper-proof fasteners on all other A/C units.
- Cut and remove the section of leaking hot water pipe and replace with repair sleeve.
- Replace leaking and clogged collection tube.
- Install new one inch (1") thick insulation board on foundation walls lacking coverage. Ensure walls are clean and free of defects, debris, and moisture prior to installation.

- The services of a qualified and experienced microbial contamination remediation company should be retained to implement the following improvements:
 - Install and operate commercial dehumidifiers and HEPA equipped air scrubbers to facilitate structural drying. Vent at least one 2000 cfm HEPA equipped air scrubber directly outside to create negative air pressure.
 - Remove and properly dispose of all debris in minimum six (6) mil plastic bags. Place the bags in a closable dumpster for disposal at an approved landfill.
 - Treat all exposed wood with mold-like discolorations by soda blaster or an equivalent method to remove visible surface contamination. Spray the cleaned surfaces with an EPA-registered disinfectant cleaning solution and allow to fully dry.
 - Thoroughly clean all air vents to improve air flow.
 - Maintain continuous HEPA air scrubbing under negative pressure for at least 48 hours after the completion of all remediation activities.
 - Schedule a final clearance inspection and testing to ensure that the mold exposure is no longer an issue.
- Retain the services of a qualified and experienced asbestos consultant to sample and test the pipe insulation for asbestos. If asbestos is confirmed in the insulation, label it as asbestos-containing pending abatement or encapsulate it in accordance with applicable Federal and State regulations.
- Completely seal all pipe penetrations and other openings through the subfloor with spray foam or an equivalent.
- Install humidstat controlled vent fans to control relative humidity and create low level negative air to help minimize upward migration of airborne mold.
- 9.3 Building 6 Photos



Broken Concrete and Exposed Rebar



Cracked Brick Wall



Rusted Steel Lintel





Missing Handrails at Stairs



Uneven Walkway (Looking East)

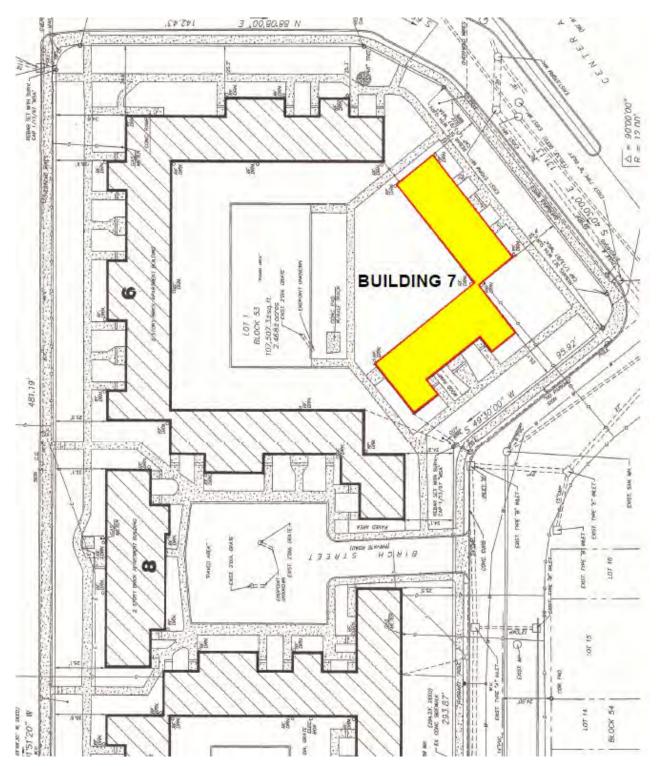


Uneven Walkway (Looking West)



Leaking Collection Pipe

10.0 BUILDING 7



10.1 Observations

10.1.1 Building Envelope

- Cracks and broken concrete were observed on concrete foundation walls exposing reinforcing steel in certain areas.
- Broken bricks and cracked mortar joints were observed in the building facade.

- Rusted steel lintels were observed.
- Heaved sidewalk surface due to an adjacent tree was observed.
- 10.1.2 Crawl Space
 - Four (4) double A/C units were observed.
 - Insulation was observed on the foundation walls, but it was not entirely intact.
 - Visual blown-in insulation looked good and intact.
 - Subfloor not visible due to insulation.
 - Ground was dry except one area of standing water visible from the first crawl space access in the courtyard. Standing water had a sewage odor.
 - Strong persistent mold-like odors were detected in the crawl space. Structural steel was corroded and visible nails in the wood framing and subfloor were rusted suggesting signs of chronic moisture.
 - Visible mold growth was observed on areas of structural wood, spray insulation and debris left in the crawl space from previous construction.
 - All of the passive air vents were found to be heavily covered with dust, debris and dirt.
 - No visible evidence of a drainage system or mechanical ventilation was observed.
 - Many of the pipes were observed to have potentially asbestos-containing insulation.

10.2 Recommendations

- 10.2.1 Building Envelope
 - Patch concrete foundation walls.
 - Replace the broken bricks and re-point cracked mortar joints.
 - Clean steel surface and apply rust prohibitive paint to the steel lintels.
 - Post warning signs at the location of the heaved sidewalk immediately indicating the tripping hazard. Remove heaved sidewalk, expose and remove the tree roots below existing sidewalk. Replace concrete pavement sidewalk flags.
- 10.2.2 Crawl Space
 - Install new one-inch (1") thick insulation board on foundation walls lacking coverage. Ensure walls are clean and free of defects, debris, and moisture prior to installation.
 - Fill in low spot to prevent ponding.
 - Video inspect the sanitary pipes for leaks and breaks.
 - The services of a qualified and experienced microbial contamination remediation company should be retained to implement the following improvements:
 - Install and operate commercial dehumidifiers and HEPA equipped air scrubbers to facilitate structural drying. Vent at least one 2000 cfm HEPA equipped air scrubber directly outside to create negative air pressure.
 - Remove and properly dispose of all debris in minimum six (6) mil plastic bags. Place the bags in a closable dumpster for disposal at an approved landfill.
 - Treat all exposed wood with mold-like discolorations by soda blaster or an equivalent method to remove visible surface contamination. Spray the cleaned surfaces with an EPA-registered disinfectant cleaning solution and allow to fully dry.

- Thoroughly clean all air vents to improve air flow.
- Maintain continuous HEPA air scrubbing under negative pressure for at least 48 hours after the completion of all remediation activities.
- Schedule a final clearance inspection and testing to ensure that the mold exposure is no longer an issue.
- Retain the services of a qualified and experienced asbestos consultant to sample and test the pipe insulation for asbestos. If asbestos is confirmed in the insulation, label it as asbestos-containing pending abatement or encapsulate it in accordance with applicable Federal and State regulations.
- Completely seal all pipe penetrations and other openings through the subfloor with spray foam or an equivalent.
- Install humidstat controlled vent fans to control relative humidity and create low level negative air to help minimize upward migration of airborne mold.

10.3 Building 7 Photos



Broken Concrete



Broken Concrete and Exposed Rebar



Broken Bricks



Cracked Grout



Rusted Lintel

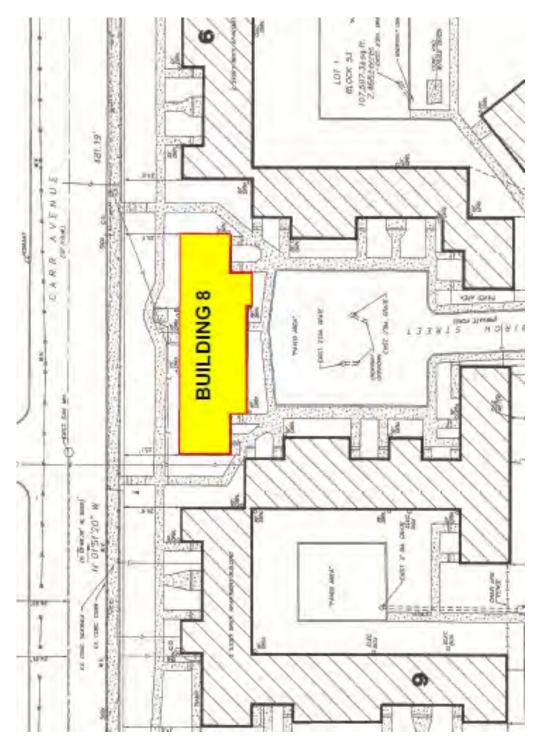


Uneven Sidewalk



Standing Water in Crawl Space

11.0 BUILDING 8



11.1 Observations

- 11.1.1 Building Envelope
 - Cracks and broken concrete were observed on concrete foundation walls exposing reinforcing steel in certain areas.
 - Broken bricks and cracked mortar joints were observed along the facade.
 - Rusted steel lintels were observed.

- Decayed wood panel on a soffit was observed.
- Handrails are missing on both sides of the ramp.
- Uneven sidewalk surface was observed.
- 11.1.2 Crawl Space
 - Two (2) double A/C units were observed.
 - Ground in crawl space was dry.
 - Blown-in insulation appeared to be in good condition and intact where visible.
 - There was no visible insulation on foundation walls.
 - Strong persistent mold-like odors were detected in the crawl space. Structural steel was corroded and visible nails in the wood framing and subfloor were rusted suggesting signs of chronic moisture.
 - Visible mold growth was observed on areas of structural wood, spray insulation and debris left in the crawl space from previous construction.
 - All of the passive air vents were found to be heavily covered with dust, debris and dirt.
 - No visible evidence of a drainage system or mechanical ventilation was observed.
 - Many of the pipes were observed to have potentially asbestos-containing insulation.
 - Subfloor not visible due to insulation.

11.2 Recommendations

11.2.1 Building Envelope

- Patch concrete foundation walls.
- Replace broken bricks and re-point cracked mortar joints.
- Clean steel surface and apply rust prohibitive paint to the steel lintels.
- Replace the wood panel of the soffit.
- Install ADA compliant handrails on both sides of the ramp.
- Post warning signs at the location of the uneven sidewalk immediately indicating the tripping hazard. Replace uneven flags of concrete sidewalk.
- 11.2.2 Crawl Space
 - Install new one-inch (1") thick insulation board on foundation walls lacking coverage. Ensure walls are clean and free of defects, debris, and moisture prior to installation.
 - The services of a qualified and experienced microbial contamination remediation company should be retained to implement the following improvements:
 - Install and operate commercial dehumidifiers and HEPA equipped air scrubbers to facilitate structural drying. Vent at least one 2000 cfm HEPA equipped air scrubber directly outside to create negative air pressure.
 - Remove and properly dispose of all debris in minimum six (6) mil plastic bags. Place the bags in a closable dumpster for disposal at an approved landfill.
 - Treat all exposed wood with mold-like discolorations by soda blaster or an equivalent method to remove visible surface contamination. Spray the cleaned surfaces with an EPA-registered disinfectant cleaning solution and allow to fully dry.
 - Thoroughly clean all air vents to improve air flow.

- Maintain continuous HEPA air scrubbing under negative pressure for at least 48 hours after the completion of all remediation activities.
- Schedule a final clearance inspection and testing to ensure that the mold exposure is no longer an issue.
- Retain the services of a qualified and experienced asbestos consultant to sample and test the pipe insulation for asbestos. If asbestos is confirmed in the insulation, label it as asbestos-containing pending abatement or encapsulate it in accordance with applicable Federal and State regulations.
- Completely seal all pipe penetrations and other openings through the subfloor with spray foam or an equivalent.
- Install humidstat controlled vent fans to control relative humidity and create low level negative air to help minimize upward migration of airborne mold.

11.3 Building 8 Photos



Cracked Concrete and Exposed Rebars



Broken Brick



Cracked Grout



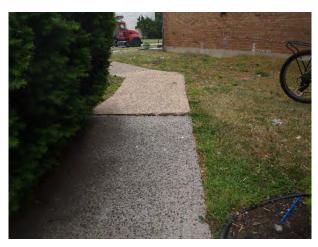
Rusted Steel Lintel



Decayed Wood Panel at Soffit

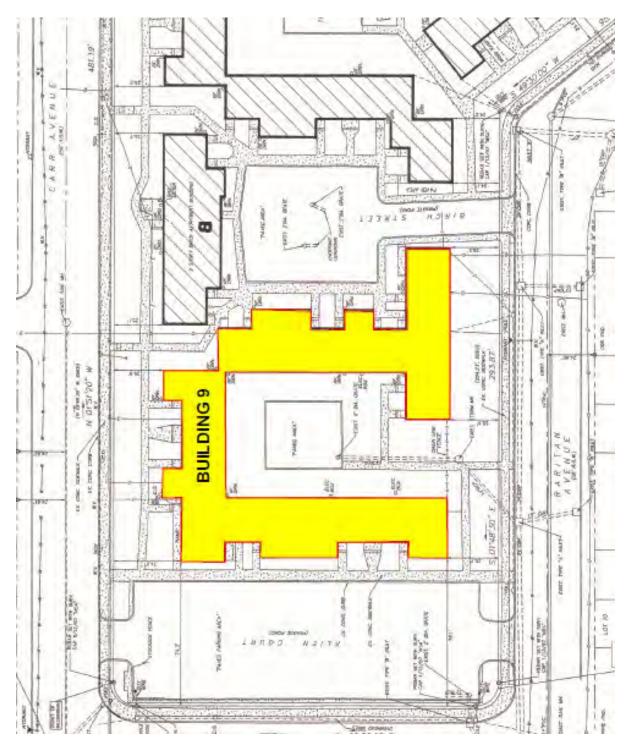


Missing Handrails on Both Sides of the Ramp



Uneven Sidewalk

12.0 BUILDING 9



12.1 Observations

12.1.1 Building Envelope

- Cracks and broken concrete were observed on concrete foundation walls exposing reinforcing steel in certain areas.
- Broken bricks and cracked mortar joints were observed along the facade.
- At least six (6) steel lintels were observed to be severely rusted.

- Loose metal flashing was observed on the lower roof.
- 12.1.2 Crawl Space
 - Eleven (11) double A/C units were observed in the crawl space.
 - Ground in crawl space was dry.
 - Blown-in insulation was observed to be in good condition and intact where visible.
 - There was no visible insulation on foundation walls.
 - Subfloor was not visible due to insulation.
 - Water pipe with visible leak observed. A pin hole sized leak in the pipe section with constant flow was observed.
 - Strong persistent mold-like odors were detected in the crawl space. Structural steel was corroded and visible nails in the wood framing and subfloor were rusted suggesting signs of chronic moisture.
 - Visible mold growth was observed on areas of structural wood, spray insulation and debris left in the crawl space from previous construction.
 - All of the passive air vents were found to be heavily covered with dust, debris and dirt.
 - No visible evidence of a drainage system or mechanical ventilation was observed.
 - Many of the pipes were observed to have potentially asbestos-containing insulation.

12.2 Recommendations

12.2.1 Building Envelope

- Patch concrete foundation walls.
- Replace broken bricks and re-point cracked grout.
- Clean steel surface and apply rust prohibitive paint to the steel lintels. Severely rusted steel lintels shall be replaced.
- Secure the metal flashing.
- 12.2.2 Crawl Space
 - Install new one-inch (1") thick insulation board on foundation walls lacking coverage. Ensure walls are clean and free of defects, debris, and moisture prior to installation
 - Cut and remove section of water pipe with leak and replace with repair sleeve.
 - The services of a qualified and experienced microbial contamination remediation company should be retained to implement the following improvements:
 - Install and operate commercial dehumidifiers and HEPA equipped air scrubbers to facilitate structural drying. Vent at least one 2000 cfm HEPA equipped air scrubber directly outside to create negative air pressure.
 - Remove and properly dispose of all debris in minimum six (6) mil plastic bags. Place the bags in a closable dumpster for disposal at an approved landfill.
 - Treat all exposed wood with mold-like discolorations by soda blaster or an equivalent method to remove visible surface contamination. Spray the cleaned surfaces with an EPA-registered disinfectant cleaning solution and allow to fully dry.
 - \circ $\;$ Thoroughly clean all air vents to improve air flow.
 - Maintain continuous HEPA air scrubbing under negative pressure for at least 48 hours after the completion of all remediation activities.

- Schedule a final clearance inspection and testing to ensure that the mold exposure is no longer an issue.
- Retain the services of a qualified and experienced asbestos consultant to sample and test the pipe insulation for asbestos. If asbestos is confirmed in the insulation, label it as asbestos-containing pending abatement or encapsulate it in accordance with applicable Federal and State regulations.
- Completely seal all pipe penetrations and other openings through the subfloor with spray foam or an equivalent.
- Install humidstat controlled vent fans to control relative humidity and create low level negative air to help minimize upward migration of airborne mold.
- 12.3 Building 9 Photos



Cracked Bricks



Cracked Bricks at Another Spot



Cracked Concrete



Broken Concrete and Exposed Rebars



Cracked Grout





Severely Rusted Steel Lintel



Loose Metal Flashing



Leaking Water Pipe in Crawl Space

13.0 PRELIMINARY ESTIMATE OF PROBABLE CONSTRUCTION COST

Based on the inspections performed by SCE, a preliminary estimate of probable construction cost has been prepared for the general structural and maintenance items. The costs reflected in this estimate are based on the visual inspections performed on the dates specified earlier in this report and may not completely reflect actual conditions and additional repairs required to areas not visible during the inspections.

This estimate does not include costs to test the pipe insulation for asbestos, any asbestos remediation or encapsulation and the cost to remediate the mold from each crawl space. These costs would be determined by specific contractors and would need to be obtained from these contractors as a proposal for services. To assist the AHA with obtaining cost proposals for the mold remediation, SCE has provided a list of mold remediation contractors below.

- Consolidated Environmental, Inc. Chris Alvarado 973-747-9721 chris@conenv.com
- Servpro of Eatontown, Long Branch and North Jersey John Majeski 732-578-9888 john@servproelb.com
- 360 Restoration Mike Carpio 201-230-4118 maikel@360restor.com
- Springtree Construction Konrad Kurach 215-869-0768 konrad@springtreellc.com
- Remediation Specialists Inc. Frank Fitzgerald 609-651-7102 frank@remediationspecialists.com

The estimate of probable construction cost for the items other than mold remediation and asbestos testing and remediation, sorted by Building, can be found in Appendix B. The total estimated cost is approximately \$807,000 for all nine buildings.

Appendix A

MOLD INVESTIGATION REPORT



INDUSTRIAL HYGIENE REPORT

Prepared For:

Mr. Robert Georgia Branch Manager Suburban Consulting Engineers, Inc. 2430 Highway 34, Building A Wall, New Jersey 08736

Regarding:

Initial Mold Inspection Buildings 1-9 Crawlspaces Grandview Apartments 104 Carr Avenue Keansburg, New Jersey 07734

Report Prepared By:

Garden State Environmental, Inc. 555 Broad Street, Suite K Glen Rock, New Jersey 07452

Date of Report:

July 8, 2020

555 BROAD STREET, SUITE K GLEN ROCK, NJ 07452

I. INTRODUCTION

The subject of this report is a microbial (mold) related assessment conducted on April 30 and May 19, 2020 by Benjamin A. Hildebrand, B.S. and Tara E. Ekiert, B.S. Industrial Hygienists with Garden State Environmental, Inc. (GSE) of the crawlspaces beneath Buildings 1 - 9 at Grandview Apartments in Keansburg, New Jersey.

Mr. Robert Georgia, Branch Manager for Suburban Consulting Engineers, Inc. has retained GSE to assess the mold related conditions in the above referenced locations. The assessment was based on concerns about possible mold growth following flooding during Hurricane Sandy in 2012. The investigation of each crawlspace consisted of a detailed visual inspection of accessible areas of concern, moisture mapping and the collection of environmental samples which were subject to laboratory analysis.

Our findings are summarized in the report that follows.

II. <u>BACKGROUND</u>

The subject buildings are 2-story apartments, with crawlspaces below. In 2012, each crawlspace was flooded by Hurricane Sandy. No remediation or structural drying was performed following that flooding event. We were informed by a community maintenance representative that during periods of heavy rainfall, the crawlspaces flood and stagnant water remains until it slowly drains and evaporates.

A resident board member recently opened one of the crawlspace access doors and detected a strong mold-like odor.

III. INSPECTION FINDINGS

April 30, 2020

<u>Outdoors</u>: Temperature = 53.7 °F Relative Humidity = 89.2 %

Indoors (Crawlspace Building 1): Temperature = 50.9°F Relative Humidity = 91.3 %

May 19, 2020

<u>Outdoors</u>: Temperature = 56.2 to 64.7 °F Relative Humidity = 66.9 to 77.8 %

Indoors (Crawlspaces Buildings 2-9): Temperature = 60.3 to 76.6 °F Relative Humidity = 55.6 to 79.8 %

Crawlspaces

The foundation of each crawlspace is constructed of cement slab walls and a soil/sand mixed floor. Plastic vapor barrier was observed on the floor in some of the crawlspaces, but was in poor condition and only partially covered the floors. Cement slab support columns are present in areas through the crawlspaces. There are structural steel girders in various areas throughout the crawlspaces all showing signs of corrosion suggesting chronic moisture. The ceiling consists of wood joists and wood subfloor for the first floor of the residences above and is covered with spray insulation. Visible nails on the wood joists were rusted.

Upon entry in each crawlspace, strong, persistent mold-like odors were detected. The temperatures and relative humidity throughout the crawlspaces were similar to outside conditions with some indoor elevations in relative humidity identified.

Visible standing water was seen in the crawlspaces of buildings 6, 7 and 9. The soil/sand mix in each crawlspace floor appeared damp throughout. Our moisture mapping of susceptible wood building materials found that most of the insulated structural wood had normal moisture ranging from 6.0 to 11.6%. Areas on non-insulated wood were elevated, with moisture content ranging from 14.7 to 24.9%. Normal moisture levels in indoor wood is considered 15% or below as measured on the Douglas Fir setting on a Delmhorst TotalCheck moisture meter

Suspect scattered visible mold growth was observed on various areas of exposed structural wood and on the spray insulation in each crawlspace. Additional mold growth was found on cardboard, debris and construction blankets that were left in many of the crawlspaces. Building 3 is the only crawlspace with wood columns; suspect visible mold growth was present on the base of those columns.

All crawlspaces contained six or more passive air vents; each heavily covered with dust, dirt and debris. No evidence of water drainage/management systems or mechanical ventilation was observed in any crawlspaces.

IMPORTANT NOTE: Many pipes are insulated with suspect asbestos containing insulation. Such insulation must not be disturbed unless bulk sampling indicates it is non-asbestos. GSE is available to conduct bulk asbestos sampling as requested.

A brief survey of the exterior foundations identified some areas with ground depressions and grading toward the foundations. We also observed some leaders emptying directly next to foundations.

IV. SAMPLING METHODS

Moisture Measurements

Moisture mapping was conducted with a Delmhorst TotalCheck Moisture Meter. This instrument measures moisture content in building materials using a surface scan feature, contact pins, and cavity probe attachments. Moisture mapping was performed in representative locations to determine the extent of any remaining moisture levels. The pin probe was used to determine moisture content (MC) in structural wood (normal levels <15% on the Douglas Fir setting).

Microbial

Currently there is no standardized sampling technique and analytical method to uniformly identify and quantify different species and genera that occur in the biological diversity of the microbiological world. A variety of specific approaches are used to retrieve, enumerate and identify each kind of microorganism from air, surfaces, and different materials suspected of contamination.

Surface Sampling

Direct sampling involves collecting a physical sample of the actual mold growth. Various techniques such as bulk sampling, tape sampling, or swabbing of specifically defined surface areas are used where there is visual evidence of obvious mold growth.

Direct (surface) samples, collected with a cello-tape (tape-lift samples), and/or with sterile swabs (wipe samples); bulk material samples, can be analyzed by direct microscopic exam in order to provide useful qualitative and quantitative information regarding the types and amount of mold that are present. Such samples are chosen for rapid collection and analysis. Direct microscopic examination identifies the molds to genus level and gives a semi-quantitative evaluation of their concentrations, i.e., <1% (low) spores, 1-10% (moderate) spores, >10% (high/abundant) growth.

Laboratory Analysis

All analysis for this project was conducted by:

International Asbestos Testing Laboratories (iATL) 9000 Commerce Parkway, Suite B Mount Laurel, New Jersey 08054

iATL ensures their quality control by participating in a quarterly proficiency testing program. The lab has a current accreditation by the American Industrial Hygiene Association's (AIHA) Environmental Microbiology Laboratory Accreditation Program (EMLAP) for Environmental Microbiology. The EMLAP is specifically for labs identifying microorganisms commonly detected in air, fluids, and bulk samples during indoor air quality studies.

AIHA EMPAT # 100188.

V. SAMPLING RESULTS

Microbial Surface Sampling

Surface Samples for Direct Microscopic Analysis – May 19, 2020			
Sample ID	Matrix	Location	Fungal Organisms Identified
5-19-TE-01	Swab	Building 2 - Wood Joist	Low Loading (<1%) Penicillium/Aspergillus group
5-19-TE-02	Swab	Building 2 - Construction Blanket	Low Loading (<1%) <i>Cladosporium</i>
5-19-TE-03	Swab	Building 3 - Wood Joist	High Loading (>10%) Drechslera Basidiospore Undifferentiated
5-19-TE-04	Swab	Building 4 - Wood Joist	High Loading (>10%) Cladosporium Penicillium/Aspergillus group
5-19-TE-05	Swab	Building 5 - Wood Joist	Medium Loading (1-10%) Basidiospore Undifferentiated Penicillium/Aspergillus group
5-19-TE-06	Swab	Building 5 - Spay Insulation	High Loading (>10%) Penicillium/Aspergillus group Basidiospore Undifferentiated
5-19-TE-07	Таре	Building 7 - Wood Joist	Medium Loading (1-10%) Penicillium/Aspergillus group
5-19-TE-08	Таре	Building 6 - Wood Joist	High Loading (>10%) Coprinus Cladosporium
5-19-TE-09	Таре	Building 9 - Wood Joist	Medium Loading (1-10%) Penicillium/Aspergillus group Cladosporium
5-19-TE-10	Таре	Building 8- Wood Joist	High Loading (>10%) Cladosporium

VI. DISCUSSION

Visual inspection confirms the presence of scattered surface mold growth in all crawlspaces as described above. Laboratory analysis of representative surface samples confirms the presence of mold in the crawlspaces of each of the nine (9) buildings. Six out of the ten (6/10) samples collected were positive for the presence of *Penicillium/Aspergillus*, five out of the ten (5/10) samples were positive for *Cladosporium*, three of the ten (3/10) samples were positive for *Basidiospore Undifferentiated*, one of the ten (1/10) samples was positive for *Drechslera* and one of the ten (1/10) samples was positive for *Coprinus*.

Penicillium/Aspergillus are known as an "indicator fungal organisms," which are typically associated with water damaged building materials and poor indoor air quality. Some species of these mold organisms may produce mycotoxins and may pose theoretical health risks to susceptible people. The actual risks to the health of occupants are very difficult to ascertain and is dependent on the duration, intensity, and route of exposure, and each individual's immune response to exposure.

Cladosporium are common environmental mold spores that are often drawn from the outdoors. This mold is not associated with toxic health effects but can elicit allergenic responses in some people.

Basidiospores are commonly released during periods of high humidity and/or rain. Those who are sensitive to allergens, may experience symptoms from exposure. Species of this group of molds are associated with wood rot and can impact the structural integrity of wood structural members over time.

Drechslera can be found on water damaged materials. They are common in both indoor and outdoor environments; most people are exposed to them daily and may have an allergenic response.

Coprinus commonly grows in the environment as mushrooms. This fungi is not associated with toxic health effects.

Mold growth identified during our inspection appears to be limited to structural wood, and insulation, although it is possible and likely that there are mold spores in the soil/sand and scattered debris on the floor.

Chronically damp conditions in these crawlspaces are a significant factor in the mold conditions identified. High subsurface water levels and sandy soil contribute to damp conditions in many crawlspaces in the shore towns of NJ. Additionally poor grading and leader discharge near foundations may be contributing factors. Further, the lack of ventilation and moisture control measures allow moisture to accumulate and foster mold growth on susceptible building materials. While we have no direct evidence of the mold conditions impacting the living spaces above, if environmental conditions are not improved, the risk if upward migration of airborne mold spores (through penetrations in the subfloors) will increase along with the potential for degradation of wood building materials.

GSE uses its best professional judgment in determining the types and numbers of samples to be collected. However, laboratory testing is not the only criteria for interpreting the results outlined in this report. Laboratory results are evaluated in the context of visual findings, water intrusion history, and moisture mapping results.

Based on the findings outlined above, our recommendations for the crawlspace are as follows.

VII. SCOPE OF WORK FOR MOLD REMEDIATION:

General Recommendations

- 1. Hire a qualified and experienced microbial contamination remediation company to implement these recommendations.
- 2. All abatement work should be conducted based on all applicable federal, state and local and consensus based regulations, ordinances and industry standards, including but not limited to the safety and health regulations of established by the United States Department of Labor, Occupational Safety and Health Administration (OSHA), New York City Department of Health *Guidelines on Assessment and Remediation of Fungi in Indoor Environments*, and The United States Environmental Protection Agency *Mold Remediation in Schools and Commercial Buildings*.
- 4. Contractor should provide OSHA Safety Data Sheets (SDS) for all potentially hazardous products used during remediation.
- 5. Bag all remediation waste in at least 6 mil plastic bags. Store discarded items in a closable dumpster for disposal in an approved landfill.
- 6. **Have pipe insulation sampled and tested for asbestos content**. If positive, all pipes must be labeled as asbestos containing pending abatement or encapsulation in accordance with applicable Federal and State regulations.
- 7. Ensure that all pipe penetrations and other openings through the subfloor are fully sealed with spray foam or equivalent.
- 8. Have a qualified engineering firm evaluate the sources of chronic moisture and develop a remedial plan. The following elements might be considered:
 - a. Installation of humidistat controlled vent vans to control relative humidity and create low level negative air in crawlspaces to help minimize upward migration of airborne mold.
 - b. Ensure that all exterior grading is away from the buildings
 - c. Ensure that all leaders are discharged safely away from the buildings
 - d. Ensure that foundations are in good condition to prevent water penetration

Crawlspaces

9. Install and operate a sufficient quantity of commercial dehumidifiers to facilitate structural drying of the affected building materials and a sufficient quantity of HEPA equipped air scrubbers within the work area. At least one 2000 cfm HEPA air scrubber must be vented directly to the outdoors in each crawlspace to create negative air pressure.

- 10. Remove and properly dispose of all debris in each crawlspace with a focus on susceptible or visibly moldy materials and dispose of them as per section 5 above.
- 11. Treat all exposed wood building materials with evidence of mold-like discolorations by the following process:
 - a. Remove visible surface contamination via soda blaster or equivalent
 - b. Spray the cleaned surfaces with EPA registered disinfectant cleaning solution, allow to fully dry.
- 12. Thoroughly clean all air vents to promote improved air flow.

Post-Remediation Verification (Clearance)

- 1. Maintain continuous HEPA air scrubbing under negative air for a minimum of 48 hours following the completion of all remediation activities.
- 2. Contact GSE with any additional findings or questions or to schedule final clearance inspection and environmental sampling. The results of the clearance inspection and surface sampling will document that the remediation was conducted successfully and that mold exposure is no longer an issue in the remediated areas. If the clearance inspection is not favorable, the contractor will be requested to return to conduct additional remedial work.

VIII. CONDITIONS and LIMITATIONS

The findings described in this report are reflective of the conditions existent at the time of inspection and testing. In the field of environmental sampling, various environmental parameters such as temperature, humidity, winds, may significantly impact the results.

Our findings and conclusions must be considered probabilities based upon professional judgment concerning the significance of the limited data gathered during the course of investigation. The results and recommendations set forth by GSE in this report will be valid as of the date of the report and are limited to the site condition at the time of investigation. Please feel free to call GSE with any questions about this report.

Thank you for the opportunity to assist you in this project and we look forward to continuing to assist you in the future.

Respectfully submitted,

kirt Java E

Tara E. Ekiert, BS Industrial Hygienist

Reviewed By:

Bone Wo

Bruce D. Wolf, MPA, HO, IH, IEC Industrial Hygienist Sr. Vice President

APPENDIX I

DIGITAL IMAGES

#1 – Entry into Crawlspaces.



#2 – Entry into Crawlspaces



#3 – Right side of Crawlspace under Building 2.



#4 – Crawlspace - Building 3



#5 – Crawlspace building 3 - mold growth on wood column



#6 - Crawlspace - Building 3 - Blockage on air vent





#7 – Crawlspace - Building 4 - Mold growth on wood subfloor

#8 - Crawlspace - Building 7 - stagnant water and wet soil/sand floor



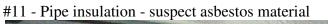


#9 – Crawlspace - Building 6 - Stagnant Water

#10 – Exterior View of Small Air Vent



Suburban Consulting Engineers, Inc. Grandview Apartments Buildings 1 - 9 Initial Mold Report 7/8/2020, Page 16





#12 - Exterior of crawl space - degrading towards the foundation and leaders emptying near fountain wall.



Suburban Consulting Engineers, Inc. Grandview Apartments Buildings 1 - 9 Initial Mold Report 7/8/2020, Page 17

APPENDIX II

LABORATORY CERTIFICATE OF ANALYSIS



Received (Name / iATL):

Analysis(Name(s) / iATL):

Archived / Released:

Sample Login (Name / iATL):

QA/QC Review (Name / iATL):

QA/QC InterLAB Use:

84

Time:

, Time:

Time:

Time:

Time:

412

Chain of Custody

-Mold / Fungal Analysis -

Contact Infor	<u>mation</u>		
Client Company:	Garden State Environmental, Inc.	Project Number:	7738
Office Address:	555 South Broad Street, Suite K	Project Name:	suburban Engineers
City, State, Zip:	Glen Rock, NJ 07452	Primary Contact:	Tara Ekiert
Fax Number:	201-652-0612	Office Phone:	201-652-1119
Email Address:	labreports@gseconsultants.com	Cell Phone:	
Mold Analytic	al Services/ Special Instru	ctions	
Non-Culturable:			
	aersol Fungal Spore Trap: prietary Method for Airborne Fungal Spore	Identification/Ouantitation Zef	on Air-O-Cell _{TM} , or Air-O-Cell-like cassette
(ex	. Allergenco _{TM} , Micro5 _{TM} , etc.)		
Mold/Tape	, Swab, Bulk:	Space Identification Zafen Die	Tang other to an and called have to a
	prietary Method for Direct Transfer Fungal ellaneous:	Spore Identification Zelon Bio	- Tape _{TM} , other transparent cenophane tape
Pro	prietary Method for Fungal Spore Identifica		s Micro-Vacuum Cassettes, Carpet
san Culturable:	nples, etc. (ex. AIHA Vol. 64, No. 6, 11/200	3)	
provide a second	aersol Fungal Contact Plate (Qualitative On	<i></i>).	
Pro	prietary Method for Airborne Fungal Spore face Air Sampler, or aersol impacted growth	Identification (non-quantifiable	e) Anderson _{TM} Plates, Bio-Cassette _{TM}
Process (aersol Fungal Contact Plate (Qualitative and		
Pro	prietary Method for Airborne Fungal Spore	Identification (Quantifiable in	CFU) Anderson _{TM} Plates, Bio-
	ssette _{TM} , or aersol impacted growth medium		
	prietary Method for Growth and Identificati	on of Fungal Spores Sealable/S	Sterile Swab, Bulk, (Call lab for
ed	ilability)		:
Mold/Mise Pro	cellaneous: prietary Method for Growth and ID of Fung	al Spores in Carnets, Dusts, Su	rfaces Micro-Vacuum Cassettes, Carnet
	pples, etc. (ex. AIHA Vol. 64, No. 6, 11/200		cassones, carper
Turnaround 7		ł	
Preliminary Results Re	quested Date:	🗆 🗆 V	erbal 🗹 Email 🔲 Fax
) Day $\boxed{12}5$ Day $\boxed{13}$ Day $\boxed{12}2$ Day		
Note: Viable * End	e/Culturable samples may require several days in of next business day unless otherwise specified.	order to establish countable colony	forming units (CFU) of fungi.
		Manix Dependent, i icase ii	sing the lab before shipping.
Chain of Cust	ody		DECELLE
Relinquished (Name/O	rganization): Tava EKIEr+ - GISE, 1	NC' Date: 5/21/2	020 Time 5 300m Fed to

Celebrating more than 30 years...one sample at a time www.iatl.com

Date:

Date:

Date:

Date:

Date:

0

202



Sample Log

-Mold / Fungal Analysis-

Client: Garden State Environmental

Project 7738 Suburban Engineering

	Mold Sample Log								
Client Sample #	iATL #	Location/Description ¹	Sample Volune or Area (units)	Notes/Conditions ²					
5-21-TE-01	7012258	Bidg 2. crawl space wood joist	1in ²	swab					
5-21-TE -02	7012259	Bidg 2 crawl space construction Blanket							
5-21-TE-03	7012260	Bldg 3 crawl space wood loist							
5-21-TE-04	7012261	Bldg4 crawl space wood joist							
5-21-TE-05	7012262	Bldg 5 crawl space wood joist							
5-21-TE-06	7012263	Bidg 5 crawl space spray insulation		\downarrow					
5-21- TE-07	7012264	Bidg 7 crawi space Wood joist	1in	Tape					
5-21-TE-08	7012265	Bidg69 crawl space Wood joist							
5-21-TE-09	7012266	Bidgn crawl space wood joist							
5-21-TE-10	7012267	Bidg B crawi space Wood joist		V					
		, , , , , , , , , , , , , , , , , , ,							

¹ Description includes sample matrix. Location should include general area of country (see below).

Matrix:	Air Non-Viable	Air Viable	_ Tape 🗸 4_ Swab 🗸 🂪 Bull	Contact Plate Other	
Location:	Inside	Outside	Basement	Other crawl spaces	
² Evaluation of	Mold/Fungal Spore	e Samples may be aid	ed by detailed observations and	documentation of sampling conditions.	
Weather:	No Precipitation _	Light Precipita	tion Moderate Precipitat		
	No Wind	Light Wind	Moderate Wind	Heavy Wind	
Date/Time:		OOAMY PM			
Temperature:	The 56.	<u>2</u> ℃/€F			
Relative Humic	dity: 8	%			
RH Area /Gene	eral: SUDUY bS	(ex. Mountains)			



CERTIFICATE OF ANALYSIS

Client: Garden State Environmental, Inc. 555 S Broad St. Ste. K

Glen Rock NJ 07452

Report Date:5/26/2020Report No.:613881 - Mold Direct
TransferProject:Suburban EngineersProject No.:7738

Client: GAR373

DIRECT TRANSFER MOLD SPORE SAMPLE ANALYSIS SUMMARY

Lab No.: 7012258 Client No.: 5-21-TE-01	Location: Bldg 2 Crawlspace Wood Joist Description: Sample Type: Swab	Loading: Low <u>Genera:</u> Penicillium / Aspergillus
Lab No.: 7012259 Client No.: 5-21-TE-02	Location: Bldg 2 Crawlspace Construction Blanket Description: Sample Type: Swab	Loading: Low <u>Genera:</u> Cladosporium
Lab No.: 7012260 Client No.: 5-21-TE-03	Location: Bldg 3 Crawlspace Wood Joist Description: Sample Type: Swab	Loading: High <u>Genera:</u> Drechslera Group Basidiospores Undifferentiated
Lab No.: 7012261 Client No.: 5-21-TE-04	Location: Bldg 4 Crawlspace Wood Joist Description: Sample Type: Swab	Loading: High <u>Genera:</u> Cladosporium Penicillium / Aspergillus
Lab No.: 7012262 Client No.: 5-21-TE-05	Location: Bldg 5 Crawlspace Wood Joist Description: Sample Type: Swab	Loading: Medium <u>Genera:</u> Basidiospores Undifferentiated Penicillium / Aspergillus
Lab No.: 7012263 Client No.: 5-21-TE-06	Location: Bldg 5 Crawlspace Spray-On Insulation Description: Sample Type: Swab	Loading: High <u>Genera:</u> Penicillium / Aspergillus Basidiospores Undifferentiated

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received:

Date Analyzed:

Signature:

Analyst:

5/22/2	020
05/26/2	2020
C	ster-
Ben Re	eich

Approved By:

a Tua 602

Frank E. Ehrenfeld, III Laboratory Director



CERTIFICATE OF ANALYSIS

Client: Garden State Environmental, Inc. 555 S Broad St. Ste. K

Glen Rock NJ 07452

Report Date:5/26/2020Report No.:613881 - Mold Direct
TransferProject:Suburban EngineersProject No.:7738

Client: GAR373

DIRECT TRANSFER MOLD SPORE SAMPLE ANALYSIS SUMMARY

Lab No.: 7012264 Client No.: 5-21-TE-07	Location: Bldg 7 Crawlspace Wood Joist Description: Sample Type: Tape Lift	Loading: Medium <u>Genera:</u> Penicillium / Aspergillus
Lab No.: 7012265 Client No.: 5-21-TE-08	Location: Bldg 6 Crawlspace Wood Joist Description: Sample Type: Tape Lift	Loading: High <u>Genera:</u> Coprinus Cladosporium
Lab No.: 7012266 Client No.: 5-21-TE-09	Location: Bldg 9 Crawlspace Wood Joist Description: Sample Type: Tape Lift	Loading: Medium <u>Genera:</u> Penicillium / Aspergillus Cladosporium
Lab No.: 7012267 Client No.: 5-21-TE-10	Location: Bldg 8 Crawlspace Wood Joist Description: Sample Type: Tape Lift	Loading: High <u>Genera:</u> Cladosporium

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: Date Analyzed: Signature:

Analyst:

5/22/2020
05/26/2020
Bag-
Ben Reich

Approved By:

R Ena fol

Frank E. Ehrenfeld, III Laboratory Director



CERTIFICATE OF ANALYSIS

Client: Garden State Environmental, Inc. 555 S Broad St. Ste. K Glen Rock NJ 07452

Client: GAR373

Report Date:5/26/2020Report No.:613881 - Mold Direct TransferProject:Suburban EngineersProject No.:7738

Appendix to Analytical Report:

Customer Contact: Send ALL Lab Reports Analysis: IAQL 061804, Based upon ASTM D7910 -Standard Practice for Collection of Fungal Material From Surfaces by Tape Lift

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com iATL Office Manager: wchampion@iatl.com iATL Account Representative: Kelly Klippel Sample Matrix: Tape, Swab, Bulk Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by IAQL 061804

Certification: EMLAP AIHA-LAP, LLC No. 100188

All results are based on the samples as received at the lab. iATl assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Results include genera of mold observed and their prevalence with respect to the Tape lift provided or produced for analysis. Only the three most prevalent Genera / Species are reported at levels:

High = Most of the observed debris on the tape or swab is comprised of mold spores / hyphae, generally considered to be >10% loading

Med = Some of the observed debris on the tape or swab is comprised of mold spores / hyphae, generally considered to be 1-10% loading

Low = Very little of the observed debris on the tape or swab is comprised of mold spores / hyphae, generally considered to be <1% loading

Reported alone, 'Hyphae' indicates mold growth, but not discernible spores.

It is the responsibility of the client to supply a tape lift, swab, or bulk material which is representative of the area being evaluated. The absence or presence of mold on a surface sample is limited by the specific location of the sample, the number of samples taken relative to the area being evaluated, as well as the sampling technique



CERTIFICATE OF ANALYSIS

Client: Garden State Environmental, Inc. 555 S Broad St. Ste. K Glen Rock NJ 07452

Client: GAR373

Report Date:5/26/2020Report No.:613881 - Mold Direct TransferProject:Suburban EngineersProject No.:7738

employed.

The use of Non-Transparent tape requires that a tape lift be taken by the lab from the client submittal, which may impact results.

Interpretation of these results is left to the company / person who sampled or inspected the location to be tested. All biological samples have inherent variability.

IATL utilizes 1000X magnification (oil) to perform qualitative analysis.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

Appendix B

PRELIMINARY ESTIMATE OF PROBABLE CONSTRUCTION COST

SUBURBAN CONSULTING ENGINEERS, INC.

CLIENT: AFFORDALE HOUSING ALLIANCE PROJECT NAME: GRANDVIEW APPARTMENT COMPLEX PROJECT LOCATION: BOROUGH OF KEANSBURG, COUNTY OF MONMOUTH, STATE OF NEW JERSEY

BUILDING 1

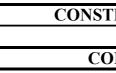
ITEM NO.	DESCRIPTION	BID QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1	REMOVAL OF EXISTING FAÇADE ABOVE DRIVEWAY ARCADE	360	SQF	\$ 20.0) \$ 7,200.00
2	NEW LIGHT WEIGHT FAÇADE DRIVEWAY ARCADE	360	SQF	\$ 55.00) \$ 19,800.00
3	PATCHING CONCRETE FOUNDATION WALLS	1	LS	\$ 2,000.00) \$ 2,000.00
4	RE-POINTING BRICK AND GROUT	1	LS	\$ 8,000.00	8,000.00
5	CLEANING AND PAINTING STEEL LINTELS	1	LS	\$ 15,600.00) \$ 15,600.00
6	REPLACING WOOD PANEL OF DECAYED SOFFIT	1	LS	\$ 2,000.00) \$ 2,000.00
7	FLOOR REPAIR FOR APT #21	1	LS	\$ 5,000.00) \$ 5,000.00
8	FURTHER NORTH WALL EVALUATION (3-D SCAN AND MONITER)	1	LS	\$ 12,000.00) \$ 12,000.00
9	REPAIR OF RELATED NORTH WALL SETTLEMENT	1	LS	\$ 48,000.00) \$ 48,000.00
10	WARNING SIGNAGES FOR FALL HARZARD AT DRIVEWAY ARCADE	2	PC	\$ 250.00) \$ 500.00
11	PEST CONTROL SERVICES	1	LS	\$ 30,000.00	30,000.00
12	REPLACE EXTERIOR LIGHT FIXTURES	1	LS	\$ 10,000.00) \$ 10,000.00
13	REPLACE HARDWARE ON ELECTRICAL COVERS OF A/C UNITS	1	LS	\$ 250.00) \$ 250.00
14	REPLACE 3/4" PVC PIPE AND DRAIN PIPES	1	LS	\$ 2,000.00) \$ 2,000.00
15	INSULATION	1	LS	\$ 5,000.00) \$ 5,000.00
16	APPLY 1" INSULATION BOARD	1	LS	\$ 5,000.00) \$ 5,000.00
17	REPAIR DETERIORATED SUBFLOOR AND SEAL PENETRATIONS AND OPENINGS	1	LS	\$ 10,000.0) \$ 10,000.00
18	INSTALL VENT FANS TO CONTROL HUMIDITY IN CRAWL SPACE	1	LS	\$ 10,000.0) \$ 10,000.00
		l	CONS	STRUCTION SUBTOTAI	
				20% CONTINGENCY	. ,
			0	CONSTRUCTION TOTAL	2: \$ 230,820.00

08/13/2020

CLIENT: AFFORDALE HOUSING ALLIANCE PROJECT NAME: GRANDVIEW APPARTMENT COMPLEX PROJECT LOCATION: BOROUGH OF KEANSBURG, COUNTY OF MONMOUTH, STATE OF NEW JERSEY

BUILDING 2

ITEM NO.	DESCRIPTION	BID QUANTITY	UNIT		UNIT PRICE	тс	DTAL PRICE	
1	PATCHING CONCRETE FOUNDATION WALLS	1	LS	\$	2,000.00	\$	2,000.00	
2	RE-POINTING BRICK AND GROUT	1	LS	\$	8,000.00	\$	8,000.00	
3	CLEANING AND PAINTING STEEL LINTELS	1	LS	\$	10,800.00	\$	10,800.00	
4	ADDING DOWNSPOUT PARTS	1	LS	\$	250.00	\$	250.00	
5	RECAPPING THE CHIMNEY AT TOP	1	LS	\$	700.00	\$	700.00	
6	REPLACING LOWER ROOF METAL FLASHING	1	LS	\$	400.00	\$	400.00	
7	REPLACE EXTERIOR LIGHT FIXTURES	1	LS	\$	5,000.00	\$	5,000.00	
8	REPLACE EXISTING ELECTRICAL COVER AND HARDWARE ON A/C UNITS	1	LS	\$	300.00	\$	300.00	
9	REPLACE 3/4" PVC PIPE AND REPAIR AND REPLACE DAMAGED DRAIN PIPES	1	LS	\$	2,000.00	\$	2,000.00	
10	REMOVE DEBRIS FROM DRAIN COVERS	1	LS	\$	250.00	\$	250.00	
11	APPLY 1" INSULATION BOARD	1	LS	\$	5,000.00	\$	5,000.00	
12	SEAL PENETRATIONS AND OPENINGS IN SUBFLOOR	1	LS	\$	5,000.00	\$	5,000.00	
13	INSTALL VENT FANS TO CONTROL HUMIDITY IN CRAWL SPACE	1	LS	\$	10,000.00	\$	10,000.00	
			CONS	STR	UCTION SUBTOTAL:	\$	49,700.00	
					20% CONTINGENCY:	+	9,940.00	
			C	CONSTRUCTION TOTAL: \$				



BUILDING 3

ITEM NO.	DESCRIPTION	BID QUANTITY	UNIT		UNIT PRICE	TOTAL PRICE
1	PATCHING CONCRETE FOUNDATION WALLS	1	LS	\$	2,000.00	\$ 2,000.00
2	RE-POINTING BRICK FASADE	1	LS	\$	8,000.00	\$ 8,000.00
3	CLEANING AND PAINTING STEEL LINTELS	1	LS	\$	15,000.00	\$ 15,000.00
4	REPLACING WOOD PANEL OF EAVE	1	LS	\$	400.00	\$ 400.00
5	REPLACING WOOD PANEL OF SOFFIT	1	LS	\$	500.00	\$ 500.00
6	REPLACE EXISTING EXTERIOR LIGHT FIXTURES	1	LS	\$	10,000.00	\$ 10,000.00
7	REPLACE EXISTING ELECTRICAL COVER AND HARDWARE ON A/C UNITS	1	LS	\$	500.00	\$ 500.00
8	REPLACE 3/4" PVC PIPE	1	LS	\$	500.00	\$ 500.00
9	REMOVE DEBRIS FROM DRAIN COVERS	1	LS	\$	250.00	\$ 250.00
10	APPLY 1" INSULATION BOARD	1	LS	\$	5,000.00	\$ 5,000.00
11	REPAIR AND REPLACE DAMAGED DRAIN PIPES	1	LS	\$	2,500.00	\$ 2,500.00
12	REPAIR DAMAGED SUBFLOOR AND INSTALL PRIMARY FLOORING ABOVE	1	LS	\$	10,000.00	\$ 10,000.00
13	REPLACE WOODEN SILL	1	LS	\$	5,000.00	\$ 5,000.00
14	SEAL PENETRATIONS AND OPENINGS IN SUBFLOOR	1	LS	\$	5,000.00	\$ 5,000.00
15	INSTALL VENT FANS TO CONTROL HUMIDITY IN CRAWL SPACE	1	LS	\$	10,000.00	\$ 10,000.00
16	APPLY INSULATION	1	LS	\$	5,000.00	\$ 5,000.00
		-				
			CONS	STRU	CTION SUBTOTAL:	\$ 79,650.00
				20	% CONTINGENCY:	\$ 15,930.00
			C	ONS	FRUCTION TOTAL:	\$ 95,580.00

J NIT	UNIT PRICE	TOTAL PRICE
LS	\$ 2,000.00	\$ 2,000.00
LS	\$ 8,000.00	\$ 8,000.00
LS	\$ 15,000.00	\$ 15,000.00
LS	\$ 400.00	\$ 400.00
LS	\$ 500.00	\$ 500.00
LS	\$ 10,000.00	\$ 10,000.00
LS	\$ 500.00	\$ 500.00
LS	\$ 500.00	\$ 500.00
LS	\$ 250.00	\$ 250.00
LS	\$ 5,000.00	\$ 5,000.00
LS	\$ 2,500.00	\$ 2,500.00
LS	\$ 10,000.00	\$ 10,000.00
LS	\$ 5,000.00	\$ 5,000.00
LS	\$ 5,000.00	\$ 5,000.00
LS	\$ 10,000.00	\$ 10,000.00
LS	\$ 5,000.00	\$ 5,000.00
CONS	TRUCTION SUBTOTAL:	\$ 79,650.00
	20% CONTINGENCY:	\$ 15,930.00
C	ONSTRUCTION TOTAL:	\$ 95,580.00

08/13/2020

CLIENT: AFFORDALE HOUSING ALLIANCE PROJECT NAME: GRANDVIEW APPARTMENT COMPLEX PROJECT LOCATION: BOROUGH OF KEANSBURG, COUNTY OF MONMOUTH, STATE OF NEW JERSEY

BUILDING 4

ITEM NO.	DESCRIPTION	BID QUANTITY	UNIT	UN	NIT PRICE	тот	AL PRICE
1	PATCHING CONCRETE FOUNDATION WALLS	1	LS	\$	2,000.00	\$	2,000.00
2	RE-POINTING BRICK FASADE	1	LS	\$	8,000.00	\$	8,000.00
3	CLEANING AND PAINTING STEEL LINTELS	1	LS	\$	17,400.00	\$	17,400.00
4	SECURING AND REPLACING WOOD PANELS OF SOFFIT	1	LS	\$	800.00	\$	800.00
5	REPLACE EXTERIOR LIGHT FIXTURES	1	LS	\$	10,000.00	\$	10,000.00
6	REPLACE EXISTING ELECTRICAL COVER AND HARDWARE ON A/C UNITS	1	LS	\$	500.00	\$	500.00
7	REPAIR AND REPLACE DAMAGED DRAIN PIPES	1	LS	\$	500.00	\$	500.00
8	REPAIR DAMAGED SUBFLOOR AND INSTALL PRIMARY FLOORING ABOVE	1	LS	\$	5,000.00	\$	5,000.00
9	REPLACE WOODEN SILL	1	LS	\$	2,500.00	\$	2,500.00
10	INSTALL INSULATION BOARD	1	LS	\$	5,000.00	\$	5,000.00
11	SEAL PENETRATIONS AND OPENINGS IN SUBFLOOR	1	LS	\$	5,000.00	\$	5,000.00
12	INSTALL VENT FANS TO CONTROL HUMIDITY IN CRAWL SPACE	1	LS	\$	10,000.00	\$	10,000.00
			CONS	STRUCTI	ON SUBTOTAL:	\$	66,700.00
				20% (CONTINGENCY:	\$	13,340.00
			ſ	ONSTRE	CTION TOTAL .	¢	80 0/0 00

UNIT	UNIT PRICE	TOTAL PRICE
LS	\$ 2,000.00	\$ 2,000.00
LS	\$ 8,000.00	\$ 8,000.00
LS	\$ 17,400.00	\$ 17,400.00
LS	\$ 800.00	\$ 800.00
LS	\$ 10,000.00	\$ 10,000.00
LS	\$ 500.00	\$ 500.00
LS	\$ 500.00	\$ 500.00
LS	\$ 5,000.00	\$ 5,000.00
LS	\$ 2,500.00	\$ 2,500.00
LS	\$ 5,000.00	\$ 5,000.00
LS	\$ 5,000.00	\$ 5,000.00
LS	\$ 10,000.00	\$ 10,000.00
CONS	TRUCTION SUBTOTAL:	\$ 66,700.00
	20% CONTINGENCY:	\$ 13,340.00
C	ONSTRUCTION TOTAL:	\$ 80,040.00

BUILDING 5

ITEM NO.	DESCRIPTION	BID QUANTITY	UNIT		UNIT PRICE	TOTAL PRICE
1	PATCHING CONCRETE FOUNDATION WALLS	1	LS	\$	2,000.00	\$ 2,000.00
2	RE-POINTING BRICK FASADE	1	LS	\$	8,000.00	\$ 8,000.00
3	CLEANING AND PAINTING STEEL LINTELS	1	LS	\$	7,500.00	\$ 7,500.00
4	RE-INSTALLING ALL MISSED ALUMINUM PLANELS AT SOFFIT	1	LS	\$	1,000.00	\$ 1,000.00
5	REPLACE EXTERIOR LIGHT FIXTURES	1	LS	\$	5,000.00	\$ 5,000.00
6	REPLACE EXISTING ELECTRICAL COVER AND HARDWARE ON A/C UNITS	1	LS	\$	250.00	\$ 250.00
7	REPAIR LOW SPOT IN CRAWL SPACE	1	LS	\$	2,000.00	\$ 2,000.00
8	INSTALL INSULATION BOARD	1	LS	\$	5,000.00	\$ 5,000.00
9	SEAL PENETRATIONS AND OPENINGS IN SUBFLOOR	1	LS	\$	5,000.00	\$ 5,000.00
10	INSTALL VENT FANS TO CONTROL HUMIDITY IN CRAWL SPACE	1	LS	\$	10,000.00	\$ 10,000.00
			CONS	STRU	CTION SUBTOTAL:	\$ 45,750.00
					% CONTINGENCY:	,
			(ONS	TRUCTION TOTAL.	

UNIT	UNIT PRICE	TOTAL PRICE
LS	\$ 2,000.00	\$ 2,000.00
LS	\$ 8,000.00	\$ 8,000.00
LS	\$ 7,500.00	\$ 7,500.00
LS	\$ 1,000.00	\$ 1,000.00
LS	\$ 5,000.00	\$ 5,000.00
LS	\$ 250.00	\$ 250.00
LS	\$ 2,000.00	\$ 2,000.00
LS	\$ 5,000.00	\$ 5,000.00
LS	\$ 5,000.00	\$ 5,000.00
LS	\$ 10,000.00	\$ 10,000.00
CONS	TRUCTION SUBTOTAL:	\$ 45,750.00
	20% CONTINGENCY:	\$ 9,150.00
С	ONSTRUCTION TOTAL:	\$ 54,900.00

CLIENT: AFFORDALE HOUSING ALLIANCE PROJECT NAME: GRANDVIEW APPARTMENT COMPLEX PROJECT LOCATION: BOROUGH OF KEANSBURG, COUNTY OF MONMOUTH, STATE OF NEW JERSEY

BUILDING 6

ITEM NO.	DESCRIPTION	BID QUANTITY	UNIT		UNIT PRICE	TOTAL PRICE
1	PATCHING CONCRETE FOUNDATION WALLS	1	LS	\$	2,000.00	\$ 2,000.00
2	RE-POINTING BRICK FASADE	1	LS	\$	8,000.00	\$ 8,000.00
3	CLEANING AND PAINTING STEEL LINTELS	1	LS	\$	20,400.00	\$ 20,400.00
4	REPLACEING STEEL LINTELS	2	PC	\$	2,500.00	\$ 5,000.00
5	ADDING HANDRAIL AT THE STAIRS	1	LS	\$	700.00	\$ 700.00
6	REMOVAL OF TREE AND CLEANUP OF THE ROOTS	1	LS	\$	5,000.00	\$ 5,000.00
7	REBUILTING SIDEWALK	1	LS	\$	2,400.00	\$ 2,400.00
8	REPLACE EXTERIOR LIGHT FIXTURES	1	LS	\$	15,000.00	\$ 15,000.00
9	WARNING SIGNAGES FOR TRIPPING HAZARD	2	PC	\$	250.00	\$ 500.00
10	REPLACE EXISTING ELECTRICAL COVER AND HARDWARE ON A/C UNITS	1	LS	\$	250.00	\$ 250.00
11	REPAIR LEAKING HOT WATER PIPE	1	LS	\$	1,000.00	\$ 1,000.00
12	REPLACE COLLECTION TUBE	1	LS	\$	500.00	\$ 500.00
13	SEAL PENETRATIONS AND OPENINGS IN SUBFLOOR	1	LS	\$	5,000.00	\$ 5,000.00
14	INSTALL VENT FANS TO CONTROL HUMIDITY IN CRAWL SPACE	1	LS	\$	10,000.00	\$ 10,000.00
15	INSTALL INSULATION BOARD	1	LS	\$	5,000.00	\$ 5,000.00
			CONS		UCTION SUBTOTAL:	, ,
				20	0% CONTINGENCY:	\$ 16,150.00
			C	CONS	TRUCTION TOTAL:	\$ 96,900.00

BUILDING 7

ITEM NO.	DESCRIPTION	BID QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1	PATCHING CONCRETE FOUNDATION WALLS	1	LS	\$ 1,500.00	\$ 1,500.00
2	RE-POINTING BRICK FASADE	1	LS	\$ 5,000.00	\$ 5,000.00
3	CLEANING AND PAINTING STEEL LINTELS	1	LS	\$ 7,500.00	\$ 7,500.00
4	REMOVAL OF TREE AND CLEANUP OF THE ROOTS	1	LS	\$ 3,500.00	\$ 3,500.00
5	REBUILTING SIDEWALK	1	LS	\$ 1,200.00	\$ 1,200.00
6	WARNING SIGNAGES FOR TRIPPING HAZARD	2	PC	\$ 250.00	\$ 500.00
7	REPLACE EXTERIOR LIGHT FIXTURES	1	LS	\$ 5,000.00	\$ 5,000.00
8	INSTALL INSULATION BOARD	1	LS	\$ 5,000.00	\$ 5,000.00
9	REPAIR LOW SPOT IN CRAWL SPACE	1	LS	\$ 2,500.00	\$ 2,500.00
10	INSPECT SANITARY SEWER	1	LS	\$ 2,000.00	\$ 2,000.00
11	SEAL PENETRATIONS AND OPENINGS IN SUBFLOOR	1	LS	\$ 5,000.00	\$ 5,000.00
12	INSTALL VENT FANS TO CONTROL HUMIDITY IN CRAWL SPACE	1	LS	\$ 10,000.00	\$ 10,000.00
			CONS	STRUCTION SUBTOTAL:	\$ 48,700.00
				20% CONTINGENCY:	\$ 9,740.00
			C	CONSTRUCTION TOTAL:	\$ 58,440.00

08/13/2020

CLIENT: AFFORDALE HOUSING ALLIANCE PROJECT NAME: GRANDVIEW APPARTMENT COMPLEX PROJECT LOCATION: BOROUGH OF KEANSBURG, COUNTY OF MONMOUTH, STATE OF NEW JERSEY

BUILDING 8

ITEM NO.	DESCRIPTION	BID QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1	PATCHING CONCRETE FOUNDATION WALLS	1	LS	\$ 1,000.00	\$ 1,000.00
2	RE-POINTING BRICK FASADE	1	LS	\$ 4,000.00	\$ 4,000.00
3	CLEANING AND PAINTING STEEL LINTELS	1	LS	\$ 6,300.00	\$ 6,300.00
4	REPLACING WOOD PANEL OF DECAYED SOFFIT	1	LS	\$ 1,000.00	\$ 1,000.00
5	INSTALL HANDRAILS AT RAMP	1	LS	\$ 2,000.00	\$ 2,000.00
6	REBUILT SIDEWALK	1	LS	\$ 1,200.00	\$ 1,200.00
7	WARNING SIGNAGES FOR TRIPPING HAZARD	2	PC	\$ 250.00	\$ 500.00
8	REPLACE EXTERIOR LIGHT FIXTURES	1	LS	\$ 5,000.00	\$ 5,000.00
9	INSTALL INSULATION BOARD	1	LS	\$ 5,000.00	\$ 5,000.00
10	SEAL PENETRATIONS AND OPENINGS IN SUBFLOOR	1	LS	\$ 5,000.00	\$ 5,000.00
11	INSTALL VENT FANS TO CONTROL HUMIDITY IN CRAWL SPACE	1	LS	\$ 10,000.00	\$ 10,000.00
			CON		¢ 41.000.00
			CONS	STRUCTION SUBTOTAL:	
				20% CONTINGENCY:	
			C	ONSTRUCTION TOTAL:	\$ 49,200.00

BUILDING 9

ITEM NO.	DESCRIPTION	BID QUANTITY	UNIT		UNIT PRICE	ΤΟ	TAL PRICE
1	PATCHING CONCRETE FOUNDATION WALLS	1	LS	\$	2,000.00	\$	2,000.00
2	RE-POINTING BRICK FASADE	1	LS	\$	8,000.00	\$	8,000.00
3	CLEANING AND PAINTING STEEL LINTELS	1	LS	\$	18,000.00	\$	18,000.00
4	REPLACING STEEL LINTELS	6	PC	\$	1,500.00	\$	9,000.00
5	SECURING METAL FLASHING	1	LS	\$	400.00	\$	400.00
6	REPLACE EXTERIOR LIGHT FIXTURES	1	LS	\$	10,000.00	\$	10,000.00
7	INSTALL INSULATION BOARD	1	LS	\$	5,000.00	\$	5,000.00
8	REPAIR WATER PIPE	1	LS	\$	500.00	\$	500.00
9	SEAL PENETRATIONS AND OPENINGS IN SUBFLOOR	1	LS	\$	5,000.00	\$	5,000.00
10	INSTALL VENT FANS TO CONTROL HUMIDITY IN CRAWL SPACE	1	LS	\$	10,000.00	\$	10,000.00
			CON	STRU	CTION SUBTOTAL:	\$	67,900.00
				20	% CONTINGENCY:	\$	13,580.00
			(CONS	TRUCTION TOTAL:	\$	81,480.00

TOTAL BUI

	LDINGS 1 THROUGH 9	\$	807,000.00
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