RENTAL ASSISTANCE DEMONSTRATION
PHYSICAL CONDITION ASSESSMENT (RPCA)
HILLSIDE MANOR
2889 SE HILLSIDE STREET
MILWAUKIE, OREGON 97222

D3G PROJECT NUMBER:
2018-0031

FINAL REPORT ISSUE DATE:
APRIL 13, 2018

INSPECTION DATE:
JANUARY 23, 2018

PREPARED FOR:
HOUSING AUTHORITY OF CLACKAMAS COUNTY
13900 SOUTH GAIN STREET
OREGON CITY, OREGON 97045

Brian Teteak, BPI-MFBA
Construction Inspector

Signature

Mike Ferguson, P.E., BPI-BA
Director of Engineering Services

Signature

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1.0 Executive Summary

1.1 General Description

The project, currently known as Hillside Manor, is located at 2889 SE Hillside Street in Milwaukie, Oregon. The property features one hundred (100) dwelling units located within one (1) nine-story apartment building. According to tax records, the property is situated on approximately 16.68 acres and according to property management, features a combined gross area of 78,500 square feet. The structure was built in 1970. The property is in fair physical condition and well-maintained. Please see the detailed breakdown of the property in Section 3.1.

1.2 General Physical Condition

The following general physical conditions and conclusions have been reached by the Needs Assessor upon completion of this RAD Physical Condition Assessment (RPCA) and compliance with Appendix B.1 of the Oregon Housing and Community Services Project Development Manual, version 2017.12.01:

a. The RAD CNA e-Tool replacement reserve summary does not include items deemed non-capitalized routine maintenance items at tenant turnover (e.g., interior painting, door hardware, closet hardware, bathroom accessories, etc.), and it is advisable that Property Management include these items in any future planned rehabilitation, as budget constraints allow.

b. The recommended level of repairs and rehabilitations will require temporary tenant relocation due to abatement in units, modernization of elevator, and seismic upgrades.

c. Upon completion of repairs, the property will be in reasonable compliance with applicable accessibility regulations.

d. The property will be applying for the following "green building certifications" (Oregon Housing and Community Services Green Building Path, and the Multifamily Energy Program).

e. The property is in fair physical condition and well-maintained. The property intends on undergoing substantial rehabilitation; and baseline repairs are itemized and include select energy and water conservation measures (EWCM) improvements and also includes owner proposed improvements.

1.3 Opinions Of Probable Cost

Repair And Reserve Summary	Today's $	$ Per Unit	Inflated $	$ Per Unit Per Year
Critical Repair Cost Estimate	$0	$0	N/A	N/A
Non-Critical Repair Cost Estimate	$8,998,455	$89,985	N/A	N/A
1-10 Year Term Replacement Cost Estimate	$86,099	$861	$104,576	$105

Initial And Annual Deposits To The Reserve For Replacement Summary (Based On 1-20 Year Term)		
Initial Deposit	$60,000	$600 /Unit
Annual Deposit	$35,000	$350 /Unit

1.3.1 Critical Repairs (Immediate)

Critical repairs are of two types: life safety remedies that correct exigent health and safety deficiencies including obstacles to ingress or egress from units, buildings or the site, which deficiencies must be corrected before endorsement; and accessibility remedies for violations of one or more of the accessibility statutes as may apply to the property or to any of the buildings, which remedies must be completed as soon as possible, a time period specified as a number of months which may extend beyond endorsement but shall not exceed 1 year unless specifically permitted by HUD.

ASTM SECT	CRITICAL REPAIR (IMMEDIATE NEEDS)	TOTAL
Hillside Manor		
Accessibility		
3.2.4	1. The property currently features nine (9) designated handicapped parking spaces and does not feature a designated van accessible parking space. The designated handicapped parking spaces were observed with faded pavement markings at all locations, the two (2) handicapped parking spaces at the west of the rear parking lot were observed missing an access aisle. The handicapped parking symbol must be marked horizontally on the parking spaces and the car parking spaces shall be 96 inches wide with a 60-inch access aisle. A van space can also have a minimum width of 96-inches with a 96-inch access aisle or the van space be 132-inches wide with a 60-inch access aisle. According to the Americans with Disabilities Act Accessibility Guidelines (ADAAG), the property is required to feature three (3) designated handicapped parking spaces inclusive of one (1) van accessible handicapped parking space. Reconfiguring the pavement markings, vertical signage, and access aisles is required at three (3) handicapped spaces inclusive of one (1) van accessible handicapped space in order to comply with ADAAG. "Van accessible" vertical signage is required at the van space. The remaining non-compliant handicapped parking spaces should be labeled "reserved." It should be noted that the timeframe to complete this accessibility repair has been extended and the cost reduced to zero as it is included in the concept package scope of work. (3 Each @ $.00, Repair)	No Cost

3.4.1	2. The sink in the first level women's restroom was observed with knobbed hardware. The installation of levered hardware is required in order to comply with the Uniform Federal Accessibility Standards (UFAS). The timeframe to complete this accessibility repair has been extended as it is included in the concept package scope of work. The cost is covered by the estimated cost in the scope of work. (1 Each @ $.00, Repair)	No Cost
3.7.1	3. The common area doors located on the accessible route are not equipped with levered hardware at the staff kitchen, staff restroom, leasing office, leasing lobby, or resident services office. Replacement of the existing door hardware with "usable" hardware, which primarily consists of levered hardware is required to comply with UFAS. It should be noted that the time to complete this repair has been extended as it is included in the scope of work. The cost of this repair is covered by the provided cost estimate for the scope of work. (5 Each @ $.00, Repair)	No Cost
3.7.2	4. The entry doors at the leasing office lobby and leasing office were observed with clear door openings less than the minimum 32-inches (approximately 29-31-inches observed). Widening the doors in order to provide a minimum nominal 32-inch wide clear door opening is required in order to comply with UFAS. It should be noted that the time to complete this repair has been extended as it will be included in the larger reconfiguration of the leasing office in the provided scope of work. The cost for this repair is covered by the estimate cost for the provided scope of work. (2 Each @ $.00, Level 1 Alterations)	No Cost
3.7.2	5. The handicapped toilet in the first level women's restroom was observed with a 24 inch rear grab bar. The installation of a properly sized 36 inch grab bar at rear wall of the toilet is required to comply with UFAS. It should be noted that the time to complete this repair has been extended as the common area restrooms will be completely reconfigured during the planned renovation. The cost of this repair is covered by the cost estimate in the provided concept package scope of work. (1 Each @ $.00, Repair)	No Cost

3.7.2	6. The sinks in the first level common restrooms, and handicapped dwelling unit sinks at unit 313 (kitchen), and unit 221 (bathroom) were observed without scald and abrasion sink pipe wrapping. The installation of scald and abrasion sink pipe wrapping is required in order to comply with UFAS. It should be noted that the time to complete this repair has been extended as the common area restrooms will be completely reconfigured during the planned renovation. The cost of this repair is covered by the cost estimate in the provided concept package scope of work. (5 Each @ $.00, Repair)	No Cost
Life Safety		
3.4.4	1. The staff kitchen and dwelling unit kitchens and bathrooms, with the exception of the handicapped dwelling units 402, 313, 312, 222, 221, and 220 were observed with countertop outlets that are not GFCI protected. Current NEC guidelines require any outlet that serves any kitchen counter be GFCI protected. It should be noted that the time to complete this repair has been extended as it is included in the scope of work, and the dwelling unit kitchens and bathrooms will be completely renovated. The cost is included in the estimated scope of work. (190 Each @ $.00, Repair)	No Cost
3.4.4	2. Dwelling unit 903 was observed with a broken electrical switch cover at the living room. Replacement of the switch cover is recommended. The cost of this repair is included in the routine maintenance budget. (1 Each @ $.00, Repair)	No Cost

3.6.2	3. The dwelling units were observed with hardwired smoke detectors in the immediate vicinity of the bedrooms; however, were not observed with smoke detectors in the bedrooms. Per HUD MAP Guidelines; according to Life Safety Code (NFPA 101), paragraph 31.3.4.5.1, smoke alarms must be installed outside every sleeping area in the immediate vicinity of the bedrooms and on all levels of the dwelling unit, including basements. In addition to the NFPA requirements, the regulation in 24 CFR 200.76 requires that smoke detectors must also be installed inside each sleeping area; therefore, the installation of compliant smoke detectors within all bedrooms is required. Additional details regarding HUD smoke detector requirements are identified in Section 3.6.2.2 of this report. It should be noted that the time to complete this repair has been extended as it is included in the scope of work to renovate the dwelling units. The cost of this repair is covered by the cost estimate provided in the proposed scope of work. (100 Each @ $.00, Repair)	No Cost
		$0.00

1.3.2 Non-Critical Repairs (12-Month Repair And Rehabilitation Needs)

Non-critical repairs are repairs, replacements or alterations that address current and imminent physical needs, notwithstanding whether any such needs may be described as deferred maintenance. Imminent in this context means work reasonably expected to be needed within the first year of the mortgage, except that this shall not be construed as requiring as an immediate repair any work that would normally occur at unit turnover. Non-critical repairs may include work likely to improve or enhance the quality, suitability, marketability and operating efficiency of the property. Non-critical repairs must be completed within 1 year after endorsement unless specifically permitted by HUD.

ASTM SECT	NON-CRITICAL REPAIR (12-MONTH PROPERTY CONDITION)	TOTAL
Hillside Manor		
3.2.2	1. The southeast lawn was observed with down trees and scattered wood debris. Removal of the trees and debris is recommended. According to the architect the cost of this repair is included in the Site work & Landscape Allowance in the concept package scope of work. There is no cost included due to be handled out of Operations and Maintenance budget. (1 Each @ $.00, Repair)	No Cost
3.3.2	2. Dwelling units 711 at the living room, 304 at the bedroom closet, and 306 at the shower were observed with damaged ceilings due to localized flooding at adjacent upper dwelling units. Repair of the ceilings is recommended. The cost of this repair is covered by the cost to abate and refinish all of the asbestos ceilings, which is included in the provided concept package scope of work. According to the architect the property manager has already completed this repair. (3 Each @ $.00, Repair)	No Cost
Proposed Rehabilitation Items		
3.2.4	1. Patching and repairing exiting asphalt parking lot has been included in the concept package scope of work. (37745 SF @ $.99, Repair)	$37,405.30
3.2.4	2. Seal coating of the asphalt parking areas has been included in the concept package scope of work. (37745 SF @ $.12, Repair)	$4,487.88
3.2.4	3. Restriping of the asphalt parking areas and the inclusion of handicapped parking identification markings is recommended, and has been included in the concept package scope of work. (59 Each @ $8.87, Repair)	$523.29

3.2.6	4. Replacement of the project sign has been included in the concept package scope of work. (1 Each @ $1,189.20, Level 1 Alterations)	$1,189.20
3.2.6	5. According to the concept package scope of work the mailboxes will be replaced. (100 Each @ $50.54, Level 1 Alterations)	$5,054.10
3.2.8	6. The interior main water line providing service to the building was observed with a leaking section. Repair of the water main is recommended. The cost of this repair is included in the Domestic Water Distribution cost estimate in the concept package scope of work. The property manager has not been able to identify the source of the leak. (1 Each @ $.00, Repair)	No Cost
3.2.8	7. According to the provided concept package, the replacement of the trash compactors is included in the scope of work. (1 Each @ $24,775.00, Level 1 Alterations)	$24,775.00
3.3.2	8. According to the provided concept package scope of work, seismic analysis and recommendations have been prepared by a structural engineer. Repairs include the addition of micro piles, new footings, and fiber-reinforced polymer shear walls. (1 Each @ $572,582.00, Level 3 Alterations)	$572,582.00
3.3.2	9. Due to the installation of the new fiber-reinforced polymer (FRP) panels and the age of the exterior paint repainting the building has been included in the provided concept package scope of work. (49620 SF @ $.74, Repair)	$36,877.58
3.3.2	10. According to the concept package scope of work residential entry doors will be replaced to meet fire code requirements. (100 Each @ $601.91, Level 2 Alterations)	$60,191.00
3.3.2	11. Replacement of the automatic door opener is included in the provided concept package scope of work. (4 Each @ $1,189.20, Level 1 Alterations)	$4,756.80
3.3.3	12. According to the concept package scope of work, the casement windows will be replaced. (8 Each @ $545.00, Level 1 Alterations)	$4,360.00
3.3.3	13. According to the concept package scope of work the fixed windows will be replaced. (4 Each @ $1,200.00, Level 1 Alterations)	$4,800.00

3.4.1	14. Replacement of the original galvanized supply plumbing is recommended. According to the provided concept package scope of work the domestic water distribution lines will be replaced. (1 Each @ $283,008.00, Level 1 Alterations)	$283,008.00
3.4.1	15. According to the concept package scope of work the sewage ejector pumps and controls will be replaced. (1 Each @ $7,500.00, Level 1 Alterations)	$7,500.00
3.4.1	16. According to the concept package scope of work the hot water storage tank will be replaced. (1 Each @ $1,189.20, Level 1 Alterations)	$1,189.20
3.4.1	17. According to the concept package the hot water boilers will be replaced. It is recommended to replace the DHW boilers with modulating condensing boilers as an EWCM. (2 Each @ $21,742.54, Level 1 Alterations)	$43,485.08
3.4.1	18. According to the concept package scope of work the shower plumbing and fixtures will be replaced. It is recommended to replace the remaining dwelling unit bathroom showerheads with Low-Flow showerheads (1.5 GPM). (100 Each @ $43.00, Repair)	$4,300.00
3.4.1	19. According to the concept package scope of work the dwelling unit sinks and lavatories will be replaced. It is recommended to replace the remaining dwelling unit and common area 2.2 GPM kitchen aerators with Low-Flow Aerators (≤1.8 GPM). (207 Each @ $3.00, Repair)	$621.00
3.4.1	20. According to the concept package scope of work low-flow toilets will be installed in the dwelling units. (101 Each @ $128.83, Level 2 Alterations)	$13,011.83
3.4.1	21. According to the concept package scope of work low flow toilets will be installed in the common area restrooms. (2 Each @ $128.83, Level 2 Alterations)	$257.66
3.4.1	22. According to the concept package scope of work new urinals will be installed in the common area restrooms. (1 Each @ $128.83, Level 2 Alterations)	$128.83
3.4.3	23. According to the concept package scope of work the air-handlers will be replaced. (1 Each @ $753.16, Level 1 Alterations)	$753.16
3.4.3	24. According to the concept package scope of work the electric baseboard heaters will be replaced with fan-assisted electric heaters. (450 LF @ $34.09, Level 2 Alterations)	$15,340.68
3.4.3	25. According to the concept package scope of work the electric heaters will be replaced with fan-assisted electric heaters. (1 Each @ $500.00, Level 2 Alterations)	$500.00

3.4.3	26. According to the concept package scope of work the PTAC units will be replaced with more energy efficient units. (102 Each @ $1,040.55, Level 1 Alterations)	$106,136.10
3.4.3	27. According to the concept package scope of work the rooftop package units will be replaced. (2 Each @ $45,600.00, Level 1 Alterations)	$91,200.00
3.4.3	28. The dwelling unit ventilation registers were observed with discoloration and debris buildup. Investigation to determine the source of the ventilation contaminants and cleaning of the ductwork is recommended. According to the concept package scope of work the ductwork and registers will be cleaned. (1 Each @ $35,561.00, Repair)	$35,561.00
3.4.3	29. According to the concept package scope of work, new thermostats associated with the PTAC units will be installed in the dwelling units. (100 Each @ $46.08, Level 1 Alterations)	$4,608.15
3.4.4	30. Replacement of the inefficient exterior lighting fixtures with high efficiency lighting fixtures is recommended as an EWCM repair. (1 Each @ $8,769.00, Repair)	$8,769.00
3.4.4	31. Replacement of the inefficient interior common area T-12 fluorescent and incandescent lighting fixtures with high efficiency lighting fixtures is recommended as an EWCM repair. (1 Each @ $38,205.00, Repair)	$38,205.00
3.4.4	32. Replacement of the inefficient interior dwelling unit T-12 fluorescent lighting fixtures with high efficiency lighting fixtures is recommended as an EWCM repair. (1 Each @ $18,900.00, Repair)	$18,900.00
3.5.1	33. Refurbishment of the interior elevator cabs is recommended. According to the concept package, modernization of the elevators is included in the scope of work. (2 Each @ $4,955.00, Level 1 Alterations)	$9,910.00
3.5.1	34. The elevators were reported with inconsistent operation and feature many original components which have exceeded their EUL. Replacement/modernization of the 2,000 lb elevator equipment is recommended. According to the concept package, modernization of the elevators is included in the scope of work. (1 Each @ $185,416.10, Level 1 Alterations)	$185,416.10

3.5.1	35. The elevators were reported with inconsistent operation and feature many original components which have exceeded their EUL. Replacement/modernization of the 3,500 lb elevator equipment is recommended. According to the concept package, modernization of the elevators is included in the scope of work. (1 Each @ $242,547.25, Level 1 Alterations)	$242,547.25
3.6.1	36. According to the concept package scope of work the sprinkler heads will be replaced with quick response style heads. (78500 SF @ $2.82, Level 1 Alterations)	$221,707.55
3.6.2	37. According to the concept package scope of work the dwelling unit call system is failing and will be replaced. (100 Each @ $230.90, Repair)	$23,090.30
3.6.2	38. According to the concept package scope of work the emergency lighting will be replaced to meet current code. (1 Each @ $.00, Level 1 Alterations)	No Cost
3.7.1	39. Replacement of the common area restroom tile is recommended. According to the concept package scope of work the common area restrooms will be completely reconfigured. (300 SF @ $5.80, Level 1 Alterations)	$1,739.19
3.7.1	40. Replacement of the common area VCT flooring is recommended. According to the concept package scope of work all common area flooring will be replaced. (21700 SF @ $1.99, Level 1 Alterations)	$43,224.23
3.7.1	41. Replacement of the common area carpeting is recommended. According to the concept package scope of work all common area flooring will be replaced. (7745 SF @ $2.86, Level 1 Alterations)	$22,173.16
3.7.1	42. According to the concept package scope of work and comments from the architect the suspended ceilings will be replaced. (28000 SF @ $1.01, Level 1 Alterations)	$28,302.40
3.7.1	43. According to the concept package scope of work and comments from the architect common area doors will be replaced as necessary to meet current building codes. (8 Each @ $298.29, Level 1 Alterations)	$2,386.33
3.7.1	44. Replacement of the common area cabinetry and counters is recommended. According to the concept package scope of work the common area cabinetry will be reconfigured and replaced. (3 Each @ $1,486.50, Level 1 Alterations)	$4,459.50
3.7.1	45. Replacement of the common area refrigerators with Energy Star refrigerators is recommended. (3 Each @ $509.00, Level 1 Alterations)	$1,527.00
3.7.1	46. Replacement of the common area ranges is recommended. (2 Each @ $346.00, Level 1 Alterations)	$692.00

3.7.1	47. Replacement of the common area microwaves is recommended. (1 Each @ $125.00, Level 1 Alterations)	$125.00
3.7.1	48. According to the concept package scope of work painting and lead based paint testing/abatement will be included in the planned rehabilitation. (208006 SF @ $1.93, Repair)	$401,451.58
3.7.2	49. This line item cost represents the cost difference between D3G provided cost that are included in the provided cost estimate. Provided scopes of work typically include higher cost than those used by D3G for the purpose of creating a Replacement Reserve Schedule. Additionally the estimated scope of work includes cost not listed as Repairs in this table such as demolition costs, construction, project management cost, contractor fees, etc. See Appendix 11.9 for the detail Concept Package Scope of Work. (1 Each @ $6,006,759.73, Repair)	$6,006,759.73
3.7.2	50. Replacement of the dwelling unit tub/shower surrounds is recommended to coincide with plumbing repairs. According to the concept package scope of work the shower units will be replaced with fiberglass surrounds. (96 Each @ $500.00, Level 1 Alterations)	$48,000.00
3.7.2	51. Replacement of the dwelling unit VCT flooring in 1-bedroom units is recommended. According to the concept package scope of work all dwelling unit flooring will be replaced with LVT flooring. (96 Each @ $644.15, Level 1 Alterations)	$61,838.40
3.7.2	52. Replacement of the dwelling unit VCT flooring in 2-bedroom units is recommended. According to the concept package scope of work all dwelling unit flooring will be replaced with LVT flooring. (4 Each @ $415.00, Level 1 Alterations)	$1,660.00
3.7.2	53. Replacement of the dwelling unit carpet is recommended. According to the concept package scope of work all dwelling unit flooring will be replaced with LVT flooring. (4 Each @ $644.15, Level 1 Alterations)	$2,576.60
3.7.2	54. Replacement of the common area restroom vanities is recommended. According to the concept package scope of work the common area restroom will be reconfigured. (96 Each @ $247.75, Level 1 Alterations)	$23,784.00
3.7.2	55. Replacement of the dwelling unit kitchen cabinets and countertops is recommended. According to the concept package scope of work the dwelling unit kitchen cabinets and countertops will be replaced. (100 Each @ $1,486.50, Level 1 Alterations)	$148,650.00

3.7.2	56. Replacement of the dwelling unit bathroom countertops is recommended. According to the concept package the dwelling unit lavatories will be replaced. (4 Each @ $114.46, Level 1 Alterations)	$457.84
3.7.2	57. Replacement of the dwelling unit refrigerators with Energy Star refrigerators is recommended. According to the concept package scope of work the dwelling unit refrigerators will be replaced with more energy efficient appliances. (100 Each @ $509.00, Level 1 Alterations)	$50,900.00
3.7.2	58. Replacement of the dwelling unit ranges is recommended. According to the concept package scope of work the dwelling unit ranges will be replaced. (100 Each @ $346.00, Level 1 Alterations)	$34,600.00
4.1.1	59. According to the concept package scope of work radon testing will be conducted to determine if a new system is required. According to comments from the architect on April 11, 2018 the environmental engineer has completed this testing and determined that radon mitigation will not be required. (1 Each @ $.00, Repair)	No Cost
	Total:	**$8,998,455.00**

1.3.3 Owner Initiated / Market Comparable Improvements

Owner elected repairs have been included in Section 1.3.2 above.

1.3.4 Long-Term Physical Needs – Reserves For Replacement (R4R)

Long-term physical needs over the loan term (Reserves for Replacement or R4R) are defined as non-routine maintenance items that will require significant expenditure during the 20-year study period. Exhibit 11.3 contains the 20-year Reserve for Replacement (R4R) analysis. Recommendations for the Initial Deposit to Reserves (IDR) and Annual Deposit to Reserves (ADR) are based upon the cost of "Near Term" replacement and major needs.

RESERVE FOR REPLACEMENT (R4R) SUMMARY FOR:			
PROPERTY:	**Hillside Manor**	**100**	**DWELLING UNITS**
1-20 YEAR TERM	**TOTAL RESERVE**	**AVERAGE ANNUAL COST PER UNIT (PUPA)**	
Un-inflated Cost	$1,538,792	$769.40	
Inflated Cost	$2,446,520	$1,223.26	
Recommended Initial Deposit to Reserves (IDRR):		$60,000	
(IDRR) Per Unit:		$600	
Recommend Annual Deposit to Reserves (ADRR):		$35,000	
(ADRR) Per Unit:		$350	

1.4 Deviation From Standards

The scope of work detailed in ASTM E-2018-08 Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process and the U.S. Department of Housing and Urban Development with regards to the Rental Assistance Demonstration (RAD) program and FHA multifamily mortgage insurance programs. The completed CNA complies with all of the requirements of Appendix B.1 of the Oregon Housing and Community Services Project Development Manual, version 2017.12.01.

1.5 Recommendations

The inspection indicates no need for further investigations to be performed at the subject property.

1.6 Energy Audit And Utility Consumption Baseline

Contained within Exhibit 11.6 of this CNA is a Multifamily Building Energy Audit report, performed by a Building Performance Institute (BPI) Certified Building Analyst. This supplementary investigation provides a detailed analysis of building systems and energy efficient recommendations. Contained within this report are a listing of recommended energy and water conservation measures (EWCMs), as well as their costs, overall projected cost savings and savings to investment ratios (SIR). Contained within Exhibit 11.7 is a Utility Consumption Baseline (UCB) study for the subject property. This analysis includes representative utility data from both tenant-paid and owner-paid sources. This study creates a whole building consumption baseline to allow for benchmarking and future measurement of consumption and cost. The baseline aims at establishing a standard on which future consumption can be compared.

2.0 Purpose And Scope

2.1 Purpose

The purpose of this RAD Physical Condition Assessment (RPCA) is to determine the current condition of the property and to establish appropriate capital reserves. This report includes a description of the overall condition of the building components and systems and conditions that may limit the remaining useful life (RUL) of the property. This RPCA includes a review of the status of major building systems and accessibility compliance, presents a photographic record of the property, and provides an estimate of recommended rehabilitation items and replacement reserves for a 20-year study period. Accompanying physical descriptions are green discussions, which focus on opportunities to improve energy efficiency, minimize utility usage, use sustainable and recycled materials, and safeguard indoor environmental quality.

2.2 Scope

This RPCA is intended to be used in support of a pending real estate transaction where the Client has requested an understanding of the current site condition and future capital requirements, for the purpose of underwriting or securing mortgage loans. This report includes a description of the overall condition of the building components and systems and conditions that may limit the RUL of the property. The property evaluation was conducted in accordance with the following industry standards:

- ASTM Standard E2018-08, *Standard Guide for Physical Condition Assessments: Baseline Property Condition Assessment Process*
- U.S. Department of Housing and Urban Development (HUD) *Housing Notice 2012-20 FHA Underwriting Instructions for Projects Converting Assistance under the Rental Assistance Demonstration*
- U.S. Department of Housing and Urban Development Rental Assistance Demonstration (RAD): *Physical Condition Assessment Statement of Work and Contractor Qualifications*
- U.S. Department of Housing and Urban Development (HUD) *Multifamily Accelerated Process (MAP) Guide*, Chapters 5 and 6, revised November 23, 2011 and Appendix 5M, Project Capital Needs Assessment (PCNA) and the Oregon Housing and Community Services Qualified Allocation Plan, Appendix B.1. of the Project Development Manual (PDM) V:2017.12.01.
- Fannie Mae's *Physical Needs Assessment Guidance to the Property Evaluator*

The scope of the work included:

- Performance of a physical inspection by individuals trained in building engineering, construction, weatherization, and energy conservation.
- Interviewing of tenants and staff regarding the condition of the property and known physical/equipment deficiencies. Where applicable, forensic and/or intrusive investigation reports (e.g. sewer scoping) are incorporated into RPCA reporting when provided to or performed by D3G.
- Interviews with local officials regarding municipal zoning and code compliance.
- Performance of an energy audit, benchmark analysis, modeling/sizing of mechanical equipment, and an analysis of recommended upgrades relative to financial metrics.
- Preparation/review of Utility Consumption Baseline (UCB), detailing utility use for a minimum of 12 months (if available).
- Estimation of repair and replacement costs, and the computation of reserves for replacement (R4R).
- Provision of HUD Form 92329, cost analyst related section pursuant to HUD MAP Guide processing.
- Preparation and submission of a written report containing information specific to observations, interpretations, estimated costs of repairs, a discussion of energy efficiency and sustainable/renewable construction recommendations.
- Reporting of findings in a format acceptable by the Client and the United States Department of Housing and Urban Development, including completion of one (1) Excel-based RAD CNA e-Tool and the Oregon Housing and Community Services Qualified Allocation Plan.

In accordance with the scope of work, a sufficient number (minimum 100%) of the resident units were accessed and inspected to give clarity to the overall condition of the property. In addition, all vacant units, all down units and all exterior and common areas were inspected. Photographs of the subject property were taken during the site inspection and relevant photographs have been included in Exhibit 11.4. The site accessor inspected 98 occupied units and 2 vacant units.

Inspector: Brian Teteak
Inspection Date: 1/23/2018
Weather: 40°F, Rain
Access Limitations: None
Plans Available: Yes
Areas Accessed: 100 units (100%) + all common and exterior areas

Unit	FHA	Status
Hillside Manor		
201 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
203 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
205 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
207 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
301 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
303 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
305 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
307 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
308 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
309 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
310 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
311 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
401 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
403 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
405 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
407 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
408 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
409 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
410 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
411 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
501 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
503 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
505 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
507 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
508 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
509 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
510 (1 Bedroom/1 Bathroom Type 1)	No	Occupied

511 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
601 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
603 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
605 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
607 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
608 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
609 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
610 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
611 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
701 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
703 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
705 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
707 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
708 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
709 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
710 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
711 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
801 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
803 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
805 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
807 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
808 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
809 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
810 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
811 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
901 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
903 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
905 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
907 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
908 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
909 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
910 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
911 (1 Bedroom/1 Bathroom Type 1)	No	Occupied
202 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
302 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
304 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
306 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
312 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
313 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
402 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
404 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
406 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
412 (1 Bedroom/1 Bathroom Type 2)	No	Occupied

413 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
502 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
504 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
506 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
513 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
602 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
604 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
606 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
612 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
613 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
702 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
704 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
706 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
712 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
713 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
802 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
804 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
806 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
812 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
813 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
902 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
904 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
512 (1 Bedroom/1 Bathroom Type 2)	No	Vacant
906 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
912 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
913 (1 Bedroom/1 Bathroom Type 2)	No	Occupied
219 (2 Bedroom/1 Bathroom)	No	Occupied
220 (2 Bedroom/1 Bathroom)	No	Occupied
221 (2 Bedroom/1 Bathroom)	No	Occupied
222 (2 Bedroom/1 Bathroom)	No	Vacant
Units Inspected	**100**	**100%**

2.3 Terms And Conditions

The following definitions and reference standards are routinely utilized within the text of this report. Appendix B.1 of the Oregon Housing and Community Services Project Development Manual, version 2017.12.01. requires that components be rated on a scale from A - F based on the Remaining Useful Life (RUL). Items designated as D or F are required to be included in the scope of work; however, the scope of work is not limited to items rated D-F and can include any item rate A-F that the owner wishes to include in the scope of work. A copy of the Reserve analysis with the Assessed Remaining Useful Life (ARUL) can be found in Appendix 11.3.

Excellent: (OHCS Rating A)
Component or system is in "as new" condition requiring no rehabilitation and should perform in accordance with expected performance.

Good: (OHCS Rating B)

Component or system is sound and performing its function, although it may show signs of normal wear and tear. Some minor rehabilitation work may be required.

Fair: (OHCS Rating C-D)
A component or system is of a capacity that is defined as enough for what is required, sufficient, suitable, conforms to standard construction practices, and/or is approaching end of expected performance/useful life. Replacement is anticipated in the near term of the loan.

Poor: (OHCS Rating D-F)

Component or system falls into one or more of the following categories: (a) Evidence of previous repairs not in compliance with commonly accepted practices, (b) Workmanship not in compliance with commonly accepted standards, (c) Component or system is obsolete, (d) Component or system has either failed or cannot be relied upon to continue performing its original function as a result of having exceeded its expected performance, (e) Evidence of excessive deferred maintenance, or state of disrepair, and/or (f) Present condition could contribute to or cause the deterioration of other adjoining elements or systems. Repair or replacement is required.

The ratings are determined by comparison to other buildings of similar age and construction type. The budget cost estimate is segregated into the following categories in accordance with the HUD MAP Guide:

Critical Repairs:

Critical repairs are of two types: life safety remedies that correct exigent health and safety deficiencies including obstacles to ingress or egress from units, buildings or the site, which deficiencies must be corrected before endorsement; and accessibility remedies for violations of one or more of the accessibility statutes as may apply to the property or to any of the buildings, which remedies must be completed as soon as possible, a time period specified as a number of months which may extend beyond endorsement but shall not exceed 1 year unless specifically permitted by HUD. See Appendix 5B of the HUD MAP Guide for a description of accessibility requirements.

Non-Critical Repairs (within 1 year):

Non-critical repairs are repairs, replacements or alterations that address current and imminent physical needs, notwithstanding whether any such needs may be described as deferred maintenance. Imminent in this context means work reasonably expected to be needed within the first year of the mortgage, except that this shall not be construed as requiring as an immediate repair any work that would normally occur at unit turnover. Non-critical repairs may include work likely to improve or enhance the quality, suitability, marketability and operating efficiency of the property. Non-critical repairs must be completed within 1 year after endorsement unless specifically permitted by HUD.

Repair:

"The restoration to good or sound condition of any part of an existing building for the purpose of its maintenance." (IBC 2012, Section 202) Repairs to site features (not buildings) but otherwise similarly defined are included in this class of work. "Repairs include the patching or restoration or replacement of damaged materials, elements, equipment or fixtures for the purpose of maintaining such existing components in good or sound condition with respect to existing loads or performance requirements." (IBC 2012, Section 502) Repairs also include related work. Related work is "work on non-damaged components necessary to accomplish the required repair of damaged or deficient components." (IBC 2012, section 502.3) In addition, installation of items not previously present in a building or on a site but necessary to address safety, security, accessibility or communication needs are considered repairs when such installation and related work does not required alterations. Examples of such installation include but are not limited to smoke detectors added to bedrooms, signage or pavement markings added to identify accessible paths, panic bars added to exit doors, etc.

Level 1 Alterations:
"The removal and replacement of the covering of existing materials, elements, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose." (IBC 2012, Section 503.1)

Level 2 Alterations:
"The reconfiguration of space, the addition or elimination of any [exterior] door or window, the reconfiguration or extension of any system, or the installation of any additional equipment. (IBC 2012, Section 504.1)

Level 3 Alterations:
"Alterations where the work area [consisting or all reconfigured spaces] exceeds 50% of the aggregate area of the building." (IBC 2012, Section 505.1)

Estimate Period (1 – 20 years):
All schedules for component replacement, major maintenance, cost estimates and related inflation adjustments must be for the lesser of 20 years or the remaining life of the mortgage plus 2 years (the Estimate Period).

3.0 System Descriptions And Observations

3.1 Overall General Description

Property Name: Hillside Manor
Address: 2889 SE Hillside Street, City of Milwaukie, Northwest Clackamas County, OR 97222
Property Type: Multi-Family
Date of Construction: 1970
Land Size: 16.68 Acres
Building Count: One (1) Building @ 78,500 GSF
Number/Type of Units: One Hundred (100) dwelling units

Unit Type	Rentable Area (ft^2)	# of Units	Total Rentable Area (ft^2)
Hillside Manor			
1 Bedroom/1 Bathroom Type 1	400	60	24,000
1 Bedroom/1 Bathroom Type 2	506	36	18,216
2 Bedroom/1 Bathroom	648	4	2,592
	Total:	**100**	**44,808**

3.2 Site

3.2.1 Topography

The topography varies dramatically across the property with large elevation changes present throughout. The site has been graded to provide as much positive drainage away from the structure as possible; however, select areas are graded toward the structure due to the topography. No ponding of water or water infiltration was observed or reported; therefore, it appears storm water is properly diverted around structure.

3.2.2 Storm And Water Drainage

The building features interior roof drains. The site has been mostly graded to provide positive drainage away from the structure. Storm-water drainage is believed to consist of surface percolation and via sheet (water) flow to the asphalt parking and driveway surfaces, and direct storm drain connections from the roof drainage system. Storm drains are also located at select landscaped areas.

3.2.3 Access And Egress

The property features one (1) point of vehicular ingress and egress, consisting of an asphalt driveway into the asphalt parking lot at the front of the property. The primary building entrance is accessible from the south side of the building. Pedestrian ingress and egress to the site is provided via sidewalks connecting the building to the parking lot. The parking lot is connected to the municipal street. Bike parking/storage is provided at the southwest corner of the parking lot. Site ingress and egress appears acceptable.

3.2.4 Paving, Curbing And Parking

Methods and Materials	Condition	Estimate Period Replacement
Paving		
Asphalt	Poor to fair (OHCS: D-F)	Yes
The site features asphalt driveways and parking areas. The parking space configuration is designed for continuous traffic flow and convenient access to dwelling units. Patching/repairing, sealcoating, and striping the asphalt parking lot has been included in the provided scope of work.		
Curbing		
Concrete	Fair (OHCS: C)	Maintain
The site features select areas of extruded concrete curbing, located parallel to the driving lanes.		
Parking (Garages and Carports)		
Not Applicable	Not Applicable	Not Applicable
The site does not feature parking garages or carports.		

3.2.5 Flatwork

Methods and Materials	Condition	Estimate Period Replacement
Flatwork (Walks, Plazas, Terraces, Patios)		
Concrete	Fair (OHCS: C)	Yes
The site features concrete sidewalks and patios throughout the property.		

3.2.6 Landscaping And Appurtenances

Methods and Materials	Condition	Estimate Period Replacement
Fencing		
Chain-Link fencing 4' high	Fair (OHCS: C)	Yes
The site features perimeter fencing.		
Signage		
Wood	Good (OHCS: B)	Yes
A sign identifying the subject property as "Hillside Manor" is situated near the driveway entrance to the site. Replacement of the entry signage is included in the provided scope of work.		
Retaining Walls		
Retaining wall - concrete	Good (OHCS: B)	Yes
The site features structural retaining walls throughout the property.		
Other Structures		
Shed	Good (OHCS: B)	Maintain
The property features two (2) plastic storage sheds. According to the property manager the storage sheds are treated as furnishings and are addressed as part of the routine maintenance budget.		

Landscaping consists of trees, shrubs, and grasses situated throughout the site and surrounding the apartment buildings, and a community garden area. The existing landscaping was observed in good physical condition, with the exception of noted Non-Critical Repairs. The site features an irrigation system for the garden. Any future landscaping improvements are encouraged to be "sustainable" featuring native plants and shrubs.

3.2.7 Outdoor Recreational Facilities

Methods and Materials	Condition	Estimate Period Replacement
Sport Courts/Site Furniture		
Community garden	Good	Maintain
Site furniture - benches and tables	Good	Maintain
The property features a rear courtyard including a garden and walking path for resident use.		
Playgrounds		
Not Applicable	Not Applicable	Not Applicable
There are no playgrounds at the facility.		
Pool		
Not Applicable	Not Applicable	Not Applicable
There are no swimming pool facilities at this property.		
Common Decks / Porches		
Common balcony	Good (OHCS: B)	Yes
The site features common area balconies at the front and rear of the property on floors 2-9.		

3.2.8 Utilities

3.2.8.1 Water

Service	Utility Provider	Responsible Party	
Water/Sewer	City of Milwaukie	Dwelling Unit:	Owner
		Common Area:	Owner

3.2.8.2 Electricity

Service	Utility Provider	Responsible Party	
Electricity	PGE	Dwelling Unit:	Owner
		Common Area:	Owner

Methods and Materials	Condition	Estimate Period Replacement
Site Lighting		
Exterior HID	Fair (OHCS: C-D)	Yes
Incandescent	Fair (OHCS: C-D)	Yes
It could not be determined if lighting was sufficient, as the inspection was performed during the day; however, based upon the number of fixtures at the property and tenant and management interviews, lighting is presumed to be adequate. Replacement of inefficient exterior lighting fixtures with high efficiency lighting fixtures is recommended as an EWCM repair and has been included in the provided scope of work.		

3.2.8.3 Natural Gas

Service	Utility Provider	Responsible Party	
Natural Gas	NW Natural	Dwelling Unit:	N/A
		Common Area:	Owner

3.2.8.4 Sanitary Sewer

Service	Utility Provider	Responsible Party	
Sanitary Sewer	City of Milwaukie	Dwelling Unit:	Owner
		Common Area:	Owner

3.2.8.5 Site Utilities Trash

Methods and Materials	Condition	Estimate Period Replacement
Dumpster Enclosures		
Trash compactor	Fair (OHCS: C-D)	Yes
The property features two (2) dumpsters situated on concrete pads and one (1) trash compactor located at the base of the building's trash chute. Replacement of the trash compactors has been included in the provided scope of work.		

3.2.8.6 Special Utility Systems

The site features a septic tank and sewage ejector pump for the first level waste drainage, and a water filtration system located adjacent to the water main. Replacement of the sewage ejector pump and controls has been included in the provided scope of work.

3.2.8.7 Site Security Systems

The site features a video monitoring system which covers the common areas, offices, and exterior areas.

3.2.8.8 Other Utility Systems

The property does not feature other utility systems.

3.3 Structural Frame And Building Envelope

3.3.1 Foundation

Methods and Materials	Condition	Estimate Period Replacement
Foundation		
Reinforced concrete slab with a deep foundation utilizing piles or caissons and grade beams	Good (OHCS: B)	Maintain
The foundation assemblies are situated on a vapor barrier and 4" of sand fill. Evidence of structural distress was not visible; therefore, the condition of the foundation appears good; however, according to the provided concept package, extensive foundation upgrades to improve the seismic resistance have been included in the scope of work.		

3.3.2 Building Frame

3.3.2.1 Framing System, Floors And Walls

Methods and Materials	Condition	Estimate Period Replacement
Wall Framing		
Reinforced concrete columns and beams with metal stud walls	Good (OHCS: B)	Maintain
The property's superstructures appeared in good physical condition.		
Floor Framing		
Pre-cast reinforced concrete panels	Good (OHCS: B)	Maintain
The property's floor frame system appeared in good physical condition.		

3.3.2.2 Crawl Space And Penetrations

The building does not feature crawl spaces.

3.3.2.3 Roof Frame And Sheathing System

Methods and Materials	Condition	Estimate Period Replacement
Roof Framing		
Reinforced concrete roof decking	Good (OHCS: B)	Maintain
The property's roof frame and sheathing system appeared in good physical condition.		

3.3.2.4 Flashing And Moisture Protection

The exterior penetrations, windows, doors, and piping, at the subject property were observed with caulking and various sealing materials in good physical condition. According to the concept package repairing the sealing and caulking at the windows and doors is included in the scope of work. Future sealing and caulking is anticipated to be repaired as part of the operating budget of the property.

3.3.2.5 Attic Spaces, Draft Stops, Roof Vents And Penetrations

The building is constructed with flat roofs and does not feature any attic spaces. Upon review of the exterior of the roof, select exhaust vents and fresh air vents penetrate the roof of the building. The vents were observed in good physical condition with proper sealing.

3.3.2.6 Insulation

Limited construction drawings prepared by Englund, Plummer and Associates Architects dated July 7th, 1970 were available for review and noted the following insulation values and types:

Location	Insulation Type	Insulation Value	Condition
Exterior Walls	Batt	1 Inch	Not visible
Interior Walls	Acoustical	2 Inches	Not visible
Flat Roofs	Rigid Fiberglass	Not Provided	Not visible
Green construction principles recommend insulation along the thermal barrier appropriate to the climate zone. Insulation is a valuable addition whenever envelope access is afforded by associated repairs or rehabilitation.			

3.3.2.7 Exterior Stairs, Railing, And Balconies

Methods and Materials	Condition	Estimate Period Replacement
Exterior Stairs		
Poured concrete steps with metal handrails	Good (OHCS: B)	Yes
The property features an exterior staircase assembly that was observed in good condition.		
Balconies/Porches		
Concrete framed structure and decking with metal handrails	Good (OHCS: B)	Yes
Slab on grade concrete assembly	Good (OHCS: B)	Yes
The property's floor frame system appeared in good physical condition.		
Canopies		
Not Applicable	Not Applicable	Not Applicable
The property does not feature canopies.		

3.3.2.8 Exterior Doors And Entry Systems

Methods and Materials	Condition	Estimate Period Replacement
Exterior Doors		
Hollow metal door - single (conditioned space)	Good (OHCS: B)	Yes
Hollow metal door - double (conditioned space)	Good (OHCS: B)	Yes
Storefront system with single door	Fair (OHCS: C)	Yes
The exterior doors appear to be weather tight and operational.		

3.3.3 Building Facades

3.3.3.1 Sidewall Systems

Methods and Materials	Condition	Estimate Period Replacement
Sidewall Systems		
Pre-Cast concrete panel	Good (OHCS: B)	Maintain
The exterior wall systems appear to be weather tight and structurally sound. According to the concept package, painting of the exterior is included in the scope of work. Future painting of the exterior wall will be required during the estimate period.		

3.3.3.2 Fenestration System - Windows

Methods and Materials	Condition	Estimate Period Replacement
Fenestration Systems - Windows		
Sliding window (7 + stories)	Good (OHCS: B)	Yes
Fixed windows (7 + stories)	Poor (OHCS: F)	Yes
Casement window (7 + stories)	Poor (OHCS: F)	Yes
Double-pane sliding windows were installed at the majority of the property in 2008, and appear and were reported to be weather tight. The replacement of the casement and fixed windows has been included in the provided scope of work. High efficiency windows properly installed, increase overall building tightness and reduce heat loss through these fenestrations. According to the architect, the aluminum windows will be replaced with double glazed thermally broken aluminum windows.		

3.3.3.3 Parapets

The building features flat roofing with parapet walls along the roof line of the building. The parapet walls are constructed of concrete and feature a metal cap. The parapet walls were observed in good physical condition.

3.3.4 Roofing And Roof Drainage

Methods and Materials	Condition	Estimate Period Replacement
Roofing		
Modified bitumen roofing (high-rise)	Good (OHCS: B)	Yes
The roofs were not reported or observed to have active leaks. There are no associated Critical or Non-Critical Repairs.		
Roof Drainage		
Interior roofing drains	Good (OHCS: B)	Maintain
Roofing drainage at the property appeared adequate with no visible areas of stormwater erosion.		
Roof Trim		
Not Applicable	Not Applicable	Not Applicable
The building does not feature additional trim.		

3.4 Mechanical And Electrical Systems

3.4.1 Plumbing Systems

3.4.1.1 Supply And Waste Piping

Methods and Materials	Condition	Estimate Period Replacement
Supply Piping		
Copper	Good (OHCS: B)	Maintain
Galvanized	Fair (OHCS: C-D)	Yes
The main water supply to the site originates at water meter vaults located near the front of the building. Where visible, domestic water piping is partially insulated; however, the majority of the system is concealed behind walls and could not be inspected. The interior main water line providing service to the building was observed with a leaking section. Repair of the water main is recommended as a Non-Critical Repair. The replacement of the domestic plumbing distribution lines have been included in the provided scope of work.		
Waste Piping		
Cast iron	Fair (OHCS: C-D)	Yes
Sewage ejector	Fair (OHCS: C-D)	Yes
Sewer connections at the property are reported to consist of cast iron mains connected to the municipal sewer system. The site features a septic tank and sewage ejector pump for the first level waste drainage.		

3.4.1.2 Domestic Hot Water (DHW) System

Methods and Materials	Condition	Estimate Period Replacement
Dwelling Unit Water Heaters		
Gas-fired boiler	Fair (OHCS: C-D)	Yes
Hot water storage tank	Poor (OHCS: F)	Yes
Water circulation pumps	Fair (OHCS: C)	Yes
Water filtration equipment	Fair (OHCS: C)	Yes
Potable hot water to each unit is supplied by two gas fired boilers located at the first level mechanical area. The recovery of the hot water system is reported to be sufficient for the number of fixtures served and no complaints concerning a lack of hot water were raised during the inspection; however, according to the architect the plumbing engineer identified several issues with the tanks. The system also features a hot water storage tank and filtration equipment located near the water main entry. Replacement of the gas-fired boilers and the hot water storage tank have been included in the provided scope of work.		
Common Area Water Heaters		
Gas-fired boiler	Fair (OHCS: C-D)	Yes
Hot water storage tank	Poor (OHCS: F)	Yes
Water circulation pumps	Fair (OHCS: C)	Yes
Water filtration equipment	Fair (OHCS: C)	Yes
Potable hot water to the common areas is supplied by two gas fired boilers located at the first level mechanical area. The recovery of the hot water system is reported to be sufficient for the number of fixtures served and no complaints concerning a lack of hot water were raised during the inspection. The system also features a hot water storage tank and filtration equipment located near the water main entry.		

3.4.1.3 Fixtures

The staff kitchen includes a single basin ceramic sink and steel faucet. The resident services office, laundry room, and community room feature roll under countertop mounted stainless steel sinks and faucets. The common area restrooms feature roll under ceramic wall mounted sinks with faucets and floor mounted toilets. The staff restroom features a vanity mounted sink with faucet and floor mounted toilet. The common area plumbing fixtures were observed in good working condition and are considered sufficient. It is recommended to replace remaining common area 2.2 GPM kitchen aerators with Low-Flow Aerators (≤1.8 GPM) as an EWCM repair and have been included in the provided scope of work.

The dwelling unit fixtures are discussed in section 3.7.2 of this report.

3.4.1.4 Inspections / Recommendations

Galvanized

Galvanized supply and distribution piping was historically installed in buildings prior to 1950. Galvanized pipes commonly rust or corrode from the inside out, often reducing the pressure or restricting the flow of water and present a leak hazard. The life expectancies for galvanized plumbing are generally 40-50 years.

The plumbing system was observed and reported with periodic leaks, heavy corrosion, sedimentation, and restricted flow; therefore, D3G recommends Non-Critical Repair replacement, replacement of the plumbing has been included in the proved scope of work.

3.4.2 Centralized HVAC Systems

3.4.2.1 Centralized Heating / Cooling Equipment

Methods and Materials	Condition	Estimate Period Replacement
Centralized Heating / Cooling Equipment		
Roof-top gas-fired packaged unit	Good (OHCS: B)	Yes
Central roof mounted ventilation fans	Good (OHCS: B)	Yes
No complaints regarding the central heating and cooling systems were raised during the inspection. Replacement of the roof-top package units has been included in the provided scope of work.		

3.4.2.2 Distribution

The centralized HVAC system features ductwork that connects the main air handler units to air registers and returns in rooms throughout the building. Visually accessible ductwork is constructed of sheet metal and flexible duct piping. Where visible, ductwork is partially insulated; however, the majority of the system is concealed behind walls and could not be inspected. Accessible ductwork was observed in good physical condition; however, dwelling unit ventilation registers were observed with discoloration and debris buildup. Investigation to determine the source of the ventilation contaminants, and cleaning of the ductwork is recommended as a Non-Critical Repair, and has been included in the provided scope of work.

3.4.2.3 Control Systems

The dwelling units and common areas feature wall mounted thermostats that provide control of the heating systems for each individual dwelling unit.

3.4.3 Decentralized And Split HVAC Systems

3.4.3.1 Dwelling / Common Area HVAC Equipment

Methods and Materials	Condition	Estimate Period Replacement
Decentralized Heating / Cooling Equipment		
Traditional electric PTAC unit	Good (OHCS: B)	Yes
Split ductless A/C & heat system	Good (OHCS: B)	Yes
Electric air handler	Good (OHCS: B)	Yes
Electric unit heater	Good (OHCS: B)	Yes
Electric baseboard heater	Fair (OHCS: C-D)	Yes
No complaints regarding the heating and cooling systems were raised during the inspection. Dwelling units feature electric heaters in the living rooms, which have been decommissioned and replaced with PTAC units. Electric baseboard heaters remain in the bedrooms. The replacement of the electric baseboard heaters, and the PTAC units have been included in the provided scope of work.		

3.4.3.2 Control Systems

The dwelling units and common areas feature wall mounted thermostats that provide control of the heating systems for each individual dwelling unit.

3.4.4 Electrical Systems

3.4.4.1 Electrical Service And Metering

The building receives electrical power from a pad mounted transformer. Electrical service to each dwelling unit consists of 120/240V, 3 wire service, with a centralized electrical distribution panel located on each floor of the building. Total service to each central electrical panel in the building is 400 amps. The electrical service and metering systems were observed adequate at the time of inspection.

3.4.4.2 Electrical Distribution

Each dwelling unit features an electrical breaker panel located in the hallway. It is reported by the property management, and from limited visual access, that the electrical branch wiring at the complex is copper. Aluminum branch wiring was not observed. The individual units contain three-prong outlets that were located throughout the units. Ground Fault Circuit Interrupt (GFCI) outlets are located in the dwelling unit bathrooms and kitchens of the handicapped dwelling units 402, 313, 312, 222, 221, and 220, and at the majority of common area countertops; however, the staff kitchen, and dwelling unit kitchens and bathrooms were observed with countertop outlets that are not GFCI protected (Critical Repair). The electrical distribution system was observed adequate at the time of inspection.

3.4.4.3 Electric Lighting And Fixtures

Methods and Materials	Condition	Estimate Period Replacement
Exterior Lighting		
Incandescent	Good (OHCS: B)	Maintain
Exterior HID	Good (OHCS: B)	Maintain
It could not be determined if exterior lighting was adequate as the survey was performed during the day; however, based upon the number of exterior lighting fixtures, the lighting is assumed to be sufficient for the needs of the property. In addition, no complaints have been brought to D3G's attention from the site management or tenants regarding lighting levels. Replacement of inefficient exterior lighting fixtures with high efficiency lighting fixtures is recommended as an EWCM repair, and has been included in the provided scope of work.		
Interior Common Area / Dwelling Unit Lighting		
Fluorescent - standard	Good (OHCS: B)	Maintain
Incandescent	Good (OHCS: B)	Maintain
LED	Good (OHCS: B)	Maintain
It could not be determined if lighting was adequate as the survey was performed during the day; however, based upon the number of interior lighting fixtures, the lighting is assumed to be sufficient for the needs of the property. In addition, no complaints have been brought to D3G's attention from the site management or tenants regarding lighting levels. Replacement of inefficient interior lighting fixtures with high efficiency lighting fixtures is recommended as an EWCM repair, and has been included in the provided scope of work.		

3.4.4.4 Telecommunications

The property features hardwired telecommunications cabling throughout the dwelling units and leasing office.

3.4.4.5 Inspections / Recommendations

The electrical system was observed adequate at the time of the inspection and no further inspections or recommendations are made, with the exception of noted Critical Repairs.

3.4.4.6 Emergency Power Provisions

The subject property features a 100kW diesel fired emergency generator to provide emergency power. The generator operates on diesel fuel that is contained in an above ground storage tank positioned below the generator. The emergency generator was observed in good physical condition and will require replacement during the estimate period.

3.5 Vertical Transportation

3.5.1 Conveyance Systems

The building features two (2) hoist elevators with 2000-lb and 3500-lb ratings in CMU wall shafts. The elevators feature ADA and firemen's controls. The elevator interior cabs and equipment were observed in poor to fair physical condition. Elevators were reported with inconsistent operation and feature many original components which have exceeded their EUL. Replacement/modernization of the elevator equipment is recommended as a Non-Critical Repair, and has been included in the provided scope of work.

3.6 NFPA – Life Safety Systems

3.6.1 Sprinklers And Standpipes

There exists one (1)-hour fire-rated construction (vertically and horizontally) between each unit at the property. The building features a sprinkler system that provides coverage in the common areas, hallways, exterior overhangs and in the dwelling units. The fire suppression system is expected to require refurbishment during the estimate period. Replacement of the sprinkler heads with quick response style sprinkler heads is included in the provided scope of work.

3.6.2 Alarm Systems

3.6.2.1 Common Areas

Smoke detectors and heat sensors are hard-wired throughout the common areas. The existing hard-wired smoke and heat detectors are connected to a supervised control panel that is located within the first floor mechanical area. The smoke detector and heat sensors were reported as in good working order. The building also features fire alarm pull stations at common area halls. In accordance with local fire codes and NFPA-72, an inspection report detailing access to all units and testing of smoke detectors should be kept on file in the maintenance office and made available for review.

3.6.2.2 Tenant Spaces

The dwelling units were observed with hardwired smoke detectors in the immediate vicinity of the bedrooms; however, were not observed with smoke detectors in the bedrooms. Per HUD MAP Guidelines; according to Life Safety Code (NFPA 101), paragraph 31.3.4.5.1, smoke alarms must be installed outside every sleeping area in the immediate vicinity of the bedrooms and on all levels of the dwelling unit, including basements. In addition to the NFPA requirements, the regulation in 24 CFR 200.76 requires that smoke detectors must also be installed inside each sleeping area; therefore, the installation of compliant smoke detectors within all bedrooms is required (Critical Repair). The smoke detectors can be either hard wired or battery powered. Battery powered smoke detectors must have the following features, according to the HUD MAP Guidelines: ***the cell must be tamper-resistant; the cells cannot be used in any other toy or appliance; the cells must have a ten-year life; the smoke detector may have a manual silencing device to clear unwanted alarms such as cooking smoke***. For the purpose of this report we have budgeted battery powered smoke detectors, allowable by the HUD MAP Guidelines. It is recommended to contact the local municipality to determine if battery-operated smoke detectors are allowable. If further clarification is needed regarding smoke detector compliance, please contact the local reviewing HUD office. All dwelling units feature visual devices (strobes) that are inter-connected to the facilities fire alarm system.

The property features audio/visual alarm notification for hearing and vision impaired in all dwelling units. According to HUD Notice PIH 2003-31 (HA), existing buildings that feature federal funding and are subject to 24 CFR 8.23 (b) - Other Alterations, are required to provide accessible features (alarm notification) for people with hearing and vision impairments in 2% or in this case, two (2) of the dwelling units. A copy of HUD Notice PIH 2003-31 (HA) and 24 CFR Subpart A can be found at www.HUD.gov. In addition, according to HUD Directive #4571.3, Section 202 Supportive Housing for the Elderly, 2% of the dwelling units must be designed to meet the needs of persons with visual and /or hearing impairments.

The dwelling units and common areas each feature a Carbon Monoxide (CO) detector. According to the National Conference of State Legislatures (at web address: http://www.ncsl.org/?tabid=13238), Oregon requires Or. Rev. Stat. § 90.320 deems a rental dwelling unit uninhabitable if it lacks a carbon monoxide alarm when that dwelling unit or the structure that the dwelling unit is a part contains a carbon monoxide source. D3G's interpretation is that the apartment complex is in compliance.

3.6.3 Other Life Safety/Emergency Systems

The property does not feature an emergency call system.

Cabinet and wall mounted fire extinguishers meeting the requirements of NFPA-10 exist throughout the apartment complex, as do smoke detectors.

3.7 Interior Elements

3.7.1 Common Areas

Offices:

The building features a leasing office that is utilized by the property manager, and a resident services office on the first level. The offices feature vinyl flooring and painted GWB walls and ACT ceilings that were observed in fair physical condition. The size and location of the support services to the property appears acceptable and compliant with HUD's Minimum Property Standards (MPS).

Access Ways, Corridors, Vestibules, Meeting Spaces:

The building features a community room that is available to residents for gatherings or meetings. These common areas were observed to be in fair physical condition.

The apartment buildings feature five-foot six-inch wide common hallways along the main corridor of each floor. The hallways feature wooden handrails, carpeting and painted gypsum wall board walls and ACT ceilings, which were all observed in fair physical condition. Flooring is recommended for replacement as a Non-Critical Repair, and has been included in the provided scope of work. The flooring and ACT ceilings will require replacement during the estimate period.

Laundry Facilities:

The building features a common laundry room on the first level. The laundry room features three (3) coin-operated top-loading washing machines, one (1) coin-operated front-loading washing machine and four (4) coin-operated electric dryers. The machines are reportedly leased by the property. The room features vinyl composite tile flooring and painted GWB walls and concrete ceilings that were observed in fair physical condition. Flooring is recommended for replacement as a Non-Critical Repair, and has been included in the provided scope of work. Flooring elements will require replacement during the estimate period.

The units do not feature washer/dryer hookups or equipment.

Specialties:

The building features a community room with tables and chairs, a library, and a fitness center. The community room also features a kitchen with cabinets and countertops, range/oven unit, microwave, and refrigerators. The recreational areas were observed in fair physical condition; however, they will require replacement of appliances and flooring surfaces as a Non-Critical Repair, and have been included in the provided scope of work.

Methods and Materials	Condition	Estimate Period Replacement
Interior Stairs		
Precast concrete stringers and concrete treads with metal handrails	Good (OHCS: B)	Maintain
The apartment building features a stair tower on each end of the building leading to each floor level.		

Maintenance And Storage:

The first floor features a maintenance area for the storage of maintenance equipment and supplies accessible from the interior and exterior.

The property features dedicated storage areas available for the residents located in the basement storage lockers.

3.7.2 Tenant Spaces / Dwelling Units

3.7.2.1 Interior Finishes (Walls, Ceilings And Floors)

Methods and Materials	Condition	Estimate Period Replacement
Interior Finishes (Walls)		
Wall Surface - Gypsum Board	Fair (OHCS: C)	Maintain
Wall surface - concrete	Fair (OHCS: C)	Maintain
Interior Finishes (Ceilings)		
Textured concrete	Fair (OHCS: C)	Maintain
Acoustical ceiling tile	Fair (OHCS: C)	Yes
Interior Finishes (Floors)		
Carpet - Average Quality	Poor to fair (OHCS: D-F)	Yes
VCT 12x12 tile	Poor to fair (OHCS: D-F)	Yes
Ceramic tile	Poor to fair (OHCS: D-F)	Yes
Interior finishes are typically addressed during tenant turnover. Flooring is recommended for replacement as a Non-Critical Repair, and has been included in the provided scope of work. According to the architect the textured ceilings contain asbestos and abatement will be included in the scope of work.		

3.7.2.2 Millwork, Casework, Cabinets, And Countertops

Kitchen cabinets consist of wood-framed base and suspended wall cabinets. The base cabinets are surfaced with plastic laminate countertops. Visually inspected cabinets, hardware and countertops appeared in poor to fair physical condition, and replacement of the cabinets and countertops is included as a Non-Critical Repair, and have been included in the provided scope of work. The designated handicapped kitchens also feature a roll-under sink area, a roll-under workspace, and at least one upper cabinet/shelf area that is lowered. Upon future cabinetry and countertop replacement at EUL, the recommendation is made to utilize low-VOC and formaldehyde-free materials, and/or FSC lumber. In addition, consideration should be given to materials harvested and manufactured within a 500-mile radius to reduce environmental impacts.

The standard bathrooms feature wall mounted sinks that were observed in fair physical condition. The designated handicapped bathrooms feature ceramic counter mounted sinks and do not feature any cabinetry. Replacement of the counters is recommended as a Non-Critical Repair, and has been included in the provided scope of work.

3.7.2.3 Appliances

Methods and Materials	Condition	Estimate Period Replacement
Dwelling Unit Appliances		
Standard refrigerator	Fair (OHCS: C-D)	Yes
Electric Range	Fair (OHCS: C-D)	Yes
HDCP front controlled range	Fair (OHCS: C-D)	Yes
Unit appliances typical undergo maintenance during tenant complaints and are also addressed during tenant turnover. Replacement of the applicable appliances is included as a Non-Critical Repair, and have been included in the provided scope of work. Replacement should be with ENERGYSTAR models.		

3.7.2.4 Specialties

Methods and Materials	Condition	Estimate Period Replacement
Bathroom Fixtures And Specialties		
Wall-hung sink	Fair (OHCS: C)	Maintain
Floor-mounted Toilet	Fair (OHCS: C)	Maintain
Ceramic tile showers	Fair (OHCS: C)	Yes
Enameled steel with ceramic tile surrounds	Fair (OHCS: C)	Yes
Rooftop Controlled Commercial Exhaust Fan	Good (OHCS: B)	Yes
The plumbing fixtures and bathroom fans were observed to be in operating condition. It is recommended that EPA WaterSense compliant shower fixtures be installed as an EWCM repair, and has been included in the provided scope of work. Where applicable, future replacement of the exhaust fans should be with ENERGYSTAR models at EUL. The installation of new floor-mounted toilets has been included in the concept package scope of work.		

Kitchen Fixtures And Specialties		
Double basin enameled steel sinks	Fair (OHCS: C)	Maintain
Traditional exterior venting range hood (Handicapped Units)	Fair (OHCS: C)	Maintain
Rooftop Controlled Commercial Exhaust Fan	Good (OHCS: B)	Yes
The plumbing fixtures and fans were observed to be in operating condition. Repair and replacement of the plumbing fixtures and fans will generally be performed as needed under the maintenance budget. Range hoods are present in the handicapped dwelling units only; however, the installation of range hood s in each unit is included in the concept package scope of work. It is recommended that EPA WaterSense compliant fixtures be installed as an EWCM repair, and has been included in the provided scope of work. Where applicable, future replacement of the exhaust fans should be with ENERGYSTAR models at EUL.		

Closet Systems:

The dwelling unit closets were generally observed with a single wooden shelf and hanging rod. The closet systems were observed in fair physical condition.

Window Treatments:

The dwelling unit windows feature vinyl horizontal blinds that were observed in fair physical condition.

Other Interior Elements:

Dwelling unit interior and closet doors consist of hollow-core wood assemblies, the majority of which were observed in fair physical condition. The dwelling unit entry doors do not meet fire code and replacement is included in the proposed scope of work.

4.0 Additional Considerations

4.1 Environmental Items (Not Elsewhere Defined)

Environmental Remediation Alarms And Equipment:

The property does not currently feature environmental remediation alarms or equipment.

Mold:

The subject property was visually inspected for the presence of moisture intrusion and mold growth. Interior evidence of moisture intrusion or mold growth was not observed during D3G's inspection. An inspection of exterior areas of the property did not identify evidence of standing water, excessive mulch bed height, or improper site drainage characteristics. The property does not appear to have systemic mold or moisture intrusion problems.

Pest Control:

The property manager did not identify any concerns with pests, including termites or cockroaches, nor was any evidence of such observed during the inspection.

According to the 2000 International Residential Code Termite Infestation Probability Map, the property is located in the "slight to moderate" Termite Infestation Probability Zone (TIP Zone); however, considering that no evidence of wood destroying organisms was observed during the inspection, D3G makes no further recommendations relating to wood destroying pests and organisms at the property.

In addition, the property management staff indicated that a service contract is in place that includes preventive and corrective action for roaches, ants and bedbugs, as well as periodic inspections for wood destroying pests and organisms. A pest control service contractor was not available for interview during the inspection. Written pest control reports have not been made available to D3G at the time of issuance of this report. Please note that D3G did not perform a specific inspection for wood destroying organisms. An inspection was conducted by Pioneer Pest Management, a copy of the report can be found in appendix 11.5.

4.2 Lead Based Paint And Asbestos

Lead Based Paint:

The current subject property structure was constructed in 1970, before the 1978 ban on lead-based paint (LBP); therefore, LBP is suspected to be present at the subject property. HACC has contracted with PBS to perform environmental testing including LBP, asbestos, radon, water and air. The results can be found in that reporting and it is assumed that any recommendations or remediation are also included in the concept package scope of work.

Asbestos:

The site structures were constructed in 1970, before the 1978 ban on asbestos containing materials (ACMs) used in construction. Asbestos containing materials are suspected to be present at the facility, and are reported by property management to be present in the ceiling texture and floor tile mastic. ACMs have been remediated as needed during property renovations. Any ACMs encountered during planned renovation activities should be managed with a site specific operations and maintenance plan.

4.3 Commercial Tenant Improvements

The property does not currently feature commercial tenant spaces.

4.4 Code And Regulatory Compliance

The site and all public areas were screened for compliance with the following applicable codes and regulations. Please note obtained municipal letters are situated in Exhibit 11.10:

State Code:	The current building code for the state of Oregon is the 2012 International Building Code. According to reviewed construction documents the building code at the time of construction was the 1967 International Building Code.
Energy Code:	The current energy code for the state of Oregon is the 2012 International Energy Conservation Code.
Building Code Letter:	Pending response from the local municipality.
Fire Code Letter:	Pending response from the local municipality.
Zoning Code Letter:	Pending response from the local municipality.
Multifamily Related:	Americans with Disability Act (ADA Code of 1991) Life Safety Code, National Fire Protection Association (NFPA) Uniform Federal Accessibility Standards (UFAS) Minimum Property Standards (MPS), HUD Handbook 4910.1

4.4.1 Local / State Building Code

The current building code for the state of Oregon is the 2012 International Building Code. According to reviewed construction documents the building code at the time of construction was the 1967 International Building Code.

4.4.2 Seismic Design Considerations

According to the MAP Guide, Appendix 5C - Seismic Resistance and Fire Protection Standards for Existing Buildings, Non-Exempt buildings, must comply with the American Society of Civil Engineers (ASCE) and its affiliate the Structural Engineering Institute (ASCE/SEI) standard ASCE 41-13; Seismic Evaluation and Retrofit of Existing Buildings.

Exempt Buildings include:

1. Any single story, wood or steel frame building with total building area equal to or less than 3,000 square feet;
2. Any single story accessory building (i.e., no dwellings in structure);
3. Any detached or semi-detached structure where the Design Earthquake Spectral Response Acceleration Parameter SXS,BSE-1E is less than .400 g; and
4. Any building with both Design Earthquake Spectral Response Acceleration Parameters:
   a. SXS,BSE-1E less than .330 g, and
   b. SX1,BSE-1E less than .133 g.

The values for SXS and SX1 may be seen as provided output from a Design Maps Summary Report obtained from the US Geological Survey at:

http://earthquake.usgs.gov/designmaps/us/application.php

The property features residential buildings that do not meet the definition of 1 above. The Design Earthquake Spectral Response Acceleration Parameters for the subject property are:
a. SXS,BSE-1E = 0.458 g, and
b. SX1,BSE-1E = 0.260 g.
Based on these parameters, the property is not considered 'Exempt' and; however, RAD projects are not required to comply with the MAP Guidelines.

According to the provided concept package scope of work, seismic analysis and recommendations have been prepared by a structural engineer. Repairs include the addition of micropiles, new footings, and fiber-reinforced shear walls (Owner Elected Repairs).

4.5 Energy Code

The U.S. Department of Housing and Urban Development (HUD) has recognized the significant cost of utilities throughout the portfolio. Utility costs are shown to represent 20 to 30 percent of operating costs portfolio-wide. HUD's Energy Strategy to increase efficiency in multi-family and age-restricted apartments being refinanced under the 223(f) program includes energy assessments such as benchmarking. Benchmarking can help target assets that will most benefit from efficiency improvements.

D3G recommends following an Energy Strategy to increase energy efficiency of multi-family and age-restricted apartments. The use of energy-efficient technologies in housing through increased procurement of ENERGY STAR products and appliances is recommended. During routine replacement, it is recommended to consider the following items to improve energy efficiency at the property:

- ENERGY STAR rated HVAC systems
- Install or increase insulation whenever thermal envelope is accessed
- ENERGY STAR rated fixtures and appliances (i.e. exhaust fans and range hoods, washers & dryers, dishwashers, and refrigerators)
- ENERGY STAR rated window assemblies and patio door assemblies
- Water efficient (WaterSense) plumbing fixtures (i.e. shower heads and low-flow
- Energy-efficient lighting fixtures
- Common area lighting controls

Construction Item	Oregon New Construction Standard (Minimum Requirement / Allowance / System Performance) – IECC Climate Zone 4
Windows	U-factor < 0.35 SHGC < 0.40
Insulation	Attic = R-39 Wall = R-20 Floor = R-19
HVAC	Heat pumps – SEER 13
Appliances	42 U.S.C. 6295 compliant (Federal guidelines)
Domestic Water Heaters	EF $\geq$ 0.95 (electric) or AFUE $\geq$ 0.80 (gas)

4.6 FEMA Flood Plains And Hazards

According to FEMA Flood Insurance Rate Map (FIRM) #41005C0009D, dated June 17, 2008 Hillside Manor is located in Zone X, designated as an area outside the 100 and 500-year flood zones and the flood potential for the subject property is minimal.

5.0 Document Reviews And Interviews

5.1 Document Review

The investigation of the subject property required that select documents be reviewed to obtained site specific information. As part of the audit desk review, the following documentation was obtained and reviewed:

a. Construction documents prepared by Englund, Plummer and Associates Architects and dated July 7, 1970, including architectural, structural, and site sheets.

b. Site specific information provided for review:
   i. Construction / Engineering Questionnaire Form
   ii. Rent Roll
   iii. USGS Design Maps Summary Report
   iv. FEMA Map
   v. Tax Assessor Documents
   vi. Unit and floor plans

5.2 Site Interviews And Questionnaires

Performance of a Capital Needs Assessment requires that persons familiar with the property be interviewed, to potentially include manager, maintenance staff, owner representative, and other designated stakeholders. The Needs Assessor conducted site interviews and requested that persons familiar with the property complete a CNA Property Questionnaire and Utility Data Form. The Needs Assessor makes an effort to discuss housing concerns and comfort levels with building tenants; however, as a respect of privacy, resident and occupant names are not recorded. Interviews during the inspection process with representative tenants which identify any adverse conditions or occupant comfort concerns are addressed within the recommended repairs and rehabilitations. The following is a Record of Communication with stakeholders of this project:

Person	Title	Dates	Discussion
Allison Coe	Property Manager	23-Jan-18	Discussed operations and maintenance
Thomas Williams	Maintenance Supervisor	23-Jan-18	Provided tour of facility, discussed operations and maintenance
Julie Proksch	Dalla Terra Architecture	23-Jan-18	Discussed operations and maintenance, toured facility

Service contractors with a detailed knowledge of specific building systems for the subject property were not available for interview during the inspection. Service and maintenance items at the subject property are typically addressed by "in-house" maintenance staff.

6.0 Opinions Of Probable Cost To Remedy Physical Deficiencies

6.1 Critical Repairs (Immediate Needs)

Critical repairs are of two types: life safety remedies that correct exigent health and safety deficiencies including obstacles to ingress or egress from units, buildings or the site, which deficiencies must be corrected before endorsement; and accessibility remedies for violations of one or more of the accessibility statutes as may apply to the property or to any of the buildings, which remedies must be completed as soon as possible, a time period specified as a number of months which may extend beyond endorsement but shall not exceed 1 year unless specifically permitted by HUD.

CRITICAL REPAIRS	TOTAL
Complete list of Critical Repairs can be found in Section 1.3.1	$0.00
Total Repairs and Rehabilitations	**$0.00**
Estimated Cost Per Unit	**$0.00**

6.2 Non-Critical Repairs (12-Month Repair And Rehabilitation Needs)

Non-critical repairs are repairs, replacements or alterations that address current and imminent physical needs, notwithstanding whether any such needs may be described as deferred maintenance. Imminent in this context means work reasonably expected to be needed within the first year of the mortgage, except that this shall not be construed as requiring as an immediate repair any work that would normally occur at unit turnover. Non-critical repairs may include work likely to improve or enhance the quality, suitability, marketability and operating efficiency of the property. Non-critical repairs must be completed within 1 year after endorsement unless specifically permitted by HUD.

NON-CRITICAL REPAIRS (REHABILITATION SPECIFICATIONS)	TOTAL
Complete list of Non-Critical Repairs can be found in Section 1.3.2	$8,998,455.00
Total Repairs and Rehabilitations	**$8,998,455.00**
Estimated Cost Per Unit	**$89,984.55**

6.3 Reserve For Replacement (R4R) Summary Table

RESERVE FOR REPLACEMENT (R4R) SUMMARY FOR:			
PROPERTY:	**Hillside Manor**	**100**	**DWELLING UNITS**
1-20 YEAR TERM	**TOTAL RESERVE**	**AVERAGE ANNUAL COST PER UNIT (PUPA)**	
Un-inflated Cost	$1,538,792	$769	
Inflated Cost	$2,446,520	$1,223	
Recommended Initial Deposit to Reserves (IDRR):		$60,000	
(IDRR) Per Unit:		$600	
Recommend Annual Deposit to Reserves (ADRR):		$35,000	
(ADRR) Per Unit:		$350	

6.4 Additional HUD Costs

6.4.1 HUD Form 92329, Project Insurance Schedule

The project Insurance Schedule, HUD Form 92329, was completed as part of the e-tool processing using the Marshall Swift estimated replacement cost of the site structures including hard and soft costs.

Total Gross Area: 1 Building, 78,500 Gross Square Feet
Total Value: $9,180,575.00

A HUD Form 92329, Property Insurance Schedule, is included in Exhibit 11.8.

7.0 Out Of Scope Considerations

7.1 Accessibility For Persons With Disabilities

7.1.1 Section 504 / Uniform Federal Accessibility Standards (UFAS)

The property was originally constructed in 1970 and features project-based assistance. The apartments are therefore subject to the requirements of Section 504 of the Rehabilitation Act of 1973, which states that 5% or five (5) of the dwelling units must be handicapped accessible and that 2% or two (2) other dwelling units are required to have audio/visual smoke alarms. Federally Assisted projects built prior to July 11, 1988 are required to make common area and facilities the minimum percentage of units accessible through a gradual process of change. Currently, the property features 6% or six (6) designated handicapped accessible units. Reconfiguring the existing handicapped dwelling units to become fully UFAS compliant will be required upon substantial rehabilitation of the property. Additionally, reasonable modifications are required to be made upon tenant request or when certain elements in the designated handicapped units are replaced, such as cabinets or doors. The existing designated handicapped dwelling units contain the following UFAS features. The noted deficiencies have been noted as Critical Repairs. It should be noted that the time to complete the accessibility repairs has been extended due to the timing of the planned rehabilitation.

Accessible Dwelling Unit Features

- Unit entry doors feature levered handle hardware and sufficient door openings of 33 inches.
- Unit entry door and interior doors feature 18-inches at the pull side of the doors.

- Accessible routes are present throughout the dwelling units.
- Interior doors feature sufficient clear openings of 33 inches and levered handle hardware.
- The units feature thermostats measured less than 54-inches in height from the floor.

- Accessible kitchens feature compliant clear floor spaces at the kitchen fixtures and appliances.
- Roll-under forward approach to the kitchen sink with scald and abrasion protection is provided at units 402, 312, 222, 221 and 220, and levered handle hardware is provided. Please note the counter surface area at the sink area is fixed at 34 inches above the finished floor.
- Roll-under forward approach to a work surface (30-inch wide) located in the kitchen is provided. Please note the counter surface area is fixed at 34 inches above the finished floor.
- Front controlled range/ovens are present in the kitchens.
- Kitchens feature compliant cabinet storage - maximum height of 48-inches for at least one shelf of all cabinets and storage shelves mounted above work counters.

- An accessible bathroom with clear floor spaces at the plumbing fixtures and clear floor space within the bathroom outside of the swing of the door.

- Roll-under forward approach bathroom sink with scald and abrasion protection at units 402, 313, 312, 222, and 220, and levered handle hardware.

- Compliant grab bars are present at the bathtub/shower
- A 60-inch shower head hose and levered handle hardware are present in the

Accessible Dwelling Unit Deficiencies

- Kitchen sinks do not feature do not feature scald and abrasion protection on the exposed sink plumbing at unit 313 (kitchen), and unit 221 (bathroom).

Common Area Features

- Common area doors feature levered handle hardware at select locations, with the
- Common area doors feature 18-inches at the pull side of the doors or automatic door openers.
- Accessible routes are present throughout the common areas.
- Common area doors feature sufficient door openings of at least 32 inches, with the exception of the entry doors at the leasing office lobby and leasing office, which were observed with clear door openings of 29-31 inches.

- The common areas feature thermostats measured less than 54-inches in height from
- The common area resident accessible kitchens features compliant clear floor spaces at the kitchen fixtures and appliances.
- Roll-under forward approach to the common area sinks with levered handle hardware is provided. Scald and abrasion protection is provided at sinks, with the exception of the sinks in the first level common restrooms. Please note the counter surface area at the sink areas is fixed at 34 inches above the finished floor.

- The public restrooms feature clear floor spaces at the plumbing fixtures and clear floor space within the restrooms outside of the swing of the door.

- The public restrooms were observed with roll-under forward approach sinks. The sinks were missing scald and abrasion protection. The men's restroom features levered handle hardware; however the women's restroom is missing levered handle hardware.
- The common area restrooms were observed with compliant grab bars present at the toilets, with the exception of the handicapped toilet in the first level women's restroom, which was observed with a 24 inch rear grab bar.

Common Area Deficiencies

- The common area doors do not feature levered handle hardware at the staff kitchen, staff restroom, leasing office, leasing lobby, or resident services office.
- The common area doors do not feature sufficient door openings of 32 inches at the entry doors at the leasing office lobby and leasing office.
- The common area/public restroom sinks do not feature scald and abrasion protection, and the women's restroom sink does not feature levered handle
- Compliant grab bars are not present at the women's restroom handicapped toilet, which was observed with a 24 inch rear grab bar.

It should be noted that the leasing office area features a kitchen and restroom area restricted to staff use only that do not feature handicapped accessibility features.

The UFAS was published in the Federal Register on August 7, 1984 (49 FR 31528). HUD adopted the UFAS in 24 CFR (Code of Federal Regulations) part 40, effective October 4, 1984. Effective as of July 11, 1988, the design, construction, or alteration of buildings in conformance with sections 3-8 of the UFAS shall be deemed to comply with the requirements of 24 C.F.R. Sections 8.21, 8.22, 8.23, and 8.25. If the design of a facility was commenced before July 11, 1988, the provisions shall be followed to the maximum extent practicable, as determined by the Department.

The following excerpt can be found in the Code of Federal regulations, title 24 – Housing and Urban development, Section 8.32 – Accessibility Standards:

"Except as otherwise provided in this paragraph, the provisions of §§ 8.21 (a) and (b), 8.22 (a) and (b), 8.23, 8.25(a) (1) and (2), and 8.29 shall apply to facilities that are designed, constructed or altered after July 11, 1988. If the design of a facility was commenced before July 11, 1988, the provisions shall be followed to the maximum extent practicable, as determined by the Department. For purposes of this paragraph, the date a facility is constructed or altered shall be deemed to be the date bids for the construction or alteration of the facility are solicited. For purposes of the Urban Development Action Grant (UDAG) program, the provisions shall apply to the construction or alteration of facilities that are funded under applications submitted after July 11, 1988. If the UDAG application was submitted before July 11, 1988, the provisions shall apply, to the maximum extent practicable, as determined by the Department."

The following information has been taken from the HUD website (http://portal.hud.gov...):

Question: What is Section 504?
Section 504 of the Rehabilitation Act of 1973 states: No otherwise qualified individual with a disability in the United States… shall, solely by reason of her or his disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program, service or activity receiving federal financial assistance or under any program or activity conducted by any Executive agency or by the United States Postal Service. This means that Section 504 prohibits discrimination on the basis of disability in any program or activity that receives federal assistance from any federal agency, including the U.S. Department of Housing and Urban Development (HUD) as well as in programs conducted by federal agencies including HUD.

Question: Who are recipients of federal financial assistance?
The Section 504 regulations define recipient as any State or its political subdivision, any instrumentality or a state or its political subdivision, any public or private agency, institution organization, or other entity or any person to which federal financial assistance is extended for any program or activity directly or through another recipient, including any successor, assignee, or transferee or a recipient, but excluding the ultimate beneficiary of the assistance. Thus, a HUD funded public housing authority, or a HUD funded non-profit developer or low income housing is a recipient of federal financial assistance and is subject to Section 504's requirements. However, a private landlord who accepts Section 8 tenant-based vouchers in payment for rent from a low income individual is not a recipient of federal financial assistance.

Question: What does Section 504 require when a recipient undertakes alterations of existing housing facilities that do not qualify as substantial alterations?
Answer: If the project involves fewer than 15 units or the cost of alterations is less than 75% of the replacement cost of the completed facility and the recipient has not made 5% of its units in the development accessible to and usable by individuals with disabilities, then the requirements of 24 CFR 8.23(b) - Other Alterations apply. Under this section, alterations to dwelling units shall, to the maximum extent feasible, be made readily accessible to and usable by individuals with disabilities. If alterations to single elements or spaces of a dwelling unit, when considered together, amount to an alteration of a dwelling unit, the entire unit shall be made accessible. Alteration of an entire unit is considered to be when at least all of the following individual elements are replaced:

-renovation of whole kitchens, or at least replacement of kitchen cabinets; and
-renovation of the bathroom, if at least bathtub or shower is replaced or added, or a toilet and flooring is replaced and
-replacement of entrance door jambs.

When the entire unit is not being altered, 100% of the single elements being altered must be made accessible until 5% of the units in the development are accessible. However, the Department strongly encourages a recipient to make 5% of the units in a development readily accessible to and usable by individuals with mobility impairments, since that will avoid the necessity of making every element altered accessible, which often may result in having partially accessible units which may be of little or no value for persons with mobility impairments. It is also more likely that the cost of making 5% of the units accessible up front will be less than making each and every element altered accessible. Alterations must meet the applicable sections of the UFAS which govern alterations."

7.1.2 Fair Housing Act Design And Construction Requirements

The subject property was constructed in 1970 to 1970 and is not subject to the requirements of the Fair Housing Act, which requires residential buildings constructed after March 13, 1991, or permitted after June 15, 1990, be designed and constructed in compliance with the Act.

7.1.3 Americans With Disabilities Act (ADA)

The public areas at the property were screened for compliance with the ADA Code of 1990, Title III, Public Accommodations and Commercial Facilities. The provisions of Title III provide that persons with disabilities should have accommodations and access to public and commercial facilities which are equal to, or similar to, those available to the general public. The final rules implementing Title III were published on *July 26, 1991* , and required compliance by *January 26, 1992* .

According to http://www.ada.gov/taman3.html, "areas within multifamily residential facilities that qualify as places of public accommodation are covered by the ADA if use of the areas is not limited exclusively to owners, residents, and their guests."

"Illustration 1: For example: A private residential apartment complex includes a swimming pool for use by apartment tenants and their guests. The complex also sells pool "memberships" generally to the public. The pool qualifies as a place of public accommodation." If not, then the pool does not qualify as a place of public accommodation.

"Illustration 2: A residential condominium association maintains a longstanding policy of restricting use of its party room to owners, residents, and their guests. Consistent with that policy, it refuses to rent the room to local businesses and community organizations as a meeting place for educational seminars. The party room is not a place of public accommodation." This illustration would also apply to residential apartment complexes.

"Illustration 3: A private residential apartment complex contains a rental office. The rental office is a place of public accommodation."

The ADA requires that physical barriers in existing facilities be removed, if removal is readily achievable. Changes that are considered readily achievable include, but are not limited to, providing installation of grab bars and small ramps, addition of curb cuts, widening doorways, lowering desks, and rearrangement of furniture. If not readily achievable, alternative methods of providing service must be offered. Alternative methods include, but are not limited to providing goods and services at the door or sidewalk, providing home delivery, or relocating activities to accessible locations.

Auxiliary aids and services must be provided to people with vision or hearing impairments or other people with disabilities, unless an undue burden would result. It is the property owner's burden to prove that a modification is not readily achievable, or would pose an undue financial or administrative burden.

Any alteration to a public accommodation undertaken after January 26, 1992, shall be made so as to ensure, to the maximum extent feasible, the altered portions of the facility are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs. Alterations include, but are not limited to, remodeling, renovations, rehabilitation, reconstruction, historic restoration, changes or rearrangement in the plan configuration of walls and full-height partitions. Normal maintenance, re-roofing, painting or wallpapering, asbestos removal, or changes to mechanical and electrical systems are not alterations unless they affect the usability of the building or facility.

7.1.3.1 Parking

Based upon the fifty nine (59) standard parking spaces available at the site, ADA requires three (3) handicapped accessible parking spaces inclusive of one (1) van accessible spaces. The property currently features nine (9) designated handicapped parking spaces and does not feature a designated van accessible parking space. The designated handicapped parking spaces were observed with faded pavement markings at all locations, the two (2) handicapped parking spaces at the west of the rear parking lot were observed missing an access aisle, and the property was missing a designated van accessible parking space. The handicapped parking symbol must be marked horizontally on the parking spaces and the car parking spaces shall be 96 inches wide with a 60-inch access aisle. A van space can also have a minimum width of 96-inches with a 96-inch access aisle or the van space be 132-inches wide with a 60-inch access aisle. Reconfiguring the pavement markings, vertical signage, and access aisles is required at three (3) handicapped spaces inclusive of one (1) van accessible handicapped space in order to comply with ADAAG. "Van accessible" vertical signage is required at the van space. The remaining non-compliant handicapped parking spaces should

Standard handicapped spaces require a 60-inch wide access aisles, vertical signage, and curb access. Van accessible handicapped spaces require a total of 192" width for the parking space and access aisle, vertical signage identifying the space as van accessible, and curb access. The van accessible parking space and access aisle may have either of the following combinations: a 132" wide parking space with a 60" wide access aisle or a 96" wide parking space with a 96" wide access aisle. The designated handicapped parking spaces should be located at the closest accessible route to the building entrances and two (2) spaces may share a single access aisle.

7.1.3.2 Accessible Route (Curb Ramps And Building Entrances)

Curb access was observed at the main entrance to the buildings and at the individual access aisles.

The building entrances and exits were observed with low thresholds and sufficient door widths to comply with ADAAG. There is one (1) main front entrance and one (1) main rear entrance.

7.1.3.3 Restrooms

The apartment building features one (1) men's and one (1) women's restroom located on the first level. The restrooms each feature wall mounted sinks; however sinks were missing scald and abrasion protection (Critical Repair). The men's restroom sink featured levered hardware and the women's restroom sink was missing levered hardware (Critical Repair). The restrooms featured floor mounted toilets with appropriate grab bars at the men's restroom. The women's restroom was missing a 36 inch rear grab bar at the handicapped toilet (Critical Repair). The restrooms featured levered door hardware. The restrooms feature sufficient door openings and clear floor spaces at the plumbing fixtures to comply with ADAAG.

7.2 Recommended Forensic Examinations

The property was constructed in 1970 to 1970 and is greater than 30 years of age. Based upon the age and condition of the property, D3G recommends additional intrusive investigations in order to evaluate the primary building systems, should the chosen financial program require these investigations.

7.3 Owner Proposed Improvements And Upgrades

All owner proposed improvements have been incorporated into the Non-Critical Repairs List.

8.0 Qualifications

Dominion Due Diligence Group (D3G) certifies that staff assigned to this assessment have the qualification and education requirements of the Rental Assistance Demonstration (RAD): *Physical Condition Assessment Statement of Work and Contractor Qualification* s.

RAD Scope of Work, Statement of Qualifications:

- Have training and experience to evaluate building systems, health, and safety conditions, and physical and structural conditions, and to provide cost estimates for maintaining, rehabilitating, or improving deficiencies, using both traditional and Green principles. Must also have environmental expertise, as inspection will include environmental issues as well. Must have any required licenses.

- Have the designation of Leadership in Energy and Environmental Design Accredited Professional (LEED AP), in either the United States Green Building Council's LEED New Construction and Major Renovation or the LEED Existing Building Maintenance and Operations examination tracks, or an equivalent designation.

- Have completed 10-hours of education in the last calendar year in the areas of Green Building, Sustainability, Energy Efficiency, or Indoor Air Quality.

- Have knowledge of the requirements for the "green building" standard, if any, identified by the owner, which may include: Enterprise Green Communities, LEED-H, LEED-H Midrise, LEED-NC, ENERGYSTAR New Homes, ENERGYSTAR Multifamily High Rise, EarthCraft House, EarthCraft Multifamily, Earth Advantage New Homes, Greenpoint Rated New Home, Greenpoint Rated Existing Home (Whole House or Whole Building label), and the National Green Building Standard (NGBS) or other industry-recognized green building standard deemed acceptable by HUD in its sole discretion.

- Have acceptably completed written evaluation reports for similar types of multifamily rental housing projects in similar physical condition and age in the subject market or in similar areas, preferably including two (2) or more buildings that were receiving Section-8 or public housing assistance when the report was prepared.

- Have an acceptable record of performance with HUD. Not be under suspension or debarment by HUD, or involved as a defendant in criminal or civil action with HUD.

- Have produced reports that are well regarded in the marketplace in terms of content, timeliness and responsiveness. The contractor should have this personal experience, not just the company.

- Have the capacity to complete the project inspection and prepare the report in a time-frame acceptable to the Client (Lender/Owner).

A staff resume of the Needs Assessor performing this evaluation has been provided in Exhibit 11.11.

9.0 Limiting Conditions

This report has been prepared for, and can be relied upon by the Client and the United States Department of Housing and Urban Development (HUD) and the Oregon Housing and Community Services Qualified Allocation Plan. This report was prepared in accordance with generally accepted industry standards of practice for building inspection services, including the ASTM E-2018-08 Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process, as well as the protocols outlined in HUD Handbook 4460.1. In addition, the inspection and reporting was performed in accordance with the U.S. Department of Housing and Urban Development Multifamily Accelerated Processing (MAP) Guide, Chapter 5, revised January 29, 2016. No other warranty, either expressed or implied, is made. This report is not to be reproduced, either in whole or in part, without written consent from D3G.

The statements in this report are professional opinions about the present condition of the subject property. They are based upon visual evidence available during the inspection of reasonably accessible areas at the subject property. We did not remove any surface materials, perform any destructive testing, or move any furnishings. The study is not an exhaustive technical evaluation. Such an evaluation would entail a significantly larger scope of work than was determined for this project. Accordingly, we cannot comment on the condition of systems that we could not see, such as buried structures and utilities, nor are we responsible for conditions that could not be seen or were not within the scope of our services at the time of inspection. We did not undertake activities that would completely assess the stability of the building or the underlying foundation soil since this effort would require excavation and destructive testing. Likewise, this is not a seismic assessment, nor do we make any conclusions or comments regarding wood destroying organisms/insects. Our on-site observations pertain only to specific locations at specific times on specific dates. Our observations and conclusions do not reflect variations in conditions that may exist, in unexplored areas of the site, or at times other than those represented by our observations. This report and conclusions herein are based upon data collection between January 4, 2018 and April 13, 2018.

10.0 Certification

The RAD Needs Assessor certifies that the data presented in this report is representative of site conditions observed during our inspection. We understand that this report will be used by The Client to document to the U.S. Department of Housing and Urban Development that the MAP Lender's application for FHA multifamily mortgage insurance was prepared and reviewed in accordance with HUD requirements and the Oregon Housing and Community Services Qualified Allocation Plan. The RAD Needs Assessor certifies that the review was in accordance with the HUD requirements applicable on the date of the Review and that we have no financial interest or family relationship with the officers, directors, stockholders or partners of the Borrower, the general contractor, any subcontractors, the buyer or seller of the proposed property or engage in any business that might present a conflict of interest.

Brian Teteak, BPI-MFBA
Construction Inspector — Signature

Mike Ferguson, P.E., BPI-BA
Director of Engineering Services — Signature

Warning: Title 18 U.S.C. 1001, provides in part that whoever knowingly and willfully makes or uses a document containing any false, fictitious, or fraudulent statement or entry, in any manner in the jurisdiction of any department or agency of the United States, shall be fined not more than $ 10,000 or imprisoned for not more than five years or both.

11.0 Exhibits

11.1 Description Of Estimated Cost Of Critical Repairs
11.2 Description Of Estimated Cost Of Non Critical Repairs
11.3 Capital Reserve Schedules (Reserve For Replacement Analysis)
11.4 Color Site Photographs
11.5 Forensic Reports
11.6 Energy Audit Report
11.7 Utility Consumption Baseline (UCB)
11.8 HUD Form 92329
11.9 Site Specific Information
11.10 Municipal Compliance Letters
11.11 Staff Resumes And Certifications

EXHIBIT 11.1:

Description of Estimated Cost of Critical Repairs

CRITICAL REPAIRS (IMMEDIATE NEEDS)

MULTI-FAMILY

Inspection Date: 01/23/18

Project: Hillside Manor

ASTM SECT	HUD MAP GUIDE REPAIR LEVEL		CRITICAL REPAIR (IMMEDIATE NEEDS)	# of UNITS	UNIT of MEASURE	UNIT COST	TOTAL
Hillside Manor							
Accessibility							
3.2.4	Repair	1.	The property currently features nine (9) designated handicapped parking spaces and does not feature a designated van accessible parking space. The designated handicapped parking spaces were observed with faded pavement markings at all locations, the two (2) handicapped parking spaces at the west of the rear parking lot were observed missing an access aisle. The handicapped parking symbol must be marked horizontally on the parking spaces and the car parking spaces shall be 96 inches wide with a 60-inch access aisle. A van space can also have a minimum width of 96-inches with a 96-inch access aisle or the van space be 132-inches wide with a 60-inch access aisle. According to the Americans with Disabilities Act Accessibility Guidelines (ADAAG), the property is required to feature three (3) designated handicapped parking spaces inclusive of one (1) van accessible handicapped parking space. Reconfiguring the pavement markings, vertical signage, and access aisles is required at three (3) handicapped spaces inclusive of one (1) van accessible handicapped space in order to comply with ADAAG. "Van accessible" vertical signage is required at the van space. The remaining non-compliant handicapped parking spaces should be labeled "reserved." It should be noted that the timeframe to complete this accessibility repair has been extended and the cost reduced to zero as it is included in the concept package scope of work.	3	Each	$ -	No Cost
3.4.1	Repair	2.	The sink in the first level women's restroom was observed with knobbed hardware. The installation of levered hardware is required in order to comply with the Uniform Federal Accessibility Standards (UFAS). The timeframe to complete this accessibility repair has been extended as it is included in the concept package scope of work. The cost is covered by the estimated cost in the scope of work.	1	Each	$ -	No Cost
3.7.1	Repair	3.	The common area doors located on the accessible route are not equipped with levered hardware at the staff kitchen, staff restroom, leasing office, leasing lobby, or resident services office. Replacement of the existing door hardware with "usable" hardware, which primarily consists of levered hardware is required to comply with UFAS. It should be noted that the time to complete this repair has been extended as it is included in the scope of work. The cost of this repair is covered by the provided cost estimate for the scope of work.	5	Each	$ -	No Cost
3.7.2	Level 1 Alterations	4.	The entry doors at the leasing office lobby and leasing office were observed with clear door openings less than the minimum 32-inches (approximately 29-31-inches observed). Widening the doors in order to provide a minimum nominal 32-inch wide clear door opening is required in order to comply with UFAS. It should be noted that the time to complete this repair has been extended as it will be included in the larger reconfiguration of the leasing office in the provided scope of work. The cost for this repair is covered by the estimate cost for the provided scope of work.	2	Each	$ -	No Cost
3.7.2	Repair	5.	The handicapped toilet in the first level women's restroom was observed with a 24 inch rear grab bar. The installation of a properly sized 36 inch grab bar at rear wall of the toilet is required to comply with UFAS. It should be noted that the time to complete this repair has been extended as the common area restrooms will be completely reconfigured during the planned renovation. The cost of this repair is covered by the cost estimate in the provided concept package scope of work.	1	Each	$ -	No Cost

CRITICAL REPAIRS (IMMEDIATE NEEDS)

MULTI-FAMILY

Inspection Date: 01/23/18

Project: Hillside Manor

ASTM SECT	HUD MAP GUIDE REPAIR LEVEL		CRITICAL REPAIR (IMMEDIATE NEEDS)	# of UNITS	UNIT of MEASURE	UNIT COST	TOTAL
3.7.2	Repair	6.	The sinks in the first level common restrooms, and handicapped dwelling unit sinks at unit 313 (kitchen), and unit 221 (bathroom) were observed without scald and abrasion sink pipe wrapping. The installation of scald and abrasion sink pipe wrapping is required in order to comply with UFAS. It should be noted that the time to complete this repair has been extended as the common area restrooms will be completely reconfigured during the planned renovation. The cost of this repair is covered by the cost estimate in the provided concept package scope of work.	5	Each	$ -	No Cost
			Life Safety				
3.4.4	Repair	1.	The staff kitchen and dwelling unit kitchens and bathrooms, with the exception of the handicapped dwelling units 402, 313, 312, 222, 221, and 220 were observed with countertop outlets that are not GFCI protected. Current NEC guidelines require any outlet that serves any kitchen counter be GFCI protected. It should be noted that the time to complete this repair has been extended as it is included in the scope of work, and the dwelling unit kitchens and bathrooms will be completely renovated. The cost is included in the estimated scope of work.	190	Each	$ -	No Cost
3.4.4	Repair	2.	Dwelling unit 903 was observed with a broken electrical switch cover at the living room. Replacement of the switch cover is recommended. The cost of this repair is included in the routine maintenance budget.	1	Each	$ -	No Cost
3.6.2	Repair	3.	The dwelling units were observed with hardwired smoke detectors in the immediate vicinity of the bedrooms; however, were not observed with smoke detectors in the bedrooms. Per HUD MAP Guidelines; according to Life Safety Code (NFPA 101), paragraph 31.3.4.5.1, smoke alarms must be installed outside every sleeping area in the immediate vicinity of the bedrooms and on all levels of the dwelling unit, including basements. In addition to the NFPA requirements, the regulation in 24 CFR 200.76 requires that smoke detectors must also be installed inside each sleeping area; therefore, the installation of compliant smoke detectors within all bedrooms is required. Additional details regarding HUD smoke detector requirements are identified in Section 3.6.2.2 of this report. It should be noted that the time to complete this repair has been extended as it is included in the scope of work to renovate the dwelling units. The cost of this repair is covered by the cost estimate provided in the proposed scope of work.	100	Each	$ -	No Cost
				TOTAL:			**$ -**

Costs have been provided by using RS Means Building Construction Cost Data

* Owner provided cost that D3G finds reasonable

EXHIBIT 11.2:

Description of Estimated Cost of Non Critical Repairs

NON-CRITICAL REPAIR (12-MONTH PROPERTY CONDITION)

MULTI-FAMILY

Inspection Date: 01/23/18

Project: Hillside Manor

ASTM SECT	HUD MAP GUIDE REPAIR LEVEL		NON-CRITICAL REPAIR (12-MONTH PROPERTY CONDITION)	# of UNITS	UNIT of MEASURE	UNIT COST	TOTAL
Hillside Manor							
3.2.2	Repair	1.	The southeast lawn was observed with down trees and scattered wood debris. Removal of the trees and debris is recommended. According to the architect the cost of this repair is included in the Site work & Landscape Allowance in the concept package scope of work. There is no cost included due to be handled out of Operations and Maintenance budget.	1	Each	$ -	No Cost
3.3.2	Repair	2.	Dwelling units 711 at the living room, 304 at the bedroom closet, and 306 at the shower were observed with damaged ceilings due to localized flooding at adjacent upper dwelling units. Repair of the ceilings is recommended. The cost of this repair is covered by the cost to abate and refinish all of the asbestos ceilings, which is included in the provided concept package scope of work. According to the architect the property manager has already completed this repair.	3	Each	$ -	No Cost
Proposed Rehabilitation Items							
3.2.4	Repair	1.	Patching and repairing exiting asphalt parking lot has been included in the concept package scope of work.	37,745	SF	$ 0.99	$ 37,405.30
3.2.4	Repair	2.	Seal coating of the asphalt parking areas has been included in the concept package scope of work.	37,745	SF	$ 0.12	$ 4,487.88
3.2.4	Repair	3.	Restriping of the asphalt parking areas and the inclusion of handicapped parking identification markings is recommended, and has been included in the concept package scope of work.	59	Each	$ 8.87	$ 523.29
3.2.6	Level 1 Alterations	4.	Replacement of the project sign has been included in the concept package scope of work.	1	Each	$ 1,189.20	$ 1,189.20
3.2.6	Level 1 Alterations	5.	According to the concept package scope of work the mailboxes will be replaced.	100	Each	$ 50.54	$ 5,054.10
3.2.8	Repair	6.	The interior main water line providing service to the building was observed with a leaking section. Repair of the water main is recommended. The cost of this repair is included in the Domestic Water Distribution cost estimate in the concept package scope of work. The property manager has not been able to identify the source of the leak.	1	Each	$ -	No Cost
3.2.8	Level 1 Alterations	7.	According to the provided concept package, the replacement of the trash compactors is included in the scope of work.	1	Each	$ 24,775.00	$ 24,775.00
3.3.2	Level 3 Alterations	8.	According to the provided concept package scope of work, seismic analysis and recommendations have been prepared by a structural engineer. Repairs include the addition of micro piles, new footings, and fiber-reinforced polymer shear walls.	1	Each	$ 572,582.00	$ 572,582.00
3.3.2	Repair	9.	Due to the installation of the new fiber-reinforced polymer (FRP) panels and the age of the exterior paint repainting the building has been included in the provided concept package scope of work.	49,620	SF	$ 0.74	$ 36,877.58
3.3.2	Level 2 Alterations	10.	According to the concept package scope of work residential entry doors will be replaced to meet fire code requirements.	100	Each	$ 601.91	$ 60,191.00
3.3.2	Level 1 Alterations	11.	Replacement of the automatic door opener is included in the provided concept package scope of work.	4	Each	$ 1,189.20	$ 4,756.80
3.3.3	Level 1 Alterations	12.	According to the concept package scope of work, the casement windows will be replaced.	8	Each	$ 545.00	$ 4,360.00
3.3.3	Level 1 Alterations	13.	According to the concept package scope of work the fixed windows will be replaced.	4	Each	$ 1,200.00	$ 4,800.00
3.4.1	Level 1 Alterations	14.	Replacement of the original galvanized supply plumbing is recommended. According to the provided concept package scope of work the domestic water distribution lines will be replaced.	1	Each	$ 283,008.00	$ 283,008.00
3.4.1	Level 1 Alterations	15.	According to the concept package scope of work the sewage ejector pumps and controls will be replaced.	1	Each	$ 7,500.00	$ 7,500.00
3.4.1	Level 1 Alterations	16.	According to the concept package scope of work the hot water storage tank will be replaced.	1	Each	$ 1,189.20	$ 1,189.20
3.4.1	Level 1 Alterations	17.	According to the concept package the hot water boilers will be replaced. It is recommended to replace the DHW boilers with modulating condensing boilers as an EWCM.	2	Each	$ 21,742.54	$ 43,485.08

NON-CRITICAL REPAIR (12-MONTH PROPERTY CONDITION)

MULTI-FAMILY

Inspection Date: 01/23/18

Project: Hillside Manor

ASTM SECT	HUD MAP GUIDE REPAIR LEVEL		NON-CRITICAL REPAIR (12-MONTH PROPERTY CONDITION)	# of UNITS	UNIT of MEASURE	UNIT COST	TOTAL
3.4.1	Repair	18.	According to the concept package scope of work the shower plumbing and fixtures will be replaced. It is recommended to replace the remaining dwelling unit bathroom showerheads with Low-Flow showerheads (1.5 GPM).	100	Each	$ 43.00	$ 4,300.00
3.4.1	Repair	19.	According to the concept package scope of work the dwelling unit sinks and lavatories will be replaced. It is recommended to replace the remaining dwelling unit and common area 2.2 GPM kitchen aerators with Low-Flow Aerators (≤1.8 GPM).	207	Each	$ 3.00	$ 621.00
3.4.1	Level 2 Alterations	20.	According to the concept package scope of work low-flow toilets will be installed in the dwelling units.	101	Each	$ 128.83	$ 13,011.83
3.4.1	Level 2 Alterations	21.	According to the concept package scope of work low flow toilets will be installed in the common area restrooms.	2	Each	$ 128.83	$ 257.66
3.4.1	Level 2 Alterations	22.	According to the concept package scope of work new urinals will be installed in the common area restrooms.	1	Each	$ 128.83	$ 128.83
3.4.3	Level 1 Alterations	23.	According to the concept package scope of work the air-handlers will be replaced.	1	Each	$ 753.16	$ 753.16
3.4.3	Level 2 Alterations	24.	According to the concept package scope of work the electric baseboard heaters will be replaced with fan-assisted electric heaters.	450	LF	$ 34.09	$ 15,340.68
3.4.3	Level 2 Alterations	25.	According to the concept package scope of work the electric heaters will be replaced with fan-assisted electric heaters.	1	Each	$ 500.00	$ 500.00
3.4.3	Level 1 Alterations	26.	According to the concept package scope of work the PTAC units will be replaced with more energy efficient units.	102	Each	$ 1,040.55	$ 106,136.10
3.4.3	Level 1 Alterations	27.	According to the concept package scope of work the rooftop package units will be replaced.	2	Each	$ 45,600.00	$ 91,200.00
3.4.3	Repair	28.	The dwelling unit ventilation registers were observed with discoloration and debris buildup. Investigation to determine the source of the ventilation contaminants and cleaning of the ductwork is recommended. According to the concept package scope of work the ductwork and registers will be cleaned.	1	Each	$ 35,561.00	$ 35,561.00
3.4.3	Level 1 Alterations	29.	According to the concept package scope of work, new thermostats associated with the PTAC units will be installed in the dwelling units.	100	Each	$ 46.08	$ 4,608.15
3.4.4	Repair	30.	Replacement of the inefficient exterior lighting fixtures with high efficiency lighting fixtures is recommended as an EWCM repair.	1	Each	$ 8,769.00	$ 8,769.00
3.4.4	Repair	31.	Replacement of the inefficient interior common area T-12 fluorescent and incandescent lighting fixtures with high efficiency lighting fixtures is recommended as an EWCM repair.	1	Each	$ 38,205.00	$ 38,205.00
3.4.4	Repair	32.	Replacement of the inefficient interior dwelling unit T-12 fluorescent lighting fixtures with high efficiency lighting fixtures is recommended as an EWCM repair.	1	Each	$ 18,900.00	$ 18,900.00
3.5.1	Level 1 Alterations	33.	Refurbishment of the interior elevator cabs is recommended. According to the concept package, modernization of the elevators is included in the scope of work.	2	Each	$ 4,955.00	$ 9,910.00
3.5.1	Level 1 Alterations	34.	The elevators were reported with inconsistent operation and feature many original components which have exceeded their EUL. Replacement/modernization of the 2,000 lb elevator equipment is recommended. According to the concept package, modernization of the elevators is included in the scope of work.	1	Each	$ 185,416.10	$ 185,416.10
3.5.1	Level 1 Alterations	35.	The elevators were reported with inconsistent operation and feature many original components which have exceeded their EUL. Replacement/modernization of the 3,500 lb elevator equipment is recommended. According to the concept package, modernization of the elevators is included in the scope of work.	1	Each	$ 242,547.25	$ 242,547.25
3.6.1	Level 1 Alterations	36.	According to the concept package scope of work the sprinkler heads will be replaced with quick response style heads.	78,500	SF	$ 2.82	$ 221,707.55
3.6.2	Repair	37.	According to the concept package scope of work the dwelling unit call system is failing and will be replaced.	100	Each	$ 230.90	$ 23,090.30
3.6.2	Level 1 Alterations	38.	According to the concept package scope of work the emergency lighting will be replaced to meet current code.	1	Each	$ -	No Cost
3.7.1	Level 1 Alterations	39.	Replacement of the common area restroom tile is recommended. According to the concept package scope of work the common area restrooms will be completely reconfigured.	300	SF	$ 5.80	$ 1,739.19
3.7.1	Level 1 Alterations	40.	Replacement of the common area VCT flooring is recommended. According to the concept package scope of work all common area flooring will be replaced.	21,700	SF	$ 1.99	$ 43,224.23

NON-CRITICAL REPAIR (12-MONTH PROPERTY CONDITION)

MULTI-FAMILY

Inspection Date: 01/23/18

Project: Hillside Manor

ASTM SECT	HUD MAP GUIDE REPAIR LEVEL		NON-CRITICAL REPAIR (12-MONTH PROPERTY CONDITION)	# of UNITS	UNIT of MEASURE	UNIT COST	TOTAL
3.7.1	Level 1 Alterations	41.	Replacement of the common area carpeting is recommended. According to the concept package scope of work all common area flooring will be replaced.	7,745	SF	$ 2.86	$ 22,173.16
3.7.1	Level 1 Alterations	42.	According to the concept package scope of work and comments from the architect the suspended ceilings will be replaced.	28,000	SF	$ 1.01	$ 28,302.40
3.7.1	Level 1 Alterations	43.	According to the concept package scope of work and comments from the architect common area doors will be replaced as necessary to meet current building codes.	8	Each	$ 298.29	$ 2,386.33
3.7.1	Level 1 Alterations	44.	Replacement of the common area cabinetry and counters is recommended. According to the concept package scope of work the common area cabinetry will be reconfigured and replaced.	3	Each	$ 1,486.50	$ 4,459.50
3.7.1	Level 1 Alterations	45.	Replacement of the common area refrigerators with Energy Star refrigerators is recommended.	3	Each	$ 509.00	$ 1,527.00
3.7.1	Level 1 Alterations	46.	Replacement of the common area ranges is recommended.	2	Each	$ 346.00	$ 692.00
3.7.1	Level 1 Alterations	47.	Replacement of the common area microwaves is recommended.	1	Each	$ 125.00	$ 125.00
3.7.1	Repair	48.	According to the concept package scope of work painting and lead based paint testing/abatement will be included in the planned rehabilitation.	208,006	SF	$ 1.93	$ 401,451.58
3.7.2	Repair	49.	This line item cost represents the cost difference between D3G provided cost that are included in the provided cost estimate. Provided scopes of work typically include higher cost than those used by D3G for the purpose of creating a Replacement Reserve Schedule. Additionally the estimated scope of work includes cost not listed as Repairs in this table such as demolition costs, construction, project management cost, contractor fees, etc. See Appendix 11.9 for the detail Concept Package Scope of Work.	1	Each	$ 6,006,759.73	$ 6,006,759.73
3.7.2	Level 1 Alterations	50.	Replacement of the dwelling unit tub/shower surrounds is recommended to coincide with plumbing repairs. According to the concept package scope of work the shower units will be replaced with fiberglass surrounds.	96	Each	$ 500.00	$ 48,000.00
3.7.2	Level 1 Alterations	51.	Replacement of the dwelling unit VCT flooring in 1-bedroom units is recommended. According to the concept package scope of work all dwelling unit flooring will be replaced with LVT flooring.	96	Each	$ 644.15	$ 61,838.40
3.7.2	Level 1 Alterations	52.	Replacement of the dwelling unit VCT flooring in 2-bedroom units is recommended. According to the concept package scope of work all dwelling unit flooring will be replaced with LVT flooring.	4	Each	$ 415.00	$ 1,660.00
3.7.2	Level 1 Alterations	53.	Replacement of the dwelling unit carpet is recommended. According to the concept package scope of work all dwelling unit flooring will be replaced with LVT flooring.	4	Each	$ 644.15	$ 2,576.60
3.7.2	Level 1 Alterations	54.	Replacement of the common area restroom vanities is recommended. According to the concept package scope of work the common area restroom will be reconfigured.	96	Each	$ 247.75	$ 23,784.00
3.7.2	Level 1 Alterations	55.	Replacement of the dwelling unit kitchen cabinets and countertops is recommended. According to the concept package scope of work the dwelling unit kitchen cabinets and countertops will be replaced.	100	Each	$ 1,486.50	$ 148,650.00
3.7.2	Level 1 Alterations	56.	Replacement of the dwelling unit bathroom countertops is recommended. According to the concept package the dwelling unit lavatories will be replaced.	4	Each	$ 114.46	$ 457.84
3.7.2	Level 1 Alterations	57.	Replacement of the dwelling unit refrigerators with Energy Star refrigerators is recommended. According to the concept package scope of work the dwelling unit refrigerators will be replaced with more energy efficient appliances.	100	Each	$ 509.00	$ 50,900.00
3.7.2	Level 1 Alterations	58.	Replacement of the dwelling unit ranges is recommended. According to the concept package scope of work the dwelling unit ranges will be replaced.	100	Each	$ 346.00	$ 34,600.00
4.1.1	Repair	59.	According to the concept package scope of work radon testing will be conducted to determine if a new system is required. According to comments from the architect on April 11, 2018 the environmental engineer has completed this testing and determined that radon mitigation will not be required.	1	Each	$ -	No Cost
							No Cost
						Total:	**$ 8,998,455.00**

Costs have been provided by using RS Means Building Construction Cost Data

* Owner provided cost that D3G finds reasonable

EXHIBIT 11.3:

Capital Reserve Schedules (Reserve for Replacement Analysis)

REPLACEMENT RESERVE ANALYSIS FUNDING SCHEDULE

Multi-Family

Project: Hillside Manor
Address: 2889 SE Hillside Street
City:, State: Milwaukie, Oregon

Gross Square Footage: 78,500
Year Built: 1970 to 1970

Number of Units: 100

Initial Deposit RR:	$ 60,000	$600 Per Unit	
Annual Deposit RR:	$ 35,000	$350 Per Unit	
Annual Deposit Increase	3.00%		
Interest Applied to Account Balance	1.00%		
Minimum Yr 1 Balance	$ 51,293	$513 Per Unit	
Inflation of Capital Needs:	3.00%		

* This Funding Schedule has been completed in accordance with the 2016 MAP Guide, Appendix 5G, Section VII, as follows:

1 Reserve balance in years 1 thru 10 is based upon a 10 year estimate period, such that the minimum balance in the first year is 10% of the 1 - 10 year uninflated replacement reserve total, adjusted anually for inflation.

2 Reserve balance in years 11 thru 20 is based upon a 20 year estimate period, such that the minimum balance in year 11 is 5% of the 1 - 20 year uninflated replacement reserve total, adjusted anually for inflation.

3 Any negative balance observed in years 11 - 20 of the funding schedule cannot exceed 50% of the cummulative amortization of the mortgage.

1-10 YEAR TERM COSTS

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10-Year Total
Inflated Annual Replacement Reserve Needs:	$ -	$ -	$ -	$ -	$ 13,619	$ 16,862	$ 23,687	$ 15,118	$ 15,118	$ 20,172	$ 104,576
Beginning Annual Balance (Equals IDRR in Year 1):	$ 60,000	$ 95,600	$ 132,606	$ 171,064	$ 211,020	$ 238,903	$ 265,005	$ 285,761	$ 316,546	$ 348,930	
Interest (Average Outstanding Balance):	$ 600	$ 956	$ 1,326	$ 1,711	$ 2,110	$ 2,389	$ 2,650	$ 2,858	$ 3,165	$ 3,489	
Annual Deposit:	$ 35,000	$ 36,050	$ 37,132	$ 38,245	$ 39,393	$ 40,575	$ 41,792	$ 43,046	$ 44,337	$ 45,667	
Beginning Balance Plus Annual Deposit:	$ 95,000	$ 131,650	$ 169,738	$ 209,309	$ 250,412	$ 279,478	$ 306,797	$ 328,806	$ 360,882	$ 394,597	
Remaining RR Balance/year:	$ 95,600	$ 132,606	$ 171,064	$ 211,020	$ 238,903	$ 265,005	$ 285,761	$ 316,546	$ 348,930	$ 377,914	
Minimum Balance Required (Includes 2% Inflation Adjustment Annually)	$ 51,293	$ 52,832	$ 54,417	$ 56,049	$ 57,731	$ 59,463	$ 61,247	$ 63,084	$ 64,977	$ 66,926	
Required Minimum Balance Maintained:	N/A	N/A	YES	YES	YES	YES	YES	YES	YES	YES	

11-20 YEAR TERM COSTS

	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	11-20-Year Total	20-Year Total
Inflated Annual Replacement Reserve Needs:	$ 40,710	$ 161,666	$ 90,025	$ 208,509	$ 333,718	$ 197,182	$ 116,018	$ 49,940	$ 160,366	$ 983,809	$ 2,341,944	$ 2,446,520
Beginning Annual Balance:	$ 377,914	$ 388,021	$ 278,683	$ 241,346	$ 86,649	$ (193,262)	$ (335,915)	$ (395,768)	$ (387,859)	$ (488,640)		
Interest (Average Outstanding Balance):	$ 3,779	$ 3,880	$ 2,787	$ 2,413	$ 866	$ -	$ -	$ -	$ -	$ -		
Annual Deposit:	$ 47,037	$ 48,448	$ 49,902	$ 51,399	$ 52,941	$ 54,529	$ 56,165	$ 57,850	$ 59,585	$ 61,373		
Beginning Balance Plus Annual Deposit:	$ 424,951	$ 436,469	$ 328,585	$ 292,745	$ 139,590	$ (138,733)	$ (279,751)	$ (337,919)	$ (328,274)	$ (427,267)		
Remaining RR Balance/year:	$ 388,021	$ 278,683	$ 241,346	$ 86,649	$ (193,262)	$ (335,915)	$ (395,768)	$ (387,859)	$ (488,640)	$ (1,411,076)		
Minimum Balance Required (Includes 2% Inflation Adjustment Annually)	$ 68,934	$ 71,002	$ 73,132	$ 75,326	$ 77,585	$ 79,913	$ 82,310	$ 84,780	$ 87,323	$ 89,943		
Required Minimum Balance Maintained:	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO		
Allowance for RfR Deficit Offset (50.00% Cumulative Amortization)	$ 1,190,685	$ 1,322,624	$ 1,459,120	$ 1,600,330	$ 1,746,416	$ 1,897,548	$ 2,053,899	$ 2,215,649	$ 2,382,986	$ 2,556,101		
Total to Offset	N/A	N/A	N/A	N/A	$ (270,847)	$ (415,828)	$ (478,079)	$ (472,639)	$ (575,963)	$ (1,501,019)		
Negative Balance Mitigated:	N/A	N/A	N/A	N/A	YES	YES	YES	YES	YES	YES		

REPLACEMENT RESERVE ANALYSIS
MULTI-FAMILY

Project: Hillside Manor
Address: 2889 SE Hillside Street
City, State: Milwaukie, Oregon

Gross Square Footage: 78,500
Year Built: 1970 to 1970
Number of Units: 100

Component	Estimated Useful Life	Effective Age	Assessed RUL	Duration	Replace When	Total Number	Unit of Measurement	Unit Cost	Total Cost	Year 1	Year 2	Year 3	Year 4	Year 5
Parking, Re-Surface or Replace Asphalt Paving	25	48	0	0	Now	37745	SF	$0.99	$ 37,405					
Parking, Asphalt Sealing	5	13	0	0	Now	37745	SF	$0.12	$ 4,488					$ 4,488
Parking Stripes (Per Car)	15	13	2	0	Now	59	Each	$8.87	$ 523					
Pedestrian Paving - Concrete Sidewalks and Patios	50	48	20	2	End of Cycle	5500	SF	$1.24	$ 6,813					
Chain-Link Fencing 4' High	40	28	12	2	End of Cycle	565	LF	$7.82	$ 4,418					
Project Sign	25	13	12	0	Now	1	Each	$1,189.20	$ 1,189					
Retaining Wall - Concrete	40	48	15	2	End of Cycle	80	LF	$189.28	$ 15,142					
Emergency Generator (Diesel-Engine) 100kw	25	13	12	0	End of Cycle	1	Each	$36,270.60	$ 36,271					
Trash Compactor - 175-LB Capacity	20	23	0	0	Now	1	Each	$24,775.00	$ 24,775					
Painting, Exterior	8	1	7	1	Now	49620	SF	$0.74	$ 36,878					
Concrete Steps	50	48	20	0	End of Cycle	70	LF	$48.56	$ 3,399					
Concrete Balcony/Patio Slab	40	48	21	2	End of Cycle	16	SF	$5,000.00	$ 80,000					
Common Area Hollow Metal Door - Single (Conditioned Space)	25	48	25	0	End of Cycle	15	Each	$335.95	$ 5,039					
Hollow Metal Door - Double (Conditioned Space)	25	48	25	0	End of Cycle	2	Each	$614.42	$ 1,229					
Automatic Door Opener	30	18	12	0	Now	4	Each	$1,189.20	$ 4,757					
Storefront System with Single Door	50	48	31	0	End of Cycle	6	Each	$864.15	$ 5,185					
Casement Window (7 + Stories) (Aluminum)	35	48	0	0	Now	8	Each	$545.00	$ 4,360					
Fixed Windows (7 + Stories) (Aluminum)	35	23	12	0	Now	4	Each	$1,200.00	$ 4,800					
Sliding Window (7 + Stories) (Vinyl)	30	14	16	2	End of Cycle	216	Each	$525.00	$ 113,400					
Modified Bitumen Roofing (High-Rise)	20	7	13	2	End of Cycle	9160	SF	$11.20	$ 102,597					
Sewer Mains - Cast Iron	75	48	27	0	End of Cycle	1	Each	$3,468.50	$ 3,469					
Sewage Ejectors	50	48	2	0	Now	1	Each	$7,500.00	$ 7,500					
DHW Circulating Pumps 1/6 HP	15	9	6	0	End of Cycle	2	Each	$1,709.48	$ 3,419					
DHW Circulating Pumps 1/8 HP	15	9	6	0	End of Cycle	2	Each	$1,215.00	$ 2,430					
Hot Water Storage Tank - Up to 240 Gallon	15	9	6	0	Now	1	Each	$1,189.20	$ 1,189					
Boiler- Gas 600 mbtu/hr (DHW)	25	10	15	0	Now	2	Each	$15,400.00	$ 30,800					
Water Treatment Equipment	25	13	12	0	End of Cycle	1	Each	$5,623.93	$ 5,624					
Central Vent & Exhaust (4-10-Story)	20	10	21	2	End of Cycle	20	Each	$2,225.00	$ 44,500					
Split Ductless A/C System 1.5-Ton	15	9	6	0	End of Cycle	1	Each	$1,305.00	$ 1,305					
Electric Air Handler (10 KW)	20	10	10	0	Now	1	Each	$753.16	$ 753					
Electric Baseboard Heater	30	48	0	0	Now	450	LF	$34.09	$ 15,341					
Electric Unit Heater	30	18	12	0	Now	1	LF	$500.00	$ 500					
Traditional Electric PTAC Unit 3/4-Ton	15	14	1	1	Now	102	Each	$875.00	$ 89,250					
Roof-top Gas-Fired Packaged Unit, Electric Cool (15-Ton)	15	8	7	1	Now	2	Each	$45,600.00	$ 91,200					
Elevator Cabs - Interior Finish	10	48	0	0	Now	2	Each	$4,955.00	$ 9,910					
Hoist/Cable Electric Traction passenger elevator 2,000-lb (Up to	20	48	0	0	Now	1	Each	$185,416.10	$ 185,416					
Hoist/Cable Electric Traction passenger elevator 3,500-lb (Up to	20	48	0	0	Now	1	Each	$242,547.25	$ 242,547					
Fire Sprinkler System - High-Rise Apartment Building	50	48	2	0	Now	78500	SF	$2.82	$ 221,708					
Ceramic Tile (Common Area)	40	48	0	0	Now	300	SF	$5.80	$ 1,739					
VCT 12x12 Tile (Common Area)	15	18	0	2	Now	21700	SF	$1.99	$ 43,224					
Carpet - Average Quality (Common Area)	6	8	0	1	Now	7745	SF	$2.86	$ 22,173					$ 7,391
Acoustical Ceiling Tile (Common Area)	15	18	0	0	Now	28000	SF	$1.01	$ 28,302					
Solid core Fire Door (Common Area)	30	23	7	0	Now	8	Each	$298.29	$ 2,386					
Kitchen Cabinets and Countertops (Laminates/Wood) (Common	20	23	0	0	Now	3	Each	$1,486.50	$ 4,460					
Traditional Refrigerator (Common Area)	15	13	2	0	Now	3	Each	$454.87	$ 1,365					
Electric Range (Common Area)	20	13	7	0	Now	2	Each	$346.00	$ 692					
Microwave (Common Area)	10	18	0	0	Now	1	Each	$125.00	$ 125					
Tub/Shower Surround - Tile (Apartment)	30	23	7	0	Now	96	SF	$500.00	$ 48,000					
Durable Sheet Flooring (Entire 1-Bedroom Apartment)	15	0	15	2	End of Cycle	96	Each	$1,090.10	$ 104,650					
Durable Sheet Flooring (Entire 2-Bedroom Apartment)	15	0	15	1	End of Cycle	4	Each	$1,189.20	$ 4,757					
Standard Bath Vanity Cabinets (Unit)	20	23	0	1	Now	96	Each	$247.75	$ 23,784					
Standard Kitchen Cabinets and Countertops (Unit)	20	23	0	1	Now	100	Each	$1,486.50	$ 148,650					
Bath Countertops (Standard Laminate) (Unit)	15	13	2	0	Now	4	Each	$114.46	$ 458					
Traditional Refrigerator (Unit)	12	10	2	0	Now	100	Each	$454.87	$ 45,487					
Electric Range (Unit)	15	10	5	0	Now	100	Each	$346.00	$ 34,600					

UNINFLATED COSTS:

TOTAL RESERVE REPLACEMENT	$ -	$ -	$ -	$ -	$ 11,879	
Per unit	$ -	$ -	$ -	$ -	$ 119	

3.0% PER YEAR INFLATED COSTS:

3.0% INFLATION FACTOR	$ -	$ -	$ -	$ -	$ 13,619	
Per unit	$ -	$ -	$ -	$ -	$ 136	

* Note: The Effective Age does not necessarily equal the actual age. Many factors determine the effective age of a certain component including preventative maintenance programs. In addition, replacement of the majority of the components has been spread over a number of years to help alleviate inflated reserve requirements.

** Owner Provided Cost, which D3G finds reasonable

*** This is an operating cost; therefore it is not considered a capital item

REPLACEMENT RESERVE ANALYSIS

MULTI-FAMILY

Project: Hillside Manor
Address: 2889 SE Hillside Street
City, State: Milwaukie, Oregon

Component	Estimated Useful Life	Effective Age	Assessed RUL	Duration	Replace When	Total Number	Unit of Measurement	Unit Cost	Total Cost	Year 6	Year 7	Year 8	Year 9	Year 10	10-Year Total
Parking, Re-Surface or Replace Asphalt Paving	25	48	0	0	Now	37745	SF	$0.99	$ 37,405						$ -
Parking, Asphalt Sealing	5	13	0	0	Now	37745	SF	$0.12	$ 4,488					$ 4,488	$ 8,976
Parking Stripes (Per Car)	15	13	2	0	Now	59	Each	$8.87	$ 523						$ -
Pedestrian Paving - Concrete Sidewalks and Patios	50	48	20	2	End of Cycle	5500	SF	$1.24	$ 6,813						$ -
Chain-Link Fencing 4' High	40	28	12	2	End of Cycle	565	LF	$7.82	$ 4,418					$ 884	$ 884
Project Sign	25	13	12	0	Now	1	Each	$1,189.20	$ 1,189						$ -
Retaining Wall - Concrete	40	48	15	2	End of Cycle	80	LF	$189.28	$ 15,142						$ -
Emergency Generator (Diesel-Engine) 100kw	25	13	12	0	End of Cycle	1	Each	$36,270.60	$ 36,271						$ -
Trash Compactor - 175-LB Capacity	20	23	0	0	Now	1	Each	$24,775.00	$ 24,775						$ -
Painting, Exterior	8	1	7	1	Now	49620	SF	$0.74	$ 36,878		$ 12,293	$ 12,293	$ 12,293		$ 36,878
Concrete Steps	50	48	20	0	End of Cycle	70	LF	$48.56	$ 3,399						$ -
Concrete Balcony/Patio Slab	40	48	21	2	End of Cycle	16	SF	$5,000.00	$ 80,000						$ -
Common Area Hollow Metal Door - Single (Conditioned Space)	25	48	25	0	End of Cycle	15	Each	$335.95	$ 5,039						$ -
Hollow Metal Door - Double (Conditioned Space)	25	48	25	0	End of Cycle	2	Each	$614.42	$ 1,229						$ -
Automatic Door Opener	30	18	12	0	Now	4	Each	$1,189.20	$ 4,757						$ -
Storefront System with Single Door	50	48	31	0	End of Cycle	6	Each	$864.15	$ 5,185						$ -
Casement Window (7 + Stories) (Aluminum)	35	48	0	0	Now	8	Each	$545.00	$ 4,360						$ -
Fixed Windows (7 + Stories) (Aluminum)	35	23	12	0	Now	4	Each	$1,200.00	$ 4,800						$ -
Sliding Window (7 + Stories) (Vinyl)	30	14	16	2	End of Cycle	216	Each	$525.00	$ 113,400						$ -
Modified Bitumen Roofing (High-Rise)	20	7	13	2	End of Cycle	9160	SF	$11.20	$ 102,597						$ -
Sewer Mains - Cast Iron	75	48	27	0	End of Cycle	1	Each	$3,468.50	$ 3,469						$ -
Sewage Ejectors	50	48	2	0	Now	1	Each	$7,500.00	$ 7,500						$ -
DHW Circulating Pumps 1/6 HP	15	9	6	0	End of Cycle	2	Each	$1,709.48	$ 3,419	$ 3,419					$ 3,419
DHW Circulating Pumps 1/8 HP	15	9	6	0	End of Cycle	2	Each	$1,215.00	$ 2,430	$ 2,430					$ 2,430
Hot Water Storage Tank - Up to 240 Gallon	15	9	6	0	Now	1	Each	$1,189.20	$ 1,189						$ -
Boiler- Gas 600 mbtu/hr (DHW)	25	10	15	0	Now	2	Each	$15,400.00	$ 30,800						$ -
Water Treatment Equipment	25	13	12	0	End of Cycle	1	Each	$5,623.93	$ 5,624						$ -
Central Vent & Exhaust (4-10-Story)	20	10	21	2	End of Cycle	20	Each	$2,225.00	$ 44,500						$ -
Split Ductless A/C System 1.5-Ton	15	9	6	0	End of Cycle	1	Each	$1,305.00	$ 1,305	$ 1,305					$ 1,305
Electric Air Handler (10 KW)	20	10	10	0	Now	1	Each	$753.16	$ 753						$ -
Electric Baseboard Heater	30	48	0	0	Now	450	LF	$34.09	$ 15,341						$ -
Electric Unit Heater	30	18	12	0	Now	1	LF	$500.00	$ 500						$ -
Traditional Electric PTAC Unit 3/4-Ton	15	14	1	1	Now	102	Each	$875.00	$ 89,250						$ -
Roof-top Gas-Fired Packaged Unit, Electric Cool (15-Ton)	15	8	7	1	Now	2	Each	$45,600.00	$ 91,200						$ -
Elevator Cabs - Interior Finish	10	48	0	0	Now	2	Each	$4,955.00	$ 9,910					$ 9,910	$ 9,910
Hoist/Cable Electric Traction passenger elevator 2,000-lb (Up to	20	48	0	0	Now	1	Each	$185,416.10	$ 185,416						$ -
Hoist/Cable Electric Traction passenger elevator 3,500-lb (Up to	20	48	0	0	Now	1	Each	$242,547.25	$ 242,547						$ -
Fire Sprinkler System - High-Rise Apartment Building	50	48	2	0	Now	78500	SF	$2.82	$ 221,708						$ -
Ceramic Tile (Common Area)	40	48	0	0	Now	300	SF	$5.80	$ 1,739						$ -
VCT 12x12 Tile (Common Area)	15	18	0	2	Now	21700	SF	$1.99	$ 43,224						$ -
Carpet - Average Quality (Common Area)	6	8	0	1	Now	7745	SF	$2.86	$ 22,173	$ 7,391	$ 7,391				$ 22,173
Acoustical Ceiling Tile (Common Area)	15	18	0	0	Now	28000	SF	$1.01	$ 28,302						$ -
Solid core Fire Door (Common Area)	30	23	7	0	Now	8	Each	$298.29	$ 2,386						$ -
Kitchen Cabinets and Countertops (Laminates/Wood) (Common	20	23	0	0	Now	3	Each	$1,486.50	$ 4,460						$ -
Traditional Refrigerator (Common Area)	15	13	2	0	Now	3	Each	$454.87	$ 1,365						$ -
Electric Range (Common Area)	20	13	7	0	Now	2	Each	$346.00	$ 692						$ -
Microwave (Common Area)	10	18	0	0	Now	1	Each	$125.00	$ 125					$ 125	$ 125
Tub/Shower Surround - Tile (Apartment)	30	23	7	0	Now	96	SF	$500.00	$ 48,000						$ -
Durable Sheet Flooring (Entire 1-Bedroom Apartment)	15	0	15	2	End of Cycle	96	Each	$1,090.10	$ 104,650						$ -
Durable Sheet Flooring (Entire 2-Bedroom Apartment)	15	0	15	1	End of Cycle	4	Each	$1,189.20	$ 4,757						$ -
Standard Bath Vanity Cabinets (Unit)	20	23	0	1	Now	96	Each	$247.75	$ 23,784						$ -
Standard Kitchen Cabinets and Countertops (Unit)	20	23	0	1	Now	100	Each	$1,486.50	$ 148,650						$ -
Bath Countertops (Standard Laminate) (Unit)	15	13	2	0	Now	4	Each	$114.46	$ 458						$ -
Traditional Refrigerator (Unit)	12	10	2	0	Now	100	Each	$454.87	$ 45,487						$ -
Electric Range (Unit)	15	10	5	0	Now	100	Each	$346.00	$ 34,600						$ -

UNINFLATED COSTS:

TOTAL RESERVE REPLACEMENT	$ 14,545	$ 19,684	$ 12,293	$ 12,293	$ 15,406	$ 86,099
Per unit	$ 145	$ 197	$ 123	$ 123	$ 154	$ 86

3.0% PER YEAR INFLATED COSTS:

3.0% INFLATION FACTOR	$ 16,862	$ 23,687	$ 15,118	$ 15,118	$ 20,172	$ 104,576
Per unit	$ 169	$ 237	$ 151	$ 151	$ 202	$ 105

* Note: The Effective Age does not necessarily equal the actual age. Many factors determine the effective age of a certain component including preventative maintenance programs. In addition, replacement of the majority of the components has been spread over a number of years to help alleviate inflated reserve requirements.

** Owner Provided Cost, which D3G finds reasonable

*** This is an operating cost; therefore it is not considered a capital item

REPLACEMENT RESERVE ANALYSIS

MULTI-FAMILY

Project: Hillside Manor
Address: 2889 SE Hillside Street
City, State: Milwaukie, Oregon

Gross Square Footage: 78,500
Year Built: 1970 to 1970
Number of Units: 100

Component	Estimated Useful Life	Effective Age	Assessed RUL	Duration	Replace When	Total Number	Unit of Measurement	Unit Cost	Total Cost	10-Year Total	Year 11	Year 12	Year 13	Year 14	Year 15
Parking, Re-Surface or Replace Asphalt Paving	25	48	0	0	Now	37745	SF	$0.99	$ 37,405	$ -					
Parking, Asphalt Sealing	5	13	0	0	Now	37745	SF	$0.12	$ 4,488	$ 8,976					$ 4,488
Parking Stripes (Per Car)	15	13	2	0	Now	59	Each	$8.87	$ 523	$ -					$ 523
Pedestrian Paving - Concrete Sidewalks and Patios	50	48	20	2	End of Cycle	5500	SF	$1.24	$ 6,813	$ -					
Chain-Link Fencing 4' High	40	28	12	2	End of Cycle	565	LF	$7.82	$ 4,418	$ 884	$ 884	$ 884	$ 884	$ 884	
Project Sign	25	13	12	0	Now	1	Each	$1,189.20	$ 1,189	$ -					
Retaining Wall - Concrete	40	48	15	2	End of Cycle	80	LF	$189.28	$ 15,142	$ -			$ 3,028	$ 3,028	$ 3,028
Emergency Generator (Diesel-Engine) 100kw	25	13	12	0	End of Cycle	1	Each	$36,270.60	$ 36,271	$ -		$ 36,271			
Trash Compactor - 175-LB Capacity	20	23	0	0	Now	1	Each	$24,775.00	$ 24,775	$ -					
Painting, Exterior	8	1	7	1	Now	49620	SF	$0.74	$ 36,878	$ 36,878					$ 12,293
Concrete Steps	50	48	20	0	End of Cycle	70	LF	$48.56	$ 3,399	$ -					
Concrete Balcony/Patio Slab	40	48	21	2	End of Cycle	16	SF	$5,000.00	$ 80,000	$ -					
Common Area Hollow Metal Door - Single (Conditioned Space)	25	48	25	0	End of Cycle	15	Each	$335.95	$ 5,039	$ -					
Hollow Metal Door - Double (Conditioned Space)	25	48	25	0	End of Cycle	2	Each	$614.42	$ 1,229	$ -					
Automatic Door Opener	30	18	12	0	Now	4	Each	$1,189.20	$ 4,757	$ -					
Storefront System with Single Door	50	48	31	0	End of Cycle	6	Each	$864.15	$ 5,185	$ -					
Casement Window (7 + Stories) (Aluminum)	35	48	0	0	Now	8	Each	$545.00	$ 4,360	$ -					
Fixed Windows (7 + Stories) (Aluminum)	35	23	12	0	Now	4	Each	$1,200.00	$ 4,800	$ -					
Sliding Window (7 + Stories) (Vinyl)	30	14	16	2	End of Cycle	216	Each	$525.00	$ 113,400	$ -				$ 22,680	$ 22,680
Modified Bitumen Roofing (High-Rise)	20	7	13	2	End of Cycle	9160	SF	$11.20	$ 102,597	$ -	$ 20,519	$ 20,519	$ 20,519	$ 20,519	$ 20,519
Sewer Mains - Cast Iron	75	48	27	0	End of Cycle	1	Each	$3,468.50	$ 3,469	$ -					
Sewage Ejectors	50	48	2	0	Now	1	Each	$7,500.00	$ 7,500	$ -					
DHW Circulating Pumps 1/6 HP	15	9	6	0	End of Cycle	2	Each	$1,709.48	$ 3,419	$ 3,419					
DHW Circulating Pumps 1/8 HP	15	9	6	0	End of Cycle	2	Each	$1,215.00	$ 2,430	$ 2,430					
Hot Water Storage Tank - Up to 240 Gallon	15	9	6	0	Now	1	Each	$1,189.20	$ 1,189	$ -					$ 1,189
Boiler- Gas 600 mbtu/hr (DHW)	25	10	15	0	Now	2	Each	$15,400.00	$ 30,800	$ -					
Water Treatment Equipment	25	13	12	0	End of Cycle	1	Each	$5,623.93	$ 5,624	$ -		$ 5,624			
Central Vent & Exhaust (4-10-Story)	20	10	21	2	End of Cycle	20	Each	$2,225.00	$ 44,500	$ -					
Split Ductless A/C System 1.5-Ton	15	9	6	0	End of Cycle	1	Each	$1,305.00	$ 1,305	$ 1,305					
Electric Air Handler (10 KW)	20	10	10	0	Now	1	Each	$753.16	$ 753	$ -					
Electric Baseboard Heater	30	48	0	0	Now	450	LF	$34.09	$ 15,341	$ -					
Electric Unit Heater	30	18	12	0	Now	1	LF	$500.00	$ 500	$ -					
Traditional Electric PTAC Unit 3/4-Ton	15	14	1	1	Now	102	Each	$875.00	$ 89,250	$ -				$ 29,750	$ 29,750
Roof-top Gas-Fired Packaged Unit, Electric Cool (15-Ton)	15	8	7	1	Now	2	Each	$45,600.00	$ 91,200	$ -				$ 30,400	$ 30,400
Elevator Cabs - Interior Finish	10	48	0	0	Now	2	Each	$4,955.00	$ 9,910	$ 9,910					
Hoist/Cable Electric Traction passenger elevator 2,000-lb (Up to	20	48	0	0	Now	1	Each	$185,416.10	$ 185,416	$ -					
Hoist/Cable Electric Traction passenger elevator 3,500-lb (Up to	20	48	0	0	Now	1	Each	$242,547.25	$ 242,547	$ -					
Fire Sprinkler System - High-Rise Apartment Building	50	48	2	0	Now	78500	SF	$2.82	$ 221,708	$ -					
Ceramic Tile (Common Area)	40	48	0	0	Now	300	SF	$5.80	$ 1,739	$ -					
VCT 12x12 Tile (Common Area)	15	18	0	2	Now	21700	SF	$1.99	$ 43,224	$ -			$ 8,645	$ 8,645	$ 8,645
Carpet - Average Quality (Common Area)	6	8	0	1	Now	7745	SF	$2.86	$ 22,173	$ 22,173	$ 7,391	$ 7,391	$ 7,391		
Acoustical Ceiling Tile (Common Area)	15	18	0	0	Now	28000	SF	$1.01	$ 28,302	$ -					$ 28,302
Solid core Fire Door (Common Area)	30	23	7	0	Now	8	Each	$298.29	$ 2,386	$ -					
Kitchen Cabinets and Countertops (Laminates/Wood) (Common	20	23	0	0	Now	3	Each	$1,486.50	$ 4,460	$ -					
Traditional Refrigerator (Common Area)	15	13	2	0	Now	3	Each	$454.87	$ 1,365	$ -					$ 1,365
Electric Range (Common Area)	20	13	7	0	Now	2	Each	$346.00	$ 692	$ -					
Microwave (Common Area)	10	18	0	0	Now	1	Each	$125.00	$ 125	$ 125					
Tub/Shower Surround - Tile (Apartment)	30	23	7	0	Now	96	SF	$500.00	$ 48,000	$ -					
Durable Sheet Flooring (Entire 1-Bedroom Apartment)	15	0	15	2	End of Cycle	96	Each	$1,090.10	$ 104,650	$ -			$ 20,930	$ 20,930	$ 20,930
Durable Sheet Flooring (Entire 2-Bedroom Apartment)	15	0	15	1	End of Cycle	4	Each	$1,189.20	$ 4,757	$ -				$ 1,586	$ 1,586
Standard Bath Vanity Cabinets (Unit)	20	23	0	1	Now	96	Each	$247.75	$ 23,784	$ -					
Standard Kitchen Cabinets and Countertops (Unit)	20	23	0	1	Now	100	Each	$1,486.50	$ 148,650	$ -					
Bath Countertops (Standard Laminate) (Unit)	15	13	2	0	Now	4	Each	$114.46	$ 458	$ -					$ 458
Traditional Refrigerator (Unit)	12	10	2	0	Now	100	Each	$454.87	$ 45,487	$ -		$ 45,487			
Electric Range (Unit)	15	10	5	0	Now	100	Each	$346.00	$ 34,600	$ -					$ 34,600

UNINFLATED COSTS:

TOTAL RESERVE REPLACEMENT	$ 86,099	$ 28,794	$ 116,175	$ 61,397	$ 138,422	$ 220,756
Per unit	$ 86	$ 288	$ 1,162	$ 614	$ 1,384	$ 2,208

3.0% PER YEAR INFLATED COSTS:

3.0% INFLATION FACTOR	$ 104,576	$ 40,710	$ 161,666	$ 90,025	$ 208,509	$ 333,718
Per unit	$ 105	$ 407	$ 1,617	$ 900	$ 2,085	$ 3,337

* Note: The Effective Age does not necessarily equal the actual age. Many factors determine the effective age of a certain component including preventative maintenance programs. In addition, replacement of the majority of the components has been spread over a number of years to help alleviate inflated reserve requirements.

** Owner Provided Cost, which D3G finds reasonable

*** This is an operating cost; therefore it is not considered a capital item

REPLACEMENT RESERVE ANALYSIS
MULTI-FAMILY

Project: Hillside Manor
Address: 2889 SE Hillside Street
City, State: Milwaukie, Oregon

Component	Estimated Useful Life	Effective Age	Assessed RUL	Duration	Replace When	Total Number	Unit of Measurement	Unit Cost	Total Cost	Year 16	Year 17	Year 18	Year 19	Year 20	11-20 Year Total	1-20 Year Total
Parking, Re-Surface or Replace Asphalt Paving	25	48	0	0	Now	37745	SF	$0.99	$ 37,405						$ -	$ -
Parking, Asphalt Sealing	5	13	0	0	Now	37745	SF	$0.12	$ 4,488					$ 4,488	$ 8,976	$ 17,952
Parking Stripes (Per Car)	15	13	2	0	Now	59	Each	$8.87	$ 523						$ 523	$ 523
Pedestrian Paving - Concrete Sidewalks and Patios	50	48	20	2	End of Cycle	5500	SF	$1.24	$ 6,813			$ 1,363	$ 1,363	$ 1,363	$ 4,088	$ 4,088
Chain-Link Fencing 4' High	40	28	12	2	End of Cycle	565	LF	$7.82	$ 4,418						$ 3,534	$ 4,418
Project Sign	25	13	12	0	Now	1	Each	$1,189.20	$ 1,189						$ -	$ -
Retaining Wall - Concrete	40	48	15	2	End of Cycle	80	LF	$189.28	$ 15,142	$ 3,028	$ 3,028				$ 15,142	$ 15,142
Emergency Generator (Diesel-Engine) 100kw	25	13	12	0	End of Cycle	1	Each	$36,270.60	$ 36,271						$ 36,271	$ 36,271
Trash Compactor - 175-LB Capacity	20	23	0	0	Now	1	Each	$24,775.00	$ 24,775					$ 24,775	$ 24,775	$ 24,775
Painting, Exterior	8	1	7	1	Now	49620	SF	$0.74	$ 36,878	$ 12,293	$ 12,293				$ 36,878	$ 73,755
Concrete Steps	50	48	20	0	End of Cycle	70	LF	$48.56	$ 3,399					$ 3,399	$ 3,399	$ 3,399
Concrete Balcony/Patio Slab	40	48	21	2	End of Cycle	16	SF	$5,000.00	$ 80,000				$ 16,000	$ 16,000	$ 32,000	$ 32,000
Common Area Hollow Metal Door - Single (Conditioned Space)	25	48	25	0	End of Cycle	15	Each	$335.95	$ 5,039						$ -	$ -
Hollow Metal Door - Double (Conditioned Space)	25	48	25	0	End of Cycle	2	Each	$614.42	$ 1,229						$ -	$ -
Automatic Door Opener	30	18	12	0	Now	4	Each	$1,189.20	$ 4,757						$ -	$ -
Storefront System with Single Door	50	48	31	0	End of Cycle	6	Each	$864.15	$ 5,185						$ -	$ -
Casement Window (7 + Stories) (Aluminum)	35	48	0	0	Now	8	Each	$545.00	$ 4,360						$ -	$ -
Fixed Windows (7 + Stories) (Aluminum)	35	23	12	0	Now	4	Each	$1,200.00	$ 4,800						$ -	$ -
Sliding Window (7 + Stories) (Vinyl)	30	14	16	2	End of Cycle	216	Each	$525.00	$ 113,400	$ 22,680	$ 22,680	$ 22,680			$ 113,400	$ 113,400
Modified Bitumen Roofing (High-Rise)	20	7	13	2	End of Cycle	9160	SF	$11.20	$ 102,597						$ 102,597	$ 102,597
Sewer Mains - Cast Iron	75	48	27	0	End of Cycle	1	Each	$3,468.50	$ 3,469						$ -	$ -
Sewage Ejectors	50	48	2	0	Now	1	Each	$7,500.00	$ 7,500						$ -	$ -
DHW Circulating Pumps 1/6 HP	15	9	6	0	End of Cycle	2	Each	$1,709.48	$ 3,419						$ -	$ 3,419
DHW Circulating Pumps 1/8 HP	15	9	6	0	End of Cycle	2	Each	$1,215.00	$ 2,430						$ -	$ 2,430
Hot Water Storage Tank - Up to 240 Gallon	15	9	6	0	Now	1	Each	$1,189.20	$ 1,189						$ 1,189	$ 1,189
Boiler- Gas 600 mbtu/hr (DHW)	25	10	15	0	Now	2	Each	$15,400.00	$ 30,800						$ -	$ -
Water Treatment Equipment	25	13	12	0	End of Cycle	1	Each	$5,623.93	$ 5,624						$ 5,624	$ 5,624
Central Vent & Exhaust (4-10-Story)	20	10	21	2	End of Cycle	20	Each	$2,225.00	$ 44,500				$ 8,900	$ 8,900	$ 17,800	$ 17,800
Split Ductless A/C System 1.5-Ton	15	9	6	0	End of Cycle	1	Each	$1,305.00	$ 1,305						$ -	$ 1,305
Electric Air Handler (10 KW)	20	10	10	0	Now	1	Each	$753.16	$ 753					$ 753	$ 753	$ 753
Electric Baseboard Heater	30	48	0	0	Now	450	LF	$34.09	$ 15,341						$ -	$ -
Electric Unit Heater	30	18	12	0	Now	1	LF	$500.00	$ 500						$ -	$ -
Traditional Electric PTAC Unit 3/4-Ton	15	14	1	1	Now	102	Each	$875.00	$ 89,250	$ 29,750					$ 89,250	$ 89,250
Roof-top Gas-Fired Packaged Unit, Electric Cool (15-Ton)	15	8	7	1	Now	2	Each	$45,600.00	$ 91,200	$ 30,400					$ 91,200	$ 91,200
Elevator Cabs - Interior Finish	10	48	0	0	Now	2	Each	$4,955.00	$ 9,910					$ 9,910	$ 9,910	$ 19,820
Hoist/Cable Electric Traction passenger elevator 2,000-lb (Up to	20	48	0	0	Now	1	Each	$185,416.10	$ 185,416					$ 185,416	$ 185,416	$ 185,416
Hoist/Cable Electric Traction passenger elevator 3,500-lb (Up to	20	48	0	0	Now	1	Each	$242,547.25	$ 242,547					$ 242,547	$ 242,547	$ 242,547
Fire Sprinkler System - High-Rise Apartment Building	50	48	2	0	Now	78500	SF	$2.82	$ 221,708						$ -	$ -
Ceramic Tile (Common Area)	40	48	0	0	Now	300	SF	$5.80	$ 1,739						$ -	$ -
VCT 12x12 Tile (Common Area)	15	18	0	2	Now	21700	SF	$1.99	$ 43,224	$ 8,645	$ 8,645				$ 43,224	$ 43,224
Carpet - Average Quality (Common Area)	6	8	0	1	Now	7745	SF	$2.86	$ 22,173		$ 7,391	$ 7,391	$ 7,391		$ 44,346	$ 66,519
Acoustical Ceiling Tile (Common Area)	15	18	0	0	Now	28000	SF	$1.01	$ 28,302						$ 28,302	$ 28,302
Solid core Fire Door (Common Area)	30	23	7	0	Now	8	Each	$298.29	$ 2,386						$ -	$ -
Kitchen Cabinets and Countertops (Laminates/Wood) (Commor	20	23	0	0	Now	3	Each	$1,486.50	$ 4,460					$ 4,460	$ 4,460	$ 4,460
Traditional Refrigerator (Common Area)	15	13	2	0	Now	3	Each	$454.87	$ 1,365						$ 1,365	$ 1,365
Electric Range (Common Area)	20	13	7	0	Now	2	Each	$346.00	$ 692					$ 692	$ 692	$ 692
Microwave (Common Area)	10	18	0	0	Now	1	Each	$125.00	$ 125					$ 125	$ 125	$ 250
Tub/Shower Surround - Tile (Apartment)	30	23	7	0	Now	96	SF	$500.00	$ 48,000						$ -	$ -
Durable Sheet Flooring (Entire 1-Bedroom Apartment)	15	0	15	2	End of Cycle	96	Each	$1,090.10	$ 104,650	$ 20,930	$ 20,930				$ 104,650	$ 104,650
Durable Sheet Flooring (Entire 2-Bedroom Apartment)	15	0	15	1	End of Cycle	4	Each	$1,189.20	$ 4,757	$ 1,586					$ 4,757	$ 4,757
Standard Bath Vanity Cabinets (Unit)	20	23	0	1	Now	96	Each	$247.75	$ 23,784				$ 7,928	$ 7,928	$ 15,856	$ 15,856
Standard Kitchen Cabinets and Countertops (Unit)	20	23	0	1	Now	100	Each	$1,486.50	$ 148,650				$ 49,550	$ 49,550	$ 99,100	$ 99,100
Bath Countertops (Standard Laminate) (Unit)	15	13	2	0	Now	4	Each	$114.46	$ 458						$ 458	$ 458
Traditional Refrigerator (Unit)	12	10	2	0	Now	100	Each	$454.87	$ 45,487						$ 45,487	$ 45,487
Electric Range (Unit)	15	10	5	0	Now	100	Each	$346.00	$ 34,600						$ 34,600	$ 34,600

UNINFLATED COSTS:

TOTAL RESERVE REPLACEMENT	$ 129,311	$ 74,967	$ 31,434	$ 91,132	$ 560,306	$ 1,452,693	$ 1,538,792
Per unit	$ 1,293	$ 750	$ 314	$ 911	$ 5,603	$ 1,453	$ 769

3.0% PER YEAR INFLATED COSTS:

3.0% INFLATION FACTOR	$ 197,182	$ 116,018	$ 49,940	$ 160,366	$ 983,809	$ 2,341,944	$ 2,446,520
Per unit	$ 1,972	$ 1,160	$ 499	$ 1,604	$ 9,838	$ 2,342	$ 1,223

* Note: The Effective Age does not necessarily equal the actual age. Many factors determine the effective age of a certain component including preventative maintenance programs. In addition, replacement of the majority of the components has been spread over a number of years to help alleviate inflated reserve requirements.

** Owner Provided Cost, which D3G finds reasonable

*** This is an operating cost; therefore it is not considered a capital item

REPLACEMENT RESERVE ANALYSIS (REMAINDER OF LONG TERM COSTS - YEARS 21-30)
MULTI-FAMILY

Project: Hillside Manor
Address: 2889 SE Hillside Street
City, State: Milwaukie, Oregon

Gross Square Footage: 78,500
Year Built: 1970 to 1970
Number of Units: 100

Component	Estimated Useful Life	Effective Age	Assessed RUL	Duration	Replace When	Total Number	Unit of Measurement	Unit Cost	Total Cost	20-Year Total	Year 21	Year 22	Year 23	Year 24	Year 25
Parking, Re-Surface or Replace Asphalt Paving	25	48	0	0	Now	37745	SF	$0.99	$ 37,405	$ -					$ 37,405
Parking, Asphalt Sealing	5	13	0	0	Now	37745	SF	$0.12	$ 4,488	$ 17,952					$ 4,488
Parking Stripes (Per Car)	15	13	2	0	Now	59	Each	$8.87	$ 523	$ 523					
Pedestrian Paving - Concrete Sidewalks and Patios	50	48	20	2	End of Cycle	5500	SF	$1.24	$ 6,813	$ 4,088	$ 1,363	$ 1,363			
Chain-Link Fencing 4' High	40	28	12	2	End of Cycle	565	LF	$7.82	$ 4,418	$ 4,418					
Project Sign	25	13	12	0	Now	1	Each	$1,189.20	$ 1,189	$ -					$ 1,189
Retaining Wall - Concrete	40	48	15	2	End of Cycle	80	LF	$189.28	$ 15,142	$ 15,142					
Emergency Generator (Diesel-Engine) 100kw	25	13	12	0	End of Cycle	1	Each	$36,270.60	$ 36,271	$ 36,271					
Trash Compactor - 175-LB Capacity	20	23	0	0	Now	1	Each	$24,775.00	$ 24,775	$ 24,775					
Painting, Exterior	8	1	7	1	Now	49620	SF	$0.74	$ 36,878	$ 73,755			$ 12,293	$ 12,293	$ 12,293
Concrete Steps	50	48	20	0	End of Cycle	70	LF	$48.56	$ 3,399	$ 3,399					
Concrete Balcony/Patio Slab	40	48	21	2	End of Cycle	16	SF	$5,000.00	$ 80,000	$ 32,000	$ 16,000	$ 16,000	$ 16,000		
Common Area Hollow Metal Door - Single (Conditioned Space)	25	48	25	0	End of Cycle	15	Each	$335.95	$ 5,039	$ -					$ 5,039
Hollow Metal Door - Double (Conditioned Space)	25	48	25	0	End of Cycle	2	Each	$614.42	$ 1,229	$ -					$ 1,229
Automatic Door Opener	30	18	12	0	Now	4	Each	$1,189.20	$ 4,757	$ -					
Storefront System with Single Door	50	48	31	0	End of Cycle	6	Each	$864.15	$ 5,185	$ -					
Casement Window (7 + Stories) (Aluminum)	35	48	0	0	Now	8	Each	$545.00	$ 4,360	$ -					
Fixed Windows (7 + Stories) (Aluminum)	35	23	12	0	Now	4	Each	$1,200.00	$ 4,800	$ -					
Sliding Window (7 + Stories) (Vinyl)	30	14	16	2	End of Cycle	216	Each	$525.00	$ 113,400	$ 113,400					
Modified Bitumen Roofing (High-Rise)	20	7	13	2	End of Cycle	9160	SF	$11.20	$ 102,597	$ 102,597					
Sewer Mains - Cast Iron	75	48	27	0	End of Cycle	1	Each	$3,468.50	$ 3,469	$ -					
Sewage Ejectors	50	48	2	0	Now	1	Each	$7,500.00	$ 7,500	$ -					
DHW Circulating Pumps 1/6 HP	15	9	6	0	End of Cycle	2	Each	$1,709.48	$ 3,419	$ 3,419	$ 3,419				
DHW Circulating Pumps 1/8 HP	15	9	6	0	End of Cycle	2	Each	$1,215.00	$ 2,430	$ 2,430	$ 2,430				
Hot Water Storage Tank - Up to 240 Gallon	15	9	6	0	Now	1	Each	$1,189.20	$ 1,189	$ 1,189					
Boiler- Gas 600 mbtu/hr (DHW)	25	10	15	0	Now	2	Each	$15,400.00	$ 30,800	$ -					$ 30,800
Water Treatment Equipment	25	13	12	0	End of Cycle	1	Each	$5,623.93	$ 5,624	$ 5,624					
Central Vent & Exhaust (4-10-Story)	20	10	21	2	End of Cycle	20	Each	$2,225.00	$ 44,500	$ 17,800	$ 8,900	$ 8,900	$ 8,900		
Split Ductless A/C System 1.5-Ton	15	9	6	0	End of Cycle	1	Each	$1,305.00	$ 1,305	$ 1,305	$ 1,305				
Electric Air Handler (10 KW)	20	10	10	0	Now	1	Each	$753.16	$ 753	$ 753					
Electric Baseboard Heater	30	48	0	0	Now	450	LF	$34.09	$ 15,341	$ -					
Electric Unit Heater	30	18	12	0	Now	1	LF	$500.00	$ 500	$ -					
Traditional Electric PTAC Unit 3/4-Ton	15	14	1	1	Now	102	Each	$875.00	$ 89,250	$ 89,250					
Roof-top Gas-Fired Packaged Unit, Electric Cool (15-Ton)	15	8	7	1	Now	2	Each	$45,600.00	$ 91,200	$ 91,200					
Elevator Cabs - Interior Finish	10	48	0	0	Now	2	Each	$4,955.00	$ 9,910	$ 19,820					
Hoist/Cable Electric Traction passenger elevator 2,000-lb (Up to	20	48	0	0	Now	1	Each	$185,416.10	$ 185,416	$ 185,416					
Hoist/Cable Electric Traction passenger elevator 3,500-lb (Up to	20	48	0	0	Now	1	Each	$242,547.25	$ 242,547	$ 242,547					
Fire Sprinkler System - High-Rise Apartment Building	50	48	2	0	Now	78500	SF	$2.82	$ 221,708	$ -					
Ceramic Tile (Common Area)	40	48	0	0	Now	300	SF	$5.80	$ 1,739	$ -					
VCT 12x12 Tile (Common Area)	15	18	0	2	Now	21700	SF	$1.99	$ 43,224	$ 43,224					
Carpet - Average Quality (Common Area)	6	8	0	1	Now	7745	SF	$2.86	$ 22,173	$ 66,519			$ 7,391	$ 7,391	$ 7,391
Acoustical Ceiling Tile (Common Area)	15	18	0	0	Now	28000	SF	$1.01	$ 28,302	$ 28,302					
Solid core Fire Door (Common Area)	30	23	7	0	Now	8	Each	$298.29	$ 2,386	$ -					
Kitchen Cabinets and Countertops (Laminates/Wood) (Common	20	23	0	0	Now	3	Each	$1,486.50	$ 4,460	$ 4,460					
Traditional Refrigerator (Common Area)	15	13	2	0	Now	3	Each	$454.87	$ 1,365	$ 1,365					
Electric Range (Common Area)	20	13	7	0	Now	2	Each	$346.00	$ 692	$ 692					
Microwave (Common Area)	10	18	0	0	Now	1	Each	$125.00	$ 125	$ 250					
Tub/Shower Surround - Tile (Apartment)	30	23	7	0	Now	96	SF	$500.00	$ 48,000	$ -					
Durable Sheet Flooring (Entire 1-Bedroom Apartment)	15	0	15	2	End of Cycle	96	Each	$1,090.10	$ 104,650	$ 104,650					
Durable Sheet Flooring (Entire 2-Bedroom Apartment)	15	0	15	1	End of Cycle	4	Each	$1,189.20	$ 4,757	$ 4,757					
Standard Bath Vanity Cabinets (Unit)	20	23	0	1	Now	96	Each	$247.75	$ 23,784	$ 15,856	$ 7,928				
Standard Kitchen Cabinets and Countertops (Unit)	20	23	0	1	Now	100	Each	$1,486.50	$ 148,650	$ 99,100	$ 49,550				
Bath Countertops (Standard Laminate) (Unit)	15	13	2	0	Now	4	Each	$114.46	$ 458	$ 458					
Traditional Refrigerator (Unit)	12	10	2	0	Now	100	Each	$454.87	$ 45,487	$ 45,487				$ 45,487	
Electric Range (Unit)	15	10	5	0	Now	100	Each	$346.00	$ 34,600	$ 34,600					

UNINFLATED COSTS:

TOTAL RESERVE REPLACEMENT	$ 1,538,792	$ 90,895	$ 26,263	$ 44,584	$ 65,170	$ 99,834
Per unit	$ 769	$ 909	$ 263	$ 446	$ 652	$ 998

3.0% PER YEAR INFLATED COSTS:

3.0% INFLATION FACTOR	$ 2,446,520	$ 161,070	$ 47,362	$ 83,819	$ 128,620	$ 201,777
Per unit	$ 1,223	$ 1,611	$ 474	$ 838	$ 1,286	$ 2,018

* Note: The Effective Age does not necessarily equal the actual age. Many factors determine the effective age of a certain component including preventative maintenance programs. In addition, replacement of the majority of the components has been spread over a number of years to help alleviate inflated reserve requirements.
** Owner Provided Cost, which D3G finds reasonable
*** This is an operating cost; therefore it is not considered a capital item

REPLACEMENT RESERVE ANALYSIS (REMAINDI

MULTI-FAMILY

Project: Hillside Manor
Address: 2889 SE Hillside Street
City, State: Milwaukie, Oregon

Component	Estimated Useful Life	Effective Age	Assessed RUL	Duration	Replace When	Total Number	Unit of Measurement	Unit Cost	Total Cost	Year 26	Year 27	Year 28	Year 29	Year 30	21-30 Year Total	1-30 Year Total	30 Year Total
Parking, Re-Surface or Replace Asphalt Paving	25	48	0	0	Now	37745	SF	$0.99	$ 37,405						$ 37,405	$ 37,405	$ 37,405
Parking, Asphalt Sealing	5	13	0	0	Now	37745	SF	$0.12	$ 4,488					$ 4,488	$ 8,976	$ 26,927	$ 26,927
Parking Stripes (Per Car)	15	13	2	0	Now	59	Each	$8.87	$ 523					$ 523	$ 523	$ 1,047	$ 1,047
Pedestrian Paving - Concrete Sidewalks and Patios	50	48	20	2	End of Cycle	5500	SF	$1.24	$ 6,813						$ 2,725	$ 6,813	$ 6,813
Chain-Link Fencing 4' High	40	28	12	2	End of Cycle	565	LF	$7.82	$ 4,418						$ -	$ 4,418	$ 4,418
Project Sign	25	13	12	0	Now	1	Each	$1,189.20	$ 1,189						$ 1,189	$ 1,189	$ 1,189
Retaining Wall - Concrete	40	48	15	2	End of Cycle	80	LF	$189.28	$ 15,142						$ -	$ 15,142	$ 15,142
Emergency Generator (Diesel-Engine) 100kw	25	13	12	0	End of Cycle	1	Each	$36,270.60	$ 36,271						$ -	$ 36,271	$ 36,271
Trash Compactor - 175-LB Capacity	20	23	0	0	Now	1	Each	$24,775.00	$ 24,775						$ -	$ 24,775	$ 24,775
Painting, Exterior	8	1	7	1	Now	49620	SF	$0.74	$ 36,878						$ 36,878	$ 110,633	$ 110,633
Concrete Steps	50	48	20	0	End of Cycle	70	LF	$48.56	$ 3,399						$ -	$ 3,399	$ 3,399
Concrete Balcony/Patio Slab	40	48	21	2	End of Cycle	16	SF	$5,000.00	$ 80,000						$ 48,000	$ 80,000	$ 80,000
Common Area Hollow Metal Door - Single (Conditioned Space)	25	48	25	0	End of Cycle	15	Each	$335.95	$ 5,039						$ 5,039	$ 5,039	$ 5,039
Hollow Metal Door - Double (Conditioned Space)	25	48	25	0	End of Cycle	2	Each	$614.42	$ 1,229						$ 1,229	$ 1,229	$ 1,229
Automatic Door Opener	30	18	12	0	Now	4	Each	$1,189.20	$ 4,757					$ 4,757	$ 4,757	$ 4,757	$ 4,757
Storefront System with Single Door	50	48	31	0	End of Cycle	6	Each	$864.15	$ 5,185						$ -	$ -	$ -
Casement Window (7 + Stories) (Aluminum)	35	48	0	0	Now	8	Each	$545.00	$ 4,360						$ -	$ -	$ -
Fixed Windows (7 + Stories) (Aluminum)	35	23	12	0	Now	4	Each	$1,200.00	$ 4,800						$ -	$ -	$ -
Sliding Window (7 + Stories) (Vinyl)	30	14	16	2	End of Cycle	216	Each	$525.00	$ 113,400						$ -	$ 113,400	$ 113,400
Modified Bitumen Roofing (High-Rise)	20	7	13	2	End of Cycle	9160	SF	$11.20	$ 102,597						$ -	$ 102,597	$ 102,597
Sewer Mains - Cast Iron	75	48	27	0	End of Cycle	1	Each	$3,468.50	$ 3,469		$ 3,469				$ 3,469	$ 3,469	$ 3,469
Sewage Ejectors	50	48	2	0	Now	1	Each	$7,500.00	$ 7,500						$ -	$ -	$ -
DHW Circulating Pumps 1/6 HP	15	9	6	0	End of Cycle	2	Each	$1,709.48	$ 3,419						$ 3,419	$ 6,838	$ 6,838
DHW Circulating Pumps 1/8 HP	15	9	6	0	End of Cycle	2	Each	$1,215.00	$ 2,430						$ 2,430	$ 4,860	$ 4,860
Hot Water Storage Tank - Up to 240 Gallon	15	9	6	0	Now	1	Each	$1,189.20	$ 1,189					$ 1,189	$ 1,189	$ 2,378	$ 2,378
Boiler- Gas 600 mbtu/hr (DHW)	25	10	15	0	Now	2	Each	$15,400.00	$ 30,800						$ 30,800	$ 30,800	$ 30,800
Water Treatment Equipment	25	13	12	0	End of Cycle	1	Each	$5,623.93	$ 5,624						$ -	$ 5,624	$ 5,624
Central Vent & Exhaust (4-10-Story)	20	10	21	2	End of Cycle	20	Each	$2,225.00	$ 44,500						$ 26,700	$ 44,500	$ 44,500
Split Ductless A/C System 1.5-Ton	15	9	6	0	End of Cycle	1	Each	$1,305.00	$ 1,305						$ 1,305	$ 2,610	$ 2,610
Electric Air Handler (10 KW)	20	10	10	0	Now	1	Each	$753.16	$ 753						$ -	$ 753	$ 753
Electric Baseboard Heater	30	48	0	0	Now	450	LF	$34.09	$ 15,341					$ 15,341	$ 15,341	$ 15,341	$ 15,341
Electric Unit Heater	30	18	12	0	Now	1	LF	$500.00	$ 500					$ 500	$ 500	$ 500	$ 500
Traditional Electric PTAC Unit 3/4-Ton	15	14	1	1	Now	102	Each	$875.00	$ 89,250				$ 29,750	$ 59,500	$ 89,250	$ 178,500	$ 178,500
Roof-top Gas-Fired Packaged Unit, Electric Cool (15-Ton)	15	8	7	1	Now	2	Each	$45,600.00	$ 91,200				$ 30,400	$ 60,800	$ 91,200	$ 182,400	$ 182,400
Elevator Cabs - Interior Finish	10	48	0	0	Now	2	Each	$4,955.00	$ 9,910					$ 9,910	$ 9,910	$ 29,730	$ 29,730
Hoist/Cable Electric Traction passenger elevator 2,000-lb (Up to	20	48	0	0	Now	1	Each	$185,416.10	$ 185,416						$ -	$ 185,416	$ 185,416
Hoist/Cable Electric Traction passenger elevator 3,500-lb (Up to	20	48	0	0	Now	1	Each	$242,547.25	$ 242,547						$ -	$ 242,547	$ 242,547
Fire Sprinkler System - High-Rise Apartment Building	50	48	2	0	Now	78500	SF	$2.82	$ 221,708						$ -	$ -	$ -
Ceramic Tile (Common Area)	40	48	0	0	Now	300	SF	$5.80	$ 1,739						$ -	$ -	$ -
VCT 12x12 Tile (Common Area)	15	18	0	2	Now	21700	SF	$1.99	$ 43,224			$ 8,645	$ 8,645	$ 25,935	$ 43,224	$ 86,448	$ 86,448
Carpet - Average Quality (Common Area)	6	8	0	1	Now	7745	SF	$2.86	$ 22,173				$ 7,391	$ 14,782	$ 44,346	$ 110,866	$ 110,866
Acoustical Ceiling Tile (Common Area)	15	18	0	0	Now	28000	SF	$1.01	$ 28,302					$ 28,302	$ 28,302	$ 56,605	$ 56,605
Solid core Fire Door (Common Area)	30	23	7	0	Now	8	Each	$298.29	$ 2,386					$ 2,386	$ 2,386	$ 2,386	$ 2,386
Kitchen Cabinets and Countertops (Laminates/Wood) (Common	20	23	0	0	Now	3	Each	$1,486.50	$ 4,460						$ -	$ 4,460	$ 4,460
Traditional Refrigerator (Common Area)	15	13	2	0	Now	3	Each	$454.87	$ 1,365					$ 1,365	$ 1,365	$ 2,729	$ 2,729
Electric Range (Common Area)	20	13	7	0	Now	2	Each	$346.00	$ 692						$ -	$ 692	$ 692
Microwave (Common Area)	10	18	0	0	Now	1	Each	$125.00	$ 125					$ 125	$ 125	$ 375	$ 375
Tub/Shower Surround - Tile (Apartment)	30	23	7	0	Now	96	SF	$500.00	$ 48,000					$ 48,000	$ 48,000	$ 48,000	$ 48,000
Durable Sheet Flooring (Entire 1-Bedroom Apartment)	15	0	15	2	End of Cycle	96	Each	$1,090.10	$ 104,650			$ 20,930	$ 20,930	$ 62,790	$ 104,650	$ 209,299	$ 209,299
Durable Sheet Flooring (Entire 2-Bedroom Apartment)	15	0	15	1	End of Cycle	4	Each	$1,189.20	$ 4,757				$ 1,586	$ 3,171	$ 4,757	$ 9,514	$ 9,514
Standard Bath Vanity Cabinets (Unit)	20	23	0	1	Now	96	Each	$247.75	$ 23,784						$ 7,928	$ 23,784	$ 23,784
Standard Kitchen Cabinets and Countertops (Unit)	20	23	0	1	Now	100	Each	$1,486.50	$ 148,650						$ 49,550	$ 148,650	$ 148,650
Bath Countertops (Standard Laminate) (Unit)	15	13	2	0	Now	4	Each	$114.46	$ 458					$ 458	$ 458	$ 916	$ 916
Traditional Refrigerator (Unit)	12	10	2	0	Now	100	Each	$454.87	$ 45,487						$ 45,487	$ 90,974	$ 90,974
Electric Range (Unit)	15	10	5	0	Now	100	Each	$346.00	$ 34,600					$ 34,600	$ 34,600	$ 69,200	$ 69,200

UNINFLATED COSTS:

TOTAL RESERVE REPLACEMENT	$ -	$ 3,469	$ 29,575	$ 98,701	$ 378,922	$ 837,412	$ 2,376,204	$ 2,376,204
Per unit	$ -	$ 35	$ 296	$ 987	$ 3,789	$ 837	$ 792	$ 792

3.0% PER YEAR INFLATED COSTS:

3.0% INFLATION FACTOR	$ -	$ 7,480	$ 69,695	$ 232,596	$ 892,954	$ 1,825,373	$ 4,271,893	$ 4,271,893
Per unit	$ -	$ 75	$ 697	$ 2,326	$ 8,930	$ 1,825	$ 1,424	$ 1,424

* Note: The Effective Age does not necessarily equal the actual age. Many factors determine the effective age of a certain component including preventative maintenance programs. In addition, replacement of the majority of the components has been spread over a number of years to help alleviate inflated reserve requirements.

** Owner Provided Cost, which D3G finds reasonable

*** This is an operating cost; therefore it is not considered a capital item

EXHIBIT 11.4:

Color Site Photographs

PHOTO #1

Property identification sign

PHOTO #2

Building front elevation

PHOTO #3

Building side elevation

PHOTO #4

Building rear elevation

PHOTO #5

Parking area

PHOTO #6

Roof section

PHOTO #7

HVAC package unit

PHOTO #8

Exterior stair

PHOTO #9

Community garden

PHOTO #10

Walking path and lawn

PHOTO #11

Electrical transformer

PHOTO #12

Emergency generator

PHOTO #13

Natural gas riser

PHOTO #14

Bicycle storage

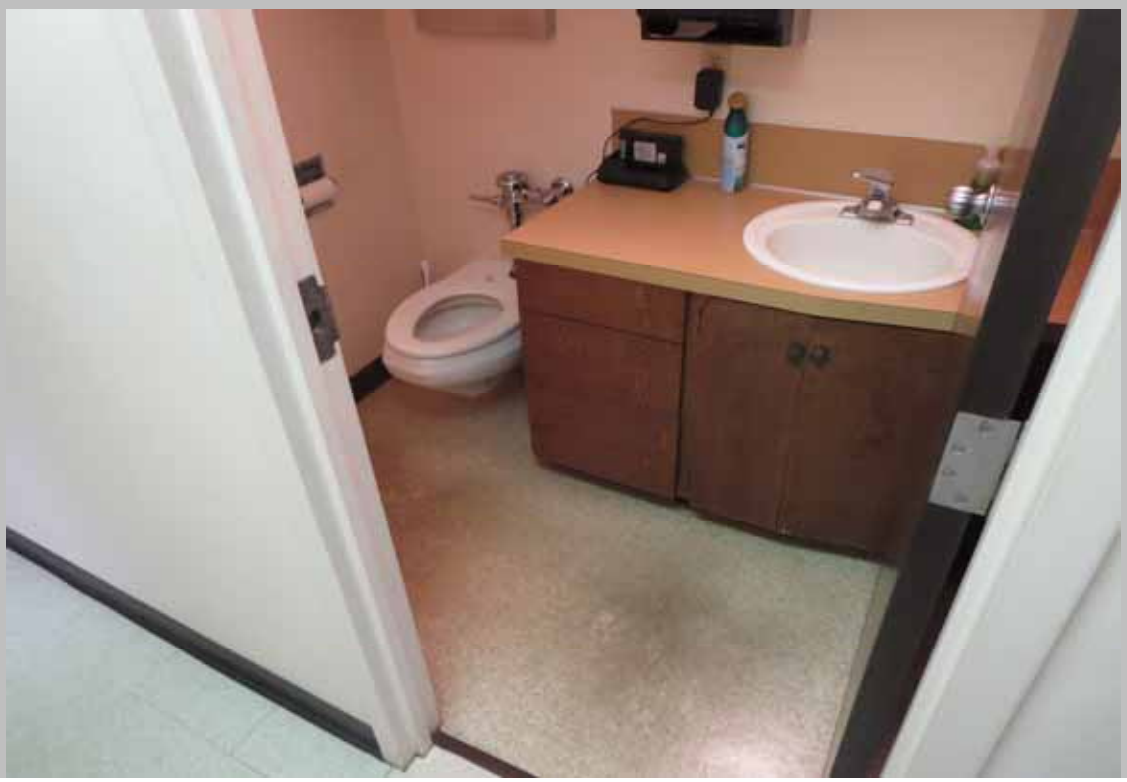
PHOTO #15

Shed

PHOTO #16

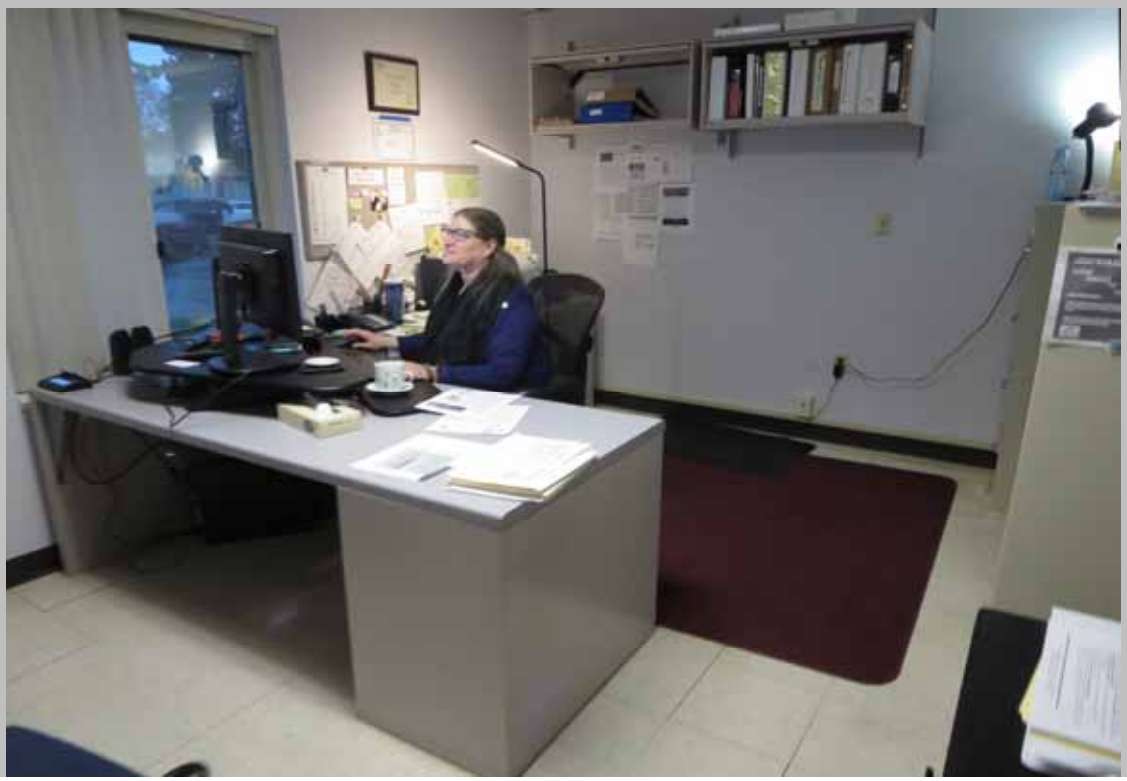
Staff kitchen

PHOTO #17



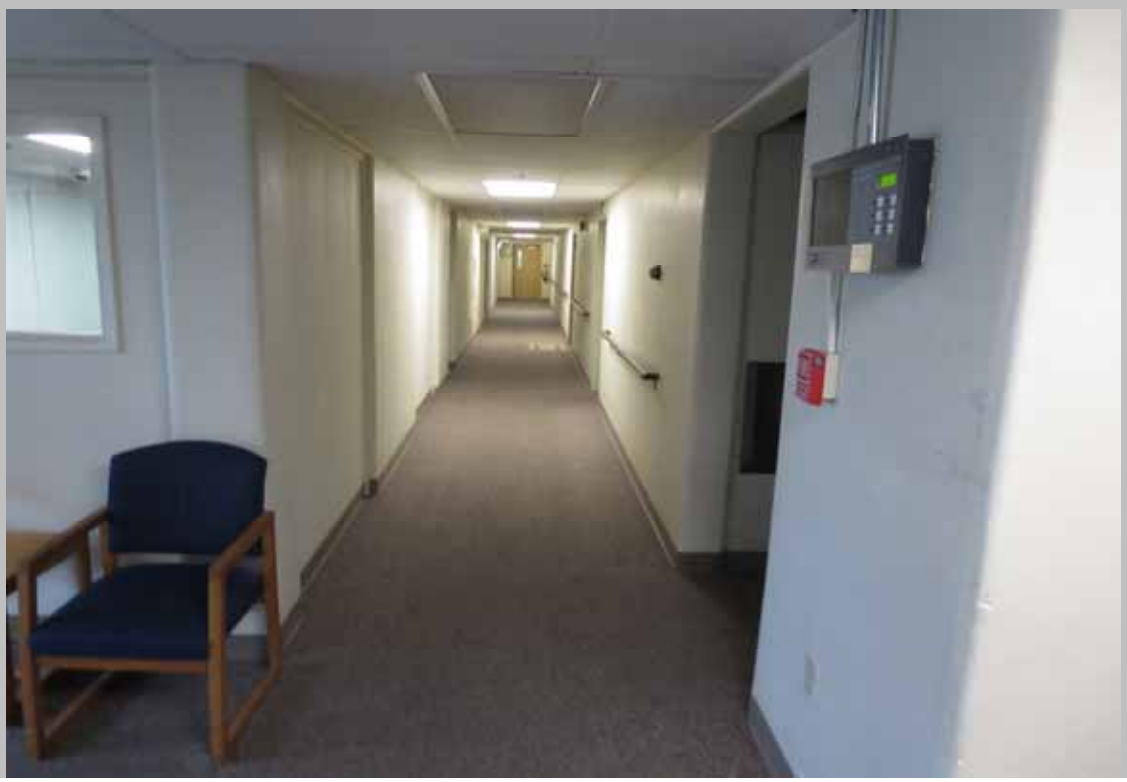
Staff restroom

PHOTO #18



Leasing office

PHOTO #19



Common hallway

PHOTO #20

Maintenance room

PHOTO #21

Domestic hot water boilers

PHOTO #22

Water filtration equipment

PHOTO #23

Resident services office

PHOTO #24

Common laundry

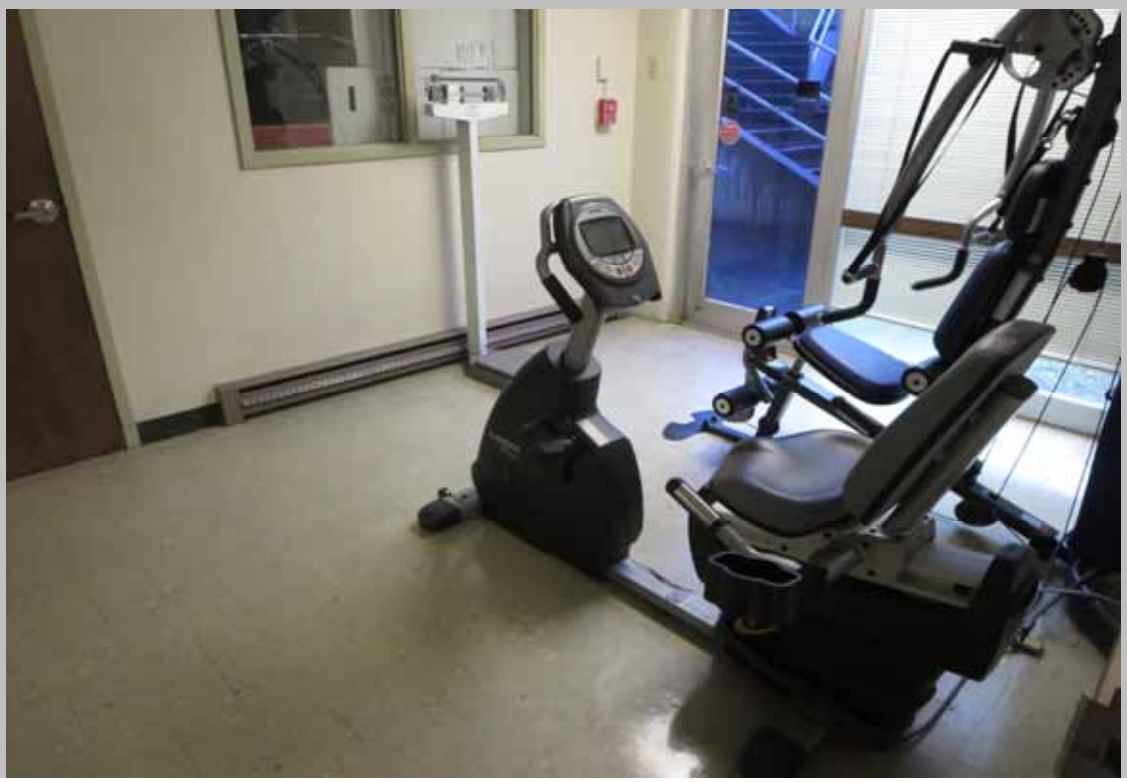
PHOTO #25

Air handler unit

PHOTO #26

Trash compactor and dumpster

PHOTO #27



Fitness center

PHOTO #28

Common restroom

PHOTO #29

Elevator lobby

PHOTO #30

Library

PHOTO #31

Community room

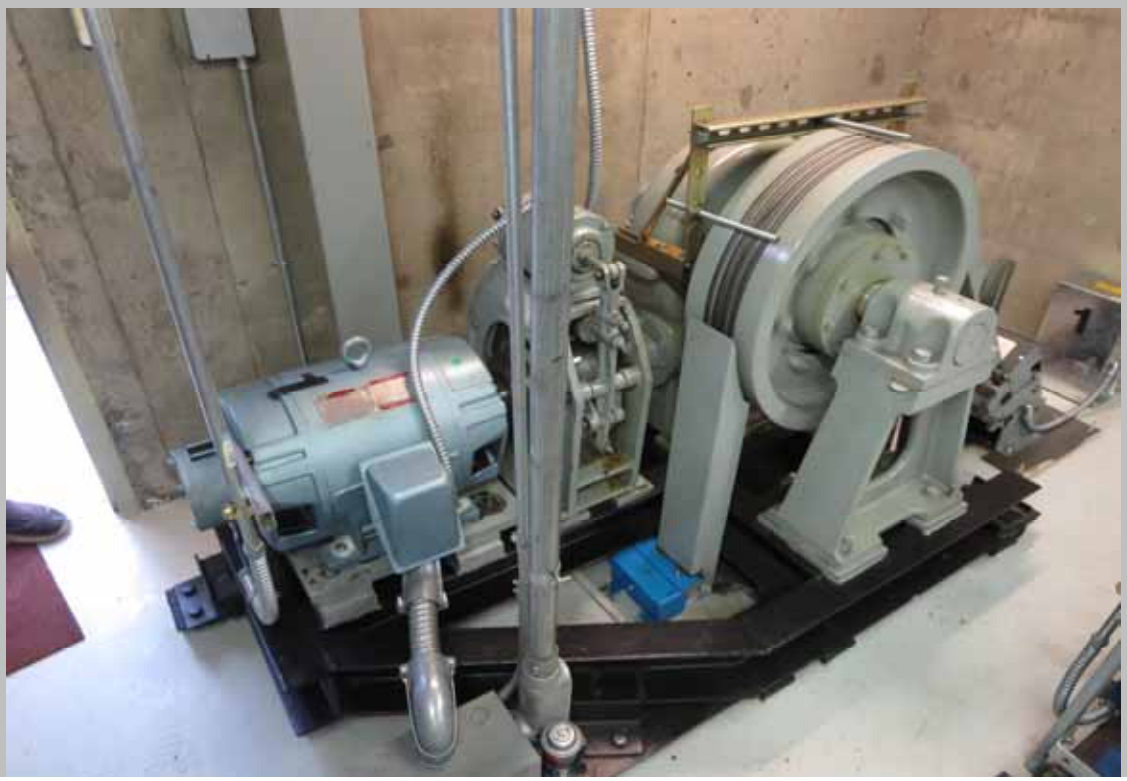
PHOTO #32

Resident storage

PHOTO #33

Mini split system

PHOTO #34



Elevator machine room

PHOTO #35

Electrical main distribution

PHOTO #36

Common balcony

PHOTO #37

Common stairwell

PHOTO #38

Trash chute

PHOTO #39

Dwelling unit kitchen

PHOTO #40

Dwelling unit bathroom with bathtub

PHOTO #41

Dwelling unit living room

PHOTO #42

Dwelling unit bedroom

PHOTO #43

Dwelling unit bathroom with shower

PHOTO #44

Handicapped dwelling unit kitchen

PHOTO #45

Handicapped dwelling unit bathroom

PHOTO #46

Dwelling unit PTAC

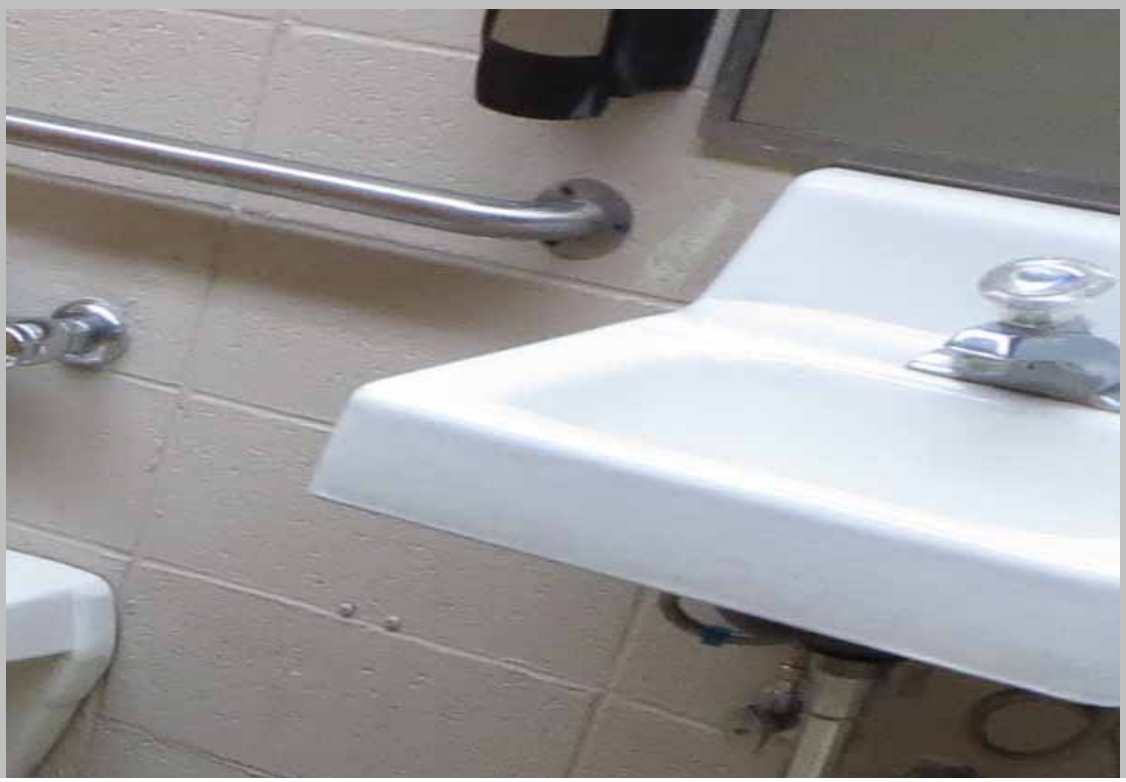
PHOTO #47

Dwelling unit baseboard heater

PHOTO #48

Restripe and configure handicapped parking spaces (Critical Repair)

PHOTO #49



Install levered hardware at women's common restroom (Critical Repair)

PHOTO #50

Install levered handle door hardware at noted locations (Critical Repair)

PHOTO #51

Widen door openings at noted locations (Critical Repair)

PHOTO #52

Install 36 inch rear grab bar at women's common restroom toilet (Critical Repair)

PHOTO #53

Install scald and abrasion protection at noted locations (Critical Repair)

PHOTO #54

Handicapped unit shower

PHOTO #55

Install GFCI protected outlets at noted locations (Critical Repair)

PHOTO #56

Repair switch cover at unit 903 (Critical Repair)

PHOTO #57

Clear trees and debris from common lawn (Non-Critical Repair)

PHOTO #58

Seal coat parking areas (Non-Critical Repair)

PHOTO #59

Restripe and mark parking areas (Non-Critical Repair)

PHOTO #60

Repair water main leak (Non-Critical Repair)

PHOTO #61

Repair ceiling at unit 711 (Non-Critical Repair)

PHOTO #62

Repair ceiling at unit 304 (Non-Critical Repair)

PHOTO #63

Repair ceiling at unit 306 (Non-Critical Repair)

PHOTO #64

Replace original casement windows (Non-Critical Repair)

PHOTO #65

Replace original galvanized plumbing (Non-Critical Repair)

PHOTO #66

Clean dwelling unit ventilation ducts and registers (Non-Critical Repair)

PHOTO #67

Refurbish interior elevator cabs (Non-Critical Repair)

PHOTO #68

Replace elevator equipment (Non-Critical Repair)

PHOTO #69

Replace common area restroom tile (Non-Critical Repair)

PHOTO #70

Replace common areas VCT flooring (Non-Critical Repair)

PHOTO #71

Replace common area carpeting (Non-Critical Repair)

PHOTO #72

Replace common area cabinets and counters (Non-Critical Repair)

PHOTO #73

Replace refrigerators with Energy Star refrigerators (Non-Critical Repair)

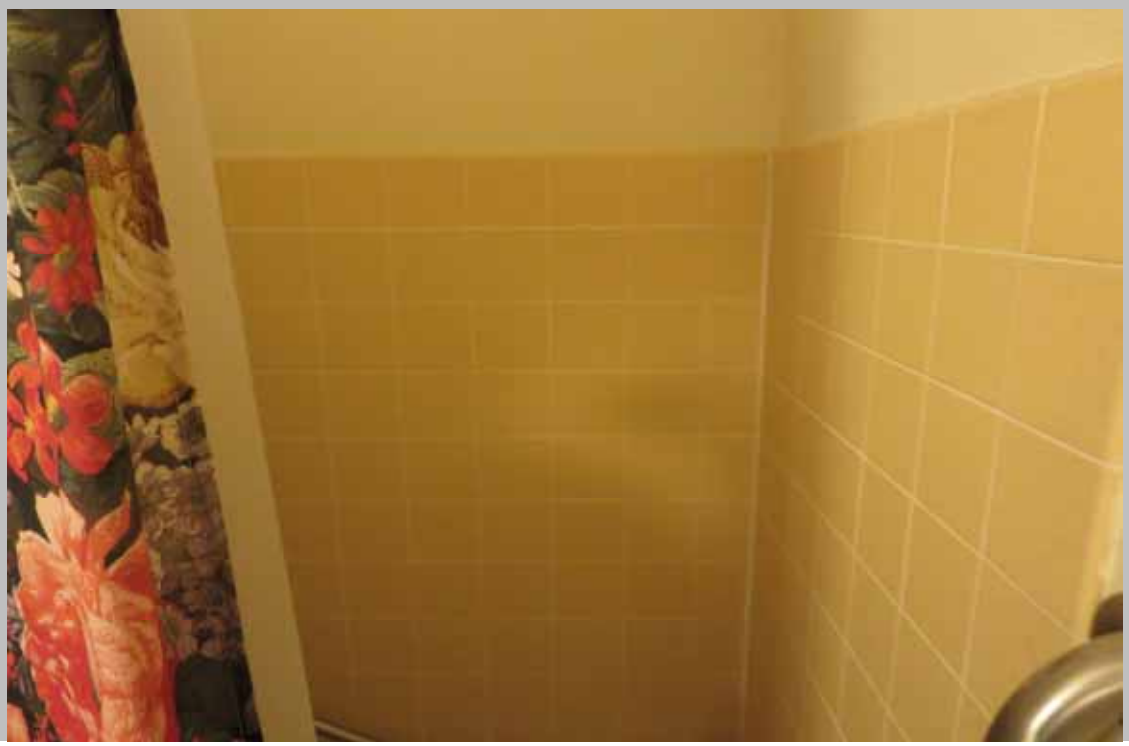
PHOTO #74

Replace ranges (Non-Critical Repair)

PHOTO #75

Replace common area appliances (Non-Critical Repair)

PHOTO #76

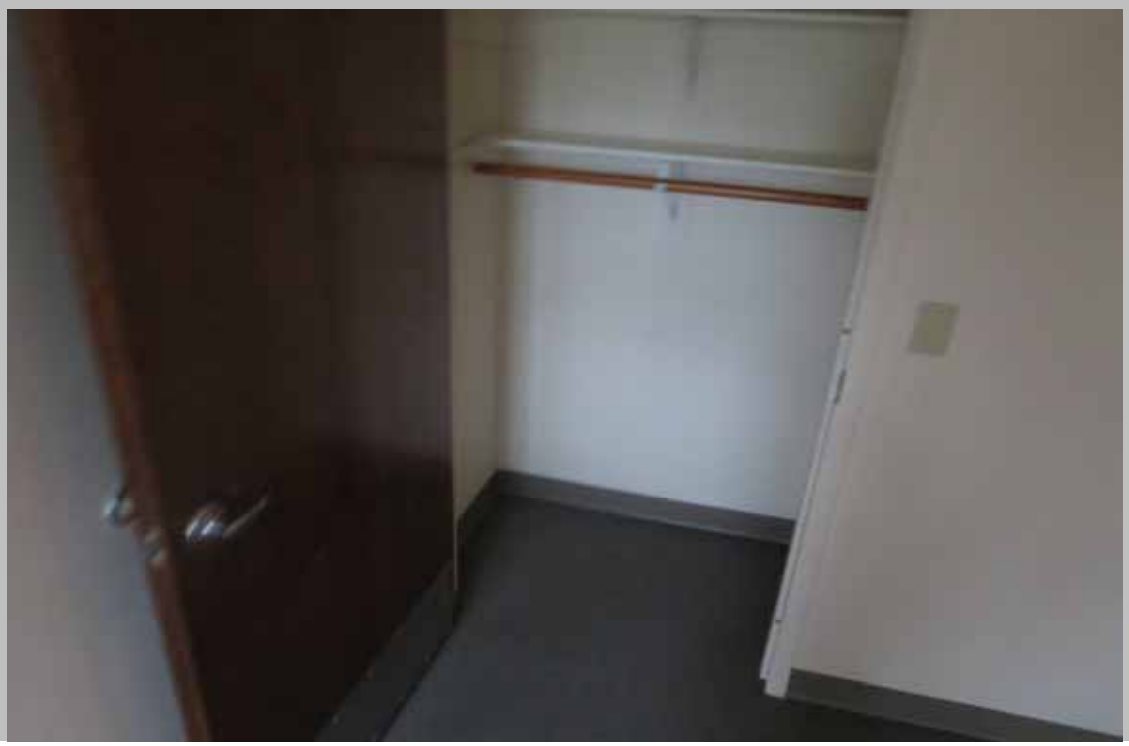


Replace tub/shower surrounds (Non-Critical Repair)

PHOTO #77

Replace dwelling unit VCT (Non-Critical Repair)

PHOTO #78



Replace dwelling unit carpeting (Non-Critical Repair)

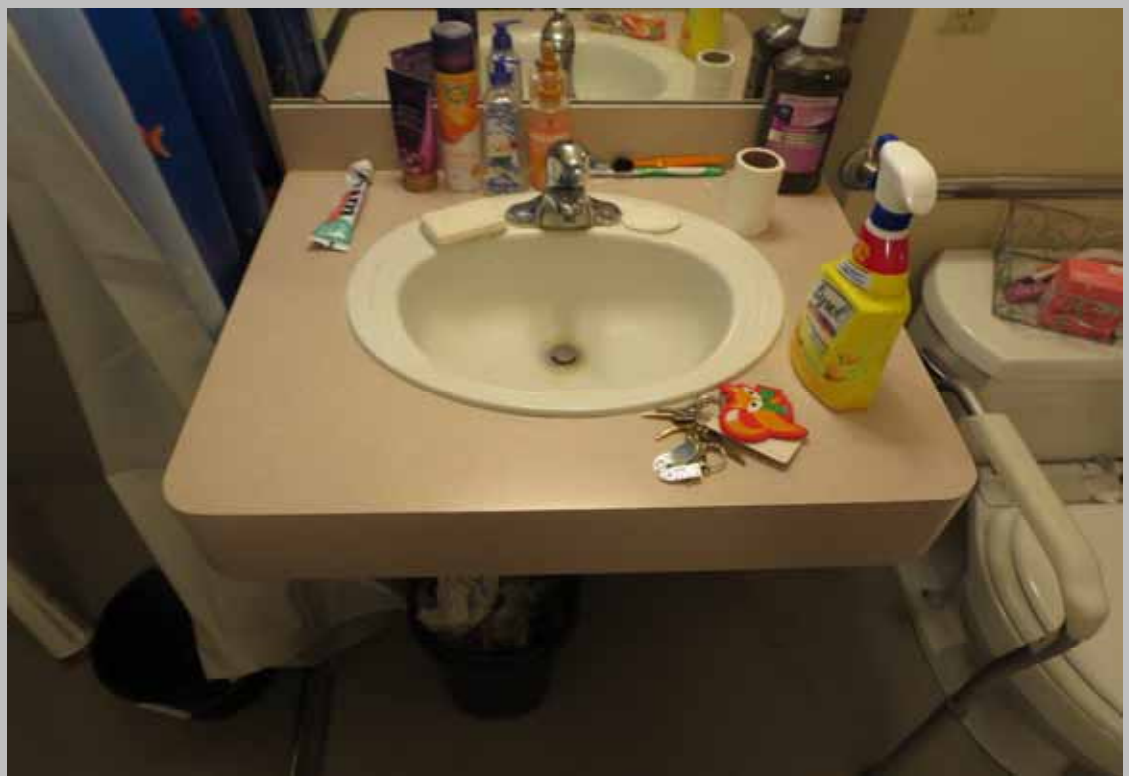
PHOTO #79

Replace common vanities (Non-Critical Repair)

PHOTO #80

Replace dwelling unit kitchen cabinets and counters (Non-Critical Repair)

PHOTO #81



Replace dwelling unit bathroom counters (Non-Critical Repair)

PHOTO #82

Replace inefficient fluorescent fixtures (Non-Critical Repair)

PHOTO #83

Replace showerheads with low-flow fixtures (Non-Critical Repair)

PHOTO #84

Install low-flow aerators in kitchens (Non-Critical Repair)

PHOTO #85

Replace inefficient incandescent fixtures (Non-Critical Repair)

EXHIBIT 11.5:

Forensic Reports

PIONEER
PEST MANAGEMENT

Experience the Pioneer Difference

March 14, 2018

Subject: Wood Destroying Organism Inspection Report
Hillside Manor

At your request, an exterior only Wood Destroying Organism Inspection was conducted at Hillside Manor 2889 SE Hillside Ct on March 13, 2018.

A report of said inspection is forwarded herein as an enclosure. Pioneer Pest Management is responsible for reporting on conditions visible at the time of inspection and does not assume or imply specific conditions not visible at the time. The attached report is a statement of those conditions.

Pioneer Pest Management is a private pest management company providing exclusive services for the conduct of unbiased inspections of buildings and structural conditions. This report is offered as a service, for which there is no offered or implied warranty for the general or specific condition of the structures on which we report. Liability for report conditions is limited to the total inspection fee paid.

A certification and statement of limiting conditions for the contents of the enclosed report is attached. Thank you for using Pioneer Pest Management.

Respectfully submitted,

Eric Boam
Technical Trainer/ Associate Certified Entomologist
Oregon Pesticide Applicator, Structural - 0171157

Summary of Observations

This building appears to be constructed with average craftsmanship and average finish in comparison with other buildings constructed in the immediate vicinity of similar age. The building exhibit the normal and expected wear characteristics of occupancy. The scope of the exterior inspection included a ground level pest and dry rot inspection only. The roof and attic were not inspected and are excluded from this report.

The diagrams in this report make no distinction as to which floor level findings are noted. All findings in this report diagram are made from the ground level and notes in diagram will reference findings from a ground level perspective, regardless of floor level unless otherwise noted in the diagrams.

No inspection can accurately determine if wood destroying organisms and/or conducive conditions were present prior to performance of work or if conditions may still exist in concealed areas. It is the responsibility of the owner or his agents to disclose any information pertaining to wood destroying organisms or conducive conditions in these locations.

Ten interior units were inspected to provide a representative sample, all other interior units and crawlspaces are excluded from this report. A Findings Sheet is also enclosed for your convenience.

Pioneer Pest Management LLC
CERTIFICATE AND STATEMENT OF LIMITING CONDITIONS
CERTIFICATION

Pioneer Pest Management LLC certifies that:

1. Inspectors employed by the firm have no personal interest in or bias with respect to the contents of reports, participants in exchanges of real property, or owners of properties that may be inspected.
2. Assigned personnel have personally conducted the inspection under the conditions stated in the report. To the best of the firm's knowledge and belief, all statements and information contained in this report are true and correct; and the assigned inspector has not knowingly withheld any significant information.
3. The report is a written opinion of a qualified inspector and is based on conditions visible and evident at the time of inspection. It does not constitute a warranty of any nature.
4. All conclusions and opinions set forth in the report were provided by the assigned inspector unless otherwise indicated.

LIMITING CONDITIONS

The CERTIFICATION is subject to the following conditions and to such other specific and limiting conditions that may be set forth in the report.

1. **Pioneer Pest Management LLC** assumes no responsibility for matters of a legal nature affecting the condition of the property, structure(s), or proposed solutions for correction.
2. All sketches included in this report are not to scale and show approximate dimensions. Such sketches are provided to assist the reader in visualizing inspected conditions.
3. **Pioneer Pest Management LLC** assigned inspectors and employees are not required to give testimony or appear in court because of having conducted specific inspection, evaluation and testing functions with reference to the property or structures addressed in this report unless arrangements have been previously made.
4. **Pioneer Pest Management LLC** and employed personnel shall not be held responsible for conditions, damages, or infestations that were not reasonably evident at the time of inspection. Certain property features or conditions may be inaccessible by their nature. Such features or conditions cannot be observed or evaluated unless parts of the area inspected are excavated, torn out, or physically exposed. The inspection conducted this date was limited to visual inspection and non-destructive testing methods. Destructive inspecting and testing is defined as the opening of interior wall voids; removal of finished cabinet or closet areas; or any other action that requires the damage, destruction, marring, or permanent marking of the exterior and/or interior structural areas for the purposes of inspecting underlying structural, mechanical, electrical, or plumbing features of the building being inspected. The report is limited to the conditions observed.
5. **Pioneer Pest Management LLC** and employed personnel shall not be responsible for concealed conditions or conditions known by the property managers that are not revealed to the firm or otherwise apparent by careful, visual inspection at the time the inspection is performed. Should any person desire destructive evaluation methods be employed, the owner must be present at the time work is performed and/or a signed and notarized affidavit must be provided to the firm holding this firm harmless from any damages occurring. The affidavit must be on file with the firm prior to the commencement of said evaluation methods.
6. **Pioneer Pest Management LLC** and employed personnel are not licensed or qualified as engineers or certified technicians in any civil engineering, structural design, electrical, plumbing or mechanical profession. Conditions may be found during assessment work that require advice and further inspection by such qualified persons.
7. Neither all, nor any part of the report (including conclusions as to recommended actions, conditions; the identity of employees, professional designations, reference to any professional organizations, or the firm with which the employee is connected) shall be used for any purpose by anyone but the client specified in the report, without the previous written consent of **Pioneer Pest Management LLC,** nor shall it be conveyed by anyone to the public, without the written consent and approval of the firm.
8. **Pioneer Pest Management LLC** endeavors to perform its services in a professional manner consistent with the care and skill ordinarily exercised by similar inspection professionals. No warranty, expressed or implied, other than as set forth herein, is made or intended by performing the work identified in this agreement. Should this firm or its employees, be found negligent in the performance of services, it is agreed that the maximum total recovery against this firm or its employees shall be limited to the fee charged for said services. In the event any person or company makes a claim for any alleged error, omission, or other act arising out of their performance of professional services under this contract, each signer of this agreement agrees to defend and hold us harmless from any such claim, including reasonable attorney's fees and costs incurred by us in defending against the claim.

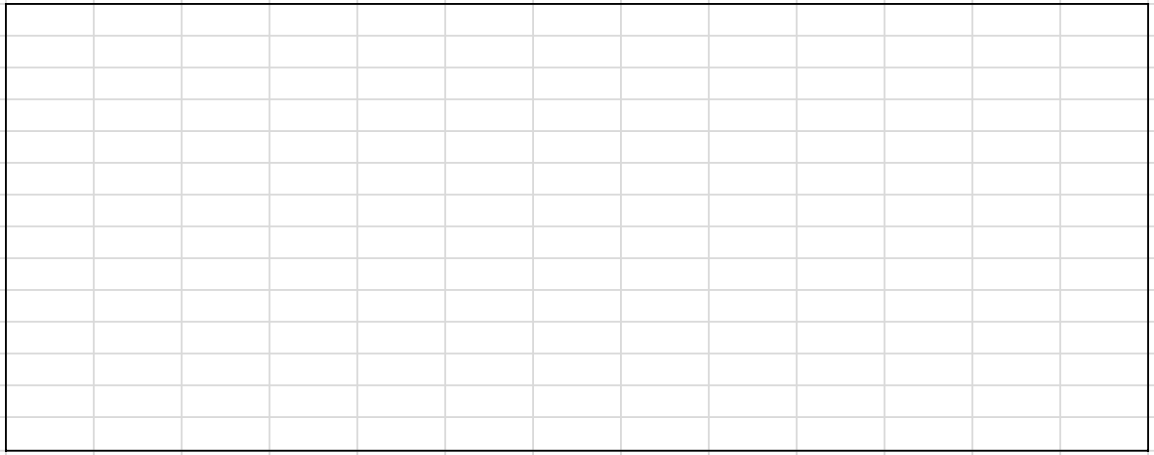
EXCLUSIONS

1. Mold: Pioneer Pest Management LLC and employed personnel will report on mold only as a symptom of moisture intrusion, poor ventilation, or poor indoor air quality. We are not qualified in any scientific field associated with microbiology or industrial hygiene. Mold references in this or subsequent reports are addressed as symptom of other conditions that may promote damage from or infestation by wood destroying organisms; or poor indoor air quality. If a more qualified opinion is desired, the services of a licensed and qualified industrial hygienist or microbiologist experienced in the field of mold toxicology. Reports and publications promulgated by public agencies, such as the United States Environmental Protection Agency, and other sources are forwarded for information purposes only, can be found in the public domain, and do not necessarily reflect the most current information available on mold, ventilation, indoor air quality and condensation issues.
2. Pioneer Pest Management LLC is not responsible for and will not report on the condition of floor coverings; window coverings; window covering operators (such as drapery rods); electric service receptacles being used at the time of the inspection; burned out light bulbs; hot tubs and spas; electronic controlled heating and cooling systems such as dual function (air conditioning and heating) heat pump installations; physical security fixtures lures such as alarm systems, door and window locking mechanisms; exterior landscaping features; areas beneath exterior decks, porches, and landings having less than 50 inches clearance between the ground and the lowest section of support beam or joist; and exterior storm water drain systems, except where such conditions might affect the structural soundness of the building being inspected

Item#	Code	Bldg	Unit #	Int	Ext	Crl	Photo #	Comments
1			201	x				No findings to report
2			202	x				No findings to report
3			205	x				No findings to report
4			309	x				No findings to report
5			402	x				No findings to report
6			501	x				No findings to report
7			613	x				No findings to report
8			702	x				No findings to report
9			813	x				No findings to report
10			902	x				No findings to report
11								

Exterior Findings Diagram

Hillside Manor
2889 SE Hillside Ct
Portland, OR 97222



No Exterior Findings

FRONT

WDO's
AB: Anobiid Beetles
CA: Carpenter Ants
DT: Dampwood Termites
MA: Moisture Ants
OB: Other Wood Infesting Beetles
RF: Rot Fungus
ST: Subterranean Termites
VA: Velvety Tree Ants

Conducive Conditions	
BG: Bare Ground	CSA: Crawl Space Access
CD: Conducive Debris	IV: Inadequate Ventilation
EW: Earth to Wood Contact	LC: Landscape Clearance
EM: Excessive Moisture	PL: Plumbing Leak
FC: Failed Caulking	SB: Missing Splash Block
IC: Inadequate Clearance	SW: Standing Water
RG/GL:Restricted Gutters/Gutter Leaks	VC: Vegetation Contact

Other Elements
IA: Inaccessible Areas
CP: Consult Other Professional
FV: Foundation Vent
RE: Remaining Evidence
RJ: Rim Joist
SC: Support Column
SF: Sub-Floor
SP: Sill Plate

Elements may be combined, (i.e.. CA/RE would indicate remaining Carpenter Ant evidence, SW/RE would indicate evidence of past standing water

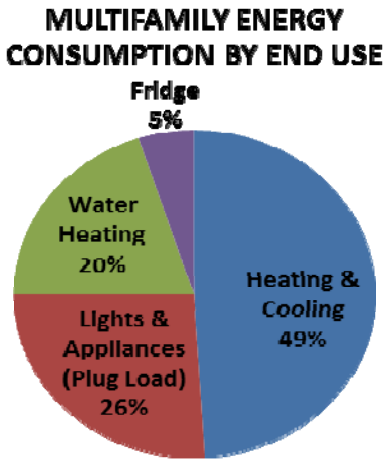
EXHIBIT 11.6:

Energy Audit Report

1.0 Introduction

The goal of this energy audit is to assess the building systems and find potential areas for energy and water performance improvements. This report will provide a combination of cost effective measures which will reduce energy and water costs, increase market value of the property through a reduction of operation and maintenance costs, while increasing resident comfort and indoor environmental conditions.

The Department of Energy (DOE) estimates residential energy consumption typically conforms to the following end-use energy profile:



Understanding the utility consumption profile of building systems enables the recommendation of the most cost effective improvements for a specific property. Based on D3G observations and calculations derived from the provider data, the areas of greatest opportunity for efficiency improvements are from lighting and DHW (domestic hot water) system upgrades. Detailed recommendations are ranked in descending order of their Savings to Investment Ratio (SIR). Specific detailed conclusions are referenced for further review throughout the report.

Utility	Current Use		Retrofitted Use		Reduction	Annual Savings
Electricity	903,900	kWh/yr	830,096	kWh/yr	8%	$6,067
Gas	36,421	therm/yr	31,003	therm/yr	15%	$4,846
Water	3,755,334	gal/yr	3,403,254	gal/yr	9%	$1,733
					Total	$12,645.49

Based on the data provided and the implementation of recommendations within this report D3G believes the operating expenses at the subject property can be reduced by approximately $12,645 per year.

Economic Benefit Analysis

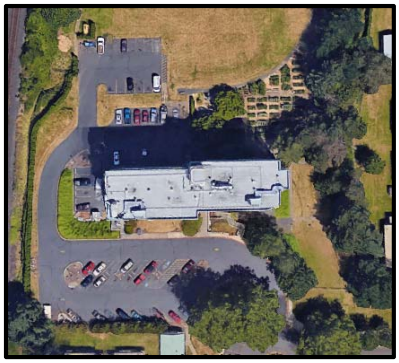
System	Description	EUL	Incremental Cost	Total Cost	Annual Cost Savings: Savings	Annual Cost Savings: Simple Payback	Life Cycle: SIR
		yrs	$	$	$/yr	yrs	
Domestic Water Heating	Modulating Condensing Boiler- Gas (DHW)	25	$ 12,685	$ 43,485	$ 4,846	2.6	9.6
Water Savers	Water Savers	Varies	$ 1,314	$ 3,821	$ 1,733	Varies	Varies
Lighting	Lighting Upgrade	Varies	$ 10,730	$ 65,874	$ 6,463	Varies	Varies
Sustainable O&M Recommendations							
Education							
Landscaping							
Composting							
Recycling							
Manage Leaks							

This economic benefit analysis is a prioritized list of energy and water efficiency and conservation measures. To find specific information on a recommendation please refer to the Existing Conditions and Recommendations section, where recommendations are listed by their system type and reference number.

1. Recommendations are prioritized by SIR (Note that SIR investment cost represents the additional cost above baseline, required to reach
2. Recommendations are property-wide unless otherwise noted.
3. HVAC and lighting savings represent those warranting replacement.
4. Refer the Utility Consumption appendix for assumptions made for water savers recommendation.

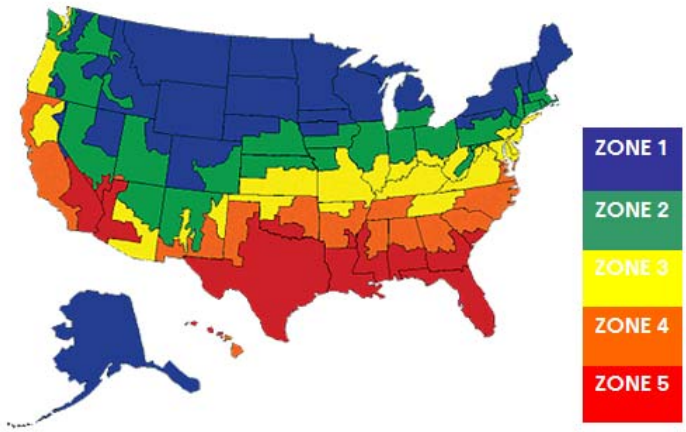
1.1 Site and Climate Description

The project, currently known as Hillside Manor, is located at 2889 SE Hillside Street. The property features one hundred (100) dwelling units located within one (1) apartment building. According to tax records, the property is situated on approximately 16.68 acres and according to property management, features a combined gross area of 78,500 square feet. The structure was built in 1970.



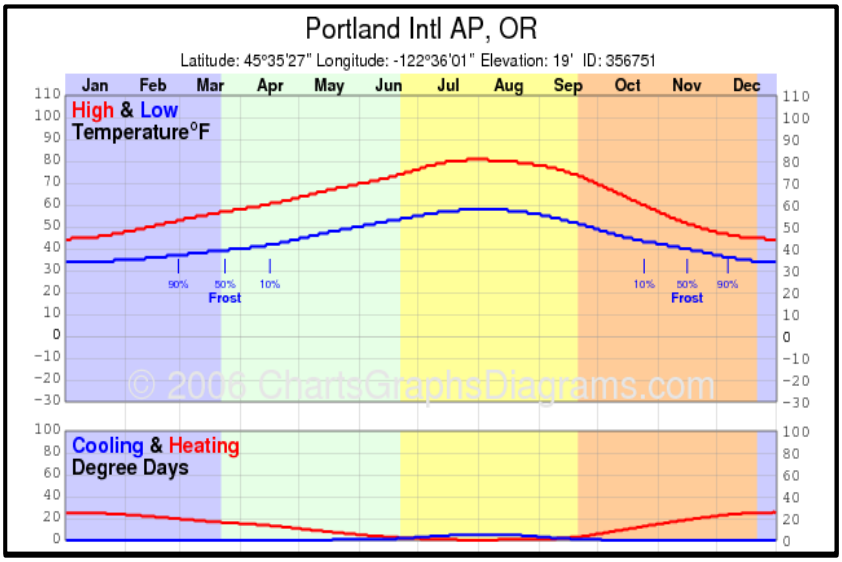
Unit Type	Rentable Area (ft^2)	# of Units	Total Rentable Area (ft^2)
Hillside Manor			
1 Bedroom/1 Bathroom Type 1	400	60	24,000
1 Bedroom/1 Bathroom Type 2	506	36	18,216
2 Bedroom/1 Bathroom	648	4	2,592
Total:		**100**	**44,808**

The subject property is situated in northwest Oregon at an elevation of approximately 104 feet amsl, requiring 4400 heating degree-days and 390 cooling degree-days annually.



Climate Zone	Cooling Degree Days	Heating Degree Days
1	Fewer than 2,000	More than 7,000
2	Fewer than 2,000	5,500 to 7,000
3	Fewer than 2,000	4,000 to 5,499
4	Fewer than 2,000	Fewer than 4,000
5	2,000 or More	Fewer than 4,000

Milwaukie's climate is warm in the summer, with average maximum daily temperatures reaching the 70's, and cold during the winter, with average minimum daily temperature in the 30's. The annual average precipitation in Milwaukie is 37.07 inches. The following graph displays annual average temperatures for Milwaukie, as well as heating and cooling degree days:



This weather data is from NOAA Station ID: 356751 Portland, OR

2.0 Utility Summary

Tenants present during the inspection of their units are interviewed in order to better assess their energy consumption. When tenants are present, they are asked about the comfort level in the units, general hours of occupancy, and any occupant comfort conditions or concerns.

Management is responsible for all common area and dwelling unit utility costs (electricity, natural gas, and water/sewer) at the property. Electricity, natural gas, and water/sewer are billed on a monthly basis. Billing statements were provided representing the facility from the most recent year of consumption. The following is a summary of the current utility rates in Milwaukie, which have been determined through provided billing data. Information obtained at the property identified the following responsible party for each utility:

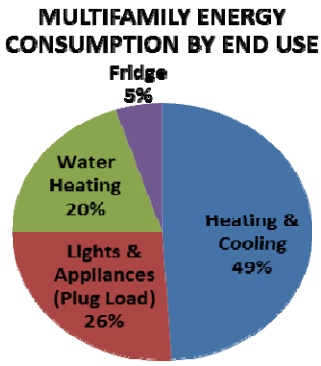
		Responsible Party			
Service	Provider	Common Area	Units	Billing Rate	
Electricity	PGE	Owner	Owner	$0.0822	per kwh
Natural Gas	NW Natural	Owner	Owner	$0.8945	per therm
Water	City of Milwaukie	Owner	Owner	$0.0049	per gal

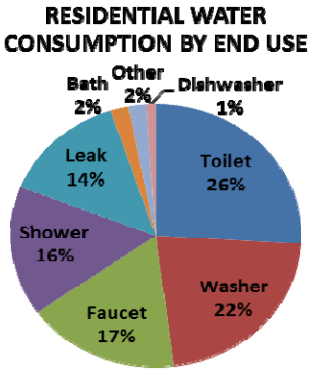
2.1 Energy and Water Profile

In order to understand the subject property energy use, consumption data was collected from provided monthly utility bills. Electricity and natural gas are present at the property as sources of energy. Natural gas and electricity consumption peaks in the winter months.Heating and cooling are provided to common areas via roof-top gas-fired packaged units. Heating and cooling are provided to dwelling units via roof-top gas-fired packaged unit, electric PTAC units, split ductless A/C and heat system, and electric baseboard heaters.

2.2 End Use

It is important to see the "whole picture" of building systems in order to understand which components will provide potential utility savings. This information, along with the site inspection, helps determine likely areas of the greatest opportunity to improve efficiency and positively affect occupant comfort. Residential energy and water end-use consumption typically follows patterns depicted in the graphs below. The largest factors in energy consumption typically result from heating and cooling; followed by water heating, and appliance use. Water consumption is distributed over more end uses, such as toilets, washers, faucets, showers and leaks. Increasing the efficiency of typical water fixtures and correcting leaks can often decrease water use by up to 35%.



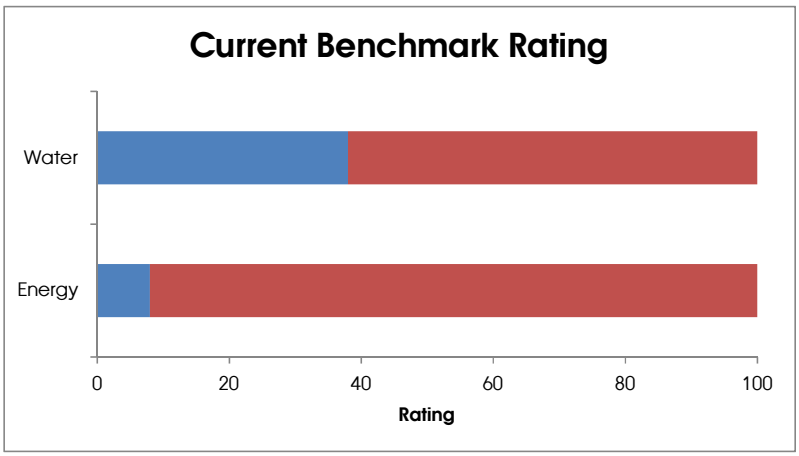


D3G's observations recommend that the areas for greatest energy savings will be based on lighting and DHW system improvements. The property spends a significant portion of all energy dollars on the provision of heating.

Utility	Current Use		Retrofitted Use		Reduction	Annual Savings
Electricity	903,900	kWh/yr	830,096	kWh/yr	8%	$6,067
Gas	36,421	therm/yr	31,003	therm/yr	15%	$4,846
Water	3,755,334	gal/yr	3,403,254	gal/yr	9%	$1,733
					Total	$12,645.49

2.3 Benchmarking

Benchmarking is a valuable tool used to compare energy and water consumption to other similar properties. This rating can target existing inefficiencies which inflate ongoing operating expenses. Utilizing D3G's experience in multi-family properties, we are able to compare and score the energy usage against similar multifamily properties.



The current water benchmark rating is 38 indicating that 62% of similar properties demonstrate greater water consumption efficiency.

The current energy benchmark rating is 8 indicating that 92% of similar properties demonstrate greater energy efficiency in comparison.

3.0 Existing Conditions and Recommendations

Building systems, including building envelope, HVAC (heating, ventilation and air conditioning), HVAC controls, domestic hot water (DHW), appliances, lighting, renewable and onsite generation, and other options as determined by site-specific observations, were analyzed based on their current conditions. These areas are assessed and given energy improvement recommendations based on weighted benefit to the property. These recommendations will reduce energy and water costs, increase market value of the property, reduce operation and maintenance costs, increase resident comfort and reduce carbon emissions. Recommendations are given for both the common area and dwelling units.

3.1 Building Envelope

Fenestration, insulation, weather-sealing and building tightness

Areas of building envelope are assessed for opportunities to improve thermal efficiencies. Reducing air leakage can benefit indoor air quality as well as reduce heating and cooling costs. Routine weather sealing should be a regular maintenance practice. Professional weather sealing should take place at rehabilitation and renovation construction events. Whenever the exterior envelope is going to be exposed, additional insulation should be considered and in some cases this addition will address air loss as well as heat flow. Other areas of improvement can provide a positive synergistic effect on air leakage (e.g. converting combustion appliances to high efficiency sealed-combustion devices).

Existing Conditions:

Methods and Materials	Condition
Foundation	
Reinforced concrete slab with a deep foundation utilizing piles or caissons and grade beams	Good
The foundation assemblies are presumed to be situated on a vapor barrier and 4" of gravel fill. Evidence of structural distress was not visible; therefore, the condition of the foundation appears good.	
Wall Framing	
Reinforced concrete columns and beams with metal stud walls	Good
The property's superstructures appeared in good physical condition.	
Floor Framing	
Pre-cast reinforced concrete panels	Good
The property's floor frame system appeared in good physical condition.	
Roof Framing	
Reinforced concrete roof decking	Good
The property's roof frame and sheathing system appeared in good physical condition.	
Sidewall Systems	
Pre-Cast concrete panel	Good
The exterior wall systems appear to be weather tight and structurally sound and in good physical condition.	
Roofing	
Modified bitumen roofing (high-rise)	Good
The roofs were not reported or observed to have active leaks. Roofing appeared to be in good physical condition.	

Recommended Energy Efficiency and Conservation Measures:

3.1.1 ENERGY STAR Cool Roof

ENERGY STAR cool roofing is not being recommended due to the heating dominant climate zone. Typically, the recommendation is made to increase insulation levels when thermal envelope areas are exposed. Refer to Section 3.2 for further details on insulation.

3.2 Insulation

Existing Conditions:

Location	Insulation Type	Insulation Value
Exterior Walls	Batt	R-11
Interior Walls	Acoustical	Not Applicable
Flat Roofs	Rigid Fiberglass	R-20
Green construction principles recommend insulation along the thermal barrier appropriate to the climate zone. Insulation is a valuable addition whenever envelope access is afforded by associated repairs or rehabilitation. Based on age and type of construction, it is estimated that the building features R-20 of insulation.		

Recommended Energy Efficiency and Conservation Measures:

3.2.1 Increase Insulation

Insulation is a valuable conservation tool. Installation of additional insulation is typically recommended whenever the exterior envelope is going to be exposed.

The recommendation is made to increase insulation to DOE recommended levels of R-30 with rigid foam board insulation at the time of roof replacement.

Insulation							
Option	Description	EUL	Incremental Cost	Total Installation Cost	Annual Savings	Simple Payback (Yrs)	SIR
Existing	R-20	50	-	-	-	-	-
Traditional	R-25	50	$7,786	$7,786	$233	33.4	1.5
Green	R-30	50	$1,374	$9,160	$388	8.8	14.1

3.3 Windows, doors, storm windows or films

Existing Conditions:

Methods and Materials	**Condition**
Exterior Doors	
Hollow metal door - single (conditioned space)	Good
Hollow metal door - double (conditioned space)	Good
Storefront system with single door	Fair
The exterior doors appear to be in fair to good condition.	
Fenestration Systems - Windows	
Sliding window (7 + stories)	Good
Fixed windows (7 + stories)	Good
Casement window (7 + stories)	Poor
Double-pane sliding windows were installed at the majority of the property in 2008, and appear and were reported to be weather tight. The interior stairwell features original casement windows. High efficiency windows properly installed, increase overall building tightness and reduce heat loss through these fenestrations.	

The Climate Zone and locale warrant windows with a U-factor of 0.27 or less, and any solar heat gain coefficient. The amount of heat loss by transmission is defined as a U-factor (smaller = better with energy efficient if U < 0.30). A low SHGC is achieved via low-emissivity through a low e-coating. Better windows have a U-factor of 0.12 (triple pane), whereas the more efficient dual pane low-e argon (Ar) filled window has a U-factor of approximately 0.30. Transmittance for windows is related to the solar heat gain coefficient (SHGC).

Recommended Energy Efficiency and Conservation Measures:

3.3.1 ENERGY STAR/Insulated Assemblies

High efficiency windows and doors properly installed, increase overall building tightness and reduce heat loss through these fenestrations.

Select windows and exterior doors at the property warrant replacement; therefore, the recommendation is made to install ENERGY STAR assemblies at time of replacement. Remaining assemblies are recommended for replacement with ENERGY STAR/insulated assemblies at the time of replacement.

3.4 Weather-stripping

The recommendation is made to maintain weather stripping around all exterior entrance doors as part of an ongoing operations and maintenance program. It should also be noted that as part of an ongoing Green O&M program, all wall penetrations should be properly sealed to exclude unwanted air infiltration and pest intrusion. The recommendation to implement an ongoing O&M plan to maintain weather stripping will assist in pest management as well as energy efficiency.

3.5 Perimeter Wall Repair, Caulking and Sealing

During any rehabilitation and repair activities, accessed envelope areas should receive additional insulation to improve the thermal barrier and minimize the loss of conditioned air to excess infiltration. All exterior building envelope repairs should be properly caulked and sealed to prevent unwanted infiltration and pest intrusion. Additionally all trades should seal all penetrations created during their associated work.

3.6 Wall plate foam gaskets

Blower door testing was not performed as a part of this investigation. Proper sealing of electrical passageways and foam gaskets are inexpensive additions to a Green Operations and Maintenance plan and can be installed by on-site maintenance personnel. This would be a rehabilitation recommendation if first confirmed as sources of infiltration via blower door test.

3.7 Heating, Ventilation, and Air Conditioning (HVAC) System

Existing Conditions:

Methods and Materials	Condition
Centralized Heating / Cooling Equipment	
Roof-top gas-fired packaged unit	Good
Central roof mounted ventilation fans	Good
No complaints regarding the central heating and cooling systems were raised during the inspection. Heating and cooling systems appeared to be in good physical condtion.	
Decentralized Heating / Cooling Equipment	
Traditional electric PTAC unit	Good
Split ductless A/C & heat system	Good
Electric air handler	Good
Electric unit heater	Good
Electric baseboard heater	Fair
No complaints regarding the heating and cooling systems were raised during the inspection. Dwelling units feature electric heaters in the living rooms, which have been decommissioned and replaced with PTAC units. Electric baseboard heaters remain in the bedrooms.	

Note that visually accessible ductwork is inspected during the site visit. Ductwork air-tightness is difficult to visually assess. Obvious problems would be called out for repair during PCA inspection and worst-case scenarios could even merit life-safety or 'critical' repairs if exhaust ducting or air intake was damaged or in a state of dangerous misalignment. Replacement should be in accordance with best practices that would include proper sealing with water-based mastic. In the event that foil tape is used it should meet UL 181 ratings.

The existing HVAC systems were evaluated relative to the Air Conditioning Contractors of America (ACCA) Manual J guide. This evaluation is to determine if the existing, and or proposed, HVAC systems are appropriately sized relative to the units. Energy-related improvements proposed for the property have been considered in this evaluation, where appropriate. As important as Manual J calculations, are resident interviews about comfort levels. During access to the units, residents were interviewed about perceived comfort within the units. Manual J calculations were performed with some information limitations, including insulation levels of original or hidden building materials contained within the structures.

HVAC-Calc Residential 4.0 software program was utilized to provide Manual J calculations. This software program is most applicable for HVAC sizing when window sizing is not abnormal (less than 15% of exterior envelope) and structures are typical single-family construction. The following are Manual J Calculations by unit type/exposure at the property in varying worst-case scenarios:

UNIT TYPE	VOLUME (Cu. Ft.)	COOLING LOAD	TOTAL HEAT LOSS (BTUH)	SYSTEM CURRENTLY PROVIDED
1 BR Lower - Type 1	3,200	4,582	7,076	PTAC/electric baseboard
1 BR Upper - Type 1	3,200	5,824	8,036	PTAC/electric baseboard
1 BR Lower - Type 2	3,201	4,582	6,536	PTAC/electric baseboard
1 BR Upper - Type 2	3,202	5,824	7,496	PTAC/electric baseboard
1 BR Lower - Type 3	4,048	5,008	8,442	PTAC/electric baseboard
1 BR Upper - Type 3	4,048	6,499	9,657	PTAC/electric baseboard
1 BR Lower - Type 4	4,048	5,008	7,836	PTAC/electric baseboard
1 BR Upper - Type 4	4,048	6,499	9,051	PTAC/electric baseboard
2 BR Lower - Type 1	5,184	6,199	10,158	PTAC/electric baseboard
2 BR Upper - Type 1	5,184	8,023	11,714	PTAC/electric baseboard
2 BR Lower - Type 2	5,184	6,199	22,719	PTAC/electric baseboard
3 BR Lower - Type 2	5,184	8,023	11,018	PTAC/electric baseboard

It is recommended that Manual J calculations be required by the performing contractor with any HVAC equipment replacement, or significant HVAC modification. Recommended cooling equipment (including heat pumps) should be oversized by no more than 15% of the actual Manual J Heat gain calculations without inflation factors. Heating equipment should be oversized by no more than 25% of actual Manual J Heat loss calculations without inflation factors.

Recommended Energy Efficiency and Conservation Measures:

3.7.1 ENERGY STAR RTU, ENERGY STAR Split Ductless, High efficiency PTAC

The recommendation is made to install ENERGY STAR RTU at the time of replacement.

The recommendation is made to replace the less efficient PTAC's in dwelling units and common areas with high efficiency units (≥10.9 EER) at the time of replacement.

The recommendation is made to replace existing ductless split systems with high efficiency, ENERGY STAR qualified assemblies at the time of replacement.

3.8 HVAC Controls

Existing Conditions:

Existing HVAC controls feature non-programmable thermostats.

Recommended Energy Efficiency and Conservation Measures:

3.8.1 Programmable Thermostats

It should be noted that the electric resistant baseboards feature rheostat control and PTAC units feature controls which are not compatible with programmable thermostatic controls.

3.9 Domestic Hot Water

Efficiency measures for assessing the provision of domestic hot water (DHW) include right-sizing which can reduce stand-by losses associated with any tank-storage DHW appliance. Note that On-demand devices eliminate stand-by losses by not utilizing tank-storage which must be maintained at heated temperatures.

DHW right-sizing recommendations are performed using the Office of Energy Efficiency & Renewable Energy First Hour Rating calculations when assessing individual-unit components. When right-sizing calculations are performed on central/common components such as a centrally located boiler, right-sizing calculations are performed using the Modified Hunter Curve methodology.

Existing Conditions:

Methods and Materials	Condition
Dwelling Unit Water Heaters	
Gas-fired boiler	Good
Hot water storage tank	Good
Potable hot water to each unit is supplied by two gas fired boilers located at the first level mechanical area. The recovery of the hot water system is reported to be sufficient for the number of fixtures served and no complaints concerning a lack of hot water were raised during the inspection. The system also features a hot water storage tank and filtration equipment located near the water main entry.	
Common Area Water Heaters	
Gas-fired boiler	Good
Hot water storage tank	Good
Potable hot water to the common areas is supplied by two gas fired boilers located at the first level mechanical area. The recovery of the hot water system is reported to be sufficient for the number of fixtures served and no complaints concerning a lack of hot water were raised during the inspection. The system also features a hot water storage tank and filtration equipment located near the water main entry.	

Recommended Energy Efficiency and Conservation Measures:

3.9.1 Modulating Condensing Boilers

Due to the current efficiency of the existing DHW boilers, it is recommended that they be upgraded via the installation of higher efficiency modulating condensing boiler system. Upgrading to new, higher efficiency system will reduce energy consumption, thereby lowering operation cost. A modulating condensing system increases thermal efficiency and optimizes operation efficiency due to higher turn down rates which enable the equipment to operate at greater part-load efficiencies.

Domestic Water Heating							
Option	Description	EUL	Incremental Cost	Total Installation Cost	Annual Savings	Simple Payback (Yrs)	SIR
Existing	Boiler- Gas (DHW)	25	-	-	-	-	-
Traditional	Boiler- Gas (DHW)	25	$30,800	$30,800	$0	-	-
Green	Modulating Condensing Boiler- Gas (DHW)	25	$12,685	$43,485	$4,846	2.6	9.6

3.10 Other Mechanical

Existing Conditions:

The building features two (2) hoist elevators with 2000-lb and 3500-lb ratings in CMU wall shafts. The elevators feature ADA and firemen's controls. The elevator interior cabs and equipment were observed in poor to fair physical condition.

Recommended Energy Efficiency and Conservation Measures:

3.10.1 High Efficiency Elevator

The recommendation is made to replace existing elevators with high efficiency systems at the time of replacement (e.g. gearless or regenerative).

3.11 Appliances

Existing Conditions:

Methods and Materials	**Condition**
Dwelling Unit Appliances	
ENERGY STAR refrigerator	Fair
Electric Range	Fair
HDCP front controlled range	Fair
Dwelling unit appliances appeared to be in fair physical condition.	

Recommended Energy Efficiency and Conservation Measures:

3.11.1 ENERGY STAR Refrigerator

The recommendation is made to replace refrigerators with ENERGY STAR qualified assemblies at the time of replacement.

3.11.2 ENERGY STAR Appliances (Ceiling Fans & Dishwashers)

If the property chooses to install ceiling fans and dishwashers in the future, the recommendation is made to install ENERGY STAR qualified assemblies.

3.12 Water Usage

Existing Conditions:

Methods and Materials	Condition
Bathroom Fixtures And Specialties	
Wall-hung sink	Fair
Floor-mounted Toilet	Fair
Ceramic tile showers	Fair
Enameled steel with ceramic tile surrounds	Fair
The plumbing fixtures and bathroom fans were observed to be in fair to good condition.	
Kitchen Fixtures And Specialties	
Double basin enameled steel sinks	Fair
The plumbing fixtures and fans were observed to be in fair to good condition.	

Recommended Energy Efficiency and Conservation Measures:

3.12.1 Water Savers

The recommendation is made to replace older, inefficient fixtures with qualified EPA WaterSense assemblies. Remaining water savers should be replaced with low-flow fixtures at the time of replacement.

The minimum efficiency recommendation for fixtures is (a) water closets: ≤1.28 gpf; b) kitchen and bathroom sinks: ≤2.0 and ≤1.0 gallons per minute (gpm), respectively; and c) Showerheads: <2.0 gpm. The recommendation is made to install ≤0.5 gpm for common area hand wash sinks. The common area toilets are recommended for replacement with automatic flush valve systems (≤1.28 gpf). Kitchen faucets should be down-sized with some caution as EPA WaterSense® recognizes that kitchens are often used to fill for volume and not for time. Therefore if a kitchen faucet is restricted too drastically, it can create frustration and resistance to conservation efforts.

Hillside Manor						
Number of Fixtures	Description	Flow Rate (gpf or gpm)		Savings		
		Current	Proposed	Gal/Day	$/Month	$/Year
105	Water Closest	1.6, 3.0	1.28	177	$11	$317
100	Kitchen Faucet	1.5	1.5	0	$0	$0
107	Bath Faucet	2.2	1	570	$34	$1,024
100	Shower Faucet	2.5	1.5	395	$24	$709
					Total	**$2,050**

3.12.2 Laundry Appliances

The building features a common laundry room on the first level. The laundry room features three (3) coin-operated top-loading washing machines, one (1) coin-operated front-loading washing machine and four (4) coin-operated electric dryers. The machines are reportedly leased by the property.

Recommended Energy Efficiency and Conservation Measures:

3.12.3 ENERGY STAR Laundry Appliances

At lease renewal, the recommendation is made to continue to specify ENERGY STAR qualified units. If the property chooses to install additional laundry appliances, the recommendation is to install ENERGY STAR qualified assemblies.

3.13 Ventilation

Existing Conditions:

Site Component	Method and Materials Used	Condition
Bath Fan #1	Rooftop controlled commercial exhaust fan	Good
Rooftop controlled commercial exhaust fan appeared to be in good condition.		

Site Component	Method and Materials Used	Condition
Kitchen Fan #1	Rooftop controlled commericial exhaust fan	Good
Rooftop controlled commercial exhaust fan appeared to be in good condition.		

Recommended Energy Efficiency and Conservation Measures:

3.13.1 Ventilation

Savings calculations are more difficult to quantify based on the sporadic use of such appliances; however, replacement with ENERGY STAR exhaust fans can result in appreciable savings.

No energy efficiency recommendations are made for the existing central stack ventilation system.

3.14 Lighting

A major opportunity for energy savings can be realized through replacement of incandescent bulbs with compact fluorescent (CFL) bulbs. CFL's typically use ¼ of the energy of incandescent bulbs. An additional consideration to replacement of lighting is the fact that up to 90% of the energy used by incandescent lighting is converted into waste heat. In addition, more efficient fluorescent fixtures can be specified and purchased with reduced mercury content (which is a bio-accumulating toxin). Fluorescent lamps should be recycled as part of an on-going green operations and maintenance plan. Specifying green lighting fixtures and controls will reduce electricity, maintenance costs, and landfill pollution.

Existing Conditions:

Site Component	Method and Materials Used	EWCM Recommendation
Site Lighting Type #1	Exterior HID	Replace now
Site Lighting Type #2	Incandescent	Replace now

Site Component	Method and Materials Used	EWCM Recommendation
Common Area Lighting Type #1	Fluorescent - Standard	Replace now
Common Area Lighting Type #2	Incandescent	Replace now
Common Area Lighting Type #3	LED	Replace end of cycle
Common Area Lighting Type #3	Fluorescent - High Efficiency	Replace end of cycle

Site Component	Method and Materials Used	EWCM Recommendation
Dwelling Unit Lighting Type #1	Fluorescent - standard	Replace now
Dwelling Unit Lighting Type #2	Incandescent	Replace now
Dwelling Unit Lighting Type #3	LED	Replace end of cycle

Interior lighting throughout the dwelling units is provided via wall- and ceiling-mounted standard efficiency fluorescent, incandescent, and LED lighting fixtures within bathrooms, hallways, bedrooms and kitchens. Interior lighting throughout the common areas is provided via wall- and ceiling-mounted incandescent, fluorescent, and LED lighting fixtures. Exterior lighting is provided at the property via incandescent and building-mounted HID fixtures.

Recommended Energy Efficiency and Conservation Measures:

3.14.1 Installation of high efficiency lighting

Efficient lighting will typically reduce consumption to less than 1/3 of that used by inefficient fixtures. Existing configuration may require additional lighting; the recommendation is made to install an ENERGY STAR lighting package in dwelling units and common areas (which could consist of high efficiency pin-based, compact fluorescent, T-8 or T-5, or LED lighting fixtures). Consideration should be given to inclusion of occupancy sensors wherever possible and practical.

The recommendation is made to continue use of high efficiency lighting fixtures at the property. Remaining inefficient lighting should be replaced with lighting with CFL's, high efficiency pin-based, or T-8 or T-5 fluorescent fixtures. Exterior lighting is recommended to be replaced with CFL or LED fixtures.

3.15 Alternate Energy

Renewable & Onsite Generation:

There currently are no renewable energy or onsite generation installations located on this property. Note that any single method, or combination of several methods, for producing energy from renewable resources would be worthy of consideration after efficiency is firstly improved at the subject property. In addition, as new technologies advance the efficiencies of renewable on-site generation, these procedures warrant additional investigation. However, the following additional investigations reveal options that were considered for this report. No recommendation for additional study of alternative energy is made at the time of this report. As these future options are explored, it is recommended that DSIRE.org be consulted for potential additional incentives.

Solar: According to NREL solar resource maps and local climate data, the area is identified as providing fair solar capabilities for solar energy production. Solar thermal technologies typically offer greater payback potential than solar photovoltaic (PV). D3G considered solar thermal DHW as an option for the property; however, D3G recommends a conversion to high efficiency technology prior to reevaluation of solar preheat DHW.

Wind: According to NREL wind resource maps, the area is identified as fair for wind production energy. Note that this information has been screened by NREL to exclude areas depending on land-use (e.g. dense urban) or environmental issues. No recommendation is made for wind power generation at the subject property.

Geothermal: Drilling for ground-loop geothermal is potentially cost-prohibitive. Based on the increased first-cost, no recommendation is made for geothermal buffering at the time of this report.

Cogeneration of heat and power was considered as an alternative to traditional energy source for the subject property. The property sits at the threshold for number of dwelling units required to potentially offer the candidacy of this property for CoGen efficiency. Fuel cell technology can complement CoGen technologies or in some circumstances stand alone. It is recommended that the property increase efficiencies and reduce consumption before investigating and sizing Cogeneration options. For Cogeneration to be used effectively, generation can only be sized based on the demand for heated water. While these technologies are improving, no further study is recommended at the time of this report.

3.16 Ongoing Operations and Maintenance Items

3.16.1 Occupant Education

Typically, a significant portion of each unit's energy consumption is due to tenant-owned electronics and appliances. Management should consider implementation of a Green Operations and Maintenance (O&M) program which includes a tenant outreach and educational program. It has been documented that tenant behavioral change can account for on average 3% to 5% energy savings.

3.16.2 Landscaping

Landscaping consists of select trees, shrubs, lawns and grasses situated throughout the site area and surrounding the apartment building(s). The overall quality and health of the on-site vegetation and landscaping is fair to good. Use of native plants in the landscape increases water efficiency, requires less maintenance, fertilizer and will act as a benefit to the local ecosystem. It is recommended that future landscaping efforts consist of native vegetation.

3.16.3 Composting

Composting is a way to reduce and reuse waste as fertilizer and soil conditioner. Composting consists of food scraps, soiled paper products and yard trimmings that break down into soil over a period of time. It is estimated that nearly 30% of waste is compostable. There are opportunities for composting through regional and state programs, which can be investigated further through the Environmental Protection Agencies (EPA) website at: http://www.epa.gov/compost/.

3.16.4 Recycling Program

A recycling program should be included in any rehabilitation plan as well as the operations and maintenance plan. Recycling can mitigate on-site disposal/tipping fees as well as reducing the waste sent to landfills. It is also suggested that when appliances reach their EUL they be recycled. Often there are local appliance recycling programs, which pick up and sometimes pay for old appliances, which should be considered.

3.16.5 Manage Leaks

Leaks if not properly controlled, can account for a significant portion of water end use, and consequently costs. It is recommended that the property implement protocol on investigating and controlling leaks and incorporate that into an ongoing O & M plan. The vast majority of common leaks can be exposed and eliminated via retrofitting with new WaterSense fixtures.

4.0 Scope of Work

Goals and Objectives

Energy audits evaluate building systems and characteristics that affect energy and utility consumption (building envelope, heating and cooling, hot water, appliances, and lighting) and assess the potential for improving energy efficiency and the relative merits of available energy measures. Energy audits involve *three (3)* primary steps:

1. Data Collection and Property Inspection

Data is collected on energy use and costs. A physical inspection of the property and energy-related equipment is performed. The physical inspection reviews equipment conditions, operation schedules, past maintenance schedules, remaining useful life, and system performance. Physical inspection may also consider indicators of performance issues such as leaking or failed heat exchangers, high humidity, poor space temperature control, and occupant comfort concerns.

2. Analysis of Utility Costs

The energy audit analyzes utility costs of the existing property. Utility data is used to provide estimates of energy savings that may be gained by implementing cost effective conservation measures.

3. Energy and Water Efficiency Measures

The energy audit provides a list of recommended cost-effective energy efficiency improvements to reduce energy and utility costs. Cost-effective energy efficiency improvements are energy measures whose estimated energy savings exceed the installed cost of the energy measure over the measure's useful life. Recommendations are based on engineering and economic analysis and consider factors such as operating hours, equipment efficiency, and building and occupant energy demand characteristics.

5.0 Data Collection and Property Inspection

D3G randomly accessed a representative sample of all unit types and buildings. Data gathering included the inventory of significant energy and utility consumption elements. Limited construction documents were inspected where available for review. Utility structure was obtained from site management, and representative historical utility billing statements were provided. Blower door testing was not performed as part of this report.

6.0 Measures and Observations

This report details the recommendations for property improvements relative to energy efficiency, maximization of water efficiency, use of sustainable/recycled materials, and safeguarding the indoor environmental quality of the property.

Blower Door Testing:

The recommended industry target for air-tightness levels is 0.35 ACH under natural conditions or, approximately one full air change every three hours. Existing housing typically has a target of .50 ACH, or one full air change every two hours. A very leaky building might have a 2.0 ACH, meaning all the air is replaced and reheated every 40 minutes on a "normal" day. The ACH is measured under higher than normal pressure (50 pascals – equivalent to a 20 mph wind) and then converted to normal conditions; hence the term "ACH50" and "ACH-N". With a lower ACH rate, a building is easier to heat and cool and is much more comfortable.

7.0 Disclaimer and Limitations

This report has been prepared for, and can be relied upon by the Client, Housing Authority of Clackamas County. This report has been prepared for the exclusive use of the referenced client for specific application to the subject site. This report was prepared in accordance with generally accepted industry standards of practice for building inspection services. The building system evaluation was conducted in accordance with the ASTM Standard E2018-01, Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process, as well as the Fannie Mae "Physical Needs Assessment Guidance to the Property Evaluator" requirements. No other warranty, either expressed or implied, is made.

This report is not to be reproduced, either in whole or in part, without written consent from D3G. The statements in this report are professional opinions about the present condition of the subject property. They are based upon visual evidence available during an inspection of all reasonably accessible areas of the property. We did not remove any surface materials, perform any destructive testing, or move any furnishings. The study is not an exhaustive technical evaluation. Such an evaluation would entail a significantly larger scope of work than was determined for this project. Accordingly, we cannot comment on the condition of systems that we could not see, such as buried structures and utilities, nor are we responsible for conditions that could not be seen or were not within the scope of our services at the time of inspection. We did not undertake activities that would completely assess the stability of the building or the underlying foundation soil. Likewise, this is not a seismic assessment nor do we make any comments or conclusions regarding wood boring insects. Our on-site observations pertain only to specific locations at specific times on specific dates. Our observations and conclusions do not reflect variations in conditions that may exist, in unexplored areas of the site, or at times other than those represented by our observations.

8.0 Definitions

Savings to Investment Ration (SIR):
Ratio of economic performance to the capital investment, based on energy and/or water savings (SIR = Lifetime Savings/Additional Investment).

· Note that Savings to investment ratio is based on the cost necessitated to reach the recommended performance improvement. Typically this represents the incremental cost to upgrade. If the entirety of the investment would be required solely for the performance improvement, the SIR incremental cost will represent the entire component cost.

Simple Payback Period (SPP):
Length of time to pay back the initial capital investment measured in years.

Economic Useful Life (EUL):
Expected period of time a system is useable, measured in years.

Excellent:
Component or system is in "as new" condition requiring no rehabilitation and should perform in accordance with expected performance.

Good:
Component or system is sound and performing its function, although it may show signs of normal wear and tear. Some minor rehabilitation work may be required.

Fair:
A component or system is of a capacity that is defined as enough for what is required, sufficient, suitable, conforms to standard construction practices, and/or is approaching end of expected performance/useful life. Replacement is anticipated in the near term of the loan.

Poor:
Component or system falls into one or more of the following categories: (a) Evidence of previous repairs not in compliance with commonly accepted practices, (b) Workmanship not in compliance with commonly accepted standards, (c) Component or system is obsolete, (d) Component or system has either failed or cannot be relied upon to continue performing its original function as a result of having exceeded its expected performance, (e) Evidence excessive deferred maintenance, or state of disrepair, and/or (f) Present condition could contribute to or cause the deterioration of other adjoining elements or systems. Repair or replacement is required.

9.0 Certification

This Energy Audit was performed in accordance with industry accepted measures recognized by EPA ENERGY STAR homes programs, RESNET, BPI, and ASHRAE, and was prepared under the guidance of a USGBC LEED-Accredited Professional.

Dominion Due Diligence Group (D3G) certifies that the data presented in this report is representative of the site conditions observed during our physical inspection of the property. This reporting was performed in accordance with the Rental Assistance Demonstration (RAD), Physical Condition Assessment (RPCA) Statement of Work, Version 3, dated 2017. This assessment has been prepared and reviewed by an individual accredited by the United States Green Building Council (USGBC) as a LEED-AP. D3G, its officers and its employees have no present or contemplated interest in the property.

Located in the appendices of this report are staff resumes for the professionals involved in producing this report. The staff members responsible for inspection and reporting have extensive training and experience in environmental issues, building engineering, RESNET Home Energy Rater, BPI Building Analyst, BPI Multi-Family Analyst, green principals, and HUD program requirements. D3G staff has completed thousands of environmental, engineering, construction cost, and green reports for HUD multifamily housing transactions under FHA Sections 202, 221, and 223. Staff members are internally required to complete a minimum annual training of 10-hours in areas of green building, sustainability, energy efficiency and/or indoor environmental quality. The firm is an active member of the Association of Energy Engineers (AEE), and receives continual training from both Association of Energy Engineers (AEE) and the U.S. Green Building Council (USGBC).

The undersigned below certifies that (a) our employment and compensation for preparing this report are not contingent upon our observations or conclusions, and (b) that they are not under suspension or debarment by HUD, or involved as a defendant in criminal or civil action with HUD. (c) D3G has experience in collecting utility consumption data and in using industry-recognized methods for estimating missing data and normalizing it for weather occurrences and property vacancies. (d) Produce baselines that are well regarded in the marketplace in terms of content, timeliness and responsiveness, and (e) have the capacity to complete the project inspection and prepare the report in a time-frame acceptable to the Client (Lender/Owner).

Matt Snow, LEED A.P.
Director of Sustainability

Signature

Robert E. Hazelton, LEED A.P.
Principal

Signature

Energy Audit Appendices

UTILITY CONSUMPTION AUDIT - SAVINGS CALCULATOR
SHEET 1: WATER AND SEWER

D3G Project Number: 2018-0031
Property Name: Hillside Manor
City, State: Milwaukie, Oregon

# of fixtures	Fixture Description	Prior gpf / flowrate gpm	Proposed gpf / flowrate	gallons saved / use	# of occupants / fixture	use / fixture	fixture use / day	gallons saved / fixture / day	water-sewer cost/Unit	$$ savings per month	Per Annum Saving	Recommended Time of Replacement
RESIDENTIAL UNITS									**0.004921**			
100	Kitchen Faucet	1.5	1.5	0	1	4	4	0	$ 0.0049	$ -	$ -	EUL
100	Bath Faucet	2.2	1	1.2	1	4	4	4.8	$ 0.0049	$ 70.86	$ 850	Now
100	Shower faucet (8 min shower)	2.5	1.5	8	1	1	0.5	4	$ 0.0049	$ 59.05	$ 709	Now
100	Resident Toilet (flush)	1.6	1.28	0.32	1	3	3	0.96	$ 0.0049	$ 14.17	$ 170	EUL
COMMON AREA UNITS									**0.004921**			
7	Common Area Bath Faucet	2.2	1.5	0.7	10	2	20	14	$ 0.0049	$ 14.47	$ 174	Now
4	Common Area Toilet	1.6	1.28	0.32	10	2	20	6.4	$ 0.0049	$ 3.78	$ 45	EUL
1	Common Area Urinal	3	0.125	2.875	10	2	20	57.5	$ 0.0049	$ 8.49	$ 102	EUL

Wholesale Replacement Savings:	**$ 2,050**
Recommended Replacement Savings:	**$ 1,733**

Notes and Sources of Data:

1 Existing fixture flow rate from on-site fixtures and EPA data
2 Proposed fixture flow rate from product specifications, ENERGY STAR and EPAct "WaterSense" recommendation
3 Typical fixture use data/ratios from published EPA data
4 Water-Sewer utility rate cost from utility billing data 0.004921 /gal
5 Water use estimates lower than EPA averages for conservative estimation of tenant behaviors

In accordance with ACCA Manual J

Report Prepared By:

Dominion Due Diligence Group

For: Hillside Manor 1BR

Milwaukie, Oregon

Design Conditions: Portland

Indoor:		Outdoor:	
Summer temperature:	75	Summer temperature:	85
Winter temperature:	72	Winter temperature:	23
Relative humidity:	50	Summer grains of moisture:	71
		Daily temperature range:	Medium

Building Component	Sensible Gain (BTUH)	Latent Gain (BTUH)	Total Heat Gain (BTUH)	Total Heat Loss (BTUH)
Whole House	3,995	587	4,582	7,076
Main Floor	3,995	587	4,582	7,076
All Rooms	3,995	587	4,582	7,076
Infiltration	293	127	420	3,450
People	600	460	1,060	0
Miscellaneous	600	0	600	0
Floor	0	0	0	0
NW Wall	123	0	123	960
Window	1,128	0	1,128	853
NE Wall	123	0	123	960
Window	1,128	0	1,128	853
Whole House	3,995	587	4,582	7,076

In accordance with ACCA Manual J

Report Prepared By:

Dominion Due Diligence Group

For: Hillside Manor 1BR

Milwaukie, Oregon

Design Conditions: Portland

Indoor:		Outdoor:	
Summer temperature:	75	Summer temperature:	85
Winter temperature:	72	Winter temperature:	23
Relative humidity:	50	Summer grains of moisture:	71
		Daily temperature range:	Medium

Building Component	Sensible Gain (BTUH)	Latent Gain (BTUH)	Total Heat Gain (BTUH)	Total Heat Loss (BTUH)
Whole House	5,237	587	5,824	8,036
Main Floor	5,237	587	5,824	8,036
All Rooms	5,237	587	5,824	8,036
Infiltration	293	127	420	3,450
People	600	460	1,060	0
Miscellaneous	600	0	600	0
Floor	0	0	0	0
SE Wall	123	0	123	960
Window	1,416	0	1,416	853
SW Wall	123	0	123	960
Window	1,416	0	1,416	853
Ceiling	666	0	666	960
Whole House	5,237	587	5,824	8,036

In accordance with ACCA Manual J

Report Prepared By:

Dominion Due Diligence Group

For: Hillside Manor 1BR

Milwaukie, Oregon

Design Conditions: Portland

Indoor:		Outdoor:	
Summer temperature:	75	Summer temperature:	85
Winter temperature:	72	Winter temperature:	23
Relative humidity:	50	Summer grains of moisture:	71
		Daily temperature range:	Medium

Building Component	Sensible Gain (BTUH)	Latent Gain (BTUH)	Total Heat Gain (BTUH)	Total Heat Loss (BTUH)
Whole House	3,995	587	4,582	6,536
Main Floor	3,995	587	4,582	6,536
All Rooms	3,995	587	4,582	6,536
Infiltration	293	127	420	3,450
People	600	460	1,060	0
Miscellaneous	600	0	600	0
Floor	0	0	0	0
NW Wall	123	0	123	960
Window	1,128	0	1,128	583
NE Wall	123	0	123	960
Window	1,128	0	1,128	583
Whole House	3,995	587	4,582	6,536

In accordance with ACCA Manual J

Report Prepared By:

Dominion Due Diligence Group

For: Hillside Manor 1BR

Milwaukie, Oregon

Design Conditions: Portland

Indoor:		Outdoor:	
Summer temperature:	75	Summer temperature:	85
Winter temperature:	72	Winter temperature:	23
Relative humidity:	50	Summer grains of moisture:	71
		Daily temperature range:	Medium

Building Component	Sensible Gain (BTUH)	Latent Gain (BTUH)	Total Heat Gain (BTUH)	Total Heat Loss (BTUH)
Whole House	5,237	587	5,824	7,496
Main Floor	5,237	587	5,824	7,496
All Rooms	5,237	587	5,824	7,496
Infiltration	293	127	420	3,450
People	600	460	1,060	0
Miscellaneous	600	0	600	0
Floor	0	0	0	0
SE Wall	123	0	123	960
Window	1,416	0	1,416	583
SW Wall	123	0	123	960
Window	1,416	0	1,416	583
Ceiling	666	0	666	960
Whole House	5,237	587	5,824	7,496

In accordance with ACCA Manual J

Report Prepared By:

Dominion Due Diligence Group

For: Hillside Manor 1BR

Milwaukie, Oregon

Design Conditions: Portland

Indoor:		Outdoor:	
Summer temperature:	75	Summer temperature:	85
Winter temperature:	72	Winter temperature:	23
Relative humidity:	50	Summer grains of moisture:	71
		Daily temperature range:	Medium

Building Component	Sensible Gain (BTUH)	Latent Gain (BTUH)	Total Heat Gain (BTUH)	Total Heat Loss (BTUH)
Whole House	4,387	621	5,008	8,442
Main Floor	4,387	621	5,008	8,442
All Rooms	4,387	621	5,008	8,442
Infiltration	371	161	532	4,364
People	600	460	1,060	0
Miscellaneous	600	0	600	0
Floor	0	0	0	0
NW Wall	139	0	139	1,080
Window	1,269	0	1,269	959
NE Wall	139	0	139	1,080
Window	1,269	0	1,269	959
Whole House	4,387	621	5,008	8,442

In accordance with ACCA Manual J

Report Prepared By:

Dominion Due Diligence Group

For: Hillside Manor 1BR

Milwaukie, Oregon

Design Conditions: Portland

Indoor:		Outdoor:	
Summer temperature:	75	Summer temperature:	85
Winter temperature:	72	Winter temperature:	23
Relative humidity:	50	Summer grains of moisture:	71
		Daily temperature range:	Medium

Building Component	Sensible Gain (BTUH)	Latent Gain (BTUH)	Total Heat Gain (BTUH)	Total Heat Loss (BTUH)
Whole House	5,878	621	6,499	9,657
Main Floor	5,878	621	6,499	9,657
All Rooms	5,878	621	6,499	9,657
Infiltration	371	161	532	4,364
People	600	460	1,060	0
Miscellaneous	600	0	600	0
Floor	0	0	0	0
SE Wall	139	0	139	1,080
Window	1,593	0	1,593	959
SW Wall	139	0	139	1,080
Window	1,593	0	1,593	959
Ceiling	843	0	843	1,215
Whole House	5,878	621	6,499	9,657

In accordance with ACCA Manual J

Report Prepared By:

Dominion Due Diligence Group

For: Hillside Manor 1BR

Milwaukie, Oregon

Design Conditions: Portland

Indoor:		Outdoor:	
Summer temperature:	75	Summer temperature:	85
Winter temperature:	72	Winter temperature:	23
Relative humidity:	50	Summer grains of moisture:	71
		Daily temperature range:	Medium

Building Component	Sensible Gain (BTUH)	Latent Gain (BTUH)	Total Heat Gain (BTUH)	Total Heat Loss (BTUH)
Whole House	4,387	621	5,008	7,836
Main Floor	4,387	621	5,008	7,836
All Rooms	4,387	621	5,008	7,836
Infiltration	371	161	532	4,364
People	600	460	1,060	0
Miscellaneous	600	0	600	0
Floor	0	0	0	0
NW Wall	139	0	139	1,080
Window	1,269	0	1,269	656
NE Wall	139	0	139	1,080
Window	1,269	0	1,269	656
Whole House	4,387	621	5,008	7,836

In accordance with ACCA Manual J

Report Prepared By:

Dominion Due Diligence Group

For: Hillside Manor 1BR

Milwaukie, Oregon

Design Conditions: Portland

Indoor:		Outdoor:	
Summer temperature:	75	Summer temperature:	85
Winter temperature:	72	Winter temperature:	23
Relative humidity:	50	Summer grains of moisture:	71
		Daily temperature range:	Medium

Building Component	Sensible Gain (BTUH)	Latent Gain (BTUH)	Total Heat Gain (BTUH)	Total Heat Loss (BTUH)
Whole House	5,878	621	6,499	9,051
Main Floor	5,878	621	6,499	9,051
All Rooms	5,878	621	6,499	9,051
Infiltration	371	161	532	4,364
People	600	460	1,060	0
Miscellaneous	600	0	600	0
Floor	0	0	0	0
SE Wall	139	0	139	1,080
Window	1,593	0	1,593	656
SW Wall	139	0	139	1,080
Window	1,593	0	1,593	656
Ceiling	843	0	843	1,215
Whole House	5,878	621	6,499	9,051

In accordance with ACCA Manual J

Report Prepared By:

Dominion Due Diligence Group

For: Hillside Manor 2BR

Milwaukie, Oregon

Design Conditions: Portland

Indoor:		Outdoor:	
Summer temperature:	75	Summer temperature:	85
Winter temperature:	72	Winter temperature:	23
Relative humidity:	50	Summer grains of moisture:	71
		Daily temperature range:	Medium

Building Component	Sensible Gain (BTUH)	Latent Gain (BTUH)	Total Heat Gain (BTUH)	Total Heat Loss (BTUH)
Whole House	5,303	896	6,199	10,158
Main Floor	5,303	896	6,199	10,158
All Rooms	5,303	896	6,199	10,158
Infiltration	475	206	681	5,514
People	900	690	1,590	0
Miscellaneous	700	0	700	0
Floor	0	0	0	0
NW Wall	157	0	157	1,221
Window	1,457	0	1,457	1,101
NE Wall	157	0	157	1,221
Window	1,457	0	1,457	1,101
Whole House	5,303	896	6,199	10,158

In accordance with ACCA Manual J

Report Prepared By:

Dominion Due Diligence Group

For: Hillside Manor 2BR

Milwaukie, Oregon

Design Conditions: Portland

Indoor:		Outdoor:	
Summer temperature:	75	Summer temperature:	85
Winter temperature:	72	Winter temperature:	23
Relative humidity:	50	Summer grains of moisture:	71
		Daily temperature range:	Medium

Building Component	Sensible Gain (BTUH)	Latent Gain (BTUH)	Total Heat Gain (BTUH)	Total Heat Loss (BTUH)
Whole House	7,127	896	8,023	11,714
Main Floor	7,127	896	8,023	11,714
All Rooms	7,127	896	8,023	11,714
Infiltration	475	206	681	5,514
People	900	690	1,590	0
Miscellaneous	700	0	700	0
Floor	0	0	0	0
SE Wall	157	0	157	1,221
Window	1,829	0	1,829	1,101
SW Wall	157	0	157	1,221
Window	1,829	0	1,829	1,101
Ceiling	1,080	0	1,080	1,556
Whole House	7,127	896	8,023	11,714

In accordance with ACCA Manual J

Report Prepared By:

Dominion Due Diligence Group

For: Hillside Manor 2BR

Milwaukie, Oregon

Design Conditions: Portland

Indoor:		Outdoor:	
Summer temperature:	75	Summer temperature:	85
Winter temperature:	72	Winter temperature:	23
Relative humidity:	50	Summer grains of moisture:	71
		Daily temperature range:	Medium

Building Component	Sensible Gain (BTUH)	Latent Gain (BTUH)	Total Heat Gain (BTUH)	Total Heat Loss (BTUH)
Whole House	5,303	896	6,199	9,462
Main Floor	5,303	896	6,199	9,462
All Rooms	5,303	896	6,199	9,462
Infiltration	475	206	681	5,514
People	900	690	1,590	0
Miscellaneous	700	0	700	0
Floor	0	0	0	0
NW Wall	157	0	157	1,221
Window	1,457	0	1,457	753
NE Wall	157	0	157	1,221
Window	1,457	0	1,457	753
Whole House	5,303	896	6,199	9,462

In accordance with ACCA Manual J

Report Prepared By:

Dominion Due Diligence Group

For: Hillside Manor 2BR

Milwaukie, Oregon

Design Conditions: Portland

Indoor:		Outdoor:	
Summer temperature:	75	Summer temperature:	85
Winter temperature:	72	Winter temperature:	23
Relative humidity:	50	Summer grains of moisture:	71
		Daily temperature range:	Medium

Building Component	Sensible Gain (BTUH)	Latent Gain (BTUH)	Total Heat Gain (BTUH)	Total Heat Loss (BTUH)
Whole House	7,127	896	8,023	11,018
Main Floor	7,127	896	8,023	11,018
All Rooms	7,127	896	8,023	11,018
Infiltration	475	206	681	5,514
People	900	690	1,590	0
Miscellaneous	700	0	700	0
Floor	0	0	0	0
SE Wall	157	0	157	1,221
Window	1,829	0	1,829	753
SW Wall	157	0	157	1,221
Window	1,829	0	1,829	753
Ceiling	1,080	0	1,080	1,556
Whole House	7,127	896	8,023	11,018

EXHIBIT 11.7:

Utility Consumption Baseline (UCB)

Property Description

The project, currently known as Hillside Manor, is located at 2889 SE Hillside Street. The property features one hundred (100) dwelling units located within one (1) apartment building. According to tax records, the property is situated on approximately 16.68 acres and according to property management, features a combined gross area of 78,500 square feet. The structure was built in 1970.

The subject property is situated in northwest Oregon at an elevation of approximately 104 feet amsl, requiring 4400 heating degree-days and 390 cooling degree-days annually.

Utility Information

Electricity is supplied through PGE. Natural gas is supplied through NW Natural. Water and Sewer is supplied through the City of Milwaukie.

Management is responsible for all common area and dwelling unit utility costs (electricity, natural gas, and water/sewer) at the property.

The dwelling units and common areas are centrally metered for all electricity consumption. Electricity is billed on a monthly basis. Dwelling unit electric usage includes the electricity consumed by heating where applicable, appliances (e.g. refrigerators), cooking, plug load, and lighting. Heating is provided to dwelling units via electric baseboard heaters and roof-top gas-fired packaged units. Cooling is provided to the property via electric PTAC units, split ductless A/C, and gas-fired roof-top packaged units.

The dwelling units are centrally metered for all natural gas consumption. Natural gas is billed on a monthly basis. Dwelling unit natural gas usage includes the natural gas consumed by heating where applicable and domestic hot water (DHW). Heating is provided to the common area via standard roof-top gas-fired packaged unit. DHW is provided to dwelling units via gas-fired boilers.

The dwelling units are centrally metered for all water/sewer consumption. Water and sewer is billed on a monthly basis. The property does not feature a potable irrigation system.

Anomalies found in the provided billing data included various gaps related to electricity, natural gas, and water/sewer consumption. The property features a 100kW diesel fired emergency generator.

Methodology

Hillside Manor's utility consumption for the period of twelve (12) months was analyzed using local weather data for this time period. Methodology for presumed consumption during periods for which data was not provided included, local regression smoothing of data when surrounding data is deemed sound and duplication of similar data when presumed conditions allow. An average year was then compared to NOAA data comprising 30-yr averages for Heating Degree Days and Cooling Degree Days for the months analyzed.

Occupancy and Bill Adjustments

Provided billing represented 100% of electricity data; 100% of natural gas data; and 100% of water/sewer utilities or twelve (12) months of data within the baseline period. The property did not feature unoccupied units during the study period. Due to the use of centralized systems, metered data was determined to represent typical consumption. No occupancy adjustment was applied to the provided data based on reported occupancy rates during the study period. Two (2) dwelling units were vacant at the time of inspection.

Estimation Methodology

Electric:

Electricity consumption, which is centrally metered, was received for the baseline period of July 2016 through June 2017. This corresponded to 365 days of consumption data. The provided data did contain rate information, which was compared to Department of Energy and ENERGY STAR published rate information and was utilized in the report.

Natural gas:

Natural gas consumption, which is centrally metered, was received for the baseline period of July 2016 through June 2017. This corresponded to 365 days of consumption data. The provided data did contain rate information, which was compared to Department of Energy and ENERGY STAR published rate information and was utilized in the report.

Water/Sewer:

Water/sewer consumption, which is centrally metered, was received for the baseline period of July 2016 through June 2017. This corresponded to 365 days of consumption data. The provided data did contain rate information which was utilized within the report.

Weather Normalization

In order to normalize the data for any weather anomalies in the analyzed year, 30 year averaged Heating Degree Days (HDD) and Cooling Degree Days (CDD) were obtained from NOAA U.S. Daily Climate Data. Based on the analyzed period data in comparison to the NOAA 30-yr averages for heating and cooling degree days, a seasonal weather normalization factor of 1.09 was calculated for the heating load consumption data during the study period. Weather normalization factors for heating load analysis were found to be within 9% of the 30-year average; therefore, no adjustments were included in the report. Based on the analyzed period data in comparison to the NOAA 30-yr averages for heating and cooling degree days, a seasonal weather normalization factor of 1.54 could reasonably be applied to the cooling load consumption data during the study period. Energy Star benchmarking applies weather normalization according to their own algorithms and no further adjustments have been made. Water/Sewer consumption for the study period is not expected to be affected by weather normalization of data.

Rates

Service	Provider	Responsible Party	Billing Rate
Electricity	PGE	Management	$0.08224 per kWh
Natural Gas	NW Natural	Management	$0.89449 per therm
Water/Sewer	City of Milwaukie	Management	$0.0049 per gal

Electricity is supplied through PGE. The average rate utilized for predictive savings for electricity accounts is $0.08224/kWh.

Natural gas is supplied through NW Natural. The average rate utilized for predictive savings for electricity accounts is $0.89449/therm.

Water and sewer supplied through the City of Milwaukie. The average rate for the water/sewer accounts is $0.0049/gallon.

EXHIBIT 11.8:

HUD Form 92329

Property Insurance Schedule of Replacement Cost (HUD Form 92329)

OMB Approval No. 2502-0029

(exp. 09/30/2016)

CNA Number: 2018-017822 Property Name: Hillside Manor Date Run: 2/16/18

Residential Buildings

Building Types	Building Id	SF Cost	Total SF	100 % Insurable Value
High-Rise	Apartment Building	$117	78,500	$9,180,575
				$9,180,575

Property Total: **$9,180,575**

EXHIBIT 11.9:

Site Specific Information

1 1 E 25CD
MILWAUKIE

S.E.1/4 S.W.1/4 SEC.25 T.1S. R.1E. W.M.
CLACKAMAS COUNTY
1" = 100'

D.L.C.
WILLIAM MEEK NO. 50

12-262UR
R3

12-02
R1

R7
R2
R1B
M
ROC
CG

100
100L1
16.68 Ac.
2889 - 10368

2300
7.13 Ac.
2615

2600
0.98 Ac.
2600E1
2835

7800
0.62 Ac.

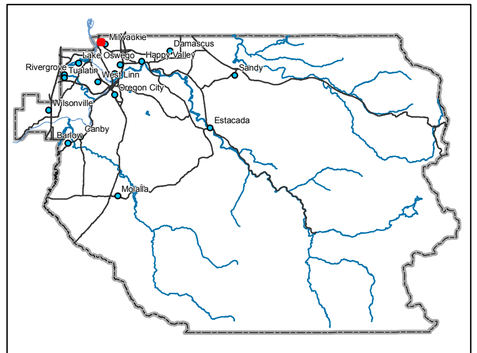
PUBLIC RD
HARVESTER DR.
S.P.R.R.
PACIFIC HWY. EAST
CASCADE HWY.
224
HIGHWAY
OVERPASS
APP. 1/16 COR.
SEE MAP 1 1E 25CA SUPPL
SEE MAP 1 1E 25CC
SEE 2012-062485
LAKE
CRYSTAL AVENUE
26TH
29TH ST.
(BROWNELL ST.)
HILLSIDE
COURT (AVE)
DWYER DRIVE
STREET
32ND
SE
ST.
PLACE
PS 23565
CLACKAMAS COUNTY HOUSING AUTHORITY
MEEK
CHERRY
(VACATED DV 350 P 187)
MOSS
(VACATED)
LEE
LEWELLYN
BK 476 PG 104
31ST
SW COR HECTOR CAMPBELL D.L.C. NO.
SEE MAP 1 1E 25DC
SEE MAP 1 1E 36BA
SEE MAP 1 1E 36AB
SEE MAP 1 1E 25CD SUPP 1
90000-90006
80000-80002
S. LINE WILLIAM MEEK D.L.C. 50
N. LINE LOT WHITCOMB D.L.C. 2
THIS POINT IS 1940.00 W'LY OF N.E.COR LOT WHITCOMB D.L.C.
W'LY FROM NE COR LOT WHITCOMB D.L.C.
HARRISON
TO HWY 224 & 99E
TO RTE HWY224 Southern Portion

10000
10200
10500
2700
3000
3200

Cancelled Taxlots

101
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2301
2302
2303
2400
2500
2501
2900
3100
3200
3300
3400
3500
5200
5801
5900
5901
6001
6500
6701
6801
6900
7000
7100
7200
7701
100L1

- Parcel Boundary
- Private Road ROW
- Historical Boundary
- Railroad Centerline
- TaxCodeLines
- Map Index
- WaterLines
- Land Use Zoning
- Plats
- Water
- Corner
- Section Corner
- 1/16th Line
- Govt Lot Line
- DLC Line
- Meander Line
- PLSS Section Line
- Historic Corridor 40'
- Historic Corridor 20'

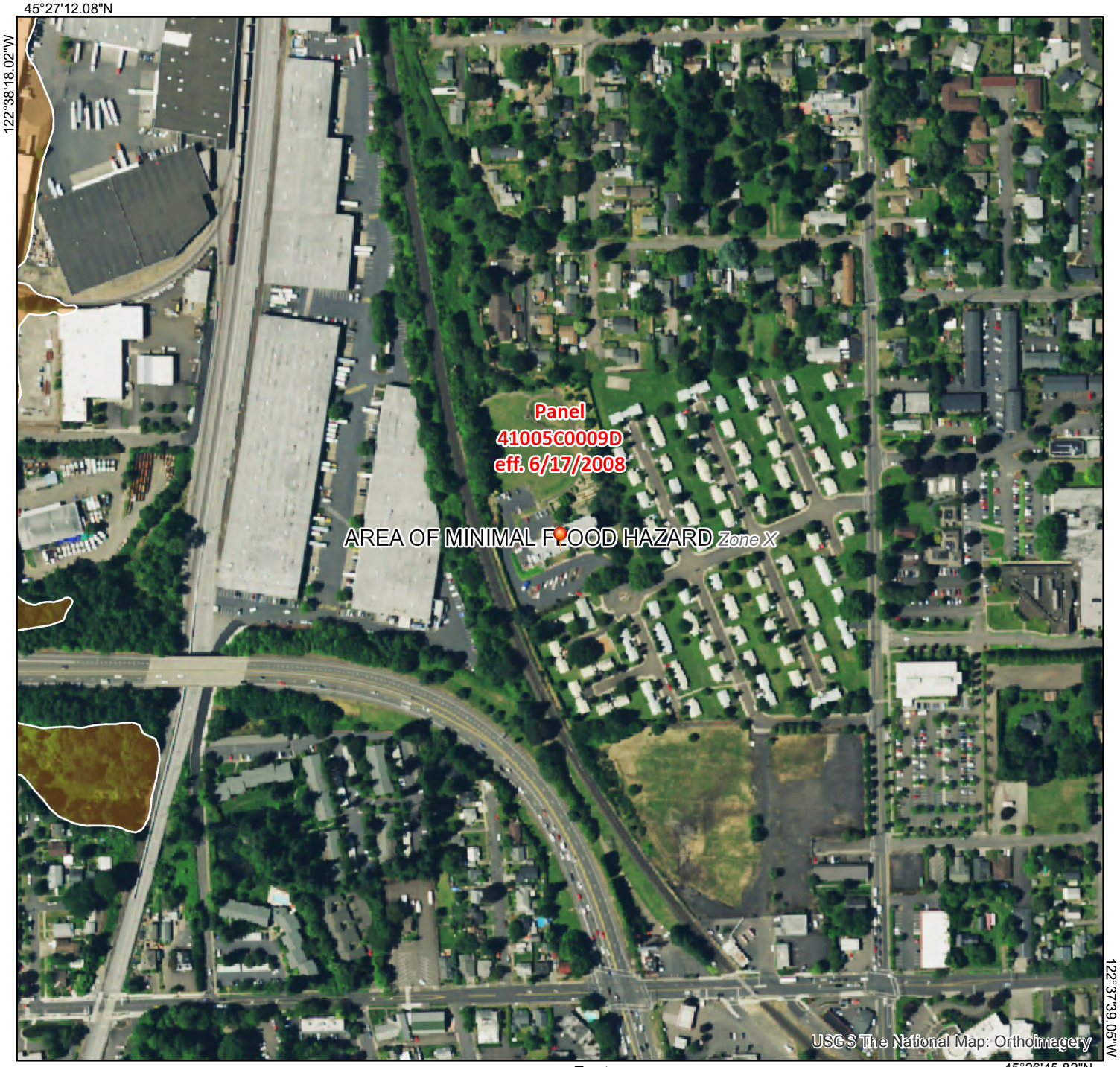


THIS MAP IS FOR ASSESSMENT PURPOSES ONLY

3/13/2017

1 1 E 25CD
MILWAUKIE

National Flood Hazard Layer FIRMette



Legend

- Cross-Sections
- Base Flood Elevations

Flood Hazard Zones

- 1% Annual Chance Flood
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee

LOMRs

- Effective

Map Panels

- Digital Data
- Unmodernized Maps
- Unmapped

This map complies with FEMA's standards for the use of digital flood maps. The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. The base map shown complies with FEMA's base map accuracy standards.

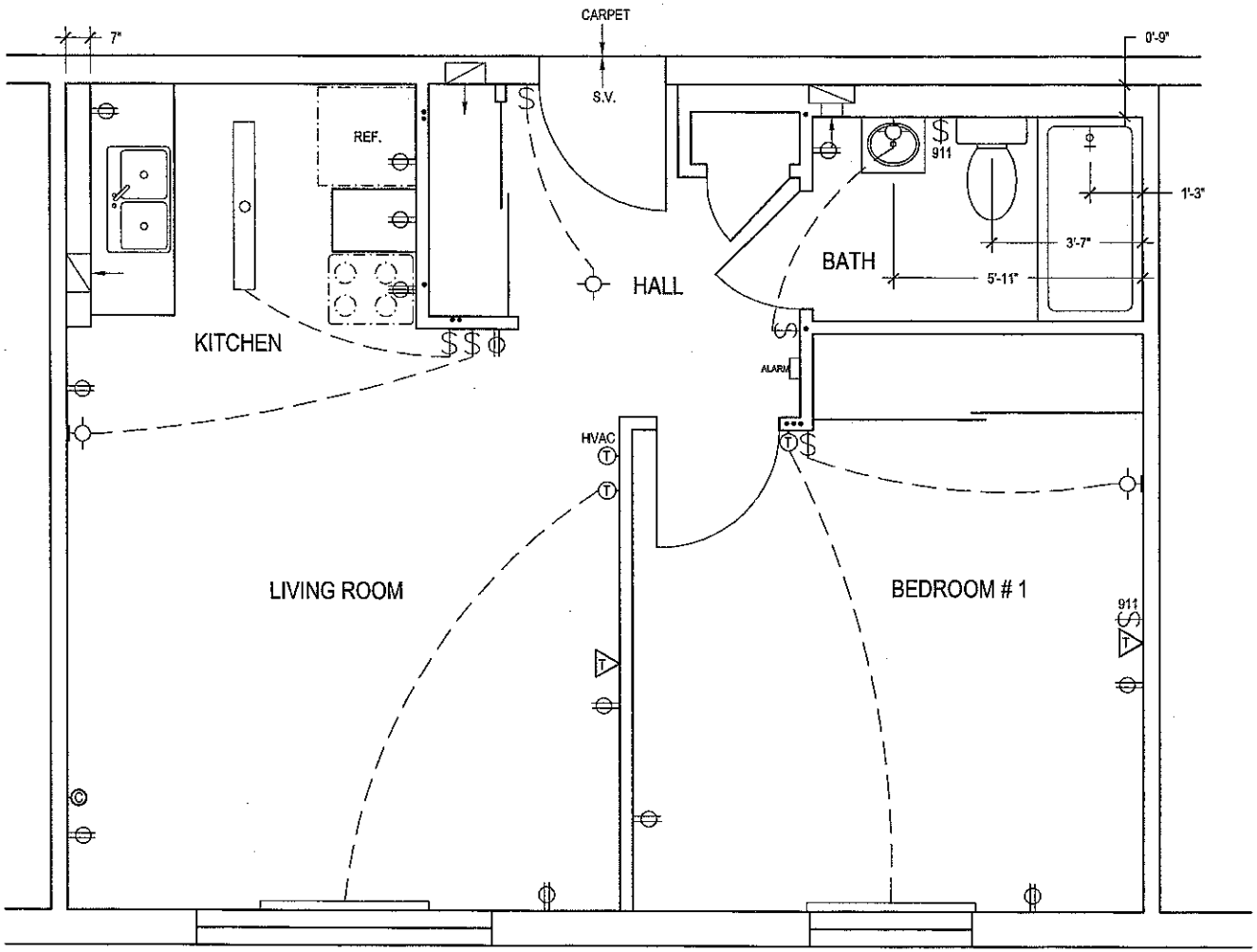
The NFHL is a living database, updated daily, and this map represents a snapshot of information at a specific time.

Flood risks are dynamic and can change frequently due to a variety of factors, including weather patterns, erosion, and new development. FEMA flood maps are continually updated through a variety of processes. Users should always verify through the Map Service Center (http://msc.fema.gov) or the Community Map Repository that they have the current effective information.

NFHL maps should not be created for unmapped or unmodernized areas.

FEMA

Date: 2/1/2018 Time: 8:07:22 PM



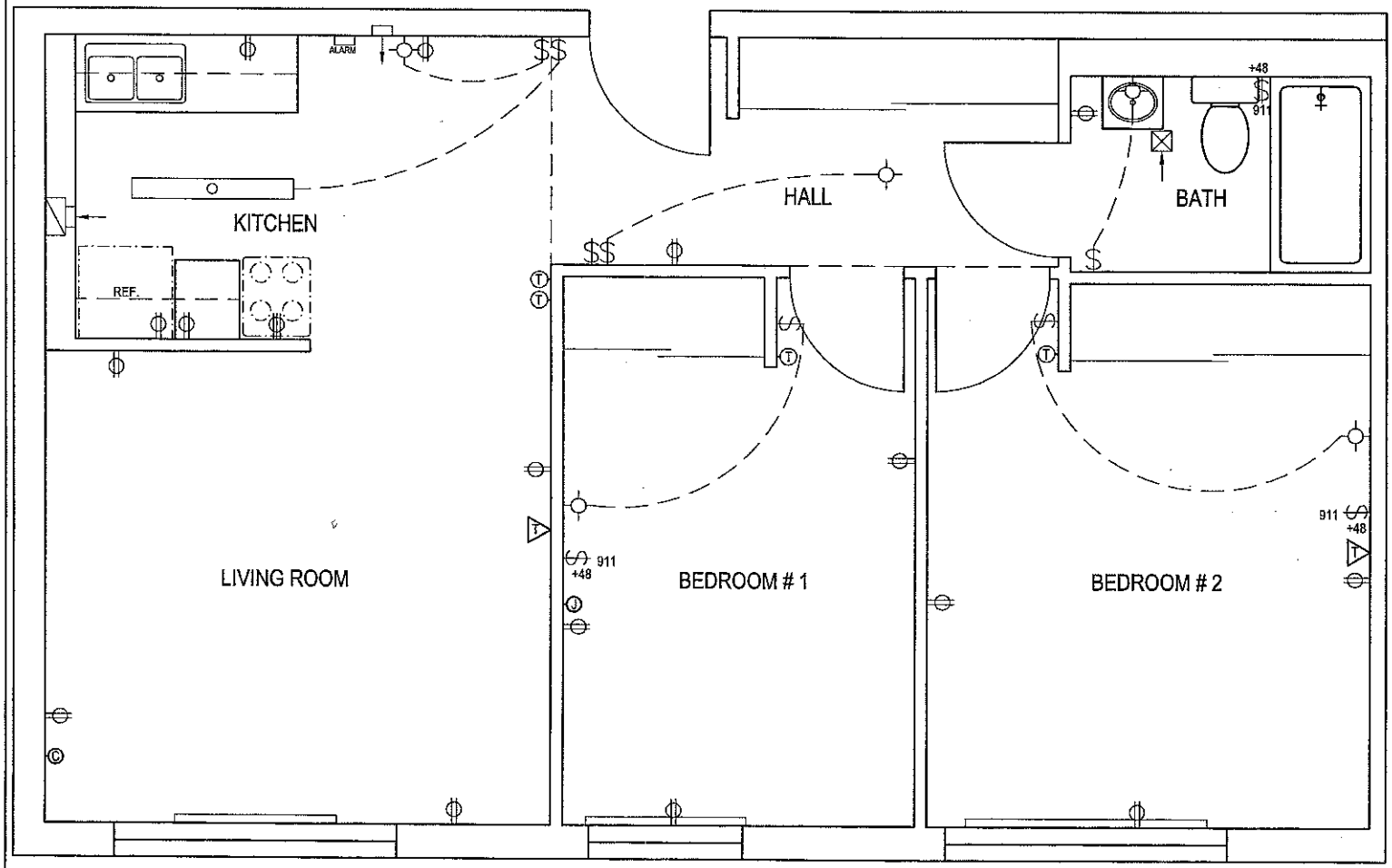
AREA	NET SQ. FT.
BATH	38.5 SQ. FT.
HALL	62.5 SQ. FT.
KITCHEN	48.5 SQ. FT.
LIVING	178 SQ. FT.
BEDROOM # 1	158 SQ. FT.
TOTAL NET SQ. FT.	485.5 SQ. FT.
TOTAL GROSS SQ. FT.	496 SQ. FT.

TYPICAL ONE BEDROOM UNIT @ HILLSIDE MANOR

SCALE: NTS

EQUAL HOUSING OPPORTUNITY
hacc
HOUSING AUTHORITY OF CLACKAMAS COUNTY
P.O. BOX 1510-13900 SOUTH GAIN STREET-OREGON CITY, OR 97045 TELEPHONE: (503) 650-3143 FAX: (503) 650-3538

Address: HILLSIDE MANOR MILWAUKIE, OR	
Job#	Date: 05/10/04
Drawn by: JT	Checked by: AA
Sheet# of	



AREA	NET SQ. FT.
BATH	37 SQ. FT.
HALL	73 SQ. FT.
KITCHEN	92 SQ. FT.
LIVING	150 SQ. FT.
BEDROOM # 1	120 SQ. FT.
BEDROOM # 2	150 SQ. FT.
TOTAL NET SQ. FT.	622 SQ. FT.
TOTAL GROSS SQ. FT.	727 SQ. FT.

TYPICAL TWO BEDROOM UNIT @ HILLSIDE MANOR

SCALE: NTS

EQUAL HOUSING OPPORTUNITY
hacc
HOUSING AUTHORITY OF CLACKAMAS COUNTY
P.O. BOX 1510-13900 SOUTH GAIN STREET-OREGON CITY, OR 97045 TELEPHONE: (503) 650-3143 FAX: (503) 650-3538

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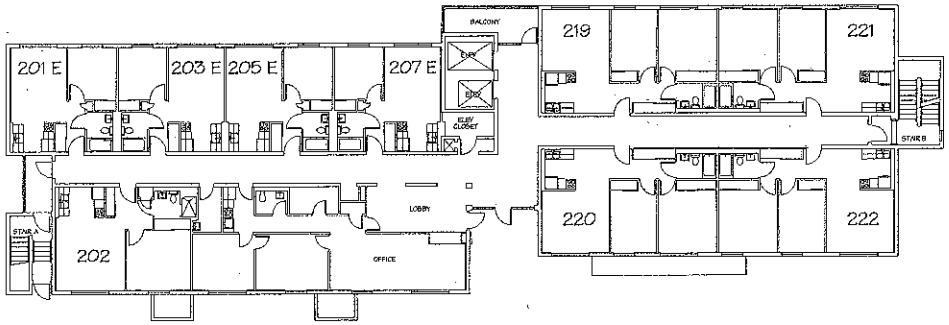
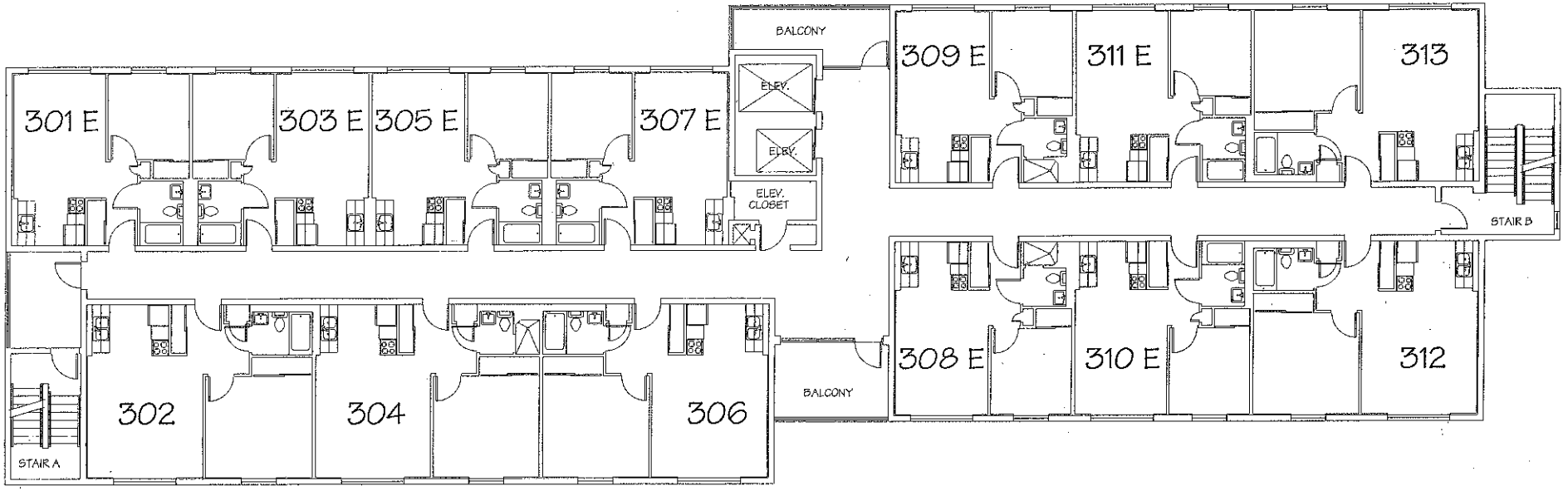
Sheet# of	



SECOND LEVEL - FLOOR PLAN
SCALE: NTS

SOUTH SIDE ELEVATION (FRONT)
SCALE: NTS



THIRD THRU NINTH LEVEL - FLOOR PLAN
SCALE: NTS

100 TOTAL UNITS
(60) 1 BEDROOM EFFICIENCY UNITS (400sq. ft.)
(36) 1 BEDROOM UNITS (506sq. ft.)
(4) 2 BEDROOM UNITS #219, 220, 221, 222 (648sq. ft)
(6) ADA UNITS 220, 221, 222, 312, 313, 402

Updated 7/19/07

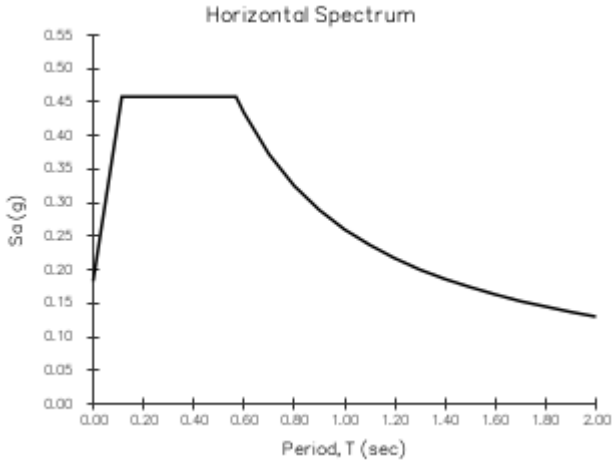
Design Maps Summary Report

User–Specified Input

Report Title	Hillside Manor Mon January 29, 2018 18:46:22 UTC
Building Code Reference Document	ASCE 41-13 Retrofit Standard, BSE-1E (which utilizes USGS hazard data available in 2008)
Site Coordinates	45.44978°N, 122.63087°W
Site Soil Classification	Site Class D – "Stiff Soil"

USGS–Provided Output

$S_{S,20/50}$	0.293 g	$S_{XS,BSE-1E}$	0.458 g
$S_{1,20/50}$	0.110 g	$S_{X1,BSE-1E}$	0.260 g



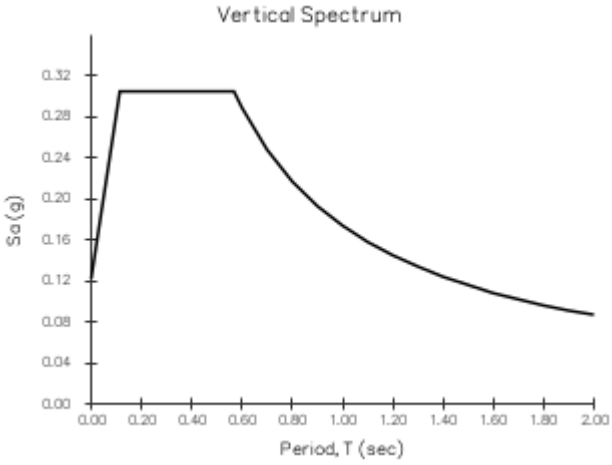


EXHIBIT 11.10:

Municipal Code and Zoning Letters

EXHIBIT 11.11:

Staff Resumes and Certifications

MIKE T. FERGUSON, PE, BPI BA

DIRECTOR OF ENGINEERING SERVICES

EDUCATION
Averett University, VA, USA, M.B.A.
University of Toronto, ON, Canada, M.Eng. in Civil Engineering
Ryerson Polytechnic University, ON, Canada, B.Eng. in Civil Engineering

CERTIFICATIONS/REGISTRATIONS/TRAINING
Licensed Professional Engineer, Virginia, Indiana
HUD Multi-Family Accelerated Processing (MAP) Cost/A&E Seminar – New York City
Multifamily Property Inspection Training – Mortgage Bankers Association (CampusMBA)
AHERA Asbestos Accreditation
Principles of Environmental Site Assessments – ASTM E 1527-05
Fair Housing Act Accessibility Workshop (2 day workshop)
U.S. Green Building Council – LEED 101: Green Building Basics
Building Performance Institute (BPI) Certified Building Analyst Professional
FEMA Emergency certificates
Basics of Elevator Inspections given by Sanjay Kamani, QEI, KP Property Advisors LLC
Integrated Pest Management in Multifamily Housing Course - National Healthy Homes Training Center
Fair Housing Act Training – Design and Construction Requirements
Reserve Specialist

SUMMARY OF EXPERIENCE
Mr. Ferguson has extensive training and experience with regards to commercial and residential construction and design issues. Mr. Ferguson has 10 years experience in the construction industry as a structural engineer, commercial and residential contractor, having worked with Tectonic Engineering Consultants, Davroc and Associates, and various independent contractors prior to joining Dominion Due Diligence Group as Director of Engineering Services. In his former employment he was responsible for managing construction projects, structural design and analysis, construction specification preparation, construction documentation control, construction inspections, and building investigations throughout the United States and eastern Canada for commercial, municipal and governmental agencies. He has an in-depth understanding of all phases of construction, from planning and design, to structural requirements and site development. In his current position with Dominion Due Diligence Group, Mr. Ferguson is responsible for managing Dominion's staff of Needs Assessors/Construction Inspectors, scheduling projects, providing technical support as well as quality control and assurance measures, and training of staff. The following sites are examples of multi-family and health care facilities, which Mr. Ferguson has inspected and reported upon:

HUD MAP 223(f)
- Chippington Towers II - Nashville, TN
- Gilman Square Apts. - Somerville, MA
- Hearthstone Apartments - McAllen, TX
- Jaycee Village Apartments - Uhrichsville, OH
- Lakeshore Apartments - Miami, FL
- Laurens Villa Apartments - Laurens, SC
- Mountain Shadow Apts. - Palmdale, CA
- Pendleton Place Apartments - Indianapolis, IN
- Riverview Cooperative - Riverview, MI
- St. Augustine Apartments - Miami, FL
- Stratford and Watergate Apts. - Indianapolis, IN Summer Breeze Apartments - North Hills, CA
- Sunset Ridge Apartments - Reno, NV

MIKE T. FERGUSON, PE, BPI BA

DIRECTOR OF ENGINEERING SERVICES

HUD MAP 232/223(f)

- Anberry Rehabilitation Hospital - Atwater, CA
- Saint Andrew's Healthcare - Los Angeles, CA
- Beechwood Continuing Care - Getzville, NY
- Bickford Cottage - Omaha, NE
- Kenwell Adult Home - Kenmore, NY
- Levering Regional Health Care - Hannibal, MO
- Livingston Convalescent Center - Livingston, TX
- Manor Hills Adult Home – Wellsville, NY
- Worcester Skilled Nursing Center - Worcester, MA
- Zionsville Meadows - Zionsville, IN
- Silsbee Convalescent Center - Silsbee, TX
- Susguehanna Nursing Home - Johnson City, NY
- Tri-State Manor - Harrogate, TN
- United Helpers Nursing Home - Ogdensburg, NY

HUD MAP 202/223(f)

- Cooper Square Apartments - New York, NY
- Essex Cooperative - Essex, MD
- Evelyn & Louis Green Residence - Far Rockaway, NY Julianna Apartments - Buffalo, NY
- Oak Forest Apartments - Franklin, NC
- Scheuer House of Brighton Beach - Brooklyn, NY
- Spring Valley Apartments -Caspian, MI
- Ukrainian Village - Warren, MI

OTHER

- Beacon Pointe Nursing Center - Sunrise, FL – PCNA for ASTM
- Chippington Towers -Madison, TN – PNA per HUD and Fannie Mae protocols
- ITT Technical Institute Building – Richmond, VA – PCR per ASTM protocols
- Knoxville Pointe West - Dunlap, IL - PCNA for Freddie Mac
- Oakland Village Townhomes – Richmond, VA – PNA for ASTM
- Rosegate Commons, Indianapolis, IN – PCR for Freddie Mac
- Scheuer House of Coney Island – Brooklyn, NY – PCNA per HUD protocols
- Scheuer House of Manhattan Beach – Brooklyn, NY – PCNA per HUD protocols
- Vantage 78 Apartments – Charlotte, NC – PCNA per HUD protocols

BRIAN TETEAK, BPI MFBA

ENGINEERING PROJECT MANAGER

EDUCATION
University of Colorado, B.S. International Business,
Minor, Urban and Regional Planning

CERTIFICATIONS/REGISTRATIONS/TRAINING
Leadership in Energy and Environmental Design (LEED) Green Associate

SUMMARY OF EXPERIENCE
Brian Teteak is an engineering project manager for Dominion Due Diligence Group. Mr. Teteak is directly responsible for coordinating, conducting and preparing Property Condition Reports, Project Capital Needs Assessments and Phase I Environmental Site Assessments throughout the United States. Additionally, Mr. Teteak is responsible for performance and management of field projects, client contact and comprehensive report writing.

Mr. Teteak is experienced with regards to commercial and residential construction and design issues, green building and energy efficiency, as well as managing quality control pertaining to construction projects. Prior to joining Dominion Due Diligence Group he worked with the International Center for Appropriate and Sustainable Technology (iCAST) developing financing, green building, and energy efficiency solutions for commercial and multifamily clients. Most recently, he founded and managed T-TECH Home Services, an independent provider of construction, remodeling, and real estate services, including property management, home inspection work, and replacement cost estimates.

The following sites are examples of projects in which Mr. Teteak has participated:

RAD PHYSICAL CONDITION ASSESSMENTS
- Tennessee Valley Regional Housing Authority (TVRHA) Portfolio, MS
- San Francisco Housing Authority (SFHA) West Addition 1 & 2 – San Francisco, CA
- Housing Authority of Central El Paso (HACEP) Portfolio, El Paso, TX

HUD MAP 223(f)
- Oak Street Apartments – Washington, DC
- Marble Hall Apartments – Tuckahoe, NY
- El Paso Towers – El Paso, TX
- Glenridge Cooperative – San Francisco, CA
- United Manor – DeWitt, IA
- Ozark Gardens Apartments – Osage Beach, MO
- Las Casitas de San Luis – San Luis, AZ
- Homes of Persimmons – Dallas, TX
- The Arbors at Centennial Park – Oak Creek, WI
- Concord Place & Morgan Crossing – Oshkosh, WI
- Ashtabula Towers – Ashtabula, OH
- Crossings at Hesperia – Hesperia, CA

MULTIFAMILY INTRUSIVE PCNA
- The Grove – Ontario, CA
- The Nobles – Denver, CO
- Reseda Apartments – Tarzana, CA
- Ada/Throop – Chicago, IL

HUD MAP 221(d)(4) SR
- Grand Forks Homes – Grand Forks, ND

BRIAN TETEAK, BPI MFBA

ENGINEERING PROJECT MANAGER

DOMINION
Due Diligence Group

HUD SPRAC
- Lesley Towers – San Mateo, CA
- Ocean View Plaza – Half Moon Bay, CA

HUD LEAN 232/223(f)
- Arbor Ridge Assisted Living – Vancouver, WA
- The Cambridge – Quincy, WA
- Concourse Rehabilitation & Nursing Center – Bronx, NY
- Marquis Centennial – Portland, OR
- Jacob Health Care Center – San Diego, CA
- Apple Springs Senior Living – Omak, WA
- Westover Hills Rehabilitation and Healthcare Center – San Antonio, TX
- Pecan Valley Rehabilitation and Healthcare Center – San Antonio, TX
- Hunters Pond Rehabilitation and Healthcare Center – San Antonio, TX
- Grace Living Center – Norman, OK

HUD LEAN 232 NC
- Arbor Crest – Maryland Heights, MO

STATE TAX CREDITS
- Pierson Hills – Peoria, IL – IHDA
- Westmoreland's Union Manor – Portland, OR – OHCS
- Woodland Christian Towers – Houston, TX – TDHCA
- Pilgrim Tower – Los Angeles, CA – CTCAC

FREDDIE MAC PCR
- Hill 'N Dell Apartments – Phoenix, AZ

ASTM/AAI COMPLIANT
- Santa Fe Apartments – Colorado Springs, CO
- Prairie Run – Couer d' Alene, ID
- Bakersfield Healthcare Center – Bakersfield, CA
- Ember Healthcare Center of Maclay – Sylmar, CA
- Lifehouse Riverside – Riverside, CA
- Freedom West Homes – San Francisco, CA
- Norma's Plaza – Houston, TX