

CHFA Capital Needs Assessment and Replacement Reserve Analysis

Prepared for:

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and

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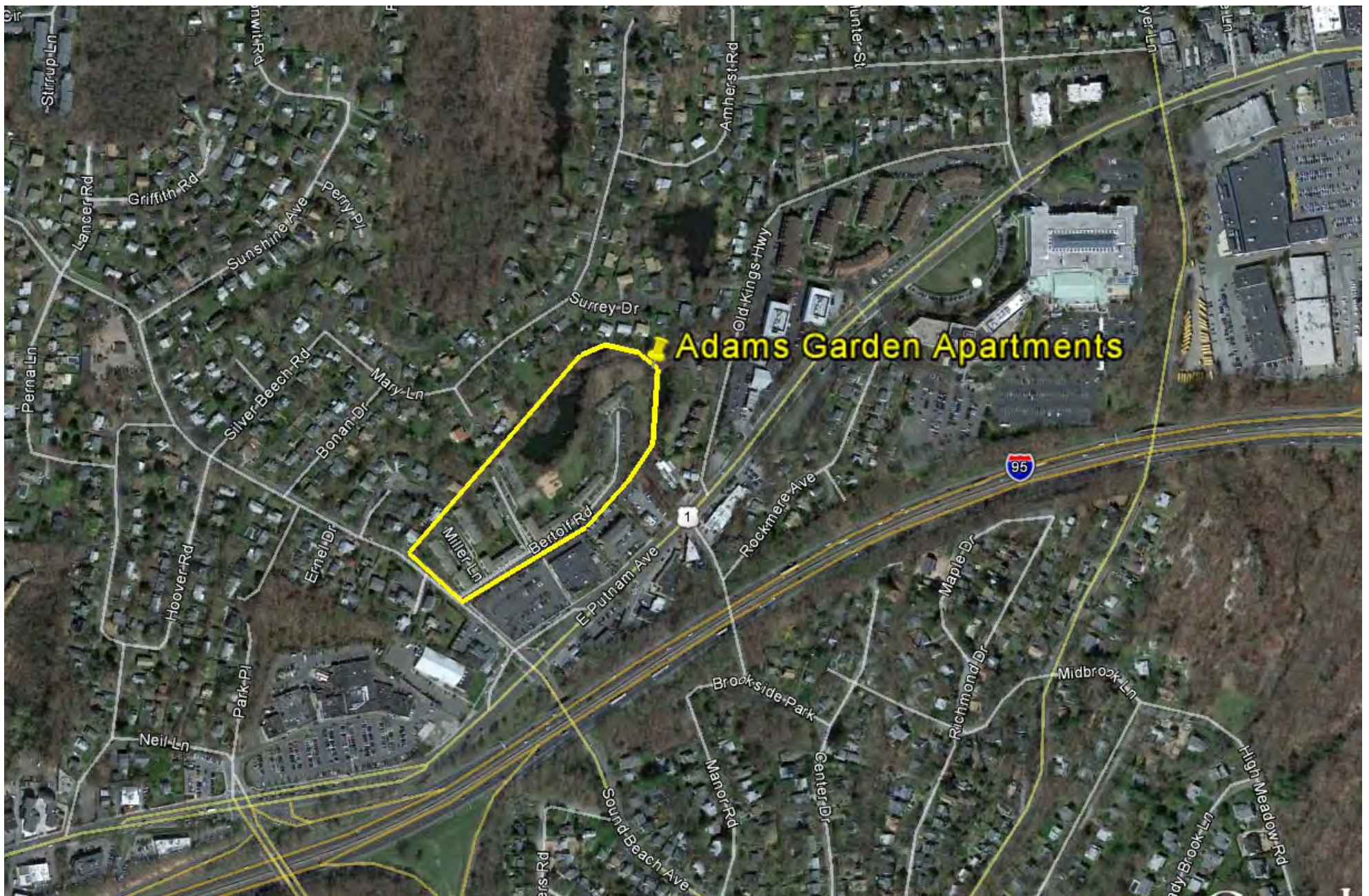
Adams Garden

CHFA # 85059D

Greenwich Housing Authority
Greenwich, CT

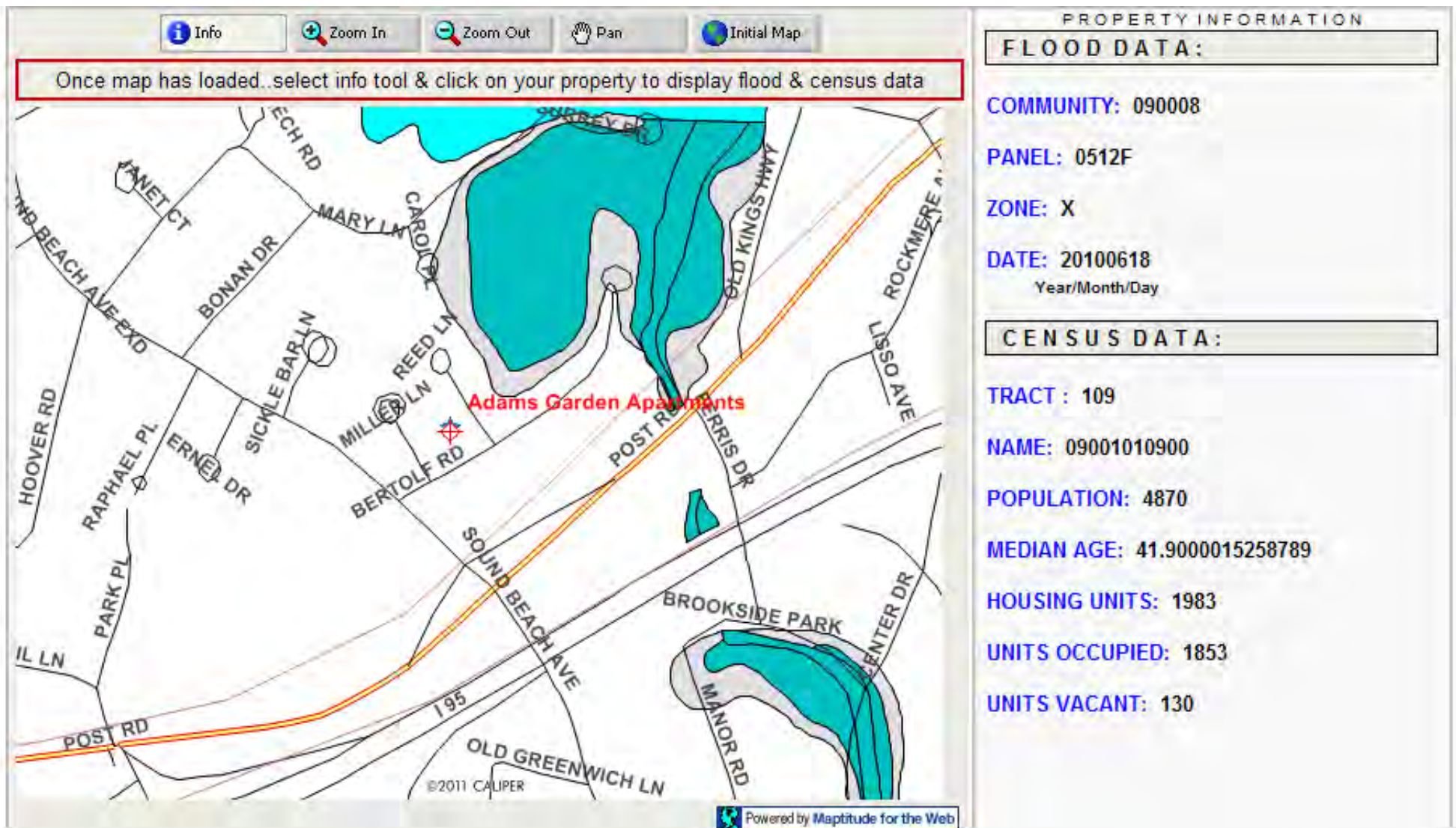
July 11, 2013

Final Report



Adams Garden Apartments

Bertolf Road, Reed Land, and Miller Lane
Greenwich, CT 06878



Adams Garden Apartments

Bertolf Road, Reed Land, and Miller Lane
Greenwich, CT 06878

Zone X = Outside the 500-year floodplain and
Outside the 1% and 0.2% annual chance floodplains

Executive Summary

Adams Garden

Greenwich, CT

Adams Garden is a residential development for families. The development is comprised of 9 residential buildings containing a total of 80 units (2 one-bedroom, 60 two-bedroom, and 18 three-bedroom units). Original construction of the development dates to 1949. There are no handicap accessible units at this development, as unit layouts (townhouse style) would make any fully accessible layouts prohibitive.

Overall the development is in good condition. Recent renovations in 2007 have included roofing and siding replacements. Windows, unit baths, and unit entrance doors were replaced over twenty years ago, during an earlier renovation program. As shown on the attached capital needs worksheets, the property faces significant capital expenditures over the term of the plan. Greenwich Housing Authority representatives report that there is approximately \$324,672 of Reserve Funding in place for this development. Based on projections, the development is seen as requiring an increase of replacement reserve funding and/or an infusion of additional capital.

Key findings identified as part of this assessment include the following:

- The roadways and parking areas are maintained by the municipality. Stone retaining walls supporting the roadways at the Reed Lane and Miller Lane cul de sacs are shown for masonry repairs in Years 1 and 16. Site walks are a mix of concrete and asphalt. Minimal sections require repair/resurfacing work, and allowances are shown in Years 1, 9, and 17. The basketball court is shown for resurfacing work in Year 9, with periodic surface repair costs shown as needed. The playground area's equipment and ground cover are shown being updated in Year 4. Interim accessibility improvement costs to install walkways to the play areas are shown in Year 1. Landscaping is generally maintained from operations. Tree pruning and removal allowances are shown in the plan. Site signage is shown being updated in Year 9.

- Building exteriors are primarily clad with brick masonry. Cracking and mortar deterioration were observed at several locations, and repairs are shown starting in Years 2 and 19. Interim structural engineering analysis costs are shown in Year 1. Vinyl sided wall sections and aluminum wrapped trim elements are shown for periodic repair and powerwashing allowances. Wood trim and ceiling elements, primarily around unit entrance doors, are shown for repair and painting starting in Year 3 and 12. Concrete porches, many with deteriorating iron railings, are shown for repairs and railing replacement in Years 1 and 16. Access into the community room and laundry facility would be enhanced by installing concrete ramp structures. Unit entrance doors and storm doors are due to be replaced with more energy efficient models, and costs are shown over time for this work. Service doors are shown being upgraded as well. Windows are over twenty years in age, and some operation and hardware problems were reported. Window replacement is shown in Years 9-14. Exterior lighting upgrades are shown starting in Year 5. Roofing shingles display minimal organic staining and lifting. There were no reported leaks. Interim repairs are handled from operations. Future replacement costs are shown in Year 15-17. Gutters and downspouts would be upgraded concurrent with future roofing replacement work.
- Interior common areas are limited to the community room and adjoining restroom, and a laundry room facility. Periodic allowances for painting the laundry facility are shown in the plan. Laundry equipment is maintained from a service provider. The community room's finishes are due to be updated, and the restroom needs to be expanded to meet accessibility requirements. Costs are shown accordingly.
- Heating boilers and domestic hot water generation equipment are anticipated for replacement in the early years of the plan.
- Unit interior finishes and fixtures display good overall conditions. Painting is usually performed on unit turnover, from operations. Wood flooring in unit living areas is shown for periodic repair and refinishing throughout the plan. Vinyl tile flooring varies in age. Kitchen flooring is to be replaced concurrent with anticipated cabinetry replacement work. Baths are shown for flooring updates on a more protracted schedule. Bathroom tub re-glazing and ceramic tile surround repairs are anticipated in most years of the plan. Vanities, sinks, wall accessories, medicine cabinets, toilets, and ventilation / exhaust fans are shown being upgraded over time. Kitchen cabinetry displays hard use and deterioration. Replacements are shown starting in Year 2. Refrigerators are the resident's responsibility. Most ranges are nearing the end of their EUL, and replacements are shown accordingly. Ranges are to be replaced with combination microwave appliances concurrent with cabinetry and ranges. Local ring smoke / fire / CO detection devices are replaced as needed throughout the plan. Electrical circuit breaker panels are older Federal Pacific Stablok models, and replacement due to safety concerns with these panels is anticipated in the early years of the plan.

Additional Notes:

1. The Physical Assessment of the property was conducted on Monday, June 10th, 2013 and Wednesday, June 12th, 2013. Additional information was provided to ON-SITE INSIGHT by site staff and others. OSI was represented on this assignment by Craig Torres. We would like to thank Ms. Sardis Solano; Mr. Terry Mardula; Mr. Joe Derubeis; Mr. Bruno Lacaria, and the site staff for their assistance.
2. There were no “drawings” or “blueprints” available for this development. Dimensional information used in this report was procured via field measurements during the assessment of the property and via aerial images of the development utilizing the GoogleMaps website program.
3. Cost estimates used in this assessment are based on data from *RS Means Facilities and Construction Cost Data*. These cost estimates have been applied uniformly across the entire study portfolio to help ensure consistency of future projections. Actual owner and/or site pricing could vary significantly.
4. Unless required by fire, safety, or accessibility codes, items are typically shown being replaced in kind and do not include any planned upgrades or potential upgrade opportunities.
5. Regular updates of this plan are recommended to ensure careful monitoring of major building systems and to adjust the program to accommodate unanticipated circumstances surrounding the buildings, operations, and/or occupants.
6. This report is delivered subject to the conditions on Appendix A, *Statement of Delivery*.



1. Variable site walkway conditions



2. Stone retaining walls at cul de sacs



3. Building elevations, this with community room on end



4. Typical building front elevations



5. Vertical cracking at gable end wall of one building



6. Spot mortar deterioration and brick spalling



7. Spot brick masonry cracking



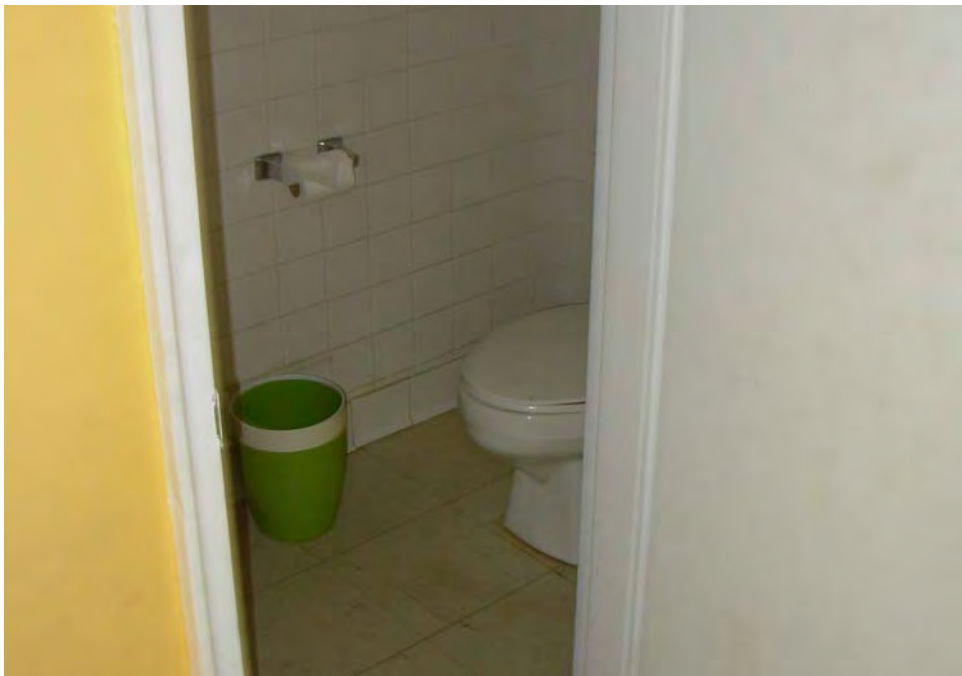
8. Railing deterioration at many porches



9. Minimal spot lifting of roofing shingles



10. Community room finishes and furnishings



11. Common restroom to be expanded for accessibility



12. Laundry facility finishes and equipment



13. Typical heating boiler assembly



14. Typical domestic hot water generation equipment



15. Typical unit living area finishes



16. Typical unit bathroom finishes and fixtures



17. Spot wall and tub surround deterioration in unit baths



18. Typical unit kitchen cabinetry and appliances



19. Cabinetry with typical finish wear and deterioration



20. FPE Stablok circuit breaker panels, to replace

Comprehensive Capital Needs Assessment Schedule

Summary

Owner Sponsor Name:	Greenwich Housing Authority
Project Name:	Adams Garden
Project City / Town:	Greenwich, CT

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 11, 2013

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

Beginning Replacement Reserve Balance:	\$324,672
Annual Replacement Reserve Contribution:	\$0
Additional Misc. Contribution:	

	Component	Total Planned Expenditures by Year																						
		Emergency	Deferred	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Revitalization
				2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
1	Site Improvements	0	7,500	42,739	4,635	0	43,709	2,099	0	0	9,839	24,781	0	0	0	0	0	6,807	48,865	6,216	66,114	0	0	0
2	Building Exterior	0	72,784	92,874	100,960	109,293	112,572	52,670	66,851	1,388	1,430	7,465	109,412	112,694	121,387	162,182	160,101	12,030	36,322	20,354	0	105,747	108,919	0
3	Roofing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	224,768	231,511	238,456	0	0	0	0
4	Lobby - Mail Area	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Community Room	0	0	0	3,549	0	0	0	0	0	0	0	0	0	1,305	0	0	0	0	4,017	0	0	0	0
6	Common Hallways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Common Stairways	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Common Laundry	0	0	0	1,430	0	0	0	0	0	1,708	0	0	0	0	0	2,039	0	0	0	0	0	2,435	0
9	Common Area Restrooms	0	10,000	10,000	0	0	0	0	0	0	0	0	0	0	752	0	0	0	0	0	0	0	0	0
10	Building Boilers	0	0	0	0	0	3,278	193,306	195,628	201,496	0	0	0	0	0	0	0	4,538	4,674	0	24,099	24,821	49,238	0
11	Building Mechanical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Building Electrical	0	0	28,800	29,664	30,554	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Building Elevator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Building Structural	0	0	8,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Unit Living	0	0	11,256	11,593	11,941	12,299	12,668	13,048	13,440	13,843	14,258	14,686	15,127	15,580	16,048	16,529	17,025	17,536	18,062	18,604	19,162	19,737	0
16	Unit Kitchens	0	0	0	116,965	120,473	124,088	127,810	0	0	0	0	0	0	8,214	13,094	13,487	13,892	14,308	37,938	39,076	55,060	46,306	0
17	Unit Bathrooms	0	0	8,371	21,140	21,705	22,356	23,027	23,718	24,429	25,162	25,917	26,695	25,076	25,829	26,603	27,402	2,723	2,804	2,888	2,975	6,744	18,470	0
18	Unit Electrical	0	0	6,514	46,037	47,418	48,840	50,306	7,552	7,778	8,012	8,252	8,500	8,755	9,017	9,288	9,566	9,853	10,149	10,454	10,767	11,090	11,423	0
19	Unit Mechanical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Annual Planned Expenditures	0	90,284	209,054	335,973	341,384	367,142	461,886	306,797	248,532	59,994	80,674	159,292	161,652	182,084	227,215	229,125	291,636	366,169	338,385	161,635	222,624	256,528	0
21	Annual Provision (indexed at 3%)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	Outside Capital			4,854,000																				
23	Cumulative Reserve Balance	324,672	234,388	4,879,334	4,543,361	4,201,977	3,834,834	3,372,948	3,066,151	2,817,619	2,757,626	2,676,952	2,517,660	2,356,008	2,173,924	1,946,709	1,717,584	1,425,948	1,059,779	721,394	559,759	337,135	80,606	

Site Improvements

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

	Component	Current Total Replacement Cost	Expected Annual Rate of Inflation	Current Age	Total Expected Useful Life	Initial Replacement Year	Planned Expenditures by Year																												
							Code	Emergency	Code	Deferred	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Revitalization				
											2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032					
1	Asphalt Parking / Roadways					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
2	Crack Fill / Sealant					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
3	Concrete Sidewalks					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
4	Bituminous Sidewalks					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
5	Fencing					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
6	Landscaping					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
7	Dumpster Enclosures					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
8	Storm Water System					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
9	Site Lighting					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
10	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
11	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
12	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
13	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
14	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
15	Retaining Walls (Stone at Cul de Sacs) - Repair Allows.	25,000		64	15	2013				25,000	0	0	0	0	0	0	0	0	0	0	0	0	0	38,949	0	0	0	0							
16	Fencing (Chain Link) - minimal damage - maintained Optg.					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
17	Parking / Roadways (Maintained by City)			6	20+	2016				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
18	Basketball Court (Asphalt) - repair, crack-fill	1,865		>10	4	2013				1,865	0	0	0	2,099	0	0	0	0	0	0	0	0	0	2,905	0	0	0	0							
19	Basketball Court (Asphalt) - future resurfacing costs	11,189		>10	20+	2021				0	0	0	0	0	0	0	14,174	0	0	0	0	0	0	0	0	0	0	0							
20	Walks (Asphalt & Concrete) - sectional repairs	3,874		15-20+	30+	2013				3,874	0	0	0	0	0	0	4,907	0	0	0	0	0	0	0	6,216	0	0	0							
21	Playground Area / Equipment	40,000		15	20	2016				0	0	0	43,709	0	0	0	0	0	0	0	0	0	0	0	0	66,114	0	0							
22	Dumpsters (Maintained under Leasing Agreement)			varies		2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
23	Accessibility Improve. (add 50 lf of walks to Play Area)	7,500		ADD	30+	2013			4	7,500	7,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
24	Site Lighting (Street Lights) - Utility's Responsibility			varies	20+	2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
25	Landscaping / Tree Pruning / Tree Removal	9,000		varies		2013				4,500	4,635	0	0	0	0	0	5,534	5,700	0	0	0	0	0	6,807	7,011	0	0	0							
26	Site Signage (plantings overgrown) - future upgrade	3,500		<10	15	2020				0	0	0	0	0	0	0	4,305	0	0	0	0	0	0	0	0	0	0	0							
27	Annual Planned Expenditures						0	7,500	42,739	4,635	0	43,709	2,099	0	0	9,839	24,781	0	0	0	0	0	6,807	48,865	6,216	66,114	0	0	0						
28	Cumulative Reserve Balance						324,672	234,388	4,879,334	4,543,361	4,201,977	3,834,834	3,372,948	3,066,151	2,817,619	2,757,626	2,676,952	2,517,660	2,356,008	2,173,924	1,946,709	1,717,584	1,425,948	1,059,779	721,394	559,759	337,135	80,606							

Building Exterior

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

	Component	Current Total Replacement Cost	Expected Annual Rate of Inflation	Current Age	Total Expected Useful Life	Initial Replacement Year	Planned Expenditures by Year																												
							Code	Emergency	Code	Deferred	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Revitalization				
											2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032					
1	Exterior Doors					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
2	Glass Doors (Sliders)					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
3	Exterior Walls - Masonry					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
4	Exterior Walls - EIFS					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
5	Ext. Walls - Vinyl Siding					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
6	Ext. Walls - Wood Siding					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
7	Windows					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
8	Exterior Soffits and Fascia					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
9	Caulking					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
10	Unit Balconies / Decks					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
11	Railings					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
12	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
13	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
14	Service Doors (Flush Metal to Mech. Rooms) (Gar. Door)	20,600		25	30	2018				0	0	0	0	0	23,881	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
15	Accessibility Improvements (Ramps to Cmnty. & Laundry)	60,000		20	20	2013		4	60,000	60,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
16	Stairs / Porches (Concrete) - railing deterior., spot spalling	15,360		64	15	2013				15,360	0	0	0	0	0	0	0	0	0	0	0	0	0	23,930	0	0	0	0	0						
17	Exterior Common Doors (Cmnty. & Laundry) - Access.	12,784		varies	25+	2013		4	12,784	12,784	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
18	Unit Entrance / Storm/Screen Doors - variable conditions	179,520		varies	20+	2014				0	36,981	38,091	39,233	40,410	41,623	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
19	Storm/Screen Doors (future replacements)	39,767		varies	10+	2025				0	0	0	0	0	0	0	0	0	0	0	11,340	11,680	12,030	12,391	12,763	0	0	0	0						
20	Exterior Walls (Brick) - pointing/repair allowances	152,586		64	15+	2014				0	52,388	53,959	55,578	0	0	0	0	0	0	0	0	0	0	0	0	0	86,589	89,187							
21	Exterior Walls / Soffits (Vinyl & Alum. Clad) - repair/powerwsh.	4,730		5	30+	2013				4,730	0	0	0	5,324	0	0	0	0	5,992	0	0	0	6,744	0	0	0	7,591	0	0	0					
22	Unit Entrance Areas, Door Frames, Trim (Repair/Paint)	15,000		5	<10	2013				0	0	5,305	5,464	5,628	0	0	0	0	0	0	6,921	7,129	7,343	0	0	0	0	0	0						
23	Windows (Alum. D/H) - some operation, hardware problems	413,463		>20	30+	2022				0	0	0	0	0	0	0	0	0	107,895	111,132	114,466	117,900	121,437	0	0	0	0	0	0	0					
24	Steel Lintels (Scrape & Paint)	33,759		25	30+	2014				0	11,591	11,938	12,296	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,157	19,732						
25	Exterior Lighting (HID Fixtures) - future upgrades	8,138		varies	15+	2017				0	0	0	0	1,308	1,348	1,388	1,430	1,473	1,517	1,562	0	0	0	0	0	0	0	0	0	0					
26	Exterior Lighting (Unit Fixtures) - varying ages, conditions	26,750		5	15+	2025				0	0	0	0	0	0	0	0	0	0	0	0	19,070	19,642	0	0	0	0	0	0	0					
27	Annual Planned Expenditures							0		72,784	92,874	100,960	109,293	112,572	52,670	66,851	1,388	1,430	7,465	109,412	112,694	121,387	162,182	160,101	12,030	36,322	20,354	0	105,747	108,919	0				
28	Cumulative Reserve Balance							324,672		234,388	4,879,334	4,543,361	4,201,977	3,834,834	3,372,948	3,066,151	2,817,619	2,757,626	2,676,952	2,517,660	2,356,008	2,173,924	1,946,709	1,717,584	1,425,948	1,059,779	721,394	559,759	337,135	80,606					

Roofing

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

Adams Gardens Apartments • Capital Needs Assessment • © On-Site Insight

Lobby / Mail Area

Owner Sponsor Name:	Greenwich Housing Authority
Project Name:	Adams Garden
Project City / Town:	Greenwich, CT

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 11, 2013

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

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Community Room

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

[illegible]

Common Hallways

Owner Sponsor Name:	Greenwich Housing Authority
Project Name:	Adams Garden
Project City / Town:	Greenwich, CT

Current Year:	2013
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Report Date:	July 11, 2013

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

[illegible]

Common Stairways

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

Page 16

Common Laundry

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

[illegible]

Common Area Restrooms

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

13389 - Adams Garden Apartments - FINAL SS 7/11/2013

Building Boilers

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

	Component	Current Total Replacement Cost	Expected Annual Rate of Inflation	Current Age	Total Expected Useful Life	Initial Replacement Year	Planned Expenditures by Year																												
							Code	Emergency	Code	Deferred	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Revitalization				
											2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032					
1	Boilers / Warm Air Furnaces					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
2	Boiler Operating Controls					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
3	Pneumatic Systems Controls					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
4	Condensate & Feed Water					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
5	Fuel Oil Storage					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
6	Fuel Oil Transfer System					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
7	Fuel Exhaust					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
8	Combustion Air					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
9	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
10	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
11	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
12	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
13	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
14	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
15	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
16	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
17	Heating Boilers (H.B. Smith) - 700-1330 MBH	359,100		31	30+	2017				0	0	0	0	134,723	138,765	142,928	0	0	0	0	0	0	0	0	0	0	0	0							
18	Heating Water Circ. Pumps / Exp. Tanks	62,910		<10	15+	2017				0	0	0	0	23,602	24,310	25,039	0	0	0	0	0	0	0	0	0	0	0	0							
19	Boiler Controls	40,500		<10	15	2017				0	0	0	0	15,194	15,650	16,120	0	0	0	0	0	0	0	0	0	0	0	23,672							
20	Domestic Hot Water (Serving Units) - 74 Gallon capacity	43,740		9	10+	2017				0	0	0	0	16,410	16,902	17,409	0	0	0	0	0	0	0	0	0	24,099	24,821	25,566							
21	Domestic Hot Water (Serving Laundry) - High Recovery	6,000		8	10+	2016				0	0	0	3,278	3,377	0	0	0	0	0	0	0	0	0	4,538	4,674	0	0	0							
22																																			
23																																			
24																																			
25																																			
26																																			
27	Annual Planned Expenditures						0	0	0	0	0	3,278	193,306	195,628	201,496	0	0	0	0	0	0	0	4,538	4,674	0	24,099	24,821	49,238	0						
28	Cumulative Reserve Balance						324,672	234,388	4,879,334	4,543,361	4,201,977	3,834,834	3,372,948	3,066,151	2,817,619	2,757,626	2,676,952	2,517,660	2,356,008	2,173,924	1,946,709	1,717,584	1,425,948	1,059,779	721,394	559,759	337,135	80,606							

Building Mechanical

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

13389 - Adams Garden Apartments - FINAL SS 7/11/2013

Building Electrical

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

13389 - Adams Garden Apartments - FINAL SS 7/11/2013

Building Elevator

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

[illegible]

Comprehensive Capital Needs Assessment Schedule

Building Structural

Owner Sponsor Name:	Greenwich Housing Authority
Project Name:	Adams Garden
Project City / Town:	Greenwich, CT

Current Year:	2013
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							Code	Emergency	Code	Deferred	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Revitalization				
											2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032					
1	Foundation / Floor Slab					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
2	Framing & Columns					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
3	Steel					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
4	Wood Framing					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
5	Masonry Bearing Walls					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
6	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
7	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
8	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
9	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
10	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
12	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
13	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
14	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
15	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
16	Structural Engineering Analysis (Masonry Cracking)	8,500		64	50	2013				8,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
17																																			
18																																			
19																																			
20																																			
21																																			
22																																			
23																																			
24																																			
25																																			
26																																			
27	Annual Planned Expenditures						0	0	8,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
28	Cumulative Reserve Balance						324,672	234,388	4,879,334	4,543,361	4,201,977	3,834,834	3,372,948	3,066,151	2,817,619	2,757,626	2,676,952	2,517,660	2,356,008	2,173,924	1,946,709	1,717,584	1,425,948	1,059,779	721,394	559,759	337,135	80,606							

Comprehensive Capital Needs Assessment Schedule

Unit Living

Owner Sponsor Name:	Greenwich Housing Authority
Project Name:	Adams Garden
Project City / Town:	Greenwich, CT

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							Code	Emergency	Code	Deferred	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Revitalization				
											2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032					
1	Interior Doors					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
2	Walls					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
3	Ceilings					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
4	Interior Stairs					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
5	Floors					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
6	AC Sleeve					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
7	Electrical Outlets					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
8	Lighting Fixtures					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
9	Other					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
10	Other					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11	Other					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
12	Other					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
13	Other					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
14	Other					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
15	Other					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
16	Walls / Ceilings (Painted Finishes) - maint. Optg.					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
17	Floors (Wood Flooring) - mostly original, min. damage.	135,068		64	15+	2013					11,256	11,593	11,941	12,299	12,668	13,048	13,440	13,843	14,258	14,686	15,127	15,580	16,048	16,529	17,025	17,536	18,062	18,604	19,162	19,737					
18	Interior Passage & Bi-fold Closet Doors - maint. Optg.			varies	20+	2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
19																																			
20																																			
21																																			
22																																			
23																																			
24																																			
25																																			
26																																			
27	Annual Planned Expenditures							0		0	11,256	11,593	11,941	12,299	12,668	13,048	13,440	13,843	14,258	14,686	15,127	15,580	16,048	16,529	17,025	17,536	18,062	18,604	19,162	19,737	0				
28	Cumulative Reserve Balance							324,672		234,388	4,879,334	4,543,361	4,201,977	3,834,834	3,372,948	3,066,151	2,817,619	2,757,626	2,676,952	2,517,660	2,356,008	2,173,924	1,946,709	1,717,584	1,425,948	1,059,779	721,394	559,759	337,135	80,606					

Unit Bathrooms

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

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							Code	Emergency	Code	Deferred	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Revitalization				
											2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032					
1	Walls					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
2	Ceiling					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
3	Lavatory / Vanity					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
4	Toilet					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
5	Tub / Surround					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
6	Floor					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
7	Accessories					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
8	Lighting Features					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
9	Exhaust Fan					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
10	GFI Outlet					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11	Other					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
12	Other					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
13	Other					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
14	Other					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
15	Other					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
16	Other					2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
17	Walls / Ceilings (Mostly Painted) - maint. Optg.			varies		2013					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
18	Floors (Vinyl Tile) - variable conditions, replace as needed	18,000		varies	15	2013					1,800	1,854	1,910	1,967	2,026	2,087	2,149	2,214	2,280	2,349	0	0	0	0	2,723	2,804	2,888	2,975	3,064	3,156					
19	Tubs / Surrounds (Re-glaze and Surround Repairs)	92,000		25	30+	2013					6,571	6,769	6,972	7,181	7,396	7,618	7,847	8,082	8,324	8,574	8,831	9,096	9,369	9,650	0	0	0	0	0	11,523					
20	Vanities / Sinks / Faucets - finish wear, varying ages	62,800		varies	20+	2014					0	4,976	5,125	5,279	5,437	5,600	5,768	5,941	6,119	6,303	6,492	6,687	6,888	7,094	0	0	0	0	0	0					
21	Medicine Cabinets / Wall Accessories (Updates)	33,440		varies	20+	2014					0	2,649	2,729	2,811	2,895	2,982	3,071	3,164	3,259	3,356	3,457	3,561	3,667	3,778	0	0	0	0	0	0					
22	Toilets (Upgrade to Low Flow - 1.28 gpf models)	32,800		varies	20+	2014					0	2,599	2,677	2,757	2,840	2,925	3,013	3,103	3,196	3,292	3,391	3,493	3,597	3,705	0	0	0	0	0	0					
23	Ventilation / Exhaust Fans (increase CFMs)	28,100		ADD	15+	2014					0	2,293	2,293	2,362	2,433	2,506	2,581	2,658	2,738	2,820	2,905	2,992	3,082	3,174	0	0	0	0	3,680	3,790					
24																																			
25																																			
26																																			
27	Annual Planned Expenditures							0		0	8,371	21,140	21,705	22,356	23,027	23,718	24,429	25,162	25,917	26,695	25,076	25,829	26,603	27,402	2,723	2,804	2,888	2,975	6,744	18,470	0				
28	Cumulative Reserve Balance							324,672		234,388	4,879,334	4,543,361	4,201,977	3,834,834	3,372,948	3,066,151	2,817,619	2,757,626	2,676,952	2,517,660	2,356,008	2,173,924	1,946,709	1,717,584	1,425,948	1,059,779	721,394	559,759	337,135	80,606					

Unit Kitchens

Owner Sponsor Name:	Greenwich Housing Authority
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Comprehensive Capital Needs Assessment Schedule

Unit Electrical

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Project City / Town:	Greenwich, CT

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							Code	Emergency	Code	Deferred	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Revitalization				
											2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032					
1	Emergency Call System					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
2	Electrical Panel					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
3	Smoke Detectors					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
4	Intercom					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
5	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
6	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
7	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
8	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
9	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
10	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
12	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
13	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
14	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
15	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
16	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
17	Smoke / Fire / CO Detect. (Local Ring) - replacements	45,600		varies	<10	2013				6,514	6,710	6,911	7,118	7,332	7,552	7,778	8,012	8,252	8,500	8,755	9,017	9,288	9,566	9,853	10,149	10,454	10,767	11,090	11,423						
18	Electrical Circuit Breaker Panels (FPE Stablok) - replace	122,500		>40	40+	2014				0	31,544	32,490	33,465	34,469	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
19	Unit Lighting (Upgrades w/ Electrical Panel and Kitchens)	30,226		varies	20+	2014				0	7,783	8,017	8,257	8,505	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
20																																			
21																																			
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25																																			
26																																			
27	Annual Planned Expenditures							0		0	6,514	46,037	47,418	48,840	50,306	7,552	7,778	8,012	8,252	8,500	8,755	9,017	9,288	9,566	9,853	10,149	10,454	10,767	11,090	11,423	0				
28	Cumulative Reserve Balance							324,672		234,388	4,879,334	4,543,361	4,201,977	3,834,834	3,372,948	3,066,151	2,817,619	2,757,626	2,676,952	2,517,660	2,356,008	2,173,924	1,946,709	1,717,584	1,425,948	1,059,779	721,394	559,759	337,135	80,606					

Unit Mechanical

Owner Sponsor Name:	Greenwich Housing Authority
Project Name:	Adams Garden
Project City / Town:	Greenwich, CT

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 11, 2013

Number of Units:	80
Total Square Feet:	100,410
Default Inflation Rate:	3.0%

Adams Gardens Apartments • Capital Needs Assessment • © On-Site Insight

Appendix A: Statement of Delivery

Our Capital Needs Assessment (the "CNA" or the "Report") on the subject property is delivered subject to the following terms and conditions:

1. This report and analysis are based upon observations for the visible and apparent condition of the building and its major components on the date of the fieldwork. Although care has been taken in the performance of this assessment, ON-SITE INSIGHT, Inc. (and/or its representatives) makes no representations regarding latent or concealed defects that may exist and no warranty or guarantee is expressed or implied. This report is made only in the best exercise of our ability and judgment.
2. We have undertaken no formal evaluation of environmental concerns, including but not limited to asbestos containing materials (ACMs), lead-based paint, chlorofluorocarbons (CFCs), polychlorinated biphenyls (PCBs), and mildew/mold.
3. Conclusions in this report are based on estimates of the age and normal working life of various items of equipment and/or statistical comparisons. Actual conditions can alter the useful life of any item. When an item needs immediate replacement depends on many factors, including previous use/misuse, irregularity of servicing, faulty manufacture, unfavorable conditions, Acts of God and unforeseen circumstances. Certain components that may be working when we made our inspection might deteriorate or break in the future without notice.
4. To prepare this report, we used historic data on capital activities and costs, blueprints (when available), and current prices for capital actions. We have not independently verified this information, have assumed that it is reliable, but assume no responsibility for its accuracy.
5. Unless otherwise noted in the report, we assume that all building components meet code requirements in force when the property was built.
6. If accessibility issues are referenced in the report, the site elements, common areas, and dwelling units at the development were examined for compliance with the requirements of the Uniform Federal Accessibility Standards (UFAS), and for Massachusetts properties, the Massachusetts Architectural Accessibility Board (AAB). The methodology employed in undertaking this examination is adapted from a Technical Assistance Guide (TAG-88-11) titled "Supplemental Information About the Section 504 Transition Plan Requirements" published by the Coordination and Review section of the U.S. Department of Justice Civil Rights Division, and the AAB Rules and Regulations, 521 CMR effective July 10, 1987. The Guide also incorporates the requirements of UFAS, published April 1, 1988 by the General Services Administration, the Department of Defense, the Department of Housing and Urban Development, and the U.S. Postal Service. Changes in legislation and/or regulations may make some observations moot.
7. Response Actions and estimated costs of responses were developed by ON-SITE INSIGHT, Inc. If additional structural work is necessary, costs for some Response Actions may exceed estimates. Whenever the Response Action is to remove, reposition, or modify walls, a competent structural engineer should be retained before any work is done, because such investigation may disclose that a Response Action is either more costly than estimated, or is not possible.
8. Conclusions reached in this report assume current and continuing responsible ownership and competent property management.
9. Regular updates of this plan are recommended to ensure careful monitoring of major building systems and to adjust the program to accommodate unanticipated circumstances surrounding the buildings, operations, and/or occupants.