

CHFA Capital Needs Assessment and Replacement Reserve Analysis

Prepared for:

Connecticut Housing Finance Authority

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and

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Hillside Terrace

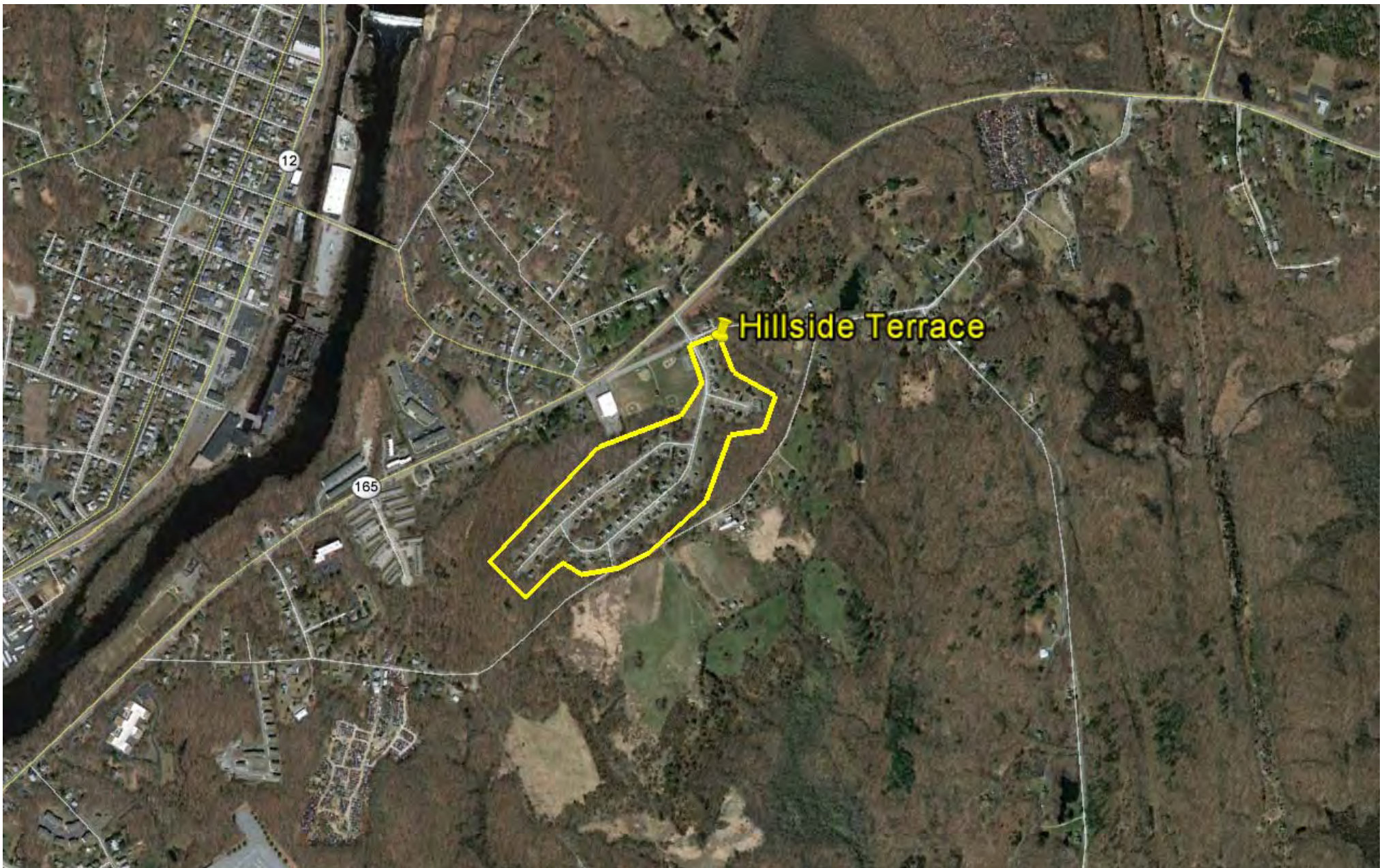
CHFA # 85138D

Norwich Housing Authority

Norwich, CT

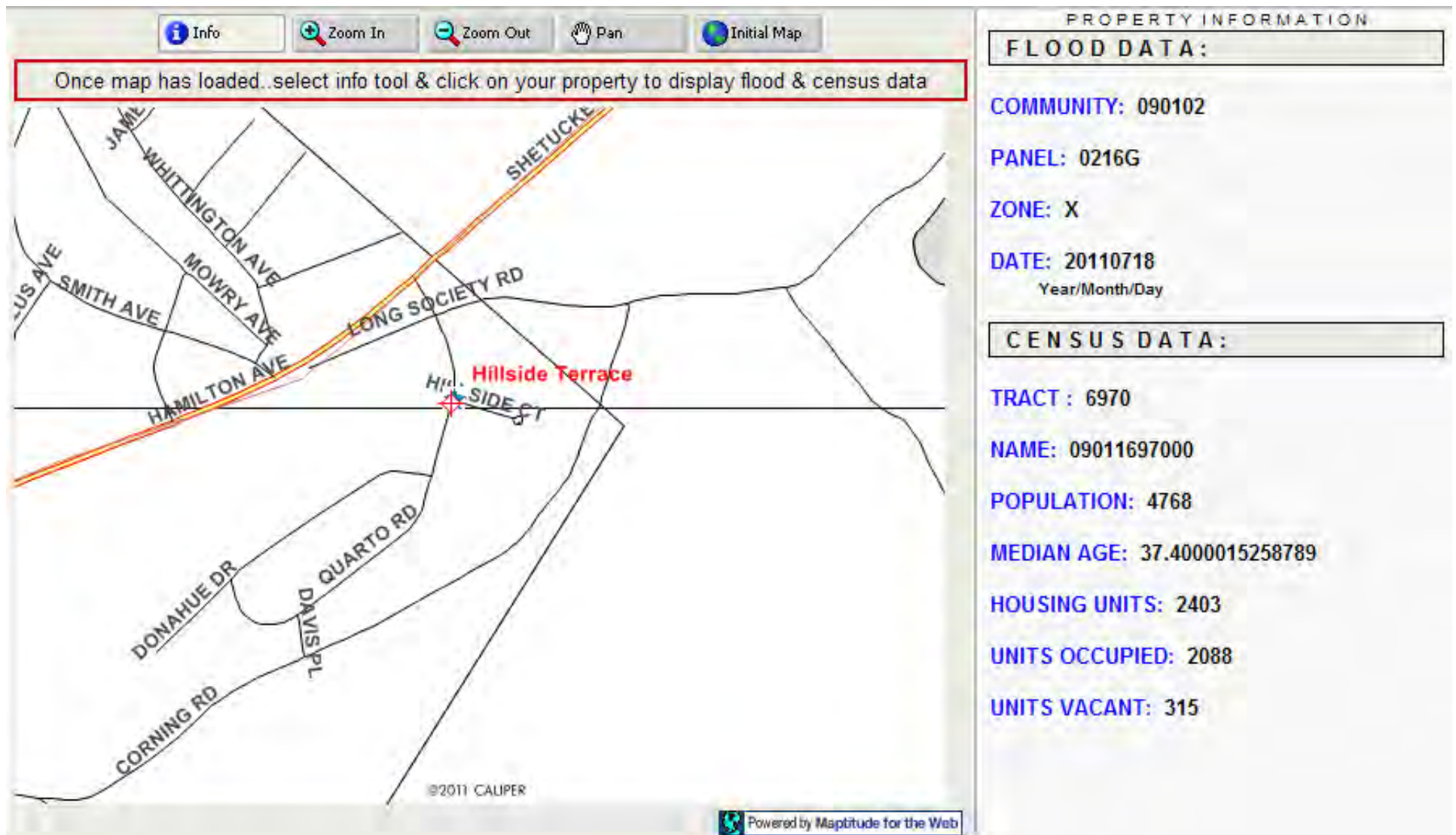
August 9, 2013

Final Report



Hillside Terrace

2-16 Hillside Court
Norwich, CT 06360



Hillside Terrace

2-16 Hillside Court
Norwich, CT 06360

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

Executive Summary

Hillside Terrace

Norwich, CT

Hillside Terrace is a residential development for families that is comprised of sixty-seven cottage, ranch, and townhouse-style buildings. The development includes a total of 118 units – 16 two-bedroom cottage units, 14 two-bedroom ranch units, 46 two-bedroom townhouse units, and 42 three-bedroom townhouse units. Original construction of the development dates to 1950, and the exterior building envelopes were partially renovated in the mid 2000s.

Overall the development is in fair condition. As shown on the attached capital needs worksheets, the development faces significant capital needs in the near term. Based on these projections, the development is seen as requiring an adjustment to current replacement reserve funding and/or an infusion of additional capital.

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

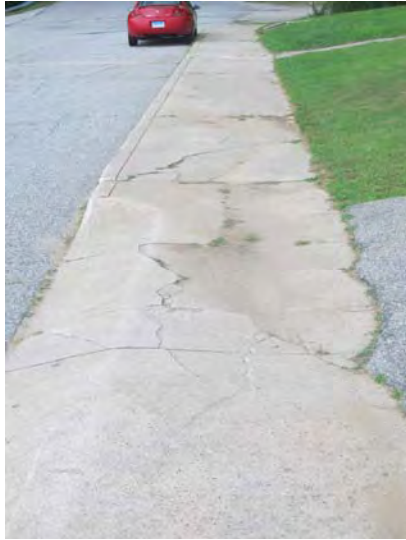
- The site features sloping topography and drainage improvements are needed at various locations throughout. Additionally, many of the trees are in need of pruning and/or removal. A significant allowance for landscape and drainage improvements is shown in Year 1.
- Except for isolated recent replacements, unit driveways are generally in poor condition; replacement is shown in Years 2-4.
- Sidewalks vary in condition with potential trip hazards at various locations; periodic repair allowances are shown.
- Vinyl siding, doors, and windows were replaced at all buildings in recent years; allowances for minor repairs and pressure washing of the vinyl siding are shown every five years, starting in Year 1.

- Concrete steps/stoops at unit entries exhibit varying levels of wear/damage; a significant repair allowance is included in Year 1.
- Conventional, three-tab shingles that exhibit age related wear and areas of past repair are typical on most roof surfaces; costs to rip and replace these coverings are shown in Year 1.
- Wood strip flooring is typical in unit living areas; annual allowances for as needed replacement or refinishing are shown from Year 1 forward.
- Fixtures and finishes in unit bathrooms vary in condition; allowances to replace/upgrade existing finishes and fixtures are shown in Year 5.
- Cabinetry in unit kitchens is older and in fair condition; replacement is shown in Year 2. Unit stoves and refrigerators are owned and maintained by residents; no capital costs related to them are shown.
- ‘Stab-Lok’ circuit breaker panels are typical in the units; panels of this type have experienced failures (nationally) and service parts are difficult to source; replacement of all ‘Stab-Lok’ panels is shown in Year 1.
- Unit heat is generated via individual natural gas-fired steam boilers that vary in age; allowances to replace the boilers in all units are shown from Year 1 forward.
- Annual allowances for the as-needed replacement of unit-level domestic hot water tanks are shown from Year 1 forward.
- There are no common areas at the development that require handicap accessibility improvements/modifications. The development’s unit mix includes thirty, single-level, two-bedroom units that could be modified for accessibility. Modifications needed at these units include creation of accessible routes to entry doors, re-framing of interior doors to meet minimum width requirements, expansion of bathrooms to meet floor area requirements, installation of compliant bathroom fixtures, and installation of compliant kitchen cabinetry that includes knee clearance at a thirty-inch wide work surface and under the sink. The townhouse-style of the

remaining units with all bedrooms and bathrooms at the second floor level is seen as being prohibitive to modifications/improvements; no costs have been shown.

Additional Notes:

1. The Physical Assessment of the property was conducted on July 9th, 2013. Additional information was provided to ON-SITE INSIGHT by site staff and others. OSI was represented on this assignment by Bruce Hutchinson. We would like to thank the staff of the Norwich Housing Authority for their assistance.
2. 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.
3. 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.
4. 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.
5. This report is delivered subject to the conditions on Appendix A, *Statement of Delivery*.



Sidewalks along public roadways are the responsibility of the development; conditions vary



Typical condition of asphalt-paved driveway surfaces – Some replacement work recently completed



Secondary/interior sidewalks exhibit cracks and displacement at various locations



Drainage/grading improvements needed at various locations throughout the development



Typical building architecture as seen
at a two-story building



Typical building architecture as seen
at a one-story building



Windows, doors, and vinyl siding
all replaced in recent years



Isolated loose/missing pieces
of vinyl siding noted



Dirt and organic growth on vinyl siding surfaces is widespread



Concrete steps/stoops at unit entries exhibit varying levels of wear and deterioration



Older three-tab shingle roof coverings that exhibit age, wear, and past repair efforts are typical



Typical finishes in unit living areas



Typical finishes and fixtures
in unit bathrooms



Typical finishes and cabinetry in unit kitchens –
Appliances are owned and maintained by residents



Typical electrical load center equipped with
'Stab-Lok' breakers by Federal Pacific



Each unit has a natural gas-fired steam
boiler and domestic hot water tank

Comprehensive Capital Needs Assessment Schedule

Summary

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 16, 2013

Number of Units:	118
Total Square Feet:	111,004
Default Inflation Rate:	3.0%

Beginning Replacement Reserve Balance:	\$457,167
Annual Replacement Reserve Contribution:	\$42,366
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	0	450,000	243,968	53,098	54,691	0	0	13,078	13,471	13,875	3,407	3,509	15,161	15,616	16,085	3,950	4,068	17,576	18,104	18,647	4,579	0
2	Building Exterior	0	0	186,574	0	0	0	13,069	73,337	13,864	14,280	14,709	0	62,054	4,983	5,133	5,287	33,082	100,403	35,097	36,150	37,234	17,991	0
3	Roofing	0	0	418,021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Common Area Restrooms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Building Boilers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Unit Living	0	600,000	14,022	14,443	14,876	15,322	15,782	16,256	16,743	17,245	17,763	18,296	18,845	19,410	19,992	20,592	21,210	21,846	22,501	23,176	23,872	24,588	0
16	Unit Kitchens	0	0	0	714,026	0	0	0	0	0	0	0	0	0	26,293	27,082	27,894	28,731	29,593	30,481	31,395	32,337	33,307	0
17	Unit Bathrooms	0	0	0	0	0	0	0	500,071	0	0	0	0	0	3,882	3,998	4,118	4,242	4,369	4,500	4,635	4,774	4,917	0
18	Unit Electrical	0	0	150,706	6,341	6,531	6,727	6,929	7,136	7,351	7,571	7,798	8,032	8,273	8,521	8,777	9,040	9,312	9,591	9,879	10,175	10,480	10,795	0
19	Unit Mechanical	0	0	43,350	44,651	45,990	47,370	48,791	50,255	51,762	53,315	54,915	56,562	58,259	60,007	61,807	63,661	65,571	67,538	69,564	71,651	73,801	76,015	0
20	Annual Planned Expenditures	0	600,000	1,262,673	1,023,428	120,495	124,110	84,570	647,055	102,799	105,883	109,059	86,297	150,940	138,257	142,405	146,677	166,097	237,408	189,598	195,286	201,144	172,191	0
21	Annual Provision (indexed at 3%)			42,366	43,637	44,946	46,294	47,683	49,113	50,587	52,104	53,667	55,277	56,936	58,644	60,403	62,215	64,082	66,004	67,984	70,024	72,125	74,288	
22	Outside Capital			4,750,000																				
23	Cumulative Reserve Balance	457,167	(142,833)	3,386,860	2,407,068	2,331,518	2,253,702	2,216,815	1,618,873	1,566,660	1,512,882	1,457,490	1,426,470	1,332,466	1,252,852	1,170,851	1,086,389	984,374	812,970	691,356	566,094	437,074	339,171	

Site Improvements

Number of Units:	118
Total Square Feet:	111,004
Default Inflation Rate:	3.0%

Hillside Terrace • Capital Needs Assessment • © On-Site Insight

Building Exterior

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 16, 2013

Number of Units:	118
Total Square Feet:	111,004
Default Inflation Rate:	3.0%

Hillside Terrace • Capital Needs Assessment • © On-Site Insight

Roofing

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 16, 2013

Number of Units:	118
Total Square Feet:	111,004
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	Chimney					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
2	Hatches / Skylights					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
3	Penthouse / Machine Rooms					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
4	Roof Railings					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
5	Roof - Asphalt Shingle	314,411		20	20	2013			314,411	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
6	Roof - Built-up Tar and Gravel					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
7	Roof - Single-ply Membrane					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
8	Roof Drainage	53,360		20	20	2013			53,360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
9	Chimney Repair/Rebuild	50,250		20	20	2013			50,250	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							
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27	Annual Planned Expenditures						0	0	418,021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
28	Cumulative Reserve Balance						457,167	(142,833)	3,386,860	2,407,068	2,331,518	2,253,702	2,216,815	1,618,873	1,566,660	1,512,882	1,457,490	1,426,470	1,332,466	1,252,852	1,170,851	1,086,389	984,374	812,970	691,356	566,094	437,074	339,171							

Lobby / Mail Area

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 16, 2013

Number of Units:	118
Total Square Feet:	111,004
Default Inflation Rate:	3.0%

[illegible]

Community Room

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
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Number of Units:	118
Total Square Feet:	111,004
Default Inflation Rate:	3.0%

[illegible]

Common Hallways

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
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Report Date:	July 16, 2013

Number of Units:	118
Total Square Feet:	111,004
Default Inflation Rate:	3.0%

[illegible]

Common Stairways

Number of Units:	118
Total Square Feet:	111,004
Default Inflation Rate:	3.0%

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Comprehensive Capital Needs Assessment Schedule

Common Laundry

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
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Report Date:	July 16, 2013

Number of Units:	118
Total Square Feet:	111,004
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	Walls					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
2	Ceilings					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
3	Floors					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
4	Ventilation					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
5	Lighting Fixtures					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						
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26																																			
27	Annual Planned Expenditures							0		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							457,167		(142,833)	3,386,860	2,407,068	2,331,518	2,253,702	2,216,815	1,618,873	1,566,660	1,512,882	1,457,490	1,426,470	1,332,466	1,252,852	1,170,851	1,086,389	984,374	812,970	691,356	566,094	437,074	339,171					

Common Area Restrooms

Number of Units:	118
Total Square Feet:	111,004
Default Inflation Rate:	3.0%

13427 - Hillside Terrace - FINAL SS 8/9/2013

Comprehensive Capital Needs Assessment Schedule

Building Boilers

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 16, 2013

Number of Units:	118
Total Square Feet:	111,004
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	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	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	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	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	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	0						
7	Fuel Exhaust					2013				0	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	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						
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27	Annual Planned Expenditures						0	0	0	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						457,167	(142,833)	3,386,860	2,407,068	2,331,518	2,253,702	2,216,815	1,618,873	1,566,660	1,512,882	1,457,490	1,426,470	1,332,466	1,252,852	1,170,851	1,086,389	984,374	812,970	691,356	566,094	437,074	339,171							

Building Mechanical

Number of Units:	118
Total Square Feet:	111,004
Default Inflation Rate:	3.0%

13427 - Hillside Terrace - FINAL SS 8/9/2013

Comprehensive Capital Needs Assessment Schedule

Building Electrical

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 16, 2013

Number of Units:	118
Total Square Feet:	111,004
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	Switch Gear					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
2	Emergency Generator					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
3	Smoke / Fire Detection					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
4	Signaling / Communication					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
5	Building Wiring					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						
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24																																			
25																																			
26																																			
27	Annual Planned Expenditures							0		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							457,167		(142,833)	3,386,860	2,407,068	2,331,518	2,253,702	2,216,815	1,618,873	1,566,660	1,512,882	1,457,490	1,426,470	1,332,466	1,252,852	1,170,851	1,086,389	984,374	812,970	691,356	566,094	437,074	339,171					

Building Elevator

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 16, 2013

Number of Units:	118
Total Square Feet:	111,004
Default Inflation Rate:	3.0%

[illegible]

Building Structural

Number of Units:	118
Total Square Feet:	111,004
Default Inflation Rate:	3.0%

13427 - Hillside Terrace - FINAL SS 8/9/2013

Comprehensive Capital Needs Assessment Schedule

Unit Living

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 16, 2013

Number of Units:	118
Total Square Feet:	111,004
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	Interior Doors					2013				0	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	0						
3	Ceilings					2013				0	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	0						
5	Floors	14,022		1	1	2013				14,022	14,443	14,876	15,322	15,782	16,256	16,743	17,245	17,763	18,296	18,845	19,410	19,992	20,592	21,210	21,846	22,501	23,176	23,872	24,588						
6	AC Sleeve					2013				0	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	0						
8	Lighting Fixtures					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	Accessibility Improvements	600,000		ADD	20	2013		4	600,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
18																																			
19																																			
20																																			
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22																																			
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24																																			
25																																			
26																																			
27	Annual Planned Expenditures							0		600,000	14,022	14,443	14,876	15,322	15,782	16,256	16,743	17,245	17,763	18,296	18,845	19,410	19,992	20,592	21,210	21,846	22,501	23,176	23,872	24,588	0				
28	Cumulative Reserve Balance							457,167		(142,833)	3,386,860	2,407,068	2,331,518	2,253,702	2,216,815	1,618,873	1,566,660	1,512,882	1,457,490	1,426,470	1,332,466	1,252,852	1,170,851	1,086,389	984,374	812,970	691,356	566,094	437,074	339,171					

Unit Bathrooms

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 16, 2013

Number of Units:	118
Total Square Feet:	111,004
Default Inflation Rate:	3.0%

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Comprehensive Capital Needs Assessment Schedule

Unit Kitchens

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 16, 2013

Number of Units:	118
Total Square Feet:	111,004
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	Walls					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											
2	Ceilings					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
3	Floors					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
4	Cabinets					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
5	Countertops					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
6	Sink					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
7	Kitchen Exhaust Fan					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
8	GFI Outlet					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
9	Vent Hood					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
10	Refrigerators					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
11	Stove					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
12	Range					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
13	Dishwasher					2013			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
14	Disposal					2013			0	0	0	0	0	0	0	0	0	0	0	0	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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	Cabinets	610,650		30+	25	2014			0	628,970	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18	Countertops	107,366		0	10	2024			0	0	0	0	0	0	0	0	0	0	0	0	14,862	15,308	15,767	16,240	16,727	17,229	17,746	18,278	18,827													
19	Floors	82,579		varies	10	2014			0	85,056	0	0	0	0	0	0	0	0	0	0	11,431	11,774	12,127	12,491	12,866	13,251	13,649	14,058	14,480													
20																																										
21																																										
22																																										
23																																										
24																																										
25																																										
26																																										
27	Annual Planned Expenditures							0		0	0	714,026	0	0	0	0	0	0	0	0	0	26,293	27,082	27,894	28,731	29,593	30,481	31,395	32,337	33,307		0										
28	Cumulative Reserve Balance							457,167		(142,833)	3,386,860	2,407,068	2,331,518	2,253,702	2,216,815	1,618,873	1,566,660	1,512,882	1,457,490	1,426,470	1,332,466	1,252,852	1,170,851	1,086,389	984,374	812,970	691,356	566,094	437,074	339,171												

Unit Electrical

Number of Units:	118
Total Square Feet:	111,004
Default Inflation Rate:	3.0%

13427 - Hillside Terrace - FINAL SS 8/9/2013

Comprehensive Capital Needs Assessment Schedule

Unit Mechanical

Owner Sponsor Name:	Norwich Housing Authority
Project Name:	Hillside Terrace
Project City / Town:	Norwich

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	July 16, 2013

Number of Units:	118
Total Square Feet:	111,004
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	Radiators					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
2	Unit Temperature Controls	1,239		1	1	2013				1,239	1,276	1,314	1,354	1,395	1,436	1,479	1,524	1,570	1,617	1,665	1,715	1,767	1,820	1,874	1,930	1,988	2,048	2,109	2,173						
3	Air Conditioning Unit / Sleeve					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
4	DHW Generation	17,921		1	1	2013				17,921	18,459	19,013	19,583	20,171	20,776	21,399	22,041	22,702	23,383	24,085	24,807	25,551	26,318	27,107	27,921	28,758	29,621	30,510	31,425						
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	Unit Boilers	483,800		varies	20	2014				24,190	24,916	25,663	26,433	27,226	28,043	28,884	29,751	30,643	31,562	32,509	33,485	34,489	35,524	36,590	37,687	38,818	39,982	41,182	42,417						
18																																			
19																																			
20																																			
21																																			
22																																			
23																																			
24																																			
25																																			
26																																			
27	Annual Planned Expenditures							0		0	43,350	44,651	45,990	47,370	48,791	50,255	51,762	53,315	54,915	56,562	58,259	60,007	61,807	63,661	65,571	67,538	69,564	71,651	73,801	76,015	0				
28	Cumulative Reserve Balance							457,167		(142,833)	3,386,860	2,407,068	2,331,518	2,253,702	2,216,815	1,618,873	1,566,660	1,512,882	1,457,490	1,426,470	1,332,466	1,252,852	1,170,851	1,086,389	984,374	812,970	691,356	566,094	437,074	339,171					

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.