

# CHFA Capital Needs Assessment and Replacement Reserve Analysis

Prepared for:

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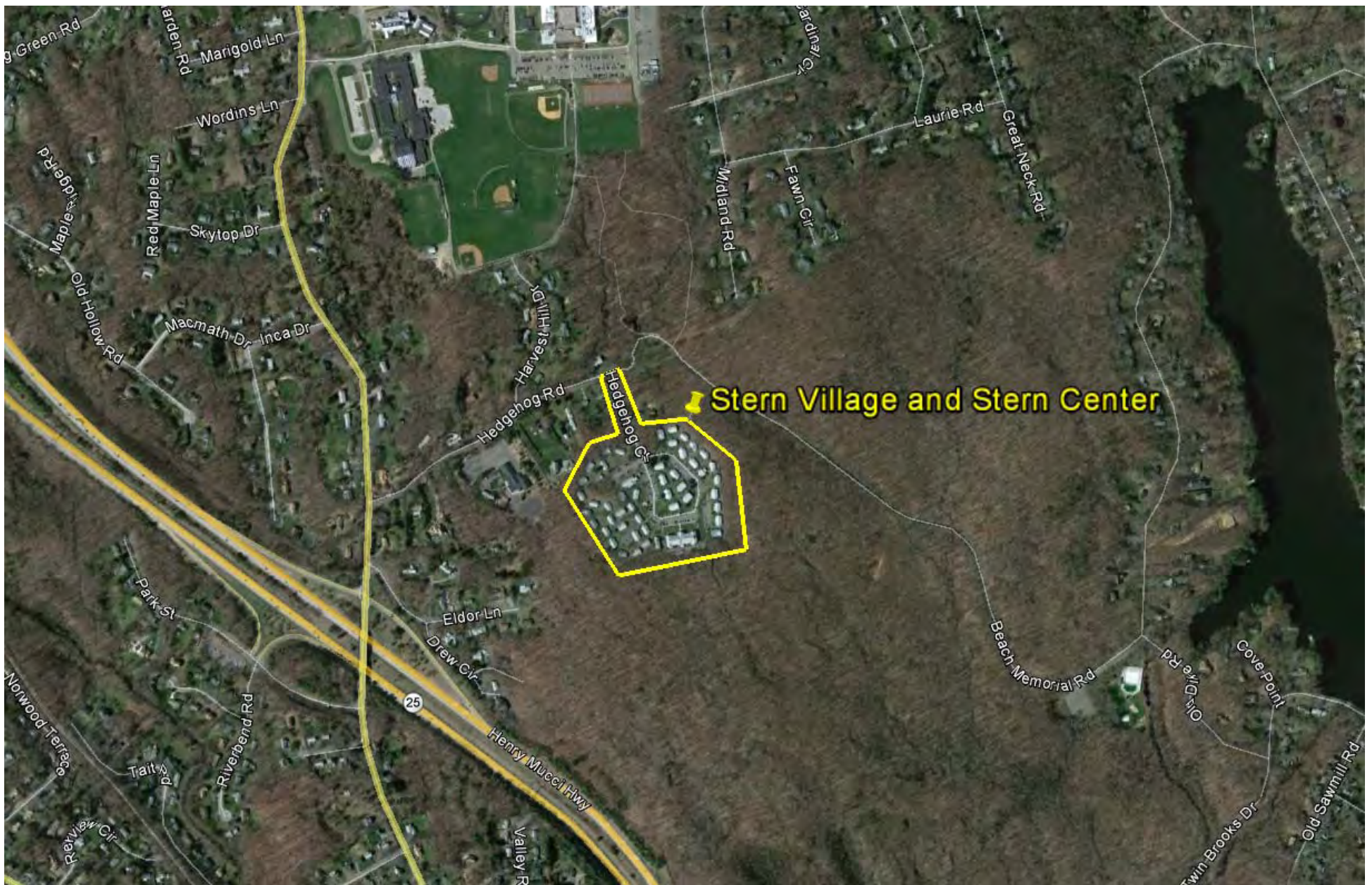


Stern Village and Stern Center  
CHFA # 85195D

Trumbull Housing Authority  
Trumbull, CT

March 7, 2013

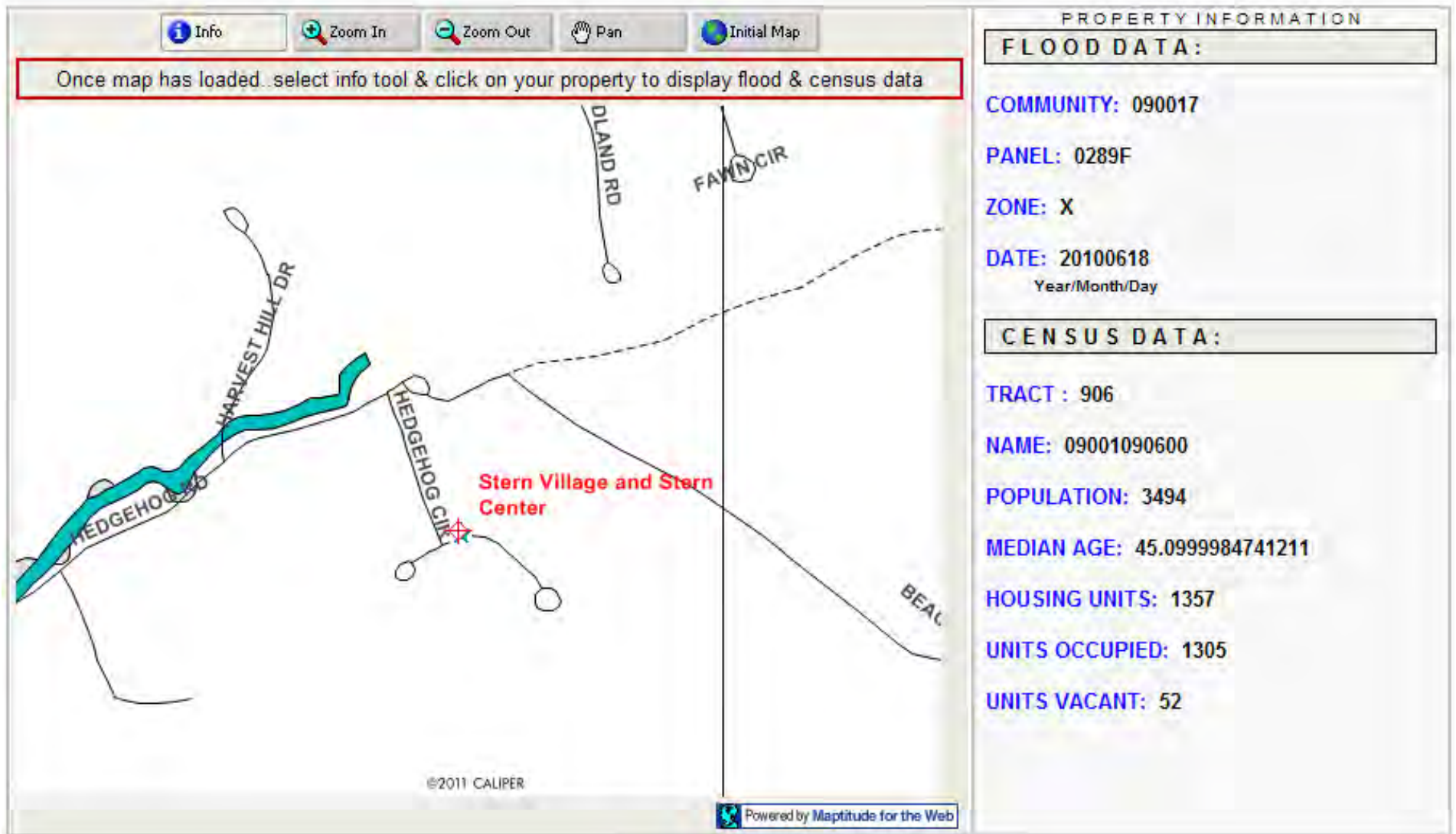
*Final Report*



## Stern Village and Stern Center

1-210 Hedgehog Circle  
Trumbull, CT 06611





## Stern Village and Stern Center

1-210 Hedgehog Circle  
Trumbull, CT 06611

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

## Executive Summary

### Stern Village and Stern Center

Trumbull, CT

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**Stern Village and Stern Center** provides housing for elderly residents. There are a total of 222 one-bedroom units (varying sizes including eight accessible units). This campus built in phases starting in 1987, has 49 residential buildings, including the Stern Center (Center Building) which has 36 units including four accessible apartments, and the garden-style residential buildings (The Village). Included in the Village are pairs of apartments adjacent to the Community Building and the laundry buildings.

The Center Building has a central mechanical room providing hydronic heat and domestic hot water (DHW), an elevator to provide access to the upper floor, and a commercial kitchen. The Village buildings are all direct entry (two entry doors per unit), heated with electric baseboard heat and these units each has an electric DHW tank. The Village buildings also have a mix of window types, original wood-framed windows with storm windows and newer vinyl framed double glazed windows. All buildings have pitched roofs with older roofs covered with asphalt shingles and newer roofs covered with architectural asphalt shingles.

Overall the development is in good condition. As shown on the attached capital needs worksheets, the development faces significant capital needs in the near term. The existing reserve account balance and annual contribution will sufficiently meet the proposed capital costs over the next 20-year period.

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

- Repaving the asphalt-paved roadway, parking areas, and walkways.

- Replacing the wood windows with vinyl double glazed windows; and replacing the caulking, which was observed as dried and cracked.
- Replace the older roofing.
- Upgrade the community kitchen to include a compliant accessible design including knee clearance at the sink and a 30-inch work surface.
- Upgrade of apartment finishes and systems including replacement of thermostats and the original electric baseboard heat.
- Replace the electric DHW tanks within the Village apartments.

Additional Notes:

1. The Physical Assessment of the property was conducted on January 22<sup>nd</sup>, 2013. Additional information was provided to ON-SITE INSIGHT by site staff and others. OSI was represented on this assignment by David Jackson. We would like to thank site staff 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*.



A view at the entrance to the development including the property's sign.



The site includes asphalt-paved parking areas, and similarly paved walkways and access road.



A close-up of a damaged roadway section.



Cracks were also observed throughout the asphalt walkways.





The Village consists of single level brick-clad buildings.



The Center is a single two-story brick clad building.



Roofs are pitched and covered with asphalt shingles.



An example of dried and cracked caulking at a control joint at the Center.



A close-up of cracked and dried caulking at a window.



A view of the Village's community room.

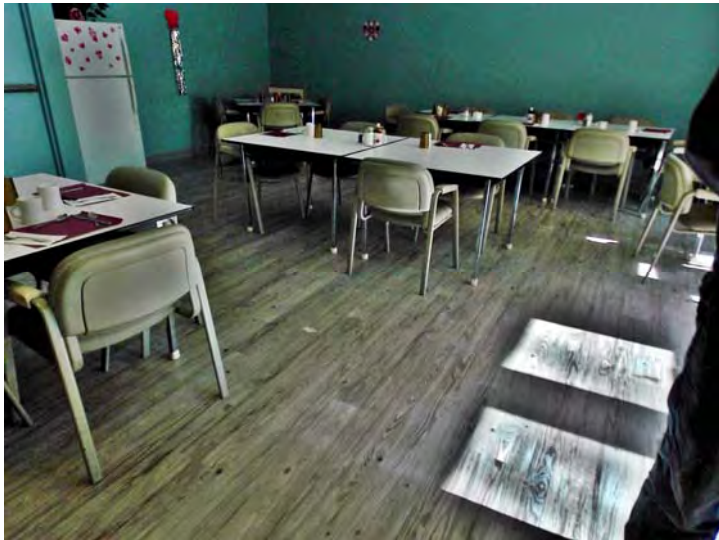


This community kitchen is adjacent to the Village's community room.



This is the main lobby at the Center.





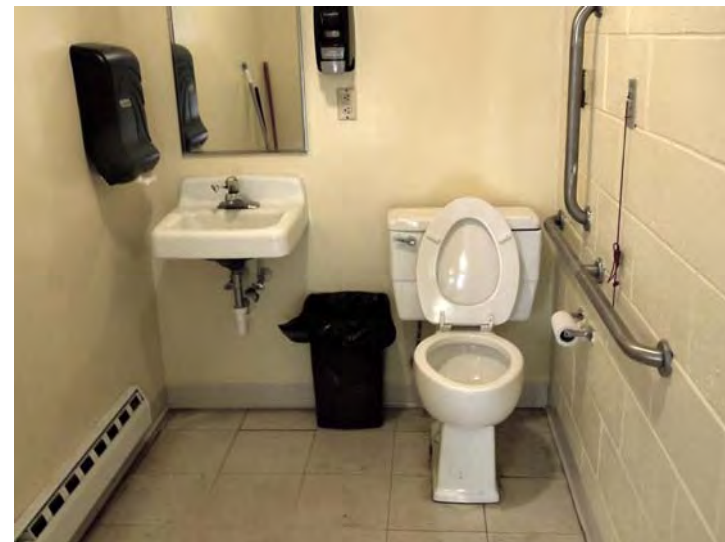
The Center's dining room has been recently upgraded with new vinyl plank flooring.



A view of the commercial kitchen that serves the Center.



A common hallway in the Center.



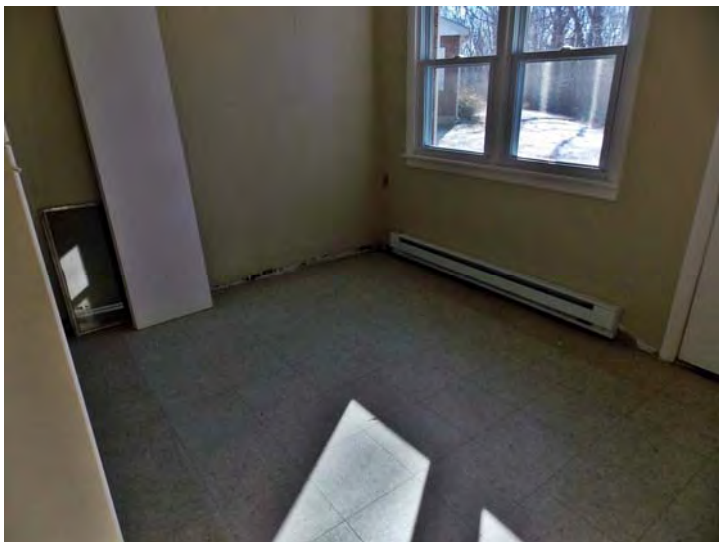
One of the common restrooms.



The center has a couple of common restrooms that also have roll-in showers.



A view of one of the 3 laundry rooms in the Village section.

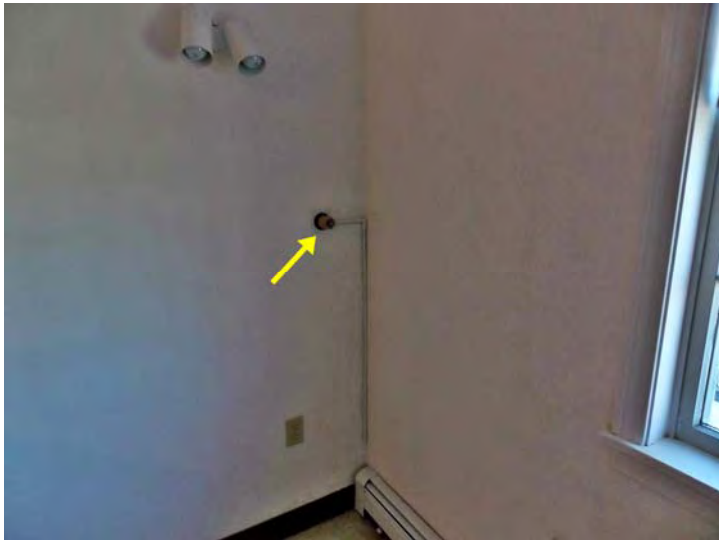


A partial view of living space in an apartment in the Village section.



A view of the living space in one of the Center's apartments.





This remote thermostatic valve controls the baseboard heat (hydronic) in one of the Center's apartments.



A kitchen with older laminated particleboard cabinets.



Bathrooms have VCT flooring, wall-hung sinks, and ceramic tile tub surrounds.



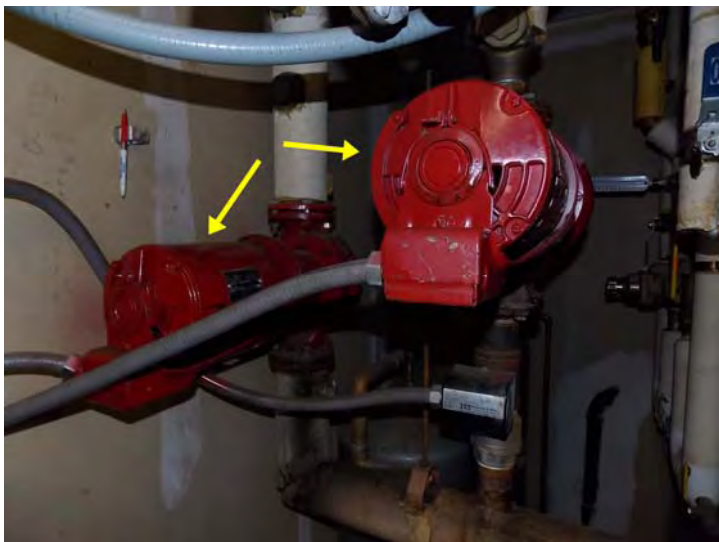
A typical electric-heated DHW tank in one of the Village's apartments.



These modular boilers produce hydronic heat and DHW at the Center.



The Center's boiler plant is governed by this controller (Slant Fin).

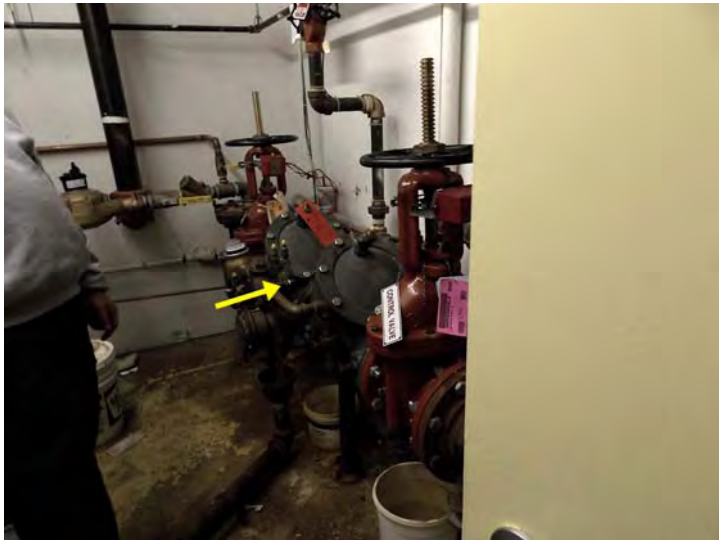


This is the pair of hydronic circulating pumps.



This natural gas-powered generator provides emergency power for the Center.





The fire sprinkler system at the Center also has a backflow preventer (arrow).



The fire alarm control system includes a newer panel (arrow). This system governs the detection devices at the Center.



A view of the hydraulic elevator pump station.



One of the air conditioner sleeves at the Center.

Comprehensive Capital Needs Assessment Schedule

Summary

Owner Sponsor Name:	Trumbull Housing Authority
Project Name:	Stern Village and Stern Center
Project City / Town:	Trumbull Housing Authority

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

Number of Units:	222
Total Square Feet:	133,960
Default Inflation Rate:	3.0%

Beginning Replacement Reserve Balance:	\$1,366,916
Annual Replacement Reserve Contribution:	\$175,040
Additional Misc. Contribution:	

	Component	Total Planned Expenditures by Year																						Revitalization
		Emergency	Deferred	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
				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	265,171	0	0	0	0	51,234	0	0	0	0	59,394	0	0	0	0	68,854	0	0	1,353	0	0
2	Building Exterior	0	0	74,509	76,744	79,047	45,758	0	0	1,360	0	0	0	12,348	12,718	13,100	13,493	29,958	83,851	88,195	71,408	17,993	18,533	0
3	Roofing	0	0	144,522	148,858	153,323	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	2,480	0	0	0	0	0	0	0	0	0	3,333	0	0	0	0
5	Community Room	0	0	2,250	0	0	0	0	0	26,950	0	0	12,395	0	0	0	0	0	0	14,162	0	0	0	0
6	Common Hallways	0	0	0	0	0	0	0	0	26,801	0	0	0	0	0	0	0	0	0	15,799	0	0	0	0
7	Common Stairways	0	0	0	0	0	0	0	0	3,320	0	0	0	0	0	0	0	0	0	2,087	0	0	0	0
8	Common Laundry	0	0	0	0	0	0	0	0	4,319	0	0	0	0	0	0	0	0	0	2,035	0	0	0	0
9	Common Area Restrooms	0	0	0	0	0	0	0	0	3,398	0	0	0	0	0	0	0	0	0	4,567	0	0	0	0
10	Building Boilers	0	0	0	0	0	0	0	0	0	0	0	3,327	0	0	44,441	0	0	0	0	0	0	0	0
11	Building Mechanical	0	0	40,550	0	0	0	0	0	0	0	0	97,858	0	0	30,112	0	0	0	0	0	0	0	0
12	Building Electrical	0	0	0	0	0	0	0	10,723	0	0	0	0	78,619	0	0	0	0	0	0	75,205	0	0	0
13	Building Elevator	0	0	2,500	0	0	0	0	0	0	0	8,234	0	0	0	0	115,280	0	0	0	0	11,066	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	0	18,418	18,971	19,540	20,126	20,730	21,352	21,992	22,652	23,331	24,031	24,752	25,495	26,260	27,047	27,859	28,695	29,555	30,442	31,355	32,296	0
16	Unit Kitchens	0	0	65,163	67,118	69,131	71,205	73,342	75,542	18,467	19,021	19,592	20,180	30,129	31,033	31,964	32,923	39,901	34,928	35,976	37,055	38,167	39,312	0
17	Unit Bathrooms	0	0	5,886	6,063	6,244	6,432	6,625	6,823	7,028	7,239	7,456	7,680	13,504	13,909	14,326	14,756	15,199	15,654	16,124	16,608	17,106	17,619	0
18	Unit Electrical	0	0	19,370	19,951	20,550	0	0	0	0	0	0	0	23,492	24,196	24,922	0	0	0	0	0	0	0	0
19	Unit Mechanical	0	0	1,166	1,201	1,237	1,274	16,141	16,625	17,124	17,638	26,021	26,801	27,605	28,434	29,287	30,165	31,070	32,002	32,962	33,951	34,970	36,019	0
20	Annual Planned Expenditures	0	0	639,505	338,905	349,072	144,795	116,837	182,299	133,239	66,550	84,634	192,273	269,844	135,785	214,412	233,664	143,986	263,985	244,796	264,669	152,010	143,779	0
21	Annual Provision (indexed at 3%)			175,040	180,291	185,700	191,270	197,009	202,919	209,006	215,277	221,735	228,387	235,239	242,296	249,565	257,052	264,763	272,706	280,887	289,314	297,993	306,933	
22	Outside Capital																							
23	Cumulative Reserve Balance	1,366,916	1,366,916	902,450	743,836	580,464	626,939	707,111	727,730	803,497	952,224	1,089,325	1,125,439	1,090,834	1,197,345	1,232,498	1,255,885	1,376,662	1,385,383	1,421,474	1,446,119	1,592,102	1,755,257	



## Site Improvements

Number of Units:	222
Total Square Feet:	133,960
Default Inflation Rate:	3.0%

13014 Stem SS 2/7/2013

## Building Exterior

Number of Units:	222
Total Square Feet:	133,960
Default Inflation Rate:	3.0%

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## Roofing

Owner Sponsor Name:	Trumbull Housing Authority
Project Name:	Stern Village and Stern Center
Project City / Town:	Trumbull Housing Authority

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	January 0, 1900

Number of Units:	222
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Default Inflation Rate:	3.0%

[illegible]

## Lobby / Mail Area

Owner Sponsor Name:	Trumbull Housing Authority
Project Name:	Stern Village and Stern Center
Project City / Town:	Trumbull Housing Authority

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	January 0, 1900

Number of Units:	222
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Default Inflation Rate:	3.0%

13014 Stern SS 2/7/2013



## Community Room

Owner Sponsor Name:	Trumbull Housing Authority
Project Name:	Stern Village and Stern Center
Project City / Town:	Trumbull Housing Authority

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	January 0, 1900

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Total Square Feet:	133,960
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## Common Hallways

Number of Units:	222
Total Square Feet:	133,960
Default Inflation Rate:	3.0%

13014 Stem SS 2/7/2013



Comprehensive Capital Needs Assessment Schedule

Common Stairways

Owner Sponsor Name:	Trumbull Housing Authority
Project Name:	Stern Village and Stern Center
Project City / Town:	Trumbull Housing Authority

Current Year:	2013
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Report Date:	January 0, 1900

Number of Units:	222
Total Square Feet:	133,960
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	1,117		4	10	2019				0	0	0	0	0	0	1,334	0	0	0	0	0	0	0	0	0	1,793	0	0	0						
2	Ceilings	184		4	10	2019				0	0	0	0	0	0	219	0	0	0	0	0	0	0	0	0	294	0	0	0						
3	Floors	1,480		14	20	2019				0	0	0	0	0	0	1,767	0	0	0	0	0	0	0	0	0	0	0	0	0						
4	Doors					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
5	Railings					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	0					
7	Other					2013				0	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	0					
9	Other					2013				0	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	0					
11	Other					2013				0	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	0					
13	Other					2013				0	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	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					
16	Other					2013				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
17																																			
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23																																			
24																																			
25																																			
26																																			
27	Annual Planned Expenditures							0		0	0	0	0	0	0	3,320	0	0	0	0	0	0	0	0	0	2,087	0	0	0	0	0				
28	Cumulative Reserve Balance							1,366,916		1,366,916	902,450	743,836	580,464	626,939	707,111	727,730	803,497	952,224	1,089,325	1,125,439	1,090,834	1,197,345	1,232,498	1,255,885	1,376,662	1,385,383	1,421,474	1,446,119	1,592,102	1,755,257					

## Common Laundry

Number of Units:	222
Total Square Feet:	133,960
Default Inflation Rate:	3.0%

13014 Stem SS 2/7/2013



## Common Area Restrooms

Owner Sponsor Name:	Trumbull Housing Authority
Project Name:	Stern Village and Stern Center
Project City / Town:	Trumbull Housing Authority

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Number of Units:	222
Total Square Feet:	133,960
Default Inflation Rate:	3.0%

[illegible]



## Building Mechanical

Number of Units:	222
Total Square Feet:	133,960
Default Inflation Rate:	3.0%

13014 Stem SS 2/7/2013



## Building Electrical

Owner Sponsor Name:	Trumbull Housing Authority
Project Name:	Stern Village and Stern Center
Project City / Town:	Trumbull Housing Authority

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	January 0, 1900

Number of Units:	222
Total Square Feet:	133,960
Default Inflation Rate:	3.0%

[illegible]

## Building Elevator

Owner Sponsor Name:	Trumbull Housing Authority
Project Name:	Stern Village and Stern Center
Project City / Town:	Trumbull Housing Authority

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	January 0, 1900

Number of Units:	222
Total Square Feet:	133,960
Default Inflation Rate:	3.0%

[illegible]









Comprehensive Capital Needs Assessment Schedule

Unit Kitchens

Owner Sponsor Name:	Trumbull Housing Authority
Project Name:	Stern Village and Stern Center
Project City / Town:	Trumbull Housing Authority

Current Year:	2013
Budget Effective Date:	January 1, 2013
Report Date:	January 0, 1900

Number of Units:	222
Total Square Feet:	133,960
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	Cabinets					2013				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						
6	Sink					2013				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						
8	GFI Outlet					2013				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						
10	Refrigerators					2013				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						
12	Range					2013				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						
14	Disposal					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	Cabinets and Countertops	298,181		25	25	2013				49,697	51,188	52,724	54,305	55,934	57,612	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
18	Countertops: Future Replacements	83,432		Varies	12	2023				0	0	0	0	0	0	0	0	0	9,344	9,625	9,913	10,211	10,517	10,833	11,158	11,492	11,837	12,192							
19	Refrigerators	148,740		Varies	15	2013				9,916	10,213	10,520	10,835	11,161	11,495	11,840	12,195	12,561	12,938	13,326	13,726	14,138	14,562	14,999	15,449	15,912	16,390	16,881	17,388						
20	Range	111,000		Varies	25	2013				5,550	5,717	5,888	6,065	6,247	6,434	6,627	6,826	7,031	7,241	7,459	7,682	7,913	8,150	8,395	8,647	8,906	9,173	9,449	9,732						
21	Vent Hood: Center Bldg Units Only	3,960		5	20	2027				0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,990	0	0	0	0	0						
22																																			
23																																			
24																																			
25																																			
26																																			
27	Annual Planned Expenditures							0		0	65,163	67,118	69,131	71,205	73,342	75,542	18,467	19,021	19,592	20,180	30,129	31,033	31,964	32,923	39,901	34,928	35,976	37,055	38,167	39,312	0				
28	Cumulative Reserve Balance							1,366,916		1,366,916	902,450	743,836	580,464	626,939	707,111	727,730	803,497	952,224	1,089,325	1,125,439	1,090,834	1,197,345	1,232,498	1,255,885	1,376,662	1,385,383	1,421,474	1,446,119	1,592,102	1,755,257					



## Unit Electrical

Number of Units:	222
Total Square Feet:	133,960
Default Inflation Rate:	3.0%

13014 Stem SS 2/7/2013



## **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.