

BENNETT BLOCK - KEENE HOUSING

FEASIBILITY & COST ESTIMATE REPORT | KEENE, NH

Bennett Block Upgrades
Keene Housing
32 Washington Street
Keene, NH
January 2020



Prepared for: KEENE HOUSING
831 COURT STREET
KEENE, NH

Submitted by: STEVENS & ASSOCIATES, P.C.
95 MAIN STREET
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PROJECT #16-081

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PART ONE – EXECUTIVE SUMMARY

Background

Monadnock Affordable Housing Corporation, an affordable housing provider, is the sponsor of a project to partially renovate Bennett Block, a 14-unit existing residential building in the historic downtown Keene, New Hampshire. This building provides affordable housing for fourteen families. Monadnock Affordable Housing (MAHC) and its affiliated non-profit organization, Keene Housing, own and manage more than 500 apartments for low income families and seniors in Keene and Swanzey. Keene Housing Authority (KHA) purchased Bennett Block in 1993 as part of its public housing program. In 2009, KHA transferred the property to MAHC along with all of its other public housing properties. This consolidation increased the financial sustainability of the properties. Keene Housing has managed the property since that time, and will continue to act as the property manager on behalf of MAHC.

Keene Housing Authority purchased Bennett Block in 1993 as part of its public housing program. In 2009, KHA transferred the property to MAHC along with all of its other public housing properties. This consolidation increased the financial sustainability of the properties.

This report recommends renovation work, and describes what we believe should be repaired, changed, renovated, or otherwise improved. The plan is to upgrade select finishes and building infrastructure in need of repair and replacement due to its aged condition or have otherwise become outdated. Specific projects on the list include extended fire sprinkler coverage, electrical upgrades, new energy efficient windows, replacement of the elevator piston, structural reinforcing of existing roof joists and first floor joists in addition to new floor finishes and new LED light fixtures in each apartment. The goal is to make the necessary building repairs and upgrades needed to continue the operation of the facility in the short term but also to aide in Monadnock Affordable Housing's long term goals for providing a high standard of quality residences for low-income families and seniors.

Monadnock Affordable Housing Corporation and Keene Housing are also committed to a long-term goal to reduce overall energy and water consumption across its properties, and the renovations at Bennett Block provide an opportunity to apply energy conserving measures as well as lay the ground work for future energy goals. There are plans to improve the buildings exterior thermal envelope by installing new energy efficient windows and exterior doors, add closed cell spray foam insulation at the basement and elevator penthouse and replace existing light fixtures with high-efficiency LEDs.

This project also aims to restore, preserve and protect the historic Bennett Block exterior facade to stop further physical deterioration and improve its outward appearance and contribution to the historic downtown fabric.

Stevens & Associates along with their engineering consultants, John F. Penney Consulting Services and Dubois and King, Inc., visited the building to determine what repairs and renovations were needed. A schematic design was prepared to aid in preparing cost estimates

and to substantiate the opportunities in this project to make needed improvements to interior finishes, structural framing, exterior building envelope, facade repair and upgrades to ventilation and electrical systems.

We also reviewed a Capital Needs Assessment document prepared by GDS Associates, Inc. in February of 2019 and incorporated work identified in this report into the scope of this proposal. While this report and project does not address all of the identified needs it does address the more immediate ones and lays the foundation for continued improvements.

A final estimate for identified work was prepared employing the services of a professional cost estimator, Scott Carter (CPE) who used the most current industry pricing guides and best professional judgment based on over 20 years of industry experience. Davis Bacon prevailing wages were used in determining required labor rates.

Refer to Appendix A & B for Project Costs and Schematic Cost Estimate Summary

The proposed renovations will not be more than 75% of the replacement cost of the completed facility, do not change its use, and are not of a structural nature involving a budget greater than 50% of the property's value. The renovations are generally modernization, maintenance and repair items. There are no plans for alterations to existing walls.

Multifamily Compliance Requirements of The ADA and The FHA

The property in question is currently used for residential housing for low income families.

The first floor of the building entry is accessible from the street by way of elevator, accessed at grade level through a small lobby from Washington Street. The first floor hosts what is now a vacant community space once used by the residents and an active hair salon. There is a handicap ramp at the back of the community space which is used as a second means of egress. There are public men's and women's bathrooms serving the community floor and the elevator serves the second and third residential floors of the three-story building.

Since the three-story Bennett Block building was designed and constructed prior to the HUD Fair Housing Act effective date for "covered multifamily dwellings" designed and constructed for first occupancy after March 13, 1991, there are inherent overall dimensional challenges in all of the bathrooms and kitchens that depart from technical and scoping requirements of a usable kitchen and bathroom under the UFAS guidelines. To meet the technical and scoping requirements in every kitchen and bath would require extensive demolition, reworking of plumbing and mechanical infrastructure and rebuilding of every unit that would make this project cost prohibitive. While it is not in the means of this project to address all of these challenges, MAHC and Keene Housing are committed to making improvements on reasonable request and to the furthest extent future funding allows.

Lead Paint and Other Hazardous Materials

As a result of historic information discovered during the transfer of property ownership the site was once used as a dry cleaner, LE -Environmental has been monitoring ground water

and indoor air quality and reporting data to the New Hampshire Department of Environmental Services (NHDES) Waste Management Division as part of an on-going remedial action plan for the past few years in response to a Condition 7 of the Groundwater Management Permit issued by NHDES on March 29, 2016. The GWP was revised on September 13, 2018 and reduced the frequency of monitoring site related wells to once in 2020 and removed already completed requirements for notification and recording. Most recent ground water sampling taken from monitoring well MW-1 in February and May of 2019 on the property showed continued declining traces of chlorinated volatile organic compounds and favorable geochemical conditions for continuing declining concentrations in groundwater. The concentration of tetrachloroethene in monitoring well MW-1 is approaching the NHDES AGQS of 5 parts per billion.

As a follow-up to this work, the owner has engaged the services of LE-Environmental for a Phase 1 Environmental Assessment Report. This report will be made available once the report is complete.

The owner has contracted separately with LE Environmental to provide data on lead and/or asbestos that has been abated or may be remaining in the building. Results for lead and asbestos reports will also be made available once complete.

Code Constraints

New Hampshire state building codes, fire codes and local building codes apply to this project. The determination of the applicable codes to apply is up to the local Authority Having Jurisdiction (AHJ). The City of Keene Inspections Department will apply the IBC code adopted by the City at the time a construction permit is applied for. This may or may not be the current IBC 2015 version of the code.

Under the city's local building code Division 2, Section 18-56; Existing Building alterations, repairs, additions, and changes of occupancy to existing structures shall comply with the provisions for alteration, repairs, and changes of occupancy in the state building code.

Fire and Building Codes

We reviewed key elements of the current 2015 IBC building code as they affect the proposed renovations for Bennett Block.

These codes classify each building by the type of use and the form of construction and apply specific requirements based on these classifications. There are key limitations given to height and number of stories of floor area.

Under IBC 2015, Section 602, Table 601 the construction classification for the Bennett Block fits the description for construction Type IIIB. Type III construction is that type of construction in which the exterior walls are of noncombustible material and the interior building elements are of any material permitted by this code.

Under Chapter 3; Use and Occupancy Classification, Bennett Block's primary occupancy and use would be classified as Residential Group R-2. R-2 Residential occupancies contain sleeping units or more than two dwelling units where the occupants are primarily

permanent in nature. Since the building also has a small business space and a community space at the first floor the building's use and occupancy classification is considered a Mixed-Use. Mixed-Use occupancies require that the horizontal floor assembly separating the residential space from the first floor uses have a fire-resistance rating of not less than one hour. This is consistent with Table 508.4 for Required Separation of Occupancies, IBC 2015. The current ceiling assembly doesn't meet this requirement. If the first floor space is to be used for Assembly or other Public events the ACT ceiling should be replaced with a sheet rock ceiling or other system to meet the fire-separation requirement.

Proposed work will not change the current occupancy and use, and is not adding floor area or building height.

The building is protected with an approved automatic sprinkler system. The sprinkler system provides coverage in throughout all corridors, stairwells, basement and first floor with limited coverage at each apartment. Each apartment has two entry doors with a side wall sprinkler head that terminates above each apartment entry door. The sprinkler lines do not extend into the apartments. It is believed that this system was designed and approved by the AHJ's based on an earlier sprinkler standard. In order to meet current AHJ approval we would need to satisfy current requirements for NFPA 13 Sprinkler Design which includes more extended coverage of apartment units and the replacement of existing sprinkler heads with new.

Summary of Recommendations

The following recommendations are based on highlights of completed field investigations and observations, interviews with Keene Housing maintenance staff, data collected from mechanical and electrical engineering consultants and a Capital Needs Assessment (CNA) completed in 2019 by GDS Associates and subsequent owner meetings to prioritize most urgent needs within budgetary constraints.

Exterior Improvements

- Washington Street Facade Historic Restoration, includes new storefront windows, cleaning of brick facade, repair and repainting of wood trim and new entry doors to improve appearance and protect the building's historic facade.

Energy Efficiency Improvements

- New LED fixtures throughout apartment units
- New Energy Star appliances
- New energy efficient windows
- New energy efficient exterior doors
- Added insulation to building envelope

Ventilation Improvements

- New Bathroom Fans

Residential Unit Improvements

- New Energy Star kitchen appliances
- All new vinyl plank flooring
- Units all newly painted
- New LED lighting

Infrastructure & Code Related Improvements

- Reinforce Roof Framing and First Floor Ceiling Joists
- Upgrade Electrical Systems
- Replace Existing Sprinkler Heads with New
- Extend Fire Sprinkler Coverage throughout Apartment Units
- Provide a rated ceiling assembly at first floor to meet fire-separation requirements of Mixed-use Occupancies.

PART TWO – REVIEW OF EXISTING CONDITIONS

Characteristics of Existing Structure

The property description is a three story brick structure referred to as the Bennett Block. Originally built in 1910 the Bennett Block is constructed of ordinary brick masonry bearing walls with wood roof and floor joists. While the building is not listed with the New Hampshire State registry of Historic places or on the National Register of Historic Places it is located in the historic district of downtown Keene, therefore any changes to the exterior are subject to the review and approval of Keene's Historic District Commission. The first floor of the Bennett Block building is used by residents for informal socializing and group activities. The first floor also has a small commercial space leased to a beauty salon. The second and third floor are residential one and two bedroom apartments for a total of 14 units.

The building has a single passenger elevator and there is a small laundry room on each residential floor. There is a full height basement accessible by stairs which is used for building utilities and storage.

Primary Systems and Building Elements

Electrical Systems

Apartments are metered separately. Each apartment has its own breaker panel.

Fire Alarm, Sprinkler System and Life Safety Features

The building is equipped with an automatic fire sprinkler system tied to a single fire alarm system. Refer back to Building and Fire Codes for additional information and limitations of existing sprinkler system.

There is a fire alarm system with an annunciator panel at the first floor. The system generally consists of hardwired, single-station smoke detectors in the apartments and system smoke

detectors in corridors and public areas linked to the fire alarm system. There are manual pull stations at rated doors leading into fire stairs. At the fire alarm panel there is one way communication from the panel to each apartment and common hallway. Each unit is equipped with carbon monoxide detectors.

Ventilation, Heating and Hot Water Systems

The existing boiler is an Energy Star, Weil-McClain Gas-fired water boiler - Series 3 with a control module that responds to signals from the room thermostats and automatically adjusts blower speed and gas flow rate to match boiler output to space heating demand. This is a very efficient heating system which was installed in 2006 and remains in very good condition.

Typical residential units are heated from base board fin-tube radiation which are in average working order. Bathrooms have a ceiling mounted combination light and exhaust fan that operates off a manual wall switch and is ducted to a common duct riser that runs to the roof. Kitchens are equipped with self venting exhaust hoods over electric cooking ranges. The bathroom fan and kitchen equipment appears dated and has reached the end of its useful life.

Bathrooms

Residential toilets, wall hung lavatories and bathtubs appear to fixtures from the 1982 or earlier. The toilets are floor mounted fixtures with low seats. No change to existing plumbing fixtures under this project.

Kitchens

Kitchens are compact in size and come standard with a small sink, range with hood and refrigerator. Most of the cabinets, counter-tops, sinks and kitchen equipment are earlier 1980 and are dated and worn. The cabinets and counters are functional and will remain as-is under this project. Refrigerators, stoves and hoods are to be replaced.

Interior Finishes and Interior Lighting

Many of the apartment living areas have carpeted floors that are worn and difficult to keep clean. Linoleum in bathrooms and kitchens is dated and worn.

Typical lighting in a unit consists of a ceiling mounted florescent fixture in the kitchen and bathroom. There is also a vanity fixture mounted over the bathroom sink. These florescent fixtures appear to be original, many of the covers have yellowed and appear worn.

Keene Housing began replacing florescent fixtures with energy efficient LED fixtures in public corridors and common areas. The fixture replacement work in units remains incomplete.

Windows and Exterior Envelope

The exterior brick veneer of the Bennett Block building appears to be in fair condition, however brick should be cleaned and re-pointed. The ground floor store fronts also need replacing. Given the Bennett's Block place in the historic district this work should be a priority, the longer this work is deferred the greater the extent of deterioration and damage. The interior side of exterior walls were furred out with a one-inch air space and 3½" of fiberglass to increase insulation values during a much earlier renovation.

The windows are primarily single hung, aluminum frames with insulated glazing. A number of insulated glass seals are broken, and maintenance reports that many residents have difficulty operating the window units.

The roof is a single ply TPO membrane over a wood roof deck supported by wood roof joists. The roof membrane appears to be in fair condition and is believed to be over ten years old.

The existing roof joists are 2 x 6 framing members set 18" on center and are considered undersized given current snow loads. Given the age of the roof membrane, it is expected that the roof membrane will need replacing in the near future. New roofing will likely increase insulation values which in turn increase snow loads. In addition to added snow loads, MAHC would like to plan for future roof mounted ventilation equipment and heat pumps. Addressing existing roof structure needs now will enable supporting a new insulated roof and membrane and future mechanical equipment.

The existing elevator penthouse is in poor condition and is a source of building heat loss. It should be rebuilt and insulated.

PART THREE – RECOMMENDATIONS AND COST ESTIMATE

Recommendations

Structural Systems – Recommended upgrades:

1. Reinforce undersized roof joists by sistering each 2x6 joist with a 2x8 joist.
2. Reinforce ten percent of the first floor framing by sistering existing joists with 2x12's at 16" on center.

Electrical Systems – Recommended upgrades:

1. Upgrade the electrical service. The current condition of the electrical service and distribution panels and feeders have met the end of their service life. Some of the equipment dates to the original building construction and there were several Federal Pacific panels observed. Those should all be replaced.

2. There is space available for new distribution panel that can serve as a point of distribution for all of the units, that's the storage room off the ramp near the existing service drop.
3. New feeders will need to be provided to all of the apartments. Currently they are using SE cable that is rated for 70A. The service loads should be upgraded to a minimum of 100A in order to support future system upgrades for additional heat pump loads.
4. The existing electrical closets on the second and third level can have all of its electrical meters and associated breakers and wire ways removed once the new service and distribution is in place.
5. With the exception of one apartment panel, Keene housing staff indicated that all of the apartment panels have been upgraded and replaced. This means the existing load centers, with one exception do not need to be replaced.
6. It appears as if no arc fault breakers are in the apartment panels and Keene Housing staff indicated there may be some shared neutrals within the apartment branch circuit wiring. Arc fault breakers will need to be included and some of the wiring within the units improved.
7. The basement still contains what appears to be original distribution disconnects, breakers and panels that should all be replaced, removed and upgraded with new.
8. All the existing branch circuit wiring and related older equipment should be removed.

Sprinkler System – Recommended upgrades:

1. Fully test and check system to ensure proper flow and water pressure meets current fire sprinkler standards.
2. Replace sprinkler heads to meet current fire sprinkler code.
3. Extend sprinkler coverage throughout apartment units. **Ventilation, Heating and Plumbing Systems** – Recommended upgrades:

1. Mechanical ventilation is limited to low capacity bathroom exhaust fans that appear to be at the end of their serviceable life. These fans should be replaced.
2. The boiler is in good condition and was installed new in 2006. No boiler or control work is needed at this time.
3. Replace self-ventilating kitchen exhaust hoods. Confirm that exhaust duct connections meet present fire code requirements.

Note: Future work should include installing a central ERV system to provide continuous balanced ventilation to apartments and public areas. This system would serve the common corridors and include adding an exhaust ventilation duct work to serve the apartment kitchens and bathrooms.

Bathrooms - Recommended upgrades:

1. Provide new LED lighting
2. Provide new bathroom exhaust fan
3. Provide new slip resistant flooring

Kitchens – Recommended upgrades:

1. Replace existing ranges and hoods with new ENERGY STAR rated equipment.
2. Install ENERGY STAR refrigerators in apartments.
3. Provide new LED lighting
4. Provide new LVT Flooring

Interior Finishes – Recommended upgrades:

1. Remove all carpets and linoleum flooring and replace with luxury vinyl wood plank flooring (LVT Flooring). Typical at all units and corridors.
2. Remove all carpet at stairs and replace with rubber treads and risers.
3. Paint all walls, trim and ceilings throughout units and commons areas.

Windows, Exterior Doors & Building Envelope – Recommended upgrades:

1. Replace all windows with new Low E, double insulated windows.
2. Replace all exterior doors with thermally insulated doors.
3. Replace storefront windows with thermally insulated Low E glazing.
4. Rebuild Elevator Penthouse to include thermal insulation.

Cost Estimates

See Appendix A and B for Cost Estimate Details and Summary.

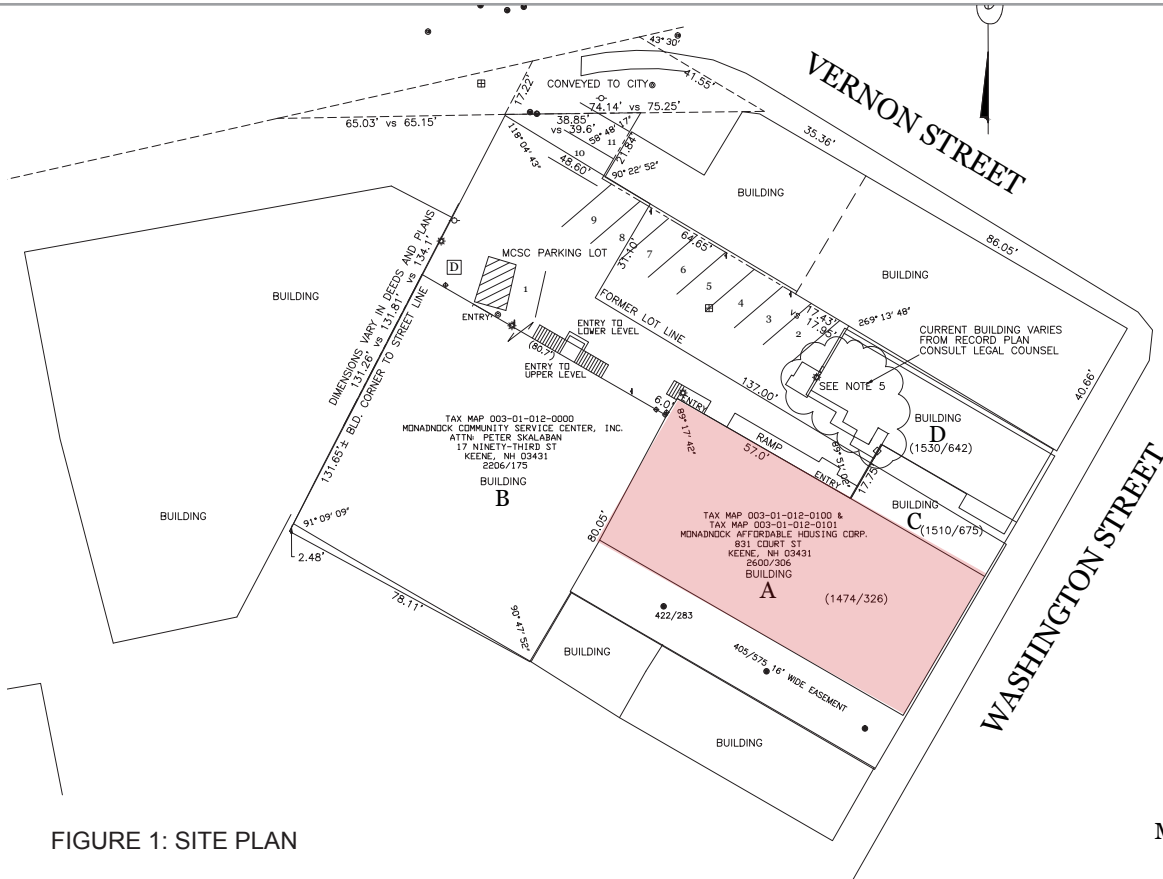


FIGURE 1: SITE PLAN

MON
 MONA



FIGURE 2: BENNETT BLOCK - FRONT ELEVATION, VIEW FROM WASHINGTON STREET



FIGURE 3:
WASHING TON STREET EAST ELEVATION

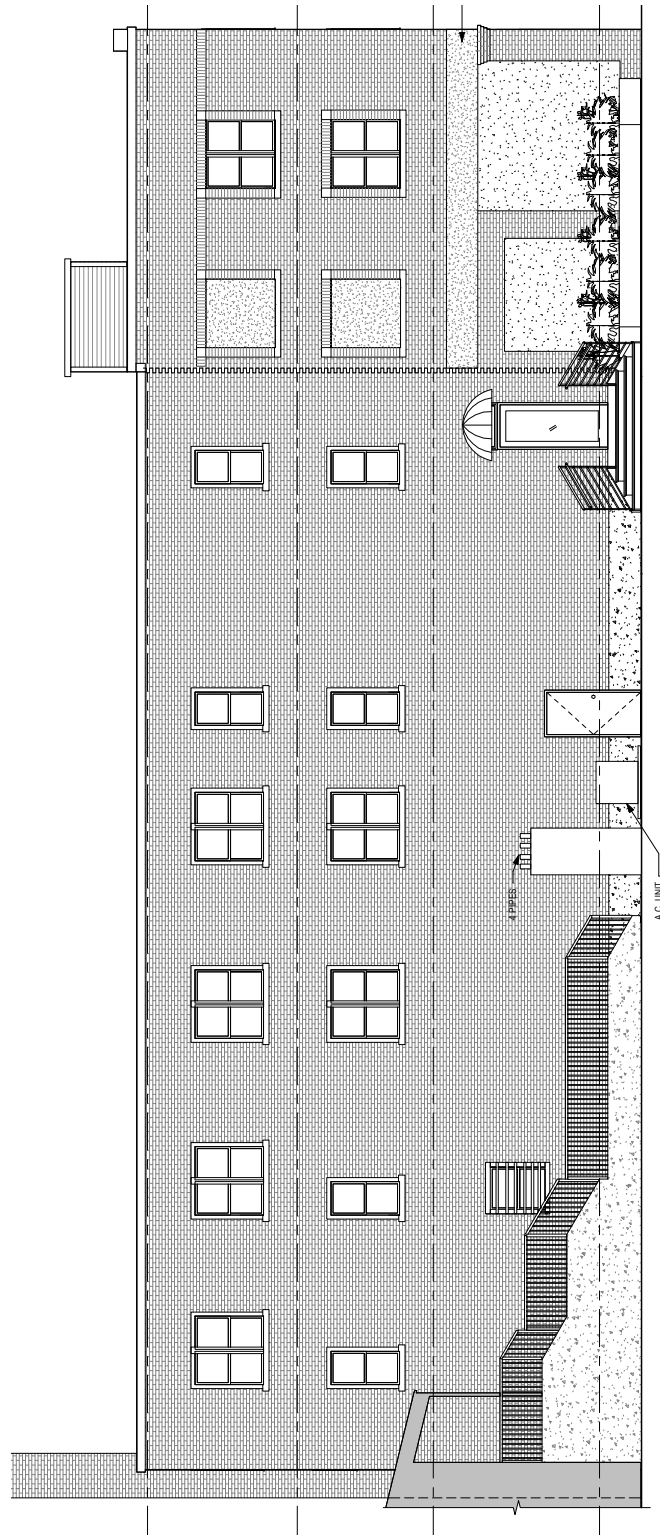
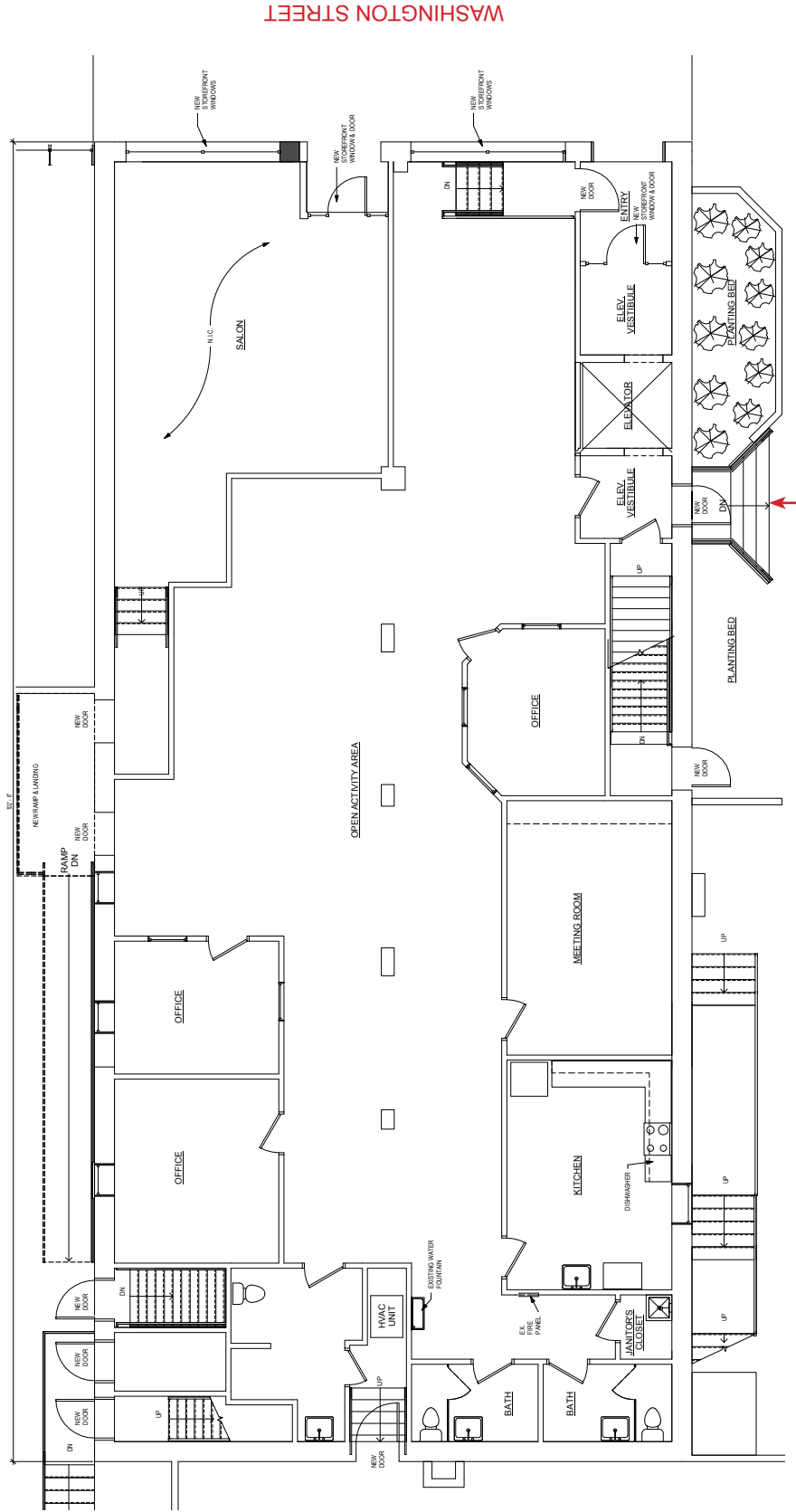


FIGURE 4:
SOUTH ELEVATION

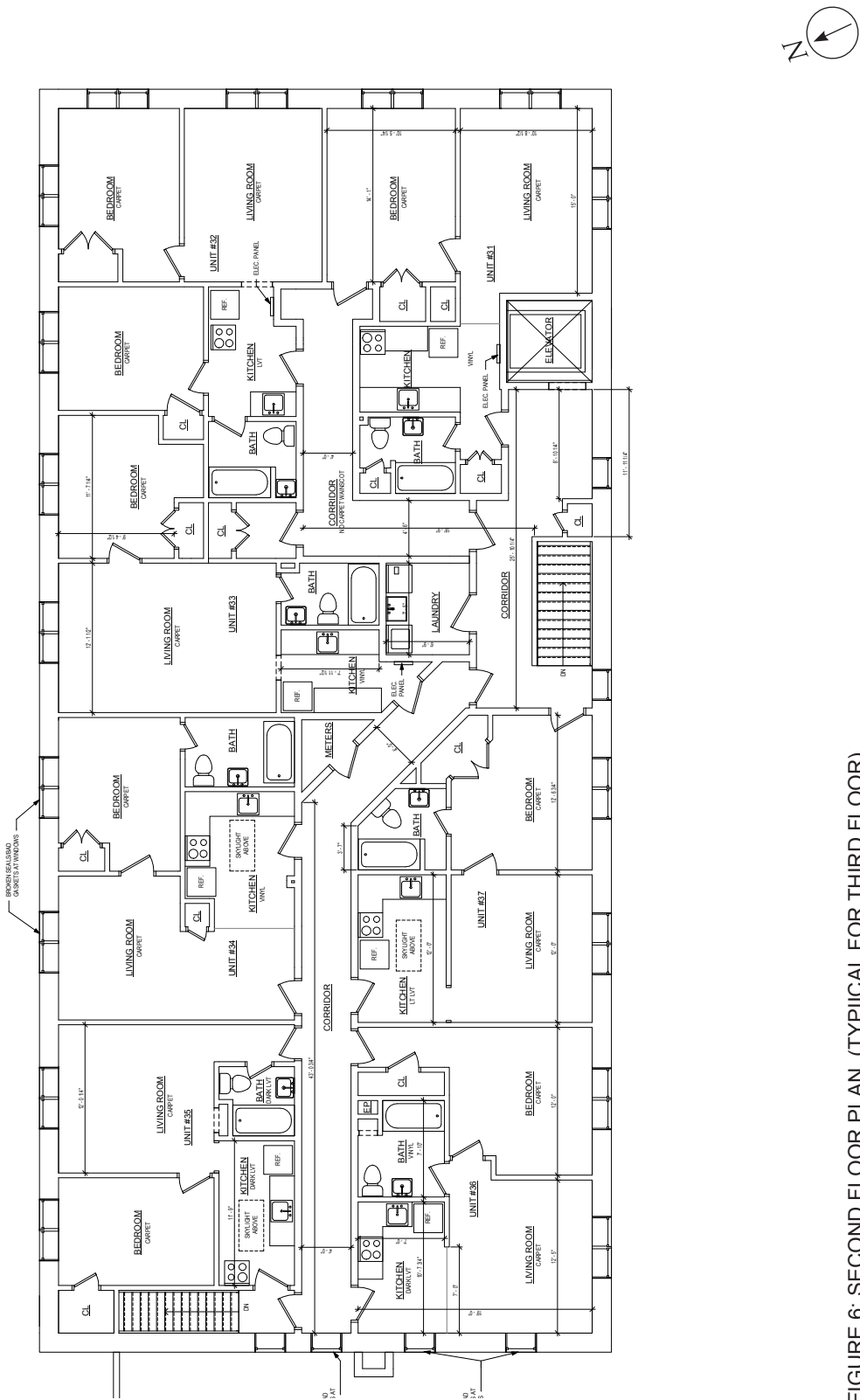


GSF 4,750

RESIDENTIAL ENTRY

FIGURE 5: FIRST FLOOR PLAN

WASHINGTON STREET



GSF 4,750

FIGURE 6: SECOND FLOOR PLAN (TYPICAL FOR THIRD FLOOR)



FIGURE 5: STOREFRONT - NEEDS REPLACEMENT AND REPAIRS TO WOOD TRIM



FIGURE 6: ENTRY DOOR FROM WASHINGTON STREET



FIGURE 7: TYPICAL WINDOW



FIGURE 8: TYPICAL CORRIDOR - CARPET TO BE REPLACED WITH LVT.



FIGURE 9: TYPICAL STAIR - CARPET TO BE REPLACED WITH RUBBER TREADS & RISERS



FIGURE 10: BATHROOM VANITY FIXTURE NEEDS REPLACEMENT, TYPICAL



FIGURE 11: BATHROOM EXHAUST FAN WITH LIGHT NEEDS REPLACEMENT, TYPICAL



FIGURE 12: TYPICAL KITCHEN



FIGURE 13: TYPICAL VIEW FROM INSIDE APARTMENT OF SPRINKLER COVERAGE ENDING AT ENTRY DOOR.



FIGURE 14: ELECTRIC FEEDER PANELS IN BASEMENT NEED REPLACEMENT



FIGURE 15: METERS AND SERVICE NEEDS TO BE MOVED OFF OF ADJACENT PROPERTY.



FIGURE 16: ELECTRIC SERVICE AND PANELS - REQUIRE RELOCATION AND UPGRADES



FIGURE 17: ELEVATOR PENTHOUSE NEEDS TO BE REBUILT AND INSULATED.



FIGURE 18: BATHROOM EXHAUST DUCTS AT UNDERSIDE OF ROOF JOISTS.

Prepared by Stevens Associates , PC
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KH - Bennett Block Renovation

Project Cost Estimate

Bennett Block

1/14/2020 Schematic Design Estimate

Uses:

Architectural, Engineering & Permits

Architecture & Engineering (7%)	76,561	91%
Civil Engineering	-	0%
Surveying	-	0%
Permitting Services	-	0%
Design Contingency (10%)	7,656	9%

Total Design & Permitting	84,000	100%
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Other Soft Costs

Legal/Accounting	-	0%
Grant Writing & Management	-	0%
Asbestos Inspections	-	0%
Environmental Assessment (Phase	-	0%
Site Permitting Fees	-	0%
Building Permitting	9,919	73%
Builder's Risk (.1%)	1,094	8%
Testing	2,000	15%
Soft Contingency (5%)	651	5%

Total Other Soft Costs	13,500	100%
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Hard Costs

Building Construction	1,093,734	100%
Site Work		0%
Estimate Contingency (10 %) included above		0%

Total Hard Costs	1,093,734	100%
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Hard & Soft Cost Subtotal:	1,191,234
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Escalation	-
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Subtotal:	1,191,000
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Owner's Contingency (10%)	119,100
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Subtotal:	1,310,000
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Total Project Cost	1,310,000
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Cost per Square Foot (GSF):

Cost per Unit (14): \$ 93,571

Notes:

1. All total lines rounded to nearest \$500
2. Hard Costs based on select scope from Scott Carter Estimate 12/24/2019 SF cost of \$199 per sf.

Bennett Block - Schematic Design Cost Estimate

Date of Report: Jan 14, 2020

GROUP	PHASE	DESCRIPTION	TOTAL AMOUNT
2000	DEMOLITION		
		Demo-Trash Chute-Plastic	1,010
		Demo-Concrete-Sawcut-Floor slab	3,150
		Demo-Carpentry-Wall Sheathing-to 3/4"	260
		Demo-Siding -Wood-Clapboards (Elevator Penthouse)	347
		Demo Opening - Storefront & Glass	900
		Demo-Finishes	19,879
		Demo-Windows	5,550
		Demo-Kitchen Applicances	560
		Demo-Debris & Handling & Move	2,500
		Demo-Exterior Doors (10)	600
		Demolition Total	34,756
3000	CONCRETE-BUILDING		
		Concrete Footings-Slab L&M&E	10,509
		Concrete Total	10,509
4000	MASONRY		
		Masonry - Cleaning	6,655
		Masonry -Restoration	11,115
		Masonry Total	17,770
6000	ROUGH CARPENTRY		
		Rough Carpentry-Framing Ext Wall (Elevator Penthouse)	5,264
		Beams & Columns LVL-Sistered	42,343
		Beams LVL 2x12 Replace	7,792
		Floor Underlayment & Adhesive	17,685
		Wall Sheathing Advantech 5/8	265
		Fasteners-Materials-Rough Hardware	450
		Rough Carpentry Handeling - Load - Stock	3,075
		Rough Carpentry Total	76,874
6200	FINISH CARPENTRY		
		Interior Trim - Baseboard	19,800
		Exterior Trim - Boards & Moldings	5,236
		Finish Carpentry Misc	1,200
		Finish Carpentry Total	26,236
7200	INSULATION		
		Spray Foam-Closed Cell 3" w/Fire Barrier	9,472
		Insulation Total	9,472
8000	DOORS & FRAMES & HARDWARE		
		Insulated Flush HM Ext. Doors (8) (includes Galv, Unload & Stock)	4,600
		Ext. HM Frames (8) (includes Galv, Unload & Stock)	1,733
		Ext Aluminum Doors & Frames - (2) Includes Panic Bar	7,000
		Comm. Door Hardware Ext. (8)	9,760
		Door Glass & Glazing 1" Tempered	2,100
		Doors & Frames Total	25,193

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Brattleboro, VT 05302

Bennett Block - Schematic Design Cost Estimate

Date of Report: Jan 14, 2020

8300	SPECIAL DOORS		
		Coiling Door - Fire Elevator	18,750
		Special Doors Total	18,750
8400	STOREFRONT & WINDOWS		
		Storefronts & Windows-Aluminum	24,150
		Storefronts & Windows Total	24,150
8500	WINDOWS		
		Windows - Marvin Insulated-Dual Pane	90,817
		Windows Total	90,817
8700	DOOR HARDWARE		
		Interior Door Locksets @ Units	4,200
		Exterior Door Comm Hardware (3) Doors	3,660
		Door Hardware Total	7,860
9250	GYPSUM WALLBOARD		
		GWB-Hung-Suspension Grid-650 Type (3rd Floor units)	6,967
		GWB-Hung-Suspension Grid-650 Type (1st Floor Ceiling)	8,500
		GWB-Hung-Firecode-5/8" Type (Corridor Walls)	13,612
		GWB-Finish Tape-3 Coat	5,826
		GWB-Misc Repair Tape-3 Coat (Roof Drains)	3,000
		Gypsum Wallboard Total	37,905
9500	ACOUSTICAL TREATMENT		
		ACT Tiles 2 x 2 Tegular (Corridors)	8,748
		Acoustical Treatment Total	8,748
9600	RESILIENT FLOORING		
		Floor-Resilient-LVP-Residences	31,710
		Floor-Resilient-LVP-Commons	7,290
		Floor-Stairs-Treads-Rubber	7,950
		Floor-Stairs-Risers-Rubber	5,980
		Resilient Flooring Total	52,930
9900	FINISH PAINTING		
		Finish Paint-Interior	33,201
		Doors-Exist Units -Paint	2,800
		Finish Painting Total	36,001
1000	SPECIALITES		
		Signage-Interior Plaque-Plastic to 12" x 12"	5,164
		Fire Extinguishers & Cabinets	1,060
		Postal-Mailboxes-Letters & Parcel	2,889
		Specialites Total	9,113
11000	EQUIPMENT		
		Residential A-Range-Electric	9,800
		Residential Hood-Under Cabinet	3,850
		Residential - Refrigerator	11,900
		Equipment Total	25,550

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Bennett Block - Schematic Design Cost Estimate

Date of Report: Jan 14, 2020

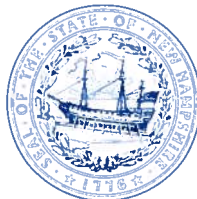
12000	FURNISHINGS		
		Window Treatments - Shades	5,532
		Entry Mats-Frame & Mat-Vinyl	4,752
		Furnishings Total	10,284
14000	CONVEYING SYSTEM		
		Elevator-Hydraulic-Exist-Upgrades	25,000
		Conveying System Total	25,000
15100	FIRE PROTECTION		
		Sprinkler-System-Wet-Upgrades	66,500
		Fire Protection Total	66,500
15400	PLUMBING		
		Plumbing-Fixture-Roof Drains (2)	7,000
		Plumbing Total	7,000
15500	HVAC		
		Replace Bathroom Fans (14)	4,200
		HVAC Total	4,200
16100	ELECTRICAL SYSTEMS		
		Electrical Upgrades/Lights/Power	228,000
		Electrical Systems Total	228,000
TOTAL AMOUNT			834,868

	Amount	Totals	Rate
		<u>834,868</u>	
NH State Sales Tax			
Gen Requirements	25,046		3.00%
Gen Conditions	68,793		8.00%
Estimate Contingency	92,871		10.00%
	<u>186,710</u>	<u>1,021,578</u>	
Builder Insurances	10,216		1.00%
Builder P&P Bond	9,858		1.00%
	<u>20,074</u>	<u>1,041,652</u>	
Builder OHD & Profit	52,083		5.00%
TOTAL		1,093,734	

Note: Cost estimate values summarized from 12/24/19 Bennett Block - Schematic Design Standard Estimate Report provided by Scott Carter, Austin Hill Estimating

Prepared by Stevens and Associates, PC
95 Main Street
Brattleboro, VT 05302

THE STATE OF NEW HAMPSHIRE



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PUBLIC UTILITIES COMMISSION
21 S. Fruit Street, Suite 10
Concord, N.H. 03301-2429

December 19, 2018

Joshua Meehan
Keene Housing
831 Court Street
Keene, NH 03431

Re: DE 18-158 Keene Housing
Request for Waiver of Puc 303.02

Dear Mr. Meehan:

On October 18, 2018, Keene Housing (KH) filed a request for a waiver of N.H. Code Admin. Rule Puc 303.02, the master metering rule, with respect to renovations to their Central Square Terrace property located at 5 Central Square in Keene, New Hampshire. Central Square Terrace includes two adjoining connected buildings, the Roxbury and the Colony Block, that provide public housing for low and moderate income elderly and disabled residents, and other unrelated commercial uses not relevant here.

As clarified in its October 24, 2018 filing, KH seeks one master meter to combine electric service to 70 residential units at the Roxbury building, the commercial meter which serves the Roxbury common areas, and the commercial meter which serves 20 residential units and common areas at Colony Block. Commission Staff filed a memorandum on December 4, 2018 in which Staff described and analyzed KH's request and recommended that the Commission grant the waiver, subject to certain specified conditions.

Staff noted that electrical service and other utility charges are included in residents' rent, and that rent is capped at 30% of residents' income. Staff maintained that the standard method of incentivizing customer energy conservation through individual metering therefore has limited value because tenants do not pay their own utility bills. In addition, planned renovations exceed six million dollars and include the replacement and upgrading of the building's electrical service; replacing existing light fixtures with high-efficiency LEDs; installing ENERGY STAR rated appliances; using low flow plumbing fixtures throughout; and installing heat pumps in each unit to provide primary heating and cooling. Staff maintained that these energy improvements would be consistent with the goal of the master metering rule to promote energy conservation and efficiency.

Staff explained that this is the first waiver request in which the electric utility customer's primary savings result from a change in rate and service charges. However, consistent with other

waiver requests which have received Staff support, the proposed renovation includes significant investment in energy efficiency and conservation measures, and individual meters would be of limited value because residential tenants do not pay utility charges. Staff also noted that the relevant electric utility, Eversource, was contacted regarding the proposed waiver and did not object to the waiver request.

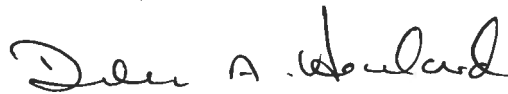
In view of the acknowledged purpose of the master metering rule to incentivize energy conservation and efficiency, Staff concluded that purpose would be met through the alternate method of making the building energy-efficient through the installation of a number of energy-efficient mechanical, lighting, and power systems. According to Staff, that result would serve the public interest and would not disrupt the orderly and efficient resolution of matters before the Commission, consistent with Puc 201.05. Staff therefore recommended that the Commission grant KH's request for a waiver of Puc 303.02 to permit master metering as proposed at Central Square Terrace, subject to certain specified conditions, with such waiver to be in effect for so long as the project is operated as public housing as described in KH's filings.

The Commission has reviewed KH's rule waiver request and Staff's memorandum, and has accepted Staff's recommendation. The Commission finds that, given the circumstances described by KH and in the Staff memorandum, the requested waiver would serve the public interest and would not disrupt the orderly and efficient resolution of matters before the Commission, as required under Puc 201.05.

Accordingly, KH is granted a waiver of Puc 303.02 and is permitted to install the master meter configuration described in its October 24, 2018 filing. This waiver shall be effective for as long as 5 Central Square in Keene is operated as public housing for residents with low and moderate incomes. If Central Square Terrace is no longer operated as public housing at some future time, then the waiver will no longer be effective, and the building owner will be required to reset the individual electric meters for each separate dwelling unit in the Roxbury building, and to return the Colony Block to its October 2018 metering status. Keene Housing shall promptly notify the Commission and Eversource if Central Square Terrace is no longer operating as a public housing complex.

Please be advised that this rule waiver only extends to the Commission rule, and not to any independent requirements of the state building code, or any other federal, state, or local requirement.

Sincerely,



Debra A. Howland
Executive Director

cc: Service List

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: July 17, 2018
AT (OFFICE): NHPUC

FROM: Rich Chagnon
Utility Analyst – Electric Division

SUBJECT: DE 18-019, Keene Housing
Petition to Waive Puc 303.02; Master Metering

TO: Commissioners
Debra Howland, Executive Director

CC: Tom Frantz, Director, Electric Division
Amanda Noonan, Director, Consumer Services and External Affairs
Les Stachow, Assistant Director, Electric Division
Lynn Fabrizio, Staff Attorney

Summary

On February 7, 2018, Keene Housing (KH) filed a request for waiver of N.H. Code Admin. Rules Puc 303.02 (master metering rule) with respect to KH's existing four properties, which consist of 20 buildings, housing a total of 189 apartments (248 electric utility accounts in total). KH is a subsidized public housing agency in Keene, New Hampshire.

Based on a review of the history of the master metering rule requirements and the Commission's previous approvals of similar waiver requests, Staff finds that past approvals have been based on documentation focused on new construction or substantial renovations to existing facilities. Staff believes that a waiver of the master metering rule has never been intended or contemplated to allow the consolidation of multiple existing residential meters in a facility to be master metered for the stated purpose of saving on meter charges. Given the above, Staff is not persuaded by KH's arguments that a waiver is warranted.

Based on Staff's analysis regarding the historical language of the rule, and the historical policies and practices of New Hampshire's electric utilities, including Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource, the Company or PSNH), Staff recommends that KH's request for a waiver of Puc 303.02 be denied.

Staff also recommends that if KH undertakes substantial renovations to one or more of its facilities (in which the cost of renovation exceeds 50 percent of the value of the building)

in the future, and KH files a request for a waiver of the master metering rule for the renovated location(s), then the Commission should consider such request at that time on an individual basis.

Background

KH is a Section 8 and public housing agency in Keene, New Hampshire. KH provides and advocates for affordable housing and supportive services that strengthen and empower low and moderate-income households in the Monadnock region. KH has a commitment to reducing its carbon footprint as well as its utility operating expenses. KH states that in addition to the environmental benefits, reducing its energy and water consumption will free up much needed funds for programming, as well as for developing new affordable housing units and maintaining its existing portfolio.

In 2014, KH engaged an energy consulting firm to help KH move forward with this goal. The consulting firm determined that the KH properties that rely on electricity for heating were some of its least efficient and most expensive. Annually, KH spends over one million dollars on energy and water utility costs.

According to KH, there is a direct relationship between its operating expenses and its ability to maintain and expand its stock of affordable housing in the Monadnock region. KH states that the less it spends on electric bills, the more funding it will have available to repair roofs, repave parking lots, and develop new, desperately needed affordable housing.

Upon completion of its energy review, KH and its energy consulting firm began looking at a variety of strategies, including energy efficiency, generation, and conservation (resident behavior). KH joined on as a U.S. Department of Energy Better Buildings Challenge (BBC) Partner in 2015 and committed to a 20 percent reduction in energy and water use by 2025. Additionally, KH made an internal commitment to meet all of its energy needs with renewables by 2035.

In its waiver request, KH lists its existing four properties which consist of 20 buildings, housing a total of 189 apartments (248 electric utility accounts in total). These properties are known as Bennett Block, Forest View, North and Gilsum, and Central Square Terrace. Each residence at these locations is individually metered for its electrical service. Each meter/service account is billed directly to KH. As a result, the tenants never see the bill or their electricity consumption. However, KH closely monitors consumption at the building level.

As stated above, the apartments in these four properties managed by KH are currently individually metered for electricity. KH would like to install master meters for these apartments within each building. As a result of consolidating meters at the building level for the apartments at each property, KH reports that it would see a potential annual savings of \$30,345 in the associated service charges by billing at a commercial rate as a

result of master metering each building, rather than at residential rates for individual meters.

KH added that, in addition to the higher costs associated with individual service charges, sub-metering is impinging upon its energy conservation initiatives in other ways:

Solar - We are researching the installation of a community-supported solar array at our Forest View property. To effectively install a solar array that serves the whole property, we would need a single commercial meter at the property.

Incentives - We are in the process of planning a major rehab of our Central Square Terrace property and a moderate rehab of our Bennett Block property. While common area lighting retrofits have been completed, we would like to install LED lighting throughout the residential units. We can access incentives that make this improvement cost effective through programs overseen by Eversource and NH Saves, but the units need to be on a commercial meter.

Bi-annually, our energy consultant pulls utility data and reports at the building level to both Keene Housing and to the Better Buildings Challenge. Currently this entails pulling close to 350 accounts at an hourly cost to Keene Housing. Regularly analyzing our utility consumption data would be facilitated by having fewer meters to monitor.

Positions of Parties

Eversource

On March 29, 2018, the Commission issued a letter to Eversource requesting that Eversource file a statement of its position on the request by April 4, 2018. Eversource responded on April 4 stating that the Company's tariff language relative to metering has been revised and modified over time to ensure that Eversource remains in compliance with the Commission's rules, and past policy and practice. The relevant section of Eversource's tariff¹ reads as follows:

The Company will provide each Customer with proper metering equipment subject to the ability of the Company to obtain the same.

The Company shall own and maintain the metering equipment necessary to measure Delivery Service under this Tariff. Each meter location shall be designated by the Company and the Company shall have priority over any other entity with respect to placement of Company owned metering equipment.

¹ Eversource Tariff, NHPUC No. 9, Original Page 15, Section 14 (Meters).
https://www.eversource.com/content/docs/default-source/rates-tariffs/electric-delivery-service-tariff-nh.pdf?sfvrsn=7fb7f062_30

Any Customer requesting non-standard metering equipment, the cost of which exceeds the cost of the metering equipment necessary for the rendering of Delivery Service under the applicable Rate Schedule, shall be responsible for the additional cost of the requested metering equipment including any incremental labor costs associated with installation of the requested metering equipment. Any such metering equipment must be approved by the Company.

Each unit of a new or renovated domestic structure with more than one dwelling unit will be metered separately and each meter will be billed as an individual customer. Where an individual household or business enterprise, occupation or institution occupies more than one unit of space, each unit will be metered separately and considered a distinct Customer, unless the Customer furnishes, owns and maintains the necessary distribution circuits by which to connect the different units to permit delivery and metering at one location of all the energy used.

Eversource stated that it does not support the request for a waiver by KH and lists the following reasons:

In this case, the request by KH is unusual in that the relevant properties currently have individual meters in place that are billed monthly by Eversource. The position of KH is that because it currently receives and pays the electric bills for 189 housing units, a waiver of the master meter rule is appropriate.

Permitting a waiver in such a circumstance would open the possibility that any existing customer with multiple tenants and individual meters could make the same request.

Regarding the rate analysis, it does not appear from the cost savings estimates provided by KH that it understood that, if master metering was used, Eversource's Rates G or GV would apply to these locations, not residential service Rate R as was used in the cost savings estimates.

In addition to the additional demand charges, a number of the accounts are currently HeatSmart accounts, which are at a discounted rate, and which would be eliminated by the switch to master metering.

An additional significant issue is the amount of engineering and electrical work needing to be performed to convert these facilities to a master or primary meter set up.

Each location would require a study to truly understand what is currently connected and how the systems at each location tie back to the Eversource system.

For the reasons above, specifically the change in precedent that approval of the KH request would create, as well as the billing, metering, and engineering issues that would accrue if this request was granted.

Eversource added the following:

Eversource acknowledges and supports KH's commitment to energy conservation and its efforts to reduce operating costs.

The Company has previously worked with KH on common area lighting projects, a pilot heat pump project, and weatherization projects in the residential units.

Eversource's energy efficiency staff will commit to further discussions with KH to better understand its inventory of existing lighting, what the replacement plans are, and whether there are any additional opportunities that will pass the NHTSaves efficiency program cost-benefit tests and qualify for rebates.

Eversource has worked over the past year to develop a system for automatic uploads of billing data into ENERGY STAR Portfolio Manager. This new process should help to alleviate the time challenges related to pulling and analyzing usage data and may further assist KH in achieving the goals described in its waiver request.

Office of the Consumer Advocate (OCA)

On April 9, 2018, the OCA filed a response letter opposing Eversource's position and recommended that the Commission grant the waiver request.

"It is on all fours with the waiver granted on March 29 to Twin Pines Housing in Docket No. DE 18-020. The chief distinction between the two situations is that Twin Pines is in the service territory of Liberty Utilities, which took no position on the waiver request, whereas Keene Housing is served by PSNH."

Keene Housing (KH)

On April 11, 2018, KH filed its response to Eversource's April 4 statement of position filing. KH states the following:

That the N.H. Code Admin. Rules Puc 201.05 is unambiguous with respect to when a waiver shall be granted.

The rule states that the waiver shall be granted when so doing serves the public interest.

Further, the rule states that the public interest is served when “compliance with the rule would be onerous or inapplicable given the circumstances of the affected person.”

KH believes that in this case, application of the rule is both onerous and inapplicable.

KH points out that the applicable (master metering) rule requires KH to have a single meter for each dwelling unit it owns, even when the low-income elderly, disabled and family households living in the properties for which KH has requested waivers do not pay for their own electricity. These residents will never see an electricity bill. KH hopes that the PUC will agree that application of the rule is onerous, in that it requires KH to use sparse funding for meter reads that would otherwise be used to benefit low income members of the public, and that, further, the rule is inapplicable because KH residents living in the properties for which KH has requested waivers do not pay for their electricity consumption.

KH states that the PUC approved a similar waiver request made by Twin Pines Housing² on March 29, 2018. KH feels strongly that, as in the waiver granted to Twin Pines Housing, there can be little doubt that KH's circumstances meet the high bar set by the applicable PUC rules.

KH believes that Eversource's single argument opposing the waiver request is its concern that the waiver would set a precedent for other customers in the same situation. However, KH believes the only Eversource customers who might submit a similar request, based on the same criteria, are other affordable housing owners and non-profit organizations.

Regarding the rate analysis that Eversource pointed out, KH conducted an in-depth analysis for Central Square Terrace, one of the properties for which KH is requesting a waiver, to be sure that KH will still realize significant savings through meter consolidation, even after going on the G or GV rate. An energy model using Trane Trace® software was completed, and annual demand was projected for all Central Square Terrace accounts. The result was an estimated annual bill savings of \$3,618. KH believes that this analysis makes the concern Eversource articulates on this point moot.

KH states that in addition to reduced costs, consolidating meters will make it easier for KH to move ahead with its plans to expand its energy generation strategy through the construction of photovoltaic arrays across its portfolio, with a goal of relying on 100% renewables by 2035.

KH conducted a pilot conversion to heat pumps at its smaller West Street property (4 units). The purpose of the pilot conversion was to track the effect such a conversion, including coming off the HeatSmart program, would have on annual electricity costs.

² Docket No. DE 18-020.

KH concluded that the results of this pilot delivered almost 30 percent energy savings while keeping residents satisfied and achieving fewer maintenance calls. When the heat pumps are installed at two properties, Forest View Apartments and North and Gilsum Apartments, those properties will no longer be on the HeatSmart program. If the waiver is approved, KH will pursue consolidation of the meters as part of the work completed during the retrofit when the HeatSmart meters are removed. KH believes that while this is a legitimate question asked by Eversource, it is not a sound argument against the waiver request.

Regarding Eversource's concern about the costs associated with the engineering and electrical work needed to convert the facilities to a master or a primary meter set up, KH stated that it will begin the planning process in earnest once the waiver is granted³, not before. KH's resources are limited, and it would be irresponsible to expend them unnecessarily on engineering and electrical work without first knowing whether or not the waiver will be granted. The waiver is the first step, with associated studies and analyses to follow. Similar to other arguments made by Eversource, this is a decision for KH to consider and not a valid argument against approval of the waiver.

KH stated that it remains anxious for Eversource to complete its installation of a system for automatically uploading billing data into ENERGY STAR Portfolio Manager, as it will save KH considerable costs associated with uploading its consumption data. In any case, according to KH, the availability of a method to automatically upload data into ENERGY STAR Portfolio Manager has no bearing on whether or not the waiver should or should not be granted.

Staff Analysis

Staff would first like to address the difference between the Twin Pines Housing (Twin Pines) request for a waiver and KH's request for a waiver. Both the OCA and KH have stated that these two requests are comparable situations.

Twin Pines, a nonprofit housing organization, was undertaking the renovation of 10 Parkhurst Street in Lebanon to create 18 units of housing for the chronically homeless. Prior to purchasing the property which was built in 1890, the Twin Pines facility was an existing apartment complex consisting of large studio apartments that were already internally wired and metered through an *existing* master meter. Twin Pines' request was to keep the existing master meter set up, to avoid additional costs for individually wiring each residential unit. Since the only change at that facility was a change of customer (i.e., the owner of the facility), the Commission found that given the circumstances described by Twin Pines, the requested waiver would serve the public interest and would not disrupt the orderly and efficient resolution of matters before the Commission.

³ Staff believes that KW is requesting a "blanket waiver" to cover all of its 20 buildings prior to committing internal resources to determine actual costs and benefits of master metering any of its buildings.

Although KH is a Section 8 and public housing agency, KH's request is uniquely different than Twin Pines in the fact that its request includes the consolidation of existing individual residential meters to be combined throughout its 20 facilities through multiple master meters.

The Rule, Puc 303.02, Master Metering, effective May 21, 2014 (current) provides as follows:

- (a) No utility shall install master metering in a building with multiple dwelling units. The energy in each dwelling unit in such a building shall be separately metered;
- (b) A utility shall only install master metering in commercial buildings and as consistent with the International Energy Conservation Code 2009 (Code) as adopted pursuant to RSA 155-A:1,IV; and
- (c) Hotels, motels, dormitories, boarding houses and time-sharing interests in condominiums as defined in RSA 356-B:3 shall not be considered a dwelling unit within the meaning of Puc 303.02(a) above.

Puc 201.05, Waiver of Rules, provides as follows:

- (a) The commission shall waive the provisions of any of its rules, except where precluded by statute, upon request by an interested party, or on its own motion, if the commission finds that:
 - (1) The waiver serves the public interest; and
 - (2) The waiver will not disrupt the orderly and efficient resolution of matters before the commission.
- (b) In determining the public interest, the commission shall waive a rule if:
 - (1) Compliance with the rule would be onerous or inapplicable given the circumstances of the affected person; or
 - (2) The purpose of the rule would be satisfied by an alternative method proposed.
- (c) Any interested party seeking a waiver shall make a request in writing, except as provided in (d) below.
- (d) The commission shall accept for consideration any waiver request made orally during a hearing or pre-hearing conference.
- (e) A request for a waiver shall specify the basis for the waiver and proposed alternative, if any.

Staff reviewed PUC dockets involving waivers of the master metering rule for the past 10 years and found that none of the past requests and approvals for waivers of the master metering rule involved the consolidation of two or more existing residential meters within a facility to master meters absent concurrent substantial renovations to the building in question. KH's request is unique since its request is to have the ability to consolidate multiple existing residential meters to master metering in multiple facilities at some future date.

In its historical review of the master metering rule, Staff utilized the Commission Staff memorandum (memo) in DE 10-329⁴ as a reference; the memo lists the version of Puc 303.02 in effect prior to 2005:

The master metering rule, Puc 303.02, effective October 21, 1997, provided as follows:

- (a) “Control” means direct manipulation such as by a thermostat or by direct use, but does not include indirect manipulation such as activating water flow as in the case of hot water usage.
- (b) “Dwelling unit” means a space occupied for a residence consisting of contiguous living, sleeping, kitchen and bathroom facilities.
- (c) “New construction” means all multi-tenant buildings excluding motels, hotels, dormitories, and time sharing interests in condominiums as defined in RSA 356-B:3, as follows:
 - (1) For which construction commenced after November 18, 1980;
 - (2) Which are undergoing renovations after November 18, 1980, in which the cost of the renovations exceed 50 percent of the value of the building; or
 - (3) Which are converted to electric service and/or electric water heating after November 18, 1980.
- (d) No utility shall install or permit master metering of electric service in new construction pursuant to RSA 155-D [Energy Conservation in New Buildings, part of the state building code] and the New Hampshire Commercial and Industrial Energy Code, § 5.4.1.2.
- (e) Electric service shall be considered master metered if:
 - (1) More than one dwelling unit in a building receives electric service through the master meter; and
 - (2) The occupant(s) of each unit receiving electric service through the master meter have control over any portion of the electric service for their unit.”

Similar versions of the rule date back to at least 1984.

Reviewing Puc 303.02(c)(1) and (c)(2) from the October 21, 1997 version of the rule above, it appears to Staff that master metering would be considered only for new construction and for renovations that exceed 50 percent of the value of the building.

The prior master metering rule, Puc 303.02, effective October 18, 2005, provided as follows:

- (a) A utility shall install master metering of electric service consistent with its tariffs if the installation is consistent with the International Energy Conservation Code 2000 as adopted in RSA 155-A:1,IV, except as set forth in (b) below.

⁴ <http://www.puc.nh.gov/Regulatory/CASEFILE/2010/10-329/LETTERS-MEMOS-TARIFFS/10-329%202011-03-11%20STAFF%20MEMO%20RECOMMENDATION.PDF>

- (b) No utility shall install master metering at a multi-tenant building containing any residences if the occupants of any unit receiving electric service through the master meter have temperature control over any portion of the electric space heating, electric air conditioning or electric water heating service for the unit.
- (c) Section (b) above shall not apply to hotels, motels, dormitories and timesharing interests in condominiums as defined in RSA 356-B:3.

Under Puc 302.12, master metering is defined as the use of a single meter to supply electric service at a building that contains two or more residential premises.

Reviewing Puc 303.02(a) from the October 18, 2005 version of the rule above, it appears to Staff that a utility shall install master metering of electric service consistent with its tariffs if the installation is consistent with the International Energy Conservation Code 2000, which was in effect at the time.

On May 10, 2011 in Docket No. DE 10-329, Commission Order No. 25,222⁵ approved PSNH's proposed tariff language⁶ on the understanding that PSNH will apply its proposed tariff to new or newly renovated multi-family apartment buildings consistent with its historical policies and practices.

The approved updated tariff included the additional language as follows:

Each unit of a new or renovated domestic structure with more than one dwelling unit will be metered separately and each meter will be billed as an individual customer.

This is the current language of the tariff as presented on page 3 of this memo. This language is consistent with the Company's historical policies and practices.

Staff Recommendation

Staff is unaware of any approvals of waiver requests to consolidate multiple existing residential meters through master metering where no substantial renovation or new construction was involved. Staff also believes that its analysis of dockets within the last 10 years shows that no waiver of the master metering rule involving the consolidation of multiple existing residential meters in multiple facilities without substantial renovations or new construction has ever been requested or approved by the Commission.

⁵ Order No. 25,222 <http://www.puc.nh.gov/Regulatory/CASEFILE/2010/10-329/ORDERS/10-329%202011-05-10%20ORDER%20NO%2025-222%20APPROVING%20WAIVER%20AND%20PROPOSED%20TARIFF%20LANGUAGE%20CHANGE.PDF>

⁶ <http://www.puc.nh.gov/Regulatory/CASEFILE/2010/10-329/LETTERS-MEMOS-TARIFFS/10-329%202011-05-24%20PSNH%20TARIFF%201ST%20REV%20PG%2015.PDF>

Staff concludes that historical versions of Puc 303.02 Master Metering rule and Eversource's historical policies and practices all refer to new or (substantially) renovated domestic structures/facilities. Staff also concludes that master metering was never intended for the consolidation of multiple existing residential meters as a way to reduce costs through changing the rate in which these accounts are metered and billed. This conclusion is based on the fact that Staff was unable to find any historical reference to existing residential meters other than renovations. Staff believes that the historical language consisting of reference to new construction, or renovations that exceed 50 percent of the value of the building, also served to "grandfather" electrical services which may have been master metered prior to the update of the Puc 303.02 rule in 1997.

Based on the analysis previously noted above regarding the historical language of the rule, as well as the historical policies, practices and tariffs of New Hampshire electric utilities, including Eversource, Staff recommends that KH's request for a waiver of Puc 303.02 be denied.

Staff also recommends that if KH does substantially renovate (in which the cost of the renovations exceed 50 percent of the value of the building) one or more of its facilities in the future, and KH files a request for a waiver of the master metering rule for the renovated location(s), then the Commission should consider such request at that time on an individual basis.