DE13-046

NEW HAMPSHIRE
STATE BUILDING CODE REVIEW BOARD
33 HAZEN DRIVE
CONCORD, NH 03305

May 2, 2013

Geoff Spitzer, LEED AP
Senior Project Manager
Chinburg Builders, Inc.
3 Penstock Way
Newmarket, NH 03857

RE: Cocheco Millworks, 100 Main Street, Dover, NH

Dear Geoff,

I am aware that you were advised by the NH Public Utilities Commission (NHPUC) to seek a waiver from the International Energy Conservation Code (IECC) for the referenced project under RSA 155-A:2:X. Former Chairman, Donald Bliss, placed your waiver request and supporting documents on the March 8, 2013, agenda of the NH Building Code Review Board to inform the board of your request and to inform the board of his intended response for the record. At that public meeting he apprised the board that the 2009 IECC exempts historic structures. As such, no such waiver is needed or appropriate. No board action was required.

According to the documents you presented, the building in question is a "Certified Historic Structure" recognized by the National Park Service. As such it is exempt from the International Energy Conservation Code (IECC) based on the section shown below.

> **IECC Section 101.4.2 Historic Buildings** Any building or structure that is listed in the State or National Register of Historic Places; designated as a historic property under local or state designation law or survey; certified as a contributing resource with a National Register listed or locally designated historic district; or with an opinion or certification that the property is eligible to be listed on the National or State Registers of Historic Places either individually or as a contributing building to a historic district by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places, are exempt from this code.

The IECC Commentary explains that, because of "unique issues involved, historic buildings are exempt from the requirements of the code." It further notes that "in exempting historic buildings, the code is simply recognizing that energy efficiency may be difficult to accomplish while maintaining the 'historic' nature of the building."

For record purposes, and to avoid setting a precedent, this letter will further explain that the Building Code Review Board does not have the authority to grant contractors waivers from the building code under RSA 155-A:2 X. First, no contractor has such standing as to be considered a state agency, authority, board, or commission.

Secondly, although RSA 155-A:2 X requires a state agency, authority, board, or commission to seek the approval of the Building Code Review Board to "vary, modify, or waive the requirements of the state building code or state fire code", there is no authority given to the Building Code Review Board to do so. RSAs 155-A:10 IV and V authorizes the board to review, make recommendations to the legislature and to amend the building code. There is no statutory authority given to the board to grant waivers on a project by project basis.

In fact, there is a statute which limits the role the state has in the enforcement of the code. Specifically RSA I55-A:2. IX says "nothing in this chapter shall be construed to permit or encourage the state to initiate or assume an independent role in the administration and enforcement of the New Hampshire building code for a building or structure that is not owned by the state unless otherwise authorized by law."

I apologize for the delay in providing this response to you. As you may be aware, the Chairman of our board resigned from the board at the March 8th meeting, which contributed to this delay.

I trust that this letter will be sufficient to close this matter for you. If you have any questions, please do not hesitate to contact the board.

Sincerely,

Linda K. McNair-Perry, P.E., SECB
Vice Chair, NH Building Code Review Board

cc: Debra A. Howland, Exec. Dir., NHPUC, 21 S. Fruit Street, Suite 10, Concord, NH 03301
Earl Sweeney, DOS Assistant Commissioner, 33 Hazen Drive, Concord, NH, 03305

Enclosures: documents submitted by Chinburg Builders, Inc.

1 February 2013

Ms. Debora Howland, Executive Director
NH Public Utilities Commission
21 South Fruit Street – Suite 10
Concord, NH 03301-2429

RE: The Cocheco Millworks – Residential Apartment Fit-up
100 Main Street, Dover, NH 03820

Dear Director Howland,

I'm writing on behalf of Cocheco Mills Holdings, LLC (CM), building owner of The Cocheco Millworks located at 100 Main Street in downtown Dover. In 2012, The Dover Mills Partnership led by Eric Chinburg, a noted redeveloper across southern NH, was formed to purchase the fledging downtown commercial building consisting of office, retail and several restaurant spaces. Encircled by Dover's two main thoroughfares, Main Street and Central Ave, this collection of three seamlessly connected buildings is considered to be the heart and soul of Dover.

Given the mills architectural prominence combined with 256,000 square feet of leasable space, the economic vitality of downtown Dover is closely interwoven with these 19th century brick buildings. In the 1980's Joseph Sawtelle, a legendary seacoast developer purchased, cleaned up and leased the majority of space to a single-user, Liberty Mutual Insurance. In the late 1990's, Liberty moved out and the mill has struggled to maintain 30-40% occupancy. Essential to Cocheco Mills's purchase of the property were the approvals to add up to 120 residential apartments. The first phase of 74 rental apartments will not only provide a steady revenue stream and help to make significant improvements to aging infrastructure, but would also bring much needed consumers to complement businesses within commercial portions of the building and to Dover's downtown.

We are requesting a waiver of PUC's Master Metering rule #303.02 to install one meter socket to serve the proposed apartments. After doing an exhaustive investigation of the existing electrical service, portions of which continue to serve existing commercial areas within the building, an onsite meeting was held with all parties including representatives from the PUC and PSNH. Cocheco Mills LLC believes that master metering the residential units in the building is the only viable metering method. Critical to this determination is that building owner provides not just electricity, but heat (natural gas) and hot water as well. With this in mind, energy efficient systems are a priority in the design of all building systems. Please see the attachments for a comprehensive list of energy saving updates to the existing building systems.

Thank-you for your consideration in this matter. Please do not hesitate to contact me with any questions, concerns or comments you might have. I can be reached at 603-234-1649 or by email at gspitzer@chinburgbuilders.com.

Sincerely,

Geoff Spitzer, LEED AP
Senior Project Manager at Chinburg Builders, Inc

Enclosures: 4 Letters and 1 Addendum

December 21, 2012

Mr. Geoff Spitzer
Chinburg Builders, Inc.
3 Penstock Way
Newmarket, NH 03857

Re: Cocheco Mills Service Design Summary

Mr. Spitzer:

At your request, I have compiled a summary of the electrical service design concerns at the Cocheco Falls Mills. As you are aware, although the project takes place within one large structure, it actually consists of two buildings as defined by the City of Dover and applicable construction standards. The northern most section of the renovated footprint is considered Mill #2 or 100 Main St and the area south of the masonry demising wall is Mill #3 or 383 Central Ave. Each of these buildings must be considered individually because applicable code does not allow for power to travel between the two mills.

Mill #2

This building presently has two services; one at 2000A 120/208V 3Ø 4W and another at 1600A 277/480V 3Ø 4W. The 2000A service energizes the entire portion of the building that is currently occupied. The 1600A main switch is no longer being utilized but previously serviced the commercial space occupied by AT&T.

When we performed an NEC load calculation with the new renovations included, the minimum electrical service required for Mill #2 in its entirety at 120/208V exceeded 2000A. Because the NEC does not allow more than one service per building with the same characteristics, we proposed to utilize the 277/480V service to energize the renovated space. Additionally, the 480V service should remain because the existing HVAC equipment, which will be put to use for the renovated space, operates at 480V.

Mill #3

This building presently has three services; one at 2000A 120/208V 3Ø 4W, a second at 2500A 120/208V 3Ø 4W and a third at 1600A 277/480V 3Ø 4W.

We performed load calculations for this building as well. A crew of our electricians collected data in the field to create a comprehensive power distribution riser diagram and a list of the significant mechanical loads by panelboard. Unoccupied areas were considered as commercial office space when performing those calculations. It was our hope that we would be able to add the renovated space loads to one of the two 120/208V electrical services. Unfortunately, the 2000A service is burdened with a large component of HVAC loads as well as the passenger elevators. Adding the new residential apartment load to that existing load would exceed the equipment rating. The status of the 2500A service is similar. The vastness of this building drives the calculated general lighting and receptacle load up to figures that make it impossible to add any significant load to that service as well. Conversely, the 480V service is loaded at less than 50% of its rated capacity. Therefore, similar to the Mill #2 situation, although there is sufficient available power to service the renovated space it is only available on the 277/480V system. To reiterate, because the NEC does not allow more than one service per building with the same characteristics, we proposed to utilize the 277/480V service to energize the renovated space.

After reviewing the existing conditions, we designed distribution systems utilizing the available 480V power. When we presented this to PSNH it was brought to our attention that it is PUC policy that customer owned dry type transformers are not allowed before the utility meter(s). It has been expressed to us that there is a concern with quality and continuity of service to the customer with a transformer between the utility owned transformer and the utility meter position. Although we understand the concern, it seems counterintuitive that thousands of other existing installations which have large circuit breakers in the same relative position would be acceptable. If forced to adhere to this PUC policy, it will add significant financial burden to your company unnecessarily because although there is sufficient existing power in the buildings the electrical services will have to be resized/increased.

Your original request for this project was to utilize Master Metering and have utility costs included in the monthly rent. This is also contrary to PUC policy so it was abandoned early on, but it may be another avenue of compromise in order to keep the project cost at a realistic threshold.

What follows is a synopsis of the options available to energize the renovated space.

1. Utilize the existing 480V power available in the building and distribute power throughout the renovation. Transformers will step the voltage down to 120/208V and no metering for the individual rental units would be installed. This Master Metering configuration is NOT approved by PSNH but is the most cost effective way to energize the renovated space.
2. Utilize the existing 480V power available in the building and distribute power throughout the renovation. Transformers will step the voltage down to 120/208V and modular metering for the individual rental units would be installed. This configuration does not comply with utility company policy but it is another cost effective way to energize the renovated space.
3. Add another 120/208V 3Ø 4W service to each building sized large enough to energize the renovated space. This configuration is a non-code compliant installation and would require special consideration by the local AHJ. It should also be noted that Mill #3 is already out of compliance because it has two 120/208V services in place. To ask that a *third* 120/208V service be allowed would be an egregious request. This configuration could add $100,000 - $200,000 in cost *per building*
4. Install a new 120/208V service large enough to accommodate the renovated space AND energize the current 120/208V service equipment. This is a code compliant configuration and abides by PUC policy. The caveat with this scenario is that the largest transformer PSNH can supply is 1 Megawatt. This may be large enough for Mill#2 if the utility company is willing to load their transformer slightly over 100% of its rated capacity, however the Mill #3 building would require a transformer of double that size. This configuration could add $150,000 – 250,000 in cost *per building*
5. Rearrange the current load structure in each building by removing loads from the existing 120/208V services and relocating them to the 480V services. This configuration will require *extensive* rerouting of feeders, adding many transformers, adding distribution equipment and converting current rental space into mechanical space. This could add a total of $250,000 - $350,000 in cost

In conclusion, it seems that each of the options detailed above have hurdles to clear. It is our opinion that the circumstances surrounding these mills merit some consideration by PSNH and the PUC to assist in making this a viable/profitable project. It is our hope that this Summary has provided you with a clear, concise depiction of the challenge at hand so that all parties involved can come together to achieve a reasonable solution.

Regards,

Christian LaRocca
President

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January 30, 2013

Geoff,

As identified in our earliest design meetings for the ongoing Cocheco Mill renovations, Energy Saving systems are at the core of all design and specifications. Incorporated into the HVAC design of the proposed residential apartments as well as the existing commercial systems, we specified the following pieces of energy-saving equipment:

RESIDENTIAL:

Individual Heat Pump Units: Florida Heat Pump "EP-series" units averaged at 15.7 EER and 5.6 COP. Almost all of these units are equipped with ECM motors, except for those that did not have ECM as a factory option (EP012 units). When compared to standard efficiency heat pumps (McQuay Effinity Series average of 12.2 EER, and 4.7 COP) vs. ours: approximately 25% savings in both EER and COP with Florida Heat pump. Not measured in SEER as they are year-round units.

- **Evaporative Cooler VFD :** Variable Frequency Drives on the evaporative cooling tower's 40HP fan motor. Approximately 55% savings with VFD in SEER.

- **Main Circulation VFDs:** Variable Frequency Drives on both main circulator pumps, rated at 40HP per pump. Approximately 40% savings with VFD with pressure differential system.

- **Automated Control Package:** Improved efficiency through automation of boiler temperature modulation, evaporative tower control, domestic hot water production, and variable frequency drives. Will impact gas consumption. Approximately 10% savings in gas and overall energy of boilers on average.

- **Ventilation equipment:** Specified modulating gas valves for Reznor fresh make up air units to conserve gas consumption during swing seasons. Approximately 8 to 10% savings in gas consumption

ADDENDUM - Cocheo Millworks – Energy Efficiency Improvements:

2/1/13

RE: The Cocheco Millworks – Residential Apartment Fit-up
100 Main Street, Dover, NH 03820

Energy Efficiency improvements are at the core of purchase and renovation of the Cocheco Millworks. Outlined in the attached letter from East Coast Heating and AC are a list upgraded Energy Efficient HVAC equipment.

In addition, the building owner has done or will be doing the following:

(1) **New Roof System:** The installation of a new roof is almost complete. To significant energy saving design considerations were made:
   a. 4" of rigid insulation was installed as the roofing base.
   b. White EPDM rubber roofing was selected over traditional black. This will not only significantly reduce the cooling load during the summer but the lower roof temperature will decrease the burden on the roof-top cooling equipment.

(2) **Windows:**
   a. Existing double-glazed aluminum extruded Windows are being restored with damaged gaskets being replaced, and specifically checked for degraded or missing sealants.
   b. 20-30 original single-paned wood windows are being replaced with new extruded aluminum windows w/ thermal breaks, double-glazed sash and low-E coatings.

(3) **Lighting:**
   a. Interior common hallway lighting (Residential areas): All interior common lighting will be equipped with energy efficient compact florescent lamps.
   b. Stairwells and common hallway lighting circuits are on occupancy sensor switching.
   c. All utility room lighting is energy efficient T-8 Florescent strips.

(4) **Apartment Appliances:** Apartment appliances will be Energy Star rated.

(5) **Programmable Thermostats:** Each apartment will have programmable thermostats to control heat and ac.

(6) **Energy Audit:** A building wide energy audit is underway to gather energy use data (Electrical and Natural gas bills) and analyze to determine

Information compiled by: Geoff Spitzer, LEED AP – Senior PM for Chinburg Builders, Inc.

3 Penstock Way, Newmarket, NH 03857 Phone 603-868-5995 Fax 603-389-9011

Daniel Barufaldi
Economic Development Director
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Dover, New Hampshire 03820-4169
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Dover Business & Industrial Development Authority

City of Dover, New Hampshire

January 28, 2013

Ms. Debora Howland
Executive Director
NH public Utilities Commission
21 South Fruit Street – Suite 10
Concord, NH 03301-2429

Dear Director Howland,

I am writing to you today to urge you to honor the request of the Dover Mills Partnership to grant a waiver of the PUC's Master Metering rule #303.02 to allow the installation of one meter socket for the apartments at the Cocheco Falls Mill complex. I am told this approach is the only one that is viable for the building owner to provide energy efficient electricity, heat and hot water to this 120 unit apartment development in the heart of downtown Dover.

This mill and the adjacent Washington Street Mill, also owned by the Dover Mills Partnership, are the economic anchors for an increasingly vibrant Dover downtown core. It is critical to the continuing economic health of Dover that this project succeeds, is energy efficient to allow that success, and is allowed to utilize the only viable engineered solution to service the apartment units currently being built in the mill.

Historically, when this mill complex enjoyed a high level of occupancy, downtown Dover prospered. When the Mill occupancy shrunk, the downtown economy contracted, jobs were lost and retailers went out of business. It is clear that the occupants of 120 apartment units in this mill will make a tangible and significant contribution to the Dover economy and to the economic health of the Dover core. This waiver will allow a viable and efficient way forward for this important Dover development.

Thank you for your consideration of the waiver request.
Sincerely,

Daniel J. Barufaldi
Director of Economic Development

cc: G. Spitzer
B. Shone

CHRISTOPHER G. PARKER, AICP
Director

c.parker@dover.nh.gov

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City of Dover, New Hampshire

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

January 28, 2013

Ms. Debora Howland
Executive Director
NH Public Utilities Commission
21 South Fruit Street - Suite 10
Concord, NH 03301-2429

Subject: Dover Mills Partnership Waiver Request.

Dear Director Howland,

It is with pleasure that I write to you to today in support of the request of the Dover Mills Partnership to receive a waiver of the PUC's Master Metering rule #303.02. This waiver would allow the installation of one meter socket for the apartments at the Cocheco Falls Mill complex. In speaking with the owner, Mr. Chinburg, I understand that this approach will allow for the provision of energy efficient electricity, heat and hot water to 120 residential units being added to this former mill, located in downtown Dover.

You may be aware that this mill and the adjacent Washington Street Mill, both owned and operated by Dover Mills Partnership, are great examples of the economic revitalization that Dover has been working towards over the past twenty years. These two downtown symbols of economic growth act as anchors for an increasingly vibrant urban core. It continues to be my hope that through the infusion of residential opportunity downtown, we will see more commercial growth and activity in downtown Dover, and that this residential growth will inspire other rehabilitation and reuse of similar buildings. In addition, for the building to be successful, it also must be energy efficient. This is an important standard we wish to see in our adaptive reuse of buildings, and I'd hope from a planning perspective that we can point to this reuse as a template for future growth in Dover.

As you can well imagine Dover's mills drove its prosperity, not just in the 1850s, but also in the 1990s. When the mill complexes have enjoyed high occupancy levels the rest of Dover's downtown prospered. We have seen a slow down when the office users in the mill have reduced and we are pleased to see the replacement of this office space with 120 apartment units that will have a strong marketability and desire. We expect to see these units make a tangible and significant contribution to the vibrancy and economy of Dover's core.

This waiver will allow a viable and efficient way forward for this important Dover development. I am happy to answer any questions regarding my support for this waiver, or to assist in any other way. Thank you for your consideration of the waiver request.

Sincerely,

Christopher G. Parker, AICP
Director of Planning and Community Development

CC (via email): Brint Shone
Geoff Spitzer

THE STATE OF NEW HAMPSHIRE

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

TDD Access: Relay NH
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Website:
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February 28, 2013

Mr. Geoff Spitzer
Senior Project Manager
Chinburg Builders, Inc.
3 Penstock Way
Newmarket, NH 03857

Re: DE 13-046, Chinburg Builders, Inc., Request for Waiver of N.H. Code Admin. Rules Puc 303.02 (Master Metering Rule – The Cocheco Millworks, Dover)

Dear Mr. Spitzer:

On February 5, 2013, Chinburg Builders, Inc. (Chinburg) filed a request for waiver of N.H. Code Admin. Rules Puc 303.02 (Master Metering Rule) in relation to Chinburg's proposed renovation of The Cocheco Millworks complex located at 100 Main Street in Dover. In its filing, Chinburg detailed the economic and engineering challenges connected with an effort to comply with the Master Metering Rule and the electrical efficiency code standards incorporated into the New Hampshire Building Code by RSA 155-A:1, IV. Specifically, Chinburg represented that master metering of electric consumption in the residential units in The Cocheco Millworks would be the only viable metering method from an engineering and cost-effectiveness standpoint for the proposed renovation, despite the prohibition, established by the Master Metering Rule and the New Hampshire Building Code, on master metering of multi-tenant buildings where tenants would have temperature control over any portion of the electric air conditioning service for the unit. (Such individual air-conditioning control is a feature included in Chinburg's renovation proposal for The Cocheco Millworks).

In support of its request, Chinburg provided: (1) an electrical engineering report by Progressive Electrical Services, Inc. of Kingston for The Cocheco Millworks, discussing matters related to master metering; (2) a HVAC specifications list by East Coast Heating and Air Conditioning of Portsmouth for The Cocheco Millworks; (3) a Chinburg-generated list of energy efficiency improvements planned for The Cocheco Millworks; (4) a letter of support from the Dover Business & Industrial Development Authority for Chinburg's waiver request; and (5) a letter of support from the City of

Dover's Department of Planning and Community Development for Chinburg's waiver request.

Having reviewed Chinburg's request, and the supporting materials presented, the Commission has determined, pursuant to Puc 201.05, that the applicable standards for a waiver are satisfied and that granting a waiver of Puc 303.02 described above is consistent with the public interest. Accordingly, the Commission has granted the waiver request. The Cocheco Millworks project offers the promise of considerable economic-development benefits for the City of Dover, and Chinburg's planned energy-efficiency improvements for the complex promise to help effectuate the efficiency goals of the Master Metering Rule.

However, it is our opinion that under the statutory terms of the New Hampshire Building Code, specifically the International Energy Conservation Code section 505.7, Chinburg must seek a waiver from the State Building Code Review Board (BCRB), pursuant to RSA 155-A:2, X, for its proposed master metering installation at The Cocheco Millworks. Chinburg should continue to cooperate with the City of Dover authorities in making such a waiver request before the BCRB. Conditionally, subject to the granting of a waiver by the BCRB, the Commission hereby grants Chinburg's request for a waiver of the Master Metering Rule.

Sincerely,

Debra A. Howland (KNS)

Debra A. Howland
Executive Director

United States Department of the Interior

NATIONAL PARK SERVICE
1849 C Street, N.W.
Washington, DC 20240

June 15, 2012

Mr. Eric Chinburg
Chinburg Mills Holdings, LLC
Chinburg Builders, Inc.
Durham, NH 03824

PROPERTY: **Cocheco Manufacturing Company, Main and Washington Streets, Dover, NH**
PROJECT NUMBER: **27446**

Dear Mr. Chinburg:

The National Park Service (NPS) has reviewed the Historic Preservation Certification Application -- Part 1 for the property cited above [and has determined that the property as a whole contributes to the significance of the Cocheco Manufacturing Company historic district. Because the property contains more than one building and those buildings were functionally related historically to serve an overall purpose, program regulations require the NPS to determine which of the buildings contribute to the significance of the historic property, and are therefore considered to be "certified historic structures."

Based on the documentation presented, the following buildings contribute to the significance of the property.

- Mill No. 1, built in 1908
- Mill No. 2, built in 1880, attached to Mill No. 3 built in 1881/1909
- Mill No. 5, built in 1825
- Boiler House, built in c.1880.
- Picker House No.1, built between 1905-1925
- Picker House No. 2, built between 1905-1925

These buildings are "certified historic structures" for purposes of rehabilitation.

The same regulations also require NPS to review the rehabilitation work as a single overall project, and to issue rehabilitation certification on the merits of the overall project rather than for each structure. Consequently, if you intend to submit Part 2 of the application, the Description of Rehabilitation Work, it must describe all proposed work on the property, although the 20% investment tax credit is based only on costs for the rehabilitation of "certified historic structures"

If you have any questions about the review of your Part I application, please contact the State Historic Preservation Office or me at 202-354-2278.

Sincerely,

Roger Reed
National Register of Historic Places

Enclosure

cc: IRS
NH SHPO
Christine Beard