Inspector of Buildings
City of Portland
389 Congress Street
Portland, ME 04101

January 16, 2008

Re: 132 Marginal Way Mechanical Summary

Dear Inspector,

Following is information in support of our application for the Heating Permit for the Student Housing project at 132 Marginal Way. The summary below will provide a narrative of the basic mechanical systems we are installing. We hope that this information will be of assistance to you as you review our application.

Mechanical Summary

The system scheduled for installation on this project is a two-pipe change over system that will consist of the following:

Boiler Plant

The boiler plant is located in the mechanical room on the 1st level of the building. High efficiency natural gas fired boilers will be located in the boiler room and be sidewall vented via a Category IV manufactured system. The boilers will be configured in a "sealed combustion" arrangement that will take combustion air directly from outdoors. Also located in the boiler room are circulators and associated hydronic components.

Additionally, there is an intake fan to provide cooling to the room in the event of higher than desirable temperatures.

Package Chiller

The air-cooled package chiller is located at the rear of the property along the I-295 fence line. It has been equipped with the factory low-sound option. Pizzagalli Construction has presented a sound impact study based on sound data from the manufacturer and analysis by an Acoustical Engineer. Information conveyed to Thayer Corporation by Pizzagalli Construction is that the chiller location has been accepted by the City of Portland.

Fan Coils

Hydronic fan coils are located throughout to provide heating and cooling to the spaces. Vertical up flow units serve apartments and select common areas and are ducted via exposed spiral. A combination of cabinet unit heaters and suspended unit heaters serve stairwells and support spaces. Control of fan coils is via programmable thermostats.

Make Up Air

A total of (4) modulating natural gas fired make up air units are located on the roof. Units provide make up air for the facility and is ducted throughout. Operation is continuous.

Fans

A total of (7) roof-mounted centrifugal fans provide exhaust for all bathrooms private or public and janitor's closets. Fans operate continuously in conjunction with make up air units. Sidewall intake fans are utilized to ventilate boiler room and electrical vaults.

Domestic Hot Water

A total of (8) high efficiency condensing natural gas fired hot water heaters are utilized to provide domestic hot water for the facility. They are located in a mechanical space in the Garage Level and on the 3rd and 4th Floors. Units are configured for sealed combustion and draw their combustion air directly from outdoors.

We hope that this information has given you additional insight into the configuration and execution of the mechanical systems for this project. Please do not hesitate to contact us with any questions or concerns.

Sincerely,

Andrew Kent
Project Manager