Portland Maine Yes. Google's good here.

Jeanie Bourke <jmb@portlandr

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 11/03/16

89 Anderson HVAC Permit

4 messages

Wes Sirois <wes@ranormech.com> Tue, Oct 18, 2016 at 4:55 PM
To: "jmb@portlandmaine.gov" <jmb@portlandmaine.gov>
Cc: "Aaron St.Pierre" <aaron@ranormech.com>, Corinne Hutchinson <corinne@ranormech.com>

Jeanie,

We have reviewed further the code and the plans for 89 Anderson St.

I have confirmed the following.

- All interior walls with any rating are 1 hour Barriers as they are sealed to the horizontal assembly.
    - Fire barrier and fire partitions are used interchangeably a barrier can be 1 to 4-hour rating where a partition is typically 1 or 2.
    - These are considered barriers.
    - All ductwork that penetrates these walls falls under the exception 716.5.2 Exception #3.
    - In addition, all ducts are protected as through penetrations with proper fire sealant.
- Horizontal Membranes
    - We confirmed the sheetrock ceiling in the units is part of the assembly.
    - We confirmed the ERV's in the bathrooms and the diffusers in the bathrooms are below the rated assembly.
        - The bathrooms do not require radiation dampers.
    - The supply diffuser and the exhaust grille in the living/kitchen spaces do require radiation dampers.
        - We will be installing radiation dampers and diffuser fire blanket at those locations.

This should take care of the areas in question. If you need anything else from me, please advise.

Thanks,

Wes

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Wesley P. Sirois, PE, C.E.A.

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Jeanie Bourke <jmb@portlandmaine.gov> Wed, Oct 19, 2016 at 1:38 PM
To: Wes Sirois <wes@ranormech.com>, Ryan Senatore <ryan@senatorearchitecture.com>
Cc: "Aaron St.Pierre" <aaron@ranormech.com>, Corinne Hutchinson <corinne@ranormech.com>, Brian Laflamme <blaflamme@portlandmaine.gov>

Good Morning Wes,

Thank you for following up on this information. It has come to my attention that the Certificate of Occupancy for this building was issued without the benefit of this approval and proper inspections. Brian LaFlamme has contacted the GC and informed that additional inspections are required to confirm compliance. I understand that this application was filed in June and that our review timeline has been compromised due to the volume of permits, however, my initial contact for additional information was on September 1, which should have been sufficient time for follow up prior to the CO inspecitons.

In light of all this, the M plans were submitted with the building permit for the structure, however the information did not adequately address the specific aspects of the design that we have discussed, ie. fire, smoke and ceiling radiation dampers, firestopping, materials, etc. The plans for this HVAC permit are essentially the same, future applications will need to include this information for approval.

Following up on your code assessment, I have the following comments:

1. Fire Barriers and Fire Partitions are considered separate and distinct assemblies by the IBC and they are required at specific locations within a building. Each have their own unique design standards to be followed for compliance. The

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designation of these determines how the duct penetrations are treated. The building code review specifies Sec. 1 1 hour dwelling unit separation walls, this code section is for "Fire Partitions". These walls are allowed to be con as such, however there should be a distinction if the walls are constructed as "Fire Barriers" in order to determir exception #3 in Sec. 716.5.2 is applicable. While the Wall Type Notes does specify they are extended to the deck above, this detail needs to be confirmed by Ryan Senatore, the architect in responsible charge, for these specific elements.

2. In regards to exception #3, please confirm compliance of the duct material (26 gauge), and that it is installed continuously from ERV's to all inlets and outlets.

These are the only items that need attention, I will approve the permit once I have received this information, thank you for your attention to this.

Best,
Jeanie

Jeanie Bourke
Code Enforcement Officer/Plan Reviewer

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Wes Sirois <wes@ranormech.com> Tue, Nov 1, 2016 at 4:41 PM
To: Jeanie Bourke <jmb@portlandmaine.gov>, Ryan Senatore <ryan@senatorearchitecture.com>
Cc: "Aaron St.Pierre" <aaron@ranormech.com>, Corinne Hutchinson <corinne@ranormech.com>, Brian Laflamme <blaflamme@portlandmaine.gov>

Jeanie,

I have confirmed with Ryan that the walls do extend to the deck see his response below.

"Let me know if you need anything from me to answer item #1, if she is referring to walls between dwelling units they do extend to the deck above."

Also, see below from our sheet-metal contractor confirming duct thickness. We have received the radiation dampers for the kitchen supply and exhaust and will be installing those as soon as possible.

"**From:** Wes Sirois [mailto:wes@ranormech.com]
Sent: Wednesday, October 19, 2016 4:26 PM
To: Corinne Hutchinson; Dan Phillips
Cc: Aaron St.Pierre
Subject: Re: Fire damper make up air shaft 89 Anderson. 667 Congress

Dan, can you confirm the ductwork gauge used on this job? We are looking to confirm minimum of 26 gauge to meet code. I believe the submittal said it was. Also we need to confirm that the ductwork entering the space where the erv is hung, is steel penetrating the wall or ceiling.

Wes Sirois "

"Yes Wes, 26 gauge and metal through the drywall. "

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Respectfully

Dan Phillips

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dphillips@aerohv.com E-Mail

One clarification that should be made is that the ceiling membrane is different than walls and the radiation damper can be installed in a ducted diffuser or one non-ducted. All manufacturers show these for ducted solid, ducted flex as long as they are UL listed class 1 or 0 flex duct and located in the ceiling cavity which they are, and non-ducted like a plenum. http://www.ul.com/wp-content/uploads/2014/04/ul_CeilingRadiationDampers.pdf

In addition none of the duct that is connected to the diffusers requiring radiation dampers penetrate partition or barrier walls. The requirement for the solid duct is through penetrations of partitions and barriers which is the case throughout. All duct penetrating fire partitions meet the requirements of 716.5.4. The duct is over twice as thick as required and all penetrations are treated as through penetrations. All duct penetrating walls is 26 gauge steel. All corridor wall penetrations are covered under exception one of 716.5.4. Hilti fire sealant systems was used on all penetrations.

Let me know if you need anything else from me.

Wes

Wesley P. Sirois, PE, C.E.A.

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From: Jeanie Bourke [mailto:jmb@portlandmaine.gov]
Sent: Wednesday, October 19, 2016 1:39 PM
To: Wes Sirois <wes@ranormech.com>; Ryan Senatore <ryan@senatorearchitecture.com>
Cc: Aaron St.Pierre <aaron@ranormech.com>; Corinne Hutchinson <corinne@ranormech.com>; Brian Laflamme <blaflamme@portlandmaine.gov>
Subject: Re: 89 Anderson HVAC Permit

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Jeanie Bourke <jmb@portlandmaine.gov> Wed, Nov 2, 2016 at 3:41 PM
To: Wes Sirois <wes@ranormech.com>
Cc: Ryan Senatore <ryan@senatorearchitecture.com>, "Aaron St.Pierre" <aaron@ranormech.com>, Corinne Hutchinson <corinne@ranormech.com>, Brian Laflamme <blaflamme@portlandmaine.gov>

Hi Wes,

Thank you for providing the information on the wall construction, steel gauge and for the clarification on the ceiling membrane penetration at the radiation dampers. I am approving this permit, the stamped documents will be emailed once they are prepared for issuance.

Best,

Jeanie

Jeanie Bourke
Code Enforcement Officer/Plan Reviewer

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