

Development Services

From Concept to Construction

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More Contact Info (<http://www.portlandoregon.gov/bds/article/519984>)



APPEAL SUMMARY

Status: Hold for Additional Information

Appeal ID: 23489	Project Address: None as yet
Hearing Date: 2/26/20	Appellant Name: Fumihiko Tanikawa
Case No.: B-003	Appellant Phone: +8-1-802-465-3602
Appeal Type: Building	Plans Examiner/Inspector: Terry Whitehill, Chris Pagnotta, Corey Stanley
Project Type: residential	Stories: 2 Occupancy: R-3 Single Family Residence Construction Type: V-B
Building/Business Name: None	Fire Sprinklers: No
Appeal Involves: Erection of a new structure	LUR or Permit Application No.:
Plan Submitted Option: pdf [File 1] [File 2]	Proposed use: Single Family Residence

APPEAL INFORMATION SHEET

Appeal item 1

Code Section

Requires	Violating the fire code, our design has air flow from the crawl space to the attic. In order to harmonize the fire code, we apply thermal expansion materials to stop fire as shown in the attachment.
Code Modification or Alternate Requested	As mentioned above, the thermal expansion materials stops airflow in case of fire even it allows airflow from crawl space to attic without fire.
Proposed Design	Please refer to the attachment. The thermal expansion material is Norseal® FS1000 made by Saint-Gobain.
Reason for alternative	The airflow keeps moisture out, which will help to avoid water condensation and maximize wood-structure's lifetime. Yes. In summer, the air cooled in the crawl space is running through the wall, floor and ceiling. A resident can feel cool radiation and minimize air-conditioning load.

APPEAL DECISION

Omission of fireblocking to allow ventilation from crawl space to attic: Hold for additional information. Appellant may contact John Butler (503 823-7339) with questions.

Additional information is submitted as a no fee reconsideration, following the same submittal process and using the same appeals form as the original appeal. Indicate at the beginning of the appeal form that you are filing a reconsideration and include the original assigned Appeal ID number. The reconsideration will receive a new appeal number.

Include the original attachments and appeal language. Provide new text with only that information that is specific to the reconsideration in a separate paragraph(s) clearly identified as "Reconsideration Text" with any new attachments also referenced. No additional fee is required.



The Dreamology Company

— Make your dreams happen —

KANEKA Housing Solution

JAN 2020

Housing Solutions Strategic Unit

KANEKA Corporation

Key Technology of KANEKA Housing Solution

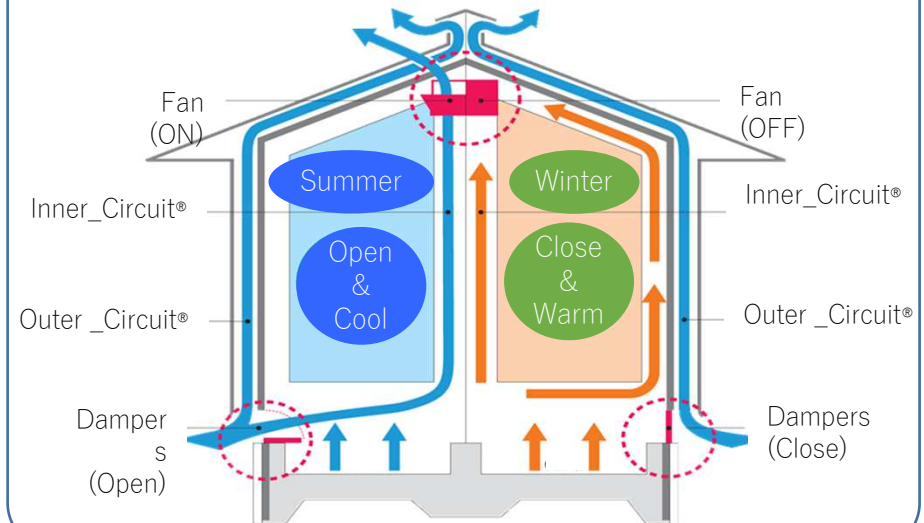
Outside Insulation

- ✓ Envelops a house entirely with outside insulation from the roof and wall to the foundation
- ✓ In winter, holds heat like Thermos jug. In summer, shuts out burning sun through the roof and wall



Double Ventilation

- ✓ Outer_Circuit® is always open to connect outside air for removing heat, moisture and water condensation.
- ✓ Inner_Circuit® is open in summer and ventilation fan is turned on to facilitate ventilation for cooling and close in winter to shut the air for preventing heat loss.



Summer: Comfortable (not too cool), good sleep and delightful morning even through hot night

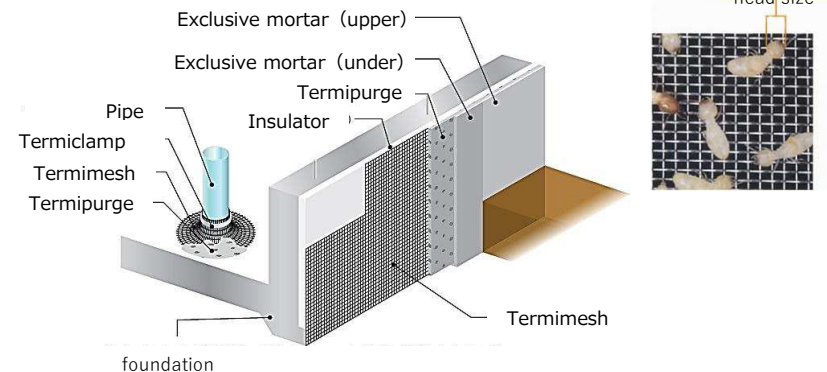
Winter: Warm all over the house with low energy consumption

Additionally, long lifetime of house (wooden materials) is expected because of a) airflow (less water condensation), b) wooden materials protected by insulator and c) termimesh foamsystem. Pictures below shows the space under the floor after 16-years use.



**termimesh
foamsystem.**

- ✓ Physical barrier from termite
- ✓ No chemicals used for the extermination



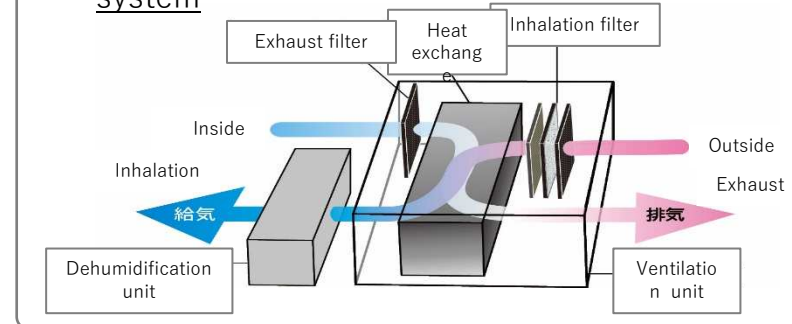
“24-hour dehumidification & air filtering system”

- ✓ Dehumidification: Can be dehumidified in the range of 50-70%RH by 3 modes (high, middle and low dehumidification)
- ✓ Air-filtering: Block outside particles ($10\mu\text{m}$ or more) like pollen.

Notes;

- ✓ SC navigator® automates ventilation system.
- ✓ Solar-Circuit® is basically applied to a wooden detached house.
- ✓ Some electrical equipment are designed for the use in Japan. It may be necessary to modify it complying to US regulations.

24-hour dehumidification & air filtering system



The Dreamology Company

— Make your dreams **Confidential**

KANEKA Housing Solution Construction example in Japan

■ Foundation

Have a crawl space of 500mm or more height.



The foundation is covered by heat insulator (XPS).



■ Physical Termite Barrier

A mesh is applied on the foundation to block termites.



Apply special adhesive system to fix the mesh on the foundation.



■ Roof Construction

Place heat insulator (XPS) on the roof.



Apply second roof board with spacers securing ventilation path (outer circuit)



■ Wall Construction (1)

Place heat insulator (XPS) on the wall.



Finish heat insulation installation and apply air-tight tape (black tape)



Confidential

■ Wall construction (2)

Apply exterior materials with spacers securing ventilation path (outer circuit)



Between heat insulator and interior materials, there is ventilation path connecting the crawl space and the attic (inner circuit).



■ Ventilation system

Under floor damper controls in/out air to the crawl space.

Attic fan (electric) is operating in summer and idle in winter.



Under Floor Damper

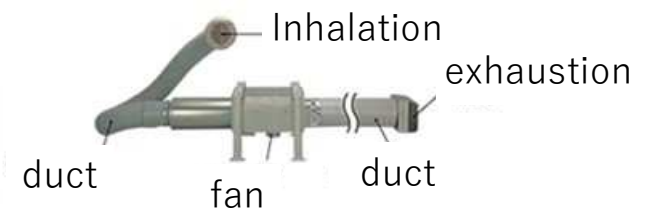


Close
in winter

Open
in summer



Attic Fan



IRC Fire Code Conformity

January 2020

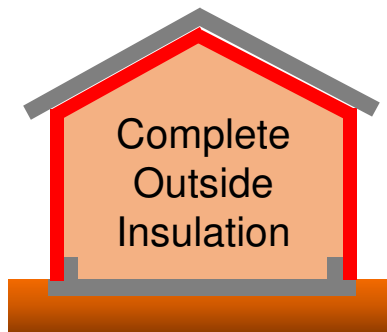
Housing Solutions Strategic Unit

KANEKA Corporation

Key Features of KANEKA Housing Solutions

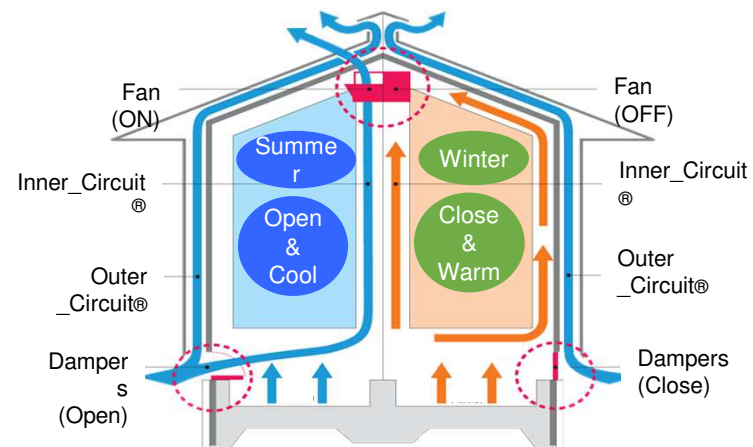
Outer Insulation

- ✓ Envelops a house entirely with outside insulation from the roof and wall to the foundation
- ✓ In winter, holds heat like Thermos jug. In summer, shuts out burning sun through the roof and wall



Double Air Flow

- ✓ Outer_Circuit® is always open to connect outside air for removing heat, moisture and water condensation.
- ✓ Inner_Circuit® is open in summer and ventilation fan is turned on to facilitate ventilation for cooling and close in winter to shut the air for preventing heat loss.



benefits

Summer: Comfortable (not too cool), good sleep and delightful morning even through hot night
Winter: Warm all over the house with low energy consumption

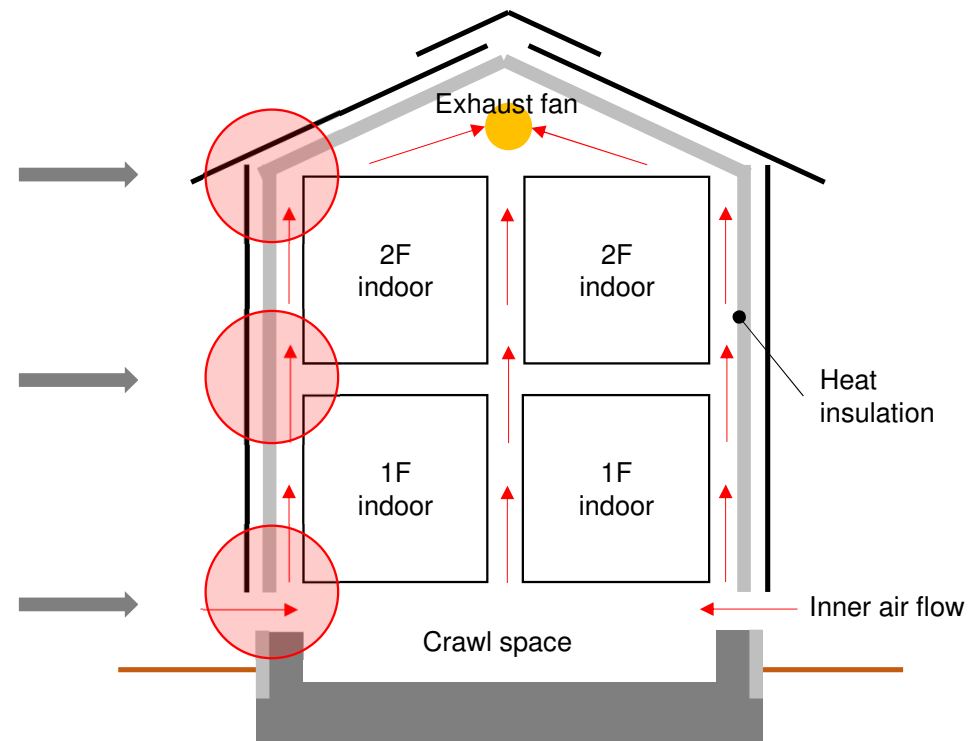
Inner circuit (air flow)

Inner circuit has an issue to the residential code of Raleigh (especially fire code).
Following to the meeting on DEC14, 2018, this document will clarify details of our proposing housing design for further assessment.

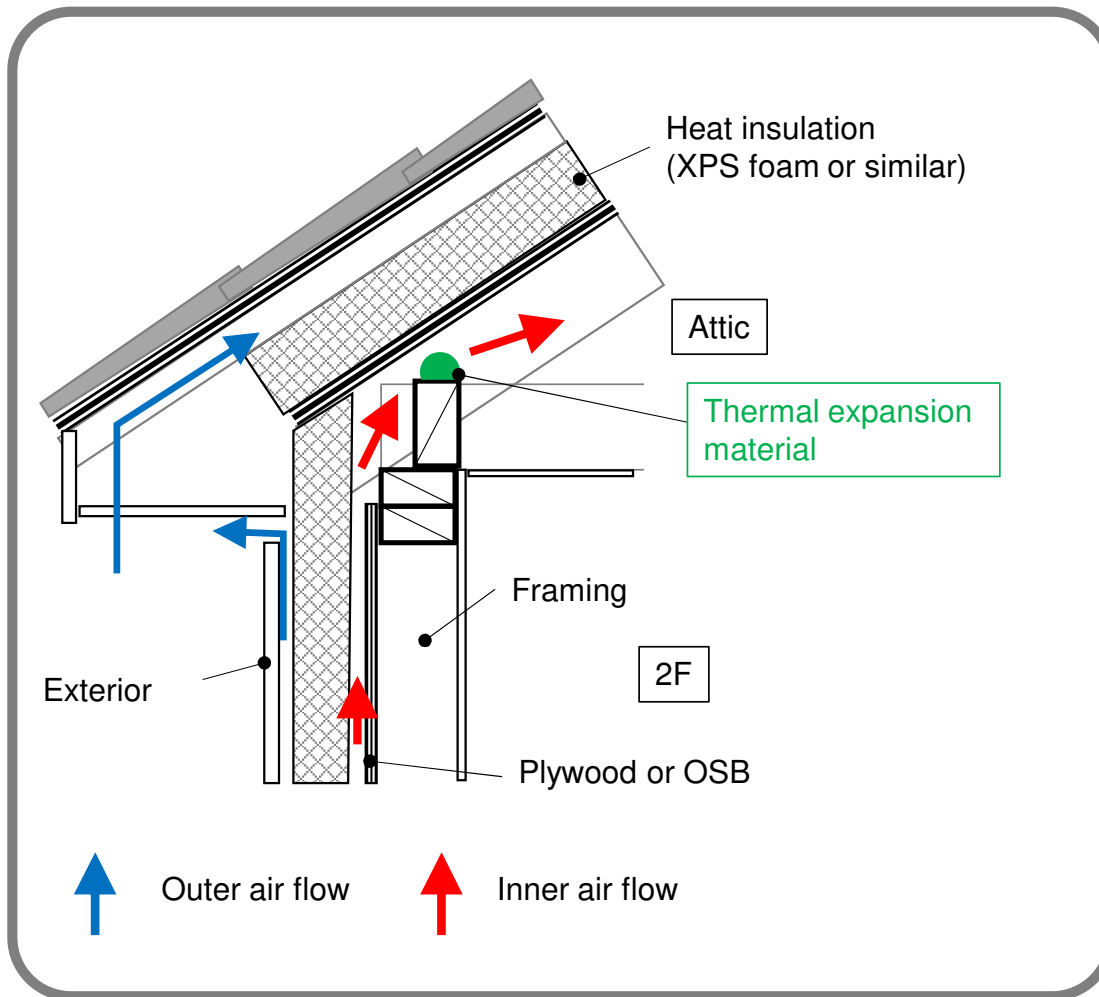
(1) Air Flow from 2F to Attic

(2) Air Flow from 1F to 2F

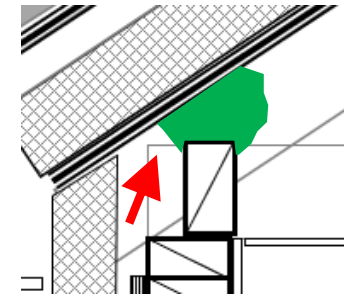
**(3) Air Flow
from Crawl Space to 1F**



(1) Air Flow from 2F to Attic



- In case of fire, thermal expansion material expand and stop inner air flow.

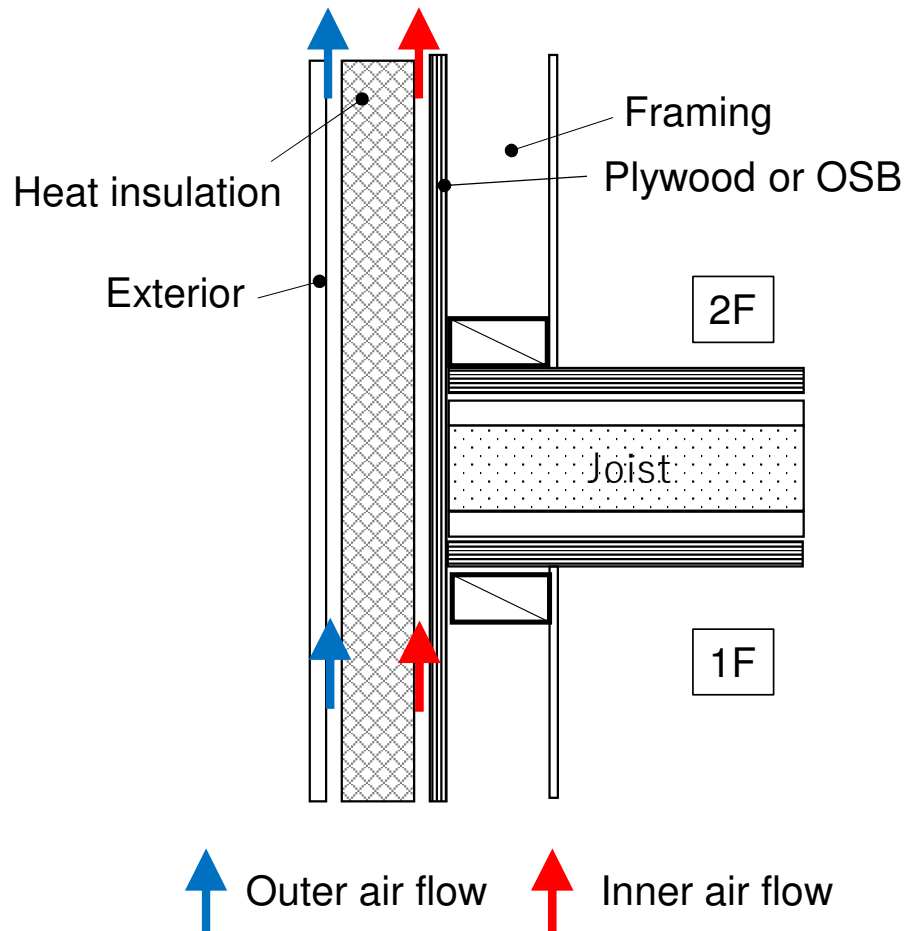


- Thermal expansion material is applied continuously in line to all the space between 2F and attic

(thermal expansion material)
Norseal® FS1000 or similar

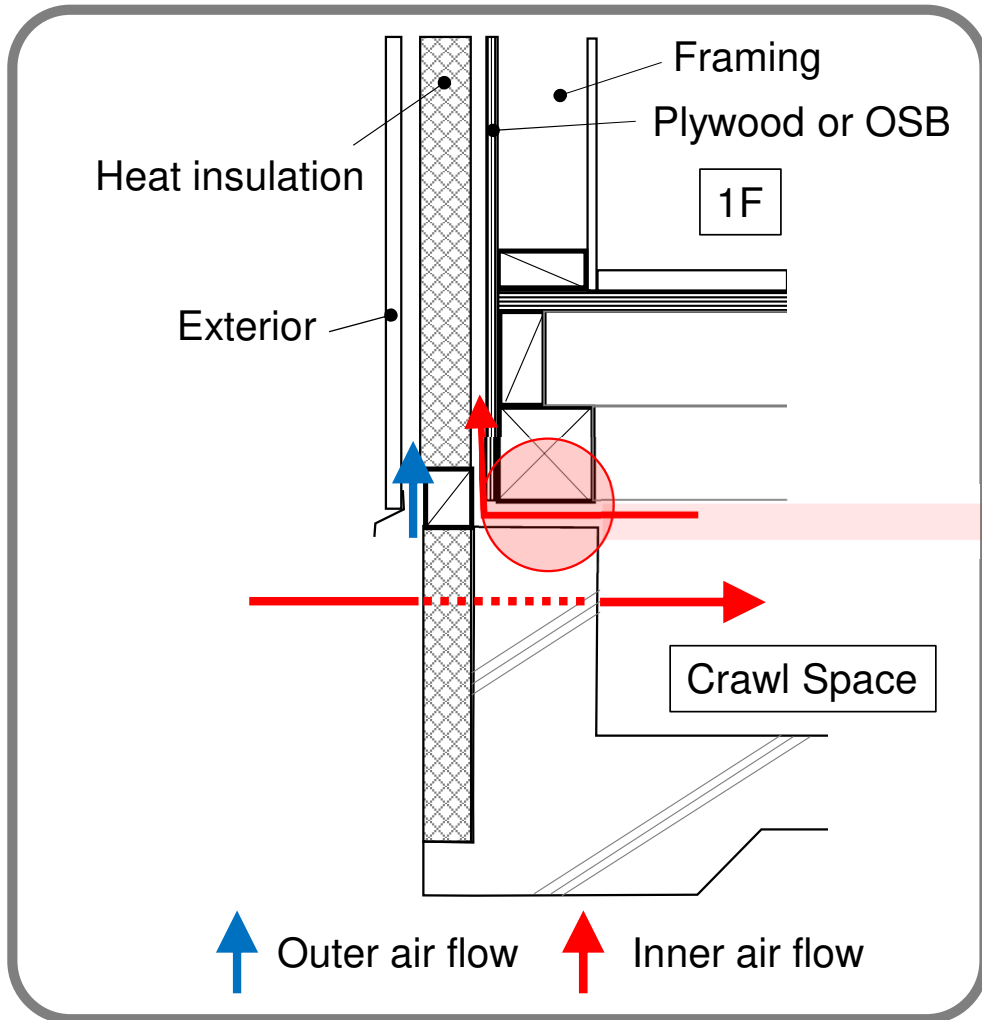
<https://www.tapesolutions.saint-gobain.com/products/norseal-gasketing-foams/norseal-fs1000>

(2) Air Flow from 1F to 2F



- No thermal expansion materials are applied.
(Informed in the last meeting on DEC14, 2018)

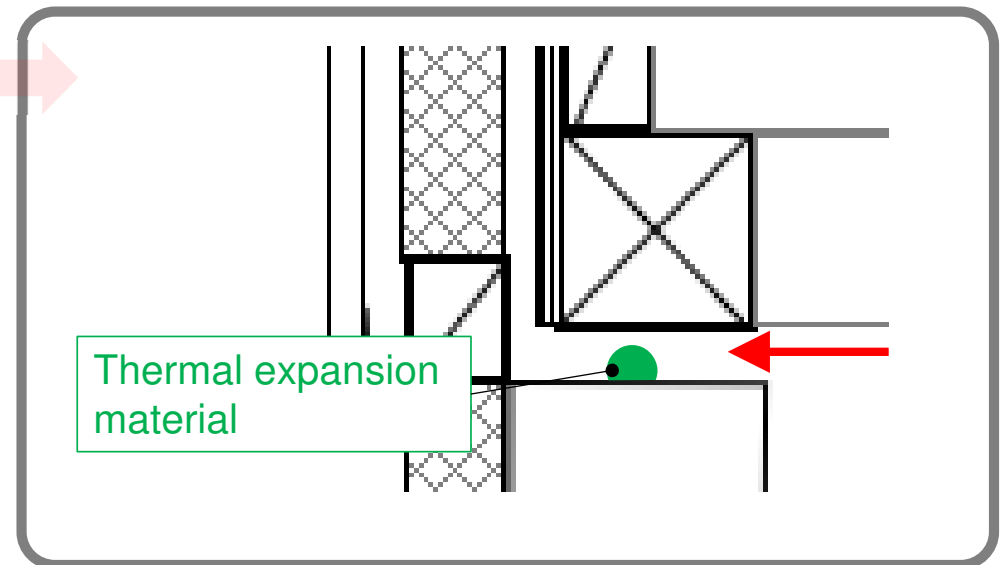
(3) Air Flow from Crawl Space to 1F



- In case of fire, thermal expansion material expand and stop inner air flow.
- Thermal expansion material is applied continuously in line to all the space between the crawl space and 1F

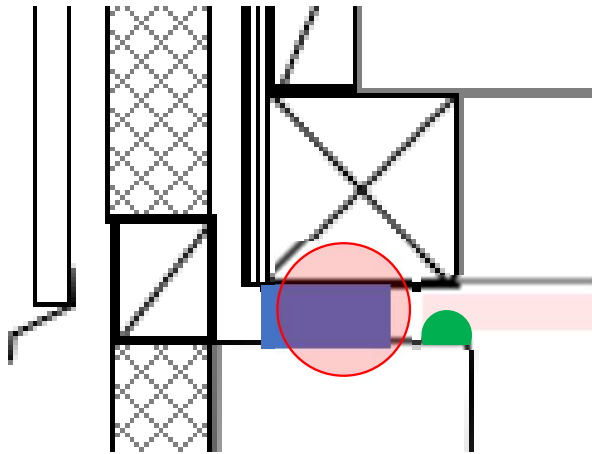
(thermal expansion material)
Norseal® FS1000 or similar

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(3) Air Flow from Crawl Space to 1F (continued)

The way to keep space between crawl space and 1F

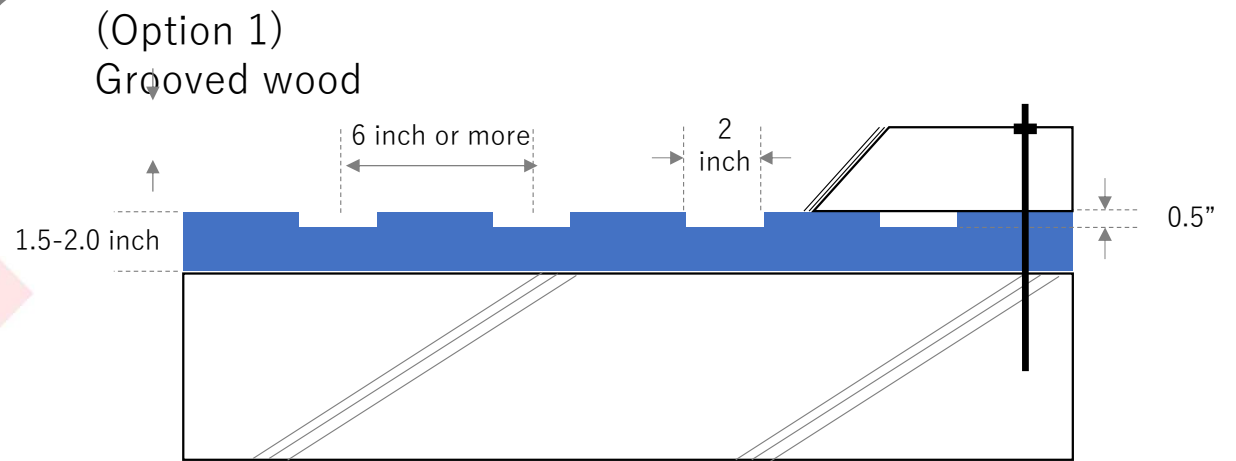
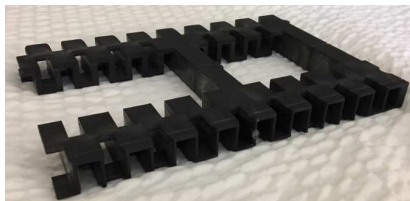


(plastic spacer material)

Joto-Vent KP-L102U (2x4")

Joto-Vent KP-L150U (2x6")

<https://joto-vent.com/technical-resources/joto-vent-specification>



(Option 2)

Plastic spacer

