

Owner / Applicant Information

Joshua Duncan
Cummins, Inc.
500 JACKSON ST.

COLUMBUS IN 47201

Phone 8129878827

Email JOSHUA.DUNCAN@CUMMINS.COM

Submitter Information

Melissa Tupper
RTM Consultants, Inc.
6640 Parkdale Place

Indianapolis IN

Phone 3173297700

Email tupper@rtmconsultants.com

Designer Information

William Browne
RATIO Architects, Inc.
101 S Pennsylvania St.

Indianapolis IN

Phone 3176334040

Email wbrowne@ratiodesign.com

Project Information

Cummins Corporate Office Building Renovation
500 Jackson Street

Columbus IN

County BARTHOLOMEW

Project Type New ☐ Addition ☒ Alteration ☒ Existing ☐ Change of Occupancy ☐

Project Status ☒ U F=Filed U or Null=Unfiled

IDHS Issued Correction order? ☐ Has Violation been Issued? ☐

Violation Issued by: NA

Local Building Official

Phone: 8123762550

Email: bthompson@bartholomew.in.gov

Local Fire Official

Phone: 8123762550

Email: mnoblitt@columbus.in.gov

Variance Details

Code Name: Other Code (Not in the list provided)
2014 IBC, 716.5

Conditions: The variance request is to permit non-rated openings at the 2nd floor in the 1-hour wall separating the 3-story volume meeting space from the adjacent stair, elevator, and circulation space that serve to access the 5th and 6th mechanical/non-occupied floors.

The project involves a renovation of the existing 6-story building with basement. The 1st floor is a cafeteria with meeting rooms on the 2nd, 3rd, and 4th floors. The basement is storage and the 5th and 6th floors are mechanical/unoccupied spaces. The 3rd and 4th floor areas, previously used for meeting rooms will be removed to create one meeting room with high ceilings on the 2nd floor. The existing Cerealine building is 6-stories, Type IIIB Construction, and classified as an A-2/A-3/S-1 Occupancy.

DEMONSTRATION THAT PUBLIC HEALTH, SAFETY, AND WELFARE ARE PROTECTED:

- 2

1=Non-compliance with the rule will not be adverse to the public health, safety or w
- 2= Applicant will undertake alternative actions in lieu of compliance with the rule to ensure that granting of the variance will not be adverse to public health, safety, or welfare. Explain why alternative actions would be adequate (be specific).

Facts: 1. Close-space sprinklers will be provided at the non-rated openings along the wall outside of the meeting space to protect the openings.

2. The building is protected throughout by an automatic sprinkler system.

3. A fire alarm system is provided throughout the existing building.

4. Similar variances have been approved in the past.

DEMONSTRATION OF UNDUE HARDSHIP OR HISTORICALLY SIGNIFICANT STRUCTURE:

- Imposition of the rule would result in an undue hardship (unusual difficulty) because of physical limitations of the construction site or its utility services.
- Y

Imposition of the rule would result in an undue hardship (unusual difficulty) because of major operational problems in the use of the building or structure.
- Imposition of the rule would result in an undue hardship (unusual difficulty) because of excessive costs of additional or altered construction elements.
- Imposition of the rule would prevent the preservation of an architecturally or a historically significant part of the building or structure

Facts: The owner wishes to have glass doors to maintain the openness at the meeting room and let natural light from the connector in, as well as it is more esthetically appealing.

Variance Details

Code Name: Other Code (Not in the list provided)
2014 IBC, 713.2

Conditions: The project involves a renovation of the existing 6-story building. The 1st floor is a cafeteria with meeting rooms on the 2nd, 3rd, and 4th floors. The 3rd and 4th floor areas, previously used for meeting rooms will be removed to create one meeting room with high ceilings on the 2nd floor. A portion of the existing building will remain for access to elevators and stairs at the 3rd and 4th floors. This creates a vertical opening that connects 3 stories. The variance request is to permit the vertical opening to be separated by a 1-hour fire partition in lieu of a 1-hour fire barrier.

The existing Cerealine building is 6-stories, Type IIIB Construction, and classified as an A-2/A-3/S-1 Occupancy.

DEMONSTRATION THAT PUBLIC HEALTH, SAFETY, AND WELFARE ARE PROTECTED:

- 1

1=Non-compliance with the rule will not be adverse to the public health, safety or w
- 2= Applicant will undertake alternative actions in lieu of compliance with the rule to ensure that granting of the variance will not be adverse to public health, safety, or welfare. Explain why alternative actions would be adequate (be specific).

Facts: 1. The existing building is sprinklered throughout.

2. The 3-story volume meeting space is adjacent to the stair, elevator, and circulation space that serve to access the 5th and 6th mechanical/non-occupied floors.

3. A fire alarm system is provided throughout the existing building.

4. A 1-hour fire partition in lieu of a 1-hour fire barrier is not adverse to public health, safety, or welfare.

DEMONSTRATION OF UNDUE HARDSHIP OR HISTORICALLY SIGNIFICANT STRUCTURE:

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- Imposition of the rule would result in an undue hardship (unusual difficulty) because of major operational problems in the use of the building or structure.
- Y

Imposition of the rule would result in an undue hardship (unusual difficulty) because of excessive costs of additional or altered construction elements.
- Imposition of the rule would prevent the preservation of an architecturally or a historically significant part of the building or structure

Facts: The hardship is the difficulty in constructing a 1-hour fire barrier, which requires all supporting construction to be 1-hour rated. The existing building is Type IIIB construction, so it is extremely difficult to rated the existing horizontal assemblies that support the 1-hour fire barrier.

Variance Details

Code Name: 12-4-12 Existing Buildings; Additions or Alterations
675 IAC 12-4-12(f)

Conditions: An existing 1-story building connector is being demolished and a new 2 level building connector is being constructed which results in an increase to the existing building area. The two existing buildings are of different construction types and not separated by a fire wall, therefore the area of the addition and the existing buildings will exceed allowable area for an A-2/A-3/B/S-1 Occupancy of Type IIIB Construction.

The connector addition will result in a net area increase of approximately 950 sq.ft. on the 1st

The connector addition will result in a net area increase of approximately 700 sq.ft. on the 1st floor and approximately 480 sq.ft. at the mezzanine level.

The GAR requires additions to existing buildings to comply with the requirements of new construction for allowable area or be separated by structurally independent 3-hour rated fire walls.

The connector is approximately 1,250 sq.ft. on the 1st floor and approximately 480 sq.ft. at the mezzanine level and will be Type IB Construction. The corporate office building is Type IB Construction, 1-story with mezzanine and basement, and classified as a B/S-1 Occupancy. The existing Cerealine building is 6-stories, Type IIIB Construction, and classified as an A-2/A-3/S-1 Occupancy.

DEMONSTRATION THAT PUBLIC HEALTH, SAFETY, AND WELFARE ARE PROTECTED:

1=Non-compliance with the rule will not be adverse to the public health, safety or w

2

2= Applicant will undertake alternative actions in lieu of compliance with the rule to ensure that granting of the variance will not be adverse to public health, safety, or welfare. Explain why alternative actions would be adequate (be specific).

Facts:

1. A row of close spaced sprinklers will be provided between the Cerealine building and the connector at the 1st floor and mezzanine level.
2. Both existing buildings are protected throughout by an automatic sprinkler system, which will be provided in the connector addition.
3. A fire alarm system is provided throughout both of the existing buildings and will be provided in the connector addition.
4. The additions do not increase the occupant load of the building, it is circulation space between buildings and an entrance to the buildings.

DEMONSTRATION OF UNDUE HARDSHIP OR HISTORICALLY SIGNIFICANT STRUCTURE:

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☐ Y Imposition of the rule would result in an undue hardship (unusual difficulty) because of major operational problems in the use of the building or structure.

☐ Y Imposition of the rule would result in an undue hardship (unusual difficulty) because of excessive costs of additional or altered construction elements.

☐ Imposition of the rule would prevent the preservation of an architecturally or a historically significant part of the building or structure

Facts: ☐ It is an cost and operational hardship to separate the connector by a new 3-hour structurally independent fire wall. The existing connector is not separated from either building.

Variance Details

Code Name: 2010 Indiana Energy Conservation Code (675 IAC 19-4)

4.1.1.2

Conditions: The variance request is to permit the new 2 level connector to be designed without complying with the building envelope requirements of the Energy Code.

The connector is approximately 1,250 sq.ft. on the 1st floor and approximately 480 sq.ft. at the mezzanine/2nd floor level and will be Type IB Construction.

DEMONSTRATION THAT PUBLIC HEALTH, SAFETY, AND WELFARE ARE PROTECTED:

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- ☐ 2= Applicant will undertake alternative actions in lieu of compliance with the rule to ensure that granting of the variance will not be adverse to public health, safety, or welfare. Explain why alternative actions would be adequate (be specific).

Facts: 1. Although the new connector will be larger than the existing it replaces (1,700 SF vs 300 SF) The existing is of very low thermal performance. It is monolithic uninsulated glass, with uninsulated exposed roof structure at the roof perimeter. The new connector will only be out of compliance by 14% (or 7%) so it can be argued that whatever energy that non-compliant % requires, it is very likely less than the energy the existing connector consumes.

2. The area that the new connector will add to the building is a net of 1,400 SF. Which is 0.4 % of the total square footage of 353,300 SF.

3. The connector cannot pass COMcheck envelope as designed is because it is being considered in isolation from the existing building and as such its ratio of glazing to wall is too high. However when considered in the context of the existing COB (post alteration) the COB will be approximately 38% glazing/ 62% wall including the connector.

4. The connector's roof and walls will be insulated above code minimum.

5. The new curtainwall on the COB will be thermally broken and hence more energy efficient than the unbroken storefront it replaces. So overall the building should use less energy post renovation than it did previously even with the energy for the new connector's non-compliant 14% (or 7%)

6. With the match existing glass the Connector envelope fails COMcheck by 14%.

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- ☒ Y Imposition of the rule would result in an undue hardship (unusual difficulty) because of major operational problems in the use of the building or structure.
- ☒ Y Imposition of the rule would result in an undue hardship (unusual difficulty) because of excessive costs of additional or altered construction elements.
- ☐ Imposition of the rule would prevent the preservation of an architecturally or a historically significant part of the building or structure

Facts: The hardship is difficulty to provide a fully compliant design to meet the Energy Code for a connector the owners wishes exterior to match the existing corporate office building.

Variance Details

Code Name: Other Code (Not in the list provided)

2014 IBC,1027.1,IAC 12-4-9(a)

Conditions: The variance request is to permit the 2nd exit from the 6th floor to discharge onto the 5th floor.

conditions.

The variance request is to permit the 2nd exit from the 5th floor to discharge onto the 5th floor. This is a result of an existing stair being removed in order for the connector addition to access the 2nd floor.

DEMONSTRATION THAT PUBLIC HEALTH, SAFETY, AND WELFARE ARE PROTECTED:

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2

2= Applicant will undertake alternative actions in lieu of compliance with the rule to ensure that granting of the variance will not be adverse to public health, safety, or welfare. Explain why alternative actions would be adequate (be specific).

Facts:

1. A passageway will be created with a 1-hour fire partition from the stair that discharges onto the 5th floor to the 2-hour rated enclosed stair at the 5th floor.
2. The 6th floor has mechanical and non-occupied spaces.
3. The existing building is protected throughout by an automatic sprinkler system.
4. A fire alarm system is provided throughout the existing building.
5. The exit stair enclosure is 2-hour rated and discharges to the exterior of the building.

DEMONSTRATION OF UNDUE HARDSHIP OR HISTORICALLY SIGNIFICANT STRUCTURE:

☐

Imposition of the rule would result in an undue hardship (unusual difficulty) because of physical limitations of the construction site or its utility services.

☒

Imposition of the rule would result in an undue hardship (unusual difficulty) because of major operational problems in the use of the building or structure.

☐

Imposition of the rule would result in an undue hardship (unusual difficulty) because of excessive costs of additional or altered construction elements.

☐

Imposition of the rule would prevent the preservation of an architecturally or a historically significant part of the building or structure

Facts:

There are no normally occupied spaces above the 2nd floor. It is an operational hardship to maintain the existing stair in its current location, it would not allow for the connector at the 2nd level.

Variance Details

Code Name: Other Code (Not in the list provided)
2014 IBC,1021.2;IAC 12-4-9(a)

Conditions: The variance request is to permit a single exit from the 3rd, 4th, and 5th floors, code requires that at least two exits be provided. This is a result of an existing stair being removed in order for the connector addition to access the 2nd floor.

DEMONSTRATION THAT PUBLIC HEALTH, SAFETY, AND WELFARE ARE PROTECTED:

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- 2= Applicant will undertake alternative actions in lieu of compliance with the rule to ensure that granting of the variance will not be adverse to public health, safety, or welfare. Explain why alternative actions would be adequate (be specific).

Facts: 1. The 3rd floor will only have access to the existing elevator, the 4th and 5th floors have mechanical and non-occupied spaces.
2. The existing building is protected throughout by an automatic sprinkler system.
3. A fire alarm system is provided throughout the existing building.
4. The exit stair enclosure is 2-hour rated and discharges to the exterior of the building.

DEMONSTRATION OF UNDUE HARDSHIP OR HISTORICALLY SIGNIFICANT STRUCTURE:

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- Y

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- Imposition of the rule would result in an undue hardship (unusual difficulty) because of excessive costs of additional or altered construction elements.
- Imposition of the rule would prevent the preservation of an architecturally or a historically significant part of the building or structure

Facts: There are no normally occupied spaces above the 2nd floor. It is an operational hardship to maintain the existing stair in its current location, it would not allow for the connector at the 2nd level.

Variance Details

Code Name: Other Code (Not in the list provided)
2014 IBC, 1015.2.1

Conditions: The exits serving the 2nd floor meeting room of the Cerealine building will be separated by less than 1/3 the overall diagonal of the floor. The exits will be approximately 28 feet apart, code requires approximately 32.3'. This is a result of an existing stair being removed in order for the connector addition to access the 2nd floor. Both of the existing stairs are located at the Northwest end of the building.

DEMONSTRATION THAT PUBLIC HEALTH, SAFETY, AND WELFARE ARE PROTECTED:

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- 2= Applicant will undertake alternative actions in lieu of compliance with the rule to ensure that granting of the variance will not be adverse to public health, safety, or welfare. Explain why alternative actions would be adequate (be specific).

Facts: 1. The existing building is protected throughout by an automatic sprinkler system. 2. The existing building has a fire alarm system. 3. The existing building has a 2-hour rated exit stair enclosure. 4. The existing building has a 2-hour rated exit stair enclosure.

Facts:	<p>1. The existing building is protected throughout by an automatic sprinkler system, which will be provided in the connector addition.</p> <p>2. The exit from the meeting room that leads to the stair enclosure will be separated from the rest of the building with a 1-hour fire partition.</p> <p>3. A row of close spaced sprinklers will be provided between the Cerealine building and the connector at the 1st floor and mezzanine level/2nd floor.</p> <p>4. A fire alarm system is provided throughout the existing building and will be provided in the connector addition.</p> <p>5. The opening to the connector is approximately 9.7' wide and will accommodate an occupant load of 776. The occupant load of the meeting room is approximately 147 with a table and chair layout and approximately 315 with row seating.</p>
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- ☒ Imposition of the rule would result in an undue hardship (unusual difficulty) because of major operational problems in the use of the building or structure.
- ☐ Imposition of the rule would result in an undue hardship (unusual difficulty) because of excessive costs of additional or altered construction elements.
- ☐ Imposition of the rule would prevent the preservation of an architecturally or a historically significant part of the building or structure

Facts:	It is an operational hardship to maintain the existing stair in its current location, it would not allow for the connector at the 2nd level. The connector at the 2nd level will provide direct access to the 2nd floor meeting space from the existing corporate office building.
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