Owner / Applicant Information

Karyn Bostic
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Project Information

University of Notre Dame
Morrissey Hall

Notre Dame 46556

County ST JOSEPH

Project Type New [Y] Addition [ ] Alteration [ ] Existing [ ] Change of Occupancy [ ]

Project Status [F] F=Filed U or Null=Unfiled

IDHS Issued Correction order? [No] Has Violation been Issued? [No]

Violation Issued by: NA

Local Building Official

Phone: [5746314932] Email: [cbulot@southbendin.gov]

Local Fire Official

Phone: [5746314932] Email: [bharris6@nd.edu]

Variance Details

Code Name: ASME A17.7-2007/CSA B44.7-07

2.15.9.2(a)

Conditions: Reduced car apron height for the Schindler 3300 NA
For elevator application in Europe the use of a car apron with a length of 750 mm is standard. According to clause 2.15.9.2 b of the A17.1-2007/CSA 8,44-07 a minimum length of 1220 mm is required. All other requirements of clause 2.15.9 are fulfilled.

For hydraulic elevators also a smaller apron can be used.

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

[1]

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: The existing elevator pit is only 4 ft deep, code requires a 5 ft deep pit.
Based on the GESR's a risk assessment in compliance with ISO 14198 is made.
Based on the risk assessment the following steps are taken to mitigate the risks involved:
Door restrictor is provided (safety parameter 3.3.4.1), this ensures that the car doors cannot be opened more than 100mm from the inside unless the car is within 250 mm of the landing floor.
Unintended car movement protection and the emergency brake stops the car before the sill is more than 750 mm above the landing

DEMONSTRATION OF UNDUE HARDSHIP OR HISTORICALLY SIGNIFICANT STRUCTURE:

[Y] 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.

[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: Due to the elevator shaft being added to the outside of the existing building, in order to obtain the depth of the pit as required by code, this would require digging under the foundation of the building which would impede on the structural integrity of the building, not to mention the tremendous cost that would be involved to make these changes.

Variance Details

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

as

Conditions: Reduced car apron height for the Schindler 3300 NA

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

[1]

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: Elevator pit is only 4 ft deep.

DEMONSTRATION OF UNDUE HARDSHIP OR HISTORICALLY SIGNIFICANT STRUCTURE:

[Y] 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.

[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: Elevator pit is only 4 ft deep.

Variance Details

Code Name: ANSI ASME A 17.1-2007

2.18.5

Conditions: Schindler Elevator will utilize 6mm steel wire governor rope instead of the required minimum dia. of 9.5mm per Section 2.18.5., this cable meets ASME code Section 2.18.5.1 Factor of Safety.

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

[1]

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 elastomeric coated elevator suspension is designed to conform with ASME A 17. 1, 2010 and ASME A 17.6, 2010 and is ANSI
AECO certified to ASME A 17.7, 2007. The A 17.7 ANSI AECO certification was submitted to Mr. John Haines on December 6, 2010.
The suspension members and its terminations have a factor of safety equivalent to the factor of safety for the same suspension capacity
as specified in ASME A 17.1, 2007.
2) The 6mm steel governor rope is designed to conform with ASME A 17.1, 2010 and ASME A 17.6-2010 and is ANSI AECO certified to

17.6-2010 and is ANSI AECO certified to
ASME A17.7, 2007. The A17.7 ANSI AECO certification was submitted to Mr. John Haines on December 6, 2010. The rope has a factor
of safety 29 which is approximately six times the minimum factor of safety of 5 for 9.5mm governor ropes in ASME A 17.1 .. 2007.
*Schindler will provide the tooling and training for State inspectors to conduct the required inspections of equipment.

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.

[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: Excessive cost for construction for equivalent equipment using steel ropes suspension and governor ropes covered under A17 1-2007
1) The elastomeric coated elevator suspension, terminations, and its monitoring is designed to conform with ASME A 17. 1, 2010 and ASME A 17.6, 2010 and is ANSI AECO certified to ASME A 17.7, 2007. The A 17.7 ANSI AECO certification was submitted to Mr. John Haines on December 6, 2010 and is updated in this submission. The suspension members and its terminations have a factor of safety equivalent to the factor of safety for the same suspension capacity as specified in ASME A 17.1, 2007.
2) The 6mm steel governor rope is designed to conform with ASME A 17.1, 2010 and ASME A 17.6-2010 and is ANSI AECO certified to ASME A17.7, 2007. The A17.7 ANSI AECO certification was submitted to Mr. John Haines on December 6, 2010 and updated in this submission.