

Document 12.

These documents must be retained on site. Inspections may not be carried out if they are not.

Assessment in Accordance with Section 112(2) NZ Building Act 2004

(Project No. P5280/26 July 2019)

Hutt Valley High School
Woburn Road
LOWER HUTT

Fire Alarm System Upgrade

REVISED
26/07/2019
HUTT CITY
COUNCIL

HUTT CITY
TE AOA KAIHANGI

BUILDING CONSENT

GRANTED
29/07/2019

HUTT CITY COUNCIL

HUTT CITY
TE AOA KAIHANGI

Pacific Consultants

Building Services Engineers

Level 4, 82 Willis Street
PO Box 11-480
WELLINGTON
Phone (04) 916 8740
Fax (04) 916 8741

TABLE OF CONTENTS

<u>1</u>	<u>BACKGROUND</u>	<u>2</u>
<u>2</u>	<u>OBJECTIVE</u>	<u>2</u>
<u>3</u>	<u>BASIS</u>	<u>2</u>
<u>4</u>	<u>STATUTORY REQUIREMENTS</u>	<u>2</u>
<u>5</u>	<u>FIRE SAFETY REQUIREMENTS</u>	<u>3</u>
<u>6</u>	<u>CONCLUSION</u>	<u>4</u>

BUILDING CONSENT

GRANTED
29/07/2019

HUTT CITY COUNCIL



Report prepared for...

HUTT VALLEY HIGH SCHOOL BOARD OF TRUSTEES

Report prepared by...

PACIFIC CONSULTANTS

Kenneth Crawford_____

PRINCIPAL – Fire Engineer
B.Sc. (chem.), M.E.F.E.

1 BACKGROUND

Pacific Fire Limited has been engaged by Hutt Valley High School Board of Trustees to review the proposed fire alarm system upgrade at Hutt Valley High School, Woburn Road, Lower Hutt and to report on the requirements for the building.

The assessment has been undertaken to consider the New Zealand Building Code Handbook and Approved Documents (NZBC) and to assess the requirements for compliance with Section 112 (2) "Alterations to Existing Buildings" of the Building Act 2004.

BUILDING CONSENT

GRANTED
29/07/2019

HUTT CITY COUNCIL



2 OBJECTIVE

This project is to achieve compliance with the requirements of Section 112 (2) of the Building Act 2004 with respect to the fire safety requirements.

The proposed work substantially alters the fire alarm system for the school but will bring it into compliance with the Acceptable Solution for fire being a Type 4 alarm system and therefore is not required to be sent to the Fire and Emergency NZ Engineering Unit.

3 BASIS

This report is based on the provided plan of the school.

As this is an application under Section 112 (2) of the Building Act and the only proposed works are to upgrade the fire alarm system.

The existing school is a complex of approximately 20 buildings which may not necessarily be separate because of interconnecting walkways amongst groups of buildings. The only proposed works are to upgrade the fire alarm system including sounders, EWIS, interconnection of the alarm systems into one site panel and provision of photo-optical smoke detector coverage throughout. It is possible some of the scope of work may be reduced or altered depending on available budget but in any case a significant upgrade of the fire alarm system is proposed, and no building will have less than manual call points and sounders after the proposed upgrade.

4 STATUTORY REQUIREMENTS

The New Zealand Building Act and the New Zealand Building Code provide the statutory requirements for building construction. The Building Act excludes existing buildings from the requirements of the Building Code, unless specifically addressed in

Pacific Consultants

Building Services Engineers

the Building Act. Examples include buildings undergoing alterations or a change of use.

The usage of the building will remain unchanged as a part of these works therefore Section 112 (2) "Alterations to existing buildings" of the New Zealand Building Act applies.

Section 112 (2) of the Building Act 2004 requires the following.

"Despite subsection (1), a territorial authority may, by written notice to the owner of a building, allow the alteration of an existing building, or part of an existing building, without the building complying with provisions of the building code specified by the territorial authority if the territorial authority is satisfied that,—

- (a) if the building were required to comply with the relevant provisions of the building code, the alteration would not take place; and
- (b) the alteration will result in improvements to attributes of the building that relate to—
 - (i) means of escape from fire; or
 - (ii) access and facilities for persons with disabilities; and
- (c) the improvements referred to in paragraph (b) outweigh any detriment that is likely to arise as a result of the building not complying with the relevant provisions of the building code."

BUILDING CONSENT

GRANTED
29/07/2019

HUTT CITY COUNCIL



5 FIRE SAFETY REQUIREMENTS

The primary risk group for this building is CA (C/AS2 Table 1.1). The entire site is school use.

As this consent is being applied for under Section 112 (2) the requirements are that there is an improvement to means of escape and that those works outweigh any detriment. In addition that those works would not take place if the works were required to comply with all provisions of the building code.

The proposed work will upgrade a number of fire alarm panels to analogue addressable panels, upgrade the sounders and add EWIS capabilities, interconnect all the fire alarms to the main panel. Given that a number of buildings have no automatic detection, or only have heat detectors these are substantial means of escape improvements. There are some other benefits including improved property protection by providing early detection of the fire and the direct connection to FENZ providing earlier response to a fire. The main site panel will have substantially improved information on the fire location which will allow FENZ to rapidly locate the fire.

The new fire alarm system is to comply with NZS 4512:2010 and F7/AS1.

Pacific Consultants

Building Services Engineers

The proposed works have no detrimental effect as means of escape is significantly improved.

In discussion with Hutt City Council we have clarified that the EWIS system will be configured to operate as a public address system rather than having two way communications.

Should all the requirements of Section 112 (1) be required this work would not go ahead. It would be delayed until a major consent involving multiple buildings, which may not occur, and that would indefinitely delay improving fire safety throughout the entire school site which is not necessary under Section 112 (2).

6 CONCLUSION

It is our opinion that the proposed fire alarm system upgrade at Hutt Valley High School, Woburn Road, Lower Hutt will satisfy the requirements of Section 112 (2) of the New Zealand Building Act 2004 because should the building be required to comply with the requirements of the Building Code for alterations under Section 112 (1) the alteration would not take place, the alteration relates to an improvement to means of escape, and the benefits from the improvement outweigh any detriment likely to arise as a result of the building not complying with the relevant provisions of the Building Code.

BUILDING CONSENT

GRANTED
29/07/2019

HUTT CITY COUNCIL

