

February 1, 2013

Charlie Duncan
Cowlitz County
Department of Building & Planning
207 4th Avenue North
Kelso, WA 98626

WOODLAND Public Schools

Where Community & Learning Connect



Dear Charlie,

The purpose of this letter is to establish the Code basis of design for the proposed Yale Elementary School Multi-purpose Building project.

The Yale Elementary School has a free-standing multi-purpose structure located east of the elementary school. This structure was built in the 1950s and has served as a teaching and recreational space for the past several decades. The building has recently been re-roofed; however, the remainder of the building now requires substantial renovation. In 2011, the citizens in the Woodland School District approved a bond measure for capital improvements that included renovation or replacement of the existing multi-purpose building.

As you know, over the course of the last several months, our architectural team has been working with you, the Cowlitz County Planning Department and the Cowlitz-Skamania Fire District to define the project scope as it pertains to on-site fire suppression for a replacement multi-purpose structure. We greatly appreciate the meeting you organized on December 28, 2012 that clearly defined the scope of required on-site fire suppression for a new building. This scope can be broken down into two major components -- an automatic fire sprinkler system and on-site fire flow.

Unfortunately for the School District, our architectural team has determined that the on-site fire suppression system will be extremely costly and exceeds the School District's project budget. This is disappointing to the District and community. As a result, the District is strongly considering the renovation of the existing multi-purpose building in lieu of replacing it.

Our design team has indicated that a building renovation will not require the extensive on-site fire suppression system and, therefore, the cost of renovation will fit within the established



Michael Z. Green, Superintendent of Schools

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budget. In order to proceed quickly with the project and meet the project schedule without undue design expense, I would like to establish with you the Code parameters by which our design team intends to proceed. By working with you to establish these Code parameters, we can confidently move forward with the project knowing that we can, in fact, renovate the existing gym within our budget and provide our citizens with an excellent facility that will serve them for many decades to come.

For the purposes of this letter, we have separated the required on-site fire protection into the automatic fire sprinkler system requirement and the on-site fire flow requirement. The following is a summary of the Code research by our architectural team that establishes the basis of design for renovating the existing building and eliminates the on-site fire protection system requirements:

Three Codes adopted by the State of Washington directly establish the basis of on-site fire suppression systems for the renovation of the existing multi-purpose building. These Codes include the Washington State Building Code (WSSB), Chapter 34, the Washington State Fire Code (WSFC) Chapter 46 and Appendices B, C, and D (adopted in the Cowlitz County Code Chapter 16), and the International Existing Building Code (IEBC) as amended by the State of Washington (adopted in the Cowlitz County Code Section 16.05.050/B).

WSBC Section 3401.5 states that work performed in accordance with the IEBC shall be deemed as compliant with the WSBC's requirements. Therefore, in accordance with Section 101.4, we request that the IEBC apply to the building alteration and the on-site fire suppression system requirements.

Automatic Fire Sprinkler System

The building's renovation will impact over 50% of the building's floor area. Therefore, the Code defines the work as a Level 3 Alteration.

IEBC Section 804 specifically addresses the fire protection requirements for a Level 3 Alteration. Section 804.1 states that an automatic sprinkler system shall be provided when required by Sections 804 and 704.2. The fire sprinkler provisions of Section 804 do not apply to this project because they address conditions that are not present in the existing structure. Section 704.2 cites Section 704.2.2 which states that fire sprinklers are required for E Occupancies when three conditions are met. Condition 3 is not met: the site does not have "sufficient municipal water supply for design of a sprinkler system available to the floor without installation of a new fire pump." Therefore, an automatic fire sprinkler system is not required.

The WSFC also addresses fire sprinkler requirements for existing buildings. Section 4603.1 states that existing buildings shall comply

with the requirements established in Table 4603.1. Table 4603.1 requires E Occupancies to comply with the following Sections: 4603.2, 4603.3.2, 4603.3.3, 4603.3.6, 4603.3.7, 4603.5, 4603.6.1, 4604.4. None of these Sections requires fire sprinkler system installation. Therefore, an automatic fire sprinkler system is not required.

Fire Flow Requirements

WSFC Chapter 46 (Construction Requirements for Existing Buildings) does not require on-site fire flow as part of the work associated with an existing structure.

As confirmation that fire flow is not required for alterations of existing buildings, we can look to WSFC Section 507 which addresses fire protection water supplies. Section 507.1 states that an approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which "facilities, buildings or portions of buildings are *hereafter* constructed or moved into or within the jurisdiction." This Section does not include *existing* buildings and does not refer to alterations. WSBC 3402.1 defines "existing structure" as "a structure erected *prior* to the date of adoption of the appropriate code...". Additionally, WSFC 4602.1 defines "existing" as "Buildings, facilities or conditions that are already in existence, constructed or officially authorized *prior* to the adoption of this code." Thus, both codes are in agreement that existing structures refer to *prior* construction whereas buildings *hereafter* constructed refers to structures built after the adoption of these specific codes.

In conclusion, the District is considering the option to proceed with an alteration of the existing multi-purpose building without including an automatic fire sprinkler system and on-site fire flow provisions. We look forward to confirming this approach with you so that we are confident that the project will meet the established budget and we are working together to make permit review and approval a smooth, efficient process.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Green', with a stylized, cursive script.

Michael Green
Superintendent