

TOWN OF WELLESLEY



MASSACHUSETTS

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BOARD OF APPEAL

1963 NOV 26 AM 11:13

GARRETT S. HOAG  
JOHN L. HAYDEN  
DANA T. LOWELL

KATHARINE E. TOY, CLERK  
TELEPHONE  
CE. 5-1664

### Appeal of the Academy of the Assumption

Pursuant to due notice the Board of Appeal held a public hearing in the hearing room on the second floor of the Town Hall at 8:40 p.m. on October 17, 1963, on the appeal of the Academy of the Assumption from the refusal of the Inspector of Buildings to issue a permit for the construction of a building on its property at 50 Oakland Street. The reason for such refusal was that the construction of said building would violate the requirements of Chapter VII, Section 7, Working Stresses, Chapter VII, Section 4 (b) Floor Loads; a further appeal was made to obtain the right to use the proposed revisions to the ACI 318-56 for Prestressed Concrete published in February, 1962, Proceedings V59 No. 2 of the Journal of the American Concrete Institute for the design of the roof gables.

### Statement of Facts

The appellant was represented by Mr. Frank Whelan, President of Frank H. Whelan, Inc., Consulting Engineers. Mr. Whelan presented evidence and stated his opinion as a qualified Structural Engineer, why the Board should give serious consideration to the use and acceptance of the Building Code requirements for reinforcing concrete of the American Concrete Institute published April 30, 1956 (ACI-56 including the Appendix on the ultimate strength design and the proposed revisions to ACI-318-56 prestressed concrete published in the February 1962 proceedings V-59 No. 2 of the Journal of the ACI for the design of roof gables). The Board's evaluation of this evidence was made with specific reference to its application under Chapter VII, Section 7 of the Building Code having to do with working stresses required and for use of prestressed concrete not mentioned in the Building Code.

Mr. Whelan also presented evidence and technical reasons why he felt that the Board should consider the request for the use of a live loading of 50 lbs. per square foot in the classrooms of the proposed school addition as a variance from Chapter VII, Section 4 (b) of the Building Code, which requires 100 lbs. per square foot for classrooms without fixed seats.

### Decision

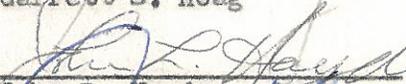
After due consideration of the evidence presented by Mr. Whelan and the facts as known by the Board, it was unanimously agreed to permit the appellant the variances requested with the following qualifications:

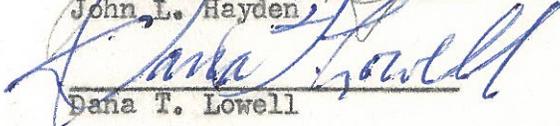
1. That - - the use of ultimate strength design be permitted as requested, and that an approved testing laboratory be engaged to conduct testing and mix control of the concrete and to make tests of the reinforcing actually used to determine yield point. Further, that the reinforcing design stress at ultimate load should not be greater than the yield point of 60,000 lbs. per square inch whichever is smaller.

Concrete design strength should not exceed 5,000 lbs. per square inch for ultimate strength design.

2. That -- the 50 lb. live load be permitted as requested in classrooms only if they do not exceed an area of 900 square feet.
3. That -- the variances given in Items 1. and 2. above shall be contingent upon the execution of two affidavits by a Registered Structural Engineer and submitted to the Building Inspector, one covering design conforming to and in accordance with the variance granted and the other affidavit covering construction in accordance with the design requirement. The latter requirement would require the presence of a representative of the Registered Structural Engineer at the construction site during such critical portions of the work as would be necessary to the submittal of a proper affidavit to the Building Inspector certifying that the construction plans and specifications prepared by the appellant's engineer.

  
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Garrett S. Hoag

  
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John L. Hayden

  
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Dana T. Lowell

Filed with Town Clerk \_\_\_\_\_