Meeting of the Trustees of the Bowling Green State Normal College at Boody House, Toledo, O., March 23rd, 1914, at 4 P. M.

Meeting called to order by the President J. E. Collins.

Members present, J. E. Collins, John Begg, J. D. McDonel, D. T. Davis and D. C. Brown.

H. B. Williams, President of the College was present.

The following report of Paul Murray, Engineer, was read:

Columbus, Ohio, January 31, 1914.

Hon. A. V. Donahay,
Auditor of State,
Columbus, Ohio.

Sir:

In accordance with your instructions, I have made a careful examination of such plans, specifications, estimates, etc. as are now on file in the office of the Auditor of State, for the various buildings of the "Ohio State Normal College" at Bowling Green, Ohio.

Two of these buildings, the Administration Building and the Dormitory, are now in process of construction, while plans have been prepared for a third, the Science and Agriculture Building, and proposals are now being invited for the construction of the same.

On visiting the site at Bowling Green on the 20th inst., it was ascertained that work is now in progress on the Administration Building only. The weather, however, being very unfavorable little was being done and the bricklayers were leaving temporarily, it is presumed, at that time. On the 21st inst. everything being solidly frozen, no work was being done except by teamsters and laborers in hauling and storing brick.

The foundations for this entire building are in, as are also the reinforced concrete basement floors and nearly all exterior and a part of the interior walls of what is called the basement story.

These walls so far as completed have been faced both inside and out and all frames are in place.

Metal columns and beams for the support of the auditorium floor are in place.

Considerable quantities of material are on the ground for this building such as stone, common brick, face brick, lime, cement, sand, broken stone, deformed bars for reinforcing purposes, structural steel, etc.

On the Dormitory no work was in progress on the dates mentioned, but the foundations are in and the basement walls partly up and a little interior facing laid.

Materials on the ground for this building consist of common brick, face brick, frames, deformed bars, etc.

Such materials as were examined at both buildings seemed to be of excellent quality and of the kind and character prescribed in the specifications.

As stated above, the weather conditions were so unfavorable that but little work was in progress and no attempt was made to examine fully, under such circumstances, the character of the work which has been done.

However, a number of points were noted which, while not in themselves vital, nor individually of very great importance, would indicate that sufficiently careful supervision of the work had not been exercised. Any structures of such importance as these, should undoubtedly be of a
monumental character and after the preparation of plans for such work, the actual operation of construction should be directed in such manner that the perfection of the exterior of any part of the structure should assure similar perfection within.

In this connection, it is stated that continuous supervision of the work upon these buildings by the owners or their agents, has not been exercised, although an examination of the architect's contract with the owners, discloses the fact that said Architects are under obligation under such contract to maintain a competent superintendent on the work at all times, as well as to visit the same themselves at least once each month.

It is stated that the superintendent for the Architects, as agents for the owners, on this work, is at the same time supervising the construction of other work at a distance and, therefore, does not direct the work continuously as provided. Such supervision becomes, then, periodical inspection only, instead of that actual personal direction of the construction of every detail of the structures which your Engineer believes to have been the intention of the owners when said contract was drawn. The Board of Trustees were undoubtedly right in providing a clause of this kind in their contract as there can be no question as to the desirability or even the absolute necessity of continuous supervision of such work.

The work and the responsibilities of a supervisor are lightened by full and complete plans and explicit specifications, but it is impossible in any set of plans and specifications to show and describe every individual piece of work and material in such manner that his services would not be required. It is usually only possible to establish standards of quality by tests and by description, after which entire reliance must be placed on the personal judgment of the supervisor, as to the equality of the remainder of the materials with the pieces tested, and as to the manner in which the work is being executed.

While specifications in general and this one in particular provide that everything shown, described or reasonably implied, shall be furnished and done, it is usual that opinions differ as to the character and extent of the implication. In order that the work may proceed without delay, it is necessary, therefore, that someone qualified to decide, and with authority to act, be continually on the ground.

It would seem in view of all the circumstances that, if proper arrangements have not already been made, such steps should be immediately taken as are necessary to carry out fully the terms of the contract in this matter and that such superintendent be required to be continually on the work.

Referring again to the contract above mentioned, it is noted that full and complete plans, drawings, representations, bills of material, specifications of work and estimates of cost in detail and in the aggregate, etc. shall be furnished by the Architects.

That such plans, drawings, specifications, etc. shall contain all information necessary to enable contractors to make reliable bids upon the work and to erect and complete the building therefrom, and that all necessary copies of the same be furnished.

Sec. 2215, S. C. provides that copies of the complete approved plans be filed in the office of the Auditor of State. The specifications for this work, however, provide that detailed drawings will be furnished as the work progresses and provision is made for the adjustment of any difference of opinion as to the propriety of the requirements of such additional drawings.

The specifications further provide that the contractor for various portions of the work
shall furnish drawings for the same subject to the approval of the Architects. An examination of the files in the office of the Auditor of State shows that the drawings approved and filed are largely of a general character, and that detail drawings for many vital features have been omitted.

It would seem that the clauses of the specifications quoted are neither in compliance with Sec. 2315, above noted, and which provides for the submission of complete plans to the Governor, Auditor of State, and Secretary of State for approval and for the filing of such plans as are by them approved; nor with that clause of the Architects' contract which provides for the preparation of all drawings necessary for the erection and completion of the building.

A clause providing for the preparation of additional drawings as the work progresses, generally, is not unusual and it may be conceded that the usual interpretation of such a clause would not be in conflict with the law nor with that clause of the contract quoted; such drawings, for instance, as might be required to assist in working out the various forms desired or such as might be necessary in the laying out and construction of the work.

It is clear, however, that every drawing necessary to show fully the appearance of the completed structure, the method of construction, and the strength of every part, should be submitted for approval, and when approved, filed.

In this connection and illustrating the point in question: The drawings show one sketch indicating the general character of the floors to be used. The specifications state definitely that such type shall be used throughout the building, but that the contractor furnish the detail drawings for the same. No such drawings are on file, and an examination of the building shows that an entirely different style of construction is being used.

It is stated by the owners that no action has ever been taken officially or otherwise, authorizing such a change in the construction of one of the most important parts of the building. There being no plans, it is impossible to determine whether the design for these floors would appear to be of the requisite strength or not.

The purposes of such filing would seem to be two-fold:

First, for use in case it should be necessary at any time to make additions to the structures or to repair or alter the same, or for any other purpose which would necessitate a reference to the manner of construction. This would apply as well to one part as well as another, and in order to be of any use the complete plans would be required. The general drawings would not be absolutely necessary in such a case since most of the information embodied in them might be obtainable by examination and measurement from the structure itself.

Second, to enable those in authority, if necessary, in any given case to determine the value of the work before payment therefor. Here again they are useless unless complete.

A further provision of the contract of the Board of Trustees with the Architects is that said Architects furnish such bond as the Board of Trustees may require, guaranteeing the strength of the structures to be sufficient for the purposes planned. No such bond has been required or given, but it would seem that, inasmuch as this was apparently deemed a proper provision at the time the contract was drawn and as the Architects were willing to sign such an agreement, such bond should be given.

Since writing the above, a second visit to the site was made on February 5th, and progress of work on the walls of the Administration Building and Dormitory noted. The weather again
being cold, no work was being done except the hauling and storing of material.

In the interim, proposals have been received and opened by the Board of Trustees for the construction of the Science and Agriculture Building, and contracts were awarded within the estimates for heating and plumbing.

For the general contract no proposal was received within the estimate. It is now proposed, therefore, to alter the plans and estimates and re-advertise for this portion of the work.

Respectfully submitted,

______________________________
[Signature]
Engineer.

CERTIFICATE.

Columbus, Ohio.

I, A. V. Donahay, Auditor of the State of Ohio, do hereby certify the foregoing to be a true copy of the original report of Mr. Paul R. Murray, State Examining Engineer, upon the examination of the plans, specifications and records pertaining to, and the Buildings of the Ohio State Normal College, at Bowling Green, now in course of construction, on file in this office

______________________________
A. V. Donahay,
Auditor of State.

Moved by McDonel and seconded by Brown that the report be accepted and ordered to be made part of minutes. Roll call, Davis yes,- McDonel yes,- Begg yes,- Collins yes,- Brown yes,- Nays, none. Carried.

Moved by Begg and seconded by McDonel that the Architects Howard & Merriam be required to comply with their contracts and that they give bonds forthwith, without delay, in the following sums,- Administration Building, Fifteen thousand ($15000.00) Dollars; Dormitory, Five thousand ($5000.00) Dollars; Science Building, Five thousand ($5000.00) Dollars; and that the same be given to comply with the law subject to the approval of the Attorney General. Roll call,- Begg yes,- Davis yes,- McDonel yes,- Collins yes,- Brown yes.- Nays none,- Carried.

Moved by McDonel and seconded by Collins that the Architects Howard & Merriam be notified to comply at once with Section twenty three hundred and fifteen (#2315) G. C., and that work on Science Building be ordered stopped until the above be complied with. Roll call,- Begg no,- McDonel yes,- Collins yes,- Brown yes,- Davis did not wish to vote. Yes three, nays one and one not voting.- Carried.

Moved by McDonel and seconded by Begg that Howard & Merriam, the Architects, and President H. B. Williams make a report at the next meeting as to the plumbing fixtures as to what had been done. Roll call,- Begg yes,- Davis yes,- Collins yes,- McDonel yes,- Brown yes,- Nays, none. Carried.

Moved by Begg and seconded by Davis that the President J. E. Collins, appoint a committee of two (2) in connection with President H. B. Williams to examine the Wooster house purchased by the Trustees, to see what is needed in the nature of repairs, and report at the next meeting. Roll call,- Begg yes,- Davis yes,- McDonel yes,- Collins yes,- Brown yes.- Nays, none. Carried.
President Collins appointed as such committee Begg and McDonel.

The following bill was presented:

D. C. Brown, expense Trustee $42.83

Moved by Begg and seconded by McDonel that the bill be allowed. Roll call, - Begg yes, - Collins yes, - Davis yes, - McDonel yes, - Brown yes. Nays, none. Carried.

The revised estimate and specifications for the Science Building were signed by all members of the Board and H. B. Williams, and were ordered to be sent to Howard & Merriam the Architects, to get the proper State Officers signatures.

There being no further business, moved by Begg and seconded by Collins that the Board adjourn to meet subject to call of President Collins. All voted yes.

Board adjourned.

J. E. Collins  Pres.

Sec.