MINUTES OF A CALLED MEETING OF THE BOARD OF DIRECTORS OF TARRANT COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NUMBER ONE HELD IN THE DISTRICT OFFICE IN FORT WORTH, TEXAS, ON THIS 13TH DAY OF JUNE, A. D. 1932, AT 4:30 P.M.

The call of the roll disclosed the presence, or absence, of Directors as follows:

> PRESENT ABSENT W. R. Bennett E. E. Bewley Out W. K. Stripling Joe B. Hogsett ) City C. A. Hickman

There were also present: Messrs. John A. Norris ) Comprising the Chas. S. Clark, ( State Board of ) Water Engineers. A. H. Dunlap A. J. McKenzie, representing the Contractors. W. J. Bailey Clarence Farmer

At this meeting Director Bennett presided in his capacity as President; W. K. Stripling acted in his capacity as Secretary.

At this time and place the following proceedings were had and done, viz:

1.

President Bennett explained that the meeting had been called at the request of the State Board of Water Engineers, in order to permit them to present to the Directors of the District a report based on an inspection made by them of the Eagle Mountain Dam.

2.

Chairman Norris stated their inspection had related principally to the stone blanket and rip-rap on the Eagle Mountain main dam and levee section. Further, he explained that the Board, before making inspection had been furnished a copy of the detailed specifications, and also a copy of the substance of certain charges preferred to the Directors of the District on June 9, 1932, as embraced in the Minutes of the District.

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Mr. Norris stated that his Board had reached Fort Worth in the morning, had conferred with Mr. Farmer, and had proceeded with Mr. Farmer, Mr. Damon Davis and Mr. M. C. Nichols, an engineer for the District, to an actual inspection of the work in question. He stated that they had spent the greater part of the day in this inspection and that his Board, after a conference, were ready to report their findings to the District. He explained that he should be understood to be speaking for the Board as a whole, unless otherwise indicated. The conclusions of the Board, in substance, were as follows:

- (a) There has been some deviation from the specifications for stone blanket and rip rap, but such departures from specification as have been made have resulted to give better results than would have been given by strict adherence to the specifications.
- (b) One small part of the blanket on the main dam (easily remedied, and no doubt to be remedied before final acceptance), seems to have been deposited on very wet earth, so that the small stones for the blanket have become mixed in the clay.
- (c) There were several stumps lying upon the rip rap, but no stumps were seen imbedded in the rip rap: All stumps should be permanently removed from the work as soon as they appear.
- (d) On the whole they found the work to be of excellent material and well placed to accomplish the results desired.
- (e) They inspected the pit from which the stone for the blanket and rip rap was being taken. They found there much excellent material and some of poor quality. They recommended that material be inspected

first at the pit and also at the location for placing the material, in order to avoid any unsatisfactory material proceeding to the location of the work.

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- (f) Mr. Dunlap suggested that the District place on the top of the levee between the road way and the guard fence, either gravel or grass, in order to control washing.
- (g) They were of the opinion that the lime dust and fines, which remain in the blanket after crushing, will gravitate through the coarser stones, solidify under the action of water and give an added factor of safety to the dam.
- (h) They found the stone blanket on the main dam to be from five to six inches solidified. Under the specifications the requirement was for six inches loose. So far as the blanket on the levee section could be examined without tearing up rip rap, they found this blanket to be of proper material and thickness.
- (i) Whatever disintegration may take place in the softer parts of the gryphea conglomerate, forming spalls placed between the stone of the rip rap, will be relatively small, and due to the high shell content of this material it will cement and add to the stability of the rip rap.
- (j) They found some unfit material lying on the surface of the rip rap on the main dam, but this material in no wise constituted any part of the rip rap.
- (k) The roughness of the surface of the rip rap is highly desirable and will operate to break up the wave action.

- (1) While much of the stone in the rip rap had not been placed on edge, this was due to the nature of the stone actually used. It was explained that lime stone which is seamed or stratified should be placed on edge, while stone such as that in use on this dam could be placed flat or on edge with equal safety.
- (m) The District must anticipate some maintenance after completion of the dam, in remedying weak spots which would develop in the rip rap. It was stated that it was never otherwise on a work of this magnitude; but (other than the one small area referred to as having been deposited on and mixed into excessively wet earth) they were not able to point out any particular part of the rip rap or blanket which at this time could be pronounced defective.
- (n) They recommended that the District urge that suitable soil, where required on the down stream slopes of the earth embankments, should be provided; that the growth of bermuda grass be stimulated in every way so that the District in the future would reduce washing to the lowest practical minimum.
- (o) It was repeated that the material in the blanket is in substantial compliance with the contract, and that such variation as had occurred was for the betterment of results, due to the fact that lime dust and fines would undoubtedly cement and consolidate.
- (p) In conclusion, they stated that they found nothing whatever likely to create a menace. They regarded the work as being in excellent condition. While there were many stones in the rip rap much larger than those specified, this was all for the better. It was explained that the limit of the size was for the protection of the contractor, and that to

have specified all stones larger than one-man size would have resulted in a higher bid for the work. They were of the opinion that the dam when completed will offer every known factor of safety, approved by the best hydraulic practice, and that the dam will prove to be a very enduring structure. They especially noted the fact that the amount of sheet steel piling used and the depth to which this piling had been driven, conformed to the most approved standards of engineering practice.

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3.

Thereupon Mr. Bailey and Mr. Farmer asked the State Board of Engineers a number of questions, which served to bring out the restatement and confirmation of certain matters already covered in their report. Both Mr. Bailey and Mr. Farmer stated that they were delighted to hear the report as given, and that they had no exception whatever to make to the report.

4.

Upon consideration of the foregoing proceedings, Director Stripling moved the adoption of a proposed order which was as follows:

"Whereas, the foregoing report of the State Board of
"Water Engineers made reference to the fact that one
"small area of the blanket on the main dam had been
"placed upon very wet earth, in such manner that the
"blanket had become mixed into the clay: And;
"Whereas, the foregoing report has stated that the Dis"trict must anticipate some maintenance after completion

"of the dam and remedying weak spots, which could not be
"discovered until after the lapse of time, but which would
"develop in the rip rap, and that it never was otherwise
"on the work of this magnitude:

"this District, in order to reduce to the practicable
"minimum the future expense to be required to maintain and,
"or, replace, stone blanket and rip rap, forthwith make a
"most detailed and careful inspection of the stone blanket
"and rip rap now in place, and to be placed, on the Eagle
"Mountain main dam, and levee section; and that any discov"erable deficiency in either material or workmanship (if
"any such observable deficiencies exist) be remedied; that
"any stone in the rip rap and blanket not conforming to the
"specifications be condemned, removed and replaced with

"materials, and in a manner, conforming to the specifications."

The motion to adopt this proposed order was seconded by Director Hickman.

Upon a vote being taken the motion was carried and it was so ordered.

5.

Mr. M. C. Nihcols, of the Engineers, stated that they would continue to inspect the work carefully; that they had already taken steps which would result in conforming to the suggestion made by the State Board of Water Engineers; and that they would comply with the request of the Directors.

No further business was presented and the meeting was

adjourned.

As Secretary Dupling.

APPROVED: