

No. 21 May Term, 1915

Bridge across Clearfield
Creek beyond Clfd County
Versus
Home & Woodland
Lawrence Disp.

REPORT OF VIEWERS ON LEONARD BRIDGE.

In re-new Bridge over) No. 6¹₂ SS 1917.
Clearfield Creek at)
Leonard Station)

To the Honorable Singleton Bell, P. J. of Clearfield County;

We the undersigned viewers appointed to make final view
and inspection of the new concrete bridge constructed under Contract
with Clearfield County by its Commissioners and the Firm known as
Whittaker and Diehl of Harrisburg, Pa.

After making a personal inspection along with Mr. G. A. Fling
Supervising Engineer and careful examination of the written contract
and specification and all the various detailed reports and statements
with relation to the construction of said bridge as follows;

We find the bridge to be built in the place designated
in the contract and specifications.

The workmanship is in our opinion in full accordance with
the plans and specifications.

The extra expense incurred during construction we find,
to be fully warranted by the natural conditions of the site, and
we consider the amount of same as being unusually low for work of
this character.

Payments made from time to time under the contract
have been made as directed by the Engineer under the wording of the
contract.

And we respectfully recommend that, although the
old bridge is still in place as a loan to the County, the full
amount due the Contractor under the contract be paid to him and the
old bridge shall be removed from the premises, by the Contractor,

after same has fulfilled its purpose of conveying the traffic across the stream with the understanding that the County assumes the responsibility for the safety of the traveling public until final opening of the new bridge to the public.

J. G. Hinterleitner
John T. Minns
Robert T. Callahan

Viewers.

Signed and sworn to before me 18th this
Eighteenth day of June, 1918.

John H. Moore
Prothonotary.

IN THE COURT OF QUARTER SESSIONS OF CLEARFIELD COUNTY, PENN'A.

In the Matter of a Bridge) NO. 6 $\frac{1}{2}$ MAY SESSIONS, 1917.
over Clearfield Creek near)
Leonard Station in Lawrence)
Township.)

TO THE HONORABLE SINGLETON BELL, PRESIDENT JUDGE:

The petition of the County Commissioners of Clearfield County respectfully represents:

That by virtue of an agreement bearing date of the 10th day of April, 1917, made with John F. Whittaker and D. L. Diehl, trading and known as Whittaker & Diehl, of Harrisburg, Pennsylvania, petitioners contracted for the building of a four arch span reenforced concrete bridge across Clearfield Creek near Leonard Station, said contract, copy of which is hereto attached, was filed and approved by the Court on the 30th day of April, 1917.

Petitioners further represent that the contractors proceeded in due course with the carrying out of the terms of their agreement under the supervision of G. A. Flink, Consulting Engineer, of Harrisburg, Pennsylvania, and are now advised that the bridge is completed. They, therefore, pray the Court to appoint viewers to inspect said bridge according to the several Acts of Assembly in that behalf made and provided, and make report thereof to the Court.

Attest:

L. O. Morris

Clark,

Luc E. Dale
J. H. Spence
Planey

NOW, this 15 day of ~~June~~, 1918,
petition presented and H. J. Hinterleitner, John Minns
and Holart Callahan
are appointed inspectors of said bridge over Clearfield
Creek near Leonard Station, said inspectors to have the
power to call upon the engineer in charge of said bridge
for the county, and upon any and all persons in a position
to throw light on the construction thereof, and make re-
port to the Court on or before the day of

By the Clerk
Singleton Bell
J.

CLFARFIELD COUNTY

Commissioners' Office

1 9 1 7

CONTRACT AND SPECIFICATIONS

For Building Of Leonard Bridge,
Near Leonard Station
On Clearfield-Philipsburg Road.

*
* * * * *
*

Commissioners: Jesse E. Dale,
H. H. Spencer,
Austin Haney,

County Clerk: L. C. Norris,

Solicitors: Miller & Hartswick.

G.A.Flink, Consulting Engineer,
Harrisburg, Pennsylvania.

GENERAL INFORMATION

Sealed proposals, accompanied by certified check in the amount of \$3000.00 will be received by the Commissioners of Clearfield County until 11 o'clock A.M. Mar. 28, 1917 at their office in the Court House at Clearfield, Pa., for the construction of one 400'-0" Concrete Arch Bridge over Clearfield Creek near Leonard Station, as per drawings and specifications on file in the Commissioners Office, where they can be seen by those interested.

Parties desiring copies of drawings can secure same by writing to G. A. Flink, Consulting Engineer, Commonwealth Trust Building, Harrisburg, Pennsylvania. A charge of \$3.50 will be made.

Proposals must be made out upon blanks furnished by the County. All blank spaces must be filled in and no change in phraseology shall be made.

In comparing bids for the purpose of awarding the contract, proposals which otherwise may be close but differ in time of completion, will be considered on a basis of Twenty Dollars (20.00) per day in favor of the shorter time.

The Commissioners reserve the right to reject any and all bids.

The words: "PROPOSAL, LEONARD BRIDGE", shall be plainly marked on the outside of all proposals

By order of the Commissioners of Clearfield County.

P R O P O S A L

To The Board of County Commissioners,

Gentlemen;

I hereby certify that I have personally examined the location of the work hereinafter proposed with reference to the full extent and nature of same and that I have carefully read and examined the drawings and specifications as well as the form of contract for same.

And having made such examinations, I hereby propose to furnish all materials and appliances and to perform all work required for the complete construction of the Leonard Bridge over Clearfield Creek on Clearfield-Philipsburg Road in full accordance with the plans and specifications on file for the sum of.....

~~Thirty nine thousand four hundred and~~
~~Twenty dollars.....(\$39,420⁰⁰)~~, payable up-
on the Engineers monthly estimates within 80% of work done.

I further propose that in case the dimensions shown on the drawings are deviated from the resulting additions and deductions shall be valued as follows:

Excavation or embankment, all kinds \$.....	1.00	pr. scu. yd.
Concrete, 1-3-5 mixture \$.....	1.00 \$4.60	pr. cu. yd.
Concrete, 1-3-4 mixture \$.....	1.00 \$15.00	pr. cu. yd.
Reinforcing Bars, in place \$.....	1.00 \$8.00	pr. 100 lbs.
Bearing Piles, driven and trimmed \$.....	1.00 \$60.00	pr. lin. ft.
Sheet Piles, driven trimmed and braced \$.....	1.00 \$0.00	pr. sq. ft.

I further propose to have the above work finished and ready for acceptance not later than
days from the signing of the contract. I accompany this proposal with certified check in the amount of \$3000.00 conditioned upon my acceptance of the contract if awarded to me.

DateMar. 28th 1917

Whittaker & Diehl
Bidder
Address: Harrisburg, Pa.

S P E C I F I C A T I O N S

GENERAL

Scope of work. These specifications contemplate the entire construction and erection of a bridge over Clearfield Creek near Leonard Station, Clearfield County, Pa., as specified below in accordance with the contract, drawings, specifications and proposal, and such further detail plans as may be furnished from time to time; and in case the condition of the river bottom so requires, any and all additional work, such as excavation down to a depth satisfactory to the Engineer, or artificial footings such as may be designed by the Engineer, all such additional work to be paid for extra as per attached proposal. In short, the Contractor shall build the said bridge with all its appertaining parts in a workmanlike manner, ready for use, furnishing all materials, cofferdams, falsework, scaffolding, implements and labor required, and shall leave the finished structure in a neat and finished condition.

Inspection. All work under these specifications shall be inspected by the Engineers Inspector who shall see that the various requirements are complied with, but his presence shall in no way release the Contractor from any responsibility or obligation. Final inspection and acceptance shall be made by the County Commissioners.

Location. The Contractor shall accurately locate the structure both as to alignment and levels, from the contract plans with bench marks placed by the Engineer.

Present Structure. The present structure shall become the property of the Contractor, after he has had the use of same while building the new bridge, and shall be removed by him from the premises prior to final acceptance of the work.

Traffic. The Contractor shall provide for uninterrupted and safe traffic, either on the present bridge, or by means of a temporary bridge of live load capacity equal to the present structure, which he shall remove from the premises when the new structure is opened to traffic.

Progress. If in the opinion of the Engineer, the Contractor shall be prosecuting the work with an insufficient force of workmen, or with an insufficient supply of materials for the prompt completion of said work or shall discontinue the performance of said work before completion, or shall be improperly performing the work, or shall neglect or refuse to supply acceptable material or work, or shall refuse to remove such materials or work, or to perform anew such labor as shall be rejected by the Engineer as defective or unsuitable, then in any such case it shall be lawful for the said Engineer and he is hereby authorized and empowered, to employ such other contractor or use such method as in his opinion shall be required for proper completion of said work, at the cost and expense of the Contractor. In any such case, all payments to the Contractor under this contract shall cease and all moneys otherwise due or to become due shall be retained by the County, and so much thereof as required shall be applied to payment of the costs and expenditures incurred in making good the default of the Contractor, and balance, if any, shall be paid to him in accordance with the terms heretofore.

Disputes. In case any question or dispute arise between the parties hereto in relation to the plans, drawings, descriptions, specifications and general precision, or to the terms of the contract respecting the quality, quantity or value of the work or labor done, or the materials furnished, or to be done or furnished, or any of the terms, stipulations, covenants and agreements contained herein, or respecting any claim for extra work, or respecting any matter pertaining to this work, or any part of same, or any dispute arising by reason thereof, said questions shall be referred to the Engineer, whose decision thereon when approved by the County Commissioners and County Solicitor, shall be final, binding and conclusive upon all parties without exception or appeal, and all right or rights of any action at law, or in equity under and by virtue of this contract, and all matters connected with it and relative to the same, are hereby expressly waived by the Contractor.

Extra Work. No extra work other than that particularly designated in the proposal or specifications nor any deviation from the plans shall be done or permitted by the Contractor, without the written consent thereto of the Engineer, first had and obtained, and any extras or alterations otherwise effected shall be wholly at the risk and expense of the Contractor.

Damage to Public. And it is further understood and agreed that during the progress of said work the Contractor shall properly safeguard against any injury or damage to the public, and shall alone be responsible for any such damage or injury resulting from this work to any person or persons or anything connected therewith.

Lawsuits. The Contractor further agrees to save harmless and protect the County from all suits or actions at law of any and all kinds whatever, in connection with this work, and shall if required, show evidence of settlement of any such action before final payment is made by the County.

Bond and Test. The Contractor shall furnish a corporate surety bond in the full amount of the contract price which will be held by the County for one year as a guarantee against any defects in the structure within the time specified. If the Commissioners so decide, the Contractor shall load the bridge as specified by the Engineer, to demonstrate its carrying capacity. In case any defects due to faulty materials or workmanship develop in the structure within one year from completion, the Contractor shall repair same as directed by the Engineer, or build a new structure as per contract.

WORKMANSHIP

Excavation. The Contractor shall do all excavating necessary for the building of the abutments and piers and shall furnish all timber, piling, sheet piling, bracing shoring etc., necessary to locate maintain in position during construction, and complete the new work.

No concrete shall be placed in the excavations unless they have been approved by the Engineer. The pits shall be drained of all water

prior to depositing concrete, and no timber or other bracing used in building the dams or forms will be permitted to project into the finished work.

Fills All openings or pits about the abutments and piers shall be filled with material excavated or similar, such fills shall be well compacted and left approximately to the natural form of surface now existing, all to the satisfaction of the Engineer.

Approaches No approaches or fills leading onto the bridge are included in this contract.

Roadway The roadway on the bridge shall be finished as shown and specified on the drawing.

Name Plates Two suitable bronze name plates 34" by 36", bearing the names of the County Officials, and date of erection shall be placed as indicated on the drawings. They shall be of sand blast finish except for lettering and border, which shall be hand brushed, and shall be free from flaws and imperfections.

Cleaning After completion of the structure, the Contractor shall remove all rubbish, etc., leaving the stream and adjacent property clean and free from all obstructions.

Concrete Concrete for footings, abutment walls and pier shafts shall be of 1-3-5 mixture with 3 $\frac{1}{2}$ " stone, and concrete in other portions of the work shall be 1-2-4 mixture with $\frac{3}{4}$ " stone; it shall be mixed by machinery as approved by the Engineer; where hand mixing is permitted the sand and cement shall be thoroughly mixed dry until no streaks occur, then the wetted stone shall be added and the whole mass turned over with sufficient water until every fragment of stone is thoroughly coated with the cement mortar. All concrete shall be deposited immediately in the work and thoroughly rammed and spaded in place.

Mixing. For massive concrete, the consistency shall be such as to form a sticky mass which flows slowly.

For reinforced concrete the consistency shall be "wet" or such that it will readily flow around the reinforcing bars and thoroughly fill all forms without undue tamping. All concrete shall be used immediately after mixing and before the initial set shall have taken place and no retempered concrete shall be used.

Placing. In placing concrete the reinforcing bars, must not be disturbed.

The concrete shall be tamped to remove all air pockets and to insure thorough bonding of steel and concrete. All concrete shall be thoroughly spaded to insure good surfaces upon the removal of the forms.

Concrete shall not be dropped from a greater height than six feet. When it is required to deposit concrete from a greater height than six feet, it shall be deposited by means of a chute or other device satisfactory to the Engineer.

The mixing and placing of the concrete shall be as far as practicable, a continuous operation. Where it is necessary to bond new concrete to concrete partially or wholly set, the surface of the old concrete shall be roughened, thoroughly rinsed off, and a thin coat of rich mortar, one to one, shall be applied just before the new concrete is placed.

In joining new work to old, the contractor shall take every precaution to insure a satisfactory bond as the Engineer may direct.

All concrete shall be deposited in horizontal layers and all operations shall be regularly terminated by suitable bulkheads and marking strips located as directed by the Engineer.

Concrete must be kept wet at least a week after depositing, and in dry hot weather must in addition be kept covered from exposure to the sun during this time.

Freezing. Concrete shall not be laid in freezing weather except by special arrangement with, and under the supervision of the Engineer.

In case it becomes necessary to lay concrete in freezing weather the following precautions shall be observed.

- (1) The aggregate shall be heated and entirely free from frost.
- (2) Ten per cent excess of cement shall be used.
- (3) The mixing water shall be heated.
- (4) The amount of water shall not be more than is actually required for the placing of concrete.
- (5) All concrete shall be protected, preferably by covering with a tarpaulin, straw or similar material, until it has thoroughly set.

When concrete is laid in freezing weather great care must be taken to ascertain that the concrete has attained sufficient strength before the removal of centers and no set rule for the removal of forms under these conditions can be followed.

Wherever possible, it is desirable that the concrete should be heated after placing by means of salamanders, steam jets or other arrangements for supplying artificial heat.

Placing Steel. All steel shall be placed in strict accordance with the position shown on the plans and thoroughly tied to prevent misplacement during the depositing of concrete. No steel shall be nearer than 2" to the finished surfaces.

Sand. Only clean, coarse, silicious sand of uniform color, to be approved by the Engineer, shall be used. It shall contain not more than 5% of its weight of loam or other foreign matter and the grains shall be sharp and varying sizes.

A crushed rock or washed river sand will be preferred to a pit or bank sand. It shall be subject to rigid inspection and test at all times.

Stone. Stone for concrete shall be a crushed screened trap, granite or other hard stone not subject to disintegration due to atmospheric or other influences to which the concrete may be subjected. All stone must develop a crushing strength of at least 10,000 pounds per square inch and must break with a cubical fracture. All stone shall be wetted immediately before mixing with mortar.

When $3\frac{1}{2}$ " stone is specified, it shall mean all broken stone passing a two and one-half ($3\frac{1}{2}$) inch ring and none of which shall pass through a screen with ($\frac{1}{2}$) inch round holes.

When $\frac{3}{4}$ " stone is specified, it shall mean all broken stone passing a three-quarter ($\frac{3}{4}$) inch ring, and be retained on a screen with $\frac{1}{4}$ " inch round holes.

Gravel. Gravel of corresponding sizes composed of clean pebbles of hard and durable stone, free from clay and other impurities, may be substituted for broken stone. When the gravel contains sand in any appreciable quantity, it shall be screened in order that the proper proportions may be maintained in the concrete mixture. Gravel obtained from a pit or bank must be screened or washed if in the opinion of the Engineer such precautions are necessary.

Embedded Stone. Embedded stone may be used in foundations-concrete or as bonding stone. All such stone shall be clean quarried rock or boulders of derrick or one man size.

Water. Water used in mixing concrete shall be clean and reasonably clear, free from oil, vegetable matter, sulphuric acid, strong alkalies or other foreign matter which might disintegrate or discolor the concrete.

Cement. The cement used in the work shall be of any well known, tried and acceptable brand of Portland Cement approved by the Engineer, which has successfully passed the Standard test of the American Society for Testing Materials as adopted and amended to date. The cement shall be shipped in bags and each shipment shall be accompanied by the laboratory report of the Manufacturer furnishing it.

Reinforcing Steel. The bars shall be rolled from new billets of medium open hearth steel subject to Manufacturers Standard Specifications. It shall be purchased subject to the usual tests as above specified for elastic limit, elongation, and cold bending qualities. The surface shall be free from oil or other organic matter. While a slight rust film is not objectionable, no scaled or pitted bars shall be used. The bars may be plain round or deformed of equivalent section.

Lumber. All lumber shall be of sound merchantile quality, matched, ship lapped or tongued and grooved as may be required by the nature of the work on which it is used.

Piles. Bearing piles shall be of sound white oak, yellow pine or other timber or concrete acceptable to the Engineer. They shall not be less than 7½ inches at the small end and 11 inches at the cut off, and must be thoroughly straight and trimmed of knots, etc. They must be driven vertically until the sinking under one blow of the hammer as directed by the Engineer shall be minimized to suit the Engineer. Piles damaged during driving or improperly driven, will be paid for in proportion to their lessened efficiency, of which the Engineer shall be the judge. If piles are too short, they must be spliced as directed by the Engineer.

In case the Engineer so decides sheet piles shall be driven along the neat lines of the footing and the thus formed pits drained prior to placing of any concrete. No extra compensation shall be allowed for such piles unless they are left in place after completion of structure. In such case they shall be neatly trimmed 12 inches below low water and well braced with wales and stringers.

CONTRACT

or

Articles of Agreement

THIS AGREEMENT, made this ^{10th day of April A.D. 1917, between the County of Clearfield, by its Commissioners, Jesse E. Dale, H. H. Spencer and Austin Haney, known as the party of the first part, and John C. Whitaker & O. K. Dichtel trading and known as Whitaker and Dichtel of Harrisburg, Pa. (their) heirs, executors, administrators, successors or assigns, known as the party of the second part.}

WITNESSETH: That for and in consideration of the payments and agreements mentioned in the proposal hereto attached, to be made and performed by the party of the first part, and according to the terms expressed in the bonds referring to these presents, the party of the second part agrees with the said party of the first part at his own proper cost and expense to do the proposed work and to furnish all materials and all labor necessary for said work in accordance with the plans and specifications appertaining to said work and in full compliance with this agreement and the orders of the Engineer under it.

It is further agreed that the plans and specifications appertaining hereto, each of which have been signed by the respective parties to this agreement as well as the bonds and proposals hereto attached are all essential documents of this agreement and form part hereof.

The party of the second part further covenants and agrees that all and every of the said materials shall be furnished and delivered and all and every of the said labor shall be done and performed in every respect to the satisfaction and approval of the Engineer not later than

....210.... days from the signing of this contract.

It is expressly understood and agreed that time is of the essence of this contract and that in case of the failure on the part of the party of the second part for any reason, except with the written consent of the Engineer, to complete the furnishing and delivery of the said materials and the doing and performing of said work on or before the expiration of

the said.....210..... days from the date of this contract, the party of the first part shall have the right to deduct from any moneys due, or which may become due, the party of the second part, or if no moneys shall be due, the party of the first part shall have the right to recover, the sum of Twenty Dollars (\$20.00) per day for each and every day elapsing between the above stipulated date for the completion, of the work, and the actual date of completion in accordance with the terms hereof; said deduction to be made, or said sum to be recovered, not as a penalty but as liquidated damages difficult of calculation and now liquidated in advance.

It is understood and agreed that if the second party should fail to make settlement with laborers or material-men when any payments or wages are due them, the first party shall have the right to make payment to them of the moneys so due, and any amounts so paid shall be deemed and considered as payment to the second party on this contract and the first party shall not be again liable therefor.

Wherever throughout this contract the word Engineer is used, it is mutually understood that G. A. Flink, of Harrisburg, Pa., is thereby intended.

This contract shall not go into effect until it and the bond accompanying it shall be approved by the proper Court of Clearfield County, whereupon it shall at once become operative.

IN WITNESS WHEREOF: The parties hereto ^{have} set their hands and seals on the date herein mentioned.

(SEAL)

Jesse E. Dale.....
H. H. Spencer.....

Attest. L. C. Morris..... A. Haney.....
Clerk County Commissioners

Whittaker & Clark
Signature.....
By John Compton
Address: Harrisburg, Pa.

Witness.....
Walter B. Rankin.

NO. 6th MAY SESSIONS, 1917.

PETITION
FOR

APPOINTMENT OF INSPECTORS

FOR
FINAL VIEW
OF LEONARD BRIDGE.

FILED

JUN 14 1917

JOHN F. MCURE,
Clerk

COMMISSIONERS
CLEARFIELD COUNTY

CLEARFIELD.

PENNA.

W.M. G. JOHNSTON & CO., PITTSBURGH, PA.