

A DOCUMENTARY HISTORY OF EARLY WATERWORKS AND WATER SUPPLY TECHNOLOGY IN THE CITY OF ALBANY 1793-1850

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JUNE 1971

ACKNOWLEDGMENTS

The following persons and organizations made an invaluable contribution to the preparation of this work:

- Staff of the Manuscripts Division of the New York State Library, Albany, New York, for their untiring help in gathering documents relating to the Albany Waterworks.
- Department of Water Supply, City Engineer's Office and Office of the Mayor, City of Albany, New York , for granting me access to important maps and records.
- Professor Charles E. Peterson of Columbia University and Jack Waite, N.Y. State Historic Trust for general references to early waterworks.

Barbara Beaver, Historic Transcription Specialist

Paul R. Huey, Archeologist, N.Y. State Historic Trust for his valuable support, guidance and suggestions.

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INTRODUCTION

SIGNIFICANCE OF EARLY AMERICAN WATER SYSTEMS

An often overlooked but vitally important aspect in the study of American technology is the early techniques employed for supplying water to our emerging cities before the advent of cast iron pipe.

These basic water systems included a rudimentary resevoir constructed on a stream lying outside the City, dammed at one end in order to back up a large quantity of water. A pipe (commonly referred to as an aqueduct or conduit) made of wooden logs with a hole bored through the center led from the dam underground to another resevoir or water storage area in the city. Additional conduits ran from this second resevoir branching out beneath the city streets. The water fed by gravity from the first resevoir to the second and finally through the distribution conduits to the public cisterns, pumps, fire stops, and later private dwellings of the city.

Apparently wooden water pipes were used in Europe long before they became common in the New World. A detailed account of making water pipes from alder poles appears in Richard Neve's CITY AND COUNTRY PURCHASER AND DICTIONARY published in London in 1726. By the mid 18th century, the Moravian Germans had utilized wooden pipe for their water systems in several communities, including Winston-Salem, North Carolina, and Bethlehem, Pennsylvania. By the close of the 18th century

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many major cities, including Albany and New York, had begun building waterworks using wooden conduit. Although the use of lead for pipes was common in 18th century Europe and lead pipes were even used in Versailles, the danger from lead poisoning and the greater expense of lead as opposed to timber restricted its use in the early water systems of the eastern United States.

One of the basic problems arising in the use of bored out logs for conveying water was providing a durable and water tight joint between two sections of pipe. One of the most common joints consisted of making one end of the pipe in the shape of a cone forming a convex or male end. The end of the pipe to be joined to it was in the shape of an inverted cone, creating a matching concave or female end. Yarn coated with a sealing compound was sometimes wrapped around the male end to effect a better seal and the two pipes were driven together and secured at times with iron bands. The Moravians in Winston-Salem used a thick iron ring with each edge tapered like a wedge to connect their wooden pipes. The end of each pipe was driven into the ring until a solid joint was formed. Joints were greatly improved by the use of tapered iron or lead couplings which were jammed tight into the bore of each log, squeezing the wood tight against an iron retaining ring.

There were two major reasons for the rapid development of urban water systems by the end of the 18th century. First, although an absolutely positive connection had not yet been established between

polluted water and pestilence, the fever that swept Philadelphia in the early 1790's prompted city fathers across the east to improve the quality of water supplied to their constituents. The desire to have a readily available supply of water for fire protection also promoted the construction of waterworks.

Waterworks were among the first large scale public works projects to be undertaken in the United States. Mechanics of different degrees of education and ability bid for contracts to build dams and lay conduit. These men coupled knowledge derived from building fountains, mill ponds, and rural water courses with common sense in order to supply cities with water.

The procedures and problems that arose in waterworks construction closely parallel the difficulties encountered in any modern public works project. After a short time under contract, many waterworks builders found that they had underestimated the money, time, and skill necessary to supply a city with water. Subcontractors were accused of faulty work and ran out of funds to pay their labor. As a result increased time and funds had to be constantly allowed before water was finally flowing through the conduits.

This essential approach to designing, constructing, and building waterworks is anthetical to the empiricism which dominated the 18th century. It indicates the beginning of the pragmatism which became the conceptual framework of the 19th century industrial revolution.

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This collection of source materials deal specifically with the history of the early waterworks at Albany, New York. The need for research into this area became apparent during the Fort Orange Archeological Project conducted by the New York State Historic Trust during the winter of 1970-1971. In order to find traces of what was one of the earliest Dutch settlements in North America, archeologists were constantly confronted by intrusions in the form of wood, lead, and iron pipe. (See map.) The accurate dating of these pipes and pipe trenches is essential in the unraveling of the stratigraphic problems posed by this type of urban archeology. Besides aiding in the identification of pipes, the sources contained in this paper can be helpful in the identification of other subterranean features. For example, a densely packed lense of clay was found at Fort Orange beneath many of the early wooden and iron pipes. In the documents we find references to ramming clay around the conduits so that in case of a leak water will immediately surface instead of running underground where it • would remain undiscovered and inflict irreparable damage to the conduits.

The text of each passage has been transcribed as closely as possible in its original form, including spelling and pronunciation. A key explaining the transcription format,

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a key to the sources of the passages, and an index of persons included in the text has also been provided.

It is hoped that this documentary history of the Albany waterworks will be of use to both historians and archeologists in further understanding this important but forgotten field of technology. KEY to Map of Pipes encountered at the Fort Orange Archeological Site Madison Ave. & Broadway Albany, New York Winter 1970-1971



iron pipe



ceramic pipe and conduit



wooden pipe with iron connector



lead pipe



wooden pipe with exterior iron band around joint



pipe trench boundaries

SCALE 3 inches equals 10 feet



Key to Format

Historical material is in chronological order.

Single spaced information to the right of the date is a description of the nature of the material. Original endorsements are used wherever possible.

Signers of documents not included in the endorsement can be found at the end of a passage.

- indicates a dash

..... material deleted for reasons of space or readibility.

[] word deleted due to illegibility.

[word] word or letter which is unclear in original.

Original maps and sketches are treated in the same manner as documents.

Key to Sources of Materials

- CCSL <u>Albany Common Council Minutes</u>, bound volumes at the Division of Manuscripts, New York State Library, Albany. The number after CCSL indicates the volume as follows:
 - 1 Volume (1792-1800)
 - 2 Volume (1801-1804)
 - 3 Volume (1812-1816)
 - 4 Volume (1848-1849)
 - MSL Manuscripts, State Library, consists of assorted letters and documents pertaining to the old Albany Water_{WOrks} found at the Division of Manuscripts, New York State Library, Albany.

WSCA Records of the Department of Water Supply, City of Albany.

CEO Records of the City Engineer's Office, City of Albany.

ALBANY WATEPWORKS

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PROPOSALS FOR A WATERWORKS AT ALBANY NEW YORK 1793-1796

Dec. 31, 1793 Resolved that John Jauncey, Dirck Ten Broeck & Jacob J. Lansingbe a committee to report to this Board the most Expedient method to Supply this City with water, and the probable Expence that will be necessary to light this City by a Sufficient number of lamps-

CCSL 1

May 26, 1794

Proposals of Asa and Charles Belnap for conveying water into the City of Albany

To whom it may Concern these are the Proposals We Asa & Charles Bellnap make for fetching the Water into the City of Albanyour Demands will be /8 pr foot from the head of the fountain from Whence it is brought and if brought from Several Springs or Streams /8 per foot from Each and Every Stream till Come together and after the water Enters the City we Shall Demand as much more than the /8 pr foot as the Extra cost of Diging is more than it was before it Enters the City⁻ or if So be that We Can be Supplied with the timber on the Spot have the Digging Done and be borded we will do it for 4/s pr rood.

MSL

Oct. 21, 1794 Albany Common Council Resolved that Mr. Henry, Mr. Douw & Mr. Jauncey be a Committee to report a proper mode of Supplying this City with Water by Aqueducts.

The Petition of Ruben Wait was read, and referred to the Committee on Supplying this City with water-

CCSL 1

Nov. 8, 1794

Albany Common Council

Resolved that this board will receive proposals until the first day of February next from any persons for supplying this city with water from the spring at the five mile house on the road to Schenectady which proposals it is expected will contain

First A plan accurately describing the dimensions & the mode in which the resevoir is to be constructed at or near the fountain and on the hill in the public square should it be thought necessary Also the mode in which the aqueducts from the spring and the resevoir in the public square are to be conducted through the principal Streets of the city.

Second. The dimensions of the pitch pine timber of which the aqueducts are to be made. the diameter of the bore that will be thought necessary the mode of securing the aqueducts at the joints and the depth at which they will be laid below the surface of the ground

Third The expense of constructing the resevoir of stone by the square yard and securing it at the fountain by a proper building over them

Fourth The expense by the rod of the aqueducts, calculating the bores at six, five, four & three inches diameter

Fifth The time at which the work will be completed

Sixth The security which the contractor will give for the fulfilment of this contract which proposals shall be sealed up and directed to the Mayor of this city.

CCSL 1

Dec. 22, 1794

Proposals of Aaron Buckland of Hartford Conn. for conveying water into the City of Albany

lst I would take two or three of the largest Springs at their head, or as many as will afford a Sufficiency of water; Dig the Earth out & put down flooms in Each Sufficient to gather the whole water, & Tough Clay pounded down on the lower side to prevent the water from Oozing through. Those flooms would do made of Yellow Pine planks on Stone & I would have the flooms no larger than to collect the Springs perhaps Six by Three feet & high enough for a man to enter & Clean them perhaps Two & half feet above the Conductor.-Those flooms if built of Stone might be Arched over & then earth over all but the lower side where I would have the door of Plank to Enter

Those separate conductors I would have of two Inch Bore and unite them as soon as conveniency will permitt & as Soon as four feet fall can be obtain'd from the fountain to the Bed of the Stream I would empty the water into a Cistern in order to clear the sand which is always Subject to wash out of the Spring & is apt to Settle in the Conductor in Valleys

This Cistern I would have twelve feet long three feet wide four feet deep with a portion in the middle to go within one foot of the Bottom I would Empty the water in at one end & take it off the same height in the other Viz three & half feet high and have a plugg which can be Started at the Bottom to wash away the sand when Requisite

The Reserver in Public Square Perhaps Forty Long by Twenty

wide eight or ten feet deep I would lay the Bottom with Four Inch Yellow Pine Plank on Good Sleepers made water tight The sides can be laid hew'd or other Stone in Mortar or the sides may be Built up with Wood I would empty the water in at Top & take it off at Bottom

The aqueduct from the Spring to the Reserver in the Public Square I would in no place have higher than the fountain if I dug as much as a mile Twenty feet deep; Bringing it over high land or Principles of a Crane may easily be done but will be Subject to get out of Order & very Expensive Repairing them.-

The Aqueduct from the Reserver through the Principle Streets I would convey in the middle of the Street so that logs like Pumps may be sot into them to draw also Branches inserted lead to Private Houses wherever wanted

2nd I would Bore the Timber in pieces Fourteen feet long & should be at the Little end for a Bore of Six Inches Diameter, Twenty four Inches, Diameter, & a Bore of Four Inches, Sixteen D^{O} 3 D^{O} 12 D^{O} and 2 Inch Bore 9 Inches Diameter

I would secure the Joints by Boreing the But^tlike a fasset & fining the other end to drive in water tight which is found to answer much Better than Iron Fings & Cement I would have the top of the log Eighteen Inches below the Surface of the Earth. 3d The Bottom of the Reserver in the Public Square I would make of Four Inch Plank laid on good Sleepers at Twenty Shillings pr. Square Yard & lay the sides with Rough Stone Eighteen Inches thick for 4 1/2 Dollars or with rough hew'd Free Stone for 7 Dollars The Building over it Forty by Twenty feet sills & sleepers laid on the

W_{all & a flore of Inch and a half Stuff & Rafters raised on the Sills Roof Shingled & Gable ends Boarded up I will do for Sixty Pounds Building over the Fountains Stone work at 4 1/2 Dollars pr Square Yark & Secure it with wooden Building Six by Three feet at 10 Dollars each}

4th If logs are found me Delivered in one or as many as four places for Boreing & then Scattered along the Ditch I will Bore Dig the Ditch & fill it in again & Secure the aqueduct from the springs to the Public Reserver 6 Inch Bore at 32/ pr. Rod

> 4 D^O- 18/ 3 D^O- 13/ 2 D^O- 10/ Shillings pr. Rod

.... If I contract I will have compleated to the Public Reserver by the First of Next January & would Bore all winter and lay through the City the Next Season three times the Distance it is from the Spring to the Reserver....

I am of Opinion that a two Inch Bore without any Reservers will more than Supply Albany in Common Consumption & am persuaded that Sixty Rods below the Junction of the Springs the whole water will not fill a Three Inch Bore with two feet head.

MSL

Jan. 5, 1795

Endorsement of Elijah Church to the Mayor of Albany

I do hereby Certify and Recommend Mr. Elijah Church to your Hounourable Board, A man of good Moral Character A man that is Punctual in the performance of his Agreements . . . he has Layed a Water Course for me of Thirty five Rod in Legnth which Answers the purpose Extremely well without fail in the Driest time of the Season I have plenty of Water for my Family & Cattle and plenty to spare for a Number of others if need should Require-

Benjamin Bird, Esq.

Chenango

MSL

Jan. 13, 1795

Endorsement of Thomas and Elijah Church to the Mayor of Albany

This may Certify that Messrs Elijah Church and Thomas Church have Brot

Water for us in aqueduct of Pine Logs Bored from the Distance about 70 Rods and the Work appears to Bee well Done and Highly to our satisfaction . . .

Wm. White

MSL

Jan. 14, 1795

Endorsement of Thomas and Elijah Church to the Mayor of Albany

. . . Thomas and Elijah Church are the men that brought the water from a Spring in the Side of the west mountain to the Several Houses in Cooperstown they are workman at the Business and of a Respectable family in Tioga County-but they have Slighted our fountain

> William Cooper MSL

Jan. 14, 1795

Endorsement of Elijah and Thomas Church to the Mayor of Albany

To Whom it may Concern- Whereas Elijah and Thos Church have convey,d the water Nearly one mile by Aqueducts from the west mountain into Coopers Town, for the Convenience of the Inhabitants of sd town. and We Recommend the above Churches as being Sober Industrious young men, and of Respectable Parents, according to the best of our knowledge- and have Done the Business in a workman like manner-

Cooperstown

Russel Bartlet Joshua Starr Oliver Ingals [and others]

MSL

Jan. 29, 1795

Proposals of Elijah Church for conveying water into the City of Albany

To the Mayor, Alderman & Common Council the Proposal of Elijah Church to your Honourable board.

- stl I have examin'd the Spring and the Ground & I
 find that it will answer a good purpose-
- nd2 I am always use to have the boore at one inch and half at Twelve Shillings pr. rood-
- th3 A two inch boore at two Dollars pr rood-
- th4 A three & four inch boor at three and four Dollars pr. Rood

the Resevoirs separate by itself as I am unaquainted with that work as the proposals is for stone, but if made of plank, I may make out to make a Calculation-

th5 You Supplying me with timber I shall have it cut & brought to the place for the work-

N.B.if their could be found a spring nearer it would be more to your advantage and mine also.

You will find me by directing to the town of Jerico on the Susquehanna. Feb. 11, 1795 Albany Common Council Resolved that Mr. Graham, Mr. Van Renssellaer & Mr. Henry be a Committee to confer with such persons as may have any Estates in the Ground thro which the conduits for leading the water into this City will probably run or in which the fountains May be, from whence the water is to be brought & that they report the most Expedient mode of obtaining a right to lead the water from such fountains & the conduits thro' such grounds with free ingress and egress to make all necessary repairs-

CCSL 1

Feb. 28, 1795

Proposals of James Bolton for conveying water in the City of Albany

Gentlemen- Having Observed in the Publick Prints Your Proposal of Carring or Conveying Water into the City of Albany I have duly Considered it. If you Want a Machine to Bore Timber for the Quidock for Carrying the Water, I Can Build it myself or Give real and proper Directions how to Make it and that after it is finished will easily work it or keep it agoing with one Horse and one Man and a Boy, and when it is agoing and attended to properly it will Bore 200 foot pr day of any Size the Bore may be off. Said Machine May be Moved from one place to another to Where the Timber is most Convenient. I Estimate the whole expense of Said Machine about 605. If your Honours want that I should to Albany

either to Build Said Machine Myself or give proper Directions how to do it write me [home] soon that I may not engage other work before I accomplish said Machine. . .

MSL

Mar. 7, 1795

Proposals of Robert Smith of Troy for conveying water into the City of Albany

To the Honbl Common Council of the City of Albany The subscriber begs Leave to sogest. . . . that he has observed you Advertisement in the Albany Gazette Relative to the Bringing the water from the Fountain at the five mile house into the City of Albany by a subteraneous pipe or passage, and after a Due Consideration on the premises. . that I will Undertake to Conduct the water into the City of Albany by a subteraneous Passage in twelve months from and After the first Day of August Next Ensuing the date Asfd at the Low price of one silver Dollar pr. yard or every three feet from the Fountain to the place where the water is Delivered, The Bore must be in proportion to the flow from the fountain and the Diameter of the log or pipe in proportion to the pressure as it Elevates or Descends, Security will be Given for the faithful performance and that said works shall Conduct the water as pr. Agreement-

MSL

April 8, 1795

Proposals of James Bradley for conveying water into the City of Albany

. . . Whereas I being Accustomed to such Imploymint in Europe. T thought it fitting to lay some few objection you must be Very Carefull at the fountain not mack much work there or to mase the Water Above its Natural hight for in so doing you may loose the spring in that place for till my wofull lose I know it by Experience where there is a sandy bottom and as to your Carrying the water in wood I doubt it will not sarve the Ends so well as to Carry it in lead pipes for the Wood is hard to Joint but Either Inundation Earth-guacks hard claps of thuuder or something Else will mack the Joints to leek and it being in a sandy ground you will have to uncover all Again to look for theleeck Which is a hard took and worse than all that there is a [] or moss that will grow in time which will stop up the passage for the watter it being the Nature of the Wood so to do But Sir if my Advice would be tackin their would as be little work dun at the fountain as may be the water Carryed in Lead pipes cast for that use with A Bore in preportion to the Streem that comes from the Spring brought in til the highest part of the City and their to run into A resevoir that would contain 2 or 300 [] and there from that to the Different parts of the City and I suppose that you will find in 7 years that this plan is the cheapest Pray Sir Don't think hard of me for specking A gainst your plan it may be that it would do But I have told my way of it

Its a work of great Cost and ought to be made in the best Manner and lastingist. . .

p.s. Sir I had allmost forgot the Aqueducts must be below the frost Layd in A Ditch and if I know when the Work is begun I would go to see it.

MSL

April 25, 1795

Proposals of B. Prescott of Northampton Mass. for conveying water into Albany

Sir-having lately observed in your paper an Advertisement Relative to Supplying the City of Albany with Water from the Spring at the Five Mile House, I take the liberty at this time to suggest to you Sir, my Ideas on the Subject, in doing of which I shall begin first with the Resevoir at or near the Fountain, which Resevoir I should suppose best Built with Stone & Brick, of the following dimensions, let the body or lower part be of Stone. Eight feet wide and Twenty long, with an Arch of Brick Over the top, which will be far better than a wood Building, the width (if the fountain lies high enough to bring the water to the Upper Houses) may be three feet below the base of sd arch, the Water may be let through at a Aperture Near the Top of said Resevoir, at the Upper end, and well secured with a grate to Keep out the filth which may be brought down by Rains, a Wicket at the lower end to draw of the water, in case of Stoppage large enough to admit

a Man in to Clear out sd Resevoir will be of use, a Sluice way also at the lower end, the height of the Aperture at the upper end to discharge the surplus water if any there may be may also be Necessary from the lower end and Near the bottom, the Aqueduct may be placed with a proper Strainer Over the end[] -The Size of the Pitch Pine Timber in case the bore is four Inches which I should suppose Sufficiently large may be Thirteen Inches at the small end, this however may vary as the pressure of the Water Varies, to secure the Aqueducts at the Joint, the logs must be Injected at least Six Inches, and insted (as is usual) to make the Joints tight at the out edge would propose to make them tight at the end of the Injected, say three Inches, with the out edge rather Open then otherwise, and in order the more affectually to Secure them, let Woollen Yarn be wound round, well[paid] over with Slush, their is two advantages in Making the Joints tight at the end of the Injected log, one is, that however carefull the logs may be laid Down they will settle and vary more or less, and if the Joints are at the out edge, the least Variation will create a leak, but in the other case a Variation that would effect the Outer Joint, will not in the least Injure the inner one, an other advantage is, they may be drove with much greater force and not split the logs. The depth of the upper part of the Logs from the Top of the Ground Should be Two feet, great Care should be taken in filling the Dirt in under the Logs, if the Dirt is left loose, they are more

subject to settle, and in Case of a Leak, the Water may find its way under the Aqueducts and in time do much Damage, but if the Dirt is crowded close under all the Logs, the Water will immediately rise above ground, and discover where the Leak is, The Next thing to be Considered is the Resevoir in the Public Square, the expense of which by the Square Yard is required, this however is out of my power to Calculate, till I know the dimensions that will be required and the Cost of procuring Stone []-The mode in which the Aqueducts from the Spring & Resevoir in the Public Square, to be conducted through the principle Streets of the City, should propose as follows, The Resevoir in the Public Square which I Suppose is designed to be of use in Case of fire as it can be of no use in supplying Water, must be placed as high as the highest Houses to be supply'd, On each side of sd Resevoir and Near the Top would place the Two main Aqueducts, which may be brought Down on each side of the Main Street running East and West, the Bore of these Logs may be Three Inches, from the Sides of these Main Aqueducts, may be placed others, Corresponding with and Running into the principle Streets, the Bore of these Side Aqueducts may Vary in proportion to the pressure water, if the Water can be brought into the Lower part of the Houses by a Side Penstock under Ground, it will be much better than to raise the Water by a Perpendicular Penstock exposed to the wether, as it is extremely Difficult to secure them from raising by frost, the Main Aqueduct from the fountain may be brought into the Resevoir on a Level with the Others, then in Case the

Water is Drew Down below the side Aqueducts, the whole of the Water from the Main Aqueduct will be secured, which will increase as the water falls in the Resevoir, in Case the fountain is not exhausted-Shall next State the expense pr. Rod for the Aqueducts which is as follows, []

		dllrs	Cts
for $\begin{cases} 3 \text{ inch bore} \\ 4 d^{\circ} - d^{\circ} \\ 6 d^{\circ} - d^{\circ} \end{cases}$	10 inch log 13 d ⁰ - 15 in	2 3 - 4 -	66 2/3

The above Calculation includes every expense that relates to the Aqueducts except Hooping, which I should suppose Necessary when the pressure is great, but as it is Uncertain how much hooping their will be, I omit it in my Calculation. The whole to be completed in Eighteen Months from the first day of May Next- Any Security which the Corperation may think proper, will be in my power to give-When I first saw the Advertisement I intended to have come Over this Month and made the Surveys & to have had a Conference with the Corporation on the Subject, but being detained in New York till the Sixth of this Current Month, and Since Confined by a Severe Illness, it has not been in my power, But if my proposals should be complied with, will in the Course of the Month of May, come Over and attend to the Surveys and Start the business forward immediately- It will not however be in my power to be on the Ground all the time, being engaged in a Concern that will take up most of my time, but will from time to time come Over and Inspect the Business-If I should not make the Contract, if any of the above observations should be of service

to so Laudible and Usefull an undertaking, it will give me much Satisfaction-

MSL

June 8, 1795

Proposals of Joseph Dorr and Jacob Martin for Conveying water into the City of Albany

. . . the Proposals of Joseph Dorrs & Jacob Martin for conducting the Water from the five mile house into the principle streets of the City of Albany and the Plan by which they will Execute the same 1st at the head of each fountain there must be Constructed a small Resevoir Soficient for to Colect the Water made with Stone over which placed a Large flat stone through which cut a squire hole secure the same by an iron trap door with a Lock and kee 2d the timber must be Eight inches if squire and at the fountain the Bore must be fore inches for perhaps two miles in which Distance you will gain a suficient head for to force it through a 3 inch Bore the aquiducks must be Laid as much as 2 feet below the surface of the Earth and on the hill in the publick squire there must be another Resevoir which will Contain ten or twenty Hogsheads over which must be a Building the water may be taken from thence in as many different tubes as may be throught necessary these tubes being all of one bore the Whole Water may be Convaid to any part of the City only by going to the Resevoir on the

hill and sheting the gates of the other Tubes all which will do for the sum of three pounds pr Rod and warant the same for to answer the purpose intended and give soficient security for the performance of the same the work to be compleated By the first Day of November in 1796

1 intan -tille ead of the foundain Brock Mand , it cannot a inetervour in publick oquire northinart of the lety 2121

MSL

june 30, 1795

. Your committee further report that the Expense of the Conduits at thirty shillings a rod making the allowance of ten shillings on Each rod for Iron bands estimating the distance through the Conduits are to be conducted to be five Miles, or about 1633. Rods will be £ 2449..10- and Supposing the cost of the resevoirs to be £ 1000, the water works may be compleated for £ 3449..10-....

Albany Common Council

Resolved that this Board approve of the proposals of James Prescot of Northampton relative to the Construction of the water works in this City, reserving to themselves the right to point out any other source than the spring at the five mile houses to bring the water from at the timethat the Contract Shall be made with the said James-Resolved that the Mayor or Recorder write to James Prescott of Northampton inclosing a Copy of the Resolutions approving of his proposals relative to the construction of the Water Works, and requesting his attendance in this City, with ample security to compleat the contract-Your committee are further of the Opinion that a Suitable person should be Employed to take the Altitude of the Ground between the lower parts of the City, and the Spring at the five Mile house-

CCSL 1

Aug. 12, 1795

Letter to Benjamin Prescott from the Mayor, Alderman, and Common Council of the City of Albany

Sir In conformity to the enclosed resolutions of the Mayor, Alderman & Commonality of the City of Albany I inform you that they have accepted your proposals relative to the construction of the water works in this city and I request that you will attend at as early a day as you conveniently; can with sufficient securities to complete the contract relative to these works.

MSL

Sept. 3, 1795 Albany Common Council Resolved that Mr. Recorder, Mr. Woodruff, Mr. Jauncey and Mr. Henry be a committee in conjunction with James Prescot to Examine the Springs westward of this City and if in their Opinion a sufficiency of Water cannot be procured from them to answer the double purposes of the daily consumption in the City, and to be of Effectual use in extingushing of fires that then the said James take the Altitude and distances of the Ground, thro which the committee and the said James may think proper that the conduits should run between the City and the Spring at the five mile house, that the said James make a plan of the Water Works, accompanied with an Estimate of the Expense, that the Committee prepare a Draft of the Articles of Agreement between this Board and the said James relative to the construction of the water works and report on the premises.

CCSL 1

Sept. 10, 1795 Albany Common Council The committee appointed to examine the springs on the Hill &c-Report- That in the Opinion of Mr. Benjamin Prescot and your Committee the Springs on the Westward of this City are inadequate and Improper for the Supply of water contemplated by the Corperation, First, because in their opinion the quantity of water is insufficient for the consumption of the present Inhabitants and must be much so for an increasing population, neither will it prove of Effectual use in the Extingushing fires- Secondly because the Water is hard & therefore not suitable for washing with- Thirdly Because the Springs on the Hill cannot be collected into a resevoir at such a height above the City as to afford that convenience in the supply of Water which is one of the great Objects of the Aqueducts; the Altitude where the springs could possibly be concentrated not being great Enough to enable the owners of the different houses in this City, particularly those to the westward to raise the Water into the different stories of their Houses.

Your Committee being of this Opinion Examined the Spring at the five mile house, and found the water on trial and by their enquires to answer every purpose of domestic Consumption

and that it is soft and proper for washing with, the Quantity which the Spring will yield from an Experiment made by Mr. Prescott is at least sixty Gallons in one Minute, or about seven hundred and Eighty five hogsheads in twenty four hours, which your committee think will be fully Adequate to the Supply of the City. . .

Your committee also directed Mr. Prescott to take the altitude of the Spring above the City thro the Ground in which the Conduits would probably be laid, this route from the badness of the weather he could not altogether persue, but he has taken the level in such a way and so far explored the Ground as to enable him to declare that the water may be brought to the City with facility. The Altitude of the Spring at the five mile house above the Base of the Dutch Church he finds to be 174 feet 8 inches Mr. Prescott estimates the greatest possible legnth of the Conduits from the five mile house and those which may run through all the Streets of the city, at Ten miles-

CCSL 1

Sept. 10, 1795

Albany Common Council

from the Articles of Agreement between between Benjamin Prescott of Northhampton, Obadiah Dickenson of Northfield, Caleb Lyman of Northfield and Samuel Dexter of Albany and the Mayor, Alderman and commonality of the City of Albany

. . That the said Conduits shall be made of the best and

soundest Pitch pine Timber of at least fifteen Inches diameter at the but End and thirteen Inches diameter at the smaller End. That the diameters of the Bores of the Conduits from the Spring through the City shall be from Five Inches to two Inches, . . That the said Conduits shall be firmly laid at least two feet below the surface of the Ground and the Earth stamped closely round them, and shall be so united at the Joints by enserting the small End of Each piece of Timber at least six inches into the But End of the Other, and Winding Woolen Yarn round the Joints well [paid] over with Slush, as to be free from leaks and to diminish the strength of the Timber as little as possible. . . the conduits. . . where the pressure of the water may make it requisite shall be secured at Each Joint by an Iron Band of twelve Inches in diameter, one inch and one half broad and one fourth of an inch thick on the thickest side to be made wedge wise & inserted and well secured by staples in the but End of Each piece of Timber. That At the most Suitable places & distances in the Conduits there shall be Air vents properly constructed in the proportion of twelve vents to Six Miles legnth of conduits, and so for any Greater or less distance, and also Vents for Cleaning the Conduits . . . four vents to Every six Miles. . . . Fire Stops shall be made at such places, of such materials and in such manner as the said Mayor, Alderman . . . shall appoint . . .

CCSL 1


the new in the state I have a faither a subscript the state of the state The state of the second states " 22 in nay & Ground new Brance Corech 24 on it care Greek where the ground descends to the init ... il Chiprosite In" Havas in mowing Ground in 43 Ferre the Greek belowster Maas in morning 8, 7521 1: 0 -49 - on wide Hell 20 Jul about the Grack' is ちんしんちゃんりんちょうしょう ちょうしんのうちょ 12001 1200 1200 1200 1200 1200 Page of field notebook prepared by Benjamin Prescot upon a survey of the route of the conduits of the Old Albany Waterworks Circa 1796 MSL

thender to an atom to be a second

June 3, 1796 Albany Common Council Resolved that Mr. Henry, Mr. Sanders Lansing, and Mr. Woodruff-be a Committee to superintend the Survey to be made by Benjamin Prescot of the Ground through which the Conduits are to be laid, and that the Surveyor General be requested to accompany the Committee & aid them with his advice-

CCSL 1

Not Dated, but appears to have been written around this time. Benjamin Prescott's report respecting the route for the conduits.

Gentleman- Pursuant to my contract I have completed a survey of the ground from the spring at the five mile House to the Publick Square on the Hill & have provided the most eligible route, The intermediate ground in several places is found to rise considerably above the level of said spring as will be shown here after by a section, The extra expense of digging will in some measure be compensated & may not exceed four Miles and one half- A Dam near the source, Ten or Twelve high will be necessary- This Dam may be constructed with Brick, Plank, & Earth, in the following manner. Dig a trench sufficiently deep a Brick sluce way founded on timber & arched over the top, connected with said plank in such a manner as to be water tight for the purpose of drawing down the water in case of stoppage or other accident, a heavy embankment or mound of earth on each

side of the planking to support & preserve them from waste, Thirty five or Forty feet. . .with an easy slope will be sufficiently strong to resist the pressure. . . I shall however give you my calculations and a plan of the survey and section . . by which you will see that the ground in some places is eighteen feet above the fountain & by my field Book it will be necessary to cut on an average one hundred and twenty rods in legnth & ten feet in depth, the expense of which may not exceed Two thousand dollars-

MSL

Not Dated

Benjamin Prescott's estimate of the amount of Iron Bands required

Estimate of the Number of Bands Necessary to band all the Logs from the Fountain to the Public Square is as follows, Distance about 1440 Rods 23760 feet divided by Twelve (legnth of a Log) leaves 1980 Bands of the following Dimensions 9 Inches Diameter [2 1/2] I wide & 1/4 of an Inch thick-

MSL

Aug. 30, 1796 Albany Common Council Resolved that this board will receive proposals in Writing to be lodged with the Chamberlain of this City on or before Tuesday the sixth day of September for furnishing 1980 Iron bands for securing the Conduits; of the following dimensions to wit. 9 Inches diameter, 2 1/2 Inches wide, one fourth of an inch thick, on the thick side, the bands to be made of the best refined Iron, and to be made wedge wise & that the Chamberlain cause this Resolution to be published in both the City Gazettes-

CCSL 1

CONSTRUCTION OF THE WATERWORKS AT ALBANY, 1796-1803

Oct. 11, 1796 Albany Common Council Resolved that the Recorder is hereby authorized to Offer a note of One Thousand Dollars for discount at the Bank of Albany for the purpose of making our first payment on the Contract with Benj. Prescot & others. . .

CCSL 1

Nov. 1796

Statement of Expenses from Benjamin Prescott

The following is a Statement of the Expenses already Arisen on the Waterworks in Albany. Dam at the fountain, Clearing out the different Creeks Plank & Nails Cutting Road &c 670 dollr Cash Advanced Washburn Smith and others for Timber 1030 ditto have agreed to Pay Smith & others for Timber this Month- <u>300 ditto</u> 2000 dollr Expenses of Myself and others comming over Sund_ry times-MSL March 6, 1797 [date filed] Statement of Expenses

A statement of Money already expended in the watter woorks Cash paid Washburn & others for Timber 1430-49 Cash paid Captn.Dickinson for woork at fountain 593-34 Cash paid for provisions 218-Expense of my Self & Others in Arranging the business <u>121-57</u> 2363-40

MSL

from Benjamin Prescott

Mar. 15, 1797

Proposals of Francis Pruyn and Phillip Dunbar for making Iron Bands

We the Subscribers will agree to make & furnish the Corperation of the City of Albany with one thousand nine hundred and eighty Iron Bands for Securing the Conduits at two Shillings and Six pence per Band; of the dimensions mentioned in the resolution of said Board. . .

MSL

Mar. 25, 1797

Proposals of Thomas Dawson for making Iron Bands

. . . I therefore propose to make the saide number of Bands at Four Shillings and six pence each Band.

MSL

Mar. 27, 1797 [date filed]

Proposals of David Fonda for making Iron Bands

. . . Agreeable to your Notice for 1900 Iron Bands to secure the Water Conduits. I will engage to make them for three Shillings and three pence a piece of the best refined Iron, Calculating them to weigh three pounds each, from an Experiment I have made in making a number, they should not weigh less unless weakening them too much. . .

MSL

Mar. 27, 1797

Proposals of Benjamin Barney for making Iron Bands

Observing in the Albany Register a Resolve of the Common Council of the City respecting employing Some person in Making Iron bands for the Conduits I Will undertake to Make them according to the Directions as pr Register for 4/ pr Band. . . .

MSL

Mar. 27, 1797 [date filed]

Proposals of James Rottery for making Iron Bands

Sir Agreabl to the advertisement of the Hon Common Council I would make these proposals that I will make them at five Shillings a piece if payment is made when Every Hundred is delivered

MSL

Mar. 27, 1797 Albany Common Council Resolved that the different proposals delivered this day for making Iron bands for the Conduits, be referred to Mr. Henry, Mr. Tybrant Bleeker and Mr. Sanders Lansing.

CCSL 1

CCSL 1

May 24, 1797 Albany Common Council Resolved that John V. Henry, Sanders Lansing and Volkert A. Douw be a Committee to report to this board a suitable person to Superintend the water works to be done by Benjamin Prescott and see that it be done in Conformity to his contract-

.

June 3, 1797

Agreement between Phillip Dunbar and Francis Pruyn and the Mayor, Alderman and Commonality of the City of Albany for making Iron Bands

.... make nineteen hundred and eighty iron bands of salsbury iron in a good workmanlike manner of the following dimensions 9 Inches in diameter, One Inch and one half in breadth and one fourth of an Inch thick on the thickest side....

> Sealed and delivered in the presence of Isaac Quakenboss Dirck Ten Broeck Abm Ten Broeck

June 27, 1797

Letter from B. Prescott to the Mayor, Alderman and Common Council of the City of Albany

Gentleman, In consequence of being disappointed by the poeple who Contracted with me to supply Timber for the Aqueducts, I find it Necessary to procure part of the Timber on Corperation Ground, I as It is difficult to find Pitch Pine Timber enough, I being obliged by Contract to furnish the whole of that Kind, I beg leave to sugest whether White Pine Timber will not be equally as good- I believe it is found by experience to indure as long underground as any timber whatever, and that their is little or no pressure where they will placed, no objection can arise..... on that Score. I am willing however to take the risk of any So far as to warrant them to last as long as pitch pine in Similar ground I also pray the Corperation to Dispence with that Part of the Contract which obliges me to wind yarn & slush the Ends of the Logs to be inserted, experience proves that whatever is put in the Joints will in time waste and [] leaks- as I am obliged to leave Town tomorrow I pray your answer may be given to Capt. Daniel Mantor who I have appointed to superintent the water works on my part.

MSL

Aug. 18, 1797

Report of John L. Voorhees, Supt. of Waterworks

.....On The 18th of

August I recd 400 Iron bands of Messrs Dunbar & Pruyn. . .

MSL

Aug. 26, 1797

Report of John L Voorhees, Supt. of Waterworks

. . . their has allso been one air vent put up and Two Cleaning vents Laid, & the water Is brought to high ground [betwinset] Mr. Thomppsons & Mr. MacDugels & then [sot] back to discover The leaks & I have been Careful to See that they wair all made tite wherein they have Covered the Conduits & the Dirt Ram'd close round them. . .

MSL

Sept. 2, 1797

Report of John L Voorhees, Supt. of the Waterworks

. . their has been Laid Since 28 August to this Day 635 feet 8 inches of Pitch pine & 109 feet 8 Inches of white pine timber all of good Size & well [grown] Their has been 71 3/4 Days works Diging In the high ground I have been Careful to Inspect the Laying of the Conduits and Shall be Ready from time to time to Inform you of every matter of Importence that May happen

MSL

Sept. 9, 1797

Report of John L Voorhees, Supt. of the Waterworks

There has been Laid since the 4th to this day 1417 feet 8 Inches of Pitch pine & 319 feet 8 Inches of white Pine timber . . .

MSL

Sept. 30, 1797

Report of John L Voorhees, Supt. of the Waterworks

On the 25th Sept I received 200 Iron Bands of Messt. Dunbar & Pruyn made according to Contract & hired a waggon to Carry them to the water works there has been Laid Since the 25th to this Day 295 feet of Pitch pine & 256 feet 9 Inches of White pine Timber. . .

MSL

Oct. 14, 1797

Report of John L. Voorhees, Supt. of the Waterworks

the 9th Oct I Received 170 Iron Bands of Mr. Dunbar and Pruyn made according to Contract & had them Carted to a Stoand nier the works In town and 120 Bands Carted to the water works their has been Laid Since the 9th to this day oneley 36 feet nine inches of Pitch pine & 59 feet 5 inches of white Pine timber. . .

MSL

Oct. 17, 1797

Selates and

Letter from B. Prescott to the Mayor, Alderman and Common Council of the City of Albany read and referred to Mr. Henry, Van Ingen and De Witt

Benj'n Prescott begs leave to represent to your Honors that on the 10th of Sept. 1795 he with others entered into Bonds with the Mayor Alderman and Common Council of the City to lead the Water in Conduits from Wm. McThouns into Albany by the first of November 1797 and at the same time there was an estimate made of the Probable expense of the same and sd Corperation engaged on their part to furnish the sum of Three Thousand pounds to defray the expense of the same and more after the works were compleated if necessary in prosecution of my contract I immediately engaged a number of hands to procure the Timber up Hudsons River and a sufficiency for every purpose but was so unfortunate as to be dissappointed in almost every particular of their-engagements. I was then under the necessity to erect Works-to furnish the conduits at a very considerable

expense & to-furnish Horses and oxen which was such an expense that the money furnished by the Corperation was totally inadequate to the same. I then stated to Mr. Henry one of your board that I had not any doubt, but that Two Thousand pounds would be fully adequate to the expense for the delivery of the Water, on the Public Square in Albany, I find in the prosecution of the Business the Summer past that the sums furnished me-and much more. has been expended on the works. . . not in such forwardness as I had good reason to expect owing to the extreme bad diging and obstructions in the high ground and find myself under the disagreeable necessity of asking your Hon' Board further Pecuniary assistance. . .

MSL

Oct. 25, 1797 [date filed]

Report of the Committee to whom was referred the letter of Mr. Prescott relative to the water works

Report-That from a statement made by Mr. Prescott in a letter to your committee of the 21 Instant one mile and a half of the conduits have been laid-timber is bored to lay one mile and a quarter more for which the digging is completedhe has 1500 logs in the river- the expenditures on the dam amount to 593 dollars and there have been 1876 1/2 days extra digging the expense of which he estimates at

one dollar per day-That the alteration which Mr. Prescott solicits in his contract are an extension of the time for finishing the Water works and a declaration that he is to be compensated for such extra digging as has been & may be performed below the depth designated in his contract-That the sum which Mr. Prescott requests to be advanced to him is 2500 dollars which in his letter he alledges will not be more than the expenditures of the present [season] Your committee are of the opinion that the time for Mr. Prescott's contract should be extended. . . . Your committee are also of the opinion that whatever may be the diversity of sentiment respecting the judiciousness of the plan for supplying the city with water the existing state of the water works renders it prudent to advance the sum of money which Mr. Prescott requires. . .

> S.De Witt John V Henry

I agree in the following report excepting so much of it as advises the advance of money to Mr. Prescott

Ja Van Ingen

MSL

Oct. 30, 1797

Report of John L. Voorhees, Supt. of the Waterworks

. . . I have Received 200 Band of Dunbar & Pruyn & had them Carted to the Works

MSL

Additional reports of the Supt. of the waterworks dated August 14, 19, September 16, 23, and October 9, 23, 30, 1797

Nov. 13, 1797

all deliver when he deliver a cost of

Letter from Abadiah Dickinson to John V Henry Esq.

My Personal aquaintance with you and almost total unaquaintance with any other gentleman of the Corperation induces me to again trouble you with my request to lay before the Corporation my earnest Petition that they in their goodness might see fit to make a further grant for the use of the persons concerned with the water works-The Conditions annexed to a late order of the corperation would be gladly accpeted by me. My present situation is truly embarassing at a great distance from any Connections that can afford any present relief. I myself in a situation totally unable to meet the Demands of the Labourers and persons who have supplied us with provisions- I should not at this time have troubled you any further could I have possibly avoided it . . . In humble hope that my request will meet with a favorable acception with you and the gentm of the Corperation

MSL

April 5, 1798

Letter from B. Prescott to the Albany Common Council

.... I beg leave to offer it as my opinion that eight feet head will be abundantly sufficient to supply the city with water, and that the cleansing vents will effectually prevent the aqueducts from filling with Sand and always Keep them clear-

MSL

April 5, 1798

B. Prescott's Estimate of the Ultimate Expense of the Waterworks including an account of the Footage of the Wooden Pipes thus far laid in the City Streets

. . . The aqueducts are through the following streets [viz] from the Public Square, through State Street 2000 feet, Court Street 1400 feet, Market & Watervliet Street 2100, Pearl Street 2000, Washington Street 800, Hudson Street 1000 feet, Pine Street 800 feet, Barrak & Green Street 1500 feet, Dock Street 800 feet, from Barrack Street through Steuben Street to Market Street 700 feet, from Market Street through Columbia and Montgomery Street 900 feet-

MSL

Sept. 29,1800 Albany Common Council Resolved that the City Superintendent inform Mr. Putnam that this Board request him to cause the pavements which has been occassioned by digging for laying the Conduits wherever

it has been sunk by Settling or Otherwise to be immediately repaired and the Earth remaining thereupon to be taken away-

CCSL 1

Dec. 17, 1800 Albany Common Council Resolved that Mr. Recorder, Mr. Merchant, Mr. Westerlo, Mr. Jauncey and Mr. Bogart, be a Committee to designate the Places where the Fire Stops are to be placed in this City agreeably to the Contract Entered into by this Board with Benjamin Prescott & Jerimiah Van Renssellaer, for Supplying this City with water by means of Conduits-

CCSL 1

April 13, 1801 Resolved that the Recorder, Mr. Westerlo & Mr. Bogart be a Committee to Examine & report to this Board at their next meeting what parts of the pavements within this City are out of repair by the default of the Superintendants of the Water Works, and report Measures which ought to be adopted for repairing the same-

CCSL 2

June 29, 1801

Albany Common Council Resolved that the Law Committee enquire & report whether Mr. Prescot is liable to put in repair the Streets & Lanes through which he has laid the Aqueducts & if so, the mode to be pursued to cause the same to be done-

CCSL 2

July 27, 1801

Letter from B. Prescott to the Mayor, Alderman and Commonality of the City of Albany

Gentleman being requested by the Committee of the Honbl Corperation I make the following proposition [viz] I will transferr all my property in the Albany waterworks to the Corperation they discharging me from all Obligations and paying me 500 dollars for the cleansing Machine & 240 dollars Tax lately assessed to extend the Conduits into Van Tromp Street I will also if required by Contract build one Resevoir to contain 400 hogs water to be made of Stone arched over the top & lined with Timber & plank for 300 dollars. I will also make one other Resevoir in the same manner to contain 800 hogs water for 1800 dollars & I will lay as many rods of conduits in addition to what has been laid as the Corperation may require in the same manner as they have been laid heretofore for 5 dollars pr rod for what has or may be laid- with respect to the fire Stops if they are made

in the manner which I humbly conceive but towit a Simple plug to hold the water in the Conduits and Tubs to accompany the fire Ingine I will make them for 200 dollars if any other mode should be adopted I will make them by Contract or other wise as Shall be agreed on

MSL

Aug. 24, 1801

Letter from B. Prescott to the Mayor, Alderman and Commonality of the City of Albany

Gentlemen- being of oppinion that it would be beneficial to alter the disposition of the Resevoirs- I beg to suggest for your Consideration whether it would not be advisable for your consent to consolidate the three into two towit one to contain 800 [hogsheads] the other to contain 400 [hogsheads] each hhd to contain one Hundred Gallons the largest to be placed in State Street nearly opposit lodge Street the other to be placed in the upper Side of the Public Square a little South of Lyon Street to be Connected by Conduits in the manner pointed out by the Contract. If you agree to the above arrangement of the Resevoirs I will complect the two new ones at my own expense agreeable to Contract . . . and will further at my own expense fill up [] with the holes already dug and place the ground & Streets in as Eligible a Situation as before I commenced diging. . . . Standing alone as I do placed in a disagreeable Situation by a variety of unfore seen causes I have made up

my mind once more to tender you the following propositions towit I will construct and build the Resevoirs above mentioneed with Stone lined with timber & plank for 2700 dollars and will lay all the Conduits for five dollars pr. rod and will transfer all my right & title in sd waterwoorks provided the Corperation discharge me from all obligations & refund me 240 dollars being a Tax lately assesed to extend the Conduits into Van Tromp Street. As there is no fire Stops established in this country wharby practical knowledge can be obtained will it not be best to make Sum experiments and adopt the mode which from Such experiment Shall appear most Eligible-. . . .

MSL

Sept. 11, 1801

Letter from B. Prescott to the Mayor, Alderman and Commonality of the City of Albany

Gentleman Give me leve to present you with a modle of a fire Stop upon a new construction which to me apears better calculated to answer the purpose than anything that has heretofore com to my knowledge the Simplicity of the construction the Security from frost by confining the water in the Conduits & the facility with wich it ran ... are I presume Sufficient inducements to give it preference to the one described by the Contract (altho I confess that was dictated by my Self)....

MSL

Sept, 17, 1801

Letter from B. Prescott to John Jauncey Esq., President of the Corperation

Sir On further reflection Since my communication to the Honbl the Corperation of the llth Inst it appears to me to be mutually adventageous to pospone the building of the upper Resevoir in the Public Square untill the next Season the quantity of diging as it respects two of the fire Stops towit the one at the N.E. corner of the [Goal] yard & the one in Lion Street is So grate that there is no chance for it being done in the present Season it will therefore go to imbrace but one fire Stop in State Street and as I shall want to commence laying the connecting Conduits of the two Resevoirs in the corse of [next] week there will not be time to lower the Ground above the [goal] for that purpose if it Should be concluded to delay building sd Resevoir I will hold my Self bound to complect it any time next Season that the Corperation shall appoint-

I have also to inform you Sir that I have obtained leve of the Trustees of the Waterwoorks to place Two fire Stops on the Companys conduits in Cort Street at the intersections of Beaver & Hudson Streets . . I therefore pray the Honbl Corperation through you to accept those two as there own & if any difficulty Should hereafter arise I will hold my Self obligated to establish them on Separate Conduits

MSL

May 24, 1802

Letter from B. Prescott to the Mayor, Alderman and Common Council of the of Albany

The expense of the last winter is that it is necessary to make Sum alterations in the fire Stops. the inconvenience of placing them in the midle of the Streets sems evident from the difficulty of Securing them from heaving by the frost and preventing the covers from [being jammed] to pieces by the continual passing of loaded waggens and the pressing down of the sd covers so as to render it almost impossible to raise them in case of fire a number has since bin erected on the Side walks which apere to remedy the above. . .

MSL

May 29, 1802

B. Prescott to G. Bogart Esq., Chairman of a committee appointed to attend to the fire Stops

Where as it aperes that the level regulating State Street & the Public Square is not yet agreed upon by the Honbl the Corperation and that the same causes now exist that indused a posponment in the building of the upper Resevoir the last Season and as attention afterward will be attended with much trouble & expense I have to request your Committy to represent the same to your Honbl board that a conclusion may be had to regulate the conduit

MSL

July 24, 1802

Resolution of the Trustees of the Albany Waterworks

At a Meeting of the Trustees of the Albany Water Works Company at Lewis Inn on the 24th day of July 1802 Present, Stephen Lush President and all the Trustees

Whereas this Board did on the fifteenth day of September last pass a Resolution permitting Benjamin Prescott to conduct such surplus-Water as might not be required to supply the Albany Water Works into a Resevoir to be by him constructed at the Intersection of Lodge and State Streets until the first day of July Instant-

And Whereas the time limited by such Resolution has elapsed, and it is requisite to prevent Embarassments to the said Company that the Connection between thir Conduits and the Resevoir aforesaid should be discontinued, but the Interpretation of which this Board are inclined to conduct in such a Manner as to be as little inconvenient to the Inhabitants of this City as possible- Therefore resolved that this Board will cause the said Communication to be effectually interrupted by the first day of September next unless the Works intended to be constructed by him to supply the said Resevoir with water from other Sources, shall then be so far advanced as to afford a reasonable presumption that they will be conducted to effect during the ensuing Autumn in which Case, this Board will endeavor to accomodate the said Benjamin Prescott with a longer time, on such Conditions as they shall deem most conducive to the Interest of all concerned in the operation-

MSL

Aug. 11, 1802

Letter from B. Prescott to the Mayor, Alderman and Common Council of the City of Albany

• . . permit to call your attention to the extra diging necessary to Sink sd Resevoir & Conduits so low as to prevent any difficulty which may arise in consequence of lowering the Streets hereafter- The ground at the Northeast corner of the [gole] yard whare you have astablished a fire Stop I am told has got to be lowered ten or twelve feet as also the Ground through which the lateral pipe to laid to, sd Stop is to be laid if so will it not be best to pospone that part of the business untill the [] is taken away or suffer me to furnish an other fire stop. . . I also find by measuring . . . the place to sink sd resevoir agreeably to my contract ^{towart} fifteen from the west side of the public Square & Thirty feet from Lyon Street . . .

MSL

Oct 25, 1802

Letter from B. Prescott to the Mayor, Aldermen and Commonality of the City of Albany

I received pr. last male inclosed by Richard Lush, Esq. a Copy of a resolution passed by your Honbl board the 18 Inst. relitave to replacing the leaden tubs which connect sum of the angles (of what you are pleased to Corperation Conduits) with larger ones- I am extreamly Sorry it Slipped my mind to

mention to Sum one of your board that I had made arrangements when last in Albany to have said tubs replaced with larger ones altho I conceive I am not bound by Contract to make Said alteration yet having a Strong desire to effect every part of the business to full and complete satisfaction I have yealded to it

MSL

Nov. 22, 1802

Letter from B. Prescott to the Mayor, Alderman and Common Council of the City of Albany

.I receiced by last Post a letter from E. Willet Esq. covering a Cor of a resolution passed by your Honbl board on the 15th Inst. requesting me to fulfill my Contract relative to waterwoorks for extingushing fire & I am really mortified Gentlemen that you should have occasion so often to call on me for the above purpose- Earl last Spring as soon as resolved to Shift the fire Stops on the sidewalks I contracted with Mr. Masteraft to furnish them when I was next at Albany he had don but little to them his excuse was that the Corperation had don nothing about laying the Conduits for f. Stops- I then requested him to furnish them without delay but when I was last over I found that they were not don but in considerable forwardness for a very Slow man I then repeated my request and told him they must be don at all events So as to be put down as fast as you furnished the lateral pips Since which I have not (as my friend Dexter has been gone) heard from him I also made a Contract withMr. John Chisney for Compleating the Second Resevoir in the Public Square this Resevoir when I was

last in Albany was nearly completed but owing to the neglegence of Mr. Chisney in not Securing the plank according to Contract they gave way on the upper Side & as he informed me ran a large quantity of Sand into sd Resevoir I immediately wrote him that he must clear it out at once & Secure it effectually otherwise I should be liable to a prosecution from you for non performance of Contract. . .

MSL

Feb. 7, 1803 Albany Common Council The city superintendant reports that there is in Resevoir No 1 200 hhds water.

CCSL 2

'ALBANY WATER-WORKS.

THE Dwelling House now occupied by Howkers Alias Derse in Convert firet, in the City of Albany, wire to be supplied with WATER from the Albany UNATER-OFFICERS, for the Term of THREE YEARS, from the first day of September, 1803; Subject to fuch Restrictions to prevent the Waste of Water, and such other Regulations as have been or shall be prescribed by the Trusses: The owner or occupant Daying, quarterly, in advance, on each of the suff Tuesdays in February, May, August and November, in every year, at the rate of Dollars, Cents, per annum, to the Secretary.

715 30

Mainess the Seal of the Truslees and Company of the Albany Water-Works.

[NUM. 220)

6

By order of the Truflees,

Deptern: Not 1803

The Mars hy Prefident.



If the number of either is encreased, a proportionate addition to be made to the sum payable. Secretary.

Fire Places.

Stoves.

THE OLD WATERWORKS, TECHNOLOGICAL CHANGE WITH INTRODUCTION OF IRON, 1803-1849

Real Pro

D.C.hurch

TT II II S P II

10

Portion of Map of Conduits laid & Reservoirs sunk By Order of the Common Council. Prepared by [p] Bogart By request of E. Brown. Circa 1810 Scale: 50 feet to an Inch-CEO

1.11

p. Church

ila



Jan. 25,1813

Albany Common Council Report

. . . There appears to be no reason to doubt it is certain that the object of the Water Works both as regards an abundant & regular supply of Water and a suitable remuneration to the propriators, cannot be accomplished without an expensive exhange of the present conduits for others of more durable materials-and also the adoption of measures to prevent the waste & preserve the purity of the Water. . .

> Thomas Gould Edward Brown Phillip Van Vichtin

CCSL 3

April 24, 1813

Letter from P. Keenan, Phoenix Foundery to James Van Ingen Esq. Albany

Sir; Observing an advertisment soliciting proposals for Water Conduits of Cast Iron fore the City of Albany- I take the liberty of addressing you- I have had a practical knowledge of such conduits in England, and am now superintending the best Iron Foundery in this City-

I would observe that Cast Iron is universally allowed by the first Chemists to be the most wholesome substance that water can pass through, it is also much cheaper than enything else, for they are very durable, and will not require, for years, any

repairs and when the pipes become useless for the purposes they were made, they will bring something towards the first cost--Your advertisment says the Conduits to be three feet long. I can make Them_Six or nine feet long, and equally as good as I can three feet-by having them nine feet long an have a less number of joints & consequently avoid the expense of joining them, which would be four dollars on every three yards- from this imense saving you will see the advantages of having them made the legnth I propose to the joint you mentioned, or made of connecting the conduits together, I am practically convinced, will not answer the following are my reasons- the water laying in the Conduits for some time will soften the joints, and the pres of the fluid will separate the joints-

You desire a specimin of the Conduits with the proposals. . I should be happy to send you a specimin for inspection, but the time you specified to receive proposals would have expired before our sample would have reached you- if however you have not contracted for them I will favor you with a line, mentioning the legnth of the Conduits, I will send you a specimin in with an improved joint for that purpose.

> Phoenix Foundery corner Hester and Third Sts. New York

> > WSCA

Letter from Orlando Meads, Secty Albany Waterworks relating to fire hydrants

July 25, 1833

. . . The old Kind of firestops heretofore in use, could always be constructed separately, & readily united at any time, & at any desired point, with the old wooden conduits. No so, with the present system of iron pipes, stop cocks & hydrants, which must all be prepared & arranged together, each part adapted & constructed with careful reference to the other parts, and the whole, when completed, constituting one entire apparatus. The numerous interruptions and accidents also, to which the works of the last season were subjected, were in some cases attributable to the hydrants & in others to the main conduits, but no separate accounts were or could be kept of the expenses growing out of such recurrences. . . in order to maintain the hydrants in full efficiency, lateral pipes for the supply of houses must never be inserted into the main line of conduits- but a second line of pipes is requisite for that purpose, running parallel with the main line, and connected with it at distant points, by stopcocks to turn off the supply from houses while the hydrants are in use.

· MSL

Jan 23, 1836

Contract Relative to Fire Hydrants between the Albany Waterworks and the City of Albany

. . That whenever the said parties of the second part shall deem it necessary to take up or discontinue using the present

line of wooden pipes in North & South Pearl Streets running parallel with the main iron conduits in said streets, into which wooden pipes the lateral pipes for the supply of houses are now inserted, the said parties of the first part shall elect either to pay the said parties of the second part the expense of laying a line of suitable iron conduits in lieu of the said wooden pipes, or that the said parties of the second part shall be at liberty to insert the said lateral pipes for the supply of houses, directly into the said main iron conduits in the said streets-

<u>note</u> (the party of the first part is the City, the second part is the Albany Waterworks)

MSL

Aug. 6, 1849 Albany Common Council The Select Committee appointed for the purpose of Ascertaining the price for which the City of Albany Could purchase all the right title and interest of the Albany Water Works Company exclusive of the City's interest in the Same ask leave to report by offering to the Consideration of the Board the following Correspondance.

> R. N. Thompson Chairman Select Committee CCSL 4

Aug. 13, 1849

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Letter from the Office of the Albany Waterworks signed by John Meads, President, to the City of Albany

The trustees have come to the conclusion that they would recommend to their stockholders and take all proper measures to obtain their consent to a transfer to the city of the 1597 shares of Stock not now owned by the city for the Sum of \$125,000. . . .

MSL

INDEX OF NAMES

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