

# A Chronological History of the Alexandria Canal

## (Part II)

By MAXINE GOFF MORGAN

Essentially, the Alexandria Canal story is a chronicle of Potomac River navigation. Men of vision conceived the possibility of the waters of the Potomac as a great public utility and took preparatory steps toward that end as early as 1769 through legislation in the House of Burgesses. By the time the Constitution of the United States had been adopted the old Potomac Canal System was well on the way toward realization; a magnificent work for its day, but navigable only in springtime and freshets. A more practical plan for a level canal that could be used the year round evolved, and in 1828 the Chesapeake and Ohio Canal Company took over all rights and the charter of the former company.<sup>1</sup>

Furthermore, the three districts of the Nation's seat of government: Alexandria, Georgetown, and Washington City, became one and the same city. *Tria juncta in uno* (three joined in one) might well have been their motto. Until 1846, when Alexandria was retroceded to the mother State of Virginia, canal navigation connecting interior lands with tidewater became a mutual enterprise; each separate, although not always compatible, bound together.

Within the framework of the Chesapeake and Ohio Canal Company all three segments of the District of Columbia were stockholders; Alexandria and Georgetown subscribed to stock in the amount of \$250,000 each, and Washington City to \$1,000,000 in capital stock of the company.<sup>2</sup>

Alexandria, in addition to subscribing to the main Chesapeake and Ohio Canal, needed to bridge the Potomac with an aqueduct over which horse-drawn barges could pass onto a seven-mile lateral canal to her wharves. On May 26, 1830, Congress passed an Act granting a charter to the Alexandria Canal Company, "for the purpose of building a canal from the termination or other point on the Chesapeake and Ohio Canal to such a place in the Town of Alexandria as the Board of Directors shall appoint."

Commissioners appointed to receive subscriptions were: John Roberts, Thompson T. Mason, Hugh Smith, Anthony C. Cazenove, Wm. H. Miller, Ch. Bennett, Edmund I. Lee, Colin Auld, Henry Daingerfield, Geo. Brent and Jonathan Butcher. Books for subscriptions were to be opened at such places as the commissioners might designate, to remain open for 20 days;

<sup>1</sup> See Part I of "A Chronological History of the Alexandria Canal" by Morgan. *The Arlington Historical Magazine*, Vol. 3, No. 1, pp. 3-16.

<sup>2</sup> Ground-breaking ceremonies took place at Georgetown on July 4, 1828. President John Quincy Adams turned the first spadeful of earth. In Baltimore, at the same time, similar ceremonies were being conducted by the Baltimore and Ohio Railroad. (*National Intelligencer*, July 7, 1828).

and within 60 days a general meeting of subscribers was to be held, provided subscriptions equalled one-fourth of the \$250,000 authorized stock.

The act further provided that the canal should be 40 feet wide at the surface of the water and 28 feet wide at the bottom, and "there shall be provided, throughout its whole extent, a towpath of sufficient breadth to apply the power of horses to the navigation thereof."

Edmond I. Lee was chosen as chairman when the commissioners met in the Mayor's office on June 4, 1830, and the books were declared open for subscriptions on June 14, 1830.<sup>3</sup>

The Common Council of Alexandria, on July 23, passed an act subscribing to 500 shares of \$100 each to the capital stock of the Alexandria Canal Company, binding on the corporation. Banks authorized to receive subscriptions were: Bank of Potomac, \$25,000; Bank of Alexandria, \$10,000; Mechanics Bank of Alexandria, \$10,000, and Farmers Bank of Alexandria, \$5,000.<sup>4</sup>

There was pending in Congress, June 8, 1832, a bill to aid the Corporation of Alexandria in the erection on the aqueduct across the Potomac, a carriageway and walk. The citizens of Georgetown presented a memorial against it and permission was denied. Daniel Webster declared, "This is an ungracious attempt to defeat a measure for the interests of Alexandria, who has been most abstemious of all the cities in the District in her demand on the Federal Government." Henry Clay defended Georgetown's action.<sup>5</sup>

Work on the Alexandria Canal and Aqueduct progressed as rapidly as possible considering bad weather and innumerable difficulties on the aqueduct; nonetheless, Alexandria was determined to realize her share of benefits from the C & O Canal, and she continued to finance her project. She had never defaulted in payment of the \$15,000 yearly interest on her C & O Canal commitment, although without aid she would soon be forced to do so. By May 25, 1836, her undertaking was in a state of suspension, and the following memorial to Congress will explain the nature of her problems: <sup>6</sup>

The memorial of the Common Council of Alexandria, Respectively represents: That at the last session of Congress, they presented their petition, showing that they were engaged in a work believed to be of vital importance to the existence of their town, and still requiring large sums for its completion; that the business and commerce of their town had been most seriously impaired by laws over which they had no control; that the value of their real estate had been greatly depressed, while the burdens of taxation to which it had been subjected were grievous beyond example; that the confidence of our people was almost destroyed; and that, in short, without aid of Congress, utter and irretrievable ruin must shortly overtake them.

<sup>3</sup> Caton, J. R., *Legislative Chronicles of the City of Alexandria*, Pub. by Newell-Cole Co., Alexandria, Va., 1933.

<sup>4</sup> *The Charter & Laws of the City of Alexandria, Va.* Pub. by the City Council, Alexandria, Virginia. Printed at the Gazette Book & Job Office, 1874.

<sup>5</sup> Gales & Seaton's *Register of Debates in Congress*, 1832, pp. 1053, 1070, and 1074.

<sup>6</sup> 24th Congress, 2d Session, H.R. Doc. No. 47, December 27, 1836.

## WESTERN CHANNEL CLOSED

Of all this she did not, and perhaps ought not, to complain. When, however, an act was about to pass,<sup>7</sup> closing the western and main channel of the Potomac River, through which far the largest portion of its descending trade had safely reached the harbor of Alexandria,<sup>8</sup> she remonstrated, and endeavored to show the injustice of such a course. But her protest was disregarded and one great avenue of her commerce and prosperity was closed by an *act of Congress*; and this, too, not in the progress of improvement, by giving an easier access to other and more favored markets; but by actually shutting up and destroying a great channel of commerce, prepared by the hand of nature, towards which your memorialists had looked in acquiring and improving their property, and in defiance of their remonstrances and the almost unanimous vote of the Representatives of the State interested with them in its preservation.

## ROUTE TAKEN BY CANAL BARGES<sup>9</sup>

Before the occlusion of this channel of the river, the boats from above, entering where the Potomac is not more than one hundred yards wide, and protected by lofty heights on each side, securely passed over to the Virginia shore, and thence along the shallow margin of the river, found their way safely to the wharves and shipping of Alexandria. Since the obstruction, as is well known to all conversant with the business, it has been found that the trade could not be safely, or profitably pursued; and it has, in fact, been utterly cut up and abandoned.

## PROPOSED CANAL AROUND CAUSEWAY

The effect of this work was soon practically felt, and Alexandria applied to Congress for authority to cut a canal around the causeway and channel which had been dammed up, and through such other points as might be necessary, once more to bring down the boats in safety. An Act was accordingly passed for this purpose.<sup>10</sup> The war, however, which shortly after succeeded, and the want of immediate means necessary for its execution, postponed this undertaking until the law expired. The project of the Chesapeake and Ohio Canal, then introduced, and the steps taken in relation to that work, effectually arrested any further proceedings in regard to the canal, as originally contemplated, near the margin of the river.

## EARLY OPINIONS AND CONDUCT OF PARTIES CONCERNED

Your memorialists are the more minute and particular on this subject, in order to show the early and long continued opinions and conduct of the parties concerned with it, as, on a former occasion, either from the want of correct information, or other causes less creditable, injurious and incorrect presentations were made of their motives in again referring to it; and for the correctness of the statements now made, they appeal, not only to the recollection and knowledge of all those concerned in these transactions as they occurred, but to the laws and archives of Congress themselves.

## SUBSCRIPTION TO THE CHESAPEAKE AND OHIO CANAL

The charter granted<sup>11</sup> to the Chesapeake and Ohio Company describes a canal commencing "from tide water of the river Potomac, in the District of Columbia." At the time of subscribing to its stock<sup>12</sup> your memorialists believed this to mean what, according to the practical exposition given under the old Potomac Company, it did mean—a commencement as near the head of tidewater as a convenient and safe boat navigation could be found. They fur-

<sup>7</sup> 1810.

<sup>8</sup> The channel between Mason's (Roosevelt) Island and the Virginia shore at Rosslyn known as the Little River.

<sup>9</sup> Route taken during operation under the old Potomac Canal Company.

<sup>10</sup> June 17, 1812.

<sup>11</sup> 1826.

<sup>12</sup> Nov. 10, 1827. *Charter & Laws of the City of Alexandria*, p. 148.

ther believed, that, from thence downward, each party interested in the trade would have to look to their own means and enterprise for this persuasion; the town and citizens of Alexandria subscribed to the work \$250,000, reserving, as a condition of the subscription, that the means of connecting the trade with Alexandria, by a lateral canal, should be preserved.

#### WASHINGTON CITY CANAL

Scarcely, however, had the work commenced when it was insisted, on the part of the corporation of Washington, that the canal should be immediately extended to that city. In general meeting of the stockholders which ensued, it was found that the United States, holding a million of stock, held also, the complete control of this subject; and, by the vote of the United States, the canal was accordingly extended. The boats were thus carried through the whole length of Georgetown, and then accommodated, along its whole eastern extent by a spacious and convenient basin, and thence taken to a point designated in the city of Washington as most agreeable to its authorities; and all this at a very heavy expenditure of money taken from the joint funds of the company, and to which your memorialists had contributed a very large portion of their means.

#### NORTHERN ABUTMENT OF AQUEDUCT

Your memorialists were not insensible to their situation, nor of the vital character of this question. They insisted that, if the canal passed the first safe tide navigation, it should be brought down to the best harbor, "where the canal boat could more effectually meet the sea vessel." But all they could obtain was, an agreement to construct for them the northern abutment of the aqueduct over the Potomac, and a *resolution*, unanimously passed, recommending the lateral work of Alexandria to the favorable attention of Congress.

#### EFFECT

It is not designed to insinuate that, in these arrangements, any injury or unkindness towards Alexandria was *intended*; but their *effect* cannot be mistaken.

Should Alexandria be unable to complete her lateral canal, your memorialists confidently ask whether it be possible to devise any means more effectual to cut her off from all participation in the benefits of the Chesapeake and Ohio canal, and the trade of the country with which it communicates, or more certainly to seal her ruin.

#### WORKS ALREADY COMPLETED AND THEIR COST (1836)

It is further shown in said petition, that the subscription of Alexandria to this lateral canal was called for and justified by the strictest laws of necessity and self preservation; and, moreover, that a large portion of the necessary expenditure upon it had been encountered; that the difficult and expensive passage of Four Mile creek had been effected, together with some adjacent works, at an expense of \$135,000; and that in the execution of the work at the Potomac aqueduct<sup>13</sup> in part, and in procuring necessary materials and machinery, there had been expended the further sum of \$117,000, making in all, the sum of \$252,000 thus actually laid out on the work. It was also candidly stated, that "being unable to command the further means now required, these works must perish, and with them the hopes of your memorialists and their fellow citizens, unless aided by Congress in their completion."

#### SIMILAR PETITIONS OF WASHINGTON AND GEORGETOWN

This petition was presented about the same time with similar petitions from the cities of Washington and Georgetown asking relief from their embarrassments; and with the view of granting the relief prayed for, Congress, in a just and liberal spirit, decided to assume, on behalf of the United States, the payment of the debts which had been contracted by the corporations of the District, through Richard Rush, Esq., with certain individuals in Holland.<sup>14</sup>

<sup>13</sup> 24th Congress, 1st Session, H.R. Doc. No. 261, May 25, 1836.

<sup>14</sup> In 1828. Tindall, William, *The Standard History, of the City of Washington*, H. W. Crew & Co., Knoxville, Tenn., 1914 (in Lib. of Dept. of Interior).

The work for which these engagements had been entered into, was, so far as Washington and Georgetown were concerned, completed in the fullest sense, and according to the precise plan and form most agreeable to them. They had, therefore, only to seek relief from the pecuniary burdens which its execution had in part devolved *on them*. The measure of the relief proposed was, no doubt, suitable to their wants, and has, doubtless, to them been satisfactory.

#### ALEXANDRIA'S DILEMMA

But in what manner, your memorialists would respectfully ask, was the proposed relief adapted to the wants of Alexandria, or how has it tended to better her condition, or to place her on her former footing of equality with her sister cities? She had, in no instance refused or neglected, for a single day, to pay the accruing interest upon her debt contracted for the benefit of the Chesapeake and Ohio Canal. It had, in no instance, been paid for her. The great object of your memorialists was again to connect their city with the descending trade of the Potomac river, which unless her lateral canal could be completed, had been absolutely wrested from her. The relief proposed gave no facilities for effecting this object, beyond the mere annual amount of interest on the debt in question. It had, in fact, relatively depressed the conditions and fortunes of Alexandria. The original subscription of a million dollars by the Government was expended on the canal terminating in Georgetown and Washington. The additional sum of a million (together with the heavy advances heretofore made by Alexandria herself), had been given to a canal completed as to those cities; but from the benefits of which Alexandria has been entirely excluded.

#### MEANS TO AN END

Since the last session, Alexandria, thrown again upon her own energies, and feeling deeply convinced that her very existence is identified with the success of her efforts in this undertaking, has subscribed to the stock of the Alexandria Canal the further sum of \$250,000, and gone on to raise and apply as best she could, the additional sum of \$30,000 towards the execution of this work. After encountering many and peculiar difficulties, a second pier of the Potomac Aqueduct has been safely constructed in the deepest part of the river; the causeway from the Virginia shore run out to its full extent, guarded and enclosed the whole distance with suitable wing walls, and a coffer dam completed at the end of it for the southern abutment. Since the successful result of their labors was manifested in the erection of this second pier, contracts have been offered for the remaining portions of the work; and the directors of the company have been enabled to select one, offered by a man holding the first character for ability and means, to make good their undertaking to construct the remaining piers for \$165,000. A contract by competent persons, has therefore been offered for making the superstructure or trunk of the aqueduct for \$50,000; and it is believed, both from the estimates heretofore made, and the experience acquired, that the work, in all other respects necessary to complete the canal to Alexandria, may cost the further sum of \$100,000. Thus it appears that about one-half of the whole sum necessary for the completion of this work has already been expended; and, large as it may appear, your memorialists entertain the firm conviction that, in the success of their enterprise, they will be amply repaid for their efforts to sustain a work not only essential to themselves, but of national importance.

In consequence, however, of their want of credit abroad, arising from the inability of some of the corporations of this District to pay the interest on their Holland loan, your memorialists have been unable to dispose of their stock, or to borrow the money required to comply with their subscription to the Alexandria canal. They, therefore, earnestly and respectfully pray that Congress may either accept a transfer of their stock in this branch of the canal, upon the same terms and conditions as they have accepted that in the main stem of the Chesapeake and Ohio Canal; or, that upon the pledge of their own stock, or in such other way as may seem most just and equitable, such sum may be advanced to them as will enable them to complete their undertaking.

Alexandria's problems, although desparate, were not unique. The whole country was in the midst of a depression. The United States, as a completely united confederation<sup>15</sup> had been in existence only a half a century; it was struggling to overcome war debts and to construct buildings to house the Government.

No sooner had the rural village of Washington begun to resemble a city than the British descended on it at dusk one evening in 1812, leaving all the public buildings, except the post office and patent office, in smouldering ruin; ships under construction in the Navy Yard were scuttled by its own employees. These structures had to be replaced and money was scarce. Businessmen were anxiously anticipating trade and industry from mills which the Canal would bring into the Capital. All federal building had been at a stand-still since 1829. The year 1837 was known as the Year of Panic; inflation gripped the country as prices soared and wages remained fixed. This, also, was the year that the C & O Canal opened its first feeder at Seneca, Maryland, and goods began pouring into markets in Georgetown and Washington.

Alexandria, again left to her own resources, subscribed to 25,000 additional shares of stock in the Alexandria Canal Company "with the express condition that the work on the Alexandria Canal and Aqueduct shall after the completion of the piers and southern abutment of the aqueduct now in progress be carried on in all its parts by contract, in accordance with the resolution passed by the freeholders in general town meeting . . . that to raise the funds necessary for the payment, the mayor and president of the Common Council were authorized to borrow \$250,000 at 6% per annum, payable half yearly, redeemable at the expiration of 25 years . . ." Taxes were to be levied every year beginning in 1837 and every succeeding year until stock should be redeemed and paid . . . on real estate and ground rents within the town.<sup>16</sup>

By the early 1840's the Nation was pulling out of the depression and was beginning to expand.

The aqueduct was finished and officially opened on July 4, 1843, and several manufacturers contracted with the directors of the C & O Canal Company for use of "waste" water for propelling mills. The following five months saw the completion of the Alexandria Canal, which was formally opened December 2, 1843.

War clouds were gathering. James K. Polk was elected President in 1844 on a platform calling for "the reoccupation of Oregon and the re-annexation of Texas." Texas soon became the 28th State of the United States, December 29, 1845, and five months later the Nation was at war

<sup>15</sup> With the signing and adoption of the Constitution September 17, 1787, the Government then functioned as an inseparable unit.

<sup>16</sup> *Charter and Laws of the City of Alexandria*, p. 131. July 1, 1836.

with Mexico. Contracts were let to many small manufacturers for war goods; the bank of Corcoran & Riggs was formed and they loaned money to finance the war, and business from the canal was booming.

Meanwhile, in response to numerous memorials from Alexandria, the Virginia Assembly passed an act declaring the willingness of the State to accept retrocession of "that portion of the District of Columbia comprising the county and town of Alexandria which had been ceded to the United States 3 December 1789 . . ." Congress gave approval by an Act passed July 9, 1846.<sup>17</sup>

By an act passed by the Common Council on February 16, 1848, the Alexandria Canal Company was granted exclusive use of Montgomery, Union, and Water Streets extended, as far as embraced within their present property, for a term of 30 years from the completion of the Chesapeake and Ohio Canal to Cumberland. If at the end of that time the Corporation should repossess the streets, the cost of filling the locks would be refunded to the canal company.<sup>18</sup> This act was confirmed by the General Assembly January 17, 1849.

On April 4, 1848, by an act of the Virginia Assembly, the State guaranteed the bonds of the Alexandria Canal Company and authorized the Common Council to underwrite an amount not to exceed \$43,500.20.

The Virginia General Assembly, March 15, 1849, passed an act guaranteeing the bonds of the Chesapeake and Ohio Company amounting to \$200,000 to repair the canal from Dam No. 6 to Georgetown, and "also shall have granted upon fair terms to the Alexandria Canal Company such reasonable proportion of water rights and privileges required by the said company which may be in the power of the Chesapeake and Ohio Canal Company to afford."<sup>19</sup>

The C & O Canal reached Cumberland in October, 1850; but for some time prior to that, many concerns in the Washington area had installed steam engines and were using coal brought down the canal.

In the 1850's a general decline settled over the country. Business on the canal was slowing down, and railroads were taking over the coal fields. The main trunk of the C & O Canal was in constant need of repair from freshets or silting-up. On May 3, 1852, the Virginia General Assembly passed a resolution authorizing the Council of Alexandria to loan the bonds of the city to the C & O Company to enable them to repair the "damages caused by the late freshets in the Potomac."<sup>20</sup> Pursuant to that act, the

<sup>17</sup> *Code of Virginia, 1887*, p. 64, Chap. III. For an account of the retrocession of the County and Town of Alexandria to Virginia. cf. *Arlington Historical Magazine*, Vol. 1, Nos. 1 and 2.

<sup>18</sup> *Charter & Laws of Alexandria*, p. 52.

<sup>19</sup> *Alexandria Gazette*, March 15, 1849.

<sup>20</sup> *Acts of Assembly, 1852*, p. 318.

City Council loaned \$10,000, at 6%, redeemable any time after July 1, 1857, secured on the tolls. This was passed May 18, 1852.<sup>21</sup>

To insure collection of tolls upon the Alexandria Canal and to impose a penalty for the violation of the by-laws of the company, the Assembly passed an act on May 25, 1852. The fine for "any person employed on board a boat, float or raft, who shall willfully and knowingly violate any of the by-laws" was \$10 or 10 days.<sup>22</sup>

The C & O Canal Company failed to pay interest on the bonds guaranteed by the State, so on March 22, 1853, the Assembly authorized the Board of Public Works to borrow on the credit of the Commonwealth "to pay interest due 1 July 1852 and 1 January 1853, the sum of \$24,315; and to pay on 1 February 1853 the sum of \$9,315, that being the amount of interest due on 1 July 1852 with interest thereon to 1 February 1853; and also, as soon after the passage of this act as demanded by the treasurer, the interest due on 1 January 1853 amounting to \$15,000."<sup>23</sup>

A further sum of \$276.78 was paid March 24, 1853, for interest guaranteed for July, 1852 and January, 1853.<sup>24</sup>

On December 22, 1853, the Commonwealth again paid interest due July 1 of that year on guaranteed bonds of the C & O Company, in the amount of \$15,450. The Board of Public Works was further authorized to pay interest on bonds due January 1, 1854; "provided that the said company shall not have paid the same and that the Commonwealth shall have become liable therefor."<sup>25</sup>

On March 4, 1854, the Alexandria Canal Company was authorized to sell a portion of its works to the Alexandria and Washington Railroad Company.<sup>26</sup>

Items in the local press supply many facts and at the same time add a personal touch. The *Alexandria Gazette* reported in March of 1854 that work was going on in preparation for the spring coal trade. An obstruction at the outlet of the canal was removed by dredging, and "the repairs of the Aqueduct, if the weather should continue favorable, and no accident occur, will be complete by the 5th day of April, when the whole line of the Canal will be in good order."<sup>27</sup>

The following spring, this item appeared: "The water was yesterday let in the Alexandria Canal in order to let some ten to twelve boats that have been detained by ice on the Chesapeake and Ohio Canal, pass down to

<sup>21</sup> *Charter & Laws of Alexandria*, pp. 139-40.

<sup>22</sup> *Acts of Assembly, 1852*, p. 160, Chap. 226.

<sup>23</sup> *Ibid.*, 1852-53, p. 65, Chap. 63.

<sup>24</sup> *Ibid.*, Chap. 64.

<sup>25</sup> *Acts of Assembly, 1853-54*, p. 34, Ch. 48.

<sup>26</sup> *Ibid.*, p. 42, Ch. 64.

<sup>27</sup> *Alexandria Gazette*, March 20, 1854.



Coal Wharves, as soon as those boats return the water will be again drawn off for the purpose of making the repairs which have hereunto been advertized of, which will require being a few days, and when completed the Alexandria Canal will be in good navigable order.<sup>28</sup>

Two months later, the *Gazette* informed its readers on March 7, 1855, that "the water will be let into the Alexandria Canal, on Wednesday the 7th instant, and the whole line will be in good navigable order."

Apparently the summer passed without too many interruptions to trade, for the next report was published in September: "Whilst the repairs have been making on the Chesapeake and Ohio Canal, one of the spans of the aqueduct, which had recently settled some, has been strengthened by additional bracing, and some other slight repairs have been made on the other parts of the line. The Alexandria Canal will be in good order for the resumption of business before the repairs of the Chesapeake and Ohio Canal will have been completed. The water will be let into the former today or tomorrow."<sup>29</sup>

Meanwhile, the locks needed attention, and the Virginia General Assembly passed an act March 18, 1856, requiring the Alexandria Canal Company to construct its locks on the most improved plan for the expedition of their use, and not to be less than 40 feet at the surface of the water, and 28 feet at the bottom, to be governed by the character of the soil, and to be sufficient for navigation in all seasons of the year.

A certain water level<sup>30</sup> had to be maintained in the canal at all times for barge traffic. Excess or "Waste Water" as the canal company's books labeled it, was rented to various mills and plants along the line. Georgetown drew considerably more water rights than Alexandria, and this seemed to be a bone of contention between the two cities. Georgetown claimed loss of water because of a leaky aqueduct; whereas Alexandria blamed too many users on the Georgetown level and mudbanks in the dam at Little Falls. One thing was certain, however, the wooden trough over the Potomac would eventually need replacing.

"Water rights" was a favorite topic for discussion, and the newspaper carried a lengthy editorial on the subject, tying it up thusly: "what men would be silly enough to build a flour mill or cotton factory on the opposite side of the river to be processed by water power carried across the Alexandria aqueduct from the Georgetown level, when he knows in a few years the aqueduct must yield obedience to the law of gravitation and tumble into the Potomac River."<sup>31</sup>

<sup>28</sup> *Alexandria Gazette*, January 18, 1855.

<sup>29</sup> *Ibid.*, September 7, 1855.

<sup>30</sup> A safety depth of more than five feet was required at all times, and four additional inches could be maintained before any would spill over the wasteway.

<sup>31</sup> *Alexandria Gazette*, July 3, 1857.

Not everyone was that pessimistic, although the necessity of building a new aqueduct was becoming quite apparent. In the fall of 1857 the press reported: "The businessmen of Alexandria have had an opportunity this summer of realizing the value of an uninterrupted trade with the coal mines, by means of the Chesapeake and Ohio and the Alexandria Canals—and, of knowing the loss sustained by the stoppage of that trade, and the means of connection with that trade, the Potomac Aqueduct. The inquiry is becoming every day more interesting, what is to be done to secure the Trunk across the Aqueduct, or to build a new one, when the present one falls to pieces or has to be taken down. An intelligent writer in *The Gazette*, some months ago, placed the importance of attention to this Trunk in a very clear light and showed every intention of taking some step in the matter. If I have been correctly informed, the interest of the Alexandria, Loudoun, and Hampshire Railroad Company, of the Chesapeake and Ohio Canal Company, of the Alexandria Canal Company, and of the citizens of Alexandria are all co-incident and alike."<sup>32</sup>

Purchase of canal boats from the Erie Company proved very profitable. They were well built and the best boats ever seen on the Chesapeake and Ohio Canal. Most of them sold for \$1,000 to \$1,100 each, "being a large advance on the price paid for them by the Erie Company."

"Business on the Canal—for the week ending Saturday last, 118 boats, carrying 13,006 tons of coal, descended the Chesapeake and Ohio Canal. This is the largest one week's business ever done upon this work and is an indication of what may be expected from this improvement, should it hereafter be kept in navigable order. The total number of boats that have left this port since navigation was resumed, in the latter part of July last, is 478, carrying 51,311 tons of coal, at which the average price of \$4.25 per ton at Alexandria, amounts to the nice little sum of \$218,072."<sup>33</sup>

A freshet in the river in May of 1858 caused an interruption in canal trade. "It will take three or four weeks to make the necessary repairs. It will be rather difficult to ascertain the real amount of damage until after the water in the basin at that point shall have fallen to its usual level. Boats, we learn, are still passing, and it is expected that all now on the way down will be able to get by before high water should have subsided."<sup>34</sup>

Another interruption occurred the following September on the Alexandria Canal at one point on the Four Mile Run level "which will be likely to interrupt navigation on the upper portion of the line for days. Trade upon the canal will still continue very slack owing to the multitude of interruptions to navigation and the limited number of orders from the

<sup>32</sup> *Alexandria Gazette*, September 4, 1857.

<sup>33</sup> *Alexandria Gazette*, September 9, 1857.

<sup>34</sup> *Ibid.*, May 13, 1858.

north for coal, but little has yet been shipped from our docks. Four boats laden with articles arrived on Saturday.”<sup>35</sup>

Numerous repairs to the aqueduct and bridges along the canal left only 48¢ in the treasury at the end of the fiscal year, May 1, 1859.<sup>36</sup> At the annual meeting of the Alexandria Canal Company held in the council chamber June 6, 1859, resolutions were offered and unanimously adopted; “Whereas the permanency of the Potomac aqueduct is all important to the interest of the company, indispensable in maintaining the participation of Alexandria in the benefits of the coal trade, and of vital importance to the coal interest of Virginia and Maryland, in continuing to them two outlets or shipping ports for the product of their mines: Resolved . . . that interest of the company requires that its reconstruction at the earliest possible day, and upon an improved plan, should be kept steadily in view . . . that a plan or plans should be prepared . . . and that the president and directors should avail themselves of any opportunity that may offer, of entering into negotiations and closing a contract with any party or parties who may be disposed to advance the means for the accomplishment of this great and desirable object.

“Repairs and improvements on the Potomac aqueduct during the year, as well as those previously made, have added greatly to its security; and the board have confidence that the superstructure may be relied upon for several years, with moderate repairs. The interest of the company, however, obviously requires that its reconstruction, at the earliest possible day, upon an improved plan, should be kept steadily in view. To hazard a work which has cost a million and a quarter, and the important interests dependent on it, upon the present structure should not be thought of for a moment.

“The means of keeping up the aqueduct have hitherto been furnished mainly by the corporation of Alexandria; and unless other sources be discovered, the city must continue to bear this burden, already so grievous, as well as that of ultimately rebuilding.

“. . . Some of the largest creditors of the company, alarmed by the apparent intention of the city council to force payment at so short a period as the 1st September next, have brought suit against the company, and must shortly obtain judgement.”

There was received on the canal at Alexandria, during the year 1859, 177,619 tons of coal, “an amount considered favorable allowing for 70 days’ interruption of navigation upon the Chesapeake and Ohio Canal, exclusive of the usual winter suspension; agriculture products and mer-

<sup>35</sup> *Alexandria Gazette*, September 14, 1858.

<sup>36</sup> *Report of Board of Directors*, 1859, Doc. 17 (in archives of Arlington Historical Society).

chandise trade was small, owing mainly to the short crops the two preceding years.”<sup>37</sup>

Further demands were being made upon the Alexandria Canal Company by the Directors of the Chesapeake and Ohio Company. On April 8, 1859, the Board of the latter company passed a resolution; “Whereas it is desirable for the successful navigation of the canal, and the maintenance of the water grants already made, or which shall hereafter be made, on the Georgetown level of the canal, that the dam at the Little falls of the Potomac should be thoroughly repaired and rendered fully efficient; and it is understood that parties desiring to lease water are willing to make advances for that purpose.

“Resolved, that in addition to the permanent grants of water power now existing on said level, of 1,295 inches, this company will make permanent grants to the extent of 1,200 inches (inclusive of 300 inches . . . now held under temporary grants . . .”<sup>38</sup>

The Alexandria Canal Company was offered one-half of the water power but was given only 60 days in which to accept, or “the whole water may be leased to parties in Georgetown.”

Mr. R. Johnson, President of the Alexandria Canal Company considered the proposed means of financing the repairs, “as placing water privileges upon the Alexandria canal upon a less favorable footing than the present grants at Georgetown, and is therefore repugnant to the existing contract between the two companies.” However, “. . . it is obvious that further grants of water power from the Georgetown level cannot be expected until dam No. 1 at the Little falls shall be rebuilt and the feeder enlarged, which will cost about \$25,000. To raise this amount, the company can rely upon the bonus of \$5 per inch upon the additional 1,200 inches of water which will be at their disposal when the dam shall be rebuilt, and for the residue upon loans from parties leasing the water, to be refunded, with interest out of the rents. It is hoped that parties in Alexandria will, by making the required advance, secure at once for that place one-half of this additional water power. The security would seem to be ample, and the benefit to the city of the employment of this 600 inches for power in manufacturing would be very great.”<sup>39</sup>

Three new substantial bridges were built over the Alexandria Canal during the 1858-59 fiscal period; one at Poor House Lane, one at Hunter’s, and the other at the locks. The examining committee “found the aqueduct in good repair, and leakage being less than usual—and are of the opinion that it will last for years to come.”

<sup>37</sup> *Report of Board of Directors, on Alexandria Canal Co.*, Doc. 17, 1859, p. 9.

<sup>38</sup> *Ibid.*, p. 10.

<sup>39</sup> *Ibid.*, p. 11.

Docket No. 17, page 12

GENERAL STATEMENT OF THE RECEIPTS AND EXPENDITURES OF THE ALEXANDRIA CANAL COMPANY, FROM THE COMMENCEMENT TO MAY 1, 1859

RECEIVED

	Before May 1, 1858	Since May 1, 1858	TOTAL
Capital Stock -----	\$380,026.60	---	\$380,026.60
Corporation of Alexandria -----	350,000.00	---	350,000.00
United States -----	400,000.00	---	400,000.00
Premiums on U.S. drafts and notes -----	3,962.57	---	3,962.57
Interest -----	13,591.68	60.00	13,651.68
Loans -----	93,181.28	2,227.45	95,408.73
Chesapeake and Ohio canal company -----	19,909.26	---	19,909.26
Alexandria corporation stock -----	195,940.00	---	195,940.00
Rents -----	7,130.53	600.00	7,730.53
Tolls -----	34,122.01	5,025.08	39,147.09
Wharfages on coal -----	5,887.70	750.00	6,637.70
Ferry tolls -----	1,696.66	---	1,696.66
Potomac aqueduct account -----	3,062.75	---	3,062.75
General construction account -----	144.71	396.25	540.42
Coal wharf account -----	460.55	---	460.55
Repairs and superintendence account -----	367.04	---	367.04
Incidental account -----	240.00	171.42	411.42
Loans guaranteed by state -----	15,000.00	---	15,000.00
Profit and loss -----	83.68	---	83.68
Miscellaneous receipts -----	111.12	---	111.12
Requisitions outstanding -----	109.62	---	109.62
			\$1,534,257.40

PAID

General construction -----	\$473,451.28½	---	\$473,451.28½
Potomac aqueduct -----	575,381.43½	---	575,381.43½
Engineering department -----	9,867.24	---	9,867.24
Pay of officers -----	21,798.57	550.52	22,349.39
Incidentals -----	6,130.96	94.26	6,225.22
Interest -----	9,037.43	1,051.48	10,088.91
Loans -----	3,700.81	350.00	4,050.81
Discounts -----	40,648.50	---	40,648.50
Capital stock -----	45.82	---	45.82
Alexandria corporation stock -----	195,940.00	---	195,940.00
Georgetown ferry property -----	3,425.00	---	3,425.00
Corporation of Alexandria -----	50,000.00	---	50,000.00
Rents -----	108.50	---	108.50
Repairs and superintendence -----	98,456.32	7,599.44	106,055.76
Capital stock held by company -----	11,725.00	---	11,725.00
Coal wharf -----	16,222.21	---	16,222.21
Profit and loss -----	2,413.22	---	2,413.22
Sinking fund -----	6,150.00	---	6,150.00
Outstanding requisitions -----	108.62	---	108.62
Due by treasurer -----	.48	---	.48
			\$1,534,257.40

## CIVIL WAR PERIOD

Only five months after issuance of the foregoing report the town of Harper's Ferry would be involved in John Brown's seizure of the United States' arsenal there. Business was unsteady, but the Alexandria Canal continued to function. The aqueduct was being quietly observed by the army as a possible military vehicle.

By the 19th of April, 1861, President Lincoln issued a proclamation declaring all southern ports in a state of blockade, and on the 6th of May, the annual meeting of the Alexandria Canal Company was held in the Council Chamber, but no business was transacted.<sup>40</sup>

The Alexandria Gazette and Virginia Advertiser carried this article on May 21, 1861:

### CANAL TRADE

The National Intelligencer says, "We learn that a day or two since a miller at Williamsport, Maryland, having a boat load of flour which he wished to bring down to the District to market made application to the commander of the Confederate troops at Harpers Ferry for a permit to pass. The request was pre-emptorily refused, and the miller was informed that no navigation of the canal would be permitted for the present, or until Maryland had withdrawn her object of 'Pinnacle Rock' and adjacent heights on the Maryland side by troops of Virginia and the Confederates. This was understood to apply to coal boats as well as all others."

The possession of the opposite shore of the Potomac was incidentally important in the defense of Washington and was essential to the operation of Union forces in Virginia and to the prestige of Federal arms. The army immediately moved into Virginia, and Colonel J. G. Bernard, of the U.S. Army Engineers made this report: "The crossing of the Potomac took place on the night of the 23d of May, 1861, in three columns—one under command of Major Wood, by the Georgetown Aqueduct; another under Major (now General) Heintzelman, by the Long Bridge; and another under Colonel Ellsworth by water to Alexandria. . . . As soon as our possession of Alexandria was established, he [Capt. D. P. Woodbury] was sent by General Mansfield (in chief command) to select a point for a fortification and to superintend the erection thereof."<sup>41</sup>

The Financial Report of the Common Council of Alexandria, published in the Gazette, May 25, showed stock in the Alexandria Canal Company, as of March 1, 1861, as being \$228,000; the balance due from Alexandria Canal Company; principal and interest, \$152,370.77; and the balance due from Repair Bonds of the Chesapeake and Ohio Canal Company, \$10,000.00.

General McClellan was placed in command of the Army of the Potomac

<sup>40</sup> *Alexandria Gazette*, May 7, 1861.

<sup>41</sup> Report of Bvt. Major General J. G. Bernard, Colonel of Engineers, U.S. Army, on the Defenses of Washington. Professional papers of the Corps of Engineers, U.S. Army No. 20. Printed by the Government Printing Office, 1871; p. 8.

in July, 1861 and under his direction a strong line of defense was built upon the Virginia heights.

According to the report of Col. Bernard, describing conditions of defense in the fall of 1861, the aqueduct became very important. His report on page 79, reads as follows:

The Chesapeake and Ohio Canal follows the descending course of the Potomac to Georgetown where it crosses the river and is prolonged to a secondary terminus at Alexandria. The stone piers of the aqueduct are works of the highest class of engineering, the bed rock on which they rest being from twenty to thirty feet below the surface of the river and covered by half of the depth by mud, the superstructure, was of wood, much out of repair, but serving its purposes.

The main object of the continuation of the canal to Alexandria was the delivery of Cumberland coal for shipment at that port. All commercial uses ceased, of course, with the commencement of the war. (Georgetown answering nearly as well as a shipping port), and though a certain service could have been rendered by the canal in the distribution of military supplies to Alexandria, this utility was insignificant weighed against the importance of having a second permanent and secure bridge connecting Washington with the Virginia shore.

Two bridges were necessary, even if the liabilities to destruction of one by accident or the incendiary had not been, in itself, a decisive motive. The tow-path of the aqueduct would indeed furnish a narrow passageway to horsemen and footmen, but this was far from adequate to the military exigencies. Accordingly, early in the winter of 1861-62, the water was shut off from the aqueduct, its trough converted into a double-track wagon road, the floor being overlaid with 4-inch planks and long inclines, or trestles, forming connections with the roads on either side.<sup>42</sup>

“The proposed transformation of the aqueduct into a roadway excited considerable opposition at first, not only from the canal company, but even from the officers in the administrative departments of the Army of the Potomac and in consequence the alternative of a boat bridge (the depth and character of the river forbidding any other) was seriously studied. The great depth, the floods, the powerful currents, and the ice, were insuperable objections to dependence on such a bridge to subserve so vital an object.”<sup>43</sup>

The canal, although the water had been drained from it, served as a military road, providing the means of rapidly moving troops and guns, unobserved by the enemy, to reinforce any part of the line that might be attacked.

## POST CIVIL WAR PERIOD

The Virginia General Assembly passed an act, February 16, 1866, requiring the City of Alexandria, as was necessary for the repair of the Alexandria Canal for the distribution of goods, produce, and the like, to dispose of its stock in the Alexandria Canal Company. The same act authorized the Board of Public Works to dispose of the State's interest for the best possible consideration.

<sup>42</sup> Bernard, *Defenses of Wash.*, p. 79.

<sup>43</sup> *Ibid.*, footnote, p. 80.

On May 11, 1866, the City Council took action on the proposition of Messrs. Henry H. Wells, William W. Dungan, and Philip Quigley to lease the Alexandria Canal for a period of 99 years at \$1,000 per annum. So far as the Corporation was concerned the terms were acceptable and a deed was prepared for the transfer of Canal property to the lessees.<sup>44</sup> By the terms of the deed, the Canal "is to be thoroughly repaired throughout its entire length, and kept in proper navigable condition, and to be used for Canal purposes only. Whenever the tolls, wharfage and dockage received in one year shall exceed 15% of the sum of \$300,000, in that event after deducting the current expenses of the year, the surplus shall be paid to the Alexandria Canal Company."

According to the press from Richmond, T. B. Robertson, Delegate from Alexandria was in that city May 19, for a conference with the Board of Public Works to secure assent of the State to the ratification of the lease of the Alexandria Canal to Messrs. Wells, Dungan and Quigley.<sup>45</sup>

The following articles appeared in the *Alexandria Gazette*:

Long Bridge—June 9, 1866

For several months past travel over this bridge has been suspended, and the public have been greatly inconvenienced, as there has been no means of reaching Virginia except by crossing at the Aqueduct Bridge or on the ferry-boats running between this point and Alexandria. This occasioned considerable loss of time, and the public have anxiously awaited congressional action on the matter. Yesterday Senator Morrill reported from the Senate District Committee, without amendment, a bill appropriating \$10,000 for the repair of the bridge. It is to be hoped that the work will be commenced at once, and pushed forward as rapidly as possible, in order that travel may be resumed without delay.

C. & O. Canal—August 8, 1866

In consequence of the low water in the canal, occasioned by the breaking of a dam above the Collector's office during the recent heavy rains, the boats cannot possibly be brought into the Georgetown harbors. The Directors of the canal company are having the breakage remedied, and it is hoped and expected by the anxious boatmen and other parties interested that the canal will be in running order about the latter part of the present week.

August 17, 1866

The agents of the coal companies in Georgetown complain of the lack of water in the canal, which prevents them from obtaining supplies. The derricks are quiet, and the laborers are loitering about the docks because there is not a boat to discharge her cargo. The shipments progress rapidly, and the wharves are crowded with vessels awaiting cargoes. Several of the companies, if not all, will be able to ship all they have in a day or two. The Cumberland Co.'s wharf is clean swept of coal; but a few hundred tons remain at the Borden wharf; and the extensive banks at Ray's Docks, the Consolidated and Hampshire, and Baltimore Co.'s wharves, are rapidly diminishing. It is rumored that there are about 100 boats aground at dam No. 5, from which it appears that the scarcity of water is not limited to the Georgetown level, and it is probable that the low stage of water in the Potomac has more to do with the scarcity in the canal than the injuries to the dam have. It is asserted by old observers of the river that the water has not been so low for several years past.

<sup>44</sup> *Alexandria Gazette*, May 12, 1866.

<sup>45</sup> *Alexandria Gazette*, May 19, 1866.



The Alexandria Canal. September 6, 1866

The people of Georgetown seem to be perfectly satisfied, judging from the following item from that city, that the Alexandria Canal is effectually closed. 'As bridges seem to be the subject that most interests our people at present, we are glad to announce that the repairs on the bridge across the canal, at the Aqueduct, are completed and travel fully resumed. Although the present structure is perfectly safe now, it is liable at any time to be damaged and made unsafe by canal boats running against the posts that support it, and as it is a settled question that the Aqueduct is to be used hereafter only as a bridge we hope that ere long the proper authorities will cause to be built a good and substantial bridge across the canal.'

On April 17, 1867, the General Assembly ratified and confirmed the lease of the Alexandria Canal, made under the Act of February 16, 1866, and authorized the lessees,<sup>46</sup> in conjunction with the restoration, to construct a highway toll bridge over the water-filled trough, and to collect tolls for the use thereof.

For many years the two-tiered Aqueduct Bridge served both vehicular and canal traffic. The top tier supported a road and later a railway also.

In 1886, the Aqueduct was purchased by the Federal Government. The wooden structure was removed and an iron truss bridge was built upon the old stone piers.<sup>47</sup> The old Aqueduct Bridge, as it was called, served as one of the principal river crossings until 1923 when the Key Bridge was opened to traffic.

Coal trade from the Cumberland region was declining on the canal and railroads had penetrated the coal fields. On May 24, 1887, the General Assembly authorized the sale at public auction in the City of Alexandria, of the interest of the State in the Alexandria Canal Company.

<sup>46</sup> Messrs. Wells, Dungan & Quigley, incorporated, under the name of Alexandria Railroad & Bridge Co.

<sup>47</sup> The aqueduct was originally planned to consist of 12 arches of stone, supported by 11 piers and 2 abutments; the arches to be 100 ft. span and 25 ft. rise; the soffits to be curves of 11 centres, 3 abutment piers being every third pier, to be each 21 ft. thick at the springing of the arch, and 8 piers of support, each to be 12 ft. thick at the springing. The masonry of the land abutments to be 21 ft. thick. In 1833 this plan was approved by the president and directors of the Alex. Canal Co., with the exception of the superstructure, the cost of which was beyond the limited means of the company, was left for after consideration. Because of lack of funds, a causeway of earth 350 ft. in length was substituted for three of the arches at the southern extremity of the work.

The adoption of the causeway made a change in the arrangement of the piers necessary, and it was then decided that the aqueduct should consist of 8 piers, 155 feet apart at high water mark; 2 of them to be abutment piers, each 21 ft. thick, and 6 of them, piers of support, to be 12 ft. thick at high water mark. The southern abutment to be 21 ft. thick, with circular wing walls 13 ft. average thickness at the base; 66 ft. in length on each side to connect with the slope walls of the causeway.

The northern abutment was built by the C & O Canal Company.

Each of the piers was to have an ice breaker upon the up-stream end, in form of an oblique cone, sloping 45 degrees, extending 5 ft. below, and 10 ft. above, high water mark, made of cut granite. The downstream ends to be circular, and to have a slope the same as the sides, 1 inch to the foot. (From a report of the Army engineers, 25 May, 1836.) 24th Cong., 1st Session, W.D., H. R. Doc. 261.

The aqueduct was 1,100 feet long; a wooden trunk or trough, supported by eight stone piers. All eight piers stood silently in the Potomac as a reminder of a great work until August, 1962. To make way for rowing regattas, seven of the stone pillars were demolished by the Army engineers as a training exercise. Above-water destruction was made with pneumatic tools. Underwater demolition was carried out with explosives to a depth of 12 feet below mean tide, and rubble was allowed to settle to the bottom of the river.<sup>48</sup>

## ROUTE OF THE CANAL

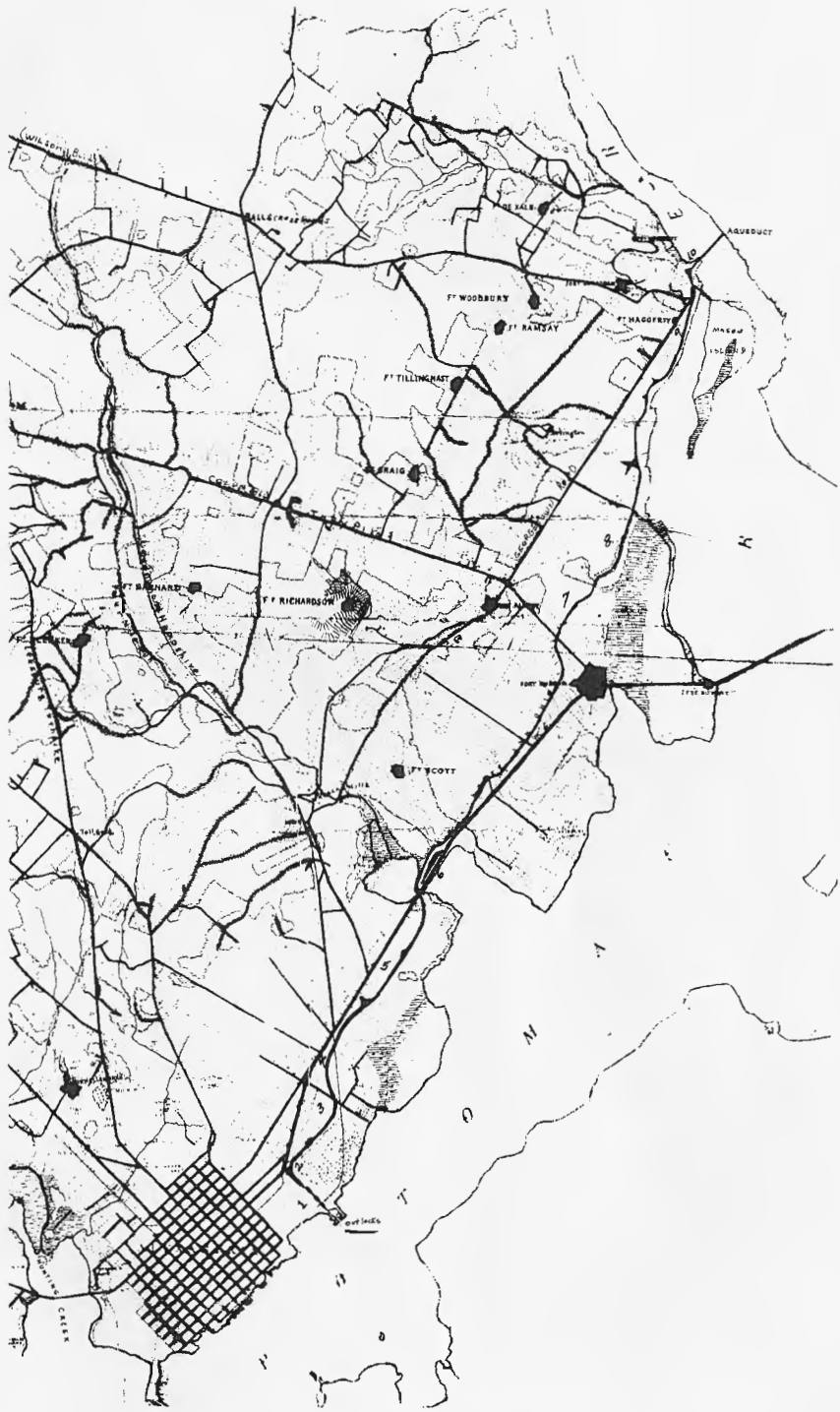
At this stage, the route of the canal is difficult to define, as very little evidence of it still remains. Moreover, the Virginia shoreline between Rosslyn and Alexandria has been severely altered by land-fill for the National Airport and the Mt. Vernon Boulevard.

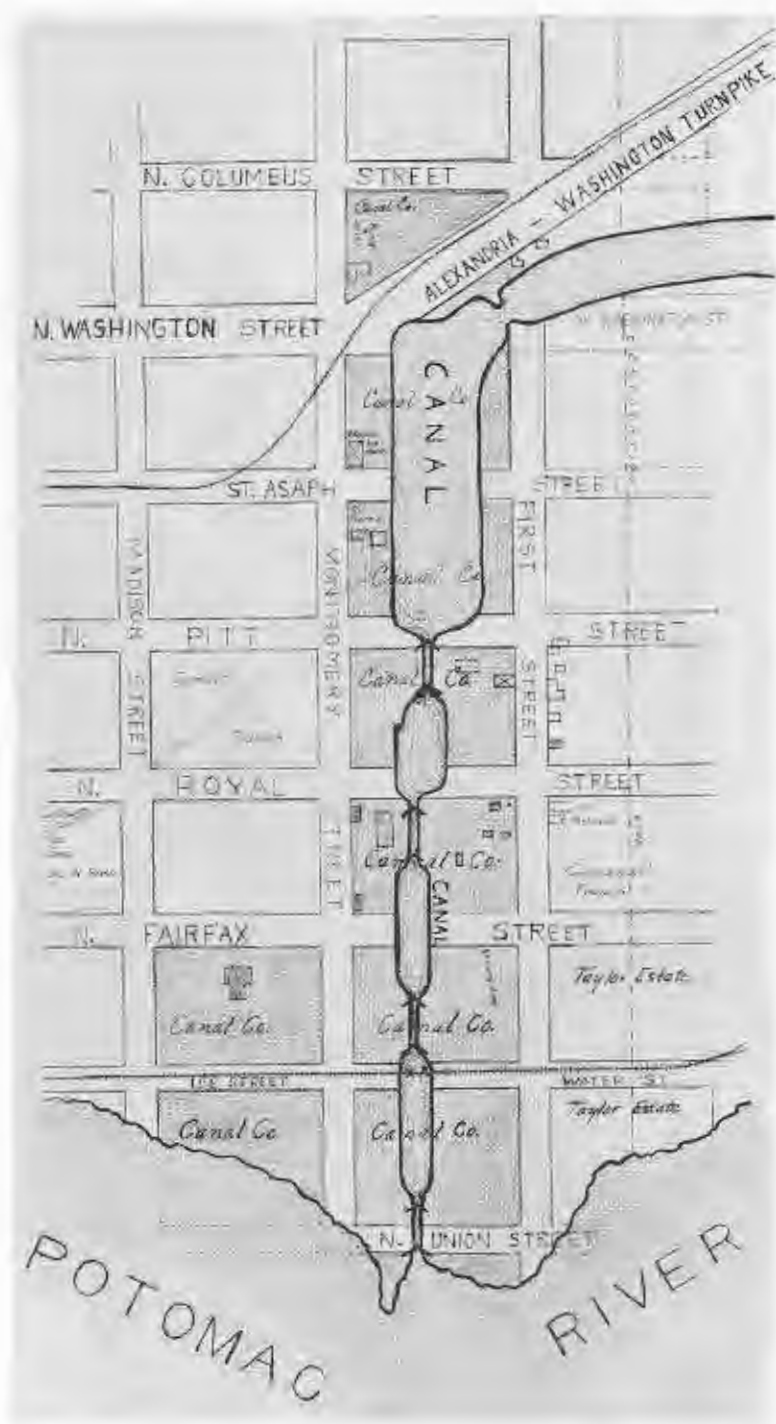
A fairly accurate sketch has been determined by various records, maps, and on-the-site examinations. By using the U.S. Coast Survey map made by the Army Engineers in 1861, one may trace (in terms of today) the course of the Alexandria Canal from the wharves at Alexandria to Georgetown:

Beginning at the out-locks on the Potomac (1) between Montgomery and First Streets, a portion of the old stone walls can still be seen under the railroad trestle adjacent to the warehouse of Bryant Herbert, Inc. (see x-marks on map of locks).<sup>49</sup> Three basins and locks were contained between these streets from the river to North Washington Street, and a large basin, called "the cove," located where the Hot Shoppe is now situated, would have included the whole intersection of what is now Washington Street and First Street. At this point (2) it curved sharply northward to about the location (on the west) of the Bashford Apartments, taking in part of the land now occupied by Mt. Vernon Boulevard, or North Washington Street extended (3). A northwesterly bend leads to the corner (4) and inner side of the iron fence which encloses Potomac Yards. Close examination of the site reveals the west bank (5) of the canal for a long stretch, inside and paralleling the fence. Cattails and reeds abound, and water still remains in the bottom most of the time. Another slight westerly turn points toward Four Mile Run (6), now quite different in size and shape from earlier days, where it passed over both the Run and a railroad via a brick and stone aqueduct. From there it continued about on the same route (just west of and parallel to) as the Jefferson Davis Highway in a northerly course near the present Arlington County Water Pollution Control Plant, and on toward the (7) Columbia Island Marina.

<sup>48</sup> *The Evening Star*, July 19, 1962.

<sup>49</sup> Appended map of the Out-locks in Alexandria. Taken from "*The City Atlas of Alexandria, Virginia*," from Official Records, Private Plans, and Actual Surveys Based on Plans deposited in the Department of Surveys, 1877. (Alexandria Library.)





From here another original portion of the canal can be seen. The Boundary Channel (8) was once a part of the original work. The western approach to Memorial Bridge, at the Arlington Cemetery Gate, spans the Channel, or Little River, and a good view of the ditch can be had from the bridge. The canal then followed a course much on the same route as the new parkway leading from Roosevelt Bridge to the Rosslyn end of Key Bridge. Regretably, when the parkway was built, a beautifully constructed, arched masonry bridge at Rocky Run (9) over which the canal passed, was destroyed, as was a second one over the road leading to the causeway to Mason's Island. At Rosslyn the canal passed over the Potomac Aqueduct (10) and connected with the Chesapeake and Ohio Canal at Georgetown. All that remains to show the position of this whole structure is the northern abutment at Georgetown and the southern pier at Rosslyn.

This, briefly, is the story of a necessary utility in the early life of Alexandria; an indispensable military artery in the defense of the Capital during the Civil War; and an important outlet for coal to foreign ports. The Alexandria Canal is gone and almost forgotten, except for the annals of history.