TOWN PLANNING IN NEW CASTLE, DELAWARE, 1797-1838

by

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ABSTRACT

From 1797 until 1838, the small town of New Castle, Delaware undertook a series of rare experiments in town planning. During these years, its leaders developed a written plan for enhancing New Castle’s appearance, solving drainage and transportation problems, stimulating and regulating new construction, and providing a firm foundation for future growth. New Castle’s town plan began with a rather crude survey and a basic set of regulations, progressed through a variety of changes and additions, and was completed in 1805 with a very detailed and sophisticated supplement written under the supervision of the famous architect and engineer Benjamin Henry Latrobe.

By draining and filling surrounding marshes, reshaping the land, and building new roads, Latrobe’s plan would have tripled the size of the town and doubled the amount of waterfront land for building wharves. But the plan was destined to fail. The history of town planning in New Castle is a tale of grandiose schemes tempered with struggle and frustration. All of New Castle’s hopes for expansion were dashed in 1838 when it was bypassed by a new railroad line.
This paper examines the reasons behind the creation of New Castle's town plan, the struggles through which the town leaders tried to enforce and improve it, the impact it would have had, and the reasons for its failure. New Castle's experiment in town planning is a rare early example of a practice that now plays an ever-increasing role in American life. By studying the process of town planning in its early stages, historians can better understand one of the forces which have shaped modern urban America.
INTRODUCTION

Today, New Castle, Delaware is a quiet little town which prides itself on its historic charm. Its main concern now is to preserve its architectural heritage and protect its small town character. But this tranquil scene belies an ambitious and turbulent past. In a handful of old drawings and documents there is a story of a time, almost two hundred years ago, when New Castle yearned for growth and struggled to increase its size, wealth and status. One of the most interesting and important aspects of this period was New Castle’s experiments with town planning.

While the basic elements of town planning are ancient, the practice was uncommon in America, especially in small towns, until after the Civil War. Town planning in New Castle officially began in 1797 with the passage of “An Act for Establishing the Boundaries of the Town of

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New-Castle and for other Purposes Therein Mentioned. The law established a five-person town commission, created a set of building regulations, and directed that a survey be made of the town. Most of the plans and provisions of this initial law, were concerned with physical improvements, including the paving of streets and sidewalks, the construction of new buildings and fences, and the installation of gutters.

The new Commission soon ran into problems enforcing the regulations and carrying out its plans. After eight years of struggle and minor adjustments, New Castle's town plan was finalized in 1804-5 through a supplement to the original town planning act and a new survey of the town prepared under the direction of the famous architect and engineer, Benjamin Henry Latrobe. Latrobe provided detailed specifications for expanding the town and paving and regrading all of the town's streets to create a unified system for draining water into the gutters and into the river. By filling nearby marshes, reshaping the land, and building new roads, Latrobe's plan would have tripled the size of the town and doubled the amount of waterfront land available for building wharves.

The history of town planning in New Castle is a tale of grandiose schemes tempered with struggle and frustration. While it made modest progress in carrying out its town plan after 1805, New Castle

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experienced a number of setbacks and its plans for expansion were
dashed in the 1820's and 30's with the development of a canal about six
miles south and a railroad line about six miles north. As a result, the
town's physical and economic growth was curtailed for many years. A
poignant illustration of New Castle's faded dreams is provided by one of
Latrobe's maps showing how plans were developed for new roads, where
even today there is only marsh (fig. 1).
New Castle's initial town planning law of 1797 was a practical response to both recent and anticipated growth. Founded in 1651, the town grew slowly during the colonial period. Although established earlier, New Castle watched first Philadelphia and later Wilmington rise to greater prominence. During the American Revolution, it lost its position as capital of the Delaware counties and entered a period of economic decline. After the Revolution, merchants in the new-found nation were freed from the concerns of war and renewed commerce. New Castle's leaders knew their town possessed several geographic advantages that, if enhanced, could help regain some of its lost wealth and status.³

New Castle was strategically located on a bluff about thirty miles south of Philadelphia, near the last place where the Delaware River's deep natural channel came close to the shore. Most of the rest of the land on

both sides of the river was low and marshy. Because livestock and shipping supplies were cheaper outside Philadelphia, New Castle’s leaders knew that if they developed the waterfront, they could play a profitable role in provisioning Philadelphia’s outgoing ships.⁴

New Castle was also well situated to take advantage of the increased travel between the north and south as a result of the establishment of Washington D. C. as the U.S. Capital in 1791 and the phenomenal growth of Baltimore. Located at a narrow point on a relatively flat peninsula between the Delaware River and the Chesapeake Bay, New Castle was a natural place for a short overland transportation link. Due to the poor quality of roads during the period, the cheapest, fastest, and most efficient means of transport was by water. But the seventeen-mile overland route between New Castle and the small port of Frenchtown, Maryland proved popular because it shortened the trip around the peninsula by about three hundred miles.⁵ Because Frenchtown was little more than a depot most travelers in either direction stayed the evening at New Castle. The increase in travel stimulated the need for more inns, taverns, stables, and other support businesses such as wheelwrights and

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blacksmiths. But in order to profit from these natural geographic advantages, the town leaders needed to make capital investments. At the end of the Revolution, New Castle's piers and wharves were inadequate to handle the increased trade. With grand prospects in mind, the town leaders turned their thoughts to physical improvements. In 1794 New Castle received authorization from Delaware's General Assembly to raise a lottery for building piers "for the security of shipping" and "promoting the commercial and agricultural interests" of the State.\textsuperscript{6} The next year, the geographer Joseph Scott pointed out that "Some years ago," New Castle, had been "rather on the decline; but latterly it begins to flourish." He added that the new piers would "add considerably to its prosperity."\textsuperscript{7} By the second half of 1795, two piers had been built.\textsuperscript{8} A painting of New Castle's waterfront from 1797 shows a building advertising "shipping supplies" and "livestock" (fig.2).

By 1807, the ship-provisioning trade was so substantial that Scott could proclaim, "Almost all the vessels bound from Philadelphia to foreign ports, stop here and supply themselves with live stock." He added that "A great line of packets and stages passes through it from

\begin{footnotesize}
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  \item [7] Joseph Scott, \textit{The United States Gazetteer}, (Philadelphia: F. and R. Bailey, 1795), unpaged, but towns are listed in alphabetical order.
\end{itemize}
\end{footnotesize}
Philadelphia to Baltimore, by way of Frenchtown...It is at present, one of the greatest thoroughfares for travelling in the United States.\textsuperscript{9}

New Castle's quick response to these business opportunities led to an unsurpassed economic boom. From 1795 to 1807, the town doubled its population and number of dwellings.\textsuperscript{10} New piers, wharves and storehouses were constructed, and plans for building a canal from New Castle across the Delmarva peninsula seemed to insure the town's continued success. It was within this context of economic growth and strong indicators for a prosperous future that New Castle's leaders embarked upon their town planning experiments. The campaign to build new piers in 1794 had given New Castle's leaders a taste of success. It also gave them experience with the State legislature that was to prove valuable in the future. In 1796, after holding several town meetings to develop and obtain support for the proposal, New Castle petitioned the State Assembly to allow the creation of a local commission with broad

\textsuperscript{9} Joseph Scott, \textit{A Geographical Description. of the States of Maryland and Delaware: also the counties, towns, rivers, bays and islands with a list of the Hundreds in each county.} (Philadelphia: Kimber, Conrad, 1807), pp. 176 - 178.

\textsuperscript{10} The geographer Joseph Scott described an increase from seventy to one-hundred sixty houses between 1795 and 1807, an increase of more than double in only twelve years in \textit{The United States Gazetteer}, unpaged but in alphabetical order under New Castle and \textit{A Geographical Description}, p. 176.
authority to regulate growth. This led to the passing of New Castle's first town planning law in 1797.\footnote{Cooper, "A Town Among Cities," pp. 190 - 191.}
Section 2
NEW CASTLE’S TOWN PLAN, 1797-1804

The responsibility for carrying out New Castle’s town plan rested with the Town Commission. The initial members of the Commission were named in the law itself and elections were to be held annually from then on. The Commission was ordered to enforce the provisions of the new law and were given authority to develop additional regulations as needed to carry out the law’s intent. Their first task as specified in the town planning law, was to hire a surveyor and make "An accurate survey of the town of New Castle."^{12}

At its first meeting on July 14, 1797 the Commission selected Daniel Blaney as surveyor. At their second meeting on August 7, they began discussing the problem of establishing the town boundaries. Defining the town limits was necessary to establish the area within which the Commission could assess taxes and enforce regulations. It proved to be a problematic task. While the Commission may have wanted to extend the borders as far as possible in order to expand its authority and increase the

^{12} Laws of Delaware, p. 628.
tax base, it is probable that people owning outlying estates would have been opposed so they could avoid new taxes and regulations. The Commission found that a single meeting was insufficient for resolving the issue. "After Some time Spent in Consideration thereof" they decided to continue the debate the following day. The Commission’s third meeting was also devoted to the debate over the town limits. They finally reached a decision at their fourth meeting and agreed to begin running the boundaries of the town two days later.13

Daniel Blaney, along with two chain carriers and an assistant who served as marker, ran the courses of the town’s boundaries on August 16, 1797. Blaney was then directed to "make a plot of the Same for the Inspection of the Commissioners." As it turned out, however, the debate over the town’s limits was not over and was to surface again two months later.14 In the mean time, the Commission went ahead with the next step of the survey. Their next task was to "lay out, open and regulate the streets, lanes and alley" within the town. The town planning law called for the width, length and courses of the streets to be legally defined by installing survey stones or posts in the center of street intersections. The dimensions of the streets could then be measured out from the survey


14 The problem was recorded again on October 11, 1797, Commissioners, "Minutes," p. 2.
markers in case of any conflict. The positions of these landmarks were to be recorded on the survey map, which was then to be accepted as "competent evidence" in all courts of law. The positions of the survey markers were also recorded in the minutes of the Town Commission. This double-record protected against the intentional or accidental movement of the stones. The law provided a fine of forty dollars, plus the cost of prosecution, for anyone who was to "wilfully pluck up or remove any of the said posts or marked stones."^{15}

There were two primary reasons for legally defining the dimensions and courses of the streets. The first was to prevent private encroachment on public property. The town planning law required the Commission to "guard against encroachments being made on any of the streets in the said town." This encroachment took two forms. First, as temporary obstructions, which the Commission was authorized to order be removed, and second as permanent or semi-permanent fixtures. Without any legal guidelines, fences and buildings had sometimes been built out onto the public right of way. The town planning law referred to "dwelling houses and other buildings" which projected out onto the streets of the town. While acknowledging that they could not "be removed without greatly injuring same," the law ordered that when "such houses or buildings as aforesaid shall fall down by reason of decay, or otherwise be destroyed,"

^{15} Laws of Delaware, pp. 628 - 629; Commissioners, "Minutes," August 16, 1797, April 24, 1798, pp. 1 - 2.
The Commission was to oversee the construction of any new buildings or additions on the site to ensure against continued encroachment. The Commissioners were also to direct the construction of any shared party walls or partition fences to ensure they did not project out into the street.

The second reason for formally defining the dimensions and courses of the streets was as a prerequisite for paving and curbing them. The town planning law directed the Commission to "lay out the proper pavements and gutters for carrying off the water." In order to pave the roads the exact separation between public and private property would have to be made clear in order for the town not to encroach upon private lands. Laying out the streets involved careful measurements on behalf of the surveyor and his crew, as well as the decision-making role of the Commission. Until this time, what had passed for public streets was largely the result of years of wear and tear as hooves, feet, and wagon wheels packed the ground. None of the streets were paved and the lengths, widths and courses of the streets were varied and uneven.

The Town Commission began to survey and lay out the first street on August 28, 1797. It also laid out the foundation of two new houses that same day. The Commission was only to complete its work on this one street, however, because these activities attracted attention and provoked a controversy. At their next meeting, a month and a half later, on October 11, Thomas Aiken made a complaint against Joseph Butcher for
"interrupting" the newly surveyed street with carts, wagons and timber. The commission ordered that,

Joseph Butcher shall be Served with notice that the afsd (aforesaid) street must not be encroached upon by him or any other Person and that if the nuisance Complained of by Thomas Aiken is not Removed forthwith that the Commissioners will proceed against him and all others that may be offenders.  

The town planning law provided a fine of up to fifty dollars for not removing "such obstructions and encroachments forthwith." The fine was to be applied to the cost of removing the nuisances. Butcher's response was not recorded. He may have tried to argue that the roads were poorly defined and the objects were on his own property, or he may have argued it had been a long-standing privilege to use the public streets for private purposes. However, the intrusions were of a mobile nature and were probably removed. But while the Commission's first opportunity to enforce the provisions of the town planning law appears to have been a success, the problem of temporary nuisances and obstructions in the streets was to continue for several years. A number of later references demonstrate that the warnings and threats of the Commission were often ignored.

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16 Commissioners, "Minutes," August 28, October 11, 1797, p. 2.

17 Laws of Delaware, p. 630; Commissioners, "Minutes," May 8, 1799, p. 11; May 31, 1800, p. 15; August 12, 1800, p. 16; September 7, 1801, p. 29.
At the same meeting of October 11, the Commission dealt with the renewed controversy over the town boundaries. After "Some Time was Spent in discussing the Subject Relating to the Boundaries of the Town it was agreed to postpone the Business for Some days." The meeting was adjourned until "Convened by order of the Chairman," but the next meeting was not held for six months.¹⁸

The minutes of the Town Commission hide as much as they reveal. The problems the Commission faced were rarely recorded in a clear and direct manner. Many references require interpretation or educated guesses. The Commission seems to have gotten off to a good start in 1797. They had their first meeting in July and met five times in August. But their problems soon caught up with them. The initial debate over town boundaries created controversy and polarized the town. The sight of the Commissioners surveying one of the roads and laying out the foundation of two new houses brought the issues to a head and inspired the complaint against Joseph Butcher. In October, the conflict over encroachment, the renewed debate over town boundaries, and the approach of harvest season effectively halted the survey and the rest of the Commission's work. While they may have discussed their problems informally, they did not officially meet again for six months, until April of the following year, just nine days before their re-election.

¹⁸ Commissioners, "Minutes," October 11, 1797, p. 2.
When they meet again on April 23, 1798, they seem to have obtained a renewed sense of purpose. Although they had actually begun work on the survey eight months before, they proclaimed their intentions anew, as if they had not run into any problems.

To wit Resolved that Tomorrow at Nine of Clock with Daniel Bleany Surveyor we will Repair to the South west end of the Town and Begin the Survey of the Town of NCastle & proceed to establish the Boundaries of the Same. 19

The formal tone of their "resolution" stands in stark contrast to the casual format of the rest of the minutes. While the readership of the minutes is unspecified, the proclamation was probably intended to serve both as a response to their critics, as well as an announcement to their supporters of their firm intention to complete the survey before their re-election. However, the last line indicates that the Commission had still not solved the problem of town boundaries. To complete the survey, Blaney and the Commission met six days in a row, took Sunday and Monday off, and finished the survey on election day, Tuesday, May 1, 1798. Three of the five Commissioners were re-elected. 20

Daniel Blaney's completed survey consisted of a crude one-page map of the town (fig. 3). On the reverse was a short narrative report

20 Commissioners, "Minutes," May 1, 1798, pp. 3 - 4.
which described the courses of the town’s boundaries and identified the land marks used to define them (i.e. stake in the river, cedar post in the beach, large stone on the dyke, etc). With the survey completed, the Commission moved on to other issues. The following week, they reviewed their financial accounts for the first year. Bills were presented by Blaney and his crew along with accounts for the cost of paper, parchment, and other survey expenses.\(^{21}\)

The town planning law had provided a variety of methods for funding. Some of the Commission's work was to be paid through service fees. For example, one dollar was to be paid each time they oversaw the erection of a party wall or partition fence. Fines and tax assessments were other sources of funds. At first, tax assessments were made on an irregular basis as needed. In its first seven years, the Commission levied only three tax assessments, compared to almost yearly assessments thereafter. The first tax assessment, for "defraying the expenses of making a plan of the Town of NewCastle," was announced June 12, 1798, and was used to pay the current bills before the Commission. The most important source of funds for the town’s improvement plan, however, were to come from those who were to directly benefit. The 1797 law had specified that the town’s streets were to be paved and curbed "at the

\(^{21}\) Commissioners, "Minutes," May 7, 1798, p.5.
expense of the proprietors of the ground in front of which such pavements" were made.\(^{22}\)

The paving project was the most important aspect of New Castle's town plan. But before the paving and curbing could be done, the Commission needed to develop the necessary specifications. The 1797 town planning law had only provided the general guidelines. The Commission presented its first new regulations for the paving project on August 24, 1798 when it specified that foot pavements (sidewalks) seven feet wide were to be laid out on streets fifty feet in breadth. This covered every street in town except Pearl Street, but the specifications were not complete enough for anyone to go ahead with the improvements even if they wanted to. It said nothing about the depth of gutters, slope of sidewalks, or slope of streets. It also gave no deadline for making the improvements. As a result nothing was done.\(^{23}\)

One of the problems of the 1797 town planning law was that while it required the improvements to be paid for by the property owners, it had provided no fines or penalties for not making the improvements and the law was simply ignored. In fact, not only were people not making the required improvements, they were not even paying their taxes. Five months

\(^{22}\) *Laws of Delaware*, pp. 629 - 630; Commissioners, "Minutes," June 12, 1798, p. 5; *Laws of Delaware*, p. 630.

\(^{23}\) Commissioners, "Minutes," August 24, 1798, p. 5.
after the first tax had been assessed, more than eighty-five percent of the amount due was delinquent.  

Some of the concerned public must have seen these financial problems as beyond the control of the Commission. On May 7, 1798, the "inhabitants of the Town of NewCastle" held a town meeting and decided to appoint an outside committee to examine and settle the accounts of the Commissioners. Rather than responding directly to this stinging attack on its integrity and authority, the Commission seemed to retaliate by issuing a strongly worded resolution on the day following the town meeting imposing a deadline of five days for removal of "all nuisances which now exist in any of the Streets of the Town of NewCastle." They added that any further "Nuisances" must be "Removed within twenty four hours from the time of Committing." The proclamation added that if anyone refused to comply, the Commission would "cause the nuisances to be forthwith removed" and threatened to prosecute the offending persons. It concluded with the provision that "public Notice of this ordinance be given throughout the Town of NewCastle for the Information of the Inhabitants thereof." But while this seemed to represent a stronger stand on the problem of encroachment, the Commission's bark was worse than its bite. There is no

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24 Only one-hundred thirteen dollars and ninety-two cents out of eight hundred dollars had been collected, Commissioners, "Minutes," November 24, 1798, p. 10.
indication of anyone being prosecuted and the problems of obstructions and nuisances in the streets continued to plague the town.\textsuperscript{25}

In the meantime, the Commission faced other problems. There must have been some controversy over the first paving ordinance of August 24, 1798, because on May 11, 1799, it was revised so that the sidewalks on most streets were to be seven and a half feet wide instead of seven feet as specified earlier. It added that the sidewalks in front of the Courthouse were to be eight feet wide.\textsuperscript{26}

The month of May 1799 was not a happy one for the New Castle Town Commission. Within five days of their re-election a town meeting had been held which set up a committee to review their finances, the ongoing problems over encroachment prompted them to draft a strong resolution, and they were forced to revise their earlier regulations for the paving project. The Commission met only once more that year, to set the rate for the use of the market house. That winter, the conflicts over encroachment, finances and lack of progress on the paving project stimulated a number of concerned citizens to question whether the provisions of the 1797 law were strong enough.

On January 18, 1800 they held a town meeting and sent a petition to the State's General Assembly requesting a supplement to the

\textsuperscript{25} Commissioners, "Minutes," May 7 - 8, 1799, p. 11.

\textsuperscript{26} Commissioners, "Minutes," May 11, 1799, p. 12.
1797 law expanding and more clearly defining the Commission's authority. Two days later, an opposing petition, argued that the proposed supplement was "premature, and at present very unnecessary," and that "the Town Meeting mentioned in the former Petition, was very partial indeed." The second petition asked that the legislature defer action. As a result of the town's diverging opinions, the State withheld action for more than four years. New Castle's town planning law and the Commission's attempt to enforce and improve it had divided the town. Attempts to remedy the weaknesses and loopholes in the town planning law had been effectively blocked.27

On May 31, 1800 the Commission gave its third public notice over encroachment stating that all obstructions were to be removed from the streets "within one month from this date." The new notice was actually a step back. It lengthened the deadline for removing nuisances set forth in the earlier ordinance of the year before, which had given a deadline of only five days as a grace period for then current offenses and a twenty-four hour period after that for future offenses. Even this more lenient ordinance failed. Three months later, the Commission felt compelled to write the State's Attorney General for legal clarification on the problems they faced with encroachment and other issues. Their frustration can be clearly seen in the wording of their resolution.

Whereas the Streets Lanes and alleys of the Town of NewCastle Remain Inclosed by Several persons ... obstruction & nuisances are daily committed ...Several Public notices have been given which have not been attended to by the offenders, it was Resolved that the Secretary write the attorney General of this State for his opinions respecting the legal steps to be taken...

The Attorney General’s response was recorded in the minutes of August 26, 1800. He confirmed the Commission’s authority to remove obstructions from the streets and punish the guilty persons, but he had to qualify their authority over an issue of the “true line of building.” Apparently, the Commission had attempted to impose a more comprehensive and uniform building code than had been specified in the 1797 law. Although there is no record of it in the town minutes, it follows that there had been some public complaint about the Commission attempting to create a more orderly impression to the town by trying to have all new construction built along a nice straight line. While the Attorney General acknowledged the law had given the Commission the power to restrict construction beyond a specified line of building, it had not empowered them to force builders to build up to that line. In other words, the Commission could keep new construction from going out into the street but could not create a formal, uniform appearance by requiring that new construction be built up to the “true line of building.”

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29 Commissioners, "Minutes," August 26, 1800, pp. 22 - 23.
The Attorney General’s response must have irritated and frustrated the Commission. It was to be nine months (only one day before their re-election) before the Commission passed any new regulations. The ordinance of May 4, 1801, was the third time the Commission provided specifications for the paving project, but it was the first time they addressed the depth of the gutters, the slope of the sidewalks, and the grade of the streets. While it applied only to the northwest side of Front Street, it set forth principles that were later to apply to the whole town.\(^{30}\)

To allow the sidewalks to drain water into the gutters, the sidewalks were to slope down to the curb one-half inch for every foot of pavement. The gutters were to be at least ten inches deep and the streets were to slope one inch for every ten feet to drain water from the gutters into the river.

It was also resolved that no stoop, steps or cellar doors were to "extend further from the front line of Buildings than three feet nine inches." This was to be the last reference to the paving project in the minutes of the Commission for several years. The last reference to the problem of encroachment was recorded on September 7, 1801 when notice was given to John Mundall "to Remove the obstruction in the Street opposite his present Dwelling." In case of neglecting or refusing to act, the President of

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\(^{30}\) Commissioners, "Minutes," May 4, 1801, p. 29.
the Town Commission was authorized "to employ some person to remove the same."  

For the next several years, the Town Commission ignored its town planning and improvement efforts until a new circumstance prompted action. On February 27, 1802, the Chesapeake and Delaware Canal Company was incorporated with plans to build a canal across the Delmarva Peninsula.  

If New Castle was chosen as its eastern terminus, its future as a center of transportation would be secure. If the canal bypassed the town, New Castle's economic failure was equally certain. 1802 must have been an exciting, yet difficult year. There is nothing in the minutes to indicate the debates that must have gone on about what the town could do to convince the new company to run its canal to New Castle. Resurrecting New Castle's town plan was probably seen as part of the answer. In January, 1803, the town leaders sent a petition to the State General Assembly requesting improvements in their town planning regulations and greater authority for enforcing its provisions. The request was approved and passed into law the next year, on January 20, 1804 in the form of a supplement to the original 1797 town planning act.  

31 Commissioners, "Minutes," September 7, 1801, p. 29.  
Compared to the original town planning act, the 1804 supplement was more specific about its goals and objectives, more authoritative in its tone, and broader in its applications. The supplement also called for a new survey of the town and on June 13, 1804, the New Castle Town Commission voted to offer the survey job to Benjamin Henry Latrobe.\(^\text{34}\)

It was more than coincidence that Latrobe was chosen for the job. He had moved to New Castle in July 1803 to do survey work for possible canal routes for the canal company. Within six weeks, he had decided that the route to New Castle was the best choice but the decision of the canal's eastern terminus proved to be a topic of great controversy. In January, 1804, Latrobe had been appointed engineer of the canal company and was in a position to lobby on New Castle's behalf.\(^\text{35}\) New Castle also had some influence on the canal company's board of directors. Due to political reasons, the directors were divided equally among Pennsylvania, Maryland, and Delaware. Among them was New Castle's Kensey Johns.

In a letter of February 4, 1804, Latrobe explained that he was called in by the canal company board to discuss the issue of the canal's

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\(^{34}\) Commissioners, "Minutes," June 13, 1804, p. 33.

eastern endpoint. He found the "most violent contrariety of opinions."\(^{36}\) His solution was to offer a compromise. He explained that "without entering on the Main question of the line of the Canal, the Canal of supply, or the feeder might be determined on, and begun." The canal feeder was to be built near Elkton and was to supply water from the Elk River to the summit of the canal. Latrobe added that in being appointed Engineer of the canal after he had told them of his preference for the route to New Castle he felt his choice had "virtually been adopted." He was to be proven wrong. Work began on the canal feeder on May 2, 1804, but while Johns and Latrobe favored the route to New Castle, stock sales and politics did not. Just two weeks before Latrobe was offered the job of surveying New Castle for its town plan, the canal company directors voted to end the canal in the Christina River closer to Wilmington.\(^{37}\)

In October, Latrobe wrote that the decision was being challenged by some of the stockholders who were trying to force the change to New Castle by withholding payment on their stock subscriptions.\(^{36}\) Partly as a result of the controversy, the canal company


ran out of money and the whole project was abandoned in December, 1804. Latrobe continued his survey of New Castle, knowing that the town still had a chance to win the canal. In fact, the survey may have been designed in part to serve as a tool in New Castle’s lobbying efforts. Even after completing his work on New Castle’s town plan, Latrobe maintained his interest in the canal project and continued to support New Castle as the eastern terminus. In March 16, 1807 he helped Albert Gallatin, United States Secretary of the Treasury, prepare his comprehensive report to the United States Senate on internal improvements. In it Gallatin argued that the Federal Government should help complete the floundering canal and expressed his preference that "The canal might, without increasing the distance, be conducted to New Castle on the Delaware itself, instead of ending on Christiana creek." 

Although Latrobe continued to support New Castle as the favored option for the eastern terminus of the canal, he did not like the town or its leaders. Writing in his journal a year after completing his survey of the town, Latrobe compared New Castle to Gravesend, a small town near London, with grandiose aspirations and "all the petty scandal,

39 Gray, National Waterway, p. 22.
curiosity, envy and hatred which distinguishes little towns all over the world." He concluded that "I will not stay a moment longer in the place than I can help."  

Section 3

LATROBE'S SURVEY AND NEW CASTLE'S TOWN PLAN

Unlike the Blaney survey of 1797-1798, the daily progress of Latrobe’s work was not recorded in the minutes of the Town Commission. In his voluminous letters and papers, Latrobe makes only two short references to the New Castle survey project. As a result, the function, meaning and significance of his survey can only be gleaned through a careful examination of the finished product. Two copies of the Latrobe survey survive, a three-page parchment version at the New Castle Historical Society, and a paper book version in the Delaware State Archives, Dover. In addition to the drawings, the book version of the survey also included an index and a title page with a small watercolor painting of the public square. The drawings were followed by four pages of explanatory text, including one page of "regulations" and three pages entitled "references to the plan." There are only a few minor differences in the content of the drawings of the two versions and unless specified, this paper will refer to the more comprehensive book version.

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Latrobe’s survey was a far more detailed and comprehensive document than the Blaney survey of seven years before. The survey drawings provided New Castle’s town Commissioners with a wealth of information. The maps included color-coded drawings of the location and outline of all buildings, streets and property lines; the names of many property owners and tenants; and the depiction of features such as marshes, dykes and canals (fig. 4). The section drawings included renderings for many of the buildings, the current and proposed elevations of the streets, and the underwater profile of the river bottom for six hundred feet from shore (fig. 5).

While a number of scholars have used Latrobe’s survey to study New Castle’s history, the purpose and function of the survey itself has been largely unexamined. Most of the scholarly attention to Latrobe’s survey has been directed to its architectural renderings. We shall focus instead on the streets, sidewalks and gutters. The main purpose of Latrobe’s survey was to serve as a kind of "blueprint" by illustrating the specifications for grading, curbing and paving the town’s streets. According to the 1804 supplement, the new survey was "to ascertain the ascents and descents of the streets, lanes and alleys" of the town in order to "lay out the proper pavements and gutters in front of dwelling houses." 45

On August 16, 1805, the day the Commission accepted and approved Latrobe's completed survey, they also passed a resolution providing specifications for the street improvement project. These provisions were slightly revised on October 12, 1805 and a compilation of the revised specifications were included on the "regulation" page of the book version of the survey. According to these "regulations" the pavements, gutters and footways were to be laid out as follows: the gutters were to be eight inches deep from the top of the curb and twelve inches in depth from the center, or crown, of the street. The sidewalks in front of houses and other buildings were to be twelve feet wide except for the area across the street from the Courthouse where they were to be fourteen feet wide. In front of vacant or unimproved lots, the sidewalks were to be at least three feet wide. To allow water to drain down into the gutters, the sidewalks were to slope up from the curb at the rate of half-an-inch to each foot.

But Latrobe went beyond these general, standardized regulations and provided detailed, customized specifications for grading each section of each street so it would fit into a carefully set out gridlike pattern of slopes that would drain water from throughout the town and run it off into the river. For example, between Union and Vine Streets, South Street was to fall 4.9 feet at a rate of 1 46/100 inches for every ten feet.

The full impact of Latrobe’s plan for New Castle is only hinted at in the regular written sources of the historian. It is only after comparing the
survey drawings with fieldwork and other sources that the full scope and significance of the project can be realized. Using a sophisticated set of symbols, color codes and mathematical notations, Latrobe depicted New Castle as it would have appeared both before and after the street improvement project. But because the survey lacks a complete key, some of its symbolic language first needs interpretation.

The shaded red lines on the section drawings represent the streets as they existed at the time of the survey in 1805 (fig. 6). The shaded black lines which rise and fall in regularity depict the proposed new grade for the streets. In cross-section the black lines depict the new configuration of the streets as they would look when paved. The high crowns and sloping sidewalks would allow water to easily drain into the deep gutters. By comparison the red lines indicate that in 1805, the streets were ungraded and unpaved and as a result would have been poorly drained. The vertical distance between the red and black lines illustrated the amount of earth that was to be added or removed to provide the overall system of grades that would allow the streets to eventually drain into the river.

Latrobe took his elevation measurements from the high water line of the Delaware River. On his drawings, he used a straight-ruled black line to represent the high water line. The notation "High water line" or "HW mark" can be seen in several places. Measurements indicating both the current and proposed elevations of the streets were recorded at fairly
regular intervals along the horizon. When written below the "high water" line, the numbers measured the elevation at the time of the survey. When written above the "high water" line, the numbers referred to the proposed elevation. An example from the Chestnut Street drawing shows the 1805 elevation was 9.3.2 feet and the plan was to raise it to 12.6.0 feet at that point (fig. 7). Latrobe also included a measured "scale of elevation" on the side of each section drawing (fig. 8).

Latrobe described the proposed grade of the streets in both absolute measurements and ratios. Unlike the earlier, more generalized, regulations that had specified a slope of one inch for every ten feet, Latrobe's proposal was specific for each area of town. For example, from Delaware Street to Alexander's Alley, a distance of 175 feet, Front Street was to rise 2.6 feet, at a rate of 1 and 71/100 inches per ten feet (fig. 9).

The grading and paving project depicted in Latrobe's drawings was to have resulted in the movement of tons of earth. It was to involve reshaping all of the town's streets and would have drastically altered the town's natural topography. Latrobe's plan varied for each area of town and would have had different effects on each depending on its physical and economic character. Latrobe's plan would have had its greatest economic impact on the waterfront along Front Street. A quick glance at the map shows that the most densely built area of town was on Front Street, between Delaware and Harmony Streets (fig. 4).
A closer look at the survey shows that the natural features which initially prompted this area’s development now limited its growth. By combining the map with details from several section drawings, it becomes clear that the inns, taverns, wharves and storehouses in this area were built on a low hill that rose out of marshes to the north and south and jutted out into the river (figs. 10 - 11). Latrobe’s plan was to reshape the natural topography of the waterfront and expand the town’s commercial potential beyond the limitation set by the environment. By building a retaining wall from North to South Streets the plan would have extended Front Street approximately 2,150 additional feet and tripled the amount of land suitable for building wharves (figs. 12 - 13). However, much of the plans for this area were never carried out. Today marsh still exists where Latrobe planned to extend Front Street.

Latrobe called for a much smaller change along Delaware Street, the town’s second most important thoroughfare. Beginning at the waterfront and leading out towards Frenchtown, Maryland, Delaware Street had been built along a narrow ridge that provided the highest and most evenly sloping ground in town (fig. 14). Not surprisingly, the homes of the

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46 The figure for linear feet was estimated from the map and double checked against the scale on the section drawings. Taking the shape and dimensions of the Riddle and Bird Wharf on Delaware Streets as the standard, Latrobe’s plan would have allowed docks to have been built all the way from South up through Chestnut Streets. There seems to have been no plan to extend Front Street all the way to North Street, as there is no proposed road shown there on the elevation drawings.
wealthiest and most prominent residents were built along it. It was also home to the town's most prestigious institution - the Courthouse. This was to be the site of Delaware Street's most significant change. Latrobe's drawing shows that the Courthouse was located on a sloping mound that encroached upon the area where Delaware Street was to be widened and did not fit in with Latrobe's overall plan for drainage (fig. 15). He proposed cutting the ground level in front of the Courthouse down about four feet. Although this change may have lessened the aesthetic beauty of the Courthouse lawn, it would have drastically improved drainage and transportation. A modern photograph shows that this aspect of the plan was carried out (fig. 16).

While the regulations in the 1804 law originally applied only to the most populated and developed areas of town, they provided the option to extend the rules and guidelines "further if deemed necessary." Latrobe provided plans for the town's expansion in the outlying areas to the north (fig. 17). In his references to the survey, he explains that the dotted lines represent the, "proposed extension of certain streets, and the introduction of others for the enlargement of the Town." The extension of these roads was to involve an earth moving project of dramatic proportions. All of the land was uninhabited and most it was less than two feet above the high

47 Laws of Delaware, p. 632.
water line. One section of Market Street was actually more than three feet below the high water line and was kept from being flooded by the dyke.

By adding earth from other parts of town and reshaping the northern area’s irregular surface, Latrobe’s plan would have added approximately one-third as much land to the town for expansion. However, the plans for this area were never carried out and today marsh still exists where the new roads were to be built (fig. 1).

For all of the changes proposed in Latrobe’s plan, it is significant that the area surrounding the southern marsh was to be left largely unchanged. There were two reasons: the first had to do with the town’s ship-provisioning trade. The lots adjoining the southern marsh show a markedly different orientation from those in the rest of town (fig. 18). These long, narrow lots, which followed an axis perpendicular to the rest of the town’s lots, were New Castle’s stockyards. The survey drawings show how the fenced in lots took advantage of the area’s natural slope and allowed cattle to move freely between the higher areas for grazing and the marsh for water (fig. 19). The term "Cow yard" can be seen on one of the lots. A tanyard and a slaughterhouse were located nearby (fig. 20).

Another reason for leaving the southern marsh unaltered was the continued hope for the canal project. In a letter, of October 10, 1803, arguing for New Castle as the proper choice for the canal terminus, Latrobe wrote that "nature has done every[thing] that Art could wish. There is a natural Basin South of town capable of holding thirty or forty of the
largest Vessels which will navigate the Canal." His map of late 1803 or early 1804 shows how the plan would have looked (fig. 21). A map from 1868 shows that the marsh was later filled in for a railroad (fig. 22). Today it is a park.

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Section 4

IMPLEMENTING THE TOWN PLAN, 1805-1838

When Latrobe’s survey was completed in August 1805, New Castle’s Town Commission had reason to be optimistic. Latrobe had provided them with a detailed plan for improving drainage, expanding the waterfront, and encouraging new growth. The supplemental act had clarified and strengthened their authority and made it easier for them to enforce their new provisions. The Commission finally began carrying out the paving project on October 21, 1805 when they appointed Alexander Harvey to hire enough workmen for the removal of earth from the town’s two major streets, Delaware and Front.49 Almost nine months later, on July 15, 1806, two Commissioners were appointed to supervise the paving of these streets. A general notice was given to all property owners in the area to have the pavements, footways and gutters made within one month.

The notice must have been ignored because eleven months later, on June 5, 1807, a second notice was posted for the same streets.50

49 Commissioners, "Minutes," October 21, 1805, p. 53.
50 Commissioners, "Minutes," June 5, 1807, p. 62.
This time it specified the names of seventeen of the property owners, including many prominent citizens and a deadline of twenty days was set. The resolution also charged two Commissioners to supervise work on a small-scale project to help drain the area around the intersection of Front and Harmony Streets. Unfortunately, there is no clear record of what was, and was not paved. We know that not all of Front Street was paved in accordance with Latrobe’s plans, because even today, the northern and southern areas of the street remain unimproved.

While the 1804 supplement had given the Town Commission the power to proceed with the paving project and bill the owners later, the first record of the town doing this did not occur until on August 29, 1808, when it was ordered to have a small alley on the Southeast side of Front Street paved and to present the bill to the owner. On October 16, 1809, the Commission began the next phase of the project by notifying property owners on Market Street, between Harmony and Chestnut, to pave in front of their lots.51 It was to be seventeen years before a notice to pave the rest of Market Street, from Delaware to Harmony, was posted.52 In the meantime, several important events occurred to slow the progress of New Castle’s town plan.

51 Commissioners, "Minutes," October 16, 1809, p. 78.
52 Commissioners, "Minutes," August 16, 1826, p. 176.
In January 1824, the decision was made to build the Chesapeake and Delaware Canal about six miles south of New Castle. Three months later, in April, New Castle's plans were further set back by a disastrous fire which destroyed many of the wharves and buildings along the waterfront. These largely commercial structures were replaced primarily with town houses, indicating a reduction in the economic viability of the waterfront and of the town in general. As a result, New Castle began the change from a bustling little business center to the placid residential area we find today.

Two years later, on August 16, 1826, the Commission gave a notice to pave the rest of Market Street from Delaware to Harmony Streets. Although, the form of notice was specified and began "You will please to take notice," and included such pleasantries as "you are hereby Requested," it also included the threat that "if you neglect or refuse to make the said gutter and footway in the aforesaid manner" the Commissioners would "cause the same to be made" and bill the owners. Less than one month later, the Commission ordered six hundred feet of curb stone for paving the area. They further resolved that the funds of the town be bound for paying that part of the bill not paid by individuals.

53 Gray, National Waterway, p. 44.
54 Brown, "Front Street," pp. 3, 42.
55 Commissioners, "Minutes," August 16, 1826, p. 176.
56 Commissioners, "Minutes," September 5, 1826, p. 178.
Since the length of Market Street from Delaware to Harmony was 670 feet, this was about half the total amount of curb stone needed to do the job. This was to be the last reference in the minutes to the paving project until just before the Civil War.

For twenty-nine years, from 1797 to 1826, New Castle’s leaders had struggled to develop, enforce, and carry out its town plan. It was an uphill struggle. The canal had bypassed the town, a devastating fire had helped to change the character of the waterfront, and the economy had slowed. Based on the evidence in the minutes, the Commission had attempted to pave only three of the town’s eleven streets. The opening of the Chesapeake and Delaware Canal in 1829, did not help matters any.\textsuperscript{57} But New Castle saw one last chance to recoup some of its loses by embracing emerging railroad technology. In 1832, after several years of work, they opened a small railroad line between New Castle and Frenchtown.\textsuperscript{58} The project was costly and difficult, but gave some gratifying initial results. Because the railroad was shorter and faster than the canal, it enjoyed a short period of success. But even as the New Castle and Frenchtown railroad was under construction, a much more ambitious line was being planned which would bypass New Castle and link Philadelphia directly with Wilmington and Baltimore. The opening of the Philadelphia,

\textsuperscript{57} Gray, \textit{National Waterway}, p. 64.

Wilmington and Baltimore Railroad in 1838 finally dashed New Castle's big city dreams and ambitions.\textsuperscript{59}

\textsuperscript{59} Hoffecker, \textit{Delaware}, pp. 42 - 43.
CONCLUSION

The history of New Castle's experiments in town planning, from 1797 to 1838, is the story of a forty-one year struggle to impose formal standards and restrictions over the natural and man-made environment. It is the story of an emerging profession and technical discipline. It is the story of the growth of governmental controls and centralized planning. It is the story of the conflict between individual rights and public needs. By studying this early expression of town planning we can better understand issues which have come to play an ever increasing role in modern urban life.

Through its town plan, New Castle announced its aspirations to be a small city, rather than a sleepy little village. The physical changes set forth in New Castle's town plan would have brought significant practical, as well as social and aesthetic, benefits to the town. The proposed changes would have made New Castle a better place to live: it would have been more comfortable and convenient, healthier and more attractive, and more economically competitive.

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60 Cooper, "A Town Among Cities," p. 203.
In his watercolor painting for the survey's title page, Latrobe showed a combination of buildings and features which symbolized the social, economic, religious and political life of the town (fig. 23). By showing the public square, the academy, the Episcopal Church, ships on the Delaware, several townhouses, and the Courthouse in one view, Latrobe captured the town's pride in its urban identity and expressed its aspirations for the future. Because of modern New Castle's concern for its history and efforts at preservation, essentially the same scene can be viewed today from that same spot. Ironically, the economic stagnation which ended New Castle's early experiments helped to preserve its architectural heritage. The failure of its grand plans more than one-hundred and fifty years ago led to its current success as a historical attraction. As a result, New Castle, Delaware is today a quiet little town with only a hand full of old drawings and documents to remind us of its one-time dreams and ambitions.
Figure 1  Benjamin Henry Latrobe, "Plan of the Town of New Castle." Shaded area indicates where streets were planned but never built (Hall of Records, Dover, Delaware).
Figure 2 Detail from Ives LeBlanc, "A View of the Town of NEWCASTLE from the River Delaware, Taken the 4th July 1797." (pen and ink with watercolor on paper, in the collection of the Rockwood Museum, Wilmington, Delaware).
Figure 3 1798 survey, Daniel Blaney (Hall of Records, Dover, Deed Book R., Vol. 2, pp.428 - 429).
Figure 4 "Plan of the Town of New Castle," Benjamin Henry Latrobe (Hall of Records, Dover, Delaware).
Figure 5 Detail of Front Street, "Plan of the Town of New Castle," (Hall of Records, Dover, Delaware).
Figure 6 Detail of Market Street, "Plan of the Town of New Castle," (New Castle Historical Society, New Castle, Delaware).
Figure 7  Detail of Chestnut Street, "Plan of the Town of New Castle," (New Castle Historical Society, New Castle, Delaware).
Figure 8  Detail of Orange Street, "Plan of New Castle" (Hall of Records, Dover, Delaware)
Figure 9 Detail of Front Street, "Plan of New Castle," (New Castle Historical Society).
Figure 10  Shaded areas indicate the extent of the high water line, "Plan of New Castle," (Hall of Records, Dover, Delaware).
Figure 11 Cross-sections of Front Street from the elevation drawings of North Street, Chestnut Street, Harmony Street, Delaware Street, and South Street (drawn by Robert Cottrell).
Figure 12  Detail from the section drawing of Delaware Street (drawn by Robert Cottrell).
Figure 13  Shaded areas indicate the planned extension of Front Street, (Hall of Records, Dover, Delaware).
Figure 14 "Section of Delaware Street," (Hall of Records, Dover, Delaware).
Figure 15  Detail of Courthouse from Market Street (Hall of Records, Dover, Delaware).
Figure 16  New Castle Courthouse, (photo, Robert Cottrell).
Figure 17  Shaded areas represents New Castle's northern outlying areas.
Figure 18  Shaded area indicates New Castle's southern marsh.
Figure 19  Detail from section drawing of Pearl Street, (Hall of Records, Dover, Delaware).
Figure 20  Detail of map showing "Cow yard," (Hall of Records, Dover, Delaware).
Figure 22 Detail of map showing marsh filled in for railroad tracks, (D. G. Beers, Atlas of the State of Delaware, Philadelphia: Pomoroy and Beers, 1868).
Figure 23 "View of the Publick Buildings, taken August 1805, from Judge Booth's." Benjamin Henry Latrobe, "Plan and Street Regulations of the Town of New Castle Delaware 1805," (Hall of Records, Dover, Delaware).
BIBLIOGRAPHY


LeBlanc, Ives. "A View of the Town of New Castle From the River Delaware Taken the 4th July 1797 -- by Ives LeBlanc." pen and ink with
watercolor on paper, in the collection of the Rockwood Museum, Wilmington, Delaware.


Scott, Joseph. A Geographical Description of the States of Maryland and Delaware; also the counties, towns, rivers, bays and islands with a list of the Hundreds in each county. Philadelphia: Kimber, Conrad, 1807.


--------------. Towards the Planned City: Germany, Britain, the United States and France, 1780 - 1914. New York: St. Martin's Press, 1981.


