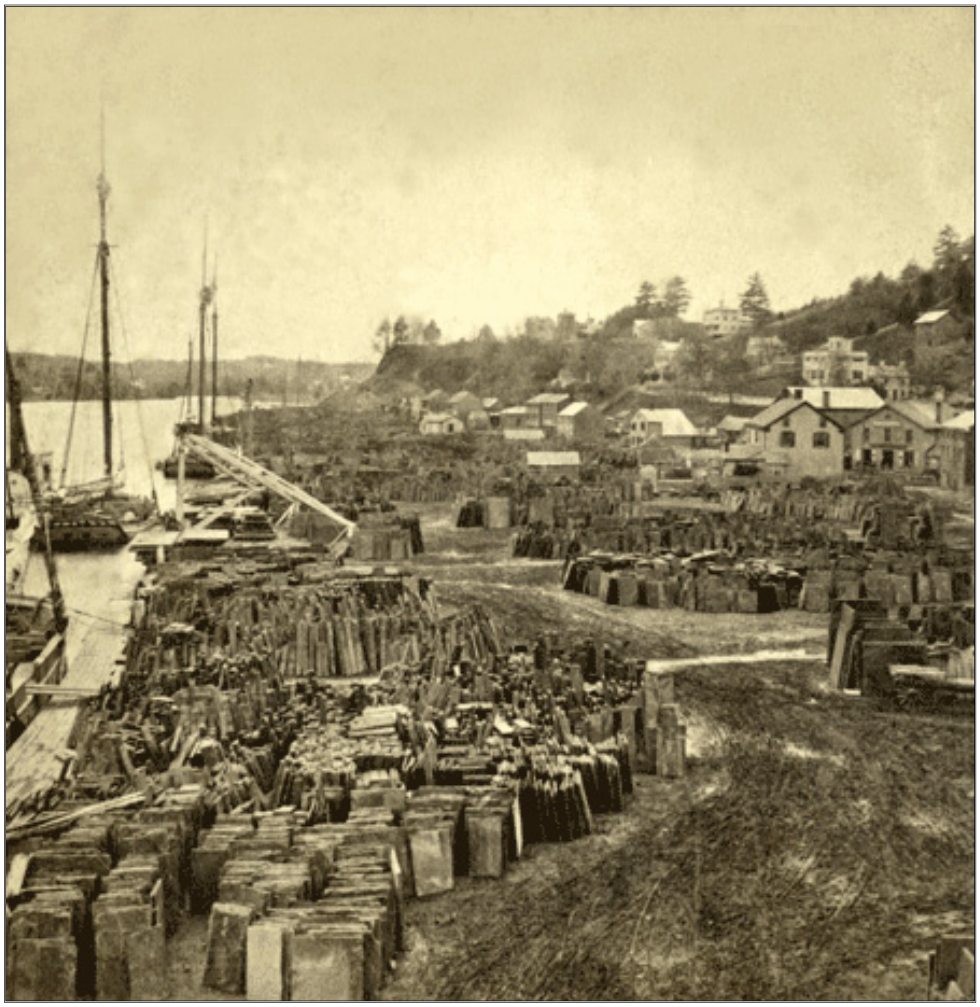
KINGSTON HISTORIC BLUESTONE SIDEWALK SURVEY

PROJECT REPORT



Fitch Brothers Yard in the Wilbur Section of Kingston – Photo Courtesy of Friends of Historic Kingston

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BACKGROUND

The City of Kingston can trace its history back to 1652 when an English carpenter and entrepreneur Thomas Chambers and other colonists settled on a high plateau area of the mid-Hudson and called it Wiltwyck. In 1658, Peter Stuyvesant, Governor of New Netherlands, ordered the colonists to build a stockade and relocate their scattered settlement within its boundary for protection against Indian raids. A long trail, several miles in length, led down to a riverside landing area known as the Rondout, presumably due a redoubt located there. In addition to Manhattan and Beverwyck (Albany), Wiltwyck was the third major Dutch community along the Hudson. Following the second Anglo-Dutch War, however, England took possession of the colony, New Netherlands gave way to New York, and Wiltwyck became Kingston. In 1777, as the War for American Independence gripped the Hudson Valley in civil strife, Kingston was designated as the colonial capital of New York. That same year, the city was put to the torch by the British after their defeat at Saratoga. Not only did Kingston rebuild, but also following the coming of the railroads and the construction of the Delaware and Hudson Canal in the 19th century, the city became a vital transportation hub. By the 1850s, Kingston was a major shipping port for coal, ice, bricks, cement, and bluestone. These industries became the foundation for the wealth and growth of Kingston that followed.

Of all these significant industries, however, bluestone is perhaps the most important to Kingston's history, charm, and attraction. Harvested in Ulster County, bluestone became a major building and construction material – not only in communities in the Hudson Valley – but in every major city on the East and West Coast, from New York to San Francisco. Bluestone had a great variety of applications from hitching posts, gates, and coach steps to animal troughs, grinding stones, and tombstones. It was as a building and construction material, however, that it received its widest use. By the end of the 19th century, not only were bluestone buildings, foundations, cornerstones, and capstones to be found, but virtually every major American city used Ulster County bluestone for sidewalks and curbstones because it was functional, durable, and beautiful. These qualities made it sought after – not only for metropolitan infrastructure projects – but also as centerpieces in high profile building projects such as the cornerstone of Brooklyn Bridge and the 25' x 16' entrance stone to William Vanderbilt's New York City mansion.

Bluestone is so hard and durable that many of the sidewalks laid down in Kingston more than 150 years ago are still in place. Yet, every year more and more is lost, replaced with cheaper but less durable and attractive materials; or worse, it is stolen to be sold and used elsewhere. In order to address the need to identify, restore, and preserve this important part of Kingston's historic infrastructure, a Historic Bluestone Survey Project was developed.

PROJECT SCOPE

In 2013, the City of Kingston received Certified Local Government funding to conduct a geo-coded survey of sidewalks in the four Historic Districts and along Broadway. The purpose of the study was to document the condition of the City's sidewalks in these areas as an initial step in the documentation and preservation of its historic infrastructure in these historically important and economically significant sections of the municipality. Further, it was developed to mesh with other citywide initiatives designed to make Kingston a safe and walkable community. The specific objectives of the study were to design and implement the sidewalk survey; to inventory the stockpiled Bluestone in the City's Bluestone repository; to cultivate and coordinate interaction with partner organizations, citizen groups and the media; to recruit and train volunteers for participation in the project; and to produce a report that would not only summarize and analyze survey findings but which would make recommendations for future activity as well.

SURVEY PROCESS

A Preservation Specialist was hired to conduct the survey, and throughout the course of the project was supported in every aspect of the work by the insightful and diligent participation a professional Historic Preservationist who volunteered her time to the project. On May 29 an initial meeting was held with Sue Cahill, Director of Planning for the City of Kingston, and Gregg Swanzey, the City's Economic Development & Strategic Partnerships Director, at which time the goals and intended outcomes of the survey were reviewed. Support from the Village of Rhinebeck and Ulster County's Office of Information Services was also delineated.

In February of 2011, the Village of Rhinebeck had similarly conducted an inventory and assessment of their sidewalks using GPS units, and Rhinebeck offered the use of their GPS Data Dictionary to serve as a template for the Kingston Project. Further, Tom Hynes and Rick Umble of the Ulster County Office of Information Services offered to supply the GPS units needed for the survey and provide on-going technical support as well.

Following this meeting, the Specialist, Preservationist, and Director of Economic Development & Strategic Partnerships met with the Bluestone Project Steering Committee to review project goals and outcomes, to solicit input from the group, and to recruit volunteers for the data collection. Subsequently, and over the course of the next few weeks, additional presentations were made to The Historic Landmark Preservation Commission, the Friends of Historic Kingston, the Tree Commission, and the Rails and Trails Committee. The project was also reviewed with Alderwoman Deb Brown and community participants Lowell Thing and Haynes Clement. Kristen Wilson, Project Director for Cornell Cooperative Extension's Healthy Kingston for Kids, also met with team members to discuss a similar sidewalk survey she had conducted as part of an initiative to develop a program of safe sidewalks for schools.

Two public meetings held by other groups afforded the Project Team an opportunity to engage additional individuals and potential supporters. On June 20, Cornell Cooperative Extension held a best practices workshop on "Sidewalk – Tree Roots Conflicts and Solutions"

that provided information useful in revisions to the data dictionary. Additionally, the City's Comprehensive Plan Steering Committee held a public meeting on July 15 to solicit public input for Kingston 2015, the initiative updating the comprehensive plan and city zoning ordinance. During that meeting, a presentation was given by the project specialist, giving an overview of the project and a list of recommendations for possible inclusion in the Comprehensive Plan. An article on the meeting in the *Kingston Times* summarized that presentation and provided media outreach.

During this time, the Data Dictionary was revised, tested and expanded to conform to the goals of this project and specifically amended to record detailed information on the bluestone sidewalks and bluestone amenities such as carriage steps, drainage cuts, gate posts, and so forth.

Initial survey work began on June 24 to initiate the data collection and to test the dictionary for final revisions. Subsequently, training sessions were held on August 10, 13 and September 5. A PowerPoint presentation was given, handouts were distributed, and participants had the opportunity to work with the GPS units before setting out on their own. Seven volunteers, representing partner groups and community organizations, took the training. Use of the three Trimble GPS units was coordinated with the Specialist, and data collection was finished on September 20. Coincidentally, a two-page article on the sidewalk survey project appeared in the September 19-25 edition of *Kingston Times*, with remarks from project staff, volunteers, and community participants.

DATA DICTIONARY

After several revisions and field tests, the Data Dictionary was completed and survey work begun on July 18. Information was collected through both point and line segments. After following preliminary steps to open the dictionary, surveyors entered their initials and the date, and then proceeded to the menu which enabled them to access fields for point data – Curb Details, Sidewalk Issues, and Amenities – or line segments – Sidewalk, Inside Buffer, and Outside Buffer. Additionally, there was an opportunity for surveyors to add limited comments. There was also a field for details on trees, as it was recognized that they played a critical role in sidewalk condition, but it was later decided that collection of this data would be unnecessary since the Tree Commission had recently conducted a survey of tress in the city, and this information could be accessed at a later date.

SURVEY METHODOLOGY

Surveyors were instructed to record information in segments of one side of a city block at a time. They usually began by walking the length of the sidewalk, noting its composition, changes in material, and condition while recording point data on Sidewalk Issues and Amenities. They would record sidewalk and buffer data by filling in information on materials, condition, and width; and would then walk the line until that information changed. At that point, they would record the new information and similarly walk and document that segment. Information collected in each field was as follows:

<u>Curb Details</u> recorded material comprising the majority of curbing material – concrete,

asphalt, Belgium Block/granite, bluestone, brick, or other. Surveyors also noted if on street parking was allowed.

Sidewalk Issues recorded removed or missing pieces of sidewalk; cracked, broken, or delaminated material; sections lifted 2" or more; fixed sidewalk obstructions (such as utilities, street signs, etc.); temporary clearance issues (brush and debris, cars, etc.); and no material but a worn path. Surveyors were instructed to skip the lines on sidewalks subjected to flooding or drainage issues as it was realized that this would be difficult to assess.

Amenities recorded contemporary features – manholes, utilities, and street benches – as well as the period features of large bluestone flags, interior buffer strips, coach steps, gate posts, grooved stones, decorative stones, drainage grooves, bluestone walls, and limestone walls.

For Sidewalk line segments, surveyors recorded the name of the street, the sidewalk's width, material (concrete, asphalt, bluestone, brick, pavers, or other), and condition (excellent, good, fair and poor). If the sidewalk was bluestone, they additionally noted color (blue/gray, purple. brown, yellow), edges (natural or sawn), surface (natural or sanded), and joints between the flags, as flush, mortared, vegetation, asphalt, gravel, or a mix. Similarly with the buffers, information was recorded on width, material (grass, landscaped, bluestone cobblestone, brick, asphalt, concrete, gravel, or other), and condition (excellent, good, unsightly/deteriorated, hazardous).

SURVEY RESULTS

The attached summary chart and maps give a clear indication of the materials and conditions for each of the areas surveyed. Thanks to the extraordinary support of the Ulster County Office of Information Services, the full extent of data collected during the survey is now available for future projects. The Global Information Software (GIS) used to download the GPS data and generate the maps includes additional important information about sidewalk width, buffers, etc. that can be extracted as work on the city's historic infrastructure moves forward. Also, it should be noted that voids in some of the mapped areas resulted from satellite signal interference from buildings, trees, and other tall objects or from signals bouncing back and forth off buildings which thereby confounded recordation. Any of these discrete areas can be filled in through manual reconnaissance if needed for a future project.

As the summary chart reveals, the sidewalk survey of the four historic districts and the Broadway corridor encompassed nearly 62,000 feet of sidewalk, or about 12 miles. Interestingly, sidewalk condition throughout the survey area is about evenly divided between favorable and unfavorable conditions, though these conditions actually vary greatly from area to area. Overall, bluestone accounts for 49% of all sidewalks recorded, followed by concrete (33%) and asphalt (10%). Brick, a material often favored in historic districts elsewhere, only accounted for 3% of the material surveyed. This is understandable as bluestone was the primary sidewalk material historically and is so durable that much of it has lasted for more than 125 years. Concrete, brick, pavers, and asphalt have only recently replaced bluestone in some areas.

While casual information suggests that all sidewalk materials were subject to issues of cracking, lifting and removal, the chart figures largely relate to bluestone sidewalks. Many bluestone areas have cracked, broken, or delaminated sections, but this appears to correlate more with the presence, type and age of street trees rather than the choice of sidewalk material. Bad drainage, poor re-installation of bluestone, and the introduction of companion materials of lesser quality also appear to have accelerated deterioration in some bluestone areas. Unfortunately, removals indicate for the most part sections of bluestone sidewalk that have been stolen or used elsewhere.

Surveyors also noted that while bluestone sidewalks laid in the 19th century exhibit lifting around trees and some cracking or delaminating, sidewalks in sections later "restored" using modern materials – thinner blocks of lesser quality stone – have been less durable and show more cracking and delaminating today.

DISTRICTS

STOCKADE DISTRICT

Sidewalk material in the Stockade District is 58% bluestone, followed by 16% concrete and 15% asphalt. The bluestone consists of both historic material and modern flags. More than 57% of the Stockade District sidewalks are in poor or fair condition. Comparing the maps showing conditions and materials, we see that 63% of those rated poor or fair are made of bluestone, although we cannot tell whether they are historic or modern materials, and the data does not correlate condition issues to the presence and condition of street trees. Fully 82% of condition issues are cracking/delaminating (49%) and lifting (33%); the former typical of modern materials, the latter usually correlated to street trees that are over age, of species with shallow roots known to interfere with sidewalks, and have been installed according to outdated protocols and/or have been poorly maintained.

Significantly, the bluestone sidewalks along Clinton Avenue, Crown Street, and much of John Street – that include some of Kingston's most historic architecture – are in very poor condition; the sidewalks on Green Street – an 18th-century streetscape of stone houses -- are in deplorable, often hazardous condition. In addition to extensive cracking and delamination, a large number of the stones are lifted, some as much as 4" to 6", one even 10", making this area especially treacherous. Typical of such compromised areas, most street trees are species inappropriate for street use, and are much older than the fourteen-year life span now recommended for trees in urban streetscapes. Further, they have been installed without accommodation to train roots to the bedrock below and in buffers steadily encroached by street widening over the years.

Pedestrians, children, and mothers with baby carriages were all observed to be walking in the street, as it was "safer" than walking the sidewalk. Stockade district residents and property owners encountered during the data collection were generally very positive about the documentation project. All were hopeful that it would result in positive action on the City's part -- some because they had fallen on these sidewalks and suffered injury, others because they hoped that the City would work with them to correct the conditions. Gerald Celente, who owns three of the properties at Four Corners, pointed out a concrete

patch he had made to address lifting caused by tree roots. There is a widespread misunderstanding that bluestone "causes" these problems and little popular reflection about what kind of condition 150 year old concrete – or even five year old concrete – with the wrong trees poorly planted would be in today. Mr. Celente, however, wanted to use bluestone throughout the area but needed guidance from the City on how to do so when addressing an issue such as this.

FAIR STREET DISTRICT

Nearly 77% of Fair Street sidewalks are composed of bluestone with about15% concrete, 8% asphalt. Compared to the Stockade District, the sidewalk condition is much better, with 52% in good condition, 44% is fair, and only 4% poor.

BROADWAY CORRIDOR

Unlike the sidewalks in the historic districts, those along the Broadway corridor – including nearly all of the bluestone sidewalks --- are all relatively new, seemingly dating from the second half of the 20th century. From St. James Street to East Chester Street, about 75% of Broadway sidewalks are bluestone, and slightly less than 25% composed of concrete, with some asphalt and a smattering of brick. From East Chester to the intersection with McEntee Street, however, the sidewalk is predominately concrete, about 70%, with only 18% Bluestone, 10% asphalt. (Data for some of this area is recorded in the Chestnut Street Historic District, but is noted here to continue description of the Broadway corridor linking Midtown and Rondout).

Bluestone sidewalk restorations in the Broadway Corridor have used modern materials of such inferior quality that there is a great deal of cracking and spalling. The concrete, too, has been subject to cracking, sometimes with loss of material as well. Nearly 52% of Broadway sidewalks from St. James to East Chester are in excellent or good condition, with only about 30% fair and 18% is poor, but much of the compromised sidewalks are concentrated from O'Reilly to East Chester. Several pedestrians commented on the number of people who had fallen in this area. One shop owner noted that the city had removed the "good" bluestone and replaced it with material that started cracking within a few years. During the course of this survey, the City was installing new bluestone sidewalks in front of City Hall for the second time in four years. Hopefully, this recent replacement will prove to be more durable. The sidewalks from East Chester to McEntee are 22% bluestone, 21% asphalt, and 57% concrete, with 75% in excellent or good condition, 20% fair, and only 5% poor. Much of the East Chester to McEntee sidewalk is on a steep grade and too narrow for street trees.

CHESTNUT STREET DISTRICT

The south side of West Chestnut Street is unpaved, but the northern side is about 77% bluestone, 10% concrete, 12% asphalt, and about 1% brick. There is very little of this material that is in poor condition, and 58% of the sidewalk is in good or excellent condition, 40% is fair, and only 2% is poor.

The sidewalks in the area from East Chestnut to Livingston to Stuyvesant are composed of 60% concrete, 10 % bluestone, and 8% asphalt; 22% of the area is without walkways. About 53% of the District sidewalks are in good condition, 33% fair, and 13% poor.

RONDOUT DISTRICT

Similar to Stockade District sidewalks in material and condition, sidewalks in the Rondout Historic District are predominately made of bluestone and mostly in poor condition, with some exceptions.

The sidewalks along Broadway and Wurts Street, two major thoroughfares, are about 75% in good or excellent condition. Because these lie along main arteries, one a New York State highway, they have been well maintained.

The sidewalks of President's Place are exceptional: 54% are in excellent condition, 42% are good and only 4% fair or poor. This is especially interesting due to the fact that 60% of the sidewalks are bluestone and 38% concrete. This is an area with some of the city's most historic homes whose owners have historically had both the resources and understanding to maintain their Bluestone sidewalks and their trees.

The sidewalks on Abeel Street from Hone to Wurts – another major thoroughfare -- were repaved in bluestone during the course of this survey, and are therefore in excellent condition. The replacement project, however, is not without controversy. While some Rondout residents were pleased that new bluestone sidewalks were being laid and hoped that the project indicates others will soon be updated, many questioned why the historic bluestone was removed and what happened to the old material. A few commented that the new material was inferior and would probably not last as long.

From Wurts to Broadway the map shows Abeel without a sidewalk and in poor condition because the street and the sidewalk had been removed for the next section of sidewalk/road construction and had not yet been re-laid when the survey concluded.

Although comments from property owners throughout the Rondout Historic District were generally positive, several people living along Adams from Pierpont to Rogers were quite vocal about their area. They questioned why the City had removed their bluestone, replaced it with ugly modern pavers, and even covered up utility shut off valves in some locations. One woman asked if the survey would lead to the reinstallation of bluestone, noting that this was a historic district and should receive the same treatment and respect as other streets in the Rondout or other historic areas of the city.

AMENITIES

In addition to modern features such as street benches, manholes, and utilities, surveyors also collected information about extant infrastructure elements infrastructure. Although these features have not been mapped at this time, a numerical tally reveals the following historic amenities:

- 60 recorded bluestone entry stones (some 8' to 10' in length)
- 67 bluestone and 12 limestone walls (of varying height)
- 16 drainage grooves
- 15 period interior buffer strips
- 11 coach steps
- 5 gate posts
- 2 decorative flags
- I grooved stone
- 126 large flags

Large flags were the most recorded amenity. Some surveyors noted the size of those deemed especially "large," and while not an accurate tally, it is interesting to review. There are many of more "modest' size such as 3.5' x 5' (2), 3.5' x 6' (4), 4' x 4' (2), 4' x 5' (3), 4; x 6' (4), and so forth. Another group falls within a larger range of 5' x 6' (5), 5.5' x 6 (4), 6' x 6.5' (1), etc. Finally, there was a group of truly massive stones with dimensions recorded of 5' x 10' (4), 5.5' x 11' (1), 6' x 10' (4), 8' x 9' (1), 9' x 12' (1), and 9.5' x 24' (1).

INVENTORY OF THE BLUESTONE BANK

The Public Works Department of the City of Kingston maintains a repository of historic Bluestone in a storage area at the end of Sterling Street. The bluestone stored here has been removed from areas throughout the city due to construction, sidewalk projects, or abandonment. This bluestone can be used by the City for various repair and replacement projects and is also made available free of charge to residents wishing to use historic material in their own sidewalk restoration. While the City is owner of all sidewalk material, the property owners are responsible for the repair and maintenance of sidewalks on their property. As historic bluestone can be quite expensive, the availability of this material for residents is a tremendous asset. To obtain the bluestone, city residents go to the DPW offices at 25 East O'Reilly Street and fill out an application indicating the number and size of the sections of bluestone flags required for their sidewalk. (A copy of this form follows

this report.) The application is reviewed by DPW staff, a determination is made regarding the amount of material that can be made available, and the resident is notified of the outcome. The resident then makes an appointment with staff to pick up their Bluestone. (During the course of the Bluestone project, surveyors noted that residents were generally unaware of this important resource.)

On September 20, 2013, the Preservation Specialist and Historic Preservationist met with DPW superintendent Mike Simon at the Bluestone Bank and conducted an inventory of the material stored there. Stones were counted, measured, and photographed. Because material is constantly coming in and out of this repository, the inventory was very much a snapshot in time, indicating what may be a typical amount and variety of Bluestone available at anytime.

The material is kept within a locked, fenced enclosure surmounted by barbed wire, and access can be gained only by working with the DPW. In addition to the stockpile within enclosure, there were four piles of flags stored outside the fence, as there was not enough room at that time to store all the material in the bank. Also, there was a massive pile of dirt and rubble about twelve feet in height located near the bank. While it contained many pieces of bluestone, they were small, broken chunks of material unsuitable for general use.

While most of the bluestone was gray or blue in color, there were purple and brown flags as well. All the material, however, was stored by size regardless of color. A breakdown of the number and sizes of the bluestone inventoried on that day is included with the attachments.

RECOMMENDATIONS

WHAT IS THE VALUE OF BLUESTONE?

The Bluestone industry was a major component of Kingston's financial growth in the 19th century and helped make the city a transportation hub and a critical player in New York's role as a major contributor to the growth of the industrial revolution in 19th century America. Bluestone, then, has a preeminent place in the history of Kingston and New York State as well.

Bluestone's value is not solely historic – it has a place as a major contributor to the City's economic growth and development. Kingston's extensive offering of landmark buildings, historic neighborhoods, underused commercial corridors and picturesque streetscapes can be given new life by sidewalk restorations that improve walkability and showcase the city's charm and attractiveness. Further, sidewalks that are more walkable and that showcase historic resources will help link Kingston's destination to the recently developed regional trail grid.

WHAT DID THE SURVEY ACCOMPLISH?

The Kingston Historical Bluestone Survey Project was the initial effort to document the city's historic infrastructure in its four historic districts and along the Broadway corridor. This report has discussed findings as they relate to sidewalk material and condition. The survey also recorded extensive data on the sidewalks, their buffers, curb details, issues, and amenities encountered along the walkways. All that material is embedded in the software program generated by the GPS units and can be retrieved and mapped for future projects documenting these streets, for grant applications, and for preservation and restoration projects. While comprehensive, this survey only looked at a smalll area of the city proper. Early in the process it was realized that all the historic districts need to be enlarged to properly include adjacent areas that are equally historic and significant and to fill in odd gaps created by gerrymandering boundary lines. These areas, therefore, also will need to be documented and mapped at some future date.

Bluestone, however, is not limited to these areas of the city but can be found in most neighborhoods; and if the City wants to truly account for its historic infrastructure, these areas need to be documented as well. One man from Midtown questioned why his neighborhood wasn't being covered in this survey and why improvements always seemed to go elsewhere. "Isn't my neighborhood important, too?" he asked.

WHAT NEEDS TO BE DONE?

As noted in the recommendations submitted to the Kingston 2025 Committee, the City must embrace the recognition of its historic infrastructure and a philosophy of preservation of these important but disappearing assets. In short, it must

- Recognize the importance of Kingston's bluestone sidewalks, as well as the City's preeminent place in the history of the bluestone industry,
- Recognize the importance of limestone, granite, and other historic materials in the infrastructure that comprise the city's character and heritage, and
- Ensure that Kingston's bluestone and other historic materials are highlighted and protected in way finding projects, and that these projects are planned with the potential of historic materials for placemaking central to the process.

Further, positive steps need to be taken as an outcome of this (and potentially other, future) surveys. They are:

1. to complete a comprehensive survey of bluestone sidewalks and resources,
2. to develop and implement a prioritized program to restore, rehabilitate, or preserve bluestone sidewalks and resources,

3. to develop and enforce regulations regarding the care and preservation of bluestone by property owners and developers, and to require building permits and review by the City's Historic Landmarks Preservation Commission for sidewalk repair and construction,

4. to develop a public education program to raise awareness of the importance of Kingston's bluestone, of regulations regarding its use and preservation in development projects, and its potential economic benefit to the community, and finally,

5. to support the Complete Streets walkability program and ensure that it ties into bluestone sidewalk restoration and related initiatives, such as Live Well Kingston, access to public transportation, and development of hiking and bicycling trails.

Specific recommendations include the following.

<u>Complete a comprehensive survey</u>

- Grant funding needs to be secured to undertake a study of historic infrastructure assets throughout the city. Presumably, because of the large scope of such a venture and limited funding available, this will have to be undertaken section by section and as priorities are set by City revitalization efforts.

- Given the scarcity of funding and the pervasive use of bluestone in Kingston, perhaps some sections of the City could be recorded by a dashboard survey and any bluestone (or other historic material) found given a more comprehensive treatment, such as a geo-coded survey or similar documentation process that will dovetail findings with those in this study.

<u>Develop and implement a prioritized program to restore, rehabilitate, or preserve Bluestone sidewalks and resources</u>

- Such a program would necessarily follow from the comprehensive study, but as this may have to take place in a piecemeal fashion, priorities should be set for each area as they are documented and as funds become available. As long as the regulations (point 3) are established and the City committed to a program of public education (point 4), this should avoid any result that would fail to mesh with other parts of the plan or that might have haphazard or incomplete results.

- From the current survey, the City may opt to focus on areas currently identified as significant to revitalization plans, such as areas along the Broadway corridor. With the survey data files provided by the County Information Services Office, the City will be able to extract significant information, set preservation priorities, and implement vitally needed projects. There are, however, many sections of the city that suffer from years of inattention and benign neglect and some of these areas represent a real hazard to the public. The conditions along Green

Street, in particular, have already been cited, but there are numerous areas -– especially in the Stockade and Rondout Districts -- equally deserving attention. It is recommended that the hazardous areas documented in this survey be studied and a plan developed and implemented to correct these conditions.

- This study focused on historic districts and the Broadway corridor, and it is recommended that future sidewalk projects in these areas retain the historic bluestone in situ and not replace it with modern material. Surveyors observed that issues with historic bluestone were generally confined to lifting from tree roots or settlement. Additionally, some old material and cracked over time. Lifted stones can be reset; cracked flags can be reset or replaced in kind. Modern bluestone, however, is subject to severe, and often extensive delaminating, cracking, and spalling because it is inferior to historic bluestone in quality, durability and thickness. If it is not possible to preserve a bluestone walkway, the historic material should be carefully removed and stored at the Bluestone Bank and then reused by the City for specifically designated bluestone sidewalk projects.

- As other areas of Kingston are surveyed, attention should be given to the viability of isolated stretches of bluestone sidewalks. Do these small patches of bluestone enhance the character of their neighborhood, or are they out of place amongst 20th- and 21st-century development? Do they contribute to the understanding of the history and narrative of the area or are they isolated bits of a previous story detached from their original context? Would they be better served in another area of the City that needs to maintain its historical integrity through the preservation or restoration of historic material? This is not to advocate the casual removal of bluestone for use in other projects (especially if it means denuding "marginalized" areas from their reflection of Kingston's history) but rather to argue for a thoughtful determination of the best use of historical material based on the results of this and future surveys.

Develop and enforce regulations; require building permits and review by the HLPC

- The City's current regulations and requirements should be reviewed by the Historic Landmarks Preservation Commission (HLPC) and any changes needed should be recommended for adoption. Such regulations from other communities may be helpful. Members of the Bluestone Steering Committee submitted such documentation at the beginning of this project and perhaps could be called upon to provide such materials for the Commission's review.

- While a past administration eroded the HLPC's review process, the situation has greatly improved, but additional effort needs to be made to inform the public that building permits and sidewalk repairs must come before the Commission, as they are the only entity the city that can and should oversee this process.

Develop a public education program

- Contact with the public throughout the survey process underscored the definite need for a public education program. In fact, due to the lack of publicity about the Bluestone Survey Project itself, only a few of the dozens of city residents encountered by surveyors were aware of the survey. Despite the fact that team members had sent out a press release at the beginning of the project, without an official press conference or similar rollout by City officials, there was no press attention until the project was nearly over. Thus, an opportunity had been lost -- not only to inform Kingston residents about another exciting initiative being undertaken by City government -- but to raise public awareness of the history, importance, and economic benefit of bluestone. Certainly, future projects of this type would benefit by the City's involvement in the publicity and promotion from the outset.

- The on-going need to raise public awareness of the importance of bluestone remains a pressing concern. If the city residents surveyors met are representative of the population in general, then it can be said that while citizens are generally aware of the importance of bluestone, they need access to information on its care and replacement. This could be done with publicity around the rollout of a future bluestone project, such as the sidewalk recently installed in front of City Hall.

- Of primary need is the development of a web site (or web page on the City's site) that would be the "go to" place for all things bluestone. It could contain a brief historical overview, information of rules and regulations on sidewalk maintenance, preservation, replacement, information on the Bluestone Bank, and links to other relevant sites, and a tour of bluestone sites and points of interest created by Steering Committee member Lowell Thing.

- Kingston is a city of festivals, and the Bluestone Festival such an event would be an ideal venue to engage the public in the importance of the bluestone industry in a fun and entertaining way. Right now the festival is managed through the dedication and hard work of volunteers, but with proper funding and perhaps the resources of a non-profit agency, this event could be greatly expanded to appeal to a larger audience. Co-sponsorship with organizations such as the Maritime Museum, the Reher Center, the Clearwater, and the Friends of Historic Kingston could be supplemented with financial underwriting from local area banks and businesses as well as foundations and granting organizations. Entertainment could include music representative of the ethnic groups and communities that were a vital part of the bluestone industry, craftspeople demonstrating traditional skills and trade practices, and food vendors representing these communities.

Support the Complete Streets walkability program and ensure tie into related initiatives

- During the Kingston 2025 public meeting, several audience members commented on the affinity among some of the initiatives (yet apparent lack of integration), such as the Bluestone project, the Complete Streets Advisory Council, and Healthy Kingston for Kids. Efforts need to be taken to ensure communication among all these groups working on similar City initiatives. The Bluestone project and any future projects of a similar scope should be coordinated with the Complete Streets Advisory Committee as that group is working on a comprehensive sidewalk program for the City.

The Historic Bluestone Sidewalk Survey and the preparation of this report have been funded by a Certified Local Government grant. The author wishes to acknowledge the support and guidance of Gregg Swanzey, Director of Economic & Strategic Partnerships, throughout the survey project and in the writing of the report. Further acknowledgement is given to Kitty McCullough, the project's Historic Preservationist, for her extensive contributions in all aspects of the Bluestone Project. Finally, this project would not have been possible without the technical support from Tom Hynes and Rick Umble in the Ulster County Office of Information Services and volunteers that walked the sidewalks and recorded the data.

LIST OF ATTACHMENTS

Project Staff, Volunteers, & Partners

GPS PowerPoint Presentation

Data Dictionary Summary

Bluestone Survey Summary Chart

Map 1: Stockade Historic District Materials

Map 2: Stockade Historic District Condition

Map 3: Fair Street Historic District Materials

Map 4: Fair Street Historic District Condition

Map 5: Broadway Corridor Materials

Map 6: Broadway Corridor Condition

Map 7: Chestnut Street Historic District Materials

Map 8: Chestnut Street Historic District Condition

Map 9: Rondout Historic District Materials

Map 10: Rondout Historic District Condition

Bluestone Bank Inventory

City of Kingston Bluestone Application

Article: "Group Talk," Kingston Times, June 25, 2013

Article: "Know Your Stone," Kingston Times, September 19, 2013

PROJECT STAFF, VOLUNTEERS, & PARTNERS

Director of Planning, City of Kingston
Sue Cahill

Director of Economic Development & Strategic Partnerships, City of Kingston
Gregg Swanzey

Bluestone Survey Steering Committee
Sue Cahill
Hayes Clement
Weston Davey
George Donskoj
Kyla Haber
Lowell Thing
Kevin McEvoy
Gregg Swanzey
Edwin Pell
Tom Polk
Kristen Wilson

Preservation Specialist
John H. Braunlein

Historic Preservationist (Consultant)
Kitty McCullough

Ulster County Department of Information Services
Tom Hynes
Rich Umble

Bluestone Survey Volunteers
Weston Davey
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Gregg Swanzey
Kyla Haber
Kitty McCullough
Randy Myerson
Jennifer Schwartz-Berky
Lowell Thing

Partner Groups
Friends of Historic Kingston: Pete Roberts, President; Jane Keller, Director
Historic Landmarks Preservation Commission; George Donskoj, Chair
Cornell Cooperative Extension Live Well Kingston; Kristen Wilson, Coalition Coordinator
Complete Streets Advisory Council; Tom Polk, Chair
Kingston Land Trust; Steve Noble, Chair
Heritage Area Commission; Hayes Clement, Chair

City of Kingston
Historic Bluestone Survey
GPS Training Manual
August 2013

Bluestone – Major Kingston Industry
1830 - 1900

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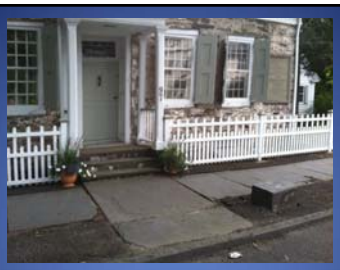
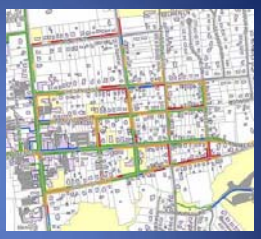
Vansteenburgh House c.1750

The only pre-Revolution house in the City of Kingston not burned by the British.



Bluestone Survey Objectives

- Gather information to support grant applications for sidewalk restoration and improvement.
- Raise awareness about the value of Kingston's bluestone to help property owners make better choices.
- Build a walkable community that is marketable to new and relocating businesses and homebuyers.



Volunteers will collect geocoded data using GPS units that can be used to map the types and conditions of Kingston's Sidewalks.

***Thank you for volunteering*!**

Bluestone Survey Area

- Stockade Historic District
- Fair Street Historic District
- Chestnut Street Historic District
- Rondout Historic District
- Broadway Heritage Corridor

What to bring with you to your assignment:

- GPS Unit(s) picked up at City Hall
- iPhone or other camera
- Tape Measure
- Water & Sunblock Lotion
- Comfortable Walking Shoes
- Weather Appropriate Clothing

Organize Your Project

Four tasks can be shared by a team or done by one person in sequence:

- Measuring
- Points
- Lines
- Photos

These will be discussed below.

The Trimble GPS Pack

- Place four (4) batteries in the backpack (notched ends up and facing out).
- Attach the battery clip to two (2) batteries. (The other two are spares in case the battery charge runs out.)
- Attach the cable plug from the backpack to the handset.

The Trimble GPS Handset

- Press the **GREEN POWER BUTTON** at the lower left hand corner of the screen.
- A new screen will appear with "Start" in the upper left. Press **START**.
- A Drop Down Menu will appear. Press "**TerraSync**".

- A page will appear with a compass and the unit will begin to search for satellites. You must have at least five (5) satellites. Finding them could take 30+ seconds.

Obstructed Reception

- Buildings, trees, "Pike Plan" awnings… can obstruct GPS reception.
- If you get a message "GPS Unit is Disconnected" in the lower right corner of the screen AND there are two little plugs trying to connect in the upper left of the screen…
- Make certain nothing is obstructing reception and continue to wait….

Obstructed Reception, continued…

If there are no "plugs" in the upper left of the screen, try the following:

- Press the WRENCH ICON in the upper right hand corner
- Touch SETUP
- A screen with three (3) columns will appear.
- Press "GPS" in the upper right of the screen. This should take you to the screen with the plugs.
- If all else fails, call Jack at 845.339.2721

- If you need to GO BACK, click Cancel, then Yes.
- You will be asked to confirm the antenna height. Click OK.

The Data Dictionary

- Once 5 or more satellites show on the "compass", Click the box on the upper left that says STATUS.
- Next choose DATA and a new screen will appear.
- File Name: Type your initials & six digit date: (jhb 08/10/13)
- Dictionary: (Lower right) Select SIDEWALK SURVEY v 5
- Click CREATE in the Upper Right.

MAIN PROJECT SELECTION SCREEN

Data is collected in:

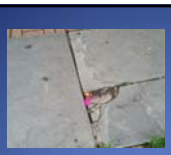
- POINTS - stand in one place and record data for a single point (Sidewalk Issue, Amenities, Curb Details)
- LINES – walk a linear segment (Sidewalk, Inside Buffer, Outside Buffer) to record a line.

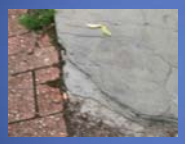
Comments

- Many sections offer a "Comments" box. Use this sparingly.
- It may be more useful to photograph areas to which you wish to call attention.

Recording POINTS: Issues, Amenities

- Walk the length of the block, stopping to stand toe to toe with each issue
- Highlight Sidewalk_Issues on MAIN PROJECT SELECTION SCREEN and click Create.
- Select a description for the issue from the drop down box
- Click OK and move to the next Issue





Issues

Cracked, broken, delaminated…

Lifted…

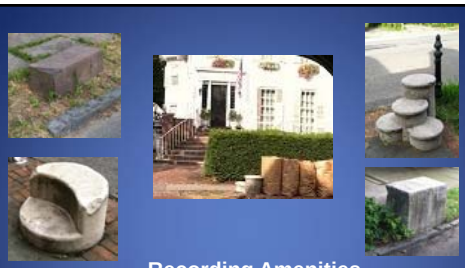
Obstructions are permanent (signs, poles, etc.)

Clearance (is temporary such as the bushes that you see here.)

Drainage Issues Subject to Flooding

These may be difficult to spot when it isn't raining.

If you know an area floods or has poor drainage, record the information. Otherwise, skip this point.



Recording Amenities

- Walk the length of the block stopping at each Amenity
- Highlight Amenity from Main Project Selection Screen
- Click Create
- Choose an amenity from the drop down box
- Click OK and move to the next Issue

Amenities

- You may choose to record all Issues and then walk the block again recording Amenities.

OR

- You may alternate between Issues and Amenities taking each as it comes as you progress along the block

- Either way, it is a good idea to walk the block to get a sense of its character and condition before recording line data.

Lines

- A traditional sidewalk may have a width of sidewalk flanked by an outside buffer and curb on the street side and an inside buffer and/or apron on the inside.
- Collect line data on one at a time in a sequence.

And sometimes, it is hard to tell what's going on.

Recording the Sidewalk Line

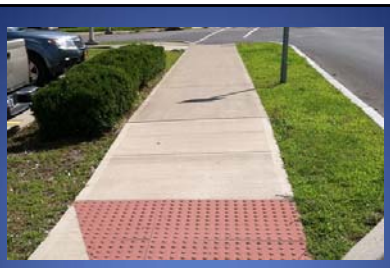
- Line choices also appear on the MAIN PROJECT SELECTION SCREEN
- Highlight Sidewalk; click Create

- Here, the Corner/Ramp is the first LINE segment. Start at street edge.
- The second segment in this picture begins after Corner/Ramp and continues to driveway, which begins a third segment.
- Treat driveways as wide sidewalks without buffers.

Corner Ramps are also treated as line segments. Note that the segment is a Corner ramp in the Comments field. Note whether it has a no-skid pad.

You will be prompted to log the basic characteristics of the sidewalk segment:

- Measure the width.
- Select the material used for the segment: Concrete, Asphalt, Bluestone, Brick, Pavers, Unknown



Condition

- You may want to walk the full length of the segment before recording its CONDITION.
- We have found very few segments that can be called EXCELLENT.

Even those that look "Good" from a distance may prove to be "Poor" up close.

- GOOD- Unlikely to hinder mobility (including wheel chairs, canes, strollers….
- FAIR - Uneven, distressed surface; may hinder mobility or lead to injury.

- POOR– Hinders mobility of average pedestrian. Deep cracking, buckling; significant vegetation overgrowth, debris.

- You will be prompted to select a COLOR: If the material is bluestone, choose: Blue/Grey, Purple, Brown, Yellow. If the sidewalk is composed of a different material, skip color.

- You will be prompted to select whether the EDGES on the bluestone flags in the current segment are hand split along natural rock faults or machine cut.
- You will be prompted to select whether the SURFACES on the bluestone flags in the current segment are hand or machine cut.

s

Skip if the material isn't bluestone.

- Select whether the JOINTS between bluestone flags in the current segment are No Gap, Mortared Infill, Vegetation, Asphalt, Gravel, a Mix or "Other".

- When you have selected all of the characteristics for the line segment, walk to end of that segment and CLICK OK.

Belgian Block (Granite), Concrete, Bluestone, Other

Curb_Details

- Although curbs are linear, information about them is collected once for each block under "Curb_Details", a drop down on the MAJOR PROJECT SELECTION SCREEN. This assumes continuous, consistent material and condition. If material and condition vary, note this in the Comments field.
- Is on street parking allowed? Select yes/no

- Click ok to end each segment
- Return to MAIN PROJECT SELECTION SCREEN and record each segment in turn down the block.

Recording Buffers, Aprons

- You will need to repeat walking the length of the block to record BUFFERS/APRONS separately.
- Select Inside or Outside Buffer from the MAIN PROJECT SELECTION SCREEN and proceed through the steps as prompted.

Buffer Materials

Brick
Pavers
Grass
Asphalt
Bluestone
cobblestones…

- There may be an APRON separate from Inside Buffer but this doesn't happen often. Also, the Apron may be much more varied in material and condition than the buffer. Note this in the Comments field.

Thank you again for volunteering!

```
Sidewalk Survey
Kingston Sidewalk Survey

SIDEWALK_ISSUE        Point Feature, Sidewalk Issue
   ISSUE              Menu, Normal, Normal, Type of Issue
      Removed [RMV]
      Cracked [CRK]
      Lefted [LIT]
      Obstructions [OBR]
      Clearance [CLR]
      Worn Path [WRN]
      Drainage [DRN]
      Flooding [FLD]
      Other [OTH]
   COMMENT            Text, Maximum Length = 100, Comment
                      Normal, Normal

SIDEWALK              Line Feature, Sidewalk
   ST_NAME            Text, Maximum Length = 50, Street name
                      Normal, Normal
   WIDTH              Numeric, Decimal Places = 2, Width (in feet)
                      Minimum = 0, Maximum = 25, Default Value = 0
                      Normal, Normal
   MATERIAL           Menu, Normal, Normal, Material
      Concrete [CNC]
      Asphalt [ASP]
      Bluestone [BLU_ST]
      Brick [BRC]
      Unknown [UNK]
      No Sidewalk [NONE]
   CONDITION          Menu, Normal, Normal, Condition
      Excellent [EXC]
      Good [GOD]
      Fair [FAI]
      Poor [POR]
   COMMENT            Text, Maximum Length = 100, Comment
                      Normal, Normal
   BLUSTN_COLOR       Menu, Normal, Normal, Bluestone Color
      Blue [BLU]
      Purple [PUR]
      Brown [BRN]
      Yellow [YEL]
   BLUESTN_PERIOD     Menu, Normal, Normal, Bluestone Period
      1867-1880
      1920s
      1970s
      1980s
      20XX
   BLUSTN_REPLACEMENT Menu, Normal, Normal, What Replaces Missing Flags?
      Wrong [WRONG]
      Concrete [CNC]
      Asphalt [ASP]
      Gravel [GRVL]
      Other [OTH]
   EDGES              Menu, Normal, Normal, Edge Breaks
      Natural Rock Faults [CHSL]
      Saw Cut [SAW]
   BLUSTN_SURFACE     Menu, Normal, Normal, Surface Type
      Sanded Smooth [SMOOTH]
      Natural Stone [NATURA]
   BLUSTN_JOINTS      Menu, Normal, Normal, Joints
      Vitrually No Gaps [TIGHT]
      Mortared Infill [MORTAR]
      Vegetation [VEG]
      Asphalt [ASP]
      Gravel [GRAVEL]
      Mix
      Other [OTH]

AMENITIES             Point Feature, Amenities
   TYPE               Menu, Normal, Normal, Type
      Large Slab
      Manhole [MANHL]
      Utility [UTL]
      Buffer Strip [BUFF_R]
      Coach Steps [CCH_ST]
```

```
      Gate Posts [GATE_P]
      Entry Stones [ENTR_S]
      Grooved Stones [CCH_WA]
      Bluestone Wall [BLU_WA]
      Limestone Wall [LIMSTN]
      Decorative Flag Carv [BLU_DE]
      Drainage Grooves [BLU_DR]
      Street Bench [BENCH]
   COMMENT            Text, Maximum Length = 100, Comment
                      Normal, Normal

INSIDE_BUFFER         Line Feature, Inside Buffer
   WIDTH              Numeric, Decimal Places = 2, Width (in feet)
                      Minimum = 0, Maximum = 25, Default Value = 0
                      Normal, Normal
   MATERIAL           Menu, Normal, Normal, Inside Buffer Material
      Grass [GRA]
      Landscaped [LND_SC]
      Bluestone Cobbleston [BLU_CO]
      Brick [BRC]
      Asphalt [ASP]
      Concrete [CNC]
      Gravel [GRV]
      Other [OTH]
   CONDITION          Menu, Normal, Normal, Inside Buffer Condition
      Excellent [EXCL]
      Good [GOOD]
      Unsightly or Deterio [POOR]
      Hazardous [HAZ]

OUTSIDE_BUFFER        Line Feature, Outside Buffer
   WIDTH              Numeric, Decimal Places = 2, Width (in feet)
                      Minimum = 0, Maximum = 25, Default Value = 0
                      Normal, Normal
   MATERIAL           Menu, Normal, Normal, Outside Buffer Material
      Grass [GRA]
      Landscaped [LND_SC]
      Bluestone Cobbleston [BLU_CO]
      Brick [BRC]
      Asphalt [ASP]
      Concrete [CNC]
      Gravel [GRV]
      Other [OTH]
   CONDITION          Menu, Normal, Normal, Outside Buffer Condition
      Excellent [EXCL]
      Good [GOOD]
      Unsightly or Deterio [POOR]
      Hazardous [HAZ]

CURB_DETAILS          Line Feature, Curb Details
   MATERIALS          Menu, Normal, Normal, Curb Materials
      Concrete [CNC]
      Asphalt [AP]
      Belgium Block [BE_BK]
      Bluestone [BLUSTN]
      Brick [BRC]
      Other [OTH]
   ST_PARKING         Menu, Normal, Normal, On-Street Parking Allowed
      Yes
      No

TREE                  Point Feature, Label 1 = COMMENT, Label 2 = DIAMETER
                      Tree
   COMMENT            Text, Maximum Length = 50, Comment
                      Normal, Normal
   DIAMETER           Text, Maximum Length = 30, Diameter
                      Normal, Normal
```

Total Sidewalks **61602.66ft** **11.67mi**

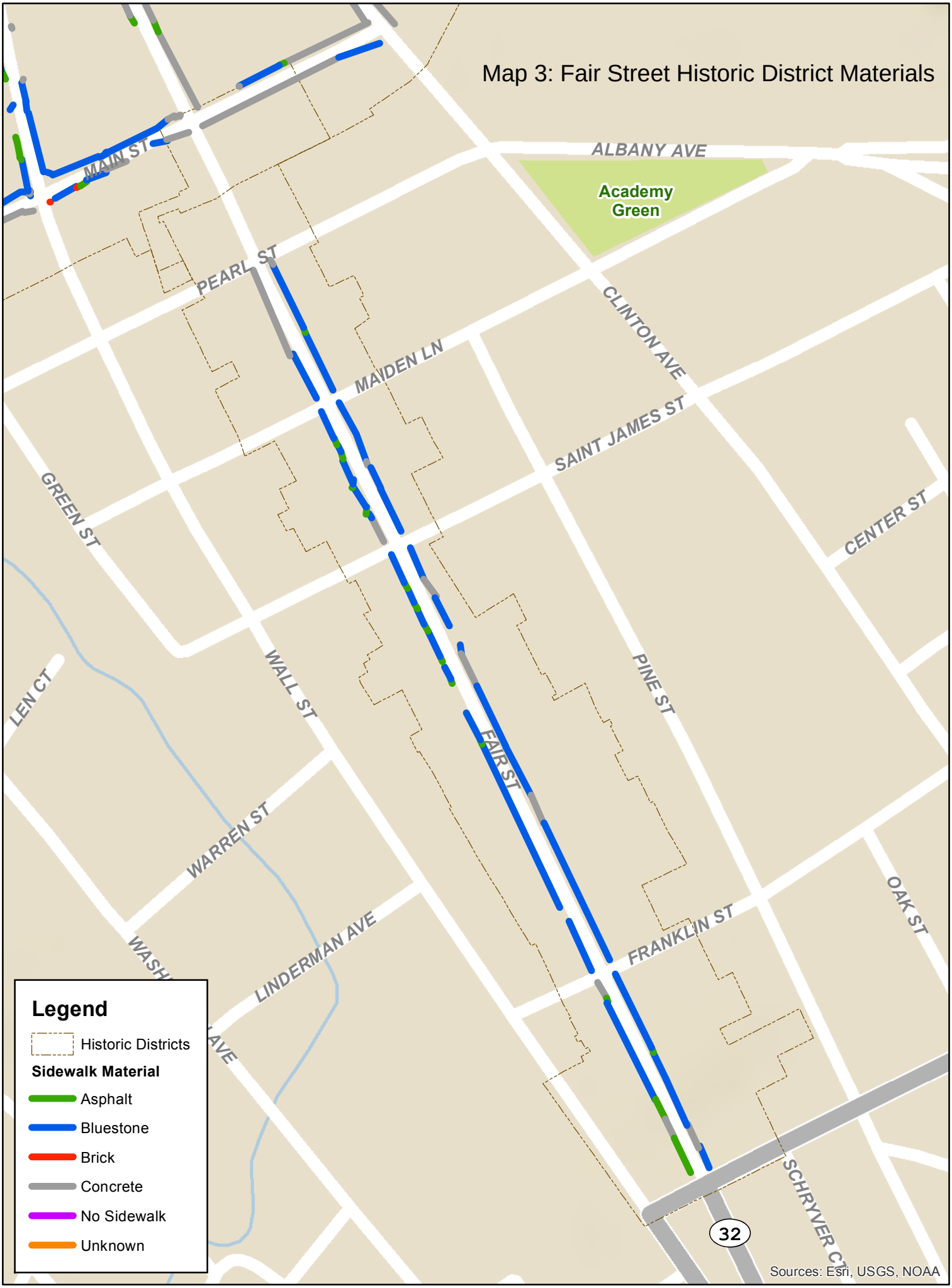
Condition	Feet	Miles	%
Excellent	5,589.30	1.06	9%
Good	25,470.71	4.82	41%
Fair	17,087.71	3.24	28%
Poor	12,364.12	2.34	20%
Blank	1,090.82	0.21	2%
Total	61,602.66	11.67	100%

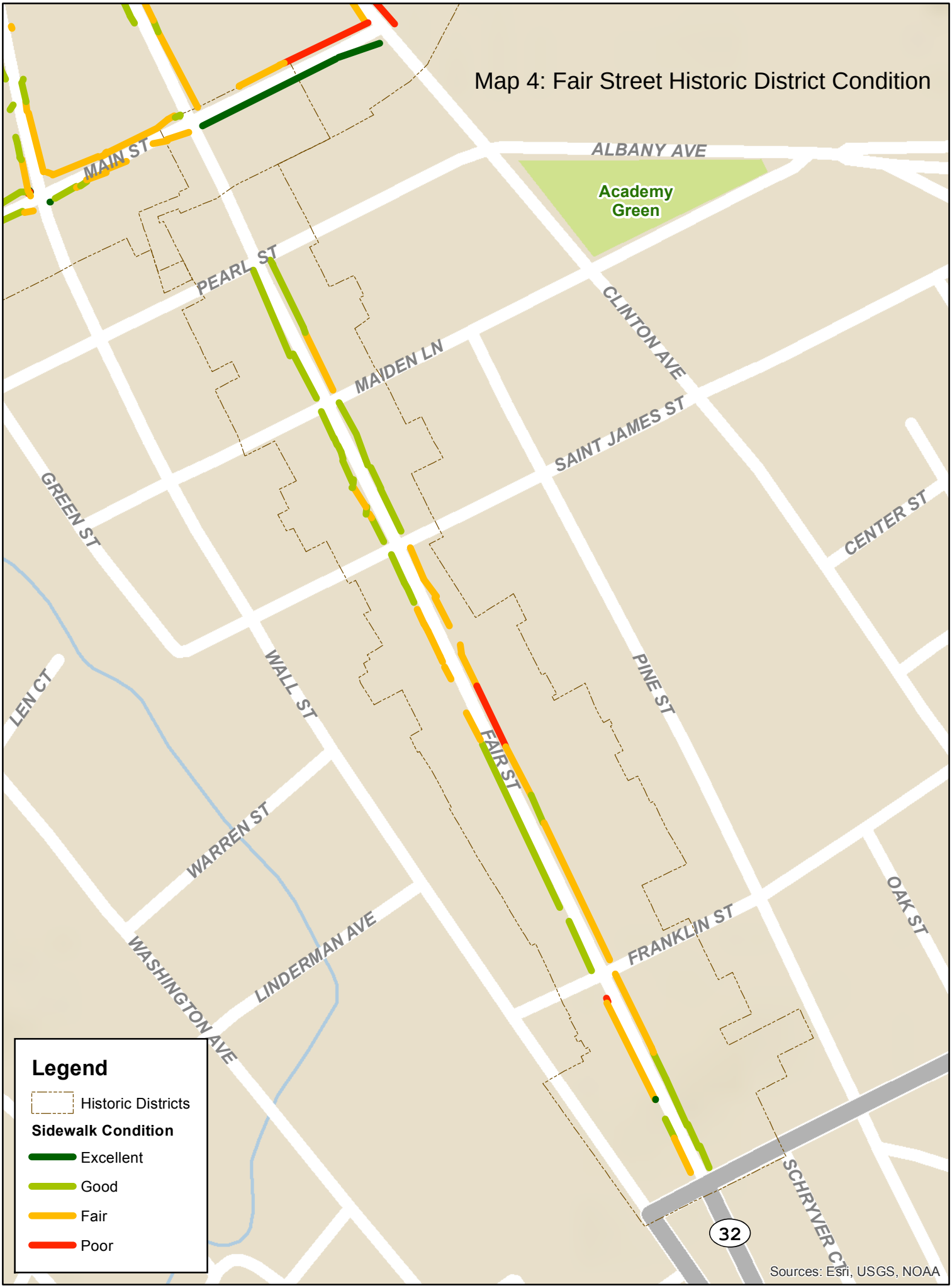
Material	Feet	Miles	%
Asphalt	6,160.70	1.17	10%
Bluestone	29,887.53	5.66	49%
Brick	1,605.82	0.30	3%
Concrete	20,142.93	3.81	33%
No Sidewalk	2,542.60	0.48	4%
Pavers	959.82	0.18	2%
Unknown	274.73	0.05	0%
Blank	28.53	0.01	0%
Total	61,602.66	11.67	100%

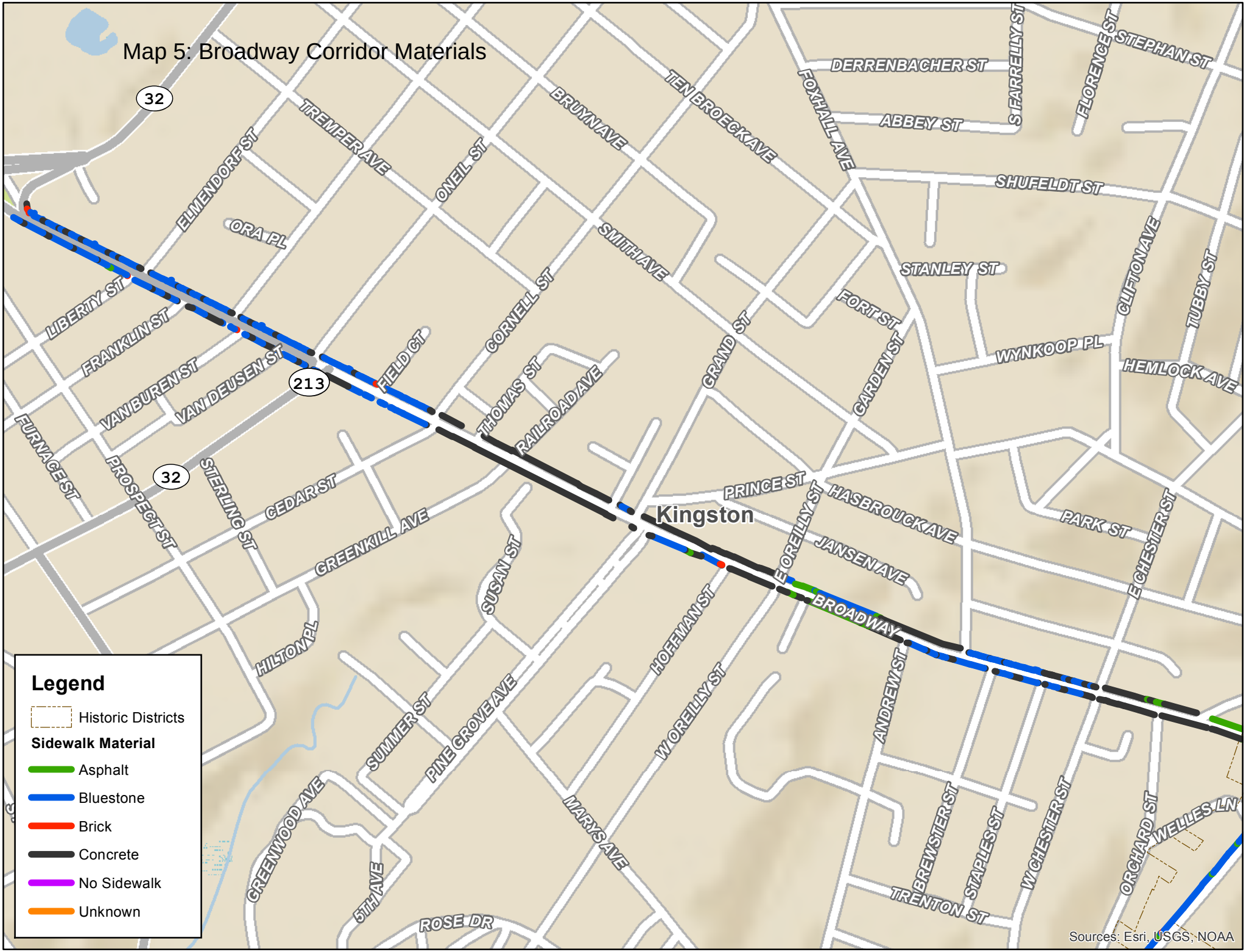
Issues	#	%
Clearance	31	4%
Cracked	419	49%
Drainage	0	0%
Flooding	0	0%
Lifted	278	33%
Obstructions	24	3%
Other	10	1%
Blank	1	0%
Removed	89	10%
Worn Path	1	0%
Total	853	100%

Map 1: Stockade Historic District Materials
Creek
587
UNNAMED STREET
PATROON LN
SCHWENK DR
PLAZA RD
STOCKADE DR
FROG ALY
N FRONT ST
Peace Park
CROWN ST
JOHN ST
DRIVE
WAY
WESTBROOK LN
CLINTON AVE
FAIR ST
LUCAS AVE
WASHINGTON AVE
GREEN ST
WALL ST
MAIN ST
PEARL ST
MAIDEN LN
SAINT JAMES ST
JANET ST
Legend
Historic Districts
Sidewalk Material
Asphalt
Bluestone
Brick
Concrete
No Sidewalk
Unknown
Sources: Esri, USGS, NOAA

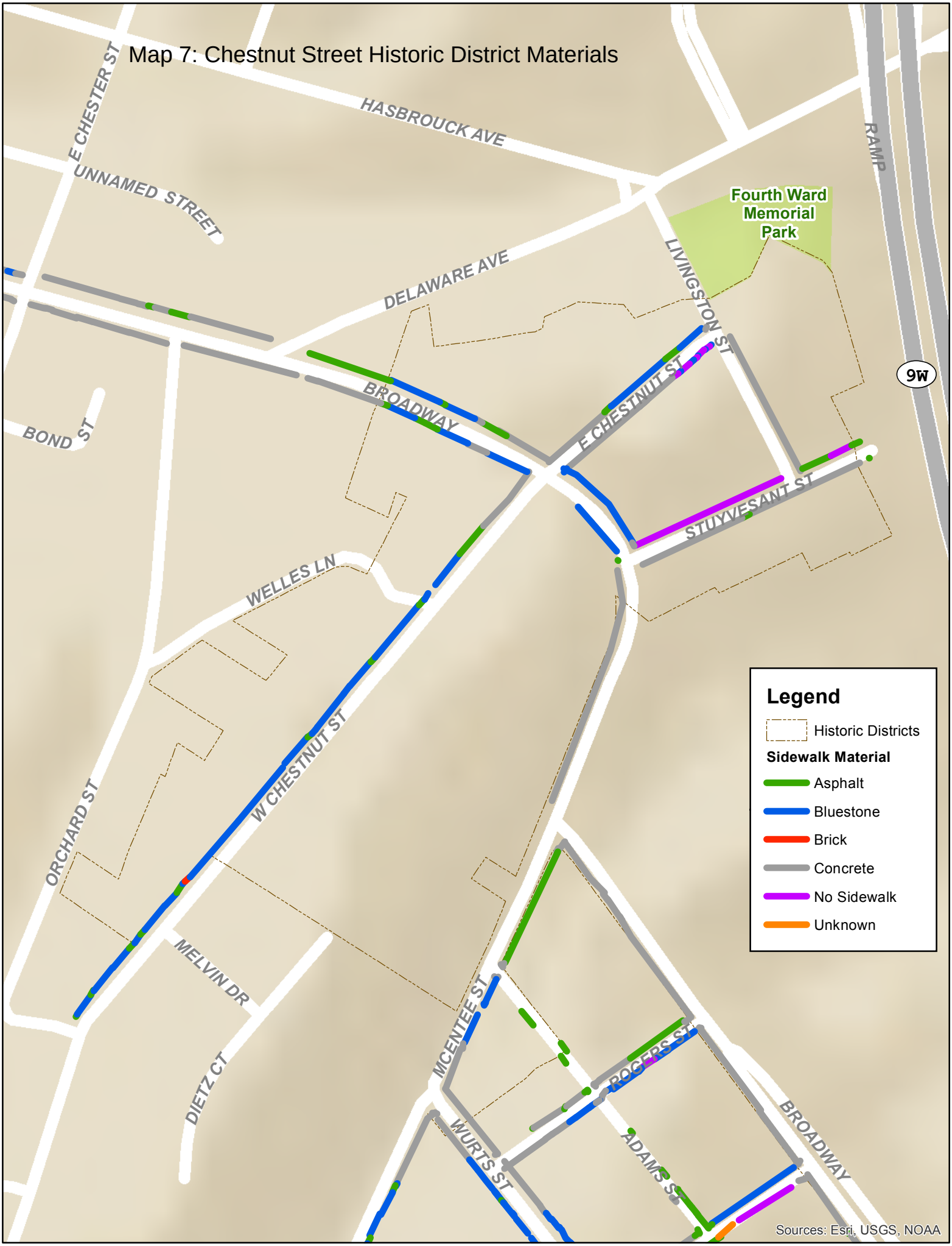
Map 2: Stockade Historic District Condition
Creek
587
UNNAMED STREET
PATROON LN
SCHWENK DR
PLAZA RD
STOCKADE DR
FROG ALLY
N FRONT ST
Peace Park
CROWN ST
JOHN ST
DRIVE
WAY
WESTBROOK LN
CLINTON AVE
LUCAS AVE
FAIR ST
WASHINGTON AVE
GREEN ST
WALL ST
LAFAYETTE
MAIN ST
PEARL ST
MAIDEN LN
SAINT JAMES ST
JANET ST
Legend
Historic Districts
Sidewalk Condition
Excellent
Good
Fair
Poor
Sources: Esri, USGS, NOAA

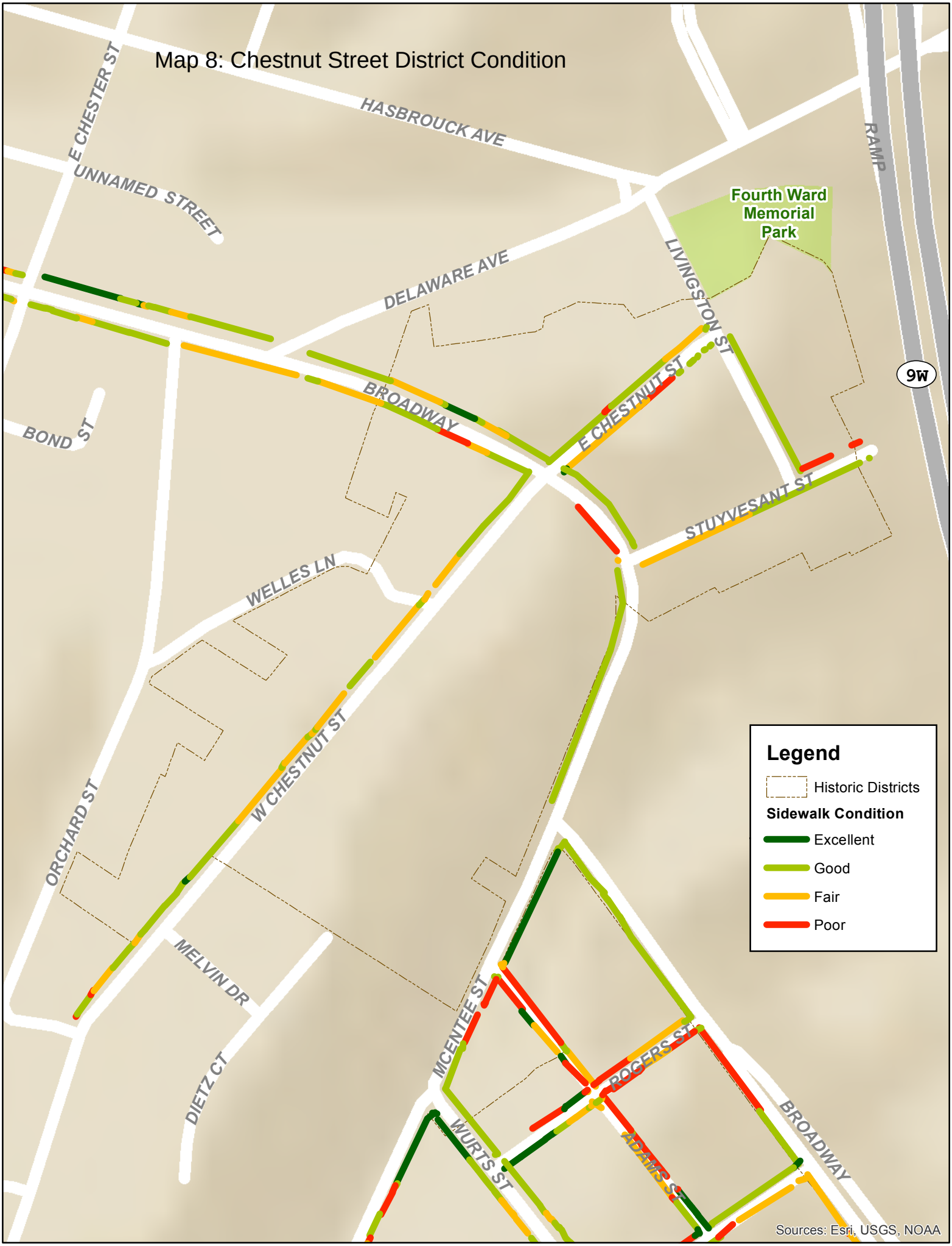

Map 3: Fair Street Historic District Materials
ALBANY AVE
Academy Green
MAIN ST
PEARL ST
MAIDEN LN
CLINTON AVE
SAINT JAMES ST
GREEN ST
CENTER ST
WALL ST
PINE ST
LEN CT
FAIR ST
WARREN ST
OAK ST
FRANKLIN ST
LINDERMAN AVE
SCHRYVER CT
32
Legend
Historic Districts
Sidewalk Material
Asphalt
Bluestone
Brick
Concrete
No Sidewalk
Unknown
Sources: Esri, USGS, NOAA

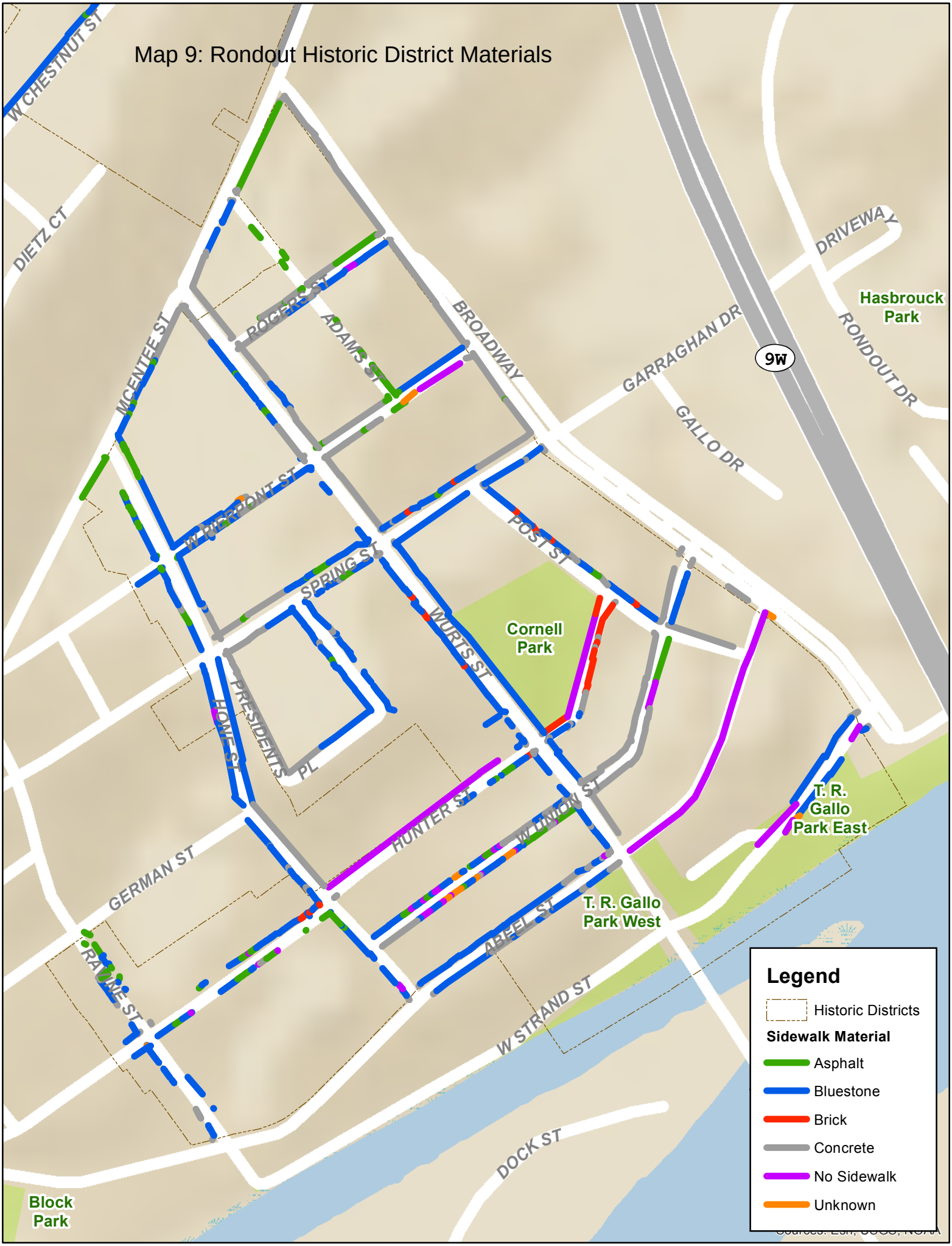

Map 4: Fair Street Historic District Condition
ALBANY AVE
Academy Green
MAIN ST
PEARL ST
MAIDEN LN
CLINTON AVE
SAINT JAMES ST
GREEN ST
CENTER ST
LEN CT
WALL ST
PINE ST
FAIR ST
WARREN ST
OAK ST
FRANKLIN ST
LINDERMAN AVE
WASHINGTON AVE
SCHRYVER CT
32
Legend
Historic Districts
Sidewalk Condition
Excellent
Good
Fair
Poor
Sources: Esri, USGS, NOAA


Map 5: Broadway Corridor Materials
Legend
Historic Districts
Sidewalk Material
Asphalt
Bluestone
Brick
Concrete
No Sidewalk
Unknown
Kingston
32
213
TREMPER AVE
ELMENDORF ST
ORA PL
ONEIL ST
BRUYNAVE
TEN BROECK AVE
FOXHALL AVE
DERRENBACHER ST
STARRELLY ST
FLORENCE ST
STEPHAN ST
ABBEY ST
SHUFELDT ST
STANLEY ST
CLIFTON AVE
TUBBY ST
SMITH AVE
LIBERTY ST
FRANKLIN ST
VAN BUREN ST
VAN DEUSEN ST
FIELD CT
CORNELL ST
THOMAS ST
RAILROAD AVE
GRAND ST
FORT ST
GARDEN ST
WYNKOOP PL
HEMLOCK AVE
FURNACE ST
PROSPECT ST
STERLING ST
CEDAR ST
GREENKILL AVE
PRINCE ST
HASBROUCK AVE
PARK ST
E CHESTER ST
E OREILLY ST
JANSEN AVE
BROADWAY
SUSAN ST
HOFFMAN ST
W OREILLY ST
ANDREW ST
HILTON PL
SUMMER ST
PINE GROVE AVE
GREENWOOD AVE
5TH AVE
MARYS AVE
ROSE DR
BREWSTER ST
STAPLES ST
W CHESTER ST
TRENTON ST
ORCHARD ST
WELLES LN
Sources: Esri, USGS, NOAA

Map 6: Broadway Corridor Condition
Legend
Historic Districts
Sidewalk Condition
Excellent
Good
Fair
Poor
Kingston
32
213
TREMPER AVE
ELMENDORF ST
ORA PL
ONEIL ST
BRUYNAVE
TEN BROECK AVE
FOXHALL AVE
DERRENBACHER ST
STFARRELLY ST
FLORENCE ST
STEPHAN ST
ABBEY ST
SHUFELDT ST
STANLEY ST
CLIFTONAVE
TUBBY ST
LIBERTY ST
FRANKLIN ST
VAN BUREN ST
VAN DEUSEN ST
FURNACE ST
PROSPECT ST
STERLING ST
CEDAR ST
GREENKILL AVE
HILTON PL
SUMMER ST
PINE GROVE AVE
GREENWOOD AVE
5TH AVE
ROSE DR
SUSAN ST
FIELD CT
CORNELL ST
THOMAS ST
RAILROAD AVE
SMITH AVE
GRAND ST
FORT ST
GARDEN ST
WYNKOOP PL
HEMLOCK AVE
PRINCE ST
HASBROUCK AVE
PARK ST
E CHESTER ST
E OREILLY ST
JANSEN AVE
BROADWAY
HOFFMAN ST
W OREILLY ST
ANDREW ST
MARYS AVE
BREWSTER ST
STAPLES ST
W CHESTER ST
TRENTON ST
ORCHARD ST
WELLES LN
Sources: Esri, USGS, NOAA


Map 7: Chestnut Street Historic District Materials
E CHESTER ST
HASBROUCK AVE
UNNAMED STREET
RAMP
Fourth Ward Memorial Park
LIVINGSTON ST
DELAWARE AVE
9W
BROADWAY
E CHESTNUT ST
BOND ST
STUYVESANT ST
WELLES LN
W CHESTNUT ST
ORCHARD ST
MELVIN DR
MCENTEE ST
ROGERS ST
DIETZ CT
WURTS ST
ADAMS ST
BROADWAY
Legend
Historic Districts
Sidewalk Material
Asphalt
Bluestone
Brick
Concrete
No Sidewalk
Unknown
Sources: Esri, USGS, NOAA


Map 8: Chestnut Street District Condition
E CHESTER ST
HASBROUCK AVE
UNNAMED STREET
RAMP
Fourth Ward Memorial Park
LIVINGSTON ST
DELAWARE AVE
9W
BROADWAY
E CHESTNUT ST
BOND ST
STUYVESANT ST
WELLES LN
W CHESTNUT ST
ORCHARD ST
MELVIN DR
DIETZ CT
MCENTEE ST
ROGERS ST
WURTS ST
ADAMS ST
BROADWAY
Legend
Historic Districts
Sidewalk Condition
Excellent
Good
Fair
Poor
Sources: Esri, USGS, NOAA


Map 9: Rondout Historic District Materials
W CHESTNUT ST
DIETZ CT
MCENTEE ST
ROGERS ST
ADAMS ST
BROADWAY
GARRAGHAN DR
GALLO DR
9W
DRIVEWAY
RONDOUT DR
Hasbrouck Park
W HERPONT ST
SPRING ST
POST ST
WURTS ST
Cornell Park
PRESIDENTS PL
HONE ST
HUNTER ST
W UNION ST
T. R. Gallo Park East
T. R. Gallo Park West
GERMAN ST
ABEEL ST
RAVINE ST
W STRAND ST
DOCK ST
Block Park
Legend
Historic Districts
Sidewalk Material
Asphalt
Bluestone
Brick
Concrete
No Sidewalk
Unknown

Map 10: Rondout Historic District Condition
W CHESTNUT ST
DIETZ CT
MCENTEE ST
ROGERS ST
ADAMS ST
BROADWAY
GARRAGHAN DR
GALLO DR
9W
DRIVEWAY
RONDOUT DR
Hasbrouck Park
W PIERMONT ST
SPRING ST
POST ST
WURTS ST
Cornell Park
PRESIDENTS PL
HONE ST
HUNTER ST
W UNION ST
T. R. Gallo Park East
GERMAN ST
T. R. Gallo Park West
ABEEL ST
RAVINE ST
W STRAND ST
DOCK ST
Block Park
Legend
Historic Districts
Sidewalk Condition
Excellent
Good
Fair
Poor

#	W	X	L	Description	Notes
7	16	X	31	Bluestone Curbing	notes showed 15 total this line and next
11	18	X	40	Bluestone Curbing	
5	18	X	44	Bluestone Curbing	
11	18	X	80	Bluestone Curbing	
3	19	X	36	Bluestone Curbing	
2	19	X	43	Bluestone Curbing	
1	20	X	74	Bluestone Curbing	
13	21	X	31	Bluestone Curbing	
8	21	X	36	Bluestone Curbing	see above
92	20	X	40+/-	Bluestone Curbing Curved	
83	20	X	40+/-	Bluestone Curbing not in lot	
2	6	X	30	Bluestone Flag	
1	18	X	36	Bluestone Flag	
1	20	X	50	Bluestone Flag	
3	22	X	60	Bluestone Flag	
1	23	X	25	Bluestone Flag	
6	24	X	62	Bluestone Flag	
1	26	X	45	Bluestone Flag	
6	26	X	60	Bluestone Flag	
	27	X	28	Bluestone Flag	

#	W	X	L	Description	Notes
	28	X	48	Bluestone Flag	
2	28	X	60	Bluestone Flag	
4	30	X	36	Bluestone Flag	
2	30	X	42	Bluestone Flag	
4	30	X	62	Bluestone Flag	
5	32	X	42	Bluestone Flag	
5	34	X	36	Bluestone Flag	
1	34	X	60	Bluestone Flag	
1	34	X	70	Bluestone Flag	
7	36	X	36	Bluestone Flag	
1	36	X	50	Bluestone Flag	
5	36	X	51	Bluestone Flag	
3	36	X	52	Bluestone Flag	
2	36	X	58	Bluestone Flag	
4	36	X	72	Bluestone Flag	
1	38	X	39	Bluestone Flag	
1	39	X	54	Bluestone Flag	
2	40	X	42	Bluestone Flag	
1	40	X	43	Bluestone Flag	
11	42	X	60	Bluestone Flag	
5	42	X	73	Bluestone Flag	
1	45	X	58	Bluestone Flag	
6	45	X	90+	Bluestone Flag	(Only had one measurement: 48x96)
1	47	X	50	Bluestone Flag	
1	48	X	60	Bluestone Flag	
6	48	X	68	Bluestone Flag	
4	48	X	72	Bluestone Flag	

#	W	X	L	Description	Notes
1	50	X	60	Bluestone Flag	
1	50	X	72	Bluestone Flag	
5	60	X	75	Bluestone Flag	
1	62	X	74	Bluestone Flag	
1	70	X	74	Bluestone Flag	
1	78	X	90	Bluestone Flag	
2	18	X	23	Bluestone Flag from City Hall	
5	20	X	44	Bluestone Flag from City Hall	
3	28	X	35	Bluestone Flag from City Hall	
9	28	X	40	Bluestone Flag from City Hall	
7	31	X	42	Bluestone Flag from City Hall	
1	35	X	72	Bluestone Flag from City Hall	
1	38	X	39	Bluestone Flag from City Hall	
3	39	X	48	Bluestone Flag from City Hall	
5	58	X	72	Bluestone Flag from City Hall	
53	?	X	?	Bluestone Fragment	
30	?	X	?	Bluestone Fragment outside fence	
28	14	X	60	Bluestone Wallcap fr Wynkoop	
23	14	X	?	Bluestone Wallcap fr Wynkoop 1/2 pcs	
560	8	X	12+/-	Granite Curbing	
2	8	X	12+/-	Granite Curbing not in lot	

CITY OF KINGSTON DEPARTMENT OF PUBLIC WORKS
BLUESTONE APPLICATION

Person/Organization: _____

Address: _____

City/State/Zip: _____

Contact Phone: _____

Date(s) Bluestone Needed: _____

Address Where Bluestone Replaced/Added: _____

Section/Block/Lot #: _____

Reason for Replacement/Addition: _____

_____

Contractor Performing Work: _____

Address: _____

City/State/Zip: _____

Contact Phone: _____

Amount of bluestone needed:

# pieces	size per piece

Diagram of area or attach photos:

Office Use Only:

Amount of bluestone approved: _____

Authorizing Signature _____ *Date* _____

CITY GOVERNMENT KINGSTON TIMES JULY 25, 2013

Group talk

Community organizations make pitches to master plan panel

BY LYNN WOODS

KINGSTON'S NEW COMPREHENSIVE PLAN, currently under development, is a unique opportunity for civic groups to take part in improving city life: from preserving the city's historic architecture and environment to preparing for sea level rise to reducing air and water pollution to encouraging small-scale agricultural initiatives that would enable Kingston to once again produce some of its own food.

Representatives from eight organizations — including several mayor-appointed city committees — got a chance to talk to the Comprehensive Plan Steering Committee and planning consultants Shuster-Turner Associates at City Hall on July 15. Each representative was given 15 minutes to make a pitch to be in the plan, which will be a statement of the city's development goals and policies, upon which the city's zoning laws will be based.

Jennifer Schwartz Berky, former deputy planner for Ulster County, spoke on behalf of Kingston's urban agricultural initiative — individuals from the Kingston Land Trust, the South Pine Street City Farm, Kingston YMCA Farm Project, and Conservation Advisory Commission who seek language in the plan which would boost local food production. The group is working with the Pace Law School's Land Use Law Center for help on content and wording, which Schwartz Berky said could serve as a model for the state.

Urban agriculture, which has become a big trend in the U.S. in the last few years and accounts for 15 percent of the food produced in the world, improves the economy, greens cities, boosts property values and creates jobs, according to Schwartz Berky. She noted that the city has recently passed an ordinance allowing livestock, and she said her group was addressing common concerns of residents about farming in their neighborhoods. Agricultural easements, setting standards for allowable lot sizes and setbacks, and environmental impacts — including irrigation, drainage, erosion, and the use of pesticides — are among the issues being considered.

Steering Subcommittee member Thomas Collins asked how the city would fund and perform soil testing and other tasks needed for setting up local food production.

Schwartz Berky said new state grants geared to sustainability planning might pay for some of it, but worrying about such details at this point was putting the cart before the horse. The first step, she said, is "the removal of all the barriers to allowing it to happen."

Nature maps

Julie Noble, the city's environmental educator and chair of the Conservation Advisory Council, said her group's role is to make recommendations to the Common Council and city planning board on environmental issues, such as water quality, stormwater runoff, and preserving open space. The CAC is working on a natural resources inventory to identify significant habitats that ideally would be protected in an open space plan, something the state is encouraging municipalities to do, Noble said. (The CAC also is adopting a Climate Action Plan—Noble also chairs the Climate Action Committee—and working with the Flooding Task Force.)

Noble said habitats located in the portion of Kingston and Town of Ulster situated along the Esopus Creek had been inventoried and mapped in 2009. The CAC is now working with Hudsonia to inventory the entire city and draw up a series of maps that, among other things, would pinpoint prime wildlife corridors and biodiversity-rich areas. The CAC is using existing data from the environmental impact study for mega-development Hudson Landing as a beginning. It also hopes to work with the Open Space Institute to develop best practices for planning and development.

The maps ideally would be incorporated into the comprehensive plan, Noble said. Rail trails and possible sites for renewable energy production could be identified, as well as forest preserves, which preserve air quality and absorb carbon dioxide. The plan could also recommend or require environmentally sound practices, such as the use of permeable pavers and installation of rain gardens to help reduce stormwater runoff.

Emilie Hauser, who works for the state Department of Environmental Conservation's Hudson River Estuary Program, spoke about how some of the activities and goals of the Climate Action Task Force and Flooding Task Force — she is a member of both — could be addressed by the comprehensive plan.

She noted that a sea level rise predicted to reach between 20 and 36 inches by 2060 would inundate much of the Kingston waterfront. The two task forces are working to assess the risks and suggest strategies to best protect public health and safety and preserve the waterfront, as well as allow for economic growth. Ideas so far include new bulkheads and levees and elevating buildings on piles or designing structures that float. The committees are also devising a cost-benefit tool to help assess such strategies.

While the two panels' recommendations won't be ready by the time the comprehensive plan is completed, "we want to sit down with the steering subcommittee to see how they could be incorporated into the plan." Hauser said.

Schwartz Berky, who is also a member of those two task forces, said the state is currently funding regional sustainable planning projects, including the seven-county Hudson Valley region, with up to $400,000 available at the local level. The Pace Land Use Law Center has written guidelines for municipalities about how they can adapt sustainable practices, she said.

"The funding will be available in a year, and we ask that the comprehensive plan make space for that," by being flexible enough to adopt future revisions, Schwartz Berky said. "Our goal is to interweave these recommendations into the plan," added Noble.

Kingston of the future, and the past

Ulster County Planner Dennis Doyle suggested the comprehensive plan incorporate a "sustainability section" that looks at land use from that perspective and would provide "a vision that talks about where the city is now and wants to be in the future."

Evan Jennings, a trustee at the Trolley Museum of New York, talked about how trolleys owned by the museum could serve as an alternative form of transportation to Hudson Landing. However, he noted that the funds needed to electrify and extend the track that far would be significant; where that money would come from is a big question mark. He suggested a special business district be established along the existing stretch of track — an area predicted by the climate change panel to be underwater in 50 years.

Patricia Murphy, past president and current member of Friends of Historic Kingston, spoke eloquently of the importance of Kingston's historical and cultural heritage, cited as the number-one strength by participants in an online and in-person survey held by the consultants, and the need for its inclusion in the new plan. "The new comprehensive plan must validate the concerns of the public," she said. "Kingston's heritage and historic architecture are the foundation of the city, part of its shared DNA and collective identity. It's time to leverage this asset, which is a powerful tool for marketing."

Murphy noted that Kingston's four historic districts didn't exist when the last plan was implemented in 1961. She said the city's architectural heritage is at risk, given that "Kingston issues a higher rate of use variances than any other small city, which makes the historic preservation code meaningless. It's time to stem this erosion."

Murphy recommended that the city hire a paid, professional director of historic preservation, which would "put an end to the scattershot and multi-agency approach now in place." The city should also restore the tax credit for restoring historic façades, she added. "Not to leverage Kingston's greatest asset is a financial folly. The new comprehensive plan should be designed to maximize this potential."

Bikes and feet need complete streets

Tom Polk, chair of Kingston's Complete Streets Advisory Council, talked about what his group has been doing. The first is sidewalk standards and policies. The council is coming up with a report next spring based on its research of other cities' standards, which it would like to share with the committee, he said.

The second is making the city's infrastructure more bike-friendly; the council is suggesting painting symbols on the road pavement designating a shared bike lane. The third is a proposal to construct separate bike lanes and convert abandoned railroad corridors for bike use. Polk suggested that the Comprehensive Plan panel establish these as requirements for all redevelopment projects and new developments in the city.

The last speaker was Jack Braunlein, who heads the city's newly formed Bluestone Project. Bluestone was one of the city's major industries in the 19th century; the prevalence of bluestone in the city's sidewalks contributes much to its charm and historic character, he said. Unfortunately, "every year more and more is lost, replaced with cheaper but less durable and attractive materials. Or worse, it is stolen to be sold and used elsewhere," Braunlein said.

He urged that the committee include in the plan "the protection of Kingston's heritage, character and property values by ensuring that the city's streetscapes, sidewalks, and other historic infrastructure and amenities are preserved and restored along with its buildings."

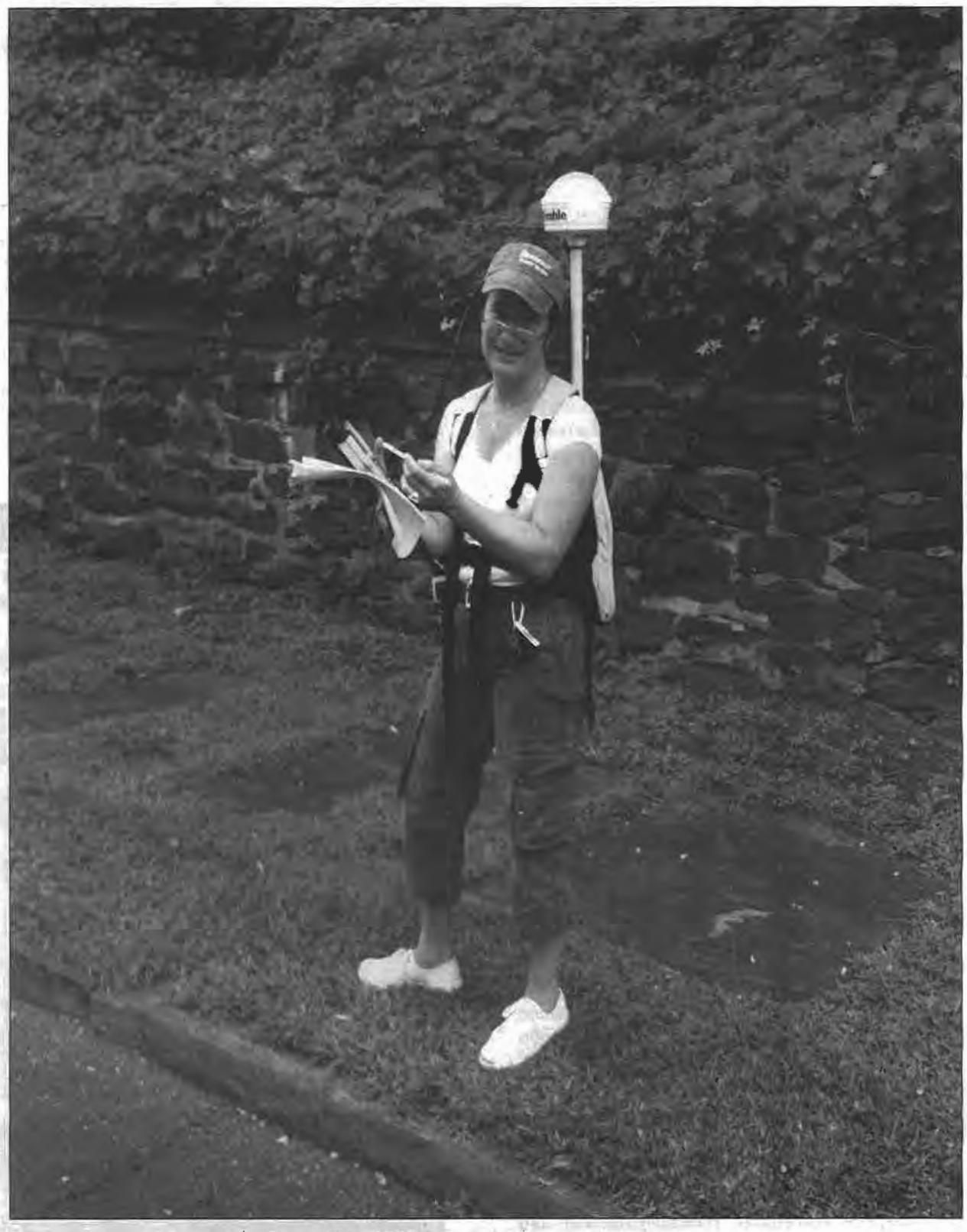
Braunlein urged the developing regulations for care and preservation of the stone; conducting a survey of the bluestone sidewalks and an inventory of stone in the city's bluestone bank; and ensuring that bluestone is protected in transportation projects.

Comprehensive Plan Consultant Dan Shuster noted that the discussion touched on "many levels ... some related to major policy, others to a specific action. Not all will be dealt with in this plan." But all in all, he said the meeting was "a real success. There's a lot of material we can use in the comprehensive plan."

KNOW YOUR STONE

Survey aims to map, catalog and preserve city's bluestone infrastructure

BY LYNN WOODS



Jennifer Schwartz Berky, seen here with a GPS backpack unit.

One of Kingston's most underappreciated assets, its bluestone sidewalks, is finally getting its due, with a bluestone sidewalk survey in the city's four historic districts and the Broadway corridor. While some of the stone has been paved over, ripped out, and otherwise destroyed, much of the century-plus-old gray, blue and purple flagstones and curbs remain, contributing subliminally to the city's warm, appealing patina.

The sidewalk survey is the first step in preserving the city's bluestone sidewalks, and it's utilizing 21st century technology. A small group of volunteers, working under the guidance of Jack Braunlein, a consultant hired by the city to oversee the project, can be seen around the city punching data into a hand-held computer/GPS device while strolling the sidewalks. Each wears a yellow backpack topped by a little white dome that receives the satellite-based GPS signals.

The GPS unit "records where you are while you're standing there," said Braunlein, who previously was the director at Lyndhurst, the historic mansion of Jay Gould, and Historic Huguenot Street. The team is inputting the sidewalk material, width, color, type of edge (the older bluestone has a more natural cut than the newer stuff), condition, type of buffer, and even whether there's a tree disrupting the sidewalk or other feature such as an ADA-compliant ramp. Once the data has been uploaded to create a map and the city's bluestone bank inventoried, "we can make a plan for the restoration and preservation of the bluestone," Braunlein said.

'Bluestone helped make Kingston what it was, but it's taken for granted.' — Jack Braunlein, study consultant

"It's a pretty broad reach of data," noted Kingston economic development director and director of strategic partnerships Gregg Swanzey. "The handheld units download the data and convert it into a Shape file, which is a special mapping program. Within minutes of the download, we can display a map" customized to reflect various types of data, such as condition or material. The information will help the city to pursue other funding, whether from a historic preservation or public works standpoint. It's also helpful in assessing the sidewalks as a whole, not just the bluestone.

The survey is being funded by a $17,000 grant, which pays for the hiring of Braunlein (his tenure started in June and ends this month) and is matched in kind by the city in terms of time vested in the project by Swanzey, city planner Suzanne Cahill and other city employees as well as the services of grant writer Kitty McCullough. The grant was obtained under New York State's Certified Local Government program, which qualifies the city to apply for state grants using federal dollars geared to historic preservation, Swanzey said. The program, long dormant, and dependent on such agencies as the city's Historic Landmarks Preservation Commission, has been reactivated under the Gallo administration, and Swanzey said he plans to follow up with another $10,000 grant application under the program soon.

He noted that the Ulster County Information Services kicked into the project by loaning the high-tech equipment used by the volunteers. In addition, Dutchess County loaned the city the Dictionary file program that was used for loading the data into the hand-held GPS unit, which was a time saver both in the field and in terms of the upload into the digital map. A sidewalk survey previously conducted by Rhineheck served as a model, even though that study wasn't focused on bluestone per se. "We're not reinventing the wheel," said Swanzey.

Places on the survey list include the Chestnut Street Historic District and the Stockade and Fair Street districts. The Rondout and the Broadway corridor will be looked at as well. What's noteworthy is "how many large stones there are," said Braunlein. For example, "there are some amazing flags in Uptown, around Dominick's Café. They've held up extremely well."

The survey is also taking note of special features, such as bluestone carriage stones, hitching posts, and drainage culverts, as well as the carving of dates, names, and addresses in the stone. "Some of these features are really interesting. It's important to record them, because they tend to disappear over time," said Braunlein.

Bluestone pavement has gotten flak for the difficulties it sometimes poses to pedestrians — upheavals over tree roots, widening cracks that let in the weeds and crumbling surfaces. But it's not the fault of the stone: trees that have gotten too big and were probably inappropriate for city sidewalks are the culprit in the first instance and also cause asphalt or cement to heave up and crack. According to McCullough, the city has updated its tree survey, which hopefully will be folded into the sidewalk survey so that balanced solutions for preserving and enhancing the sidewalkscape can be realized (i.e., preserving lovely old trees as well as bluestone and planting the right kind of trees in the proper way in the future).

In fact, much of the bluestone, which in 1880 accounted for 60 miles of sidewalks and curbs in Kingston, according to Friends of Historic Kingston, is in good shape — remarkable considering that much of it

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is at least 150 years old. "The beauty of bluestone is that it's hard and firm, so it didn't get slippery when wet, and it weathered well," said Peter Roberts, president of Friends of Historic Kingston.

Kingston's bluestone is significant not only for its aesthetic appeal, but also because it represents one of the city's most significant local industries. The bluestone industry started in Wilbur in the late 1830s. It was quarried in a swatch stretching four to six miles west of the Hudson River in Ulster County, noted Roberts, who recently gave a presentation for the Friends of Historic Kingston on the history of bluestone. Some of those quarries were located in Hurley and are now covered by the Ashokan reservoir.

Huge slabs of bluestone were laid down to create a road that could support the horse-drawn wagons and their multi-ton cargo from these quarries to the Wilbur docks, tracing a route along what is now Route 28A, Route 28, Washington Avenue, North Front, Wall, Henry and Wilbur Avenue. (Pieces of it can be seen in the courtyard at the Hudson River Maritime Museum and in Frog Alley, Roberts said.)

The bluestone was used mostly for sidewalks and curbs, and enormous quantities were shipped to New York City. Ulster County bluestone was also exported to Boston, Philadelphia, Baltimore, Washington, D.C., St. Louis, Savannah, San Francisco, and Havana, Cuba, Roberts said. Actually a hard sandstone — bluestone is a vernacular term, first coined in Ulster County — it was laid down first in the commercial districts of Kingston and covered many of the residential areas in three of the historic districts by the 1870s. Much was also laid down in Midtown as it was developed in the following two decades.

The stone was also used in retaining walls, residential walkways and doorstops, and buildings, including the former Fitch company bluestone office in Wilbur, the Old Dutch Reformed Church, and the former Sweeney house on Wurts Street.

According to Friends of Historic Kingston, slightly less than half of the original bluestone sidewalks survive. The organization is lobbying for protection, given that the historic stone continues to be destroyed and in some cases, stolen. Newly quarried bluestone comes from Delaware County and is inferior in quality to the stone in Ulster County, which today is difficult to access, noted Roberts.

McCullough, who lives on Abeel Street, said she and partner George Donskoj "went out and screamed" when they witnessed with horror the destruction of the old stone as part of the recent rebuilding of that street. They managed to stop some of the breakage. McCullough and Donskoj also intervened to stop the workers from putting in a foot-long apron of concrete between the new sidewalk and the buildings on their side of the street, which she said "doesn't help with runoff."

The sidewalk survey project also includes making an inventory of the city's bluestone bank, which is overseen by the Department of Public Works. "We'd like to find out where the different bluestone is cached and put it in a secure place," said Swanzey. "We'd like to identify what we have and get it back into the ground."

Once the survey is completed, sources said they were hopeful information on bluestone could be put on a website linked to the city's side, which would include the survey results, a suggested reading list and tips on maintenance. Braunlein said the entire city should be surveyed, given the amount of bluestone outside the historic districts, then a plan put in place for bluestone sidewalk restoration.

"Bluestone helped make Kingston what it was, but it's taken for granted," he said. "I hope one of the outcomes of the survey is raising community awareness about what can be done to preserve the bluestone," which has economic advantages as well, given it holds up better than cement or asphalt, he noted. "People think about preserving buildings, but sidewalks are neglected. Yet they add to the appearance of the city and in this case, the stone sidewalks are also authentic."