



Supplemental

Information

PR229-13

Sheela T. Miller <skamin@gocolumbiamo.com>

Tabling Brick Streets 2/17

3 days ago

Robert Tucker <roberttucker1@gmail.com>

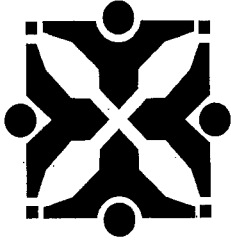
Tue, Feb 11, 2014 at 9:09 AM

To: "skamin@gocolumbiamo.com" <skamin@gocolumbiamo.com>, Rachel Bacon <ribacon@gocolumbiamo.com>, PEamey@thhinc.com, treece@treecephillips.com

Good Morning Sheela,

I would like to request that city council table Brick Streets slated for the February 17th, 2014 agenda, so that the Disabilities Commission and Historic Preservation Commission can further meet to review, discuss and adjust the policy as needed. I would also like to bring this policy back to council on the March 17th, 2014 agenda. If you have any further questions please feel free to contact me or our staff. Thank you for your favorable consideration of my request so that your commissions can better work together.

Kind Regards,
Robert Tucker, HPC Chair



Source: Community Development - Planning ^{TT}

Agenda Item No: Supplemental
Information
PR229-13

To: City Council
From: City Manager and Staff *MM*

Council Meeting Date: February 17, 2014

Re: Proposed Policy for the Repair, Maintenance and Treatment of Columbia's Brick Streets (case #14-22; carried over from case #13-206)

EXECUTIVE SUMMARY:

Attached for Council consideration is a policy resolution for the repair, maintenance and treatment of Columbia's exposed and covered brick streets. This policy resolution was tabled at the November 18, 2013 Council Meeting.

DISCUSSION:

The Historic Preservation Commission (HPC) has prepared a list of "Frequently Asked Questions" (FAQs) to address questions posed by the Council at the November 18, 2013 meeting, and other questions they have heard from the public regarding this policy resolution. The supplemental information and Council memo from the November 4, 2013 Council meeting is also attached, including a map of Columbia's covered and uncovered brick streets.

FISCAL IMPACT:

None.

VISION IMPACT:

<http://www.gocolumbiamo.com/Council/Meetings/visionimpact.php>

2 Vision Statement: Columbia protects and encourages the expression of its historic and natural character, uniting the community with sustainable, healthy planning and design, beautifying the streets and lives of its citizens.

2.1 Goal: Columbia will preserve its existing character and enhance the city's natural and man-made aesthetics.

2.1.3 Strategy: Establish neighborhood areas to feature distinct characteristic "looks," guide development and improve property appearance, and provide assistance to homeowners in order to foster neighborhood pride.

2.2 Goal: Historic areas will be identified, valued, and preserved through education, enforcement, and incentives.

2.2.1 Strategy: Develop a policy of identification, financial incentives such as tax abatement and tax credits, and resources for monitoring to encourage historic preservation.

SUGGESTED COUNCIL ACTIONS:

Hold a public hearing considering the proposed policy resolution for the repair, maintenance and treatment of Columbia's brick streets.

FISCAL and VISION NOTES:					
City Fiscal Impact Enter all that apply		Program Impact		Mandates	
City's current net FY cost	\$0.00	New Program/ Agency?	No	Federal or State mandated?	No
Amount of funds already appropriated	\$0.00	Duplicates/Expands an existing program?	No	Vision Implementation impact	
Amount of budget amendment needed	\$0.00	Fiscal Impact on any local political subdivision?	No	Enter all that apply: Refer to Web site	
Estimated 2 year net costs:		Resources Required		Vision Impact?	Yes
One Time	\$0.00	Requires add'l FTE Personnel?	No	Primary Vision, Strategy and/or Goal Item #	2.1
Operating/ Ongoing	\$0.00	Requires add'l facilities?	No	Secondary Vision, Strategy and/or Goal Item #	2.2
		Requires add'l capital equipment?	No	Fiscal year implementation Task #	

Brick Streets- Response to Council Questions/FAQs

How long can a brick street last?

How long a brick street lasts depends upon a variety of aspects- weather, traffic loads, disruption due to utility work, etc. Columbia's existing brick streets downtown have lasted 100 years with little to no maintenance. New construction materials have pushed the life of brick streets estimate, by the construction industry, to over 150 years. The cobblestones laid down on Rome's Appian Way are about 2,000 years old and counting, and have withstood everything from sandals, horses, and tour busses.

Where brick streets are in poor condition, the cause is typically the condition of the base the bricks are laid upon. The bricks themselves do not warp or buckle, but rather the sand and gravel base underneath them has reacted adversely to weather and traffic/load conditions. Thus, this proposed policy does not recommend any maintenance or repairs without replacing the present bases with smooth, long-lasting concrete bases topped with an appropriate intermediary, cushioning material. If individual bricks break, they can be replaced individually without tearing up large segments of the street.

Are brick streets more, or less, expensive than asphalt streets?

There is some debate on this topic. On a per square foot basis, over a large area, new or salvaged historic brick is more expensive than asphalt. However, because asphalt must be replaced every 15 years (+/-) and bricks will last more than 100 years, the bricks are less expensive over the life-cycle of the street. If the life of asphalt pavement downtown is only 15 years, the streets would need to be repaved more than 6 times in 100 years. History tells us that bricks last far longer than 15 years.

At the March 21, 2011 City Council meeting, Council requested a staff report indicating the cost of rehabilitating an existing brick street versus the installation and maintenance of a concrete street. The subsequent report for CM #3295 prepared by the Public Works Department, Brick Street Renovation (11/07/11), has been attached for Council consideration, and the following is an excerpt summarizing the cost differential between street materials:

Comparative Costs

This portion of the report presents comparative costs per square yard of street pavement for three options available for future maintenance or renovation of downtown streets. The costs are for the street pavement only and do not include any additional associated projects that could include sidewalk replacement or utility replacement. The costs have been estimated using recent bid prices for city projects in Columbia and other communities in the Midwest that are working on similar issues.

Cost to mill and overlay an existing asphalt overlay on an historic brick paved street.....\$30 per Square Yard

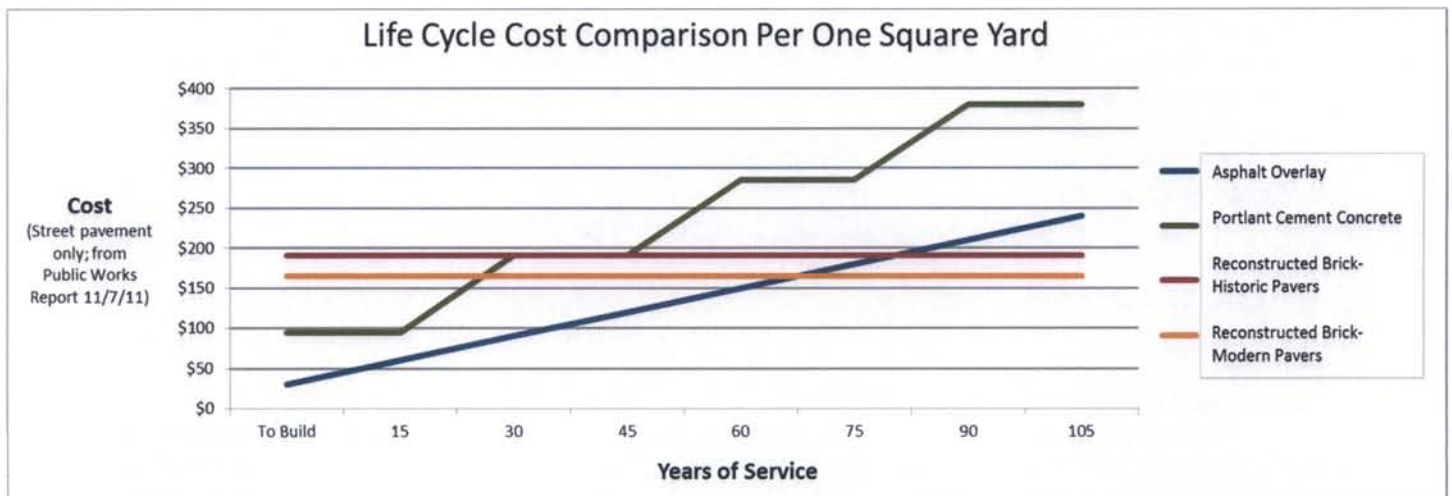
Cost to remove a brick paved street (with or without asphalt overlay) and reconstruct a brick paved street to the correct elevation and grade on an improved base:

Two options are available for reconstructing a brick paved street. One option is to use historic pavers; the other is to use modern pavers. There are pros and cons to each option. The cost is slightly higher for using historic pavers, due mostly to the availability of the historic pavers and the need to place all pavers by hand. Additional pavers are needed since many of the existing pavers are broken. With modern pavers the

option exists to place pavers mechanically which can save labor costs. Both types of pavers need to be placed on a suitable base which in the downtown area is a concrete base pavement due to the vehicle loads and the proximity of underground utility and service connections.

Using historic pavers..... \$190 per Square Yard
 Using modern Pavers.....\$165 per Square Yard
 Cost to remove a street (any material) and replace with a Portland Cement Concrete street.... \$95 per Square Yard

This information has been plotted to show the potential life-cycle cost of the street pavement over time:



What kind of maintenance has been done on Columbia's bricks streets?

The City Public Works department does not have a brick street maintenance policy, so maintenance has generally been deferred or piecemeal. Many brick areas have been slowly replaced or paved over in the course of utility or other street work, leaving areas of mismatched materials. These areas where different materials meet are often more negatively affected by weather conditions, traffic, snow removal, etc., than areas of a single pavement material.

South Glenwood Avenue's historic brick street (from Broadway south to Stewart) was rehabilitated in the 1990s, and is in excellent condition.

According to Public Works' Brick Street Renovation report: "Brick pavements in the downtown area are generally in fair condition with various amounts of rutting and uneven surface conditions due mostly to the poor strength of the base under the pavement. This uneven surface condition is also evident on some of the brick paved streets that have been overlaid with asphalt. The vehicle loads in the downtown area are considerably heavier than in the early 1900's when the brick pavements were originally placed."

Due to heavier loads in modern time, the Brick Streets policy follows the industry best practice recommendation to replace sand and gravel bases with concrete bases to extend the longevity of the brick streets life-cycle beyond 100 years and to maintain a smooth surface.

Will historic brick pavers break down if placed on concrete bases?

As with all paving materials, appropriate construction methods and materials are the key factors behind the longevity of brick paved streets re-laid over a concrete base. The benefit of brick pavers is that if a brick cracks or breaks, that brick can be removed and replaced. Asphalt and concrete roads have a very different process for repairing cracks and potholes. All paving materials are not immune to repair needs, which is why this proposed policy has been prepared.

Historic pavers were traditionally laid upon a gravel and sand base. In previous generations, brick streets often carried less and lighter traffic. The use of concrete bases will extend the life of historic brick pavers, but to prevent material breakdown, an intermediary cushion material, such as a level sand asphalt setting bed, will need to be placed between the concrete base and the brick pavers. Additionally, historic bricks re-laid over concrete bases will need to be in good condition (lacking fractures and cracks) to provide the longest life-span.

What about ADA requirements and crosswalks?

It is very important that all crosswalks over brick streets, curb ramps, and adjacent sidewalks are ADA accessible. While modern bricks have often been used in recent times in Columbia to visually distinguish downtown crosswalks while providing ADA accessibility, crosswalks over brick streets do not have to be brick.

The Americans with Disabilities Act of 1990 does not require any street material (asphalt, brick or concrete) to meet the same ADA standards as sidewalks, ramps and crosswalks; however, with proper restoration techniques, brick streets can follow sidewalk, ramp and crosswalk design standards for slopes, cross slopes, and surface impediments such as vertical surface discontinuities. Two important design factors are recommended: repaired brick streets need to be uniformly placed over a level concrete base to prevent vertical obstructions and tight, sand-swept joints are needed to create a smooth surface to limit traveling vibrations.

The ability of brick pavers to be ADA accessible can be seen in the numerous new sidewalks Columbia has built with decorative brick-paved sections (examples include Eight Street, Seventh Street and Broadway). The repaving of Short Street is also an example of accessible modern brick pavers; South Glenwood Avenue provides a good example of accessible historic brick pavement.

Do brick streets calm traffic?

Brick streets are commonly cited to be an excellent traffic calmer because they look and feel different than other streets. A case study of Winter Park, Florida showed a drop in average speed from 29 mph from 41 mph after a brick restoration project was undertaken in 1996.

Is there a cost estimate available for the scope of the proposed brick streets policy?

No, not at this time. City Public Works has indicated that cost estimates may be based upon the bid to use modern brick pavers on the newly reconstructed Short Street. A cost estimate for historic brick pavers may be based upon estimates in Public Works' Brick Street Renovation report.

How would this policy be implemented over time?

The HPC has identified repairing downtown brick streets as the highest priority. These brick streets are the most used, the most visible, and are generally in the worst condition. That is why the policy sets a goal of 20 years to repair the brick streets in the core zone. 20 years was the suggested timeline for the complete repair of these streets to balance budget concerns versus repair needs. Which core zone streets are fixed first within this timeline should be determined by

the Council, staff and the public *in the same way other street projects are prioritized, designed and funded- through interested parties and public hearing meetings held by the City Council.*

There is already a brick streets repair fund in the budget, though little funding has been put in it in recent years (Annual Historic Brick Street Renovation, account # C00234). The HPC also suggests that during every annual budget process, the Council allocate funds into the brick streets account to eventually fund uncovering or “daylighting” brick streets in the core zone. A suggested prioritized list is provided in the policy resolution. There is no timeline on when these streets would be daylighted, nor is there an explicit requirement to do so within a certain time period. Any brick street uncovering projects would follow the *same process by which other street projects are prioritized, designed and funded- through interested parties and public hearing meetings held by the City Council.*

The sections of this policy resolution describing how brick streets should be treated when disturbed by utility or other street work should begin following adoption of the policy resolution.

The Council may also direct the preparation of an “ordinance to allow a majority (percentage to be established) of the property owners living on a portion of at least one block of a street with historic brick pavement to request that their street be restored using either historic or modern brick pavers dependent upon availability and subject to a special assessment of property tax to pay for the expense of such work”, as called for in section 4, following policy resolution adoption. Such an ordinance would be subject to a public hearing.

Additional Resources:

ADA and Sidewalks, Delaware T2 Center, June 2011

<http://www.ipa.udel.edu/healthyDEtoolkit/docs/ADAsummaryPlanning209.pdf>

Brick Streets, Blair Historic Preservation Alliance, Blair Nebraska,

http://www.blairhistory.com/bricks/faq_new.htm

Flexible Vehicular Brick Paving: Brick Paving A Heavy Duty Applications Guide, Brick Industry Association

<http://www.pinehallbrick.com/userfiles/BIAheavypaving.pdf>

Life Cycle Performance, Boyer, Dr. Bob, Asphalt Institute Senior District Engineer and Jay Hensley Asphalt Engineer Chief Engineer

http://www.asphaltmagazine.com/archives/1999/Summer/Life_Cycle_Performance.pdf

PHB TechBullet #12 Case Study: Winter Park Streetscapes: A new concept in traffic calming, Pinehall BRick

http://www.pinehallbrick.com/userfiles/TechBullet12_001.pdf



Agenda Item No. REP 193-11

TO: City Council

FROM: City Manager and Staff

COUNCIL MEETING DATE: 11/7/2011

Source:

Public Works

RE: Brick Street Renovation (CM # 3295)

City Fiscal Impact

Enter all that apply:

0	City's current net FY cost.
0	Amount of funds already appropriated.
0	Amount of budget amendment needed.
Estimated 2 year net costs:	
0	One Time.
0	Operating / Ongoing

Program Impact

N	New program/agency (Y/N)
N	Duplicates/expands an existing program (Y/N)
N	Fiscal impact on any local political subdivision (Y/N).

Resources Required

N	Requires add'l FTE personnel? (Y/N)
N	Requires additional facilities? (Y/N)
N	Requires additional capital equipment? (Y/N).

Mandates

N	Federal or state mandated? (Y/N)
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Vision Implementation Impact

Enter all that apply:

Refer to website:

<http://www.gocolumbiamo.com/Council/Meetings/visionimpact.php>

N Item	Vision Impact? (Y/N or if N, go no further)
# Item	Primary Vision, Strategy and/or Goal Item#
# Task	Secondary Vision, Strategy and/or Goal Item #.
#	Fiscal Year Implementation Task#.

EXECUTIVE SUMMARY:

Staff has prepared for Council consideration a report concerning the viability of brick streets.

FISCAL IMPACT:

None with this report.

VISION IMPACT:

None

SUGGESTED COUNCIL ACTIONS:

For information only.

DISCUSSION:

At the March 21, 2011 council meeting, council requested a staff report indicating the cost of rehabilitating the existing brick street versus the installation and maintenance of a concrete street.

Background Information

Many streets in the downtown area were initially paved with brick pavers with concrete curbs in the early 1900's. A large portion of the brick paver streets were overlaid with asphalt in the mid 1960's. Since that time the asphalt surface has been maintained with periodic chip/sealing and mill & overlay. Some streets in the downtown area were last overlaid in 1994.

Some brick paved streets in the downtown area remain with the bricks exposed. Among these streets are Short Street, portions of Seventh Street, and portions of Cherry Street. Brick pavements in the downtown area are generally in fair condition with various amounts of rutting and uneven surface conditions due mostly to the poor strength of the base under the pavement. This uneven surface condition is also evident on some of the brick paved streets that have been overlaid with asphalt. The vehicle loads in the downtown area are considerably heavier than in the early 1900's when the brick pavements were originally placed.

Comparative Costs

This portion of the report presents comparative costs per square yard of street pavement for three options available for future maintenance or renovation of downtown streets. The costs are for the street pavement only and do not include any additional associated projects that could include sidewalk replacement or utility replacement. The costs have been estimated using recent bid prices for city projects in Columbia and other communities in the Midwest that are working on similar issues.

Cost to mill and overlay an existing asphalt overlay on an historic brick paved street.....\$30 per Square Yard

Cost to remove a brick paved street (with or without asphalt overlay) and reconstruct a brick paved street to the correct elevation and grade on an improved base:

Two options are available for reconstructing a brick paved street. One option is to use historic pavers; the other is to use modern pavers. There are pros and cons to each option. The cost is slightly higher for using historic pavers, due mostly to the availability of the historic pavers and the need to place all pavers by hand. Additional pavers are needed since many of the existing pavers are broken. With modern pavers the option exists to place pavers mechanically which can save labor costs. Both types of pavers need to be placed on a suitable base which in the downtown area is a concrete base pavement due to the vehicle loads and the proximity of underground utility and service connections.

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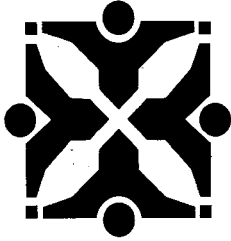
Cost to remove a street (any material) and replace with a Portland Cement Concrete street..... \$95 per Square Yard

Summary

From the above tabulated costs it can be seen that the different options have vastly different costs, additionally, options have different levels of disruption to the street use during the time needed to pursue the option. Overlay is a fairly rapid project usually taking place over several days depending on the street length, where a major removal and reconstruction project will take several months to an entire construction season.

An additional cost has been estimated for the cost per square yard to remove and salvage sound historic pavers for future maintenance use. This cost has been tabulated to help guide the decision whether to salvage and store sound brick pavers when they are removed from the Right of Way during construction and utility work. The salvaged pavers could be used in maintenance activities on existing exposed brick streets. Historic brick pavers are available at various locations and the price ranges from \$1.00 to 2.00 per each. There could also be shipping charges depending on the location of the source.

The cost to sort and place sound useable brick pavers on pallets is primarily labor and shipping to a storage location. The cost is estimated to be \$8.00 per square yard of pavement being removed. An audit of the existing brick pavements on Short Street and Seventh Street indicates that approximately 60% of the bricks are sound and re-useable. This is expected to yield 19 sound and re-useable pavers per square yard of pavement removed. This works out to a per paver price of \$0.40 each.



Source: Community Development - Planning

Agenda Item No: Supplemental
Information
PR229-13

To: City Council
From: City Manager and Staff

Council Meeting Date: February 17, 2014

Re: **Bicycle & Pedestrian Commission Report: Review of Brick Street Policy Resolution (Case # 14-21)**

EXECUTIVE SUMMARY:

The Bicycle & Pedestrian Commission passed a motion recommending City Council approval of the proposed Brick Street Policy Resolution (case #14-22) at their January meeting. Included in their approval was the recommendation that the policy also include narrative that any brick streets restored or improved with neighborhood funds will be subject to the same policy and protection as those streets included in the core brick streets zone listing.

DISCUSSION:

At their January 15, 2014 meeting, the Bicycle & Pedestrian Commission continued their discussion of the proposed Brick Streets policy resolution (case #14-22; carried over from case #13-206) referred to them by the City Council at their November 18, 2013 meeting. The Commission initially reviewed the proposed policy resolution at their December 2013 meeting, then tabled discussion of the item to the January meeting. After discussion, the Commission voted unanimously to recommend that the Council approve the Brick Street policy resolution with the additional recommendation that any brick streets restored or repaired in the future with funds from the local neighborhood/property owners be given the same policies and protections afforded those streets in the core brick streets zone. Draft minutes from the January Commission meeting are attached.

FISCAL IMPACT:

There is no fiscal impact.

VISION IMPACT:

<http://www.gocolumbiamo.com/Council/Meetings/visionimpact.php>

2.1 Goal: Columbia will preserve its existing character and enhance the city's natural and man-made aesthetics.

2.2 Goal: Historic areas will be identified, valued, and preserved through education, enforcement, and incentives.

SUGGESTED COUNCIL ACTIONS:

Acceptance of the report.

FISCAL and VISION NOTES:					
City Fiscal Impact Enter all that apply		Program Impact		Mandates	
City's current net FY cost	\$0.00	New Program/ Agency?	No	Federal or State mandated?	
Amount of funds already appropriated	\$0.00	Duplicates/Expands an existing program?	No	Vision Implementation impact	
Amount of budget amendment needed	\$0.00	Fiscal Impact on any local political subdivision?		Enter all that apply: Refer to Web site	
Estimated 2 year net costs:		Resources Required		Vision Impact?	Yes
One Time	\$0.00	Requires add'l FTE Personnel?	No	Primary Vision, Strategy and/or Goal Item #	2.1
Operating/ Ongoing	\$0.00	Requires add'l facilities?	No	Secondary Vision, Strategy and/or Goal Item #	2.2
		Requires add'l capital equipment?	No	Fiscal year implementation Task #	

Bicycle and Pedestrian Commission
Meeting Minutes
January 15, 2014

Members Present: Andrew Sommer, Sue Davis, Greg Ahrens, Elke Boyd, Dan Harder, Sarah Anderson, Brant Kassel, Christopher Bailey, Mike Burden

Members Absent: David Heise

Others Present: Mitch Skov (Staff), Rachel Bacon (Staff), Joe Guskowski (Columbia Missourian), Janet Godon (Parks & Rec), Robert Tucker (Historic Preservation Commission), Kathleen Weinschenk

1. Call to Order -- 7:00 pm

2. Approval of December 18, 2013 meeting minutes

- Motion by Sue Davis
- Seconded by Mike Burden
- All in favor

3. Review of the agenda – No Changes

4. Staff/Commission/Council Reports

- Mitch Skov (City of Columbia)
 - Informed the committee that they are still make changes to the CATSO Long Range Transportation Plan (LRTP) based on comments from other city departments, MoDOT and Boone County
 - Large section of the Plan is concerned with non-motorized transportation.
 - The LRTP survey is still open to take
 - Route signs and destination signs
- Janet Godon (Parks & Rec)
 - In the process of planning programs for the late spring and summer

5. Old Business

- Discussion of the Brick Street Policy
 - Mitch and Mr. Robert Tucker gave an overview of the policy and the history of its development.
 - Question over the order of brick streets and the uncovering of unexposed streets.
 - Mr. Tucker said that only streets that are currently uncovered will be redone and that it will take some time (decades) to get through these.
 - Elke suggested that adding a clause to ordinance that cross walks must be smooth for wheelchairs
 - Rachel Bacon responded that all crosswalks will have to meet ADA standards anyway.
 - Elke suggested that as neighborhoods decided to make brick streets on their own that those streets should be added to the no removal zones
- Motion to support the resolution with the following recommendation: Include in the core brick zones streets that have been improved with neighborhood funds.
 - Motion by Elke Boyd

- Seconded by Andrew Sommer
- All in favor

6. New Business

- None

7. Public Comment

- Joe Guskowski asked who decided the order of brick street renovation, Public Works?
 - Mitch answered that Public Works would make a recommendation on a priority order and the City Council will ultimately approve
- Kathleen Weinschenk commented on how the brick sidewalk on Broadway had to be replaced in less than one year.
 - Mr. Tucker responded that the contractor who built that crosswalk the first time did not do it correctly. Another contractor was brought in to fix it and it is up to standards now.
- Weinschenk informed the commission that the Human Rights Commission voted against supporting the Brick Street Policy.

8. Announcements/Commissioner Comments

- Mike Burden asked how many tickets the city had issued for failure to remove snow from sidewalks in front of residences.
 - Rachel Bacon said she was aware of one complaint but no tickets

9. Adjournment 8:26 pm

- Motion by Greg Ahrens
- Seconded by Mike Burden
- All in favor

Prepared by Andrew Sommer, 1/21/14



City of Columbia, Missouri

HUMAN RIGHTS COMMISSION

January 5, 2014

To: Mayor and City Council
From: City Human Rights Commission

Re: HRC's Formal Report on Brick Street Policy Resolution

At the December meeting of the Human Rights Commission, the members agreed unanimously that the Commission stands against the proposed Brick Streets Policy Resolution to increase the number of brick streets in the downtown area. The Human Rights Commission believes the best course of action would be to reject the resolution as drafted, to repair existing brick streets and a controlled study be initiated to determine if the new brick street designs can be an accessible and cost-effective surface.

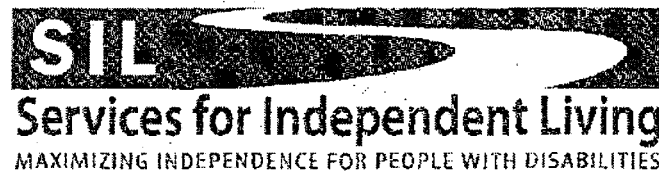
This Commission agrees with the Disabilities Commission that brick streets create an accessibility issue, specifically for people with disabilities. To use public funds for the expansion of brick streets with the knowledge that it could lead to the exclusion of a particular category of people seems against the spirit of recent City improvements. For instance, the City highlighted in its 2013 Infrastructure Report that "8,451 feet of new sidewalks and pedways" had been added, as well as the construction of the "Delmar Cobble School sidewalk for ADA access to Parkade Park." Further, in 2014, the City plans for the "design and construction of 5 sidewalk projects to meet ADA standards."

Though non-brick crosswalks can be created for traversing the downtown area, this does not resolve all accessibility issues with brick streets. If a brick surface is in fact hazardous to people with mobility impairments, then people may be excluded from parking on that street because they, or one of their passengers, would suffer from having to traverse over the brick surface to get to the sidewalk. Lack of accessibility can be detrimental to city events, as well. It is not uncommon for events to be held on closed city blocks. Increasing the number of brick streets downtown could create more opportunities for people in wheelchairs, for instance, to be excluded from those events. Creating a large downtown area with only brick streets could, in essence, create a downtown that is a physical barrier to the inclusion of people with disabilities.

This Commission also expressed concerns that the Brick Street Policy Resolution lacked a fiscal impact study. Lacking a fiscal impact study, the Commission felt that they could not serve as good stewards of the City's money in recommending the City move forward with such a resolution. This is in specific regard to other priorities the City has to consider in budget discussions. The commission would, however, be willing to revisit this matter if a fiscal impact study were made available.



Overall, this Commission agrees with the Disabilities Commission that current “brick streets be repaired, and that a controlled study be initiated to determine if the brick streets provide an accessible, cost effective surface.” Further, Short Street’s new brick design could also serve as possible field study in brick street accessibility. Until such a time that the Disabilities Commission is confident that brick streets in Columbia can meet the accessibility needs of the community, the Human Rights Commission cannot provide our support to the Brick Streets Policy Resolution.



BOARD RESOLUTION: 1/22/2014

Adopting a policy on the repair, maintenance, and restoration of brick paved streets in the City of Columbia.

WHEREAS, it is the responsibility of the Board of Directors to approve policy and legislative priorities of Services for Independent Living to create an inclusive community that promotes equality and self-determination and maximizes an individual's independence.

WHEREAS, the City of Columbia, Missouri, has proposed a Resolution to address the brick paved streets; and whereas the Disabilities Commission and the Historic Preservation Commission, City of Columbia Human Rights Commission, and the Great Plains ADA Center published their recommendations; and whereas the Resolution considers historic value, appearance, and budget constraints; and whereas the currently brick paved streets are in critical need of repair.

WHEREAS, Services for Independent Living acknowledges the diverse populations utilizing facilities of the City of Columbia have a significant impact on accessibility and budgetary decisions. Accessibility is a primary influence on economic sustainability.

NOW, THEREFORE, be it resolved to approve, adopt, and authorize Services for Independent Living to address this issue as a priority and recommend the City of Columbia, Missouri, adopt a no net new brick policy which states existing concrete or asphalt travel paths and roads cannot be replaced with brick and existing brick travel paths and roads shall be repaired to be fully compliant with the Americans with Disabilities Act (ADA) assuring equal access of all individuals utilizing existing brick paved streets to participate in programs, services, and activities within the City of Columbia, Missouri.

<u>Ron Dunham</u>	Vote <u>yes</u>
<u>Barbara Hammer</u>	Vote <u>yes</u>
<u>Bonnie Gregg</u>	Vote <u>yes</u>
<u>Jeff Johnson</u>	Vote <u>yes</u>

<u>Melissa Layman</u>	Vote <u>yes</u>
<u>Cheryl Price</u>	Vote <u>yes</u>
_____	Vote _____
_____	Vote _____

By signature of the President of the Board of Directors, dated January 22, 2014, this resolution has passed and is in full effect.

Cheryl Price 1/22/14
Cheryl Price, Board President

A POLICY RESOLUTION

adopting a policy relating to the repair, maintenance and restoration of brick paved streets in the City of Columbia.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. The City Council of the City of Columbia, Missouri adopts the following policy relating to the repair, maintenance and restoration of brick paved streets:

- A. Objective: The objective of this policy relating to the City of Columbia's repair, maintenance and restoration of brick paved streets is to provide direction to the Public Works Department as to the treatment of exposed and covered brick streets during routine maintenance, capital improvements, and other utility and street work.
- B. Foundation for City Council actions: Columbia's Community Vision, accepted by the City Council on February 4, 2008, states under Community Character, "...the City of Columbia protects and encourages the expression of its historic and natural character, uniting the community with sustainable, healthy planning and design, beautifying the streets and lives of its citizens..."; Columbia's Brick Streets were recognized by the Historic Preservation Commission as a Most Notable Property in 2009.
- C. Overall guiding principles:
 - 1. No removal of covered or exposed brick pavement within a recognized Core Brick Street Zone:

The Public Works Department shall not remove any brick pavement, covered or exposed, within the following core zone boundary: from north to south inclusive of Ash Street and Rollins Street and east to west inclusive of Fourth Street and College Avenue.
 - 2. Repair, maintenance and restoration of currently exposed brick streets:

The following provisions shall apply to any currently exposed brick street within the city limits of Columbia:

 - i. No currently exposed brick street can be paved over with any other paving material.

ii. No currently exposed brick pavement can be permanently removed.

iii. If any work performed on exposed brick streets requires removal of the pavement, pavement shall be restored using the displaced bricks as a first priority. Any additional pavement required shall be from a supply of salvaged or purchased matching historic pavement.

iv. If any area larger than 500 square feet is disturbed, the repair shall include concrete pavement installed to the current City standard beneath the brick pavement.

v. The City of Columbia shall fund as necessary for the repair, maintenance and restoration of all exposed brick streets from the following variety of funding sources: 2015 Capital Improvements Sales Tax Bond, Transportation Sales Tax, County Road Rebate Tax, and any other federal and state grants as needed for completion.

vi. All currently exposed brick streets shall be re-laid as described in 2.iv. within a period of twenty (20) years in the following order:

(1) Cherry Street from Fourth Street east to Seventh Street, including the intersections of Fifth and Sixth Streets.

(2) Seventh Street from Locust Street south to Elm Street.

(3) Waugh Street from Broadway south to Locust Street.

(4) Sanford Street.

3. Repair, maintenance and restoration of currently covered brick streets within the core zone:

The following provisions shall apply to any currently covered (via paving material) brick street within the city limits of Columbia:

i. No brick pavement shall be permanently removed within the core zone described above.

ii. All maintenance and restoration of streets within the core zone shall be done with first priority to using salvaged or purchased paving brick that matches the historic brick.

iii. If, during the course of any street work, it is necessary to remove brick pavement, the brick shall be replaced as described in 2.iv. prior to

replacement of current exposed pavement, or if the work is performed in a priority street as described in 3.iv., the brick shall be cleaned and stored for replacement when an entire block of the street is restored with exposed brick.

iv. Funding as indicated in section 2.v. shall also be allocated during each budget cycle to uncover the following prioritized list of covered brick streets within the core zone.

- (1) Elm Street from Fifth Street east to Hitt Street.
- (2) Cherry Street from Seventh Street east to Hitt Street.
- (3) Eighth Street from Walnut Street south to Elm Street.
- (4) Ninth Street from Walnut Street south to University Avenue.
- (5) Walnut Street from Eighth Street east to St. Joseph Street.
- (6) Broadway from Fourth Street east to Waugh Street.

v. The Public Works Department, with input from the Historic Preservation Commission, shall periodically update the above list by adding streets based upon public interest.

4. Repairs, maintenance and restoration of covered brick pavement outside of the core zone:

i. An ordinance shall be passed to allow a majority (percentage to be established) of the property owners living on a portion of at least one block of a street with historic brick pavement, to request that their street be restored using either historic or modern brick pavers dependent upon availability and subject to a special assessment of property tax to pay for the expense of such work.

ii. If any work is done upon a covered brick street outside of the core zone, any removed brick shall be cleaned and stored for use in maintenance and repairs of other streets. Priority shall be given to using salvaged brick for maintenance and restoration of streets within the core zone over the same work on streets outside of the core zone.

ADOPTED this _____ day of _____, 2013.

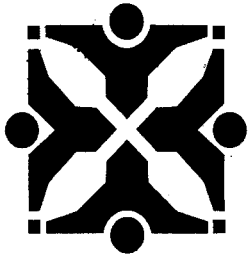
ATTEST:

City Clerk

Mayor and Presiding Officer

APPROVED AS TO FORM:

City Counselor



Source: Community Development - Planning

Agenda Item No:

To: City Council

From: City Manager and Staff

Council Meeting Date: Nov 4, 2013

Re: Proposed Policy for the Repair, Maintenance and Treatment of Columbia's Brick Streets (case #13-206)

EXECUTIVE SUMMARY:

Attached for Council consideration is policy resolution for the repair, maintenance and treatment of Columbia's exposed and covered brick streets. The Council voted at their October 21, 2013 to set a public hearing on this proposed policy resolution.

DISCUSSION:

Please see additional information in the Council memo and supporting documents from the October 21, 2013 meeting as attached, including a map of Columbia's covered and uncovered brick streets.

FISCAL IMPACT:

None.

VISION IMPACT:

<http://www.gocolumbiamo.com/Council/Meetings/visionimpact.php>

2 Vision Statement: Columbia protects and encourages the expression of its historic and natural character, uniting the community with sustainable, healthy planning and design, beautifying the streets and lives of its citizens.

2.1 Goal: Columbia will preserve its existing character and enhance the city's natural and man-made aesthetics.

2.1.3 Strategy: Establish neighborhood areas to feature distinct characteristic "looks," guide development and improve property appearance, and provide assistance to homeowners in order to foster neighborhood pride.

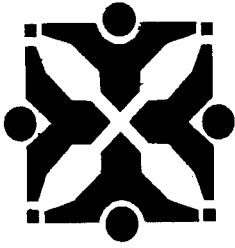
2.2 Goal: Historic areas will be identified, valued, and preserved through education, enforcement, and incentives.

2.2.1 Strategy: Develop a policy of identification, financial incentives such as tax abatement and tax credits, and resources for monitoring to encourage historic preservation.

SUGGESTED COUNCIL ACTIONS:

Hold a public hearing considering the proposed policy resolution for the repair, maintenance and treatment of Columbia's brick streets.

FISCAL and VISION NOTES:					
City Fiscal Impact Enter all that apply		Program Impact		Mandates	
City's current net FY cost	\$0.00	New Program/ Agency?	No	Federal or State mandated?	No
Amount of funds already appropriated	\$0.00	Duplicates/Expands an existing program?	No	Vision Implementation impact	
Amount of budget amendment needed	\$0.00	Fiscal Impact on any local political subdivision?	No	Enter all that apply: Refer to Web site	
Estimated 2 year net costs:		Resources Required		Vision Impact?	Yes
One Time	\$0.00	Requires add'l FTE Personnel?	No	Primary Vision, Strategy and/or Goal Item #	2.1
Operating/ Ongoing	\$0.00	Requires add'l facilities?	No	Secondary Vision, Strategy and/or Goal Item #	2.2
		Requires add'l capital equipment?	No	Fiscal year implementation Task #	



Source: Community Development - Planning

Agenda Item No:

To: City Council
 From: City Manager and Staff

Council Meeting Date: Oct 21, 2013

Re: Proposed Policy for the Repair, Maintenance and Treatment of Columbia's Brick Streets (case #13-206)

EXECUTIVE SUMMARY:

Attached for Council consideration is a proposed policy resolution for the repair, maintenance and treatment of Columbia's exposed and covered brick streets. The Historic Preservation Commission (HPC) began work on this proposed policy in April of 2012 as a follow up to tracker #3295 (staff to work with the HPC to evaluate the cost of rehabilitating existing brick street versus the installation and maintenance of a concrete street). Specifically, the HPC was asked by the Public Works Department to provide direction on the repair, maintenance and treatment of brick streets. Many of Columbia's brick streets are in need of repair, and ongoing street maintenance and utility work often affects covered and uncovered brick paved streets. This policy provide technical direction on maintenance, repair, situations of disturbance, and a mechanism for the Council or property owners to initiate the "daylighting" or uncovering of presently paved-over brick streets.

The draft policy resolution is provided for discussion purposes. Further Council action setting a public hearing is required to bring back the proposed policy as a formal policy resolution.

DISCUSSION:

Including Short Street, which is currently being rebuilt as a part of the Doubletree Hotel development, there are a total of nine uncovered brick streets in Columbia. Twenty-one additional streets are known to have sections of brick pavement under asphalt (see map). Columbia's brick streets, according to City records, were built from 1909-1915, and were recognized by the HPC as "Most Notable" historic property in 2009. Deferred maintenance over the last century has left many of the brick streets in need of repair. After extensive research by a Professional Engineer (PE), the HPC has recommended repair and reconstruction techniques with emphasis on the following:

1. Replacement of existing sand/gravel bases with concrete to accommodate higher traffic and weight loads and to create a level surface with a long life-cycle less sensitive to soil shifts and other weather and environmental conditions; and
2. The storage and then re-use of existing brick pavers shall be given first priority, followed by the purchase of matching salvaged pavers.

Due to condition and location, the HPC recommends the City repair the following streets with the suggested reconstruction techniques within 20 years:

1. Cherry Street from Fourth Street east to Seventh Street including the intersections of Fifth and Sixth Street
2. Seventh Street from Locust Street south to Elm Street
3. Waugh Street from Broadway south to Locust Street
4. Sanford Street

The policy further provides direction on the maintenance, disturbance and repair of covered brick streets. A core zone is identified with boundaries of Fourth Street, Ash Street, College Avenue and Rollins Street. Within the Core Zone, the policy recommends no brick paving be removed in the course of street or utility work, and provides direction on funding processes and prioritization for the daylighting of covered brick streets. Outside of the core zone, the HPC recommends storing brick pavers for future use on other streets if the course of street or utility work on covered brick streets necessitates their removal. The policy further recommends the Council develop an ordinance allowing a majority of property owners on a street outside the core zone to initiate and fund the daylighting of their covered brick street if so desired.

Many cities have brick street policies and programs, citing benefits in placemaking/district enhancement, historic preservation, heritage tourism, longer life-cycles reducing costs over time, traffic calming, and

aesthetic considerations. The HPC researched programs in Orlando, FL, Davenport, IA, Fort Wayne, IN, Grand Rapids, MI, and Champaign, IL.

In the course of working on this policy proposal, the HPC met with members of the Disabilities Commission and community, and the proposed policy resolution was publicized for public review on the September 3, 2013 HPC meeting agenda, where public comment was taken. The HPC also solicited comments from the Public Works Department on the draft and the present draft reflects those comments.

Attached please find an infographic for the proposed policy which includes a map of uncovered and covered brick streets, the September 3, 2013 HPC meeting minutes, correspondence with Troy Balthazor (Great Plains ADA Center Specialist), and a brochure on the benefits of restoring brick streets produced by the West Central Neighborhood Association of Fort Wayne, IN. The HPC has technical construction and design reference materials available should they be requested.

FISCAL IMPACT:

None.

VISION IMPACT:

<http://www.gocolumbiamo.com/Council/Meetings/visionimpact.php>

2 Vision Statement: Columbia protects and encourages the expression of its historic and natural character, uniting the community with sustainable, healthy planning and design, beautifying the streets and lives of its citizens.

2.1 Goal: Columbia will preserve its existing character and enhance the city's natural and man-made aesthetics.

2.1.3 Strategy: Establish neighborhood areas to feature distinct characteristic "looks," guide development and improve property appearance, and provide assistance to homeowners in order to foster neighborhood pride.

2.2 Goal: Historic areas will be identified, valued, and preserved through education, enforcement, and incentives.

2.2.1 Strategy: Develop a policy of identification, financial incentives such as tax abatement and tax credits, and resources for monitoring to encourage historic preservation.

SUGGESTED COUNCIL ACTIONS:

Acceptance of the report. Council may direct staff to bring back a policy resolution for public hearing.

FISCAL and VISION NOTES:					
City Fiscal Impact Enter all that apply		Program Impact		Mandates	
City's current net FY cost	\$0.00	New Program/ Agency?	No	Federal or State mandated?	No
Amount of funds already appropriated	\$0.00	Duplicates/Expands an existing program?	No	Vision Implementation impact	
Amount of budget amendment needed	\$0.00	Fiscal Impact on any local political subdivision?	No	Enter all that apply: Refer to Web site	
Estimated 2 year net costs:		Resources Required		Vision Impact?	Yes
One Time	\$0.00	Requires add'l FTE Personnel?	No	Primary Vision, Strategy and/or Goal Item #	2.1
Operating/ Ongoing	\$0.00	Requires add'l facilities?	No	Secondary Vision, Strategy and/or Goal Item #	2.2
		Requires add'l capital equipment?	No	Fiscal year implementation Task #	

Introduced by _____ Council Bill No. _____ PR ##-13 _____

A POLICY RESOLUTION

Adopting a policy on the repair, maintenance and restoration of brick paved streets in the City of Columbia.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. The City Council of the City of Columbia, Missouri adopts the following repair, maintenance and restoration of brick paved streets policy:

- A. Objective: The objective of the City of Columbia's repair, maintenance and restoration of brick paved streets policy is to provide direction to the Department of Public Works as to the treatment of exposed and covered brick streets during routine maintenance, capital improvements, and other utility and street work.
- B. Foundation for City Council actions: Columbia's Community Vision, accepted by City Council on February 4, 2008, states under Community Character, the City of Columbia protects and encourages the expression of its historic and natural character, uniting the community with sustainable, healthy planning and design, beautifying the streets and lives of its citizens; Columbia's Brick Streets were recognized by the Historic Preservation Commission as Most Notable Property in 2009.
- C. Overall guiding principles:
 - 1. No removal of covered or exposed brick pavement within a recognized Core Brick Street Zone:

The City Public Works department shall not remove any brick pavement – covered or exposed – within the following core zone boundary, from north to south inclusive of Ash and Rollins streets and east to west inclusive of Fourth Street and College Avenue.
 - 2. Repair, maintenance and restoration of currently exposed brick streets:

The following provisions shall apply to any currently exposed brick street within the city limits of Columbia:

 - i) No currently exposed brick street can be paved over with any other paving material.
 - ii) No currently exposed brick pavement can be permanently removed.

iii) If any work performed on exposed brick streets requires removal of the pavement, pavement shall be restored using the displaced bricks as a first priority. Any additional pavement required shall be from a supply of salvaged or purchased matching historic pavement.

iv) If any area larger than 500 square feet is disturbed, the repair shall include concrete pavement installed to the current city standard beneath the brick pavement.

v) The City of Columbia shall fund as necessary for the repair, maintenance and restoration of all exposed brick streets from the following variety of funding sources: 2015 Capital Improvements Sales Tax Bond, Transportation Sales Tax, County Road Rebate Tax, and any other federal and/or state grants as needed for completion. The annual budget account is called, Annual Historic Brick Street Renovation, account C00234 [ID:12].

vi) All currently exposed brick streets shall be re-laid as described in (iv) within a period of twenty (20) years in the following order:

- (1) Cherry Street from Fourth St. east to Seventh St. – including the intersections of Fifth and Sixth Streets.
- (2) Seventh Street from Locust St. south to Elm St.
- (3) Waugh Street from Broadway St. south to Locust St.
- (4) Sanford Street.

3. Repair, maintenance and restoration of currently covered brick streets within the core zone:

The following provisions shall apply to any currently covered (via paving material) brick street within the city limits of Columbia:

i) No brick pavement shall be permanently removed within the core zone described above.

ii) All maintenance and restoration of streets within the core zone shall be done with first priority to using salvaged or purchased paving brick that matches the historic brick.

iii) If, during the course of any street work, it is necessary to remove brick pavement, the brick shall be replaced as described in 2.iv prior to replacement of current exposed pavement, or -if the work is performed in a priority street as described in iv) below - the brick shall be cleaned and stored for replacement when an entire block of the street is restored with exposed brick.

iv) Funding as indicated in section 2.v shall also be allocated during each budget cycle to uncover the following prioritized list of covered brick streets within the core zone.

- (1) Elm Street from Fifth Street east to Hitt St.
- (2) Cherry Street from Seventh St east to Hitt St.
- (3) Eighth Street from Walnut St. south to Elm St.
- (4) Ninth Street from Walnut St. south to University Ave.
- (5) Walnut Street from Eighth St. east to St. Joseph St.
- (6) Broadway St. from Fourth St. east to Waugh St.

v) Public Works, with input from the Historic Preservation Commission, shall periodically update the above list by adding streets based upon public interest.

4. Repairs, maintenance and restoration of covered brick pavement outside of the core zone:

- i) An ordinance shall be adopted to allow a majority (percentage to be established) of the property owners living on a portion of at least one block of a street with historic brick pavement to request that their street be restored using either historic or modern brick pavers dependent upon availability and subject to a special assessment of property tax to pay for the expense of such work.
- ii) If any work is done upon a covered brick street outside of the core zone, any removed brick shall be cleaned and stored for use in maintenance and repairs of other streets. Priority shall be given to using salvaged brick for maintenance and restoration of streets within the core zone over the same work on streets outside of the core zone.

ADOPTED this _____ day of _____, 2013.

ATTEST:

City Clerk

Mayor and Presiding Officer

APPROVED AS TO FORM:

City Counselor

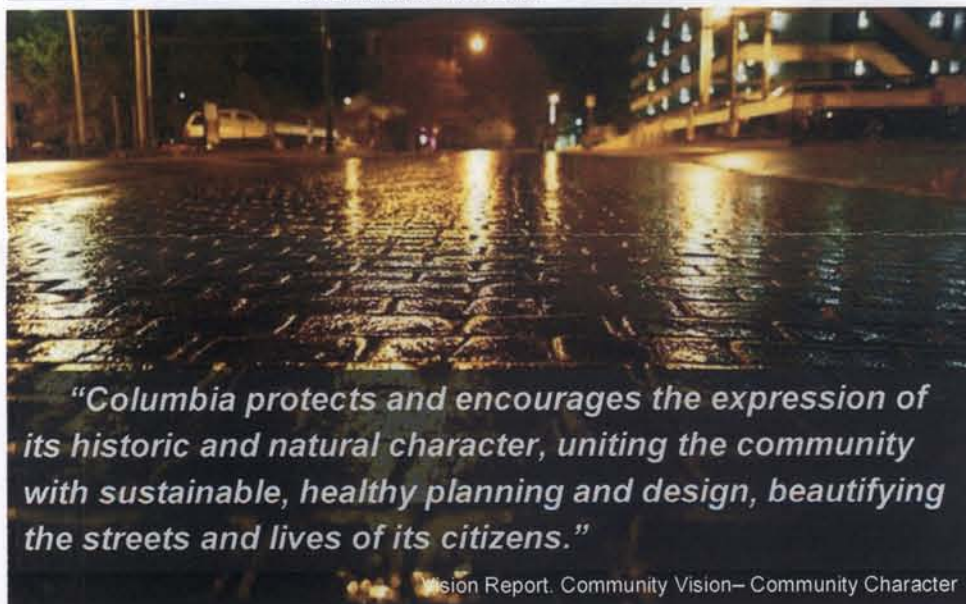
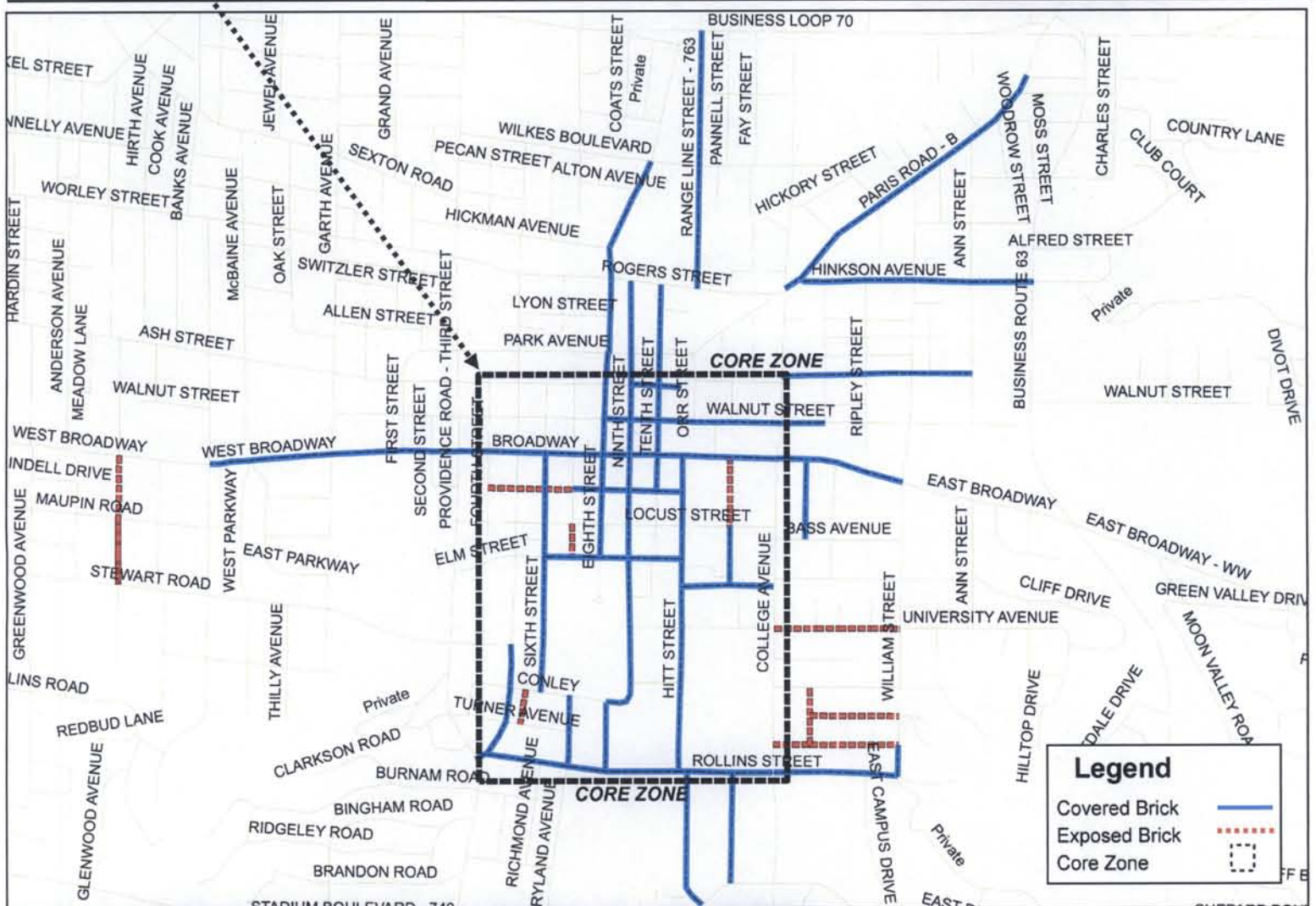
Proposed Brick Streets Policy Highlights:

- 2. All Currently Exposed Brick Streets:**
- Will not be removed or paved over
 - Maintained and repaired with salvaged bricks when possible
 - Built to current City standards if more than 50 sq. feet is disturbed

- 3. Covered Brick Streets in Core Zone:**
- If covered bricks are disturbed, clean and store for future use
 - Allocate funding to uncover priority covered bricks to City standards (will require Council action to appropriate funds)

- Should be re-laid within 20 years to City standards to address repair needs (priority order suggested under Section 2.6)

- Covered Brick Streets not in Core Zone:**
- If removed, bricks cleaned/stored for maintenance/repair of other streets
 - Develop an ordinance for a financial and procedural mechanism if a majority of property owners desire to fund restoration of their covered street



"Columbia protects and encourages the expression of its historic and natural character, uniting the community with sustainable, healthy planning and design, beautifying the streets and lives of its citizens."

Vision Report. Community Vision—Community Character

This policy was developed by the Historic Preservation Commission to provide direction to the Public Works Department on the repair and maintenance of Columbia's historic brick Streets.



Brick Streets are recognized by the Historic Preservation Commission as Most Notable Historic Property (2009)

traffic calming • community character • cultural patrimony • downtown historic district • place making • district enhancing • vibrant aesthetic • longer lifecycle • sustainable • higher property values • economic development • heritage tourism

Bricks come back to city streets

By Emma Schwartz, USA TODAY

Seven years ago, the city of Winter Park, Fla., peeled the concrete off its main street as part of construction project and found a brick surface that had been laid about 80 years earlier.



Annapolis, Md.
recently re-paved
many of the streets
in the Historic
District with brick.

By Tim Dillon, USAT

Residents liked the old surface so much that the city decided to repave the street with the bricks. And the new pavement was so popular that many residents demanded brick streets in their neighborhoods. They even agreed to pay two-thirds of the cost of removing the asphalt from their blocks and re-laying the old bricks. Residents of four more blocks hope their streets will be redone in the next fiscal year.

In an era of more and faster cars and when commuting time is of essence, preserving or even re-laying streets with bumpy bricks seems out of place. But with the growth of cookie-cutter suburbs and strip malls, cities are trying to reduce sameness and make themselves more attractive by etching an identity in brick.

"There is a romantic appeal that people find attractive because it is different," says Dan Marriott of the National Trust for Historic Preservation. Brick streets are "on a scale that people appreciate."

Winter Park's brick restoration program is one of the most extensive in the country, but the city is not alone in its effort to preserve or bring back a method of paving that had all but disappeared during the last half century. Exactly how many towns and cities are returning to brick streets isn't known. But the trend seems to be going on in all parts of the country:

- Champaign, Ill., and Davenport, Iowa, are among dozens of cities that ban paving over brick streets with other materials. Both cities spend nearly \$100,000 a year to maintain brick streets.
- City officials in Cumberland, Md., plan to expand preservation of its brick streets to another 6 square miles. The city already protects brick streets within its historic downtown neighborhood.
- The city of Brooksville, Fla., is removing pavement to expose long forgotten brick streets. To keep the cost of exposing the city's 2 miles of uncovered brick streets low, the city uses prison labor, public works director Emory Pierce says.

- Amarillo, Texas, has spent \$200,000 already to restore one block of brick street. The city plans to restore part of another later this year, says city engineer Michael Smith.

- In Blair, Neb., city officials have shelved a proposal to pave over the city's dilapidated brick streets with asphalt after some of the 7,500 citizens urged them to keep the old surface for historical purposes.

Brick streets aren't just about public policy. Preservationists in Blair, lead tours of historic neighborhoods. In Pauls Valley, Okla., residents celebrate the city's old brick streets with an annual "Brickfest."

The growing interest in brick streets has spawned a new wave in urban and suburban design and, in some cases, helped boost local economies. Architects and builders now market the "main street" of old American towns, designing new developments and in reviving the appearance of older cities. Cleveland, Tampa and Annapolis, Md., have turned to brick streets in an attempt to rejuvenate neglected downtown areas. Architects say that they are using bricks in new open-air shopping centers that are designed to replicate the feel of old downtowns.

To keep up with the demand, a few companies have begun making clay and even concrete bricks that match the quality and style of old pavers. Winter Park goes to one of the companies, Pine Hall Brick in Winston-Salem, N.C., when it comes up short. Pine Hall makes bricks to match the ones laid in the city during the 1920s.

A handful of suppliers, like John Gavin, stick to the old bricks. His Historical Bricks Inc. of Iowa City scours dumps across the country for bricks. Gavin says he's shipped bricks everywhere from the Caribbean to Long Island to Beverly Hills. "And we're proud to say 40 to 50 million pounds have been reclaimed in three years," he says.

Most brick roads were built around the turn of the 20th century. They made for a less dusty ride for passengers in Model-T Fords. But by the 1950s, concrete and asphalt had largely replaced brick roads because they made for a smoother ride. Brick thoroughfares were often paved over.

The return to brick streets can be costly. They can more than triple the price of asphalt — or more. Winter Park paid 14 times the cost of asphalt, or about \$7 a square foot, to redo its main street with brick.

Rod Storm, Blair's city administrator, worries that the city won't be able to afford maintenance on the brick pavement. "Budgets are tight. Funds are short. What things are you going to be able to preserve?" he says.

But some cities say the cost is worth it.

"They last. With a little repair they'll go another 100 years," says Eric Schallert, senior engineer in the Davenport, Iowa, Public Works department.

Brick streets last about 50 years, and repairs can be done by replacing only damaged bricks. Concrete has a similar life span but is more prone to potholes. Asphalt roads require resurfacing about every 15 years.

Advocates of brick streets also say that brick streets tend to slow speeding traffic and enhance property values.

In smaller towns that have smaller budgets, it's not so easy to do what Winter Park has done. Nor are there so always so many brick enthusiasts.

Bedford, Ohio, however, chose to keep its brick streets after two preservationists proved that the town could save money in maintenance over the long haul.

Earlier this year, many of the approximately 900 residents of Davenport, Okla., were up in arms when they learned that the town was seeking a state grant to pave over the bricks on their main street. A showdown was averted, town clerk Sue Osborne says, when the money for the project dried up.

Losing the bricks would have cost Davenport its identity, says Paula Sporleder, principal of the elementary school. "Without those streets, we're just another little town losing businesses and dying like every other place around here," she says.

Meeting Minutes
Historic Preservation Commission
September 3, 2013
Room 1A City Hall

Members Present: Robert Tucker, Brian Treece, Patrick Earney, Paul Prevo, Douglas Jones, Brent Gardner, Debby Cook

Members Absent w/ Notice: None

Staff Present: Rachel Bacon

- I. The meeting was called to order by Chairman Treece at 7:01 pm
 - A. 8/6/13 meeting minutes approved unanimously with motion by Commissioner Prevo and second by Commissioner Tucker.

- II. Staff Report
 - A. Demolition Permit Applications were reviewed for the following properties:
 1. 1800 Hillcrest St. (ca. 1960)
 2. 1804 Hill crest St. (ca. 1960)
 3. 114 S Ninth (Rome Rest, ca. 1915)

Commissioner Earney made a motion that HPC draft a letter to City Council encouraging them to work with the owners of 114 S. Ninth to allow them to preserve and expand their building by accommodating it's encroachment upon the public right of way. Commissioner Gardner seconded and it was unanimously approved.

 4. 2009 Mob Hill (ca. Unknown) HPC will contact City Parks staff to arrange a tour of the property for potential salvage
 5. 917 W. Walnut Ct. (ca 1955)
 - B. Updates to ongoing projects
 1. Intern John published a blog entry on the Frederick Building.
 2. HPC received a \$100 scholarship to send participants to the Statewide Conference
 3. The Most Notables Event planning is underway.
 4. A 106 review was received for the bank building at Bethel and Nifong. No historic properties are affected.

- III. Old Business
 - A. The commission discussed and made revisions to the brick street policy to reflect city comments. The revised policy will now go back to the Public Works Director to be recommended to City Council.
 - B. The HPF Grant application was reviewed. A motion to submit a grant application for a Historic Preservation Fund Grant to host a preservation trades work shop, hire a professional consultant to develop and carry out the work shop, and commission the City Channel to produce a highlight video of the work shop, was made by commissioner Prevo with second by commissioner Tucker and unanimously approved.

- IV. New Business
 - A. Dr. Nakhle Asmar is reconstructing the porch on the Niedermeyer Apartments and has asked HPC to recommend to City Staff that he be allowed to replace the porch railings at their current 24" height and not be required to construct 36" high railings as the porch is

generally less than 18" from grade, and the higher railings would greatly alter the character and appearance of the porch. Commissioner Gardner moved and commissioner Earney seconded that HPC draft a letter. The motion passed with a 6-1 vote in favor.

- B. The Most Notable Properties application is ready and one has already been received. Deadline for applications is September 30th. Apps will be reviewed at the October 2nd HPC meeting.
- C. Officer Elections were held with the following slate unanimously approved:
 - 1. Chair: Robert Tucker
 - 2. Vice Chair: Patrick Earney
 - 3. Secretary: Brian Treece
- D. Public Comment: Mr. Troy Balthazar from the disabilities commission, Mr. Joe Machens and Ms. Dawn Zetterberg all spoke about difficulties of navigating the existing brick streets in wheelchairs. Mr. Balthazar indicated that his commission is in favor of repairing existing exposed brick streets, but is opposed to uncovering any other streets with brick.
 - 1. Ms. Zetterberg indicated that she has no issue with the current brick crosswalks when asked.

V. Meeting Adjourned at 8:10 on motion by commissioner Prevo and second by commissioner Tucker.

**Comments on Brick Streets Proposed Policy
From Troy Balthazar (email correspondence)**

From: Balthazar, Troy [mailto:balthazort@missouri.edu]
Sent: Tuesday, March 19, 2013 2:43 PM
To: Brent Gardner
Subject: RE: streets

Our meeting apparently didn't have much effect on you either! I should have got that message when I saw brick streets on the back of your business cards. It happens. Well, my email didn't really try to make the points you made, I pretty much focused on establishing some of my concerns with the streets, but also included other viewpoints and input. So it's a summary of the concerns that come up when I talk to people about the issue.

I would see our goal at this point to be educating both HPC and the community on plans on the table for brick surfaces, the concerns about brick surfaces, and the reasons why you believe that people should change their thinking when it comes to those concerns.

That said, and as I noted at the meeting, it is true that I didn't walk out of Booche's thinking that it was a good idea to proceed with anything but perhaps maintenance of the brick work that's already existing. I certainly understand that the changes in design and construction have started to try to take into account changes in level, deterioration, and other factors in order to improve the surface from the standpoints of both a maintenance and usability.

I'm advising against new development of brick streets and pedestrian features not because I don't recognize that the design has improved, but because of ALL of the factors that come into play in Columbia in March 2013. Regardless of whether we're better at using producing usable brick surfaces, that doesn't change the perception of brick streets as a poor design choice for areas that are commonly used by the public as accessible routes. There's the idea of tax money being used for a potentially inaccessible venture, that's a hot issue. All of the things listed in my email are the arguments that HPC is going to have to face either prior to moving forward or after the fact.

On the one hand, I'm trying to make what I think is a pretty good argument, and in everyone's best interest, that maybe development of new brick facilities isn't the way to go right now. At the same time, I'm honestly trying to help you understand the case against brick streets, and the fact that HPC is very likely to get some resistance on this.

Personally, I don't think the "ambiance" argument measures up to the broader issues on the other side of the table. From a design standpoint, I think that when you use more seams, you're going to have more breakdown, as we're seeing plenty of examples of downtown. Those are my primary personal concerns – if it wasn't public funding, I probably wouldn't be making the case as strongly as I may be making it. To me, I just don't see the need to press this when there are other opportunities for historic preservation that don't create the concerns that brick streets do.

I'd also like to reiterate that I value historic preservation and appreciate the work you and your committee do. The historic character of our community is one of the many reasons I love living here.

Let me know if you want to discuss it further, or if as you suggested you want me to communicate with someone else on the HPC. Thanks, I do appreciate you meeting with me and considering my viewpoints. -Troy

From: **Balthazar, Troy** <balthazort@missouri.edu>
Date: Wed, May 22, 2013 at 2:29 PM
Subject: [Planning]: RE: Historic Preservation Commission

To: "planning@gocolumbiamo.com" <planning@gocolumbiamo.com>
Cc: Chuck Graham <chuck2419@gmail.com>

Thank you for sending the proposed brick street comprehensive plan. I have provided your commission with detailed arguments against the use of brick in street and pedestrian facility development. To cut to the chase; I am staunchly in opposition to the entirety of item #2 on the proposed plan. I request that this section be removed and that no brick streets that are covered be considered in future planning for bringing back brick streets. I base this on the arguments I've made over the past months. If you plan to back #2 on this proposed plan, I would like to know your justification in relation to the points I've made, beyond ambiance. Thank you, and I look forward to hearing from you regarding revising the comprehensive plan, or why you as commissioners believe it's a good idea to bring back brick streets.

I am not against maintenance of existing exposed brick streets. Thank you, and talk to you soon

Acknowledgments

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Published by:

West Central Neighborhood Association
P.O. Box 13151
Fort Wayne, Indiana 46867-3151
(260) 385-9378
www.westcentralneighborhood.org



ARCH, Inc.
437 E. Berry St.
Fort Wayne, Indiana 46802
(260) 426-5117
www.archfw.org

West Central Neighborhood Association
P.O. Box 13151
Fort Wayne, Indiana 46867-3151

Durable Goods:



(photo courtesy of Martin Blakley)

Restoring Historic Brick Streets

The Benefits of Restoring Brick Streets

Many cities and towns across the United States are recognizing the valuable resources they have in their historic brick streets. The streets help to define the historic character of older neighborhoods, and their durability speaks for themselves. In some communities, ordinances have been enacted to protect the integrity of their streets and others have developed comprehensive brick street restoration plans. An added benefit of restored brick streets is that they often spur increased redevelopment activity and historic home rehabilitation in the immediate area.



(photo by Jill Downs)

Street Assessment

Brick streets require restoration due to a few factors. Over time, the base that the bricks lay on may deteriorate to the point that it can no longer support the weight of the bricks. This results in a collapse and appears as a sunken section of street. Frequently, this area then gets filled in with asphalt. Other times, utility cuts in brick streets get repaired with asphalt or concrete. While this generally results in a level surface, it also compromises the historic appearance of the street.



Collapsed area of brick street
(photo by Jill Downs)

The first step toward restoring a brick street to its proper integrity is to conduct a survey of the overall conditions of the street, curbs and guttering. It may be that more than just the street needs to be repaired and a



Area filled in with asphalt
(photo by Jill Downs)

comprehensive repair of all elements needs to be done. If a street has only a few patches to be leveled or concrete or asphalt to be removed, it is easy enough to do spot repairs. However, it may be the case that a street has so many areas to be repaired that it is better to remove and re-lay the entire section of street.

It is also possible that a brick street may have lost much of its original material due to ill-conceived patching or its historic surroundings have disappeared that it may not be worthwhile to repair the street at all. This street potentially may become a source of salvaged brick pavers for use in other streets.



Utility cut repaired with concrete
(photo by Jill Downs)

Based upon the results of the assessment, develop a plan for phased restoration, beginning with the worst or most important street(s) first. The remaining streets should be prioritized after these:

Financial Considerations

The initial cost to repair a brick street is high, but when it is compared over time to that of several pavings of the same street in asphalt, the cost is comparable. The most expensive component of brick street repair is labor. Many communities have saved on this expense by organizing a volunteer work force to help with the repair effort. Costs may also be saved by salvaging brick pavers rather than purchasing them from a supplier. One way to do this is to sacrifice a brick street or alley to provide pavers for another.

Another way to get salvaged bricks at little or no cost is to be aware of utility work being done on concrete or asphalt streets. Sometimes excavation work is required, and if below the paved surface is an old brick street, the pavers will be dug out along with the rest of the street. Don't forget, too, that when repairing a street, most of the existing pavers can be saved to be put back into the street.



Volunteers help to clean
salvaged bricks
(photo by Jill Downs)

Possible funding sources include:

1. Municipal government street repair funds
2. Federal Transportation Enhancement program funds
3. Community Development Block Grant (CDBG) funds
4. County Economic Development Income Tax funds
5. Other municipal funding sources
6. Grants
7. Other donations
8. Raffles and other like fund-raisers
9. Special tax assessment for those affected by the project

Coordinating Efforts

Brick street restoration takes the coordination of many entities including several departments, such as street, engineering, and right-of-way, within a municipal government.

It is also best to consult with utilities providers to determine whether any underground utilities may need replacing or upgrading prior to restoring a brick street. It would be detrimental to fix the street only to have it be torn up in a few years to lay a new sewer line.

Volunteers can be recruited to do many jobs related to brick street restoration. They can help clean and stack salvaged bricks for future use, and they can remove, clean and stack bricks from a street to be repaired. They can also help re-lay the bricks and brush in the grout.

Brick Storage

Brick pavers should be stacked no more than five layers high (or no more than 350 bricks) onto pallets. Reverse the course of each layer. Wrap the pallets in shrink wrap to keep the bricks from falling off the pallet when being transported. If using wooden pallets, it is best to store the stacked brick pavers in an indoor facility.



Cleaned, salvaged bricks stacked on a wooden pallet (photo by Jill Downs)

Basic Brick Street Construction

There are four components that constitute a brick street. They are:

1. **Grout** - The finished brick surface should be grouted with sand or with a dry mixture of sand and Portland cement in a 2:1 ratio. It is brushed into place with a stiff push broom.
2. **Brick paver layer (4 inches)** - A typical brick paver is about 8.5 in. X 3.5 in. X 4 in. About 4.5 to 5 bricks are needed to cover one square foot of area.



(photo by Jason Swisher)

3. **Sand layer (2 inches)**
4. **Concrete base (6 inches)** - Concrete is the most durable base for a brick street.

Repair Process

1. Determine size of area to be repaired.
2. Calculate number of bricks and volume of sand and concrete needed for area. Remember that not every brick



Example of "toothed" edge after removing bricks (photo by Jason Swisher)

taken out of the street will be salvageable for reuse, so a surplus supply will need to be on hand.

3. **Remove bricks from area** - Pry out the first row by hand using prybars then use a backhoe to carefully pop out the rest. Do not cut the bricks - leave a "toothed" edge.
4. **Scrape bricks of any caked-on dirt or concrete and stack them** (no more than 5 layers high or a total of 350 bricks) on pallets, alternating the course of each layer, for reuse.

Volunteers cleaning bricks after removal from street (photo by Jill Downs)



5. **Using a backhoe, excavate the repair area** to a depth of one foot from the top surface of the street. This will allow room for the 6-inch concrete base, the 2-inch layer of sand, and the 4-inch brick layer.
6. **Pour the concrete base (6 inches)**. Using a stiff garden rake or 2x4s as screed boards, level the concrete to a consistent 6 inches below the top surface of the street. Let the concrete solidify before moving to the next step.



Application of the concrete layer: The wooden structure used here is helping to assure a uniform depth of concrete from the street surface (photo by Jill Downs)

7. Add the sand layer (2 inches). Using 2x4s as screed boards, level the sand with the crown of the street. Compact the sand with a tamper or plate compactor.



Screeding of the sand layer (photo by Jason Swisher)

8. Add the brick layer. The pavers should be laid closely together and with the raised name or lugs on the side—not the top or bottom. Cut bricks to fit odd-sized spaces with a water-cooled table saw.



Note that bricks are placed with raised name on the side (photo by Jason Swisher)

9. Once the brick surface is in place, brush in the grout, compact the surface, then brush in more grout. Continue this process until all gaps between the bricks are filled.



Preparing to brush in the grout (photo by Jason Swisher)

10. Mist the street surface with water to finish setting the grout.



Completed repaired brick surface (photo by Jason Swisher)

Equipment

Hammers	Prybars
Push brooms	Garden Rakes
Backhoe	Portable generator
Water-cooled table saw	Level
Brick hammer	Chisels
Putty knives	Shovels
Pallets	Wheelbarrow
Plate compactor	Tamper
Dump truck	String line
Sledgehammer	Hand saw
Cordless drill	

Materials

2 x 4s (screed boards)
Screws
Concrete
Extra brick pavers
Portland cement
Sand (masonry-grade fine)
Water (for cleaning tools and for watering street)

Salvaged Brick Pavers Suppliers

Gavin Historical Bricks

(John Gavin)
Iowa City, Iowa
(319) 354-5251
www.historicalbricks.com

Chicago Antique Brick, Inc.

Chicago, IL 60608
(312) 666-3257
sales@chicagoantiquebrick.com
www.chicagoantiquebrick.com

Schloss Paving Co.

Cleveland, OH 44125
(614) 416-8269
(614) 472-3260 (fax)

Brick Street Consultants

Royce Baler
Brick Street Restorers
440 East Pells Street
Paxton, IL 60957
(217) 379-3832

Communities with Brick Street Restoration Experience

Champaign, IL	Davenport, IA
Rock Island, IL	Grand Rapids, MI
Zionsville, IN	LaGrange, IN
Downers Grove, IL	

Re: The Brick Street Policy

To: Mayor and Members of Council

From: The Columbia Disabilities Commission

Date: October 21, 2013

The Historic Preservation Commission has developed a set of policy recommendations, regarding brick streets in Columbia. This issue is extremely important to persons with disabilities and other pedestrians. Therefore, the Disabilities Commission requests that the Council not adopt the policy recommendations of the Historic Preservation Commission.

The Disabilities Commission does not make this request lightly. We oppose the expansion of brick streets, because they pose a threat to the safety of persons with disabilities, and they do damage to expensive and hard to get equipment, which is essential to the mobility and independence of disabled persons. This claim may seem extreme, but I assure you, it is not. Persons with disabilities are often physically fragile. As they roll across the bricks in their wheelchairs, the rough surface of the brick streets jar their bodies. One Commission member reports that she received a compression fracture, while crossing a brick intersection. Holes in the streets and damaged brick pavers at crossings present a hazard. A wheelchair can tip over, when encountering such barriers to accessibility. Such an accident can be devastating to a wheelchair user. Brick streets present a hazard to persons who use canes and crutches, which can become caught in the spaces between the bricks. Persons using mobility aids, such as walkers, experience a high risk situation, when a wheel of their equipment strikes a broken paver or hole in the surface, and a parent pushing a baby carriage, or a person wearing high heels can easily have an accident caused by the brick surface.

Power driven wheelchairs are quite expensive. Members of the Disabilities Commission report that their wheelchairs cost from \$9,000 to \$40,000. Funding for this essential equipment comes, most often, from either the Medicaid or Medicare programs. Replacement equipment is difficult to get approved, and it is likely to be even more difficult in the years ahead. Members report that their own equipment has been damaged, while traveling on brick surfaces.

While it has been stated that brick street construction is improved over past efforts, members of the Disabilities Commission note that in less than a year, recently installed brick crossings are broken and very difficult to pass over. This does not inspire confidence in claims that accessibility is no longer a problem with new construction techniques. The continued expenditure of limited street maintenance funds on such discredited materials is questionable at best, when there are so many demands for accessibility and ordinary maintenance throughout the city.

The claim that brick streets can meet ADA requirements for accessibility is unproven and we believe, very doubtful. The rough surfaces, the continuing need for maintenance, the lowering of the street surface at intersections, when existing surfaces are scraped away, all point to ongoing, serious problems with achieving adequate accessibility to the heart of the city, if an expansion of the brick streets is implemented.

The members of the Disabilities Commission recommend that Current brick streets be repaired, and that a controlled study be initiated to determine if the brick streets provide an accessible, cost effective surface. If they do not, as we strongly suspect, the city consider covering the bricks with more appropriate surfaces. Further, we recommend that no action be taken to pursue expanding the brick streets in Columbia.

There many things that are historic that have proven to be harmful to our community, which we do not want to see return. Deadly chemicals, environmental pollution, and the exploitation of child labor are examples of such historic realities. We do not want to go back to these practices. Brick streets endanger the safety of persons with disabilities, damage essential equipment, and cost the citizens of Columbia an inordinate amount of scarce funds. We ask that we not go back to this historic reality that is demonstratively harmful to a major part of our community.



City of Columbia, Missouri

HUMAN RIGHTS COMMISSION

November 13, 2013

Mayor McDavid and City Council Members
c/o City Clerk
City of Columbia
P.O. Box 6015
Columbia, Missouri 65201

Re: Brick Street Policy

Honorable Mayor Bob McDavid and City Council Members,

The Human Rights Commission recently became aware of a Brick Street Policy proposal set to go before the council on November 18th, 2013. After discussing the policy proposal, along with the concerns of the Disabilities Commission, we ask that the Council delay any approval of the policy at this time. Given the impact this decision will have on the community, including persons with disabilities, we feel that time should be provided for public comment to ensure that citizens are able to weigh in appropriately. Ideally, through dialogue, a middle-ground can be found that meets the needs of all parties involved. We thank you for your consideration in this manner, and for your service to the City of Columbia.

Sincerely,

Scott Dean
Chair