

Final Report on the project entitled:
Guidelines for Graphic Representation to Facilitate Public Involvement

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Table of Contents

- 1.0 Executive Summary**
 - 1.1 Project Results**
 - 1.2 Future Plans**
 - 1.3 Proposed Publications**

- 2.0 PART ONE Process: Research, Graphic Development, Community Involvement**
 - 2.1 Process: Research**
 - 2.2 Process: Design and Development of Graphic Representation**
 - 2.2.1 Determining Need for Pedestrian Paths**
 - 2.2.2 Determining Need for Bicycle Paths**
 - 2.3 Process: Community Involvement**

- 3.0 Part Two: Website Design**
 - 3.1 Design**
 - 3.2 Community Involvement and Feedback**
 - 3.3 Website Design and Structure**
 - 3.4 Website Design Layout**

- 4.0 Appendix: Excepts from the Website**
 - 4.1 Creating a network of Paths**
 - 4.2 Bicycle Path Proposals**
 - 4.3 Walking Path Proposals**

1.0 EXECUTIVE SUMMARY

The goal of this research is to develop a methodology for displaying and combining different aspects of intermodal thought so that laypersons may be able to partake in the discussion in a meaningful way. To meet this goal, we gathered research and developed step-by-step guidelines for creating and organizing a web-based forum (Part Two) and designed accompanying graphics to increase the levels of public involvement and understanding of intermodal issues in a community; in particular, the integration of pedestrian and bicycular paths with other modes of transportation (Part One). To achieve the goal of developing the graphics, the City of Starkville, MS was studied, however the website and its application can be applied to other towns, hence it serves as a prototypical site.

1.1 Project Results

The website has been developed and can be located at <http://bikestarkville.coa.msstate.edu>. The website has been used successfully by many people in the community and we continue to get feedback via email. The graphics developed in Part One of the study have proved to be easy to read and located in logical order. The Forum part of the project is having technical difficulties; however the potential for success of the tool has been seen in the feedback already received.

1.2 Future Plans

The Carl Small Town Center (CSTC) will apply the information learned during both phases of this grant to numerous communities throughout the State of Mississippi. The format of the website and the way that it allows for public interaction via a Forum can be applied to any town and adapted to fit additional types of projects.

The research will be folded into the FTA funded Transit Feasibility Study for Starkville, MS. The City of Starkville will use the information to apply for an assistance grant with the National Parks Service. Finally, we look forward to finding additional outreach centers at our University that will use and continue development of this tool.

1.3 Proposed Publications

The project is posted on the World Wide Web, which allows for general access and exposure. It will be linked from the School of Architecture, the Small Town Center and the City of Starkville websites.

The project results will be included in the final report (25 copies) for the Transportation Feasibility Study for Starkville and be distributed to the leaders of said community. This booklet will additionally be stored and catalogued in the Mississippi State University Library system for general access.

This research has the potential of generating a number of papers that include, but are not limited to, the following. A paper that addresses the architectural role of community involvement in city planning, and the

ability of the internet to expand and create a framework for this dialogue to occur. A paper written specifically for Community Planners that explains the feasibility of using this website design for community feedback on proposals. The following publications will be contacted for potential article submissions:

- PAS Memo (published by the American Planning Association)
- ACSA News (published by the American Planning Association)
- The Journal of Architectural Education
- Perspecta
- Architecture League Publications
- Town Planning Review
- Small Town
- The Small Town Center Newsletter

2.0 PART ONE Process: Research, Graphic Development, Community Involvement

2.1 Process: Research

The first task identified in phase one of this research was to understand how communities can provide an integral link to community design. This included the process of gathering information pertaining to bicycle and pedestrian paths that we feel would be appropriate to Starkville, MS. We have been researching national and international programs pertaining to bicycle and pedestrian paths and finding out what sort of precedents there are for some of the ideas we would like to see implemented here. We have researched past attempts at implementing programs in Starkville and looked at successes and failures and their causes. Additional research focused on how to implement programs and the process the city would have to go through to obtain bicycle and pedestrian facilities with the focus on funding opportunities and application processes.

2.2 Process: Design and Development of Graphic Representation

From our research of existing systems and case studies, we began developing ideas for Bicycle and pedestrian paths.

We decided the website would be called Bike Starkville but would include the tag on “And Walk too”. The cyclist and pedestrian contingents have many similar concerns but seem ultimately to be separate groups. Our presentation began by asking the who, what, where, why, when, and how of bicycle and pedestrian paths.



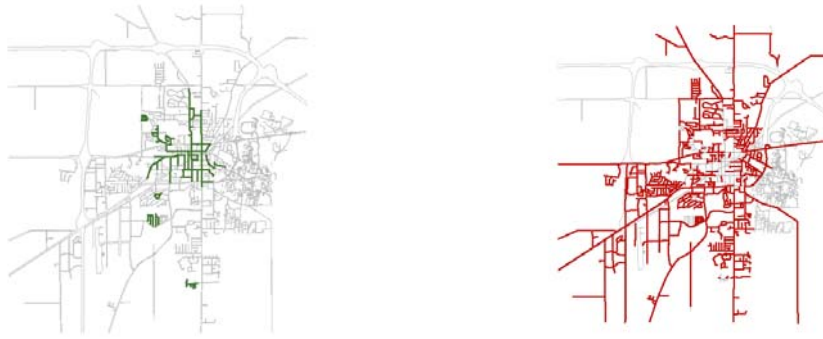
2.2.1 Determining Need for Pedestrian Paths

Who needs pedestrian paths?

People who are already walking in Starkville in places where there are no facilities for walking and where the conditions are unsafe probably need pedestrian paths the most. We also assert that everybody needs pedestrian paths. Judging from our own experience and feedback from the meeting it is evident that there are plenty of people who would walk if they thought that it was a safe and viable alternative to driving. Pardon the pun but, steps must be taken for walking to be an option.

Why do we need pedestrian paths?

Much of the research that we did showed mounting problems with obesity and related health problems associated with inactivity in the country and specifically in Mississippi. Pedestrian paths offer opportunities for people to make exercise a part of their daily routine. We also focused pedestrian paths' ability to alleviate traffic congestion and pollution caused by driving and lack transportation alternatives. We found a number of studies that showed a positive relationship between the implementation of bicycle and pedestrian paths and increased real estate values and tourism earnings. We wanted to make it clear to people that the paths were economically important if Starkville wants to attract new employers to the town.



The Maps above show where there are (green) and where there aren't sidewalks in Starkville.

Where do we need pedestrian paths?

Research that we had done for a FTA Grant studying Transportation Feasibility study showed that Starkville along with many other American cities chose not to build pedestrian facilities after World War II. Subsequently we were able to show where there were and where there weren't sidewalks based on new developments since 1945. Again we stressed the need for sidewalks where people were already walking but concluded that we have a need for sidewalks everywhere even where people are not currently expressing a need for them.

Acknowledging that "everywhere" is a hard place to start we offered three ideas for places to start. With the opening of a highway bypass a major truck route will lose a lot of truck traffic. We see this thinning of traffic as a prime opportunity to make Highway 82 a major pedestrian boulevard running through town. We envision the addition of extensive sidewalks and crosswalks and an attendant expansion of downtown and connection of downtown with the neighborhoods in north Starkville. Highway 82 now acts as an untraversable river but it could become a focus of the town. It is one of the streets in Starkville where people are already walking without sidewalks and there are a number of businesses that would be well served by the addition of sidewalks.

Additionally, there is a school on Highway 82 that might, with significant education and effort begin to use sidewalks as a means of getting children to school. A program called Safe Routes to Schools would provide the framework for such an education and is another generating idea we presented to the community.

The Safe Routes to Schools program proposes that all children in grades K-8 who live within a two mile radius of their school should be able to walk or bike safely to school. The program offers educational strategies, classroom activities and incentives to get kids walking to school. Safe Routes also provides guidelines for infrastructure that creates tangible improvements and real

opportunities for biking and walking. We also presented related activities like National Walk to School Day and the Walking school bus.

We also looked at a very active neighborhood around the hospital where there is already a walking path associated with the wellness center. We presented ideas for a path that might connect the existing walking path with a nearby park and sidewalks that would connect the businesses along Hospital road.

Finally, and perhaps most importantly, we suggested the community start building sidewalks where people are tacitly expressing a need for them. We identified five well-trafficked roads where people are walking next to the road on dangerous cow paths.

2.2.2 Determining Need for Bicycle Paths

We feel that a system of paths, routes, or lanes in town will benefit people who are already cycling and will also encourage more people to bicycle in Starkville. Again we think there should be bicycle facilities on every street but realize the improbability of such a situation so we offer several places to start.

The first proposal looks at the existing path on campus and suggests its extension through town. In this proposal we addressed problems the city encountered the first time a path along University Drive was planned including cyclists' concerns over lines of sight and a church's concern about Sunday parking. A lane along University Drive is part of a larger strategy we suggested for a network of routes, paths, and lanes that considers the university the primary destination for cyclists in town.

We offer another approach that would link the green spaces in town responding to an interview we had with the Parks Department. The parks department had a path in the early stages of planning and we thought it might be nice to integrate their path with the city with the idea that you should be able to walk to walk or exercise on your way to exercise. We also noted that the Parks Department expressed concern over getting kids to the Sportsplex for after school activities and that bicycle access might allow kids to transport themselves to their programs and not have to rely on a parental taxi service.

Another proposal we made for the city was a bicycle and pedestrian path that would run parallel to the Kansas City Southern Railroad. This is a particularly exciting proposition for a number of reasons. The path would provide an exercise resource or park that cuts right through the center

of town and through a number of communities. It would also pass close enough to McKee Park to offer the possibility of a link or spur connecting with the Lynn Lane recreational facilities. The train tracks run by a proposed E-commerce Park in the southeast of town and a path like this might lure businesses to the park. Down the tracks and at the other end of the town is the Research Park where the University has a bike path planned connecting the Research Park with the University. There is rumor that the path will continue around the Research Park creating another possibility for a link and the creation of a network of paths in town. The tracks trace a diagonal through town connecting three major hubs: the Downtown, the University, and Wal-mart. We did research as to the viability of a path that runs along an active rail line and were happily surprised to find that there are 60 such precedents around the country with outstanding safety records. The prospect of continuing the path out of town and possibly connecting with West Point is exciting because it begins to establish Starkville as a tourist destination, a place people would come to just to ride their bicycles and exercise.

How and When do we get pedestrian and bicycle paths?

We will get bicycle and pedestrian paths in Starkville if people express an interest and make it a priority. We offered some opportunities for people to get involved and presented research on grant opportunities through various private and government organizations. Legislation is now in the House of Representatives that will determine funding for alternative forms of transportation. Until that legislation is passed the state will not have money for the program or even an application for the funds. The application process should begin within a year. At this time we can only plan for the future.

We have looked at this study's primary aim as getting people involved. Without the community's involvement in the process, the residents are less likely to get a design it will enjoy or use, legislation will flounder, and construction will never begin. At the meeting people expressed a great deal of interest and said they would be willing to work toward a design and realization of the paths. We composed a letter to Representative Chip Pickering urging him to be a co-sponsor of a bill that would allocate money for Safe Routes to Schools and other bicycle and pedestrian related programs.

2.3 Process: Community Involvement

Another focus has been the bringing together of people from throughout the community who might share bike/ped paths as an interest or priority. From our research and study, a citizens group was formed, which includes the mayor, interested individuals in the city and hopefully will grow to include the university, police, and city school officials, health care workers, fitness professionals, the parks department, the PTA, environmental groups, and cyclists.

The hope is that a group with a wide base will be more powerful in its advocacy and increase the potential for implementation. As it turns out, Starkville has attempted to implement bicycle and pedestrian paths with little success, and public enthusiasm has waxed and waned. We held two public meetings and presented a number of ideas to a vocal, receptive, and enthusiastic audience.

3.0 Part Two: Website Design

3.1 Design

This website was created to help get citizens involved in the development of community improvement proposals and projects, specifically bicycle and pedestrian paths. Without the residents' involvement in the process, the city is less likely to get a design the people will enjoy or use, legislation will flounder, and construction will never begin. The website is seen as a powerful supplement (NOT substitute) for public meetings and is envisioned as a primary way to keep the community informed and involved with latest developments. It is equally useful as a resource to keep the designers and city officials informed of public sentiment. It is also a tool that can be used to increase attendance at community meetings, and as a presentation tool during those meetings.

In the case of Starkville MS, the website is being used to advocate the importance of investing in bicycle and pedestrian paths in the hope that enough public sentiment will develop to ensure the future of these proposals. The ease and speed of 'spreading the word' via the Internet is utilized here to strengthen a grass-roots movement.

3.2 Community Involvement and Feedback

A key part of the website is the Forum, where citizens can read and respond to each other's comments and so understand the complexity and impossibility of 'pleasing everyone' and potentially be more open to compromises. As projects move into other phases, such as design development and construction, the designers, community groups, or city leaders can continue to use the website to post developments and events so that the community can comment, learn, and get involved.

3.3 Website Design and Structure

Creating a website such as this, complete with forums, links, and resources, is quite an endeavor and can add a considerable cost to a project. We have therefore created this website so that city officials, design teams, or advocacy groups can use its basic structure and tailor it to display their own proposals. Basic program knowledge is still necessary in order to make this website work

for a community, but with much of the work completed, this overall task will be less costly or much easier for someone to volunteer for. The level of 'tailoring' needed will in the end determine the final cost; each community should consult with a web designer to see if this format fits their needs.

Even though it is feasible that any city improvement project could be displayed here, it is most effectively used for bicycle and pedestrian transportation enhancement projects. This format includes a number of facts and links for bicycle and pedestrian paths and related urban planning issues. It also summarizes a number of basic facts on why walking and bicycling is a necessary part of every-day-life and should not be considered a recreational addition to the city's infrastructure.

3.4 Website Design Layout

A basic summary of the layout of the site follows:

For a diagram of the structure of the website visit the Site Map which can be located on the website.

The stage for the proposals is set by discussing basic needs and issues about the city fabric. This is followed by separate citywide maps of bicycle and pedestrian proposals. From these maps, we provide a closer look at a single path, area, or project type. This 'zoom-in' is to show specifically how the proposal benefits the area it goes through, what it touches, its influence on the city as a whole, its level of feasibility and/or and implementation strategies, and how it connects to other proposals. The number of maps needed to portray this information for each proposal varies, and will be unique for each community. Finally we have a closer look at the proposal in detail plans and perspectival views to give an idea of how it would look and work.

To get to specific proposals one can navigate from the main images (accessed as the pages 'Biking' and 'Walking'), or simply use the arrows to walk through all proposals from beginning to end. In this way the website can easily serve as a presentation tool, provided one has projection capabilities.

The **Forum** allows people to post comments about singular proposals or the project in general at any point during their visit to the site. It also creates a contact list for the project managers to use for invitations to public meetings, etc.

The **Quick Comment** area allows people to post a comment very quickly. Comments will be listed in the forum for others to read, and be sent as an email to the project manager.

Pop-up windows post upcoming public meetings or other dates and events the public should know about.

The **Downloads** page is where presentations, city maps, forms, etc. can be posted for public use. This is where towns will find the files to create a website for their projects.

The **Links** page is a listing of related websites with information about grants, construction issues, project examples, health issues, city planning issues, etc. A bibliography of published works on the subject can also be found here.

The **Contact** page is where information is provided about how to contact the project managers/advocates, city officials, etc.

The **About** page is a place where you will find background information. This could be a description of the local advocacy group, the origins of the project, how it was/is funded, overall mission statements, milestones and project teams.

4.0 Appendix

The following are excerpts from the website, illustrating the paths developed and the way that additional information, such as grants, are integrated into the text of the work. This information is best understood by viewing the website at <http://bikestarkville.coa.msstate.edu> and is included here only in the case that access to the internet is not readily available.

4.1 Creating a network of paths

A system of bicycle and pedestrian paths, routes, or lanes in Starkville will benefit people who are already cycling and walking and encourage more people to do the same. Ideally a city might have bicycle and walking facilities on every street. Realizing the improbability of such a situation, we offer several places to start.

This website separates walking and biking proposals into two separate areas for ease of representation, yet you will see that the two often overlap. With Walk Starkville we have identified streets where people are creating dirt paths along the roads as a good place to start adding sidewalks, and then suggest applying a nation wide movement called “Safe Routes to School” to determine next priorities.

With Bike Starkville we propose a series of bicycle routes that could easily be connected and become a navigable circuit to most areas of town. This system of paths could be used to commute, run errands, or for pleasure and exercise throughout the community. It is important to note that all of these bicycle paths include walking paths or sidewalks, if not already existing in the area. They also often coincide with the streets we have identified as the highest priority in acquiring sidewalks. And so it becomes apparent that even though bicycling and walking are different ways to travel, they often share common destinations and become integrally related through the public health and activity they provide within a community

To help identify major destinations in the community, an exercise called “Memory Mapping” was conducted during public meetings. Through these sessions, three city “hearts” were identified:

- Mississippi State University
- Downtown
- Crossgates (Wal-mart) shopping area

Among these, the university is considered one of the primary destinations for cyclists in town. Other commercial areas, schools, medical services, recreational centers, as well as existing paths and parks are other important destinations considered in the various proposals presented here. Many of the proposals also focus on mending or bridging rifts and barriers between districts, neighborhoods, housing developments, and local services.

4.2 Bicycle Path Proposals

A: Hospital Rd. and Hiwassee St.

Sidewalks and bike lanes link neighborhoods and districts with each other, local businesses, public services, a park and an existing exercise path.

B: Highway 182 (old 82)

Anticipating the opening of the bypass, the addition of sidewalks, bike lanes, and smart growth incentives can help to bridge neighborhoods, expand downtown, and provide a safe route to a public school.

C: Rails with Trails

Trails along side the Kansas City Southern Rail Road provides a short cut from Wal-mart, via downtown, to the Research Park (MSU) and existing walking and biking areas.

D: University Drive Proposal

Bicycle lanes extend the MSU path to Downtown and provide safe access to restaurants, businesses, and homes along the way.

E: Lynn Lane Proposal

Bicycle lanes/paths and sidewalks link housing developments, parks, schools, and businesses to each other, and provides an important east-west access to the University.

There are two ways to navigate the “Biking” portion of this website:

1. In the main map or in the legend above, click on the proposal you are interested in viewing in further detail. Each proposal has several subsequent maps explaining different aspects of that proposal. To view these, click on the arrows (below the text) to see the next image. Remember: If you wish to comment on any of the proposals, use the ‘Forum’ or ‘Quick Comment’ buttons provided in the upper right hand corner of the top menu of the website.
2. To view a slide show of all of the proposals, from A to E, simply use the arrows (below the text) to advance from one image to the next. When you have seen all of the Bike Starkville proposals you will automatically start viewing the Walk Starkville proposals. Remember: If you wish to comment on any of the proposals, use the ‘Forum’ or ‘Quick Comment’ buttons provided in the upper right hand corner of the top menu of the website.

4.3 Walking Path Proposals

All streets should have sidewalks, but priorities must be set in order to begin. Our suggestions are as follows:

Focus on the streets with “cow paths”:

- Hospital Rd.
- Hwy 182 (old 82)
- College View
- Hwy 12
- Lynn Lane

Initiate a Safe-Routes-to-School program, beginning with Henderson School as the pilot program, subsequently focusing on each school until all children can safely walk on to and from their school. Due to the location of the schools in Starkville, this program will insure that most streets within the city limits have sidewalks.

Why consider biking and walking?

Why should we in the day of modern transport, consider such old traditional modes such as walking or bicycling to get from place to place? According to a lot of studies, there are many reasons, from personal and environmental health to financial benefits for community and national development and growth. Let's quickly look at some of the top reasons.

The map to your left was created by the Center for Disease Control to chart the percentage of the American population that is obese. As you can clearly see, America has a problem with obesity and Mississippi is the leader. In fact they had to create a whole new category for our state.

"Obesity is second behind tobacco in U.S. health risk factors contributing to 300,000 deaths a year. Twenty five percent of Americans are obese, resulting in \$100 billion a year in national health care costs, or one in every \$10 spent, and diabetes, often an obesity complication represents twenty five percent of all Medicare costs." --Article by JP Boyle in Diabetes Care 2001

Moderate exercise, like walking and biking, helps work off the food we eat. A guide for public health practitioners, the American journal of Public Health, says that incorporating exercise into our daily activities can greatly help to reduce obesity problems, and heart disease. Additionally, the American Heart Association says physical activity:

- Improves cholesterol levels and self-image
- Counters weight gain, anxiety and depression
- Reduces the risk of heart disease.

The EPA recognizes that auto-emissions are the leading cause of chemicals in the air known to cause cancer, asthma and other disease. Asthma is the leading chronic illness of children under 18. By decreasing our reliance on the gas driven vehicles and walking more we can reduce the deadly harm we are doing to our children, our environment and ourselves.

The Surgeon General says to maintain our health, one should have moderate physical activity, such as walking or bicycling, most days of the week. The recommended daily dose of exercise is 30 minutes for adults and 60 minutes for children.

The recent study by The American Journal of Public Health has proven a strong link between increased urban sprawl in our cities and the rise of obesity and heart disease in our population. With urban sprawl, less and less things are accessible from the house other than by car, thereby reducing the amount of exercise we get in simple daily tasks. In some neighborhoods the conditions are so unfriendly for pedestrians that many people will drive to a friend's house in a neighboring development rather than walk.

But is this not a response to demand? Do people not prefer to drive rather than walk or bicycle? Studies prove otherwise. In fact, a 1994 study done by American Lives, a research firm serving the real estate industry, found that walking and biking paths ranked third among 39 features identified by homebuyers as crucial factors in their home purchasing decisions.

Let's look at this from an industry or business perspective: when businesses are looking for new cities in which to locate they often will base much of the decision on how attractive the living conditions are in a community. If the town is attractive for homeowners, it is more likely that a business can attract good employees to work for them. Also, the people already located in the town are happier with their living conditions and therefore are generally happier, i.e. better, employees. This all adds up to one fact: Bicycle paths and pedestrian paths are good for economic development.

A community that is actively biking and walking is a not only physically healthier but also socially healthier. Casual social interaction does much to strengthen community ties and provides a sense of safety within and knowledge about the community. The charm of a small town is often characterized by its neighborliness and the sense of belonging one may feel there. It is arguable that the same can be said for neighborhoods in larger towns or cities as well. When a person

feels connected in this way, they are more likely to care about and get involved in the future of their community. Cars do not allow for the type social interaction described here, whereas biking and walking do. Therefore, walking and bicycling contribute to a more socially connected and responsible community.

Walking and bicycling can also make sense in saving money for taxpayers. Individuals spend less money on gasoline and car maintenance, and the city and businesses spend less money on parking facilities, road expansions, and repairs. Bicycle and pedestrian consideration is a good first step in considering the sprawl of a community. If the community adopts a more strategic/smart way to grow, i.e. reducing sprawl, it could also save money.

How and When do we get pedestrian and bicycle paths?

We will get bicycle and pedestrian paths when Starkville makes it a priority. It will only become a priority if the people will it and make their political representatives understand the importance of it.

“It should be noted that a high percentage of people voicing concerns about traffic in Starkville believed that there was a need for a progressive program of bicycle paths throughout the city, particularly connecting with the University.”

--1994 Starkville Comprehensive Plan

The community spoke out in 1994, but not much more than this statement was included in the document produced for Starkville's comprehensive look at the future. The next comprehensive plan must include more progressive and stronger commitments on how the city will incorporate bicycles and pedestrians into the overall consideration of city traffic needs. Suggestions include:

- Require that all new businesses and developments have handicap accessible sidewalks that connect to existing sidewalks or paths on neighboring properties.
- Create incentives for existing developments and businesses to add sidewalks and/or make existing sidewalks more handicapped accessible. (There is an existing tax-deduction for any business that improves accessibility inside or outside their building. [Click here for more information about this federal program.](#))
- Require new roads or road improvements to include bike lanes and sidewalks. (If exceptions are allowed on this rule, make sure the exceptions are spelled out in very specific ways so as not to allow for large loopholes in this policy.)

Legislation is now in the House of Representatives that will determine funding for alternative forms of transportation. Until that legislation is passed the state will not have money for the program or even an application for the funds. The application process should begin within a year.

At this time we can only plan for the future and ask Chip Pickering (or your congressional representative) to cosponsor the PACE (Pedestrian and Cyclist Equity act) legislation.

Other measures that should be taken:

- Make sure when Starkville hires a City Planner, that bicycles and pedestrians are part of his or her agenda.
- Ask Chip Pickering to Cosponsor the PACE (Pedestrian and Cyclist Equity) legislation. (See above link.)
- Allocates funds for safe routes to school
- Search and apply for funding grants.
- Organize a bike/walk to work/school day. The national Walk-to-school-day is October 3 2003.
- Form a community organization focused on advocating bicycling and walking.

Use this website to make your opinions heard, and help the city planners know which proposals you think are priorities.