STATE STREET DESIGN PROJECT

MADISON, WISCONSIN - DESIGN CONCEPTS & RECOMMENDATIONS - NOVEMBER, 2001

WALLACE ROBERTS & TODD, LLC + KIKU OBATA & COMPANY + BRAD GOLDBERG + MEAD & HUNT + SCHREIBER ANDERSON ASSOCIATES

Madison

STATE STREET
DESIGN PROJECT

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This plan is the product of the work of many groups and individuals who collectively provided the direction for the proposed design. The input received from the business and property owners, students, neighborhood residents, downtown workers and other interested parties from throughout the city was invaluable in producing a workable design that will set the stage for the future of the city's premier street.

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EXECUTIVE SUMMARY

The State Street Design Project began in September of 2000 and concluded in November of 2001. The design process was guided by the City of Madison's Department of Planning & Development and assisted by other departments, organizations and private citizens. The scope of work is for redesign of the 100 through 600 blocks of State Street, and redesign of adjacent side streets and special places along the street. The project area is designated as the State Street District, which extends for approximately one block on each side of State Street along the adjacent streets.

The design was driven by public input received throughout the planning process. This occurred during many public meetings with a wide variety of groups and the general public. Also, a project office, website and dedicated email address were established to provide opportunities for public input outside of the scheduled meetings.

The State Street Design Project closely follows the recommendations of the State Street Strategic Plan, adopted in December 1999. Key problems with the existing conditions which were identified in the Strategic Plan, and corroborated in this work, include the tired, dated and cluttered appearance of State Street, its inflexibility to accommodate change, paving materials which have not aged well and require a high degree of maintenance, poor growing conditions for street trees, and conflicts between service vehicles and bikers, pedestrians and outdoor café patrons.

Based on the street's condition and the many issues and concerns raised by the public, four strategic approaches emerged through the course of the project: 1) to make the street environment as "flexible" as possible, 2) to make it "timeless," that is, not overly trendy, 3) to make it durable and easy to maintain, and 4) to make it sustainable. Inherent in these principles are the goals of having a design that is distinctive yet simple.

The major design proposals for the project include the following:

- A consistent and equal cross sectional dimension for the sidewalks and street is proposed for each of the 100 through 600 blocks of State Street. Within this cross section the street is 24 feet wide, and centered between the two sidewalks that are each 21 feet wide.

- The 21-foot wide sidewalks on each side of State Street have been divided into two separate zones, a 12- foot pedestrian zone adjacent to the buildings, and a 9-foot "flex" zone adjacent to the curbs. A line of street trees and streetlights are located between the pedestrian and flex zones.

- The pedestrian zone will function as currently exists, to facilitate through pedestrian movement and ease of access into shops and restaurants.

- The flex zone will include all sidewalk furniture such as bus shelters, bicycle racks, trash receptacles, benches, outdoor cafes, short-term parking opportunities for service and police vehicles, and temporary storage of plowed winter snow.

- Cast in place concrete is the primary paving material for the project. This material will be used to pave the street, the curbs and most of the sidewalks, with the exception of the flex zone paving. On the State Street sidewalks, a special treatment of the concrete will emphasize the linear nature and unique character of State Street. This treatment will include a warm buff to gray color additive in a medium to darker hue, with flecks of a red granite aggregate.

- Inspired by the Capitol building stonework, and the desire to infuse art into the design, bands of red granite paving running longitudinally the length of the street from the 100 to the 600 blocks (inclusive) are proposed. Either 4 or 7 feet in width, and placed in line with the street trees and lights, the bands are intended to function as a foundation to the outdoor dining areas and other amenities in the flex zone of the sidewalk. Granite, as a paving material, is distinguished for its durability and for its ability to be sandblasted and etched with text and figures. Over time, the granite bands could be inscribed with quotes from celebrated Wisconsinites or given imprints unique to the region so that the street could become a "living scroll" that future generations could build upon.

Proposed view of sidewalk conditions along State Street

- In most areas the curb height will be the minimum practical standard of 4 inches to facilitate the use of the right-of-way as a pedestrian space for festival gatherings and celebrations. Doing this along the entire street also affords flexibility in terms of managing which blocks could be dedicated for these uses. It also allows the curbs to be mounted by service and police vehicles at selected locations in each block, changeable over time as necessary.

- The major site furniture of the streetscape—streetlights, benches, waste receptacles, bus shelters—have been given a deliberate simple look, one that fits the architectural context of the street but without betraying a specific time period or design trend.

- In conjunction with the redesign of intersections, "bulb-outs" or extensions to the State Street sidewalks at cross streets are provided where possible. These bulb-outs will decrease the time pedestrians must spend in crossing these streets, and increase the size of the pedestrian waiting zones at the intersections.

- New street trees are proposed throughout the district. On State Street, the trees will be spaced at an average of 25 feet on center. The growing medium is proposed to be structural soil, capable of supporting the sidewalk paving and at the same time providing a superior growing medium for the street trees. The structural soil is to be located in a ten-foot wide swath, 30 inches deep, for the length of each sidewalk. A below-grade mechanical irrigation system is also recommended for a regular application of sufficient water to the trees during the growing season. A mix of different tree species, all available and successfully grown in the Madison area, are planned for each street within the district, alleviating the single species monocultures and the threats of major losses with species-specific diseases.

- Given the conflicts with service vehicles, it is recommended to regulate and enforce the times of day when service vehicles can use the street, particularly during fair weather months when outdoor dining is such an important activity on the street.

- The Mifflin and Carroll Street parks do not provide an appropriate gateway connection between State Street and Capitol Square. These parks are not inviting and do not function well for special events, such as Jazz at 5. Two similar design alternatives are included to rectify these deficiencies. One alternative opens the blocks to vehicular traffic on a controlled basis, while the second maintains the current non-vehicular condition. Both solutions redesign the space to provide a large circular space that connects the three streets.

- Allowing two-way traffic on Gilman Street to University Avenue and on Broom Street to Gorham Street is accommodated. This will permit the temporary closure of through-traffic across State Street while maintaining continuous traffic flow and on-street parking access on both side streets.

- The potential use of Elizabeth Link Peace Park is optimized by providing for the use of the abutting portion of Gilman Street for special events and gatherings.

- Concrete Park has been redesigned to eliminate the walls (and the opportunity for people to sit on the walls looking down on passersby) and to provide a more open, welcoming pass through space to State Street. The space is more flexible to alternative uses.

The estimated cost of construction for all six blocks of State Street is $12.2 million. Additional projects considered as part of the core project include the Carroll/Mifflin Street parks, the streets surrounding the Overture Center, and Concrete Park, and are valued at $2.8 million.

The proposed construction of the project is recommended to include, at a minimum, two adjacent blocks within each phase, should alternate year funding require that the project be phased. Given the current construction of Overture Center and its near-term impact on the 200 block, it is proposed that the 100 and 200 blocks of State Street be the first phase of construction, with the 300/400 blocks being the second, and the 500/600 blocks being third if there are to be three phases. Construction of the above-mentioned special places is also recommended to be considered with each of these phases.

As stated in the State Street Strategic Plan, the ongoing success of the State Street District depends on a strong partnership among all stakeholders. The proposed design sets the stage for implementing the other recommendations of the Strategic Plan. This design plan will provide a solid foundation for the future with a flexible and timeless approach.

View of 300-400 Block of State Street

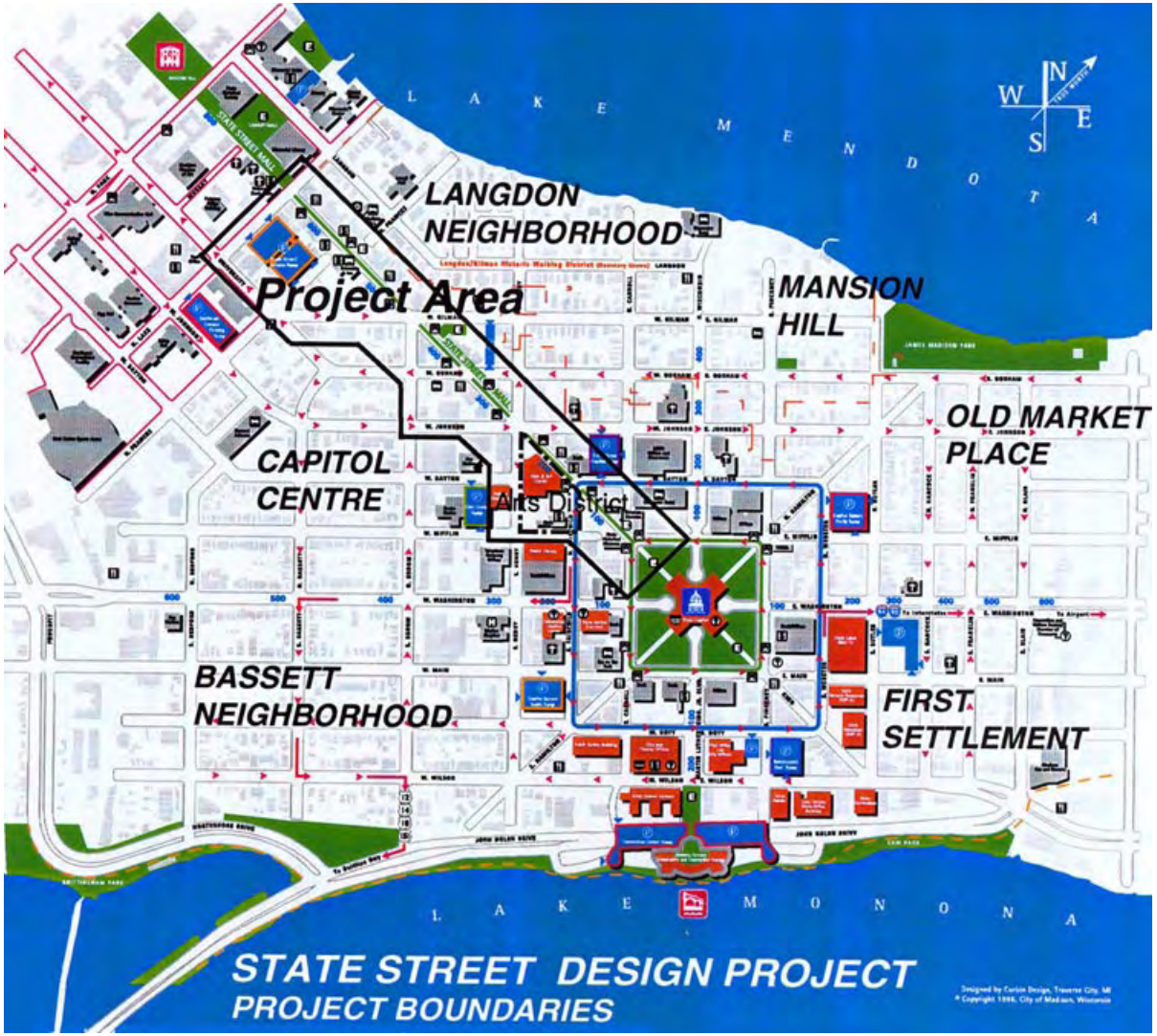
INTRODUCTION

This report represents the culmination of a design process that began in September of 2000 and concluded in November of 2001. The design process was guided by the City of Madison's Department of Planning & Development and assisted by other departments, organizations and private citizens. Over fifty meetings were held by members of the Wallace Roberts & Todd, LLC (WRT) design team, the Department of Planning & Development and the various groups and individuals with an interest in the redesign of State Street and surrounding environment—the State Street District. To maximize opportunities to engage the public in the planning process, the Department of Planning & Development also established a publicly accessible web site, email box and a project office which was staffed daily for several hours by city staff. Appendix C provides additional information on public involvement during this planning process.

The State Street Design Project closely follows the recommendations of the State Street Strategic Plan, adopted in December 1999. The Strategic Plan was organized into three major chapters: 1. Market Conditions and Business Mix, 2. Management Strategy, and 3. Physical Environment and Urban Design. The work of this project is principally concerned with the next level of more detailed design that builds upon the work of the Physical Environment and Urban Design chapter of the Strategic Plan.

The Strategic Plan identified some important existing conditions needing improvement, preservation or enhancement on the street. These include:

- One of its major functions as a federally designated transit-oriented corridor, and its importance as a major destination for bus riders.
- Its architectural legacy and significance as an intact, visually distinct, yet eclectic, grouping of late nineteenth and early twentieth century commercial buildings.
- Its key uses including shopping district, cultural district for arts and entertainment, and linkage between the Capitol and University.
- There is a broad consensus that it is tired, dated, and cluttered, particularly the site furnishings and lighting.
- It is inflexible, lacks repair and maintenance, and has not been updated to remain competitive with other shopping districts.
- Street trees have been severely pruned. Appropriate detailing and construction of improved tree pits with better soil and drainage is needed. A mechanism for ensuring the maintenance of trees and promoting their good health is essen-



tial.
- Paving materials have not aged gracefully and require a high degree of maintenance.

Among the key recommendations of the Strategic Plan were:

- New pedestrian street lighting and expanded electrical service.
- Replacement of most bus shelters with a more transparent design and strategic removal of shelters.
- Replacement of paving with a high quality, long-lasting, low maintenance and safe surface.
- Improvement to existing selected public open spaces.
- The redesign of Gilman Street to accommodate two-way traffic, and the redesign of several intersections to improve pedestrian mobility.

The Strategic Plan also recommended the following steps in the design process:

- Include public art as a component of the design approach.
- Guide the reconstruction of greater State Street between the State Capitol and the University of Wisconsin.
- Recommend improvements for the surrounding public environment, to include side streets to University Avenue, Mifflin and Carroll Streets and special areas such as Frances Park (so called "Concrete Park").
- Issue conceptual recommendations for the integration of Elizabeth Link Peace Park and Library Mall to the State Street environment (schematic designs for these areas have been deferred to a later date, as a separate project)
- Guide the phased implementation of the streetscape and other public improvements over the next 10 years.

At the outset of this State Street Design Project, one of the first steps taken by the design team was a reconnaissance of existing conditions and development of a "Problems and Opportunities" matrix which served as a point of departure for the public discussion which followed. This matrix corroborated the conditions identified in the Strategic Plan, and elaborated on others in more detail. The matrix is included in Appendix A for reference.

This final report summarizes and describes the major design recommendations, their cost implications, future phasing, and the next steps required towards reconstruction of State Street.

FROM NOLEN TO THE PRESENT

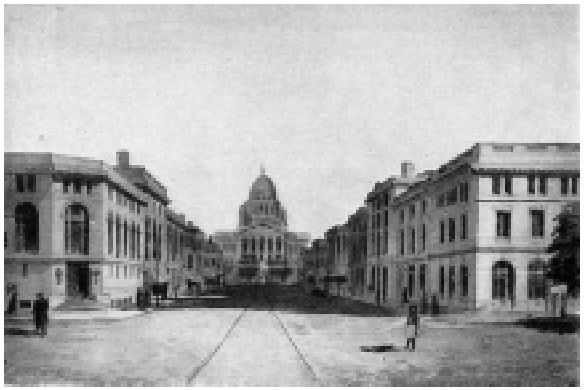
Streets are, literally, the arteries that give energy and vitality to the body of a city. Like arteries, some streets are more vital than others. State Street has always been to the City of Madison one of its defining streets—a place in which the soul of the city, over years and decades, has taken shape.

Over the past one hundred years there have been three prior studies of State Street, each intending to confer upon it a quality commensurate to its civic role. John Nolen in the early nineteen hundreds, M. Paul Friedberg in the mid-seventies, and more recently the State Street Strategic Plan lead by Johnson Johnson & Roy (JJR) each have contributed significant insights about the street's role and how to design for it. While many citizens and public officials contributed to the efforts headed by these professionals, for the sake of simplicity the work is summarized below as simply the Nolen, Friedberg, and State Street Strategic Plans.

Nolen (1906)

Inspired by the City Beautiful Movement, Nolen strongly felt that State Street should be wider, a grander thoroughfare that could fully capture and express the "individuality" of the city as defined by the unique and combined presence of government functions, the University and the city residents. Recognizing that a width such as Washington's Pennsylvania Avenue was unattainable, he recommended the taking of property to achieve a 100-foot right-of-way, lined by stately trees that could frame the Capitol. A tram was to run through the Street, the first proposal to recognize its utility as a conduit for mass-transit. He could not have predicted today's use of bicycles as a legitimate—and intensively used—mode of transportation.

But Nolen did see the need for open space and the use of the street as an amenity for downtown residents. In his Master Plan for the City, the triangular parcel defined by W. Gilman and S. Broom on the south side of State Street was to be a public park. Years later, Elizabeth Link Peace Park would come into existence directly across this site, abetted in this case by a building fire and subsequent donation of the land rather than a planning vision. Still, the current park, for all its shortcomings, is well used and more than validates Nolen's proposal to have a public gathering place on State Street halfway between the Capitol and the University. Another reason for this space, in Nolen's mind, was to add urban interest and definition to the Street in the style of Washington D.C., where open squares, triangles and circles mark major intersections.



For State Street, Nolen envisioned a 100 foot Right-Of-Way,

...and a major public space between the Capitol and the University.

State Street in the sixties

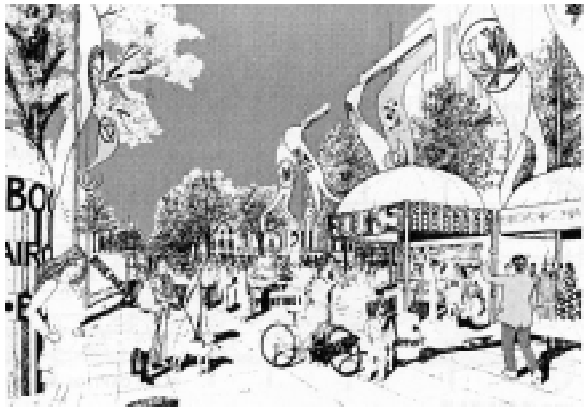
Nolen's vision was indeed grand, but not grand enough to cause the widening of the street right-of-way beyond its 66 feet. Hence the die was cast: given all of the civic, institutional, commercial, entertainment, residential, and transportation demands placed upon it, State Street is a severely tested (and contested) urban space.

Friedberg (1973)

During the late 1960s and early 1970s, significant social and political changes were occurring in the City. As these changes were reflected in City government, new approaches to address the deteriopedestrianization of downtown environments, Friedberg charted a new vision for State Street, one in which people on foot, not vehicles, took center stage. This approach was part of a national trend towards creating pedestrian malls to revitalize downtown shopping districts. No historical model delivers the kind of festive, people-oriented environment better than the medieval fair, and although Friedberg's report offers no reference to this effect, his initial renderings are replete with the banners,

flags, kiosks, vending stands and festooning that characterize these old events.

As did Nolen, Friedberg envisioned the creation of a major public space on State Street mid-point between the Capitol and the University. Friedberg placed a large open space on the north side of the Street, bounded by W. Gorham, W. Gilman and S. Henry



Friedberg's designs promoted the festive qualities of street markets and fairs

Friedberg facilitated the transformation of the street as a dedicated transit corridor, or "Fixed Guideway."

Streets. He also integrated retail and residential uses unto the parcel to maximize its urban vitality.

Friedberg's vision was that the Street must still accept multiple functions, or, as he put it be a "self-sustaining urban multi-use street with commercial, retail and office serving functions with a built-in residential population." All in a width of 66 feet.

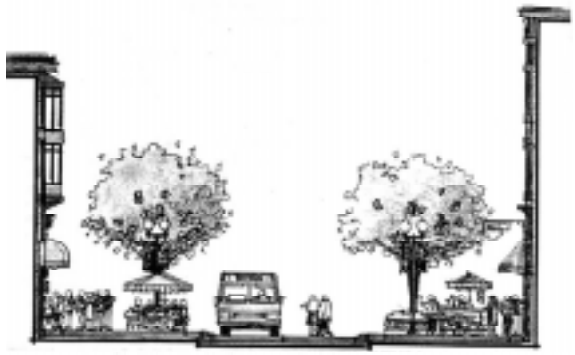
State Street Strategic Plan (1999)

The State Street Strategic Plan examined management, marketing, and urban design issues in the State Street area. This two-year planning effort, lead by JJR Incorporated, provides insight into what affected constituents think about the future of State Street. The Strategic Plan was the outgrowth of a grassroots planning effort in which many interested parties dealt with the difficult issues facing State Street.

Recognizing the competitive draw of regional malls, JJR explored re-introducing automobile traffic onto the Street, and improving parking availability within the district as a means to improve its appeal as regional retail and entertainment destination. Such ideas are in fact part of national trend, as many former pedestrian malls have been dismantled in favor of a balanced approach wherein vehicular and foot traffic coexist within a carefully calibrated "pedestrian-friendly" environment. However, if the vehicular area of the Street were widened to include one parallel-parking lane, the sidewalks would have to be pared to a width of seventeen feet (assuming a symmetrical condition).

The Strategic Plan also calls for centralized management of the Street to maximize the synergy and attraction of the retail and entertainment establishments. A key concept that supports this trend is "flexible design"—the idea that streets can and should function differently at different times, requiring adaptability (such as portions of streets that can function alternatively as an urban plaza and a vehicular thoroughfare).

The Strategic Plan addressed the question of bringing automobile traffic and parking back to the Street, but offered no consensus. People like the Street's informal, quirky, auto-free character as much as they want to see convenient access and parking. The designation of the Street as a "fixed transit guide-



JJR's streetscape proposal, tuned to a "Main Street" scale and aesthetic

way" enables the annual flow of Federal transit funds for its management and upkeep, so long as private vehicle traffic is limited. Additionally, any concession to automobile traffic will impact bicycle circulation, which is supported by a large student constituency.

In keeping with the objective of strengthening the Street's retail and entertainment functions, the Strategic Plan introduces more retail uses as part of Elizabeth Link Peace Park, transforming the space more into a "hard" urban court than a "soft" park as it is today. Compared to Nolen and Friedberg's vision, this proposal downplays the value of the open space as a community resource.

State Street 2001

One of the key recommendations of the State Street Strategic Plan was that a comprehensive design plan be developed to guide the reconstruction of the street. Driving this push is the view that State Street, which has not been substantially altered in a quarter century, is "tired"—that a fresh look is necessary to sustain its role as the city's signature public place. The following are among the major conditions and concerns that the redesign process aims to address "afresh":

- State Street is, indisputably, the "heart" of the city. Yet there has been and will continue to be great difficulty reconciling the street's civic stature with its rather modest width.

State Street is liked for its "quaint", informal character

- There is a growing identification of conflicts between new street side activities and existing bus traffic. However, the Street provides an unparalleled connection for transit service and continues to draw a large ridership to the stops along its length. The new design plan is being developed to allow any changes in the management and routing of buses to occur without the need to make expensive changes in the physical design of the Street.

- Beginning with Nolen, the notion of a mid-street open space as a "community marker" has spread deep roots. Elizabeth Link Peace Park therefore performs a vital function— although the quality of the place is less than desirable.

- The Overture Center will contribute greatly to the life of the Street with an infusion of gallery-, concert- and theatergoers. This activity will impact the character of the upper portion of the Street, potentially affecting the identity of the entire corridor.

- Current environmental attitudes require that new improvements on the Street follow sustainable design practices. Ideally, this should spill over to the provisions for cycling and transit vehicles.

- The integration of art into the public realm is now widely recognized as an essential urban quality. In this regard, it is important to recognize that "public art" is not the same as "art in public places," a distinction that can substantially affect the approach to the design work.

- State Street is increasingly associated with the "district" of State Street. How the side streets are programmed and designed, and what convenience and amenity they provide will have an impact on the future of State Street itself.

View of the proposed Overture Center (Cesar Pelli & Associates)

- The State Street District is in close proximity to the University of Wisconsin-Madison and new venues that attract large numbers of visitors – the Kohl Center and the Monona Terrace Community and Convention Center.

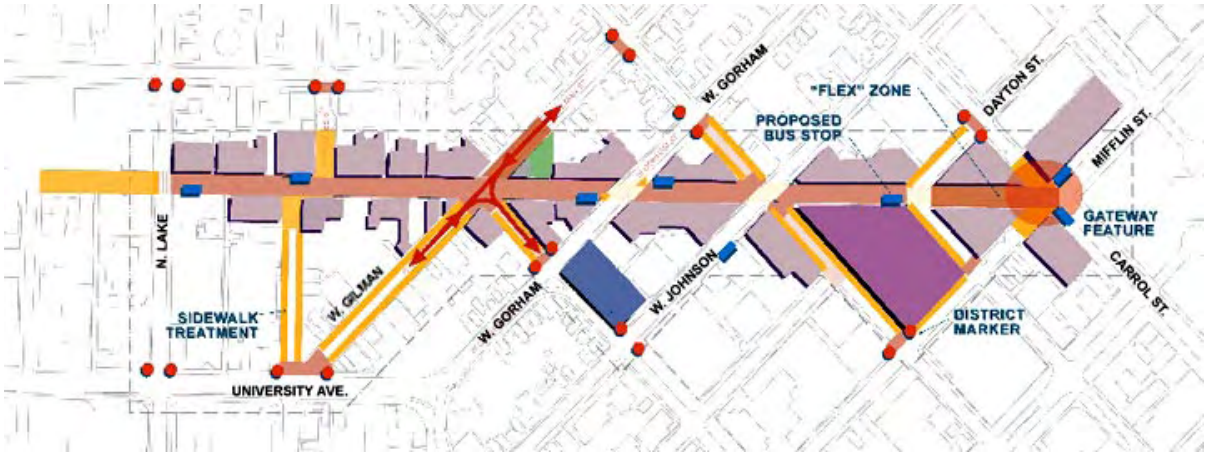
- The University of Wisconsin-Madison campus provides an opportunity to transition to the campus by carrying some of the design elements through the 700 and 800 blocks.

- At the east end of the street, the Capitol Building dominates the view and provides a formal terminus to State Street. Although the Capitol Concourse (the outer side of the Square) and State Street have been linked through the use of similar design elements, they feel and function as two distinctly different spaces.

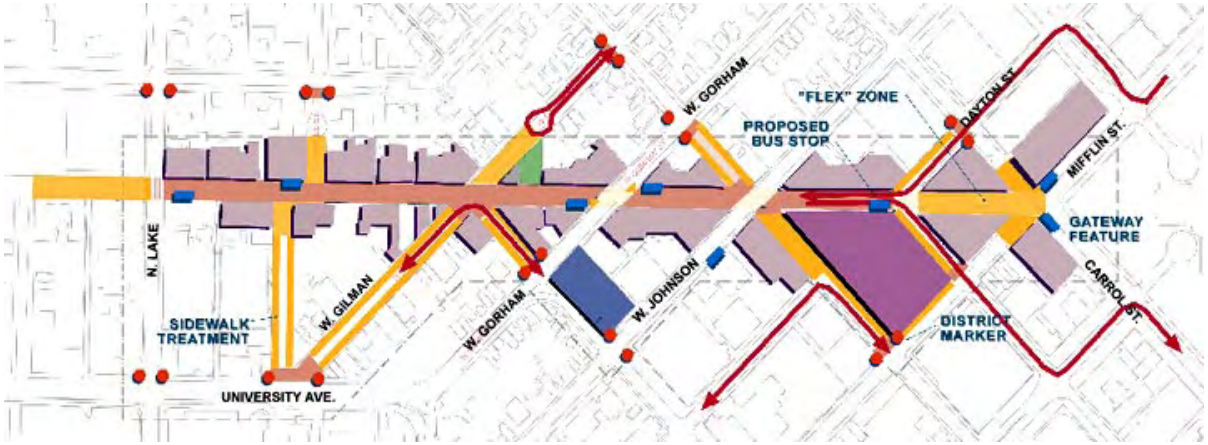
DESIGN APPROACH

Over the duration of the project, five large-scale public meetings plus many others with the Downtown Coordinating Committee, city staff and special interest groups were held to secure commentary on the schematic designs. Numerous design alternatives were investigated and discussed in the public forum. While many alternatives were rejected, many others were approved and are incorporated in the plan. Feedback was obtained in the form of oral comments at meetings, post-it notes that were attached to the drawings displayed at the meetings, emails, through the project web site, and comments written on the drawings displayed at the project office. Appendix B includes a detailed summary of these comments, Appendix C describes the public participation opportunities, and Appendix D includes a review of the alternatives and comments for Concrete Park as a discrete representative model of the larger discussion.

Based on the street's condition and the many issues and concerns raised by the public, four key strategic approaches emerged through the course of the project: 1) to make the street environment as "flexible" as possible, 2) to make it "timeless," that is, not overly trendy, 3) to make it long lasting and easy to maintain, and 4) to make it sustainable. Inherent in these principles are the goals of having a design that is distinctive yet simple.



Expanding the public domain without expanding the Right-Of-Way



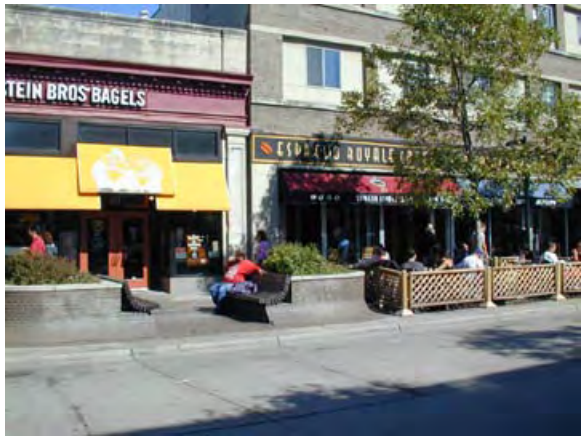
Rerouting traffic and calibrating the street for different activities

1. Flexibility

The success of State Street as an urban destination, plus its function as a fixed transit guideway, generates multiple and, at times conflicting demands upon the street's limited right-of-way. A sensible way to address this condition is to stagger or overlap some of the functions such that one or more of them can use the same space without one interfering with the other. For this to happen, the street must be designed as a *flexible* space capable of accommodating many functions on a diurnal, weekly and seasonal basis.

In pursuit of flexibility, the following is proposed:

- Lowering the curb height in most areas to the minimum practicable standard of 4 inches to facilitate the use of the right-of-way as a pedestrian space for festival, gatherings and celebrations. Doing this along the entire street also affords flexibility in terms of managing which blocks, and for which occasions could be dedicated for pedestrian use.



Fixed elements such as brick planters discourage flexiblity on the sidewalk

- Designing the area at the confluence of Mifflin, Carroll and State Streets to afford maximum flexibility as to the use of the one hundred block for concerts and other events.

- Extending the lower curb condition on Gilman Street, opposite Elizabeth Link Peace Park, to optimize the potential use of the park and the abutting portion of Gilman Street for special events and gatherings.

- Allowing two-way traffic on Gilman Street to University Avenue and on Broom Street to Gorham Street. This would permit the temporary closure of through-traffic across State Street while maintaining continuous traffic flow and on-street parking access on both side streets.

- Dedicating curbside zones for multiple and overlapping uses, e.g. for service vehicles during early morning and afternoon hours, and for café tables and other amenities the remainder of the time. (By necessity, this measure requires that street trees and lights be pulled back from the curb sufficiently to allow service vehicles to safely straddle the curb.)

Upholding a flexible design approach will allow State Street to "breathe-in," with ease and efficiency, the many activities that define the street as a regional attraction. Flexibility also accommodates change, as new uses can come in and engage the street as it might best serve the private and public interest for years to come.

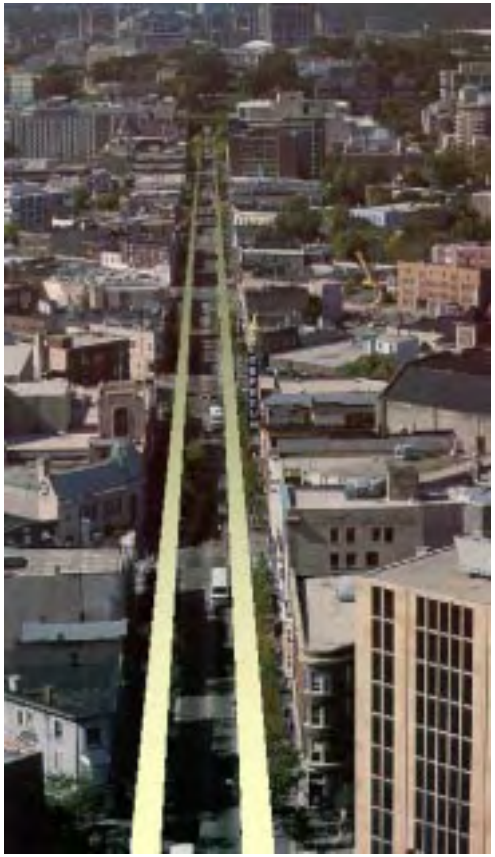
In its current condition the street functions in exactly the opposite way, with fixed elements (such as brick planters) that discourage the use of the space in multiple ways. The removal of fixed elements would help promote and sustain the street's long-term vitality. Currently, immovable objects (bus shelters, light poles, fixed planters and seating areas) occupy almost 14 percent of the sidewalks on State Street. The proposed design reduces this to 6 percent, opening up about 8,800 square feet of flexible space for sidewalk activity.

2. Timelessness

A flexible approach to the design suggests a simple aesthetic that enhances the overall quality of the space without compromising its ability to accommodate many and different activities. This is consistent with voiced concerns about the street potentially becoming "over-designed." In fact, the public has overwhelmingly supported an approach where the designed elements become rather a "silent" partner to the life of the street.

For this reason, the major features of the streetscape—streetlights, benches, waste receptacles, bus shelters—have been given a deliberate simple look, one that fits the architectural context of the street but without betraying a specific time period or design trend.

Simplicity need not lack poetry, however. On the contrary, simple designs that strive to capture the essence of a place can transcend their physical form



Granite Scroll

and approach poetic resonance, that is, achieve with all people a long-lasting connection. Here, material quality is key, for timelessness requires of physical things the ability to "stand the test of time" and endure the vicissitudes of climate and use. In Madison, no public element represents such quality better than the Capitol building.

Inspired by the use of granite in the Capitol itself, the design proposes bands of granite running longitudinally the length of the street from the 100 to the 600 blocks (inclusive). The bands could be either 4 feet in width, placed in line with the street trees and

Example of granite scroll being installed in Memphis. Design by Brad Goldberg

lights, or wider, to 7 feet, functioning as a durable foundation to the outdoor dining areas and other amenities in the "flexible" zone of the sidewalk. The width of the granite bands is subject to future availability of construction funds.

Granite, as a paving material, is distinguished for its durability and for its ability to be sandblasted and etched with text and figures. Over time, the granite bands could be etched with quotes from celebrated Wisconsinites (Gaylord Nelson, John Muir, Aldo Leopold, Frank Lloyd Wright among many), or given imprints unique to the region (such as Native American effigy mounds). In this manner, the street could become a "living scroll" that generations to come could implement as the civic spirit of the time might dictate. This feature could be managed and implemented by the local art community, becoming a centerpiece of the city's public art program. Granite is, of course, more expensive to install then brick or concrete. However, as evidenced by sidewalks in New York's Soho and Philadelphia's Old City, granite is a material that needs virtually no maintenance. It is, therefore, a cost-effective material where true timelessness is desired.

3. Maintainability and Durability

State Street, in particular among many streets in Madison, requires a greater maintenance effort. This is due to many reasons. One of these is the sheer volume of pedestrian traffic generated by the University, the business community, residents, and the fact that State Street is the primary commercial street and a major tourist attraction in the City. As the primary bus route through this part of the isthmus, early and comprehensive snow plowing becomes important, as well as for shop owners and the volume of pedestrians on the street. Outdoor cafes, festivals and concerts on the street, maintaining healthy trees, changing lamps in street lights, accommodating the large number of service vehicles, and rectifying the work of vandals all generate an enormous amount of work for maintenance staff.

For these reasons, it is particularly important that the materials used in the design are as durable and low maintenance as is practical. Furnishings should be vandal resistant in design, with the best, most technically advanced finishes available. They should be removable in winter, if desired, to facilitate snow removal operations. Systems, such as those used for growing trees, should consider all aspects of long-term maintenance so that removal and replacement

The sheer volume of traffic on State Street calls for a design that uses materials which are durable and low maintenance

with new trees will be minimized or unnecessary. On side streets, the relationship of parking layout relative to tree placement is important to avoid opened car doors damaging trees. Replacement of underground utilities is relevant to the selection and design of paving materials. The impact of the equipment used for maintenance, such as snowplows and brushes and litter removal brushes, should be anticipated. Freeze/thaw conditions will affect the choice of paving materials and the technical details for their installation. These and others have been incorporated into the design to insure that State Street can be maintained to function and look its best with the minimum practical expenditure of maintenance resources.

4. Sustainability

The principle of sustainability covers a lot of territory. Essentially, its purpose in planning and design is to employ strategies, techniques and materials that are as least detrimental to our habitation of the planet as possible. The major points addressed in sustainable design are:

State Street already achieves many principle goals of sustainability by using low energy modes of transportation such as biking, walking and using buses.

- Preserve nonrenewable cultural and historic resources.
- Be sympathetic to contextual environments.
- Foster and preserve interdependent or interconnected landscapes.
- Integrate nature with the man-made environment.
- Reuse already disturbed resources and sites rather than undisturbed ones.
- Minimize operational/maintenance costs and energy needs.
- Minimize natural resource degradation.

It can readily be appreciated how a project for the improvement of an existing urban environment, dedicated to least energy consumptive transportation modes of walking, biking and using buses, while preserving precious historic and cultural resources, has already accomplished a great many of the goals of sustainable design. The simple fact of fostering a greater quality of urban life that will be more conducive to urban habitation is, by itself, a great step in advancing these principles.

On a smaller scale, sustainable design can be addressed in many ways. These include dark sky principles of night time lighting, in which light is cast downward instead of up into the night sky. They also include the principle of flexible space utilization, which will allow for future change without the financial burden and energy consumption required for reconstruction in the future. Other solutions include using darker paving that will hasten the melting of snow and require fewer salts and less human energy expenditure. The use of durable finishes on site furniture will require less maintenance and replacement of these products over time. And natural materials with long life spans, such as locally quarried granite, are superior for their lesser impact on energy and material consumption than is the case with some other paving solutions. There are also other areas of design, such as innovative techniques for the management of storm water quality and quantity that should be addressed in the final design phase.

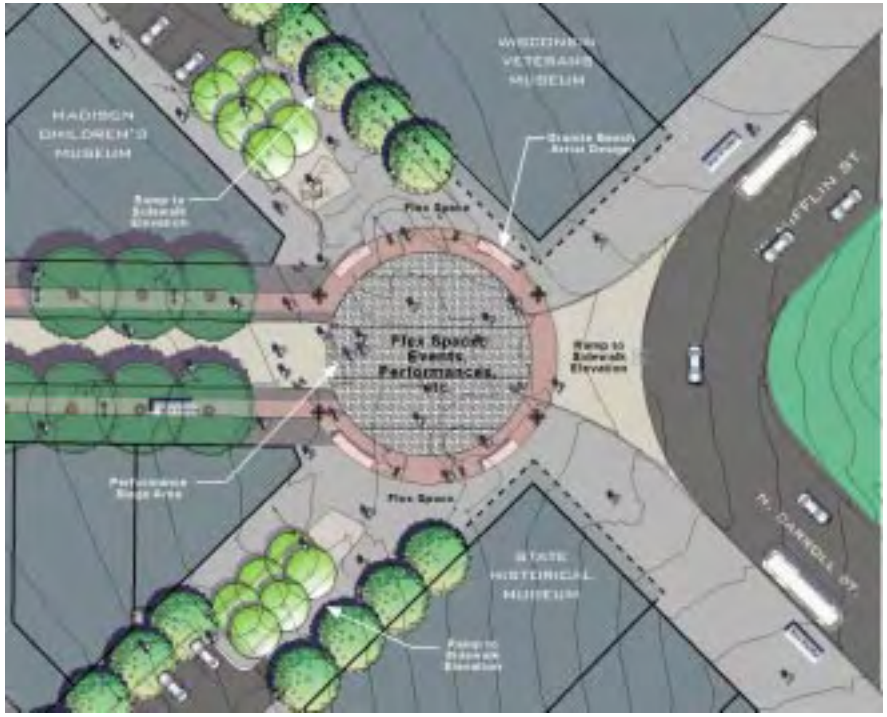
THE DESIGN

Specific design proposals were developed following the key concepts described above. Drawings of these designs are included in the following pages. While the designs reflect the general consensus of the individuals who took part in the process, there are some areas and details of the design that, by nature, must await resolution until the subsequent phases of final design and construction documentation. Still others will not be totally resolved until samples have been submitted for review and approval during the actual process of construction.

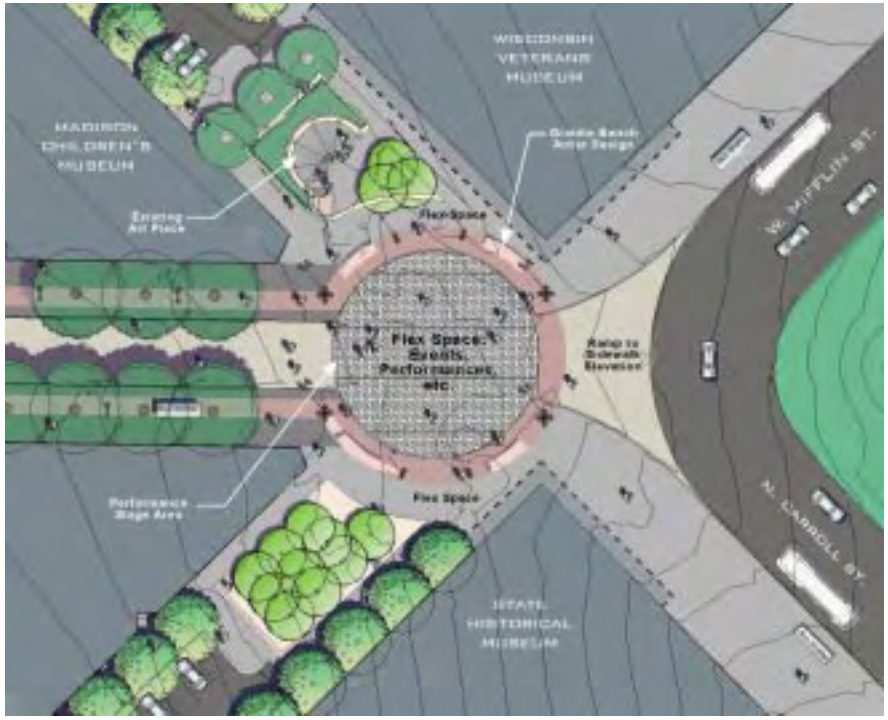
The plan defines the character and design of all specific elements to be constructed, but not all locations. Specifically, those site furnishings such as benches, trash containers, bicycle racks, and planters will be located, block by block, in the next phase of design. The design of each type of site furniture, however, is included in this report. In addition, it is during the final design phase that the detailed design for items such as decorative fountains, pavement score lines and joints, and similar detailing decisions will be made by the design team in collaboration with the City and the public.

One area not yet resolved is Mifflin Street adjacent to the proposed History Museum. Final designs for this area should be postponed until the program of the proposed new museum and its needs for outdoor space are fully understood. However, there are two valid design alternatives for the confluence of State Street, Carroll and Mifflin Streets at Capitol Square. One of the alternatives allows for vehicular traffic to flow through the area onto and across State Street, requiring the relocation of the existing sculpture on Carroll Street. The second alternative preempts through traffic, as is the current condition. The decision remains to be made by the City for one of the alternatives.

The other case in which the design team was asked to provide two alternatives is for the granite paving proposed on State Street. The first alternative is to have a seven-foot wide strip, covering most of the flex zone paved in the granite, while in the second alternative, only a four-foot wide granite band is proposed. The City likewise will decide on these alternatives.



Carroll / Mifflin / State Street Intersection - Alternative 1
Allows for vehicular traffic to flow through



Carroll / Mifflin / State Street Intersection - Alternative 2
Through traffic only on State Street

Granite paving - Alternate 1
Seven-foot wide strip

Granite paving - Alternate 2
Four-foot wide strip

Additionally, the City is currently in the process of establishing design guidelines for outdoor cafes, specifically for the fencing enclosures on three sides of the cafes. The design team was consulted regarding these issues, but it remains for the City to finally publish the guidelines. The design controls apply to the design of the enclosures and the necessary safety standards, including dimensions such as height and extent, mounting standards, degree of enclosure and rules for operations.

For the purposes of clarity in describing the design, the various component elements have been divided into specific categories.

1. General

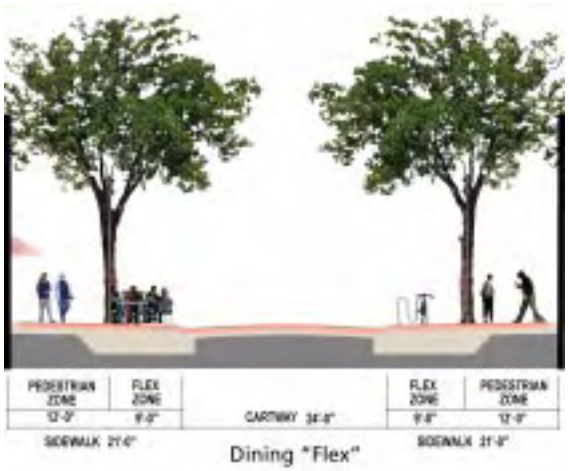
The proposed spatial and dimensional reorganization of State Street adopts the principle of flexibility for uses of the street and future design modifications. In general, the typical combined width of the street and sidewalks, from face of building to face of building, is 66 feet.

Currently, the existing cross section of State Street varies from block to block. In some blocks, the street is 22 feet wide, while in others 24 feet wide. Similarly, the sidewalks vary in width, with the north sidewalks often being wider than those on the south side of the street by 1 to 2 feet average. In some blocks, the street meanders slightly from one end to the other, with the sidewalk widths ranging from a maximum of 27 feet to a minimum of 15 feet on both the north and south sides of the street. As a consequence of these varying dimensions, some narrower sidewalk conditions seem unduly constrained for pedestrian flow, and lacking in opportunities for outdoor dining and the location of site amenities.

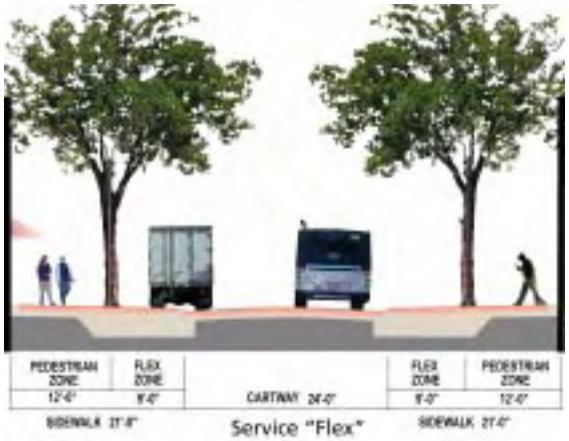
Unlike the existing conditions, a consistent and equal cross sectional dimension for the sidewalks and street is proposed for each of the 100 through 600 blocks of State Street. Within this cross section the street is 24 feet wide, and centered between the two sidewalks that are each 21 feet wide.

The 21-foot wide sidewalks on each side of State Street have been divided into two separate zones, a pedestrian zone adjacent to the buildings, and a "flex" zone adjacent to the curbs.

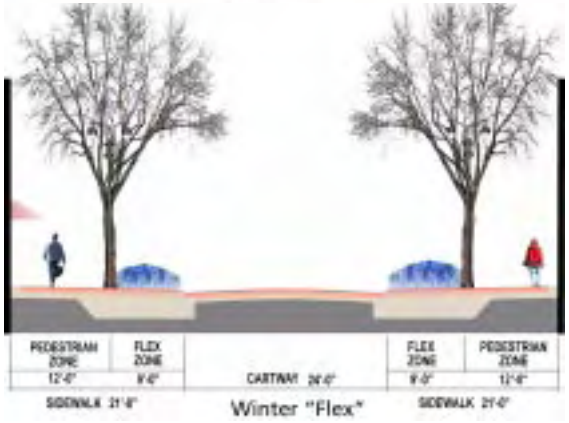
Dining enclosures on State Street



Dining "Flex"



Service "Flex"



Winter "Flex"

Pedestrian Sidewalk Zone

There is an existing pedestrian zone that is typically 10 to 11 feet wide from the face of the buildings to the centerline of the first row of existing street (glitter) lights. In several blocks this dimension is only 8 to 9 feet. This pedestrian zone serves as the main pedestrian thoroughfare, allowing window shopping, direct access into stores, and unimpeded movement directly adjacent to the stores. This existing zone is the most successful design solution for people with disabilities and for serving the needs of shop owners, and it has been deemed very important to be preserved. No fixed or temporary outdoor furnishings (including signage) have been or should be located within this zone.

The proposed new pedestrian zone is wider than the existing, at 12 feet from the face of the buildings to the centerline of the new trees and lights. Of this 12-foot dimension, 10 feet is proposed to be paved in concrete, with 2 feet to be paved in granite. A more detailed explanation of paving, street trees and streetlights is included later in this report.

"Flex" Sidewalk Zone

The proposed flex zone, at 9 feet wide, extends from the edge of the pedestrian zone to the face of curb. Within this zone are the utilitarian elements and activities that are associated with a slower moving aspect of the sidewalk traffic. Along the edge of the zone, at 9 feet from the face of curb, is the row of street trees and the alternating row of street lights mentioned above. This line of trees and lights defines the interface of the flex and pedestrian zones.

Included within the flex zone are all of the sidewalk furniture such as bus shelters, bicycle racks, trash receptacles, kiosks, traffic signals and control boxes, moveable planters, bollards, the seasonal outdoor cafes, and the sidewalk displays of vendors and merchants. Additionally the flex zone has been designed to accommodate service and delivery vehicles, taxi cabs and police vehicles, all parked on a temporary basis, similar to the designated pull-out zones on State Street today. During winter months, when outdoor cafes have been removed from the sidewalks, the flex zone can accommodate the temporary storage of plowed snow, awaiting its ultimate removal. Without dedicated service parking zones, or conversely, allowing for these temporary parking options to be relocated to different areas within the zone, there is great flexibility in rearranging site furniture such as benches and bicycle parking as needed or desired, and in accommodating new outdoor cafes in different locations.

In order to remain fully flexible to changing conditions and needs, the sidewalk furnishings will need to be of a bolt down nature so that they can be removed and relocated when desired. Likewise, curbs at a maximum 4-inch height will be necessary to facilitate mounting by vehicles.

Buses and Service Vehicles

One of the key concerns consistently raised during public meetings was the on-street parking of service vehicles. Only 50% of the shops can be serviced from the rear, off of State Street, while the other 50% must be serviced from State Street. Compounding this problem, the establishments that require the most frequent service are the restaurants and bars, most of which need servicing from State Street. Unfortunately, many service and delivery vehicle operators who could use the rear entries do not, finding it more convenient to service the shops from State Street. There are also problems with contractors who renovate commercial establishments. These contractors typically park their vehicles on State Street for many hours while they perform their work inside the buildings.

Currently, unregulated service vehicles park on curb. The proposed flex zone will help regulate and control service vehicle parking

Another concern cited dealt with transit buses. An increasing number of outdoor cafes have opened along State Street during periods of fair weather. Complaints identify difficulties of co-existence of the cafes with the current volume of transit service, and its inherent noise and vehicle idling at bus stops and traffic signals.

At present, the best solutions available to counter the problems of service vehicles are management and enforcement, controlling the times when the vehicles are allowed on the street, and enforcing meaningful fines against violators. In the summer of 2001, an ordinance was passed restricting service and delivery vehicles between 11:30 and 1:30. Buses are currently rerouted to other streets to allow a limited number of special events on State Street, principally in milder weather months. This policy will continue under the guidance of the City's Street Use Staff Team or parade permitting process.

Traffic flow through the State Street District

The issue of traffic movement and circulation throughout the district and adjacent environs is of prime importance. One of the problems identified during the analysis phase of this study is the difficulty in driving around the streets in the area. They are somewhat labyrinthine in nature, with many one-way streets, and many cul-de-sac terminations of streets such as Frances, Carroll and Mifflin. One of the district-wide goals is to improve this circulation, particularly as related to accessing parking ramps serving the district, and in relieving urban traffic congestion and the attendant air pollution. As a result, the design team was assigned to investigate an alternative design which opens up the Mifflin and Carroll Street cul-de-sacs to allow for more service vehicle use, thereby relieving that conflict on the 100 block of State, as well as to provide for other vehicular uses as deemed appropriate. These might include, for example, greater ease in accessing parking ramps on event nights at the Overture Center.

Another initiative is to investigate converting one-way streets to two-way streets. A decision has been made to do this with Gilman Street south of State Street. The design team has provided a design for this change, which will also allow the flexibility to convert it back to a one way condition should that prove to be more desirable in the future. Other streets such as Broom east of Gorham and Henry were considered as well. Henry cannot be converted without adding an additional cycle to the traffic signal at the three street intersection of Henry, State and Johnson Streets. Henry is currently one-way in each direction away from State and Johnson at this intersection. The signal has two phases favoring Johnson and Henry in one phase, and State in the other. The addition of a third phase would create unacceptably long delays for pedestrians on State Street and drivers on Johnson.

Overture Center Block

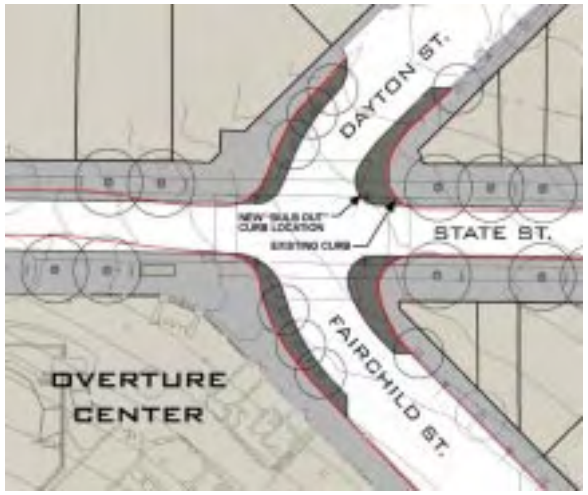
The development of the Overture Center comprises an entire block and presents a number of opportunities to make changes to these street frontages that better serve this facility and implement many of the design recommendations proposed in this plan. Recommended changes to the geometrics of this block are described below.

In the 200 block, State Street is proposed to be shifted to the center of the right-of-way. This will result in this segment being in alignment with the rest of the street and will address an existing deficiency in sidewalk width on the north side of the street by providing additional sidewalk space.

Bulb outs are proposed where Fairchild Street intersects with State Street and with Mifflin Street. This will create a parking/drop-off lane and additional pedestrian space in close proximity to the entrance to Overture Hall and the ticket office. The bulb out at the intersection of Fairchild and Mifflin is proposed to wrap the corner and extend for a short distance down Mifflin Street.

Revisions will also be made to Henry Street south of State Street, where the addition of a dedicated counter-flow bicycle lane towards State Street is proposed. A second major change is to relocate the western portion of the street northward towards the Overture Center, thereby widening the sidewalk on the south side of Henry to become more usable by the shops along that side. The existing overly wide sidewalk on the Overture side will be reduced in width to accommodate this shift. The street will need to be maintained in its current location on its eastern side in order to allow for tractor-trailer servicing of Overture Center. A gentle reverse curve has been designed into the street to provide for this new configuration. See the related plan.

Overture Center and corresponding streetscape



Example of bulb-out conditions at the Dayton / Fairchild / State Street Intersection

Bulb-outs

As a consequence of the Henry Street shift, another advantage accrues which is also a general goal for State Street, to favor the pedestrian whenever possible. By making the Henry Street sidewalk shift, the adjacent sidewalk on State Street can be extended toward both Johnson and Henry Streets, providing additional sidewalk space for pedestrians on State before they have to walk across the street. The extended sidewalk on State Street is called a bulb-out, meaning it lengthens the existing sidewalk into the roadway segment of adjacent streets. In the new design, bulb-outs have been provided on State Street at almost every intersection, providing for more pedestrian queuing space on sidewalks at the intersections, and reducing the time to walk across these streets. The new bulb-outs also provide for more organized and convenient locations of traffic signals, enabling the reduction of traffic signal poles, generally from eight to four, at each of the intersections.

Public Art

Building on the recommendation of the Strategic Plan to incorporate public art in the design of the street, the design team included a public artist. As the design project was being developed, the City was also preparing a Public Art Master Plan. These two processes converged with a charrette which brought the arts community together to discuss public art possibilities within the State Street design.

The inclusion of art as a key placemaking strategy was widely supported throughout the planning

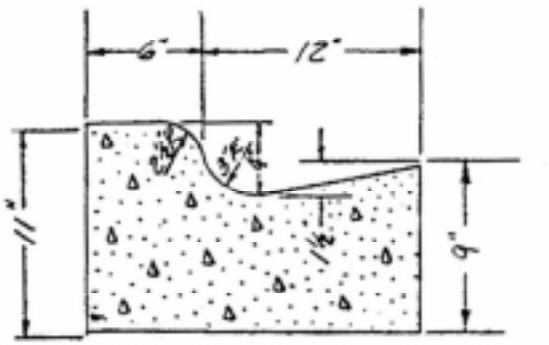
process. The design provides multiple public art opportunities. The key opportunity lies within the granite band that is proposed adjacent to the sidewalk. The granite can be inscribed with words and images linking the street to the city and state. Special places along the street also provide places for art. Opportunities also exist in several of the design elements such as bus shelters, kiosks, and newspaper vending racks.

2. Paving

Streets

Many factors were considered in the choice of paving materials. Chief among them were the City's familiarity with certain materials, and ease of maintenance, given the harsh winter conditions and the need for snowplows and the application of snow melting salts. For these reasons the City opted to use cast in place concrete for the paving material in the street. This concrete will be similar to other streets in Madison. An advantage of using smooth textured concrete in the street is the "friendly" quality of its surface to bikers and skaters. Both of these uses have grown considerably in recent years, with projections of continued growth into the future.

The exception to this paving material is in the proposed plaza circle at the confluence of State, Carroll and Mifflin Streets. Here, concrete unit pavers are to be installed over a concrete slab in a herringbone pattern. The pavers will be the size of bricks, at 4 by 8 inches nominal, and 4 inches thick to support the weight of vehicles. They will be installed in a dry laid system, which is devoid of mortar. The joints will be swept with a fine grit and they will lock together in a very stable condition, unaffected by snowplows and freeze thaw conditions. The pavers will be installed on an asphalt bed over a geotextile fabric on top of the concrete slab. Holes will be drilled at the low points in the slab to allow any moisture that permeates the paver system to drain away. During the final design phase, the precise colors and details of the pavers as well as the other materials in the adjacent park areas will be determined.



Detail of four-inch high "mountable" curb

Proposed sidewalk and curb condition

Curbs

Options were also considered for curbing, including the use of no curbs, called a tabletop condition. If curbs are not provided, there must instead be a special strip of paving two feet wide, with ¼ inch high raised bumps to warn the visually impaired of the change between street paving and sidewalk paving. While this paving is necessary for the visually impaired, it can be a hazard for those in wheelchairs. Other safety questions arose relative to the no-curb solution, that curbing was the traditional means of separating roadway from sidewalk and that the special paving strip may not be perceived in this manner. And, in consideration of the limited space in the flex zone to accommodate outdoor dining, the 2-foot wide special paving strip was viewed as a hindrance to chair legs. Finally, it was felt that stormwater flows were significant enough to warrant the use of curbs to control the flows in the street to their proper inlet destinations. As a result, it was agreed that the best solution is to provide curbs, albeit lower than 6 inches to promote a more user-friendly quality to the overall street cross section. The preferred curb height on State Street is the minimum practicable of 4 inches, rising at intersections to meet the curb heights on side streets. The preferred material for curbs is cast-in-place concrete similar to the other curbs in downtown Madison.

In order to facilitate service and police vehicles pulling off of the street and parking in the flex zone at designated locations, the 4-inch high curbs must be "mountable." Mountable curbs have a gently rolled corner between horizontal and vertical faces, and beveled or sloped vertical faces that facilitates being rolled over by the wheels of vehicles.

Granite Scroll linking the University and the Capitol

Pedestrian Sidewalk Zone

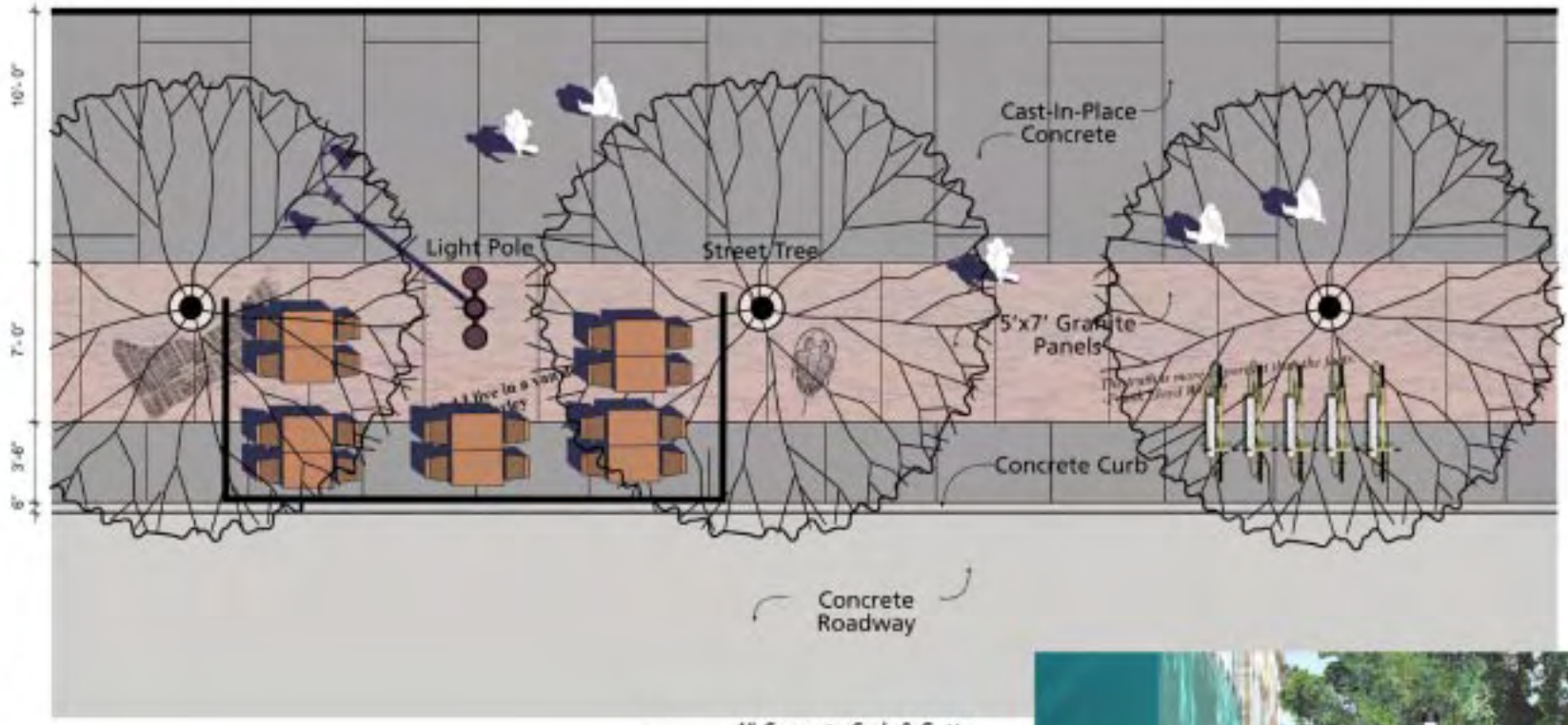
As with the street paving, the recommended paving material for the pedestrian zone is cast-in-place concrete, with a finish smooth enough to serve those in wheelchairs, yet gritty enough to inhibit slipping. There also was a strong preference for a sidewalk with some "life" or "personality" rather than just a standard light gray concrete in a cool hue. Consequently, the sidewalk design proposes a pigmented warm buff to gray concrete in a medium to darker hue, seeded with chips of red granite, matching the granite slabs proposed for the flex sidewalk zone. The darker color of the pavement will capture radiant heat from the sun, facilitating snow and ice melt during the winter. Some of the granite chips will catch the light from the sun and provide a sparkle effect. The proposed treatment consists of a standard concrete, mixed with a product called Kolorblen Permatint Integral Pigment, by the Conrad Sovig Company or similar manufacturer.

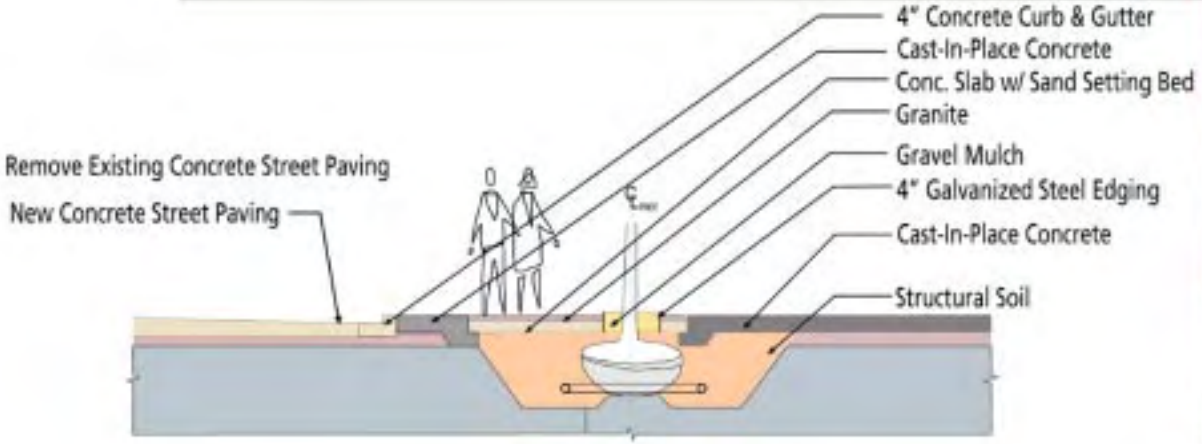
Flex Sidewalk Zone

For the flex zone, two alternatives have been proposed for consideration, at the request of the City. In the first case, the recommended paving material is a red granite, 7 feet wide, set on a concrete sub-slab, and extending the full length of each block, from intersection to intersection. The proposed granite is a dark red color, called Royal Sable from the Cold Spring Granite Company in Minnesota. It would terminate in a circular design at the confluence of State, Mifflin and Carroll Streets, and at Murray Mall at the west end of the 700 block in the University environs. This material is viewed as one of the important character giving elements to State Street, as discussed under the Design Approach section. The finish of the granite is to be flamed, rough enough to supply the needed traction when wet or icy. The granite band will be inscribed with art, poetry, famous quotes from Wisconsinites and others, over time. Examples of this kind of paving art are shown on page 11 in a plaza installation in Memphis, Tennessee. A strip of red granite art of this scale and location on State Street will provide a striking and unique identity to the street.

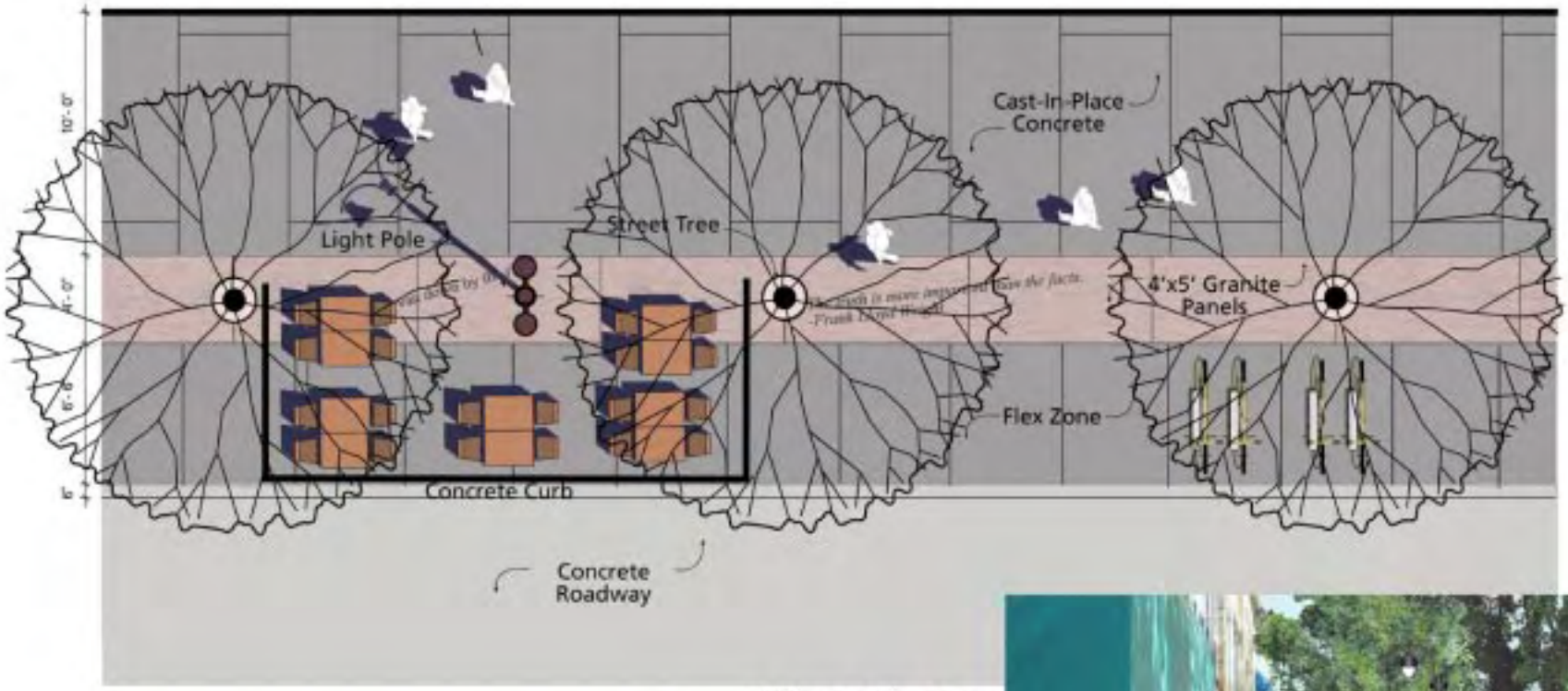
A 3.5-foot wide strip of cast in place concrete of the same color and finish as the pedestrian zone is proposed between the edge of the granite and the back edge of curb. This concrete strip would contain the ADA (Americans with Disabilities Act) wheelchair ramps at each intersection, and various other regulatory signs that need to be near the curbs. In addition, it will take the abuse of the vehicular wheels that will mount the curbs for temporary parking.

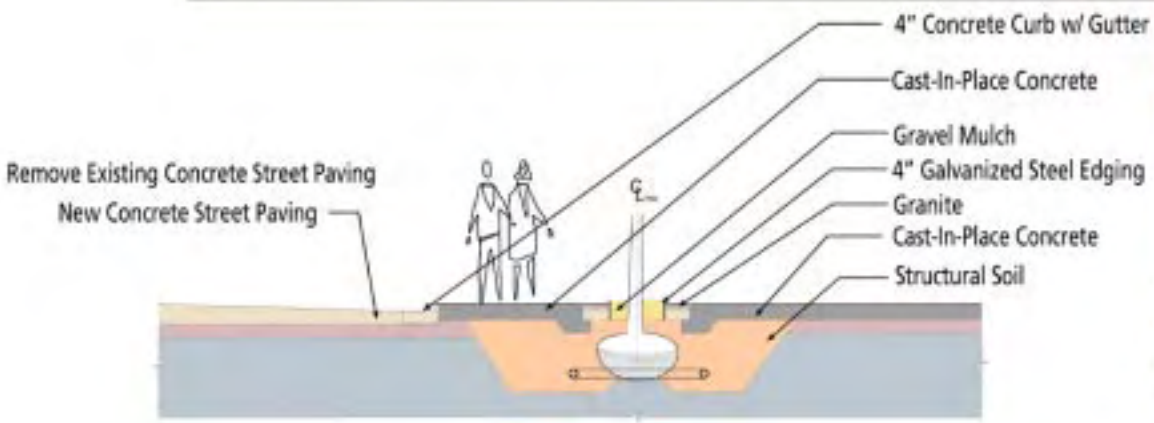
The second alternative for paving the flex zone is to have a narrower, 4-foot wide granite band in line with the trees and lights, and adjacent to the pedestrian zone. The remainder of the flex zone would be paved in cast in place concrete as above. With this treatment of the flex zone however, there is concern that the narrower granite art band will lack the power and impact of the wider band in the first alternative. The wider band will also help the space feel wider by





Paving Option 1 - Seven-foot granite band





Paving Option 2 - Four-foot granite band

reducing the segmentation of the sidewalk that would occur with the 4-foot strip. While the cost of a 7-foot granite band is more expensive than a 4-foot band, in the overall scale of costs for reconstruction of the street, the wider granite treatment adds approximately 9%.

Crosswalks

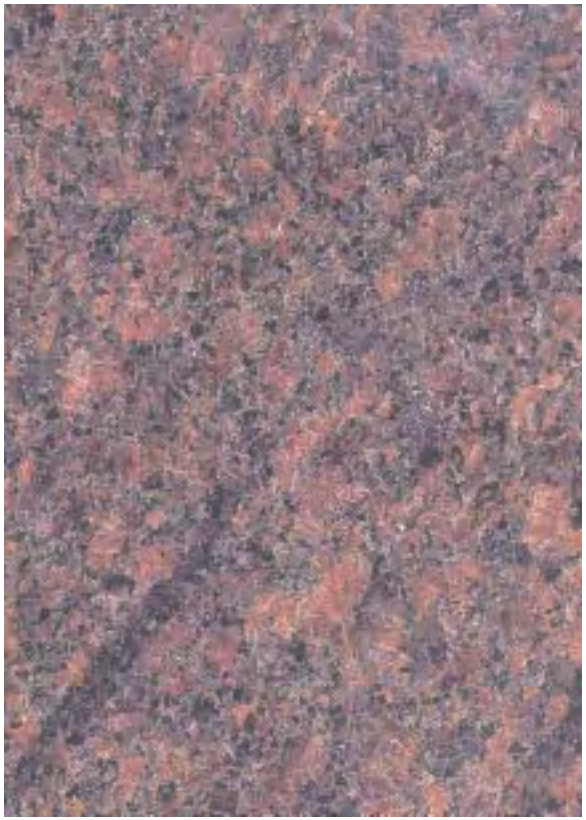
Two types of crosswalks are proposed for delineation of pedestrian walking zones in the streets at intersections.

The crosswalks that parallel State Street, and cross the adjacent streets which intersect with State Street, are to be paved in the same concrete color and finish (dark gray with chips of red granite) as the pedestrian zones on State Street. The cross walks will be, essentially, an extension of the sidewalk pedestrian zone crossing the adjacent streets. By paralleling State Street, they will reinforce the linear aspect of the street in connecting Capitol and campus.

The crosswalks that cross State Street, and parallel the adjacent cross streets, are to be paved in the same concrete as State Street, however the crosswalks are to identified with white paint, similar to the vehicular stop bars on State Street and the cross streets.

Color Palette

The composite of colors for the overall paving of State Street would thus consist of traditional light gray concrete for roadway and curbs, dark warm gray or buff with red granite chips for pedestrian and flex zones, and dark red with gray overtones for the granite band. The proper coordination and balance of color hue in the concrete will be developed in the final design stage of the project and with review of sample panels during construction.



Granite color will consist of dark reds and gray overtones

Layout

The overall layout of the paving materials reinforces the directional swath that State Street cuts through the grid of the city. Similarly, cross streets have received the same acknowledgement as they cross State Street, with their patterning expressed in cross walks and ADA ramps. ADA ramps are proposed to be paved with the same materials used for the pedestrian zone of the sidewalk.

Paving on other streets and special places

One of the overarching design concepts is that State Street should have a special identity, reflected in the choice of simple, elegant materials. Additionally, a district identity should be established through the design of common or related streetscape elements on adjacent streets. Paving is only one of these elements. District identity is also reinforced through the use of related street trees, streetlights, signage, and site furnishings.

Cast in place concrete is the primary paving material used in the sidewalk pedestrian zone on State Street, and for the roadway paving. Similarly, this material is the primary material recommended for the side streets and plazas at the special places, with alternative paving materials in limited locations.

Although the concrete paving on State Street sidewalks is finished in a warm gray/buff tint with red granite aggregate, the concrete paving on the side streets and plazas is proposed to be a standard City of Madison gray concrete. This distinction of color in the concrete will help to visually distinguish State Street.

Other paving options are possible for selected streets and special places within the district. Areas recommended for optional paving treatments include the sidewalks adjacent to Overture Center, near Capitol Square, and Gilman Street adjacent to Lisa Link Park, and Gilman Street southward towards the Kohl Center. In these cases it is recommended the red granite aggregate be added into the standard gray concrete sidewalks to reinforce the visual linkage to State Street.

In addition to the cast in place concrete sidewalk paving, special areas are proposed for alternative paving materials. These include the 4-foot square areas under each of the street trees, where concrete unit pavers are used to allow rain water to permeate through the paving to tree roots. The pavers are to be dry-laid over a porous stone base, without the use

of mortar between joints or in the setting bed. This is the traditional alternative method of installing unit pavers in all climates, including many cities similar to Madison's colder winter climate. These pavers and the system of installation are similar to those described for the circle at the confluence of State Street and Capitol Square, except that these pavers will not be installed on a concrete slab. The color of these pavers is to be a dark warm gray, tying together with the color of the pedestrian zone on State Street.

In Concrete Park, a ten foot wide strip of granite paving, with the art overlay, is proposed to connect State Street at the toe of the slope with the portal into the park at the top of slope.

3. Vegetation

Challenges to Urban Street Trees

One of the primary goals for the planting design of State Street is to create an environment that will foster the healthy, vigorous growth of street trees, unlike most urban conditions where trees struggle to exist.

Trees in urban areas face far more difficult growing conditions than those in rural or suburban areas. In urban environments the soils are usually very poor, often polluted and chemically degraded, lacking in organic material and nutrients, and physically composed of the remnants of previous eras of construction, particularly on streets that have seen major street and building reconstruction as is the case with State Street. Additionally, the walls of buildings and paving surfaces are much more extensive in cities, therefore generating far more heat and tending to dry out the trees sooner than more benign environments. The greater volume of vehicles also contributes to this problem, with the surface temperatures on the metal roofs and hoods reaching 140 degrees Fahrenheit or better in summer.

Existing street trees are confined by narrow tree pits

And given the demands on sidewalk space to support the greater numbers of people, street trees must usually be surrounded with paving, exacerbating the heat gain, and limiting the amount of rain water that is able to reach their roots.

The existing conditions to support the growth of street trees on State Street today exemplify most of these urban factors. While not readily noticeable to the untrained eye, many, if not most of the existing older trees on the street are already in varying stages of decline. In addition to the typical urban constraints, these problems are also due to the deleterious effects of the ice removal salts, constrained growing conditions (many too close to each other, constricted soil areas), lack of a mechanical irrigation system to supply sufficient water, and annual attacks by the Leaf Hopper insect. Almost 10% of these existing trees are replaced every year. With the reconstruction of State Street, construction operations to remove and replace sidewalks and install new utility lines will cause severe stress on existing trees, with the high probability of their rapid decline and many fatalities should attempts be made to work around and preserve them. It is possible that some of these trees may be saved, however it is most likely that this will be a small number.

Many of these conditions are beyond our means of control. However, two excellent solutions are available for insuring that newly planted trees will remain healthy and flourish. The first is to provide a superior growing medium of good soil which is plentiful, allowing roots to grow and expand beyond the original planting pits, and which protect roots from being compacted. The second very important device is the addition of an automatic irrigation system that will provide consistent and adequate levels of water during hot summer months. The old adage of putting a one-dollar plant in a five-dollar hole still rings very true. In too many cases, much money is spent on the trees, but very little on irrigation and the growing medium in which they are planted. The predictable result is slow growth and early decline, well before the normal expected life span is reached.

Structural Soil

Structural soil promotes healthy root growth
Source: Lanscape Architecure 6 / 2001

A relatively new type of planting soil, called structural soil, is recommended as the growing medium. This soil is a mix of approximately 20% planting soil to foster the growth of tree roots, and 80% angular crushed stone aggregate that will support paving above it. The strategy for State Street is to remove a ten-foot wide by thirty-inch deep trench of soil under the flex zone, and replace the removed material with the structural soil. The actual composition and extent of the soil will need to be carefully formulated based upon the future testing of the soil. See Figures 30, 31 and 34.

Long term benefits of new trees planted in a new system

The removal of the existing trees, and their replacement with younger, smaller trees may be viewed by some as a step backward, at least for the short term. However, many factors must be taken into consideration in the long-range strategy that is to provide superior trees that will grow faster and taller, stay healthier, and live much longer than their current predecessors. In addition to growing trees that will truly provide a grand and elegant ceiling or canopy of shade over the street, the new trees will allow the architecture of the second story to contribute to the character of the street. This additional floor will become visible whereas today it is not, being screened by the foliage. This is one way to counter the limited width of the right-of-way by increasing the volume of the space. Taller trees will also permit better views of the Capitol building from beneath the higher canopy, taking advantage of its outstanding architectural contribution to the experience of State Street.

Given the potential to phase construction of the street through a number of funding cycles over a period of years, the replacement of the existing trees will be performed incrementally, so that there will be a mix of newly planted blocks with the existing blocks of trees. This incremental planting will lessen the impact of removing and replacing all the trees on the street in one construction phase. Also, as about 10 % of the existing trees are replaced every year, within the next 10 years it could be expected that almost all of the trees will have been replaced regardless of any reconstruction of the street. A major negative aspect of current procedures to replace trees is that there is no improvement to the growing conditions – the planting soil is replaced only in the very limited 4-foot square tree pits, and no irrigation system is installed. As long as this system is perpetuated, the same unsatisfactory results will continue to occur.

Existing conditions with a low tree canopy

Example of a raised tree canopy
La Rambla, Barcelona

Existing and Proposed Trees

Generally, the original trees planted on State Street are Thornless Honeylocusts at the intersections with Green Ash mid-block. As these have died and been replaced, alternative trees have been used, principally the Patmore Green Ashes. The strategy of using a diversity of species of street trees rather than a monoculture of only one species is an important one, in that it provides protection against all of the trees being attacked and killed by predators which are usually species specific. The history of the decline and loss of the American Elm and American Chestnut trees are examples of this condition. While not out of control to the point of causing widespread fatalities, the Leaf Hopper insects are currently a big problem to the existing Honeylocusts, requiring many man-hours and proper timing to keep them in check.

Accordingly three or more different species are proposed for State Street. These would be arranged so that in the 100 and 600 blocks, there would be 80% of one species and 20% of another, reversed in each case. For example in the 100 block there would be 80% Elms and 20% Patmore Green Ashes, while in the 600 block 80%Green Ashes and 20 % Elms. For the 200 and 500 blocks, the ratio would be 60/40 and 40/60, and then 50/50 ratios in the 300 and 400 blocks. This will reflect the different character and feel at each end of the street while at the same time unifying the corridor. In addition to the two predominant species, one or more “wildcard” species, such as the Honeylocust, would be randomly interspersed in all blocks to add interest and additional diversity. It is intended that the species in the 100 and 200 blocks close to the Capitol are those whose growth habit is more formal and upright, while those nearer the University should be less formal.

Allee II Elm in winter

The recommended species of street trees include the Skyline Honey Locust, Patmore Green Ash, Mancana Ash, New Horizon Elm, and Regal Elm. The elms are a new strain unsusceptible to Dutch Elm disease. An additional elm, the Allee II Elm, has been highly recommended for its growth habit which most closely resembles the American Elm. However, the Allee II Elm may be difficult to locate in the region and could prove expensive to ship to Madison. Negotiations with local nurseries should be undertaken to investigate the possibility of shipping and reserving younger trees which, in several years, would be of the size desired to plant on State Street.

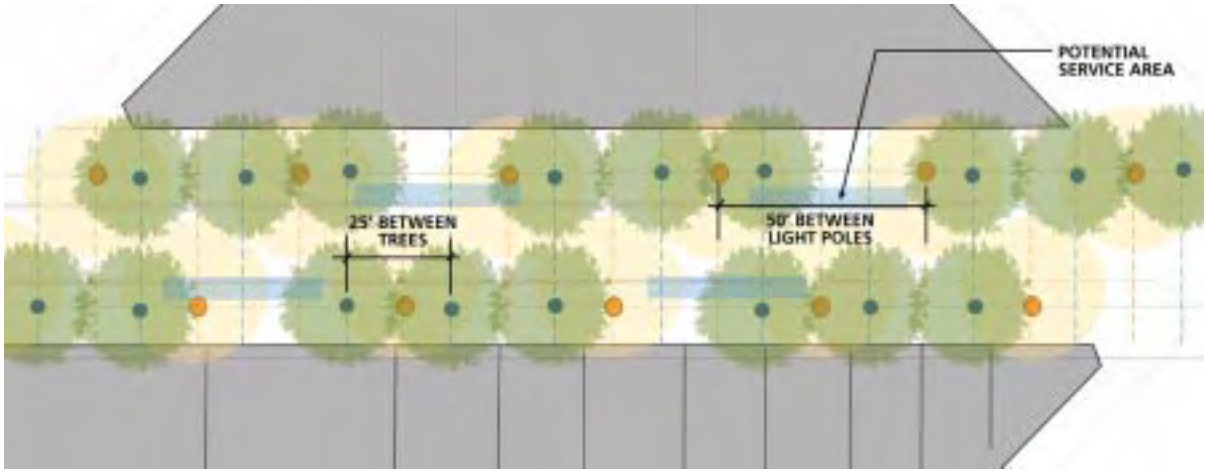
The recommended size for new plantings is a minimum caliper of 3 to 3-1/2 inches (typically 15-20 feet tall), with the preferred caliper being 4 to 4-1/2 inches (typically 20-25 feet tall). Again, negotiations with local nurseries should be pursued to reserve smaller trees of any of the recommended species, when a better selection is usually available, for shipment and installation when they are of the desired size.

Proposed Tree Locations on State Street

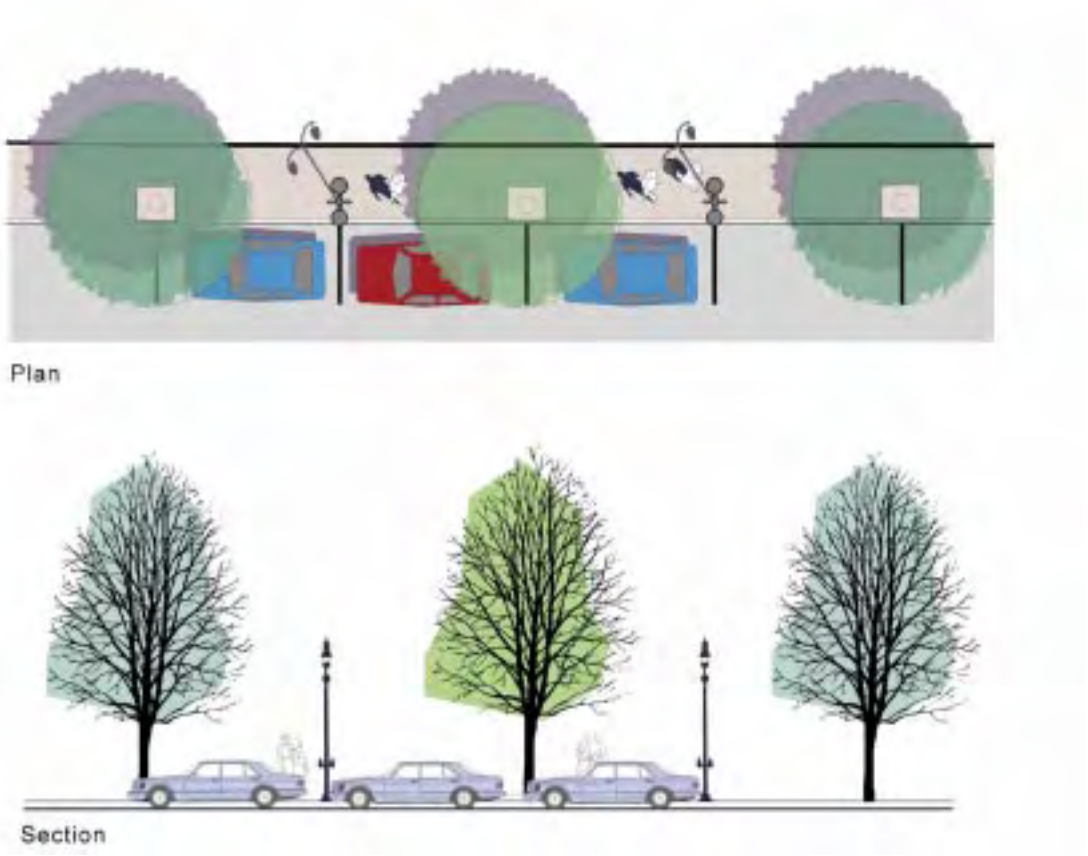
The spacing and alignment of the trees are both varied and controlled, with the intent being to avoid an overly rigid and static design and to create more interest. The horizontal alignment, perpendicular to buildings and curb lines, is controlled in that the trees are arranged in a straight line of a consistent 12 foot dimension from the face of buildings. Along that line, the spacing is varied, with deliberate gaps inserted to showcase the better architectural examples along the street, and to allow varying patterns of sunlight at differing times of the day onto the sidewalk. Generally, the trees are spaced along a 25-foot spacing module, recognizing that adjustments will need to be made due to existing underground utilities which cannot be relocated, and to the choice of specific tree species and their ultimate size. It is recommended that the spacing be no closer than 20 feet and no greater than 30 feet when a group of trees is intended. This spacing, combined with the gaps in groups of trees, will allow for a variety in the coverage of tree canopies. At an average spacing of 25 feet, all of the recommended species will grow modest overlapping canopies as they mature. This spacing will produce a less cluttered arrangement than the present condition, where some trees are as close as 12 feet.

Proposed Trees on Side Streets

The strategy for planting street trees on the side streets within the District is similar to State Street but with some distinctions. On these streets, it is desired to have as much parallel parking for cars and shoppers as possible. Locating street trees so that they are not injured by opened car doors, and conversely, providing ease of access into and out of



Trees and light spacing along State Street



Side street parking and tree locations

vehicles unimpeded by trees is an important goal. In addition, street lights function better when they are spaced equally between trees, so the location of lights must also be considered in the layout of trees. Accordingly, the proposed street trees have been spaced between parking stalls and street lights as shown on the attached drawings.

The trees planted on the side streets should include some of the same species used on State Street to tie the area together as a "district". However, the inclusion of additional species will add interest and help to add some distinction to the adjacent streets.

The goal again is to provide species diversity, and favor larger numbers of different species and of the wildcard species used on State Street.

Proposed Vegetation in Special Places

One of the key design principles identified during the public participation process was to maintain an urban rather than suburban vocabulary in all aspects of the project. In terms of using plant materials, this concept means an emphasis on trees, the use of hanging baskets on light poles, and planters with seasonal flowers, shrubs and ground covers, and a de-emphasis on softer landscapes with lawns. Generally, the ground plane should be a hard surface paving.

This same principle applies to the special places along State Street, with the possible exception of Elizabeth Link Peace Park, the detailed design of which is not included in this study.

In these cases, including Concrete Park, the plaza on south Frances Street, and the two plaza spaces on Carroll and Mifflin Streets at Capitol Square, opportunities exist for introducing other trees into the design. These could include Red Maples and Red or Pin Oaks which will all prosper in Wisconsin and could provide more interest and diversity to the recommended list. When considering the use of these trees however, soil tests should first be performed on both existing and new soils for levels of acidity. If soils are neutral or too alkaline, these trees should be avoided.

4. Sidewalk Furnishings

The design approach for the sidewalk furnishing elements on State Street is consistent with the overall strategy for the street, that the furnishings should convey a rather understated, traditional and timeless character, yet not historic and not trendy. This philosophy received the major share of public support.

Sidewalk furnishings should include several colors, as a family, rather than all furnishings and fixtures being the same color. For example, light fixtures, newspaper enclosures and public notice kiosks could be black, while benches and trash receptacles could be red-black. Unless specified otherwise, all metal components of sidewalk furnishings should have a

polyester acrylic powder coat paint finish in the color black, or in a subtle combination of black tinted with another color, such as dark red or dark green. Recommended colors are #3007 in red, and #6007 in green from the universal RAL color system, although slightly brighter colors may also be considered. The powder coating treatment is the most durable paint available on the market today.

In order for the flex zone to function as intended, all sidewalk furnishings should be provided with bolt down connections, so that they can be removed and relocated if required. This concept particularly applies to bicycle racks, benches and chairs, and trash receptacles, as they are more likely to be affected than items such as bus shelters and public notice kiosks.

Generally, all furnishings should be restricted to locations within the flex zone on all streets in order to allow unimpeded pedestrian movement in the pedestrian zone adjacent to the edge of buildings. The City will establish the precise locations of street furnishings in the next phase of design, so the plan will not show locations at this time. However, a typical block plan for State Street showing potential furniture locations has been included as a model. This plan is included just after the overall plans at the end of this report. For cost estimating purposes, numbers of each type of furnishing have been established to reflect a realistic assessment of their overall cost.

Benches

The recommend bench is either the Scarborough Model by Landscape Forms Inc. or the Steelsites RBF-28 Model by Victor Stanley, Inc., or an approved equal model by another company. This is a traditional bench with a back. The proposed length is six feet, which has better proportions and scale than shorter or longer benches, and is easier to design into different locations than the longer versions.

Scarborough bench by Landscape Forms Inc.

Individual chairs were also considered for use on State Street in addition to those in outdoor cafes, and in special areas such as Concrete Park or its counterpart on the south side of Frances Street. Concerns were raised about chairs that were not bolted down like benches. This option is still a possibility. If a decision is made to use bolt down chairs, these can be creatively arranged, and should be similar in design and material to the benches.

Trash containers

The trash container proposed is the Ironsites SD-42 Model by Victor Stanley Inc. or an approved equal. This is a side loading trash container. Trash containers should be provided in close proximity to containers dedicated for recyclables. Generally, two trash containers should be provided for each container for recyclables. All containers should be of 30-gallon capacity.

Trash container by Victor Stanley Inc.

Bus shelters

The new bus shelters must balance simplicity of design with amenity to passengers. A transparent structure with reductions to the overall size and scale (from existing shelters) should allow sufficient wheelchair and standing capacity for typical passenger volumes.

The shelters are not proposed to be heated, but should have protection from prevailing winds, rain

Example of a light and transparent bus shelter

Route maps and protection from the weather are important elements of a bus shelter design

and snow. Benches should also be provided both within the sheltered structure and in adjacent areas to accommodate numerous users. Benches should have arms separating each seat. Advertising is not desired on bus shelters, although opportunities for posting schedules, route maps and the like should be provided.

While the locations of the shelters have been reduced from existing locations, the number of stops has not been reduced. This decision was adopted during the earlier Strategic Plan development. The proposed bus shelter locations on State Street are at Johnson, Gorham and South Frances Streets on the north side, and at Mifflin, Fairchild, Gorham, and Lake Streets on the south side as shown on the plans.

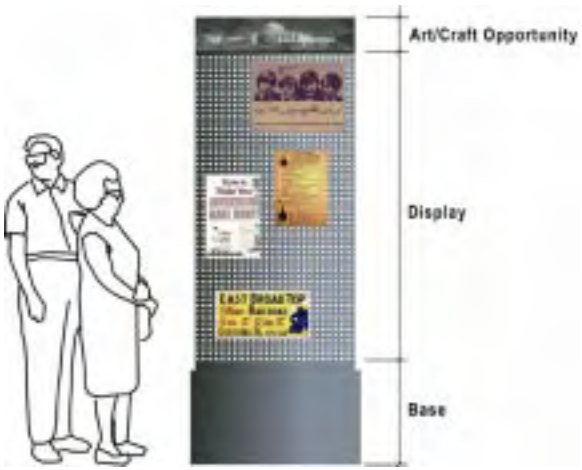
The design of the shelters should achieve the design objectives of being "lighter" and more transparent, while being compatible with the other street furnishings including benches, street lights and trash containers. The attached image shows an example of a shelter which meets these objectives, but is viewed by many to be too plain for State Street, the City's transit mall. While this plan articulates the design considerations for a new shelter, further consideration and review of a final design needs to occur during the preparation of construction drawings.

Kiosks

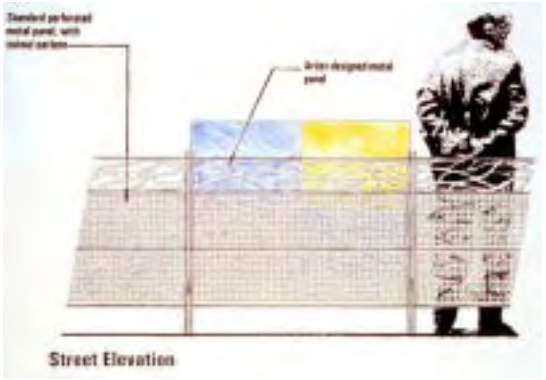
Two types of kiosks are present on State Street. One type provides an opportunity for the public to post notices. The other type of kiosk is the enclosed display kiosk which announces a variety of public events. These kiosks usually also serve to house electrical boxes or traffic signal controls. Currently, the existing public notice kiosks are receiving much abuse, principally by having notices set on fire late at night. The final design of these kiosks must take this into account. It is not recommended that the kiosks be lighted. The design should be as simple and as vandal proof as possible. These elements are intended to be custom designed, and the tops may be designed in coordination with the design of the newspaper box enclosures.

Newspaper boxes and enclosures

The location of newspaper vending boxes, and other similar vending boxes for advertisements such as apartment rentals and automobile sales are typically disorganized and happenstance arrangements on city streets throughout the nation. Madison is no exception. In general these boxes are located near intersections, but are often chained to signs, streetlights and each other in uncoordinated arrangements and in locations where they are often obstacles to pedestrians. The result is typically an unsatisfac-



Example of a simple vandal proof kiosk



Newspaper racks

tory aesthetic appearance as well.

Many cities have enacted strict policies in regulating the location and arrangement of these boxes. It is strongly recommended that Madison also put into place regulations for controlling these otherwise ad hoc items of street furniture.

While "flexibility" has been advanced as an important quality in the design and operation of State Street, there is another key principle in regard to the location and arrangement of site furniture on the street, which is "contained clutter." This principle means that related items of furniture should be co-located when possible, and that there should be an organization to the distribution of pieces of furniture with regard to their potential impacts on pedestrian circulation, adjacent uses, and to their visual impact on the street. In the case of newspaper boxes, this means bundling them together in designed enclosures so their appearance and their location is synchronized with the appearance and functioning of the street. Ideal locations would include adjacencies to bus shelters and bus stops, however they should not be placed too close to pedestrian queuing locations at intersections so that they become impediments.

As shown on the related image, a metal enclosure is proposed to organize and contain the variety of newspaper vending boxes found on State Street. The enclosure is designed to announce that papers can be purchased at this location. This type of enclosure is recommended for systematic use on the street at similar locations on each block.

Bicycle Racks

The proposed bicycle rack is the "Campus Rack" model by the Dero Bike Rack Company. This bike rack has been developed specifically for the City of Madison and has been installed in other projects in the city. It is available in either a single or double

Single sided "Campus Rack"
Dero Bike Rack Company

sided configuration. Color choice should be coordinated with the other site furnishing colors.

Planters

Pre-cast concrete or cast stone planters are recommended for use on State Street. These should be of a consistent design throughout the district, and traditional in appearance. There are many graceful examples available, with an excellent range of color choices in the cast stone material. Round planters are typically easier to accommodate in a variety of conditions.

The planters should be large enough to be substantial, and to act as barriers to impede vehicular access where desired. The planters should also be small enough so they can be lifted by a fork-lift and stored inside for the winter. The recommended diameter is between two and three feet, with a maximum height of 24 inches. Planters should be used for annual flowers and ground covers and should generally be located where they get at least 4 hours of direct sunlight per day, although there are some flowering annuals that will tolerate less sunlight.

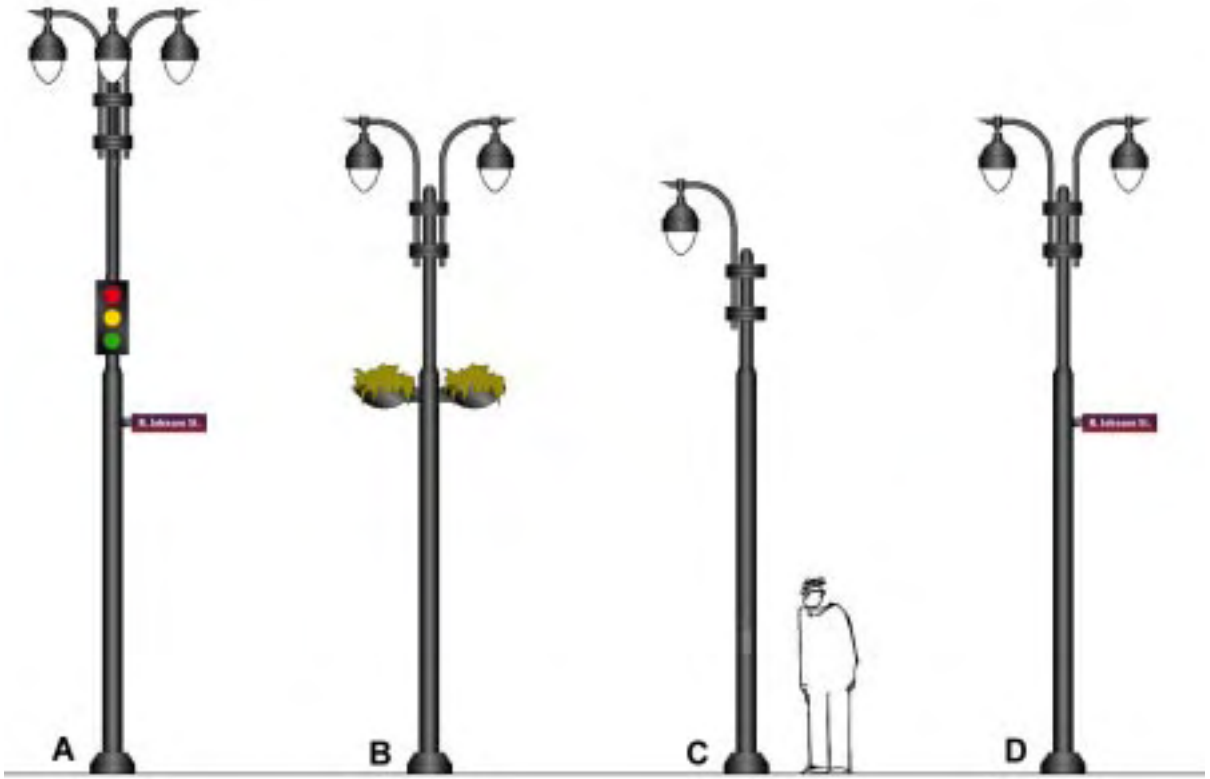
5. Lighting

The State Street light fixture is contemporary in design yet detailed and scaled to fit into the historic context of the State Street neighborhood. Light fixtures are sized to relate to the pedestrian scale of the street and are typically sixteen feet tall. The light fixture is the "Grand Central District Light" by Sterner Lighting Systems Inc., or approved equal, featuring a color corrected metal halide lamp, acrylic lens, and cut-off attachment that does not allow the light to spill into second story windows. The lights are also designed to cast light downward and to the sides, eliminating light-spill upward into the night skies. Lamping should be 150 watts maximum to avoid glare.

Traffic signals located on light poles along State Street should feature LED technology for increased energy efficiency and decreased size of signal casing.

Fixtures along State Street have two lamps and can be fitted with flower baskets during the summer or banners announcing upcoming events. These fixtures are spaced approximately fifty feet on center and are located in an alternating pattern from one side of the street to the other (rather than opposite each other) for more even light distribution. Fixtures on side streets are similar in character to those along State Street but fitted with a single lamp, and with parking meters attached directly to the pole.

Minimum lighting levels should be 1.5-foot candles as supplied by the light fixtures and supplemented by lighting from storefronts. The goals are to allow storefronts to be the brightest focal points on the street, consistent with retailing objectives, to retain the current ambience and character of light that exists on State Street, and at the same time to provide consistent lighting levels that create a sense of safety. At major intersections the light fixture would be



Multi-functional light poles - (A) primary intersections, (B) along State Street, (C) along side streets and (D) at secondary intersections

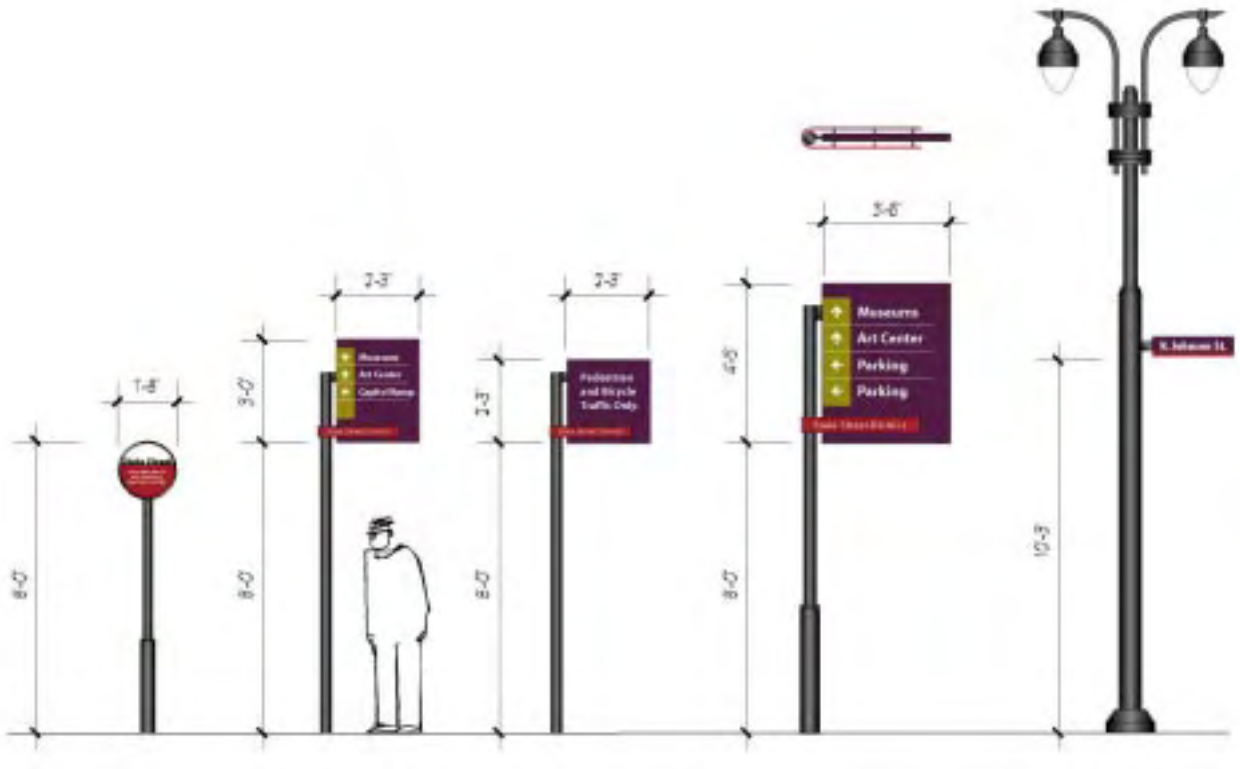
outfitted with four lamps on a 20-foot high pole, increasing illumination levels at intersections and creating a sense of arrival onto State Street. Both traffic signals and street signs are to be directly located on these poles. At minor intersections the typical two lamp light fixture will be used.

It is important to maintain and even increase the sense of festivity along State Street. Highlighting the building facades at intersections will emphasize the unique architecture of the flatiron buildings along State Street while creating a sense of entrance to State Street at each major intersection. Electrical outlets at the base and top of each light fixture will provide electrical service for holiday and festival lighting, vendors and sidewalk cafes, all of which would maintain the liveliness of State Street.

6. Signage & Wayfinding

Currently the location of State Street is not intuitively clear to motorists because of the geometry of the street grid in Madison. In addition, the area around State Street is confusing to navigate due to numerous one way and dead end streets. The design of this project seeks to help alleviate directional issues as much as possible by making one-way streets continuous and logical in their direction. By using consistent paving materials, tree plantings and street light fixtures designed specifically for this project, the State Street District will be clearly delineated by its unique look and feel. Wayfinding for this project seeks to clearly locate venues and parking within the district and to provide a system of signs that are consistent in language, color and design to further emphasize the State Street District.

The design of the signs with posts and pedestal style bases and sign faces mounted to the side of the posts creates a contemporary design that directly relates to the detailed historic architecture of State Street in a simple elegant way. The poles have a powder coat finish to match the light fixtures and street furnishings. Sign faces are to be painted aluminum using Matthews Acrylic Polyurethane (Matthews Paint Co. 8201 100th St. Kenosha WI 53142-7739 800-323-6593) for all paint applications to match the following colors: Pantone 392C (Green), Pantone 269C (Deep Purple). 3M Scotchlite Plus Reflective Sheeting #550-10 white, or equal, should be used for all letters and graphics applied to the sign surface. The State Street District district identifier delineates the district. This bar should be aluminum painted with Matthews Acrylic Polyurethane to match Pantone 187C (Brick Red) with 3M Scotchlite Plus Reflective Sheeting #550-10 white lettering. The bar should be pinned off from the face of the sign as illustrated below. Proposed street name signs are simpler than current street signs using larger text for



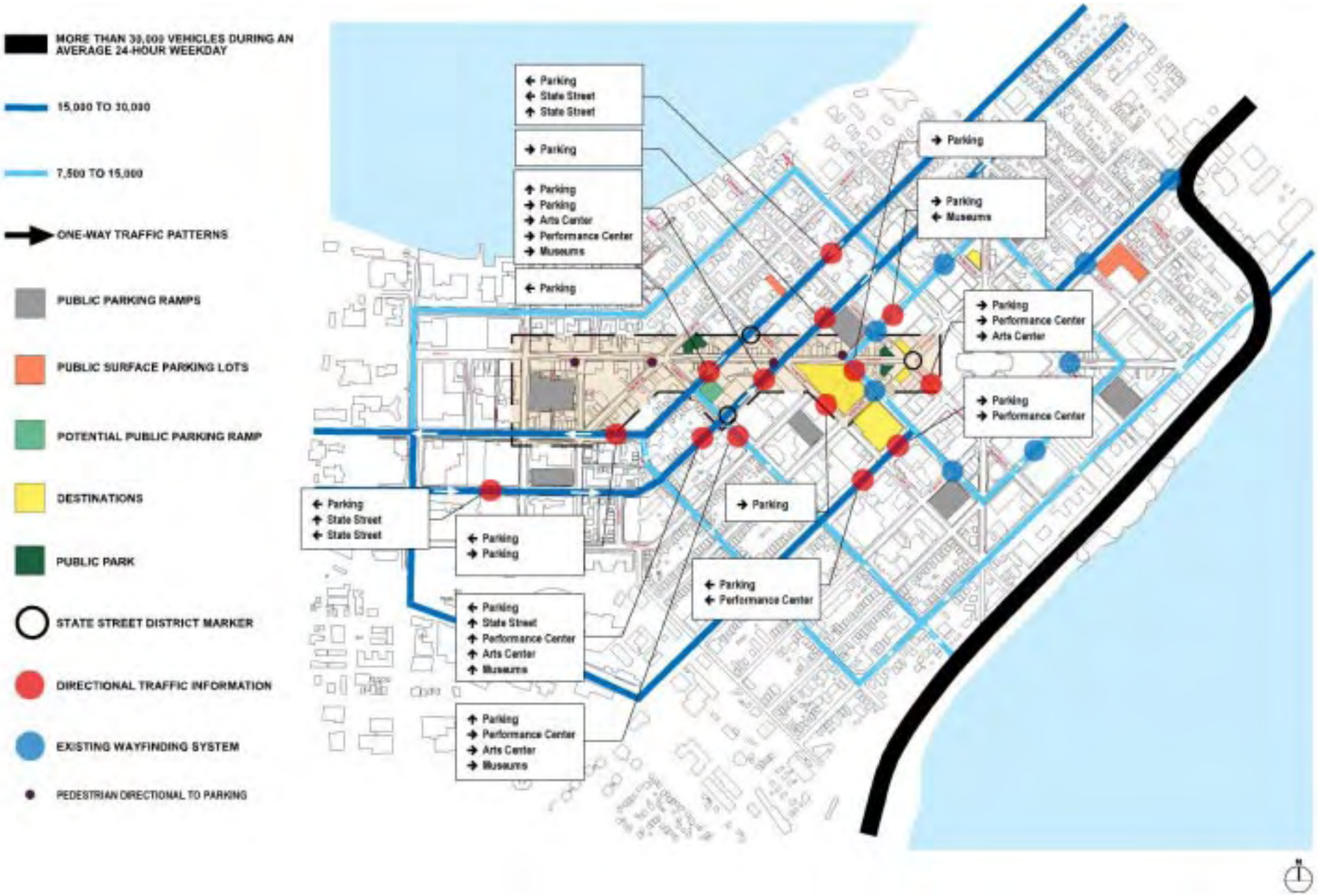
Palette of Wayfinding Elements

the street name and utilizing the wayfinding color palette. The font used throughout the wayfinding package is Myriad. Letter size for vehicular wayfinding signage should be a minimum of 3 inches in height. Minimum text size for pedestrian signs varies based upon message.

Vehicular wayfinding in this project is located to provide clear direction to venues and parking ramps. Signs are placed before reaching intersections giving motorists time to make decisions about which direction they would like to choose. Parking ramps are clearly marked with the name of the specific ramp. Parking ramps can provide an illuminated sign that displays how many spaces are currently available in the ramp. Once in the parking ramp, a directory provides information for stores, restaurants and other venues along State Street. These directories will also be located along State Street either at bus stops or within kiosks.

For wayfinding and signage along State Street, this project seeks to simplify and clarify messages. Signs such as “Do Not Enter” are replaced with more friendly messages such as “Pedestrian and Bicycle Traffic Only.” Such signs in conjunction with the new lighting and paving will serve to clearly delineate State Street from adjacent streets. District markers may also be used in certain high traffic areas. Pedestrian scaled wayfinding signs along State Street will direct people towards venues and back to parking ramps.

Existing ordinance signage requires review. Duplicate signs, a multitude of different sized signs and an inconsistent use of the same signs currently creates confusion in the district. A careful block-by-block investigation of existing signage in conjunction with a determination of how future signage can be accommodated in the wayfinding system is recommended in the next design phase of this project. The intent is to create a clear and consistent treatment of signs throughout the State Street District. Where possible regulatory signs and ordinance signage should be located on a single sign face on light poles or at minimum attached in a consistent method to light poles in keeping with the wayfinding sign poles design language. By organizing regulatory and ordinance signage and minimizing unneeded repetition of signs, regulatory and ordinance signage will be more easily discerned on State Street.



Wayfinding Location Plan

7. Special Places

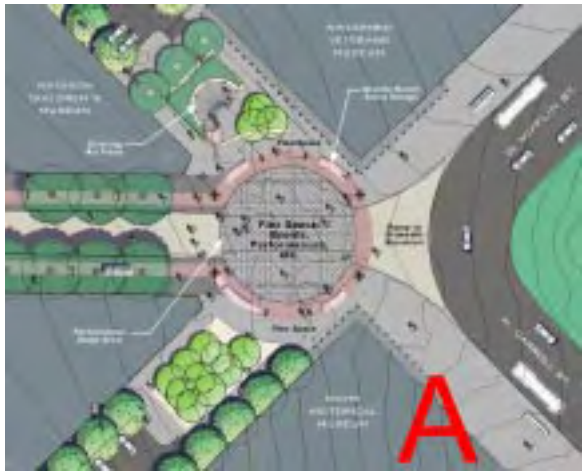
Within the State Street district, a number of existing areas have been designated as special places, where special design consideration is required apart from the more typical treatment of State Street. These places include the following:

A. The Carroll/Mifflin Street parks at the confluence of State Street and Capitol Square
B. Elizabeth Link Peace Park
C. Concrete Park
D. The park at South Frances Street

The Carroll/Mifflin Street parks

These small parks flank each side of State Street where it meets Capitol Square at the east end of the 100 block.

The Carroll Street park has one of the few sculptures in the District, and while it is well liked, opportunities have been discussed for its relocation, should that become an option. The Mifflin Street park suffers from large shrubs which tend to isolate the chairs and tables on the lower side of the park from view from State Street.



Location plan of the Carroll / Mifflin street parks

View of 100 block of State Street

Visually, the parks do not clearly function as a gateway in announcing State Street to Capitol Square as well as they might. One of the major functions that occurs in the joint park area and State Street during summer months is Jazz at Five concerts which attract up to 1,000 people. This is a popular event at this location of State Street and it is desired that it remain here.

As discussed on page 13, two design alternatives have been requested of the design team. One of these is to allow vehicular traffic onto Carroll and Mifflin Streets again, with the other maintaining a non-vehicular solution. In both cases the area would be redesigned to better capture the space as a gateway to State Street from Capitol Square and conversely as a transition space or precursor to Capitol Square from the State Street district. Other design goals include the safe passage of pedestrians and bicyclists through the area while accommodating the necessary buses and other service vehicles; enhancing the opportunities and space utilization for Jazz at Five and other potential entertainment venues; creating park spaces which are perceived to be safer and more useable; and providing opportunities for other events such as temporary art installations.

Elizabeth Link Peace Park

This park, almost 2 acres in size, occupies a very important location on State Street. As discussed previously, both John Nolen and Paul Friedberg identified this general area of the street as a strategic major open or civic space opportunity. By its presence Peace Park fulfills, to some extent, the common design goal of these men, and of many of the residents of Madison today.

Current conditions in the park are less than desirable however, and the overriding consensus is that steps

Location Plan of Elizabeth Link Peace Park

need to be taken to change the design of the park, its uses, and its influence on the street. Many feel that the park is having a negative effect on business on State Street, and the desire of families to come to State Street, particularly as related to their perception of safety. The park also suffers from the choice of materials and a rather temporary, residential appearance in a very urban setting.

Recently, the park has been the subject of much public debate, with several proposals put forward. These include the installation of a restored carousel, and possibly enclosing some or all of the park as a public atrium or winter garden. The current discussion about the use and potential design of the park is an important one, and should be vigorously pursued until a consensus is established. This design should incorporate an open and inclusionary process, similar to that employed in the development of this plan.

The scope of services for the State Street Design Project does not include the detailed design of Elizabeth Link Peace Park. Rather, programming recommendations are provided as they could bring about positive change in an egalitarian and flexible context, and as the park relates to the design of State Street. In that spirit, the following is offered:

- Any design effort should emphasize the principles of CPTED, or Crime Prevention through Environmental Design in the overall strategy. If the park is perceived as a problem to the safety of its potential users today, then CPTED takes on an even more important role as a design imperative.
- As a corollary to CPTED, uses such as a concierge headquarters, or police substation should be considered for inclusion in one area of the park.
- There is so little open space along State Street today, that any uses or facilities proposed for the park must be weighed carefully to insure that as much open space as possible is preserved.
- The park has great potential to function in multiple uses and to support large gatherings, particularly when joined with adjacent spaces such as Gilman Street and State Street. Design of the park should examine how to best delegate and maximize space usage in conjunction with the adjacent streets.
- The park should, ideally, be able to serve many interests, in many seasons, rather than limited functions dictated by fixed facilities. Examples include special events such as fairs, art displays, vendors exhibits, winter ice sculpture contests, temporary children's rides, plays and other performances. Evening activities during warmer weather take on particular importance. Local neighborhood and business groups should lead this discussion.

Producing a park design that is flexible, expansive and easily policed combined with an active program of events and activities targeted at a broad cross section of the population should prove to be a very successful means of steering the park in the direction desired.

Existing condition of Elizabeth Link Peace Park

Concrete Park

North Frances Street, or Concrete Park as it is known, has been identified as having a number of problems. Among these are its rather inhospitable appearance, and the behavior of some of the users. It is strongly felt that the park should be redesigned to be more welcoming, to eliminate the austere walls and the opportunities for sitting atop them, and to provide wheelchair compliant slopes.

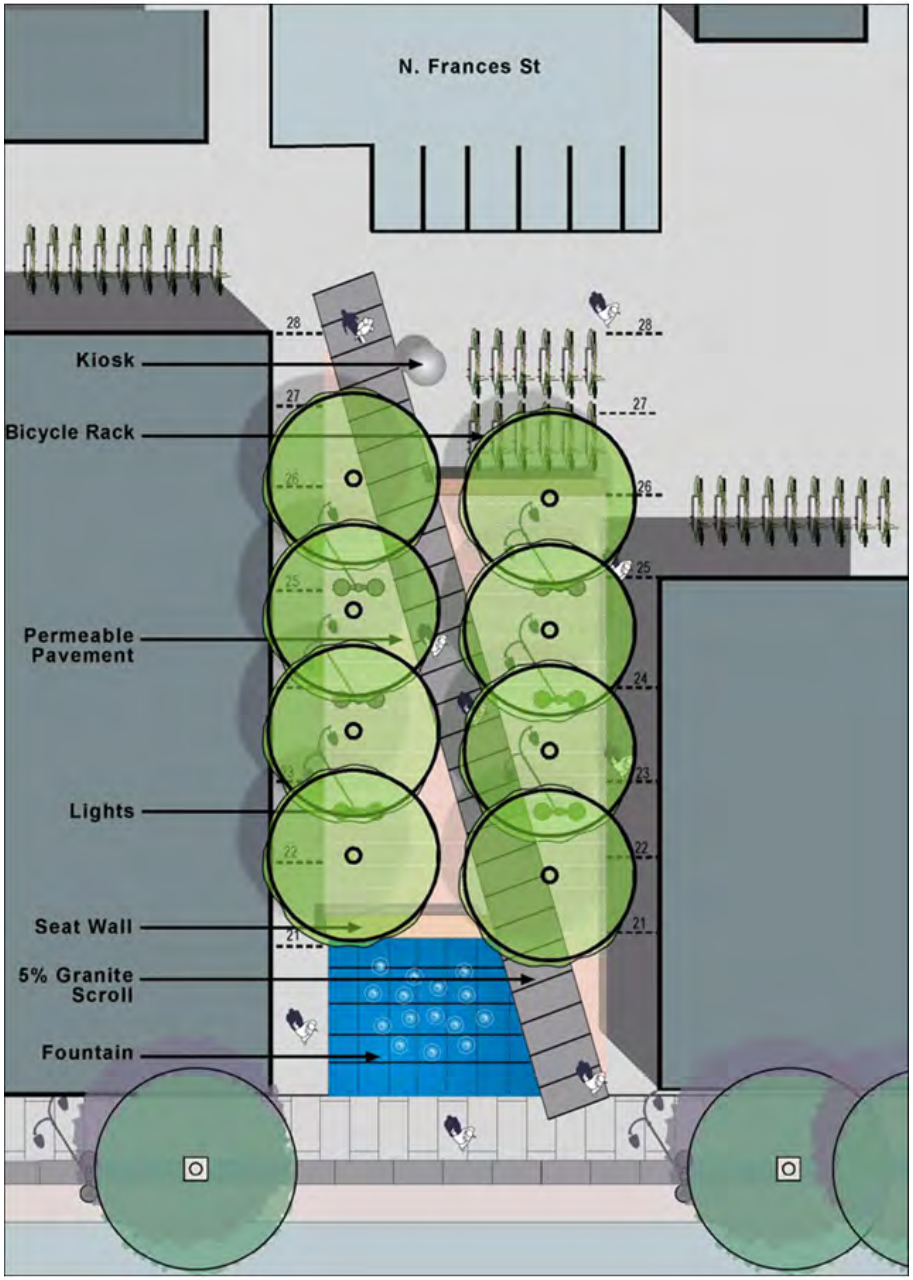
The design team investigated a number of alternative designs. Appendix D illustrates how the design of this space was influenced by the public input received during the planning process. The agreed upon design is shown on page 35. This design is a simple, straightforward approach that treats the space

Location Plan of Concrete Park

View of Concrete Park

primarily as a passageway to State Street from the residential areas to the north. At its northern end is a gateway separating the park from the parking for motorcycles and scooters. In the park are included a ten-foot wide granite art strip in the paving, similar to and tying together with the granite strips on State Street, and bolt-down benches and trash containers.

The park space can accommodate emergency and fire vehicles, and performances if desired, particularly during summer months when seniors who take courses at the university are temporarily living in the



Detail Plan of Concrete Park

adjacent apartment buildings. Limited performances for seniors and others have been the case in the space in recent years. The slopeshave been adjusted so they are in compliance with Americans with Disabilities Act regulations.

The park has been designed for the inclusion of a water feature in the level area near the confluence with State Street. It is envisioned that jets of water will originate from the beneath the paving surface and will then drain back through the paving, so there will be no standing water. This approach to a water feature minimizes vandalism and maintenance.

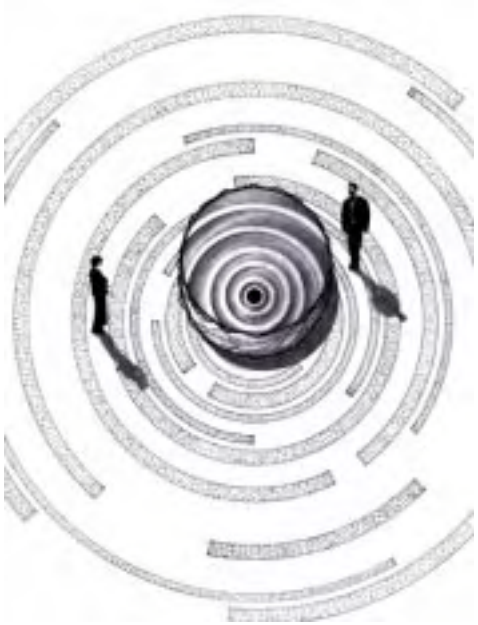
The design of the park also provides another opportunity for temporary art installations, and for special events such as use by vendors, fairs, etc.

The Park at South Frances Street

This park is currently a passageway between State Street and the parking facilities to the south. The west side of the park is leased to State Street Brats, a local restaurant and bar, for outdoor dining.

Location Plan of South Francs Street

This park is viewed as a low priority for redesign and reconstruction at this time, given the uncertain possibility for change with some of the adjacent properties. The proposed design reflects a space with similar uses as those currently, without fixed public seating, but including more bicycle parking and a small fountain and art feature at its confluence with State Street. The design will be reflective of that for Concrete Park across the street to maintain continuity between the spaces.



Small water feature / fountain at South Frances Street

CONSTRUCTION COSTS

The State Street Design Project proposes a design for the entire project area, including State Street itself, special places along the street, and all of the side streets. Correspondingly, the estimated costs of construction have been prepared to reflect these different aspects of the project. The core project, consisting of State Street and the special places identified below, is estimated to be $15,073,000.

The estimated cost of construction for the 100 through 600 blocks of State Street is $12,238,000, with the seven-foot wide granite art strip. If the four-foot wide granite art strip is constructed instead, the cost would reduce to $11,288,000.

The special places that are considered as part of the core project include:

- The Carroll/Mifflin Street Parks near Capitol Square, valued at $331,000 for the alternative without through streets.
- The Overture Center frontage streets which are Henry, Fairchild and Mifflin, valued at $1,485,000.
- Concrete Park, valued at $1,019,000.

The total cost of construction for the special places is $2,835,000.

The estimated cost to carry out all of the other recommendations contained in this plan for the remainder of the study area (all of the side streets) is expected to be approximately $17,338,000. It is anticipated that some of the street segments will be constructed sooner as opportunities become available (such as Gilman), and some later. These will be contingent upon other development factors in the district, such as the case of Gilman Street, valued at $3,123,000, if there is a desire to convert it into a two-way street as soon as possible. Others, like Johnson Street have already been funded separately, and will be constructed as part of the overall reconstruction project for Johnson Street.

A thoroughly detailed Estimate of Construction Cost has been submitted to the City as part of the supporting technical information on this design. All costs have been estimated in 2001 dollars and carry a significant contingency of 35%, which is considered prudent at this stage of design. In the future, when the project emerges from final design and construction documentation, the contingency percentage should be reduced to the range of 10 or 15%. Additionally, current unit prices have been established at the high end of each range.

NEXT STEPS

The next steps to be taken for the State Street project are very important to ensure its success. The first of these is to develop a project schedule and a phasing plan. This will then become the basis for establishing funding, over time, for design and construction.

Construction Phasing Strategy

Construction phasing will be one of the key topics of discussion among decision makers involved with the project. Accordingly, a phasing strategy is proposed as a point of departure for that discussion.

Phasing of construction can be evaluated from many perspectives. These include the impacts on traffic circulation within the district, the inconvenience to shop owners and customers, the political issues of what blocks of the street get the first and later improvements (the egalitarian considerations), and the ability to fund construction.

At a minimum, it is recommended that two adjacent blocks are constructed in each funding cycle. This will provide an economy of scale in securing more competitive construction bids, and will disrupt only one part of the district at a time. It will also expedite the process towards an earlier and more satisfactory conclusion, without unduly extending the period of disruption. If it is determined that funding in any one cycle is available for more than two blocks, these should all be adjacent blocks. Further, the schedule should be to disrupt only one block at a time in a progression that makes the most sense to all operations (buses, shop owners, traffic management) within the area of construction.

Recommended Construction Phases

One of the major phasing considerations is the construction of the Overture Center, and its impact upon the streets that surround it, including the 200 block of State Street. The Overture Center work will require reconstruction of at least the south side of State Street in this block. Therefore, it is recommended that the entire 200 block be in the first phase of construction. Given the strategy of reconstructing two adjacent blocks at a time, it is also recommended that the 100 block of State Street be a part of the first phase. Similarly, reconstruction of the streets surrounding Overture Center (Henry, Fairchild and Mifflin) should be undertaken consistent with the construction phases of the Overture Center. As part of phase one reconstruction of the 100 block of State is the inclusion of the reconstruction of the Mifflin and Carroll Street parks, at least those portions immediately adjacent to State. The Carroll Street reconstruction could be completed in its entirety, while Mifflin construction could be truncated pending resolution of the site adjacent to the proposed new History Museum facing Mifflin.

Unless there are compelling reasons otherwise, it is recommended to reconstruct the 300 and 400 blocks of State Street in the second phase of construction. Bundled together with this project could be reconstruction of Gilman Street to convert it to a two way street, and to enhance the connection southward to the Fluno and Kohl Centers. Also, the planting of new trees on the 300 and 400 blocks will be more consistent in size with the 100 and 200 blocks, so that ultimately there will be a progression of slight size differences from 100/200 blocks, to 300/400 blocks and finally 500/600 blocks which would be in the third phase of construction. The third phase of State Street construction, the 500 and 600 blocks, could include Concrete Park.

Following these three State Street construction phases, and the potential additional projects identified with each, would be the construction work on the adjacent side streets. The City will need to identify which of the additional side streets are important to accomplish in the overall reconstruction of the district.

Final Design Contract

In addition to the phasing and scheduling of construction, there are other steps to be taken for the project. One of the first will be to advertise for proposals and then engage a design firm to begin final design and construction documentation for State Street and any related streets and special places. Making this design commission as large and inclusive as practical will result in economies of scale in the attendant design fees.

Maintenance Manual

As part of the next design phase should be the development of a maintenance manual for all major elements of construction, including paving, irrigation, trees, site furniture and lighting, and such operations as snow plowing and their impacts. Replacement options for selected elements and materials should also be included in the manual. These should address the replacement of street trees or utility replacements and their impacts on paving, or the need to relocate/replace some of the site furnishing elements.

Sample Panels and Other Samples

In conjunction with the finalization of design details and specifications, material samples and sample panels of construction should be developed, particularly for paving and structural soil. Normally, sample panels are made during the construction phase by the contractors, however for key items of work these should also be produced and evaluated during the final design phase.

Other full size samples for streetlights and site furniture should also be submitted by the manufacturers during the final design phase.

Examination of Existing Soils

With the excavation work associated with Overture Center, an opportunity to examine the soil conditions and root structure of existing trees in State Street will present itself early. This examination work should be coordinated with the Overture Center project managers to insure that the opportunity is not missed. An urban soil specialist who will perform this evaluation should also be included on the design team.

City Project Manager and Quality Control Issues

During the Final Design and Construction phases, a project manager from the City should be assigned to this project to work closely with the design consultant. One of the areas where collaboration between the City's project manager and the consultant will be very important is the development of quality control criteria during the construction process. It is highly recommended that a quality control manual be created which is informed by past problems on public projects in Madison and the expertise of the consultant team. This manual should address all potential items of construction that should be carefully monitored, and steps to be taken to minimize construction problems.

Miscellaneous Items

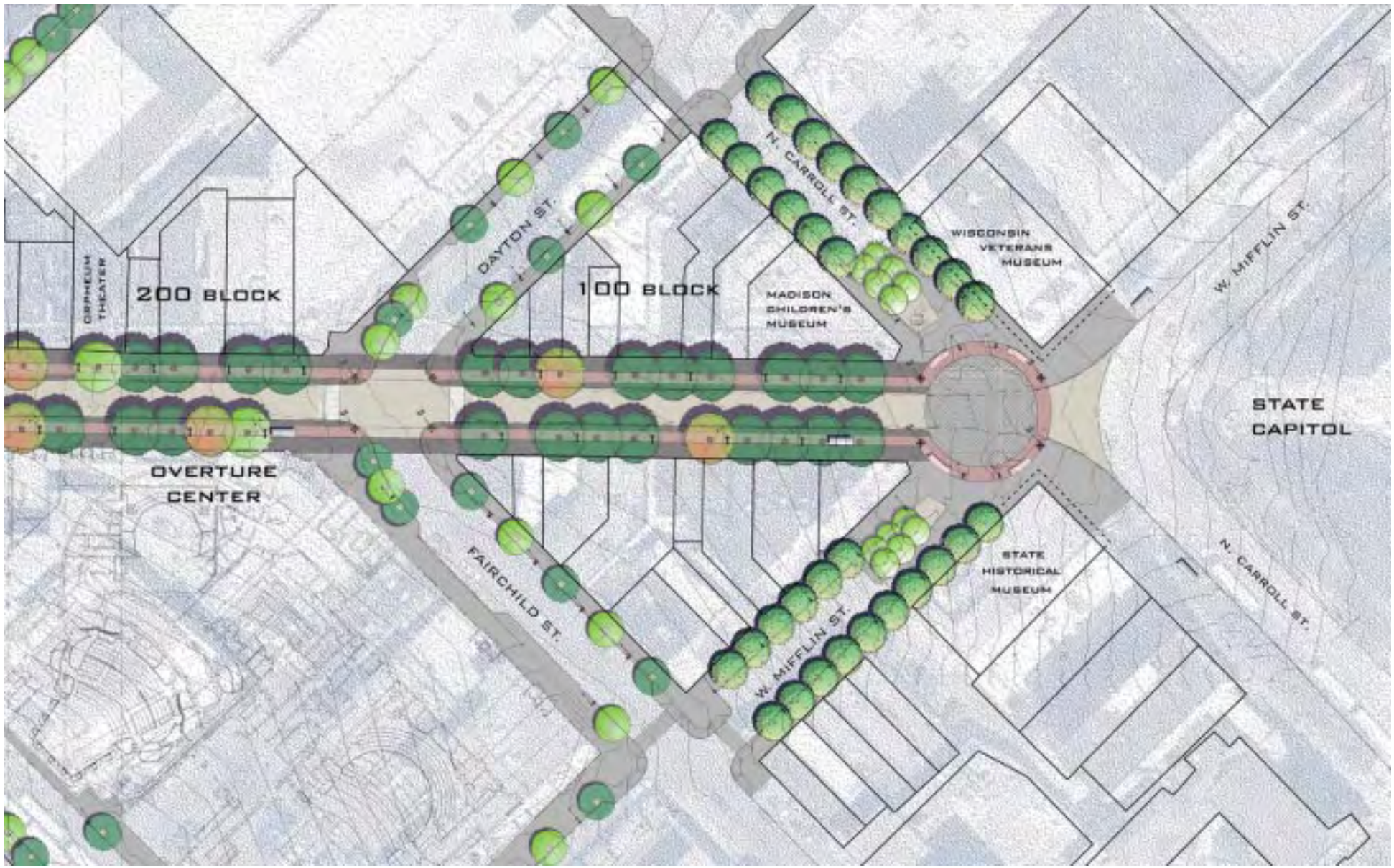
Lastly, a number of ideas were brought up during the planning process which do not impact the design, but received favorable reaction from the public and should be considered further for inclusion during the detailed design and construction phases. These include: providing brackets on the light poles for possibly hanging banners, enhanced electrical service (including 110 volt service), drinking fountains, hose bibs, and fiber optic lines. Consideration should also be given to improving underground infrastructure and utilities as necessary or prudent.

The success of the State Street District will depend on a strong partnership among many parties, including the City, business and property owners, citizens, the University, the Business Improvement District, the Greater State Street Business Association, neighborhood associations, and others. The implementation of this new design will set the stage for the future of the City's premier street.

Detail Plans

The following pages show the application of the design concept on all of the State Street blocks, and adjacent streets within the study area, the State Street District.

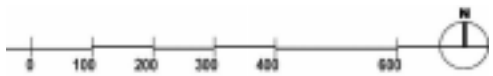

GORHAM ST.
N. HENRY ST.
W. JOHNSON ST.
300 BLOCK
ORPHEUM THEATER
OVERTURE CENTER
N. HENRY ST.
W. JOHNSON ST.
DAYTON ST.


ORPHEUM THEATER
200 BLOCK
DAYTON ST.
100 BLOCK
N. CARROLL ST.
WISCONSIN VETERANS MUSEUM
W. MIFFLIN ST.
MADISON CHILDREN'S MUSEUM
STATE CAPITOL
OVERTURE CENTER
FAIRCHILD ST.
STATE HISTORICAL MUSEUM
W. MIFFLIN ST.
N. CARROLL ST.
N
0
100
200
300
400
600


UW MEMORIAL LIBRARY
N. LAKE ST.
700 BLOCK
600 BLOCK
CONCRETE PARK
N. FRANCES ST.
UNIVERSITY BOOK STORE
N. MURRAY ST.
N. LAKE ST.
S. FRANCES ST.


500 BLOCK
400 BLOCK
W. GILMAN ST.
LISA LINK
PEACE PARK
W. GILMAN ST.
N. BROOM ST.
GORHAM ST.
0
100
200
300
400
600
N


N. LAKE ST.
S. FRANCES ST.
W. GILMAN ST.
UNIVERSITY AVE.


N
0
100
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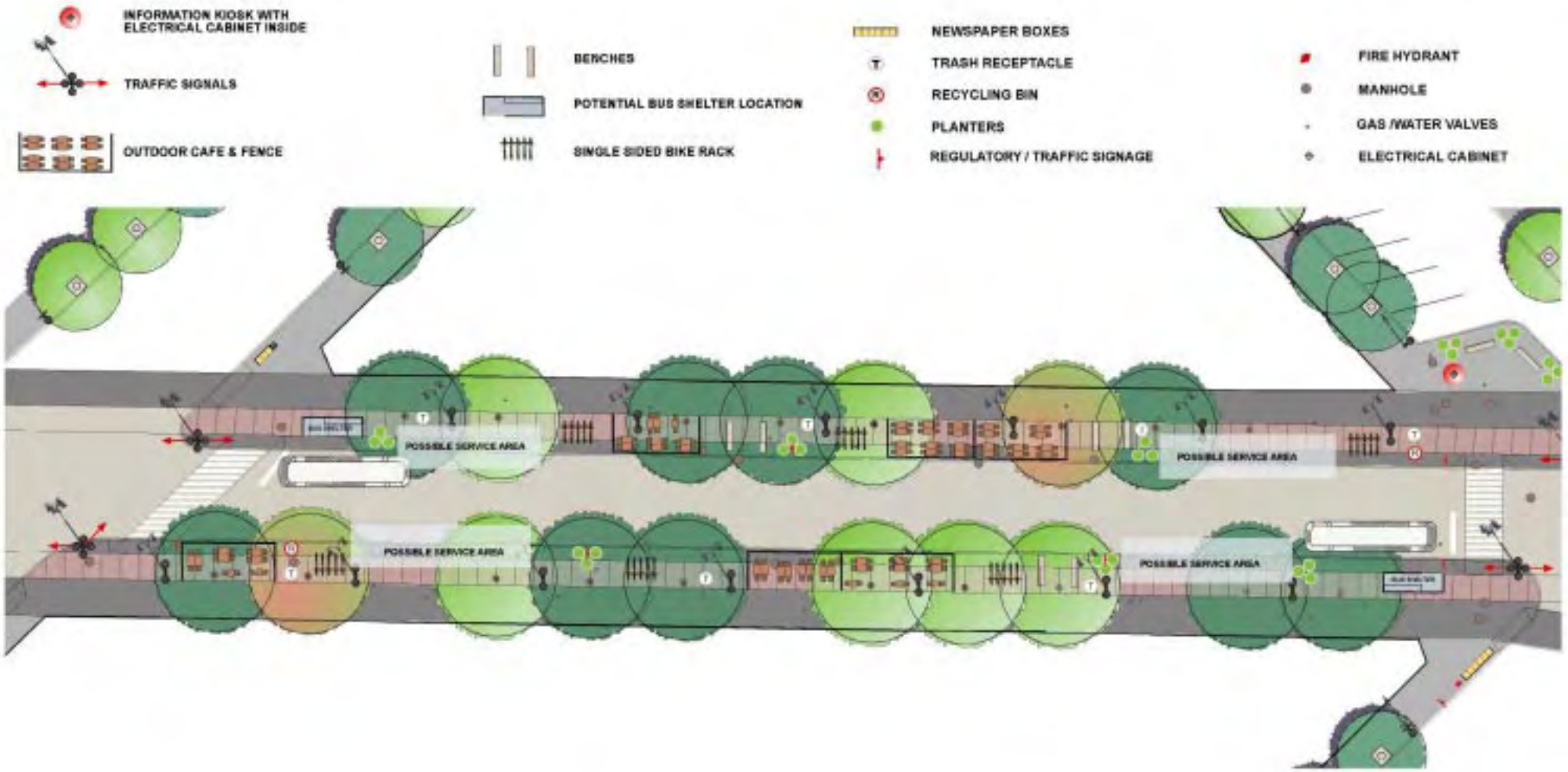
600

Potential Street Furniture Layout for a Typical Block of State Street



APPENDIX A – PROBLEMS AND OPPORTUNITIES MATRIX

One of the first steps in the planning process was to examine the existing conditions and explore the issues facing the area. The design team then developed a list of opportunities to address the identified deficiencies. This was translated into a "Problems and Opportunities" matrix, which provided a framework for the public discussion that followed. This matrix corroborated many of the conditions identified in the State Street Strategic Plan, and elaborated on others in more detail.

	Problems		*Opportunities*
Signage and Wayfinding			
1.	District lacks definition and sense of boundary from adjacent streets.		Create a sense of gateways or entry into the district from key intersections and through a pattern language/visual vocabulary; identify adjacent neighborhoods.
2.	Street hierarchy not apparent at State Street intersections.		Clearly mark State Street at intersections; strengthen diagonal character of State Street; consider lighting building facades.
3.	Vehicular circulation through and around district feels labyrinthine.		Strengthen wayfinding and signage to clearly mark key district destinations; improve wayfinding and signage for bikes and buses.
4.	Lack of clear direction to/from parking ramps.		Enhance parking identification signage.
5.	No information about history of State Street and its downtown context is present.		Include graphics to display history and culture; improve district maps; develop ways to provide changeable information.
Outdoor Lighting			
1.	High maintenance and cost of incandescent bulbs (approx. 20 staff hours/month).		Retain high quality ambience and color rendition of lighting with minimum maintenance; organic quality of existing glitter lights should be replicated with newer fixtures.
2.	Distinction between street lighting and storefront lighting is lacking.		Distinguish street lighting from storefront/sidewalk zone through better footcandle and color control.
3.	Footcandle levels are too low on sidestreets and in specific areas along State Street.		Utilize two systems for high quality ambience, and lower cost security lighting after midnight; improve pedestrian scale lighting on side streets.
4.	In general:		Consider new pedestrian fixtures that enhance storefront displays.

	Problems		*Opportunities*
Transportation			
1.	Dangerous conflicts exist between high volume of bikers and buses/service vehicles, particularly at intersections.		Control bus and vehicular pull-off zones, allowing safer passage by bikers. Consider new curb alignments and sidewalk widths at intersections.
2.	Buses stack up in long lines, concentrating noise, visual barriers, air pollution.		Tighten control of bus schedules to alleviate stacking.
3.	Unregulated service vehicles park along curbs, impacting ambience, traffic flow, safety.		Control, regulate and enforce times when service vehicles are allowed on State Street, if at all.
4.	Buses travel too fast.		Enforce speed limits. Consider speed bumps. Consider mid-block pedestrian crosings.
5.	The majority of city buses flow through the district.		Re-route some buses to reduce volume and congestion on State Street. Consider adding a trolley with embedded tracks.
6.	Buses are too large.		Consider removal of large city buses in lieu of smaller loop buses/trams which would reduce pollutants and noise.
7.	Service vehicles are too large, and include tractor trailers.		Restrict and enforce the size of service vehicles; consider banning trucks, allowing vans instead.
8.	Parking by service vehicles straddling curbs stains curbs with drippings.		Restrict/enforce service vehicle on and off-street parking areas.
9.	Vehicles dominate some intersections, forcing long waits by pedestrians.		Re-time traffic signalization times to favor pedestrians, bikers and buses on State Street; extend pedestrian walk phase.

	Problems		*Opportunities*
Sidewalks - General			
1.	Outdoor dining is negatively affected by service vehicles and long lines of buses.		Accentuate/create buffer between roadway and sidewalk. This would further encourage curbside dining, supporting disabled access adjacent to storefronts.
2.	Curb line zone contains all trees, furniture, bike racks, etc. creating visual clutter.		Consolidat/streamline elements to minimize visual clutter.
3.	Fixed furniture, planters, and shelters restrict outdoor activities/dining opportunities & snow removal operations.		Consider moveable furnishings, or bolt down furnishings that can be easily relocated, providing flexibility for alternative uses and increased storage for interim snow removal operations.
Trees			
1.	Many honeylocusts are poorly pruned (in some cases to provide greater visibility of storefronts)		Improve pruning practices; consider alternative trees with high arching growth habits; consider use of alternative trees and elms (New Harmony, Valley Forge) which are proven resistent to Dutch Elm disease.
2.	20 year old trees are currently replaced at about 10% per year, resulting in varying sizes and heights. Many trees are exhibiting signs of stress.		Consider removal/replacement of groups of trees, rather than individuals, particularly where groups appear to be stressed.
3.	20 year old planting soil technology is not conducive to continued healthy growth and longevity.		New soil and planting technologies (such as *structural soil*) can insure faster growth & longer lives for replacement trees.
4.	New paving, utility trenches for lights and power will negatively impact roots and tree health.		Removal and replacement of impacted trees may prove to be a more prudent option in these cases.
5.	High use of winter salts for snow/ice removal is detrimental to tree health.		Re-grade sidewalk to a low point between storefront zone and tree zone and add a continuous trench drain to pick up salt melt. This will also further demarcate the dining zone.
6.	Trees obstruct views of Capitol Building		Alternative columnar species or removal of some trees will open views.

	Problems		Opportunities
Furnishings			
1.	Public Notice Kiosks: These are currently suffering abuse by having notices set on fire; design is dated.		Locate in areas where fire can't spread; design with fire retardent materials; consider a sprinkler system; consider alternative digital only message display boards.
2.	Newspapaer Vending Boxes: These currently impede pedestrian movement and create sidewalk clutter.		Consolidate and minimize clutter in specially designed rack enclosures; enforce use of enclosures, possibly integrated to new bus stops.
3.	Fencing/Stanchions around Outdoor Cafes: Discordant variety in styles & quality, with some fixed overnight, others removable.		Develop design guidelines and enforce to control quality of non-fixed fences.
4.	Bus Shelters: Too large for sidewalk, too visually disruptive and overbearing; expensive to maintain; dated design.		Replace with shelters that can absorb sidewalk clutter, are more transparent, more artful and light in character. Reduce quantity of shelters. Consider lean rails in lieu of seating. Consider heating
5.	Bicycle Racks: Varying styles, inconsistent in quality; growing demand for additional racks with increasing bicycle usage.		Develop uniform standard; consider need for future additional racks in overall design of street; develop design that allows most bikes in least space.
6.	Moveable Planters: Utilitarian style, lacking in architectural refinement or grace.		Can be moved off of sidewalk in winter; provide for seasonal flowers in summer; consider alternatives with more architectural character.
7.	Bollards: Varying styles, generally located in curb side zone; some damaged from being hit by vehicles.		Consider removal of bollards and identify service vehicle zones by other means, such as paving markings or intermediate curb zone.
8.	Tree Grates: Don't meet ADA standards.		Tree grates maximize pedestrian use of street; revise to meet ADA standards and to minimize damage from winter salts.
9.	Benches: These are fixed onto planters, which are inflexible, too large for sidewalk , visually disruptive, dated in design.		Consider benches that can be unbolted and moved; alternatively, provide public use café tables and chairs (unrelated to restaurants).

	Problems		*Opportunities*
Paving			
1.	Standard concrete lacking aesthetic appeal.		Consider repaving street with low maintenance, more appealing material/pattern/color. Consider special paving in pedestrian crosswalks.
2.	Standard concrete, chipping in many places due to snow plows		Consider more durable, low maintenance material such as granite; alternatively, consider "no-curb" design.
3.	Existing concrete with aggregate finish is difficult to replace/repair to match existing.		Consider durable, low maintenance precast or unit paver alternatives that can mask wear and tear (chewing gum in particular) using non-grout joints and a dry-laid system.
4.	Brick pavers are being replaced with cast in place concrete due to mortar deterioration		Avoid paving systems requiring mortared joints.
Utilities			
1.	No electrical service is available to support outdoor cafes, holiday lights, special events.		Equip new light poles with electrical outlets and/or provide special outlet boxes to serve vendors, outdoor dining, live performances and special events on street; consider digital technology needs (communications/fiber optic lines) and provision of empty conduits for future use.
2.	Storm drainage on 600 block needs improvement.		
3.	None exists.		Consider the addition of a system for special events, holiday shopping, etc.
Public Art			
1.	Only one piece of public art exists in park space at corner of State and W. Mifflin at Capitol Square.		Tap resources/support of the University, and the State government; treat State Street as a "work of art."
2.	In general:		Capitalize on the opportunities presented by Overture Foundation project and the Arts District initiatives.

	Problems		*Opportunities*
Special Places			
1.	Capitol Square: Poor transition between scales of Square and State Street; two disparate parks lack clarity/unity in form and function.		Treat parks consistently within a larger transitional statement; consider potential view of Overture Center (icon/beacon) along Mifflin Street corridor.
2.	Lisa Link Park: Park has poor appearance of disrepair, and poor construction quality.		Garden-like qualities can be preserved in context of urban civic space; make flexibile to other uses.
3.	Lisa Link Park: Poor resolution of scale, features and spaces.		Expand park to meet intersection of Gilman & Broom, per John Nolen's and Paul Friedberg's recommendation for a park space/civic square at this location. Consider addition of carousel.
4.	Concrete Park: Space is encumbered by steep topography, scale of tall buildings, fire access requirements.		Topography is opportunity for (non-amplified) performance oriented space, more user friendly.
5.	Concrete Park: Space is less desireable for use due to greater concentration of shade and wind.		Attempt to mitigate adverse climatic conditons and scale of adjacent buildings by introducing architectural canopies and/or new trees.
6.	South Frances Street plaza: Poorly utilized, missed opportunity; west side leased as beer garden; pass-through space.		Consider new design that maximizes year-round utilization. Consider linkages to Kohl Center/Fluno Center.
Intersections and Cross Streets			
1.	General: Missed opportunities to announce State Street from cross streets.		Diagonal to grid confluence provides dynamic tension reinforced by flatiron architecture. This relationship should be strengthened via art, environmental graphics, lighting, etc.
2.	General: Varying levels of architectural qualtity and views into cross streets; varying degrees of success in accomodating pedestrians and bikers at each intersection.		Design each intersection with goals of improving its architectural and urban character, its unique sense of place on the street, views into/from the intersection, and the pedestrian and biking experience.
3.	General: Intersections lack the amenity/identity of the mid-block environment.		Encourage uses/design tht can take advantage of the higher corner visibility. Also, intersections provide best opportunities to see Capitol building.

	Problems		*Opportunities*
4.	Dayton & Fairchild: Potentially intimidating one way traffic; more difficult to see traffic when walking/biking towards campus.		Re-time signalization to favor pedestrians; consider reducing traffic lanes to two, with bump-outs on north side of State St.
5.	Dayton & Fairchild: Architecture of parking garage and adjacent bank provide negative contribution to character of street.		Use bump-outs to add screen planting; consider alternative façade treatments.
6.	W. Johnson & N. Henry: One-way northbound arterial traffic intimidates pedestrian/biking movements.		Re-time signalization to favor pedestrians; reinforce/expand bump-outs on all corners.
7.	W. Johnson & N. Henry: Orientation confusion - where is State Street?		Consider sealing off North Henry; capitalize on opportunity for art/icon statement with Overture Center building.
8.	W. Gorham: One-way southbound arterial traffic intimidates pedestrian/biking movements.		Re-time signalization to favor pedestrians; reinforce/expand bump-outs on NE and SW corners.
9.	W. Gilman & N. Broom: Large space, with two story buildings failing to provide sufficient scale definition and enclosure.		Great potential for civic space for street closings and special events; opportunity for landmark/icon statement; opportunity fo integrate space with Lisa Link Park.
10.	W. Gilman & N. Broom: Confusing vehicular traffic flows, and confusing pedestrian crossings, particular on south side.		Maximize bump-out opportunities; consider alternative vehicular traffic movements.
11.	W. Gilman & N. Broom: 5 street intersection and uniform street trees on side streets somewhat disorienting to State St.		Clearly distinguish State Street treatment from side streets.
12.	N. Lake: State Street lacks a clear identity from Lake St.		Maximize bump-out opportunities; create gateway to announce State Street from Lake; consider table top intersection.
13.	N. Lake: This is the "termination" of State St. at a T intersection with Lake St. and the campus.		Better integrate town and gown design of 700 and 800 blocks, both functionally and aesthetically.
14.	N. Lake: Pedestrian/vehicular congestion.		Consider signalization, with heavy emphasis on long pedestrian walk phase.
15.	N. Lake: Architecture of Walgreens and campus buildings provide poor contribution to character of		Consider surface modification of facades.

	Problems		Opportunities
Unique Character Qualities of State Street			
1.	No art overlay contribution currently exists.		The addition of art into the design of the street will significantly add to the richness, uniqueness and pleasure of the State Street environment.
2.	Current character/theme is best expressed in informal, not too polished vitality of shops, cafes and street life; trees contribute to ambience; paving, bus shelters, site furniture contributes little and is viewed as negatively affecting the quality of the		Maintain/reinforce all elements which positively contribute; replace those that detract.
3.	In general:		Reinforce other major qualities of the street including: the pedestrian scale; the excellent scale of buildings and plants to the cross-sectional dimension of the street; the vitality of mixed commercial businesses, active during all hours of the day; the important upper story residential population; the heavy pedestrian uses/demands placed on the street; the home-grown nature of the commercial uses (vs. chain operations); the multiple use opportunities on the street; the festive,

APPENDIX B – SUMMARY OF PUBLIC INPUT COMMENTS

Public input was strongly encouraged at each stage of the planning process. Comments were primarily provided during public meetings and workshops, at the project office, and through the project's email box and website. A summary of these comments is provided below, listed in the same categories as the issues and opportunities matrix in Appendix A.

Signage and Wayfinding:

1. Incorporate wayfinding within walkways.
2. Need large print on signs that is easy to read.
3. Signage is too oriented towards cars— also need pedestrian-friendly signage.
4. Enhance identification for mass transit system so automobile drivers can see the accessibility of buses.
5. Area definition can happen with different signs, light poles, etc.— no identification signage is needed.
6. Signs—particularly "walk" and "don't walk" signs should be situated so buses don't conceal them when the buses congregate at the bus stops.
7. Attempt to minimize light/sign pole clutter by omitting gratuitous signs and combining lights and signs on the same poles.
8. Incorporate color as part of the wayfinding system.
9. Signs should be more playful.
10. Need to incorporate a logo or icon.
11. Incorporate store directories (esp. in parking ramps and near bus shelters).

Outdoor Lighting:

1. Do not increase current lighting levels.
2. The white lights on trees give downtown a great feel at night.
3. Current light fixtures are too "50's-ish" and not powerful enough.
4. Direct lighting down rather than up into night sky.
5. Keep fixtures to a pedestrian scale.
6. Proposed lights should consider energy costs.
7. Lights should have an antique feel that will last beyond current fads.
8. Uplight building facades and trees.
9. Keep the lighting at the retail level when possible since people live on upper floors.
10. Proposed light fixtures are too traditional.
11. Light fixtures should have more of an historic feel.
12. Keep glitter lights.
13. Light flatiron buildings.
14. Provide safe lighting levels on State Street and on the side streets.
15. Uplighting trees is aesthetically pleasing, but seems to waste energy and contribute to light pollution.
16. Illumination from shop windows creates a pleasant environment— lighting should not overwhelm this quality.

Transportation:

1. Allow car traffic back on State Street.
2. Investigate a point of entry onto rear sides of properties with smaller service vehicles.
3. Improve quality/visibility of parking ramps.
4. Consider opening up cross streets to 2-way traffic and opening up cul-de-sacs.
5. Facilitate parking ramp use with digital displays showing the number of available spaces.
6. Remove buses from State Street.
7. Restrict traffic between 10 am – 2 pm (conflicts with lunch at outdoor cafes).
8. Ban all large trucks.
9. No deliveries 7-9 am and 3-5 pm (conflicts with bike commuting).
10. Make State Street a pedestrian/bicycle only mall.
11. Consider electric buses/trolleys.
12. Smaller buses/natural gas buses should also be considered.
13. Consider periodic parking areas for service vehicles so that they don't have to park on the sidewalks.
14. "Circle" bike racks are not very easy to use.
15. Transit is a crucial element of State Street's vitality, but needs to be better "designed in" to the street.
16. Bus shelters need to have more info about buses, routes (a map), etc.
17. The State Street ambiance is negated by big, noisy, smelly, polluting, speeding buses.
18. Help pedestrians in any way you can.
19. Current bus shelters are ok.
20. Fewer bus shelters.
21. Buses create activity on the street and provide exposure for stores.
22. Buses should be one-way (westbound).

Sidewalks – General:

1. Sidewalk cafes tables/chairs should be against the buildings.
2. Don't try to be so artsy.
3. Integrate designs of street and Overture Center to create a greater synergy.
4. Durability is a must.
5. More sidewalk cafes and benches/tables that don't require buying something to sit at them.
6. Lots of litter/gum/cigarette butts on the sidewalk and street, which make the street feel unsanitary and uninviting.
7. Tabletop approach is best.
8. Remove tree grates.
9. Increase the sidewalk width.
10. A 2" curb could be a problem for the visually impaired.

11. Less clutter is good.
12. Need more color (esp. important during the winter months).
13. Consider radiant heat to melt the snow.
14. Sidewalk "clutter" can be a good thing— it slows people down and creates a more urban and social environment.
15. Sidewalks are crowded and difficult to negotiate.
16. Non-pedestrian uses of the sidewalks should be reduced.

Trees:

1. Improve planting conditions so trees remain healthy
2. More trees and plantings in raised beds will divide spaces and add interest.
3. Use only seedless species.
4. Consider more elms or maples than hardwoods.
5. No more locust trees— the leaves are horrible.
6. This is a large-scale space-- suburban-style decorator shrubs and trees don't produce any of the desired effects.
7. A maintenance plan is needed to accommodate long-range goals.
8. Consider a buried irrigation system to ensure adequate water.
9. Use trees that will have fuller crowns which arch over the street and create more shade.
10. Replace current trees only when needed and use proposed species at that time.
11. Varying tree sizes and species are completely natural.
12. Do not tear down trees to see the Capitol— intimate views are better—people are encouraged to walk up to the Capitol to see it.
13. Foliage on trees should start higher up than current trees to allow more of the storefronts to be visible.
14. The current trees have taken 20 years to reach their present size.
15. Raising the canopy may reduce the intimacy of the space.
16. Vary spacing to allow sunlight to reach the sidewalk.
17. Use species with more fall color.
18. Replacing existing trees is necessary for the long-term benefit of the street.

Furnishings:

1. Black furnishings are dismal.
2. A black finish is timeless.
3. More traditional furniture— not so modern.
4. Remove bus shelter panels in the summer.
5. Make furnishings vandal proof (including tagging by etching in bus shelter glass).
6. Bus shelters with windbreaks and seating are needed in our climate.
7. Bus shelters need to be of a scale compatible with that of the street.
8. Bus shelters should be more transparent.
9. Consider heated bus shelters.
10. Do not reduce the number of bus shelters.
11. Shelters that are too transparent may make users feel unsheltered. Design should consider usage/comfort and aesthetics will follow.
12. Incorporate information on estimated times of arrival for buses into the shelter design.
13. Add more bike racks.
14. Artist designed bike racks can add visual interest.
15. Provide more kiosks or nice places for posters.
16. Remove all kiosks— they look cluttered.
17. A digital alternative would hamper kiosk role as public forum.
18. Diversity of fencing around cafes contributes to the street's character.
19. The proposed new bench design is good.
20. There are too many newspaper boxes.
21. Benches that face each other create intimate spaces.
22. Provide spaces for small gatherings.
23. Consider adding drinking fountains.
24. Trash cans could be painted by local artists.
25. Use more hanging flower baskets and other attractive color elements.

Paving:

1. Need to break up expanses of concrete with lots of green spaces.
2. Consider using paving as a device to differentiate between the lower and upper segments of the street.
3. Integrate side streets via paving materials.
4. Current paving on sidewalks in front of Civic Center is slippery when wet.
5. Pavers work in similar climates all over the world, they should work here.
6. "Interesting" paving is fine, but don't choose a surface that will cause problems for bikes.
7. No bricks.
8. Pavers, bricks or stone paving are much more attractive than concrete.
9. The current sidewalk treatment is very unflattering.
10. Street and sidewalks should have a glitter quality.
11. Use permeable paving on streets and walks to reduce polluted run-off and enhance infiltration.
12. A "no-curb" design could blur the needed boundary between trucks and pedestrians.
13. No asphalt.
14. Cost of granite will drive rents too high for small shops to remain open.

15. Warmer colors and textured pavement hides dirt well.
16. High quality and long lasting.
17. Use granite anywhere you can.
18. More color.
19. Use contrasting color between the street and sidewalk.
20. Granite is beautiful, but how will it be paid for?
21. Granite pushes the buttons of quality and timelessness.
22. Pavers do not work in this climate— they heave, and become unsightly and unsafe.

Utilities:

1. Capitalize on this opportunity to upgrade utilities.
2. Dislike the idea of PA system.
3. Enhance electrical service to support outdoor events.

Public Art:

1. Provide an area for ongoing community "graffiti" – if able to keep under control.
2. Add sculptural pieces of all types.
3. Public art should be by Wisconsin artists.
4. Establish State Street as a "Free Art" zone, including encouraging street performers, folk artists, etc., commissioning rotating art works from local artists, and working with landowners to use empty storefront/office space for temporary art exhibits.
5. Integrate public art with structures, signs, paving, etc. that artistically tells of the street's history.
6. Have an outdoor art-selling place for students and other artists to sell their works.
7. Provide for more festivals and outdoor theater taking place on street.
8. Include opportunities for student art.
9. Provide for more murals.
10. Take care to avoid things easily damaged by graffiti.
11. Engraved text is a good link to Wisconsin's history and would be educational.
12. Granite scroll would reflect Madison's uniqueness.
13. Consider opportunities for rotating public art.
14. Need to provide for maintenance.
15. Integrate art into the overall design vs. pieces of art.

Special Places:

1. Incorporate more plantings.
2. Provide for the carousel.
3. Consider a year-round farmers market.
4. Parks should reflect the distinctiveness of each area of State Street.
5. Consider a warm tropical/aviary-type place to sit on cold winter days.
6. Incorporate small, friendly performance space in Concrete Park.
7. Carousel in Elizabeth Link Peace Park would only work if the park were expanded.
8. Provide space for the activities of a democratic society – recreate the town square.
9. The carousel is poor use of space in Elizabeth Link Peace Park and would consume open space and add to concrete surfaces and runoff/ impermeability.
10. For Elizabeth Link Peace Park, improve the State Street side by creating a public performance space.
11. Install concrete steps in Elizabeth Link Peace Park that could serve as seating, midway, then keep grass area behind it.
12. Preserve the "garden-like" qualities of Elizabeth Link Peace Park.
13. Maintain Elizabeth Link Peace Park as a public space.
14. Save the atrium on Carroll Street (100 Carroll Street block).
15. Concrete Park needs real places to sit, not just on concrete fountains, and more greenery.
16. Elizabeth Link Peace Park should be inviting and "protected" from State Street traffic.
17. Incorporate more trees, grass, public art, picnic areas, and playground equipment in Concrete Park and Elizabeth Link Peace Park.
18. Include public restrooms.
19. The "natural" approach to Concrete Park doesn't work well for this urban space.
20. Provide opportunities for all members of society to congregate.
21. Do not expand the size of Elizabeth Link Peace Park.

Intersections and Cross Streets:

1. Increasing the ease of circulation will help people feel more comfortable driving downtown.
2. Closing Henry Street would create empty storefronts on that block.
3. Encourage expansion of "State Street Area" onto side streets.
4. Synchronize lights for pedestrians crossing Johnson and Gorham.
5. Closing all cross-streets except Gorham, Johnson and Lake Streets would enhance pedestrian environment.
6. Gilman and Broom Streets are very dangerous to bicycles on State Street.
7. Bumpouts could help pedestrians feel safer—now people have to stand in the curb lane, which is dangerous when buses turn onto State—or during hours when curb lane has full speed traffic.
8. Keep the closed scheme for 100 Block.
9. Two-way Gilman would require a bigger, less pedestrian friendly intersection at State Street.

Unique Character Qualities:

1. Retain and build upon the connections and flow between Capital Square and State Street.
2. Need to enliven the street during winter months.
3. The street is first and foremost a business district.
4. State Street is getting too "slick," and losing that student atmosphere.
5. Design should not force rents to become too high for businesses serving students.
6. Too nice is boring.
7. The existing buildings and their collective ambiance are irreplaceable.
8. Do not fear cosmetic changes – they are ok. In working to preserve the "unique character" of State Street, think more about how people use and interact with the place than just what it looks like. A new "look" may enhance the pedestrian-friendly character of this great street. The character is more in the openness, accessibility and actual public use of the space than in the ugly old fixtures chosen by the last designers to get their hands on it.
9. The street should remain informal. What is so great about State Street is that it is an area where everyone can hang out—a polished feeling will begin to degrade this.
10. Slavish adherence to old styles limits possibilities.
11. Water is probably the biggest thing that makes this city as beautiful as it is. Linking water to State Street via fountains is essential.
12. Don't over design or suburbanize the area
13. Consider the historic context.
14. Need a more contemporary feel.
15. Need to visually connect the University and Capitol via State Street.
16. Need egalitarian treatment for people who use the street.
17. What makes State Street unique is the diverse shops that attract diverse people.
18. This is an urban space with many participants.

APPENDIX C – PUBLIC INVOLVEMENT IN THE PLANNING PROCESS

As the city's most identifiable street, many people in the community feel a strong attachment and sense of ownership to State Street. As a result, there is a strong interest is what happens here. A public participation strategy was incorporated into the planning process that provided opportunities for anyone with an interest to participate at each stage of the process. This strategy also included a public information component. The development of this plan was heavily dependent on input from the public, including business and property owners, neighborhood residents, various groups and organizations, downtown workers and citizens from throughout the community who have a strong interest in State Street. Below is a listing of some of the mechanisms employed to keep the public informed and involved.

- **Large Format Public Meetings:** Four large public meetings were held to receive input on the design. These included several workshop style meetings in which participants broke into smaller groups to discuss and comment on specific aspects of the design. The proposed design resulting from this process will be presented at a fifth public meeting.
- **Project Office:** A project office was maintained from November through July. Staffed by personnel from the City's Planning Unit, this office provided an opportunity for over 450 persons to view and comment on the latest images.
- **Project Website:** An interactive project website was created to provide information on upcoming meetings, view maps and images, access video archives of key meetings, provide links to the websites of design team members (if available), provide comments on the proposals, and to convey other relevant information on the project. Over 8,000 "hits" have been recorded on this website.
- **E-Mail Box:** A dedicated e-mail address was established for the project to receive comments electronically. The comments were forwarded directly to the design consultants.
- **CitiCable Channel 12:** Channel 12 broadcast several key meetings and replayed them at later dates.
- **Media Coverage:** Press releases were issued at key points in the process, and the project received coverage on local TV and radio stations and in both local and student newspapers.
- **Display Boards:** Boards displaying images and information about the project, including information on participation opportunities, were located at libraries, financial institutions, and other locations throughout the community.
- **City Commissions & Committees:** Monthly updates were provided to the Downtown Coordinating Committee— the lead City committee for this project. Several meetings were held for commissions that will be asked to review this plan. Presentations were also made to the Urban Design Commission, Pedestrian/Bicycle/Motor Vehicle Commission, and the Citizen's Advisory Commission for Persons with Disabilities. All of these meetings were open to the public.
- **Notification Lists:** Interested persons received meeting notices electronically or through the mail. All business and property owners, occupants, meeting attendees, visitors to the project office, and other interested individuals are included. The notification lists contain over 2,500 names.
- **Other Meetings:** Meetings with and presentations to a variety of other groups occurred throughout the process. These groups included: Capitol Neighborhoods, UW Greens, Downtown Forum, business owners, Downtown Madison Inc., Downtown Optimist with others.
- **Public Art Charrette:** A workshop was held with the arts community to discuss opportunities to incorporate public art into the design.

APPENDIX D – EVOLUTION OF THE DESIGN OF CONCRETE PARK

The great architect Louis I. Kahn summed up the essence of the design process most accurately when he taught that "design is a patient search." Patience becomes an even greater virtue when designs are subjected to the intense public debates such as those so common in Madison. But, without question, the best designs are the ones that are scrutinized and informed by passionate, caring citizens, business owners and city representatives in collaboration with the design professionals.

The design of Concrete Park, like that of State Street, evolved through several iterations that touched upon different design philosophies, and discussions at four separate public meetings. At the outset of the project, the design team received input that there was a desire for more green space, as opposed to some of the "harder" urban spaces such as Concrete Park. In addition, the infusion of public art into the design of State Street and its adjacent spaces and side streets has been a desire of many citizens of Madison, and accordingly was included in the scope of services for the design team. There was also a great concern that State Street is losing its uniqueness and becoming too similar to shopping streets everywhere else, and that it is getting too "slick," losing its local character and quirkiness. One of the primary goals expressed was to build upon the unique qualities of the street, the city and the region.

In response to the input received from the early meetings with the public and special interest groups, and comments registered at the project office and project web site, the design team developed the first conceptual design for Concrete Park. This concept was based upon design principles of timelessness and being "home grown" to Wisconsin. It was felt that these principles could be found in the natural environment, and in the processes of glaciation that shaped the State's geography: the valleys and rises of the Driftless Area, and the eskers, kames, drumlins, kettles and erratic boulders. The design expressed these influences in soft earth forms, boulders, water features and native plantings. Earth mounds were also thought to be appropriate as invoking the effigy mounds of prehistoric cultures, prevalent in Wisconsin. Figure CP-1 is a sketch of this first design proposal for Concrete Park.

After viewing the sketch, many people expressed disapproval. Comments ranged from feeling that the soft mounds were inappropriate to the urban context, were difficult to maintain and would erode as a result of foot traffic, to concerns that the mounds would provide high vantage points from which people could look down on, and be threatening to others. This condition is a current problem with the walls in Concrete Park. The discussion also identified a desire for the general design treatment of Concrete Park to be more urban, rather than natural, to have more paving, rather than to have the softer ground plane. Trees were still desired, but large areas of lawn and ground cover, and especially mounds, were not.

figure CP-1
Sketch of first proposal

Figure CP-2 shows an internal design team study that took the next step in the direction identified by the public commentary. Figure CP-3 advances this concept in examining three alternatives based upon a similar theme that had several objectives. These were to create a central space with a level area in one or two locations, with ADA compliant slopes on each side, and with options for the placement of art, water features, and multi-use/public performance areas. Option 1 proposed two level areas with a bosque of trees at the upper area and an open flexible space at the lower side near State Street. Option 2 was similar to Option 1, although of a different design expres-

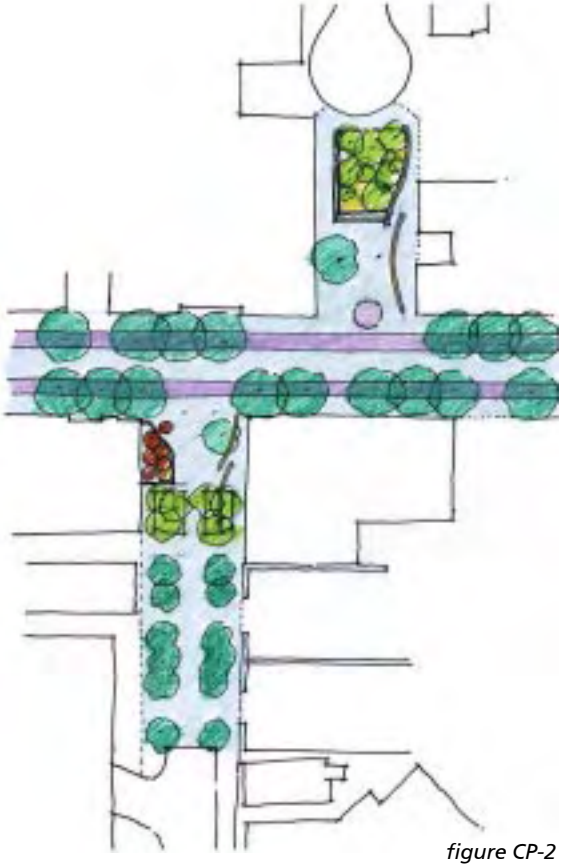
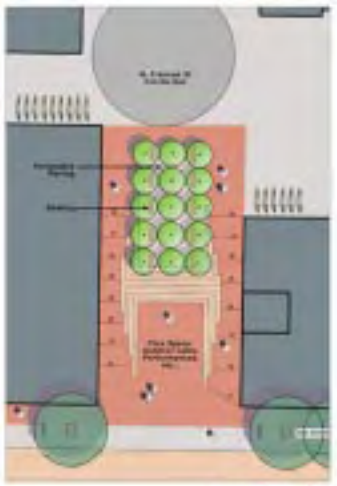
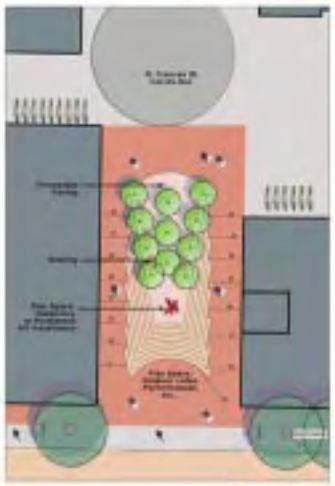


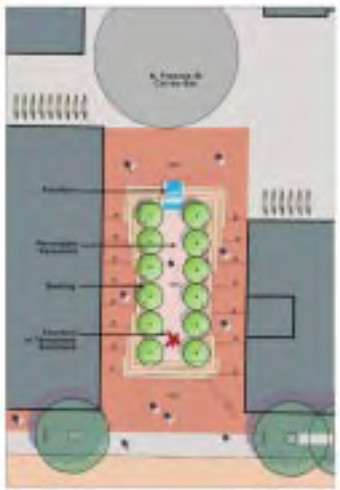
figure CP-2
Design team study after first public meeting



Option 1



Option 2



Option 3

figure CP-3

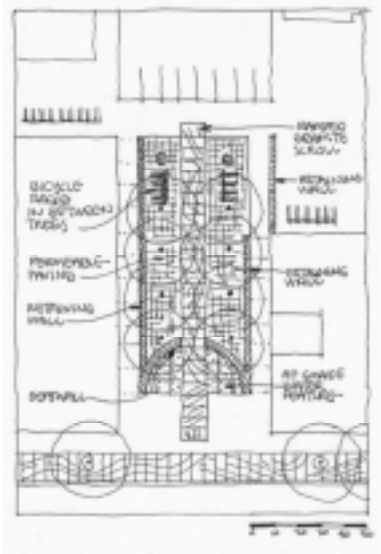


figure CP-4

sion. Option 3 contained the level area in the middle of the space at the mid-point in elevation between top and bottom. These three options were presented at the next public meeting, the third in the series. The new responses requested that the design of the park should avoid steps and terracing, again with the concern about people sitting higher than others on the steps. At this time there were also comments arguing against the use of the space for performances, given the adjacent residences, and the noise associated with performances.

Figures CP-4 and CP-5 reflect the next internal design team studies resulting from the previous round of reviews, albeit with a caveat for some low walls to manage the grade change. The final version of these studies is shown in the plan on page 35. Very small seat walls are employed at the top and bottom of the slope to take up some of the grade change, while most of the space is treated as an inclined plane. The concept is a simple one, and develops the park primarily as a pedestrian pass-through space to State Street from the residential area to the north. A ten-foot wide paved granite art strip traverses the park from top to bottom and functions as the main pedestrian thoroughfare and ADA access ramp. All opportunities for sitting high and looking down on pedestrians have been eliminated. At the northern end, a gateway kiosk separates the park from the adjacent parking area for motor scooters. A water feature has been included at the lower end adjacent to State Street. This feature can be turned off and the space utilized for flexible purposes as desired, such as a temporary art exhibit. This final concept for Concrete Park was presented and accepted at the fourth public meeting.

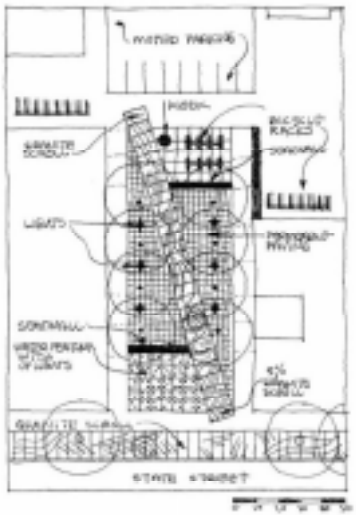


figure CP-5