



Land Use and Transportation Concepts for University Hill

Memorandum to the Institutional Focus Group

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On the cover: The Old Row, courtesy of the Onondaga Historical Society.

CONTENTS

INTRODUCTION 1

UNIVERSITY HILL CONTEXT 3

 Housing on University Hill.....3

 Retail on University Hill.....5

 Institutional Uses5

 Parking.....7

 Susceptibility to Change Analysis 11

LAND USE CONCEPTS..... 13

 Planning Districts 13

 The Campus District 15

 The Arts District 19

 The Gateway District 23

TRANSPORTATION CONCEPTS 25

 The Infrastructure of Walking 25

 Roadway Design 27

 Key Pedestrian Corridors and Streetscape Enhancements.....29

 Linking Activity Centers Together 29

NEXT STEPS..... 31



Mixed-use development is about creating places that encourage walking and transit use, while becoming enjoyable places with a vibrant economy.

Source: WRT

Photo: Clarendon Market Commons, Clarendon, Virginia

INTRODUCTION

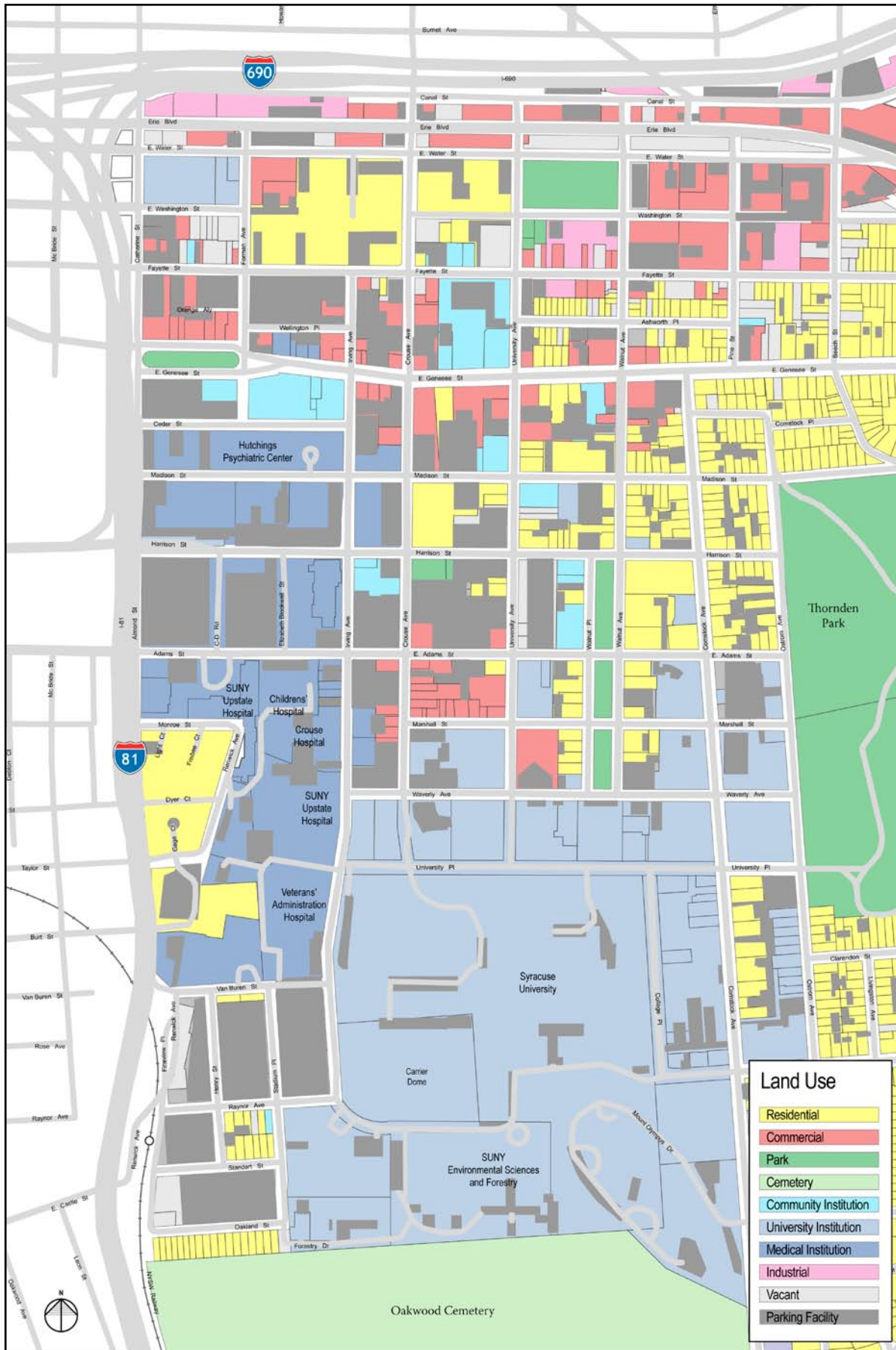
This memo describes initial concepts relating to the future development of University Hill. We present these concepts for review and analysis by the University Hill Institutional Focus Group as a starting place for conversation about how coordinated land use can decrease transportation impacts.

The concepts we present are focused on creating a synergy among the institutions on University Hill. The concepts entail mixed-use development as a strategy to mitigate transportation impacts by increasing overall transportation efficiency. For example, mixed-use, walkable areas can reduce the overall need for parking, provide convenient services and amenities to users, spread trips over non-peak periods, and support transit, walking, and bicycling as attractive transportation options. The concepts are not only about transportation, however. The larger goal is also to create a vibrant district that is an ideal setting for the institutions.

All concepts presented in this memo are just initial concept diagrams for discussion and are not actual plans or proposals. Some of the concepts are intended to provoke discussion in order to create a vision that reflects the interests of the University Hill stakeholders.

The memo begins by describing the background context of University Hill. Then it presents some conceptual land use designs to facilitate discussion of ideas for the future. Finally, it presents ideas for larger connections and infrastructure improvements that could support a changed land use pattern.

In the first part of this study we interviewed representatives of the institutions on University Hill to collect information on future development plans. From this we created the Current Planned Vision that will be used for predictive modeling of future transportation patterns. Now we are presenting ideas for altering the future development of University Hill to grow in a way that is meant to encourage alternatives to the automobile for a portion of travel. Alternatives include not only transit, bicycling, and walking, but also potentially increased residential on the Hill so that some commuters become local residents who can walk to their destination. These strategies are intended not only to mitigate traffic congestion, but also to allow the Hill to grow even more vibrant, and to remain a good place to work, study, or carry out the important activities that draw people there.



Existing land use on University Hill

Source: City of Syracuse 2005 GIS data, WRT

UNIVERSITY HILL CONTEXT

WRT has collected information about land use plans for University Hill. In this document we propose alternative development approaches that incorporate what we know about future development projects. Potential land use elements to include are residences, offices, retail, institutional buildings, parking, public spaces, transit facilities, and other services. Combining these elements into a fine-grained concept creates a mixed-use plan where the individual component land uses reinforce the overall vitality of the district.

Housing on University Hill

Very little new housing has been proposed for University Hill. We propose that adding multi-family housing can be a strategy for reducing overall transportation demand while simultaneously improving the local economy.

- Constructing housing on the Hill means that residents can walk to campus or employment centers, or catch a very short and convenient transit shuttle route, or ride a bicycle a short distance.
- New housing creates a built-in support for local retail. Retail is an amenity for existing University Hill users; it also serves to provide a vibrant street environment.
- Housing can wrap parking structures, which reduces their visual impact on the streetscape.
- Housing on University Hill will attract a self-selecting group of residents who are likely to have minimum impacts on city services and the transportation system.
- Housing creates activity after dark, keeping streets safer.
- Multi-family housing coupled with a carshare program and market-rate parking rates will reduce car ownership on the Hill.



Photo: mixed-use development, Winter Park, Florida

Source: WRT



Photo: mixed-use development, Boulder, Colorado

Source: WRT

Mixing ground floor retail with other land uses can make for more interesting and walkable districts, encouraging walking and transit use.

Retail on University Hill

The investment in the streetscape for the existing retail district on Marshall St. creates a positive image for the area. If additional housing is added to University Hill, demand for retail will be greater. It is probable that the Hill represents a built-in retail demand that is not currently tapped.

- Retail should occupy the ground floor of most buildings facing streets on University Hill, with only special exceptions based on use and context.
- The existing Marshall St. retail area can serve as the nucleus of a larger retail cluster that includes anchor retailers.
- Retail is an amenity for all other land uses on University Hill. If the retail area is coupled to downtown by transit, this could also help to stimulate demand for downtown residential development.

Institutional Uses

As the institutions spread beyond their traditional areas into the rest of the street grid, it is important to embed them within a larger urban context. By creating a finer grain of land uses, streets are more vibrant, which leads to increased walking. Interviews have not uncovered dramatic plans for institutional expansion on the Hill, therefore, our land use concepts incorporate the projects of which we have been made aware.

We also propose that institutions think of land holdings in the spirit of partnership for the betterment of the whole district so that parcels can be allocated efficiently. For example, hospitals may hold surface parking lots that are suitable for other development that is not related to hospital functions. This parking can be incorporated into shared garages so that development can proceed on the surface parking lots.

Photo: aerial of University Hill between University Avenue and Crouse Avenue.

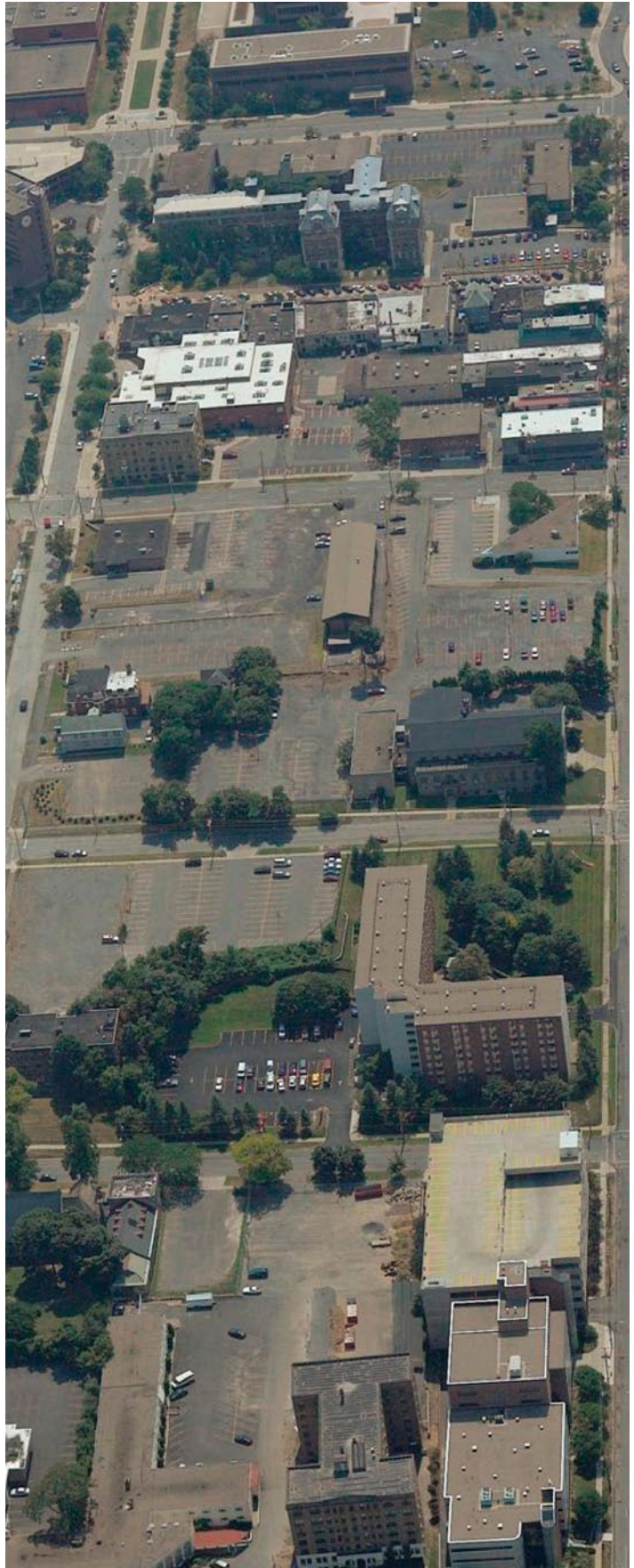
Waverly Ave.

Marshall St.

Adams St.

Harrison St.

Madison St.



Source: Pictometry, 2005

Parking

Much of the Hill is used for surface parking as well as parking garages. Surface parking disrupts the pattern of land uses by creating large voids that must be crossed. Many existing garages are a negative influence on the walking environment on University Hill, because they create lots of dead space along sidewalks through their blank walls, lack of activity, and curb cuts and driveways.

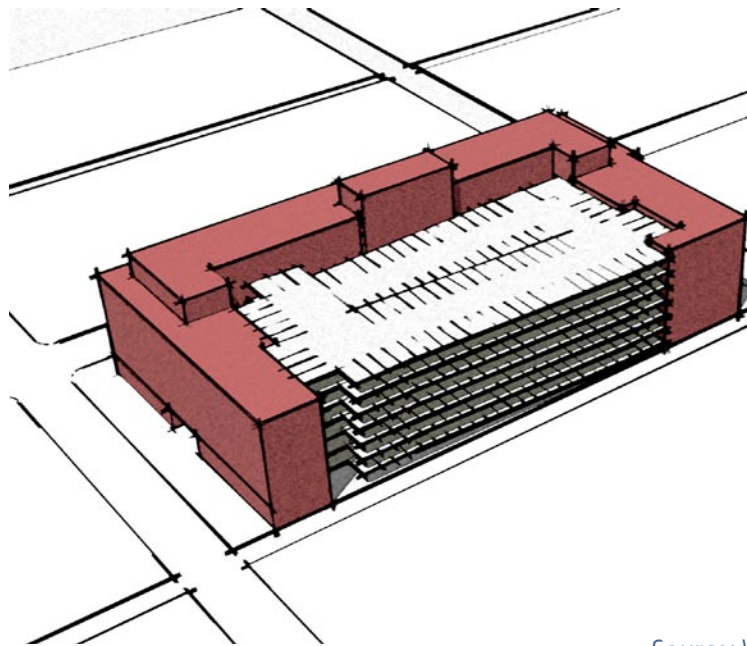
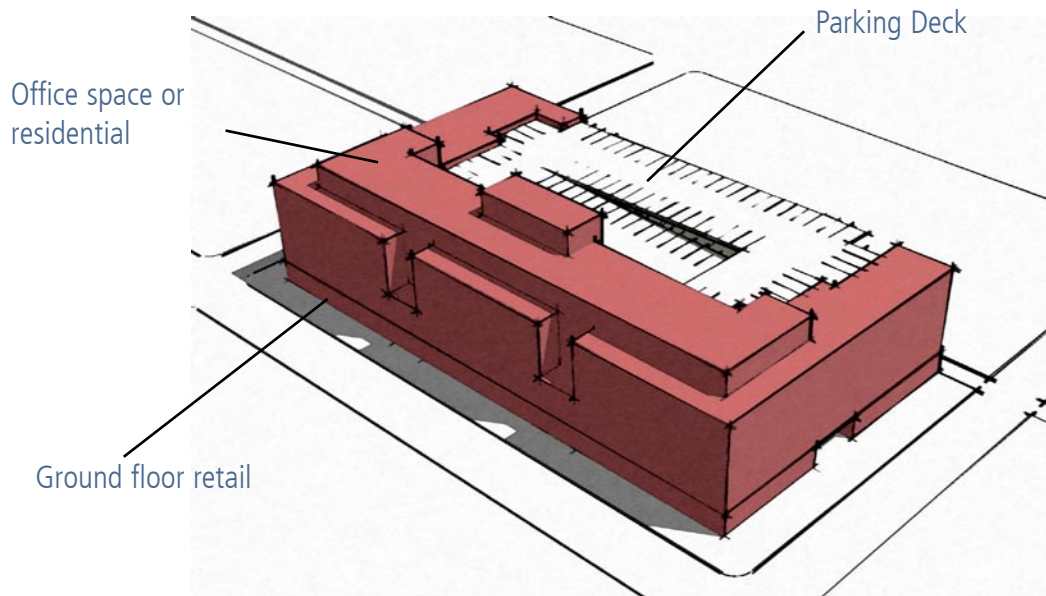
There are few plans for new parking garages that are beyond the concept stage. However, over time, new garages will be needed. Parking garages should be encased in other uses. A wrap of office or residential around a garage creates a better street environment by mitigating the negative effects noted above. Ground-floor retail space in particular helps to keep sidewalks lively.

Parking facilities should be shared. While this creates some complexity in planning and management, it reduces overall expenditures for parking by increasing efficiency. Some land uses, such as residential and office uses, can share parking facilities because their peak times of use do not overlap.

Parking is a system that must be planned for the Hill. Managing parking as a shared system across all of University Hill, in the same way that streets, transit, and water are shared systems, can help avoid the negative consequences of putting parking in the wrong place, and supplying more parking that is needed. It can also result in cost savings for institutions.

Parking supply needs a market component. It is not necessary that everyone pays the same rate for parking, but the value of parking must have some expression to the end user. If it is perceived as “free,” there is no check on consumption. People who chose another mode of transportation should receive some financial benefit. When employees receive dedicated, subsidized parking, a cash out program can provide an incentive to switch to another travel mode. Shared parking garages can have reserved spaces for monthly pass holders which could be divided among the institutions to distribute according to their own systems.

Carsharing can reduce parking demand. Carshare is a system whereby members can use cars owned by a company. This is much cheaper than owning a car for many people, while providing more convenience and a greater diversity of vehicle types. It can also allow workers to leave cars at home and still be able to make trips during the day for errands.



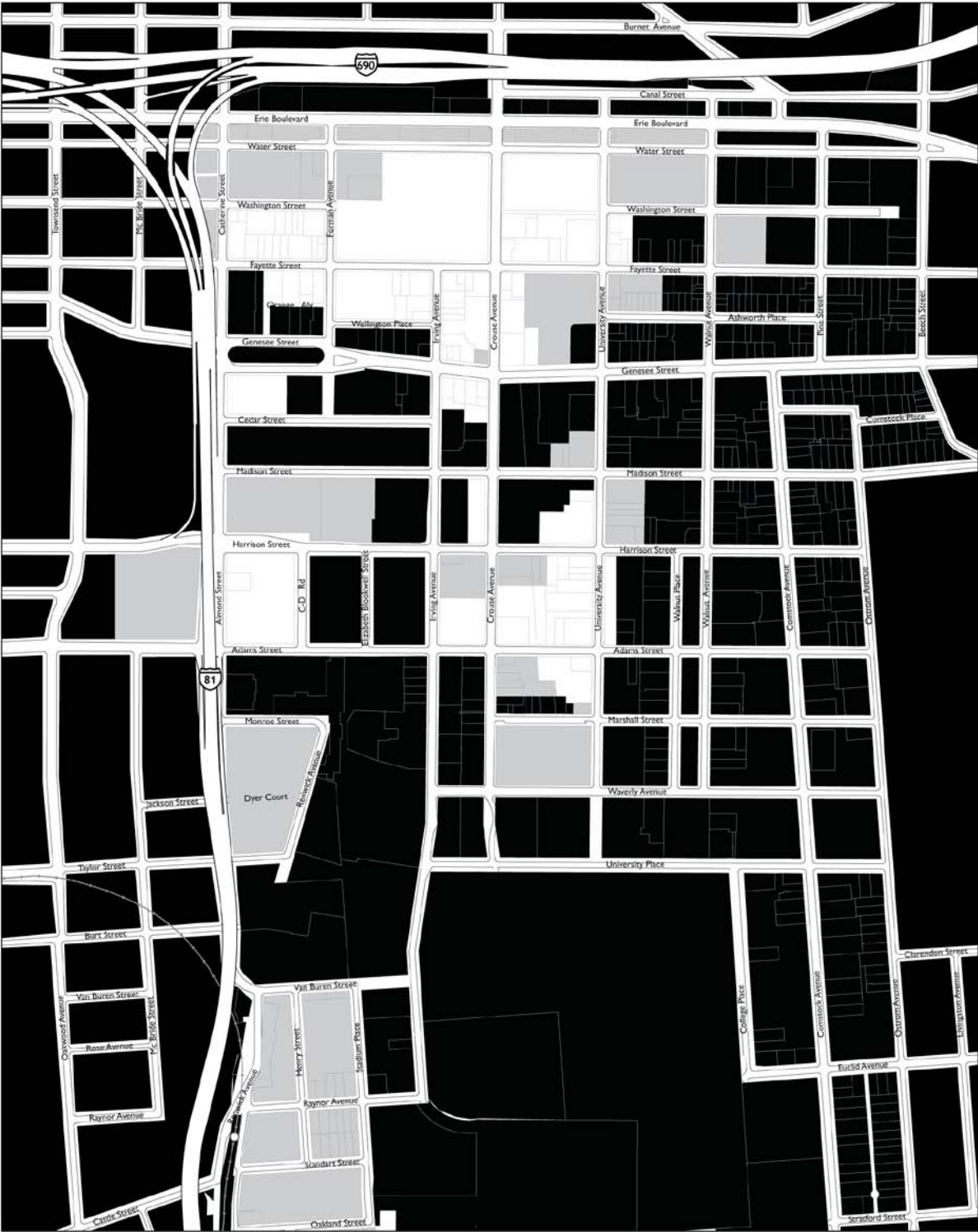
Source: WRT

Wrapping a parking garage in other uses makes for walkable streets.



Photo: parking garage with an office and retail “wrapper” building in Boulder, Colorado.

Photo source: Congress for New Urbanism



Susceptibility to Change Diagram
Source: WRT

LEGEND

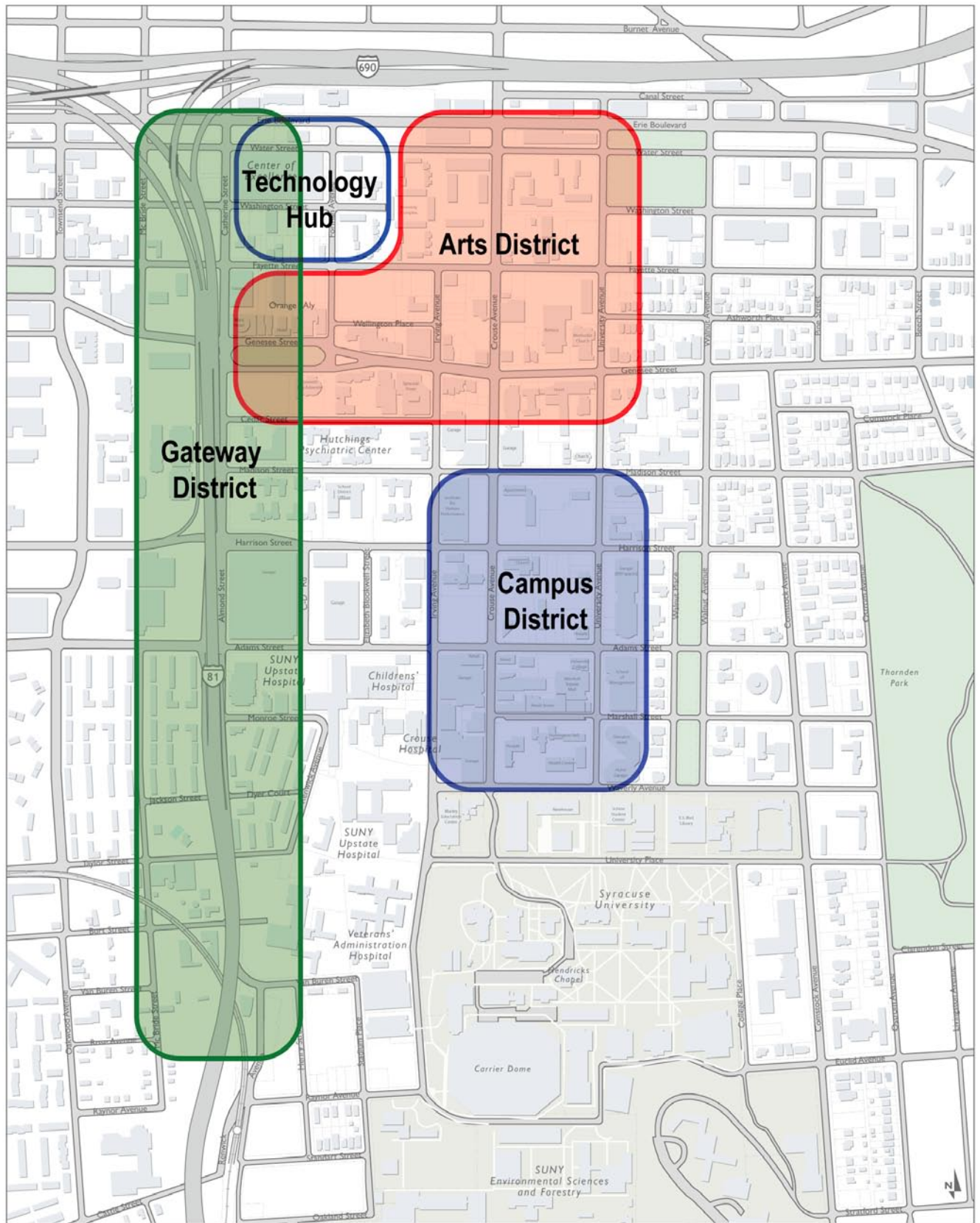
- Given
- Moderate Susceptibility to Change
- High Susceptibility to Change

Susceptibility to Change Analysis

WRT created an initial map of parcels that are susceptible to change for discussion purposes. To create the map, first “Givens,” or parcels that are highly unlikely to change within the planning horizon, are identified, followed by parcels that are “somewhat susceptible to change,” which are those parcels that *could* change based on interviews with University Hill institutions. Finally, parcels that are “highly susceptible to change” are those that remain, which include parcels with proposed projects, surface parking lots, and marginal land uses.

The Susceptibility to Change map shows four concentrations of land that may face development in the planning horizon. For this study, we are choosing to not examine the South Campus area, because this area is remote from the rest of University, offering less opportunity for creating a new land use pattern. The remaining three clusters are a cluster of parcels near University Avenue; a cluster near I-81; and a cluster near East Genesee Street.

These clusters of parcels that are highly susceptible to changes in land use form the basis for exploration of how a new land use pattern might be created on University Hill.



Planning Districts Map

Source: WRT

LAND USE CONCEPTS

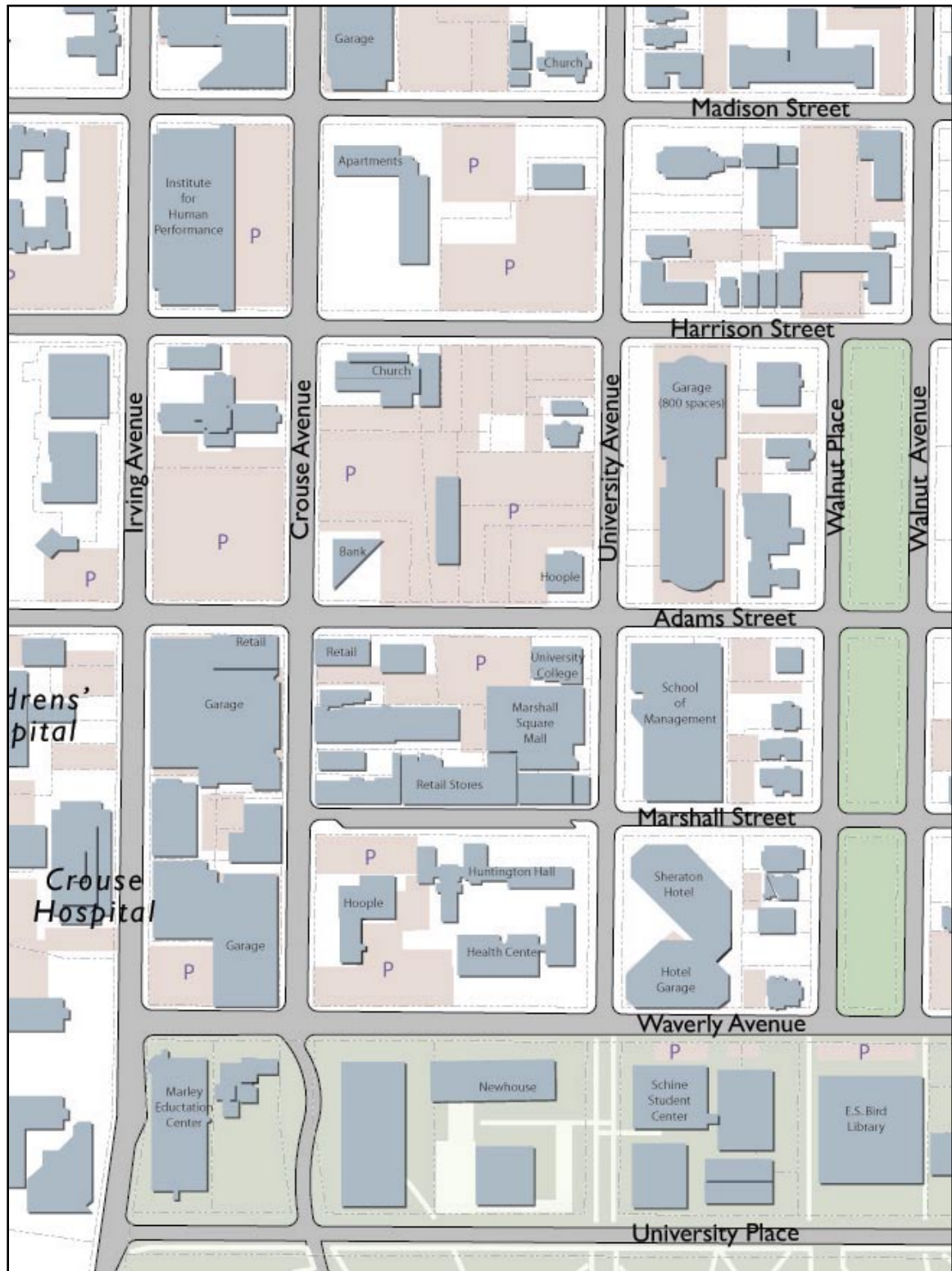
University Hill has numerous opportunities for new development that meets the needs of the resident institutions, while reducing overall transportation impacts. This section presents some initial concepts to generate discussion.

Planning Districts

University Hill is composed of a number of sub-areas, each with its own characteristics. Some present significant opportunity for new development. The major sub-areas or planning districts are: Gateway, Arts, Campus, and West Campus. The last of these is controlled by the Syracuse University Master Plan and is considered a “given.” Therefore, this section addresses the potentials of the three prime candidates for application of new land use concepts.

WRT has mapped three conceptual planning districts based on the susceptibility to change analysis as shown in the accompanying map. We also call attention to the possibility of creating a technology hub that builds upon the investment in the Center of Excellence.

The planning districts present differing opportunities for land use synergies. The Campus District is related to the University and the Institutions on the Hill, the Gateway District forms a connection to downtown and central Syracuse, and the Arts District builds on the existing arts programs on East Genesee and the Connective Corridor project.



Campus District Existing Conditions

LEGEND

- Surface Parking Lot
- Building/Structure

Source: WRT

The Campus District

The Campus District is the area where the institutions transition to the traditional street grid. This transition area can be among the liveliest places on University Hill. At the present time, the Campus District is dominated by surface parking lots and parking garages. Marshall St. represents a relative oasis of pedestrian interest.

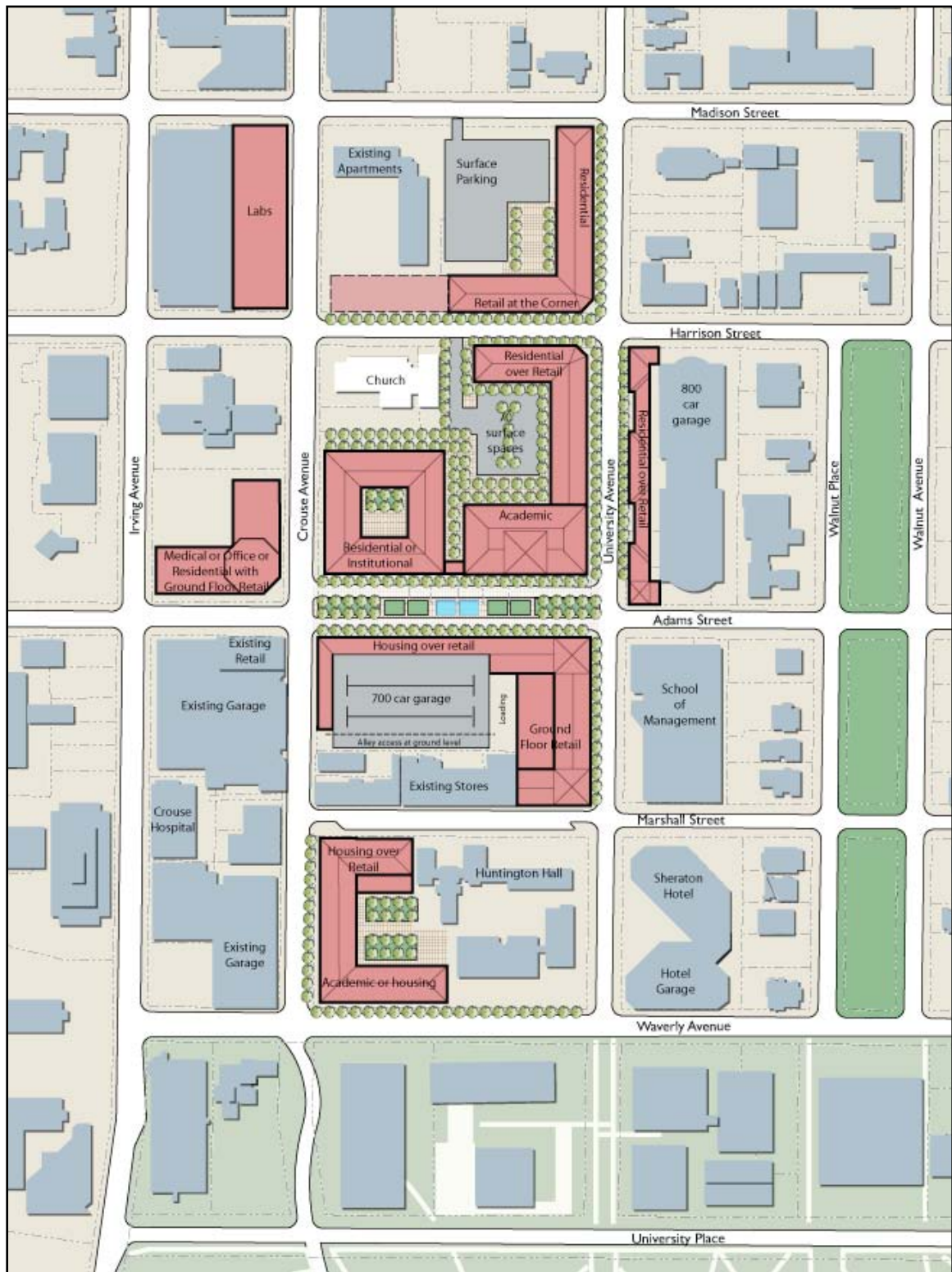
The Campus District presents an opportunity to create a unique area for Syracuse. This area is likely to establish the impression of the whole of University Hill for the occasional visitor. For this reason, many institutions have entered into private development directly or indirectly through partnerships in similar urban transition areas at other American universities. The institution gains an attractive front doorstep, the community gains a lively place with high real estate values, students and workers gain an amenity.

WRT has created two preliminary concepts for the Campus District. Each of these concepts provides structured parking that is shared among land uses; a site for academic structures; an expansion of the retail area; and new housing. It is envisioned that these concepts could be implemented as University-initiated redevelopment projects, similar to projects in other cities.

All of the concepts need further program definition based on the input from the Institutional Focus Group. We have shown various options for reconfiguring parcels and demolishing structures purely for the sake of discussion. These are just initial concepts that will be refined based on advice from the Institutional Focus Group.

The University Square Concept proposes a new plaza space along Adams St. to serve as a new focal point. This creates a sense of arrival to the Hill when coming up Adams St. and serves as a prominent address for a new academic building. The Square serves as a place for new retail and dining, with housing on upper floors.

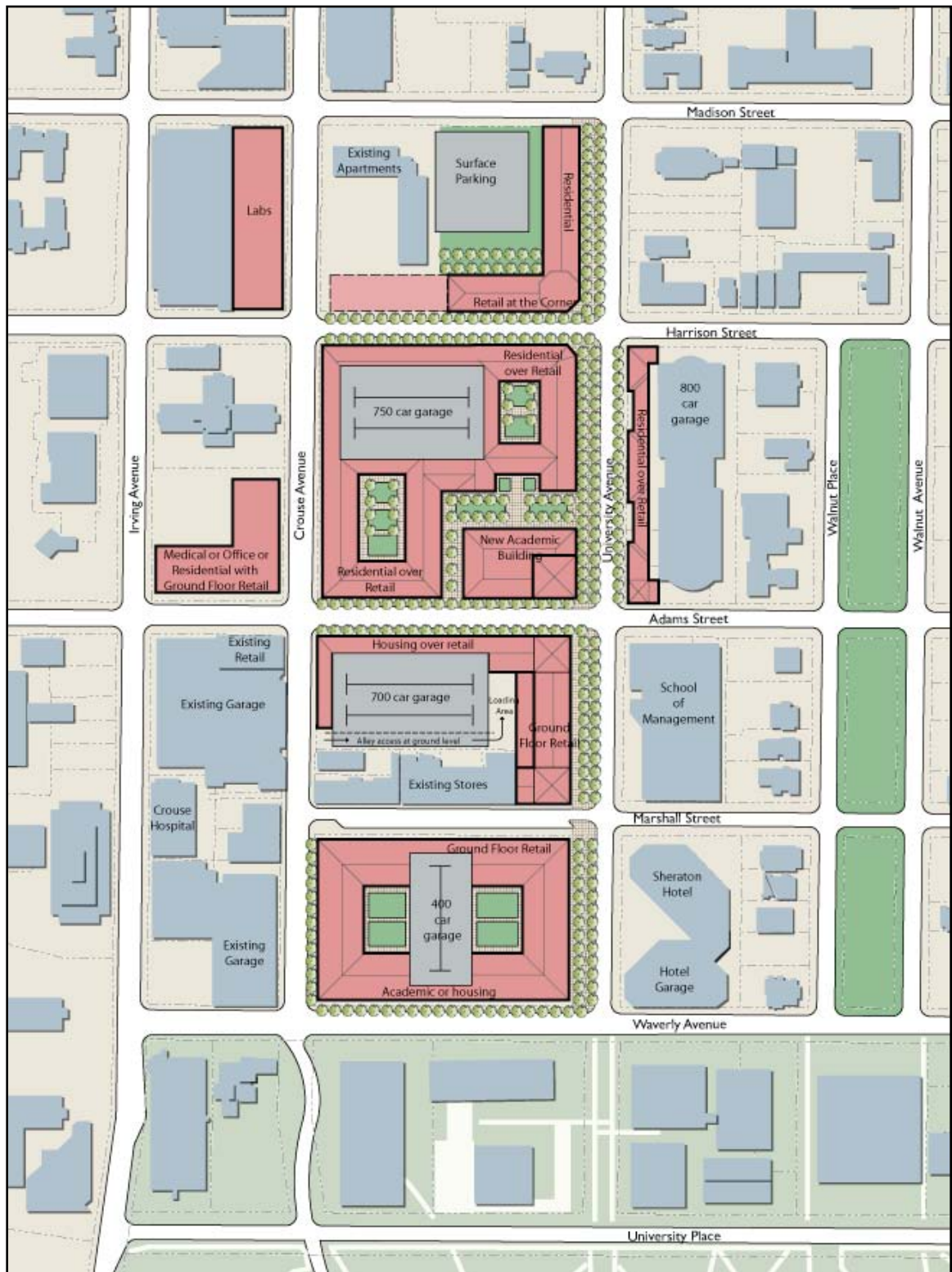
The University Promenade Concept creates a wide promenade along University Avenue that serves as a gateway to the area from the north. This promenade is a place to locate new retail development and creates a grand street leading up the Hill. The wide sidewalk is a place for strolling or lingering, and will serve as an amenity for adjacent development.



"University Square" Concept for the Campus District

Source: WRT

Feet 0 200 400



"University Promenade" Concept for the Campus District

Source: WRT

Feet 0 200 400



Some of the existing buildings on Genesee have pedestrian-oriented architecture. New buildings should reinforce the sidewalk as an interesting and welcoming place.

Photo Source: WRT



The existing square on Genesee is an attractive amenity for development. The square could be further enhanced to serve as a gathering place.

Photo Source: WRT

The Arts District

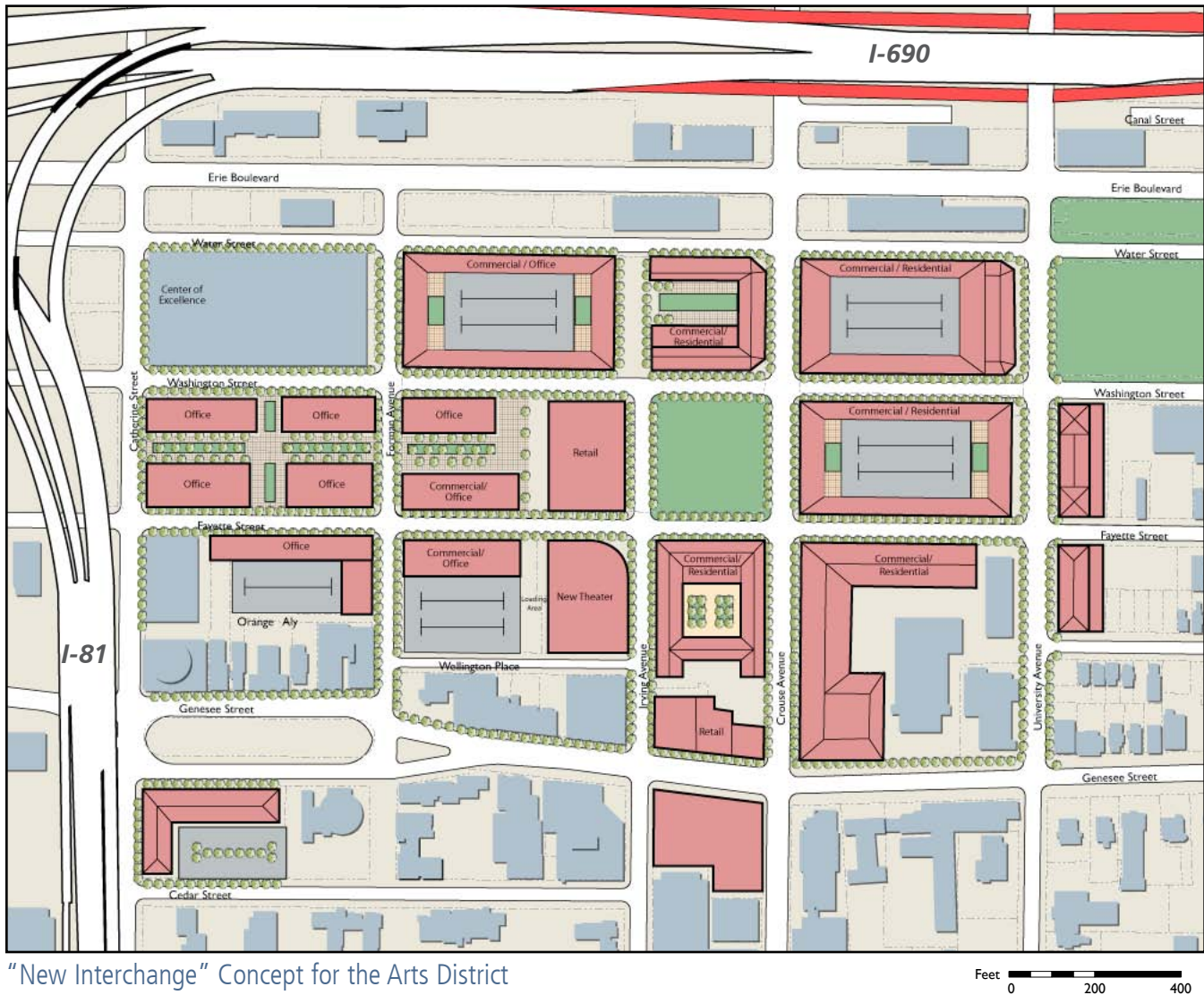
The Arts District is the area between Genesee and I-690. This district is intended to reinforce the growing arts cluster in this area with new arts uses, retail, housing, and office space for technology companies.

Theaters are important to the arts district. Historically, theaters were designed with retail facing the street to take advantage of the street frontage. This practice should be encouraged with any new theaters constructed in this area.

Low rents are important to the flourishing of the arts. Low rents are usually linked to older structures, because new construction is more expensive. As such, existing structures should be carefully inventoried for potential arts uses before being replaced by new structures.

Entertainment is the connection between the arts and the public. This takes the form of symbiotic land uses such as dining, entertainment facilities, and shopping. These uses reinforce each other by making the area an attractive destination, all the better to draw in art patrons from outside the area.

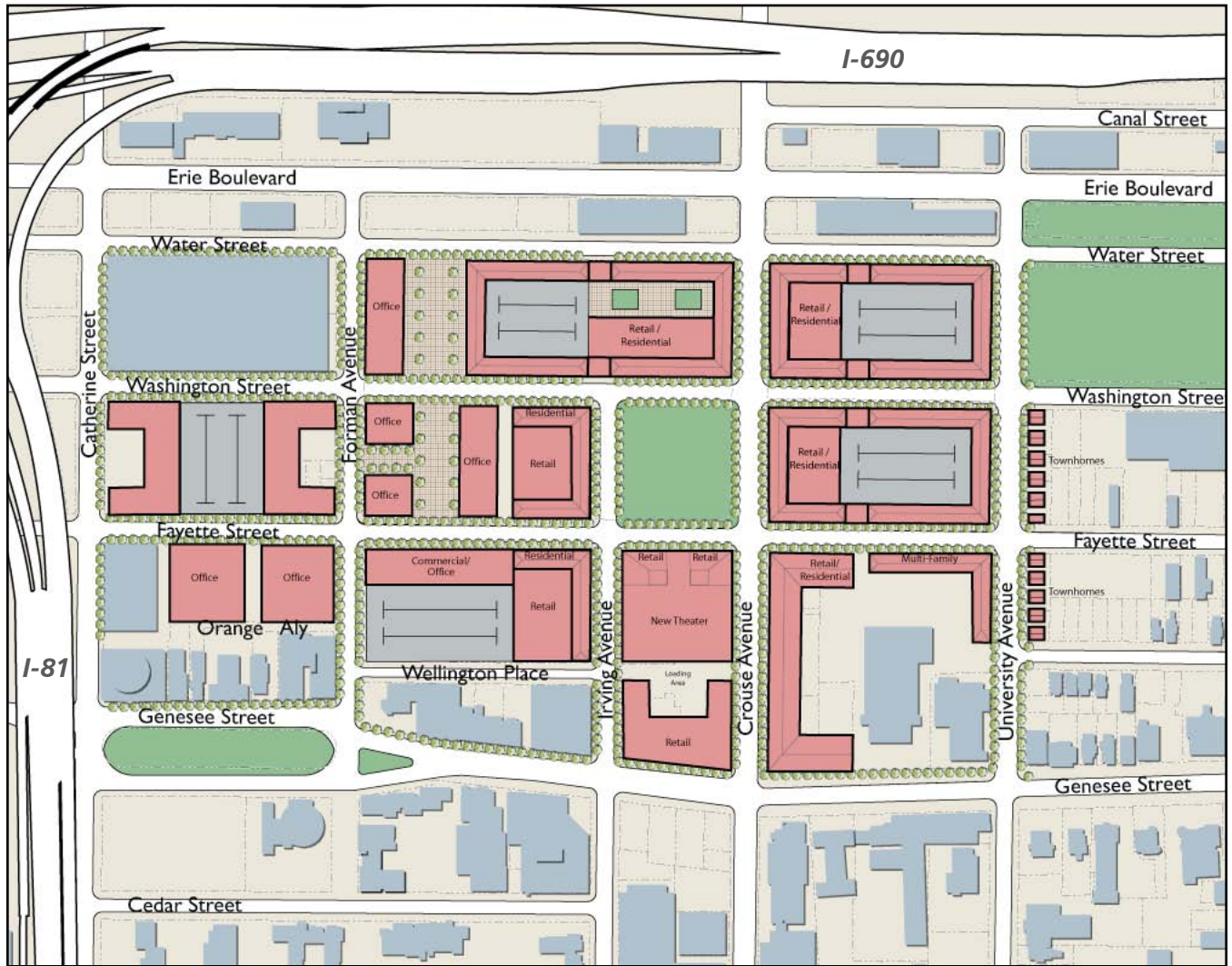
Housing reinforces the arts district by providing additional people on the local sidewalks. People seek out arts areas to be among other people, so increasing density supports the overall vitality of the district. Ideally, a block of housing would be reserved for artists.



"New Interchange" Concept for the Arts District

Source: WRT

The New Interchange Concept is oriented towards a new interchange on I-690 near University Avenue. The retail focus is located on streets that connect to University Avenue to take advantage of this access. Office related uses are clustered around the Center of Excellence on the west side of the district.



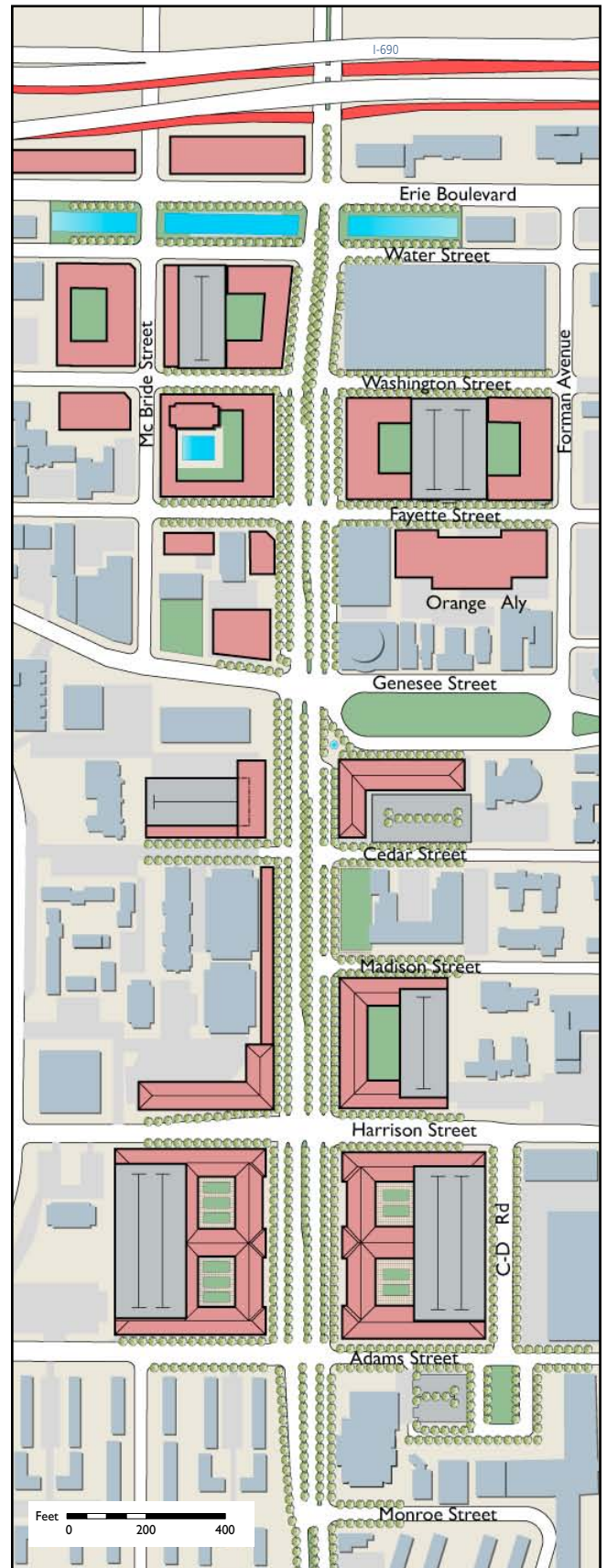
"North of Genesee" Concept for the Arts District

Source: WRT

The North of Genesee Concept focuses new retail on the streets leading from East Genesee to a new square that serves as the nucleus of a district that includes office space, housing, and retail. Office space is clustered near the Center of Excellence.



"The Viaduct Stays" Concept for the Gateway District
Source: WRT



"The New Boulevard" Concept for the Gateway District



Left: Portions of the area under the I-81 viaduct could potentially become usable space -- turning the viaduct into a building that faces onto the surface streets.



Above: In 1997 a restaurant was constructed under the viaduct at Grand Central Terminal in New York City in order to reclaim what had been wasted urban space and to help animate the street.

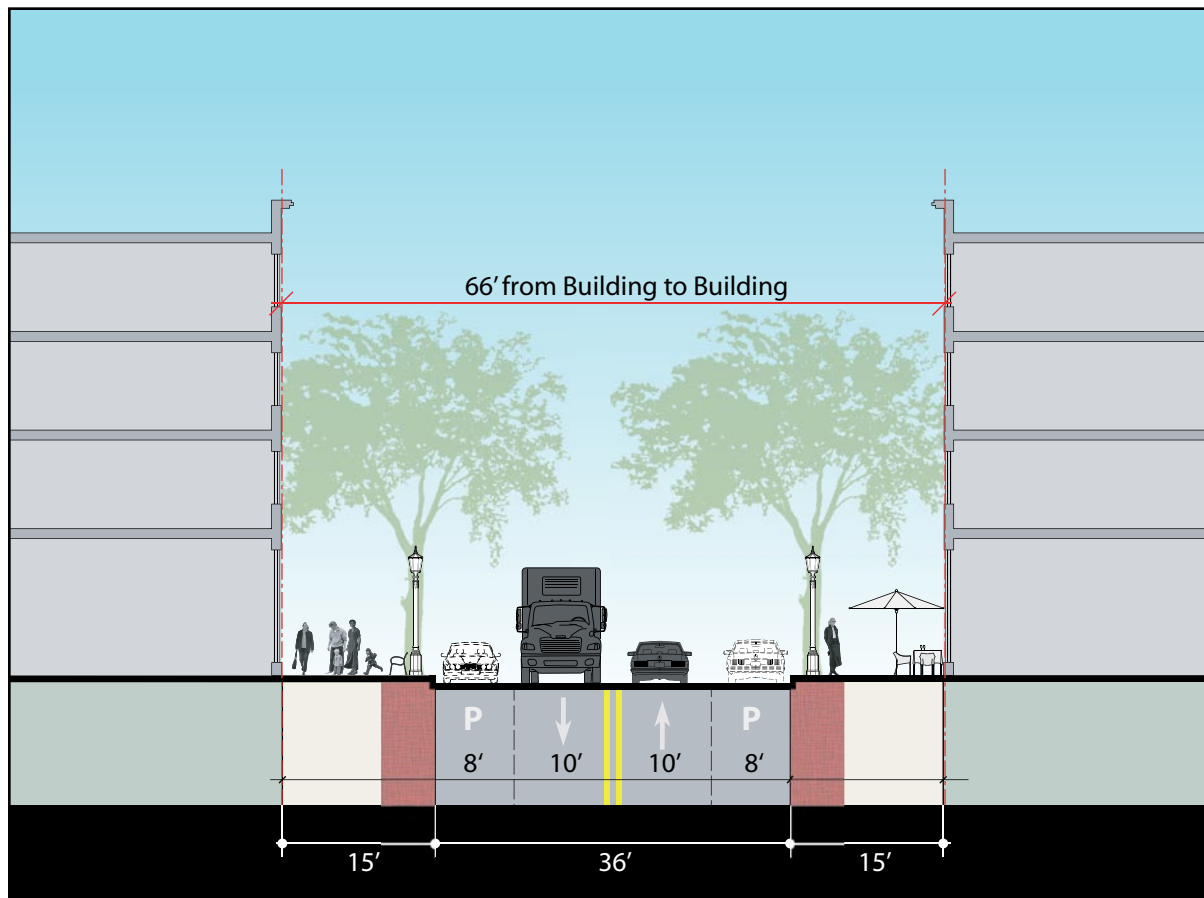
Source: WRT

The Gateway District

The Gateway District is the area along I-81 that forms the entrance to the Hill from the west. The future of this area depends partly on the future of the viaduct. WRT has created two concepts that show this area with and without the viaduct.

"The Viaduct Stays" concept shows how new buildings can face new open spaces along the viaduct, while intersections are redesigned to be more pedestrian friendly. Underneath the viaduct, WRT proposes that low-cost space be created, possibly using modular construction, to activate the street. The viaduct can then begin to resemble an urban building rather than an urban void.

The New Boulevard Concept replaces the viaduct with a new grand boulevard that forms the gateway to the Hill. The boulevard creates enhanced real estate values by creating accessible building sites without the negative visual and aural impacts of the viaduct.



A model walkable street cross section is shown. Sidewalks must be wide enough to allow pedestrians to pass each other comfortably. Sidewalks should be buffered from traffic by trees, benches, parked cars, lights, etc. Sidewalks should be lined with interesting storefronts or other people-oriented architecture. Successful sidewalk cafes are a good indicator of successful pedestrian design.

Source: WRT

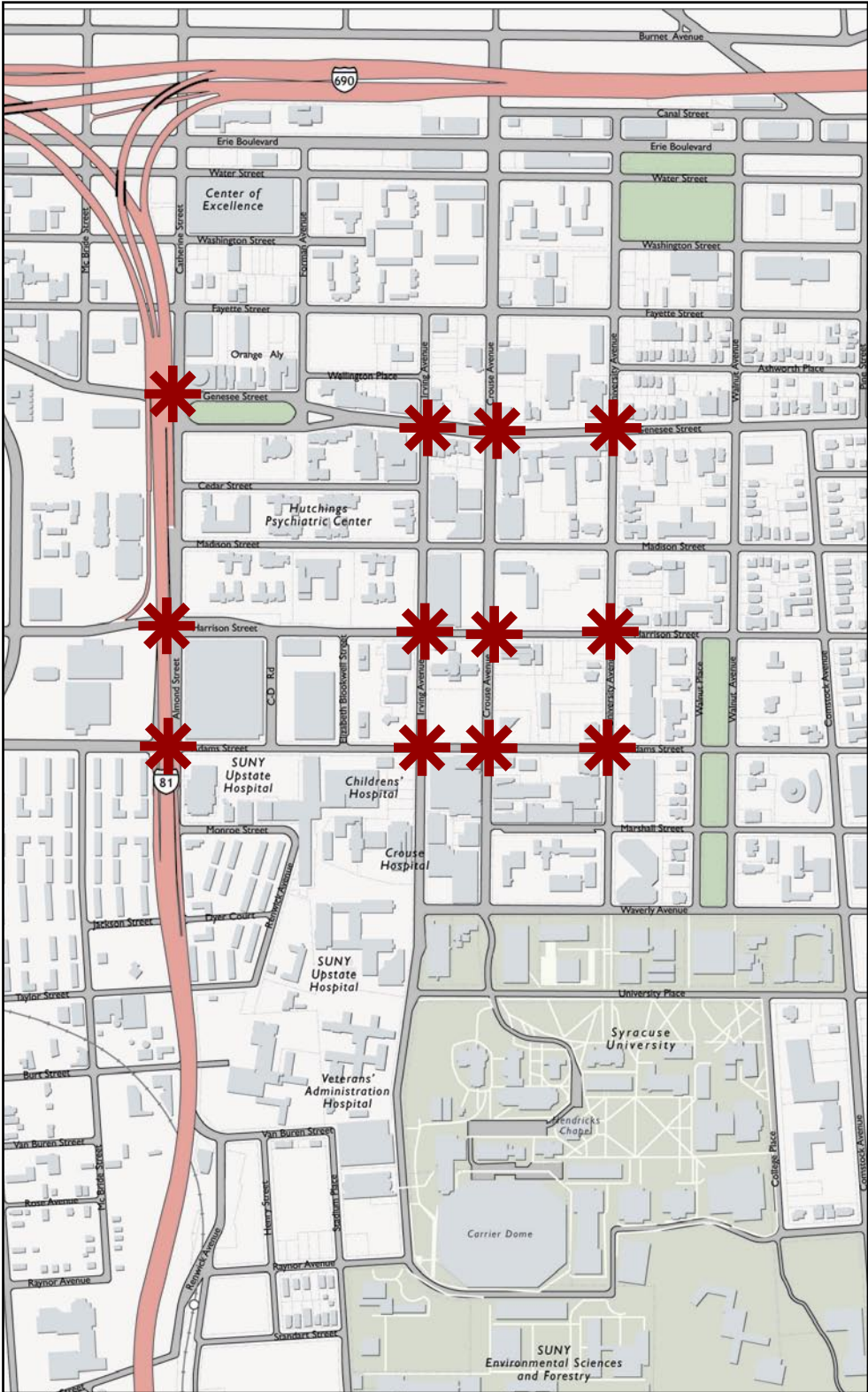
TRANSPORTATION CONCEPTS

The infrastructure of walking

Walking is, of course, an ancient mode of travel, and has largely been taken for granted throughout history. We cannot afford this luxury any longer, because the decisions we have made in the last fifty years have made walking very difficult. Cities are beginning to understand what it takes to be truly walkable, and just how big the payoff can be.

The most fundamental infrastructure of walking is the sidewalk. For about fifty years, the sidewalk has been treated as the leftover space between the building and the space for cars. As a result, modern sidewalks are generally too narrow, are paved with lackluster materials, and are often unpleasant for walking. Proper sidewalk design is the starting place for walking. Specific criteria include:

- Sidewalks must be wide—generally nine feet clear at a minimum with a five foot strip between the sidewalk and the curb for trees and street furniture.
- Sidewalks should have trees where appropriate between cars and the sidewalk. The trees define space, provide shade, and buffer pedestrians from traffic. Trees should be planted at least every 25 feet, but closer is better. The ground where the tree is planted must be designed to allow the tree to grow vigorously. Trees must be of the correct species to survive in urban environments and provide visibility to businesses along the street. The canopy shape and density is important for determining the appropriate species.
- Sidewalks should be paved with materials that provide dignity to walking. People spend a surprising amount of time looking at their feet.
- Sidewalks in commercial and mixed-use areas should be brightly lit with pedestrian lighting. Roadway lighting is the minimum provided for safe operation of motor vehicles. It was never intended to provide enough light for a feeling of personal security.
- Sidewalks need lots of seating areas. Many cities avoid benches because they fear people will sleep on them, but seating is a requirement because people need a place to sit. Copenhagen (a city not known for excellent weather) counts the number of sidewalk café seats available in the city every year as a barometer of civic health. Last count was 25,000.
- Sidewalks need to be framed by buildings that engage the pedestrian in an active way.
- Sidewalks should be connected to places to linger. Since Syracuse has a snowy climate, wintertime lingering places are needed. One consideration is places to keep warm along walking routes, such as warming stations in seating areas, as well as lining walking routes with retail places to duck in and warm up.



Key Intersections on Pedestrian Routes

Source: WRT

Roadway Design

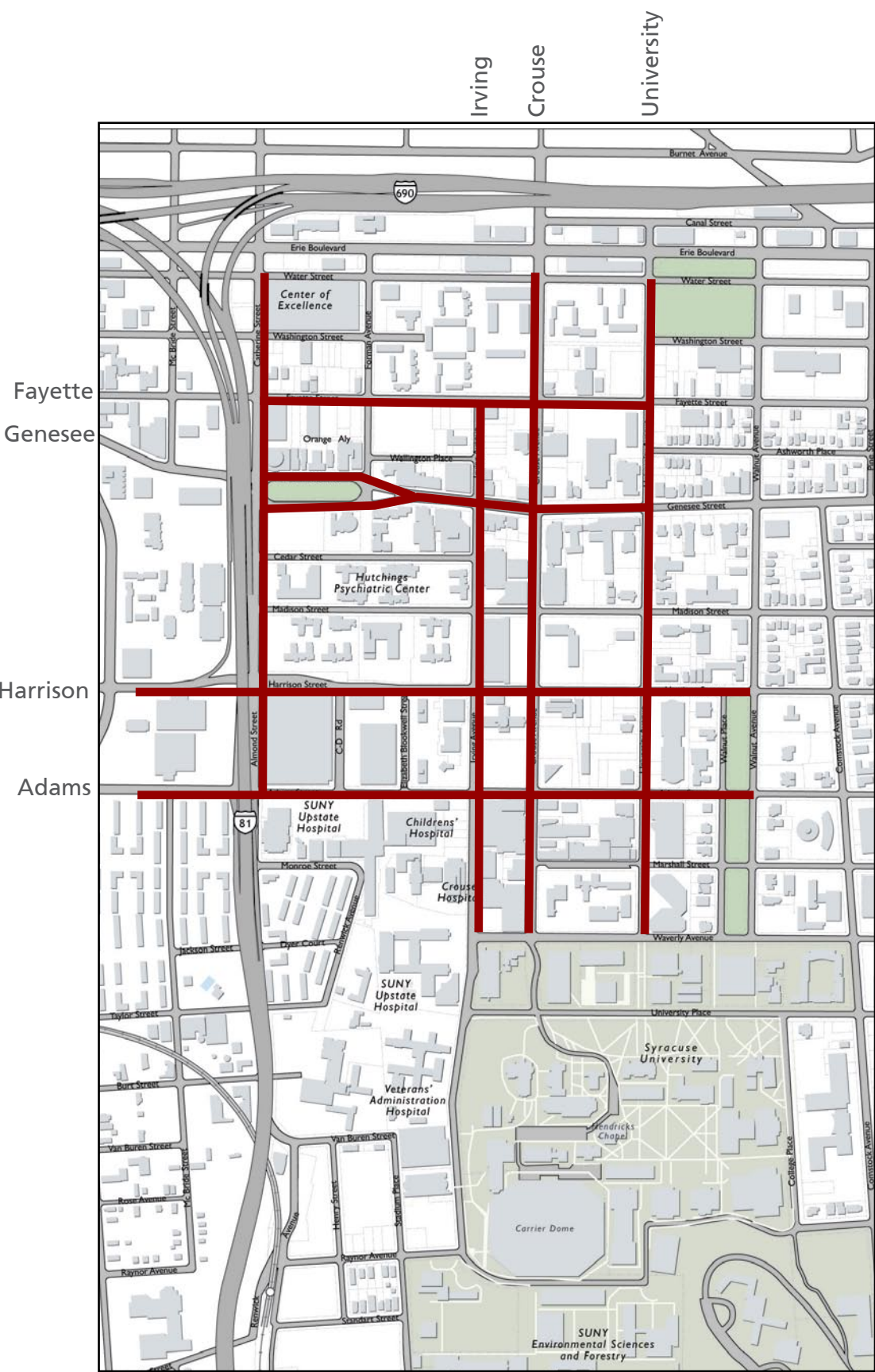
Traffic engineering can be used to optimize traffic flow and also to improve walking conditions. The agenda to improve walkability is to keep speeds to a reasonable level and to make crossing streets safe. This is accomplished with traffic engineering.

Beyond moving traffic, streets must perform other essential functions, including access to adjacent land and as places for interaction.

Some of the obvious issues with traffic engineering occur at the intersections under the I-81 viaduct. These intersections are very wide, which makes pedestrian crossing times long. The design encourages high turning speeds, which poses risks for pedestrians. These intersections can be redesigned to move the same number of cars, while also allowing for safer crossing conditions. For example, at the intersection of Harrison Street and the I-81 viaduct, a large number of lanes creates a wide intersection. These lanes can be divided with median refuges for pedestrian safety. Right-turning vehicles turning from Harrison to the northbound on-ramp of I-81 have a large, sweeping radius. For this reason, there is no pedestrian crosswalk on the north side of Harrison. This turn can be redesigned to present better visibility for pedestrians.

Other streets could benefit with pedestrian-oriented traffic engineering. Common measures include neck-downs at crosswalks to shorten crossing distance and improve pedestrian visibility, micro-roundabouts on non-arterial streets, narrow traffic lanes for lower speeds, texture changes at intersections, chicanes, speed humps, and various other engineering solutions. These can be implemented throughout University Hill, with priority given to the major pedestrian streets. The map on the facing page shows key intersections on major streets where traffic calming measures and pedestrian improvements would have a high impact on walkability.

Bike routes are another traffic engineering issue. Generally, the best approach is for streets to have traffic that is slow enough that bikes can operate in the general travel lane, because this is actually the safest design. In some cases, bike lanes are needed for some bicyclists to feel comfortable. Off-street paths are another alternative, although they must be carefully designed to avoid dangerous conflicts among travel modes. Designing bike routes, in some ways, requires that the designer actually ride a bike often. For example, bike routes cannot have lots of stop signs, because starting from a stop consumes most of the energy expended when riding a bike, yet oftentimes, it is assumed that bike routes should follow streets where stop signs occur at every intersection. When bike routes are mapped to connect major destinations, improvements should be made to implement the appropriate design for each link in the connection.



Key Pedestrian Corridors

Source: WRT

Key Pedestrian Corridors and Streetscape Enhancements

There are several key streets which form the armature of pedestrian activity on the Hill. Other streets are also important for pedestrian access, but the streets discussed here are critical to extending the attractive pedestrian area around the campus towards the rest of University Hill. The key streets are University, Crouse, Irving, Adams, and Harrison. Genesee Street serves as a connection between the Hill and Downtown. Fayette could play a more important role in pedestrian circulation in the future. All of these streets will require pedestrian enhancements if they are to reach their potential.

In order for a street to be walkable, the buildings which face it should be designed to cater to pedestrians. It is not enough merely to have attractive architecture. The ground floor of the building must engage the sidewalk to create foot activity. Therefore, it makes sense to create design guidelines for University Hill that emphasize this function of buildings on pedestrian corridors. These guidelines should be enforced for new projects through a review committee with planners and architects familiar with pedestrian design as well as other representatives.

Each of these streets should also receive a new urban design that increases their walkability. This can include enhanced sidewalks, lighting, crosswalks, trees, seating, and other amenities. Such investment can set the stage for high quality infill development that will further enhance walkability.

Linking Activity Centers Together

Major destinations on University Hill need improved connections to tie them together socially and economically. These can include pedestrian infrastructure, roadway infrastructure, and transit projects. In some cases, major barriers exist that isolate University Hill from surrounding territory. Overcoming such barriers is key to treating University Hill as an engine for economic growth.

NEXT STEPS

At the August 14 Institutional Focus Group meeting, the topics in this memo will be discussed. The land use concepts and key assumptions will be further refined with guidance from the focus group. From the information and direction obtained in the meeting, more detailed land use alternatives will be created for discussion at the next focus group meeting. A final land use concept will then be created from obtained feedback. The final, preferred concept will be used in additional transportation modeling and compared to the Current Planned Vision. The overall goal is to create a feasible concept for land use that is superior to the current trend, while meeting the long-term goals and needs of the institutions that anchor University Hill.