SASAKI

INNOVISTA MASTER PLAN

Columbia, South Carolina

Preliminary Report | July 2007

INNOVISTA MASTER PLAN

Columbia, South Carolina

Prepared by Sasaki Associates, Inc.

July 2007

Greetings:

On April 21, 2006 the University of South Carolina, Guignard Associates, The City of Columbia and business and community leaders unveiled a vision for the City's waterfront that featured a sweeping plan for the expansion of Innovista to include 500 acres from the current campus to the Congaree River.

This vision was a result of a decision by the University of South Carolina and Guignard Associates to join together in coordinating their urban planning efforts. Both were already using internationally recognized planning firm Sasaki Associates.

The plan featured a large waterfront park that would complete the Columbia side of the Three Rivers Greenway. The park, the project's "crown jewel," would feature two footpaths, amphitheater, freshwater marsh and a recreation of part of the original Columbia canal. A mixture of urban density development with retail, residential and commercial space would help to create the live, work, play and learn environment that would assist in serving as a magnet to attract the brightest researchers and world-class research companies to Columbia and the region, as well as helping to grow companies and create knowledge-based jobs and opportunities within the region.

With over half of the acreage within the new planning area belonging to private owners, a Waterfront Steering Team was created to serve as stewards for the master planning and funding of necessary infrastructure. The Waterfront Steering Team, of which I chair, is made up of regional business, community and environmental leaders including representatives of the University, Guignard Associates and private land owners within the district. A full list of the members can be found in this document on page 87.

During the past year members of our team have been assisting Sasaki with the completion of this master plan. During that time we have also sought the input of the University, Guignard Associates, other land owners, the City planning staff, state and congressional leaders and many other organizations and individuals.

Today we are pleased to present this plan and welcome and encourage public input on its content. The effective implementation of this plan in concert with other economic development initiatives within Columbia and the region will transform the future of our capital city and the region. It will be a central element in transitioning this region and our State to a knowledge-based economy and it will accelerate efforts to increase the per capita income of our citizens and improve the quality of life for all.

We look forward to and welcome your reaction and feedback.

Sincerely,

Bill Boyd
Chairman, Waterfront Steering Team

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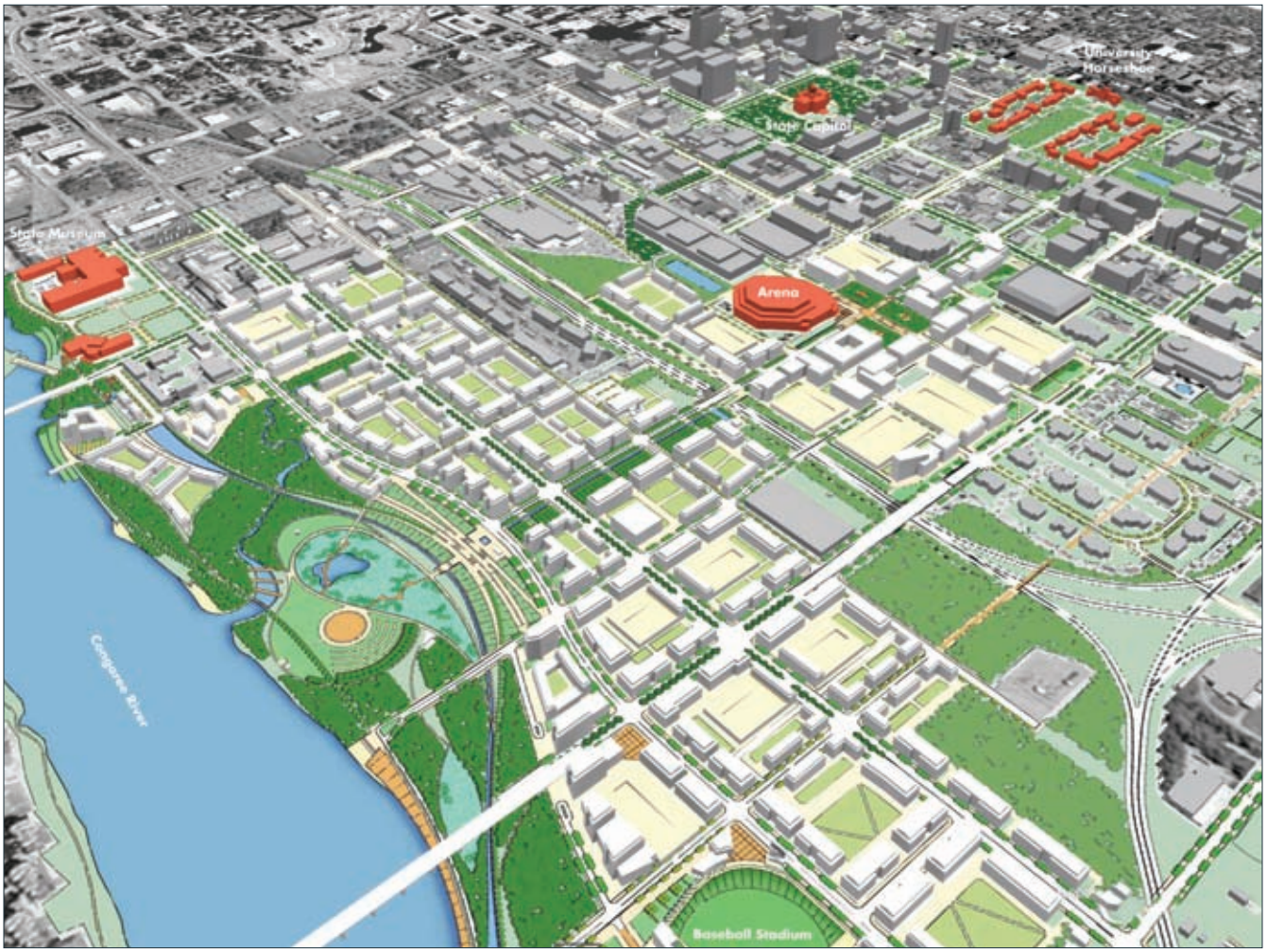


FIGURE 1.1: A TRANSFORMATIVE VISION FOR DOWNTOWN COLUMBIA

The Innovista Master Plan is a visionary plan designed to create a vibrant, mixed-use urban neighborhood in Columbia, the capital city of South Carolina. The plan will support the continued renaissance of downtown Columbia as well as the emergence of the University of South Carolina as a nationally recognized, comprehensive research university.

This mixed-use plan capitalizes upon a unique opportunity, perhaps unlike any other in the United States, to bring to fruition a town plan drawn up shortly after the American Revolution. It will extend the historic street grid; construct mixed-use housing, office space, research facilities (for the public and private sectors) and retail space; and increase connections between the downtown and the nearby Congaree River. As a sustainable urban live/work area, it will stand in contrast to the suburban sprawl of the metropolitan area, and provide an urban lifestyle alternative to attract the "best and the brightest" to live and work in downtown Columbia.

The 500-acre Innovista planning area lies between the Congaree River to the west; the University of South Carolina, the State Capitol complex and downtown Columbia to the east; the historic Olympia and Whaley Mills and associated mill village to the south; and the increasingly vibrant arts and entertainment district along Gervais Street to the north. Historically, the Innovista planning area featured industrial

FIGURE 1.2: BIRD'S EYE VIEW OF DOWNTOWN COLUMBIA "BEFORE"

mills and warehouses related to Columbia's waterborne transportation and power generation. Today the area features vacant property, commuter parking lots, light industrial uses and small suburban-style office buildings. Taken together, these elements represent a significant opportunity for redevelopment and reuse.

Innovista's planning and design process is bringing together the community in a unique partnership of State, City, private property owners, University and business interests around a shared vision, which the State press has characterized as a "transforming vision" for the City of Columbia. Within the proposed planning area, multiple goals are being sought by the Columbia community and the existing property owners:

- The State and the University of South Carolina are proceeding to translate the University's research initiatives in a number of disciplines, including alternative energy, nanotechnology, biomedical science and environmental science, into economic development and job creation. Both are doing so with the support of a number of stakeholder groups, including the City of Columbia, Central SC Alliance, EngenuitySC, Midland Technical College, South Carolina Research Authority and Richland and Lexington Counties.
- Guignard Associates, with its major land holdings bordering the Congaree River, is prepared to make a significant portion of land available for the development of a world-class waterfront park. The members who own Guignard Associates are descendents of John Gabriel Guignard, who prepared the original town plan for Columbia in 1786. Guignard Associates has been collaborating with the University of South Carolina to redevelop their property and to implement the master plan for Innovista.
- In addition to supporting the growth and development of the knowledge-based economy, the City of Columbia is continuing to revitalize critical areas of downtown and link them to other redevelopment efforts, including the existing Vista arts and entertainment district.

The Master Plan for the Innovista planning area places urban, mixed-use development within the framework of Columbia's historic street grid. Land uses adjacent to the USC campus will feature University-related research and academic buildings as well as private sector firms and governmental units focused upon the knowledge economy. Moving westward, Innovista will feature more general offices, housing, supporting retail uses and community facilities, and will terminate in a grand waterfront park known as the Congaree Regional Waterfront Park. At the park the historic street grid will meet the new Congaree River Parkway, which traces the top of a bluff overlooking the park. The parkway, framing the edge of the

FIGURE 1.3: BIRD'S EYE VIEW OF DOWNTOWN COLUMBIA "AFTER"

FIGURE 1.4: COLUMBIA CANAL TOW PATH

FIGURE 1.5: GREENE STREET AT INNOVATION DISTRICT

park, will provide stunning overlooks and unimpeded public access to the park below.

Some streets within the Innovista district's historic grid system will be designed primarily for pedestrians, while others will provide vehicular service and access to parking. Greene Street will serve as the principal pedestrian spine leading from the heart of the University and downtown and will feature a procession of new public open spaces, including Foundation Square, a shaded urban square supported by restaurants and retail uses. Greene Street also will feature a sculpture park along a linear promenade west of the railroad. Lincoln Street will serve as the principal north-south pedestrian street linking Innovista to the vibrant Vista redevelopment district—an arts and entertainment district in adaptively reused historic mercantile and warehouse buildings—to the north.

A distinguishing feature of the Innovista Master Plan will be the Congaree Regional Waterfront Park, celebrating the City's industrial heritage and riverside location. The large waterfront park will, among other benefits, complete the region's existing twelve-mile linear trail system along the Saluda, Broad and Congaree Rivers. The design of the waterfront park will be in the tradition of great American urban parks and will celebrate the existing site's distinctive natural and historic industrial features while creating a new area for public celebration.

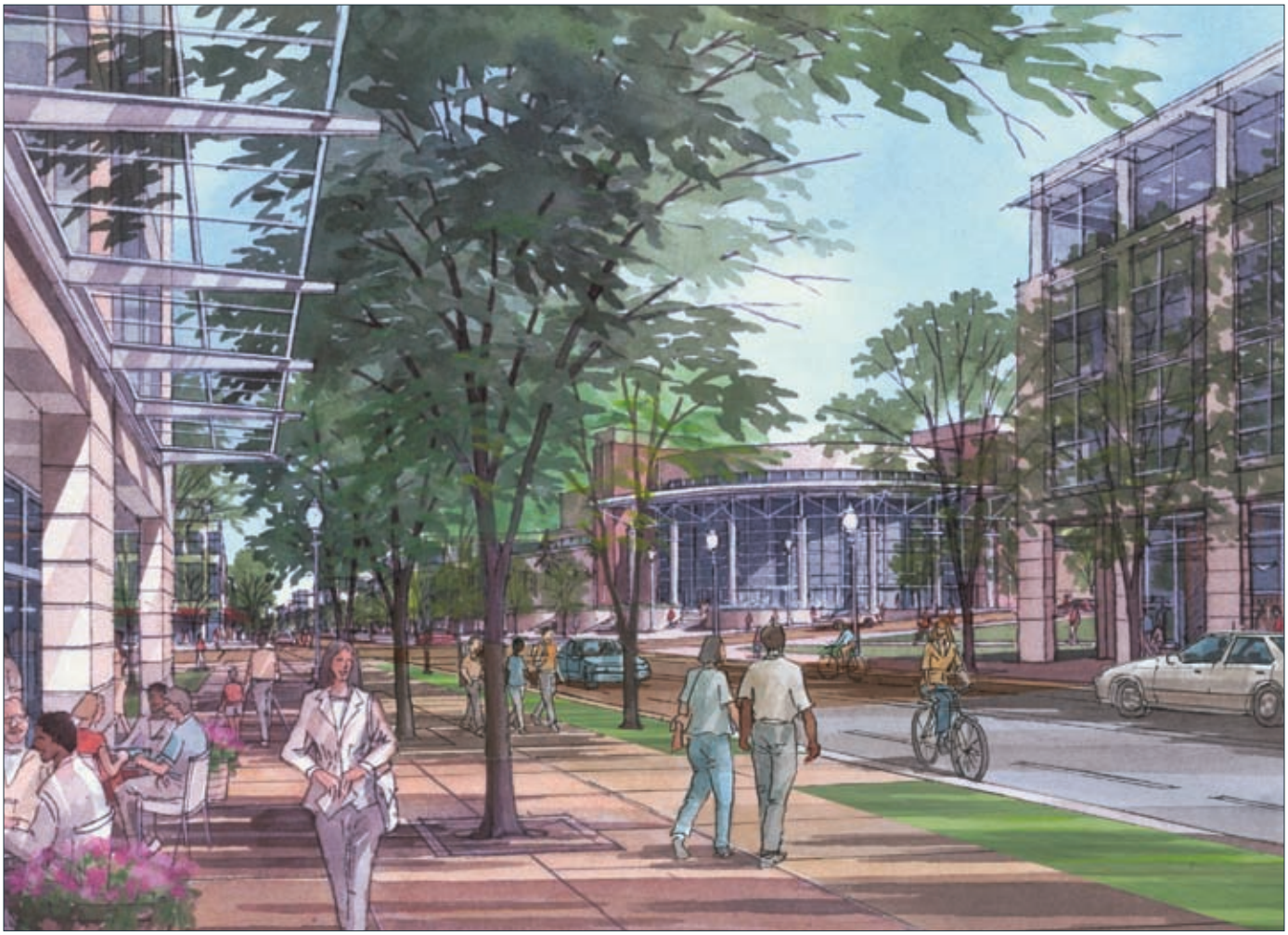


FIGURE 1.6 GREENE STREET AT COLONIAL CENTER

Mixed-use development at Innovista will create housing, retail and office space in four- to six-storey street-fronted buildings with multi-story parking structures. Assuming a floor area ratio (FAR) of 2.0, Innovista could accommodate up to eleven million square feet of new development at full build-out.

Innovista's public improvements—including new roads, bridges, pedestrian ways and the waterfront park—are estimated to cost approximately $121 million. The public investment is estimated to generate 8.5 million square feet of mixed-use development within fifteen years, leading to the creation of 8,700 permanent jobs and an estimated $17.7 million annual tax revenue for schools, Richland County and the City of Columbia.

By investing in Innovista, the various stakeholders— including the University of South Carolina, the City of Columbia, the State of South Carolina and its relevant agencies, the Federal Government and its relevant agencies and private landowners—will catalyze change in an underutilized area and transform the city and the region.

2. HISTORICAL CONTEXT

FIGURE 2.1: 1872 BIRD'S EYE VIEW OF COLUMBIA

Founded in 1786 when the South Carolina Senate approved a bill to move the state capital from Charleston, the City of Columbia became one of the nation's first planned cities. John Gabriel Guignard, the forefather of the current landholders of the riverfront, planned the city on two square miles adjacent to the Congaree River. Using a grid street and block pattern, he created a perfect square plan with four hundred blocks and made the new State Capitol the city's physical and figurative heart by placing it at the plan's center. This historic core is bounded today by Elmwood Avenue to the north, Heyward Street to the south, Harden Street to the east, and the Congaree River to the west.

Assembly Street and Senate Street serve as the grid's major north-south and east-west axes, respectively. When first designed, Assembly Street connected to regional roads while Senate Street connected to the City's cable ferry crossing on the banks of the Congaree River.

In 1801, the State founded South Carolina College (now the University of South Carolina) and purchased land for it in Columbia, to the southeast of the State Capitol. The State chose its central location to give all citizens equal access to higher education.

From the founding of Columbia, the Congaree River has played a critical role in its economy. Early settlers and traders found that Columbia's location, on the fall line of the Piedmont Plateau, made it a central trade point for goods transported to and from Charleston. The development of the Columbia Canal in 1824, which provided a means to bypass the rapids at the Congaree's fall line, made the city an even more viable location. While the ascendance of the railroad slowly supplanted the role of the Congaree River and the Columbia Canal for the transportation of goods, the Canal's location on the fall line allowed it to produce significant power to fuel the growing textile industry by the end of the 19th century. Moreover, the railroad lines—one of which remains active and passes through Innovista—likewise fueled economic growth in Columbia by providing a means for cotton farmers to transport their goods to the mills and beyond.

The textile industry left a significant mark on the development of Columbia's urban fabric. Factory owners developed a number of worker home complexes, including those at Richland Mill, Wheeler Hill, and the Olympia and Granby Mills. By 1907, Columbia had become a regional textile center, with six mills employing 3,500 people. The "Duck Mill," now the site of the state museum, was the first electric powered mill in the world. While these elements of the textile industry have since left the city, vestiges of its boom time remain in the Innovista planning area in the form of warehouse and mill buildings.

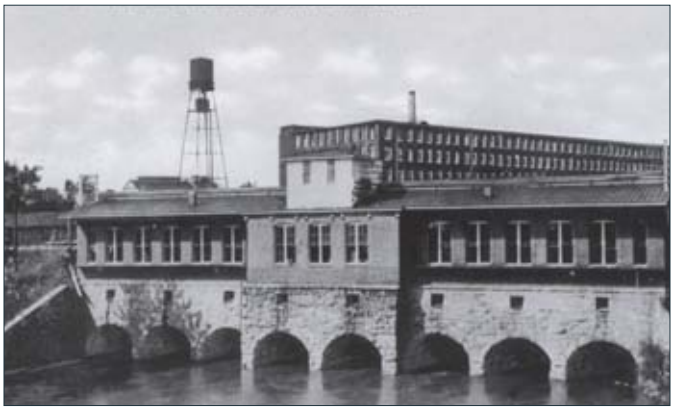


FIGURE 2.2: VIEW OF THE DUCK MILL AND THE COLUMBIA CANAL C. 1893, AT THE NORTHERN EDGE OF THE MASTER PLAN AREA

FIGURE 2.3: OLYMPIA MILL C. 1891, LOCATED SOUTH OF THE INNOVISTA AREA

FIGURE 2.4: WOMEN AT WORK IN THE COLUMBIA COTTON MILLS, C. 1903

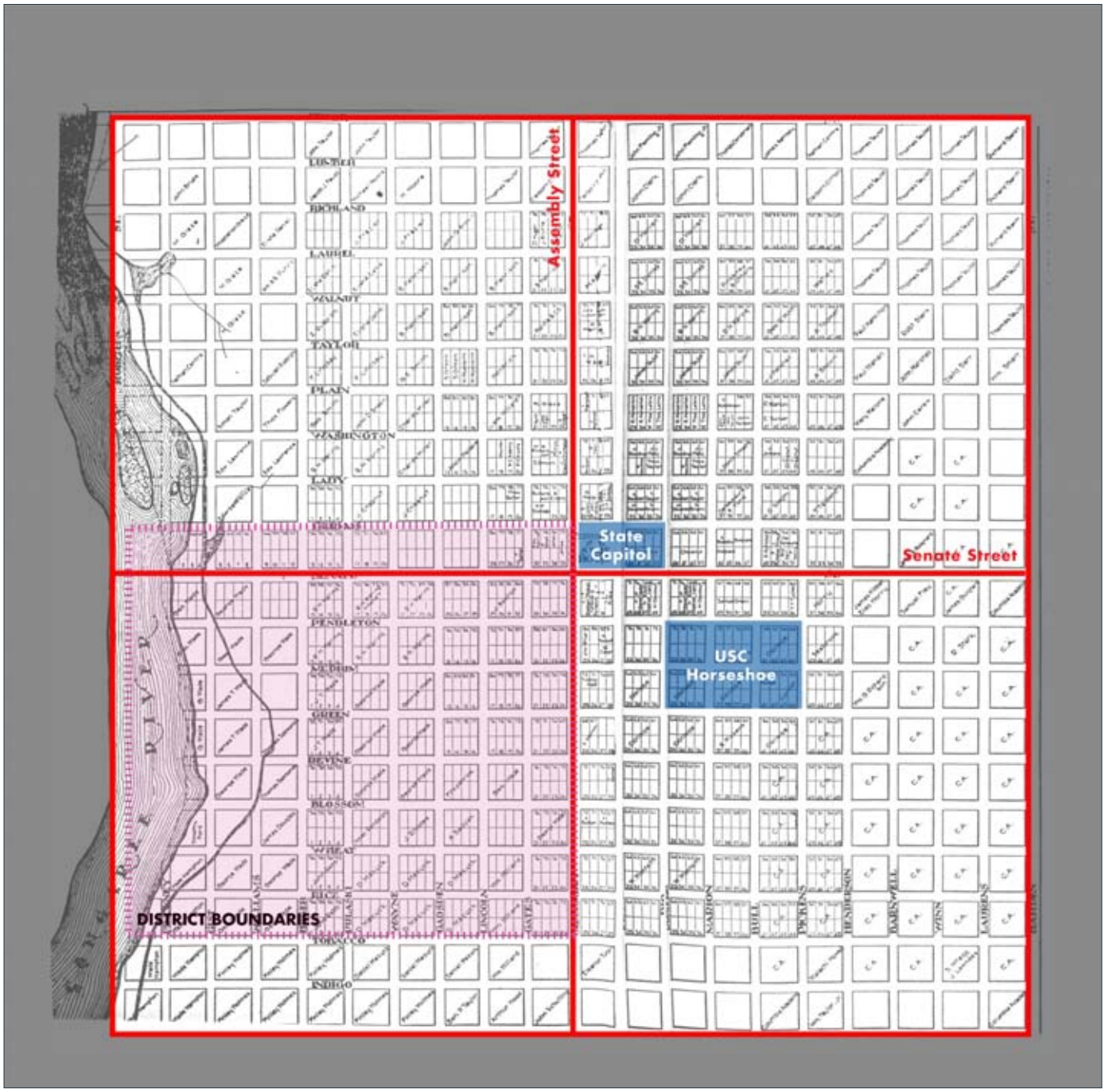


FIGURE 2.5: 1786 FOUNDATION PLAN FOR THE CITY OF COLUMBIA, AS LAID OUT BY JAMES GABRIEL GUIGNARD

3. URBAN CONTEXT

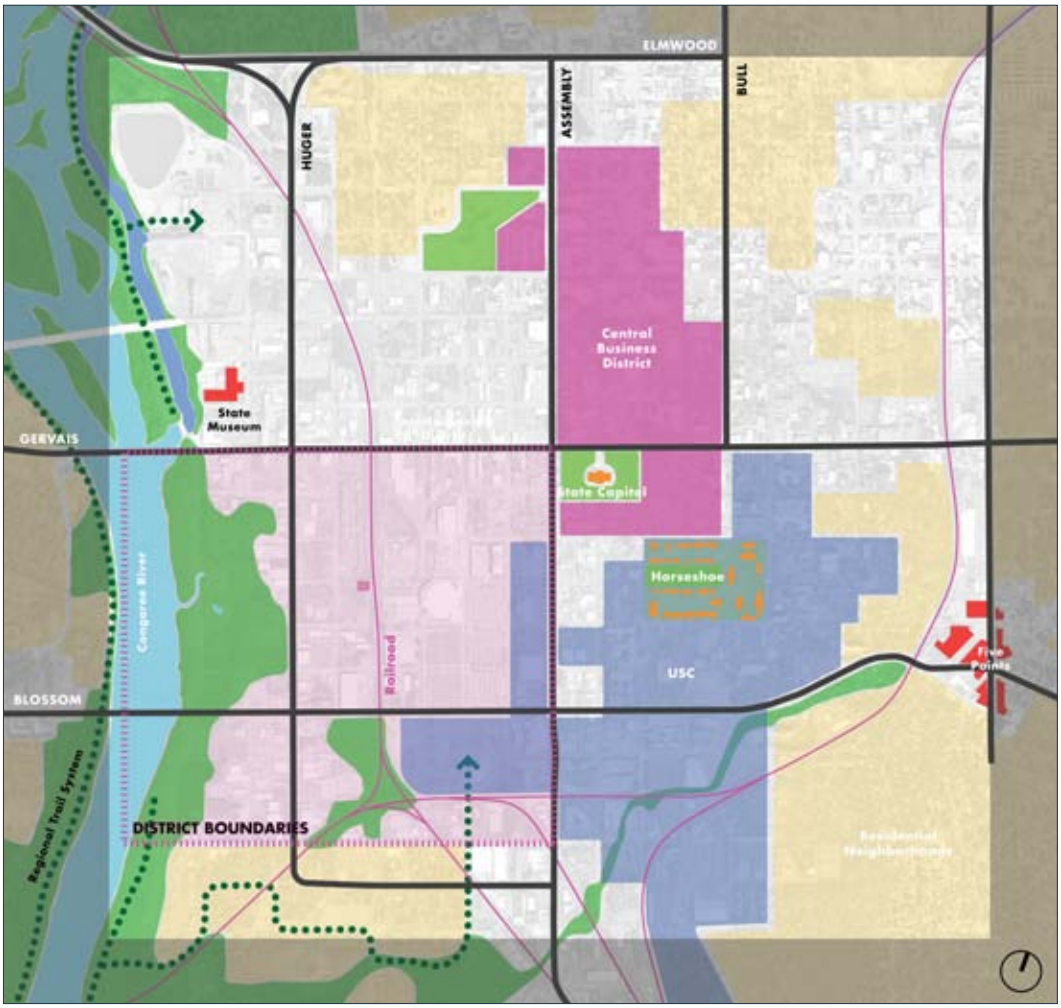


FIGURE 3.1: KEY AREAS IN DOWNTOWN COLUMBIA

Today, Columbia is the commercial and educational center of a region with a metropolitan area population approaching one million citizens. The State House, located at the intersection of Gervais and Assembly Streets, remains a defining feature. The central business district lies to the north, while the area south of the State Capitol is owned largely by the University of South Carolina. Residential neighborhoods surround the city to its north, south, and east and additional residential development lies west of the Congaree.

Through the 1990s, the area immediately west of the downtown and the USC was a patchwork of undeveloped lands, parking lots and low-density industrial and commercial uses. The State Museum, located adjacent to the Congaree River, became the area's primary attraction for visitors and residents.

Fostered by the development of new roads and highways in the second half of the twentieth century, Columbia's growth shifted west toward Lake Murray and east toward Fort Jackson, forming a "butterfly" development pattern. Interstate 126 and Bull Street serve as the major access points north of the city, while Interstates 20, 26 and 77 create a large loop around it. Gervais Street, which bridges

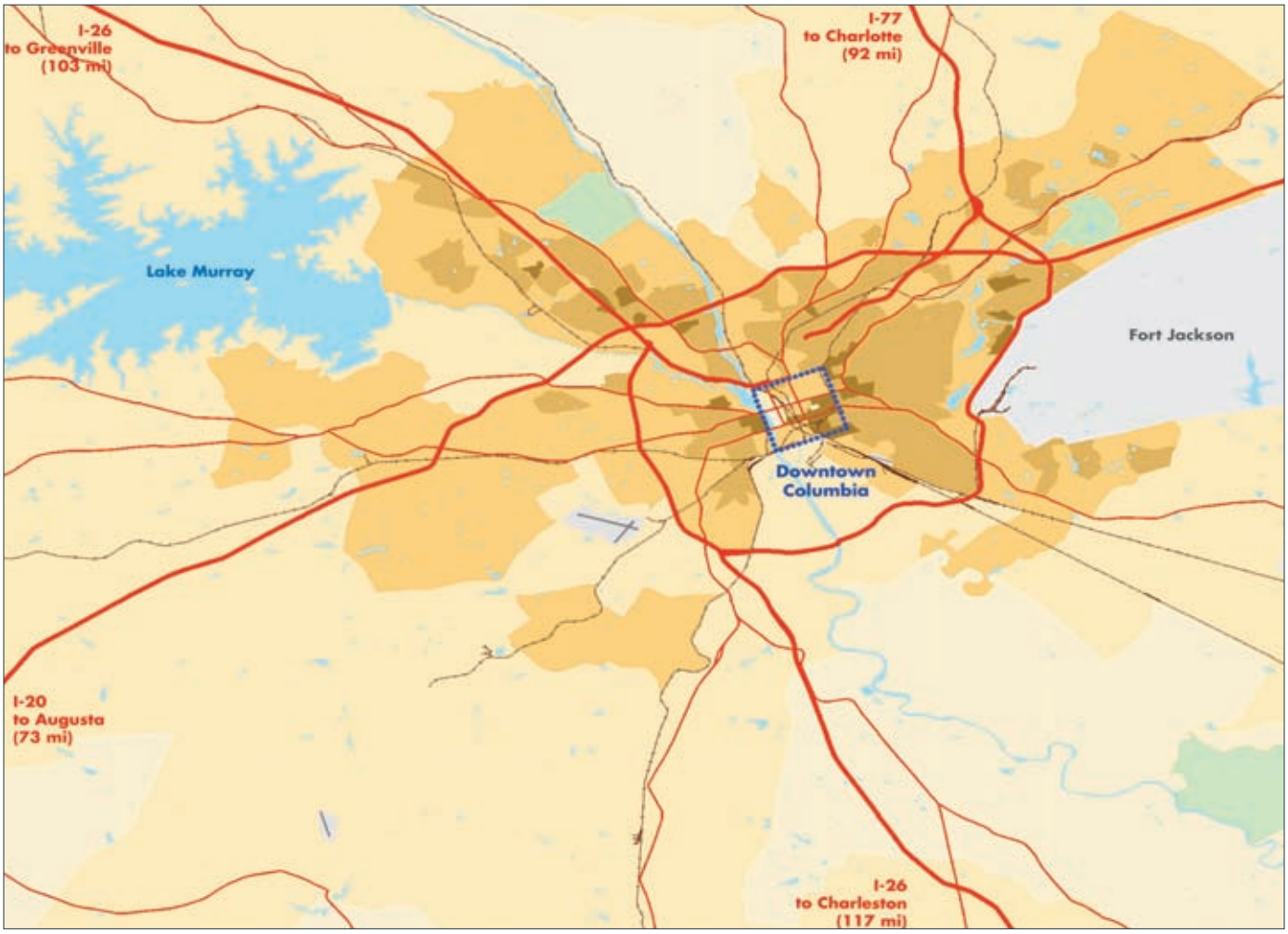


FIGURE 3.2: GROWTH PATTERN OF THE COLUMBIA METROPOLITAN AREA, WITH SHADES OF YELLOW INDICATING POPULATION DENSITY

the Congaree, has replaced Senate Street as the major east-west thoroughfare. South of Senate Street, Blossom Street has become an important east-west route connecting the downtown to the airport. Despite this shift away from the historically prominent streets, the city's major highways and arteries continue to rely on Columbia as a central node in the regional transportation network. Columbia is served by a major airport southwest of the city as well as by daily train service.

In the past fifteen years landowners and developers have proceeded to convert several of Columbia's textile mills to museums and housing. Historic warehouses and mercantile buildings along Gervais Street are being adaptively reused in the development of the Vista as an arts and entertainment area, and the Olympia and Granby Mills are currently undergoing conversion to housing use. The City of Columbia has played a significant role in the rebirth by devising a well-conceived approach to provide the necessary infrastructure and attractive streetscaping north and south of the Gervais Street corridor. The principal funding source for much of this public investment has come from the issuance of tax increment financing (TIF) bonds.

FIGURE 3.3: THREE RIVERS GREENWAY

Following the lead of many other American cities, Columbia and its adjacent political jurisdictions—including Cayce and West Columbia—have rediscovered the waterfront along their rivers. Today the Congaree River is bordered by the twelve-mile long Three Rivers Greenway regional trail system. Much of this work has been accomplished through a public-private multi-jurisdictional organization, The River Alliance. Among other benefits, implementing the Master Plan for the Innovista planning area will permit completion of the Three Rivers Greenway, providing continuous waterfront access and significant recreational amenities to the region's residents.

4. SITE CONTEXT

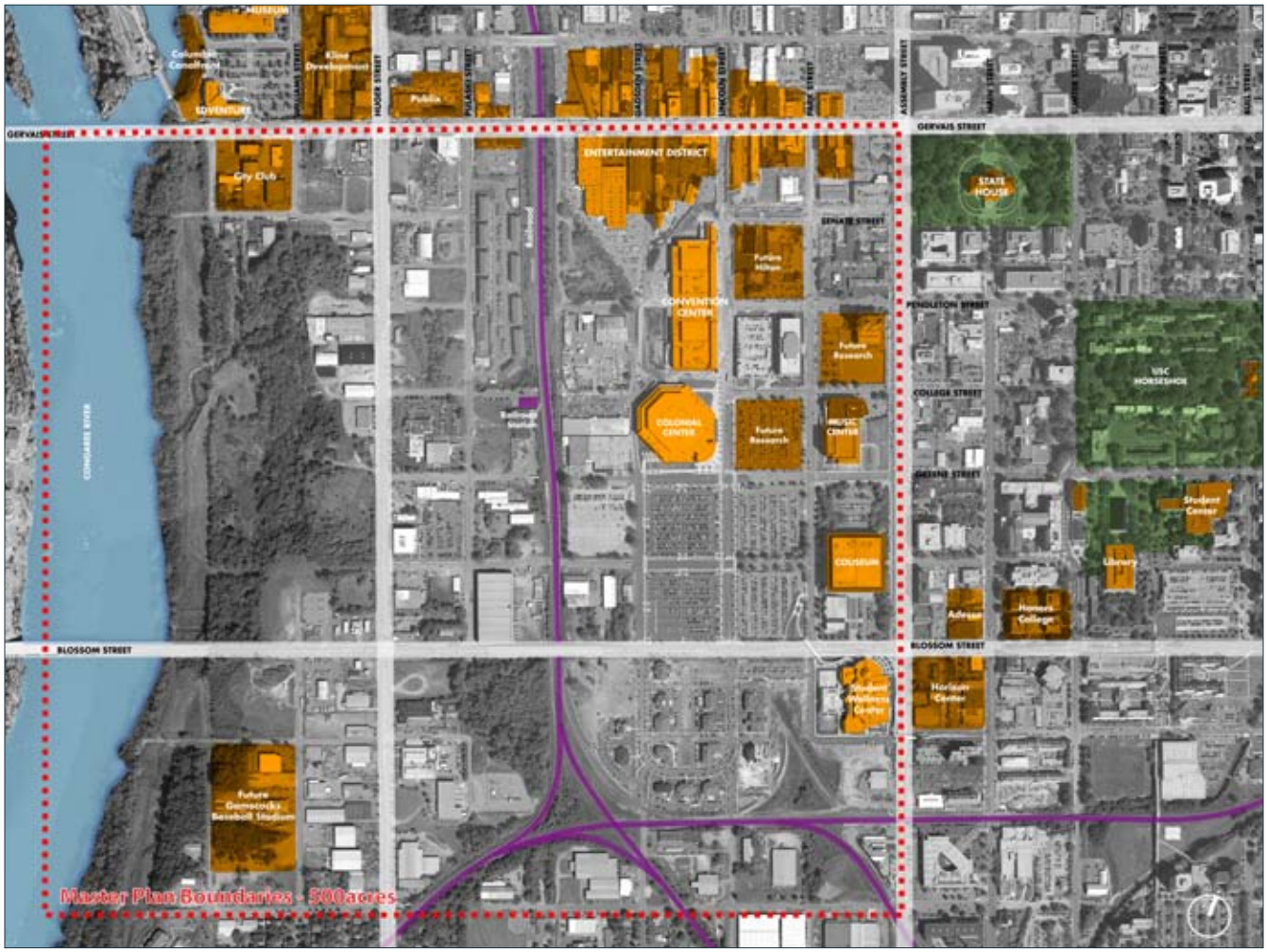


FIGURE 4.1: EXISTING CONDITIONS, WITH MAJOR BUILDINGS AND REDEVELOPMENT AREAS AT INNOVISTA INDICATED IN ORANGE

Once a warehouse district with textile mills, steel fabrication facilities and railroad stations, today portions of the Innovista planning area already have witnessed a positive level of redevelopment. The planning area itself is comprised of 500 acres bounded by Gervais Street to the north, Catawba Street to the south, Assembly Street to the east, and the Congaree River to the west. The area contains a major rail line that runs in a north-south direction and lies in a below-grade trench north of Devine Street. Gervais Street and Blossom Street are the major east-west gateways to the City while Huger Street and Assembly Street are important gateways to the downtown area from the north and south. Much of the University of South Carolina (USC) campus as well as the State House lie immediately to the east of the site.

Current uses within the Innovista planning area include light industrial warehouses and small suburban office buildings. There is a significant amount of vacant property and large commuter parking lots scattered throughout the neighborhood. The University, the City and other public entities including Richland and Lexington Counties, have recently channeled investment into the area by supporting the construction of new public facilities, including the Metropolitan Convention Center and the Colonial Center, a new 18,000-seat multi-purpose arena.

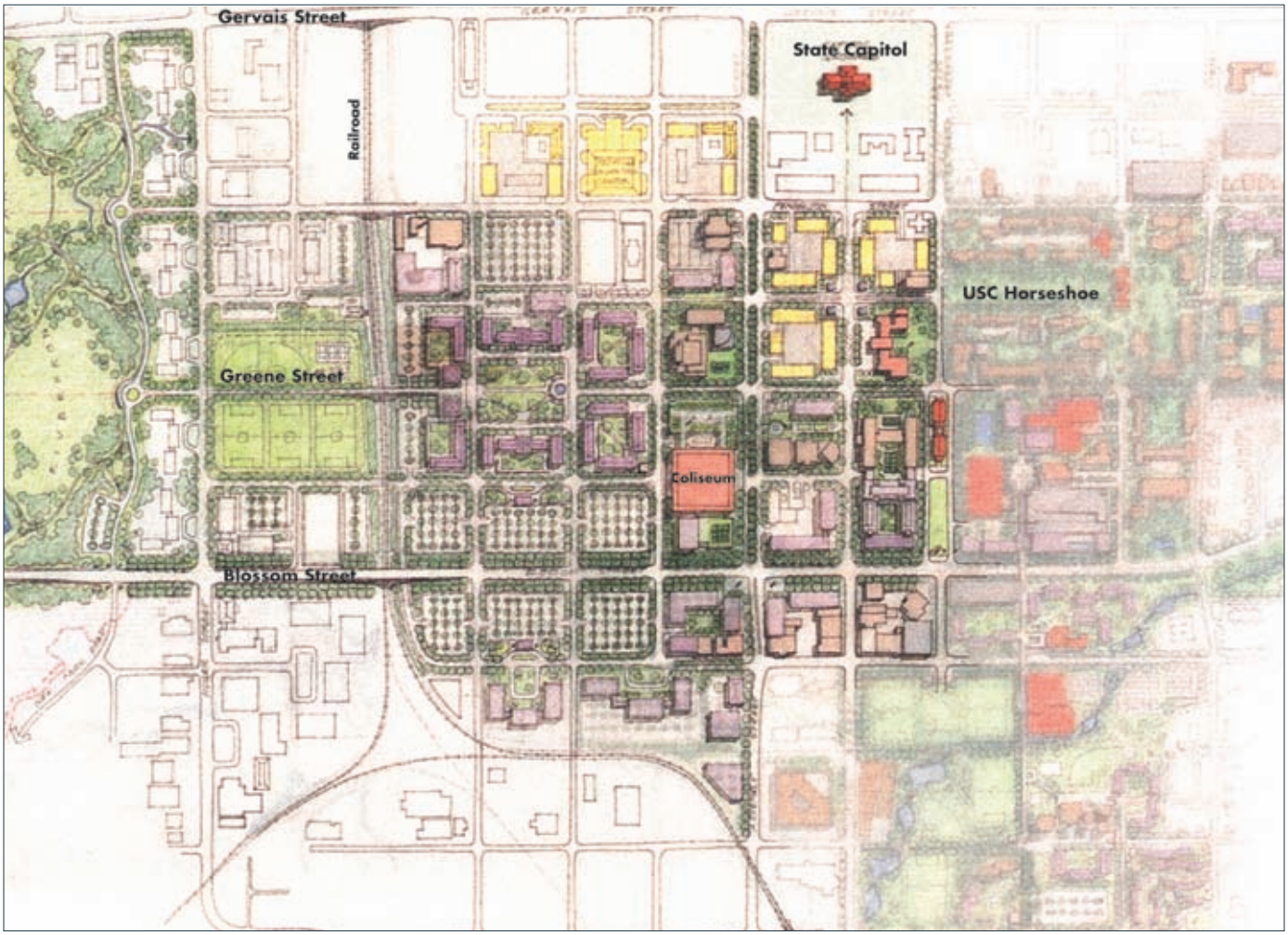


FIGURE 4.2: 1994 UNIVERSITY OF SOUTH CAROLINA LONG-RANGE VISION PLAN

During the past two decades, two major planning initiatives have triggered the transformation of portions of the Innovista area: the University of South Carolina Bicentennial Master Plan and the Congaree Vista tax increment finance (TIF) district.

Approved in 1994, the Bicentennial Master Plan focused future University expansion westward toward the Congaree River on undeveloped land along Greene Street. The plan called for a new mixed-use University district with housing, recreation and academic facilities. It placed new green quadrangles within the grid framework of the city's streets and created open space corridors linking development to a waterfront park along the banks of the Congaree River.

This Master Plan incorporates the essential concepts of the University's Bicentennial Master Plan.

A second element essential to the redevelopment of portions of this area was the establishment of the Congaree Vista TIF district, which encompasses an area spanning from Blossom Street to Elmwood Avenue and from Assembly Street to the River. The Congaree Vista TIF district has provided funds for streetscape and infrastructure, triggering an array of new activities within the area, including retail, dining, and cultural attractions along Gervais Street, the EdVenture Children's Museum, the Metropolitan Convention Center, and the Colonial Center.

FIGURE 4.3: AERIAL VIEW OF THE INNOVISTA SITE AND DOWNTOWN COLUMBIA

Several projects are currently planned or under construction in the Congaree Vista area. Many of these will bring urban housing to downtown Columbia, including the Canal Side residential development along the Columbia Canal, the City Club project and the Kline Property mixed-use development along Gervais Street. A Hilton Hotel is under construction adjacent to the Convention Center and the new USC baseball stadium, which will serve students, residents and tourists alike, is about to begin construction. New research and office developments which will serve the University of South Carolina are proceeding. North of Gervais Street, the City is undertaking the Columbia Canal Front landscape project between the State Museum and the EdVenture Museum to beautify the area. The Master Plan for Innovista is designed to weave the existing projects together with an array of new housing, office, academic, research and retail uses into a coherent, and attractive, urban neighborhood.

5. OPPORTUNITIES & CONSTRAINTS

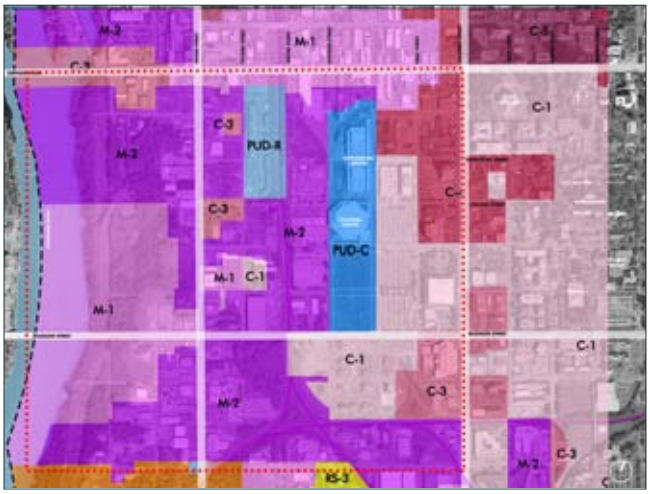


FIGURE 5.1: CURRENT ZONING AT INNOVISTA

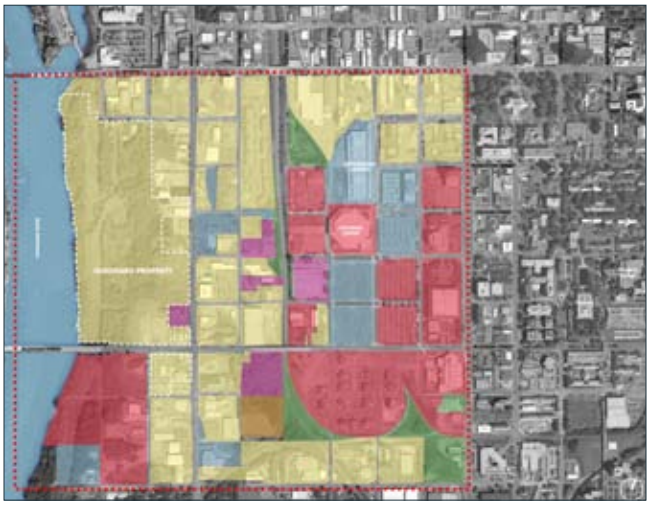


FIGURE 5.2: INNOVISTA LAND OWNERSHIP MAP (RED INDICATES USC-OWNED PROPERTY; MAGENTA, USC-AFFILIATED PROPERTY; BLUE, STATE-OWNED PROPERTY; YELLOW, PRIVATE OWNERSHIP; BROWN, SOUTH CAROLINA ELECTRIC & GAS PROPERTY; AND GREEN, RAILROAD PROPERTY)

The City of Columbia, the University of South Carolina and private landowners will face challenges as redevelopment continues to occur within the Innovista planning area. Amongst the constraints—and opportunities—facing the site are its current industrial zoning designation, its pattern of multiple land ownership, limits to development in the floodplain along the river, the power lines running parallel to the river, the lack of connections between the downtown and the river, and the limited number of vehicular and pedestrian crossings over the railroad tracks.

The underlying zoning for the Innovista planning area is for light industrial uses, warehousing, and other commercial uses. Zoning overlays permit mixed-use development by special exception, but not to the level of intensity envisioned in the proposed Master Plan. It is anticipated that a new zoning ordinance will be necessary to implement Innovista.

Forming partnerships amongst Innovista's various property owners will be an essential step to advance the project. The Innovista area has a variety of property owners, including the University and its Development Foundation, the State and the City, Guignard Associates and multiple other private owners. The total net development parcels, excluding the roads and railroad rights-of-way, totals approximately 400 acres. The University's land holdings, including the USC Development Foundation, are approximately ninety-seven acres, or twenty-four percent of the site. Their current land ownership, combined with their long-term leases, comprise the majority of the redevelopment parcels east of the rail line. Guignard Associates owns all of the riverfront property between Blossom and Gervais Streets, totaling approximately seventy-two acres, or eighteen percent of the site. The remaining land, approximately 229 acres, or fifty-seven percent, is owned by the City, the State, or private companies and individuals. Enhancing communication and strengthening relationships between and among the various stakeholders will be vital to Innovista's success.

Redevelopment of the property along the waterfront for mixed-use real estate and public park use —and connecting it to downtown—is both a key challenge facing Innovista as well as a singular opportunity for the community. Downtown Columbia currently has limited public access to the Congaree

River. This is due in part to private ownership of the waterfront lands and in part to the railroad and power lines, which sever street connections from the downtown to the river. Working with Guignard Associates to develop the waterfront as a public park, bridging the railroad at Greene Street, relocating the power lines and extending the number of street connections to the riverside will facilitate public access to, and use of, the waterfront.

The site of the Congaree Regional Waterfront Park has unique physical characteristics. The riverfront property owned by Guignard Associates and the Unviersity of South Carolina has topography that ranges from a low of 110 feet to 190 feet at Huger Street. Steep slopes occur along a bluff at the terminus of Greene Street, with an eighty-foot drop in elevation toward the river. A freshwater wetland occupies the central portion of site, and South Carolina Electric & Gas power lines traverse the site along the river. Responding to the existing topography, restoring the wetlands and relocating the power lines are essential elements to the design and implementation of a world-class waterfront park.

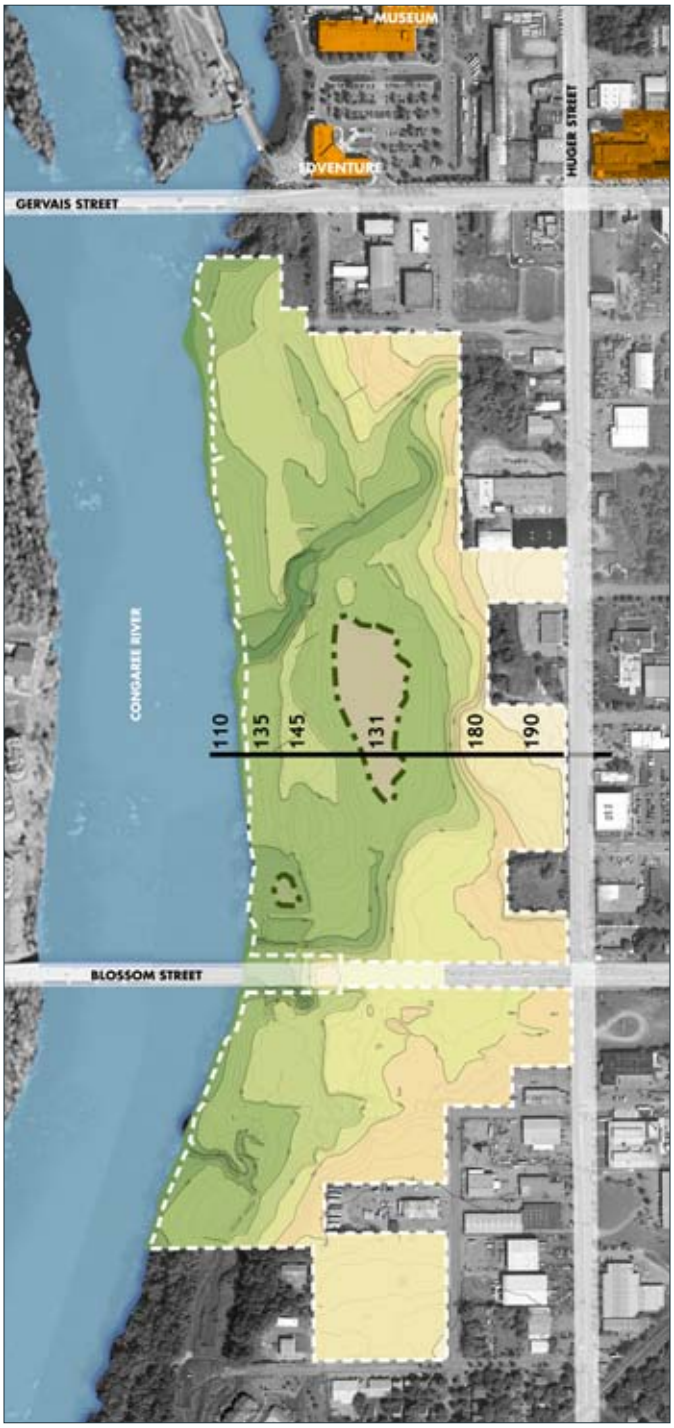


FIGURE 5.3: GUIGNARD AND USC WATERFRONT PROPERTIES ELEVATION MAP AND MAJOR WETLAND AREAS (DARK GREEN INDICATES THE LOWEST ELEVATION) AND GREEN HATCHING INDICATES WETLAND BOUNDARIES)

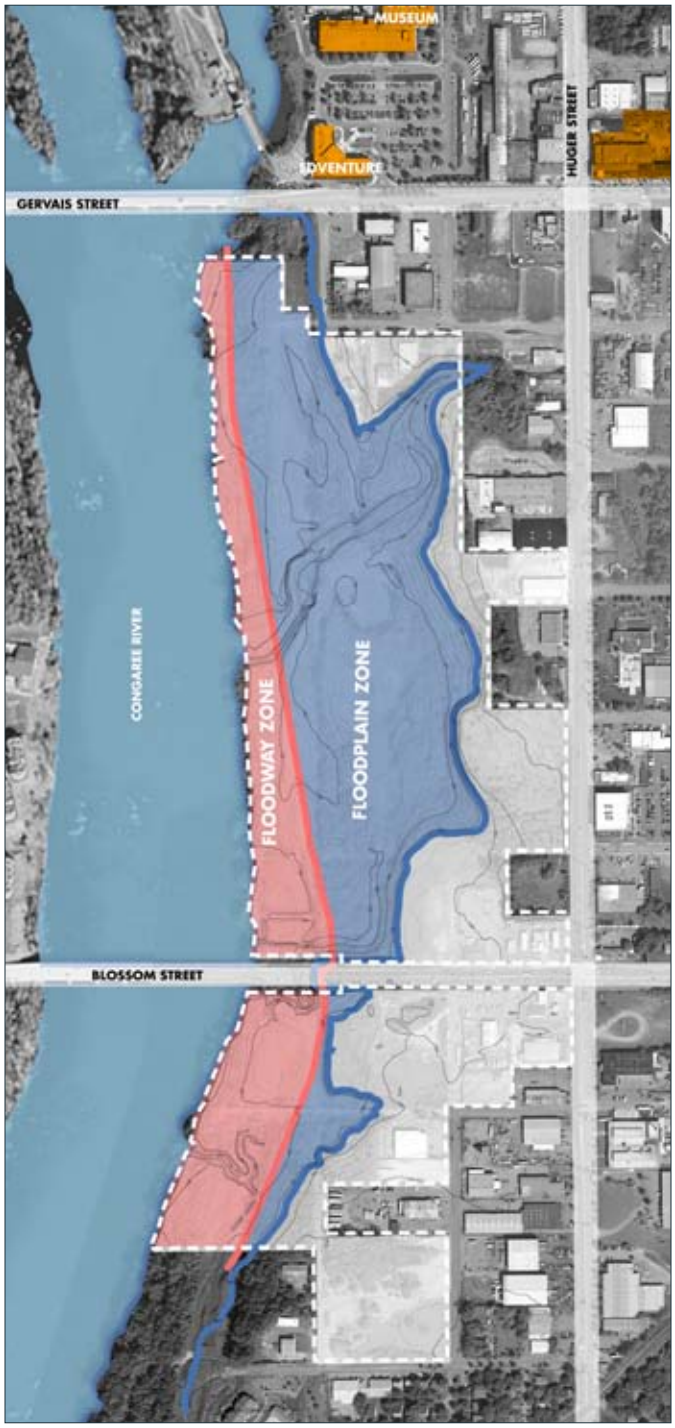


FIGURE 5.4: FEMA FLOOD CONTROL REGULATIONS (RED INDICATES FLOODWAY, BLUE INDICATES 100-YEAR FLOODPLAIN)

A further challenge to redeveloping the Congaree River waterfront as a park is the need to adhere to federal flood control regulations. A FEMA-designated Floodway (FW) Overlay District extends along the edge of the river and limits uses to parking; lawn and play areas; agriculture and horticulture; open air recreational uses; and streets, storm drainage and utilities. Exceptions include docks, piers and wharves as well as cafés and recreational uses located on floating structures. The site also contains a significant portion of land located within the river's one hundred year floodplain. Regulations require most uses to be elevated above the base flood level of 153 feet. This will permit some limited development along the riverfront.

The railroad tracks running through the core, while largely below street grade, present another constraint because of limited crossings. Currently, there are only two grade-separated roadway crossings over the tracks at Gervais and Blossom Streets, neither of which are bicycle- or pedestrian-friendly. Devine Street crosses the tracks at grade. Facilitating improved pedestrian movement over the railroad tracks is crucial to successful redevelopment.

To overcome these various challenges, the Innovista Master Plan takes a coordinated approach to redevelopment. Implementation of urban mixed-use development within the framework of Columbia's historic street grid—in conjunction with the public-private research and job creation initiatives being undertaken by the University, the City and a myriad of local and regional stakeholders, as well as the creation of a world-class waterfront park—has the realistic potential to transform the entire region.

6. PROPOSED MASTER PLAN

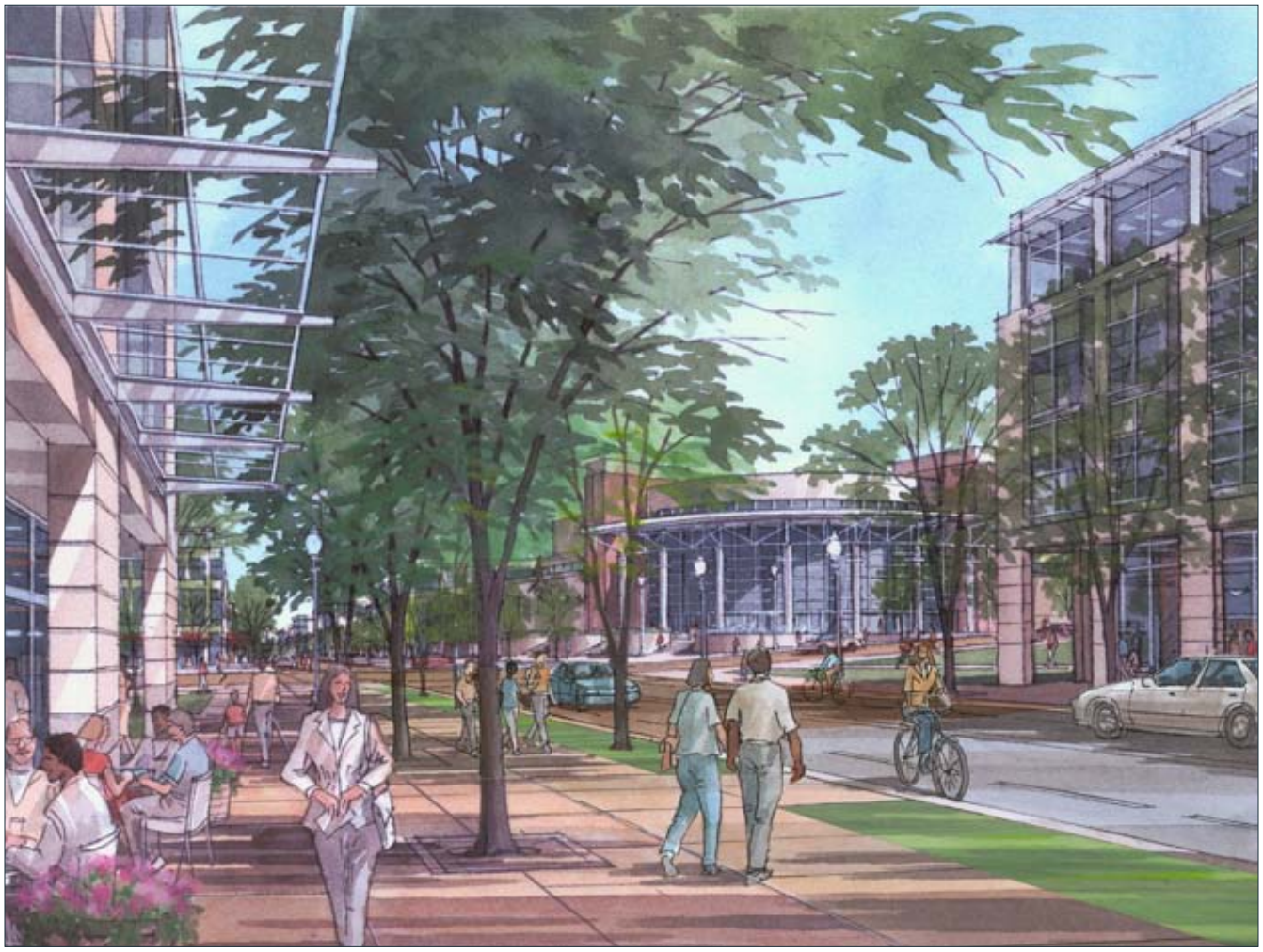


FIGURE 6.1: VIEW OF GREENE STREET AT THE COLONIAL CENTER

COMMUNITY GOALS

The Innovista Master Plan seeks to incorporate the goals of the various stakeholders, including the Columbia community, the University of South Carolina and existing property owners. The Master Plan is designed to provide housing and a downtown urban lifestyle alternative that will allow Columbia to retain USC graduates and attract the "best and the brightest" to live and work in the City. It will provide the State and the University of South Carolina with a means to leverage the economic development potential of the University's focused research initiatives including alternative energy, nanotechnology, biomedical science and environmental science. Finally, the development of a large world-class public waterfront park will provide the missing link to complete the Three Rivers Greenway regional park system and provide the core element of a "transformative vision" for the State of South Carolina's capital city.

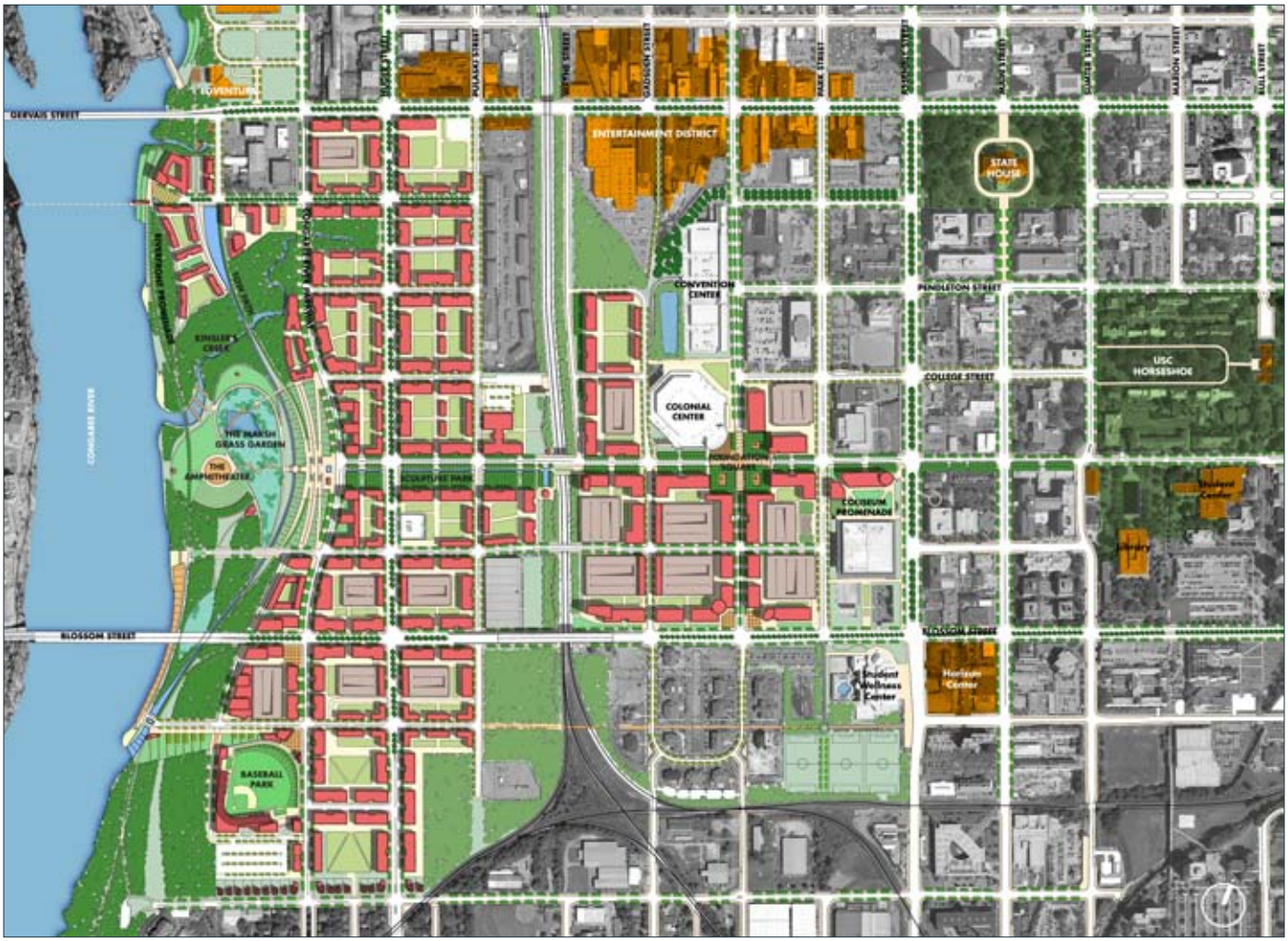


FIGURE 6.2: INNOVISTA ILLUSTRATIVE MASTER PLAN

URBAN DESIGN CONCEPT

The urban design concept for the Innovista planning area will create a new framework for redevelopment by extending the City's historic street grid to the Congaree River, where it will meet a civic-scaled Waterfront Park.

Based on a sustainable "garden city" design concept, the Innovista area will feature landscaped parks, pedestrian promenades, streets that are friendly to both pedestrians and bicyclists, and environmentally sustainable buildings. The architectural design concept envisions four- to six-story street-fronted urban buildings with parking in multi-story structures. The program and design of the buildings will vary depending on whether they lie within the Innovation District, adjacent to the University of South Carolina campus and east of the railroad lines, or within the Waterfront District, which encompasses the land extending west of the railroad to the Congaree River.

The design concept refines the city's historic grid system by extending the east-west streets to the Congaree River, where they terminate at a new north-south road, the Congaree River Parkway. The parkway, which frames the edge of the Congaree

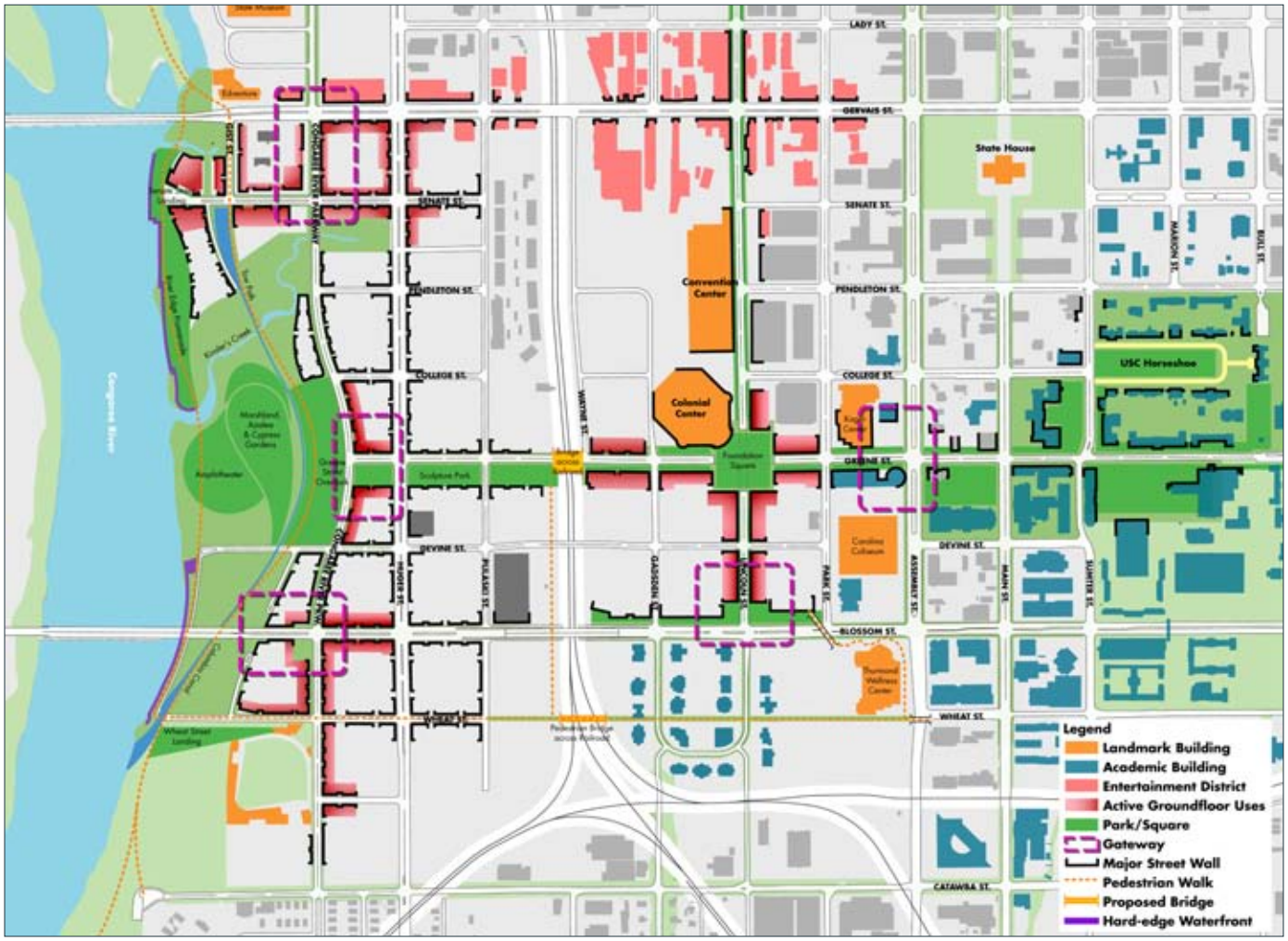


FIGURE 6.3: INNOVISTA URBAN DESIGN DIAGRAM

Regional Waterfront Park, will provide beautiful overlooks and unimpeded public access to the park below.

The urban design plan identifies five principal gateways to the Innovista area. The first is at the intersection of Blossom Street and Congaree River Parkway, adjacent to the Blossom Street Bridge, while the second is at the intersection of Lincoln Street—the principal north-south entry to Foundation Square, the Colonial Center and the Convention Center—and Blossom Street. The intersection of Greene Street and Assembly Street, the gateway from the University, will form the third gateway while the fourth will be at the intersection of the Congaree River Parkway and Senate Street and the fifth at the intersection of Greene Street and Congaree River Parkway. The urban design plan calls for distinctive open space and architectural massing considerations to mark these gateways.

The Innovista design concept creates a distinction between streets designed accessible for cars, but designed primarily for pedestrians and bicycles ("A" streets), and streets designed

FIGURE 6.4: VIEW OF THE WESTERN END OF GREENE STREET ALONG THE SCULPTURE PARK

for the automobile ("B" streets) providing efficient vehicular access to all blocks as well as to their service areas.

Greene Street will serve as the principal pedestrian spine leading from the University's Thomas Cooper Library and downtown Columbia. Greene Street will feature a procession of new public open spaces, including Foundation Square—a shaded urban square framed by mixed-use buildings with active commercial uses, including restaurants and retail at street level—and a linear Sculpture Park leading to the Congaree Regional Waterfront Park. The urban design plan anticipates that Greene Street and the Sculpture Park will be framed by mixed-use residential uses with supporting retail services.

The urban design plan features two public riverside landings on the Congaree: at the Senate Street Landing, site of the historic cable ferry crossing, and the Wheat Street Landing, adjacent to the new USC baseball park. Both landings will provide public pedestrian and vehicular access to the bank of the river.

FIGURE 6.5: WHEAT STREET LANDING, WITH THE USC BALLPARK IN THE BACKGROUND

FIGURE 6.6: PROPOSED DESIGN FOR THE CONGAREE REGIONAL WATERFRONT PARK

OPEN SPACE

The open space design concept mirrors the historic street grid, transforming existing and proposed streets into pedestrian-friendly roadways with shade tree canopies, broad sidewalks and traffic-calming measures. It introduces urban, landscaped open spaces to the grid along Greene Street and the gateway districts, and culminates in the Congaree Regional Waterfront Park.

The proposed Congaree Regional Waterfront Park celebrates the City's industrial heritage and riverside location, and will complete the region's existing twelve-mile-long linear trail system along the Saluda, Broad and Congaree Rivers. It will serve as Columbia's new "front yard." The design of the waterfront park is in the tradition of great American urban parks: celebrating the site's distinctive natural and historic features and introducing public areas for recreation. The Master Plan calls for the restoration of the existing natural landscape, including the freshwater marsh and creeks. It also acknowledges the waterfront's historic cultural elements, some of which are on or are eligible for the National Register of Historic Places, including the remnants of the quarries, sawmills, brickworks, and the historic Columbia Canal and towpath and reflects them in the design of the park.

The waterfront park is organized around a central open space at the termination of Greene Street. From there, the park is accessed via ramps which descend through flowering gardens. At that point, boardwalks will cross a restored freshwater marsh, surrounded by cypress and azaleas, before reaching a large amphitheater and an area along the river for active public use.

The park will be anchored to the north and to the south by public landings along the river. North of the park, a mixed-use plaza along Senate Street will feature restaurants, a boutique hotel, and an area for active public use of the river edge. This area will have a formal landscape, with an urban parapet at the river's edge, benches and steps defining the promenade along the Congaree River, and will feature long views along the river to the historic Gervais Street Bridge. At the Wheat Street Landing, the new USC baseball stadium will be located south of the Blossom Street Bridge, overlooking the Congaree River. Landscaped terraces will connect the stadium to the river's edge, serving as a gathering area for families and students

FIGURE 6.7: VIEW OF TRAIL ALONG THE RESTORED COLUMBIA CANAL. TO THE LEFT, RESIDENTIAL BUILDINGS LINE THE NEW CONGAREE RIVER PARKWAY AND FORMAL TERRACES STEP DOWN FROM THE GREENE STREET OVERLOOK. TO THE RIGHT, BOARDWALKS CROSS RESTORED WETLANDS AND LEAD TO THE PUBLIC AMPHITHEATER.

FIGURE 6.8: SENATE STREET LANDING, WITH THE GERVAIS STREET BRIDGE IN THE BACKGROUND

FIGURE 6.9: VIEW OF THE PUBLIC AMPHITHEATER, LOOKING NORTH TOWARDS THE SENATE STREET LANDING

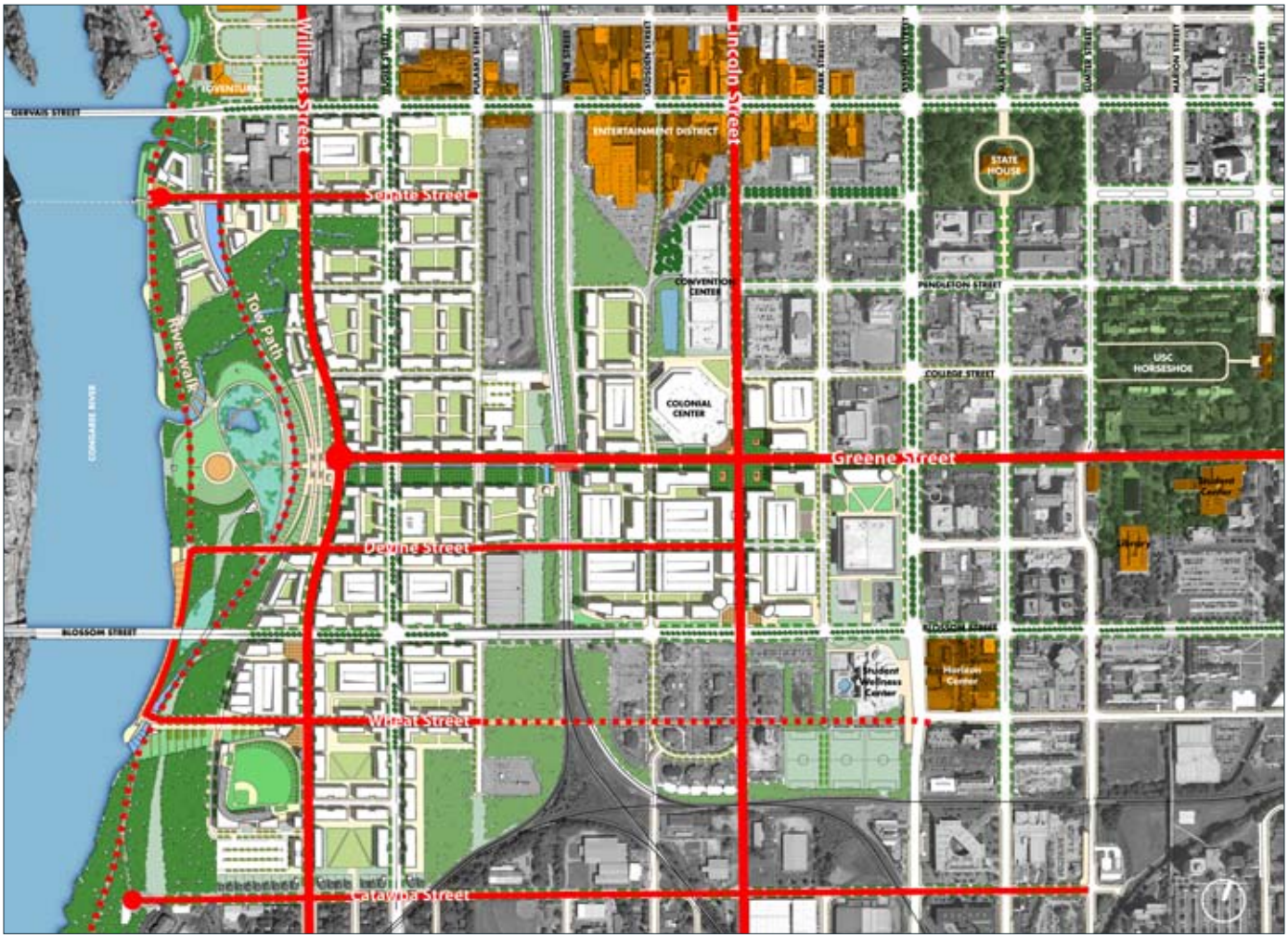


FIGURE 6.10: INNOVISTA STREET CONNECTIONS (RED INDICATES ROADWAYS THAT PROVIDE PRIMARY PEDESTRIAN AND BICYCLE CONNECTIONS)

before and after the game, as well as those utilizing the Three Rivers Greenway.

Parking for the park will be provided at the Wheat Street Landing, at the extension of Devine Street and at the Senate Street Landing. Two major pedestrian and bicycle trails will cross the park to connect these elements together: one along the Congaree River and the other along the route of the Columbia Canal. In addition to providing greater amenities for the Innovista area, these trails will fulfill the regional goal of completing the trail linking the state museum north of Gervais Street with the new baseball stadium, the trail system south of Blossom Street and the historic neighborhoods of Granby, Whaley and Olympia to the south.

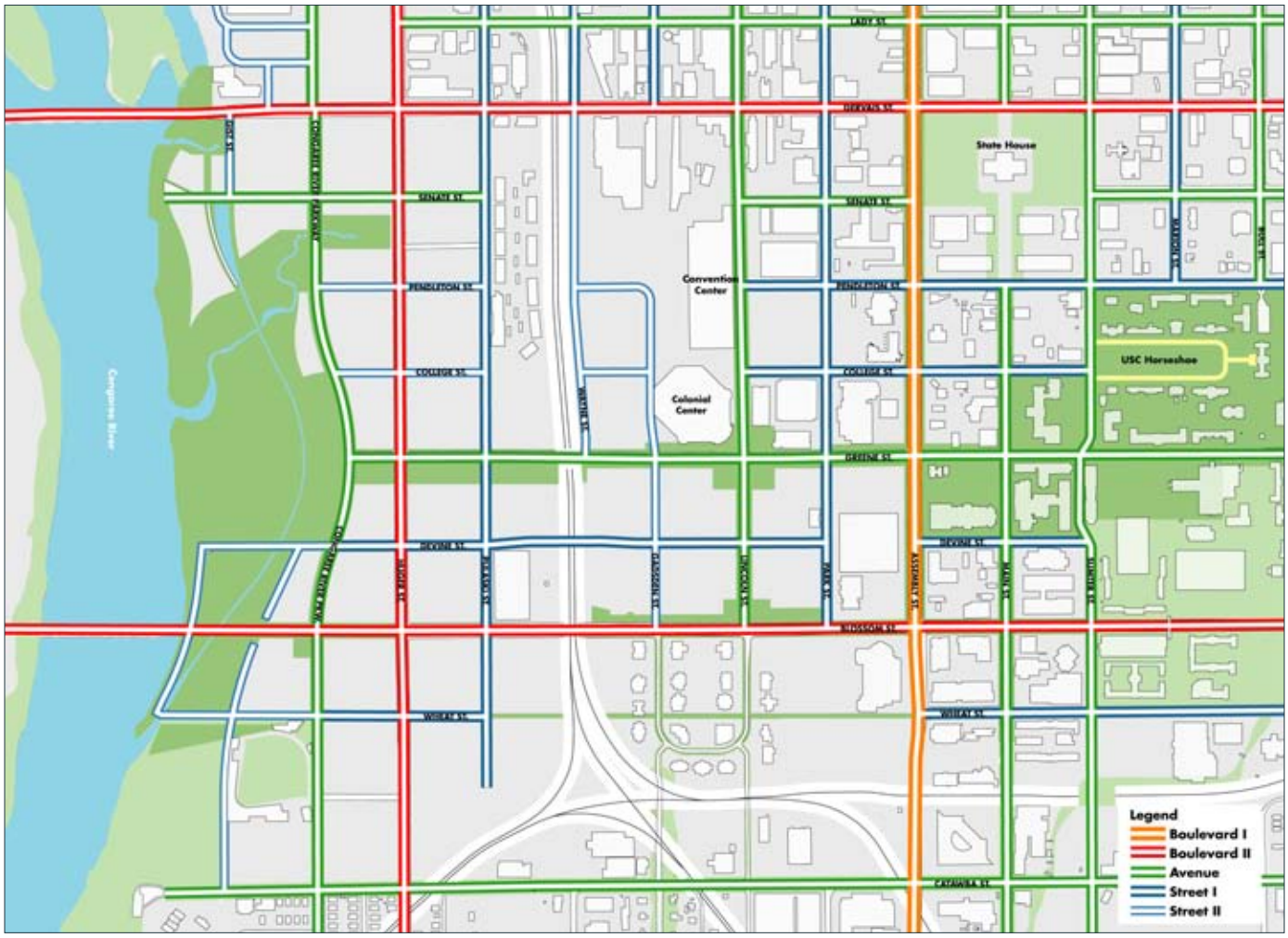


FIGURE 6.11: INNOVISTA STREET TYPE PLAN

CIRCULATION

The pedestrian and vehicular concept for the Innovista area is embodied in the extension and redevelopment of the City's historic street grid and its refinement into a hierarchical system of boulevards, which respond to intra-community vehicular movement and pedestrian friendly avenues and local streets servicing the Innovista live/work/learn/play community.

The circulation plan proposes establishing a hierarchical system of "A" and "B" streets within the Innovista area as a means to differentiate between streets that are predominantly for bicycles and pedestrians ("A") from streets that are more typical traffic arteries ("B"). "A" streets will feature broad landscaped pedestrian/bike ways with active offices and commercial uses at street level in adjoining buildings. Vehicular traffic will be limited to two travel lanes, typically with no curbside parking. The more typical "B" streets will have two to four travel lanes and curbside parking. Access to parking structures will be provided from "B" streets.

All avenues, including Greene and Lincoln Streets and the Congaree River Parkway, are categorized as "A" streets. The "B", or vehicular-focused, streets will include boulevards —such as Blossom, Assembly, Huger and Gervais Streets—as

TABLE 6.1: PROPOSED STREET SPECIFICATIONS

	EXISTING ROW	PROPOSED ROW	DRIVING LANES		TURNING LANES	BIKE LANES	ON-STREET PARKING
			NUMBER	WIDTH			
BOULEVARD I	150’	150’	4	11’	median	x	yes
BOULEVARD II	100’	100’	4	11’	median	x	yes
LOCAL STREET I	100’	84’	2	11’	9’	x	yes
LOCAL STREET II	100’	70’	2	11’	median	x	yes
AVENUE I	100’	82’	2	10’	median	x	yes
AVENUE II	100’	80’	2	9’	x	yes	x
AVENUE III	N/A	96.5’	2	9’	x	yes	yes (one side only)

STREET TYPES:

Boulevard I: Assembly Street
Boulevard II: Huger Street, Blossom Street
Local Street I: Pulaski Street, Gadsden Street, Park Street
Local Street II: Pendleton Street, College Street, Devine Street, Wheat Street
Avenue I: Lincoln Street, Senate Street, Catawba Street
Avenue II: Greene Street
Avenue III: Congaree River Parkway

well as local streets. They will consist of two travel lanes on each direction, with on-street parking and a planted median separating the traffic directions. The width of the median will vary according to the overall street right-of-way.

Primary pedestrian and bicycle circulation will be along the “A” avenues. Greene Street will serve as the principal east-west pedestrian spine connecting the University and the State Capitol complex to the Congaree River. It will begin at the reflecting pool at the Thomas Cooper Library and trace a path west to the new Foundation Square, which will be a shaded urban plaza surrounded by mixed-use housing, University and private sector research and office buildings and supporting storefront retail. From there the pedestrian public space will pass over the railroad tracks via a new bridge that carries the streetscape seamlessly above the rails. Finally, the pedestrian spine will continue along a linear park—the Sculpture Park—before terminating at a public overlook with views of the Congaree Regional Waterfront Park and the Congaree River.

The Congaree River Parkway will feature a pedestrian promenade atop the bluff overlooking the waterfront park and will run from the State Museum complex north of Gervais Street to the USC ballpark and the historic neighborhoods

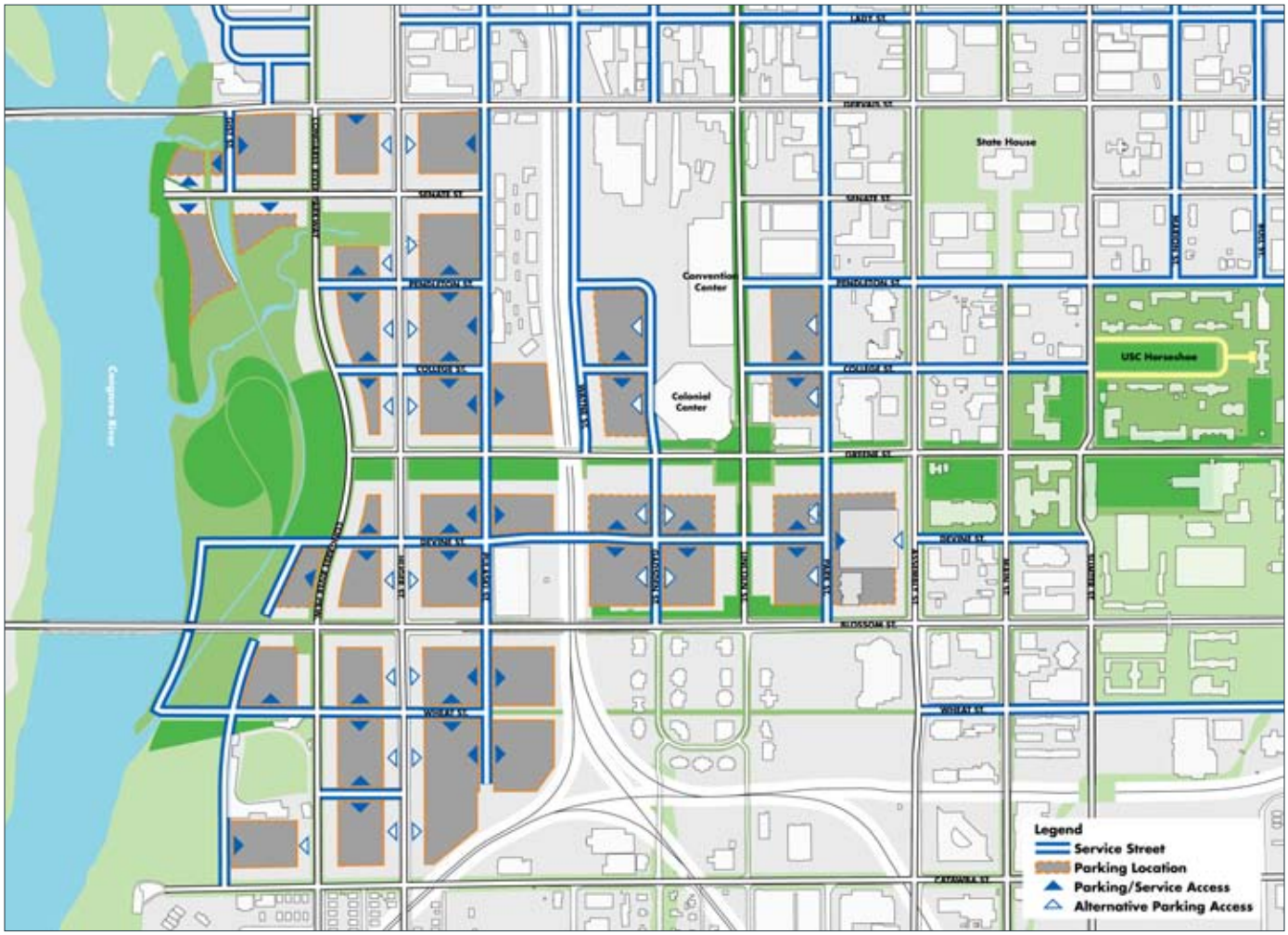


FIGURE 6.12: INNOVISTA PARKING PLAN

south of Catawba Street. In addition, Lincoln Street will serve as an important north-south pedestrian street linking the Convention Center, Colonial Center and Foundation Square to the entertainment district along Gervais Street as well as Finlay Park to the north. Like Greene Street, it will be open to vehicular use but will cater to the needs of pedestrians and bicyclists. Finally, a new pedestrian bridge on Wheat Street and at-grade pedestrian crossing at Catawba will cross the rail lines and connect the neighborhoods and University south of Blossom Street to the riverfront.

The local streets will provide the vehicular access to the rest of the Innovista planning area. They consist of one travel lane in each direction, with a turning lane for easy access to nearby buildings, their service alleys and parking structures. While these streets will not have as many pedestrian amenities as the "A" streets, they will provide tree-lined sidewalks supporting pedestrian use.

Phased development of the Innovista area is expected to consume much of the area's existing surface parking. The Master Plan assumes that most parking in the Innovista area will be taken off of the streets and placed in parking structures

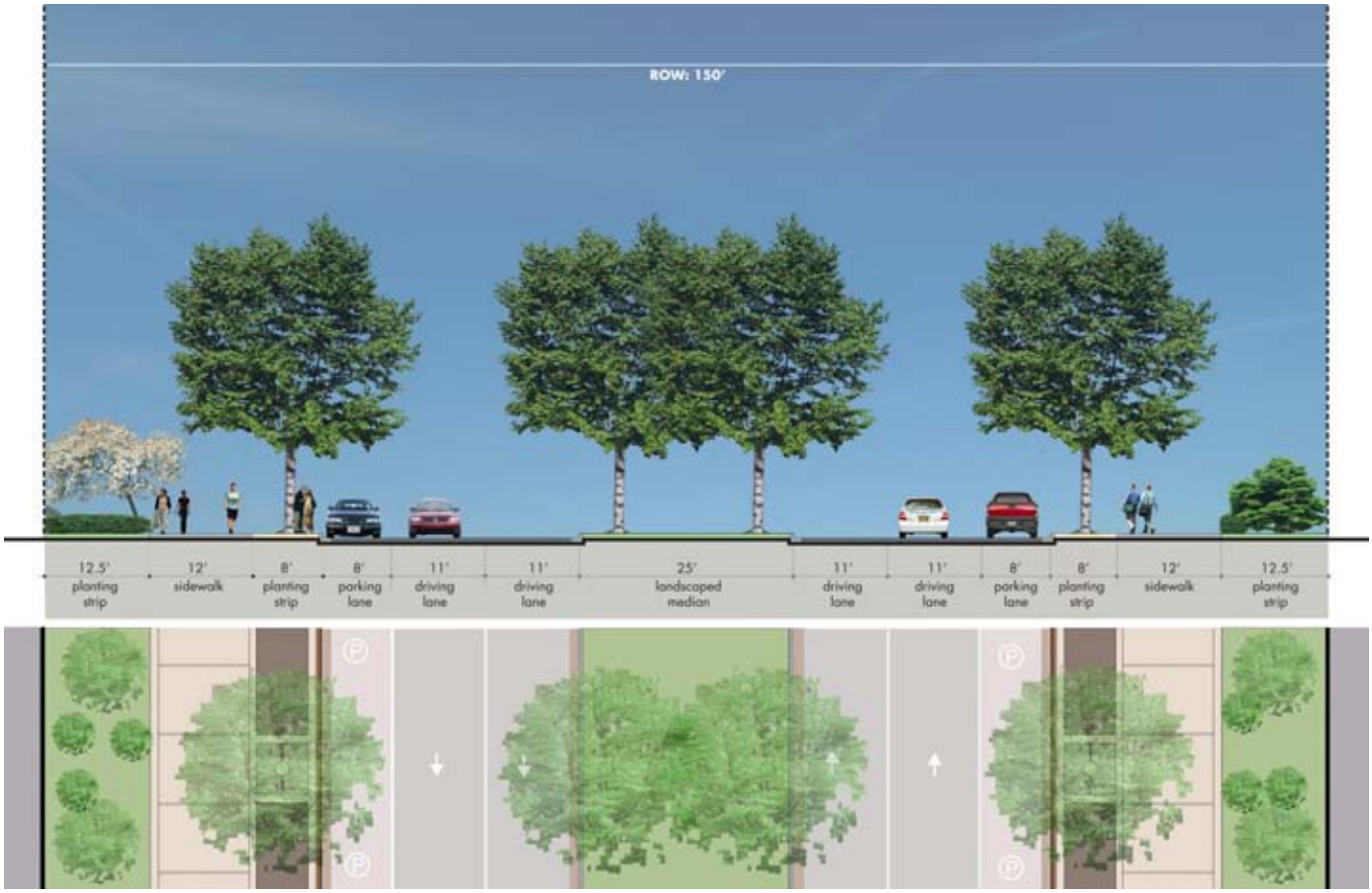


FIGURE 6.13: BOULEVARD I – 150 FOOT RIGHT-OF-WAY

This figure illustrates a boulevard configuration for streets such as Assembly Street.

within the interior of the large blocks, and that each block will satisfy the parking demand that it generates. Surface parking will remain for existing and future lower density uses. Figure 6.12 illustrates the location of parking garages on the interior of the blocks, with principal access primarily from the "B" streets such as Park and Gadsden Streets.

The Innovista Master Plan recommends distinguishing between local and destination land uses when addressing parking requirements for commercial uses within Innovista. As such, it is proposed that the City eliminate any parking requirements for local-serving uses, such as neighborhood retail, while establishing maximum standards for destination uses such as Senate Street Landing.

Since Innovista already contains thousands of parking spaces in garage structures and will be developing thousands more to support office and University-related functions as they are developed, the Master Plan recommends implementing a shared parking strategy in the areas of Innovista where there are a mix of destination and local uses, or facilities which have varied times of usage. In cities such as Seattle, this has proved

FIGURE 6.14: BOULEVARD II – 100 FOOT RIGHT-OF-WAY

This figure illustrates the proposed boulevard section for streets such as Blossom Street and Huger Street.

to be effective in areas where "daytime" uses (e.g. offices and laboratories) and "nighttime" or "weekend" uses (e.g. restaurants, theaters and churches) are in close proximity. The Urban Land Institute provided typical standards that have been proven to be working on the marketplace.

The Plan recommends that the City and the University of South Carolina pursue alternative strategies to mitigate parking demand. Both the University and the City should strive to improve bus service and the potential use of the Amtrak rail lines for light rail. The current Amtrak station, located at the end of College Street in the heart of Innovista, would be an ideal location for a stop along this line. In addition, the University should work with the City to amend the zoning ordinance to permit the calculation of parking requirements on a campus-wide level, rather than on a building-by-building basis. This should be done in conjunction with a University-wide transportation demand management study.

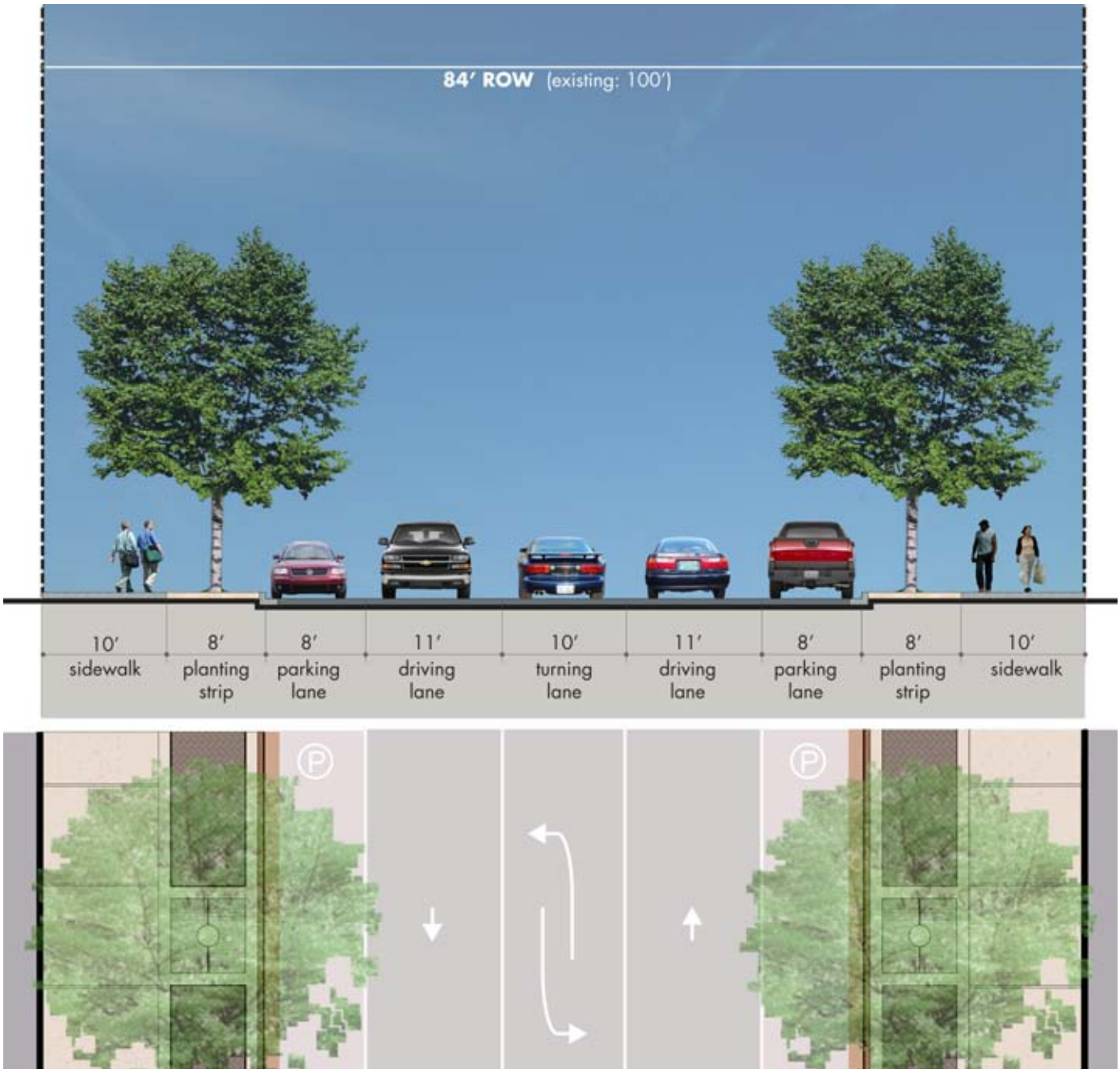


FIGURE 6.15: LOCAL STREET I – 84 FOOT RIGHT-OF-WAY

This figure illustrates local service streets such as Park Street and Gadsden Street with an eighty-four foot right-of-way, two travel lanes, a turning lane, and with parking on both sides.

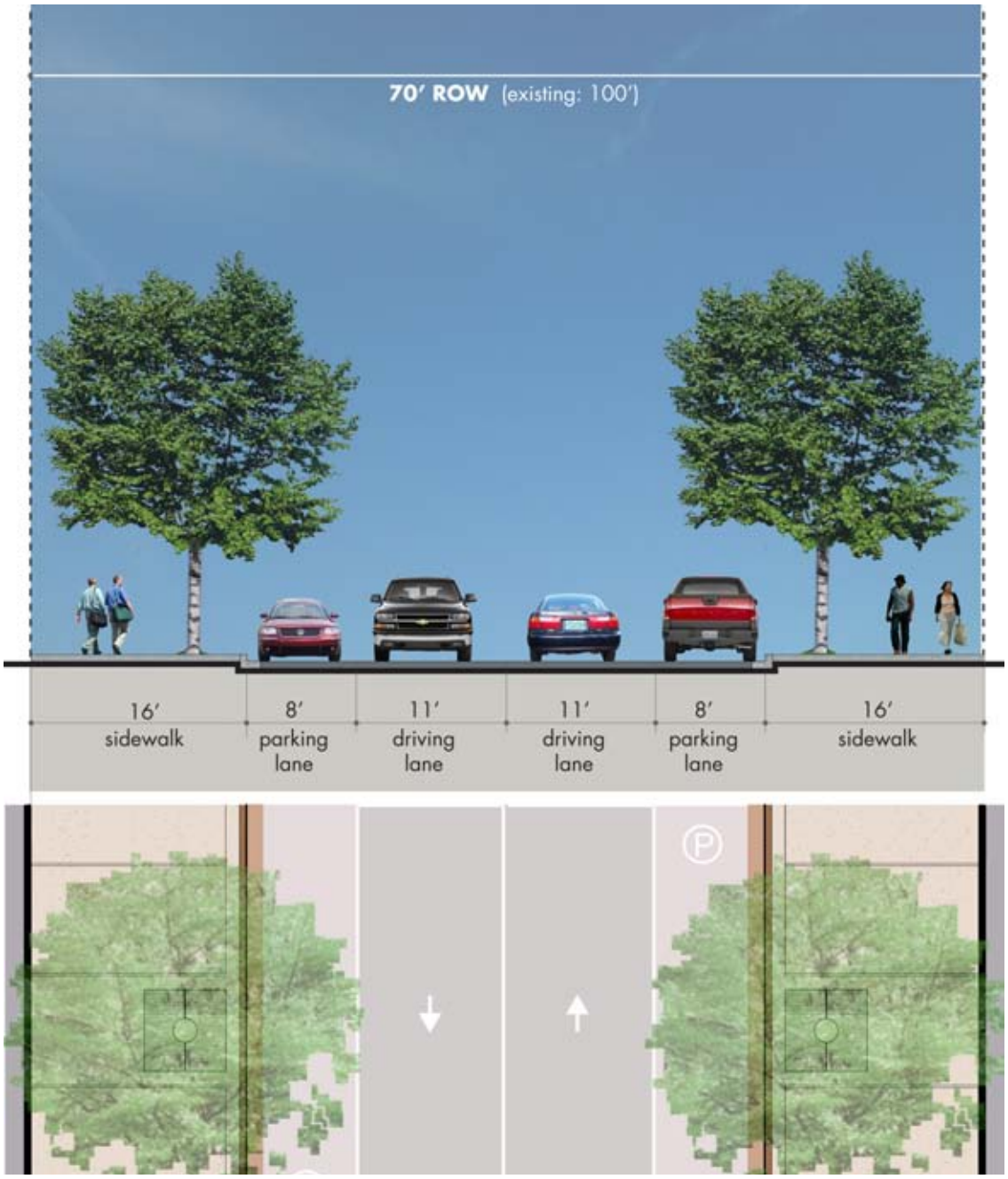


FIGURE 6.16: LOCAL STREET II – 70 FOOT RIGHT-OF-WAY

This figure illustrates local service streets such as College Street and Devine Street with a seventy foot right-of-way and two driving lanes with parking on both sides.

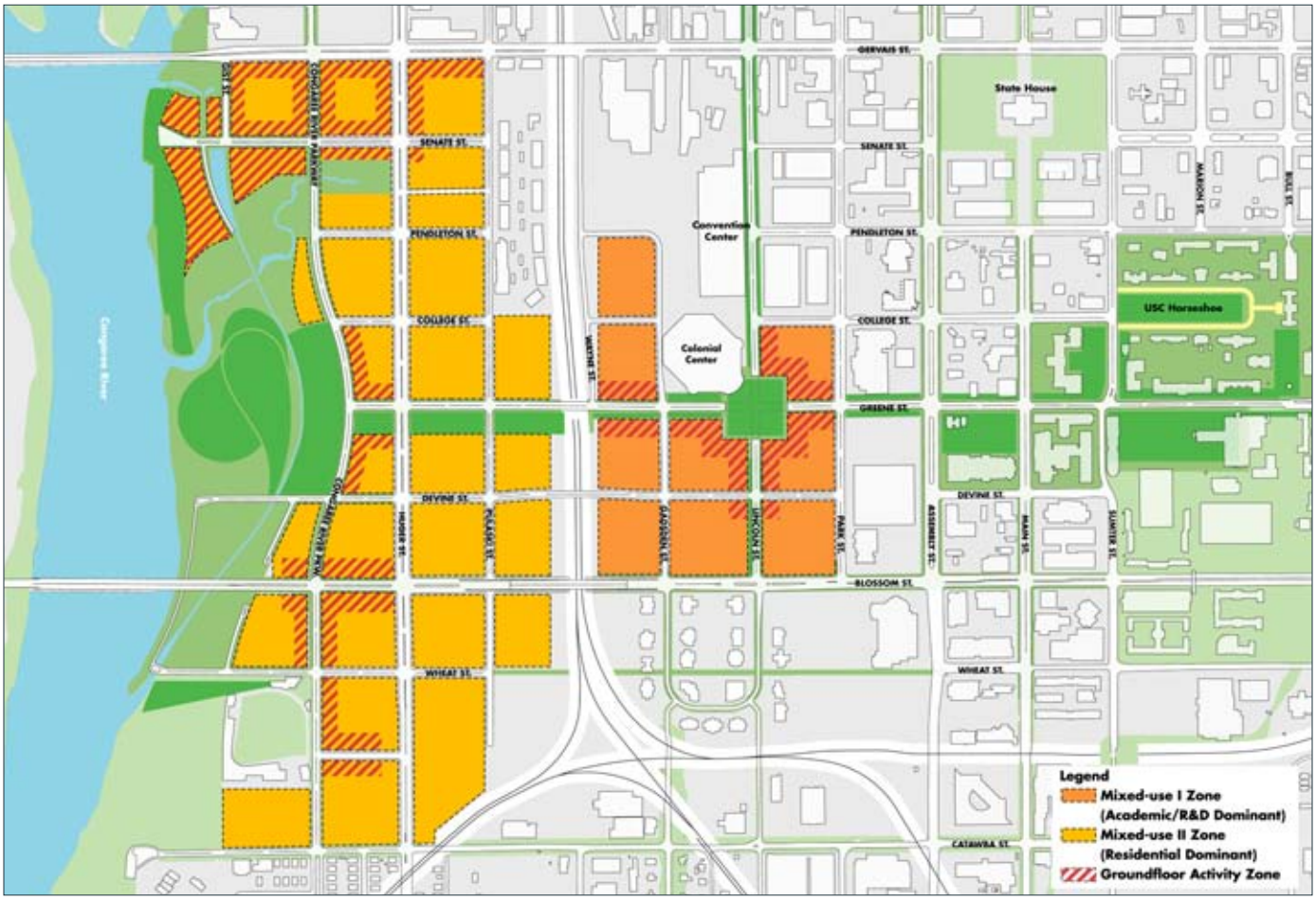


FIGURE 6.17: INNOVISTA LAND USE DIAGRAM

LAND USE

The land use concept for the Innovista area is to create a live/work /learn/play community by placing mixed-use facilities, research, office, housing, and supporting commercial uses at urban densities of 2.0 FAR within the development framework of the street grid.

The Master Plan organizes the area into two districts: the Innovation District, encompassing the area between Assembly Street and the railroad tracks; and the Waterfront District, which encompasses the remaining area between the railroad tracks and the Congaree River. The land use plan envisions that land uses will transition from University-related and complementary private and governmental research uses within the Innovation District to more general office, housing, and supporting retail uses in the Waterfront District, terminating at the Congaree Regional Waterfront Park. The Master Plan assumes that the Vista and its associated arts and entertainment district will continue its expansion to the north and continue to adaptively reuse historic mercantile and warehouse buildings along the Gervais Street corridor. Additional new facilities such as the new Hilton convention hotel will support the existing facilities at the Convention Center and the Colonial Center.

Within the overall land use designation of mixed-use, the land use plan calls for the ground floor use to be predominantly active uses of retail, restaurants, office and supporting commercial uses in four areas: Foundation Square; the terminus of Greene Street at the Congaree River Parkway; the

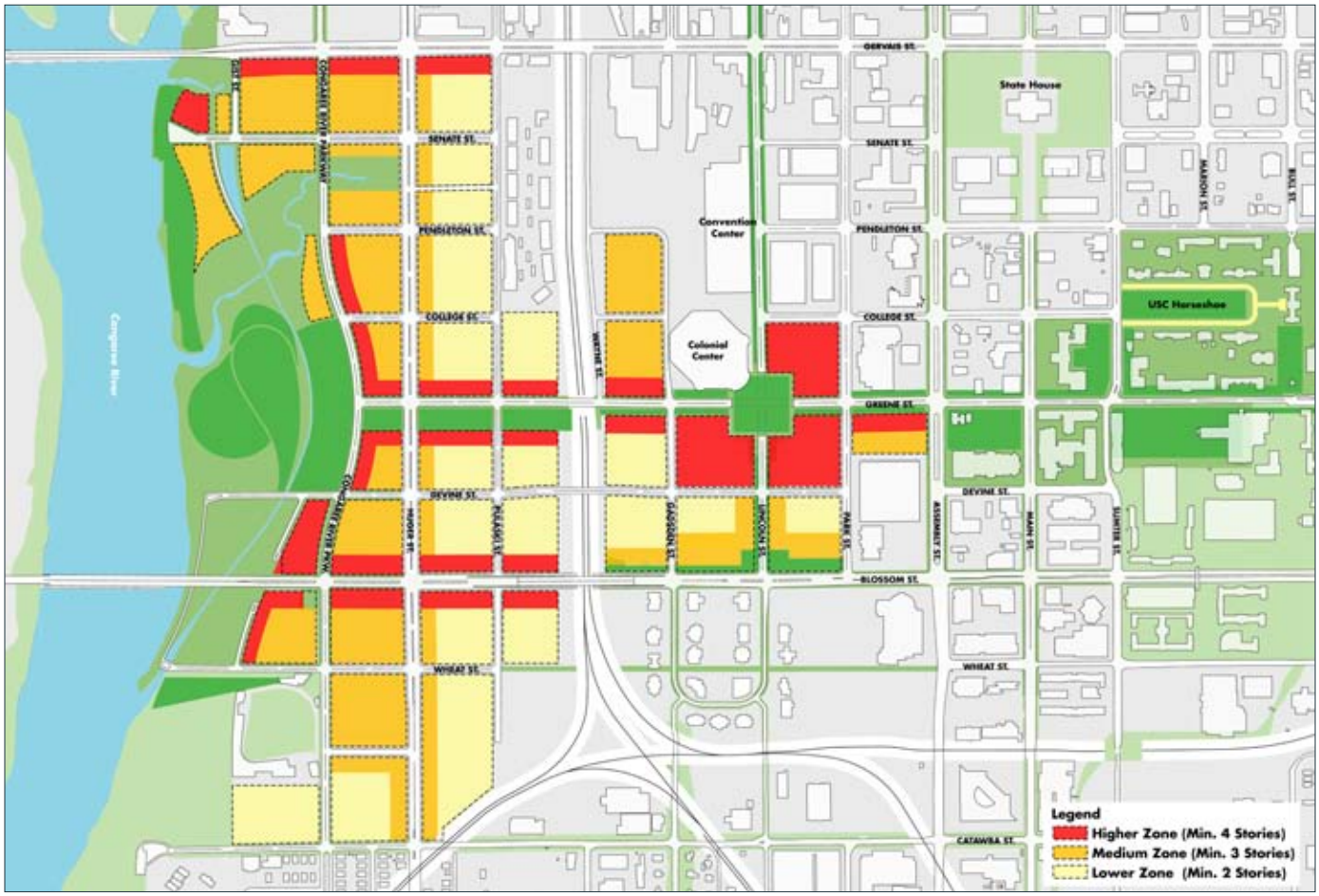


FIGURE 6.18: INNOVISTA BUILDING HEIGHT DIAGRAM

Senate Street Landing; and the Wheat Street Landing. In order to realize this vision, a new zoning code should be developed in order to allow the proposed mixed uses at urban densities and to incorporate the proposed design guidelines.

Under the assumption of an FAR of 2.0, the Innovista planning area can accommodate nearly 11 million square feet of new mixed-use development with redevelopment and use of underutilized parcels of land at full build-out. The Innovation District has approximately 31.3 acres of land available for redevelopment and could support an estimated 2.3 million square feet of new mixed-use development, while the Waterfront District has approximately 94.3 acres of land available for densification or new development. With an FAR of 2.0 this acreage could support 8.5 million square feet of development. It is anticipated that development will be phased over fifteen to twenty years and that densities will vary on individual blocks. The Master Plan recommends a range of minimum building heights and densities, with the highest densities along the amenity-rich Greene and Lincoln Street corridors, at the gateway locations and adjacent to the Congaree Regional Waterfront Park. Lower heights and densities are envisioned on the interior blocks.

The land use plan designates minimum building heights of two floors and above, as illustrated in the figure above.

FIGURE 6.19: GREENE STREET CORRIDOR ILLUSTRATIVE PLAN

GREENE STREET CORRIDOR

The urban design concept for Greene Street is to create a pedestrian street in the European tradition as the primary link between the University and the Congaree Regional Waterfront Park, featuring a narrow right-of-way framed by street-fronted buildings whose ground floors present active commercial uses to the street.

A right-of-way of eighty feet is proposed for Greene Street, with two nine-foot travel lanes for vehicles, five-foot dedicated bicycle lanes, and the remainder of the right-of-way dedicated to broad sidewalks. Sidewalk widths vary from eighteen feet wide on the north side of Greene Street to thirty feet wide on the south side. An eighteen-foot wide zone on the south side provides space for seating areas and the extension of sidewalk cafés.

A seventy-foot wide platform is proposed to bridge the rail lines carrying vehicles and pedestrians along Greene Street toward the waterfront park. One of the crossing's distinguishing features is that it is designed as a raised fill platform rather than a typical bridge in order to carry the Greene Street design concept seamlessly across the railroad cut.

In order to embrace the Sculpture Park, the right-of-way widens to 170 feet between the rail line and the Congaree River Parkway. The terminus of Greene Street at the Congaree Regional Waterfront Park is celebrated with a grand fountain and broad terrace overlooking the park below. Spatially, the Greene Street cross-section calls for street fronted buildings at a "build to" line on the right-of-way, with a minimum height of four stories, and building mass setbacks of eight feet at a parapet line of forty-five feet above sidewalk level.

Plans at Foundation Square and the Greene Street park overlook illustrate the development parcels, ground floor use and parking location, and building envelope and massing.

At Foundation Square, mixed-use/retail/restaurant is called for on the Greene Street and Lincoln Street frontages, with interior parking structures wrapped with mixed-use. Building massing calls for a minimum for four floors with a parapet setback of forty-five feet for higher buildings. Higher buildings are sought in Foundation Square on the south side of Greene Street and Lincoln Street, and opposite the Colonial Center. While a variety of building massing can be achieved within the building envelopes, articulation of the corner façades is sought for buildings facing the square.

Development parcels overlooking the waterfront park at the intersection of Congaree River Parkway have exceptional value. It is anticipated that the predominant use will be residential with some supporting retail uses at the Greene Street intersection. The building envelopes illustrate an articulated building mass with step back provisions and locations for high-rise buildings.

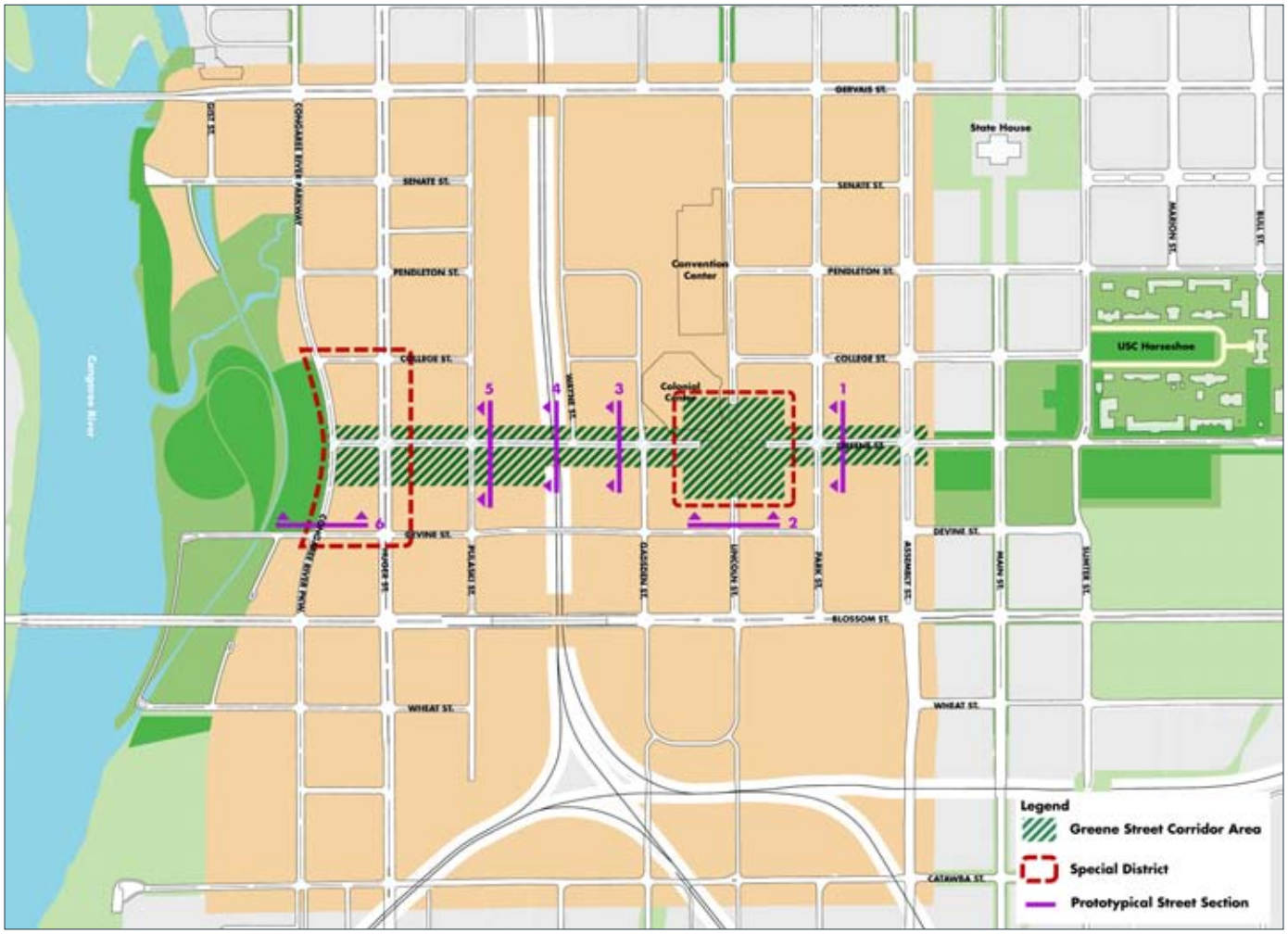


FIGURE 6.20: GREENE STREET CORRIDOR, WITH PURPLE LINES AND NUMBERS CORRESPONDING TO CROSS-SECTIONS BELOW

The Congaree River Parkway, onto which these development parcels front, provides for two travel lanes, dedicated bicycle lanes and a parking zone on the side of the development parcels. The park side features a wide pedestrian promenade with terraces overlooking the Waterfront Park below.

The following diagrams depict the regulating elements for the Greene Street corridor, including its available development parcels, preferred ground floor uses, building envelopes and building massing. Within this context, a "building envelope" has three components, including a build-to line along the limits of the development parcel; a step-back line, or height at which the building must recess from the street; and a high-rise zone, where higher building heights can be achieved. Each building may take any shape or mass within these parameters.

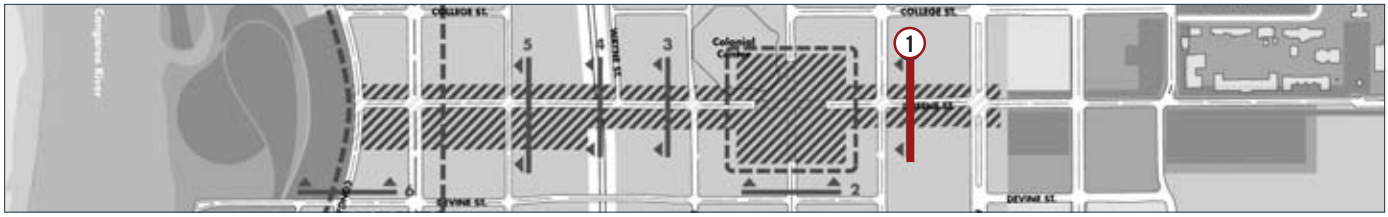


FIGURE 6.21: SECTION 1: GREENE STREET AT INNOVATION DISTRICT

The Greene Street cross-section calls for street-fronted buildings built along the right-of-way lines, with a minimum height of sixty feet and building mass step-backs of eight feet at a parapet line forty-five feet above the sidewalk level.

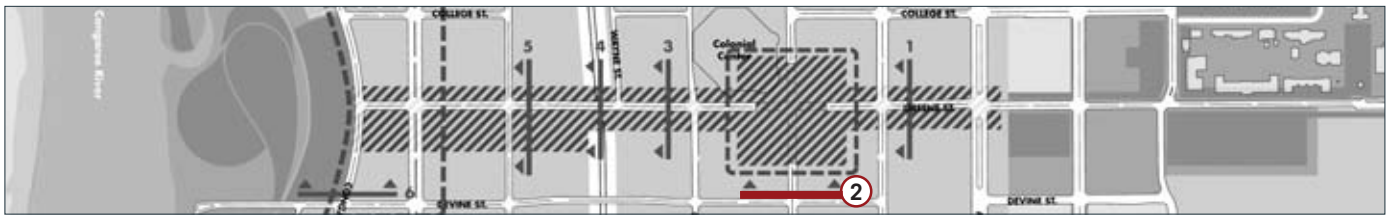


FIGURE 6.22: SECTION 2: LINCOLN STREET

The Lincoln Street cross-section continues the existing landscaped median, with two travel lanes and proposed parking on both sides of the street.

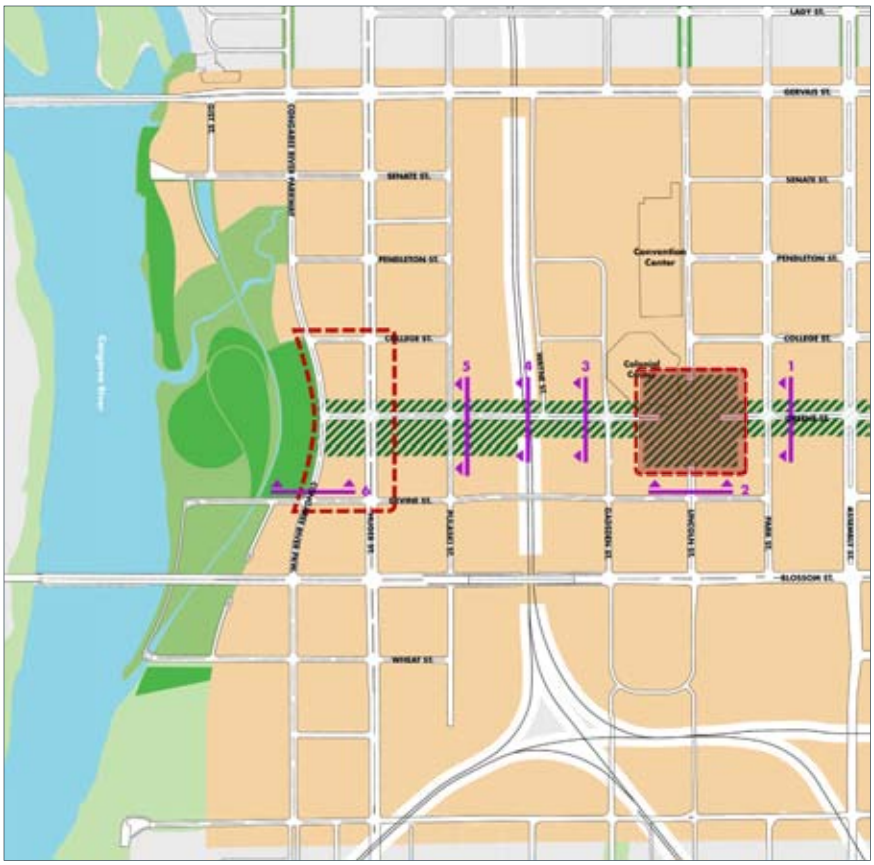


FIGURE 6.23: FOUNDATION SQUARE CONTEXT MAP

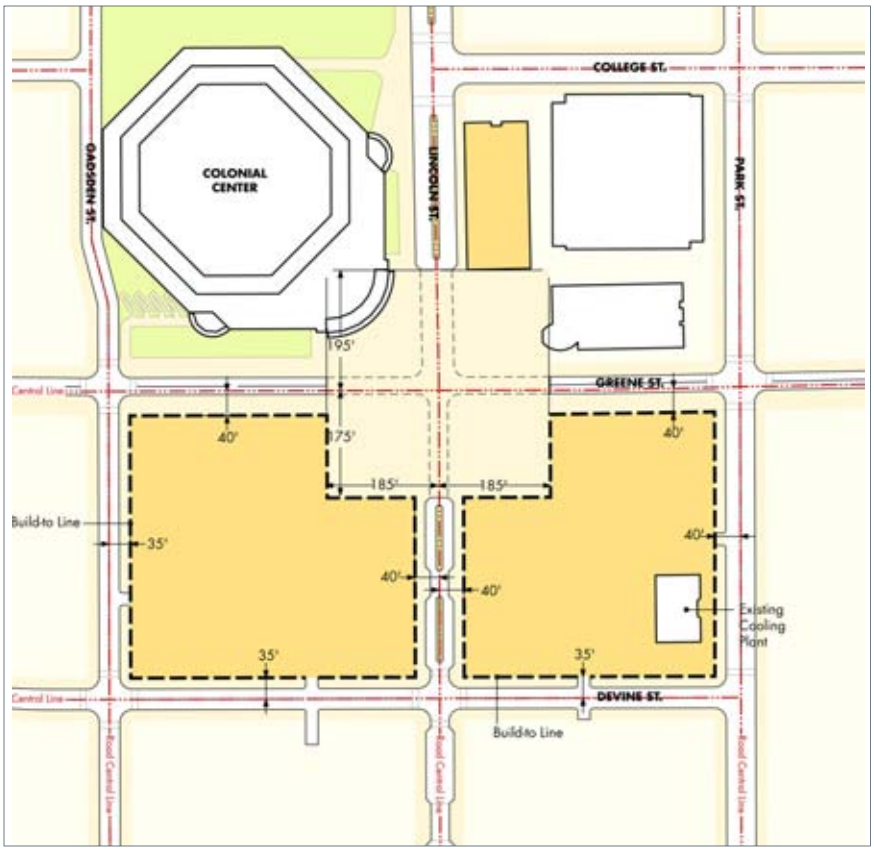


FIGURE 6.24: FOUNDATION SQUARE DEVELOPMENT PARCELS

"Development parcels" are plots of land available for development. The "build-to line" indicates the mandatory building façade location along the streets.

The plan for Foundation Square illustrates the development parcels with dimensions from the centerline of the street to the build-to line.

FIGURE 6.25: FOUNDATION SQUARE GROUND FLOOR USE

"Ground floor use" indicates program for the street level of each building.

Mixed-use/retail/restaurant uses are called for at street level on the Greene Street and Lincoln Street frontages with interior parking structures.

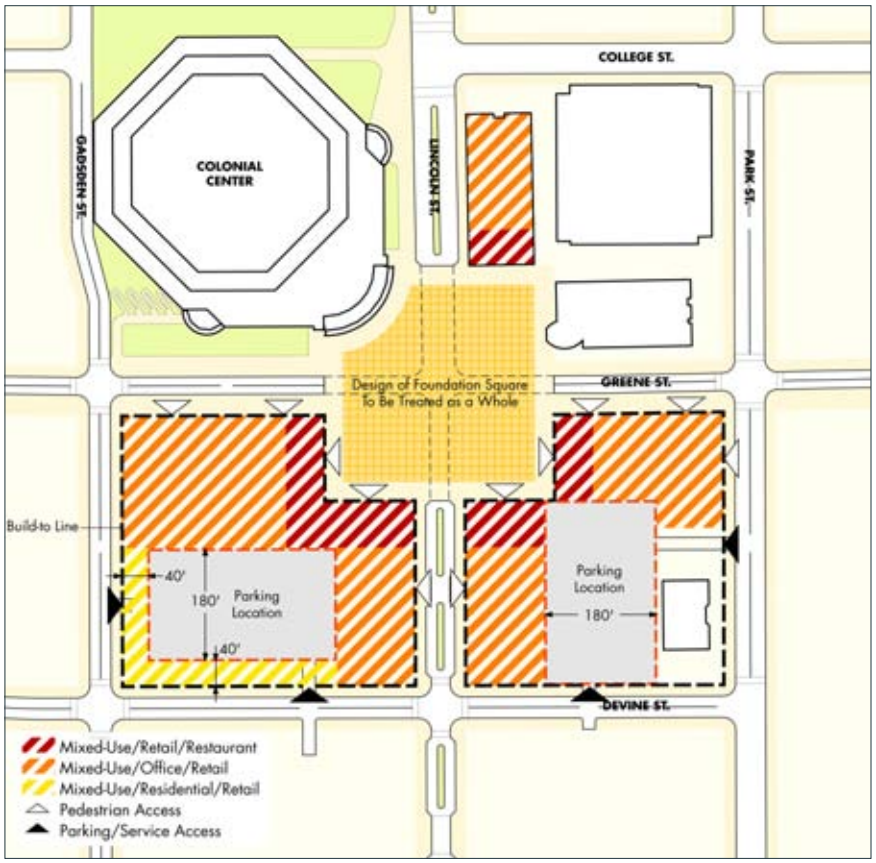


FIGURE 6.26: FOUNDATION SQUARE BUILDING ENVELOPE

"Building envelope" consists of three key components:

1) The building base, constructed along the limit of the development parcel as defined by the build-to line

2) The step-back line, or depth which the building must recess above a designated height; and

3) The high-rise zone, or area where higher building heights may be achieved.

Each building will be able to take any shape or mass within these parameters.

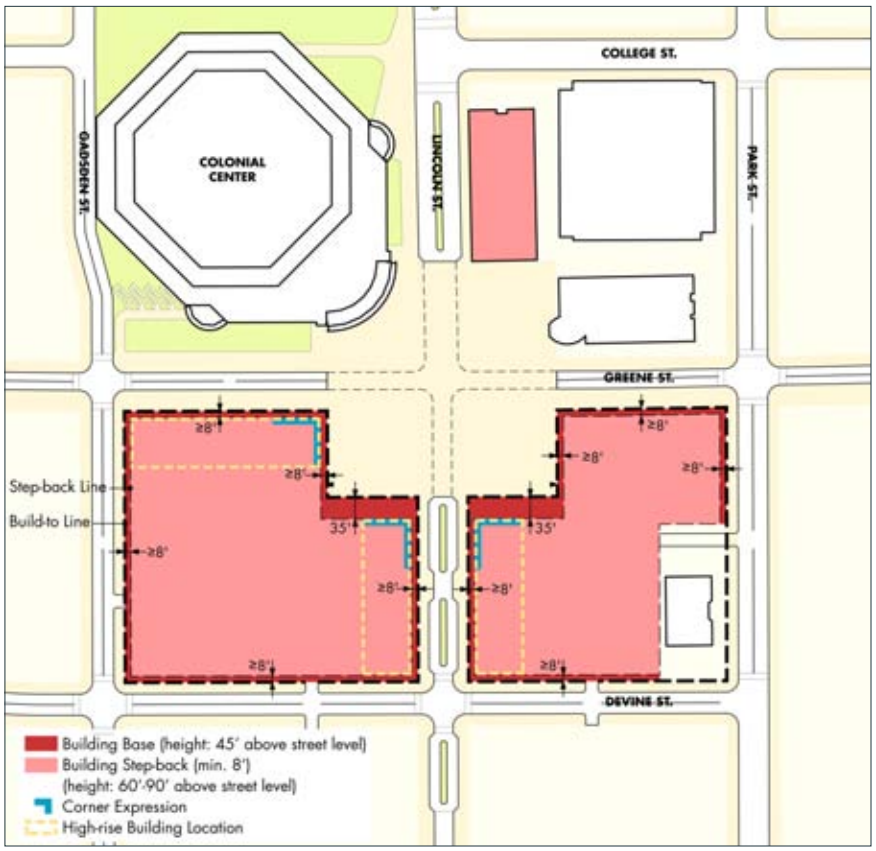


FIGURE 6.27: GREENE STREET CORRIDOR ILLUSTRATIVE PLAN, WITH FOUNDATION SQUARE HIGHLIGHTED IN RED

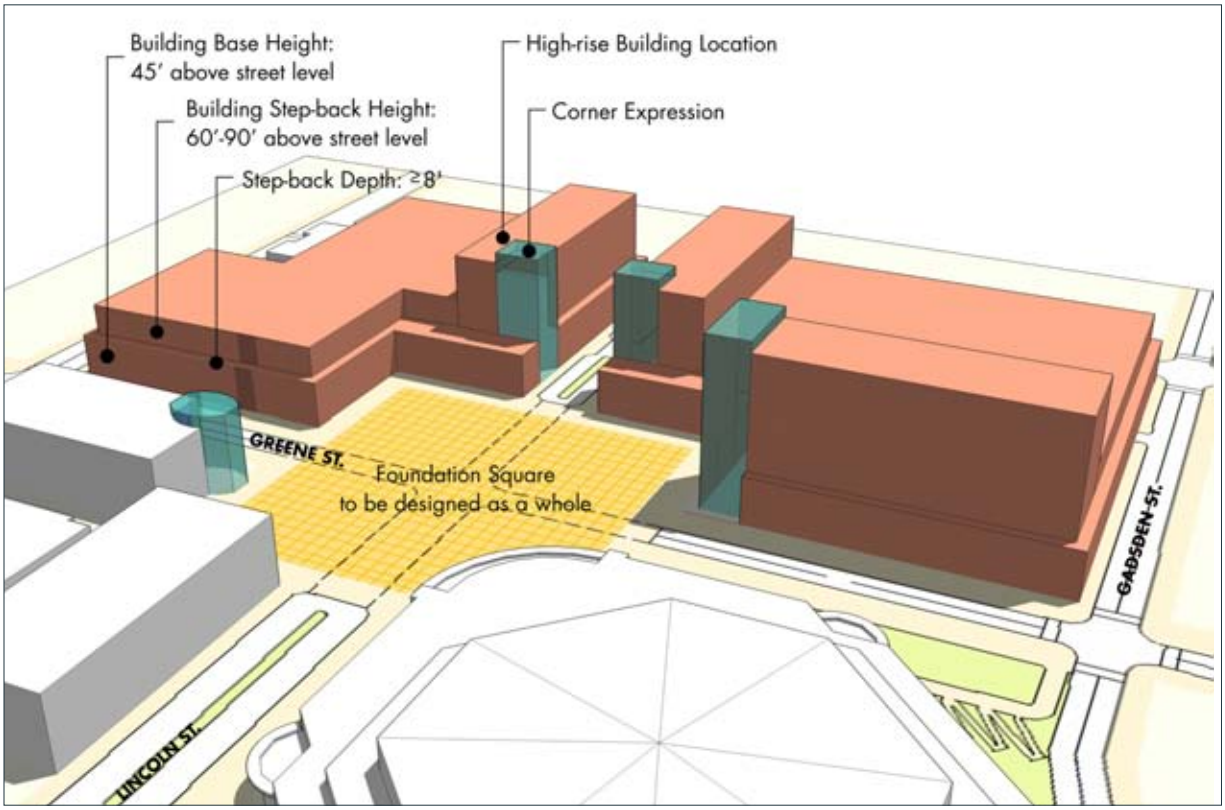


FIGURE 6.28: FOUNDATION SQUARE BUILDING ENVELOPE

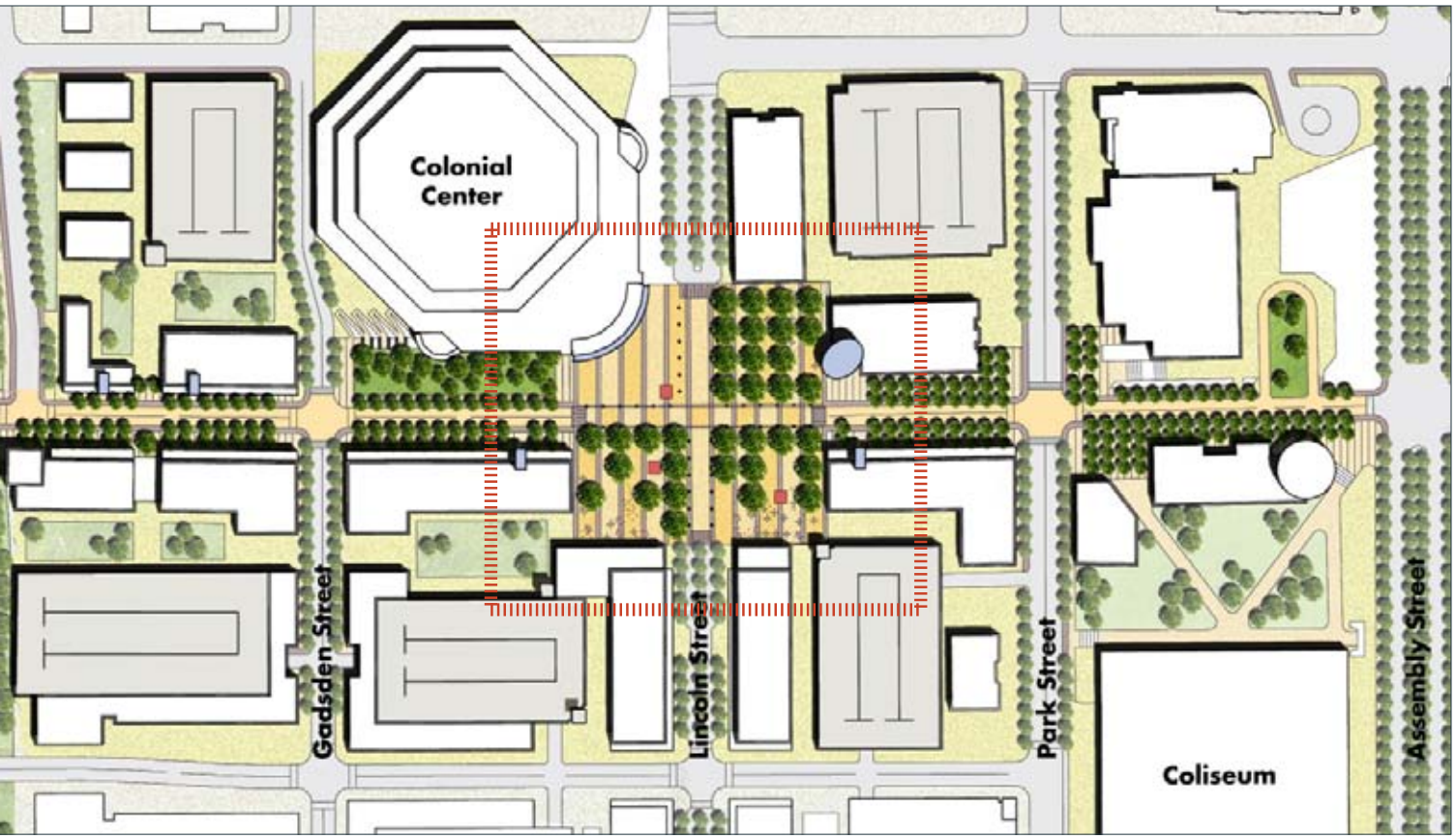
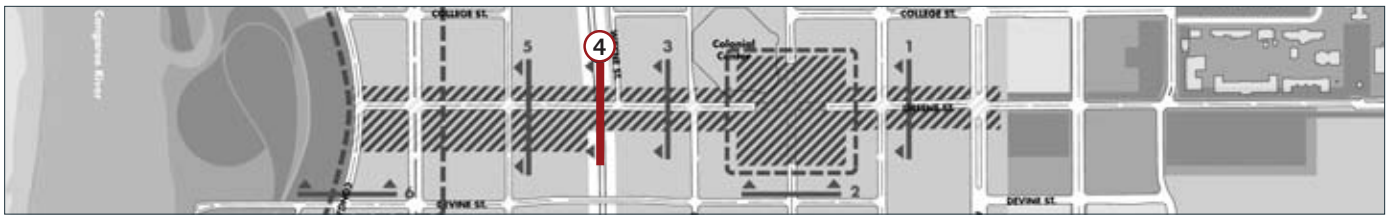


FIGURE 6.29: FOUNDATION SQUARE BUILDING MASSING ILLUSTRATIVE

Within the proposed building envelopes, a variety of building massing can be achieved.

FIGURE 6.30: SECTION 3: GREENE STREET AT THE ENTRY TO THE BRIDGE

The proposed Greene Street Bridge is conceived as a platform providing a seamless transition of street and buildings across the rail lines.



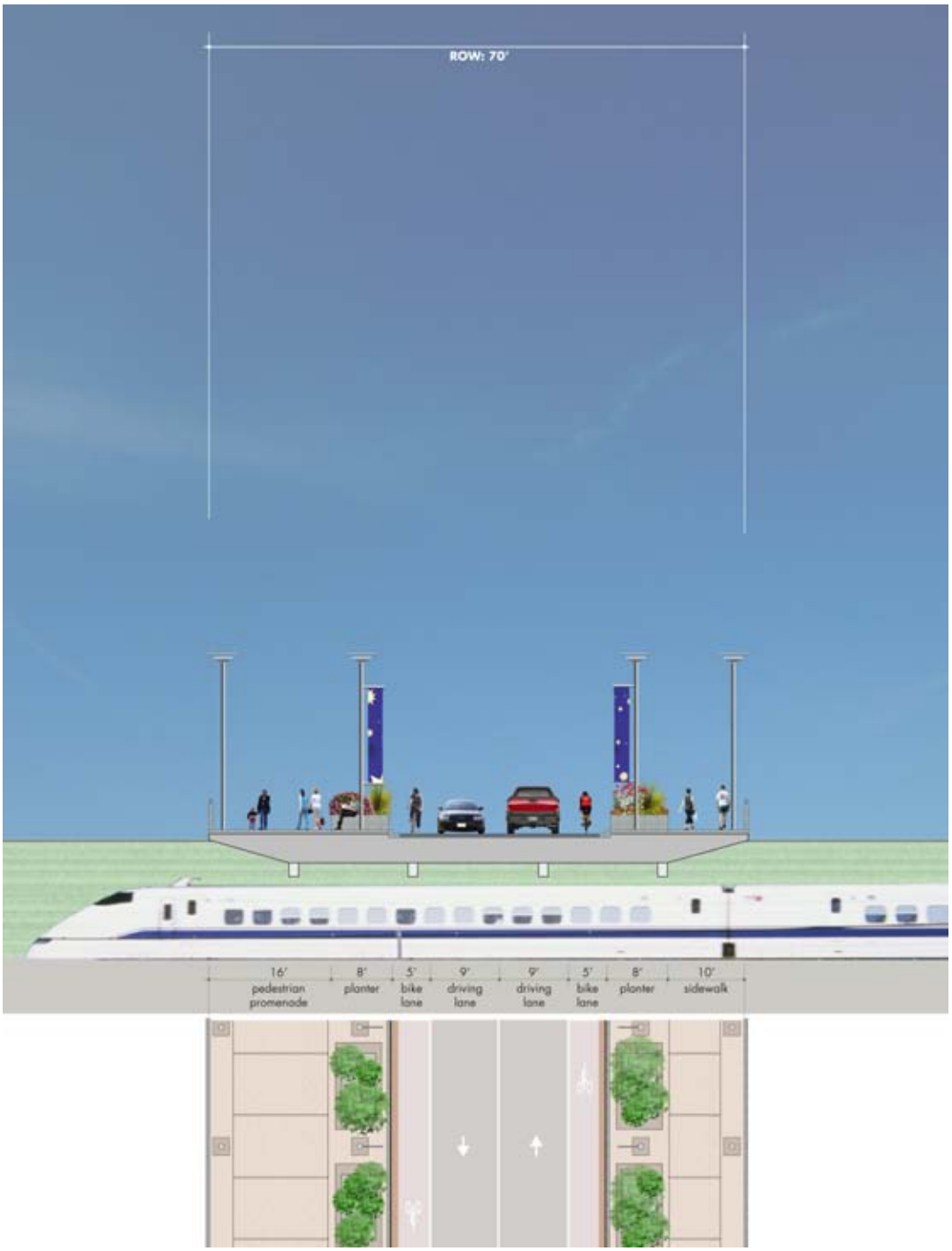
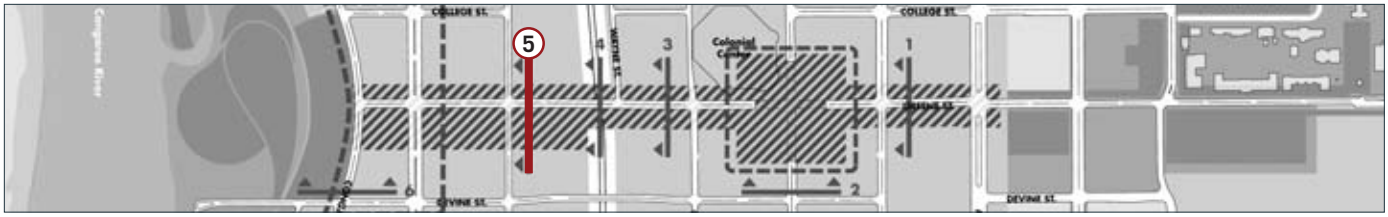


FIGURE 6.31: SECTION 4: GREENE STREET BRIDGE OVER THE RAILROAD TRACKS

This figure illustrates a seventy-foot wide bridging platform over the existing rail lines.



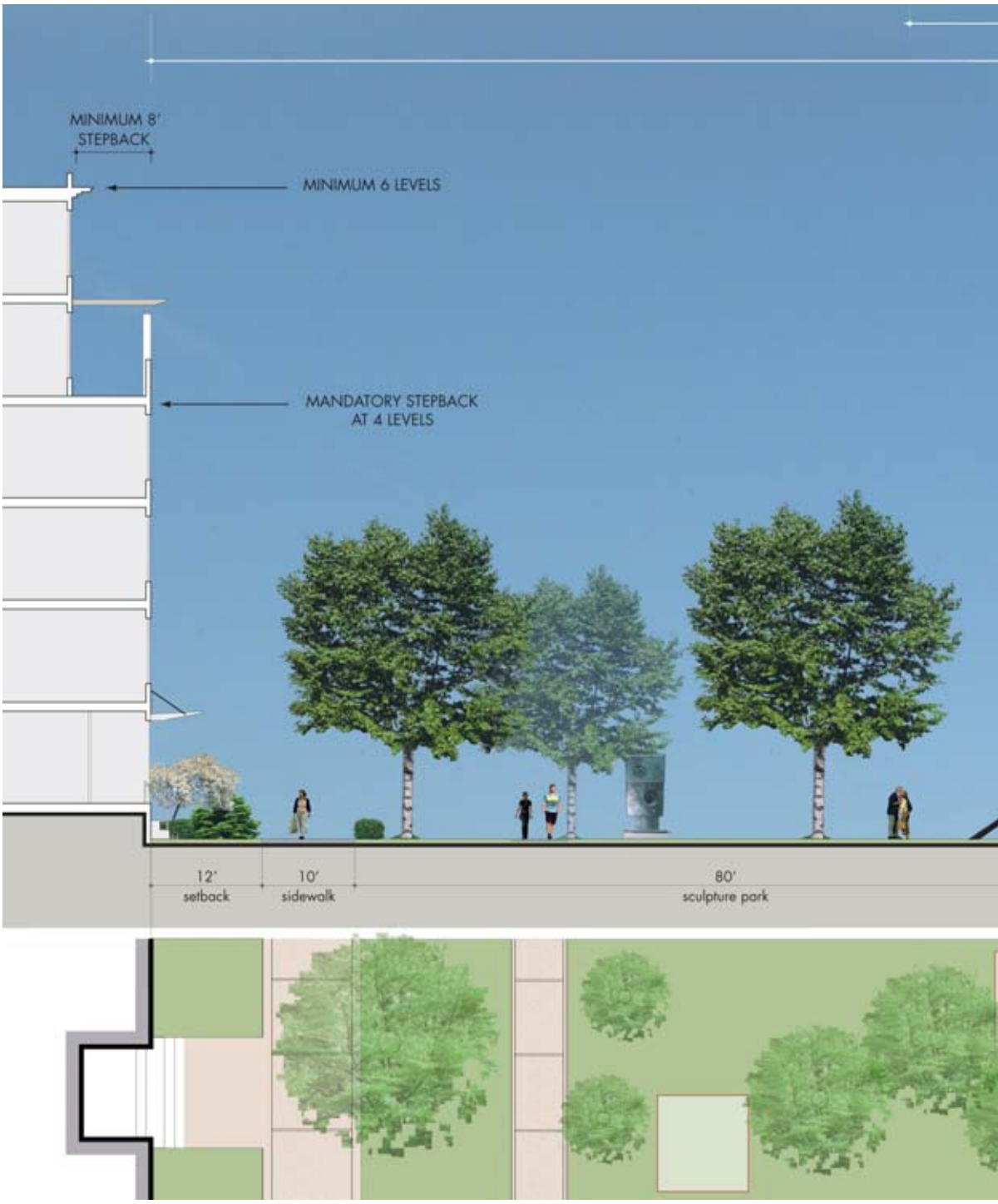
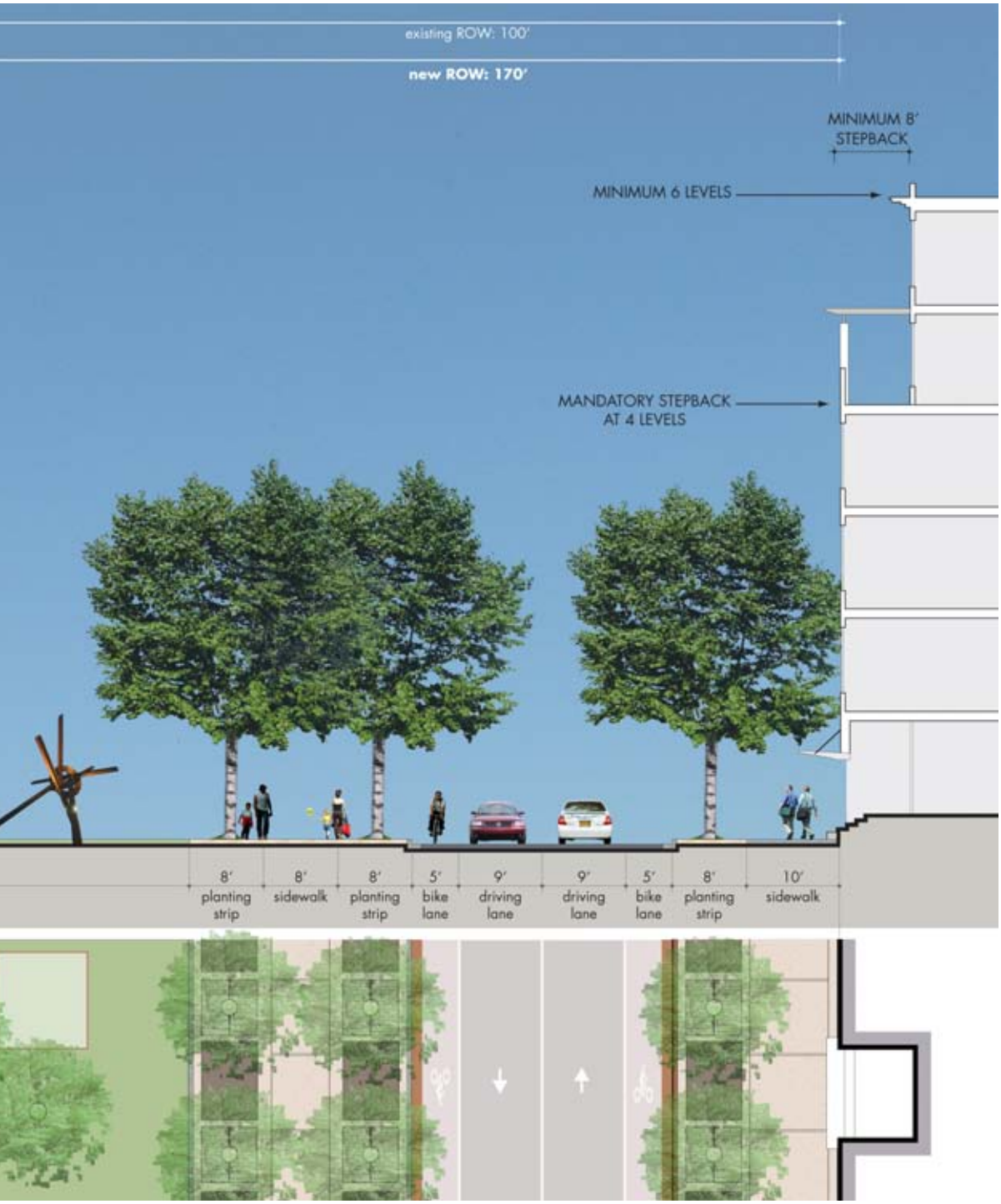


FIGURE 6.32: SECTION 5: GREENE STREET AT SCULPTURE PARK

Greene Street reaches the Linear Sculpture Park as it crosses the rail lines to the Congaree Regional Waterfront Park. The Sculpture Park is anticipated to be framed by residential buildings.


existing ROW: 100'
new ROW: 170'
MINIMUM 8' STEPBACK
MINIMUM 6 LEVELS
MANDATORY STEPBACK AT 4 LEVELS
8' planting strip
8' sidewalk
8' planting strip
5' bike lane
9' driving lane
9' driving lane
5' bike lane
8' planting strip
10' sidewalk

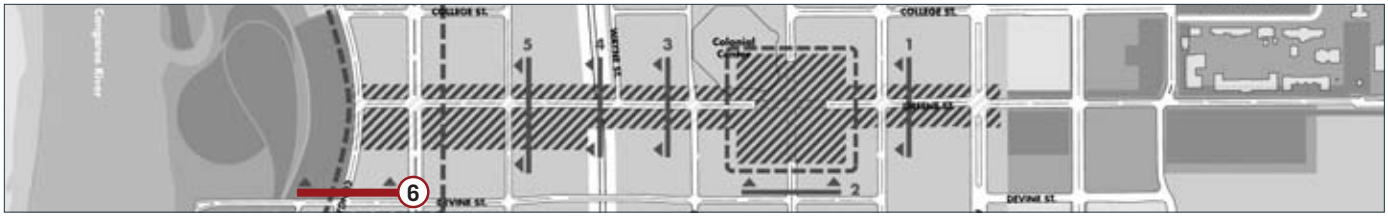


FIGURE 6.33: SECTION 6: CONGAREE RIVER PARKWAY

The Congaree River Parkway frames the bluff overlooking the Congaree Regional Waterfront Park and provides two travel lanes with curb-side parking against development parcels. Dedicated bike lanes and a broad pedestrian promenade provide public accessibility to the Park below.


ROW: 96.5'
MANDATORY ALIGNMENT
MINIMUM 8 LEVELS
MINIMUM 8' STEPBACK
SAME HEIGHT AS PARKING GARAGE
8' park overlook
8' planting strip
8' sidewalk
8' planting strip
4.5' bike lane
4.5' bike lane
10' driving lane
10' driving lane
8' parking lane
8' planting strip
8' sidewalk
10' setback
courtyard depth varies
mandatory garage veneer building
1.5' bike median

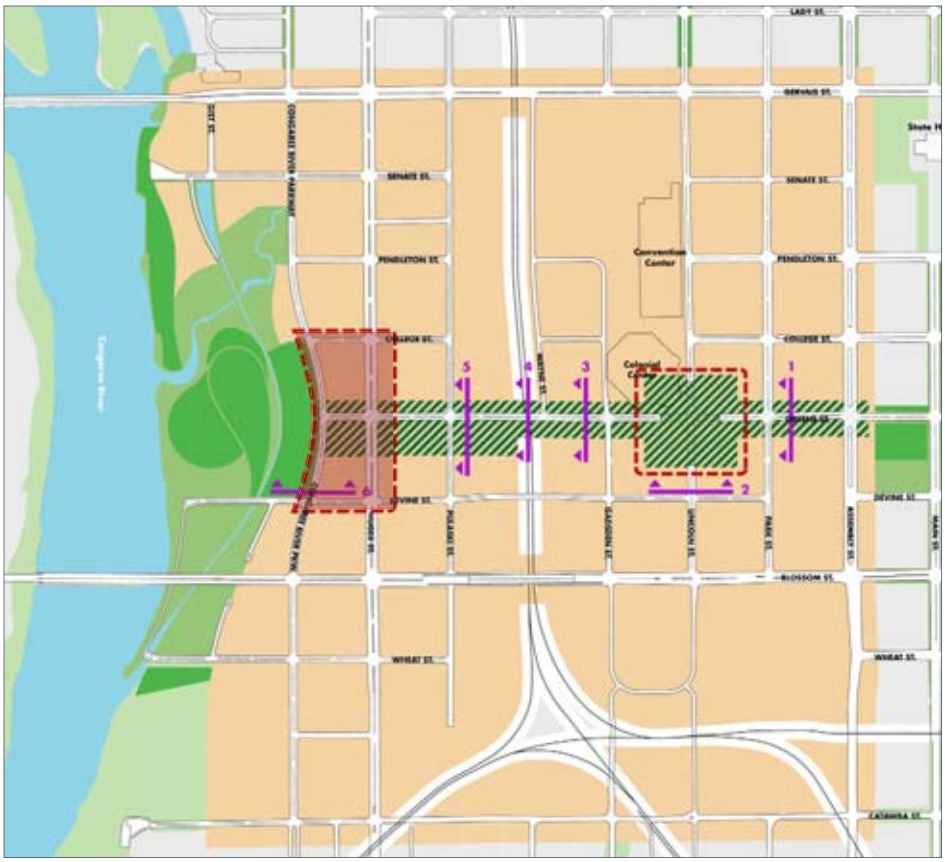


FIGURE 6.34: GREENE STREET OVERLOOK CONTEXT MAP

FIGURE 6.35: GREENE STREET OVERLOOK DEVELOPMENT PARCELS

"Development parcels" are plots of land available for development. The "build-to line" indicates the mandatory building façade location along the streets.

The terminus of Greene Street at the Congaree Regional Waterfront Park provides for exceptional development parcels overlooking the river.

FIGURE 6.36: GREENE STREET OVERLOOK GROUND FLOOR USE

"Ground floor use" indicates program for the street level of each building.

The Plan anticipates that the predominant use will be residential with some supporting retail services along the Sculpture Park.

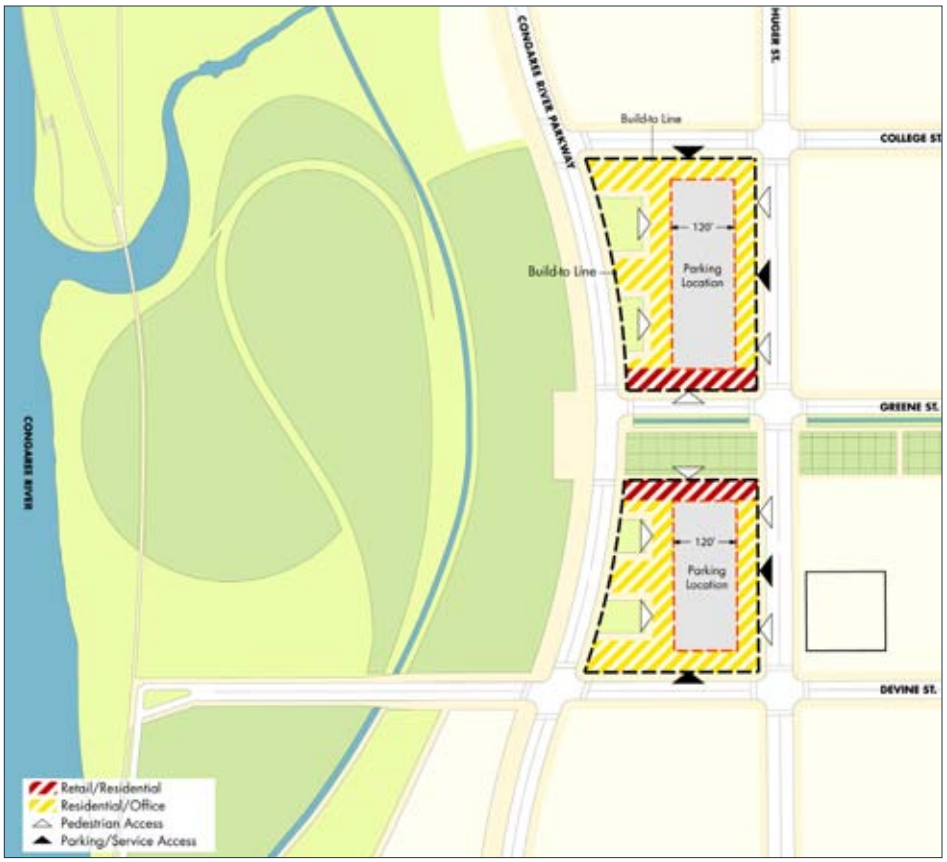


FIGURE 6.37: GREENE STREET OVERLOOK BUILDING ENVELOPE

"Building envelope" consists of three key components:

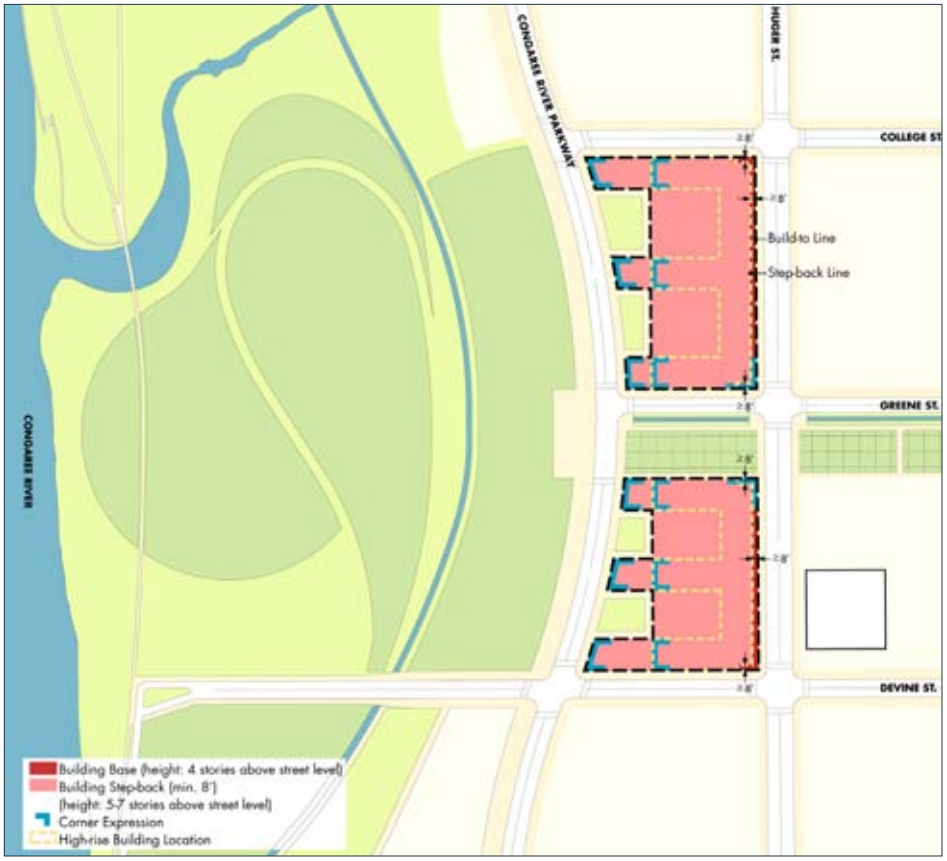
1) The building base, constructed along the limit of the development parcel as defined by the build-to line

2) The step-back line, or depth which the building must recess above a designated height; and

3) The high-rise zone, or area where higher building heights may be achieved.

Each building will be able to take any shape or mass within these parameters.

This figure illustrates an articulated building mass with step-backs to capitalize on the extraordinary position and views to the park and river beyond.



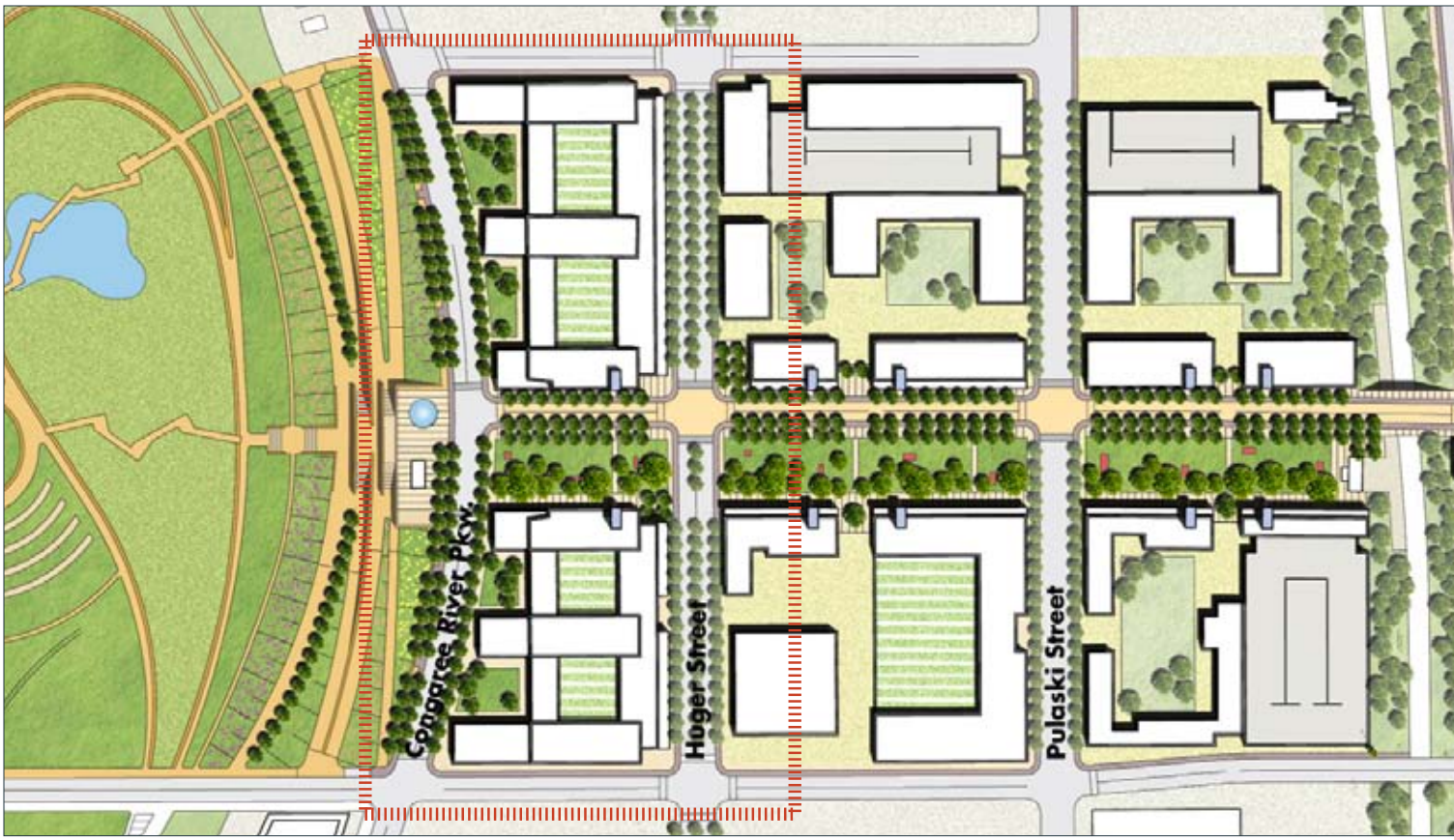


FIGURE 6.38: GREENE STREET CORRIDOR ILLUSTRATIVE PLAN, WITH GREENE STREET OVERLOOK HIGHLIGHTED IN RED

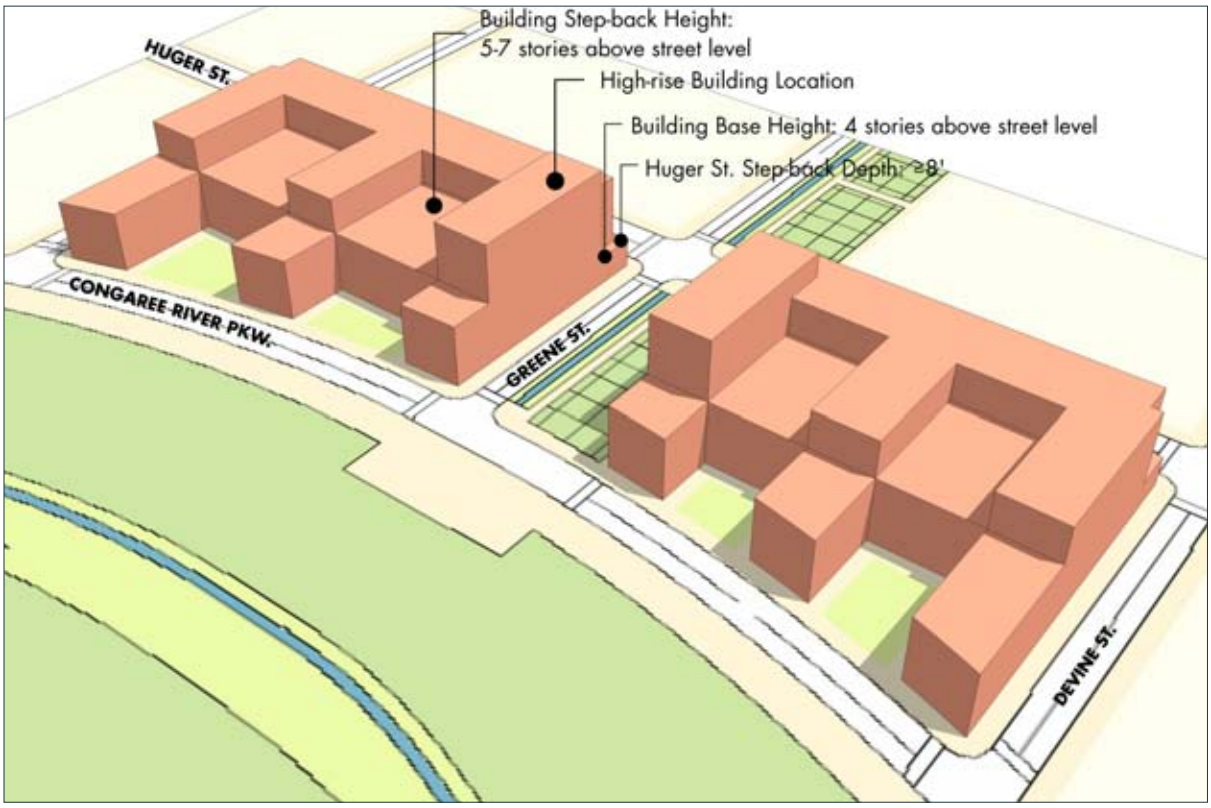


FIGURE 6.39: GREENE STREET OVERLOOK BUILDING ENVELOPE

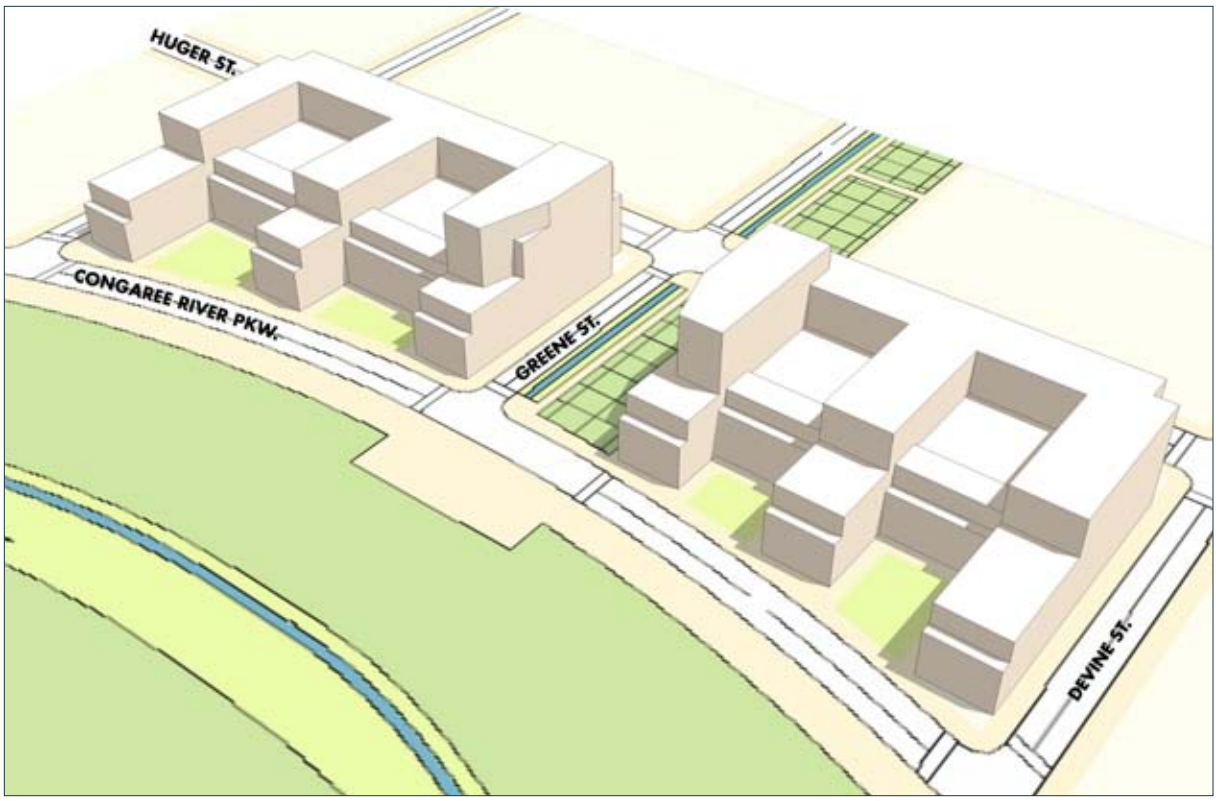


FIGURE 6.40: GREENE STREET BUILDING MASSING ILLUSTRATIVE

Within the proposed building envelopes, a variety of building massing can be achieved, including the location of higher buildings to capitalize on views.

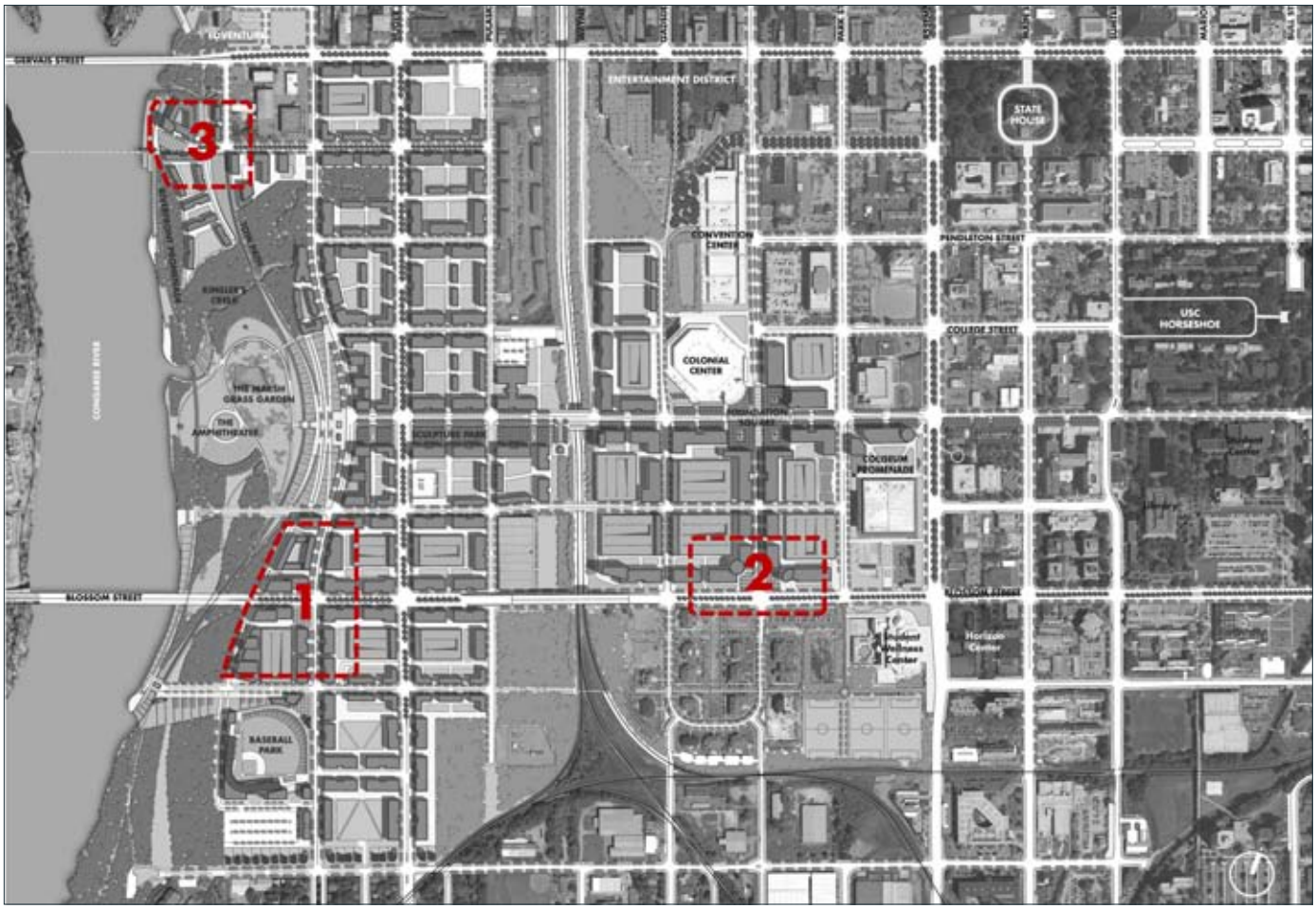


FIGURE 6.41: INNOVISTA ILLUSTRATIVE PLAN, WITH SPECIAL PRECINCTS HIGHLIGHTED IN RED

SPECIAL PRECINCTS

The design concept for the special precincts is to mark their important gateway and riverfront landing locations with special land use, open space and distinctive architectural massing.

The Blossom Street Gateway is the principal gateway to the City of Columbia and the University from the airport. As the Blossom Street Bridge traverses the river and the Congaree Regional Waterfront Park, important mixed-use development parcels are created between the park and the new Congaree River Parkway north and south of Blossom Street. The building envelope illustrates mixed-use wrapping structured parking with high rise building locations fronting Blossom Street and the park.

The Lincoln Street Gateway at Blossom Street is the principal gateway to Innovista, the Colonial Center, the Convention Center and the Congaree Vista district from the south. The configuration of the development parcels and building envelope illustrate the design concept of marking the gateway with public open space and articulating building massing height at this important entry.

Senate Street Landing is one of two locations that provide public vehicular access directly to the riverbank. Site of the historic Congaree River Crossing, the Landing is the only location within the park with development parcels directly

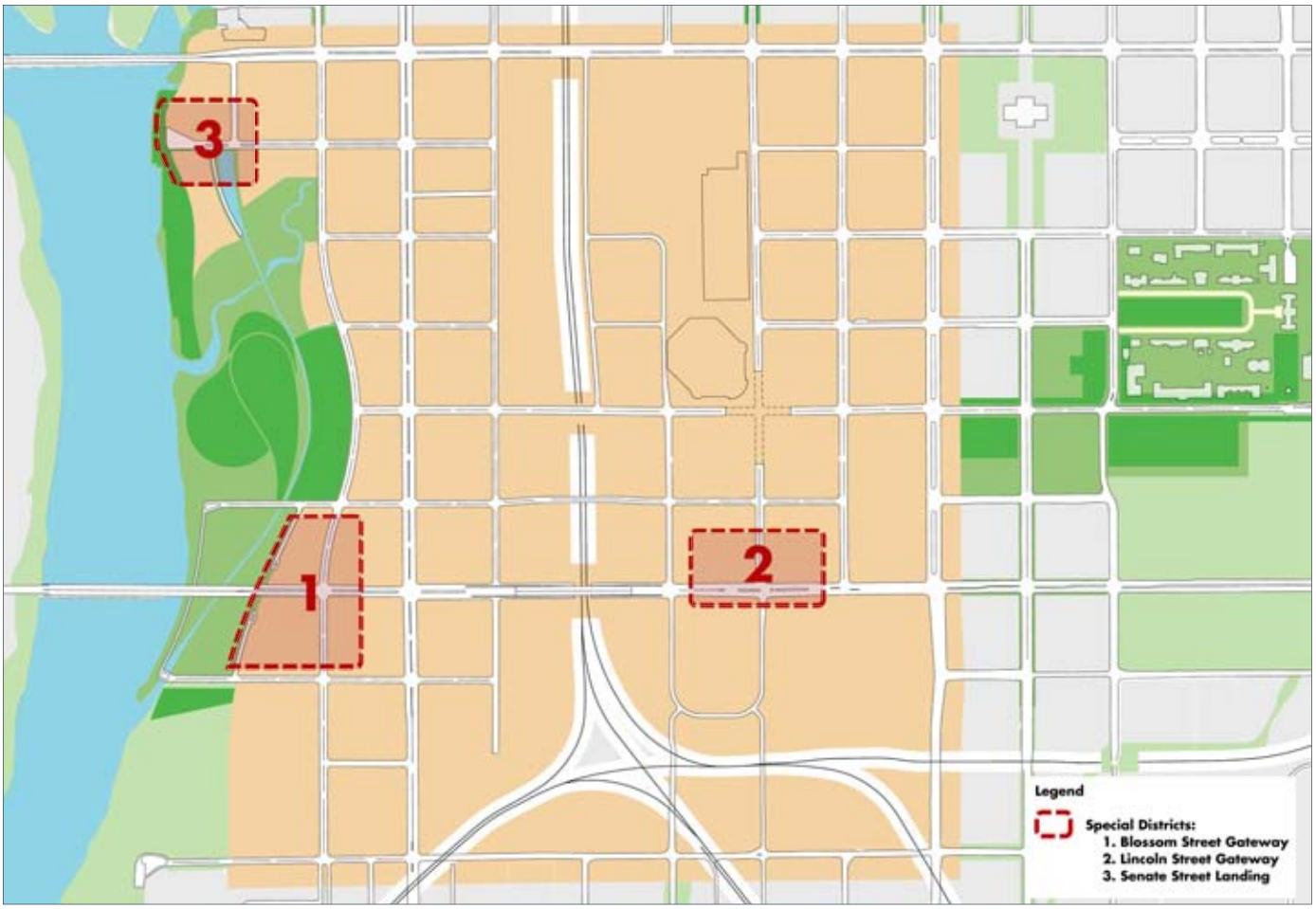


FIGURE 6.42: INNOVISTA SPECIAL PRECINCTS, WITH RED LINES DEMARCATING DISTRICT BOUNDARIES

on the river. The configurations of the development parcels illustrate the extension of Senate Street to the riverbank, terminating in a public plaza and riverside promenade. The Senate Street Landing drive provides service access to a mixed-use hotel/restaurant/residential parcel north of Senate Street, and a residential parcel south of Senate Street. Active retail/hotel/restaurant and residential uses are called for at ground floor levels. The building envelope calls for minimum building heights of four floors, illustrates the location of higher buildings, and calls for architectural expression at corners of buildings facing Senate Street.

The following diagrams depict the regulating elements for the special precincts, including the available development parcels, preferred ground floor uses, building envelopes and building massing. Within this context, a "building envelope" has three components, including a build-to line along the limits of the development parcel; a step-back line, or height at which the building must recess from the street; and a high-rise zone, where higher building heights can be achieved. Each building may take any shape or mass within these parameters.

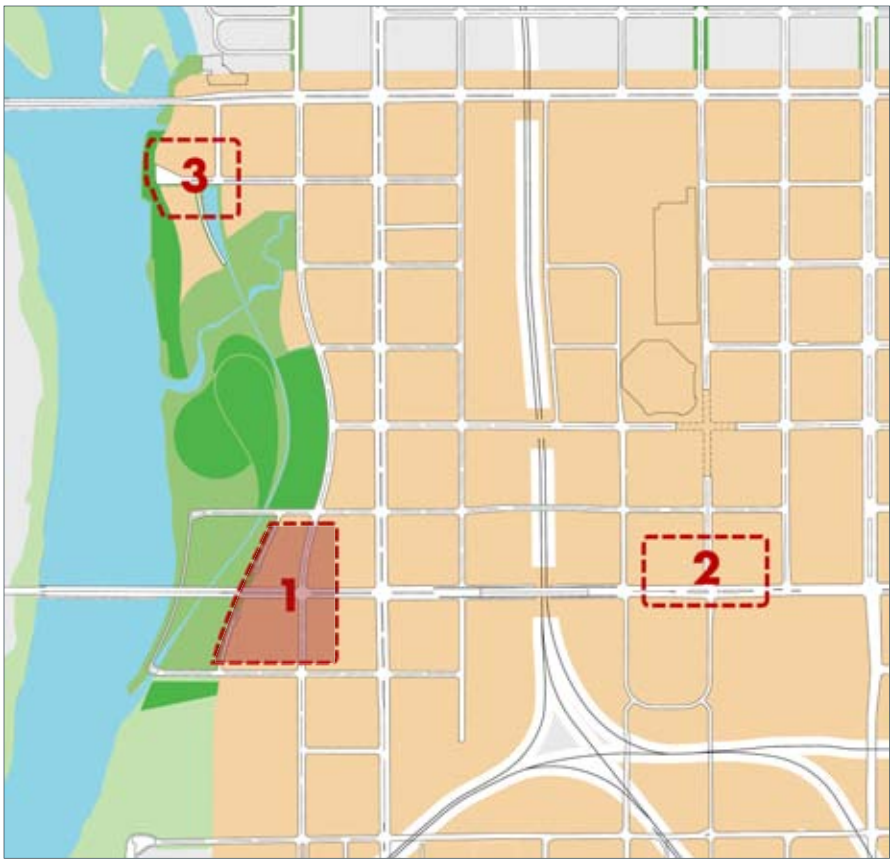


FIGURE 6.43: BLOSSOM STREET GATEWAY CONTEXT MAP

The Congaree River crossing at the Blossom Street Bridge is the principal gateway to the University and the City from the airport.

FIGURE 6.44: BLOSSOM STREET GATEWAY DEVELOPMENT PARCELS

"Development parcels" are plots of land available for development. The "build-to line" indicates the mandatory building façade location along the streets.

FIGURE 6.45: BLOSSOM STREET GATEWAY GROUND FLOOR USES

"Ground floor use" indicates program for the street level of each building.

The mixed-use development parcels on either side of Blossom Street have exceptional locations and amenities, including the new USC baseball stadium located south of Wheat Street.

FIGURE 6.46: BLOSSOM STREET GATEWAY BUILDING ENVELOPE

"Building envelope" consists of three key components:

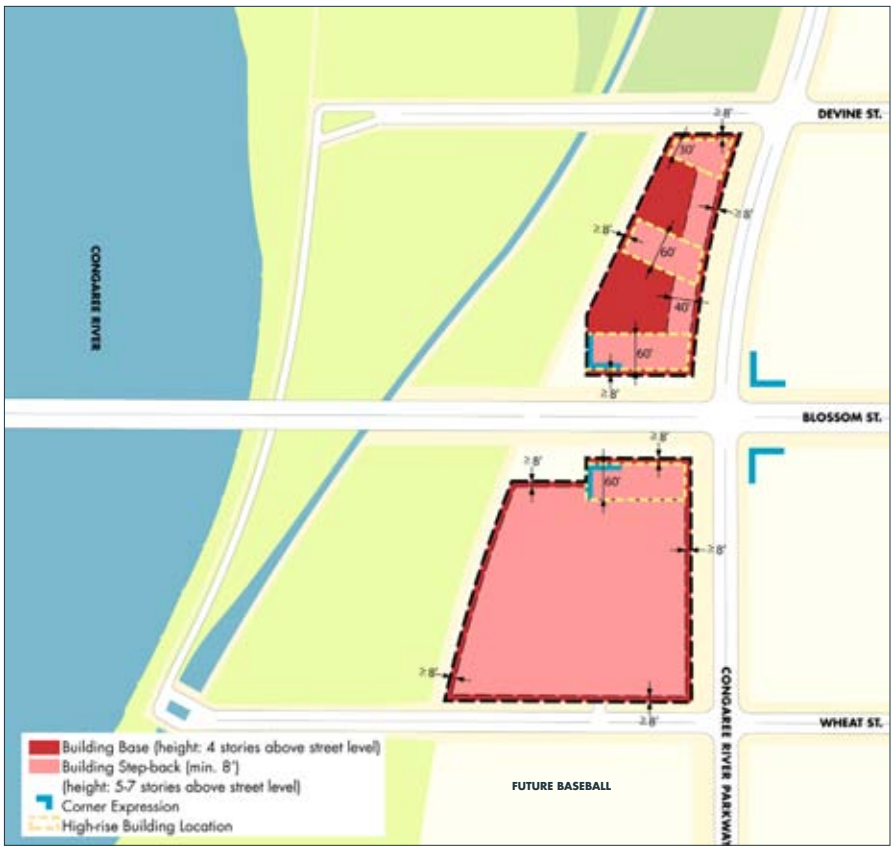
1) The building base, constructed along the limit of the development parcel as defined by the build-to line

2) The step-back line, or depth which the building must recess above a designated height; and

3) The high-rise zone, or area where higher building heights may be achieved.

Each building will be able to take any shape or mass within these parameters.

The design concept for this district is to mark its important location with distinctive architectural massing.



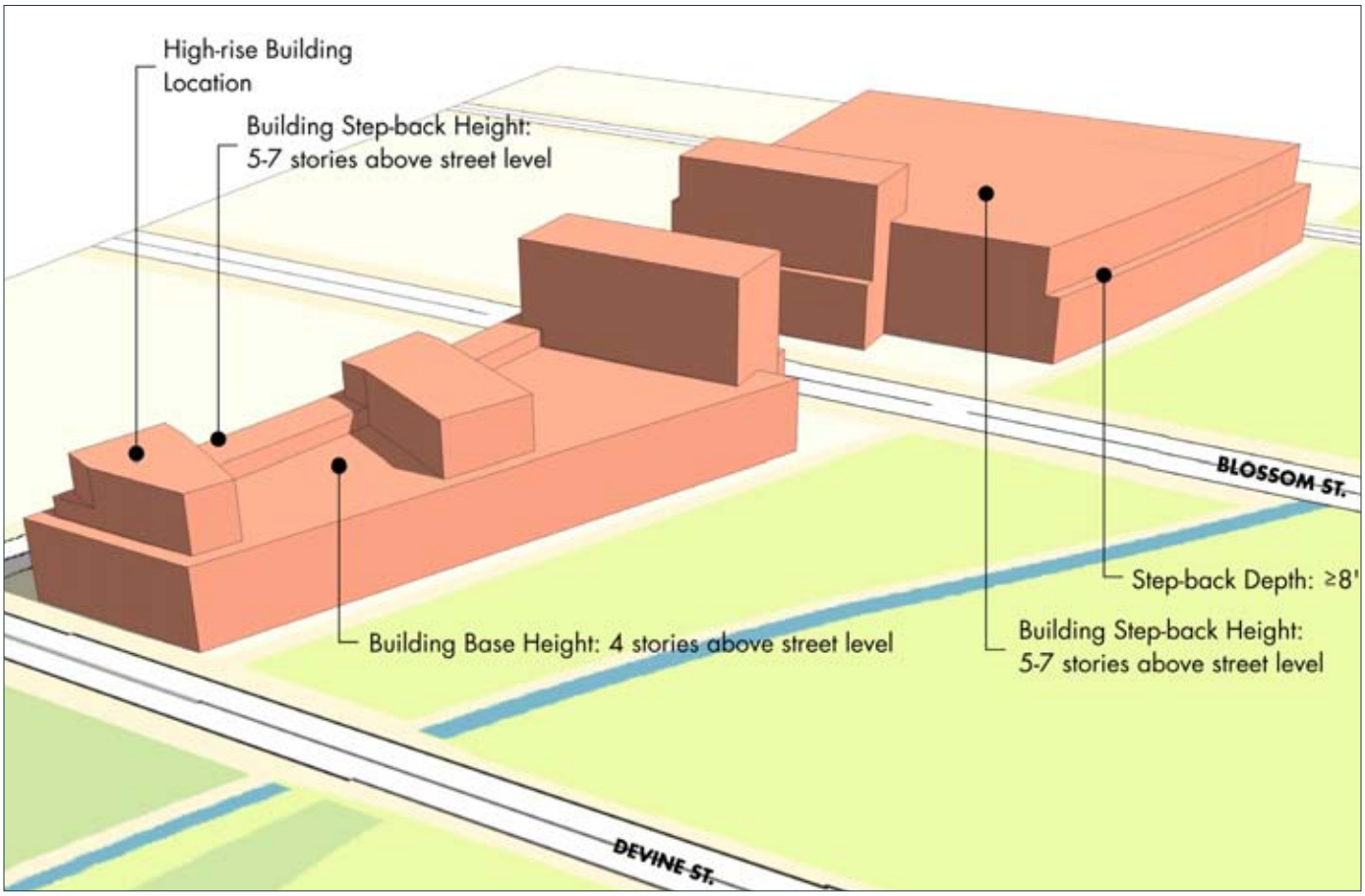


FIGURE 6.47: BLOSSOM STREET GATEWAY BUILDING ENVELOPE

The figure illustrates the proposed building envelope, with building mass maximizing views to the park and river.

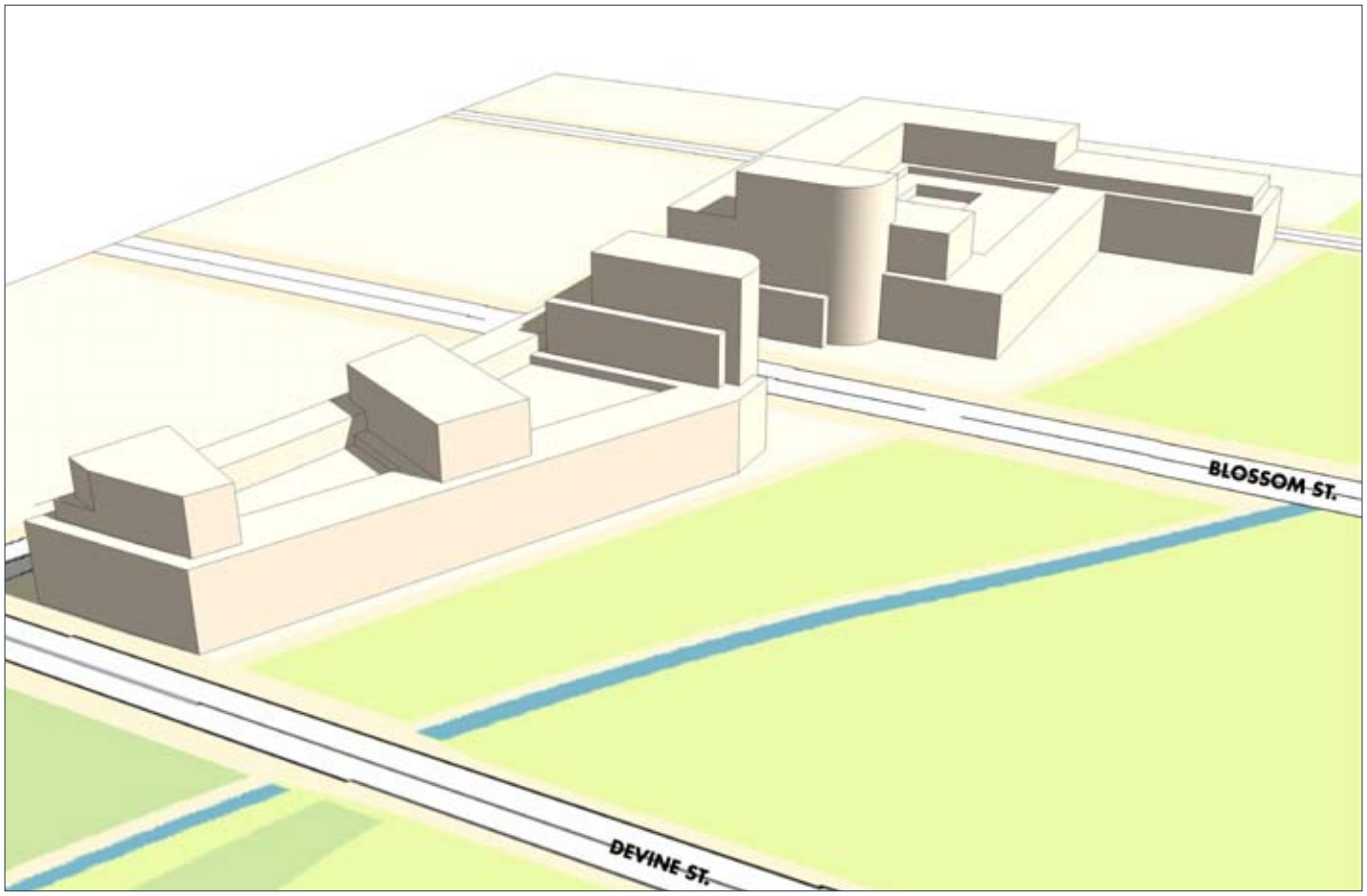


FIGURE 6.48: BLOSSOM STREET GATEWAY BUILDING MASSING ILLUSTRATIVE

The figure illustrates an architectural massing option within the building envelope with an emphasis on view orientation and articulation of the entry gateway at the foot of the Blossom Street Bridge.

FIGURE 6.49: LINCOLN STREET GATEWAY CONTEXT MAP

FIGURE 6.50: LINCOLN STREET GATEWAY DEVELOPMENT PARCELS

"Development parcels" are plots of land available for development. The "build-to line" indicates the mandatory building façade location along the streets.

Two high-visibility development parcels are created at the Lincoln Street gateway to Innovista.

FIGURE 6.51: LINCOLN STREET GATEWAY GROUND FLOOR USES

"Ground floor use" indicates program for the street level of each building.

The Plan calls for mixed-use buildings with structured parking at the interior of the block.

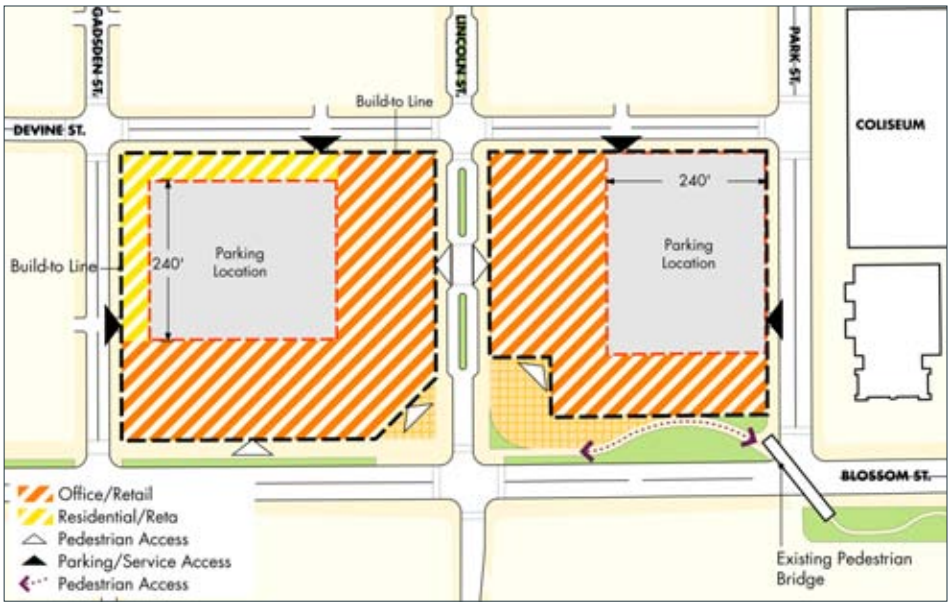


FIGURE 6.52: LINCOLN STREET GATEWAY BUILDING ENVELOPE

"Building envelope" consists of three key components:

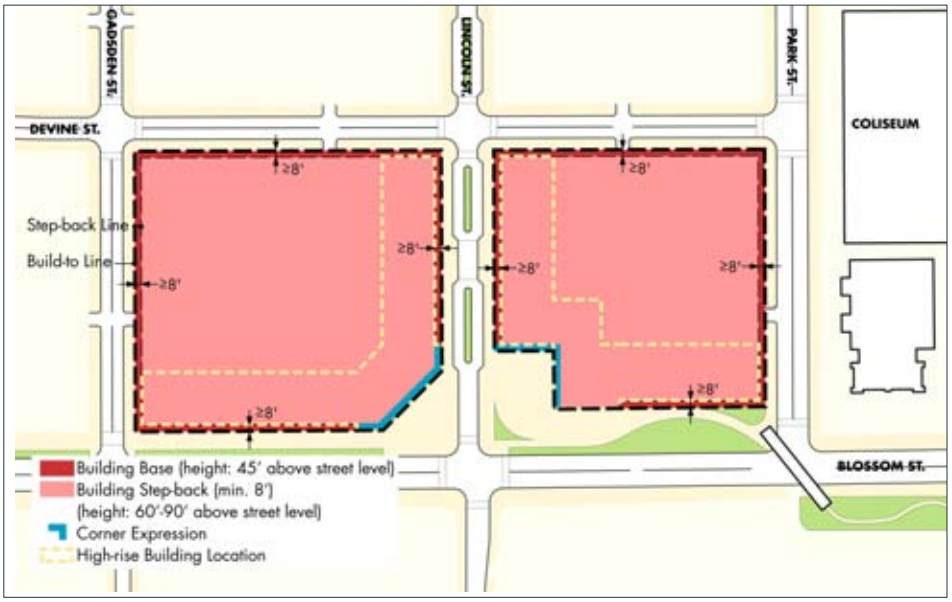
1) The building base, constructed along the limit of the development parcel as defined by the build-to line

2) The step-back line, or depth which the building must recess above a designated height; and

3) The high-rise zone, or area where higher building heights may be achieved.

Each building will be able to take any shape or mass within these parameters.

Because of their important location, minimum building heights are called for along the major streets, with specific attention to the corner locations.



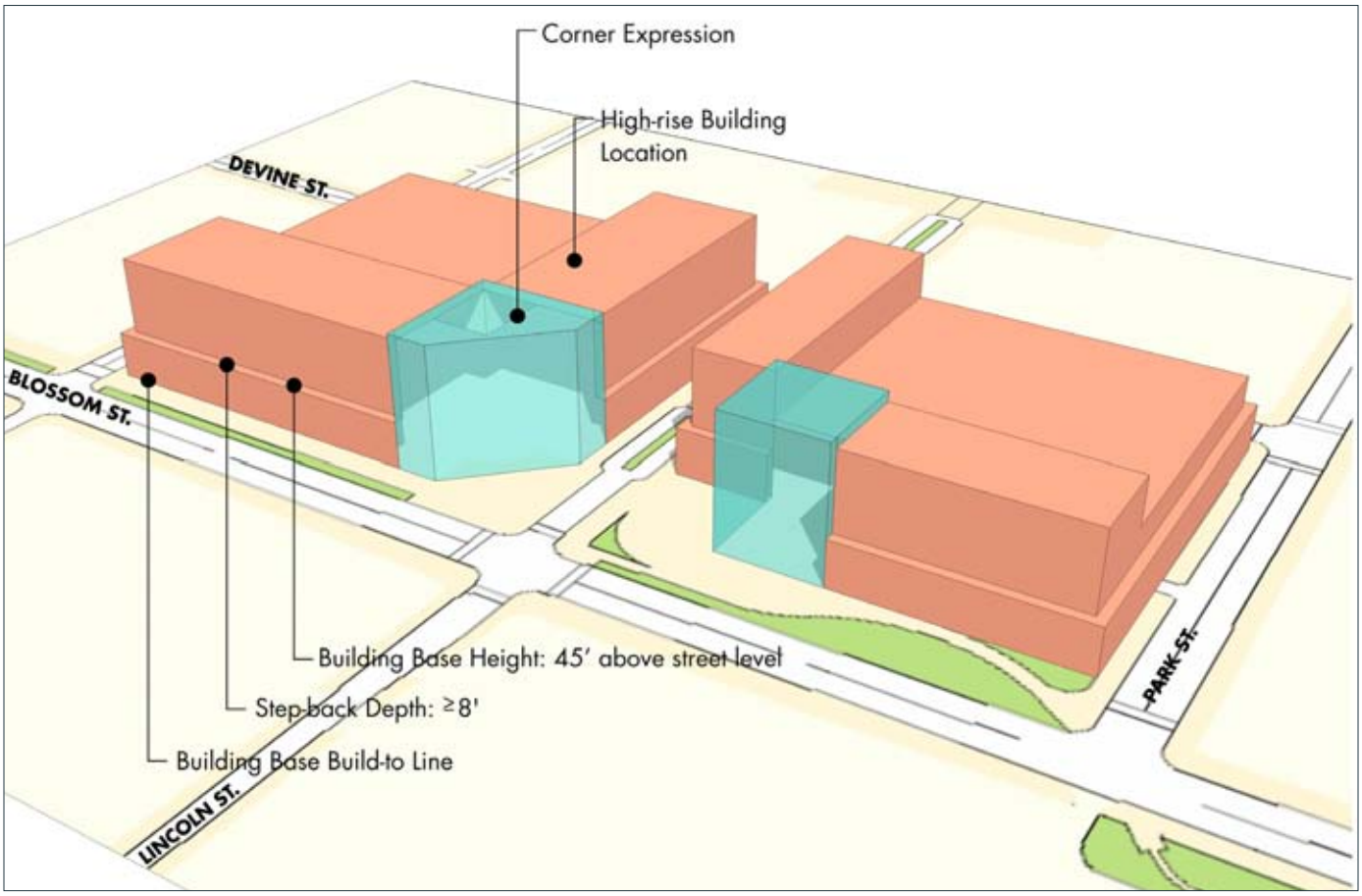


FIGURE 6.53: LINCOLN STREET GATEWAY BUILDING ENVELOPE

The building envelope illustrates high buildings framing the major streets and new public open space marking the intersection of Blossom and Lincoln Streets. Access from the pedestrian bridge and the Thurmond Wellness Center is provided along Blossom Street.

FIGURE 6.54: LINCOLN STREET GATEWAY BUILDING MASSING ILLUSTRATIVE

The figure illustrates the articulation of the building massing at the intersecting street corners and the parking structures located at the interior of the blocks.

FIGURE 6.55: SENATE STREET LANDING CONTEXT MAP

FIGURE 6.56: SENATE STREET LANDING DEVELOPMENT PARCELS

"Development parcels" are plots of land available for development. The "build-to line" indicates the mandatory building façade location along the streets.

Senate Street Landing has the only development parcels directly on the river and within the park.

FIGURE 6.57: SENATE STREET LANDING GROUND FLOOR USE

"Ground floor use" indicates program for the street level of each building.

The distinctive location on the banks of the river and the sites of the historic cable ferry calls for a special land use to support the public nature of the Landing.

FIGURE 6.58: SENATE STREET LANDING BUILDING ENVELOPE

"Building envelope" consists of three key components:

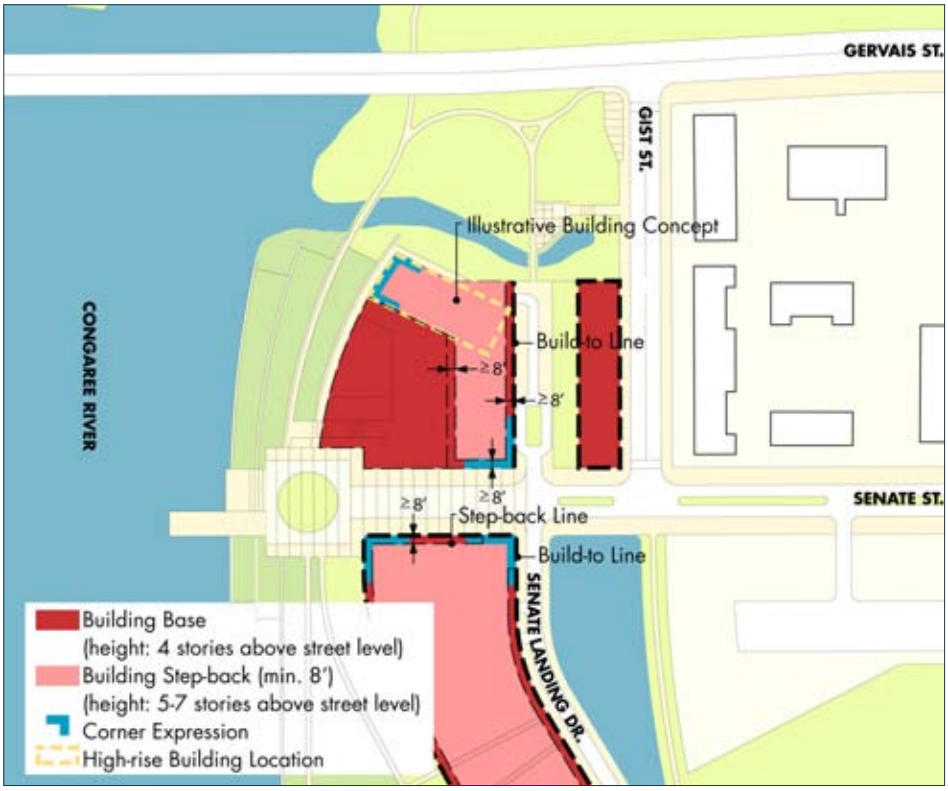
1) The building base, constructed along the limit of the development parcel as defined by the build-to line

2) The step-back line, or depth which the building must recess above a designated height; and

3) The high-rise zone, or area where higher building heights may be achieved.

Each building will be able to take any shape or mass within these parameters.

The location on the river calls for more intensive use with minimum building heights of four floors and provisions for higher buildings opening the view to the Gervais Street Bridge.



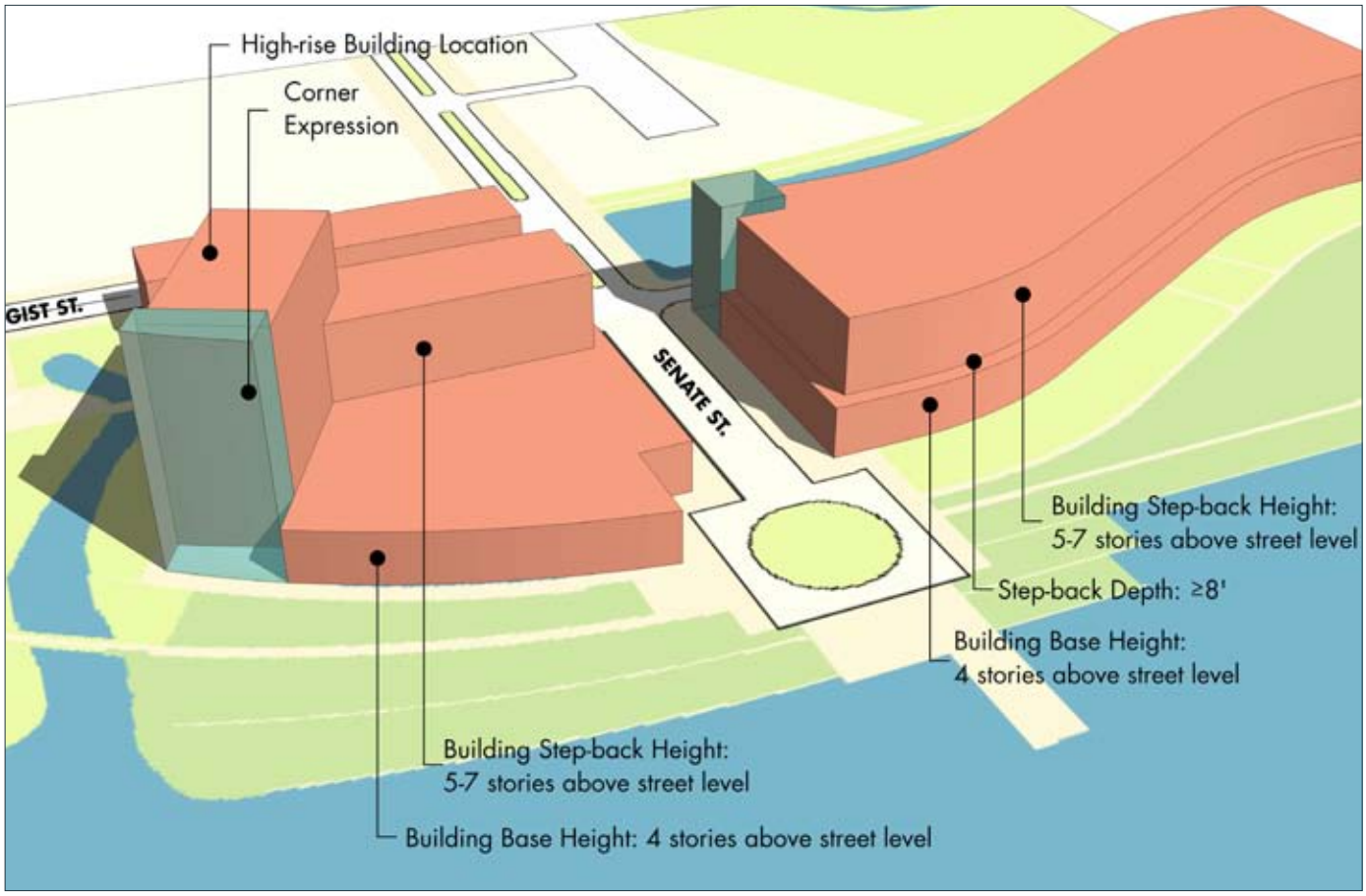


FIGURE 6.59: SENATE STREET LANDING BUILDING ENVELOPE

The figure illustrates the potential building massing of a small hotel with an associated restaurant and supporting retail services flanked by residential uses oriented to the river.

FIGURE 6.60: SENATE STREET LANDING BUILDING MASSING ILLUSTRATIVE

Within the proposed building envelopes, a variety of building massing can be achieved. Articulation of the corner facades is sought for buildings facing the Gervais Street Bridge.

7. PROJECT FEASIBILITY

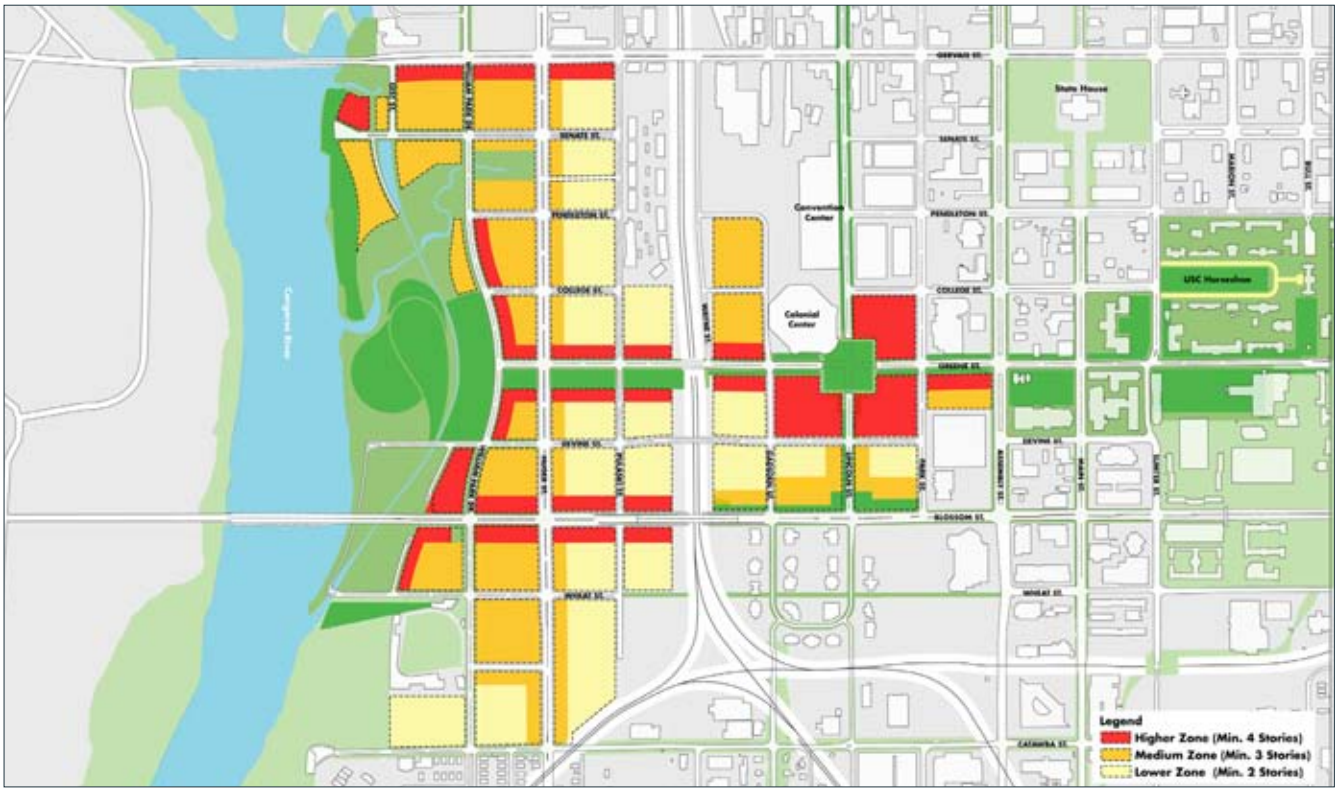


FIGURE 7.1: INNOVISTA DEVELOPMENT DENSITY

The Innovista area has a total development potential of roughly 11.3 million gross square feet (GSF). This potential building area is distributed between the Waterfront and Innovation Districts according to Table 7.1.

When calculating total development potential, the model assumes an average floor area ratio (FAR) of 2.0, though the actual FAR is expected to vary from parcel to parcel based on the market potential. An FAR of 2.0 translates to buildings of four-to- six floors in height, with buildings that have a strong street presence and wrap around parking structures.

Of the 11.3 million GSF of development potential in the Innovista Master Plan, it is estimated that the University of South Carolina has twenty-four percent of the development potential; Guignard Associates, thirteen percent; and other property owners, sixty-three percent of the total development potential.

TABLE 7.1: PROPOSED MASTER PLAN PROGRAM

GROSS SQUARE FEET OF DEVELOPMENT

Waterfront District	
Mixed Use (retail & office)	3,000,000
Residential	5,500,000
Sub-total	8,500,000
Innovation District	
Mixed Use (retail & office)	2,220,000
Residential	550,000
Sub-total	2,770,000
TOTAL	**11,270,000**

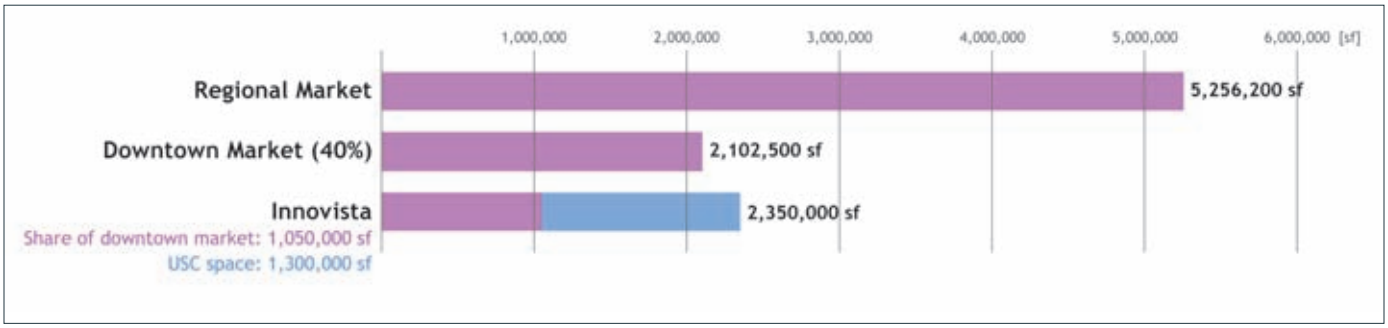


FIGURE 7.2: 15-YEAR OFFICE SPACE DEVELOPMENT POTENTIAL, WITH A COMBINATION OF MARKET-DRIVEN GROWTH AND USC-LED INITIATIVES

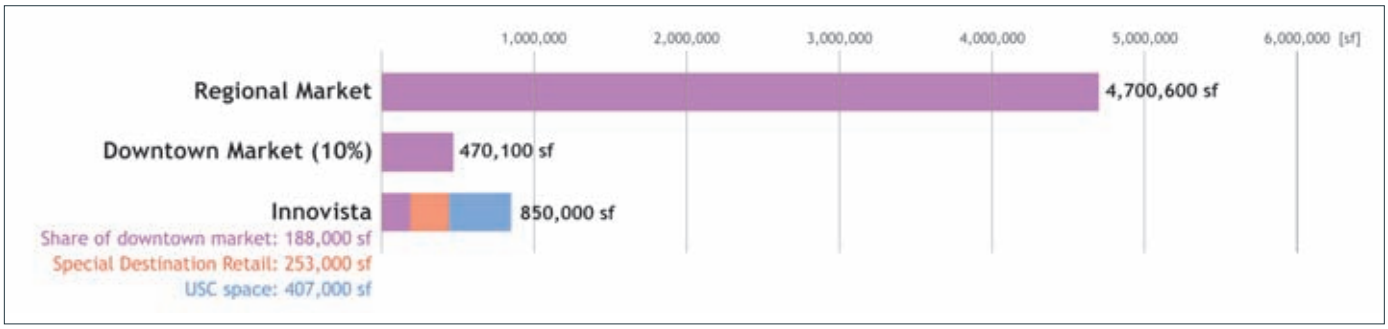


FIGURE 7.3: 15-YEAR RETAIL SPACE DEVELOPMENT POTENTIAL, WITH A COMBINATION OF MARKET-DRIVEN GROWTH, SPECIAL DESTINATION RETAIL RELATED TO BASEBALL, AND USC SPACE

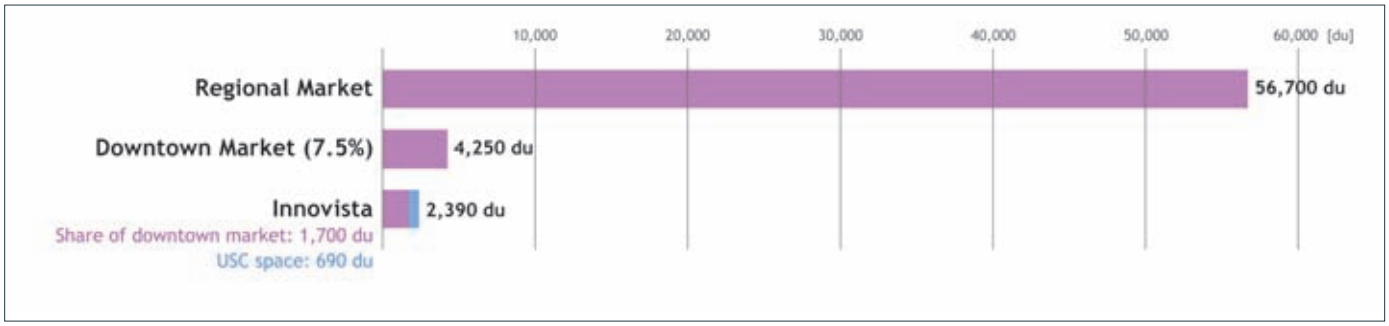


FIGURE 7.4: 15-YEAR RESIDENTIAL DEVELOPMENT POTENTIAL, WITH A COMBINATION OF MARKET-DRIVEN GROWTH AND USC SPACE (AND AVERAGE DWELLING UNIT SIZE OF 2,000 GSF)

Market Analysis: Projection of Supportable Market Absorption

A comprehensive economic analysis assessed the growth trends and projections in the Columbia Metropolitan Statistical Area, researched trends for the downtown, and generated a market profile for the office, retail, residential and hotel markets. It tested the proposed Innovista Master Plan for market viability and concluded that the Innovista area could support seventy-one percent of the Master Plan's total development potential over the next fifteen years.

To determine the supportable market absorption, the economic analysis asked the following questions:

- How much will the region grow over the next fifteen years?
- What share will downtown Columbia have of the total regional growth?
- What share of downtown's growth can be captured by development in the Innovista area?

The economic analysis determined the following capacity for the office, retail and residential submarkets:

Office

ERA estimated that the downtown market would account for forty percent of the regional office market, while Innovista's share would be forty percent to sixty percent of the downtown market.

The Master Plan illustrates 3.98 million GSF of office space and assumes that USC will generate twenty percent of the development potential in the Waterfront District and fifty percent in the Innovation District. Out of the total proposed office development program, 2.7 million GSF are projected to be privately developed with the remainder generated by USC.

Retail

ERA estimated that retail space in the downtown market would account for ten percent of the regional market, and Innovista's share of the downtown market was projected to be 188,000 GSF. The Innovista Master Plan illustrates supporting retail space along the Greene Street corridor at Foundation Square; at Greene Street's terminus with the Parkway; at the Senate and Wheat Street Landings; and at the new USC baseball park. Special destination retail is estimated to be another 253,000 GSF.

Residential

The economic analysis projects that the Innovista area will account for thirty-five to forty-five percent of the total downtown residential demand, and that 1,700 market-rate units, as well as 690 dormitory rooms, apartments and condominiums for USC students, faculty and staff can be supported within Innovista.

Fiscal Analysis

Dr. Donald L. Schunk, an assistant professor at the University of South Carolina's Moore School of Business, conducted an economic and fiscal benefits analysis based upon both the full build-out development potential within Innovista and ERA findings of supportable market absorption for the next fifteen years.

Economic Benefits at Full Build-Out

The analysis evaluated the economic impacts associated with construction activity, employment and retail sales impacts of the developed commercial space, and property tax revenues that the new residential and commercial space will generate.

Construction costs are estimated to total nearly $1.3 billion at full build-out in 2006 dollars. The cumulative economic impacts from construction activity at Innovista are estimated to create nearly $2.3 billion in local economic output, 27,651 jobs locally, and $942.7 million in household income. These impacts will be felt throughout the local economy. Though concentrated in the construction sector, these economic benefits will also positively impact retail trade, services, finance, insurance, and real estate, along with most other sectors of the economy.

The ongoing economic and fiscal benefits are estimated to be 14,362 jobs and $387.5 million in retail sales annually (in 2006 dollars) upon build-out of Innovista. At full build-out, an estimated $25.6 million in property tax revenue will be generated annually for the local governments.

Fiscal Impact at a Fifteen-Year Horizon

Based on the absorption estimates, the Innovista area will generate $17.7 million in annual property tax revenues at the fifteen year mark, as summarized in Table 7.2:

TABLE 7.2. INNOVISTA PROPERTY TAX REVENUES AT A 15-YEAR HORIZON

RECIPIENT	REVENUE IN THE 15TH YEAR (IN MILLIONS)
Schools	$9.9
Richland County	$3.4
City of Columbia	$3.6
Other	$0.9
TOTAL	**$17.7**

If development occurs steadily throughout the first fifteen years, the cumulative amount property taxes generated by the Innovista area is estimated to be $141.4 million, ignoring the effects of appreciation over time. Using a modest appreciation rate of three percent per year, the total tax revenue generated in the fifteenth year will be in excess of $22 million, and the cumulative total through the first fifteen years will be more than $176 million. Of that total, about $69.6 million of this will be available to Richland County and the City of Columbia, while the remainder will go to schools and other allocations. The private market value created would be approximately $892 million.

Cost Estimate

The total estimated infrastructure development cost of the project is projected to be $121 million in 2006 dollars. The following is a brief summary of the cost estimate for both districts.

The Waterfront District cost estimate includes:

- Road improvements, primarily right-of-way and landscape improvements to existing streets to make them compatible with the pedestrian scale and overall design quality of the proposed Master Plan.
- New roads, including the Congaree River Parkway along the eastern side of the Waterfront Park, the extension of the street grid to the waterfront, and the pedestrianization of the Blossom Street viaduct.
- Park elements, including the creation of the Waterfront and Sculpture Parks, and the relocation of power lines from the Waterfront Park.

The total estimated cost of road improvements in the Waterfront District is $24.5 million while park elements, including the relocation of power lines, account for $67.5 million. Total estimated costs in the Innovista planning area are roughly $93 million.

The Innovation District cost estimate includes:

- Road improvements to Greene Street and portions of Lincoln Street, as well as Blossom Street and Assembly Street from Gervais to Catawba.
- New roads and bridges connecting the Innovation District to the Waterfront District. This includes the Greene Street Bridge as well as a new pedestrian connection on Wheat Street above the railroad lines.
- The construction of Foundation Square and the Coliseum Promenade.

The total estimated cost of the Innovation District is $18.2 million for the roads is and $8 million for the park elements, for a total of nearly $27 million.

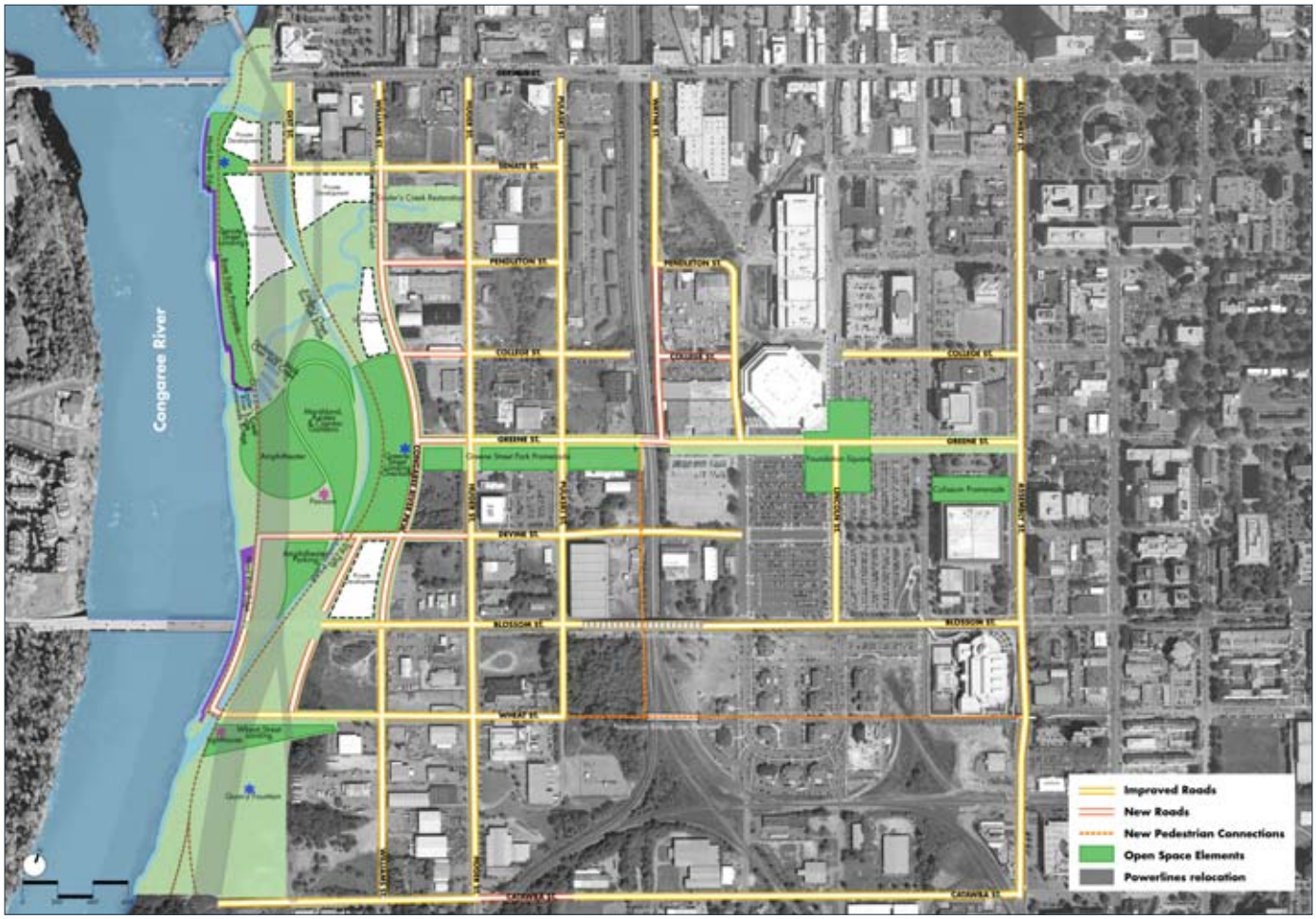


FIGURE 7.5: ELEMENTS INCLUDED IN THE INNOVISTA AREA CONCEPTUAL COST ESTIMATE

Economic Impact of Waterfront Parks: Precedents

To gauge the impact that the new Congaree Regional Waterfront Park will have upon the City of Columbia, the University of South Carolina and the region, the analysis selected a number of precedents to comparatively assess their cost and potential benefits. These projects include the Charleston Waterfront Park and Maritime Center, the Cincinnati Central Waterfront Park, and the Central Indianapolis Park.

All of the waterfront park projects have had a positive economic impact on their surrounding areas over time. An essential factor in their success has been engaging private sector investment. Within the Innovista area, the ratio of private to public investment—which gauges how much the private sector contributes for every dollar of public money invested in infrastructure (parks and streets) —is projected to be $7.60. This high ratio is very favorable and reflects the large amount of developable land within the district that will benefit from the waterfront park and other street and open space improvements.

TABLE 7.3: PARK COSTS AND IMPACTS

INNOVISTA

COST OF PARK	$ 27/sf
VALUE OF GENERATED DEVELOPMENT	$ 892 million
RATIO PRIVATE/PUBLIC	7.6

CHARLESTON WATERFRONT PARK & MARITIME CENTER, SC

COST OF PARK	$ 101/sf
VALUE OF GENERATED DEVELOPMENT	$ 337 million
RATIO PRIVATE/PUBLIC	4.6

CINCINNATI CENTRAL WATERFRONT PARK, OH

COST OF PARK	$ 71.7/sf
VALUE OF GENERATED DEVELOPMENT	$ 500 million (est)
RATIO PRIVATE/PUBLIC	5

CENTRAL INDIANAPOLIS WATERFRONT PROJECT, IN

COST OF PARK	$ 15.7/sf
VALUE OF GENERATED DEVELOPMENT	$ 425 million
RATIO PRIVATE/PUBLIC	4.4

Sources of Funding

A variety of public funding streams should be pursued to construct the public infrastructure and parks within the Innovista area, including private funding, the Water Resources Development Act, Tax Increment Financing, Transportation Funding and local and state government funding sources. In addition, the Master Plan recommends exploring smaller funding streams such as the National Endowment for the Arts, Historic Preservation Tax Credits, and local philanthropic organizations.

Major sources of funding should include the following:

- Corps of Engineers Funding: The Water Resources Development Act (WRDA) is the most effective means to obtain federal funds for a recreational project, such as the proposed waterfront park. WRDA can provide funds for a variety of public recreational projects, including funds to design and construct the Waterfront Park. Congress typically reauthorizes the WRDA every two years. The project acquired its regional sponsor to carry the process and receive funding from the Corps of Engineers when the River Alliance agreed to accept this role.

- Tax Increment Financing: The existing tax increment finance (TIF) program, depending on its availability, could pay for a significant portion of the waterfront park project's infrastructure. Since the project is estimated generate $69 million in tax revenues over the first fifteen years, excluding school taxes, this amount presumably would be available under the TIF program.

- Transportation Funding: Federal transportation "enhancement funds" could fund the pedestrian- and bicycle-oriented enhancements to the major arterials serving Innovista.

Additional funding may be secured through the Department of Transportation; the South Carolina Department of Natural Resources; the South Carolina Department of Parks, Recreation and Tourism; and local funding sources such as bonds and sales taxes.

FIGURE 7.6: VIEW OF THE GERVAIS STREET BRIDGE FROM SENATE STREET LANDING

8. IMPLEMENTATION & VIABILITY

Implementation

Complex, multi-dimensional urban projects like Innovista require a flexible funding framework. To be successful, the project will need a long-term commitment on the part of the University, the City, the State and the citizens of the region.

Organizing a project of this nature requires widely varied groups to form partnerships, build civic consensus and establish relationships. The planning process must address the political, business, and aspirational interests of a wide range of actors to ensure that the project realizes its full potential. It also must navigate the varying restrictions and requirements of different funding sources.

From an initial planning and implementation perspective, this document recognizes that there are three groups which heretofore have been engaged to assist in the development of certain elements of the master plan: 1) the River Alliance, particularly as it relates to the elements associated with the Congaree Regional Waterfront Park; 2) the Waterfront Steering Team, a group of community leaders who have been organized to assist in providing overall guidance and direction to this initiative; and 3) the staff of the City of Columbia who have also been integrally involved in the development of key elements of this Master Plan.

This report acknowledges that broad overviews of the various master plan elements have been presented to a wide range of public and private stakeholders, including the elected leadership of the City of Columbia, the owners of private property within the Innovista area who will be affected by any zoning and design changes, and the county at large. Given that the master plan now contains more detailed recommendations—particularly as it relates to land use and zoning within the Innovista planning area—there needs to be additional, more in-depth review of the information contained herein.

The recommendations set out below address as series of next steps and actions—some concurrent, others sequential—which will make Innovista a reality.

Recommendation 1: Formalize the Waterfront Steering Team. While the Waterfront Steering Team appears to have worked well to date, consideration should be given to creating a 501(c)(3) organization dedicated to implementing the vision and focus of the master plan and to providing financial and human resources to do so. This new non-profit organization would include current members of the Waterfront Steering Team.

Recommendation 2: Increase Engagement of the City of Columbia, its Staff and Private Property Owners. In order for the master plan to become a reality, an essential component will be the productive involvement and support of the City of Columbia as well as the myriad private sector owners within the Innovista area. Having City staff provide feedback regarding zoning and design elements has been important to the master plan thus far. Next steps will include preparing zoning and design ordinances which will require the approval and adoption of the City and providing public forums for their discussion. Likewise, the leadership will need to engage the private owners to solicit their feedback and approval.

Recommendation 3: Identify Dedicated Revenue Streams. It will be essential for Innovista's stakeholders to identify one or more reliable funding streams to support their non-profit organization over the length of the project so that the project management team spends its efforts on the project, not fundraising. The stakeholders should consider capitalizing annual stakeholder contributions, which can be replaced over time by fee revenues generated by the project.

Recommendation 4: Tell the Story Again…and Again…and Again. To become an essential component of a community's self image, a civic vision must be told over and over again in forums large and small over the course of many years. The Innovista stakeholders should continue to inform the public about the project and should maintain that communication for the duration of the development effort. Their communication should recognize the diversity of the audiences that must be reached and continuously engaged for the project to succeed, and should employ a range of communications channels, from a project webpage to regular meetings with the local community.

Recommendation 6: Expand the Story. Currently the story Innovista tells is one of urban revitalization, waterfront development, and repositioning Columbia for the knowledge economy. These themes will capture the imagination of some civic actors, but not all. Other themes that would bring other actors into the dialogue and thereby grow the constituency for the Innovista program include:

- Green/Blue Networks: Build upon Innovista's role in completing and extending the region's existing multi-county Three Rivers Greenway network.
- Working Class/Industrial History: Emphasize the history of the site and the means by which redevelopment will develop bridges between the project and the adjacent Mill Neighborhoods. By understanding the rich history of the site, Innovista's designers and developers will be more likely to produce an authentic place with a unique and real history and not just a downtown urban renewal district.
- Jobs and Tax Base for Columbians: Communicate that, while development of Innovista will require the continued support of city, county and state governments, it has the significant potential to be a powerful engine for meaningful economic growth in Columbia and the region.
- Administrative Reform: Emphasize how the City's revision of its zoning code and design review procedures in response to this initiative will be an essential component to achieve the desired results.

Recommendation 7: Explore All Funding Streams. Innovista stakeholders should explore all relevant funding streams, including those listed above.

Recommendation 8: Clarify Development Roles. A relevant step in implementation is to identify which entities will implement the infrastructure improvements and which will promote and coordinate the development within the Waterfront District.

Long-Term Viability

The long-term viability of the Innovista area, and especially of the proposed Waterfront Park, will depend on the continued maintenance and operation of facilities. While it is beyond the scope of this plan, it is recommended that the key stakeholders and groups begin to discuss and address these matters.

9. CONCLUSION

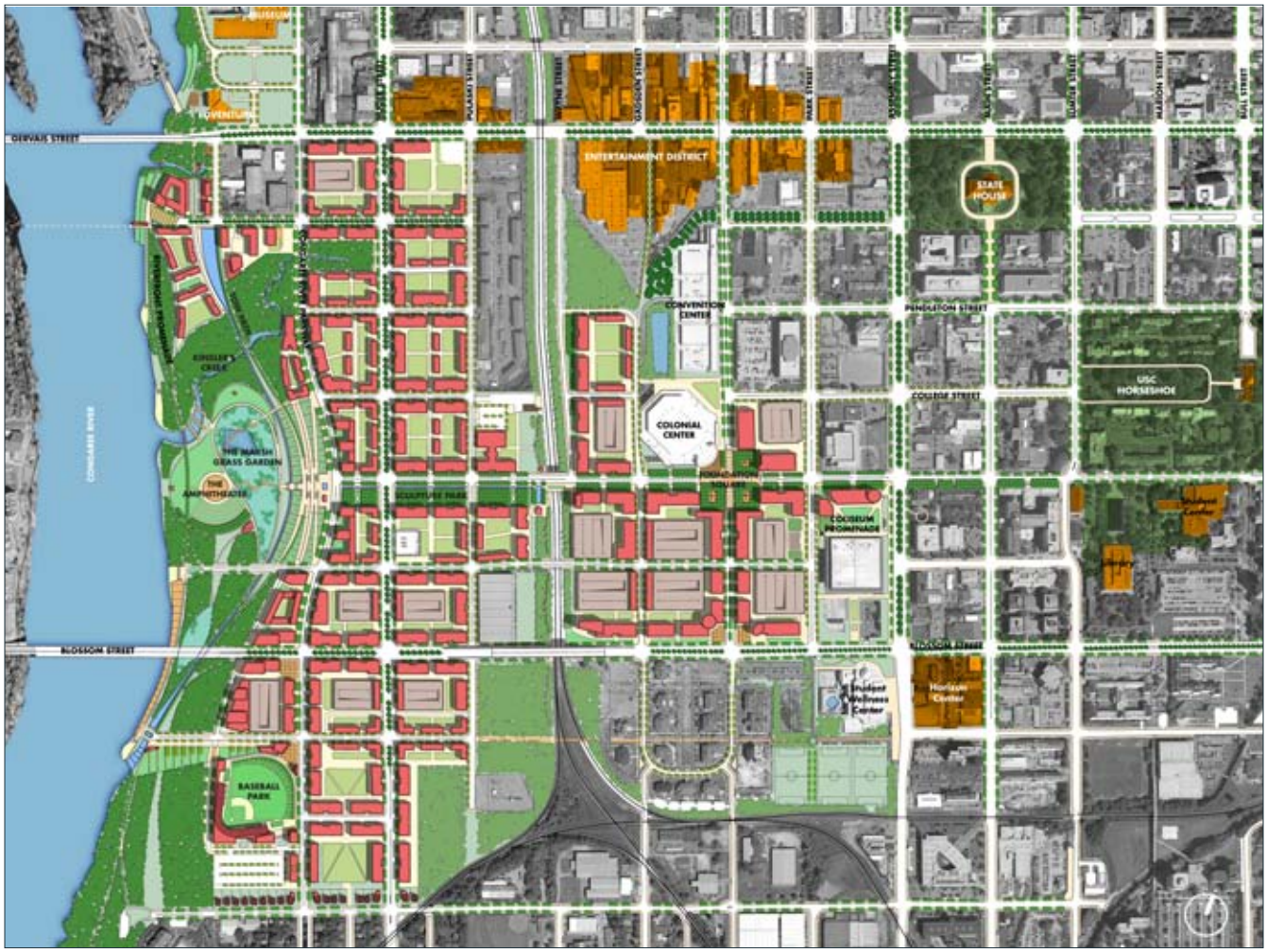


FIGURE 8.1: INNOVISTA ILLUSTRATIVE MASTER PLAN

Innovista is a visionary plan for a historic industrial waterfront of an American capital city which seeks urban presence and quality of life. The mixed-use plan draws its structure and form from Columbia's historic town plan of 1786 and from the proposal to celebrate the City's birth on the banks of the Congaree River with a grand waterfront park. As Innovista's planning process unfolds it will bring together the community in a unique partnership of residents, private property owners, University, city, state and business interests around a shared and transforming vision for the City of Columbia.

ACKNOWLEDGEMENTS

WATERFRONT STEERING TEAM

Mr. William C. Boyd, Chair	Haynsworth Sinkler Boyd P.A.
Ms. Lynette Alston	Community Advocate and Volunteer, Palmetto Health Board Member
Mr. Gayle Averyt	Colonial Life – Retired Chair
Mr. Steven Benjamin	Law Offices of Steven K. Benjamin, P.A.
Mr. Lee Bussell	Chernoff Newman – Chairman
Mr. Clente Flemming	South Carolina Community Bank – President
Dr. Madilyn Fletcher	University of South Carolina, Director of the School of the Environment
Mr. Kester Freeman	Palmetto Health - Former CEO
Mr. Chuck Garnett	Former Chair, Greater Columbia Chamber of Commerce (CEO-NBSC)
Dr. William L. Graf	University of South Carolina, Educational Foundation Professor of Geography
Mr. Alan Kahn	Kahn Development Company – CEO
Mr. Rick Kelly	University of South Carolina, Division of Business and Finance – CFO
Mr. John Lumpkin	University of South Carolina, Former Interim Director of Innovista;
Mr. Frank Mood	SCANA – General Counsel
Ms. Cathy Novinger	Palmetto Agribusiness Council
Ms. Dottie Owen	Community Volunteer
Mr. Mark Robertson	The Nature Conservatory, SC Chapter – Executive Director
Mr. Jasper Salmond	Member Richland School District #1 School Board
Mr. Jim Smith	Chair, The River Alliance (Executive VP-NBSC)
Mr. Charles C. Thompson	Guignard Associates – Managing Partner
Mr. Gilbert Walker	Columbia Housing Authority Executive Director
Mr. Thad Westbrook	Nelson Mullins Riley & Scarborough, LLP

"The Waterfront Steering Team has been organized to assist with the identification and implementation of the public infrastructure elements of both the Waterfront District as well as the Innovation District which are located within Innovista, the University of South Carolina research campus initiative. Its activities include identifying and securing Funding/Financing for such infrastructure elements, determining Zoning and Land Use components with both the Waterfront as well as Innovation Districts, determining the potential Ownership and Operating structure of the Waterfront Park and providing Communications and Community Relations associated with this overall initiative."

UNIVERSITY OF SOUTH CAROLINA

Dr. Andrew A. Sorensen, *President*

Richard Kelly, *Vice President and Chief Financial Officer*

John Lumpkin, *Former Interim Director of Innovista*

Charles G. Jeffcoat, *Director of Campus Planning and Construction and University Architect*

Joe Rogers, *Former Director of Facilities Planning and Operations*

THE RIVER ALLIANCE

Jim Smith, *Chairman*

Michael T. Dawson, *Director*

CITY OF COLUMBIA

Robert D. Coble, *Mayor*

E. W. Cromartie, II, *City Council Member*

Anne M. Sinclair, *City Council Member*

Sam Davis, *City Council Member*

Tameika Isaac Devine, *City Council Member*

Daniel J. Rickenmann, *City Council Member*

Kirkman Finlay III, *City Council Member*

Charles Austin, *City Manager*

Chip Land, AICP, *Director of Planning*

Marc Mylott, AICP, *Director of Development Services/ Zoning Administrator*

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APPENDICES

Appendix A

Innovista Master Plan Conceptual Cost Estimate
Sasaki Associates, Inc

Appendix B

Case Studies for Public-Private Partnerships

Appendix C

Waterfront Park Precedents
Sasaki Associates, Inc

Appendix D

Regulatory Review

APPENDIX A

Innovista Master Plan Conceptual Cost Estimate

1. WATERFRONT DISTRICT

GENERAL COSTS

ITEM	QUANTITY	UNIT	UNIT PRICE	CONSTRUCTION COST	COMMENTS
MOBILIZATION	1	LS	120,000	$ 120,000.00	
SITE PREPARATION	101	AC	2,800	$ 283,920.00	
CONSTRUCTION PERMIT	1	LS	45,000	$ 45,000.00	
EROSION SEDIMENT CONTROL	5,331	LF	25	$ 133,275.00	
TRAFFIC MANAGEMENT	1	LS	60,000	$ 60,000.00	
SUB TOTAL				$ 642,195.00	

IMPROVING EXISTING ROADS

GREENE STREET	900	LF	590	$ 531,000.00	From Huger to RR
SENATE STREET	1,550	LF	590	$ 914,500.00	From Gist to Pulaski
PENDELETON STREET	500	LF	460	$ 230,000.00	From Huger to Pulaski
COLLEGE STREET	1,000	LF	460	$ 460,000.00	From Huger to RR
GIST STREET	500	LF	460	$ 230,000.00	From Gervais to Senate
WILLIAMS STREET	2,050	LF	460	$ 943,000.00	From Gervais to Senate & from Catawba To Blossom
HUGER STREET	4,700	LF	590	$ 2,773,000.00	From Gervais to Catawba
DEVINE STREET	1,000	LF	460	$ 460,000.00	From Huger to RR
PULASKI STREET	3,500	LF	460	$ 1,610,000.00	From College to Blossom
BLOSSOM STREET	1,200	LF	590	$ 708,000.00	from Congaree River to RR Viaduct
BLOSSOM STREET VIADUCT	1,400	LF	675	$ 945,000.00	Pedestrianization of the bridge (6 ft overhang on one side & lighting)
WHEAT STREET	2,000	LF	460	$ 920,000.00	From Congaree River to Pulaski
CATAWBA STREET	4,100	LF	460	$ 1,886,000.00	from Congaree River to Assembly Street
SUB TOTAL				$ 12,610,500.00	

NEW ROADS

CONGAREE RIVER PARKWAY	2,650	LF	820	$ 2,173,000.00	From Blossom to Senate
CONGAREE RIVER PARKWAY CULVERT	1	LS	450,000	$ 450,000.00	50ft span culvert, 300ft sidewalls & filling
RIVERSIDE STREET	1,100	LF	580	$ 638,000.00	Along Congaree, from Wheat to Devine
GIST STREET	1,950	LF	580	$ 1,131,000.00	From Catawba to Devine
DEVINE STREET	1,225	LF	580	$ 710,500.00	From Congaree to Huger
GREENE STREET	300	LF	680	$ 204,000.00	From Williams to Huger
COLLEGE STREET	420	LF	580	$ 243,200.00	From Williams to Huger
PENDLETON STREET	520	LF	580	$ 301,600.00	From Williams to Huger
SENATE STREET	400	LF	680	$ 272,000.00	From Congaree to Gist
CATAWBA STREET	500	LF	580	$ 290,000.00	Connection to Huger across RR (at grade)
PEDESTRIAN CONNECTION ALONG RR	2,000	LF	65	$ 130,000.00	From Greene to Wheat (10 ft wide, concrete)
SUB TOTAL				$ 6,543,700.00	

POWER LINES

OVERHEAD LINES BELOW GROUND	4,900	LF	655	$ 3,209,500.00	In concrete conduits, 2.5 feet below
SECONDARY LINES	2,750	LF	350	$ 962,500.00	
TRANSFER VAULTS	4	EA	75,000	$ 300,000.00	One at each end
ON LINE ACCESS VAULTS	14	EA	25,000	$ 350,000.00	
SC&G DESIGN APPROVALS ETC.	1	EA	40,000	$ 40,000.00	
SUB TOTAL				$ 4,862,000.00	

PARK ELEMENTS

GREENE STREET PARK PROMENADE	142,100	SF	16	$ 2,273,600.00	From Congaree River Parkway to RR (60% softscape, 40% hardscape)
TOW PATH	3,540	LF	320	$ 1,132,800.00	Senate Street landing to Wheat Street landing, 18 feet wide
COLUMBIA CANAL (ALONG TOW PATH)	3,183	LF	470	$ 1,496,010.00	Senate Street landing to Wheat Street landing, 20 feet wide
KINSLER'S CREEK BRIDGE (CANAL & TOW PATH)	300	LF	5,900	$ 1,770,000.00	Pedestrian and Canal bridge
GREENE STREET LANDSCAPE OVERLOOK	249,524	SF	20	$ 4,990,480.00	Ramps, stairs hard surfaces etc.
FOUNTAIN	1	EA	950,000	$ 950,000.00	at Greene Street Overlook
AMPHITHEATER	95,300	SF	8	$ 762,400.00	Stage and terraced area
AMPHITHEATER GREAT LAWN & MEADOW	128,377	SF	6	$ 770,262.00	
PAVILION	5,000	SF	180	$ 900,000.00	
PARKING	58,000	SF	11	$ 638,000.00	Parking under the woods, south of Devine (70 spaces)
MARSHLAND, AZALEA & CYPRESS GARDENS	218,018	SF	6	$ 1,308,108.00	
SENATE STREET LANDING	221,376	SF	14	$ 3,099,264.00	Hard and soft
CANAL	526	LF	1800	$ 946,800.00	
FOUNTAIN	1	EA	900,000	$ 900,000.00	Including wet chamber, at Senate Street Landing
RIVER EDGE (HARD)	2,794	LF	1,750	$ 4,889,500.00	Hard edge
RIVER EDGE (SOFT)	2,537	LF	85	$ 215,645.00	1.5:1 slope, geotextile reinfoced, heavily planted
STEPS AND RAMPS AT THE RIVER EDGE	4	EA	55,000	$ 220,000.00	
RIVER EDGE PROMENADE	5,100	LF	320	$ 1,632,000.00	
PEDESTRIAN WALK OVER MILL CREEK	1	EA	310,000	$ 310,000.00	
KINSLER'S CREEK RESTORATION	2,068	LF	850	$ 1,757,800.00	Earth work and stabilization
KINSLER'S CREEK BRIDGE	1	EA	1,100,000	$ 1,100,000.00	20 feet wide 210 feet long
PEDESTRIAN WALKS OVER THE CREEK	3	EA	310,000	$ 930,000.00	130 x 12 feet each
WHEAT STREET LANDING	75,000	SF	14	$ 1,050,000.00	
LIGHTHOUSE	1	EA	65,000	$ 65,000.00	
QUARRY FOUNTAIN	1	EA	900,000	$ 900,000.00	including wet chamber
LANDSCAPE RESTORATION OF PARK	2,067,405	SF	4	$ 8,269,620.00	Mostly soft areas
LIGHTING	541	EA	1,800	$ 973,800.00	one light per 6,000 SF
BENCHES	216	EA	750	$ 162,000.00	one bench per 15,000 SF
TRASH RECEPTACLES	216	EA	600	$ 129,600.00	one receptacle per 15,000, SF
DRINKING FOUNTAINS	90	EA	950	$ 85,500.00	one drinking fountain per 36,000 SF
RESTROOMS AND O&M BUILDINGS	1	LS	2,500,000	$ 2,500,000.00	
MISCELLANEOUS FEATURES	5	EA	150,000	$ 750,000.00	Kiosks etc.
SUB TOTAL				$ 47,878,189.00	

GRAND TOTAL WATERFRONT DISTRICT				$ 72,536,584.00	
CONTINGENCY				$ 20,310,243.52	20 % construction 8% design
GRAND TOTAL				$ 92,846,828.00	

ROADS				$ 24,517,376.00	Incl. contingency (not including site prep and permitting)
PARK ELEMENTS (INCL. POWERLINES)				$ 67,507,441.92	Incl. contingency (not including site prep and permitting)
COST PER SF OF PARK ELEMENTS	57	AC		$ 27.14	/ sf of Waterfront Park (not including roads & site prep and permitting)

2. INNOVATION DISTRICT

GENERAL COSTS

ITEM	QUANTITY	UNIT	UNIT PRICE	CONSTRUCTION COST	COMMENTS
MOBILIZATION	1	LS	35,000	$ 35,000.00	
SITE PREPARATION	43	AC	2,800	$ 120,400.00	
CONSTRUCTION PERMIT	1	LS	20,000	$ 20,000.00	
TRAFFIC MANAGEMENT	1	LS	50,000	$ 50,000.00	
SUB TOTAL				$ 225,400.00	

IMPROVING EXISTING ROADS

PENDLETON STREET	400	LF	460	$ 184,000.00	From Wayne to Gadsden
COLLEGE STREET	1,000	LF	460	$ 460,000.00	From RR to Assembly
DEVINE STREET	500	LF	460	$ 230,000.00	From RR to Gadsden
WAYNE STREET	1,050	LF	460	$ 483,000.00	From Gervais to Pendleton
GADSDEN STREET	1,020	LF	460	$ 469,200.00	From Pendleton to Greene
GREENE STREET	1,550	LF	590	$ 914,500.00	From RR to Assembly
LINCOLN STREET	700	LF	590	$ 413,000.00	From Blossom to Foundation Square
BLOSSOM STREET	1,700	LF	590	$ 1,003,000.00	From RR Viaduct to Assembly
ASSEMBLY STREET	4,675	LF	750	$ 3,506,250.00	From Blossom to Gervais
SUB TOTAL				$ 7,662,950.00	

NEW ROADS

WAYNE STREET	1,050	LF	580	$ 609,000.00	From Pendleton to Greene
COLLEGE STREET	380	LF	580	$ 220,400.00	From Wayne to Gadsden
PEDESTRIAN ALONG AXIS OF WHEAT STREET	750	LF	65	$ 48,750.00	Pedestrian connection from RR to Assembly (10 ft wide, concrete)
SUB TOTAL				$ 875,150.00	

BRIDGE

GREENE STREET	1	LS		$ 3,100,000.00	Vehicular over RR ROW
WHEAT STREET	400	LF	6,500	$ 2,600,000.00	Pedestrian over RR ROW
SUB TOTAL				$ 5,700,000.00	

FOUNDATION SQUARE

SITE PREPARATION	4	AC	3,300	$ 14,520.00	
HARDSCAPE	86,500	SF	35	$ 3,027,500.00	
SOFTSCAPE	82,200	SF	3	$ 246,600.00	
FOUNTAIN FEATURES	3	EA	650,000	$ 1,950,000.00	
LIGHTING	52	EA	2,200	$ 114,400.00	
FURNITURE	45	EA	950	$ 42,750.00	
PLANTING	1	LS	250,000	$ 250,000.00	
IRRIGATION	148,000	SF	1	$ 111,000.00	
SUB TOTAL				$ 5,756,770.00	

COLISEUM PROMENADE	78,500	SF	8	$ 628,000.00	Park connecting Foundation Square to pedestrian underpass

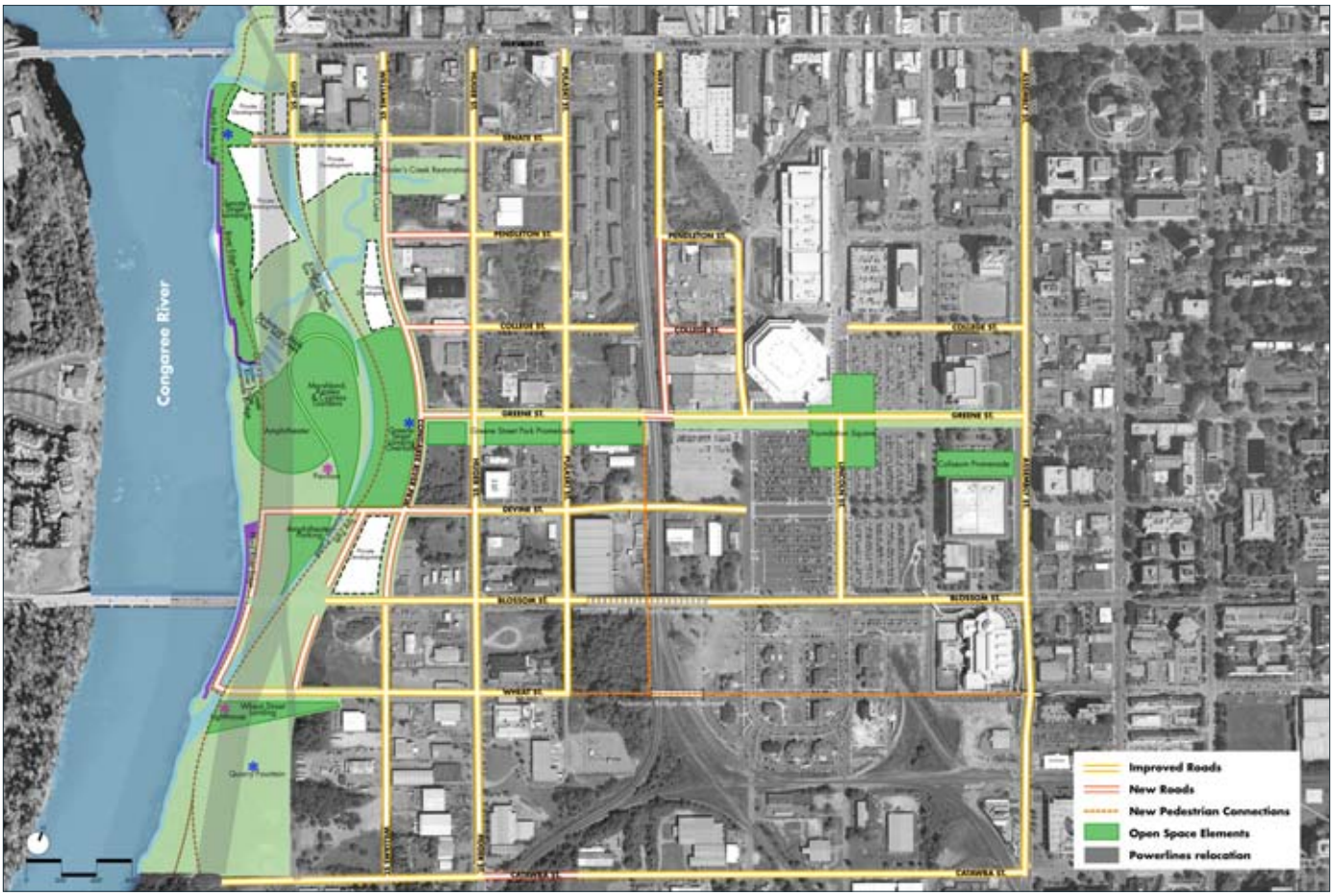
TOTAL FOR INNOVATION DISTRICT				$ 20,851,270.00	
CONTINGENCY				$ 5,838,355.60	20 % construction 8% design
GRAND TOTAL				$ 26,689,626.00	

ROADS				$ 18,228,608.00	Incl. contingency (not including site prep and permitting)
PARK ELEMENTS				$ 8,172,505.60	Incl. contingency (not including site prep and permitting)

3. GRAND TOTAL

TOTAL COST (INCL. CONTINGENCY)				$ 119,536,454	20 % construction 8% design
WATERFRONT DISTRICT & INNOVISTA SCHEMATIC DESIGN				$ 1,867,757	2% of total cost
GRAND TOTAL				$ 121,404,211	

ELEMENTS INCLUDED IN THE CONCEPTUAL COST ESTIMATE



APPENDIX B

Case Studies for Public-Private Partnerships

PUBLIC-PRIVATE PARTNERSHIPS FOR PARKS

Public-private partnerships for parks are becoming more common throughout the country because they combine the assets of the public and private sectors to create and maintain greenways, trails, parks and other community resources in cities. Partnerships for parks also have become key tools for urban revitalization and increasing investment in public infrastructure due to their role in increasing the quantity, and more importantly, the quality of parks in cities.

Several types of public-private corporations have emerged to enable parks and recreation departments to respond to citizen demand for parks in the face of insufficient public resources. Land trusts, non-profit foundations, "friends of" organizations, park conservancies and a host of similar groups have become part of successful public-private collaborative efforts. These groups work in tandem with parks and recreation departments because they are able to respond flexibly to financing opportunities and have the ability to mobilize local residents to support parks. In short, non-profit partners increase the overall capacity of public agencies.

The key to forming a successful partnership is identifying —or creating —a non-profit organization that has assets that offset a public partner's liabilities. Public parks departments bring an identified annual budget and a reliable organizational infrastructure, but are commonly underfunded. They also have public legitimacy and constituencies related to their role as part of an established governmental system, but often become mired in highly bureaucratic decision making processes. On the other hand, non-profits can tap funding sources unavailable to public agencies-such as donations from private foundations, corporations and individuals. This independent fundraising, while taking substantial effort and energy, can ensure flexible funding that encourages innovation. Additionally, non-profits often have community credibility due to their self-sufficiency and non-profit status and can attract a variety of new constituencies including universities, museums and associated private partners.

A park-focused non-profit, The River Alliance, already exists in Columbia and may be an appropriate partner to realize this exceptional waterfront park. The River Alliance's function is to "facilitate the development of the twelve mile long Three Rivers Greenway along the Congaree River" – a trail system that spans three municipalities and supports trails already planned to the north and south of the site. The organization is staffed with an Executive Director and three full-time staff members and has an annual operating budget of $170,000 funded through local the governments. The Board of Directors already includes a representative from the University of South Carolina as well the local governments supporting the effort.

The River Alliance is also already working with a multi-million dollar construction budget and has an established a process for working through the bidding, construction and land transfer process. A budget of $17 million dollars was raised for construction of the Three Rivers Greenway trail system through a combination of federal funds, general obligation bonds, and in the case of the City of Columbia, tax increment financing. Today, the Alliance works with the local governments to administer implementation, including public construction bidding and contract development through the city or county. Once a segment of the trail system is completed it is turned over to the local jurisdiction's park system.

CASE STUDIES

State of Massachusetts
Trustees of the Reservations (private, non-profit)

Created through state enabling legislation in 1891, the Trustees of the Reservations (the Trustees) was the first statewide conservation and preservation organization in the United States. The non-profit organization was created to give the natural wonders in the dense urban regions the same level of protection enjoyed by the natural wonders in the western United States. The organization was empowered to hold land free of taxes for the public to enjoy- similar to the way a Pubic Library holds books and an Art Museum holds pictures. The charitable corporation is governed by voluntary trustees and the organization oversees public reservations of various acreages throughout the Commonwealth of Massachusetts.

The Trustees operates independently of local government, fulfilling a statewide mandate and funding its activities separately. The main sources of revenue for the Trustees are property admission fees, special event fees and grants; operating support from an endowment; membership dues, and private contributions. The Trustees acquire property either by direct donations or through creation of a conservation easement, a method of conserving property that has been used since 1971. Today, donor properties are encouraged to provide an endowment that accompanies the donation to ensure future care.

Millennium Park in Grant Park, Chicago, IL
City of Chicago, Mayor Richard M. Daley
Millennium Park, Inc. (private, non-profit)
City of Chicago Tourism Board/Cultural Affairs

In the Northwest corner of the 320 acre Grant Park sits the 24.5 acre Millennium park, first conceived in 1998 and completed in 2004 and created through a $450 to $500 million public-private partnership. Currently owned by the City of Chicago with limited funding provided by the Chicago Park District, the city issued $240 million dollars in revenue bonds backed by the estimated revenues from the parking garage that sits underneath the park. The rest of the $200 to $240 million dollars for the park was given to the park by private donors who registered under the name of Millennium Park, Inc. Additionally, an endowment for the care and maintenance of the park was established totaling $25 million dollars. A conservancy will govern the park and oversee the annual programming and maintenance expenses expected to approach $10 million.

The investment by the City and private donors is now having a positive effect drawing additional public projects and development activity. The Chicago Transit Board has authorized financing and development of a new $213 million subway station two blocks west of the park. A fifty-seven storey condominium tower to the west, a twenty-eight acre, $2.5 billion mixed-use neighborhood, to the north and the conversion of a landmark office building into 244 condominiums to the south are being built.

Post Office Square, Boston, MA
Friends of Post Office Square (limited dividend, for-profit)

In the 1980's the civic leader, Norman Leventhal, founded the Friends of Post Office Square (the Friends) whose mission was to transform a four storey, above-ground parking garage in the heart of the City's financial district into a distinctive urban open space amenity. Post Office Square, a 1.7 acre park that sits on top of a seven storey underground parking garage that holds 1,500 parked cars, was created in 1992 through a unique for-profit limited dividend corporation supported primarily through the proceeds of the subsurface parking structure.

The group consulted with the Boston Parks Department and the Greenspace Alliance and secured development rights from the City of Boston with the support of the Boston Redevelopment Authority after five years of negotiations involving the current lessee. Eventually, the land was purchased from the City of Boston for $1 million dollars with the agreement to return the park and parking garage to the city at the end of a forty year term. Post Office Square is privately owned and controlled.

The Friends structured a business plan that raised $80 million dollars through $30 million dollars worth of stock offerings in the proposed parking structure (450 shares were sold in the first six weeks) and a $50 million dollar bank loan.

Local businesses purchased preferred shares which paid an eight percent dividend and also gave them rights to monthly parking spaces. Today the garage generates $12 million dollars annually that covers debit service, taxes and operating costs for the park estimated at $3.4 million dollars per year (FY 2002). All surplus funds go into the general fund for the City of Boston and the Parks Trust Fund.

To ensure the quality of the public space and its contribution to the area, the park is exceptionally well designed and maintained. The park is managed by MarketPlace Development Corporation and the parking garage is subcontracted out to Standard Parking. The maintenance budget is $3 per square foot—two times the amount budgeted to any city-owned park.

Bryant Park, New York, NY
Bryant Park Restoration Corporation (private, non-profit)

Bryant Park is an eight acre park in midtown Manhattan that was restored through a private entrepreneurial effort overseen by the Bryant Park Restoration Corporation (BPRC). Created in 1980, the BPRC was established by Daniel A. Biederman, a Harvard business school graduate, and Andrew Heiskell, the then chairman of Time, Inc. and the New York Public Library, with support from the Rockefeller Brothers Fund. The not-for-profit private management company created a $18 million dollar park restoration fund through grants, business improvement district assessments, the state bond fund, city capital funds and private venture capital.

The BPRC is a private management company and a cooperating business improvement district (BID) of neighboring property owners. It shares a management team with the 34th Street Partnership. Local business improvement districts are funded by special assessments paid by property owners within the district that allow the delivery of supplemental services, creating a source of revenue for improved services and beatification activities. Bryant Park sits within one of the largest BID's in the United States, encompassing more than seventy-six million square feet of commercial space in a sixty-eight block area. The park continues to be owned by the New York Parks Department, but a fifteen year agreement entrusts the management of improvements to the BPRC.

After four years of renovation, the park reopened in 1991 following a formula that is becoming more common for private management of public parks. Concessions and other private amenities attract people while generating revenue; Bryant Park then uses that revenue for park improvements that attract even more visitors. The park includes amenities such as the Bryant Park Grill, Bryant Park Café, kiosks, a French Carousel, flower kiosks, a reading room, and chess and backgammon tables. It holds both public and private events.

Bryant Park receives no City funding and reopened under a budget that is six times the previous city level. Despite the increased operating budget, Bryant Park has been generating $4 million dollars in revenue covering the $3 million operating budget with a $1 million dollar surplus (FY 2000).

Central Park, New York, NY
Central Park Conservancy (private, non-profit)

At the end of the 1970s, after a fiscal crisis generally brought New York City to the brink of bankruptcy and led to the neglect of Central Park, the New York City Department of Parks and Recreation initiated an agreement between itself and a private, civic-minded, not-for-profit organization called the Central Park Conservancy (the Conservancy). Founded in 1980, the Conservancy was an outgrowth of a citizen's group that developed into a task force and eventually into a non-profit organization to organize volunteers and donors to address the condition of the park. The Commissioner of the Parks Department appointed the head of the Conservancy and gave the organization broad authority to make changes within the park, but provided no budget and no staff for the fledgling organization. Today, the Conservancy has grown from a staff of three to a staff of over 200 and finances its activities through membership, fundraising, donations, the collection of fees for Special Events and concessions that has raised $325 million dollars since the organization's founding

The Conservancy has a collaborative management relationship with the Parks Department. The City retains ownership of Central Park, while the Conservancy oversees most capital improvement projects. The Conservancy also has an increasing role in maintenance and management, and both organizations share staff. While the primary activity of the Conservancy was rebuilding and renovating the park, the Parks Department's Central Park administrator also served as the president of the Conservancy. Now that the role of the Conservancy has evolved to focus primarily on maintenance, operations and programming, the Central Park administrator position is joined with the Conservancy's senior vice president for operations and capital projects.

The role of the Conservancy has evolved over time. From its initial focus on long-term planning and design, the Conservancy has evolved to take responsibility for major capital improvements and day-to-day maintenance. Initial activities were a mix of fundraising, small-scale capital improvement projects and an assessment of park resources culminating in the 1985 publication of *Rebuilding Central Park*, the management and restoration plan for the Park. A notable early fundraising event, the Fredrick Law Olmsted Awards Luncheon, raised $172,000 for the Conservancy in 1983, only three years after it accepted responsibility for park care. In 1987, another major campaign, chaired by notable businessman Henry R. Kravis, raised $50 million dollars, and in 1988 the Conservancy established the Greensward Trust, an endowment fund with income dedicated to park maintenance. In 1993 another major capital drive allowed the organization to take on more ambitious park improvement projects including support of two thirds of a $51 million capital project bringing the Conservancy's total spending on capital improvements from 1980 to 1997 to $135 million dollars. The Conservancy was now able to place as many as 172 of the 224 park workers on its payroll and increase funding for the park's operating budget from forty percent to seventy percent.

In 1998 the City signed an eight year management contract with the Conservancy which guaranteed that the Conservancy received an annual fee for services (about $3 million a year in fiscal year 1998). The fee requires a minimum annual expenditure of $5 million dollars in private funds and is determined by a formula that includes the total annual expenditures in the park and the revenues generated by concessions in the park. The 2006 contract, renewed for eight more years, maintains the city's baseline of fifty percent of concession revenues beyond the first $6 million dollars, but lifts the $2 million cap on funding from concession revenues allowing more funds from concession sources. Today, the Conservancy provides more than eighty-five percent of Central Park's annual $23 million operating budget.

Arnold Arboretum, Boston, MA
Harvard University (private, non-profit)

The 265 acre botanical garden is the product of a partnership established in 1882 between Harvard University and the City of Boston. The Arnold Arboretum houses 7,082 plants, attracts more than 200,000 visitors a year and provides educational classes for more than 5,000 children and adults. Today, while some residents in surrounding communities feel as though the Arboretum management creates an aloof public open space, others recognize the benefits of a publicly accessible park managed with a reliable source of private funding.

The partnership established more than a century ago between Harvard and the City of Boston evolved through the joint efforts of Charles Sargent, the curator of the original 120 acres, and Frederick Law Olmsted, the landscape designer for the City of Boston parks system. The Arboretum and the design of the city park system were developed at the same time, and Charles Sargent persuaded Olmsted to collaborate. Although both Harvard and the City of Boston initially resisted joint responsibility, after four years of negotiations they both signed a land agreement that divided responsibility for the Arboretum. The City agreed to build and maintain the roads, care for the historic burial ground, provide policing and an independent water supply. Harvard University agreed to offer the Arboretum as a free public park and provide sufficient management and staffing. The land became park of the Boston Park System, owned by the City of Boston, while Harvard paid a one dollar lease per year for a term of 1,000 years. This allowed Sargent to raise funds for the Arboretum on the strength of Olmsted's name and the City to increase its park holdings free from obligation to maintain and staff a unique, high-quality, public landscape.

Griffith Park, Los Angeles, CA
Griffith Park Planning Committee

The Griffith Park Planning Committee determined that the current management structure, which involves operation and maintenance of 385 parks by a department of 2,000 full-time and 6,000 part time employees, does not provide the "level of focus and priority necessary to attain the full vision of the Griffith Park Master Plan." To realize the vision articulated in 2004, the committee identified the following potential funding sources.

Local Sources: City General Fund, General Obligation Bond, Special Benefit Assessment Districts

User Fees: Development Impact Fees and Mitigations, Revenue Bonds, Certificates of Participation/short-term debt, Other Local Sources

State of California Funding Sources: Grants and Bond Issues

National Funding Sources: National Park Service (NPS), Department of Transportation (DOT), Department of Housing and Urban Development (HUD), Department of Agriculture, Department of Commerce and National Endowment for the Arts

Private Funding Sources: Conservation Endowment Fund; American Zoo and Aquarium Association, National Recreational Trails Program, and the Washington Wildlife and Recreation Program.

New Development Revenue: restaurants, research facilities, meeting facilities, educational facilities, new recreation or visitor facilities; fee for parking facilities, air-rights lease over parking facilities with new park-compatible development above.

Licensing and Advertising: revenue from park-related goods and products (T-shirts, caps, calendars, cups, recreational equipment, logos, etc)

Foundations and Donors: Soliciting funding from philanthropic institutions

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APPENDIX C

Waterfront Park Precedents

Sasaki Associates, Inc

October 2006

CHARLESTON WATERFRONT PARK

Charleston, South Carolina

Completion Date: 1990

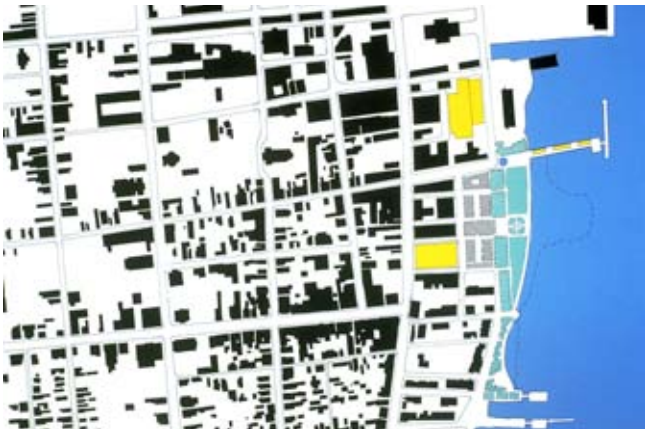
The master plan for the Charleston Peninsula provided the framework for public and private development with the goals of bringing new life to the waterfront and providing a safe, attractive environment that would invite residents, visitors, shoppers, and business people to the historic downtown. Sasaki's subsequent design for the seven-acre Waterfront Park transformed the underutilized Cooper River riverfront into a long, curving expanse of green that includes a 1,200 foot promenade along the water's edge, recreational piers, shade structures, participatory fountains, lawns and seating walls, and quiet gardens under a grove of live oaks. Restoring native vegetation and featuring the "low country" way of life contributes to the popularity of the waterfront areas. Within the park, existing marsh grasses along the promenade have been restored and supplemented to protect the river's marine ecology.

The pineapple fountain stands as a traditional symbol of hospitality in the south, while offering a cooling effect and interactive play for people of all ages. A 365-foot long pier reaches out to the deepest waters of the harbor, offering choice fishing spots as well as colonnaded shade structures with traditional porch swings and benches.

Immediately prior to its opening, the new waterfront edge successfully withstood the full force of Hurricane Hugo and has continued to stand the test of time as a popular promenade with sweeping views of the Cooper River.

Public Investment

Project completed in 1990
Size = 7 acres
Total cost = $12.7 million construction cost



FORT LAUDERDALE RIVERWALK

Fort Lauderdale, Florida

Completion Date: 1987

Sasaki Associates provided master planning and urban design for the Riverwalk area, a linear sector of the core of downtown Ft. Lauderdale, approximately one mile in length and one-quarter in width. The objective of the study was to plan for downtown area growth that would integrate the amenities of the river with the pedestrian environment. New development and redevelopment are grouped into three distinct districts: Performing Arts, Historic/Entertainment, and Mixed-Use Office/Retail, the last being a new one for office and retail use along Las Olas Boulevard.

The Riverwalk plan will extend and enhance the attractions of the River and its shoreline by means of a continuous linear park, and laterally into the adjoining areas by a series of "public rooms'', or parks, at strategic intervals on both shores. The "public rooms'' along with new boulevards and streets are designed to increase accessibility to the river.

Public Investment

Project completed in 1987
Size = 29 acres
Total cost = $30 million construction cost

FORT LAUDERDALE BEACH

Fort Lauderdale, Florida

Completion Date: 1992

The 2.5-mile long Central Beach area of Fort Lauderdale is a nationally recognized oceanfront resort. The Central Beach frames the image most often remembered by visitors to Fort Lauderdale and Broward County.

The goal of the Central Beach revitalization plan was to initiate renewal of the beach and to make a safer, more attractive, and convenient area. The plan has resulted in dramatic physical changes in the character and quality of the beach, including:

- Increased pedestrianization
- Improvements in traffic flow and parking
- Beautification of the beach environment
- Redevelopment of the A1A/Las Olas "strip"

The principal strategic planning improvement was the redevelopment of A1A along the beachfront into one-way paired roadways. The existing A1A trafficway was narrowed and the remaining right-of-way was utilized for pedestrian rights-of-way.

Public Investment

Project completed in 1992
Size = 2.5 miles
Total cost = $18 million construction cost

CENTRAL INDIANAPOLIS RIVERFRONT

Indianapolis, Indiana

Completion Date: 2005

The Central Indianapolis Waterfront Project has transformed the urban reaches of the White River and the historic Central Canal into a unified open space system that connects the urban fabric of the downtown to the natural and cultural resources of the river corridor.

Sasaki initially prepared a master plan for the nine mile long corridor formed by the White River as it flows through the city. This plan envisions new open space links between the downtown and the river. These new public spaces create the opportunities for adjacent civic, institutional, sports and residential developments on individual riverfront and canal sites. The Indianapolis Waterfront Master Plan exemplifies an equally important goal: to go beyond the practical provision of a recreational environment and create a landscape that satisfies the community's deep desire for a tangible sense of place unique to the particular cultural, historic and topographic circumstances of a site.

Public Investment

Project completed in 2005
Total cost = $118 million construction cost

NEW LONDON WATERFRONT PARK

New London, Connecticut

Completion Date: 2002

The New London Waterfront Park is the civic open space interface between the city and the Thames River. Public access to the New London waterfront was constrained for many years by active water-dependent uses and the railroad corridor that formed a nearly continuous barrier between the city and the river edge. The park weaves public access through and between these uses, connecting the geographic resource of the river with the downtown. The park is the civic stage for the public life of the community set against the natural asset of the river. It is composed of three public recreation piers and a harbor plaza linked by a half-mile- long waterfront promenade.

The park renews the relationship between the commerce of downtown and the transit and recreation activities of the riverfront, thus supporting the urban revitalization goals of the city.

Initial planning studies were undertaken in 1997 and construction was completed in phases between 1998 and 2002.

Public Investment

Project completed in 2002
Size = 4 acres
Total cost = $14.5 million construction cost

WHEELING HERITAGE PORT

Wheeling, West Virginia

Completion Date: 2002

The three acre waterfront park along the Ohio River is part of a program of urban revitalization and community enhancement. The Wheeling National Heritage Area Corporation planned to create a park and trail system along the waterfront that celebrates and interprets Wheeling's natural, cultural, and historic legacy, and provides outdoor public space to attract both residents and tourists. The new park also serves commercial and recreational port activity.

Funding for construction became available in 1998 under a grant from the National Park Service. The old Wharf Garage in the center of the site was demolished to make way for new park construction, consisting of an amphitheater, an entry plaza, and a river-edge walkway with mooring facilities for large visiting stern-wheelers such as the Delta Queen. A new 250 foot pier provides mooring for smaller private boats and includes handicapped access. The new park is the site of the annual Italian Festival, the city's annual Fourth of July fireworks, and the popular weekly Wednesday night live concerts in the park. Patrons in boats and on foot attend musical presentations.

In its first full year of operation, the Heritage Port was the crown jewel of summer activity in Wheeling. The total attendance at summer events was estimated to be in the 300,000 to 350,000 range.

Public Investment

Project completed in 2002
Size = 3 acres
Total cost = $4 million construction cost

CINCINNATI CENTRAL RIVERFRONT PARK

Cincinnati, Ohio

Completion Date: 2010

The goal of the master plan is to create a world-class contemporary setting on the riverfront for Cincinnati by reconnecting the heart of the city, Fountain Square, to the Ohio River. The 60-acre central riverfront park is the remaining and largest jewel to be implemented in a series of smaller public parks on the high banks of the downtown portion of the Ohio River. The Central Riverfront Park will complete the necklace on the Cincinnati riverfront and tie to a much larger statewide recreation trail and bike system that concludes in Columbus, Ohio, approximately 75 miles to the north.

The park acts as a setting and catalyst for civic activities and entertainment venues such as the new National Underground Freedom Center, Paul Brown Stadium (home of the Cincinnati Bengals) and the Great American Ballpark (home of the Cincinnati Reds), supported in partnerships with private and public funds. Planned in the district is a six block mixed use development that will bring roughly 400 residential units and office and commercial activities into the waterfront district. The park program includes the creation of an appropriate setting for the Roebling Bridge, a historically significant architectural icon, along with areas for large gatherings, passive recreation, and programmed events.

Events range from small picnic-like activities to large national events such as Tall Stakes, which brings 350,000 visitors to the downtown. Activities in the park include several interactive water features, a 300-foot pier overlooking the river, a sculpture play area, pavilion, bench swings, water gardens and a 100-foot-long riverfront promenade, Cinergy Trace, as well as public landings and seasonal docking and wharves that service the commercial cruise boat traffic.

Public Investment

Planned project completion date = 2010
Size = 60 acres
Total cost = $86 million construction cost

APPENDIX D

Regulatory Review

REGULATORY REVIEW

The following is a brief summary of the local, state, and federal regulatory programs which may affect the use of the project site abutting the Congaree River in Columbia, South Carolina.

City of Columbia Zoning Code

General

Based on a review of the City's on-line version of the Zoning Map, it appears the project site is zoned M-1 and M-2 (Light Industrial). Uses permitted in the M-1 and M-2 Districts include:

- Warehousing,
- Light industry,
- Retailing,
- Suites hotels,
- Medical laboratories, and
- Various business uses.

Residential uses and college and university uses are not permitted in this District.

Floodplain Issues

Portions of the project site are located within the FP (Floodplain) and FW (Floodway) Overlay Zoning Districts. The FP District consists of lands located below elevation 153', NGVD (National Geodetic Vertical Datum of 1929) and the FW District consists of lands located within the Congaree River floodway, as depicted on the FEMA Flood Insurance Rate Map (map #45079C0094 H) dated February 20, 2002. Use of the land within these Districts is subject to the review of the city engineer to verify compliance with the provisions of the city's zoning code. The following are the significant provisions of the zoning code relative to uses in the FP and FW Districts.

Permitted uses within the FP Overlay District include all uses permitted in the underlying zoning district (i.e., the M-1 District), provided all uses are elevated above the base flood level (i.e., elevation 153', NGVD) on either fill or pilings. If the buildings are elevated on fill, the first floor must be elevated at least one (1) foot above the base flood level.[1] If the buildings are elevated on piles, the first floor must be elevated at least two (2) feet above the base flood level.

Uses permitted within the FP Overlay District upon the issuance of a Special Exception permit by the zoning board of appeals include all uses permitted in the underlying zoning district (i.e., the M-1 District) which are not to be elevated above the base flood level (i.e., elevation 153', NGVD) on either fill or pilings, provided they are flood-proofed to at least the base flood level.

Permitted uses in the FW Overlay District are limited to the following:

- Parking and loading areas;
- Lawns and play areas;
- Agriculture and horticulture;
- Open air recreational uses (e.g., swimming areas, fishing areas, beaches, boat launching ramps, floating docks, parks, play fields, playgrounds, hiking trails, tennis courts, golf courses, etc.);
- Streets, bridges, storm drainage facilities, sewer lines, and overhead utility lines provided the structures do not

1 Section 17-308 of the city's zoning code states that all uses permitted (i.e., by right) in the FP District are so permitted only if they are elevated above the base flood level. Uses which are not so elevated may be permitted by special exception, but only if they are flood-proofed to at least the base flood level. Notwithstanding this, it seems logical to assume that uses permitted in the FW District (a more sensitive area of flooding than the FP District) without the requirement that they be elevated above the base flood level would be permitted without elevation or flood-proofing in the FP District. Accordingly, it can be assumed that such uses as parking and loading areas, open air recreational uses, and storm drainage facilities can be located in the FP District without being elevated or flood-proofed to, or above, the base flood level. The zoning code provides the city engineer with broad discretion in the interpretation and enforcement of the provisions of this section of the code. Given this, it can be assumed that the city engineer would not require that a parking area be elevated in the FP District but be set at-grade in the FW District.

cause a rise in the base flood elevation and that the lowest horizontal members of bridges are elevated at least one (1) foot above the base flood elevation; and

- Airport runways and landing strips.

No buildings are permitted in the FW Overlay District.

Uses permitted within the FW Overlay District upon the issuance of a Special Exception permit by the zoning board of appeals include docks, piers, wharves, bulkheads, and similar structures and eating, drinking, amusement, and recreational uses located on floating structures.

Design Review

Part of the Innovista plan area lies within the City Center Design/Development District (-DD area), a zoning overlay. There may also be properties with historic designations within the area. Moving through the permitting process is reliant upon first completing the design approval process for properties within these districts. The design review process for Columbia's historic and design districts is based on an adopted set of design guidelines for each district, and is administered by the Design Development Review Commission and the design review staff. All projects come directly to staff first. Staff may then direct the applicant as to whether the project may be approved at the staff level, or must be channeled through the Commission according to City Ordinance.

While improving property within the –DD area requires an extra step in the development approval process, there are also benefits that apply only to properties within this area. They include:

- Additional uses allowed as-of-right, including residential (regardless of the underlying zoning district); parking structures (provided they meet the City Center Design Guidelines for structured parking); and restaurants (in all non-residential zoning districts),
- Reduced on-site parking requirements,
- No required front-yard setback,
- Streamlined site plan review,
- 50% reduction in permit fees for projects that meet the guidelines.

State Approvals

Section 401 Water Quality Certification

Section 401 Water Quality Certification from the South Carolina Department of Health and Environmental Control, Division of Environmental Quality Control (EQC) is required, pursuant to the provisions of Section 401 of the Federal Clean Water Act, for any activity which requires a Department of the Army Permit pursuant to the provisions of Section 404 of the same Act. Accordingly, Section 401 Water Quality Certification is required for any activity which results in the placement of dredged or fill material in "waters of the United States" (see discussion herein under Federal Approvals). The issuance of Section 401 Water Quality Certification is a prerequisite to the issuance of the Department of the Army Permit, although the review of a Section 401 application is concurrent with the review of a Section 404 application and both reviews are based on a single, joint application form. In reviewing a Section 401 application, the EQC will consider whether the activity is water dependent, whether there are feasible alternatives to the proposed action which will have less environmental impacts, and whether the activity will comply with state water quality standards.

NPDES Stormwater Permit

A permit from the South Carolina Department of Health and Environmental Control (DHEC), Division of Environmental Quality Control, Bureau of Water is required for construction activities resulting in the disturbance of one (1) or more acres of land. The purpose of this permitting program is to ensure that adequate soil erosion and sediment control provisions are instituted during construction and stormwater is properly managed following construction. A General Permit has been issued under this program. The General Permit conditions define the minimum soil erosion control and stormwater management standards to be achieved in the design of a construction project in the State of South Carolina. Provided a project meets at least these minimum standards, it may proceed as an activity authorized by the General Permit and no individual permit application/review will be required.

Review and Compliance/ Section 106

The State Historic Preservation Office reviews federally funded, licensed, or permitted projects across the state and Ocean and Coastal Resource (OCRM)-permitted or certified projects in the nine coastal counties. The State Historic Preservation Office also reviews requests for state mining permits and consults with state agencies on plans for state-owned or leased National Register properties. Each year the State Historic Preservation Office comments on the potential impact of about 1,700 projects on historic and prehistoric resources and works with state and federal agencies, local governments, and developers to avoid or mitigate adverse effects. Projects reviewed range from erection of cellular communication towers to construction of new branch banks to community development projects to resort developments along the coast.[2]

Preservation Incentives

Several financial incentives are available to owners who preserve historic buildings and sites in South Carolina. Federal, state, and local tax incentives encourage the rehabilitation of historic buildings and donation of conservation easements. The State Historic Preservation Office (SHPO) helps owners meet the standards required for these programs. The SHPO also administers matching grant programs that provide financial support for preservation projects. In addition, other institutions and organizations have financial incentive programs that support a variety of preservation-related activities.[3]

Federal Approvals

Department of the Army Permit

A Department of the Army Permit from the U.S. Army Corps of Engineers (COE) is required for the placement of structures within the navigable waters of the United States, pursuant to the provisions of Section 10 of the Rivers and Harbors Act of 1899, and/or the discharge of dredged or fill material into the "waters of the United States", pursuant to the provisions of Section 404 of the Federal Clean Water Act. The term "waters of the United States" means all interstate waters and wetlands; all waters which are tidal; all interstate and intrastate waters, the use, degradation, or destruction of which, could affect interstate or foreign commerce; and all wetlands which are adjacent (i.e., bordering, contiguous, or neighboring) to waters of the United States. An application for this permit includes 8-1/2" x 11" engineering design plans and a completed application form. If the proposed activity requires the issuance of a Section 404 permit, this COE application form also serves as an application for a Section 401 Water Quality Certification from the South Carolina EQC (see State Approvals).

The review of an individual Department of the Army Permit application typically requires six to nine months to complete, depending on the complexity of the project. This permit will not be issued until a Section 401 Water Quality Certification has been issued by the South Carolina EQC. During its review of an application, the COE will consult with the U.S. Environmental Protection Agency and the U.S. Fish and Wildlife Service.

National Environmental Policy Act (NEPA)

The National Environmental Policy Act of 1969 (NEPA) requires that all federal agencies consider the environmental effects of significant actions as an element of the decision-making process. Significant actions include the issuance of permits for projects which may adversely affect the environment. Documentation required of the federal agency to comply with this statute consists of either an Environmental Assessment (EA) or an Environmental Impact Statement (EIS). An EA is an abbreviated impact statement used for projects of minor complexity and likely impact whereas an EIS is prepared for complex projects likely to result in significant adverse environmental impacts. The decision regarding which document to prepare is made by the federal agency. It is not known at this time whether the COE will review a project proposed at the Columbia, South Carolina site as one requiring project-specific documentation to establish compliance with NEPA.

2 Excerpted from South Carolina Department of Archives and History website, http://www.state.sc.us/scdah/hpfs1.htm.

3 Excerpted from South Carolina Department of Archives and History website, http://www.state.sc.us/scdah/hpfinancialinc.htm

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