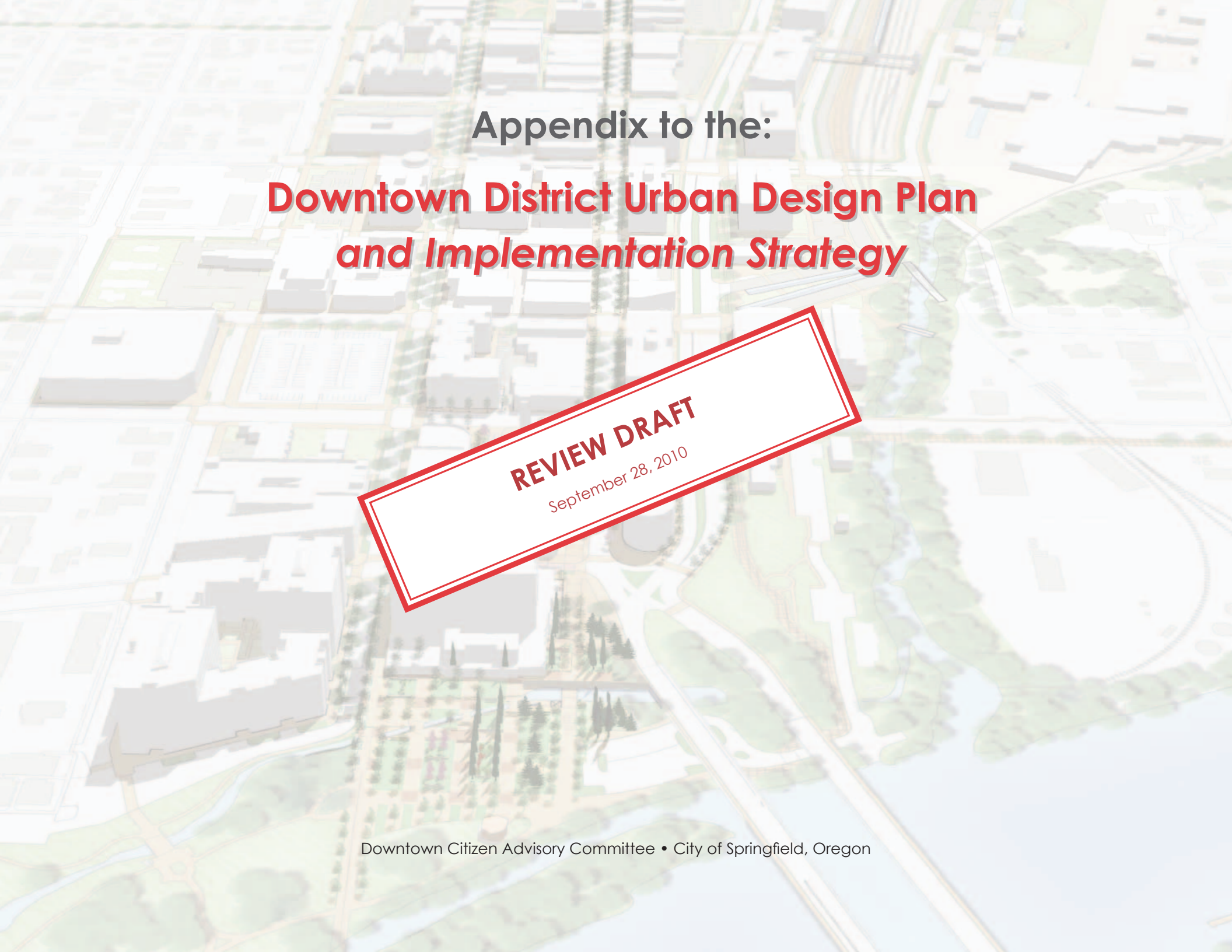

Appendix to the:

Downtown District Urban Design Plan *and Implementation Strategy*

REVIEW DRAFT

September 28, 2010

Downtown Citizen Advisory Committee • City of Springfield, Oregon

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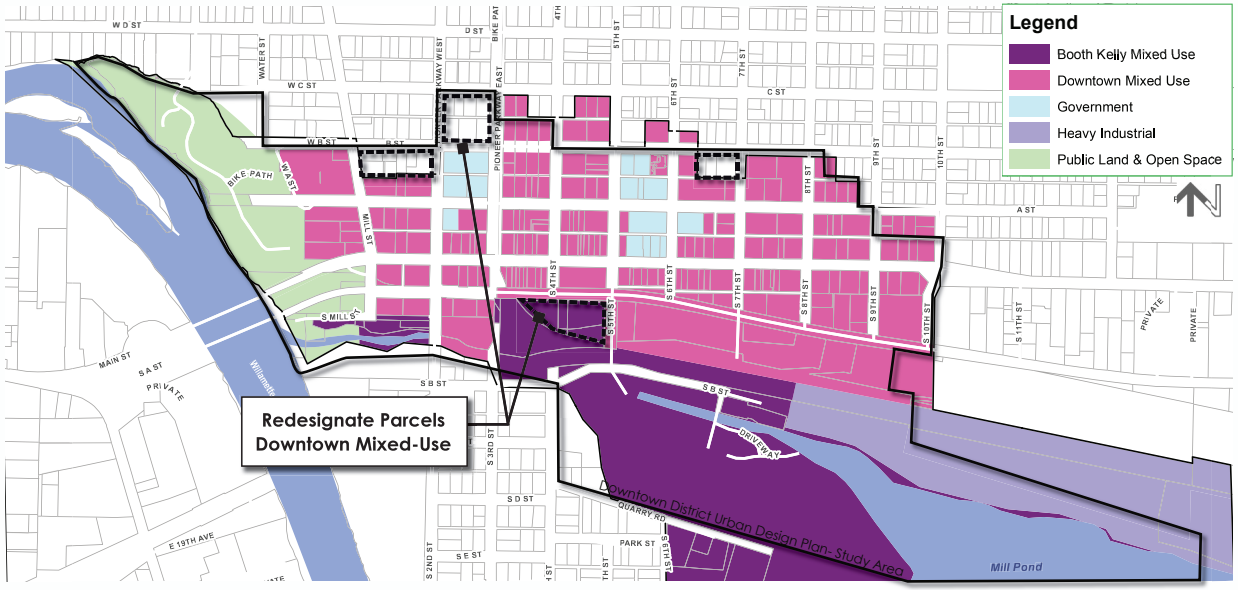
Zoning and Policy Recommendations

Recommended Regulatory Updates

The following policy recommendations will provide a basis for updating or amending the Metro Plan, the Downtown Refinement Plan, TransPlan, Springfield Development Code, Public Facilities and Services Plan, and other plans as necessary to implement the community vision identified in the Downtown District Urban Design Plan.

The recommendations include suggested changes to zoning, and development standards for those areas identified within the Downtown District Urban Design Plan study area as indicated on the right. Suggested changes, modifications or adjustments are as follows:

- Update the Downtown Refinement Plan
- Create a Downtown Mixed-Use Zoning District
- Create Downtown Mixed-Use Development Standards
- Incorporate Further Analysis of Two-Way Main Street and a Special Traffic Study Area into the Transportation System Plan Update



Downtown Refinement Plan Diagram

Update the Downtown Refinement Plan

The Downtown District Urban Design Plan should be incorporated as an amendment to the Downtown Refinement Plan and presented to Council for adoption.

- Consider redesignating some parcels Downtown Mixed-Use as indicated on the right

Create a Downtown Mixed-Use Zoning District

The current Mixed-Use Zoning Districts (3.2-600) and Base Zoning Districts (3.2-100) identified in the Springfield Development Code are not consistent with the Downtown District Urban Design Plan. Staff and Council should consider the creation of a Downtown Mixed-Use District with sub-zones and design standards that codify the proposed primary land uses identified in this document-see image at the top right on opposite page . The general intent or character of the primary land use areas include:

- ***Ground-Floor Retail***–Provide for a concentration of retail within designated areas to reestablish downtown as the 'retail hot spot' and a premier shopping destination. Allow for upper floor uses such as office or housing.
- ***Commercial***–Support a diverse range of commercial uses that complement the retail hot spot and provide for everyday goods and services. Allow upper floor uses such as housing, office, or commercial.
- ***Employment***–Provide an emphasis for creating family-wage jobs typically associated with professional office districts, high tech, and research and development type uses. Allow ground-floor commercial, retail and services that predominately support this primary use
- ***Civic***–Preserve and support future needs of civic and government uses centrally located in the downtown. Allow ground-floor commercial, retail and services that predominately support this primary use
- ***Cultural***–Build off of existing cultural assets and provide for the creation of a distinct district supporting arts, culture and education. Allow upper floor uses such as housing or commercial.
- ***Housing***–Accommodate areas for high density housing within downtown that is oriented to public and open space amenities such as parks, plaza and the waterfront. Allow ground-floor retail or commercial.
- ***Plazas, Parks, and Open Space***–Ensure that downtown is well served by parks, plazas, and open spaces.

Create Downtown Mixed-Use Development Standards

The current Mixed-Use Development Standards (3.2-615) identified in the Springfield Development Code will need to be modified to support the vision identified in the Downtown District Urban Design Plan. Staff and Council should consider modifying existing development standards needed to support development consistent with this plan and identified in the Development Standards section of this document. Recommended modifications include:

Establishment of Mixed-Use Zoning Districts (3.2-605):

- Create a new Downtown Mixed-Use Zoning District

Schedule of Use Categories (3.2-610):

- Update the schedule to include categories/uses consistent with the primary land uses identified in this document

Mixed-Use District Development Standards-General (3.2-625):

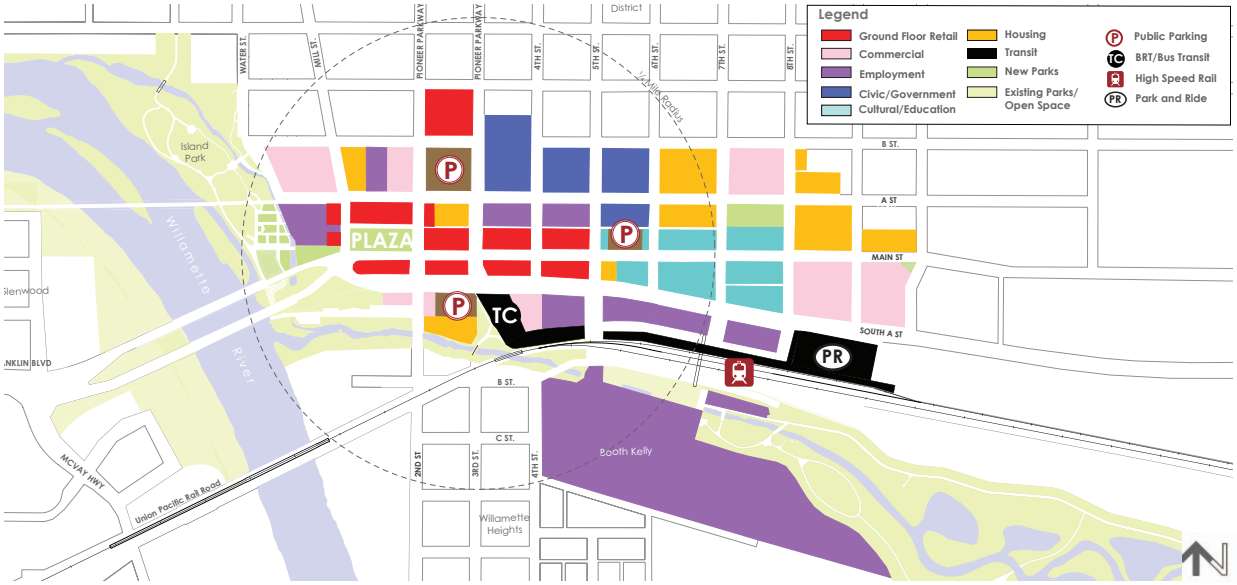
- Supplement existing standards as needed with the recommended development standards identified in the Development Standards section of this document

Mixed-Use District Development Standards-Specific (3.2-630):

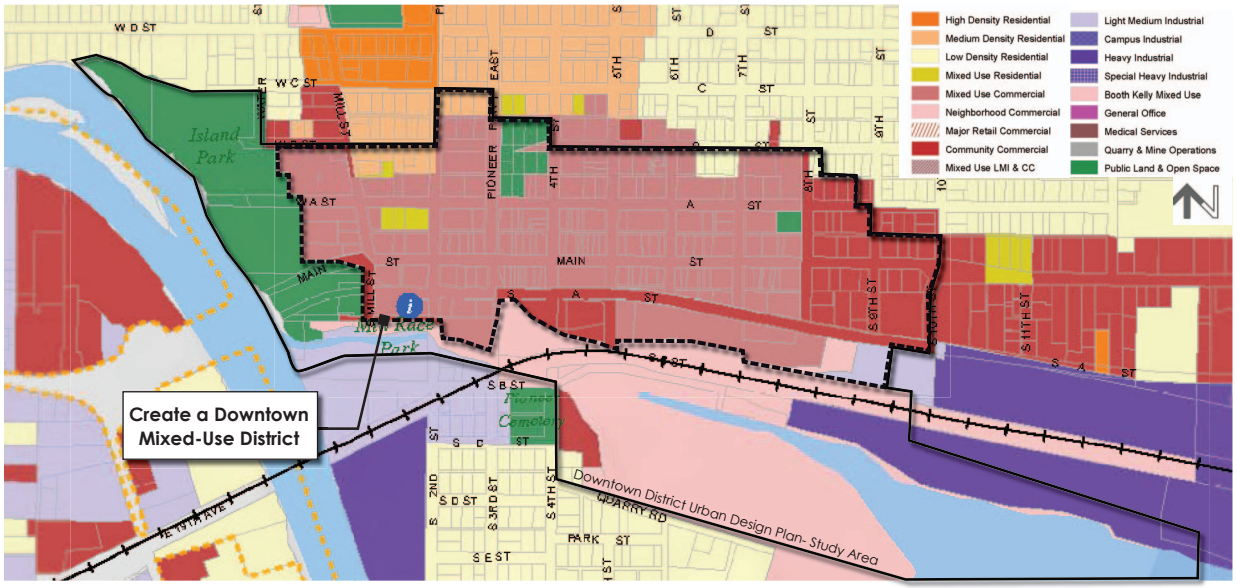
- Establish specific development standards for the Downtown Mixed-Use Zoning District and incorporate the recommended development standards identified in the Development Standards section of this document

Update the Transportation System Plan

The city is currently in the process of updating the City's Transportation System Plan. It is suggested that the city incorporate analysis identifying the feasibility of a two-way Main Street and coordinated adjustments to South A Street within a Special Traffic Study Area as identified in the Automobile and Truck Mobility Streets section of the Downtown District Urban Design Plan.



Primary Land Use Diagram



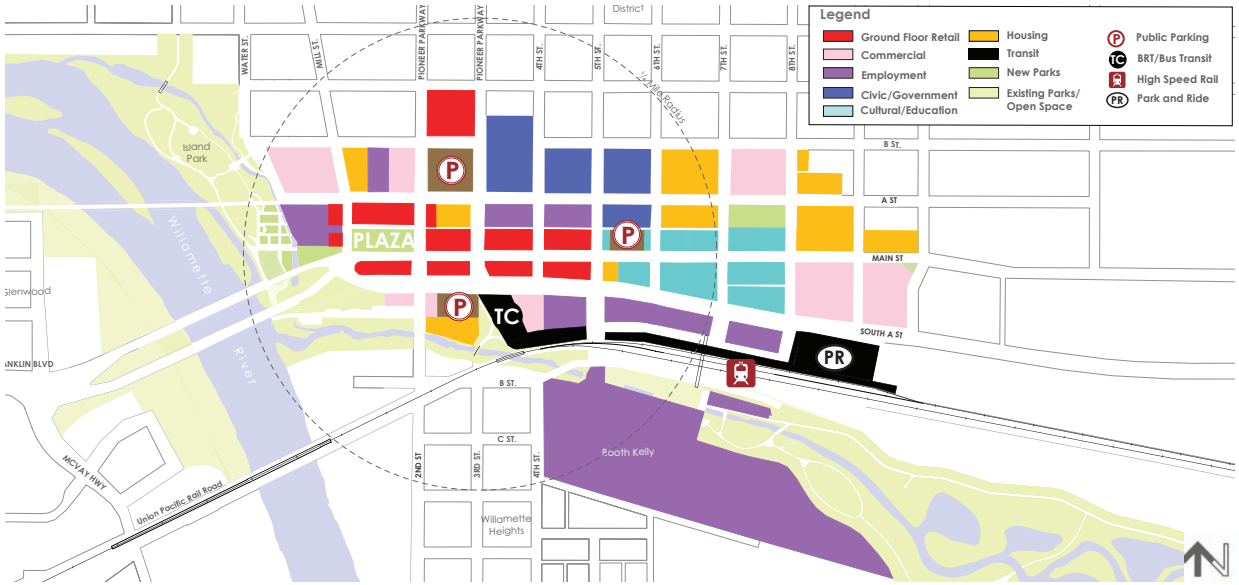
Springfield Development Code- Zoning Diagram

Primary Land Uses

The following pages provide the location and intent for primary land uses identified in the Downtown District Urban Design Plan . The primary land uses include a general list of permitted uses to be incorporated into a new Downtown Mixed-Use Zoning District.

The primary land uses include:

- Ground-Floor Retail
- Commercial
- Employment
- Civic
- Cultural
- Housing
- Plazas, Parks and Open Spaces



Primary Land Use Diagram

Ground-Floor Retail

The intent of this district is to encourage a concentration of ground-floor retail that establishes downtown as a retail destination. Only businesses that engage in the *sale of goods or eating and drinking establishments* shall be permitted on the ground-floor as indicated. Entry lobbies to upper floor uses such as housing or office would be allowed at the ground floor.

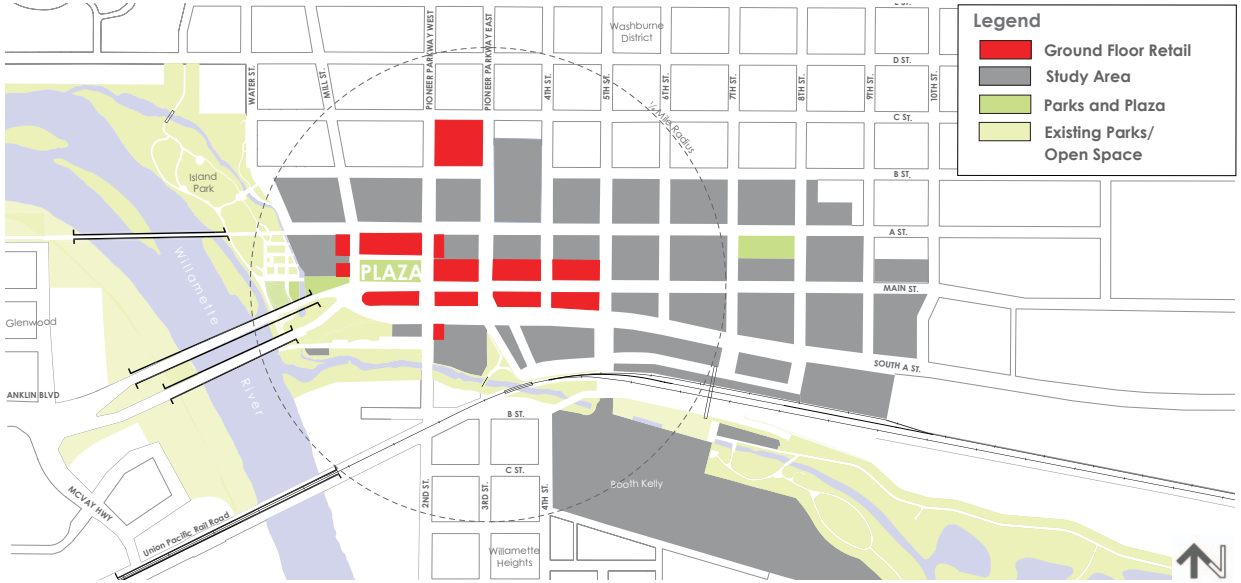
Typical permitted uses include:

Retail

- Shoes and Apparel
- Magazine and Books
- Home Accessories
- Grocery
- Eating and Drinking Establishments

Uses not permitted on the ground-floor include:

- Banks
- Financial, Real Estate, Insurance Services
- Offices



Ground-Floor Retail

Commercial

The intent of this district is to provide for a broad range of commercial uses.

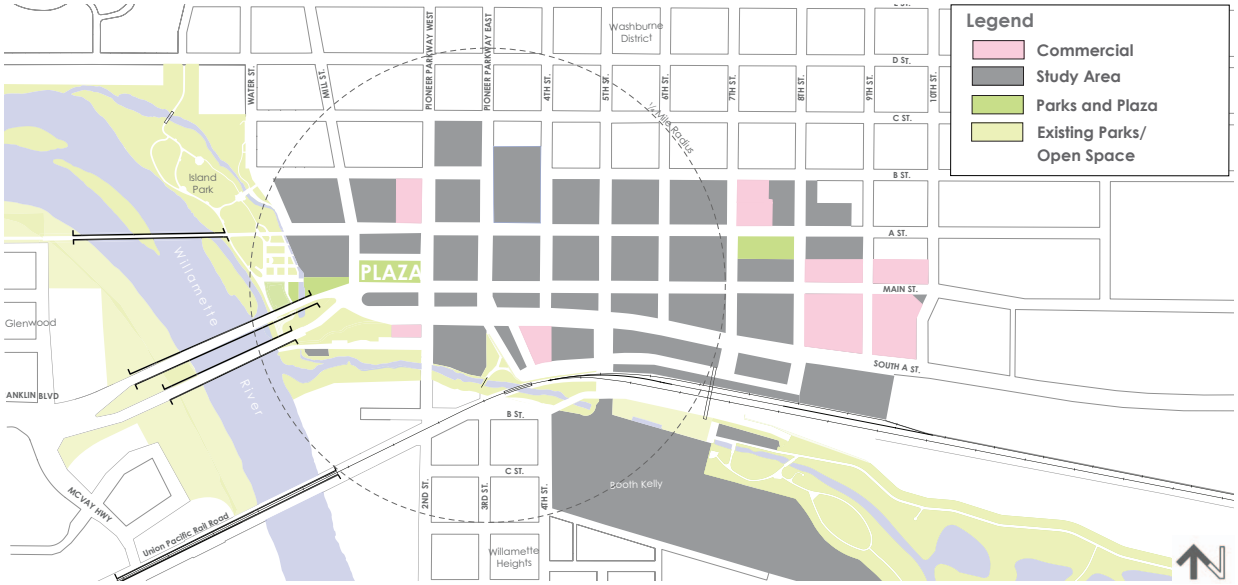
Typical permitted uses include:

Commercial–

- Financial Services
- Real estate Services
- Insurance Services
- Dry cleaners
- Salons and Spas
- Lodging
- Eating and Drinking Establishments
- Convention or Conference Centers
- Drugstore/Pharmacy
- Furniture/Appliance Sales

Uses not permitted include:

- Drive-thru



Commercial

Employment

The intent of this district is to encourage a high number of employees per acre. The type of employment uses would consist of professional office, medical/high tech, and research and development that are associated with family-wage employment.

Typical Permitted Uses include:

Professional Office-

- Professional Services
- Research and Development
- High Tech
- Medical

Required Ground Floor Retail: **Only businesses that engage in the *sale of goods or eating and drinking establishments* shall be permitted on the ground-floor as indicated. Entry lobbies to upper floor offices would be allowed at the ground floor.**

Typical permitted uses include:

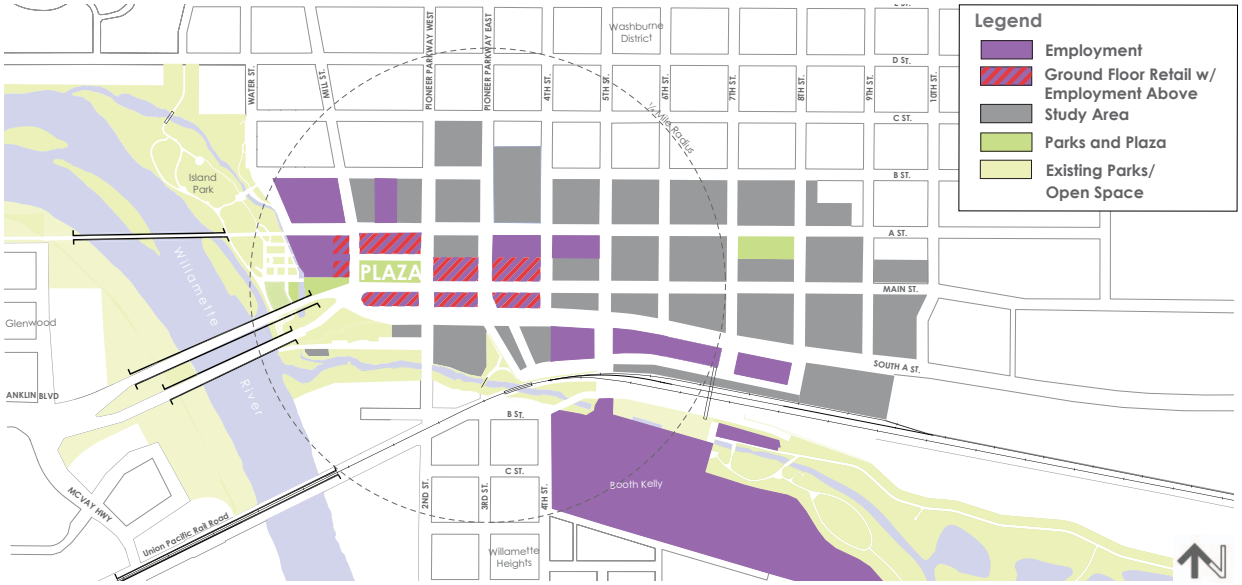
Retail

- Shoes and Apparel
- Magazine and Books
- Home Accessories
- Grocery
- Eating and Drinking Establishments

Allowable employment serving ground-floor uses include:

Commercial-

- Convenience store
- Dry cleaners
- Salons and Spas
- Eating and drinking establishments



Employment

Civic

The intent of this district is preserve and allow for the expansion of centrally located civic and government uses.

Typical Permitted Uses include:

Civic/Government-

- City/State/County Government Services
- Courts
- Health/Social Services
- Library
- Post Office

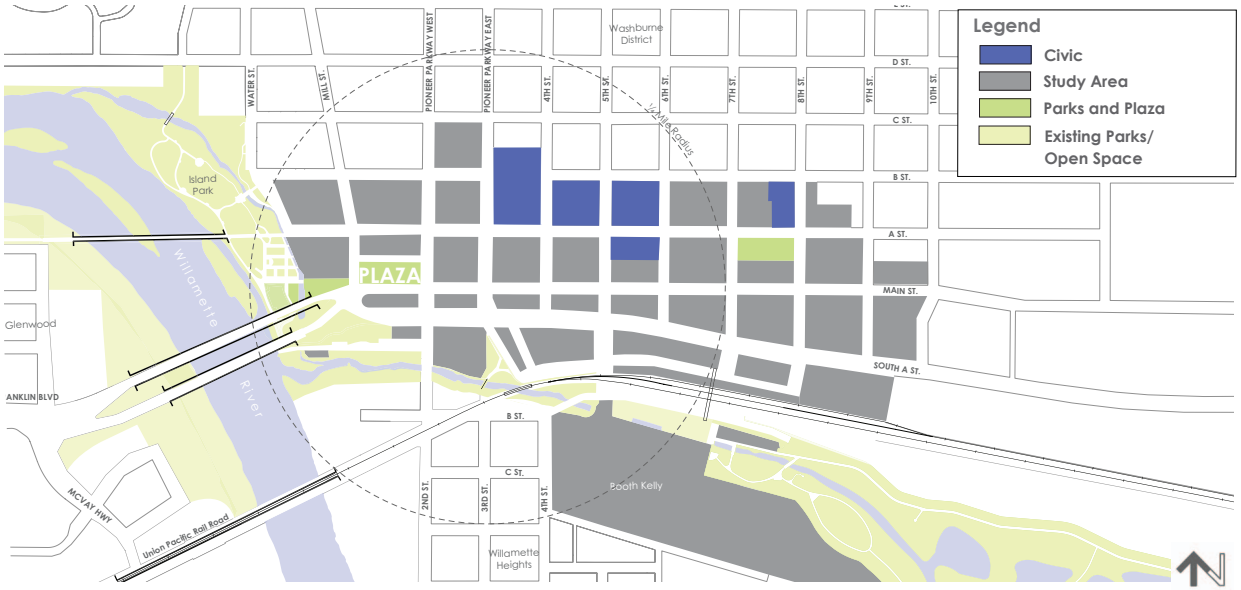
Allowable Civic/Government serving or complimentary uses include:

Professional Office-

- Professional Services
- Medical/Health

Commercial–

- Financial Services
- Real Estate Services
- Insurance Services
- Dry Cleaners
- Salons and Spas
- Lodging
- Eating and Drinking Establishment



Cultural

The intent of this district is to preserve and enhance the concentration of existing arts and cultural uses along Main Street and encourage supporting uses that will strengthen the district as a destination for arts and culture.

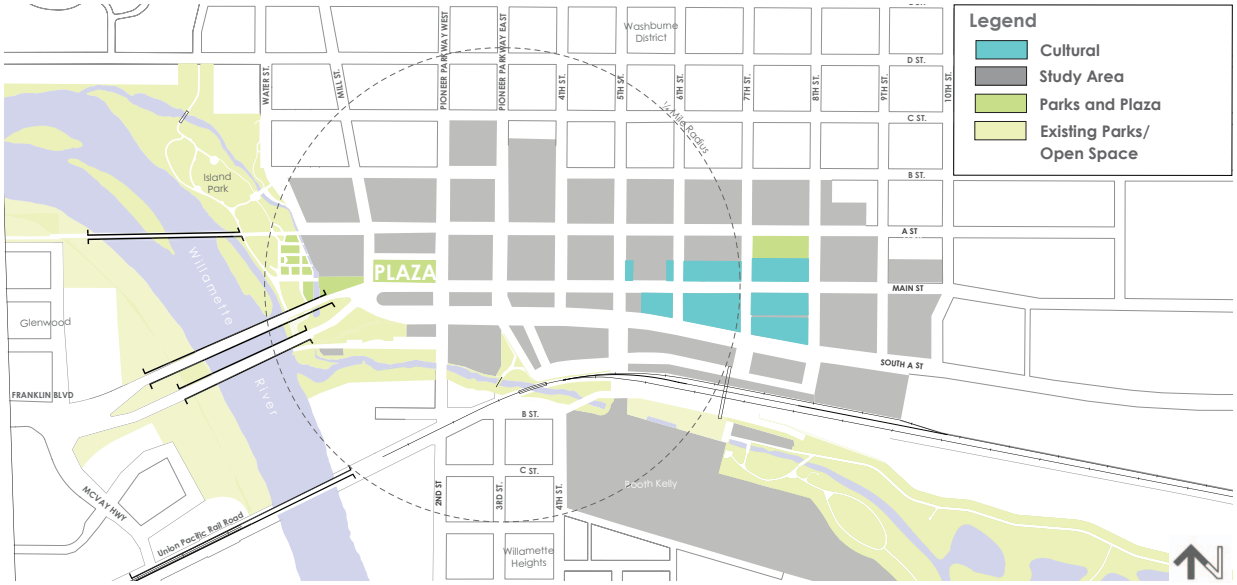
Typical Permitted Uses include:

Arts and Cultural-

- Performing Arts Center and Theater
- Conference and Convention Center
- Educational Facility/Institution
- Galleries

Commercial-

- Cinema
- Salons and Spas
- Lodging
- Eating and Drinking Establishments
- Arts and Crafts Supply Retailers



Cultural

Housing

The intent of this district is to encourage medium density housing adjacent to existing single-family residential and high density housing (DU/AC) adjacent to public park amenities and the Main Street commercial district. Ground floor commercial or retail uses are encouraged within housing developments along Main Street and directly facing a public park.

Typical permitted uses include:

Housing-

- Apartments
- Condominiums
- Senior/Congregate Care
- Townhouses

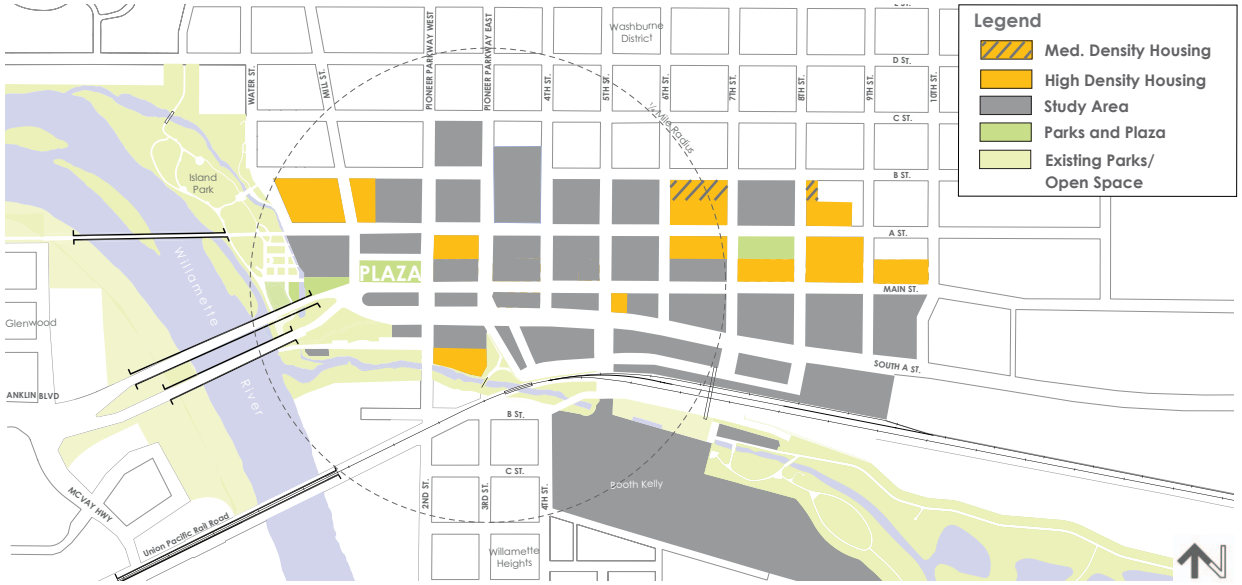
Allowable ground-floor uses include:

Retail

- Shoes and Apparel
- Magazine and Books
- Home Accessories
- Grocery
- Eating and Drinking Establishments

Commercial-

- Convenience Store
- Financial Services
- Real Estate Services
- Insurance Services
- Dry cleaners



Housing

Parking

Off-street parking should be required in all areas within the Downtown District Plan area and provided in private, public or public/private shared parking facilities. Consistent with the Downtown Parking Management Plan the city should encourage and support the overall supply of parking at 1.28 stalls per 1,000 sf. This rate will assure that the demand for parking can be met. Though building above this rate is not discouraged, this rate provides a standard that can accommodate demand and control costs.

Shopper Friendly Parking

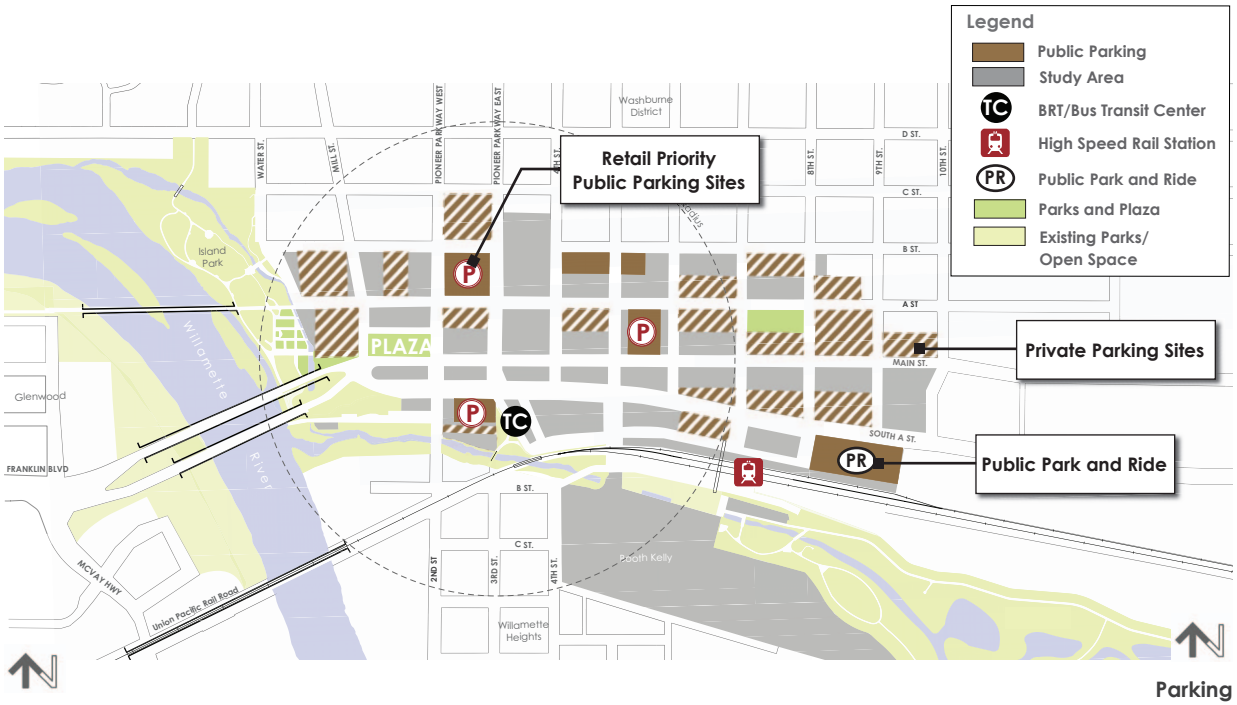
Downtown parking is a precious commodity in great demand by retail and commercial customers, employees, and visitors alike. While all of these users should be accommodated, prioritization of well-designed retail-serving parking is an essential strategy for fostering downtown economic growth. Three sites have been identified for retail priority parking and should be utilized with a strong retail-user bias. These sites will likely be phased over time beginning with parking lots that later are developed as structured parking. The fundamental characteristics of successful parking structures include:

- Convenient access to retail on Main Street and around Mill Plaza
- Active uses at the ground-floor, including corner entries to shops
- Facades compatible with adjacent uses
- High-quality durable materials and design details
- Safe, well-lighted, well-maintained facilities
- Easily understandable one-way auto circulation

Other Considerations

The following parking management considerations support the ability to develop downtown as identified in the Downtown District Urban Design Plan and include:

- Ensure on-street parking is managed to enforce short term use and high turnover
- Encourage all new employment and housing development where feasible to provide the required off-street parking on site



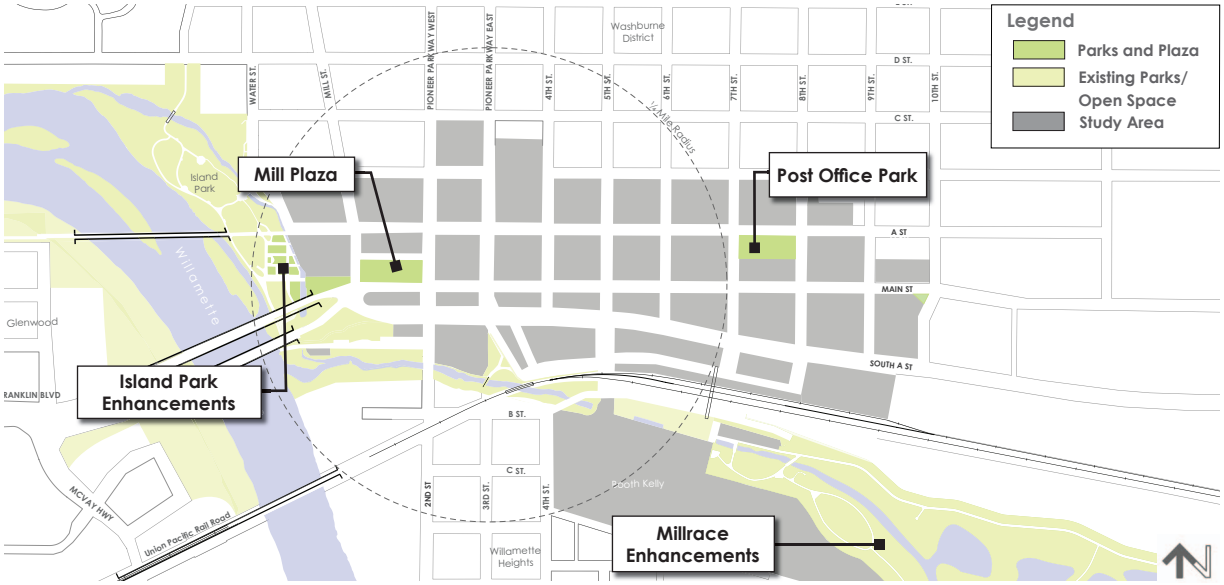
Parking

- Identify financing strategies, such as in-lieu-of parking fees for development areas where all or a portion of parking can not be provided on site
- Reserve a site as indicated for a future park and ride facility

Plaza, Parks and Open Space

The open space district provides for public amenities that serve new and existing downtown development, including a focal point for public gatherings and events and preserves the existing system of open space corridors in downtown. The district includes the following fundamental elements.

- Mill Plaza- 1.3 acre public plaza centered surrounded by groundfloor retail
- Island Park Enhancements - 1.5 acre Island Park enhancement to include public gardens and connection to Mill Plaza
- Post Office Park- 1.3 acre neighborhood park surrounded by high density housing
- Millrace Enhancements- 44 acre restored wetland and stormwater management park



Plaza, Parks and Open Space

Development Standards

The recommended Downtown District Urban Design Plan Development Standards provide specific requirements for the physical orientation, uses, and arrangement of buildings; are a tool in the design and review of development projects; and are tailored to support and enhance the districts unique qualities and maximize its built environment. These standards include:

- Required Ground-Floor Retail
- Required Build-to Lines
- Required Active Edges
- Building Height Requirements
- Residential Density Requirements
- Pedestrian Emphasis Streets

Main Street- Downtown Springfield

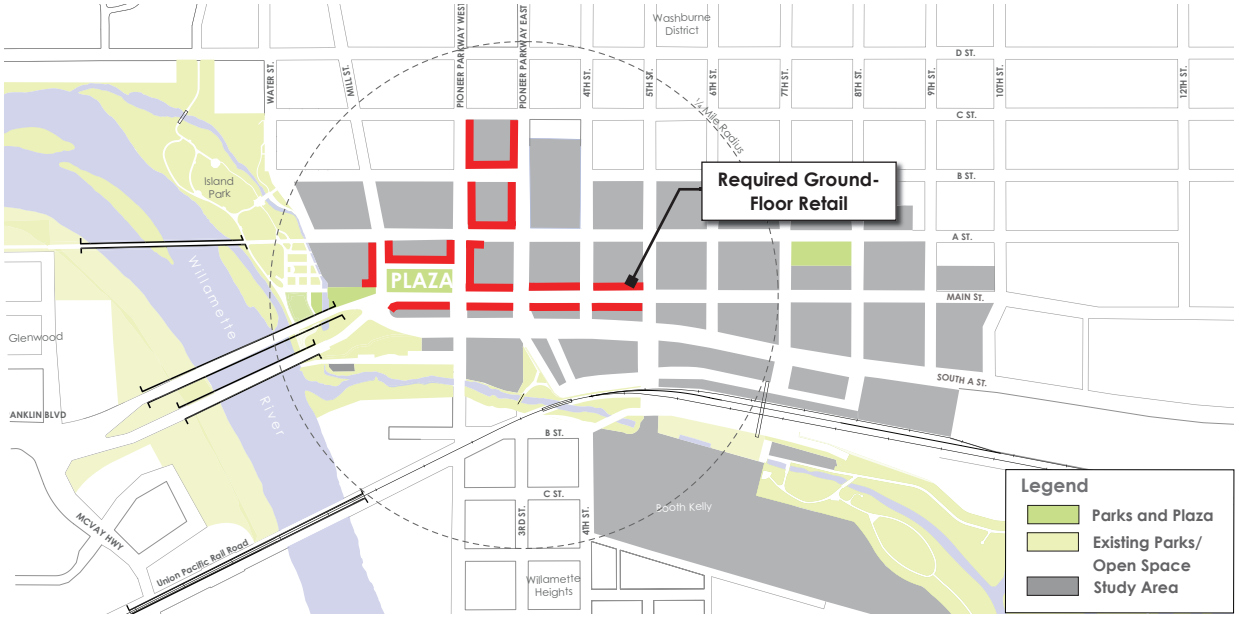
Required Ground-Floor Retail

Edge to edge ground-floor retail uses are essential components of an active and vital downtown retail environment. Ground-floor requirements will concentrate these uses to establish the critical mass of retail needed to establish the downtown retail hot spot, thereby ensuring their economic viability.

The ground-floor uses diagram identifies the locations for these uses that have been identified as part of the downtown plan's retail hot spot.

Required Ground-Floor Retail Frontages

Retail uses shall be continuous as indicated on the diagram. Only businesses that engage in the *sale of goods or eating and drinking establishments* shall be permitted. Entrances or lobbies to non-retail, upper-floor uses are also permitted.



Required Ground-Floor Retail

Edge to Edge Ground-Floor Retail

Required Active Edges

Active edges on building frontages are characterized by direct sidewalk entries and a high degree of transparency. These edge treatments increase visual and physical interaction between people inside and people outside of the buildings and contribute to a safe and vibrant pedestrian environment.

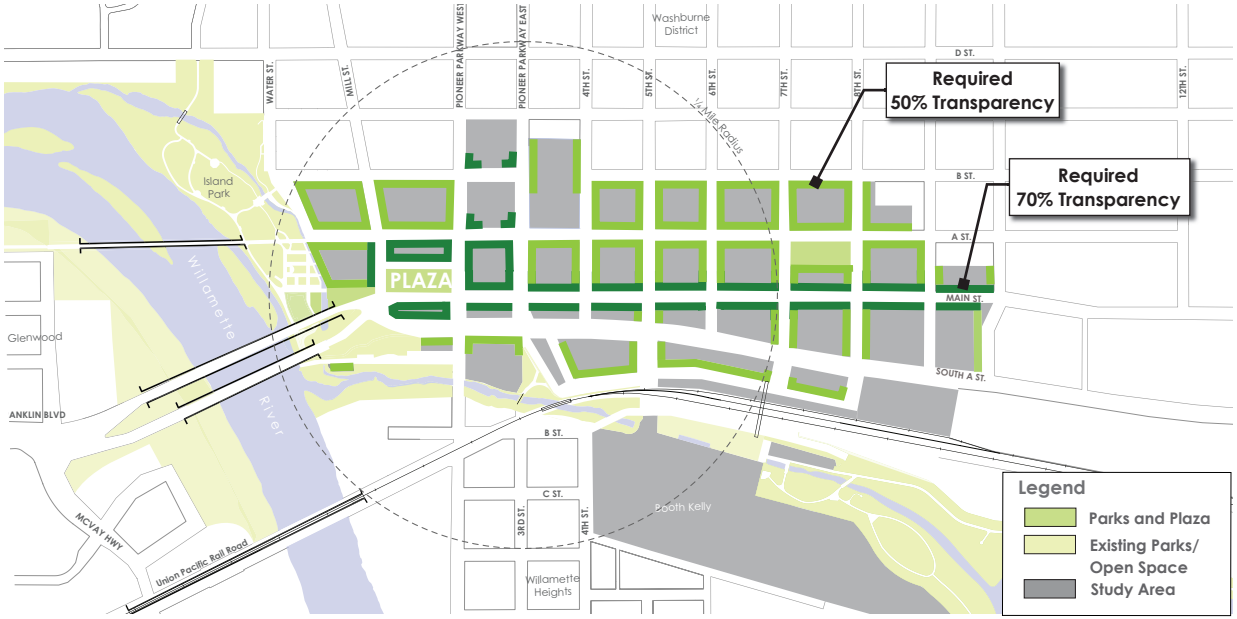
The required active-edges diagram identifies essential building frontages where active-edge treatments must be provided.

Requirements:

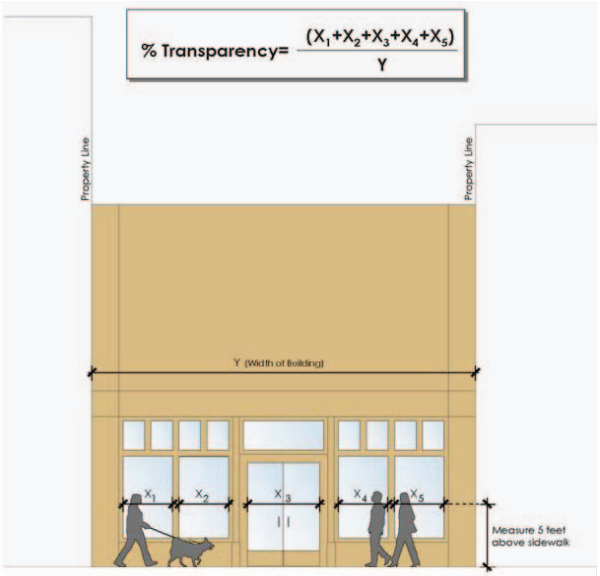
- Residential, commercial/retail, or office openings (windows and doors) comprising a minimum 50 percent of a buildings' first-floor façades
- Commercial or retail openings (windows and doors) comprising a minimum 70 percent of a buildings' first-floor façades
- All uses fronting the sidewalk must be comprised of transparent openings (windows and doors) Transparency is measured along a line at 5 feet above the sidewalk from side property line to side property line (see images at right)
- Window coverings, or frosted, tinted, reflective glass or other types of glass that diminish transparency is prohibited
- Active edge along all waterways and parks
- Front doors facing the street, walkways or waterways

Restrictions:

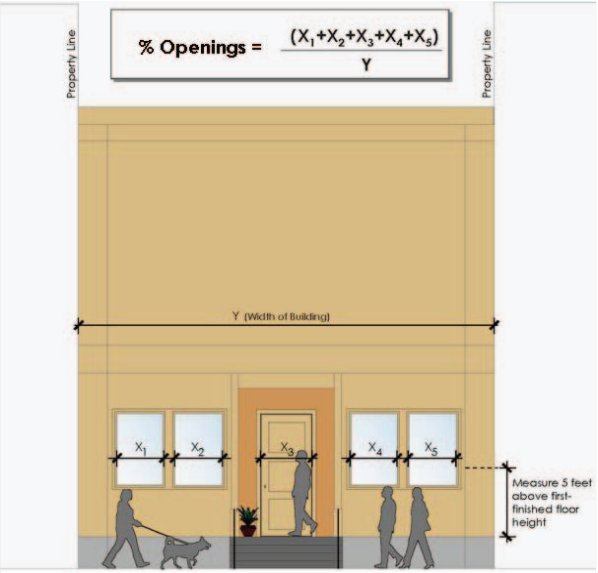
- Parking lots, service bays/loading bays, and parking garage entrances are prohibited along all frontages designated as 70 percent opening



Required Active Edges



Active Edge –Min. 70% Transparency

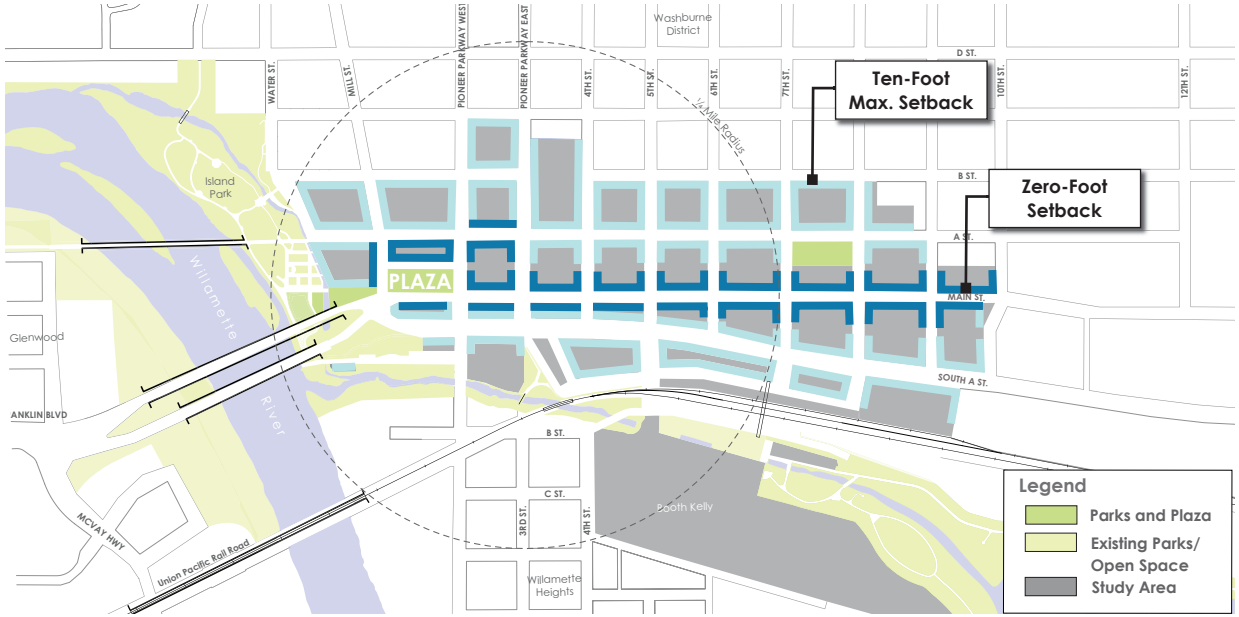


Active Edge –Min. 50% Transparency

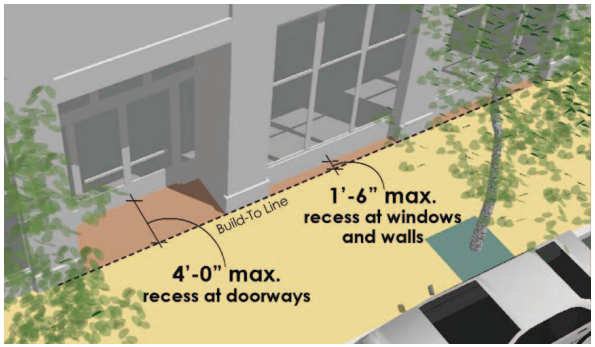
Required Build-To Lines

Buildings built flush with the sidewalk, with doors and windows facing the street, provide for pedestrian-level features of interest, and helps to create a continuous vertical street wall.

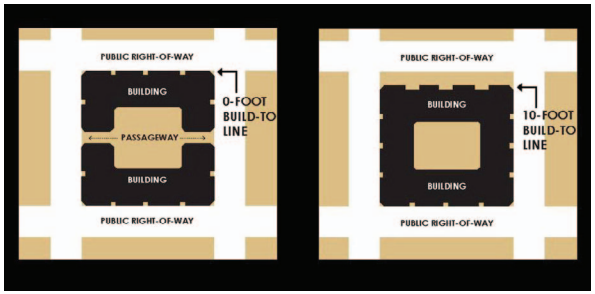
- All buildings must be built up to the sidewalk along the streets identified on the right
- Allowable recesses include 4'-0" maximum recess for doorways and 1'-6" maximum recess for windows and wells
- A maximum ten foot setback is allowed where indicated to provide privacy for residential uses; additional area for landscaping adjacent to civic and employment uses; and outdoor seating and display areas adjacent to retail and commercial storefronts



Required Build-To Lines



Maximum Building Recesses



Build-To-Line Diagrams

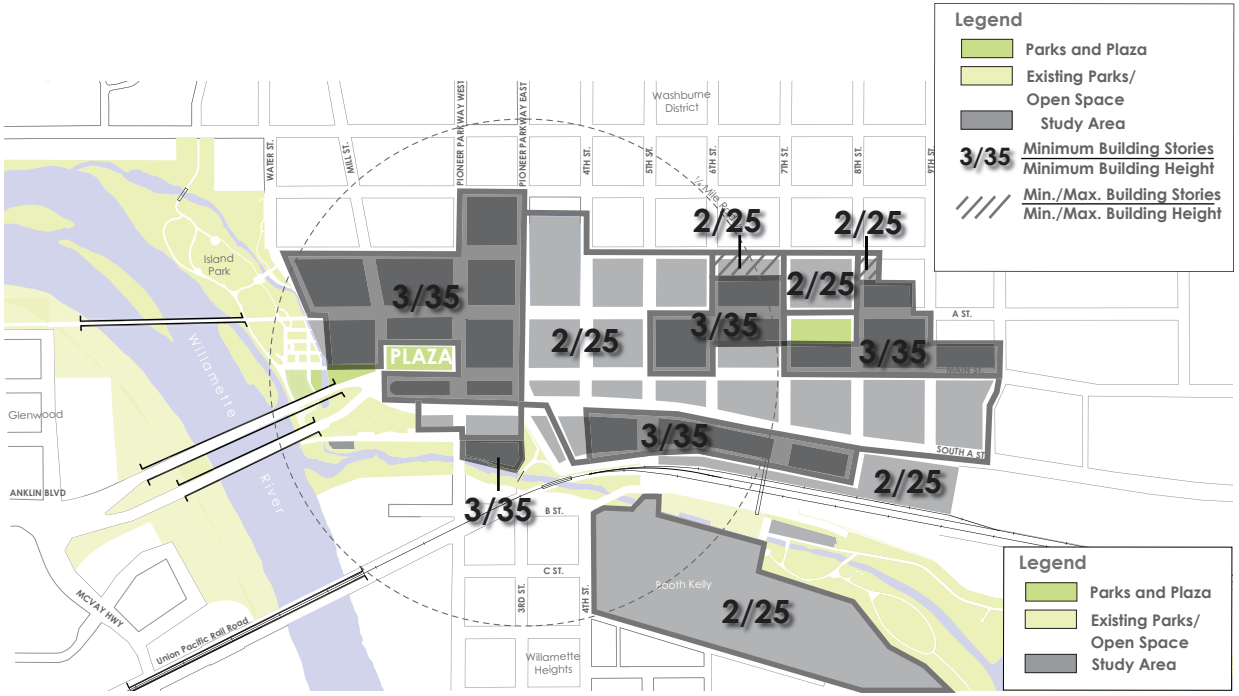
Zero Foot Setback

Residential Use with Setback

Building Height Requirements

The rationale for establishing minimum heights is intended to ensure that high density development is maximized adjacent to existing and planned substantial public investment areas such as Mill Plaza, parks, and transit. Minimum building heights are specified in the diagram on the right, whereby the first number indicates the number of stories and the second number the building height.

- The building height standards apply to new residential, office, retail/commercial and mixed-use buildings
- The standard does not apply to additions to existing buildings, accessory structures, or to buildings with less than 1,000 square feet of floor area, or sites identified for public parking
- The building height limit does not include a parapet, or enclosure for HVAC or elevator equipment
- Blocks indicated with hatching represent both a minimum and maximum building height of 2 stories or 25' whichever is less and are intended to provide a compatible scale with the adjacent single-family neighborhood



Building Heights

Consideration of Maximum Buildings Heights

It is suggested that no maximum building height is required except where indicated. Mixed-use buildings are typically comprised of a retail/commercial groundfloor and 3 to 4 floors housing or office/commercial above. The following are typical building heights for mixed-use residential, commercial/retail and office structures:

Mixed Use Commercial, Retail and Residential - 45' to 55'

- Minimum 15-ft. height- groundfloor commercial or retail
- Minimum 10-ft. height- upper floor residential/ commercial
- 2-ft. to 5-ft. for a parapet or enclosure of HVAC/ equipment

Mixed-Use Office/Employment- 70' to 148'

- Minimum 18' groundfloor with lobby, retail/commercial and office uses
- Typical 13-ft. height for upper office floors
- 3-ft. to 5-ft. for a parapet or enclosure of HVAC/ equipment
- A typical employment/office building is 4 to 11 stories

Consideration of Setbacks

Consider the use of a performance standard bonus that maintains compatibility with existing traditional Main Street development patterns while allowing for 21st century development, such as:

1. Street Wall Height- establish a maximum street wall facade height consistent with Springfield's traditional Main Street development patterns- *Suggested 45' for commercial/ residential and 57' for office*

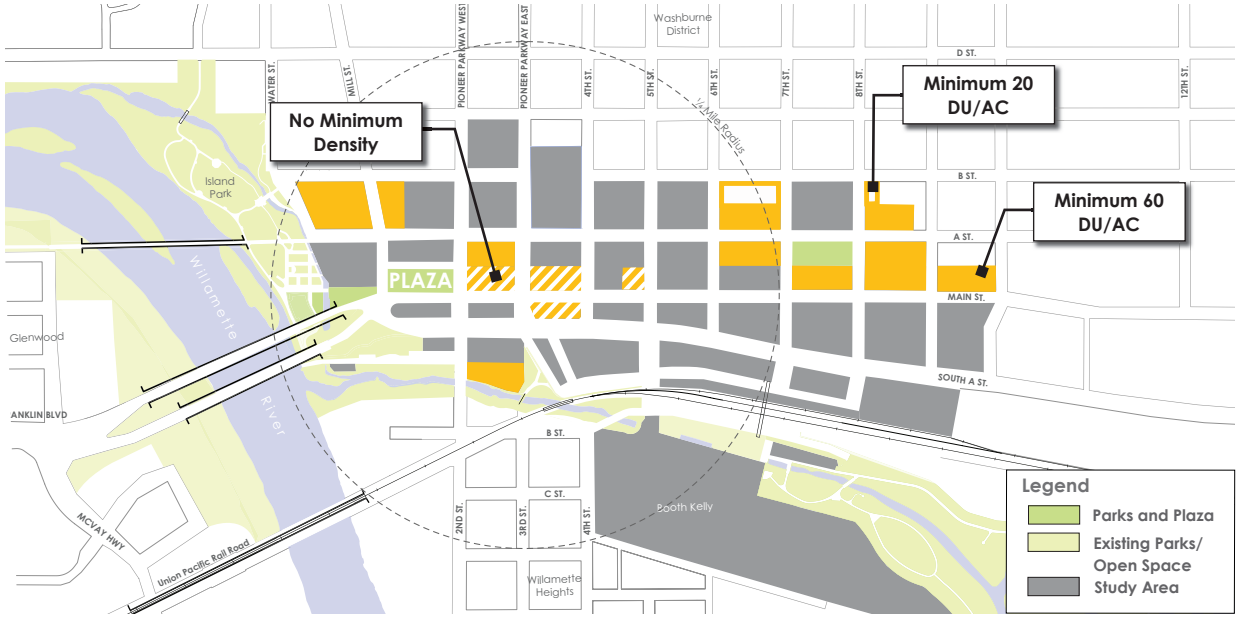
2. Upper-Floor Setback- Buildings taller than the maximum street wall height should step back upper stories, by at least six feet measured from the facade of the street wall facing the street, alleyway, public park or open space

Measuring Building Height

Residential Density Requirements

There is a short supply of land available for new housing development within the downtown study area. Minimum densities are applied to those areas designated for housing that have the greatest potential to support dense infill housing, and assure efficient use of land at densities that support transit use and nearby downtown businesses.

- Minimum densities for mixed-use building where the primary use is residential, stand-alone multifamily/ apartment/condominium dwellings and senior/retirement housing should be 60 units per acre.
- Minimum densities for stand-alone multifamily/ apartment/condominium dwellings and senior/retirement abutting a single-family dwelling use or across the street should be 20 units per acre
- There are no minimum density requirements for residential units on upper floors of existing buildings along Main Street.



Minimum Density Requirements

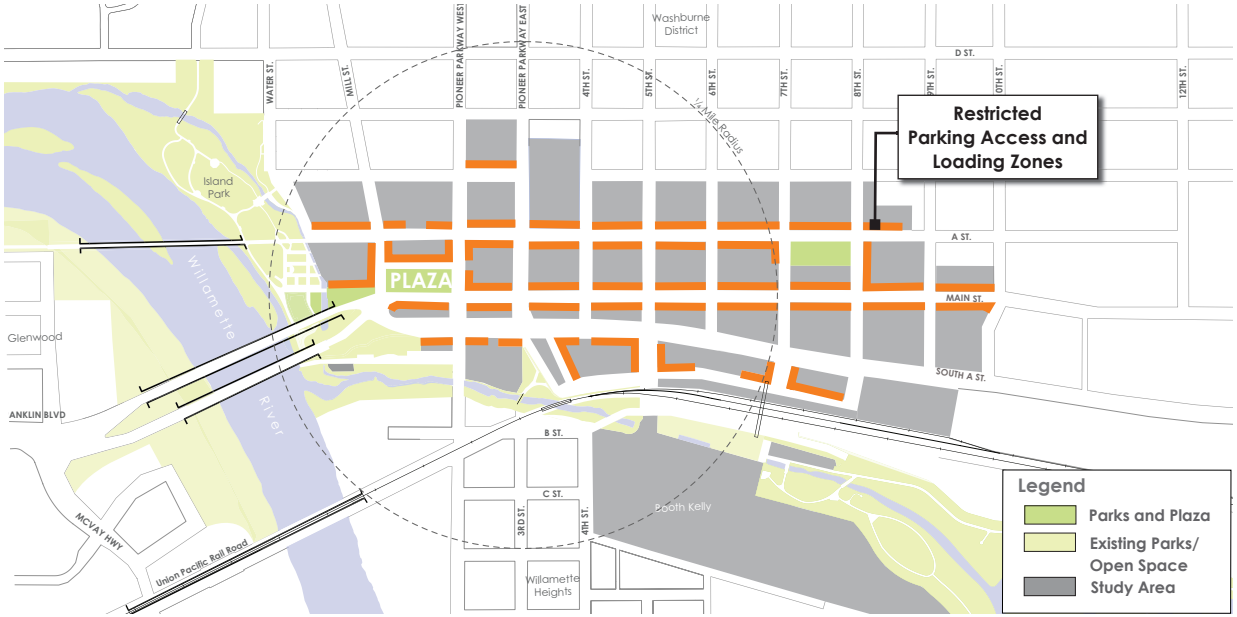
Pedestrian Emphasis Streets

The designation of restricted parking access and loading zone frontages ensures continuity of the pedestrian environment by restricting auto access to parcels and loading zones along specific streets.

- Loading zones or curb cuts are not allowed on frontages as indicated on the right

Restricting parking access and loading zones along the frontages identified on the map will:

- Ensure the most efficient parking access with the least negative effect on the pedestrian
- Restrict loading zones to preserve on-street parking spaces
- Restrict mid-block curb-cuts to protect the historic edge-to edge building pattern that exists downtown



Restricted Parking Access and Loading Zone Frontages

Development Summary

Overview

The following spreadsheet identify's the potential for build-out within the study area.

Development Potential: Downtown Springfield

DEVELOPMENT SUMMARY	Total											
New Retail	196,502	SF										
Existing Retail	48,079	SF						Retail			244,581	sf
Block 7 Structure- Public	475	SP										
Block 34 and Block 18 Structures- Public	1,147	SP						Parking			3,934	sp
New Mill Plaza	1.4	Acres			Block Dimension: 200' x 280'					Public	736	sp
										Private	3,198	sp
New Post Office Square	1	Acre								P R	255	sp
New Housing - West End	372	Units	392,500					Plaza			1.3	ac
New Housing - East End	708	Units						Park/Open Space			62	ac
Housing (East and West)- Parking	1,086											
Civic- Existing City Hall and Justice Center	234,505	SF						Housing			1080	DU
New Library	60,000	SF										
New Office District- Plaza and Main Street	429,100	SF	741,421					Civic			294,505	sf
New Office District- South A -Mill Pond	562,200	SF										
New/Renovated Arts/Cultural	122,000	SF						Cultural			166,000	sf
Existing Arts/Cultural	44,127	SF										
Office District- Plaza and Main Street Parking (private)	1,067	SP						Commercial			252,500	sf
Office District- South A Street Campus Parking (private)	937	SP										
New/Renovated Commercial	143,015	SF						Office			990,000	sf
Existing Commercial	109,582	SP										
Island Park (Existing)	650,000	SF										
New Island Park Enhancements	63200	SF										
Mill Race Park	18,000	SF										
Mill Pond	1,930,000	SF										

Development Potential: Downtown Springfield

DEVELOPMENT SUMMARY

	Total		Block Area		Building Area		Units/Spaces	
New Retail	196,502							
Existing Retail	48,079				Retail		244,581	sf
Block 7 Structure- Public	475							
Block 34 and Block 18 Structures- Publi	1,147				Parking		3,934	sp
New Mill Plaza	1.4		Block Dimension: 200' x 280'			Public	736	sp
						Private	3,198	sp
New Post Office Square	1					Park/Ride	255	sp
New Housing - West End	372	392,500			Plaza		1.3	ac
New Housing - East End	708				Park/Open Space		62	ac
Housing (East and West)- Parking	1,086							
Civic- Existing City Hall and Justice Ce	234,505				Housing		1080	du
New Library	60,000							
New Office District- Plaza and Main Stre	429,100	741,421			Civic		294,505	sf
New Office District- South A -Mill Pond	562,200							
New/Renovated Arts/Cultural	122,000				Cultural		166,000	sf
Existing Arts/Cultural	44,127							
Office District- Plaza and Main Street P	1,067				Commercial		252,500	sf
Office District- South A Street Campus I	937							
New/Renovated Commercial	143,015				Office		990,000	sf
Existing Commercial	109,582							
Island Park (Existing)	650,000							
New Island Park Enhancements	63200							
Mill Race Park	18,000							
Mill Pond	1,930,000							

Development Summary Blocks

Summary Totals have been Rounded

BLOCK		SITE		BUILDING					PARKING					COMMENTS
No.	DevelopmentTypes	Block Area		Floors	Total Building Area per Use	Density	FAR	Total Units	Total Required Parking	Total Provided Parking	Levels	Structure Area	Total # of Floors	
		(SF)	(Acres)		(Total SF)	(du/acre)			(Spaces)	(Spaces)		(SF)		
0		60,000	1.4											
	New Retail (Grocery)			1	60,000				150				1	
	New Parking Structure (below grade)									150	1	60,000		1 floor retail over 1 level below-grade parking
1	Existing Uses													
2	Existing Uses													
3	Existing Uses													
4	Existing Uses													
5		82,359	1.9											
	New Condo/Apt			5 to 8	270,000-432,000	123		232					5 to 8	
	New Parking Structure (podium/basement)			1					232	232	1	54,042		I floor of parking under housing on podium w housing liner along Water Street
	New Commercial				8,000									
6		60,000	1.4											
	New Condo/Apt		0.6	5	250,000	127		80	80	80	1		5- Hsg and 3- Parking	Groundfloor Parking for Housing- 80 spaces
	Office Parking Structure for Blocks 24-25									255	3	31,250		Upper floor parking structure serves Blocks 24 and 25
	New/Renovated Commercial				8,500									
7		62,707	1.4											
	New Retail (Ground-Floor))			1	12,500		4.0		31				4	
	New Parking Structure (above grade)				60000					475	3	*60,000*		Approx 160 sp per floor
										19				

Development Potential: Downtown Springfield

DEVELOPMENT SUMMARY

	Total		Block Area		Building Area		Units/Spaces	
New Retail	196,502							
Existing Retail	48,079				Retail		244,581	sf
Block 7 Structure- Public	475							
Block 34 and Block 18 Structures- Publi	1,147				Parking		3,934	sp
New Mill Plaza	1.4		Block Dimension: 200' x 280'			Public	736	sp
						Private	3,198	sp
New Post Office Square	1					Park/Ride	255	sp
New Housing - West End	372	392,500			Plaza		1.3	ac
New Housing - East End	708				Park/Open Space		62	ac
Housing (East and West)- Parking	1,086							
Civic- Existing City Hall and Justice Ce	234,505				Housing		1080	du
New Library	60,000							
New Office District- Plaza and Main Stre	429,100	741,421			Civic		294,505	sf
New Office District- South A -Mill Pond	562,200							
New/Renovated Arts/Cultural	122,000				Cultural		166,000	sf
Existing Arts/Cultural	44,127							
Office District- Plaza and Main Street P	1,067				Commercial		252,500	sf
Office District- South A Street Campus	937							
New/Renovated Commercial	143,015				Office		990,000	sf
Existing Commercial	109,582							
Island Park (Existing)	650,000							
New Island Park Enhancements	63200							
Mill Race Park	18,000							
Mill Pond	1,930,000							

Development Summary Blocks

Summary Totals have been Rounded

BLOCK		SITE		BUILDING					PARKING					COMMENTS
No.	DevelopmentTypes	Block Area		Floors	Total Building Area per Use	Density	FAR	Total Units	Total Required Parking	Total Provided Parking	Levels	Structure Area	Total # of Floors	
		(SF)	(Acres)		(Total SF)	(du/acre)			(Spaces)	(Spaces)		(SF)		
8		119,919	2.8											
	Existing Office (Justice Center)			1	130,600								1	Parking provided on-site
	Existing Parking Lot													
9		65,000	1.5											2 separate buildings on site
	New Library			3	60,000									Parking provided on Block 19
	New Parking- Surface								54				3	
10		54,400	1.2											
	New City Hall			4	80,000									
	New Parking - Surface								58				6	Basement parking- 1 level
	New Parking Structure			2	50,000				140					
11		47,200	1.1											
	New Condo/Apt			4	104,000	107		108					5	4 floors housing over 1 floor commercial over 1 level below grade parking
	New Commercial (ground floor)			1	5,200									
	New Parking Structure (below grade)								108	109	1	38,000		
	New Detached Townhomes			2				8	16	16			2	Townhomes include attached 2 car parking garage
12		81,276	1.9											
	Existing Commercial			1	8,000				Utilizes Existing Parking				1	3 separate buildings on site
	Existing Post Office			1	13,500				Utilizes Existing Parking				1	
	New Commercial			1	10,000								1	
13		81,284	1.9											3 separate buildings on site
	New Condo/Apt (upper floors)		0.8	3	90,480	83		70	70				4	3 floors of housing over 1 level below grade parking
	New Parking Structure (below grade)									75	1	30,160		
	New Detached Townhomes			2				6	12	12				Townhomes include attached 2 car parking garage
	Existing Uses													
14		72,200	1.7											
	New Office (Upper Floors)			8	160,000		4.0							
	New Retail (ground floor)			1	14,000				320				9	Retail parking provided on block 7
	New Parking Structure (below grade)				115,200					329	2	57,600		

Development Potential: Downtown Springfield

DEVELOPMENT SUMMARY

	Total	Block Area	Building Area		Units/Spaces	
New Retail	196,502					
Existing Retail	48,079		Retail		244,581	sf
Block 7 Structure- Public	475					
Block 34 and Block 18 Structures- Publi	1,147		Parking		3,934	sp
New Mill Plaza	1.4	Block Dimension: 200' x 280'		Public	736	sp
				Private	3,198	sp
New Post Office Square	1			Park/Ride	255	sp
New Housing - West End	372	392,500	Plaza		1.3	ac
New Housing - East End	708		Park/Open Space		62	ac
Housing (East and West)- Parking	1,086					
Civic- Existing City Hall and Justice Ce	234,505		Housing		1080	du
New Library	60,000					
New Office District- Plaza and Main Stre	429,100	741,421	Civic		294,505	sf
New Office District- South A -Mill Pond	562,200					
New/Renovated Arts/Cultural	122,000		Cultural		166,000	sf
Existing Arts/Cultural	44,127					
Office District- Plaza and Main Street P	1,067		Commercial		252,500	sf
Office District- South A Street Campus I	937					
New/Renovated Commercial	143,015		Office		990,000	sf
Existing Commercial	109,582					
Island Park (Existing)	650,000					
New Island Park Enhancements	63200					
Mill Race Park	18,000					
Mill Pond	1,930,000					

Development Summary Blocks

Summary Totals have been Rounded

BLOCK		SITE		BUILDING					PARKING					COMMENTS
No.	DevelopmentTypes	Block Area		Floors	Total Building Area per Use	Density	FAR	Total Units	Total Required Parking	Total Provided Parking	Levels	Structure Area	Total # of Floors	
		(SF)	(Acres)		(Total SF)	(du/acre)			(Spaces)	(Spaces)		(SF)		
15		90,000	2.1											
	New Office (upper floors)		0.6	3	45,600		2.5							
	New Retail (ground floor)			1	22,000				192				4	Parking for Office and Retail provided on Block 7
	New Mill Plaza and Street	56,000	1.4											
	New Street													
16		62,934	1.4											2 separate buildings on site
	New Condo/Apt (upper floors)		0.72	3	58,200	83		60					4	
	New Retail (ground floor)			1	10,000									3 floors of housing over 1 floor retail over 1 level below-grade parking
	New Parking Structure (below grade)								60	82	1	28,800		Parking in basement, w/ 15 spaces atgrade off alleyway
	Existing Retail			1	10,000				25				1	
17		67,203	1.5										1	
	Existing Commercial			1	21,309		0.6		53					3 separate buildings on site
	New Retail			1	12,002				30				1	New retail parking provided on Block 7
	Existing Retail			1	8,500				21				1	
18		48,420	1.1											
	New Office (upper floors)			4.5	67,500		3.8						6	2 separate buildings on site
	New Retail (ground floor)			1	10,000				135					
	New Parking Structure (below grade)				97,500									
										279	3	32,500		Parking provided for office uses on Blocks 18 and 27
	New Commercial (ground floor)			1	8,000								4	
	Exsiting Retail				5,000									
19		67,056	1.5										1	
	Existing Civic/Cultural- City hall or if red	103,905		1	103,905									
	New Retail			1	12,000		2.7						1	
	New Parking Structure (above-grade)				163,800					468	3.5	46,800		Parking provided for retail from Block 19
	New Commercial (ground floor)			1	8,000								1	Parking provided for Library and City Hall on Block 9 and 10
	Existing Parking Lot									57				
20		81,139	1.9											
	New Condo/Apt		1.0	5	173,750	114		108					6	5 floors of housing over 1 floor commercial over 1 level below-grade parking
	New Commercial (ground floor)			1	7,500									
	New Parking Structure (below grade)								108	109	1	38,000		
	Existing Commercial/Cultural			1	13,244								1	Parking provided on street and on Block 19
	Existing Cultural- Wildish Theater			1	25,021								1	

Development Potential: Downtown Springfield

DEVELOPMENT SUMMARY

	Total		Block Area		Building Area		Units/Spaces	
New Retail	196,502							
Existing Retail	48,079				Retail		244,581	sf
Block 7 Structure- Public	475							
Block 34 and Block 18 Structures- Publi	1,147				Parking		3,934	sp
New Mill Plaza	1.4		Block Dimension: 200' x 280'			Public	736	sp
						Private	3,198	sp
New Post Office Square	1					Park/Ride	255	sp
New Housing - West End	372	392,500			Plaza		1.3	ac
New Housing - East End	708				Park/Open Space		62	ac
Housing (East and West)- Parking	1,086							
Civic- Existing City Hall and Justice Ce	234,505				Housing		1080	du
New Library	60,000							
New Office District- Plaza and Main Stre	429,100	741,421			Civic		294,505	sf
New Office District- South A -Mill Pond	562,200							
New/Renovated Arts/Cultural	122,000				Cultural		166,000	sf
Existing Arts/Cultural	44,127							
Office District- Plaza and Main Street P	1,067				Commercial		252,500	sf
Office District- South A Street Campus	937							
New/Renovated Commercial	143,015				Office		990,000	sf
Existing Commercial	109,582							
Island Park (Existing)	650,000							
New Island Park Enhancements	63200							
Mill Race Park	18,000							
Mill Pond	1,930,000							

Development Summary Blocks

Summary Totals have been Rounded

BLOCK No.	DevelopmentTypes	SITE Block Area (SF)	Block Area (Acres)	BUILDING Floors	Total Building Area per Use (Total SF)	Density (du/acre)	FAR	Total Units	PARKING Total Required Parking (Spaces)	Total Provided Parking (Spaces)	Levels	Structure Area (SF)	Total # of Floors	COMMENTS
21	New Condo/Apt	40,939	0.9	4	104,000	115		108					5	4 floors housing over 1 floor commercial over 1 level below grade parking
	New Commercial (ground floor)			1	10,000									
	New Parking Structure (below grade)								108	109	1	38,000		
	New Park	40,950	0.94											
22		81,889	1.9											
	New Condo/Apt (upper floors)			4	265,000	101		190					6	4 levels of housing over 1 floor commercial/housing over 1 level below-grade parking
	New Commercial (ground floor)			1	12,500									
	New Parking Structure (below grade)								210	214	1	75,000		
23		77,199	1.8											
	New Condo/Apt		0.9	5	126,750	122		110					6	4 floors of housing over 1 floor commercial over 1 level below-grade parking
	New Commercial (ground floor)			1	10,000									
	New Parking Structure (below grade)								110	109	1	38,000		
24		26,400	0.6											
	New Office (upper floor)			3.25	52,000		2.6		104				4	Office parking provided on Block 6
	New Retail (ground floor)			1	16,000									Retail parking provided on Block 7
25		20,126	0.5											
	New Office (upper floor)			3.25	52,000		3.2		104				4	Office parking provided on Block 34
	New Retail (ground floor)			1	12,000									Retail parking provided on Block 7
26		20,279	0.5											
	Existing Retail			1	20,279				51				1	
27		20,800	0.5											
	New Office (upper floors)			4	52,000		3.3		104				4	Office parking provided on Block 18
	New Retail (ground floor)			1	16,000				40					Retail parking provided on Block 19
28		23,326	0.5											
	Existing Retail			1	4,300		0.6		11					
	Existing Cultural/Commercial				8,900									

Development Potential: Downtown Springfield

DEVELOPMENT SUMMARY

	Total	Block Area	Building Area		Units/Spaces	
New Retail	196,502					
Existing Retail	48,079		Retail		244,581	sf
Block 7 Structure- Public	475					
Block 34 and Block 18 Structures- Publi	1,147		Parking		3,934	sp
New Mill Plaza	1.4	Block Dimension: 200' x 280'		Public	736	sp
				Private	3,198	sp
New Post Office Square	1			Park/Ride	255	sp
New Housing - West End	372	392,500	Plaza		1.3	ac
New Housing - East End	708		Park/Open Space		62	ac
Housing (East and West)- Parking	1,086					
Civic- Existing City Hall and Justice Ce	234,505		Housing		1080	du
New Library	60,000					
New Office District- Plaza and Main Stre	429,100	741,421	Civic		294,505	sf
New Office District- South A -Mill Pond	562,200					
New/Renovated Arts/Cultural	122,000		Cultural		166,000	sf
Existing Arts/Cultural	44,127					
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New/Renovated Commercial	143,015		Office		990,000	sf
Existing Commercial	109,582					
Island Park (Existing)	650,000					
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Development Summary Blocks

Summary Totals have been Rounded

BLOCK		SITE		BUILDING					PARKING					COMMENTS
No.	DevelopmentTypes	Block Area		Floors	Total Building Area per Use	Density	FAR	Total Units	Total Required Parking	Total Provided Parking	Levels	Structure Area	Total # of Floors	
		(SF)	(Acres)		(Total SF)	(du/acre)			(Spaces)	(Spaces)		(SF)		
29		58,512	1.3											
	Existing Gateway and Arts School				18,000									Ground Floor= 41773
	Existing Commercial/Cultural			1	6,443				16					
	New Cultural				8,200									
30		83,315	1.9											
	New Commercial/Cultural			1	8,050				20				1	
	Existing Commercial/Cultural			1	10,000									
31A		100,215	2.3											
	New Convention Center			1	70,000				210					
	Parking Lot									25				loading spaces
31B		100,215	2.3											
	New Commercial			1	19,700				59					
	Existing Commercial			1	18,242					25				loading spaces
32A		90,075	2.1											
	Parking Lot (Phase I)									236		82,500		
	Convention Center Expansion (Phase II)			1	110,215				331					Building area (per floor) includes acquisition of 9th Street ROW
	Existing Commercial (if not Convention Ctr)				9,000									
32B		90,075	2.1											
	Parking Lot									236		82,500	N/A	Surface Lot
	Existing Lithia Commercial				9,000									
	New Commercial				31,365									
33		28,898	0.7											
	Existing Chamber of Commerce				5,500									
34		45,000	1.0											
	New Commercial (ground floor)			1	3,250				8					3 levels of parking (including the roof level) over ground floor parking and
	New Parking Structure (above grade)			3.5	77,000					204	3.5	77,000	4	60 spaces/floor
	New Condo/Apartment			4	52,000	23		24	24					Surface and garage parking
	Existing Commercial				1,800									95 Spaces serve South A -Mill Pond

Development Potential: Downtown Springfield

DEVELOPMENT SUMMARY

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New Retail	196,502							
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New Housing - West End	372	392,500			Plaza		1.3	ac
New Housing - East End	708				Park/Open Space		62	ac
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Development Summary Blocks

Summary Totals have been Rounded

BLOCK No.	DevelopmentTypes	SITE Block Area (SF)	Block Area (Acres)	BUILDING Floors	Total Building Area per Use (Total SF)	Density (du/acre)	FAR	Total Units	PARKING Total Required Parking (Spaces)	Total Provided Parking (Spaces)	Levels	Structure Area (SF)	Total # of Floors	COMMENTS
35		81,348	1.9											
	Existing Commercial			1	5,743				11				1	
	Existing Transit Center													
36		36,601	0.8											
	New Office (upper floor + 1/2 ground floor))			3.5	80,500		2.3		161				4	Office parking provided on Block 34 and 38
	New Commercial (ground floor)			1	4,000									Commercial parking provided onstreet
37		69,700	1.6											
	New Office			4	80,000				160					
	Parking Structure (above grade)				135,000					386	4.5	30,000	5	4 floors plus addtl parking on roof
	New Commercial (ground floor)			1	7,000									85 spaces/floor
38		34700	0.8											2 separate buildings
	New Office - West			4	75,000				150				5	Office parking provided on Block 38
	New Commercial			1	3,750				13					Commercial parking provided onstreet and Block 38
39		101,809	2.3											
	Parking Lot (Phase I)									255	0	101,809	0 to2	
	Parking Structure (Phase II)								667	582	2	101,809		3 levels at 220 sp/fl to serve hotel and expanded conference center
40	Booth Kelly	435,600	10.0											
	New Employment				326,700								5 to 11	Assume FAR of .5 to 1
	New Commercial				11,000									
	New Parking- Structure				187,500					653			4	105 Spaces per floor- 5 floors with parking on roof
41		690,000	15.9											
	Island Park	650,000	15.0											
	Millrace Park	18,000	0.4											
	Willamalane Adult Activity Center	20,500	0.5	1	22,000									

Implementation Strategy-
Cost Estimates and Assumptions

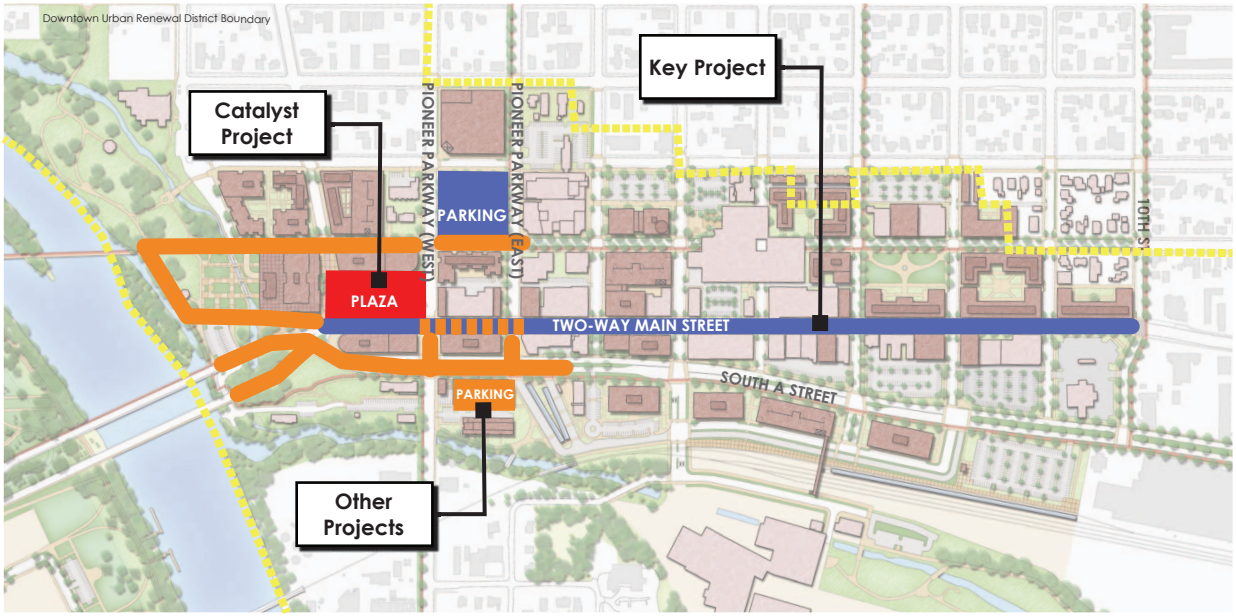
Overview

The implementation strategy prescribes a program for creating positive change and stimulating development momentum in downtown Springfield.

The implementation strategy is founded on the principle that public dollars must be spent on projects that stimulate significant private investment in the downtown. The strategy includes:

- **Catalyst and Key Projects–**Essential projects and actions that stimulate downtown investment and support revitalization efforts over time
- **Other Projects–**Projects that demonstrate momentum and support sustained private investment

This section identifies the ratio of public dollars spent to private dollars leveraged. The costs are associated with typical costs of construction and assumptions for values are based on square feet for buildings, and streets and in the case of parking as cost per parking stall.



Implementation Projects

1 Catalyst Projects

PUBLIC PROJECTS

- Mill Plaza

PRIVATE PROJECTS

- Mill Street Office and Retail
- A Street Office Parking Structure
- Plaza Office and Retail
- A Street Housing and Retail
- Main and Mill Office and Retail

2 Key Projects

PUBLIC PROJECTS

- Public Parking Site

3 Other Projects

PUBLIC PROJECTS

- South A Public Parking Site
- Island Park & Downtown Connections
- Main Street Demonstration Project
- South A Conceptual Mobility Option- Phase 1

PRIVATE PROJECTS

- Main Street Office and Retail
- Island Park Housing
- A and Main Office, Parking and Retail
- Main and 5th Office and Retail

Investment Summary

The investments shown in the table to the right reflect conceptual cost estimates for proposed public and private development in the Springfield Downtown area.

Public/Private Investment Ratio

Public expenditures should be made on the projects that have the potential to leverage the most return on that investment. The ratio of total public-to-private investment for all three actions is estimated to be $1 of public investment to $10 of private investment at build out.

Public Investment Summary

1 Catalyst Projects	
Mill Plaza Improvements	$4.8 mil
Public Investment:	**$4.8 mil**
2 Key Projects	
Public Parking Site	$15.2 mil
Public Investment:	**$15.2 mil**
3 Other Projects	
South A Public Parking Site	$6.8 mil
Island Park & Downtown Connections	$2.5 mil
Main Street Demonstration Project	$0.8 mil
South A Conceptual Mobility Option	$8.7 mil
Public Investment:	**$18.8 mil**
Public Investment Total:	**$19.5 mil**

Private Investment Summary

1 Catalyst Projects	
Mill Street Office and Retail	$35.0 mil
A Street Parking Structure & Housing	$21.5 mil
Plaza Office and Retail	$11.6 mil
A Street Housing and Retail	$16.0 mil
Main and Mill Office and Retail	$11.5 mil
Private Investment:	**$95.6 mil**
2 Key Projects	
3 Other Projects	
Main Street Office and Retail	$10.7 mil
Island Park Housing	$63.8 mil
A and Main Office, Parking & Retail	$19.8 mil
Main and 5th Office and Retail	$11.5 mil
Private Investment:	**$105.8 mil**
Private Investment Total:	**$201.4 mil**

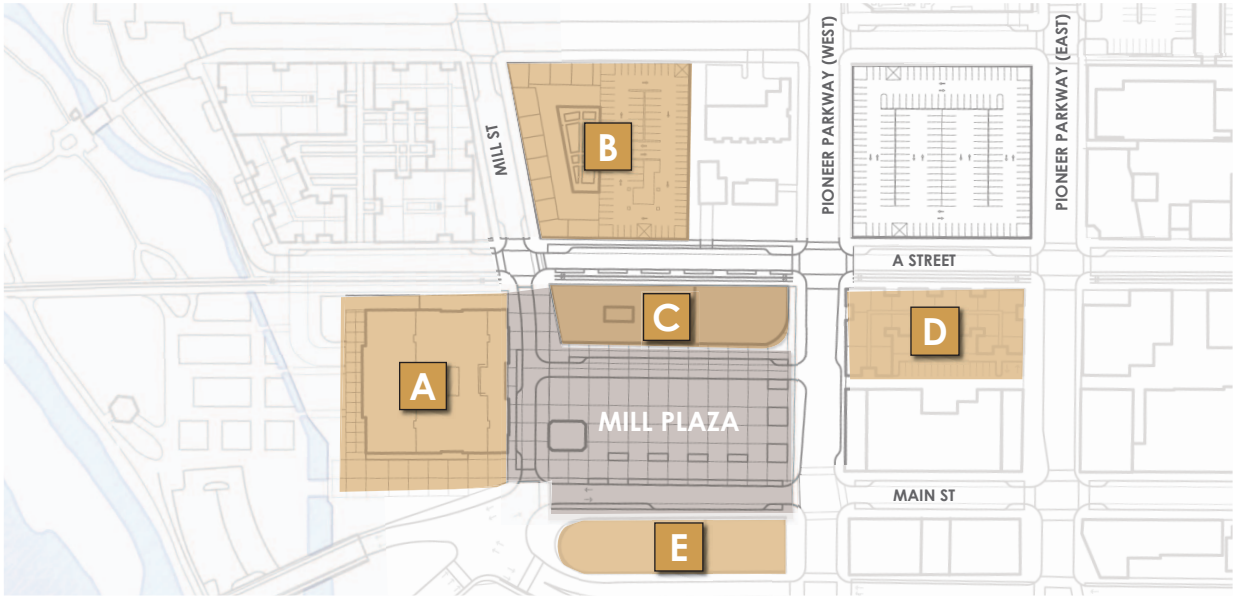
1 Catalyst Project

The following Catalyst Project is identified.

PUBLIC PROJECTS	
Mill Plaza- Acquire Site	$1.1 mil
Mill Plaza and Street Improvements	$3.7 mil
Public Investment:	**$4.8 mil**

The likely private investment projects are identified.

PRIVATE PROJECTS		
A	Mill Street Office and Retail	$35.0 mil
B	A St Parking Structure and Housing	$21.5 mil
C	Plaza Office and Retail	$11.6 mil
D	A Street Housing and Retail	$16.0 mil
E	Main and Mill Office and Retail	$11.5 mil
Private Investment:		**$68.1 mil**



Proposed Catalyst Project and Potential Private Investment

Land Values

The following table identifies the number of parcels that must be assembled for each Catalyst Project block and the associated value of all of the parcels to be assembled for each block.

	Mill Plaza Site- 3 parcels	$1,090,000
A	7 parcels	$2,066,839
B	6 parcels	$1,835,455
C	4 parcels	$2,100,000
D	2 parcels	$1,359,722
E	2 parcels	$832,109
Total Value*:		**$9,828,578**

* Values reflects the cost of land and improvements

Required Land Assembly for Catalyst Project and Potential Private Investment

Catalyst Projects

MILL PLAZA AND STREET IMPROVEMENTS	
Plaza (56,500 sf @ $45.00 sf)	$2.6 mil
Streets (44,000 sf @$25.00 sf)	$1.1 mil
Total:	**$3.7 mil**

A MILL STREET OFFICE AND RETAIL	
Office (160,000 sf @ $160.00 sf)	$25.6 mil
Retail (14,000 sf @ $200.00 sf)	$2.8 mil
Parking (329 sp @ $20,000 sp)	$6.6 mil
Total:	**$35.0 mil**

B A STREET PARKING STRUCTURE AND HOUSING	
Parking (335 sp @ $20,000 sp)	$6.7 mil
Housing (80 du @ $185,000 du)	$14.8 mil
Total:	**$21.5 mil**

C PLAZA OFFICE AND RETAIL	
Office (45,000 sf @ $160.00 sf)	$7.2 mil
Retail (22,000 sf @ $200.00 sf)	$4.4 mil
Total:	**$11.6 mil**

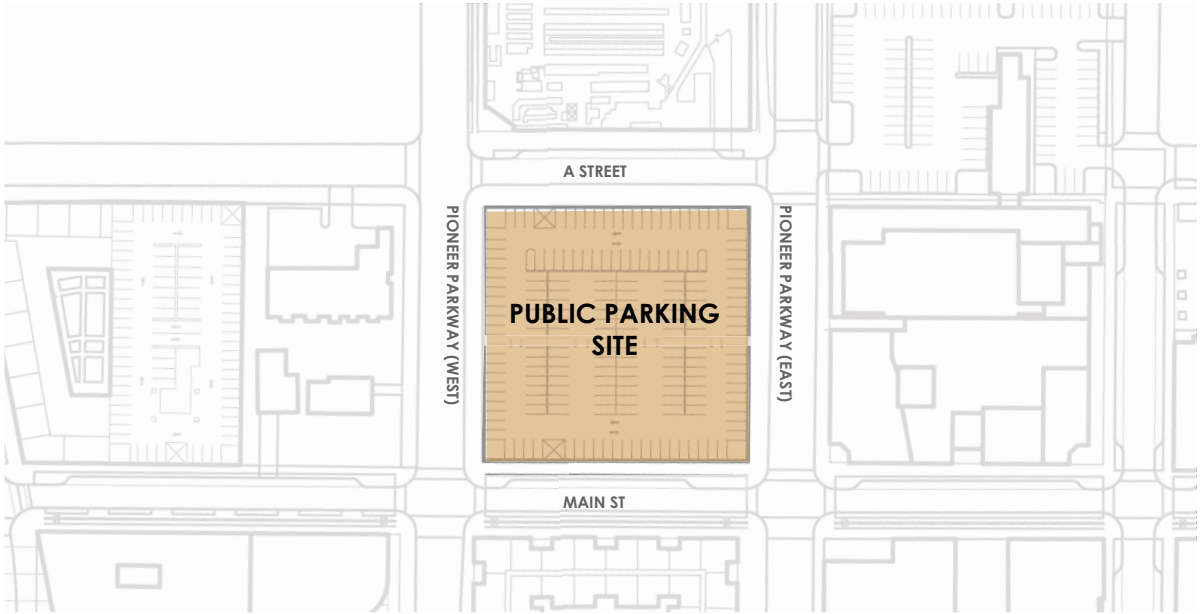
D A STREET HOUSING AND RETAIL	
Housing (60 du @ $185,000 du)	$11.1 mil
Retail (12,000 sf @ $200.00 sf)	$2.4 mil
Parking (82 sp @ $25,000 sp)	$2.5 mil
Total:	**$16.0 mil**

E MAIN AND MILL OFFICE AND RETAIL	
Office (52,000 sf @ $160.00 sf)	$8.3 mil
Retail (16,000 sf @ $200.00 sf)	$3.2 mil
Total:	**$11.5 mil**

2 Key Project

The following Key Project is identified.

PUBLIC PROJECTS	
Public Parking Site- Lot Phase I	$0.4 mil
Public Parking Site- Structure Phase II	$12.0 mil
Public Investment:	**$12.4 mil**



Proposed Key Project- Public Parking Site

Land Values

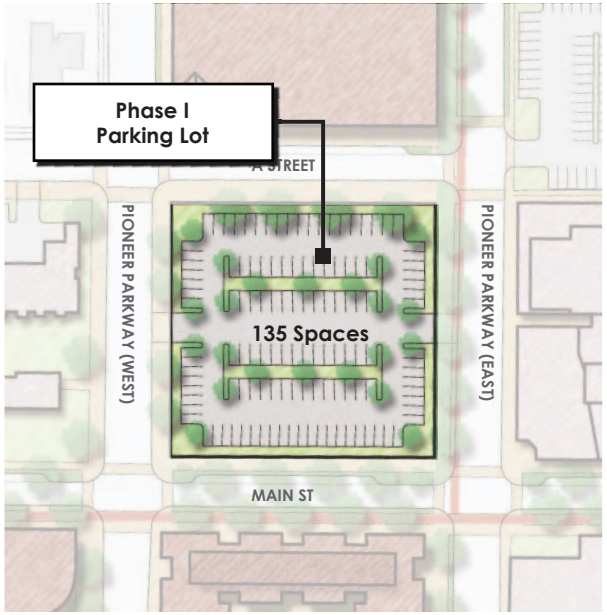
The following table identifies the number of parcels that must be assembled for each Key Project block and the associated value of all of the parcels to be assembled for each block.

Public Parking Site- 3 parcels	$2,736,284
Total Value*:	**$2,736,284**

* Values reflects the cost of land and improvements

Public Parking Site–Required Land Assembly

PUBLIC PARKING SITE- LOT	
Parking (135 sp @ $2,500 sp)	$0.4 mil
Total:	**$0.4 mil**



Public Parking Site–Phase I

PUBLIC PARKING SITE-STRUCTURE	
Parking (475 sp @ $25,000 sp)	$12.0 mil
Total:	**$12.0 mil**

Legend
- New Retail
- Existing Retail
- New Parking Structure

Public Parking Site–Phase II

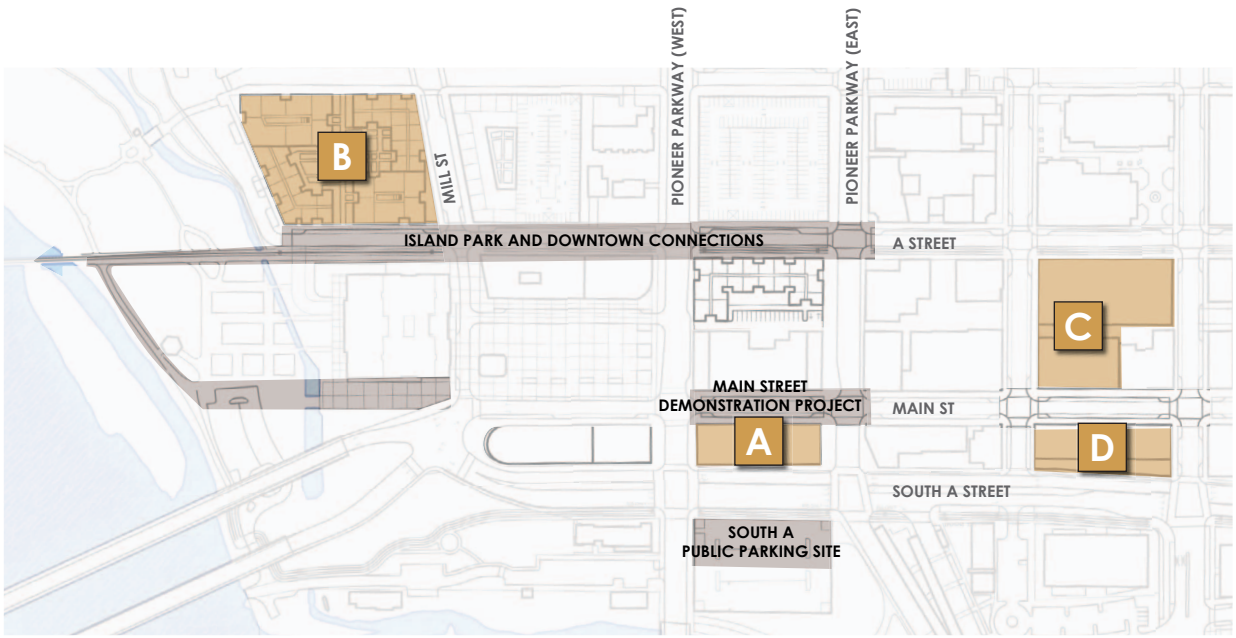
3 Other Projects

The following Other Projects are identified .

PUBLIC PROJECTS	
South A Public Parking Site	$6.8 mil
Island Park/Downtown Connections	$2.5 mil
Main Street Demonstration Project	$0.8 mil
Public Investment:	**$10.1 mil**

The likely private investment projects are identified.

PRIVATE PROJECTS		
A	Main Street Office and Retail	$10.7 mil
B	Island Park Housing	$63.8 mil
C	A and Main Office, Parking & Retail	$19.8 mil
D	Main and 5th Office and Retail	$11.5 mil
Private Investment:		**$105.8 mil**



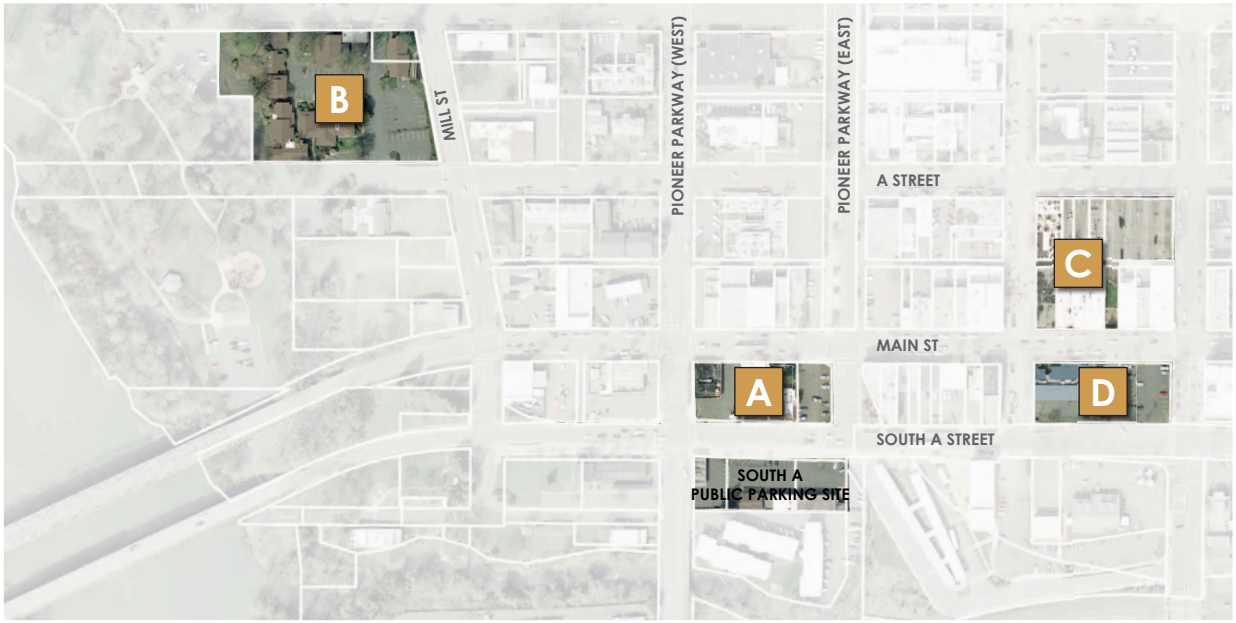
Proposed Other Projects

Land Values

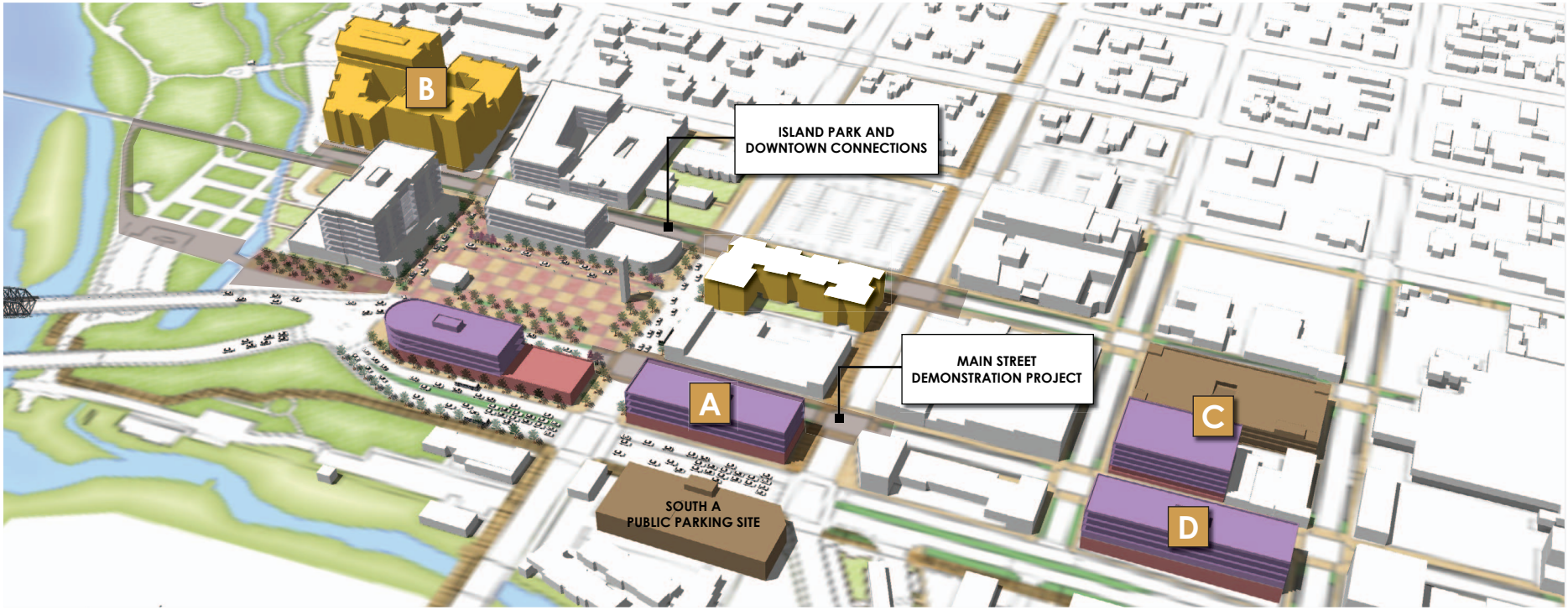
The following table identifies the number of parcels that must be assembled for each project block and the associated value of all of the parcels to be assembled for each block.

	South A Public Parking Site-3 parcels	$429,166
A	4 parcels	$1,571,444
B	2 parcels	$3,093,117
C	10 parcels	$1,800,000
D	1 parcel	$1,628,204
	Total Value*:	**$8,521,931**

* Values reflects the cost of land and improvements



Required Land Assembly for Key Projects



Key Projects

SOUTH A PUBLIC PARKING SITE	
Parking (250 sp @ $25,000 sp)	$6.3 mil
Commercial (5,000 sf @ $150.00 sf)	$0.5 mil
Total:	**$6.8 mil**

ISLAND PARK & DOWNTOWN CONNECTIONS	
Streets (76,500 sf @$25.00 sf)	$1.9 mil
Trail (15,000 sf @ $10.00 sf)	$0.2 mil
Plaza/Steps (12,000 sf @ $30.00 sf)	$0.4 mil
Total:	**$2.5 mil**

MAIN STREET DEMONSTRATION PROJECT	
Streets (30,500 sf @$25.00 sf)	$0.8 mil
Total:	**$0.8mil**

A MAIN STREET OFFICE AND RETAIL	
Office (52,000 sf @ $160.00 sf)	$8.3 mil
Retail (12,000 sf @ $200.00 sf)	$2.4 mil
Total:	**$10.7 mil**

B ISLAND PARK HOUSING	
Housing (232 du @ $250,000 du)	$58.0 mil
Parking (232 sp @ $25,000 sp)	5.8 mil
Total:	**$63.8 mil**

C A AND MAIN OFFICE, PARKING AND RETAIL	
Office (67,500 sf @ $160.00 sf)	$10.8 mil
Retail (10,000 sf @ $200.00 sf)	$2.0 mil
Parking (279 sp @ $25,000 sp)	$7.0 mil
Total:	**$19.8 mil**

D MAIN AND 5TH OFFICE AND RETAIL	
Office (52,000 sf @ $160.00 sf)	$8.3 mil
Retail (16,000 sf @ $200.00 sf)	$3.2 mil
Total:	**$11.5 mil**

3 Other Projects cont.,

The following Regional Mobility project has been identified as a potential option for improving access into and through downtown.

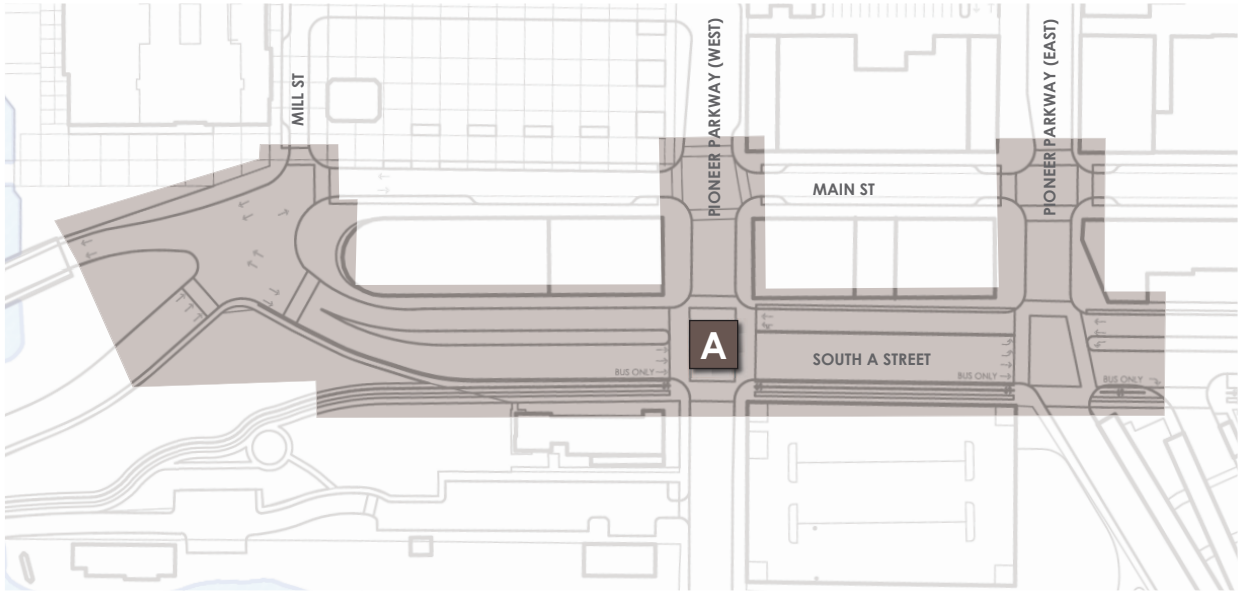
A	SOUTH A MOBILITY CONCEPT OPTION	
	Streets (152,350 sf @ $25.00 sf)	$3.8 mil
	Intersections (5 @ $500,000 ea)	$2.5 mil
	Total:	**$6.3 mil**
	Public Investment:	**$6.3 mil**

Land Values

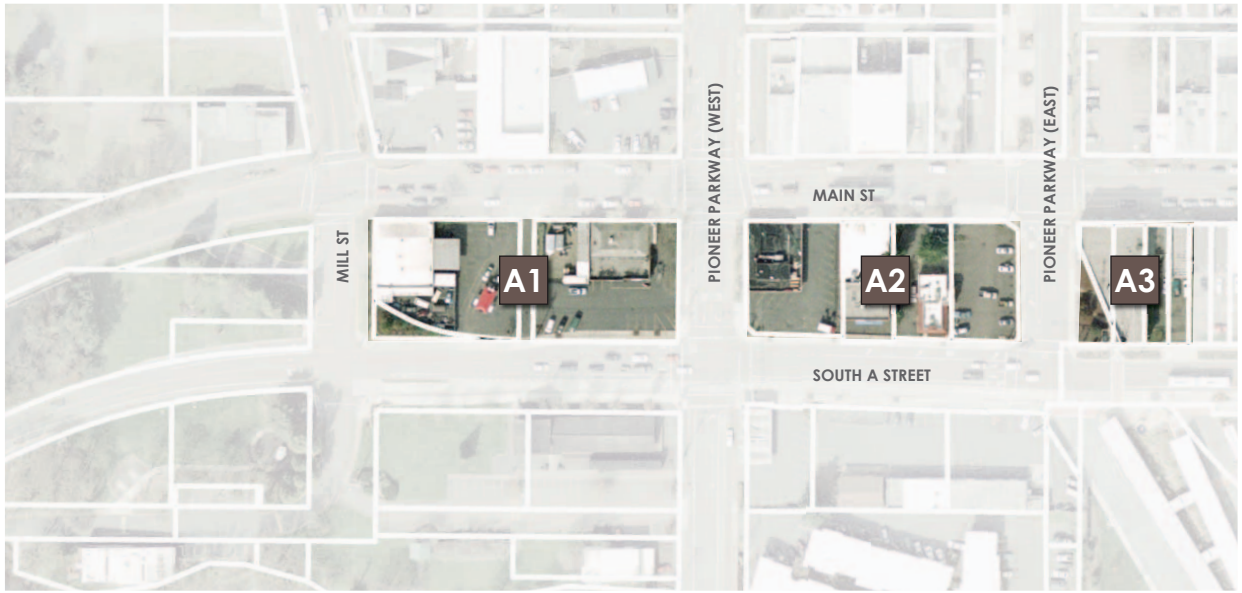
The following table identifies the number of parcels that must be assembled along South A Street and the associated value of all of the parcels to be assembled for each block

A1	2 parcels	$832,109
A2	4 parcels	$1,571,444
A3	6 parcels	$TBD
	Total Value*:	**$2,403,553**

* Values reflects the cost of land and improvements



Proposed Regional Mobility Project



Required Land Assembly for Regional Mobility Projects

Transportation Memorandum-

Existing Transportation Conditions and
Preliminary Alternatives Analysis

DKS Associates
TRANSPORTATION SOLUTIONS

MEMORANDUM

DATE: September 4, 2009

TO: Jason Graf, Crandall Arambula

FROM: Christopher Maciejewski, PE

SUBJECT: **City of Springfield Downtown Plan Existing Transportation Conditions**

The purpose of this memorandum is to document the existing transportation network and traffic operations during the PM peak period in downtown Springfield. Information assembled in this memorandum includes transit information, the presence of sidewalks and bicycle lanes and trails, roadway functional classifications, and intersection operations. Existing intersection operations including volume to capacity ratios, delay and levels of service (LOS) were determined based on the information and Synchro model provided by the City (2007 data).

STUDY AREA

The study area for this effort includes Highway 126B in downtown Springfield bounded by the Willamette River to the west, 14th Street on the east, South A Street on the south and Main Street to the north. Twenty-three intersections on Highway 126B were available for operational analysis with existing City information.

BICYCLES AND PEDESTRIANS

Facilities

Street lighting is provided throughout the study area and pedestrian crossing facilities exist at signalized intersections. Sidewalks are generally present on both sides of Main Street and South A Street. With the exception of 11th Street, the cross streets within the study area also generally have sidewalks on both sides of the street.

There are marked bike lanes within the study area in the following locations:

- Main Street from 14th Street to 10th Street;
- South A Street from Mill Street to beyond the study area;
- 14th Street; Pioneer Parkway East; and
- South of Main Street on Pioneer Parkway West.

TRANSIT FACILITIES

The existing transit service within the City of Springfield is provided by Lane Transit District (LTD). Service is provided weekdays with fixed-route public transit service to Eugene, Springfield, Glenwood, Coburg, and Santa Clara. LTD operates nine routes that service Springfield, including the EmX Bus Rapid Transit (BRT) service between downtown Eugene and downtown Springfield that terminates at the edge of the study area. This service is provided between 6:00 AM and 11:00 PM during the week with arrival rates that vary from every 10 to every 20 minutes.

MOTOR VEHICLES

The motor vehicle system within the downtown study area is composed of a state highway (Highway 126B) and city streets. The Oregon Highway Plan[1] (OHP) identifies Highway 126B as a Statewide Highway. Statewide Highways provide inter-urban and inter-regional mobility and connections to larger urban areas, ports and major recreation areas not served directly by Interstate Highways while also providing connections for intra-urban and intra-regional trips. The segment of Westbound Highway 126B between 10th Street and Mill Street is designated as a Special Transportation Area (STA). A STA is a designated area of compact development on a state highway within an urban growth boundary where the need for appropriate local access outweighs highway mobility considerations, except on designated OHP Freight Routes where through mobility has great importance. The state highway operates as a one-way couplet between Franklin Boulevard and 19th Street.

Currently, the speed limit through the study area varies. On Main Street the speed limit east of 11th Street is 30 mph, it is 20 mph between 11th Street and Mill Street and 35 mph west of Mill Street. The speed limit on South A Street is 35 mph through the study area. All of the intersections in the study area are either unsignalized (2-way stop) or signalized.

On-Street Parking

There is on-street parking along both sides of Main Street from 14th Street west to Mill Street. There is no on-street parking on South A Street within the study area. The streets in the downtown network from 4th Street to 9th Street have on-street parking on both sides of the street.

Traffic Operations

Definition of Traffic Levels of Service

Level of Service (LOS) is used as a measure of effectiveness for intersection operation. It is similar to a "report card" rating based upon average vehicle delay. Level of Service A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. Level of Service D and E are progressively worse peak hour operating conditions. Level of Service F represents conditions where demand has exceeded capacity. This condition is typically evident in long queues and delays.

[1] *1999 Oregon Highway Plan - Amendment*, The Oregon Department of Transportation, July 2005.

The unsignalized intersection level of service calculation evaluates each movement separately to identify problems (typically left turns from side streets). The calculation is based on the average total delay per vehicle for stop-controlled movements (typically on the minor side street or left turn movements). Level of service (LOS) F indicates that there are insufficient gaps of suitable size to allow minor street traffic to safely enter or cross the major street. This is generally evident by long delays and queuing on the minor street. Level of service F may also result in more aggressive driving, with side street vehicles accepting shorter gaps. It should be noted that the major street traffic moves without delay and the LOS F is for side-street or left turns, which may be only a small percentage of the total intersection volume. It is for these reasons that level of service results must be interpreted differently for signalized and unsignalized locations.

The volume to capacity ratio (v/c) is used as a measure of effectiveness for signalized and unsignalized intersection operation. The v/c calculated by dividing the volume entering the intersection by the total capacity (maximum volume the intersection could serve). The v/c describes the amount of intersection capacity that is utilized by the volume. A v/c of 1.0 suggests there is no available capacity at that intersection and not one more vehicle could be accommodated.

> **ODOT Standard** — ODOT operating standards[2] for Statewide Highways inside a UGB and inside an MPO boundary is 0.80 (or 0.85 where there is an STA designation).
>
> **Springfield Standard**—The Eugene and Springfield Area Plan has a planning goal[4] of preventing the occurrence of LOS E on the street and highway system.

Since all study intersections are on Main Street and South A Street, which are ODOT facilities, the results of the traffic operations analysis will be compared to the ODOT standards.

Existing Operating Conditions

The City's year 2007 PM peak hour Synchro file was used to document existing operations conditions. Although traffic signal timing has been updated since 2007, the 2007 Synchro file was determined to be a reasonable estimate of existing operations as traffic volumes have likely decreased since 2007 and the signal timing changes would have minimal impact on intersection capacity. Table 1 summarizes the existing weekday PM peak hour study intersection operation conditions. As listed, each of the intersections in the study area currently meets ODOT mobility standards.

[2] *1999 Oregon Highway Plan - Amendment*, The Oregon Department of Transportation, July 2005.
[3] *Regional Transportation Plan*, Central Lane Metropolitan Planning Organization, 2004
[4] *Eugene Springfield Area 2000 Transportation Plan*, Transportation Planning Committee

Table 1: Existing Weekday Intersection Level of Service (PM Peak Hour)

Intersection	*LOS*	*Delay (sec)*	*V/C*	*Jurisdiction*	*Standard Met*
Signalized Intersection					
Main Street/Mill Street	A	9.3	0.64	ODOT	Y
Main Street/Pioneer Pkwy West	A	9.9	0.58	ODOT	Y
Main Street/Pioneer Pkwy East	A	7.4	0.58	ODOT	Y
Main Street/5th Street	A	7.6	0.62	ODOT	Y
Main Street/6th Street	A	5.9	0.44	ODOT	Y
Main Street/7th Street	A	5.1	0.41	ODOT	Y
Main Street/10th Street	A	9.9	0.41	ODOT	Y
Main Street/14th Street	B	16.1	0.51	ODOT	Y
South A Street/S. 2nd Street	A	9.5	0.48	ODOT	Y
South A Street/LTD Station	A	7.7	0.53	ODOT	Y
South A Street/5th Street	A	5.5	0.46	ODOT	Y
South A Street/14th Street	A	6.4	0.49	ODOT	Y
Unsignalized Intersection					
Main Street/4th Street	C	3.1	0.48	ODOT	Y
Main Street/8th Street	C	1.3	0.17	ODOT	Y
Main Street/9th Street	C	1.2	0.14	ODOT	Y
Main Street/12th Street	B	0.1	0.01	ODOT	Y
South A Street/Mill Street	A/E	2.6	0.39	ODOT	Y
South A Street/4th Street	B	0.5	0.09	ODOT	Y
South A Street/6th Street	A	0.3	0.03	ODOT	Y
South A Street/7th Street	B	0.5	0.06	ODOT	Y
South A Street/8th Street	B	0.3	0.04	ODOT	Y
South A Street/9th Street	B	0.5	0.08	ODOT	Y
South A Street/10th Street	B	0.7	0.1	ODOT	Y

Notes: A/A=major street LOS/minor street LOS
Signalized and all-way stop delay = average vehicle delay in seconds for entire intersection
Unsignalized delay = highest minor street approach delay

DKS Associates
TRANSPORTATION SOLUTIONS

MEMORANDUM

DATE: September 17, 2009

TO: Jason Graf, Crandall Arambula

FROM: Chris Maciejewski, P.E.

SUBJECT: **Springfield Downtown Plan – Preliminary Alternatives Analysis**

P09080-000

The purpose of this memorandum is to summarize the sketch-level transportation analysis conducted to evaluate the potential feasibility of modifying Highway 126B in downtown Springfield. The proposed alternative includes widening South A Street to accommodate two-way highway traffic flow in order to convert Main Street to a local two-way roadway that can support redevelopment activity. The following sections describe the assumptions used to conduct the feasibility analysis, as well as preliminary findings. The findings described in this memorandum should not be considered formal transportation analysis suitable for documenting highway performance or guiding roadway design. The findings should be used to guide refinement of the of roadway improvement alternative.

Key Assumptions and Methods

To conduct a feasibility analysis of the potential Highway 126B alternative, the following assumptions were utilized:

- Existing City traffic volume information (year 2006) and Synchro operations analysis files adequately represent year 2009 conditions for the purposes of this analysis
- Sketch-level analysis of the potential Highway 126B alternative utilizing the existing conditions information is reasonable to determine approximate operations results for fatal flaw evaluation
- Existing conditions traffic volumes in downtown were manually shifted for the potential improvement alternative with estimations of through highway traffic vs. local circulation traffic. All estimated highway through traffic was assumed to use South A Street. Local circulation traffic was assumed to favor Main Street for short trips through downtown (e.g., one or two blocks of east-west travel) and South A Street for longer trips through downtown (e.g., four or five blocks of east-west travel)

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Preliminary Findings

Based on the key assumptions and methods, sketch-level transportation analysis was conducted for the potential Highway 126B alternative utilizing Synchro for operations analysis and ODOT's roundabout capacity analysis spreadsheet for roundabout intersections. Based on this analysis, the following observations were made:

- Based on the assumed volume shift to South A Street, it appears Main Street volumes may be low enough to allow operation as a stop-controlled corridor (not signal controlled). However, the analysis as this stage does not take into account additional traffic volume from potential redevelopment activity.
- The intersection of South A Street and Pioneer Parkway East is critical and appears to require a second eastbound left turn lane.
- If a roundabout configuration is desired at the west end of downtown, the following modifications to the potential alternative may be required:
    - Modify the eastbound South A Street approach to have three lanes. Two lanes would be slip-lanes to continue east on South A Street. The third lane would enter the roundabout and provide circulation to Main Street.
    - Modify the westbound Main Street approach to have two entering lanes.
    - Remove the traffic signal at South A Street/Pioneer Parkway West-2nd Street to avoid queuing back to the roundabout. Construct a median to limit the southbound approach to right-in/right-out movements and limit the northbound approach to right-out only. Full access to the areas south of South A Street would need to be served through 5th Street, which should be reviewed for adequacy to handle the increase in traffic volumes.
    - Restrict roundabout circulation for vehicles entering westbound from Main Street to not allow a connection to South A Street (a U-turn movement would be allowed back to Main Street).
- If the conditions described for the roundabout configuration are not desired, a traffic signal controlled configuration appears feasible at the west end of downtown.
- In general, it appears that the capacity provided by the potential Highway 126B alternative provides similar operations performance as the existing couplet configuration, with v/c ratios in the 0.35 to 0.65 range.

These findings to not consider long-term traffic operations conditions and are not adequate to guide final project selection or roadway design. Formal traffic analysis will be required when a preferred alternative is developed to provide adequate findings for review from ODOT and the City.

Stormwater Best Management Practices-
A Technical Review and Management Alternatives

Springfield Downtown Urban Design Plan
Stormwater Best Management Practices-
A Stormwater Management Technical Review and Recommended Stormwater Management Alternatives
January 12, 2010 (Updated April 6, 2010)

Introduction:
Crandall Arambula has been hired by the City of Springfield to develop a plan for Revitalization of the Downtown Core. Harper Houf Peterson Righellis has been asked by Crandall Arambula to identify a best management practices strategy to address water quality and quantity for redevelopment within the downtown plan study area. This memo will discuss alternatives for stormwater quality treatment and challenges and opportunities related to the downtown revitalization concept plan developed by Crandall Arambula.

Current Stormwater Regulations:
The City of Springfield has a stormwater management plan associated with the Municipal General NPDES Storm Water Permit developed in 2004 that includes stormwater best management practices. Best management practices are generally defined as approaches to managing stormwater that reduce negative impacts of runoff on the receiving streams. This plan also included a requirement for "post-construction stormwater management for new development and redevelopment" that referenced the development code and engineering design standards for detailed requirements.

The City of Springfield Engineering Design Standards for Water Quality references the City of Portland Bureau of Environmental Services (BES) and Clean Water Services Standards (CWS). These standards require all public and private redevelopment projects to include a stormwater system with water quality treatment systems that reduce the total suspended solids by 70% for the runoff generated by that development.

More recently in 2008 a Stormwater Facilities Masterplan was developed that identifies areas of deficiencies and opportunities for water quality treatment. The masterplan states that water quality impacts from streets and parking lots could be reduced by the use of green streets and pervious pavements.

Existing conditions:
The Downtown revitalization study area is approximately 10 blocks east to west, bordered on the east by 10th Street and on the west by the Willamette River and approximately 4 blocks north to south, bordered on the north by B Street and on the south by B Street South, Mill Pond and Mill Race. This downtown area has traditional curb and gutter street system with inlets and catch basins that convey the stormwater through storm pipes to outlets that discharge to the Willamette River. The study area is generally flat from north to south with a slight fall from east to west. The masterplan stated that storm pipe slopes in the area are as flat

as 0.5%. The project area is delineated and labeled as Core Area on Exhibit 1 at the end of the memo.

According to the masterplan the soils are generally Hydrologic Group C (coburg-urban land complex and oxley-urban land complex). These soils generally have low infiltration rates. During wet weather typically October to April the soils are saturated and the groundwater levels are closer to the surface (as close as 3'-5' below ground surface).

Willamette River:
The Willamette River is the primary receiving body of water for improvements within the project area. The 2004 stormwater management report noted that the river was listed on the 303(d) list as water quality limited for high temperatures and that the water exceeded the safety standard for mercury. The stormwater master plan identified that the river had problems with high temperature, mercury, and bacteria. The river has spring Chinook salmon and steelhead as listed fish species. The City of Springfield Water Quality Design Standards also state that the Willamette River exceeds the warm weather temperature standard and the City promotes the following design features to reduce the thermal loadings in the stormwater including: Large canopy tree planting, surface infiltration of "clean" roof runoff stormwater, underground injection of "clean" roof runoff stormwater, and decreased percentage of impervious surfaces on site. These best management practices are discussed later in the document related to future development.

Best Management Practices- A Strategy to Address Water Quality and Quantity for Redevelopment
The traditional approach to stormwater management for a street improvement project or site development project was to get the stormwater away from the site as quickly as possible. The stormwater would then be treated at regional facilities downstream. The regional facilities require large areas of land which is a significant cost near a downtown area, regional facilities require significant maintenance, and are typically an eye sore.

An alternative to a regional facility dominated system would be an integrated system reliant on treatment of stormwater throughout the stormwater basin through the design of public facilities such as planters, swales, and pervious paving within the public right of way. Private developments would provide water quality treatment on site through low impact design and source controls including green roofs and pervious pavements and structural treatment controls such as filter catch basins, treatment manholes, and water quality swales. The following are recommended alternatives for stormwater management that can be implemented through an integrated management system of public facilities and private development.

Public Facilities:
A coordinated stormwater management plan for public facilities would incorporate green streets, pervious paving, and regional water quality facilities, Based on the limited space within Springfield's street rights-of-ways a combination approach that would include stormwater management adjacent to the source of the stormwater runoff with green street design and treatment downstream at the outfall may be the best stormwater management approach and supports the City of Springfield Stormwater Facilities Masterplan (2008). Two proposed regional water quality facilities near the project area were identified in the Masterplan and are labeled as Higher Priority CIP Areas No. 12 and 16 on Exhibit 2.

Green Streets:
Green streets are visible to the public promoting a public discussion about stormwater including being able to see trash accumulate and being able to remove it. Green Streets also use space already dedicated for landscape for a dual purpose. If green streets are not able to handle the water quality treatment for the entire roadway they act as pretreatment, cutting down on the maintenance cost of the downstream storm system related to sedimentation and debris. The main goal of green streets is to retain and provide opportunities for infiltration of stormwater at its source to help decrease the impacts to the infrastructure and environment downstream from the source. The ideal conditions for implementing green street design include available space within the public right of way, flat terrain, and highly permeable soils. The Downtown Plan project area is flat and there is potential for a green street design within the typical section, therefore the only limitation is the poor soil condition. Green street development standards as a BMP can still be implemented but the low infiltration rates will decrease effectiveness and increase costs and risk of failure. Further geotechnical investigation would be required to design the planter areas within the project area and an underdrain system may be required. The planter design should be coordinated with the City of Springfield Drinking Water Protection Plan which limits infiltration in certain areas.

Benefits of Green Streets and Pervious Pavement
Both green streets and pervious paving provide opportunities for treating smaller amounts of stormwater closer to the source. Green street facilities provide a creative and functional use of the traditional landscape strips and often require less maintenance than traditional landscape strips in regards to irrigation, weeding, and mowing. Green street facilities for water quality treatment may also be easier to maintain than traditional water quality ponds because they are located adjacent to a paved roadway and easy to access when maintenance is required. Green street planters are small enough to be open to the public and allow for some public maintenance.

Green street treatment at the source of the stormwater will reduce the water quality treatment required at a regional facility. The green street planters will replace the bioswale that is typically located upstream of a detention pond or an outfall if detention is not required.

Proposed Street Sections

The street sections for the Springfield Area are included at the end of this memo for reference. All of the proposed street sections provide opportunities for Green Street Best Management Practices and include a minimal planter strip/landscape strip of 4' with the option to combine the 2' wide and 4' wide landscape areas for a width of 6'. The minimum planter width in accordance with City of Portland BES Standards is 3 feet. Depending on how much impervious area is draining to the planters 3' is an adequate width. If parallel parking is proposed adjacent to the flow through planters, the planters are set back from the curb 30" to allow people a space to step when they are getting out of their cars or planters are installed in curb extensions that are used to define the parking areas. (See photo exhibit section for examples of planter configurations at the end of this memo)

The minimum swale width in accordance with BES Standards is 8 feet. Planters are more efficient than swales and typically require a surface area that is 6% of the impervious area to be treated in the planters. Swales require a larger area in order to accommodate the side slopes of the swales and require a surface area that is 12% of the impervious area to be treated. Green street planters typically are constructed with concrete side walls and curbs and fit better in an urban setting than swales which are more often seen in residential areas. In addition, because the planters require a smaller surface area than swales they can provide water quality treatment within the constraints of existing road right of way.

The street section for **Main Street** will serve as the pedestrian priority "retail street" with two travel lanes and parallel parking on both sides of the street. *(see typical Main Street Section)* The 12' (+/-) sidewalk extends from the curb to the building face serving walk-by traffic and outdoor seating. There will be an opportunity for flow through planters at proposed curb extensions near intersections that will delineate the on street parking, but other than this the storm system will remain as traditional inlets and storm pipe.

The street section proposed for **South A Street** provides an opportunity for Green Street Best Management Practices. *(see typical South A Street Sections)* The planter strip between the sidewalk and the bikeway is currently shown as 4 feet wide. Due to the wide street section and large amount of impervious surface of A Street, it doesn't appear that a green street planter would provide enough surface area for water quality treatment for the entire impervious area but it would provide partial treatment. The flow through planters will allow additional opportunities for filtration, sedimentation, and slow the peak flow rates prior to

connection to the existing public storm sewer system. The planter median shown on A Street would also provide opportunities for green street design.

Pervious pavement (asphalt and concrete) for the sidewalk and the bikeway would also be a low impact development design alternative. Due to lower infiltration rates, the pavement sections would require an aggregate base for stormwater retention and a high flow bypass system with a perforated pipe that would connect to the main storm line.

The proposed street section for **North A Street** provides the same opportunities for flow through planters and pervious pavement that the South A Street section provides. The main difference between South and North A Street is that North A Street does not have a center planter median, but North A Street does have on street parking which would allow for flow through planters at curb extensions near the intersections that would delineate the on street parking *(see typical North A Street Section).*

Mill Plaza

The Mill Plaza provides an opportunity for multiple BMP's to be utilized to provide stormwater management for the large hard surface areas of the plaza *(see Mill Plaza concept plan in Exhibit 8).* The plaza area would be a good location to use porous or pervious materials and landscaping to reduce the impervious surface and thus reduce the amount of area to be managed.

Landscaping and tree plantings should be maximized where possible to provide both a porous surface for infiltration of stormwater as well as shade to reduce heat island effects. Porous pavers are best located in low pedestrian-traffic areas such as between tree wells and can be used in low automobile-traffic areas such as parking spaces.

The Plaza is bordered by two public roadways, Main Street and Pioneer Parkway. The stormwater management of these two street frontages can be achieved through the use of vegetated flow through planters that receive roadway and sidewalk runoff. Runoff can be reduced by utilizing pervious pavement for the sidewalk.

The Mill Plaza internal area can be managed by several of the same type of facilities including planters and alternative paving materials, however the location, integration with surrounding uses, and aesthetics of these facilities will need to be carefully considered against the planned use of the site. Flow through planter facilities are an effective facility, but other surface vegetated facilities, such as infiltration basins and filter strips, can also be utilized in order to find the best fit for the surrounding use. Surface vegetated facilities are typically well suited for stormwater management since they provide both retention and treatment. Reducing the impervious footprint of this area will also be a highly effective tool. There are many alternatives to traditional impervious surfaces

such as landscaping, porous pavers and pervious concrete that would be good options for this site.

Public Facilities Alternatives Summary:
The proposed South A Street, Main Street and North A Street typical sections can take advantage of the following benefits of green streets:

- smaller water quality facilities closer to the source of runoff
- reduction of size of offsite regional facilities
- integration of stormwater visually and functionally into planter strips
- valuable teaching tool for community and schools
- stormwater peak flows are decreased at connection to public storm system due to increase in time of concentration

Regional water quality facilities:
The Stormwater Facilities Masterplan identified two locations as regional water quality facilities adjacent to the project area. These facilities would be owned and maintained by the City. One is near Island Park at the west edge of the project area and the other one is near Mill Pond and Mill Race located south of the project area.

There is currently a revegetation project under construction at Mill Pond. The Army CORPS of Engineers in conjunction with the City has developed a plan to eliminate the pond to return the area to a more natural state of meandering streams and wetlands that would allow a greater volume for flood attenuation and detention prior to discharge to the Willamette River. The plan includes wetlands surrounding the new channel to provide stormwater retention and treatment. The wetlands would allow for sedimentation and filtration to remove nutrients and heavy metals. The concept plan is included as Exhibit 9 at the end of this memo. The stormwater from the project area currently discharges downstream of the Mill Pond project on the northwest side of the railroad tracks.

In the Stormwater Facilities Masterplan, the majority of the project area is included in the water quality basin for the proposed Island Park Facility. The existing conveyance system within the project area discharges to the west near the location of this proposed facility. This regional water quality facility is listed as a high priority CIP project in the masterplan. The masterplan notes that the City would have to acquire property to construct the facility and the construction costs listed in the report for the facility are around $1,500,000.

Private Properties:
Ideally, a regional water quality facility would have the capacity to treat additional impervious area created by redevelopment upstream, but water quality controls on site would reduce the amount of treatment area required downstream. This will help ensure that redevelopment is not constrained by lack of planning or facilities.

Stormwater management can be a combination of multiple elements including Low Impact Design (preservation of natural components of a stormwater system, including natural channels and wetlands and can also refer to preservation of existing vegetation), source control, and structural treatment control measures.

Structural treatment controls are typically what is utilized to provide water quality treatment for site development in an urban setting. Some examples of structural controls are vegetated swales, vegetated buffer strips, storm filter catch basins and vaults, vortex manholes, green roofs, flow through planter boxes for roof drains, and rain gardens. Often these water quality controls are combined and used in series to provide the required 70% total suspended solid removal requirement. These water quality controls on development sites are privately owned. (See photo exhibit section at the end of the memo for examples of storm filter catch basins, vaults and vortex manholes).

The results of the City Stormwater Quality Technology Program should be considered when refining the list of structural treatment controls. The program is listed in the stormwater management plan and involves the identification and testing of products and materials for water quality treatment.

EXHIBIT 1

Areas of Influence
Core Area
Willamette
River
CITY HALL
FRANKLIN BLVD
ASPEN ST
10TH ST
G ST
E ST
C ST
A ST
MAIN ST
SOUTH A ST
2ND ST
3RD ST
4TH ST
5TH ST
6TH ST
7TH ST
8TH ST
9TH ST

EXHIBIT 2

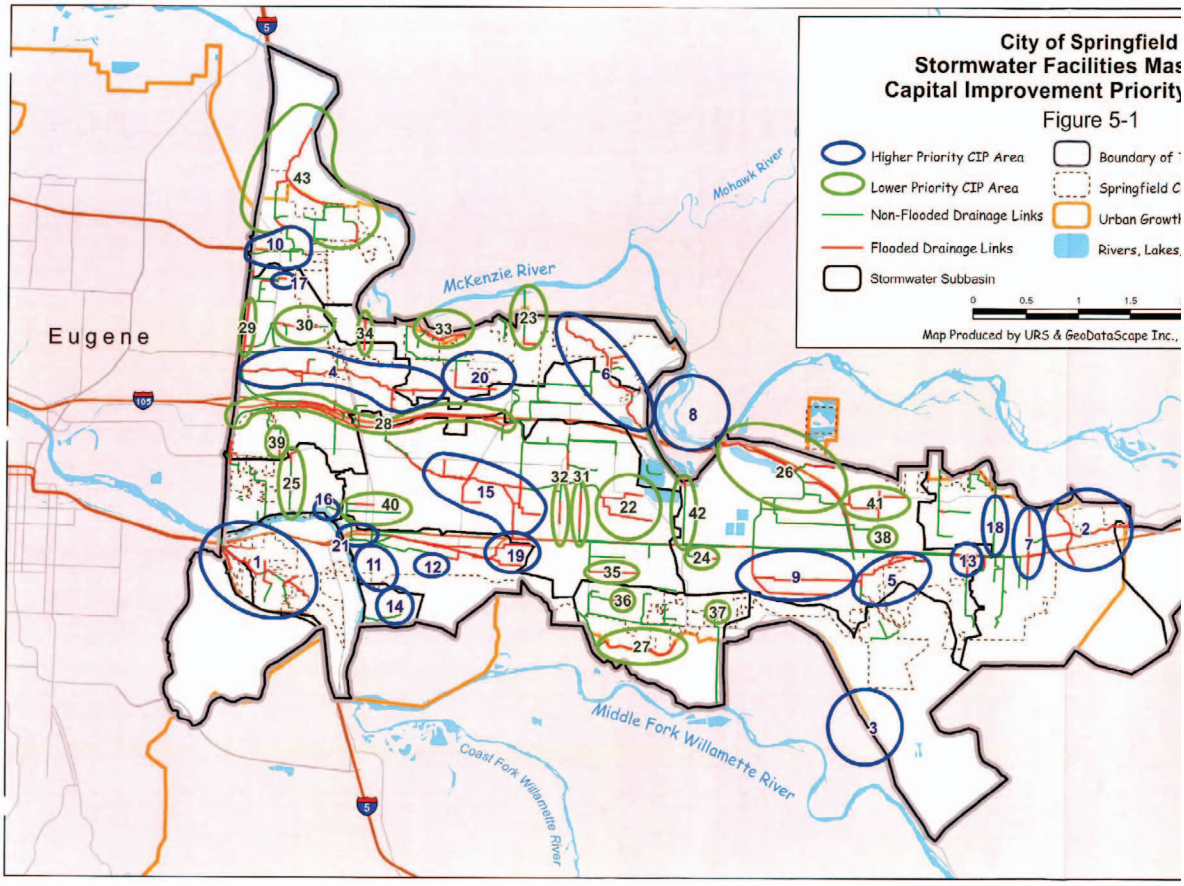

City of Springfield
Stormwater Facilities Mas
Capital Improvement Priority
Figure 5-1
Higher Priority CIP Area
Lower Priority CIP Area
Non-Flooded Drainage Links
Flooded Drainage Links
Stormwater Subbasin
Boundary of
Springfield C
Urban Growth
Rivers, Lakes,
0 0.5 1 1.5
Map Produced by URS & GeoDataScape Inc.,
Eugene
McKenzie River
Mohawk River
Middle Fork Willamette River
Coast Fork Willamette River

EXHIBIT 3

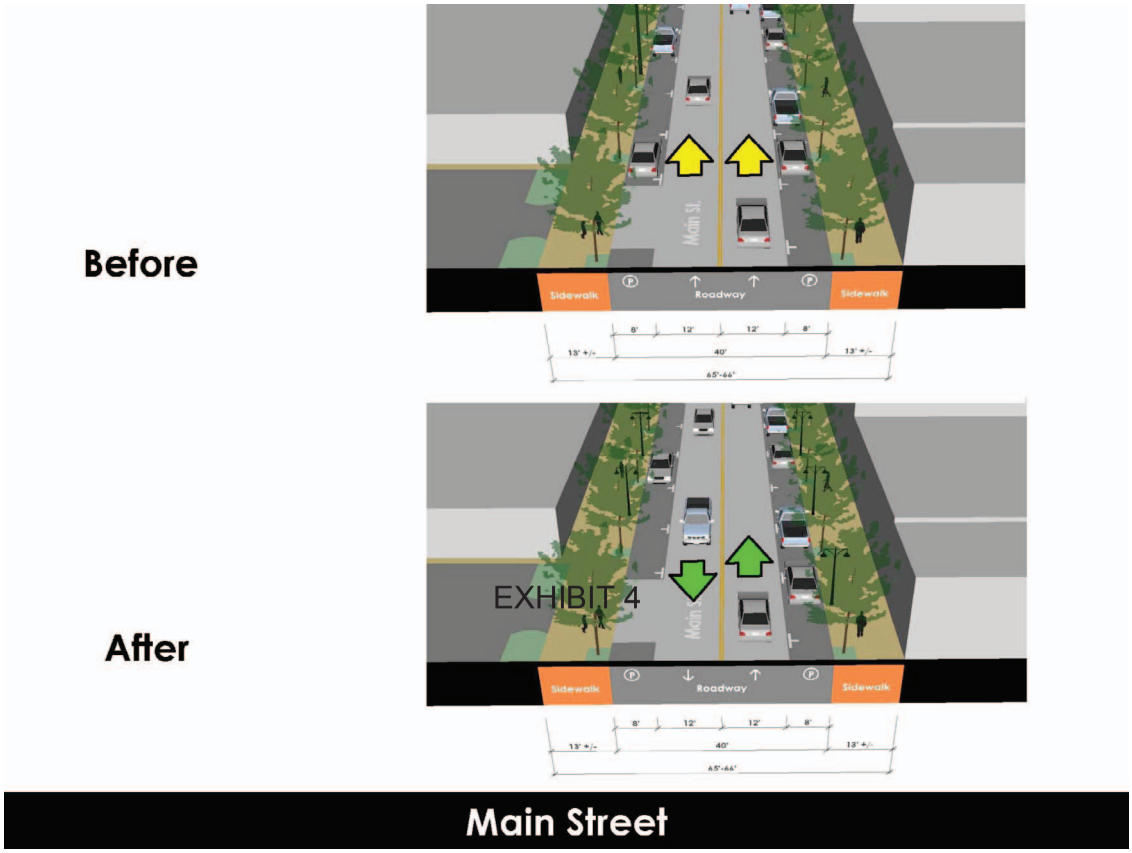
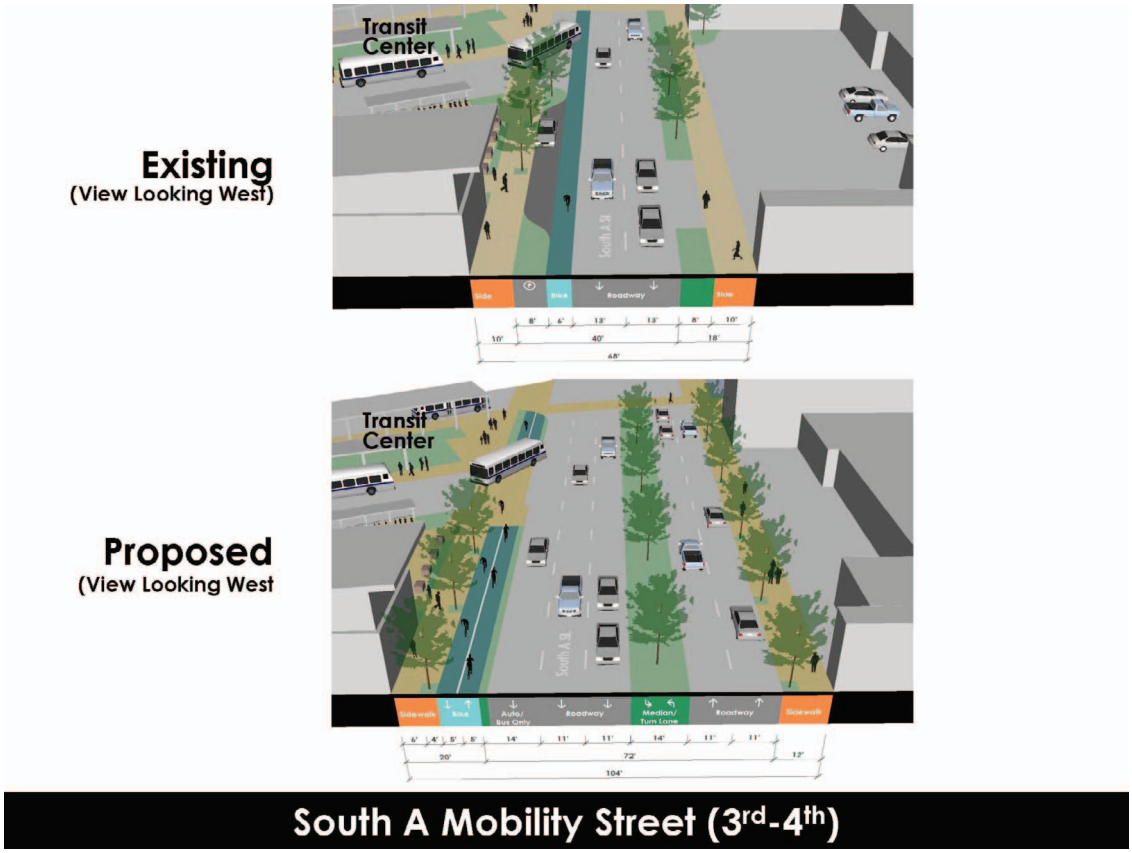
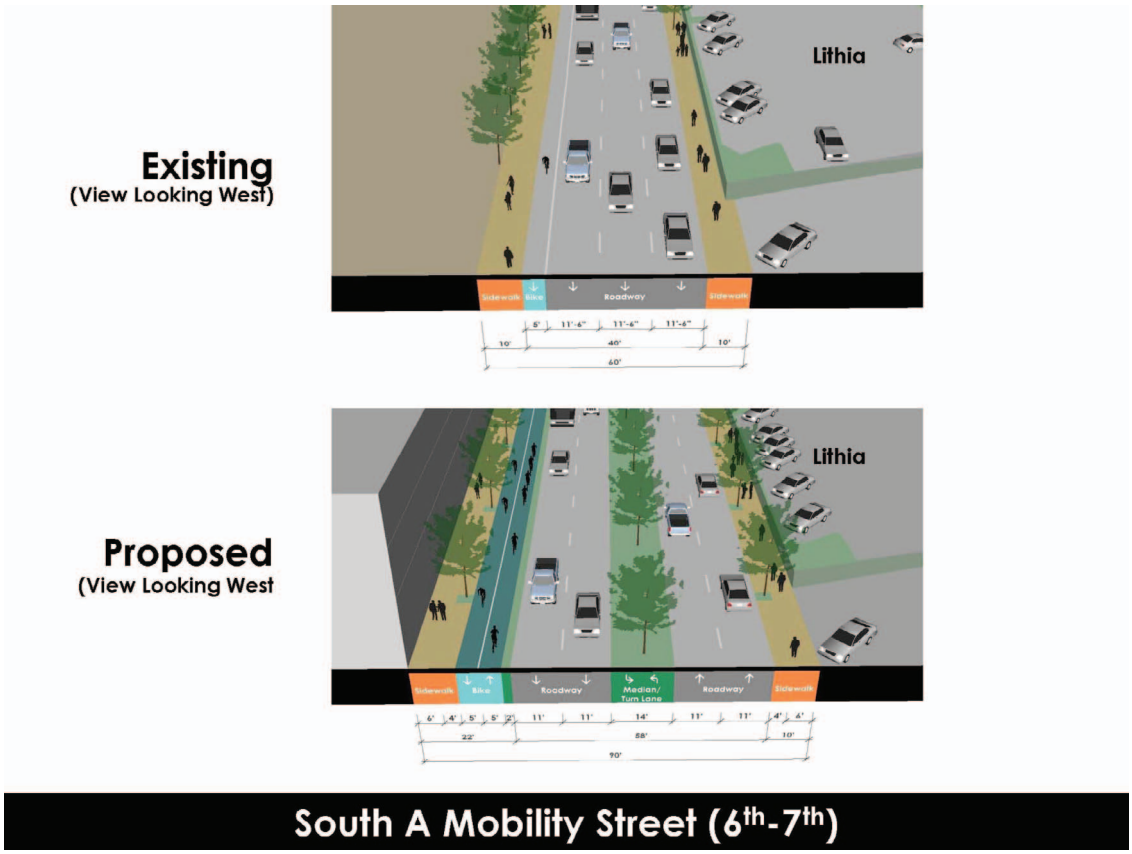

Before
Main St.
Sidewalk
Roadway
Sidewalk
8'
12'
12'
8'
13' +/-
40'
13' +/-
65'-66'
After
EXHIBIT 4
Main
Sidewalk
Roadway
Sidewalk
8'
12'
12'
8'
13' +/-
40'
13' +/-
65'-66'
Main Street

EXHIBIT 4



South A Mobility Street (3rd-4th)

EXHIBIT 5



South A Mobility Street (6th-7th)

EXHIBIT 6

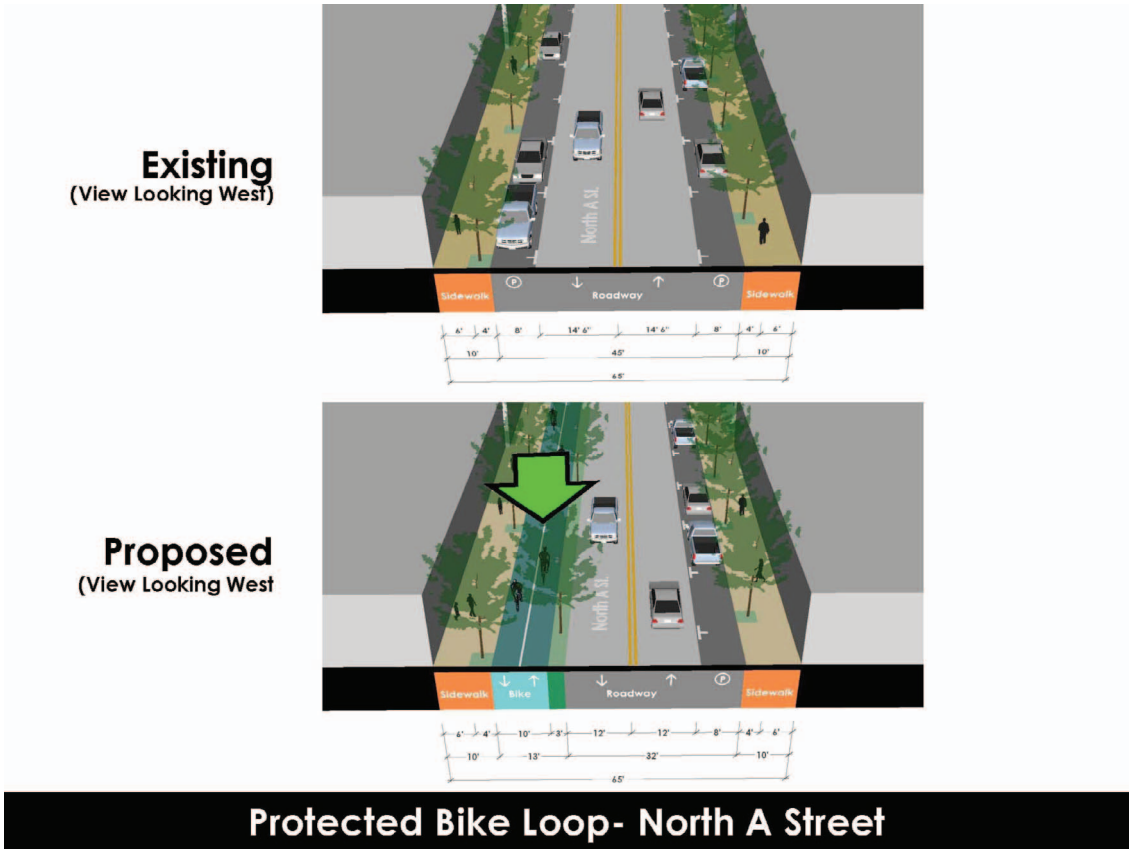
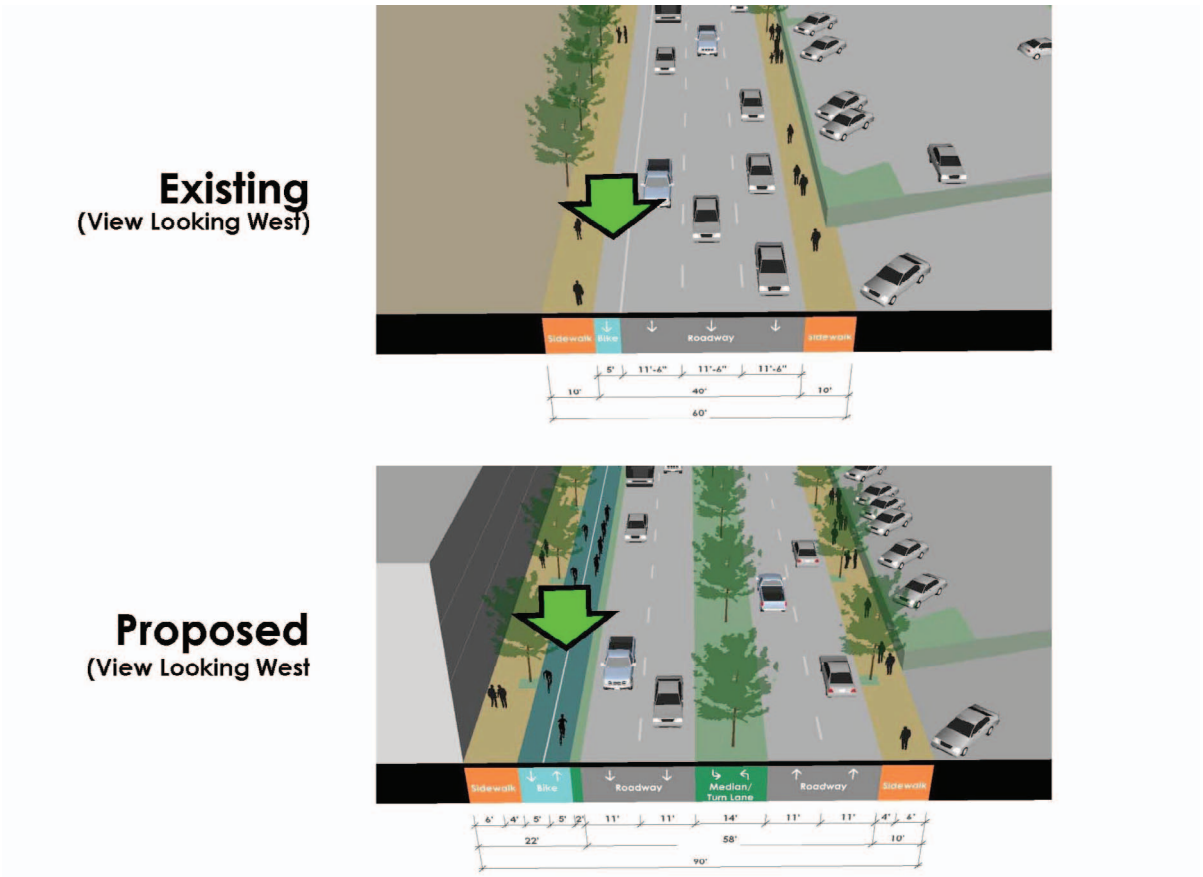

Existing
(View Looking West)
North A St.
Sidewalk
Roadway
Sidewalk
Proposed
(View Looking West
North A St.
Sidewalk
Bike
Roadway
Sidewalk
Protected Bike Loop- North A Street

EXHIBIT 7



Protected Bike Loop- South A Street 6th-7th

EXHIBIT 8

Mill Plaza- Looking West from Pioneer Parkway

EXHIBIT 9

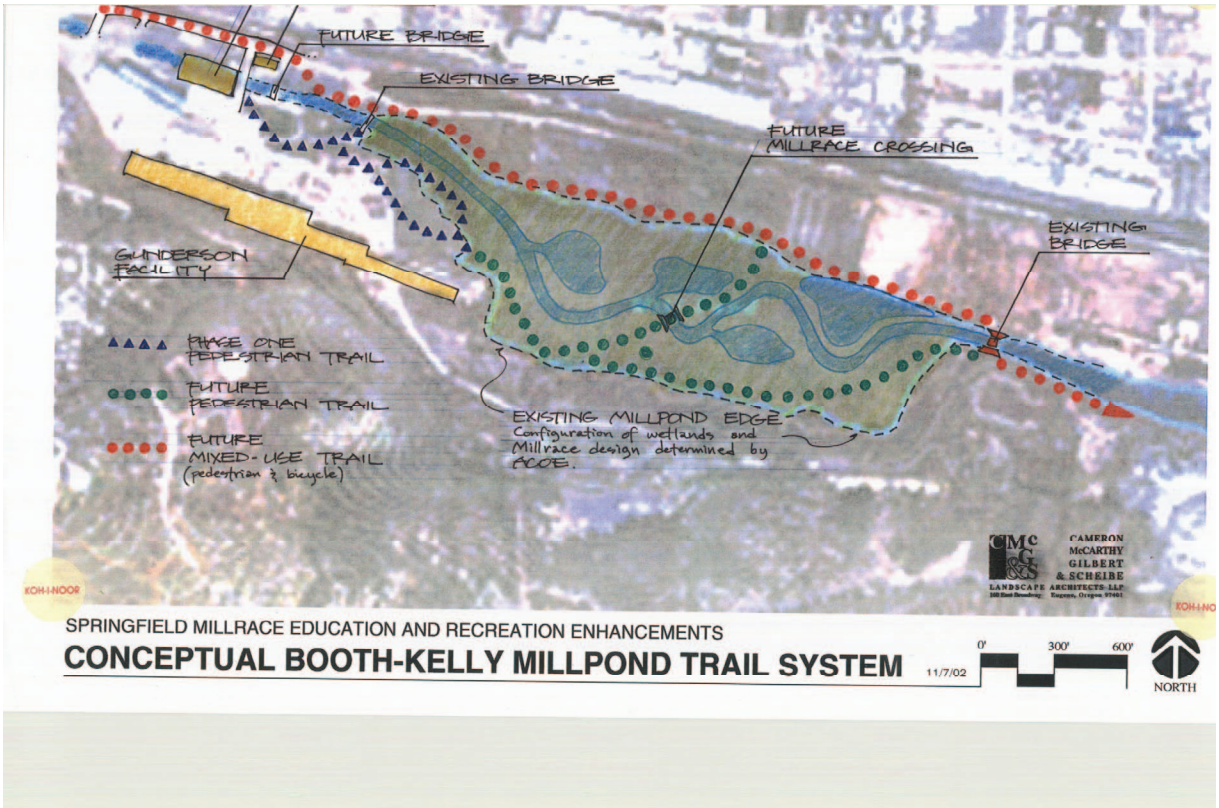

FUTURE BRIDGE
EXISTING BRIDGE
FUTURE MILLRACE CROSSING
EXISTING BRIDGE
GUNDERSON FACILITY
PHASE ONE PEDESTRIAN TRAIL
FUTURE PEDESTRIAN TRAIL
FUTURE MIXED-USE TRAIL (pedestrian & bicycle)
EXISTING MILLPOND EDGE
Configuration of wetlands and Millrace design determined by ACOE.
CAMERON McCARTHY GILBERT & SCHEIBE
LANDSCAPE ARCHITECTS LLP
KOH-I-NOOR
SPRINGFIELD MILLRACE EDUCATION AND RECREATION ENHANCEMENTS
CONCEPTUAL BOOTH-KELLY MILLPOND TRAIL SYSTEM
11/7/02
0'
300'
600'
NORTH

Photo Exhibits

Planter

Planter with parking

Planter in curb extension

Mechanical Water Quality Treatment

Mechanical Water Quality Treatment

Mechanical Water Quality Treatment

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