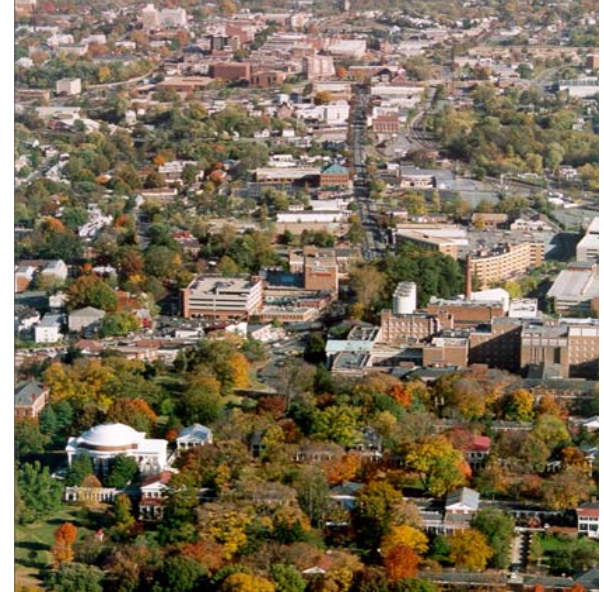


Wallace Roberts & Todd, LLC  
Kimley Horn Associates, Inc & Okerland Associates



# West Main Street

Charlottesville, Virginia

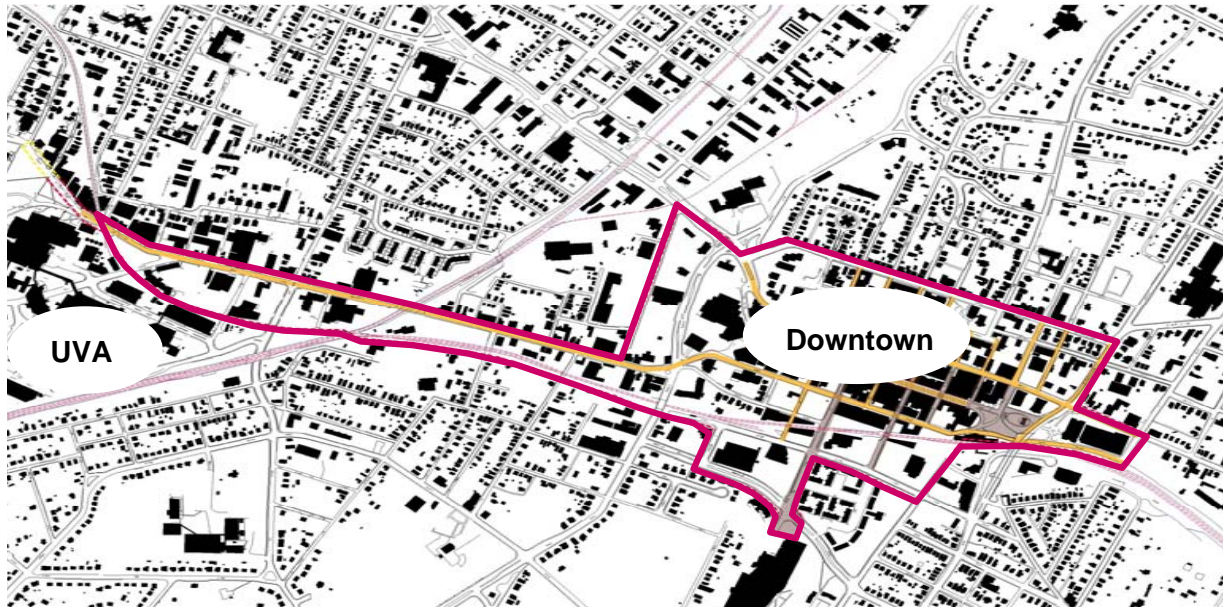


Open Space Concept &  
Streetscape Schematics

November, 2004



View towards UVA



Overall Urban Open Space Study Area

## Purpose

In 2001 the City of Charlottesville retained Wallace Roberts & Todd, LLC to prepare comprehensive urban open space recommendations for the City's downtown, to include West Main Street from the Mall to the University of Virginia.

This report summarizes basic urban design and streetscape recommendations for the long-term use of West Main as the primary connector from UVA to the Downtown, and as a key potential development and transit corridor.

The recommendations contained herein followed a long period of analysis, assessment of transit alternatives, the positing of likely development scenarios, and the substantial engagement of stakeholders. However, they do not constitute a final design direction, as further study and evaluation of development and transit feasibilities remain an on-going activity.



## The Challenge



Typical 2-lane section with bike lane

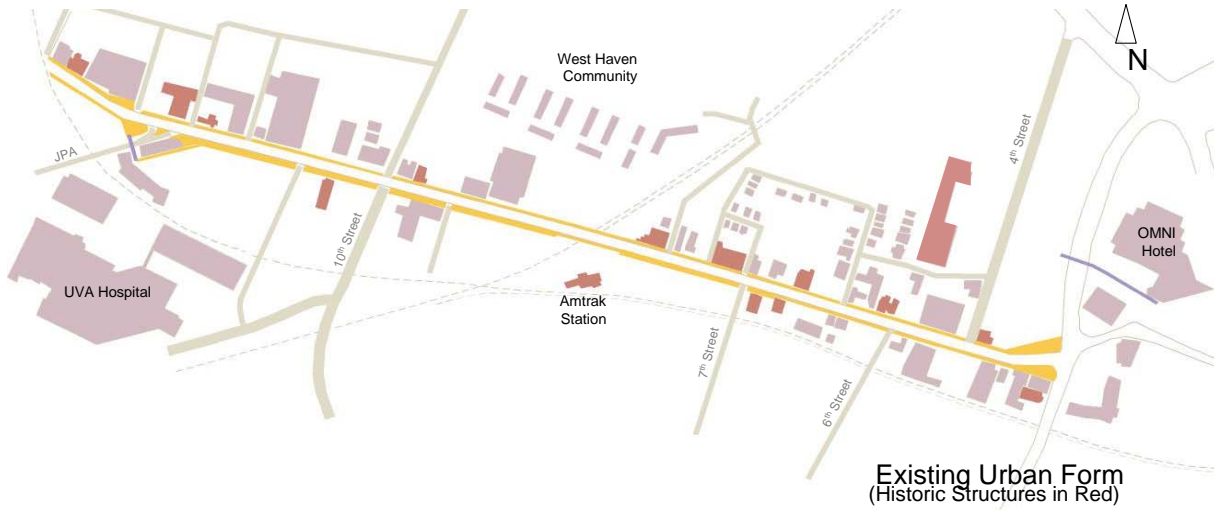


Principal—and only—East-West cross-town Corridors

Of the three East-West corridors that link the Downtown to the University of Virginia and Route 29—Preston, Cherry and West Main Streets—the latter is the only one that provides direct connectivity, and as a result it is heavily used and often congested.

As a historic road with a narrow, 60-foot right-of-way and with quaint buildings pressed right to it, West Main Street offers little room for either vehicular or pedestrian expansion. On the plus side, the very conditions that limit circulation create a desirable scale and ambience for restaurants, cafes, retail establishments and their attendant pedestrian activity.

The objective of the open space concept and streetscape design is to preserve and enhance the Street's positive urban qualities while setting forth recommendations that can improve vehicular and pedestrian circulation.



## Urban Design Scenario

To properly address the preceding objective, the City expanded the scope of the initial open space study to include overall urban form, mass and land use on the West Main corridor, especially in the area between JPA and 10th Street where UVA anticipates and expansion to their Medical Campus.

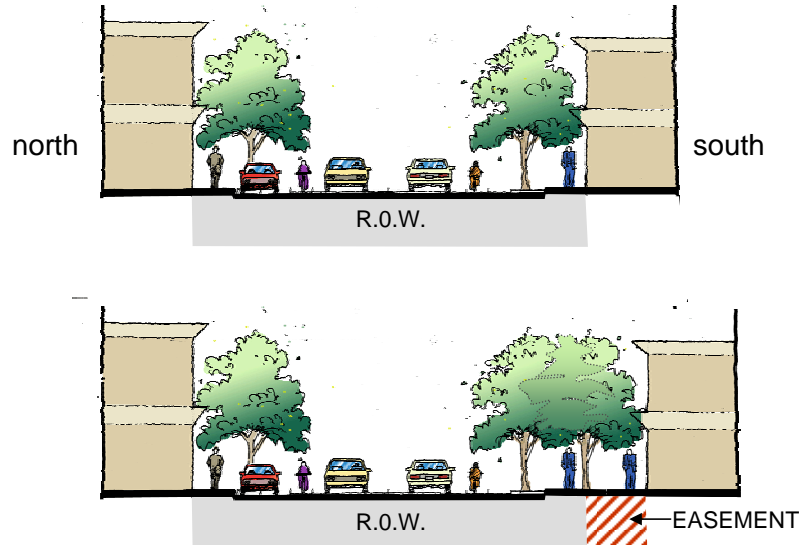
The following pages advance basic urban design concepts that have inform the streetscape design.

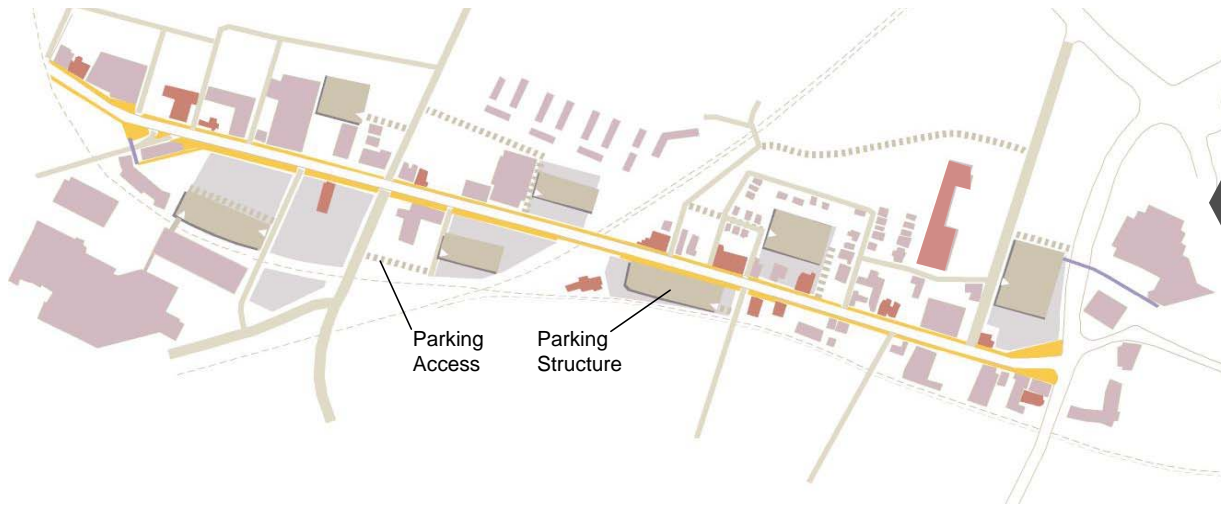
***The key recommendation is to secure an easement from new developments to expand the sidewalk area on the south side of the Street.***

The South side was chosen owing to the larger development parcels that could, through coordinated design, more readily accept—and benefit from—a wider sidewalk.

Varying from 14 to 18 feet, the proposed easement would create a tree-lined promenade connecting UVA to the Downtown and also add space for outdoor dining and other sidewalk amenities.

More detailed illustrations of this recommendation are included in the Streetscape Schematics portion of this report.

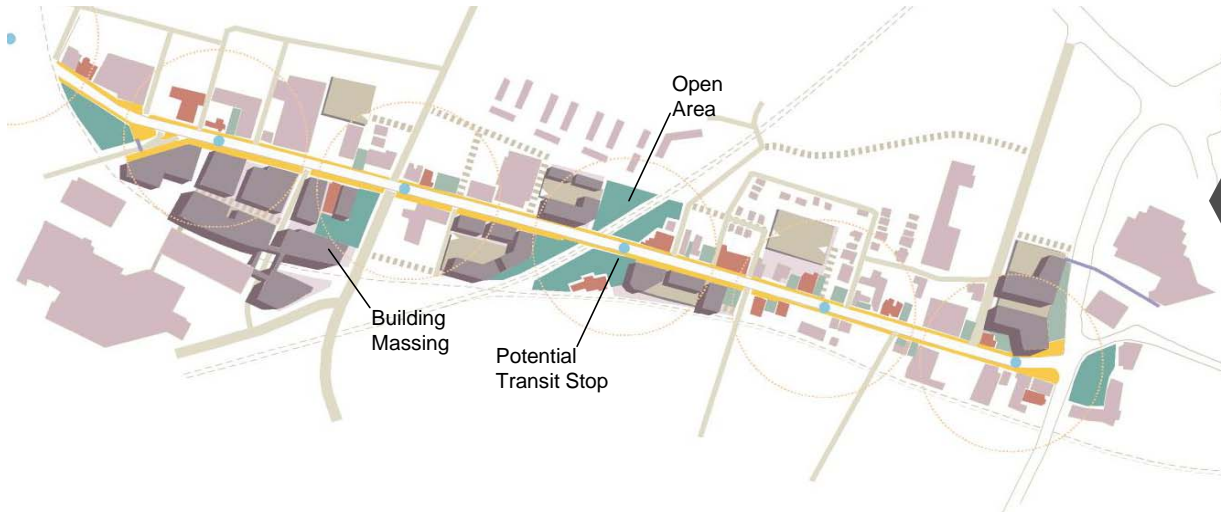




## Urban Design Scenario

### Parking

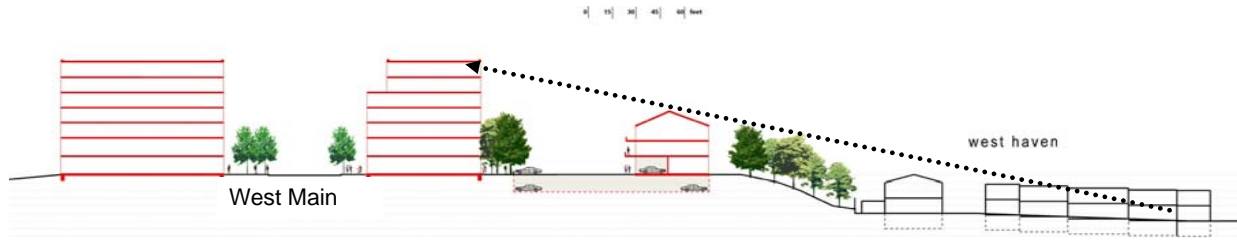
Parking structures in larger development parcels can satisfy future parking demand created by redevelopment—and afford a potential reduction of on-street parking to the benefit of vehicular and pedestrian circulation. Access to new parking structures should occur from the cross streets to minimize congestion along West Main.



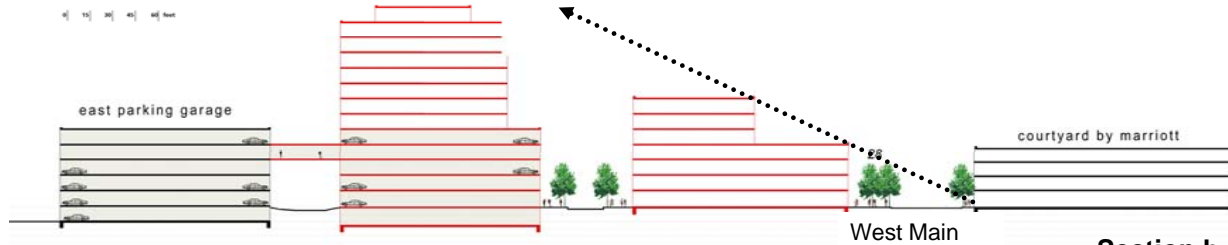
### Urban Form

Greater development bulk is possible in the larger parcels to balance the expanded sidewalks and other necessary open areas. A larger “central park” is proposed at mid-point between UVA and the Downtown to bring views of the extended hillside landscape into the heart of the West Main corridor. The new urban form and mass could contain over 1.5 million square feet of new development, enhancing the viability of rail transit as a means of improving the linkage between UVA and the Downtown.

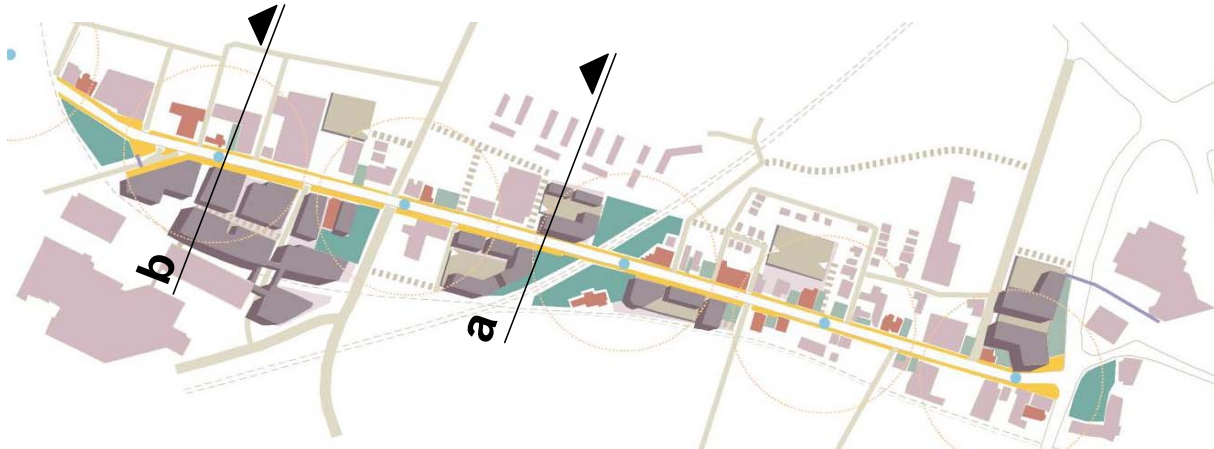




Section a



Section b



## Urban Design Scenario

### Scale

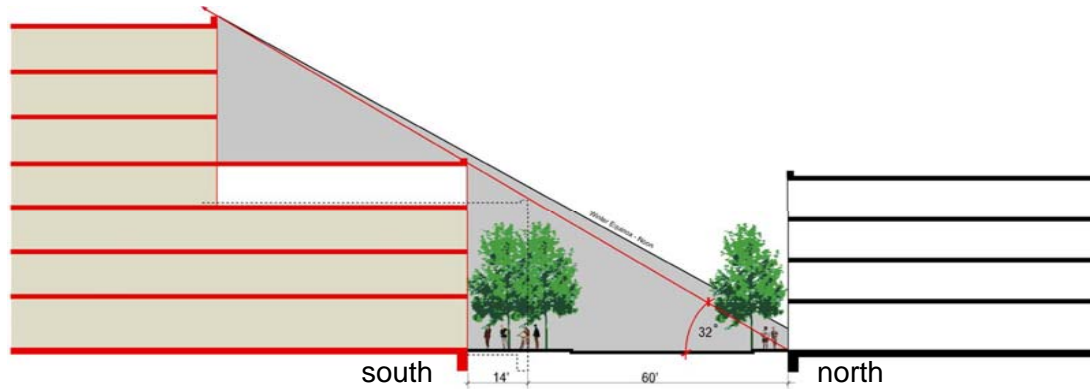
The cross sections at left establish the recommended maximum height at two key development areas.

At section “a” two taller structures are proposed just west of the bridge to maximize development that can take advantage of beautiful hillside views to the south. This section suggests that a taller structure on the north side of the Street, if kept close to R.O.W., would not unduly affect the scale of, or views from, the West Haven community.

The greatest potential for new development lies in the area between 10<sup>th</sup> Street and JPA, where UVA envisions and expansion of their medical campus. Section “b” suggests a massing gradient that increases bulk and height as structures recede from West Main Street. The intent is to preserve the existing, low-scale quality of the corridor at the sidewalk line.

It is the further intent that uses facing West Main Street, at the street level, be pedestrian oriented and serve primarily retail or service functions.

***Within the redevelopment areas, the pattern of internal streets and/or access easements should emulate the Downtown block scale.***

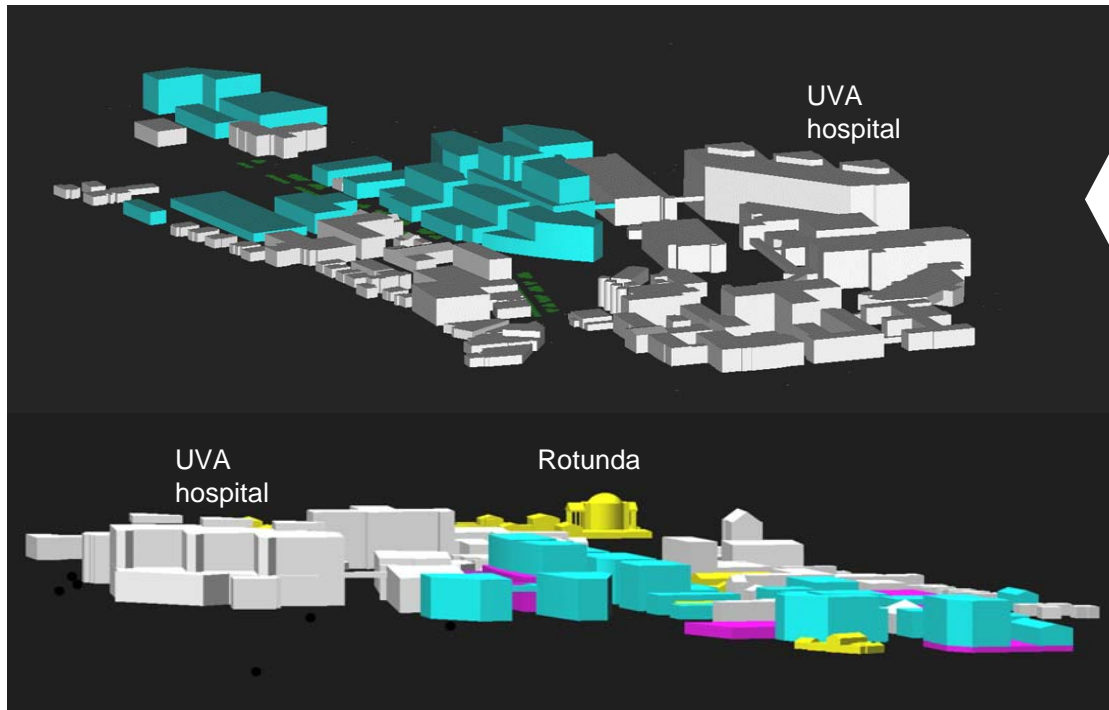


## Urban Design Scenario

### Massing

A critical recommendation is to maintain the scale of West Main Street close to what it is today, emulating the scale of the Mall, which has the same right-of-way width.

***As a guideline, buildings abutting the proposed easement should be no more than four stories in height. Further height should be stepped back at a 1:1.5 ratio; that is, 1.5 horizontal feet for each added vertical foot.***



These diagrams illustrate the proposed massing three-dimensionally. Existing buildings are shown in white; new massing is shown in turquoise; pink represents parking structures; and yellow represents historic buildings.

The lower diagram shows a simulated view along the Rotunda-Monticello line of sight. It is estimated that along this line, buildings no taller than 130 feet from grade will preserve this critical sightline. New development proposal need to confirm this assumption based on more accurate survey information.

## Streetscape Schematics

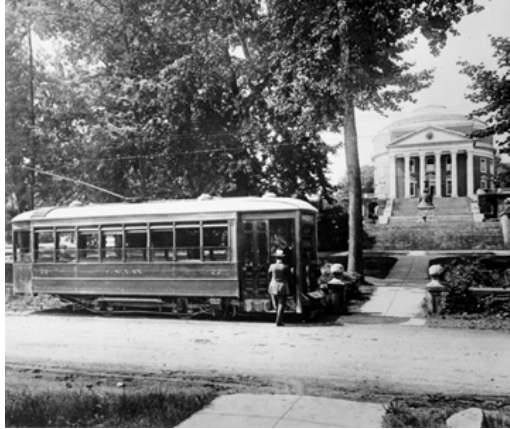
### Transit

The configuration of West Main Street—specifically the curb-to-curb-width—is dependent on the kind of transit that rolls on it. Over the past year the City has studied several options for fixed-rail transit as a means to increase public ridership along West Main and reduce auto dependence and congestion. As the images at left show, rail transit was an integral part of the Street a century ago.

Many different fixed-rail systems and rolling stock, from trolleys to coupled cars, are in use today in different cities across the United States and abroad, each responding to particular physical and economic conditions.

As of this writing, no definitive system has been proposed for Charlottesville, nor a timetable for implementation.

***This study assumes that a fixed-rail systems would use existing vehicular lanes, thereby maintaining the Street's existing curb-to-curb configuration.***



Streetcar in front of the Rotunda



Streetcar on what today is the Mall



Proposed West main cross section with potential new fixed-rail on existing vehicular lanes. On-street parking would occur in bays carved into the sidewalk area (see plan on page 9).



# Streetscape Schematics

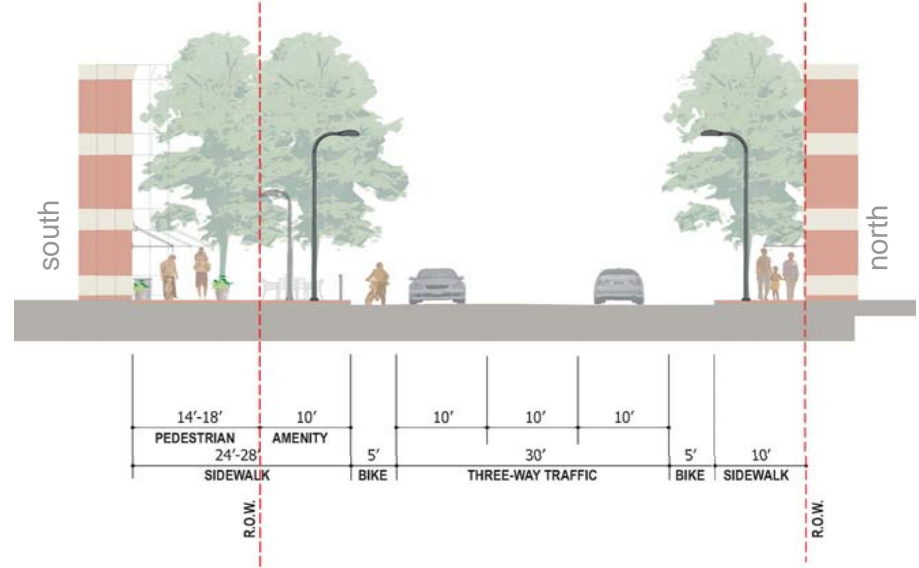
## Clearances

The cross-section at left shows typical proposed vehicular, bicycle and pedestrian clearances where a center, turning lane is needed (such as the section from 10<sup>th</sup> Street to JPA). As the plan on the next page shows, on-street parallel parking at both curbs is introduced on two-lane segments.

The sketch below depicts the proposal for a wider sidewalk on the south side of the street, obtained by means of a 14- to 18-foot development easement.

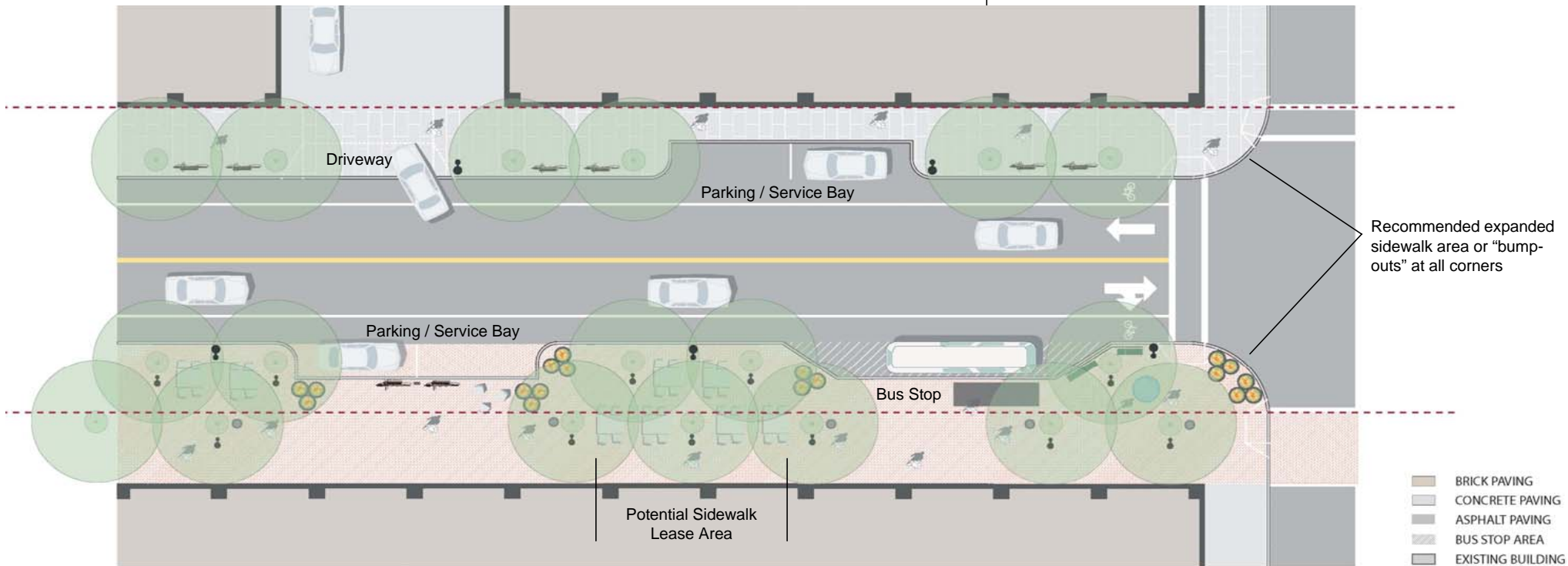
***The wider sidewalk intends to provide enhanced pedestrian circulation, gathering and retail opportunities similar in character to the Downtown Mall.***

In doing so, West Main and the Mall will once again function, and be seen as, the City's central civic spine.



View towards UVA, with new development envelope

# Streetscape Schematics



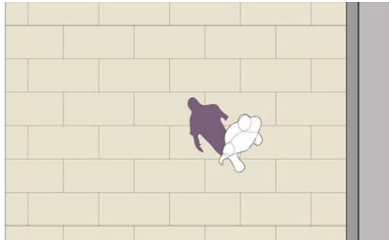
This plan represents a prototypical streetscape segment with an idealized compilation of improvements.

Trees in the south sidewalk are proposed in groupings or “clumps” to allow for intermittent parking, service and bus stop bays. The gaps in the canopy will also allow more direct sunlight to penetrate the shadier side of the street.

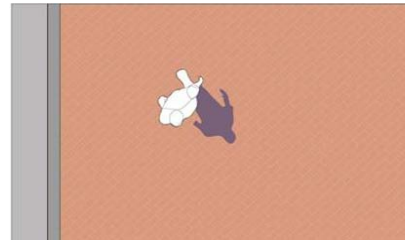
Trees in the north sidewalk should be planted in comparatively continuous rows, with interruptions as necessary for driveways, parking and service bays.



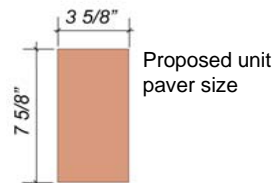
View towards the Downtown, with new development envelope at left



Scored concrete pavings on south side, to include parking, service, bus pull-outs and pedestrian crosswalks



Unit-pavers on south side, to include parking, service, bus pull-outs and pedestrian crosswalks



Proposed unit paver size

## Streetscape Schematics

### Paving

A key recommendation is to pave the south sidewalk with pavers similar in quality to those on the Mall (although in a smaller size) so as to establish aesthetic continuity with it within the expanded sidewalk area. The north side would be enhanced with scored concrete paving.

***It is recommended that on-street parking bays (excepting spaces for people with disabilities) double as service bays, using time management for deliveries.***

Other streetscape improvements include:

- Undergrounding of overhead utilities
- Street milling and repaving
- New street and sidewalk lighting
- Granite curbing
- New sidewalk paving
- Sidewalk furnishings



View towards the Downtown, with  
new development envelope at left



Model HRP/G Hitchin' Post Bike Rack  
Pilot Rock



Round Series Planter  
Stonewear



Newspaper Rack  
Custom Design



Annapolis Bollard  
Landscape Forms



Steelcase Series, Model NSDC-36  
Victor Stanley



D200 Series Bench  
MWH Object + Design

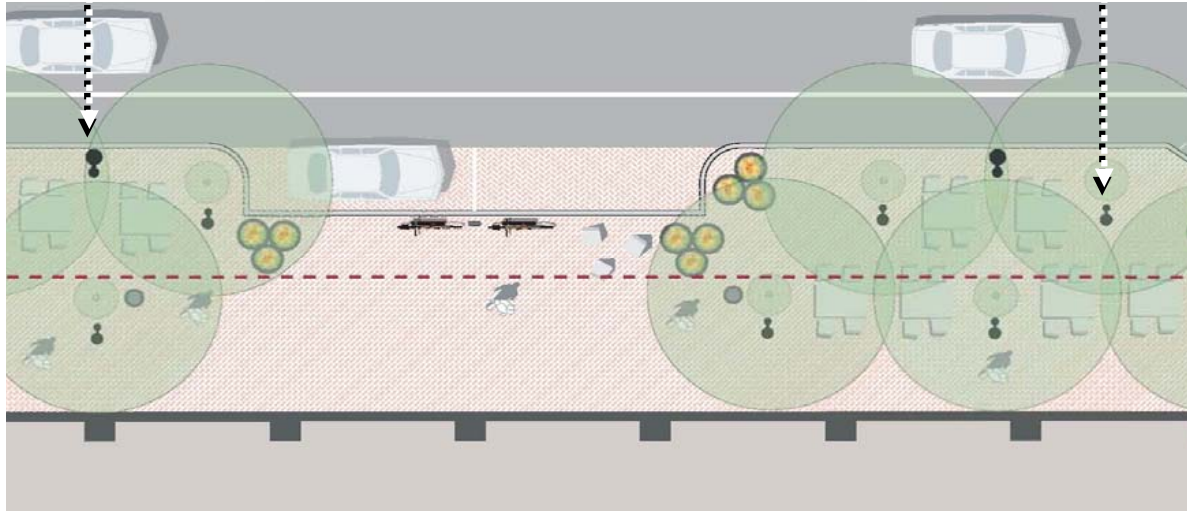
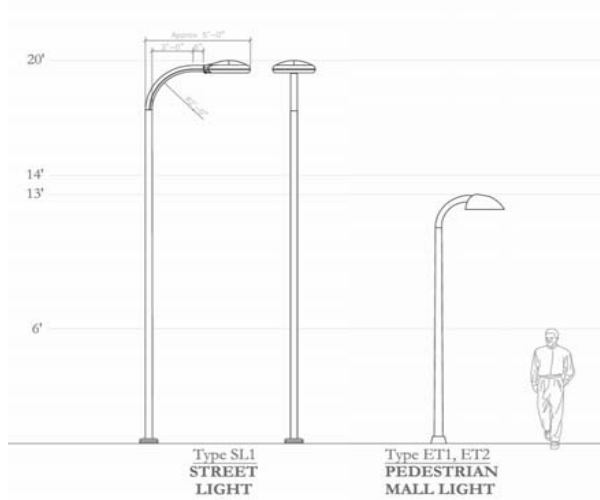
# Streetscape Schematics

## Furnishings



The streetscape furnishings should directly relate in style to that in the Downtown Mall.

In the interest of maintenance and management efficiency, some of it—benches, lighting, and news rack enclosures—should be equal to those in the Mall; the rest should be related in terms of color and form but not be exact duplicates. This will create a unified palette of elements while preserving a subtle difference between the West Main and Mall environments.



## Streetscape Schematics

### Lighting

The proposed street and sidewalk lights match those specified for the Downtown Mall (and which will be installed as part of the Mall Extension and Transit Center project).

The chosen standards preserve the “rounded” signature of the existing Mall lights while reducing the bulk of the fixtures themselves.

- Street lights should be spaced about 80-feet on center depending on driveways and other impediments.
- Sidewalk lights should be placed next to sidewalk trees, much as occurs in the Mall today.

Street Light by Cooper Lighting, Invue Series with modified arm & pole

Pedestrian Mall Light by Antique Street Lamps, Modified Pennsylvania Series



## Street Trees

As the north sidewalk will receive full sun, trees on it should have dense, spreading canopies and be spaced as regularly as possible to provide continuous shade. Japanese Pagoda Tree (*Sophora japonica*), and Red Maple 'Autumn Blaze' (*Acer x freemanii*) are recommended. This arrangement will provide a formal "frame" to the Street, end to end.

Owing to a higher degree of shade, the tree ‘clumps’ proposed on the south side should have a more open canopy that can shed filtered light onto the sidewalk. Also, several species should be used to create variety in form and color that can enliven the walking experience.

Thornless Honey Locust (*Gleditsia triacanthos* var. *inermis* 'Skyline'), Magyar Ginko (*Ginko Biloba* Magyar), Golden Rain Tree (*Kolroeuteria*), American Hornbeam (*Carpinus Caroliniana*) and Little leaf Linden (*Tilia Cordata*) are recommended. While similar in spacing to the Willow Oaks in the Mall, this arrangement will serve to subtly differentiate both the Mall and West Main environments.





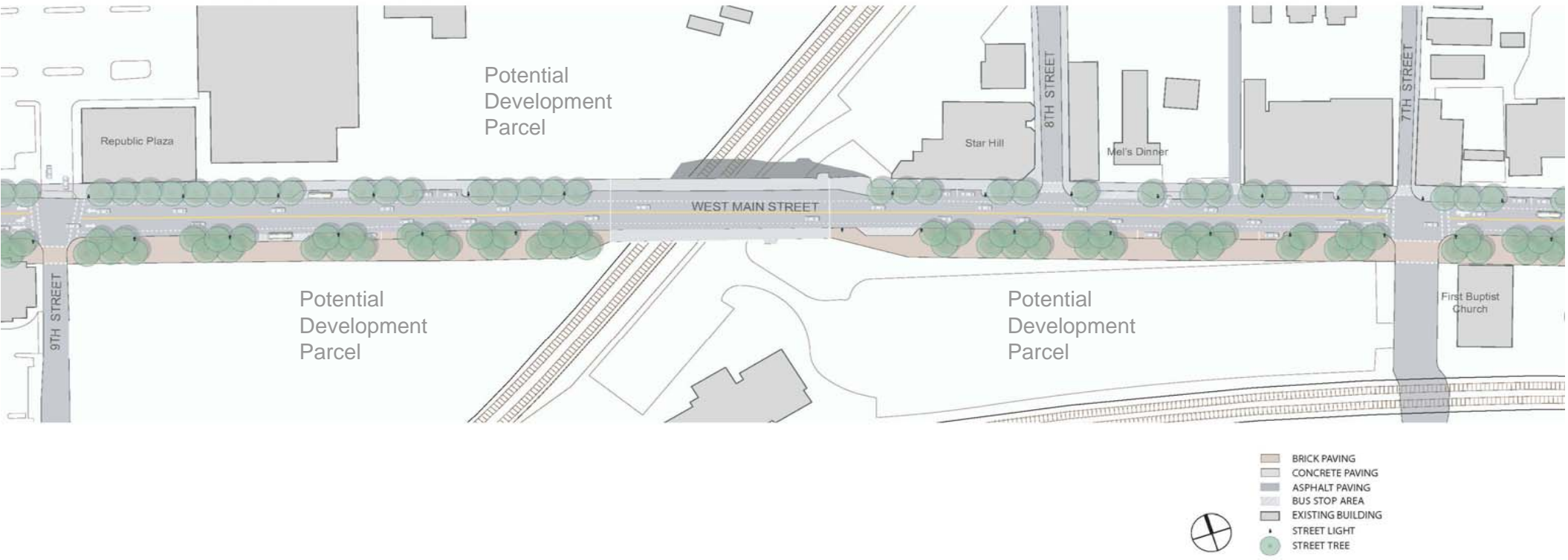
The streetscape schematics shown on this plan are based on preliminary and incomplete survey information. No modification to vehicular or bicycle lanes have been made.

## Streetscape Schematics

The following plans show the recommended streetscape design along the entirety of West Main Street

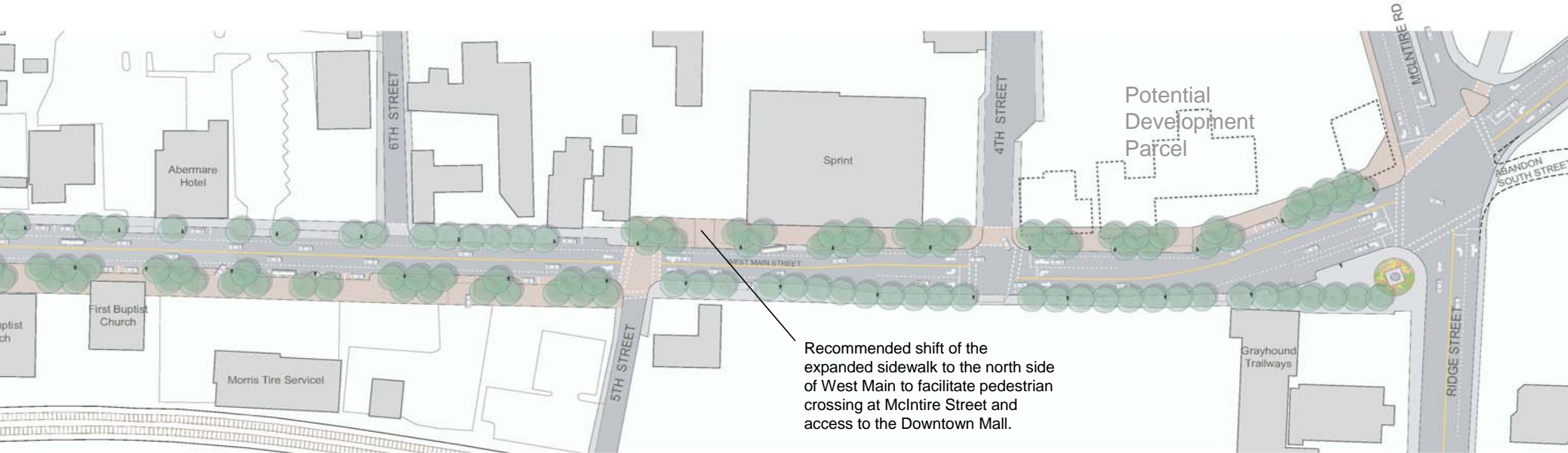


The streetscape schematics shown on the this plan are based on preliminary and incomplete survey information. No modification to vehicular or bicycle lanes have been made.



# Streetscape Schematics

The streetscape schematics shown on the this plan are based on preliminary and incomplete survey information. No modification to vehicular or bicycle lanes have been made.



Conceptual terminus at South Street following its abandonment to turn Ridge/McIntire into a four-point intersection.

- BRICK PAVING
- CONCRETE PAVING
- ASPHALT PAVING
- BUS STOP AREA
- EXISTING BUILDING
- STREET LIGHT
- STREET TREE



## North Side Cost (per block)

	Description	Takeoff Quantity	Unit	Unit Cost	Item Subtotal
<b>South Side (based on a 345' typical block length)</b>					
	Temporary site control and security	10,800	sqft	\$1.00	10,800
	Misc. Demolition (trees, poles, meters)	345	lnft	\$21.00	7,245
	Removal of Existing Curb	345	lnft	\$12.00	4,140
	Removal of Existing Sidewalk	325	sqyd	\$25.00	8,125
	Patch Street & New Granite Curb & Gutter	345	lnft	\$50.00	17,250
	Cast-In-Place Concrete Paving	3,845	sqft	\$6.00	23,070
	Trees	10	each	\$600.00	6,000
	Irrigation @ Trees	10	each	\$150.00	1,500
	Roadway Lights	3	each	\$5,000.00	15,000
	Pedestrian Lights	0	each	\$3,500.00	0
	Benches	4	each	\$1,500.00	6,000
	Bus Shelter	0.5	each	\$3,000.00	1,500
	Planters w/ plants	6	each	\$500.00	3,000
	Newstands	0.5	each	\$500.00	250
	Information Kiosk	0.5	each	\$2,000.00	1,000
	Bike Racks	4	each	\$400.00	1,600
	Trash Receptacles	2	each	\$1,200.00	2,400
	Bollards	0	each	\$1,000.00	0
Shared Cost w/ South Side of Street:					
	Bituminous Asphalt resurfacing	7,125	sqft	\$2.50	17,813
	Utility Burial	172.5	lnft	\$1,000.00	172,500
	Soft Costs (Design, Investigations, Inspections)	17	%	\$2,991.93	50,863
	Contingency	20	%	\$3,500.55	70,011

**\$420,066**

## Streetscape Schematics

### Costs

The following spreadsheets show a breakdown of costs for both the north and south sides of The Street on a typical block basis (345 feet).

## South Side Costs (per block)

	Description	Takeoff Quantity	Unit	Unit Cost	Item Subtotal
<b>South Side (based on a 345' typical block length)</b>					
	Temporary site control and security	14,720	sqft	\$1.00	14,720
	Misc. Demolition (trees, poles, meters)	345	lnft	\$21.00	7,245
	Removal of Existing Curb	345	lnft	\$12.00	4,140
	Removal of Existing Sidewalk	325	sqyd	\$25.00	8,125
	Patch Street & New Granite Curb & Gutter	345	lnft	\$50.00	17,250
	Precast Concrete Unit Pavers - Pedestrian	7,150	sqft	\$20.00	143,000
	Precast Concrete Unit Pavers - Vehicular	825	sqft	\$25.00	20,625
	Trees	17	each	\$600.00	10,200
	Irrigation @ Trees	17	each	\$150.00	2,550
	Roadway Lights	4	each	\$5,000.00	20,000
	Pedestrian Lights	8	each	\$3,500.00	28,000
	Benches	8	each	\$1,500.00	12,000
	Bus Shelter	0.5	each	\$3,000.00	1,500
	Planters w/ plants	12	each	\$500.00	6,000
	Newstands	1	each	\$500.00	500
	Information Kiosk	1	each	\$2,000.00	2,000
	Bike Racks	8	each	\$400.00	3,200
	Trash Receptacles	4	each	\$1,200.00	4,800
	Bollards	8	each	\$1,000.00	8,000
	Shared Cost w/ North Side of Street:				
	Bituminuous Asphalt resurfacing	7,125	sqft	\$2.50	17,813
	Utility Burial	172.5	lnft	\$1,000.00	172,500
	Soft Costs (Design, Investigations, Inspections)	17	%	\$5,041.68	85,708
	Contingency	20	%	\$5,898.76	117,975

**\$707,851**

## Streetscape Schematics

### Costs

These costs translate to approximately \$3,270 per lineal foot of streetscape improvements, or to about **\$12.3 million** total for the entirety of West Main Street from Ridge/McIntire to JPA.

# Streetscape Schematics

## Acknowledgements

### City of Charlottesville

James E. Tolbert,  
Neighborhood Development Services

### Wallace Roberts & Todd, LLC

Ignacio F. Bunster-Ossa, ASLA, Principal  
Hank Bishop, Project Manager  
Charles Neer, Urban Design  
Keiko Cramer, Landscape Design

### Okerland Partners

Gary Okerland  
Warren Boeschstein

### Kimley Horn Associates

Kurt Cooper, Civil Engineering