

*City of Charleston*  
DESIGN DIVISION  
**REPORT 02**  
SAM RITTENBERG CORRIDOR



OCTOBER 2014

# SAM RITTENBERG CORRIDOR

October 2014

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## WELCOME

From August 25th to September 5, the Design Division staff held a design workshop to reconfigure Sam Rittenberg Boulevard in West Ashley. This report is the result of that workshop, which recommends changes to the street design as well as improvements to adjacent land uses.

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## EXECUTIVE SUMMARY

### Building a Better Suburb

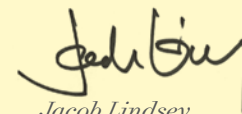
Today, roughly 29,000 cars travel the Sam Rittenberg corridor daily. Based on that traffic volume, the street could theoretically be narrowed to just 3 lanes from its current maximum of 7. In short, there is an excess of asphalt in this part of West Ashley. That extra space could be better used to improve the look and function of the street, with less asphalt and more plantings.

Certainly Sam Rittenberg would not be the first suburban corridor to undergo revitalization. We examined 5 case studies of other streets across the country that are similar to Sam Rittenberg that have been successfully improved.

In addition, there is a tremendous need to connect West Ashley on foot or by bicycle. The existing West Ashley greenway is an excellent amenity, but it is only one part of the larger bicycle network. With the planned bicycle and pedestrian connection to downtown and future bike lanes being added to the southern extension of I-526, Sam Rittenberg is the perfect addition to the bicycle and pedestrian network for West Ashley.

Finally, Sam Rittenberg Boulevard presents excellent development opportunities, both for existing business and for new business and housing. This area has something that much of Charleston lacks: underutilized land. As a part of this study, we recommend that adjacent parcels be redeveloped as "better suburbs," to accommodate a mix of uses that maximize West Ashley's potential.

Realizing these changes will be challenging and must be implemented over time through governmental coordination and private sector development. Our hope is that this study can provide a first step in the right direction.



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# THE BIG PICTURE

## Four Distinct Segments

Design treatments on Sam Rittenberg should be broken into four segments, reflecting the unique nature of each portion of the corridor.

- 1 The 526 Connection: Design for safe passage of bicyclists and pedestrians
- 2 Skylark to Ashley River: Design for protected bike path, perhaps in the street median (see pg. 10)
- 3 Ashley River to Olde Towne: Design for protected bike path on the north side (see pg. 11)
- 4 Olde Towne to the bridge: No changes to the current configuration. Cyclists use the southern access road.

## Redesign Key Intersections

Each intersection (shown here in orange) presents unique design challenges. Most importantly, each intersection should be redesigned to include bicycle and pedestrian facilities and signalization. Without proper cyclist-priority signals, protected cycle paths are not viable.

## Redevelop under used retail centers

Key areas along the corridor (indicated right in yellow) be redeveloped as “better suburbs,” making better use of their great location and high traffic counts, for retail but also for workplaces and residences.

## Connect Parks and Green Spaces

West Ashley has many green spaces, but they lack connectivity. Sam Rittenberg should be a key link between neighborhoods and parks.

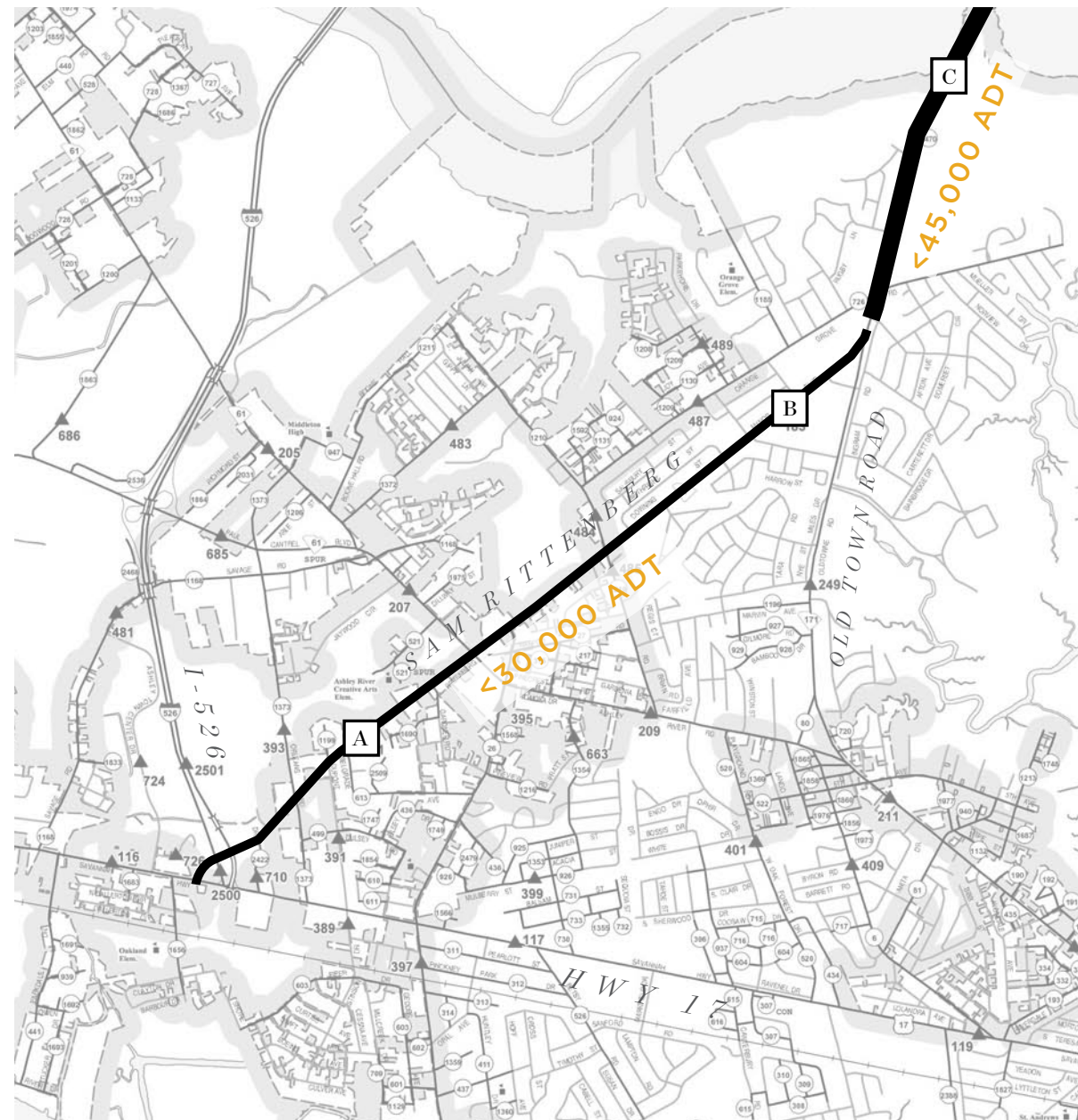




# TRAFFIC VOLUME

## 30,000 Cars per day on Sam Rittenberg

As measured by SCDOT in 2013, Sam Rittenberg carries under 30,000 cars per day from I-526 to Old Towne Road.



### CARS PER DAY

Traffic counts were measured at locations 1 and 2 below 30,000 cars per day. Location 3, which is on the bridge to Cosgrove Avenue, carries a higher volume due to the addition of traffic from Olde Towne Road.

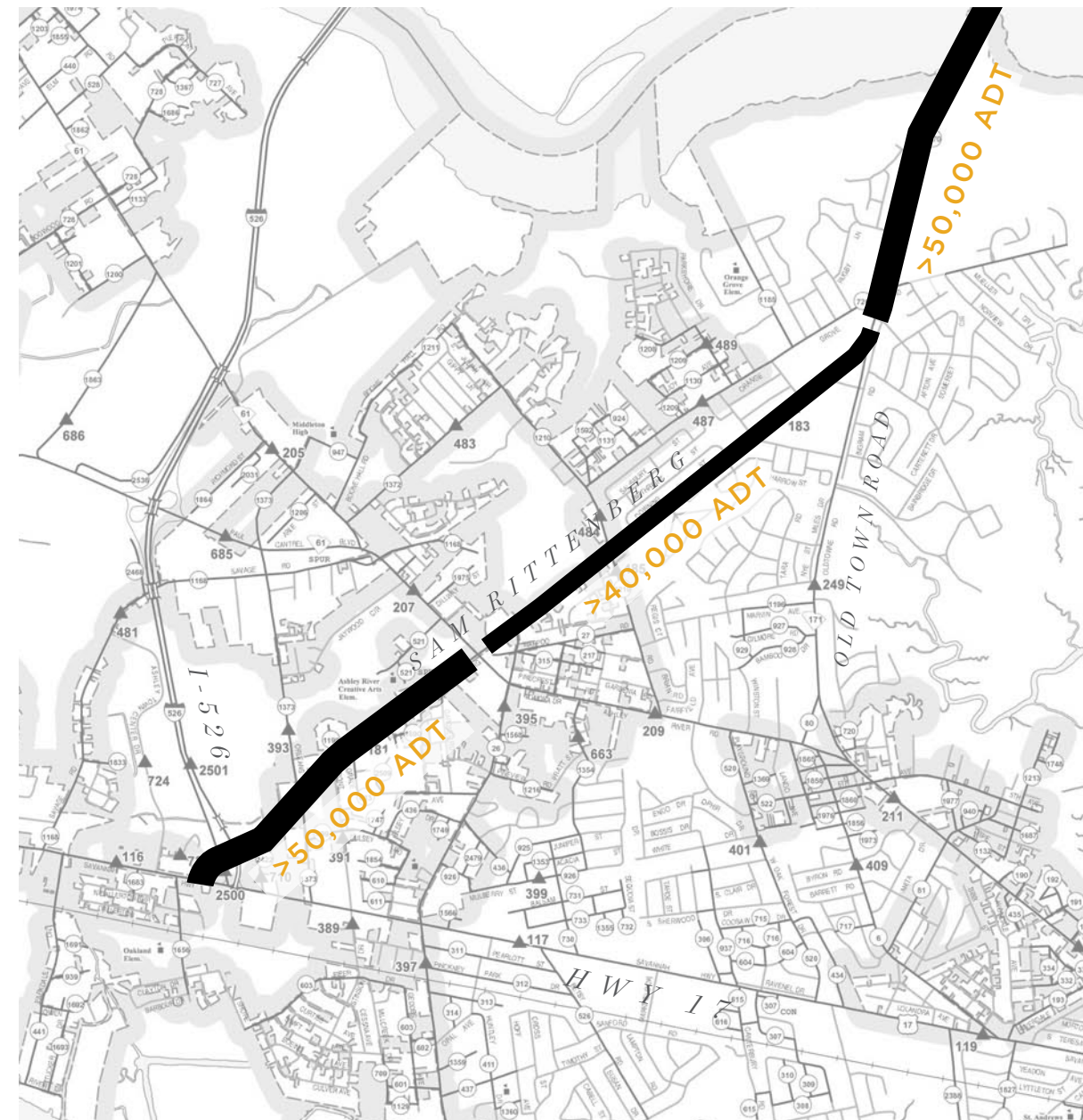
- A** 27,800 Average Daily Traffic
- B** 29,400 ADT
- C** 43,400 ADT

Source: SCDOT 2013

# TRAFFIC CAPACITY

## 45,000 cars or more

It is our opinion that excess capacity exists on Sam Rittenberg based on observations of similar streets regionally. That excess street space should be used more creatively for bicycle and pedestrian facilities.



### 5 AND 7 LANES

Determining traffic capacity must be done with a thorough traffic analysis. However, based on observation of similar streets regionally, we believe that Sam Rittenberg has capacity beyond its current volumes as shown above.



# CASE STUDIES

## Other cities have calmed streets that are “over capacity”

Based on a study of comparable streets, Sam Rittenberg could theoretically slim down to just 3 lanes from its current 7 and 5. Other streets in the US have undergone these type of “road diets” and work well.

### TACOMA STREET

In Portland Oregon, with an average daily traffic of 30,000 cars, was converted to 3 lanes from 5 in 2002. As of 2014, the redesign has resulted in 26% fewer crashes (Source: City of Portland. Image Credit: Google Earth).



### BRIDGEPORT WAY

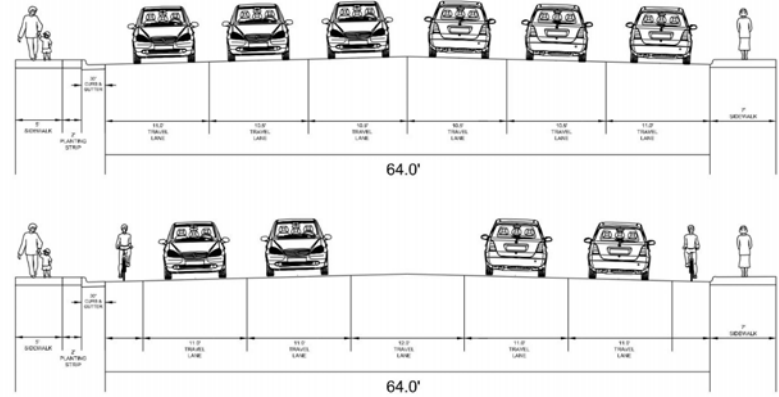
In University Place, WA, was converted from 5 lanes to 4 with the addition of medians and pedestrian refuges in a similar suburban condition to Sam Rittenberg.

### PEACHTREE ROAD

In Atlanta, the currently planned Peachtree Road “Road Diet” Phase III will take a 6-lane street down to 5 lanes with bike lanes and an intermittent median. At 45,000 cars per day, the volume of this street far exceeds that of Sam Rittenberg.



Existing 6-lane conditions



Existing (top) and proposed (bottom) sections, Peachtree Road, Maple to Farr

### COLEMAN BLVD

At 34,000 cars per day (2013), Coleman Blvd in Mt. Pleasant carries more traffic than Sam Rittenberg and has a 4-lane design with a center turn lane. Segments of Coleman were recently redesigned with a center median, parallel parking, bike lanes, and outdoor dining, and have been well received.



Planted center median with parallel parking.



Outdoor dining and bike lanes.

### CUMBERLAND AVE

In Knoxville TN, at 30,000 cars per day, is currently being converted from a 4 lane street to 2 lanes with a center turn and intermittent parallel parking.



# WEST ASHLEY BIKE NETWORK

## Sam Rittenberg needs a separated “cycle track”

In order to make this part of the city accessible for people on bikes, the street requires a separated cycle path or “cycle track,” for protected two-way bicycle movement. We recommend further study to determine the correct configuration bike facilities, but two configurations that might work include a center track and a side track.



## SAM RITTENBERG

30,000 Vehicles per day  
42 Miles per hour

	85%ile Speed			
	<20mph Very Low	20-30mph Low	30-40mph Medium	>40mph High
Very High >10,000VPD	Lanes or Tracks/paths	Lanes or Tracks/paths	Lanes or Tracks/paths	Tracks/paths
High 8,000-10,000VPD 800-1,000VPH	Lanes	Lanes	Lanes or Tracks/paths	Tracks/paths
Medium 3,000-8,000VPD 300-800VPH	Lanes or combined use with cycle symbols	Lanes or combined use with cycle symbols	Lanes or Tracks/paths	Tracks/paths
Low 1,500-3,000VPD 150-300VPH	Combined use with cycle symbols	Combined use with cycle symbols	Lanes or Tracks/paths	Lanes or Tracks/paths
Very Low <1,500VPD <150VPH	Combined use - no symbols necessary	Combined use with cycle symbols	Combined use with cycle symbols	Lanes or Tracks/paths

# INTERSECTIONS FOR BIKES AND CARS

## Intersections on Sam Rittenberg need redesign

How does a cyclist get onto and off of cycle tracks, especially those in a center median?

For protected bike lanes to work, main intersections must be signaled for people on foot, bike and car. Other American cities have handled these type of intersections well, with similar car traffic volumes.



Cyclists use wide crosswalks to enter and exit the cycle track.

## PENNSYLVANIA AVE

This street in Washington, DC has a functional center bike path, although it is built without a planted median as recommended for Sam Rittenberg.

To access the center bike lanes at an intersection, cyclists simply ride on the pedestrian crosswalks to access the median. This technique is effective on Pennsylvania Avenue, with a car traffic volume of 28,900 cars per day (DDOT), almost identical to Sam Rittenberg.



Signage for turning bicycles



Bicycle signals.



Center bike paths with buffers and turn lanes.

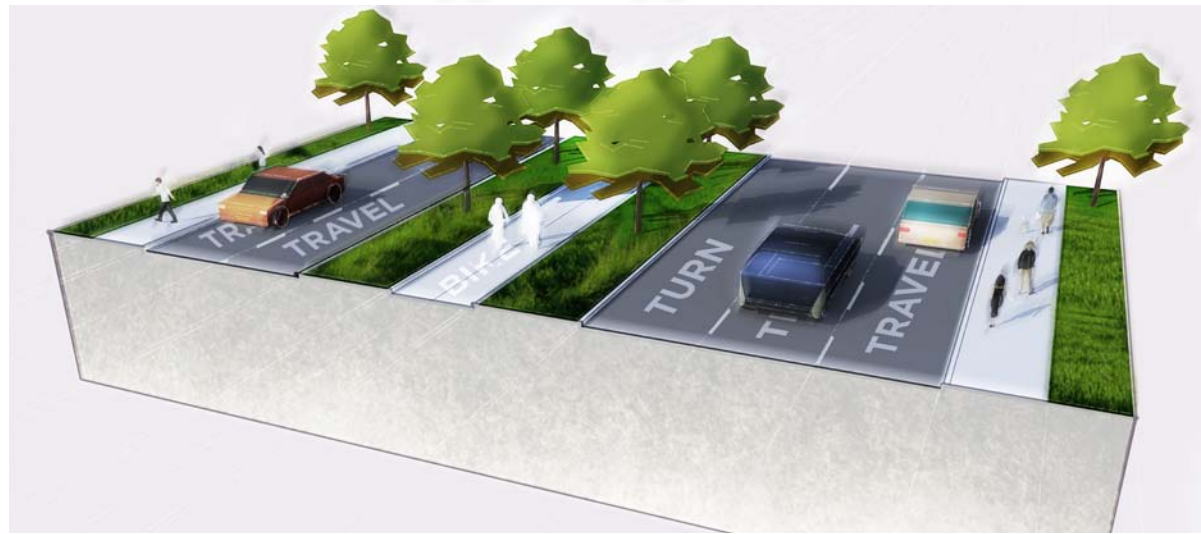
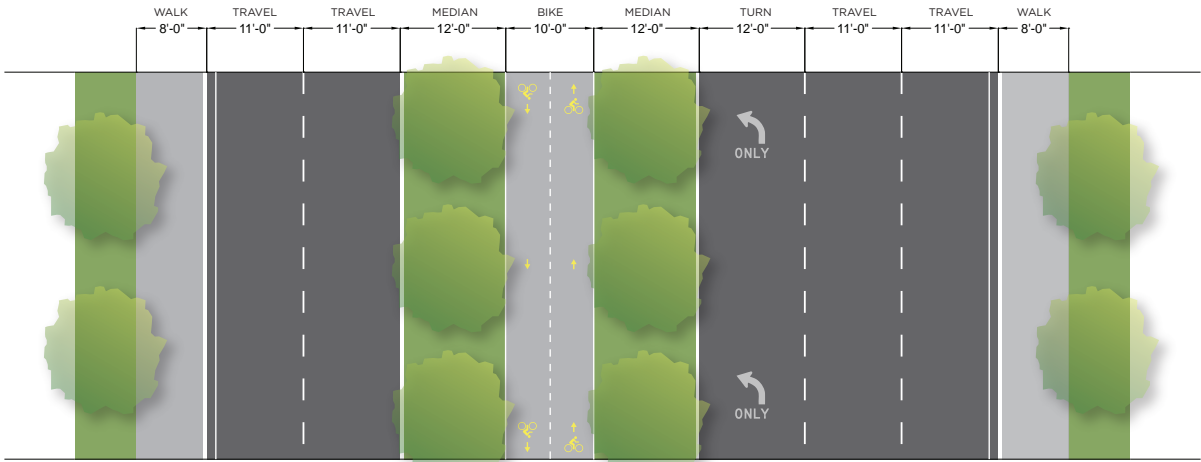
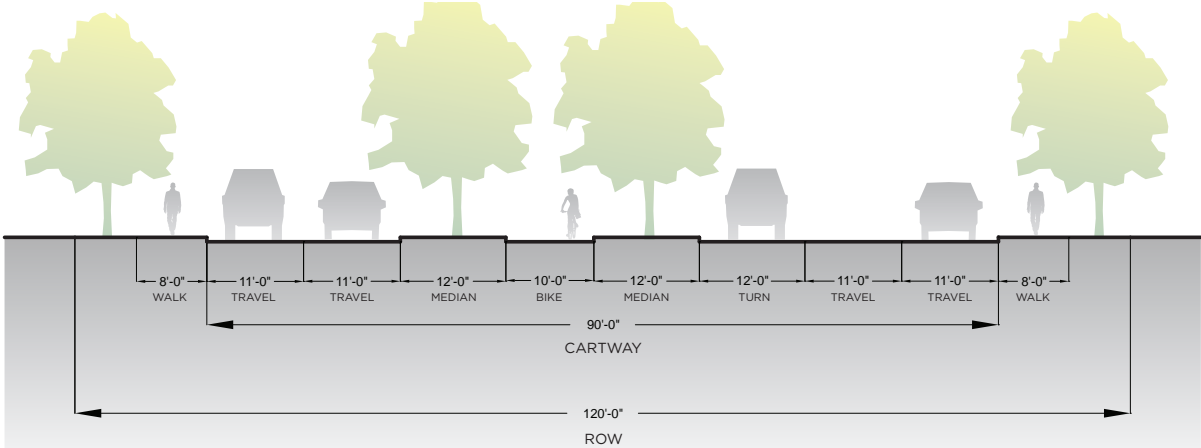
Images courtesy DDOT / NACTO.org



# BUILD A BETTER STREET

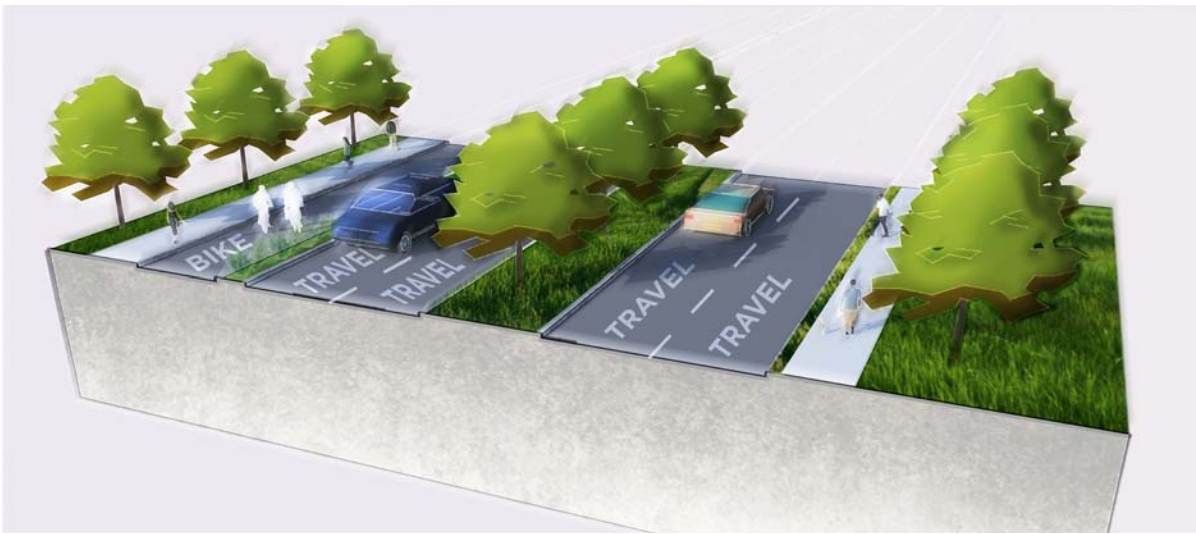
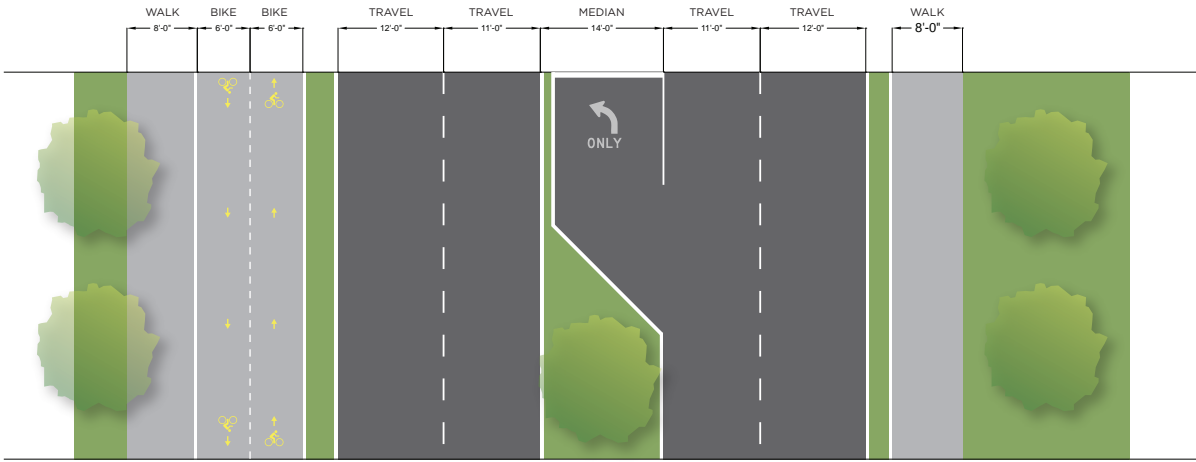
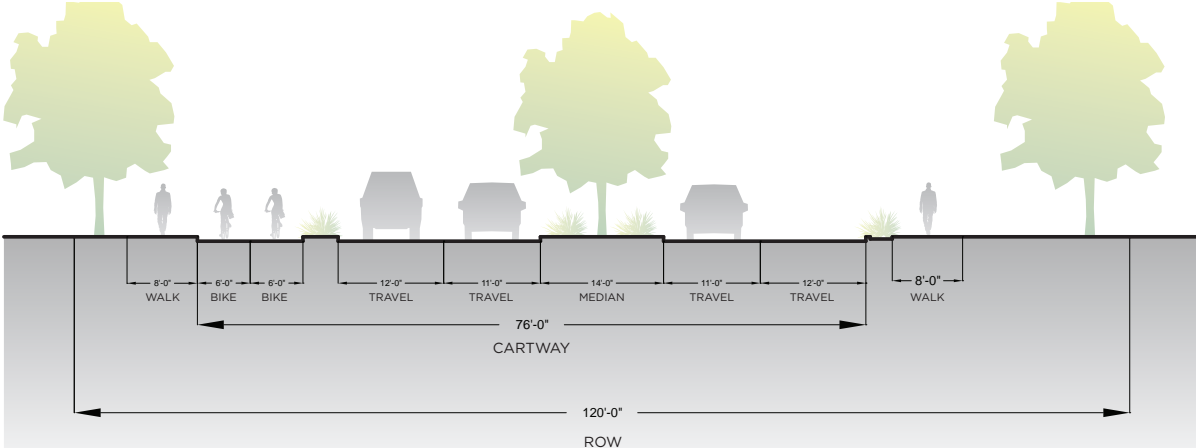
## SEGMENT 2

Skylark Dr to Ashley River Rd  
Center Bike Path



## SEGMENT 3

Ashley River Rd to Olde Towne Rd  
One Side Bike Path





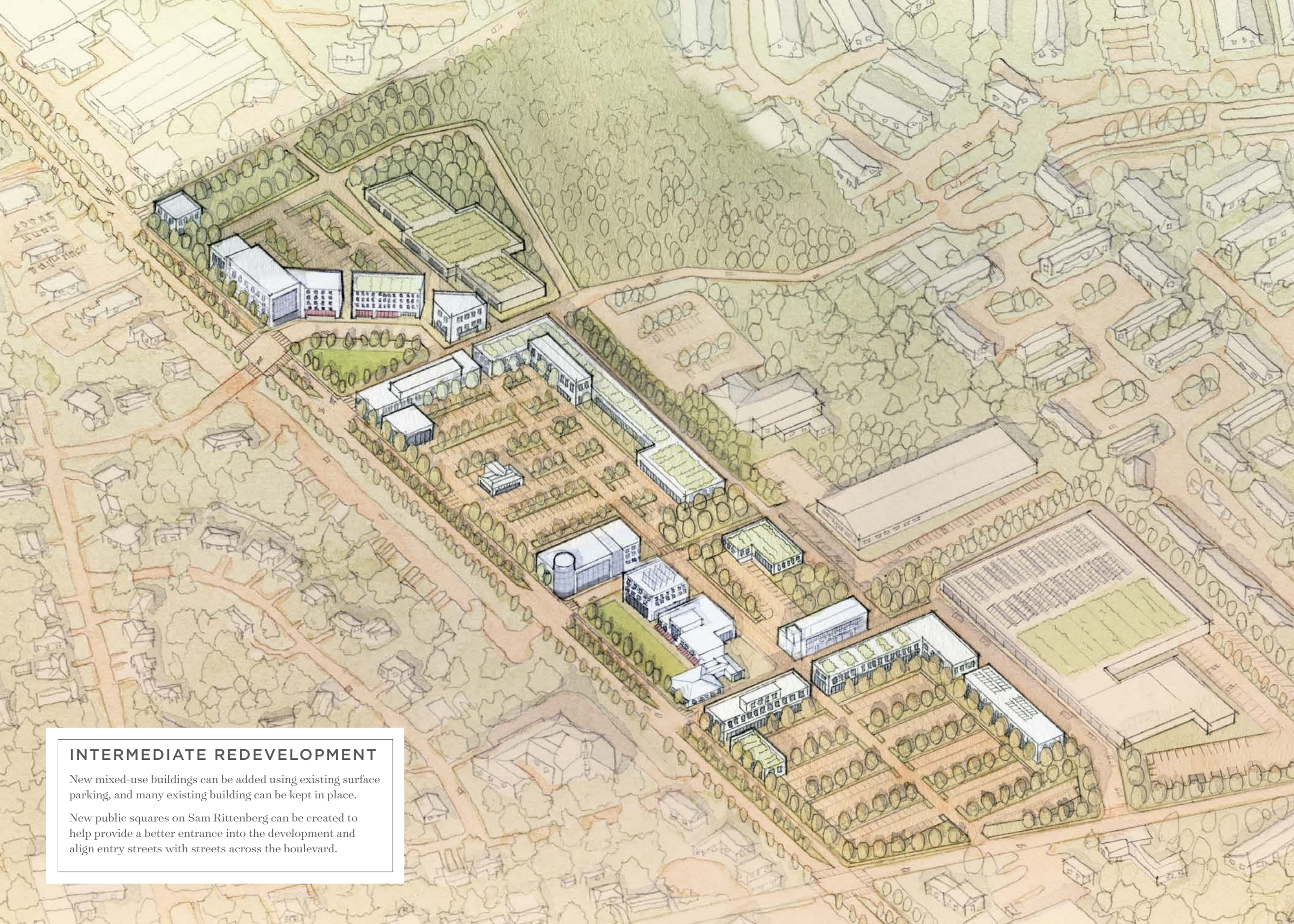


## PROPERTY IMPROVEMENT

Underutilized properties in West Ashley and Sam Rittenberg in particular have tremendous potential. While they certainly can continue to function in their current state, these retail centers also have potential to redevelop into mixed-use centers of higher value, incorporating residential and office uses in addition to their existing retail.

This type of redevelopment could occur slowly in phases or altogether in a single effort; on the next two pages we envision two phases that show how these kinds of properties could be converted over time. In combination with an improved public realm, these types of redevelopments could add tremendous value to Sam Rittenberg Boulevard.



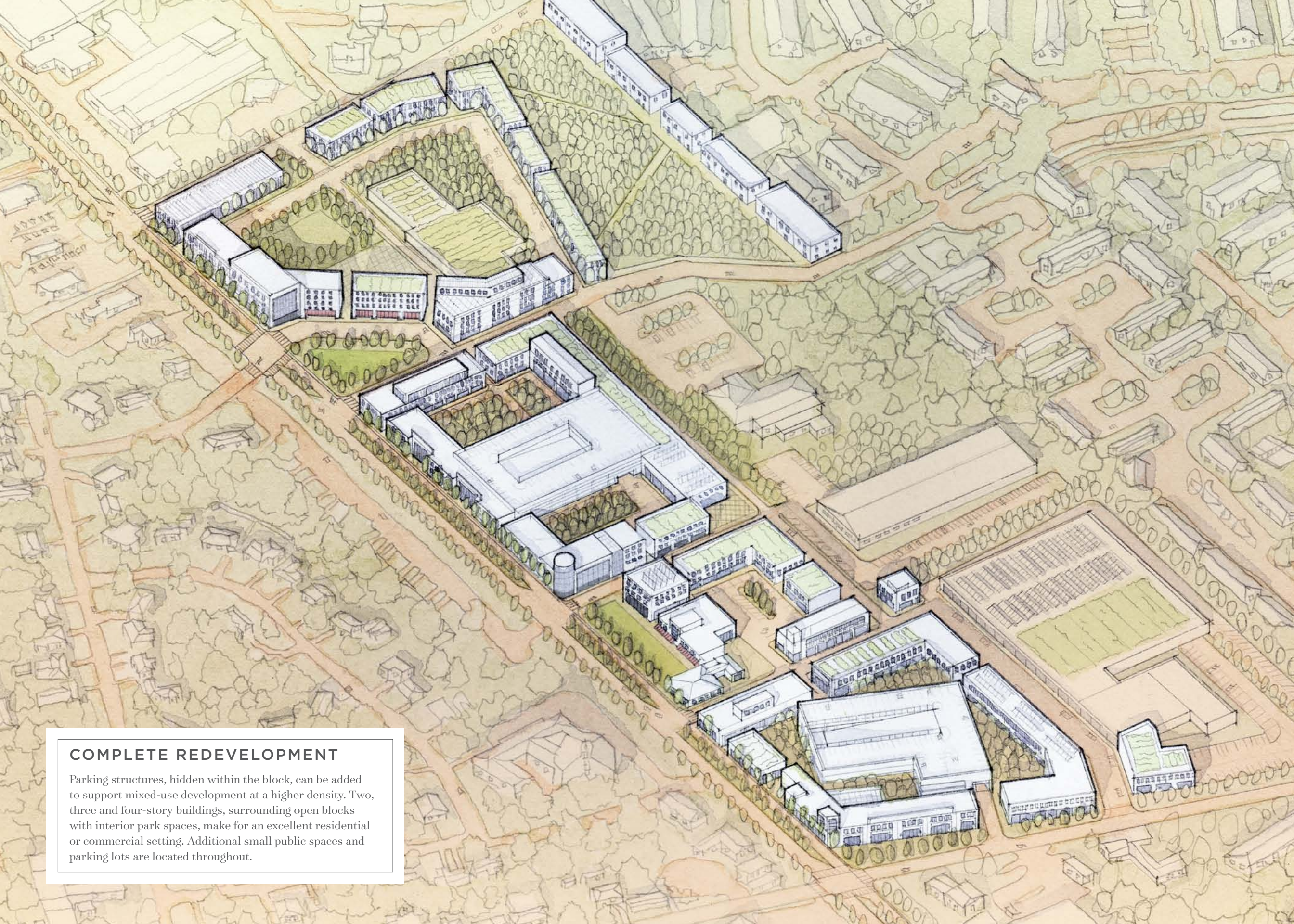


## INTERMEDIATE REDEVELOPMENT

New mixed-use buildings can be added using existing surface parking, and many existing building can be kept in place.

New public squares on Sam Rittenberg can be created to help provide a better entrance into the development and align entry streets with streets across the boulevard.





## COMPLETE REDEVELOPMENT

Parking structures, hidden within the block, can be added to support mixed-use development at a higher density. Two, three and four-story buildings, surrounding open blocks with interior park spaces, make for an excellent residential or commercial setting. Additional small public spaces and parking lots are located throughout.





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