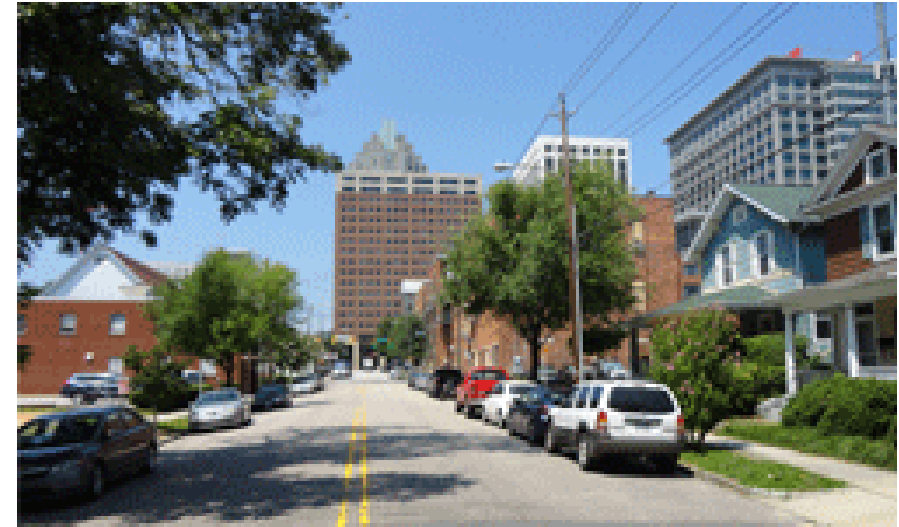




East Cabarrus
green street project



East Cabarrus Green Street

Draft Briefing Book

August 26, 2014

Introduction

From project web page:

In 2009, Cabarrus Street was identified in the 2030 Comprehensive as a priority Green Street (see map DT-4, on page 340 in the plan). In 2013, a prioritization of future streetscape projects placed East Cabarrus near the top of the list. Work is now underway to implement this part of the Comprehensive Plan and make East Cabarrus downtown Raleigh’s first green street. The project area is from Wilmington Street to Swain Street along East Cabarrus in downtown Raleigh and the East Raleigh-South Park Historic District.

The East Cabarrus Green Street will focus on improvements to make the street a safer and more inviting pedestrian environment while installing green infrastructure to improve water quality and reduce energy consumption. Improved and additional sidewalks, stormwater infiltration in landscaped curb extensions, and improved LED street lighting are all anticipated to be major components of the project. The plan is also expected to serve the function of an adopted streetscape plan in the Unified Development Ordinance (UDO).

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– Street Lighting	
– Street (Typology) Plan	
– Transit Network and Stops	
– Pedestrian Facilities	
– Bicycle Plan	
– Historic Resources	
– Public Property	
– Existing Land Use	
– Future Land Use	
– Existing Zoning	
– Proposed Zoning (UDO Remapping)	

Agenda



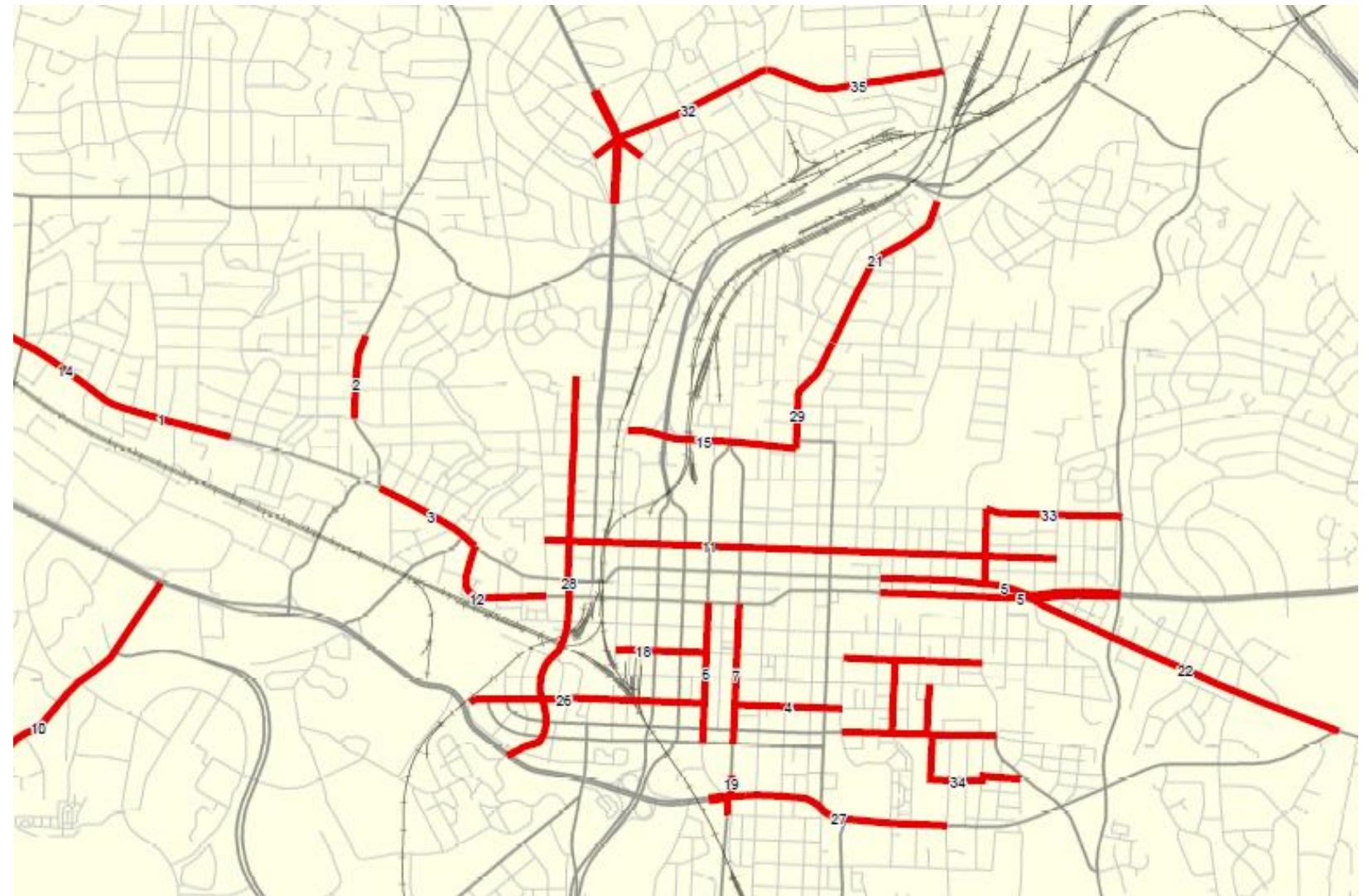
- Introduction
 - Participants
 - Project Background
- Small group discussion
 - Strengths, Opportunities, Weakness, Threats
 - Desires
 - Related plans/initiatives
- Full group discussion
 - Cross section, elements, intersection treatments, midblock treatments
 - Priorities
 - Wider West Section
 - Narrower East Section
- Discussion of next steps

Streetscape Priority

CITY OF RALEIGH OFFICE OF TRANSPORTATION PLANNING COMPREHENSIVE PEDESTRIAN PLAN STREETSCAPES PROJECT MAP January 30, 2013

PRIORITIZED STREETSCAPE PROJECTS

- 1 Hillsborough Street –Phase II (Rosemary): From Gardner Street to Rosemary Street
- 2 Oberlin Road: From Bedford Road to Clark Avenue
- 3 Hillsborough Street – Phase IV (Cameron): From Morgan Street to Oberlin Road
- 4 E. Cabarrus Street : Wilmington Street to Chavis Way
- 5 New Bern/Edenton Corridor : From Swain Street to Raleigh Blvd
- 6 Salisbury Street: Morgan Street to South Street
- 7 Wilmington Street: Morgan Street to South Street
- 8 Blue Ridge Rd District Study - Segment 3: From Wade Avenue to Hillsborough Street
- 9 Blue Ridge Rd District Study - Segment 4: From Hillsborough Street to Western Blvd
- 10 Avent Ferry Road: From Western Blvd to Gorman Street
- 12 West Morgan Street: From St. Mary's Street to Hillsborough Street
- 13 Hillsborough Street – Phase VI (Westover): From Blue Ridge Road to Chapel Hill Road
- 14 Hillsborough Street – Phase III (Gorman): From Rosemary Street to Gorman Street
- 15 Peace Street East : From West Street to Person Street
- 16 New Bern Avenue East – Phase II: From Trawick to New Hope Road
- 17 New Bern Avenue East – Phase I: From Sunnybrook Road to Trawick Road
- 18 W. Martin Street: Salisbury Street to West Street
- 19 Wilmington Street @ MLK, Jr Blvd.: Intersection of Wilmington Street with MLK Jr. Boulevard
- 20 Hillsborough Street – Phase V (Meredith): From Gorman Street to I-440
- 21 Wake Forest Road - Mordecai : Delway Street to Capital Blvd
- 22 Poole Road Streetscape: New Bern Ave to MLK Blvd
- 23 Trinity Road: Between Blue Ridge Road and Edwards Mill Road
- 24 Blue Ridge Rd District Study - Segment 1: From Reedy Creek Road to Wade Avenue
- 25 Blue Ridge Rd District Study - Segment 2: From Edwards Mill Road to Reedy Creek Road
- 26 W. Cabarrus Street: Dorothea Drive to Salisbury Street
- 27 Martin L. King, Jr. Blvd: From Wilmington Street to State Street
- 28 Boylan Avenue : From Western Blvd to Willis Forest Street (Fred Fletcher Park)
- 29 Person Street : Peace Street to Delway Street
- 30 Wake Forest Road - North: I-440 to St. Albans Drive
- 31 Falls of Neuse Road : From Carlos Drive to Hunting Ridge Road
- 32 Five Points Streetscape: Glenwood Ave - Harvey St to Alexander Rd; Fairview Rd - Glenwood Ave to Scales St; Glenn Ave – Glenwood Ave to Vance St; Whitaker Mill Rd – Glenwood Ave to Pine Dr.
- 33 Tarboro/Oakwood Area: Oakwood Ave from Tarboro Rd to Raleigh Blvd; Tarboro Road from Oakwood Ave to Edenton Street
- 34 Olde East Raleigh Streetscapes: Neighborhood area including Martin Street and Lenoir Street generally between Chavis Way and Rock Quarry Road
- 35 Whitaker Mill Road Streetscape: From Pine Drive to Wake Forest Road
- 36 Sanderford / Creech Road Intersection: Northwest corner of intersection



Policy DT 2.9

Downtown Green Streets

Preserve and expand the City's greenway system along Green Streets in downtown, using it to help connect housing, employment, commercial, and recreational areas. (3, 4, 5, 6)

*From 2030
Comprehensive
Plan*

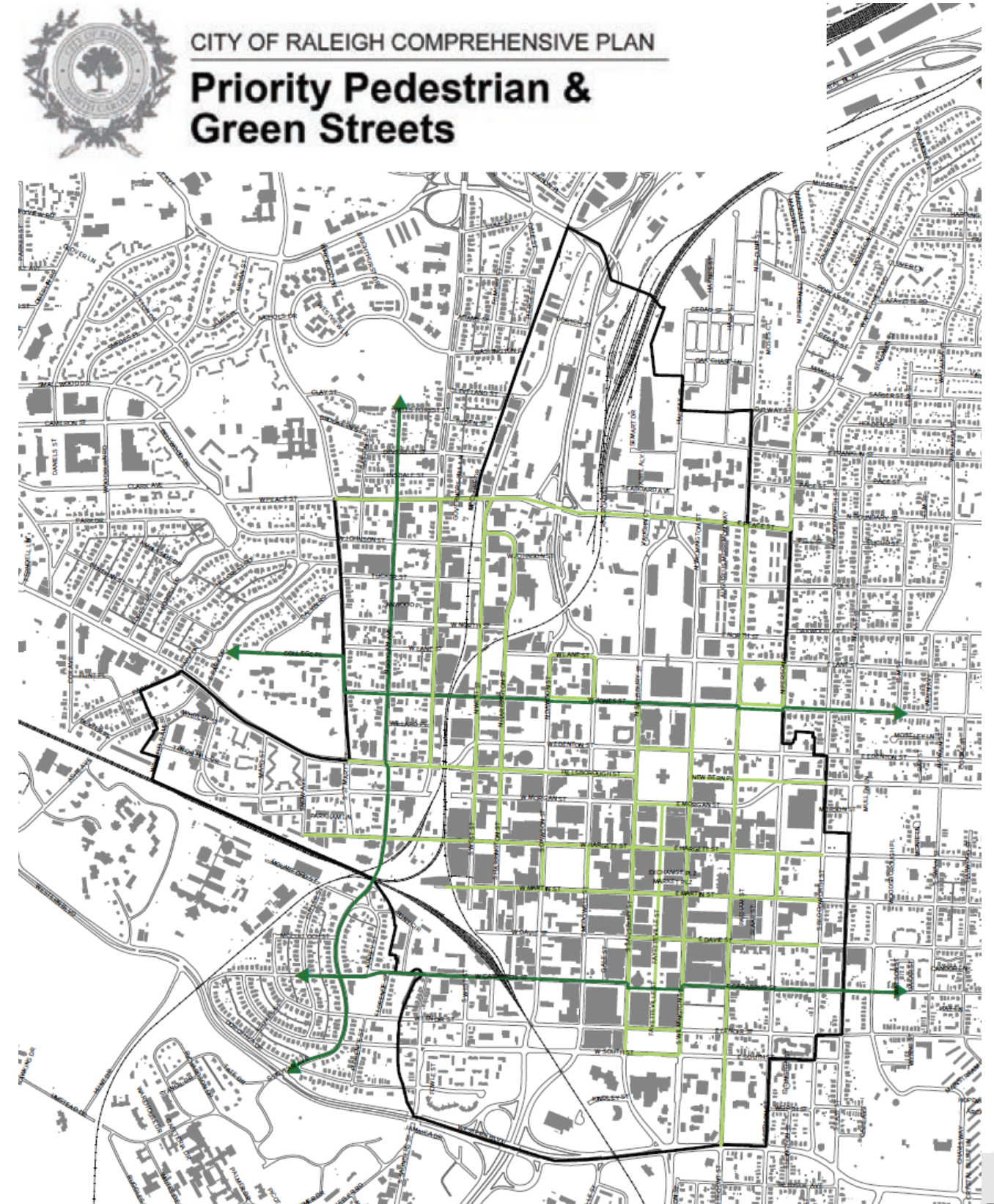
Green Streets

Action DT 2.8

Green Street Design Standards

Study, schedule, design, and fund new facilities that integrate sustainable streetscape technologies for the Green Streets identified on Map DT-4. Use initial implementation of Green Streets to refine the concept and identify additional streets where implementation is appropriate. Green Streets should include:

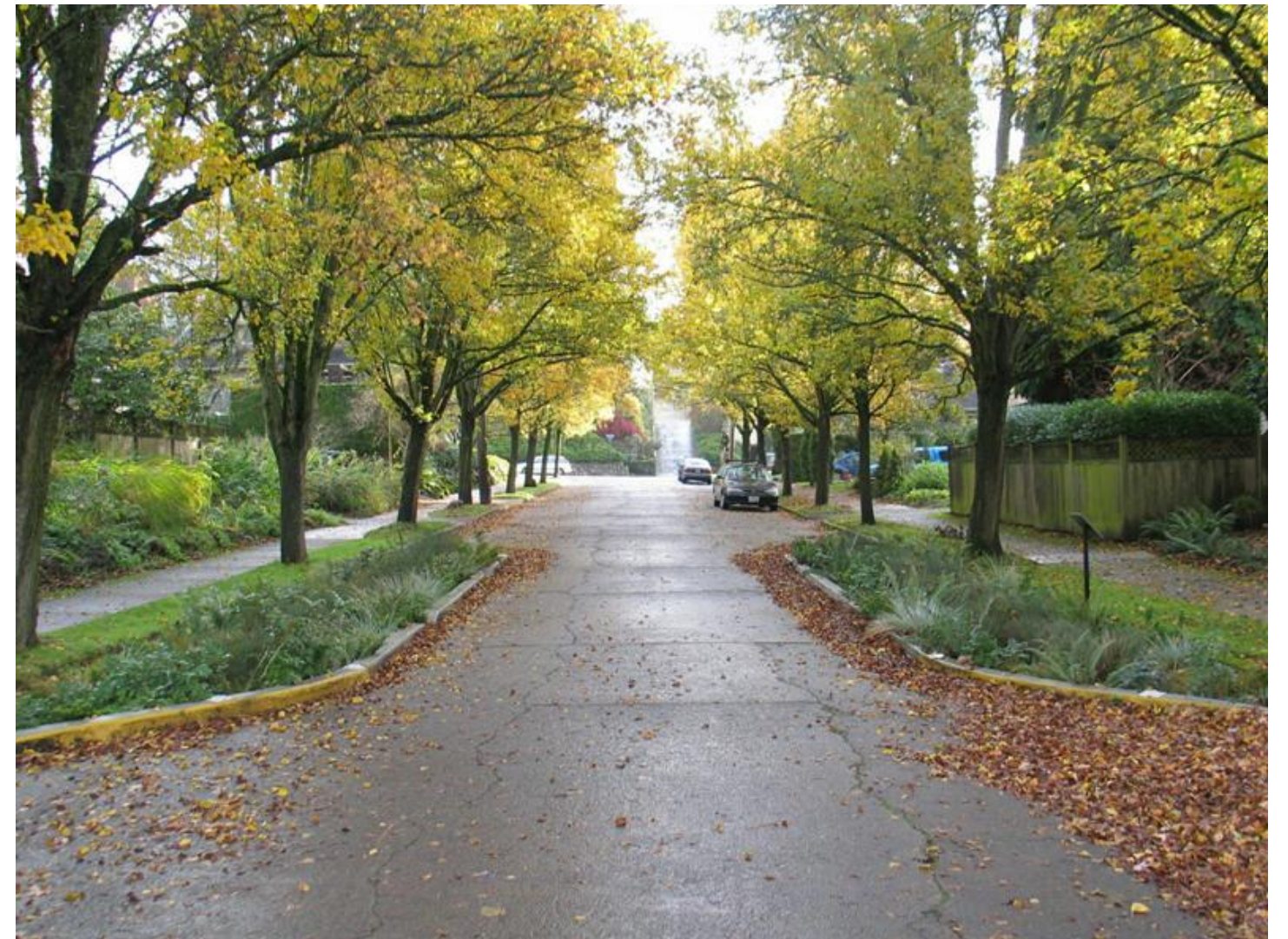
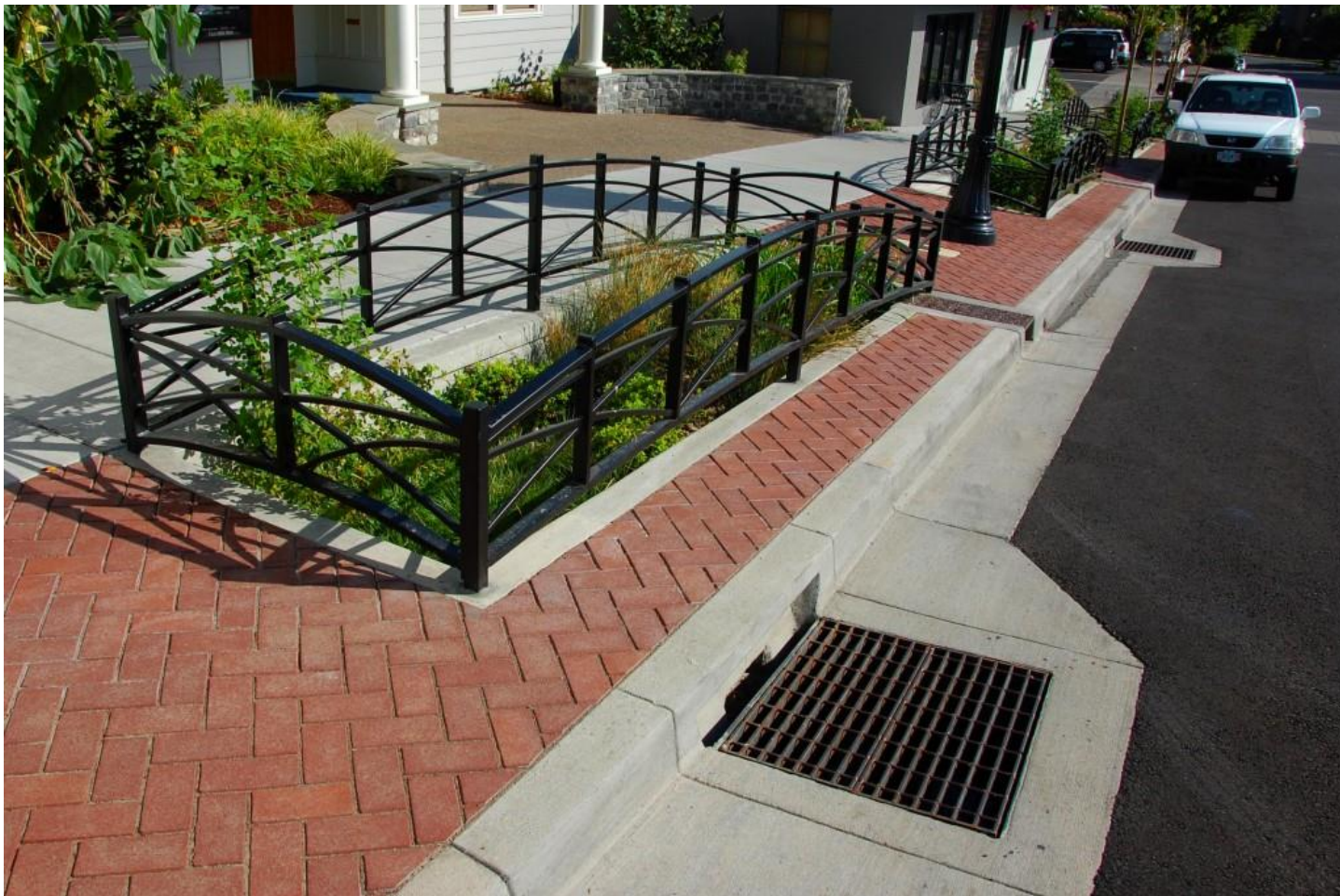
- Pedestrian amenities;
- Landscaped planting strips where space permits;
- Wider sidewalks, bicycle lanes, and mid-block crossings;
- Recommended speed limit maximums of 25 mph;
- Signage and wayfinding embedded into the concrete that clearly denotes the street as a "green street" and provides information about greenway connections;
- Pedestrian-scaled, energy-saving "light-emitting diode" (LED) street lighting; and
- Innovative stormwater management facilities such as porous pavers, tree boxes, and rain gardens.



Some Potential Design Elements

- Sidewalks:
 - Improved/widened sidewalks
 - Some new street trees
 - Complete missing sidewalks.
- Curb extensions
 - Intersections or mid block
 - Can include stormwater treatment
- Upgraded Pedestrian LED streetlights
- Utilities: Partial burial
- Historic Resources
- Stormwater
 - Pervious paver parking lanes
 - Infiltration curb extensions
 - Off-street @ SE corner of East St.
- Convert Bloodworth intersection from signal to stop-controlled.

Stormwater Curb Extensions



Cues to care / manicured look

Streetlights

Some of the options Duke Energy Progress currently has for pedestrian streetlights.

FIXTURES

Photos are representative of fixture and pole styles. Actual products and colors may vary slightly. Please inquire about our other fixture/pole combinations.



DELUXE ACORN

This enhanced Victorian-style fixture adds curb appeal to any walkway or sidewalk and dramatically limits unwanted "up light." It is available on multiple pole styles and a mounting height of 12 ft.

Colors: **Black** **Green**



SIX-SIDED TRADITIONAL

The six-sided traditional is designed to reduce light pollution while still providing excellent lighting and aesthetics. It is typically used for sidewalk and pathway lighting and is available on multiple pole styles and a mounting height of 12 ft.

Colors: **Black** **Green**



DELUXE TRADITIONAL

This elegant colonial style fixture makes a dramatic statement as it lights walkways and pathways and comes on multiple pole styles and a mounting height of 12 ft.

Colors: **Black**



OPEN TRADITIONAL

This environmentally-friendly fixture provides an installation with curb appeal and is available on multiple pole styles and a mounting height of 12 ft.

Colors: **Black** **Green**



ACORN

Reminiscent of turn-of-the-century lights, this is the perfect choice for historic neighborhoods and revitalized downtown areas. Typically used for sidewalk and pathway lighting, it is available on multiple pole styles and a mounting height of 12 ft.

Colors: **Black** **Green**



TRADITIONAL

The Traditional fixture fits any neighborhood and provides pathway lighting. It is available on multiple pole styles and a mounting height of 12 ft.

Colors: **Black**



POST TOP

This attractive colonial style fixture is a perfect residential light and an ideal complement to any home. The post top light mounts on an 8 ft. pole.

Colors: **Black**



TEARDROP

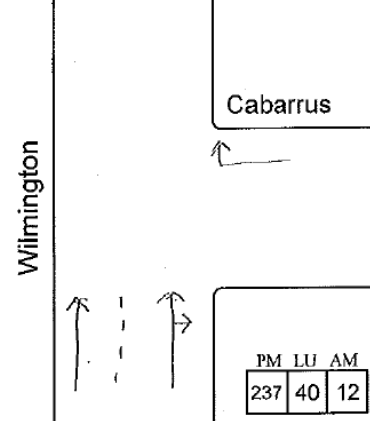
This beautiful fixture is multifunctional and adds elegance wherever it is placed. The Teardrop is used to light sidewalks, pathways, parking lots and streets and has mounting heights of 15 ft. and 25 ft. There are two options available for brackets.

Colors: **Black** **Green**

Available on pole style "C" only.

Turning Movement Counts 1/2

Intersection Description



Intersection Cabarrus /Wilmington

Date Count Completed 11-1-2013

Peak Periods for Intersection

AM 8:00 to 9:00
LU 12:00 to 1:00
PM 4:30 to 5:30

Weather Conditions

AM Clear
LU Clear
PM Clear

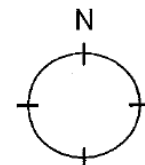
PM		
LU		
AM		

AM	LU	PM
237	40	12

.259	AM	.551	LU	.730	PM
93		54		89	
	93		54		89

AM		
LU		
PM		

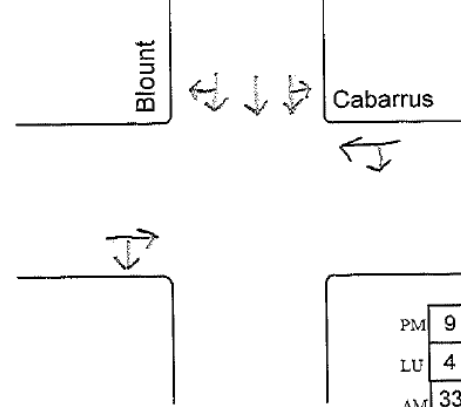
AM	LU	PM
65	42	10



City of Raleigh
Public Works

Counter(s) Larry Toney

Intersection Description



Intersection Blount-Cabarrus

Date Count Completed 6-10-14

Peak Periods for Intersection

AM 8:00 to 9:00
LU 11:30 to 12:30
PM 4:45 to 5:45

Weather Conditions

AM Clear
LU Clear
PM Clear

PM		
LU		
AM		

AM	LU	PM
33	14	0

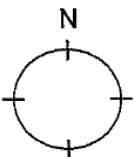
PM	.636	LU	.266	AM	.084
	35		8		18
55	.364	28	.714	214	.918
	20		20		196

AM	LU	PM

AM	.055	.797	.147
	30	423	78
AM	.032	.877	.091
	18	493	51
LU	.017	.946	.037
	28	1555	61
PM		1644	

AM	.441	LU	.697	PM	.655
	15		23		154
.559	19	.303	10	.345	81
	34		33		235

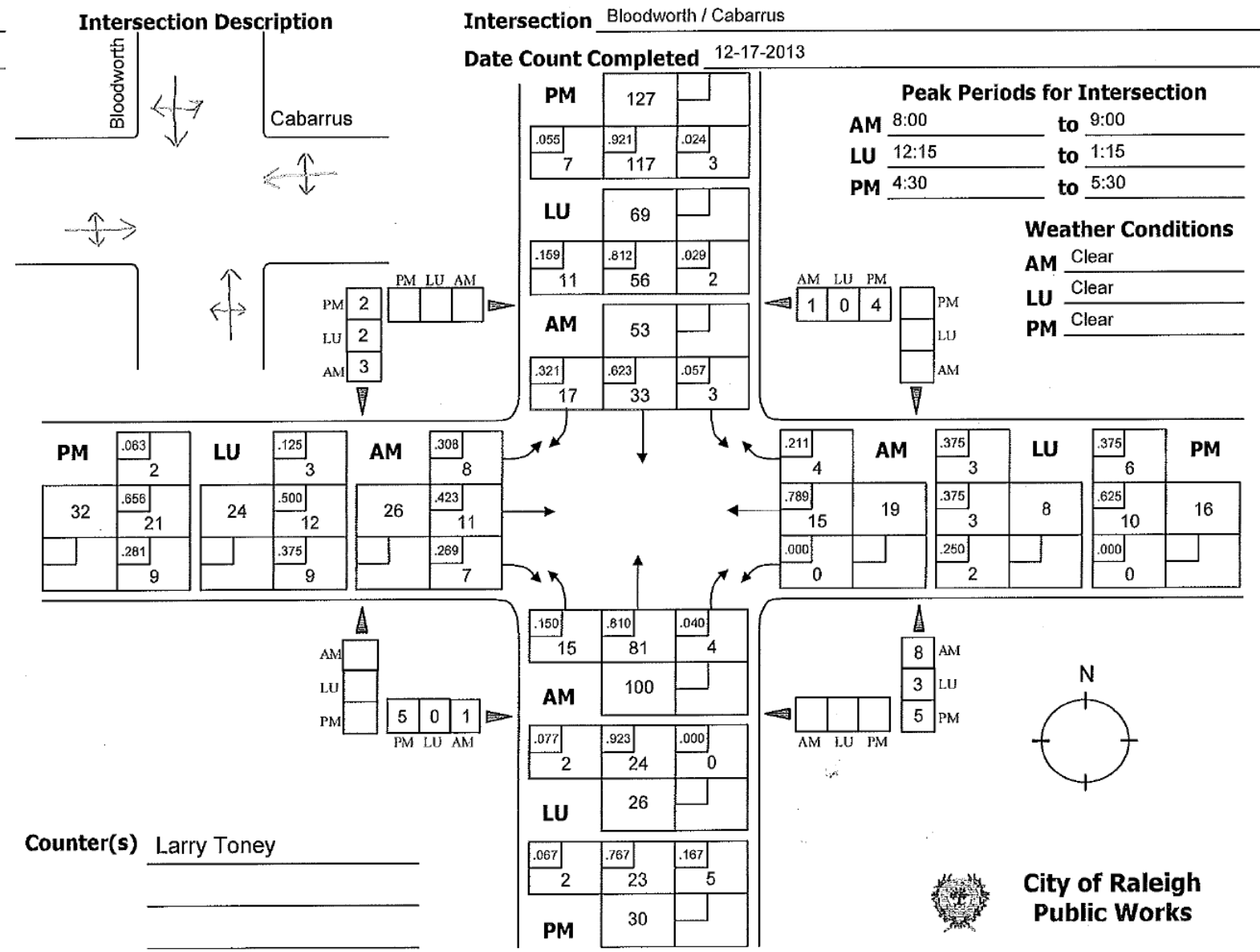
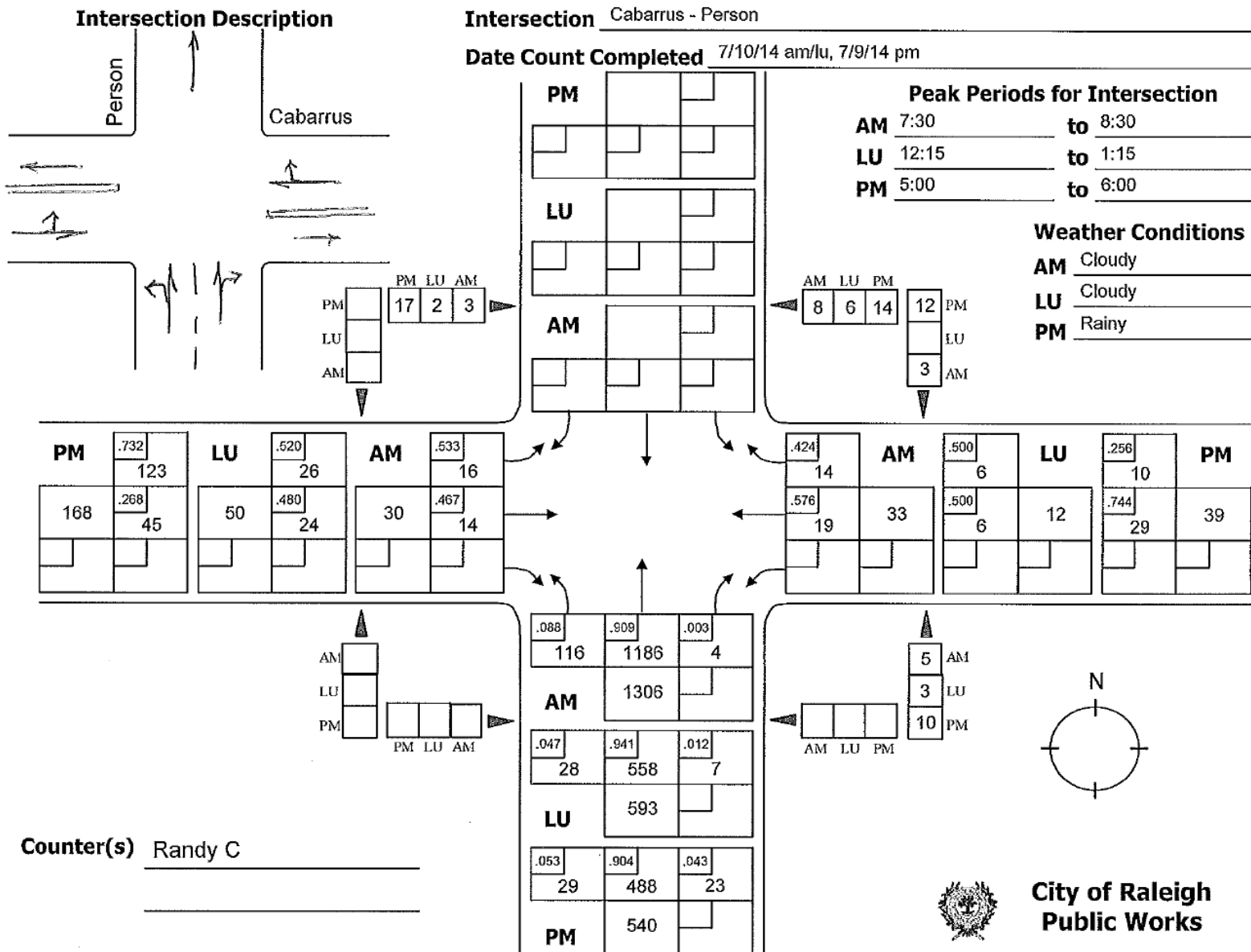
AM	LU	PM
11	12	10



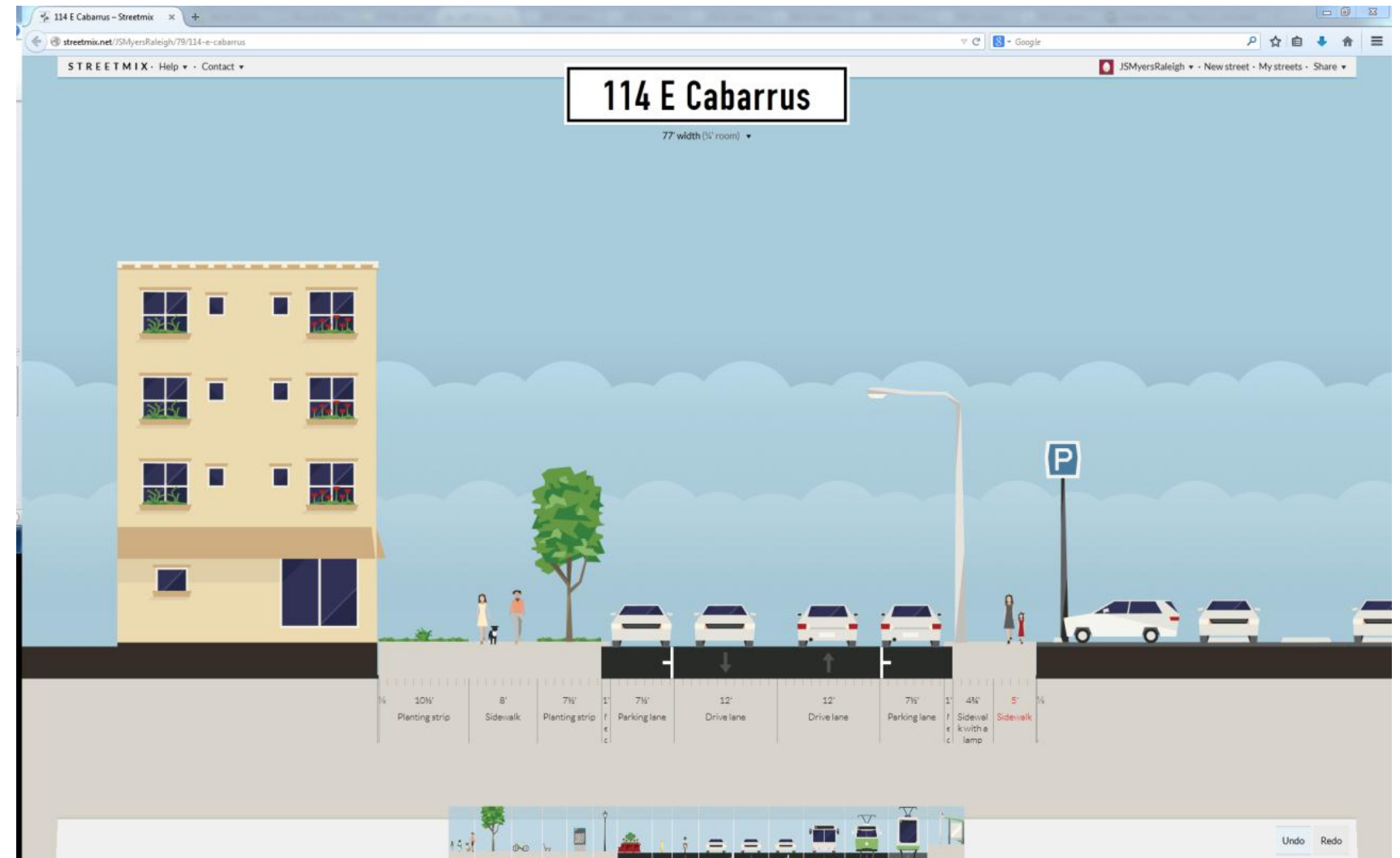
City of Raleigh
Public Works

Counter(s) Larry

Turning Movement Counts 2/2

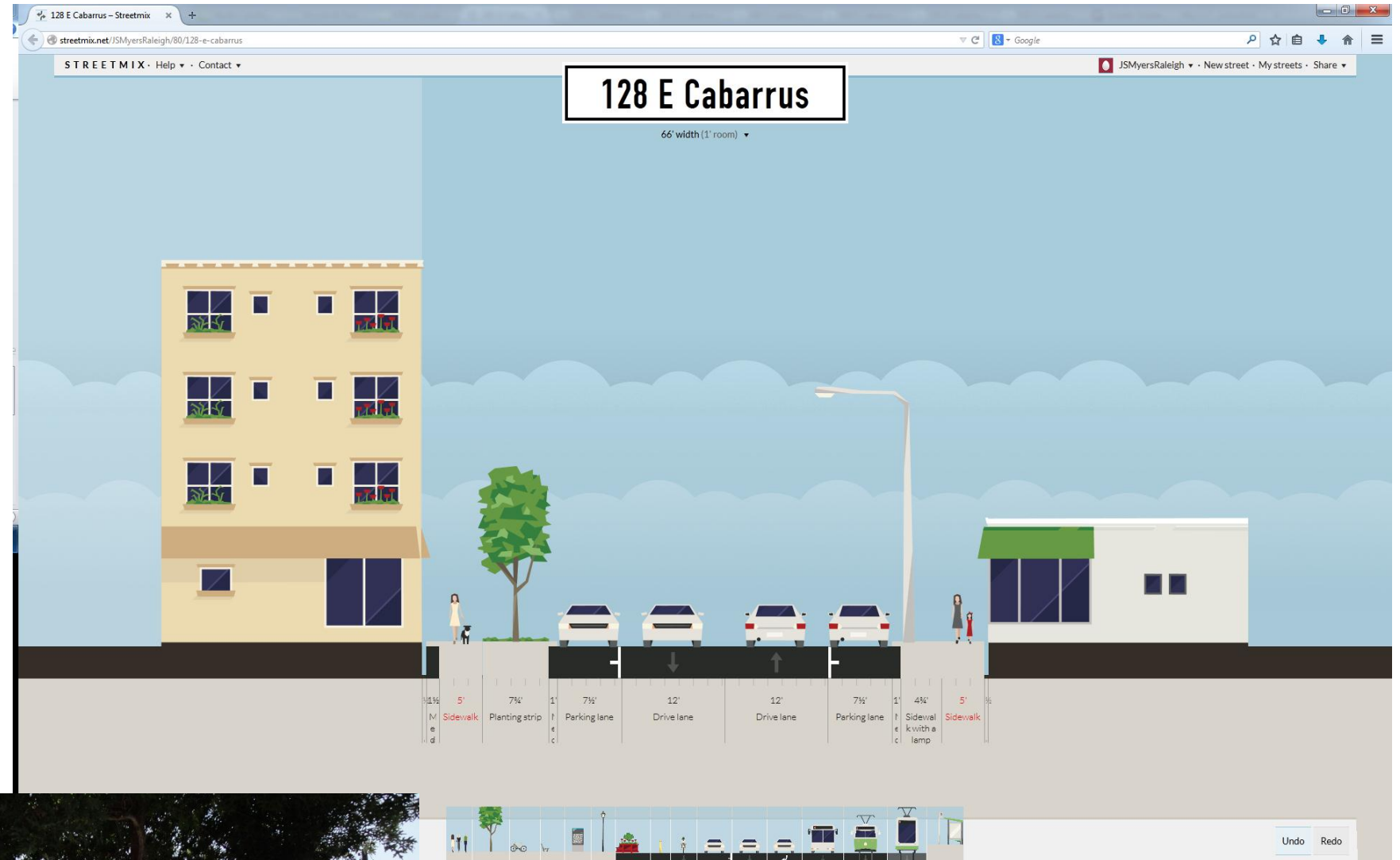


~114 E. Cabarrus



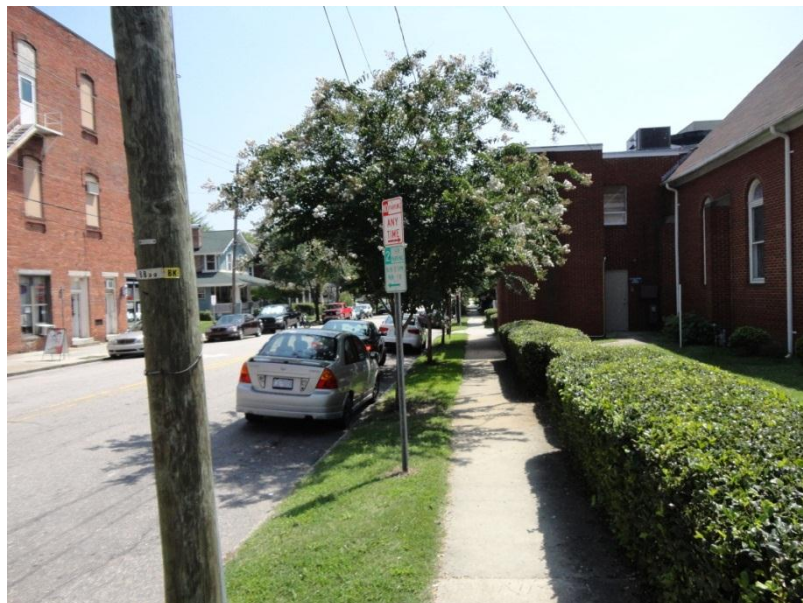
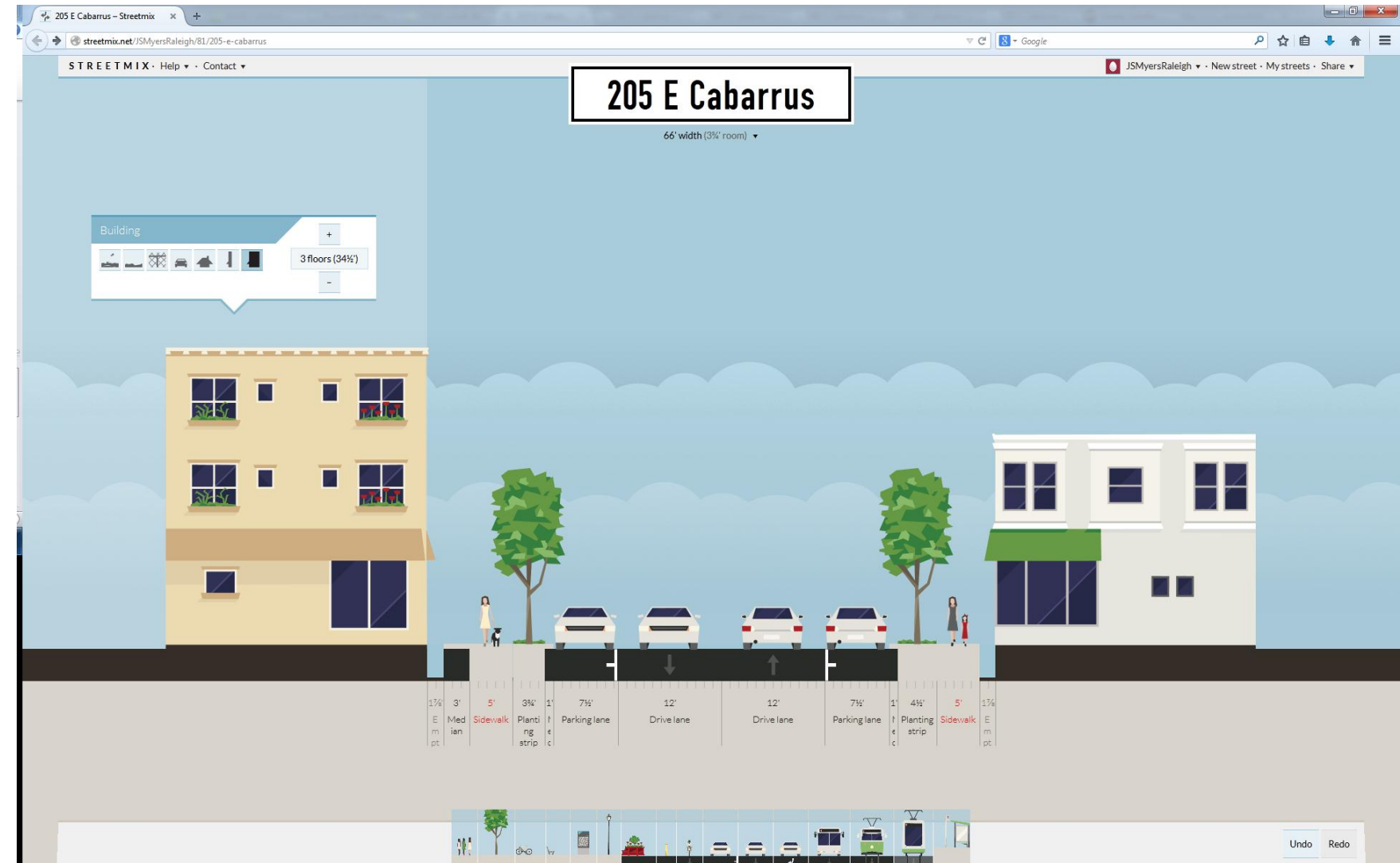
COR parking deck on the north; parking near Lincoln Theatre on the south.

~128 E. Cabarrus



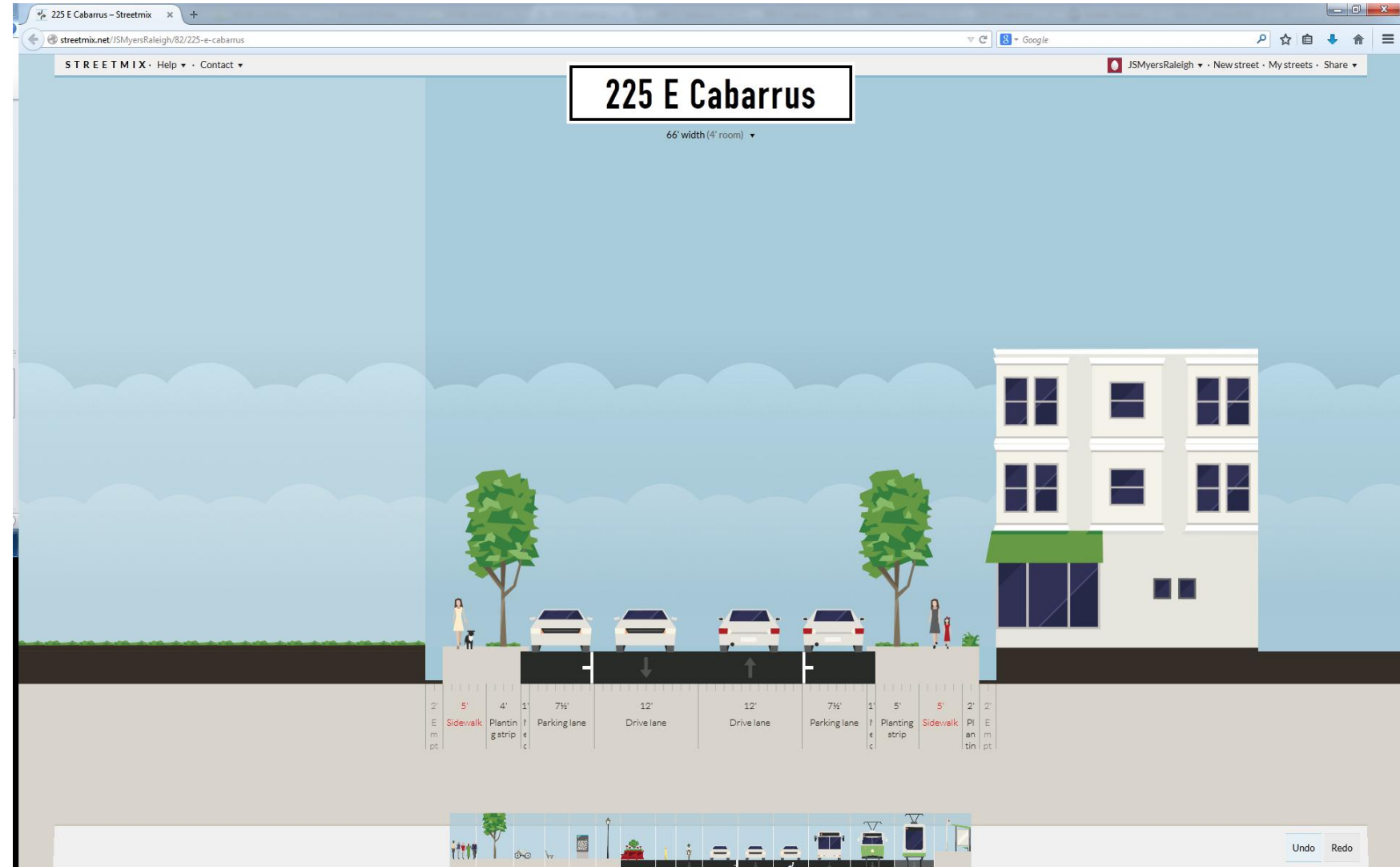
Residential-wrapped garage on the north; Lincoln Theatre on the south.

~205 E. Cabarrus



Historic Prince Hall Masonic Temple on the north; Tupper Memorial Baptist Church on the south.

~225 E. Cabarrus



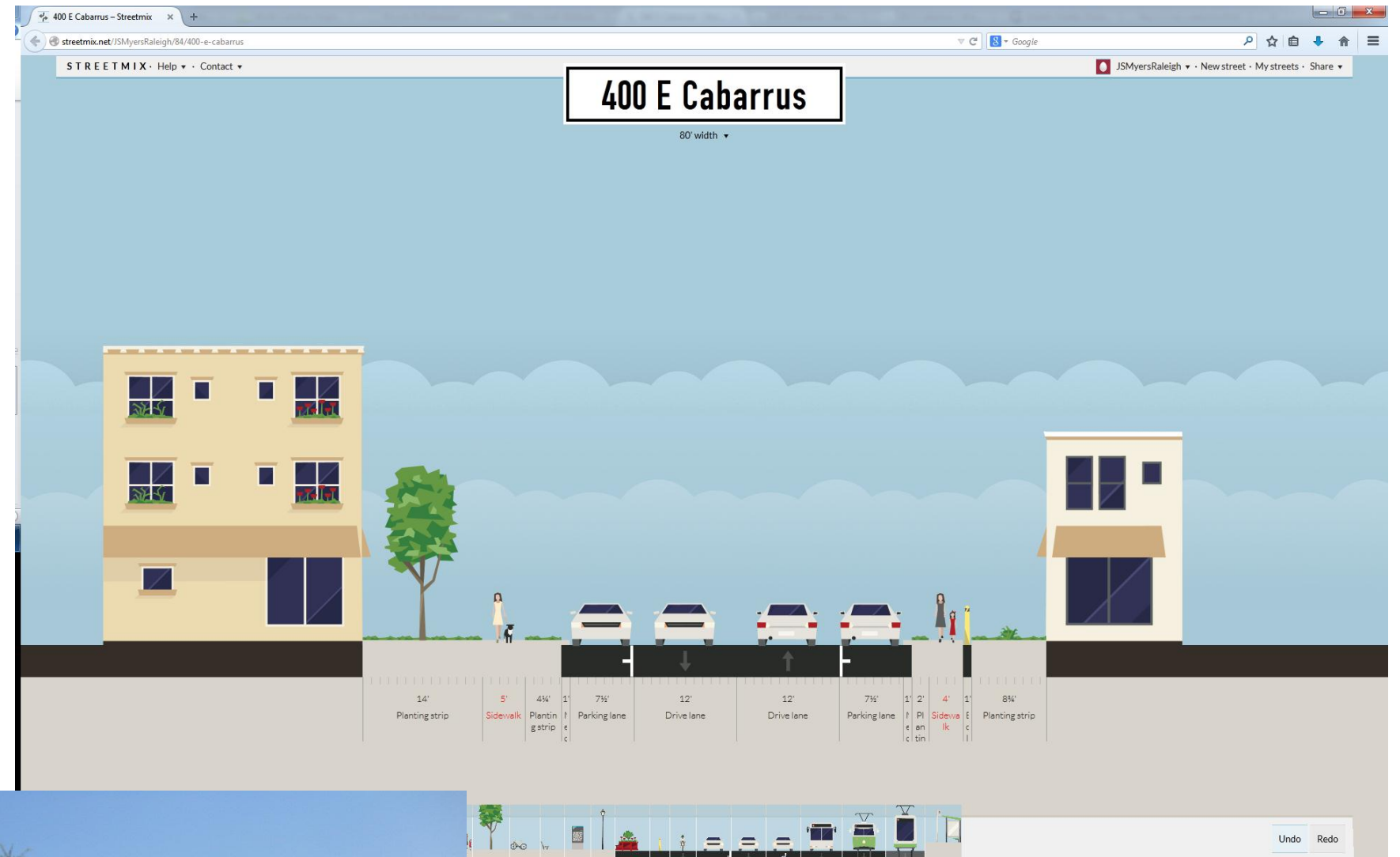
*Single family residential on the north;
multi-family on the south.*

~315 E. Cabarrus



Generally single family residential on both sides of the street.

~400 E. Cabarrus



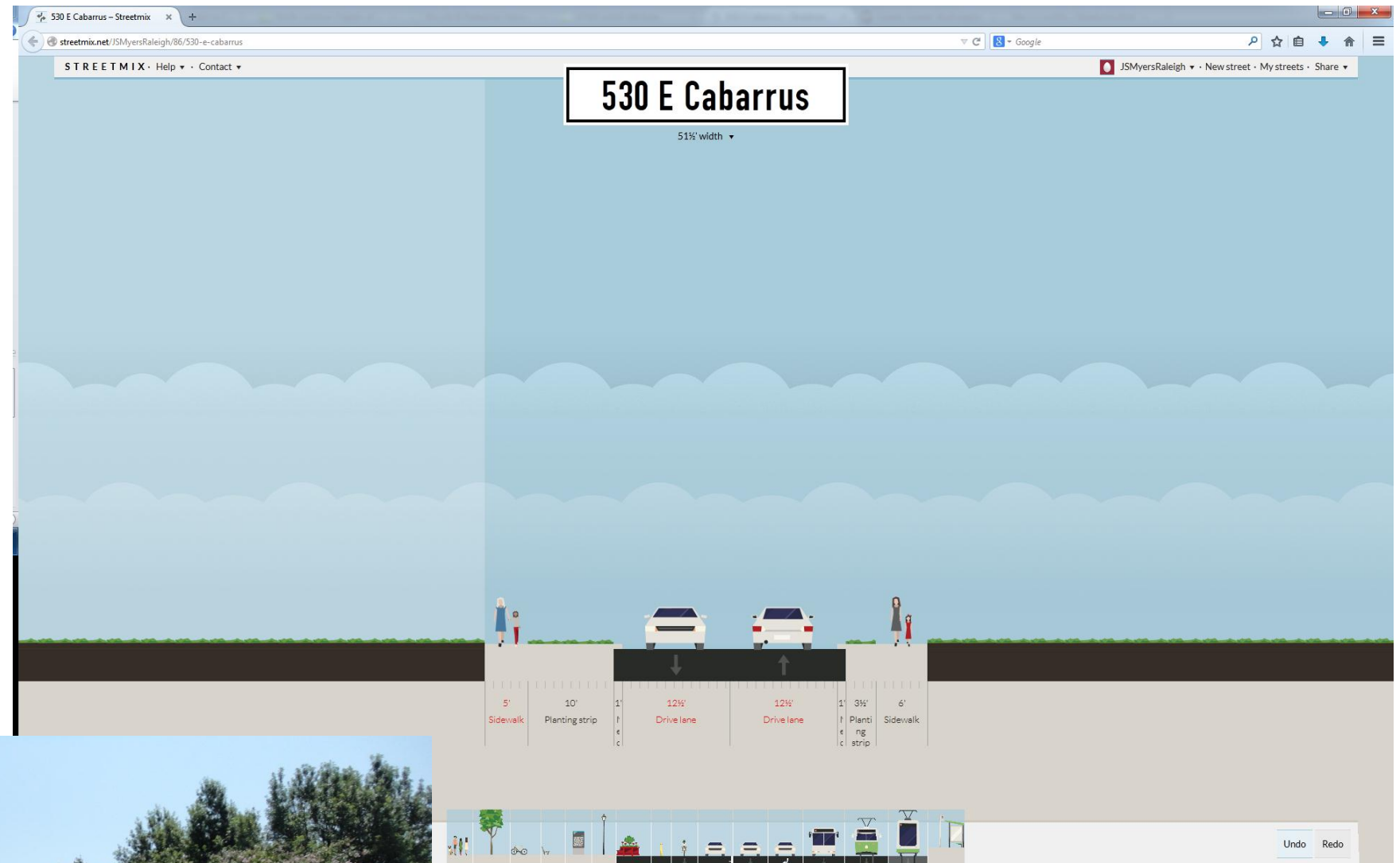
Carlton Place multi family residential on the north; single family residential side yard and city property on the south.

Cabarrus @ East



Carlton Place and single family residential on the north; vacant city property on the south. Cabarrus Street narrows east of East Street.

Cabarrus @ Chavis

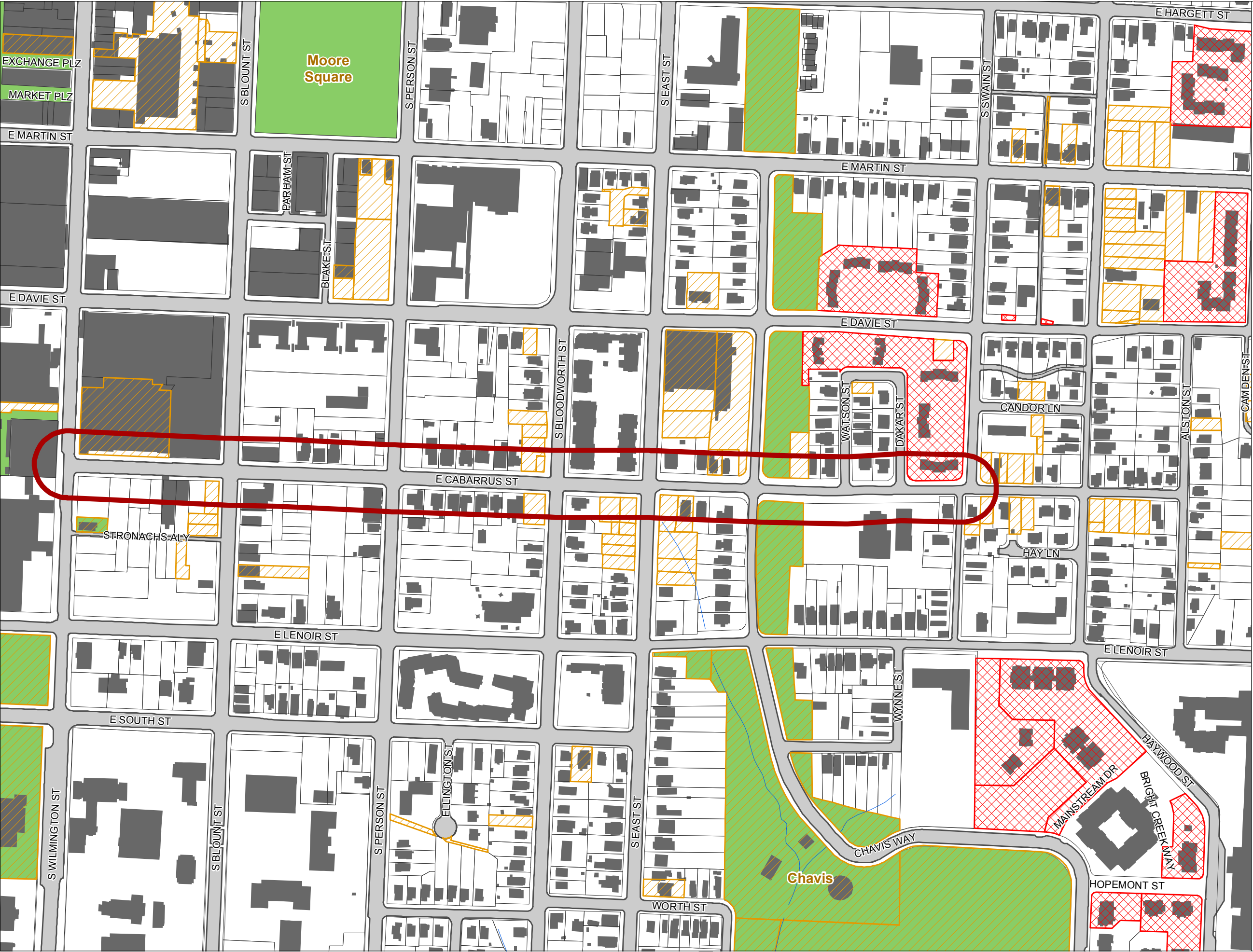


Chavis Way greenway crosses Cabarrus east of the intersection. Many missing sidewalks and generally single family residential buildings.

~555 E. Cabarrus



Single family residential and public housing on the north; Rush Metropolitan African Methodist Episcopal Zion on the south.



Cabarrus Street Streetscape

Public Property

- Cabarrus Street Streetscape Corridor
- Parcels
- Buildings
- Streets
- Parks
- Public Property**
 - City of Raleigh
 - Housing Authority



08/22/14

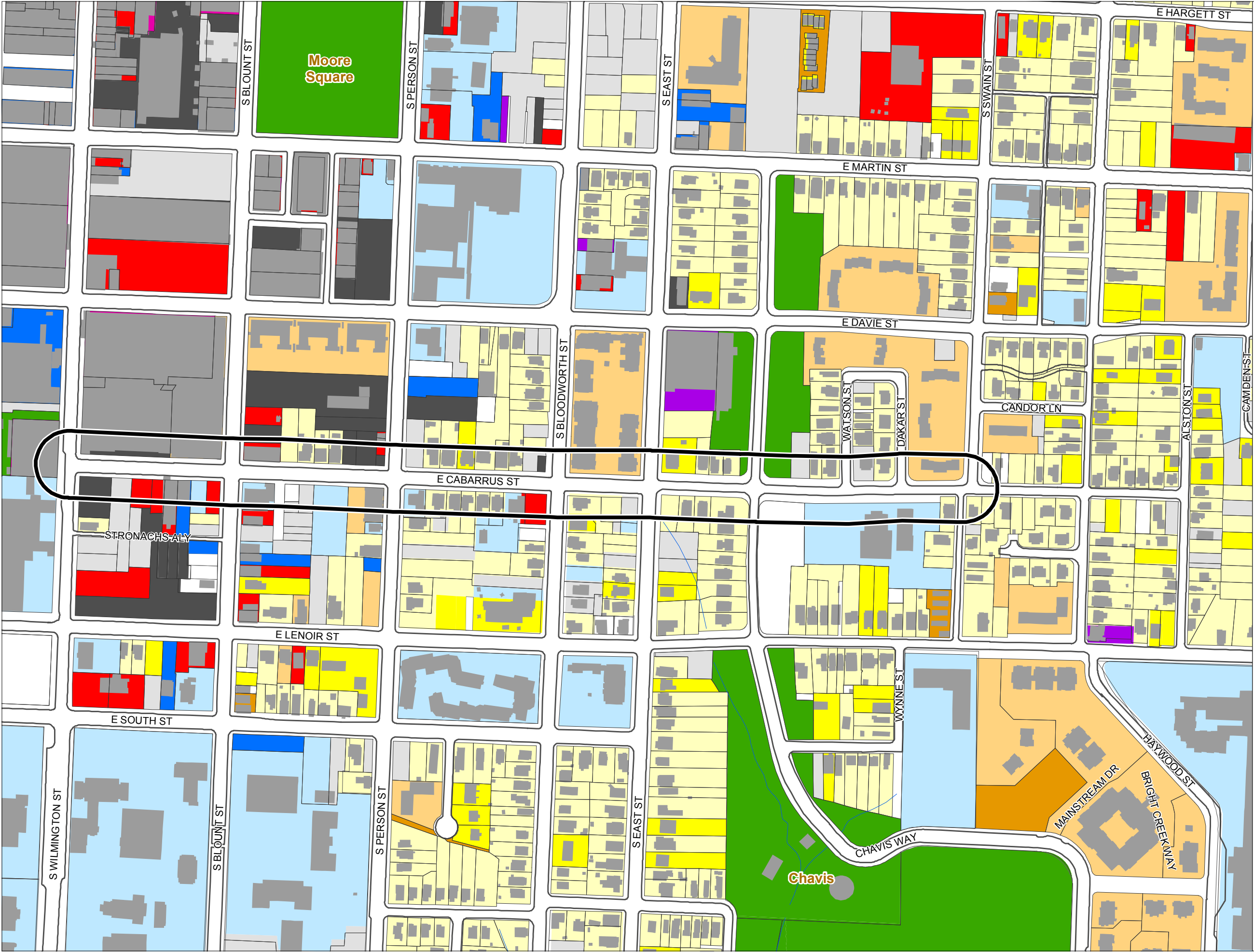
0 75 150 300 450 600 Feet

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office of transportation planning

Map Created By: Dan Hoff, Office of Transportation Planning

Cabarrus Street Streetscape

Existing Land Use Map



Cabarrus Street Streetscape Corridor

Parcels

Buildings

Streets

Land Use

SINGLE FAMILY

TOWNHOUSE, MULTIPLEX RESIDENTIAL

APARTMENT, CONDOMINIUM RESIDENTIAL

OTHER RESIDENTIAL

RETAIL

OFFICE

INSTITUTIONAL

INDUSTRIAL

MIXED USE

INFRASTRUCTURE AND TRANSPORTATION

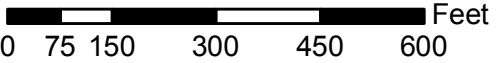
PARKS, GREENWAYS, OPEN SPACE, GOLF

VACANT

No Information



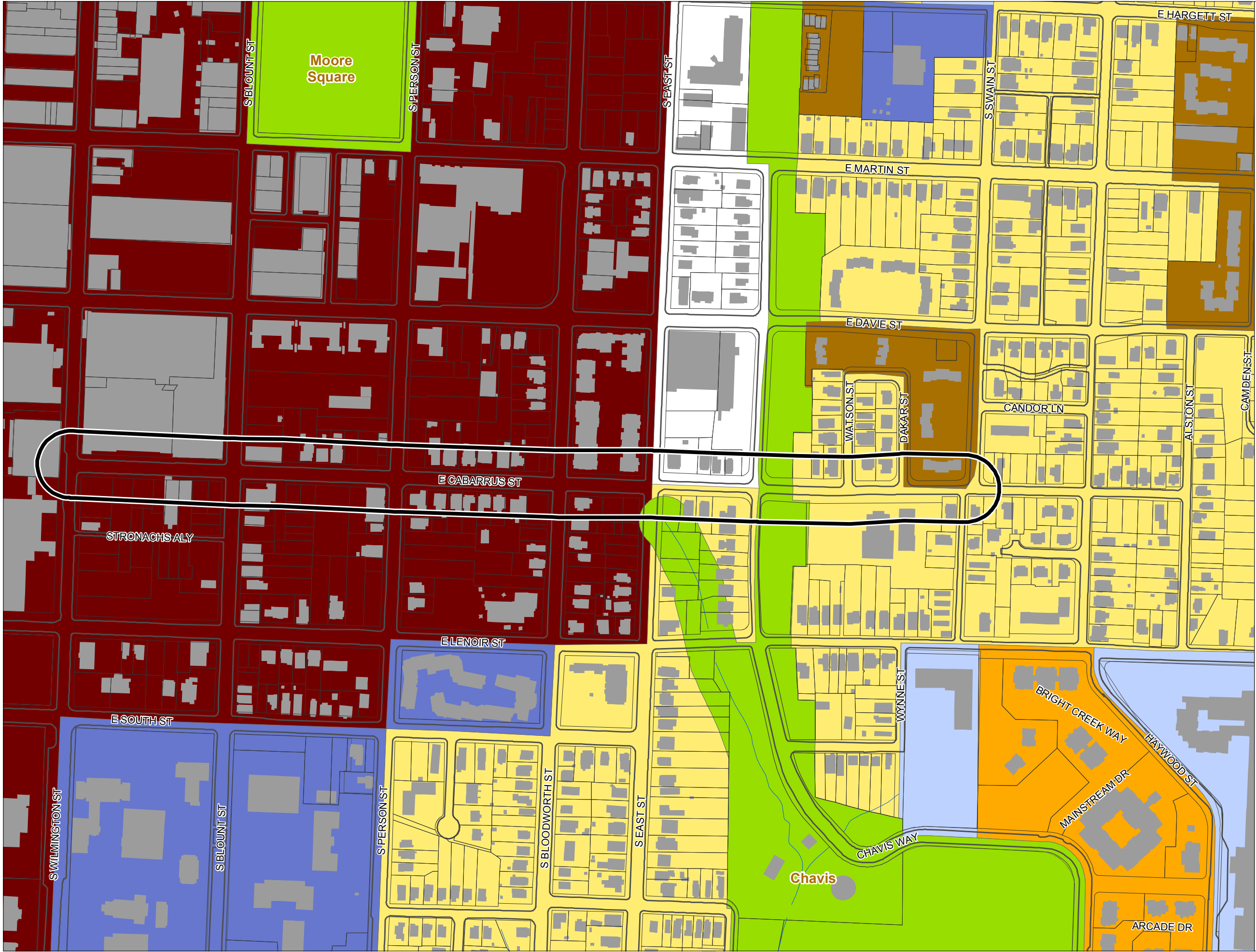
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Map Created By: Dan Hoff, Office of Transportation Planning



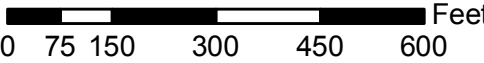
Cabarrus Street Streetscape

Future Land Use Map (From 2030 Comp Plan)

- Cabarrus Street Streetscape Corridor
 - Parcels
 - Buildings
 - Streets
- Future Land Use Map (FLUM)**
- Public Parks & Open Space
 - Moderate Density Residential
 - Medium Density Residential
 - High Density Residential
 - Institutional
 - Public Facilities
 - Central Business District



08/22/14



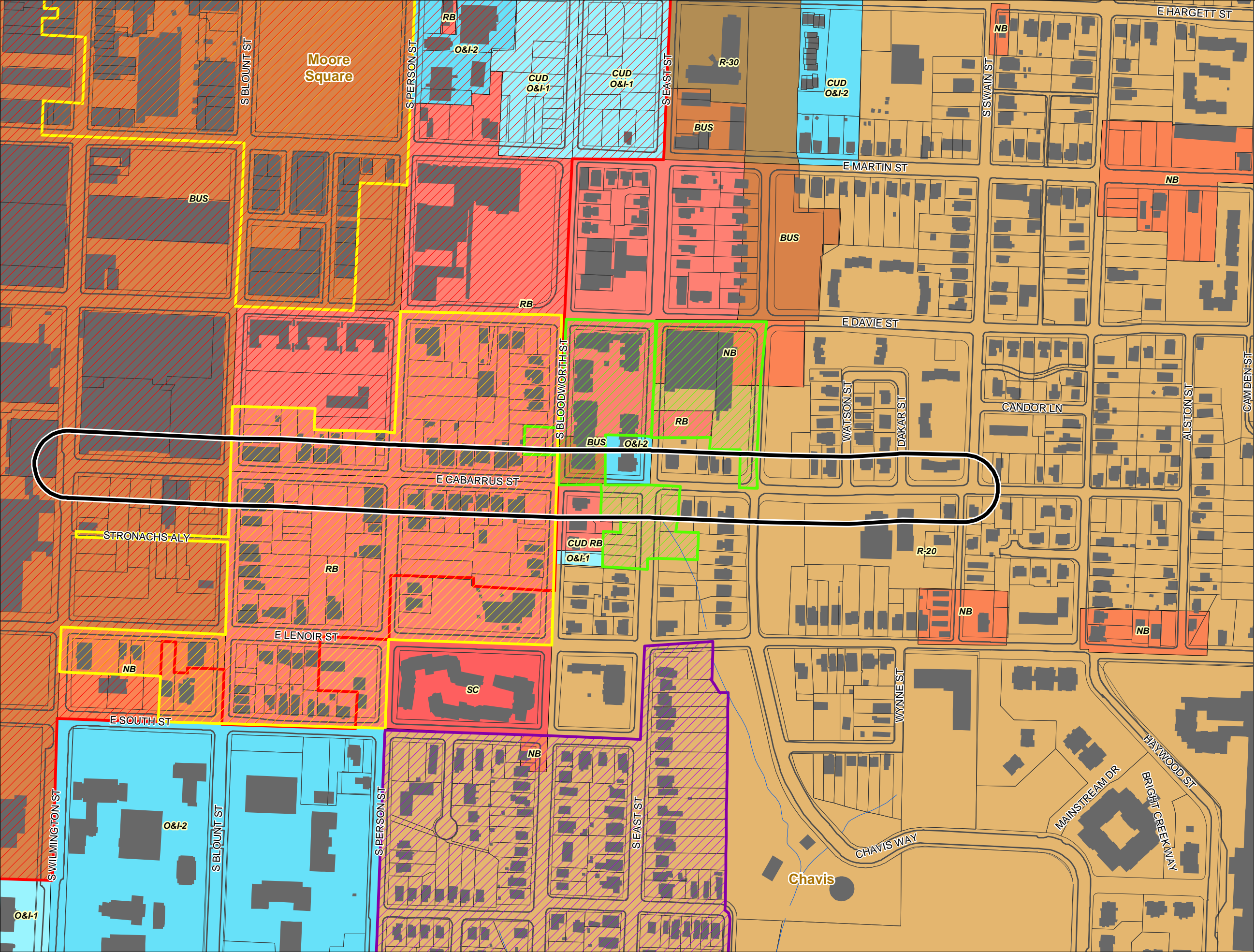
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Map Created By: Dan Hoff, Office of Transportation Planning

Cabarrus Street Streetscape

Existing Zoning



Legend

- Cabarrus Street Streetscape Corridor
- Parcels
- Buildings
- Streets

Overlay Districts

- Planned Development Overlay District
- Neighborhood Conservation Overlay District
- General Historic Overlay District
- Downtown Overlay District

Zoning Districts

- R-20
- R-30
- RB
- CUD RB
- O&I-1
- CUD O&I-1
- O&I-2
- CUD O&I-2
- SC
- NB
- BUS

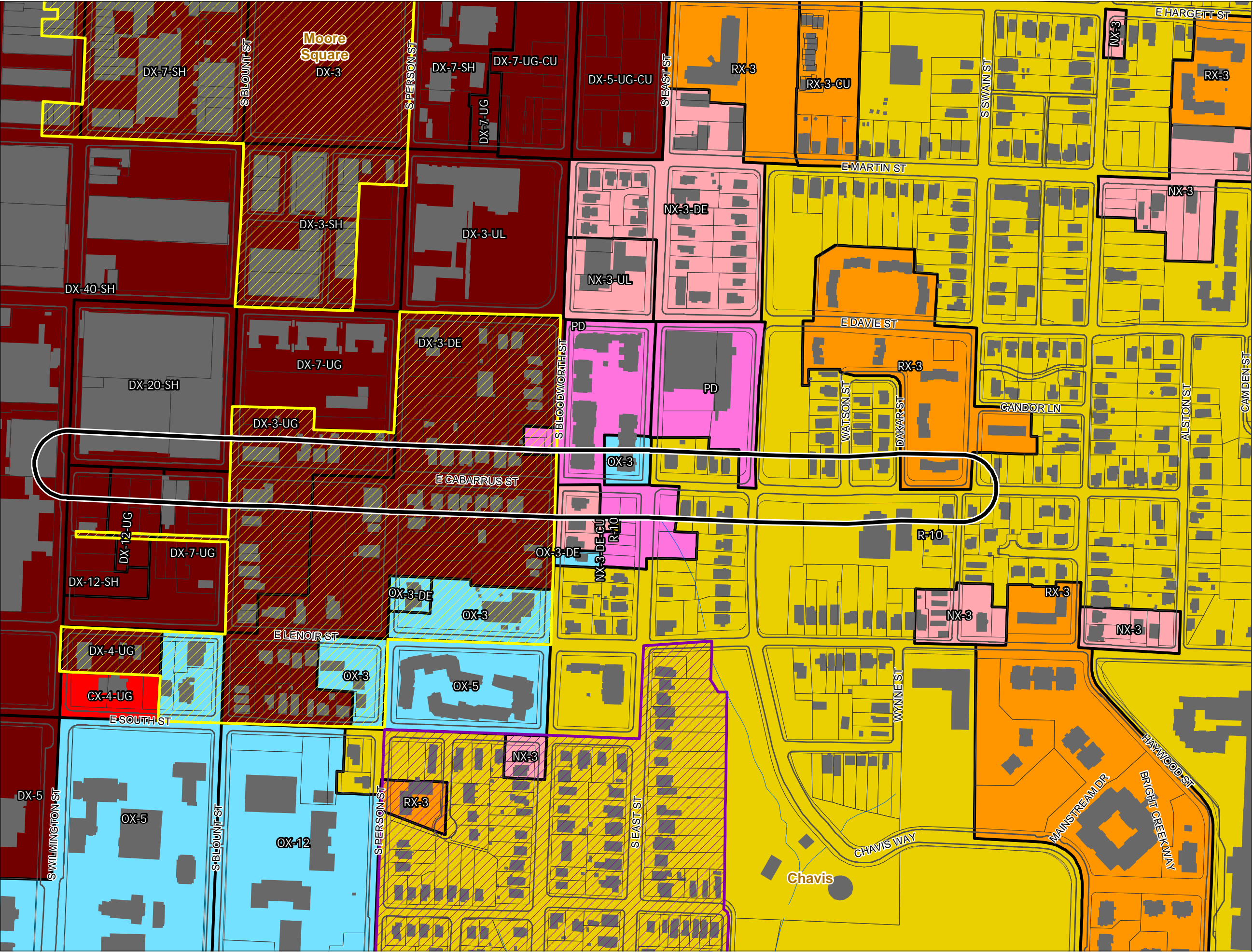
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Map Created By: Dan Hoff, Office of Transportation Planning

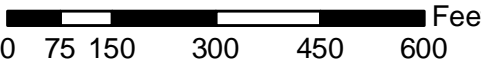
Cabarrus Street Streetscape

Proposed Zoning









- Cabarrus Street Streetscape Corridor
- Parcels
- Buildings
- Streets
- Overlay Districts**
 - Neighborhood Conservation Overlay District
 - General Historic Overlay District
- UDO Zoning**
 - Residential Districts**
 - Residential-10 (R-10)
 - Mixed Use Districts**
 - Residential Mixed Use (RX-)
 - Office Mixed Use (OX-)
 - Neighborhood Mixed Use (NX-)
 - Commercial Mixed Use (CX-)
 - Downtown Mixed Use (DX-)
 - Special Districts**
 - Planned Development (PD)

The UDO Zoning shown is a Public Review Draft, please see www.raleighudo.us for the latest information and updates.



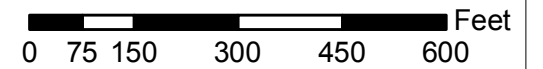
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The map displays a dense urban grid with numerous streets. A red line is drawn across the middle of the map, highlighting a specific area. The map includes labels for various streets and landmarks, such as Moore Square and Chavis. The Chavis River is visible in the lower right quadrant, flowing through the neighborhood. The map also shows various building footprints and green spaces, providing a comprehensive view of the urban layout.

 Parcels
 Buildings
 Streets
 Parking/Sidewalks/Driveways
 Parks
 Schools



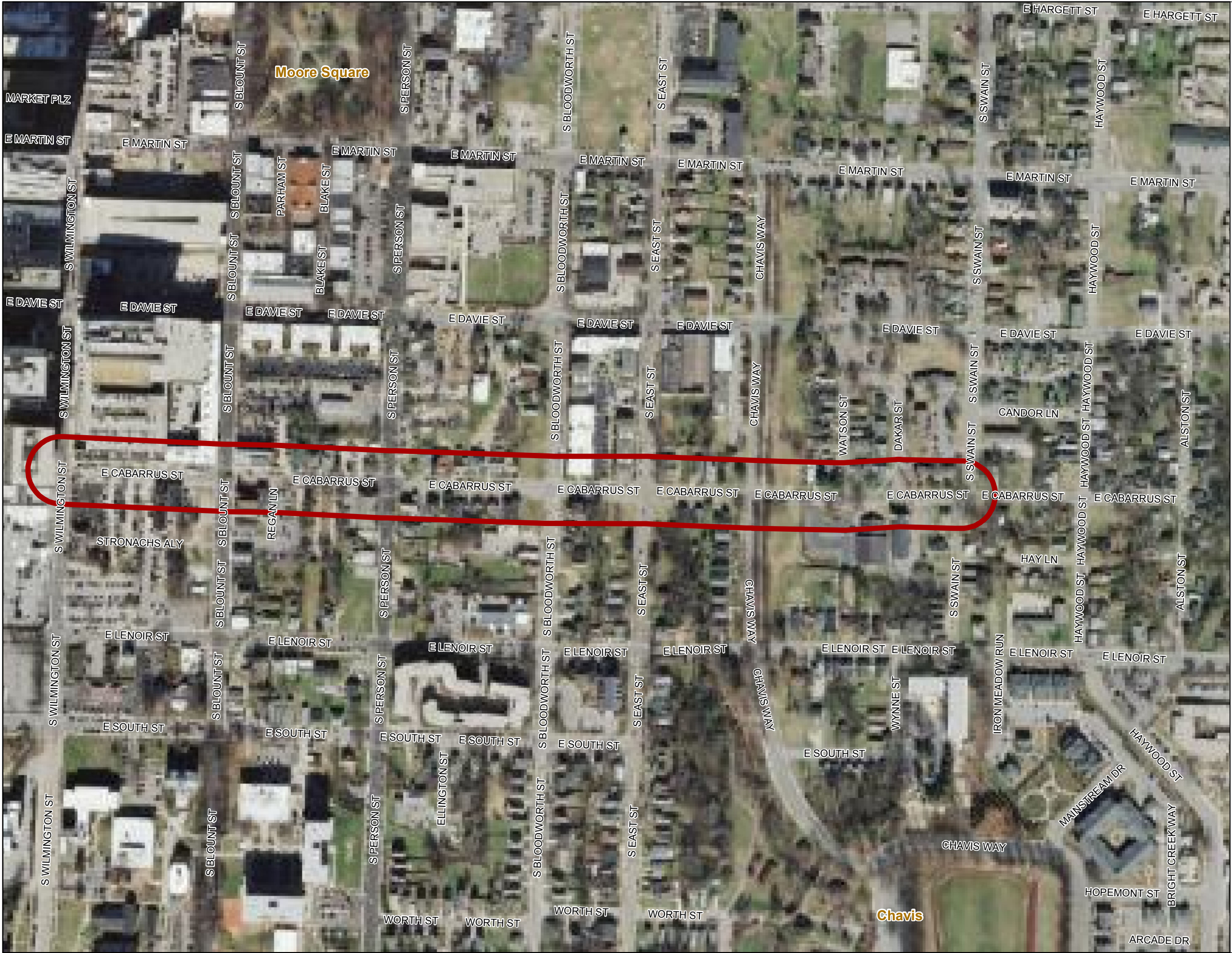
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Cabarrus Street Streetscape


2013
Aerial Photo

 Cabarrus Street Streetscape Corridor



08/22/14

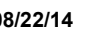
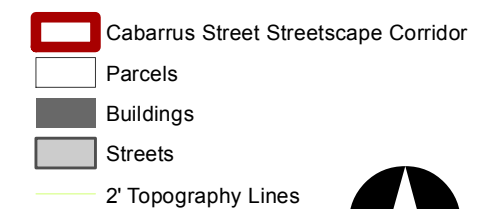
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Topography and Stormwater Infrastructure

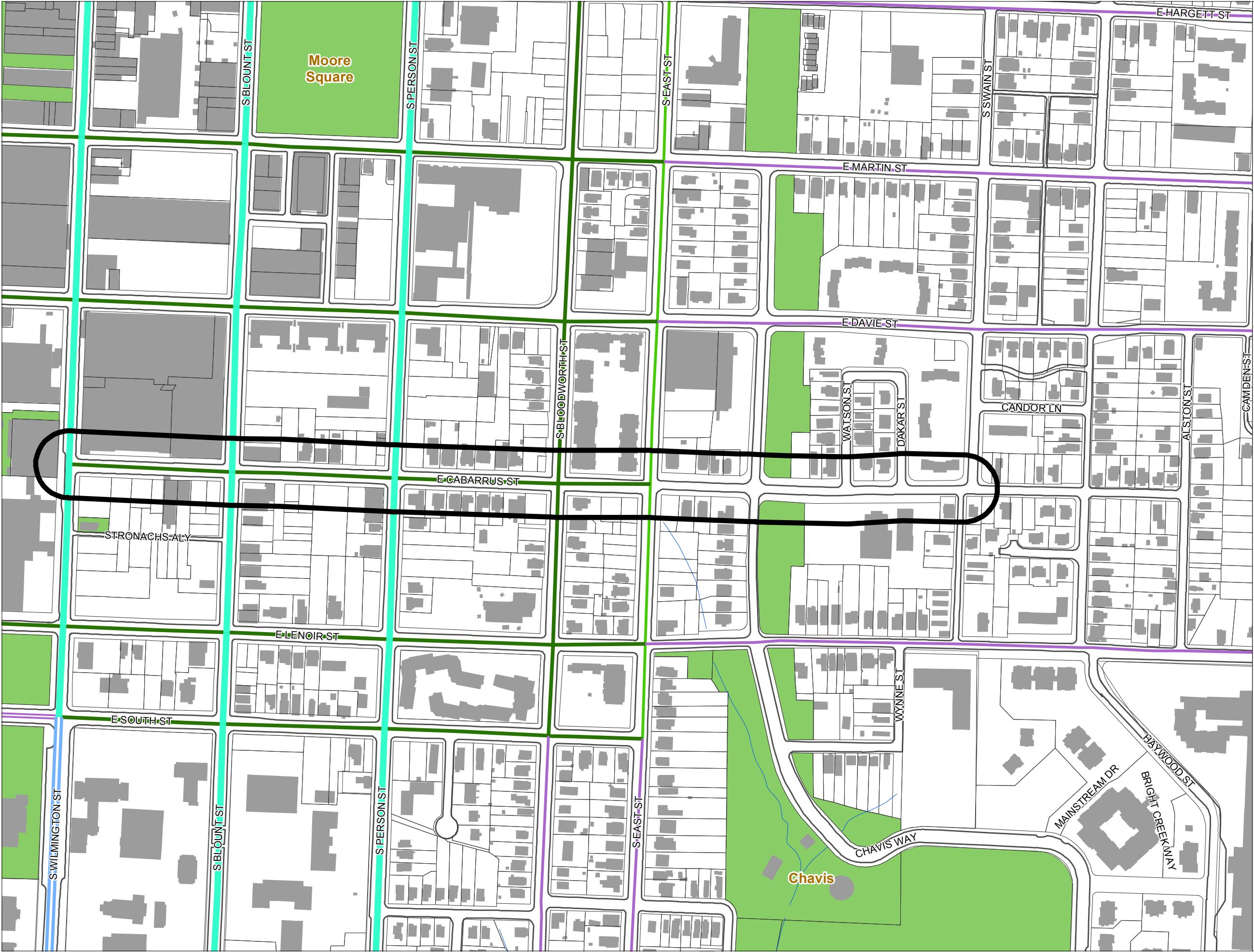


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Map Created By: Dan Hoff, Office of Transportation Planning

Cabarrus Street Streetscape

Street Plan



Street Plan

B. Local Streets

- Neighborhood Street

C. Mixed Use Streets

- Avenue 2-Lane, Undivided
- Avenue 2-Lane, Divided
- Main Street, Parallel Parking

D. Major Streets

- Avenue 4-Lane, Parallel Parking
- Avenue 6-Lane, Divided

Legend

- Cabarrus Street Streetscape Corridor
- Parcels
- Buildings
- Streets
- Parks

Scale

0 75 150 300 450 600 Feet

North Arrow

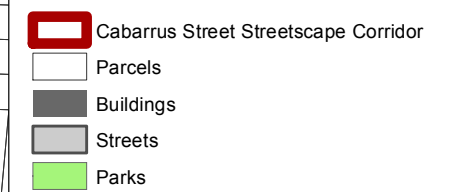
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Map Created By: Dan Hoff, Office of Transportation Planning

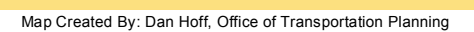
CAT Bus Network and Stops



office of transportation planning

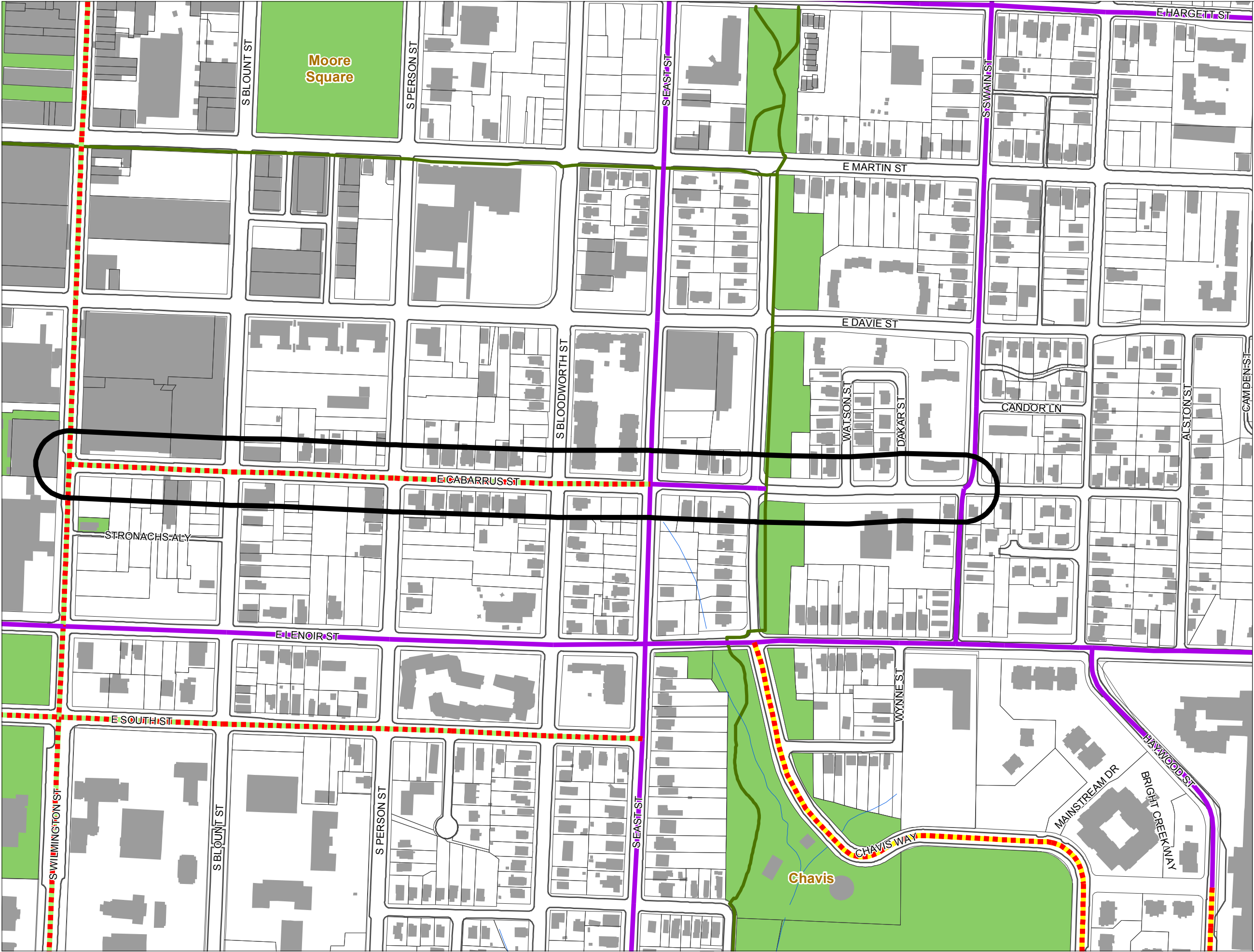
Map Created By: Dan Hoff, Office of Transportation Planning

Pedestrian Circulation



Cabarrus Street Streetscape

Proposed Bicycle Network



- Cabarrus Street Streetscape Corridor
 - Parcels
 - Buildings
 - Streets
 - Parks
 - Greenway Trails
- ### Proposed Bicycle Network
- Sharrow, Stripe
 - Wide Lane, Restripe
 - Bicycle Lane, Road Diet
 - Bicycle Lane, Stripe
 - Bicycle Lane, Restripe
 - Bicycle Lane, New Construction
 - Paved Shoulder, New Construction
 - Bicycle Lane, Existing



08/22/14

0 75 150 300 450 600 Feet

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Map Created By: Dan Hoff, Office of Transportation Planning

Historic Resources

