

# Residential Design Standards Stakeholders Meeting



**CHARLOTTE-MECKLENBURG  
PLANNING DEPARTMENT**

**NOVEMBER 6TH, 2008**

# Agenda



- Introductions
- Housekeeping
- Presentation #1-Post Construction Controls Ordinance
- Presentation #2-Tree Ordinance
- Presentation #3-Conservation Districts
- Next Steps

# Implications of the City's *Post Construction Controls Ordinance*



**DARYL HAMMOCK**  
**ENGINEERING DEPARTMENT, STORM**  
**WATER SERVICES DIVISION**  
**DHAMMOCK@CI.CHARLOTTE.NC.US**

# Post-Construction Controls Ordinance: What is it?



- A federally required watershed protection ordinance
- Unlike Erosion Control Ordinance - - This one applies *after* the site is constructed
- Goal is control and treatment of storm runoff
- Applies to new impervious surfaces
- Applies to new subdivisions after July 1, 2008



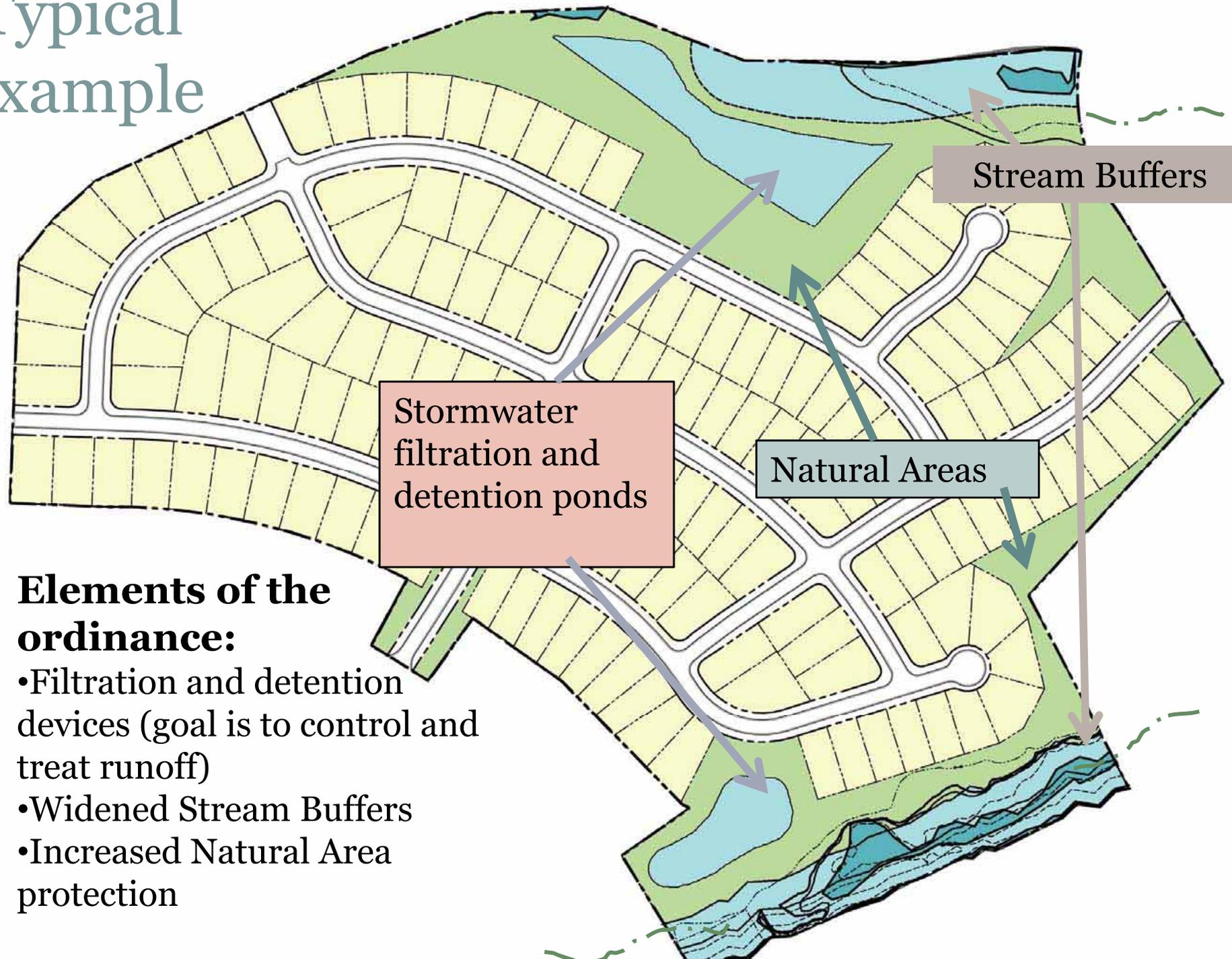
"To preserve, protect  
and enhance  
North Carolina's water..."

# What is required?



- For residential subdivisions, the ordinance requires;
  - Stormwater **filtration and detention devices** (BMP's)
  - Stream **buffer zones**
  - Undisturbed **natural areas**
- All will be included in new developments

# Typical Example



## Elements of the ordinance:

- Filtration and detention devices (goal is to control and treat runoff)
- Widened Stream Buffers
- Increased Natural Area protection



## Successful wet pond examples

*Example of a stormwater pond in the focal area of an apartment community*



*Lush planting stabilizes the shoreline, & provides enhanced pollutant removal, and habitat in ponds*

# Examples

Structural BMP's are often incorporated into the landscape as amenities



**Bioretention Areas**



# Maintenance



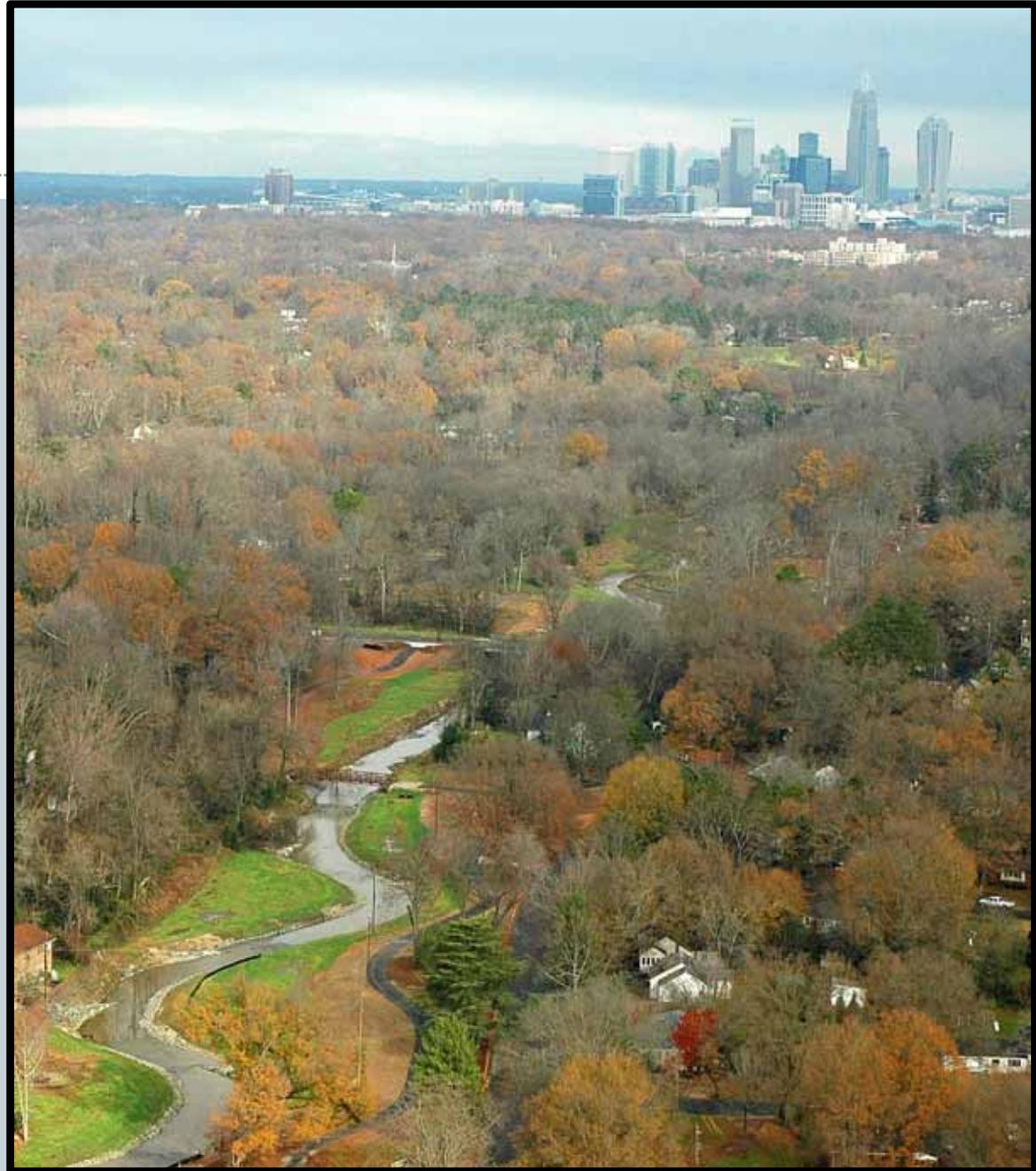
- City funded maintenance of single family BMP's
- Functional maintenance only
- HOA responsible for aesthetic maintenance



# Questions?



**Daryl Hammock, PE E&PM**  
**Storm Water Services**  
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**704-336-2167**



Little Sugar Creek Greenway and Stream Restoration

*City of Charlotte – Tree Ordinance  
Single Family Development*



**TOM JOHNSON  
URBAN FORESTRY SPECIALIST,  
C.A.**

# Why



- Aesthetics
- Pollution removal
- Oxygen production
- Temperature reduction/shade
- Energy savings for heating/air
- Increased property values
- Reduce erosion & improve H<sub>2</sub>O infiltration

# Tree Ordinance History



- 1978 – Tree Ordinance Chapter 21 City Code adopted
- 1988 – Revised to add tree protection
- 2000 – Revised to include UMUD and MUDD zones
- **2002 – Revised to add Single Family including major and minor subdivisions**

# Process



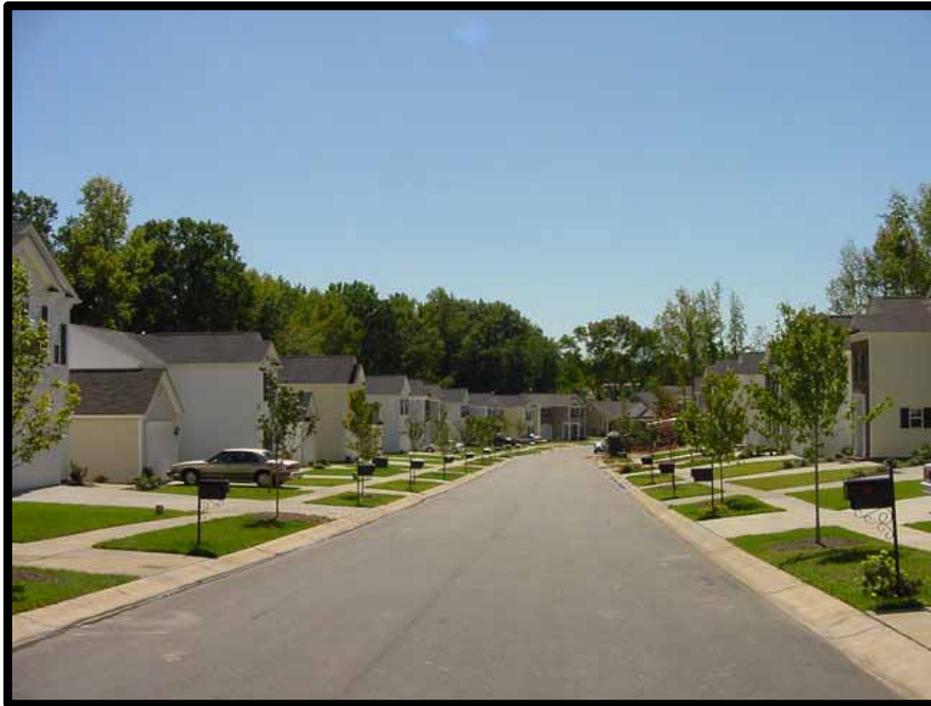
- Urban forestry reviews subdivision plans for tree ordinance requirements
- Tree save areas are field verified
- Single family checklist provides requirements for plan submittal and is used to notify designer of deficiencies along with redlined plans
- Once plan is approved, tree preservation fence is installed

# Tree Save Areas



- 10% of site required to be preserved as tree canopy
- If 5-10% is treed, plant to meet 10%
- If less than 5% treed, plant to meet 5%
- Rate: 18 trees/acre

# Tree Planting



- Both sides of new streets
- Existing streets with houses fronting them
- 40-50 ft spacing
- 6 ft wide planting strip or behind sidewalk
- 75% large maturing

# Heritage & Specimen Trees



- Heritage trees are protected by Ordinance & must be surveyed and saved
- Specimen trees can help meet requirements if surveyed (1.5 normal rate)

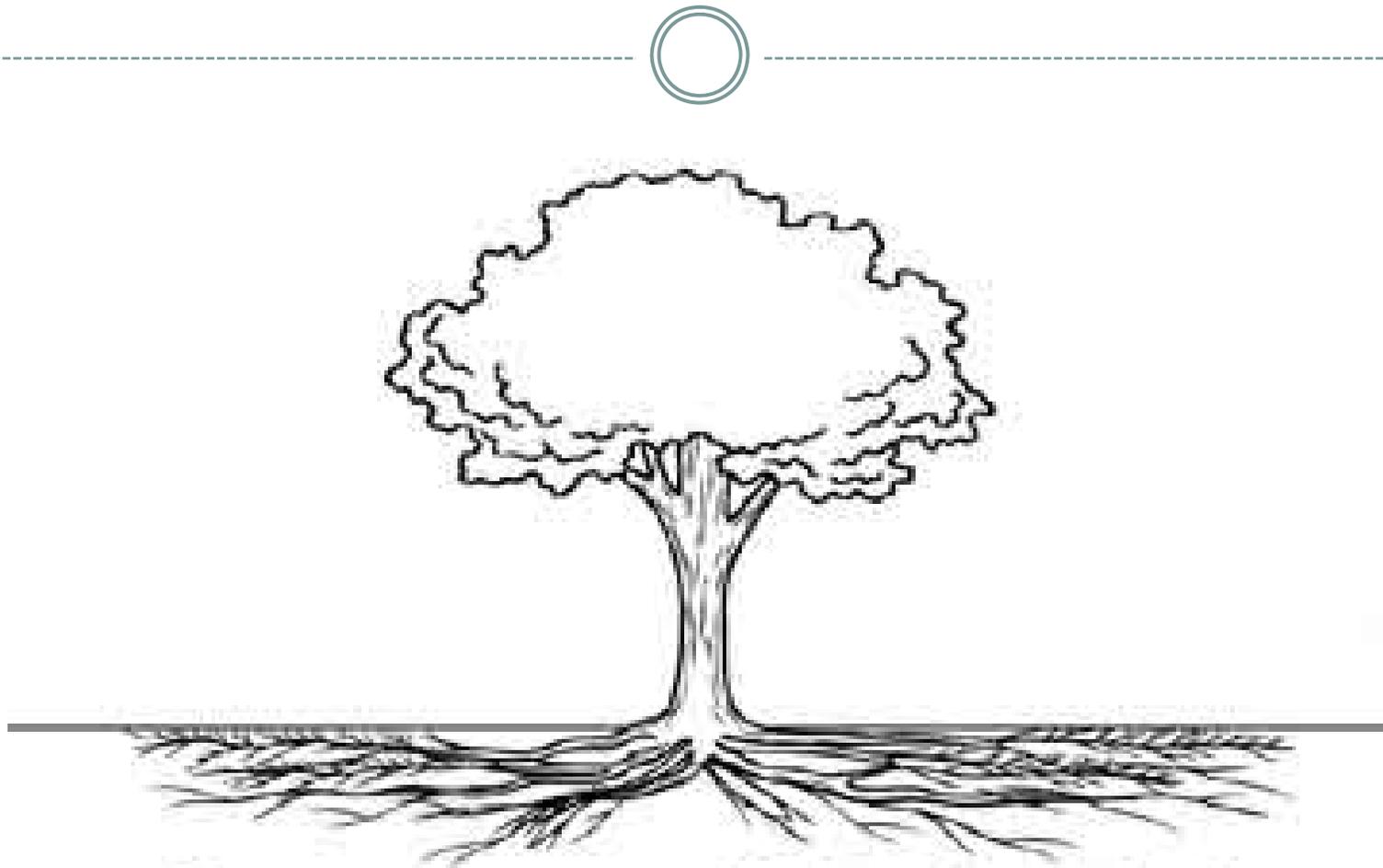


# Incentives to Increase Tree Save



- **10% minimum**
  - reduced setbacks and yards  
(Zoning Code - Section 12.805(3)(a),(b),(c))
- **>10% to 25% in Common Open Space (COS)**
  - density bonus equal to Tree Save Area
  - cluster provisions for that zoning category
- **>25% in COS**
  - receive a density bonus equal to Tree Save Area
  - cluster provisions for the next lower zoning category

# Typical Tree



The roots of a tree extend far from the trunk and are found mostly in the upper 6 to 12 inches of soil.

# Tree Save Areas



- Tree protection fence should be placed 5 ft beyond drip line
- Large trees may require extra measures to preserve
  - Retaining walls
  - Adjusting grades

# Tree Save Areas



- Trees with inadequate tree save areas will not survive
- Staff will require removal of these, which may affect tree save calculations



# Tree Save Areas



- Tree protection fence installed before clearing/grading
- Maintained throughout project
- Removed only after inspection by an urban forester

# Tree Ordinance Approved Species List

<b>Large-Maturing Trees Deciduous</b>	Max Ht. (ft)	Max Width (ft)	Shape	Shade Tree	Tolerates Poor Drainage	Comments/ Features
(Common Name/ Latin Name)						
Baldcypress/ <i>Taxodium distichum</i>	70	30	P	N	Yes	Monarch of Ill.', 'Shawnee Brave'
Birch, River/ <i>Betula nigra</i>	50	35	O	Y	Yes	'heritage'; drought sensitive, 'Dura-Heat'
Black Gum/ <i>Nyssa sylvatica</i>	50	35	P	Y	Yes	Good fall color
Dawn Redwood/ <i>Metasequoia glyptostroboides</i>	80	25	P	N	No	Good in wet areas
Elm, Lacebark/ <i>Ulmus parvifolia</i>	50	50	G	Y	Yes	'Allee', 'Athena', 'Drake'
Ginkgo/ <i>Gingko biloba</i>	65	50	BP	Y	Yes	'Lakeview', 'Princeton Sentry'
Hackberry, Common/ <i>Celtis occidentalis</i>	60	50	O	Y	Yes	
Hackberry, Sugar/ <i>Celtis laevigata</i>	50	40	G	Y	Yes	'All Seasons'
Hornbeam, European/ <i>Carpinus betulus</i>	60	40	O	Y		'Fastigiata'
Linden, Little leaf/ <i>Tilia cordata</i>	70	40	BP	Y	Yes	'Glenleven', 'Greenspire'
Kentucky Coffeetree/ <i>Gymnocladus dioicus</i>	75	65	O	Y	No	Has pods
Maple, Freeman/ <i>Acer x fremanii</i>	65	50	O	Y	No	'Jeffsred' Autumn Blaze (NCSU Top 10 List)
Maple, Red/ <i>Acer rubrum</i>	60	50	O	Y	Yes	'Autumn Flame', 'Bowhall', 'October Glory', 'Red Sunset', 'Armstrong'

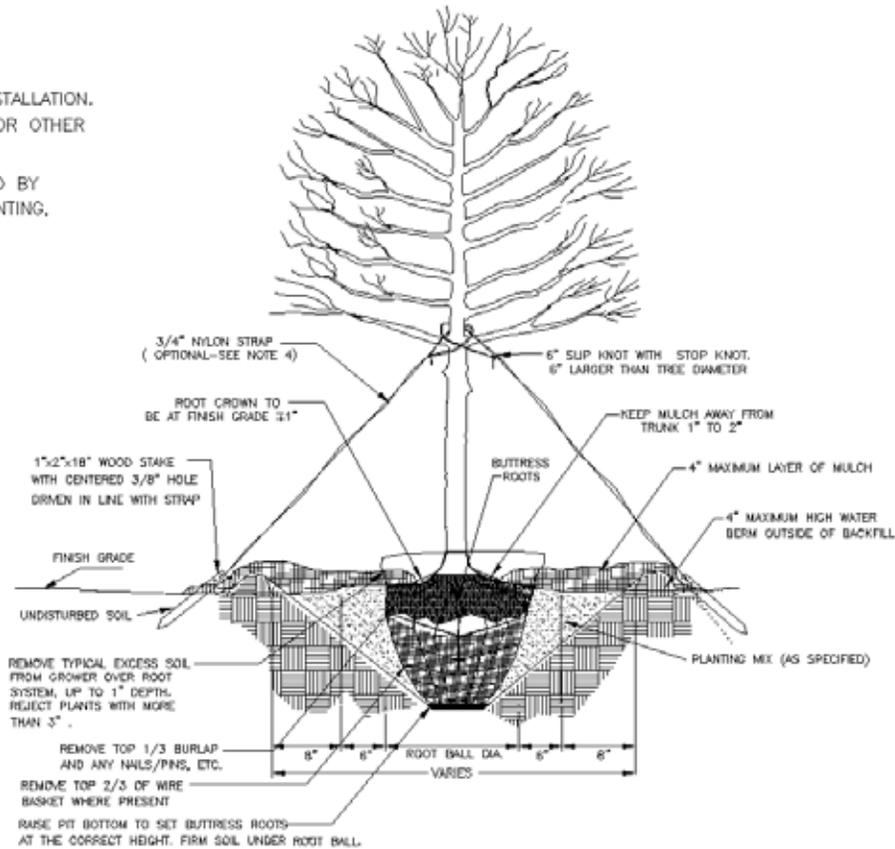
# Why an approved list?



# Tree Planting Detail

**NOTES:**

1. REMOVE WIRE OR NYLON TWINE FROM BALL.
  2. SOAK ROOT BALL AND PLANT PIT IMMEDIATELY AFTER INSTALLATION.
  3. SEE ATTACHED LANDSCAPE CONSTRUCTION STANDARDS FOR OTHER PLANTING REQUIREMENTS.
  4. STAKING REQUIRED FOR LEANING TREES OR AS REQUIRED BY CONTRACT. SEE GENERAL NOTES: SEC. 04100-TREE PLANTING, PART 3 PARAGRAPH B.9.
- 
5. Minimum Tree Size: Single Stem 2" caliper; 8' tall
  6. Minimum Tree Size: Multi-stem 3-5 stems; 8'tall



REVISIONS		
NO.	DATE	DESCRIPTION
1	5/99	DELETED NOTES 5-7, REVISED DETAIL LABELS

ALL TREES SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK ( AMSI, 1990, PART 1, "SHADE AND FLOWERING TREES")

FOR EXAMPLE:

CALIPER	HEIGHT (RANGE)	MAX. HEIGHT	MIN. ROOT BALL DIA.	MIN. ROOT BALL DEPTH
2"	12-14'	16'	24"	16"
3"	14-16'	18'	32"	21"

**CHARLOTTE - MECKLENBURG  
LAND DEVELOPMENT  
STANDARDS**

**TREE PLANTING**  
(FOR SINGLE AND MULTI-STEM TREES)

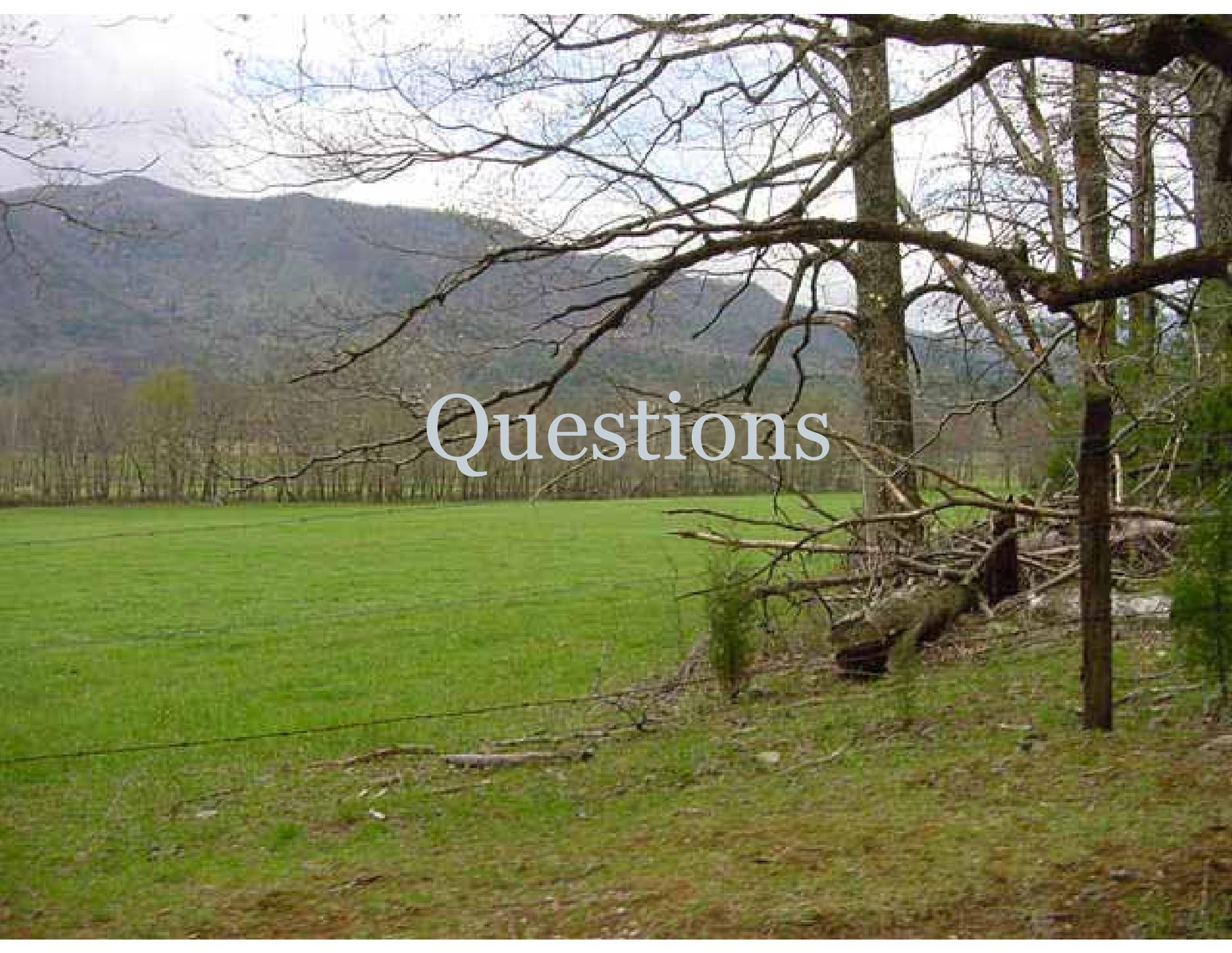
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# Process



- Sections of the subdivision are submitted as plats
- Trees must be planted to obtain a certificate of occupancy for an individual home
- Tree inspection is required before bonds are released

A landscape photograph showing a vibrant green field in the foreground. In the middle ground, there are several bare, dark trees with intricate branch structures. The background features a range of mountains under a pale, overcast sky. The word "Questions" is written in a large, white, serif font, centered over the middle of the image.

# Questions

# Neighborhood Conservation Districts in North Carolina



**RESIDENTIAL DESIGN STANDARDS  
STAKEHOLDER GROUP**

**NOVEMBER 6, 2008**

**JOHN ROGERS, PLANNING COORDINATOR**

# Neighborhood Conservation Districts in North Carolina



- Overlay Zoning District
- Based on an Area-Specific Design Plan
- Similar in Character to Pedestrian Overlay Districts

# Neighborhood Conservation Districts in North Carolina



## NC Municipalities with Neighborhood Conservation Districts

- Raleigh
- Greensboro
- Chapel Hill
- New Bern
- Durham
- Apex

# Neighborhood Conservation Districts in North Carolina



## Definitions of Neighborhood Conservation Districts

Areas that “possesses form, character, and visual qualities derived from arrangements or combinations of topography, vegetation, space, scenic vistas, architecture, appurtenant features, or places of natural or cultural significance, that create an image of stability, comfort, local identity, and livable atmosphere “.

(From *Conservation Areas: A New Approach to an Old Problem* by Robert E. Stipe)

1. A zoning layer placed on top of the base zoning district that serves to protect unique features of a residential neighborhood.
2. The zoning overlay is tailor-made to each neighborhood.
3. It protects elements visible from the public right-of-way and may vary from setbacks and building massing to distinct architectural features to special natural or environmental characteristics.
4. An NCO also serves to facilitate compatible development or redevelopment.

(Greensboro, NC Planning Department [www.greensboro-nc.gov/departments/Planning/urbandesign/nco](http://www.greensboro-nc.gov/departments/Planning/urbandesign/nco))

# Neighborhood Conservation Districts in North Carolina



## NCDs versus Historic Districts

1. NCDs typically regulate fewer features and focus more on significant character defining features such as lot size, building height, setbacks, streetscapes, and tree protection.
2. NCDs rarely consider specific elements, such as windows, buildings materials, colors, and decorative details. Most NCDs do not include demolition delays.

# Neighborhood Conservation Districts in North Carolina



## What Types of Neighborhoods Qualify as Conservation Districts ?

- Areas surrounding or bordering on an existing local historic district.
- “Pre-natal” historic districts that don’t yet meet the usual 50-year rule, but which skilled observers feel certain will qualify in perhaps 5 or 10 years.
- Areas or neighborhoods that are important to preserve and maintain solely for their social and economic value, or for their utility as affordable housing.
- (From *Conservation Areas: A New Approach to an Old Problem* by Robert E. Stipe)

# Neighborhood Conservation Districts in North Carolina



## *Raleigh's Conservation District Program*

- Area must be at least 25 years old
- At least 75% of the area must be developed
- A minimum of 15 contiguous acres
- Area must possess distinctive elements that create an identifiable setting, character and association

# Neighborhood Conservation Districts in North Carolina



## *Raleigh's Conservation District Program*

- Designations can be initiated by City Staff
- Requests for Designations not initiated by City Staff must be signed by a majority of affected property owners
- A Neighborhood Conservation Plan must be adopted within 180 days of a request to designate a NCD
- Plan must be adopted by City Council before the District can be designated

# Neighborhood Conservation Districts in North Carolina



## *Raleigh's Conservation District Program*

The Neighborhood Conservation Plan can include requirements for:

- ✦ Minimum Lot size
- ✦ Density
- ✦ Yard requirements
- ✦ Building Height
- ✦ Parking
- ✦ Signage
- ✦ Landscaping

# Neighborhood Conservation Districts in North Carolina



## *Greensboro's Conservation District Program*

- “Encourage development, redevelopment, and/or public projects that are consistent with a neighborhood’s livability, architectural character, and reinvestment potential.”
- Provide a means to modify zoning regulations and establish design standards for specific areas of the city.
- Facilitate compatible development or redevelopment.

# Neighborhood Conservation Districts in North Carolina



## *Greensboro's Conservation District Program*

- The area must be large enough to include at least all of the lots on one side of a block
- 75% percent of the area must have been developed at least 25 years prior to applying
- The area must have distinctive features that create a cohesive, identifiable setting, character or association.

# Neighborhood Conservation Districts in North Carolina



## *Greensboro's Conservation District Program*

Designation Applications can be initiated in three ways:

- By a petition signed by property owners representing at least 25% of the land area and at least percent 25% of the parcels within the proposed district
- Upon request by a property owner within the proposed district, pursuant to an adopted neighborhood or other area plan that recommends a Neighborhood Conservation Overlay District
- By the City Council

# Neighborhood Conservation Districts in North Carolina



## *Greensboro's Conservation District Program*

- Neighborhood Design Plans are adopted by City Council concurrently with the designation of Conservation Districts
- These plans may include, but are not limited to:
  - building height
  - massing
  - orientation
  - principal elevation features
  - pattern and number of openings
  - building materials
  - roofline and pitch
  - setbacks
  - lot size
  - density
  - floor area ratio
  - parking
  - garage entrance location
  - driveways
  - sidewalks
  - landscaping
  - fences and walls
  - lighting
  - signage

# Neighborhood Conservation Districts in North Carolina



## *Chapel Hill's Conservation District Program*

- Within the Town of Chapel Hill there are unique and distinctive older in-town residential neighborhoods or commercial districts which contribute significantly to the overall character and identity of the Town and are worthy of preservation and protection.
- Some of these districts are designated as historic districts, others may lack sufficient historical, architectural or cultural significance at the present time to be designated as Historic Districts.
- As a matter of public policy, the Town Council aims to preserve, protect, enhance, and perpetuate the value of these residential neighborhoods or commercial districts through the establishment of Neighborhood Conservation Districts.

*(From: Town of Chapel Hill Land Use Management Ordinance)*

# Neighborhood Conservation Districts in North Carolina



## *Chapel Hill's Conservation District Program*

- The area must contain a minimum of one block face
- The area must have been platted or developed at least 40 years prior
- At least 75% of the land area in the proposed district is presently improved
- The area must possess distinctive features that create a cohesive identifiable setting, character or association
- The area must be predominantly residential in use and character

*(From: Town of Chapel Hill Land Use Management Ordinance)*

# Neighborhood Conservation Districts in North Carolina



## *Chapel Hill's Conservation District Program*

May be initiated by:

- ✦ The Town Council
- ✦ by property owners representing 51% of the land area within the proposed district
- ✦ by 51% of property owners in a proposed district

*(From: Town of Chapel Hill Land Use Management Ordinance)*

# Neighborhood Conservation Districts in North Carolina



## *Chapel Hill's Conservation District Program*

### Neighborhood Design Plan Must Cover:

- building height, number of stories;
- building size, massing (frontage, entrance location/features);
- lot size, coverage;
- front and side yard setbacks;
- off-street parking and loading requirements;
- roof line and pitch;
- paving, hardscape covering.

*(From: Town of Chapel Hill Land Use Management Ordinance)*

# Neighborhood Conservation Districts in North Carolina



## *Chapel Hill's Conservation District Program*

### Neighborhood Design Plans May Cover:

- building orientation
- density
- floor area ratio
- signage
- architectural style and details
- building materials
- garage entrance location
- front windows
- dormer size and location
- landscaping
- fences and walls
- entrance lighting
- driveways and sidewalks
- satellite dishes
- utility boxes
- street furniture
- public art
- demolition
- roof line and pitch
- ancillary structures

# Neighborhood Conservation Districts in North Carolina



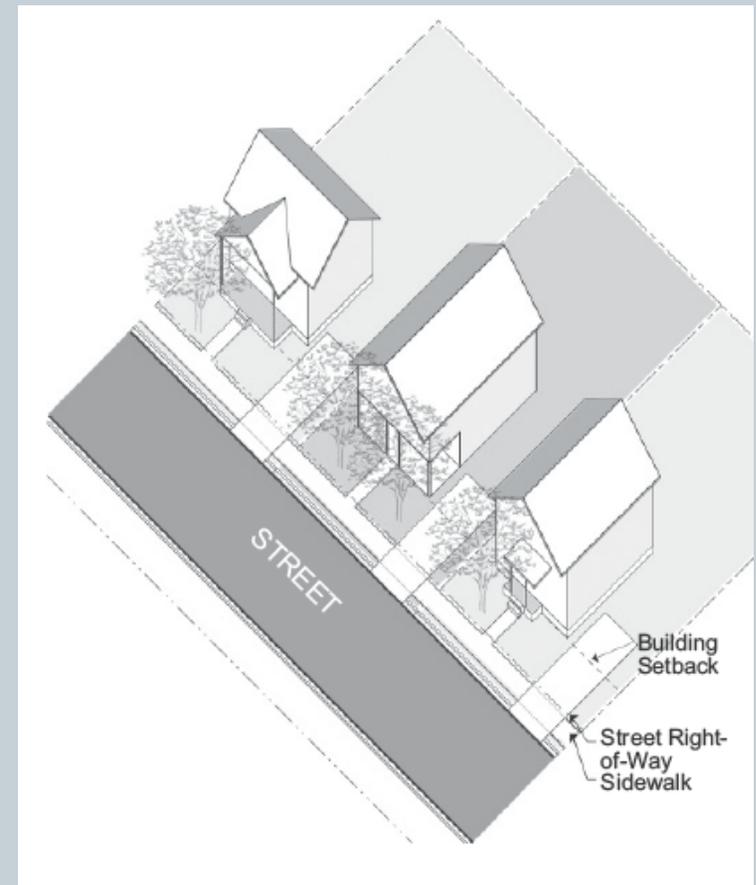
## *Chapel Hill's Conservation District Program*

### Sample Neighborhood Design Guidelines

#### **Building Orientation**

Setbacks should be consistent along each block, with a preference for homes close to the street (to enhance safety).

All buildings should face the street.



# Neighborhood Conservation Districts in North Carolina

## *Chapel Hill's Conservation District Program*

### Sample Neighborhood Design Guidelines

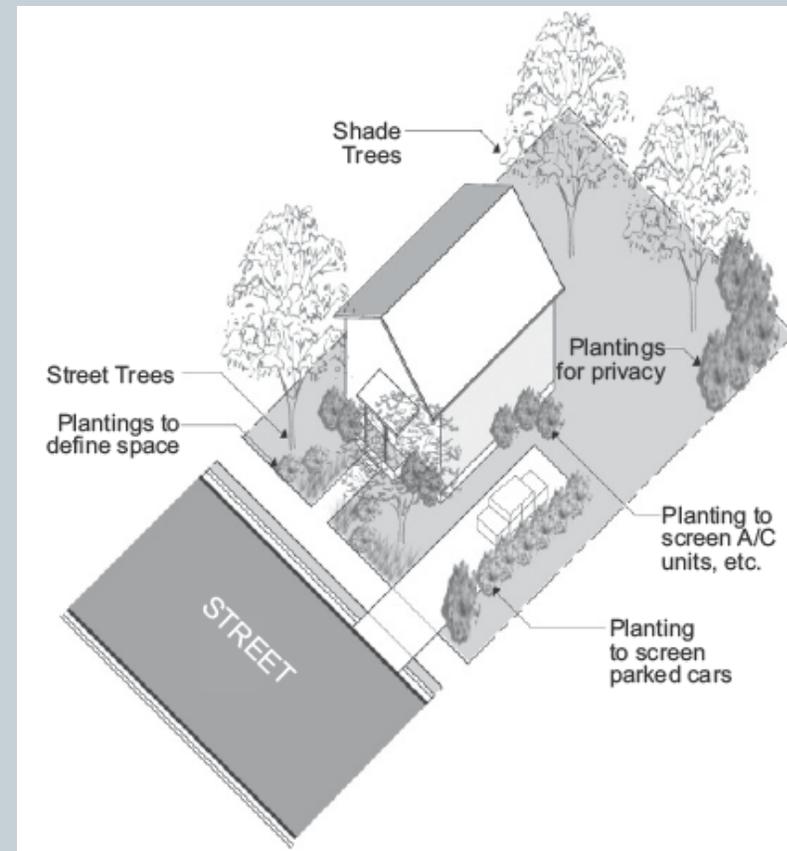
#### **Site Design**

Landscaping should add to the visual appeal of neighborhood and enhance safety.

Lighting should be increased (for safety).

Most streets should have sidewalks (for pedestrian safety).

Buildings should be placed on a site in a manner similar to the placement of other structures on nearby properties.



# Neighborhood Conservation Districts in North Carolina

## *Chapel Hill's Conservation District Program*

### Sample Neighborhood Design Guidelines

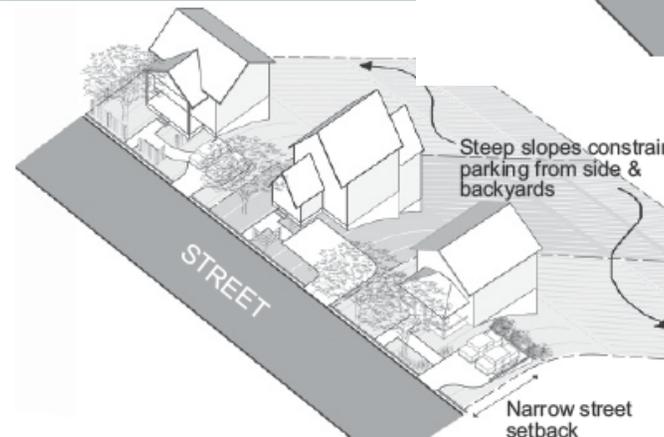
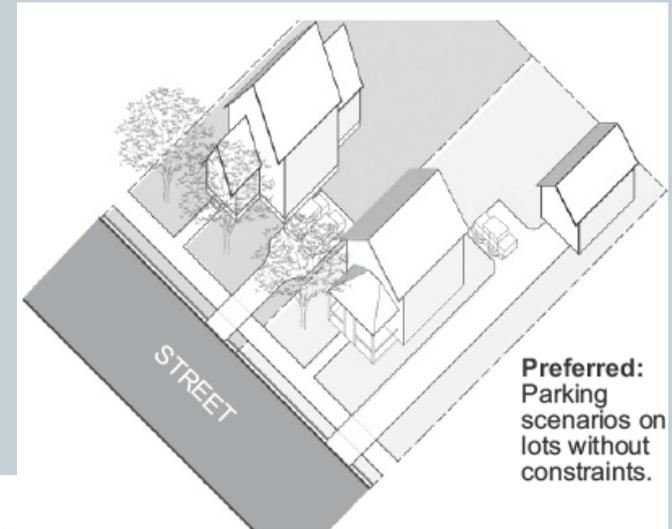
#### **Parking**

Parking areas should be located at the side or rear of the house, if feasible.

Front yard parking and driveway areas together should not exceed 25% of the front yard, if feasible; absolute maximum is 40% of front yard.

Front yard parking should not obscure the front door.

Parking and driveway areas should be clearly distinguished from other parts of the front yard.



**Example:** Parking scenarios for front yards in instances of site constraints.

# Neighborhood Conservation Districts in North Carolina



## *Chapel Hill's Conservation District Program*

### Sample Neighborhood Design Guidelines

#### **Porches**

Homes should have porches or covered stoops.

Porches and stoops should be of a similar style and material to the building.



# Neighborhood Conservation Districts in North Carolina



## *Chapel Hill's Conservation District Program*

### Sample Neighborhood Design Guidelines

#### **Design Details**

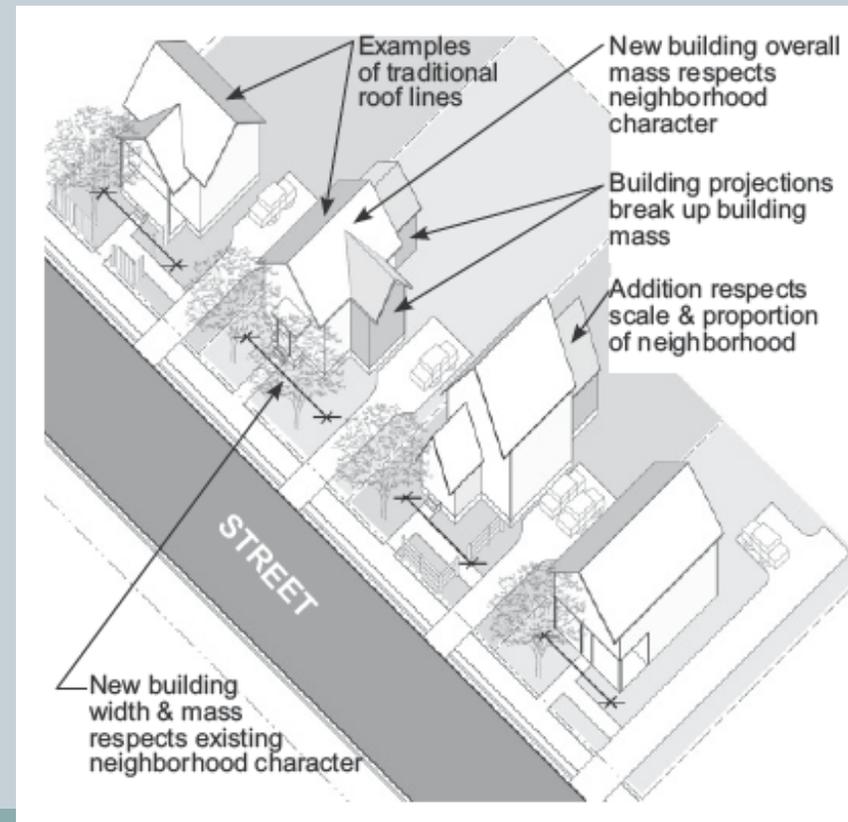
Windows should be on all sides of a house, with attention to symmetry and consistent size.

Windows on new additions should be consistent with size and spacing of windows on the older part of the house.

Building masses should be broken up with building projections.

Buildings should respect the character of the neighborhood in scale and proportion.

Roof forms should be similar to those traditionally seen in the neighborhood.



# Neighborhood Conservation Districts in North Carolina



Questions ?

# Next Steps



- November-Wrap up stakeholder input meetings
- November/December-Staff will prepare draft recommendations
- January-Reconvene stakeholders to review recommendations
- January/February-Finalize recommendations
- February/March-Begin Phase 2 (Planning Commission, elected officials, text amendments, etc.)