

Commerce Department  
Planning Division

## Cabarrus County Government

Cabarrus County Planning and Zoning Commission Meeting  
October 18, 2007  
7:00 P.M.  
County Commissioners Chamber  
Cabarrus County Governmental Center

### Agenda

1. Oath of Office for Newly Appointed Members
2. Selection of Chair and Vice-Chair
3. Roll Call
4. Approval/Correction of August 16, 2007 Minutes
5. New Business - Planning Board Function:
  - A. Petition 2007-04(R) – Zoning Atlas Amendment - Office Institutional to Low Density Residential
  - B. Petition 2007-06 (S) – Preliminary Plat Approval - Hawks Ridge Subdivision
  - C. Review of Traffic Impact Analysis (TIA ) Criteria
  - E. Commercial Design Standards Landscape Designs
6. Directors Report
7. Adjournment

Planning Staff Report  
Cabarrus County Planning and Zoning Board  
October 18, 2007

**Petition:** C2007-04(R) Zoning Atlas Amendment

**Property Owner:** Perry E. Hawkins  
P.O. Box 91  
Newell, NC 28126

**Existing Zoning:** O/I – Office/Institutional

**Proposed Zoning:** LDR-Low Density Residential

**Purpose:** To construct a single-family residence on the property.

**Township:** Number 1 - Harrisburg

**Property Location:** The property is located on McCorkle Lane, off Stafford Road and Rocky River Road.

**PIN#:** 5506-43-0996

**Area:** +/- 18.31 acres

**Site Description:** There is currently one existing residential dwelling unit located on the subject property.

**Zoning History:** The property was rezoned during the June 2005 Countywide rezoning from MDR-Medium Density Residential to O/I – Office/Institutional.

**Area Relationship:** North: LDR-Low Density Residential & O/I – Office Institutional  
South: LDR – Low Density Residential & O/I – Office Institutional  
East: LDR – Low Density Residential  
West: O/I – Office/Institutional

**Exhibits:**

1. Vicinity Map – submitted by staff
2. Adjacent Property Owners
3. List of Permitted Uses in LDR
4. Harrisburg Area Plan – Future Land Use Map – 2001

Comments:

**Cabarrus County Schools – Robert Kluttz:** It is my understanding the petitioner is requesting the rezoning of parcel # 5506-43-0996 from O/I to LDR in order to build a single family detached residential home. This parcel is approximately 18.31 acres located at the end of McCorkle Lane in Harrisburg. The construction of one home on this property would certainly have minimal impact on our schools. However, a concern is that once the rezoning is changed to LDR could the petitioner build multiple homes on this site at a later date? If that would be possible it would certainly change the impact on our schools.

**Cabarrus County Emergency Services – Steven Langer:** Our office has no issue with the rezoning request.

**Cabarrus County Erosion Control – Thomas Smith:** Neither the owner nor the developer has contacted this office in reference to the project noted above. The size of the project is greater than one acre. An erosion and sedimentation control plan must be submitted to this office for review and approval prior to the commencement of any land disturbing activities.

**NCDOT – Leah Wagner:** No comments.

**Cabarrus County Soil & Water Conservation – Dennis Testerman:** From the perspective of Cabarrus SWCD/WIC, we don't have any problems with this rezoning, which will result in less impact to the land and natural resources.

**Cabarrus County Sheriff – Ray Gilleland:** No comments.

**Cabarrus County Health Alliance – David Troutman:** No comments.

**WSACC – Tom Bach:** WSACC has no issues or comments relative to conditional use re-zoning of this property noted in your memorandum.

**Alley, Williams, Carmen & King Engineering – Jeff Moody:** No comments.

**Town of Harrisburg Planning Director – Josh Watkins:** Regarding this rezoning, the Town of Harrisburg would

default to the Harrisburg Area Plan, which shows this parcel lying within an area designated as Future Employment. Also, there is a pending project within the area designated as Future Employment; a hospital is going through the approval process with the state for a permit to locate on a parcel adjacent to this property. Due to the location of the hospital in the area, and because of the impact this would have on the Rocky River Road area from I-485 to Robinson Church Road, the Town is looking into creating a Small Area Plan for this area. For these reasons, the Town feels that a rezoning to LDR would be inconsistent with the Harrisburg Area Plan as well as proposed projects within the area.

Code Considerations:

Per the Cabarrus County Zoning Ordinance, lands in the LDR district are intended to permit development with a low density residential community character. This district allows conventional, open space and amenity subdivisions. These zones are located where public utilities either are available or are envisioned available within the next two to five years.

Rationale. This district is designed to provide permanent protection for those who want to live in a low density residential environment. The district, while focused on single-family residential development, is designed to allow a wide variety of residential types.

Other Considerations:

The properties located to the south and north of Rocky River Road, adjacent to the County line are currently developing as a PUD called Brookdale. A Wachovia bank, CVS pharmacy, Gate gas station and convenience store, daycare, Harris Teeter grocery store, Bojangle's restaurant, several specialty shops and a section of townhomes have already been constructed on the properties. There are additional outparcels still to be developed within this PUD.

Per the Town of Harrisburg, a hospital has applied for a permit from the State for the property located at 9566 Rocky River Road. (PIN# 5506-33-0005) This property is located adjacent to the southwest corner of the property requesting rezoning.

The current zoning map shows the parcels adjacent to the subject property as part of a large Cabarrus County O/I zoning district. The total combined area of these tracts is approximately 140 acres in size. The Harrisburg Unified

Development Ordinance has an equivalent zoning designation of the Cabarrus County O/I zoning district, Town of Harrisburg O/I Office Institutional. The Town of Harrisburg O/I zoning district allows for a number of residential uses to be permitted; conditionally and based on standards. Should the property be annexed into the Town of Harrisburg in the future, the single-family detached residential dwelling would not become a nonconforming use.

This area of the Rocky River Road and I-485 interchange is currently developing as a mixed use project. To remove the subject property should not impact the area. With the proposed hospital campus and retail uses, as well as the residential component of Brookdale that is planned to develop on the north side of Rocky River Road, a mixed use district could be achieved in using the existing zoning and the proposed zoning designations.

Land Use Plan Information: One of the goals of the Harrisburg Area Plan is to create areas that will attract new businesses and future employment opportunities. On a limited basis, the Future Employment district may be used for the development of mixed use residential projects. The I-485 and Rocky River Road interchange was a likely candidate for this type of mixed use development. Minor retail and service uses should be permitted at this location so long as their primary service areas are to the employees and residents within the immediate vicinity. This intersection should not be allowed to develop as a retail power center. Office uses, research facilities, and office/warehouse facilities are compatible uses for this location. This portion of Rocky River Road will serve as an additional gateway into the Town of Harrisburg and southeastern Cabarrus County.

A broad goal of the Harrisburg Area Plan for much of the planning area is to promote the development of well designed single-family neighborhoods. The plan indicates multi-family and higher density housing projects would be appropriate at the I-485 and Rocky River Road intersection, provided they are well designed and incorporated into a mixed use project that offers diverse housing types as well as retail, office, and employment uses. The property requesting rezoning under this petition falls under the Suburban Residential designation of the HAP. The Suburban Residential district is one of the area plan's single family districts and deems 2-4 units per acre appropriate.

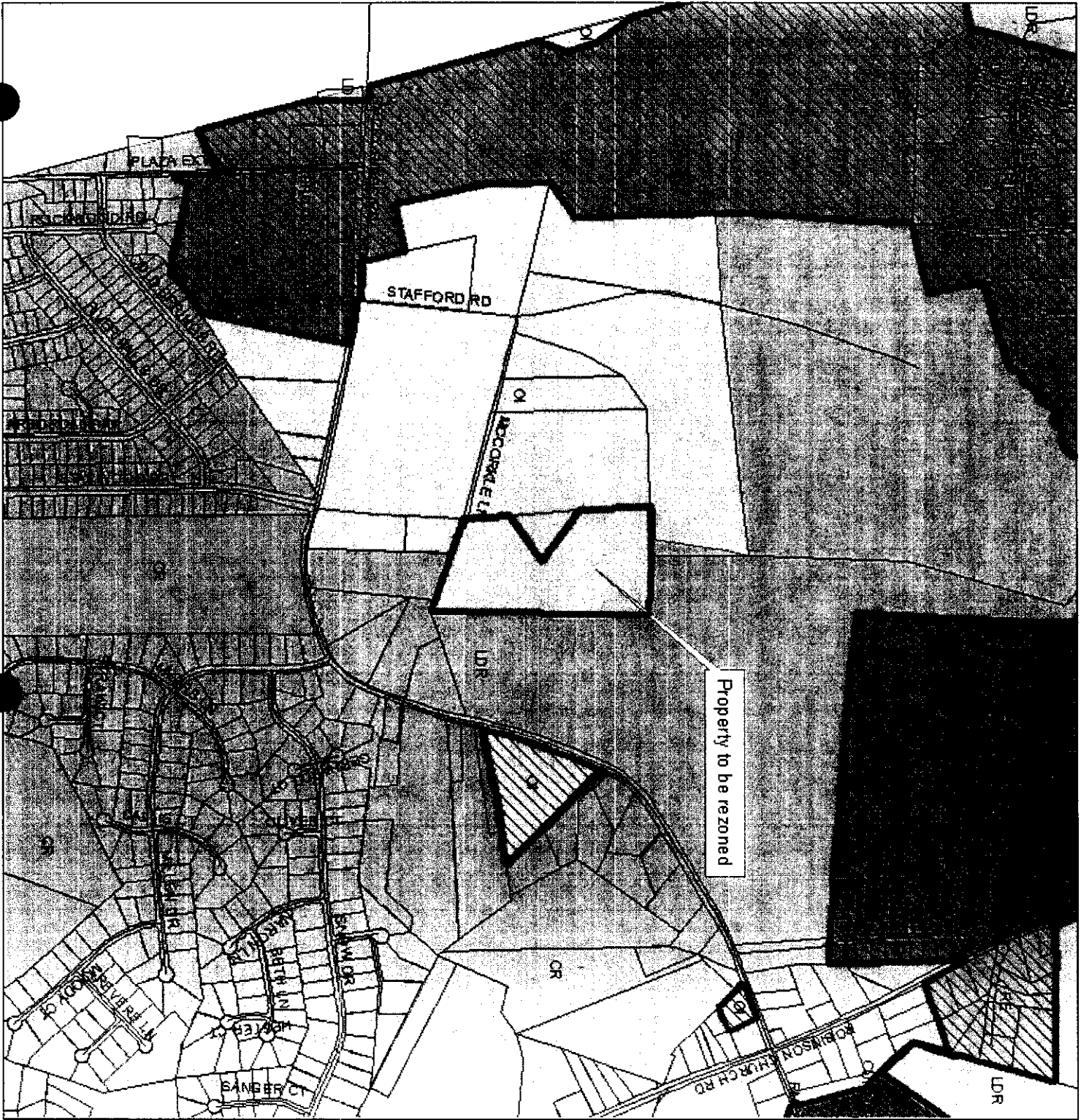
Conclusions:

This rezoning request is an extension of an existing zoning district, LDR, that is currently surrounding the property on three of its four sides. The petitioner has indicated they wish to construct only one single family dwelling on the subject property. Due to existing access issues, it is likely that they will not be able to further subdivide the property in the future. Consideration should also be given to the new hospital campus developing on the adjacent property to the southwest of the subject property. Care should be taken to accommodate the future development of the hospital campus and surrounding retail as well as the petitioner's property.

This is a conventional rezoning request. All uses for LDR must be considered in the approval process. Some uses that are permitted may not be suitable for locations near residential properties.

Recommendation:

The Harrisburg Area Plan designates this property as Suburban Residential with a density of 2-4 units per acre, a zoning designation of LDR would be compatible with that recommendation. The extension of the existing LDR zoning district would also be compatible with the surrounding residential uses and is supported by the LDR intent and rationale statement of the Cabarrus County Zoning Ordinance. The Planning and Zoning Commission should consider all the information presented and render a decision according to the Commission's vision for this area of Cabarrus County.

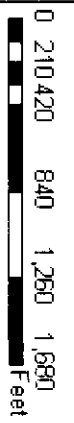


Property to be rezoned



**Cabarrus County**  
 The Center of American Modernism  
 NORTH CAROLINA

02007-044R  
 Existing Zoning 0-1  
 Proposed Zoning LDR  
 Approx. 18.31 acres  
 PH# 5506-43-0996  
 Property Owner Perry Hawkins



## List of Adjacent Property Owners

5506-24-8787  
New Start 1, LLC  
6719-C Fairview Rd.  
Charlotte, NC 28210

5506-55-2415  
New Start 1, LLC  
6719-C Fairview Rd.  
Charlotte, NC 28210

5506-42-5909  
Robert Allen Sr.  
43 Cogswell Ln.  
Stamford, CT 69020

5506-42-1775  
John Patrick Schoeneman  
9530 Rocky River Rd.  
Harrisburg, NC 28075

5506-33-8182  
Lesterd Barte Washburne III  
P.O. Box 511  
Summerfield, NC 27358

5506-33-0005  
Eugene W. Cochrane  
5322 Lila Wood Circle  
Charlotte, NC 28209

5506-34-3091  
Ellis McCorkle  
P.O. Box 100  
Newell, NC 28126

5506-33-8864  
Perry Hawkins  
P.O. Box 191  
Newell, NC 28126

5506-43-0996  
Perry Hawkins  
P.O. Box 191  
Newell, NC 28126



## List of Permitted Uses in LDR

### Permitted Uses

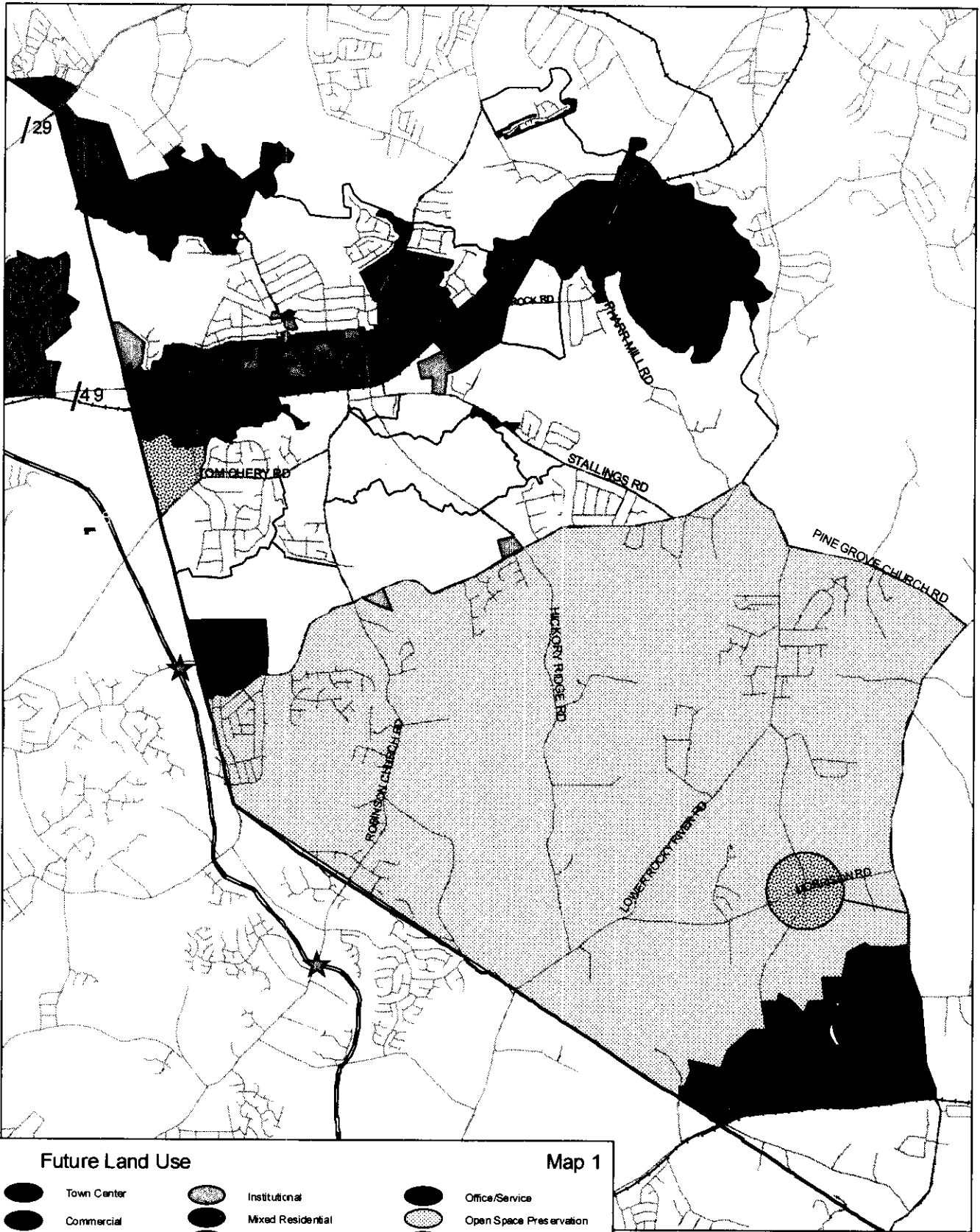
Agriculture, excluding livestock  
Family care home  
Group care facility  
Nursery/Greenhouse  
Semi-attached house  
Single family detached residential

### Permitted based on Standards (PBS)

Accessory apartment  
Agriculture, including livestock  
Bank/financial institution/ATM  
Bed and breakfast  
Cemetery  
Civic organization facility  
Convenience store with petroleum sales  
Convenience store without petroleum sales  
Gas station  
Home occupation  
Home occupation, rural  
Landfill, demolition (one acre or less)  
Mobile home class I  
Mobile office, temporary  
Nursery/daycare  
Public cultural facility  
Religious institution (total seating capacity 350 or less)  
Rest/convalescent home with 10 beds or less  
Restaurant, excluding drive-thru  
Stables, commercial

### Conditional Uses

Colleges & universities  
Elementary & secondary schools  
Public service facility  
Public use facility  
Recreational facility, outdoor  
Religious institution (total seating capacity 351 or more)  
Religious institution including school  
Rest/convalescent home with more than 10 beds



**Future Land Use**

**Map 1**

- |  |                   |  |                         |  |                         |
|--|-------------------|--|-------------------------|--|-------------------------|
|  | Town Center       |  | Institutional           |  | Office/Service          |
|  | Commercial        |  | Mixed Residential       |  | Open Space Preservation |
|  | Future Employment |  | Mixed Use District      |  | Recreation/Open Space   |
|  | Industrial        |  | Neighborhood Commercial |  | Suburban Residential    |

**Proposed Land Use**



PLANNING STAFF REPORT  
CABARRUS COUNTY PLANNING AND ZONING COMMISSION  
Thursday, October 18, 2007

**Petition:** C2007-06 (S) Preliminary Plat Approval

Subdivision Name: Hawks Ridge

Subdivision Type: Open Space Residential Subdivision

Applicant Information: Randall Scribner  
4110 French Fields Lane  
Harrisburg, NC 28075

Zoning: LDR – Low Density Residential

Township: Number 1 - Harrisburg

Property Location: Properties lie between Archibald Road, Rocky River Road, and Zion Church Road.

PIN#: 5527-89-0863, 5527-89-8547, 5528-61-9006, 5528-91-3023, 5528-90-0865, 5528-90-1982, 5528-80-8620 & 5527-69-7663

Proposed Lots: 164

Proposed Density: 1.45 units per acre

Area in Acres: +/- 112.9 acres

Site Description: The subject property is currently vacant (wooded).

Adjacent Land Uses: The surrounding properties currently have single-family residential uses. Foxwood Acres subdivision is located to the southwest of the property. The recently approved Rustic Canyon subdivision is located directly to the south. The Rocky Glen subdivision is north of the subject property across Archibald Road. Far Away Place Subdivision is located to the east.

Surrounding Zoning: North: LDR – Low Density Residential  
South: LDR – Low Density Residential  
East: LDR – Low Density Residential  
West: LDR – Low Density Residential

Infrastructure: The City of Concord will be the water and sewer service provider to the site. Utility service has been requested. An intent to serve letter from the City of Concord is attached.

Exhibits:

1. Site Map – Submitted by Staff
2. Preliminary Plat – Submitted by the Developer
3. Intent to serve letter – Submitted by The City of Concord
4. School Adequacy Worksheet – Submitted by Robert Kluttz
5. Cabarrus County Soil and Water Conservation District Comments – Submitted by Dennis Testerman
6. Open Space Management Plan for Hawks Ridge Subdivision – Submitted by Staff

Intent: The intent of an open space subdivision is to provide a development alternative to a conventional subdivision. An open space subdivision involves placing a cluster of home-sites within a portion of the development site, allowing housing units on smaller lots than those permitted in a conventional subdivision to promote environmentally sensitive, more efficient use of the land and provide additional common open space.

Code Considerations: The LDR (Open Space) – The Low Density Residential (Open Space) district has the following development standards:

- Principal Setbacks  
Front- 30 feet (20 feet on corner lots)  
Side- 10 feet  
Rear- 30 feet
- Accessory Structures  
If less than 15' in height:  
Front- Same as the principal structure  
Side- Same as principal structure  
Rear - 5 feet  
If more than 15' in height:  
All setbacks are the same as the principal structure
- Minimum average lot width- 70 feet
- Maximum building height- 40'
- Maximum impermeable surface- 35%
- Maximum structural coverage- 30%
- Minimum lot size- 15,000 square feet

This subdivision is designed under the Low Density Residential Open Space option, which allows clustering within the neighborhood, provided the developer preserves at least 35% of the subject property as open space. Open space must include all areas within the 100 Year Floodplain and the River Stream Overlay Zone.

- Common Open Space Required: 35% (+/- 39.52 acres)
- Common Open Space Provided: 37% (+/- 41.80 acres)
- Active Open Space Required: +/- 10.61 acres
- Active Open Space Provided: +/- 10.61 acres

Land Use Plan Information: The City of Concord Land use plan, adopted June 8, 2004, designates this property as residential on the Future Land Use map. It further states that staff should work with property owners and developers to encourage the preservation of open space by developing according to the subdivision options provided in the zoning ordinance.

**Cabarrus County Schools- Robert Kluttz:**

- Schools that serve this area are inadequate at this time. Please see attached school adequacy worksheet for details.

**Soil and Erosion Control- Thomas Smith:**

- The applicant will be required to submit soil and erosion plans before commencing any land disturbing activities.

**NCDOT- Leah Wagner:**

- A driveway permit will be required.
- A left turn lane will be required on Archibald Road and must be installed prior to the final platting of any more than 40 lots.
- The developer is responsible for acquiring all right of ways or easements necessary to construct the left turn lane. All rights of way must be in place before the driveway permit will be issued.
- If the streets within this subdivision are intended for State maintenance, a complete set of plans must be submitted for full review.
- The engineer must provide evidence that the tie to Rustic Canyon will correspond with the design of the Rustic Canyon street if Rustic Canyon street has been designed.
- A performance bond shall be posted to cover the required roadway improvements.
- NCDOT reserves the right to modify comments pending subsequent plan submittal and review.

**WSACC- Tom Bach:**

- Wastewater flow acceptance will not be considered until approval of final site/civil construction plans by the City of Concord.
- The City of Concord must request the flow acceptance on behalf of the developer.
- The WSACC Capital Recovery Fee is required for each service to the development if sewer service is granted.
- The CRF is collected at the time of building permitting and is separate from any connection or tap fees required by the City of Concord.

**Staff Analysis:**

Staff finds that the proposed subdivision meets the development standards of the Cabarrus County Subdivision Ordinance and the Cabarrus County Zoning Ordinance.

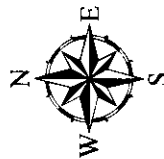
**Staff Recommendation:**

Should the Planning Commission grant approval of the subdivision, staff requests that the following conditions be applied as part of the approval:

1. The developer shall enter into a Consent Agreement with the Cabarrus County Board of Commissioners to address school adequacy. (Schools/APFO)
2. The developer will acquire necessary right of ways and complete a left turn lane on Archibald Road prior to the final platting of any more than 40 lots. (NCDOT/APFO)
3. The developer must obtain an NCDOT driveway permit and must post a performance bond to cover roadway improvements. The driveway permit will not be issued until all right of ways are in place. (NCDOT/APFO)
4. The developer agrees to pay Capital Recovery Fees that are collected on behalf of WSACC. (WSACC/APFO)
5. Prior to any permit for construction being issued, the developer agrees to enter into a developer agreement with the City of Concord and obtain utility construction plan approval. (CONCORD/APFO)
6. The developer agrees to fund and install all necessary water and sewer lines to serve the property. (CONCORD/APFO)
7. Developer agrees to meet anti-monotony and architectural standards and shall submit sample elevations of proposed homes prior to the start of the final platting process. In addition, applicant will work with Planning & Zoning Services to provide an architectural inventory for permitting purposes. (PLANNING)
8. The Developer has agreed to secure any necessary permits required by Federal or State law prior to disturbing any wetlands on the site. (STAFF/APPLICANT)



Petition C2007-06(S)  
Petitioner Randall Scribner  
Existing Zoning - LDR  
Open Space Subdivision  
Proposed 164 lots  
Approximately  
+/- 112.9 acres



**CONCORD**  
NORTH CAROLINA  
*a city meeting the future...*

February 15, 2007

Randall T. Scribner  
4110 French Fields Lane  
Harrisburg, NC 28075

Ref.: WSD Letter Cabarrus County Property #5528.52.7326, 5528.41.7658, 5528.89.0863,  
5527.89.8547, 5528.61.9006

Dear Mr. Randall Scribner:

The City of Concord has reviewed your submittal (preliminary application) on the above-mentioned property and Council decided at their regular meeting on February 8, 2007 not to require annexation at this time. Any development plans need to be initiated with Cabarrus County. If your plans require public water and sewer line extensions, you must comply with Section 62 of the City of Concord Code of Ordinances and the City of Concord would be the water supplier. If extensions are not planned, then the next procedure will be to apply for water services through our Customer Service Department, which is located in the Municipal Building at 26 Union Street South, Concord.

The City will not extend utilities except in compliance with Section 62 of the City code, including compliance with all City regulations and ordinances governing development.

This letter is not a contract, nor does it establish any property rights in City services.

If we can be of further assistance, feel free to call with your questions.

Sincerely,  
City of Concord

*Sue B. Hyde /pmc*

Sue B. Hyde, PE  
Director of Engineering

cc: Chris Moore, Cabarrus County Development Office  
Henry Waldroup, City of Concord Water Resources Director  
Mark Fowler, City of Concord Wastewater Resources Director  
Meche Foster, City of Concord Customer Service  
Margaret Pearson, City of Concord, Development Services

SBH/pmc



*Engineering Department*  
*Alfred M. Brown Operations Center*

City of Concord • 850 Warren C. Coleman Blvd. • P.O. Box 308 • Concord, North Carolina 28026  
(704) 920-5425 • Fax (704) 786-4521 • TDD 1-800-735-8262 • [www.ci.concord.nc.us](http://www.ci.concord.nc.us)





## Adequate Public Facility Worksheet – Schools

Please fill out the following questionnaire regarding the preliminary plat for the **Hawks Ridge Subdivision**. This preliminary plat has 165 single family homes proposed and is located off Archibald Road. Your response is required by Wednesday, May 30, 2007 for inclusion in the staff report.

Please see the enclosed proposed preliminary plat for location and information regarding the proposed development. If you need additional information for this project please contact **Chris Moore at 704-920-2181 or email cwmoore@cabarruscounty.us.**

### Questions

1. At present students from the proposed development would attend the following schools:

Elementary - Rocky River

Middle - C. C. Griffin

High - Central Cabarrus

2. Using the most recent attendance figures, these schools are at what percent of their stated capacity? 6<sup>th</sup> Mon. Mar.7, 2007.

Elementary - 104.68%

Middle - 120.16%

High - 135.42%

3. How many students are expected from this development?

**Based on 165 lots**

Elementary - 48

Middle - 22

High - 24

4. Including previously approved subdivisions these schools will be at what percent of their stated capacity when the proposed development is completed?

Elementary - 171.21 %

Middle - 197.42 %.

High - 145.09 % Note: this percentage reflects the opening of Hickory Ridge in August. It is also higher than the current percentage of 135.42 before the opening of HRHS.

5. The schools currently available in this area can or cannot accommodate the additional students expected from this development? **(if the answer above is "can", please stop here)**
6. If this development cannot be served by existing schools, are any steps planned within the next two years to address this service delivery issue? Yes / No. If yes, please describe the steps that will be taken (use an additional sheet if necessary). Are these changes in an adopted capital improvement plan or has funding been identified?

Note: Hickory Ridge High School projected to open in August 2007 will provide relief at Central Cabarrus High School. Funding for this school was approved in the 2004 School Bond.

15-Year Facilities Plan includes a new elementary school in 2008 southeast of Rocky River Elementary if the Grace site is finalized and another one in 2009 south of Harrisburg. These schools would relieve A. T. Allen, Bethel, Harrisburg, and Rocky River. A new middle school is included in the plan for 2008 south of Harrisburg that would relieve C. C. Griffin, J. N. Fries, and Mt. Pleasant.

7. If there are not plans for new school facilities in the next two years, please describe the additional resources required to adequately serve the proposed development (attach an additional sheet if necessary)?

Additional capital funding needed to acquire land and the construction of the two new elementary schools and a new middle south of Harrisburg mentioned in question 6.

8. Are the improvements described in question 7 above included in an adopted capital improvement plan or has funding been identified? Yes / No

The three schools mentioned in question 7 have been included in the Revised 15-Year Facilities Plan presented to the BOE on February 22, 2007 as

information. **Funding has not been identified for these projects nor has land been secured.**

*This form was completed by: Robert C. Klutz Date: May 21, 2007.*

**Cabarrus Soil and Water Conservation District**  
**715 Cabarrus Avenue, West**  
**Concord, N. C. 28027-6214**  
**(704) 920-3300**

**MEMORANDUM**

**TO:** Chris Moore, Cabarrus County Commerce Dept.

**THROUGH:** Ned Y. Hudson, Chair                      David Settlemyer, Chair  
Board of Supervisors                      Watershed Improvement Commission

**FROM:** Dennis Testerman, Resource Conservation Specialist

**COPIES:**  Susie Zakraisek, Cabarrus County Commerce Department—Planning  
 Thomas Smith, Cabarrus County Commerce Department—Erosion Control  
 Tony Johnson, Cabarrus County Commerce Department—Erosion Control  
 Robbie Foxx, Cabarrus County Commerce Department—Zoning  
 Rick Payne, Cabarrus County—Solid Waste  
 David Troutman, Cabarrus Health Alliance, Environmental Health  
 Robert Ward, County Ranger, NCDENR Div. of Forest Resources  
 Teresa Bradford, NCDENR Div. of Solid Waste, Mooresville Regional Office  
 Peggy Finley, NCDENR, DWQ—Aquifer Protection Sect./Groundwater, Mooresville Regional Office  
 Alan Johnson, NCDENR, Div. of Water Quality, Mooresville Regional Office  
 Cyndi Karoly, NCDENR, Div. of Water Quality, Wetlands Unit, Raleigh  
 Robin Dolin, NCDENR, Ecosystem Enhancement Program  
 Ron Linville, NCDENR, Wildlife Resources Commission-Habitat Conservation Prog., W-S Reg. Office  
 Steve Lund, US Army Corps of Engineers, Asheville Regulatory Field Office

**NAME OF PLAN:** Hawks Ridge                      **PLAN TYPE:** Residential                      **JURISDICTION:** County

**LOCATION:** Archibald Road                      **ZONING:** LDR

**OWNER:** Juanita Kiser Kiker et al, C/O Nancy Robinson, 5155 Woodrun, Mt. Gilead, NC 27306;  
Patricia Pruett Parrish, 1527 12<sup>th</sup> Fairway Dr., Concord, NC 28027

**DEVELOPER:** Randall Scribner, 4110 French Fields Lane, Harrisburg, NC 28075; 704-575-2795

**DESIGN CONSULTANT:** Mark Britt, Site & Structure, 862 Fairfield Rd., Ste. B1, Mint Hill, NC 28227-7662; 704-573-7800

**DATE SUBMITTED:** 5/17/2007                      **DATE REVIEWED:** 5/31/07

**PARCEL #:** 5527-89-0863, -8547, 5528-61-9006, -80-7773, -90-0865, -1982, -91-3023 **TRACT#:** 2007-60    **ACRES:** 112.39

**USGS TOPO QUAD MAP:** Concord S.E.                      **LATITUDE/LONGITUDE:**    35° 20' 05"N, 80° 35' 11"W

**RECEIVING WATERS:** Coddle Creek tributary    **WATERSHED:** HU 03040105020010 (CC-4 )

**PERENNIAL OR INTERMITTENT STREAMS PRESENT:**  Yes                       No

**SOIL TYPE(S):** Chewacla sandy loam (Ch), Cullen clay loam (CuB2, CuD2), Enon sandy loam (EnB, EnD), Mecklenburg loam (MeB, MeD), Pacolet sandy loam (PaF)

**HYDRIC SOILS:**  Yes \* as possible inclusions in Chewacla                       No

**THE FOLLOWING CHECKED ITEMS ARE MISSING FROM OUR COPY OF THE PLAN—PLEASE SUBMIT:**

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Open space covenant document | <input checked="" type="checkbox"/> Location of existing structures and trees |
| <input checked="" type="checkbox"/> Legend                       | <input checked="" type="checkbox"/> Start & Completion Dates                  |
| <input checked="" type="checkbox"/> Environmental reviews        | <input checked="" type="checkbox"/> Soil Type(s)                              |
| <input checked="" type="checkbox"/> 401/404 wetland permits      |   |

ONSITE INSPECTION:  Yes (on 5/30/07 w/ C. Moore & J. Mann)

No

**PLAN COMMENTS:**

- Pre-submittal meeting between developer and/or designer and reviewers is highly recommended, preferably onsite. Conservation District records indicate that a portion of this property was farmed in the 1950's and 1960's by L. D. Kiker; however, no conservation plan is on file.
- Numerous abandoned vehicles and auto parts were observed along the road running south through property from Archibald Road. Extensive kudzu on this site makes precise assessment of the extent of this auto junkyard impossible. **Up to eighty (80) whole or partial vehicles** appear to line both sides of major sections of this and lateral roads in the 1976 aerial photograph of this site. Conservations with individuals familiar with this property indicate the possibility that portions of this site may have been part of a commercial auto salvage operation and/or dump.
- Abandoned mobile home on Archibald Road and other illegal solid waste has been deposited on this site, including household items. All waste must be recycled or disposed of in an approved landfill. Testing for environmental contamination should be performed as part of the clean-up and possible remediation on this site. **Suitability of this site for residential use should be evaluated.** Please submit environmental assessment report prepared by appropriate professional.
- Underground utilities including, but not limited, communications, electricity, natural gas and/or petroleum, wastewater and water may exist on site. Verify status before disturbing site by observation and by calling the NC One Call Center, 1-800-632-4949. AT&T ROW is marked on map. Unmarked graves, underground mine shafts and historic Native American sites are not uncommon in Cabarrus County. Construction crews should be vigilant for the presence of these cultural and historical sites. Construction must be halted and appropriate authorities notified when any of these sites are uncovered.
- Properties adjacent to this site include Cabarrus Disposal Company and Concord Police Club. Conservation plan on latter property includes a shooting range. Compatibility or surrounding land uses with residential uses should be closely evaluated.
- The information in this table indicates the dominant soil condition, but does not eliminate the need for onsite investigation. The numbers in the value column range from 0.01 to 1.00. The larger the value, the greater the potential limitation. Limiting features in this report are limited to the top 5 limitations. Additional limitations may exist.

| Map Symbol | Soil Name   | Pct of Map Unit | Dwellings without Basements                              | Dwellings with Basements                                 | Small Commercial Buildings                               | Local Roads and Streets   | Shallow Excavations   | Lawns and Landscaping                                       |
|------------|-------------|-----------------|--|--|--|---|---|---|
|            |             |                 | Rating Class and Limiting Features - Value               | Rating Class and Limiting Features - Value               | Rating Class and Limiting Features - Value               | Rating Class and Limiting Features - Value                              | Rating Class and Limiting Features - Value  | Rating Class and Limiting Features - Value                  |
| Ch         | Chewacla    | 80              | Very limited Flooding - 1<br>Depth to saturated zone - 1 | Very limited Flooding - 1<br>Depth to saturated zone - 1 | Very limited Flooding - 1<br>Depth to saturated zone - 1 | Very limited Flooding - 1<br>Depth to saturated zone - 0.94             | Very limited Depth to saturated zone - 1<br>Flooding - 0.8<br>Cutbanks cave - 0.1 | Very limited Flooding - 1<br>Depth to saturated zone - 0.94 |
| CuB2       | Cullen      | 80              | Somewhat limited Shrink-swell - 0.5                      | Somewhat limited Shrink-swell - 0.5                      | Somewhat limited Shrink-swell - 0.5<br>Slope - 0.13      | Somewhat limited Shrink-swell - 0.5<br>Low strength - 0                 | Somewhat limited Too clayey - 0.72<br>Cutbanks cave - 0.1                         | Not limited   |
| CuD2       | Cullen      | 80              | Somewhat limited Slope - 0.63<br>Shrink-swell - 0.5      | Somewhat limited Slope - 0.63<br>Shrink-swell - 0.5      | Very limited Slope - 1<br>Shrink-swell - 0.5             | Somewhat limited Slope - 0.63<br>Shrink-swell - 0.5<br>Low strength - 0 | Somewhat limited Too clayey - 0.72<br>Slope - 0.63<br>Cutbanks cave - 0.1         | Somewhat limited Slope - 0.63                               |
| EnB        | Enon        | 80              | Very limited Shrink-swell - 1                            | Not limited  | Very limited Shrink-swell - 1<br>Slope - 0.13            | Very limited Low strength - 1<br>Shrink-swell - 1                       | Somewhat limited Too clayey - 0.28<br>Cutbanks cave - 0.1                         | Not limited   |
| EnD        | Enon        | 80              | Very limited Shrink-swell - 1<br>Slope - 0.63            | Somewhat limited Slope - 0.63                            | Very limited Slope - 1<br>Shrink-swell - 1               | Very limited Low strength - 1<br>Shrink-swell - 1<br>Slope - 0.63       | Somewhat limited Slope - 0.63<br>Too clayey - 0.28<br>Cutbanks cave - 0.1         | Somewhat limited Slope - 0.63                               |
| MeB        | Mecklenburg | 80              | Somewhat limited Shrink-swell - 0.5                      | Somewhat limited Shrink-swell - 0.5                      | Somewhat limited Shrink-swell - 0.5<br>Slope - 0.13      | Very limited Low strength - 1<br>Shrink-swell - 0.5                     | Somewhat limited Too clayey - 0.5<br>Cutbanks cave - 0.1                          | Not limited   |
| MeD        | Mecklenburg | 75              | Somewhat limited Slope - 0.63<br>Shrink-swell - 0.5      | Somewhat limited Slope - 0.63<br>Shrink-swell - 0.5      | Very limited Slope - 1<br>Shrink-swell - 0.5             | Very limited Low strength - 1<br>Slope - 0.63<br>Shrink-swell - 0.5     | Somewhat limited Slope - 0.63<br>Too clayey - 0.5<br>Cutbanks cave - 0.1          | Somewhat limited Slope - 0.63                               |
| PaF        | Pacolet     | 75              | Very limited Slope - 1                                   | Very limited Slope - 1                                   | Very limited Slope - 1                                   | Very limited Slope - 1<br>Low strength - 0                              | Very limited Slope - 1<br>Too clayey - 0.5<br>Cutbanks cave - 0.1                 | Very limited Slope - 1                                      |

Disclaimer: Small areas of contrasting soils with different interpretations may not be shown on the soil maps due to the scale of the mapping. Soil surveys seldom contain detailed site specific information. This data set is not designed for use as primary regulatory tools in permitting or siting decisions, but may be used as a reference source. These data and their interpretations are intended for planning purposes only. This is public information and may be interpreted by organizations, agencies, units of government and others based on needs; however, these entities are responsible for the appropriate use and application of these data. Digital data files are periodically updated. Reports are dated and users are responsible for obtaining the latest version of the data.

- ❑ River Stream Overlay District/Zone on Coddle Creek tributary is marked as required by the Unified Development Ordinance and permit CESA-W-CO88-N-013-0061 issued under Section 404 of the U. S. Clean Water Act (33 U.S.C. 1413) by the US Army Corps of Engineers. While no floodplain along this stream is indicated on current maps, the "Chewacla" soil type mapped along this stream is the most common floodplain soil in Cabarrus County and is rated "very limited" for most residential uses (see chart below). The developer should check with Cabarrus County Commerce Department—Planning.
- ❑ Unless developer has prior authorization from appropriate federal and state authorities to impact jurisdictional waters or wetlands, the proposed project will be in violation federal and/or state law. Permits for disturbance of streams and other wetlands must be requested from N. C. Division of Water Quality and U. S. Army Corps of Engineers prior to any impacts. Please submit documentation to planners and Cabarrus Soil and Water Conservation District.
- ❑ Plan states that "man-made dump test pond" on site has "been tested and is environmentally-safe" and "Pond shall be removed." Plan also indicates lots 59 and 60 on the current site pond. The pond may be a jurisdictional wetland. If pond is drained, a wetland delineation must be performed after a prescribed period of time according to state and/or federal requirements. The pond must be excavated before filling with properly compacted soil. If the pond is spring-fed and permits are secured for elimination of ponds, properly-engineered drainage systems must be installed.
- ❑ While the USGS topographical map does not show a stream connection between this pond and the Coddle Creek tributary, scouring in the bottom of drainageways above and below the pond indicate considerable stormwater runoff that must be taken into account and managed to minimize adverse impacts to lots in the vicinity of 68-71, as well as the proposed swimming pool park and lots in Phase 3.
- ❑ This project is within a hydrological unit (HU) included in the North Carolina Ecosystem Enhancement Program's Upper Rocky River Watershed Plan area. Every effort should be made to use best management practices to prevent water quality impairment. The erosion and sedimentation control plan for this site should be followed closely once it has been submitted and approved.
- ❑ Impacts of stormwater from this proposed project on water quality and water quantity have not been assessed. Cities of Concord and Kannapolis have applied to the NC Div. of Water Resources for an interbasin transfer of water certificate. Other jurisdictions receiving water from these municipalities are bound by the conditions of IBT certificate's drought management plan. Under this certificate, stream buffers will be determined by a qualified professional to ensure proper application of stream buffer rules.
- ❑ Cumulative and secondary impacts associated with this proposed development are not known and should be assessed prior to final plan approval.
- ❑ Plan is designed as an "Open Space" subdivision under the county zoning ordinances. Plan states intention that "4.8 acres of primary open space [is] to be donated to a conservation agency." This open space is inside the River Stream Overlay District buffer, where a sewer line ROW is also proposed. This proposed sewer line alignment 1) presents a constraint to any potential future restoration project, and 2) will restrict options for vegetation in buffer to improve water quality. Terms of proposed donation of conservation easement or fee simple title to open space should be negotiated as early as possible with Cabarrus Soil & Water Conservation District.
- ❑ Every consideration also should be given to conservation of additional natural resources through designation as open space, including prime farmland soils, steep slopes, water features and forestland.
- ❑ The following prime farmland soils will be removed from production: CuB2 & MeB. Farmland Conversion Impact Rating form (AD-1006) must be filed if federal funds are involved. Redesign of plan to provide for more open space protection of this soil is encouraged.
- ❑ The following soils are classified as important state farmland soils and will be removed from production: Ch, CuD2, EnB, EnD & MeD.
- ❑ Development of site will remove existing forestland from production, result in loss of environmental services from forest land cover, and accelerate the rate of loss of green infrastructure in the county.
- ❑ Private well was associated with abandoned mobile home and with other possible homestead. **NC form GW-30 must be filed with the Groundwater Section of the N.C. Dept. of Environment and Natural Resources when abandoning a well.**
- ❑ On-site wastewater system likely associated with abandoned trailer and/or other homestead is required to be decommissioned according to procedures recommended by Cabarrus Health Alliance (see attachment).
- ❑ Additional field visits by Cabarrus SWCD and/or its conservation partners may be required, including but not limited to sedimentation and erosion control plan review.

Please provide copies of approval notice and any revisions to this plan to the Cabarrus Soil and Water Conservation District.

**CONTACT(S):**

Cabarrus County, Commerce Department, Susie Zakraisek, 704-920-2858  
Cabarrus County Commerce Department—Erosion Control, Thomas Smith, 704-920-2411  
Cabarrus County Commerce Department—Erosion Control, Tony Johnson, 704-920-2835  
Cabarrus County Commerce Department—Zoning, Robbie Foxx, 704-920-2138  
Cabarrus County, Solid Waste, Rick Payne, 704-920-9255  
Cabarrus County Schools, Joe Sides, 704-786-6195 x 193  
Cabarrus Health Alliance, Environmental Health, David Troutman, 704-920-1207  
Cabarrus SWCD & Watershed Improvement Commission, Dennis Testerman, 704-920-3303  
NC DENR Div. of Forest Resources, Robert Ward, 704-782-6371  
NCDENR-Mooresville Regional Office, Groundwater Section, Peggy Finley, 704-663-1699  
NCDENR Div. of Solid Waste, Mooresville Regional Office, Theresa Bradford, 704-663-1699  
NCDENR, Div. of Water Quality, Mooresville Reg. Office, Alan Johnson, 704-663-1699  
NCDENR, Div. of Water Quality, Raleigh, Cyndi Karoly, 919-733-9721  
NCDENR, Ecosystem Enhancement Program, Robin Dolin, 919-715-5836  
NCDENR, Wildlife Resources Commission-Habitat Conservation Prog., W-S Reg. Office, Ron Linville, 336-769-9453  
Town of Harrisburg Engineering Department, Tony Lambert, 704-455-5614  
Town of Harrisburg Public Works Department, Todd Taylor, 704-455-5614  
U. S. Army Corps of Engineers, Asheville Regulatory Field Office, Steve Lund, 828-271-7980 x223

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- “401 Water Quality Certification Program – The Basics.” N.C. DENR. Div. of Water Quality, Wetlands Section.  
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- “Protecting Urban Soil Quality: Examples for Landscape Codes and Specifications.” [<http://soils.usda.gov/sqi/files/UrbanSQ.pdf>]
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- “Seeding Specifications.” Sect. 6.10 & 6.11 in Erosion and Sediment Control Planning and Design Manual. N. C. NRCD.
- “Soil Sampling for Home Lawns & Gardens.” N.C. Dept. of Agriculture & Consumer Services.  
[<http://www.ncagr.com/agronomi/samhome.htm>]
- “This Land is Our Land. . . A Guide to Preserving Your Land for Generations to Come.” [<http://www.cabarruscounty.us/Easements/>]
- “Topsoiling Specifications.” Sect. 6.04 in Erosion and Sediment Control Planning and Design Manual. N. C. NRCD.
- “Urban Soil Compaction.” Soil Quality—Urban Technical Note No. 2. USDA, Natural Resources Conservation Service.  
[<http://www.statlab.iastate.edu/survey/SQI/pdf/u02d.pdf>]
- “Well Abandonment.” Brochure. N.C. DENR. Div. of Water Quality, Groundwater Section.  
[<http://h2o.enr.state.nc.us/documents/Bro-WellAbandon.pdf>]
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[[http://h2o.enr.state.nc.us/aps/gpu/documents/Well\\_decom.pdf](http://h2o.enr.state.nc.us/aps/gpu/documents/Well_decom.pdf)]
- “Yadkin-Pee Dee River Basinwide Water Quality Plan.” N.C. DENR. Div. of Water Quality—Planning Sect., Basinwide Planning Prog. 2003. [[http://h2o.enr.state.nc.us/basinwide/yadkin/YadkinPD\\_wq\\_dt\\_management\\_plan0103.htm](http://h2o.enr.state.nc.us/basinwide/yadkin/YadkinPD_wq_dt_management_plan0103.htm)]

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**OPEN SPACE MANAGEMENT PLAN  
FOR  
HAWKS RIDGE SUBDIVISION**

05/04/07

**Overview:**

Randall T. Scribner intends to insure the attractiveness of the Hawks Ridge Subdivision, to prevent any future impairment, to prevent nuisances and enhance the value of all properties within the subdivision. Randall T. Scribner also desires to provide for the construction, maintenance and upkeep of any open space/common areas within the subdivision.

The following management plan is to allocate responsibility and form the guidelines for the maintenance and operation of the open space/common areas, including a provision for natural resource conservation, ongoing maintenance and for long-term capital improvements of Hawks Ridge Subdivision.

A homeowners association will be formed to delegate and assign the various duties necessary to accomplish the above goals. These duties will include the powers of owning, maintaining and administering the open space/common areas. The association Board of Directors will appoint a community management group or association to manage the property and that will administer the landscape agreements for the maintenance and upkeep of the open spaces/common areas.

**Uses of the open space:**

The open space/common areas will be;

- 1) Active & Passive recreation areas as identified on the plat plan.
- 2) Conservation of land in its natural state where possible.
- 3) Trails & playgrounds as noted on the plat plan. All active open space will be accessible to all residents. Maintenance is limited to ensuring that no hazards, nuisances, or unhealthy conditions exist. Maintenance to control invasive plants may be necessary.
- 4) Easements for public utilities and drainage. Easements may also be provided to allow for access to streams for stream management and restoration purposes to be provided by Cabarrus County, the Cabarrus County Soil & Water Conservation District, the State of North Carolina or other state or county authorized agencies.

**Maintenance of the open space:**

All appropriate open space/common areas will be kept clean and free of debris and maintained in an orderly condition consistent with their intended use, including any repair and replacement of any landscaping, utilities, or improvements.

The landscape maintenance agreement will include the following:

Turf care including mowing, edging, trimming, weed control, aeration, overseeding, fertilization, & other necessary applications.

Shrub care including trimming, pruning, fertilization, insect & disease control, & weed control.

Tree care including pruning trimming, fertilization, & insect/disease control.

General maintenance including leaf removal, debris pickup, pruning, inspections, irrigation & lighting checks, & pine needle additions.

RSOZ & buffers will remain undisturbed. When soil disturbing activities such as plowing, grading, ditching, excavating, placement of fill material, or similar activities occur, they shall conform to all State & Federal regulations and shall be in accordance with Chapter 4, Part II of the Cabarrus County Zoning Ordinance entitled River/River Stream Overlay Zone (RSOZ).

The maintenance of passive open space is limited to removal of litter, dead tree and plant materials and brush; weeding and mowing will be done on an as-needed basis. Natural water courses are to be maintained as free-flowing and generally devoid of significant debris. It is understood that healthy, ecologically-functional streams include some woody debris. Stream channels shall be maintained so as not to alter floodplain levels unless approved by Cabarrus County, the State of North Carolina or other state or county authorized agency.

**Failure to Maintain Open Space:**

Cabarrus County and/or Cabarrus Soil and Water Conservation District may assume responsibility for maintenance of open space should the Homeowners Association fail to maintain all or any portion in reasonable order and condition. The county may enter the premises and take corrective action, including the provision of extended maintenance. The costs of such maintenance may be charged to the Homeowners Association, or to the individual property owners that make up the Homeowners Association, and may include administrative costs and penalties. Such costs shall become a lien on all subdivision properties.

**Costs for Maintenance/Operation/Insurance:**

A reserve fund is to be established by the Homeowners Association to provide for the periodic maintenance, repair, reconstruction and replacement of the open space/common areas and any improvements located on such areas. The reserve fund shall be collected and maintained out of the annual assessment collected from the owners. The Homeowners Association shall have lien authority to ensure the collection of dues from all members. The responsibility for maintaining the open space and any facilities shall be borne by the Homeowners Association. The Homeowners Association shall not be responsible for costs associated with stream and wildlife habitat management, restoration, and/or invasive species control unless specifically agreed to by the Homeowners Association under a separate agreement.

# Memo

**To:** Cabarrus County Planning and Zoning Commission  
**From:** Susie Morris, AICP, Planning and Zoning Manager  
**CC:** File  
**Date:** 09/18/2007  
**Re:** Review of Traffic Impact Analysis (TIA) Criteria

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Commissioner White has directed staff to review the current process used for Traffic Impact Analysis documents and to review the thresholds that the ordinance establishes for when TIAs are required. Staff has met with Commissioner White and his concerns are as follows:

1. Are the current TIAs providing the information that the Planning and Zoning Commission needs?
2. Are the proposed improvements in the TIAs in line with the proposed developments? (Too much, too little?)
3. Is there a benefit for the County to hire the agency to conduct the traffic analysis instead of the applicant hiring the firm?
4. Are the thresholds currently being used too high? Should they be lower to ensure that developers are responsible for improvement installation as they develop the projects?
5. Should phasing be limited? Should a time limit be placed on when improvements have to be installed?

Commissioner White would like for the Planning and Zoning Commission to discuss these issues and to make a recommendation to the Cabarrus County Board of Commissioners regarding the current process and threshold criteria used for project review and whether not the current process is meeting the needs of the County for transportation improvements.

Please review the attached materials and be prepared to discuss at the meeting.

## APPENDIX A

### **SECTION I: Traffic Impact Analysis (TIA) Required**

#### **General Information**

The Traffic Impact Analysis (TIA) is a specialized study that evaluates the effects of a development's traffic on the surrounding transportation infrastructure. It is an essential part of the development review process to assist developers and local government agencies in making land use decisions involving annexations, subdivisions, rezoning requests, special land uses, and other development reviews. The TIA helps identify where the development may have a significant impact on safety, traffic and transportation operations and provides a means for the developer and the government agencies to mitigate these impacts. Ultimately, the TIA can be used to evaluate if the scale of the development is appropriate for a particular site and what improvements may be necessary, on and off the site, to provide safe and efficient access and traffic flow. Mitigation measures may involve strategies other than roadway construction or other physical improvements such as changes to traffic signal timing or phasing and transportation management strategies.

#### **When A TIA Is Required**

- A TIA shall be required for residential developments proposed within Cabarrus County that have an estimated trip generation of 2,000 vehicles per day or greater during an average weekday based on a five day national average as defined in the Institute of Transportation Engineers (ITE) Trip Generation Manual.
- A TIA shall be required for commercial type developments proposed within Cabarrus County with an estimated trip generation of 3,000 vehicles per day or greater during an average weekday based on a five day national average as defined in the Institute of Transportation Engineers (ITE) Trip Generation Manual.
- A TIA shall be required for mixed-use developments proposed within Cabarrus County with an estimated trip generation of 3,000 vehicles per day or greater during an average weekday based on a five day national average as defined in the Institute of Transportation Engineers (ITE) Trip Generation Manual.
- A TIA may also be required for proposed accesses within 1,000 feet of an interchange, in the vicinity of a high accident location, on a major arterial roadway, when involvement with an existing or proposed median crossover is necessary, when the project includes highway improvements that are in the Transportation Improvement Program, when involvement with an active roadway construction project is necessary or at the discretion of the District Engineer working with Cabarrus County.

In certain instances, the need for a TIA may be waived when Cabarrus County and NCDOT agree a TIA is not needed. In the event a waiver is requested, the applicant must provide evidence to show that a waiver is appropriate. Waiver requests shall be handled on a case-by-case basis.

#### **Calculating Trip Generation**

The trip generation of a proposed development is the sum of the number of inbound and outbound vehicle trips that are expected for the type and size of the proposed land use. For purposes of determining the requirement to submit a TIA, no adjustments such as modal split, pass-by trips or internal capture rates will be allowed to the site traffic calculation. A TIA will vary in range and complexity depending on the type and size of the proposed development. When mutually agreed upon by the NCDOT, the applicant, and Cabarrus County staff, the basic requirements for the TIA may be modified.

### **TRAFFIC IMPACT STUDY GUIDELINES**

## **A. General Information**

When required by this Ordinance and/or NCDOT, a Traffic Impact Analysis (TIA) shall be used to review the potential impacts of proposed or revised developments on the State Highway System. The TIA covers safety, capacity, and access issues. When required and completed, a TIA shall be used by Cabarrus County and NCDOT to determine the required improvements to the State Highway System within the vicinity of the development to mitigate undesirable impacts of the project.

The District Engineer, working together with Cabarrus County, will determine the basic parameters of the TIA. When mutually agreed upon by the NCDOT, the applicant, and Cabarrus County in a pre-submittal conference, the basic requirements and parameters for the TIA may be modified.

The TIA shall be prepared under the direct charge of, and sealed by, a licensed North Carolina Professional Engineer with expertise in traffic engineering. All work shall be in accordance with NCDOT approved methods and input parameters and shall be of sufficient scope and detail to allow Cabarrus County and the NCDOT to evaluate the impact of the development with regards to roadway capacity and operational and safety improvements that may be needed.

## **B. Format for Traffic Impact Analysis Report**

In general, the report should conform to the following general outline:

1. Table of Contents
2. Introduction
  - a. Explanation of project
  - b. Area map showing development site location
  - c. Complete project site plan, with buildings identified as to proposed use
  - d. Project schedule, and stages or phases, if applicable
3. Base Conditions
  - a. Existing Roadway network in vicinity of project, including lane configurations
  - b. Availability of alternate modes of travel in study area
  - c. Existing traffic volumes for all significant and pertinent modes of travel in the study area
  - d. Existing traffic signal phasing and timing information.
  - e. Safety information
  - f. Traffic capacity analysis
4. Background Conditions
  - a. Growth in traffic volumes to full build-out year, or stages of developments, if appropriate
  - b. Traffic volume generated by other approved developments in area, if applicable
  - c. Transportation improvement projects (State, local or private) in project study area
  - d. Background traffic volumes (base + growth + approved developments)
  - e. Traffic capacity analysis
5. Project Conditions
  - a. Traffic generated by proposed development (site traffic) at build-out, or stages of developments, if appropriate
  - b. Project traffic volumes (background + project)
  - c. Project traffic analysis
  - d. Impact to alternate modes of travel
  - e. Proposed roadway network improvements
  - f. Project traffic analysis with proposed roadway improvements
6. Conclusions/Recommendations
7. Appendix
  - a. All work sheets, traffic counts and other pertinent documents

## **C. Base Roadway Network**

All roadways in the vicinity of the development shall be included as part of the TIA. Analysis of intersections or roadway segments not immediately adjacent to the development may be required by the District Engineer or Cabarrus County if significant site traffic could be expected to impact the intersection or roadway segment. If intersections impacted by the development are within a coordinated traffic signal

system, then the entire traffic signal system shall be analyzed. However, if the traffic signal system is large, a sub-section of the system may be analyzed if approved by the District Engineer and agreed upon by Cabarrus County.

**D. Safety Information**

The initial submittal may be required to include recent crash experience in the study area. Where proposed access points are in the vicinity of high crash locations or where safety may be impacted, additional safety studies may be required as part of the Traffic Impact Analysis.

**E. Traffic Volumes**

Traffic turning movement counts shall be taken at each existing intersection in the project area. Existing traffic counts may be used if taken within twelve months of the TIA submittal. At some intersections, counts older than one year may be used if adjusted to current year. The use of these older counts will be evaluated on a case-by-case basis by the NCDOT and Cabarrus County and shall be approved by the District Engineer or his or her agent.

In general, AM and PM peak hour counts should be used. Other peak hour period counts, such as lunch and weekend periods, may be required if appropriate for the development. Counts shall not be taken on a holiday unless specifically needed for the particular analysis. The effects of school, seasonal variation and special event traffic shall be noted when appropriate.

**F. Traffic Capacity Analysis**

All capacity analysis shall be performed using methodology and software based on the Highway Capacity Manual procedures or as approved by the NCDOT District Engineer. All software shall be the latest version available unless otherwise approved by the District Engineer. If signalized intersections impacted by the project are within a coordinated traffic signal system, or may be included in a system because of changes to the network by the applicant, then they shall be analyzed as a system rather than as isolated intersections. Where available and appropriate, existing timing information shall be used. All analyses shall include level of service determination for the entire network and individual intersections and roadway segments, as appropriate. Intersection analyses shall include level of service determinations for all approaches and movements. Intersection analyses shall include queue analysis.

**G. Growth-to-Background Traffic Volumes**

Growth-to-background traffic volumes are factors of increases in annual traffic volumes generated outside the project area. These factors shall be applied to the existing traffic before adding any approved developments in the area. As deemed appropriate, the volume shall be compounded to the proposed build-out years or completion of development stages. In general, these factors will be determined from local or statewide data.

**H. Approved Development Traffic**

Approved development traffic is defined as traffic generated by all developments approved by local jurisdictions or submitted to local jurisdictions for approval within the development vicinity at the time of the TIA submittal.

**I. Background Analysis**

Background (no build) analysis shall include existing traffic, traffic signal phasing and timing, background growth, and all approved developments. The analysis shall take into consideration any improvements to the roadway network that will be in place by the build-out year, or staged build-out in development, as appropriate. An analysis shall be performed for each staged build-out year as necessary. This analysis shall be performed for the proposed build-out year of the development or other year as identified by Cabarrus County or NCDOT and approved by the District Engineer.

**J. Project Conditions**

Site traffic is the traffic that will be generated by the proposed development. Trip generation rates shall be based on trip generation methodology in the latest version of the "Trip Generation Manual" by the ITE. When approved by the District Engineer, available local information may be substituted with appropriate

documentation. The District Engineer may coordinate the analysis of the site trip generation with the Division Traffic Engineer. Trip generation reduction factors, such as pass-by traffic and internal capture, shall be justified. Total traffic is to be re-calculated after site traffic is generated. All trip generation calculations and supporting documentation shall be included in the report appendix. Project traffic analysis shall include any roadway network improvements that will be in place by the project build-out year, or stage in development, if appropriate. Any improvements planned by others shall be identified as such and documentation describing the improvements, the entity that is to implement the improvements, and the schedule for such improvements, shall be provided.

**K. Roadway Network Improvements**

The applicant shall be required to identify mitigation improvements to the roadway network if at least one of the following conditions exists when comparing base network conditions to project conditions:

- The total average delay at an intersection or individual approach increases by 25% or greater;
- The Level of Service (LOS) degrades by at least one level;
- Or the Level of Service (LOS) is an "F."

For turning lanes, mitigation improvements shall be identified when the analysis indicates that the 95th percentile queue exceeds the storage capacity of the existing lane. The District Engineer will be responsible for final determination of mitigation improvements required to be constructed by the applicant.

**L. Conclusions/Recommendations**

This section of the TIA shall summarize the findings of the analysis, identify all potential intersections or roadway segments that will be at an unacceptable level of service as identified in Section J, and shall identify all proposed improvements to mitigate potential problems. This includes a description of all of the improvements that the developer shall construct (or fund) as part of the development proposal. Improvements to roadway segments and intersections not immediately adjacent to the project site may be required if significant traffic impacts are identified.

**M. Supporting Information**

The applicant shall provide all supporting information to the District Engineer and Cabarrus County. This information may include but is not limited to the following:

- traffic volumes;
- analysis reports;
- signal warrant analysis;
- documentation of approved developments or proposed roadway improvements by others;
- and analysis data and output.

In lieu of printed pages, electronic copies of supporting data may be submitted. The submitted information may include data from traffic analysis, traffic volume, or signal warrant analysis software packages. If submitted, both input data and output reports shall be included. Data files should be named to facilitate identification of the contents.

All plans may be submitted electronically, with the exception that a copy of the proposed site plan must be printed and included with the application. If so provided, the plans must be in a format approved by the District Engineer and Cabarrus County.

**N Final Submittal information**

Once the TIA is approved by NCDOT and Cabarrus County, one (1) electronic copy of the entire TIA on CD and one (1) paper copy of the TIA shall be submitted to the Cabarrus County Planning Department for the project file.

**O. Validity of TIA**

**Residential Projects**

- A TIA shall be valid for a period of two (2) years from the date of the preliminary approval by the Planning and Zoning Commission.



### **Commercial Projects**

- In the case of commercial projects, if a preliminary plat is required for the project, the TIA shall be valid for a period of two (2) years from the date of the preliminary plat approval by the Planning and Zoning Commission.
- In the event a preliminary plat is not required for the project and the project is subject to site plan review only, then the TIA shall be valid for a period of two (2) years from the date of site plan approval by Cabarrus County Zoning Services.

### **Mixed Use Projects**

- Where Mixed Use projects are proposed, the TIA shall be valid for a period of two (2) years from the date of preliminary plat approval by the Planning and Zoning Commission or site plan approval by Cabarrus County Zoning Services, whichever occurs first.

## **SECTION 2: Improvements Required (Projects Not Requiring TIA)**

If a project does not require a Traffic Impact Analysis to be performed, the developer/project owner is not exempt from completing improvements to mitigate the impacts of the proposed project. For the project to take place, highway infrastructure improvements may be necessary. For example, improvements may be needed for safe and efficient traffic operations if there are high roadway and/or turning volumes of traffic, when the roadway speeds are moderate or high or where limited sight distance exists.

### **A. Infrastructure Improvements Defined**

Highway infrastructure improvements include, but are not limited to:

- additional through lanes
- acceleration lanes
- turn lanes and tapers for left and right turns associated with a driveway connection.

As set forth in G.S. 136-18(29), the final determination for the need, extent, location and design of turn lanes is the responsibility of the NCDOT. The NCDOT may require the applicant to provide offsite roadway improvements on public facilities in order to mitigate any negative traffic impacts created by the proposed development. Boundaries for offsite improvements, including intersections and public roadways to be considered, will be determined by the District Engineer in cooperation with Cabarrus County.

### **B. Right-Of-Way Acquisition**

When adequate right-of-way does not exist to provide for the required offsite improvements necessary to maximize the safety of the traveling public, the applicant shall secure the needed right-of-way. If the applicant is unsuccessful in obtaining the needed right-of-way and has demonstrated a "good-faith effort," the NCDOT may, but shall not be required to, utilize its power of eminent domain to secure adequate right-of-way to contain the required improvements. At a minimum, a "good-faith effort" shall consist of a copy of a certified letter to all affected property owners and all responses received from those property owners. The applicant shall provide copies of the documentation sent to affected property owners and any responses received to Cabarrus County Planning Services for the project file. In the event the ROW acquisitions services of NCDOT are required for the project, the applicant shall be required to reimburse all costs incurred by NCDOT to acquire the additional right-of-way.

### **C. Local Transportation Plans and Future Right-Of Way**

In conjunction with the driveway request, the NCDOT and/or Cabarrus County may require the applicant to reserve or dedicate minimum right-of-way needs as identified by local government transportation plans for the state-maintained roadway along the property frontage. This may require that the driveway design and internal circulation be compatible with the future right-of-way location.

### **D. Left and Right Turn Lanes**

Generally left and right turn lanes and tapers shall be considered when:

- In accordance with G.S. 136-18(29), the average daily traffic meets or exceeds 4,000 vehicles per day on any secondary route (the average daily traffic should include both the existing traffic plus traffic generated by the proposed development):

- Any US or NC numbered route is being accessed;
- The District Engineer determines that such treatment is necessary to avoid congestion or unsafe conditions on the state-maintained roadway; or
- A TIA identifies a need for an auxiliary lane or taper.

Left and right turn lanes shall be constructed in accordance with the “North Carolina Standards and Specifications for Roads and Structures.” On an undivided highway or a divided highway with a median width that is inadequate for a left-turn lane, it may be necessary to widen the highway in order to provide for the required turn lanes. For greater detail, see the turn lane nomograph figure in the Exhibits section of the “Policy on Street and Driveway Access to North Carolina Highways.” Should widening be required to accommodate turn lanes or tapers, the applicant shall be required to acquire the necessary ROW as stated in Section B, Right-of-Way Acquisition.

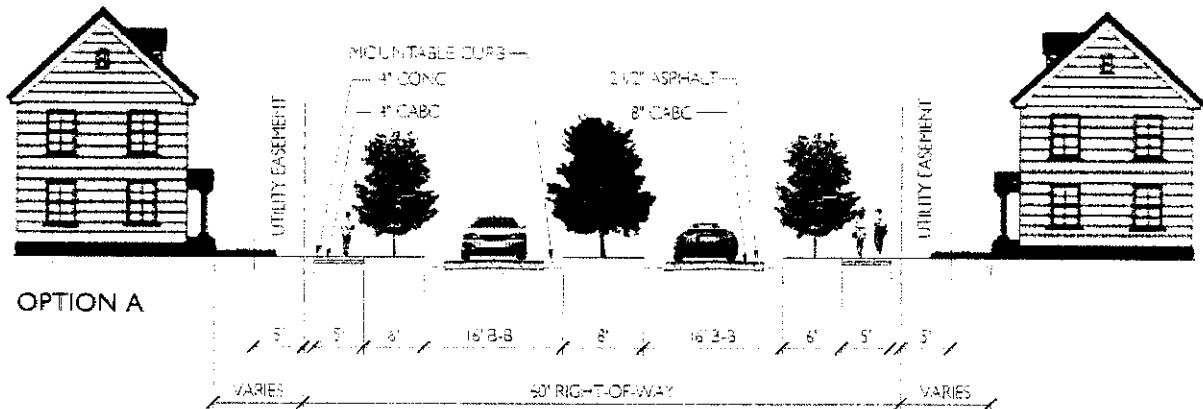
**E. Channelization**

The applicant may be required to protect the integrity of the highway network by providing channelization to physically prevent improper or illegal turns into and out of a driveway or street. Channelization may include medians and raised traffic islands with curbs.

**F. Authority**

The District Engineer has final authority on decisions regarding infrastructure improvements and shall inform Cabarrus County of any such decisions regarding infrastructure improvements.

## RESIDENTIAL COLLECTOR (PARKWAY)

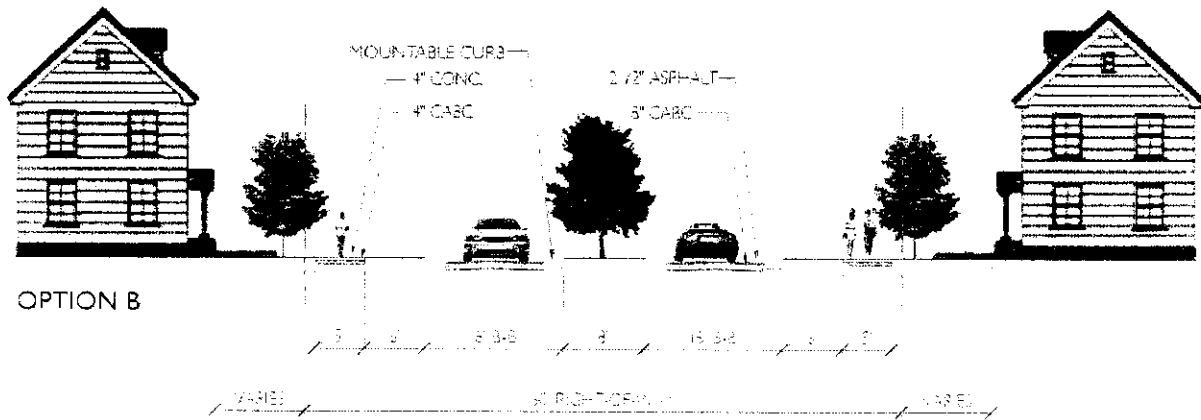


OPTION A

NOTE: SIDEWALKS 8" CONC. @ DRIVEWAY

| Right-of-Way | Sidewalks | Planting Strips | Street Width | Median | Parking | Design Speed | Curb Type      |
|--------------|-----------|-----------------|--------------|--------|---------|--------------|----------------|
| 60'          | 5'        | 6'              | 2 x 16'      | 8'     | None    | 25 mph       | Drop or Valley |

## RESIDENTIAL COLLECTOR (PARKWAY)

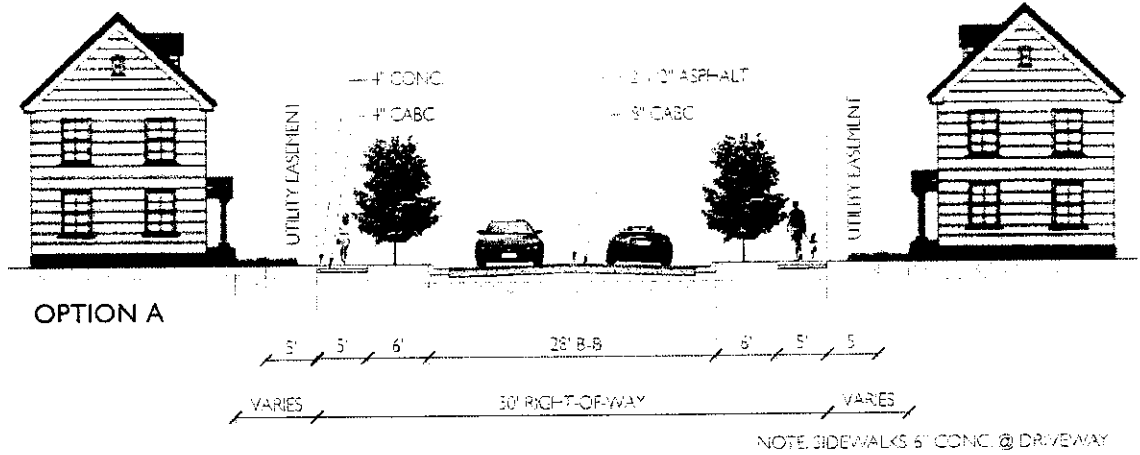


OPTION B

NOTE: SIDEWALKS 8" CONC. @ DRIVEWAY

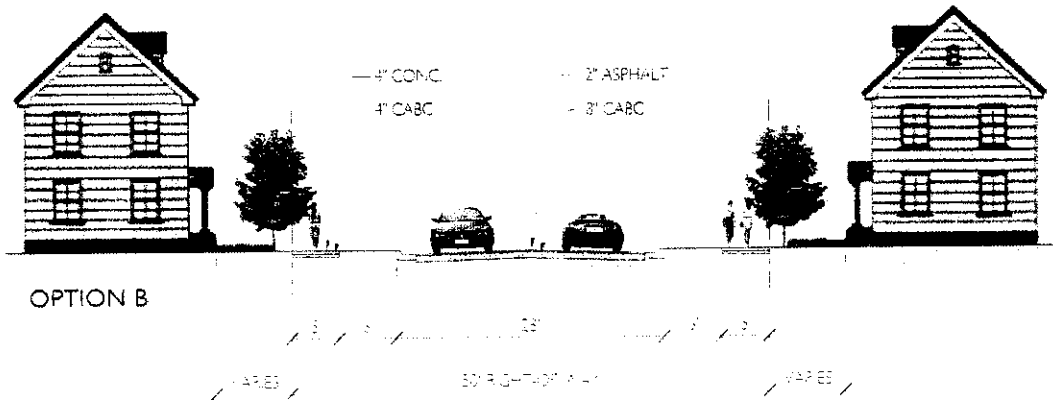
| Right-of-Way | Sidewalks | Planting Strips | Street Width | Median | Parking | Design Speed | Curb Type      |
|--------------|-----------|-----------------|--------------|--------|---------|--------------|----------------|
| 60'          | 5'        | 6'              | 2 x 16'      | 8'     | None    | 25 mph       | Drop or Valley |

## RESIDENTIAL COLLECTOR



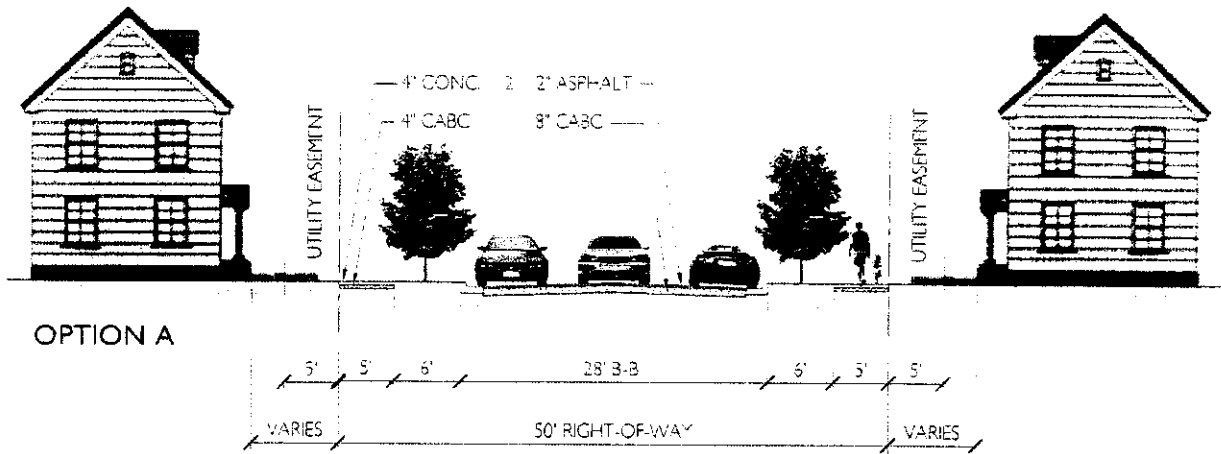
| Right-of-Way | Sidewalks | Planting Strips | Street Width | Parking | Design Speed | Curb Type      |
|--------------|-----------|-----------------|--------------|---------|--------------|----------------|
| 50'          | 5'        | 6'              | 28'          | None    | 25 mph       | Drop or Valley |

## RESIDENTIAL COLLECTOR



| Right-of-Way | Sidewalks | Planting Strips | Street Width | Parking | Design Speed | Curb Type      |
|--------------|-----------|-----------------|--------------|---------|--------------|----------------|
| 50'          | 5'        | 6'              | 28'          | None    | 25 mph       | Drop or Valley |

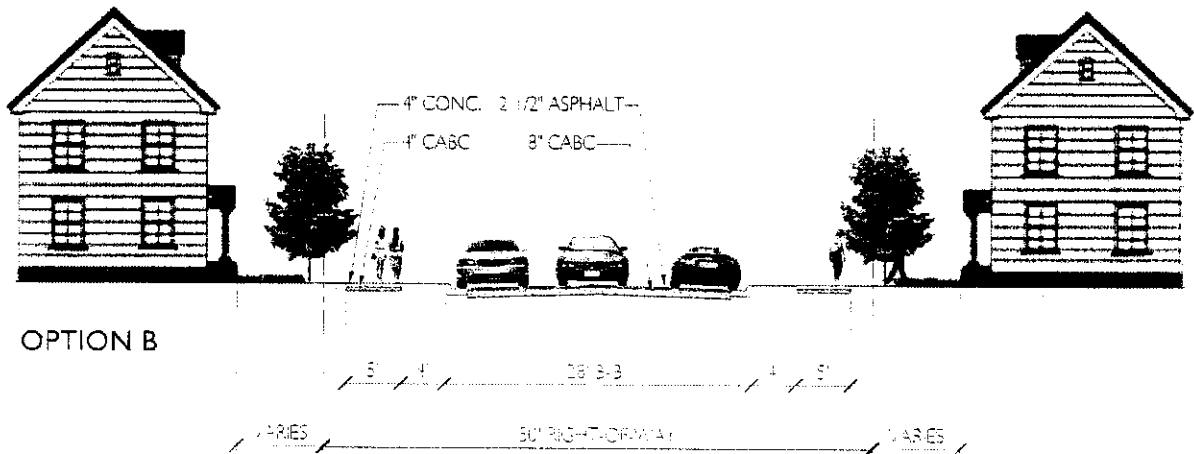
## RESIDENTIAL STREET



NOTE: SIDEWALK 5" CONC. @ DRIVEWAY  
CURB TYPE: VALLEY CURB

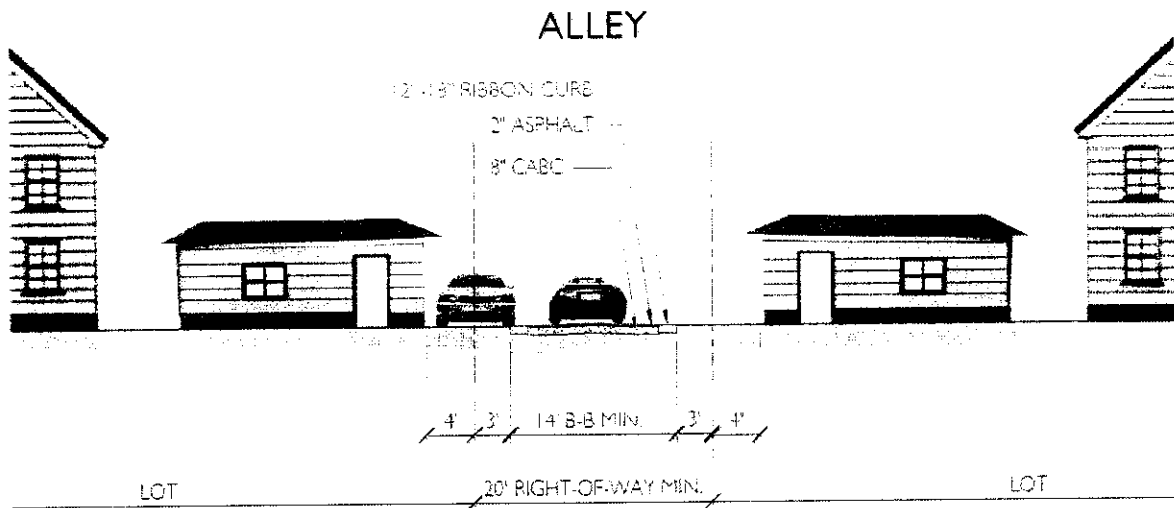
| <i>STREET</i> |           |                 |              |         |              |                |
|---------------|-----------|-----------------|--------------|---------|--------------|----------------|
| Right-of-Way  | Sidewalks | Planting Strips | Street Width | Parking | Design Speed | Curb Type      |
| 50'           | 5'        | 6'              | 28'          | Both    | 20 mph       | Drop or Valley |

## RESIDENTIAL STREET



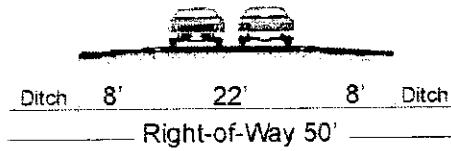
NOTE: SIDEWALK 5" CONC. @ DRIVEWAY  
CURB TYPE: VALLEY CURB

| <i>STREET</i> |           |                 |              |         |              |                |
|---------------|-----------|-----------------|--------------|---------|--------------|----------------|
| Right-of-Way  | Sidewalks | Planting Strips | Street Width | Parking | Design Speed | Curb Type      |
| 50'           | 5'        | 6'              | 28'          | Both    | 20 mph       | Drop or Valley |



| <i>ALLEY</i> |              |              |           |
|--------------|--------------|--------------|-----------|
| Right-of-Way | Grass Strips | Street Width | Curb Type |
| 20'          | 3'           | 14'          | Ribbon    |

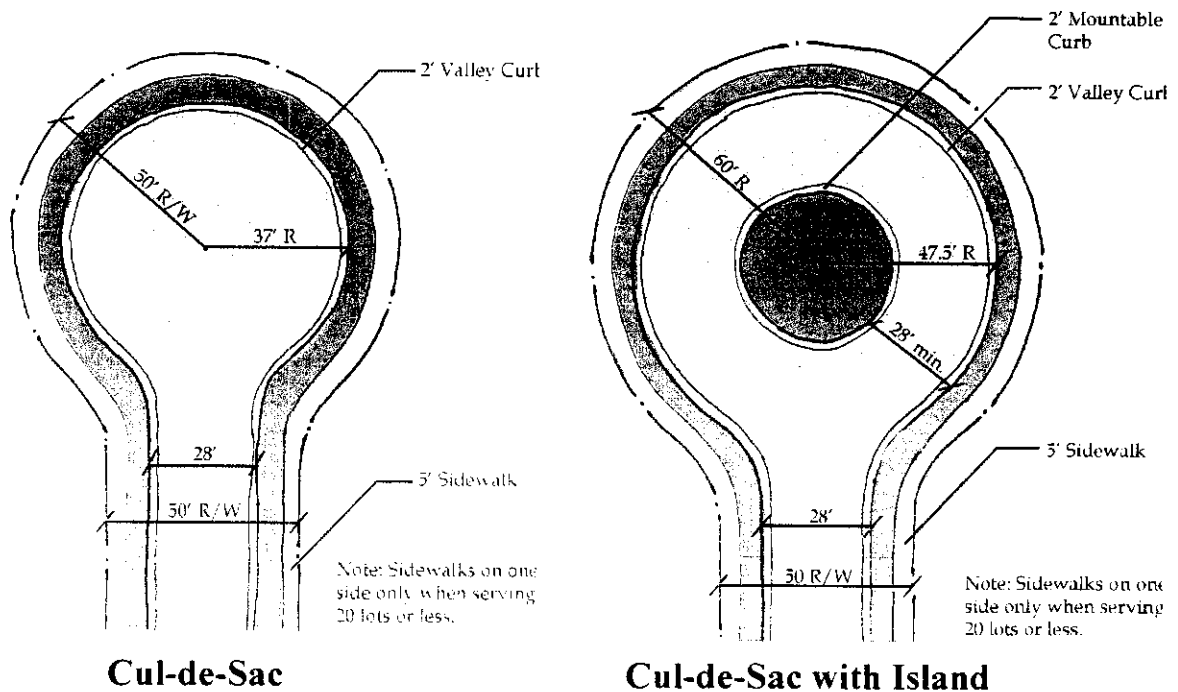
### Rural Residential Street

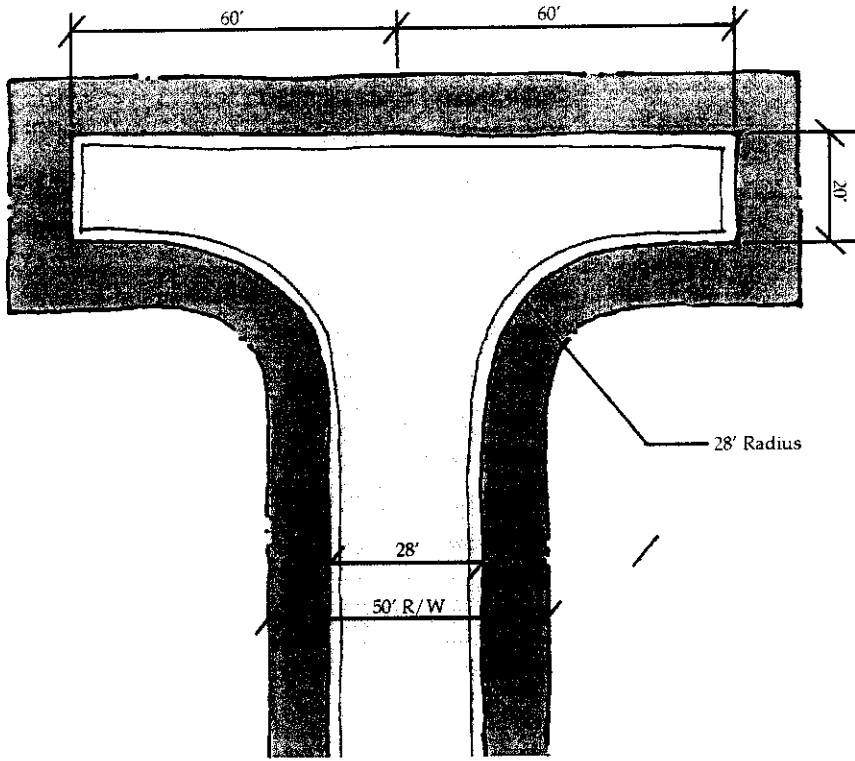


| Right-of-Way | Planting Strips | Street Width | Parking | Design Speed | Curb Type      |
|--------------|-----------------|--------------|---------|--------------|----------------|
| 50'          | 6'              | 22'          | None    | 20 mph       | Ribbon or None |

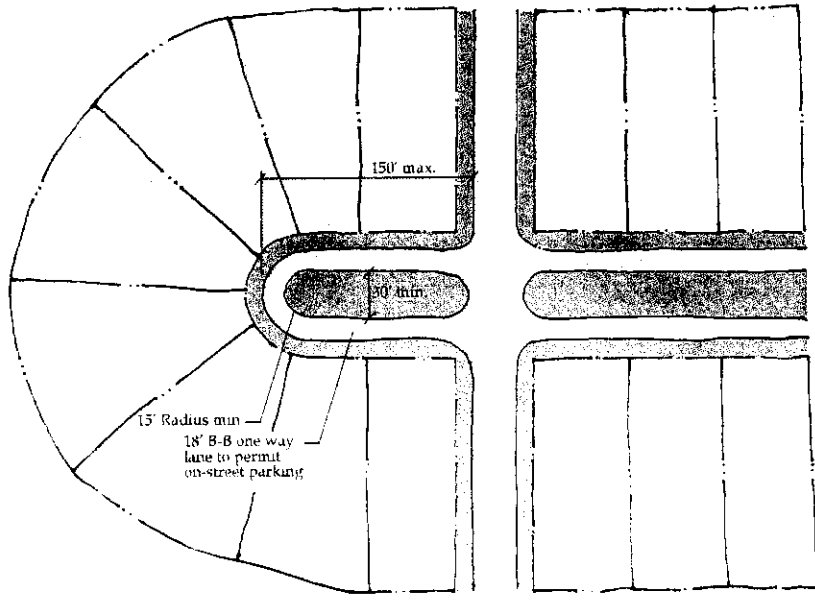
## Requirements for Dead-End and Stub Streets

| Length (feet)                  | Width (feet)            | Turnaround Required  |
|--------------------------------|-------------------------|--|
| 0 to 150                       | Varies<br>(28' minimum) | <b>Stub Street:</b> None required<br><b>Cul-de-Sac:</b> 70' diameter<br><b>Hammerhead:</b> 60' diameter (rural and suburban tiers)   |
| 151 to 400                     | Varies<br>(28' minimum) | <b>Stub Street:</b> 70' temporary cul-de-sac or 60' hammerhead (all weather surfaced)<br><b>Cul-de-Sac:</b> 70' diameter (rural and suburban tiers)<br><b>Hammerhead:</b> Not allowed                                  |
| 401 to 600                     | Varies<br>(28' minimum) | <b>Stub Street:</b> Not allowed<br><b>Cul-de-Sac (suburban tier):</b> 95' diameter with center island<br><b>Cul-de-Sac (rural tier):</b> 70' diameter (ditch and swale section only)<br><b>Hammerhead:</b> Not allowed |
| 601-1,000<br>(rural tier only) | Varies<br>(22' minimum) | <b>Stub Street:</b> Not allowed<br><b>Cul-de-Sac (rural tier):</b> 70' diameter (ditch and swale section only)<br><b>Hammerhead:</b> Not allowed   |
| > 1,000                        | Not allowed             | Not allowed  |





**Hammerhead**



**Loop Lane**



### TIA Requirements for other NC Jurisdictions

| JURISDICTION           | POPULATION          | PEAK TRIPS | DAILY TRIPS | SEE BELOW |
|------------------------|---------------------|------------|-------------|-----------|
| City of Hendersonville | 20,000 <sup>1</sup> | 100        | 1000        |           |
| Town of Mooresville    | 23,000              | 100        | 500         |           |
| Town of Indian Trail   | 22,030              | 200        | 2000        | *         |
| Wilmington             | 91,137              | 100        |             |           |
| New Hanover County     | 182,591             | 100        |             |           |
| Town of Shallote       | 1,768               |            | 800         |           |
| City of Durham         | 209,123             | 150        |             |           |
| Durham County          | 242,210             | 150        |             |           |
| Town of Cary           | 115,967             | 100        | 1000        |           |
| Town of Apex           | 27,203              | 100        | 1000        |           |
| Town of Chapel Hill    | 46,019              | All        |             |           |
| Town of Knightdale     | 6,938               | 150        |             |           |
| City of Asheville      | 73,189              | 100        |             |           |
| Town of Matthews       | 25,442              |            |             | *         |
| Johnston County        | 146,312             | 100        | 1000        |           |
| Town of Catawba        | 698                 |            | 1000/1500   |           |

<sup>1</sup> Includes ETJ

\*Town of Indian Trail

Required when the Town notes there is existing congestion in the vicinity of a proposed development and the development may significantly impact the adjacent roadways and

intersections.

Required when the Town anticipates a proposed development may create a hazard to public health or safety.

Required when a petition is filed for a rezoning or zoning to a more intensive use.

May be required at the discretion of the Town Staff, Planning Board, or Town Council.

**\*Town of Matthews, NC**

50 or more dwelling units, or for any nonresidential use meeting one or more of the following: covering more than 2 acres; including more than three building lots; providing an assembly area for more than 400 persons; involving office or sales floor area over 20,000 square feet; within 150 lineal feet of any intersection of two designated thoroughfares; within 500 lineal feet of any public road intersection currently operating as a Level of Service D or E; and/or involving service or delivery vehicles in excess of 1 ton.

# Memo

**To:** Cabarrus County Planning and Zoning Commission  
**From:** Susie Morris, AICP, Planning and Zoning Manager  
**CC:** File  
**Date:** 10/11/2007  
**Re:** Review of Commercial Design Standards-Appendix B

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Staff would like to start a discussion with the Commission about the Commercial Design standards and applicability.

Please review the attached materials so that you are familiar with this part of the Ordinance.

**COMMERCIAL DESIGN STANDARDS**

The following standards shall apply to new and/or expanding developments in the O-I, LC, and GC zoning districts. Additionally, in PUD developments where no architectural and/or design controls are specifically approved by the Planning and Zoning Board, said Commercial Design Standards shall apply. Commercial/office projects permitted in the AO, CR, LDR, HDR and MDR zoning districts shall also be subject to these standards.

**GENERAL DESIGN STANDARDS**

**AMENITY AREA**

Projects containing groups of buildings to be devoted primarily to office and/or retail activities shall incorporate amenity areas into the site design. Amenity areas include, but are not limited to, public plazas, courtyards, squares or small parks on the site. Design elements to be included in the amenity areas are seating walls, benches, outdoor dining/gathering areas, decorative fountains or water features, clock towers and/or garden areas. Since the purpose of these amenity areas is to serve as pocket recreational areas and to help foster a sense of community, additional elements shall be considered if the applicant shows that the design meets the intent of this section.

**SETBACKS**

The setbacks to be established are intended to form a consistent relationship of buildings to the street and sidewalk. This relationship shall form a visually continuous, pedestrian-oriented street front. The best way to maintain this relationship is to have minimal vehicle use between building faces and the street. Front building setbacks shall be between a minimum of ten (10) feet and a maximum of twenty (20) feet to maintain a consistent and uniform streetscape. All other setbacks are established in Chapter 5 of the Cabarrus County Zoning Ordinance. Buildings should be arranged so that they help to frame and define fronting streets (as well as any internal or side streets). Buildings shall not be separated from fronting streets by large expanses of parking. In some instances, the setbacks may be adjusted by the Administrator to address access issues and access road placement. In the event the Administrator grants an adjustment to the required setbacks, additional landscape shall be required. Setbacks adjustment requests shall be handled on a case by case basis.

**CONNECTIVITY AND SIDEWALKS**

Sidewalks shall serve as the secondary mode of transportation to the use of roads and shall link residential and commercial developments, common areas, and parking areas. If a proposed development includes multiple buildings in the site design, then an overall connectivity plan shall be provided for the development. Sidewalks shall be a minimum of five feet wide and shall have a minimum six-foot landscaped buffer area between the road and the sidewalk itself. Sidewalks shall remain as unobstructed as possible by items such as plantings or trash receptacles.

**PARKING REQUIREMENTS**

Parking areas shall balance the needs of both the automobile and the pedestrian. Off street parking areas shall be designed to minimize breaks in the pedestrian environment and the visual continuity of the streetscape. Additionally, no more than two rows of parking may be permitted on the side of the structure.



Off street parking shall be required and determined per Chapter 10. Parking areas shall primarily be located to the rear of the proposed structures to minimize visibility. In the event that a proposed development includes multiple structures, parking areas may be permitted in "front" of the internal buildings. In no case, however, shall expanses of parking be permitted between any street and structure.

**PARKING LOT DESIGN**

Parking lots shall be designed to allow pedestrians to safely move from their vehicles to the buildings. This may be achieved in smaller lots by providing a sidewalk at the perimeter of the lot. On larger lots, corridors within the parking areas should channel pedestrians from the car to the perimeter of the lot. A paving material that is different in color and/or texture from that of vehicular areas shall delineate these pedestrian travel ways and shall be clearly marked. Small posts or bollards incorporating lights may also serve the same purpose. Parking lots shall be adequately screened from public view and shall include landscaping and buffering per Chapter 9 of the Cabarrus County Zoning Ordinance.

**LANDSCAPING**

A Landscaping plan shall be submitted in accordance with Chapter 9 of the Cabarrus County Zoning Ordinance. In the event that the strict interpretation of Chapter 9 would limit the use and/or design of a site (such as in the case of upgrades to existing facilities) the Administrator shall have the authority to approve a modified landscape plan if the plan is determined to be in keeping with the overall intent of Chapter 9 and these design guidelines.

**LIGHTING**

Lighting for all non-residential uses shall provide proper lighting for security purposes while not diminishing the quality of any surrounding residential uses.

- All light fixtures (freestanding, flood, or any other form of light fixture) shall be provided with full cut-off fixtures, visors, or any other suitable directional control to direct light either downward or directly on the appropriate building. (Wall pack lighting is not permitted)
- No light fixture shall create any glare or spillover lighting effects on any residential properties or streets.

- Freestanding light fixtures along all public street systems and internal street systems shall not exceed nineteen feet in total mounted height and shall consist of a decorative fixture that shields the source of light away from neighboring properties.
- Lighting located within parking lots may not exceed thirty-three feet in total mounted height. Parking lot lighting shall consist of a fixture that shields the source of light away from neighboring properties and direct the illumination to the ground's surface.
- Lighting installations should include timers, dimmers, and /or sensors to reduce overall energy consumption and unnecessary lighting.
- Lighting levels for canopies and awnings of commercial facilities shall be adequate only to facilitate the activities taking place in such locations and shall not be used to attract attention to the businesses. Lighting fixtures mounted on canopies shall be recessed so that the light's lens cover is recessed or flush with the bottom surface (ceiling) of the canopy and/or shielded by the fixture or the edge of the canopy so that light is restrained. Canopies shall be constructed of non-light-emitting material.

**LOADING/UNLOADING AREAS AND LOADING DOCKS**

Loading and unloading areas shall be installed per Chapter 10. Loading/unloading areas shall be placed, to the greatest extent possible, to the rear of the structure and shall be screened from the view of any street and/or any residentially developed or residentially zoned property. Additionally, loading/unloading spaces shall be located such that interference with traffic on streets and or internal driveways is minimized. In the event that a loading dock is necessary to support the proposed use, the dock shall be located to the rear of the structure and shall not be visible from any street and/or residentially developed or residentially zoned property.

**SOLID WASTE STORAGE AREAS**

Solid waste containers shall be confined to an enclosed area that is screened on all sides. Solid waste storage areas shall be located to the rear or side of the structure. These areas shall be designed to compliment the structure and should be constructed from materials that match the building. Solid waste storage areas shall not be located in any applicable planting yard and shall be screened from any street and/or any residentially developed or residentially zoned property.

**MECHANICAL APPURTENANCES**

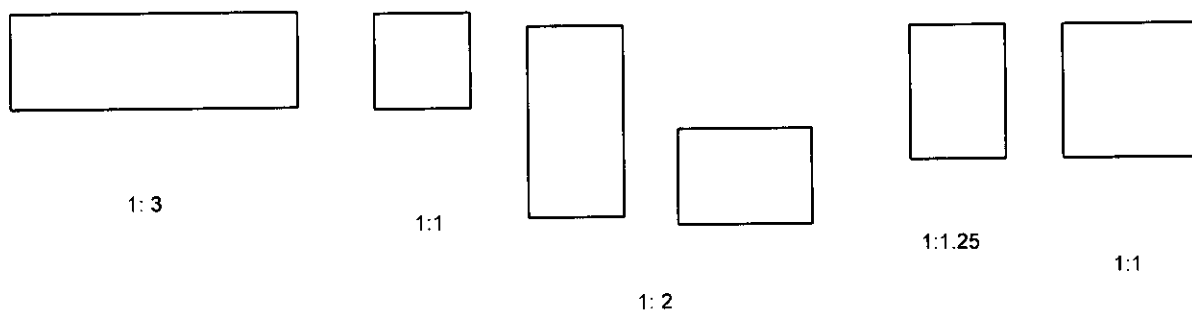
All rooftop mechanical and electrical equipment shall be completely screened from view from all public streets and adjacent properties. All screening walls/parapets shall be constructed and designed of materials compatible to that of the primarily structure and shall be incorporated into the design of the structure. Metal screening walls shall not be permitted. To the greatest extent possible, mechanical appurtenances shall be located within the structure. Appurtenances such as heating and air conditioning equipment, coolers, etc. shall be screened entirely from public view and shall be designed and finished to match adjacent building materials. In addition to design elements, landscape materials shall be incorporated to provide additional screening and/or softening of equipment areas.

**ARCHITECTURAL DESIGN STANDARDS**

**MASSING AND RHYTHM**

To insure a consistent scale and compatible character of each and every building, massing and rhythm shall be considered in the site design. A single large dominant building mass shall be avoided in new buildings and, to the extent reasonable feasible, in development projects involving changes to the mass of existing buildings. Horizontal masses shall not exceed a height-width ratio of 1:3 without substantial variation in massing that includes a change in height and projecting or recessed elements. Changes in mass shall be related to entrances, the integral structure, and/or the organization of interior spaces and not merely for cosmetic purposes. All buildings shall incorporate the aspects outlined in this document to insure that no single building, here forth, shall be constructed counteractive to the goals established for the commercial design standards.

Figure 4



**Examples of appropriate width to height ratios.**

**HEIGHT**

Building height shall be regulated in accordance with Chapter 5, Dimensional Requirements.

**SCALE AND ROOFLINE**

The goal for scale is to be reiterated in regard to height. The scale of buildings should be such that the street edges are defined and relate to the human proportions. This scale can be achieved through the use of architectural detailing on the first floor of buildings so that larger buildings are broken up into smaller units, by maintaining height limits, by using large picture windows along front facades and by using plantings around the buildings. A range of roof forms is acceptable as long as they are compatible with the architectural character, scale, and height of surrounding buildings. Mansard roofs are not permitted.

**FENESTRATION**

Fenestration includes the structural openings to buildings, including doors and windows. All buildings shall have their principle entrance opening to a street, square, plaza, or sidewalk to create an invitation to the pedestrian. Access from the public sidewalk, street right-of-way or driveway to the principle structure shall be provided through an improved surface. The first floor of all buildings shall be designed to encourage and to complement pedestrian-scale activity by the use of windows and doors. These openings should be arranged so that the uses are visible and/or accessible to the street. This accessibility should not be on less than fifty percent (50%) of the length of the first floor street frontage. Additionally, not less than fifty percent (50%) of the length and twenty-five percent (25%) of the surface of the primary structure(s) shall be in public entrances or windows. No more than fifty (50) percent of the surface of the building shall be windows. Reflective glass is prohibited. Where tinted windows are used, they shall remain transparent.

### ACCESS

Structures should be sited so that the primary access is from the street front sidewalk leading to the parking area. In the event that a structure is located on a State Numbered Highway, the Administrator may permit the primary access to be located facing the parking area. All street level retail uses with sidewalk frontage shall be furnished with an individual entrance and direct access to the sidewalk in addition to any other access which may be provided. Doors shall be recessed into the face of the building to provide a sense of entry and to add variety to the streetscape. An entryway shall not be less than one (1) square foot for each 1,000 square feet of floor area, and in all cases, shall not be less than fifteen (15) square feet.

### ARTICULATION

In order to add architectural interest and variety and to avoid the effect of a single long or massive wall with no relation to human scale proportions, the following standards shall apply:

- No wall that faces a street or connecting walkway shall have a blank, uninterrupted length exceeding twenty (20) feet.
- All building walls must include at least two of the following:
  - change in plane,
  - change in texture or masonry pattern, or
  - windows.
- Include an equivalent aspect that subdivides the wall into human scale proportions such as an articulated base with a height no more than ten (10) feet.
- In the event that actual doors and windows are not feasible because of the nature of the use of the building, side or rear walls that face walkways may include false windows and door openings defined by the following:
  - frames,
  - sills,
  - lintels, or





- proportioned modulations of the wall.
- All sides, including the rear, of the building shall include materials and design characteristics consistent with those on the front.
- Use of inferior or lesser quality materials on side or rear walls is prohibited.

In the event that canopies, awnings or other similar appurtenances are used, the following standards shall apply:

- Such appurtenances shall be constructed of materials designed to complement the streetscape and the structure.
- Any appurtenance may extend from the building up to eighty (80%) percent of the width of the sidewalk area or nine feet, whichever is less.
- In no case shall any such facility extend beyond the curb line of the street, nor shall it interfere with the growth or maintenance of street trees, or maintenance of street lights or street signs.
- A minimum overhead clearance of eight (8) feet from the sidewalk shall be maintained.

### **MATERIALS**

All buildings shall be constructed of quality materials. These materials include brick, either plain or painted, horizontal siding, wood shingle, stone, or concrete-based stucco. All trim materials shall be stone, cast stone, cast concrete, or painted wood. It is recommended that the primary structure be neutral in color, i.e. light grays, browns, beiges, whites or earth tones. The trim may be of various contrasting colors to that of the primary structure.

Where any sloped roofs are utilized, they shall be covered with high profile asphalt shingles, natural clay tiles, slate, concrete tiles (with natural texture and color), ribbed metal, wood shakes or shingles. Forms and finish materials of buildings, signage, gasoline pump canopies and other accessory structures, shall be compatible with the architectural character of the adjacent area and structures through compliance with the following guidelines:

- all buildings, including gasoline pump canopies, shall utilize a consistent architectural style;
- differing buildings, businesses, or activities within the same development may be distinguished by variations within this architectural style;
- Sides and backs of buildings shall be as visually attractive as the front through the design of roof lines, architectural detailing, and landscaping features.

### **FLEXIBILITY IN ADMINISTRATION**

Because these standards cannot cover every possible scenario that may arise, the Planning Administrator is authorized to make determinations on development applications that may vary from the written standards so long as the determination meets the purpose and intent of the Commercial Design Standards.

**DEFINITIONS**

**Articulation** The detailing of a structure or building, i.e. brick patterning or ornamental work.

**Clapboard** A long, narrow board that overlapped to cover the outer walls of frame buildings.

**Colonnaded (Porch)** A series of columns situated at regular intervals to uphold a roof structure and create a breezeway or porch.

**Cornice** A horizontal molded projection that crowns and complete the wall structure and visually connects the wall to the roof structure.

**Facade** The principle, vertical surface of a building which is set along the frontage line. The elevation of a facade is the vertical surface area and is subject to visual definition by building height, setbacks, and transition lines.

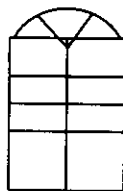
**Fenestration** The entryways and windows of a building.

**Gable (Roof)** A "gable" maybe any one of three things: a triangular wall section at the ends of a pitched roof bounded by the two roof slopes and the ridge pole; the ends of a pitched roof building with a gable in the roof section; or an ornamental triangular architectural section.

**Lintel** The horizontal beam forming the upper member of a door or window frame and supporting part of the structure above it.

**Massing** A unified composition of two-dimensional or three dimensional shapes or volumes, especially one that has or gives the impression of weight, density, or bulk.

**Palladian Windows** A window encompassing an arch above the primary window structure; or an arch window set above a primary window structure. See example below.



**Parapet** A low protective railing or wall along the edge of a roof or balcony.

**Pediment** An arch or triangle shape architectural feature, usually placed above windows or doors. These features may be seen further embellished with molding details or carvings of wood.

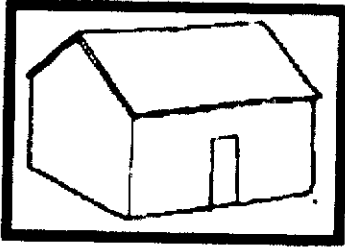
**Pilaster** A supporting column or pillar with a capital and base.

**Porte-Cocheres** A porch roof projecting over a driveway at the entrance to a building.

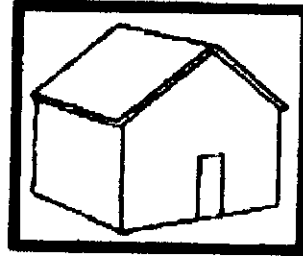
**Rhythm** Movement, characterized by a pattern repetition or alternation of formal elements or motifs in the same or modified form.

**Setback** A line prescribed for the full width of the facade above which the façade sets back. The location of a recess line is determined by the desired height to width ratio of the fronting space, or by a desired compatibility with existing buildings.

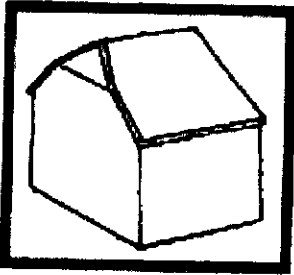
Side Gabled



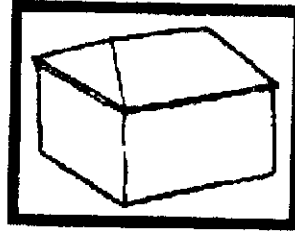
Front Gabled



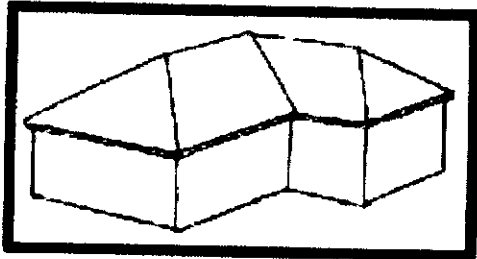
Hipped-Gabled



Simple Hipped



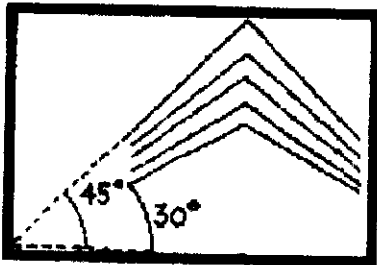
Cross-Hipped



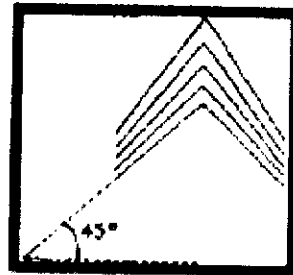
Low Slope - Less than 30°



Moderate Slope - 30 to 45°



Steep Slope - More than 45°





Planning and Zoning Commission Minutes

October 18, 2007  
7:00 P.M.

Roger Haas, Chairman, called the meeting to order at 7:00 p.m. Members present, in addition to the Chair, were Mr. Todd Berg, Ms. Brenda Cook, Mr. Eugene Divine, Mr. Larry Ensley, Mr. Danny Fesperman, Mr. Larry Griffin, Mr. Thomas Porter, Jr., Mr. Ian Prince, Mr. Barry Shoemaker and Mr. Dennis Yates. Attending from the Planning and Zoning Division were Ms. Susie Morris, Planning and Zoning Manager, Ms. Kassie Watts, Planner, Ms. Arlena Roberts, Clerk to the Board and Mr. Richard Koch, County Attorney.

The Oath of Office was administered to reappointed members; Mr. Ian Prince, Mr. Larry Griffin, Mr. Danny Fesperman, Mr. Larry Ensley and newly appointed alternate member Mr. Dennis Yates.

There being no further nominations, Mr. Larry Griffin, **MOTIONED, SECONDED** by Mr. Danny Fesperman to have Mr. Roger Haas reappointed as Chairman of the Planning and Zoning Commission. The vote was unanimous.

There being no further nominations, Mr. Barry Shoemaker, **MOTIONED, SECONDED** by Mr. Larry Griffin to have Mr. Todd Berg reappointed as the Vice-Chairman of the Planning and Zoning Commission. The vote was unanimous.

**Roll Call**

**Approval of Minutes**

Mr. Todd Berg, **MOTIONED, SECONDED** by Mr. Larry Ensley, to **APPROVE** the August 16, 2007, meeting minutes. The vote was unanimous.

**New Business - Planning Board Function:**

**The Chair introduced Petition C2007-04 (R) – Zoning Atlas Amendment – Office Institutional (OI) to Low Density Residential (LDR)**

Ms. Kassie Watts, Planner, addressed the board stating this is Petition C2007-04(S) Zoning Atlas Amendment. The property owner is Perry E. Hawkins and the petitioner is Mr. Keith Reynolds. The existing zoning is Office Institutional (OI) and the proposed zoning is Low Density Residential (LDR). The purpose of the rezoning is to construct one single family residence on the property; it is in the Harrisburg Township and located off McCorkle Lane, off Stafford Road and Rocky River Road. It is approximately 18.3 acres and there is one existing residential dwelling unit located on the subject property.

She said this property was rezoned during the June 2005 countywide rezoning from Medium Density Residential (MDR) to Office Institutional (OI). She said 3 of the 4

sides of the property are currently zoned Low Density Residential (LDR) and Office Institutional (OI), and property to the west is zoned Office Institutional (OI).

She said comments from the Cabarrus County Schools were that since this is a conventional rezoning, there is the possibility that if this property is resold to someone in the future it could potentially be developed for additional home sites. She said that's a general statement for all conventional rezoning when there is no conditional use. She said that statement needed to be noted in the site plan.

Ms. Watts said there were no comments from Cabarrus County Emergency Services, NCDOT, Soil and Water Conservation, Cabarrus County Sheriff's Department, Cabarrus County Health Alliance, The Water and Sewer Authority of Cabarrus County (WSACC) or Alley, Williams, Carmen & King Engineering. She said Cabarrus County Erosion Control stated that an erosion and sedimentation control plan must be submitted for review and approval if more than one acre of land is disturbed.

She said the Town of Harrisburg does not believe this rezoning is in keeping with the Harrisburg Area Plan. She said Mr. Hawkins's property does not start until you get to the end of McCorkle Road and lies outside the future land use plan adopted by Harrisburg and the Board of Commissioners and is designated for suburban residential uses.

Ms. Watts said the properties located to the south and north of Rocky River Road, adjacent to the County line are currently developing as a Planned Unit Development (PUD) called Brookdale. A Wachovia bank, CVS pharmacy, Gate gas station and convenience store, daycare, Harris Teeter grocery store, Bojangle's restaurant, several specialty shops and a section of townhomes have already been constructed on the properties. There are additional out parcels still to be developed within this Planned Unit Development (PUD). She said there is a very large portion of the Planned Unit Development (PUD) to the north of Rocky River Road that is going to develop more than likely with large portions of residential properties.

Per the Town of Harrisburg, a hospital has applied for a permit from the State for the property located at 9566 Rocky River Road. (PIN# 5506-33-0005) This property is located adjacent to the southwest corner of the property requesting rezoning. Ms. Watts received one call from the lawyer representing that property owner Mr. Eugene Cockran. She said they did not oppose the rezoning but wanted to make sure that the Board was notified that they have approached the state about getting the permit for the hospital and they will be moving forward with a hospital campus in that area.

The current zoning map shows the parcels adjacent to the subject property as part of a large Cabarrus County Office Institutional (OI) zoning district. The total combined area of these tracts is approximately 140 acres in size. The Harrisburg Unified Development Ordinance has an equivalent zoning designation of the Cabarrus County Office Institutional (OI) zoning district, Town of Harrisburg Office Institutional (OI). The Town of Harrisburg Office Institutional (OI) zoning district allows for a number of residential uses to be

permitted conditionally and based on standards. Should the property be annexed into the Town of Harrisburg in the future, the single-family detached residential dwelling would not become a nonconforming use.

This area of the Rocky River Road and I-485 interchange is currently developing as a mixed use project. To remove the subject property should not impact the area. With the proposed hospital campus and retail uses as well as the residential component of Brookdale that is planned to develop on the north side of Rocky River Road, a mixed use district could be achieved in using the existing zoning and the proposed zoning designations.

One of the goals of the Harrisburg Area Plan (HAP) is to create areas that will attract new businesses and future employment opportunities. On a limited basis, the Future Employment district may be used for the development of mixed use residential projects. The I-485 and Rocky River Road interchange was a likely candidate for this type of mixed use development. Minor retail and service uses should be permitted at this location so long as their primary service areas are to the employees and residents within the immediate vicinity. This intersection should not be allowed to develop as a retail power center. Office uses, research facilities, and office/warehouse facilities are compatible uses for this location. This portion of Rocky River Road will serve as an additional gateway into the Town of Harrisburg and southeastern Cabarrus County.

A broad goal of the Harrisburg Area Plan (HAP) for much of the planning area is to promote the development of well designed single-family neighborhoods. The plan indicates multi-family and higher density housing projects would be appropriate at the I-485 and Rocky River Road intersection, provided they are well designed and incorporated into a mixed use project that offers diverse housing types as well as retail, office, and employment uses. The property requesting rezoning under this petition falls under the Suburban Residential designation of the Harrisburg Area Plan (HAP). The Suburban Residential District is one of the area plan's single family districts and deems 2-4 units per acre is appropriate.

This rezoning request is an extension of an existing zoning district, Low Density Residential (LDR) currently surrounding the property on three of its four sides. The petitioner has indicated they wish to construct only one single family dwelling on the subject property. Due to existing access issues, with the right of way, it is likely that they will not be able to further subdivide the property in the future. Consideration should also be given to the new hospital campus developing on the adjacent property to the southwest of the subject property. Care should be taken to accommodate the future development of the hospital campus and surrounding retail as well as the petitioner's property.

This is a conventional rezoning request. All uses for Low Density Residential (LDR) must be considered in the approval process. Some uses that are permitted may not be suitable for locations near residential properties.

The Harrisburg Area Plan (HAP) designates this property as Suburban Residential with a density of 2-4 units per acre, a zoning designation of Low Density Residential (LDR)

would be compatible with that recommendation. The extension of the existing Low Density Residential (LDR) zoning district would also be compatible with the surrounding residential uses and is supported by the Low Density Residential (LDR) intent and rationale statement of the Cabarrus County Zoning Ordinance. The Planning and Zoning Commission should consider all the information presented and render a decision according to the Commission's vision for this area of Cabarrus County.

Mr. Berg said it seems like a lot of this is going to revolve around the Harrisburg Area Plan, in the comments, they felt that this is designated for future employment but yet further down they call it suburban residential. He asked if that goes back to her comment about the end of McCorkle being the dividing line.

Ms. Watts said yes, she and Ms. Morris have discussed this and they respectfully disagree with that interpretation. She said when the land use plans are drawn, they are drawn with polygons and it gives you general areas where you are supposed to have use areas. She said when it comes to Mr. Reynolds's property, it is on the line and it seems that his parcel got lumped over into it. She said when staff looks at it; it very clearly looks like it ends there, you could interpret that a different way but that is the way that we have interpreted it.

Mr. Berg said it does look like it could have gone either way. He thinks the fact that there is a parcel between their property and the street that is residential further emphasizes the point that it could be either way.

Ms. Morris said the triangle piece on the map that is cut out of their piece is a house and next to that are houses down McCorkle. She said unless these people move out and sell, it is not going to develop any time soon unless the hospital some how convinces them they need to leave. She said this area in the Leak Goforth study was designated as a super sight where they could come in and develop; the south side of Rocky River is already developed and approved as Brookdale Shopping Center. She said the north side is where the Plaza extension is scheduled to go and Brookdale also has a large residential tract on that side, so it is going to develop as mixed use. She said this street is a dirt road so there is no potential there unless someone comes in and assembles all those pieces. She said when it was calculated, it was about 140 acres total in Office Institutional (OI); taking out 20 acres will not impact it that much and they would have to assemble all the pieces on the north side before anything can happen back there.

Ms. Morris said one of the issues we have had with other folks who have come in is that they want to develop residential in Office Institutional (OI) and that is not permitted; now, along McCorkle, we have residential houses on Office Institutional (OI) property that are paying Office Institutional (OI) taxes as well. She said the other house is in Office Institutional (OI) and technically is a nonconforming use and there is a house on this particular property as well.

The Chair asked if there were any other questions.



Mr. Keith Reynolds, 10421 Rockwood Road, Charlotte, NC 28125 addressed the board. He said there are four houses in that area right now that people live in. He said he moved back to the area and wants to build a house on this property and realized that they could not build a house on the property. He said there is no road frontage on this property at all, McCorkle Road dead ends and it is all wooded. He said they only plan to build one home for them to live in.

Mr. Fesperman asked how long Mr. Reynolds has had ownership of the property.

Mr. Reynolds said his father-in-law has owned the land for 25 years.

Mr. Fesperman asked if when the rezoning took place (in 2005) if Mr. Reynolds father-in-law came forward to protest.

Mr. Reynolds said his father-in-law was not aware of the zoning change until it was done. He came to inquire when the taxes were changed.

There being no further questions, Mr. Berg **MOTIONED, SECONDED** by Mr. Porter to Approve Petition 2007-04(R) Zoning Atlas Amendment - Office Institutional (OI) to Low Density Residential (LDR). The vote was unanimous.

There being no further questions, Mr. Berg **MOTIONED, SECONDED** by Mr. Shoemaker that Petition 2007-04 (R) Zoning Atlas Amendment - Office Institutional (OI) to Low Density Residential (LDR) is consistent with the suburban residential component of the Harrisburg Area Plan and is reasonable and in the public interest. The vote was unanimous.

**The Chair introduced Petition 2007-06 (S) – Preliminary Plat Approval – Hawks Ridge Subdivision.**

Ms. Kassie Watts, Planner, addressed the board stating this is Petition C2007-06 (S) Preliminary Plat Approval – Hawks Ridge Subdivision. It is an open space subdivision and the applicant is Mr. Randall Scribner. The zoning is Low Density Residential (LDR) and in the Number 1 Township of Harrisburg. The property lies between Archibald Road, Rocky River Road and Zion Church Road. The proposed number of lots is 164 and the density will be 1.45 units per acre. The total area is 112.9 acres and the subject property is vacant and wooded.

The surrounding properties currently have single-family residential uses. Foxwood Acres Subdivision is located to the southwest of the property. The recently approved Rustic Canyon subdivision is located directly to the south. The Rocky Glen Subdivision is north of the subject property across Archibald Road. Far Away Place Subdivision is located to the east. All of the surrounding property is zoned Low Density Residential (LDR).

The City of Concord will be the water and sewer service provider to the site. A utility service letter has been requested.

Ms. Watts said a number of exhibits were attached to the staff report, the intent to serve letter from the City of Concord, the school adequacy worksheet, comments by Mr. Dennis Testerman, Soil and Water Conservation district and the Open Space Management Plan for Hawks Ridge Subdivision

She said the intent of an open space subdivision is to provide a development alternative to a conventional subdivision. An open space subdivision involves placing a cluster of home-sites within a portion of the development site, allowing housing units on smaller lots than those permitted in a conventional subdivision, to promote environmentally sensitive more efficient use of the land and provide additional common open space.

She said this does require the 35 percent Common Open Space and the developer has provided 37 percent, which totals out at 41.8 acres. She said 10.61 acres of that is Active Open Space.

She said the City of Concord Land Use Plan adopted June 8, 2004, designates this property as residential on the Future Land Use Map. It further states that staff should work with property owners and developers to encourage the preservation of open space by developing according to the subdivision options provided in the zoning ordinance.

She said comments received were as follows:

**Cabarrus County Schools- Robert Kluttz:**

- Schools that serve this area are inadequate at this time. Please see attached school adequacy worksheet for details.

**Soil and Erosion Control- Thomas Smith:**

- The applicant will be required to submit soil and erosion plans before commencing any land disturbing activities.

**NCDOT- Leah Wagner:**

- A driveway permit will be required.
- A left turn lane will be required on Archibald Road and must be installed prior to the final platting of any more than 40 lots.
- The developer is responsible for acquiring all right of ways or easements necessary to construct the left turn lane. All rights of way must be in place before the driveway permit will be issued.
- If the streets within this subdivision are intended for State maintenance, a complete set of plans must be submitted for full review.
- The engineer must provide evidence that the tie to Rustic Canyon will correspond with the design of the Rustic Canyon Street if Rustic Canyon Street has been designed.
- A performance bond shall be posted to cover the required roadway improvements.
- NCDOT reserves the right to modify comments pending subsequent plan submittal and review.

**WSACC- Tom Bach:**

- Wastewater flow acceptance will not be considered until approval of final site/civil construction plans by the City of Concord.
- The City of Concord must request the flow acceptance on behalf of the developer.
- The WSACC Capital Recovery Fee is required for each service to the development if sewer service is granted.
- The Capital Recovery Fee (CRF) is collected at the time of building permitting and is separate from any connection or tap fees required by the City of Concord.

Ms. Watts said staff finds that the proposed subdivision meets the development standards of the Cabarrus County Subdivision Ordinance and the Cabarrus County Zoning Ordinance.

Ms. Watts said staff recommendations are:

Should the Planning Commission grant approval of the subdivision, staff requests that the following conditions be applied as part of the approval:

1. The developer shall enter into a Consent Agreement with the Cabarrus County Board of Commissioners to address school adequacy. (Schools/APFO)
2. The developer will acquire necessary right of ways and complete a left turn lane on Archibald Road prior to the final platting of any more than 40 lots. (NCDOT/APFO)
3. The developer must obtain an NCDOT driveway permit and must post a performance bond to cover roadway improvements. The driveway permit will not be issued until all right of ways are in place. (NCDOT/APFO)
4. The developer agrees to pay Capital Recovery Fees that are collected on behalf of WSACC. (WSACC/APFO)
5. Prior to any permit for construction being issued, the developer agrees to enter into a developer agreement with the City of Concord and obtain utility construction plan approval. (CONCORD/APFO)
6. The developer agrees to fund and install all necessary water and sewer lines to serve the property. (CONCORD/APFO)
7. Developer agrees to meet anti-monotony and architectural standards and shall submit sample elevations of proposed homes prior to the start of the final platting process. In addition, applicant will work with Planning & Zoning Services to provide an architectural inventory for permitting purposes. (PLANNING)
8. The Developer has agreed to secure any necessary permits required by Federal or State law prior to disturbing any wetlands on the site. (STAFF/APPLICANT)

Mr. Fesperman asked how we were doing with the connection points coming in and out of this project and what the County required.

Ms. Watts said because the developer is over the 30 lots, the fire code requires him to have more than one entrance. She said he has agreed that he will construct the second access from Archibald Road if Rustic Canyon does not build out Greater Ranch Drive,

then the developer will construct Coopers Hawk Ridge all the way out to Zion Church Road and that will be his second access point.

Ms. Morris said the developer has to have two true access points, and will not be able to go over the 30 lots until it is installed or until there is a guaranteed throughway through Rustic Canyon for emergency services, but either way those entrances have to happen. She said there are two entrances just for the developers subdivision regardless of what happens in Rustic Canyon. She said when Rustic Canyon happens, the developer will be doing a stub street to Rustic Canyon and then those two will combine so there will be a third access point as well.

Mr. Prince asked if it had changed because the drawing said either/or.

Ms. Morris said it was not supposed to be an either/or, she apologizes if it says either/or. She said it has to have the second access point and there have been numerous discussions with the developer about that. She said it just may be that the note was not clarified.

Mr. Fesperman said this project with the density issues is scary as far as emergency vehicles and things like that getting in with so many homes.

Ms. Morris said they went through all of that in the process. She said if you look at the plan there is only one main spine road, so that has to be built and that has to be there. She said the Board can clarify that as a condition.

Ms. Watts said that can be clarified in greater detail should the Board chooses to approve the subdivision. She said the developer does understand that he has to construct the Coopers Hawk Drive all the way out if he wants to go beyond the 30 lots.

Ms. Morris said he will have to have it regardless for the subdivision.

Mr. Prince asked if the access to Zion Church would need to have additional turn lanes.

Ms. Watts said NCDOT reserves the right to make comments. She said staff cannot require turn lanes and things of that nature; those have to be improvements requested by NCDOT. She can asked Ms. Leah Wagner, NCDOT if they will be requesting any more improvements on Zion Church Road, Ms. Wagner did not specify anything in regard to that and she has seen this plan.

Mr. Berg said that would require a driveway permit and probably at that time is when that would kick in.

The Chair opened the floor for comments.

Mr. Randy Scribner, Developer, 4110 French Fields Lane, Harrisburg, NC, addressed the Board. Mr. Scribner said he has purchased the right of way all the way out to Zion Church Road, he actually owns it now. He said it is currently a driveway, a road already

exists there and it is not up to NCDOT standards and he is well under the understanding that he will be adding that as part of the deal. He will be building the road all the way through and out. He does have all that in place.

Mr. Scribner said when ever he gets into a development he wants to make sure he is a good steward, especially with the school situation. He said his goal is to be a contributor and not a user of the resources and to try to help solve that issue. He said in doing the Open Space Plan, the way that he put it together, he made larger lots instead of going with the amenity option and trying to get the 10,000 sq. ft. lot, he went with the 15,000 sq ft lots which will drive up the price of the house and drive up the tax base based on his calculations. He was told that locally they are spending about \$2,300.00 in county money per student including debt service and capital reserve and actual pupil per pupil cost. He said based on the calculations that he was given by Ms. Pam Dubois with the County; the houses he would be building in the development should contribute about \$3,200.00 per student. He said hopefully this is part of the solution versus continuing to fit things in that do not contribute enough tax base to cover the students that will be coming in. He thinks they are anticipating about 94 students in this particular subdivision based on the 164 lots. He is sure the Board is well aware of that calculation but wants them to know that he is thinking along those lines as well. His space is typically in the \$400,000 to \$600,000 range for houses, he is currently working a little project out from this on Zion Church and it is \$520,000, and he wants to make sure it stays standard throughout the whole area there.

Mr. Berg asked if Mr. Scribner had done any type of wetlands survey.

Mr. Scribner had the environmental wetlands group look at the small pond, that is the only place on the property that has any standing water, any possibility of any wetlands. He said it is not denoted on a USGS map but it is noted by the Wildlife and Fish and maybe the Army Corp. He said they basically tested that pond because it was an old man-made dumping pond for tanker trucks back in the 70's. He wanted the environmental group to check it and it is safe. He has set aside lots of room around that so that nothing will be disturbed, the soil and water was tested.

Mr. Scribner offered the area that has an intermittent creek on it to Mr. Dennis Testerman for a conservation area, but was told it did not make since for them to have that and to leave it in the care of the home owner association. He said that is why it is not a part of a conservation area. He tries to give as much as he can to the conservation district as he can, but they did not want that.

Mr. Berg asked if the designation of intermittent stream came from the USGS map rather than from any sort of survey.

Mr. Scribner said yes, because there is no water, it is a little tiny drain. He said it has an existing culvert over the top of it with a drive that goes on it; it is just a drain.

Mr. Fesperman said he was glad Mr. Scribner had his right of way purchased on Zion Church; he asked how he was doing with Archibald Road.

Mr. Scribner said he has enough area on that front map and has already set aside 5 more feet on the south side of the road and based on his engineers' calculations, there is not going to be an additional right of way needed to make the left hand turn lane work in there. If he encounters something, he will tackle that when he gets there, but right now it looks like it is going to work. He said the point about Zion Church Road that was mentioned; because it is an existing driveway and he believes NCDOT has not made any comments so far is because all the traffic comes up Archibald and goes south with a right hand turn into that particular area, that is the majority of the traffic coming that way. He said they may change their mind and put a left turn lane and he is fine with that. He has also reserved some property and has some area he can work on a left hand turn; he is trying to be proactive and to be ready for it just in case.

Mr. Berg asked if there had been conversation with the City of Concord about their storm water requirements since he is getting water and sewer from them. He thinks their phase 2 requirements would kick in.

Mr. Scribner asked if Mr. Berg was talking about the BMP's (Best Management Practices for Stormwater). Mr. Scribner said yes, the BMP's are actually drawn to allow for that. He met with Sue Hyde on the project.

Mr. Berg said so they are involved and asked if they would continue to be involved.

Mr. Scribner said that is his understanding. He has direct communication with Sue Hyde to be sure he is doing everything that she wants done.

Mr. Ensley asked how much of the 10.61 acres of open space Mr. Scribner plans to leave natural.

Mr. Scribner said there are only 41 acres he believes is actually open space, 10 acres of it has to be some type of trail or small park; those types of thing. He said it will all be some way affected. He said there is no plan for disturbance other than the natural trails, he tries to leave everything alone and that is why he tried to give it to the conservation district so it would be left alone. He will leave it alone anyway.

Mr. Porter commends Mr. Scribner. He thinks the Board would like to see more of this type of plat as opposed to some of the other type. He would like to bring attention to the schools situation; currently the schools are over 100 % and with all the other subdivisions that are already approved we get close to 200% on some of them. He wanted to bring that to the Board's attention.

Mr. Berg said in Mr. Klutzz's report he talks about some future schools. He said at the recent Board of Commissioner's meeting they actually approved Certificate of

Participation (COP) funding for several schools. He asked if those were included in this group that Mr. Porter mentions.

Ms. Watts said different architectural or engineering funding has been approved for some of these schools, not actually land acquisition. She said Hickory Ridge has already opened and for the A. T. Allen replacement, there are some architectural and engineering monies approved in the COP's. She said any kind of improvement and funding that are in the works effects the overall system, as these schools come on line, the last percentages will come down because they do not reflect the school until it actually comes on line. She said they are accurate but they are also a little misleading. She said the Board of Commissioners asked Monday night for her to work with Mr. Klutzz to get more information to clarify it a little better. She said hopefully when that is done we can start bringing that information to the Planning Commission as well to help clarify things about how things are going with the funding for the schools. She said there were lot of improvements in engineering, architectural, land acquisition; things that were approved.

Mr. Griffin asked what the amount of the Adequate Public Facilities Ordinance (APFO) fee Mr. Scribner would be subject too.

Ms. Watts said it is based on the preliminary plat submittal date and because of his submittal date; Mr. Scribner would be subject to the \$4,034.00. She said the APFO fee is now up to \$8,076.00. She said he would have to do the consent agreement and the Board's policy that has been officially adopted is that it would be at final platting.

Mr. Koch said that is correct, that is what we have typically been doing on the consent agreements.

Ms. Watts said whatever he platted on the map; if it were 10 lots then he would pay for those 10, then the next map he would pay for those 10.

Mr. Griffin asked if it would be done by phase.

Ms. Watts said yes, they do not allow payment at building permitting any more.

Mr. Koch said they Board of Commissioners approved a consent agreement the other night that contains the acquisition property for a school site in that area. (Grace Development)

Ms. Watts said they did, for an elementary school next to the C. C. Griffin Middle School. She said a lot of the subdivisions have been in the works for a number of years so it will not be instant gratification; we will have to work through that.

Mr. Griffin asked what the estimated build out would be.

Mr. Scribner said it will probably go into 2011, he said he is looking at 3 years.

Ms. Watts said it would be phased in at 44, 59 and 61 lots. She said Mr. Scribner is anticipating the date of final platting to start in October 2008, and then it would be 49, 59 and 61 running through October 2010.

Mr. Koch said for purposes of the Consent Agreement, the Commission has gotten into the habit of talking with Developers about phasing their developments over a longer period of time than what they initially proposed; it ends up many times becoming a matter of negotiation as part of the Consent Agreement process.

There being no further discussion, Mr. Fesperman **MOTIONED, SECONDED** by Mr. Griffin to **Approve** Petition 2007-06(S) – Preliminary Plat Approval – Hawks Ridge Subdivision with the conditions listed in the staff report and one additional condition listed below.

1. The Developer must construct a permanent second access from Coopers Hawk Drive to connect with Zion Church Road.

The vote was 8 to 1 with Tommy Porter voting against.

#### **Review of Traffic Impact Analysis (TIA) Criteria**

Ms. Morris, Planning and Zoning Manager addressed the Board. She said in the Board packets there is a memo and a complete Appendix A, which discusses the Traffic Impact Analysis thresholds and what the Traffic Impact reports must contain. She said when we made these changes back in 2005; it was added as a part of the overall changes and based on what NCDOT thresholds were at that time.

She said, Commissioner White has spoken with staff on multiple occasions and he has some questions for the Planning and Zoning Commission. He initially spoke with staff about going out to a neutral third party with the applicants having to pay the county or pay the engineer directly, but they would be hired by the county and not by an applicant; he asked if staff thought that would get better traffic studies. She told Mr. White that historically, when you get to the executive summaries, there has not been anything that has been completely overlooked. We have NCDOT as our neutral party and they review the TIAs; first they define the scope and then amend the executive summary with what the requirements are and things like that and any improvements they think are necessary they will come back with (in the recommendation).

Ms. Morris said Commissioner White wants us to talk about whether the Board is getting the information it needs in the TIAs, as well as in those improvements; are we getting what we should get. She said with the traffic study, our threshold is not until you actually get to the 200 lots. Mr. White wants us to talk about whether or not the Board is getting what you think you need, do you think there would be a difference if the county contracted with them instead of the applicant being able to contract with the engineering firm and if we need to go back and look at the thresholds.



Ms. Morris said staffs' prospective is that NCDOT does hold their feet to the fire. She has talked with other jurisdictions that do that particular process, but their thresholds are around 20 trips, where as ours is based on 2000 trips per day which would put you at 10 per residential lot for a 200 lot subdivision. She said our ordinance does call for a minimum of a left or right turn lane if needed, even if it is under that threshold; we have those minimum thresholds, but when you get to the larger subdivisions those are the ones we need to discuss.

She explained to Mr. White that the Executive Summary is put in the staff report, not the whole study, so that the Board does not get bogged down in it and the numbers. She said the Executive Summary says here is what needs to happen and then becomes conditions of the Conditional Use Rezoning, Conditional District or the Preliminary Plat.

Mr. Fesperman said NCDOT is a 400 pound gorilla; they are very demanding and can rear their head at any time. He said they will do their own traffic study in a lot of cases, even though you are doing your own traffic study they will do their traffic study to back up their position. He said they are hard.

Mr. Griffin said it was not that long ago that this was redone and he took exception to a number of the requirements. He personally felt this was an enormous step forward. He said the other requirements did not make a lot of since to him. He thought this was a very good improvement. He said as far as the thresholds are concerned, he feels that they are fairly reasonable and consistent with what the state wants to see.

Ms. Morris personally does not think it will make any difference if we contract with the engineer or someone else does. She said a lot of people will have their identified developments in this area and we have copies of them so they come and look at them or the developer may even come and look and then contract with one of those agencies because they already have some of that leg work done and it makes it easier for them and more timely. She does not know if it would make a difference for us to contract with them. She worked a lot with David Naylor to get this language where it was consistent with what NCDOT wanted to see, but we can go more stringent if we want too.

Ms. Morris said the two issues at hand are:

1. Does the county need to hire the consultants so that it is more neutral?
2. Do we need to lower the thresholds and require traffic studies for other projects or make those thresholds lower so that we make sure that surrounding areas have to be taken into consideration?

Mr. Fesperman does not think that the county should get involved. He thinks it should be the individual developer and the state. He said the county would be a third party involved in a two person fight, because the developer and the state are going to have to agree themselves. He thinks it should be a developer issue and let them pass that cost and have that cost.

Ms. Morris said we would get the money back some how, whether they paid us or billed them directly just like we do for engineering. She said the way it works now is they do their own and we are provided with a copy, we can make comments as well and we do have discussions with NCDOT. She said initially, we are included in the discussions about the scoping of the project as far as what intersections they are going to look at, if there is something coming down the pike we will bat that around and let NCDOT know or they may know something that we do not. We work pretty well with them on defining the scope and making it appropriate for that project so that we are not going out 5 miles down the road and asking them to look at an intersection that really is not something they are creating impacting from the project.

Mr. Griffin said the procedures, methodology, and factors that are used have to be approved by the NCDOT District Engineer.

Mr. Berg asked if there was a problem with the way it is working now, what triggered all of this.

Ms. Morris is not sure. She is not sure if it had something to do with the Wayne Brothers project; when all of that came up about acquiring right of ways and all of that. She said since the new legislation was passed the counties can get back into the road building business if they want too. She thinks Mr. White was looking at it more from the perspective of are we getting what we need, when we get the TIAs are they really having the developers do the improvements that they need to do or are they hiring these folks to say what they would like for them to say. She does not think that is the case.

Mr. Berg thinks everyone is in agreement that is not the case.

Mr. Griffin said one of the frustrating things is the states prospective on the level of service. He said there are roads around here that are Level F+ and they are okay by the state.

Ms. Morris said that is the thing, when it comes back with that level of service, we want to make sure we at least have the same level of service or above. She said the Unified Development Ordinance (UDO) is pretty clear on that; our ordinance is not as clear because it is based on everything that NCDOT does.

She said if the Board is comfortable with that then she will report back to the Board of Commissioners the way it is currently working is fine and we are getting the improvements that we need and are not being short changed because they are being hired by a developer.

The chair asked if the consensus of the Board is that we should not be the hiring agent.

Mr. Berg thinks that the consensus is there.

Mr. Fesperman thinks the thresholds are dead on right now with what we have. He said NCDOT on this side of the state has no power, they have no funding; everything goes east and it is hard for them to get funding. He said they are in a heavy mode requiring developers to pave roads, widen them and debate them about the situation, NCDOT is tough and strong. He said on the right of way acquisition, NCDOT will force a developer basically to get the right of way and to show good faith in trying to buy right of ways; they do not like to condemn land.

Ms. Morris thinks that is why we repeatedly see that condition from NCDOT; that developers have to acquire the right of way and any easements that they need before NCDOT will issue the drive way permit.

Ms. Morris said right now the residential development threshold using the 10 trips per day would be 200 lots; 3000 for commercial type developments and mixed use. She said if you have 100 houses and 100,000 sq. ft., more than likely that is going to kick that in. She said where it says when a TIA is required; the last bulletin gives NCDOT the flexibility where if it is a dangerous intersection, if you are within a certain amount of a major road or a median is necessary, highway improvements which are already something they are doing; they do have some flexibility there in addition to those minimum threshold to require for those to kick in.

She said another thing NCDOT is doing that we have experienced recently is if they know that it is a dangerous intersection or an intersection that is going to need improvements, they have developers put money in a kitty and when they get all of that, then they go in and fix the intersection all at one time instead of piecemeal. She thinks they are pretty prudent in what they require and what they ask for. She said their standards have not changed, so these are still consistent with what they are using right now.

Mr. Griffin thinks it is important that our requirements be consistent with the state.

The Chair said this appears to be the consensus of the Board.

### **Review of Commercial Design Standards Appendix B**

Ms. Morris said a couple of people in unincorporated Cabarrus County came in wanting to have landscape businesses where they might have green houses and things like that. She said when the Commercial Design Standards were initially adopted; they applied to anything that is commercial or office, it would not apply to schools; with churches it depends on what they are zoned.

She asked if the Board would like to go back and look at the standards to see if there was any type of uses they thought should be excluded. She said this does not include anything in our general industrial or the heavy industrial districts. She said with Office Institutional (OI) that is pretty limited. She said Mt. Pleasant is looking at exempting institutional uses; the UDO is set up a little differently on those classifications, taking out

schools and churches. She said since we are having that discussion some where else, she did not know if the Board would like to go back and look at this to see based on the use chart if there were any uses the Board thought did not need to be in there.

Ms. Morris said with the landscape businesses, in her opinion, if they built a little building it would have to be up near the road and with parking in the back. She is not quite sure what to do with the greenhouses; do we screen them, are they exempt because they are all glass? She said they cannot meet architectural standards with greenhouses. She said it would mainly be those type businesses that are outdoor related things that do not have a lot of buildings associated with them. She said this is something the Board can think about and discuss.

The Board would like to think about this and discuss at the next meeting.

**Directors Report:**

Ms. Morris, Planning and Zoning Manager, addressed the Board. She received the first submittal under the APF (Adequate Public Facilities) for a reservation of capacity and it should be going to the Board of Commissioners in November. She said the APF draft was sent to the consultant and he had some modifications he thought should be made, so there may be some text amendments based on his comments and what is happening in Union County, apparently they helped them and are keeping up with the law suit over there.

Mr. Berg asked Ms. Morris to elaborate on that, given the whole issue with the impact on schools. He thinks at times they are all a little uncertain but what the Planning and Zoning Commission can and cannot do.

Ms. Morris said with the new process, a reservation of capacity is done and if it works like it is supposed to, it will go to the Board of Commissioners before the Planning and Zoning Commission ever sees a project and the adequacy would be determined prior to the project being submitted to any Planning and Zoning Board for approval or denial. She said that would allow the Board of Commissioners the opportunity to negotiate schools sites if they needed it and to negotiate for infrastructure that may get to school sites if they needed it. She said when it is presented to the Board of Commissioners the packet presented will include the density, the parcel, a map and a sketch plan of the subdivision.

She said by the time it gets to the Planning and Zoning Commission, the developer will have what is called a reservation of capacity certificate by which the Commissioners have said they can do X, Y, and Z; at that time the Commissioners have the ability to straight out approve it if it has capacity or the ability to approve it with conditions. She said one of those conditions being mitigation; they agree to make the payment. She said lastly, the Board of Commissioners now has the ability to deny or to delay. She said the Board of Commissioners has those options in the text, whether or not they choose to execute those options we are not sure.

She said the new text will probably end up being administered differently because of the way that it is written. She said based on the conversations with the consultant, now, if one of the schools comes back and the elementary school is fine but the high school is not, they will only have to mitigate the high school. She said the way our study was done it split it up into elementary, middle and high school. She said that is one of the things we are working through as well; whether it will be all of that or some of that. She said hopefully the pressure will be off the Planning and Zoning Commission because by the time it comes to you all of that should have already been handled at the Board of Commissioners level and then essentially the Planning and Zoning Commission would be looking at the design and if it is compatible.

Mr. Berg asked if the Planning and Zoning Commission would see the school adequacy reports.

Ms. Morris said we can give it to you.

Mr. Berg said it is not ours to comment on, the Board of Commissioners would have already taken care of it?

Ms. Morris said right, the same as now, if the developer agrees to mitigate then they get to move forward. She said, now, the Board of Commissioners will have the option of delaying it and the developer will have to provide a phasing schedule, so they would have already negotiated the phasing schedule at that time. She said everything that we are doing now is kind of after the fact. Hopefully, once it gets up and running and everyone understands the process, all of that will be taken care of and if there is going to be a school site when the Planning Zoning Commission gets the plat it will show that school site.

Mr. Porter asked what the time line was on that, when would we start to see that those things have been done.

Ms. Morris said the first one is in; she is not sure how far along they are in their design because this particular one will actually go to Concord. She said once they get the approval from the Board of Commissioners, they will have 12 months to come back to the respective Planning and Zoning Board to get approval of the project. She said they have to have a rezoning in place, so this whole thing about conditional use rezoning and having the site plan and all that is a non-issue now. She said it will be at preliminary plat or site plan approval if a subdivision is not required, which would be for apartments or condos. She said from the time that they turn it in, it will depend on how much design work they have done. If they give us a sketch plan with it, and they have their certificate, we will allow them to turn it in and start processing it. She said right now we are looking at 1 to 3 months when someone starts with us until the time the Planning and Zoning Commission actual gets it.

Ms. Morris said, once it is approved here, that is called the developmental approval order, then we take that and the consent agreement back to the Board of Commissioners. She said as long as what they agreed to initially is the same as what is on the plat, and the Planning Commission approves it, then they go back with a consent agreement. She said it will take them a little more time, but they will be allowed to do the reservation up front and that will take the guess work out of it because they will know exactly how many lots they can plat for a year and they will know what the amount is and it is good to up to a year. She said every January 1<sup>st</sup> our numbers are going to adjust; we will have to adjust it for the construction cost. She said the \$8076.00 is only good until December 31<sup>st</sup>, then come January 1<sup>st</sup> whoever comes in then will be subject to the next amount. When she ran those numbers it has already gone up \$600.00. She said it will probably be at least \$1000.00 difference from year to year until construction levels out.

The Chair asked if the Commissioners could in theory deny a subdivision that would be located within a municipality.

Ms. Morris said they could deny the reservation of capacity certificate.

The Chair said which would be required for it to be approved?

Mr. Koch said it is the county's position that they enter in to a consent agreement or under the new ordinance have some agreement with the county commission about reserving capacity. We understand that there are some places within the incorporated areas of the county that do not feel that way. We have not had a direct challenge to it up to this point. He said so far the commission has generally been able to work something out with every developer through negotiation; by paying the APFO fee or by donating a schools site, the value which is credited against the fee or by some sort of phasing along with the payment of the fee.

Mr. Koch said, there are a couple of situations right now where we have some issues about some subdivisions that were approved in a couple of municipalities, and whether the APFO fee applies based on the time they submitted their application for approval in that municipality or which fee would apply. He said the new ordinance is in place and there will be some technical corrections to it; it has been approved by the Commissioners and is in place at this time. We are taking the position that we can enforce it.

Ms. Morris said we are aware there are some new subdivisions in the municipalities where they have not sent them to us to do the reservation, so we will be back to the old process whenever they do come to talk with us because now we will have an approved subdivision and if we needed a school site, then we will have to go back to the very beginning to see whether or not we can negotiate to get it. She said there are some new subdivisions out there and we are not sure what level of cooperation we will get.

Ms. Morris said the architectural standards are moving forward. She said the second architectural citizen committee met and reviewed what the Planning and Zoning

Commission recommended and she took it back to the County Manager and it will be on the November 19<sup>th</sup>, Agenda for the Board of Commissioners.

She said there is going to be a Centralina Council of Government (COG) training session on November 29, 2007.

Ms. Morris ran some numbers and 4 of the last subdivisions approved, 2 were amenity and 2 were open space. She said density is staying at 1.5 or less with the least being 1.34. She said it looks like the new standards are working as far as the open space dedication and then the densities that they can get as that open space goes up.

Ms. Morris said that Mr. Lancaster turned in his resignation and Mr. Ensley has been appointed a regular member of the Board and Mr. Yates is the new alternate Board member.

There being no further discussion, Mr. Berg **MOTIONED, SECONDED** by Mr. Prince to **ADJOURN** the meeting. The vote was unanimous. The meeting ended at 8:35 p.m.

APPROVED BY:



~~Roger Haas, Chairman~~

Todd Bizzari, Vice Chairman

SUBMITTED BY:



Arlena B. Roberts

ATTEST BY:

Susie Morris  
Planning and Zoning Manager