

**ORANGE COUNTY PLANNING DEPARTMENT  
131 W. MARGARET LANE, SUITE 201  
HILLSBOROUGH, NORTH CAROLINA 27278**



**AGENDA  
ORANGE COUNTY PLANNING BOARD**

**ORANGE COUNTY WEST CAMPUS OFFICE BUILDING  
131 WEST MARGARET LANE – LOWER LEVEL CONFERENCE ROOM (ROOM #004)  
HILLSBOROUGH, NORTH CAROLINA 27278  
Wednesday, September 3, 2014  
Regular Meeting – 7:00 pm**

No.	Page(s)	Agenda Item
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- 1. **CALL TO ORDER**
- 2. **INFORMATIONAL ITEMS**
  - a. Planning Calendar for September and October
    - a. Quarterly Public Hearing on Sep. 8<sup>th</sup>
    - b. Next regular meeting on Oct. 8<sup>th</sup> (2<sup>nd</sup> Wednesday this month)

- 3. **APPROVAL OF MINUTES**
  - 5-6 July 2, 2014 ORC Meeting Notes
  - 7-10 July 2, 2014 Regular Meeting

4. **CONSIDERATION OF ADDITIONS TO AGENDA**

- 5. **PUBLIC CHARGE**  
**Introduction to the Public Charge**

The Board of County Commissioners, under the authority of North Carolina General Statute, appoints the Orange County Planning Board (OCPB) to uphold the written land development laws of the County. The general purpose of OCPB is to guide and accomplish coordinated and harmonious development. OCPB shall do so in a manner which considers the present and future needs of its residents and businesses through efficient and responsive process that contributes to and promotes the health, safety, and welfare of the overall County. The OCPB will make every effort to uphold a vision of responsive governance and quality public services during our deliberations, decisions, and recommendations.

**Public Charge**

The Planning Board pledges to the residents of Orange County its respect. The Board asks its residents to conduct themselves in a respectful, courteous manner, both with the Board and with fellow residents. At any time, should any member of the Board or any resident fail to observe this public charge, the Chair will ask the offending member to leave the meeting until that individual regains personal control. Should decorum fail to be restored, the Chair will recess the meeting until such time that a genuine commitment to this public charge is observed.

- 6. **CHAIR COMMENTS**

No.	Page(s)	Agenda Item
7.	11-52	<p><b>MAJOR SUBDIVISION PRELIMINARY PLAT:</b> To review and make a decision on a Major Subdivision Preliminary Plat application, Pleasant Green Woods Phase IV, located off of Pleasant Green Road. The Plan is consistent with the Concept Plan Flexible Design Option reviewed and approved by the Planning Board in February 2014. The Plan calls for 16 single-family residential lots on a 46.34 acre tract. 16.53 acres (35.6%) of the site is reserved for primary and secondary open space.</p> <p><b>Presenter:</b> Patrick Mallett, Planner II</p>
8.	53-94	<p><b>MAJOR SUBDIVISION PRELIMINARY PLAT:</b> To review and make a decision on a Major Subdivision Preliminary Plat application, Stroud's Creek, located southwest of the intersection of NC Highway 57 and Strouds Creek Road. The Plan is consistent with the Concept Plan Flexible Design Option reviewed and approved by the Planning Board in June 2014. The Preliminary Plat calls for 14 single-family residential lots on a 25.33 acre tract. 17.21 acres (67.96%) of the site is reserved for primary and secondary open space.</p> <p><b>Presenter:</b> Patrick Mallett, Planner II</p>
9.	95-126	<p><b>UNIFIED DEVELOPMENT ORDINANCE PRIVATE ROAD AND ACCESS STANDARDS:</b> To receive information about a current multi-department/advisory board project involving the review of private road and access standards and to receive the Board's comments.</p> <p><b>Presenter:</b> Abigaile Pittman, Transportation and Land Use Planner</p>
10.		<p><b>COMMITTEE/ADVISORY BOARD REPORTS</b></p> <p>a. Board of Adjustment</p>
11.		<p><b>ADJOURNMENT</b></p>

**IF AN EMERGENCY OCCURS, OR IF YOU ARE RUNNING LATE FOR THE MEETING, PLEASE LEAVE A VOICE MAIL FOR MICHAEL HARVEY (919-245-2597).**

# September 2014

September 2014

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October 2014

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	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Aug 31 - Sep 6	<b>Aug 31</b>	<b>Sep 1</b> HOLIDAY	<b>2</b>	<b>3</b> 7:00pm *PLANNING BOARD MEETING (West Campus Office Bldg )	<b>4</b> 7:00pm BOCC Reg Meeting (Whitted Meeting Facility)	<b>5</b>	<b>6</b>
	<b>7</b>	<b>8</b> 7:00pm *QUARTERLY PUBLIC HEARING (Whitted Meeting Facility)	<b>9</b> 7:30pm Board of Adjustment (West Campus Office Bldg)  CANCELLED	<b>10</b>	<b>11</b> 7:00pm BOCC Work Session (Southern Human Services)	<b>12</b>	<b>13</b>
Sep 7 - 13	<b>14</b>	<b>15</b>	<b>16</b> 7:00pm BOCC Reg Meeting (Southern Human Services)	<b>17</b> 7:00pm OUTBoard Meeting (West Campus Office Bldg)	<b>18</b> 5:30pm BOCC/City of Mebane Joint Meeting (Mebane Council Chambers)	<b>19</b>	<b>20</b>
	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
Sep 14 - 20	<b>28</b>	<b>29</b>	<b>30</b>	<b>Oct 1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Sep 21 - 27							
Sep 28 - Oct 4							

\*Planning Board Member Attendance Required

# October 2014

October 2014						
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	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Sep 28 - Oct 4	Sep 28	29	30	Oct 1	2	3	4
					7:00pm Fire Department Work Session (Whitted Building)		
Oct 5 - 11	5	6	7	8	9	10	11
			7:00pm BOCC Reg Meeting (Whitted Meeting Facility)	7:00pm *PLANNING BOARD MEETING (note change of date) (West Campus Office Bldg )			
Oct 12 - 18	12	13	14	15	16	17	18
		7:30pm Board of Adjustment (West Campus Office Bldg)	7:00pm BOCC Work Session (Whitted Building)	7:00pm OUTBoard Meeting (West Campus Office Bldg)	7:00pm BOCC/Town of Carrboro Joint Meeting (Southern Human Services)		
Oct 19 - 25	19	20	21	22	23	24	25
			7:00pm BOCC Reg Meeting (Southern Human Services)				
Oct 26 - Nov 1	26	27	28	29	30	31	Nov 1

\*Planning Board Member Attendance Required

D R A F T  
SUMMARY NOTES  
ORANGE COUNTY PLANNING BOARD  
JULY 2, 2014  
ORDINANCE REVIEW COMMITTEE

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NOTE: A quorum is not required for Ordinance Review Committee meetings.

**MEMBERS PRESENT:** Peter Hallenbeck (Chair), Cheeks Township Representative; Lisa Stuckey, Chapel Hill Township Representative; Paul Guthrie, At-Large, Chapel Hill Township; Tony Blake, Bingham Township Representative; Laura Nicholson, Eno Township Representative; Bryant Warren, Hillsborough Township Representative;

**STAFF PRESENT:** Craig Benedict, Planning Director; Michael Harvey, Current Planning Supervisor; Perdita Holtz, Planning Systems Coordinator; Tina Love, Administrative Assistant II

**AGENDA ITEM 1:       CALL TO ORDER AND ROLL CALL**

**AGENDA ITEM 2:       UNIFIED DEVELOPMENT ORDINANCE (UDO) TEXT AMENDMENTS – NEIGHBORHOOD INFORMATION MEETING FOR SPECIAL USE PERMITS**

To review and comment upon proposed revisions to the UDO to require that a neighborhood information meeting be held at least 30 days prior to the public hearing for a Class A or Class B Special Use Permit.

**Presenter:** Michael Harvey, Current Planning Supervisor

Michael Harvey: Reviewed abstract.

Paul Guthrie: Based on the fact that the Commissioners asked you to do this, do you have any inherent questions about whether or not this is a problem?

Michael Harvey: It's going to increase the timeline for the process.

Paul Guthrie: And aside from that, is it going to increase costs?

Michael Harvey: The applicant will bear the cost. We'll have to build it into the process.

Tony Blake: This is specific to telecommunication towers?

Paul Guthrie: Based on the fact that the Commissioners asked you to do this, do you have any inherent questions about whether or not this is a problem?

Michael Harvey: It's all Special Use Permits Class A or Class B. Remember the County has two processes; Class B is reviewed by the Board of Adjustment and Class A is reviewed by the elected officials.

Paul Guthrie: Who would chair that meeting?

Michael Harvey: Staff chairs the neighborhood meeting. We present the rough overview of the project, we explain the process.

Paul Guthrie: The chair/staff would have the responsibility to essentially say the information is not sufficient that it needs to be, what you just said.

## DRAFT

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Michael Harvey: The neighborhood meeting is just to present that here is the process, here's the procedure. You as an adjacent property owner could meet with the applicant and discuss your concerns.

Paul Guthrie: What I am getting at is that are you just going to listen to the comments or at some point will the chair say, now thank you very much but in this proceeding there needs to be documentation that is sufficient to be entered into the record.

Craig Benedict: We will not be ruling on what they are talking about, we won't be making any ruling there. We're just going to say, here's an example of evidence and here's an example of what evidence is not.

Michael Harvey: We're going to be providing what represents competent materials and substantial evidence but we're not going to be telling people...

Paul Guthrie: What I'm thinking is maybe that ought to be the introduction for a statement in the call of the meeting something to this effect so that people have, so you don't end up having to be the bad guy sometime down the road.

Lisa Stuckey: It's an informational meeting, right and the County Commissioner are the judges ultimately?

Michael Harvey: Yes, the neighborhood meeting is just informational. It is just for us to explain process and the applicant to outline the project.

Pete Hallenbeck: My read on this is there are a number of things going on. One is getting people familiar with process and terminology so we aren't discovering it at the quarterly public hearing. One is certainly meeting some of the players and another one, hopefully, that everyone can sit down.

Michael Harvey: Just as a reminder, we currently hold neighborhood information meetings for all major subdivisions at the concept plan stage before the Planning Board sees it. We hold neighborhood meetings now for any government project. It has to be held typically by the applicant with coordination with staff before an application is acted upon by staff. This is just adding that same process and procedure to this particular permitting.

Lisa Stuckey: This will add 30 days, how often do you think it is helpful to have a neighborhood meeting and how often does it happen that nobody shows up and it just is going to add 30 days?

Michael Harvey: I think there are projects where we will get raked over the coals and projects that are no-brainers. It is 50/50. It probably benefits the Board of Adjustment more than the elected officials but 50% of the time it would probably save the Board of Adjustment several hours. It is going to add time, it depends on what happens at the neighborhood meetings. Our goal is to try to incorporate the meeting within the existing timeframe and a lot of it is not going to be reasonable or realistic. It adds another layer of complexity to the process.

**AGENDA ITEM 3: ADJOURNMENT**

Meeting was adjourned

**DRAFT**  
**MINUTES**  
**ORANGE COUNTY PLANNING BOARD**  
**JULY 2, 2014**  
**REGULAR MEETING**

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6 **MEMBERS PRESENT:** Peter Hallenbeck (Chair), Cheeks Township Representative; Lisa Stuckey, Chapel Hill  
7 Township Representative; Maxecine Mitchell, At-Large Bingham Township; Tony Blake, Bingham Township  
8 Representative; Laura Nicholson, Eno Township Representative; Bryant Warren, Hillsborough Township  
9 Representative; Paul Guthrie, At-Large Chapel Hill Township; Vacant-At-Large;

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11 **MEMBERS ABSENT:** James Lea, Cedar Grove Township Representative; Herman Staats, At-Large, Cedar Grove  
12 Township; Buddy Hartley, Little River Township Representative; Andrea Rohrbacher, At-Large Chapel Hill Township;

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14 **STAFF PRESENT:** Craig Benedict, Planning Director; Perdita Holtz, Special Projects Coordinator; Tina Love,  
15 Administrative Assistant II

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17 **OTHERS PRESENT:** Marabeth Carr, DEAPR; Ardra Webster, DEAPR

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19 **AGENDA ITEM 1: CALL TO ORDER AND ROLL CALL**

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21 **AGENDA ITEM 2: INFORMATIONAL ITEMS**  
22 a) Planning Calendar for July and August

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24 **AGENDA ITEM 3: APPROVAL OF MINUTES**  
25 **JUNE 4, 2014 REGULAR MEETING**

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27 **MOTION** by Lisa Stuckey to approve the June 4, 2014 Planning Board minutes. Seconded by Tony Blake.  
28 **VOTE: UNANIMOUS**

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30 **AGENDA ITEM 4: CONSIDERATION OF ADDITIONS TO AGENDA**

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32 **AGENDA ITEM 5: PUBLIC CHARGE**

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34 **Introduction to the Public Charge**

35 The Board of County Commissioners, under the authority of North Carolina General Statute,  
36 appoints the Orange County Planning Board (OCPB) to uphold the written land development  
37 laws of the County. The general purpose of OCPB is to guide and accomplish coordinated and  
38 harmonious development. OCPB shall do so in a manner which considers the present and  
39 future needs of its citizens and businesses through efficient and responsive process that  
40 contributes to and promotes the health, safety, and welfare of the overall County. The OCPB  
41 will make every effort to uphold a vision of responsive governance and quality public services  
42 during our deliberations, decisions, and recommendations.

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44 **AGENDA ITEM 6: CHAIR COMMENTS**

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46 Pete Hallenbeck: Part of being on the Planning Board is coming to the Quarterly Public Hearing.

47 **AGENDA ITEM 7: PARKS & RECREATION MASTER PLAN:** To review and comment on Orange County's draft Parks  
48 & Recreation Master Plan. At the June 3, 2014 Board of County Commissioners meeting, the  
49 BOCC referred the draft plan to several advisory boards for review and comment. Comments  
50 are due no later than August 31, 2014.

51  
52 **Presenter: Perdita Holtz,** Planning Systems Coordinator and Department of Environment,  
53 Agricultural, and Parks & Recreation (DEAPR) staff.  
54

**DRAFT**

55 *Perdita Holtz introduced DEAPR staff members and gave a brief overview of the purpose of tonight's item.*

56  
57 Marabeth Carr: We didn't hire a consultant to do this report; it was done by DEAPR staff and other Orange County  
58 agencies. We had \$30,000 and we have money left for printing. Reviewed plan differences.

59  
60 Paul Guthrie: You should be congratulated for doing this yourself and not hiring a consultant. You may need to talk  
61 a little more about trails and acquisition and the question is have you got a working concept of how you would go  
62 about acquisition of trails. One problem is you are doing a large trail from a good distance and one land owner won't  
63 play then you don't have a trail. The second is how you maintain what you have and keep the quality up. Have you  
64 got the budget base in place of how you will do that?

65  
66 Marabeth Carr: This coming year, we have a new budget line item for maintenance. In developing what I call  
67 Chapter 3, park facilities, we took that chapter and in the appendix we are outlining all the maintenance needs for the  
68 next five years and put numbers with them. We are trying to have a chunk of money in this budget line item to  
69 address these items at each park.

70  
71 Paul Guthrie: I would strongly encourage you to talk to your general county budget people so they are aware there is  
72 a strategy involved. A couple of things; one is coordination with school facilities.

73  
74 Marabeth Carr: Just recently, we introduced a resolution which is called the Community Use of School Facilities for  
75 Recreation. I am in charge of the Intergovernmental Parks Work Group which is a group that meets quarterly, all the  
76 recreation directors, and we have other representatives. We address different issues and make sure we don't  
77 overlap with other counties. We wrote this resolution for using school facilities. It been adopted by all the  
78 jurisdictions, school boards, etc. but has not been adopted by our BOCC yet.

79  
80 Paul Guthrie: A subset of the school coordination is year round use and the school systems are offered a seven to  
81 eight month use and when schools are not in session, there is more of a need for their outdoor facilities. Another  
82 thing is the integration with the municipal and state facilities similar to the school focusing on how you get a long term  
83 relationship with municipalities that have separate recreation departments. Another point is the Mountains to the Sea  
84 Trail needs a lot of emphasis but that gives you something physical in place you can use to spring off side trails.  
85 That interest the state has in that trail may help.

86  
87 Marabeth Carr: The reasons those connections show up is because of the IP Work Group. The municipalities  
88 wanted to make sure they were connected to it.

89  
90 Bryant Warren: There was lot of discussions at the meetings about whichever route the Mountain to the Sea Trail did  
91 take that all those municipalities had access to it.

92  
93 Paul Guthrie: How much discussion was on what the uses on the trail would be permitted?

94  
95 Marabeth Carr: Since it is a state trail, they will go by their guidelines.

96  
97 Paul Guthrie: How far have you gone in organizing your thoughts identifying the options for the trail and beginning to  
98 start the dialogue about possible options because sooner or later, you will generate both generate people who think  
99 is a good idea and those who think it's a bad idea?

100  
101 Marabeth Carr: Rich Shaw is directing that effort.

102  
103 Paul Guthrie: You have a lot of terrific data but in terms of your public report you may have too much.

104  
105 Tony Blake: A lot of the comments I have had is the county has taken a lot of land off the tax rolls and there is a  
106 great deal of consternation there from my people. I am personally not that opposed. It would seem that some of  
107 these places are natural venues. One thing missing is the ability to organize community events (i.e. Southern Village  
108 Outdoor Theater).

**DRAFT**

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110 Marabeth Carr: We do offer movie in the park. It is popular.  
111  
112 Tony Blake: A place where a small group in the community could organize something like that and possibly do  
113 fundraising.  
114  
115 Paul Guthrie: Let me give you an example, what you don't want national parks services that says you can only do  
116 what we tell you in our park. You have a community park and community interest that can go beyond the community  
117 but at the same time there are port to that locality.  
118  
119 Tony Blake: A lot of people have expressed interest in a park, something that is already existing, and I thought that  
120 Cane Creek was attractive to people because it is already there. The problem is access.  
121  
122 Marabeth Carr: It is hard for OWASA to provide recreation.  
123  
124 Maxecine Mitchell: I am in the Bingham Township area, I feel like we don't have any park and recreation so we take  
125 advantage of the Chapel Hill/Carrboro parks. I see you have a future Rogers Road community center. Will that also  
126 be in connection with the St. Paul's Church and what they are doing?  
127  
128 Marabeth Carr: I am not involved in that project so I don't know.  
129  
130 Maxecine Mitchell: We had the parks and recreation center on Homestead Road and now the Hargrave Center is  
131 covering that part of the area, are you getting away from that?  
132  
133 Marabeth Carr: That is one of the hanging questions is community centers. It is a huge issue because it involves so  
134 many other aspects.  
135  
136 Andrea Rohrbacher: Chapel Hill has been moving to get the community more available time in the community  
137 centers they do have.  
138  
139 Marabeth Carr: Northern Human Services Center tried to do a community center and it did not get the numbers.  
140 Some of the centers are in rural areas; it is hard to get people to them. Efland Cheeks is coming along and is heavily  
141 used on odd hours.  
142  
143 Maxecine Mitchell: You also have the White Cross area, is that the future Bingham District Park?  
144  
145 Marabeth Carr: The Bingham District never secured a property.  
146  
147 Maxecine Mitchell: Is that still on the table?  
148  
149 Marabeth Carr: It is still in the plan.  
150  
151 Craig Benedict: I have a follow up to what Marabeth was saying about the progression of activity in Orange County  
152 and how it interfaces with the Unified Development Ordinance. We collect parks and recreation fees for projects.  
153 They can dedicate land (one fifty seventh of an acre for every lot) or flood plain (one twentieth of an acre). When we  
154 examined the 1988 plan in year 2000 about how much was collected per lot and if that does pay for the parks and  
155 recreation for that park, we found we needed more of a track record of building parks over the last 10 years. On  
156 page 125 through 127 it says areas for further study and that is one of them. We need to reexamine what our future  
157 park inventory will be with what type of activity. We still have work ahead. There is no master trail plan.  
158  
159 Paul Guthrie: I also work on a transportation committee; you mentioned one place the transportation issue. I think it  
160 would be helpful to accelerate the communications with the evolving transportation organizing in Orange County for  
161 the long haul (15 year period) so the transportation managing organization, planning, parks and recreations can have  
162 a common dialogue because transportation will be a growing problem.

**DRAFT**

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164 Craig Benedict: We are trying to get our emergency service units out in the community. We are trying to use those  
165 community nodes as possible park and ride lots.

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167 Marabeth Carr: We have our future Northeast District Park that has been set aside for a fire and EMS station.

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169 Pete Hallenbeck: The trails are a very popular item. When the Mountain to the Sea Trail came along, there was talk  
170 about trying to get connections on McGowan Creek. Some of the issues will have to be waited on until some of  
171 these people go away. If you look at other parts of the country, if you have a property that is close to a trail, its value  
172 goes up. This was something that I could not convince people that this was the case. There is a huge difference in  
173 the attitude of rural versus urban and most of my observations are in the rural land. If you have a local group running  
174 something it just does better.

175  
176 Pete Hallenbeck: If you live in rural areas, you have to have a car to get there. Part of this rural versus urban, if you  
177 were to tell someone from Chapel Hill that we are going to make this great park with 700 or 1,000 parking spaces,  
178 people would say, "what".

179  
180 Tony Blake: I noticed a mention in this plan about some Duke land toward Bingham Township.

181  
182 Marabeth Carr: We work with Duke and we have first refusal on anything they are willing to sell. We are in the  
183 process of developing the Hollow Rock access area. We have just received a \$250,000 grant to build a park area.  
184 Duke Forest was involved in the planning but they didn't want us to tie directly to them because officially they are not  
185 in the trail business.

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187 Paul Guthrie: On page 69, your survey results strongly agree, strongly disagree, and don't know, I think you should  
188 pay a lot of attention to the "don't know" column. They may point a location where there is a lack of knowledge in the  
189 community.

190  
191 Maxecine Mitchell: I can see people saying that I don't know what a county facility is.

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193 Bryant Warren: There is one community center I have talked to is the one in Mebane. I ask them how they got it.  
194 They have a lot of support from the businesses. The Efland Ruritan Club is doing a great job.

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196 Marabeth Carr: Riverwalk was able to get part of grant money. Part recreation/trust fund money that the state gives  
197 out has gone to facilities promoting the Mountains to Sea Trail.

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199 Marabeth Carr: Please email us if you have any additional comments.

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201 **AGENDA ITEM 8: COMMITTEE/ADVISORY BOARD REPORTS:**

202 a. Board of Adjustment

203  
204 **AGENDA ITEM 9: ADJOURNMENT:**

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206 **MOTION** by Bryant Warren to adjourn. Seconded by Tony Blake.

207 **VOTE: UNANIMOUS**

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**ORANGE COUNTY  
PLANNING BOARD  
ACTION AGENDA ITEM ABSTRACT  
Meeting Date: September 3, 2014**

**Action Agenda  
Item No. 7**

**SUBJECT:** Major Subdivision Preliminary Plat Application – Pleasant Green Woods Phase IV

**DEPARTMENT:** Planning and Inspections

**PUBLIC HEARING: (Y/N)**

No

**ATTACHMENTS:**

1. Application Package (Preliminary Plat Under Separate Cover)
2. Property and Vicinity Map
3. Staff Generated Correspondence
4. Excerpt of Approved Minutes from February 5, 2014 Planning Board meeting

Under Separate Cover:

Preliminary Plat and Color rendering

**INFORMATION CONTACT:**

Patrick Mallett, Planner II	(919) 245-2577
Michael D. Harvey, Planner III	(919) 245-2597
Craig Benedict, Director	(919) 245-2585

**PURPOSE:** To review and take action on a Major Subdivision Preliminary Plat application proposing a 16 lot single-family residential subdivision in accordance with the provisions of Section 2.15 and Article 7 *Subdivisions* of the Unified Development Ordinance (UDO).

**BACKGROUND:** The basic facts concerning the current application are as follows:

Applicant(s): Drees Homes  
C/o Mr. David Lazzo  
7701 Six Forks Road  
Raleigh, NC 27615

Owner: King Family Partnership  
4507 Pleasant Green Road  
Durham, NC 27705

Agent(s): Summit Design and Engineering Services  
C/o Mr. Terry Boylan  
504 Meadowland Drive  
Hillsborough, NC 27278

Location: Pleasant Green Road- Please refer to Attachment 2 for a vicinity map of the parcel.

Parcel Information:

- a. **PIN:** 9893-87-9972
- b. **Size of parcel:** 46.34 acres

Staff Note: The acreage is based on Orange County Tax/Map data as well as notes contained on Preliminary Plat (Sheet C-1).

**Zoning of parcels:** Rural Residential (R-1) and Lower Eno Protected Watershed Overlay (L-ENO-PW).

- c. **Township:** Eno.
- d. **School District:** Orange County Schools.
- e. **Future Land Use Map Designation:** Rural Residential.
- f. **Growth Management System Designation:** Rural.
- g. **Joint Land Use Plan Designation:** N/A.
- h. **Existing Conditions/Physical Features:** Varying topography with heavy vegetation, primarily mixed hardwoods, throughout.

There are streams running through the northern and southern portions of property with varying slopes. Stream buffer widths vary from 65 to 80 feet according to the type of slope.

There is no floodplain on the property.

- i. **Roads:** Vehicular access to the parcel is proposed through Paper Birch Lane, a 100 ft. wide public right-of-way. The road has been constructed but not yet been accepted by NCDOT for addition to the State maintained system.

There are no issues, in staff's opinion, reviewing the proposal as submitted in advance of NC DOT taking action on the roadway as the right-of-way was already dedicated and accepted as part of a separate subdivision project.

- j. **Water and Sewer Service:** The property is not located within a primary public utility service area according to the Water and Sewer Management Planning Boundary Agreement (WASMPBA).

Proposed lots are to be served by individual well and septic systems.

Surrounding Land Uses:

- a. **NORTH:** Single family residences and undeveloped property zoned R-1 approximately 10 acres in size
- b. **SOUTH:** Single-family residence; undeveloped property zoned R-1 with lots ranging from 1 to 10 acres.  
Willet Drive, a 60 ft. public right-of-way, is also located to the south of this project
- c. **EAST:** Single-family residences zoned R-1 (Pleasant Green Phase III) with lots ranging from 1 to 3 acre sin area.
- d. **WEST:** Pleasant Green Road, Single-family residences zoned AR ranging in size from 2 to 5 acres.

Development Process, Schedule, and Action: The typical cadence for the review of a major subdivision is as follows:

- **First Action** – Planning staff schedules a Neighborhood Information Meeting (NIM) and invites property owners within 500 feet of the project to attend the meeting in order to review the project with the applicant.

**Staff Comment – DONE.** This meeting was held on January 14, 2014.

- **Second Action** – The Planning Board reviews and takes action on the Concept Plan application approving either the ‘conventional’ or ‘flexible development’ layout.

**Staff Comment – DONE.** The Planning Board met on February 5, 2014 and approved the Concept Plan Flexible Design Option. Agenda materials for this meeting can be viewed at:

<http://orangecountync.gov/planning/documents/2.5.14PBPacket.pdf>

Minutes from this meeting are contained in Attachment 4.

- **Third Action** – Once a concept plan is approved, the Planning Board reviews and makes a recommendation on the approval of the Preliminary Plat for the project.

**Staff Comment** –The Planning Board will review the Preliminary Plat at its September 3, 2014 regular meeting.

- **Fourth Action** – The BOCC reviews and take action on the Preliminary Plat application.
- **Fifth Action** – Once all construction activities have been completed, or appropriate bonds have been approved, staff will sign off and allow the recordation of a Final Plat allowing for the individual lots to be created.

Proposal: The petitioner has submitted a Major Subdivision Preliminary Plat application package, consistent with the approved Concept Plan, proposing to develop a Conservation Cluster Flexible Development Subdivision with 16 single-family residential lots at a gross density of 1 dwelling unit per every 2.89 acres of land area with approximately 15.3 acres of dedicated Primary and Secondary open space.

Proposed lots range in size from 1.24 acres (54,151 sq. ft.) to 1.87 acres (81,661 sq. ft.).

The following modification(s) have been made to the Preliminary Plat application in an effort to address staff, Planning Board, and adjacent property owner comments associated with the approved Concept Plan:

1. A proposed stormwater management area, originally shown behind Lot(s) 7 and 8 as depicted on the Concept Plan, has been formally defined as required by Orange County Erosion Control.

The basin is now 18,131 sq. ft. in area within a defined stormwater ‘lot’ that is 36,769 sq. ft. in area.

2. The lot lines along Laurel Oak Lane have been revised to clearly delineate the edge of the right-of-way as well as to account for proper roadway alignments in accordance with NC Department of Transportation (NC DOT) guidelines.

This move was also necessitated to ensure adequate soils were present on each lot to support active and repair areas for septic systems as required by the Health Department.

3. Secondary open space adjacent to Lot 2 was further defined to include a fire pond approximately 12,377 sq. ft. in surface area with 81,048 cubic feet of water storage as required by Orange County Emergency Services.
4. The Pedestrian Open Space Access (POSA) area was formally designated within the Secondary Open Space.

A summary of the proposal is as follows:

<b>Subdivision Type</b>	<b>Number of Lots</b>	<b>Average Lot Size</b>	<b>Area in Open Space (Proposed)</b>	<b>Open Space Percentage</b>
Flexible Development Plan	16	62,578 sq. ft. / 1.43 acres	16.53 acres in open space	(35.66 %) in open space

**STAFF COMMENT – UDO REQUIREMENTS:** The proposal is in accordance with the anticipated densities for properties located within the Rural Residential land use category as defined within the adopted Comprehensive Plan and Rural Designated area as denoted on the Growth Management Systems Map.

**Roads:** The proposal involves the creation of a 26' wide paved road (Laurel Oak Lane) within a 60' wide public right-of-way that would terminate in a cul-de-sac. The road meets NC Department of Transportation dimensional standards for residential public road without curb and gutter. The applicant is also proposing a 20 ft. wide emergency vehicle access onto Willet Drive.

**STAFF COMMENT - ROADS:** *The proposed* Staff has determined that the proposed roadway construction and layout is consistent with the requirements of the UDO and the approved Concept Plan for Pleasant Green Woods Phase IV.

Note: As the Board will recall there was extensive discussion at the February 5, 2014 Planning Board meeting related to the proposed cul-de-sac vs. requiring connectivity to Willet Drive. Staff recommended, and the Planning Board approved, the Concept Plan without requiring connectivity based on the following mitigating factors:

- a. Limited sight distances along the project's Willet Road frontage;
- b. Significant grade changes from Willet Drive to property;
- c. Emergency access is provided via a 20' wide access easement to Willet Drive;
- d. Fire truck turn around requirements are met via 20' wide Type "Y" aprons;
- e. The proposed stormwater BMP along Willet Drive utilizes the site's existing topography and drainage patterns in a manner that avoid excessive grading along environmentally sensitive areas; and
- f. The cul-de-sac allows for a 50' wide contiguous Secondary Open Space strip along Willet Drive.

**Utilities – Water and Sewer:** The applicant is proposing to serve the project with individual wells and septic systems developed on each lot. Sheet 2 of the major subdivision concept plan maps denotes anticipated soil locations on each lot.

**STAFF COMMENT - UTILITIES** Orange County Environmental Health has approved the Preliminary Plat layout identifying septic and well locations for each proposed lot. Please refer to Attachment 3 for additional information.

Stormwater and Drainage: Drainage will be engineered according to Best Management Practices (BMP) at the time of permit application for construction. The property is subject to recently adopted stormwater management guidelines limiting total nitrogen runoff of 2.2 pounds per acre annually and 0.33 pounds per acres annually for total phosphorus.

**STAFF COMMENT – STORMWATER AND DRAINAGE:** Orange County Erosion Control has indicated the applicant will need to submit a detailed stormwater management plan for the project for review and approval prior to the commencement of land disturbing activities. The project will also require an Erosion Control permit. Please refer to Attachment 3 for additional information.

Open Space: The flexible development plan denotes the maintenance of a 30-foot natural buffer along Pleasant Green Road and a 100-foot building setback along the perimeter of the project. Open space is identified in and around the existing streams. The total area reserved as open space is approximately 16.53 acres (35.66 % of site). Open Space is broken down as follows:

- Primary Open Space: Typically includes riparian buffer areas (i.e. stream buffers), floodplains, property with slopes greater than 25%, wetland areas, natural areas and/or wildlife habitats, and historic sites. 6.82 acres (14.72%) of the project contains riparian buffer areas.
- Secondary Open Space: Typically includes woodlands, farmland, property with a slope between 15% to 25%, recreation areas, scenic views, pedestrian access open space areas (POSA), roadside buffers, and green belt linkages.  
9.71 acres (20.94%) for the project composed of roadside buffers (i.e. Pleasant Green Road and Willet Drive), POSA's, and wooded areas.

Proposed open space is composed of existing, mature hard wood and evergreen vegetation and trees with an approximate height of between 50 to 70 feet.

**STAFF COMMENT – OPEN SPACE:** Staff has determined the proposed open space and land use buffers meet the requirements of the UDO.

Land Use Buffer: The site plan indicates there will be a 30-foot buffer along Pleasant Green Road comprised of existing, dense, vegetation composed of existing, mature, shrubs and trees with an approximate height of between 50 to 70 feet.

**STAFF COMMENT – LAND USE BUFFER:** Section 6.8.6 (D) of the UDO requires that this project maintain a thirty (30) foot land use buffer separating the project from adjacent roadways. Staff has determined the proposed open space and land use buffers meet the requirements of the UDO.

Staff Generated Correspondence: Attachment 3 contains the various comments for this project as of the date of abstract preparation.

Analysis: As required under Section 2.15.2 (E) of the UDO, the Planning Director is required to: *'prepare and submit a recommendation'* on the concept plan to the Planning Board for consideration. In analyzing this request, the Planning Director offers the following:

1. The application has been deemed complete in accordance with the requirements of Section 2.2 and 2.15.2 of the UDO.
2. Staff has determined that the property is of sufficient size to support the proposed subdivision.
3. The proposal appears consistent with the various goals outlined within the Comprehensive Plan concerning development, including:
  - a. Land Use Overarching Goal: *Coordination of the amount, location, pattern, and designation of future land uses, with availability of County services and facilities sufficient to meet the needs of Orange County's population and economy consistent with other Comprehensive Plan element goals and objectives.*
  - b. Land Use Goal 2: *Land uses that are appropriate to on-site environmental conditions and features and that protect natural resources, cultural resources, and community character.*
  - c. Land Use Goal 3: *A variety of land uses that are coordinated within a program and pattern that limits sprawl, preserves community and rural character, minimizes land use conflicts, supported by an efficient and balanced transportation system.*
4. Staff supports the approval of the flexible development option as denoted on Sheet 2 of the site plan package.

**FINANCIAL IMPACT:** Staff has determined the project would not require augmentation of County budgetary outlays to support services and that anticipated revenues from property taxes should supplement increases in cost.

**RECOMMENDATION:** The Planning Director recommends the Board:

1. Receive the Preliminary Plat application,
2. Deliberate on the proposal, and
3. Recommend approval of the proposal.

# APPLICATION FOR PRELIMINARY PLAN APPROVAL MAJOR SUBDIVISION

ORANGE COUNTY

5/05

PLEASE TYPE OR PRINT (INK ONLY)

DATE: 6/4/14

SUBDIVISION NAME: PLEASANT GREEN WOODS PHASE IV

LOCATION: PAPER BIRCH LANE AT PLEASANT GREEN ROAD

OWNER/DEVELOPER: DEKES HOMES

ADDRESS: 7701 SIX FORKS RD. TELEPHONE NO.: (919) 844-9288  
RALPHIGH, NC 27615

AGENT/CONTACT: DAVID LAZZO

ADDRESS: SAME TELEPHONE NO.: (919) 601-2816  
SAME

**A SUMMARY INFORMATION**

Orange County Tax Map 920 Block 373 Lot(s) — Township ENO

Zoning District(s): RURAL RESIDENTIAL (R-1)

Total Number of Acres: 46.34

Total Number of Lots: 16 Average Lot Size: 62,578 SF. Minimum Lot Size: 40,000 S.F.

Number/Type of Structures: (existing) 0 (proposed) 16

Linear Feet in Streets: 1674 L.F. Acres in Open Space: 16.53

Water Supply: — Public (specify) — Community WELL Individual

Wastewater Disposal: — Public (specify) — Community SEPTIC Individual

School District: ORANGE COUNTY Fire District: EAST ORANGE FIRE DEPT

General Land Uses in Area: RESIDENTIAL

Critical Areas: 6.82 AC IN RIPARIAN BUFFERS stream/drainageways 0 flood prone areas  
LOWER ENO PROTECTED OVERLAY watershed (specify) 0 historic sites  
other (explain) \_\_\_\_\_

Is the property to be subdivided currently under "farm use value taxation"? Yes \_\_\_ No . If "yes," please contact the Orange County Tax Office. Subdivision of the property may require payment of deferred taxes under "farm use value taxation."

**B** All plats must be submitted on sheet no smaller than one inch equals two-hundred feet (1"=200') and no larger than one inch equals twenty feet (1"=20') and must contain the following information:

- |                                     |  |                                     |  |
|-------------------------------------|--|-------------------------------------|--|
| <input checked="" type="checkbox"/> | subdivision name   | <input checked="" type="checkbox"/> | zoning of tract and adjacent properties  |
| <input checked="" type="checkbox"/> | name & address of owner(s)   | <input checked="" type="checkbox"/> | building setback lines by notation or typical lot layout   |
| <input checked="" type="checkbox"/> | name & address of subdivider (if other than owner)   | <input checked="" type="checkbox"/> | location and width of existing and proposed easements (drainage, utilities, roads, etc.)   |
| <input checked="" type="checkbox"/> | name of surveyor, engineer, landscape architect or architect, address, registration # & seal | <input checked="" type="checkbox"/> | Existing, proposed and adjoining rights-of-way including dimensions and street names and State Road numbers. Linear feet of road centerlines and approximate acreage of new street rights-of-way |
| <input checked="" type="checkbox"/> | (title) Preliminary Plan   | <input checked="" type="checkbox"/> | existing and proposed utilities, including type, sizes, hydrants, valves, manholes   |
| <input checked="" type="checkbox"/> | scale, north arrow   | <input checked="" type="checkbox"/> | existing and proposed curbs, gutters and culverts, including sizes and grades  |
| <input checked="" type="checkbox"/> | date of plan preparation and revisions   |                                     |  |
| <input checked="" type="checkbox"/> | township, tax map-block-lot references   |                                     |  |
| <input checked="" type="checkbox"/> | Parent Parcel Identification #   |                                     |  |
| <input checked="" type="checkbox"/> | deed book and page # of property to be subdivided  |                                     |  |
| <input checked="" type="checkbox"/> | boundary described with bearings and distances   |                                     |  |

<input checked="" type="checkbox"/>	total acreage of the tract and acreage of lots, including and excluding area within rights-of-way control corner	<input checked="" type="checkbox"/>	location and width of alleys, sidewalks, bike lanes, transit systems, and bus stops
<input checked="" type="checkbox"/>	proposed lot lines with dimensions	<input checked="" type="checkbox"/>	typical street cross-sections and intersection details including design and width of travelway and shoulders
<input checked="" type="checkbox"/>	lot & block numbers	<input checked="" type="checkbox"/>	horizontal alignment, centerline radius, and general curve data on all proposed streets
<input checked="" type="checkbox"/>	phasing line(s)	<input checked="" type="checkbox"/>	permanent features such as buildings, cemeteries, historic landmarks
<input checked="" type="checkbox"/>	topography at ten (10) foot intervals	<input checked="" type="checkbox"/>	adjoining lot layout names of adjoining property owners. If subdivided, subdivision plat name, plat book & page number, and perimeter lot numbers.
<input checked="" type="checkbox"/>	water bodies, streams, floodways and floodplains	<input checked="" type="checkbox"/>	location and size of lots of restricted development potential and notation on plat regarding same
<input checked="" type="checkbox"/>	stream buffers	<input checked="" type="checkbox"/>	stormwater detention and/or retention sites and undisturbed areas for infiltration purposes (if located in water supply watershed)
<input checked="" type="checkbox"/>	location and size of parcels dedicated for public use, recreational use or reserved in common, with purpose noted	<input checked="" type="checkbox"/>	Identified natural areas and wildlife corridors
<input checked="" type="checkbox"/>	impervious surface data (if located in water supply watershed)		
<input checked="" type="checkbox"/>	vicinity map showing general location of subdivision with streets and roads identified by State Road number and name		
<input checked="" type="checkbox"/>	landscaping and buffer requirements		
<input checked="" type="checkbox"/>	township, corporate and extraterritorial planning jurisdiction lines which cross the property		

C OTHER SUBMITTAL REQUIREMENTS:

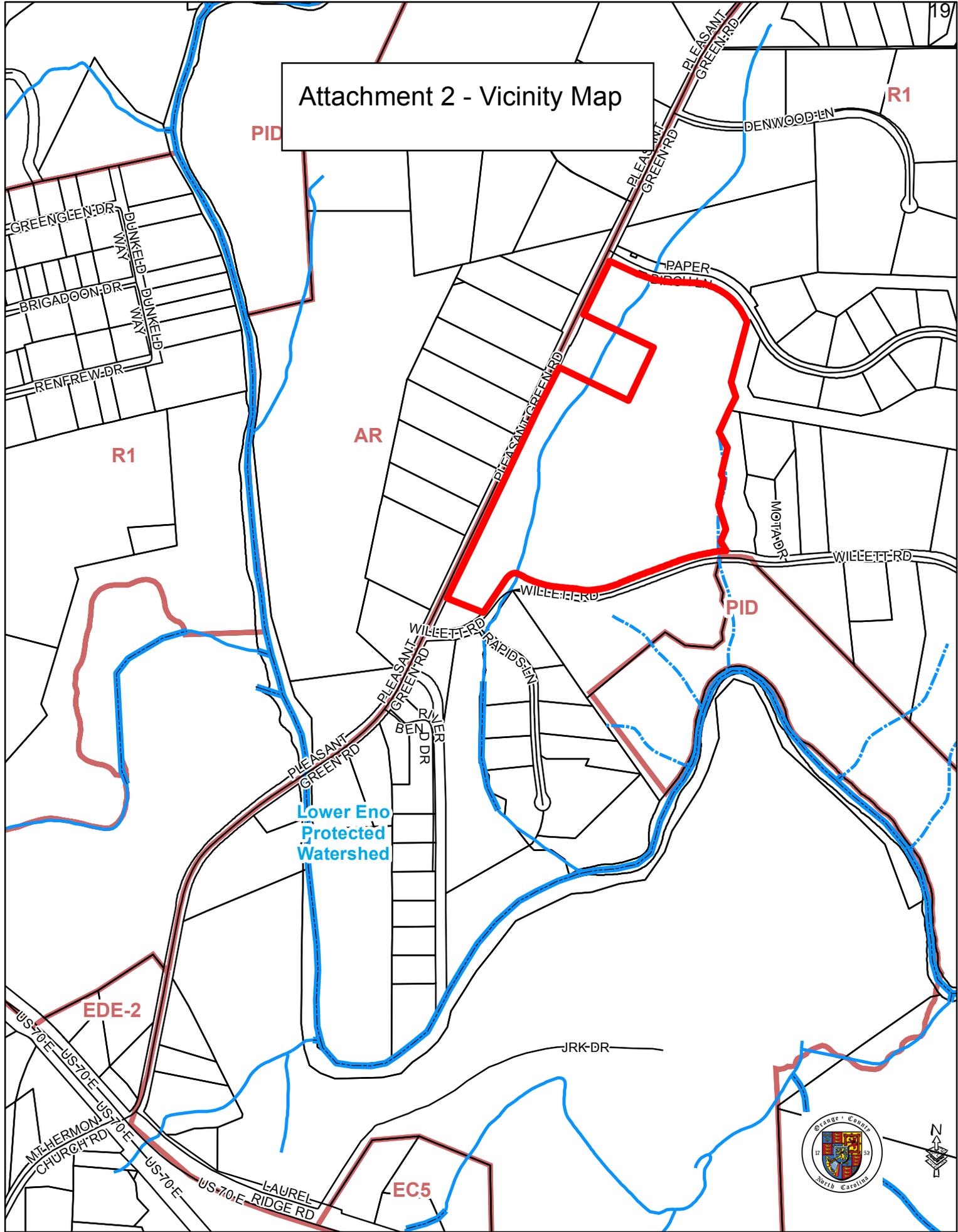
1. Twenty-five (25) copies of the Preliminary Plat.
2. One full size copy of an Orange County Tax Map (with tax parcels involved clearly marked).
3. Where municipal or OWASA sewer is not available, a copy of the Preliminary Plat indicating Health Department approval/denial for each lot show thereon.
4. Where a private road is proposed, a written statement by the applicant or his/her authorized representative which sets for the justification for a private road (see Section IV-B-3-d-1 of the Orange County Subdivision Regulations).
5. Auxiliary documents, in draft form, prepared in accordance with Section VI of this Ordinance which assure completion and/or maintenance of improvements required by this Ordinance. Such documents may include, but not be limited to, a private road maintenance agreement and articles of incorporation and restrictive covenants pertaining to a homeowners association. These documents may be required as necessary as evidence that the ordinance requirements are being met.
6. Fee - \$500 plus \$5.00 per lot (one fee for Preliminary and Final Plat).
7. If the subdivision contains 10 lots or more, the following information shall be submitted with the application:
  - a. Number of years to buildout.
  - b. Number of houses to be built during each year until buildout.
  - c. Average price of houses including lots for each year to buildout.

I certify that to the best of my knowledge the information contained above, and in the supporting documents, is a factual representation of the proposed development. I acknowledge that by signing this application, the Orange County Planning and Inspections Department is authorized, pursuant to N.C. Gen. Stat. Section 153a-360, to make as many inspections of the subject property as may be necessary to verify that the proposed work outlined herein is consistent with the provisions of all applicable State and local laws, ordinances and regulations. By signing this application, I acknowledge and agree that inspectors, zoning officers, erosion control officers, and other staff of the Orange County Planning & Inspections Department have a right, upon presentation of proper credentials, to enter the subject property at any reasonable hour for the purposes of inspection or other enforcement action.

Orlene Mitchell      6.3.14      William Cole King      6/4/14  
 APPLICANT'S SIGNATURE      DATE      OWNER'S SIGNATURE      DATE  
 Ass't. Corp. Sec.

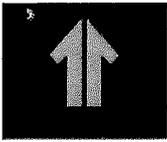
FEES: Amount \_\_\_\_\_ Date Paid \_\_\_\_\_ Receipt # \_\_\_\_\_

# Attachment 2 - Vicinity Map



# Attachment 2 - Vicinity Map





August 13, 2014

Mr. Patrick R. Mallett  
Orange County  
Planning Department  
PO Box 8181  
Hillsborough, NC 27278

**Re: Staff Review Major Subdivision Preliminary Plan application for Pleasant Green Woods Phase IV – a 16 lot Major Subdivision of 46.34 acres located at southwest corner of Pleasant Green Road and Paper Birch Road (Orange County PIN 9893-87-9972).**

Mr. Mallett:

On behalf of our client and the applicant, Drees Homes, Summit Design and Engineering Services is providing responses to all comments/concerns received July 31, 2014 following our Preliminary Plan application submitted on June 4, 2014.

Summit Design and Engineering Services will be more than happy to address and provide any clarification needed on the attached responses and looks forward to discussing these matters with you or the respective review agencies and boards further.

Sincerely,

SUMMIT DESIGN AND ENGINEERING SERVICES

*Terry Boylan*

Terry Boylan RLA, LEED AP  
Project Manager

**Comments Received July 31, 2014**

*Responses to review comments are in Bold Red Italics.*

**Orange County Current Planning:**

**Site Analysis (Sheet C-1):**

1. Revise hatch patterns/line weights and legend to better differentiate soils, steep slopes, wetlands, stream buffers and existing buildings etc.

*Response: More labels added to identify various environmental features, line weights revised.*

2. Label all land uses for adjacent properties.

*Response: Land uses for adjacent properties have been labeled as requested.*

3. Include State Road numbers for all existing public streets.

*Response: State Road number has been added to Pleasant Green Road. Willet Drive and Paper Birch Lane are not listed in the NCDOT database as state maintained roads.*

4. Show all on-site and adjacent utility easements (e.g. electric poles are shown without easements).

*Response: All of the power poles in our base file are located in the Pleasant Green Road right of way and do not require easements.*

5. Include initial submittal and revision dates in the title block.

*Response: Dates have been included in the title block as requested.*

**Flexible Development Plan (Sheet C-2):**

1. Please consider providing a typical lot layout illustrating 2-3 lots with driveway curb cuts, utility lines, lot and street tree plantings etc. This will avoid the potential for conflicts.

*Response: Typical lot layout added.*

2. While a grading plan is not required at this time, please consider illustrating top of slope and average surface area for potential BMPs and Fire Pond to ensure slopes do not encroach and or create hazards along stream buffers, residential lots (especially Lot #2) and access easements.

*Response: Water surface areas (s.f. and ac.) and exterior/interior slopes added.*

3. Illustrate the access (e.g. curb cut) and easements associated with the potential Fire Pond.

*Response: Access easement added to sheet C-2.*

4. Please also coordinate with Fire Marshall and Stormwater to review their design and capacity criteria. In most cases, the requirement between the two types of devices conflict. Generally speaking, fire ponds are deep, and designed to retain the maximum mound of water; while a stormwater BMPs are shallow, and designed to temporarily hold then release water.

*Response: Understood. It is not the intention to use a fire pond as a BMP or vice versa.*

5. Include appropriately sized sight distance triangles for the proposed intersection of Laurel Oak Lane and Paper Birch Road.

*Response: 10 x 70 sight distance triangles added.*

6. Dimension and label the tract 100' wide perimeter boundary along the north and west portion of the property.

*Response: 100' Perimeter Boundary has been dimensioned and labeled at multiple locations as requested.*

7. Is the "Reserve Space" at the intersection of Paper Birth and Pleasant Green excluded from your Open Space calculations? If not please remove or break out as a separate line item. Please also add note that this request doesn't approve a residential lot (i.e. Lot #17) for this area. Such a request/change would require BOCC approval for the additional unit.

*Response: The "Reserve Space" lot is not included or required to be included to meet Open Space requirements. It is also not proposed to be a buildable lot in this subdivision.*

#### **Orange County Environmental Health:**

1. The design flow is based upon the number of bedrooms applied for by the property owner or developer. The design flow for a bedroom is 120 gallons/day (gpd). (e.g. 600 gpd = 5 bedrooms).
2. Proposed house locations were not provided by the property owner or developer as required by 15A NCAC 18A.1900-.1970 (The Laws and Rules for Sewage Treatment and Disposal Systems).
3. The design flow, type system, and pump requirement are subject to change based upon the application and site plan or plat submitted for the Wastewater Construction Authorization.
4. The blocked areas on the accompanying plat are the limits of the provisionally suitable soils as evaluated by the Orange County Health Department.

5. It should be noted that all lots having a conventional-type drain field with pump are reviewed at a minimum of every five years and all Pretreated Drip systems are reviewed every year by the health department as required by 15A NCAC 18A.1961 (Maintenance of Sewage Systems). Also, any Pretreated Drip system must be inspected by a Subsurface Waste Water System Operator as well.
6. Pretreated Drip Systems are placed in areas with 18"-23" of provisionally suitable soil/site characteristics.
7. Ultra Shallow Trench Conventional Systems are placed in areas 24" or more of provisionally suitable soil/site characteristics and a 6-10" soil cap is placed over the trenches.
8. Shallow Trench Conventional Systems are placed in areas with 30" or more of provisionally suitable soil/site characteristics.
9. Conventional Trench Systems are placed in areas with 36" or more of provisionally suitable soil/site characteristics.
10. Innovative Trench Systems can be used in areas with 24-36" of provisionally suitable soil/site characteristics.
11. The approved septic areas should be kept free of vehicular traffic, logging, grading, and compacting activities. It is the responsibility of the property owner or developer to maintain the integrity of the septic areas prior to system construction and installation. No parking, cutting or filling shall be allowed in or around the drain field areas.
12. Drainage ways and easements should be utilized to convey stormwater run-off to the storm water retention areas. These conveyances should not be located through designed septic drain field areas.
13. This report is for planning purposes only and does not constitute any approval. Lot approval is granted by the health department only in the form of an Improvement Permit. Improvement Permits are issued once the lots are recorded and have received individual Parcel Identification Numbers.  
*Response: Understood. Some of these notes added to plans.*

**Orange County Fire Marshal:**

1. Comments Pending.

*Response: Noted.*

**Orange County Solid Waste Management:**

1. Solid Waste Management Plan – This document must be filled and returned to me for review and approval.

*Response: Noted. To be provided during construction plan development.*

2. Plan Sheet C-2 (Flex Development Plan) – Under the OCSW notes please delete Notes 4 and 5 as these are not applicable to this application since solid waste and recycling collection will be curbside containers.

*Response: Notes 4 and 5 have been deleted.*

**Orange County Erosion Control / Stormwater Comments:**

1. Preliminary plan is acceptable with regards to Erosion Control and Stormwater. However, official permit submittals will be necessary at construction drawing phase with specific designs and supporting calculations.

*Response: Noted.*

2. Please also coordinate with us and the Fire Marshal to avoid conflicting requirements for BMPs and Fire Ponds.

*Response: Applicant will coordinate with Fire Marshall and O.C. Erosion Control.*

**Orange County DEAPR:**

1. None.

*Response: Received under separate letter. Comments noted.*







**PLANNING & INSPECTIONS DEPARTMENT**  
**Craig N. Benedict, AICP, Director**

**Administration**  
**(919) 245-2575**  
**(919) 644-3002 (FAX)**  
**www.orangecountync.gov**



**131 W. Margaret Lane**  
**Suite 201**  
**P. O. Box 8181**  
**Hillsborough, NC 27278**



July 31, 2014

Mr. Terry Boylan, RLA  
 Summit Design and Engineering  
 504 Meadowland Drive  
 Hillsborough, NC 27513

**Re: Staff Review Major Subdivision Preliminary Plan application for Pleasant Green Woods Phase IV – a 16 lot Major Subdivision of 46.34 acres located at southwest corner of Pleasant Green Road and Paper Birch Road (Orange County PIN 9893-87-9972).**

Dear Mr. Boylan:

On June 4, 2014, the Orange County Planning Department received a Preliminary Plan application for a Major Subdivision named Pleasant Green Woods Phase IV. This application request follows a Concept Plan for the same project that was approved by the Orange County Planning Board and the Planning Director on February 5, 2014.

The Preliminary Plan calls for 16 single family-residential lots ranging in size from 51,187 square feet to 79,831 square feet. The plan utilizes the Flexible Design Option (UDO Section 7.13) with approximately 15.30 acres of Primary and Secondary Open Space.

On Thursday, July 17, 2014, the Orange County Development Advisory Committee (DAC) met and reviewed the Preliminary Plan. The following comments are from that meeting, and other staff reviews for the project. Please review these comments, address and revise the submittal accordingly. Please provide us with eight (8) sets of revised plans with written responses no later than Aug 13, 2014 so that revisions may be incorporated into the packets for the September 3, 2014 Planning Board meeting. The Preliminary Plan request will then proceed to the Orange County Board of Commissioners for a vote on October 21, 2014.

**Orange County Current Planning:**

**Site Analysis (Sheet C-1)**

1. Revise the hatch patterns/line weights and legend to better differentiate soils,, steep slopes, wetlands, stream buffers and existing buildings etc.
2. Label all land uses for adjacent properties.

3. Include State Road numbers for all existing public streets.
4. Show all on-site and adjacent utility easements (e.g. electric poles are shown without easements).
5. Include initial submittal and revision dates in the title block.

**Flexible Development Plan (Sheet C-2)**

1. Please consider providing a typical lot layout illustrating 2-3 lots with driveway curb cuts, utility lines, lot and street tree plantings etc. This will avoid the potential for conflicts.
2. While a grading plan is not required at this time, please consider illustrating top of slope and average surface area for potential BMPs and Fire Pond to ensure slopes do not encroach and or create hazards along stream buffers, residential lots (especially Lot #2) and access easements.
3. Illustrate the access (e.g. curb cut) and easements associated with the potential Fire Pond.
4. Please also coordinate with Fire Marshall and Stormwater to review their design and capacity criteria. In most cases, the requirement between the two types of devices conflict. Generally speaking, fire ponds are deep, and designed to retain the maximum amount of water; while a stormwater BMPs are shallow, and designed to temporarily hold then release water.
5. Include appropriately sized sight distance triangles for the proposed intersection of Laurel Oak Lane and Paper Birch Road.
6. Dimension and label the tract 100' wide perimeter boundary along the north and west portion of the property.
7. Is the "Reserve Space" at the intersection of Paper Birch and Pleasant Green excluded from your Open Space calculations? If not please remove or break out as a separate line item. Please also add not that this request doesn't approve an residential lot (i.e. Lot #17) for this area. Such a request/change would require BOCC approval for the additional unit.

**Orange County Environmental Health:**

1. See Attached Memo dated July 30, 2014.

**Orange County Fire Marshal:**

2. Comments Pending.

**Orange County Solid Waste Management:**

1. See attached Memo dated July 18, 2014 and SWM Plan Form.

**Orange County Erosion Control / Stormwater Comments:**

1. Preliminary plan is acceptable with regards to Erosion Control and Stormwater. However, official permit submittals will be necessary at construction drawing phase with specific designs and supporting calculations.
2. Please also coordinate with us and the Fire Marshal to avoid conflicting requirements for BMPs and Fire Ponds.

**Orange County DEAPR:**

1. None

**Town of Hillsborough Comments:**

1. See attached letter from town of Hillsborough Planning Director.

Staff looks forward to continuing our work with you on the Pleasant Green Woods Phase IV project. Should you have any additional questions, please call me at (919) 245-2577, or e-mail me at [pmallett@orangecountync.gov](mailto:pmallett@orangecountync.gov).

Very Respectfully,



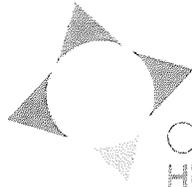
Patrick R. Mallett, Planner II  
Orange County Planning & Inspections Department

**Attachments:**

1. Orange County Health Department Memo dated July 30, 2014
2. Solid waste management Memo dated July 18, 2014 and SWM Application

**CC:**

Michael Harvey, Current Planning Supervisor;  
Craig Benedict, Planning Director; and  
File.



ORANGE COUNTY  
HEALTH DEPARTMENT  
*Improving health. Inspiring change.*

July 30, 2014

SOIL/SITE Evaluation Summary for:

Pleasant Green Woods Phase IV

PIN: 9893879972

Map Date June 4, 2014

LOT #	DESIGN FLOW	SYSTEM TYPE
1	480-gpd	Pump Ultra Shallow Trench Conventional
2	600-gpd	Pretreated Drip
3	600-gpd	Pump Ultra Shallow Trench Conventional / Pretreated Drip Repair
4	600-gpd	Conventional
5	600-gpd	Pretreated Drip
6	600-gpd	Pump Conventional / Pretreated Drip repair
7	480-gpd	Pump Conventional / Pretreated Drip repair
8	600-gpd	Pretreated Drip
9	600-gpd	Conventional
10	600-gpd	Pump Ultra Shallow Trench Conventional
11	600-gpd	Pump Ultra Shallow Trench Conventional
12	600-gpd	Pump Ultra Shallow Trench Conventional
13	480-gpd	Pump Ultra Shallow Trench Conventional / Pretreated drip repair
14	600-gpd	Pump Ultra Shallow Trench Conventional
15	600-gpd	Pump Ultra Shallow Trench Conventional
16	600-gpd	Pretreated Drip

## NOTES

The design flow is based upon the number of bedrooms applied for by the property owner or developer. The design flow for a bedroom is 120 gallons/day (gpd). (e.g. 600 gpd = 5 bedrooms)

Proposed house locations were not provided by the property owner or developer as required by 15A NCAC 18A .1900 - .1970 (The Laws and Rules for Sewage Treatment and Disposal Systems).

The design flow, type system, and pump requirement are subject to change based upon the application and site plan or plat submitted for the Wastewater Construction Authorization.

The blocked areas on the accompanying plat are the limits of the provisionally suitable soils as evaluated by the Orange County Health Department.

It should be noted that all lots having a conventional-type drain field with pump are reviewed at a minimum of every five years and all Pretreated Drip systems are reviewed every year by the health department as required by 15A NCAC 18A .1961 (Maintenance of Sewage Systems). Also, any Pretreated Drip system must be inspected by a Subsurface Waste Water System Operator as well.

Pretreated Drip Systems are placed in areas with 18"-23" of provisionally suitable soil/site characteristics.

Ultra Shallow Trench Conventional Systems are placed in areas with 24 inches or more of provisionally suitable soil/site characteristics and a 6-10" soil cap is placed over the trenches.

Shallow Trench Conventional Systems are placed in areas with 30 inches or more of provisionally suitable soil/site characteristics.

Conventional Trench Systems are placed in areas with 36" inches or more of provisionally suitable soil/site characteristics.

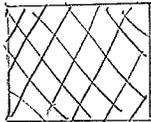
Innovative Trench Systems can be used in areas with 24-36 "of provisionally suitable soil/site characteristics.

The approved septic areas should be kept free of vehicular traffic, logging, grading, and compacting activities. It is the responsibility of the property owner or developer to maintain the integrity of the septic areas prior to system construction and installation. No parking, cutting or filling shall be allowed in or around the drain field areas.

Drainage ways and easements should be utilized to convey storm water run-off to the storm water retention areas. These conveyances should not be located through designated septic drain field areas.

This report is for planning purposes only and does not constitute any approval. Lot approval is granted by the health department only in the form of an Improvement Permit. Improvement Permits are issued once the lots are recorded and have received individual Parcel Identification Numbers.

PROPOSED SEPTIC AREA



1 inch = 120 feet



Orange County Environmental Health

This map contains parcels prepared for the inventory of real property within Orange County, and is compiled from recorded deeds, plats and other public records and data. Users of this map are hereby notified that the aforementioned public primary information sources should be consulted for verification of the information contained on this map. The county and its mapping companies assume no legal responsibility for the information on this map.



## MEMORANDUM

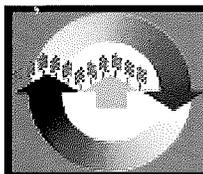
**TO:** PATRICK MALLET, PLANNER II, ORANGE COUNTY PLANNING DEPARTMENT  
**FROM:** JEFF SCOUTEN, ORANGE COUNTY SOLID WASTE MANAGEMENT  
**SUBJECT:** PLEASANT GREEN WOODS PHASE IV – PLANS NOT DATED  
**DATE:** JULY 18, 2014

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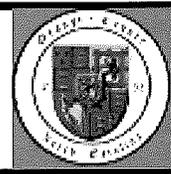
I have completed my review of the subject plan and the following comments must be addressed before I can offer my recommendation for approval:

- Solid Waste Management Plan – This document must be filled and returned to me for review and approval. A copy of this document will be attached in the e-mail used to transmit these review comments to you that you can send to the applicant.
- Plan Sheet C-2 (Flex Development Plan) – Under the OCSW notes please delete Notes 4 and 5 as these are not applicable to this application since solid waste and recycling collection will be curbside containers.

Thank you for the opportunity to review this plan and let me know if you have any questions or wish to discuss this matter further.



## Orange County Solid Waste Management Plan



All development applications must provide a detailed solid waste management plan, including a recycling plan and a plan for management of construction debris. The following form must be completed to fulfill this requirement. This form must be completed and approved to satisfy the requirement of a plan for management of construction debris. Please complete all information in its entirety. Assistance in completing this form is available from the Orange County Solid Waste Staff at (919) 968-2788 x107 or x109.

### COMPLETE ALL INFORMATION BELOW

(Incomplete contact information will delay plan review and approval.)

Project Name \_\_\_\_\_

Property ID #: \_\_\_\_\_ Permit: \_\_\_\_\_

Project Location \_\_\_\_\_  
\_\_\_\_\_

Project Owner \_\_\_\_\_

Contact Person \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Telephone (\_\_\_\_) \_\_\_\_ - \_\_\_\_\_

Fax/Mobile (\_\_\_\_) \_\_\_\_ - \_\_\_\_\_ / (\_\_\_\_) \_\_\_\_ - \_\_\_\_\_

Design Firm \_\_\_\_\_

Contact Person \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Telephone (\_\_\_\_) \_\_\_\_ - \_\_\_\_\_

Fax/Mobile (\_\_\_\_) \_\_\_\_ - \_\_\_\_\_ / (\_\_\_\_) \_\_\_\_ - \_\_\_\_\_

Date \_\_\_\_\_

### Provide a brief description of the work to be performed under this application:

(For example: construct a new commercial building [include use/sq. ft.], apartment complex [# units], place of worship, horizontal improvements for subdivision, etc.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**1. Site Preparation Wastes (landclearing, demolition, deconstruction)**

During site preparation for a project the amount of waste destined for a construction waste landfill or an inert debris landfill should be minimized or diverted for reuse or recycling. Many materials can be reused, recycled, or salvaged, provided that materials are kept separate. This approach may also reduce overall project waste disposal costs. **Regulated Recyclable Materials (clean wood waste, scrap metal and corrugated cardboard) generated in Orange County must be recycled.** During demolition activities, metal and wood are often not “reasonably possible to separate” or doing so may present health and safety concerns (asbestos, lead paint, etc.). In these cases only, are regulated materials not required to be separated for recycling. Consider whether the following materials will be generated on this project, *in any quantity*, and indicate the management method(s).

<input checked="" type="checkbox"/>	<b>1. Trees and Plant Materials:</b>
	No tree/plant wastes will be produced (proceed to # 2)
	Tree waste will be salvaged as timber, mulch, or boiler fuel
	Valuable plants will be removed for replanting
	Landclearing and inert debris landfill (LCID)
	Construction and demolition debris landfill (C&D)
	Other (specify):

<input checked="" type="checkbox"/>	<b>2. Dirt, Rock, Clean Fill, Inert materials to be removed from site:</b>
	No inert materials will be removed from the site (proceed to # 3)
	Site Needs Fill
	Will be hauled to site needing fill.
	Construction and demolition debris landfill (C&D)
	Landclearing and inert debris landfill (LCID)
	Other (specify):

<input checked="" type="checkbox"/>	<b>3. Asphalt Paving:</b>
	No asphalt wastes will be produced (proceed to # 4)

	Recycled at asphalt-paving producer
	Used on or off site. Describe use:
	Disposed in an approved landfill (Orange County Landfill charges no tipfee if clean)
	Other (specify):

<input checked="" type="checkbox"/>	<b>4. Concrete, Brick, Block, other Aggregate materials:</b>
	No aggregate materials will be removed from the site (proceed to # 5)

	Recycled as scrap at an aggregate producer
	Used on or off site. Describe use:
	Construction and demolition debris landfill (C&D)
	Landclearing and inert debris landfill (LCID)
	Other (specify):

<input checked="" type="checkbox"/>	<b>5. Metal Scrap</b> (metal wastes are required by ordinance to be recycled)
	No metal waste will be produced (proceed to # 6)
	Segregated for on-site recycling collection
	Recycle at Orange County Landfill (no tip fee charged)
	Segregated for hauling to scrap dealer by general contractor
	Segregated for hauling to scrap dealer by sub-contractor
	Certified Commingled Recycling Facility
	Other (specify):

<input checked="" type="checkbox"/>	<b>6. Clean Wood Wastes</b> (clean wood wastes are required to be recycled)
	No clean wood wastes will be produced (proceed to # 7)
	Segregated for on-site recycling collection
	Recycle at Orange County Landfill (reduced tip fee charged)
	Saved and used on future jobs
	Separated for private salvage or charity
	Certified Commingled Recycling Facility
	Other (specify):

<input checked="" type="checkbox"/>	<b>7. Demolition/Salvage of Buildings or Structures on the Site:</b>
	No structure(s) will be removed (proceed to Construction Waste section)
	Structure(s) must be removed. Please describe (include square footage for each structure):
<p>If any structure described above is greater than 500 ft<sup>2</sup>, it must be assessed for deconstruction possibilities. Please call Solid Waste Staff at (919) 968-2788 x107 or x109 to arrange an assessment.</p>	
Could the structure(s) be moved from the site?	YES NO Don't Know
Has the sale or donation of the structures been considered? Please explain:	YES NO
How will the structure be removed otherwise?	
What is the timetable on removal of the structure(s)?	
Are there salvageable materials (hardwood floors, fixtures, molding, that can be removed for reuse prior to demolition? If Yes, Please list (use a separate sheet if necessary):	YES NO Don't Know
Have, or will, these materials been offered for sale or donation?	YES NO

## 2. Construction Wastes

During the construction phase there are multiple options for recycling building materials. **Regulated Recyclable Materials (clean wood waste, scrap metal and corrugated cardboard) generated in Orange County must be recycled.** Although other materials are not required to be recycled, you are highly encouraged to do so. One of the best methods of recycling is to separate the materials on the jobsite. You may also combine materials for delivery to a certified recycling facility. Specifying waste reduction/recycling practices on a project will assure better performance.

<input checked="" type="checkbox"/>	<b>1. Clean Wood Wastes</b> (clean wood wastes are required by ordinance to be recycled)
	No clean wood wastes will be produced (proceed to # 2)
	Segregated for on-site recycling collection
	Recycle at Orange County Landfill (reduced tip fee charged)
	Saved and used on future jobs
	Separated for private salvage or charity
	Certified Commingled Recycling Facility
	Other (specify):

<input checked="" type="checkbox"/>	<b>2. Metal Scrap</b> (metal wastes are required by ordinance to be recycled)
	No metal waste will be produced (proceed to # 3)
	Segregated for on-site recycling collection
	Recycle at Orange County Landfill (no tip fee charged)
	Segregated for hauling to scrap dealer by general contractor
	Segregated for hauling to scrap dealer by sub-contractor
	Certified Commingled Recycling Facility
	Other (specify):

<input checked="" type="checkbox"/>	<b>3. Concrete, Brick, Block, other Aggregate materials:</b>
	No aggregate materials will be removed from the site (proceed to # 4)

	Recycled as scrap at an aggregate producer
	Used on or off site: Describe use:
	Construction and demolition debris landfill (C&D)
	Landclearing and inert debris landfill (LCID)
	Other (specify):

<input checked="" type="checkbox"/>	<b>4. Corrugated Cardboard</b> (cardboard wastes are required to be recycled)
	No cardboard waste will be produced (proceed to # 5)
	Segregated for on-site recycling collection
	Recycle at Orange County Landfill (no tip fee charged)
	Segregated for hauling to paper dealer by general contractor
	Segregated for hauling to paper dealer by sub-contractor
	Certified Commingled Recycling Facility
	Other (specify):

**5. Drywall**

No drywall waste will be produced (proceed to # 6)

<input type="checkbox"/>	Segregated for on-site recycling collection
<input type="checkbox"/>	Used on site as agricultural supplement
<input type="checkbox"/>	Disposed in an approved landfill
<input type="checkbox"/>	Certified Commingled Recycling Facility
<input type="checkbox"/>	Other (specify):

**6. Other Materials**

No other wastes will be produced (proceed to # 7)

Please specify other wastes that will be produced and how they will be managed:

Plastics (including vinyl and shrink-wrap):
Carpet and padding:
Shingles:
Fixtures (sinks, tubs, lighting, etc):
Other (specify):
Other (specify):
Other (specify):

**7. Bulk Containers (Dumpsters)**  
 County ordinance requires that any bulk waste container be labeled to define what materials are intended or prohibited from being deposited in them and be serially numbered. Hauling Licenses are required for vehicles greater than 9000 GVW in Orange County. Ensure that your waste haulers is licensed. You may contact Orange County Solid Waste for a list of licensees at (919) 968-2788 x107 or x109.

<input type="checkbox"/>	There will be one or more bulk containers at the site for construction wastes.
<input type="checkbox"/>	Contractors will be required to remove own wastes without the use of bulk containers.
<input type="checkbox"/>	Corral or similar system will be used.

### 3. Recycling After Occupancy

Depending on the eventual use of the structure, different waste materials will be produced and available for recycling. Recyclable materials must be separated into categories based on collection methods.

#### PLANNING REQUIREMENTS:

- Indicate location of all bulk waste containers for refuse and recycling. Plan must show location of all containers, even if using existing refuse/recycling enclosures. Standard details/notes for any of the following are available from Orange County Solid Waste Management (919-968-2788 x107 or x109).
- All refuse/recycling containers are required to be on concrete pads.
- Provide a detailed and scaled plan of all bulk waste containers areas that show: each container labeled, required screening, lighting, overhead clearances, bollards, and concrete pad.
- Indicate whether refuse/recycling area will be gated. Any doors/gates will need retainers to be latched open for refuse/recycling collection.
- Ensure adequate collection vehicle access to all containers for deposit and collection. Access templates are available from Orange County Solid Waste Management.
- Sharing of exterior recycling locations is acceptable if a joint access/shared-use agreement is filed and the deeds of all properties amended.

<input checked="" type="checkbox"/>	<b>Check materials that will be generated once the structure is ready for occupancy:</b>
	Standard: glass bottles, metal cans, newspaper, glossy magazines, #1 plastics, #2 plastics
	Corrugated Cardboard (not including waxed or single layer cardboard)
	Mixed Paper: junk mail, cereal boxes
	Office Paper: white or colored copy paper, confidential papers
	Restaurant: food wastes, cooking oil, disposable dining ware
	Other Plastics: #5, #7
	Business specific wastes (please describe):

#### Cardboard Recycling Requirement

Orange County Ordinance requires recyclable corrugated cardboard to be kept separate from all other refuse. All developments must provide for cardboard recycling. If the facility's garbage will be collected from a bulk container (dumpster), a second waste container is likely to be required for cardboard. Public recycling drop-off sites can accommodate a very limited amount of commercial use (no > 50 boxes per week).

	Site Plan includes space for cardboard recycling container on Sheet # _____
	Corrugated Cardboard will be handled in an alternate manner. Description Required:

<input checked="" type="checkbox"/>	<b>Collection Type: This project will be served by the following collection methods. Check all that apply.</b>
	<b>Exterior individual or cooperative-use bulk waste container site.</b> May be suitable for apartment complexes, restaurants, places of worship, educational facility, office building, retail/office/restaurant combinations
	Garbage dumpster
	Garbage compactor
	Cardboard dumpster
	Cardboard compactor
	Recycling carts for glass, cans, plastic bottles, newspaper, magazines, office paper (co-mingled)
	Cooking grease rendering container (required for any commercial kitchen facility)
	Food waste collection container (If qualify based on volume; contact OCSW staff for details of program)
	<b>Standard "curbside" recycling collection.</b> May be suitable for single-family developments and subdivisions, including some duplex, triples, and townhome developments.

**Patrick R. Mallett**

---

**From:** Rich Shaw  
**Sent:** Friday, August 22, 2014 12:29 PM  
**To:** Patrick R. Mallett  
**Cc:** Peter Sandbeck  
**Subject:** RE: Preliminary Plats Pleasant Woods Phase IV and Strouds Creek Subdivisions - Last call for Staff Comments

No outstanding comments

**Rich Shaw**, Land Conservation Manager  
 Orange County  
 Department of Environment, Agriculture, Parks and Recreation

306A Revere Rd / PO Box 8181 / Hillsborough NC 27278 / 919-245-2514 / <http://www.co.orange.nc.us>

**From:** Patrick R. Mallett  
**Sent:** Thursday, August 21, 2014 12:18 PM  
**To:** Alan Clapp; Albert Mills; Christine D. Dodd; Chuck Edwards; D'Angelo Jones; David Sykes; James Bryan; Jason Shepherd; Jeff Scouten; Jennifer Phillips; John Kase; John Roberts; Kevin Lindley; Michael Burton; Michael Harvey; Michael Rettie; Peter Sandbeck; Rich Shaw; Steve J Kaltenbach; Tammy Hicks; Wesley Poole; Howard W. Fleming  
**Subject:** Preliminary Plats Pleasant Woods Phase IV and Strouds Creek Subdivisions - Last call for Staff Comments

FYI-Preliminary Plats Pleasant Woods Phase IV and Strouds Creek Subdivisions are set to go to the Planning Board on 03SEP2014.

To date, I don't know if any significant outstanding comments for either Subdivision. If you don't mind, please e-mail me if you do have any remaining significant comments. If you don't have any, just send me an e-mail stating "No outstanding comments."

I will send the most recent submittals for each shortly.

Very Respectfully,

Patrick R. Mallett, Planner II  
 Orange County Planning & Inspections Department

Phone: (919) 245-2577  
 Fax: (919) 644-3022  
 E-mail: [pmallett@orangecountync.gov](mailto:pmallett@orangecountync.gov)  
 Orange County Planning Website: <http://www.orangecountync.gov>

Address:  
 131 W. Margaret Lane, Suite 201  
 P.O. Box 8181  
 Hillsborough, NC 27278

**Patrick R. Mallett**

---

**From:** John Kase  
**Sent:** Friday, August 22, 2014 11:26 AM  
**To:** Patrick R. Mallett  
**Subject:** Pleasant Green

Environmental Health has no significant issues or further comments for proposed subdivision Pleasant Green Phase 4.

**John Kase REHS, LSS**

Environmental Health Supervisor

Phone: 919.245.2374 / Fax: 919.644.3006

Website: <http://www.co.orange.nc.us/envhlth/index.asp>



*Improving health. Inspiring change.*



---

Please tell us how we are doing by taking this very quick survey. We appreciate your comments.

<http://www.surveymonkey.com/s/VGP359T>

**Patrick R. Mallett**

---

**From:** Wesley Poole  
**Sent:** Friday, August 22, 2014 8:23 AM  
**To:** Patrick R. Mallett  
**Subject:** RE: Preliminary Plats Pleasant Woods Phase IV and Strouds Creek Subdivisions - Last call for Staff Comments

No outstanding comments...

Thanks,  
 Wesley Poole  
 Erosion Control & Stormwater Officer II  
 Orange County Planning & Inspections Dept.  
 (919) 245-2587

**From:** Patrick R. Mallett  
**Sent:** Thursday, August 21, 2014 12:18 PM  
**To:** Alan Clapp; Albert Mills; Christine D. Dodd; Chuck Edwards; D'Angelo Jones; David Sykes; James Bryan; Jason Shepherd; Jeff Scouten; Jennifer Phillips; John Kase; John Roberts; Kevin Lindley; Michael Burton; Michael Harvey; Michael Rettie; Peter Sandbeck; Rich Shaw; Steve J Kaltenbach; Tammy Hicks; Wesley Poole; Howard W. Fleming  
**Subject:** Preliminary Plats Pleasant Woods Phase IV and Strouds Creek Subdivisions - Last call for Staff Comments

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I will send the most recent submittals for each shortly.

Very Respectfully,

Patrick R. Mallett, Planner II  
 Orange County Planning & Inspections Department

Phone: (919) 245-2577  
 Fax: (919) 644-3022  
 E-mail: [pmallett@orangecountync.gov](mailto:pmallett@orangecountync.gov)  
 Orange County Planning Website: <http://www.orangecountync.gov>

Address:  
 131 W. Margaret Lane, Suite 201  
 P.O. Box 8181  
 Hillsborough, NC 27278

**Patrick R. Mallett**

---

**From:** Jeff Scouten  
**Sent:** Thursday, August 21, 2014 1:21 PM  
**To:** Patrick R. Mallett  
**Subject:** RE: Preliminary Plats Pleasant Woods Phases - Last call for Staff Comments

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Pat:  
 For Pleasant Green Woods, Phase IV, I have no outstanding comments.  
 As a reminder though, the applicant will still need to submit to me for review and approval the Solid Waste Management Plan document.  
 Thanks and let me know if you have any questions or wish to discuss further.

Jeff Scouten  
 Environmental Enforcement Supervisor  
 Orange County Solid Waste Management  
 P.O. Box 17177  
 Chapel Hill, NC 27516-7177  
 919-968-2788 x 107 (Office)  
 919-932-2900 (Facsimile)  
[jscouten@orangecountync.gov](mailto:jscouten@orangecountync.gov)  
<http://orangecountync.gov/recycling/candd.asp>



**From:** Patrick R. Mallett  
**Sent:** Thursday, August 21, 2014 12:22 PM  
**To:** Alan Clapp; Albert Mills; Christine D. Dodd; Chuck Edwards; D'Angelo Jones; David Sykes; James Bryan; Jason Shepherd; Jeff Scouten; Jennifer Phillips; John Kase; John Roberts; Kevin Lindley; Michael Burton; Michael Harvey; Michael Rettie; Peter Sandbeck; Rich Shaw; Steve J Kaltenbach; Tammy Hicks; Wesley Poole; Howard W. Fleming  
**Subject:** Preliminary Plats Pleasant Woods Phases - Last call for Staff Comments

The Most Current Preliminary Plans for Pleasant Green Woods PHIV enclosed.

Very Respectfully,

Patrick R. Mallett, Planner II  
 Orange County Planning & Inspections Department

Phone: (919) 245-2577  
 Fax: (919) 644-3022  
 E-mail: [pmallett@orangecountync.gov](mailto:pmallett@orangecountync.gov)  
 Orange County Planning Website: <http://www.orangecountync.gov>

Address:  
 131 W. Margaret Lane, Suite 201

**Patrick R. Mallett**

---

**From:** John Kase  
**Sent:** Friday, August 22, 2014 11:26 AM  
**To:** Patrick R. Mallett  
**Subject:** Pleasant Green

Environmental Health has no significant issues or further comments for proposed subdivision Pleasant Green Phase 4.

**John Kase REHS, LSS**

Environmental Health Supervisor

Phone: 919.245.2374 / Fax: 919.644.3006

Website: <http://www.co.orange.nc.us/envhth/index.asp>



*Improving health. Inspiring change.*



---

Please tell us how we are doing by taking this very quick survey. We appreciate your comments.

<http://www.surveymonkey.com/s/VGP359T>

Attachment 4 – Excerpt of  
February 5, 2014 Approved  
Planning Board Minutes

Approved 3/5/14

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MINUTES  
ORANGE COUNTY PLANNING BOARD  
FEBRUARY 5, 2014  
REGULAR MEETING

**MEMBERS PRESENT:** Peter Hallenbeck (Chair), Cheeks Township Representative; Lisa Stuckey, Chapel Hill Township Representative; Herman Staats, At-Large, Cedar Grove Township; Paul Guthrie, At-Large Chapel Hill Township; Buddy Hartley, Little River Township Representative; Tony Blake, Bingham Township Representative; Johnny Randall, At-Large Chapel Hill Township; Andrea Rohrbacher, At-Large Chapel Hill Township; Maxecine Mitchell, At-Large Bingham Township;

**MEMBERS ABSENT:** James Lea, Cedar Grove Township Representative; Vacant- Eno Township Representative; Vacant- Hillsborough Township Representative;

**STAFF PRESENT:** Craig Benedict, Planning Director; Michael Harvey, Current Planning Supervisor; Jennifer Leaf, Planner I; Patrick Mallett, Planner II; Michael Kelly, Planning Technician; Tina Love, Administrative Assistant II

**OTHERS PRESENT:** Terry Boylan, David Lazzo, Judith Timyau, David Delgado, Cole King, David & Lisa O'Hara, Charles Porter, Gary Paschall, Terry Rishar, Chris Jones, Scott & Susan Tilley, Susan Heckman

**Agenda Item 7: Major Subdivision Concept Plan** – To review and make a decision on a major subdivision concept plan application (Pleasant Green Woods, Phase IV), located off Pleasant Green Rd.  
**Presenter:** Jennifer Leaf, Planner I

*Michael Harvey reviewed the major subdivision approval process and steps  
Jennifer Leaf reviewed the application*

Pete Hallenbeck: We will now give the members time to ask questions.

Andrea Rohrbacher: What is the intent on clearing the site and preserving the site?

Terry Boylon: The site is heavily wooded and the intent is to only clear the right of way for the proposed road. The rest would remain wooded and the individual lots would be cleared as necessary.

Michael Harvey: In our ordinance, we have tree preservation guidelines and standards that do allow clearing of lots for house sites and septic and repair fields. There are still requirements that a percentage of trees be preserved on site. There will not be mass clearing. The presence of trees on the site will also help with storm water and nutrient reduction loads.

Terry Boylon: Yes, that is the case.

Pete Hallenbeck: Are there covenants on the deeds on these properties that would have additional limits or restrictions on the percentage of trees that will be cleared.

David Lazzo: We have not established covenants but they are very likely to be almost identical to what is in Pleasant Green Woods now. It is in our best interest as the homebuilder to preserve the trees.

Approved 3/5/14

55 Pete Hallenbeck: At this point, since this is the concept plan, which is reasonable. As we move forward, those  
56 covenants will be available.

57  
58 David Lazzo: Yes sir, I am not sure what the rules are.

59  
60 Michael Harvey: The preliminary plan application will require the applicant to file a preliminary set of covenants and  
61 deed restrictions for our review and comment. That is one of the conditions that this Board will be looking for.

62  
63 Paul Guthrie: This storm water lot, have you envisioned what the gallon capacity will be?

64  
65 David Lazzo: For fire protection? No not yet, that could be smaller or larger, it is a placeholder at this point as to  
66 where a good location is for that lot.

67  
68 Paul Guthrie: Water and sewer, are you thinking about individual septic fields or a series of septic field that cover  
69 more than one property.

70  
71 David Lazzo: At this point, we are looking at individual septic fields.

72  
73 Paul Guthrie: Are you thinking of individual wells or some form of joint well production.

74  
75 David Lazzo: On individual lots.

76  
77 Paul Guthrie: On each lot, you will have a well and septic field?

78  
79 David Lazzo: Yes.

80  
81 Paul Guthrie: This is something you may want to pay attention to depending on the types of soils there are.

82  
83 Pete Hallenbeck: I assumed there were preliminary perk tests done?

84  
85 David Lazzo: That happens in the next stage. There are preliminary soil profiles available that lead us to make  
86 assumptions about the availability of septic soils. An actual survey by the health department will be done.

87  
88 Michael Harvey: This project is based on 16 lots but there may be only 15 or 14 lots if there are no soils or there  
89 may an alternation of the existing layout to accommodation additional soil areas.

90  
91 Paul Guthrie: Do you have any information as to what depth you have to go and what flows you can get?

92  
93 David Lazzo: Not at this time.

94  
95 Herman Staats: *Reviewed location.*

96  
97 Johnny Randall: It looks like the forest is about 30 years old. Has any type of natural area inventory been done on  
98 this site?

99  
100 Michael Harvey: Preliminary assessments have not indicated any natural or heritage sites. Obviously there will be  
101 a more in depth investigation.

102  
103 Tony Blake: The streams empty into the Eno?

104  
105 Michael Harvey: I would say yes.

106  
107 Tony Blake: It appears there is source stream on one side, is that a stream?

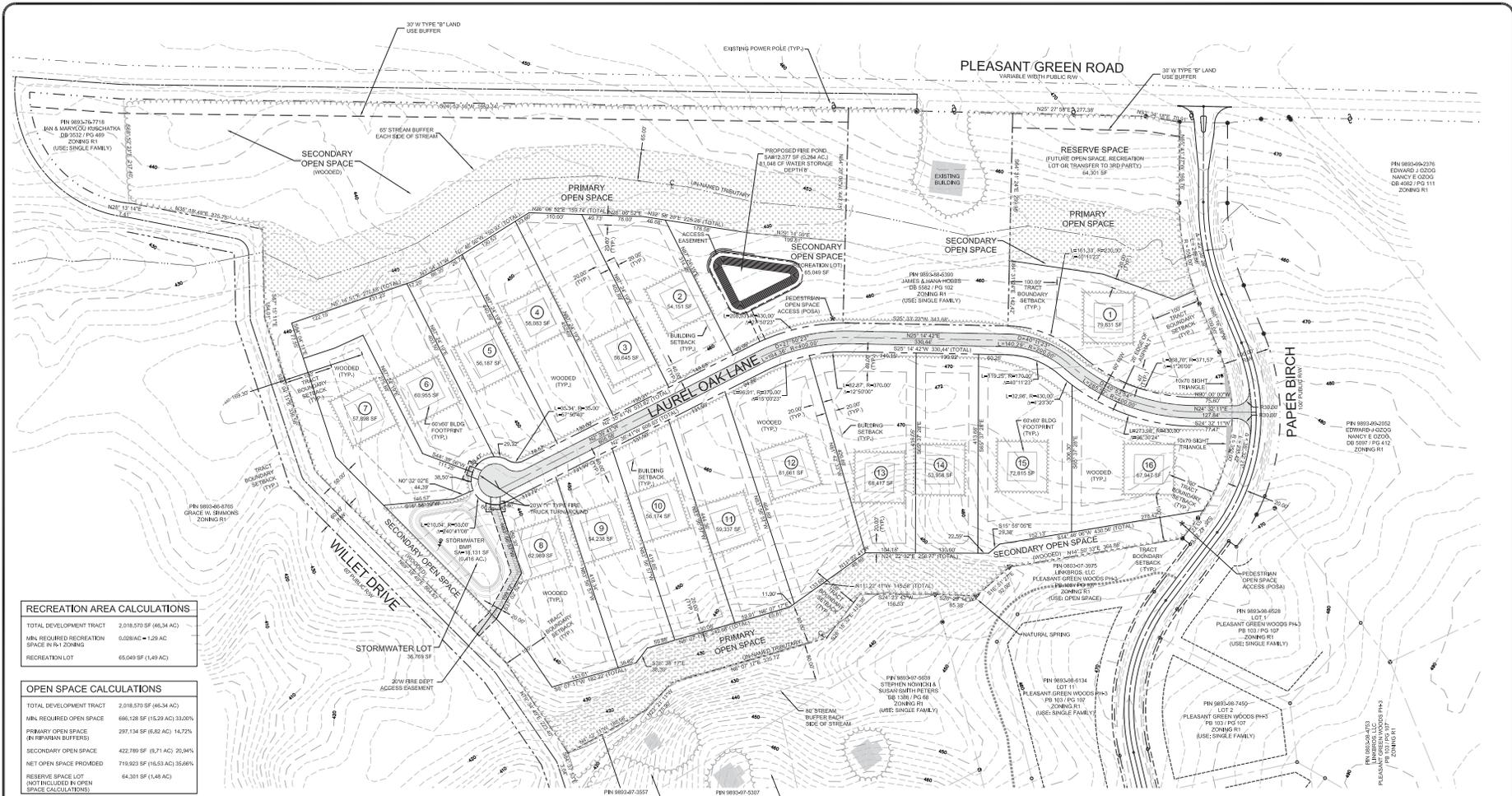
108

Approved 3/5/14

109 Terry Bolan: On the east side, that is spring fed.  
110  
111 Tony Blake: That would probably not be the one that fed the fire pond. The proximity of the road to this lot that is  
112 sort of insert, does that meet all the setbacks? So that is okay.  
113  
114 Pete Hallenbeck: The diameter of the cul-de-sac was 96 feet which was nice to see.  
115  
116 Jennifer Leaf: Actually it is not 96 feet, there was a comment by the fire marshal that he would like for it to be.  
117 They have what makes it looks like a Y here. That has been acceptable with the fire marshal.  
118  
119 Michael Harvey: On page 40 and 41 are the emails from the fire marshal.  
120  
121 Jennifer Leaf: There will be further engineering done at the preliminary plan stage.  
122  
123 Pete Hallenbeck: We have a request from the fire marshal for 96 foot radius and a proposal there is some cutouts  
124 to allow a three point turn. That sounds good.  
125  
126 Lisa Stuckey: What happens with these cutouts, you can't put anything on them?  
127  
128 Michael Harvey: It is in the right of way.  
129  
130 Terry Boylan: It would actually be a concrete surface.  
131  
132 Tony Blake: Is there any proposed square footage of the houses?  
133  
134 David Lazzo: The minimum in Pleasant Green Woods, Phase III was around 2,800. Everything we plan is 2,800  
135 feet or larger.  
136  
137 Pete Hallenbeck: Another fire related comment with regard to the 20 foot stretch that comes to the pond is to  
138 continue it on through. There have been problems in the past with that. The distance from Pleasant Green Road to  
139 the closest a house could get is almost 200 feet.  
140  
141 Terry Boylan: The shaded buffer is 65 feet; it is probably 200 feet between 150 to 200.  
142  
143 Michael Harvey: There will be a 100 foot building set back.  
144  
145 Paul Guthrie: What would be the likely timeline from now until the first occupied house?  
146  
147 David Delgado: This whole process to get out preliminary plat approval is going to likely take until September.  
148 Maybe early Spring 2015.  
149  
150 Pete Hallenbeck: Are there comments from the public? You can make a comment tonight and also a written  
151 presentation that will go into the minutes.  
152  
153 Charles Porter: I am the president of the Pleasant Green Woods Homeowners Association. I want to ask about the  
154 covenants and the homeowners association, are you planning on joining or not? How do you plan to work with us?  
155  
156 David Lazzo: There has been no plan to be part of the homeowners just yet. Our covenants will closely mirror the  
157 covenants in place for Pleasant Greens Woods, Phase III. We are calling it Pleasant Green Woods, Phase IV out  
158 of convenience.  
159  
160 Charles Porter: If you don't join the homeowners association, would you plan on doing your own homeowners  
161 association?  
162

Approved 3/5/14

163 David Lazzo: If we are not part of the existing homeowners, we would set up our own.  
 164  
 165 Susan Huffman: When you say the runoff will go into the Eno River, it has to go through the pond that is bordered  
 166 by Rapids Lane homes on the west side in Pleasant Green. I have heard from the homeowners in the past that  
 167 drainage area at the end of the pond going into the river hasn't been kept open and it backs up into their crawl  
 168 spaces. If you decrease impervious by having more impervious and having more runoff going into the streams  
 169 leading into the Eno, you have to work on keeping that channel open or it will back up.  
 170  
 171 Pete Hallenbeck: The problem is that the water way that runs and feeds that pond is not cleared enough and the  
 172 pond backs up.  
 173  
 174 Susan Huffman: I think it is at the end where the pond dumps into the river.  
 175  
 176 Lisa Stuckey: Whose responsibility is that?  
 177  
 178 Pete Hallenbeck: At this point, we can take that comment and have the planning department be aware and look at  
 179 what they can do.  
 180  
 181 David Lazzo: The ponds are designed for the flow that runs off the property to be exactly as it is today.  
 182  
 183 Terry Boylan: This is a requirement by state law.  
 184  
 185 Susan Tilley: In addition to being concerned about Paper Birch as people who live on that road, we are very  
 186 concerned about sight lines for people coming around that curve. Has there been any thought to changing the  
 187 entrance to that neighborhood onto Pleasant Green which as opposed to Paper Birch?  
 188  
 189 Pete Hallenbeck: For my edification Paper Birch is not DOT maintained? But the plan is that it will be DOT  
 190 maintained?  
 191  
 192 Terry Boylan: It is in the process of DOT accepting that.  
 193  
 194 Maxecine Mitchell: Is Paper Birch Road a cul-de-sac?  
 195  
 196 Terry Boylan: Yes. As far as access onto Paper Birch that is the best location site distance wise. It would not have  
 197 been feasible to access the neighborhood from Pleasant Green Road. We would have to cross 130 foot buffer.  
 198  
 199 Pete Hallenbeck: You already have a crossing over that stream on Paper Birch and if you come in off Paper Birch  
 200 you would be using that. If you went to Pleasant Green, there would be a second crossing across that waterway.  
 201  
 202 Terry Boylan: Right.  
 203  
 204 Maxecine Mitchell: Is Willett a regular size road, private road?  
 205  
 206 Michael Harvey: State maintained.  
 207  
 208 **MOTION** by Maxecine Mitchell to approve Planning Director's recommendation. Seconded by Buddy Hartley.  
 209 **VOTE: UNANIMOUS**  
 210  
 211 **AGENDA ITEM : ADJOURNMENT**  
 212  
 213 **MOTION:** made by Lisa Stuckey to adjourn. Seconded by Tony Blake.  
 214 **VOTE: UNANIMOUS**



**RECREATION AREA CALCULATIONS**

TOTAL DEVELOPMENT TRACT	2,018,570 SF (46.34 AC)
MIN. REQUIRED RECREATION SPACE IN R1 ZONING	0.028AC = 1.29 AC
RECREATION LOT	65,049 SF (1.49 AC)

**OPEN SPACE CALCULATIONS**

TOTAL DEVELOPMENT TRACT	2,018,570 SF (46.34 AC)
MIN. REQUIRED OPEN SPACE	696,128 SF (15.29 AC) 33.02%
PRIMARY OPEN SPACE (IN RIPARIAN BUFFERS)	297,134 SF (6.62 AC) 14.72%
SECONDARY OPEN SPACE	422,789 SF (9.71 AC) 20.94%
NET OPEN SPACE PROVIDED	719,923 SF (16.53 AC) 35.66%
RESERVE SPACE LOT (NOT INCLUDED IN OPEN SPACE CALCULATIONS)	64,301 SF (1.49 AC)

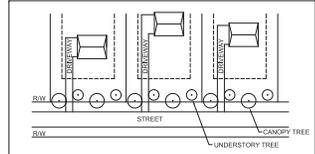
**STREET TREE REQUIREMENTS:**  
TODDYPY AND ONE UNDERSTORY TREE PER TRACT (EACH TREE PLACED EVERY 100').

LAUREL OAK LANE: 1,074 LF  
NUMBER OF REQUIRED STREET TREES: 26 CANOPY AND 28 UNDERSTORY  
REQUIRED PRIMARY TREE PROTECTION AREAS:  
FRONT, REAR AND SIDE YARD SETBACKS (SHOWN ON PLAN)  
STREAM BUFFERS (SHOWN ON PLAN)  
LAND USE BUFFERS (SHOWN ON PLAN)

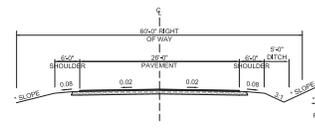
**"BETWEEN LOT" TREE PLANTING REQUIREMENTS:**  
A LANDSCAPE AREA BETWEEN LOTS EXCLUSIVE OF DRAINAGE AND/OR UTILITY EASEMENTS SHALL BE PROVIDED ALONG THE INTERIOR SIDE AND REAR LOT LINES OF EACH LOT BEING DEVELOPED. IF THERE ARE NO EXISTING TREES, THE DEVELOPER SHALL PROVIDE A MINIMUM OF ONE TREE PER ONE THOUSAND SQUARE FEET OF LAND CONTAINED WITHIN THE TEN FOOT LANDSCAPE AREA.

**ORANGE COUNTY SOLID WASTE MANAGEMENT**

- CONSTRUCTION WASTE:**
- ALL EXISTING TREES (MIN. 500 SQUARE FEET AND LARGER IN SIZE) SHALL BE ADDRESSED PRIOR TO DEMOLITION TO ENSURE COMPLIANCE WITH THE COUNTY'S REGULATED RECYCLABLE MATERIALS ORDINANCE (ORDINANCE 10-000) AND TO ADDRESS THE POTENTIAL FOR DECONTAMINATION AND/OR THE REUSE OF SALVAGEABLE MATERIALS.
  - BY ORANGE COUNTY ORDINANCE, CLEAN WOOD WASTE, SCRAP METAL, AND CORRUGATED CARDBOARD PRESENT IN CONSTRUCTION OR DEMOLITION WASTE MUST BE RECYCLED.
  - BY ORANGE COUNTY ORDINANCE, ALL HAULERS OF MIXED CONSTRUCTION AND DEMOLITION WASTE THAT INCLUDES ANY REGULATED RECYCLABLE MATERIALS SHALL BE LICENSED BY ORANGE COUNTY.
  - PRIOR TO ANY DEMOLITION OR CONSTRUCTION ACTIVITY ON THE SITE THE APPLICANT SHALL HOLD A PRE-DEMOLITION/CONSTRUCTION CONFERENCE WITH THE SOLID WASTE STAFF. THIS MAY BE THE SAME PRE-CONSTRUCTION MEETING HELD WITH OTHER PARTICIPANTS.
  - THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS (ACM) AND/OR OTHER HAZARDOUS MATERIALS IN CONSTRUCTION AND DEMOLITION WASTE SHALL BE HANDLED IN ACCORDANCE WITH ANY AND ALL LOCAL, STATE, AND FEDERAL REGULATIONS AND GUIDELINES.



**TYPICAL LOT LAYOUT**  
ALTERNATE STREET TREE LAYOUT (3 CANOPY + 8 UNDERSTORY PER 300 LF)



**NC DOT STANDARD RESIDENTIAL LOCAL ROAD WITHOUT CURB + GUTTER**

**SITE INFORMATION**

PH: PROPERTY ADDRESS: 18014970  
 4507 PLEASANT GREEN ROAD, DURHAM, NC 27705  
 PLANNING JURISDICTION: ORANGE COUNTY  
 STATE: NORTH CAROLINA  
 WATERSHED: RIVER BASIN  
 NEUSE

DB/PC: 330 / 373  
 LOT AREA: 46.34 AC (BETED - ORANGE COUNTY GIS)  
 PROPOSED USE: R1 - RURAL RESIDENTIAL, VACANT RESIDENTIAL SUBDIVISION (CONSERVATION)

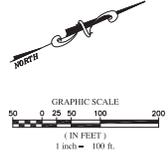
MIN REQUIRED LOT SIZE: 45,000 SF  
 OPEN SPACE REQUIRED: 157' (IN FEET)  
 OPEN SPACE PROVIDED: 62,075 SF.  
 TRACT BOUNDARY SETBACK: 107'  
 FRONT SETBACK: 40'  
 CORNER SIDE SETBACK: 40'  
 SIDE SETBACK: 29'  
 REAR SETBACK: 29'  
 BLDG HEIGHT (MAX.): 29'

WATERSHED OVERLAY DISTRICT: LENOPIWY  
 36% IMPERVIOUS SURFACE LIMIT WITHOUT C & G

PROPOSED LOTS: 16  
 OPEN SPACE PROVIDED: 15,300 AC. (33% OF TOTAL TRACT)  
 PROPOSED IMPERVIOUS SURFACE PER LOT: 6,000 SF  
 AVERAGE ESTIMATED BUILDING FOOTPRINT: 3,000 SF

WATER SERVICE: INDIVIDUAL WELLS  
 SEWER SERVICE: INDIVIDUAL SEPTIC SYSTEMS

LINEAR FEET OF NEW ROAD: 1,074 LF  
 AREA OF NEW RIGHT OF WAY: 100,530 SF (23.36 AC)



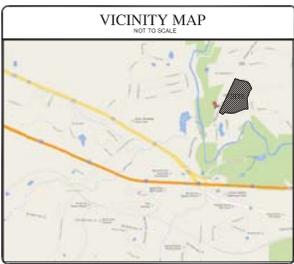
PROJECT NO.	13-0269
DRAWING NAME	13-FLEXIBLE
SHEET NO.	C-2

**PRELIMINARY PLAN**  
**PLEASANT GREEN WOODS PH-IV**  
 PAPER BIRCH LANE  
 ORANGE COUNTY, N.C. 27705

**FLEX DEVELOPMENT PLAN**

PROJECT ENGINEER/ARCHITECT: MICHAEL J. MITCHELL, ARCHITECT  
 PROJECT MANAGER: MICHAEL J. MITCHELL  
 DATE: 06-24-14

DATE: 06-24-14  
 BY: [Signature]



# PLEASANT GREEN WOODS PHASE-IV PRELIMINARY SUBDIVISION PLAN

SITE INFORMATION	
PN: 9885-01-0972	407 PLEASANT GREEN ROAD, DURHAM, NC 27705
PROPERTY ADDRESS:	ORANGE COUNTY
PLANNING JURISDICTION:	NORTH CAROLINA
STATE:	LOWER EBP PROTECTED OVERLAY DISTRICT
WATERSHED:	NEUSE
RIVER BASIN:	
DBFPG:	503 / 373
LOT AREA:	1,300,799 SF + 43,852 AC
ZONING:	R1 - RURAL RESIDENTIAL
TRACT AREA:	46.34 AC
CURRENT USE:	VACANT
PROPOSED USE:	RESIDENTIAL SUBDIVISION (CONSERVATION)
MIN REQUIRED LOT SIZE:	40,000 SF
MIN REQUIRED LOT WIDTH:	130'
FRONT SETBACK:	40'
CORNER SETBACK:	40'
SIDE SETBACK:	20'
REAR SETBACK:	20'
BLDG HEIGHT (MAX.):	20'
WATERSHED OVERLAY DISTRICT:	35% IMPERVIOUS SURFACE LIMIT WITHOUT C & G
PROPOSED LOTS:	17
OPEN SPACE REQUIRED:	15.25 AC, 33%
OPEN SPACE PROVIDED:	15.25 AC
WATER SERVICE:	INDIVIDUAL WELLS
SEWER SERVICE:	INDIVIDUAL SEPTIC SYSTEMS



GRAPHIC SCALE  
0 25 50 100 200  
( IN FEET )  
1 inch = 100 ft.

License #: F-0339  
Summit Engineering, Inc.  
1800 Westgate Blvd., Suite 100  
Durham, NC 27707-4651  
Phone: (919) 232-8888 Fax: (919) 732-9678  
www.summitengr.com

**ORANGE COUNTY  
PLANNING BOARD  
ACTION AGENDA ITEM ABSTRACT**  
Meeting Date: September 3, 2014

**Action Agenda  
Item No. 8**

**SUBJECT:** Major Subdivision Preliminary Plat Application – Stroud’s Creek

**DEPARTMENT:** Planning and Inspections

**PUBLIC HEARING: (Y/N)**

No

**ATTACHMENTS:**

1. Application Package
2. Project Vicinity Map
3. Staff Generated Correspondence
4. Excerpt of Approved Minutes from June 4, 2014 Planning Board

Under Separate Cover:

Preliminary Plat (Including Color Rendering)

**INFORMATION CONTACT:**

Patrick Mallett, Planner II (919) 245-2577  
Michael D. Harvey, Planner III (919) 245-2597  
Craig Benedict, Director (919) 245-2575

**PURPOSE:** To review and take action on a Major Subdivision Preliminary Plat application proposing a 14 lot single-family residential subdivision in accordance with the provisions of Section 2.15 and Article 7 *Subdivisions* of the Unified Development Ordinance (UDO).

**BACKGROUND:** The basic facts concerning the current application are as follows:

**Applicant(s):** Stephens Road Partners  
C/o Mr. Glenn Futrell  
1050 Towerview Court  
Cary NC, 27513

**Owner:** Waterford Sterling LLC  
214 South Kings Street  
Leesburg VA, 20175

**Agent(s):** Summit Engineers  
C/o Mr. Terry Boylan and Mr. Chad Abbott  
504 Meadowland Drive  
Hillsborough, NC 27278

**Location:** Stroud’s Creek Road - Please refer to Attachment 2 for a vicinity map of the parcel.

**Parcel Information:**

- a. **PIN:** 9875-08-0900.
- b. **Size of Parcel:** 25.3 acres in area.
- c. **Zoning of Parcel:** Agricultural Residential (AR) and Special Flood Hazard Area Overlay District (SFHA).

The property is not located within a Watershed Protection Overlay District.

- d. **Township:** Hillsborough.
- e. **School District:** Orange County.
- f. **Future Land Use Map Designation:** Agricultural Residential and Rural Industrial Activity Node. Please refer to Attachment 2 for additional detail.
- g. **Growth Management System Designation:** Rural.

It needs to be remembered the Growth Management System Map was developed in an attempt to differentiate the impacts of a rural versus urban subdivision (i.e. utility service, density, traffic impacts, etc.) and identify an appropriate development review process for a given project at specific densities.

This map is not the tool utilized to determine whether or not a project should be allowed to utilize existing public services. The tool is known as the Water and Sewer Management Planning Boundary Agreement (WASMPBA) and map.

And, as articulated herein, this property is located within a primary utility service area where water/sewer is available to allow development.

- h. **Existing Conditions/Physical Features:** Varying topography with heavy vegetation, primarily mixed hardwoods, throughout.

There are streams running through the property with varying slopes. Portions of the property are also encumbered by floodplain and wetlands.

- i. **Roads:** Vehicular access to the subdivision is proposed via Stroud's Creek Road, a NCDOT publicly maintained roadway.

The subdivision proposes to build a public road (27' wide curb and gutter pavement within a 40' public right-of-way) that terminates in a cul-de-sac. The site is bordered by streams, floodplain and the Pathways Elementary School. Therefore, no additional public or private vehicular access to adjacent properties is proposed or required.

The public road is designed to meet or exceed NCDOT and/or Town of Hillsborough residential street design standards. The cul-de-sac portion of the road is also designed to meet Orange County Fire and Emergency Services design preferences.

- j. **Water and Sewer Service:** The property is located within a primary public utility service area according to the Water and Sewer Management Planning Boundary Agreement (WASMPBA). The proposed residential lots will be served with public water (via a 4" domestic and 8-12" fire lines), and public sewer (via an 8" sanitary sewer line) by the Town of Hillsborough.

- Surrounding Land Uses:**
- a. **NORTH:** Stroud's Creek Road; an undeveloped single-family residential subdivision comprised of 40 lots all ten acres or more in size.
  - b. **SOUTH:** Property is within the corporate limits of the Town of Hillsborough. The property is slated for development as an office / industrial park. There is also an undeveloped 78 acre parcel within the County's Planning jurisdiction that is zoned AR.
  - c. **EAST:** Church on property zoned AR; NC Highway 57.
  - d. **WEST:** Pathways Elementary School zoned AR.

**Development Process, Schedule, and Action:** The typical cadence for the review of a major subdivision is as follows:

- **First Action** – Planning staff schedules a Neighborhood Information Meeting (NIM).  
**Staff Comment – DONE.** This meeting was held on May 14, 2014.
- **Second Action** – The Planning Board reviews and takes action on the Concept Plan application approving either the 'conventional' or 'flexible development' layout.  
**Staff Comment – DONE.** The Planning Board reviewed the Concept Plan at its June 4, 2014 regular meeting and approved the Flexible Design Option. Agenda materials from this meeting can be viewed at:  
<http://orangecountync.gov/planning/documents/6.4.14PBPacket.pdf>  
Minutes from this meeting are contained in Attachment 4.
- **Third Action** – Once a concept plan is approved, the Planning Board reviews and makes a recommendation on the approval of the Preliminary Plat for the project.  
**Staff Comment – Pending.** The Planning Board is scheduled to begin review of the Preliminary Plat at its September 3, 2014 regular meeting.
- **Fourth Action** – The BOCC reviews and take action on the Preliminary Plat application at its scheduled October 21, 2014 meeting.
- **Fifth Action** – Once all construction activities have been completed, or appropriate bonds have been approved, staff will sign off and allow the recordation of a Final Plat allowing for the individual lots to be created.

**Proposal:** The petitioner has submitted a Major Subdivision Preliminary Plat application proposing to develop a 14 single-family residential subdivision with an overall proposed density for the project of 1 dwelling unit per every 1.8 acres of land area with approximately 17.21 acres (67.96% of the site) of dedicated open space.

The following modification(s) have been made to the Preliminary Plat application in an effort to address staff, Planning Board, and adjacent property owner comments associated with the approved Concept Plan:

1. Proposed lot lines were adjusted to comply with NC Department of Transportation (NC DOT) requirements on the development of the roadway, to accommodate infrastructure needs (i.e. utility lines, stormwater, etc.), and to reduce potential impacts to existing environmentally sensitive areas.
2. The Stormwater basin was revised to comply with Orange County Erosion Control standards and to avoid placing said infrastructure within identified environmentally sensitive areas.

A summary of the proposal is as follows:

<b>Subdivision Type</b>	<b>Number of Lots</b>	<b>Average Lot Size</b>	<b>Area in Open Space</b>	<b>Open Space Percentage</b>
Conservation Cluster Flexible Development Plan	14	20,914 sq. ft.  (Ranging from 16,012 sq. ft. to 39,794 sq. ft.)	17.21 acres	67.96% in common open space  (33% required by the UDO)

**STAFF COMMENT – UDO REQUIREMENTS:** The proposal is in accordance with the anticipated densities for properties located within the Agricultural Residential land use category as defined within the adopted Comprehensive Plan, and Rural designated areas as denoted on the Growth Management Systems Map. The size of the parcels is consistent for projects served by public water and sewer.

It should be noted that in absence of such services, reduction of minimum lot sizes below one acre would be prohibited.

**Roads:** The proposal involves the creation of a single public road to service the project, constructed to applicable NC Department of Transportation (DOT) and Town of Hillsborough roadway standards. The applicant intends to turn this road over for maintenance to the appropriate entity once the development is completed.

Specifically, the plan calls for:

- A roadway, approximately 660 linear feet in length, terminating in a cul-de-sac.
- The construction of the proposed roadway will not involve any stream crossings.

There are no opportunities for connectivity associated with this project. To do so would require the crossing of a major stream and floodplain. Also the southern property, which is in the Town of Hillsborough's corporate limits, is being developed as a commercial/industrial park with no street stub connections.

**STAFF COMMENT - ROADS:** Staff has determined that the proposed roadway construction and layout is consistent with the requirements of the UDO. It also avoids impacting environmentally sensitive areas (e.g. wetlands and streams).

In reviewing the matter with Mr. D'Angelo Jones of NC DOT and Ms. Margaret Hauth of the Town of Hillsborough, staff indicated they have no concerns over the proposed roadway development, or its proposed public street access to Stroud's Creek Road.

If desired by the Orange County School System and NCDOT, the developer has proposed the construction of a 5' wide sidewalk along the right-of-way of Stroud's Creek Road. The sidewalk would be located within or alongside the right-of-way of the new residential street connection to the second access drive for Pathways Elementary School.

**Utilities:** The applicant is proposing to serve the project with public water and sewer provided by the Town of Hillsborough. The applicant has indicated that, where allowed and feasible, electrical utility services for the residential homes will be located below ground.

**STAFF COMMENT - UTILITIES:** The Town of Hillsborough has already approved (and provided a utility agreement) to serve the property with public water (4" domestic line and 8-12" fire line) and a 8" sanitary sewer line. Please refer to an e-mail from Mr. Kenny Keel, Town of Hillsborough, contained within Attachment 3 for additional information.

**Stormwater Drainage:** Drainage will be engineered according to Best Management Practices (BMP) at the time of permit application for construction. The property is subject to recently adopted stormwater management guidelines limiting total nitrogen runoff of 2.2 pounds per acre annually and 0.33 pounds per acres annually for total phosphorus.

**STAFF COMMENT – STORMWATER DRAINAGE:** Orange County Erosion Control has indicated the applicant will need to submit a detailed stormwater management plan for the project for review and approval prior to the commencement of land disturbing activities. The project will also require an Erosion Control permit. Please refer to Attachment 3 for additional information.

**Open Space:** The flexible development plan denotes the maintenance of a 30' wide natural buffer along Stroud's Creek Road and a 100-foot building setback along the perimeter of the project. Primary and Secondary Open Space is identified in and around the existing streams and off of the denoted floodplain areas. The total area preserved as primary and secondary open space is approximately 749,847 square feet (17.21 acres). The proposed open space is comprised of existing, mature, vegetation and trees with an approximate height of between 30 to 50 feet. The area is also heavily encumbered with identified floodplains and delineated wetlands.

**STAFF COMMENT – OPEN SPACE:** Staff has determined the proposed open space and land use buffers meet the requirements of the UDO.

The developer has also proposed a 50' wide Pedestrian Open Space Area (POSA) connection at the residential street (between lots 13 and 14) that would continue along the rear of lots 9-13 to connect to the sanitary sewer easement along the southern portion of the property. If desired by the Town of Hillsborough, the developer has also offered to provide a pedestrian access easement in conjunction with the sanitary sewer easement along the southern portion of the property. These provisions would provide the opportunity to have publically accessible open space on all sides of the development.

**Land Use Buffers:** The site plan indicates there will be a 30-foot buffer along Stroud's Creek Road comprised of existing, dense, vegetation composed of existing, mature, shrubs and trees with an approximate height of between 50 to 70 feet.

**STAFF COMMENT – LAND USE BUFFER:** Section 6.8.6 (D) of the UDO requires that this project maintain a thirty (30) foot land use buffer separating the project from adjacent

roadways. Staff has determined the proposed open space and land use buffers meet the requirements of the UDO.

Staff Generated Correspondence: Attachment 3 contains the various comments for this project as of the date of abstract preparation.

Analysis: As required under Section 2.15.2 (E) of the UDO, the Planning Director is required to: *'prepare and submit a recommendation'* on the concept plan to the Planning Board for consideration. In analyzing this request, the Planning Director offers the following:

1. The application has been deemed complete in accordance with the requirements of Section 2.2 and 2.15.2 of the UDO.
2. Staff has determined that the property is of sufficient size to support the proposed subdivision.
3. The proposal appears consistent with the various goals outlined within the Comprehensive Plan concerning development, including:
  - a. Land Use Overarching Goal: *Coordination of the amount, location, pattern, and designation of future land uses, with availability of County services and facilities sufficient to meet the needs of Orange County's population and economy consistent with other Comprehensive Plan element goals and objectives.*
  - b. Land Use Goal 2: *Land uses that are appropriate to on-site environmental conditions and features and that protect natural resources, cultural resources, and community character.*
  - c. Land Use Goal 3: *A variety of land uses that are coordinated within a program and pattern that limits sprawl, preserves community and rural character, minimizes land use conflicts, supported by an efficient and balanced transportation system.*
4. Staff supports the approval of the Preliminary Plan with the flexible development option as proposed by the applicant.

**FINANCIAL IMPACT:** Staff has determined the project would not require augmentation of County budgetary outlays to support services and that anticipated revenues from property taxes should supplement increases in cost.

**RECOMMENDATION:** The Planning Director recommends the Board:

1. Receive the Preliminary Plat application,
2. Deliberate on the proposal, and
3. Recommend approval of the proposal.

APPLICATION FOR PRELIMINARY PLAN APPROVAL  
MAJOR SUBDIVISION

ORANGE COUNTY

5/05

PLEASE TYPE OR PRINT (INK ONLY)

DATE: 7/2/14

SUBDIVISION NAME: STROUDS CREEK

LOCATION: STROUDS CREEK ROAD

OWNER/DEVELOPER: STEVENS ROAD PARTNERS LLC

ADDRESS: 150 TOWERVIEW COURT TELEPHONE NO.: (919) 612-5245  
CAMP, NC 27513

AGENT/CONTACT: GLEN FUTRELL

ADDRESS: 150 TOWERVIEW COURT TELEPHONE NO.: (919) 612-5245  
CAMP, NC 27513

PLN: 9875-08-0900

**A SUMMARY INFORMATION**

Orange County Tax Map      Block      Lot(s)      Township HILLSBOROUGH

Zoning District(s): AF

Total Number of Acres: 25.33

Total Number of Lots: 14 Average Lot Size: 19,617 S.F. Minimum Lot Size: 14,000 S.F.

Number/Type of Structures: (existing) 0 (proposed) 14 HOUSES

Linear Feet in Streets:      Acres in Open Space:     

Water Supply: HILLSBOROUGH Public (specify)      Community      Individual     

Wastewater Disposal: HILLSBOROUGH Public (specify)      Community      Individual     

School District: ORANGE COUNTY Fire District: ORANGE RURAL F.D.

General Land Uses in Area: (E) CHURCH (W) SCHOOL (N) RESIDENTIAL (S) COMMERCIAL

Critical Areas: STROUDS CREEK FLOOD PLAIN/BUFFER stream/drainageways N/A flood prone areas     

LOWER END UNPROTECTED watershed (specify) N/A historic sites     

other (explain)     

Is the property to be subdivided currently under "farm use value taxation"? Yes      No X. If "yes," please contact the Orange County Tax Office. Subdivision of the property may require payment of deferred taxes under "farm use value taxation."

**B** All plats must be submitted on sheet no smaller than one inch equals two-hundred feet (1"=200') and no larger than one inch equals twenty feet (1"=20') and must contain the following information:

- |                                     |             |  |                                     |             |  |
|-------------------------------------|-------------|--|-------------------------------------|-------------|--|
| <input checked="" type="checkbox"/> | <u>    </u> | subdivision name   | <input checked="" type="checkbox"/> | <u>    </u> | zoning of tract and adjacent properties  |
| <input checked="" type="checkbox"/> | <u>    </u> | name & address of owner(s)   | <input checked="" type="checkbox"/> | <u>    </u> | building setback lines by notation or typical lot layout   |
| <u>N/A</u>                          | <u>    </u> | name & address of subdivider (if other than owner)   | <input checked="" type="checkbox"/> | <u>    </u> | location and width of existing and proposed easements (drainage, utilities, roads, etc.)   |
| <input checked="" type="checkbox"/> | <u>    </u> | name of surveyor, engineer, landscape architect or architect, address, registration # & seal | <input checked="" type="checkbox"/> | <u>    </u> | Existing, proposed and adjoining rights-of-way including dimensions and street names and State Road numbers. Linear feet of road centerlines and approximate acreage of new street rights-of-way |
| <input checked="" type="checkbox"/> | <u>    </u> | (title) Preliminary Plan   | <input checked="" type="checkbox"/> | <u>    </u> | existing and proposed utilities, including type, sizes, hydrants, valves, manholes   |
| <input checked="" type="checkbox"/> | <u>    </u> | scale, north arrow   | <input checked="" type="checkbox"/> | <u>    </u> | existing and proposed curbs, gutters and culverts, including sizes and grades  |
| <input checked="" type="checkbox"/> | <u>    </u> | date of plan preparation and revisions   |                                     |             |  |
| <input checked="" type="checkbox"/> | <u>    </u> | township, tax map-block-lot references   |                                     |             |  |
| <input checked="" type="checkbox"/> | <u>    </u> | Parent Parcel Identification #   |                                     |             |  |
| <input checked="" type="checkbox"/> | <u>    </u> | deed book and page # of property to be subdivided  |                                     |             |  |
| <input checked="" type="checkbox"/> | <u>    </u> | boundary described with bearings and distances   |                                     |             |  |

<input checked="" type="checkbox"/>	total acreage of the tract and acreage of lots, including and excluding area within rights-of-way control corner	<input checked="" type="checkbox"/>	location and width of alleys, sidewalks, bike lanes, transit systems, and bus stops
<input checked="" type="checkbox"/>	proposed lot lines with dimensions	<input checked="" type="checkbox"/>	typical street cross-sections and intersection details including design and width of travelway and shoulders
<input checked="" type="checkbox"/>	lot & block numbers	<input checked="" type="checkbox"/>	horizontal alignment, centerline radius, and general curve data on all proposed streets
<input checked="" type="checkbox"/>	phasing line(s)	<input checked="" type="checkbox"/>	permanent features such as buildings, cemeteries, historic landmarks
<input checked="" type="checkbox"/>	topography at ten (10) foot intervals	<input checked="" type="checkbox"/>	adjoining lot layout names of adjoining property owners. If subdivided, subdivision plat name, plat book & page number, and perimeter lot numbers.
<input checked="" type="checkbox"/>	water bodies, streams, floodways and floodplains	<input checked="" type="checkbox"/>	location and size of lots of restricted development potential and notation on plat regarding same
<input checked="" type="checkbox"/>	stream buffers	<input checked="" type="checkbox"/>	stormwater detention and/or retention sites and undisturbed areas for infiltration purposes (if located in water supply watershed)
<input checked="" type="checkbox"/>	location and size of parcels dedicated for public use, recreational use or reserved in common, with purpose noted	<input checked="" type="checkbox"/>	Identified natural areas and wildlife corridors
<input checked="" type="checkbox"/>	impervious surface data (if located in water supply watershed)		
<input checked="" type="checkbox"/>	vicinity map showing general location of subdivision with streets and roads identified by State Road number and name		
<input checked="" type="checkbox"/>	landscaping and buffer requirements		
<input checked="" type="checkbox"/>	township, corporate and extraterritorial planning jurisdiction lines which cross the property		

**C OTHER SUBMITTAL REQUIREMENTS:**

1. Twenty-five (25) copies of the Preliminary Plat.
2. One full size copy of an Orange County Tax Map (with tax parcels involved clearly marked).
3. Where municipal or OWASA sewer is not available, a copy of the Preliminary Plat indicating Health Department approval/denial for each lot show thereon.
4. Where a private road is proposed, a written statement by the applicant or his/her authorized representative which sets for the justification for a private road (see Section IV-B-3-d-1 of the Orange County Subdivision Regulations).
5. Auxiliary documents, in draft form, prepared in accordance with Section VI of this Ordinance which assure completion and/or maintenance of improvements required by this Ordinance. Such documents may include, but not be limited to, a private road maintenance agreement and articles of incorporation and restrictive covenants pertaining to a homeowners association. These documents may be required as necessary as evidence that the ordinance requirements are being met.
6. Fee - \$500 plus \$5.00 per lot (one fee for Preliminary and Final Plat).
7. If the subdivision contains 10 lots or more, the following information shall be submitted with the application:
  - a. Number of years to buildout.
  - b. Number of houses to be built during each year until buildout.
  - c. Average price of houses including lots for each year to buildout.

I certify that to the best of my knowledge the information contained above, and in the supporting documents, is a factual representation of the proposed development. I acknowledge that by signing this application, the Orange County Planning and Inspections Department is authorized, pursuant to N.C. Gen. Stat. Section 153a-360, to make as many inspections of the subject property as may be necessary to verify that the proposed work outlined herein is consistent with the provisions of all applicable State and local laws, ordinances and regulations. By signing this application, I acknowledge and agree that inspectors, zoning officers, erosion control officers, and other staff of the Orange County Planning & Inspections Department have a right, upon presentation of proper credentials, to enter the subject property at any reasonable hour for the purposes of inspection or other enforcement action.

*Stephens Road Partners, LLC*

*Dumbarton Ventures, LLC*

*Glenn Futchill*      6-26-14

*Glenn Futchill*      6-26-14

APPLICANT'S SIGNATURE

DATE

OWNER'S SIGNATURE

DATE

FEES: Amount \_\_\_\_\_ Date Paid \_\_\_\_\_ Receipt # \_\_\_\_\_

AR

# Attachment 2 - Vicinity Map

Pathways Elementary School

Subject Parcel

STROUDS CREEK RD

Lower End  
Unprotected  
Watershed

Falls Lake  
Nitrogen - 2.2 lbs/ac/yr  
Phosphorous - 0.43 lbs/ac/yr

Variable width stream buffer

Variable width stream buffer

Town of Hillsborough

HI

PIN#: 9875080900  
LLC WATERFORD STERLING

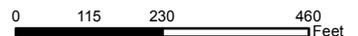
214 S KING ST  
LEESBURG, VA 20175

Data shown on this map is obtained from Orange County GIS and is for reference only. Exact locations and boundaries should be verified. Map prepared by Orange County Planning & Inspections.

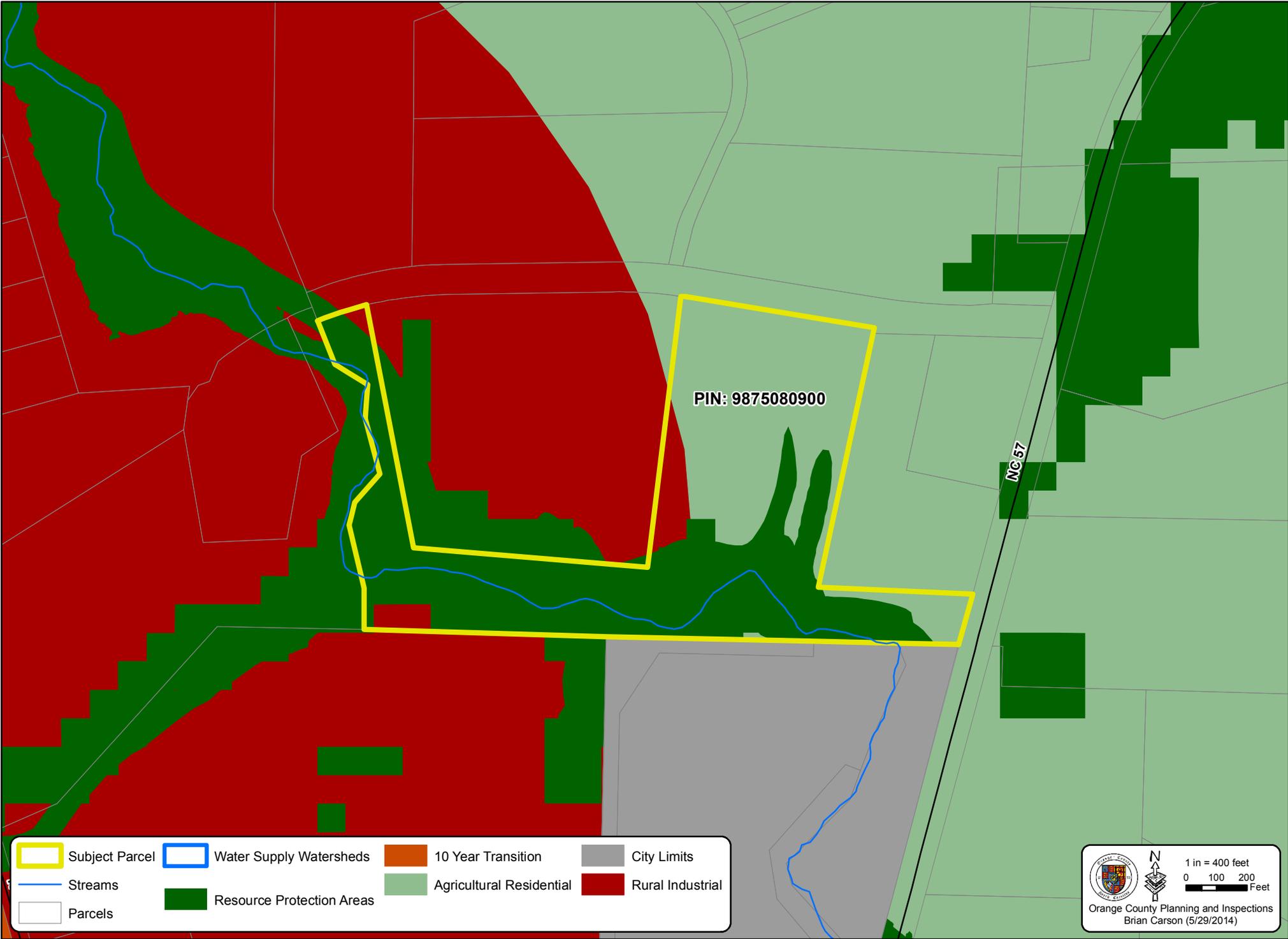
- USGS Water Feature
- Soils Survey Water Feature
- OC Updated Water Feature
- Water Body
- River Basins
- Watershed
- Parcels
- Township
- School System Boundary
- Contours
- County Boundary
- Soils
- Zoning
- City Limits
- ETJ
- Conservation Easements Held by Others
- Orange County Conservation Easements
- 100 YR Floodplain (Effective 02/02/07)
- Floodway (Effective 02/02/07)
- 500 YR Floodplain (Effective 02/02/07)
- Buildings
- Water and Sewer Boundary



1 inch = 300 feet



# Future Land Use Map



	Subject Parcel		Water Supply Watersheds		10 Year Transition		City Limits
	Streams		Resource Protection Areas		Agricultural Residential		Rural Industrial
	Parcels						

 1 in = 400 feet  
0 100 200 Feet

Orange County Planning and Inspections  
Brian Carson (5/29/2014)



August 13, 2014

Mr. Patrick R. Mallett  
Orange County  
Planning Department  
PO Box 8181  
Hillsborough, NC 27278

**Re: Staff Review Major Subdivision Preliminary Plan application for Stroud's Creek Major Subdivision 25.33 acres located at southwest of intersection of NC Highway 57 and Strouds Creek Road (Orange County PIN 9875-08-0900)**

Mr. Mallett:

On behalf of our client and the applicant, Mr. Glenn Futrell, Summit Design and Engineering Services is providing responses to all comments/concerns received July 31, 2014 following our Preliminary Plan application submitted on July 2, 2014.

Summit Design and Engineering Services will be more than happy to address and provide any clarification needed on the attached responses and looks forward to discussing these matters with you or the respective review agencies and boards further.

Sincerely,

SUMMIT DESIGN AND ENGINEERING SERVICES

*Terry Boylan*

Terry Boylan RLA, LEED AP  
Project Manager

**Comments Received July 31, 2014**

*Responses to review comments are in Bold Red Italics.*

**Orange County Current Planning:****General Comments:**

1. We request that you continue to work with:
  - a. The Town of Hillsborough to coordinate municipal water and sewer service extension for the project;  
*Response: Noted. Will do.*
  - b. Orange County Schools to provide a sidewalk to Pathways Elementary School; and  
*Response: Noted. Will do.*
  - c. NCDOT to ensure the dedication of right-of-way along NC Hwy 57 and any necessary encroachments for the sidewalk on Stroud's Creek.  
*Response: Noted. Will do.*

**Site Analysis (Sheet C-1):**

1. Remove the acreage from behind the Zoning line in the site information table.  
*Response: Acreage reference removed.*
2. Include initial submittal and revision dates in the title block.  
*Response: Initial submittal and revision dates added to title block.*

**Flexible Development Plan (Sheet C-2):**

1. Show the 50' wide POSA area that was provided with the concept plan behind Lots 13-4.  
*Response: Added.*
2. Show the sidewalk and notes that were on the approved Concept Plan.  
*Response: Added.*
3. Show the proposed pedestrian easement and notes that were on the approved Concept Plan.  
*Response: Added.*
4. Show the 100' building setback on the eastern property lines (especially on lot #14 where a 100' wide dimension was given, but not labeled).  
*Response: Added.*

5. Due to the limited lot frontage, please consider providing a typical lot layout illustrating 2-3 lots with driveway curb cuts, utility lines, landscape lot plantings etc. This will avoid the potential for conflicts.

*Response: Typical lot layout added.*

**Orange County Environmental Health:**

1. The proposed lots for Stroud's Creek Subdivision will be served by public water and sewer. No site/soil evaluations were requested for the proposed lots. No Environmental Health Permits will be required.

*Response: Noted.*

**Orange County Fire Marshal:**

1. None.

*Response: Noted.*

**Orange County Solid Waste Management:**

1. Solid Waste Management Plan – This document must be filled and returned to me for review and approval.

*Response: Noted.*

2. OCSW Standard Notes – Add the following standard notes to Plan Sheet C-2 (Flexible Development Plan):

Construction Waste:

1. All existing structures 500 square feet and larger in size shall be assessed prior to demolition to ensure compliance with the County's Regulated Recyclable Materials Ordinance (RRMO) and to assess the potential for deconstruction and/or the re-use of salvageable materials.
2. By Orange County Ordinance, clean wood waste, scrap metal, and corrugated cardboard present in construction or demolition waste must be recycled.
3. By Orange County Ordinance, all haulers of mixed construction and demolition waste that includes any regulated recyclable materials shall be licensed by Orange County.
4. Prior to any demolition or construction activity on the site the Applicant shall hold a pre-demolition/pre-construction conference with the Solid Waste staff. This may be the same pre-construction meeting held with other development/enforcement officials.
5. The presence of any asbestros containing materials ('ACM') and/or other hazardous materials in construction and demolition waste shall be handled in accordance with any and all local, state, and federal regulations and guidelines.

*Response: Above notes added to sheet C-2.*

**Orange County Erosion Control / Stormwater Comments:**

1. Preliminary plan is acceptable with regards to Erosion Control and Stormwater. However, official permit submittals will be necessary at construction drawing phase with specific designs and supporting calculations.

*Response: Noted.*

2. Note, final Stormwater plans for the BMP behind Lot #7 will need to adhere to location and diffuse flow requirements for the adjacent stream buffer zone.

*Response: Noted.*

**Orange County DEAPR:**

1. None.

*Response: Received under separate letter. Noted.*

**Town of Hillsborough Comments (Margaret Hauth):**

1. An improved pedestrian connection to the adjacent school should/could be considered.

*Response: A sidewalk is proposed along the south side of Stroud's Creek Road from the proposed cul-de-sac to the east-most school driveway.*

2. An improved greenway or easement for a future greenway in the open space or utility easements proposed in the project to improve general community access to the Pathways school. The Town Engineer has indicated that, related to the section on "Open Space," that he does not have an issue with use of the sewer easements for public access to open space. The town has previously required applicants to make walkway improvements within a specified timeframe of being notified that the town or an adjacent development is extending such improvements to a project site.

*Response: Noted. It is understood that no physical greenway improvements are required to be made in the public easements until such time as the Town extends a greenway system out to that area.*

3. Why not allow/require further lot reductions so that required stream buffers will not be located on private property? Doing so may help lessen the potential for illegal uses of the buffers.

*Response: Orange County Planning has agreed to allow some minor lot encroachment in the stream buffers due to the 68% open space already available on this tract. Stream buffers are 65' to 80' wide in the lot encroachment areas.*

**PLANNING & INSPECTIONS DEPARTMENT**  
**Craig N. Benedict, AICP, Director**

**Administration**  
**(919) 245-2575**  
**(919) 644-3002 (FAX)**  
**www.orangecountync.gov**



**131 W. Margaret Lane**  
**Suite 201**  
**P. O. Box 8181**  
**Hillsborough, NC 27278**



July 31, 2014

Mr. Terry Boylan, RLA  
 Summit Design and Engineering  
 504 Meadowland Drive  
 Hillsborough, NC 27513

**Re: Staff Review Major Subdivision Preliminary Plan application for Stroud's Creek Major Subdivision 25.33 acres located at southwest of the intersection of NC Highway 57 and Strouds Creek Road (Orange County PIN 9875-08-0900).**

Dear Mr. Boylan:

On July 2, 2014, the Orange County Planning Department received a Preliminary Plan application for a Major Subdivision named Stroud's Creek. This application request follows a Concept Plan for the same project that was approved by the Orange County Planning Board and the Planning director on June 4, 2014.

The Preliminary Plan calls for 14 single family-residential lots ranging in size from 16,012 square feet to 39,794 square feet. The plan utilizes the Flexible Design Option (UDO Section 7.13) with 17.21 acres of Primary and Secondary Open Space.

On Thursday, July 17, 2014, the Orange County Development Advisory Committee (DAC) met and reviewed the Preliminary Plan. The following comments are from that meeting, and other staff reviews for the project. Please review these comments, address and revise the submittal accordingly. Please provide us with eight (8) sets of revised plans with written responses no later than Aug 13, 2014 so that revisions may be incorporated into the packets for the September 3, 2014 Planning Board meeting. The Preliminary Plan request will then proceed to the Orange County Board of Commissioners for a vote on October 21, 2014.

**Orange County Current Planning:**

**General Comments:**

1. We request that you continue to work with:
  - a. The Town of Hillsborough to coordinate municipal water and sanitary sewer service extensions for the project;
  - b. Orange County Schools to provide a sidewalk to the Pathways Elementary School; and

- c. NCDOT to ensure the dedication of right-of-way along NC Hwy. 57 and any necessary encroachments for the sidewalk on Stroud's Creek.

**Site Analysis (Sheet C-1)**

1. Remove the acreage from behind the Zoning line in the site information table.
2. Include initial submittal and revision dates in the title block.

**Flexible Development Plan (Sheet C-2)**

1. Show the 50' wide POSA area that was provided with the concept plan behind Lots 13-4.
2. Show the sidewalk and notes that were on the approved Concept Plan.
3. Show the proposed pedestrian easement and notes that were on the approved Concept Plan.
4. Show the 100 building setback on the eastern property line (especially on lot #14 where a 100 wide dimension is given, but not labeled).
5. Due to the limited lot frontage, please consider providing a typical lot layout illustrating 2-3 lots with driveway curb cuts, utility lines, landscape lot plantings etc. This will avoid the potential for conflicts.

**Orange County Environmental Health:**

1. The proposed lots for Stroud's Creek subdivision will be served by public water and sewer. No site/soil evaluations were requested for the proposed lots. No Environmental Health Permits will be required.

**Orange County Fire Marshal:**

1. None.

**Orange County Solid Waste Management:**

1. See attached memo and SWM Plan Form.

**Orange County Erosion Control / Stormwater Comments:**

1. Preliminary plan is acceptable with regards to Erosion Control and Stormwater. However, official permit submittals will be necessary at construction drawing phase with specific designs and supporting calculations.
2. Note, final Stormwater plans for the BMP behind Lot #7 will need to adhere to location and diffuse flow requirements for the adjacent stream buffer zone.

**Orange County DEAPR:**

1. None

**Town of Hillsborough Comments:**

1. See attached letter from town of Hillsborough Planning Director.

Staff looks forward to continuing our work with you on the Stroud's Creek project. Should you have any additional questions, please call me at (919) 245-2577, or e-mail me at [pmallett@orangecountync.gov](mailto:pmallett@orangecountync.gov).

Very Respectfully,



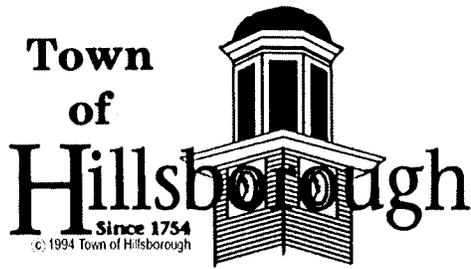
Patrick R. Mallett, Planner II  
Orange County Planning & Inspections Department

Attachments:

1. Town of Hillsborough Courtesy Review Letter dated July 28, 2014
2. Orange County Health Department Memo dated July 30, 2014
3. Solid waste management Memo dated July 18, 2014 and SWM Application

CC:

Michael Harvey, Current Planning Supervisor  
Craig Benedict, Planning Director; and  
File.



July 28, 2014

Mr. Pat Mallett  
 Orange County Planning & Inspections  
 P.O. Box 8181  
 Hillsborough, NC 27278

Dear Pat,

Thanks for dropping of the Courtesy Review information Stroud's Creek subdivision. This letter contains our comments.

The project site is outside the town's current ETJ, but is adjacent to a satellite portion of the city limits to the south. The section on "Surrounding Land Uses," if updated for future Board presentations, could be revised to reflect that the property in the Town's corporate limits is zoned LI (Light Industrial) & a Conditional Use Permit was granted in 2013 for the development of a 12-lot subdivision.

The site has an approved Water and Sewer Extension contract with the town that DOES NOT require annexation of the site. Based on Town Board discussion during approval of that contract, the town is not interested in annexing this site.

While this site is beyond the area covered by any adopted town plans for pedestrian access or connectivity, the town offers the following suggestions to improve the proposal:

1. An improved pedestrian connection to the adjacent school should/could be considered.
2. An improved greenway or easement for a future greenway in the open space or utility easements proposed in the project to improve general community access to the Pathways school. The Town Engineer has indicated that, related to the section on "Open Space," that he does not have an issue with use of the sewer easements for public access to open space. The town has previously required applicants to make walkway improvements within a specified timeframe of being notified that the town or an adjacent development is extending such improvements to a project site.
3. Why not allow/require further lot reductions so that required stream buffers will not be located on private property? Doing so may help lessen the potential for illegal uses of the buffers.

Please contact myself or Tom King, Senior Planner if you require additional information.

Sincerely,

Margaret A. Hauth, AICP  
 Planning Director



July 30, 2014

SOIL/SITE Evaluation Summary for:

Stroud's Creek

PIN: 9875080900

Map Date No Date

The proposed lots for Stroud's Creek subdivision will be served by public water and sewer. No site/soil evaluations were requested for the proposed lots. No Environmental Health Permits will be required.

# MEMORANDUM

**TO:** PATRICK MALLET, PLANNER II, ORANGE COUNTY PLANNING DEPARTMENT  
**FROM:** JEFF SCOUTEN, ORANGE COUNTY SOLID WASTE MANAGEMENT  
**SUBJECT:** STROUD'S CREEK SUBDIVISION PLAN REVIEW COMMENTS – PLANS NOT DATED  
**DATE:** JULY 18, 2014

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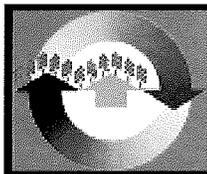
I have completed my review of the subject plan and the following comments must be addressed before I can offer my recommendation for approval:

- Solid Waste Management Plan – This document must be filled and returned to me for review and approval. A copy of this document will be attached in the e-mail used to transmit these review comments to you that you can send to the applicant.
- OCSW Standard Notes – Add the following standard notes to Plan Sheet C-2 (Flexible Development Plan):

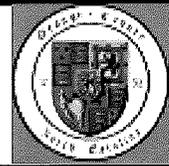
Construction Waste:

1. All existing structures 500 Square Feet and larger in size shall be assessed prior to demolition to ensure compliance with the County's Regulated Recyclable Materials Ordinance (RRMO) and to assess the potential for de-construction and/or the re-use of salvageable materials.
2. By Orange County Ordinance, clean wood waste, scrap metal, and corrugated cardboard present in construction or demolition waste must be recycled.
3. By Orange County Ordinance, all haulers of mixed construction and demolition waste that includes any regulated recyclable materials shall be licensed by Orange County.
4. Prior to any demolition or construction activity on the site the Applicant shall hold a pre-demolition/pre-construction conference with the Solid Waste staff. This may be the same pre-construction meeting held with other development/enforcement officials.
5. The presence of any asbestos containing materials ('ACM') and/or other hazardous materials in construction and demolition waste shall be handled in accordance with any and all local, state, and federal regulations and guidelines.

Thank you for the opportunity to review this plan and let me know if you have any questions or wish to discuss this matter further.



## Orange County Solid Waste Management Plan



All development applications must provide a detailed solid waste management plan, including a recycling plan and a plan for management of construction debris. The following form must be completed to fulfill this requirement. This form must be completed and approved to satisfy the requirement of a plan for management of construction debris. Please complete all information in its entirety. Assistance in completing this form is available from the Orange County Solid Waste Staff at (919) 968-2788 x107 or x109.

### COMPLETE ALL INFORMATION BELOW

(Incomplete contact information will delay plan review and approval.)

Project Name \_\_\_\_\_

Property ID #: \_\_\_\_\_ Permit: \_\_\_\_\_

Project Location \_\_\_\_\_

Project Owner \_\_\_\_\_

Contact Person \_\_\_\_\_

Address \_\_\_\_\_

Telephone (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Fax/Mobile (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ / (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Design Firm \_\_\_\_\_

Contact Person \_\_\_\_\_

Address \_\_\_\_\_

Telephone (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Fax/Mobile (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ / (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Date \_\_\_\_\_

### Provide a brief description of the work to be performed under this application:

(For example: construct a new commercial building [include use/sq. ft.], apartment complex [# units], place of worship, horizontal improvements for subdivision, etc.)

---



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**1. Site Preparation Wastes (landclearing, demolition, deconstruction)**

During site preparation for a project the amount of waste destined for a construction waste landfill or an inert debris landfill should be minimized or diverted for reuse or recycling. Many materials can be reused, recycled, or salvaged, provided that materials are kept separate. This approach may also reduce overall project waste disposal costs. **Regulated Recyclable Materials (clean wood waste, scrap metal and corrugated cardboard) generated in Orange County must be recycled.** During demolition activities, metal and wood are often not “reasonably possible to separate” or doing so may present health and safety concerns (asbestos, lead paint, etc.). In these cases only, are regulated materials not required to be separated for recycling. Consider whether the following materials will be generated on this project, *in any quantity*, and indicate the management method(s).

<input checked="" type="checkbox"/>	<b>1. Trees and Plant Materials:</b>
	No tree/plant wastes will be produced (proceed to # 2)
	Tree waste will be salvaged as timber, mulch, or boiler fuel
	Valuable plants will be removed for replanting
	Landclearing and inert debris landfill (LCID)
	Construction and demolition debris landfill (C&D)
	Other (specify):

<input checked="" type="checkbox"/>	<b>2. Dirt, Rock, Clean Fill, Inert materials to be removed from site:</b>
	No inert materials will be removed from the site (proceed to # 3)
	Site Needs Fill
	Will be hauled to site needing fill.
	Construction and demolition debris landfill (C&D)
	Landclearing and inert debris landfill (LCID)
	Other (specify):

<input checked="" type="checkbox"/>	<b>3. Asphalt Paving:</b>
	No asphalt wastes will be produced (proceed to # 4)
	Recycled at asphalt-paving producer
	Used on or off site. Describe use:
	Disposed in an approved landfill (Orange County Landfill charges no tipfee if clean)
	Other (specify):

<input checked="" type="checkbox"/>	<b>4. Concrete, Brick, Block, other Aggregate materials:</b>
	No aggregate materials will be removed from the site (proceed to # 5)
	Recycled as scrap at an aggregate producer
	Used on or off site: Describe use:
	Construction and demolition debris landfill (C&D)
	Landclearing and inert debris landfill (LCID)
	Other (specify):

<input checked="" type="checkbox"/>	<b>5. Metal Scrap</b> (metal wastes are required by ordinance to be recycled)
	No metal waste will be produced (proceed to # 6)
	Segregated for on-site recycling collection
	Recycle at Orange County Landfill (no tip fee charged)
	Segregated for hauling to scrap dealer by general contractor
	Segregated for hauling to scrap dealer by sub-contractor
	Certified Commingled Recycling Facility
	Other (specify):

<input checked="" type="checkbox"/>	<b>6. Clean Wood Wastes</b> (clean wood wastes are required to be recycled)
	No clean wood wastes will be produced (proceed to # 7)
	Segregated for on-site recycling collection
	Recycle at Orange County Landfill (reduced tip fee charged)
	Saved and used on future jobs
	Separated for private salvage or charity
	Certified Commingled Recycling Facility
	Other (specify):

<input checked="" type="checkbox"/>	<b>7. Demolition/Salvage of Buildings or Structures on the Site:</b>
	No structure(s) will be removed (proceed to Construction Waste section)
	Structure(s) must be removed. Please describe (include square footage for each structure):
<p>If any structure described above is greater than 500 ft<sup>2</sup>, it must be assessed for deconstruction possibilities. Please call Solid Waste Staff at (919) 968-2788 x107 or x109 to arrange an assessment.</p>	
Could the structure(s) be moved from the site?	YES NO Don't Know
Has the sale or donation of the structures been considered? Please explain:	YES NO
How will the structure be removed otherwise?	
What is the timetable on removal of the structure(s)?	
Are there salvageable materials (hardwood floors, fixtures, molding, that can be removed for reuse prior to demolition? If Yes, Please list (use a separate sheet if necessary):	YES NO Don't Know
Have, or will, these materials been offered for sale or donation?	YES NO

## 2. Construction Wastes

During the construction phase there are multiple options for recycling building materials. **Regulated Recyclable Materials (clean wood waste, scrap metal and corrugated cardboard) generated in Orange County must be recycled.** Although other materials are not required to be recycled, you are highly encouraged to do so. One of the best methods of recycling is to separate the materials on the jobsite. You may also combine materials for delivery to a certified recycling facility. Specifying waste reduction/recycling practices on a project will assure better performance.

<input checked="" type="checkbox"/> 1. Clean Wood Wastes (clean wood wastes are required by ordinance to be recycled)	
<input type="checkbox"/>	No clean wood wastes will be produced (proceed to # 2)
<input type="checkbox"/>	Segregated for on-site recycling collection
<input type="checkbox"/>	Recycle at Orange County Landfill (reduced tip fee charged)
<input type="checkbox"/>	Saved and used on future jobs
<input type="checkbox"/>	Separated for private salvage or charity
<input type="checkbox"/>	Certified Commingled Recycling Facility
<input type="checkbox"/>	Other (specify):

<input checked="" type="checkbox"/> 2. Metal Scrap (metal wastes are required by ordinance to be recycled)	
<input type="checkbox"/>	No metal waste will be produced (proceed to # 3)
<input type="checkbox"/>	Segregated for on-site recycling collection
<input type="checkbox"/>	Recycle at Orange County Landfill (no tip fee charged)
<input type="checkbox"/>	Segregated for hauling to scrap dealer by general contractor
<input type="checkbox"/>	Segregated for hauling to scrap dealer by sub-contractor
<input type="checkbox"/>	Certified Commingled Recycling Facility
<input type="checkbox"/>	Other (specify):

<input checked="" type="checkbox"/> 3. Concrete, Brick, Block, other Aggregate materials:	
<input type="checkbox"/>	No aggregate materials will be removed from the site (proceed to # 4)
<input type="checkbox"/>	Recycled as scrap at an aggregate producer
<input type="checkbox"/>	Used on or off site: Describe use:
<input type="checkbox"/>	Construction and demolition debris landfill (C&D)
<input type="checkbox"/>	Landclearing and inert debris landfill (LCID)
<input type="checkbox"/>	Other (specify):

<input checked="" type="checkbox"/> 4. Corrugated Cardboard (cardboard wastes are required to be recycled)	
<input type="checkbox"/>	No cardboard waste will be produced (proceed to # 5)
<input type="checkbox"/>	Segregated for on-site recycling collection
<input type="checkbox"/>	Recycle at Orange County Landfill (no tip fee charged)
<input type="checkbox"/>	Segregated for hauling to paper dealer by general contractor
<input type="checkbox"/>	Segregated for hauling to paper dealer by sub-contractor
<input type="checkbox"/>	Certified Commingled Recycling Facility
<input type="checkbox"/>	Other (specify):

<b><input checked="" type="checkbox"/> 5. Drywall</b>	
<input type="checkbox"/>	No drywall waste will be produced (proceed to # 6)
<input type="checkbox"/>	Segregated for on-site recycling collection
<input type="checkbox"/>	Used on site as agricultural supplement
<input type="checkbox"/>	Disposed in an approved landfill
<input type="checkbox"/>	Certified Commingled Recycling Facility
<input type="checkbox"/>	Other (specify):

<b><input checked="" type="checkbox"/> 6. Other Materials</b>	
<input type="checkbox"/>	No other wastes will be produced (proceed to # 7)

Please specify other wastes that will be produced and how they will be managed:

Plastics (including vinyl and shrink-wrap):
Carpet and padding:
Shingles:
Fixtures (sinks, tubs, lighting, etc):
Other (specify):
Other (specify):
Other (specify):

<b>7. Bulk Containers (Dumpsters)</b>	
County ordinance requires that any bulk waste container be labeled to define what materials are intended or prohibited from being deposited in them and be serially numbered. Hauling Licenses are required for vehicles greater than 9000 GVW in Orange County. Ensure that your waste haulers is licensed. You may contact Orange County Solid Waste for a list of licensees at (919) 968-2788 x107 or x109.	
<input type="checkbox"/>	There will be one or more bulk containers at the site for construction wastes.
<input type="checkbox"/>	Contractors will be required to remove own wastes without the use of bulk containers.
<input type="checkbox"/>	Corral or similar system will be used.

### 3. Recycling After Occupancy

Depending on the eventual use of the structure, different waste materials will be produced and available for recycling. Recyclable materials must be separated into categories based on collection methods.

**ANNING REQUIREMENTS:**

- Indicate location of all bulk waste containers for refuse and recycling. Plan must show location of all containers, even if using existing refuse/recycling enclosures. Standard details/notes for any of the following are available from Orange County Solid Waste Management (919-968-2788 x107 or x109).
- All refuse/recycling containers are required to be on concrete pads.
- Provide a detailed and scaled plan of all bulk waste containers areas that show: each container labeled, required screening, lighting, overhead clearances, bollards, and concrete pad.
- Indicate whether refuse/recycling area will be gated. Any doors/gates will need retainers to be latched open for refuse/recycling collection.
- Ensure adequate collection vehicle access to all containers for deposit and collection. Access templates are available from Orange County Solid Waste Management.
- Sharing of exterior recycling locations is acceptable if a joint access/shared-use agreement is filed and the deeds of all properties amended.

<input checked="" type="checkbox"/> Check materials that will be generated once the structure is ready for occupancy:	
	Standard: glass bottles, metal cans, newspaper, glossy magazines, #1 plastics, #2 plastics
	Corrugated Cardboard (not including waxed or single layer cardboard)
	Mixed Paper: junk mail, cereal boxes
	Office Paper: white or colored copy paper, confidential papers
	Restaurant: food wastes, cooking oil, disposable dining ware
	Other Plastics: #5, #7
	Business specific wastes (please describe):

**Cardboard Recycling Requirement**

Orange County Ordinance requires recyclable corrugated cardboard to be kept separate from all other refuse. All developments must provide for cardboard recycling. If the facility's garbage will be collected from a bulk container (dumpster), a second waste container is likely to be required for cardboard. Public recycling drop-off sites can accommodate a very limited amount of commercial use (no > 50 boxes per week).

	Site Plan includes space for cardboard recycling container on Sheet # _____
	Corrugated Cardboard will be handled in an alternate manner. Description Required:

**Collection Type: This project will be served by the following collection methods. Check all that apply.**

	<b>Exterior individual or cooperative-use bulk waste container site.</b> May be suitable for apartment complexes, restaurants, places of worship, educational facility, office building, retail/office/restaurant combinations
	Garbage dumpster
	Garbage compactor
	Cardboard dumpster
	Cardboard compactor
	Recycling carts for glass, cans, plastic bottles, newspaper, magazines, office paper (co-mingled)
	Cooking grease rendering container (required for any commercial kitchen facility)
	Food waste collection container (If qualify based on volume; contact OCSW staff for details of program)
	<b>Standard "curbside" recycling collection.</b> May be suitable for single-family developments and subdivisions, including some duplex, triples, and townhome developments.

**PLANNING & INSPECTIONS DEPARTMENT**  
**Craig N. Benedict, AICP, Director**

**Current Planning**  
**(919) 245-2575**  
**(919) 644-3002 (FAX)**  
**www.orangecountync.gov**



**131 W. Margaret Lane**  
**Suite 201**  
**P. O. Box 8181**  
**Hillsborough, NC 27278**



**MEMORANDUM**

**TO:** Orange County Erosion Control  
Orange County Comprehensive Planning Division  
Orange County Environmental Health  
Orange County Board of Education  
Orange County Emergency Services  
Orange County Solid Waste  
Orange County Department of Environment, Parks and Recreation  
NC Department of Transportation  
Orange County Soil and Water Conservation  
Orange County Attorney  
Town of Hillsborough

**FROM:** Michael D, Harvey, Current Planning Supervisor  
Patrick Mallett, Planner II

**CC:** Craig Benedict, Planning Director

**DATE:** July 24, 2014

**SUBJECT:** REQUEST FOR REVIEW – Major Subdivision Preliminary Plat Application

---

Please be advised the Planning staff has accepted for review a Major Subdivision Concept Plan application proposing a 14 lot single-family residential subdivision in accordance with the provisions of Section 2.15 and Article 7 *Subdivisions* of the Unified Development Ordinance (UDO).

Through this memorandum, and in accordance with Section 2.15.3 (C) (3) of the UDO, we are requesting a review of the proposal by your specific division/agency as part of our required process. We request that all comments be submitted to staff no later than **5:00 p.m. August 1, 2014** to the following staff contact(s):

- Michael Harvey: (919) 245-2597 (direct line) or  
[mharvey@orangecountync.gov](mailto:mharvey@orangecountync.gov)

- Patrick Mallett: (919) 245-2577(direct line) or [pmallett@orangecountync.gov](mailto:pmallett@orangecountync.gov)

The basic facts concerning the application are as follows:

- Applicant(s):** Stephens Road Partners  
Attention Glenn Futrell  
1050 Towerview Court  
Cary NC, 27513
- Owner:** Waterford Sterling LLC  
214 South Kings Street  
Leesburg VA, 20175
- Agent(s):** Summit Engineers  
Terry Boylan and Chad Abbott  
504 Meadowland Drive  
Hillsborough, NC 27278
- Location:** Stroud's Creek Road - Please refer to the attached vicinity map of the parcel for additional detail.
- Parcel Information:**
- PIN:** 9875-08-0900.
  - Size of Parcel:** 25.3 acres in area.
  - Zoning of Parcel:** Agricultural Residential (AR) and Special Flood Hazard Area Overlay District (SFHA).  
The property is not located within a Watershed Protection Overlay District.
  - Township:** Hillsborough.
  - School District:** Orange County.
  - Future Land Use Map Designation:** Agricultural Residential and Rural Industrial Activity Node.
  - Growth Management System Designation:** Rural.
  - Existing Conditions/Physical Features:** Varying topography with heavy vegetation, primarily mixed hardwoods, throughout.  
There are streams running through the property with varying slopes. Portions of the property are also encumbered by floodplain and wetlands.
  - Roads:** Vehicular access to the subdivision is proposed via Stroud's Creek Road, a NCDOT publicly maintained roadway.  
The subdivision proposes to build a public road (27' wide pavement within a 40' public right-of-way) that terminates in a cul-de-sac. The site is bordered by

streams, floodplain and the Pathways Elementary School. Therefore, no additional public or private vehicular access to adjacent properties is proposed or required.

The public road is designed to meet or exceed NCDOT and/or Town of Hillsborough residential street design standards. The cul-de-sac portion of the road is also designed to meet Orange County Fire and Emergency Services design preferences.

- j. **Water and Sewer Service:** The property is located within a primary public utility service area according to the Water and Sewer Management Planning Boundary Agreement (WASMPBA). The proposed residential lots will be served with public water (via a 4" domestic and 8-12" fire lines), and public sewer (via an 8" sanitary sewer line) by the Town of Hillsborough.

**Surrounding Land Uses:**

- a. **NORTH:** Stroud's Creek Road; an undeveloped single-family residential subdivision comprised of 40 lots all ten acres or more in size.
- b. **SOUTH:** Property within the corporate limits of the Town of Hillsborough. The property is slated for development as an office/industrial park. There is also an undeveloped 78 acre parcel within the County's planning jurisdiction zoned AR.
- c. **EAST:** Church on property zoned AR; NC Highway 57.
- d. **WEST:** Pathways Elementary School zoned AR.

**Development Process, Schedule, and Action:** The typical cadence for the review of a major subdivision is as follows:

- **First Action** – Planning staff schedules a Neighborhood Information Meeting (NIM).

**Staff Comment – DONE.** This meeting was held on May 14, 2014.

- **Second Action** – The Planning Board reviews and takes action on the Concept Plan application approving either the 'conventional' or 'flexible development' layout.

**Staff Comment – DONE.** The Planning Board reviewed this application at its June 4, 2014 regular meeting and approved the attached concept plan application.

- **Third Action** – Once a concept plan is approved, the Planning Board reviews and makes a recommendation on the approval of the Preliminary Plat for the project.

**Staff Comment:** This project is anticipated to be reviewed at the September 3, 2014 Planning Board meeting.

- **Fourth Action** – The BOCC reviews and take action on the Preliminary Plat application.
- **Fifth Action** – Once all construction activities have been completed, or appropriate bonds have been approved, staff will sign off and allow the recordation of a Final Plat allowing for the individual lots to be created.

**PROPOSAL – SUBDIVISION TYPES:** The petitioner has submitted a Major Subdivision Concept Plan application proposing to develop a maximum of 14 single-family residential lots with an overall proposed density for the project of 1 dwelling unit per every 1.68 acres of land area with approximately 17.21 acres of dedicated open space. Ultimately the applicant will be preserved approximately 68.32% of the site as dedicated open space. Proposed lots will be range in area from 16,012 (smallest) to 39,794 (largest) square feet in area.

A summary of the proposal is as follows:

Subdivision Type	Number of Lots	Average Lot Size	Area in Open Space	Open Space Percentage
Conservation Cluster Flexible Development Plan	14	Range from 14,217 to 39,794 sq. ft. in area	17.21 acres	67.96% common open space  (33% typically required by the UDO)

**STAFF COMMENT – SUBDIVISION TYPES:** The proposal is in accordance with the anticipated densities for properties located within the Agricultural Residential land use category as defined within the adopted Comprehensive Plan as well as the Rural Designated areas as denoted on the Growth Management Systems Map. The size of the parcels is consistent for projects served by public water and sewer. It should be noted that in absence of such services, reduction of minimum lot sizes below one acre would be prohibited.

**ROADS:** The proposal involves the creation of a single public road to service the project, constructed to applicable NC Department of Transportation (DOT) and Town of Hillsborough roadway standards. The applicant intends to turn this road over for maintenance to the appropriate entity once development is completed. Specifically, the plan calls for:

- A roadway, approximately 612 linear feet in length, terminating in a cul-de-sac.
- The construction of the proposed roadway will not involve stream crossing.

**STAFF COMMENT - ROADS:** Staff has determined that the proposed roadway construction and layout is consistent with the requirements of the UDO. It also avoids impacting environmentally sensitive areas (e.g. wetlands and streams).

In reviewing the matter with Mr. D'Angelo Jones of NC DOT and Ms. Margaret Hauth of the Town of Hillsborough, staff has been informed that they have no concerns over the proposed roadway development, or its proposed public street access to Stroud's Creek Road.

If desired by the Orange County School System and NCDOT, the developer has proposed the construction of a 5' wide sidewalk along the right-of-way of Stroud's Creek Road. The sidewalk would be located within or alongside the right-of-way of the new residential street connection to the second access drive for Pathways Elementary School.

**UTILITIES:** The applicant is proposing to serve the project with public water and sewer provided by the Town of Hillsborough.

The applicant has indicated that where allowed and feasible electrical utility services for the residential homes will be located below ground.

***STAFF COMMENT - UTILITIES:*** The Town of Hillsborough has already approved (and provided a utility agreement) to serve the property with public water (4" domestic line and 8-12" fire line) and a 8" sanitary sewer line.

**STORMWATER DRAINAGE:** Drainage will be engineered according to Best Management Practices (BMP) at the time of permit application for construction. The property is subject to recently adopted stormwater management guidelines limiting total nitrogen runoff of 2.2 pounds per acre annually and 0.33 pounds per acres annually for total phosphorus.

***STAFF COMMENT – STORMWATER DRAINAGE:*** Orange County Erosion Control has not submitted comments at this time as there is no formal stormwater management plan required as part of the concept plan submittal. The applicant will be required to submit additional detail, with respect to the anticipated stormwater management plan, as part of the Preliminary Plat application package for review and comment.

**OPEN SPACE:** The flexible development plan denotes the maintenance of a 30' wide natural buffer along Stroud's Creek Road and a 100-foot building setback along the perimeter of the project. Open space is identified in and around the existing streams and off of the denoted floodplain areas. The total area preserved as primary and secondary open space is approximately 753, 072 square feet (17.29 acres). The proposed open space is composed of existing, mature, vegetation and trees with an approximate height of between 30 to 50 feet. The area is also heavily encumbered with identified floodplains and delineated wetlands.

***STAFF COMMENT – OPEN SPACE:*** Staff has determined the proposed open space and land use buffers meet the requirements of the UDO.

The developer has also proposed a 50' wide Pedestrian Open Space Area (POSA) connection at the residential street (between lots 13 and 14) that would continue along the rear of lots 9-13 to connect to the sanitary sewer easement

along the southern portion of the property. If desired by the Town of Hillsborough, the developer has also offered to provide a pedestrian access easement in conjunction with the sanitary sewer easement along the southern portion of the property. These provisions would provide the opportunity to have publically accessible open space on all sides of the development.

**LAND USE BUFFER:** The site plan indicates there will be a 30-foot buffer along Stroud's Creek Road comprised of existing, dense, vegetation composed of existing, mature, shrubs and trees with an approximate height of between 50 to 70 feet.

***STAFF COMMENT – LAND USE BUFFER:*** Section 6.8.6 (D) of the UDO requires that this project maintain a thirty (30) foot land use buffer separating the project from adjacent roadways. Staff has determined the proposed open space and land use buffers meet the requirements of the UDO.

**ANALYSIS:** As required under Section 2.15.2 (E) of the UDO, the Planning Director is required to: *'prepare and submit a recommendation'* on the concept plan to the Planning Board for consideration. In analyzing this request, the Planning Director offers the following:

1. The application has been deemed complete in accordance with the requirements of Section 2.2 and 2.15.2 of the UDO.
2. Staff has determined that the property is of sufficient size to support the proposed subdivision.
3. The proposal appears consistent with the various goals outlined within the Comprehensive Plan concerning development, including:
  - a. Land Use Overarching Goal: *Coordination of the amount, location, pattern, and designation of future land uses, with availability of County services and facilities sufficient to meet the needs of Orange County's population and economy consistent with other Comprehensive Plan element goals and objectives.*
  - b. Land Use Goal 2: *Land uses that are appropriate to on-site environmental conditions and features and that protect natural resources, cultural resources, and community character.*
  - c. Land Use Goal 3: *A variety of land uses that are coordinated within a program and pattern that limits sprawl, preserves community and rural character, minimizes land use conflicts, supported by an efficient and balanced transportation system.*
4. Staff supports the approval of the conservation cluster flexible development option as proposed by the applicant.

Staff appreciates your attention to this matter and looks forward to your comment(s).

**Patrick R. Mallett**

---

**From:** Jason Shepherd  
**Sent:** Thursday, July 31, 2014 8:42 AM  
**To:** Patrick R. Mallett  
**Subject:** RE: Strouds Creek

Comments from Fire Marshal Division:  
Approved

**From:** Patrick R. Mallett  
**Sent:** Thursday, July 31, 2014 8:29 AM  
**To:** Jason Shepherd  
**Subject:** Strouds Creek

Here is the latest version of Strouds Creek.

Very Respectfully,

Patrick R. Mallett, Planner II  
Orange County Planning & Inspections Department

Phone: (919) 245-2577  
Fax: (919) 644-3022  
E-mail: [pmallett@orangecountync.gov](mailto:pmallett@orangecountync.gov)  
Orange County Planning Website: <http://www.orangecountync.gov>

Address:  
131 W. Margaret Lane, Suite 201  
P.O. Box 8181  
Hillsborough, NC 27278

Pursuant to North Carolina General Statute 132, correspondence sent and received from this account is a public record and may be disclosed to third parties.

**Patrick R. Mallett**

---

**From:** Jeff Scouten  
**Sent:** Thursday, August 21, 2014 1:20 PM  
**To:** Patrick R. Mallett  
**Subject:** RE: Preliminary Plat Strouds Creek Subdivisions - Last call for Staff Comments

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Pat:  
 For Stroud's Creek, I have no outstanding comments.  
 As a reminder though, the applicant will still need to submit to me for review and approval the Solid Waste Management Plan document.  
 Thanks and let me know if you have any questions or wish to discuss further.

Jeff Scouten  
 Environmental Enforcement Supervisor  
 Orange County Solid Waste Management  
 P.O. Box 17177  
 Chapel Hill, NC 27516-7177  
 919-968-2788 x 107 (Office)  
 919-932-2900 (Facsimile)  
[jscouten@orangecountync.gov](mailto:jscouten@orangecountync.gov)  
<http://orangecountync.gov/recycling/candd.asp>



**From:** Patrick R. Mallett  
**Sent:** Thursday, August 21, 2014 12:24 PM  
**To:** Alan Clapp; Albert Mills; Christine D. Dodd; Chuck Edwards; D'Angelo Jones; David Sykes; James Bryan; Jason Shepherd; Jeff Scouten; Jennifer Phillips; John Kase; John Roberts; Kevin Lindley; Michael Burton; Michael Harvey; Michael Rettie; Peter Sandbeck; Rich Shaw; Steve J Kaltenbach; Tammy Hicks; Wesley Poole; Howard W. Fleming  
**Subject:** Preliminary Plat Strouds Creek Subdivisions - Last call for Staff Comments

The most current version of Strouds Creek enclosed.

Very Respectfully,

Patrick R. Mallett, Planner II  
 Orange County Planning & Inspections Department

Phone: (919) 245-2577  
 Fax: (919) 644-3022  
 E-mail: [pmallett@orangecountync.gov](mailto:pmallett@orangecountync.gov)  
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 131 W. Margaret Lane, Suite 201

P.O. Box 8181  
Hillsborough, NC 27278

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**From:** Patrick R. Mallett

**Sent:** Thursday, August 21, 2014 12:18 PM

**To:** Alan Clapp; Albert Mills; Christine D. Dodd; 'Chuck Edwards'; 'D'Angelo Jones'; David Sykes; James Bryan; Jason Shepherd; Jeff Scouten; Jennifer Phillips; John Kase; John Roberts; Kevin Lindley; Michael Burton; Michael Harvey;

Michael Rettie; Peter Sandbeck; Rich Shaw; Steve J Kaltenbach; Tammy Hicks; Wesley Poole; Howard W. Fleming

**Subject:** Preliminary Plats Pleasant Woods Phase IV and Strouds Creek Subdivisions - Last call for Staff Comments

FYI-Preliminary Plats Pleasant Woods Phase IV and Strouds Creek Subdivisions are set to go to the Planning Board on 03SEP2014.

To date, I don't know if any significant outstanding comments for either Subdivision. If you don't mind, please e-mail me if you do have any remaining significant comments. If you don't have any, just send me an e-mail stating "No outstanding comments."

I will send the most recent submittals for each shortly.

Very Respectfully,

Patrick R. Mallett, Planner II  
Orange County Planning & Inspections Department

Phone: (919) 245-2577

Fax: (919) 644-3022

E-mail: [pmallett@orangecountync.gov](mailto:pmallett@orangecountync.gov)

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131 W. Margaret Lane, Suite 201

P.O. Box 8181

Hillsborough, NC 27278

Pursuant to North Carolina General Statute 132, correspondence sent and received from this account is a public record and may be disclosed to third parties.

**Patrick R. Mallett**

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**From:** Rich Shaw  
**Sent:** Friday, August 22, 2014 12:29 PM  
**To:** Patrick R. Mallett  
**Cc:** Peter Sandbeck  
**Subject:** RE: Preliminary Plats Pleasant Woods Phase IV and Strouds Creek Subdivisions - Last call for Staff Comments

No outstanding comments

**Rich Shaw**, Land Conservation Manager  
 Orange County  
*Department of Environment, Agriculture, Parks and Recreation*

---

306A Revere Rd / PO Box 8181 / Hillsborough NC 27278 / 919-245-2514 / <http://www.co.orange.nc.us>

**From:** Patrick R. Mallett  
**Sent:** Thursday, August 21, 2014 12:18 PM  
**To:** Alan Clapp; Albert Mills; Christine D. Dodd; Chuck Edwards; D'Angelo Jones; David Sykes; James Bryan; Jason Shepherd; Jeff Scouten; Jennifer Phillips; John Kase; John Roberts; Kevin Lindley; Michael Burton; Michael Harvey; Michael Rettie; Peter Sandbeck; Rich Shaw; Steve J Kaltenbach; Tammy Hicks; Wesley Poole; Howard W. Fleming  
**Subject:** Preliminary Plats Pleasant Woods Phase IV and Strouds Creek Subdivisions - Last call for Staff Comments

FYI-Preliminary Plats Pleasant Woods Phase IV and Strouds Creek Subdivisions are set to go to the Planning Board on 03SEP2014.

To date, I don't know if any significant outstanding comments for either Subdivision. If you don't mind, please e-mail me if you do have any remaining significant comments. If you don't have any, just send me an e-mail stating "No outstanding comments."

I will send the most recent submittals for each shortly.

Very Respectfully,

Patrick R. Mallett, Planner II  
 Orange County Planning & Inspections Department

Phone: (919) 245-2577  
 Fax: (919) 644-3022  
 E-mail: [pmallett@orangecountync.gov](mailto:pmallett@orangecountync.gov)  
 Orange County Planning Website: <http://www.orangecountync.gov>

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 131 W. Margaret Lane, Suite 201  
 P.O. Box 8181  
 Hillsborough, NC 27278

Pursuant to North Carolina General Statute 132, correspondence sent and received from this account is a public record and may be disclosed to third parties.

Approved 7/2/14

<p>Attachment 4 – Excerpt of Approved June 4, 2014 Planning Board Minutes</p>
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**MINUTES**  
**ORANGE COUNTY PLANNING BOARD**  
**JUNE 4, 2014**  
**REGULAR MEETING**

**MEMBERS PRESENT:** Peter Hallenbeck (Chair), Cheeks Township Representative; Lisa Stuckey, Chapel Hill Township Representative; Maxecine Mitchell, At-Large Bingham Township; Herman Staats, At-Large, Cedar Grove Township; Buddy Hartley, Little River Township Representative; Tony Blake, Bingham Township Representative; Andrea Rohrbacher, At-Large Chapel Hill Township; James Lea, Cedar Grove Township Representative; Laura Nicholson, Eno Township Representative; Bryant Warren, Hillsborough Township Representative;

**MEMBERS ABSENT:** Paul Guthrie, At-Large Chapel Hill Township; Vacant-At-Large;

**STAFF PRESENT:** Craig Benedict, Planning Director; Michael Harvey, Current Planning Supervisor; Patrick Mallett, Planner II; Tina Love, Administrative Assistant II

**OTHERS PRESENT:** Terry Boylan, Glenn Futrell

**AGENDA ITEM 7:**       **MAJOR SUBDIVISION CONCEPT PLAN:** To review and make a decision on an major subdivision concept plan application seeking to sub-divide a 25.33 acre parcel of property into 14 single-family residential lots with 16.29 acres of common open space near the intersection of Stroud's Creek Road and NC Highway 57 in Hillsborough Township.  
**Presenter:** Patrick Mallett, Planner II

Patrick Mallett: *Presented a PowerPoint presentation and reviewed abstract.*

James Carter: Where is that fence and will it remain there?

Patrick Mallett: That was installed by the school.

Michael Harvey: As covered in our abstract, one of the reasons you are seeing lots of this size is because water and sewer service is being provided. That is the only way this project was allowed to get these smaller lots, which is in accordance with the provisions of Article 7. The other comment is that you will recall previous major subdivisions, applications are typically required to submit a conventional and flexible development options.

Pete Hallenbeck: There is a power line easement and it goes and disappears. Is there a power line in that easement now?

Pat Mallett: There is a power line that goes through here and extends north.

Pete Hallenbeck: Currently the power line does not go through.

Terry Boylan: It does not go through. That is a tree line from when it did before.

Pete Hallenbeck: What about the dual water line fees?

**Approved 7/2/14**

Pat Mallett: They are proposing a fire service line with two hydrants.

Terry Boylan: There are two different lines.

Tony Blake: Craig, wouldn't this be part of Hillsborough's ETJ?

Craig Benedict: Just outside of that.

Tony Blake: By state law they could petitioned to be annexed?

Craig Benedict: Yes. Most likely as part of the water/sewer agreement.

Pat Mallett: They are interested in selling water and sewer and not annexation.

Tony Blake: How large are the houses?

Terry Boylan: The setbacks will allow 3,600 square foot.

Pete Hallenbeck: What could the residences do with the light green space?

Pat Mallett: You have building setbacks on the roadside, 35 foot buffer. There was originally a concept plan that had two lots there.

Terry Boylan: We have a 100 foot or setback off this property line and that gives us this set back here for lot 14.

Pat Mallett: I think it is not so much what can be built there but what is held in common.

Pete Hallenbeck: It seems like a setup for a wonderful neighbor war.

Herman Staats: Why was the open space left open and not part of Lot 14?

Terry Boylan: It could conceivably be part of Lot 14.

Pete Hallenbeck: That is an issue for you as the developer.

Pat Mallett: Typically you want to see like to like.

Terry Boylan: That is one reason it is not so much larger than the other lots.

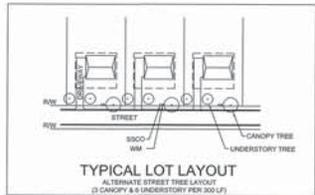
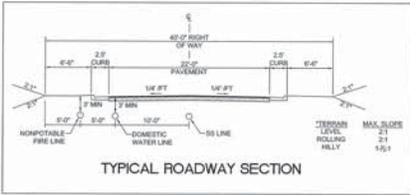
Glenn Futrell: We, my wetland consultant, we had all the wetlands reevaluated and we received that report last week. We comply with all the setback requirements and we are not changing anything previously to what was done six or seven years ago.

**MOTION** by Maxecine Mitchell to recommend approval to the BOCC. Seconded by James Lea.

**VOTE: UNANIMOUS**

**AGENDA ITEM 12: ADJOURNMENT:**

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**STREET TREE REQUIREMENTS:**  
 1 CANOPY AND 1 UNDERSTORY TREE PER 67' WIDTH AT LEAST THREE PLACED EVERY 100'

PROPOSED O.U.-DE-SAC: 88' LF  
 NUMBER OF REQUIRED STREET TREES: 11 CANOPY AND 11 UNDERSTORY

**"BETWEEN LOT" TREE PLANTING REQUIREMENTS:**  
 A CONCOURSE ZONE 100 FEET IN WIDTH EXCLUSIVE OF ORANGE AND/OR UTILITY EASEMENTS SHALL BE PROVIDED ALONG THE INTERIOR SIDE AND ADJACENT LINES OF EACH LOT BEING DEVELOPED. IF THERE ARE NO EXISTING TREES, THE DEVELOPER SHALL PROVIDE A MINIMUM OF ONE TREE FOR ONE THOUSAND SQUARE FEET OF LAND CONTAINED WITHIN THE TEN FOOT LANDSCAPE AREA.

**HOUSING INFORMATION**  
 NUMBER OF YEARS TO BUILDOUT: 1-3 YEARS  
 PHASES: ONE  
 AVERAGE PRICE OF NEW HOMES: \$350K-\$400K

**CONSERVATION CLUSTER SUBDIVISION STANDARDS**

MINIMUM LOT AREA: 14,000 S.F. (60% REDUCTION FROM 40,000 S.F.)  
 AVERAGE LOT AREA: 20,844 S.F.  
 MINIMUM LOT WIDTH: 100 FT (IN AN DISTRICT)  
 MINIMUM SETBACK: 20 FT (25% REDUCTION FROM 40')  
 SIDE A REAR SETBACKS: 15 FT (25% REDUCTION FROM 30')  
 TRACT BOUNDARY SETBACK: 10 FT  
 PROPOSED LOTS: 14 BUILDING LOTS, 1 SMP LOT  
 364,114 S.F. (33.00% OF TOTAL TRACT)  
 76,847 S.F. (47.80% OF TOTAL TRACT)  
 OPEN SPACE REQUIRED: 694,212 S.F. (69.30% OF OPEN SPACE)  
 36,273 S.F. (1.56% OF OPEN SPACE)  
 WATER EASEMENT: TOWN OF HILLSBOROUGH  
 SEWER SERVICE: TOWN OF HILLSBOROUGH  
 GAS SERVICE: CABLER/TERRACE SERVICE  
 PROPOSED ROAD: 680 LF PUBLIC ROAD (DESIGNED TO NCDOT STANDARDS)

**SITE INFORMATION**

CURRENT OWNER: WATERFORD STERLING, LLC  
 DEVELOPER: STERNS ROAD PARTNERS, LLC  
 CONTACT: OLIVER FETTERLE  
 MAILING ADDRESS: 100 TOWNVIEW COURT  
 CAROL NORTH CAROLINA 27613  
 919-412-5245

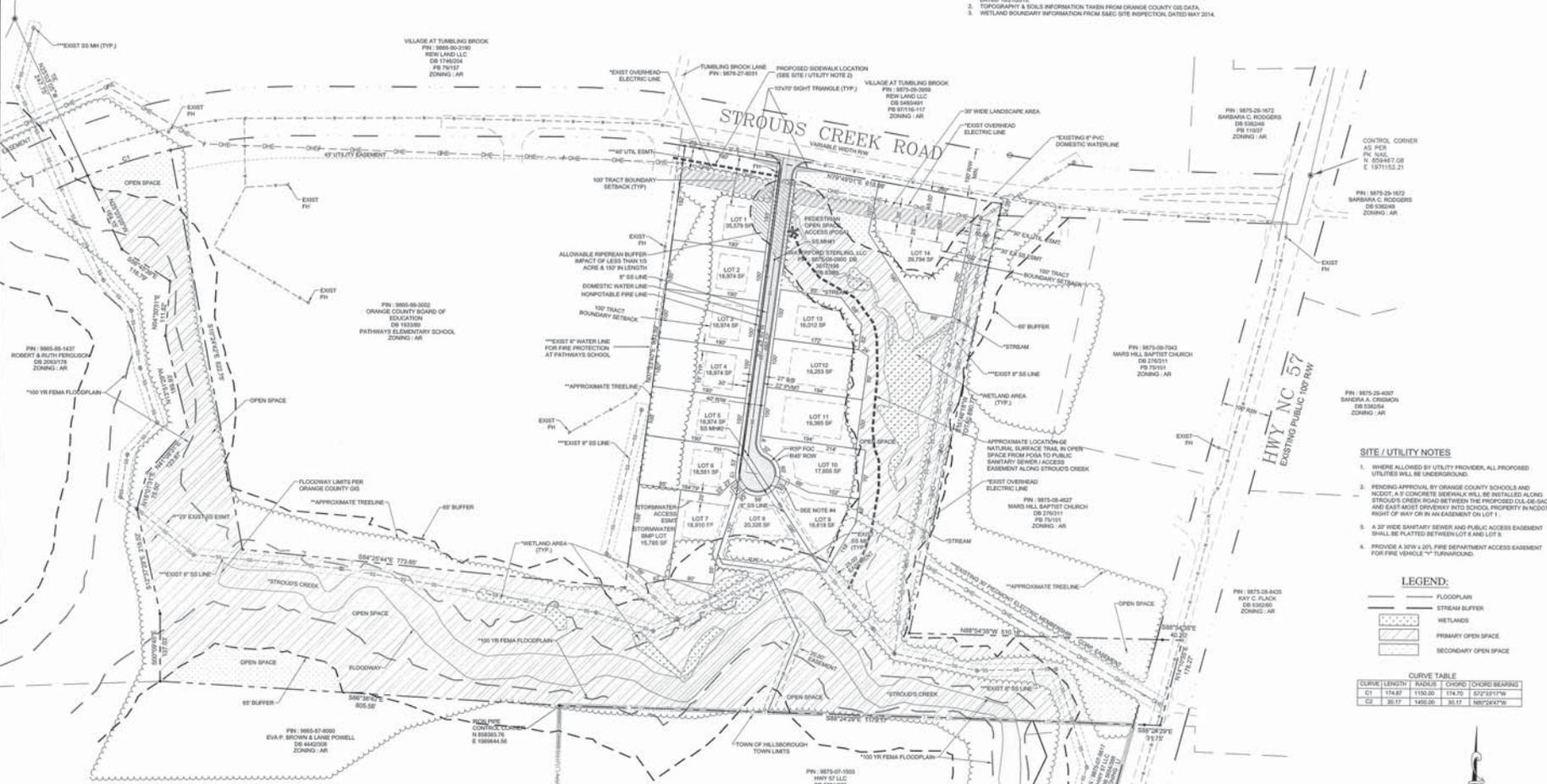
PROPERTY ADDRESS: STRAUCS CREEK ROAD, HILLSBOROUGH, NC 27615  
 PLANNING JURISDICTION: ORANGE COUNTY  
 STATE: NORTH CAROLINA  
 WATERBESH OVERLAY DISTRICT: LOWER END UNPROTECTED NEURINE

DESG: 3017' 198'  
 PRSG: 3017'  
 LOT AREA: 1,103,375 SF - 25.93 AC

ZONING: AR  
 CURRENT USE: VACANT  
 PROPOSED USE: RESIDENTIAL CONSERVATION CLUSTER

**SURVEY & ENVIRONMENTAL RESOURCE GENERAL NOTES**

- ITEMS SHOWN FROM PLAN BY WITHERS & REVELL DATED 07/16/2013 (SHEET P-1).
- ITEMS SHOWN FROM AERIAL PHOTOGRAPHY.
- ITEMS SHOWN FROM SURVEY FIELD DATA BY SLIMBERT DESIGN & ENGINEERING DATED 10/21/2013.
- BOUNDARY INFORMATION FROM SURVEY FIELD DATA BY SLIMBERT DESIGN & ENGINEERING DATED 10/21/2013.
- TOPOGRAPHY & SOILS INFORMATION TAKEN FROM ORANGE COUNTY GIS DATA.
- WETLAND BOUNDARY INFORMATION FROM SAEG SITE INSPECTION, DATED MAY 2014.



**SITE / UTILITY NOTES**

- WHERE ALLOWED BY UTILITY PROVIDER, ALL PROPOSED UTILITIES WILL BE UNDERGROUND.
- PENDING APPROVAL BY ORANGE COUNTY SCHOOLS AND NCDOT A CONCRETE SEWERLINE WILL BE INSTALLED ALONG STRAUCS CREEK ROAD BETWEEN THE PROPOSED O.U.-DE-SAC AND GAS MAINS. SHOWN BY THIS SYMBOL. PROPERTY IN NCSDOT RIGHT OF WAY OR IN AN EASEMENT ON LOT 1.
- A 30' WIDE SANITARY SEWER AND PUBLIC ACCESS EASEMENT SHALL BE PLACED BETWEEN LOT 1 AND LOT 9.
- PROVIDE A 30% + 20% FIRE DEPARTMENT ACCESS EASEMENT FOR FIRE VEHICLE "Y" TURNAROUND.

**LEGEND:**

- FLOODPLAIN
- STREAM BUFFER
- WETLANDS
- PRIMARY OPEN SPACE
- SECONDARY OPEN SPACE

**CURVE TABLE**

CURVE LENGTH	RADIUS	CHORD	CHORD BEARING
C1: 174.9'	1100.0'	174.9'	S27°21'37"W
C2: 35.17'	1405.00'	35.17'	N82°24'47"W

**ORANGE COUNTY SOLID WASTE MANAGEMENT**

**CONSTRUCTION WASTE:**

- ALL EXISTING STRUCTURES 500 SQUARE FEET AND LARGER IN SIZE SHALL BE ASSESSED PRIOR TO DEMOLITION TO ENSURE COMPLIANCE WITH THE COUNTY'S REGULATED RECYCLABLE MATERIALS ORDINANCE (1994K) AND TO ASSESS THE POTENTIAL FOR DE-CONSTRUCTION AND/OR THE REUSE OF AVAILABLE MATERIALS.
- BY ORANGE COUNTY ORDINANCE, CLEAN WOOD WASTE, SCRAP METAL, AND CORRUGATED CARDBOARD PRESENT IN CONSTRUCTION OR DEMOLITION WASTE MUST BE RECYCLED.
- BY ORANGE COUNTY ORDINANCE, ALL WALLETS OF MOVED CONSTRUCTION AND DEMOLITION WASTE THAT INCLUDES ANY REGULATED RECYCLABLE MATERIALS SHALL BE LICENSED BY ORANGE COUNTY.
- PRIOR TO ANY DEMOLITION OR CONSTRUCTION ACTIVITY ON THE SITE THE APPLICANT SHALL HOLD A PRE-DEMOLITION/DEMOLITION CONFERENCE WITH THE SOLID WASTE STAFF. THIS MAY BE THE SAME PRE-CONSTRUCTION MEETING HELD WITH OTHER DEVELOPMENT/PERMIT OFFICIALS.
- THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS (ACM) AND/OR OTHER HAZARDOUS MATERIALS IN CONSTRUCTION AND DEMOLITION WASTE SHALL BE HANDLED IN ACCORDANCE WITH ANY AND ALL LOCAL, STATE, AND FEDERAL REGULATIONS AND GUIDELINES.

7	DATE	BY
6		
5		
4		
3		
2		
1		

PROJECT ENGINEER/ARCHITECT: [Signature]

PRODUCT MANAGER: [Signature]

DESIGNED BY: [Signature]

SCALE: 1" = 100'

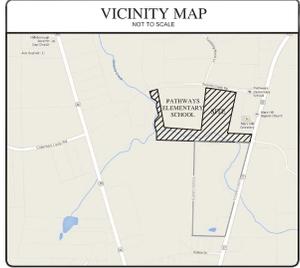
FOR NORTH CAROLINA PERMITTING BY P. RAYMOND E. ASBURY, P.E. CONSTRUCTION

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 100 Main Street, Suite 200  
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PROJECT NO: 14-0050  
 DRAWING NAME: 14-0050\_FLEX  
 SHEET NO: C-2

**811**  
 Know what's Below.  
 Call before you dig.

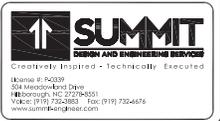
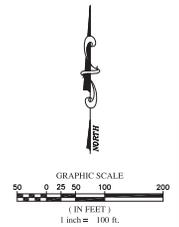
GRAPHIC SCALE: 1" = 100 FT  
 0 25 50 100 200  
 (IN FEET)  
 1 inch = 100 ft.



# STROUD'S CREEK PRELIMINARY SUBDIVISION PLAN

### SITE INFORMATION

CURRENT OWNER:	WATERFORD STERLING, LLC
DEVELOPER:	STEPHENS ROAD PARTNERS, LLC
CONTACT:	OLENA FURRELL
MAILING ADDRESS:	150 TOWERVIEW COURT
TELEPHONE NUMBER:	CARY, NORTH CAROLINA 27513 919-451-0245
PAR:	9875-06-090
PROPERTY ADDRESS:	STROUD'S CREEK ROAD, HILLSBOROUGH, NC 27278
PLANNING JURISDICTION:	ORANGE COUNTY
STATE:	NORTH CAROLINA
WATERSHED OVERLAY DISTRICT:	LOWER ENO UNPROTECTED
RIVER BASIN:	NEUSE
DEPG:	3617 / 198
PIRPG:	0388
LOT AREA:	1,103,375 SF • 25.33 AC
ZONING:	AR
CURRENT USE:	VACANT
PROPOSED USE:	SINGLE FAMILY RESIDENTIAL
SUBDIVISION TYPE:	CONSERVATION CLUSTER



**ORANGE COUNTY  
PLANNING BOARD  
ACTION AGENDA ITEM ABSTRACT**  
Meeting Date: September 3, 2014

**Action Agenda  
Item No. 9**

**SUBJECT:** Unified Development Ordinance Private Road and Access Standards

**DEPARTMENT:** Planning and Inspections

**PUBLIC HEARING: (Y/N)**

N

**ATTACHMENT(S):**

1. Amendment Outline Form  
UDO / Zoning-2014-11
2. Section 7.8 Access and Roadways,  
Unified Development Ordinance (UDO)
3. Emergency Access to Trail Systems at  
Orange County Parks – Draft Goal and  
Objectives
4. Fire Chief Council Comments

**INFORMATION CONTACT:**

Abigaile Pittman, Transportation/Land Use  
Planner, 245-2567  
Michael Harvey, Current Planning  
Supervisor, 245-2597  
Tom Altieri, Comprehensive Planning  
Supervisor, 245-2579  
Craig Benedict, Planning Director, 245-2592

**PURPOSE:** To receive information about a current multi-department/advisory board project involving the review of private road and access standards and to provide comments.

**BACKGROUND:**

In the accepted 2014 Work Plans for the Orange Unified Transportation Board (OUTBoard) and the Planning Board, both have activities identified pertaining to the review of private road and access standards in the Unified Development Ordinance (UDO). The Board of County Commissioners (BOCC) authorized the Planning staff to proceed with this multi-department/advisory board review of UDO private road, access and trail system standards with respect to Comprehensive Plan Goals and Objectives, and development amendments for consideration. The OUTBoard reviewed this item on April 16 and August 20, 2014; and Planning staff reviewed this issue with DEAPR staff on June 16, 2014, and with Emergency Services staff and the Fire Chief Council on July 9, 2014. Details regarding the review and analysis to date are provided in Attachment 1, the Amendment Outline form for UDO/Zoning-2014-11.

Current UDO Regulations

The impetus for this work plan task stems primarily from issues relating to the County's private road regulations found in Sections 7.8.4 and 7.8.5 of the UDO (Attachment 2). Currently the UDO regulates private roads as follows:

1. The standards and specifications for private roads apply to subdivision in the County depending on whether it is a Class A or B road:

TABLE 7.8.5.D BASIC STANDARDS AND SPECIFICATIONS FOR PRIVATE ROADS				
	CLASS A	CLASS B		
Max. Number of Lots	12	2	3	5
Right-of-Way Width	50 ft.	50 ft.	50 ft.	50 ft.
Travel-Way Width	18 ft.	No Standard	12 ft.	12 ft.
Road Maintenance Agreement Required	Yes	Yes	Yes	Yes
Maintenance Responsibility	Property Owners	Property Owners	Property Owners	Property Owners

**Notes:**

- a. Class B private roads serve 1 to 5 lots or dwelling units; however, subdivisions with two lots or dwelling units may be served by a shared driveway.
  - b. Class A private roads serve 6 to 12 lots or dwelling units.
  - c. Both Class A and Class B private roads may be graveled.
2. Public (state maintained) roads are required by the County for all subdivisions having 13 or more lots. For reference, NCDOT's Minimum Construction Standards for Subdivision Roads may be found at the following link:  
<http://orangecountync.gov/planning/documents/SubdivisionManualJanuary2010.pdf>

The County's two-tiered approach to regulating private roads was originally intended to allow an affordable development option for small subdivisions of no more than 5 lots. However, problems have been reported by the County's Emergency Services Department and the Volunteer Fire Departments regarding the 12-foot travel-way width permitted by the Class B private road. The narrow width of the Class B road has presented public safety issues because it does not provide adequate access for emergency services vehicles, and thus impacts response times.

Additionally, North Carolina General Statutes exempt certain types of subdivisions from the County's subdivision review process:

1. The combination or recombination of portions of previously subdivided and recorded lots if the total number of lots is not increased and the resultant lots are equal to or exceed the standards of the County, including private road justification standards, as detailed within the UDO.
2. The division of land into parcels greater than 10 acres if no street right-of-way dedication is involved.
3. The public acquisition by purchase of strips of land for widening or opening streets.
4. The division of a tract in single ownership of the entire area of which is no greater than two acres into not more than three lots, if no street right-of-way dedication is involved and if the resultant lots are equal to or exceed the standards of the County as detailed within the UDO.

These exempt subdivisions are still required to meet all applicable requirements for the granting of zoning compliance permits and issuance of building permits. However, the UDO does not have a requirement that all newly created lots have access to a complying road, including those in statutorily exempt subdivisions (lots > 10 acres). Because of the exempt nature of these subdivisions, County staff cannot guarantee viable access to created lots. Like the situation with Class B private roads, the creation of land-locked properties (e.g., those with access easements

rather than roadway access) presents public safety access issues for emergency services vehicles.

Emergency Access to Recreational Trail Systems: There are currently no standards for emergency access for trail systems in the UDO. Department of Environment, Agriculture, Parks and Recreation (DEAPR) staff recommends that issues related to accommodating emergency service personnel needing to access people using trails at Orange County parks and nature preserves administered by DEAPR are best addressed through the addition of the staff recommended goal and objectives to the Draft Parks & Recreation Master Plan (Attachment 3). This approach would be a more flexible approach that would be responsive to the site-specific environmental issues of individual park sites.

Staff Recommended Options for Revisions to the Private Road and Access Standards of the UDO: To provide an appropriate level of service for emergency services vehicles and ensure the provision of adequate public safety protection standards for development, Planning staff believes the following options should be discussed:

1. Do away with the Class B private roads and allow only the Class A private roads, which requires a minimum 18-foot travel-way.
2. Develop a requirement that all newly created lots have access to a complying road (either private or public).

To continue to allow a reasonable and affordable development option for small subdivisions, staff suggests consideration of the following UDO revision:

3. Allow subdivisions with up to three lots or dwelling units to be served by a shared driveway, subject to provision of a minimum driveway width, maximum driveway length, and a turnaround area that can accommodate Emergency Services vehicles. (The UDO currently allows two lots or dwelling units to be served by a shared driveway.)

<b>Staff Recommended Options for Revisions to the Private Road and Access Standards of the UDO</b>	
<b>Class A Private Roads</b>	
Minimum Number of Lots	4
Maximum Number of Lots	12
Right-of-way Width	50 ft.
Travel-way Width	18 ft.
Road Maintenance Agreement Required	Yes
Maintenance Responsibility	Property Owner

Notes:

1. Subdivisions with up to 3 lots or dwelling units may be served by a shared driveway.
2. Class A private roads may be graveled.

Fire Council comments that can be addressed in the UDO: Upon reviewing the comments within Attachment 4, Planning staff believes the following can be address in the UDO:

3. Cul-de-sac: Require a minimum clearing width for all proposed cul-de-sacs of 50 feet to accommodate emergency vehicle access/staging within Section 7.8.5 (D) (10) of the UDO. There is currently no 'minimum clearing width' separate from the development of the actual, improved, travel area. This is something staff would verify before the subdivision is recorded.
4. Drainage pipes under driveways: Section 7.8.5 (D) (9) could be amended to establish a minimum width for all drain pipes of 16 feet. This would address the concern of trucks being 'hung up' when attempting to access/leave a property.
5. Gates/Walls: With respect to required widths and setbacks for gates/privacy walls regulations could be adopted to require minimum travel widths and stacking areas to accommodate the Fire Council's concerns. Staff would need to determine where such regulations would best fit within the UDO.
6. Pull-over Areas: Private road standards could be amended to include emergency pull off areas as suggested by the Fire Council. Staff will have to take into consideration the impact such a requirement would have on current impervious surface policies, as such a standard would increase the impervious surface area on a site and could possibly impact overall developability.
7. Private Bridges: There are currently no existing standards governing the development of a 'bridge'/stream crossing. Such crossings are permitted in accordance with Section 6.13.6 (C) (4) of the UDO. Staff is still reviewing this request.
8. Tree Clearance on Driveways: While the County may need a reference to a tree clearing requirement for subdivision projects to ensure emergency vehicular access, and reference such requirements in recorded road maintenance agreements for all subdivisions, the UDO may not be the most appropriate location for a County standard.

**FINANCIAL IMPACT:** There is no financial impact in reviewing the private road and access standards of the UDO and providing comments.

**RECOMMENDATIONS:** Planning Staff recommends the Planning Board:

1. Review the selected private road and access standards of the UDO;
2. Review and discuss the described issues and staff recommended options for revisions to the UDO; and
3. Provide feedback on this issue.

ATTACHMENT 1

**COMPREHENSIVE PLAN / FUTURE LAND USE MAP  
AND  
UNIFIED DEVELOPMENT ORDINANCE (UDO)  
AMENDMENT OUTLINE**

UDO / Zoning-2014-11

**Private road standards, access standards, and trail system standards  
of the Unified Development Ordinance (UDO)**

**A. AMENDMENT TYPE**

**Map Amendments**

Future Land Use Map:

From:

To:

Zoning Map:

From

To

Other:

**Text Amendments**

Comprehensive Plan Text:

Section(s):

UDO Text:

UDO General Text Changes (Pending further BOCC authorization)

UDO Development Standards (Pending further BOCC authorization)

UDO Development Approval Processes

Section(s): To include (but may not be limited to):

1. Section 7.8 *Access and Roadways*, and
2. Section 6.2 *Lot Standards*

Other:

## B. RATIONALE

### 1. Purpose/Mission

Multi-department/advisory board review of UDO private road, access and trail system standards with respect to Comprehensive Plan Goals and Objectives, and develop amendments for consideration.

### 2. Analysis

In its accepted 2014 Work Plan, the following activity was identified for the OUTBoard:

- Begin examination of UDO Section 7.8 Access and Roadways (Attachment 2) with respect to the goals and objectives of the Transportation Element of the Comprehensive Plan to determine consistency, and seek BOCC authorization to develop recommendations of applicable amendments to the UDO to take to the Planning Board.

Likewise, in its accepted 2014 Work Plan, the Planning Board identified the following activity as a concern/emerging issue:

- Emergency Access: Work with appropriate staff/departments to better ensure properties can be reached by emergency personnel (e.g., driveway width and clearance, bridge weight limit signage and sufficiency to allow a fire truck to pass, gate width, and curve radii sufficient for emergency vehicles).

#### Multi-Department/Advisory Board Review

On April 16, 2014 the OUTBoard reviewed and discussed issues relating to selected private road and access standards of the UDO. The Board recommended that the Board of County Commissioners (BOCC) direct Planning staff to review these standards, and also trail system standards, and develop amendments to the UDO for consideration. On May 20, 2014 the BOCC authorized staff to move forward with the OUTBoard's recommendation to proceed as proposed, including coordinating with other County departments, and return to the Board in the Fall with an update and request for further authorization to proceed.

Planning staff met with Department of Environment, Agriculture, Parks and Recreation (DEAPR) staff on June 16, 2014 to discuss emergency access to trail systems. As a result, draft goal and objectives were developed for accommodating emergency service personnel needing to access people using trails at Orange County parks and nature preserves administered by the Orange County Department of Environment, Agriculture, Parks and Recreation (DEAPR) (Attachment 3). On August 20, 2014 DEAPR staff presented the Draft Parks & Recreation Master Plan to the OUTBoard, and as part of its comments the Board recommended that the emergency access goal and objectives be included in the Plan.

On July 9, 2014 staff met with the Fire Chief Council to discuss private road and access standards and receive comments. The Council's comments are provided in Attachment 4.

### NCDOT Public Road Construction Standards

Long-term maintenance costs of private roads have led to many requests for NCDOT to accept these roads into the State-maintained system. The construction standards for NCDOT acceptance are higher than the County's Class B private road standards, and are typically prohibitively expensive to overcome. Subdivision roads with a right-of-way dedicated, recorded, or with preliminary approval from a county planning board dated after September 30, 1975 will not be added to the State system unless the road is built to the minimum construction standards of the Division of Highways. The minimum State construction standard is 18 feet of pavement within a 50-foot right-of-way. Additional information regarding NCDOT construction standards can be found at:

<http://orangecountync.gov/planning/documents/SubdivisionManualJanuary2010.pdf>

Staff Recommended Options for Revisions to the Private Road and Access Standards of the UDO: To provide an appropriate level of service for emergency services vehicles and ensure the provision of adequate public safety protection standards for development, staff believes the following options should be discussed:

1. Do away with the Class B private roads and allow only the Class A private roads, which requires a minimum 18-foot travel-way.
2. Develop a requirement that all newly created lots have access to a complying road (either private or public).

To continue to allow a reasonable and affordable development option for small subdivisions, staff suggests consideration of the following UDO revision:

3. Allow subdivisions with up to three lots or dwelling units to be served by a shared driveway, subject to provision of a minimum driveway width, maximum driveway length, and a turnaround area that can accommodate Emergency Services vehicles. (The UDO currently allows two lots or dwelling units to be served by a shared driveway.)

Fire Council comments that can be addressed in the UDO: Upon reviewing the comments within Attachment 3, Planning staff believes the following can be addressed in the UDO:

4. Cul-de-sac: Require a minimum clearing width for all proposed cul-de-sacs of 50 feet to accommodate emergency vehicle access/staging within Section 7.8.5 (D) (10) of the UDO. There is currently no 'minimum clearing width' separate from the development of the actual, improved, travel area. This is something staff would verify before the subdivision is recorded.
5. Drainage pipes under driveways: Section 7.8.5 (D) (9) could be amended to establish a minimum width for all drain pipes of 16 feet, to address the concern of trucks being 'hung up' when attempting to access/leave a property.
6. Gates/Walls: With respect to required widths and setbacks for gates/privacy walls regulations could be adopted to require minimum travel widths and stacking areas to accommodate the Fire Council's concerns. Staff would need to determine where such regulations would best fit within the UDO.

7. Pull-over Areas: Private road standards could be amended to include emergency pull off areas as suggested by the Fire Council. Staff will have to take into consideration the impact such a requirement would have on current impervious surface policies, as such a standard would increase the impervious surface area on a site and could possibly impact overall developability.
8. Private Bridges: There are currently no existing standards governing the development of a 'bridge'/stream crossing. Such crossings are permitted in accordance with Section 6.13.6 (C) (4) of the UDO. Staff is still reviewing this request.
9. Tree Clearance on Driveways: While the County may need a reference to a tree clearing requirement for subdivision projects to ensure emergency vehicular access, and reference such requirements in recorded road maintenance agreements for all subdivisions, the UDO may not be the most appropriate location for a County standard.

Staff Recommended Options for Addressing Fire Council Comments Outside of the UDO: Several comments do not appear to have either a land use component or do not necessarily lend themselves to a land use enforcement proceeding. As a result Planning staff would recommend the following:

10. Locked gates: There is no land use issue related to a property owner choosing to secure his/her property. There is, however, a public safety concern. Staff recommends the establishment of a separate policy/ordinance within Chapter 14 Emergency Services of the Orange County Code of Ordinances to address this issue. The benefit of this option is that we could require more immediate enforcement remedies than currently possible with a land use violation (i.e. we typically provide a 30 day compliance window for land use violations).
11. Tree Clearance on Driveways: As with locked gates, there is no clear land use issue associated with this matter. Staff recommends a separate policy/ordinance as indicated in #9 above to address this issue.
12. Road Identification: There is already a road naming policy enforced by the Land Records division of the Tax Administration office that could address this matter.
13. District Issues with Road Conditions: This issue is beyond the scope of any one department or agency. From staff's perspective there needs to be a County policy for addressing access and maintenance in those circumstances where there is an older development that does not comply with County and/or NC DOT regulations.

The biggest concern Planning staff hears, with respect to this issue, is from residents of older subdivisions, with no home owners association, trying to address road maintenance issues and/or lack of financial participation amongst neighbors.

Staff Options for Addressing Comments Regarding Emergency Access for Trail Systems:

14. Trail Systems: There are currently no standards for emergency access for trail systems in the UDO. Issues related to accommodating emergency service personnel needing to access people using trails at Orange County parks and nature preserves administered by DEAPR are best addressed through the addition of the DEAPR staff recommended goal and objectives to the Draft Parks & Recreation Master Plan. This approach would be a more flexible approach that would be responsive to the site-specific environmental issues of individual park sites.

**3. Comprehensive Plan Linkage (i.e. Principles, Goals and Objectives)**

- a. Transportation Goal 2, Objective T-2.3: Increase countywide access for emergency vehicles, including ways to improve response times, both for existing and new developments.
- b. Services and Community Facilities Goal 7, Objective PS-T-3: Establish and maintain an appropriate level of service for law enforcement and emergency services and ensure the provision of adequate public safety protection standards for residential, commercial, and industrial development throughout the County.

**4. New Statutes and Rules**

N/A

**C. PROCESS**

**1. TIMEFRAME/MILESTONES/DEADLINES**

- a. BOCC Authorization to Proceed  
May 20, 2014
- b. Quarterly Public Hearing  
TBD
- c. BOCC Updates/Checkpoints  
Fall of 2014 - BOCC Update and request for authorization to proceed with text amendment(s)
- d. Other  
N/A

**2. PUBLIC INVOLVEMENT PROGRAM**

**Mission/Scope:** To review existing private road, access standards, and trail system standards with respect to providing an appropriate level of service for emergency services vehicles and ensuring the provision of adequate public safety protection standards for development, and within this framework providing a reasonable and affordable development option for small subdivisions.

a. Planning Board Review:

September 3, 2014

b. Advisory Boards:

OUTBoard – April 16, 2014  
& August 20, 2014

c. Local Government Review:

DEAPR staff – June 16, 2014.

Emergency Services staff; and the  
Fire Chief Council – July 9, 2014

d. Notice Requirements

At this time, only notice for advisory board meetings as required.

e. Outreach:

General Public: N/A

Small Area Plan Workgroup: N/A

Other: N/A

**3. FISCAL IMPACT**

Other than staff time, there is no financial impact associated with receiving, considering and authorizing the staff to proceed with adoption steps for reviewing the County’s private road standards, access and trail systems standards.

**D. AMENDMENT IMPLICATIONS**

N/A

**E. SPECIFIC AMENDMENT LANGUAGE**

N/A

**Primary Staff Contact:**  
Abigaile Pittman, AICP  
Planning Department  
919-245-2567  
abipittman@orangecountync.gov

**SECTION 7.8: ACCESS AND ROADWAYS**

**7.8.1 Streets – General Standards**

**(A) Consistency with Comprehensive Plan**

- (1) The provision of street rights-of-way shall conform to and meet the requirements of the Orange County Comprehensive Plan.
- (2) Reservation for or dedication of street rights-of-way for future transportation facilities proposed in the adopted Comprehensive Plan shall be required where appropriate.
- (3) A subdivider shall not be required to provide or dedicate right-of-way for a proposed street to which access would be prohibited by any governmental agency.

**(B) Compliance with Approved Access Management Plans and Studies**

- (1) Subdivision of land abutting a roadway for which the Board of County Commissioners has approved recommendations from a plan or corridor study is subject to provisions of the approved corridor plan or study.
  - (a) In such cases, the subdivider shall provide any improvements or other means to ensure construction recommended in such plan or corridor study. Such improvements may include facilities for bicycles, sidewalks, and public transportation.
  - (b) The subdivider, in cases where the recommendations address access management, shall use design elements recommended in the plan or corridor study to reduce conflict points.
- (2) Policies prescribed in Phase V of the Access Management Awareness Project and Report, or other adopted studies of strategies, shall be considered during subdivision and site plan review to assess access management and other corridor design considerations.

**(C) Coordinated Street System**

- (1) All subdivisions shall have a coordinated street system with public or private streets that access a public municipal street or a public State maintained street in accordance with the following:
  - (a) Public street rights-of-way shall abut adjacent properties as necessary to provide connectivity to the countywide transportation network; and
  - (b) Lot access to streets serving the subdivision shall be limited in the case of streets that provide a link between two or more roads designated in the Comprehensive Plan as arterials or collectors.
  - (c) All subdivisions shall have at least one street that intersects with or joins a public municipal street, or a public State maintained street.

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### 7.8.2 Public Streets – Where Required

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Public streets are generally required in all subdivisions and shall be required where it is found that:

- (A) The subdivision streets would be accepted by the State for maintenance if:
  - (1) They are built in a manner which satisfies the minimum State design and construction criteria for subdivision streets; and
  - (2) They would satisfy other requirements for addition to the State maintenance system, including, but not limited to, the general density standard of at least two occupied residences for each one-tenth of a mile of subdivision street.

If, upon review of a subdivision plat, it is determined that the general density standard is met, but a design standard is not, a re-design will be required where possible. For example, if the number of lots proposed along a subdivision street would clearly satisfy the density standard, but the street design was such that the centerline radius did not meet the minimum standard of 230 feet for level land, a new street design would be required. Another example is a situation where a landscaped island or entrance median prevents acceptance of the street for maintenance.

The State's criteria and standards are identified in the following publications: Subdivision Roads - Minimum Construction Standards and Traditional Neighborhood Development (TND) Guidelines, prepared by and available from the N.C. Department of Transportation; or

- (B) The subdivision streets extend existing streets which are public; or
- (C) The subdivision streets are part of a development which is located in an area designated as Urban or Transition by the Orange County Comprehensive Plan; or
- (D) A proposed street is designated as an arterial or collector on an approved Thoroughfare Plan for a municipality or in the Orange County Comprehensive Plan; or
- (E) The subdivision streets are part of a non-residential development consisting of office, retail, industrial, and similar businesses, each located on a separate lot. This provision shall only apply to that portion of a subdivision being developed for non residential purposes.

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### 7.8.3 Public Streets - Construction Standards

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Public dedicated streets must meet the minimum construction standards as adopted by the N.C. Department of Transportation for acceptance of streets as additions to the State Highway System.

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### 7.8.4 Private Roads – When Permitted

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- (A) A private road shall be deemed justified for a minor residential subdivision resulting in no more than three lots provided:
  - (1) No new lots have been created from the parent tract, through subdivision or other manner exempted from subdivision regulations, since the more recent:
    - (a) Date of adoption of this provision (September 18, 2001); or
    - (b) Ten years from the date of recordation of the parent tract if the lot being subdivided was created using the three-lot private road justification provision.

The parent tract, for the purpose of this provision, is the lot or tract of land that is being subdivided.

  - (2) All resulting lots meet the minimum lot area per dwelling unit and maximum density requirements for the zoning district, including any overlay district, in which the subdivision is located.

- (B) A minor residential subdivision of three or fewer lots shall be encouraged to provide a private access easement for one adjacent lot to access the private road in order to reduce the number of access points on a public road.
- (C) For all other subdivisions the Planning Board and the Board of County Commissioners (in the case of major subdivisions) and Planning staff (in the case of minor subdivisions) shall consider the design features in this subsection (8.8.4) when determining whether to permit private roads.
- (D) There is no right to a private road in any subdivision containing more than three lots.
- (E) At a minimum, a private road may be justified if the subdivision meets standards of (1) below and at least two other design features (2 through 7) listed below.
  - (1) The location and design of the subdivision is such that it clearly preserves the rural character of the County through:
    - (a) The provision of lot sizes and building setbacks significantly greater than those required by the zoning district in which the proposed subdivision is located, including any overlay district requirements, in accordance with the following standards:
      - (i) Lot Sizes – Conventional Subdivision
        - a. All lots in the subdivision must be at least 80,000 square feet if the minimum lot size or area per dwelling unit of the zoning district is 40,000 square feet or less.
        - b. All lots must be at least 120,000 square feet (2.75 acres) if the minimum lot size or area per dwelling unit of the zoning district is 80,000 square feet.
        - c. All lots must be at least 130,680 square feet (three acres) if the minimum lot size or area per dwelling unit of the zoning district is 87,120 square feet (two acres).
        - d. All lots must be at least five acres for all other cases.
        - e. Minimum building setbacks for lots located on a private road shall be twice those required.
      - (ii) Lot Sizes – Cluster Subdivision or Flexible Development without Density Bonus
        - a. In zoning districts having a minimum lot size of 40,000 square feet:
          - i. All lots must be at least 80,000 square feet in subdivisions providing 40% or less open space;
          - ii. All lots must be at least 70,000 square feet in subdivisions providing 41% - 49% open space;
          - iii. All lots must be at least 60,000 square feet in subdivisions providing 50% or greater open space.
        - b. In zoning districts having a minimum lot size or area per dwelling unit of 80,000 square feet or two acres (87,120 square feet):
          - i. All lots must be at least 130,680 square feet (3 acres) in subdivisions providing 40% or less open space;
          - ii. All lots must be at least 90,000 square feet (2.07 acres) in subdivisions providing 41% - 49% open space;



- (d) The land being subdivided is not connected to, or part of, another subdivision required to be served by public roads.
- (F) The Declaration of Development Restrictions, prepared by the Planning Department and recorded concurrently with the Final Plat, shall include a statement that further subdivision of any of the lots may require that the road be upgraded to a higher private road classification, or to public standards, and that the cost of the upgrade will be the responsibility of the subdivider.
- (G) Where a parcel being subdivided was created by a previous subdivision approved after July 5, 1983, then the previous subdivision as well as the proposed subdivision will be considered in determining whether a private road is still justified.
- (H) It shall be the responsibility of the applicant for subdivision approval to supply a written statement justifying the reasons for private roads in the proposed subdivision.
- (I) Compliance with one or more of the standards in this subsection (8.8.4) does not insure approval of either a public or private road within a proposed subdivision.
- (J) A private road shall be required to meet standards set by Orange County as described in Section 7.8.5. Satisfactory proof that the standards are met will be required by the County Manager or his/her appointed agents.
- (K) If a subdivision is to contain private roads, the subdivider shall have the County's Standard Road Maintenance Agreement entitled, "DECLARATION OF RESTRICTIONS AND PROVISIONS FOR PRIVATE ROAD MAINTENANCE" prepared and processed in accordance with Section 2.14 for minor subdivisions or Section 2.15 for major subdivisions and shall conform to the requirements of Section 7.14.3(6)(b)(ii).
- (L) The land within a private road easement shall be included within the lot boundaries of the lot or lots which border the easement. The road maintenance agreement shall include a provision that if the road is dedicated for public use at a later date, then the lot boundaries will be revised to extend only to the edge of the right-of-way, in accordance with NCDOT standards.

### 7.8.5 Private Road Standards

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**(A) Purpose and Intent**

- (1) In Orange County, the preference is to serve subdivisions with State-maintained (NCDOT) public streets or municipal streets. The County recognizes, however, that private roads may be beneficial in some cases where the developer provides significantly larger lots, and where a private road graded to a narrower cross-section saves valuable vistas, trees, or natural resources, and reduces cut-and-fill and overall land disturbance. Where the developer clearly provides benefits such as enhancing entrances or streetscapes off an adjoining public road, saving trees, providing large lots, reducing disturbance, and "fitting" lots better into their natural surroundings, the Planning Department, Planning Board, and Board of County Commissioners may permit the use of private roads.
- (2) The County is concerned about the logical and safe extension of public roads throughout the County and notes that private roads cannot be served by school buses and sometimes not by rescue squads and fire trucks. Private roads are generally unpaved and property owners who use the road are solely responsible for maintenance of the road.
- (3) The County will approve only private roads where the "benefits" outweigh the negative aspects.
- (4) Private roads shall never be approved simply to save money.
- (5) Private roads are a privilege, and not a right, and must be justified by the particular lot arrangement and benefits provided by each development.

**(B) General Requirements**

- (1) Private Roads serve lots within subdivisions that do not have access to state-maintained roads.
- (2) Private Roads insure that all lots have documented legal right-of-way and provide adequate access for residents and emergency vehicles.
- (3) Private Roads may be allowed in a subdivision where, in the judgment of the Planning Board and with the approval of the Board of County Commissioners, it is found that the nature and location of the subdivision are such that a private road is justified.
  - (a) In determining whether to permit Private Roads in subdivisions, the design features contained in subsection (F)(5) of this Section shall be considered.
  - (b) It is the responsibility of the subdivider to supply a written statement justifying the reasons for Private Roads in the proposed subdivision.
- (4) After approval of and initial construction of the Private Road, maintenance must be provided by the property owners of lots located along the road. A Road Maintenance Agreement or Declaration between the lot owners is required to insure that the needed repairs are made (see subsection (F)(10)(i)).
- (5) Since Private Roads are not constructed to North Carolina Department of Transportation standards, they will not be added to the Secondary Road System and will not be maintained by the State or Orange County.

**(C) Classifications**

- (1) The standards and specifications for Private Roads apply to subdivisions in Orange County and the class of road required depends on the number of lots served by the road.
  - (a) A Class B road serves 1 to 5 lots or dwelling units.
  - (b) A Class A road serves 6 to 12 lots or dwelling units.
- (2) All Private Roads in a major subdivision require the approval of the Board of County Commissioners.
- (3) Before the final plat of the subdivision can be recorded, the Private Road must be built and approved, or the applicant must post a security instrument with the County in an amount that would cover the cost of constructing the road.
- (4) Class B Private Roads intended to serve two lots or dwelling units are not required to be constructed to Orange County Standards or to be inspected before recordation of the final plat.
  - (a) Orange County recommends that such Class B roads be built to these standards in order to provide adequate access, especially for emergency vehicles which require the clearances and turn areas shown on the specifications.

**(D) Construction Standards for Private Roads**

The standards described herein are the minimum set forth by the County. Orange County has not determined, and is not responsible for determining, that these standards are adequate or appropriate for all uses by landowners. The standards also may not meet NCDOT criteria. No road will be accepted for maintenance by NCDOT unless or until NCDOT standards are met.

TABLE 7.8.5.D BASIC STANDARDS AND SPECIFICATIONS FOR PRIVATE ROADS				
	CLASS A	CLASS B		
Max. Number of Lots	12	2	3	5
Right-of-Way Width	50 ft.	50 ft.	50 ft.	50 ft.
Travel-Way Width	18 ft.	No Standard	12 ft.	12 ft.
Road Maintenance Agreement Required	Yes	Yes	Yes	Yes
Maintenance Responsibility	Property Owners	Property Owners	Property Owners	Property Owners

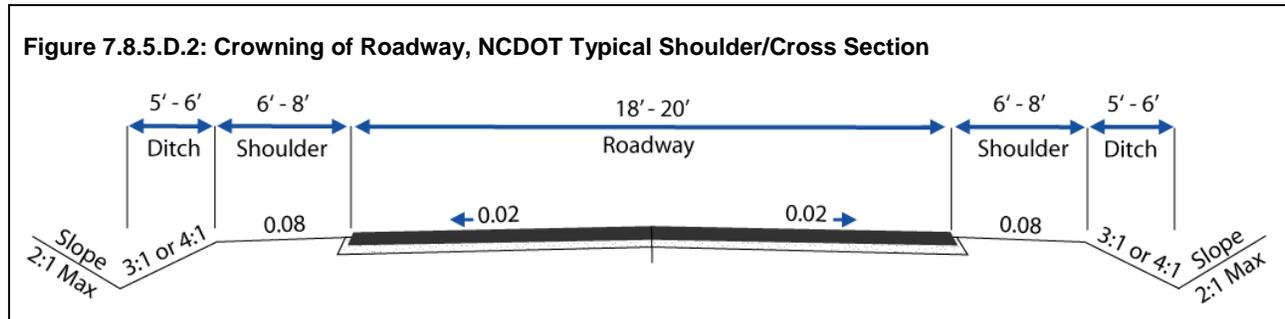
**(1) Certificate of Construction**

- (a) A registered land surveyor must certify in writing to the Planning Department that the travelway of the Private Road, either existing, upgraded or newly constructed, is within the platted right-of-way.
- (b) A professional engineer must certify in writing to the Planning Department that a Private Road, either existing, upgraded, or newly constructed, meets the standards of the required class for the subdivision, provided however, there is no requirement for written certification by a professional engineer for a private road serving three or fewer lots.
- (c) The following must be inspected and certified:
  - (i) The proper material has been used in the travelway and it is built to the required width and thickness;
  - (ii) The shoulders are the correct width and the typical cross section is in place;
  - (iii) The road is on the proper grade;
  - (iv) Ditches are in place where necessary to provide adequate drainage, in accordance with sound engineering practice;
  - (v) Necessary storm pipes of proper size, materials and construction are in place and energy dissipaters installed, in accordance with sound engineering practice;
  - (vi) All disturbed areas are properly stabilized;
  - (vii) The required road sign is in place;
  - (viii) An adequate turn-around is in place at the end of the road;
  - (ix) Required vertical and horizontal clearance is provided; and
  - (x) Sight distance and construction at the intersection with a public road has been approved by NCDOT.

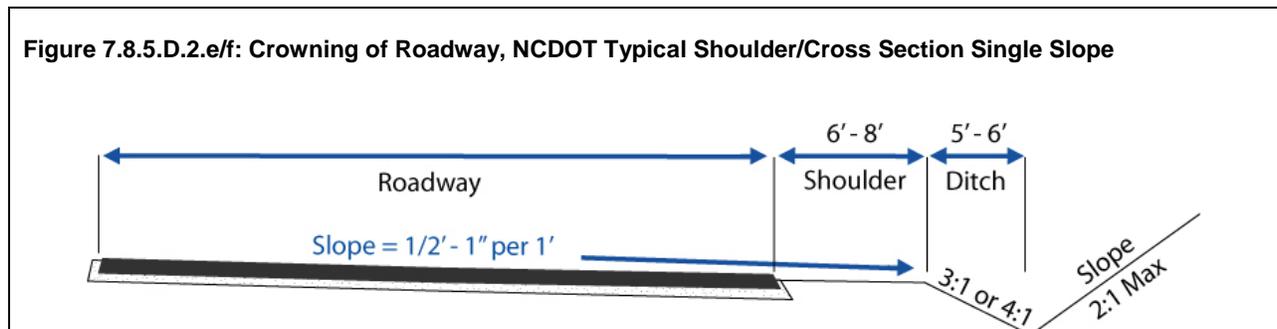
**(2) Travelway**

- (a) The travelway must be surfaced and compacted with a material acceptable to Orange County to the required width of the particular class of road.
- (b) A crown should be built into the travelway so that water will drain from the road surface into the side ditch.
- (c) The crown should not be so great as to cause vehicles to slide off the travelway when ice or snow is on the road.

- (d) Generally the road and shoulder should be crowned as shown in the drawing below so that runoff will drain to the ditches on both sides of the road.



- (e) In some situations it may be desirable not to crown the road but to have the travelway sloped to a single ditch as shown below. This is applicable in four situations:
- (i) Where it is necessary to cut down on the length of a ditch in order to reduce the erosion potential by decreasing the volume of runoff,
  - (ii) Where it is difficult to construct ditches due to rock,
  - (iii) To provide for super-elevation, or
  - (iv) In curves.
- (f) The single slope described in (e) should always drain toward the inside of a curve. The crown slope of the road and shoulder should be approximately 1/2 to 1 inch per foot.



**(3) Surface Materials**

- (a) Acceptable material for surfacing the travelway is Aggregate Base Course (commonly called "crusher run").
- (b) Soil type base materials (commonly called "Chapel Hill Gravel" or "Chapel Hill Grit") will be accepted under the following conditions:
  - (i) The material originates from a quarry approved by the North Carolina Department of Transportation.
  - (ii) The grade of the road is less than 8%.
  - (iii) Where the grade is greater than 8% a layer of crusher run stone will be placed over the Chapel Hill Gravel before compaction.
  - (iv) Sources of surface material shall be verified with the certifying professional before placement.

**(4) Fill Material**

- (a) Where filling is necessary to raise the roadbed, cross watercourses or fill stump holes, it shall be done with suitable material that is free of roots or other organic matter.
- (b) The fill should be firmly compacted to reduce settlement that will cause ruts or holes in the finished road.

**(5) Traffic Flow**

- (a) Private Roads shall provide for two-way traffic in order to prevent conflict of vehicles meeting head-on.
- (b) Two-way traffic for Class B roads can be accomplished by widening the travelway at prescribed locations to at least 16 feet to allow vehicles to pass or to pull over and stop while another vehicle passes.
- (c) Plans showing road and right-of-way location, ditches and culverts, extent of clearing, and existing and finish contour lines shall be approved by the Erosion Control Officer.

**(6) Medians**

- (a) Medians may be permitted between travel lanes when it is demonstrated that such design is desirable for the preservation of natural resources, or that excessive cut and fill would be required to construct a roadway to the standard width.
- (b) Medians may be permitted only in accordance with the following:
  - (i) Each lane shall contain a minimum of 14 feet of vertical and horizontal clearance.
  - (ii) Each lane shall contain a minimum travelway of eight feet, or 1/2 of the required width for the applicable road class, whichever is greater.
  - (iii) No lots shall access directly onto any divided portion of the road unless there is adequate cross-access provided through the median, or some other acceptable means of access and turnaround for emergency vehicles.
  - (iv) Both lanes shall be contained within a single easement.
  - (v) A standard travelway of required width for the road class shall be constructed where the private road intersects with another private or public road.
  - (vi) Signs indicating "One Way" and/or a split roadway shall be provided where the lanes diverge.

**(7) Grade**

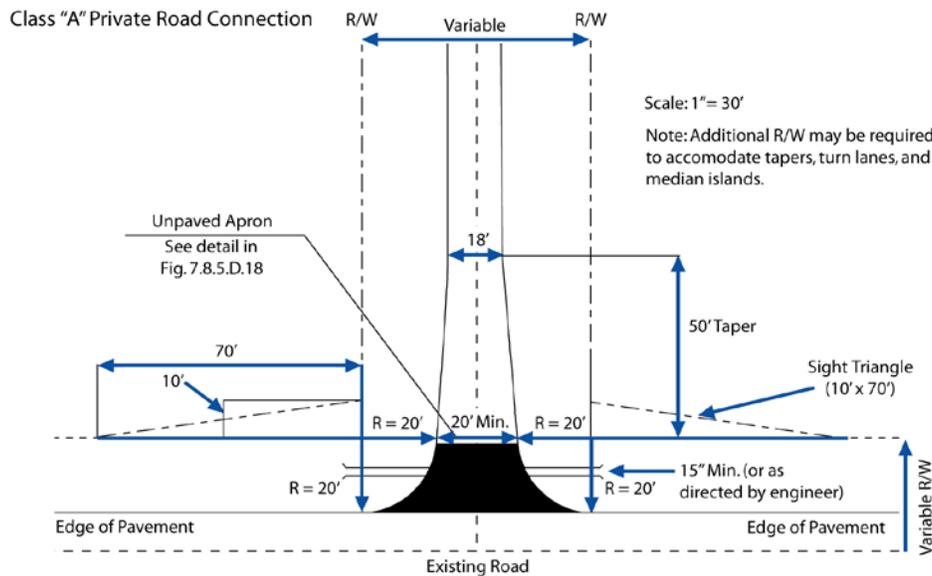
- (a) The grade of the road should not exceed 12% because of the difficulty of operating vehicles on such a steep road and the high potential for erosion of the travelway and ditches.
- (b) Where possible, the road should be constructed along the contour of the land to avoid steep grades.
- (c) In exceptional circumstances a variance may be granted for a grade greater than 12%, as may be approved by the Board of Adjustment prior to construction (see Section 2.10 for variance procedures).  
Circumstances where a variance will be considered are:
  - (i) There is no other reasonable access or location of the road,

- (ii) Relocating the road would create other, more serious problems with drainage, stabilization, or environmental impact, and/or
- (iii) The length of the segment with grade greater than 12% is no longer than 100 feet.

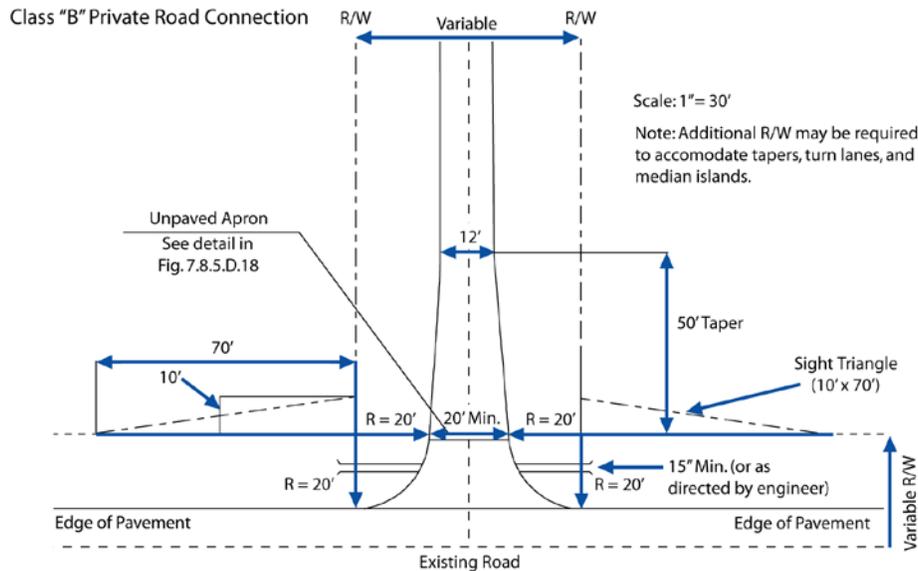
**(8) Intersection with Public Road**

- (a) The intersection of the Private Road with the existing public road shall permit a safe entrance and exit.
- (b) Adequate sight distances along the public road shall be provided by choosing a good location for the right-of-way and clearing sight triangles when building the road.
- (c) The intersection of a Private Road with a public road must provide an adequate place for cars to stop before entering the public road. See the diagram below.

Figure 7.8.5.D.8: Intersection with Public Road



Note: Permanent drainage easements may be required to accommodate drainage beyond the right-of-way



Note: Permanent drainage easements may be required to accommodate drainage beyond the right-of-way

- (d) The Private Road must flare at the public road in order to permit a vehicle to enter the Private Road when another vehicle is waiting to exit on the Private Road. The dimensions of the required flare are 20-feet for both a Class A and Class B Private Road, as shown in Figure 7.8.5.D.8.

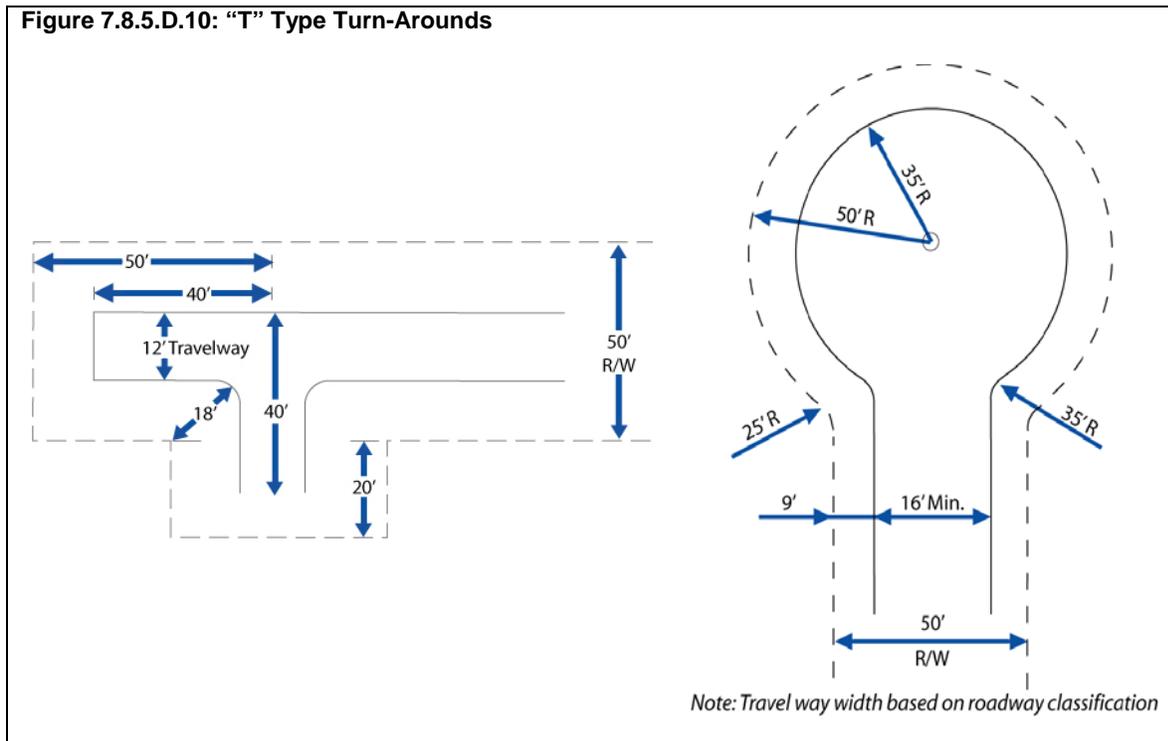
**(9) Drainage**

- (a) Ditches shall be constructed to provide drainage from the road and adjacent areas.
- (b) The ditches shall be built with sufficient depth and width to carry the expected volume of water.

- (c) The side slopes shall be graded so that they can be stabilized and to prevent vehicles from becoming stuck if they slide into the ditch.
- (d) Where the road crosses streams or minor watercourses, culverts shall be installed to prevent ponding and washouts of the road for the design five-year storm.
- (e) On streams where it is not economical to install a large culvert of the required size, the Erosion Control Officer may allow the installation of a smaller culvert if engineering equivalent provisions are made to protect the road surface and fill slopes from erosion when runoff tops the road.

**(10) Turn-Arounds**

- (a) Vehicle turn-around areas shall be provided at the end of all dead end roads. This can be accomplished by ending the road in a cul-de-sac or a "T".
- (b) The "T" type turn-around is preferred.
- (c) Culs-de-sac shall have a minimum diameter of 70 feet.
- (d) A "T" turn-around must conform to the dimensions in the diagram below.



- (e) The location of the turn-around will depend on the arrangement of the lots in the subdivision.
- (f) If the Private Road serves only one lot the turn-around should be located near the building site.
- (g) In a subdivision with several lots the turn-around should be at the end of the road and the necessary right-of-way provided.

**(11) Road Name and Sign**

- (a) The road name shall be verified with the Orange County Planning Department to insure that the proposed name does not duplicate an existing name.

- (b) The road sign shall have one double-sided blade showing the name of the Private Road and another showing the name of the existing State maintained road.
- (c) Class B roads of any length are required to be named and to have a road sign posted.

**(12) Right-of-Way**

- (a) The right-of-way shall be 50-feet wide and indicated on the final plat.
- (b) Requests for rights-of-way less than 50-feet in width must be approved by the Board of County Commissioners. In no case shall a right-of-way less than 25-feet in width be approved.
- (c) Bends in the right-of-way must be at angles that will permit construction of curves with a 125-foot minimum centerline radius (see subsection (17) below).

**(13) Vegetation**

- (a) All areas disturbed by the construction of the road, including the shoulders, ditch banks, cut and fill slopes and any borrow areas, shall be seeded in permanent vegetation to stabilize the soil and prevent erosion.
- (b) Seeding should be done immediately after grading is completed and before the final inspection by the Planning Department.
- (c) The disturbed area shall be smoothed and lightly harrowed to break up the soil and prepare a good seedbed. The following materials are recommended per 1,000 square feet:
  - (i) 1.4 lbs. Fescue grass seed
  - (ii) 0.4 lbs. German or Browntop millet (to provide temporary cover until the grass becomes established)
  - (iii) 90 lbs. lime
  - (iv) 23 lbs. 10-10-10 Fertilizer
  - (v) Two 40 lb. Bales of straw for mulch (enough to cover 75% of the ground surface)
- (d) Other types of permanent vegetation may be substituted as long as they provide adequate cover to prevent erosion.

**(14) Maintenance**

- (a) Maintenance of the Private Road must be provided by the lot owners that are served by the road.
- (b) The required Road Maintenance Agreement between the lot owners is required to insure that the cost is shared equally and a mechanism for maintenance is set up.
- (c) The responsibility for maintenance is the property owners and neither the State nor Orange County will maintain the road.
- (d) Regular attention shall be given to the following items in order to assure that the road will remain in good condition:
  - (i) The vegetation shall be mowed, limed and fertilized as needed. Areas that erode or where seeding is unsuccessful should be reseeded.

- (ii) Culverts shall be kept clear of trash and other obstructions that could prevent or reduce the culverts function. If culverts are not kept clear it will cause runoff to flow over the road and may cause flooding upstream. Ditch banks and bottoms shall be protected from erosion by maintaining good vegetation.
- (iii) The travelway shall be maintained by grading the surface material to fill any potholes that develop and to evenly spread the surface material where the soil has been uncovered because of erosion.
- (iv) The road name sign shall be kept visible and legible so that visitors and emergency personnel can easily locate the road.

**(15) Vertical Clearance**

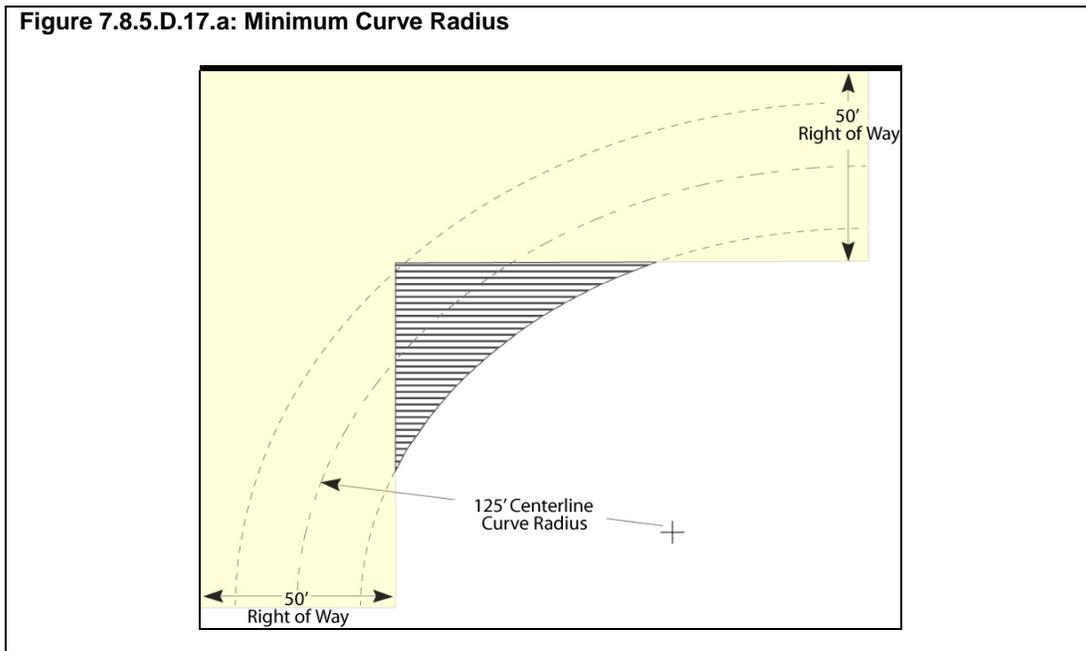
A minimum 14-foot vertical clearance shall be provided above the travelway to permit the passage of large vehicles under power lines and tree limbs.

**(16) N.C. Department of Transportation Driveway Permit**

The property owner is responsible for obtaining the required permit for access to the state maintained road. This permit can be obtained from the DOT in Hillsborough. Permits are normally granted on request.

**(17) Minimum Curve Radius**

- (a) New curves shall be constructed with a minimum centerline radius of 125-feet (see graphic).

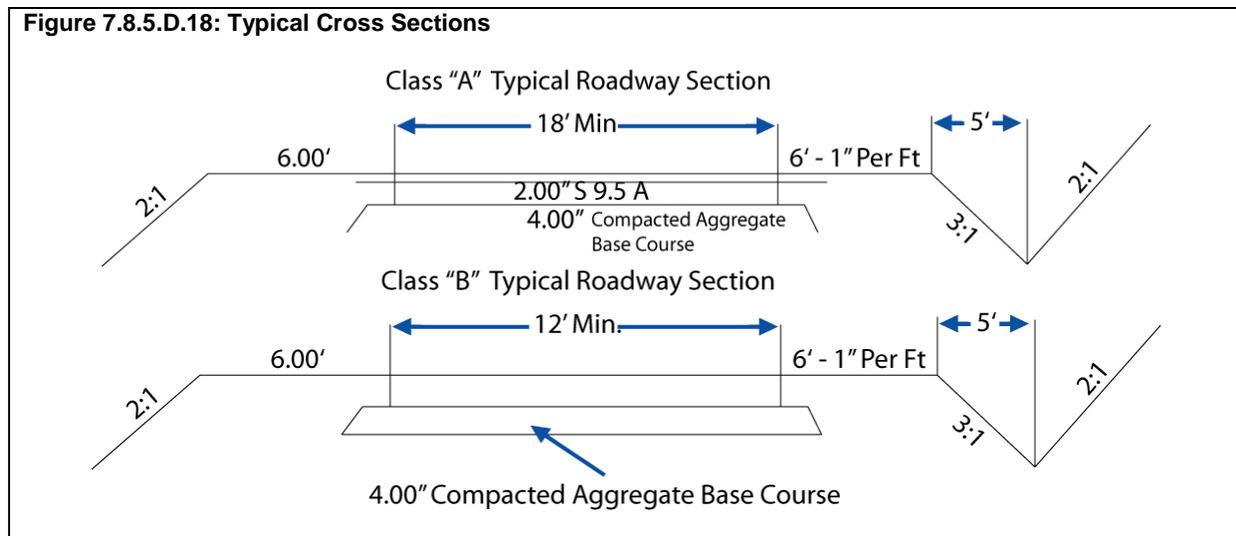


- (b) The right-of-way shall be designed with bends that will provide sufficient width to construct the road to the minimum radius. For example, a 90 degree bend in a 50-foot right-of-way will not provide enough area to construct a road 18-feet wide.
- (c) The right-of-way must include sufficient width for the travelway and the necessary shoulders, ditches and slopes.
- (d) A curve radius of less than 125-feet may be approved if all of the following conditions are met:

- (i) The road existed prior to the adoption of subdivision regulations or was approved as part of an earlier subdivision;
- (ii) Reconstruction of the existing road to meet a 125-foot curve radius is not feasible due to the extent of earthwork which would be required and/or the inability to reconfigure the existing right-of-way location due to ownership or the location of existing structures, wells or septic systems;
- (iii) Standards pertaining to road width and grade will be met;
- (iv) The subdivision can be approved with a Class B private road;
- (v) Documentation is received from the Staff Engineer that the proposed curve radius would provide for adequate vehicular access and circulation; and
- (vi) Documentation is received from the Department of Emergency Services stating that the proposed curve radius would provide access for the largest emergency vehicle expected to use the road.

**(18) Typical Cross-Section**

The drawings below illustrate the typical cross sections for Class A and Class B Private Roads.



**(E) Compliance with Erosion and Sedimentation Control Regulations Required**

Private road construction shall conform to the erosion and sedimentation control provisions of this Ordinance (see Section 6.15).

**(F) Inspections and Certifications**

- (1) Private road construction must be inspected and the construction certified in writing to the Orange County Planning Department by a North Carolina Professional Engineer.
- (2) The location of the travelway within the right-of-way must be certified to be within the platted private road right-of-way by a North Carolina Registered Land Surveyor.
- (3) The road must be inspected during construction so that any changes or improvements necessary to insure approval can be made before the stone is placed and the shoulders and ditches are seeded and mulched.

- (4) The subdivider or his/her representative must inform the professional making the certification prior to the start of construction and at intervals during construction when inspections are needed so that they can be scheduled.

TABLE 7.8.5.F: CERTIFICATION REQUIREMENTS FOR SUBDIVISION PRIVATE ROADS		
Maximum Number of Lots in Subdivision	3 or Fewer	4-12
Professional Engineer Road Construction Certification Required	No	Yes
Surveyor Certification Roadway in Platted Right-of-Way	Yes	Yes

- (5) Inspections by the Planning Department are made only to insure the following:
  - (a) That the road is built to the required dimensions;
  - (b) That the stone travelway is provided to the required width;
  - (c) That adequate drainage is provided;
  - (d) That any disturbed areas are seeded and mulched to establish permanent vegetation; and
  - (e) To verify that the required road sign is in place.
- (6) The subdivider is responsible for supervising construction and for quality control inspections for clearing and grubbing of the right-of-way, compaction of fill, construction materials, and so forth.
- (7) The subdivider or representative should employ a qualified grading contractor (and supervisor if necessary) to insure that the road is in the correct location and that acceptable methods and materials are used.
- (8) Bonds or letters of credit cannot be released or reduced until completion of the road is certified. Arrangements for payment between the subdivider and contractor are not the responsibility of Orange County.

**7.8.6 Alleys**

- (A) Alleys shall be required for lots used for commercial and industrial purposes except that this requirement may be waived where other definite and assured provision is made for service access.
- (B) Alleys shall not be provided in residential subdivisions unless necessitated by unusual circumstances.
- (C) The width of an alley shall be adequate for the purpose which it serves.
- (D) Dead end alleys shall be avoided where possible, but if unavoidable, shall be provided with adequate turn around facilities at the dead end as may be recommended by the Planning Board and approved by the Board of County Commissioners.

**SECTION 7.9: RESERVATION OF SPACE FOR UTILITIES**

**7.9.1 Easements Required**

- (A) Where several utilities are available or can be anticipated to serve a subdivision according to utility extension plans, utility easements, setbacks or other methods of providing services may be required for service in that subdivision.
- (B) Except where utilities may be located in approved alleys, easements, setbacks, or other methods, not less than six feet in width may be required on each side of rear and side lot lines.

### Attachment 3

## Emergency Access to Trail Systems at Orange County Parks

### Draft Goal and Objectives

The following are draft goals and objectives for accommodating emergency service personnel gaining access to people using trails at Orange County parks and nature preserves administered by the Orange County Department of Environment, Agriculture, Parks and Recreation (DEAPR).

Orange County parks that currently have trails are Efland-Cheeks Park, Cedar Grove Park, Fairview Park, River Park, and Little River Regional Park and Natural Area. The Jones Creek Greenway connects Lake Hogan Farms with Morris Grove Elementary School. Future trails are being designed for the future Blackwood Farm Park, Hollow Rock Access Area, and at the Seven Mile Creek Preserve.

These draft standards are intended for review and comment by the Parks and Recreation Council, the Emergency Services Department, and the Orange Unified Transportation Board.

**Overarching Goal:** Trail systems will be designed and constructed to accommodate the maximum enjoyment of trail users, however, in doing so, there will be considerations for topography, sedimentation and erosion control, the avoidance of sensitive natural and cultural resources, public safety, and the provision of staging areas for vehicles to access trail users in times of emergency.

Objective #1 – Trails will be constructed and maintained with a minimum clearance width of six feet (even if width of the trail tread is narrower) and a minimum clearance height of eight feet. [Single-track bike trails at Little River Park may have sections less than six feet of clearance.]

Objective #2 – Trail networks greater than one mile in total length will be marked with periodic signs that specify distances from trailheads and with GPS reference points for users to identify their location along the trail.

Objective #3 – Trails will be shown on maps displayed on kiosks located at trailheads, and maps will be available from the park office (for parks that have an office) and from the DEAPR Central Recreation Center in Hillsborough.

Objective #4 – Emergency Service vehicles will have access to trails in such a way that larger vehicles can reach staging areas identified within the park (and on maps) and smaller all-terrain vehicles (e.g., Gator) can access most sections of the trail. Staging areas will be located where feasible within close proximity (approximately ¼ mile) to any point along the trails. Keys to any gates/ bollards

### **Attachment 3**

will be provided to the appropriate Emergency Services provider(s) and will be available from the park office (for parks that have an office).

Objective #5 – Each park containing a trail network will develop an Emergency Action Plan, including protocol and procedures for trail-related emergencies.

## Attachment 4

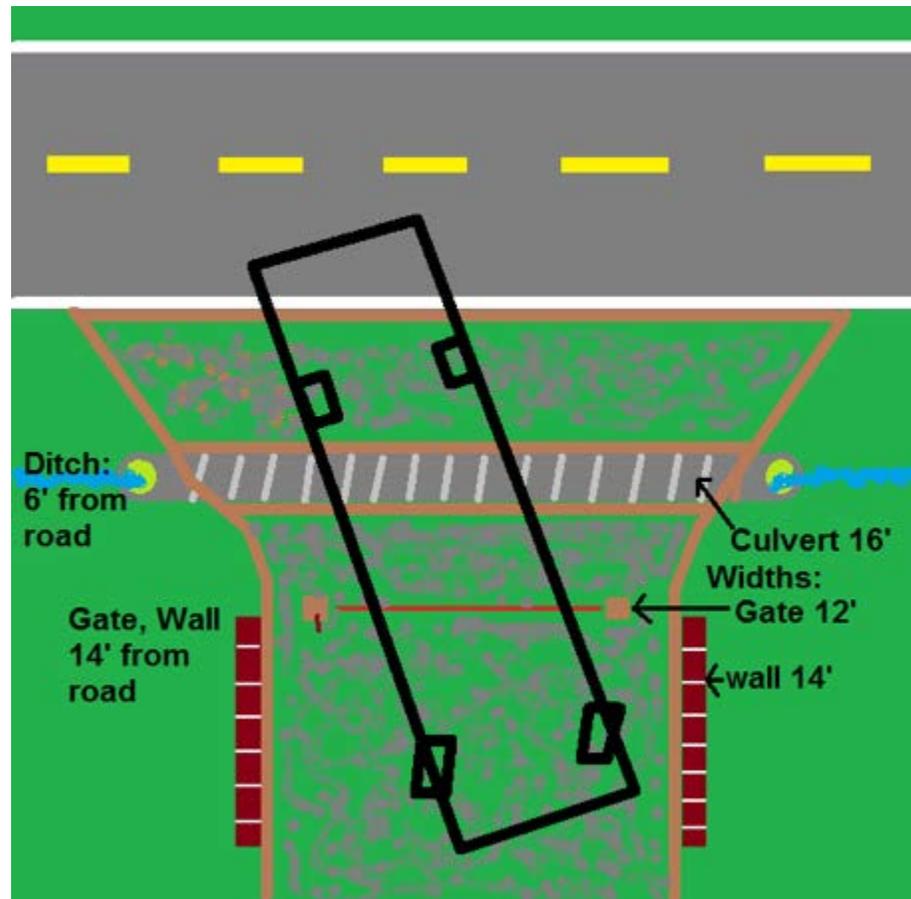
### Fire Chief Council Comments on Private Road and Access Standards

*(Comments that were received from Fire Chief Council members have been moderately organized and edited by staff.)*

1. Cul-de-sac Diameters - Some of the larger apparatus that responds to rural areas can be as long as 35 feet. With private roads, cul-de-sacs tend to slowly loose diameter as vegetation grows in. When bringing water in for a house fire, often the only means for turning tankers around is to continue down to the end of a private road and use the cul-de-sac. A minimum cleared diameter of 50 feet for new developments would insure that the fire service would operate at peak efficiency.
2. Drain Pipes Under Driveways – Drain pipe are typically located 5 to 6 feet from the road edge. Drain pipes should be 16 foot wide so that trucks can pull into driveways without getting “hung up” with a wheel in a ditch. Note that in addition to avoiding a catastrophic problem with the entranced to a residence blocked, this change also improves response time by a few seconds and avoids having the responding to get way over into the opposing lane going very slowly in order to ensure it can cross the drain pipe.
3. Gates and Walls – Gates and walls are typically located 12 to 15 feet from the road edge.
  - a. Gate Width – Gate widths at driveways should be a minimum of 12 feet wide so that emergency response vehicles can pull into driveways. Twelve (12) feet in width allows some room for overshooting.
  - b. Width of Wall Openings - Walls are some type of masonry or concrete and you cannot overshoot them due to the corridor created by the wall construction. Wall widths at driveways should be a minimum of 14 feet wide so that emergency response vehicles can safety drive through them.
  - c. Locked Gates - Many people have either locked gates or electronically controlled gates at their driveways. This slows down emergency services personnel because they have to dis-assemble the gate when they arrive at the house. There is always a dilemma faced by responders as to how much force should be used. If a house is visibly on fire, then an aggressive approach is not questioned. But for medical or fire alarms, if the emergency was not sufficiently life threatening or if the property in jeopardy was not of sufficient value the gate is carefully disassembled or responders wait for someone to come and open the gate. An ordinance addressing this issue would require that there be some means whereby responders can have access to a code, lock-box, or some other mechanism that allows them to open the gate, and would establish liability for gate damage if responders damage a gate. The benefit to the

### Attachment 4

responders is no more conversations about who is going to replace and damaged bolts on gates. The benefit to the public is increased response time.



*Drawing provided by Pete Hallenbeck*

4. Pull-over Areas on One-lane Private Roads - When a house is on fire, water often has to be brought in with tankers. These tankers go back and forth from a water point to the house. If there is a long one lane road, tankers have to wait at the end of the road until it is clear of all other vehicles. An ordinance requiring a 50-foot long pull-over area of at least 22 feet every 500 feet would insure that fire suppression operations could occur with best efficiency. Note also that such a pull-over area would be of benefit to the residents of the private road.
5. Private Bridges and Stream Crossings - Bridges for driveways and private roads should be rated at 40,000 pounds. If they are not, then there must be a sign with the rating of the bridge. An ordinance/regulation requiring this would also state that if a bridge is not certified for 40,000 pounds, the fire departments are allowed to use their discretion as to what apparatus can cross the bridge. Fire Departments should also be able to write letters to insurance companies stating that they cannot adequately protect a house.

## Attachment 4

6. Tree Clearance on Driveways - Heights for some emergency apparatus can be as much as 12 feet tall. Tree branches can droop when wet or when they have snow on them. An ordinance requiring a 14-foot wide by 14-foot tall clearance for driveways would insure that apparatus could negotiate the driveway with modest turns in it. If the ordinance would include something along the lines of "...and must be able to pass a vehicle 35-foot in length" that would be good too. Note that this would also be beneficial for the residents for both UPS delivery trucks and other vehicles such as gravel trucks or grading equipment trucks. In California, there are rules that require an area sufficient to turn a fire truck around for each house. Cul-de-sac, pull-over requirements and this recommended tree clearance for driveways is sufficient for rural Orange County (we are not prone to the wildfire situations that California has).

The fire department had a medical call recently and it was difficult for them to navigate in a standard cab, Ford, long bed. The fire apparatus could not make the driveway turns because of the trees.

7. Private Road/Drive Widths – An ordinance should address accessibility due to insufficient driveway width for emergency vehicles to navigate. If this cannot be addressed through an ordinance we (Emergency Services) should send a letter to property owners and explain to them the difficulties we face and how we may not be able to access the property in the event of an emergency due to the lack of accessibility.
8. Road Identification – Standards for road identification need to be reviewed and perhaps revised or better enforced. Poor road identification can and has caused delays in emergency response time. The photo to the right is an example of poor road identification.



#### Attachment 4

9. District Issues Regarding Road Conditions – There are district issues that border central Orange County. According to a comment received, Chief Brooks indicated that there was a complaint from the Friends Community off Moorefields Road. If the County, Efland or some citizen group wants Orange Rural Fire protection extended into Friends Community, they are going to need to do some road work. The roads into Friends Community are nearly impassible for fire trucks and efforts in the past to improve the situation were met with resistance from the residents. Obviously the ORFD Board has the final say over what the fire departments cover but we should not take on Friends Community if the roads are still over grown and too small for our trucks.

The County has no recourse for road maintenance and access on already existing developments. If the property owners in Friends Community want improved insurance ratings, they should ensure that whatever fire department responds will have the ability to access their homes and properties. It is possible that the response expectation could be put on Orange Rural, so it is important to understand these concerns. We do not want more access problems and the increased liabilities associated with them.