

Winston-Salem / Forsyth County Tree Ordinance Committee
Meeting Summary
Bryce A Stuart Building
Winston-Salem, NC

September 26, 2007

DRAFT (Do not circulate)
Draft Date: 10/24/07

APPROVED (For general distribution)
Approval Date: October 10, 2007

Attendance

Gayle Anderson	<i>Winston-Salem Chamber of Commerce</i>
Glenn Cobb	<i>Winston-Salem Regional Association of Realtors</i>
Melynda Dunigan	<i>Winston-Salem Neighborhood Alliance</i>
Glynis Jordan	<i>City-County Planning Board</i>
Evie Katsoudas	<i>Winston-Salem Chamber of Commerce</i>
Paul McGill	<i>McGill Realty</i>
James Mitchell	<i>City of Winston-Salem, Vegetation Management</i>
Bob Ragland	<i>Forsyth County Environmental Affairs</i>
Keith Rogers	<i>Keith Rogers Homes</i>
Linda Schwan	<i>City-County Planning Board</i>
Tamieka White	<i>Neighbors for Better Neighborhoods</i>

Alternates

Robert Vorsteg	<i>Winston-Salem Neighborhood Alliance</i>
Kaila Hires	<i>Winston-Salem Neighborhood Alliance</i>

Others

Ryan Swaim	NC Division of Forest Resources, Forsyth County Office
------------	--

Agenda

1. Review of 9/5/07 agreements
2. Discussion of TSA quality weighting calculation (James Mitchell)
3. Continuation of Discussion of Decision Points document, namely:
 - A. Preservation of heritage and specimen trees?
 - B. Planting provisions to reach TSA targets?
 - C. TSA requirements for multifamily and nonresidential developments?
 - D. Maintenance period for trees to remain on site?
 - E. Changes to buffer requirements?
 - F. Tree surveys and protection plans?
 - G. Exemptions?

Handouts Provided

1. Key Decision Points, Updated draft 9/24/07

1 Melynda Dunigan noted her submittal of an email clarifying her intent at the last meeting to
2 emphasize preserving trees in a TSA rather than planting to meet the minimum TSA target. It
3 was agreed that this issue would be taken up later in the agenda under the topic of planting
4 provisions to reach TSA targets.

5
6 There was some discussion as to whether the summary of agreements is accurate. Smutko
7 reminded the committee that the summary of agreements is an interpretation of what was
8 discussed at the previous meetings. These agreement summaries do not specify final agreements
9 by the committee. Smutko clarified that all agreements are tentative until everyone approves
10 them as final agreements. Moreover, because the committee is moving rapidly toward its
11 recommendations, Smutko will test consensus on all tentative decisions from here on out.

12
13

14 **Review of 9/5/07 agreements**

15 The committee reviewed the summary of recommendations made at the September 5, meeting
16 specifically relating to TSAs for residential single family development.

17

18 One member voiced a concern about TSAs being applied across all residential single family
19 zoning districts. The summary states that the 12% TSA applies to PRDs and major subdivisions.
20 He felt that the committee had discussed exempting minor subdivisions from the ordinance. Not
21 all committee members were clear on this. *(Facilitator note: Minor subdivisions were discussed*
22 *at the August 22 meeting. Although one member suggested that minor subdivisions be exempt*
23 *and it was acknowledged by other committee members that minor subdivisions are “too small to*
24 *worry about” and should be treated differently, this was not formally taken up in discussions at*
25 *that time).* It was agreed that this topic would be fully addressed during the discussion on
26 exemptions at a later meeting.

27

28 One member wanted to revisit the topic “No restrictions on location or configuration of a TSA
29 apply on the tract as long as the weighted 12% minimum is reached.” This was noted.

30

31 Smutko reminded the committee about the definition of consensus contained in the committee
32 charter. He also demonstrated the five-finger method of consensus testing and asked the group
33 to use that method when moving forward on recommendations.

34

35

36 **TSA Quality Weighting Calculation**

37 James Mitchell, director of City/County Vegetation Management Division, presented the draft
38 tree/tree stand quality weighting coefficients. He asked the committee to consider whether the
39 criteria used in the weighting was correct.

40

41

42 **Discussion on Weighting Calculation**

43 Members expressed concern that the negative coefficients penalize landowners. Rather than
44 getting no credit for having invasive exotics on the property, the owner is actually required to
45 plant more than the minimum. If a site has no trees, you are better off than having a site with

1 invasive exotics. What if the site is entirely covered with kudzu? Will the landowner have to
2 plant twice the amount of trees?
3

4 It was suggested and agreed that the definition of TSAs should negate invasive exotics as well as
5 contain some standard of tree health.
6

7 Some members were concerned that the quality coefficients are encouraging developers to go
8 below the 12% minimum.
9

10 We should have quality criteria in a TSA. But we need to have a minimum.
11

12 One member was concerned that the quality coefficient method is too complex. It implies that a
13 prospective buyer has to contract a tree survey before deciding to purchase a plot of land.
14

15 James Mitchell: these quality coefficients can be applied by using an existing aerial photograph.
16 You don't necessarily have to walk the parcel to do this.
17

18 This method captures quality much better than other municipal ordinances do.
19

20 This quality coefficient mechanism should be used as an incentive. An incentive means that you
21 are going to give something up to get something in return. There is no incentive here. This
22 should serve to enable someone to develop the site at a fairly high density and get some
23 tradeoffs.
24

25 The incentive should be for people to save the quality trees. What do you get for saving high
26 quality trees rather than low quality trees? This should be used as an alternative compliance
27 mechanism. You can use the prescription, i.e., 12%, or do something different that is itself a
28 public good, and get a break on the minimum.
29

30 Use this quality incentive when developers are getting down to the minimum TSA and choices
31 must be made about what which trees to keep and which to remove to meet the minimum.
32

33 We can use this as a 'quality criteria chart.' We should build into the quality coefficients an easy
34 approach to keeping quality trees on the site.
35

36 We need tree standards for single family and multifamily residential, and commercial
37 developments. We should use this as an incentive for increasing the number of trees on the site.
38

39 What can you tell from an aerial photo? You can get stand composition and size of tree save
40 area.
41

42 What should be the purpose of the quality coefficients?
43

44 We need to use this as a mechanism to save heritage and specimen trees. We need to provide the
45 incentive to preserve these trees.
46

1 We don't want to penalize people for having poor quality trees on their property.

2

3 Incentives should be used to give you something extra if you go beyond the acceptable level.

4

5 What if the builder meets the baseline 12% but does this by removing higher quality stands and
6 trees so that we're left with low quality trees?

7

8

9 **General Discussion of Tree and Stand Quality**

10 We should identify a TSA with a quality standard built in. That is, if you are going to save trees,
11 you should save the healthy trees that provide the most public good.

12

13 If a healthy stand is composed of a mix of tree ages and sizes, how do we ensure that a TSA is
14 composed of a healthy mix?

15

16 Can we link the tree save area with the common areas in PRDs?

17

18 How to include a quality component in the TSA requirement?

19

20 A quality component may add too much complexity to the ordinance. I don't think we want to
21 micromanage what is on a parcel. Set the minimums and trust the fact that that is what's going
22 to happen. If you want to go beyond that, provide reasons that you can go beyond that, and
23 credits for doing so.

24

25 What is the minimum threshold?

26

27 We need to get rid of the negative values in the quality coefficients.

28

29 Dead stands of trees and stands of invasive exotics should not be part of a tree save area.

30

31 What if you have six acres of kudzu-covered invasives and nothing else?

32

33 You need to remove them and start over.

34

35 Greensboro says, greater than 10 year life expectancy, no major insects or pathological problems,
36 greater than 10-year life expectancy, a relatively sound and solid trunk with no extensive decay,
37 and no dead trees, trees in poor health, or any tree subjected to grade alterations.

38

39 What is a grade alteration?

40

41 If you are grading within a root zone of a tree and you want to leave it, what you are doing is
42 creating a hazard tree, so you are better off removing it versus trying to save it.

43

44 How do you want to combine quality assurance with incentives?

45

1 What do you do to a site that does not contain quality trees in the first place? What if you have
2 to take all the trees out because they don't meet quality standards?

3
4 You can replant at a certain specified rate.

5
6 The problem with the way the incentives are set up, is that it becomes a disincentive for keeping
7 trees on the site.

8
9 The incentive should be that if you want to reach a certain quality standard, then you can build
10 more.

11
12 There should be some floor below which you can't go.

13
14 If you can meet the minimum standards with a healthy stand of trees – which you can determine
15 with an aerial photo, then you don't need to consider these quality weightings.

16
17 I'm OK with removing the negative values on the weighting criteria. With an adjustment of the
18 weightings, I'd be OK with using them as an incentive to protect quality trees.

19
20
21 **Quality Incentives**

22 Proposal: We set a baseline of 12% that meet a minimum health standard. If you want to go
23 below the 12%, then you need to apply the quality coefficients. But you can't go below 2% less
24 than the minimum standard, or 10% total coverage in this case.

25
26 You are referring to density bonuses. But what you are really talking about is the size of the tree
27 save area. I think that the closer you can connect incentives to the size of the tree save area, the
28 better off you are. If we start talking about density bonuses, then it confuses the issue.

29
30 Having a reduced tree save area is an incentive.

31
32 The proposal as restated is:

- 33 1. The minimum TSA is 12%
- 34 a. Trees must be alive
- 35 b. Trees must not be exotic invasives
- 36 2. If the developer wants to go below 12%, then must meet the Quality criteria, but in no
37 circumstances will go below 10%.

38
39
40 **Discussion of Proposal**

41 We're encouraging the developer to go below 12%. We should start at 14%, then allow the
42 developer to go down to 12%. If we are giving the incentive to go below 12%, then we need to
43 set the baseline higher.

44
45 Then there is no incentive. We might as well set the standard to 12% and just forget about the
46 quality criteria. It would be much simpler.

1
2 We are assuming that everything is equal and that we trying to get to something better. But
3 that's not what we are facing. We are dealing with the negative effects of development and
4 trying to maintain a bottom line. We are not so much building up as we are keeping from
5 dropping lower.

6
7 I agree that we need to hold the line on the removing trees from the site and the value of keeping
8 at least 12%. But there could be value in giving bonuses in the form of reduced TSA under
9 conditions where you really are getting something more. If the coefficients get us something
10 above and beyond what we would ordinarily expect, then the trade off seems reasonable. But
11 we've really got to get something for this.

12
13 James Mitchell: Let's add the criterion that trees must not only be alive but must also be healthy.
14 Healthy means not only alive, but will continue to grow for some period of time. I would say
15 that a healthy tree will be alive and continue to grow for at least five years. Frankly, I like the
16 way Greensboro states it, and that is for at least 10 years.

17
18 The proposal again restated is:

- 19 1. For sites with trees, the minimum TSA is 12%
 - 20 a. Trees must be healthy – in a condition that the tree will continue to grow for at
21 least 5 years
 - 22 b. Trees must not be exotic invasives
- 23 2. If the developer wants to go below 12%, then they must meet the quality criteria, but in
24 no circumstances will go below 10%.

25
26 A consensus vote was taken on the proposal. The committee adopted the proposal as restated by
27 consensus.

28 29 30 **Quality Criteria Revisited**

31 The quality incentives need to be respecified. We need to consider such things as heritage trees
32 and specimen trees. We also need to consider contiguity or connectivity of tree canopy. A TSA
33 should be a good cluster of trees. If all of the TSA is in a single block, than that would qualify,
34 because that is something we want to encourage.

35
36 When you say a single block, do you mean square? We'd likely see clusters along a stream.

37
38 No, not a block, a cluster of trees.

39
40 We need to reward canopy connectivity. All the TSA is in one connected piece.

41
42 From the development standpoint, can this be done?

43
44 This needs to be applied on a lot of different scales. On a very large site where you have trees
45 along creeks, on hillsides here and there, you won't be able to get to one connected piece.

1 Sure, we can have several connected pieces. Pieces must have some significance.

2
3 The committee requested staff to work out the quality criterion that takes into account canopy
4 connectivity.

5
6 What about pines? Doesn't a hardwood-conifer mix mean more diversity. Isn't a less mature
7 stand of trees, which in the future is a good thing. As opposed to hardwood forest that may be at
8 the end of its succession that may look lovely, but toward the end of its lifespan and may not last
9 as long.

10
11 James Mitchell: A hardwood forest will have a longer lifespan than will a mixed stand. When
12 you get the pines in there, having that type of forest in an urban environment, you will have a lot
13 more stresses on the pines, which will start to die out at a much higher rate than the hardwoods.
14 That's why they were given a lower rating. As far as species diversity, a hardwood stand is
15 going to be a more diverse stand. In mixed stand, the pines will die out and the hardwoods will
16 take over. Diversity is more a function of stand size and the length of time it is left alone.

17
18 Smutko: Any other instructions to James for respecifying the quality coefficients?

19
20 Let's keep the health criterion as the basic standard. We really can't have super healthy trees, so
21 we don't really need it as criterion for a quality incentive. (The committee agreed to this
22 suggestion).

23
24

25 **Heritage and Specimen Trees**

26 The committee proposed the definitions used in the Charlotte ordinance:

27
28 A heritage tree is any tree that is listed on the North Carolina Big Trees List, the American
29 Forest Association Champion Tree list, or any tree that would measure 80% of the points of a
30 tree on the North Carolina Big Trees List.

31
32 A specimen tree is a tree or group of trees considered to be an important community asset due to
33 its unique or noteworthy characteristics or values. A tree may be considered a specimen tree
34 based on its size, age, rarity or special historical or ecological significance as determined by the
35 city arborist or urban forestry specialist. Examples include large hardwoods (e.g., oaks, poplars,
36 maples, etc.) and softwoods (e.g., pine species) in good or better condition with a dbh of 24
37 inches or greater, and smaller understory trees (e.g., dogwoods, redbuds, sourwoods,
38 persimmons, etc.) in good or better condition with a dbh of ten inches or greater.

39
40 Smutko: What do you want to say about heritage and specimen trees?

41
42 Include them the incentive criteria. Give more credit for protecting a specimen tree than you
43 would for protecting a regular tree.

44

1 There can be a mitigation fund. If you have to take down a heritage tree or specimen tree for,
2 let's say a significant community project such as a stadium, then you should mitigate their loss.
3 Pay for them.

4
5 Smutko: Let's talk about heritage trees and specimen trees separately.

6
7

8 **Heritage Trees**

9 Smutko: What to you want to do about heritage trees?

10
11 Mitigate if you have to take one down.

12
13 Committee agreed that mitigation is a good way to handle removal of heritage trees. The
14 committee asked staff to research what other municipalities have done with regard to mitigation.

15
16

17 **Specimen Trees**

18 It makes sense to include the specimen trees in our incentive calculations.

19
20

21 Can that be done because we are talking about individual trees and not stands of trees?

22
23

24 What would be a typical situation? Will we find a lot of specimen trees on a site, or is it
25 uncommon to find them?

26
27

28 James Mitchell: They are not common, but they are here and there. I'll give you a couple of
29 examples. The magnolias in front of City Hall are specimen trees. They aren't the largest by
30 any means but they have historical significance.

31
32

33 But what about trees that are large but don't have historical significance. Are there a lot of
34 them?

35
36

37 James Mitchell: You can make the argument that an open-grown tree in good condition can be
38 call a specimen tree. If you have a farm field that is going to be developed, and out in the middle
39 of it you have a 36" oak with a perfect spread an in excellent health, you could say that this is a
40 specimen tree. It has no historical or ecological significance but could be considered a specimen
41 tree. If you use this broader definition, then you could have hundreds or thousands of specimen
42 trees in the county.

43
44

45 I'm thinking of the old Blumenthal property where there are a line of really large oaks lining the
46 driveway. There should be a way to preserve these trees. Can this be designed around and an
incentive given for preserving these?

47
48

49 In the definition we agree on, there is an "or" separating the characteristics, meaning that we
50 would include these types of trees in the specimen tree category.

51
52

53 Smutko: How do you include this in your incentives?

1
2 If you are mapping out your tree save area and identify a tree as a specimen tree, then you just
3 move that line out to, if we decide, say, 1.5, move that out a bit further.

4
5 We don't want to count it twice. If it is in the middle of stand of trees, you shouldn't get credit
6 for keeping the tree and keeping the stand.

7
8 We might be worrying about nothing here. I don't think that the double credit issue is going to
9 be a big deal. You've got your 10% floor. The area of the 24" oak is about 2800 square feet,
10 which is about 0.5% of an acre. In the normal scheme of things it won't be much to worry
11 about.

12
13 Is there a difference between a champion tree and a heritage tree?

14
15 James Mitchell: Yes, a champion tree is the biggest tree of its kind based on diameter height and
16 spread.

17
18 A consensus vote was taken on the following proposal:

- 19 1. Use the City of Charlotte's definitions of heritage trees and specimen trees.
- 20 2. Heritage trees: Keep, but if you can't, then mitigate (staff will develop a mitigation
21 scheme for the committee to consider).
- 22 3. Specimen trees: include as a criterion in the quality incentive coefficients.

23
24 The committee adopted the proposal by consensus.

25 26 27 **Planting Provisions to Reach TSA Goals**

28 The following proposal was introduced:

29
30 On parcels with less than 12% tree coverage, planting will be required at the following rates:

31 If less than 6% coverage: plant to 6% coverage

32 If greater than 6% coverage, but less than 12% coverage: plant to 12%

33
34
35 Comment: Don't include street trees in the tree planting requirement.

36
37 Why would street trees not count?

38
39 We want street trees regardless of our other tree conservation objectives.

40
41 But street trees do all the same things that other trees do.

42
43 Not necessarily. With street trees we are talking about individual trees. With our tree
44 conservation ordinance, we are trying to protect trees for their ecological benefits. We won't get
45 that from street trees.

1 But we are talking about planting new trees. If we have a bare site and plant to the 6%
2 minimum, where can we put them?

3
4 I have a problem with street trees being on private property.

5
6 But engineering doesn't want them on the right of way because they damage sidewalks and
7 streets.

8
9 Glynis Jordan: The street tree requirement is a minimum of one tree per lot, with a minimum
10 spacing of 75 feet. They can be placed in boulevard style, you can cluster them, spread them
11 out... There are also requirements for clear site lines on corners, etc.

12
13 In the grand scheme of a development, street tree planting is significant.

14
15 I don't really like to see those tiny little trees count toward a TSA.

16
17 When people talk about street trees and their benefits, they point towards that stretch of
18 Reynolda Road...

19
20 Better than that, they point to those beautiful trees in the old neighborhoods Charlotte. Those
21 were all planted many years ago...

22
23 Are there other configuration issues that might arise here?

24
25 You might want to fill in the gaps in the canopy. So if you are at 6%, you might want to plant
26 the trees to get to a connectivity goal.

27
28 What are the other issues that need to be discussed regarding planting?

29 Size of trees to be planted
30 Density of planting

31
32 James Mitchell: If we are talking about the area of each tree planted and looking at the mature
33 canopy, we need to decide on a general guideline for number of trees per acre. On the size issue,
34 I would recommend 2" to 2.5" trees. Anything smaller than that you get a lot of mortality – they
35 get mowed, trampled, whatever. A 2" inch caliper tree looks like a tree. Nurseries recommend
36 this size.

37
38 We also need to consider species variety.

39
40 James Mitchell: It may be easiest to specify a standard replanting density, for example 35 trees
41 per acre. Then if you come up with a configuration that allows you to plant more trees per acre,
42 then there should be an incentive for that. That would be a lot easier to figure out than stand
43 composition, or connectivity and all that.

44
45 Glynis Jordan: There are other tree landscaping requirements and buffer requirements already
46 put upon the site depending on use and other things. Are the tree planting requirements are in

1 addition to, take the place of a certain percentage, can you double dip? There are all sorts of
2 issues we need to consider with respect to replanting and the standards already on the books.
3 The discussion has so far concentrated on residential. Once we start talking about other types of
4 uses, such as commercial and industrial, are these planting requirements in addition to the
5 existing landscape ordinances?
6

7 One way of looking at it, if you require a TSA on the site, and you've got 12% coverage on the
8 site as is, all of the TSA would be in that existing stands, and all those other requirements still
9 come into play. We shouldn't be reducing the number of existing trees and then counting the
10 planting requirements under landscaping and buffer requirements as part of our TSA goal. First
11 meet the TSA minimum, then address your buffer and landscape needs.
12

13 Since many street trees are going to be on private property anyway, I'm kind of waffling on this
14 issue. I would not like to see street trees subtract from the amount of TSA. But whether or not
15 they get counted in the replanting goal, I'm open to other views.
16

17 If you have a treeless parcel, then how do you plant trees? It makes sense to plant them in
18 groups to get to the connectivity objective.
19

20 We should also be including location – where to plant.
21

22 We've got some stormwater ordinances coming down. The more constraints you put on
23 development, the more difficult it becomes to develop. As you put more restrictions and
24 standards in place on an individual development, the harder it becomes to develop that parcel. It
25 makes it a lot harder for people to do things. Developers will just go to Greensboro. We are
26 adding more hoops to jump through. If it isn't this huge, compelling argument, you ought to just
27 let the developers decide where to put them.
28

29 What percentage of a parcel would the street trees come to?
30

31 It kind of works out that on a lot with no trees, the street tree requirement gets you to the 6%
32 figure on an RS-9.
33

34 We are dealing with a problem on a bare site that will probably result in an outcome that is better
35 than what we can do. People plant trees. People will plant beyond the 6% level.
36

37 I think we need to specify a minimum. The question is, should street trees be allowed to satisfy
38 that minimum?
39

40 It depends on the species that you plant. You won't reach the 6% coverage goal with crepe
41 myrtles.
42

43 James Mitchell: There is a revised species list put together in the original tree preservation
44 ordinance. I suggest we start with that list. It is broad, has good species on it, a lot of junk has
45 been pulled out of it. It is a good list. The trees are broken out into small, medium large, and
46 extra large. You can make some broad assumptions about canopy spread based on this list.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35

Level of Agreement on Planting Issues

- Smutko tested the level of agreement on the following topics:
- Street trees: more discussion needed
 - Size of planting: agreement that 2” – 2.5” caliper is OK
 - Density of planting: more discussion needed
 - Species: James Mitchell will provide a species list with canopy spread measurements
 - Location: more discussion needed

Progress Check

- Smutko checked on the items that remain to be discussed:
- Percentage TSA requirements for multifamily and nonresidential developments
 - Maintenance period for trees to remain on site
 - Incentives to increase buffers (increasing beyond what is included in stormwater rules)
 - Tree surveys and protection plans
 - Exemptions
 - Planting requirements
 - Minimum dbh in a TSA (should this be folded into the definition of a healthy stand? How does tree size fit into the definition of tree canopy coverage?)
 - Location and configuration of TSAs (as part of the incentive calculation?)

For the next two meetings:

1. Review the revised quality incentive coefficients
2. Consider how buffers and location may be included in the coefficients
3. Finish the discussion on tree planting
4. Decide on maintenance period for trees in Tree Save Area
5. Consider tree surveys and protection plans
6. Consider exemptions
7. Decide on TSA minimums and other requirements for multifamily and nonresidential development

Meeting was adjourned at 7:00