



## Cabarrus County Government

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### AGENDA

Cabarrus County Planning and Zoning Commission Meeting  
March 17, 2011 – 7:00 p.m.  
Board of Commissioners Chamber  
Cabarrus County Governmental Center

#### Agenda

1. Roll Call
2. Approval/Correction of January 20, 2011 and February 17, 2011 Minutes
  - A. Approval of Findings of Fact for Variance Application Benjamin Small - VARN 2010-00002
  - B. Approval of Findings of Fact for Conditional Use Permit Application PSNC – CUSE2011-00001
3. Introduction of Shannon Johnson, Cabarrus County, Sustainable Local Economy Project Director
4. **New Business –Planning Board Function:**  
Text Amendment 2011-00001 - Ethanol Fuel Production – The purpose of the proposed text amendment is to add ethanol fuel production as a permitted use to the Cabarrus County Zoning Ordinance.
5. **Directors Report**  
Sub-Committee for Zoning Ordinance Updates

#### Adjournment

**CABARRUS COUNTY PLANNING AND ZONING COMMISSION**

**Sitting as the**

**CABARRUS COUNTY BOARD OF ADJUSTMENT**

**Variance Application of Benjamin Small**

**VARN 2010-00002**

**GENERAL FINDINGS OF FACT**

1. The "Applicant" is Benjamin Small, who owns a house and lot located at 2239 St. John's Church Road, Concord, Cabarrus County, North Carolina (the "Property").
2. Although the Property bears a Concord mailing address, it is located in the unincorporated area of Cabarrus County.
3. The Property is approximately 1.2 acres in size and is zoned Agricultural Open ("AO").
4. In AO zoning, an "accessory building" can be located no closer than 75 feet to the front property line and no closer than 20 feet to a side property line. It also cannot be located in front of the main residence.
5. The Applicant constructed an 8 foot by 10 foot "Structure" in the front yard of the Property, in a location near the driveway to the residence, in which the Structure is closer to St. John's Church Road than the residence, which faces that road.
6. Based on a complaint about the size and location of the Structure, Jay Lowe, Cabarrus County's Senior Code Enforcement Officer, conducted an investigation and determined that the Structure was an "Accessory Building" pursuant to the Cabarrus County Zoning Ordinance (the "Ordinance") and sent the Applicant a warning citation.
7. The Applicant appealed Mr. Lowe's interpretation of the Ordinance to the Board of Adjustment, which after a quasi-judicial hearing affirmed Mr. Lowe's interpretation on February 19, 2009.
8. The Applicant appealed the decision of the Board of Adjustment to the Cabarrus County Superior Court, which dismissed Applicant's appeal on September 10, 2010 for technical errors and for failure to prosecute the appeal. Thus, there is no issue before the Board of Adjustment that the Structure is an "Accessory Building" under the Ordinance.
10. The Applicant then filed this application for a variance.
11. A zoning public hearing sign was placed on the Property advertising the date and time for the hearing on this variance application. Adjacent property owners were notified by first class mail. In addition, a notice of this hearing was published on September 3<sup>rd</sup> and 8<sup>th</sup>, 2010 in the Independent Tribune.

12. The Applicant has submitted a completed application required by the County for his proposed variance.

13. Section 12-3 of the Ordinance requires that a property owner secure a zoning permit for constructing an Accessory Building. The Applicant did not secure a zoning permit to construct the Structure.

14. Had the Applicant applied for a zoning permit as required by the Ordinance, he would have been aware that the proposed location of the Structure would violate the set backs in the AO zoning district.

15. Water for the residence on the Applicant's Property is provided by a well. The wellhead and pump are located inside the Structure. When the residence was originally constructed in 2007 as a "spec home", the wellhead was covered by a plastic landscaping rock.

16. The Applicant's Property is part of a subdivision or area that is subject to recorded private restrictive covenants. Among these covenants is a restriction on the location of structures in the front yard of residences. It was not clear from the evidence whether Applicant, who is a licensed North Carolina attorney, was aware of these restrictive covenants.

17. The Applicant's sanitary sewer for the Property is provided by a septic system. The Applicant's septic field is located on his property. Through various recorded easements there is at least one other septic field on the Applicant's Property.

18. It is undisputed that the placement of the well for the Property was influenced greatly by the existence and location of the septic fields but the evidence was inconclusive on whether the location of the well is the only place on the Property for it to be.

19. At least in part because of the proximity of the septic fields relative to his water source (the well), the Applicant purchased a chlorine based water treatment system (the "System"). This System consists of several connected tanks that process or filter the water before it is introduced into the faucets, showers and tubs of the residence.

20. The Applicant located this System of tanks at the wellhead, inside the Structure. He did so in part because he believed that location to be the logical place where the System would best perform.

21. It appeared from the evidence that location in the Structure was not the only place where the System could function properly. The Applicant has a garage and a basement, among other potential places, where the System could have been effectively located. The Applicant did not want to locate the System in either the garage or basement because such placement would restrict the other usage of such locations and because the Applicant believed that such placement might adversely affect the value of the Property.

22. There was no evidence from an appraiser or specific, quantifiable evidence from the Applicant or anyone else that the location of the System in the garage or basement (or any other place besides in the Structure) would decrease the value of the Property.

23. In fact, location of the System in the Structure would require the Applicant to insulate and cover the System, which coverage would automatically be provided in the basement or garage.

24. The Applicant testified that since the date of the warning citation issued by Mr. Lowe, he had not completed the inside of the Structure, such that all of the interior insulation was not installed.

25. The dimensions of the equipment and required service area for the System were not introduced into evidence, such that there was no evidence for the Board to determine whether the size of the Structure was required for the System.

26. There was evidence that in 2008, the Applicant had flooding in his front yard which he believed was caused by the septic fields in that yard, and that contained in the water were small particles of waste, but the evidence was conflicting and inconclusive on whether the cause of the flooding was the improper design/construction of the septic fields or the work of Applicant's landscaping contractor, who changed the topography of the yard in that location.

27. The Cabarrus Health Alliance did not begin to directly regulate the distances between septic fields/lines and water sources until shortly after the Applicant's well and septic fields/lines were installed. There was a lot of evidence presented as to what standard was applicable to the required minimum distance between a water source and a septic field or line. Well diggers were then required to follow one standard and septic system installers followed another standard, which two standards contained different minimum distances.

28. From the evidence, it appeared that the owner/general contractor from whom Applicant purchased the Property believed that the best place to drill the well was its present location, given the various septic fields and lines on the Property.

29. Regardless, the location of the well relative to the septic systems and its final location on the Property would only be determinative if the Structure is required in that same location because that is the only place that the System could have been installed.

30. The Applicant constructed the exterior of the Structure using the same general style as his residence. It contains a gable roof with shingles to match his residence and exterior brick and wooden trim that also match the residence. By all testimony, the Structure is an attractive building. All of the witnesses who testified in behalf of the Applicant corroborated the attractiveness of the Structure.

31. The Applicant tendered a number of family members and neighbors who testified concerning other structures that may be accessory buildings pursuant to the Ordinance and in

violation of the Ordinance due to their size and location. There was no evidence that any complaint had been made to the County and the results of any investigation.

32. The existence of a violation of the Ordinance on another real estate parcel is not relevant to consideration of a variance on this Property and is not substantial or material or competent evidence bearing on this variance application.

33. There was no evidence that the location of the Structure creates any safety issues for motorists traveling on St. John's Church road.

34. There was no evidence that the Applicant obtained a building permit for the Structure.

35. At his request, prior to the hearing, and after an affirmative vote of the Board, Mr. Eugene Divine was recused from consideration of this matter because he has employed the Applicant as his counsel in unrelated business matters and consequently Mr. Divine believed he had a conflict of interest based on actual or perceived bias.

36. There was no evidence that any other person or property would be harmed or injured as a result of the location and size of the Structure.

#### **SPECIFIC FINDINGS OF FACT FOR EACH VARIANCE ELEMENT**

**A. The alleged hardships or practical difficulties are unique and singular to the property of the person requesting the variance and are not those suffered in common with other property similarly located.**

- i) The Board adopts and incorporates by reference the General Findings of Fact.
- ii) The Applicant failed to prove by substantial, material and competent evidence that the hardships or practical difficulties were unique and singular to the Property.
- iii) The Applicant did not have to locate his System in the Structure, so that the Structure did not need to be located within the AO zoning setbacks.

**B. The alleged hardships and practical difficulties, which will result from failure to grant the variance, extend to the inability to use the land in question for any use in conformity with the provisions of this Ordinance and include substantially more than mere inconvenience and inability to attain a higher financial return.**

- i) The Board adopts and incorporates by reference the General Findings of Fact.
- ii) The Applicant failed to prove by substantial, material and competent evidence that the hardships or practical difficulties extend to the inability to use the Property for any use consistent with the Ordinance.

iii) The Applicant continues to reside on the Property with full use of the utilities serving the Property.

iv) There was no evidence to show that the Applicant cannot achieve a reasonable return on his Property.

v) There was no evidence that the Applicant had any water quality issues before installation of the System as there was no evidence of any water tests or well samples.

**C. The variance, if allowed, will not substantially interfere with or injure the rights of others whose property would be affected by allowance of the variance.**

i) The Board adopts and incorporates by reference the General Findings of Fact.

ii) The Applicant proved by substantial, material and competent evidence that a variance, if allowed, would not adversely affect the rights of others whose property would be affected.

**D. The variance is in harmony with and serves the general intent and purpose of this Ordinance and the adopted comprehensive plan or portion thereof.**

i) The Board adopts and incorporates by reference the General Findings of Fact.

ii) The location of the Structure, being violative of two different setback provisions of the Ordinance, is not in harmony with and does not serve the general intent and purpose of the Ordinance.

iii) The Applicant failed to prove by substantial, material and competent evidence that the variances in his case are in harmony with the general intent and purpose of the Ordinance.

**E. The variance will result in substantial justice being done, considering both the public benefits intended to be secured by this Ordinance and the individual hardships that will be suffered by a failure of the Board to grant a variance.**

i) The Board adopts and incorporates by reference the General Findings of Fact.

ii) The Applicant failed to prove by substantial, material and competent evidence that granting the variances will result in substantial justice being done.

CABARRUS COUNTY  
Post Office Box 707  
Concord, North Carolina 28026

VARN2010-00002

**COUNTY OF CABARRUS  
STATE OF NORTH CAROLINA**

**ORDER DENYING A VARIANCE**

The Board of Adjustment for the County of Cabarrus, having held a public hearing on January 20, 2011, to consider application number VARN2010-00002 submitted by Mr. Benjamin Small, a request for a VARIANCE from the required setbacks for an accessory building on the property located at 2239 St. John's Church Road, Concord, North Carolina in a manner not permissible under the literal terms of the Ordinance, and having heard all of the evidence and arguments presented at the hearing, makes the following FINDINGS OF FACT and draws the following CONCLUSIONS:

It is the Board's CONCLUSION that, if the applicant complies with the literal terms of the Ordinance, specifically section 12-20, he can secure a reasonable return from, or make reasonable use of, his property. This conclusion is based on the following FINDINGS OF FACT:

**SEE ATTACHED  
GENERAL AND SPECIFIC FINDINGS OF FACT**

It is the Board's CONCLUSION that the hardship of which the applicant complains does not result from unique circumstances related to the applicant's land. This conclusion is based on the following FINDINGS OF FACT:

**SEE ATTACHED  
GENERAL AND SPECIFIC FINDINGS OF FACT**

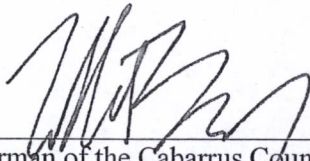
It is the Board's CONCLUSION that, the hardship is the result of the applicant's own actions. This conclusion is based on the following FINDINGS OF FACT:

**SEE ATTACHED  
GENERAL AND SPECIFIC FINDINGS OF FACT**

It is the Board's CONCLUSION that, if granted, the variance will not be in harmony with the general purpose and intent of the Ordinance and will not preserve its spirit. This conclusion is based upon all of the FINDINGS OF FACT listed above.

**THEREFORE**, because the Board concludes that all of the general and specific conditions precedent to the issuance of a VARIANCE have not been satisfied, it is **ORDERED** that the application for the issuance of a **VARIANCE** be **DENIED**.

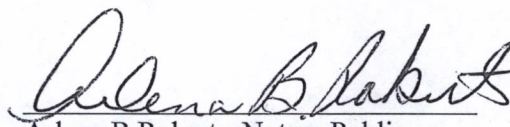
Ordered this 17th day of March 2011.

  
\_\_\_\_\_  
Chairman of the Cabarrus County  
Planning and Zoning Commission  
Sitting as the Cabarrus County Board of Adjustment

Cabarrus County, NC

I Arlena B. Roberts, Notary for Cabarrus County, NC certify that Mr. Todd A. Berg personally appeared before me on this day and signed the foregoing document.

DATE 3/17/2011

  
\_\_\_\_\_  
Arlena B Roberts, Notary Public  
My commission expires March 21, 2012

NOTE: If you are dissatisfied with the decision of this Board, an appeal may be taken to the Superior Court of Cabarrus County within thirty (30) days after the date of this order. See Section 12-25 of the Ordinance.

**Conditional Use Permit Application  
PSNC (Public Services of North Carolina)  
Old Charlotte Road (dead end)  
CUSE 2011-00001**

**FINDINGS OF FACT**

1. The use as proposed is not detrimental to the public health, safety or general welfare.

*This is necessary natural gas regulator infrastructure facility for the southwestern area of the County in need of additional service capacity to support the growth in that area. The applicant has designed a facility in compliance with federal, state and local regulations and has agreed to comply with the conditions imposed by all regulating authorities.*

2. The use as proposed is appropriately located with respect to transportation facilities, water supply, fire and police protection, waste disposal, etc.

*All such facilities, most of which are not required for this unmanned gas regulator station, are located nearby.*

3. The use as proposed will not violate neighborhood character nor adversely affect surrounding land uses.

*The property containing the proposed use is zoned light industrial (LI) and is at the end of a dead end road. The surrounding uses are industrial and residential.*

4. The use as proposed will comply with the general plans for the physical development of the County as embodied in the Zoning Ordinance or in the area development plans that have been adopted.

*The use as proposed will serve the southwestern area of the County where the County contemplates growth.*

**Text Amendment: TEXT2011-00001**

Text Amendment: Ethanol Fuel Production

Description: Proposed text amendment to add ethanol fuel production as a permitted use in the Cabarrus County Zoning Ordinance.

Applicant Information: Administrative

P&Z Decision:

P&Z Date:

P&Z Comments:

**Purpose / Chapters Affected**

- Proposed text to add ethanol fuel production as a permitted use to the Zoning Ordinance.
- The text amendment would add Ethanol Fuel Production (Residence, Personal Use) in the Agriculture/Open Space (A/O), Countryside Residential (CR), Low Density Residential (LDR) and Medium Density Residential (MDR) districts.
- Small and medium plants, as defined in the Code of Federal Regulations, Title 27 Part 19, would be permitted in the General Industrial (GI) district only.
- Chapters affected include Chapter 3 and Chapter 7. Use Tables will also be amended and re-numbered accordingly.

47. Ethanol Fuel Production (Residential District, Private Use Only)  
Zones Permitted Based on Standards-Agriculture/Open Space, Countryside  
Residential, Low Density Residential, Medium Density Residential

STANDARDS:

- A. Site Plan: An approved site plan is required showing the location of all buildings, setbacks and required distances from other structures as described below.
- B. Site Size: The minimum lot size to have such an operation is three (3) acres.
- C. Location on Site: The still and/or storage containers shall be placed:
- A minimum of sixty (60) feet from any dwelling unit, including dwelling units on adjacent properties.
  - A minimum of one hundred (100) feet from any vehicular right-of-way or property line.
- D. General:
- The use of ethanol is restricted to use as fuel by the owner or lessee of the property upon which the ethanol is produced.
  - The sale of ethanol fuel is prohibited.
  - The ethanol fuel must be dispensed from either a gravity flow or vacuum flow pump.
  - Only non-cellulose materials (fruits, grains, and vegetables) can be used to produce ethanol.
- E. Distillery: Fuel production operations must be located inside a secure structure.
- F. Storage:
- The maximum storage container size is fifty five (55) gallons.
  - The aggregate volume of ethanol fuel stored at any time on the property shall not exceed fifty five (55) gallons.
  - Acceptable storage container materials include aluminum, steel, fluorinated polyethylene, fluorinated polypropylene, teflon and other similar durable, noncorrosive materials. Copper, brass, lead, tin, and zinc are prohibited.
  - Fuel storage containers must be located inside a secure building located on the property for which the permit is issued and shall be clearly labeled.

G. Applicable Permits Required: Applicant must present approved state and federal permits for the production of ethanol fuel prior to zoning permitting.

H. Waste: Waste by-product must be stored in 55-gallon sealed barrels. The aggregate volume of waste by-product to be stored at any time on the property is one hundred (110) gallons (equivalent to two (2) 55-gallon sealed barrels).

I. Security: Locks for storage and fuel production areas and structures shall have at least five (5) tumblers and a casehardened shackle of at least 3/8 inch diameter.

J. Building Code: Compliance with all applicable building codes required.

48. Ethanol Plant (Small- not more than 10,000 proof gallons per calendar year)  
Zones permitted based on standards: General Industrial

A. Site Plan: A an approved site plan as described in Part I, Chapter 12 is required.

B. Applicable Permits Required: Applicant must present approved state and federal permits for the production of ethanol fuel prior to zoning permitting.

C. Building Code: Compliance with all applicable building codes required.

49. Ethanol Plant (Medium- more than 10,000 but less than 500,000 proof gallons per calendar year)  
Zones permitted based on standards: General Industrial

A. Site Plan: An approved site plan as described in Part I, Chapter 12 is required.

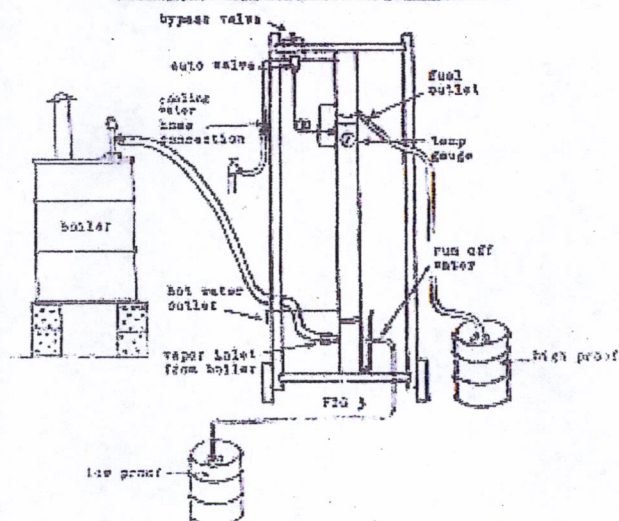
B. Site Size: Site shall be a minimum of five (5) acres

C. Applicable Permits Required: Applicant must present approved state and federal permits for the production of ethanol fuel prior to zoning permitting.

D. Building Code: Compliance with all applicable building codes required.

# Building an Ethanol Still & Making your own Fuel

by Robert Warren



The Charles 803 model still.

c. 1 inch x 2 inch galv. reducer. For attaching to 2 inch bung in top of boiler.  
 d. 1 inch brass swing check valve. For attaching to 2 inch tee, with direction of flow arrow pointing upwards.

The side opening of the 1-inch tee gets a hose adaptor fitting, item # 15, page 5.

**Photo 18**

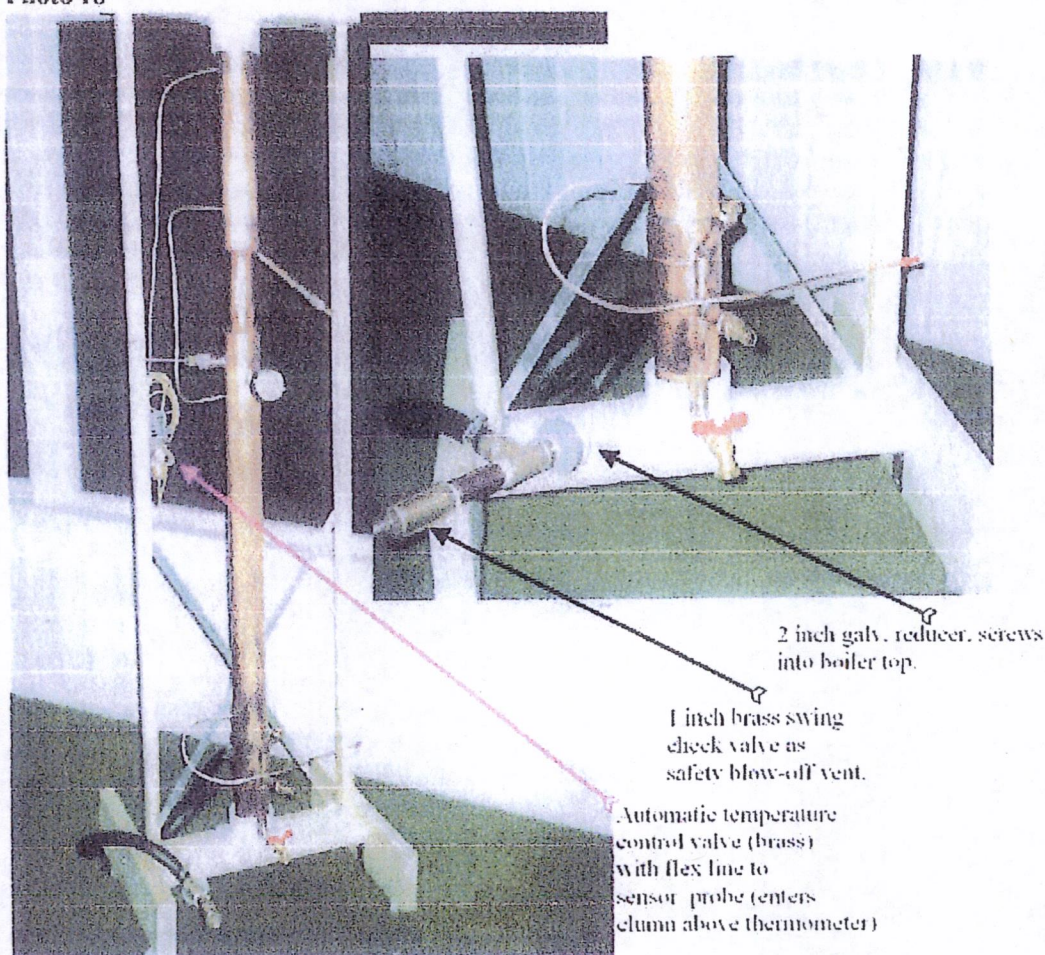
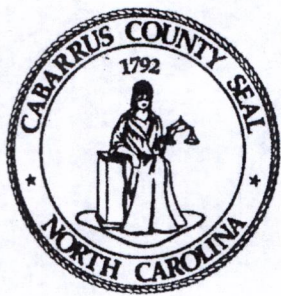


Photo 18 is my latest still, showing the safety vent (check valve) attached to the boiler end of the black heater hose. The galvanized 1" x 2" bushing on right looks blue and white, where I have taped it with Teflon tape).

Also, you may notice that I used a 2 inch pipe between the condenser and the reflux section, for a higher flow rate.

#### **Safety vent, continued.**

A cheap and easy way to make this is to put a tin can upside down over a long pipe nipple at the top side of the tee fitting attached to the boiler top, with a 1 kg. rock to hold it down. But you will lose a bit of steam, and therefore, precious alcohol this way.



Planning and Zoning Commission Minutes  
March 17, 2011

Mr. Todd Berg, Chair, called the meeting to order at 7:00 p.m. Members present, in addition to the Chair were: Ms. Mary Blakeney, Ms. Brenda Cook, Mr. Eugene Divine, Mr. Larry Ensley, Mr. Danny Feserman, Ms. Emily Knudson, Mr. Tommy Porter, Mr. Richard Price and Mr. Barry Shoemaker. Attending from the Planning and Zoning Division were, Ms. Susie Morris, Planning and Zoning Manager, Ms. Arlena Roberts, Clerk to the Board and Mr. Richard Koch, County Attorney.

**Roll Call**

**Approval of January 20, 2011 and February 17, 2011 Minutes**

The Chair stated that on page 30, the third line from the bottom, he wanted to clarify that he was asking Mr. Richards a question, not making a statement. Therefore the sentence should end in a question mark. (The Chair asked Mr. Richards where his drain field was?). Also on page 59, item 3 towards the bottom of the page, the sentence, The vote was 8 to 0 should read 9 to 0 or unanimous that the fact was satisfactory proven. (The vote was unanimous that the fact was satisfactorily proven).

Mr. Richard Price, **MOTIONED, SECONDED** by Mr. Tommy Porter to **APPROVE** the January 20, 2011 meeting minutes with corrections and the February 17, 2011 meeting minutes as submitted. The vote was unanimous.

Mr. Danny Feserman, **MOTIONED, SECONDED** by Mr. Larry Ensley to **APPROVE** the Findings of Fact for the Variance Application for Benjamin Small - VARN 2010-00002. The vote was unanimous.

Mr. Barry Shoemaker, **MOTIONED, SECONDED** by Mr. Larry Ensley to **APPROVE** the Findings of Fact for the Conditional Use Permit Application for PSNC - CUSE2011-00001. The vote was unanimous

The Chair said Item Number 3, introduction of Shannon Johnson; Ms. Johnson is not here tonight.

**New Business – Planning Board Function**

Ms. Susie Morris, Planning and Zoning Manager, presented proposed Text Amendment 2011-00001 - Ethanol Fuel Production. She said someone called the office interested in potentially making ethanol fuel at their home. Currently, there is nothing in our ordinance that covers any type of fuel production whatsoever.

She said with the push to go green, ethanol fuel plants are showing up in North Carolina. There is one down near the coast that she thinks has been put on hold. She said folks are looking at North Carolina because of the amount of farmers that we still have here.

She said, what this gentleman wants to do is strictly for personal use; for chain saws, tractors, and those types of things. As we started researching this; it is very complicated. The applicant would have to procure a permit from the TTB (Tobacco Tax and Trade Bureau), which is a spin off agency of the ATF (Alcohol, Tobacco and Firearms). They would also have to obtain a permit from ALE (Alcohol Law Enforcement) and a permit from the ABC Board (Alcohol Beverage Control). The state is involved on two different levels and the Feds are involved as well.

In her conversations with the Feds, essentially, it is up to the individual agent who goes out to survey the property, as far as whether or not the permit gets issued. She was told that a permit would not be issued in a subdivision; but they could not define for her what a subdivision was. She told them that we have a lot of subdivisions here that are a 1/3 of an acre, some a 1/4 of an acre and she was told they it would not be allowed there. They do not have a general rule of thumb as far as how they define a subdivision.

She said there are only two criteria that the Feds look for: that it is under lock and key and that it is not attached to the dwelling unit. There is one thing that the ALE looks for, and that is to make sure it is being combined with something else; that it is not pure ethanol. She said past that, there really aren't any other types of regulations.

She said there is one other county in North Carolina that actually regulates this type of use. They had someone approach them about the use when gas prices went up, by the time the text amendment was done, gas prices had gone down, and so they have not really had anybody take advantage of it.

Ms. Morris said the individual that called us about this seems very interested in it. She is not sure however, based on the criteria that are set up, if that person's property would qualify. She has worked with the Federal folks and the State folks and she has met with the Fire Marshal's office and has had correspondence with folks on the bomb squad, and so this is very far reaching.

The example from Granville County actually allowed folks on a five acre parcel to store 500 gallons of ethanol. As far as the hazard with that, there is a different way that you have to fight these types of fires, you need a lot of response people, and you fight the fire with foam, not with water. We looked at a lot of different things. It is the same thing with the Fire Marshal's office, when it comes to the fire code, they cannot enforce the fire code in a residential area, because the fire code doesn't apply to residential areas. She said it applies to subdivisions, as far as access and streets, but we do not have anything in place at a local level that says your house has to be sprinkled or things like that. The fire code doesn't apply; it's just the international building code that applies.

She said this is text that the Fire Marshal's Office, the Bomb Squad representatives and Building Inspections are comfortable with. It greatly reduces the storage capacity from what Granville had, but it also reduces the lot size. We need to walk through this, have some discussion about whether or not you think it is appropriate, and as part of this, it proposes to add ethanol fuel production to general industrial. In the TTB regulations, in Title 27, Section 19, they define these different types of plants. If someone was going to apply for a personal, private permit, they are still classified as a small plant. There is nothing that they can apply for that is just for personal use.

She said an individual actually gets permitted as a small plant. A small plant allows up to 10,000 gallons of production per year. A medium plant allows between 10,000 and 250,000; a large plant allows anything over that. What is before the Board, are some standards that would be applied if we move forward with the residential component, as well as a small plant and a medium plant. At this point, because of the lack of extremely large parcels that are zoned industrial, county industrial; there really didn't seem to be places that would be able to support that size of a facility over the 500,000. When you start talking about distance requirements and things like that that would come into play with the building code.

What is in front of the Board is a small plant and a medium plant to be added in general industrial; with the medium plant they will be required to be on a minimum of five acres. With the smaller plant, based on building code criteria, the Fire Marshal and our Deputy Chief Building Inspector thought it would potentially be feasible for someone to place a facility of less than 10,000, on a less than five acre tract. So, there is no site size or minimum acreage associated with that.

Ms. Morris has all of the documentation as far as the rules and regulations and what someone has to have or what they have to turn in to get a permit. This sort of boils it down to things that we could actually regulate and require because that is done at the state or federal level.

The Chair is curious about storage; 55 gallons for home use, but the other two don't have any limits on storage?

Ms. Morris said we didn't place any limits in there.

The Chair asked if that was consistent with what she found when she did research.

Ms. Morris said honestly, there is not really a whole lot out there on it. They have the ability to make that much but realistically, they probably would not store that much on a site because it comes out as it is produced; typically it is being sent some where else. That is something we could look at but we currently don't regulate chemical manufacturing or those types of businesses, as far as how much storage they can have on a site. We were just trying to be consistent with the other comparable uses in the ordinance where they have flammable materials as well.

The Chair said, similarly, the sale of it at these medium and small plants is not regulated. He asked if that is consistent with the chemical plants or other types of property.

Ms. Morris said yes, we do not regulate direct sales from those types of businesses.

Mr. Shoemaker asked if they would have to be bonded by the TTB in order to do any kind of distribution whatsoever? So they would have to go through a fairly complex process to get themselves in a position to even sell or distribute the product if they wanted to go beyond their personal use.

Ms. Morris said yes.

Mr. Shoemaker said would they have to be bonded even for personal use?

Ms. Morris said they do not. She said for a small plant, the applicant is not required to provide a bond in order to establish a small plant, unless the applicant will not conduct bonafide production operations. Plants for the receipt of the spirits without production must furnish a bond. If they are actually producing it there, then they do not have to bond it. If they are bringing it in from somewhere else, then they do.

The Chair likes the fact that they have to have gone through all of the other permitting procedures before they come here.

Ms. Morris said all of this is just related to distilleries and ethanol fuel production. It talks about just regular ethanol production, as far as alcohol and alcohol for consumption; and then it also talks about distilled spirits for fuel use.

Mr. Barry Shoemaker asked if Ms. Morris got into what type of processes that are used. He is sure there is some type of heat that has to be applied to speed the process along. He wonders by allowing it in residential areas, you have a burning process that is some type of combustible process to generate heat. It could be fuel oil or just electricity but something is going to have to generate the heat to hasten the process of the stillery.

Ms. Morris said it is a still; it is pressurized. It is similar to what you would see in the movies for a still. In this particular case, because it is such a small amount, it looks more like the drum and then there is a very small feeder.

Mr. Shoemaker said you are saying that a small plant can generate up to or just less than 10,000 gallons a year which is 40 gallons a day.

Ms. Morris said that is correct, but that would only be permitted in an industrial zone.

Mr. Shoemaker asked if less than 10,000 would be the residential use.

Ms. Morris said no. The residential use is going to be limited to what is in this text.

Mr. Shoemaker asked how much production they can have.

Ms. Morris said they can only store 55 gallons at a time. The still that the gentleman we are talking to would only generate about 30 gallons at a time. So, there is no limit because they actually get permitted by the Feds as a small plant, but there is a limitation in that they can't store more than the 55 gallons on their property at any one time.

The Chair said they cannot sell it.

Ms. Morris said no, they cannot sell it.

The Chair said it is only what they can use. If they use all 55 gallons in a day then they could produce 20,000 gallons in a year. He thinks that is pretty unlikely.

Mr. Shoemaker asked about transferring the product from the residential site.

Ms. Morris said it has to be produced on that site and used on that site. If you look at the General Section D – the use of ethanol is restricted to use as fuel by the owner or lessee of the property upon which the ethanol is produced. The sale of ethanol is prohibited. She said it then talks about how it has to be dispensed and what they can actually use to produce it as the feed stock.

She said some of the Board members may have more flammable items in their garage than those 55 gallons; if you have a couple of gas cans, plus a gas mix, plus some paint thinner around.

She said it is limited to those 55 gallons; if they wanted to use a drum that is fine, or if they use other containers that's fine. They would not be able to exceed that at any point; it is limited to the 55 gallons.

Mr. Shoemaker said it gets into the types of burning that they will use. That is his only issue.

Ms. Morris said the Fire Marshal cannot regulate it.

The Chair said it says it has to be located inside a structure, so they will be limited on what they can do.

Mr. Shoemaker said they could have a wood fire furnace. If you have been around wood stoves, once they have been stoked for a while it would take a great amount of heat to generate 40 gallons worth of product. The neighborhood is going to be dealing with a wood stove whenever this person decides to create product. It is one thing to have it in the winter time when you have air moving, but what about the summer time when you don't have air moving. We have this huge high pressure system that stagnates over us and we have an ozone issue already in this county. He is not being EPA, and he does not know if it is our jurisdiction to limit how they do the burning, but you put it in a

residential development there is no opportunities even in the one acre, two acre sites. He guesses you've limited it to three acres.

Ms. Morris said this is the type of discussion we need to be having; does it need to be on a three acre parcel or should it be on a five acre parcel, or should it be on a ten acre parcel if it is going to be allowed at somebody's house.

Mr. Shoemaker said if several people in the neighborhood decided they wanted to do it too, then you have all this ozone factories going on, and he doesn't think the EPA is going to regulate because it is too small, and then you get into how much can we put up with as fuel cost go up and people decide to be more and more industrious, and they get access to lawn clippings and things like that and decide they want to reduce those to some type of ethanol production. He struggles with what is the right size.

Mr. Price asked if they were store bought stills or something you cobble together yourself.

Ms. Morris asked for five minutes to go get the pictures of the still to show the Board

Mr. Berg asked Mr. Shoemaker if his main concern was if it were wood fired?

Mr. Shoemaker was just thinking that some one could have an old farm up in the mountains and could haul back a truck load of coal and burn it and if you don't control what is burned who knows what you are going to get. He said you can use natural gas, but then you have to pay for it. But if someone has an old farm up in the mountains that had some old coal on the property they bring it back and stoke the fire.

Mr. Ensley asked whose jurisdiction is it to inspect it once it is all complete and how often will it be reinspected? Whose jurisdiction is it; the fire department?

The Chair would assume the permitting agency, the TTB.

Mr. Shoemaker thinks the ALE would be. He said but then comes the insurance factor. We don't insure, but the insurance company is going to have to weigh in on this monster because now you are creating a fire to do something other than run a wood stove and you are running pressure and stuff.

Mr. Koch doubts that type of operation would be covered under your normal home owner's policy. You would have to get a special endorsement for it and they would look in to those very issues to assess their risk before they issue that kind of endorsement; if they even have one at all.

Mr. Shoemaker does not know what our limits are as a local body, but do you force him to make sure they are insured properly? Because he will have to have a bonded to do this and have to have permission from the government to even put this contraption up. After

they have gone through that then it seems like there would have to be some proof of insurance.

The Chair thinks that is outside of our authority.

Mr. Koch said part of Ms. Morris's concern in trying to craft this proposed ordinance, was making sure that in the effort to capture the issues, and regulate the ones that we typically regulate, that we don't attempt to regulate something beyond that that we typically don't regulate with anybody else. We don't do that in any other part of the ordinance that he can think of; where we require people to carry insurance in some coverage amount.

The Chair said to use Ms. Morris's example of the chemical plant that could be located in the industrial district, we don't have any say as to how the chemicals are produced or handled or processed; that is all outside of what we can do.

Mr. Shoemaker said it is; but, there are government agencies, and the fact that they are in business, there are requirements that they have to meet under OSHA. He said this is not going to be covered under OSHA; the little guy won't be, the little still won't, it will just be a personal still in the back yard.

Mr. Koch thinks their main concern is that it is constructed in such a way that it cannot be used for consumption by humans. He thinks that is their main point of inquiry. That it truly is something that is used as a fuel for some sort of vehicle or piece of equipment of some sort; that you are not actually making some new kind of moonshine with it.

Mr. Shoemaker said what about the covenants and restrictions on lots, if they are silent on something like this. They may have something in it about tool sheds or permanent structures, how does that work? He said that is not under us because we don't do those types of things.

Mr. Koch said there is so much variation in restricted covenants in subdivisions, particularly, between the older ones and the newer ones. Most of the newer ones are very comprehensive and he does not know if they would specifically prohibit an ethanol type of facility, or if any of them are that specific. He said they probably have some language into which that type of a facility would fit that they proscribe. He would say that some of the older ones would be very silent, and that a lot of those are not really all that specific. He said that is outside the realm of what we deal with here anyway. That is really left up to the homeowners association or to the individual neighbors to enforce those if they in fact have something that they can enforce that would deal with this.

Mr. Ensley asked if there were guidelines or similar text from Kansas or Nebraska where ethanol is big.

Mr. Koch does not know the answer to that. He said Ms. Morris might know. She has done a considerable amount of research on this. She has forwarded a lot of it to him and

he has looked at it to get sort of familiar with what the parameters of the kind of regulations we could do. He said our concern is that there is nothing in the Ordinance, and we didn't want to have a situation where somebody opened one, and we are silent in terms of regulation of it, in any way, and then have a situation where potentially it is grandfathered and we can't retroactively regulate it.

He said Ms. Morris has done a considerable amount of research on this to try to get to the point of crafting something that would make sense.

Mr. Price said his biggest concern would be that it is an attractive nuisance, not exactly like a swimming pool, but using that as an example. If we do adopt it, he recommends that it be fenced or somehow concealed from the neighborhood.

Mr. Koch believes it has to be in a secure facility. He thinks that issue has been addressed.

Mr. Berg said it does; it says secured facility. He guesses you could argue as to what that means.

Mr. Koch thinks that the Feds deal with that. He thinks that they have some regulations that define that. He said it wouldn't be like you would have your ethanol still sitting out in the woods like you had the old moonshine still out there; where it was back far enough where it was sufficiently hidden, and you couldn't get to it very easily. For the most part they have thought of those issues at the federal level in terms of allowing these kinds of operations.

Ms. Morris passed around her laptop to show pictures of a personal ethanol still.

The Chair said what he has heard so far is the issue of security, and the issue of the potential for wood burning or coal burning or some other fuel burning being a problem. He asked if there were any other thoughts or comments.

Ms. Morris said this is a discussion. It is up to the Board whether or not they think it is appropriate.

Mr. Ensley asked how often they would be inspected.

Ms. Morris said as far as the inspection process goes, once the TTB agent issues the permit they provide paperwork to them. It is her understanding that the only way that they come back to look at the property is if there are inconsistencies with the paperwork. As far as the ALE, they only look at it to make sure that it is being mixed with something else. She does not know if it is a yearly inspection or if it only comes up if somebody makes a complaint.

Mr. Price asked what it was mixed with.

Ms. Morris said there are different things they can mix it with and it (Title 27) talks about what they can actually mix it with.

The Chair asked Mr. Shoemaker what would get him past some of his concerns. Would it be increasing the lot size or prohibiting certain types of fuel and production?

Mr. Shoemaker said he just brings these things up; he is being more of a dart thrower right now. He doesn't have any objection. He thinks the base that she has is really good. He said it depends on how the development is set up as to how good a three acre lot size is; there are several developments that fit that criteria that are near others that are much denser.

Ms. Morris said right, we have those criteria. She said subject to the specifications in the Federal Register, Materials for making Spirits Unfit for Beverage Use, Authorized Materials, Paragraph C, reads that proprietors are authorized to render spirits unfit for beverage use by adding to each 100 gallons of spirits any of the following materials in the quantities specified: gasoline, automotive gasoline, natural gasoline, kerosene, deodorized kerosene, rubber hydrocarbon solvent, methyl ketene, mixed isomers of nitro propane, heptane, ethyl tertiary butyl ether, raffinate, naphtha, or any combination of the materials listed.

She said there are some others that they talk about; it does have to be mixed with something.

Mr. Porter said it looks like you pretty much have everything covered that you need to cover. With the other agencies that are going to be involved with the permitting, they are going to come in with more stringent regulations. He said looking at the example in the picture, you are talking about a little hobby type of thing and he does not think it would be something that a whole lot of people would get involved in. He would question the net gain with the input cost that you have in it and what you get out of it; did you save any money or is it just something you like to fiddle with.

He would not have a lot of concern with it being a detriment to neighbors or anything else with the size of that.

The Chair agrees with Mr. Porter, and he thinks everything is pretty well covered and he is okay with it.

Ms. Morris said this is just a starting point and if the Board has anything else that needs to be added or if the lot size needs to be different.

The Chair said if you increase the lot size, you still have the 100 foot from each property line. So if the issue is smoke from a wood burning fire it is not going to help any. You can have a 100 acre lot and still have the still 100 feet from you neighbor.

Ms. Morris said the 60 feet from any dwelling unit comes from the building code. As the building size increases, when it is dealing with these things, the distance separation increases in increments of 60 and that is where that number came from.

She said the information from Granville was a five acre parcel, but they also allowed 500 gallons of storage and they allowed different types of materials to be used. The only things that the Feds look at are under lock and key and detached from a dwelling unit. The only thing the ALE looks at is whether or not it is combined with something else.

She said the way it was explained is that North Carolina is a controlled state. She asked if there were other states that we could look at and the response from the liaison with TTB was that California would probably just allow it. In North Carolina, the rule kind of trickles down to the local level and then you can control it that way. She said you cannot do anything that would prevent it.

She said it's like anything else; you cannot put things in the ordinance that will not allow it to happen, you have to allow it to happen somewhere. You may not allow it to happen at the residence but you may allow it to happen in a bigger scale in the GI district. She said it is very similar to the discussion we had about tattooing as a home occupation versus tattooing as a commercial endeavor.

Mr. Price said it doesn't seem like something a lot of people are going to be interested in. The example the fellow had in the photo is not going to produce enough to save you anything on the fuel cost and he is probably doing it for the fun of it. It will take him a year to make 55 gallons that he could even store.

Ms. Morris said that is where he said that the most he could produce at one time using something like that would be 30 plus the waste part of it. She said in his particular case he had planned to use the waste as a fertilizer, or he said that you can feed it to animals, because it is the protein part that is left and she guesses they dry it out.

Mr. Porter said it is like distillers grain, you can feed it wet or dried out. They can make pelletized feed out of it and it is a good byproduct to feed to live stock.

Ms. Morris said this gentleman has a couple of horses. If someone is going to use it on a farm or some where like that, then more than likely they will be using that byproduct on the property too.

Ms. Knudson said it seems like the most concern is about the smoke and the byproduct. She asked if there would be an open flame at the bottom.

The Chair said it looks like where the boiler was, there was a chimney there.

Mr. Shoemaker said that was a 55 gallon drum that he is using to do his boiling in and he may get a gallon or something out of his still. My concern was if he is going to get 40 gallons out of this still because he can store 55 gallons on the site. How big of a burner

does that take? If he is using a 250 or a 500 gallon tank, and cooking it down to get his 40 gallons out. This person has decided they are going to go ballistic on it and it only takes one or two to really make a neighborhood really uncomfortable to go ballistic and it becomes more than just a grill.

He said you and I would use our grill and everybody likes the smell that comes off of that, but he does not know what kind of smell would come off of this. But if he is cooking 500 gallons to make 40 gallons and Mr. Shoemaker does not know what the reduction is, but you would have to have a bigger operation cooker to get it down. That is what he was thinking.

Ms. Morris said if the Board wants to look at the size of what you can actually have for the distillery itself; we have talked about storage, talked about storage of the byproducts, but we don't really have anything about the size of the actual still or the container where it would be processed.

Mr. Shoemaker said when you think about a backyard still, perhaps we should say that the boiling container cannot exceed 100 gallons or something like that. He said then that truly does limit how much they can produce and how much fire they can put under it. He does not know enough about the process and how it works; perhaps the fellow you talked to could give you some guidance as to how big of a still he was going to use.

Ms. Morris said that was his, the picture she showed.

Mr. Shoemaker said he is using a 55 gallon drum to do his still.

Ms. Morris said that is what he gave us as an example of what he was proposing; now that is just him. That does not mean that once it gets passed we won't have other people wanting to go bigger, especially, if there is the ability to use it for farm equipment. She does not know if it's worth it because it seems like it might be a little labor intensive, as far as what you have to do with it.

Mr. Porter said with farm equipment it would be diesel; you would not be using the ethanol, you would be into biodiesel and he is not sure how similar the processes are. If he is proposing a 55 gallon boiler and the maximum he can produce would be 30 gallons then your boiler couldn't get much bigger than that because you can't have but 55 gallons; so, it is already kind of limited.

Mr. Shoemaker said the boiler does have a bearing on the production because you can only create so much out of the boiler, because it has to go up, loop, distill, condensate and all of that; and he is going to collect something. He said but the bigger the boiler the more you can produce.

The Chair said but you are still limited to 55 gallons. He said you will not build a bigger fire than you need to produce 55 gallons. He thinks what Mr. Porter is saying is if the ratio generally is 55 gallons boiler to 30 gallon product, then you up the 30 gallon

product to 55, the boiler, maybe it ends up being 100 gallons, but can't get any bigger than that.

Mr. Porter said you could do it as big as you wanted but it wouldn't be efficient.

Ms. Morris said because you can't store it essentially, and you can't sell it.

Ms. Knudson said if it is not tightly regulated than it might be smarter to kind of regulate the size of the production.

Ms. Morris said under the federal guidelines they can produce up to 10,000 gallons per year under their permit. This would be regulations in addition to that, set out in our ordinance, that would limit how much they could make. Based on the permit that the Feds are giving him, he is good to make 10,000 gallons in one calendar year. Realistically, with that type of a still, he/she is probably not going to be able to do that. If we want to limit the drum size for the boiler we can do that. She said as far as the regulation, we didn't say that we were going to go out and regulate, or do periodic zoning inspections, or something like that because we do not do that for anybody else.

Ms. Knudson said she meant how well it was regulated by the state.

Ms. Morris said they get their ABC license as a distillery, they get the licensed from ALE and the only thing that the state is going to check for when they make their visit is to make sure that they are mixing it with something else. She said the federal permit will allow them up to the 10,000 gallons. There is no classification for me, Jo Smo, to just have one of these types of stills. They have to go through the same process that somebody would for a full fledged plant that would want to have the 10,000 gallon capacity. She said that is proof gallons, the end product.

Mr. Porter said is comfortable with what we have, he does not like to get into engineering the still.

The Chair does not think we know enough about it.

Mr. Porter's opinion is that this is a hobby. He said if they want to get into something bigger, they would need a bigger site, they would have to have the raw product brought in and they would be getting into way more than what somebody is going to do in a subdivision.

Ms. Morris said if the Board is not comfortable with the three acres we can look at the acreage or she can go back to try and find some examples in GIS. As far as the federal regulations, there are no criteria as to how far away they have to be. She said this gentleman actually sent in a copy of his permit and she can show the Board what applicants have to submit to the Feds.

Mr. Shoemaker said if we went to 5 acres, would that take the medium density residential out; just leave it to the AO, CR and LDR?

Ms. Morris said you could have a lot in MDR that might be 3 acres, it just may have happened to be zoned MDR. But, there are also 10,000 square foot lots in there if it was done in a subdivision under the MDR standard. She said the AO and CR are going to be the two that have the 2 acres and the 3 acres; the LDR has the 2 acres if they do a conventional subdivision. But, remember, there's that exemption where people can go down to 1 acre. She said you may have a lot of 10 acres and it may be surrounded by lots that are actually only one acre in a CR, AO or LDR district. She said you cannot depend necessarily on the zoning district to regulate size because we do have the one acre minimum.

Ms. Morris said essentially they kind of tell them what they plan to do and then they submit that drawing. She showed the actual permit that the gentleman submitted to the federal government.

There being no further discussion, Mr. Tommy Porter, **MOTIONED, SECONDED** by Mr. Larry Ensley to recommend **APPROVAL** of Text Amendment 2011-00001 Ethanol Fuel Production to the Board of Commissioners as submitted by staff. The vote was unanimous.

### **Directors Report**

Ms. Susie Morris would like three volunteers to be on a sub-committee for the Zoning Ordinance updates. She said as part of the long range planning project for this year, we talked about giving the Ordinance a good once over. To create a better definitions section and to make it a little more user friendly by combining some of the tables and clarifying the uses, so that people understand what they are. Also, to clean up some of the places where there are conflicts in the Ordinance because of the text amendments that have been done over the years.

She said as she completes each section of the Ordinance she would send it out to the committee for their review and feed back. After you had an opportunity to look at it, we would then get together as group to discuss it, make any corrections or changes and then we would bring it to the full Board.

Ms. Morris said the latest round of decisions came down from the Supreme Court on Monday and once again there was no decision on the APF. The oral arguments have not been scheduled yet.

Mr. Koch said they have not ruled on whether they are going to allow the petitions. If they deny the petitions then it is over, if they allow it then there would be the oral argument subsequent to that. We cannot figure out why they are sitting on this petition, particularly in view of the Union County case, which was very similar, and they have already denied the petition for discretionary review on that case. It has now been about six months.

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He said it is all speculation, but certainly, there is the one difference in which the Cabarrus County case is not like the Union County case. He said that concerns the local legislation that we had that we thought allowed us to enforce the APFO. He said Union County did not have that, they had asked the General Assembly for it and were turned down several times. He said that is the difference.

He said it seems that if they wanted to dodge the whole issue of deciding whether APFO's were valid or not, they could have just left the Union County case, the Cary case and the Durham case as being the law on it and just deny our petitions, and that's the end of it. He said something is going on but we just don't know what.

Mr. Fesperman stated that the City of Davidson settled their APFO lawsuit with Forest City.

The Chair asked if there were any other updates.

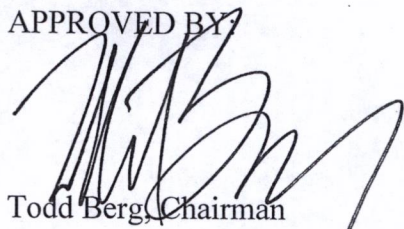
Ms. Morris said that is the only update she had. We are going through the budgeting process and the Ordinance rewrite is probably going to end up being our only project for this year. She said there was some talk about maybe going back and looking at the Eastern Area Plan. She said not a whole lot has changed there, so for now, it looks like the 18 months will be spent on the Ordinance.

Commissioner Larry Burrage introduced himself to the Board stating that he is the liaison to the Planning and Zoning Commission.

There being no further discussion, Mr. Barry Shoemaker, **MOTIONED, SECONDED** by Mr. Danny Fesperman to **ADJOURN** the meeting. The vote was unanimous. The meeting ended at 8:03 p.m.

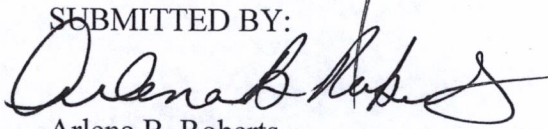
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APPROVED BY:



Todd Berg, Chairman

SUBMITTED BY:



Arlena B. Roberts

ATTEST BY:

Susie Morris  
Planning and Zoning Manager