



# Town of Carrboro

Town Hall  
301 W. Main St.  
Carrboro, NC 27510

## Meeting Agenda Board of Aldermen



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Tuesday, June 23, 2015

7:30 PM

Board Chambers - Room 110

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### A. REQUESTS FROM VISITORS AND SPEAKERS FROM THE FLOOR

7:35-7:40

### B. RESOLUTIONS, PROCLAMATIONS, AND ACKNOWLEDGEMENTS

1. **15-0275** Proclamation - July as Recreation and Parks Month

**Attachments:** Park-and-Rec-Month.pdf

7:40-7:50

### C. CONSENT AGENDA

1. **15-0265** Implementation of Body Worn Cameras (BWC) by the Carrboro Police Department.

**PURPOSE:** To review the BWC policy and accept the implementation of Body Worn Cameras by the police department.

**Attachments:** CPD BWC Policy

2. **15-0224** Request-to-set a public hearing on Land Use Ordinance Text Amendments that would provide for a Site Specific, Flexible Zoning District

**PURPOSE:** The purpose of this item is for the Board of Aldermen to consider setting a public hearing on text amendments to the Land Use Ordinance to establish a new site specific, flexible zoning district.

**Attachments:** Attachment A - Resolution  
Attachment B - Draft LUO amendment on FLX district 6-15-15

### D. PUBLIC HEARING

7:50-8:00

1. [15-0271](#) A Public Hearing on the Temporary Street Closing Permit Application for the Not So Normal Run Festival.

**PURPOSE:** The purpose for this meeting is to receive public input for a Street Closing Permit Application submitted by Hairy Pony Racing Association for the temporary closing and usage of streets from 7:00 AM to 2:00 PM on Sunday, April 3rd, 2016 to accommodate the *Not So Normal Run Festival*, which includes a half marathon race and a full marathon race.

**Attachments:** [Public Hearing Resolution - Not So Event](#)  
[Half Marathon Route](#)  
[Full Marathon Route](#)  
[Street Closing Permit](#)

**8:00-8:10**

2. **15-0270** Public Hearing on Land Use Ordinance Amendments to Modify Provisions Relating to the Expiration of Permits

**PURPOSE:** The purpose of this item is for the Board of Aldermen to consider amending the Land Use Ordinance to modify the existing provisions relating to the expiration and extension of permits. A draft ordinance has been prepared. The Board must receive public comments before taking action on the draft ordinance.

**Attachments:** Attachment A-1 - Consistency Resolution for Ordinance Adoption\_3mb  
Attachment A-2 - Consistency Resolution for Ordinance Denial  
Attachment B - Draft Amendment  
Attachment C - Recommendations

**8:10-8:25**

3.       **15-0272**       Public Hearing on Land Use Ordinance Amendments to Authorize the Creation of Conditional Zoning Districts that Correspond with most of the existing Zoning Categories

**PURPOSE:** The purpose of this item is for the Board of Aldermen to consider amending the Land Use Ordinance that would authorize the establishment of conditional zoning districts that correspond to most zoning districts rather than just B-1(G) and B-2. A draft ordinance has been prepared. The Board must receive public comments before taking action on the draft ordinance.

**Attachments:**   Attachment A-1 - Consistency Resolution for Ordinance Adoption\_3mb  
Attachment A-2 - Consistency Resolution for Ordinance Denial  
Attachment B - Draft Ordinance CZ Districts  
Attachment C - Recommendations  
Attachment D - Excerpts from LUO ART-IX

**8:25-8:45**

4.       **15-0274**       Public Hearing on Land Use Ordinance Amendments to Establish a New Use Classification for Data Service Provider Facilities

**PURPOSE:** The purpose of item is for the Board of Aldermen to consider amending the Land Use Ordinance to establish a new use classification for data service provider facilities. A draft ordinance has been prepared. The Board must receive public comments before taking action on the draft ordinance.

**Attachments:**   Attachment A-1 - Consistency Resolution for Ordinance Adoption\_3mb  
Attachment A-2 - Consistency Resolution for Ordinance Denial  
Attachment B Draft  
LUOAmendment-DataServiceProvider\_6-16-2015-2  
Attachment C - Recommendations

**8:45-8:55**

5.      **15-0273**      Public Hearing on Land Use Ordinance Amendments to Modify the Presumptive Parking Requirement for Restaurants with Outdoor Seating

**PURPOSE:** The purpose of item is for the Board of Aldermen to consider amending the Land Use Ordinance to modify the presumptive parking requirements for restaurants with outdoor seating in the B-1(c), B-1(g) and B-2 zoning districts. A draft ordinance has been prepared. The Board must receive public comments before taking action on the draft ordinance.

**Attachments:**   Attachment A-1 - Consistency Resolution for Ordinance Adoption\_3mb  
Attachment A-2 - Consistency Resolution for Ordinance Denial  
Attachment B - Draft Outdoor Seating LUO Amendment - 6-10-15  
Attachment C - Recommendations  
Attachment D - Excerpts from 21 ART-XVIII

**E.      OTHER MATTERS**

**8:55-9:25**

1.      **15-0098**      Energy and Climate Action Planning Task Force Report

**PURPOSE:** The purpose of this item is for the Energy and Climate Action Planning Task Force to present its recommendations.

**Attachments:**   Task Force Resolution  
TaskForceDraftReport  
AppendixA\_ Energy in the 21st Century  
AppendixB\_CarbonFree10Years  
AppendixC\_HumanNatureAndClimateChange

**9:25-9:30**

2.      [15-0263](#)      A Request to Make Appointments to the Greenways Commission

**PURPOSE:** The purpose of this item is to make appointments to the Greenways Commission.

**Attachments:**   [ATTACHMENT A - A RESOLUTION MAKING APPOINTMENTS TO THE GREENWAYS COMMISSION](#)  
[June 2015 Greenways.pdf](#)

**9:30-9:40**

3. [15-0146](#) Minor Modification to the CUP for 400 Roberson Street.

**PURPOSE:** Bobbitt Design Build has submitted an application for a Minor Modification to the existing CUP for the property located at 400 Roberson Street to authorize the remodeling of the existing building shell with associated interior layout revisions.

**Attachments:** [Attachment A-site plan](#)  
[Attachment B- Applicant responses \(see bubbles\)](#)  
[Attachment C-Resolution](#)

**9:40-9:50**

4. [15-0279](#) Review of Draft Agenda for Zoning 101 -Lloyd-Sunset Neighborhood

**PURPOSE:** The purpose of this item is for the Board of Aldermen to consider a proposed program for an informational session being developed to provide zoning information to the Lloyd-Sunset neighborhood.

**Attachments:** [Attachment A - Zoning 101 \\*\\*Draft Agenda\\*\\*](#)  
[Attachment B - Map of LloydSunset Neighborhood](#)

**9:50-10:20**

5. **15-0277** Carrboro Arts & Innovation Center Update

**PURPOSE:** The purpose of this item is to update the Board on the work of the Technical and Steering Committees as related to the possibility of a Carrboro Arts & Innovation Center based on Proposed Path to a New Proposal.

**Attachments:** Attachment A: Proposed Path to New Proposal  
Attachment B: CAIC presentation with Steering Committee feedback 6-8-15  
Attachment C - Orange County Staff Memo - Library Siting and CAIC Working Group

**10:20-10:30**

6. [15-0280](#) Adoption of Resolution - Eno-Haw Regional Hazard Mitigation Plan

**PURPOSE:** The purpose of this agenda item is for the Board of Aldermen to consider adoption of a resolution approving the community's natural hazards mitigation plan.

**F. MATTERS BY BOARD MEMBERS**

- G. MATTERS BY TOWN MANAGER**
- H. MATTERS BY TOWN ATTORNEY**
- I. MATTERS BY TOWN CLERK**



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## Agenda Item Abstract

**File Number:** 15-0275

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**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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Proclamation - July as Recreation and Parks Month

## Designation of July as Park and Recreation Month

WHEREAS parks and recreation programs are an integral part of communities throughout this country, including Carrboro, North Carolina; and

WHEREAS our parks and recreation programs are vitally important in establishing and maintaining the quality of life in our communities, ensuring the health of all citizens, and contributing to the economic and environmental well-being of our community and region; and

WHEREAS, parks and recreation programs build healthy, active communities that aid in the prevention of chronic disease, provide therapeutic recreation services for those who are mentally or physically disabled, and also improve the mental and emotional health of all citizens; and

WHEREAS, in 2014-15, The Town of Carrboro offered nearly 400 programs including youth and adult classes, athletic programs, camps, workshops, and clinics; and large community events such as Carrboro Day, Carrboro Music Festival, Carrboro Film Festival, West End Poetry Festival, July 4th Celebration, Halloween Carnival and Open Streets; and

WHEREAS, in 2014-5, the Town of Carrboro utilized over 200 volunteers who provided over 5000 hours of service; and

WHEREAS our Carrboro Youth Council has grown to twenty-six members who provided 432 service hours to the community; and

WHEREAS; parks and recreation areas are also fundamental to the environmental well-being of our community; and

WHEREAS parks and natural recreation areas improve water quality, protect groundwater, prevent flooding, improve the quality of the air that we breathe, provide vegetative buffers to development, and produce habitat for wildlife; and

WHEREAS our parks and natural recreation areas ensure the ecological beauty of our community and provide a place for children and adults to connect with nature and recreate outdoors; and

WHEREAS, in Carrboro, we recognize the importance of our parks and natural areas, and have recently completed three park projects and are currently working on five other park enhancement projects; and

WHEREAS the U.S. House of Representatives has designated July as Parks and Recreation Month.

**NOW, THEREFORE, BE IT RESOLVED** that I, Lydia Lavelle, Mayor of the Town of Carrboro, North Carolina, do hereby proclaim that **July 2015** is designated as **“Parks and Recreation Month.”**

This the 23<sup>rd</sup> day of June 2015



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**File Number:** 15-0265

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**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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### **TITLE:**

Implementation of Body Worn Cameras (BWC) by the Carrboro Police Department.

**PURPOSE:** To review the BWC policy and accept the implementation of Body Worn Cameras by the police department.

**DEPARTMENT:** Police Department

**CONTACT INFORMATION:** Walter Horton, Chief of Police

**INFORMATION:** Since May of 2014, the Carrboro Police Department, Alderman Damon Seils, Chris Brook, Legal Director ACLU of NC have been working on a policy for the use and implementation of Body Worn Cameras. During this time, several meetings were held to discuss operational guidelines, privacy concerns of citizens and officers, retention of recordings, etc.

A public hearing was held on March 24, 2015 to receive input from citizens regarding the use of BWC by the police department. The Police Department took the input and recommendations from the citizens, Board Members and, the NC ACLU and applied them to the draft policy.

On June 4, 2015, a meeting to discuss the final draft of the BWC policy and final edits took place. During that meeting, all stakeholders reviewed and agreed that the policy drafted was complete and ready for implementation by the Carrboro Police Department.

**FISCAL & STAFF IMPACT:** None

**RECOMMENDATION:** Staff recommends that the Board review the BWC policy and accept the implementation of Body Worn Cameras by the police department.



# Carrboro Police Department



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<b>Issued: xx/xx/xx</b>	<b>Revised: N/A</b>	<b>Page 1 of 12</b>

- I. Purpose
- II. Definitions
- III. Body Worn Cameras Procedures
- IV. Supervisor Responsibility
- V. Management of Recordings
- VI. Retention of Recordings
- VII. Review of Recordings

## **I. Purpose**

As part of the police department's goal to be as transparent as possible, this policy establishes guidelines for the use, management, storage, and retrieval of audio-visual media recordings from Body Worn Camera Recording systems. Nothing in this policy is intended to supplant or supersede any applicable State or Federal Laws.

## **II. Definitions**

- A. Body Worn Camera (BWC): A mobile camera that is worn on the uniform to document video, audio, and photographic evidence.
- B. BWC Operator: An officer who has been trained in the operation of mobile digital recording devices installed on the body and the departmental policy regarding such.
- C. Manual Activation: When the Body Worn Camera (BWC) is manually activated to record.
- D. Recording Media: Material used to store data, including but not limited to DVD's, CD's and Digital Memory Cards.
- E. Records Management System (RMS): Computer based system for entering, storing, and searching records of the police department.
- F. Video Management Software: Software that manages the access, downloading, viewing, and copying of audio and video recordings and prohibits modification or manipulation of the original file.
- G. Records of Criminal Investigations: Records of criminal investigations conducted by public law enforcement agencies, records of criminal intelligence information compiled by public law enforcement agencies, and records of investigations conducted by the North Carolina Innocence Inquiry Commission, are not public records as defined by G.S. 132-1. Records of criminal investigations conducted by



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public law enforcement agencies or records of criminal intelligence information may be released by order of a court of competent jurisdiction. See NCGS 132-1.4.

- H. Records of Criminal Intelligence: Records or information that pertains to a person or group of persons that are compiled by a public law enforcement agency in an effort to anticipate, prevent, or monitor possible violations of the law.
- I. Incident Classification: Term used to signify the various methods an authorized user can use to classify an event that has been recorded and a set retention period has been established, including, but not limited to: Traffic Crash, DWI, K-9 Search, Pursuit, Traffic Stop, Transport, and Use of Force.
- J. Checking Station: A systematic way of stopping and surveying vehicles to check for compliance with NC driver's license laws.
- K. System Administrator: The Chief of Police's designee(s) that is responsible for retrieving and downloading of video recordings, and acts as liaison to the Town IT Department.
- L. Tactical Operation: Activities outside the usual law enforcement response. Examples include but are not limited to search warrant service, active shooter response, high risk warrant service, use of Critical Incident Unit, etc.
- M. Original Format: The original medium that digital evidence is stored on once it is downloaded from the BWC; specifically, the digital original stored on the Carrboro Police Department's digital evidence server.

### III. Body Worn Camera Procedures

1. Officers are not authorized to utilize or deploy non-departmental issued BWCs.
2. Officers will adhere to the procedures listed below when utilizing BWC equipment.
3. Prior to and throughout each shift, officers will ensure that all components of their BWC equipment are working satisfactorily and will immediately bring any problems to the attention of a supervisor. The officer will also notify the Quarter Master of any malfunctions.
4. The Field Training Officer will be responsible for the training of new officers on all mobile digital audio/video recording devices.
5. The Quartermaster will be notified by the Patrol Supervisor if a BWC is



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damaged or malfunctioning. The Quarter Master will arrange to have a spare BWC issued to the officer, if available.

**B. BWC equipment activation:**

1. All officers issued a BWC will wear the camera on the outside of their uniform in such a manner that optimal video and audio is achieved. Optimal shall be defined as to show the best vantage point of the recorded interaction.
2. Once recording starts, it must continue until the incident is completed. If for some reason recording must be stopped, the officer must verbally indicate the reason on the recording before the recording is stopped. This reason shall also be documented in the written report if a report is needed.
3. Officers shall give notice as soon as reasonably possible that the BWC is in operation. The timing of notice may vary depending on the context of the encounter. The requirement to give notice may be waived under exigent or other legitimate law enforcement circumstances. If an officer is asked whether the interaction is being recorded, the officer is expected to be truthful unless the nature of the law enforcement activity requires a different answer, e.g., and undercover operation.

**C. An officer shall turn on the BWC under these circumstances unless the situation at hand prevents activation. If the officer does not activate the BWC during one of these situations, it must be documented:**

1. All traffic stops before the officer(s) exits the vehicle.
2. During Traffic Checkpoints, the BWC will be activated prior to initial contact of the first vehicle during the checkpoint and remain on during the operation. If there is a lull in traffic, the BWC can be turned off but must be reactivated prior to the initial contact of the next vehicle.
3. K-9 Vehicle Searches and any other K9 utilization that may involve tracking or involvement with a suspect.
4. Vehicle Searches.
5. Vehicle pursuits, as soon as practical, but no later than when the officer exits the vehicle.
6. Foot Pursuits.



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7. All stops of a person based on reasonable suspicion, i.e. “Terry” Stops.
8. During any tactical operations, including activation of the department Critical Incident Unit, the BWC will be activated for pre-planned events when there is sufficient time to develop a written plan of action. During unplanned and spontaneous tactical operations, a BWC should be used when practical and time and circumstances permit.
9. Any calls for service when a possible suspect is on scene.
10. When two parties are reported to be involved in a dispute.
11. Any interaction with a person known to the officer to have a history of being confrontational and/or violent.
12. When contact with an individual becomes adversarial after the initial contact in a situation that would not otherwise require recording.
13. Record the actions and/or statements of suspects if the recording may prove useful in the later judicial proceedings. Examples include but are not limited to: field interviews, sobriety performance tests, and confiscation or documentation of evidence.
14. Any situation or incident that the officer, through training and experience, believes should be audibly and visually recorded. If an officer is unsure if activation is required or not the officers default should be to activate the BWC.
15. At the request of the victim of a crime of a sensitive nature, such as a sexual assault or a sexual act involving a minor, an officer may deactivate the camera for the duration of the interview of that victim only.

**D. School Resource Officer:**

The application of this policy to minors on the premises of the Chapel Hill-Carrboro City Schools during business hours shall be subject to the terms and conditions specified in a Memorandum of Understanding between the Town of Carrboro and the Chapel Hill-Carrboro City Schools.

**E. Recording in areas with reasonable expectation of privacy:**

1. The use of the BWC when entering private property requires a balance



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between privacy rights and the need for the government intrusion into the space. When practicable, officers shall notify people that they are being recorded as soon as reasonably possible consistent with section III.B.3 of this policy. If a person with legal authority over the private property in question requests that recording be stopped in areas in which a person has a reasonable expectation of privacy and the situation is not listed in section III C of this policy, the officer may stop the recording. Prior to stopping the recording, the officer must state on the recording the reason for stopping the recording. If the incident is one that requires a report, the reason for stopping the BWC will be included in the written report.

2. If an officer is responding to a possible crime or disturbance in progress, the BWC will be activated. If a determination is made that the crime is belated or no longer meets the criteria for recording, the BWC may be deactivated once the situation no longer needs to be recorded. The officer will verbally state the reason for BWC recording cessation on the recording and indicate such in the report of the incident if a report is needed.

F. If an officer is responding to a belated or general call for service that would not normally be recorded, the BWC does not need to be activated unless the situation changes to one in which recording is allowed.

G. Cessation of recordings:

Once activated, the BWC should remain on until the incident has concluded. For purposes of this section, conclusion of an incident has occurred when all arrests have been made, arrestees have been transported and all witnesses and victims have been interviewed. Recording may cease if an officer is simply waiting for a tow truck or a family member to arrive, or in other similar situations. If an arrestee is placed in a vehicle with a recording MVR, the BWC may be turned off.

H. Recording not required:

1. Activation of the BWC system is not required when exchanging information with other officers or during breaks, lunch breaks, or when not in service.;

2. Officers shall not record encounters with undercover officers or confidential informants;

3. In any location where individuals have a reasonable expectation of



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privacy, such as a restroom or locker room, unless the situation meets criteria in section III, C.

**I. Surreptitious recording:**

1. No member of this department may surreptitiously record a conversation of any other member of this department except with a court order or when authorized by the Chief of Police or the Chief's authorized designee for conducting a criminal or administrative investigation.
2. No member of this department shall surreptitiously record members of the public that an officer is not directly interacting with (e.g. an officer providing logistical support at a political rally shall not utilize his or her BWC to record individuals at the rally). This does not apply when the actions of the public turn criminal in nature.

- J. BWC operators shall document the use of BWC equipment in the appropriate RMS report.**

**IV. Supervisor Responsibilities**

- A.** When an incident occurs that requires the immediate downloading or retrieval of the recorded media (e.g., serious crime scenes, departmental shootings, departmental traffic crashes), a supervisor shall respond to the scene, determine if an immediate download is needed, and ensure that the video footage is downloaded as soon as possible.
- B.** When an officer reports a malfunction of BWC equipment to a supervisor, the supervisor will, as soon as is practicable, seek a replacement unit if available and shall ensure that authorized personnel make repairs in a timely manner. If no BWC is available for the officer to use, the officer shall indicate in written reports that no BWC was available at the time of incident.
- C.** Supervisors shall conduct quarterly reviews of officers' recordings in order to:
1. Assess officer performance;
  2. Assure proper functioning of BWC equipment;
  3. Determine if BWC equipment is being operated properly; and



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4. Identify recordings that may be appropriate for training. If this footage involves a personnel action according G.S.160A-168, written permission from the officer(s) involved must be received.

D. Supervisors shall conduct bi-weekly reviews of personnel who are newly assigned BWC equipment in order to ensure compliance with departmental policy. These reviews shall last 30 days. Supervisors shall thereafter conduct quarterly reviews of randomly selected video recorded by their officers.

E. Minor infractions (not criminal in nature) committed by any member of the Carrboro Police Department and discovered during routine review of recorded material should be viewed as training opportunities; however, depending on the severity of the action the supervisor may take disciplinary actions. Should the behavior or action become habitual after being addressed, the appropriate level of disciplinary action will be taken to correct the behavior.

**Deliberate or unauthorized deletion of recorded media shall result in disciplinary actions up to, and including, termination.**

## V. Management of Recordings

A. All recordings on the BWC must be downloaded prior to the end of the officers' tour of duty. Supervisors shall notify administrators of any incidents of unusual importance in a timely manner.

B. Officers shall not attempt to erase, alter or tamper with BWC recordings.  
**Deliberate or unauthorized deletion of recorded media shall result in disciplinary actions up to, and including, termination.**

C. BWC upload procedure:

1. BWC video will be uploaded by directly connecting the BWC to a docking station or USB cable to facilitate upload in to the video system management system.

2. Videos will be correctly classified once uploaded to the video management system.



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D. Deletion of Recordings:

No officer shall delete recordings. All recordings will be maintained according to section VI. Retention of Recordings.

## VI. Retention of Recordings

- A. Officers shall classify all videos recorded in the appropriate category noted in the system once recording and upload is completed. **Any officer, who intentionally or repeatedly misclassifies a video recording in an effort to avoid disciplinary action or criminal investigation, is subject to disciplinary actions up to, and including, termination.**
- B. If recording can be classified into multiple categories, the officer shall choose the category with the longest retention schedule.
- C. Recordings that are evidentiary in nature will be retained in conformance with the Department of Cultural Resources Retention Schedule adopted by the Town of Carrboro and any statutory requirements.
- D. The retention period for the video will be set based on the following criteria:

### Retention Schedule

Type of Incident	Retention Days
Equipment Check/Accidental activation	30 Days
Criminal Intelligence/Criminal Investigations	90 Days
Hold for training purposes	90 Days
General Calls for Service	90 Days
Traffic Stop to include K9 or other vehicle search	180 Days
DWI	720 Days
Custodial Arrest	1460 Days
Vehicle or Foot Pursuits	180 Days
Hold for internal review/complaint	180 Days
Any use of force	1460 Days



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E. Retention schedule can be changed based on State and Federal evidentiary purposes and §1983 concerns.

F. Legal classifications:

All recording media, images, and audio are property of the Carrboro Police Department (CPD) and will not be copied, released, or disseminated in any form or manner outside the parameters of this policy without the expressed written consent of the Chief of Police, and in accordance with applicable law. Under no circumstances will any member of the CPD make a personal copy of any recorded event. Officers may request a copy of a recording for use in professional training with the written approval from the Chief of Police. This policy shall act as express permission by the Chief of Police for a copy of any recorded event related to a criminal case to be released to the Orange County District Attorney's Office or any other District Attorney's Office having jurisdiction in a recorded criminal matter. Recordings made with this equipment are records of criminal investigations and as such will not be subject to release through North Carolina public records law.

## VII. Review of Recordings

A. To prevent damage to, or alteration of, the original recorded media, it shall not be copied, viewed, or otherwise inserted into any device not approved by the Chief of Police or his designee. When reasonably possible, a copy of the original media shall be used for viewing (unless otherwise directed by the courts) to preserve the original media.

B. Recordings may be reviewed in any of the following situations:

1. For use when officers are preparing reports or statements.
2. By a supervisor or other designated officer investigating a specific act of officer conduct related to an official investigation such as a personnel complaint, administrative inquiry, or a criminal investigation.
3. By a supervisor to assess a subordinate officer's performance.
4. By an officer who is captured on, or referenced in, the video or audio data and reviews and uses such data for any purpose relating to his/her employment unless such material is part of an internal investigation.



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5. By court personnel through proper legal process (court order) or with permission of the Chief of Police or the authorized designee. This policy shall act as express permission by the Chief of Police for a copy of any recorded event related to a criminal case to be released to the Orange County District Attorney's Office or any other District Attorney's Office having jurisdiction in a recorded criminal matter.
  6. By the media by order of a court of competent jurisdiction or with permission of the Chief of Police or the authorized designee.
  7. Recordings may be shown for officer training and development purposes. If the recording is part of a personnel matter, a written waiver from the officer involved must be obtained prior to release of video for training and development purposes.
  8. Any person may request to view recorded materials in which they appear unless such material is criminal intelligence, records of criminal investigations, evidence in a criminal matter, or is otherwise not disclosed under law.
  9. When a recording contains a minor, a custodial parent or guardian may request to view the material unless such material is criminal intelligence, records of criminal investigations, evidence in a criminal matter, or is otherwise not disclosed under law.
  10. Persons requesting to view aforementioned material will not be allowed to make copies of the material or take pictures of the screen. Access to recorded material under this provision only allows the requester to view the material.
- C. Persons may request access to this material by completing the form entitled "Recorded Material Review Request."
  - D. Employees desiring to view any previously uploaded or archived recordings other than their own, should submit a request in writing (email is appropriate) to the shift supervisor and then forwarded to the System Administrator for processing.
  - E. No recording may be used or shown for the purpose of ridiculing or embarrassing any employee or member of the public.



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- F. Any video that is evidence in an active internal investigation will only be viewed by the appropriate employees and will not be available for training purposes until after completion of said investigation and upon receipt of written authorization from the involved employee.
- G. All recordings are subject to be erased after the designated retention period unless a longer retention period has been identified for court or investigative purposes.
- H. An officer, by way of their supervisor, may request a copy of a video or to extend the retention period for court purposes. This request will be in writing from the supervisor (can be through e-mail) to the System Administrator. Any supervisor can request a copy of a video or for the retention period to be extended for evidentiary purposes, internal investigation, or for training purposes. If this footage involves a personnel action according G.S.160A-168, written permission from the officer(s) involved must be received prior to release.
- I. Recordings of evidentiary or criminal nature will only be released to attorneys upon the presentation of a valid order issued by a court of competent jurisdiction or upon approval from the District Attorney. Attorneys must submit a written request to hold recordings until a valid court order issued by a court of competent jurisdiction is received. This written request is good for 30 days upon receipt by the police department.
- J. Officers who need recordings duplicated for court must make the request at least five business days prior to the court date. Exceptions to this requirement will be handled on a case-by-case basis.



# Carrboro Police Department



<b>Subject: Subject: Body Worn Camera</b>		<b>Chapter: 19</b>
<b>Issued: xx/xx/xx</b>	<b>Revised: N/A</b>	<b>Page 12 of 12</b>

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# Town of Carrboro

Town Hall  
301 W. Main St.  
Carrboro, NC 27510

## Agenda Item Abstract

**File Number: 15-0224**

**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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### TITLE:

Request-to-set a public hearing on Land Use Ordinance Text Amendments that would provide for a Site Specific, Flexible Zoning District

**PURPOSE:** The purpose of this item is for the Board of Aldermen to consider setting a public hearing on text amendments to the Land Use Ordinance to establish a new site specific, flexible zoning district.

**DEPARTMENT:** Planning Department

**CONTACT INFORMATION:** Christina Moon - 919-918-7325; Mike Brough - 919-929-3905; Nick Herman - 919-929-3905; Patricia McGuire - 919-918-7327

**INFORMATION:** Since the presentation of the design workshop concept plans during the winter of 2011-2012, the Board has held three work sessions to begin to formulate a possible new general use zoning district to implement the recommendations of the NSAPIRC for mixed-use development opportunities in the Northern Study Area. At the first discussion on January 14, 2014, the Board considered a staff proposal for a new zoning district, tentatively named Mixed Use Rural-Transition (MURT) following the framework of the existing Office/Residential Mixed Use District (OR-MU). Staff also provided sample language for the MURT district that responded to the existing rural landscape through open space, screening and buffer requirements. At the June 10, 2014 work session, the Board began a more in-depth conversation relating to the appropriateness of specific land uses and building form--massing and height-and their placement on the site. Members of the Northern Transition Area Advisory Committee (NTAAC) were specifically notified of the third meeting, held on November 11, 2014, and invited to participate.

Throughout these meetings two themes have consistently remained at the forefront. The first is consistency with the Northern Study Area Plan; establishing a district that would allow the land uses identified by the design workshop participants and the site owner, while retaining the "design with nature themes" that seem appropriate for an area under transition. The second is the creation of a new mixed-use district which would allow the property owner some flexibility to adjust with the market within the perimeters of an approved conceptual plan for the site.

Up to this point, staff have been exploring options for a new general use zoning district, which would allow residential and commercial uses, something similar in concept to the existing OR-MU district. The use of a conditional or a conditional use district allow some more flexibility but requires property owners to petition to rezone their property, an extra step which some owners find undesirable. After consideration, staff has

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**Agenda Date:** 6/23/2015

**File Type:**Agendas

**In Control:** Board of Aldermen

**Version:** 1

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prepared a draft ordinance (Attachment B) that would authorize the creation a site specific flexible district tentatively called FLX. To be considered for FLX zoning, a tract must meet four key criteria: (1) be at least twenty-five acres in size, (2) be under single ownership or control, (3) be located adjacent to a major arterial such that, when developed, the principal entrance to such development will be from that arterial, and (4) have been the subject of a site specific planning study by the Town to determine the most appropriate potential development options for such tract.

The property owner would have to petition for the rezoning, and include as part of the application materials a detailed site plan, and conditions would be linked to the rezoning. Each request for a Site Specific, Flexible Zoning District would be specific to the particulars of the parcels involved. As a legislative decision, the Board of Aldermen would consider the particulars of the petition and the site plan as a policy matter. The Board's decision would be guided by Section 15-324(a-e) which speaks to consistency with adopted plans and policies, and particularly Section 15-325, Ultimate Issue Before Board on Amendments, which outlines the central issue for the Board as whether the rezoning advances the public health, safety or welfare.

The Board of Aldermen must receive public comment before adopting amendments to the LUO. Orange County and Planning Board review are also needed. The Board may wish to refer the draft amendments to other advisory boards such as the Transportation Advisory Board, Appearance Commission and NTAAC; the resolution template provides for those options. Because the approach is new, staff anticipates providing an opportunity for the Board of Aldermen to work through the proposed ordinance in greater detail at a meeting in late August or early September, in advance of the public hearing.

**FISCAL & STAFF IMPACT:** Public hearings involve staff and public notice costs associated with advisory board and Board of Aldermen review.

**RECOMMENDATION:** Staff recommends that the Board of Aldermen consider the attached resolution, setting a public hearing for September 22, 2015 and referring the proposed amendment to Orange County, the Planning Board and others, as appropriate.

A RESOLUTION SETTING A PUBLIC HEARING ON AN ORDINANCE AMENDING THE LAND USE ORDINANCE TO AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE TO PROVIDE FOR A SITE SPECIFIC, FLEXIBLE ZONING DISTRICT

WHEREAS, the Board of Aldermen seeks to provide ample opportunities for the public to comment on proposed amendments to the Land Use Ordinance;

NOW, THEREFORE BE IT RESOLVED that the Board of Aldermen sets a public hearing on September 22, 2015, to consider adopting "An Ordinance Amending the Carrboro Land Use Ordinance to Provide for a Site Specific, Flexible Zoning District."

BE IT FURTHER RESOLVED that the draft ordinance is referred to Orange County, the Town of Carrboro Planning Board and the following Town of Carrboro advisory boards and commissions for consideration and recommendation prior to the specified public hearing date:

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Appearance Commission         | <input type="checkbox"/> Recreation and Parks Commission                        |
| <input checked="" type="checkbox"/> Transportation Advisory Board | <input checked="" type="checkbox"/> Northern Transition Area Advisory Committee |
| <input type="checkbox"/> Environmental Advisory Board             | <input type="checkbox"/> _____  |
| <input type="checkbox"/> Economic Sustainability Commission       | <input type="checkbox"/> _____  |

This is the 23<sup>rd</sup> day of June in the year 2015.

AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE TO PROVIDE  
FOR A SITE SPECIFIC, FLEXIBLE ZONING DISTRICT

\*DRAFT 6-16-2015\*

THE CARRBORO BOARD OF ALDERMEN ORDAINS:

Section 1. The Carrboro Land Use Ordinance is amended by adding a new Section 15-141.5 to read as follows:

**Section 15-141.5 Site Specific, Flexible Zoning District**

- (a) A site specific, flexible zoning district (FLX) may be established in accordance with the provisions of this section. The purpose of such a district is to establish detailed standards for alternative possibilities for the development of a specific tract of land, thereby facilitating the development of that property according to the demands of the market, but in a way that is consistent with sound planning and the promotion of the public health, safety, and welfare.
- (b) To be considered for FLX zoning, a tract must (i) be at least twenty-five acres in size, (ii) be under single ownership or control, (iii) be located adjacent to a major arterial such that, when developed, the principal entrance to such development will be from that arterial, and (iv) have been the subject of a site specific planning study by the Town to determine the most appropriate potential development options for such tract.
- (c) A FLX zoning district shall address the following:
  - (1) The types of uses that are permissible within the FLX district, along with a maximum (and if applicable, a minimum) percentage of the gross land area that will be devoted to each such use. The description of uses may be in reference to the use classification numbers set forth in the Table of Permissible Uses, or the uses may otherwise be described. The district regulations may also establish density or intensity limitations (expressed in terms of a maximum number of dwelling units or square feet of building floor area).
  - (2) The dimensional restrictions (building height, minimum lot size, setbacks) that shall apply throughout the district. Different restrictions may apply to different portions of the district, depending on the uses located therein. The dimensional restrictions may be described by reference to those applicable within particular zoning districts, or otherwise.
  - (3) Any limitations on the areas within the district where particular types of uses may be allowed.
  - (4) Any architectural standards that will apply to all or designated portions of the district.
  - (5) Any limitations on the timing or sequence of development of various portions of the district.
  - (6) The location of entrances to the tract zoned FLX.

- (7) The manner in which the development of the property will comply with the stormwater requirements set forth in Section 15-263. All developed lots within the district shall be subject to these standards, regardless of the amount of land disturbance, but the FLX district may allow the necessary stormwater treatment facilities to be constructed to meet these standards on a lot by lot basis, or some other basis that provides effective and efficient treatment for all new construction.
  - (8) Any limitations on the location or design of parking lots and facilities.
  - (9) Specifications and standards for the internal circulation system serving vehicular and pedestrian traffic, including a statement as to whether such facilities will be dedicated to the Town.
  - (10) All infrastructure improvements proposed to be constructed in conjunction with the development of the property zoned FLX (including but not limited to improvements to adjoining streets) together with a schedule that links construction of such improvements to the development of the property.
- (d) Development of any lot within a FLX zoning district shall require a zoning permit (and a sign permit if applicable), but not a special or conditional use permit.
  - (e) All relevant provisions of the Land Use Ordinance shall apply except to the extent that such provisions are superseded by the provisions of this section or any FLX district established pursuant to this section.
  - (f) A text amendment establishing a FLX district as well as a map amendment applying such district to a particular tract shall be initiated and processed in accordance with the following provisions:
    - (1) The owner of property who wishes to have such property zoned FLX shall submit a written request to the Board of Aldermen, identifying the subject property and explaining briefly why the property is a good candidate for FLX zoning. The Board may, in its discretion, summarily deny the request or direct the town attorney and planning staff to work with the property owner to develop an ordinance pursuant to this section that establishes an appropriate FLX district and that applies this district to such property.
    - (2) Once an ordinance has been drafted as provided in subdivision (f)(1), such ordinance shall be processed in accordance with the provisions of Article XX of this chapter applicable to ordinance amendments initiated by the town administration, except that (i) the Board may establish such additional processes as deemed necessary to ensure that the public has an adequate opportunity for input into the proposed FLX district, and (ii) no property may be rezoned FLX without the consent of the property owner (which consent may be withdrawn at any time before the adoption of the ordinance establishing the FLX district. The text and the map amendment may be processed simultaneously.

(3) Amendments to the FLX shall be initiated and processed in the same manner as the initial ordinance.

(g) Property within a FLX district may be subdivided according to the provisions of this chapter applicable to minor subdivisions, even if such subdivision involves the creation of more than a total of four lots or the creation of a new public street.

Section 2. All provisions of any town ordinance in conflict with this ordinance are repealed.

Section 3. This ordinance shall become effective upon adoption.



# Town of Carrboro

Town Hall  
301 W. Main St.  
Carrboro, NC 27510

## Agenda Item Abstract

**File Number:** 15-0271

**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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### TITLE:

A Public Hearing on the Temporary Street Closing Permit Application for the Not So Normal Run Festival.

**PURPOSE:** The purpose for this meeting is to receive public input for a Street Closing Permit Application submitted by Hairy Pony Racing Association for the temporary closing and usage of streets from 7:00 AM to 2:00 PM on Sunday, April 3<sup>rd</sup>, 2016 to accommodate the *Not So Normal Run Festival*, which includes a half marathon race and a full marathon race.

**DEPARTMENT:** Public Works

**CONTACT INFORMATION:** Chad Dusenberry, 918-7432

**INFORMATION:** This is the third year for this event; however, the event coordinator (Jay Radford) is changing the event from a 5K race, a 10k race (6.1 miles), and half marathon (13.1 miles) to a half marathon and a full marathon (26.2 miles) for the 2016 event. Both races will start at the same time (7:30 AM) at Carrboro Town Commons, and will finish in the same location from roughly 11:00 AM until 1:30 PM. Both races combined will be limited to 2000 runners. The race organizer will provide a follow vehicle on the full marathon to pick up runners that fall behind the pace to finish the race by 1:30 PM.

W. Main St, Between W. Weaver St. and NC54, will be closed to traffic from 7:25 AM to 7:45 AM. Side streets along W. Main St will be re-opened as soon as the last runner passes. Other streets will remain open to traffic during the races; however, drivers may experience intermittent interruptions due to runners crossing streets and traffic control by police, public works, and race volunteers. Attached is map of the event.

The event organizer will be holding post-race festivities on the Town Commons property until 2:30 PM.

The event organizer has specified in his pre-event application that this event is intended to be held annually on the first Sunday in April through 2020.

The scope of this event will require staffing that exceeds what the Public Works and Police Departments can typically provide and subsequently the coordinator will be hiring additional professional staff to help manage the event. Town staff will help coordinate the traffic control. The race organizer shall seek approval from NCDOT for the race course taking place on State maintained roadways. A portion of the race course will take place outside Town limits, and the race organizer shall also be responsible for securing traffic control assistance on those roadways.

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**Agenda Date:** 6/23/2015

**File Type:**Agendas

**In Control:** Board of Aldermen

**Version:** 1

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Proceeds will go to the newly formed No So Normal Fund, a non-profit entity, located in Orange County.

In accordance with Section 7-19 of the Town Code, a Public Hearing to receive public input prior to issuing a Street Closing Permit is required for this event.

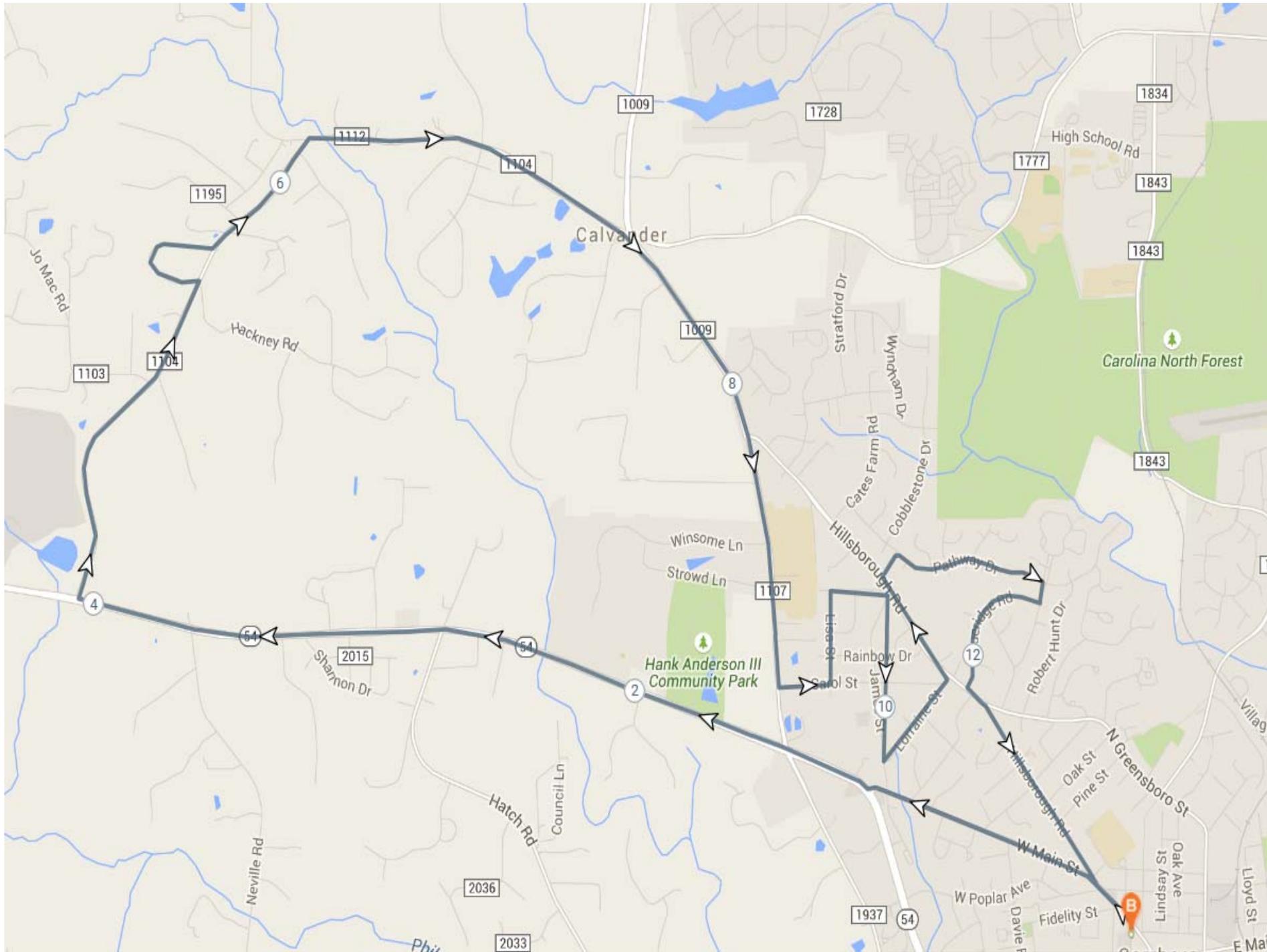
**FISCAL & STAFF IMPACT:** The applicant will be responsible for all costs incurred by Police and Public Works to facilitate this event. The applicant will be sent an itemized bill for the final costs incurred by Police and Public Works. The applicant has paid the application fee.

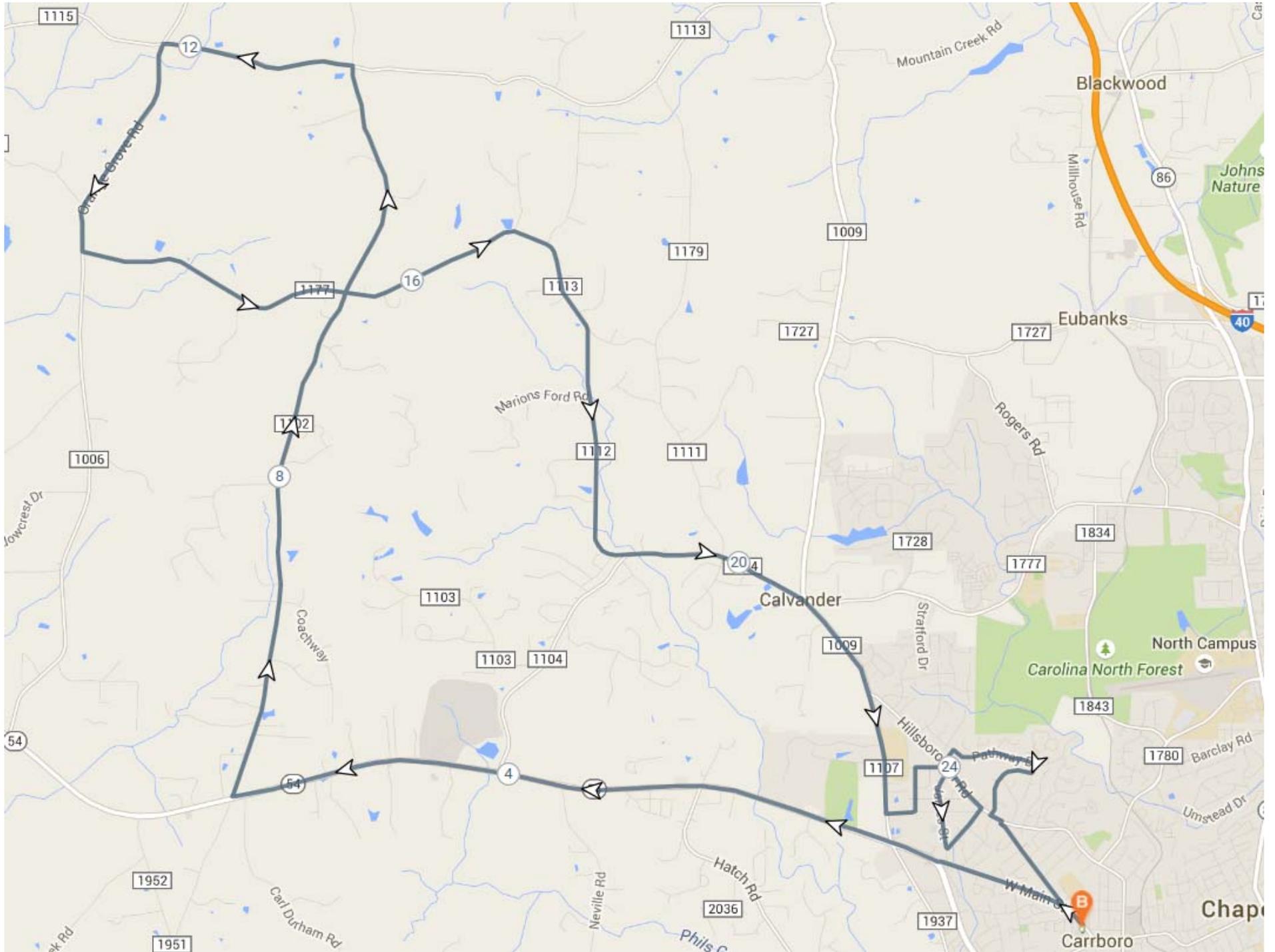
**RECOMMENDATION:** It is recommended that the Board approve the attached resolution for the temporary closing and usage of public streets in order to accommodate the *Not Normal Festival* events under the following stipulations:

1. Applicant shall notify persons occupying property abutting the streets where the event is to take place, of the contents of the resolution.
2. Applicants shall be responsible for all costs incurred by Public Works and Police to facilitate this event. Applicant shall also be responsible for costs to hire additional forces for traffic control.
3. Applicant will be sent an itemized bill for the final costs incurred by Public Works and Police.
4. Applicant shall seek approval from NCDOT for the race course taking place on State maintained roadways.
5. Applicant shall be responsible for securing traffic control assistance in area outside the Town of Carrboro jurisdiction limits.
6. Applicant shall be responsible for completing the Town Commons reservation process, including fees and insurance.
7. Applicant shall obtain all necessary permits for activities on the Town Commons property; i.e. alcohol and tent permits.

A PUBLIC HEARING TO RECEIVE PUBLIC INPUT ON A TEMPORARY STREET  
CLOSING PERMIT TO ACCOMMODATE A HALF MARATHON AND FULL  
MARATHON FOR THE NOT SO NORMAL RUN FESTIVAL

- Section 1. On the day of the event, public streets shall be temporarily used Sunday, April 3<sup>rd</sup>, 2016 from 7:00 AM to 2:00 PM to accommodate half marathon and full marathon races for the Not So Normal Run Festival. This event is to be held in accordance with the permit issued by the Board of Aldermen pursuant to Article III of Chapter 7 of the Town Code. Refer to attached maps for exact locations of streets being used for the event.
- Section 2. The Town shall supply the appropriate traffic control devices to give notice of the temporary traffic controls.
- Section 3. No person may operate any vehicle contrary to the traffic control devices installed in accordance with Section 2 of this resolution.
- Section 4. Applicant shall distribute flyers of notification, to persons occupying property abutting the streets where the event is to take place, of the contents of any resolution passed.
- Section 5. Applicant will be responsible for all costs incurred by Police and Public Works to facilitate this event. Applicant will be sent an itemized bill for the final costs incurred by Police and Public Works.
- Section 6. The scope of this event will require staffing that exceeds what the Public Works and Police Departments can typically provide, and subsequently the coordinator will be hiring additional professional staff to help manage the event. Town staff will help coordinate the traffic control. The applicant must provide additional labor for areas of the race courses outside the Town of Carrboro jurisdiction limits, and hiring additional forces for areas in Town limits beyond what Carrboro Police and Public Works are able to staff.
- Section 7. The Event Coordinator will be responsible for notifying Central Communications when the street is closed and when it is reopened to vehicular traffic.
- Section 8. This resolution is contingent on the applicant providing proper liability insurance to the Town at least 30 days prior the event.
- Section 9. This resolution shall become effective upon adoption.





STREET CLOSING PERMIT APPLICATION

CONCERNING THE USE OF STREETS AND PUBLIC RIGHT-OF-WAY FOR STREET FAIRS, FESTIVALS, CARNIVALS, AND OTHER PUBLIC EVENTS

EVENT: Not So Normal Half and Full Marathon

EVENT SPONSOR: Not So Normal Fund, Inc

IS THE SPONSOR A:  NON-PROFIT  FOR PROFIT  OTHER: \_\_\_\_\_

ANY OTHER INFORMATION ABOUT SPONSOR OR EVENT: \_\_\_\_\_  
see attached overview  
\_\_\_\_\_

EVENT COORDINATOR INFO:

NAME: Jay Radford

ADDRESS: 109 Eagle Rock Ct Chapel Hill, NC 27516

TELEPHONE NUMBER: 919-370-7828

PROPOSED DATE AND TIME PERIOD PROPOSED FOR CLOSING:

DATE: RAIN 04/03/2016 Time Period: From: 7:00am

DATE: none To: 2:00pm

APPROXIMATE NUMBER OF PERSONS EXPECTED TO ATTEND THE EVENT: 2,000

ARE ANY SPECIFIC SERVICES REQUESTED OF THE TOWN? YES  NO

(traffic control may be required, and event organizers may be required to reimburse the Town for any related expenses):

If YES, specify

Traffic control  
\_\_\_\_\_

ATTACH A SKETCH SHOWING:

- Area where event is to take place
- Any streets to be closed or obstructed
- Any barriers or traffic control devices to be erected
- Location of any concession stand, booth or other temporary structures
- Location of proposed fences stands, platforms, stages, benches or bleachers

OTHER INFORMATION: see attached narrative and maps  
\_\_\_\_\_

INSURANCE INFORMATION: Required policy is being created by High and Rubish Agency and will be in place for event  
\_\_\_\_\_

**NOTIFICATION OF CENTRAL COMMUNICATIONS (911):**

*The APPLICANT is responsible for notifying Central Communications (911):*

- *at least five (5) days in advance of the event in writing (Orange County EMS, Post Office Box 8181, Hillsborough, NC 27278)*
- *on the day of the closing, prior to the actual closing of the street (dialing 911)*
- *on the day of the closing, when the street is re-opened (dialing 911)*

**NOTIFICATION OF THE PUBLIC:**

A public hearing is required for all street closing permit applications and the applicant must speak with the Public Works Department about requesting this public hearing. The public must be notified by a formal advertisement in a local newspaper. The Public Works Department *will submit* the advertisement copy to the newspaper. **However, the applicant will be responsible for reimbursing the Town for the full cost of the advertisement.**

Any other notification of the public of this event will be the Applicant’s responsibility.

**NOTIFICATION OF ABUTTING PROPERTY OWNERS:**

The **APPLICANT** is responsible for notifying all abutting property owners of the Public Hearing. Such notification must be accomplished at least seven days prior to the Public Hearing. The notification must include:

- the DATE, TIME and LOCATION of the proposed street closing; and
- the DATE, TIME and LOCATION of the Public Hearing as well as the subject matter of this PublicHearing

The Public Works Department must receive in writing from the APPLICANT the following at least five days prior to the Public Hearing:

- names of all property owners notified
- copy of the notification
- method used to notify these property owners (mail or handdelivery)

**CLEAN-UP TIME TABLE:**                    2:00pm to 5:00pm day of event

**FEES:**                    **\$ 60.00 application fee plus 100% of the cost of the Public Hearing advertisement**  
Application fee must accompany the submittal of this application

**Event / Street Closing Checklist:**

	Date Completed	Initialed By
Permit Application and Fee Received	[_____]	[_____]
Staff Review (See attached notes if applicable)	[_____]	[_____]
Insurance Certificate if required	[_____]	[_____]
Request to Board to set a Public Hearing	[_____]	[_____]
Advertisement of Public Hearing (Town places advertisement and applicant reimburses Town 100% of the advertising costs)	[_____]	[_____]
Abutting Property Owner notified of Public Hearing (Notification must be certified to the Public Works Dept. in the manner described above)	[_____]	[_____]
Public Hearing	[_____]	[_____]



# Town of Carrboro

Town Hall  
301 W. Main St.  
Carrboro, NC 27510

## Agenda Item Abstract

**File Number: 15-0270**

**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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### TITLE:

Public Hearing on Land Use Ordinance Amendments to Modify Provisions Relating to the Expiration of Permits

**PURPOSE:** The purpose of this item is for the Board of Aldermen to consider amending the Land Use Ordinance to modify the existing provisions relating to the expiration and extension of permits. A draft ordinance has been prepared. The Board must receive public comments before taking action on the draft ordinance.

**DEPARTMENT:** Planning

**CONTACT INFORMATION:** Christina Moon - 919-918-7325; Nick Herman - 919-929-3905; Marty Roupe - 919-918-7333

**INFORMATION:** At the November 18, 2014 Board of Aldermen meeting, the Board considered permit extension requests for three conditional use permits. After reviewing the second permit extension agenda item Alderman Seils requested, as formal motion, that staff report back to the Board with an option to extend a permit for more than twelve months and information relating to the circumstances for which the Board would consider the longer extension.

Article IV of the Land Use Ordinance outlines the procedures for permit and final plat approval. Section 15-62 speaks to the expiration of permits. Subsection 15-62(c) provides for the permit issuing authority to extend a permit for a period of up to one year after the date when the permit would otherwise expire if it concludes that the applicant meets the following criteria:

- (i) the permit has not yet expired,
- (ii) the permit recipient has proceeded with due diligence and in good faith, and
- (iii) conditions have not changed so substantially as to warrant a new application.

A draft ordinance has been prepared that, if adopted, would amend Section 62(c) to allow the permit issuing authority to extend a permit for a period of up to two years. The amendment would not require a permit to be extended for the maximum length of time, but rather allow the permit issuing authority the discretion to extend the permit for a period of up to but not exceeding two years. The existing criteria in the LUO provides

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**Agenda Date:** 6/23/2015

**File Type:**Agendas

**In Control:** Board of Aldermen

**Version:** 1

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guidance for determining whether to grant the extension.

The draft ordinance was referred to Orange County and presented to the Planning Board at its May 21, 2015 meeting. Comments are provided (Attachment C).

**FISCAL & STAFF IMPACT:** Public hearings involve staff and public notices costs associated with advisory board and Board of Aldermen review. Minimal staff impacts are anticipated in relation to incorporating the proposed amendment.

**RECOMMENDATION:** Staff recommends that the Board of Aldermen consider the resolution finding consistency (Attachment A-1), and the draft ordinance provided in the attachments (Attachment B).

A RESOLUTION ADOPTING A STATEMENT EXPLAINING THE BOARD OF ALDERMEN'S  
REASONS FOR ADOPTING AN AMENDMENT TO THE TEXT OF THE CARRBORO LAND  
USE ORDINANCE

Draft Resolution No.

WHEREAS, an amendment to the text of the Carrboro Land Use Ordinance has been proposed, which amendment is described or identified as follows: AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE TO MODIFY PROVISIONS RELATING TO THE EXPIRATION OF PERMITS.

NOW, THEREFORE, the Board of Aldermen of the Town of Carrboro Resolves:

Section 1. The Board concludes that the above described amendment is consistent with the Downtown Carrboro New Vision which speaks to the importance of reviewing and updating zoning and development policies and is consistent with *Carrboro Vision 2020* which speaks to the need to govern development and minimize negative impact as well as consider the interests of all members of the community, including property owners, neighbors, and other interested citizens when making development decisions.

Section 2. The Board further concludes that the above described amendment is reasonable and in the public interest because it will allow the Board to consider extending an approved permit, under specific criteria, for a development project that complies with the Land Use Ordinance.

Section 3. This resolution becomes effective upon adoption.

This the 23<sup>rd</sup> day of June 2015.

A RESOLUTION ADOPTING A STATEMENT EXPLAINING THE BOARD OF ALDERMEN'S  
REASONS FOR REJECTING AN AMENDMENT TO THE TEXT OF  
THE CARRBORO LAND USE ORDINANCE

Draft Resolution No.

WHEREAS, an amendment to the text of the Carrboro Land Use Ordinance has been proposed, which amendment is described or identified as follows: AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE TO MODIFY PROVISIONS RELATING TO THE EXPIRATION OF PERMITS.

NOW, THEREFORE, the Board of Aldermen of the Town of Carrboro Resolves:

Section 1. The Board concludes that the above described amendment is not consistent with Town plans and policies.

Section 2. The Board concludes that its rejection of the above described amendment is reasonable and in the public interest because existing regulations are appropriate.

Section 3. This resolution becomes effective upon adoption.

This the 23<sup>rd</sup> day of June 2015.

AN ORDINANCE AMENDING THE LAND USE ORDINANCE TO MODIFY PROVISIONS  
RELATING TO THE EXPIRATION OF PERMITS

**\*\*DRAFT 4-24-2015\*\***

THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO ORDAINS:

Section 1. Section 15-62(c) of the Carrboro Land Use Ordinance is amended to read as follows:

(c) The permit-issuing authority may extend for a period up to two years the date when a permit would otherwise expire pursuant to subsections (a) and (b) if it concludes that (i) the permit has not yet expired, (ii) the permit recipient has proceeded with due diligence and in good faith, and (iii) conditions have not changed so substantially as to warrant a new application. Successive extensions may be granted for periods of up to two years upon the same findings. All such extensions may be granted without resort to the formal processes and fees required for a new permit.

Section 2 This ordinance shall become effective upon adoption.



# TOWN OF CARRBORO

## Planning Board

301 West Main Street, Carrboro, North Carolina 27510

### RECOMMENDATION

THURSDAY, MAY 21, 2015

## LAND USE ORDINANCE TEXT AMENDMENT RELATING TO PERMIT EXTENSIONS

Motion was made by Adamson and seconded by Hunt that the Planning Board recommends that the Board of Aldermen adopt the draft ordinance.

#### VOTE:

AYES: (6) Braxton, Adamson, Tiemann, Poulton, Cohen, Hunt

ABSENT/EXCUSED: (4) Clinton, Davis, Whittemore, Watson

NOES: ( )

ABSTENTIONS: (1) Haggarty

#### Associated Findings

By a unanimous show of hands, the Planning Board membership also indicated that no members have any financial interests that would pose a conflict of interest to the adoption of this amendment.

Motion was made by Adamson and seconded by Hunt that the Planning Board of the Town of Carrboro finds the proposed text amendment is consistent with Downtown Carrboro New Vision which speaks to importance of reviewing and updating zoning and development policies. The Planning Board also finds that the proposed text amendment is consistent with Carrboro Vision 2020 which speaks to the need to govern development and minimize negative impact as well as consider the interests of all members of the community, including property owners, neighbors, and other interested citizens when making development decisions.

The Planning Board furthermore finds that the above described amendment is reasonable and in the public interest because it will allow the Board to consider extending an approved permit, under specific criteria, for a development project that complies with the Land Use Ordinance.

#### VOTE:

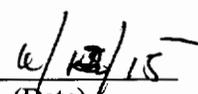
AYES: (6) Braxton, Adamson, Tiemann, Poulton, Cohen, Hunt

ABSENT/EXCUSED: (4) Clinton, Davis, Whittemore, Watson

NOES: ( )

ABSTENTIONS: (1) Haggarty

  
 (Chair)

  
 (Date)

**ORANGE COUNTY PLANNING & INSPECTIONS DEPARTMENT**

**Craig N. Benedict, AICP, Director**

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



**131 W. Margaret Lane  
P O Box 8181  
Hillsborough,  
North Carolina, 27278**



**TRANSMITTAL DELIVERED VIA EMAIL**

May 28, 2015

Christina Moon, AICP  
Planning Administrator  
Town of Carrboro  
301 W. Main St.  
Carrboro, NC 27510

**SUBJECT: Joint Planning Review of Proposed Ordinance Amendments**

Dear Tina:

Thank you for the opportunity to review the following Land Use Ordinance amendments received by us May 21, 2015 and proposed for town public hearing on June 23, 2015:

- *An Ordinance to Establish Regulations for Data Service Provider Facilities Not Otherwise Regulated.*
- *An Ordinance Modifying Provisions Relating to the Expiration of Permits.*
- *An Ordinance Authorizing the Creation of Conditional Zoning Districts that Correspond to Most Zoning Districts rather than just the B-2 and B-1(G) Districts.*

We have reviewed the amendments and find no inconsistency with the adopted *Joint Planning Area Land Use Plan*. I indicated in the last bullet above a text change you may want to consider making.

If you have any questions or need additional information, please let me know.

Sincerely,

Perdita Holtz, AICP  
Planning Systems Coordinator





# Town of Carrboro

Town Hall  
301 W. Main St.  
Carrboro, NC 27510

## Agenda Item Abstract

**File Number: 15-0272**

**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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### **TITLE:**

Public Hearing on Land Use Ordinance Amendments to Authorize the Creation of Conditional Zoning Districts that Correspond with most of the existing Zoning Categories

**PURPOSE:** The purpose of this item is for the Board of Aldermen to consider amending the Land Use Ordinance that would authorize the establishment of conditional zoning districts that correspond to most zoning districts rather than just B-1(G) and B-2. A draft ordinance has been prepared. The Board must receive public comments before taking action on the draft ordinance.

**DEPARTMENT:** Planning

**CONTACT INFORMATION:** Christina Moon - 919-918-7325; Mike Brough - 919-929-3905; Nick Herman - 919-929-3905; Patricia McGuire - 919-918-7327

**INFORMATION:** In October of 2014, the Board considered and adopted text amendments to the Land Use Ordinance (LUO) relating to the Board of Adjustment. The amendments were initiated by staff to ensure the Town's compliance with changes to North Carolina State Statutes relating to the same topics. The changes were part of an ongoing effort to revisit certain statutes relating to zoning powers that had been updated over the years to address specific issues but were long overdue for a more comprehensive review. The intent was to improve clarity in the text, streamline and/or modernize the language and remove duplication.

In November of 2014, staff from the University of North Carolina, School of Government, at Chapel Hill, shared information with local zoning officials about a similar review spearheaded by the North Carolina Bar Association to reorganize, clarify and modernize statutes relating to local planning and development regulations. House Bill 548, was introduced in early April to formally begin the legislative process for considering these potential changes. One of the key trends that staff has observed in following this review is a growing shift away from conditional use zoning toward conditional zoning as the preferred mechanism for handling certain types of development opportunities.

Both conditional use and conditional zoning mechanisms allow rezonings to occur under very specific conditions where they may otherwise not be appropriate. However, unlike conditional use zoning where the rezoning and associated conditional use permit are considered simultaneously following quasi-judicial proceedings, conditional zoning follows only the legislative process. Conditions are agreed to by both the

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**Agenda Date:** 6/23/2015

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property owner and local government and are linked to the rezoning. The petitioner submits some sort of exhibit or site plan, and the actual permit comes later as a subsequent step.

The LUO provides for staff to initiate an amendment if it believes that the proposed amendment has significant merit and would benefit the general public interest. Article IX, Zoning Districts and Zoning Map, provides for conditional use zoning for almost all of the existing general use districts but only provides for conditional zoning for two districts, B-1(G) and B-2. A draft ordinance has been prepared that, if adopted, would authorize the creation of a conditional district that would correspond to almost all of the Town's general zoning districts.

The draft ordinance was referred to Orange County and presented to the Planning Board at its May 21, 2015 meeting. Comments are provided (Attachment C).

**FISCAL & STAFF IMPACT:** Public hearings involve staff and public notices costs associated with advisory board and Board of Aldermen review. Minimal staff impacts are anticipated in relation to incorporating the proposed amendment.

**RECOMMENDATION:** Staff recommends that the Board of Aldermen consider the resolution finding consistency (Attachment A-1), and the draft ordinance (Attachment B).

A RESOLUTION ADOPTING A STATEMENT EXPLAINING THE BOARD OF ALDERMEN'S  
REASONS FOR ADOPTING AN AMENDMENT TO THE TEXT OF THE CARRBORO LAND  
USE ORDINANCE

Draft Resolution No.

WHEREAS, an amendment to the text of the Carrboro Land Use Ordinance has been proposed, which amendment is described or identified as follows: AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE TO AUTHORIZE THE CREATION OF CONDITIONAL ZONING DISTRICTS THAT CORRESPOND TO MOST ALL ZONING DISTRICTS RATHER THAN JUST THE B-2 AND B-1(G) DISTRICTS.

NOW, THEREFORE, the Board of Aldermen of the Town of Carrboro Resolves:

Section 1. The Board concludes that the above described amendment is Consistent with the Downtown Carrboro New Vision document which speaks to the importance of updating zoning and development policies to ensure that the ordinance implements the Town's Vision Plan, and *Carrboro Vision 2020* particularly the statements under Section 2.0, Development:

- Carrboro's development should take place in a manner consistent with a set of adopted values.
- Growth should occur in a balanced fashion, and at a rate that does not jeopardize the values set forth by Vision2020.
- The interests of all members of the community, including property owners, neighbors, and other interested citizens should be considered when making development decisions.

Section 2. The Board further concludes that the above described amendment is reasonable and in the public interest because it expands the use of a mechanism that allows rezonings to occur under very specific conditions so as to ensure compatibility with surrounding and proposed uses.

Section 3. This resolution becomes effective upon adoption.

This the 23<sup>rd</sup> day of June 2015.

A RESOLUTION ADOPTING A STATEMENT EXPLAINING THE BOARD OF ALDERMEN'S  
REASONS FOR REJECTING AN AMENDMENT TO THE TEXT OF  
THE CARRBORO LAND USE ORDINANCE

Draft Resolution No.

WHEREAS, an amendment to the text of the Carrboro Land Use Ordinance has been proposed, which amendment is described or identified as follows: AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE TO AUTHORIZE THE CREATION OF CONDITIONAL ZONING DISTRICTS THAT CORRESPOND TO MOST ALL ZONING DISTRICTS RATHER THAN JUST THE B-2 AND B-1(G) DISTRICTS.

NOW, THEREFORE, the Board of Aldermen of the Town of Carrboro Resolves:

Section 1. The Board concludes that the above described amendment is not consistent with Town plans and policies.

Section 2. The Board concludes that its rejection of the above described amendment is reasonable and in the public interest because existing regulations are appropriate.

Section 3. This resolution becomes effective upon adoption.

This the 23<sup>rd</sup> day of June 2015.

AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE TO  
AUTHORIZE THE CREATION OF CONDITIONAL ZONING DISTRICTS THAT  
CORRESPOND TO MOST ALL ZONING DISTRICTS RATHER THAN JUST THE B-2 AND  
B-1(G) DISTRICTS

\*DRAFT 4-28-2015\*

THE CARRBORO BOARD OF ALDERMEN ORDAINS:

Section 1. Subsection 15-141.4(a) of the Carrboro land Use Ordinance is amended as follows:

(a) Conditional zoning districts are zoning districts in which the development and use of the property so zoned are governed by the regulations applicable to one of the general use zoning districts listed in the Table of Permissible Uses, as modified by the conditions and restrictions imposed as part of the legislative decision creating the district and applying it to the particular property. Accordingly, the following conditional zoning districts may be established: ~~B-2-CZ and B-1(G)-CZ.~~

R-20-CZ, R-15-CZ, R-10-CZ, R-7.5-CZ, R-3-CZ, R-2-CZ, R-R-CZ, R-S.I.R.-CZ , and R-S.I.R.-2-CZ

B-1(C)-CZ, B-1(G)-CZ, B-2-CZ, B-3-CZ, B-3-T-CZ, B-4-CZ, CT-CZ, O-CZ, OA-CZ, M-1-CZ, M-2-CZ

Section 2. All provisions of any town ordinance in conflict with this ordinance are repealed.

Section 3. This ordinance shall become effective upon adoption.

## TOWN OF CARRBORO



## Planning Board

**301 West Main Street, Carrboro, North Carolina 27510**

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R E C O M M E N D A T I O N

THURSDAY, MAY 21, 2015

**LAND USE ORDINANCE TEXT AMENDMENT AUTHORIZING THE  
CREATION OF CONDITIONAL ZONING DISTRICTS THAT CORRESPOND  
TO MOST ZONING DISTRICTS**

Motion was made by **Tiemann** and seconded by **Poulton** that the **Planning Board** recommends that the Board of Aldermen **adopts** the draft ordinance.

**VOTE:**

AYES: (7) Braxton, Adamson, Haggarty, Tiemann, Poulton, Cohen, Hunt

ABSENT/EXCUSED: (4) Clinton, Davis, Whittemore, Watson

NOES: ( )

ABSTENTIONS: ( )

**Associated Findings**

By a unanimous show of hands, the Planning Board membership also indicated that no members have any financial interests that would pose a conflict of interest to the adoption of this amendment.

Motion was made by **Tiemann** and seconded by **Poulton** that the Planning Board of the Town of Carrboro finds the proposed text amendment, **is** consistent with Carrboro Vision 2020, particularly the statements under Section 2.0, Development:

- Carrboro's development should take place in a manner consistent with a set of adopted values.
- Growth should occur in a balanced fashion, and at a rate that does not jeopardize the values set forth by Vision2020.
- The interests of all members of the community, including property owners, neighbors, and other interested citizens should be considered when making development decisions.

The **Planning Board** also finds that the proposed text amendment **is** consistent with the Downtown Carrboro New Vision document which speaks to the importance of updating zoning and development policies to ensure that the ordinance implements the Town's Vision Plan.

# ORANGE COUNTY PLANNING & INSPECTIONS DEPARTMENT

Craig N. Benedict, AICP, Director

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



131 W. Margaret Lane  
P O Box 8181  
Hillsborough,  
North Carolina, 27278



## TRANSMITTAL DELIVERED VIA EMAIL

May 28, 2015

Christina Moon, AICP  
Planning Administrator  
Town of Carrboro  
301 W. Main St.  
Carrboro, NC 27510

### **SUBJECT: Joint Planning Review of Proposed Ordinance Amendments**

Dear Tina:

Thank you for the opportunity to review the following Land Use Ordinance amendments received by us May 21, 2015 and proposed for town public hearing on June 23, 2015:

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- *An Ordinance Modifying Provisions Relating to the Expiration of Permits.*
- *An Ordinance Authorizing the Creation of Conditional Zoning Districts that Correspond to Most Zoning Districts rather than just the B-2 and B-1(G) Districts.*

We have reviewed the amendments and find no inconsistency with the adopted *Joint Planning Area Land Use Plan*. I indicated in the last bullet above a text change you may want to consider making.

If you have any questions or need additional information, please let me know.

Sincerely,

Perdita Holtz, AICP  
Planning Systems Coordinator

## ARTICLE IX

### ZONING DISTRICTS AND ZONING MAP

#### PART I. ZONING DISTRICTS

##### **Section 15-141.3 Conditional Use Zoning Districts (AMENDED 5/25/04)**

(a) The following conditional use zoning districts are hereby established: RR-CU, R-20-CU, R-15-CU, R-10-CU, R-7.5-CU, R-3-CU, R-2-CU, R-S.I.R-CU, R-S.I.R.-2-CU, B-1(c)-CU, B-1(g)-CU, B-2-CU, B-3-CU, B-4-CU, CT-CU, B-3-T-CU, O-CU, M-1-CU, and M-2-CU. The provisions of this section applicable to these conditional use-zoning districts do not affect or apply to other conditional use zoning districts established under this chapter, including the Office/Assembly Conditional Use District, or the Village Mixed Use Conditional Use District.

(b) The conditional use zoning districts established in this section may be applied to property only in response to a petition signed by all the owners of the property to be included within such district.

(c) The uses permissible within a conditional use zoning district established herein, and the regulations applicable to property within such a district, shall be those uses that are permissible within and those regulations that are applicable to the general use zoning district to which the conditional use district corresponds, except as otherwise provided in this section. For example, property that is rezoned to a B-2-CU district may be developed in the same manner as property that is zoned B-2, except as provided in this section.

(d) Subject to subsection (f), all uses that are permissible in the conditional use zoning district shall require the issuance of a conditional use permit, regardless of whether a use in the corresponding general use district would ordinarily require (according to the Table of Permissible Uses) a zoning permit, special use permit, or conditional use permit.

(e) When a rezoning petition for a conditional use zoning district is submitted (in accordance with Article XX of this chapter), the applicant shall simultaneously submit a conditional use permit application showing how the applicant proposes to develop the entirety of the property covered in the rezoning petition.

1. The rezoning and conditional use permit applications shall be processed and reviewed concurrently.
2. The Board of Aldermen shall simultaneously conduct a public hearing on the rezoning and conditional use permit applications, in accordance with the procedures applicable to other conditional use permit applications.
3. If the Board concludes in the exercise of its legislative discretion that the proposed rezoning would not be consistent with the public health, safety, or

welfare, it may deny the application in accordance with the same procedures applicable to any ordinance amendment request.

4. If the Board approves the rezoning request, it shall then vote on whether to issue the conditional use permit. Such permit may be issued subject to reasonable conditions and requirements as set forth in Section 15-59.
5. If the conditional use permit is allowed to expire (under Section 15-62), the Board may initiate action to rezone the property to any appropriate general use district classification. In addition, notwithstanding any other provision of this ordinance, the Board shall be under no obligation to consider any major modification of a conditional use permit issued in connection with a conditional use rezoning or any new conditional use permit for property that has been the subject of a conditional use rezoning.
  - (f) If a conditional use permit issued in connection with a conditional use rezoning authorizes the creation of a residential subdivision containing lots intended for development with not more than four dwelling units each, and the conditional use permit application does not provide sufficient information to authorize a development permit for such lots, then such lots may be developed pursuant to the issuance of a zoning permit (i.e. each lot will not require an amendment to the conditional use permit issued for the overall development).

**Section 15-141.4 Conditional Zoning Districts (AMENDED 5/27/08)**

(a) Conditional zoning districts are zoning districts in which the development and use of the property so zoned are governed by the regulations applicable to one of the general use zoning districts listed in the Table of Permissible Uses, as modified by the conditions and restrictions imposed as part of the legislative decision creating the district and applying it to the particular property. Accordingly, the following conditional zoning districts may be established: B-2-CZ and B-1(G) CZ. **(AMENDED 4/27/10)**

(b) The conditional zoning districts authorized by this section may be applied to property only in response to a petition signed by all the owners of the property to be included within such district.

(c) Subject to the provisions of subsections (f) and (g), the uses permissible within a conditional zoning district authorized by this section, and the regulations applicable to property within such a district, shall be those uses that are permissible within and those regulations that are applicable to the general use zoning district to which the conditional district corresponds, except as those uses and regulations are limited by conditions imposed pursuant to subsection (d) of this section. For example, property that is rezoned to a B-2-CZ district may be developed in the same manner as property that is zoned B-2, subject to any conditions imposed pursuant to subsection (d). **(AMENDED 11/9/11)**

(d) When a rezoning petition for a conditional zoning district is submitted (in accordance with Article XX of this chapter), the application shall include a list of proposed conditions (which may be in the form of written statements, graphic illustrations, or any combination thereof) to be incorporated into the ordinance that rezones the property to the requested conditional zoning district. The list of proposed conditions may be modified by the planning staff, advisory boards, or Board of Aldermen as the rezoning application works its way through the process described in Article XX, but only those conditions mutually approved by the applicant and the Board may be incorporated into the conditional zoning district. Conditions and site-specific standards imposed in a conditional district shall be limited to (i) those that address the conformance of the development and use of the site to the provisions of this chapter or to applicable plans adopted by the Board, and (ii) those that address the impacts reasonably expected to be generated by the development or use of the site.

(e) All uses that are permissible in the conditional zoning district shall require the issuance of the same type of permit that such use in the corresponding general use district would ordinarily require (according to the Table of Permissible Uses), i.e. a zoning permit, special use permit, or conditional use permit.

(f) Notwithstanding the foregoing, in approving a rezoning to a B-1(g) – CZ zoning district, the Board of Aldermen may authorize the property so zoned to be developed at a higher level of residential density than that otherwise permissible in B-1(g) zoning districts under Section 15-182 if the rezoning includes conditions that provide for site and building elements that will create a more vibrant and successful community. Site and building elements are

intended to be selected from at least three of the following seven areas: stormwater management, water conservation, energy conservation, on-site energy production, alternative transportation, provision of affordable housing, and the provision of public art and/or provision of outdoor amenities for public use. Conditions that may be included to meet the above stated objective include but shall not be limited to the following: **(AMENDED 11/9/11)**

- (1) Reduction in nitrogen loading from the site by at least 8% from the existing condition, as determined by the Jordan Lake Accounting Tool
- (2) Energy performance in building requirements to meet one or more of the following
  - a. Achieve 40% better than required in the Model Energy Code, which for NC, Commercial is ASHRAE 90.1-2004-2006 IECC equivalent or better, and Residential is IECC 2006, equivalent or better).
  - b. “Designed to Earn the Energy Star” rating.
  - c. Architecture 2030 goal of a 50 percent fossil fuel and greenhouse gas emission reduction standard, measured from the regional (or country) average for that building type.
  - d. AIA goals of integrated, energy performance design, including resource conservation resulting in a minimum 50 percent or greater reduction in the consumption of fossil fuels used to construct and operate buildings.
  - e. LEED certification to achieve 50% CO2 emission reduction, or LEED silver certification
  - f. US Conference of Mayors fossil fuel reduction standard for all new buildings to carbon neutral by 2030.
  - g. Specific energy saving features, including but not limited to the following, are encouraged..
    - i. Use of shading devices and high performance glass for minimizing heating and cooling loads
    - ii. Insulation beyond minimum standards;
    - iii. Use of energy efficient motors/HVAC;
    - iv. Use of energy efficient lighting;
    - v. Use of energy efficient appliances
    - vi. LED or LED/Solar parking lot lighting (50-100% more efficient).
    - vii. Active and passive solar features.
- (3) Provision of onsite facilities (e.g. solar, wind, geothermal) that will provide 5% of electricity demand associated with the project.
- (4) Use of harvested rainwater for toilet flushing.
- (5) Parking lot meets the standard for a “green” parking lot, per the EPA document Green “Parking Lot Resource Guide.”
- (6) Inclusion of Low Impact Development features.
- (7) Provision of covered bike parking sufficient to provide space for one space per every two residential units.

- (8) Provision of a safe, convenient, and connected internal street system or vehicle accommodation area designed to meet the needs of the expected number of motor vehicle, bicycle, pedestrian, and transit trips
- (9) Inclusion of at least one (1) parking space for car sharing vehicles
- (10) Provision of public art and/or outdoor amenities for public use.
- (11) Use of surface materials that reflect heat rather than absorb it.
- (12) Use of devices that shade at least 30% of south-facing and west-facing building facades.
- (13) Provision of affordable housing in accordance with Town policy.

(g) If a B-1(g) – CZ zoning district is created and, pursuant to subsection (f) of this section, a higher level of residential density than that otherwise permissible in B-1(g) zoning districts is approved for that district, then it shall be a requirement of such district that at least twenty percent (20%) of the total leasable or saleable floor area within all buildings located within such zoning district shall be designed for non-residential use. Occupancy permits may not be given for residential floor area if doing so would cause the ratio of residential floor area for which an occupancy permit has been issued to non-residential floor area for which an occupancy permit has been issued to exceed four to one (4:1). **(AMENDED 11/9/11)**

## PART II. ZONING MAP

### **Section 15-142 Official Zoning Map.**

(a) There shall be a map known and designated as the Official Zoning Map, which shall show the boundaries of all zoning districts within the town's planning jurisdiction. This map shall be drawn on acetate or other durable material from which prints can be made, shall be dated, and shall be kept in the planning department.

(b) The Official Zoning Map dated April, 1973 is adopted and incorporated herein by reference. Amendments to this map shall be made and posted in accordance with Section 15-143.

(c) Should the Official Zoning Map be lost, destroyed, or damaged, the administrator may have a new map drawn on acetate or other durable material from which prints can be made. No further board authorization or action is required so long as no district boundaries are changed in this process.

### **Section 15-143 Amendments to Official Zoning Map (AMENDED 4/27/10; 10/26/10); 09/24/13**

(a) Amendments to the Official Zoning Map are accomplished using the same procedures that apply to other amendments to this chapter, as set forth in Article XX.

(b) The administrator shall update the Official Zoning Map as soon as possible after amendments to it are adopted by the Board. Upon entering any such amendments to the map, the administrator shall change the date of the map to indicate its latest revision. New prints of the updated map may then be issued.

(c) No unauthorized person may alter or modify the Official Zoning Map.

(d) The planning department shall keep copies of superseded prints of the zoning map for historical reference.

### **Section 15-143.4 Downtown Neighborhood Protection Overlay District (AMENDED 8/23/05)**

(a) There is hereby created a Downtown Neighborhood Protection (DNP) Overlay District. The purpose of this district is to establish special height, setback, and design requirements applicable to lots in certain commercially zoned downtown areas where such lots abut or are directly across the street from residentially zoned properties.

(b) Because the DNP district is an overlay district, properties within this district are subject to the regulations applicable to the underlying district except as those regulations are modified or superseded by the requirements of the DNP district. The requirements of the DNP district are set forth in Section 15-185.1 of this chapter.

### **Section 15-144 through 15-145 Reserved.**





# Town of Carrboro

Town Hall  
301 W. Main St.  
Carrboro, NC 27510

## Agenda Item Abstract

**File Number: 15-0274**

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**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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### **TITLE:**

Public Hearing on Land Use Ordinance Amendments to Establish a New Use Classification for Data Service Provider Facilities

**PURPOSE:** The purpose of item is for the Board of Aldermen to consider amending the Land Use Ordinance to establish a new use classification for data service provider facilities. A draft ordinance has been prepared. The Board must receive public comments before taking action on the draft ordinance.

**DEPARTMENT:** Planning

**CONTACT INFORMATION:** Christina Moon - 919-918-7325; Bob Hornik - 919-929-3905; Nick Herman - 919-929-3905; Marty Roupe - 919-918-7333

**INFORMATION:** Section 15-146 of the Land Use Ordinance, Table of Permissible Uses, outlines a number of utility-type uses such as above-ground utility structures or facilities, and underground lines. Such uses are further classified based on the physical size of the facility's components as well as the extent, or coverage, of the area for which the utility is designed to serve. As interest in new data services come on line, staff noted an opportunity to further refine the existing definitions to better provide for new types of uses.

A draft ordinance has been prepared that, if adopted, would establish a new data service provider facility use classification. The new use would be added to the list of definitions in the LUO and added to the Table of Permissible Uses. Article XI, Supplementary Use Regulations, would also be amended with a new Section 15-176.6 to provide dimensional requirements and performance standards. The proposed amendment also includes language that would require a service provider to remove facilities that were no longer in service within a certain period of time. The LUO includes similar language for cell tower facilities.

The draft ordinance was referred to Orange County and presented to the Planning Board and Appearance Commission at the June 4, 2015 Joint Review meeting. Comments are provided (Attachment C).

**FISCAL & STAFF IMPACT:** Public hearings involve staff and public notices costs associated with advisory board and Board of Aldermen review. Minimal staff impacts are anticipated in relations to incorporating the proposed amendment.

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**Agenda Date:** 6/23/2015

**File Type:**Agendas

**In Control:** Board of Aldermen

**Version:** 1

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**RECOMMENDATION:** Staff recommends that the Board of Aldermen consider the resolution finding consistency (Attachment A-1), and the draft ordinance (Attachment B).

A RESOLUTION ADOPTING A STATEMENT EXPLAINING THE BOARD OF ALDERMEN'S  
REASONS FOR ADOPTING AN AMENDMENT TO THE TEXT OF THE CARRBORO LAND  
USE ORDINANCE

Draft Resolution No.

WHEREAS, an amendment to the text of the Carrboro Land Use Ordinance has been proposed, which amendment is described or identified as follows: AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE TO ESTABLISH REGULATIONS FOR DATA SERVICE PROVIDER FACILITIES NOT OTHERWISE REGULATED.

NOW, THEREFORE, the Board of Aldermen of the Town of Carrboro Resolves:

Section 1. The Board concludes that the above described amendment is consistent with *Carrboro Vision 2020* particularly the statements under Section 3.4 relating to technology:

- 3.42 Carrboro should continue to explore new technologies and should actively recruit private companies to supply Carrboro with the most up-to-date technology available, encouraging its distribution throughout the town.
- 3.43 Carrboro should help local businesses grow and expand by taking full advantage of the Internet and other new technologies that become available.

Section 2. The Board further concludes that the above described amendment is reasonable and in the public interest because the performance standards should allow the Town to embrace new technologies in a way that ensures compatibility with surrounding and proposed uses.

Section 3. This resolution becomes effective upon adoption.

This the 23<sup>rd</sup> day of June 2015.

A RESOLUTION ADOPTING A STATEMENT EXPLAINING THE BOARD OF ALDERMEN'S  
REASONS FOR REJECTING AN AMENDMENT TO THE TEXT OF  
THE CARRBORO LAND USE ORDINANCE

Draft Resolution No.

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NOW, THEREFORE, the Board of Aldermen of the Town of Carrboro Resolves:

Section 1. The Board concludes that the above described amendment is not consistent with Town plans and policies.

Section 2. The Board concludes that its rejection of the above described amendment is reasonable and in the public interest because existing regulations are appropriate.

Section 3. This resolution becomes effective upon adoption.

This the 23<sup>rd</sup> day of June 2015.

AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE TO ESTABLISH  
REGULATIONS FOR DATA SERVICE PROVIDER FACILITIES NOT OTHERWISE  
REGULATED

\*Draft 6-16-2015\*

THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO ORDAINS:

Section 1. Section 15-15 (Definitions) of the Carrboro Land Use Ordinance is amended by adding a new subsection (28), as shown below, and renumbering the subsequent subsections accordingly.

(28) DATA SERVICE PROVIDER FACILITY: An unmanned facility other than a utility facility or wireless telecommunication facility, including but not limited to a structure and ancillary improvement, used primarily for the purpose of transmitting and receiving data. Typically, such facilities resemble wireless telecommunications base stations and house equipment used to transmit and receive data via cable, fiber optic strands, or similar media.

Section 2. Section 15-146 (The Table of Permissible Uses) is amended by adding a new use classification 15.750 "Data Service Provider Facility" and by adding the letters "Z S" opposite this use classification under the R-10, R-15, R-20 zoning district columns to indicate that this use is permissible in those districts with a zoning permit or special use permit as noted further in section 15-176.6 Data Service Provider Facilities.

Section 3. Article XI (Supplementary Use Regulations) is amended by adding a new section 15-176.6 as follows:

Section 15-176.6 Data Service Provider Facilities.

(a) Data service provider facilities up to 500 square feet in building area, and no taller than 15 feet in height are allowed in the R-10, R-15 and R-20 zoning districts with a zoning permit, provided that such facility otherwise satisfies the requirements of the Carrboro Land Use Ordinance.

(b) A data service provider facility larger or taller than the maximums stated above, or that cannot meet one or more of the provisions in Section 15-176.6(c) through 15-176.6(l) below may be allowed with a special use permit issued by the Board of Adjustment upon satisfaction of the considerations required by section 15-54.

(c) All data service provider facilities shall be set back at least twice the otherwise applicable front, side and rear yard setback requirements for the zoning district in which the facility is located.

(d) A data service provider facility shall have sufficient parking on site to accommodate the number of vehicles likely to be present at the facility on a regular basis.

(e) A data service provider facility shall be surrounded by a fence or wall at least 8 feet in height and constructed of material that cannot be easily climbed or penetrated.

(f) All data service provider facilities shall be surrounded by a Type A buffer on all sides.

(g) No data service provider facility may generate any smoke, odor, electrical interference that is perceptible beyond the boundaries of the lot where the facility is located or that affect the use of adjoining or neighboring properties.

(h) The maximum permitted sound level for all data service provider facilities is 50 dB(A) measured at (i) the outside boundary of the leased area occupied by the facility, or (ii) the lot line if the facility is the only use located on the lot.

(i) No 15.750 classification use in any district may generate any ground transmitted vibration that is perceptible to the human sense of touch measured at (i) the outside boundary of the leased area occupied by the facility, or (ii) the lot line if the facility is the only use located on the lot.

(j) No outdoor storage shall be permissible at data service provider facilities.

(k) Commercial messages may not be displayed on any data service provider facility, provided that such facility shall have a single sign no larger than 4 square feet in area, identifying the operator of the facility and providing a telephone number or other contact information for the operator.

(l) All data service provider facilities shall meet the applicable lighting requirements established in section 15-242.5.

(m) The recipient of the permit for data service provider facilities shall submit to the Zoning Administrator written verification that the facility is being utilized within thirty (30) days of receipt of a written request for such verification. Data service provider facilities which are not used for a period of 6 months or more shall be removed by the recipient of the permit or subsequent permit holder within 90 days thereafter.

Section 4. Section 15-147 Use of the Designation Z, S, C, in Table of Permissible Uses is amended by adding a new subsection (n) that reads as follows:

(n) Notwithstanding the foregoing, the permit requirement for use classification 15.750 data service provider facilities shall be determined by the supplementary use regulations in Section 15-176.6.

Section 5. All provisions of any town ordinance in conflict with this ordinance are repealed.

Section 6. This ordinance shall become effective upon adoption.



# TOWN OF CARRBORO

## PLANNING BOARD

*301 West Main Street, Carrboro, North Carolina 27510*

### R E C O M M E N D A T I O N

THURSDAY, JUNE 4, 2015

#### **LAND USE ORDINANCE TEXT AMENDMENT TO ESTABLISH REGULATIONS FOR DATA SERVICE PROVIDER FACILITIES NOT OTHERWISE REGULATED**

Motion was made by Clinton and seconded by Hunt that the Planning Board recommends that the Board of Aldermen **adopts** the draft ordinance.

**VOTE:**

AYES: (10) Adamson, Foushee, Tiemann, Poulton, Cohen, Hunt, Clinton, Davis, Whittemore, Haggarty

ABSENT/EXCUSED: (1) Watson

NOES: (0)

ABSTENTIONS: (0)

Associated Findings

By a unanimous show of hands, the Planning Board membership also indicated that no members have any financial interests that would pose a conflict of interest to the adoption of this amendment.

Motion was made by Adamson and seconded by Tiemann that the Planning Board of the Town of Carrboro finds the proposed text amendment, is consistent with Carrboro Vision 2020, particularly the statements under Section 3.4 relating to technology:

- 3.42 Carrboro should continue to explore new technologies and should actively recruit private companies to supply Carrboro with the most up-to-date technology available, encouraging its distribution throughout the town.
- 3.43 Carrboro should help local businesses grow and expand by taking full advantage of the Internet and other new technologies that become available.

The Planning Board furthermore finds that the above described amendment is reasonable and in the public interest because the performance standards should allow the Town to embrace new technologies in a way that ensures compatibility with surrounding and proposed uses.

**VOTE:**

AYES: (10) Adamson, Foushee, Tiemann, Poulton, Cohen, Hunt, Clinton, Davis, Whittemore, Haggarty

ABSENT/EXCUSED: (1) Watson

NOES: ( )

ABSTENTIONS: ( )

  
Blaxton Foushee, Chair

6/12/15  
6/4/2015

**ORANGE COUNTY PLANNING & INSPECTIONS DEPARTMENT**

**Craig N. Benedict, AICP, Director**

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



**131 W. Margaret Lane  
P O Box 8181  
Hillsborough,  
North Carolina, 27278**



**TRANSMITTAL DELIVERED VIA EMAIL**

May 28, 2015

Christina Moon, AICP  
Planning Administrator  
Town of Carrboro  
301 W. Main St.  
Carrboro, NC 27510

**SUBJECT: Joint Planning Review of Proposed Ordinance Amendments**

Dear Tina:

Thank you for the opportunity to review the following Land Use Ordinance amendments received by us May 21, 2015 and proposed for town public hearing on June 23, 2015:

- *An Ordinance to Establish Regulations for Data Service Provider Facilities Not Otherwise Regulated.*
- *An Ordinance Modifying Provisions Relating to the Expiration of Permits.*
- *An Ordinance Authorizing the Creation of Conditional Zoning Districts that Correspond to Most Zoning Districts rather than just the B-2 and B-1(G) Districts.*

We have reviewed the amendments and find no inconsistency with the adopted *Joint Planning Area Land Use Plan*. I indicated in the last bullet above a text change you may want to consider making.

If you have any questions or need additional information, please let me know.

Sincerely,

Perdita Holtz, AICP  
Planning Systems Coordinator



# Town of Carrboro

Town Hall  
301 W. Main St.  
Carrboro, NC 27510

## Agenda Item Abstract

**File Number: 15-0273**

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**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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### **TITLE:**

Public Hearing on Land Use Ordinance Amendments to Modify the Presumptive Parking Requirement for Restaurants with Outdoor Seating

**PURPOSE:** The purpose of item is for the Board of Aldermen to consider amending the Land Use Ordinance to modify the presumptive parking requirements for restaurants with outdoor seating in the B-1(c), B-1(g) and B-2 zoning districts. A draft ordinance has been prepared. The Board must receive public comments before taking action on the draft ordinance.

**DEPARTMENT:** Planning

**CONTACT INFORMATION:** Christina Moon - 919-918-7325; Nick Herman - 919-929-3905; Marty Roupe - 919-918-7333

**INFORMATION:** Over the course of the last twenty-five years, interest in restaurants in the downtown area has steadily increased. (The June 22, 2004 Board of Agenda item, Land Use Ordinance Text Amendment: Restaurants in B-1(g), provides a nice overview of the topic and may be found at

[http://www01.townofcarrboro.org/BoA/Agendas/2004/06\\_22\\_2004.htm](http://www01.townofcarrboro.org/BoA/Agendas/2004/06_22_2004.htm)). A key change to the ordinance occurred in March of 1995, when the Board of Aldermen adopted a text amendment to establish the restaurant district overlay (EAT) which allowed on-premises dining (inside and outside) in the B-1(g) zoning district. Twenty years later, interest in outdoor dining has only become stronger and it is now readily considered an important element of a vibrant downtown.

Section 15-321(c)(1) of the Land Use Ordinance indicates that staff may proceed with preparation of an ordinance if it believes the change to have significant merit and would benefit the general public. The existing presumptive parking requirement for restaurants with outdoor seating is one parking space per four outdoor seats. The use of outdoor seating is, for the most part, seasonal and it coincides with the increased tendency to walk and bike during warmer months. The current LUO requirement does not take into account the non-vehicular opportunities within certain zoning districts to walk and bike to restaurants, access to public parking, as well as the potential to park, once, and walk to multiple venues. Staff noted an opportunity to further refine the presumptive standards for restaurants with outdoor seating in the downtown area. An ordinance has been prepared which, if adopted, would modify the parking standards from one space per four outdoor seats to one space per eight outdoor seats within the three downtown zoning districts: B-1(c), B-1(g) and B-2.

The draft ordinance was referred to Orange County and presented to the Planning Board at its June 18, 2015 meeting. Comments are provided (Attachment C).

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**Agenda Date:** 6/23/2015

**File Type:**Agendas

**In Control:** Board of Aldermen

**Version:** 1

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**FISCAL & STAFF IMPACT:** Public hearings involve staff and public notices costs associated with advisory board and Board of Aldermen review. Minimal staff impacts are anticipated in relations to incorporating the proposed amendment.

**RECOMMENDATION:** Staff recommends that the Board of Aldermen consider the resolution finding consistency (Attachment A-1) and the draft ordinance (Attachment B).

A RESOLUTION ADOPTING A STATEMENT EXPLAINING THE BOARD OF ALDERMEN'S REASONS FOR ADOPTING AN AMENDMENT TO THE TEXT OF THE CARRBORO LAND USE ORDINANCE

Draft Resolution No.

WHEREAS, an amendment to the text of the Carrboro Land Use Ordinance has been proposed, which amendment is described or identified as follows: AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE TO MODIFY PROVISIONS RELATING TO PARKING REQUIREMENTS ASSOCIATED WITH OUTDOOR USES FOR LAND USE CLASSIFICATION 8.000 IN CERTAIN ZONING DISTRICTS

NOW, THEREFORE, the Board of Aldermen of the Town of Carrboro Resolves:

Section 1. The Board concludes that the above described amendment is consistent with *Carrboro Vision 2020*, particularly the following provisions relating to Carrboro's character and Downtown Vitality:

- 2.41 The downtown should remain a center for the community where people work, gather, shop, socialize and recreate.
- 3.2 Downtown Carrboro should be nurtured as the social, cultural and economic center of our community. The downtown should include public social spaces as well as a mix of business types.
- 3.25 Walkability should be encouraged downtown and pedestrian safety and comfort should be the goal. The town should improve lighting and shading, and create auto barriers.

Section 2. The Board further concludes that the above described amendment is reasonable and in the public interest because it will contribute toward the creation of a more vibrant and successful community.

Section 3. This resolution becomes effective upon adoption.

This the 23<sup>rd</sup> day of June 2015.

A RESOLUTION ADOPTING A STATEMENT EXPLAINING THE BOARD OF ALDERMEN'S  
REASONS FOR REJECTING AN AMENDMENT TO THE TEXT OF  
THE CARRBORO LAND USE ORDINANCE

Draft Resolution No.

WHEREAS, an amendment to the text of the Carrboro Land Use Ordinance has been proposed, which amendment is described or identified as follows: AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE TO MODIFY PROVISIONS RELATING TO PARKING REQUIREMENTS ASSOCIATED WITH OUTDOOR USES FOR LAND USE CLASSIFICATION 8.000 IN CERTAIN ZONING DISTRICTS.

NOW, THEREFORE, the Board of Aldermen of the Town of Carrboro Resolves:

Section 1. The Board concludes that the above described amendment is not consistent with Town plans and policies.

Section 2. The Board concludes that its rejection of the above described amendment is reasonable and in the public interest because existing regulations are appropriate.

Section 3. This resolution becomes effective upon adoption.

This the 23<sup>rd</sup> day of June 2015.

AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE TO MODIFY  
PROVISIONS RELATING TO PARKING REQUIREMENTS ASSOCIATED WITH  
OUTDOOR USES FOR LAND USE CLASSIFICATION 8.000 IN CERTAIN ZONING  
DISTRICTS

**\*\*DRAFT 6-10-2015\*\***

THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO HEREBY ORDAINS:

Section 1. Section 15-291(g), Part II Parking Requirements of the Carrboro Land Use Ordinance is amended by adding the following:

8.200 : 1 space for every 8 outdoor seats

Section 2. This ordinance shall become effective upon adoption.

## TOWN OF CARRBORO



## Planning Board

*301 West Main Street, Carrboro, North Carolina 27510*

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 R E C O M M E N D A T I O N
 

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THURSDAY, JUNE 18, 2015

**LAND USE ORDINANCE TEXT AMENDMENT TO MODIFY THE PRESUMPTIVE  
PARKING REQUIREMENTS FOR RESTAURANTS WITH OUTDOOR DINING IN  
DOWNTOWN BUSINESS ZONING DISTRICTS**

Motion was made by Poulton and seconded by Clinton that the Planning Board recommends that the Board of Aldermen defer consideration of the draft ordinance until after the completion of the parking study and survey of current satellite parking arrangements. The Planning Board supports the reduction of the presumptive parking standard. However, we want to be sure parking standards are applied consistently across the central business district, and learn whether parking pressure would encourage construction of structured parking.

**VOTE:**

AYES: (7) Hunt, Poulton, Cohen, Haggerty, Tiemann, Davis, Whittemore

ABSENT/EXCUSED: (3) Foushee, Watson, Cohen

NOES: (1) Adamson

ABSTENTIONS: ( )

Associated Findings

By a unanimous show of hands, the Planning Board membership also indicated that no members have any financial interests that would pose a conflict of interest to the adoption of this amendment.

*Cash Adams*

(Chair)

*6/18/2015*

(Date)

# TOWN OF CARRBORO



301 West Main Street, Carrboro, North Carolina 27510

## RECOMMENDATION

THURSDAY, JUNE 18, 2015

### LAND USE ORDINANCE TEXT AMENDMENT TO MODIFY THE PRESUMPTIVE PARKING REQUIREMENTS FOR RESTAURANTS WITH OUTDOOR DINING IN DOWNTOWN BUSINESS ZONING DISTRICTS

Motion was made by Linda H. and seconded by John N. that the TAB recommends that the Board of Aldermen rejects the draft ordinance.

**VOTE:**

AYES: ( ) Linda H., John N., Colleen B., Sarah M.

ABSENT/EXCUSED: ( )

NOES: ( ) Kurt S.

ABSTENTIONS: ( )

Associated Findings

By a unanimous show of hands, the TAB membership also indicated that no members have any financial interests that would pose a conflict of interest to the adoption of this amendment.

Motion was made by \_\_\_\_\_ and seconded by \_\_\_\_\_ that the \_\_\_\_\_ of the Town of Carrboro finds the proposed text amendment, \_\_\_\_\_ consistent with *Carrboro Vision 2020*, particularly the following provisions relating to Carrboro's character and Downtown Vitality:

- 2.41 The downtown should remain a center for the community where people work, gather, shop, socialize and recreate.
- 3.2 Downtown Carrboro should be nurtured as the social, cultural and economic center of our community. The downtown should include public social spaces as well as a mix of business types.
- 3.25 Walkability should be encouraged downtown and pedestrian safety and comfort should be the goal. The town should improve lightly and shading, and create auto barriers.

The \_\_\_\_\_ furthermore finds that the above described amendment is reasonable and in the public interest because it will contribute toward the creation of a more vibrant and successful community.

**VOTE:**

AYES: ( )

ABSENT/EXCUSED: ( )

NOES: ( )

ABSTENTIONS: ( )

  
(Chair)

For Linda  
Hac

6/19/15  
(Date)



# TOWN OF CARRBORO

## Transportation Advisory Board

***301 West Main Street, Carrboro, North Carolina 27510***

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**THURSDAY, JUNE 18, 2015**

### **Transportation Advisory Board Recommendation re: Outdoor Seating Parking Requirements**

The Transportation Advisory Board discussed the proposed text amendment to change the parking requirements for outdoor seating from 1:4 to 1:8. The TAB offers the following recommendation:

The TAB supports the text amendment. However, the TAB believes that the Board of Aldermen should wait until the parking plan is finished to make a decision on this proposed change.

For Linda Haas

\_\_\_\_\_  
Transportation Advisory Board Chair

6/19/15  
Date

# ORANGE COUNTY PLANNING & INSPECTIONS DEPARTMENT

Craig N. Benedict, AICP, Director

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131 W. Margaret Lane  
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Hillsborough,  
North Carolina, 27278



## TRANSMITTAL DELIVERED VIA EMAIL

June 12, 2015

Christina Moon, AICP  
Planning Administrator  
Town of Carrboro  
301 W. Main St.  
Carrboro, NC 27510

### **SUBJECT: Joint Planning Review of Proposed Ordinance Amendments**

Dear Tina:

Thank you for the opportunity to review the following Land Use Ordinance amendments received by us June 11, 2015 and proposed for town public hearing on June 23, 2015:

- *An Ordinance Modifying the Provisions Relating to the Parking Requirements Associated with Outdoor Uses for Use Classification 8.000.*

We have reviewed the amendments and find no inconsistency with the adopted *Joint Planning Area Land Use Plan*.

If you have any questions or need additional information, please let me know.

Sincerely,

Perdita Holtz, AICP  
Planning Systems Coordinator

## ARTICLE XVIII

### PARKING

#### **Section 15-291 Number of Parking Spaces Required.**

(a) Subject to Section 15-292.1, all developments shall provide a sufficient number of parking spaces to accommodate the number of vehicles that ordinarily are likely to be attracted to the development in question. In addition, all 9.200 and 9.400 classification uses shall provide sufficient vehicle storage area to accommodate the number of vehicles likely to be on the premises awaiting work or pending removal of their owners. **(AMENDED 2/4/86; 5/18/04)**

(b) The presumptions established by this article are that: *(i)* a development must comply with the parking standards set forth in subsection (g) to satisfy the requirement stated in subsection (a), and *(ii)* any development that does meet these standards is in compliance. However, the Table of Parking Standards is only intended to establish a presumption and should be flexibly administered, as provided in Section 15-292.

(c) Uses in the Table of Parking Requirements [subsection (g)], are indicated by a numerical reference keyed to the Table of Permissible Uses, Section 15-146. When determination of the number of parking spaces required by this table results in a requirement of a fractional space, any fraction of one-half or less may be disregarded, while a fraction in excess of one-half shall be counted as one parking space.

(d) With respect to any parking lot that is required to be paved (see Section 15-296): **(AMENDED 9/13/83)**

(1) The number of parking spaces required by this article may be reduced by a total of one space if the developer provides a bikerack or similar device that offers a secure parking area for at least five bicycles.

(2) In non-residential districts, the number of parking spaces required by this article may be reduced by one space for each motorcycle pad provided, up to a total of five percent of the required number of spaces.

(e) Whenever a building is constructed with the intention that it be used in whole or in part for use classification 2.120, 2.220, 2.320, 3.120, or 3.220, the building shall be constructed on the lot in such a manner that sufficient usable space remains on the lot to add the additional parking spaces that would be required to convert the use of the building entirely to use classification 2.110, 2.210, 2.310, 3.110, or 3.210. In addition, whenever a developer proposes to construct a building to be used for purposes that require a lesser number of parking spaces than other uses to which the building might well be put at some future date, the administrator shall send to the developer a certified letter explaining that sufficient space should be left on the lot to add parking spaces at a later time if required. **(AMENDED 2/4/86)**

(f) The Board recognizes that the Table of Parking Requirements set forth in subsection (g) cannot and does not cover every possible situation that may arise. Therefore, in cases not specifically covered, the permit-issuing authority is authorized to determine the parking requirements using this table as a guide. In addition, the Board of Aldermen may authorize a reduction of up to 25 percent in the parking requirement when approving a Village Mixed Use Master Plan or Conditional Use Permit or an Office/Assembly development Conditional Use Permit. Land necessary to meet the full, presumptive, parking requirement must be identified during the plan approval process and must be reserved should the need for additional parking arise in the future. **(AMENDED 05/25/99)**

(g) Table of Parking Requirements **(AMENDED 11/28/06)**

<b>USE</b>	<b>PART I. PARKING REQUIREMENT (EXCEPT AS NOTED IN PART II OF THIS TABLE)</b>
<b>1.100</b>	2 spaces per dwelling unit plus one space per room rented out in each dwelling unit (see Accessory Uses, Section 15-150). These required spaces shall be in addition to any space provided within an enclosed or partially enclosed garage. <b>(AMENDED 2/24/84; 08/27/96)</b>
<b>1.200</b>	2 spaces for each dwelling unit, except that one bedroom units require only one space.
<b>1.300</b>	With respect to multi-family units located in buildings where each dwelling unit has an entrance and living space on the ground floor, the requirement shall be 1½ spaces for each one bedroom unit and 2 spaces for each unit with two or more bedrooms. Multi-family units limited to persons of low- or moderate-income or the elderly require only 1 space per unit. All other multi-family units require 1 space for each bedroom in each unit plus 1 additional space for every four units in the development. <b>(AMENDED 5/10/83)</b>
<b>1.340</b>	1 space per every four dwelling units. <b>(AMENDED 01/11/00)</b>
<b>1.410</b>	1 space for each bedroom.
<b>1.420</b>	
<b>1.430</b>	1 space for each room to be rented.
<b>1.510</b>	1 space per room plus additional spaces for restaurant or other facilities. <b>(AMENDED 11/28/06)</b>
<b>1.61</b>	3 spaces for every five beds except for uses exclusively servicing children under 16,
<b>1.62</b>	in which case 1 space for every 3 beds shall be required.
<b>1.63</b>	
<b>1.900</b>	4 spaces for offices of physicians or dentists; 2 spaces for attorneys; 1 space for all others.
<b>2.110</b>	1 space per 200 square feet of gross floor area.
<b>2.120</b>	1 space per 400 square feet of gross floor area.

<b>USE</b>	<b>PART I. PARKING REQUIREMENT (EXCEPT AS NOTED IN PART II OF THIS TABLE)</b>
<b>2.130</b>	
<b>2.140</b>	1 space per 200 square feet of gross floor area plus reservoir lane capacity equal to three spaces per window. <b>(AMENDED 2/4/86)</b>
<b>2.150</b>	1 space per 200 square feet in the portion of the building to be used for retail sales plus 1 space for every two employees on the maximum shift. <b>(AMENDED 04/15/97)</b>
<b>2.210</b>	1 space per 200 square feet of gross floor area. <b>(AMENDED 2/4/86)</b>
<b>2.220</b> <b>2.230</b>	1 space per 400 square feet of gross floor area.
<b>2.240</b>	1 space per 200 square feet of gross floor area plus reservoir lane capacity equal to three spaces per window.
<b>2.310</b>	1 space per 200 square feet of gross floor area.
<b>2.320</b>	1 space per 400 square feet of gross floor area.
<b>2.330</b>	1 space per 400 square feet of gross floor area.
<b>3.110</b>	1 space per 200 square feet of gross floor area.
<b>3.120</b>	1 space per 400 square feet of gross floor area.
<b>3.130</b>	1 space per 150 square feet of gross floor area.
<b>3.150</b>	1 space per 200 square feet of ground floor area. <b>(AMENDED 06/20/95)</b>
<b>3.210</b>	1 space per 200 square feet of gross floor area.
<b>3.220</b>	1 space per 400 square feet of gross floor area.
<b>3.230</b>	1 space per 200 square feet of area within main building plus reservoir lane capacity equal to five spaces per window (10 spaces if window serves two stations).
<b>3.250</b>	3 spaces arranged in close proximity to this use. <b>(AMENDED 09/01/92)</b>
<b>4.100</b> <b>4.200</b>	1 space for every two employees on the maximum shift except that in the B-1-G, B-2, B-3, and B-4 zones, such uses may provide 1 space per 200 square feet of gross floor area.
<b>5.110</b>	1.75 spaces per classroom in elementary schools 5.0 spaces per classroom in high schools.
<b>5.120</b>	1 space per 100 square feet of gross floor area.
<b>5.130</b>	1 space per 150 square feet of gross floor area.
<b>5.200</b>	1 space per every four seats in the portion of the church building to be used for

<b>USE</b>	<b><u>PART I.</u></b> <b><u>PARKING REQUIREMENT (EXCEPT AS NOTED IN PART II OF THIS TABLE)</u></b>
	services plus spaces for any residential use as determined in accordance with the parking requirements set forth above for residential uses, plus 1 space for every 200 square feet of gross floor area designed to be used neither for services nor residential purposes.
<b>5.310</b> <b>5.320</b>	1 space per 300 square feet of gross floor area.
<b>5.400</b>	1 space per 300 square feet of gross floor area.
<b>6.110</b>	1 space for every 3 persons that the facilities are designed to accommodate when fully utilized (if they can be measured in such a fashion -- example tennis courts or bowling alleys) plus 1 space per 200 square feet of gross floor area used in a manner not susceptible to such calculation.
<b>6.120</b> <b>6.130</b>	1 space for every four seats.
<b>6.140</b>	1 space for every 200 square feet of gross floor area within enclosed buildings <b>(AMENDED 2/2/88)</b>
<b>6.210</b> <b>6.220</b>	1 space per 200 square feet of area within enclosed buildings, plus 1 space for every 3 persons that the outdoor facilities are designed to accommodate when used to the maximum capacity.
<b>6.230</b>	Miniature golf course – 1 space per 300 square feet of golf course area plus 1 space per 200 square feet of building gross floor area; Driving range -- 1 space per tee plus 1 space per 200 square feet in building gross floor area; Par Three Course -- 2 spaces per golf hole plus 1 space per 200 square feet of building gross floor area.
<b>6.240</b>	1 space per horse that could be kept at the stable when occupied to maximum capacity.
<b>6.250</b>	1 space for every three seats.
<b>6.260</b>	1 space per speaker outlet.
<b>7.100</b>	2 spaces per bed.
<b>7.200</b>	3 spaces for every 5 beds
<b>7.300</b> <b>7.400</b>	1 space for every two employees on maximum shift.
<b>8.100</b>	1 space per 100 square feet of gross floor area. <b>(AMENDED 2/24/87)</b>
<b>8.200</b>	1 space for every four outside seats. <b>(AMENDED 2/24/87)</b>
<b>8.300</b>	1 space for each drive-in service spot. <b>(AMENDED 2/24/87)</b>
<b>8.400</b>	Reservoir lane capacity equal to five spaces per drive-in window. <b>(AMENDED</b>

<b>USE</b>	<b><u>PART I.</u></b> <b><u>PARKING REQUIREMENT (EXCEPT AS NOTED IN PART II OF THIS TABLE)</u></b>
	2/24/87)
<b>8.500</b>	Spaces to be determined according to projected level of carry-out service. (AMENDED 2/24/87)
<b>8.600</b>	1 space per 200 square feet of floor area plus one space per employee engaged in delivery service. (AMENDED 2/24/87)
<b>9.100</b>	1 space per 200 square feet of gross floor area plus an extra 810 square foot vehicle storage area per repair bay.
<b>9.200</b>	2 regular spaces per bay plus a 1,540 square foot vehicle storage area per bay. (AMENDED 2/4/86)
<b>9.300</b>	1 space per 200 square feet of gross floor area of building devoted primarily to gas sales operation; plus sufficient parking area to accommodate 2 vehicles per pump without interfering with other parking spaces.
<b>9.400</b>	2 regular spaces per bay and office plus an 810 square foot vehicle storage area per bay. (AMENDED 2/4/86, 10/20/92)
<b>9.500</b>	Conveyer type--1 space for every three employees on the maximum shift plus reservoir capacity equal to five times the capacity of the washing operation. Self-service type--2 spaces for drying and cleaning purposes per stall plus two reservoir spaces in front of each stall.
<b>10.210</b> <b>10.220</b>	1 space for every two employees on the maximum shift but not less than 1 space per 5,000 square feet of area devoted to storage (whether inside or outside).
<b>11.000</b>	1 space per 200 square feet of gross floor area.
<b>12.100</b> <b>12.200</b>	1 space per 200 square feet of gross floor area.
<b>13.100</b> <b>13.200</b> <b>13.300</b> <b>13.400</b>	1 space per 200 square feet of gross floor area.
<b>14.100</b> <b>14.200</b> <b>14.300</b> <b>14.400</b>	1 space for every 2 employees on maximum shift.
<b>15.100</b> <b>15.200</b>	1 space per 200 square feet of gross floor area.
<b>15.300</b>	1 space for every 2 employees on maximum shift.
<b>15.400</b>	1 space per 100 square feet of gross floor area.

<b><u>PART I.</u></b>	
<b><u>USE</u></b>	<b><u>PARKING REQUIREMENT (EXCEPT AS NOTED IN PART II OF THIS TABLE)</u></b>
<b>15.500</b>	1 space per 400 square feet of gross floor area of the collection facility plus 1 space per employee or attendant. (AMENDED 6/28/83)
<b>16.100</b>	1 space per 200 square feet of gross floor area plus reservoir lane capacity equal to three spaces per window.
<b>16.200</b>	1 space per 200 square feet of gross floor area.
<b>19.000</b>	1 space per 1,000 square feet of lot area used for storage, display, or sales. (AMENDED 5/12/81)
<b>20.000</b> <b>21.000</b>	1 space per 200 square feet of gross floor area.
<b>22.000</b>	1 space for every employee plus 1 space per 250 square feet of floor area used for day care in addition to spaces for any residential use as determined in accordance with the parking requirements set forth above for residential uses.
<b>23.000</b>	1 space per 200 square feet of gross floor area. 1 space per room plus additional space for restaurant or other facilities.
<b>34.000</b> <b>34.100</b> <b>34.200</b>	1 space per room plus additional spaces for restaurant or other facilities. 2 spaces per main dwelling unit plus 1 space per room. (AMENDED 06/22/99; 11/28/06)
<b><u>PART II. (APPLIES TO PROPERTIES LOCATED WITHIN THE B-1(C), B-1(G), AND B-2 ZONING DISTRICTS)</u></b>	
<b><u>USE</u></b>	<b><u>PARKING REQUIREMENT</u></b>
<b>1.100</b>	1 per bedroom and no more than 2
<b>1.200</b>	1 per bedroom and no more than 2
<b>1.300</b>	1 per bedroom and no more than 2
<b>1.500</b>	.75 per room (Note: This does not include parking for associated conference and/or restaurant facilities.)
<b>2.000</b>	1 per 300 square feet of gross floor area
<b>3.000</b>	1 per 400 square feet of gross floor area

(AMENDED 02/04/97; 01/11/00; 5/18/04)

(h) Bicycle parking shall be provided in accordance with the provisions of this subsection by all developments that fall within the use classifications shown in the following Table of Bicycle Parking Standards.

When determination of the number of spaces required by this table results in a requirement of a fractional space, any fraction of one-half or less shall be disregarded, while a fraction in excess of one-half shall be counted as one space.

<b>Table of Bicycle Parking Standards</b>
---

<b>Use</b>	<b>Bicycle Parking Requirement</b>
1.300	1.5 spaces per unit
2.100 2.200 2.300	1 space per 10 presumptively required auto spaces, with a minimum of 5 spaces
3.100 3.200	1 space per 10 presumptively required auto spaces, with a minimum of 5 spaces
5.100	1 space per 10 students plus 1 space per 10 employees
6.200	1 space per 4 presumptively required auto spaces
8.100 8.200	1 space per 10 presumptively required auto spaces, with a minimum of 5 spaces
10.100	1 space per 10 auto spaces, with a minimum of 5 spaces
34.100	1 space per 5 rooms, up to 50 rooms; 1 space per 10 rooms above 50 rooms

**(AMENDED 6/19/12)**

### **Section 15-292 Flexibility in Administration Required**

(a) The Board recognizes that due to the particularities of any given development, the inflexible application of the parking standards set forth in Subsection 15-291(g) may result in a development either with inadequate parking space or parking space far in excess of its needs. The former situation may lead to traffic congestion or parking violations in adjacent streets as well as unauthorized parking in nearby private lots. The latter situation results in a waste of money as well as a waste of space that could more desirably be used for valuable development or environmentally useful open space. Therefore, as suggested in Section 15-191, the permit-issuing authority may permit deviations from the presumptive requirements of Subsection 15-291(g) and may require more parking or allow less parking whenever it finds that such deviations are more likely to satisfy the standard set forth in subsection 15-291(a). In addition, that same flexible approach shall be followed with respect to the vehicle storage area requirements set forth in the preceding table.

(b) Without limiting the generality of the foregoing, the permit-issuing authority may allow deviations from the parking requirements set forth in Subsection 15-291(g) when it finds that:

- (1) A residential development is irrevocably oriented toward the elderly;
- (2) A residential development is located on a bus line, is located in close proximity to the central business district, and is committed to a policy of placing restrictions on the vehicle ownership of its tenants.
- (3) A business is primarily oriented to walk-in trade.

(c) Whenever the permit-issuing authority allows or requires a deviation from the presumptive parking requirements set forth in Subsection 15-291(g), it shall enter on the face of the permit the parking requirement that it imposes and the reasons for allowing or requiring the deviation.

- (d) If the permit-issuing authority concludes, based upon information it receives in the consideration of a specific development proposal, that the presumption established by Subsection 15-291(g) for a particular use classification is erroneous, it shall initiate a request for an amendment to the Table of Parking Requirements in accordance with the procedures set forth in Article XX.



# Town of Carrboro

Town Hall  
301 W. Main St.  
Carrboro, NC 27510

## Agenda Item Abstract

**File Number:** 15-0098

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**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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### **TITLE:**

Energy and Climate Action Planning Task Force Report

**PURPOSE:** The purpose of this item is for the Energy and Climate Action Planning Task Force to present its recommendations.

**DEPARTMENT:** Planning

**CONTACT INFORMATION:** Randy Dodd, 919 918-7326

**INFORMATION:** At the May 27, 2014 meeting, the Board of Aldermen created a temporary Energy and Climate Protection Planning Task Force charged with supporting the Town with community planning and resiliency. The Task Force was asked to prepare a report to submit to the Board of Aldermen in June, 2015 that addressed:

- a. Recommendations for new actions the Town can pursue to reduce nonrenewable energy use and greenhouse gas emissions from residential and commercial buildings in Carrboro
- b. Recommendations for new actions the Town can pursue to reduce nonrenewable energy use associated with transportation in Carrboro
- c. Recommendations for new actions the Town can pursue to promote renewable energy in Carrboro
- d. Recommendations for new actions the Town can pursue to better manage vegetation, soil, and impervious surfaces to capture carbon, reduce energy use in buildings, mitigate the heat island effect, and reduce stormwater runoff, and
- e. Any other recommendations the Task Force wished to proposed.

Using information from the advisory board 2014 fall forum series reports as a starting point, the Task Force has been deliberating in 2014 and 2015, and has prepared a draft report and recommendations. The Task Force is seeking Board review of the draft report, feedback and direction toward its completion, and authorization to extend its term until the fall of 2015 to finalize the report.

The preparation of this report, designed as a companion document to the Energy and Climate Protection Plan, adopted in May of 2014, which focuses on Town operations, is a major step toward reducing greenhouse gas emissions community-wide. Perhaps more important, the plans provide the Town with the opportunity to “lead by example” not only through local programs but also by creating synergies with other plans and policies that do not traditionally have a climate protection component, but would be greatly improved with one.

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**Agenda Date:** 6/23/2015

**File Type:**Agendas

**In Control:** Board of Aldermen

**Version:** 1

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**FISCAL & STAFF IMPACT:** There is no fiscal and staff impact associated with accepting this report

**RECOMMENDATION:** Staff recommends that the Board receive the report, provide the Task Force with feedback to assist with its preparation of a final report, and extend the term of the Task Force to allow for a target date of completion in the fall of 2015.

**ATTACHMENT A**

**A RESOLUTION ACCEPTING THE ENERGY AND CLIMATE ACTION PLANNING TASK FORCE RECOMMENDATIONS**

WHEREAS, the Town has signed on to the Mayors Climate Protection Agreement and adopted a Climate Protection Resolution in 2009;

WHEREAS, the Town participated in the Orange County Greenhouse Gas Inventory, Capstone Teams updated the community inventory in 2011 and 2015, and municipal operations inventories have been completed annually since 2012, and

WHEREAS, the Town completed its first Energy and Climate Protection Plan in 2014 focusing on municipal operations, and

WHEREAS, a temporary Energy and Climate Action Planning Task Force was formed in 2014 to present community climate action planning recommendations;

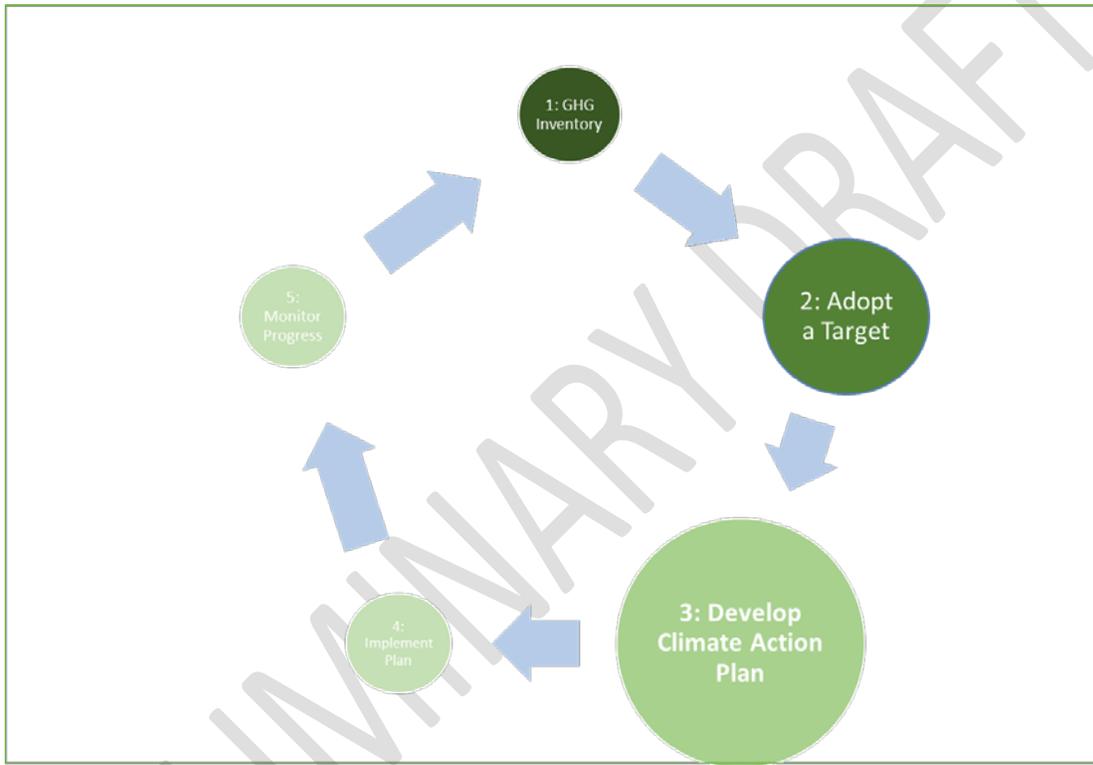
NOW THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Aldermen accept the Task Force presentation and draft report.

Furthermore, the Board asks the Task Force to consider the following in finalizing the report:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

# Community Climate Action Plan

Reducing Greenhouse Gas Emissions, Saving Energy,  
Generating Renewable Energy, and Enhancing Ecosystems



**Town of Carrboro, North Carolina**

**June 23, 2015**

**Prepared by the Carrboro Energy and Climate Protection Task Force  
Carolyn Buckner, Jeff Herrick, Kathy Kaufman, Jeanette O'Connor, Rob Pinder**

**With support from**

**Board of Aldermen Liaisons Randee Haven O'Donnell and Sammy Slade  
and Town Staff Randy Dodd**

## **Acknowledgments**

The Task Force would like to acknowledge support from:

The Carrboro Planning Board, Environmental Advisory Board, and Transportation Advisory Board through the Fall Forum series on Energy and Climate Action held at the Carrboro ArtsCenter in 2014.

The Carrboro Board of Aldermen for adopting a proactive climate protection resolution.

Those who have worked to develop and support previous greenhouse house gas inventories for Carrboro and Orange County.

Those in the community pursuing climate action work.

PRELIMINARY DRAFT

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PRELIMINARY DRAFT

# Executive Summary

In 2009, the Carrboro Board of Aldermen passed a resolution committing the Town to take steps to reduce emissions of greenhouse gases that are causing global climate change. In doing so, and through work leading up to the resolution with other Orange County governments, the Town joined a group of more than 1000 cities, towns and metropolises around the world who are taking part in the Cities for Climate Protection Campaign. The campaign follows a 'Five Milestone' process that includes a greenhouse gas (GHG) emissions inventory, establishment of an emissions reduction target, development and implementation of an action plan to reduce emissions, and monitoring of emissions reductions measures.

This document expands on previous efforts, with an emphasis on completion of the second milestone – further articulation of a reduction target, and the third milestone – the drafting of a Local Climate Action Plan. In 2014, Carrboro developed a plan focusing on the Town's municipal operations. This plan is a companion and follow up to that effort with an emphasis on measures that the broader community is asked to take in order to achieve GHG reduction targets. Measures in the plan are designed primarily to reduce greenhouse gas emissions, while raising the community's awareness of and involvement in solutions to global climate change and a post-carbon energy future, adaptation to changes and enhancement of ecosystem resilience.

A significant recommendation of this report is for the Town to adopt a goal of a 50% reduction in greenhouse gas emissions by 2025, as supported by a broad community campaign. Over 20 additional recommendations are provided around the themes of community integration, energy efficiency of buildings, transportation, renewable energy, and ecosystem protection and restoration. Measures outlined in the Plan to reduce greenhouse gas emissions not only contribute to overall climate change mitigation, but also provide the Town with many local benefits such as financial savings through energy efficiency, the creation of new jobs, improved air quality and public health, a healthier forest and streams.

# Introduction

*“Recognizing that all human economic activity is a subset of nature’s economy and must not degrade its vitality is the starting point for systemic transformation of the energy system.”<sup>1</sup>*

There is widespread scientific agreement that the increasing quantity of greenhouse gases (GHGs) in the atmosphere is causing temperatures to rise and increasing the frequency and severity of extreme weather events, and that human activities are the primary cause.<sup>2</sup> The accumulation of greenhouse gases is a major threat to the climate stability of the earth. Arguably, no other issue threatens our planet with such dramatic, far-reaching impacts, and no other issue is so clearly a worldwide problem. The world’s leading scientists predict that global average temperature will rise from 2.7 to 11 degrees F. within our children’s lifetimes. Already, effects of climate change are being seen, from melting of the Arctic permafrost, to the disappearance of glaciers worldwide, to rising sea levels around islands and other low-lying areas, and the acidification of oceans. Erratic weather and extreme events such as droughts, floods, heat waves, avalanches and hurricanes are becoming more common. The primary cause of global climate change is the burning of fossil fuels such as petroleum, coal, and natural gas. These activities release gases such as carbon dioxide and methane that accumulate in the atmosphere and trap the sun’s heat, thereby warming the earth – the so-called “greenhouse effect”. The greenhouse effect is essential for life on earth, but rapidly increasing levels of greenhouse gases during the past 200 years are now destabilizing the climate. Average global temperature have already risen an unprecedented 1-2 degrees F during this period, and the impacts of emissions that have already occurred will take decades to cycle through ecosystems. Carbon dioxide concentrations in the atmosphere have reached their highest level in 160,000 years, and are rising at a rate 500 times higher than ever before in history.

In Carrboro, the effects of climate change over the next century are likely to be significant. They may include the migration of hardwood forests northward to cooler areas. We will have to cope with hotter summers and more frequent floods, droughts, and intense storms, with more money diverted to repair damage from these events. Our natural resources could experience a broad range of negative trends and losses, and ecological diversity will likely decline. All of the careful planning, stewardship of beautiful natural places, promotion of biodiversity, and other crucial work at the local level will be rendered meaningless if we cannot stave off the worst consequences of climate change. As members of the world community, we will have to deal with challenges involving food security, human health, and scarce resources. Humanity is beginning to respond to this massive environmental problem. Local governments and communities can address the challenge and opportunity of reducing greenhouse gases in a number of creative ways.

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<sup>1</sup> [The Energy Reader: Overdevelopment and the Delusion of Endless Growth](#), Tom Butler, Daniel Lerch, and George Wuerthner, eds. (Healdsburg, CA: Watershed Media, 2012)

<sup>2</sup> <http://www.townofcarrboro.org/DocumentCenter/Home/View/1213>

The 2014 Orange County State of the Environment<sup>3</sup> report provides a similar message:

“A report focused on Orange County alone also risks underemphasizing global climate change, the most pressing environmental threat we face. Our use of fossil fuels here, whenever we start a car engine or run our air conditioners, adds to the accumulation of carbon in the atmosphere that is rapidly destabilizing our climate. In 2012, leading climate activist and writer Bill McKibben summarized how close we are to reaching the limits of our carbon budget: *Scientists estimate that humans can pour roughly 565 more gigatons of carbon dioxide into the atmosphere by midcentury and still have some reasonable hope of staying below two degrees [Celsius] increase in global temperature. (“Reasonable,” in this case, means four chances in five, or somewhat worse odds than playing Russian roulette with a six-shooter)....Reaching or surpassing that two degree rise in average global temperatures risks catastrophic consequences for our ability to grow food, maintain access to drinking water, and generally perpetuate human civilization as we now know it.*”

### **Beyond Doom and Gloom**

*What we’re for is leaving behind the current energy economy, which is wasteful, polluting, and centralized; assumes perpetual growth; and is anchored by nonrenewable fuels. We envision a bold leap toward a future energy economy that fosters beauty and health; that is resilient because it emphasizes renewable, community-scale energy generation; that supports durable economies, not growth; and that is informed by nature’s wisdom.*<sup>4</sup>

The introduction in the previous section presents a stark, sobering, and ominous picture and one that we all need to acknowledge and recognize. However, only laying out the danger associated with climate change neglects humanity’s capacity and resourcefulness. It also can be counterproductive by effectively triggering a “fight and flight” response, or being received as a judgment for denial and lack of action. The reality of climate change also presents tremendous opportunity for transition to living in a more satisfying, resilient, and connected community that is less reliant on fossil fuels.<sup>5</sup> In addition, some measures are often necessary and/or more effective at the municipal/community level than at other levels. Our hope is that more and more communities will accelerate and ramp up efforts, and begin to make significant reductions in the level of climate-changing gases now being produced.

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<sup>3</sup> [http://www.orangecountync.gov/document\\_center/DEAPR/2014\\_SOE\\_complete\\_report.pdf](http://www.orangecountync.gov/document_center/DEAPR/2014_SOE_complete_report.pdf)

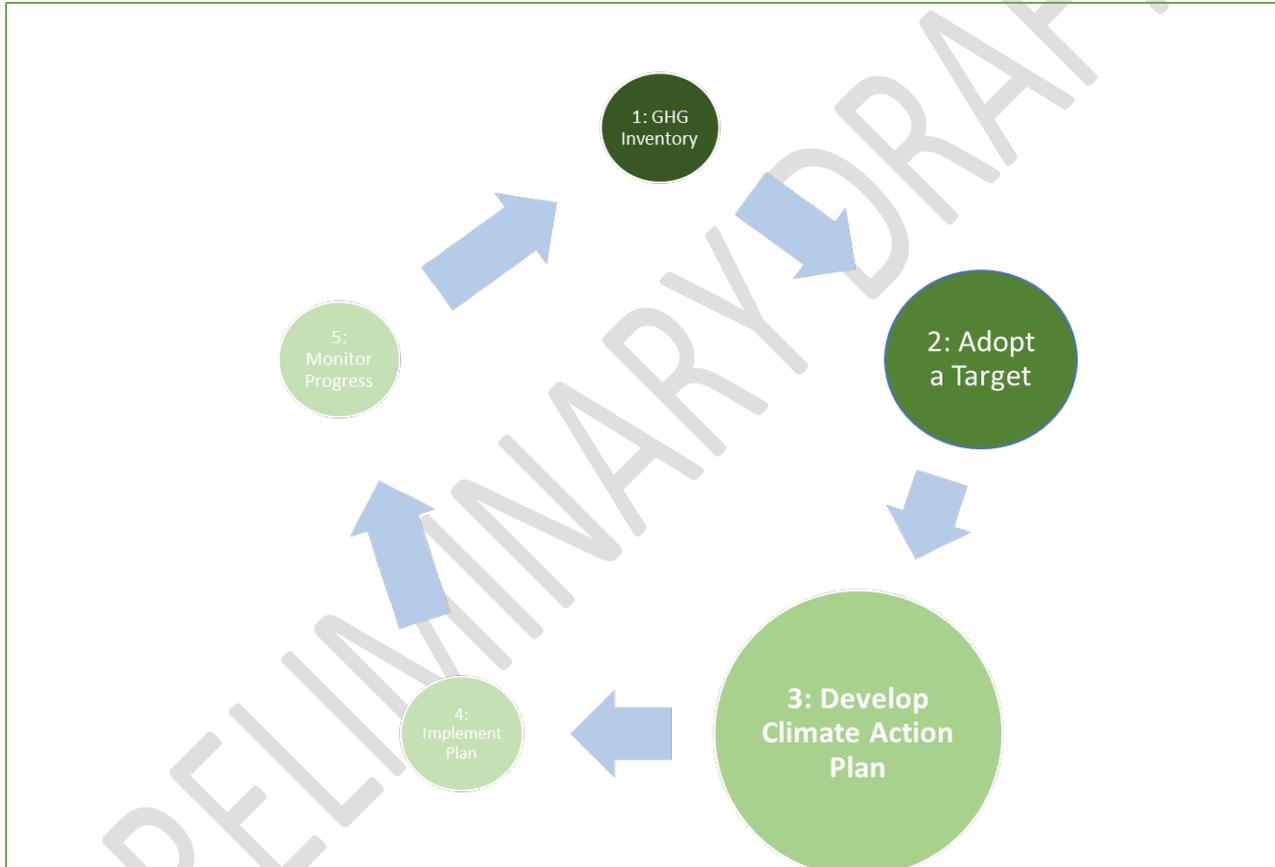
<sup>4</sup> [The Energy Reader: Overdevelopment and the Delusion of Endless Growth](#), Tom Butler, Daniel Lerch, and George Wuerthner, eds. (Healdsburg, CA: Watershed Media, 2012)

<sup>5</sup> <http://www.wri.org/news/2014/10/release-new-analysis-highlights-opportunities-economic-gains-climate-action-united>

## The Cities for Climate Protection Campaign and the Five Milestone Process

The Cities for Climate Protection (CCP) campaign is a global project led by the International Council for Local Environmental Initiatives (ICLEI), a membership association of local governments dedicated to addressing global environmental problems through local action. The CCP was established by ICLEI in 1993 at an international summit of municipal leaders. The CCP has engaged many municipal governments in North Carolina, the U.S and abroad in a worldwide effort to slow the earth's warming. The CCP campaign follows a 'Five Milestone' process (Figure 1).

**Figure 1:**  
**Cities for Climate Protection Five Milestone Climate Action Planning Process.**



*The size of each circle indicates the relative emphasis in this plan. The darkness indicates the amount of attention already given to each milestone based on work in Carrboro over the past decade, as discussed in the text.*

## The Greenhouse Gas Emissions Inventory<sup>6</sup>

Carrboro collaborated with other jurisdictions in Orange County and ICLEI to complete the first countywide Greenhouse Gas Emissions Inventory for the baseline year of 2005. In 2011, a UNC Capstone Team completed a community scale inventory specifically for Carrboro based on data for 2009. Every year beginning in 2012, the Town has updated the municipal operations inventory, and in 2015, a second UNC Capstone Team updated the community inventory based on data for 2012 and assisted the Town in entering the inventory data into the ClearPath software which will help the Town with future climate action planning steps. These inventories help establish a baseline and guide the community in development and implementation of strategies to mitigate emissions by understanding the sources and quantity of emissions and a means to monitor changes over time.

## Establishing Emissions Reductions Goals

The countywide inventory included an initial attempt to identify potential goals in terms of “tiers” of least aggressive to most aggressive climate action strategies. In 2009, the Board of Aldermen passed a resolution resolving that the Town “will seek, and will facilitate the community at large, to cut CO<sub>2</sub> emissions by its proportion of the amount which is required to stabilize the climate back to <350 ppm of CO<sub>2</sub> ..., and asks staff to evaluate how to achieve this target for municipal operations and the community”.<sup>7</sup> As part of municipal inventories, annual reduction goals of 2-7% have been discussed and the 2014 plan set a goal of a reduction in emissions from municipal operations on the order of 5-10% within a 2 year time frame. Other notable climate goals are listed in the table below.<sup>8</sup>

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<sup>6</sup> More information on previous inventories is available on the Town’s website:

<http://www.townofcarrboro.org/271/Greenhouse-Gas-Inventories>

<sup>7</sup> 1990 is when global CO<sub>2</sub> concentrations first surpassed 350 ppm. To date, Carrboro emissions have not been estimated for 1990. Town staff have asked those providing support with completing emissions inventories to attempt to estimate emissions for 1990. The uncertainties due to the lack of data and difficulty deriving credible assumptions have proven too great to complete this task. It is certainly hypothetically possible to “backcast” emissions. For example, some factors could lead to lower per capita emissions such as industry/technology standards (e.g. more efficient vehicles, buildings, and appliances), more availability of transit and bicycle and pedestrian infrastructure, economic factors leading to changing behavior (e.g., fuel costs), and growing awareness and concern. Other factors could lead to higher per capita emissions, such as suburbanization, less affordable housing locally, and social/cultural norms and consumer choices with higher footprints (e.g., larger vehicles and homes and less active lifestyles and more emphasis on comfort and convenience) leading to more single occupancy vehicle trips, vehicle miles traveled (this has been documented) and use of fossil fuels. Assumptions could also be derived from national/international reports, however the bias that could be introduced is uncertain.

<sup>8</sup> Chapel Hill has established a goal of 60% reduction by 2050. UNC has established a goal of being carbon neutral by 2050. Appendix 2 outlines a hypothetical example of a “typical” American household becoming carbon neutral in 10 years.

Organization	Goal	Target year
Department of Defense	30% reduction in energy use and 20% of energy from renewable sources	2020
State of California	40% reduction in greenhouse gas emissions for entire state	2030
City of Seattle	Net zero greenhouse gas emissions for entire city (not just municipal operations)	2050
US-China Joint Announcement on Climate Change	US greenhouse gas emission reduction of 26 - 28%, China achieve 20% of energy from non-fossil sources	US: 2025; China: 2030

One purpose of this Plan is to provide a new recommendation on community scale target reductions. Climate Action Goals are framed in a variety of ways to best meet that entity’s needs and values. The task force recommends that Carrboro’s Climate Action Goal: meaningfully reduce greenhouse gas emissions at a time scale that is urgent; encourage growth and shared prosperity; be able to be measured and certified. With these criteria in mind, the Task Force recommends this Carrboro Climate Action Goal:

*It is recommended that Carrboro adopt goal of a 50% reduction of per capita greenhouse gas emissions by 2025. We recommend a goal for Town operations, the buildings and transportation “sectors”, and ultimately each resident and business to cut the carbon footprint in half over the next 10 years.*

This goal is a meaningful reduction in carbon pollution that is consistent with the scientific recommendations calling for large emission reductions needed to reduce the risk of dangerous climate change. The goal represents a substantial but achievable with the support of the Town and community. It is framed in per-capita terms to recognize that Carrboro continues to attract new residents and businesses and to make it easy for any individual, business, or organization to measure and demonstrate their progress toward the goal. Investments in energy efficiency and renewable energy offer and very favorable returns and substantial reductions in energy costs. This can power a virtuous cycle, where more energy costs are reduced and more income is available for local consumers and businesses. There are also external factors that will help the community make progress. The electric utilities are scheduled to generate 6% of their electricity from renewable sources by 2021. National fuel economy standards will likely continue to reduce gasoline use. The proliferation of more energy efficient lighting, appliances and heating/cooling equipment is already reducing household energy use.<sup>9</sup>

<sup>9</sup> Appendix 2 provides a hypothetical example of how a household can become carbon neutral in 10 years. Appendix 3 presents a discussion of how to approach this goal from a social and psychological perspective.

## The Local Climate Action Plan

The U.S. Department of Energy has developed a “Guide to Community Strategic Energy Planning” that identifies two types of planning efforts: one focusing on the government operations and one focusing on the community at large. The former: includes a focus on government buildings, facilities, infrastructure, operations, and transportation; concentrates on activities for which the government has direct influence – personnel, operations, planning, and budgeting – which means tighter control over implementation. The latter (community-wide plan) is a broader plan to address activities that: expands the focus to include energy saving activities across the jurisdiction (residential, commercial, industrial, transportation, and other sectors) of the broader community; recognizes that, while local government actions can greatly influence, energize, and leverage effective activities in the broader community, the government has less direct control over these activities in comparison to a government-only plan. This plan focuses on the community wide plan.



The measures recommended below provide the basis for the first comprehensive community scale plan focusing on climate action specifically for Carrboro. They are a companion to measures presented in the plan produced in 2014 that focused on municipal operations. Other local governments and agencies and UNC have and continue to be engaged in similar and locally relevant efforts<sup>10,11,12</sup>. To emphasize, the Task Force recommends that the Town pursue a two-part climate action strategy. Strategy 1 is to provide leadership through municipal operations as outlined in the 2014 report. By working to significantly reduce its own emissions, the Town of Carrboro is leading the community’s climate protection efforts, and is setting an example for residents, businesses, and institutions. Strategy 2 is to further develop a community based initiative as detailed in this document and guided by the Carrboro Climate Action Goal in tandem with a goal to protect and restore local ecosystems. Details for how to pursue these broader goals is provided in the following sections.

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<sup>10</sup> <http://www.townofchapelhill.org/town-hall/departments-services/planning-and-sustainability/sustainability>

<sup>11</sup> <http://www.owasa.org/energy-management>

<sup>12</sup> <https://climate.unc.edu/GreenhouseGasInventory>

# Community Integration

“Local” climate action planning has important but limited influence within a personal to global continuum (Table 1). The collective choices, behaviors, norms, requirements, and plans and agreements at lesser and greater social scales than that of a town of 20k people arguably have greater influence than the choices made by a town. A very large share of the GHG footprint in the community occurs because of the collective impact of private decisions made by residents for which the Town has very limited oversight, and also within a global social context and the constraints of state, federal, and international laws, regulations, agreements and corporate (large scale) decisions. In terms of other levels of organization and governance and how they interact with community scale climate action planning, the following are important (and in some cases unique) points in Carrboro and indicate the Town’s interdependence with many other entities in pursuing climate action planning:

- 1) The Chapel Hill-Carrboro City School system and OWASA both have separate policy, fiscal, and administrative processes from the Town, and therefore, different boards and staff. They also have larger emissions, facilities and operating budgets than Carrboro has, and therefore, an ability to have a greater influence on emissions reductions;
- 2) Transit is a public service that has the ability to significantly mitigate emissions. Chapel Hill Transit is a cooperative effort with Carrboro, Chapel Hill and UNC; TTA is a multi-county/regional transit authority serving over a million people;
- 3) Carrboro on its own has very limited influence on larger electricity and natural gas utilities. Duke Energy provides electricity to over 90% of Carrboro. Carrboro is also served by Piedmont Electric Membership Cooperative, which buys its electricity from Duke for resale. PSNC is the local natural gas provider;
- 4) Carrboro’s largest emissions sector is buildings, with most building emissions being residential, and most of the residential building sector being non-owner occupied multifamily. Oversight by the North Carolina Utilities Commission, management by the above utilities, and regulation by building codes, which are established at state/federal levels, are strong non-market/public sector drivers that influence emissions from buildings. Landowner and landlord management and decisions are strong private sector drivers. Social/cultural norms influence both public and private sectors.
- 5) The Town has very limited oversight of Homeowners Associations (HOAs) (less in fact than the state of North Carolina). Carrboro did recently update regulations to limit new HOAs ability to constrain an individual homeowner’s desire to pursue sustainability measures.
- 6) At a municipal scale, Carrboro’s “primary domain” or area of most effective focus for local climate action planning could be in partnership with organizations and entities operating at a similar scale. Similarly, for work in the community, it is important to establish initiatives and measures that work at the appropriate scale, and to bridge gaps across the different scales.
- 7) The community sector accounts for 93% of greenhouse gas emissions within Carrboro, with the remaining 7% coming from local government operations. Significant community buy-in and involvement in nearly every aspect of this plan is essential for Carrboro to succeed with emissions reduction and climate change mitigation.

**Table 1: Local Climate Action Planning is One Layer in a Continuum** <sup>13</sup>

<b>Organizational Scale Examples</b>	<b>General Scale (population)</b>	<b>Climate Action “Primary Domain” Examples</b>
Personal	1 person	Personal choices (e.g., dietary, housing, transportation, vocation, financial, consumer)
Household/family	~2-10 people	“Home economics” (e.g., housing, transportation, landscaping/gardening, financial, consumer)
Neighborhoods, small businesses, clubs, nonprofits, congregations, corporations	~10-100 people	Small organization organizing, management, orientation to
Schools, co-ops, larger clubs, businesses, congregations, corporations	~100-1000 people	Business/organization planning and management
Small towns, colleges, co-ops	~1k-10k people	Sustainability plans; land use and transportation
Towns, small utilities, universities	~10k-100k people	Local climate action/sustainability plans; land use and transportation; local living economy
Cities, medium utilities, counties	~100k-1M people	Local climate action/sustainability plans; land use, transit/transportation
Regions, states, large utilities/utility commissions	~1M-10M people	Transit/transportation; utility regulation; State law; building Code
Nations, international	~>10M people	Climate summits; carbon pricing; IPCC; building code; federal laws; trade agreements

<sup>13</sup> Note that this table does not fully address continuums of access to capital and decision making authority, nor to sociological and cultural dimensions, all of which add complexity. The point of this table is to illustrate that climate action transcends all scales, and to help define the “space” in which community scale climate action planning for Carrboro occurs. The reader is referred to the work of the Post Carbon Institute for a fuller introduction to energy and climate literacy: <http://www.postcarbon.org/>

The Task Force offers recommendations in this section that focus on grassroots/neighborhood scale efforts and enhancing the Town and community capacity for supporting sustainability. The recommendations are integrative in that they apply to all of the other recommendations provided, and are more focused on community enhancement and participation.

### Community Integration Recommendation 1: Engage Community

***Engage Community to be a Part of the Solution by Piloting Transition Streets and/or Similar Programs***

Implementation Opportunities	Transition Streets is a program with a proven track record in Europe and growing interest in the U.S. Neighbors recruit neighbors. Groups meet seven times over several months and choose practical actions to take from units on energy, food, water, waste, and transportation. The US version has just rolled out is a good place to start with a community engagement effort.
Implementation Challenges	<ul style="list-style-type: none"> <li>• How to Ensure Diverse Group Trained as Facilitators</li> <li>• 59 % of Residential Properties in Carrboro are rental properties</li> <li>• How to Ensure Momentum</li> </ul>
Resources Needed (human and material)	<ul style="list-style-type: none"> <li>• Money for education and promotion materials.</li> <li>• Ideally a nonprofit, along with new Town staff to provide leadership.</li> <li>• Consider support such as technical assistance and loans or grants for low income households to weatherproof, etc.</li> </ul>
Anticipated Cost	TBD
Leadership	Grassroots but will need a leader or nonprofit organization to adapt, promote, and sustain efforts beyond the Pilot Phase.
Partners	Pickards Mountain Ecoinstitute, Chapel Hill-Carrboro City Schools, UNC Sustainability Program, Orange County Solid Waste Program, Chapel Hill Sustainability Committee, Transition Carrboro- Chapel Hill, NC Botanical Gardens, Carrboro Greenspace, Carrboro Bike Coalition, Solarize Carrboro, Carrboro Farmers Market, Irvin Learning Farm and Nature Center, NC Sierra Club, Friends of Bolin Creek, Home Builders Association of Durham, Orange, and Chatham, Faith Based Environmental Groups, Town of Carrboro, and more
Fit with Items	Every Single Section of this Action Plan
Next Step(s)	<p>Modify Transition Streets program for Carrboro (add: land unit for sustainable landscaping and urban forestry; components geared towards multi-family residential properties/rentals; appendix with information on locally available resources). <i>Summer 2015</i></p> <p>Recruit and train diverse group of facilitators. <i>Fall 2015</i></p> <ul style="list-style-type: none"> <li>• Pilot Program in facilitator’s neighborhoods (TBD). <i>Fall-Winter 2015</i></li> <li>• Debrief with pilot program neighborhoods and modify program as needed. <i>Spring 2016</i></li> <li>• Official rollout. <i>Fall 2016</i></li> <li>• Install neighborhood and/or town wide dashboard to show progress, and build a climate change action oriented community. <i>Fall 2016</i></li> </ul>
Evaluation Criteria	<ul style="list-style-type: none"> <li>• People reached. Energy saved. Forest and soil protected or gained.</li> </ul>

Other Potential Programs Involving the Community:

- K-12 Educational Curriculum on Sustainability (Talk of this from the CHCCS Sustainability Coordinator, Excellent model in Oberlin Climate Action Plan)
- Grey to Green Initiatives (Portland Model, etc.) – Funded by Stormwater Utility
- Incentive Programs (Neighborhoods, Businesses, Property Owners) – Funded by Stormwater Utility or in Residential Areas by Green Neighborhoods Program.

PRELIMINARY DRAFT

## Community Integration Recommendation 2: Green Neighborhood Program

It is proposed that Carrboro create a new program that will identify projects to offer neighborhoods that

***Create Participatory Green Neighborhood Budgeting Program to Reduce Carbon Emissions, Build Community, Save Money and Reallocate to New Green Project Initiatives***

will save the Town money and make available the neighborhood’s proportion of saved monies for them to reallocate to new green project initiatives through a participatory democracy process.

Implementation Opportunities	<ul style="list-style-type: none"> <li>• Enlists and engages neighborhoods in efforts to reduce CO2 emissions in community-at-large</li> <li>• Builds community within neighborhoods</li> <li>• Neighborhood based economic development opportunities may spin-off</li> <li>• Possibility of creating a community scale “dashboard” that tracks energy use/emissions/savings</li> </ul>
Implementation Challenges	<ul style="list-style-type: none"> <li>• Identification of mechanism for town to allocate saved funds to neighborhoods</li> <li>• Development of participatory democracy process and criteria for new green project initiatives</li> <li>• Marketing for participation of neighborhoods</li> <li>• Would this be available for apartment complexes?</li> </ul>
Resources Needed (human and material)	<ul style="list-style-type: none"> <li>• Full time person managing neighborhood portfolios and facilitating neighborhood efforts</li> <li>• Common spaces per neighborhood (i.e. for centralized neighborhood composting, solar panels, etc.)</li> <li>• Educational campaign on opportunities for greening ones neighborhood</li> </ul>
Anticipated Cost	<ul style="list-style-type: none"> <li>• Cost of full time person in charge of managing program</li> <li>• Marketing</li> </ul>
Leadership	Neighborhood leaders
Partners	<ul style="list-style-type: none"> <li>• Homeowner associations</li> <li>• Solarize Carrboro</li> <li>• Clean Energy Durham</li> <li>• Former Pete Street participants?</li> <li>• Town <ul style="list-style-type: none"> <li>• Sustainability coordinator</li> <li>• Rec and Park (Clean Energy Durham Pete Street Effort)</li> <li>• Public Works</li> </ul> </li> <li>• Businesses <ul style="list-style-type: none"> <li>• Fitch</li> <li>• Solar installers</li> <li>• Weatherization installers</li> <li>• Fifth Season/other local nurseries</li> <li>• Local landscapers</li> <li>• Non-profits</li> </ul> </li> <li>• Orange County Solid Waste Management – composting</li> </ul>
Time Frame	Ongoing

Fit with Items	<ul style="list-style-type: none"> <li>• Recycling and composting successes translate into savings associated with less frequent trash pick-ups</li> <li>• On-street parking park and ride permits?</li> <li>• Composting reduces trash headed for the landfill = cost savings + reduced methane gas</li> <li>• Neighborhood competitions awards program <ul style="list-style-type: none"> <li>• Solarize</li> </ul> </li> <li>• Energy Efficiency / Pete Streets</li> <li>• Street Lights off for Climate t Project</li> </ul>
Next Step(s)	<ol style="list-style-type: none"> <li>1. Presentations laying out town’s CO2 responsibilities as measured through social equity lens and the urgency of CO2 reduction per the latest science <ul style="list-style-type: none"> <li>• Town-wide initial presentation followed by</li> <li>• Presentations to neighborhoods that want to engage in green neighborhoods initiative</li> </ul> </li> <li>2. Create process for developing further program ideas and mechanism for neighborhoods to initiate <ul style="list-style-type: none"> <li>• Set neighborhood CO2 reduction goals in line with town’s at large goal</li> <li>• Town recognizes savings achieved through existing green initiative successes and allocates these for neighborhoods to use proportional to neighborhood’s impact in making the savings. (recurring)</li> <li>• Identify further potential programs and their contributions to reducing CO2 for the neighborhood (ongoing)</li> <li>• Develop neighborhood green participatory democracy process and criteria for new green project initiatives</li> <li>• Develop way for town to allocate funds</li> <li>• Support and facilitate neighborhoods participation</li> </ul> </li> <li>3. Awards program for neighborhoods achieving biggest reductions per energy sector (Trash, Transportation, Housing)</li> </ol>
Evaluation Criteria	People reached. Energy saved. \$ reallocated.

### Community Integration Recommendation 3: Expanded Capacity

***Expand Staff and Community Capacity to Support Community Sustainability Initiatives***

Community members could organize to form a coalition to meet regularly to review implementation of sustainability partnerships and programs, and to suggest new implementation measures. Alternatively/eventually/additionally, and in conjunction with expanded staff capacity, a new Advisory Board could be formed with responsibility for overseeing community climate action efforts. Resource hub for citizens interested in energy efficiency efforts/opportunities within the town

Implementation Opportunities	Additional staff could facilitate non-profit/ business partnerships to improve energy efficiency in the community, and to publicly recognize successes.
Implementation Challenges	Town has limited capacity to investigate and work with local partners to pursue these programs. Ability of community advocates to organize Funding to help residents interested in retro-fits Community organizing requires dedicated volunteers; not clear if sufficient interest exists Staff capacity is currently limited to support a new advisory board
Resources Needed (human and material)	Additional community volunteers and staff capacity
Anticipated Cost	Cost of hiring additional staff.
Leadership	Board of Aldermen, Staff Managers, Community Volunteers
Partners	Several programs have been developed in North Carolina to lower the barriers to energy efficiency adoption within a community.*
Time Frame	FY 2016/17 budget cycle (ideally, in conjunction with hiring of sustainability coordinator)
Fit with Items	20/20 challenges.
Next Step(s)	Staff and Board of Aldermen to consider in development of FY 2016/17 budget cycle and community champions to self-identify
Evaluation Criteria	Track adoption of efficiency measures incentivized by programs facilitated/supported by the Town.

\*Examples include:

- The NC Banker’s Association pools banks for the financing of low income tax credit apartment complexes. They are interested in partnering with nonprofits to start a small loan pool for energy retrofits. Contact is Michelle Lampert [shellielampert@gmail.com](mailto:shellielampert@gmail.com)
- System Vision program, which partners Advanced Energy Corp, the Self-Help Credit Union, and the NC Housing Finance Authority to finance green home construction/retrofits.<http://www.nchfa.com/nonprofits/HPsystemvision.aspx>
- Transition Streets and Pete Street programs. In 2013 Carrboro and Chapel Hill contracted with Clean Energy Durham to pilot their “Pete Street” neighbor-to-neighbor energy retrofit program. The

approach trains neighborhood volunteers who lead neighborhood workshops where small groups of residents learn simple energy savings projects and behaviors.

- The State Energy Office runs the [E-Conservation Home Energy Improvements](#) program. This runs out in July, 2015. If it is not renewed, perhaps the Town of Carrboro could sponsor a similar program, or partner with Chapel Hill or the County to do so. The State Energy Office has been pursuing this for several years and is a valuable resource for learning what works.

#### **Community Integration Recommendation 4: Qualified Energy Conservation Bonding**

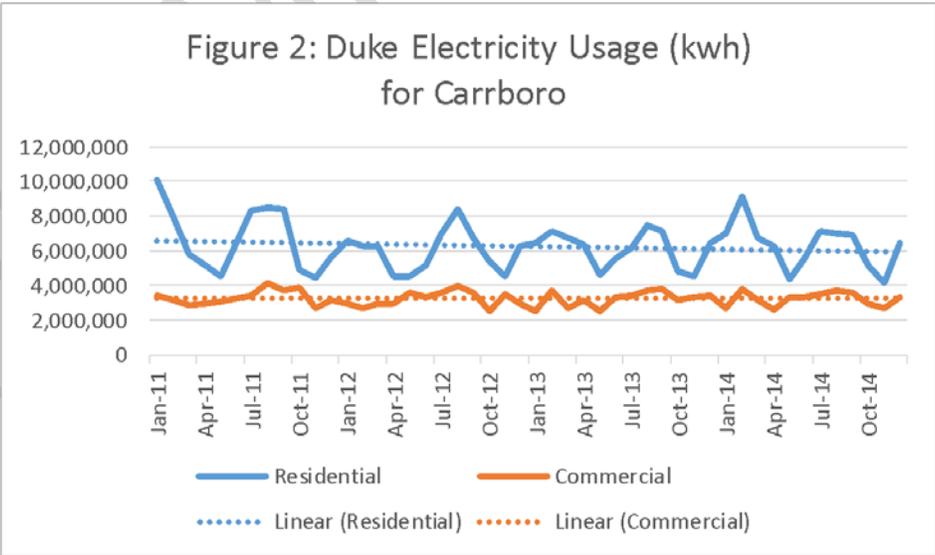
***Obtain/use QECB authority to fund upfront costs***

*The Task Force is looking into the opportunity to obtain QECB funding authority, and will provide additional information with our final report.*

# Building Energy Efficiency Measures

Most Carrboro residents rent their homes; 33% of homes are owner occupied, compared to 59% renter occupied (the remaining 8% of homes are vacant)<sup>14</sup>. To achieve substantial GHG reduction from a home, usually some construction or retrofits are required. This additional cost to landlords is difficult to capture in higher rents. Accordingly, there is an underinvestment in energy efficiency improvements in rental units. Without aligning the landlord’s costs for retrofits and the renter’s benefit in lower energy bills, it will be difficult to voluntarily achieve GHG reductions in rental units. Addressing this issue requires engagement of a diverse set of stakeholders: new development planners, energy efficiency contractors, affordable housing advocates, renters, and landlords. For many rental properties, renters pay the utility bills and as a result, landlords have little financial incentive to monitor and reduce energy use. Conversely, renters have no incentive to make investments in a property they do not own. Energy performance rating/audit requirements can inform interested parties on the overall energy efficiency of the building and provide transparency for market based decisions about property sales and rentals. By influencing a property’s appeal to future renters and buyers, the required ratings can serve as an incentive for building owners to improve energy efficiency.

As a major emissions source, it is desirable to attempt to determine trends in electrical energy use over time. Duke Energy has been able to provide monthly electricity use data specifically for Carrboro beginning in January, 2011 through the end of 2014, broken out by residential and commercial accounts. An analysis of this data (Figure 2) indicates that residential electricity use declined by about 1% per annum during this time, while population increased by about 2% per annum. Commercial use remained very stable. The residential use also has a sharp seasonal pattern, with winter and summer peaks presumably associated with heating and cooling loads. If this trend can be maintained or accelerated through the recommended, it will be very beneficial to pursuing the overall reduction targets. Any ability to determine how representative the trend is of years prior to 2011 would also be beneficial to the monitoring of overall progress.



<sup>14</sup> UNC Capstone Team, 2015. 2012 Greenhouse Gas Emission Inventory for the Town of Carrboro, NC. <http://nc-carrboro.civicplus.com/DocumentCenter/Home/View/2788>

## Buildings Recommendation 1: 50% Challenge

***Reduce Emissions Attributed to Carrboro Buildings by 50% by 2025***

Implementation Opportunities	Reduced electricity and gas use from more efficient building envelopes, appliances, HVAC systems, lighting. Healthier buildings; older buildings brought up to code; utility cost savings for building owners/occupants. If the private sector becomes engaged, the downtown area of Carrboro and Chapel Hill could evolve into a recognized “2030 District”[1]
Implementation Challenges	“Cost, complexity, inertia”. High percentage of non-owner occupied buildings; financial challenges especially for lower income residents and renters.
Resources Needed (human and material)	A nonprofit organization to become a community champion. Neighborhood and business champions and grassroots/community organizing, outreach, and education. Broad support from community leaders, utilities, financiers, and contractors. Potentially, fiscal support for nonprofit and organizing/coordination support from Board and staff
Anticipated Cost	Time and potentially salary involved in organizing; more efficient buildings result in cost savings and support the green building sector
Leadership	Potential leaders include: existing and/or new nonprofit(s); the Carrboro Business Alliance; Chamber of Commerce; Triangle Green Building Council
Partners	Potential partners include: existing and/or new nonprofit(s); the Carrboro Business Alliance; Chamber of Commerce; Triangle Green Building Council
Time Frame	Immediate
Fit with Items	Renewable energy and transportation 20/20 challenges
Next Step(s)	Local elected officials/community leaders collaborate to initiate challenge
Evaluation Criteria	Reductions in energy use/GHG emissions from buildings. Updated community energy use/emissions inventories for 2016 and 2020

[1] <http://www.2030districts.org/>

## Buildings Recommendation 2: Energy Audit/Performance Rating

***For existing buildings, require an energy audit and/or building energy performance rating, including utility bills from past year, at point of sale or lease.***

It is recommended that building owners be required to provide the results of an energy audit and/or an energy performance rating (including one year of utility bills) at the point of building sale or lease. This could be in the form of a written document and/or a numerical score such as a HERS rating or other recognized format. The requirement could include potential/recommended energy efficiency improvement measures. This approach is being tested in cities such as Seattle, Portland, OR, and Austin, TX. A website tracking different jurisdictions efforts for transparency in energy efficiency can be found at <http://www.buildingrating.org/jurisdictions>. [Buildingrating.org/](http://www.buildingrating.org/) provides a way to view and compare policies that are being implemented to improve and benchmark building energy efficiency. It is likely that Carrboro would need to acquire statutory authority from the State to pursue such a strategy.

Implementation Opportunities	<ul style="list-style-type: none"> <li>· Healthier buildings (better air handling and moisture control)</li> <li>· Lower carbon emissions.</li> <li>· Lower utility bills for occupants.</li> <li>· Provides a service to those looking to buy or rent and reaches a demographic not reached with many incentive based efforts</li> <li>· Addresses the unique situation in Carrboro with a high percentage of non-owner occupied buildings</li> </ul> <p>The Town's Energy Efficiency Revolving Loan Fund is available for recommended improvements to commercial buildings. Can potentially support businesses performing energy ratings/audits</p>
Implementation Challenges	<p>It is likely that the Town does not have the authority to make this a requirement and would need special enabling legislation. Some building owners, especially those with less efficient buildings, will likely not be in favor of this for reasons of "over regulation" and/or the potential market implications.</p>
Resources Needed (human and material)	<p>Assuming the Town could obtain authority, there would be effort associated with outreach and education and crafting the details with stakeholders as well as monitoring for compliance.</p>
Anticipated Cost	<p>Significant costs are not anticipated but would need to be determined as part of implementation</p>
Leadership	<p>Board of Aldermen for policy direction, with support from the Economic Sustainability Commission, Town staff</p>
Partners	<p>Business Alliance, Chamber of Commerce, Board of Realtors, Triangle Green Building Council</p>
Time Frame	<p>Immediate</p>
Fit with Items	
Next Step(s)	<p>Staff to confirm that legislation is needed and Board to seek enabling legislation</p>
Evaluation Criteria	<p>Reductions in metered utility energy usage and costs.</p>

### Buildings Recommendation 3: Rental Property Task Force/Process

***Create a Task Force to Pursue a Facilitative Process to Achieve Greenhouse Gas (GHG) Reductions in Rental Units***

It is recommended that the Town commission a Task Force to bring forward policy recommendations for how to align landlord and renter interests towards achieving energy efficiency in rental units.

Implementation Opportunities	<ul style="list-style-type: none"> <li>• Energy efficiency reduces waste and saves money in the long term</li> <li>• Energy efficiency retrofits create local jobs</li> </ul>
Implementation Challenges	<ul style="list-style-type: none"> <li>• The policy options to address this issue also have an impact on Town planning and affordable housing</li> </ul>
Resources Needed (human and material)	Town staff could partner with an outside organization to facilitate this Task Force.
Anticipated Cost	Staff time and/or contract support to help facilitate task force
Leadership	Town staff for giving the group a well-defined mission and keeping the group on track
Partners	Work with organization that facilitates stakeholder groups
Time Frame	Could be implemented within 1 year
Fit with Items	Lower energy costs and greenhouse gas emissions, shared economic prosperity
Next Step(s)	<ol style="list-style-type: none"> <li>1. Develop Task Force charge</li> <li>2. Identify relevant stakeholders needed to agree to process in order to make impactful change</li> <li>3. Identify outside organization to facilitate Task Force</li> <li>4. Commission Task Force</li> </ol>
Evaluation Criteria	Savings from lower energy bills could be put towards other projects. Keep energy dollars local. Reduces greenhouse gas emissions.

## Buildings Recommendation 4: Rental Property Registry/Certification

**Create a Certificate Program or Registry for the Energy Performance of Rental Housing**

A large percentage of housing in Carrboro are rentals. Landlords do not have an incentive to improve the energy efficiency of their properties since the tenants usually pay utility bills. The Town could create a voluntary registry or certification program that landlords could include in the advertisements of their properties. This could be in the form of a certification or a points system.

Implementation Opportunities	<ul style="list-style-type: none"> <li>· Lower residential carbon emissions.</li> <li>· Lower utility bills for tenants.</li> <li>· Provides a service to those looking to rent and reaches a demographic not reached with many incentive based efforts</li> <li>· Addresses the unique situation in Carrboro with a high percentage of non-owner occupied housing</li> </ul> <p>The Town could potentially support performing energy ratings/audits</p>
Implementation Challenges	The Town does not have the authority to make this a requirement. The effectiveness of this program would be dependent on widespread adoption by Carrboro landlords. It may require outreach to the landlords and research on the how to best communicate a potential rating system.
Resources Needed (human and material)	Town staff (potentially a Sustainability Coordinator), or another entity, could run the program and set the program requirements.
Anticipated Cost	Costs would be primarily associated with staff time and marketing.
Leadership	Board of Aldermen for policy direction, Town staff
Partners	Triangle Green Building Council, potentially others
Time Frame	Immediate
Fit with Items	
Next Step(s)	Policy/management feedback
Evaluation Criteria	Reductions in metered utility energy usage and costs.

**Buildings Recommendation 5: New Development/Building Energy Performance**

***For New Developments and/or Individual New Buildings or Major Retrofits, Require Compliance with Voluntary Section of Building Code, or Request Specific Energy Performance Rating/Measures as Part of Land Use and/or Building Permit.***

This recommendation, pending outcome of request for statutory authority, would have the Town implement a section of the Building Code with additional energy efficiency requirements that the Town is not currently implementing. Alternatively, the Town could partner with Triangle Green Building Council to develop an optional checklist of efficiency performance/measures that, if implemented, would lead to special designation and public recognition.

Implementation Opportunities	Healthier buildings (better air handling and moisture control) Lower carbon emissions. Lower utility bills for occupants.
Implementation Challenges	Additional Town staff time. Buy in from developers/builders
Resources Needed (human and material)	Town staff to expand Building Code implementation and/or work with Triangle Green Building Council to develop checklist and form of recognition.
Anticipated Cost	No significant cost anticipated
Leadership	Town staff, potentially with support from Planning Board
Partners	Triangle Green Building Council
Time Frame	Immediate
Fit with Items	20/20 challenges
Next Step(s)	
Evaluation Criteria	Number of buildings affected. Reductions in metered utility energy usage and energy intensity (energy use per square foot)

# Transportation Measures

Reducing emissions from transportation in Carrboro will rely on a coordinated, multifaceted effort involving infrastructure improvements, additional transit service, land use changes, outreach and engagement to affect transportation mode choices, and participation broadly with partners and across the community.

Availability of local bicycling and pedestrian infrastructure is strongly associated with overall levels of biking and walking, especially with trips to work, school, or shopping.<sup>15</sup> In September 2010, the League of American Bicyclists named the Town of Carrboro a Bicycle Friendly Community at the “Silver” level. There is an aspiration to achieve the “Gold” level during the next review cycle. The Town has the support of the Carrboro Bike Coalition, Chapel Hill Carrboro City Schools and other Safe Routes to Schools partners and significant existing ridership. Carrboro has comprehensive bicycling and greenway plans and a good start on infrastructure for bicyclists and pedestrians. In order to get people out of their cars, Carrboro must keep working on the gaps, continue to connect neighborhoods to schools, and expand biking infrastructure to connect all areas of Carrboro to downtown. In addition, lower cost facilities and pavement markings can increase convenience, increase perceptions of safety, and provide official, visible recognition that bicyclists are legitimate users of the road. Significant federal and state funding exists to support greenways development. Local matching funds to access the federal/state funds for later phases of both the Bolin and Morgan Creek greenways has not been identified. Local fundraising has been successful in many areas and provides an opportunity to unite the whole community for a good cause. To go after funds, the Town of Carrboro needs to approve a route and alignment for phases 3 and 4 of the Bolin Creek greenway.

*Additional introductory text for transit, promotion/education/outreach narrative, vanpool/carpool, idling policy narrative will be added for the final report.*

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<sup>15</sup> A Seattle study found that adults living within a half-mile of a bike path were 20 percent more likely to bicycle at least once a week. A Portland study found that cyclists went the furthest out of their way to use off-street bike paths, followed by bicycle boulevards (low speed streets that have been “optimized” for bicycle traffic) suggesting a general preference for facilities protected from motor vehicle traffic.

## Transportation Recommendation 1: 50% Challenge

***Reduce greenhouse gas emissions from motor vehicle use by 50% by 2025.***

Local leaders would announce an emissions reduction challenge to reduce community wide emissions by 50% from 2009 levels by 2025. The challenge could include a component focused on transportation/ motor vehicle emissions in Carrboro.

Implementation Opportunities	<ul style="list-style-type: none"> <li>• Requirements and market for more fuel efficient/lower emission vehicles and pedestrian and bicycle infrastructure and transit system use continue to improve.</li> <li>• Land use planning is supporting mixed use, infill and redevelopment and community is proactive to further encourage non-vehicular modes.</li> </ul>
Implementation Challenges	<ul style="list-style-type: none"> <li>• High percentage of residents work outside Carrboro with significant challenges for using transit or commuting by bike or on foot.</li> <li>• Constraints exist for further development of bicycle and pedestrian facilities.</li> <li>• Non-vehicular transportation options in some parts of Town are more limited.</li> <li>• Ability to monitor and track progress towards emissions reduction is currently quite limited methodologically and in terms of clarity of the responsible party for tracking.</li> </ul>
Resources Needed (human and material)	There are no resource requirements associated with a recognized community wide goal, although there will be resources needed for implementation of different actions.
Anticipated Cost	There are no specific costs associated with a recognized community wide goal, although there will be resources needed for implementation of different actions.
Leadership	Local elected officials and community leaders could endorse this goal
Partners	Various public, private, nonprofit
Time Frame	Quickly to be meaningful given timeframe
Fit with Items	Buildings and renewable energy challenges
Next Step(s)	Formal adoption/publicity for challenge
Evaluation Criteria	Ability to track emissions via VMT, fuel type, and vehicle efficiency. CAMPO model? Other methodology?

## Transportation Recommendation 2: Improved Bike/Ped Infrastructure

### Improve and Extend Carrboro's Bicycling and Pedestrian Infrastructure

Implementation Opportunities	Greenway and bike plan project implementation could be accelerated, providing off road options to more users sooner than likely with current efforts.
Implementation Challenges	<ul style="list-style-type: none"> <li>● Limited funding identified for greenway and sidewalk projects (especially the local match; existing bond funds recently expired)</li> <li>● Leadership, capacity, and commitment to resolve conflicting community positions on alignment for future phases of Bolin Creek greenway</li> <li>● Uncertain/delayed development plans delaying greenway implementation for State property in northern Carrboro</li> <li>● Coordinating with multiple entities</li> </ul>
Resources Needed (human and material)	<ul style="list-style-type: none"> <li>● Town Staff and other support to implement.</li> <li>● Funding for greenway development and new bike and pedestrian facilities.</li> </ul>
Anticipated Cost	TBD
Leadership	Board of Aldermen and Town Staff with support from the Transportation Advisory Board, the Greenways Commission, and the Carrboro Bike Coalition.
Partners	NCDOT, Chapel Hill-Carrboro City Schools, Local Business Community, BikeWalk NC.
Fit with Items	Reduce greenhouse gas emission from motor vehicle use by 20% by 2020.
Time Frame	
Next Step(s)	<ul style="list-style-type: none"> <li>● Connect northern Carrboro to downtown areas by dedicated/safer bike routes to include on and off road improvements (more below).</li> <li>● Complete the Bolin Creek and Morgan Creek Greenways. In order to do this, Carrboro needs to: <ul style="list-style-type: none"> <li>○ Formally approve a route/alignment for phases 3 and 4 of the Bolin Creek plan. Because of differing positions by stakeholders, this could require a facilitated process. (FY 16/17)</li> <li>○ Dedicate local matching funding (Board/staff to identify local match for Jones Creek greenway (FY 15/16)</li> <li>○ Work closely with UNC since much of the planned greenway system crosses three separate tracts of land managed by UNC. (Specifically suggest that staff contact UNC staff for feedback on plans for future development.)</li> </ul> </li> <li>● Connect all Chapel Hill-Carrboro City Schools to surrounding neighborhoods by dedicated bike routes.</li> <li>● Create bicycle boulevards by adding traffic calming features (e.g., speed humps, curb extensions, pedestrian crossways) on streets with a low volume of traffic and/or install cycle tracks (which are on-street bike lanes that are physically separated from motor vehicle lanes). This can be pursued in conjunction with stormwater treatment measures to create "Green Streets"</li> <li>● Consider new forms of pavement markings, including bike boxes, shared lane markings or sharrows, and colored bike lanes, which increase perceptions of safety, help guide bicyclists and motorists, and provide official, visible recognition that bicyclists are legitimate users of the road.</li> <li>● Improve the pedestrian experience in and around bus stops.</li> </ul>

	<ul style="list-style-type: none"> <li>• Provide bike parking at high-demand bus stops.</li> <li>• Work with the local business community to provide showers and bike locker for commuters.</li> <li>• In the longer term/larger community, ensure sufficient bike parking is supplied at future Light Rail stations</li> </ul>
Evaluation Criteria	<ul style="list-style-type: none"> <li>• Increase in the number of students biking or walking to school.</li> <li>• Increase in the number of residents biking or walking to commute to work.</li> <li>• Increase in the number of bike trips to downtown Carrboro.</li> <li>• Completion of greenways and dedicated bike routes.</li> <li>• Completion of bicycle boulevards, cycle tracks, and new pavement markings.</li> <li>• Increase in the number of businesses that install showers and bike lockers.</li> </ul>

### Transportation Recommendation 3: Enhanced Transit Service

Areas farther from Town have limited service from Chapel Hill Transit. Triangle Transit does not have a

***Improve/extend transit service***

stop in Carrboro to connect with other area job hubs.

Implementation Opportunities	<ul style="list-style-type: none"> <li>• Transit service could be extended to new areas by adding one or more stops in Carrboro that is well connected to other transit, bike, and pedestrian access, and more hours of service</li> <li>• New Transit Oriented Development could be sited in Northern Transition Area</li> </ul>
Implementation Challenges	<ul style="list-style-type: none"> <li>• Transit funding</li> <li>• Difficulty siting more dense development in northern Carrboro</li> </ul>
Resources Needed (human and material)	<ul style="list-style-type: none"> <li>• Landowner, developer, and community support for new mixed use/transit oriented development</li> </ul>
Anticipated Cost	Improved local transit service costs will depend on different factors, and are implemented by Chapel Hill Transit.
Leadership	Board, NTAAC, Transportation Advisory Board, Town staff for new development. Chapel Hill Transit for improved/expanded local transit service; TTA for regional transit. Other partners below can also provide leadership
Partners	Local business community, NTA neighbors
Time Frame	Immediate
Fit with Items	See separate recommendation for steps to promote transit service.
Next Step(s)	<p>Work with Triangle Transit and Chapel Hill Transit staff to provide additional feedback on plans for future service and ability to accelerate adding service, including both downtown Carrboro and Northern Carrboro.</p> <ul style="list-style-type: none"> <li>• Enhance transit access points along the 15-501 corridor from Carrboro to Durham and provide more frequent, reliable bus service.</li> </ul>
Evaluation Criteria	Number of bus commuters/trips

## Transportation Recommendation 4: Improve Vanpool/Carpool Options

***Improve vanpool/carpool options for commuters***

A considerable amount of transportation related emissions can be attributed to people commuting in and out of Carrboro for work. Vanpools and carpools can be an effective approach for reducing vehicle miles traveled and single occupancy vehicle trips, but existing park and ride areas could be more convenient for Carrboro commuters. Adding vanpool parking areas to Carrboro could reduce vehicle miles traveled and emissions.

Implementation Opportunities	Add Triangle Transit vanpool parking or carpool to Carrboro parking areas, including downtown Carrboro and Northern Carrboro
Implementation Challenges	Requires partnership with Triangle Transit
Resources Needed (human and material)	Signs to identify vanpool and carpool parking areas
Anticipated Cost	Signs to identify vanpool and carpool parking areas
Leadership	Board of Aldermen; Triangle Transit
Partners	Chapel Hill Transit, Triangle Transit
Time Frame	Immediate
Fit with Items	
Next Step(s)	Work with Triangle Transit to identify currently registered vanpools and carpools and use this info along with expected increase in use to establish carpool and vanpool parking areas, including both downtown Carrboro and Northern Carrboro.
Evaluation Criteria	Number of vanpool, and carpool commuters

## Transportation Recommendation 5: Additional Promotion of Walking, Biking, Transit

### **Take Additional Steps to Promote Walking, Biking, and Transit Use**

Marketing and educational programs, as well as regulations, significantly affect levels of bicycling, walking, and transit use. Investments in infrastructure must be supported by outreach programs to be most effective.

Implementation Opportunities	Carrboro has a considerable base of bicycling, walking, and transit use to build on. In September 2010, the League of American Bicyclists named the Town of Carrboro a Bicycle Friendly Community at the “Silver” level, and there is an aspiration to achieve the “Gold” level during the next review. Carrboro has significant support from the Carrboro Bike Coalition and other partners and already participates in the Safe Routes to School program.
Implementation Challenges	<ul style="list-style-type: none"> <li>● Challenge of changing set behaviors.</li> <li>● Some greenway, bike route, and transit services are not yet complete.</li> <li>● Transit services are spotty or non-existent in some areas</li> <li>● Uncertain funding for new/renovated buses</li> </ul>
Resources Needed (human and material)	<ul style="list-style-type: none"> <li>● Town Staff and partners support.</li> <li>● Funding for additional greenway and bike facility development, bike racks, and transit services.</li> </ul>
Anticipated Cost	TBD
Leadership	Town Transportation Planner, with support from Recreation and Parks staff, Transportation Advisory Board, Greenways Commission.
Partners	UNC, Chapel Hill Transit, Triangle Transit, Carrboro Bike Coalition, Carrboro Business Alliance, Chapel Hill-Carrboro City Schools, Walk Bike NC
Fit with Items	Reduce Greenhouse Gas Emissions from Motor Vehicle Use by 50% by 2025; Improve and Extend Bicycling and Pedestrian Infrastructure; Improve and Extend Transit Services
Next Step(s)	<ul style="list-style-type: none"> <li>● Continue, accelerate, and intensify efforts to: <ul style="list-style-type: none"> <li>○ Promote bike to work days. Studies have reported long-term increases in bicycling following bike-to-work days.</li> <li>○ Work with the Carrboro Bicycle Coalition to put on and publicize on-going bicycle training.</li> <li>○ Work with the Carrboro Bike Coalition to hold “Open Streets” days.</li> <li>○ Work with Chapel Hill Transit and Triangle Transit to develop and implement a marketing and educational program on carpooling, vanpooling, and transit use. Promote official car free, carpool, vanpool, and transit use days.</li> <li>○ Support the <i>Safe Routes to Schools Program</i>. Work with the Carrboro-Chapel Hill City School System and local PTAs to promote bike and walk to school days.</li> <li>○ Pursue efforts to implement land use and development</li> </ul> </li> </ul>

	<p>policies that help ensure destinations for daily needs, such as school, work, and shopping, are within convenient bicycling distance from home. Encourage developers to promote multi-modal transportation options.</p> <ul style="list-style-type: none"> <li>● Promote “park and stroll” programs at schools, where students are dropped off at a remote location and walk or bike the rest of the way to school.</li> <li>● Research and implement a bike sharing system downtown.</li> <li>● Explore new policies that make driving more expensive and less convenient (e.g. reduced parking supply, increased parking fees, and reduced road speeds). Lower speed limits for vehicles make bicycling safer and more attractive. One study conducted in Germany found that reducing general speed limits led to a significant increase in bicycling.</li> </ul>
Time Frame	
Evaluation Criteria	<ul style="list-style-type: none"> <li>● Number of students biking or walking to school.</li> <li>● Number of residents biking, walking, or using transit, carpooling or vanpooling to commute to work.</li> <li>● Increased transit ridership.</li> </ul>

### Transportation Recommendation 6: Idling in School Loading Zones

***Modify Town Code to limit idling in school loading zones***

Implementation Opportunities	This is a simple, straightforward fix to a widespread problem that will reduce air pollution and GHG emissions
Implementation Challenges	Parental resistance, especially at elementary schools, and enforcement.
Resources Needed (human and material)	School system employee and/or police officer time to enforce
Anticipated Cost	Costs associated with staff time
Leadership	Board of Aldermen; CHCCS School Board
Partners	CHCCS and Town staff; PTA; individual school teams; TAB
Time Frame	Immediate
Fit with Items	
Next Step(s)	Board to direct staff to modify Section 6-24 to restrict idling in school zones
Evaluation Criteria	Monitoring of idling activity

# Renewable Energy Measures

Carrboro's Climate Action Goal can be achieved by generating more energy from renewable sources and improving energy efficiency. This section provides recommendations for how to increase renewable energy from two sources, solar and geothermal. Solar panels convert light from the sun into electricity. Geothermal heating and cooling employs pumps and wells to take advantage of the near constant temperatures below the Earth's surface. This can be used to reduce the costs to heat buildings in the winter and cool them during the summer. Both of these approaches require considerable initial costs to install the equipment. However these technologies have low maintenance costs and a lifetime for more than 25 years, which creates considerable energy savings over time. Homeowners and businesses that can shoulder the upfront costs have been switching to renewable energy. The focus of these recommendations is to help speed the transition to renewable energy, especially addressing the barrier of initial costs.

The Task Force's first recommendation is to develop a community solar project for Carrboro. Solar panels can provide low-cost energy without environmental impacts. Many home and business owners are realizing lower energy costs by investing in solar. However, most Carrboro residents either rent or own homes that are shaded by trees, and cannot benefit from solar at their home. A community solar project would allow people across Carrboro to invest in solar, lower electricity bills, and help bring about a clean energy future for our Town. However, the electric utilities that service Carrboro restrict most forms of community ownership. Legislation currently under discussion in the NC General Assembly would allow a third-party, such as a community entity, to sell electricity directly to power consumers. Under this change, a community group could own a solar installation and sell the energy to a large buyer, such as the Town of Carrboro. The agreement could set the electricity price to a rate that is beneficial to both the Town and the community investment group.

The Task Force's second recommendation is to create a downtown geothermal heating and cooling district. The Carrboro Century Center has considerable heating and cooling costs that could be reduced by switching to geothermal. Developing geothermal heating and cooling for the Century Center could reveal economies of scale, where neighboring buildings could be added to the system at lower cost. This recommendation is to explore the formation of a geothermal heating and cooling utility to provide low-cost, sustainably sourced heating and cooling to downtown buildings that is easy for property owners to join.

The third recommendation is to convene an action group to develop policy opportunities to create incentives for renewable energy and energy efficiency upgrades in rental properties ([see Buildings Recommendation #3](#)). The majority of Carrboro residents are renters and do not directly have control over their energy efficiency and energy generation. Because renters pay the utility bills, landlords have less financial incentive to invest in energy savings. Lowering electricity costs makes housing more affordable, but the incentives are not aligned to encourage this change. This action group will be charged with finding policy opportunities to better align renter and landlord incentives towards lowering electricity costs. This action group should include advocates from renter, property owner, affordable housing, and green building organizations.

When taken together, these recommendations provide opportunities for Carrboro residents and businesses to participate in and benefit from the switch to renewable energy.

## Renewable Energy Recommendation #1: Community Solar

### ***Pursue Community Solar Projects***

Solar panels can provide low-cost energy without environmental impacts. Many home and business owners are realizing lower energy costs by investing in solar. However, most Carrboro residents have homes that are shaded by trees, and cannot benefit from solar at their home. A community solar project would allow people across Carrboro to invest in solar, lower electricity bills, and help bring about a clean energy future for our Town. However, the electric utilities that service Carrboro restricts most forms of community ownership. Legislation currently under discussion in the NC General Assembly would allow a third-party, such as a community entity, to sell electricity directly to consumers. Under this change, a community group could own a solar installation and sell the energy to a large buyer, such as the Town of Carrboro. The agreement could set the electricity price to a rate that is beneficial to both the Town and the community investment group.

Implementation Opportunities	<ul style="list-style-type: none"> <li>• Broadly share solar investment benefits, including keeping dollars local</li> <li>• Town of Carrboro buildings could be first adopters, but this approach could be deployed on other buildings</li> <li>• The community investment group would pay the upfront costs to develop solar (no financing support needed from the Town)</li> </ul>
Implementation Challenges	<ul style="list-style-type: none"> <li>• Requires considerable effort to organize support and investment</li> <li>• Requires specific action by NC General Assembly. Specifically, re-instatement of the NC Renewable Energy Tax Credit and provision of third-party sales of electricity. If one or both of these are passed, it may be possible to develop community solar projects in Carrboro.</li> </ul>
Resources Needed (human and material)	Town staff would partner with an outside organization to develop the community investment group.
Anticipated Cost	There are options depending on how the electricity purchasing agreement with the community group is defined
Leadership	Town staff for development for Town buildings, Economic Development groups for development of community infrastructure
Partners	Work with organization that coordinates community investment group
Time Frame	Could be implemented within 2 years and would have benefits for many decades
Fit with Items	Lower energy costs and greenhouse gas emissions, shared economic prosperity
Next Step(s)	<ol style="list-style-type: none"> <li>1. Watch outcome in NC General Assembly</li> <li>2. Develop program with community investment group</li> </ol>
Evaluation Criteria	Savings from lower energy bills could be put towards other projects. Keep energy dollars local. Reduces greenhouse gas emissions.

## Renewable Energy Recommendation #2: Downtown Geothermal

### ***Create a Downtown Geothermal Heating and Cooling District***

Geothermal heating and cooling employs pumps and wells to take advantage of the near constant temperatures below the Earth’s surface. This can be used to reduce the costs to heat buildings in the winter and cool them during the summer.

Implementation Opportunities	<ul style="list-style-type: none"> <li>• Lower costs of heating and cooling</li> <li>• Century Center could be candidate for first adopter</li> <li>• If marginal costs of adding adjacent community/commercial buildings to the heating and cooling network are low, then a municipal utility could be an effective way to provide services at low cost</li> <li>• A community geothermal utility would make it easier to adopt geothermal broadly by lowering costs and simplifying construction.</li> <li>• Savings from lower energy bills could be put towards other projects</li> </ul>
Implementation Challenges	<ul style="list-style-type: none"> <li>• Unknown technical feasibility</li> <li>• Large upfront costs; requires low-cost financing</li> <li>• New activity for Carrboro, but Orange County buildings in downtown Hillsborough have implemented geothermal heating and cooling and are realizing substantial savings</li> </ul>
Resources Needed (human and material)	Effort to: explore feasibility; develop engineering design; and policy development towards an approach for other community buildings.
Anticipated Cost	Upfront costs are large but design lifetime of equipment is approximately 50 years. Geothermal systems (on average) reduce heating and cooling costs by 50%. The actual installation costs and benefits depend on the building.
Leadership	Town staff for development for Town buildings, business community for development of community infrastructure
Partners	Technical assistance from Orange County, contractor(s), and investors
Time Frame	Could be implemented within two years, with benefits for many decades
Fit with Items	Lower energy costs and greenhouse gas emissions, shared economic prosperity
Next Step(s)	<ol style="list-style-type: none"> <li>1. Examine completed projects in Orange County</li> <li>2. Solicit contracting support for feasibility study</li> <li>3. If deemed feasible, develop preliminary design for Town of Carrboro buildings including financial assessment and environmental benefits.</li> <li>4. Explore opportunities to develop a municipal utility</li> <li>5. Explore ways to encourage developers towards installing geothermal in new projects</li> </ol>
Evaluation Criteria	<ul style="list-style-type: none"> <li>• Reduced energy bills.</li> <li>• Reduced greenhouse gas emissions.</li> <li>• More comfortable work environment for Town staff.</li> </ul>

### Renewable Energy Recommendation 3: Rental Property Task Force/Process

***Create a Task Force to Pursue a Facilitative Process to Achieve Greenhouse Gas (GHG) Reductions in Rental Units***

It is recommended that the Town commission a Task Force to bring forward policy recommendations for how to align landlord and renter interests towards achieving renewable energy in rental units.

Implementation Opportunities	<ul style="list-style-type: none"> <li>Renewable energy is clean energy and create local jobs</li> </ul>
Implementation Challenges	<ul style="list-style-type: none"> <li>The policy options to address this issue also have an impact on Town planning and affordable housing</li> </ul>
Resources Needed (human and material)	Town staff could partner with an outside organization to facilitate this Task Force.
Anticipated Cost	Staff time and/or contract support to help facilitate task force
Leadership	Town staff for giving the group a well-defined mission and keeping the group on track
Partners	Work with organization that facilitates stakeholder groups
Time Frame	Could be implemented within 1 year
Fit with Items	Task Force/Facilitative Process for Buildings
Next Step(s)	<ol style="list-style-type: none"> <li>Develop Task Force charge</li> <li>Identify relevant stakeholders needed to agree to process in order to make impactful change</li> <li>Identify outside organization to facilitate Task Force</li> <li>Commission Task Force</li> </ol>
Evaluation Criteria	Savings from lower energy bills could be put towards other projects. Keep energy dollars local. Reduces greenhouse gas emissions.

# Ecosystem Protection and Enhancement

The ecosystems that Carrboro is located within are being affected by a warming planet, but they also offer opportunities for combating climate change. The Task Force has identified recommendations to improve ecosystem health and resilience by reducing stormwater impacts, reducing deer herd pressure on forest health, increasing tree canopy and biodiversity, better management of invasive plants and encouragement of native plants, and managing organic waste and improving soil quality. These focus areas are discussed separately, but are highly interwoven. The following is a brief overview of each area to provide context for our recommendations.

Climate change is likely to increase the frequency and intensity of storms and droughts in our area, which will in turn increase the negative impacts of stormwater runoff that include erosion, flooding, nonpoint source pollution, and altered hydrology<sup>16</sup>. Many methods and opportunities exist to aid in curbing stormwater runoff (permeable paving, rain gardens, and green roofs to name just a few), but often landowner interest and available resources are not in place to pursue these projects<sup>17</sup>. The Task Force recommends that the Town create a stormwater utility or join Chapel Hill's utility, thereby ensuring a dedicated funding source for stormwater projects that is not subject to discretionary spending in annual budget cycles. Doing so would provide the financial stability and predictability needed for such projects. A utility could also support public education, helping citizens understand the causes and consequences of stormwater runoff and the ways in which individuals can limit the polluted runoff leaving their property.

Local and other studies have shown that excess deer are adversely affecting the health of our forests by causing a decrease in plant diversity and aiding in the spread of exotic species. Soil studies have shown that the seed stores in areas with deer overpopulation are shifting from native wildflowers and woody plants to invasive plants and grasses. This threatens the ability of our forests to regenerate in a healthy way and continue to serve as diverse ecosystems and significant carbon sinks. Deer populations need to be reduced in size to avoid long-term negative impacts on forest regeneration. While several options exist for managing the density of deer herds, studies have found that the least inexpensive and most effective method is through culling programs. Such programs have been safely and successfully implemented in Duke Forest and Chapel Hill and many towns in North Carolina, and the Task Force recommends that Carrboro implement its own culling program to protect our forests from an expanding deer population that is too large now and may grow.

Trees, whether lining a city street or part of a forest, are an important tool in addressing climate change. Carrboro's urban forest provides innumerable ecosystem services<sup>18</sup> (not just limited to climate protection/resilience and energy management) that affect both the local physical and social environment. Trees act as carbon sinks, reduce the heat island effect in urban areas, and reduce the energy used to cool and heat buildings. Trees stabilize and improve soil, reducing erosion and improving

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<sup>16</sup> <http://tigerprints.clemson.edu/cgi/viewcontent.cgi?article=1131&context=scwrc>

<sup>17</sup> <http://www.nrdc.org/water/pollution/storm/chap4.asp>

<sup>18</sup> See Nowak, D. et al., "Sustaining America's Urban Trees and Forests". USDA Forest Service, Northern Research Station. State and Private Forestry General Technical Report NRS-62. June 2010.

[http://www.fs.fed.us/openspace/fote/reports/nrs-62\\_sustaining\\_americas\\_urban.pdf](http://www.fs.fed.us/openspace/fote/reports/nrs-62_sustaining_americas_urban.pdf)

stormwater management through infiltration and evapotranspiration. Trees absorb air pollutants, reducing exposure of dangerous chemicals to people and wildlife. There is therefore significant merit and synergy in managing the forest to reduce energy consumption and heat island effects and store carbon, while simultaneously enhancing air quality, water flow and quality, wildlife and biodiversity, soil quality, community well-being (economic vitality, sense of community and neighborhood empowerment), individual well-being and public health, aesthetics, noise abatement, and real estate and business.

Because native plants serve as the host plants on which our native insects lay their eggs, they are important both environmentally and economically. For example, 96% of North American birds (excepting seabirds) rely on native insects to feed their young<sup>19</sup>. According to The White House, as of 2009, pollination of US crops by native insects was valued at more than nine billion dollars.<sup>20</sup> Unfortunately, native plant species are being overrun by invasive plant species (categorized by the US government as non-native species that are economically and environmentally devastating). Recent studies have shown that as climate change lengthens growing seasons, invasive species are adjusting their flowering schedules more quickly than their native counterparts. This earlier bloom time can allow invasives to shade out natives and “capture a larger share of nutrients, water, or pollinators”.<sup>21</sup> It can take decades to discover that a species is invasive, and such a discovery does not necessarily lead states to ban nursery sales of the species. Many people are unaware of the critical importance of native plants to food webs and biodiversity, and often fail to realize the impact that their own landscaping choices have on our local ecosystems.

The Task Force recommends that the Town consider including curbside composting in future studies of and plans for waste management for multiple reasons. Cities and towns that have implemented curbside composting have been able to move to bi-weekly trash pickup, freeing up funds for commercial hauling and processing of compost. According to NCDENR, “landfills are the largest human-made contributor of methane into the atmosphere. Methane, a greenhouse gas, is 72 times more potent than CO<sub>2</sub> over twenty years.” The organic material buried in landfills is responsible for this methane, releasing the gas through anaerobic decomposition. Orange County has recently begun to utilize the methane in the landfill for energy production. At the same time, reducing future methane production at the landfill is a positive preventive measure. Composting is considered to be the most effective way to combat the production of methane<sup>22</sup>. Seattle, Portland, and San Francisco have curbside composting programs that could offer examples for Carrboro<sup>23</sup>. Orange County Solid Waste Management is scheduled to begin offering onsite disposal of household organic waste (i.e. food scraps) at its Chapel Hill facility located on Eubanks Road site in 2016. This will be in addition to the composting facility offered at its Walnut Grove

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<sup>19</sup> Tallamy, Douglas. *Bringing Nature Home*. Portland: Timberpress, 2010. Print.

<sup>20</sup> Office of the Press Secretary. Fact Sheet: The Economic Challenge Posed by Declining Pollinator Populations. Washington, DC: The White House. Retrieved 20 June 2014 from <https://www.whitehouse.gov/the-press-office/2014/06/20/fact-sheet-economic-challenge-posed-declining-pollinator-populations>

<sup>21</sup> Nijhuis, Michelle. “How Climate Change is Helping Invasive Species Take Over.” *Smithsonian.com*. *Smithsonian Magazine*, December 2013. <http://www.smithsonianmag.com/science-nature/how-climate-change-is-helping-invasive-species-take-over-180947630/?no-ist>

<sup>22</sup> Dennings, Kelly. (2010). *The Link Between Recycling and Climate Change* [SlideShares]. retrieved from <http://www.slideshare.net/NCDENR/the-link-between-recycling-climate-change>

<sup>23</sup> Seattle composting program:

<http://www.seattle.gov/council/bagshaw/attachments/compost%20requirement%20QA.pdf>

Portland composting program: <http://www.portlandoregon.gov/bps/56513>

San Francisco composting program: <http://www.sfenvironment.org/zero-waste/recycling-and-composting>

Church Road Convenience Center in Hillsborough. However, many residents do not utilize these convenience centers, instead throwing their food scraps into the trash.

### Ecosystem Recommendation #1: Stormwater Utility

**Create a Stormwater Utility in Carrboro, or Join Chapel Hill’s Stormwater Utility.**

Implementation Opportunities	<ul style="list-style-type: none"> <li>• Fee structure can be set up for greater “environmental equity” (fees are based on actual runoff impact, not property value).</li> <li>• Emerging/innovative financing approaches exist for stormwater and green infrastructure</li> <li>• Chapel Hill’s stormwater utility offers: local lessons (what works well/what is difficult); staff with technical expertise in engineering, science, administration, outreach/education; potential for efficiencies/sharing of resources</li> <li>• Opportunities exist for incorporating incentives for implementation of on-site stormwater management. For example, offering subsidies to help homeowners and businesses pay for part of a project on their land as a way to incentive the implementation of BMPs on private property.</li> <li>• The City of Durham has found that it is less expensive overall to distribute stormwater-related expenses as a utility fee rather than by increasing property taxes.<sup>4</sup></li> </ul>
Implementation Challenges	<ul style="list-style-type: none"> <li>• Carefully planning the utility’s goals upfront.</li> <li>• Determining whether to create a new utility, join Chapel Hill’s utility, or explore an alternative approach that protects the benefits of a utility.</li> <li>• Determining a pathway for helping low-income individuals (exemptions, reimbursements, etc.).</li> <li>• Addressing current limited fiscal and staff capacity to meet needs for flooding issues/property impacts, protecting and restoring surface water quality, requirements for federal/state stormwater permit, and planning for compliance with Jordan Lake rules</li> <li>• Creating a well-conceived and well-implemented public outreach campaign. This campaign is needed to get public buy-in, ensuring that citizens are understand the purpose of and need for the utility.</li> </ul>
Resources Needed (human and material)	<ul style="list-style-type: none"> <li>• Funds for stormwater management/financing study</li> <li>• Eventually, new staff position(s)</li> <li>• Partnering agreement if collaborating with Chapel Hill</li> <li>• Funds for an education campaign</li> </ul>
Anticipated Cost	See footnote <sup>24</sup>
Leadership	<ul style="list-style-type: none"> <li>• Policy leadership from Board of Aldermen.</li> <li>• Management, technical, and administrative leadership from staff</li> </ul>

<sup>24</sup> The average residential fee across 55 utilities in NC is currently about \$1/month/1000 sq. ft. of impervious surface. Chapel Hill’s utility’s fee is about twice the average rate. See <http://www.efc.sog.unc.edu/reslib/item/nc-stormwater-utility-dashboard#> for details on NC stormwater utility rates.

	<ul style="list-style-type: none"> <li>EAB may be able to provide support</li> </ul>
Partners	Potentially Chapel Hill, OWASA
Fit with Items	Reduced stormwater impacts, improved water quality, improved ecosystem health, improved soil quality
Next Step(s)	<ol style="list-style-type: none"> <li>Complete stormwater management/financing study to address both administrative and policy opportunities and challenges in FY 2015/16 <ol style="list-style-type: none"> <li>Examine nearby models already showing success (Chapel Hill, Durham, Greensboro, etc.) to determine best fit for Carrboro in creating a utility.</li> <li>Determine whether or not to partner with Chapel Hill's stormwater utility.</li> </ol> </li> <li>Craft public outreach/education campaign about negative impacts of stormwater and economic/environmental benefits of a utility.</li> </ol>
Evaluation Criteria	<ul style="list-style-type: none"> <li>Town can consider annual surveys and other means of measuring public awareness about stormwater impacts and management</li> <li>Increased number of BMPs created and increased amount of area treated to control stormwater runoff*</li> <li>Improved stream health as measured by aquatic insects</li> <li>Changes in stream hydrology based on stream gage monitoring</li> <li>Availability of harvested rainwater in times of drought</li> <li>Utility is being funded by fees collected</li> </ul>

<http://www.efc.sog.unc.edu/project/innovative-financing-approaches-stormwater-and-green-infrastructure>

The Town has been including future mandatory stormwater projects in its CIP, however, the financing mechanism (e.g., property tax increase, debt financing, fee basis) for pursuing these projects is not clear

\*See #7 on the City of Durham's Stormwater Utility Fee Frequently Asked Questions Page:

<http://durhamnc.gov/ich/op/pwd/GIS/Pages/FAQ.aspx>

## Ecosystem Recommendation 2: Deer Herd Management

### ***Pursue a Humane Deer Herd Management Program***

Local and national studies have shown that excess deer adversely affect other wildlife species by causing a decrease in plant diversity and aiding in the spread of exotic plant species. Soil studies have shown that the seed stores in areas with deer overpopulation are shifting from native wildflowers and woody plants to invasive plants and grasses. This threatens the ability of our forests to regenerate and continue to serve as significant carbon sinks and healthy, diverse ecosystems. Autopsies done during the first two Duke Forest hunting seasons showed unhealthy kidneys in every deer killed, a sign of severe starvation. The chief of police and others expressed safety concerns when the Board of Alderman discussed bow hunting in 2012. The Town should review what other towns are doing to address safety in their deer management programs. 59 towns in North Carolina currently utilize an urban archery season to manage deer overpopulation, including Chapel Hill, Durham, Raleigh, and Pittsboro. The Office of Duke Forest is preparing for its eighth hunting season. There have been no documented archery related accidents for the past 40 years in North Carolina. Carrboro could write its own plan with restrictions, including that hunters must have the permission of landowners to hunt within property boundaries. These findings lead the Task Force to recommend that Carrboro reopen the consideration of an Urban Archery Season.

Implementation Opportunities	<ul style="list-style-type: none"> <li>Thousands of vehicular accidents in North Carolina each year are related to deer.</li> </ul>
Implementation Challenges	<ul style="list-style-type: none"> <li>Contraceptives are expensive (\$600-800/doe) and only work when the deer population is isolated and does not have an opportunity to migrate in or out of a given area.</li> <li>Sterilization is expensive (\$800-1,000/doe) and is currently not legal in the state of North Carolina. Culling deer herds is an emotional issue, despite clear science that shows deer herd management results in a healthier deer population, produces a more intact forest ecosystem, and has a positive impact on other wildlife species.</li> <li>Educating citizens on above issues related to deer overpopulation.</li> </ul>
Resources Needed (human and material)	<ul style="list-style-type: none"> <li>Administrative support from Town Staff with help from the Environmental Advisory Board.</li> <li>Advice/guidance from other locales with an effective program already in-place.</li> <li>Promotional and educational materials.</li> </ul>
Anticipated Cost	
Leadership	Policy leadership by the Board of Alderman. Administrative support from existing Town Staff and the Environmental Advisory Board. T
Partners	Town of Chapel Hill, Carolina North Forest Management, NC Wildlife Federation, Duke Forest
Fit with Items	All ecosystem measures

Next Step(s)	<ul style="list-style-type: none"> <li>• Examine nearby urban archery plans (Chapel Hill, Durham, Duke Forest). In particular, examine means for addressing public input and what safety restrictions they included. (Summer 2015)</li> <li>• Write up draft urban archery plan. (September 2015)</li> <li>• Craft public outreach and education campaign about negative impacts of deer overpopulation and benefits of deer herd management. (September 2015)</li> <li>• Board of Aldermen to decide on public input process. (Fall 2015)</li> <li>• Submit letter of intent to participate in the Urban Archery Season to the NC Wildlife Resources Commission. (before April 1, 2016)</li> <li>• Finalize Urban Archery Plan (Spring 2016)</li> <li>• Craft public outreach and education campaign about urban archery season. (Spring 2016)</li> <li>• Implement urban archery season. (Fall 2016)</li> </ul>
Evaluation Criteria	<ul style="list-style-type: none"> <li>• Number of deer culled and reduction of deer per square mile.</li> <li>• Improved health of deer population.</li> <li>• Reduction in number of deer-vehicle collisions.</li> <li>• Return of forest understory (increase in native flora, decrease in exotic species, and increase in plant and animal biodiversity). Reduced loss of crops, gardens, and planted ornamentals.</li> </ul>

### Ecosystem Recommendation 3: Accelerate/Expand Organic Waste Collection/Composting

***Accelerate efforts to study and implement a comprehensive organics collection and composting program.***

<p>Implementation Opportunities</p>	<ul style="list-style-type: none"> <li>• Future plans should consider adding a more central drop-off location downtown for those unable to drive to current composting facilities.</li> <li>• Future studies and plans should include curbside compost collection. This would divert food waste from county landfills, reduce carbon emissions, and reduce the risk of potential groundwater pollution. Curbside composting can accomplish more than individual composting, as residents can compost items unable to be put in backyard piles, such as meat scraps, and residents without yards, such as apartment dwellers, have the opportunity to compost their food scraps as well.</li> <li>• Cities and towns that have implemented curbside composting have been able to move to bi-weekly trash pickup, freeing up funds for commercial hauling and processing of compost. Funding for the program could come entirely from the reduction of trash hauling and tipping fees.</li> <li>• A backyard composting demonstration site(s) in a central location(s) could encourage people to participate in composting.</li> <li>• The Town could consider offering finished compost for sale to the community (currently done at the county level) or providing it for free to program participants.</li> </ul>
<p>Implementation Challenges</p>	<ul style="list-style-type: none"> <li>• Educating the public is critical, as contamination of waste streams remains problematic. Contamination is a big problem in composting due to packaging, utensils, and other plastics being discarded with organic matter. Any campaign would need to be multilingual, as Carrboro is home to many people who speak Spanish or Karen as their first (and sometimes only) language.</li> <li>• Residential composting is especially challenging for multi-family housing, which is more prevalent in Carrboro than other jurisdictions in Orange County. Future planning needs to be sensitive to this challenge.</li> <li>• It can be labor-intensive to get businesses on board. Orange County staff currently have to go back to a business two or three times to get the business to agree to participate. In addition, employees need to be retrained as new people are hired.</li> <li>• The Town will need to determine how to assess fees. Will Pay-As-You-Throw be viable? Would residents be charged for composting services, or given a discount on trash/recycling services if they compost? Would they pay for the collection but then receive free compost in return?</li> </ul>
<p>Resources Needed (human and</p>	<ul style="list-style-type: none"> <li>• Potentially, further waste characterization studies</li> <li>• Composting equipment (bins, trucks).</li> </ul>

material)	<ul style="list-style-type: none"> <li>• A business to take the food waste if Carrboro isn't going to have its own composting site.</li> <li>• Utility or some way to process fees from participants.</li> <li>• Additional staff resources and/or partnerships with community groups and/or businesses to expand outreach and education. This could include encouragement of a local business to operate the curbside program (such as CompostNOW ).</li> </ul>
Anticipated Cost	The main cost is likely to be the educational campaign aimed at letting people know what can be composted and what still goes in the trash. And the bins at the beginning of the program. Once the program is running, it will fund itself through money that used to be spent hauling and disposing of trash in landfills.
Leadership	Policy: Solid Waste Advisory Group. Technical: Local government staff.
Partners	Local gardening organizations, environmental groups, local businesses, county staff.
Time Frame	Local staff recommendation to the Solid Waste Advisory Group (SWAG) indicates three to four years to study and begin implementing a residential composting program. It's recommended that SWAG prioritizes this and provide direction to staff to accelerate.
Fit with Items	<ul style="list-style-type: none"> <li>• Improved soil quality;</li> <li>• Improved water quality;</li> <li>• Decreased carbon footprint by: <ul style="list-style-type: none"> <li>○ reducing organic matter in landfills, thereby decreasing the amount of methane gas released into the atmosphere.</li> <li>○ reducing tonnage of waste, thereby decreasing the number of trips to the transfer station.</li> </ul> </li> </ul>
Next Step(s)	<ol style="list-style-type: none"> <li>1. SWAG provides direction to prioritize (ASAP)</li> <li>2. Local government staff collaborate to hire a consultant in FY 15/16 to complete study</li> <li>3. Study includes lessons learned from other communities with successful curbside composting (San Francisco, Portland, Seattle) and locally successful programs (CHCCS, UNC, etc.) as well as how to collaborate with local contractors (Brooks, CompostNow, etc.).</li> <li>4. Budget for and choose area for pilot program that includes residential and multi-family units (FY 16/17).</li> <li>5. Expand program to entire town (FY 17/18).</li> </ol>
Evaluation Criteria	Set a goal of ___% reduction in organic material being hauled to the transfer station by 2020, then another ___% by 2030.

## Ecosystem Recommendation 4: Tree Coalition

### ***Help community Members Form an Independent Tree Coalition***

Considering the importance of trees to stormwater, climate change, and air quality mitigation, and human health, the Task Force recommends that the Town work with citizens to establish a tree coalition to promote the preservation and health of trees and the community forest in Carrboro. This group would promote the preservation and health of urban trees and the community forest in Carrboro, and be a resource for citizens who have questions about trees on their property.

The coalition would:

- Increase public awareness of the intrinsic value and beauty of trees;
- Provide oversight for a community scale urban forestry program;
- Educate citizens about proper tree selection, planting, and care;
- Educate citizens about the health of the larger community forest, its importance for both human and environmental health, and ways in which they can support it;
- Partner with local government and civic groups to improve and expand the Town’s tree canopy.

Implementation Opportunities	Trees mitigate climate change by acting as carbon sinks. Shading from trees reduces the heat island effect and lowers cooling costs for buildings. Trees stabilize and improve soil, reduce erosion and can improve storm water management through infiltration and evapotranspiration. Trees take up air pollutants reducing exposure to people and wildlife.
Implementation Challenges	Creating a new and sustainable organization. Connecting with the public.
Resources Needed (human and material)	Creation of a nonprofit organization to become a community champion for education, outreach, and action. Neighborhood and business champions. Broad support from community leaders, utilities, and business partners to help fund and provide technical expertise (e.g., arborists, foresters, nurseries, landscapers, NC Botanical Gardens, NC Cooperative Extension Service, Carolina North staff, Duke Forest staff). Fiscal/policy and staff support from Town and North Carolina Urban Forest Council.
Anticipated Cost	Those costs associated with nonprofit establishment/management
Leadership	Community members pulled together by Town staff.
Partners	Possibly expand to Chapel Hill and Orange County? State or national non-profits? Arbor Day Foundation, National Wildlife Federation, etc.
Time Frame	Immediate
Fit with Items	Deer herd management; stormwater utility; invasive plant management (Note-
Next Step(s)	Recruit members, publicity, organizing

## Ecosystem Recommendation 5: Discouraging Invasive Plants/Encouraging Native Plants

*The Task Force is looking into a recommendation to further discourage the spreading of invasive plants and encourage more native plants, and will provide additional information with our final report.*

PRELIMINARY DRAFT

## Energy in the 21st Century

### Excerpts from Post Carbon Institute's Energy Primer<sup>1</sup>

*We are now facing a transformational moment in our energy story. As we leave the age of seemingly cheap and plentiful fossil fuels and enter an era of extreme energy, the ever-rising financial, social, and environmental costs of fossil fuels can no longer be ignored. The essential problem is not just that we are tapping the wrong energy sources (though we are), or that we are wasteful and inefficient (though we are), but that we are overpowered, and we are overpowering nature.*

– Richard Heinberg, from the Introduction to ENERGY: Overdevelopment and the Delusion of Endless Growth

### The Energy Picture

In order to make the right choices and investments, we must have a more comprehensive understanding of our energy predicament, including:

- The true costs, potential benefits, and limitations of all energy options, including renewables;
- The impact of each form of energy production on human societies and nature; and
- The true relationship between energy, our economic system, and the environment.

It's tempting to take the micro-view and look for ways to target each of our energy problems with a technical fix. Can't we improve the energy efficiency of vehicles, insulate our buildings, and develop renewable energy sources? Yes, of course. Can't we regulate the fossil fuel industry better, and allow the vast, recently unlocked North American reserves of shale gas and shale oil to be produced responsibly? Possibly. We could do all of those things, and many more besides, to lessen the current energy economy's impacts on natural and human communities—and still there would remain serious obstacles ahead. Why? Let's move out from the details of our dilemma and take in the big picture.

### What is Energy?

Though we cannot hold a jar of pure energy in our hands or describe its shape or color, it is nevertheless the basis of everything. Without energy, nothing could happen; matter itself could not exist in any meaningful sense. But because energy as such is so elusive, physicists and engineers define it not in terms of what it is, but what it does—as “the ability to do work,” or “the capacity to move or change matter.”

In traditional societies, most useful energy came from the sunlight annually captured by food crops and forests; people exerted energy through muscle power and obtained heat from firewood. Modern industrial societies obtain enormously greater amounts of energy from fossil fuels, nuclear power, and hydroelectric dams, and they exert energy through a vast array of machinery. Industrial energy

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<sup>1</sup> <http://energy-reality.org/primer/>

production is essential to every aspect of modern life, but no matter how far our technology for capturing or using energy advances, energy itself always remains the same.

In the nineteenth century, physicists formulated two fundamental laws of energy that appear to be true for all times and places. These are known as the First and Second Laws of Thermodynamics. The First Law is known as the law of conservation. It states that energy cannot be created or destroyed, only transformed. Think of energy as a singular reality that manifests itself in various forms—nuclear, mechanical, chemical, thermal, electromagnetic, and gravitational—and that can be converted from one form to another.

The Second Law states that in every energy conversion, some energy is dissipated (typically as heat). When the gas gauge in a car moves from “full” to “empty,” it may appear that the energy that is chemically stored in gasoline is being consumed. But all the energy that was originally present in the gasoline still exists. In reality, the stored energy is merely being released and doing some work as it moves from a condition of higher concentration to one of lower concentration. It is converted from chemical storage (via the atomic electromagnetic bonds within hydrocarbon molecules) to mechanical motion and heat (as combustion within the engine’s cylinders pushes the car forward and also increases the rate of motion of molecules in the cylinder and the surrounding environment).

We might be able to get some work out of the “wasted” heat being given off by the burning of gasoline in the car engine; but heat tends to radiate quickly into the general environment, so we would have to use that heat both immediately and close to the engine. If we could gather up all the heat and mechanical energy that was released by burning the tankful of gasoline, it could do just as much work for us yet again; but the act of re-concentrating and storing it would require more energy than we could regather. Thus, in effect, available energy is always being lost.

The Second Law is known as the law of entropy (entropy is a measure of the amount of energy no longer practically capable of conversion into work). The Second Law tells us that the entropy within an isolated system inevitably increases over time. Energy that is sufficiently concentrated (relative to background energy levels) so that it can do work for us is called a source. There are two kinds of energy sources: flows (examples include sunlight, winds, and rivers) and stocks (a word that in this context refers to energy chemically stored in substances such as wood or fossil fuels). Flows tend to be variable, whereas stocks deplete.

### **Energy-fueled Population Growth**

Humanity’s current population explosion is an aberration. During the vast majority of human history, population levels were low and quite stable. Demographer Joel Cohen estimates that from the time our species emerged until roughly twelve thousand years ago, when local agriculture appeared, the population growth rate was less than 1/500th of 1 percent. After the widespread adoption of farming the growth rate ticked up by a factor of ten or more, but for thousands of years thereafter remained at around 1/50th of 1 percent. It took all of human history until the early eighteenth century for global population to reach one billion. Then the population doubled—a second billion was added—in just a century or so. Adding the next billion humans to the planet took only thirty years. The next billion,

fourteen years. The next, twelve years. After another dozen years, in 1999, world population reached six billion, and the seven billion mark was passed in 2011.

When charted graphically, the human demographic explosion takes the familiar “hockey stick” shape of a classic exponential growth curve. Many factors contributed to demographic expansion, including: the global agricultural revolution in the sixteen hundreds when new foods were shared between continents; the dispersal of scientific and public health knowledge; and increasing urbanization. But central to the runaway population growth of the past two centuries is the incredible windfall of energy that fossil fuels presented to humanity. The ability to command energy, especially highly energy-dense fuels like coal, precipitated the Industrial Revolution and allowed its descendant, the techno-industrial growth culture, to flourish. Food could now be produced in far larger quantities, and local scarcity could be overcome through global transport networks.

Leading ecologists agree that humanity has already surpassed Earth’s ecological carrying capacity. Exploiting the onetime reserve of fossil energy has allowed us to temporarily escape the constraints that kept early human population levels in check. Today’s global extinction crisis, massive poverty and malnutrition, rising social inequity, and unraveling ecosystems around the globe suggest that the age of abundance is nearly over. As economist Lisi Krall tells her students, “The defining fact of this historical moment is the reality of exponential growth. With exponential growth, if you do the same things as your parents, you’ll get entirely different results.” Confronting the population problem is the preeminent challenge of our time.

## **Net Energy**

A business may have high gross receipts and still go broke; it is the net, the profit after costs are subtracted, that determines viability. For any potential energy resource, the fundamentals are the same. How much energy is available after subtracting the energy costs to extract, process, and deliver the resource? To know how much energy from a particular source can actually be deployed by society, we must factor in both the production costs and the system costs—that is, the energy required to make energy available to the end user. With gasoline, for instance, this calculation would include energy costs related to oil exploration, drilling, refining, transportation, and the infrastructure that supports each step of the process. With coal-derived electricity, the calculation would include the life cycle from mine to power plant to electric grid.

Experts who study this use the terms “net energy ratio” or “energy returned on energy invested” (EROEI). Decades ago when the most accessible reserves were drilled, an oil company might produce 100 barrels of oil or more for each barrel’s worth of energy invested. Declining oil field productivity has brought the average net energy ratio for conventional oil down to approximately 20:1 globally, with more remote or hard-to-refine oil significantly worse. For fossil energy generally, the trend is downward despite technological advances in exploration and drilling. For biofuels, the net energy ratio is lower still. Some studies suggest that corn-derived ethanol actually has a negative net energy ratio—that is, more energy than a gallon of ethanol can deliver is used to produce a gallon of ethanol. Sugarcane-based ethanol has a superior net energy ratio, but it is still low compared to fossil fuels.

Any produced energy resource can be analyzed for its net energy ratio, although the process raises a difficult question: What are the boundaries of consideration? For example, when tallying the energy required to build a solar photovoltaic panel, what should be included in the accounting? The energy needed to mine the bauxite for the aluminum frame? The energy needed to manufacture the heavy equipment that did the mining? The energy needed to construct the factory that produced the panel? Where the boundaries are drawn affects the final net energy ratios.

A society that depends on inexpensive energy to maintain a high standard of living and constant growth faces a predicament—it cannot maintain itself over the long run without high net energy fuels. Oil, natural gas, and coal have provided a huge, high-quality energy subsidy to the modern world. That subsidy, which has enabled human population and wealth to grow exponentially, is based on finite resources and cannot continue indefinitely. Renewable energy sources, excluding hydropower, are generally more diffuse and have lower net energy ratios than fossil fuels. If high net energy sources are in decline, and no reasonable replacements are available, the result may be a painful restructuring as society rearranges economic activity to fit a diminishing energy supply.

For any potential energy resource, the fundamentals are the same. How much energy is available after subtracting the energy costs to extract, process, and deliver the resource? To know how much energy from a particular source can actually be deployed by society, we must factor in both the production costs and the system costs—that is, the energy required to make energy available to the end user. With gasoline, for instance, this calculation would include energy costs related to oil exploration, drilling, refining, transportation, and the infrastructure that supports each step of the process. With coal-derived electricity, the calculation would include the life cycle from mine to power plant to electric grid.

### **Energy-fueled Economic Growth**

World economic activity has historically grown slowly. From the Middle Ages to until the early eighteen hundreds, average per capita income rose only about 50 percent. But since the advent of the Industrial Revolution the pace has picked up, with global per capita income rising more than eightfold in just the last two hundred years.

Energy consumption has also risen dramatically, from under 20 gigajoules (GJ)<sup>2</sup> per person per year in the pre-industrial era to over 75 GJ per person today (and more than 300 GJ per person in the United States). During this period, energy consumption and economic activity have stoked each other in a self-reinforcing feedback loop. Once the fossil fuel tap was opened for the modern world in eighteenth-century Britain, the high-energy content of coal (and, later, oil) enabled unprecedented productivity—spurring more consumption, more demand for energy, and better technology to get at yet more fossil fuels.

Despite the clear link between energy and economic growth, economists have interpreted and normalized growth as resulting from factors such as “market efficiency” and “labor productivity,” which

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<sup>2</sup> One joule is defined as the work required to produce one watt of power for one second. A gigajoule is a billion joules

(it is assumed) can be counted upon to produce more and more growth, ad infinitum. Policy makers have therefore built dependence on growth into the design of our economic system. Investors demand constant growth and high rates of return. Future growth is assumed to wipe away the debts taken on today by governments, businesses, and households. Most Americans are even betting their retirement savings, sitting in mutual funds on Wall Street, on continued growth.

As the global bonanza of cheap fossil fuels winds down, what will happen to economic growth? Certainly it's possible to get more benefit per joule through smarter use of energy, but using energy efficiency to "decouple" economic growth from energy consumption can only go so far. After the easy efficiencies are found, further efficiency measures often require greater cost for less benefit; and while greater efficiency may reduce costs at first, it can have the effect of spurring yet more consumption.

It's intuitively clear that it takes energy to do things, and modern civilization has exploited high-energy-content fossil fuels to dramatically reshape the living conditions and experiences of billions of people. (Altering the climate and destroying natural ecosystems around the globe were unintended consequences.) In the future, humanity will need to cope with both more expensive energy and less energy available per capita. Maintaining an acceptable level of productivity—let alone growth—may constitute one of society's foremost social, political, technical, and economic challenges.

## **Energy Density**

Different fuels contain more or less potential energy per unit of weight or volume, and even within fuel types, such as wood or coal, the heat value varies. Anthracite packs more energy than bituminous coal, and putting oak rather than pine in the woodstove before bedtime makes a big difference in how warm the house will feel on a winter morning. The fossil fuel age has been such a bonanza because oil and coal are extremely energy-dense fuels. They have benefited from the long work of geological processes to concentrate the carbon molecules from ancient plant and animal matter.

On average, coal has approximately twice the energy density of wood. Liquid fuels refined from petroleum including gasoline, kerosene, diesel, and heating oil all contain more than three times the energy value of wood. It is no accident that when human societies have had the opportunity to transition from locally harvested biomass to concentrated fossil energy fuels they have chosen to do so.

The miraculous quality of fossil fuel energy density is easy to understand if one imagines trying to push an automobile for twenty miles. Given enough time, and some help from athletic friends, it would be possible to push a 3,000-pound car that distance. But it would require a tremendous amount of effort. And yet a mere gallon of gasoline (which, despite recent price increases, still costs far less in the United States than an equivalent amount of good coffee) can easily power a car that far in the time it takes to drink a mocha latte. The fact that renewable energy is, in general, more diffuse than fossil fuel presents the primary challenge to transitioning from the current energy economy to a renewables-powered future.

## **Peak Oil and Resource Depletion**

Every individual gas or oil well, every oil field, and every oil-producing country experiences a similar lifecycle. After a well is drilled, extraction ramps up to its maximum sustained output and eventually begins to decline as the reservoir is depleted. Then we search for the next well, which is generally a little harder to find, a little more expensive to produce. The price of any fossil energy determines what reserves are economically recoverable, and technological innovations can temporarily reverse the decline or extend well life. But as with any finite, nonrenewable resource—coal, natural gas, uranium, etc.—depletion is inevitable at some point.

In recent years, a large body of literature has begun exploring the many ramifications of “peak oil”—the moment when aggregate global oil production reaches its apex. The late American geologist M. King Hubbert predicted in the mid-1950s that U.S. oil production would reach the top of its production curve around 1970 and then begin to decline. That assessment was remarkably prescient: America’s production of crude did peak in 1970 and has been generally declining since, despite the addition of new sources on the Alaska North Slope and in the Gulf of Mexico. The United States, the first great power of the oil age, was also the first nation to explore, exploit, and begin to deplete its conventional oil reserves.

Oil of course is a global commodity. From a global perspective, reaching Hubbert’s peak means that roughly half of the world’s total oil resources are still in the ground, waiting to be tapped. Practically, however, the second half of the global oil resource is more difficult to access, making it less profitable (in terms of net energy) and more environmentally destructive than the earlier-exploited reserves.

The exact timing of the global oil production peak will only be recognizable in hindsight. Some energy experts predict that the peak will occur sometime during the first two decades of the twenty-first century. Others project continued growth in oil extraction through 2050. Based on data published by the International Energy Agency, global conventional oil production has been essentially flat since 2004, despite record-high prices, and likely peaked in 2006. Increased production of unconventional oil (deepwater oil, tar sands, oil shale, and shale oil) is officially projected to help meet growth in demand in the near future, but some energy experts insist that new production from these sources will be unable to make up for accelerating declines in production from conventional oil fields. Whether peak oil has occurred, is imminent, or remains years or decades off makes little difference to the salient fact: The era of abundant, inexpensive oil is closing, and all the systems for modern life designed around that earlier reality are bound to be affected.

## **Embodied Energy**

Every material artifact—a carrot bought at the grocery store, the cooler where it was displayed, the supermarket building, the car driven there, and the road network it travels—requires a certain amount of energy in its manufacture, maintenance, and eventual disposal. The methods used to analyze the total embodied energy of manufactured objects vary, but in general, studies over the decades have used life-cycle analysis to quantify embodied energy in computers, household appliances, automobiles, and other common products.

The embodied energy in our physical infrastructure—from water mains and buildings to superhighways and airports—is immense, and thus infrastructure is one of the most important areas where energy use (and associated greenhouse gas pollution) could be reduced. In addition to building smaller, or building less, we can also build differently. Wood, for example, has the lowest embodied energy of common building materials; plastic has approximately six times as much embodied energy by weight, glass 16 times as much, steel 24 times as much, and aluminum a whopping 126 times as much embodied energy as wood. Erecting the scaffolding of civilization took a great deal of energy, and maintaining and expanding it takes more all the time. This vast amount of embodied energy, along with psychological and financial investments in the current energy distribution system, is a key obstacle to fundamental changes in that system.

Another useful metaphor that communicates the idea of embodied energy across a product's life cycle is the "energy train." Take for example that ubiquitous artifact of modern civilization, the mobile phone. To its owner, a cell phone is simply a handy gadget that offers convenience and a feeling of connection. But the phone does not exist in isolation—it isn't a single locomotive chugging down the tracks; rather, it pulls a train of cars behind it, all of which have ecological and energetic costs. Those metaphorical railroad cars are filled with packaging to ship the phone; an advertising industry to inculcate desire for it; a retail store to sell it; a communications network that allows it to function; an assembly plant to build it; factories to manufacture plastic cases and computer chips and other components; mines where copper, silver, and rare earth elements are dug from the ground; the transportation infrastructure to move raw materials; and of course the energy system (oil wells, coal mines, power plants, hydroelectric dams, etc.) that support the entire operation. It is a very long train, and every car being pulled along must be in place for even one mobile phone to make its first call.

## **Energy Sprawl**

The foremost criterion by which to judge any existing or potential energy source is its systemic ecological impact. A key subset of this analysis is its physical footprint. The useful term "energy sprawl" refers to the ever-increasing area—on land and offshore—that is devoted to energy production. Quantifying the area affected by different energy sources raises challenging methodological questions. It's obvious, for instance, to take into account the drilling pad when considering the energy sprawl impact of oil and gas development. But one should also include the land affected by pipelines, access roads, refining facilities, and other related infrastructure in the calculation. Nuclear power plants occupy a small area relative to their electrical generation output, the smallest physical footprint of any major energy source. That energy sprawl impact grows considerably, however, when one factors in uranium prospecting, mining, processing, nuclear waste disposal, and any new power lines needed for an expanded nuclear industry. Moreover, as past accidents have demonstrated, when nuclear power plants fail, a large area can be contaminated.

Because of their high energy densities, coal, oil, and natural gas have a medium-size footprint if judged on an energy-output-per-acre ratio; but in practice these extractive industries affect a huge and growing area because they dominate energy production, and because of the enormous quantities of energy being consumed. Oil shale development in the American West is a potential area of fossil fuel

exploitation that would create massive energy sprawl. Renewables, which harness the diffuse energy sources of wind and solar power, can have a large physical footprint relative to energy produced; they constitute such a small part of the current energy mix in North America that their aggregate energy sprawl impact at present is modest but growing. Because wind turbines require minimum spacing distances to maximize wind energy capture, the physical footprint of wind power is extensive but can be mitigated, whereas decapitated mountains in Appalachia sacrificed for surface coal mining will never grow back. Siting wind turbines in existing agricultural landscapes need not fragment any additional wildlife habitat. Putting solar arrays on rooftops, parking lots, and urban brownfields need not contribute to energy sprawl at all while generating significant energy close to where it is needed, eliminating the sprawl precipitated by new transmission lines.

Devoting land to growing feedstock for liquid biofuels, or growing biomass for generating electricity, augurs the greatest potential energy sprawl of the major energy alternatives under discussion. The energy density of these fuels is low and the amount of land that must be effectively industrialized, even for relatively small quantities of biofuels or biomass-derived electricity, is massive. In the end, the most effective strategy for fighting energy sprawl is to reduce energy consumption.

### **Energy Slaves**

During the vast majority of our species' history, work was done by human muscles (sometimes the muscles of human beings enslaved by others). After people learned to domesticate wild creatures, beasts of burden such as oxen and horses added to our ability to harness the Sun's energy—captured by plants and channeled into the muscles of work animals. (This relationship between domestic animals and the machines we use today is enshrined in the “horsepower” rating of modern engines.) More recently, people began using wind and waterpower to amplify human labor. But with the dawn of the fossil fuel age, the average person was able to command amounts of energy previously available only to kings and commanders of armies.

Where people or work animals formerly toiled in the fields, the petroleum-powered machines of industrial agriculture now do the work of growing food. Need to be on the other side of the planet tomorrow? Jet travel can get you there. Want to sit in the sunshine, gamble, and overeat with a few thousand strangers in a gigantic floating hotel? The cruise “industry” can make your dreams come true. Energy-dense fossil fuels make the seemingly impossible or ridiculously extravagant whims of people a reality.

In effect, the modern energy economy provides power equivalent to that of vast numbers of human or animal servants. That is the idea behind the concept of “energy slaves.” Although top athletes can do far better, a typical adult male at sustained labor is estimated to produce 75 to 100 watts of power. Calculate the total energy use of an average American and it seems that there are the energetic equivalent of more than 100 energy slaves working around the clock to prop up the easy lifestyle offered by modern civilization.

## Energy Future: A Positive Vision

Everyone engaged in combating human-caused climate change or specific elements of the current energy economy knows that the work is primarily oppositional. It could hardly be otherwise; for citizens who care about ecological integrity, a sustainable economy, and the health of nature and people, there is plenty to oppose—burgeoning biomass logging, mountaintop-removal coal mining, inadequately regulated natural gas and oil drilling, poorly sited solar and wind developments, river-killing megadams, and new nuclear and coal plants around the globe. These and many other fights against destructive energy projects are crucial, but they can be draining and tend to focus the conversation in negative terms. Sometimes it's useful to reframe the discourse about ecological limits and economic restructuring in positive terms, that is, in terms of what we're for. The following list is not comprehensive, but beauty and biodiversity are fundamentals that the energy economy must not diminish. And energy literacy, conservation, relocalization of economic systems, and family planning are necessary tools to achieve our vision of a day when resilient human communities are embedded in healthy ecosystems and all members of the land community have space enough to flourish. In short, what we're for is leaving behind the current energy economy, which is wasteful, polluting, and centralized; assumes perpetual growth; and is anchored by nonrenewable fuels. We envision a bold leap toward a future energy economy that fosters beauty and health; that is resilient because it emphasizes renewable, community-scale energy generation; that supports durable economies, not growth; and that is informed by nature's wisdom. Recognizing that all human economic activity is a subset of nature's economy and must not degrade its vitality is the starting point for systemic transformation of the energy system. While such a transition may seem daunting, reforms may be implemented incrementally, and the destination offers exciting possibilities for building vibrant human communities embedded in healthy ecosystems.

### Energy Literacy

Energy is arguably the most decisive factor in both ecosystems and human economies. It is the fulcrum of history, the enabler of all that we do. Yet few people have more than the sketchiest understanding of how energy makes the world go around. Basic energy literacy consists of a familiarity with the laws of thermodynamics, and with the concepts of energy density and net energy (also known as energy return on energy invested, or EROEI). It requires a familiarity with the costs and benefits of our various energy sources—including oil, coal, gas, nuclear, wind, and solar. It also implies numeracy—the ability to meaningfully compare numbers referring to quantities of energy and rates of use, so as to be able to evaluate matters of scale. Without energy literacy, citizens and policy makers are at the mercy of interest groups wanting to sell us their vision and products for the future energy economy. We hear from the fossil fuel industry, for example, that Canada's oil reserves (in the form of "tar sands") are second only to Saudi Arabia's, or that the United States has over one hundred years of natural gas thanks to newly tapped "shale gas" resources. And it's tempting to conclude (as many people do) that there are no real constraints to national fossil fuel supplies other than environmental regulations preventing the exploitation of our immense natural treasures. On the other end of the spectrum, we hear from technooptimists that, with the right mix of innovative energy generation and efficiency

technologies, we can run the growth economy on wind, solar, hydropower, and biofuels. And it's tempting to conclude that we only need better government incentives and targeted regulatory reform to open the floodgates to a "green" high-tech sustainable future. Energy literacy arms us with the intellectual tools to ask the right questions: What is the energy density of these new fossil fuel resources? How much energy will have to be invested to produce each energy unit of synthetic crude oil from oil shale, or electricity from thin-film solar panels? How quickly can these energy sources be brought online, and at what rate can they realistically deliver energy to consumers? When we do ask such questions, the situation suddenly looks very different. We realize that the "new" fossil fuels are actually third-rate energy sources that require immense and risky investments and may never be produced at a significant scale. We find that renewable energy technologies face their own serious constraints in energy and material needs, and that transitioning to a majority-renewable energy economy would require a phenomenal retooling of our energy and transportation infrastructure. With energy literacy, citizens and policy makers have a basis for sound decisions. Householders can measure how much energy they use and strategize to obtain the most useful services from the smallest energy input. Cities, states, and nations can invest wisely in infrastructure to both produce and use energy with greatest efficiency and with minimal damage to the natural world. With energy literacy, we can undertake a serious, clear-eyed societal conversation about the policies and actions needed to reshape our energy system.

### Conservation

The current energy economy is toxic not simply because of its dependence on climate-altering fossil fuels, but also because of its massive scale and wastefulness. A first step toward reducing its global impacts is simply using less energy, a goal readily accomplished through conservation practices that are widely available and cost-effective. Energy conservation consists of two distinct strategies: efficiency and curtailment. Energy efficiency means using less energy to produce a similar or better service. For example, we can exchange old incandescent lightbulbs for compact fluorescents or LEDs that use a fraction of the electricity and still enjoy satisfactory levels of indoor illumination. Curtailment means exactly what you'd think: cutting out a use of energy altogether. In our previous example of indoor lighting, this strategy might take the form of turning off the lights when we leave a room. Efficiency is typically more attractive to people because it doesn't require them to change their behavior. We want services that energy provides us, not energy per se, and if we can still have all the services we want, then who cares if we're using less energy to get them? Much has been achieved with energy efficiency efforts over recent decades, but much more remains to be done: Nearly all existing buildings need to be better insulated, and most electric power plants are operating at comparatively dismal efficiencies, to mention just two examples. Unfortunately, increasing investments in energy efficiency typically yield diminishing returns. Initial improvements tend to be easy and cheap; later ones are more costly. Sometimes the energy costs of retooling or replacing equipment and infrastructure wipe out gains from efficiency. Nevertheless, the early steps toward efficiency are almost always rewarding. While curtailment of energy use is a less inviting idea, it offers clearer savings. By simply driving fewer miles we unequivocally save energy, whether our car is a more or less efficient model. We've gotten used to using electricity and fuels to do many things that can be done well enough with muscle power, or that don't

need doing at all. Conservation helps us appreciate the energy we use. It fosters respect for resources, and for the energy and labor that are embodied in manufactured products. It reduces damage to already stressed ecosystems and helps us focus our attention on dimensions of life other than sheer consumption. During the latter decades of the twentieth century, most Americans achieved a standard of living that was lavish from both historical and cross-cultural perspectives. They were coaxed and cajoled from cradle to grave by advertising to consume as much as possible. Simply by reversing the message of this incessant propaganda, people might be persuaded to make do with less—as occurred during World War II—and be happier as well. Many social scientists claim that our consumptive lifestyle damages communities, families, and individual self-esteem. A national or global ethic of conservation could even be socially therapeutic.

### Resilience

Resilience is “the capacity of a system to withstand disturbance while still retaining its fundamental structure, function, and internal feedbacks.” Resilience contrasts with brittleness—the tendency to shatter and lose functionality when impacted or perturbed. Ecologists who study resilience in natural systems have noted that ecosystems tend to progress through a series of phases: growth, consolidation and conservation, release (or “collapse”), and reorganization. Each turning of this adaptive cycle provides opportunities for individual species and whole systems to innovate in response to external and internal change (i.e., disturbance). Resilient ecosystems (in the early growth phase) are characterized by species diversity; many of the organisms within such systems are flexible generalists, and the system as a whole contains multiple redundancies. In contrast, less resilient ecosystems tend to be more brittle, showing less diversity and greater specialization particularly in the consolidation phase. Resilience can be applied to human systems as well. Our economic systems, in particular, often face a trade-off between resilience and efficiency. Economic efficiency implies specialization and the elimination of both inventories and redundancy (which typically guarantee greater resilience). If a product can be made most cheaply in one region or nation, manufacturing is concentrated there, reducing costs to both producers and consumers. However, if that nation were to suddenly find it impossible to make or ship the product, that product would become unavailable everywhere. Maintaining dispersed production and local inventories promotes availability under crisis conditions, though at the sacrifice of economic efficiency (and profits) in “normal” times. From a resilience perspective one of the most vulnerable human systems today is the American transportation system. For over seventy years we’ve spent trillions of dollars building transportation infrastructure that is completely dependent (i.e., “specialized”) on affordable petroleum fuels, and we’ve removed or neglected most alternative methods of transport. As petroleum fuels become less affordable, the effects reverberate throughout the system. Resilience becomes more of a priority during periods of crisis and volatility, such as the world is experiencing today. Households, towns, and regions are better prepared to endure a natural disaster such as a flood or earthquake if they have stores of food and water on hand and if their members have a range of practical self-sufficiency skills. While the loss of economic efficiency implies trade-offs, resilience brings incidental benefits. With increased local self-sufficiency comes a shared sense of confidence in the community’s ability to adapt and endure. For the foreseeable future, as global energy, finance, and

transport systems become less reliable, the rebalancing of community priorities should generally weigh in favor of resilience.

### Eco-Localism

A central strategy needed to increase societal resilience is localization—or, perhaps more accurately, relocalization. Most pre-industrial human societies produced basic necessities locally. Trade typically centered on easily transportable luxury goods. Crop failures and other disasters therefore tended to be limited in scope: If one town was devastated, others were spared because they had their own regional sources—and stores—of necessities. Economic globalization may have begun centuries ago with the European colonization of the rest of the world, but it really took hold during the past half century with the advent of satellite communications and container ships. The goal was to maximize economic growth by exploiting efficiency gains from local specialization and global transport. In addition to driving down labor costs and yielding profits for international corporations, globalization maximized resource depletion and pollution, simplified ecosystems, and eroded local systems resilience. As transport fuel becomes less affordable, a return to a more localized economic order is likely, if not inevitable. The market's methods of rebalancing economic organization, however, could well be brutal as global transport networks become less reliable, transport costs increase, and regions adapt to less access to goods now produced thousands of miles away. Government planning and leadership could result in a more organized and less chaotic path of adaptation. Nations can begin now to prioritize and create incentives for the local production of food, energy, and manufactured products, and the local development of currency, governance, and culture. Natural ecological boundaries—such as watersheds—bordered traditional societies. Bioregions defined by waterways and mountain ridges could thus become the basis for future relocalized economic and political organization. Deliberate efforts to relocalize economies will succeed best if the benefits of localism are touted and maximized. With decentralized political organization comes greater opportunity for participation in decision making. Regional economic organization offers a wide variety of productive local jobs. Society assumes a human scale in which individuals have a sense of being able to understand and influence the systems that govern their lives. People in locally organized societies see the immediate consequences of their production and waste disposal practices, and are therefore less likely to adopt an “out of sight, out of mind” attitude toward resource depletion and pollution. Local economic organization tends to yield art, music, stories, and literature that reflect the ecological uniqueness of place—and local culture in turn binds together individuals, families, and communities, fostering a sense of responsibility to care for one another and for the land.

### Beauty

Discussions about energy rarely focus on beauty. But the presence or absence of this ineffable quality offers us continual clues as to whether or not society is on a regenerative and sustainable path, or on the road to further degrading nature. From the time of the earliest cave paintings, human ideals of beauty have been drawn from the wild world. Animals, plants, rivers, oceans, and mountains all tend to trigger a psychological response describable as pleasure, awe, and wonder. The sight of a great tree or the song of a goldfinch can send poets and mystics into ecstasy, while the deep order inherent in nature

inspires mathematicians and physicists. Nature achieves its aesthetic impact largely through anarchic means. Each part appears free to follow its own inner drives, exhibiting economy, balance, color, proportion, and symmetry in the process. And all of these self-actualizing parts appear to cooperate, with multiple balancing feedback loops maintaining homeostasis within constantly shifting population levels and environmental parameters. The result is beauty. Ugliness, by contrast, is our unpleasant aesthetic response to the perception that an underlying natural order has been corrupted and unbalanced—that something is dreadfully out of place. Beauty is a psychological and spiritual need. We seek it everywhere and wither without it. We need beauty not as an add-on feature to manufactured products, but as an integral aspect of our lives. With the gradual expansion of trade—a process that began millennia ago but that quickened dramatically during the past century—beauty has increasingly become a valuable commodity. Wealthy patrons pay fortunes for rare artworks, while music, fashion, architecture, and industrial design have become multibillion-dollar industries. Nature produces the most profound, magnificent, and nurturing examples of beauty in endless abundance, for free. Industrialism, resulting from high rates of energy use, tends to breed ugliness. Our ears are bombarded by the noise of automobiles and trucks to the point that we can scarcely hear birdsong. The visual blight of highways, strip malls, and box stores obscures natural vistas. With industrial-scale production of buildings, we have adopted standardized materials produced globally to substitute for local, natural materials that fit with their surroundings. But industrialism does not just replace and obscure natural beauty—it actively destroys it, gobbling up rivers and forests to provide resources for production and consumption. Large-scale energy production—whether from coal mines and power plants, oil derricks and refineries, or massive wind and solar installations—comes at a cost of beauty. While some energy sources are inherently uglier than others, even the most benign intrude, dominate, and deplete if scaled up to provide energy in the quantities currently used in highly industrialized nations. The aesthetic impact of industrial processes can be mitigated somewhat with better design practices. But the surest path to restoring the beauty of nature is to reduce the scale of human population and per capita production and consumption. Returning to a sustainable way of life need not be thought of as sacrifice; instead it can be seen as an opportunity to increase aesthetic pleasure and the spiritual nourishment that comes from living in the midst of incalculable beauty.

### Biodiversity

The family of life on Earth is large: More than a million species have been identified and formally described by taxonomists, and estimates of the total number of species on the planet range from 3 million to 100 million. We humans depend for our very existence on this web of life of which we are a part. Indeed, it is part of us: Each human is inhabited by thousands of species of microbes that enable digestion and other basic functions. Yet through our species' appropriation and destruction of natural habitat we are shredding microbial, forest, prairie, oceanic, riparian, desert, and other ecosystems. Habitat loss, overharvesting, climate change, and other results of human numbers and behavior endanger untold numbers of species with extinction. Extinction is nothing new: It is an essential part of the process of evolution. Throughout the billions of years of life's history, life forms have appeared, persisted for thousands or millions of years, and vanished, usually individually but occasionally in convulsive mass events triggered by geological or astrophysical phenomena. There were five ancient

extinction events so catastrophic that 50–95 percent of all species died out. Today humans are bringing about the sixth mass extinction in the history of life on Earth. While the normal rate of extinction is about one in a million species per year, the extinction rate today is roughly a thousand times that. According to recent studies, one in five plant species faces extinction as a result of climate change, deforestation, and urban growth. One of every eight bird species will likely be extinct by the end of this century, while one-third of amphibian and one-quarter of mammal species are threatened. As species disappear, we are only beginning to understand what we are losing. A recent United Nations study determined that businesses and insurance companies now see biodiversity loss as presenting a greater risk of financial loss than terrorism—a problem that governments currently spend hundreds of billions of dollars per year to contain or prevent. Nonhuman species perform ecosystem services that only indirectly benefit our kind, but in ways that often turn out to be crucial. Phytoplankton, for example, are not a direct food source for people, but comprise the base of oceanic food chains, in addition to supplying half of the oxygen produced each year by nature. The abundance of plankton in the world's oceans has declined 40 percent since 1950, according to a recent study, for reasons not entirely clear. This is one of the main explanations for a gradual decline in atmospheric oxygen levels recorded worldwide. Efforts to determine a price for the world's environmental assets have concluded that the annual destruction of rainforests alone entails an ultimate cost to society of \$4.5 trillion—roughly \$650 for each person on the planet. Many species have existing or potential economically significant uses, but the value of biodiversity transcends economics: The spiritual and psychological benefits to humans of interaction with other species are profound. Most fundamentally, however, nonhuman species have intrinsic value. Shaped by the same forces that produced humanity, our kin in the community of life exist for their own sake, not for the pleasure or profit of people. It is the greatest moral blot, the greatest shame on our species, for our actions to be driving other life forms into the endless night of extinction.

### Family Planning

The human demographic explosion, amplified by rapacious consumption in the overdeveloped world, is at the root of the global eco-social crisis. Virtually every environmental and social problem is worsened by overpopulation. With more mouths to feed—and freshwater becoming scarcer and topsoil eroding—global famine becomes an ever-greater likelihood. An expanding population leads to increased consumption of just about every significant resource, and thus to increasing rates of ecological damage, from deforestation to climate change. Family planning helps avert those threats. If we want future generations to enjoy a healthy planet with wild spaces, biodiversity, abundant resources, and a livable climate we should reduce fertility now. But family planning can do more than mitigate future resource depletion; it has direct and in some cases nearly immediate benefits. Some of those benefits are economic. For example, Ireland's declining birth rate in the 1970s is often credited as one of the factors leading to its economic boom in the 1980s and 1990s. China's one-child policy similarly contributed to its economic ascendancy. The mechanism? In poor societies where family size is typically large, all household income must go toward food and shelter, and none is left over for education and business formation. If the birth rate is reduced, household income is freed up to improve quality of life and economic prospects for the next generation. Without access to contraceptives, the average woman would have from 12 to 15 pregnancies in her lifetime. In contrast, women in industrial nations want, on

average, only two children. It turns out that when women are economically and— this is critical— culturally empowered to make decisions about their own fertility, the result is improved health for mother and children, fewer unplanned pregnancies and births, and reduced incidence of abortion. Numerous studies have shown that women who have control over their fertility also tend to have more educational and employment opportunities, enhancing their social and economic status and improving the wellbeing of their families.

**In July 2008, Al Gore challenged the country to generate all our electricity carbon free in just 10 years. He believes it's possible, and so do we. We also think it's possible for individual families to go carbon free in 10 years.**

# **How the Jones Household Goes Carbon Free in 10 Years**

**HERE'S HOW YOU CAN DO IT ...**



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# Beyond Lightbulbs

## The Jones Household Goes Carbon Free in 10 Years

START  
HERE

YEAR 1

### A Big Difference from Small Changes

The family starts off with easy changes: They wash clothes in cold water and air dry them in the summer, replace incandescent bulbs with compact fluorescents (CFLs), turn off their computer when not in use. That's an instant, virtually free savings of 6,200 pounds of CO<sub>2</sub>. They make one simple transportation change: One of the adults commutes by bus three days a week—enough to see whether it can be done, but keeping the second car just in case. That's worth another 2,200 pounds. They're down to 51,600 pounds and it hasn't cost them anything but the price of the CFLs and a clothesline. They're actually saving money.



YEAR 2

### Home Improvement

They stop donating so much heat to the outdoors: attic and basement insulation, sealing and insulating heat ducts, and patching the large air leaks typical of standard construction saves them a whopping 7,100 pounds. These savings aren't free up front, but the savings in heating and cooling bills will repay the cost over time. Besides, Mrs. Jones is handy with home repair, and does a lot of this work herself. Down to 44,500 per year.



YEAR 3

### House and Car

The bus commute's gone well, so Mr. Jones now works all the time. They've worked on consolidating trips outside work, and find they can do without the second car altogether. That's 5,900 pounds gone. They finish weatherproofing their house: beefing up wall insulation, weatherizing doors and windows, and upgrading to high performance windows. Another 1,800 pounds disappear. They're at 36,800.



YEAR 4

### Shed Carbon on Vacation

Instead of flying for their annual vacation, the Joneses take the train: a leisurely way to save 7,200 pounds every year. (If they took the bus, they'd save even more.) They're at 29,600 pounds per year—half-way there a year early.



YEAR 5

### Car Upgrade

Time to replace the car. Thanks to consumer demand, electric cars have become widely available, and they buy one. Even charging on dirty power, they save 9,000 pounds. Household total is now 20,600.

60,000 lbs  
- 8,400 lbs  
51,600 lbs

51,600 lbs  
- 7,100 lbs  
44,500 lbs

44,500 lbs  
- 7,700 lbs  
36,800 lbs

36,800 lbs  
- 7,200 lbs  
29,600 lbs

29,600 lbs  
- 9,000 lbs  
20,600 lbs

## Brooke Jarvis and Doug Pibel

**M**et the Joneses. They're your average U.S. energy consumers. They haven't yet upgraded to energy-efficient appliances, their house needs better insulation, and they keep the place as cool in the summer and warm in the winter as most Americans do. The two adults commute 30 miles each per day, in separate cars with average fuel efficiency, and every year they each drive an additional 4,500 miles running errands and taking their child to soccer games and violin practice. The family takes one vacation trip per year, flying to visit grandparents 1,350 miles away. How much CO<sub>2</sub> do their house and cars produce? We figure it at 60,000 pounds, or 10 tons for each family member.

Lately, though, the Joneses have been reading about climate change, and they're getting worried. Ecological crisis has never felt so urgent before. Even little Joey Jones is talking greenhouse gases—he learned at school that scientists are predicting a worldwide climate catastrophe that will change the rest of his life, unless we stop the worst effects by making big changes in the next ten years. The Joneses decide: change is necessary, and they're ready to do their part. But how much can they really do? A lot, it turns out.

In 10 years, without sacrificing their way of life, the Jones family eliminates the CO<sub>2</sub> emissions that their home and transportation used to create—the bulk of their carbon footprint.

### Count Your Carbon

Want to keep up with the Joneses? Here are the numbers we used. Use them to find—then shrink—your own carbon footprint.

	CO <sub>2</sub> output, in pounds
Gallon of gas	19.36
Gallon of fuel oil or diesel	22.38
Kilowatt hour of electricity (national average)	1.43
Therm of natural gas	11.71
Gallon of propane	12.67
<i>Per passenger:</i>	
Airplane mile	1.28
Train mile	0.42
Long-distance bus mile	0.18
Local mass transit mile	0.50
Electric bike mile	0.02

### The Rest of the Story

The Joneses only changed their housing and transport habits. How can you go further?

**Eat meatless.** For every day of the week you skip meat, you'll save 215 lbs. per year.

**Buy local.** Most food eaten in the U.S. has traveled 1,500 miles to your plate.

**Be a low-impact consumer.** Choose local products, reduce the stuff you buy, and save embedded energy by buying used.

**Reduce waste.** Stop junk mail, reduce packaging, and reduce the 2,020 lbs. each American's waste produces annually.

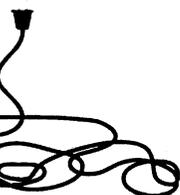
**Avoid the McMansion.** A smaller house saves a lot of carbon: on average, 11.4 lbs. of CO<sub>2</sub> per square foot per year.



#### YEAR 6

##### Hot and Cold

They improve their water system, including insulating their hot water heater and their pipes, and also lower the temperature of their water heater: 1,000 pounds down. When the old refrigerator kicks the bucket, the Joneses buy a new energy-efficient one and finally unplug a second fridge in the garage, knocking off another 1,300. Total remaining: 18,300.



#### YEAR 7

##### Close to Home

Grandma and Grandpa retire and move nearby. The Joneses now vacation within the range of their electric car, saving 3,300 pounds of CO<sub>2</sub> each year. The city converts its bus fleet to clean electricity, which saves another 1,200 pounds. They're down to 13,800.



#### YEAR 8

##### A Few More Things Around the House

An efficient clothes washer saves carbon on its own, and saves dryer time. With all the money they're saving, they decide it's time to invest in a solar hot water system. Total: 2,000. Leaving 11,800.



#### YEAR 9

##### Electric Bikes

While the Joneses have been on this journey, their town has responded to citizen pressure and gone bike friendly. The new bike paths make it easy for both to ride to work. To ease the hills, they buy electric bikes. There are four months of the year when they can't bike, so they continue their usual commute patterns then. Savings: 3,500. Total remaining: 8,300.



#### YEAR 10

##### Green Power

The Joneses' furnace has been groaning and working overtime. They replace it with an electric heat pump, which also cools the house in summer. They also buy certified green, renewable power from their electric company, and the switch from coal plants eliminates the remaining 8,300 pounds of CO<sub>2</sub> produced by the electricity for their house and car.



Sources: Rocky Mountain Institute, Bureau of Transportation Statistics, Environmental Protection Agency, Department of Energy, University of Chicago. Illustration by Kayann Legg/IS

# 10 Things You Want to Know About Human Nature if You're Fighting Climate Change

By **Lisa Bennett**, posted at <http://grist.org/climate-energy/10-things-you-want-to-know-about-human-nature-if-youre-fighting-climate-change/> June 10, 2015.

I've spent nearly a decade thinking about why people get stuck on climate change: stuck in debates, denial, what looks like indifference, and the awful discomfort that comes with the question "But what can I do?" In search of answers, I've interviewed dozens of experts in psychology, neuroscience, sociology, economics, political science, and other fields — and many more Americans across a broad spectrum of political affiliations, income brackets, and ages. I've also read widely to tap the thinking of those who were once more commonly looked to for insights into human nature, such as poets, philosophers, and spiritual leaders. What I've come up with is my own climate-centric version of Robert Fulghum's *All I Really Need to Know I Learned in Kindergarten*. Climate change has been my window into learning about human nature — or, at least, about what we humans do when faced with a challenge much greater than ourselves. The experience has also persuaded me that a better understanding of our own nature can help inspire a more effective response to what is happening to the natural world.

Here then are 10 things I've learned, along with some ideas about how these insights might be applied by those working on climate change:

**1. We are overly optimistic about the future — our future, that is.** Neuroscientist Tali Sharot has observed that when newlyweds are asked about their chances of getting divorced, they tend to say zero, despite the widely known fact that the odds are 50-50. We instinctively overestimate the probability of positive events and underestimate the probability of negative events in our own lives, she writes in *The Optimism Bias*, for two reasons: We think we have more control over our lives than we actually do, and we tend to see ourselves as better than average.

Applied to climate change, this means that I might think that you — and surely those poor Pacific Islanders — might be negatively affected but I'll be OK. The problem, of course, is that this reflects a bias grounded in delusion. But don't try to tell me or anyone else that. You'll have a better chance of engaging others in climate action, experts like Sharot say, if you keep a laser-like focus on how climate change is affecting people now.

**2. We can be blasé about the most important issues in the world because the global perspective is way beyond ordinary human scale.** "Trying to convince people of the magnitude of the climate problem through large-scale statistics is essentially useless," says Scott Huettel, chair of the Department of Psychology and Neuroscience at Duke University. "The iconic global warming image of the polar bear on the iceberg is evocative precisely because it is one polar

bear. Thousands of polar bears on a glacier that is receding would be irrelevant. Our brains cannot process it.”

Put another way, climate change seems like an abstraction because it is so much bigger than us. Humans relate to human-sized stories — the kind that speak to a family living in a home like ours, having dreams and struggles like ours, and maybe discovering one day that their home is on a map of places expected to soon be under water.

**3. We are wired to refute imperatives.** “If you say I have to act now on climate change, my first reaction will be, ‘No, I don’t,’” says Huettel. The reason, he explains, is that our brains are very well designed to come up with counterarguments. So no matter how good the reasons to switch to solar energy or demand that government take bolder action on climate change, people can always come up with reasons why they don’t need to do anything, such as: “If I don’t act right now, the world will basically be the same.”

Passing a law that requires people to change their behavior (especially if those changes are relatively easy to make) is one effective way around this. But short of that — just as in other aspects of human relationships — efforts to attract people to a cause are much more likely to yield a positive response than those that threaten or make demands.

**4. We are vulnerable to peer pressure, especially about things that confuse us.** We can watch the news, see photos of melting glaciers, even experience changing weather patterns. But if our neighbors aren’t doing anything about climate change, we’re unlikely to do anything either because, as much as we hate to admit it, we are herd animals who use social cues to adapt to our environment, according to [Robert Cialdini](#), author of *Influence: The Psychology of Persuasion*.

And if you doubt how powerful this instinct is, consider the experiment Cialdini conducted in which his team hung four different kinds of flyers on people’s doorknobs in San Diego, with the goal of inspiring residents to reduce their energy consumption. Three of the flyers directly asked them to reduce their energy use, offering three different motivations: save money, save the environment, and benefit future generations. But none of these appeals made a significant difference. Only the fourth flyer did, which read simply: “The majority of your neighbors are undertaking energy-saving actions every day.” The lesson: Don’t be afraid to appeal to our instinct to fit in.

**5. We shy away from topics that remind us of our mortality but can be motivated to take action on behalf of beings more vulnerable than us.** Janis L. Dickinson, a professor of natural resources at Cornell University, conducted an experiment a few years ago in which she asked 3,546 people (largely birders) if they would be willing to reduce their energy consumption after learning that climate change was, among other things, a threat to people or to birds, and then she compared the results. It turned out that people were left unmoved by considering the threat to humans, but envisioning the threat to birds was another story. One possible reason, Dickinson says, is that considering climate change as a threat to humans may trigger thoughts

of death (which we also tend to deny) whereas we like to think of ourselves as helping cute little creatures that seem to need us. This suggests that emphasizing the threat climate change poses to beloved animals could be an effective way of motivating people.

**6. We perceive and respond to risks only when we feel them.** While riding a roller coaster with my children one day, my youngest son took his hands off the bar and raised them in the air. The amusement park, I was sure, anticipated antics like this and did not expect people to remain in their seats by the strength of their grip. Still, I screamed, insisting he hold on because I was scared and, for the moment, that made the risk I imagined feel real. This, says Columbia University professor of psychology Elke Weber, is how we perceive and respond to risk: through our emotions more than an analysis of the facts.

When it comes to climate change, this means that no matter how much scientific and journalistic evidence we are presented with, we will not be moved to action unless something makes us feel the risk. As a result, it may be more effective to tell a short, detailed story that can evoke people's feelings — for example, about an individual or family encountering some specific impact of climate change — than present yet more scientific evidence about the global or even national implications of a warming planet.

**7. We are motivated more by hope than fear, at least in matters of social change.** While research shows that fear is a more powerful motivator than hope when it comes to behaviors such as diet and fitness, inspiring social change seems to depend more on a positive vision of the future, according to the social movement, political science, and neuroscience experts with whom I spoke.

“This rhetoric about we only have a certain amount of time is a killer. It doesn't make people engaged, it makes them give up,” says David Meyer, professor of sociology at U.C. Irvine and author of *The Politics of Protest: Social Movements in America*. Sharot confirmed this, saying: “Our studies show that people don't process information — they don't pay attention — when what is being communicated is how things will get worse.” In a widely shared opinion, Meyer said the implication was clear: “You have to be hopeful.”

**8. We are more likely to take action when we know precisely what we can influence.** It would take a fantastic and deluded leap of the imagination to think that, as individuals, we can control rising seas, melting glaciers, or heat waves. As a result, when people hear messages that encourage them to broadly act on climate, it can strike them as unrealistic and trigger what psychologist Martin Seligman called learned helplessness — specifically because it appears so far outside their sphere of influence.

But, as Seligman and others have also found, it is possible to cut through learned helplessness (or apparent indifference) by appealing to what people think they can control, such as their own attitudes and behavior. For this reason, Huettel recommends emphasizing how people will feel about themselves, for example, after they take some realistic action, such as riding a bike or buying a hybrid.

**9. We need to believe our actions will make a difference.** “We have to have some sense of efficacy to motivate us to make changes in our lifestyle that are beneficial to the planet,” says Paul Slovic, a professor of psychology at the University of Oregon and expert in decision making around risk. But when it comes to big issues like genocide or climate change, his research suggests that people can be demotivated by a sense of inefficacy as well as what he calls “pseudo-inefficacy” or the illusion of inefficacy.

For example, Slovic explained, some people fail to do anything because they think their action will be just a drop in the bucket, even though that drop is important. This finding suggests that it could be useful to explicitly speak to people’s suspicion that individual actions don’t matter and creatively show them how such drops add up.

**10. We will continue to behave the same way we always have — even after we know it is problematic — until there is a realistic alternative.** It is a safe bet that if you are reading this, you know that fossil fuels contribute to climate change and yet you continue, either directly or indirectly, to rely upon them, as most of us do.

But the reason for this, I have firmly come to believe, is not because most people don’t care, don’t get it, or have been duped by climate denial propaganda. I find a more believable reason in the words of Thomas Kuhn, widely considered one of the most influential philosophers of science of the 20th century. “People are unlikely to jettison an unworkable paradigm, despite many indications it is not functioning properly,” Kuhn said, “until a better paradigm can be presented.”

While individual behavior changes are essential, in other words, many of them remain dependent on systemic public- and private-sector changes. To fully succeed, we need a “moon shot”-style rapid transition to a clean energy economy, like the one **proposed** last week by a group of scientists and economists led by the U.K.’s former chief scientist, Sir David King.

But in the end, even the best of plans depends on understanding, communicating, and acting with a fuller appreciation not just of the state of the natural world but of our own nature, which means bringing today’s global climate story down to a human scale.

The good news is that doing so requires that we engage some of the best aspects of human nature, including our ability to be present in the here and now, to care more about people than facts, to be drawn to hope more than fear, to be willing to defend those weaker than us, and to focus our actions on things that are in our control — all the while being capable of believing in, even being thrilled by, the vision of a moon shot.

*Lisa Bennett, coauthor of **Ecoliterate**, is a writer and communications strategist focused on climate change and what helps people rise to challenges great and small. She blogs at [lisabennett.org/blog](http://lisabennett.org/blog), and is on Twitter at [@LisaPBennett](https://twitter.com/LisaPBennett).*





# Town of Carrboro

Town Hall  
301 W. Main St.  
Carrboro, NC 27510

## Agenda Item Abstract

**File Number:** 15-0263

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**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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**TITLE:**

A Request to Make Appointments to the Greenways Commission

**PURPOSE:** The purpose of this item is to make appointments to the Greenways Commission.

**DEPARTMENT:** Town Clerk

**CONTACT INFORMATION:** Cathy Wilson, 918-7309

**INFORMATION:** The Greenways Commission currently has three vacant seats (one vacancy and two expiring terms). Charlie Hileman, the Chair of the Greenways Commission, provided the applicant recommendation forms. Applications were received from Danai Adkisson, Ethan O. Beattie, Johnny Randall, and Robert Kirchner.

**FISCAL & STAFF IMPACT:** N/A

**RECOMMENDATION:** It is recommended that the Mayor and Board discuss the applications and adopt the attached resolution.

A RESOLUTION MAKING APPOINTMENTS TO THE GREENWAYS  
COMMISSION

THEREFORE BE IT RESOLVED BY THE MAYOR AND BOARD OF ALDERMEN OF  
THE TOWN OF CARRBORO THAT THE FOLLOWING APPOINTMENTS ARE  
HEREBY MADE:

NAME	TERM EXPIRATION
	6/2018
	6/2018
	6/2016

To Board Chairs: Please summarize applications as received; contact each applicant for any update one year after last contact; when positions are open, invite each applicant to attend a board meeting prior to making a recommendation.

ADVISORY BOARD NAME: Greenways Commission  
Applicant(s) recommended at this time (1 per open seat)

Applicant 1: Johnny Randall

Outstanding qualifications: Vice chair, Director of Conservation at Botanical Gardens, many of qualifications (See application)

How applicant compliments current board composition:

~~Vice~~ Current vice chair, technically knowledgeable

Other comments: Essential members, considers all viewpoints

Applicant 2: Ethan O. Beelie

Outstanding qualifications: Serves with Friends of Bolin Creek and El Centro Hispano

How applicant compliments current board composition:

Lawyer, probably understands process and law for advancing greenways.

Other comments:

Applicant 3: Dana Adkisson

Outstanding qualifications: Recently moved to Carrboro.  
Resident of the Berryhill Neighborhood.

How applicant compliments current board composition:

Connected with a neighborhood that will be directly affected by the greenway construction at Morgan Creek.

May 27, 2015

To Board Chairs: Please summarize applications as received; contact each applicant for any update one year after last contact; when positions are open, invite each applicant to attend a board meeting prior to making a recommendation.

ADVISORY BOARD NAME: Greenways Commission  
Applicant(s) recommended at this time (1 per open seat)

Applicant 1: Robert Kirschner

Outstanding qualifications: member of numerous boards,  
former chair of Greenways Commission,  
led the board through difficult meetings

How applicant compliments current board composition:

Strong experience, ~~then~~ technical understanding  
of greenways and the processes.

Other comments: Currently on the board

Applicant 2: \_\_\_\_\_

Outstanding qualifications: \_\_\_\_\_

To Board Chairs: Please summarize applications as received; contact each applicant for any update one year after last contact; when positions are open, invite each applicant to attend a board meeting prior to making a recommendation.

ADVISORY BOARD NAME: Greenways Commission

Name: Johnny Randall  
Date of application/last contact: April 2015

**Summary of qualifications:**

Director of Conservation, NC Botanical Garden  
Vice Chair of Greenways Commission  
... and many other qualifications - see application.

**Advisory Board Chair reconfirmed applicant's interest in serving by phone or e-mail.**

Yes     No (Briefly explain: \_\_\_\_\_)

**Applicant attended Advisory Board meeting prior to BOA review.**

Yes (Date: \_\_\_\_\_)     No (Briefly explain: \_\_\_\_\_)

**Applicant has demonstrated a clear understanding of the time commitment, roles and responsibilities of serving on the Advisory Board.**

Yes     No  
Briefly explain:

To Board Chairs: Please summarize applications as received; contact each applicant for any update one year after last contact; when positions are open, invite each applicant to attend a board meeting prior to making a recommendation.

ADVISORY BOARD NAME: Greenways Commission

**In addition to your comments above, please check other qualities that the applicant offers that would help the Advisory Board meet its goals for community representation. Please note that candidates who do not meet any of these qualities are still eligible for appointment. Please communicate any urgent needs and priorities for Advisory Board composition to your Board of Aldermen Liaison.**

Gender diversity

Racial or ethnic diversity

Age range diversity

Neighborhood/geographic diversity

Occupation, experience or special skills

Previous public service or community involvement

Other: \_\_\_\_\_

Applicant: Johnny Randall ↑

Board Chair

Charlie Hileman

To Board Chairs: Please summarize applications as received; contact each applicant for any update one year after last contact; when positions are open, invite each applicant to attend a board meeting prior to making a recommendation.

ADVISORY BOARD NAME: Greenways Commission

Name: Ethen O. Beattie

Date of application/last contact: Application 12/17/2014

Contacted: 5/21/2015

Summary of qualifications:

Friends of Bolin Creek

El Centro Hispano

**Advisory Board Chair reconfirmed applicant's interest in serving by phone or e-mail.**

Yes  No (Briefly explain: \_\_\_\_\_)

**Applicant attended Advisory Board meeting prior to BOA review.**

Yes (Date: \_\_\_\_\_)  No (Briefly explain: \_\_\_\_\_)

**Applicant has demonstrated a clear understanding of the time commitment, roles and responsibilities of serving on the Advisory Board.**

Yes  No  
Briefly explain:

To Board Chairs: Please summarize applications as received; contact each applicant for any update one year after last contact; when positions are open, invite each applicant to attend a board meeting prior to making a recommendation.

ADVISORY BOARD NAME: Greenway Commission

**In addition to your comments above, please check other qualities that the applicant offers that would help the Advisory Board meet its goals for community representation. Please note that candidates who do not meet any of these qualities are still eligible for appointment. Please communicate any urgent needs and priorities for Advisory Board composition to your Board of Aldermen Liaison.**

Gender diversity

Racial or ethnic diversity

Age range diversity

Neighborhood/geographic diversity

Occupation, experience or special skills

Previous public service or community involvement

Other: \_\_\_\_\_

Applicant name: Ethan O. Beattie ↑

Board Chair  
Charlie Hickman

To Board Chairs: Please summarize applications as received; contact each applicant for any update one year after last contact; when positions are open, invite each applicant to attend a board meeting prior to making a recommendation.

ADVISORY BOARD NAME: Greenways Commission

Name: Daneil Adkisson  
Date of application/last contact: 5/24/2015

**Summary of qualifications:**

Recently moved to Carrboro, and a resident of the Berryhill neighborhood. Would like to be involved in community.

**Advisory Board Chair reconfirmed applicant's interest in serving by phone or e-mail.**

Yes  No (Briefly explain: recently applied, sent e-mail but no reply yet)

**Applicant attended Advisory Board meeting prior to BOA review.**

Yes (Date: \_\_\_\_\_)  No (Briefly explain: recently moved here)

**Applicant has demonstrated a clear understanding of the time commitment, roles and responsibilities of serving on the Advisory Board.**

Yes  No  
Briefly explain:

I have not spoken with Daneil, but I ~~assume~~ hope to hear from him soon.

To Board Chairs: Please summarize applications as received; contact each applicant for any update one year after last contact; when positions are open, invite each applicant to attend a board meeting prior to making a recommendation.

ADVISORY BOARD NAME: Greenways Commission

**In addition to your comments above, please check other qualities that the applicant offers that would help the Advisory Board meet its goals for community representation. Please note that candidates who do not meet any of these qualities are still eligible for appointment. Please communicate any urgent needs and priorities for Advisory Board composition to your Board of Aldermen Liaison.**

Gender diversity

Racial or ethnic diversity

Age range diversity

Neighborhood/geographic diversity

Occupation, experience or special skills

Previous public service or community involvement

Other: \_\_\_\_\_

Applicant name: Denai Adkisson ↑

Board Chair

Charrie Hileman

To Board Chairs: Please summarize applications as received; contact each applicant for any update one year after last contact; when positions are open, invite each applicant to attend a board meeting prior to making a recommendation.

ADVISORY BOARD NAME: Greenways Commission

Name: Robert Kisschner  
Date of application/last contact: 5/27/2015

**Summary of qualifications:**

- Greenways Commission, Board of Adjustments - other boards
- Bob led the Greenways Commission through some difficult times in the last few years.

**Advisory Board Chair reconfirmed applicant's interest in serving by phone or e-mail.**

Yes  No (Briefly explain: just received application)

**Applicant attended Advisory Board meeting prior to BOA review.**

Yes (Date: 2014-All)  No (Briefly explain: \_\_\_\_\_)

**Applicant has demonstrated a clear understanding of the time commitment, roles and responsibilities of serving on the Advisory Board.**

Yes  No  
Briefly explain: Current board member

**In addition to your comments above, please check other qualities that the applicant offers that would help the Advisory Board meet its goals for community representation. Please note that candidates who do not meet any of these qualities are still eligible for appointment. Please communicate any urgent needs and priorities for Advisory Board composition to your Board of Aldermen Liaison.**

Gender diversity

To Board Chairs: Please summarize applications as received; contact each applicant for any update one year after last contact; when positions are open, invite each applicant to attend a board meeting prior to making a recommendation.

ADVISORY BOARD NAME: Greenways Commission

- Racial or ethnic diversity
- Age range diversity
- Neighborhood/geographic diversity
- Occupation, experience or special skills
- Previous public service or community involvement
- Other: \_\_\_\_\_

Applicant: Robert Kirschner

Charlie Hileman, Chair  
May 27, 2015





# Town of Carrboro

Town Hall  
301 W. Main St.  
Carrboro, NC 27510

## Agenda Item Abstract

**File Number:** 15-0146

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**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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### **TITLE:**

Minor Modification to the CUP for 400 Roberson Street.

**PURPOSE:** Bobbitt Design Build has submitted an application for a Minor Modification to the existing CUP for the property located at 400 Roberson Street to authorize the remodeling of the existing building shell with associated interior layout revisions.

**DEPARTMENT:** Planning

**CONTACT INFORMATION:** Jeff Kleaveland

**INFORMATION:** The proposed minor modification to the CUP seeks to allow remodeling of the interior and exterior of the existing building with minimal changes to the site layout (Attachment A). The proposed use of this building continues to be primarily office (use category 3.000). The 400 Roberson St. property is zoned B-1-G, and is located in the Downtown Neighborhood Preservation overlay district; it is about 2.4 acres in area and identified by Orange County PIN, 9778952758. No new additional uses are proposed.

The Yaggy Corporation received a "Special Use Permit" on June 13, 1972 to construct and operate a medical office building (Use 3.120) at 400 Roberson Street. The project was completed as permitted.

Staff has been advised by the Town Attorney to consider this "Special Use Permit" the same as a Conditional Use Permit issued under the current regulations. This is why the project is classified as a Minor Modification to a Conditional Use Permit.

Per Section 15-64 of the Land Use Ordinance (LUO), a minor modification to an existing permit is one that has no substantial impact on neighboring properties, the general public or those intended to use the proposed project. In analyzing the request, staff concurs that the proposed modification will not have a substantial impact on surrounding properties.

### Transportation Impact

Traffic impact is not expected to substantially differ as the use category has not changed.

### Automobile Parking

The current amount of required parking for the existing use and square footage (17,864 sf) of the building is 45

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spaces at 1 space/400 sf of building area. The existing parking provided is 87 spaces.

Bicycle Parking:

The parking requirement of Section 15-291(h) requires 1 bike space for every 10 required auto spaces, 50% of which must be covered. To this end, for the maximum 54 parking spaces presumptively required, 6 bike spaces would be required (50% of which need to be covered). The applicant exceeds this requirement by providing 6 covered bike spaces. Because these spaces are not immediately visible from the street, the following condition is recommended:

- That signage on the building be provided directing users to the location of the bicycle parking.

Drainage, Grading, Erosion Control

No significant changes are proposed for the site.

Utilities

No significant changes to utilities are proposed. OWASA will determine during construction plan review whether a backflow preventer is required.

Fire Safety

The plans have been found to be satisfactory by the Fire Department subject to construction plan review. There is an existing fire hydrant located on the corner of Roberson and Main St. about 260' feet from the property thereby satisfying related provisions in the LUO. The proposed building revisions will be required to follow all applicable fire safety provision of the state's building code.

Refuse Collection

The applicant has reconfigured the dumpster arrangement for the property with a dumpster enclosure (with recycling receptacles) located interior to site. Access to the containers has been found to be acceptable by Orange County Solid Waste and Public Works.

Tree Protection, Landscape Plans

The project will necessitate the removal of one crepe myrtle and two lines of shrubs along the street frontage to accommodate hardscape and the building footprint. Extensive tree protection measures are provided on the demolition plans and notes regarding tree replacement per the Town LUO are place on the plans.

The grounds will be replanted with 3 over-story and 6 understory trees with 2 full-sized hollies and 70 evergreen shrubs. None of the proposed plants are on the Town's invasive plant species list.

Screening

The existing vegetation at the perimeter of the property satisfy the screen provisions of the LUO.

Vehicle Accommodation Area Shading and Tree Canopy Coverage

The existing plantings on the site exceed the 35% VAA shading requirement (46%) and the 15% tree canopy

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**Agenda Date:** 6/23/2015

**File Type:**Agendas

**In Control:** Board of Aldermen

**Version:** 1

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requirement (30%).

#### Nonconformities to Remain

The owner wishes the following nonconformities be allowed to remain (see owner's requests in the circled areas on Attachment B for specifics):

1. Sidewalks: The owner does not wish to install the 10' sidewalk called for by the LUO as this will threaten the health of the line of mature magnolias along the front of the property;
2. Lighting: The owner wishes to have the existing globe pole lighting fixtures to remain though they do not meet the shielding requirements of the LUO. All future fixtures on the plans must comply with the lighting provisions of the LUO.

If the Board finds this acceptable the following condition is recommended:

- That, based upon materials presented by the applicant at the meeting and their own request, the LUO nonconformities pertaining to sidewalk width and outdoor lighting be allowed to remain.

#### Neighborhood Information Meeting

A neighborhood information was held in Town Hall on May 28<sup>th</sup>, 2015. Four neighbors were in attendance.

#### Appearance Commission

The plans and elevations were reviewed by the Appearance Commission on June 4<sup>th</sup>, and again on June 18<sup>th</sup> with the applicant's representative in attendance. The commission chose not to formally vote on a recommendation for the proposal. Some members appreciated the plan for its preservation of the existing landscaping and agree that it is an improvement over the existing situation. Others were less than enthusiastic about the proposed architectural materials, favoring brick veneer.

#### Miscellaneous

The property is located within *Downtown Neighborhood Protection Overlay District* and complies with the provision therein. This district applies only to buildings within the first 50 feet of land adjacent to a residentially zoned property. The building's location is approximately 200' from the neighboring residentially zoned property to the south.

As with any minor modification, the Board may choose to call a public hearing prior to making a decision.

**FISCAL & STAFF IMPACT:** The application fee has been collected. No fiscal or staff impacts have been identified beyond plan review time.

**RECOMMENDATION:** Town staff recommends that the Board of Aldermen review, deliberate, and make a decision regarding the request. A resolution is provided approving the application, should the Board

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**Agenda Date:** 6/23/2015

**File Type:**Agendas

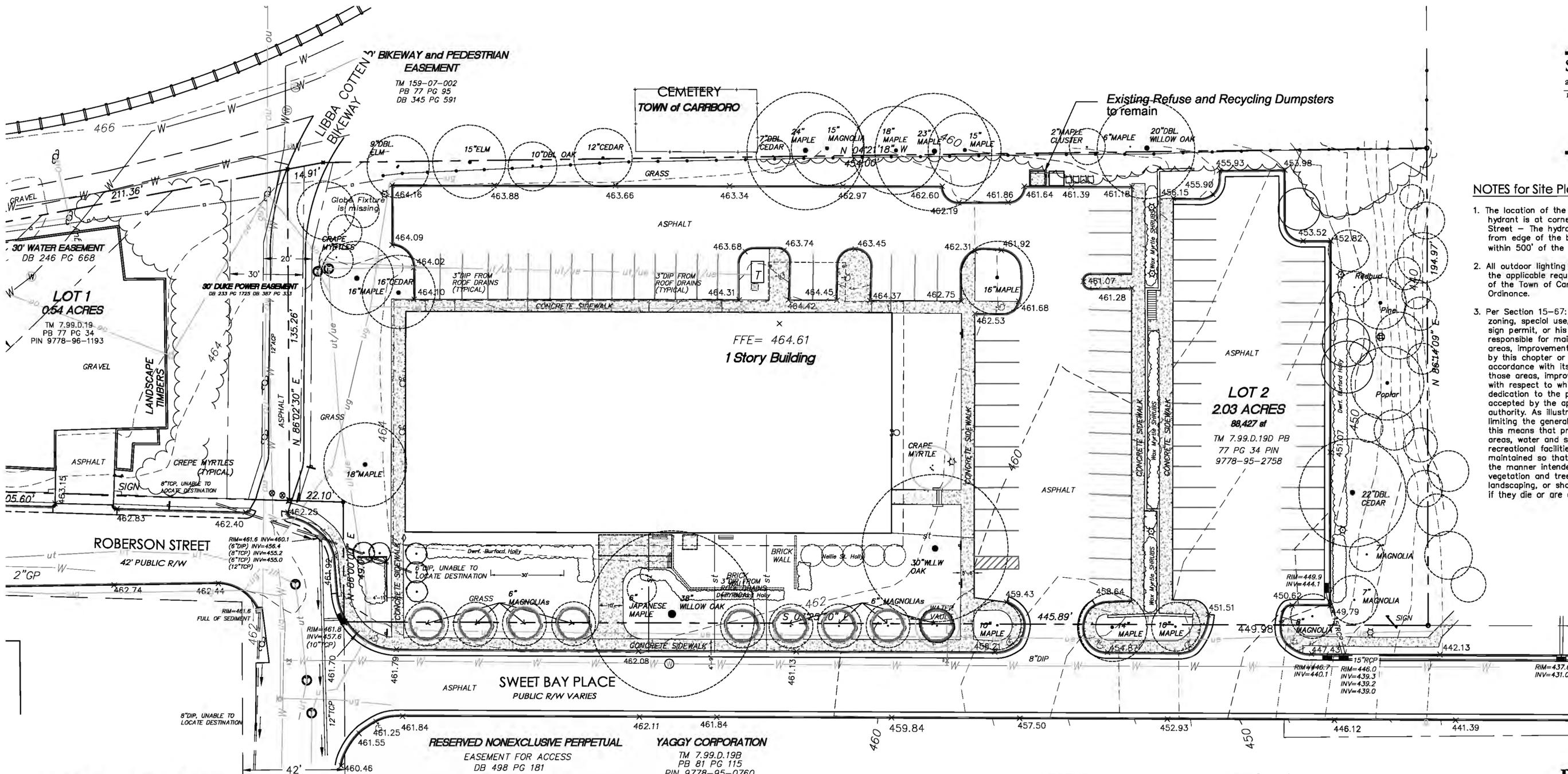
**In Control:** Board of Aldermen

**Version:** 1

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choose to adopt it (Attachment C). The resolution includes the following condition:

1. That signage on the building be provided directing users to the location of the bicycle parking.
2. That, based upon materials presented by the applicant at the meeting and their own request, the LUO nonconformities pertaining to sidewalk width and outdoor lighting be allowed to remain.



**NOTES for Site Plan:**

1. The location of the nearest existing fire hydrant is at corner of Roberson and Main Street - The hydrant is located 260 ft. from edge of the building. The building is within 500' of the hydrant.
2. All outdoor lighting is required to meet the applicable requirements of Article XV of the Town of Carrboro Land Use Ordinance.
3. Per Section 15-67: The recipient of any zoning, special use, conditional use, or sign permit, or his successor, shall be responsible for maintaining all common areas, improvements or facilities required by this chapter or any permit issued in accordance with its provisions, except in those areas, improvements or facilities with respect to which an offer of dedication to the public has been accepted by the appropriate public authority. As illustrations, and without limiting the generality of the foregoing, this means that private roads and parking areas, water and sewer lines, and recreational facilities must be properly maintained so that they can be used in the manner intended, and required vegetation and trees used for screening, landscaping, or shading must be replaced if they die or are destroyed.

**400 Roberson Street Building Improvements**

Date: 04/10/15  
Job Name: 400 Roberson Street  
Job Number: 1957-0041  
Project Developer: Tom Caruso  
Project Manager: Tom Caruso  
Architect: Brian Griffith, AIA, LEED AP BD+C



Owner: Duncan Yaggy  
Owner Representative: Nathan Milian, CSM: NR Milian & Associates  
Landscape Architect: David Swanson, PLA, Swanson And Associates PA

**SITE DATA**

Tract size: 2.03 ACRES 88,427 sf  
Existing Use Category:  
Proposed Use Category: 3,000, 3,100, 3,110, 3,120, 3,130, 3,140, 3,150, 3,200, 3,210, 3,220, 3,230, 3,240 and 3,250  
Building Square Footage: 17,864 sf. (before and after)  
Parking Information -  
Number of spaces required: 54 spaces required for office use  
Number of existing spaces: 87 spaces are existing  
Number of proposed spaces: no additional - 87 spaces to be provided  
Bicycle Parking provided: 6 - all covered

Orange County Zoning District: B-1G  
Overlay District: Downtown Neighborhood Protection District (DNP)  
Building Setbacks: (B-1-G) No property line setbacks, 30 ft from street centerline, south property line 8 ft setback adjoining R-3 residential district

**Project Description**

The commercial facility at 400 Roberson Street has been a member of the Carrboro area for approximately 40 years. Due to changing needs of its occupants the building is proposed to be renovated.

The focus of the renovations are on the exterior walls and roof of the building and the immediate surroundings which include:

- Energy Conservation using modern materials and systems.
- Updating aesthetics of the exterior.
- Better site access around the building and to the public pedestrian system.
- Flexibility in design to meet the needs of tenants and flexibility in adjusting the size of spaces internally in the building.
- Provide a valuable asset to its owner which will allow for future use and upkeep of the facility.

Due to the age of the facility, many existing items on the site and building are not in keeping with Carrboro's current guidelines. However, the proposed project strides toward these goals while meeting the budgetary restrictions of the owner. New items to the project will be in keeping with the Town of Carrboro's requirements.

- Please see the Limits of Work boundary shown on the site plan. All items outside this boundary are existing and no modification or improvement are planned unless noted otherwise.
- The increase in site impervious area is shown to be less than 5,000 square feet in area.
- The architectural building sconces will be under 1,800 lumens.
- Wall packs to provide nighttime site access and security will be shielded & dark sky approved.
- HVAC condensing units will be provided on the ground and be screened with new landscaping.
- The building materials shown in the rendering are representative. Please refer to the manufacturer samples for the specific colors.

**LEGEND**

- EXISTING IRON ROD
- IRON PIPE SET
- PK NAIL SET
- MASONRY NAIL SET
- BENCH
- ROOF LINE
- TREE: SIZE AND TYPE
- TREE LINE
- SANITARY SEWER MANHOLE
- WATER MANHOLE
- LIGHT POLE
- UTILITY POLE
- WROUGHT IRON FENCE
- CHAIN LINK FENCE
- CONCRETE AND STEEL PIPE FENCE
- HANDICAP RAMP
- SANITARY SEWER LINE
- WATER LINE (APPROXIMATE LOCATION)
- OVERHEAD ELECTRIC
- OVERHEAD UTILITIES
- UNDERGROUND GAS (APPROX LOCATION)
- UNDERGROUND ELECTRIC
- UNDERGROUND TELEPHONE
- UNDERGROUND ELECTRIC/TELEPHONE
- CURB INLET
- CATCH BASIN
- YARD INLET/CATCH BASIN
- FIRE HYDRANT
- SIGN
- TRAFFIC SIGNAL POLE
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE PEDESTAL
- WATER VALVE
- GAS METER
- ELECTRIC METER
- WATER METER
- GAS VALVE
- GUY POLE
- ROOF DRAIN
- BOLLARD
- TRANSFORMER

**NOTES from Survey:**

1. BASE MAP FROM Survey by RILEY SURVEYING, P.A. Phillip Riley, PLS, Pres. Riley Surveying, PA 3326 Durham Chapel Hill Blvd. Ste B-100 Durham, NC 27707 919-687-0742 919-730-3051(cell) DATED AUG. 10, 2000, REV. SPT. 27, 2000 and JAN. 08, 2001. NOTE: Due to the date of the survey, if user relies on any information shown on the digital version of this survey, it shall be without any liability to Riley Surveying and Jose L. Torres, PLS.
2. AREA BY COORDINATES.
3. VERTICAL DATUM BASED ON NCGS MONUMENT "OR 14", ELEV=464.76 NGVD '29
4. HORIZONTAL GROUND DISTANCES SHOWN HEREON.
5. UNDERGROUND UTILITIES SHOWN HEREON SHOULD BE CONSIDERED AS APPROXIMATE ONLY. CONTRACTORS ARE ADVISED TO HAVE ALL UNDERGROUND UTILITIES MARKED PRIOR TO ANY EXCAVATIONS.

**400 ROBERSON STREET**

Carrboro, NC

The YAGGY CORPORATION

revisions

1. May 26, 2015 (Town Comments)

date April 10, 2015

Sheet Name Existing Conditions Plan

Sheet Number

L1.0

For Review



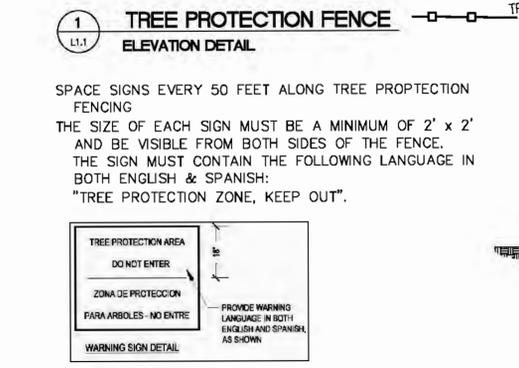
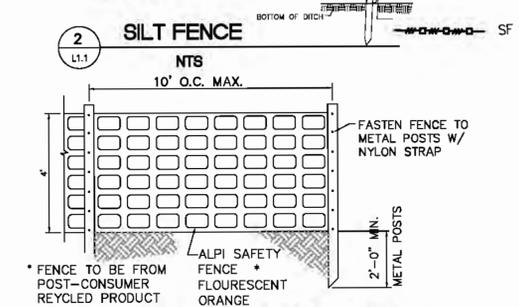
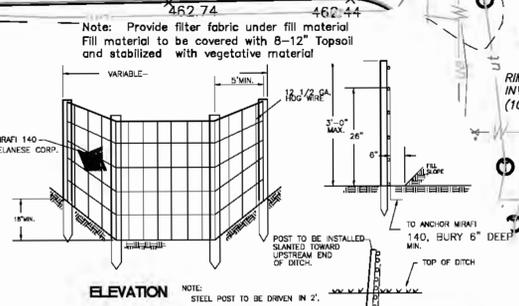
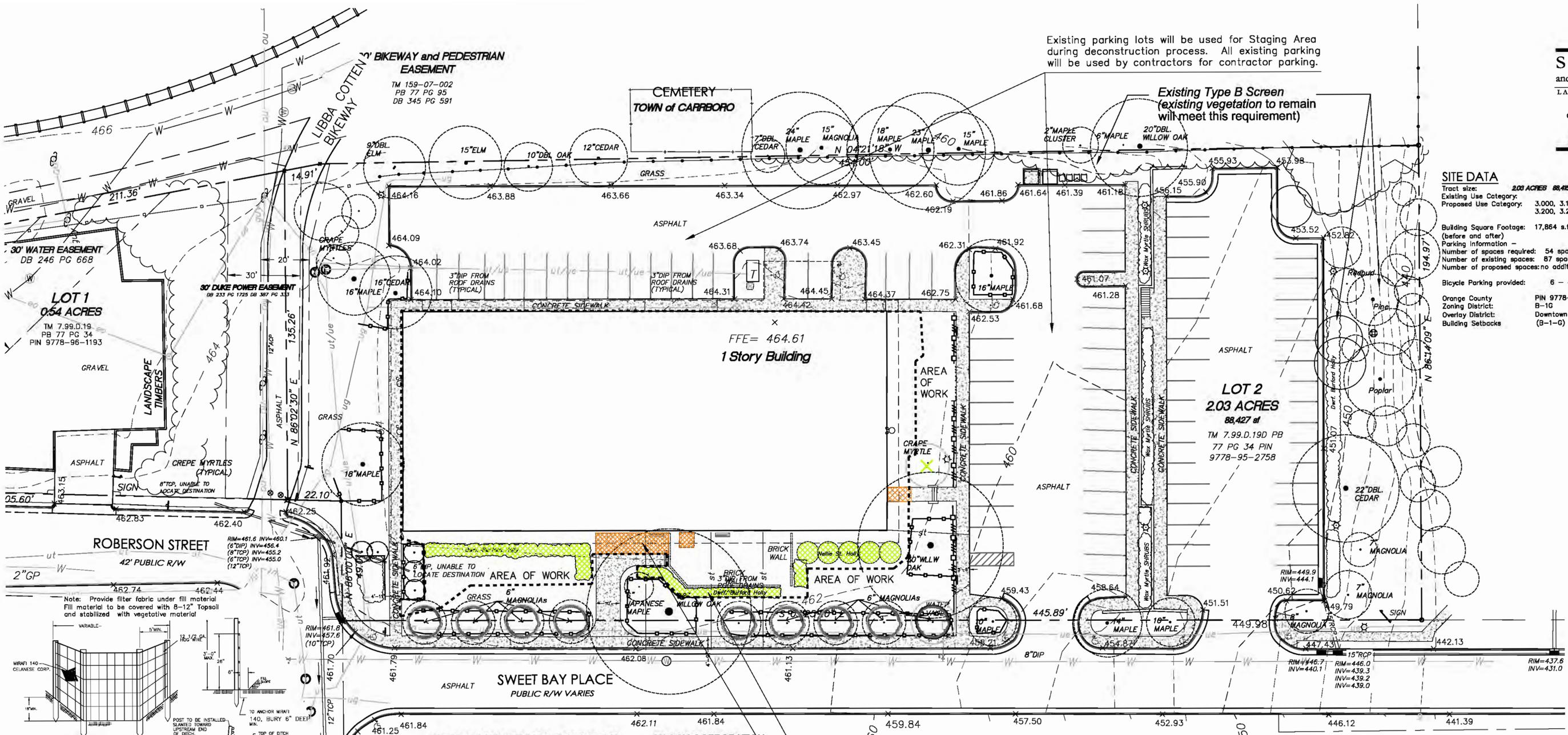
**SITE DATA**

Tract size: 2.08 ACRES 88,415 sf  
Existing Use Category:  
Proposed Use Category: 3,000, 3,100, 3,110, 3,120, 3,130, 3,140, 3,150, 3,200, 3,210, 3,220, 3,230, 3,240 and 3,250

Building Square Footage: 17,864 s.f.  
(before and after)  
Parking Information -  
Number of spaces required: 54 spaces required for office use  
Number of existing spaces: 87 spaces are existing  
Number of proposed spaces: no additional - 87 spaces to be provided

Bicycle Parking provided: 6 - all covered

Orange County  
Zoning District: B-1G  
Overlay District: Downtown Neighborhood Protection District (DNP)  
Building Setbacks: (B-1-G) No property line setbacks, 30 ft from street centerline, south property line 8 ft setback adjoining R-3 residential district



**Tree Protection Notes**

- This plan is subject to the tree protection provisions of Section 15-320 of the Town of Carrboro LUC. Trees that die during construction will require replacement subject to Town Approval. The Town can require replacement trees of up to 5" in caliper depending upon the size of the tree that die.
- The permit recipient shall be responsible for ensuring that all existing trees specifically shown on approved plans as being retained to comply with this article are protected, during the construction process, from removal, destruction, or injury. Tree protection methods shall meet accepted industry standards in accordance with ANSI A300 and associated Best Practices.
- The permit recipient shall ensure that, before any excavation takes place on the site, a barrier is erected around the Tree Protection Perimeter of all trees to be retained on the site that are within the area to be disturbed by construction activities, and other provisions made such as are necessary and sufficient to put on notice all construction personnel that the area within the Tree Protection Perimeter of all such trees is to be retained is not to be disturbed. During the construction process, the permit recipient shall ensure that all activities are kept outside the Tree Protection Perimeter of all such trees. The barrier required by this subsection shall be installed before the issuance of any grading or construction permits for such site.
- The permit recipient shall ensure that all such trees to be retained on the site that are within the area to be disturbed by construction activities, or near roads within the development, shall be further protected from accidental equipment damage by wrapping their trunks with sections of snow fence or boards wired together from the ground to a height six (6) feet above the ground.
- The permit recipient shall ensure that land disturbing activity shall not occur, and that building materials, construction trailers, vehicles, equipment or machinery, dirt, fill, and/or other debris shall not be stored within the Tree Protection Perimeter of such trees as are to be retained.
- The permit recipient shall ensure that all such trees as are to be preserved shall not be used as supports for roping, cable, signs, or fencing, and that nails shall not be driven into the trunks of trees.
- The permit recipient shall ensure that any damage done during construction to the limbs or trunks of such trees as are to be retained shall be properly treated so as to assure the continued health of the trees. The Town shall be consulted, and may suggest that the applicant seek advice from landscape or forestry professionals as to the appropriate method for such treatment.
- Prior to the commencement of any land alteration on a site for which a Tree Protection Plan has been approved, including all clearing or grading activities, the land use administrator shall certify in writing based on an inspection of the site that all tree protection measures required by the approved Tree Protection Plan have been put in place properly and accurately. The land use administrator shall provide this certification in a timely fashion on being notified by the permit recipient that the site is ready for such inspection and certification.

**LEGEND - Site Work**

Property Line & Setback Line	
Existing Significant Tree	
Existing Tree to be Removed	
Existing Shrubs to be removed	
Limits of Construction	
Existing Paving to be removed	
Existing Concrete Walk	
Existing Fence	
Existing Concrete Wall	
Sanitary Sewer	
Water - meter	
Pipe (Storm Drain)	
Electric	
Gas	
Tree Protection Fence	
Silt Fence	
Existing Feature (in Italic)	
Proposed Feature (Normal font)	
Existing Feature to be removed	

**LEGEND**

- EXISTING IRON ROD
- IRON PIPE SET
- PK NAIL SET
- MASONRY NAIL SET
- BENCH
- ROOF LINE
- TREE: SIZE AND TYPE
- TREE LINE
- SANITARY SEWER MANHOLE
- WATER MANHOLE
- LIGHT POLE
- UTILITY POLE
- WROUGHT IRON FENCE
- CHAIN LINK FENCE
- CONCRETE AND STEEL PIPE FENCE
- HANDICAP RAMP
- SANITARY SEWER LINE
- WATER LINE (APPROXIMATE LOCATION)
- OVERHEAD ELECTRIC
- OVERHEAD UTILITIES
- UNDERGROUND GAS (APPROX LOCATION)
- UNDERGROUND TELEPHONE
- UNDERGROUND ELECTRIC
- UNDERGROUND ELECTRIC/TELEPHONE
- CURB INLET
- CATCH BASIN
- YARD INLET/CATCH BASIN
- FIRE HYDRANT
- SIGN
- TRAFFIC SIGNAL POLE
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE PEDESTAL
- WATER VALVE
- GAS METER
- ELECTRIC METER
- WATER METER
- GAS VALVE
- GUY POLE
- ROOF DRAIN
- BOLLARD
- TRANSFORMER

**NOTES:**

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**400 ROBERSON STREET**  
Carrboro, NC

The YAGGY CORPORATION

revisions

1. May 26, 2015 (Town Comments)

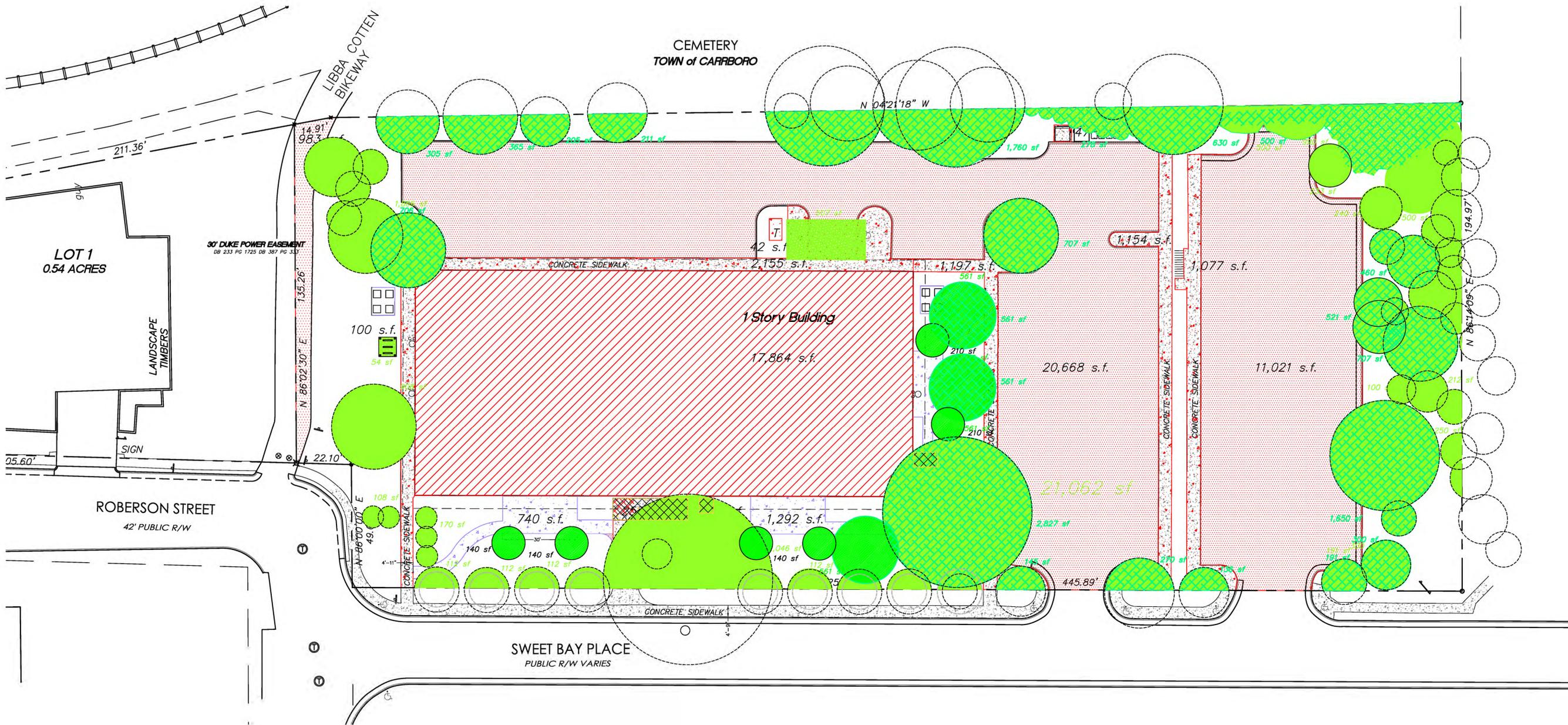
date April 10, 2015

Sheet Name  
**Demolition and Tree Protection Plan**

Sheet Number  
**L1.1**

For Review





**LEGEND for TREE CANOPY CALCULATIONS**

	TREE CANOPY AREA	AREA CALCULATION
Total Canopy Area using canopy based on the canopy related to tree caliper size radius LOT AREA = 88,427 SF REQUIRED at 30% of LOT AREA		= 26,528 SF
<b>EXISTING TREE CANOPY</b>		<b>22,590 sf</b>
EXISTING CANOPY AREA		= 22,590 SF
OTHER COVERED CANOPY AREA		= 504 SF
<b>PROPOSED TREE CANOPY</b>		<b>4,000 sf</b>
PROPOSED CANOPY AREA Based on 8 new trees at 500 sf each		= 4,000 SF
OTHER COVERED CANOPY AREA		= 54 SF
<b>TOTAL CANOPY AREA</b>		<b>14,686 sf</b>
Total Canopy Area ~ 30+ %		= 26,590 SF
<b>TREE CANOPY FOR VEHICULAR ACCOMMODATIONS AREA (VAA)</b>		<b>14,686 sf</b>
Total Canopy Area using canopy based on the canopy related to tree caliper size radius LOT PARKING AREA = 31,689 SF (20,688 SF + 11,021 SF) REQUIRED at 35% of VAA EXISTING CANOPY AREA for VAA EXISTING AREA		= 11,091 SF = 14,686 SF = 46.3%

**IMPERVIOUS SURFACE AREA CALCULATIONS**

EXISTING IMPERVIOUS SURFACE	= 55,743 SQ. FT.
<b>AREA IMPERVIOUS SURFACE</b>	
BUILDING FOOTPRINT	18,000 SF
PARKING (ASPHALT)	31,689 SF
WALKWAYS	6,007 SF
DUMPSTER PAD	47 SF
<b>AREA IMPERVIOUS SURFACE TO BE REMOVED</b>	= 398 SF
CONCRETE WALKS, PADS	398 SF
<b>AREA IMPERVIOUS SURFACE TO BE ADDED</b>	= 2,232 SF
HVAC PADS	200 SF
CONCRETE PAVING	2,032 SF

**NOTES:**

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Phillip Riley, PLS, Pres. Riley Surveying, PA  
3326 Durham Chapel Hill Blvd. Ste B-100  
Durham, NC 27707  
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Carrboro, NC

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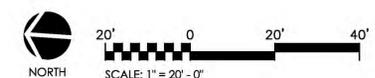
revisions  
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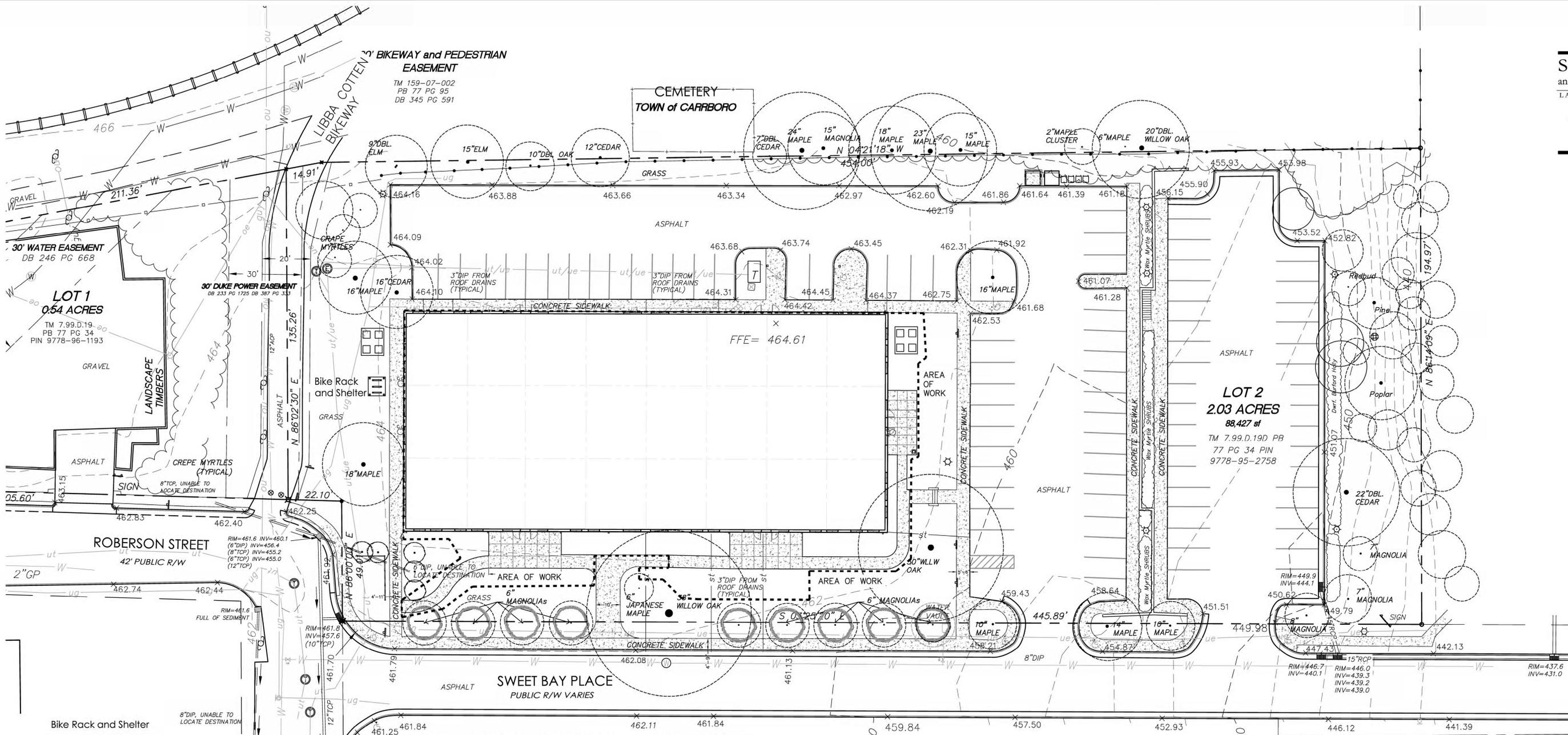
Sheet Name  
Impervious Surface  
Area Calculations  
Plan

Sheet Number

L1.2



For Review



- Wareham Cycle Shelter**
- Manufactured from round steel supports which are shot blasted and polyester powder coated to ensure a rust free frame
  - Tough and scratch resistant polycarbonate roof shields cycles from the elements
  - Excellent visibility reduces cycle theft and vandalism
  - Heavy duty steel construction ensures structure resistance
  - Design does not allow shelter to be vandalized by being climbed on
  - Weather resistant
  - Utilizes light weight aluminum cross members with a unique brackets system which allows for a quick and easy installation
  - Can accommodate 6 cycles
  - 15 Year Guarantee

<https://www.nobuffs.com/Cycle-Shelters/Wareham-Cycle-Shelter#sthash.T6xplvBA.dpuf>



**Concept Perspective View**  
from Concept plan by Bobbitt A&E, PLLC  
600 Germantown Rd., Raleigh, NC  
design@bobbitt.com (919) 851-1980



**RESERVED NONEXCLUSIVE PERPETUAL EASEMENT FOR ACCESS**  
DB 498 PG 181

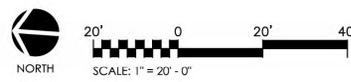
**YAGGY CORPORATION**  
TM 7.99.D.19B  
PB 81 PG 115  
PIN 9778-95-0760

LEGEND - Site Work	
Property Line & Setback Line	
Existing Significant Tree	
Existing Tree to be Removed	
Existing Shrubs to be removed	
Limits of Construction	
Existing Paving to be removed	
Existing Concrete Walk	
Existing Fence	
Existing Concrete Wall	
Sanitary Sewer	
Water - meter	
Pipe (Storm Drain)	
Electric	
Gas	
Tree Protection Fence	
Silt Fence	
Existing Feature (in Italics)	
Proposed Feature (Normal font)	
Existing Feature to be removed	

LEGEND	
	EXISTING IRON ROD
	IRON PIPE SET
	PK NAIL SET
	MASONRY NAIL SET
	BENCH
	ROOF LINE
	TREE: SIZE AND TYPE
	TREE LINE
	SANITARY SEWER MANHOLE
	WATER MANHOLE
	LIGHT POLE
	UTILITY POLE
	WROUGHT IRON FENCE
	CHAIN LINK FENCE
	CONCRETE AND STEEL PIPE FENCE
	HANDICAP RAMP
	SANITARY SEWER LINE
	WATER LINE (APPROXIMATE LOCATION)
	OVERHEAD ELECTRIC
	OVERHEAD UTILITIES
	UNDERGROUND GAS (APPROX LOCATION)
	UNDERGROUND ELECTRIC
	UNDERGROUND TELEPHONE
	UNDERGROUND ELECTRIC/TELEPHONE
	CURB INLET
	CATCH BASIN
	YARD INLET/CATCH BASIN
	FIRE HYDRANT
	SIGN
	TRAFFIC SIGNAL POLE
	TELEPHONE MANHOLE
	ELECTRIC MANHOLE
	TELEPHONE PEDESTAL
	WATER VALVE
	GAS METER
	ELECTRIC METER
	WATER METER
	GAS VALVE
	GULLY POLE
	ROOF DRAIN
	BOLLARD
	TRANSFORMER

**NOTES:**

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**400 ROBERSON STREET**  
Carrboro, NC

The YAGGY CORPORATION

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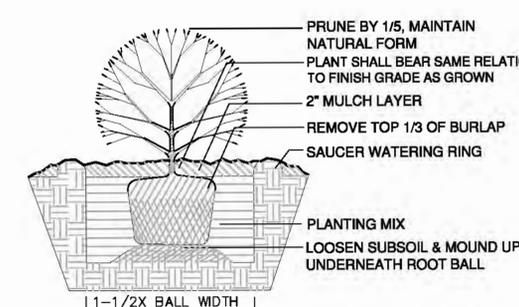
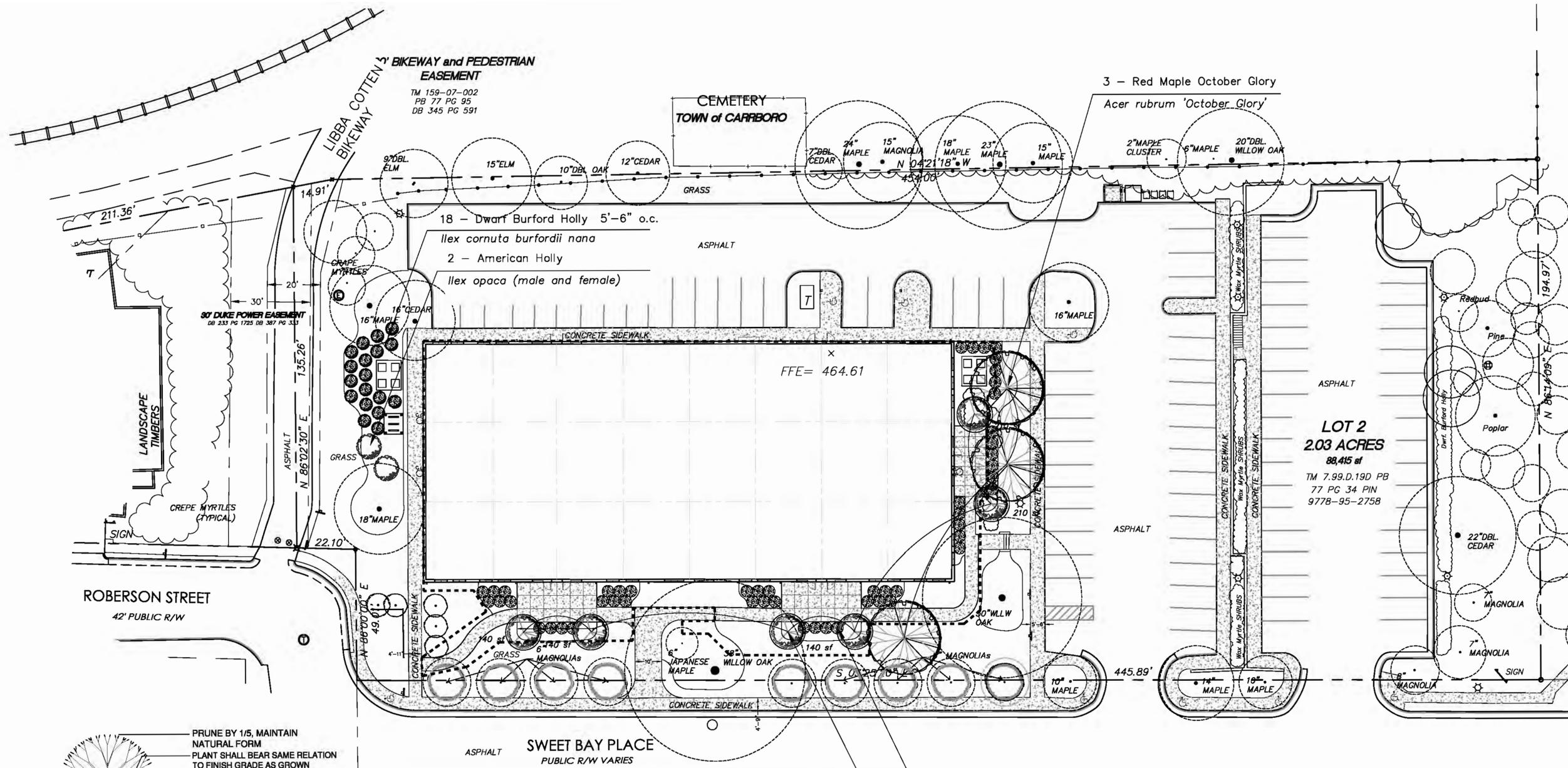
date April 10, 2015

Sheet Name Site Plan

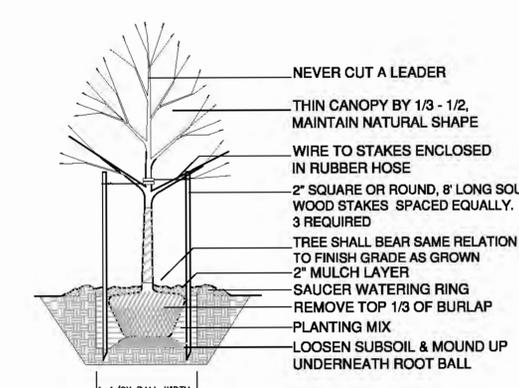
Sheet Number L2.0

For Review





**2** Shrub Detail  
L3.0 N.T.S.



**1** Tree Detail  
L3.0 Scale: N.T.S.

- PLANTING NOTES:**
- EXACT LOCATION OF UNDERGROUND UTILITIES SHALL BE VERIFIED IN THE FIELD BY THE INSTALLER. PLANTINGS SHALL BE ADJUSTED AS NECESSARY TO AVOID CONFLICT WITH UTILITIES.
  - SUBSOIL CONDITIONS AND ADDITIONAL SUBSURFACE DRAINAGE REQUIREMENTS SHALL BE DETERMINED IN THE FIELD BY THE INSTALLER. ANY CONDITIONS DETRIMENTAL TO THE GROWTH AND HEALTH OF PROPOSED PLANT MATERIALS SHALL BE ADJUSTED TO MEET SITE CONDITIONS AND BROUGHT TO THE ATTENTION OF THE ARCHITECT AND/OR LANDSCAPE ARCHITECT PRIOR TO PLANTING.
  - PLANT MATERIAL SHALL BE PLANTED SO AS TO BEAR THE SAME RELATIONSHIP TO GRADE AS IN THE FIELD OR CONTAINER IN WHICH IT WAS GROWN.
  - THE INSTALLER SHALL STAKE OUT ALL TREE, SHRUB AND BED EDGE LOCATIONS FOR THE LANDSCAPE ARCHITECT APPROVAL PRIOR TO BEGINNING PLANTING OPERATIONS. NOTIFY LANDSCAPE ARCHITECT IF FIELD CONDITIONS WARRANT ADJUSTMENT OF PLANT LOCATIONS.
  - MULCH ALL DISTURBED AREAS WITH A MINIMUM OF 3" DEEP LAYER OF (DOUBLE) SHREDDED HARDWOOD BARK MULCH AS SHOWN ON PLANS. ALL DISTURBED SOIL SURFACES SHALL BE COVERED EITHER WITH LAWN, PLANTS, OR MULCH.
  - BED LINES SHALL CONFORM TO CONFIGURATION SHOWN ON THE PLANS. BED LINES SHALL MEET CURBS, WALKS, BUILDING, ETC. AT RIGHT ANGLES UNLESS SHOWN OTHERWISE.
  - IN CASE OF A DISCREPANCY BETWEEN THE PLANT COUNT ON THE PLANT LIST AND THE NUMBER OF PLANTS SHOWN ON THE PLAN, THE NUMBER OF PLANTS ACTUALLY DRAWN SHALL BE THE NUMBER REQUIRED. ALL PLANT MATERIAL TO MEET AAN STANDARDS FOR SIZE AND QUALITY.
  - ALL PLANTS TO HAVE MIN. 1 YEAR WARRANTY.
  - RESTORE DISTURBED LAWN AREAS AROUND BUILDING AND CONSTRUCTION SITE WITHIN LIMITS OF DISTURBANCE.

	SYM	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS / DESIGN INTENT
TREES	Ar	3	Acer rubrum	Red Maple	3-4" cal	Shade Canopy Tree
	Cc	6	Cercis canadensis	Red Bud	5-6"	Small Flowering Tree
	Cp	alt	Crataegus phaenopyrum	Washington Hawthorn	8-10'	Winter Interest
SHRUBS	lo	2	Ilex opaca (male & female)	American Holly	6-8"	Large Scale Shrub/Tree
	IRP	alt	Ilex x Red 'Patriot'	Patriot Red Holly	6-8"	
	INS	alt	Ilex x Nellie R Stevens	Nellie Stevens Holly	6-8"	
AG	alt	Cephalotaxus harringtonia 'Prostrata'	Spreading Japanese Plum Yew	3 GAL.	Evergreen spreading shrub	
lcc	70	Ilex cornuta Burfordii Nana	Dwarf Burford Holly	5 GAL.	Evergreen shrub for foundation plantings	

- LEGEND**
- EXISTING IRON ROD
  - IRON PIPE SET
  - ⊗ PK NAIL SET
  - ⊗ MASONRY NAIL SET
  - BENCH
  - ROOF LINE
  - TREE: SIZE AND TYPE
  - TREE LINE
  - ⊗ SANITARY SEWER MANHOLE
  - ⊗ WATER MANHOLE
  - ⊗ LIGHT POLE
  - ⊗ UTILITY POLE
  - WROUGHT IRON FENCE
  - CHAIN LINK FENCE
  - CONCRETE AND STEEL PIPE FENCE
  - HANDICAP RAMP
  - SS SANITARY SEWER LINE
  - W WATER LINE (APPROXIMATE LOCATION)
  - oe OVERHEAD ELECTRIC
  - ou OVERHEAD UTILITIES
  - ug UNDERGROUND GAS (APPROX LOCATION)
  - ut UNDERGROUND TELEPHONE
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  - CURB INLET
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  - FIRE HYDRANT
  - SIGN
  - TRAFFIC SIGNAL POLE
  - TELEPHONE MANHOLE
  - ELECTRIC MANHOLE
  - TELEPHONE PEDESTAL
  - WATER VALVE
  - GAS METER
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- NOTES:**
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Carrboro, NC

The YAGGY CORPORATION

revisions

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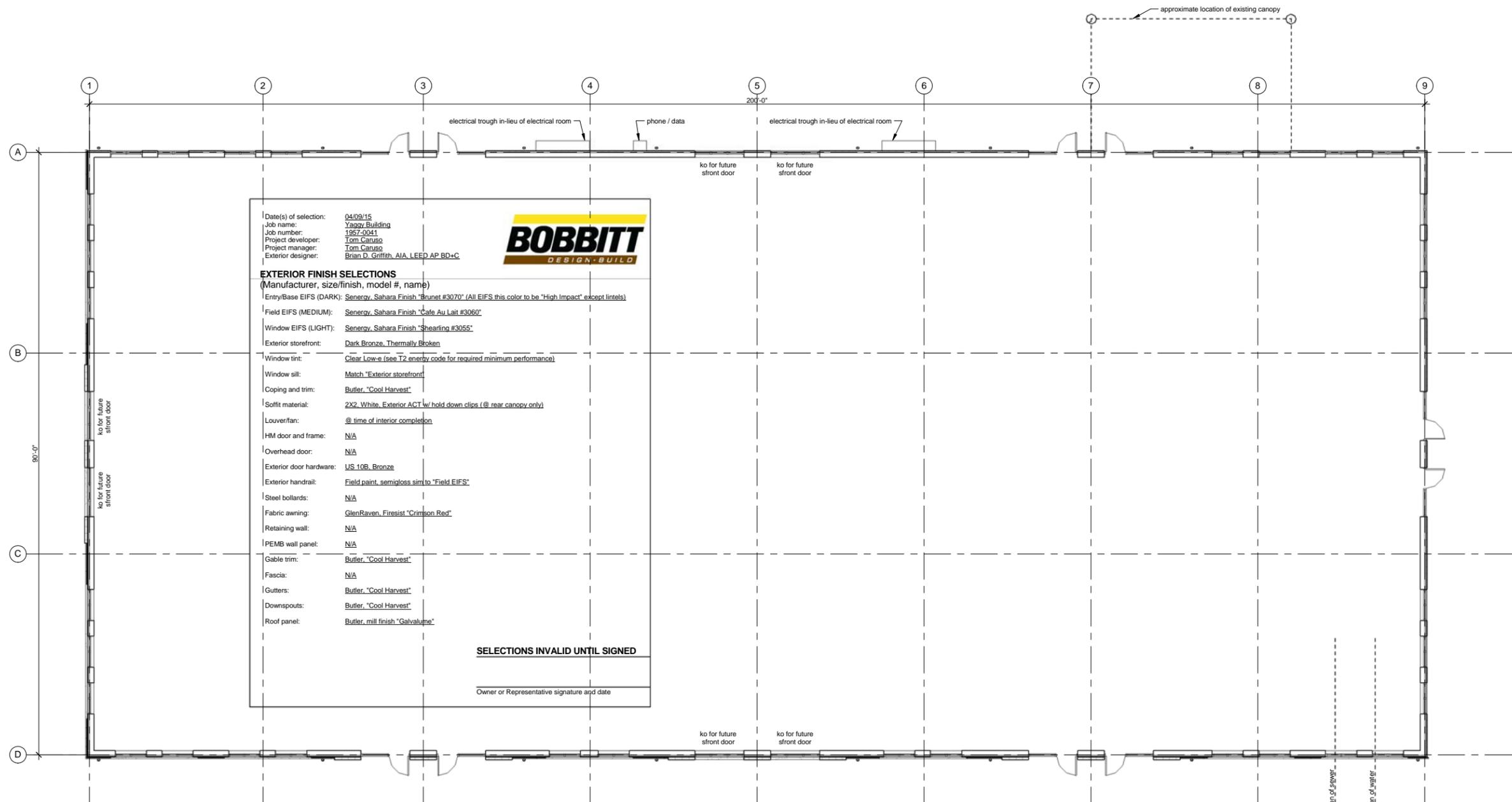
date April 10, 2015

Sheet Name  
**Landscape Plan**

Sheet Number  
**L3.0**

For Review

1:03810 3/23/2015 10:41 AM 1/8" = 1'-0" 1/8" = 1'-0"



Date(s) of selection: 04/09/15  
 Job name: Yaggy Building  
 Job number: 1957-0041  
 Project developer: Tom Canuso  
 Project manager: Tom Canuso  
 Exterior designer: Brian D. Griffith, AIA, LEED AP BD+C

**BOBBITT**  
 DESIGN • BUILD

**EXTERIOR FINISH SELECTIONS**  
 (Manufacturer, size/finish, model #, name)

Entry/Base EIFS (DARK): Senergy, Sahara Finish "Brunet #3070" (All EIFS this color to be "High Impact" except lintels)

Field EIFS (MEDIUM): Senergy, Sahara Finish "Cafe Au Lait #3060"

Window EIFS (LIGHT): Senergy, Sahara Finish "Shearing #3055"

Exterior storefront: Dark Bronze, Thermally Broken

Window tint: Clear Low-e (see T2 energy code for required minimum performance)

Window sill: Match "Exterior storefront"

Coping and trim: Butler, "Cool Harvest"

Sealant material: 2X2 White, Exterior ACT w/ hold down clips (@ rear canopy only)

Louver/fan: @ time of interior completion

HM door and frame: N/A

Overhead door: N/A

Exterior door hardware: US 10B, Bronze

Exterior handrail: Field paint, semigloss sim to "Field EIFS"

Steel bollards: N/A

Fabric awning: GlenRaven, Firesist "Crimson Red"

Retaining wall: N/A

PEMB wall panel: N/A

Gable trim: Butler, "Cool Harvest"

Fascia: N/A

Gutters: Butler, "Cool Harvest"

Downspouts: Butler, "Cool Harvest"

Roof panel: Butler, mill finish "Galvalume"

**SELECTIONS INVALID UNTIL SIGNED**

Owner or Representative signature and date

1 FLOOR PLAN - V5  
1/8" = 1'-0"



2 SWEET BAY SKETCH

APPROVAL:  
DATE:

BOBBITT A&E, PLLC  
600 Germantown Road  
Raleigh, North Carolina 27607

**BOBBITT**  
DESIGN • BUILD  
600 Germantown Road | Raleigh, North Carolina 27607  
Ph (919) 851-1980 | Fx (919) 851-1982 |  
design@bobbitt.com

**CONCEPTUAL**  
**NOT FOR CONSTRUCTION**  
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COORDINATOR:  
B.GRIFFITH

DRAWN BY:  
BDG

CHK BY:

YAGGY CORPORATION PROPERTY  
400 ROBERSON STREET  
CARRBORO, NORTH CAROLINA

24 X 36  
As indicated

04/09/15

1957-0041

FLOOR PLAN

**A1**  
OF 1



June 2, 2015

Town of Carrboro

Attn: Jeff Kleaveland, Planner / Zoning Development Specialist  
Randy Dodd, Environmental Planner  
Jeff Scouten, Environmental Enforcement Supervisor  
Kent Squires, Fire Marshal  
Nick Parker, OWASA  
W. Henry Wells, Jr., PE, Town Engineer

301 W. Main Street  
Carrboro, NC 27510

Re: 400 Roberson Street, Carrboro, NC  
Conditional Use Permit Minor Modification, Review #1  
Orange County 9778952758

**Comments by Jeff Kleaveland, Planner / Zoning Development Specialist**

Please note the property is 2.03 as indicated on the site plans as opposed to 2.4 noted in the introduction.

General:

1. A fee of \$300 has been submitted.
2. A neighborhood meeting was held on May 28<sup>th</sup> at 7PM @ Carrboro Town Hall. No concerns were raised.
3. Thank you for the links to Carrboro Land Use Ordinance.
4. A letter of compliance with Section 15-178 has been sent via email on 5/7/15 at 4PM to James Thomas and yourself. I'd be happy to provide an additional copy upon request.
5. This letter serves to aid the completeness of the review prior to proceeding to the Board.
6. As noted in the narrative on sheet L1.0, the goal is to confine the construction / impact of the project to the re-facade of the existing building. Items beyond the area of work as noted on sheet L1.1 plan are to be consider existing conditions.
7. Per Duncan Yaggy, Owner:
  - a. We expect the renovated building to operate in the same way as the existing building. We cannot say whether the entire space will be devoted to basic office use or a combination of office related uses. We also are unclear at this point whether the entire building will be leased to a single tenant, as that will be determined by leasing. We would prefer to lease to a single tenant, but the space might be divided among several. Although, we anticipate mostly office use, the building was originally built as a clinic. Over the years past tenants have also included medical and standard office uses. Preliminary inquiries suggest that there may be a combination of these uses. In any case, we expect the hours of building operation to be consistent with the historical hours, and see no reason to anticipate any change in neighborhood impact. We do not anticipate any activity within the building that would change public pedestrian traffic.
  - b. There will be a minute change to the area covered by impervious surfaces, so current storm water drainage will be unaffected.
  - c. Our building is ideally located to provide its tenant's access to the Libba Cotton Bikeway and to local bus service. The on-site parking lot exceeds the Town's requirements, but is necessary for continued operations. Given that and the fact that the use of the building will be historically consistent after renovation, there will be no change in the impact on transportation.

- d. We see no reason to anticipate an increase in the noise, dust, fumes and other emissions after renovation of the building.
- 8. Per Tom Caruso, Fitup/Renovation Specialist with Bobbitt Design Build
  - a. This project consists of cosmetic exterior upgrades to an existing structure.
  - b. Hours of construction operations will be 7:30 -4:00pm Monday thru Friday.
  - c. There should not be any noise impact on neighboring properties as all of the means and methods of construction will be industry standard procedures. An occasional back up signal from a delivery truck. Screw guns and skill saws will be the primary tools being used.
  - d. Delivery trucks will have access to the existing parking lot to off load materials, so traffic will not be impeded at any time.
  - e. We do not expect the EIFS system will be a problem with excessive waste being distributed around town but if necessary we will construct enclosures with scaffolding wrapped with plastic to contain the waste material where we would be "sanding" the substrate. This would minimize the impact of the cutoff waste being blown around town.

Sheet L1.0, Existing Conditions Plan:

- 1. L1.0 is acting as cover.
- 2. The existing sewer location is unknown and will be verified with the architectural construction drawings. It was not located by the surveyor of the property. There is a 6" DIP on the north/west corner of the property which may be the sewer. We have found another document stating the sewer is on the south west corner of the building and connecting to Carr Street.
- 3. The width of the existing to remain sidewalk on Sweet Bay Place has been added to sheet L1.0 which is 4'-9".
- 4. The existing to remain refuse and recycling has been called out on sheet.
- 5. The control corner is located outside of these sheets. It is the north/east corner of the Lot 1 property. The monument leading to this corner is east of the north/east corner.
- 6. Known easements have been shown as provided by Riley Surveying, PA dated 1/8/2001.
- 7. No stream buffers are known.
- 8. Existing parking poles (picture right) are approximately 9'-8" tall and use a 23 watt cfl lamp.
- 9. Per Duncan Yaggy, Owner:
  - a. The square footage of the building (17,864 square feet) and the expected use (office) are noted in the building footprint. Our experience over the last 40 years suggests that the type of office tenant the building would attract would have limited outside clients and customers.



- b. Per Brian Griffith, Architect: The square footage may differ slightly between leasable area, site area (measured outside of wall), and gross area used for building code (measured inside of wall). In the end the usable heated area shall remain roughly the same with the project.

10. Site data, Per Duncan Yaggy, Owner:

- a. The Size Data section shows the tract size (2 acres 88,427 sf), the square footage of the building (17,864), the existing use categories 3.200
- b & c. The existing & proposed use categories (3.000, 3.100, 3.110, 3.120, 3.130, 3.140, 3.150, 3.200, 3.210, 3.220, 3.230, 3.240, 3.250).
- d. The building square footage before and after (17,864 square feet).
- e. The Size Data Section also shows the number of parking spaces required (54 spaces for office use), the number of existing spaces (87), the number of proposed spaces of various kinds (87), and the number of proposed bicycle spaces (6, all covered).
- f. Finally, the Size Data section also shows the Orange County PIN number (9778952758)
- g. The zoning district (B-1G)
- h. The overlay district (DNP)
- i. Setback, 30' from street centerline, 8' from R-2,

11. Notes have been added to sheet L1.0.

12. Responses for all comments will be provided.

13. Changes will be carried through all sheets.

Sheet L1.1, Demolition and Tree Protection Plan

- 1. Tree protection will be reviewed and amended per field inspection.
- 2. Existing landscaping on south and east have been labeled "Existing Type B Screen" per Carrboro's recommendation.
- 3. Tree protection detail has been updated per recommendation.
- 4. Notes have been added to sheet L1.1 as requested.
- 5. Parking is existing to remain. No modifications have been proposed. We request this item be considered an existing condition to remain.
- 6. Please refer to updated sheet L1.2

Sheet L1.2, Impervious Area Calculations

- 1. Stormwater quality/quantity provisions are not required.

Sheet L2.0, Site Plan

- 1. We request the sidewalks along Sweet Bay and Roberson be considered existing conditions as to preserve the existing trees.
- 2. The refuse and recycling were installed per Orange County, Solid Waste. We request they be considered an existing condition.
- 3. Signage will be addressed at a later date under a separate permit. This is dependent on ultimate leasing of the building.
- 4. There will be new building attached lighting not to exceed the maximums stated in the LUO. No additional pole, bollard or landscape lighting is proposed.
- 5. The existing parking light poles are obsolete and no manufacturer data is available. Please see comment response L1.0 #8 for further information. We consider the existing lighting an existing condition to remain.
- 6. All new lights will be in compliance with Article XV of the LUO as stated in the narrative on sheet L1.0 and shown on the elevation sheet A1.

**Comments by Randy Dodd, Environmental Planner**

Regulatory compliance Comments

- 1. L3.0 has been updated indicating updated shrub and tree counts.

#### Additional Recommendations

1. Rainwater harvesting is difficult to achieve without greatly impacting the site. Collecting downspout leaders – especially at the rear of the building will cause damage to existing concrete and asphalt services (which we'd like to preserve). Therefore we have chosen to pursue other improvements.
2. Energy efficiency of the building envelope is a major component of the redevelopment of the building. We intend to exceed ASHRAE 2009. We also encourage the owner to pursue Energy Star with their tenants.
3. We plan to use regionally sourced products (if available and cost effective).
4. Recycling opportunities are tenant dependent and will be evaluated when tenant leases are made.

#### Comments by Jeff Scouten, Environmental Enforcement Supervisor

1. Existing refuse and recycling has been called out on sheet L1.0.

#### Comments by Kent Squires, Fire Marshal

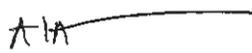
1. Thank you for your review of the plans

#### Comments by Nick Parker, OWASA

1. We anticipate the existing 1 ½" water service to be adequate. We will verify upon tenant lease(s). We will also verify if an existing RPZ backflow is existing. If not, one will be provided.
2. The existing sewer location is unknown and will be verified with the architectural construction drawings. It was not located by the surveyor of the property. There is a 6" DIP on the north/west corner of the property which may be the sewer. We have found another document stating the sewer is on the south west corner of the building and connecting to Carr Street.

Feel free to contact me with any questions, comments or clarifications at [bgriffith@bobbitt.com](mailto:bgriffith@bobbitt.com) or my direct phone number (919) 277-0230.

Sincerely,



Brian D. Griffith, AIA, LEED AP BD&C  
Principal Architect

**ATTACHMENT C**

The following resolution was introduced by Aldermen \_\_\_\_\_ and duly seconded by Aldermen \_\_\_\_\_.

**A RESOLUTION APPROVING A MINOR MODIFICATION TO THE 400 ROBERSON ST CONDITIONAL USE PERMIT ALLOWING FOR REVISING THE BUILDING SHELL, INTERIOR LAYOUT AND ASSOCIATED HARDSCAPE AND LANDSCAPING**

**WHEREAS**, the Carrboro Board of Adjustment approved a Special Use Permit for 400 Roberson St. property in 1972; and

**WHEREAS**, this project would require a Conditional Use Permit under the current provisions of the Land Use Ordinance; and;

**WHEREAS**, Town Staff has determined that this request constitutes a Minor Modification to the Conditional Use Permit; and

**WHEREAS**, the applicant has met the criteria in the Town’s Land Use Ordinance related to Minor Modifications.

**NOW, THEREFORE BE IT RESOLVED** by the Carrboro Board of Aldermen that the Minor Modification to the 400 Roberson St. Conditional Use Permit authorizing the revisions to the building shell, interior layout and associated hardscape and landscaping be approved subject to the following stipulation:

1. That signage on the building be provided directing users to the location of the bicycle parking.
2. That, based upon materials presented by the applicant at the meeting and their own request, the LUO nonconformities pertaining to sidewalk width and outdoor lighting be allowed to remain.

This the 23<sup>rd</sup> day of June, 2015



# Town of Carrboro

Town Hall  
301 W. Main St.  
Carrboro, NC 27510

## Agenda Item Abstract

**File Number:** 15-0279

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**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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### **TITLE:**

Review of Draft Agenda for Zoning 101 -Lloyd-Sunset Neighborhood

**PURPOSE:** The purpose of this item is for the Board of Aldermen to consider a proposed program for an informational session being developed to provide zoning information to the Lloyd-Sunset neighborhood.

**DEPARTMENT:** Planning

**CONTACT INFORMATION:** Patricia McGuire - 919-918-7327 - pmcguire@townofcarrboro.org

### **INFORMATION:**

During its winter 2015 retreat, members of the Board of Aldermen discussed the need for further review of non-owner occupancy in residential neighborhoods, how to define and regulate between commercial and residential zoning and how the Town should handle rezoning requests involving these topics. The Board of Aldermen also directed the Town Manager to reach out to the neighborhood known as Lloyd-Broad and Sunset with an informational session, 'Zoning 101.' Staff has reviewed some educational materials used for previous outreach efforts in town (i.e. related to the Planning Board outreach sessions in 2013 and advisory board training materials) and elsewhere and has developed an outline for a session that might be offered to neighborhoods in town, starting with Lloyd- Sunset. A draft agenda for the informational session and a map showing the neighborhood boundary are included as attachments (A and B). Staff is checking the Town and school calendars to identify possible fall dates for the session.

**FISCAL & STAFF IMPACT:** Some staff time is involved; preparation for one meeting is anticipated at this time.

**RECOMMENDATION:** Staff recommends that the Board of Aldermen provide feedback on the outlined concept.

## DRAFT AGENDA

### ZONING 101: WHAT CAN HAPPEN IN MY NEIGHBORHOOD?

- I. Zoning, generally – What, Why, When, and How.
- II. Planning, Zoning, Policy Overview for Carrboro
- III. Zoning framework – Lloyd – Sunset neighborhood
  - a. Zoning districts and development standards
  - b. Permissible uses/permit approval
  - c. Nonconformities
  - d. Residential – commercial
- IV. Mechanisms for change
  - a. Planning and policy framework (i.e. new or modified)
  - b. Regulatory framework (i.e. Land Use Ordinance text or map amendments)
  - c. Neighborhood Preservation (i.e. overlay districts)







# Town of Carrboro

Town Hall  
301 W. Main St.  
Carrboro, NC 27510

## Agenda Item Abstract

**File Number:** 15-0277

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**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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### **TITLE:**

Carrboro Arts & Innovation Center Update

**PURPOSE:** The purpose of this item is to update the Board on the work of the Technical and Steering Committees as related to the possibility of a Carrboro Arts & Innovation Center based on Proposed Path to a New Proposal.

**DEPARTMENT:** Planning and Manager's Office

**CONTACT INFORMATION:** Trish McGuire, [pmcguire@townofcarrboro.org](mailto:pmcguire@townofcarrboro.org)  
<<mailto:pmcguire@townofcarrboro.org>>, 919-918-7327; Julie Eckenrode, [jeckenrode@townofcarrboro.org](mailto:jeckenrode@townofcarrboro.org), 919-918-7308

**INFORMATION:** During hearings and meetings in early 2015, the Board of Aldermen received public comment and discussed the Carrboro Arts and Innovation Center (CAIC) concept that had been proposed as partnership. Per the Board of Aldermen's direction on February 19th, the idea of a proposed "reset" was shared with the CAIC partners and Orange County. The possibility of collaboratively exploring the possibility and merits of collocating a set of spaces that would include the planned Southern Branch Library, the Arts Center, Kidzu and the Town of Carrboro was discussed in the early spring. From that meeting, a process for exploring the "Pathway to a New Proposal (*Attachment A*)" was developed to include a steering committee and a technical committee. The steering committee consists of Orange County Manager Bonnie Hammersley, Carrboro Town Manager David Andrews, Arts Center Board members Don Rose and Phil Szostak and Kidzu Board member Betsy Bennett. The technical committee consists of Orange County Asset Management Director Jeff Thompson, Carrboro staff Julie Eckenrode and Trish McGuire, Arts Center staff Noel James and Kidzu staff Lisa Van Deman. The technical committee began meeting in April to compile information and to outline a plan of action for the summer months so that in the early fall the four parties could consider further commitments to examining possible collocation (such as funding for relevant studies or analysis). Technical committee members shared a PowerPoint presentation on the proposed plan of action with the steering committee on June 8<sup>th</sup> (*Attachment B*). Steering committee feedback was added to the slides (see red highlights). The presentation summarizes the work of the technical committee to date and includes a committee charge and proposed timeline. The work is proposed to include visioning and needs assessment and consideration of four potential sites for collocation: 203 S. Greensboro, the current Arts Center property, the Fireplace Editions building, and the "Armadillo Grill" parking lot.

On a parallel track, County staff continue to move forward with due diligence towards making a

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**Agenda Date:** 6/23/2015

**File Type:**Agendas

**In Control:** Board of Aldermen

**Version:** 1

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recommendation on sites for the planned Southern Branch library. An update on the library siting was included as an informational item for the Board of County Commissioners on June 16<sup>th</sup>; a copy is attached as *Attachment C*. Orange County staff recommendations on the sites currently under consideration are expected in the fall of 2015.

**FISCAL & STAFF IMPACT:** Staff impact involves involvement in technical and steering committee meetings. Fiscal impact is not yet known.

**RECOMMENDATION:** It is recommended to accept the report and provide feedback and direction to guide technical and steering committee meetings throughout the summer.

## Proposed Path to New Proposal

- Take everything off the table: location, financing mix, architectural plans, ownership structure, etc.
- The non-profit partners and public sector staff -- negotiate and propose a process that includes a generous timeline and time-bound benchmarks to see whether a better, stronger, financially palatable and feasible public-private partnership can be conjured.
- The process must include or acknowledge the following:
  - Shared objectives are fundamental to public-private partnerships. Objectives of engaging in a new process and potentially developing a new proposal must be clearly outlined, completely transparent, and mutually-agreed by all parties.
  - Engaging in this process does not constitute a commitment from the Town to participate financially in any development project.
  - The ArtsCenter retains Noel James as Interim Executive Director long enough to conduct a thorough business planning process, which includes:
    - Utilizing an outside consultant
    - Incorporating rigorous market, donor and stakeholder research
    - Financial plans and projections that demonstrate significant gains in diversifying private sector fundraising and membership development.
    - A plan for board development
  - The business planning process should "test" whether the market, revenue models or other factors related to either organization actually support a co-location strategy. It should also rigorously test financial capabilities of each organization such that their contributions to any potential project will be maximized, not underestimated.
  - A transition plan may or may not be part of the final business plan--but let the planning process inform this.
  - To the extent that Kidzu also needs a business plan, they do the same.
  - Any new proposal includes modified, shared assumptions about economic impact, growth, goals and measures, etc.
  - Public sector partners outline non-negotiables, participation limitations, or accountability requirements that must be included in any future proposal.

# CAIC Technical Review Committee Update – 6/8/15, Carrboro Town Hall

## Members:

Noel James, Interim Executive Director, The Arts Center

Lisa Van Deman, Interim Executive Director, Kidzu

Patricia McGuire, Planning Director, Town of Carrboro

Julie Eckenrode, Assistant to the Manager, Town of Carrboro

Jeff Thompson, Asset Management Services Director, Orange County

## Steering Committee members present:

ArtsCenter: Don Rose, Chair; Phil Szostak, Board Member

Kidzu: Betsy Bennett, Chair (teleconference); John Mills; Melissa Cain

Carrboro: David Andrews, Town Manager

Orange County: Bonnie Hammersley, County Manager

# Intended Outcome

- Update Technical Committee progress to Steering Committee
- Responses to “Proposed Path to New Proposal” Framework
  - Workgroup Charge
  - Timeline/Process Recommendations
  - Process Facilitation Recommendation
    - UNC SOG – Development Finance Initiative
- Receive Steering Committee Feedback

# Technical Committee Background

- Four meetings, lots of “homework”
- Organizational, process, and relationship focus
- Ready with a recommended plan to move forward along “Proposed Path to New Proposal” as drafted by Carrboro Alderperson Bethany Chaney

# Proposed Path to New Proposal

“Take everything off the table: location, financing mix, architectural plans, ownership structure, etc.”

TRC Recommendation:

This process starts anew with everything off the table. All CAIC proposals, sites, discussions, and expectations prior to April, 2015 organizations of Steering and Technical Review Committees are effectively cleared from the going forward discussion and work group product.

Steering Committee feedback:

Okay with recommendation; however past CAIC proposals will need to be treated in context with going forward discussions.

# Proposed Path to New Proposal

“The process must include or acknowledge the following:

Shared objectives are fundamental to public-private partnerships. Objectives of engaging in a new process and potentially developing a new proposal must be clearly outlined, completely transparent, and mutually-agreed by all parties”

TRC Recommendation:

The TRC’s draft “Charge” for the process addresses these objectives as well as the roles of both the Steering and Technical Review Committees

Steering Committee feedback:

Okay with Charge as described on Powerpoint slide # 6.

# Charge

- Compile information and prepare a report that lays the foundation for implementing the steps identified in the “Proposed Path to New Proposal” endorsed by the Carrboro Board;
- Perform the necessary work collaboratively and transparently with clearly defined objectives mutually agreed upon by all parties;
- Assess development opportunities and options (land & building, market support, partner operations, public input/process, and financing) for co-location; and
- Evaluate and potentially present a proposal for co-location following appropriate analysis (and governing board presentation/feedback) along a generous pre-development timeline.

# Proposed Path to New Proposal

“The non-profit partners and public sector staff – negotiate and propose a process that includes a generous timeline and time-bound benchmarks to see whether a better, stronger, financially palatable and feasible public-private partnership can be conjured.”

TRC Recommendation: The proposed timeline follows:

Task	Date	Deliverable to Steering Committee
Workgroup Organization	May-June, 2015	
Collaboration Space Planning	Jun-August, 2015	Co-location space plan, shared space location, share time
Market demand analysis, Partner business plan analysis; Land-use planning & physical site assessments; Public input on collaboration concepts	July-Sept., 2015	Projected unmet needs in marketplace 3-5 years out; feasibility of partner business plans and sites/needs for public private partnership; physical assessment; summary of public input on collaboration concepts
Co-location program uses/scale of uses; site recommendation	Oct, 2015-Jan. 2016	Endorsement of co-location program
Concept plan financing options, public-private partnership structure options	Feb-April, 2016	Endorsement of financing and partnership structures
RFP for project issued	May-June, 2016	Draft development agreement for evaluation and start of project.

## Steering Committee Feedback to Suggested Timeline on powerpoint slide #7:

- The groups agreed that the timeline tasks are not purely serial in nature and may have parallel tasks occurring simultaneously;
- Initial collaborative “vision planning” for a co-location concept will occur during the summer between the four partners (ArtsCenter, Kidzu, Carrboro, Orange County) during the summer)
- Financial analysis of co-location will occur throughout the process;
- “Generous” timeline trumps trying to “fit” the tasks within one year; in other words, groups will stay focused, but will not force the process.

# Proposed Path to New Proposal

“Engaging in this process does not constitute a commitment from the Town to participate financially in any development project.”

TRC Recommendation:

Engagement in the process by any participant (Town of Carrboro, Orange County, The ArtsCenter, Kidzu) does not constitute a commitment to participate financially in any development project. The parties agree to contribute staff time to the process.

Orange County, The ArtsCenter, and Kidzu agree to contribute to reasonable due diligence and process costs that inure to the benefit of the process and resulting proposal.

## Steering Committee Feedback to Financial Commitment powerpoint slide #9:

- All partners agree to the Financial Commitment statement within the original “Proposed Path to New Proposal”;
- Governing board decisions to contribute due diligence funds for the process (market studies, business planning, economic impact, physical analysis, etc.) will be tabled/postponed until after the staff “visioning” process occurs as well as no earlier than September, 2015;
- A potential recommendation for jointly contributing due diligence funds along an agreed upon formula may occur no earlier than the governing board agenda review cycle after the summer break.

TRC recommends working with the UNC School of Government's Development Finance Initiative ("DFI")

- a full service technical analysis resource for complex projects that may benefit from a public-private partnership;
- services include market analysis, partner operations and business planning consultation, physical site assessment, and financing/partnership structuring.
- Costs are estimated at up to \$50-75K for entire process with an additional 2-4% of the project

TRC recommends working with the UNC School of Government's Development Finance Initiative ("DFI")

- Costs are estimated at up to \$50-75K for entire process (under market value of a la carte services)
- DFI assumes this risk by participating in the project development fee should the project warrant a public-private partnership. This amounts to with an additional 2-4% in fees (based upon the total project cost) should the project be developed.

TRC recommends working with the UNC School of Government's Development Finance Initiative ("DFI")

- Most costs can be shared pro-rata among Orange County, ArtsCenter and Kidzu;
- Operations business planning consultation can be shared among ArtsCenter and Kidzu;
- Most physical site assessments (geotech, environmental, etc.) can be absorbed by the County on sites that may support the library should the collaboration not materialize.

# Steering Committee Feedback to DFI recommendation slides #11, #12, and #13:

- Staff will work through the visioning process during the summer to prepare:
  - a table of needed due diligence materials necessary for the co-location work;
  - options for sourcing the due diligence information; and
  - a detailed proposal from the UNC School of Government's Development Finance Initiative, its value proposition, cost structure, and areas of due diligence that will be addressed in the proposal.

# Proposed Path to New Proposal

“The ArtsCenter retains Noel James as Interim Executive Director long enough to conduct a thorough business planning process, which includes:

- Utilizing an outside consultant
- Incorporating a rigorous market, donor and stakeholder research
- Financial plans and projections that demonstrate significant gains in diversifying private sector fundraising and membership development
- a plan for board development”

TRC Recommendation:

Noel James remains affiliated with the ArtsCenter organization to support the organization and the inbound Executive Director in assisting in generating the information necessary for a successful business planning process critical to this process and resulting proposal.

Steering Committee feedback:

The ArtsCenter Board Chair, Don Rose, assured that Noel James will remain involved in the work.

# Proposed Path to New Proposal

“The business planning process should “test” whether the market, revenue models or other factors related to either organization actually support a co-location strategy. It should also rigorously test financial capabilities of each organization such that their contributions to any potential project will be maximized, not underestimated.”

## TRC Recommendation:

That a primary objective of the process will be assess the value of a co-location strategy for all participants, and that this value assessment will be evaluated using the best practices available within DFI’s evaluation.

## Steering Committee feedback:

The proposed due diligence scope of work will include generally accepted methods to test the factors contributing to the feasibility and sustainability of a co-location Model.

# Proposed Path to New Proposal

“A transition plan [for ArtsCenter leadership] may or may not be part of the final business plan – but let the planning process inform this.”

TRC Recommendation: Transition plans in Board and Management Leadership will inform this process.

Steering Committee feedback:  
Accepted without comment.

“To the extent that Kidzu also needs a business plan, they do the same.”

TRC Recommendation:  
As stated above, transition plans in Board and Management Leadership will inform this process.

Steering Committee feedback:  
Accepted without comment.

# Proposed Path to New Proposal

“Any new proposal includes modified, shared assumptions about economic impact, growth, goals and measures, etc.”

TRC Recommendation:

All planning assumptions (economic impact, growth, costs, meaningful measurement, etc.) will be shared, validated, and agreed upon between all parties throughout the process.

Steering Committee feedback:

Agreed as part of the shared due diligence scope.

“Public sector partners outline non-negotiables, participation limitations, or accountability requirements that must be included in any future proposal.”

TRC Recommendation:

All participation parameters and requirements will be addressed in the process.

Steering Committee feedback:

Partners agree to submit and attempt to mutually accept these requirements as part of the process.

# Sites Contemplated in Study

- 203 S. Greensboro\*
- Current ArtsCenter Location – 300 Main
- Fire & Hearth\*
- “Armadillo Parking” Location\*\*

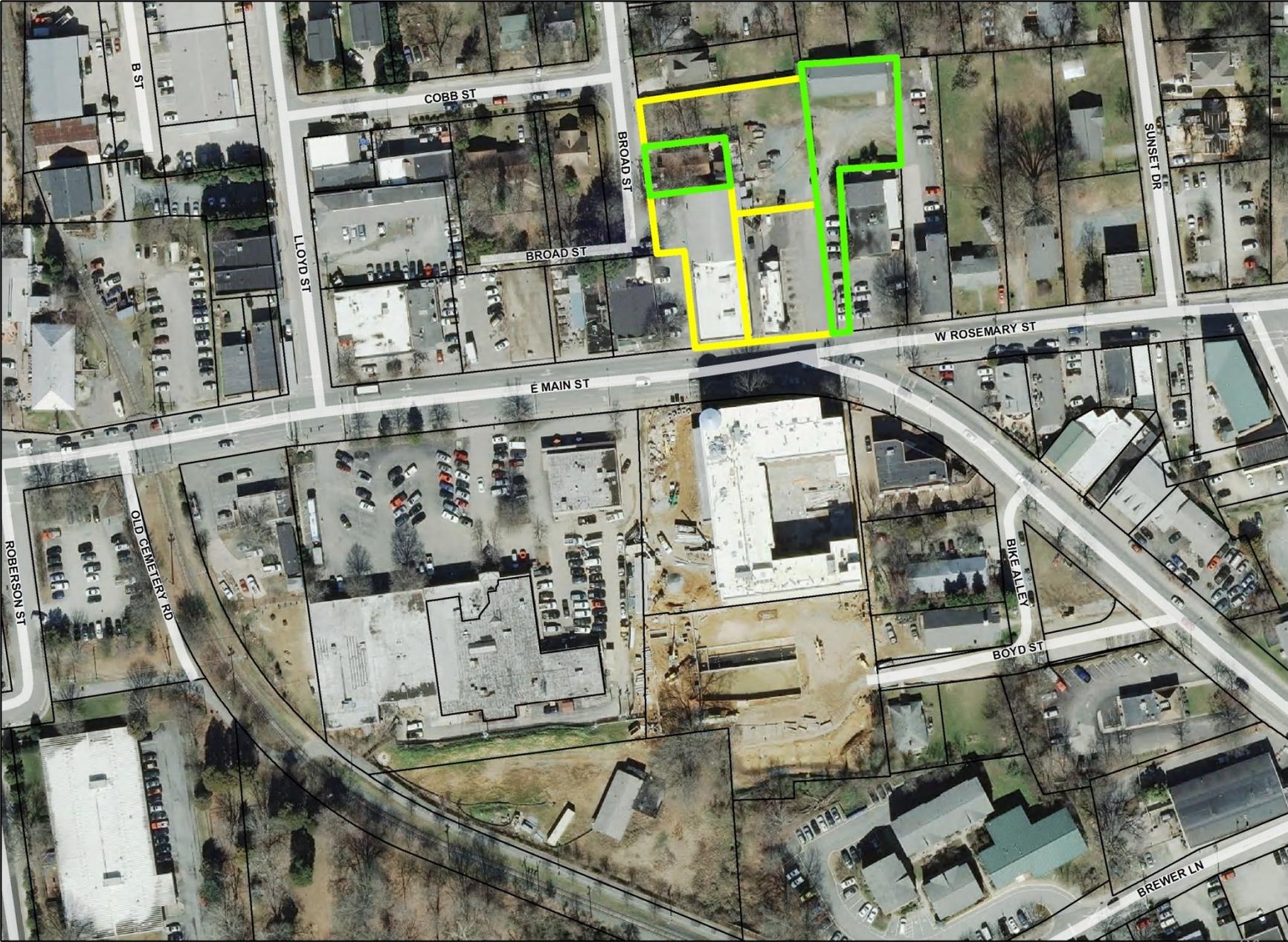
\*Studied by County as a standalone library site as well

\*\*Added by the Steering Committee on 6/8/15

# 203 S. Greensboro



Fire and Hearth



# Major strategic themes of process

- Fundamental questions, incentives for each group
  - Potential revenue and cost multipliers for co-location
  - Potential dilution of risk by co-location
  - “What’s the value for each participant in a co-location?”
- Standalone timelines of each partner
- Impact of Carolina Arts and Innovation Center announcement
- Requirement of public and/or private funds, relative risks for collaborative project
- Probability and magnitude of economic impact of collaborative project
- Utility and value (if any) of public private partnership structure

June 9, 2015

**MEMORANDUM**

**To:** Bonnie Hammersley, Orange County Manager

**From:** Jeff Thompson, Director, Asset Management Services  
Lucinda Munger, Director, Library Services  
Michael Harvey, Planner III  
Andrea Tullos, Assistant Director, Library Services

**Subject:** Southern Branch Library Siting Update; Carrboro Arts & Innovation Center Working Group Update

**Southern Branch Library Siting Update**

Staff continues to work toward the analysis and recommendation of sites for a potential Southern Branch Library. In early 2015, the Development Agreement discussions regarding the Brewer Lane property between Orange County and property owner/site developer, Main Street Partners, ended amicably without an agreement to develop a library at the site. The relationship between the County and the Developer remain strong.

Staff continues to conduct preliminary due diligence on several sites proposed by the Board of County Commissioners and Carrboro. Updates and staff recommendations on these sites are attached:

Attachment 1 - ***The Carrboro Century Center;***

Attachment 2 - ***203 S. Greensboro Property*** (initially proposed for study by Carrboro in May, 2013);

Attachment 3 - The former ***Fire & Hearth*** site (East Main Street across from the Hilton Garden Suite Hotel);

Staff will continue to work on these sites within the preliminary site due diligence framework approved by the Board of Commissioners and will seek feedback from the Board in the fall of 2015.

In addition to these three sites, staff has recently begun preliminary due diligence ***on 501/503 West Franklin***, a County property that houses the Chapel Hill/Orange County Visitor's Center, the Skills Development Center, Durham Technical Community College, Guardian ad Litem, and tenant occupant TerraDotta. This site was studied by staff in 2010; current staff recommendations have not been developed and will be forthcoming in the fall of 2015.

## Attachment 1 - Century Center Preliminary Phase Due Diligence



### Background

The .7 acre Century Center is owned by the Town of Carrboro and currently houses the Carrboro Police Department, Carrboro Parks and Recreation, and the Orange County Cybrary. The two level facility is approximately 23,540 gross square feet and in area with a net useable flood area of 18,000 square feet. An adjacent .46 acre parcel, also owned by the Town, contains 39 publically dedicated parking spaces. An additional 17 spaces are on the east side of the main parcel.

Each level yields approximately 9,000 usable square feet in its current configuration.

Conceptually, the site would be re-purposed in some part to house a Southern Branch Library while displaced Carrboro staff would relocate, potentially to a refurbished Carrboro Town Hall. Jeff Thompson and Michael Harvey are working with David Andrews and Patricia McGuire on studying merits of this site as well as the development variables related to the possible renovation of Town Hall.

Preliminary review of the viability of the Century Center, consistent with adopted site criteria, has been completed.

Positive characteristics, according to the criteria are as follows:

1. The site meets the criteria points of location and access;
2. The parcel is in downtown Carrboro,
3. The overall facility appears structurally able to be re-purposed for a more open library floor plan;
4. The facility is zoned appropriately for a library; however the use would need to be re-applied within the CUP framework;

Challenging characteristics according to the criteria are as follows:

1. Use of the facility would depend on the relocation of Carrboro staff. Development of a library, therefore, would be delayed until appropriate space is created with no guarantee(s) of a timeline on which this would be achieved. There is also no firm idea on the total amount of space that will be available to support the library,
2. Onsite parking, should the facility be shared with some Carrboro department staff, would be limited, causing the site to require off-site parking;
3. The site is severely challenged with regard to handicapped accessibility, a lack of natural light, and is not equipped with an elevator;
4. There is little or no ability for future expansion.
5. The County may be asked to be involved physically or financially with the renovation of the Carrboro Town Hall.

**Staff recommendation:**

At this point, continue performing due diligence work in collaboration with Carrboro staff in the areas of:

1. Determining the Carrboro staff (Police and Parks and Recreation Departments) that would relocate to Carrboro Town Hall or other locations in order that a more definitive schematic space plan could be prepared for the Southern Branch Library within the Century Center;
2. Performing the physical due diligence for the feasibility of renovating Town Hall to house the potentially relocated Carrboro staff;
3. Developing schematic partnership structure and cost options between Orange County and Carrboro for review, discussion, and Board Direction.

## Attachment 2 - 203 S. Greensboro Preliminary Phase Due Diligence



### Background

The .89 acre Century Center is owned by the Town of Carrboro and is currently utilized as a public parking lot.

The parcel was submitted for consideration and evaluation as a library site by the Carrboro Town Board on May 10, 2013. Staff had studied the parcel in accordance with established library site evaluation criteria and initially determined potential benefits, with respect to the development and/or use of the property, were outweighed by identified benefits constraints including:

- a. Proximity to existing residences creating issues for property owners (i.e. noise, traffic, congestion, etc.)
- b. Cost of construction,
- c. Traffic impacts,
- d. Limits of expansion opportunities.

After having additional discussions with the Town of Carrboro, which included the review of a previously approved development proposal for the site and Carrboro staff's assurances over potential development of satellite parking to support a library, staff is re-evaluating the property.

Buildable area on the parcel is estimated to be at approximately 30,000 square feet. With the construction of a single level structure, staff estimates a 15,000 square foot library structure, with adjacent surface parking for approximately 50 vehicles, may be achieved.

It should be noted local zoning allows a multi-level building to be constructed on the property. As a result a larger, multi-floor, building can be erected to house other users. This site has potential for the collaborative Carrboro Arts and Innovation Center that could house the library, the Arts Center, the Kidzu Museum, and potentially other uses.

Positive characteristics, according to the adopted site evaluation, criteria for the property are as follows:

1. The site meets the criteria points of location and access;
2. The site is in downtown Carrboro;
3. The site is fairly level and open with access to needed utilities;
4. The facility is zoned appropriately for a library use; however the use would likely require a Conditional Use Permit application;
5. The parcel is owned, and was submitted for evaluation, by the Town of Carrboro;
6. The County may experience a more favorable acquisition cost structure in its negotiations with Carrboro.

Challenging characteristics according to the criteria are as follows:

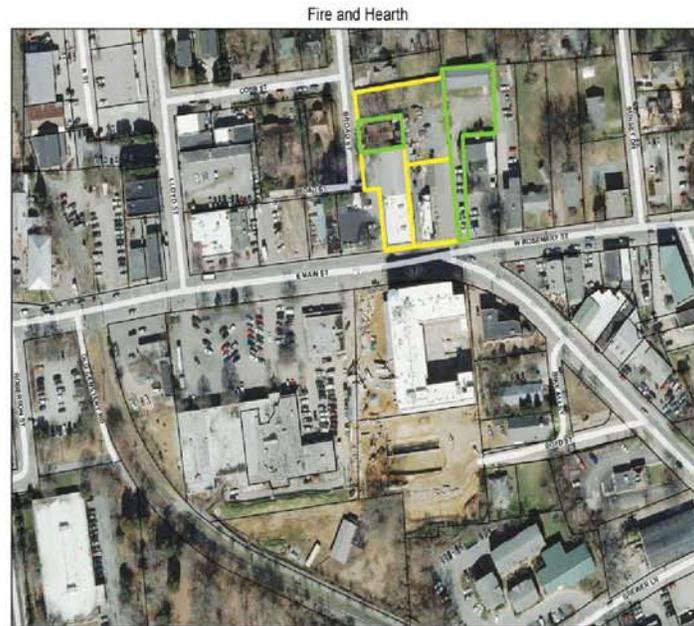
1. The presence of unsuitable soils and rock are a concern; however a full geotechnical analysis of the site will inform this;
2. The topography and drainage of the site limit on grade entrances to a proposed facility to the west side of the property bordering Jones Ferry Road
3. Future expansion would be limited to building more levels to the facility; designing for this possibility would increase the cost of the initial structure.
4. Final determination on the need to develop parking either on or off-site has not been formalized. As a result staff is unsure what we could be walking into with respect to a requirement that we replace the public parking displaced as a result of a library being constructed on the parcel.
5. Traffic studies have not been completed identifying the viability of locating a library here.

**Staff recommendation:**

At this point, continue performing due diligence work in collaboration with Carrboro staff in the areas of:

1. Physical and geotechnical due diligence;
2. Performing the physical due diligence for the feasibility of developing the site as both a single and multi-story structure.
3. Continuing to review and develop an understanding on the parking requirements/needs for a standalone library structure and surface parking; and
4. Developing schematic partnership structure and cost options between Orange County and Carrboro for review, discussion, and Board Direction.

### Attachment 3 - Former Fire & Hearth Property Assembly Preliminary Site Due Diligence



#### Background

A three parcel collection of semi-contiguous parcels anchored by the former Fire & Hearth retail store and Browning Ferrell Furniture totaling approximately .9 acres is currently on the market for sale (hereafter 'Fire & Hearth parcels'). This location is opposite of the 300 Main development on the north side of East Main Street. As currently comprised the parcels do not offer sufficient land area, or road frontage, to support development of a library facility. Vehicular access would also be complicated. Additional land area would have to be secured to achieve sufficient land area for library development as well as ensure proper vehicular ingress/egress to and from the site.

Contiguous to these parcels is a .26 acre restaurant and a .1 acre single family residence not for sale. Inclusion of these two parcels would improve the use of the property, including access for a library project. As of the writing of this report there have been no overtures made to these property owners to discuss their attitudes on potential purchase options.

The Fire & Hearth parcels will likely to be valued in the market at the equivalent \$800K- \$1MM per acre. Using the \$1MM per acre figure as a benchmark, staff has estimated the cost of the full assembly (i.e. purchase of approximately 1.26 acres in support of library space development) would total approximately \$1.26MM. This assumes successful purchase of adjacent properties.

With surface parking feasible on this assembled site in lieu of structured parking, the budgeted costs for the Brewer Lane ground lease and purchased structured parking (\$600K + \$900K = \$1.5MM) may be in line with this assembled site's purchase and surface parking development costs.

Overall development costs are expected to be no greater than most other downtown sites (and which likely could be substantially less on the whole because the site could be surface parked).

Conceptually, the buildings on the property would be deconstructed and the entire site developed for a single or dual level building with onsite surface parking.

Positive characteristics according to the criteria are as follows:

1. The site meets the criteria points of location, visibility and access;
2. The site is in downtown Carrboro;
3. The site conditions are topographically ideal and seem to be able to carry the structural loads of a Southern Branch Library and required surface parking;
4. The facility is zoned appropriately for a library; however a CUP process would be required;
5. Land acquisition costs are roughly equivalent to Brewer Lane given the more expensive structured parking at Brewer Lane and surface parking on this site.

Challenging characteristics according to the criteria are as follows:

1. The assembly of the five parcels is necessary for the site to work as a library; this is challenging and largely unknown at this point;
2. Required deconstruction costs would add to the total project cost of the project
3. Given the size of the parcel(s), expansion to accommodate future library space or space for alternative uses, will not be practical.

**Staff recommendation:**

Staff should continue performing due diligence work. A decision point after the completion of preliminary due diligence may be to engage with a real estate broker to assemble the properties under an option to purchase structure.

### **Carrboro Arts & Innovation Center (“CAIC”) Working Group Update**

In the spring of 2015, an organizational meeting was held with the elected and appointed chairpersons of Orange County, Carrboro, the Arts Center and Kidzu, along with the organizations’ managers and executive directors to collaboratively explore the merits of co-locating and sharing a set of spaces that would serve and benefit the County’s Southern Branch Library, Carrboro, the Arts Center and the Kidzu museum within the central cultural area of Carrboro.

A steering committee consisting of County Manager Bonnie Hammersley, Carrboro Manager David Andrews, ArtsCenter Chair Don Rose, ArtsCenter Board Member Phil Szostak, and Kidzu Board Chair Betsy Bennett has been formed to guide this effort and report findings and recommendations to the respective governing boards. A technical committee consisting of Orange County Asset Management Services Director Jeff Thompson, Carrboro Planning Director Trish McGuire, ArtsCenter Interim Executive Director Noel James, and Kidzu Interim Executive Director Lisa Van Deman staff has been formed to advise the steering committee in its work.

The work of these groups will follow the general guidelines of the “Pathway to a Proposal” proposed by Carrboro Alderperson Bethany Chaney during an early spring Carrboro Board meeting.

The Steering and Technical Committees met on June 8, 2015 to discuss tasks and guidelines with the “Pathway to a Proposal”. The group agreed on its collective charge and has charted a course to move forward with due diligence on four sites:

1. 203 S. Greensboro Street site
2. The current ArtsCenter site
3. The former Fire & Hearth Site
4. The “Armadillo Grill Parking” site (the site previously proposed by the CAIC group earlier in 2015)

The group agreed to collaborate on a co-location visioning plan through the summer of 2015, develop business plans focusing on potential co-location synergies, and—depending upon the summer’s work-- be in position to consider investing together on required due diligence that will continue to examine and potentially build a co-location development case.

Attached is a PowerPoint deck of slides that facilitated the group’s discussions on June 8, 2015 and captures the consensus and basis for moving forward with the collaboration. The PowerPoint deck is framed upon the “Pathway to a Proposal” written by Alderperson Bethany Chaney. The comments highlighted in red represent the Steering Committee feedback and points of general group agreement for going forward work.





# Town of Carrboro

Town Hall  
301 W. Main St.  
Carrboro, NC 27510

## Agenda Item Abstract

**File Number:** 15-0280

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**Agenda Date:** 6/23/2015

**File Type:** Agendas

**In Control:** Board of Aldermen

**Version:** 1

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### **TITLE:**

Adoption of Resolution - Eno-Haw Regional Hazard Mitigation Plan

**PURPOSE:** The purpose of this agenda item is for the Board of Aldermen to consider adoption of a resolution approving the community's natural hazards mitigation plan.

**DEPARTMENT:** Planning, Fire

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**INFORMATION:** Review of the Eno-Haw Regional Hazard Mitigation Plan began on June 16th (see <https://carrboro.legistar.com/LegislationDetail.aspx?ID=2355455&GUID=835AAB06-977B-416A-92AB-D150306066CB&FullText=1>). Board members offered questions and comments on the plan related to the lack of reference to climate change as a natural hazard, wildland firefighting preparedness for local forests, and potential effects of fracking in the area, particularly at the interface of the Carolina Slate Belt and Triassic Basin. Staff is following up on these questions and will provide responses as they are available. A revised resolution related to adoption of the plan is in preparation and is expected to be available in advance of the meeting.

**FISCAL & STAFF IMPACT:** None.

**RECOMMENDATION:** Staff recommend that the Board of Aldermen consider adoption of a resolution adopting the Eno-Haw Regional Hazard Mitigation Plan.