



**Wake County Human Services Board
December 17, 2015
7:30 am – 10:00 am
AGENDA**

**Swinburne Human Services Center, Room 2132
220 Swinburne Street, Raleigh, NC 27610**

www.wakegov.com

Dr. James Smith III, Chair
Mr. John Myhre, Vice Chair
Ms. Margaret Raynor, Treasurer

Purpose: Advocacy, Policy, Advisory, Accountability

7:30 am Meeting Called to Order

Reflections: Dr. Paul Scruggs

Approval of Minutes: November 19, 2015

**Next Board Meeting: January 28, 2015
Swinburne Human Services Center
Room 2132
220 Swinburne Street
Raleigh, NC 27620**

**7:45 am Human Services Board Officers Oath of Office –
Mr. Kenneth Murphy**

- ❖ Chair – Dr. James Smith, III
- ❖ Vice Chair – Mr. John Myhre
- ❖ Treasurer – Ms. Margaret Raynor

**Human Services Board New Member Oath of Office –
Mr. Kenneth Murphy**

- ❖ General Public representative – Mr. David Cottengim

**8:00 am Human Services Board Panel Recommendation on Marge
Russell Cell Tower Appeal Hearing [PH Accreditation
Benchmarks # 18.1, 18.2, 34.2, 35.1] – Mr. Kenneth Murphy**

**8:50 am Overview Report of Immunization Services in Clinic E [PH
Accreditation Benchmark # 2.2A] – Ms. Jayn Moore,
Dr. Sue Lynn Ledford**

9:00 am Board Committee Chairs' Reports

- ❖ Dr. Sharon Foster, Chair, Public Health Committee
- ❖ Ms. Angie Welsh, Chair, Social Services Committee

- 9:10 am Appointment of Committee Chairs – Dr. Jim Smith**
- 9:15 am Human Services Director’s Report – Ms. Regina Petteway**
- 9:25 am Environmental Services Director’s Report –
Dr. Joseph Threadcraft**
- 9:35am Human Services Board Chair’s Report – Dr. Jim Smith**
- ❖ Advocacy Reception Planning
 - ❖ Annual Retreat Planning
- 9:45 am Public Comments**
- 10:00 am Adjournment**
-

Human Services Mission Statement

**Wake County Human Services, in partnership with the community, will facilitate full access to high quality and effective health and human services for Wake County residents.
March, 2014**

Environmental Services Mission Statement

The Wake County Environmental Services Department improves the environmental quality of life for the stakeholders of Wake County through the following initiatives: Administration, Animal Services, Environmental Health & Safety, Solid Waste and Water Quality.

Animal Services:

The Wake County Environmental Services Animal Services Division, in partnership with the community, will serve the citizens of Wake County through the enforcement of Animal Control laws for the municipalities covered by Wake County Animal Control and provide a safe environment for the intake and housing of stray animals, adoption services of healthy and treatable animals, and educational outreach to the citizens of Wake County.

Environmental Health and Safety:

The Wake County Environmental Services Environmental Health and Safety Division will reduce public health and safety risks to citizens and visitors of Wake County through efficient and effective plan review, audits, and education.

Solid Waste:

The Wake County Environmental Services Solid Waste Division will protect the public health and safety of Wake County citizens by providing quality municipal solid waste services that are efficient, cost effective and environmentally responsible.

Water Quality:

The Wake County Environmental Services Water Quality Division will foster a healthy community and clean water.

June, 2014

2014-2015 Human Services Board Priorities (January, 2014)

- ❖ **Healthy Behaviors – Public Health Committee is developing this work plan**
- ❖ **Human Capital Development – Social Services Committee is developing this work plan**

**Wake County Human Services Board
Regular Meeting Minutes
November 19, 2015**

Board Members Present:

Mayor Frank Eagles
Pablo Escobar
Dr. Sharon Foster
Leila Goodwin
Kent Jackson
John Myhre
Dr. Rosine Sanders
Dr. Paul Scruggs
Dr. Jim Smith
Dr. Jacqueline Tavarez
Stephanie Treadway
Angie Welsh
Commissioner James West
Dr. Seth Wexler
McKinley Wooten, Jr.

Staff Members Present:

David Ellis
Regina Petteway
Kenneth Murphy
Dr. Joseph Threadcraft
Cassandra Watford
Elizabeth Scott
Caroline Harper
Amina Shah
Alicia Arnold
Dr. Johanna Irving
Michael Orbon

Guests Present:

Dr. Gary Oyster, Wake Smiles
Dianne Keyser, Wake Smiles
Dr. Chris Sheaffer, Wake Smiles
Mark Casey, NC Department of Health & Human Services, Division of Medical Assistance
Darlene Baker, NC Department of Health & Human Services, Division of Medical Assistance

Call to Order

Chairman Dr. Jim Smith called the meeting to order at 7:35 am and thanked everyone for attending.

Recognition of Outgoing Board Members

Dr. Smith presented certificates of appreciation to the Mr. Pablo Escobar and Dr. Jacqueline Tavarez for their service on the HS Board.

Reflections

Dr. Rosine Sanders shared reflections. She read a meditation from a book titled Calligraphic Meditation for Everyday Happiness.

Approval of Minutes

Mr. John Myhre motioned, seconded by Dr. Sharon Foster to approve the October 22 meeting minutes. The motion was adopted unanimously by the Board.

Next Board Meeting

The next Board meeting will be held December 17, 2015 from 7:30 to 10:00 am at Swinburne Human Services Center. Note: the December meeting is held on the third Thursday instead of the fourth Thursday, because of Christmas Holidays.

Panel Presentation: The State of Dental Care in Wake County [PH Accreditation Benchmark # 40.1] –

This presentation was covered by local news channel WRAL including an interview with Dr. Paul Scruggs.

Panel Presentation: The State of Dental Care in Wake County

- **The Dental Dilemma** (presented by Dr. Paul Scruggs)
- **Dental Access in Wake County: Scope of Dental Access Issues** (presented by Dr. Chris Sheaffer)
- **NC Medicaid Dental Services** (presented by Ms. Darlene Baker)
- **The Wake County Dental clinic** (presented by Dr. Johanna Irving)
- **Wake Smiles** (presented by Ms. Diane Keyser)

The Dental Dilemma

(Presented by Dr. Paul Scruggs)

Dental care in the community falls short, despite many prevention efforts including patient education, fluoride through public health efforts, and public health hygienists in schools. Dental problems are preventable.

The Journal of American Dental Association (JADA) published a study that looked at trends in Emergency Department (ED) visits. The leading reason for visit, by age category, was toothache.

Issues in dental care include:

- People neglect their oral health
- Dental care is expensive and many people do not have money/resources to receive proper care
- Emergencies are usually severe problems requiring extensive resources and time
- Safety nets are limited

The society should work together to improve people's lives, because dentistry cannot do it alone. Bad smile effects self-esteem and one's ability to be move upwards in society. Toothaches cause sick days leading to loss production to the organization and loss of income to the individual.

Dental Access in Wake County: Scope of Dental Access Issues in Wake County

(Presented by Dr. Chris Sheaffer)

There is significant need for dentistry, as presented in information below

- Many dental patients have no resources, as supported by statistics from NC Medicaid Paid Claims Data (2008):
 - 88,470 Medicaid recipients in Wake County (2010)
 - Population below 100% poverty level: 10.2% in Wake County as compared to 16.2% in NC
 - Uninsured population: 18.4% in Wake County as compared to 19.7% in NC
- Dental options are scarce
 - There is one federally qualified health center in Wake County that provides dental care for their own medical patients
 - Wake County hospitals have no dental clinics
 - Wake Smiles provides dental care for patients referred by safety net organizations
- Diagnosis and treatment are time consuming
 - Frequently, each patient has more than one dental problem requiring multiple radiographs and tests
- Low reimbursement
- Emergency Department Loop
 - Many patients do not have money for out of pocket expenses, so they go to ER. They cannot be turned away at ER, because of medical coverage. However, ER is not set for definitive treatment, so pain goes away short term, with possibility that patients return.

NC Medicaid Dental Services

(Presented by Ms. Darlene Baker, Lead Policy Analyst, Division of Medical Assistance, NCDHHS)

There are 1.8 million Medicaid beneficiaries annually including medically indigent children, pregnant women, aged, blind and or disabled individuals

- By demographics: 60% female, 40% male, 39% white, 44% black, 27% other race
- Number of adults enrolled with Medicaid in 2014 = 863,278

In most cases, states offer the same type of dental coverage to all adult Medicaid enrollees. A color coded map shows type of coverage for each state (in presentation). NC has extensive coverage.

Budget Update

- In SFY 2015, Dental expenditures = \$360 million
- In SFY 2014, Dental expenditures = \$332 million

Provider Participation

- From SFY 2009 to SFY 2013, number of actively participating billing providers has remained relatively constant
- Number of participating attending providers is approximately 2200-2300
- 45-50% of the active licensed dentists in NC are rendering providers on at least one Medicaid paid claim each year

Wake County Human Services: Dental Health Program

(Presented by Dr. Johanna Irving)

Patient Population of Wake County Human Services (WCHS) Dental Health Program includes children (0-20 years old) and pregnant women.

- 73% are insured
 - 66% insured through Medicaid
 - 7% insured through Health Choice
- 27% are uninsured
 - Self-pay
 - Sliding fee scale

Services provided include:

- Preventive: exams, cleanings, x-rays, sealants, fluoride and education
- Treatment: restorations, extractions, space maintenance and orthodontics

Community outreach activities include:

- Screening, referral and follow-up
- Education at sites including NC Pre K-preschool classrooms, community sites targeting high risk populations, and WCPSS schools

Wake Smiles

(Presented by Ms. Diane Keyser, Executive Director, Wake Smiles)

Wake Smiles, founded in May 2001, provides dental care to low income or unemployed adults. It provides care for serious dental issues and offers preventative services to maintain a healthy mouth. It is made possible by community support, as it is supported by a number of donor organizations.

Problems:

- ACA has made healthcare more accessible, but obtaining dental care is still difficult
- The need for proper dental care to maintain a healthy mouth is increasing
- Poor oral health dictates how individuals live their daily life

Discussion:

In closing, Dr. Scruggs noted that the purpose for together this panel presentation was to identify the problem and gaps, describe available assets at the state and county levels, and bring to attention the needed resources.

Dr. Scruggs reported that the need for dental treatment for the uninsured and working poor adult is great with very little safety net available as is evident by the frequent use of hospital EDs. A non-profit like Wake Smiles does offer a solution but is entirely reliant on volunteer providers at this time. The Public Health committee and Human Services Board should advocate for whatever funding might be available to allow this safety net partner to hire a contract dentist. A grant of \$200,000 would more than secure that hire and provide addition supplies to at least double the current production of the clinic. It is much more cost effective for the county to

support a partner who is utilizing free rent, utilities and a large portion of its labor as opposed to trying to expand dental services within the HS department.

Ms. Diane Keyser said personnel resources are needed for Wake Smiles. Hiring a dentist, who will also serve as adjunct faculty, will greatly increase Wake Smiles' capacity to serve and teach.

Questions:

Question from Ms. Lisa Cauley: are there more orthodontists participating the dental Medicaid program?

Response from Ms. Darlene Baker: yes, there are more orthodontists than before participating in dental Medicaid.

Board Action:

Recognizing the need of money/resources for dental care in the community, the Board decided to work with staff to list this as one of its advocacy priorities for the next budget season.

Ms. Regina Petteway asked Ms. Cassandra Watford, Dr. Sue Lynn Ledford, and Dr. Johanna Irving to look at the next steps possibilities in funding sources to guide the Board's advocacy efforts.

*Presentations attached to October agenda.

Human Services Board Panel Recommendation on Anthony Hunt Dangerous Dog Appeal Hearing [PH Accreditation Benchmarks # 18.1, 18.2, 34.2, 35.1]

(Presented by Mr. Ken Murphy)

On September 7, 2015, Wake County Environmental Services/Animal Control designated "Buddy" a Dangerous Dog pursuant to the Wake County Animal Control Ordinance. Buddy's owner appealed and on October 28, 2015, the Wake County Human Services Board Appeal Panel conducted a hearing and upheld the Dangerous Dog designation.

As required by the Wake County Human Services Board Rules of Appeal, the full Human Services Board reviewed and discussed the Appeal Panel's decision to vote to adopt, modify, or reverse it.

Board Action:

By a unanimous vote of 15-0, the Wake County Human Services Board adopted the recommendation of the Appeal Hearing Panel and upheld the Dangerous Dog designation by Wake County Animal Control.

*Appeal Panel's Recommended Decision and Evidence attached to November agenda

Composition of Wake County Foster Care Population. Follow-up to End of Year Trends & Horizons Update

(Presented by Ms. Lisa Cauley)

This presentation is a response to the Board's request to review Child Welfare data related to children in foster care.

Placed in Wake County:

517 of children currently in custody are placed in Wake County

- 332 placed with a non-Relative
 - 140 placed in Wake County Foster Home
 - 78 placed in Private Foster Home
 - 57 placed in Therapeutic Foster Home
- 185 placed with a Relative
 - 28 placed with Licensed Relative

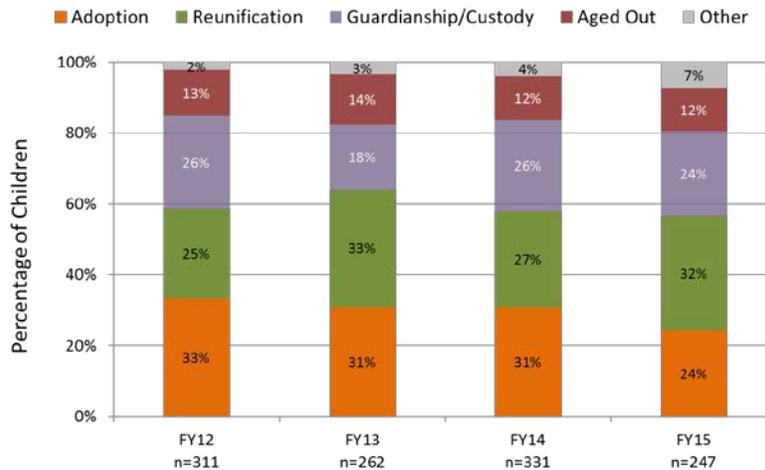
Placed Outside Wake County:

255 of children currently in custody are placed outside Wake County

- 185 placed with a non-Relative
 - 66 placed in Therapeutic Foster Home
 - 48 placed in Group Home
 - 39 placed in Private Foster home
- 70 placed with Relative
 - 3 placed with Licensed Relative

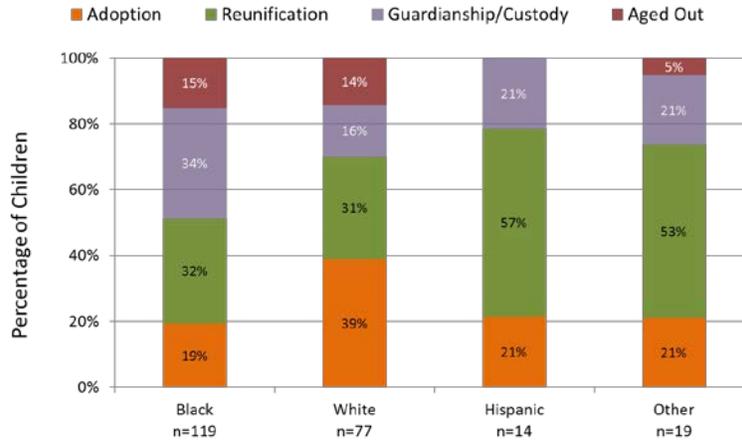
Children Exiting Custody

Authority End Reason by Exit Cohort
FY12 through FY 15



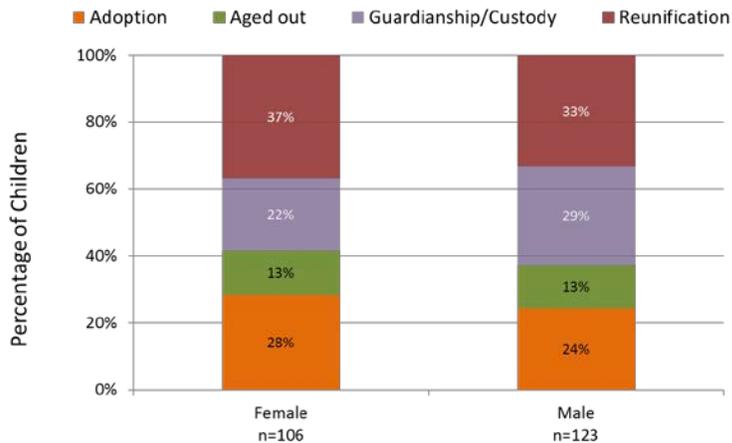
Datasource: WCHS Child Welfare as of November 12, 2015

Authority End Reason by Exit Cohort Child Race FY 15



Datasource: WCHS Child Welfare as of November 12, 2015
 Note: Children exiting for reasons other than those depicted in this chart were excluded. These children exited due to authority being revoked or case transferring to another county or state.

Authority End Reason by Exit Cohort Child Gender FY 15



Datasource: WCHS Child Welfare as of November 12, 2015
 Note: Children exiting for reasons other than those depicted in this chart were excluded. These children exited due to authority being revoked or case transferring to another county or state.

Strategies to Address Adoption Backlog

- Added temporary workers and reassigned positions to adoption cases
- Streamlined paper work process
- County Attorney’s office added two paralegal positions dedicated to processing Termination of Parent Rights Petitions
- Added an Administrative Staffing, “The Amazing Race to Permanency”.
- Collaboration with the Clerk of Court’s Office

Board Committee Chairs Reports

Dr. Sharon Foster, Chair of Public Health (PH) Committee:

PH Committee will be meeting after the Board this month, because of the change in schedule due to holidays. At this meeting, the Committee will be reviewing/discussing injury prevention, specifically related to youth and older adults. PH Committee will hold its meetings at Sunnybrook instead of Millbrook, starting in November 2015.

Ms. Angie Welsh, Chair of Social Services (SS) Committee:

SS Committee received presentation on Consumer Affairs 2014 Customer Satisfaction Report and the reassessment of customer survey tool during its meeting on November 6, 2015.

Human Services Director's Report

(Presented by Ms. Regina Petteway)

Introduction of New Staff Members

- Ms. Annemarie Maiorano, HS Deputy Director of Operations
- Ms. Cassandra Watford, HS Finance Director

Ms. Patricia Baker has resigned as the Social Services Division Director, as she has accepted another position in Alexander County, NC. Mr. Sam Haithcock will serve in her place in an interim role.

HS will be hiring for a new position, Deputy Director of Social Services.

Environmental Services Director's Report

(Presented by Dr. Joseph Threadcraft)

General Surveillance to Include Tracking E.Coli [PH Accreditation Benchmarks # 2.4, 4.2]

General Surveillance is applicable to all reportable diseases.

1. Case tracking
 - a. State law lists 73 reportable diseases and conditions
2. Citizen complaints
 - a. FY 2015 - Received 234 complaints of possible foodborne illness
 - i. 13 total E. coli cases, one of which was E. Coli 0157
 - b. Two or more un-associated cases is considered an outbreak
3. Recall monitoring
 - a. Recalls are managed through
 - i. U. S. Food and Drug Administration (FDA)
 - ii. U. S. Department of Agriculture (USDA)
 - b. EH & S monitors recalls via FDA's website
 - c. State staff person monitors and reports recall surveillance statewide

State Fair Update [PH Accreditation Benchmarks # 2.4, 4.2]

State Fair (Environmental Health & Safety)

Overview

1. NC Department of Agriculture (NCDA) regulates items such as
 - a. Bakery
 - b. Popcorn
 - c. Candies
2. Environmental Health & Safety regulates prepared foods
 - a. Permitted 147 Temporary Food Establishments (TFE's) in 2015
 - b. Staff maintained 100% inspection coverage

Food Safety Concerns

1. Inadequate cooling of leftovers
2. Unprotected food after hours
3. Wastewater leaks

Issues

1. Turkey legs – Questionable turkey legs discovered via anonymous complaint to NC Department of Agriculture which issued a Class I recall.
 - a. **Class I recall:** a situation in which there is a reasonable probability that the use of or exposure to a violative product will cause serious adverse health consequences or death.
2. Illegal food vendor – Unlicensed vendor was selling food to carnival workers and was instructed to cease.
3. Vendor was selling unpermitted food items and instructed to cease and apply for correct permit next year.

State Fair (Water Quality)

Overview

1. Staff Resources
 - a. 14 days
 - b. 163 hours
2. Accomplishments/results (No penalties were assessed)
 - a. Inspected 227 living quarters
 - b. Maintained 100% coverage
 - i. Immediately corrected 30 – 40 minor water/sewer leaks
 - ii. Immediately corrected 5 incidents of sewer being discharged into the storm water drains

State Fair (Summary)

Planning

In addition to a debrief, planning for the next State Fair begins as soon as the current Fair ends

Questions:

Question from Dr. Foster: How is Wake County doing so well in preventing the E-coli outbreak?

Response from Dr. Threadcraft: Wake County Environmental Services works closely with Human Services. Human Services has health educators who do education and outreach for safe food storage and cooking. Environmental Services also does aggressive inspections of restaurants.

Human Services Board Chair's Report

(Presented by Dr. Jim Smith)

HS Board Executive/Nominating Committee held a conference call on November 18, 2015 and voted to recommend to HS Board to extend the term of Ms. Stephanie Treadway, as HS Consumer to November 14, 2016.

Board Action:

Ms. Leila Goodwin motioned, seconded by Mr. McKinley Wooten to accept the vote and recommend this to Board of Commissioners. The motion was adopted unanimously.

Public Comments

There were not any members of the public present for the Public Comments period.

Adjournment

The meeting was adjourned at 10:00 am.

Action Items

- Ms. Regina Petteway asked Ms. Cassandra Watford, Dr. Sue Lynn Ledford, and Dr. Johanna Irving to look at next steps and possibilities in funding sources for dental needs to guide the Board's advocacy efforts.

Board Chair's Signature: _____

Date: _____

Respectfully Submitted By: Ms. Amina Shah

**WAKE COUNTY HUMAN SERVICES BOARD
AGENDA ITEM SUMMARY SHEET**

Agenda Date: December 17, 2015

Item: Full Board's review of the Appeal Panel's decision upholding Wake County Environmental Services' determination that construction of a cell tower located at 7208 Blaney Franks Road, Raleigh, NC was exempt from stormwater management regulations under Article 9 of the Wake County Unified Development Ordinance

PH Accreditation Benchmark #: 18.1, 18.2, 34.2, 35.1

Specific Action Requested: Review the Appeal Panel's decision and vote on whether to adopt, modify, or reverse it

Link to Wake County Human Services Goals:

- Well-being/Health/Safety** - Maximize the well-being, health and safety of individuals and families
- Self Sufficiency/Human Capital** - Enhance the ability of consumers to attain and maintain economic independence and self sufficiency
- Consumer Experience** - Enhance the consumer experience with accessible, timely and holistic services
- Internal Operations** - Ensure fiscal accountability, data driven decisions and alignment with county, state and national objectives and priorities
- Integrated/Collaborative Solutions** - Promote integrated and collaborative solutions for human service needs
- Workforce** - Support and maintain a competent and competitive workforce and an environment that fosters professional development, workforce diversity and effective communication
- Technology**- Provide innovative technology solutions that support cost-effective automation, e-Services and data management

Item Summary (Ex: What are major points): Wake County Environmental Services reviewed an application for land use and building permits submitted by the developer for construction of a cell tower on property located at 7208 Blaney Franks Road, and determined that the cell tower was exempt from stormwater management regulations under Article 9 of the Wake County Unified Development Ordinance. Ms. Russell, a nearby property owner, appealed this determination, and on December 3, 2015, the WCHS Board Appeal Panel conducted a hearing and upheld Wake County Environmental Services' determination.

Purpose for Action (Ex: Proposed Solutions/Accomplishments):

Next Steps (Ex: What is next step for Board or staff):

Attachments: The Appeal Panel's recommended Written Decision, and the Record of exhibits introduced at the Appeal Panel hearing

Opportunities for Advocacy, Policy or Advisory:

Connections to Other Committees:

NORTH CAROLINA

**BEFORE THE WAKE COUNTY HUMAN
SERVICES BOARD**

WAKE COUNTY

**In the Matter of the Appeal of:
Decision by Wake County
Environmental Services that
Construction of a Cell Tower on
Property Located at 7208 Blaney
Franks Road, Raleigh, NC was
Exempt from Stormwater Management
Regulations Under Article 9 of the Wake
County Unified Development Ordinance**

Pursuant to N.C. Gen. Stat. § 130A-24 and the Wake County Human Services Board Rules of Appeal [Board Procedure 300 2.1], the Wake County Human Services Board Appeal Panel held an Appeal Panel Hearing in the above-referenced appeal on December 3, 2015. The Appeal Panel Hearing was held in Room 1151 of the Wake County Human Services building, 220 Swinburne Street, Raleigh, NC 27610.

The Wake County Human Services Board Appeal Panel hearing the appeal was comprised of: McKinley Wooten, Jr., J.D., Appeal Panel member; Seth Wexler, D.V.M., Appeal Panel member; and Kent Jackson, P.E., Appeal Panel member. Mr. Ken Murphy, Assistant Wake County Attorney, was present to assist procedurally and to assist in the development of evidentiary aspects of the appeal hearing.

Dr. Joseph Threadcraft, Ph.D., P.E., Wake County Environmental Services Director, was also present to make introductory remarks, and also to audio-record the appeal hearing.

The following persons were present at the Appeal Panel Hearing on behalf of the Appellant: Ms. Marge Russell, the Appellant; Mr. Philip Quinn, witness on behalf of the Appellant; Ms. Elizabeth Workman, assistant to Ms. Russell; and Ms. Colleen Adair, who was present but did not testify.

The following persons were present on behalf of Wake County Environmental Services: Michael Orbon, P.E., Water Quality Director; Carolina Loop, Environmental Services Manager; Melinda Clark, Watershed Manager; Charles Philips, Environmental Engineer; and Evan Kane, Hydrogeologist (who was present but did not testify).

Geoffrey Pearson from the Wake County Planning Department was also present and testified. Tom Johnson, attorney for the Cell Tower's owner, SkyWay Towers, was also present.

From the evidence and testimony presented to the Appeal Panel by the parties, and after having heard the statements and arguments of the parties, the Appeal Panel, by a unanimous 3-0 vote, makes the following findings of fact and conclusions of law based on clear and convincing evidence:

FINDINGS OF FACT

1. In January 2015, Skyway Towers applied to the Wake County Planning Department for land use and building permits to construct a 150-foot monopole telecommunications tower (the “Cell Tower”) on a portion of property located at 7208 Blaney Franks Road, Raleigh, NC (the “Subject Property”) in Wake County’s planning jurisdiction.
2. The Wake County Unified Development Ordinance (the “UDO”) is the comprehensive ordinance that governs the development of land in Wake County’s planning jurisdiction. The UDO provides that all cell towers less than 200 feet tall are, as was the Cell Tower here, administratively approved by the Wake County Planning Department if the cell tower meets all the applicable UDO standards.
3. As part of the permit approval process for the Cell Tower, the Wake County Planning Department sent the Skyway Towers application to Wake County Environmental Services to determine whether or not a Stormwater Management Plan was required for the development of the Cell Tower on the Subject Property.
4. Article 9 of the UDO is entitled “Stormwater Management” and addresses the adverse effects of stormwater runoff associated with new development.
5. Section 9-12 of the UDO is entitled “Exemptions” and sets forth a number of land development activities that are exempt from the stormwater management regulations of UDO Article 9.
6. UDO Section 9-12-2 provides that “The stormwater management regulations of [UDO Article 9] do not apply” to “Office, institutional, commercial, or industrial development that disturbs a land area of one-half acre [.50 acre] or less.”
7. Skyway Towers submitted three grading plans to Wake County Environmental Services during the permit review process. The first grading plan for the Cell Tower site, submitted on January 7, 2015, showed a total disturbed land area for development of the Cell Tower on the Subject Property of .47 acre, which is less than .50 acre.
8. The second grading plan for the Cell Tower site, submitted on March 18, 2015 in response to plan review comments from Wake County, showed a total disturbed land area for development of the Cell Tower on the Subject Property of .46 acre, which is less than .50 acre.
9. The third and final grading plan for the Cell Tower site, submitted on April 30, 2015 in response to plan review comments from Wake County, showed a total disturbed land area for development of the Cell Tower on the Subject Property of .46 acre, which is less than .50 acre.
10. Based on the three grading plans submitted during the permit review process for the Cell Tower, Wake County Environmental Services determined that development of the Cell Tower would disturb a total land area of less than .50 acre on the Subject Property, and

consequently, that the Cell Tower was exempt from the stormwater management regulations of Article 9 of the UDO, pursuant to UDO Section 9-12-2, such that a Stormwater Management Plan was not required for the Cell Tower.

11. On July 21, 2015, land use and building permits were issued for development of the Cell Tower on the Subject Property, and construction of the Cell Tower has since been completed. An “as-built survey” for the Cell Tower dated October 19, 2015 and prepared by a Registered Land Surveyor shows a total disturbed land area for the actual development of the Cell Tower on the Subject Property of .47 acre.

12. On August 19, 2015, the appellant, Marge Russell (“Ms. Russell”) filed an appeal with Wake County appealing the decision of Wake County Environmental Services that development of the Cell Tower on the Subject Property was exempt from the stormwater management regulations of UDO Article 9. Ms. Russell contends that Wake County Environmental Services erred in determining that the Cell Tower was exempt from the UDO Article 9 stormwater regulations, and that a Stormwater Management Plan should have been required for the Cell Tower.

13. Section 9-42 of the UDO is entitled “Appeals” and sets forth the procedure for appealing from Wake County Environmental Services’ interpretation and application of UDO Article 9’s stormwater management regulations. UDO Section 9-42-1(A) provides that “Any person affected by any decision of the county that relates to interpretation or application of [UDO Article 9’s stormwater management regulations] may appeal to the hearing panel of the Wake County Human Services and Environmental Services Board.”

14. UDO Section 9-42-4 is entitled “Decision-Making Criteria” and states “In acting on appeals the hearing panel of the Human Services and Environmental Services Board must determine, by simple majority vote, if the appellant has presented substantial evidence that the county erred and whether the county correctly interpreted the stormwater management regulations of Article 9.”

15. The hearing before the Wake County Human Services Board Appeal Panel was continued at Ms. Russell’s request until December 3, 2015.

16. At the Appeal Panel hearing, Ms. Russell presented evidence that the total area of land Skyway Towers leased from the Subject Property’s owner in connection with development of the Cell Tower was .80 acre. Ms. Russell argued that because the total are of leased land was .80 acre, which is greater than .50 acre, Wake County Environmental Services erred in determining that the UDO Section 9-12-2 exemption from stormwater management regulations for areas of total disturbed land less than .50 acre should apply to the Cell Tower.

17. At the Appeal Panel hearing, Ms. Russell did not present any evidence as to how much of the leased land area for the Cell Tower was actually disturbed land area. Ms. Russell argued that the entire .80 acre of leased land was “potentially” disturbed land area.

18. At the Appeal Panel hearing, Ms. Russell presented evidence that a dairy farm

was operated on the Subject Property from 1921 to 1986. During this time, dairy cows were raised on the Subject Property and grazed freely on the land, and a lagoon was also present.

19. At the Appeal Panel hearing, Ms. Russell presented evidence that in 2005 the North Carolina Department of Environment and Natural Resources (“NC DENR”) responded to a claim of possible groundwater contamination in the residential area surrounding the Subject Property by issuing its “Report of Investigation” of the Blaney Bluffs Subdivision site (the “NC DENR Report”). According to the NC DENR Report, NC DENR determined that there were elevated levels of nitrates in water supply wells serving residences in the vicinity of the Subject Property, and concluded that this nitrate contamination was most likely the result of cows grazing on the dairy farm that existed on the Subject Property for over 60 years.

20. At the Appeal Panel hearing, Wake County Environmental Services did not dispute the NC DENR Report or the presence of some groundwater nitrate contamination in the vicinity of the Subject Property.

21. At the Appeal Panel hearing, Ms. Russell did not present any competent evidence as to how the presence of nitrate groundwater contamination in the vicinity of the Subject Property overcame or nullified the UDO Section 9-12-2 exemption from stormwater management regulations for areas, such as the Cell Tower, of total disturbed land less than .50 acre.

22. After Ms. Russell filed her appeal, Wake County Environmental Services asked the project engineer to complete a stormwater evaluation for the development of the Cell Tower on the Subject Property, despite Wake County Environmental Services’ determination that a stormwater evaluation was not required because the total area of disturbed land for the Cell Tower was less than .50 acre.

23. When the project engineer completed a voluntary stormwater evaluation for the Cell Tower at Wake County Environmental Services’ request, the results of the stormwater evaluation showed that even if Wake County Environmental Services had not determined that the Cell Tower was exempt from the stormwater management regulations of UDO Article 9, a Stormwater Management Plan would not have been required for the Cell Tower, and stormwater control devices would not have been required for the Cell Tower.

24. While the project engineer’s voluntary stormwater evaluation showed that development of the Cell Tower would cause a minimal increase to both the peak flow and nitrogen load on the Subject Property, the increase to both the peak flow and the nitrogen load was well below the threshold level of increase that would have triggered a Stormwater Management Plan or stormwater control devices for the Cell Tower.

Based on the foregoing findings of fact, the Appeal Panel makes the following conclusions of law:

CONCLUSIONS OF LAW

1. This appeal and the parties thereto are properly before the Appeal Panel and the Appeal Panel has the authority to hear this appeal pursuant N.C. Gen. Stat. § 130A-24 and the Wake County Human Services Board Rules of Appeal [Board Procedure 300 2.1].

2. In deciding Ms. Russell's appeal, UDO Section 9-42-4 requires the Appeal Panel to determine whether Ms. Russell "has presented substantial evidence that the county erred and whether the county correctly interpreted the stormwater management regulations of Article 9" of the UDO.

3. Ms. Russell has not presented substantial evidence that Wake County erred in determining that the Cell Tower was exempt from the stormwater management regulations of Article 9 of the UDO, pursuant to UDO Section 9-12-2, such that a Stormwater Management Plan was not required for the development of the Cell Tower on the Subject Property. While Ms. Russell presented evidence that the total area of land Skyway Towers leased from the Subject Property's owner in connection with development of the Cell Tower was .80 acre, Ms. Russell did not present any evidence as to how much of this leased land area for the Cell Tower was actually disturbed land area. Ms. Russell merely argued that the entire .80 acre of leased land was "potentially" disturbed land area. The three grading plans submitted by Skyway Towers to Wake County Environmental Services during the permit review process all showed a total disturbed land area of less than .50 acre for the Cell Tower, as did the as-built survey submitted after the Cell Tower was constructed. While Ms. Russell presented evidence of nitrate groundwater contamination in the vicinity of the Subject Property, Ms. Russell did not present competent evidence as to how this nitrate groundwater contamination overcame or nullified the UDO Section 9-12-2 exemption from stormwater management regulations for areas, such as the Cell Tower, of total disturbed land less than .50 acre.

4. Wake County Environmental Services correctly interpreted UDO Section 9-12-2 in determining that the stormwater management regulations of UDO Article 9 do not apply to the development of the Cell Tower on the Subject Property because development of the Cell Tower would disturb a land area of .50 acre or less.

5. The decision of Wake County Environmental Services that development of the Cell Tower would disturb a total land area of less than .50 acre on the Subject Property, and consequently, that the Cell Tower was exempt from the stormwater management regulations of Article 9 of the UDO, pursuant to UDO Section 9-12-2, such that a Stormwater Management Plan was not required for the Cell Tower, is affirmed.

6. The foregoing recommendation of the Wake County Human Services Board Appeal Panel was submitted to the full Wake County Human Services Board for its consideration at the regular Wake County Human Services Board meeting on December 17, 2015, pursuant to the Wake County Human Services Board Rules of Appeal [Board Procedure 300 2.1].

7. Any party wishing to appeal this decision must do so in accordance with the

procedure set forth in the Wake County Human Services Board Rules of Appeal [Board Procedure 300 2.1] and N.C. Gen. Stat. § 130A-24(d).

This recommendation of the Wake County Human Services Board Appeal Panel was reviewed by the full Wake County Human Services Board as required by the Wake County Human Services Board Rules of Appeal [Board Procedure 300 2.1], and the full Human Services Board took the following action, pursuant to Wake County Human Services Board Rules of Appeal Section II. 14.a., by vote on December 17, 2015:_____

Chair, Wake County Human Services Board

Date

Article 9. Stormwater Management

Part 1 General Provisions

9-10 Purpose

The stormwater management regulations of this article establish minimum requirements to address adverse effects of stormwater runoff associated with new development. Proper management of stormwater runoff will protect property, control stream channel erosion, reduce flooding, protect floodplains, wetlands, water resources, riparian and aquatic ecosystems, and otherwise provide for environmentally sound use of the county's natural resources.

9-11 Scope

Except as otherwise expressly stated, the stormwater management regulations of this article apply to all development within unincorporated Wake County outside the extraterritorial jurisdiction and incorporated boundaries of any municipality.

9-12 Exemptions

The stormwater management regulations of this article do not apply to any of the following development activities:

- 9-12-1 Agriculture, forestry, or mining.
- 9-12-2 Office, institutional, commercial, or industrial development that disturbs a land area of one-half acre or less.
- 9-12-3 Any development in which the owner has accrued a vested right. Wake County recognizes a vested right if either of the following occurred:
 - (A) A subdivision plan, site plan, or development permit was officially approved by Wake County or the State before August 13, 2006 and that plan or permit remains unexpired.
 - (B) The landowner otherwise demonstrates a vested right has accrued under North Carolina Law.

Part 2 Standards for Managing Stormwater Runoff

9-20 Maximum Curve Number after Development

Developers must manage residential runoff so that after development the site will not exceed the following curve numbers, in accordance with procedures specified in the United States Department of Agriculture, Natural Resource Conservation Service, Technical Release 55, Urban Hydrology for Small Watersheds.

Zoning District	Maximum Composite Curve Number, By Soil Group			
	A	B	C	D
R-80W and R-80	37	60	73	79
R-40W and R-40	41	62	75	80
R-30, R-20, R-15, R-10, R-5, Residential Highway, Highway District, General Business and Office and Institutional	43	63	76	81

[Amended on 1/22/2008 by OA 04-07.]

Article 9 Stormwater Management
9-20 Maximum Curve Number after Development

9-20-1 Precipitation Depth

Calculations must be based on a precipitation depth of 3 inches over a 24-hour period.

9-20-2 Draw-down Period

Stored water must be drained over a period of not less than 2 days or more than 5 days.

9-20-3 Option for Minor Subdivisions

Developers of residential minor subdivisions have the option of meeting the standards in Sec. 9-20 or limiting the proposed subdivision's impervious surfaces to a maximum of 15%.

9-20-4 Stormwater Credits

(A) Purpose

The purpose of establishing a stormwater credit system is to provide incentives to implement better site design and locate new development in a manner that causes less impact to aquatic resources. Certain development practices reduce the generation of stormwater from the site; thereby reducing the size and cost of stormwater storage. In addition these practices can provide partial removal of many pollutants. The credit system directly translates into cost savings and better protection of water resources.

(B) Disconnected Impervious Surfaces

Disconnected rooftops and other disconnected impervious surfaces are encouraged. Runoff from these disconnected surfaces must be spread over pervious areas as sheet flow. As a credit, these disconnected impervious surfaces will be assigned the lower curve number specified by procedures of the United States Department of Agriculture, Natural Resource Conservation Service, Technical Release 55, *Urban Hydrology for Small Watersheds*.

(C) Reforestation

The planting of trees/shrubs is encouraged as a means of reducing runoff. As credit for such practices, reforested areas will be assigned the curve number for woods in good condition per procedures in the United States Department of Agriculture, Natural Resource Conservation Service, Technical Release 55, *Urban Hydrology for Small Watersheds*. Areas planted with trees/shrubs must meet the following standards to qualify for the credit.

(1) Tree/shrub Density and Spacing

Planted trees or shrubs must meet the minimum density and spacing standards of the USDA, Natural Resources Conservation Service, as specified in the *Field Office Technical Guide for Tree/Shrub Establishment*. Existing trees or shrubs may be used towards meeting the planting standard.

(2) Mulching

An initial application of mulch is required for the area designated for reforestation. Mulching must meet applicable standards of the USDA, Natural Resources Conservation Service, as specified in the *Field Office Technical Guide for Mulching-Temporary Protection of Critical Areas without Seeding*. Existing groundcover may be used towards meeting the mulching standard.

(D) Cluster and Open Space Subdivisions

Cluster and open space subdivisions are encouraged. In applying curve number calculations to such developments, the county may not penalize such subdivisions. Calculations must take into account the lots' proportionate share of right-of-way and permanent open space.

Article 9 Stormwater Management
9-31 Assurance that Improvements will be Completed

9-21 State Nutrient Management Strategy Rules

- 9-21-1** State stormwater management rules that implement the Neuse River Basin Nutrient Sensitive Waters Management Strategy (15A NCAC 02B .0235) apply in both the Neuse and the Cape Fear River Basins and are hereby incorporated by reference.
- 9-21-2** State stormwater management rules for new development that implement the Falls Reservoir Water Supply Nutrient Strategy (15A NCAC 02B .0277) are hereby incorporated by reference.
- 9-21-3** State stormwater management rules for new development that implement the Jordan Water Supply Nutrient Management Strategy (15A NCAC 02B .0265) are hereby incorporated by reference. These rules shall supersede the Neuse Rules within the Jordan Lake watershed portion of the Cape Fear River Basin.
- 9-21-4** Copies of related codes, standards and guidelines are on file in the office of the Wake County Department of Environmental Services Water Quality Section.

[Amended by OA 03-12 on 7/22/2012.]

9-22 Stormwater Design Manual

The Wake County Department of Environmental Services may furnish additional guidance and standards for the proper implementation of the regulations of this article and may provide such information in the form of a *Stormwater Design Manual*. Stormwater management practices that are designed, constructed, or maintained in accord with the *Stormwater Design Manual* must be presumed to comply with these regulations.

9-23 Miscellaneous

9-23-1 Calculations Regarding Ponds, Lakes, and Streams

Surface water bodies may not be assigned a curve number for impervious surfaces. Instead such water bodies will be removed from calculations so that developments are not penalized for their presence.

Part 3 Completion and Maintenance of Improvements
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9-30 Party Responsible for Completion of Improvements

The developer is responsible for completing all stormwater improvements in accordance with the requirements of this article and other applicable ordinances and laws.

9-31 Assurance that Improvements will be Completed

9-31-1 Performance Guarantee

The county may not approve a record plat, or in the case of single-lot development not requiring a record plat may not issue a building permit, until those stormwater improvements required of the developer have been completed or a performance guarantee has been provided. Such performance guarantees must comply with the performance guarantee provisions of Sec. 8-22.

9-31-2 As-Built Plans

Upon completion of required improvements, the developer or the developer's representative must submit as-built plans of required stormwater improvements to the Wake County Department of

Article 9 Stormwater Management
9-32 Assurance that Improvements will be Maintained

Environmental Services. These plans must indicate whether stormwater improvements were constructed in accordance with the county approved stormwater plan.

9-32 Assurance that Improvements will be Maintained

9-32-1 Maintenance Required

All stormwater improvements must be maintained so they will continue to serve their intended functions.

9-32-2 Parties Responsible for Maintenance of Improvements

- (A) The developer must maintain stormwater improvements until accepted by a property owners association or lot owner. The developer must disclose which party will be responsible for continued maintenance on the record plat and on the stormwater management plan.
- (B) Before improvements are accepted for maintenance by the property owners association or lot owner, the developer or the developer's engineer or other representative, as authorized by Statute, must certify to the property owners association or lot owner and to the county that improvements are complete and functioning as designed.

9-32-3 Maintenance Plan

- (A) The developer must record, and reference on the record plat, a maintenance plan that instructs the property owners association or lot owner about the annual maintenance tasks and associated costs for at least a 20-year period.
- (B) It will be the responsibility of the property owners association or lot owner to update the maintenance plan at least every 10 years.

9-32-4 Maintenance Agreement

- (A) The developer must record, and reference on the record plat, a maintenance agreement, or restrictive covenant that sets forth the property owners association's or lot owner's continuing responsibilities for maintenance, including specifying how cost will be apportioned among lot owners served.
- (B) The maintenance agreement must provide that the association and its individual members are jointly and severably liable for maintenance.

9-32-5 Maintenance Easements

The developer must record easements for access, maintenance and inspections by any property owners association and by Wake County Government.

9-32-6 Documents Required Before Plat Approval or Building Permit

All maintenance documents required by this article must be submitted to the Subdivision Administrator or Stormwater Engineer before record plat approval, and such documents must be referenced on the record plat, or, in the case of single-lot developments not requiring record plats, documentation must be submitted to the Zoning Administrator or Stormwater Engineer before building permit issuance.

Article 9 Stormwater Management

9-42 Appeals

Part 4 Administration

9-40 Application Requirements

9-40-1 Stormwater Plan Required

For any development requiring stormwater improvements, no applicant may receive a grading, building or other permit required for land disturbance without first having a county approved stormwater management plan.

9-40-2 Submittal Procedures

Stormwater management plans must be submitted and reviewed in conjunction with subdivision plans, or, in the case of single-lot developments requiring stormwater management, in conjunction with site plans.

9-41 Modifications and Waivers

Requests for modifications or waivers of the stormwater management standards of this article must be processed in accordance with the procedures of 19-36.

9-42 Appeals

9-42-1 Authority

- (A) Any person affected by any decision of the county that relates to interpretation or application of this ordinance may appeal to the hearing panel of the Wake County Human Services and Environmental Services Board.
- (B) Any alleged error of the county in making or refusing to make a decision may be basis for an appeal.

9-42-2 Filing

The appeal must be filed in writing with the Wake County Stormwater Engineer within 30 days of the decision complained of and must specify the grounds for appeal.

9-42-3 Hearing

- (A) The hearing panel of the Human Services and Environmental Services Board must fix a time and place for the hearing.
- (B) At least 10 days prior to the hearing, the hearing panel must publish notice of the hearing in a newspaper of general circulation within the county.
- (C) The hearing panel must render a decision in writing within 45 days of receiving the appeal.

9-42-4 Decision-Making Criteria

In acting on appeals the hearing panel of the Human Services and Environmental Services Board must determine, by simple majority vote, if the appellant has presented substantial evidence that the county erred and whether the county correctly interpreted the stormwater management regulations of Article 9.

Article 9 Stormwater Management
9-51 Inspection of Stormwater Improvements

9-42-5 Subsequent Appeals

The appellant may appeal the hearing panel's decision to the full Human Services and Environmental Services Board by filing an appeal within 10 days of the hearing panel's decision. Such appeals must follow the same procedure as the original hearing before the Board's hearing panel.

Part 5 Enforcement and Penalties

9-50 General

Failure to complete required improvements or failure to maintain improvements so they continue to function as required are violations and subject to a fine of up to \$1,000 per day and other penalties, remedies, and enforcement powers specified in Article 20.

9-51 Inspection of Stormwater Improvements

Wake County agents and officials have the right to inspect sites to determine whether required stormwater improvements are being installed and maintained in compliance with this ordinance.

OA 05/05 May 15, 2006

**Letter to the Division of Environmental Services, Division of Water Quality,
and Stormwater Engineer, Wake County**

**To be heard as per the appeal process by Wake County Human Services and Environmental Services panel,
or any other interested parties as regulated under the Appeal Process**

August 19, 2015

Via Hardcopy and Email to:

Dr. Joseph Threadcraft Joseph.Threadcraft@wakegov.com ✓

Melinda Clark melinda.clark@wakegov.com

Amina Shah Amina.Shah@wakegov.com

Tim Maloney tmaloney@wakegov.com

Eric Curry Eric.Curry@wakegov.com

Michael Orbon Michael.Orbon@wakegov.com

The notice contains the following information:

I. The name and mailing address of the Appellant is:

Marge Russell
6932 Darcy Lane
Raleigh, NC 27606

II. A description of the challenged decision or ruling:

In the matter of Wake County's approval of a permit recently granted for construction of a Telecommunication Facility and the ancillary (necessary) equipment shelter at 7208 Blaney Franks Rd., Raleigh, N 27606, permit number 0151891 and 0151892, which included approval by Wake County Environmental Services due to exemptions under certain de minimis sizes of land disturbance and which therefore bypassed both stormwater management and any review of water contamination at the site, please accept my application to appeal this decision due to violations of various Health and Environmental Protection Legislation, contained in both State and Local Ordinances in the area of Stormwater Management and Water Quality at the county level, the DENR Article 15 Legislation on Water Quality at the state level, and various other statutes on pollutants, hazardous waste and permitting requirements at the state level as well as Federal Legislation of the EPA's Clean Water Act. If indeed the calculations of disturbed land do not exceed a half acre, we contend that the existence of known contaminants at the site creates a condition that eliminates such an exemption, and that the spirit of the Clean Water Act and the requirements of the Department of Environmental and Natural Services Article 15 would eliminate/ override any county exemption available for de minimis sizes. Also see Exhibits A (Amendment to Memorandum), B (Report of Nitrates Sept. 2005) and C (Map of Overlays, Subject Parcel).

Preface Note I: Per UDO: 17--11--10 Toxic Matter:

The applicable federal and State regulations over discharges (liquid) or disposal (solid matter) must be complied with, and a violation of those regulations will be a violation of this ordinance.

Preface Note II: Stormwater issues, water quality issues and the protection of Lake Wheeler as a water supply demand that the county not be less restrictive than the state regulations and Swift Creek regulations in these areas, and must abide by and enforce those as well as the federal regulation, the EPA Clean Water Act and related legislation, in the same way as though it were written into the UDO, so this document will quote various state regs as pertinent to this appeal.

III. Statement of why the decision or ruling is incorrect

OVERVIEW:

To understand why we believe this ruling to be incorrect, we need first to look at the history of the site. It was formerly farmland (of over 150 acres as far back as 1956) owned by William Blaney Franks and later by Greenview Farms, Inc., the same owners who have leased a portion of the remnant of the farm to Skyway Towers for construction of a 150' monopole cell tower. All of the land but the last remaining 6.85 acres of Greenview Farms, Inc. was sold to developers sometime in the mid 80's. The original farm was a large dairy farm and it contained a large livestock waste lagoon, the remnants of which are at the southeast corner of 7208 Blaney Franks Road. The "low lying" area at the southeast of the parcel is part of the Swift Creek watershed 50 foot buffer and is clearly visible in the GIS maps. Its topograp

EXHIBIT

tabbies

or more lower than the highest parts of the parcel. It was filled at some point simultaneously with or soon after the sale of the surrounding land to Greenview Development.

See this document for description of the proper lagoon closure process.

<https://www.bae.ncsu.edu/topic/animal-waste-mgmt/program/lagoon/sludge-mgmt-closure.pdf>

We have witnesses who resided here at the time the lagoon was closed who will testify that this process was not adhered to. The document itself states that most livestock lagoons built prior to 1996 were not built to recommended standards. We do not believe the lagoon was permitted and we do not believe its filling and closure were permitted. The closure activity should have been regulated by NRCS Standard 709, if it were to be completely closed and backfilled with soil, or per NRCS Standard 378 if being converted to a farm pond and allowed to partly fill with water. It still appeared with the label "pond" in much later GIS maps though to our understanding has never contained water since it was filled. A portion of the old farm was sold to the principals' in-laws just to the south, and a portion of the old lagoon location resides on their lot at its northeastern corner.

This livestock lagoon was identified as one of the two largest sources of the nitrate pollution that affected our wells in the early 2000's. An official investigation, a collaboration between NC State scientists, DENR and the county, was done in 2003 or 2004 and the final report released September of 2005, see Exhibit B. As you probably know, the nitrates in the community were well in excess of the 10mg/l guidelines and most were high 20's to low 30's. As you also probably know, the high nitrate levels put small children and some animals at risk. Nitrogen robs the blood of oxygen and can lead to something call Blue Baby syndrome and death in addition to other documented illnesses that continue to be studied. Please see the following document by the NC Cooperative Extension <http://www.bae.ncsu.edu/extension/extension-publications/water/drinking/ag-473-4-nitrate-jennings.pdf>

After the determination of the source of nitrates, several neighbors sought a remedy. We understood that this pollution from agricultural operations exempted Greenview Farms from a cleanup operation, but that someone may be liable to provide us with potable water. We were told it could be 100 years or more before the plume dissipated and that the contamination could conceivably make its way to Lake Wheeler as well. One family brought a civil action but received no monetary award. Greenview Farms was declared insolvent and no remedy was provided. The Bluffs of Greenview and other neighbors proceeded to purchase expensive individual triple-water-filtration or reverse-osmosis systems to protect not only our health but the value of our homes at resale. In spite of the water filters, it will obviously be difficult to sell with tainted well water.

Fast forward to the present. The same family is creating a disruption to the landscape that will again hurt our property values; however, this appeal is not about the aesthetics. It is about a lack of measures that could have protected us.

According to state legislation, any local body in authority or any responsible party, at the time the nitrate contamination was discovered, could have and should have requested or required that a land use restriction be placed on the parcel for any and all future developers to see. We would not propose to accuse any one particular body of officials; however, something "fell through the cracks." It is not reasonable that a developer would not be held to a higher standard of investigation and study if indeed the parcel is a known site of contamination. It is not reasonable for the existing exemptions to apply when it is a matter of contaminated water. We do not believe the EPA or the North Carolina Administrative Code Division of Water Resources in Article 15A had any intention of exempting ANY size parcel if indeed that parcel is the source of any contaminant of drinking water.

Therefore, in the "spirit" of the law, if not the "letter" of the law, additional studies should have been required of Skyway Towers before proceeding, in spite of any exemptions that might normally be available.

We understand that the county and its engineers do not, at this writing, feel that the further studies will have any impact on the outcome of the cell tower decision, however we want to offer the following statements with regard to those studies and ask your most thoughtful response and greatest due diligence. It will require a detailed study of current GIS maps as well as the proposed grading plan of the site in addition to observation of a new water containment area and the replacement of various culvert pipes. The substance of our argument consists of the following assertions:

- i) Current nitrate contamination exists at the site and is affecting our drinking water – further environmental studies were not required in spite of documented contamination
- ii) The probable flow and increased flow of water will course through a contaminated area as a result of this permit
- iii) The failure of a responsible party to record a land use restriction has allowed the developer to proceed without protecting himself, his landlord or the surrounding communities
- iv) The loss of agricultural status on the parcel eliminates the exemption for agricultural activities and the new activity may therefore be liable to provide a potable water source
- v) The "disturbed land" calculation has omitted critical components and therefore actually exceeds a half acre
A permit was not obtained for either the operation or filling of the old livestock lagoon to the best of our knowledge and no activity should be allowed to proceed without the parties pulling the appropriate permit that was avoided – this is similar to selling a home with unpermitted space. The current owner is liable for the avoided permit and required to apply in order to make the property compliant.
- vi) No permits were obtained for proper filling of the livestock lagoon and those permits should be applied for and granted prior to any permit for any additional use.

Detail of each of these items follows:

- i) **The current contamination of nitrates present at the site has not been mitigated and continues at this time to affect the aquifer and our well water.** (See September 2005 report of nitrate contamination in this area attached as Exhibit B with main sources identified within the parcel located at 7208 Blaney Franks Road, which is the area containing the grain silos and the old livestock waste lagoon). Though a stormwater management plan was mistakenly, we believe, not required for this permit, a grading plan WAS submitted. This plan indicates that long drainage swales and a water containment area will be created to the west side of the tower and silos. The ditch area will be 20 to 30 feet wide and runs through a large part of the parcel. It seems to terminate in a horseshoe shaped water containment area where the stormwater is then released over and/or through what appears to be the old livestock wastewater lagoon which was filled sometime in the early 90's with fill of unknown derivation, and we believe without a permit, as witnessed by a number of residents. As a result of continued contamination on the site, we believe that the spirit of the EPA's Clean Water Act and related state statute would mandate additional environmental studies overriding any exemption due to de minimis sizes.
- ii) **The most probable flow of water is THROUGH the contamination and is indicated in a map containing overlays of the lagoon and 1972 aerials showing a larger lagoon from a period prior to the unpermitted filling activity, attached as Exhibit C.** It appears possible that stormwater will pick up various contaminants along its way to Lake Wheeler (from sludge, old silage or unidentified fill matter). In addition to the general site disturbance possibly aggravating the already documented nitrate contamination of our surrounding aquifer and wells. Notice in the grading plan how the water seems to be diverted directly through the southeast corner of 7208 Blaney Franks (this is observed by examining both the drainage areas and the basic contours of the land), the exact location of the old livestock lagoon that was unofficially filled per unknown specifications. The direction of water flow is obvious from the contours of the land, 340 at one point and 368 at its highest. The lowest point is the area of the Swift Creek 50 foot buffer. This is the area of the old livestock waste lagoon that was filled. This is where the stormwater is most likely to pick up contaminants. There also seems to be some digging required in and around that area and we are concerned that further disturbance from vibrations and digging will push contaminant into the aquifer at a greater rate.
- iii) **We believe there was some error in failing to record this as a "restricted use" site, or with a "land restriction."** Recording such a restriction would actually have benefitted the developer. He was unaware of the severity of the contamination. No stormwater plan, and no remediation plan were required of him thus eliminating his opportunity to protect himself and his landlord. There are several protective measures the developer could have pursued, one of which would have been engaging in a brownfields agreement with the state to embark on voluntary cleanup which, after approval and completion, would absolve him from further liability from the contaminant plume.

No recording of any type was required of the land owner after discovery of the nitrate contamination. Various statutes encourage, if not require, the recording of a land-use restriction that would appear on the deed and/or survey and be obvious to a developer. This restriction would have triggered the additional studies

needed to determine whether nitrates are indeed still present (and they are) and would then cause the developer to implement a plan to remediate the situation either by cleanup or by supplying an alternative potable water source. Note that land use restrictions may be enforced by any unit of local government having jurisdiction over the parcel, or as a result of civil litigation, and without having exhausted other administrative remedies; various departments may have mistakenly failed to enforce a recording requirement on known contaminated land, and that omission directly impacts water quality of the aquifer AND Lake Wheeler and therefore health of the surrounding county residents. The various code sections regarding Land Use Restrictions, RS Designations, Brownfield sites, as well as a REQUIRED Recording of Contaminated Sites follow:

Land Use Restrictions:

G.S. 143B-279.9 Page 1

Land use restrictions may be imposed to reduce danger to public health at contaminated sites.

(a) In order to reduce or eliminate the danger to public health or the environment posed by the presence of contamination at a site, an owner, operator, or other responsible party may impose restrictions on the current or future use of the real property comprising any part of the site where the contamination is located if the restrictions meet the requirements of this section.

The restrictions must be agreed to by the owner of the real property, included in a remedial action plan for the site that has been approved by the Secretary, and implemented as a part of the remedial action program for the site. The Secretary may approve restrictions included in a remedial action plan in accordance with standards that the Secretary determines to be applicable to the site. Except as provided in subsection (b) of this section, if the remedial action is risk-based or will not require that the site meet unrestricted use standards, the remedial action plan must include an agreement by the owner, operator, or other responsible party to record approved land-use restrictions that meet the requirements of this section as provided in G.S.

143B-279.10 or G.S. 143B-279.11, whichever applies. Restrictions may apply to activities on, over, or under the land, including, but not limited to, use of groundwater, building, filling, grading, excavating, and mining. Any approved restriction shall be enforced by any owner of the land, operator of the facility, or other party responsible for the contaminated site. Any land-use restriction may also be enforced by the Department through the remedies provided by any provision of law that is implemented or enforced by the Department or by means of a civil action. The Department may enforce any land-use restriction without first having exhausted any available administrative remedies. A land-use restriction may also be enforced by any unit of local government having jurisdiction over any part of the site. A land-use restriction shall not be declared unenforceable due to lack of privity of estate or contract, due to lack of benefit to particular land, or due to lack of any property interest in particular land. Any person who owns or leases a property subject to a land-use restriction under this Part shall abide by the land-use restriction.

Requirement to Record:

§ 143B-279.10. Recording of contaminated sites.

The owner of the real property on which a site is located that is subject to current or future use restrictions approved as provided in G.S. 143B-279.9(a) shall submit to the Department a survey plat as is required by this section within 180 days after the owner is notified to do so. The survey plat shall identify areas designated by the Department, shall be prepared and certified by a professional land surveyor, and shall be entitled "NOTICE OF CONTAMINATED SITE". Where a contaminated site is located on more than one parcel or tract of land, a composite map or plat showing all parcels or tracts may be recorded. The Notice shall include a legal description of the site that would be sufficient as a description in an instrument of conveyance, shall meet the requirements of G.S. 47

Following is some information on why and how a brownfields designation would have actually helped the developer. However, again, note that if the contamination is not evident in the course of a developer's studies, if these reports are locked away and if there is no recording of the contamination, then we do not see how a future developer would be warned to either protect himself or protect us. We see in the previously quoted regs that any responsible party, at either the state or local level, could have pressed for a recording of a land use restriction. However, absent a specific "requirement" to do so, the current state of the parcel and the related current activity could be in violation of the Clean Water Act and Article 15A of DENR. Here is the aforementioned information on brownfields agreements and how that could have protected all parties.

§ 130A-310.92. Brownfields agreement...is to include:

- (1) Any remediation to be conducted on the property, including:
 - a. A description of specific areas where remediation is to be conducted.
 - b. The remediation method or methods to be employed.
 - c. The resources that the prospective developer will make available.
 - d. A schedule of remediation activities.
 - e. Applicable remediation standards.
 - f. A schedule and the method or methods for evaluating the remediation.
- (2) Any land-use restrictions that will apply to the brownfields property.
- (3) The desired results of any remediation or land-use restrictions with respect to the brownfields property.
- (4) The guidelines, including parameters, principles, and policies within which the desired results are to be accomplished.
- (5) The consequences of achieving or not achieving the desired results.
- (d) Any failure of the prospective developer or the prospective developer's agents and employees to comply with the brownfields agreement constitutes a violation of this Part by the prospective developer. (1997-357, s. 2; 2001-384, s. 11.)

When a Brownfields property is sold OR leased, the survey must contain certain language and a cleanup must have been undertaken.

§ 130A-310.35. Notice of Brownfields Property; land-use restrictions in deed.

(a) In order to reduce or eliminate the danger to public health or the environment posed by a brownfields property being addressed under this Part, a prospective developer who desires to enter into a brownfields agreement with the Department shall submit to the Department a proposed Notice of Brownfields Property. A Notice of Brownfields Property shall be entitled "Notice of Brownfields Property", shall include a survey plat of areas designated by the Department that has been prepared and certified by a professional land surveyor and that meets the requirements of G.S. 47-30, shall include a legal description of the brownfields property that would be sufficient as a description of the property in an instrument of conveyance, and shall identify all of the following:

- (1) The location and dimensions of the areas of potential environmental concern with respect to permanently surveyed benchmarks.
- (2) The type, location, and quantity of regulated substances and contaminants known to exist on the brownfields property.
- (3) Any restrictions on the current or future use of the brownfields property.

- i. Any land-use restriction may also be enforced by the Department through the remedies provided in Part 2 of Article 1 of this Chapter or by means of a civil action. The Department may enforce any land-use restriction without first having exhausted any available administrative remedies. A land-use restriction may also be enforced by any unit of local government having jurisdiction over any part of the brownfields property by means of a civil action without the unit of local government having first exhausted any available administrative remedy. A land-use restriction may also be enforced by any person eligible for liability protection under this Part who will lose liability protection if the land-use restriction is violated. A land-use restriction shall not be declared unenforceable due to lack of privity of estate or contract, due to lack of benefit to particular land, or due to lack of any property interest in particular land. Any person who owns or leases a property subject to a land-use restriction under this section shall abide by the land-use restriction.

iv) As we understand it, since the parcel has lost its agricultural status, the responsibility to provide a clean water source or other remedy will fall to bear on the developer and/or landowner under the following ordinance making the parties undertaking the "new activity" or "new use" responsible. Though this is a state issue, we believe the county had a responsibility to share this site plan with DENR officials and solicit their input before approving the permit, possibly involving the community that was affected by that contamination:

Article 15 of DENR

15A NCAC 02L .0106 CORRECTIVE ACTION

(a) Where groundwater quality has been degraded (note it appears to not matter who was initially responsible for the degradation, only that the groundwater is currently degraded, and, in addition, there is no agricultural activity currently on the property that would exempt them from the requirement to provide clean potable water to the community), the goal of any required corrective action shall be restoration to the level of the standards, or as closely thereto as is economically and technologically feasible. In all cases involving requests to the Director for approval of corrective action plans, or termination of corrective action, the responsibility for providing all information required by this Rule lies with the person(s) making the request.

(b) Any person conducting or controlling an activity which results in the discharge of a waste or hazardous substance or oil to the groundwaters of the State, or in proximity thereto, shall take immediate action to terminate and control the discharge, mitigate any hazards resulting from exposure to the pollutants and notify the Division of the discharge.

(c) Any person conducting or controlling an activity which has not been permitted by the Division and which results in an increase in the concentration of a substance in excess of the standard, other than agricultural operations, shall:

- (1) immediately notify the Division of the activity that has resulted in the increase and the contaminant concentration levels;
- (2) take immediate action to eliminate the source or sources of contamination;
- (3) submit a report to the Director assessing the cause, significance and extent of the violation; and
- (4) implement an approved corrective action plan for restoration of groundwater quality in accordance with a schedule established by the Director, or his designee. In establishing a schedule the Director, or his designee shall consider any reasonable schedule proposed by the person submitting the plan. A report shall be made to the Health Director of the county or counties in which the contamination occurs in accordance with the requirements of Rule .0114(a) in this Section.

v) Land disturbance activity exceeds a half acre and requires a stormwater management plan.

Per an email of Geoffrey Pearson dated July 30, 2015, the permit approval process did NOT require a stormwater management plan due the site plan reflecting that under a half acre was being disturbed. We have evidence, from the Amendment to the Memorandum of Agreement recorded July 22, 2015, that approximately .8 of an acre "may be" disturbed as follows (see recorded Amendment attached as Exhibit A). We draw particular attention to the fact that the parcel size was amended AFTER THE PERMIT WAS approved and the permit should therefore be revoked, see sizes continued on page 3 of 6:

Per the recorded Amendment to the Memorandum of Agreement Exhibit A, the disturbed land area is as follows:

15,679 SF Leased Area = .36 acre

13549 SF 30' Wide Access Utility Easement Area B = .31 acre

5707 SF Access Utility Easement Area C = .13 acre

Total disturbed land of .80 acre possible. Therefore the site was NOT exempt from a stormwater management plan and permit should be revoked until such a plan is submitted, reviewed and approved.

We have had some conversations with the county regarding the concept that the leased land plus easements do not necessarily constitute "disturbed land area" and that the engineers would prepare a formal report of disturbed land, and we would like to examine that prior to the hearing but we would also like it mapped out prior to the hearing so that we may compare it to the original grading plan. In our estimation, ANY disturbance from the following activities should be included in the calculation of disturbed land:

1. Areas graded or improved for better access to the property
2. Areas dug or improved for drainage ditches and water containment areas
3. Areas disturbed for the actual tower constructed and ancillary structures such as generator or storage shed
4. Areas planted or improved for buffer requirements
5. Areas disturbed for the replacement of a different size or grade of culvert pipe
6. Areas expected to accept any new water volume due to the new site plan
7. Any areas disturbed due to replacing one impervious area with another, or removal of any impervious structure or concrete item

We are quite certain that these items were considered in the studies pursued by your Swift Creek impervious staff. In fact, there was commendable diligence exercised in examining the "entire" 6.85 acre parcel for its impact to the Swift Creek Land Management Plan. We contend that there is a symbiotic relationship between Swift Creek impervious regulations and stormwater management. The impervious regulations are a direct result of the Swift Creek mandate to protect Lake Wheeler, to slow down water before it reaches the lake, allowing contaminant and sediment more time to filter out of the water into the soil over which the stormwater would run, thereby mandating that we not build on too much of our acreage. Overbuilding in excess of the impervious regulations will cause the water to flow at greater rates with less opportunity to drop contaminants before reaching the Lake. We understand that; so we do NOT understand why there is not the same effort put into stormwater management of that parcel, as it pertains to the entire parcel, when that is exactly what the impervious regulations relate to. We believe the entire parcel should be reexamined for flow rates and for the quality of the water that will be headed through and over culvert pipes into Lake Wheeler.

Per Article 9-40-1 Stormwater Plan Required:

For any development requiring stormwater improvements, no applicant may receive a grading, building or other permit required for land disturbance without first having a county approved stormwater management plan.

vi) No permits were obtained for proper filling of the livestock lagoon.

See this document for proper filling of a livestock lagoon.

<https://www.bae.ncsu.edu/topic/animal-waste-mgmt/program/lagoon/sludge-mgmt-closure.pdf>

The closure activity should have been regulated by NRCS Standard 709, if it were to be completely closed and backfilled with soil, or per NRCS Standard 378 if being converted to a farm pond and allowed to partly fill with water. It still appeared with the label "pond" in much later GIS maps though to our understanding has never contained water since it was filled.

There is a provision, repeated below, requiring that a permit should have been obtained for operation of the livestock lagoon operated by Greenview Farms, Inc., and, in addition, a separate permit should have been issued for the removal and relocation of sludge from that lagoon from one area to another. To our knowledge, no such permits were issued. Permits should be obtained prior to and as a condition of any further development on the property. It is our understanding that the county is unable to create legislation that would be LESS restrictive than that of the state in this regard; therefore, all development should be halted until proper permits are obtained.

§ 143-215.1. Control of sources of water pollution;

(a) Activities for Which Permits Required. - Except as provided in subsection (a6) of this section, no person shall do any of the following things or carry out any of the following activities unless that person has received a permit from the Commission and has complied with all conditions set forth in the permit...

(2) Construct or operate any sewer system, treatment works, or disposal system within the State.

(3) Alter, extend, or change the construction or method of operation of any sewer system, treatment works, or disposal system within the State.

(4) Increase the quantity of waste discharged through any outlet or processed in any treatment works or disposal system to any extent that would result in any violation of the effluent standards or limitations established for any point source or that would adversely affect the condition of the receiving waters to the extent of violating any applicable standard.

(9) Dispose of sludge, including the removal of in-place sludge from one location and its deposit at another location, consistent with the requirement of the Resource Conservation and Recovery Act and regulations promulgated pursuant thereto.

In closing, and to repeat, we appeal to you on the following six grounds:

- I. Current nitrate contamination exists at the site and is affecting our drinking water, yet no environmental studies were required.
- II. The probable flow and increased flow of water will course through a contaminated area as a result of this permit and put the quality of Lake Wheeler in peril
- III. The failure of a responsible party to record a land use restriction has allowed the developer to proceed without protecting himself, his landlord or the surrounding communities. Said permit was issued on contaminated land that should have carried a land use restriction, amounting to a failure to protect the water supply in this water supply watershed, and which failure affects not only our well water but Lake Wheeler which is being used as a water supply source for Raleigh residents
- IV. The loss of agricultural status on the parcel eliminates the exemption for agricultural activities and the new activity may therefore be liable to provide a potable water source. The development of this land, a non-agricultural use, will trigger the responsible party to provide clean drinking water or to implement a cleanup, per state statute, but no remediation plan was required or submitted. This should have been submitted to the state for discussion prior to approval of the permits and should have involved the community that was affected by that contamination.
- V. The "disturbed land" calculation has omitted critical components and therefore actually exceeds a half acre. Note the developer and owner amended the sizes AFTER approval of the permit, and the land size, in our best estimation, may actually be closer to .8 acre.
- VI. A permit was not obtained for either the operation or filling of the old livestock lagoon to the best of our knowledge and no activity should be allowed to proceed without the parties pulling the appropriate permit that was avoided - this is similar to selling a home with unpermitted space. The current owner is liable for the avoidance of permit and required to apply in order to make the property compliant. The subject land was already noncompliant in having failed to file permits for its livestock lagoon operation as well as the filling and decommissioning thereof.

(Kindly go back to similarly numbered detail sections to review the explanations of all of the above)

In making this appeal, we rely on various clauses and discussions regarding the appeal process including, but not limited to, UDO 9-42-2 as follows that provides a process for appeal to the Wake County Human Services and Environmental Services panel, as well as advice from Wake County Environmental Services and Division of Water Quality in the nature of the process by which we may appeal. If there are any clerical errors in my understanding of the process, please notify me before the end of 24 hours as the deadline for my appeal is Thursday, August 20, 2015.

UDO 9-42-2 Any person affected by any decision of the county that relates to interpretation or application of this ordinance may appeal to the hearing panel of the Wake County Human Services and Environmental Services Board.

(B) Any alleged error of the county in making or refusing to make a decision may be basis for an appeal.

9-42-2 The appeal must be filed in writing with the Wake County Stormwater Engineer within 30 days of the decision complained of and must specify the grounds for appeal.

(A) The hearing panel of the Human Services and Environmental Services Board must fix a time and place for the hearing.

(B) At least 10 days prior to the hearing, the hearing panel must publish notice of the hearing in a newspaper of general circulation within the county.

(C) The hearing panel must render a decision in writing within 45 days of receiving the appeal.

Exhibits Attached.

Thank you for your prompt attention to this matter. I will kindly request that this appeal be heard at a date that is later and separate from the zoning appeals due to my scheduling conflicts.

Marge Russell
6932 Darcy Lane
Raleigh, NC 27606

EXHIBIT A

BOOK: 016092 PAGE: 01431 - 01438

AMENDMENT TO MEMORANDUM OF AGREEMENT MODIFYING LEASED PREMISES

Prepared by and Return to:
Skyway Towers, LLC
3637 Madaca Lane
Tampa, FL 33618
Attn: Property Management
Megan Rankin

State: North Carolina
County: Wake

AMENDMENT TO MEMORANDUM OF AGREEMENT

This Amendment to Memorandum of Agreement (the "Amendment to Memorandum") is entered into on this 21 day of July, 2015, by and between Greenview Farms, Inc., a North Carolina corporation, with a mailing address 7109 Penny Road, Raleigh, North Carolina, 27606 (hereinafter referred to as "Landlord") and Skyway Towers, LLC, a Delaware limited liability company, having a mailing address of 3637 Madaca Lane, Tampa, FL 33618 (hereinafter referred to as "Tenant"). The Landlord and Tenant shall be collectively referred to as the "Parties".

WHEREAS Landlord and Tenant entered into an Option and Lease Agreement dated August 7, 2014 (collectively the "Lease") regarding the property located 7001 Penny Road, Raleigh, North Carolina (the "Property").

WHEREAS, a Memorandum of Agreement was recorded in the Official Public Records of Wake County, State of North Carolina on May 14, 2015 in Book 016013, Page 01833 (the "Memorandum"); and

WHEREAS, the portion of the Property being leased to Tenant (the "Leased Premises") has been modified; and

WHEREAS, the Parties desire to amend the Memorandum as follows:

1. Exhibit 1 of the Memorandum is deleted in its entirety and replaced with Exhibit 1-A, attached hereto.
2. This Amendment to Memorandum is not intended to amend or modify, and shall not be deemed or construed as amending or modifying, any of the terms, conditions or provisions of the Agreement, all of which are hereby ratified and affirmed.
3. In the event of a conflict between the provisions of this Amendment to Memorandum and the provisions of the Lease, the provisions of the Lease shall control.

Tower Site #: NC-08777-01 Lake Wheeler
Submitted electronically by "skyway towers, LLC"
in compliance with North Carolina statutes governing recordable documents
and the terms of the submitter agreement with the wake county Register of Deeds.

4. The Lease shall be binding upon and inure to the benefit of the parties and their respective heirs, successors, and assigns, subject to the provisions of the Lease.

IN WITNESS WHEREOF, the parties have executed this Amendment to Memorandum as of the day and year first above written.

WITNESSES:

Print Name: _____

Print Name: _____

"LANDLORD"

Greenview Farm, Inc

By: Earl Franks

Print Name: EARL FRANKS

Its: _____

Date: 7/18/15

WITNESSES:

[Signature]

Print Name: Althaus Roberts

[Signature]

Print Name: CARRIE TORREN

"TENANT"

Skyway Towers, LLC,
a Delaware limited liability company

By: [Signature]

Print Name: Scott M. Behuniak

Its: President / COO

Date: 7/21/2015

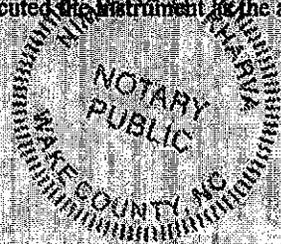
[ACKNOWLEDGMENTS APPEAR ON NEXT PAGE]

LANDLORD ACKNOWLEDGMENTS

STATE OF NORTH CAROLINA)
) ss:
COUNTY OF WAKE)

I CERTIFY that on 7-18, 2015, Wesley Earl Franks personally came before me and acknowledged under oath that he or she:

- (a) is the Landlord of Greenview Farms, Inc., a North Carolina corporation, the corporation named in the attached instrument,
- (b) was authorized to execute this instrument on behalf of the corporation and
- (c) executed the instrument in the act of the corporation.

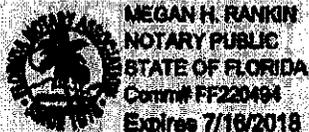


[Signature]
 Notary Public: Dimisha G. Klawns
 My Commission Expires: 11-13-2016

TENANT ACKNOWLEDGMENT

STATE OF FLORIDA)
) ss:
COUNTY OF HILLSBOROUGH)

The foregoing instrument was acknowledged before me this 21st day of July, 2015, by Scott M. Behuniak, as President / COO of Skyway Towers, LLC, a Delaware limited liability company on behalf of the company, who is personally known.



[Signature]
 Notary Public: Megan H. Rankin
 My Commission Expires: 7/16/18

EXHIBIT 1

DESCRIPTION OF THE LEASED PREMISES

The Leased Premises is described as follows:

100' X 100' LEASED PREMISES:

ALL THAT CERTAIN LEASE AREA PARCEL OF LAND, SITUATE, LYING AND BEING IN WAKE COUNTY, NORTH CAROLINA, BEING A PORTION OF THE LANDS DESCRIBED IN DEED BOOK 2586 AT PAGE 498 OF THE WAKE COUNTY REGISTER OF DEEDS AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT EXISTING IRON PIPE ON THE SOUTHERN RIGHT OF WAY OF PENNY ROAD, SAID IRON BEING THE NORTHWEST CORNER OF THE PARCEL DESCRIBED IN DEED BOOK 2586 AT PAGE 498, SAID IRON BEING A COMMON CORNER OF THE PARCEL DESCRIBED IN DEED BOOK 2410, PAGE 266, AND HAVING NORTH CAROLINA STATE PLANE COORDINATES OF NORTHING = 708,456.67', AND EASTING = 2,081,057.00'; THENCE FROM THE POINT OF COMMENCEMENT, SOUTH 08°45'55" EAST, A DISTANCE OF 438.16 FT. TO A POINT ON THE NORTHWEST CORNER OF THE DESCRIBED 15,679 SQ. FT. LEASE AREA, SAID POINT BEING THE TRUE POINT OF BEGINNING, AND HAVING NORTH CAROLINA STATE PLANE COORDINATES OF NORTHING = 708,023.61', AND EASTING = 2,081,123.73'; THENCE FROM THE POINT OF BEGINNING NORTH 90°00'00" EAST, A DISTANCE OF 40.34 FT. TO A POINT; THENCE NORTH 69°22'10" EAST FOR A DISTANCE OF 35.67 FT. TO A POINT; THENCE NORTH 50°07'13" EAST FOR A DISTANCE OF 30.62 FT. TO A POINT; THENCE NORTH 89°24'04" EAST FOR A DISTANCE OF 68.22 FT. TO THE POINT; THENCE SOUTH 00°04'15" WEST FOR A DISTANCE OF 109.86 FT. TO A POINT; THENCE NORTH 90°00'00" WEST A DISTANCE OF 165.30 FT. TO A POINT; THENCE NORTH 00°00'00" EAST A DISTANCE OF 76.95 FT. TO THE POINT OF BEGINNING.

SAID LEASE AREA PARCEL CONTAINING 15,679 SQ. FT. OR 0.36 ACRES MORE OR LESS.

30' WIDE ACCESS AND UTILITY EASEMENT (B):

ALL THAT CERTAIN BASEMENT AREA PARCEL OF LAND, LYING AND BEING IN WAKE COUNTY, NORTH CAROLINA, BEING A PORTION OF THE LANDS DESCRIBED IN DEED BOOK 2586, AT PAGE 498 OF THE WAKE COUNTY REGISTER OF DEEDS AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT EXISTING IRON PIPE ON THE SOUTHERN RIGHT OF WAY OF PENNY ROAD, SAID IRON BEING THE NORTHWEST CORNER OF THE PARCEL DESCRIBED IN DEED BOOK 2586 AT PAGE 498, SAID IRON BEING A COMMON CORNER OF THE PARCEL DESCRIBED IN DEED BOOK 2410, PAGE 266, AND HAVING NORTH CAROLINA STATE PLANE COORDINATES OF NORTHING = 708,456.67', AND EASTING = 2,081,057.00'; THENCE FROM THE POINT OF COMMENCEMENT, SOUTH 81°07'47" EAST A DISTANCE OF 245.22 FT. TO A POINT ON THE WESTERN RIGHT OF WAY OF BLANEY FRANKS ROAD, SAID POINT BEING THE TRUE POINT OF BEGINNING OF A DESCRIBED 30' ACCESS AND UTILITY EASEMENT, AND HAVING NORTH CAROLINA STATE PLANE COORDINATES OF: NORTHING = 708,418.86'; AND EASTING = 2,081,299.28'; THENCE FROM THE POINT OF BEGINNING, AND WITH SAID RIGHT OF WAY OF BLANEY FRANKS ROAD, SOUTH 13°54'38" EAST A DISTANCE OF 30.12 FT. TO A POINT ON SAID RIGHT OF WAY, THENCE LEAVING SAID RIGHT OF WAY OF BLANEY FRANKS ROAD, SOUTH 70°55'11" WEST A

Tower Site #: NC-08777-01 Lake Wheeler

DISTANCE OF 59.72 FT. TO A POINT; THENCE SOUTH 15°29'31" WEST A DISTANCE OF 9.32 FT. TO A POINT; THENCE SOUTH 13°21'17" EAST A DISTANCE OF 37.49 FT. TO A POINT; THENCE SOUTH 40°48'23" WEST A DISTANCE OF 97.85 FT. TO A POINT; THENCE SOUTH 07°24'02" WEST A DISTANCE OF 148.38 FT. TO A POINT; THENCE SOUTH 00°00'00" EAST A DISTANCE OF 76.36 FT. TO A POINT ON THE NORTHERN LIMITS OF DESCRIBED LEASE AREA PARCEL; THENCE WITH SAID NORTHERN LIMITS, SOUTH 69°22'10" WEST A DISTANCE OF 9.76 FT. TO A POINT ON SAID NORTHERN LIMITS; THENCE STAYING WITH SAID NORTHERN LIMITS OF SAID LEASE AREA NORTH 90°00'00" WEST A DISTANCE OF 20.87 FT. TO A POINT ON SAID NORTHERN LIMITS OF SAID LEASE AREA; THENCE LEAVING SAID NORTHERN LIMITS, NORTH 00°00'00" EAST A DISTANCE OF 79.80 FT. TO A POINT; THENCE NORTH 07°18'43" EAST A DISTANCE OF 161.26 FT. TO A POINT; THENCE NORTH 40°32'38" EAST A DISTANCE OF 91.45 FT. TO A POINT; THENCE NORTH 13°23'24" WEST A DISTANCE OF 29.99 FT. TO A POINT; THENCE NORTH 15°29'31" EAST A DISTANCE OF 32.80 FT. TO A POINT; THENCE NORTH 70°55'11" EAST A DISTANCE OF 78.19 FT. TO THE POINT OF BEGINNING.

SAID EASEMENT AREA PARCEL CONTAINING 13,549 SQ. FT. OR 31 ACRES MORE OR LESS.

5,707 SQ FT ACCESS AND UTILITY EASEMENT "C":

ALL THAT CERTAIN EASEMENT AREA PARCEL OF LAND, SITUATE, LYING AND BEING IN WAKE COUNTY, NORTH CAROLINA, BEING A PORTION OF THE LANDS DESCRIBED IN DEED BOOK 2586 AT PAGE 498 OF THE WAKE COUNTY REGISTER OF DEEDS AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT EXISTING IRON PIPE ON THE SOUTHERN RIGHT OF WAY OF PENNY ROAD, SAID IRON BEING THE NORTHWEST CORNER OF THE PARCEL DESCRIBED IN DEED BOOK 2586 AT PAGE 498, SAID IRON BEING A COMMON CORNER OF THE PARCEL DESCRIBED IN DEED BOOK 2410, PAGE 266, AND HAVING NORTH CAROLINA STATE PLANE COORDINATES OF NORTHING = 708,456.67, AND EASTING = 2,081,057.00; THENCE FROM THE POINT OF COMMENCEMENT, SOUTH 08°45'55" EAST, A DISTANCE OF 438.16 FT. TO A POINT ON THE NORTHWEST CORNER OF THE DESCRIBED 15,679 SQ. FT. LEASE AREA, THENCE WITH THE WESTERN LIMITS OF SAID LEASE AREA, SOUTH 00°00'00" WEST A DISTANCE OF 76.95 FT. TO A POINT ON THE SOUTHWEST CORNER OF THE DESCRIBED LEASE AREA; THENCE WITH THE SOUTHERN LIMITS OF THE DESCRIBED LEASE AREA NORTH 90°00'00" EAST A DISTANCE OF 26.17 FT. TO A POINT ON SAID SOUTHERN LIMITS; SAID POINT BEING THE TRUE POINT OF BEGINNING OF A DESCRIBED 5,707 SQ. FT. ACCESS AND UTILITY EASEMENT AND HAVING NORTH CAROLINA STATE PLANE COORDINATES OF NORTHING = 707,946.68, AND EASTING = 2,081,149.93; THENCE FROM THE POINT OF BEGINNING AND WITH SAID SOUTHERN LIMITS OF THE DESCRIBED LEASE AREA, NORTH 90°00'00" EAST, A DISTANCE OF 34.66 FT. TO A POINT ON SAID SOUTHERN LIMITS; THENCE LEAVING SAID SOUTHERN LIMITS OF THE DESCRIBED LEASE AREA SOUTH 00°00'00" EAST FOR A DISTANCE OF 116.85 FT. TO A POINT; THENCE NORTH 90°00'00" EAST FOR A DISTANCE OF 23.90 FT. TO A POINT; THENCE SOUTH 00°33'46" WEST FOR A DISTANCE OF 28.67 FT. TO A POINT; THENCE NORTH 89°26'14" WEST FOR A DISTANCE OF 58.28 FT. TO A POINT; THENCE NORTH 00°00'00" EAST A DISTANCE OF 144.94 FT. TO THE POINT OF BEGINNING.

SAID EASEMENT AREA PARCEL CONTAINING 5,707 SQ. FT. OR 0.13 ACRES MORE OR LESS.

SEE ATTACHED THREE (3) PAGE SURVEY

EXHIBIT B
REPORT OF NITRATE INVESTIGATION

REPORT OF INVESTIGATION

BLANEY BLUFFS SUBDIVISION SITE
Raleigh, Wake County, North Carolina



North Carolina Department of Environment and Natural Resources
Division of Water Quality
Aquifer Protection Section

September 1, 2005

REPORT OF INVESTIGATION

Blaney Bluffs Subdivision Site Wake County, North Carolina Groundwater Pollution Incident #86948

I.0 EXECUTIVE SUMMARY

The project site is located in the vicinity of the intersection of Penny Road and Blaney Franks Road in unincorporated Wake County, North Carolina. On or about August 18, 2003, the residents of 7221 Blaney Bluffs requested a water analysis of their well water from the Wake County Environmental Services (WCES). Soon afterwards, residents of 7217 Blaney Bluffs also requested a test of their well water. Based on the results of the water quality analyses from these two samples, WCES decided to test the remaining wells in the Blaney Bluffs subdivision and some neighboring wells. As a result of the neighborhood-wide groundwater sampling performed by WCES, numerous private water supply wells in the area were found to contain nitrate (NO₃) concentrations in excess of current applicable North Carolina groundwater quality standards. In November of 2003, WCES contacted the NCDENR Division of Water Quality, Aquifer Protection Section (formerly named Groundwater Section) with information on the nitrate exceedences in the area.

Staff of the Aquifer Protection Section's Raleigh Regional Office submitted a Request for Investigation (RFI) to the Aquifer Protection Section's Field Investigations Group (FIG) on March 17, 2004. The goal of the investigation was to identify the source(s) of contamination in the water supply wells in the vicinity of the Greenview Bluffs Subdivision. The FIG installed a total of 9 shallow monitoring wells in and around the subject property during April and May of 2004. Groundwater samples were collected in June 2004 from the DWQ-installed shallow monitoring wells and 27 private water supply wells in the vicinity of the Greenview Bluffs subdivision. Nitrate concentrations in the private well samples ranged from less than 0.5 parts per million (ppm) to 38.4 ppm. Nitrate concentrations exceeded 10 ppm in 19 of the 27 water supply wells (70%) sampled in June, 2004. Nitrate concentrations in the DWQ-installed shallow monitoring wells ranged from 5.1 to 29 ppm. Two of the shallow monitoring wells were dry at the time of sampling, and Nitrate concentrations exceeded 10 ppm in four of the seven groundwater samples (57%) obtained from the shallow wells in June, 2004.

According to local residents, land in the vicinity of the Greenview Bluffs subdivision was previously used for dairy farm operations up until approximately the late 1980's. Unlined surface impoundments were used to contain waste products generated in the main portion of the former dairy. Cows were allowed to roam freely throughout the area when not confined for milking operations. The project site is now a suburban housing development with a few of the former dairy farm buildings still intact. Homes in the area are served by individual well and septic systems, although a small portion of homes in the southern portion of the former dairy farm are served by a community well system.

Based on all of the analytical results, the DWQ-Aquifer Protection Section concludes that nitrate contamination in the water supply wells in the vicinity of the Greenview Bluffs subdivision is most likely the result of the routine operation of the former dairy farm. The former waste

impoundments do not appear to be the sole source of the excess nitrates in the groundwater, nor does the geochemical data suggest that septic waste is a significant source of nitrate in the groundwater. The available data suggests that residual waste products from the dairy cows may be a significant source of nitrate in the groundwater, especially in the eastern portion of the site.

2.0 SITE LOCATION, DEMOGRAPHY, AND LAND USE

The project site is located on a peninsula that extends from the western edge of Lake Wheeler in unincorporated Wake County, North Carolina (Figure 1). Lake Wheeler is a former water supply reservoir for the City of Raleigh, NC. Lake Wheeler is currently a public recreational area maintained by the City of Raleigh. The center of the project area is approximately 200 feet southeast of the intersection of Penny Road (SR 1379) and Blaney Franks Road (SR 1377). The project area straddles a broad, elongated ridge that slopes gently towards the south and east, but fairly steeply on the northern extent of the site. All surface drainage at the site flows directly into Lake Wheeler, which in turn flows into Swift Creek, which joins the Neuse River just to the west of Smithfield, NC. The average elevation of land at the site is approximately 325 feet above sea level, and the elevation of Lake Wheeler is approximately 285 feet.

All of the property in the investigation area is currently zoned residential. Since the site lies entirely within the Swift Creek watershed, Wake County zoning requirements mandate that each home is served by well water (community or individual private) and on-site wastewater disposal (septic). Almost all of the homes in the investigation area are located on land that was formerly owned and operated by the Greenview Dairy. The Greenview Dairy was active from about 1950's until 1993, according to information obtained from aerial photographs and DWO files. The main buildings from the former dairy operation are still present, such as the barns and silos, however the farm ceased dairy operations sometime around 1993. Single-family homes were beginning to be constructed on fields that were used for pastures at about the same time as the dairy ceased operations (1993).

Aerial photographs and interviews with current residents indicate that there was an animal waste holding lagoon on the site during the time that the dairy was operational (Figure 2). According to an inspection report filed in the year 2000 by Charles Alvarez of the DWO, there were no lagoons or liquid waste management systems at the former Greenview Dairy at the time of his inspection, which took place on March 31, 2000. Residents in the neighborhood indicated that borrow material from the nearby Lake Wheeler wetlands restoration project was used to backfill the former waste ponds.

3.0 GEOLOGY AND HYDROGEOLOGY

The project area is located near the eastern boundary of the Carolina Slate Belt. Carolina Slate Belt rocks can be characterized as late Proterozoic to early Paleozoic, slightly metamorphosed volcanic and sedimentary rocks with occasional granitic intrusions. Metamorphic grade increases towards the Nutch Creek Fault Zone, located to the east of the project area. The predominant rock type in the study area is a felsic gneiss member of the Crabtree Terrane. Outcrops of the felsic gneiss are located along the shoreline of Lake Wheeler at the northeastern portion of the site and adjacent to the spillway at the wetlands restoration area along the southern edge of the site. The felsic gneiss has a very pronounced foliation pattern that is visible in the outcrops, which appears to strike to the northeast and dip steeply to the northwest.

Recent geologic mapping in the area by Heller and Stoddard (1996) indicates the presence of a probable mafic dike, which strikes approximately northeast-southwest in the eastern portion of the site. Geologists from North Carolina State University conducted a magnetic survey in this portion of the site in order to obtain high-resolution data on the location and orientation of the dike, which is assumed to be a Mesozoic diabase dike. Diabase dikes, although relatively thin, can be important factors affecting groundwater flow due to their distinct weathering patterns.

There are two basic distinct hydrogeologic units in this area: the fractured bedrock and the saprolite (residium). It appears that all of the wells in the vicinity of this site derive their water from the fractured bedrock aquifer. Groundwater can only travel through fractures in the bedrock, and thus the bedrock fracture patterns have a significant impact on groundwater flow paths in the bedrock aquifer. The saprolite, or residuum, is derived from the in-place chemical and physical weathering of the underlying bedrock. Saprolite is typically comprised of mainly silt and clay sized particles and can act as an excellent groundwater storage and filtration unit. But saprolite usually also has low hydraulic conductivity and can be susceptible to contamination from near-surface pollution sources. Therefore, very few water supply wells are completed wholly in the saprolite aquifer in this area.

Available well construction records from the potable wells in the vicinity of the site indicate that all wells are completed to derive water from bedrock fractures. Unconsolidated regolith is relatively thick in this area as indicated by average casing lengths in the potable wells of 80 feet. Thick regolith can help to attenuate potential pollutants that might otherwise reach the fractured bedrock aquifer.

Groundwater flows from positions of higher elevations towards lower elevations under natural conditions outside of the influence of pumping wells. Thus, groundwater at the Blaney Bluffs site should flow in a radial pattern away from the areas of higher elevation and will ultimately discharge into Lake Wheeler. Figure 3 is a water table contour map for the site that was constructed using water level data from the shallow DWO monitoring wells installed as part of this investigation.

4.0 SITE BACKGROUND AND PREVIOUS INVESTIGATIONS

On or about August 18, 2003, Mr. and Ms. Andrew Young, residing at 7221 Blaney Bluffs Road, requested a water analysis from Wake County Environmental Services (WCES). Soon after the Young's request, Amy Friedman of 7217 Blaney Bluffs Road also requested a test. In August of 2003, Wake County decided to test the remaining wells in the subdivision and some neighboring wells. The results of the August 2003 sampling, as shown on Table 1, revealed that over half of the wells tested (18 out of 37) contained nitrate concentrations that exceeded the state and federal groundwater quality standard for nitrate (10 parts per million). WCES contacted the NC DENR, Division of Water Quality - Aquifer Protection Section (previously named Groundwater Section) for assistance in trying to determine the source and extent of the nitrate contamination in the groundwater.

On February 10, 2004, NCDENR staff with the Aquifer Protection Section, met with several residents at the office of Melissa Schombs, who is also resident of Blaney Bluffs. Sales representatives of several water treatment companies were also in attendance at this meeting. NCDENR staff explained the basic elements of a site investigation to the residents attending this meeting.

Representatives from the NCDENR Raleigh Regional Office, Wake County Environmental Services Division, and N.C. State University Department of Marine, Earth, and Atmospheric Sciences met with a group of residents from the Blaney Bluffs area on March 2, 2004 to discuss the occurrence of nitrate at the site. The installation of shallow monitoring wells using hydraulic push technology as a means to assess the potential source(s) of the nitrate and stable isotope groundwater analyses were discussed at this meeting.

5.0 SITE INVESTIGATION

There are five likely potential sources for elevated nitrates in the vicinity of this site:

1. The abandoned dairy animal waste lagoon
2. Domestic wastewater (septic) systems
3. Domestic lawn and plant fertilizer applications
4. Historical agricultural fertilizer (manure) applications
5. Residual waste products from animal grazing in open fields

Based on these potential sources, the NCDENR Division of Water Quality and the hydrogeology group at N.C. State University devised a site investigation plan to try to determine which source or sources were responsible for the elevated nitrate levels in the groundwater. The investigation plan consisted of the installation of soil borings, shallow groundwater monitoring wells, and detailed analyses of potable water well samples. The following sections describe the elements of the site investigation plan.

5.1 Well Installations

The Acquirer Protection Section's Raleigh Regional Office submitted a Request for Investigation to the Field Investigations Group (FIG) on March 17, 2004. The FIG began the investigation on April 21, 2004. Direct-push technology (Geo-Probe®) well installation technique was chosen due to the desire to minimize disruptions to property typically associated with the installation of wells using heavy drilling rigs with hollow stem augers, mud-rotary, or air-rotary drilling techniques.

A total of eleven (11) groundwater monitoring wells were installed at various locations throughout the subdivision, however, due to site conditions and equipment limitations only nine (9) of the monitoring wells encountered groundwater (Figure 3). These wells were designed to allow investigation of the shallow groundwater system. Residential wells were used to investigate the deeper groundwater system. Soil borings for monitor wells MW-3(Dry) and MW-9A did not intersect the water table because the water table was deeper into consolidated materials than the DPT equipment could penetrate. Field procedures for soil borings and monitoring well installations are discussed in greater detail below.

In addition, one soil boring (SB-1) was completed which did not include the installation of a monitoring well. The location of the soil boring was chosen in an attempt to better define the location of the former wastewater lagoon.

Field Procedures

As previously indicated, all soil borings and monitoring well installations were performed utilizing DPT equipment. DPT equipment utilizes what is essentially a truck mounted percussion hammer to drive the sampling equipment into the soil. It is limited to unconsolidated sediments and soils and cannot penetrate significantly into partially weathered rock (PWR) or consolidated bedrock. Continuous core soil samples were collected and logged in most of the borings. In some of the monitoring well borings *(see boring logs in Appendix A)* soil samples were collected in the top four (4) feet of the boring. To prevent cross-contamination between borings, the downhole DPT tooling was decontaminated between borings using the following procedure:

- 1) Wash and scrub with Alconox and potable water solution
- 2) Distilled water rinse
- 3) Air dry

All monitoring wells were constructed of 1-inch inside diameter (ID) polyvinyl chloride (PVC) threaded-joint riser pipe, threaded-joint factory slotted PVC screen, and threaded-joint end cap. Each section of casing and screen was National Sanitation Foundation (NSF) approved. Groundwater monitoring well and soil boring locations are indicated on Figure 4.

Generally, the monitoring wells were screened across or just beneath the water table. Well screens are all 10 feet long, except for MW-10(b) which has 5 feet of screen, and have a screen slot size of 0.010 inches. After the borings were completed to the desired depth or maximum depth the equipment could penetrate, the well was installed inside of heavy-wall 2.125-inch probe rod that does not collect soil samples driven by the DPT rig in the same borehole made by the sampling corer. The heavy-wall probe rod, with a detachable cone drive point, was advanced to approximately the same depth as the soil core boring. The PVC screen and riser was then placed into the heavy-wall probe rod, which was withdrawn from the boring, leaving the PVC screen and riser and the detachable cone drive point in the boring. A silica sand pack was then installed into the boring annulus around the well screen. The sandpack consisted of medium size, clear, well-graded silica sand. The sandpack installation was problematic in some borings, however, due to borehole collapse. Therefore, in many of the wells the sandpack was emplaced above the level of the boring collapse to a minimum of three (3) feet below land surface.

A granular sodium bentonite seal was emplaced above the sandpack to prevent surficial contamination from reaching the screen/sandpack interval along the well casing. A cement seal was emplaced on top of the bentonite seal to land surface. The protective steel surface casing was installed after grouting to ensure that it was adequately secured when the cement cured.

The surface completion for each well consists of a 6-inch diameter protective steel manhole equipped with a bolt-on cover. All wells were fitted with a locking expandable cap for which the locks are all keyed identically. After completion all wells were surveyed using survey leveling equipment and differential GPS techniques to within approximately 0.01-foot vertical accuracy and approximately 3 feet horizontal accuracy.

All wells were developed following installation in an attempt to remove fines and particulates disturbed in the boring annulus during soil boring for the well. Development activities consisted of surging and bailing the wells. The wells were developed until visible turbidity significantly decreased. Where a visible turbidity decrease did not occur, the maximum purge volume was approximately three times the casing volume of the specific well.

Continuous soil core samples were obtained during the well installation process. Selected soil core samples were submitted to the NC State Agronomic laboratory for nitrate analyses.

5.2 Water Level Data

A water table contour map was constructed from water table elevations determined from the shallow monitoring wells. The depth to water in each shallow well was measured using an electronic water level indicator. The elevation of the water table at each well was calculated by subtracting the elevation of the top of casing, which was established from the level survey, from the depth to the water from the top of the PVC casing. The water table elevation data from each shallow well was then input into computer software to produce the water table contour map shown in Figure 3.

A potentiometric surface (contour) map for the bedrock aquifer was not created due to the presence of numerous active water supply wells. Pumping rates for individual wells can vary greatly, and this will result in meaningless water level data unless the pumps in all wells in the area are shut off for a period of several days.

The water table contour map indicates that shallow groundwater in the vicinity of the site generally mimics surface topography. Groundwater in the saprolite flows from areas of higher elevation towards Lake Wheeler. This condition is typical for groundwater flow in saprolite. The water level data suggests an approximate hydraulic gradient of 0.026 from north to south.

5.3 Groundwater Sampling Events

Six rounds of groundwater samples were obtained from private water supply wells during the period from August 2003 to October 2004. Groundwater samples were analyzed for nitrate on each occasion. Table 1 contains a summary of the results of the nitrate sampling and analyses conducted by Wake County Environmental Services, N.C. State University, and NCDENR - DWQ.

In addition to nitrates, groundwater samples from the DWQ monitoring wells were analyzed for total metals. Selected private well samples were also analyzed for semi-volatile organic compounds in October of 2004. The purpose of the semi-volatile organic compounds analyses was to try to detect if caffeine was present in the groundwater. Caffeine is an indicator of potential septic source for nutrients as opposed to animal waste. The stable isotope geochemistry laboratory at N.C. State University Dept. of Marine, Earth, and Atmospheric Sciences analyzed samples from select private wells and the shallow monitoring wells for nitrogen and oxygen isotopes. Stable isotopes can be used to assist in the differentiation between sources of nitrogen and groundwater recharge.

6.0 CONCLUSIONS

The results of the groundwater sampling from the DWQ-installed monitoring wells and the private potable well sampling indicate that the nitrate plume extends across several acres. Figure 5 depicts the average of all of the nitrate concentrations from the private potable wells. The concentrations of nitrate in the private potable wells have remained relatively constant and stable, which suggests that the plume is not actively migrating. Since the plume appears to be in a relatively steady-state condition, it is probable that the event that caused the contamination occurred a relatively long time ago, as opposed to a plume created from a more recent release, in which case concentrations in individual wells would be subject to transient fluctuations while the plume migrates towards steady-state condition.

No caffeine was detected in the private potable well samples analyzed by the DWQ analytical laboratory. This suggests that domestic wastewater may not be a source of nitrate in the potable wells since caffeine is considered a reliable chemical indicator of recharge from domestic waste (Seiler et al., 1999). A visual inspection of the occupied dwellings in the area did not reveal evidence of failing septic systems. The configuration of the nitrate contaminant plume and the relatively high concentrations of nitrate are not consistent with a septic system source. There was nothing atypical noted in the subsurface conditions at this location that would suggest septic systems are more likely to fail and/or contaminate groundwater in this area.

Stable nitrogen isotope ($\delta^{15}\text{N}$) data provided by N.C. State University indicates that domestic lawn and plant fertilizers are not a significant source of nitrate in the groundwater at the site. Heavier $\delta^{15}\text{N}$ values in nitrate can be indicative of an animal waste source. Most of the $\delta^{15}\text{N}$ values were relatively heavy, which suggests that inorganic fertilizer is not the primary source. In addition to the heavy $\delta^{15}\text{N}$ values, N.C. State University analyses also indicate that there is a strong correlation between nitrate and chloride concentrations in the groundwater samples (Figure 6). Wells with high nitrate concentrations tended to also have high chloride concentrations, and wells with low nitrates tended to have low chloride concentrations. This correlation is consistent with an animal waste source, and since most inorganic fertilizers contain little chloride, it is considered unlikely that domestic fertilizers are a significant source of nitrate in the groundwater at this site.

The available geochemical data from the groundwater at this site indicates that the most probable source of the elevated nitrates is animal waste. Possible sources of animal waste in the vicinity of the Bloney Bluffs subdivision include the former waste lagoon from the dairy barns, the use of cow manure as fertilizer for the grazing fields, and residual cow waste products on the grazing land.

The configuration of the nitrate plume in the bedrock is not consistent with the former waste lagoon being the primary source. The nitrate plume in the bedrock is elongated along an east-west trending axis. The water table map shown in Figure 3 shows that shallow groundwater flow in the vicinity of the former dairy waste lagoon is towards the south and southeast. Although the potable wells derive their water from the deeper fractured bedrock aquifer, it is unlikely that the natural groundwater flow direction in the bedrock would be significantly different than the shallower water table aquifer. Intermittent pumping from the supply wells may create or increase an existing downward hydraulic gradient, which in turn can result in the downward migration of the nitrates.

Many of the supply wells that have been contaminated with nitrates are topographically up-gradient from the former dairy waste lagoon. This makes it implausible that the former dairy waste lagoon is the source of the nitrate contamination in these wells and therefore, it is also unlikely that the former lagoon is the only source of nitrates comprising the current contaminant plume. Residual animal waste from grazing cows and/or the spreading of cow waste for fertilizer is another possible source of Nitrates in the groundwater. These areas comprise the bulk of the contaminant plume by volume.

The NCDENR Division of Water Quality - Aquifer Protection Section's Raleigh Regional Office believes that the data obtained as a result of this investigation, although inconclusive, indicate that there are two possible sources of the nitrates in the groundwater at the Blaney Bluffs subdivision site. One source is the former dairy waste lagoon, currently located at the eastern portion of property located at 7228 Blaney Franks Road, and at the southeastern portion of property located at 7001 Penny Road (see Figure 2). The other possible source of nitrate is residual animal waste from grazing cows and/or the spreading of cow waste for fertilizer. Soil probes in the vicinity of the former dairy waste lagoon did not encounter any obvious sign of residuals (sludge). The soil borings in the former lagoon did encounter some organic matter, which may have originated from the former NCDOT borrow area located directly south of the former lagoon. This organic matter may help to reduce the nitrate levels in groundwater in the immediate vicinity.

7.0 RECOMMENDATIONS

Based on the results and conclusions of our investigation, we believe that there are actions that may be used to mitigate the nitrate contamination in the water supply wells located in the vicinity of the Blaney Bluffs subdivision:

- 1) Install a point-of-entry (POE) filtration/treatment system at each well that is capable of reducing the nitrate concentration to acceptable levels.
- 2) Install a community well in an area that has not been impacted by the nitrate contamination and is unlikely to become tainted by further migration of the current nitrate plume.
- 3) Installation of a PVC liner within the existing well casing.
- 4) Install a new deep well at residences that have been impacted by the nitrate plume.

Installing a POE filtration system that is capable of removing or reducing nitrate concentrations and is probably the most cost-effective solution for the majority of the wells that have been impacted by the nitrate contamination. A POE nitrate removal system can be constructed based on the concentrations of nitrates and other water quality characteristics that are unique to each individual well. POE systems are available from many commercial water purification companies. Most POE nitrate removal systems require proper maintenance and regularly scheduled effluent sampling in order to ensure that they are performing correctly.

However, the installation of a POE filtration system will not treat the nitrates in the saprolite and fractured bedrock aquifers. It is anticipated that the nitrate levels in the groundwater at this site will gradually decrease over time, since there are no apparent active sources. It is impossible to predict how long the nitrates will persist in the subsurface and, consequently, it is not possible to predict the exact length of time a POE system may be needed for affected wells.

Another option that may be employed at this site would be to install a community water supply well and distribution system. This option would only be viable if the majority of residents in the

subdivision commit to investing in the system to help defray the relatively high anticipated initial construction costs. The advantage of this option is that it would eliminate the long-term maintenance and testing at each household required by installing a POE filtration system at each affected residence.

A community well system would have to be located close enough to the site that it would be economically feasible to distribute the water, but the well(s) must also be located in an area that is unlikely to be affected by the current nitrate plume or in an area where the plume may be reasonably predicted to migrate. We have identified a potential location for a community water supply well that should be capable of supply water to the community that does not exceed the groundwater quality standard for nitrate. The volume of water to be supplied area residents must be determined and the proposed well location further evaluated to ensure it meets the needs of the residents. Additionally, the final and approved location of any public water supply well must meet the location criteria of the DENR Public Water Supply Section. This location is indicated on Figure 7.

The third option is to consider installation of a PVC liner extending below the existing well casing in an effort to reduce or eliminate the entrance of Nitrates that may be migrating along the well casing. Certain contaminants such as Fecal bacteria, Nitrates, etc. may often migrate along the annular space between the outer casing and the original borehole. Potential contaminants migrating along this annulus may migrate into the well beneath the existing casing. By extending a liner into the well and grouting the liner to land surface, it may be possible to reduce the contaminant levels.

The installation of the liner may not have much effect if the Nitrates are distributed throughout the bedrock aquifer system, however. The widespread distribution of nitrates in the private wells and the shape of the nitrate plume in the bedrock suggests that the nitrates are present in bedrock fractures, in which case a liner is a much less viable remedial option. However, installing a liner in an affected well is relatively inexpensive (on the order of \$1,000) option, and therefore may be worth considering in a few select wells. If the liner installation helps to reduce nitrate levels to acceptable levels, this information could be communicated to other residents for consideration. Wells in which a liner installation is contemplated should be videotaped using a downhole video camera and the video used to select the appropriate depth at which to set the liner.

A fourth potential course of action that some residents may wish to consider would be the installation of a new, deeper (> 500 feet) water supply well that is cased five feet or more into competent, fresh bedrock. Galvanized steel surface casing should be used for such a well and a hardened steel drive shoe should be affixed to the bottom of the casing, which would then enable the casing to be driven into the bedrock to create a tight seal into the bedrock. It appears that nitrate levels in general decrease with depth, and there may be deep bedrock fractures that have not been contaminated with nitrates that are capable of yielding sufficient quantities of water for household use.

A new, deep well is relatively expensive. There is no guarantee that a deep well will intercept fractures that have not been impacted by nitrate contamination from shallow depths within the aquifer. It is also possible that pumping from deeper fractures may induce the downward migration of nitrates, resulting in contamination of previously unaffected portions of the aquifer. In general, there are fewer water-bearing fractures at depth, and deeper wells may not yield as much water as wells that derive water from the more prevalent upper bedrock fractures.

8.0 REFERENCES

North Carolina Geological Survey, 1985, *Geologic Map of North Carolina: Raleigh*, North Carolina Department of Natural Resources and Community Development, Geological Survey Section, scale 1:500,000.

Seiler, Ralph L., Zugg, Steven D., Thomas, James M., and Howcroft, Darcy L., 1999, "Caffeine and Pharmaceuticals as Indicators of Waste Water Contamination in Wells (Statistical Data Included)", in *Groundwater*, V37 N3; P405-410

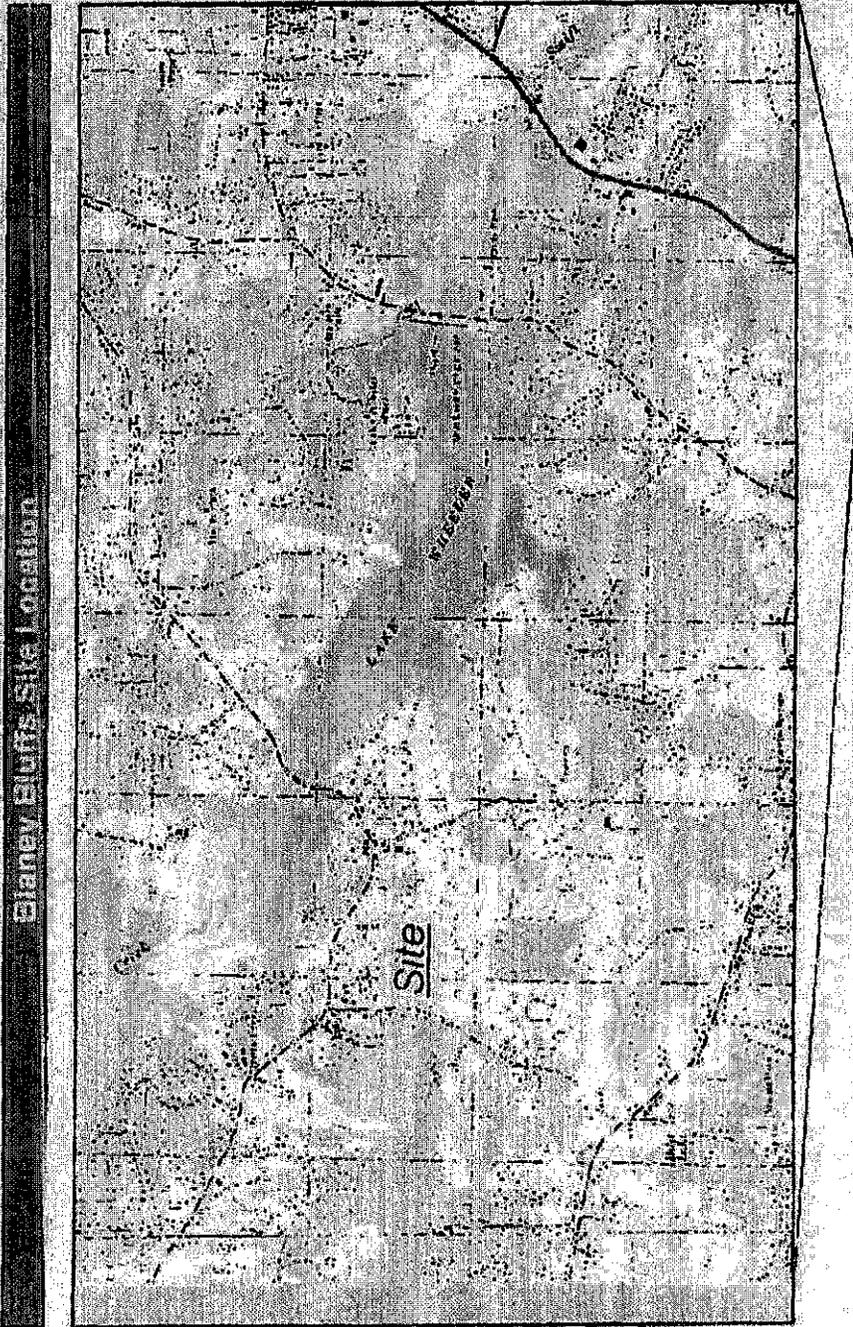
**Table One
Summary of Nitrate Concentrations (ppm) from Private Wells**

ADDRESS	Latitude	Sample Date	Longitude		8/14/2003	Nov-03	Jan-04	8/19/2004	8-8-14/2004	10-5-14/2004	AVERAGE
			Longitude	Sample Lab.							
5828 DARCY LN	35.695884149	-78.72535478	34	30.6	34.7	37.6	36	32.5			32.5
5824 DARCY LN	35.695867269	-78.724311967	33.1	31.7	25	30.4	34	30.0			30.0
5932 DARCY LN	35.696077036	-78.725122931	30.1	29.9	24.1	30.4	38	30.8			30.8
5916 DARCY LN	35.696796211	-78.724015073	22.1	20.7	19.8	23.3	22	21.8			21.8
5956 DARCY LN	35.694320784	-78.725342012	16.3	20.5	19.5		28	21.3			21.3
7291 BLANEY BLUFFS	35.696556594	-78.721582501	18.2	1.89	20.4			20.4			20.4
6900 DARCY LN	35.696739522	-78.723069898	22.3	18	16.8	20.9	20	18.8			18.8
7017 PENNY RD	35.695430061	-78.725355944	17.8	20.7	19.3	12		18.6			18.6
7217 BLANEY BLUFFS LN	35.696721572	-78.722071376	17.3	1.83	17.5			17.5			17.5
5920 DARCY LN	35.696765326	-78.724309089	17.8	17.1	18.6	18.9		17.5			17.5
7328 BLANEY BLUFFS	35.693650897	-78.724184658	12.3	15.9	15.1	20.4		17.3			17.3
7109 PENNY RD	35.695908011	-78.726174986	17.2	16	17.40		15	16.7			16.7
5925 DARCY LN	35.695538771	-78.723541208	16.4	16.3	15.8	18.6		16.4			16.4
7321 BLANEY BLUFFS	35.693858785	-78.723864394	16.4	16.3	16.1		16	16.2			16.2
7208 BLANEY BLUFFS	35.697087223	-78.722610952	15.4	15.7	15.6			15.8			15.8
7317 BLANEY BLUFFS LN	35.693964705	-78.722182070	15.5	14.8	16	14.7		15.4			15.4
7229 BLANEY BLUFFS LN	35.697177095	-78.719945839	14.3	14.8	14.8	16.4		15.1			15.1
6937 DARCY LN	35.694118017	-78.723222408	14.3	13.8	13.3		15	14.1			14.1
6940 DARCY LN	35.693901091	-78.725125252	12.7	12.1	11.7	13.2		12.4			12.4
6908 DARCY LN	35.696056891	-78.722387654	11	11.9	11.9	14.4		12.3			12.3
7333 BLANEY BLUFFS LN	35.693404491	-78.724933152	12.5	12.2	11.9	11.7		12.1			12.1
7308 BLANEY BLUFFS LN	35.693889520	-78.721097561	9.37	9.43	9.75	9.78		9.5			9.5
7313 BLANEY BLUFFS LN	35.694010465	-78.721710072	9.75	8.46	8.78		9.8	9.2			9.2
7233 BLANEY BLUFFS LN	35.69662870	-78.719381449	8.27	7.43	7.53	6.68		7.5			7.5
7245 BLANEY BLUFFS LN	35.693332934	-78.718500943	7.63	8.99	7.77			7.5			7.5
7021 PENNY RD	35.696390413	-78.725849118	6.57	8.28	6.51	6.52		6.5			6.5

**Table One (continued)
Summary of Nitrate Concentrations (ppm) from Private Wells**

ADDRESS	Latitude	Sample Date	Longitude	2/14/2003		Nov-03		Jan-04		6/10/2004		6/9 - 10/2004		10/5 - 14/2004		
				WCESIDBH	WCESIDBH	WCESIDBH	WCESIDBH	WCESIDBH	WCESIDBH	WCESIDBH	WCESIDBH	WCESIDBH	WCESIDBH	WCESIDBH	WCESIDBH	WCESIDBH
7316 BLANEY BLUFFS LN	35.694901313		-78.722225117	5.73	5.84	5.72										5.9
6808 MERVIEW CT	35.694152246		-78.717637551	5.78	5.18	5.46										5.5
7228 BLANEY BLUFFS LN	35.693682314		-78.721300626	5.38	4.50	5.5										5.2
7312 BLANEY BLUFFS	35.695304914		-78.721800456	4.51	4.93	5.22										4.9
7308 BLANEY BLUFFS	35.694580185		-78.720539031	4.60	4.66	5.05										4.8
7305 BLANEY BLUFFS	35.694077773		-78.720776061	5.07	4.46	4.82										4.8
7325 BLANEY BLUFFS LN	35.693801347		-78.723582242	8.32	2.12	1.71										4.1
7244 BLANEY BLUFFS LN	35.695485753		-78.720376540	3.86	3.98	4.08										3.8
6912 (6809) PENNY RD	35.697007389		-78.724988747	3.59		3.85										3.8
7237 BLANEY BLUFFS	35.696143289		-78.719766182	2.91	2.48	2.56										2.6
7220 BLANEY BLUFFS	35.696342678		-78.721943056	2.61	2.83	2.87										2.6
6817 MERVIEW CT	35.694109973		-78.719467706	1.82	1.89	1.99										1.9
6805 MERVIEW CT	35.693688330		-78.717610546	<0.5	<0.5	0.02										0.0
6912 MERVIEW CT	35.695025271		-78.718373369	<0.5	<0.5	0.01										0.0

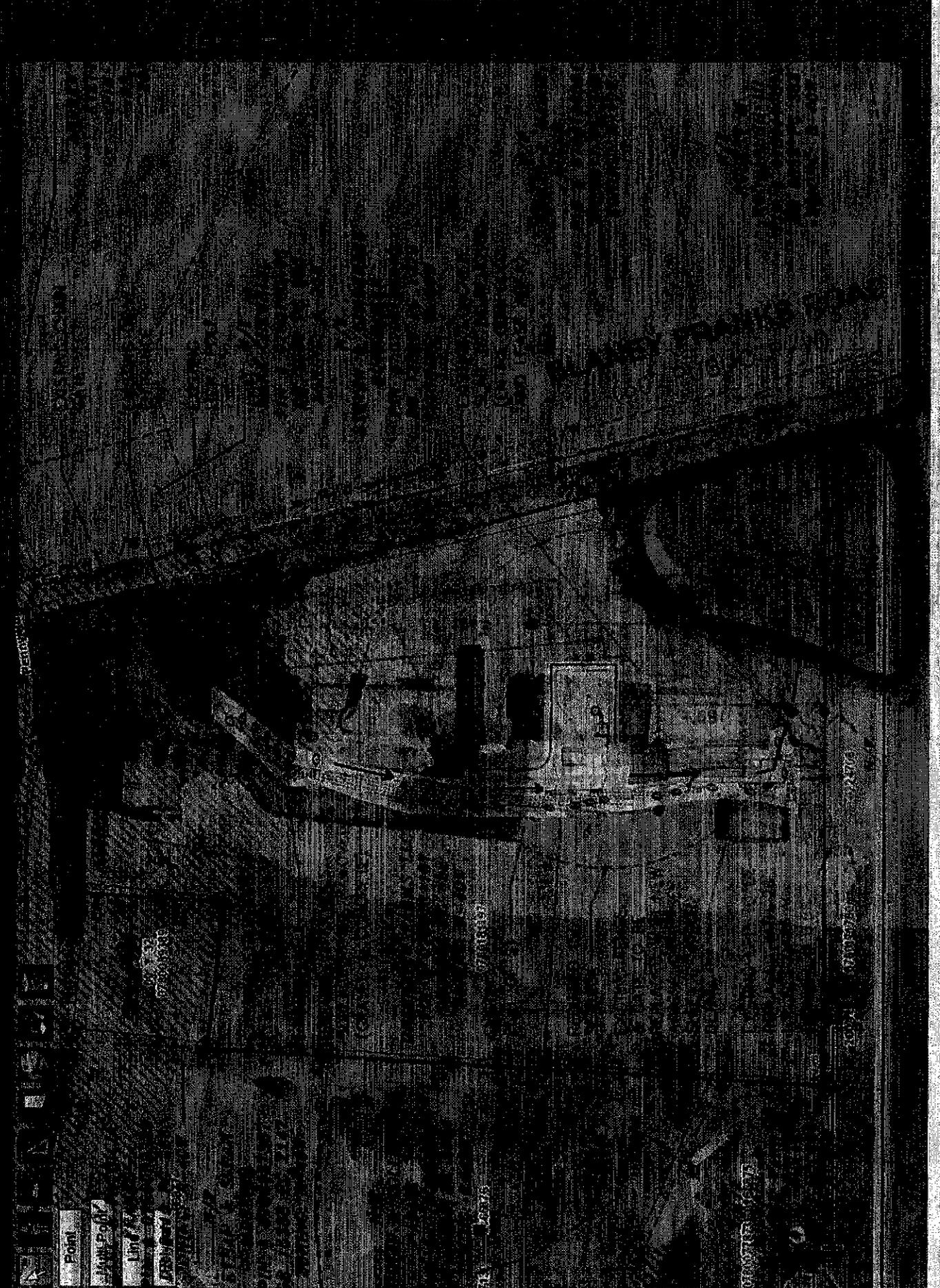
Figure 1
Site Location Map



Blaine Bluffs Site Location

EXHIBIT C

The below map was created from semi-transparent layers combining the permit site plan with the GIS Maps showing the Swift Creek overlay and the 1972 aerial map showing a larger livestock waste lagoon. The white strip is an overlay of the approx drainage easement, with arrows showing likely water flow through lagoon.



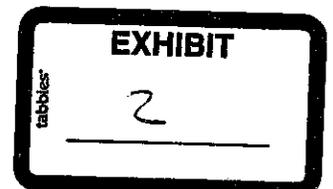
Mainframe approval sign off

PROJECT#: 0 151891 APP DATE: 072115 USE: 329H TOWER

TAX MAP#: 00700 PIN: 0780 18 1197 000

		APPROVED	APPROVED
	REQUIRED	BY	DATE
3. ENGINEERING REVIEW (856-7400)			
A. FLOOD CERTIFICATION PRMT#:	N		
B. SOIL EROSION & DISTURBANCE PRMT#:	N		
C. STORMWATER MGMT APPROVAL PRMT#:	Y	CDP	051915
4. BOARD OF ADJUSTMENT APPROVAL (856-6215)	N		
5. DOT PERMIT	N		
6. NOTORIZED FORM (856-6215)	N		
7. OTHER STATE OR LOCAL APPROVALS (856-6215)	N		

COMMENTS:



Mainframe F3 Notes

PERMIT # 0151891 INSPECTION RECORD - NOTE UPDATE WIMAP16

01/20/15-APPLICATION FOR NEW 150' MONOPOLE CELL TOWER, FORWARDED TO ZONING TO BE ASSIGNED-KSW

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2/10/15 ZONING REVIEW FOR NEW 150' MONOPOLE CELL TOWER. THE FOLLOWING COMMENTS NEED TO BE ADDRESSED:

- 1) NEED IMPERVIOUS CALCULATIONS SHEET FOR SWIFT CREEK WATERSHED. MAX IMPERVIOUS LIMITED TO 6% FOR CRITICAL AREA, 12% FOR NON-CRITICAL AREA.
- 2) HOLD TO BE PLACED ON PERMIT FOR AS-BUILT SURVEY.
- 3) NEED RECORDED ACCESS EASEMENT FOR STEVEN FOWLER PROPERTY (0780 17 1780).
- 4) SHOW REQUIRED PARKING WITH PARKING DELINEATED ON SITE PLAN.
- 5) EXISTING BUILDING SHOWN IN REQUIRED 30' BUFFER. IF BUILDING TO REMAIN IN CURRENT LOCATION, A VARIANCE IS NEEDED.
- 6) GREEN VIEW LANDSCAPES, LLC IS USING PROPERTY TO STORE LANDSCAPE EQUIPMENT & VEHICLES. THIS IS A VIOLATION OF UDO AND UPHELD IN BOA APPEAL CASE BA 1575 DATED DECEMBER 1994. VIOLATION MUST BE CORRECTED PRIOR TO APPROVAL OF CELL TOWER.

GMP

4/9/15 REVISED PLANS SUBMITTED FOR CELL TOWER SITE. SECOND REVIEW COMMENTS INCLUDE THE FOLLOWING:

- 1) SITE CONSISTS OF 2 DESIGNATED AREAS WITHIN SWIFT CREEK WATERSHED: 1.44 ACRE IN CRITICAL AREA AND 5.3 ACRES IN NON-CRITICAL AREA. CRITICAL PORTION AREA CONSISTS OF 29.2% IMPERVIOUS. NO ADDITIONAL IMPERVIOUS CAN BE ADDED IN THIS

AREA. IMPERVIOUS TO BE REMOVED IN ORDER TO REMAIN AT OR BELOW 29.2%

2) A STORM WATER DEVIATION PLAN MUST BE SUBMITTED FOR PORTION IN NON-CRITICAL AREA THAT EXCEEDS 12%. TOTAL IMPERVIOUS PLANNED FOR THIS AREA IS 17.5%

3) NEED DECOMMISSIONING PLAN FOR TOWER, SIGNED BY RESPONSIBLE PARTY, AND MEETS SECTION 4-56-3 OF UDO. SKYWAY TOWERS TO PROVIDE DECOMMISSIONING STATEMENT. FINAL CO CONTINGENT ON SUBMISSION OF RECORDED DECOMMISSIONING PLAN.

GMP

5-19-15 APPROVED PLANS FOR STORMWATER TO MEET INTENT OF SWIFT CREEK RULES. WILL NEED TO SEE ASBUILT AT END OF CONSTRUCTION. CDP

=====

7/14/15 ZONING SITE PLAN APPROVED AS SUBMITTED. HOLD PLACED ON BUILDING PERMIT FOR COMPLIANCE WITH APPROVED SITE PLAN AND AS-BUILT SURVEY.....

PLANS FORWARDED TO PAT ROSE IN PLAN REVIEW FOR BUILDING & CONSTRUCTION REVIEW.

GMP

Timeline for Stormwater Review
Cell Tower Site Plan, 7208 Blaney Franks Rd

1/20/15 Applicant applied for land use permit for new 150' monopole cell tower. The site plan indicated less than ½ acre total land disturbance, so no stormwater or sediment and erosion control permit applications are required under Wake County UDO. Applicant did have to comply with Swift Creek Management Plan in regards to impervious surface coverage on site.

2/10/15 Initial application was reviewed and comments were forwarded by Planning to engineer regarding impervious limits:

NEED IMPERVIOUS CALCULATIONS SHEET FOR SWIFT CREEK WATERSHED. MAX IMPERVIOUS LIMITED TO 6% FOR CRITICAL AREA, 12% FOR NON-CRITICAL AREA.

4/9/15 Review comments forwarded to engineer regarding revised plan:

1) SITE CONSISTS OF 2 DESIGNATED AREAS WITHIN SWIFT CREEK WATERSHED: 1.44 ACRE IN CRITICAL AREA AND 5.3 ACRES IN NON-CRITICAL AREA. CRITICAL PORTION AREA CONSISTS OF 29.2% IMPERVIOUS. NO ADDITIONAL IMPERVIOUS CAN BE ADDED IN THIS AREA. IMPERVIOUS TO BE REMOVED IN ORDER TO REMAIN AT OR BELOW 29.2%

2) A STORM WATER DEVIATION PLAN MUST BE SUBMITTED FOR PORTION IN NON-CRITICAL AREA THAT EXCEEDS 12%. TOTAL IMPERVIOUS PLANNED FOR THIS AREA IS 17.5%

5/12/15 Received copy of revised plans for impervious amounts on site.

APPLICANT IS SHOWING REMOVAL OF IMPERVIOUS TO REMAIN AT EXISTING AMOUNTS IN CRITICAL AREA AND TO REMAIN BELOW 12% IN NON CRITICAL AREA.

5/19/15 Approved land use permit for impervious amounts shown on revised plan. Site will not require a deviation application.

7/14/15 Zoning site plan is approved.

7/21/15 Building permit is approved on this date.

8/4/15 Received public records request regarding cell tower site.

8/7/15 I inspected the site and observed that they have just started work on the project. They have staked out the work areas and so far the only disturbance is the area where they are removing the concrete/impervious sections. I will continue to monitor the work on site.

8/10/15 Requested and received from engineer for project an updated site plan showing the LODA on the project and the calculated amounts within.

8/17/15 inspected the site with Melinda Clark and Michael Orbon. Cell tower was being installed. Silt fence had been installed for disturbed area. Photos were taken.

8/17/15 Joseph Threadcraft, Michael Orbon, Melinda Clark and Charles Phillips met with Justin Cosgrove (engineer for project) to review disturbed area calculations for project. We have requested additional information regarding stormwater due to disturbed amount being close to threshold for required plan.

8/18/15 Received copy of appeal to HSB. Joseph Threadcraft, Michael Orbon, Melinda Clark and Charles Phillips met to discuss appeal and what information we need to provide for it.

Article 9. Stormwater Management

Part 1 General Provisions

9-10 Purpose

The stormwater management regulations of this article establish minimum requirements to address adverse effects of stormwater runoff associated with new development. Proper management of stormwater runoff will protect property, control stream channel erosion, reduce flooding, protect floodplains, wetlands, water resources, riparian and aquatic ecosystems, and otherwise provide for environmentally sound use of the county's natural resources.

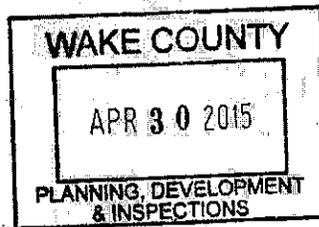
9-11 Scope

Except as otherwise expressly stated, the stormwater management regulations of this article apply to all development within unincorporated Wake County outside the extraterritorial jurisdiction and incorporated boundaries of any municipality.

9-12 Exemptions

The stormwater management regulations of this article do not apply to any of the following development activities:

- 9-12-1 Agriculture, forestry, or mining.
- 9-12-2 Office, institutional, commercial, or industrial development that disturbs a land area of one-half acre or less.
- 9-12-3 Any development in which the owner has accrued a vested right. Wake County recognizes a vested right if either of the following occurred:
 - (A) A subdivision plan, site plan, or development permit was officially approved by Wake County or the State before August 13, 2006 and that plan or permit remains unexpired.
 - (B) The landowner otherwise demonstrates a vested right has accrued under North Carolina Law.



Wake County
Blaney Franks-Skyway Cell Tower
Comment Responses
April 30, 2015
1 of 1

0151891

**Blaney Franks-Skyway Cell Tower Review Comments – Received 4/9/15 via email
Permit # 0151891**

Mr. Pearson / Mr. Phillips,

Please see our responses to each comment highlighted below in italics and bold.

1. The property at 7208 Blaney Franks Road consists of 2 designated areas within the Swift Creek Watershed. A Critical Area and Non-Critical Area. 1.44 acres is with the Critical Area. As shown in sheet C-2 entitled Proposed Site Layout, the Critical Area portion currently consists of 29.2% of impervious surface coverage. No additional impervious can be added in this area. Existing impervious must be removed in order to remain at or below 29.2% impervious.

Please see the enclosed revised Land Disturbance Drawings and Construction Drawings. The noted existing impervious surfaces located inside the Swift Creek Critical Area consisting of gravel and concrete (0.06 acres / 4.1%) will be removed as to remain below the total 29.2% post-construction impervious limit.

2. A storm water deviation plan must be submitted for the portion of the lot located within the Non-Critical area of the Watershed that exceeds 12% impervious surface coverage. As shown on sheet C-2 of the Proposed Layout Plan, the total planned impervious for this is 17.5%.

Please see the enclosed revised Land Disturbance Drawings and Construction Drawings. Per correspondence with Mr. Phillips a stormwater deviation plan is not required if the total impervious percentage inside the Swift Creek non-critical area is at or below 12%. The existing ground use was mis-labeled in three areas on the previous drawings. These have been updated to accurately reflect on-site conditions as shown in the Data Table on Sheet C-2 of the Land Disturbance Drawings. The total planned post-construction impervious in the Swift Creek non-critical area is now 0.37 acres (7.0%) which is below 12% maximum.

3. In reference to Sheet C-2 Landscaping Plan & Details, Red Maples trees must be 10' in height when planted, and Dogwood trees must be 8' in height when planted.

Please see Construction Drawing Sheet C-2 for updated Landscaping Plan & Details.

Please let us know if there is anything further that myself or Tower Engineering Professionals can do to assist during the plan review and approval process.

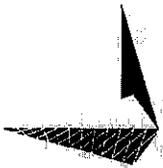
Regards,

Justin J. Cosgrove, P.E.
Project Manager
Tower Engineering Professionals, Inc. (TEP)

PLANS PREPARED FOR:

 SKYWAY TOWERS
 20525 AMBERFIELD DRIVE, SUITE 102
 LAND O' LAKES, FL 34639
 OFFICE: (813) 960-6211

PROJECT INFORMATION:
LAKE WHEELER
SKYWAY SITE #: NC-08777
 7208 BLANEY FRANKS RD
 RALEIGH, NC 27606
 (WAKE COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
 326 TRYON ROAD
 RALEIGH, NC 27603-6263
 OFFICE: (919) 861-6661
 www.tegroup.net
 N.C. LICENSE # C-1704

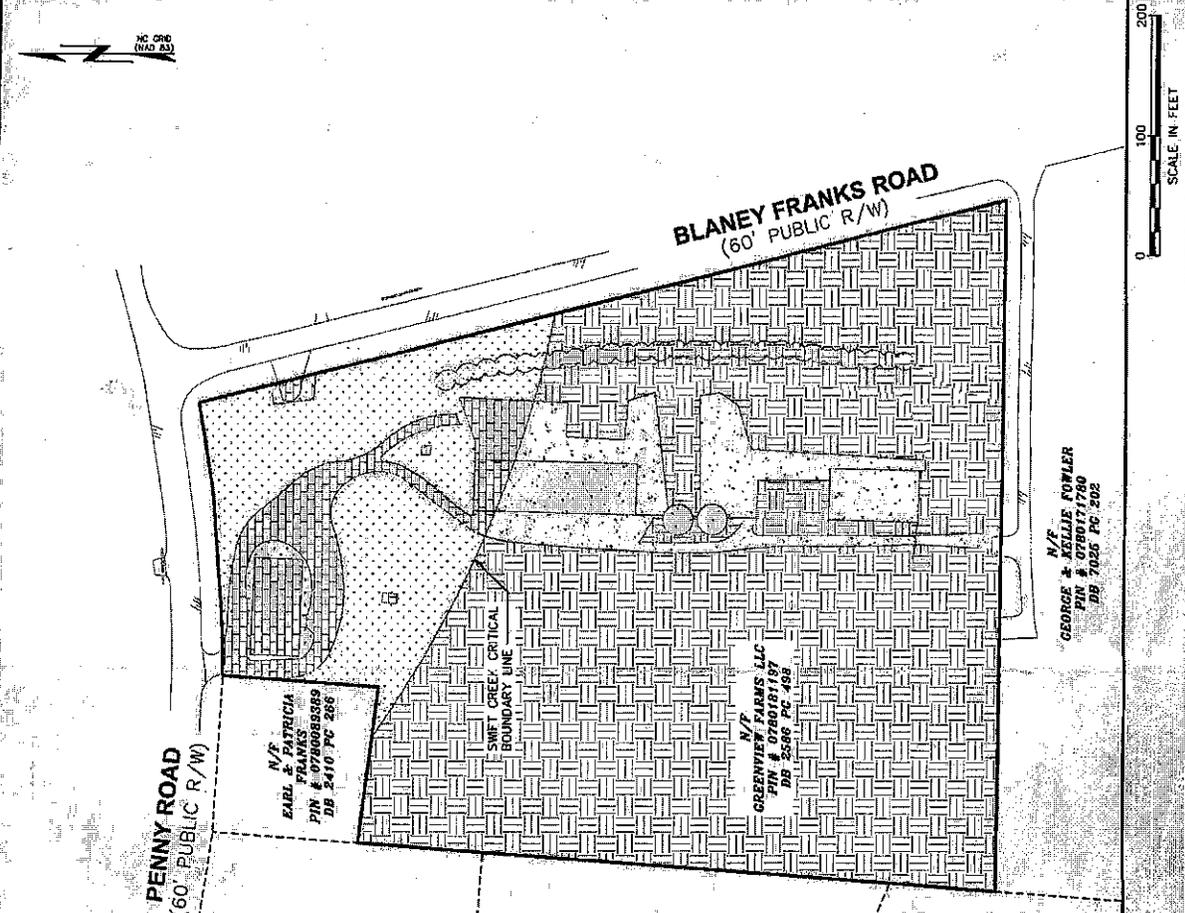
SEAL:

 Robert H. Cardin
 Professional Engineer
 No. 017854
 State of North Carolina
 April 29, 2011

2	04-29-11	LAND DISTURBANCE
1	03-18-11	LAND DISTURBANCE
D	10-10-14	LAND DISTURBANCE
REV	DATE	ISSUED FOR:
DRAWN BY: BAM CHECKED BY: JIC		
SHEET TITLE:		

EXISTING SITE LAYOUT

SHEET NUMBER: **C-1** REVISION: **2**
 SEP # 563-49



LEGEND

	EXIST. IMPERVIOUS CRITICAL AREA
	EXIST. PERVIOUS CRITICAL AREA
	EXIST. IMPERVIOUS NON-CRITICAL AREA
	EXIST. PERVIOUS NON-CRITICAL AREA

EXISTING SITE DATA TABLE

LAND TYPE	SWIFT CREEK CRITICAL AREA	SWIFT CREEK NON-CRITICAL AREA	TOTAL PARCEL AREA
TOTAL AREA	1.44 ACRES±	5.30 ACRES±	6.74 ACRES±
EXISTING IMPERVIOUS	0.42 ACRES± (28.2%)	0.32 ACRES± (6.0%)	0.74 ACRES± (11.0%)

SCALE: 1" = 100'

SCALE IN FEET: 0, 100, 200

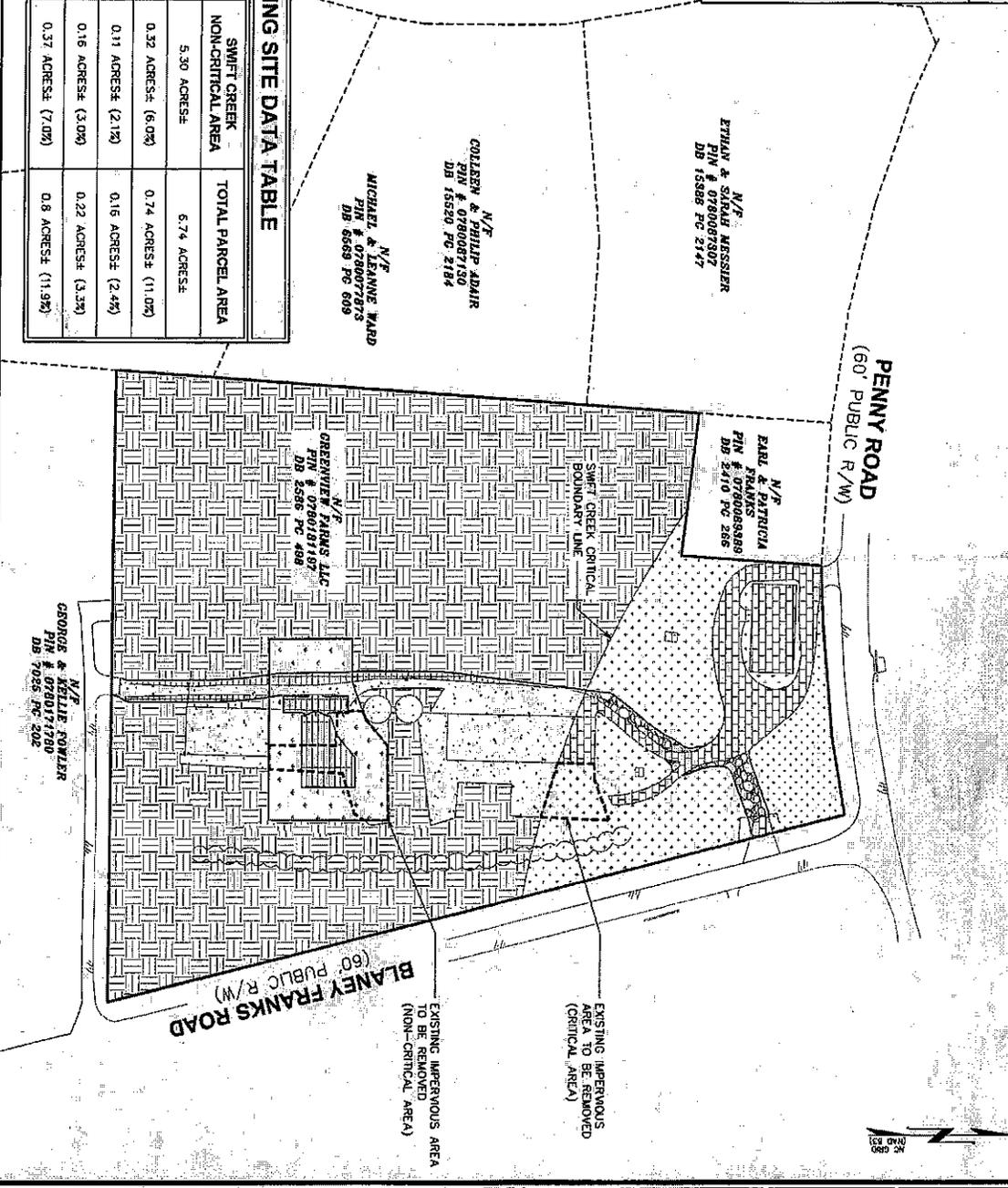
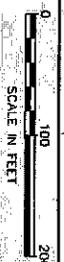
EXISTING SITE LAYOUT

LEGEND	
	EXISTING IMPERVIOUS CRITICAL AREA
	EXISTING PERVIOUS CRITICAL AREA
	PROPOSED IMPERVIOUS CRITICAL AREA
	EXIST. IMPERVIOUS NON-CRITICAL AREA
	EXIST. PERVIOUS NON-CRITICAL AREA
	PROPOSED IMPERVIOUS NON-CRITICAL AREA
	PROPOSED PERVIOUS NON-CRITICAL AREA

EXISTING SITE DATA TABLE			
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EXISTING IMPERVIOUS	0.42 ACRES± (29.2%)	0.32 ACRES± (6.0%)	0.74 ACRES± (11.0%)
EXISTING PERVIOUS	0.06 ACRES± (4.1%)	0.11 ACRES± (2.1%)	0.16 ACRES± (2.4%)
IMPERVIOUS REMOVED			
IMPERVIOUS ADDED	0.06 ACRES± (4.1%)	0.16 ACRES± (3.0%)	0.22 ACRES± (3.3%)
TOTAL IMPERVIOUS	0.42 ACRES± (29.2%)	0.37 ACRES± (7.0%)	0.8 ACRES± (11.9%)

PROPOSED SITE LAYOUT

SCALE: 1" = 100'



<p>PLANS PREPARED FOR:</p> <p>SKYWAY TOWERS 20525 AMBERFIELD DRIVE, SUITE 102 LAND O' LAKES, FL 34639 OFFICE: (813) 960-6211</p>	<p>PROJECT INFORMATION:</p> <p>LAKE WHEELER SKYWAY SITE #: NC-08777</p> <p>7208 BLANEY FRANKS RD RALEIGH, NC 27606 (WAKE COUNTY)</p>	<p>PLANS PREPARED BY:</p> <p>TOWER ENGINEERING PROFESSIONALS 326 TRICON ROAD RALEIGH, NC 27603-5263 OFFICE: (919) 861-6351 www.teppro.com</p> <p>NC LICENSE # C-1794</p>	<p>SEAL:</p>												
<p>SHEET NUMBER:</p> <p>C-2</p>	<p>REVISION:</p> <p>2</p> <p>TIP #: SC349</p>	<p>DRAWN BY: BMM</p> <p>CHECKED BY: JIC</p>	<p>REVISIONS:</p> <table border="1"> <tr> <th>REV.</th> <th>DATE</th> <th>ISSUED FOR</th> </tr> <tr> <td>2</td> <td>04-29-15</td> <td>LAND DISTURBANCE</td> </tr> <tr> <td>1</td> <td>03-16-15</td> <td>LAND DISTURBANCE</td> </tr> <tr> <td>0</td> <td>10-10-14</td> <td>LAND DISTURBANCE</td> </tr> </table>	REV.	DATE	ISSUED FOR	2	04-29-15	LAND DISTURBANCE	1	03-16-15	LAND DISTURBANCE	0	10-10-14	LAND DISTURBANCE
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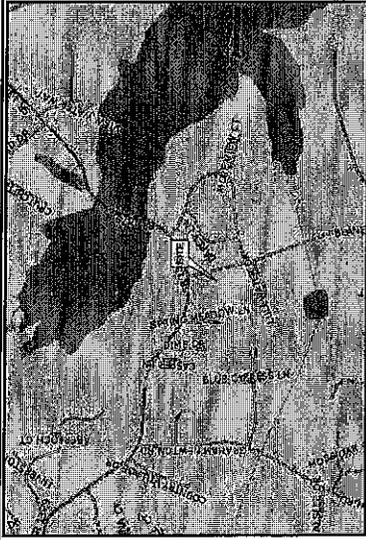
SITE DEVELOPER/APPLICANT:



185 FAIRCHILD STREET
CHARLESTON, SC 29492

SKYWAY TOWERS
20525 AMBERFIELD DRIVE
SUITE 102
LAND O' LAKES, FL 34639

T-MOBILE SITE ID: 5RA0506B
7208 BLANEY FRANKS RD
RALEIGH, NC 27605
(WAKE COUNTY)



LOCATION MAP

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS AND STANDARDS SET FORTH IN THESE PLANS AND THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE NORTH CAROLINA BUILDING CODE, THE INTERNATIONAL BUILDING CODE (2012 EDITION), THE INTERNATIONAL PLUMBING AND MECHANICAL CODE (2012 EDITION), THE INTERNATIONAL ELECTRICAL CODE (2011 EDITION), THE INTERNATIONAL WIRELESS TELECOMMUNICATIONS CODE (2011 EDITION), THE INTERNATIONAL FIRE ALARMS AND SIGNALING CODE (2010 EDITION), THE INTERNATIONAL MECHANICAL AND PLUMBING REGULATIONS (2012 EDITION), THE INTERNATIONAL CODES AND REGULATIONS GOVERNING THIS WORK, AND ANY APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.

CODE COMPLIANCE

JURISDICTION: WAKE COUNTY
DISTURBED AREA: 10,71843.S.F. (0.26 AC)
OCCUPANCY TYPE: AGRICULTURAL
CURRENT ZONING: R-40W
PW NUMBER: 0780181197
TOWER TYPE: 160' MONOPOLE (154' OVERALL)

UTILITY INFORMATION

DATE ENERGY PROVIDERS TELEPHONE COMPANY: AT&T
CUSTOMER SERVICE CONTACT: CUSTOMER SERVICE
PHONE: 1-800-337-4600
METER # NEAR SITE: UNKNOWN
METER # NEAR SITE: UNKNOWN
POSTAL # NEAR SITE: 7285

DRIVING DIRECTIONS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM LOCAL, STATE, AND FEDERAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM LOCAL, STATE, AND FEDERAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM LOCAL, STATE, AND FEDERAL AGENCIES.

PROJECT INFORMATION

LESSOR: T-Mobile
ADDRESS: 185 FAIRCHILD STREET
CHARLESTON, SC 29492
CONTACT: ROBERT HALL
PHONE: (803) 781-2620
TOWER OWNER: SKYWAY TOWERS, LLC
ADDRESS: 20525 AMBERFIELD DRIVE, SUITE 102
LAND O' LAKES, FL 34639
CITY: LAND O' LAKES, FL
STATE: FL
ZIP: 34639
PHONE: (813) 294-8211
SURVEYOR: TOWERS ENGINEERING PROFESSIONALS
ADDRESS: 20525 AMBERFIELD DRIVE, SUITE 102
LAND O' LAKES, FL 34639
CITY: LAND O' LAKES, FL
STATE: FL
ZIP: 34639
PHONE: (813) 294-8211
ELECTRICAL ENGINEER: TOWERS ENGINEERING PROFESSIONALS
ADDRESS: 20525 AMBERFIELD DRIVE, SUITE 102
LAND O' LAKES, FL 34639
CITY: LAND O' LAKES, FL
STATE: FL
ZIP: 34639
PHONE: (813) 294-8211
PROPERTY OWNER: ORENTOWN FARMS, LLC
ADDRESS: 20525 AMBERFIELD DRIVE, SUITE 102
LAND O' LAKES, FL 34639
CITY: LAND O' LAKES, FL
STATE: FL
ZIP: 34639
PHONE: (813) 294-8211

Table with columns: SHEET, DESCRIPTION, REV. Includes rows for Title Sheet, Site Plan & Tower Elevation, Landscaping Plan & Details, Civil Details I, Civil Details II, Grading Plan & Details, Electrical Notes & Details, E-1, E-2, E-3, Grounding Notes & Details I, Grounding Notes & Details II.

GENERAL NOTES

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM LOCAL, STATE, AND FEDERAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM LOCAL, STATE, AND FEDERAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM LOCAL, STATE, AND FEDERAL AGENCIES.

SHEET INDEX

GENERAL NOTES

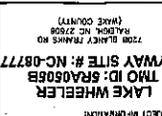
CONTACT INFORMATION

T-Mobile logo and contact information for Skyway Towers, including address in Land O' Lakes, FL and phone numbers.

Professional seal and information for T-Mobile Site ID: 5RA0506B, including project name and location.

Table with columns: REV, DATE, DESCRIPTION. Includes entries for Construction and Final Plans.

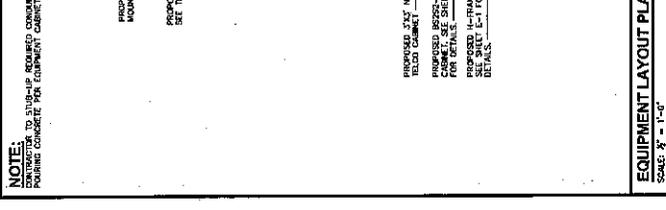
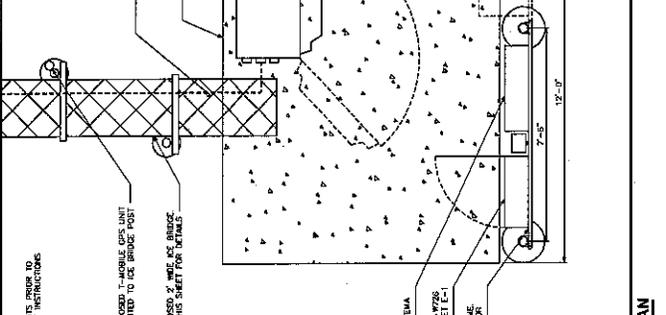
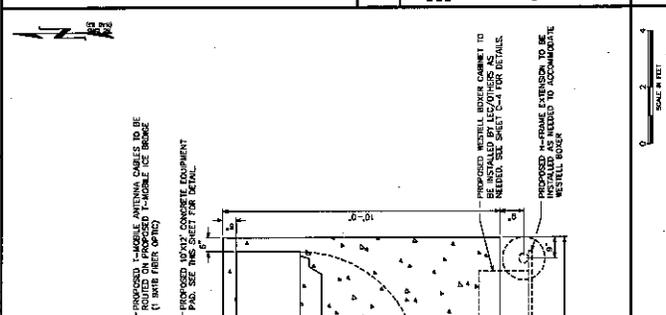
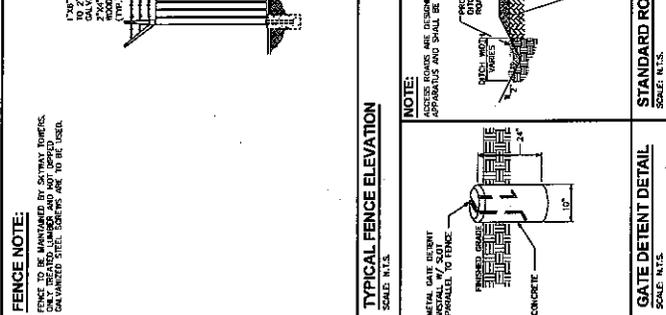
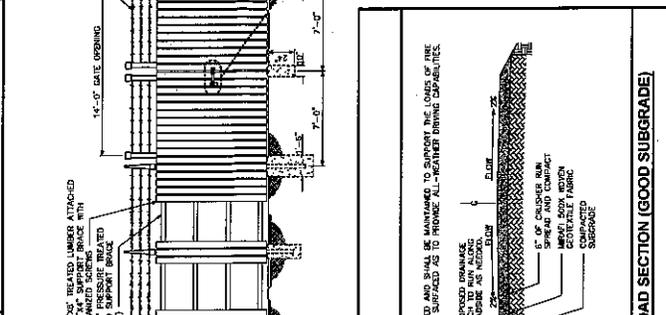
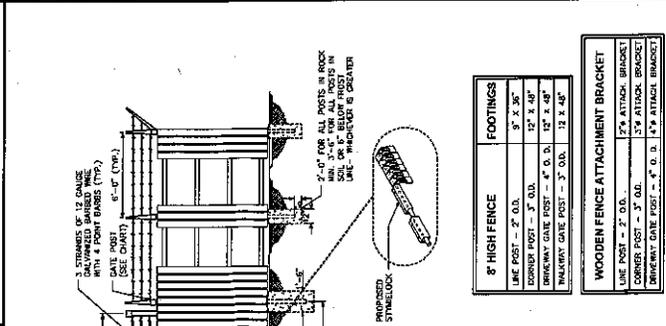
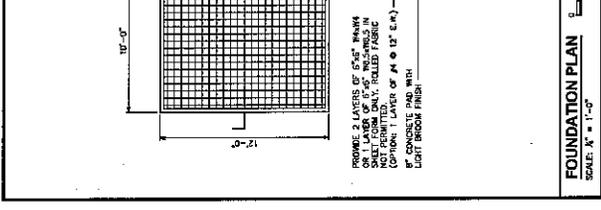
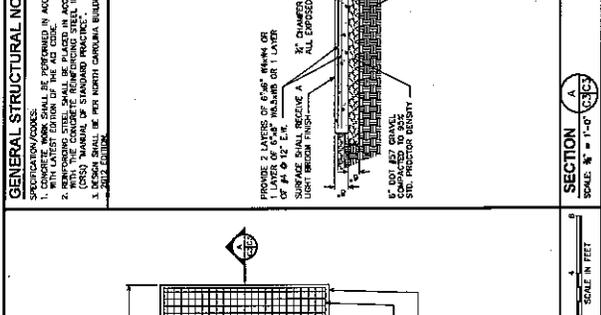
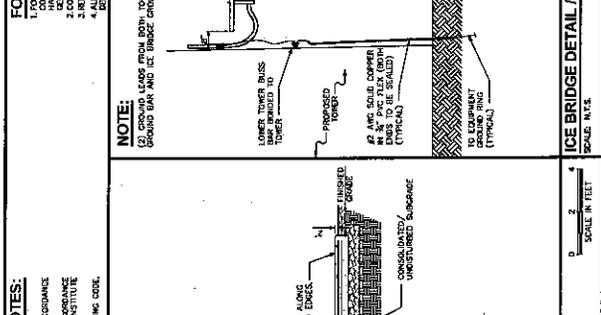
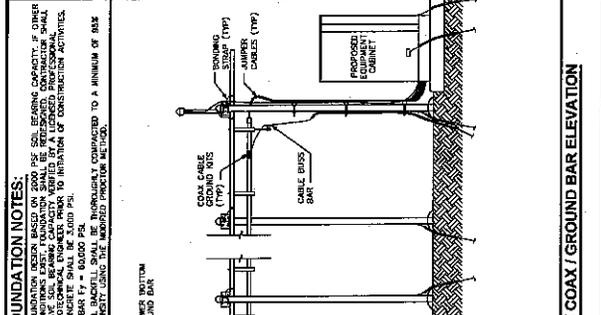
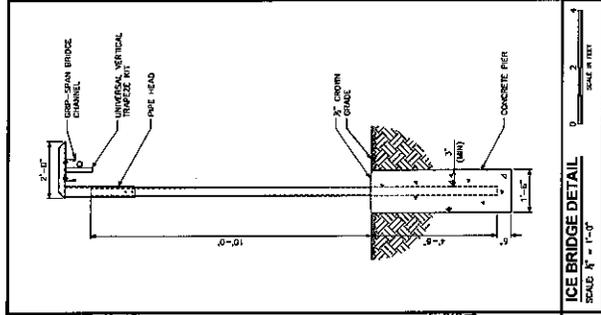
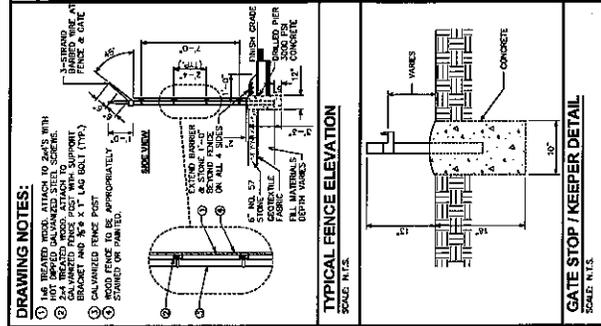
PROJECT INFORMATION: LAKE WHEELER, SKYWAY SITE # NC-08777, WAKE COUNTY, NC 27605.



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DRAWING NOTES:

1. HAS BEARD WELD ATTACHED TO EACH END WITH HOT DIPPED GALVANIZED STEEL SCORER.
2. GALVANIZED FENCE POST WITH SUPPORT BRACKET AND 3/4" X 1/4" LAG BOLT (TYP.) STAINED OR PAINTED.
3. GALVANIZED FENCE POST STAINED OR PAINTED.

FOUNDATION NOTES:

1. FOUNDATION DEPTH BASED ON 2000 PSI SOIL BEARING CAPACITY. OTHER SOIL BEARING CAPACITIES WILL BE MAINTAINED BY A LICENSED PROFESSIONAL ENGINEER.
2. CONCRETE SHALL BE 3,000 PSI.
3. REBAR IS #4 @ 12" O.C.
4. VERIFY USING THE APPROVED PRACTICE METHOD.

GENERAL STRUCTURAL NOTES:

1. ALL STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC CODE.
2. WITH THE EXCEPTED MATERIALS AND METHODS, THE DESIGNER SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL STRUCTURES.
3. ALL STRUCTURES SHALL BE DESIGNED TO ACCOMMODATE ALL LOADS AND CONDITIONS AS SHOWN ON THE DRAWINGS.
4. ALL STRUCTURES SHALL BE DESIGNED TO ACCOMMODATE ALL LOADS AND CONDITIONS AS SHOWN ON THE DRAWINGS.

NOTE:

CONTRACTOR TO SUBMIT REQUIRED COMMENTS PRIOR TO POURING CONCRETE FOR EQUIPMENT CABINET INSTRUCTIONS.

FENCE NOTE:

FENCE TO BE MAINTAINED BY SKYWAY BUREAU. GALVANIZED STEEL SCORERS ARE TO BE USED.

NOTE:

METAL GATE DETAIL SHALL BE MAINTAINED TO SUPPORT THE LOADS OF FENCE APPARATUS AND SHALL BE SURFACED AS TO PROMOTE ALL-WEATHER DRIVING CAPABILITIES.

FOOTINGS	
LINE POST - 2" O.D.	12" X 24"
DRIVER POST - 3" O.D.	12" X 36"
DRIVEWAY GATE POST - 4" O.D.	12" X 48"
INDUSTRY GATE POST - 5" O.D.	12" X 48"

WOODEN FENCE ATTACHMENT BRACKET	
LINE POST - 2" O.D.	12" X 24" AT 10' ON CENTER
DRIVER POST - 3" O.D.	12" X 36" AT 10' ON CENTER
DRIVEWAY GATE POST - 4" O.D.	12" X 48" AT 10' ON CENTER
INDUSTRY GATE POST - 5" O.D.	12" X 48" AT 10' ON CENTER

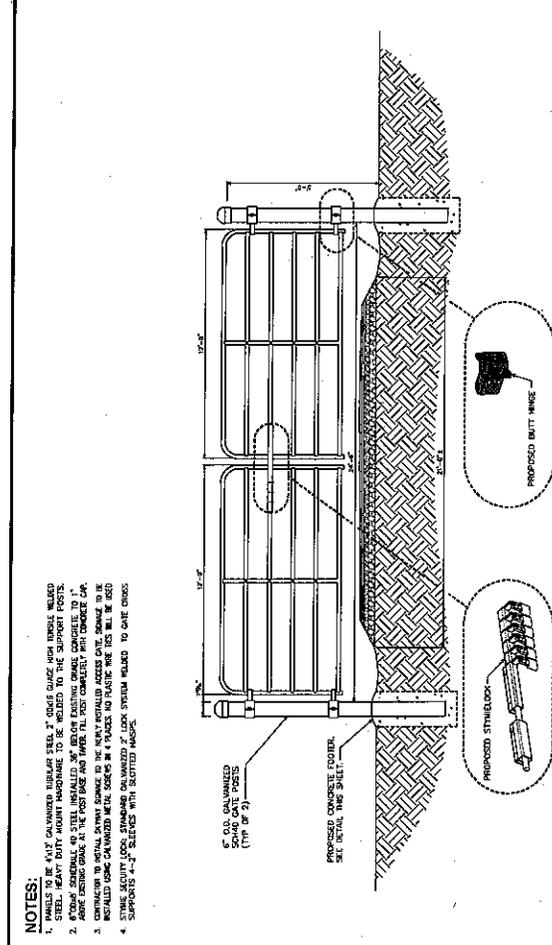
STANDARD ROAD SECTION (GOOD SUBGRADE)
SCALE: 1/2" = 1'-0"

GATE DETENT DETAIL
SCALE: 1/2" = 1'-0"

EQUIPMENT LAYOUT PLAN
SCALE: 1/2" = 1'-0"

DATE	12-14-14
ISSUED FOR	PERMANENT
CONSTRUCTION	
CHECKED BY	JAC
DRAWN BY	DMK

PROJECT INFORMATION
LAKE WHEELER
 7808 BLANEY FRANKS RD
 RALPH, NC 27605
SKYWAY SITE #: NC-08777



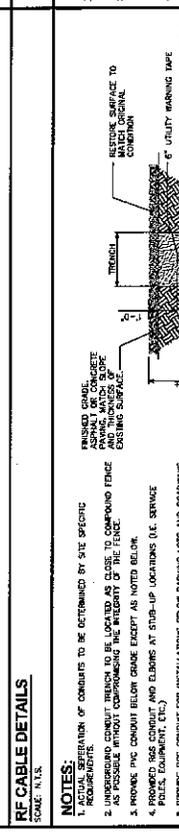
NOTES:

1. ALL CHANNELS SHOWN WITH 1/2" CORNER BRACKETS. ALL CHANNELS SHALL BE WELDED TO THE FRAME.
2. ALL CHANNELS SHALL BE WELDED TO THE FRAME. ALL CHANNELS SHALL BE WELDED TO THE FRAME.
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ACCESS GATE
 SCALE: N.T.S.

NOTES:

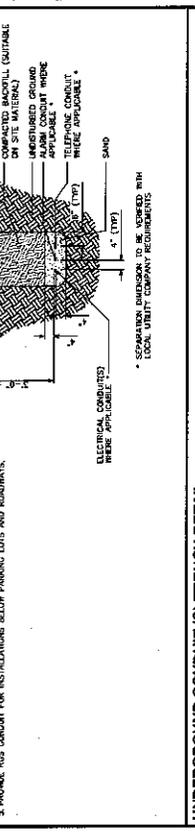
1. SIGNS SHALL BE FABRICATED FROM CORROSION RESISTANT PRESSED METAL AND PAINTED WITH LONG LASTING WET RESISTANT COATING.
2. SIGNS (EXCEPT WHERE NOTED OTHERWISE) SHALL BE MOUNTED TO THE TOWER.
3. SIGNS SHALL BE MOUNTED TO THE TOWER. SIGNS SHALL BE MOUNTED TO THE TOWER.
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RF CABLE DETAILS
 SCALE: N.T.S.

NOTES:

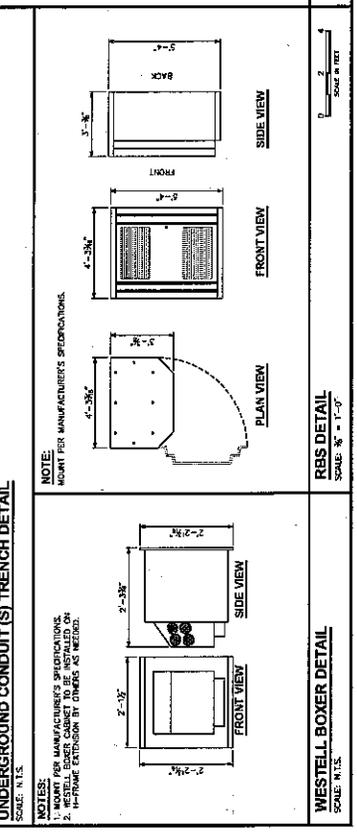
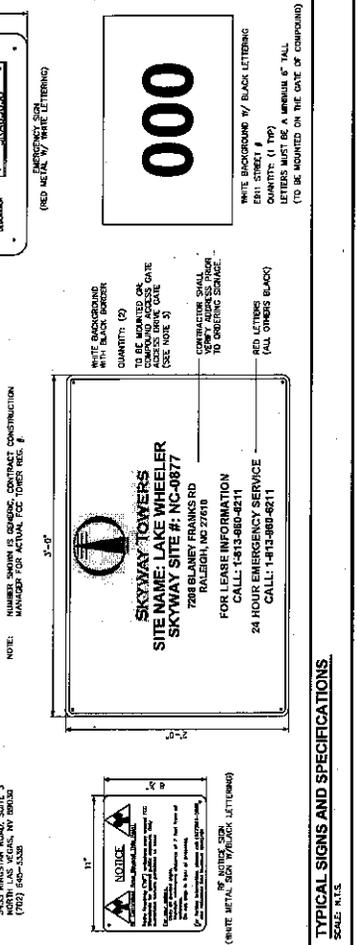
1. SEPARATION DIMENSION TO BE VERIFIED WITH LOCAL UTILITY COMPANY REQUIREMENTS.
2. WESTELL CABLE SHALL BE INSTALLED ON 1/2" THICK EXTENSION BY OWNERS AS NOTED.



UNDERGROUND CONDUIT(S) TRENCH DETAIL
 SCALE: N.T.S.

NOTES:

1. MOUNT PER MANUFACTURER'S SPECIFICATIONS.
2. WESTELL CABLE SHALL BE INSTALLED ON 1/2" THICK EXTENSION BY OWNERS AS NOTED.

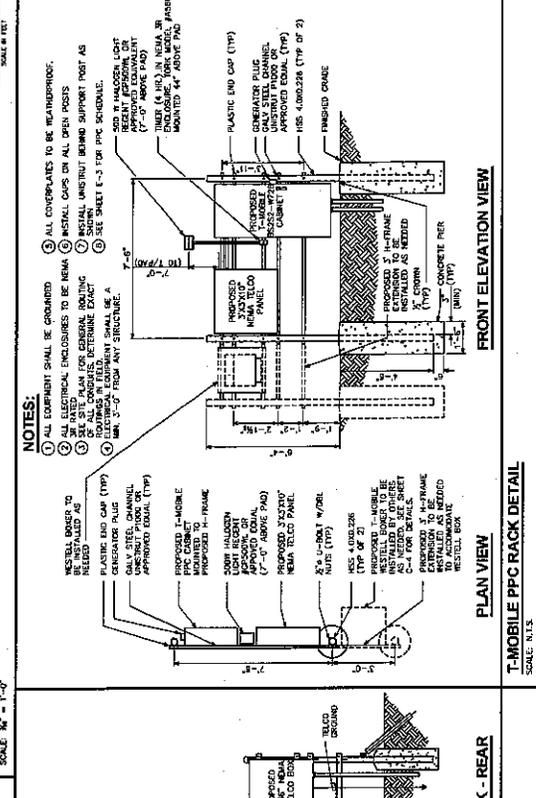
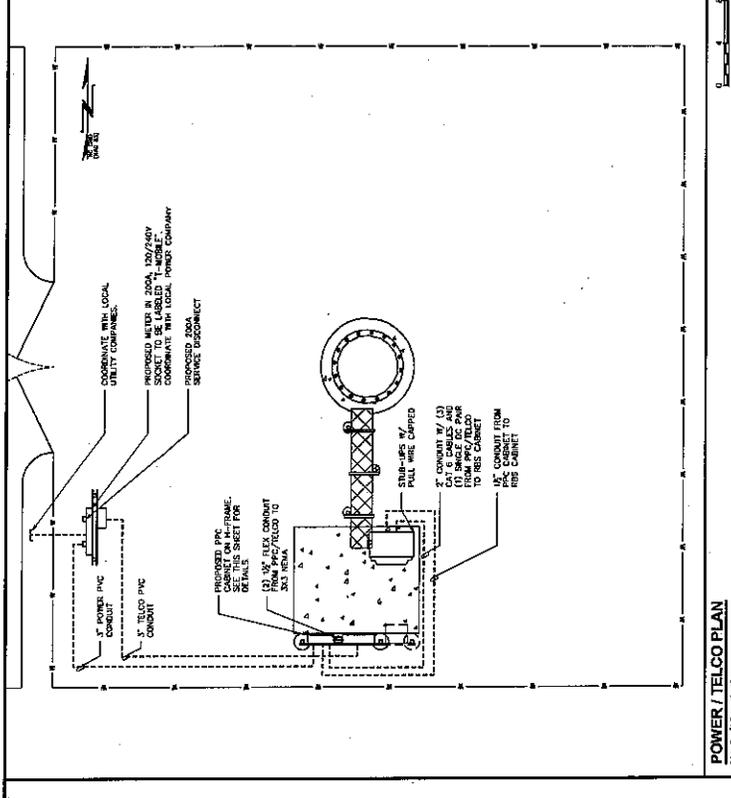
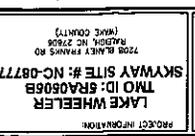


WESTELL BOXER DETAIL
 SCALE: N.T.S.

NOTES:

1. MOUNT PER MANUFACTURER'S SPECIFICATIONS.
2. WESTELL CABLE SHALL BE INSTALLED ON 1/2" THICK EXTENSION BY OWNERS AS NOTED.

DATE	CONSTRUCTION	ISSUED FOR	CHECKED BY
12-10-14			JAC



EQUIPMENT:

1. ALL CONNECTIONS SHALL BE SERVICE ENTRANCE RATED, HEAVY DUTY TYPE.
2. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND THE NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 720).
3. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND THE NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 720).

CONDUCTORS

1. ALL CONDUCTORS SHALL BE SERVICE ENTRANCE RATED, HEAVY DUTY TYPE.
2. ALL CONDUCTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND THE NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 720).
3. ALL CONDUCTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND THE NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 720).

ABBREVIATIONS AND LEGEND

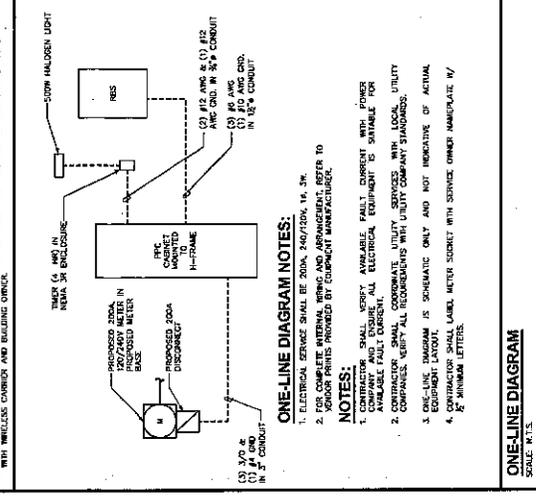
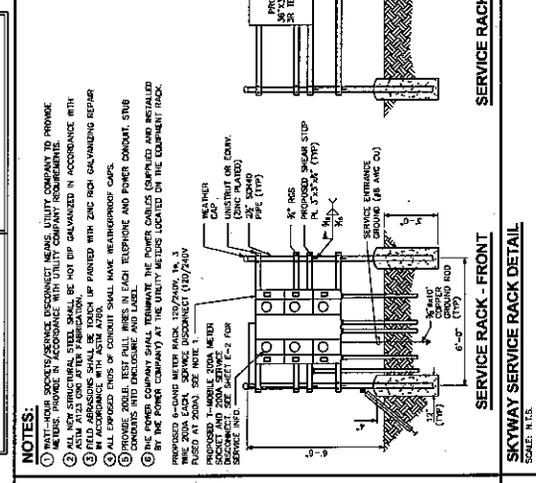
A	AMPERE	NS	NON-METALLIC SHEATHED CABLE
B	BUS	OS	OVERHEAD SERVICE
C	CABLE	TS	TRIPLESS
D	CONDUIT	UL	UNDERGROUND LAMP/UNDERGROUND
E	DISCONNECT	W	WIRE
F	EXTERIOR GROUND RING	XP	TRANSFORMER
G	GENERATOR	Y	YIELD
H	GROUNDING BUS	Z	ZENER
I	INSULATION		
J	ISOLATED GROUND BUS		
K	ISOLATED GROUND BUS (HALO)		
L	ISOLATED GROUND BUS (HALO)		
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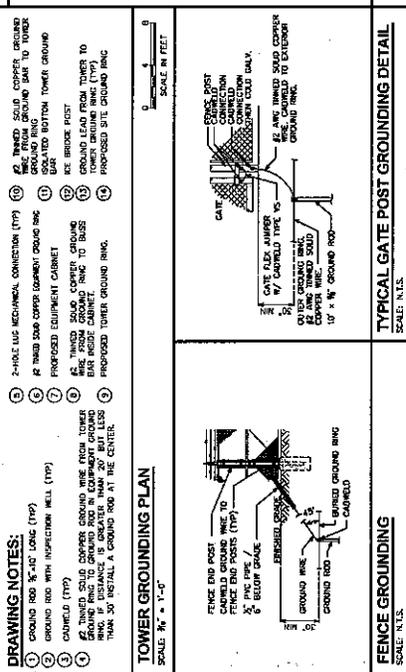
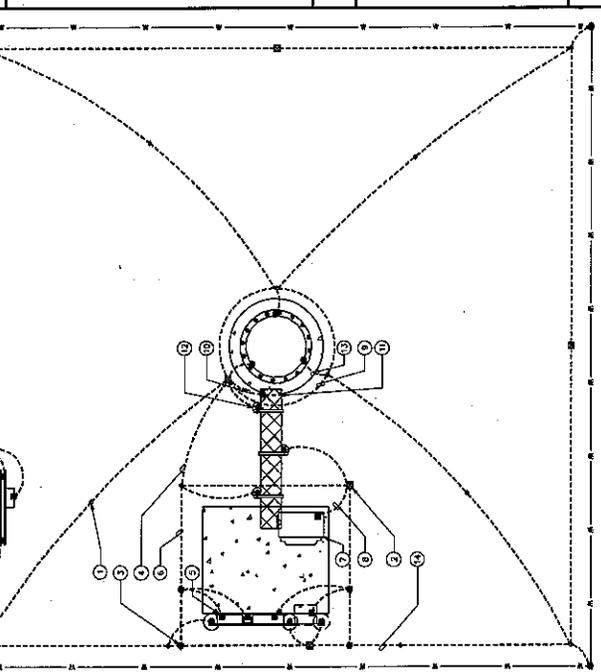
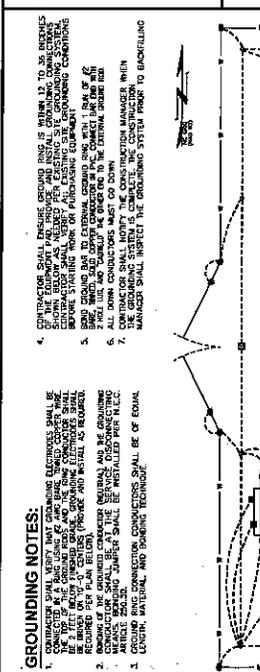
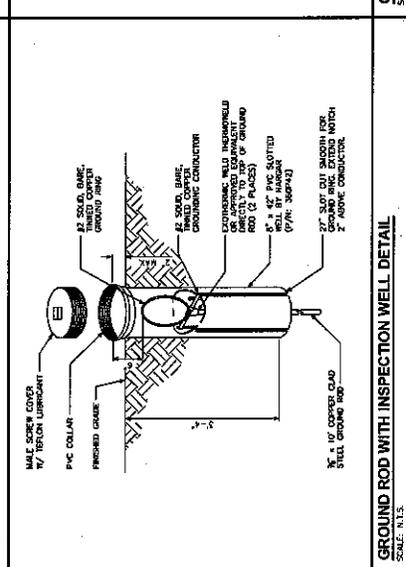
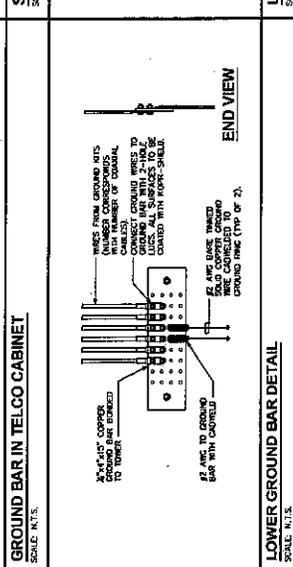
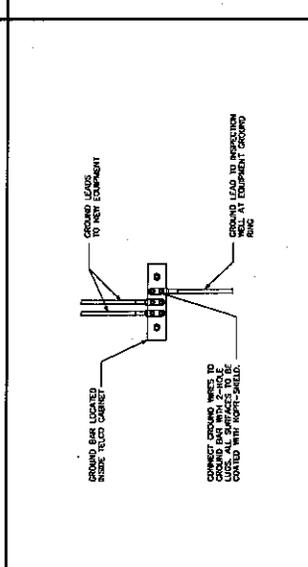
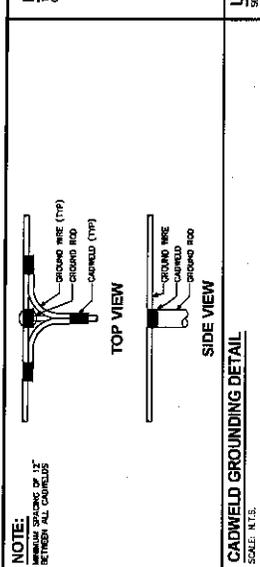
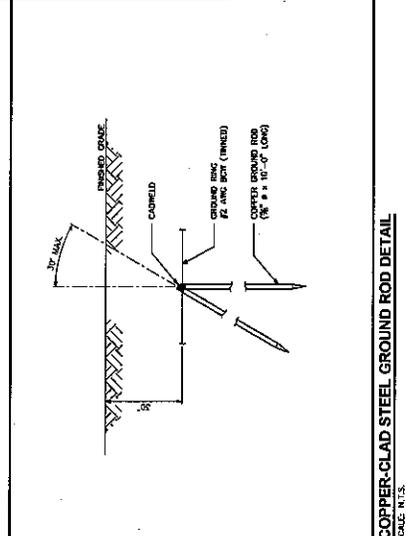
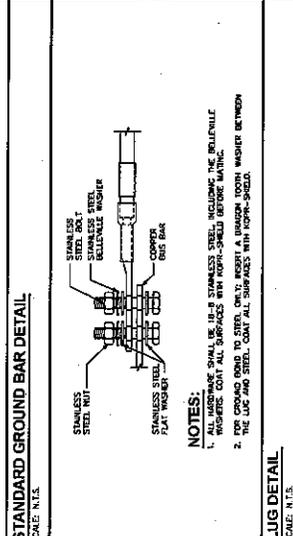
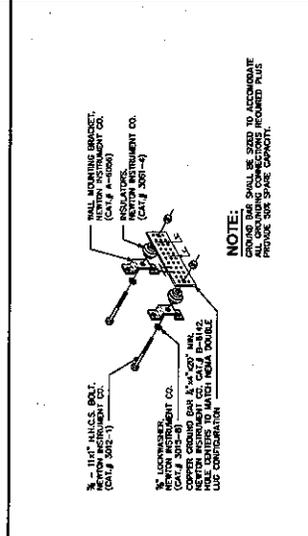
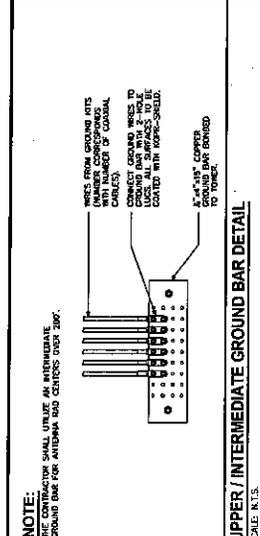
ABBREVIATIONS AND LEGEND

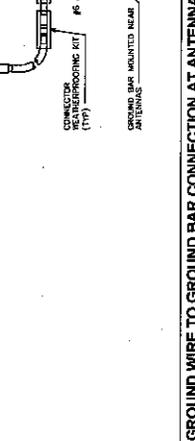
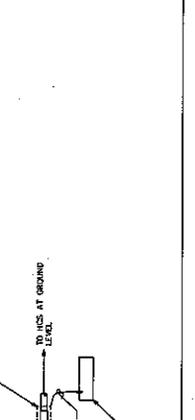
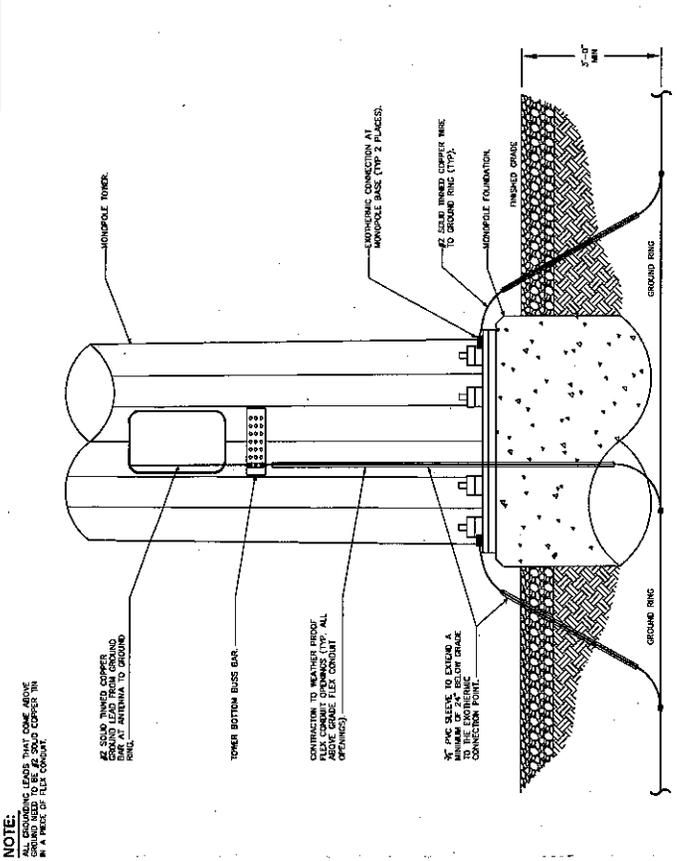
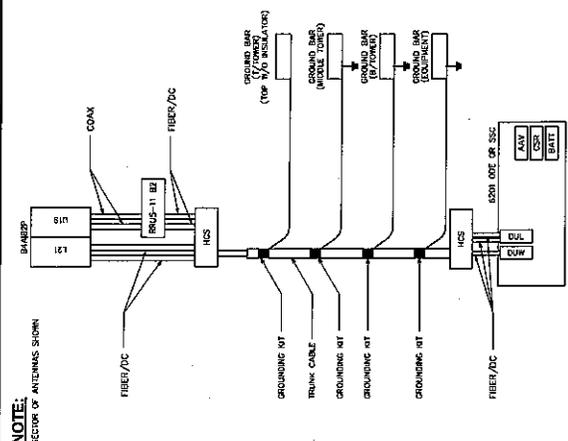
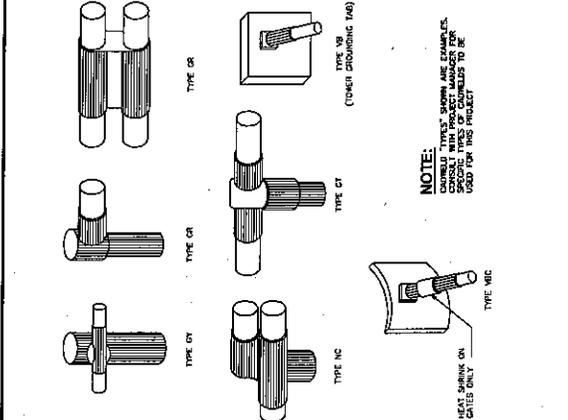
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NOTES:

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3. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND THE NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 720).



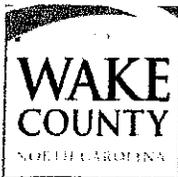




PPC SCHEDULE
 SCALE: N.T.S.

NO.	LOAD SERVED	100/240 VOLTS		SURFACE MOUNTED		3 WIRE		2 WIRE		NO.
		W	VA	W	VA	W	VA	W	VA	
1	LOAD SERVED	3000	-	300	-	300	-	300	-	7
2	RADIO CABINET FI	-	3000	-	3000	-	3000	-	3000	8
3	SPARE	-	-	-	-	-	-	-	-	9
4	SPARE	-	-	-	-	-	-	-	-	10
5	LIGHT	200	-	200	-	200	-	200	-	11
6	FAN	-	200	-	200	-	200	-	200	12
TOTAL WLT. AMPS		3000	3000	400	300	400	300	400	300	
TOTAL WLT. AMPS DEMAND VA (TOTAL WLT. X 1.25)		3000		10000		10000		10000		

NOTE: SEE SHEET E-1 FOR PPC BACK DETAIL.



Rules Of Appeal Board Procedure 300 2.3

2

Countywide or	X	Department: Human Services & Environmental Services	X	Division(s): Public Health/Environmental Health
Supersedes: Wake County Human Services, Department of Environmental Services Rules of Appeals dated 03/28/2002				Original Effective Date: 8/25/2011
Authority: North Carolina General Statute (NCGS) 130A-24(b),(c),(d) and (e)				
Originating Department/Division/Section/Work Unit: Human Services & Environmental Services				

Approved

I. Purpose: To provide a single Wake County Human Services Board appeals process that applies to all functions under the purview of the Board. This procedure specifies how any aggrieved person may request an appeal hearing to contest a decision or ruling of the Director or Designee, or Delegate regarding the interpretation and enforcement of State or Wake County health regulations, rules adopted by the Board, or the imposition of administrative penalties. This document meets requirements or partial requirements for Public Health Accreditation Benchmarks 35.1a and 34.5.

II. Description:

A. Hearing Request: Any aggrieved person may request an appeal hearing under these rules to contest a decision or ruling of the Director regarding the interpretation and enforcement of State health regulations; rules adopted by the Board; or the imposition of administrative penalties if:

1. The request is submitted in writing to the Director within thirty (30) days following receipt of the decision or ruling; and
2. The notice contains the following information:
 - a. The name and mailing address of the Appellant;
 - b. A description of the challenged decision or ruling; and
 - c. A statement of why the decision or ruling is incorrect.
3. The Director or the Director's Delegate or Designee shall, within seven (7) working days after receipt of the notice of appeal, transmit to the Hearing Panel the notice of appeal and all papers and materials upon which the challenged decision or ruling was based.

B. Notice of Hearing:

1. The Hearing Panel shall schedule and hold a hearing within fifteen (15) days following receipt of the notice of appeal from the Director or the Director's Delegate or Designee. The Board shall issue notice to Appellant of the date, time, and place of the hearing not less than seven (7) days prior. If notice is sent by



Article 17 - no jurisdiction

had closed. NC DENR is the agency that enforces those laws related to groundwater contamination. Mr. Pearson said that section 17-11-10 of the UDO regarding toxic matter pertains to operational performance standards for certain land uses, such as a sewage treatment plant or an industrial facility. The cell tower does not create any type of toxic matter as part of its operation.

Mr. Clark asked about UDO section 9-40-1. Mr. Pearson said that the UDO states that if you disturb more than half an acre the development would be subject to stormwater management. Mr. Clark asked whether there would be a requirement regarding impervious surface coverage that would require a stormwater management plan for this use. Mr. Pearson answered that there would not be a requirement. The developer was required to provide an as-built survey at the conclusion of the construction of the tower. The as built survey has been approved as being in compliance with the UDO and the impervious surface requirements for Swift Creek.

Ms. Russell elected to not cross examine any witnesses, and she proceeded to her rebuttal. She objected to Mr. Pearson's contention that section 17-11-10 of the UDO is addressing some other guidance. She said that it is a standalone type of ordinance about toxic matter. Ms. Russell referred to slide 22 of her presentation which references the North Carolina Administrative Code. She said that this state regulation stipulates that some corrective action needs to happen if there is an activity that is polluting the land. Because the permit was in violation of that state statute, Ms. Russell said that the permit is in violation of the UDO section 17-11-10. She referred to slide 23 in her presentation: an email from Rick Bolich which states:

However, if the financial status of Greenview Farms, Inc. has changed as a result of a lease agreement for the proposed cell tower, NCDENR will comply with our regulatory responsibilities to compel the responsible party to mitigate the hazards posed by the groundwater contamination in this area.

She said that the issue is not whether the developer has caused an increase in contamination. The issue is that there are two simultaneous events: there is a new activity developed, and there is continued contamination on the soils upon which it is being conducted. There were a lot of soils that were disturbed.

Wake County staff did not elect to cross examine any witnesses.

There was no one else who wished to speak in favor of or in opposition to the request. Mr. Clark closed the public hearing.

MOTION

Mr. McConkey made a motion that the Board find and conclude that, based on the applicable Wake County Unified Development Ordinance provisions, and on the evidence submitted in the matter of BA A-2216-15 that the Planning staff's determination should be upheld and the granting of the general use permits be affirmed. The motion to affirm is based on the following findings of fact and conclusions of law:

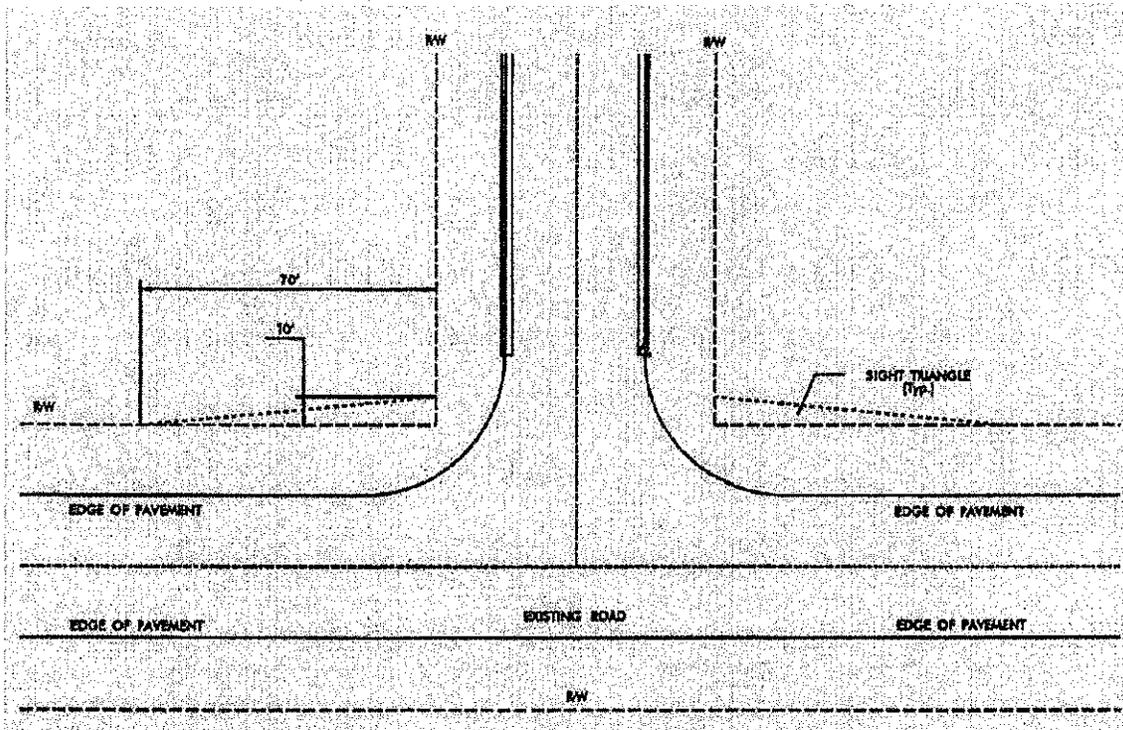
1. No land use restriction exists that would prohibit issuance of the General Use Permit.
2. Jurisdiction lies with NC DENR regarding contamination of property.
3. An email from NC DENR states that it is the professional opinion that the construction of the cell tower should have no significant impact on groundwater quality in the area.
4. Jurisdiction to consider the appeal of the County's determination regarding the stormwater plan lies with the Human Services and Environmental Services Board. The board not overturning the use permit on those grounds does not preclude the Human Services and Environmental Services Board from holding their appeal to consider the matter and potentially overruling the County's decision to not require a stormwater management plan.

Mr. Myrick seconded the motion. By a vote of 5-0, the motion passed, and the Planning staff's decision was affirmed. The General use Permits are affirmed. So ordered.

Article 17. General Site Design and Performance Standards

17-10 General Site Design

17-10-1 Sight Visibility- To minimize traffic hazards at street or driveway intersections. See the following graphic from the North Carolina Department of Transportation's Policy on Street and Driveway Access to North Carolina Highways manual.



17-10-2 Sight Triangles Required- No sight obstructing or partially obstructing wall, fence, foliage, berming, parked vehicles or sign between the heights of twenty-four (24) inches and eight (8) feet above the curb line elevation, or the nearest traveled way if no curbing exists, shall be placed within a sight triangle of a public street, private street or driveway contained either on the property or on an adjoining property, as set forth by the North Carolina Department of Transportation's Policy on Street and Driveway Access to North Carolina Highways manual, and all subsequent amendments thereto.

17-10-3 Size of Required Sight Triangles- A sight triangle is that triangle as set forth by the North Carolina Department of Transportation's Policy on Street and Driveway Access to North Carolina Highways manual, and all subsequent amendments thereto.

17-10-4 If the provisions of any other law, ordinance or regulation of the county or of the state shall be in conflict with this section, the more stringent provision shall control.

[Amended 7/21/2008 by OA 02-08.]

17-11 Operational Performance Standards

17-11-1 Applicability

Whenever the uses in a zoning district are subject to the operational performance standards of this article, all of the uses in that district except those that are allowed without a permit must

Article 17 General Site Design and Performance Standards

17-11 Operational Performance Standards

all of the applicable standards of this Article. At the time a permit is issued, it will not always be possible to determine whether a use will comply with all of these standards when construction is completed and operation is begun. Therefore, permittees are hereby put on notice that a use permit is issued on the condition that all applicable operational performance standards—just as with the other regulations in this ordinance—must be complied with continually and that any violation of this condition is a violation of this ordinance.

17-11-2 Effect of Two or More Uses

The sum total of the effects of 2 or more uses whether located on the same lot or different lots may not exceed the standards of this section. Compliance with the standards of this section by single or mutual changes in operational levels, scheduling of operations, or other appropriate means is permitted.

17-11-3 Noise

(A) Measurement

Noise must be measured with a sound level meter at the lines of the property from which the noise is being emitted. The instrument must be set to the A-weighted response scale, and the meter to slow response. Measurements must be conducted with the "American Standard Method for the Physical Measurements of Sound," American National Standard Institute (ANSI S1. 2-1962). When more than one sound level applies the more stringent one govern.

(B) Standards

Except as provided in subsection (C) immediately below, noise may not exceed the following levels:

Maximum Permitted Sound Level	When the Lot Is Adjacent To:
55 dba*	Any Residential district or the RA district
60 dba	The O&I, Highway, GB or HC districts
65 dba	The Airport or Industrial districts

* When adjacent to any Residential district, the weighted sound level may not exceed 55 dba during the hours of 7:00 a.m. to 9:00 p.m. and 45 dba during the hours of 9:00 p.m. to 7:00 a.m.

(C) Exceptions to Standards

The maximum sound levels in subsection (B) above may be exceeded if one of the following correction factors is applicable:

Type of Operation or Character of Noise	Correction in Decibels
Noise source operates less than 20% of any one hour period	Plus 5*
Noise source operates less than 5% of any one hour period	Plus 10*
Noise source operates continuously but at frequencies below 500 cycles per second	Plus 10*
Noise source operates less than 1% of any one hour period	Plus 15*
Noise of impulsive character, such as hammering, pounding, etc.	Minus 5
Noise of periodic character, such as humming, screeching, etc.	Minus 5

* Apply only one of these correction factors

(D) Exclusion from Standards

Noises which are not under the direct control of an industrial use, such as from independent transportation facilities, are excluded from the standards established by this subsection.

BK016013PG01836

EXHIBIT 1
Page 1 of 2

DESCRIPTION OF LEASED PREMISES

The Leased Premises is 60 feet by 60 feet (3,600 square feet) along with required easements, as more particularly described and depicted in the attached legal description and/or sketch:

60 X 60 LEASED PREMISES:

ALL THAT CERTAIN LEASE AREA PARCEL OF LAND, SITUATE, LYING AND BEING IN WAKE COUNTY, NORTH CAROLINA, BEING A PORTION OF THE LANDS DESCRIBED IN DEED BOOK 2586 AT PAGE 498 OF THE WAKE COUNTY REGISTER OF DEEDS AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

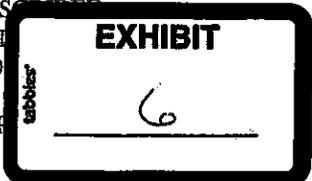
COMMENCING AT EXISTING IRON PIPE ON THE SOUTHERN RIGHT OF WAY OF PENNY ROAD, SAID IRON BEING THE NORTHWEST CORNER OF THE PARCEL DESCRIBED IN DEED BOOK 2586 AT PAGE 498, SAID IRON BEING A COMMON CORNER OF THE PARCEL DESCRIBED IN DEED BOOK 2410, PAGE 266, AND HAVING NORTH CAROLINA STATE PLANE COORDINATES OF NORTHING = 708,456.67', AND EASTING = 2,081,057.00'; THENCE FROM THE POINT OF COMMENCEMENT, SOUTH 08°45'55" EAST, A DISTANCE OF 438.16 FT. TO A POINT ON THE NORTHWEST CORNER OF THE DESCRIBED 15,679 SQ. FT. LEASE AREA, SAID POINT BEING THE TRUE POINT OF BEGINNING, AND HAVING NORTH CAROLINA STATE PLANE COORDINATES OF NORTHING = 708,023.61', AND EASTING = 2,081,123.73'; THENCE FROM THE POINT OF BEGINNING NORTH 90°00'00" EAST, A DISTANCE OF 40.34 FT. TO A POINT; THENCE NORTH 69°22'10" EAST FOR A DISTANCE OF 35.67 FT. TO A POINT; THENCE NORTH 50°07'13" EAST FOR A DISTANCE OF 30.62 FT. TO A POINT. THENCE NORTH 89°24'04" EAST FOR A DISTANCE OF 68.22 FT. TO THE POINT; THENCE SOUTH 00°04'15" WEST FOR A DISTANCE OF 109.86 FT. TO A POINT; THENCE NORTH 90°00'00" WEST A DISTANCE OF 165.30 FT. TO A POINT; THENCE NORTH 00°00'00" EAST A DISTANCE OF 76.95 FT. TO THE POINT OF BEGINNING.

SAID LEASE AREA PARCEL CONTAINING 15,679 SQ. FT. OR 0.36 ACRES MORE OR LESS.

30' WIDE ACCESS AND UTILITY EASEMENT:

ALL THAT CERTAIN EASEMENT AREA PARCEL OF LAND, LYING AND BEING IN WAKE COUNTY, NORTH CAROLINA, BEING A PORTION OF THE LANDS DESCRIBED IN DEED BOOK 2586, AT PAGE 498 OF THE WAKE COUNTY REGISTER OF DEEDS AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT EXISTING IRON PIPE ON THE SOUTHERN RIGHT OF WAY OF PENNY ROAD, SAID IRON BEING THE NORTHWEST CORNER OF THE PARCEL DESCRIBED IN DEED BOOK 2586 AT PAGE 498, SAID IRON BEING A COMMON CORNER OF THE PARCEL DESCRIBED IN DEED BOOK 2410, PAGE 266, AND HAVING NORTH CAROLINA STATE PLANE COORDINATES OF NORTHING = 708,456.67', AND EASTING = 2,081,057.00'; THENCE FROM THE POINT OF COMMENCEMENT, SOUTH 81°07'47" EAST A DISTANCE OF 245.22 FT. TO A POINT ON THE WESTERN RIGHT OF WAY OF BLANEY FRANKS ROAD, SAID POINT BEING THE TRUE POINT OF BEGINNING OF A DESCRIBED 30' ACCESS AND UTILITY EASEMENT, AND HAVING NORTH CAROLINA STATE PLANE COORDINATES OF: NORTHING = 708,418.86'; AND EASTING = 2,081,299.28'; THENCE FROM THE POINT OF BEGINNING, AND WITH SAID RIGHT OF WAY OF BLANEY FRANKS ROAD, SOUTH 13°54'38" EAST A DISTANCE OF 30.12 FT. TO A POINT ON SAID RIGHT OF WAY, THENCE LEAVING SAID RIGHT OF WAY OF BLANEY FRANKS ROAD, SOUTH 70°55'11" WEST A DISTANCE OF 59.72 FT. TO A POINT; THENCE SOUTH 15°29'31" WEST A DISTANCE OF 9.32 FT. TO A POINT; THENCE SOUTH 13°21'17" EAST A DISTANCE OF 37.49 FT. TO A POINT, THENCE SOUTH 40°48'23" WEST A DISTANCE OF 97.85 FT. TO A POINT; THENCE SOUTH 07°24'02" WEST A DISTANCE OF 148.38 FT. TO A POINT; THENCE SOUTH 00°00'00" EAST A DISTANCE OF 76.36 FT. TO A POINT ON THE NORTHERN LIMITS OF DESCRIBED LEASE AREA PARCEL; THENCE WITH SAID NORTHERN LIMITS, SOUTH 69°22'10" WEST A DISTANCE OF 9.76 FT. TO A POINT ON SAID NORTHERN LIMITS; THENCE STAYING WITH SAID NORTHERN LIMITS OF SAID LEASE AREA NORTH 90°00'00" WEST A DISTANCE OF 20.87 FT. TO A POINT ON THE NORTHERN LIMITS OF SAID LEASE AREA; THENCE LEAVING SAID NORTHERN LIMITS, NOR



2



**Wake County Public Records Request- 7208
Blaney Franks Road**

Eric F Curry to: Caroline M Loop, Phelecia O Cooper, Jim
08/04/2015 09:53 AM

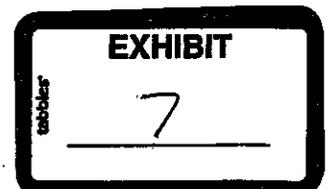
From: Eric F Curry/Wake County
To: Caroline M Loop/Wake County@WAKE COUNTY,
Phelecia O Cooper/Wake County@Wake County, Jim D
Roberson/Wake County@Wake County,

Please forward me any information pertaining to a Phase I study for 7208 Blaney Franks Road.

Regards.

Please provide both the Stormwater Management Engineering Report and review notes and the Phase I Environmental Study that was submitted for the permit that was issued July of 2015 on or about the 21st for ~~7208 Blaney Franks Road~~, Permit Number 0151891 and Stormwater Permit Number CDP 051915 for plans to construct a cell tower at the site. Thank you.

Eric Curry
Communications Specialist
Wake County Government
P.O. Box 550
Raleigh, NC 27602
919.856.7550
eric.curry@wakegov.com





**Environmental
Services**

TEL 919 856 7400
FAX 919 856 7407

Water Quality Division

336 Fayetteville St. • P.O. Box 550 • Raleigh, NC 27602

8/17/2015

Eric Curry
Wake County Public Affairs Office

Subject: Information Request for Parcel in Wake County 7208 Blaney Franks Road

Dear Mr. Curry:

The following information is being provided to you by Wake County Environmental Services in response to your request for information about the presence of well(s), septic system(s), petroleum storage tanks, hazardous materials spills or releases or other known environmental concerns at the property listed above. Please note that the absence of information regarding any of the items above should not be construed as the absence of wells, septic systems, storage tanks, spills, releases, or other environmental concerns. Wake County Environmental Services provides permitting and inspection services for onsite wastewater systems (septic tanks) and groundwater well systems for properties in Wake County. We do not perform environmental assessments of property. You are encouraged to contact State, federal, and municipal governments that may also have relevant information, and in some cases be the originator of the information that you seek. Your request will also be sent to other departments within Wake County. We are providing you with the information that we have that is practically reviewable.

Wells: We have no records indicating that a supply well is on the subject property.

Septic system: We have no records indicating that a septic system is on the subject property.

Spills: We have no indication that a spill of petroleum or any hazardous material has occurred on the subject property.

Tanks, releases, or other environmental concerns: We have no indication of the presence of tanks, history of releases, or other known environmental concerns at this property.

Any documents related to the findings above are attached to this letter.

Thank you for contacting Wake County Government. If you have any questions, or require additional information, please feel free to call me at 919-856-7314.

Sincerely,

A handwritten signature in black ink, appearing to read "Phelecia Cooper".

Phelecia Cooper, Administrative Supervisor
Wake County Environmental Services Department

On Thu, Oct 8, 2015 at 5:32 PM, <Caroline.Loop@wakegov.com> wrote:
Ms. Russell,

With respect to your mention of "no known contamination", I would guess that your statement originates from the letter provided to you on 8/17/15. I hope that the following contextual information will be helpful.

We are routinely asked for information by organizations who themselves are performing Phase I Environmental studies and we try to provide as much information about specific parcels as possible. If the 2005 DENR study had been tied to one of our geographic databases, we would have returned that information to you as part of that letter and the wording of the letter would have reflected the contents of the report. I regret that that was not done. I have already asked to have the site marked geographically and the report tied to it, so that the same thing does not occur again. The letter from 8/17/15 should not itself be considered an environmental study.

I understand that this is not the entirety of your complaint, but hope to have provided some clarity on this aspect.

Sincerely,
Caroline

Caroline Loop, Ph.D., P.G.
Environmental Services Manager
Wake County Department of Environmental Services
PO Box 550
Raleigh NC 27602
office: ~~919-856-7469~~
cell: ~~919-710-7440~~

Caroline.Loop@wakegov.com

*Wake County Environmental Services would like your feedback.
In order to participate please [CLICK HERE!](#)*

WakeGOV I want to... Departments & Divisions Topics Government Stay Connected

Water Quality

Search Search WakeGOV

Water: Home Groundwater & Wells Septic & Wastewater Erosion, Flood & Stormwater Watersheds

- Floodplain Management
- Sedimentation and Erosion Control
- Stormwater Management
- Frequently Asked Questions
- Fees
- News and Notices
- Watershed Management Staff
- Wake County Stormwater Program Submittal for Compliance with Falls Lake New Development Rule
- Wake County Stormwater Program Submittal for Compliance with Jordan Lake New Development Rule
- Forms

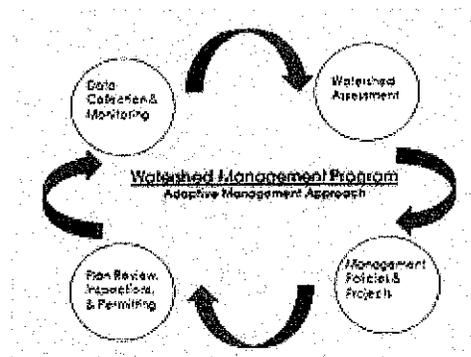
Erosion Control, Stormwater & Floodplain Management

Wake County Watershed Protection Programs

Watershed management is a term used to describe the process of implementing land-use practices and water management practices to protect and improve the quality of the water and other natural resources within a watershed by managing the use of those land and water resources in a comprehensive manner.

Our Watershed Management approach differs from other efforts because it integrates the activities of other Wake County programs but also with our external partnerships. The focus is on solving environmental problems at their source and improving watershed health overall, not merely complying with individual regulations.

The following programs act as the regulatory arm of Wake County's Watershed Management Program.



Stormwater Management Program

Stormwater runoff is generated when precipitation from rain and snowmelt events flows over land or impervious surfaces and does not percolate into the ground. As the runoff flows over the land or impervious surfaces (paved streets, parking lots and building rooftops), it accumulates debris, chemicals, sediment or other pollutants that could adversely affect water quality in a watershed if the runoff is discharged untreated.

Erosion & Sedimentation Control

Wake County operates an erosion prevention program that aims to prevent sediment from leaving construction sites and contaminating streams, lakes, and river within Wake County's watersheds. We accomplish this by enforcing state and local erosion prevention regulations and by working with developers, builders and landowners in Wake County.

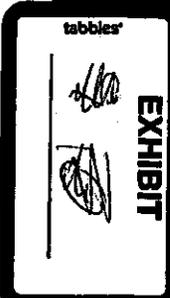
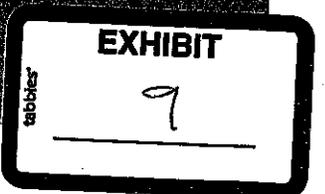


Appeal to Wake County Human Services Board

Stormwater Exemption: Cell Tower
7208 Blaney Franks Rd, Raleigh
Building Permit # 0151891



www.wakegov.com



Appeal of Stormwater Decision

Appellant: Marge Russell

Landowner: Greenview Farms,
Inc.



WAKE
COUNTY
NORTH CAROLINA

www.wakegov.com

Board Authority to Hear Appeals

Wake County Unified Development Ordinance (UDO), Article 9 Stormwater Management

9-42 Appeals

9-42-1 Authority

- (A) Any person affected by any decision of the county that relates to interpretation or application of this ordinance may appeal to the hearing panel of the Wake County Human Services and Environmental Services Board.
- (B) Any alleged error of the county in making or refusing to make a decision may be basis for an appeal.



Decision Appealed

Appellant contends staff erred in the determination that the proposed development is exempt from stormwater management requirements under UDC Section 9-12-2

9-12 Exemptions

The stormwater management regulations of this article do not apply to any of the following development activities:

- 9-12-1 Agriculture, forestry, or mining.
- 9-12-2 Office, institutional, commercial, or industrial development that disturbs a land area of one-half acre or less.
- 9-12-3 Any development in which the owner has accrued a vested right. Wake County recognizes a vested right if either of the following occurred:
 - (A) A subdivision plan, site plan, or development permit was officially approved by Wake County or the State before August 13, 2006 and that plan or permit remains unexpired.
 - (B) The landowner otherwise demonstrates a vested right has accrued under North Carolina Law.



Threshold for Stormwater Permit Requirements

- A cell tower is a commercial development under Section 9-12-2. The cell tower development was exempt because the proposed land disturbance was equal to or less than 1/2 acre.
- Appellant contends: "The "disturbed land" calculation has omitted critical components and therefore actually exceeds a half acre."

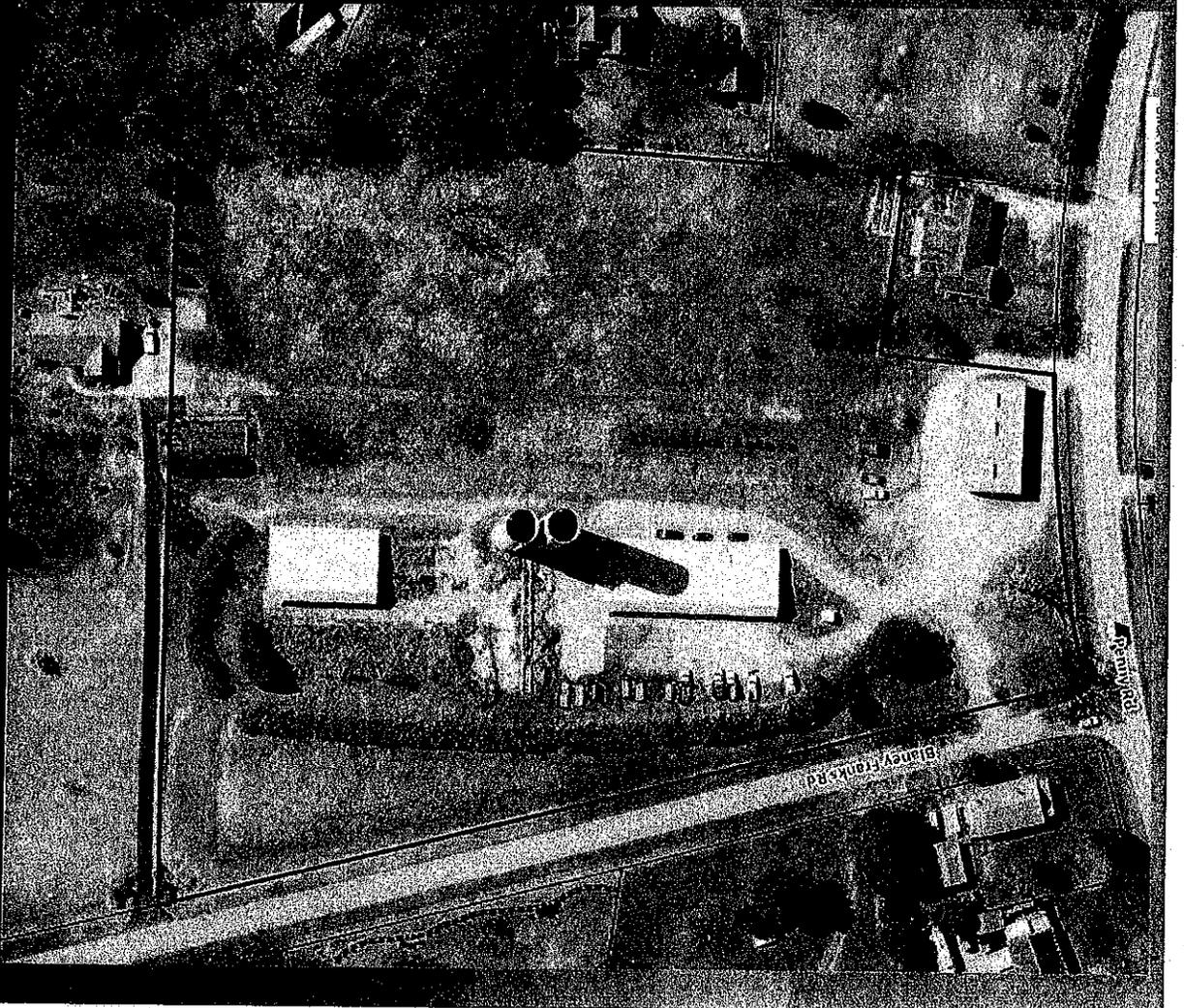
Site Information

7208 Blaney Franks Rd

PIN # 0780181197

Deeded Acreage 6.85

Source : iMAPS 2013



www.wakegov.com

Timeline of Permit Review

Plan Submittal 1 dated 1/07/15

Plan showed .47 acres of disturbance. Plan is exempt from stormwater regulations due to size of proposed disturbance.

2/10/15 Plan review comments sent to engineer requesting a breakdown of impervious surface area by critical and non-critical areas.

SCLMP impervious surface limits vary based on land use classifications ; subject lot has both critical and non-critical areas with differing ISL.

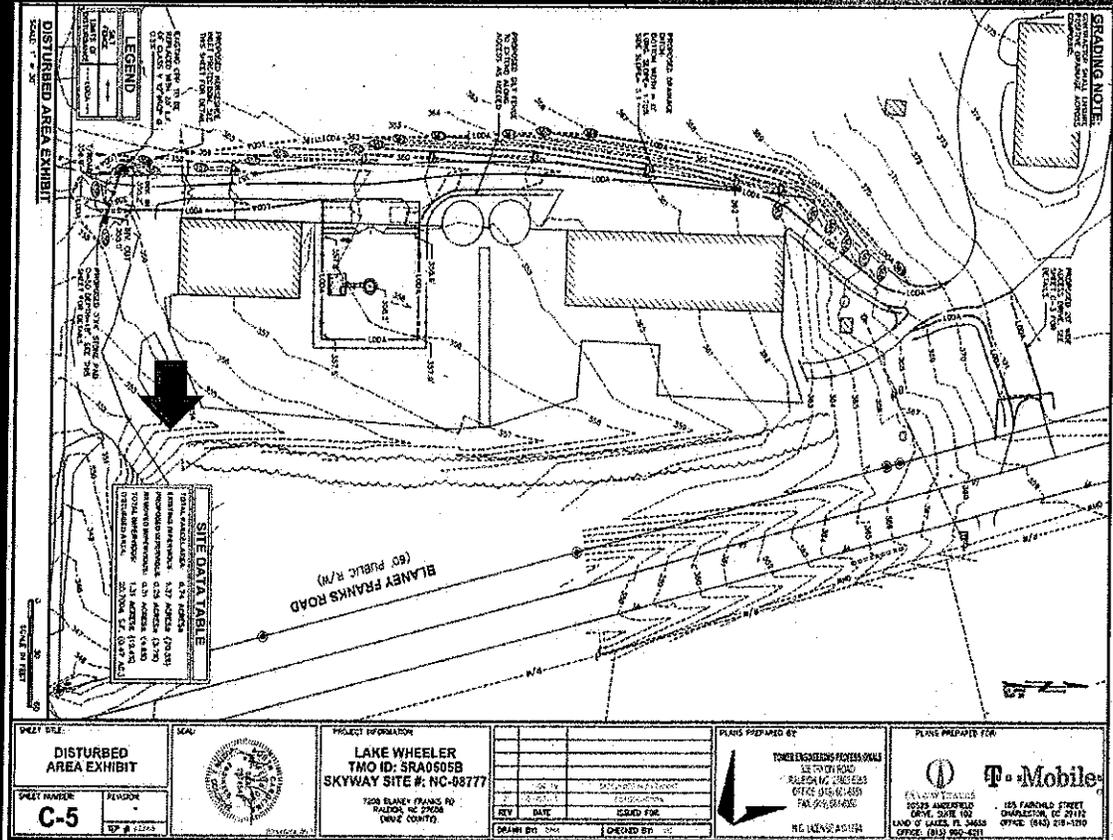


Initial Plan Dated 1/7/15

Grading plan for site shows total disturbed area as 0.47 AC.

SITE DATA TABLE

TOTAL PARCEL AREA:	6.74 ACRES±
EXISTING IMPERVIOUS:	1.37 ACRES± (20.3%)
PROPOSED IMPERVIOUS:	0.25 ACRES± (3.7%)
REMOVED IMPERVIOUS:	0.31 ACRES± (4.6%)
TOTAL IMPERVIOUS:	1.31 ACRES± (19.4%)
DISTURBED AREA:	20,700± S.F. (0.47 AC.)



Timeline Continued

Plan Submittal 2 dated 3/18/15

Decreased disturbance from .47 ac to .46 ac. Plain was still exempt from stormwater permit due to size of proposed disturbance.

4/19/15 Review comments noted need to comply with impervious surface limits of Swift Creek Land Management Plan.

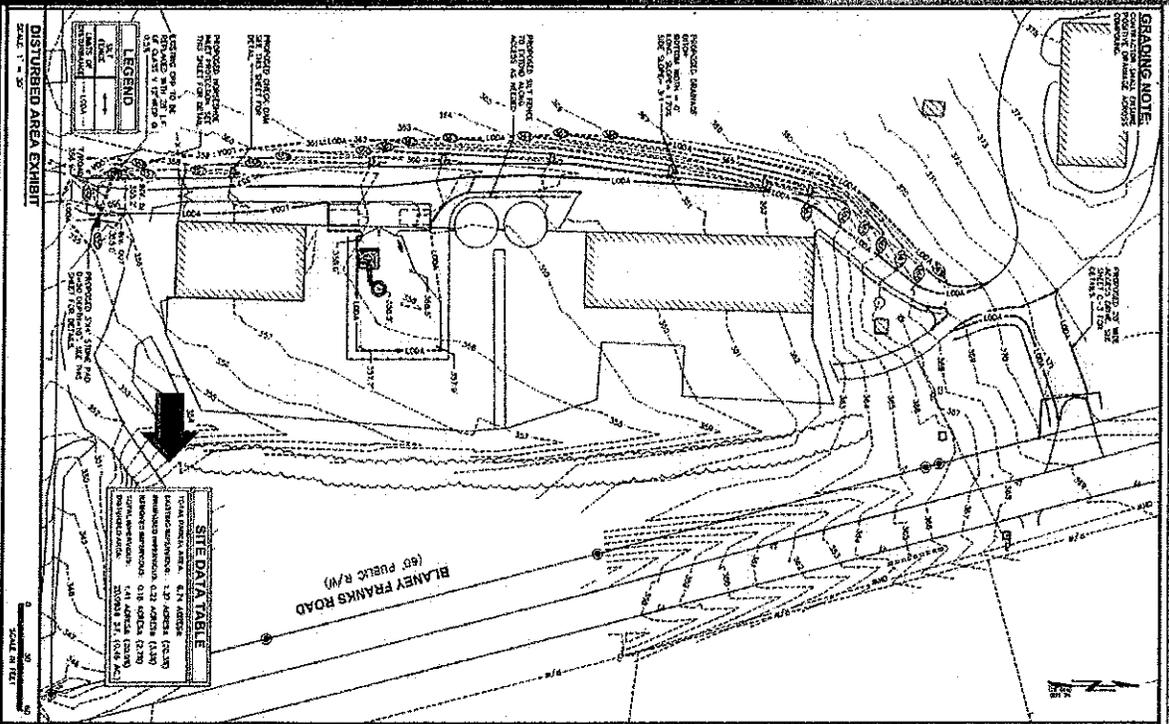


Plan Submittal 2 Dated 3/18/15

Grading plan for site shows total disturbed area as 0.46 AC.

SITE DATA TABLE

TOTAL PARCEL AREA:	6.74 ACRES±
EXISTING IMPERVIOUS:	1.37 ACRES± (20.3%)
PROPOSED IMPERVIOUS:	0.22 ACRES± (3.3%)
REMOVED IMPERVIOUS:	0.18 ACRES± (2.7%)
TOTAL IMPERVIOUS:	1.41 ACRES± (20.9%)
DISTURBED AREA:	20,093± S.F. (0.46 AC.)



DEED TITLE DISTURBED AREA EXHIBIT SHEET NUMBER: C-5		PROJECT INFORMATION LAKE WHEELER TMO ID: SRA0505B SKYWAY SITE #: NC-08777 7206 BLANEY FRANKS RD RALEIGH, NC 27608 (WAKE COUNTY)	<table border="1"> <tr> <th>REV</th> <th>DATE</th> <th>ISSUED FOR</th> <th>CHECKED BY</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REV	DATE	ISSUED FOR	CHECKED BY									PLANS PREPARED BY: TUCKER ENGINEERING PROFESSIONALS, INC. 100 TOWN ROAD RALEIGH, NC 27605 OFFICE 919-942-8281 FAX 919-942-4350 NC LICENSE #C-1524	PLANS PREPARED FOR: T-Mobile 125 PARSONS STREET CHARLESTON, SC 29402 OFFICE (843) 214-1200
REV	DATE	ISSUED FOR	CHECKED BY														

Timeline Continued

Plan Submittal 3 dated 4/30/15

Plan shows .46 acres of disturbance (no change).
Plan is still exempt from stormwater management permits.

5/19/15 Watershed Management staff approved plan for Swift Creek Land Management Plan requirements.

7/21/15 Permit approved for construction of cell tower.

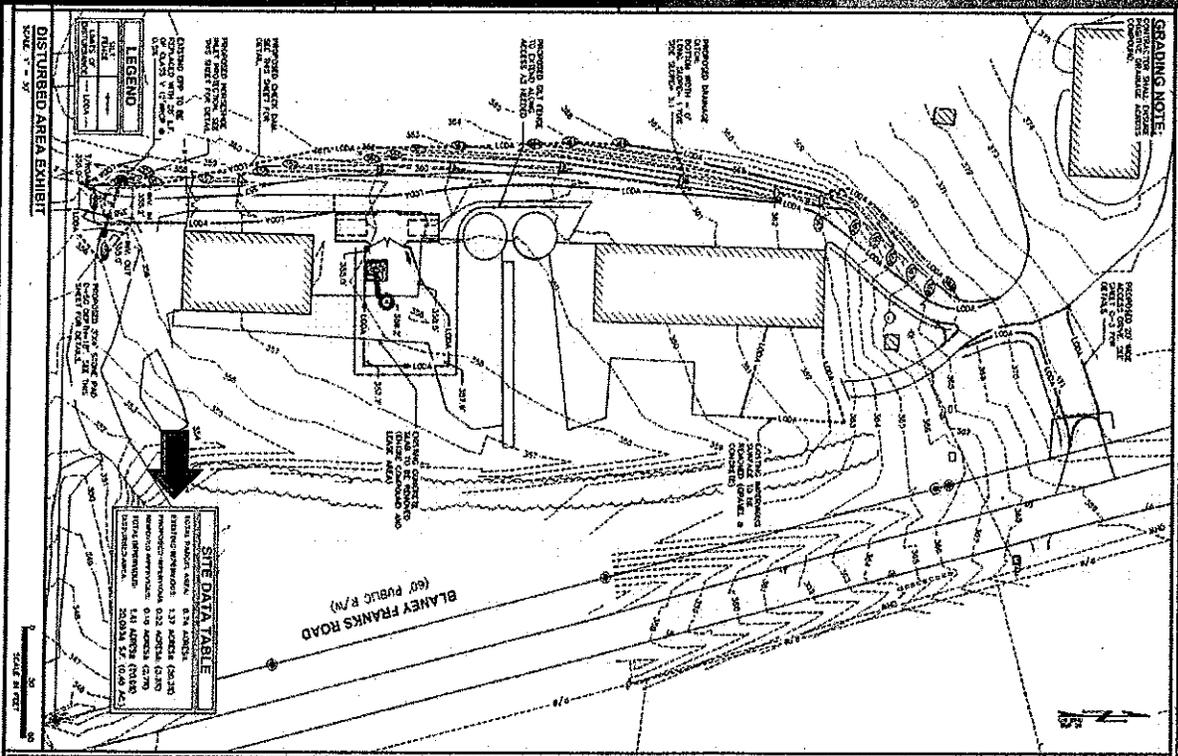


Plan Submittal 3 Dated 4/30/15

Grading plan for site shows total disturbed area as 0.46 AC.

SITE DATA TABLE

TOTAL PARCEL AREA:	6.74 ACRES±
EXISTING IMPERVIOUS:	1.37 ACRES± (20.3%)
PROPOSED IMPERVIOUS:	0.22 ACRES± (3.3%)
REMOVED IMPERVIOUS:	0.18 ACRES± (2.7%)
TOTAL IMPERVIOUS:	1.41 ACRES± (20.9%)
DISTURBED AREA:	20,093± S.F. (0.46 AC.)



DISTURBED AREA EXHIBIT SHEET NUMBER: C-5 NO. 2		PROJECT INFORMATION LAKE WHEELER TMO ID: 5RA0505B SKYWAY SITE #: NC-08777 7400 BLANEY FRANKS RD RALEIGH, NC 27605 (WAKE COUNTY)	PREPARED BY: TOWER ENGINEERING PROFESSIONALS 125 WYOMING BLVD RALEIGH, NC 27605 OFFICE: 919-987-8888 FAX: 919-987-8850 NC LICENSE #0-1526	PLANS PREPARED FOR: T-Mobile 2025 UNIVERSITY SUITE 500 W 102 LAKE OF LAKES PL, JACOB OFFICE: (919) 950-3511
			DATE: _____ CHECKED BY: _____ DRAWN BY: _____	SCALE: 1" = 20' NORTH

Analysis and Conclusions

Staff determined the land disturbance shown on all plans was .50 acre or less resulting in an exemption from stormwater regulations of UDO Article 9.

Staff correctly applied the UDO regulations of Article 9, Section 9-12 which exempts the proposed development from stormwater requirements based on area of land disturbance.

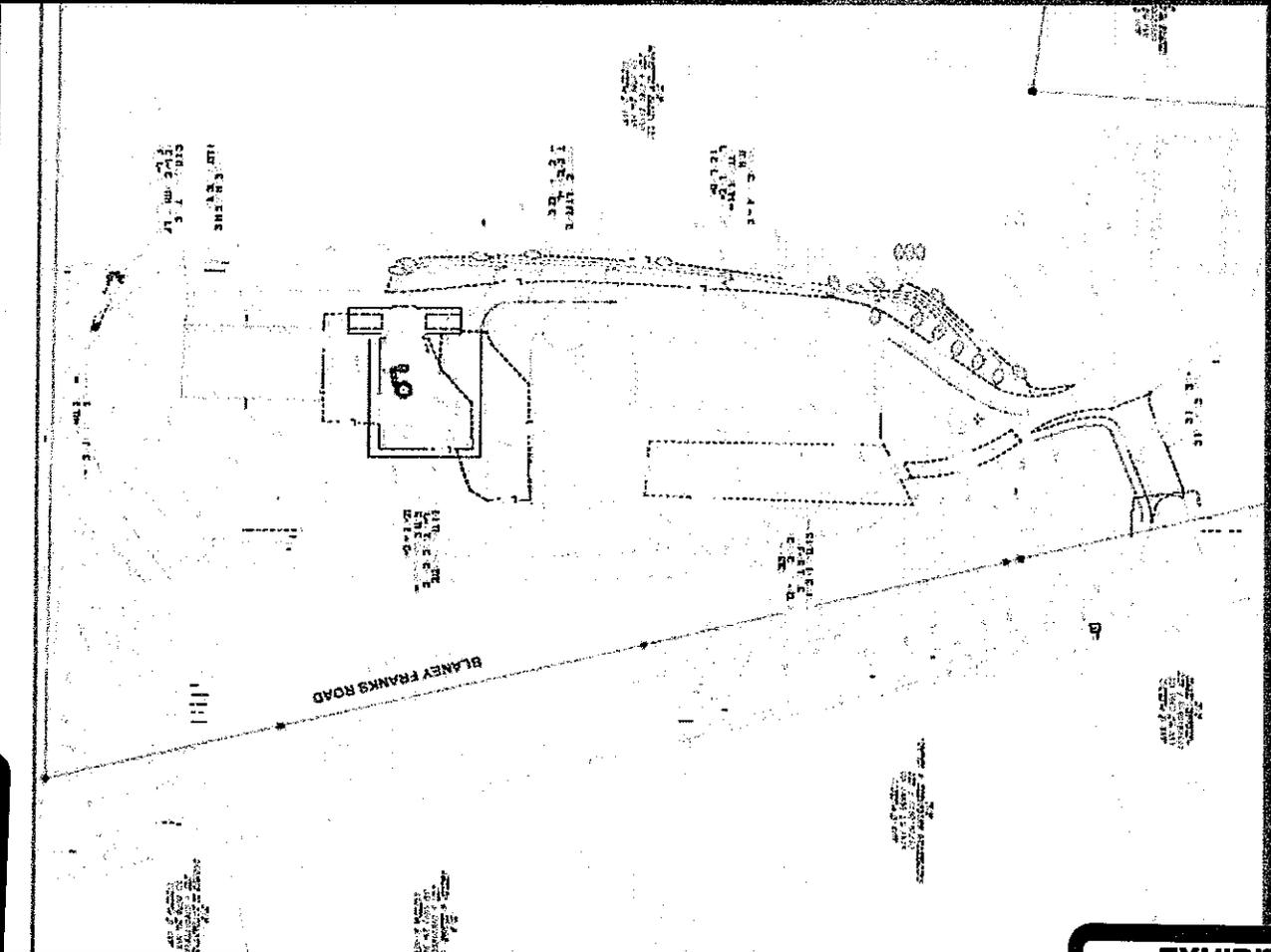


Asbuitt survey showing actual limits of disturbance dated 10-19-15

ACTUAL POST CONSTRUCTION

TOTAL PARCEL AREA: 6.74 ACRES±

DISTURBED AREA: 20,521± S.F. (0.47 AC.)



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EXHIBIT



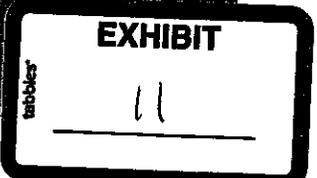
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EXHIBIT

10

Voluntary stormwater Review Request

- Wake County requested the project engineer complete the stormwater tool we use to determine if a project requires stormwater management.
- Peak flow increased from 9.313 cfs to 9.561 cfs. This is an increase of less than 3 percent. Stormwater management is required if increase is greater than 10%.
- The total nitrogen load was 2.89 lb/ac/yr which is less than the target nitrogen load of 3.6 lb/ac/yr.
- Even if a stormwater plan was required, no stormwater management or devices would be required for this project.



**WAKE COUNTY HUMAN SERVICES BOARD
AGENDA ITEM SUMMARY SHEET**

Agenda Date: December 17, 2015

Item: Overview Report of Immunization Services in Clinic E

PH Accreditation Benchmark #: 2.2A

Specific Action Requested: No action required

Link to Wake County Human Services Goals:

- Well-being/Health/Safety** - Maximize the well-being, health and safety of individuals and families
- Self Sufficiency/Human Capital** - Enhance the ability of consumers to attain and maintain economic independence and self sufficiency
- Consumer Experience** - Enhance the consumer experience with accessible, timely and holistic services
- Internal Operations** - Ensure fiscal accountability, data driven decisions and alignment with county, state and national objectives and priorities
- Integrated/Collaborative Solutions** - Promote integrated and collaborative solutions for human service needs
- Workforce** - Support and maintain a competent and competitive workforce and an environment that fosters professional development, workforce diversity and effective communication
- Technology**- Provide innovative technology solutions that support cost-effective automation, e-Services and data management

Item Summary (Ex: What are major points):

Summary report of immunization activities in Clinic E:

- Immunization Services in Clinic E
- Number of clients served FY 2015
- Number of vaccine doses administered FY 2015

Purpose for Action (Ex: Proposed Solutions/Accomplishments): Informational only

Next Steps (Ex: What is next step for Board or staff):

Attachments: None

Opportunities for Advocacy, Policy or Advisory:

Supports the 2015 United Way fund raising effort at WCHS

Connections to Other Committees:

None noted