



Town of Southern Shores
Regular Council Meeting
June 4, 2019

The Town of Southern Shores Town Council met in the Pitts Center located at 5377 N. Virginia Dare Trail at 5:30 p.m. on Tuesday, June 4, 2019.

COUNCIL MEMBERS PRESENT: Mayor Bennett, Mayor pro tem Chris Nason and Council Members Fred Newberry, Jim Conners and Gary McDonald.

COUNCIL MEMBERS ABSENT: None

OTHERS PRESENT: Town Attorney Ben Gallop, Town Manager Peter Rascoe and Town Clerk Sheila Kane

CALL TO ORDER / PLEDGE OF ALLEGIANCE / MOMENT OF SILENCE

Mayor Bennett called the meeting to order at 5:30 p.m., led the Pledge of Allegiance, and held a moment of silence.

AMENDMENTS / APPROVAL OF AGENDA

Councilman McDonald requested consent agenda items #3-#6 be moved under New Business and Item 6.E Public Hearing to consider CUP-19-01 be moved as the first presented item under New Business.

MOTION: Councilman McDonald moved to approve the June 4, 2019 agenda as amended. The motion was seconded by Councilman Conners. The motion passed unanimously (5-0).

CONSENT AGENDA

The consent agenda consisted of the following items:

1. Council Meeting Minutes – April 23, 2019
2. Pickups & Releases

MOTION: Councilman Conners moved to approve the consent agenda as amended. The motion was seconded by Mayor pro tem Nason. The motion passed unanimously (5-0).

STAFF REPORTS

The following Department Heads presented Department reports for the month:

- Town Planner Wes Haskett presented the Planning Department's monthly report for May and reported work has begun on an Outer Banks Hazard Mitigation Plan. The Town's Hazard Mitigation Plan is part of the Albemarle Regional Plan. The Outer Banks Hazard Mitigation Plan will serve as the required update to the Town's plan. FEMA requires this every five year in order to be eligible for federal disaster funding. Mr. Haskett and Planning Board Member Andy Ward serve on the Hazard Mitigation Committee which will ultimately bring the plan to Council for consideration of approval.
- Police Chief David Kole presented his Department's monthly report for May and presented Council copies of the Southern Shores Police Department's Annual Report.
- Fire Chief Limbacher presented the Fire Department's monthly report for May.
- The Town Manager presented the Manager's report on operations highlights:
 - The Town Manager gave a brief report. Lifeguard services currently have three stands and roving guards. On June 16th, the fourth stand will go up. This is in conjunction with the local school closing for summer break.
 - The Town has received a check in the amount of \$51,720.00 from the party responsible for the damages sustained by the unauthorized boring on Juniper Trail. Barnhill Contracting will be closing the street for a week in order to repair the road. This week longer closure, as approved by the Town Council, will occur on either the 12th or the 17th.
- Town Attorney Gallop had no report.

GENERAL PUBLIC COMMENT

Mayor Bennett called for public comment and the following citizens offered comment:

1. Matt Neal-163 Wax Myrtle Trail- schedule a public hearing to see how we can handle the special events ordinance. As written, it would encompass family birthday parties, parade of homes tour, funerals etc.
2. Joe Van Gieson-228 N. Dogwood Trail-summary of an alternate estimate to conduct "No-Left Turn". Believes the Police Chief's estimate is a high-end estimate. Rid the 158/NC12 intersection that the Police Department currently participates in. Did not see a contract that obligates the department to do so.
3. Jim Groff-102 South Dogwood-Not opposed to sidewalk but would prefer the street be done at the same time. Dogwood Trail is only 19 ft. wide and needs to be 22 ft. Yes, cut through traffic is a problem but has yet to hear a good solution. The Mid-Currituck Bridge will be a help.
4. Porter Graham-Government Affairs Director for the OBX Association of Realtors and Home Builders-concerns with the proposed ordinance as it will only allow three events a year. This will limit income for homeowners.
5. Ann Sjoerdsma-69 Hickory Trail-Traffic on Dogwood needs to be addressed. The proposed walkway is poorly designed and should be a narrower natural walkway designed for safety purposes only. The special events ordinance should be sent to the planning board

Recommendation of the Capital Infrastructure Improvement Planning Committee for FY 19-20

CIIP Co-Chairman Councilman Jim Conners reported the Capital Infrastructure Improvement Planning Committee met on May 30th and compiled their list of street priorities. The top streets for FY19-20 are as follows:

1. Hillcrest (Hickory Trail Intersection to SSCA tennis courts)
2. East Dogwood Trail (NC East to Ocean Blvd)
3. Sea Oats (11th Avenue to NC12)
4. Dewberry Lane

Councilman Conners further stated that if any of the priority streets proved to be more expensive than anticipated, a smaller project like Dewberry Lane could be moved up the list. He stated a Public Hearing to consider adoption of a Capital Infrastructure Improvement Plan for Fiscal Year 2019-2020 has been scheduled for July 9, 2019.

Councilman McDonald stated that the committee should start to list item other than streets, since it is an infrastructure improvement committee. He mentioned ongoing Town building repairs and the Trinitie Juniper Bridge.

Mayor Bennett stated the committee could also add capital expenditures, such as beach nourishment, which may or may not happen.

OLD BUSINESS

NEW BUSINESS

Public Hearing- To Consider CUP-19-01, an Application from American Towers LLC/Verizon Wireless to Modify an Existing Conditional Use Permit to Extend the Height of the Existing Wireless Facility Located at 148A Ocean Blvd.

Town Attorney Gallop announced that this was a quasi-judicial hearing. All those wishing to give testimony were sworn in by the Town Clerk.

Attorney Gallop opened the public hearing.

Deputy Town Manager/Planning Director Wes Haskett presented the staff. Which consisted of the following.

The applicant is requesting to amend an existing Conditional Use Permit to extend the height of the existing wireless facility located at 148A Ocean Blvd. CUP-13-01 was issued on November 6, 2013 to construct a new Wireless Telecommunications Site (130 ft. tall stealth flag pole and accessory equipment). The proposed plans show that the intent is to replace the 100 ft. to 130 ft. section of the existing tower and add a new 20 ft. Verizon Wireless antenna to the top, resulting in a final tower height of 150 feet.

Section 36-175 states that in no case shall a wireless support structure of any kind or any attached wireless facilities exceed 195 feet. However, the ordinance also states that the height of stealth structures designed to look like another structure or naturally occurring thing, i.e. a tree, shall not unreasonably exceed the height allowed for the type of structure or the typical thing they are designed to look like. The reasonableness of excess height shall be considered on an application by application basis and shall take into account the totality of the circumstances including specifically, the height needed to provide communications services and the wireless support structure's visual consistency with the area in which it will be located. In no case shall a wireless support structure of any kind or any attached wireless facilities exceed the minimum height necessary to accomplish the purpose it is proposed to serve.

A Wireless Telecommunication Site is a permitted use in the RS-1, Single-Family Residential District provided that a Conditional Use Permit is granted by the Town Council following a recommendation made by the Town Planning Board. In granting any Conditional Use Permit, the Town Council may prescribe appropriate conditions and safeguards in conformity with Article X, Administration and Enforcement. Before granting any Conditional Use Permit, the Town Council shall make affirmative findings that:

- a. The applicant has met the requirements of the applicable provisions of the Town Chapter pertaining to Zoning, Subdivision Chapter, and all other applicable Ordinances.*
- b. That the use as proposed will conform with the Town's Land Use Plan, and will be compatible with the area in which it is to be located, if developed in accordance with the conditions specified in the Chapter and additionally required by the Town Council as authorized by the Chapter.*
- c. That the use will not materially endanger the public health and safety if located where proposed and developed according to the plan submitted.*
- d. That the use as proposed will not overburden the Town Volunteer Fire Department fire-fighting capabilities and the County water supply capacity to the Town, as said facilities and capabilities will exist on the completion date of the conditional use for which the application is made.*

RECOMMENDATION

The Land Use Plan identifies this area as Residential in the RS-1, Single-Family Residential zoning district which is consistent with the existing use. All applicable regulations of the Town Zoning Ordinance and all of Town Staff's concerns that are applicable to this application have been identified or are addressed in the following recommended conditions from the original Conditional Use Permit:

- 1. The Conditional Use Permit shall expire if the improvements permitted are not completely constructed within 24 months of the date of the approval of a Building Permit.*

2. If the Wireless Telecommunications Site is not operated for 180 continuous days in a 12-month period, it shall be considered abandoned and the applicant shall be responsible for the removal of all structures and equipment on the site within ninety (90) days of receipt of such notification by the Town.

3. The applicant must strictly abide by all other requirements of the Town Code and must also strictly comply with all other applicable local, State, and Federal requirements.

Wyatt Booth of Williams and Mullen Law Firm representing the applicant American Tower gave a brief overview to Council. He requested the engineered sealed plans and letter be submitted into the record since it is a quasi-judicial hearing. Mr. Booth stated the applicant had no objections to the conditions.

David Allen, attorney for American Tower/Verizon Wireless, stated the cell tower will essentially look the same as it does today. The height will increase from 130 ft to 150 ft. in order to enhance services to Southern Shores residents.

Hearing no others wishing to provide testimony, Town Attorney Gallop closed the public hearing.

MOTION: Councilman Connors moved to approve CUP-19-01 as applied for based on the findings of fact and information provided by Town staff with recommended conditions provided by Town staff #1 through #5. The motion was seconded by Mayor pro tem Nason. The motion passed unanimously (5-0).

NEXT AGENDA ITEM

Public Hearing - Consideration of Manager's Proposed FY 19-20 Budget

Town Attorney Gallop opened the public hearing and called on the Town Manager for his briefing.

The Town Manager highlighted his proposed budget proposing no property tax increase in the Town's current property tax rate of 22.0 cents per \$100 of taxable property value. The Town of Southern Shores continues to provide the most services with the smallest work force at the lowest tax rate of any local government in Dare County. This year's proposed budget is balanced by projecting \$ 7,450,846 in revenues to fund the same amount in projected expenses to maintain the same level of services to citizens of the Town.

- Budget Officer Proposed Expenses:
 - APTIM Coastal Engineers for continued annual beach survey/report of profile study – contract cost \$45,000
 - Classification and Pay Study for Town employee positions (due every 5-8 years - last done in 2013) – contract cost of \$ 5,100.
 - Fire Department for Council-directed annual debt service of new fire station and inclusion of side fence – cost of \$324,020.
 - Increased Legal Costs to Town – projected cost of \$100,000.

- Salaries & Fringes for FY 2019-2020
 - Cost of Living adjustment 2.5%
 - Health Insurance adjustment 5%
 - FICA 7.65%
 - Retirement-Regular 8.98%
 - Retirement-Law Enforcement 9.70%
 - Employer 401K-Regular 5%
 - Employer 401K-Law Enforcement 5%
 - In lieu of Benefits/ Cafeteria Plan \$7,800
- General Fund Expenditures by Department:
 - Fire Department 12%
 - Ocean Rescue 2%
 - Administration 14%
 - Code Enforcement 45
 - Police Department 23%
 - Streets, Bridges, Canals 25%
 - Public Works 10%
 - Sanitation 10%
- General Fund Revenues
 - Ad valorem taxes 41%
 - Occupancy, Sales Tax & Land Transfer Tax 29%
 - UNRESTRICTED Intergovernmental Revenues 6%
 - RESTRICTED Intergovernmental Revenues 3%
 - Permit and Fees 2%
 - Other revenues 1%
 - Transfer IN from Other Funds 18%

Town Attorney Gallop called on members of the public wishing to give comment on FY19-20 Manager's Proposed Budget for the public hearing. The following residents provided comment:

1. John Carter-271 N. Dogwood-concerned with walking path along South Dogwood. Narrow streets have calming effects but widening would increase the speed of cars.
2. Joe Van Gieson-228 N Dogwood-walking path is unnecessary, no accidents, no injuries along South Dogwood. Town staff salaries are the highest and urge Council to conduct salary study.
3. George Berry-239 N Dogwood Trail-Safety Issue on South Dogwood, what is the cost of a human life walking down South Dogwood? Strongly favors walking trail along South Dogwood
4. Tommy Karole-77 East Dogwood-agrees with the safety issue but stated Mr. Berry is misinformed. The amount of traffic is the issue. Stop traffic and save one million dollars, widening the road will only make it unsafe. East Dogwood is good but South Dogwood is a different animal.
5. Nancy Whaley-86 South Dogwood-definitely need something along South Dogwood. Not a safe road to walk on. Something needs to be done, whether it is 4 ft or 5ft, one person killed is all it takes.

6. Mike Stone-8 Sandfiddler Ct.-in-laws constantly ask when a walking path will be built. Local residents are even nervous, stopping on the road to pass one another.

Hearing no others wishing to speak, Town Attorney Gallop closed the public hearing.

Councilman Newberry questioned why the walking path has to be 5 ft. wide and it should be 3 ft. He stated he understands people say it is for ADA compliance, which is untrue. It has to be a minimum 3 ft wide with places to pass at 5 ft. There is no reason to butcher South Dogwood Trail for a 5 ft wide walking path. The one on East Dogwood did not impact the aesthetics of the street but the one being proposed is going to have a dramatic effect on South Dogwood Trail. Also, the way it is being funded is unsatisfactory. The bike path/walking path is not the complete answer, traffic is the issue and no provisions to address cut thru traffic have been taken.

Councilman Conners stated the walking path is a safety issue. Children want to ride their bikes to school and he is a strong advocate for the walking path.

Councilman McDonald stated everyone up here is not against the walking path but would prefer a smaller width. The issue is pulling one million from the reserves. It should have been planned for years ago and you can't just keep pulling out of fund balance.

Mayor Bennett stated he just wanted to address a comment that has been made a couple times in the past few months. The comment that there has never been an accident on South Dogwood Trail is simply not true. There has been a severe accident and several smaller incidents. Mayor Bennett stated of course he has reservations with the cost of the path but for safety reasons he can support the path and what is trying to be accomplished.

MOTION: Councilman Conners moved to approve the FY2019-2020 budget as presented by the Town Manager. The motion was seconded by Councilman Nason. The motion passed 3-2 Mayor Bennett, Mayor pro tem Nason and Councilman Conners voting affirmative; Councilman McDonald and Councilman Newberry opposing.

Town Manager Rascoe stated a July public hearing for the walking path design will replace the traditional tent meeting. It will be advertised, and letters sent to the property owners in the impact area.

NEXT AGENDA ITEM

Proposal to Adopt a Special Events and Occupancy Limitation Ordinance - Requested by Councilman McDonald (originally considered by Council Dec. 18, 2015 but tabled by consensus due to concerns over lack of enforceability and difficulty understanding language; Re-discussed with no further action at Jan. 5, 2016 meeting.)

Councilman McDonald addressed Council, stating he requested this agenda item be placed back on for discussion. When it was originally on the agenda Council was more attuned to the size of houses, rather than events. As far as events and a way to control them, there is little in the

Town ordinance. He stated he believes the comment earlier about family birthday parties would fall under traditional family events and would not be apply.

Town Attorney Gallop stated the way the ordinance is currently written would apply to all events, including traditional family.

Councilman Nason stated you can raise the number to 100 person and eliminate the issue.

Councilman Connors asked if it could be sent back to the Planning Board. Some language is outdated because of recent ZTA's and the Planning Board could address it.

Councilman McDonald stated he would rather have staff (Town Planner and Town Attorney) work on it.

Town Attorney Gallop stated Council needs to state what problem they are trying to solve.

Councilman McDonald stated it is for public safety.

Deputy Town Manager/Town Planning Director Wes Haskett stated enforcement will be the issue. Who is going to go and count heads at these events?

Councilman Connors asked how this could amendment could be made more enforceable?

MOTION: Councilman Connors moved to refer the "Special Events and Occupancy Limitation Ordinance" back to the Planning Board and let them take a look at it. The motion was seconded by Mayor Bennett.

Councilman Nason asked that the motion be amended to send to Planning Board for consideration and to the Town Attorney and Town Planner for consideration at the same time.

AMENDED MOTION: Councilman Connors amended his original motion to send the "Special Events and Occupancy Limitation Ordinance" to the Planning Board. While it is being reviewed by the Planning Board, that the Town Planner and Town Attorney look at things they can bring back to Council at the July meeting that Council could possibly adopt. The motion was seconded by Mayor Bennett. The motion passed unanimously (5-0).

Councilman Nason stated if the Planning Board chooses not to take it up, then Council will have language that is being worked on and we can move forward.

Town Manager Peter Rascoe stated just to clarify for the record, the directives for staff by Council consensus:

1. Exemption for traditional family events
2. Possibly only regulate events of 75 people or more
3. Possibly remove the 3 maximum limit to something or nothing
4. Update occupancy language that was possibly changes by ZTA's

NEXT AGENDA ITEM

Consider Creation and Procedure for Appointments to a Citizen's Advisory Committee to Study and Recommend Ways of Restricting "Cut-Through" Traffic on Town Streets - Requested by Councilman Newberry

Councilman Newberry stated at the last meeting resident Tommy Karole recommended a citizens committee to address cut thru traffic. Although it was discussed, and a few ideas put out there from the Dogwood Trails Task Force, he believes there are several other options that could be suggested from citizens. He asked Mr. Karole for a brief summary of what the citizens task force would entail.

Councilman Newberry stated the committee should be given a timeframe. He suggested they do their finding and make a report to Council by September or October. Mr. Karole agreed that September or October is agreeable.

MOTION: Councilman Newberry moved that the Council approve the formation of a citizen's committee to explore additional options for addressing cut thru traffic and make recommendations to the Council. The motion was seconded by Councilman Connors.

Councilman McDonald asked Mr. Karole to have the committee address the impact any possible solution would have on the other streets, such as Sea Oats Trail, Wax Myrtle Trail and Juniper Trail.

Councilman Newberry suggested every Council Member nominating a resident to sit on the committee.

Councilman Connors stated he would rather not appoint anyone. He stated give the residents the benefit of the Doubt.

Mayor pro tem Nason stated Mr. Karole should pick the group.

Town Attorney Gallop stated the number of members needs to be know so that a quorum can be established. The meeting also needs to be advertised, open, and minutes taken.

It was the agreed by Council that the committee be sanctioned, and Councilman Newberry sit on the committee as an advisory role, resident Tommy Karole as chairperson.

Councilman Newberry confirmed that his position would be an advisory role and that the committee will be following the open meeting rules. He stated he will be requesting Town resources.

AMENDED MOTION: Councilman McDonald asked Mr. Newberry to amend his original motion to include Tommy Karole as Chairperson, Councilman Newberry as Member, and Tommy Karole

to appoint five more members to the committee, for a total of seven members. The amended motion was seconded and approved unanimously (5-0).

Town Manager Peter Rascoe congratulated Mr. Karole and told him to let staff know when the meetings will be held so that they can advertise and if he needs use of the Pitts Center, the Town clerk keeps the calendar of available times.

NEXT AGENDA ITEM

Appointment of Proposed Members to a Potential Branch Library Advisory Committee - Requested by Councilman Conners

Councilman Conners gave a brief summary of the original potential branch library meeting. He provided a list a residents willing to volunteer on the committee if sanctioned.

MOTION: Councilman Nason in following the previous motion for a sanctioned committee, moved to sanction the Potential Branch Library Committee with seven members total, Mike Fletcher as Chairperson and Councilman Conners as an advisory role. The motion was seconded by Councilman McDonald. The motion passed unanimously (5-0).

Mayor Bennett called a ten-minute recess.

Council reconvened at 8:23 p.m.

NEXT AGENDA ITEM

Renewal of Town Attorney Contract

Town Attorney Gallop Briefed Council on updating and modifying our legal services agreement with the Town. He provided a memo which provided an explanation of proposed changes The contract that the Town and HREM currently operates under was entered into in July of 2015. It provided for a monthly on-refundable retainer in the amount of \$2,500.00 to be billed against for all legal services of the Town at an hourly rate of \$175.00 per hour for attorney legal services and \$105.00 per hour for paralegal services and \$95.00 per hour for law clerk services. All files bill against the monthly retainer before invoices reflected fees in excess of \$2,500.00 are billed. In essence, the Town is billed at hourly rates for all work with a minimum monthly payment of \$2,500.00. The 2015 contract, like its predecessors, provided for a yearly increase of \$5.00 per hour for two years bringing the rate to \$185.00 per hour as of June 1, 2017. There has not been an increase since June 1, 2017. The newly proposed contract is essentially the same form as the existing contract with the following changes:

1. The monthly minimum retainer would be \$3,000. Our billings typically exceed the retainer at \$2,500 and would likely exceed the \$3,000 threshold for most months.
2. The new hourly rate as of July 1, 2019 would be \$195.00 per hour with \$5.00 per hour increases on June 1, 2020 and June 1, 2021.
3. The hourly rates for paralegals and law clerks would be increased to \$140.00 per hour.

MOTION: Councilman Connors moved to approve the Town Attorney contract as presented. The motion was seconded by Mayor pro tem Nason. The motion passed unanimously (5-0).

NEXT AGENDA ITEM

Renewal of Town Engineer Contract

Councilman Newberry and Councilman McDonald both felt that the engineer contract should go out to bid. Councilman Newberry stated there may be other options, give other engineers the opportunity to serve the Town, new ways of thinking and ideas.

Councilman Nason stated it is request for qualifications rather than bids when looking for an engineer. The current open projects would have to be transferred over.

Town Attorney Gallop stated the contract as currently written calls for the option to renew yearly.

Councilman Newberry stated the engineer's contract expires at the end of the month, we didn't plan ahead and having no contract is unacceptable. Council has no option but to renew.

Councilman Connors and Mayor pro tem Nason both called to vote.

MOTION: Councilman Connors moved to extend the Town Engineer's contract (Deel Engineering) for one year. The motion was seconded by Mayor Bennett. The motion passed 3-2 Mayor Bennett, Mayor pro tem Nason and Councilman Connors voting affirmative; Councilman McDonald and Councilman Newberry opposing.

NEXT AGENDA ITEM

Budget Amendment #15- Insurance payment for damage to Juniper Trail

Budget Amendment #14-To recognize unanticipated revenue already received to pay for increased tonnage

MOTION: Mayor pro tem Nason moved to approve Budget Amendment #14 and Budget Amendment #15. The motion was seconded by Councilman McDonald. The motion passed unanimously (5-0).

GENERAL PUBLIC COMMENT

Mayor Bennett again called for public comment and the following citizens offered comment.

1. Willow Kelly-Outer Banks Association of Realtors-Town should look at how the Town of Duck dealt with special events. Rather than putting into law they focused on the impact areas, such as parking, and decks. We do not want to come across as non-welcoming and cut off income for local vendors.

MAYOR COMMENTS & COUNCIL COMMENTS

Mayor Bennett stated Wednesday June 5th is National Running Day and a racing event will take place at the MarketPlace Shopping Center in the morning. Mayor Bennett also thanked all the CIIP Committee Members for their work.

Councilman Nason stated he has been attending the Tourism Board meeting. He also stated if there is no business for August he would like to cancel the August 6th Council Meeting and take a break for the summer.

MOTION: Mayor pro tem Nason moved to cancel the August 6, 2019 Council meeting. The motion was seconded by Mayor Bennett. The motion failed 2-3 Mayor pro tem Nason and Councilman Conners voting affirmative; Councilman Newberry, Councilman McDonald and Mayor Bennett opposing.

Councilman Conners acknowledged the passing of Less Hunton. He also attended the meet and greet with Senator Tillis. The Mid-Currituck bridge was discussed, and he was optimistic of a speedy process.

Councilman Newberry stated there were a lot of good discussions this evening. Council doesn't always agree, but that is ok.

CLOSED SESSION

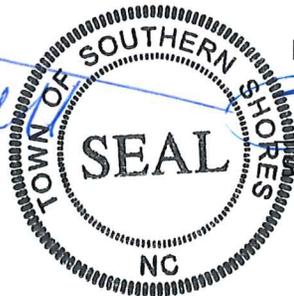
MOTION: Councilman McDonald moved to go into Closed Session pursuant to NCGS §143-318.11(6) for purpose of considering qualifications, competence, performance, character, and fitness of an employee(s). The motion was seconded by Councilman Conners. The motion passed unanimously (5-0).

ADJOURN

MOTION: Upon returning to open session and hearing no other business, Councilman McDonald moved to adjourn the meeting. The motion was seconded by Councilman Newberry. The motion passed unanimously (5-0). The times was 9:13 p.m.

ATTEST:


Thomas G. Bennett, Mayor



Respectfully submitted,


Sheila Kane, Town Clerk

HORNTHAL, RILEY, ELLIS & MALAND, L.L.P.
ATTORNEYS AT LAW
POST OFFICE BOX 310
2502 SOUTH CROATAN HIGHWAY
NAGS HEAD, NORTH CAROLINA 27959-0310

M E M O R A N D U M

TO: Town of Southern Shores Town Council
CC: J. Peter Rascoe, Town Manager
FROM: Benjamin M. Gallop, Town Attorney
DATE: April 16, 2019
RE: Revised Legal Services Contract

As you know, our firm places a very high value on its local government clients, and in recognition of the public service and the amount of work provided by its local government clients the firm charges a significantly discounted rate for its legal services. The Town Manager and I have recently discussed updating and modifying our legal services agreement with the Town. I have attached a proposed contract for legal services reflecting the discussions between myself and the Manager.

The contract that the Town and our firm currently operates under was entered into in July of 2015. It provided for a monthly non-refundable retainer in the amount of \$2,500.00 to be billed against for all legal services of the Town at an hourly rate of \$175.00 per hour for attorney legal services and \$105.00 per hour for paralegal services and \$95.00 per hour for law clerk services. All files bill against the monthly retainer before invoices reflected fees in excess of \$2,500.00 are billed. In essence, the Town is billed at hourly rates for all work with a minimum monthly payment of \$2,500.00. The 2015 contract, like its predecessors, provided for a yearly increase of \$5.00 per hour for two years bringing the rate to \$185.00

per hour as of June 1, 2017. There has not been an increase since June 1, 2017.

The newly proposed contract is essentially the same form as the existing contract with the following changes:

1. The monthly minimum retainer would be \$3,000. Our billings typically exceed the retainer at \$2,500 and would likely exceed the \$3,000 threshold for most months.
2. The new hourly rate as of July 1, 2019 would be \$195.00 per hour with \$5.00 per hour increases on June 1, 2020 and June 1, 2021.
3. The hourly rates for paralegals and law clerks would be increased to \$140.00 per hour.

For your reference in consideration of this proposal, please note that the rate we charge the the Town is a "blended rate," i.e. the same rate applies no matter which attorney in the firm provides the services. Currently, many of the attorneys, including myself, often charge greater than \$250.00 per hour for legal services to other clients. My personal standard hourly rate is \$285.00 per hour and occasionally exceeds that amount. The discount received by the Town under the newly proposed contract is significant over our standard hourly. It is also competitive and fair in comparison to our other local government clients most of which have a similar, if not higher, hourly rate.

Please note that consideration of and vote upon any new legal services contract should be made in open session. However, any discussion regarding my qualifications, competence, performance, character, fitness etc. may be discussed in a closed session held pursuant to N.C.G.S. 143-318.11(a)(6) due to my status as a public official.

NORTH CAROLINA

DARE COUNTY

This instrument has been preaudited in the manner required by the Local Government Budgets and Fiscal Control Act.

Finance Director

CONTRACT FOR LEGAL SERVICES

This Agreement for the employment of Town Attorney is entered into the _____ day of _____, 2019, by and between Town of Southern Shores, North Carolina, a body corporate and politic existing pursuant to the laws of the State of North Carolina (hereinafter "Town"), and Hornthal, Riley, Ellis & Maland, L.L.P. (hereinafter collectively referred to as "Attorney") and is effective as of the _____ day of _____, 2019.

RECITALS

1. Town is in need of the legal assistance of a law firm to fill the position of Town Attorney.
2. The law firm is desirous of filling that position.
3. The parties desire to memorialize their agreement as hereinafter set forth.

NOW, THEREFORE, for and in consideration of the mutual covenants expressed herein it is agreed as follows:

1. **Term of Employment:** It is the agreement and understanding of the parties, that this is an appointed position and may be terminated at will by the Town provided, however, Attorney shall not cease employment in such manner as to prejudice any legal positions, whether by litigation or otherwise, the Town may be maintaining through the Attorney. In this regard, the Attorney shall not withdraw from any litigation, negotiations, drafting or the like without the specified permission of Town, if to do so would prejudice Town's position.

2. **Services:** Attorney shall provide to Town such legal services as Town requires and requests.

3. **Independent Contractor Status:** Attorney offers its services as an independent contractor and Town has no liability for payment of any benefits that would normally accrue to its employees by virtue of their employment with the Town.

4. **Reimbursement and Billing:** Attorney, including its partners, associates and paralegals, shall be reimbursed as follows:

- a. A non-refundable retainer of \$3,000.00 per month shall be paid to Attorney by the Town for the provision of any legal services including representation at meetings upon request and communications with Town staff and officials. Attorney shall submit monthly invoices to the Town indicating all work performed and actual expenses incurred. The invoices shall indicate legal services performed at the rate of \$195.00 per hour, paralegal services at a cost of \$105.00 per hour, law clerk services at \$115.00 per hour and the amount of actual expenses incurred. All fees for services shall be debited from the retainer first, with any remaining fees invoiced in excess of the expended retainer. Actual expenses shall be billed and paid without regard to the retainer.
- b. Beginning June 1, 2020 the hourly rate for legal services shall increase to \$200.00 per hour and on June 1, 2021 the hourly rate of legal services shall increase to \$205.00 per hour.

5. **Expectations:** Attorney recognizes the need of Town for accessibility and prompt service. To this end, it shall be the obligation of Attorney to diligently return phone calls, be available upon request, and otherwise meet reasonable deadlines imposed by the Town. Benjamin M. Gallop, partner of the firm, shall be primarily responsible for providing the requisite services to the Town. However, Town understands it is hiring the firm as opposed to an individual attorney. In the event of Mr. Gallop's unavailability, the Town shall seek advice from other Partners or Associates within the firm who shall comply with the Town's needs.

6. **Organization and Access to Services:** Attorney represents the Town Council and not administration. However, the Attorney shall be assigned legal tasks by the Town Manager pursuant to instructions from the Town Council and unless requested to the contrary, shall report to the Town Manager as to the progress and status of legal matters. In the event

Attorney recognizes a legal matter it deems in need of attention, the same shall be reported to the Town Manager for permission to proceed. Except in emergency situations, Attorney shall not initiate any legal action, or maintain any position on behalf of the Town, without the permission of the Town Council pursuant to the instruction of the Town Manager.

7. **Non-exclusive Obligation:** It is agreed and understood that Attorney is a private law firm with a substantial and varied practice. Nothing herein shall be construed as to prohibit the Attorney from continuing to serve its other clients and promote its practice outside representation of Town.

8. **Conflict of Interest:** During its representation, Attorney shall not undertake any new representation in conflict with the Town or any of its agencies. In the event a conflict of interest is discovered as a result of prior representation, the same shall immediately be reported by Attorney to the Town Manager. If the conflict is ethically irreconcilable, the Attorney shall not represent either the Town or its other client in the controversy.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

ATTEST:

Town Clerk

(SEAL)

TOWN OF SOUTHERN SHORES

By: _____
J. Peter Rascoe, III, Town Manager

HORNTHAL, RILEY, ELLIS & MALAND, L.L.P.

By: _____
Benjamin M. Gallop, Partner

May 29, 2019

MEMORANDUM

TO: Town Council

From: Town Manager

Re: Engineering Services Contract Renewal

As supplement to the copy of the existing contract included and following this Memorandum, Deel Engineering, PLLC has indicated the current billing rates (Exhibit A to Contract) would remain unchanged for contract renewal.

THIS CONTRACT is made and entered into this the 16th day of June, 2016, by and between the TOWN OF SOUTHERN SHORES, a body corporate and politic existing pursuant to the laws of the State of North Carolina, (hereinafter referred to as "the TOWN"), party of the first part, and Deel Engineering, PLLC, (hereinafter referred to as "the CONTRACTOR"), party of the second part.

1. SERVICES TO BE PROVIDED AND AGREED CHARGES

The services and/or material to be furnished under this CONTRACT (hereinafter referred to collectively as "SERVICES") and agreed charges are as follows:

The CONTRACTOR shall provide professional engineering, environmental, surveying, construction administration and inspection and other related services upon demand and authorization of the TOWN for infrastructure repair and rebuild projects.

A scope of services, time period for performance of services, limitations on fees and any other special conditions may be established with each work demand order and authorization to proceed issued by the TOWN.

2. TERM OF CONTRACT

The term of this CONTRACT for SERVICES is from June 20, 2016 to June 30, 2019 and may be renegotiated with CONTRACTOR for each succeeding one-year period thereafter. Either party may nonetheless cancel this contract on thirty (30) days written notice to the other party by certified mail or personal delivery. The TOWN may cancel this CONTRACT at any time for cause, including, but not limited to, the failure of the CONTRACTOR to satisfactorily perform the SERVICES required under this CONTRACT. This CONTRACT is subject to the availability of funds to purchase the specified SERVICES and may be terminated at any time if such funds become unavailable.

3. PAYMENT TO CONTRACTOR

The TOWN agrees to pay at the rates specified for SERVICES satisfactorily performed in accordance with this CONTRACT. CONTRACTOR's hourly rate schedule for 2016 for CONTRACTOR's SERVICES shall be as set forth in Exhibit A attached to this CONTRACT and incorporated herein as reference. Unless otherwise specified, the CONTRACTOR shall submit an itemized invoice to the TOWN by the end of the month during which SERVICES are performed. Payment will be processed promptly upon receipt and approval by the TOWN of the invoice. On the first anniversary date of this contract and on each subsequent anniversary date thereafter, CONTRACTOR may request an increase in the hourly rate schedule. Increases in the rate schedule must be agreed upon mutually by the TOWN and CONTRACTOR prior to any work being completed under an increased rate.

4. FREEDOM TO EMPLOY

The CONTRACTOR may employ assistants or consultants at its sole expense and discretion as may be necessary to fulfill CONTRACTOR's obligations under this CONTRACT. The CONTRACTOR agrees that anyone to whom it delegates any or all SERVICES called for by this CONTRACT will be competent, qualified and capable of performing the work without any supervision, contact or assistance by the TOWN's employees. Any such assistant or consultant will be employed only by the CONTRACTOR, and will not be an employee of the TOWN.

5. INDEPENDENT CONTRACTOR

Both the TOWN and the CONTRACTOR agree that the CONTRACTOR shall act as an independent CONTRACTOR and shall not represent itself as an agent or employee of the TOWN for any purpose in the performance of the CONTRACTOR'S duties under this CONTRACT. Accordingly, the CONTRACTOR shall be responsible for payment of all Federal, State and local taxes arising out of the CONTRACTOR'S activities in accordance with this contract, including by way of illustration but not limitation, Federal and State income tax, Social Security tax, Unemployment Insurance taxes, and any other taxes or business license fees as required.

In performing the SERVICES, the CONTRACTOR is acting as an independent CONTRACTOR and shall perform SERVICES in accordance with currently approved methods and practice in the CONTRACTOR'S professional capacity and in accordance with the standards of applicable professional organizations and licensing agencies.

In performing the SERVICES, the CONTRACTOR is acting as an independent contractor and is not an employee, subcontractor, agent, servant, partner nor joint venturer of the TOWN. The CONTRACTOR has the right to use its best judgment and efforts to fulfill the terms and obligations of this CONTRACT. CONTRACTOR further understands and acknowledges the following:

- a. CONTRACTOR will receive no compensation other than as outlined in this CONTRACT and is not subject to nor eligible for any benefits which may be offered by the TOWN to its employees, such as vacation pay, sick leave, insurance coverage or retirement plan participation.
- b. The SERVICES provided in accordance with this CONTRACT are an independent calling or occupation.
- c. The CONTRACTOR is expected to use its own skill, judgment and expertise to fulfill the obligations of this CONTRACT, and is not supervised, directed or controlled by the TOWN as to the means or methods it should employ.
- d. The CONTRACTOR is not required to perform tasks in any particular order or sequence.
- e. The CONTRACTOR needs no training from the TOWN as to how to fulfill its duties and responsibilities.
- f. The CONTRACTOR may determine its own daily schedule and those of its own employees or servants without prior approval of the TOWN.
- g. The CONTRACTOR is not required to devote any particular percentage of its time or resources to perform the SERVICES required hereunder.
- h. The CONTRACTOR shall furnish its own equipment and supplies.

i. Although the CONTRACTOR may be provided the use of the TOWN's facilities, such use is provided merely to facilitate the CONTRACTOR's coordination with the TOWN's staff and communication with vendors, other contractors engaged on the project, and members of the community.

j. To the extent the CONTRACTOR must procure or maintain any insurance, license, certification or trade membership, it must do so at its own cost.

k. This CONTRACT shall not prevent CONTRACTOR from performing other services for other parties. CONTRACTOR may engage in other business endeavors or projects of any kind or nature as long as such activities do not conflict with CONTRACTOR's relationship with the TOWN pursuant to this agreement.

6. OWNERSHIP OF WORK PRODUCT

The TOWN shall retain ownership of all work product developed for or on behalf of the TOWN by the CONTRACTOR, regardless of location, type and format of the work product. All work product will be submitted to the TOWN, or a specified agent or contract consultant of the TOWN, at the TOWN's direction, upon request.

7. INSURANCE AND INDEMNITY

CONTRACTOR shall purchase and maintain reasonable liability insurance coverage, as protection from judgments of any kind, including but not limited to general liability insurance and automobile insurance on all vehicles used by the CONTRACTOR, its employees, agents or sub-contractors in performing SERVICES under this CONTRACT.

The CONTRACTOR shall indemnify and save harmless the TOWN, its agents and employees from and against all actions, liability, claims, suits, damages, cost or expenses of any kind which may be brought or made against the TOWN or which the TOWN must pay and incur by reason of or in any manner resulting from injury, loss or damage to persons or property resulting from negligent performance of or failure to perform any of the CONTRACTOR's obligations under the terms of this CONTRACT.

The CONTRACTOR shall be fully responsible to the TOWN for the acts and omissions of its sub-contractors and of persons either directly or indirectly employed by it, as the CONTRACTOR is for the acts and omissions of persons directly employed by it.

In addition, the CONTRACTOR shall comply with the North Carolina Worker's Compensation Act and shall provide for the payment of workers' compensation to its employees in the manner and to the extent required by such Act. In the event the CONTRACTOR is excluded from the requirements of such Act and does not voluntarily carry workers' compensation coverage, the CONTRACTOR shall carry or cause its employees to carry adequate medical accident insurance to cover any injuries sustained by its employees or agents during the performance of SERVICES. The CONTRACTOR agrees to furnish the TOWN proof of compliance with said Act or adequate medical accident insurance coverage upon request.

The CONTRACTOR upon request by the TOWN shall furnish a Certificate of Insurance from an insurance company, licensed to do business in the State of North Carolina and acceptable to the

TOWN verifying the existence of any insurance coverage required by the TOWN. The Certificate will provide for sixty (60) days advance notice in the event of termination or cancellation of coverage.

In the event the CONTRACTOR shall fail at any time to have in force and effect insurance as required by this Section, the CONTRACTOR agrees to indemnify and hold harmless the TOWN for (1) any premium paid by the TOWN to maintain insurance coverage applicable to CONTRACTOR and or its employees or subcontractors, and (2) any workers' compensation benefits paid by the TOWN as a result of the CONTRACTOR's failure to comply with this Section.

8. HEALTH AND SAFETY

The CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the provision of the SERVICES. The CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees from the provision of the SERVICES and other persons who may be affected thereby.

9. NON-DISCRIMINATION IN EMPLOYMENT

The CONTRACTOR shall not discriminate against any employee or applicant for employment because of age, sex, race, creed, or national origin. The CONTRACTOR shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their age, sex, race, creed, or national origin. In the event the CONTRACTOR is determined by the final order of an appropriate agency or court to be in violation of any non-discrimination provision of federal, state or local law or this provision, this CONTRACT may be canceled, terminated or suspended in whole or in part by the TOWN, and the CONTRACTOR may be declared ineligible for further TOWN contracts.

10. GOVERNING LAW

This CONTRACT shall be governed by and in accordance with the laws of the State of North Carolina. All actions relating in any way to this CONTRACT shall be brought in the General Court of Justice of the State of North Carolina or in the Federal District Court for the Eastern District of North Carolina.

11. NON WAIVER OF IMMUNITY

Nothing set forth herein is intended nor shall be construed as a waiver of any immunity available to the TOWN, its governing board, officers or employees.

12. OTHER PROVISIONS

This CONTRACT is subject to such additional provisions as are set forth in any addendum executed separately by each party and attached hereto.

13. CONTRACT DOCUMENTS/AMENDMENTS

This document together with the purchase order and any attached exhibits constitutes the entire CONTRACT between the said two parties and supersedes all prior and contemporaneous negotiations, agreements and understandings of either or both parties in connection to the subject

matter of this CONTRACT. The terms of this CONTRACT may only be modified by a written mutual agreement signed by the parties and attached hereto.

14. SIGNATURES

Both the TOWN and the CONTRACTOR agree to the above contractual terms and conditions.

DEEL ENGINEERING, PLLC

By: *David Deel*
David Deel, P.E., Owner

WITNESS OR ATTEST BY:

Sheila Kane

TOWN OF SOUTHERN SHORES

By: *Peter Rascoe*
Peter Rascoe, Town Manager

ATTEST

Sheila Kane
Sheila Kane, Town Clerk



This instrument has been preaudited in the manner required by the Local Government Budget and Fiscal Control Act.

Bonnie Swain

Bonnie Swain, Finance Officer

Deel Engineering, PLLC
NC Firm License P-1045
Hourly Rate Schedule for Town of Southern Shores 2016-2017

Hourly Rate Schedule 2016-2017

Category	Hourly Billing Rate
Civil Engineering	\$75/hr.
Environmental Consulting	\$100/hr.
Architectural Consulting	\$100/hr.
Construction Inspection	\$75/hr.
Subcontracted Services	Cost + 10%

Reimbursable Expenses	
18"x24" Prints	\$1.50
18"x24" Mylars	\$3.00
24"x36" Prints	\$2.00
36"x42" Prints	\$2.50
11"x17" copies	\$0.20
11"x17" color copies	\$0.50
Letter/Legal copies	\$0.10
Color letter/legal copies	\$0.50

The rates reflected hereon describe the current billing rates for Deel Engineering, PLLC and Anlauf Engineering, PLLC to perform work in the Town of Southern Shores. Deel/Anlauf Engineering, PLLC, reserves the right to adjust pricing annually, with an effective date of July 1st.

**Town of Southern Shores
Budget Amendment Number # 14**

Sanitation Increases			Decreases		
Account Number	Description	Amount	Account Number	Description	Amount
40-32900	Revenues Interest Income	\$ 15,000			
52-50204	Expenses Landfill Tipping Fee	\$15,000			

Explanation: To recognize unanticipated revenue already received to pay for increased tonnage.

Recommended By:

J. Peter Rascoe, III, Town Manager

Approved By:

Tom Bennett, Mayor

Date

**Town of Southern Shores
Budget Amendment Number # 15**

Streets Increases			Decreases		
<u>Account Number</u>	<u>Description</u>	<u>Amount</u>	<u>Account Number</u>	<u>Description</u>	<u>Amount</u>
40-33500	<u>Revenues</u> Misc. Revenue	\$ 51,720			
57-50937	<u>Expenditures</u> Juniper Trail	\$51,720			

Explanation: Insurance payment for damage to Juniper Trail

Recommended By:

J. Peter Rascoe, III, Town Manager

Approved By:

Tom Bennett, Mayor

Date



Town of Southern Shores

5375 N. Virginia Dare Trail, Southern Shores, NC 27949

Phone 252-261-2394 / Fax 252-255-0876

info@southernshores-nc.gov

www.southernshores-nc.gov

Ordinance No. 2019-06-01

An Ordinance of the Southern Shores Town Council Adopting a Budget and Tax Rate for FY 2019-2020

BE IT ORDAINED by the Town Council of the Town of Southern Shores, North Carolina that the following be the various budgets for FY 2019-20:

SECTION I. GENERAL FUND

- A. Appropriations: The following amounts are appropriated for the operation of the Town government and its activities for the fiscal year beginning July 1, 2019 and ending June 30, 2020:

Administration Department	\$ 1,080,656
Code Enforcement & Inspections Department	\$ 265,523
Fire Department	\$ 869,934
Ocean Rescue Services	\$ 163,500
Police Department	\$ 1,730,614
Public Works Department	* \$ 752,469
Public Works Department – Streets, Bridges, Beaches & Canals	* \$ 1,842,067
Sanitation Services	\$ 726,083
Contribution to Capital Reserve Fund for Canals	\$ 20,000
Total General Fund Appropriations	\$ 7,450,846

- B. Estimated Revenues: It is estimated that the following revenues will be available during the fiscal year beginning July 1, 2019 and ending June 30, 2020 to meet foregoing appropriations:

Property Taxes- Current Year	\$ 2,936,160
Vehicle Taxes (NCVTS)- Current Year	\$ 105,000
Special Assessment	\$ 30,000
Property & Vehicle Taxes- Prior Years, Penalties and Interest	\$ 10,300
Subtotal: Property and Vehicle Taxes	\$ 3,081,460
Land Transfer	\$ 245,971
Local Option Sales Tax	\$ 961,619
Occupancy Tax	\$ 958,000
Other Intergovernmental Revenues	\$ 639,582
Building Permits & Fees	\$ 129,000
Other Revenues	\$ 109,600
Unassigned Fund Balance	\$ 1,325,614
	4,369,386
Total General Fund Revenues	\$ 7,450,846

SECTION V. EXPENDITURES

All expenditures must be made in accordance with governing North Carolina General Statutes and adopted Town policies regarding purchasing and bidding. The Budget Officer is authorized to expend funds consistent with the governmental functions and amounts shown as appropriated and to execute such documents necessary for same.

Notwithstanding Town policies regarding purchasing and bidding, the Budget Officer is authorized to execute documents for the following items or services in accordance with the specific appropriations established by this Ordinance or as the budget may be amended during the fiscal year: Multi-year lease, lease-purchase, or purchase of vehicles and equipment.

- * Notwithstanding Town policies regarding purchasing and bidding, the Budget Officer is authorized to execute documents for the following items or services in accordance with specific appropriations established by this Ordinance or as the budget may be amended during the fiscal year: Contracting for services for Council-approved infrastructure improvement projects. An amount of \$ 662,340 is included (as shown on adopted line item budget) in the total amount appropriated in Section 1. A. for "Public Works Department - Streets, Bridges, Beaches & Canals". This amount represents the total appropriation for individual capital street improvements for the fiscal year beginning July 1, 2019 and ending June 30, 2020. The Budget Officer is authorized to award and enter into contracts and purchase agreements to expend these funds in accordance with the terms of this Budget Ordinance, but only upon subsequent and adoption of a separate Ordinance establishing a "Capital Infrastructure Improvement Plan with Authority to Implement" by the Town Council for the fiscal year beginning July 1, 2019 and ending June 30, 2020.

An amount of \$ 1,000,000 is included (as shown on adopted line item budget) in the total amount appropriated in Section 1. A. for "Public Works Department - Streets, Bridges, Beach & Canals". This amount represents an appropriation for construction of a five-foot wide walking trail along South Dogwood Trail from the North, South, and East Dogwood Trails intersection to the Southern Shores Cemetery. The Budget Officer is authorized to award and enter into contracts and purchase agreements to expend these funds in accordance with the terms of this Budget Ordinance, but only after opportunity for inspection of the design plan has been noticed by regular US Mail to each owner of property adjacent to the proposed walking trail, and then only after subsequent Council approval of the final design plans following a duly advertised public hearing on the plans.

- * Any budgeted item or service requiring additional procurement of separate architectural, engineering, or surveying services and for which a budgeted expense amount (estimated professional fee) is less than \$50,000, is hereby exempted from the provisions of Article 3D of Chapter 143 of the North Carolina General Statutes pursuant to NCGS § 143-64.32.

SECTION VI. LEASE REVENUES

The Budget Officer is hereby authorized to negotiate in the best interest of the Town and execute such documents necessary for the realization of revenues or other consideration from lease or use of any Town property with a term not to exceed three years.

SECTION VII. FIRE SERVICES

An amount of \$ 314,020 is included (as shown on adopted line item budget) in the total amount appropriated in Section 1. A. for "Fire Department". This funding is for reimbursement to the Southern Shores Volunteer Fire Department, Inc. (SSVFD) for that entity's debt service costs incurred during FY 2019-2020 for funding for a new fire station as described in the effective contract for fire services between the Town and the SSVFD.

SECTION VIII. BUDGET OFFICER LINE TRANSFER AUTHORIZATION

The Budget Officer is authorized to re-allocate intra-departmental appropriations among the various objects of expenditures as he considers necessary for effective budget performance, and is also authorized to affect inter-departmental transfers within the same Fund for effective budget performance. The Budget Officer is also authorized to affect, within the same Fund, intra-departmental and inter-departmental transfers from a Departmental contingency line appropriation established in accordance with NCGS §159-13(b)(3), with such contingency line transfers being in accordance with NCGS §159-13(b)(3).

SECTION IX. BUDGET OFFICER RESTRICTIONS

No salary increases may be made without approval of the Town Council. Inter-fund transfers not established in this budget document may only be performed by authorization of the Town Council.

SECTION X. UTILIZATION OF BUDGET AND BUDGET ORDINANCE

This Ordinance and the Budget Document shall be the basis of the financial plan for operations of the Town of Southern Shores, North Carolina Municipal Government during the fiscal year 2019-20. Copies of this Budget Ordinance shall be furnished to the Clerk of the Town Council and to the Budget Officer and Finance Officer, and is to be kept on file by them for their direction in the disbursement of funds.

ADOPTED this _____ day of June, 2019.

Mayor Tom Bennett

ATTEST:

Sheila Kane, Town Clerk

seal

Town of Southern Shores Fiscal Year 2019-2020



Proposed Operating Budget

Filed and Submitted May 7, 2019

CONTENTS

- Budget Message
- FY 2019-2020 Assessed Value, Levy, and Tax rate
- Budget Development Calendar for FY 2019-2020
- General Fund Expenditures Graph
- General Fund Revenues Graph
- Occupancy, Sales, and Land Transfer Taxes Graph
- Proposed Line Item Budgets incl. Departmental Justifications:
 - General Fund
 - Cemetery Fund
 - Capital reserve Fund



Town of Southern Shores

5375 N. Virginia Dare Trail, Southern Shores, NC 27949

Phone 252-261-2394 / Fax 252-255-0876

www.southernshores-nc.gov

May 7, 2019

Budget Message
Fiscal Year 2019-2020
[NC General Statute §159-1]

To the Honorable Mayor and Members of the Town Council:

I am pleased to report to you today submittal and filing of the Budget Officer's proposed balanced budget - proposing no property tax increase in the Town's current property tax rate of 22.0 cents per \$100 of taxable property value. The Town of Southern Shores continues to provide the most services with the smallest work force at the lowest tax rate of any local government in Dare County. This year's proposed budget is balanced by projecting \$ 7,450,846 in revenues to fund the same amount in projected expenses to maintain the same level of services to citizens of the Town. This balanced budget proposes to fund the Town's longstanding public services, as well as the goals the Council has previously directed for implementation during the upcoming fiscal year. A revenue of \$ 1,325,614, is proposed as a transfer from the Town's Undesignated Fund Balance, which as of June 30, 2018 had an audited balance of \$4,752,187, an amount more than the Town's adopted minimum balance policy by \$3,577,187, and more than the Town Manager's personal recommended minimum to insure enough funds for natural disaster recovery by an amount of \$1,752,187. The proposed transfer is projected to cover the major expense of Council-directed budget expenses for the costs of a walking path along South Dogwood Trail, funds for Town-owned building updates to meet current building code minimums, and funds to cover ongoing increased legal costs due to increased Town land-use permit challenges by Town property owners.

In accordance with the State of North Carolina's *Local Government Budget and Fiscal Control Act*, the proposed Town of Southern Shores operating budget for upcoming fiscal year 2019-2020 was filed today with the Town Clerk and will be available for public inspection beginning May 8, 2019. Public Notice of the proposed operating budget will be posted on the Town's bulletin boards, the Town's website, the Town's social media outlets, and in a Notice of Public Hearing to be published in accordance with NCGS §159-12 for a Public Hearing to be held June 4, 2019 at 5:30 PM in the Town Hall complex's Pitts Center.

During the months of January and February of this calendar year and in accordance with the Local Government Budget and Fiscal Control Act, the Town's Budget Officer gathered from Department Heads the estimated costs of continuing to provide to our taxpayers the same basic services for the next fiscal year. Projected costs have been adjusted to indicate increases or decreases as appropriate. There are expenses for services which cannot be adjusted due to contractual obligations (i.e. fire protection, lifeguard services, solid waste collection, etc.). The Town Council's February 26, 2019 annual planning session meeting offered any member of the Town Council to move the Council by its action to direct major projects to be included in the proposed budget filed today. The April 23rd budget planning session meeting again offered an opportunity to any member of the Town Council to move the Council by its action to include any major projects or planning directives, or direct any changes in Town policies, programs, or services - resulting in a change to the Budget officer's proposed budget. A video replay of the Town Council's February 26, 2019

annual planning session meeting has been available for public review (2 segments) on the Town's website at <https://www.youtube.com/watch?v=5jvMdHY-r4Y&feature=youtu.be> and <https://www.youtube.com/watch?v=ZcGu9RuTGEY&feature=youtu.be> . A video of the Town Council's April 23, 2019 budget planning session meeting has been available on the Town's website for the public to review (2 segments) at <https://www.youtube.com/watch?v=ql0r55t50CU&feature=youtu.be> and <https://youtu.be/ZcGu9RuTGEY>.

After the June 4, 2019 Public Hearing on the Budget Officer's filed proposed budget, the Town Council may further deliberate at its discretion on the components of his proposed budget and either adopt his proposed budget by simple majority vote [NCGS §159-17(1)] or amend the Budget Officer's proposed budget by simple majority vote and adopt it as amended.

The overall fiscal goal of the Town's administration continues to be the best possible delivery of all the Town's public municipal services in an economically feasible manner. By successfully accomplishing this goal each year, end-of-year budget savings and any realized unanticipated revenues automatically transfer into the Town's unassigned fund balance.

Proposed Budget Highlights for Fiscal Year beginning July 1, 2019:

Budget Officer Proposed Expenses:

- APTIM Coastal Engineers for continued annual beach survey/report of profile study – contract cost \$45,000.
- Classification and Pay Study for Town employee positions (due every 5-8 years - last done in 2013) – contract cost of \$ 5,100.
- Fire Department for Council-directed annual debt service of new fire station and inclusion of side fence – cost of \$324,020.
- Increased Legal Costs to Town – projected cost of \$100,000.

Further Council-Directed Expenses:

- Construction of South Dogwood Trail Walking Trail. By Council vote of 3-2 on April 23, 2019, Motion by Councilman Conners, Seconded by Councilman Nason - projected cost: \$1,000,000. (Inclusive of installation of select side-street crosswalks for East Dogwood Trail Walking Tr.)
- Funding to update Town-owned buildings to achieve minimum building code standards. By Council vote of 5-0 on April 23, 2019, Motion by Councilman McDonald, Seconded by Councilman Conners - projected cost of \$ 220,000.

Capital Street Improvements:

- Since 2015, by practice the Town Council holds a separate Public Hearing after budget adoption for proposed adoption of a prioritization of capital street improvements for the upcoming year based on a recommendation from the Council's Capital Infrastructure Improvement Planning (CIIP) Committee. This additional procedure adds yet another layer of opportunity for public input for attention to needed infrastructure improvements. Funding is derived from the previously adopted budget. The public hearing for a FY19-20 Capital Improvement Plan will be held July 9, 2019.

Peter Rascoe
Budget Officer/Town Manager

**FY 19-20 Assessed Value and Levy
and Tax Rate Equivalency**

\$ 1,329,281,757 Assessed Value as of Jan 1, 2019

(x) .22 current ad valorem Tax Rate

(+) 120 Late Listing Penalties

(=) \$ 2,924,419 Total Levy

(+) growth

(x) 99.65% FY 17-18 Collection Rate

(=) \$ 2,924,539 Ad Valorem Tax Revenue Budgeted

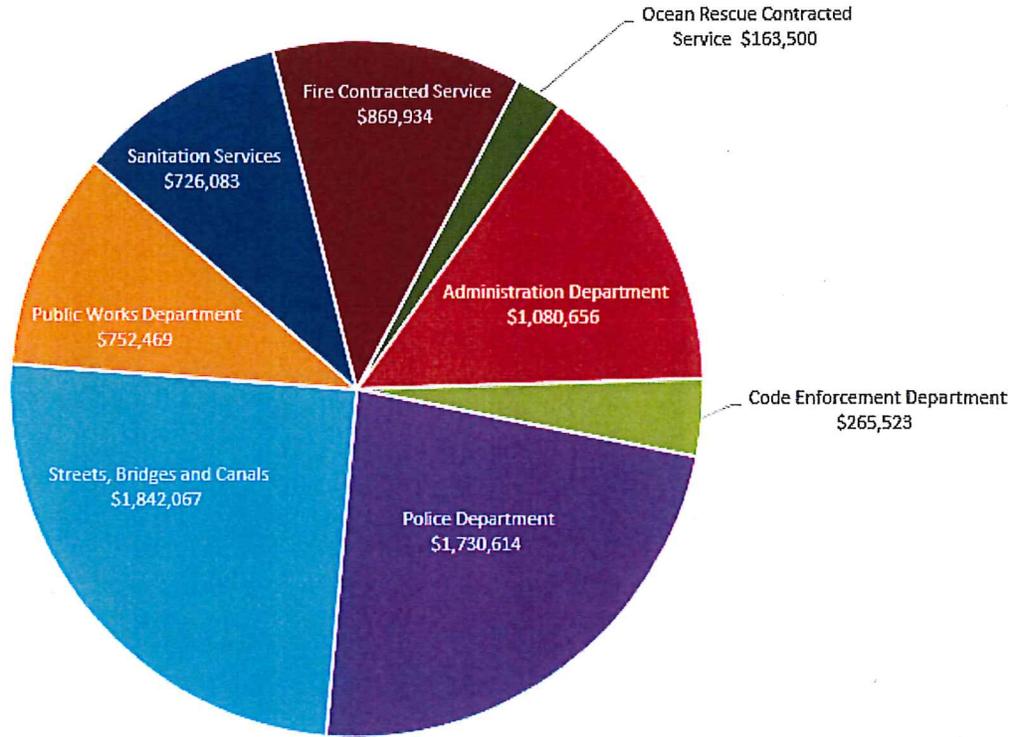
(÷) .22 Current ad valorem Tax Rate

(=) One penny (.01) of the tax rate generates revenue of **\$ 132,468**

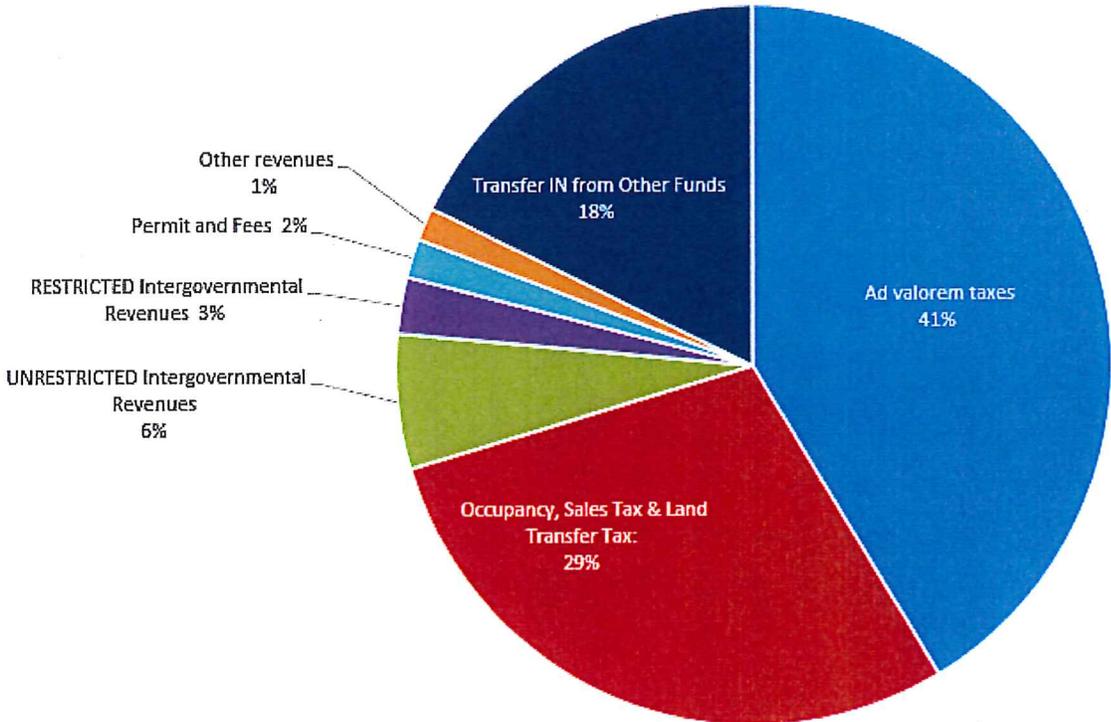
Budget Preparation Calendar for Fiscal Year 2019-2020

- **February 26, 2019 - 9:00 AM Town Council Special Meeting - Council Planning Meeting** – Town Council briefing on several studies and possible initiatives of possible capital infrastructure needs and projects for planning purposes. Council opportunity to direct strategic planning and/or action for any of these initiatives, as well as any other planning or action initiatives offered by any Council member.
- **April 23, 2019 - 9:00 AM Special Meeting (Council Work Session-Budget Planning)** – Review of Budget Officer’s projected revenues and expenditures and Draft proposed budget intended to be filed and submitted. Opportunity for Town Council, by its action, to direct Budget Officer to submit different revenues and expenses, including capital and special projects, in his proposed budget.
- **May 7, 2019 - 5:30 PM Regular Meeting** - Budget Officer officially files his recommended budget (inclusive of any previous Council directives) with the Clerk - (Clerk makes Budget Officer’s filed-recommended budget document available for public inspection, and publishes notice of June 4, 2019 Public Hearing
- **June 4, 2019 - 5:30 PM Regular meeting** - Public Hearing (separate from public comment periods) on the Budget Officer’s FY 2019-2020 filed recommended budget. After the Public Hearing, the Council must adopt (prior to July 1, 2019), with any changes it enacts as a Council, an annual operating budget for FY 2019-2020.
- **June 4, 2019 - 5:30 PM Regular Meeting** – Report of the CIIP Committee’s recommended Capital Infrastructure Improvement Plan for FY 2019-2020.
- **July 9, 2019 - 5:30 PM Regular Meeting** - Public Hearing on CIIP Committee’s recommended Capital Infrastructure Improvement Plan for FY 2019-2020 - Council by its action may direct changes prior to adoption of a recommended Plan, or not adopt a recommended Plan.

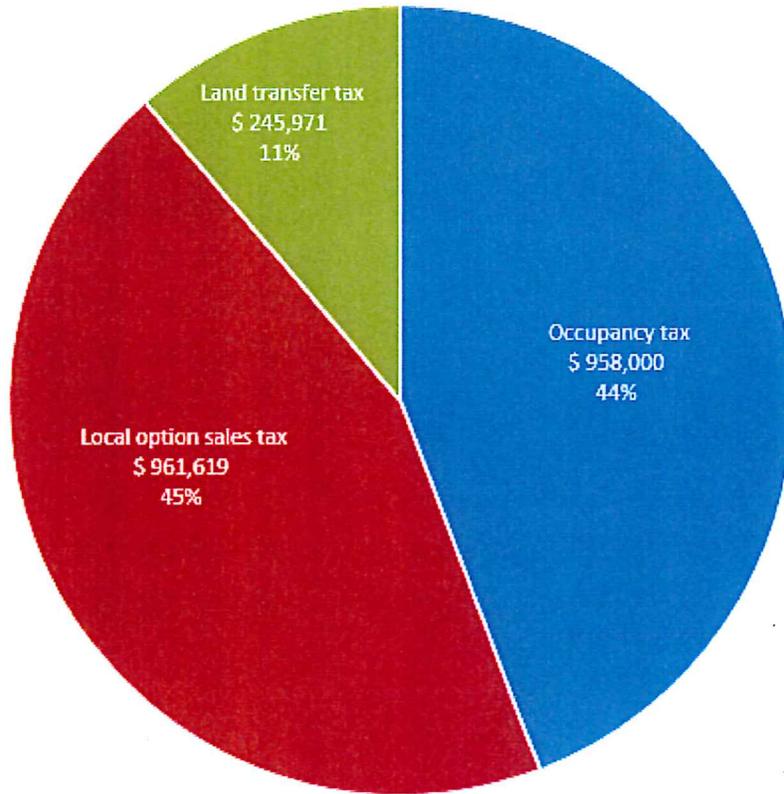
General Fund Expenditures FY 19-20



General Fund Revenues



Occupancy, Sales Tax & Land Transfer Tax



GENERAL FUND SUMMARY						
	FY 16-17 Actual	FY 17-18 Actual	FY 18-19 Amended	FY 19-20 Requested	FY 19-20 Recommended	FY 19-20 Adopted
Revenues:						
Ad valorem taxes	2,951,740	3,030,645	3,013,549	3,081,460	3,081,460	
Occupancy, Sales Tax & Land Transfer Tax:	2,072,762	2,227,618	2,129,539	2,165,590	2,165,590	
UNRESTRICTED Intergovernmental Revenues	455,591	453,294	426,622	450,200	450,200	
RESTRICTED Intergovernmental Revenues	870,805	639,141	205,264	189,382	189,382	
Permit and Fees	132,252	156,815	124,000	129,000	129,000	
Other revenues	67,693	81,833	191,950	109,600	109,600	
SubTotal:	6,550,843	6,589,346	6,090,924	6,125,232	6,125,232	
Transfer IN from Other Funds	-	22,000	282,828			
Appropriated-Undesignated Fund Balance	-	-	225,376	1,325,614	1,325,614	
Total:	6,550,843	6,611,346	6,599,128	7,450,846	7,450,846	
Expenditures:						
Administration Department	916,080	944,656	1,064,234	1,080,656	1,080,656	
Code Enforcement Department	222,603	245,974	317,339	265,523	265,523	
Police Department	1,460,868	1,468,688	1,786,269	1,730,614	1,730,614	
Streets, Bridges and Canals	1,594,164	1,419,636	1,138,597	1,842,067	1,842,067	
Public Works Department	406,564	389,150	549,253	752,469	752,469	
Sanitation Services	630,540	650,166	688,465	726,083	726,083	
Fire Contracted Service	476,880	691,767	871,471	869,934	869,934	
Ocean Rescue Contracted Service	161,550	161,550	163,500	163,500	163,500	
Total Operating General Fund Expenditures	5,869,249	5,971,587	6,579,128	7,430,846	7,430,846	
Transfer OUT to Capital Reserve Fund- Canals	20,000	20,000	20,000	20,000	20,000	
Transfer OUT to Capital Reserve Fund		254,019				
			6,599,128	7,450,846	7,450,846	
REVENUES OVER (UNDER) EXPENDITURES	681,594	617,759	-	-		
.01 = \$132,468						

GENERAL FUND						
REVENUES	FY 16-17 Actual	FY 17-18 Actual	FY 18-19 Amended	FY 19-20 Requested	FY 19-20 Recommended	FY 19-20 Adopted
AD VALOREM TAXES:						
Property taxes - current year	2,849,641	2,885,427	2,903,049	2,936,160	2,936,160	
Property taxes - prior years	2,422	10,210	5,000	5,000	5,000	
Vehicle taxes - prior years	5	42	2,500	2,300	2,300	
NCVTS	96,829	101,506	100,000	105,000	105,000	
Tax penalties and interest	2,843	3,460	3,000	3,000	3,000	
Special Assessment	-	30,000	-	30,000	30,000	
Total Ad Valorem Taxes	2,951,740	3,030,645	3,013,549	3,081,460	3,081,460	
Occupancy, Sales Tax & Land Transfer Tax:						
Occupancy tax	926,873	1,014,531	964,262	958,000	958,000	
Local option sales tax	923,481	964,512	934,840	961,619	961,619	
Land transfer tax	222,408	248,575	230,437	245,971	245,971	
Total Occupancy, Sales Tax & Land Transfer	2,072,762	2,227,618	2,129,539	2,165,590	2,165,590	
UNRESTRICTED INTERGOVERNMENTAL REVENUES:						
Utilities franchise tax	259,610	259,893	237,120	263,000	263,000	
Video Programming Tax	70,180	68,982	67,372	65,000	65,000	
Telecommunications tax	27,398	24,875	23,730	23,000	23,000	
PEG Channel Revenue	27,683	27,031	25,000	26,000	26,000	
ABC revenues	55,571	57,717	58,000	58,000	58,000	
Beer and Wine Tax	13,198	12,786	13,000	13,000	13,000	
Solid Waste Disposal Tax	1,951	2,010	2,400	2,200	2,200	
Total Unrestricted Intergovernmental Revs	455,591	453,294	426,622	450,200	450,200	
RESTRICTED INTERGOVERNMENTAL REVENUES:						
Powell Bill	119,047	119,139	119,000	118,000	118,000	
COPS Grant- DOJ	47,126	15,869	-	-	-	
GCC Grant	-	21,486	37,264	18,632	18,632	
GHSP Grant	-	-	15,000	18,750	18,750	
Controlled Substance tax	75	1,775	-	-	-	
Government Access Channel Grant	4,200	7,424	10,000	10,000	10,000	
Shoreline Stabilization	24,000	24,000	24,000	24,000	24,000	
NCDOT Grant	218,125	-	-	-	-	
US Dept of Homeland Security- FEMA	373,776	-	-	-	-	
NC Dept Public Safety-DEM-FEMA	84,456	-	-	-	-	
Dare County Beach Noursihment Grant	-	449,448	-	-	-	

REVENUES	FY 16-17 Actual	FY 17-18 Actual	FY 18-19 Amended	FY 19-20 Requested	FY 19-20 Recommended	FY 19-20 Adopted
Total Restricted Intergovernmental Revs	870,805	639,141	205,264	189,382	189,382	
PERMITS AND FEES:						
Building permits	106,618	128,873	103,000	105,000	105,000	
Plan review fees	11,670	12,376	8,000	10,000	10,000	
CAMA fees	2,740	4,615	2,500	2,500	2,500	
Planning board fees	3,350	4,775	2,000	3,000	3,000	
Court costs and fees	974	777	1,000	1,000	1,000	
Parking and other fines	6,900	5,399	7,500	7,500	7,500	
Total Permits and Fees	132,252	156,815	124,000	129,000	129,000	
Other Revenues:						
Interest income	26,230	68,955	45,000	100,000	100,000	
Charter Communications	1,587	-	-	-	-	
Sale of fixed assets	20,722	2,074	-	-	-	
Rental Income	1,700	3,000	2,400	2,400	2,400	
Miscellaneous	5,945	6,054	12,571	5,000	5,000	
Body Armour Grant	1,065	750	1,200	1,200	1,200	
Outer Banks Community Foundation	1,000	1,000	1,000	1,000	1,000	
Insurance proceeds	9,444	-	10,779	-	-	
Dare County Tourism Bureau	-	-	119,000	-	-	
Total Other Revenues	67,693	81,833	191,950	109,600	109,600	
Total Other Revenues	1,526,341	1,331,083	947,836	878,182	878,182	
TOTAL REVENUE BEFORE TRANSFERS						

ADMINISTRATION DEPARTMENT	FY 16-17 Actual	FY 17-18 Actual	FY 18-19 Amended	FY 19-20 Requested	FY 19-20 Recommended	FY 19-20 Adopted
Salaries	362,528	370,844	375,114	385,150	385,150	
FICA	25,951	26,243	30,120	30,887	30,887	
Retirement	44,580	46,572	47,827	53,845	53,845	
Group Health insurance	42,424	43,044	47,565	50,324	50,324	
Council Compensation	18,600	18,600	18,600	18,600	18,600	
Council Travel & Training	-	2,394	2,000	5,000	5,000	
Unemployment Payments	-	-	-	1,000	1,000	
Legal services	48,555	59,251	111,500	100,000	100,000	
Audit services	16,000	16,000	17,000	17,000	17,000	
Payroll services	6,410	8,511	7,500	8,200	8,200	
Computer services	72,970	53,455	58,887	75,000	75,000	
Insurance and bonds	67,818	70,230	75,000	75,000	75,000	
Advertising	770	725	1,000	1,000	1,000	
Travel	7,390	8,490	15,000	15,000	15,000	
Telephone	30,914	29,845	30,000	31,500	31,500	
Utilities	20,151	22,822	25,000	25,000	25,000	
Dues/subscriptions	6,903	8,240	10,000	10,000	10,000	
Training	4,269	5,731	13,500	13,500	13,500	
Supplies	8,669	7,378	13,000	10,000	10,000	
Postage	1,512	1,286	2,000	2,000	2,000	
Equipment lease & maintenance	8,931	8,291	19,071	16,000	16,000	
Municipal Elections	-	4,280	-	5,000	5,000	
Dare County & NCVTS tax collection	46,662	47,540	50,000	50,000	50,000	
Gov't. Access Channel (PEG Channel)	27,683	27,031	26,500	26,000	26,000	
Gov't. Access Channel Membership	1,000	1,000	1,000	1,000	1,000	
Municode publishing	2,896	3,706	5,000	5,000	5,000	
Vehicle Operations	140	386	500	500	500	
EE Recognition & Appreciation	7,020	9,258	8,500	8,500	8,500	
Wellness Initiative	2,692	2,862	3,000	3,000	3,000	
Contracted Services	2,635	3,630	3,000	9,100	9,100	
Misc.	3,067	7,286	10,000	10,000	10,000	
Technology Update- Pitts Center	4,200	7,424	10,000	10,000	10,000	
Recording of Meetings	5,350	5,681	7,050	7,550	7,550	
Cleaning of Town Buildings	17,390	16,620	20,000	1,000	1,000	
Total	916,080	944,656	1,064,234	1,080,656	1,080,656	

PLANNING & CODE ENFORCEMENT						
	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 19-20	FY 19-20
	Actual	Actual	Amended	Requested	Recommended	Adopted
Salaries	127,206	152,443	178,938	184,009	184,009	
FICA	10,116	10,793	13,689	14,077	14,077	
Group Health insurance	21,484	21,901	24,746	25,862	25,862	
Employee retirement	16,622	16,419	18,913	21,425	21,425	
Contracted Services	19,290	9,267	11,800	3,600	3,600	
Printing	475	561	1,000	1,000	1,000	
Advertising	834	1,317	1,000	1,000	1,000	
Travel	147	123	4,536	1,500	1,500	
Dues/subscriptions	120	105	350	350	350	
Training	200	562	5,400	2,000	2,000	
Supplies	634	334	1,000	3,000	3,000	
Uniforms	-	198	-	200	200	
Medical Testing	-	66	-	-	-	
Capital Outlay- Vehicles	-	-	30,000	-	-	
Vehicle Maintenance	-	-	1,000	1,000	1,000	
Vehicle operations	652	630	1,000	1,000	1,000	
Homeowners Recovery fee	585	558	1,000	1,000	1,000	
Flood Zone Map Mailing	1,505	1,797	2,000	2,000	2,000	
Misc	100	-	1,000	1,000	1,000	
Historic Landmark Designation	-	-	2,000	1,500	1,500	
Town Code Update	22,633	27,600	16,867	-	-	
BOA Meeting transcription	-	1,300	1,100	-	-	
Total Code Enforcement	222,603	245,974	317,339	265,523	265,523	

POLICE DEPARTMENT	FY 16-17 Actual	FY 17-18 Actual	FY 18-19 Amended	FY 19-20 Requested	FY 19-20 Recommended	FY 19-20 Adopted
Salaries	819,660	871,532	885,472	887,575	887,575	
Holiday	29,179	30,775	25,000	25,000	25,000	
Overtime	11,575	14,247	20,000	20,000	20,000	
FICA	64,986	67,569	71,182	71,343	71,343	
Group Health insurance	104,519	119,430	122,725	129,191	129,191	
Employees retirement	110,685	120,389	123,642	135,041	135,041	
Career Development	1,000	1,000	3,000	1,500	1,500	
Computer services	2,830	9,649	8,500	11,000	11,000	
Printing	-	-	1,000	1,000	1,000	
Advertising	603	707	-	-	-	
Travel	7,162	9,400	12,000	10,000	10,000	
Dues/subscriptions	1,045	790	1,500	1,500	1,500	
Training	12,199	7,438	15,500	12,000	12,000	
Medical testing	714	269	1,000	1,000	1,000	
Uniforms	14,070	9,709	20,000	20,000	20,000	
Supplies	33,138	33,208	31,200	37,200	37,200	
Contracted Services	13,718	15,412	25,000	25,000	25,000	
Equipment lease & maint.	4,250	7,588	5,000	5,000	5,000	
Equipment purchase	70,998	55,543	90,981	88,000	88,000	
Vehicle maintenance & repair	17,884	29,891	28,000	28,000	28,000	
Vehicle operations	25,566	30,199	35,000	35,000	35,000	
Misc.	-	3,095	10,000	10,000	10,000	
Capital Outlay- Vehicles	77,023	-	160,641	85,000	85,000	
GHSP Grant	-	-	25,000	25,000	25,000	
GCC Grant- Radios	14,480	7,264	37,264	37,264	37,264	
Total	1,437,284	1,445,104	1,758,607	1,701,614	1,701,614	
Sep. Allowance Transferred to Pension Fund	23,584	23,584	27,662	29,000	29,000	
Total Police	1,460,868	1,468,688	1,786,269	1,730,614	1,730,614	

Streets, Bridges, Beaches and Canals	FY 16-17 Actual	FY 17-18 Actual	FY 18-19 Amended	FY 19-20 Requested	FY 19-20 Recommended	FY 19-20 Adopted
Street Sign Maintenance	6,414	748	4,000	5,000	5,000	
Engineering & Arborist Services	3,350	5,850	5,000	5,000	5,000	
Street Maintenance	19,250	20,633	57,202	57,202	57,202	
Brush Trimming	11,900	5,245	20,000	20,000	20,000	
Bridge Maintenance	2,125	-	2,125	2,125	2,125	
Beach Profile Study	850	33,106	75,000	45,000	45,000	
Beach Nourishment Engineering	40,316	-	-	-	-	
Beach Nourishment - Legal	29,636	-	-	-	-	
Beach Nourishment	-	889,048	-	-	-	
Hurricane Matthew Recovery	414,050	-	-	-	-	
Osprey Lane	154,082	338	-	-	-	
Juniper Trail	186,768	2,418	287,250	-	-	
Juniper/Trinite Trail Bridge	7,223	-	-	-	-	
Fairway Drive	-	225	-	-	-	
N,S & E Dogwood Intersection	3,563	5,025	-	-	-	
Yaupon Trail	6,660	4,669	392,000	-	-	
Beech Tree St. Project	56	-	-	-	-	
Wild Swan Lane	131,085	113	-	-	-	
Fox Grape Lane	75	-	-	-	-	
Hollow Beach Court	-	2,688	-	-	-	
Palmetto Lane	-	162,310	-	-	-	
Clam Shell Trail	-	185,006	-	-	-	
Skyline Dr. Intersection	-	52,567	-	-	-	
East Dogwood Bike Path	-	-	225,000	-	-	
Dogwood Bike Path Phase 2	-	-	620	-	-	
FY 18-19 Infrastructure Projects	-	-	-	-	-	
FY 19-20 Infrastructure Projects	-	-	-	662,340	662,340	
Tall Pine Bridge	(12,923)	-	-	-	-	
Waterway Maintenance and Repair	400	400	400	400	400	
Storm Debris Cleanup	67,300	-	20,000	20,000	20,000	
Bulkhead Maintenance and Repair	79,110	38,857	50,000	25,000	25,000	
NC Hwy12-E. Dogwood Stormwater Floodin	412,874	10,390	-	-	-	
Dogwood Trail Physical Survey	30,000	-	-	-	-	
South Dogwood Walkway	-	-	-	1,000,000	1,000,000	
Total	1,594,164	1,419,636	1,138,597	1,842,067	1,842,067	

Administrative Services

Mission

The Administrative Services Department conducts the overall administration of the Town as prescribed by the North Carolina General Statutes. Personnel coordinate all Town operations and activities in accordance with the specific provisions and authorities of Chapter 160 (Cities and Towns) of the North Carolina General Statutes, the Town Charter of the Town of Southern Shores granted by the North Carolina General Assembly on March 26, 1979 in Chapter 203 of the 1979 Session Laws, the *North Carolina Local Government Budget and Fiscal Control Act* [NCGS Chapter 159, Article 3] and the Town of Southern Shores adopted *Council Rules of Procedure*. Personnel implement all policies and actions adopted and directed by the Town Council.

FY 19-20 Budget Highlights

Personnel

- **Salaries** – Includes annual 2.5% cost of living adjustment.
- **FICA** – Social Security and Medicare rate of 7.65%. Includes FICA withheld for Council Compensation.
- **Retirement** – Mandatory rates for FY 19-20 set by the State LGERS Board of 8.98% for General Employees. 5% annual Town contribution to 401k for all employees.
- **Group Health Insurance** – Insurance rates reflect approximately a 5% increase.
- **Council Compensation** - \$4,200/yr for Mayor, \$3600/yr for Council Members
- **Unemployment Rates** - Reimbursable employers are required to maintain 1% of taxable wages in their account. Budgeting \$1,000 which is in line with what we paid FY 18-19. Currently there are no pending claims, however if a claim is paid out in the future, budget will need to be increased to cover mandatory replacement of funds expended from account.

Professional Services

- **Legal Services** - Retainer cost is \$30,000/yr +\$185/hr).
- **Audit Services** – Cost of required annual audit. Contracted with Dowdy & Osborne, CPA firm in Nags Head.
- **Payroll Services** – Fees for processing payroll, quarterly payroll reports and COBRA administration.
- **Computer Services** – Renewal of three-year service contract, includes 10% down payment and monthly charges to replace all computers, battery backups, servers and will include all service calls, Office 365 licenses, software licenses/annual renewals and cloud-based sharing, sonic wall, secure cloud backup & recovery. This covers all departments (admin, planning, public works, police). Includes quarterly charges for the website maintenance and archival of Town's social media as a public record.

Operations

- **Insurance** – All insurance (general liability, property and casualty, worker's compensation) and bonding costs.
- **Advertising** – Includes cost of publishing notices for Council meetings and public hearings.
- **Travel** – Overnight stays, meals and mileage reimbursement for training for, Town Manager, Town Clerk, Finance/Personnel Officer and the Administrative Assistant.

- **Council Travel and Training**- training and travel for Council, including, but not limited to, the annual NCBIWA conference. Due to an election year, 3 Council members will need to attend the Ethics training. The amount is also more in line with what has actually been spent in FY 18-19.
- **Telephone**-Land lines and cellphones for all Departments of the Town. Includes \$1800.00 for mask communication with Dare County.
- **Utilities**- Electricity, internet and water for all Town buildings and natural gas at PW building
- **Dues/Subscriptions**- Memberships for Chamber of Commerce, NC League of Municipalities, UNC School of Government, NC Beach, Inlet & Waterway Association, International Institute of Municipal Clerks, Organization of Municipal Personnel Officers, NC-International Personnel Management Association, International Personnel Management Association, NC Government Finance Officers Association, NC Association of Municipal Attorneys, and newspaper subscriptions.
- **Training**- NC City and County Manager's Conference, Clerk Certification Class, Finance Officer's Summer and Spring Conference, OMPO Fall Conference, NC-IPMA Spring Conference, IPMA Spring and Fall Conference, Public Employment Law Update, and training classes through UNC School of Government.
- **Supplies**- Cost of office supplies (paper, pens, staples, etc).
- **Postage**- Stamps for all mailings, bills, etc
- **Equipment Lease & Maintenance**- Town Hall copiers and water coolers.
- **Dare County Tax Collection**- Expense (1.5%) to Dare County for collection of Town property taxes.
- **Gov't Access Channel (PEG)**-Town receives this from the State and appropriates to Dare County for the Government Access Channel.
- **Gov't Access Channel membership**- Annual membership expense.
- **Town Code publishing**- Annual cost to MuniCode for constant publishing updates.
- **Vehicle Operations**- Fuel costs attributed to Administrative Dept. for use of Town vehicle.
- **EE Recognition & Appreciation**- Annual morale and appreciation events for Town employees. Annual July 4th employee and families, and Council members picnic, all-employee annual Christmas party, all-employee work anniversary luncheon, and monthly employee group birthday recognitions.
- **Wellness Initiative**- Annual expense providing reimbursement subsidies to qualifying employees establishing and maintain good physical fitness, health, and wellness - Results in lower rate of employee work absences due to illness and injury; and lower risk of work-related injury adversely affecting worker's compensation insurance premiums. Qualifying subsidies fund portions of active gym memberships, fitness training, run-cycle events, and diet counseling.
- **Contracted Services**- Annual required cost of Other Post Employment Benefits (OPEB) actuarial study. Also includes \$5,100 for a Classification and Pay Study. These are recommended to be done every 5-7 years. Ours was last done in 2013.
- **Misc**- Annual projection for unbudgeted and unanticipated necessary administrative costs.
- **Technology Update-Pitts Center**- Expense of any received grant money from Dare County Government Education Access Channel Committee to fund audio-visual technology upgrades at Pitts Center.
- **Recording of Meetings**- Videographing 12 night meetings @ 4 hours each (\$250 first 2 hours/\$100 per hour after) and 3 workshops @ 5 hours each.
- **Cleaning of Town Buildings**- cost to have all carpets and chairs cleaned at Town Hall and Police Dept. Also includes the cost to have carpets cleaned at Pitts Center. The cost of cleaning is now budgeted under Public Works as a part time employee.

Planning & Code Enforcement

Mission

The Planning and Code Enforcement Department is responsible for planning, permitting, and code enforcement services for the Town. The primary goal of the Department is to provide citizens with timely and efficient permit issuance and administration and enforcement of building regulations, flood regulations, nuisances, subdivision regulations, zoning regulations, CAMA regulations, and hazard mitigation.

FY 19-20 Budget Highlights

Personnel

- **Salaries** – Salaries include a 2.5% COLA for all employees.
- **FICA** – Social Security and Medicare rate of 7.65%. Includes FICA withheld for Council Compensation.
- **Retirement** – Mandatory rates for FY 19-20 set by the State LGERS Board of 8.98% for General Employees. 5% annual Town contribution to 401k for all employees.
- **Group Health Insurance** – Insurance rates reflect approximately a 5% increase. Actual numbers will come in May.

Contracted Services

- \$3,600 annual funding for Citizenserve permitting software.
- Decreased by \$8,200 after first year of payment.

Printing

- Funding for printing services for cards, signage, and applications.

Advertising

- Funding for public/legal notice publications.

Travel

- Funding for meals and overnight accommodations usually associated with training.
- Decreased by \$3,036 due to completion of UNC SOG Municipal and County Administration course.

Dues/Subscriptions

- Funding for media subscriptions and employee certifications.

Training

- Funding for continuing education.
- Decreased by \$3,400 due to completion of UNC SOG Municipal and County Administration course.

Supplies

- Funding for materials and equipment.
- Increased by \$2,000 for filing cabinets and office stool.

Uniforms

- Increased by \$200 for funding for Town Staff shirts with Town logos.

Vehicle Maintenance and Repair

- Funding for maintenance and repairs for the Department's only vehicle.

Vehicle Operations

- Funding for vehicle fuel.

Homeowners Recovery Fee

- Funding for payment to the North Carolina Homeowner Recovery Fund as required by § 87, Article 1 A (payment of \$9 per permit issued for work performed by a licensed general contractor associated with a single-family dwelling that is over \$30,000).

Flood Zone Map Mailing

- Funding for printing and mailing of annual Community Rating System outreach projects to all property owners.

Misc.

- Funding for unexpected expenses.

Historic Landmarks Commission

- Decreased by \$500 due to in-house property research for potential Historic Landmark reports.
- Funding for plaques/monuments for designated Historic Landmarks.



Southern Shores Police Department

Budget Justification Summary Report 2019-2020

(proposals, prices, and needs noted below are subject to change without notice. They may also depend upon availability, prices and/or unforeseen needs that may arise during the FY2019/20. These proposals are not inclusive of all the department's needs/requirements, and are only a summary)

2/11/19 Revised 3/5/19

Line Item

Career Development- **Decrease \$1500** from \$3000 to \$1500 – Tuition 1 officer, 4 yr. degrees possible for 1 officer

Computer Services- **Increase \$2500** RMS- from \$8500 to \$11,000.00 Shoshin non-contract for our MDT/Laptops. Install updates in vehicles. DCI Computer upgrade. New BWC Maintenance. *\$2500guestimate*

Printing- Same

Advertising- Same

Travel- **Decrease \$2000** from **\$12,000.00 to \$10,000.00** To cover SRO refresher school, possible DARE refresher, covers officers schools/training, F/A, Radar, Taser, PT (\$8,000) covers meals/lodging. *\$2000 added to Equip line for BWC*

Dues/Subscriptions- Same

Training- **Decrease \$3000** from **\$15,000 to \$12,000 (\$500-Dare)** PO's training-P/T, F/A. DARE covers schools not free like Salemburg, Edneyville 8hr travel time. Gym-\$125 x 13=\$1625, Dare-\$1200, SRO Refresh-\$800,(\$4725) F/A's,Taser, Radar x 12 officers-Simunitions New training *\$3000 added to Equip. BWC's*

Medical Testing- Same

Uniforms- Same

Supplies- Same

Contracted Services- Same

Equipment Lease/Maint- Same

Equipment Purchase- 13 BWC (Body Worn Cameras) \$1155.00 x 13 =\$15,015.
 No grant last yr. Required Interview/record system replacement \$10,000. 2 mobile radios (\$3900.x2=7,800.+ \$500-Installs) 4 portable radios (\$3,700x4=\$14,800) 1-Radar/Message board Trailer-\$12000.00. AED's \$1300 x14=\$18,200. (\$78,315)=\$9685

Vehicle Maint. & Repair- Same

Vehicle Operations- Same

Contingency-Misc Same

Capital -Outlay See Vehicle Replacement below

Vehicle replacement- Same

CRO- \$17.00 per hr Community Resource Officer

NOTE Salary request for a 2.5% COLA for all personnel. Also 3% Perf. Raise

Grants- \$62,264.00 – Total see breakdown below;

<u>GHSP-</u>	<u>\$ Total</u>	<u>75%</u>	<u>25%</u>	
12 MDTs	\$15,000	11,250	3,750	(Match may be 50%)
2 In-Car Cam	\$10,000	7,500	2,500	“ “

<u>GCC</u>	<u>\$total</u>	<u>75%</u>	<u>25%</u>	
Port. Radios	\$37,264			(may not have to match)

Totals: \$62,264.00

Streets, Bridges and Canals

FY 19-20 Budget Highlights

Streets, Bridges, and Canals is budgeted as a separate budget component and is administered by the Public Works Department. The purpose is to implement projects for and administer repairs and capital improvements to the Town's major street, bridge, and canal infrastructures.

Streets, Bridges and Canals

- **Street Sign Maintenance**- \$5,000 requested for street sign replacement budget
- **Engineering and Arborist Services**- \$5,000 for engineering services for small repair and drainage projects completed in-house; arborist services for evaluation of trees being considered for removal due to damage, disease or proximity to a Town asset.
- **Street Maintenance**- \$57,202 for contracted minor road maintenance repairs throughout the Town including repair of asphalt failures, edge failures, small full depth repairs and cracking due to root upheaval; pallets of pothole patching product; and for thermoplastic striping materials for a Town-wide refreshing of crosswalks and stop bars.
- **Brush Trimming**. \$20,000 proposed for tree removal in Town rights-of way and at the cemetery, and brush removal and disposal in the interior canals as needed. This work is performed under our Limb and Branch Removal service contract as an hourly rate service with Atlantic Tree Experts.
- **Bridge Maintenance**: \$2,125 proposed for any minor bridge repairs required due to DOT bridge inspections.
- **Beach Profile Study**: \$45,000 is for beach profile survey.
- **Waterway Maintenance and Repair**: \$400 proposed as contribution to the Boat Club for buoys and channel marker maintenance.
- **Storm Debris Cleanup**: \$20,00 proposed for post-storm debris cleanup and disposal in the Town streets, rights-of-way, beaches and canals.
- **FY 19-20 Capital Street Rebuild Projects**: \$662,340 proposed annually for capital improvements to infrastructure - including specific capital projects to be recommended by the CIIP Committee for design and reconstruction of Town streets; annual proposed amount equivalent to revenue derived from 5 cents on the current tax rate.
- **Bulkhead Maintenance and Repair**: \$50,000 proposed for structural repairs/replacement of Town-owned bulkheads.
- **Financial Planning**: \$35,000 is requested for financial planning.

Public Works Department

Mission

Public Works, through its dedicated employees, strives to protect and maintain the Town of Southern Shores' infrastructure and assets, including its streets, sidewalks, rights-of-way, canals, beach, parking areas and buildings, in the most environmentally respectful, financially efficient and highest quality manner possible. We are committed to being courteous and respectful to citizens, and to providing a safe, pleasant, respectful and productive workplace to our employees, and will always encourage education and training opportunities to further our staff's talents.

FY 19-20 Budget Highlights

Personnel

- **Salaries**— Includes annual 2.5% cost of living adjustment. \$12,480 plus FICA is requested for a new part time position at \$15/hour for 16 hours/week to clean the Town owned facilities and replace our current cleaning services.
- **FICA** — Social Security and Medicare Rate of 7.65%
- **Retirement** — Mandatory Rates for FY 19-20 set by the State LGERS Board of 8.98% for General Employees. 5% annual Town contribution to 401k for all employees.
- **Group Health Insurance** — Insurance Rates reflect approximately a 5% increase

Public Works

- **Training/Professional Development:** \$3,000 is requested for pesticide training class, continuing education classes for pesticide license, and training through the UNC School of Government.
- **Printing:** \$600 is requested to cover mailing costs for routine notice of street rebuild projects, environmental permitting required notices and of any shoreline stabilization measures.
- **Travel:** \$2,000 is requested for travel related to attendance of professional development/training classes; this includes any hotel accommodations needed to attend training.
- **Uniforms:** \$3,500 is requested for uniform service for the Public Works Maintenance Technicians, purchase of hard toe safety shoes for six employees, and any new uniform needs.
- **Dues and Subscriptions:** \$350 is requested for American Public Works Association (APWA) membership renewal, which is a source of free and reduced cost training opportunities for staff.
- **Supplies:** \$8,500 is requested for supplies including small hand tools and parts for various repairs. Examples include nuts/bolts/nails, lumber for various projects, paper towels and toilet paper, water and Gatorade for the Maintenance Technicians, etc.
- **Advertising:** \$500 is requested for newspaper advertisement of employment positions.
- **Safety Compliance:** \$1,500 is requested- \$900 for emergency exit sign and fire extinguisher repair/replacement, and Personal Protective Equipment (PPE) for the Public Works employees, including safety glasses, vests, etc.; and \$600 for fire hydrant reflectors supplied to the Southern Shores Volunteer Fire Department.
- **Town Buildings Maintenance & Repairs:** \$33,300 is requested- \$1,000 for lighting supplies; \$2,000 for refinishing of decking and painting of buildings; \$3,500 for Public Works shop upgrades (ventilation and storage needs); \$1,800 for flags; \$5,000 for fence repairs; \$5,000 for unforeseen repairs on the generator; and \$15,000 for miscellaneous repairs and upkeep of aging buildings and associated equipment including the generator service.
- **Beautification** grounds: \$5,000 is requested- includes \$2,000 for beautification of the Town Hall complex and Town-maintained medians and parking lots, including new plants and mulch/fertilization/pesticides; and \$3,000 for any needed replanting or removal of vegetation following major road projects.
- **Equipment Lease & Maintenance:** \$6,500 is requested for lease and maintenance of equipment, including purchase of mower blades, new tires for tractors/mowers, etc., and \$2,000 for new flail mower teeth.
- **Vehicle Maintenance & Repair:** \$3,500 is requested for regular maintenance and repair of the four Public Works' vehicles (four trucks) and boat.
- **Vehicle Operations:** \$9,000 is requested to cover fuel for Public Works' vehicles and equipment. This increase is to cover fuel costs for a new vehicle and ethanol free gas for the mowers.
- **Misc.:** \$ 1,000 is requested
- **Medical Testing:** \$150 is requested for any drug screenings needed.

- **Equipment Purchase:** \$27,850 is requested: \$3,700 for a new tandem axle utility trailer, \$9,000 for a new hydraulic dump trailer, \$4,100 for a 4 in 1 bucket and bolt on scraper blade for our large tractor, \$350 for new scraper blade for small tractor, \$300 for new drill set, \$400 for a top handle chainsaw, \$9,000 for new commercial Z mower, \$500 for safety lights on vehicles and equipment, \$500 for assorted power tools, and for any other equipment needs.
- **Shoreline Stabilization:** \$24,000 is requested for dune stabilization measures including beach grass and sea oats planting and fertilization. Funds to come from the Dare County Shoreline Stabilization Fund.
- **Parking Lot Maintenance:** \$2,000 is requested for maintenance and improvements to the Town-owned parking lots and beach access parking areas.

Sanitation

FY 19-20 Budget Highlights

The sanitation budget includes residential and commercial solid waste and recycling collection and disposal, large item pickup conducted twice annually, and the monthly residential limb and branch removal service.

Sanitation

- Residential Collection: \$180,225 (represents a 2% CPI adjustment)
- Commercial Collection: \$46,300 (represents a 2% CPI Adjustment)
- Landfill Tipping Fee: \$190,000 (In line with what will actually be spent in FY 18-19)
- Recycling Collection: \$156,200
- Misc.: \$500 is requested for any miscellaneous pickups needed.
- Large Item Pickup: Two pickups per year (one in April and the other in October)
- Limb and Branch Removal: \$132,600 is requested for limb and branch removal.

Budget FY

2019-2020

SSVFD

board

approved 21-Feb-19

Submitted Dare Co 12-Mar-19

Sumbitted TOSS 4-Mar-19

INCOME

3/12/2019

Southern Shores Volunteer Fire Department**Copy of 2019-2020 FINAL**

Accounts	Budget 2018-2019	Actual 6 Months 2018-2019	Estimated 2018-2019	Budget 2019-2020
301 - Dare County	120,570	79,088	120,570	120,270
302 - Southern Shores	545,914	272,957	545,914	545,914
304 - Dare Radio payment	0	0	0	0
306 - TOSS Radio Payment	0	0	0	0
Revenue	666,484	352,045	666,484	666,184
305 - Interest & Misc Income				
305.01- Interest Earned		489	550	
305.02 - Donations		2,950	3,000	
305.03 - Special Donations	40,000	0	40,000	40,000
305.04 - T-Shirt Sales		716	1,000	
305.09 - Sign Program		230	300	
305.10 - FEMA Grant				
305.11 - Pension Refunds				
305.13 - NC Relief Fund				
305.XX - Rehab				
305.14 - Truck 121				
305.17 - Loan Proceeds				
305.18 - Sale of Assets			300	
305.19 - Other Income				
305.60 - Beach Wheel Chair Donations		110	200	
305.61 - Storm/Hurricane Reimbursement				
305.16 - Capital Reserves				
305.62 - New Building Costs (TOSS)		57,857	81,257	23,400

3/12/2019

Southern Shores Volunteer Fire Department

Copy of 2019-2020 FINAL

310.01 - Grants		0		
399 - Special Income				
399.01 - Rent East Station	1	1	1	1
Interest & Misc Income	40,001	62,353	126,058	63,401
TOTAL	706,485	414,398	792,542	729,585

3/12/2019

Southern Shores Volunteer Fire Department

Copy of 2019-2020 FINAL

Special District Name:

Expenses

Accounts -	Budget 2018-2019	Actual 6 Months 2018-2019	Estimated 2018-2019	Budget 2019-2020
501 - Operating Supplies	27,050	13,872	29,070	34,850
502 - Utilities	13,650	6,663	13,600	18,650
503 - People Costs	285,700	157,376	273,186	283,550
504 - Community	9,750	1,340	4,290	9,750
505 - Professional Services	40,500	94,058	124,207	62,900
506 - Bank Fees & Service Charges	1,750	821	1,595	1,790
507 - Rental	44,435	0	44,325	44,435
511 - R & M Vehicles	25,000	15,414	0	25,000
512 - R & M Radio Equipment	3,000	0	3,000	3,000
513 - R & M Other	18,850	3,443	14,433	18,050
550 - Capital Equipment	75,035	20,867	32,611	60,764
570 - Debt Service	161,765	155,121	161,764	166,846
TOTAL Expenses	706,485	468,975	702,081	729,585



Town of Southern Shores

5375 N. Virginia Dare Trail, Southern Shores, NC 27949

Phone 252-261-2394 / Fax 252-255-0876

info@southernshores-nc.gov

www.southernshores-nc.gov

TCA-XX-XX

AN ORDINANCE AMENDING THE CODE OF ORDINANCES
OF THE TOWN OF SOUTHERN SHORES, NORTH CAROLINA

ARTICLE I. Purpose(s) and Authority.

WHEREAS, the Town of Southern Shores (the “Town”) is a predominately single-family residential community for families and retirees, as well as a vacation destination for seasonal visitors who rent single family units; and

WHEREAS, the seasonal tourist vacation season from Memorial Day to Labor Day creates a great influx of people who travel through, travel to, visit, and occupy single-family residences within the Town, and that increase in population creates substantial burdens upon the Town’s ability to manage traffic flow, parking, fire services, police services, emergency medical services and other emergency, safety and health services; and

WHEREAS, the Town recognizes that property owners enjoy the use of their property for parties and family related events on a regular basis and that such use should continue long into the future. However, the Town also recognizes that a growing trend on the Outer Banks and other coastal areas in North Carolina and nationally, is to construct large buildings on residentially zoned properties which purport to be single-family dwellings, but which are often designed for and after construction and permitting advertised, maintained and used as commercial event facilities; and

WHEREAS, the Town’s residential areas have limited means of access due to the layout of roads and limited number of major thoroughfares in the Town. The road layout and limited number of thoroughfares already cause numerous traffic problems, particularly during the high traffic tourist season from approximately Memorial Day to Labor Day each year. The use of single-family residences in residentially zoned areas for pre-planned events, community uses and private parties increases traffic and safety hazards to the attendees, owners, neighbors and visitors to the Town; and

WHEREAS, residential structures in North Carolina are not subject to the same level of safety considerations, inspections or reporting requirements regarding the safety aspects of facilities to which commercial structures and properties are subject. However, during special events a residential structure will potentially have much greater occupancy than usual without the safety precautions afforded by commercial structures; and

1 **WHEREAS**, knowledge of the date, time, location, number of attendees,
2 hazardous conditions, points of ingress, egress and access, and other information
3 associated with a special event will assist both the SSFVD and the police department in
4 determining how to respond effectively to an emergency during a special event. An effect
5 response can ensure sufficient assets arrive within acceptable response times and will
6 ultimately reduce the potential for injuries and casualties associated with fires or other
7 emergencies; and

8
9 **WHEREAS**, the Town desires to make special events as safe as reasonable
10 possible for the attendees and their neighbors; and

11
12 **WHEREAS**, pursuant to N.C.G.S. Chap. 160A, the Town has duly codified the
13 Town's Code of Ordinances (the "Town Code"); and

14
15 **WHEREAS**, pursuant to North Carolina General Statutes § 160A-174 the Town
16 may enact and amend ordinances that define, prohibit, regulate, or abate acts, omissions,
17 or conditions, detrimental to the health, safety, or welfare of its citizens and the peace and
18 dignity of the Town, and may define and abate nuisances; and

19
20 **WHEREAS**, pursuant to N.C.G.S. § 160A-301 the Town may regulate, restrict,
21 and prohibit the parking of vehicles on the public streets, right-of-ways, alleys, and
22 bridges within the its jurisdiction.

23
24 **WHEREAS**, pursuant to N.C.G.S. § 160A-300 the Town may prohibit, regulate,
25 divert, control, and limit pedestrian or vehicular traffic upon the public streets, sidewalks,
26 alleys, and bridges of the city.

27
28 **WHEREAS**, pursuant to N.C.G.S. § 160A-291 et seq. the Town may and has
29 established, organized, equipped and maintains a fire department through the Southern
30 Shores Volunteer Fire Department (the "SSVFD") and the SSVFD provides the Town's
31 fire protection and emergency medical services to the Town's citizens. The SSVFD has
32 effective, but limited resources which often require assistance from neighboring
33 governmental entities to address large fires or other emergencies that arise when there are
34 significant numbers of people present; and

35
36 **WHEREAS**, pursuant to N.C.G.S. § 160A-291 et seq. the Town has established
37 and maintains a police department tasked with enforcing the laws of the State and the
38 ordinances and regulations of the Town; and

39
40 **WHEREAS**, pursuant to North Carolina General Statutes § 160A-175 and the
41 Town's police power as provided by the common law of the State of North Carolina the
42 Town may enact and amend ordinances which provide procedures and remedies for
43 violations of its ordinances and to abate nuisances; and

1 **WHEREAS**, the Town further finds that in accordance with the findings above it
2 is in the interest of and not contrary to the public's health, safety, morals and general
3 welfare for the Town to amend the Town Code as stated below.

4
5 **ARTICLE II. Construction.**

6
7 For purposes of this ordinance amendment, underlined words (underline) shall be
8 considered as additions to existing Town Code language and strikethrough words
9 (~~strikethrough~~) shall be considered deletions to existing language. Any portions of the
10 adopted Town Code which are not repeated herein, but are instead replaced by an ellipses
11 (“...”) shall remain as they currently exist within the Town Code.

12
13 **ARTICLE III. Amendment of Town Code.**

14
15 NOW, THEREFORE, BE IT ORDAINED by the Town Council of the Town of Southern
16 Shores, North Carolina, that the Town Code shall be amended as follows:

17
18 **PART I.** That **Chapter 22, Article III. CAMPING.** be amended as follows:

19
20 ...
21 **Secs. 22-65—22-80. —Reserved.**

22
23 **PART II.** That **Chapter 22, Article IV. SPECIAL EVENTS AND OCCUPANCY.** be
24 added to the Town Code as follows:

25
26 **Sec. 22-81. Purposes.**

27
28 The purpose of this Article is to ensure that special events within the Town take into
29 account and are managed such that the public health, safety or welfare of the citizens and
30 visitors to the Town who attend those events or live in the vicinity of the events are taken
31 into account. Theses safety considerations must be balanced with the traditions and
32 substantial community benefits resulting from such special events.

33
34 **Sec. 22-82. Definitions.**

35
36 *Special event*, means a temporary public or private gathering, including, but not limited
37 to, pre-planned events, community uses, private parties and traditional family events held
38 on public or private property.

39
40 *Pre-planned events*, means private parties of greater than seventy-five (75) attendees,
41 weddings, rehearsal dinners, corporate meetings, retreats, sporting events, cultural events,
42 musical events, celebrations, festivals, fairs, carnivals, circuses or similar events.

43
44 *Community uses*, means meetings of charitable, political, governmental or civic groups.
45

1 Private parties, means events that are not open to the public, and are held by or on behalf
2 of an individual or organization for the primary purpose of socializing or gathering.

3
4 Traditional family events, means gatherings for traditional events such as holiday parties
5 and meals, birthday parties, funeral services, religious ceremonies and weddings for
6 family members related by blood or marriage to: (i) any of the individual holders of legal
7 title to the property; (ii) a majority of the owners of a business entity holding legal title to
8 the property; or (iii) the beneficiaries of a trust holding legal title to the property.

9
10 **Sec. 22-83. Permit Required; Exemptions.**

11
12 All special events which expect to have more than twenty-five (25) attendees require a
13 special event permit issued under this Article from the Town Planner or his designee.
14 Unless incorporated into the Town's fee schedule, there shall be no fee to obtain a special
15 event permit. The following special events are exempt from obtaining a special event
16 permit:

- 17
18 (1) Special events held at an event facility as that term is defined by the Town's
19 zoning ordinance.
20
21 (2) Special events held at other commercial facilities that are a traditional and
22 typical use of such facilities, i.e. birthday parties or meetings at restaurants;
23
24 (3) Special events held by or managed by the Town; and
25
26 (4) Special events within established institutional uses (i.e. schools and churches);
27

28 **Sec. 22-84. Application and Inspection Requirements.**

29
30 An application for a special event permit must be made by the owner of the property
31 upon which the event will be held or by someone else with the owner's written
32 permission to apply on the owner's behalf. All special events that require special event
33 permits under this article shall meet the following application requirements:
34

35 (A) Small Special Events (26 to 75 expected attendees):

- 36 (1) Application deadline: Five (5) days in advance of the event.
37 (2) The applicant shall provide the following information:
38 (a) The date, times and location of the special event;
39 (b) The expected number of attendees; and
40 (c) Contact information for a person in control of the event.
41 (d) A certification by the applicant that they are aware of and intend
42 for the special event to comply with the requirements of the
43 Town's code of ordinances with regard to zoning, nuisances, noise,
44 lights and other relevant provisions.

45
46 (B) Limited Special Events (75 to 125 expected attendees):

- 1 (1) Application deadline: Fourteen (14) days in advance of the event.
2 (2) The applicant shall provide the following information:
3 (a) All application information required for small special events.
4 (b) Sketch site plan of property and structures showing the expected
5 location of attendees to the event, points of ingress and egress to
6 any structures on the property, and location of any hazardous
7 materials such as fuel or gas;
8 (c) A certification by the applicant that sufficient parking for the
9 events has been provided via onsite parking, via a special events
10 encroachment agreement under Sec. 28-2(2), and/or via offsite
11 parking.
12 (d) A certification by the applicant that the contact person provided on
13 the application will at all times have on their person: (i) the phone
14 associated with the contact information; (ii) a copy of the special
15 events permit issued; and (iii) a list of attendees that can be used to
16 determine whether anyone is unaccounted for in an emergency.
17 (e) If the special event will be held at a property located adjacent to
18 N.C. Hwy. 12 (Ocean Blvd.) during the period between Memorial
19 Day and Labor Day, the applicant must provide a traffic
20 management plan showing how traffic to the site will be managed
21 in such a way to avoid unreasonable additional congestion upon
22 N.C. Hwy. 12.
23 (f) For any special event at which food or drink will be served or that
24 will occur over a more than four (4) hour period, a certification by
25 the applicant that at least one (1) temporary wastewater facility or
26 portable toilet will be onsite.
27

28 (C) Large Special Events (Greater than 125 expected attendees):

- 29 (1) Application deadline: Thirty (30) days in advance of the event.
30 (2) Inspections:
31 (a) Inspections under this subsection shall be provided more than ten
32 (10) days in advance of the special event.
33 (b) If any exterior decks will be used by attendees at the event, the
34 Applicant must either provide a certification from a licensed
35 professional engineer that all exterior decks are structurally sound
36 to support the potential users of the decks during the special event
37 or must allow the Town's building inspector to inspect the decks to
38 determine whether an engineer's certification is required.
39 (c) In the discretion of the police chief or the fire chief or their
40 designee, the applicant shall allow for an inspection of the exterior
41 grounds of the property to determine potential dangerous
42 conditions on the property and to determine how best to access the
43 property and structures in case of fire or emergency during the
44 special event.
45 (3) The applicant shall provide the following information:

- (a) All application information required for small and limited special events.
- (b) A detailed scale site plan of property and structures showing the expected location of attendees to the event, points of ingress and egress to any structures on the property, and location of any hazardous materials such as fuel or gas;
- (c) A traffic management plan showing how traffic to the site will be managed in such a way to avoid unreasonable additional congestion upon any adjacent roadways.
- (d) A certification by the applicant that sufficient parking for the events has been provided via onsite parking, via a special events encroachment agreement under Sec. 28-2(2), and/or via offsite parking along with a narrative and site plan showing all proposed parking and supporting the determination that the parking is sufficient for the special event.
- (e) For any special event at which food or drink will be served or that will occur over a more than four (4) hour period, a certification by the applicant that at least one (1) temporary wastewater facility or portable toilet per fifty (50) attendees will be onsite.
- (f) A certification that the designated person to contact under the application will have access to first-aid supplies on-site in sufficient quantities to address minor injuries to at least ten (10) percent of the expected attendees.

(D) All special events:

- (1) If alcohol is to be served or sold at a special event requiring a permit, the applicant shall obtain any necessary approvals from the Alcoholic Beverage Control Commission, must make such documentation available upon request and must certify on their application that the approvals have been obtained and will be complied with during the event.
- (2) If tents are to be used for a special event requiring a permit, the applicant shall obtain any necessary approvals required under the North Carolina Fire Code, must make such documentation available upon request and must certify on their application that the approvals have been obtained and will be complied with during the event.

Sec. 22-85. Limitations on Number of Special Events.

No more than three (3) special events requiring a special event permit may occur on any parcel of property within the Town during a continuous twelve-month period. Traditional family events shall not be subject to this limitation.

Sec. 22-86. Maximum Occupancy.

1 Unless otherwise permitted under this section, no single-family residential structure may
2 be occupied temporarily for a special event by more than twenty-five (25) people or for
3 any overnight period by more than twenty (20) people.

4
5 **Sec. 22-87. Violations.**

6
7 It shall be a violation of this article to have a special event requiring a permit without
8 obtaining the permit, to materially misrepresent any portion of an application for a special
9 event permit or to have a special event that materially differs from the information
10 provided in a special events permit application. Violations of this Article may subject the
11 property owner and persons managing an event to all of the remedies available under Sec.
12 1-6 with any civil penalties beginning at up to \$500.00 for the first violation and
13 increasing at a rate of \$250.00 per violation for each additional violation in a continuous
14 twelve-month period. Violations of this Article may also result in the revocation of a
15 special event permit and may subject the associated property and/or applicant to be
16 unable to obtain a special event permit for 1-year following notice of the violation.

17
18 **ARTICLE IV. Severability.**

19
20 All Town ordinances or parts of ordinances in conflict with this ordinance amendment
21 are hereby repealed. Should a court of competent jurisdiction declare this ordinance
22 amendment or any part thereof to be invalid, such decision shall not affect the remaining
23 provisions of this ordinance amendment nor the Zoning Ordinance or Town Code of the
24 Town of Southern Shores, North Carolina which shall remain in full force and effect.

25
26 **ARTICLE V. Effective Date.**

27
28 This ordinance amendment shall be in full force and effect from and after the ____ day of
29 _____, 2015.

30
31
32
33 _____, Mayor

34
35
36
37 ATTEST:

38
39
40 _____
41 Town Clerk

42
43
44 APPROVED AS TO FORM:
45
46

1 _____
2 Town Attorney

3
4 Date adopted:
5

6 _____
7 Motion to adopt by Councilmember:
8

9 _____
10 Motion seconded by Councilmember:
11

12
13

Vote: ___AYES___NAYS

Chapter 4 - AMUSEMENTS, ENTERTAINMENTS, MASS GATHERINGS AND COMMERCIAL-OUTDOOR RECREATIONAL USES

ARTICLE II. - OUTDOOR PERFORMANCES AND EVENTS

Sec. 4-41. - Defined.

Outdoor performances and events, fairs, festivals, musical concerts, sporting events, contests, promotional events or other types of performances or events on public or private lands that:

- (1) Represent a use or uses of land, buildings and structures not intended to be of a permanent duration;
- (2) Are intended to or likely to attract substantial crowds, participants and/or spectators;
- (3) Are advertised and/or open to the general public; and
- (4) Are unlike the customary or usual activities generally associated with the principal use of the property where the performance or event is to be located,

shall be deemed to be an outdoor performance or event and subject to the provisions of this article.

(Code 1990, § 3-26)

Cross reference— Definitions generally, § 1-2.

Sec. 4-42. - Permit.

- (a) *Requirements.* Any outdoor performance or event which is expected by the sponsors thereof to draw a crowd of more than 100 participants and spectators shall not be held, commenced or advertised until such time as a permit is applied for and issued in accordance with this article. Unless held on a designated public events site, as defined in 48-7 of this chapter. A permit issued under this article shall be valid only for a period of seven consecutive days, and may not be renewed or reissued prior to the passage of 25 days from the prior event. All outdoor performances and events shall be contained either within the applicant's property or within property upon which the applicant has written permission from the owner to use. If live music or an electronic sound amplification system is being proposed with the event, the applicant shall comply with article III, Chapter 16 of this Code.
- (b) *Application.* A permit application, if required under subsection (a) of this section, shall be submitted to the town manager by any person, group or organization sponsoring an outdoor performance or event which is expected to draw 100 or more participants and spectators. Such application shall be presented not less than three weeks prior to the scheduled event and shall contain the following information:
 - (1) The name and address of the applicant, person, group or organization;

- (2) The name and address of the person, organization or association sponsoring the activity, if any;
- (3) The days and hours for which the permit is desired;
- (4) A designation, by reference to identifiable landmarks along with a detailed map, drawn to a scale of at least one inch equals 50 feet describing the approximate area in which such event will be contained, such area to include that required for parking, the performance or event itself, related camping, concession areas and any other related activities;
- (5) An estimate of the anticipated attendance of both participants and spectators;
- (6) In summary format, the general plans of the applicant and sponsor concerning the following matters:
 - a. Crowd control procedures;
 - b. Traffic and parking control;
 - c. The impact of the performance or event on existing parking areas, streets, highways and the burden placed upon public agencies for traffic and crowd security and control;
 - d. The effects of such performance or event on fire control and fire prevention, including safety precautions;
 - e. Provisions for emergency medical services and first aid;
 - f. Provisions for collection and disposal of solid wastes, including trash and garbage and sanitary provisions, including human waste collection and disposal and the providing of sanitary facilities; and
 - g. Provisions for returning the site to its pre-event conditions including, but not limited to, the removal of all debris and trash immediately after the event;
- (7) The number and types of concessions;
- (8) The amount, type, and location of temporary signage, subject to the following:
 - a. The total amount of temporary signage shall not exceed 2,000 square feet in area. Such signage may be in a single sign or a combination of signs.
 - b. All temporary signs shall be located within the boundaries of the area in which the event will be held.
 - c. Temporary signs shall not be located on town owned property, except in instances where the event is located on town property.
 - d. Temporary signs shall be displayed only during the actual time period of the event and shall be promptly removed by the permittee at the close of such event.
 - e. Temporary signs shall not be illuminated.
 - f. Temporary signs shall not be located in a manner that impedes the movement of pedestrians or life safety vehicles on the beach.
- (9) Modifications to the temporary signage restrictions and requirements of section 4-1 of this chapter and subsection (b)(8) above may be approved by a board of commissioners sub-committee for annual outdoor sporting events and competitions sponsored by a nonprofit organization recognized as exempt under Section 501(c)(3) or Section 501(c)(7) of the Internal Revenue Code with an anticipated attendance of over 500 participants and spectators.

Such modifications to signage requirements shall only be approved by a board of commissioners sub-committee when such modifications are determined to be essential to the successful operation of the event and are not contrary to the safety or interests of the general public. Any and all approved signage modifications shall be plainly stated in the permit approval issued.

- (c) *Review of application; conditions to be met.* The town manager shall, upon receipt of an application for a permit, review the application with the applicant or sponsoring organization to determine any other matters deemed relevant by the town manager and for the obtaining of more specific information concerning the items presented in the permit. In determining whether or not to issue such permit, the town manager shall consider those items required to be presented in the permit and shall also consider conflicts and possible conflicts with other events and performances, the burden placed by the event on public agencies, the adequacy of security, traffic control and crowd control provisions, the health and safety conditions for those attending the performance or event and the capacity of the area designated for the event to contain the expected number of vehicles, participants and spectators. The town manager shall issue a permit when he finds that the proposed activity will not unreasonably interfere with the rights of the general public in having free access along public ways and streets, after consultation with the chief of police and other public officials, deemed appropriate, that the proposed activity will not unreasonably interfere with or detract from the promotion of public health, welfare, safety and recreation, that adequate public services are available for crowd and traffic security and control, that the proposed activity is not reasonably anticipated to incite violence, crime or disorderly conduct, that the proposed activity will not entail extraordinary or burdensome expense or operations on the police department and other public agencies, and that the activities will not interfere with other scheduled events. In addition, the town manager must find that the provisions and plans for crowd and traffic control and security, health and sanitation and all matters required to be included in the permit application are adequate and that the applicant and sponsor have the reasonable capability of carrying out such plans and preparations.
- (d) *Form of permit; conditions to be set out.* The town manager, after due consideration of the matters contained in this article, shall either grant or deny such permit within five working days after his conference with the applicant or sponsor after a permit application has been submitted. The granting of a permit shall be by letter to the applicant setting out all conditions of the permit and incorporating any provisions or conditions in addition to statements and presentations in the permit application. Any deviation from the terms and conditions of the permit, or the approved statements contained in the application, or any misstatement of fact made in such application shall be grounds for immediate revocation of the permit at any time by the town manager.
- (e) *Denial; appeals.* If the town manager denies such permit, or subsequently revokes the permit, the applicant shall have seven days in which to appeal such denial or revocation to the board of commissioners. Such appeal shall be in writing, stating the grounds therefor and shall be addressed to the mayor of the town with a copy to the town manager. The board of commissioners shall hear the appeal at the next regularly scheduled meeting or regular adjourned session, whichever occurs first. The decision of the board of commissioners shall be final.
- (f) *Grant not grounds for other violations.* The granting of an application is not grounds for the violation of any other ordinance of the town, and the applicant shall take whatever steps are necessary to comply with all ordinances of the town, including article III, chapter 16 of this Code regulating noise, section 13-11 regulating camping, and article V of this chapter regulating parades. As a condition of approval, the applicant shall notify the town two hours prior to the performance or event that the site is ready for inspection. The town may inspect the site prior to, during or after the performance or event to verify compliance with this chapter, the issued permit and all applicable town regulations. Failure to make provisions for complying with this Code shall be grounds for revocation under this article.

(Code 1990, §§ 3-27—3-32; Ord. No. 05-07-026, § I, 7-6-2005; Ord. No. 06-08-031, § I, 8-2-2006; Ord. No. 12-06-018, Pt. II, 6-6-2012; Ord. No. 17-04-005, Art. I, 4-5-2017)

Sec. 4-43. - Events exceeding expected attendance.

Any event for which a permit would be required except that the expected number of participants and spectators is less than 100, which actually exceeds 100 participants and spectators, and no permit is applied for, shall immediately be cancelled and all participants with their associated equipment shall be

disbursed from the site. It is expected that the sponsor will act in compliance with this section on his own initiative. However, cancellations of the event may be ordered by the town manager or chief of police or their representative if the number of participants and spectators exceeds 100.

(Code 1990, § 3-33)

Sec. 4-44. - Disclaimer of liability.

In no event shall the issuance of a permit under this article make or cause the town to be deemed a sponsor of the event. Further, the town shall incur no liability for any injury to person or property arising out of any events regulated by this article. Further, as a condition of any permit issued pursuant to this article, the applicant and sponsor shall hold the town harmless and indemnify the town for any liability incurred as the result of a valid judgment in a court of law. It is further provided as a condition of any permit issued hereunder that the applicant shall defend the town against any action filed against it arising out of any event for which a permit is issued.

(Code 1990, § 3-34)

Secs. 4-45—4-80. - Reserved.



Town of Southern Shores

5375 N. Virginia Dare Trail, Southern Shores, NC 27949

Phone 252-261-2394 / Fax 252-255-0876

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TCA-Special Event & Occupancy Limitation

**AN ORDINANCE AMENDING THE CODE OF ORDINANCES
OF THE TOWN OF SOUTHERN SHORES, NORTH CAROLINA**

ARTICLE I. Purpose(s) and Authority.

WHEREAS, the Town of Southern Shores (the "Town") is a predominately single-family residential community for families and retirees, as well as a vacation destination for seasonal visitors who rent single family units; and

WHEREAS, the seasonal tourist vacation season from Memorial Day to Labor Day creates a great influx of people who travel through, travel to, visit, and occupy single-family residences within the Town, and that increase in population creates substantial burdens upon the Town's ability to manage traffic flow, parking, fire services, police services, emergency medical services and other emergency, safety and health services; and

WHEREAS, the Town recognizes that property owners enjoy the use of their property for parties and family related events on a regular basis and that such use should continue long into the future. However, the Town also recognizes that a growing trend on the Outer Banks and other coastal areas in North Carolina and nationally, is to construct large buildings on residentially zoned properties which purport to be single-family dwellings, but which are often designed for and after construction and permitting advertised, maintained and used as commercial event facilities; and

WHEREAS, the Town's residential areas have limited means of access due to the layout of roads and limited number of major thoroughfares in the Town. The road layout and limited number of thoroughfares already cause numerous traffic problems, particularly during the high traffic tourist season from approximately Memorial Day to Labor Day each year. The use of single-family residences in residentially zoned areas for pre-planned events, community uses and private parties increases traffic and safety hazards to the attendees, owners, neighbors and visitors to the Town; and

WHEREAS, residential structures in North Carolina are not subject to the same level of safety considerations, inspections or reporting requirements regarding the safety aspects of facilities to which commercial structures and properties are subject. However, during special events a residential structure will potentially have much greater occupancy than usual without the safety precautions afforded by commercial structures; and

1 **WHEREAS**, knowledge of the date, time, location, number of attendees,
2 hazardous conditions, points of ingress, egress and access, and other information associated
3 with a special event will assist both the SSFVD and the police department in determining
4 how to respond effectively to an emergency during a special event. An effect response can
5 ensure sufficient assets arrive within acceptable response times and will ultimately reduce
6 the potential for injuries and casualties associated with fires or other emergencies; and

7
8 **WHEREAS**, the Town desires to make special events as safe as reasonable
9 possible for the attendees and their neighbors; and

10
11 **WHEREAS**, pursuant to N.C.G.S. Chap. 160A, the Town has duly codified the
12 Town's Code of Ordinances (the "Town Code"); and

13
14 **WHEREAS**, pursuant to North Carolina General Statutes § 160A-174 the Town
15 may enact and amend ordinances that define, prohibit, regulate, or abate acts, omissions,
16 or conditions, detrimental to the health, safety, or welfare of its citizens and the peace and
17 dignity of the Town, and may define and abate nuisances; and

18
19 **WHEREAS**, pursuant to N.C.G.S. § 160A-301 the Town may regulate, restrict,
20 and prohibit the parking of vehicles on the public streets, right-of-ways, alleys, and bridges
21 within the its jurisdiction.

22
23 **WHEREAS**, pursuant to N.C.G.S. § 160A-300 the Town may prohibit, regulate,
24 divert, control, and limit pedestrian or vehicular traffic upon the public streets, sidewalks,
25 alleys, and bridges of the city.

26
27 **WHEREAS**, pursuant to N.C.G.S. § 160A-291 et seq. the Town may and has
28 established, organized, equipped and maintains a fire department through the Southern
29 Shores Volunteer Fire Department (the "SSVFD") and the SSVFD provides the Town's
30 fire protection and emergency medical services to the Town's citizens. The SSVFD has
31 effective, but limited resources which often require assistance from neighboring
32 governmental entities to address large fires or other emergencies that arise when there are
33 significant numbers of people present; and

34
35 **WHEREAS**, pursuant to N.C.G.S. § 160A-291 et seq. the Town has established
36 and maintains a police department tasked with enforcing the laws of the State and the
37 ordinances and regulations of the Town; and

38
39 **WHEREAS**, pursuant to North Carolina General Statutes § 160A-175 and the
40 Town's police power as provided by the common law of the State of North Carolina the
41 Town may enact and amend ordinances which provide procedures and remedies for
42 violations of its ordinances and to abate nuisances; and

43

1 WHEREAS, the Town further finds that in accordance with the findings above it
2 is in the interest of and not contrary to the public's health, safety, morals and general
3 welfare for the Town to amend the Town Code as stated below.

4
5 **ARTICLE II. Construction.**

6
7 For purposes of this ordinance amendment, underlined words (underline) shall be
8 considered as additions to existing Town Code language and strikethrough words
9 (~~strikethrough~~) shall be considered deletions to existing language. Any portions of the
10 adopted Town Code which are not repeated herein, but are instead replaced by an ellipses
11 ("...") shall remain as they currently exist within the Town Code.

12
13 **ARTICLE III. Amendment of Town Code.**

14
15 NOW, THEREFORE, BE IT ORDAINED by the Town Council of the Town of Southern
16 Shores, North Carolina, that the Town Code shall be amended as follows:

17
18 **PART I.** That Chapter 22, Article III. **CAMPING.** be amended as follows:

19 ...
20
21 Secs. 22-65—22-80. —Reserved.

22
23 **PART II.** That Chapter 22, Article IV. **SPECIAL EVENTS AND OCCUPANCY.** be
24 added to the Town Code as follows:

25
26 Sec. 22-81. Purposes.

27
28 The purpose of this Article is to ensure that special events within the Town take into
29 account and are managed such that the public health, safety or welfare of the citizens and
30 visitors to the Town who attend those events or live in the vicinity of the events are taken
31 into account. Theses safety considerations must be balanced with the traditions and
32 substantial community benefits resulting from such special events.

33
34 Sec. 22-82. Definitions.

35
36 Special event, means a temporary public or private gathering, including, but not limited to,
37 pre-planned events, community uses, private parties and traditional family events held on
38 public or private property.

39
40 Pre-planned events, means private parties of greater than seventy-five (75) attendees,
41 weddings, rehearsal dinners, corporate meetings, retreats, sporting events, cultural events,
42 musical events, celebrations, festivals, fairs, carnivals, circuses or similar events.

43
44 Community uses, means meetings of charitable, political, governmental or civic groups.
45

1 Private parties, means events that are not open to the public, and are held by or on behalf
2 of an individual or organization for the primary purpose of socializing or gathering.

3
4 Traditional family events, means gatherings for traditional events such as holiday parties
5 and meals, birthday parties, funeral services, religious ceremonies and weddings for family
6 members related by blood or marriage to: (i) any of the individual holders of legal title to
7 the property; (ii) a majority of the owners of a business entity holding legal title to the
8 property; or (iii) the beneficiaries of a trust holding legal title to the property.

9
10 **Sec. 22-83. Permit Required; Exemptions.**

11
12 All special events which expect to have more than twenty-five (25) attendees require a
13 special event permit issued under this Article from the Town Planner or his designee.
14 Unless incorporated into the Town's fee schedule, there shall be no fee to obtain a special
15 event permit. The following special events are exempt from obtaining a special event
16 permit:

- 17
18 (1) Special events held at an event facility as that term is defined by the Town's
19 zoning ordinance.
20
21 (2) Special events held at other commercial facilities that are a traditional and
22 typical use of such facilities, i.e. birthday parties or meetings at restaurants;
23
24 (3) Special events held by or managed by the Town; and
25
26 (4) Special events within established institutional uses (i.e. schools and churches);
27

28 **Sec. 22-84. Application and Inspection Requirements.**

29
30 An application for a special event permit must be made by the owner of the property upon
31 which the event will be held or by someone else with the owner's written permission to
32 apply on the owner's behalf. All special events that require special event permits under this
33 article shall meet the following application requirements:

34
35 (A) Small Special Events (26 to 75 expected attendees):

- 36 (1) Application deadline: Five (5) days in advance of the event.
37 (2) The applicant shall provide the following information:
38 (a) The date, times and location of the special event;
39 (b) The expected number of attendees; and
40 (c) Contact information for a person in control of the event.
41 (d) A certification by the applicant that they are aware of and intend for
42 the special event to comply with the requirements of the Town's
43 code of ordinances with regard to zoning, nuisances, noise, lights
44 and other relevant provisions.
45

1 (B) Limited Special Events (75 to 125 expected attendees):

2 (1) Application deadline: Fourteen (14) days in advance of the event.

3 (2) The applicant shall provide the following information:

4 (a) All application information required for small special events.

5 (b) Sketch site plan of property and structures showing the expected
6 location of attendees to the event, points of ingress and egress to any
7 structures on the property, and location of any hazardous materials
8 such as fuel or gas;

9 (c) A certification by the applicant that sufficient parking for the events
10 has been provided via onsite parking, via a special events
11 encroachment agreement under Sec. 28-2(2), and/or via offsite
12 parking.

13 (d) A certification by the applicant that the contact person provided on
14 the application will at all times have on their person; (i) the phone
15 associated with the contact information; (ii) a copy of the special
16 events permit issued; and (iii) a list of attendees that can be used to
17 determine whether anyone is unaccounted for in an emergency.

18 (e) If the special event will be held at a property located adjacent to N.C.
19 Hwy. 12 (Ocean Blvd.) during the period between Memorial Day
20 and Labor Day, the applicant must provide a traffic management
21 plan showing how traffic to the site will be managed in such a way
22 to avoid unreasonable additional congestion upon N.C. Hwy. 12.

23 (f) For any special event at which food or drink will be served or that
24 will occur over a more than four (4) hour period, a certification by
25 the applicant that at least one (1) temporary wastewater facility or
26 portable toilet will be onsite.

27
28 (C) Large Special Events (Greater than 125 expected attendees):

29 (1) Application deadline: Thirty (30) days in advance of the event.

30 (2) Inspections:

31 (a) Inspections under this subsection shall be provided more than ten
32 (10) days in advance of the special event.

33 (b) If any exterior decks will be used by attendees at the event, the
34 Applicant must either provide a certification from a licensed
35 professional engineer that all exterior decks are structurally sound
36 to support the potential users of the decks during the special event
37 or must allow the Town's building inspector to inspect the decks to
38 determine whether an engineer's certification is required.

39 (c) In the discretion of the police chief or the fire chief or their designee,
40 the applicant shall allow for an inspection of the exterior grounds of
41 the property to determine potential dangerous conditions on the
42 property and to determine how best to access the property and
43 structures in case of fire or emergency during the special event.

44 (3) The applicant shall provide the following information:

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- (a) All application information required for small and limited special events.
- (b) A detailed scale site plan of property and structures showing the expected location of attendees to the event, points of ingress and egress to any structures on the property, and location of any hazardous materials such as fuel or gas;
- (c) A traffic management plan showing how traffic to the site will be managed in such a way to avoid unreasonable additional congestion upon any adjacent roadways.
- (d) A certification by the applicant that sufficient parking for the events has been provided via onsite parking, via a special events encroachment agreement under Sec. 28-2(2), and/or via offsite parking along with a narrative and site plan showing all proposed parking and supporting the determination that the parking is sufficient for the special event.
- (e) For any special event at which food or drink will be served or that will occur over a more than four (4) hour period, a certification by the applicant that at least one (1) temporary wastewater facility or portable toilet per fifty (50) attendees will be onsite.
- (f) A certification that the designated person to contact under the application will have access to first-aid supplies on-site in sufficient quantities to address minor injuries to at least ten (10) percent of the expected attendees.

(D) All special events:

- (1) If alcohol is to be served or sold at a special event requiring a permit, the applicant shall obtain any necessary approvals from the Alcoholic Beverage Control Commission, must make such documentation available upon request and must certify on their application that the approvals have been obtained and will be complied with during the event.
- (2) If tents are to be used for a special event requiring a permit, the applicant shall obtain any necessary approvals required under the North Carolina Fire Code, must make such documentation available upon request and must certify on their application that the approvals have been obtained and will be complied with during the event.

Sec. 22-85. Limitations on Number of Special Events.

No more than three (3) special events requiring a special event permit may occur on any parcel of property within the Town during a continuous twelve-month period. Traditional family events shall not be subject to this limitation.

Sec. 22-86. Maximum Occupancy.

1 Unless otherwise permitted under this section, no single-family residential structure may
2 be occupied temporarily for a special event by more than twenty-five (25) people or for
3 any overnight period by more than twenty (20) people.

4
5 **Sec. 22-87. Violations.**

6
7 It shall be a violation of this article to have a special event requiring a permit without
8 obtaining the permit, to materially misrepresent any portion of an application for a special
9 event permit or to have a special event that materially differs from the information provided
10 in a special events permit application. Violations of this Article may subject the property
11 owner and persons managing an event to all of the remedies available under Sec. 1-6 with
12 any civil penalties beginning at up to \$500.00 for the first violation and increasing at a rate
13 of \$250.00 per violation for each additional violation in a continuous twelve-month period.
14 Violations of this Article may also result in the revocation of a special event permit and
15 may subject the associated property and/or applicant to be unable to obtain a special event
16 permit for 1-year following notice of the violation.

17
18 **ARTICLE IV. Severability.**

19
20 All Town ordinances or parts of ordinances in conflict with this ordinance amendment are
21 hereby repealed. Should a court of competent jurisdiction declare this ordinance
22 amendment or any part thereof to be invalid, such decision shall not affect the remaining
23 provisions of this ordinance amendment nor the Zoning Ordinance or Town Code of the
24 Town of Southern Shores, North Carolina which shall remain in full force and effect.

25
26 **ARTICLE V. Effective Date.**

27
28 This ordinance amendment shall be in full force and effect from and after the ____ day of
29 _____, 2015.

30
31
32
33 _____, Mayor

34
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36
37 **ATTEST:**

38
39
40 _____
41 Town Clerk

42
43
44 **APPROVED AS TO FORM:**

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Town Attorney

Date adopted:

Motion to adopt by Councilmember:

Motion seconded by Councilmember:

Vote: __AYES__ NAYS



Town of Southern Shores

5375 N. Virginia Dare Trail, Southern Shores, NC 27949
Phone 252-261-2394 / Fax 252-255-0876
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www.southernshores-nc.gov

PLANNING BOARD GENERAL APPLICATION FORM TOWN OF SOUTHERN SHORES, NC 27949

Date: 12/21/18 Filing Fee: \$300 Receipt No. _____ Application No. CP-19-01

NOTE: The Planning Board will follow the specific provisions of the Zoning Ordinance Chapter 36. Article X Administration and Enforcement, Section 36-299.

Please check the applicable Chapter/Article:

- Chapter 30. Subdivisions-Town Code
- Chapter 36. Article VII. Schedule of District Regulations. Section 36-207 C-General Commercial District
- Chapter 36. Article IX. Planned Unit Development (PUD)
- Chapter 36. Article X. Administration and Enforcement, Section 36-299 (b) Application for Building Permits and Site Plan Review other than one and two family dwelling units *
- Chapter 36. Article X. Section 36-300-Application for Permit for Conditional Use
- Chapter 36. Article X. Section 36-303 Fees
- Chapter 36. Article X. Section 36-304-Vested Rights
- Chapter 36. Article XIV. Changes and Amendments

Certification and Standing: As applicant of standing for project to be reviewed I certify that the information on this application is complete and accurate.

Applicant

Co applicant -> Verizon Wireless

Name American Towers LLC
Address: 10 Presidential Way
Woburn, MA 01881
Phone (781) 926-7180 Email David.Allen@americantowers.com

Applicant's Representative (if any)

Name _____
Agent, Contractor, Other (Circle one)
Address _____
Phone _____ Email _____

Property Involved: Southern Shores Martin's Point (Commercial only)

Address: 148-A Ocean Boulevard Zoning district RS1
Section 2 Block 24 Lot A Lot size (sq.ft.) 1,550

Request: Site Plan Review Final Site Plan Review Conditional Use Permitted Use
 PUD (Planned Unit Development) Subdivision Ordinance Vested Right Variance

Change To: Zoning Map Zoning Ordinance

[Signature]
Signature

12/17/2018
Date

* Attach supporting documentation and twelve copies of the site plan.

STAFF REPORT

To: Southern Shores Town Council
Date: May 29, 2019
Case: CUP-19-01
Prepared By: Wes Haskett, Deputy Town Manager/Planning Director

GENERAL INFORMATION

Applicant: American Towers LLC/Verizon Wireless
10 Presidential Way
Woburn, MA 01801

Requested Action: Amendment of an existing Conditional Use Permit to extend the height of the existing wireless facility located at 148A Ocean Blvd.

PIN #: 986708785800
Location: 148A Ocean Blvd.
Zoning: RS-1, Single-Family Residential District

Existing Land Use: "Residential"

Surrounding Land Use & Zoning:

North- Residential; RS-1, Single-Family Residential District
South- Residential; RS-1, Single-Family Residential District
East- Residential; RS-1, Single-Family Residential District
West- Residential; RS-1, Single-Family Residential District

Physical Characteristics: Developed (existing park owned and maintained by the SSCA)

Applicable Regulations: Town Zoning Ordinance: Article III, Interpretation and Definition of Terms; Article IV, Application of Regulations; Article VI, General Provisions; Article VII, Schedule of District Regulations; Article X, Administration and Enforcement.

ANALYSIS

The applicant is requesting to amend an existing Conditional Use Permit to extend the height of the existing wireless facility located at 148A Ocean Blvd. CUP-13-01 was issued on November 6, 2013 to construct a new Wireless Telecommunications Site (130 ft. tall stealth flag pole and accessory equipment). The proposed plans show that the intent is to replace the 100 ft. to 130 ft. section of the existing tower and add a new 20 ft. Verizon Wireless antenna to the top, resulting in a final tower height of 150 feet.

Section 36-175 states that in no case shall a wireless support structure of any kind or any attached wireless facilities exceed 195 feet. However, the ordinance also states that the height of stealth structures designed to look like another structure or naturally occurring thing, i.e. a tree, shall not unreasonably exceed the height allowed for the type of structure or the typical thing they are designed to look like. The reasonableness of excess height shall be considered on an application by application basis and shall take into account the totality of the circumstances including specifically, the height needed to provide communications services and the wireless support structure's visual consistency with the area in which it will be located. In no case shall a

wireless support structure of any kind or any attached wireless facilities exceed the minimum height necessary to accomplish the purpose it is proposed to serve.

A Wireless Telecommunication Site is a permitted use in the RS-1, Single-Family Residential District provided that a Conditional Use Permit is granted by the Town Council following a recommendation made by the Town Planning Board. In granting any Conditional Use Permit, the Town Council may prescribe appropriate conditions and safeguards in conformity with Article X, Administration and Enforcement. Before granting any Conditional Use Permit, the Town Council shall make affirmative findings that:

- a. The applicant has met the requirements of the applicable provisions of the Town Chapter pertaining to Zoning, Subdivision Chapter, and all other applicable Ordinances.
- b. That the use as proposed will conform with the Town's Land Use Plan, and will be compatible with the area in which it is to be located, if developed in accordance with the conditions specified in the Chapter and additionally required by the Town Council as authorized by the Chapter.
- c. That the use will not materially endanger the public health and safety if located where proposed and developed according to the plan submitted.
- d. That the use as proposed will not overburden the Town Volunteer Fire Department fire-fighting capabilities and the County water supply capacity to the Town, as said facilities and capabilities will exist on the completion date of the conditional use for which the application is made.

RECOMMENDATION

The Land Use Plan identifies this area as Residential in the RS-1, Single-Family Residential zoning district which is consistent with the existing use. All applicable regulations of the Town Zoning Ordinance and all of Town Staff's concerns that are applicable to this application have been identified or are addressed in the recommended conditions. The Planning Board unanimously (5-0) recommended approval of the application at its May 20, 2019 meeting with the following conditions:

1. The Conditional Use Permit shall expire if the improvements permitted are not completely constructed within 24 months of the date of the approval of a Building Permit.
2. If the Wireless Telecommunications Site is not operated for 180 continuous days in a 12-month period, it shall be considered abandoned and the applicant shall be responsible for the removal of all structures and equipment on the site within ninety (90) days of receipt of such notification by the Town.
3. An engineer's certification shall be provided that certifies that the requested extension does not exceed the minimum height necessary to accomplish the purpose for which the wireless support structure is constructed.
4. An engineer's certification shall be provided that certifies that that the wireless support

structure's fall zone is equal to or less than the setback requested and that the structure is designed to collapse within the setback requested.

5. The applicant must strictly abide by all other requirements of the Town Code and must also strictly comply with all other applicable local, State, and Federal requirements.



AMERICAN TOWER®
CORPORATION

December 17, 2018

Wes Hackett
Deputy Town Manager/ Planning Director
Town of Southern Shore
5375 North Virginia Dare Trail
Southern Shores, NC 27349

RE: Property Address: 148-A Ocean Boulevard
 Co-Applicants: American Towers LLC and Verizon Wireless
 Owner: Southern Shores Civic Association, Inc.
 Relief Requested: Amendment of the Conditional Use Permit

Dear Mr. Hackett,

American Towers LLC (“American Tower”) has submitted an application to amend the existing Conditional Use Permit for the 140 foot tower located at 148-A Ocean Boulevard.

American Tower is a leading independent owner, operator, and developer of broadcast and wireless communications sites worldwide. American Tower’s customers are leading wireless communications providers, including Verizon, AT&T, T-Mobile, Sprint, radio and television broadcasters, and federal, state and local government agencies. American Tower has over 60,000 sites in the United States enabling the deployment of telecommunication services that make wireless communication and infrastructure available to all. American Tower strives to work closely with communities to ensure that our solutions enable the deployment of wireless services and to minimize the impact on scenic landscapes and historical properties.

By its decision filed with the Southern Shores Town Clerk on November 14, 2013, concerning CUP Number CUP-13-01, the Town Council approved the application by New Cingular Wireless d/b/a AT&T, predecessor-in-interest to American Tower, for the installation and operation of a flagpole-style monopole tower and compound facility, at the above-referenced property (the “Monopole Facility”).

American Tower now respectfully requests an amendment to that CUP to increase the height of the Monopole Facility by 10 feet from 140 feet to a final height of 150 feet. This increase will enable Verizon Wireless to install its equipment at the Monopole Facility in order to alleviate current reductions and bottle necks in network connectivity in the area which result in interrupted and dropped calls. As a result, coverage in the area will improve and the citizens, businesses, and visitors will be able to better enjoy the wireless services and devices that are integral to their daily lives.

Enclosed is a check payable to the Town of Southern Shores in the amount of \$300.00 for the CUP application fee. Also enclosed are the original and twelve (12) copies of this letter and the following attachments.

1. Completed Application for Amendment of the CUP;
2. Prior Zoning Decision for CUP-13-01;
3. FCC License for the Monopole Facility;

4. Plans depicting the proposed Monopole Facility modifications;
5. Engineering Comment Letter;
6. Structural Analysis of the Monopole Facility;
7. Lease Agreement with the property owner for the Monopole Facility; and
8. Certificate of Insurance for the Monopole Facility

American Tower will continue to operate and maintain its Monopole Facility in accordance with the conditions of the CUP. American Tower respectfully requests that this matter is placed on the agenda for the meeting for which proper notice can be given.

Thank you for your time and consideration of this matter.

Respectfully,



David G. Allen, Esq.
Enclosures



Town of Southern Shores

5375 N. Virginia Dare Trail, Southern Shores, NC 27949

Phone 252-261-2394 / Fax 252-255-0876

info@southernshores-nc.gov

www.southernshores-nc.gov

PLANNING BOARD GENERAL APPLICATION FORM TOWN OF SOUTHERN SHORES, NC 27949

Date: / / Filing Fee: \$300 Receipt No. Application No.

NOTE: The Planning Board will follow the specific provisions of the Zoning Ordinance Chapter 36, Article X Administration and Enforcement, Section 36-299.

Please check the applicable Chapter/Article:

- Chapter 30. Subdivisions-Town Code
- Chapter 36. Article VII. Schedule of District Regulations, Section 36-207 C-General Commercial District
- Chapter 36. Article IX. Planned Unit Development (PUD)
- Chapter 36. Article X. Administration and Enforcement, Section 36-299 (b) Application for Building Permits and Site Plan Review other than one and two family dwelling units *
- Chapter 36. Article X. Section 36-300-Application for Permit for Conditional Use
- Chapter 36. Article X. Section 36-303 Fees
- Chapter 36. Article X. Section 36-304-Vested Rights
- Chapter 36. Article XIV. Changes and Amendments

Certification and Standing: As applicant of standing for project to be reviewed I certify that the information on this application is complete and accurate.

Applicant

Co applicant -> Verizon Wireless
 Name American Towers LLC
 Address: 10 Presidential Way
Woburn, MA 01881
 Phone (781) 926-7180 Email David.Allen@americantower.com

Applicant's Representative (if any)

Name _____
 Agent, Contractor, Other (Circle one)
 Address _____
 Phone _____ Email _____

Property Involved: Southern Shores Martin's Point (Commercial only)

Address: 148-A Ocean Boulevard Zoning district RS1
 Section 2 Block 24 Lot A Lot size (sq.ft.) 1,550

Request: Site Plan Review Final Site Plan Review Conditional Use Permitted Use
 PUD (Planned Unit Development) Subdivision Ordinance Vested Right Variance

Change To: Zoning Map Zoning Ordinance

David Allen
 Signature

12/17/2018
 Date

* Attach supporting documentation and twelve copies of the site plan.

CHECK NO. 2071971

DATE	INVOICE NUMBER	INVOICE DATE	VENDOR NAME	PO NUMBER	DESCRIPTION	GR AMOUNT	DISCOUNT	NET AMOUNT
12-DEC-18	121218CKRQ	12-Dec-18	SOUTHERN SHORES CIVIC ASSOCIATION		282219 Filing Fee		0.00	300.00
						300.00	0.00	300.00

PLEASE DETACH AND RETAIN THIS STATEMENT AS YOUR RECORD OF PAYMENT
 "Go Green and eliminate check printing." For a direct deposit sign up form please
 contact Accounts Payable at 1-877-778-2938



American Towers, LLC
 Rental Operating Unit
 10 Presidential Way
 Woburn, MA 01801
 Attention: Land Management
 (866)586-9377
 TIN 65-0598206

Clitbank, N.A.
 One Penn's Way, New Castle, DE 19720

62-20
 311

CHECK DATE	CHECK NUMBER	CHECK AMOUNT
12-DEC-18	2071971	\$*****300.00

Void after 90 days

PAY: Three Hundred Dollars And Zero Cents*****

TO THE ORDER OF: SOUTHERN SHORES CIVIC ASSOCIATION
 5377 VIRGINIA DARE TRAIL
 SOUTHERN SHORES, NC 27949
 US

T. A. Bauler

AUTHORIZED SIGNATURE

⑈ 2071971⑈ ⑆031100209⑆ 38831942⑈

Security features included. Details on back.



Town of Southern Shores

5375 N. Virginia Dare Trail, Southern Shores, NC 27949

Phone 252-261-2394 / Fax 252-255-0876

info@southernshores-nc.gov

www.southernshores-nc.gov

November 14, 2013

Lisa M. Murphy
999 Waterside Dr., Suite 2100
Norfolk, VA 23510

Re: CUP-13-01 Approval

Dear Ms. Murphy:

This letter serves as official notification that the Southern Shores Town Council unanimously approved (5-0) the Conditional Use Permit for New Cingular Wireless PCS, LLC d/b/a AT&T to construct a new Wireless Telecommunications Site located at 148 A Ocean Boulevard (Dare County parcel number 986708785800). In its review and consideration, the Town Council unanimously made the following findings:

- a. The applicant has met the requirements of the applicable provisions of the Town Chapter pertaining to Zoning, Subdivision Chapter, and all other applicable Ordinances.
- b. That the use as proposed will conform with the Town's Land Use Plan, and will be compatible with the area in which it is to be located, if developed in accordance with the conditions specified in the Chapter and additionally required by the Town Council as authorized by the Chapter.
- c. That the use will not materially endanger the public health and safety if located where proposed and developed according to the plan submitted.
- d. That the use as proposed will not overburden the Town Volunteer Fire Department fire-fighting capabilities and the County water supply capacity to the Town, as said facilities and capabilities will exist on the completion date of the conditional use for which the application is made.

The Conditional Use Permit authorizes the applicant to construct a new Wireless Telecommunications Site on the subject property following approval of a Building Permit and Zoning Permit. The following conditions were approved as a part of the permit and shall remain in effect:

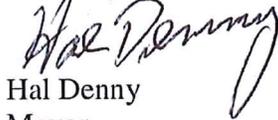
1. The Conditional Use Permit shall expire if the improvements permitted are not completely constructed within 24 months of the date of the approval of a Building Permit.
2. The tower shall provide space for at least three providers plus space for emergency communication antennas used by the Town Police Department and Southern Shores Volunteer Fire Department when needed.
3. Town Council reduces the setback requirement to one-third of the height of the tower.
4. Electrical and telephone lines serving the Wireless Telecommunications Site shall be installed underground from the point of existing service.
5. Sound emission devices, such as alarm bells, buzzers, and the like, are not to be used.
6. Maintain landscaping requirements in accordance with Section 36-175, (c), (2), (i), (2).
7. With the exception of flag pole lighting, all lighting at the Wireless Telecommunications Site shall be shielded and shall comply with the provisions for outdoor lighting contained in Section 36-166.
8. Any proposed signage to be installed at the Wireless Telecommunications Site shall be in accordance with Section 36-175, (c), (2), (k). Any future signage on the CMU wall must be in accordance with the Town's sign ordinance.
9. The Wireless Telecommunications Site shall be developed in accordance with the Town's Flood Damage Prevention Ordinance.
10. The Wireless Telecommunications Site shall be developed in accordance with the Town's Lot Disturbance Ordinance.
11. An annual renewal permit must be obtained within 365 days of the issuance of the certificate of occupancy related to the Building Permit. Annual renewal permits shall then be required within 365 days from the previously issued annual renewal permit.
12. If the Wireless Telecommunications Site is not operated for 180 continuous days in a 12-month period, it shall be considered abandoned and the facility owner

shall be responsible for the removal of all structures and equipment on the site within ninety (90) days of receipt of such notification by the Town.

13. The applicant must strictly abide by all other requirements for the Town Code and must also comply with all other local, State, and Federal requirements.
14. The Conditional Use Permit shall expire if a Building Permit is not issued within 12 months of the Town Council's approval of the Conditional Use Permit (November 6, 2014).

Should you have any questions or concerns, feel free to contact Wes Haskett, Town Planner at (252) 261-2394 or whaskett@southernshores-nc.gov.

Sincerely,



Hal Denny

Mayor

Town of Southern Shores

Cc: Peter Rascoe, Town Manager
Wes Haskett, Town Planner
Ben Gallop, Town Attorney



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Wes Haskett
Deputy Tower Manager / Planning Director
Town of Southern Shores
5375 North Virginia Dare Trail
Southern Shores, NC 27949
December 14, 2018

Site: ATC # 282219, Hickory NC (148-A Ocean Boulevard, Southern Shores, NC 27949-3529)

Subject: Comments regarding an existing 130 ft Telecommunications Flagpole with Proposed Extension

This letter is provided to address the comments concerning the structural design, integrity and capacity for the above noted tower. A structural analysis of the tower (engineering number OAA711917_C3_06, dated March 9, 2018) is also provided:

1. What codes / standards is the structure designed to and in compliance with?

This tower, per the above referenced analysis, was analyzed considering the ANSI/TIA-222-G, which is the design standard referenced in the 2009 IBC and the 2012 NCBC. Note the ANSI/TIA-222-G standard is the same standard referenced in the 2015 IBC and 2018 NCBC. This standard includes wind, ice and seismic design criteria that are equivalent or exceed the minimum standards set for in the IBC and NCBC.

2. Does the proposed wireless support structure exceed the minimum height necessary to support wireless networks?

The wireless equipment on this tower are installed at heights needed to support the wireless networks. The proposed Verizon equipment does need the additional height to provide adequate coverage for improving their wireless network in this area.

3. What is the number of collocations this tower can support?

This tower can current support antennas in 3 locations. Currently, 2 of the locations are used. Verizon will use the other location and the extension will accommodate a 4th location. Thus Verizon will need 2 of the potential 4 locations, with AT&T and T-Mobile residing in the other 2.



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4. What is the capacity of this tower?

This tower has been analyzed considering a windspeed of 135 mph, V_{asd} , per ANSI/TIA-222-G, which is equivalent to a 170 mph, V_{ult} windspeed. Icing and seismic design criteria per the ANSI/TIA-222-G and IBC / NCBC standards were also considered. Including the additional loads from the proposed extension, this tower was found to have adequate strength to resist the code mandated design loads. Specific detail of these results is shown in the included structural analysis. With the Verizon installation, this tower will support all collocations as originally designed towards and will be in conformance with the ANSI/TIA-222-G and applicable IBC / NCBC standards.

Please contact the undersigned at engineering@americantower.com with any questions.

Bryan K. Lanier, PE, SE
Director, Broadcast Engineering



**UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
ANTENNA STRUCTURE REGISTRATION**



OWNER: American Towers LLC

FCC Registration Number (FRN): 0011498342

ATTN: FAA/FCC Regulatory Team American Towers LLC 10 Presidential Way Woburn, MA 01801	Antenna Structure Registration Number <p align="center">1292966</p>
	Issue Date <p align="center">06/08/2018</p>
Location of Antenna Structure 148-A Ocean Boulevard (282219) Kitty Hawk, NC 27949 County: DARE	Ground Elevation (AMSL) <p align="right">3.0 meters</p>
	Overall Height Above Ground (AGL) <p align="right">47.2 meters</p>
Latitude Longitude 36- 07- 15.0 N 075- 43- 25.3 W NAD83	Overall Height Above Mean Sea Level (AMSL) <p align="right">50.2 meters</p>
Center of Array Coordinates <p align="center">N/A</p>	Type of Structure MTOWER Monopole
Painting and Lighting Requirements: FAA Chapters NONE	
Conditions:	

This registration is effective upon completion of the described antenna structure and notification to the Commission. **YOU MUST NOTIFY THE COMMISSION WITHIN 24 HOURS OF COMPLETION OF CONSTRUCTION OR CANCELLATION OF YOUR PROJECT, please file FCC Form 854.** To file electronically, connect to the antenna structure registration system by pointing your web browser to <http://wireless.fcc.gov/antenna>. Electronic filing is recommended. You may also file manually by submitting a paper copy of FCC Form 854. Use purpose code "NT" for notification of completion of construction; use purpose code "CA" to cancel your registration.

The Antenna Structure Registration is not an authorization to construct radio facilities or transmit radio signals. It is necessary that all radio equipment on this structure be covered by a valid FCC license or construction permit.

You must immediately provide a copy of this Registration to all tenant licensees and permittees sited on the structure described on this Registration (although not required, you may want to use Certified Mail to obtain proof of receipt), and display your Registration Number at the site. See reverse for important information about the Commission's Antenna Structure Registration rules.

You must comply with all applicable FCC obstruction marking and lighting requirements, as set forth in Part 17 of the Commission's Rules (47 C.F.R. Part 17). These rules include, but are not limited to:

Posting the Registration Number: The Antenna Structure Registration Number must be displayed in a conspicuous place so that it is readily visible near the base of the antenna structure. Materials used to display the Registration Number must be weather-resistant and of sufficient size to be easily seen at the base of the antenna structure. Exceptions exist for certain historic structures. See 47 C.F.R. 17.4(g)-(h).

Inspecting lights and equipment: The obstruction lighting must be observed at least every 24 hours in order to detect any outages or malfunctions. Lighting equipment, indicators, and associated devices must be inspected at least once every three months.

Reporting outages and malfunctions: When any top steady-burning light or a flashing light (in any position) burns out or malfunctions, the outage must be reported to the nearest FAA Flight Service Station, unless corrected within 30 minutes. The FAA must again be notified when the light is restored. The owner must also maintain a log of these outages and malfunctions.

Maintaining assigned painting: The antenna structure must be repainted as often as necessary to maintain good visibility.

Complying with environmental rules: If you certified that grant of this registration would not have a significant environmental impact, you must nevertheless maintain all pertinent records and be ready to provide documentation supporting this certification and compliance with the rules, in the event that such information is requested by the Commission pursuant to 47 C.F.R. 1.1307(d).

Updating information: The owner must notify the FCC of proposed modifications to this structure; of any change in ownership; or, within 30 days of dismantlement of the structure.

You can find additional information at *[insert link]* or by calling (877) 480-3201 (TTY 717-338-2824).

Recorded: 02/09/2015 03:13:28 PM
BY: Toni Midgett
Vanzolla McMurrin-Smith, Register of Deeds
Dare County, NC

Fee Amt: \$26.00 NC Excise Tax: \$0.00

BOOK 2001 PAGE 752 (5)

700007930



~~Prepared by and Return To:~~ *Daniel Powers*

American Tower Corporation
Attn: Tower Development Legal
10 Presidential Way
Woburn, MA 01801
Site #282219
Site Name: Hickory, NC
Tax Parcel ID: 021906000

WHEN RECORDED RETURN TO:
OLD REPUBLIC TITLE
ATTN: POST CLOSING
530 SOUTH MAIN STREET
SUITE 1031
AKRON, OH 44311

15005899

Reference Prior Recorded Document in Book 1936 Page 89

First Amendment to Lease Agreement and Memorandum of Lease

THIS FIRST AMENDMENT TO LEASE AGREEMENT and MEMORANDUM OF LEASE ("Amendment") is entered into and made effective as of the latter signature date hereof by and between the Southern Shores Civic Association, Inc., a North Carolina nonprofit corporation, with a mailing address of 5377 N. Virginia Dare Trail, Southern Shores, North Carolina 27949 ("Landlord") and American Towers LLC, a Delaware limited liability company, with a mailing address of 10 Presidential Way, Woburn, MA 01801 ("American Tower").

WHEREAS, Landlord and New Cingular Wireless PCS, LLC ("Assignor") entered into that certain Lease Agreement dated June 13, 2013, (the "Lease Agreement") and a Memorandum of Lease which is recorded in Book 1936, Page 89 of the real property records of Dare County, North Carolina (the "Memorandum") which was subsequently assigned from Assignor to American Tower by that certain Assignment and Assumption of Option and Lease Agreement dated 6-13-13 (the "Assignment"); and

WHEREAS, Landlord and American Tower desire to replace the Exhibit 1 in the Lease Agreement and Memorandum with the attached Exhibit 1 which describes and depicts the location of the access and utility easements; and

WHEREAS, Landlord and American Tower desire to amend the Lease Agreement as set forth below.

NOW, THEREFORE, in consideration of the Lease Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and American Tower agree that the Lease Agreement and Memorandum are hereby amended as follows:

1. **Premises.** Exhibit 1 attached to the Lease Agreement and Memorandum is hereby deleted in its entirety and replaced with the Exhibit 1 attached hereto. All references in the Lease Agreement or Memorandum to the Premises or the Exhibit 1 shall hereinafter refer to the space and locations as shown on the Exhibit 1 attached hereto. American Tower may at its discretion, replace the attached Exhibit 1 with a metes and bounds description of the Premises obtained from an as-built survey conducted by American Tower and re-record this Amendment with the revised Exhibit 1.

2. **Landlord Access to Premises.** Notwithstanding anything to the contrary in Paragraph 14(d) of the Lease Agreement, prior to Landlord accessing the Premises for the purposes set forth therein, Landlord shall first provide notice to American Tower by calling 877-518-6937 (or any other number as directed in writing by American Tower to Landlord from time to time) and leaving a message with the date and time Landlord intends on accessing the Premises. Landlord shall be responsible at Landlord's sole cost and expense for any damage caused to the Premises and the equipment located therein arising from Landlord's access to, and use of, the Premises as permitted in Paragraph 14(d). Landlord further agrees and hereby does hold harmless, indemnify, and defend American Tower and American Tower's customers, licensees and subtenants from any claims, obligations, liabilities, costs, demands, damages, expenses, suits or causes of action, including without limitation court costs and reasonable attorney's fees, which may arise out of Landlord's access to, and use of, the Premises as set forth in Paragraph 14(d).

3. **Subordination.** Paragraph 23(n) of the Lease Agreement is hereby deleted in its entirety and replaced with the following:

“(n) **Subordination.** This Agreement shall be subject and subordinate to any and all mortgages and deeds of trust which now or in the future encumber or affect the Property, including the Premises, and to all renewals, modifications, and extensions of such mortgages provided that all such lenders and mortgagees first agree not to disturb Tenant's use and possession of the Premises and provided such lenders and mortgagees enter into a subordination, non-disturbance and attornment agreement with Tenant on a form supplied by Tenant or on a form reasonably acceptable to Tenant.”

4. **Defined Terms/Default.** Capitalized terms used in this Amendment but not otherwise defined herein shall have the same meaning as in the Lease Agreement. Landlord and American Tower agree that there presently exists no uncured defaults under the Lease Agreement or matters that with the passage of time, may constitute an uncured default of the Lease Agreement.

5. **Notices.** All notices to be sent to American Tower by Landlord in accordance with Paragraph 17 of the Lease Agreement shall hereinafter be sent to American Tower's mailing address set forth above with a copy sent to American Towers LLC, c/o American Tower Corporation, 116 Huntington Avenue, Boston, MA 02116.

SIGNATURES TO FOLLOW

IN WITNESS WHEREOF, Landlord and American Tower have each executed this Agreement as of the respective dates written below.

LANDLORD:

Southern Shores Civic Association, Inc., a
North Carolina nonprofit corporation

By: *J. Kelleher*

Print Name: JAMES R. Kelleher

Its: PRESIDENT

STATE OF North Carolina
COUNTY OF Dare

I, a Notary Public of the County and State aforesaid, certify that

James R. Kelleher came before me this day and acknowledged
the execution of the foregoing instrument.

Witness my hand and official stamp or seal, this 12 day of January
2015

[Affix Notary Seal]

Nancy W. Warren
Notary Public

My commission expires:

April 10, 2015

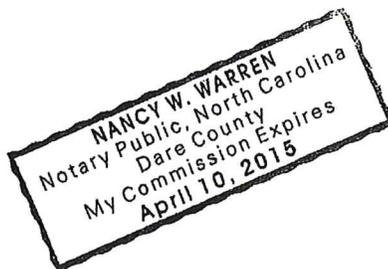


EXHIBIT 1

PREMISES

A PROPOSED 34' FOOT BY 45' FOOT LEASE AREA ON PARCEL A, AMENDED PLAT "B", SECTION 3, SOUTHERN SHORES RECORDED IN PLAT CABINET 1, SLIDE 36, DARE COUNTY, NORTH CAROLINA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS;

BEGINNING AT AN IRON PIN AT THE SOUTHWEST CORNER OF THE INTERSECTION OF OCEAN BOULEVARD AND THIRTY SECOND STREET AS SHOWN ON SAID PLAT,
THENCE S 25°29'19" E A DISTANCE OF 32.20' TO A POINT;
THENCE S 64°30'41" W A DISTANCE OF 4.00' TO A POINT BEING THE TRUE POINT AND PLACE OF BEGINNING OF A 34' FOOT BY 45' FOOT LEASE AREA;
THENCE S 25°29'19" E A DISTANCE OF 45.00' TO A POINT;
THENCE S 64°30'41" W A DISTANCE OF 34.00' TO A POINT;
THENCE N 25°29'19" W A DISTANCE OF 45.00' TO A POINT;
THENCE N 64°30'41" E A DISTANCE OF 34.00' TO A POINT;
WHICH IS THE TRUE AND PLACE OF BEGINNING HAVING AN AREA OF 1,530 SQUARE FEET OR .035 ACRES.

ACCESS/UTILITY EASEMENT

A PROPOSED 20' INGRESS, EGRESS AND UTILITIES EASEMENT OVER AND ACROSS PARCEL A AND A PORTION OF THIRTY SECOND STREET, AMENDED PLAT "B", SECTION 3, SOUTHERN SHORES RECORDED IN PLAT CABINET 1, SLIDE 36, DARE COUNTY, NORTH CAROLINA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS;

BEGINNING AT AN IRON PIN AT THE SOUTHWEST CORNER OF THE INTERSECTION OF OCEAN BOULEVARD AND THIRTY SECOND STREET AS SHOWN ON SAID PLAT,
THENCE S 25°29'19" E A DISTANCE OF 32.20' TO A POINT;
THENCE S 64°30'41" W A DISTANCE OF 20.00' TO A POINT;
THENCE N 25°29'19" W A DISTANCE OF 60.70' TO A POINT;
THENCE N 64°52'09" E A DISTANCE OF 20.00' TO A POINT;
THENCE S 25°29'19" E A DISTANCE OF 28.50' TO A POINT
WHICH IS THE POINT OF BEGINNING HAVING AN AREA OF 1,214 SQUARE FEET OR 0.028 ACRES.

UTILITY EASEMENT

A PROPOSED UTILITY EASEMENT OVER AND ACROSS PARCEL A, AS SHOWN ON THAT PLAT TITLED, AMENDED PLAT "B", SECTION 3, SOUTHERN SHORES RECORDED IN PLAT CABINET 1, SLIDE 36, DARE COUNTY, NORTH CAROLINA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS;

BEGINNING AT A POINT ALONG THE WESTERLY RIGHT OF WAY OF OCEAN BOULEVARD, HAVING A COORDINATE VALUE OF N: 878,885.51 BY E: 2,967,501.50 AS RELATED TO THE NORTH CAROLINA STATE GRID;

THENCE N 63°50'18" E A DISTANCE OF 4.00' TO A POINT;
THENCE S 25°29'19" E A DISTANCE OF 5.00' TO A POINT;
THENCE S 63°50'18" W A DISTANCE OF 4.00' TO A POINT;
THENCE N 25°29'19" W A DISTANCE OF 5.00' TO A POINT
WHICH IS THE POINT OF BEGINNING, HAVING AN AREA OF 20 SQUARE FEET.



CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
12/14/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Services Northeast, Inc. Boston MA Office 53 State Street Suite 2201 Boston MA 02109 USA	CONTACT NAME: PHONE (A/C. No. Ext): (866) 283-7122 FAX (A/C. No.): (800) 363-0105	
	E-MAIL ADDRESS:	
INSURED American Tower Corporation 116 Huntington Avenue 11th Floor Boston MA 02116-5786 USA	INSURER(S) AFFORDING COVERAGE	
	INSURER A: Great American Insurance Company of NY	NAIC # 22136
	INSURER B: Greenwich Insurance Company	NAIC # 22322
	INSURER C: XL Specialty Insurance Co	NAIC # 37885
	INSURER D:	
	INSURER E:	

COVERAGES **CERTIFICATE NUMBER:** 570074172259 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. **Limits shown are as requested**

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
B	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC OTHER:			RGD943761406	12/01/2018	12/01/2019	EACH OCCURRENCE \$2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$5,000,000 PRODUCTS - COMP/OP AGG \$2,000,000
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			RAD943761506	12/01/2018	12/01/2019	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$25,000			UMB2869870	12/01/2018	12/01/2019	EACH OCCURRENCE \$10,000,000 AGGREGATE \$10,000,000
C	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY <input type="checkbox"/> ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		Y/N N	RWD943538606 (AOS) RWR943547006 (Retro Ded.)	12/01/2018	12/01/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE-EA EMPLOYEE \$1,000,000 E.L. DISEASE-POLICY LIMIT \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 Site# 373251 , RE: Site Name: Hickory NC , Site Address: 148-A Ocean Boulevard Southern Shores, NC 27949

CERTIFICATE HOLDER

CANCELLATION

Town of Southern Shores
 5375 N. Virginia Dare Trail
 Southern Shores, NC 27949 USA

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Aon Risk Services Northeast, Inc.

Holder Identifier :

Certificate No : 570074172259





AMERICAN TOWER®
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Structural Analysis Report

Structure : 130 ft Flagpole w/ 10 ft Proposed Extension
ATC Site Name : Hickory NC, NC
ATC Site Number : 282219
Engineering Number : OAA711917_C3_06
Proposed Carrier : Verizon
Carrier Site Name : Sandfiddler
Carrier Site Number : 268967
Site Location : 148-A Ocean Boulevard
Southern Shores, NC 27949-3529
36.120800,-75.723700
County : Dare
Date : March 9, 2018
Max Usage : 103%
Result : Pass

Prepared By:
Travis J. Gatling
Structural Engineer I

Reviewed By:

COA: P-1177



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Calculations	Attached



Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 130 ft flagpole w/ 10 ft proposed extension to reflect the change in loading by Verizon.

Supporting Documents

Tower Drawings	TransAmerican Job #23514-0448, dated October 17, 2014 Structural Components Mapping Job #171231, dated January 8, 2018
Foundation Drawing	TransAmerican Job #23514-0448, dated October 17, 2014
Geotechnical Report	GER Project #110-6356, dated October 21, 2013

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	135 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	30 mph (3-Second Gust) w/ 1/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2009 IBC / 2012 North Carolina Building Code
Structure Class:	II
Exposure Category:	C
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	$S_s = 0.08, S_1 = 0.04$
Site Class:	D - Stiff Soil

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

-Extension to be designed by ATC in a future service

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



Existing and Reserved Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
128.0	128.0	3	CCI HPA-65R-BUU-H6	Canister	(12) 1 5/8" Coax (3) 0.28" Fiber	AT&T Mobility
116.0	116.0	3	Ericsson KRY 112 144/1	Canister	(12) 1 5/8" Coax	T-Mobile
		3	Ericsson KRY 112 489/2			
		3	CellMax CMA-BDHH/6519/E0-8			

Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
No loading considered as to be removed						

Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
136.6	136.6	1	Commscope ATSBT-TOP-FM-4G	Canister	-	Verizon
		2	Commscope CBC78T-DS-43			
		4	Commscope CBC1921Y-DS-2X			
		4	Nokia B66a RRH4x45 (UHIE)			
		2	Commscope SBNHH-1D45B			
106.6	106.6	1	Commscope CBC78T-DS-43	Canister	(2) 1.55" Hybrid	Verizon
		2	Commscope CBC1921Y-DS-2X			
		2	Alcatel-Lucent B66A RRH 4x45			
		1	Commscope NHH-65B-R2B			

¹Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax inside the pole shaft.



Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	79%	Pass
Shaft	103%	Pass
Base Plate	54%	Pass

Foundations

Reaction Component	Original Design Reactions	Analysis Reactions	% of Design
Moment (Kips-Ft)	2,050.0	1,765.4	86%
Shear (Kips)	30.0	24.4	81%

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
136.6	Commscope ATSBT-TOP-FM-4G	Verizon	0.733	0.740
	Commscope CBC78T-DS-43			
	Commscope CBC1921Y-DS-2X			
	Nokia B66a RRH4x45 (UHIE)			
	Commscope SBNHH-1D45B			

*Deflection and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G



Standard Conditions

All engineering services performed by A.T. Engineering Services, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Services, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Services, PLLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Services, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Services, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

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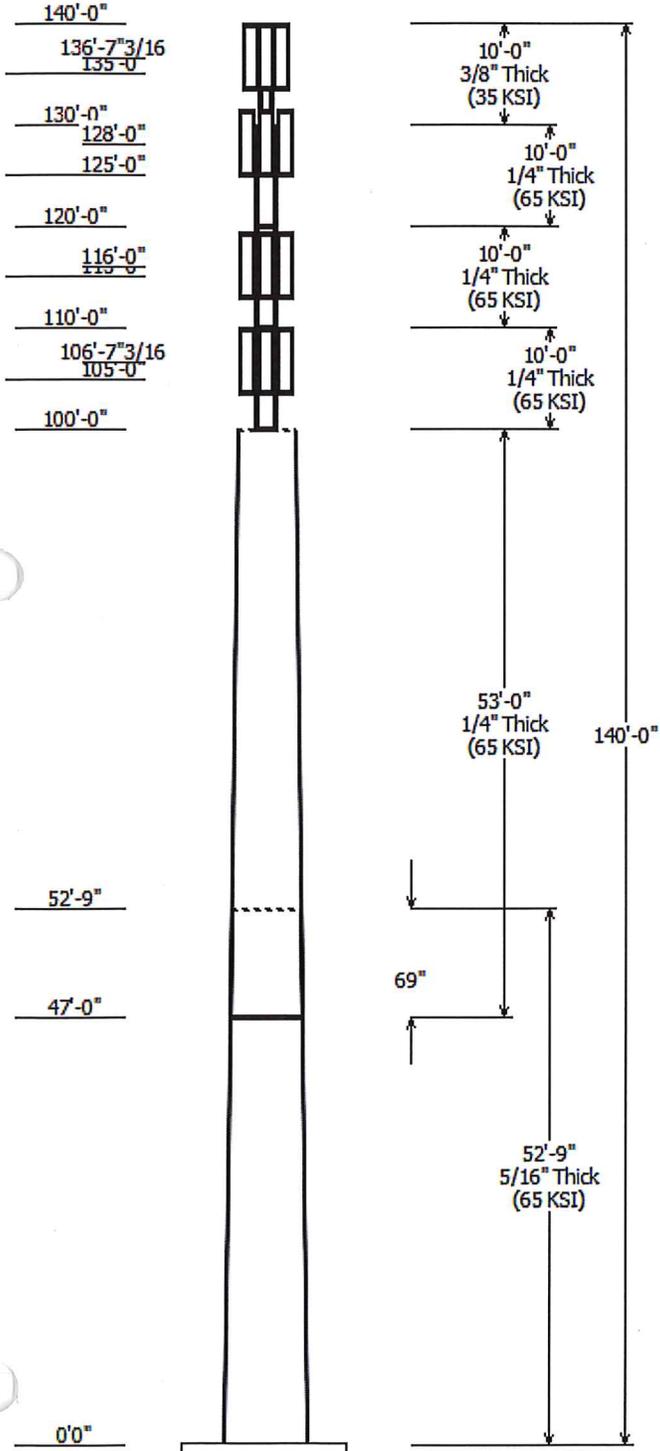
Job Information	
Pole : 282219	Code: ANSI/TIA-222-G
Location : HICKORY NC, NC	
Description : 140 ft TAPP Flagpole	
Client : VERIZON WIRELESS	Struct Class : II
Shape : 18 Sides	Exposure : C
Height : 140.00 (ft)	Topo : 1
Base Elev (ft): 0.00	
Taper: 0.12500(in/ft)	

Sections Properties							
Shaft Section	Length (ft)	Diameter (in)		Thick Joint (in) Type	Overlap Length (in)	Steel Grade	Shape (ksi)
		Across Flats Top	Across Flats Bottom				
1	52.750	39.40	46.00	0.313	0.000	18 Sides	65
2	53.000	34.00	40.62	0.250 Slip Joint	69.000	18 Sides	65
3	10.000	11.00	11.00	0.250 Butt Joint	0.000	18 Sides	65
4	10.000	11.00	11.00	0.250 Butt Joint	0.000	18 Sides	65
5	10.000	11.00	11.00	0.250 Butt Joint	0.000	18 Sides	65
6	10.000	6.000	6.000	0.375 Butt Joint	0.000	Round	35

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
136.600	136.600	2	Commscope SBNHH-1D45B
136.600	136.600	4	Nokia B66a RRH4x45 (UHIE)
136.600	136.600	4	Commscope CBC1921Y-DS-2X
136.600	136.600	2	Commscope CBC78T-DS-43
136.600	136.600	1	Commscope ATSBT-TOP-FM-
135.000	135.000	1	Canister4
128.000	128.000	3	CCI HPA-65R-BUU-H6
125.000	125.000	1	Canister3
116.000	116.000	3	CellMax CMA-BDHH/6519/E0-8
116.000	116.000	3	Ericsson KRY 112 489/2
116.000	116.000	3	Ericsson KRY 112 144/1
115.000	115.000	1	Canister2
106.600	106.600	1	Commscope NHH-65B-R2B
106.600	106.600	2	Alcatel-Lucent B66A RRH 4x45
106.600	106.600	2	Commscope CBC1921Y-DS-2X
106.600	106.600	1	Commscope CBC78T-DS-43
105.000	105.000	1	Canister1

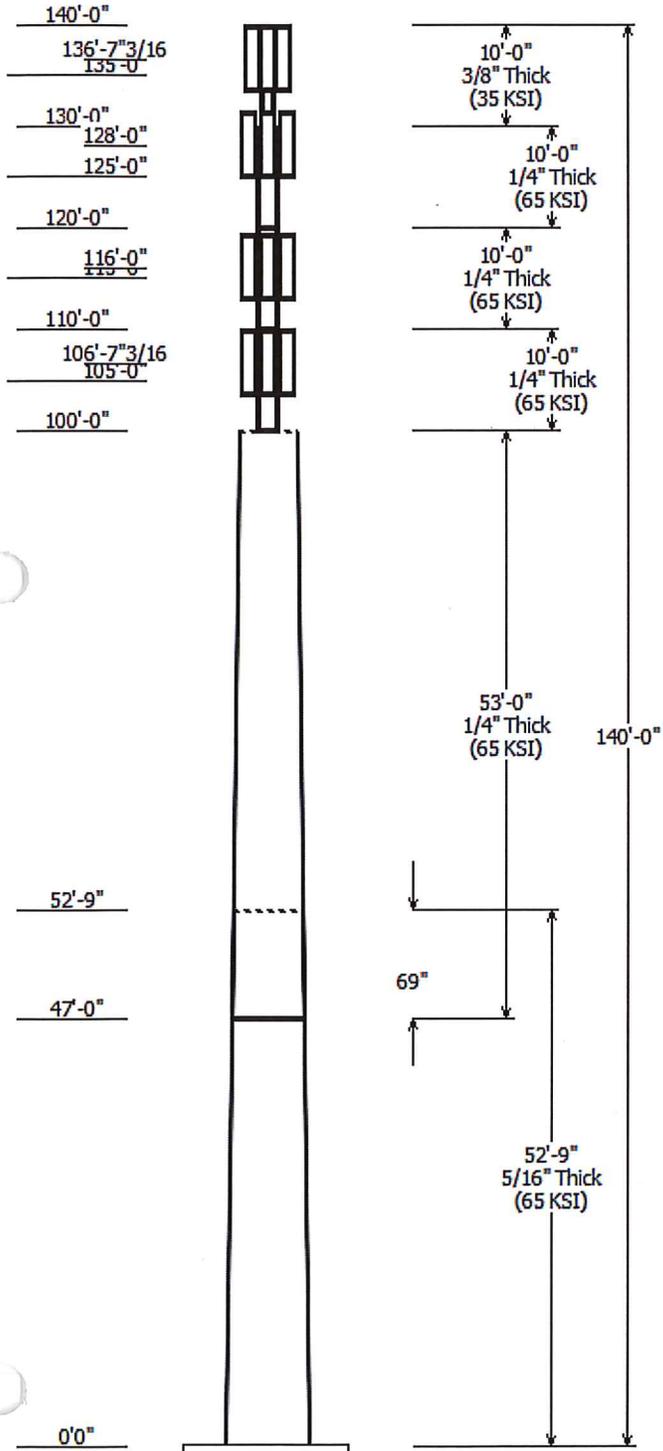
Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
0.000	106.6	1.55" Hybrid	No
0.000	116.0	1 5/8" Coax	No
0.000	128.0	0.28" Fiber	No
0.000	128.0	1 5/8" Coax	No

Load Cases	
1.2D + 1.6W	135 mph with No Ice
0.9D + 1.6W	135 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	30 mph with 0.25 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Lateral
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Modal
1.0D + 1.0W	Serviceability 60 mph

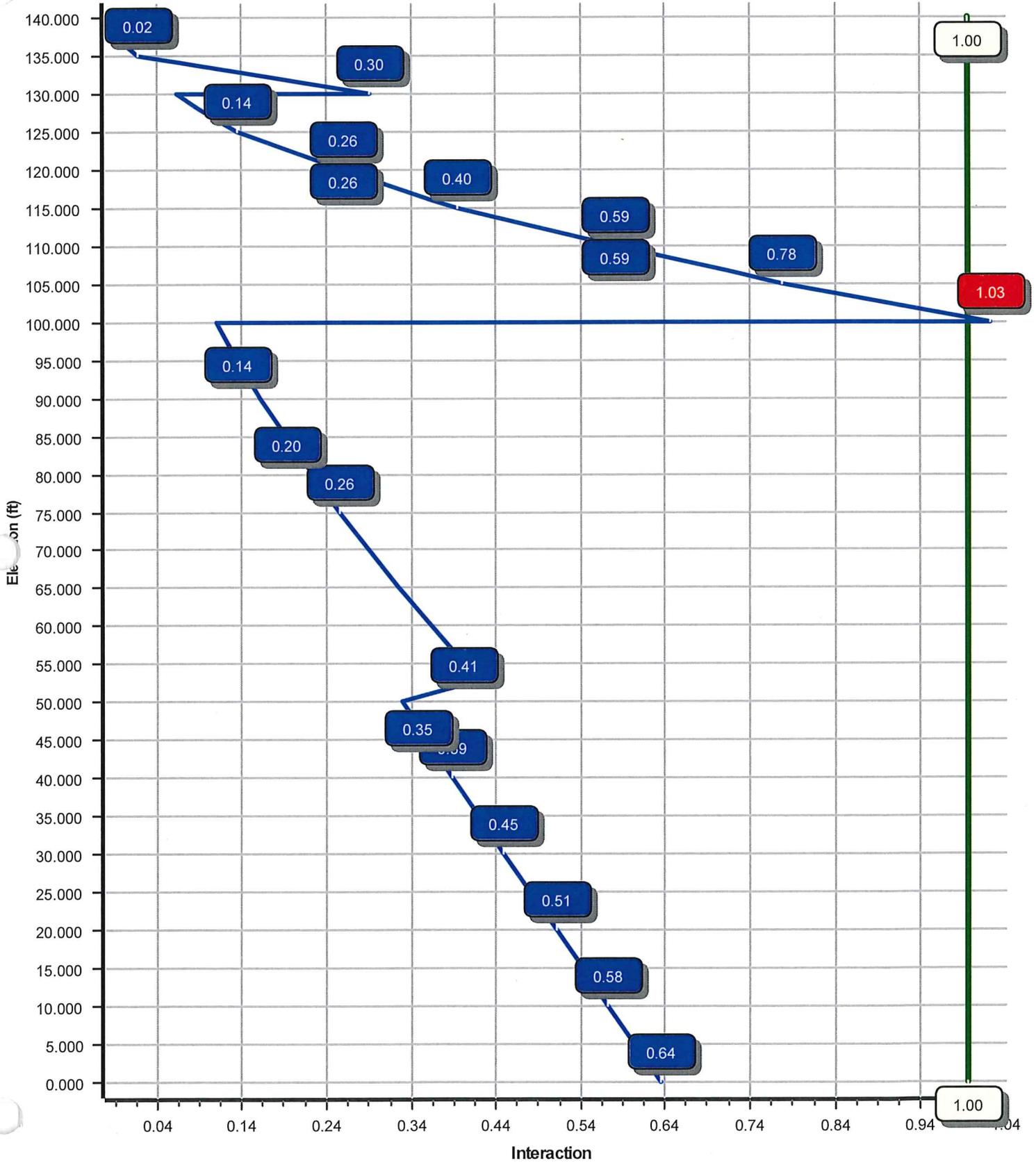


Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	1765.42	24.42	22.40
0.9D + 1.6W	1756.21	24.41	16.79
1.2D + 1.0Di + 1.0Wi	98.34	1.38	29.58
(1.2 + 0.2Sds) * DL + E ELFM	69.68	0.74	21.70
(1.2 + 0.2Sds) * DL + E EMAM	43.25	0.45	21.70
(0.9 - 0.2Sds) * DL + E ELFM	69.27	0.74	15.75
(0.9 - 0.2Sds) * DL + E EMAM	42.97	0.45	15.75
1.0D + 1.0W	221.91	3.05	18.70

Dish Deflections			
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
	0.00	0.000	0.000



Load Case : 1.2D + 1.6W
Max Ratio 102.60% at 100.0 ft



Site Number: 282219

Code: ANSI/TIA-222-G © 2007 - 2018 by ATC IP LLC. All rights reserved.

Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Analysis Parameters

Location :	DARE County, NC	Height (ft) :	140
Code :	ANSI/TIA-222-G	Base Diameter (in) :	46.00
Shape :	18 Sides. Sect 6: Round	Top Diameter (in) :	6.00
Pole Type :	Custom	Taper (in/ft) :	0.125
Pole Manufacturer :	TransAmerican	Rotation (deg) :	0.00

Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	135 mph
Exposure Category:	C	Design Wind Speed With Ice:	30 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0 ft	Design Ice Thickness:	0.25 in

Seismic Parameters

Analysis Method: Equivalent Modal Analysis & Equivalent Lateral Force Methods

Site Class: D - Stiff Soil

Period Based on Rayleigh Method (sec): 1.55

T_L (sec):	8	p :	1.3	C_s :	0.030
S_s :	0.079	S_1 :	0.044	C_s Max:	0.030
F_a :	1.600	F_v :	2.400	C_s Min:	0.030
S_{ds} :	0.084	S_{d1} :	0.070		

Load Cases

1.2D + 1.6W	135 mph with No Ice
0.9D + 1.6W	135 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	30 mph with 0.25 in Radial Ice
(1.2 + 0.2S _{ds}) * DL + E ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2S _{ds}) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2S _{ds}) * DL + E ELFM	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2S _{ds}) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Slip		Weight (lb)	Bottom							Top						
				Joint Type	Joint Len (in)		Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)	
1-18	52.750	0.3125	65		0.00	7,547	46.00	0.00	45.31	11950.5	24.19	147.20	39.40	52.75	38.77	7487.1	20.47	126.10	0.125000	
2-18	53.000	0.2500	65	Slip	69.00	5,304	40.62	47.00	32.04	6598.1	26.89	162.50	34.00	100.00	26.78	3853.9	22.22	136.00	0.125000	
3-18	10.000	0.2500	65	Butt	0.00	290	11.00	100.00	8.53	124.5	6.00	44.00	11.00	110.00	8.53	124.5	6.00	44.00	0.000000	
4-18	10.000	0.2500	65	Butt	0.00	290	11.00	110.00	8.53	124.5	6.00	44.00	11.00	120.00	8.53	124.5	6.00	44.00	0.000000	
5-18	10.000	0.2500	65	Butt	0.00	290	11.00	120.00	8.53	124.5	6.00	44.00	11.00	130.00	8.53	124.5	6.00	44.00	0.000000	
6-R	10.000	0.3750	35	Butt	0.00	225	6.000	130.00	6.63	26.2	0.00	16.00	6.000	140.00	6.63	26.2	0.00	16.00	0.000000	
Shaft Weight						13,947														

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Distance From Face (ft)	Vert Ecc (ft)	Weight (lb)	No Ice EPAa (sf)	Orientation Factor
136.60	Commscope ATSBT-TOP-FM-4G	1	0.000	0.000	1.80	0.200	0.01
136.60	Commscope CBC1921Y-DS-2X	4	0.000	0.000	16.50	0.560	0.01
136.60	Commscope CBC78T-DS-43	2	0.000	0.000	10.60	0.430	0.01
136.60	Commscope SBNHH-1D45B	2	0.000	0.000	61.70	11.400	0.01
136.60	Nokia B66a RRH4x45 (UHIE)	4	0.000	0.000	56.80	2.540	0.01
135.00	Canister4	1	0.000	0.000	300.00	12.560	1.00
128.00	CCI HPA-65R-BUU-H6	3	0.000	0.000	51.00	9.660	0.01
125.00	Canister3	1	0.000	0.000	300.00	10.060	1.00
116.00	CellMax CMA-BDHH/6519/E0-8	3	0.000	0.000	44.00	6.900	0.01
116.00	Ericsson KRY 112 144/1	3	0.000	0.000	11.00	0.410	0.01
116.00	Ericsson KRY 112 489/2	3	0.000	0.000	15.40	0.650	0.01
115.00	Canister2	1	0.000	0.000	300.00	10.060	1.00
106.60	Alcatel-Lucent B66A RRH 4x45	2	0.000	0.000	67.00	2.580	0.01
106.60	Commscope CBC1921Y-DS-2X	2	0.000	0.000	16.50	0.560	0.01
106.60	Commscope CBC78T-DS-43	1	0.000	0.000	10.60	0.430	0.01
106.60	Commscope NHH-65B-R2B	1	0.000	0.000	43.70	8.080	0.01
105.00	Canister1	1	0.000	0.000	300.00	10.060	1.00
Totals	Num Loadings:17	35			2225.10		

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)	Flat	Projected Width (in)	Exposed To Wind	Carrier
0.00	128.00	3	0.28" Fiber	0.28	0.04	N	0.00	N	AT&T Mobility
0.00	128.00	12	1 5/8" Coax	1.98	0.82	N	0.00	N	AT&T Mobility
0.00	116.00	12	1 5/8" Coax	1.98	0.82	N	0.00	N	T-Mobile
0.00	106.60	2	1.55" Hybrid	1.55	0.55	N	0.00	N	Verizon

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Segment Properties (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)
0.00		0.3125	46.000	45.315	11,950.5	24.19	147.20	72.9	511.7	0.0	0.0
5.00		0.3125	45.375	44.695	11,466.7	23.84	145.20	73.4	497.7	0.0	765.7
10.00		0.3125	44.750	44.075	10,996.2	23.49	143.20	73.8	484.0	0.0	755.2
15.00		0.3125	44.125	43.455	10,538.7	23.13	141.20	74.2	470.4	0.0	744.6
20.00		0.3125	43.500	42.835	10,094.1	22.78	139.20	74.6	457.0	0.0	734.1
25.00		0.3125	42.875	42.215	9,662.2	22.43	137.20	75.0	443.9	0.0	723.5
30.00		0.3125	42.250	41.595	9,242.8	22.08	135.20	75.4	430.9	0.0	713.0
35.00		0.3125	41.625	40.975	8,835.7	21.72	133.20	75.8	418.1	0.0	702.4
40.00		0.3125	41.000	40.355	8,440.7	21.37	131.20	76.3	405.5	0.0	691.9
45.00		0.3125	40.375	39.736	8,057.7	21.02	129.20	76.7	393.1	0.0	681.3
47.00	Bot - Section 2	0.3125	40.125	39.488	7,907.7	20.88	128.40	76.8	388.2	0.0	269.6
50.00		0.3125	39.750	39.116	7,686.4	20.67	127.20	77.1	380.9	0.0	276.7
52.75	Top - Section 1	0.2500	39.906	31.466	6,252.0	26.38	159.63	70.4	308.6	0.0	660.2
55.00		0.2500	39.625	31.243	6,119.9	26.18	158.50	70.6	304.2	0.0	240.1
60.00		0.2500	39.000	30.747	5,833.1	25.74	156.00	71.1	294.6	0.0	527.3
65.00		0.2500	38.375	30.251	5,555.4	25.30	153.50	71.6	285.1	0.0	518.9
70.00		0.2500	37.750	29.755	5,286.6	24.86	151.00	72.2	275.8	0.0	510.5
75.00		0.2500	37.125	29.259	5,026.7	24.42	148.50	72.7	266.7	0.0	502.0
80.00		0.2500	36.500	28.763	4,775.4	23.98	146.00	73.2	257.7	0.0	493.6
85.00		0.2500	35.875	28.267	4,532.6	23.54	143.50	73.7	248.9	0.0	485.2
90.00		0.2500	35.250	27.771	4,298.2	23.10	141.00	74.2	240.2	0.0	476.7
95.00		0.2500	34.625	27.276	4,072.0	22.66	138.50	74.8	231.6	0.0	468.3
100.0	Top - Section 2	0.2500	34.000	26.780	3,853.9	22.22	136.00	75.3	223.3	0.0	459.8
100.0	Bot - Section 3	0.2500	11.000	8.530	124.5	6.00	44.00	82.6	22.3	0.0	
105.0		0.2500	11.000	8.530	124.5	6.00	44.00	82.6	22.3	0.0	145.1
106.6		0.2500	11.000	8.530	124.5	6.00	44.00	82.6	22.3	0.0	46.4
110.0	Top - Section 3	0.2500	11.000	8.530	124.5	6.00	44.00	82.6	22.3	0.0	98.7
110.0	Bot - Section 4	0.2500	11.000	8.530	124.5	6.00	44.00	82.6	22.3	0.0	
115.0		0.2500	11.000	8.530	124.5	6.00	44.00	82.6	22.3	0.0	145.1
116.0		0.2500	11.000	8.530	124.5	6.00	44.00	82.6	22.3	0.0	29.0
120.0	Top - Section 4	0.2500	11.000	8.530	124.5	6.00	44.00	82.6	22.3	0.0	116.1
120.0	Bot - Section 5	0.2500	11.000	8.530	124.5	6.00	44.00	82.6	22.3	0.0	
125.0		0.2500	11.000	8.530	124.5	6.00	44.00	82.6	22.3	0.0	145.1
128.0		0.2500	11.000	8.530	124.5	6.00	44.00	82.6	22.3	0.0	87.1
130.0	Top - Section 5	0.2500	11.000	8.530	124.5	6.00	44.00	82.6	22.3	0.0	58.1
130.0	Bot - Section 6	0.3750	6.000	6.627	26.2	0.00	16.00	35.0	8.7	11.9	
135.0		0.3750	6.000	6.627	26.2	0.00	16.00	35.0	8.7	11.9	112.7
136.6		0.3750	6.000	6.627	26.2	0.00	16.00	35.0	8.7	11.9	36.1
140.0		0.3750	6.000	6.627	26.2	0.00	16.00	35.0	8.7	11.9	76.7
											13,946.8

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.6W

135 mph with No Ice

26 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces			Sum of Forces			
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		416.6	0.0					0.0	0.0	416.6	0.0	0.0	0.0
5.00		827.4	918.8					0.0	125.4	827.4	1,044.2	0.0	0.0
10.00		816.0	906.2					0.0	125.4	816.0	1,031.6	0.0	0.0
15.00		817.3	893.5					0.0	125.4	817.3	1,018.9	0.0	0.0
20.00		840.4	880.9					0.0	125.4	840.4	1,006.3	0.0	0.0
25.00		868.6	868.2					0.0	125.4	868.6	993.6	0.0	0.0
30.00		889.7	855.6					0.0	125.4	889.7	981.0	0.0	0.0
35.00		905.6	842.9					0.0	125.4	905.6	968.3	0.0	0.0
40.00		917.5	830.3					0.0	125.4	917.5	955.7	0.0	0.0
45.00		646.9	817.6					0.0	125.4	646.9	943.0	0.0	0.0
47.00	Bot - Section 2	468.4	323.5					0.0	50.2	468.4	373.7	0.0	0.0
50.00		542.9	872.1					0.0	75.2	542.9	947.3	0.0	0.0
52.75	Top - Section 1	473.4	792.2					0.0	69.0	473.4	861.2	0.0	0.0
55.00		688.3	288.1					0.0	56.4	688.3	344.5	0.0	0.0
60.00		950.7	632.8					0.0	125.4	950.7	758.2	0.0	0.0
65.00		951.4	622.7					0.0	125.4	951.4	748.1	0.0	0.0
70.00		950.7	612.6					0.0	125.4	950.7	738.0	0.0	0.0
75.00		948.6	602.4					0.0	125.4	948.6	727.8	0.0	0.0
80.00		945.4	592.3					0.0	125.4	945.4	717.7	0.0	0.0
85.00		941.2	582.2					0.0	125.4	941.2	707.6	0.0	0.0
90.00		936.0	572.1					0.0	125.4	936.0	697.5	0.0	0.0
95.00		929.9	561.9					0.0	125.4	929.9	687.3	0.0	0.0
100.00	Top - Section 2	613.5	551.8					0.0	125.4	613.5	677.2	0.0	0.0
105.00	Appurtenance(s)	198.5	174.2	1,003.5	0.0	0.0	360.0	0.0	125.4	1,201.9	659.6	0.0	0.0
106.60		151.6	55.7					0.0	40.1	151.6	95.9	0.0	0.0
110.00	Top - Section 3	256.4	118.4					0.0	80.8	256.4	199.2	0.0	0.0
115.00	Appurtenance(s)	183.9	174.2	1,022.9	0.0	0.0	360.0	0.0	118.8	1,206.7	653.0	0.0	0.0
116.00	Appurtenance(s)	154.5	34.8	24.3	0.0	0.0	253.4	0.0	23.8	178.8	312.0	0.0	0.0
120.00	Top - Section 4	279.6	139.3					0.0	47.8	279.6	187.1	0.0	0.0
125.00	Appurtenance(s)	250.0	174.2	1,041.0	0.0	0.0	360.0	0.0	59.8	1,291.0	593.9	0.0	0.0
128.00	Appurtenance(s)	157.2	104.5	30.1	0.0	0.0	183.6	0.0	35.9	187.3	323.9	0.0	0.0
130.00	Top - Section 5	141.6	69.7					0.0	0.0	141.6	69.7	0.0	0.0
135.00	Appurtenance(s)	103.8	135.3	1,320.9	0.0	0.0	360.0	0.0	0.0	1,424.8	495.3	0.0	0.0
136.60		79.2	43.3					0.0	0.0	79.2	43.3	0.0	0.0
140.00		53.9	92.0					0.0	0.0	53.9	92.0	0.0	0.0
Totals:										24,739.3	21,653.4	0.00	0.00

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

3/9/2018 3:31:18 PM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.6W

135 mph with No Ice

26 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-22.40	-24.42	0.00	-1,765.42	0.00	1,765.42	2,974.99	1,487.50	5,590.64	2,799.47	0.00	0.00	0.638
5.00	-21.28	-23.66	0.00	-1,643.34	0.00	1,643.34	2,950.98	1,475.49	5,469.13	2,738.63	0.11	-0.20	0.608
10.00	-20.17	-22.91	0.00	-1,525.03	0.00	1,525.03	2,926.50	1,463.25	5,348.03	2,677.99	0.43	-0.40	0.577
15.00	-19.09	-22.14	0.00	-1,410.49	0.00	1,410.49	2,901.57	1,450.78	5,227.36	2,617.56	0.95	-0.59	0.546
20.00	-18.03	-21.35	0.00	-1,299.78	0.00	1,299.78	2,876.16	1,438.08	5,107.15	2,557.37	1.67	-0.77	0.515
25.00	-16.98	-20.52	0.00	-1,193.04	0.00	1,193.04	2,850.30	1,425.15	4,987.45	2,497.43	2.57	-0.95	0.484
30.00	-15.96	-19.65	0.00	-1,090.46	0.00	1,090.46	2,823.97	1,411.99	4,868.30	2,437.77	3.65	-1.12	0.453
35.00	-14.96	-18.77	0.00	-992.19	0.00	992.19	2,797.18	1,398.59	4,749.72	2,378.39	4.91	-1.28	0.423
40.00	-13.98	-17.87	0.00	-898.34	0.00	898.34	2,769.93	1,384.96	4,631.75	2,319.32	6.33	-1.43	0.393
45.00	-13.03	-17.22	0.00	-809.01	0.00	809.01	2,742.21	1,371.11	4,514.43	2,260.57	7.90	-1.57	0.363
47.00	-12.65	-16.75	0.00	-774.58	0.00	774.58	2,731.00	1,365.50	4,467.69	2,237.17	8.57	-1.63	0.351
50.00	-11.69	-16.20	0.00	-724.32	0.00	724.32	2,714.03	1,357.02	4,397.80	2,202.17	9.62	-1.71	0.333
52.75	-10.83	-15.71	0.00	-679.78	0.00	679.78	1,992.84	996.42	3,252.31	1,628.57	10.63	-1.78	0.423
55.00	-10.48	-15.03	0.00	-644.43	0.00	644.43	1,985.26	992.63	3,216.83	1,610.81	11.48	-1.84	0.406
60.00	-9.72	-14.08	0.00	-569.27	0.00	569.27	1,968.10	984.05	3,138.08	1,571.37	13.48	-1.98	0.367
65.00	-8.98	-13.12	0.00	-498.88	0.00	498.88	1,950.47	975.24	3,059.49	1,532.02	15.63	-2.11	0.330
70.00	-8.25	-12.16	0.00	-433.28	0.00	433.28	1,932.38	966.19	2,981.10	1,492.76	17.90	-2.23	0.295
75.00	-7.55	-11.20	0.00	-372.49	0.00	372.49	1,913.83	956.91	2,902.94	1,453.63	20.29	-2.34	0.260
80.00	-6.85	-10.23	0.00	-316.51	0.00	316.51	1,894.81	947.41	2,825.06	1,414.63	22.79	-2.43	0.227
85.00	-6.17	-9.27	0.00	-265.35	0.00	265.35	1,875.33	937.67	2,747.48	1,375.78	25.39	-2.52	0.196
90.00	-5.51	-8.31	0.00	-219.00	0.00	219.00	1,855.39	927.69	2,670.24	1,337.10	28.07	-2.60	0.167
95.00	-4.86	-7.36	0.00	-177.45	0.00	177.45	1,834.98	917.49	2,593.38	1,298.62	30.82	-2.66	0.139
100.00	-4.20	-6.71	0.00	-140.68	0.00	140.68	1,814.12	907.06	2,516.94	1,260.34	33.64	-2.72	0.114
100.00	-4.20	-6.71	0.00	-140.68	0.00	140.68	633.72	316.86	275.72	138.06	33.64	-2.72	1.026
105.00	-3.58	-5.50	0.00	-107.11	0.00	107.11	633.72	316.86	275.72	138.06	36.51	-2.76	0.782
106.60	-3.18	-5.34	0.00	-98.31	0.00	98.31	633.72	316.86	275.72	138.06	37.50	-3.14	0.717
110.00	-2.93	-5.11	0.00	-80.15	0.00	80.15	633.72	316.86	275.72	138.06	39.99	-3.83	0.585
110.00	-2.93	-5.11	0.00	-80.15	0.00	80.15	633.72	316.86	275.72	138.06	39.99	-3.83	0.585
115.00	-2.34	-3.88	0.00	-54.60	0.00	54.60	633.72	316.86	275.72	138.06	44.43	-4.60	0.399
116.00	-2.02	-3.68	0.00	-50.72	0.00	50.72	633.72	316.86	275.72	138.06	45.41	-4.72	0.371
120.00	-1.84	-3.40	0.00	-35.99	0.00	35.99	633.72	316.86	275.72	138.06	49.53	-5.12	0.264
120.00	-1.84	-3.40	0.00	-35.99	0.00	35.99	633.72	316.86	275.72	138.06	49.53	-5.12	0.264
125.00	-1.36	-2.06	0.00	-18.99	0.00	18.99	633.72	316.86	275.72	138.06	55.07	-5.43	0.140
128.00	-1.05	-1.85	0.00	-12.80	0.00	12.80	633.72	316.86	275.72	138.06	58.51	-5.54	0.094
130.00	-1.00	-1.70	0.00	-9.10	0.00	9.10	633.72	316.86	275.72	138.06	60.84	-5.59	0.068
130.00	-1.00	-1.70	0.00	-9.10	0.00	9.10	208.74	104.37	45.84	31.19	60.84	-5.59	0.297
135.00	-0.64	-0.24	0.00	-0.59	0.00	0.59	208.74	104.37	45.84	31.19	66.72	-5.65	0.022
136.60	-0.09	-0.06	0.00	-0.21	0.00	0.21	208.74	104.37	45.84	31.19	68.61	-5.65	0.007
140.00	0.00	-0.05	0.00	0.00	0.00	0.00	208.74	104.37	45.84	31.19	72.64	-5.66	0.000

Site Number: 282219
 Site Name: HICKORY NC, NC
 Customer: VERIZON WIRELESS

Code: ANSI/TIA-222-G
 Engineering Number: OAA711917_C3_06

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 3/9/2018 3:31:19 PM

Load Case: 0.9D + 1.6W	135 mph with No Ice (Reduced DL)	26 Iterations
Gust Response Factor :1.10		Wind Importance Factor :1.00
Dead Load Factor :0.90		
Wind Load Factor :1.60		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		416.6	0.0					0.0	0.0	416.6	0.0	0.0	0.0
5.00		827.4	689.1					0.0	94.0	827.4	783.2	0.0	0.0
10.00		816.0	679.6					0.0	94.0	816.0	773.7	0.0	0.0
15.00		817.3	670.2					0.0	94.0	817.3	764.2	0.0	0.0
20.00		840.4	660.7					0.0	94.0	840.4	754.7	0.0	0.0
25.00		868.6	651.2					0.0	94.0	868.6	745.2	0.0	0.0
30.00		889.7	641.7					0.0	94.0	889.7	735.7	0.0	0.0
35.00		905.6	632.2					0.0	94.0	905.6	726.2	0.0	0.0
40.00		917.5	622.7					0.0	94.0	917.5	716.7	0.0	0.0
45.00		646.9	613.2					0.0	94.0	646.9	707.2	0.0	0.0
47.00	Bot - Section 2	468.4	242.6					0.0	37.6	468.4	280.2	0.0	0.0
50.00		542.9	654.1					0.0	56.4	542.9	710.5	0.0	0.0
52.75	Top - Section 1	473.4	594.1					0.0	51.7	473.4	645.9	0.0	0.0
55.00		688.3	216.1					0.0	42.3	688.3	258.4	0.0	0.0
60.00		950.7	474.6					0.0	94.0	950.7	568.7	0.0	0.0
65.00		951.4	467.0					0.0	94.0	951.4	561.1	0.0	0.0
70.00		950.7	459.4					0.0	94.0	950.7	553.5	0.0	0.0
75.00		948.6	451.8					0.0	94.0	948.6	545.9	0.0	0.0
80.00		945.4	444.2					0.0	94.0	945.4	538.3	0.0	0.0
85.00		941.2	436.6					0.0	94.0	941.2	530.7	0.0	0.0
90.00		936.0	429.0					0.0	94.0	936.0	523.1	0.0	0.0
95.00		929.9	421.5					0.0	94.0	929.9	515.5	0.0	0.0
100.00	Top - Section 2	613.5	413.9					0.0	94.0	613.5	507.9	0.0	0.0
105.00	Appurtenance(s)	198.5	130.6	1,003.5	0.0	0.0	270.0	0.0	94.0	1,201.9	494.7	0.0	0.0
106.60		151.6	41.8					0.0	30.1	151.6	71.9	0.0	0.0
110.00	Top - Section 3	256.4	88.8					0.0	60.6	256.4	149.4	0.0	0.0
115.00	Appurtenance(s)	183.9	130.6	1,022.9	0.0	0.0	270.0	0.0	89.1	1,206.7	489.7	0.0	0.0
116.00	Appurtenance(s)	154.5	26.1	24.3	0.0	0.0	190.1	0.0	17.8	178.8	234.0	0.0	0.0
120.00	Top - Section 4	279.6	104.5					0.0	35.9	279.6	140.3	0.0	0.0
125.00	Appurtenance(s)	250.0	130.6	1,041.0	0.0	0.0	270.0	0.0	44.8	1,291.0	445.4	0.0	0.0
128.00	Appurtenance(s)	157.2	78.4	30.1	0.0	0.0	137.7	0.0	26.9	187.3	243.0	0.0	0.0
130.00	Top - Section 5	141.6	52.2					0.0	0.0	141.6	52.2	0.0	0.0
135.00	Appurtenance(s)	103.8	101.5	1,320.9	0.0	0.0	270.0	0.0	0.0	1,424.8	371.5	0.0	0.0
136.60		79.2	32.5					0.0	0.0	79.2	32.5	0.0	0.0
140.00		53.9	69.0					0.0	0.0	53.9	69.0	0.0	0.0
Totals:										24,739.3	16,240.1	0.00	0.00

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

3/9/2018 3:31:20 PM

Customer: VERIZON WIRELESS

Load Case: 0.9D + 1.6W

135 mph with No Ice (Reduced DL)

26 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-16.79	-24.41	0.00	-1,756.21	0.00	1,756.21	2,974.99	1,487.50	5,590.64	2,799.47	0.00	0.00	0.633
5.00	-15.93	-23.63	0.00	-1,634.18	0.00	1,634.18	2,950.98	1,475.49	5,469.13	2,738.63	0.11	-0.20	0.602
10.00	-15.08	-22.86	0.00	-1,516.02	0.00	1,516.02	2,926.50	1,463.25	5,348.03	2,677.99	0.43	-0.40	0.572
15.00	-14.25	-22.09	0.00	-1,401.70	0.00	1,401.70	2,901.57	1,450.78	5,227.36	2,617.56	0.94	-0.59	0.541
20.00	-13.44	-21.28	0.00	-1,291.28	0.00	1,291.28	2,876.16	1,438.08	5,107.15	2,557.37	1.66	-0.77	0.510
25.00	-12.65	-20.44	0.00	-1,184.89	0.00	1,184.89	2,850.30	1,425.15	4,987.45	2,497.43	2.56	-0.94	0.479
30.00	-11.87	-19.57	0.00	-1,082.71	0.00	1,082.71	2,823.97	1,411.99	4,868.30	2,437.77	3.63	-1.11	0.449
35.00	-11.12	-18.68	0.00	-984.88	0.00	984.88	2,797.18	1,398.59	4,749.72	2,378.39	4.88	-1.27	0.418
40.00	-10.38	-17.77	0.00	-891.49	0.00	891.49	2,769.93	1,384.96	4,631.75	2,319.32	6.29	-1.42	0.388
45.00	-9.66	-17.12	0.00	-802.65	0.00	802.65	2,742.21	1,371.11	4,514.43	2,260.57	7.85	-1.56	0.359
47.00	-9.37	-16.66	0.00	-768.41	0.00	768.41	2,731.00	1,365.50	4,467.69	2,237.17	8.52	-1.62	0.347
50.00	-8.65	-16.10	0.00	-718.44	0.00	718.44	2,714.03	1,357.02	4,397.80	2,202.17	9.56	-1.70	0.330
52.75	-8.01	-15.62	0.00	-674.16	0.00	674.16	1,992.84	996.42	3,252.31	1,628.57	10.56	-1.77	0.418
55.00	-7.74	-14.94	0.00	-639.01	0.00	639.01	1,985.26	992.63	3,216.83	1,610.81	11.41	-1.82	0.401
60.00	-7.17	-13.99	0.00	-564.32	0.00	564.32	1,968.10	984.05	3,138.08	1,571.37	13.40	-1.96	0.363
65.00	-6.62	-13.03	0.00	-494.40	0.00	494.40	1,950.47	975.24	3,059.49	1,532.02	15.52	-2.09	0.326
70.00	-6.08	-12.07	0.00	-429.25	0.00	429.25	1,932.38	966.19	2,981.10	1,492.76	17.78	-2.21	0.291
75.00	-5.55	-11.11	0.00	-368.90	0.00	368.90	1,913.83	956.91	2,902.94	1,453.63	20.16	-2.32	0.257
80.00	-5.03	-10.15	0.00	-313.35	0.00	313.35	1,894.81	947.41	2,825.06	1,414.63	22.64	-2.42	0.224
85.00	-4.53	-9.19	0.00	-262.59	0.00	262.59	1,875.33	937.67	2,747.48	1,375.78	25.22	-2.50	0.193
90.00	-4.04	-8.24	0.00	-216.62	0.00	216.62	1,855.39	927.69	2,670.24	1,337.10	27.88	-2.58	0.164
95.00	-3.56	-7.29	0.00	-175.41	0.00	175.41	1,834.98	917.49	2,593.38	1,298.62	30.61	-2.64	0.137
100.00	-3.08	-6.66	0.00	-138.95	0.00	138.95	1,814.12	907.06	2,516.94	1,260.34	33.41	-2.70	0.112
100.00	-3.08	-6.66	0.00	-138.95	0.00	138.95	633.72	316.86	275.72	138.06	33.41	-2.70	1.012
105.00	-2.62	-5.44	0.00	-105.65	0.00	105.65	633.72	316.86	275.72	138.06	36.25	-2.74	0.770
106.60	-2.31	-5.29	0.00	-96.94	0.00	96.94	633.72	316.86	275.72	138.06	37.24	-3.11	0.706
110.00	-2.11	-5.05	0.00	-78.97	0.00	78.97	633.72	316.86	275.72	138.06	39.70	-3.80	0.576
110.00	-2.11	-5.05	0.00	-78.97	0.00	78.97	633.72	316.86	275.72	138.06	39.70	-3.80	0.576
115.00	-1.68	-3.82	0.00	-53.73	0.00	53.73	633.72	316.86	275.72	138.06	44.10	-4.55	0.392
116.00	-1.45	-3.63	0.00	-49.90	0.00	49.90	633.72	316.86	275.72	138.06	45.06	-4.67	0.364
120.00	-1.31	-3.35	0.00	-35.38	0.00	35.38	633.72	316.86	275.72	138.06	49.15	-5.06	0.258
120.00	-1.31	-3.35	0.00	-35.38	0.00	35.38	633.72	316.86	275.72	138.06	49.15	-5.06	0.258
125.00	-0.98	-2.03	0.00	-18.63	0.00	18.63	633.72	316.86	275.72	138.06	54.62	-5.37	0.137
128.00	-0.75	-1.82	0.00	-12.55	0.00	12.55	633.72	316.86	275.72	138.06	58.02	-5.48	0.092
130.00	-0.71	-1.67	0.00	-8.92	0.00	8.92	633.72	316.86	275.72	138.06	60.33	-5.53	0.066
130.00	-0.71	-1.67	0.00	-8.92	0.00	8.92	208.74	104.37	45.84	31.19	60.33	-5.53	0.290
135.00	-0.48	-0.22	0.00	-0.56	0.00	0.56	208.74	104.37	45.84	31.19	66.14	-5.58	0.020
136.60	-0.06	-0.06	0.00	-0.21	0.00	0.21	208.74	104.37	45.84	31.19	68.01	-5.59	0.007
140.00	0.00	-0.05	0.00	0.00	0.00	0.00	208.74	104.37	45.84	31.19	71.98	-5.59	0.000

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

3/9/2018 3:31:20 PM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0Di + 1.0Wi

30 mph with 0.25 in Radial Ice

23 Iterations

Gust Response Factor :1.10

Ice Dead Load Factor :1.00

Wind Importance Factor :1.00

Dead Load Factor :1.20

Ice Importance Factor :1.00

Wind Load Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		24.1	0.0					0.0	0.0	24.1	0.0	0.0	0.0
5.00		48.0	1,029.6					0.0	125.4	48.0	1,155.0	0.0	0.0
10.00		47.4	1,028.2					0.0	125.4	47.4	1,153.6	0.0	0.0
15.00		47.5	1,020.3					0.0	125.4	47.5	1,145.7	0.0	0.0
20.00		48.9	1,010.2					0.0	125.4	48.9	1,135.6	0.0	0.0
25.00		50.6	998.9					0.0	125.4	50.6	1,124.3	0.0	0.0
30.00		51.9	987.0					0.0	125.4	51.9	1,112.4	0.0	0.0
35.00		52.8	974.7					0.0	125.4	52.8	1,100.1	0.0	0.0
40.00		53.6	962.0					0.0	125.4	53.6	1,087.4	0.0	0.0
45.00		37.8	949.0					0.0	125.4	37.8	1,074.4	0.0	0.0
47.00	Bot - Section 2	27.4	376.1					0.0	50.2	27.4	426.3	0.0	0.0
50.00		31.7	951.7					0.0	75.2	31.7	1,026.9	0.0	0.0
52.75	Top - Section 1	27.7	865.0					0.0	69.0	27.7	934.0	0.0	0.0
55.00		40.3	347.5					0.0	56.4	40.3	403.9	0.0	0.0
60.00		55.6	763.7					0.0	125.4	55.6	889.1	0.0	0.0
65.00		55.7	752.6					0.0	125.4	55.7	878.0	0.0	0.0
70.00		55.7	741.4					0.0	125.4	55.7	866.8	0.0	0.0
75.00		55.6	730.1					0.0	125.4	55.6	855.5	0.0	0.0
80.00		55.5	718.7					0.0	125.4	55.5	844.1	0.0	0.0
85.00		55.2	707.2					0.0	125.4	55.2	832.6	0.0	0.0
90.00		55.0	695.7					0.0	125.4	55.0	821.1	0.0	0.0
95.00		54.7	684.1					0.0	125.4	54.7	809.5	0.0	0.0
100.00	Top - Section 2	36.7	672.5					0.0	125.4	36.7	797.9	0.0	0.0
105.00	Appurtenance(s)	12.4	214.7	44.5	0.0	0.0	949.4	0.0	125.4	57.0	1,289.5	0.0	0.0
106.60		9.5	68.7					0.0	40.1	9.5	108.9	0.0	0.0
110.00	Top - Section 3	16.1	146.1					0.0	80.8	16.1	226.9	0.0	0.0
115.00	Appurtenance(s)	11.5	215.1	45.4	0.0	0.0	952.2	0.0	118.8	57.0	1,286.1	0.0	0.0
116.00	Appurtenance(s)	9.7	43.0	0.8	0.0	0.0	760.3	0.0	23.8	10.5	827.1	0.0	0.0
120.00	Top - Section 4	17.6	172.2					0.0	47.8	17.6	220.0	0.0	0.0
125.00	Appurtenance(s)	15.7	215.5	46.2	0.0	0.0	954.8	0.0	59.8	61.9	1,230.0	0.0	0.0
128.00	Appurtenance(s)	9.9	129.4	1.0	0.0	0.0	552.7	0.0	35.9	10.9	717.9	0.0	0.0
130.00	Top - Section 5	9.7	86.3					0.0	0.0	9.7	86.3	0.0	0.0
135.00	Appurtenance(s)	7.6	158.4	58.7	0.0	0.0	957.1	0.0	0.0	66.3	1,115.5	0.0	0.0
136.60		5.8	50.7					0.0	0.0	5.8	50.7	0.0	0.0
140.00		4.0	107.8					0.0	0.0	4.0	107.8	0.0	0.0
Totals:										1,395.55	27,740.9	0.00	0.00

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

3/9/2018 3:31:21 PM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0Di + 1.0Wi

30 mph with 0.25 in Radial Ice

23 Iterations

Gust Response Factor :1.10

Ice Dead Load Factor :1.00

Wind Importance Factor :1.00

Dead Load Factor :1.20

Ice Importance Factor :1.00

Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-29.58	-1.38	0.00	-98.34	0.00	98.34	2,974.99	1,487.50	5,590.64	2,799.47	0.00	0.00	0.045
5.00	-28.42	-1.33	0.00	-91.46	0.00	91.46	2,950.98	1,475.49	5,469.13	2,738.63	0.01	-0.01	0.043
10.00	-27.27	-1.29	0.00	-84.78	0.00	84.78	2,926.50	1,463.25	5,348.03	2,677.99	0.02	-0.02	0.041
15.00	-26.12	-1.25	0.00	-78.32	0.00	78.32	2,901.57	1,450.78	5,227.36	2,617.56	0.05	-0.03	0.039
20.00	-24.99	-1.20	0.00	-72.08	0.00	72.08	2,876.16	1,438.08	5,107.15	2,557.37	0.09	-0.04	0.037
25.00	-23.86	-1.16	0.00	-66.07	0.00	66.07	2,850.30	1,425.15	4,987.45	2,497.43	0.14	-0.05	0.035
30.00	-22.75	-1.11	0.00	-60.29	0.00	60.29	2,823.97	1,411.99	4,868.30	2,437.77	0.20	-0.06	0.033
35.00	-21.65	-1.06	0.00	-54.76	0.00	54.76	2,797.18	1,398.59	4,749.72	2,378.39	0.27	-0.07	0.031
40.00	-20.56	-1.00	0.00	-49.48	0.00	49.48	2,769.93	1,384.96	4,631.75	2,319.32	0.35	-0.08	0.029
45.00	-19.49	-0.97	0.00	-44.46	0.00	44.46	2,742.21	1,371.11	4,514.43	2,260.57	0.44	-0.09	0.027
47.00	-19.06	-0.94	0.00	-42.53	0.00	42.53	2,731.00	1,365.50	4,467.69	2,237.17	0.48	-0.09	0.026
50.00	-18.03	-0.91	0.00	-39.71	0.00	39.71	2,714.03	1,357.02	4,397.80	2,202.17	0.53	-0.09	0.025
52.75	-17.10	-0.88	0.00	-37.22	0.00	37.22	1,992.84	996.42	3,252.31	1,628.57	0.59	-0.10	0.031
55.00	-16.70	-0.84	0.00	-35.24	0.00	35.24	1,985.26	992.63	3,216.83	1,610.81	0.64	-0.10	0.030
60.00	-15.81	-0.78	0.00	-31.04	0.00	31.04	1,968.10	984.05	3,138.08	1,571.37	0.75	-0.11	0.028
65.00	-14.93	-0.73	0.00	-27.12	0.00	27.12	1,950.47	975.24	3,059.49	1,532.02	0.87	-0.12	0.025
70.00	-14.06	-0.67	0.00	-23.48	0.00	23.48	1,932.38	966.19	2,981.10	1,492.76	0.99	-0.12	0.023
75.00	-13.21	-0.62	0.00	-20.11	0.00	20.11	1,913.83	956.91	2,902.94	1,453.63	1.12	-0.13	0.021
80.00	-12.36	-0.56	0.00	-17.03	0.00	17.03	1,894.81	947.41	2,825.06	1,414.63	1.26	-0.13	0.019
85.00	-11.53	-0.50	0.00	-14.23	0.00	14.23	1,875.33	937.67	2,747.48	1,375.78	1.40	-0.14	0.016
90.00	-10.71	-0.45	0.00	-11.71	0.00	11.71	1,855.39	927.69	2,670.24	1,337.10	1.55	-0.14	0.015
95.00	-9.90	-0.39	0.00	-9.47	0.00	9.47	1,834.98	917.49	2,593.38	1,298.62	1.70	-0.15	0.013
100.00	-9.10	-0.35	0.00	-7.52	0.00	7.52	1,814.12	907.06	2,516.94	1,260.34	1.86	-0.15	0.011
100.00	-9.10	-0.35	0.00	-7.52	0.00	7.52	633.72	316.86	275.72	138.06	1.86	-0.15	0.069
105.00	-7.81	-0.29	0.00	-5.75	0.00	5.75	633.72	316.86	275.72	138.06	2.02	-0.15	0.054
106.60	-6.99	-0.28	0.00	-5.28	0.00	5.28	633.72	316.86	275.72	138.06	2.07	-0.17	0.049
110.00	-6.77	-0.27	0.00	-4.31	0.00	4.31	633.72	316.86	275.72	138.06	2.21	-0.21	0.042
110.00	-6.77	-0.27	0.00	-4.31	0.00	4.31	633.72	316.86	275.72	138.06	2.21	-0.21	0.042
115.00	-5.48	-0.21	0.00	-2.95	0.00	2.95	633.72	316.86	275.72	138.06	2.45	-0.25	0.030
116.00	-4.65	-0.20	0.00	-2.74	0.00	2.74	633.72	316.86	275.72	138.06	2.50	-0.26	0.027
120.00	-4.43	-0.18	0.00	-1.95	0.00	1.95	633.72	316.86	275.72	138.06	2.73	-0.28	0.021
120.00	-4.43	-0.18	0.00	-1.95	0.00	1.95	633.72	316.86	275.72	138.06	2.73	-0.28	0.021
125.00	-3.20	-0.11	0.00	-1.04	0.00	1.04	633.72	316.86	275.72	138.06	3.03	-0.30	0.013
128.00	-2.49	-0.10	0.00	-0.69	0.00	0.69	633.72	316.86	275.72	138.06	3.22	-0.30	0.009
130.00	-2.40	-0.09	0.00	-0.49	0.00	0.49	633.72	316.86	275.72	138.06	3.34	-0.30	0.007
130.00	-2.40	-0.09	0.00	-0.49	0.00	0.49	208.74	104.37	45.84	31.19	3.34	-0.30	0.027
135.00	-1.28	-0.02	0.00	-0.04	0.00	0.04	208.74	104.37	45.84	31.19	3.66	-0.31	0.008
136.60	-0.11	0.00	0.00	-0.02	0.00	0.02	208.74	104.37	45.84	31.19	3.77	-0.31	0.001
140.00	0.00	0.00	0.00	0.00	0.00	0.00	208.74	104.37	45.84	31.19	3.99	-0.31	0.000

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

3/9/2018 3:31:21 PM

Customer: VERIZON WIRELESS

Load Case: 1.0D + 1.0W

Serviceability 60 mph

24 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.00

Wind Load Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces			Sum of Forces			
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		51.4	0.0					0.0	0.0	51.4	0.0	0.0	0.0
5.00		102.2	765.7					0.0	104.5	102.2	870.2	0.0	0.0
10.00		100.7	755.2					0.0	104.5	100.7	859.7	0.0	0.0
15.00		100.9	744.6					0.0	104.5	100.9	849.1	0.0	0.0
20.00		103.8	734.1					0.0	104.5	103.8	838.6	0.0	0.0
25.00		107.2	723.5					0.0	104.5	107.2	828.0	0.0	0.0
30.00		109.8	713.0					0.0	104.5	109.8	817.5	0.0	0.0
35.00		111.8	702.4					0.0	104.5	111.8	806.9	0.0	0.0
40.00		113.3	691.9					0.0	104.5	113.3	796.4	0.0	0.0
45.00		79.9	681.3					0.0	104.5	79.9	785.8	0.0	0.0
47.00	Bot - Section 2	57.8	269.6					0.0	41.8	57.8	311.4	0.0	0.0
50.00		67.0	726.7					0.0	62.7	67.0	789.4	0.0	0.0
52.75	Top - Section 1	58.4	660.2					0.0	57.5	58.4	717.6	0.0	0.0
55.00		85.0	240.1					0.0	47.0	85.0	287.1	0.0	0.0
60.00		117.4	527.3					0.0	104.5	117.4	631.8	0.0	0.0
65.00		117.5	518.9					0.0	104.5	117.5	623.4	0.0	0.0
70.00		117.4	510.5					0.0	104.5	117.4	615.0	0.0	0.0
75.00		117.1	502.0					0.0	104.5	117.1	606.5	0.0	0.0
80.00		116.7	493.6					0.0	104.5	116.7	598.1	0.0	0.0
85.00		116.2	485.2					0.0	104.5	116.2	589.7	0.0	0.0
90.00		115.6	476.7					0.0	104.5	115.6	581.2	0.0	0.0
95.00		114.8	468.3					0.0	104.5	114.8	572.8	0.0	0.0
100.00	Top - Section 2	76.0	459.8					0.0	104.5	76.0	564.3	0.0	0.0
105.00	Appurtenance(s)	24.8	145.1	123.9	0.0	0.0	300.0	0.0	104.5	148.7	549.6	0.0	0.0
106.60		18.9	46.4					0.0	33.4	18.9	79.9	0.0	0.0
110.00	Top - Section 3	31.9	98.7					0.0	67.3	31.9	166.0	0.0	0.0
115.00	Appurtenance(s)	22.8	145.1	126.3	0.0	0.0	300.0	0.0	99.0	149.1	544.1	0.0	0.0
116.00	Appurtenance(s)	19.1	29.0	3.0	0.0	0.0	211.2	0.0	19.8	22.1	260.0	0.0	0.0
120.00	Top - Section 4	34.5	116.1					0.0	39.8	34.5	155.9	0.0	0.0
125.00	Appurtenance(s)	30.9	145.1	128.5	0.0	0.0	300.0	0.0	49.8	159.4	494.9	0.0	0.0
128.00	Appurtenance(s)	19.4	87.1	3.7	0.0	0.0	153.0	0.0	29.9	23.1	270.0	0.0	0.0
130.00	Top - Section 5	25.6	58.1					0.0	0.0	25.6	58.1	0.0	0.0
135.00	Appurtenance(s)	23.6	112.7	163.1	0.0	0.0	300.0	0.0	0.0	186.7	412.7	0.0	0.0
136.60		17.9	36.1					0.0	0.0	17.9	36.1	0.0	0.0
140.00		12.2	76.7					0.0	0.0	12.2	76.7	0.0	0.0
Totals:										3,088.07	18,044.5	0.00	0.00

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

3/9/2018 3:31:23 PM

Customer: VERIZON WIRELESS

Load Case: 1.0D + 1.0W

Serviceability 60 mph

24 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.00

Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-18.70	-3.05	0.00	-221.91	0.00	221.91	2,974.99	1,487.50	5,590.64	2,799.47	0.00	0.00	0.086
5.00	-17.83	-2.95	0.00	-206.68	0.00	206.68	2,950.98	1,475.49	5,469.13	2,738.63	0.01	-0.03	0.082
10.00	-16.97	-2.86	0.00	-191.92	0.00	191.92	2,926.50	1,463.25	5,348.03	2,677.99	0.05	-0.05	0.077
15.00	-16.12	-2.76	0.00	-177.62	0.00	177.62	2,901.57	1,450.78	5,227.36	2,617.56	0.12	-0.07	0.073
20.00	-15.28	-2.66	0.00	-163.81	0.00	163.81	2,876.16	1,438.08	5,107.15	2,557.37	0.21	-0.10	0.069
25.00	-14.45	-2.56	0.00	-150.49	0.00	150.49	2,850.30	1,425.15	4,987.45	2,497.43	0.32	-0.12	0.065
30.00	-13.64	-2.45	0.00	-137.68	0.00	137.68	2,823.97	1,411.99	4,868.30	2,437.77	0.46	-0.14	0.061
35.00	-12.83	-2.34	0.00	-125.41	0.00	125.41	2,797.18	1,398.59	4,749.72	2,378.39	0.62	-0.16	0.057
40.00	-12.03	-2.23	0.00	-113.69	0.00	113.69	2,769.93	1,384.96	4,631.75	2,319.32	0.80	-0.18	0.053
45.00	-11.25	-2.15	0.00	-102.53	0.00	102.53	2,742.21	1,371.11	4,514.43	2,260.57	1.00	-0.20	0.049
47.00	-10.93	-2.10	0.00	-98.22	0.00	98.22	2,731.00	1,365.50	4,467.69	2,237.17	1.08	-0.21	0.048
50.00	-10.14	-2.03	0.00	-91.94	0.00	91.94	2,714.03	1,357.02	4,397.80	2,202.17	1.21	-0.22	0.045
52.75	-9.43	-1.97	0.00	-86.36	0.00	86.36	1,992.84	996.42	3,252.31	1,628.57	1.34	-0.22	0.058
55.00	-9.14	-1.88	0.00	-81.93	0.00	81.93	1,985.26	992.63	3,216.83	1,610.81	1.45	-0.23	0.055
60.00	-8.51	-1.77	0.00	-72.52	0.00	72.52	1,968.10	984.05	3,138.08	1,571.37	1.70	-0.25	0.050
65.00	-7.88	-1.65	0.00	-63.69	0.00	63.69	1,950.47	975.24	3,059.49	1,532.02	1.97	-0.27	0.046
70.00	-7.27	-1.53	0.00	-55.45	0.00	55.45	1,932.38	966.19	2,981.10	1,492.76	2.26	-0.28	0.041
75.00	-6.66	-1.41	0.00	-47.80	0.00	47.80	1,913.83	956.91	2,902.94	1,453.63	2.56	-0.30	0.036
80.00	-6.07	-1.29	0.00	-40.75	0.00	40.75	1,894.81	947.41	2,825.06	1,414.63	2.88	-0.31	0.032
85.00	-5.48	-1.17	0.00	-34.29	0.00	34.29	1,875.33	937.67	2,747.48	1,375.78	3.21	-0.32	0.028
90.00	-4.90	-1.06	0.00	-28.42	0.00	28.42	1,855.39	927.69	2,670.24	1,337.10	3.55	-0.33	0.024
95.00	-4.32	-0.94	0.00	-23.14	0.00	23.14	1,834.98	917.49	2,593.38	1,298.62	3.89	-0.34	0.020
100.00	-3.76	-0.86	0.00	-18.45	0.00	18.45	1,814.12	907.06	2,516.94	1,260.34	4.25	-0.34	0.017
100.00	-3.76	-0.86	0.00	-18.45	0.00	18.45	633.72	316.86	275.72	138.06	4.25	-0.34	0.140
105.00	-3.21	-0.71	0.00	-14.15	0.00	14.15	633.72	316.86	275.72	138.06	4.62	-0.35	0.108
106.60	-2.91	-0.69	0.00	-13.02	0.00	13.02	633.72	316.86	275.72	138.06	4.74	-0.40	0.099
110.00	-2.74	-0.66	0.00	-10.67	0.00	10.67	633.72	316.86	275.72	138.06	5.06	-0.49	0.082
110.00	-2.74	-0.66	0.00	-10.67	0.00	10.67	633.72	316.86	275.72	138.06	5.06	-0.49	0.082
115.00	-2.20	-0.51	0.00	-7.37	0.00	7.37	633.72	316.86	275.72	138.06	5.64	-0.60	0.057
116.00	-1.94	-0.49	0.00	-6.86	0.00	6.86	633.72	316.86	275.72	138.06	5.76	-0.61	0.053
120.00	-1.78	-0.45	0.00	-4.91	0.00	4.91	633.72	316.86	275.72	138.06	6.30	-0.67	0.038
120.00	-1.78	-0.45	0.00	-4.91	0.00	4.91	633.72	316.86	275.72	138.06	6.30	-0.67	0.038
125.00	-1.29	-0.29	0.00	-2.66	0.00	2.66	633.72	316.86	275.72	138.06	7.02	-0.71	0.021
128.00	-1.02	-0.26	0.00	-1.80	0.00	1.80	633.72	316.86	275.72	138.06	7.47	-0.72	0.015
130.00	-0.96	-0.23	0.00	-1.28	0.00	1.28	633.72	316.86	275.72	138.06	7.78	-0.73	0.011
130.00	-0.96	-0.23	0.00	-1.28	0.00	1.28	208.74	104.37	45.84	31.19	7.78	-0.73	0.046
135.00	-0.55	-0.04	0.00	-0.11	0.00	0.11	208.74	104.37	45.84	31.19	8.55	-0.74	0.006
136.60	-0.08	-0.01	0.00	-0.04	0.00	0.04	208.74	104.37	45.84	31.19	8.80	-0.74	0.002
140.00	0.00	-0.01	0.00	0.00	0.00	0.00	208.74	104.37	45.84	31.19	9.32	-0.74	0.000

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Equivalent Lateral Forces Method Analysis

(Based on ASCE7-10 Chapters 11, 12, 15)

Spectral Response Acceleration for Short Period (S_{s0}):	0.08
Spectral Response Acceleration at 1.0 Second Period (S_{s1}):	0.04
Long-Period Transition Period (T_L):	8
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.08
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.07
Seismic Response Coefficient (C_s):	0.03
Upper Limit C_s	0.03
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	1.55
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.53
Total Unfactored Dead Load:	18.71 k
Seismic Base Shear (E):	0.74 k

Load Case (1.2 + 0.2Sds) * DL + E ELFM

Seismic Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
34	138.30	77	142	0.012	9	93
33	135.80	36	65	0.006	4	44
32	132.50	113	195	0.017	12	137
31	129.00	58	96	0.008	6	71
30	126.50	117	189	0.016	12	142
29	122.50	195	299	0.026	19	237
28	118.00	156	226	0.020	14	190
27	115.50	49	69	0.006	4	59
26	112.50	244	329	0.029	21	297
25	108.30	166	211	0.018	13	202
24	105.80	80	98	0.009	6	97
23	102.50	250	292	0.025	19	304
22	97.50	564	612	0.053	39	687
21	92.50	573	573	0.050	37	697
20	87.50	581	534	0.046	34	707
19	82.50	590	495	0.043	32	718
18	77.50	598	457	0.040	29	728
17	72.50	607	418	0.036	27	738
16	67.50	615	380	0.033	24	748
15	62.50	623	343	0.030	22	759
14	57.50	632	306	0.027	20	769
13	53.88	287	126	0.011	8	349
12	51.38	718	293	0.025	19	873

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

11	48.50	789	295	0.026	19	961
10	46.00	311	107	0.009	7	379
9	42.50	786	240	0.021	15	956
8	37.50	796	201	0.017	13	969
7	32.50	807	164	0.014	10	982
6	27.50	817	128	0.011	8	995
5	22.50	828	96	0.008	6	1,008
4	17.50	839	66	0.006	4	1,020
3	12.50	849	40	0.003	3	1,033
2	7.50	860	19	0.002	1	1,046
1	2.50	870	4	0.000	0	1,059
Commscope ATSBT-TOP-	136.60	2	3	0.000	0	2
Commscope CBC78T-DS-	136.60	21	38	0.003	2	26
Commscope CBC1921Y-D	136.60	66	120	0.010	8	80
Nokia B66a RRH4x45 (	136.60	227	412	0.036	26	276
Commscope SBNHH-1D45	136.60	123	224	0.019	14	150
Canister4	135.00	300	534	0.046	34	365
CCI HPA-65R-BUU-H6	128.00	153	251	0.022	16	186
Canister3	125.00	300	475	0.041	30	365
Ericsson KRY 112 144	116.00	33	47	0.004	3	40
Ericsson KRY 112 489	116.00	46	65	0.006	4	56
CellMax CMA-BDHH/651	116.00	132	186	0.016	12	161
Canister2	115.00	300	418	0.036	27	365
Commscope CBC78T-DS-	106.60	11	13	0.001	1	13
Commscope CBC1921Y-D	106.60	33	41	0.004	3	40
Alcatel-Lucent B66A	106.60	134	166	0.014	11	163
Commscope NHH-65B-R2	106.60	44	54	0.005	3	53
Canister1	105.00	300	364	0.032	23	365
		18,705	11,518	1.000	736	22,762

Load Case (0.9 - 0.2Sds) * DL + E ELFM

Seismic (Reduced DL) Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
34	138.30	77	142	0.012	9	68
33	135.80	36	65	0.006	4	32
32	132.50	113	195	0.017	12	100
31	129.00	58	96	0.008	6	51
30	126.50	117	189	0.016	12	103
29	122.50	195	299	0.026	19	172
28	118.00	156	226	0.020	14	138
27	115.50	49	69	0.006	4	43
26	112.50	244	329	0.029	21	216
25	108.30	166	211	0.018	13	147
24	105.80	80	98	0.009	6	71
23	102.50	250	292	0.025	19	220
22	97.50	564	612	0.053	39	498
21	92.50	573	573	0.050	37	506
20	87.50	581	534	0.046	34	513
19	82.50	590	495	0.043	32	521
18	77.50	598	457	0.040	29	528
17	72.50	607	418	0.036	27	536
16	67.50	615	380	0.033	24	543
15	62.50	623	343	0.030	22	551
14	57.50	632	306	0.027	20	558
13	53.88	287	126	0.011	8	254
12	51.38	718	293	0.025	19	634
11	48.50	789	295	0.026	19	697
10	46.00	311	107	0.009	7	275
9	42.50	786	240	0.021	15	694

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number:OAA711917_C3_06

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Customer: VERIZON WIRELESS

8	37.50	796	201	0.017	13	703
7	32.50	807	164	0.014	10	713
6	27.50	817	128	0.011	8	722
5	22.50	828	96	0.008	6	731
4	17.50	839	66	0.006	4	741
3	12.50	849	40	0.003	3	750
2	7.50	860	19	0.002	1	759
1	2.50	870	4	0.000	0	769
Commscope ATSBT-TOP-	136.60	2	3	0.000	0	2
Commscope CBC78T-DS-	136.60	21	38	0.003	2	19
Commscope CBC1921Y-D	136.60	66	120	0.010	8	58
Nokia B66a RRH4x45 (	136.60	227	412	0.036	26	201
Commscope SBNHH-1D45	136.60	123	224	0.019	14	109
Canister4	135.00	300	534	0.046	34	265
CCI HPA-65R-BUU-H6	128.00	153	251	0.022	16	135
Canister3	125.00	300	475	0.041	30	265
Ericsson KRY 112 144	116.00	33	47	0.004	3	29
Ericsson KRY 112 489	116.00	46	65	0.006	4	41
CellMax CMA-BDHH/651	116.00	132	186	0.016	12	117
Canister2	115.00	300	418	0.036	27	265
Commscope CBC78T-DS-	106.60	11	13	0.001	1	9
Commscope CBC1921Y-D	106.60	33	41	0.004	3	29
Alcatel-Lucent B66A	106.60	134	166	0.014	11	118
Commscope NHH-65B-R2	106.60	44	54	0.005	3	39
Canister1	105.00	300	364	0.032	23	265
		18,705	11,518	1.000	736	16,520

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Load Case (1.2 + 0.2Sds) * DL + E ELFM Seismic Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-21.70	-0.74	0.00	-69.68	0.00	69.68	2,974.99	1,487.50	5,590.64	2,799.47	0.00	0.00	0.032
5.00	-20.66	-0.74	0.00	-66.00	0.00	66.00	2,950.98	1,475.49	5,469.13	2,738.63	0.00	-0.01	0.031
10.00	-19.62	-0.74	0.00	-62.31	0.00	62.31	2,926.50	1,463.25	5,348.03	2,677.99	0.02	-0.02	0.030
15.00	-18.60	-0.74	0.00	-58.62	0.00	58.62	2,901.57	1,450.78	5,227.36	2,617.56	0.04	-0.02	0.029
20.00	-17.60	-0.73	0.00	-54.94	0.00	54.94	2,876.16	1,438.08	5,107.15	2,557.37	0.07	-0.03	0.028
25.00	-16.60	-0.72	0.00	-51.29	0.00	51.29	2,850.30	1,425.15	4,987.45	2,497.43	0.10	-0.04	0.026
30.00	-15.62	-0.72	0.00	-47.66	0.00	47.66	2,823.97	1,411.99	4,868.30	2,437.77	0.15	-0.05	0.025
35.00	-14.65	-0.70	0.00	-44.08	0.00	44.08	2,797.18	1,398.59	4,749.72	2,378.39	0.20	-0.05	0.024
40.00	-13.69	-0.69	0.00	-40.56	0.00	40.56	2,769.93	1,384.96	4,631.75	2,319.32	0.26	-0.06	0.022
45.00	-13.31	-0.68	0.00	-37.12	0.00	37.12	2,742.21	1,371.11	4,514.43	2,260.57	0.33	-0.07	0.021
47.00	-12.35	-0.66	0.00	-35.75	0.00	35.75	2,731.00	1,365.50	4,467.69	2,237.17	0.36	-0.07	0.021
50.00	-11.48	-0.64	0.00	-33.76	0.00	33.76	2,714.03	1,357.02	4,397.80	2,202.17	0.40	-0.07	0.020
52.75	-11.13	-0.64	0.00	-31.99	0.00	31.99	1,992.84	996.42	3,252.31	1,628.57	0.44	-0.08	0.025
55.00	-10.36	-0.62	0.00	-30.56	0.00	30.56	1,985.26	992.63	3,216.83	1,610.81	0.48	-0.08	0.024
60.00	-9.60	-0.60	0.00	-27.47	0.00	27.47	1,968.10	984.05	3,138.08	1,571.37	0.57	-0.09	0.022
65.00	-8.85	-0.57	0.00	-24.50	0.00	24.50	1,950.47	975.24	3,059.49	1,532.02	0.66	-0.09	0.021
70.00	-8.12	-0.54	0.00	-21.64	0.00	21.64	1,932.38	966.19	2,981.10	1,492.76	0.76	-0.10	0.019
75.00	-7.39	-0.51	0.00	-18.93	0.00	18.93	1,913.83	956.91	2,902.94	1,453.63	0.87	-0.10	0.017
80.00	-6.67	-0.48	0.00	-16.36	0.00	16.36	1,894.81	947.41	2,825.06	1,414.63	0.98	-0.11	0.015
85.00	-5.96	-0.45	0.00	-13.95	0.00	13.95	1,875.33	937.67	2,747.48	1,375.78	1.09	-0.11	0.013
90.00	-5.27	-0.41	0.00	-11.72	0.00	11.72	1,855.39	927.69	2,670.24	1,337.10	1.21	-0.12	0.012
95.00	-4.58	-0.37	0.00	-9.68	0.00	9.68	1,834.98	917.49	2,593.38	1,298.62	1.34	-0.12	0.010
100.00	-4.28	-0.35	0.00	-7.84	0.00	7.84	1,814.12	907.06	2,516.94	1,260.34	1.47	-0.12	0.009
100.00	-4.28	-0.35	0.00	-7.84	0.00	7.84	633.72	316.86	275.72	138.06	1.47	-0.12	0.064
105.00	-3.81	-0.32	0.00	-6.09	0.00	6.09	633.72	316.86	275.72	138.06	1.60	-0.13	0.050
106.60	-3.34	-0.29	0.00	-5.58	0.00	5.58	633.72	316.86	275.72	138.06	1.64	-0.15	0.046
110.00	-3.05	-0.27	0.00	-4.59	0.00	4.59	633.72	316.86	275.72	138.06	1.76	-0.19	0.038
110.00	-3.05	-0.27	0.00	-4.59	0.00	4.59	633.72	316.86	275.72	138.06	1.76	-0.19	0.038
115.00	-2.62	-0.24	0.00	-3.24	0.00	3.24	633.72	316.86	275.72	138.06	1.98	-0.23	0.028
116.00	-2.17	-0.20	0.00	-3.01	0.00	3.01	633.72	316.86	275.72	138.06	2.03	-0.24	0.025
120.00	-1.94	-0.18	0.00	-2.19	0.00	2.19	633.72	316.86	275.72	138.06	2.24	-0.26	0.019
120.00	-1.94	-0.18	0.00	-2.19	0.00	2.19	633.72	316.86	275.72	138.06	2.24	-0.26	0.019
125.00	-1.43	-0.14	0.00	-1.27	0.00	1.27	633.72	316.86	275.72	138.06	2.53	-0.28	0.011
128.00	-1.17	-0.12	0.00	-0.85	0.00	0.85	633.72	316.86	275.72	138.06	2.71	-0.29	0.008
130.00	-1.04	-0.10	0.00	-0.62	0.00	0.62	633.72	316.86	275.72	138.06	2.83	-0.29	0.006
130.00	-1.04	-0.10	0.00	-0.62	0.00	0.62	208.74	104.37	45.84	31.19	2.83	-0.29	0.025
135.00	-0.63	-0.06	0.00	-0.10	0.00	0.10	208.74	104.37	45.84	31.19	3.14	-0.30	0.006
136.60	0.00	0.00	0.00	0.00	0.00	0.00	208.74	104.37	45.84	31.19	3.24	-0.30	0.000
140.00	0.00	0.00	0.00	0.00	0.00	0.00	208.74	104.37	45.84	31.19	3.45	-0.30	0.000

Site Number: 282219

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Load Case (0.9 - 0.2Sds) * DL + E ELMF

Seismic (Reduced DL) Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-15.75	-0.74	0.00	-69.27	0.00	69.27	2,974.99	1,487.50	5,590.64	2,799.47	0.00	0.00	0.030
5.00	-14.99	-0.74	0.00	-65.59	0.00	65.59	2,950.98	1,475.49	5,469.13	2,738.63	0.00	-0.01	0.029
10.00	-14.24	-0.74	0.00	-61.90	0.00	61.90	2,926.50	1,463.25	5,348.03	2,677.99	0.02	-0.02	0.028
15.00	-13.50	-0.73	0.00	-58.22	0.00	58.22	2,901.57	1,450.78	5,227.36	2,617.56	0.04	-0.02	0.027
20.00	-12.77	-0.73	0.00	-54.56	0.00	54.56	2,876.16	1,438.08	5,107.15	2,557.37	0.07	-0.03	0.026
25.00	-12.05	-0.72	0.00	-50.91	0.00	50.91	2,850.30	1,425.15	4,987.45	2,497.43	0.10	-0.04	0.025
30.00	-11.34	-0.71	0.00	-47.31	0.00	47.31	2,823.97	1,411.99	4,868.30	2,437.77	0.15	-0.05	0.023
35.00	-10.63	-0.70	0.00	-43.75	0.00	43.75	2,797.18	1,398.59	4,749.72	2,378.39	0.20	-0.05	0.022
40.00	-9.94	-0.68	0.00	-40.25	0.00	40.25	2,769.93	1,384.96	4,631.75	2,319.32	0.26	-0.06	0.021
45.00	-9.66	-0.68	0.00	-36.82	0.00	36.82	2,742.21	1,371.11	4,514.43	2,260.57	0.33	-0.07	0.020
47.00	-8.97	-0.66	0.00	-35.47	0.00	35.47	2,731.00	1,365.50	4,467.69	2,237.17	0.35	-0.07	0.019
50.00	-8.33	-0.64	0.00	-33.49	0.00	33.49	2,714.03	1,357.02	4,397.80	2,202.17	0.40	-0.07	0.018
52.75	-8.08	-0.63	0.00	-31.73	0.00	31.73	1,992.84	996.42	3,252.31	1,628.57	0.44	-0.08	0.024
55.00	-7.52	-0.61	0.00	-30.31	0.00	30.31	1,985.26	992.63	3,216.83	1,610.81	0.48	-0.08	0.023
60.00	-6.97	-0.59	0.00	-27.24	0.00	27.24	1,968.10	984.05	3,138.08	1,571.37	0.56	-0.09	0.021
65.00	-6.43	-0.57	0.00	-24.29	0.00	24.29	1,950.47	975.24	3,059.49	1,532.02	0.66	-0.09	0.019
70.00	-5.89	-0.54	0.00	-21.45	0.00	21.45	1,932.38	966.19	2,981.10	1,492.76	0.75	-0.10	0.017
75.00	-5.36	-0.51	0.00	-18.76	0.00	18.76	1,913.83	956.91	2,902.94	1,453.63	0.86	-0.10	0.016
80.00	-4.84	-0.48	0.00	-16.21	0.00	16.21	1,894.81	947.41	2,825.06	1,414.63	0.97	-0.11	0.014
85.00	-4.33	-0.44	0.00	-13.82	0.00	13.82	1,875.33	937.67	2,747.48	1,375.78	1.08	-0.11	0.012
90.00	-3.82	-0.41	0.00	-11.60	0.00	11.60	1,855.39	927.69	2,670.24	1,337.10	1.20	-0.12	0.011
95.00	-3.32	-0.37	0.00	-9.58	0.00	9.58	1,834.98	917.49	2,593.38	1,298.62	1.33	-0.12	0.009
100.00	-3.10	-0.35	0.00	-7.75	0.00	7.75	1,814.12	907.06	2,516.94	1,260.34	1.46	-0.12	0.008
100.00	-3.10	-0.35	0.00	-7.75	0.00	7.75	633.72	316.86	275.72	138.06	1.46	-0.12	0.061
105.00	-2.77	-0.32	0.00	-6.01	0.00	6.01	633.72	316.86	275.72	138.06	1.59	-0.13	0.048
106.60	-2.43	-0.29	0.00	-5.51	0.00	5.51	633.72	316.86	275.72	138.06	1.63	-0.15	0.044
110.00	-2.21	-0.27	0.00	-4.53	0.00	4.53	633.72	316.86	275.72	138.06	1.75	-0.19	0.036
110.00	-2.21	-0.27	0.00	-4.53	0.00	4.53	633.72	316.86	275.72	138.06	1.75	-0.19	0.036
115.00	-1.90	-0.24	0.00	-3.20	0.00	3.20	633.72	316.86	275.72	138.06	1.97	-0.23	0.026
116.00	-1.58	-0.20	0.00	-2.96	0.00	2.96	633.72	316.86	275.72	138.06	2.02	-0.24	0.024
120.00	-1.41	-0.18	0.00	-2.16	0.00	2.16	633.72	316.86	275.72	138.06	2.23	-0.26	0.018
120.00	-1.41	-0.18	0.00	-2.16	0.00	2.16	633.72	316.86	275.72	138.06	2.23	-0.26	0.018
125.00	-1.04	-0.14	0.00	-1.25	0.00	1.25	633.72	316.86	275.72	138.06	2.51	-0.28	0.011
128.00	-0.85	-0.11	0.00	-0.84	0.00	0.84	633.72	316.86	275.72	138.06	2.69	-0.29	0.007
130.00	-0.75	-0.10	0.00	-0.61	0.00	0.61	633.72	316.86	275.72	138.06	2.81	-0.29	0.006
130.00	-0.75	-0.10	0.00	-0.61	0.00	0.61	208.74	104.37	45.84	31.19	2.81	-0.29	0.023
135.00	-0.46	-0.06	0.00	-0.10	0.00	0.10	208.74	104.37	45.84	31.19	3.11	-0.29	0.005
136.60	0.00	0.00	0.00	0.00	0.00	0.00	208.74	104.37	45.84	31.19	3.21	-0.29	0.000
140.00	0.00	0.00	0.00	0.00	0.00	0.00	208.74	104.37	45.84	31.19	3.42	-0.29	0.000

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Equivalent Modal Forces Analysis

(Based on ASCE7-10 Chapters 11, 12 & 15 and ANSI/TIA-G, section 2.7)

Spectral Response Acceleration for Short Period (S_s):	0.08
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.04
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.08
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.07
Period Based on Rayleigh Method (sec):	1.55
Redundancy Factor (p):	1.30

Load Case (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
34	138.30	77	1.844	1.748	1.056	0.166	11	93
33	135.80	36	1.778	1.442	0.940	0.149	5	44
32	132.50	113	1.693	1.096	0.804	0.128	12	137
31	129.00	58	1.605	0.793	0.676	0.108	5	71
30	126.50	117	1.543	0.613	0.596	0.095	10	142
29	122.50	195	1.447	0.379	0.482	0.077	13	237
28	118.00	156	1.343	0.184	0.375	0.059	8	190
27	115.50	49	1.286	0.102	0.324	0.051	2	59
26	112.50	244	1.220	0.025	0.270	0.043	9	297
25	108.30	166	1.131	-0.051	0.207	0.033	5	202
24	105.80	80	1.079	-0.081	0.174	0.029	2	97
23	102.50	250	1.013	-0.106	0.138	0.024	5	304
22	97.50	564	0.917	-0.121	0.094	0.020	10	687
21	92.50	573	0.825	-0.116	0.061	0.018	9	697
20	87.50	581	0.738	-0.098	0.038	0.017	9	707
19	82.50	590	0.656	-0.073	0.022	0.018	9	718
18	77.50	598	0.579	-0.045	0.012	0.019	10	728
17	72.50	607	0.507	-0.019	0.007	0.020	10	738
16	67.50	615	0.439	0.005	0.006	0.021	11	748
15	62.50	623	0.377	0.025	0.007	0.021	11	759
14	57.50	632	0.319	0.041	0.011	0.020	11	769
13	53.88	287	0.280	0.050	0.014	0.020	5	349
12	51.38	718	0.255	0.054	0.017	0.020	12	873
11	48.50	789	0.227	0.059	0.020	0.019	13	961
10	46.00	311	0.204	0.062	0.023	0.018	5	379
9	42.50	786	0.174	0.066	0.027	0.017	12	956
8	37.50	796	0.136	0.069	0.032	0.016	11	969
7	32.50	807	0.102	0.071	0.037	0.015	10	982
6	27.50	817	0.073	0.072	0.040	0.014	10	995
5	22.50	828	0.049	0.071	0.042	0.012	9	1,008
4	17.50	839	0.030	0.068	0.040	0.011	8	1,020
3	12.50	849	0.015	0.061	0.036	0.010	7	1,033
2	7.50	860	0.005	0.046	0.026	0.007	5	1,046
1	2.50	870	0.001	0.019	0.010	0.003	2	1,059

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Commscope ATSBT-	136.60	2	1.799	1.535	0.976	0.154	0	2
Commscope CBC78T-	136.60	21	1.799	1.535	0.976	0.154	3	26
Commscope	136.60	66	1.799	1.535	0.976	0.154	9	80
Nokia B66a RRH4x45 (	136.60	227	1.799	1.535	0.976	0.154	30	276
Commscope SBNHH-	136.60	123	1.799	1.535	0.976	0.154	16	150
Canister4	135.00	300	1.757	1.352	0.906	0.143	37	365
CCI HPA-65R-BUU-H6	128.00	153	1.580	0.718	0.643	0.103	14	186
Canister3	125.00	300	1.507	0.518	0.551	0.088	23	365
Ericsson KRY 112 144	116.00	33	1.298	0.117	0.334	0.053	2	40
Ericsson KRY 112 489	116.00	46	1.298	0.117	0.334	0.053	2	56
CellMax CMA-BDHH/651	116.00	132	1.298	0.117	0.334	0.053	6	161
Canister2	115.00	300	1.275	0.088	0.315	0.050	13	365
Commscope CBC78T-	106.60	11	1.096	-0.072	0.184	0.030	0	13
Commscope	106.60	33	1.096	-0.072	0.184	0.030	1	40
Alcatel-Lucent B66A	106.60	134	1.096	-0.072	0.184	0.030	3	163
Commscope NHH-65B-	106.60	44	1.096	-0.072	0.184	0.030	1	53
Canister1	105.00	300	1.063	-0.088	0.165	0.027	7	365
		18,705	48.344	16.835	15.863	2.774	454	22,762

Load Case (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
34	138.30	77	1.844	1.748	1.056	0.166	11	68
33	135.80	36	1.778	1.442	0.940	0.149	5	32
32	132.50	113	1.693	1.096	0.804	0.128	12	100
31	129.00	58	1.605	0.793	0.676	0.108	5	51
30	126.50	117	1.543	0.613	0.596	0.095	10	103
29	122.50	195	1.447	0.379	0.482	0.077	13	172
28	118.00	156	1.343	0.184	0.375	0.059	8	138
27	115.50	49	1.286	0.102	0.324	0.051	2	43
26	112.50	244	1.220	0.025	0.270	0.043	9	216
25	108.30	166	1.131	-0.051	0.207	0.033	5	147
24	105.80	80	1.079	-0.081	0.174	0.029	2	71
23	102.50	250	1.013	-0.106	0.138	0.024	5	220
22	97.50	564	0.917	-0.121	0.094	0.020	10	498
21	92.50	573	0.825	-0.116	0.061	0.018	9	506
20	87.50	581	0.738	-0.098	0.038	0.017	9	513
19	82.50	590	0.656	-0.073	0.022	0.018	9	521
18	77.50	598	0.579	-0.045	0.012	0.019	10	528
17	72.50	607	0.507	-0.019	0.007	0.020	10	536
16	67.50	615	0.439	0.005	0.006	0.021	11	543
15	62.50	623	0.377	0.025	0.007	0.021	11	551
14	57.50	632	0.319	0.041	0.011	0.020	11	558
13	53.88	287	0.280	0.050	0.014	0.020	5	254
12	51.38	718	0.255	0.054	0.017	0.020	12	634
11	48.50	789	0.227	0.059	0.020	0.019	13	697
10	46.00	311	0.204	0.062	0.023	0.018	5	275
9	42.50	786	0.174	0.066	0.027	0.017	12	694
8	37.50	796	0.136	0.069	0.032	0.016	11	703
7	32.50	807	0.102	0.071	0.037	0.015	10	713
6	27.50	817	0.073	0.072	0.040	0.014	10	722
5	22.50	828	0.049	0.071	0.042	0.012	9	731
4	17.50	839	0.030	0.068	0.040	0.011	8	741
3	12.50	849	0.015	0.061	0.036	0.010	7	750
2	7.50	860	0.005	0.046	0.026	0.007	5	759
1	2.50	870	0.001	0.019	0.010	0.003	2	769
Commscope ATSBT-	136.60	2	1.799	1.535	0.976	0.154	0	2
Commscope CBC78T-	136.60	21	1.799	1.535	0.976	0.154	3	19

Site Number: 282219

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Commscope	136.60	66	1.799	1.535	0.976	0.154	9	58
Nokia B66a RRH4x45 (136.60	227	1.799	1.535	0.976	0.154	30	201
Commscope SBNHH-	136.60	123	1.799	1.535	0.976	0.154	16	109
Canister4	135.00	300	1.757	1.352	0.906	0.143	37	265
CCI HPA-65R-BUU-H6	128.00	153	1.580	0.718	0.643	0.103	14	135
Canister3	125.00	300	1.507	0.518	0.551	0.088	23	265
Ericsson KRY 112 144	116.00	33	1.298	0.117	0.334	0.053	2	29
Ericsson KRY 112 489	116.00	46	1.298	0.117	0.334	0.053	2	41
CellMax CMA-BDHH/651	116.00	132	1.298	0.117	0.334	0.053	6	117
Canister2	115.00	300	1.275	0.088	0.315	0.050	13	265
Commscope CBC78T-	106.60	11	1.096	-0.072	0.184	0.030	0	9
Commscope	106.60	33	1.096	-0.072	0.184	0.030	1	29
Alcatel-Lucent B66A	106.60	134	1.096	-0.072	0.184	0.030	3	118
Commscope NHH-65B-	106.60	44	1.096	-0.072	0.184	0.030	1	39
Canister1	105.00	300	1.063	-0.088	0.165	0.027	7	265
		18,705	48.344	16.835	15.863	2.774	454	16,520

Site Number: 282219

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Load Case (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-21.70	-0.45	0.00	-43.25	0.00	43.25	2,974.99	1,487.50	5,590.64	2,799.47	0.00	0.00	0.023
5.00	-20.66	-0.45	0.00	-40.99	0.00	40.99	2,950.98	1,475.49	5,469.13	2,738.63	0.00	-0.01	0.022
10.00	-19.62	-0.44	0.00	-38.74	0.00	38.74	2,926.50	1,463.25	5,348.03	2,677.99	0.01	-0.01	0.021
15.00	-18.60	-0.44	0.00	-36.53	0.00	36.53	2,901.57	1,450.78	5,227.36	2,617.56	0.02	-0.01	0.020
20.00	-17.60	-0.43	0.00	-34.35	0.00	34.35	2,876.16	1,438.08	5,107.15	2,557.37	0.04	-0.02	0.020
25.00	-16.60	-0.42	0.00	-32.21	0.00	32.21	2,850.30	1,425.15	4,987.45	2,497.43	0.06	-0.02	0.019
30.00	-15.62	-0.41	0.00	-30.11	0.00	30.11	2,823.97	1,411.99	4,868.30	2,437.77	0.09	-0.03	0.018
35.00	-14.65	-0.40	0.00	-28.06	0.00	28.06	2,797.18	1,398.59	4,749.72	2,378.39	0.13	-0.03	0.017
40.00	-13.69	-0.39	0.00	-26.06	0.00	26.06	2,769.93	1,384.96	4,631.75	2,319.32	0.16	-0.04	0.016
45.00	-13.31	-0.38	0.00	-24.12	0.00	24.12	2,742.21	1,371.11	4,514.43	2,260.57	0.20	-0.04	0.016
47.00	-12.35	-0.37	0.00	-23.35	0.00	23.35	2,731.00	1,365.50	4,467.69	2,237.17	0.22	-0.04	0.015
50.00	-11.48	-0.36	0.00	-22.24	0.00	22.24	2,714.03	1,357.02	4,397.80	2,202.17	0.25	-0.05	0.014
52.75	-11.13	-0.35	0.00	-21.25	0.00	21.25	1,992.84	996.42	3,252.31	1,628.57	0.28	-0.05	0.019
55.00	-10.36	-0.34	0.00	-20.46	0.00	20.46	1,985.26	992.63	3,216.83	1,610.81	0.30	-0.05	0.018
60.00	-9.60	-0.33	0.00	-18.75	0.00	18.75	1,968.10	984.05	3,138.08	1,571.37	0.36	-0.05	0.017
65.00	-8.86	-0.32	0.00	-17.09	0.00	17.09	1,950.47	975.24	3,059.49	1,532.02	0.42	-0.06	0.016
70.00	-8.12	-0.31	0.00	-15.49	0.00	15.49	1,932.38	966.19	2,981.10	1,492.76	0.48	-0.06	0.015
75.00	-7.39	-0.30	0.00	-13.95	0.00	13.95	1,913.83	956.91	2,902.94	1,453.63	0.55	-0.07	0.013
80.00	-6.67	-0.29	0.00	-12.45	0.00	12.45	1,894.81	947.41	2,825.06	1,414.63	0.62	-0.07	0.012
85.00	-5.96	-0.28	0.00	-11.00	0.00	11.00	1,875.33	937.67	2,747.48	1,375.78	0.70	-0.07	0.011
90.00	-5.27	-0.27	0.00	-9.60	0.00	9.60	1,855.39	927.69	2,670.24	1,337.10	0.78	-0.08	0.010
95.00	-4.58	-0.26	0.00	-8.24	0.00	8.24	1,834.98	917.49	2,593.38	1,298.62	0.86	-0.08	0.009
100.00	-4.28	-0.26	0.00	-6.94	0.00	6.94	1,814.12	907.06	2,516.94	1,260.34	0.94	-0.08	0.008
100.00	-4.28	-0.26	0.00	-6.94	0.00	6.94	633.72	316.86	275.72	138.06	0.94	-0.08	0.057
105.00	-3.81	-0.25	0.00	-5.66	0.00	5.66	633.72	316.86	275.72	138.06	1.03	-0.09	0.047
106.60	-3.34	-0.24	0.00	-5.27	0.00	5.27	633.72	316.86	275.72	138.06	1.07	-0.11	0.043
110.00	-3.05	-0.23	0.00	-4.46	0.00	4.46	633.72	316.86	275.72	138.06	1.15	-0.14	0.037
110.00	-3.05	-0.23	0.00	-4.46	0.00	4.46	633.72	316.86	275.72	138.06	1.15	-0.14	0.037
115.00	-2.62	-0.21	0.00	-3.31	0.00	3.31	633.72	316.86	275.72	138.06	1.33	-0.19	0.028
116.00	-2.18	-0.20	0.00	-3.10	0.00	3.10	633.72	316.86	275.72	138.06	1.37	-0.20	0.026
120.00	-1.94	-0.18	0.00	-2.32	0.00	2.32	633.72	316.86	275.72	138.06	1.54	-0.22	0.020
120.00	-1.94	-0.18	0.00	-2.32	0.00	2.32	633.72	316.86	275.72	138.06	1.54	-0.22	0.020
125.00	-1.43	-0.15	0.00	-1.40	0.00	1.40	633.72	316.86	275.72	138.06	1.79	-0.24	0.012
128.00	-1.17	-0.13	0.00	-0.95	0.00	0.95	633.72	316.86	275.72	138.06	1.94	-0.25	0.009
130.00	-1.04	-0.12	0.00	-0.70	0.00	0.70	633.72	316.86	275.72	138.06	2.04	-0.25	0.007
130.00	-1.04	-0.12	0.00	-0.70	0.00	0.70	208.74	104.37	45.84	31.19	2.04	-0.25	0.027
135.00	-0.63	-0.07	0.00	-0.12	0.00	0.12	208.74	104.37	45.84	31.19	2.31	-0.26	0.007
136.60	0.00	0.00	0.00	0.00	0.00	0.00	208.74	104.37	45.84	31.19	2.40	-0.26	0.000
140.00	0.00	0.00	0.00	0.00	0.00	0.00	208.74	104.37	45.84	31.19	2.58	-0.26	0.000

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Load Case (0.9 - 0.2Sds) * DL + E EMAM Seismic (Reduced DL) Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-15.75	-0.45	0.00	-42.97	0.00	42.97	2,974.99	1,487.50	5,590.64	2,799.47	0.00	0.00	0.021
5.00	-14.99	-0.45	0.00	-40.71	0.00	40.71	2,950.98	1,475.49	5,469.13	2,738.63	0.00	0.00	0.020
10.00	-14.24	-0.44	0.00	-38.47	0.00	38.47	2,926.50	1,463.25	5,348.03	2,677.99	0.01	-0.01	0.019
15.00	-13.50	-0.43	0.00	-36.26	0.00	36.26	2,901.57	1,450.78	5,227.36	2,617.56	0.02	-0.01	0.019
20.00	-12.77	-0.43	0.00	-34.09	0.00	34.09	2,876.16	1,438.08	5,107.15	2,557.37	0.04	-0.02	0.018
25.00	-12.05	-0.42	0.00	-31.96	0.00	31.96	2,850.30	1,425.15	4,987.45	2,497.43	0.06	-0.02	0.017
30.00	-11.34	-0.41	0.00	-29.87	0.00	29.87	2,823.97	1,411.99	4,868.30	2,437.77	0.09	-0.03	0.016
35.00	-10.63	-0.40	0.00	-27.83	0.00	27.83	2,797.18	1,398.59	4,749.72	2,378.39	0.12	-0.03	0.016
40.00	-9.94	-0.39	0.00	-25.84	0.00	25.84	2,769.93	1,384.96	4,631.75	2,319.32	0.16	-0.04	0.015
45.00	-9.66	-0.38	0.00	-23.92	0.00	23.92	2,742.21	1,371.11	4,514.43	2,260.57	0.20	-0.04	0.014
47.00	-8.97	-0.37	0.00	-23.15	0.00	23.15	2,731.00	1,365.50	4,467.69	2,237.17	0.22	-0.04	0.014
50.00	-8.33	-0.36	0.00	-22.05	0.00	22.05	2,714.03	1,357.02	4,397.80	2,202.17	0.25	-0.05	0.013
52.75	-8.08	-0.35	0.00	-21.07	0.00	21.07	1,992.84	996.42	3,252.31	1,628.57	0.28	-0.05	0.017
55.00	-7.52	-0.34	0.00	-20.28	0.00	20.28	1,985.26	992.63	3,216.83	1,610.81	0.30	-0.05	0.016
60.00	-6.97	-0.33	0.00	-18.59	0.00	18.59	1,968.10	984.05	3,138.08	1,571.37	0.35	-0.05	0.015
65.00	-6.43	-0.32	0.00	-16.94	0.00	16.94	1,950.47	975.24	3,059.49	1,532.02	0.41	-0.06	0.014
70.00	-5.89	-0.31	0.00	-15.36	0.00	15.36	1,932.38	966.19	2,981.10	1,492.76	0.48	-0.06	0.013
75.00	-5.36	-0.30	0.00	-13.82	0.00	13.82	1,913.83	956.91	2,902.94	1,453.63	0.54	-0.07	0.012
80.00	-4.84	-0.29	0.00	-12.34	0.00	12.34	1,894.81	947.41	2,825.06	1,414.63	0.62	-0.07	0.011
85.00	-4.33	-0.28	0.00	-10.90	0.00	10.90	1,875.33	937.67	2,747.48	1,375.78	0.69	-0.07	0.010
90.00	-3.82	-0.27	0.00	-9.51	0.00	9.51	1,855.39	927.69	2,670.24	1,337.10	0.77	-0.08	0.009
95.00	-3.32	-0.26	0.00	-8.17	0.00	8.17	1,834.98	917.49	2,593.38	1,298.62	0.85	-0.08	0.008
100.00	-3.10	-0.25	0.00	-6.87	0.00	6.87	1,814.12	907.06	2,516.94	1,260.34	0.94	-0.08	0.007
100.00	-3.10	-0.25	0.00	-6.87	0.00	6.87	633.72	316.86	275.72	138.06	0.94	-0.08	0.055
105.00	-2.77	-0.24	0.00	-5.60	0.00	5.60	633.72	316.86	275.72	138.06	1.03	-0.08	0.045
106.60	-2.43	-0.23	0.00	-5.21	0.00	5.21	633.72	316.86	275.72	138.06	1.06	-0.10	0.042
110.00	-2.21	-0.23	0.00	-4.41	0.00	4.41	633.72	316.86	275.72	138.06	1.15	-0.14	0.035
110.00	-2.21	-0.23	0.00	-4.41	0.00	4.41	633.72	316.86	275.72	138.06	1.15	-0.14	0.035
115.00	-1.90	-0.21	0.00	-3.28	0.00	3.28	633.72	316.86	275.72	138.06	1.32	-0.19	0.027
116.00	-1.58	-0.19	0.00	-3.06	0.00	3.06	633.72	316.86	275.72	138.06	1.36	-0.19	0.025
120.00	-1.41	-0.18	0.00	-2.29	0.00	2.29	633.72	316.86	275.72	138.06	1.53	-0.22	0.019
120.00	-1.41	-0.18	0.00	-2.29	0.00	2.29	633.72	316.86	275.72	138.06	1.53	-0.22	0.019
125.00	-1.04	-0.15	0.00	-1.38	0.00	1.38	633.72	316.86	275.72	138.06	1.77	-0.24	0.012
128.00	-0.85	-0.13	0.00	-0.94	0.00	0.94	633.72	316.86	275.72	138.06	1.92	-0.25	0.008
130.00	-0.75	-0.11	0.00	-0.69	0.00	0.69	633.72	316.86	275.72	138.06	2.03	-0.25	0.006
130.00	-0.75	-0.11	0.00	-0.69	0.00	0.69	208.74	104.37	45.84	31.19	2.03	-0.25	0.026
135.00	-0.46	-0.07	0.00	-0.11	0.00	0.11	208.74	104.37	45.84	31.19	2.29	-0.25	0.006
136.60	0.00	0.00	0.00	0.00	0.00	0.00	208.74	104.37	45.84	31.19	2.38	-0.26	0.000
140.00	0.00	0.00	0.00	0.00	0.00	0.00	208.74	104.37	45.84	31.19	2.56	-0.26	0.000

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	24.42	0.00	22.40	0.00	0.00	1765.42	100.00	1.03
0.9D + 1.6W	24.41	0.00	16.79	0.00	0.00	1756.21	100.00	1.01
1.2D + 1.0Di + 1.0Wi	1.38	0.00	29.58	0.00	0.00	98.34	100.00	0.07
(1.2 + 0.2Sds) * DL + E ELFM	0.74	0.00	21.70	0.00	0.00	69.68	100.00	0.06
(1.2 + 0.2Sds) * DL + E EMAM	0.45	0.00	21.70	0.00	0.00	43.25	100.00	0.06
(0.9 - 0.2Sds) * DL + E ELFM	0.74	0.00	15.75	0.00	0.00	69.27	100.00	0.06
(0.9 - 0.2Sds) * DL + E EMAM	0.45	0.00	15.75	0.00	0.00	42.97	100.00	0.05
1.0D + 1.0W	3.05	0.00	18.70	0.00	0.00	221.91	100.00	0.14

Site Number: 282219

Code: ANSI/TIA-222-G

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Site Name: HICKORY NC, NC

Engineering Number: OAA711917_C3_06

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Customer: VERIZON WIRELESS

Base Summary

Reactions

Original Design			Analysis			
Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment Design %
2,050.00	21.00	30.00	1,765.42	29.58	24.42	86.12

Base Plate

Yield (ksi)	Thick (in)	Width (in)	Style	Poly Sides	Clip Len (in)	Effective Len (in)	Mu (kip-in)	Phi Mn (kip-in)	Ratio
55.0	2.000	60.000	Round	0	0.00	18.250	487.17	903.37	0.54

Anchor Bolts

Bolt Circle	Num Bolts	Bolt Type	Bolt Dia (in)	Yield (ksi)	Ultimate (ksi)	Arrange	Cluster Dist (in)	Start Angle (deg)	Compression			Tension		
									Force (kip)	Allow (kip)	Ratio	Force (kip)	Allow (kip)	Ratio
54.00	08	2.25" 18J	2.25	75.00	100.00	Radial	0.00	0.0	199.85	260.00	0.79	192.46	260.00	0.76

STRUCTURAL DESIGN DRAWINGS

SITE NAME:
HICKORY NC, NC

SITE NUMBER:
282219

ATC STRUCTURAL ENGINEERING NUMBER:
OAA724196_C3_03

ATC MODIFICATION ENGINEERING NUMBER:
OAA724196_C6_05

SITE ADDRESS:
**148-A OCEAN BOULEVARD
SOUTHERN SHORES, NC 27949
(DARE COUNTY)
N 36° 07' 14.88", W 75° 43' 25.32"**

PLANS PREPARED FOR:



AMERICAN TOWER
CORPORATION

3500 REGENCY PARKWAY, SUITE 100
CARY, NC 27518
OFFICE: (919) 466-5149

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net

N.C. LICENSE # P-1403

SEAL:



June 08, 2018

0	06-08-18	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:
DRAWN BY: RTP		CHECKED BY: RJR

SHEET TITLE:
TITLE SHEET

SHEET NUMBER: **T-1** REVISION: **0**
TEP#: C0448_202443

ATTENTION

QUALIFIED ENGINEERING SERVICES ARE AVAILABLE FROM TEP TO ASSIST CONTRACTORS IN CLASS IV RIGGING PLAN REVIEWS. FOR REQUESTED QUALIFIED ENGINEERING SERVICES, CONTACT TEP FOR QUOTE AT RIGGING@TEPGROUP.NET

INDEX OF SHEETS

NO.	SHEET TITLE	REV
T-1	TITLE SHEET	0
N-1	MI CHECKLIST AND NOTES	0
N-2	PROJECT NOTES I	0
N-3	PROJECT NOTES II	0
N-4	BILL OF MATERIALS	0
S-1	TOWER ELEVATION AND MODIFICATION SCHEDULE	0
S-2	TOWER REINFORCEMENT DETAILS I	0
S-3	TOWER REINFORCEMENT DETAILS II	0
S-4	TOWER REINFORCEMENT DETAILS III	0
S-5	TOWER REINFORCEMENT DETAILS IV	0
S-6	TOWER REINFORCEMENT DETAILS V	0
S-7	TOWER REINFORCEMENT DETAILS VI	0
S-8	TOWER REINFORCEMENT DETAILS VII	0
S-9	CONCEALMENT CANISTER DETAILS I	0
S-10	CONCEALMENT CANISTER DETAILS II	0

PROJECT TEAM

PROJECT CONTACT:

NAME: AMERICAN TOWER CORPORATION
ADDRESS: 3500 REGENCY PARKWAY, SUITE 100
CITY, STATE, ZIP: CARY, NC 27518
CONTACT: GEOFFREY MIDDLEBROOKS
PHONE: (919) 466-5149
EMAIL: GEOFFREY.MIDDLEBROOKS@AMERICANTOWER.COM

ENGINEERING FIRM PROJECT MANAGER:

NAME: TOWER ENGINEERING PROFESSIONALS, INC.
ADDRESS: 326 TRYON ROAD
CITY, STATE, ZIP: RALEIGH, NC 27603
CONTACT: RHETT PARK, E.I.
PHONE: (919) 661-6351
EMAIL: SDD@TEPGROUP.NET

GENERAL NOTES:

1. ALL REFERENCES TO THE OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED AMERICAN TOWER CORPORATION OR ITS DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF NORTH CAROLINA.
3. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE 2012 NORTH CAROLINA STATE BUILDING CODE.
4. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
5. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
7. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
8. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
10. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
11. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
12. IF APPLICABLE, ALL CONCRETE WORK SHALL COMPLY TO LOCAL CODES AND THE ACI 318-08, "BUILDING REQUIREMENTS FOR STRUCTURAL CONCRETE".
13. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
14. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
15. ALL TOWER DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED. THE OWNER SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.
16. THE CLIMBING FACILITIES, SAFETY CLIMB AND ALL PARTS THEREOF SHALL NOT BE IMPEDED, MODIFIED OR ALTERED WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE TOWER OWNER OR ENGINEER OF RECORD.
17. ANY WORK PERFORMED WITHOUT A PREFABRICATION MAPPING IS DONE AT THE RISK OF THE GC AND/OR FABRICATOR.

ATTENTION

ALL CONSTRUCTION MEANS AND METHODS, INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION), FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH THE ANSI/TIA-322 (LATEST EDITION).

PLANS PREPARED FOR:  AMERICAN TOWER 3500 REGENCY PARKWAY, SUITE 100 CARY, NC 27518 OFFICE: (919) 466-5149	
PROJECT INFORMATION: HICKORY NC, NC SITE #: 282219 148-A OCEAN BOULEVARD SOUTHERN SHORES, NC 27949 (DARE COUNTY)	
PLANS PREPARED BY:  TOWER ENGINEERING PROFESSIONALS 326 TRYON ROAD RALEIGH, NC 27603 OFFICE: (919) 981-6351 www.tepgroup.net N.C. LICENSE # P-1403	
SEAL:  June 02, 2014	
0 06-06-14 MODIFICATION DRAWINGS	
REV DATE ISSUED FOR:	
DRAWN BY: RTF	CHECKED BY: RJR
SHEET TITLE: PROJECT NOTES I	
SHEET NUMBER: N-2	REVISION: 0 TEP #: 60446.202443

STRUCTURAL STEEL NOTES:

1. THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC STEEL CONSTRUCTION MANUAL, LOAD AND RESISTANCE FACTOR DESIGN (LRFD), 13TH EDITION.
2. UNLESS OTHERWISE NOTED, ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - STRUCTURAL STEEL:
 - ANGLE: ASTM A36
 - PIPE/TUBE: ASTM A500-46
 - PLATE: ASTM A36 (SELF SUPPORTING AND GUYED TOWERS)
 - PLATE: ASTM A572-65 (NONPOLES)
 - A. ALL BOLTS, ASTM A325 TYPE I GALVANIZED HIGH STRENGTH BOLTS.
 - B. ALL U-BOLTS, ASTM A193 GRADE B7
 - C. ALL NUTS, ASTM A563 CARBON AND ALLOY STEEL NUTS.
 - D. ALL WASHERS, ASTM F436 HARDENED STEEL WASHERS.
3. ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH AISC STEEL CONSTRUCTION MANUAL, LRFD, 13TH EDITION.
4. HOLES SHALL NOT BE FLAWE CUT THROUGH STEEL UNLESS APPROVED BY THE ENGINEER.
5. HOT-DIP GALVANIZE ALL ITEMS UNLESS OTHERWISE NOTED, AFTER FABRICATION WHERE PRACTICABLE. GALVANIZING: ASTM A123, ASTM A153/A153M OR ASTM A653/A653M, G90, AS APPLICABLE. ADDITIONALLY, ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
6. REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICK PASTED MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED, WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS IN STICK OR PASTED; SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF EXCESS MATERIAL. AFTER REPAIR, STEEL SHALL BE REPAINTED TO MATCH EXISTING FINISH (IF APPLICABLE).
7. A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED BOLTS.
8. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXCLUDE THE THREADS FROM THE SHEAR PLANE.
9. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
10. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.

WELDING NOTES:

1. ALL WELDING SHALL BE IN ACCORDANCE WITH THE AWS D1.1/D1.1M: 2010 "STRUCTURAL WELDING CODE-STEEL".
2. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.
3. CONTRACTOR SHALL RETAIN AN AWS CERTIFIED WELD INSPECTOR TO PERFORM VISUAL INSPECTIONS ON FIELD WELDS. A LETTER AND REPORT SHALL BE ISSUED TO THE CONTRACTOR. CONTRACTOR SHALL SUBMIT LETTER AND REPORT TO TOWER ENGINEERING PROFESSIONALS.
4. GRIND THE SURFACE ADJACENT TO THE WELD FOR A DISTANCE OF 2" MINIMUM ALL AROUND. GRIND THE SURFACE OF THE ROD TO BE INSTALLED FOR A DISTANCE OF 2" MINIMUM ALL AROUND THE AREA TO BE WELDED. ENSURE BOTH AREAS ARE 100% FREE OF ALL GALVANIZING, SURFACES TO BE WELDED SHALL BE FREE FROM SCALE, SLAG, RUST, MOISTURE, GREASE OR ANY OTHER FOREIGN MATERIAL THAT WOULD PREVENT PROPER WELDING.
5. DO NOT WELD IF THE TEMPERATURE OF THE STEEL IN THE VICINITY OF THE WELD AREA IS BELOW 0 DEGREES (FAHRENHEIT). THE MINIMUM PREHEAT AND INTERPASS TEMPERATURE REQUIREMENTS SHALL COMPLY WITH SECTION 3.5.1 AND TABLE 3.2 OF THE AWS D1.1/D1.1M:2010.
6. DO NOT WELD ON WET OR FROST-COVERED SURFACES AND PROVIDE ADEQUATE PROTECTION FROM HIGH WINDS.
7. FOR ALL WELDING, USE 70 KSI LOW HYDROGEN ELECTRODES. ELECTRODES SHALL BE APPROPRIATE FOR THE WELDING POSITION REQUIRED TO MAKE THE JOINT.
8. AFTER FINAL INSPECTION, THE AREA OF THE WELDS, THE INSTALLATION AND ALL SURFACES DAMAGED BY WELDING OR GRINDING SHALL RECEIVE A COLD-GALVANIZED COATING. THIS COATING SHALL BE APPLIED BY BRUSH. THE GALVANIZING COMPOUND SHALL CONTAIN A MINIMUM OF 95% +/- PURE ZINC. THE FINISHED COATING SHALL BE A MINIMUM THICKNESS OF 3 MILS.
9. PROVIDE WELDS ALL AROUND OR ADD SEAL WELDS WHERE STRUCTURAL WELDS ARE NOT SPECIFIED.

BOLT TIGHTENING PROCEDURE:

1. UNLESS OTHERWISE NOTED, ALL BOLTED CONNECTIONS SHALL BE BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1 OF THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS. LOCATED IN THE AISC MANUAL OF STEEL CONSTRUCTION. ALL SNUG TIGHT BOLTS SHALL BE INSTALLED WITH A NUT-LOCKING DEVICE OR MECHANISM SUCH AS, BUT NOT LIMITED TO, LOCK NUTS, LOCK WASHERS, OR PALNUTS, TO PREVENT LOOSENING.
2. WHEN SPECIFIED IN THE DRAWINGS, CONNECTION BOLTS SHALL BE INSTALLED AND TIGHTENED AS PER SECTION 8.2.1 OF THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS. LOCATED IN THE AISC MANUAL OF STEEL CONSTRUCTION. THE INSTALLATION PROCEDURE IS PARAPHRASED AS FOLLOWS:

8.2.1 TURN-OF-THE-NUT TIGHTENING

BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1. UNTIL ALL THE BOLTS ARE SIMULTANEOUSLY SNUG TIGHT AND THE CONNECTION IS FULLY COMPACTED, FOLLOWING THIS INITIAL OPERATION ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE APPLICABLE AMOUNT OF ROTATION SPECIFIED BELOW. DURING THE TIGHTENING OPERATION THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH. TIGHTENING SHALL PROGRESS SYSTEMATICALLY FROM THE MOST RIGID PART OF THE JOINT IN A MANNER THAT WILL MINIMIZE RELAXATION OF PREVIOUSLY PRETENSIONED BOLTS.

3. PRE-TENSIONED BOLTS AS SPECIFIED ON THE DRAWINGS SHALL BE TIGHTENED IN ACCORDANCE WITH AISC - "TURN OF THE NUT" METHOD, USING THE CHART BELOW.

BOLT LENGTHS UP TO AND INCLUDING FOUR DIA.

1/2"	BOLTS UP TO AND INCLUDING 2.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
3/8"	BOLTS UP TO AND INCLUDING 2.5 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
3/4"	BOLTS UP TO AND INCLUDING 3.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
7/8"	BOLTS UP TO AND INCLUDING 3.5 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1"	BOLTS UP TO AND INCLUDING 4.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT

BOLT LENGTHS OVER FOUR DIA. BUT NOT EXCEEDING EIGHT DIA.

3/4"	BOLTS 2.25 TO 4.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
7/8"	BOLTS 2.75 TO 5.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1"	BOLTS 3.25 TO 6.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1 1/8"	BOLTS 3.75 TO 7.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1 1/4"	BOLTS 4.25 TO 8.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT

4. ALL ONE-SIDED BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

FIELD NDE MINIMUM REQUIREMENTS:

1. ALL NDE SHALL BE IN ACCORDANCE WITH AWS D1.1.
2. FOR NEW BASE STIFFENERS (INCLUDING OF TRANSITION STIFFENERS) AND ANCHOR ROD BRACKETS, COMPLETE JOINT PENETRATION WELDS SHALL BE 100% INSPECTED BY ULTRASONIC TESTING (UT). ALL PARTIAL JOINT PENETRATION AND FILLET WELDS SHALL BE 100% INSPECTED BY MAGNETIC PARTICLE TESTING (MT).
3. FOR NEW FLAT PLATE REINFORCEMENT AT THE BASE OF THE TOWER, COMPLETE JOINT PENETRATION WELDS SHALL BE 100% INSPECTED BY ULTRASONIC TESTING (UT). ALL PARTIAL JOINT PENETRATION AND FILLET WELDS SHALL BE 100% INSPECTED BY MAGNETIC PARTICLE TESTING (MT), BUT MAY BE LIMITED TO A HEIGHT OF 10'-0".
4. FOR NDE OF THE EXISTING BASE PLATE CIRCUMFERENTIAL WELD, GC SHALL REFERENCE THE MI CHECKLIST FOR APPLICABILITY. NOTIFY THE EOR AND TOWER OWNER IMMEDIATELY IF ANY CRACKS ARE SUSPECTED OR HAVE BEEN IDENTIFIED. THE NDE SHALL INCLUDE ALL EXISTING MODIFICATIONS THAT HAVE BEEN WELDED TO THE BASE PLATE.
5. ALL TESTING LIMITATIONS SHALL BE DETAILED IN THE NDE REPORT.

PLANS PREPARED FOR:



AMERICAN TOWER
 3500 REGENCY PARKWAY, SUITE 100
 CARY, NC 27518
 OFFICE: (919) 466-5149

PROJECT INFORMATION:

HICKORY NC, NC
SITE #: 282219
 148-A OCEAN BOULEVARD
 SOUTHERN SHORES, NC 27949
 (DARE COUNTY)

PLANS PREPARED BY:



TOWER ENGINEERING PROFESSIONALS
 326 TRYON ROAD
 RALEIGH, NC 27603
 OFFICE: (919) 661-6351
 www.tepgroup.net
 N.C. LICENSE # P-1403

SEAL:



0	06-05-18	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:
DRAWN BY: RTP		CHECKED BY: RJR

SHEET TITLE:

PROJECT NOTES II

SHEET NUMBER:	REVISION:
N-3	0
TEP #: 60448.202443	

PROJECT BILL OF MATERIALS

PART	SHEET REF.	MEMBER SIZE	LENGTH	GRADE	QTY	BOLT SIZE	BOLT GRADE	TOTAL BOLT QTY	WEIGHT PER PART (LB.)	TOTAL WEIGHT (LB.)
PIPE SECTION	S-2	14.000" O.D. (0.500" TH.)	30'	ASTM A53-B-42	1	-	-	-	2164.8	2164.8
PIPE SECTION	S-3	6.625" O.D. (0.864" TH.)	20'	ASTM A53-B-42	1	-	-	-	1064.0	1064.0
FLANGE PLATE	S-6	PL34½" O.D. (11" I.D.)	1½"	ASTM A572-50	1	¾"ø x 4½"	ASTM A325-X	16	39.0	78.0
FLANGE PLATE	S-8	PL20" O.D. (11" I.D.)	1½"	ASTM A572-50	1	¾"ø x 5½"	ASTM A325-X	12	90.6	90.6
FLANGE PLATE	S-8	PL20" O.D. (6¾" I.D.)	2"	ASTM A572-50	2	¾"ø x 4"	ASTM A325-X	6	154.3	308.7
BULKHEAD PLATE	S-6	PL34½" O.D. (14½" I.D. HOLE)	½"	ASTM A572-50	2	-	-	-	86.3	172.5
BULKHEAD PLATE	S-7	PL34½" O.D. (14½" I.D. HOLE)	½"	ASTM A572-50	1	-	-	-	85.4	85.4
BULKHEAD PLATE	S-7	PL36½" O.D. (6¾" I.D. HOLE)	½"	ASTM A572-50	1	-	-	-	119.2	119.2
CAP PLATE	S-8	PL36½" O.D.	½"	ASTM A572-50	1	-	-	-	147.9	147.9
RING PLATE	S-6	PL3" x 35" O.D.	½"	ASTM A36	2	-	-	-	23.2	46.4
RING PLATE	S-6	PL6" x 35" O.D.	½"	ASTM A36	3	-	-	-	46.4	139.3
RING PLATE	S-6	PL3" x 37" O.D.	½"	ASTM A36	2	-	-	-	24.6	49.1
STIFFENER PLATE	S-8	PL6" x 9"	1"	ASTM A572-50	8	-	-	-	10.6	84.4
HANDHOLE	S-5	PL6" x 9" x 3½"	½"	ASTM A572-65	9	-	-	-	13.3	119.3
HEAVY HEX NUT	S-3	¾"	-	ASTM A563	34	-	-	-	0.2	6.6
PLATE WASHER	S-3	PL1½" O.D. (¾" I.D. HOLE)	¾"	ASTM F436	68	-	-	-	0.1	2.8
RIVET NUT	S-3	¾"	-	-	60	¾" x 1½"	ASTM F593	60	0.1	3.0

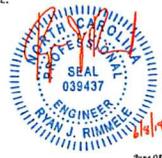
PLANS PREPARED FOR:

AMERICANTOWER
 3500 REGENCY PARKWAY, SUITE 100
 CARY, NC 27518
 OFFICE: (919) 466-5149

PROJECT INFORMATION:
HICKORY NC, NC
SITE #: 282219
 148-A OCEAN BOULEVARD
 SOUTHERN SHORES, NC 27949
 (DARE COUNTY)

PLANS PREPARED BY:

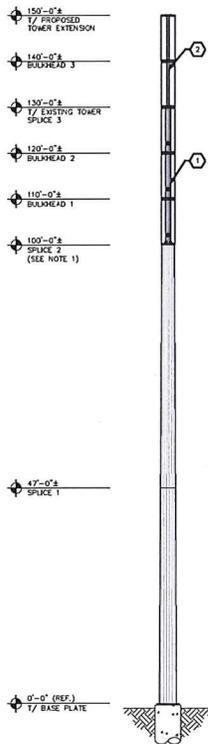
TOWER ENGINEERING PROFESSIONALS
 326 TRYON ROAD
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 OFFICE: (919) 861-6351
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 N.C. LICENSE # P-1403

SEAL:

 RYAN J. RIMMELLE
 ENGINEER
 039437
 June 08, 2018

REV	DATE	ISSUED FOR:
0	06-09-18	MODIFICATION DRAWINGS
DRAWN BY: RTP		CHECKED BY: RJR

SHEET TITLE:
BILL OF MATERIALS

SHEET NUMBER: **N-4** REVISION: **0**
 TEP #: C0448.202443



MODIFICATION SCHEDULE			
NO.	MODIFICATION DESCRIPTION	ELEVATION (FT.)	SHEET
①	REMOVE AND REPLACE EXISTING TOWER SECTION.	100.0 - 130.0	S-2 THROUGH S-10
②	INSTALL PROPOSED TOWER EXTENSION.	130.0 - 150.0	S-3 THROUGH S-10
③	CONTRACTOR TO PLUMB TOWER PER SECTION 13.3.3 OF AIA/714-222-G.	--	--
④	MODIFICATION INSPECTION BY TEP. CONTACT TEP FOR FEE: PHOTO@TEPGROUP.NET	--	--

NOTES:

- CONTRACTOR SHALL FIELD VERIFY SPICE ELEVATION PRIOR TO INSTALLATION. CONTACT TOWER OWNER AND ENGINEER OF RECORD IF SPICE ELEVATIONS DIFFER FROM WHAT IS SHOWN. SHAFT REINFORCEMENT ELEVATIONS ARE DEPENDENT ON SPICE ELEVATIONS AND MAY NEED TO BE ADJUSTED TO ACCOMMODATE ACTUAL SPICE ELEVATION.
- ANTENNAS AND OTHER APPURTENANCES MAY NEED TO BE TEMPORARILY REMOVED OR MOVED DURING THE INSTALLATION OF THE MODIFICATIONS SHOWN ABOVE.
- CONTRACTOR SHALL ORDER AND INSTALL A NEW TOWER TAG IF THE EXISTING TOWER TAG IS MOVED OR DAMAGED DUE TO THE INSTALLATION OF THE MODIFICATION SHOWN ABOVE.
- PRIOR TO FABRICATION AND INSTALLATION, CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND QUANTITIES GIVEN. LENGTH AND QUANTITIES PROVIDED ARE FOR QUOTING PURPOSES ONLY AND SHALL NOT BE USED FOR FABRICATION.
- NO DETAILED INFORMATION REGARDING INTERFERENCES WAS PROVIDED. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, REPORT ANY AND ALL DISCREPANCIES TO TOWER ENGINEERING PROFESSIONALS, INC. AND AMERICAN TOWER CONSTRUCTION MANAGER IMMEDIATELY.

PLANS PREPARED FOR:

AMERICAN TOWER
 3500 REGENCY PARKWAY, SUITE 100
 CARY, NC 27518
 OFFICE: (919) 468-5149

PROJECT INFORMATION:
HICKORY NC, NC
SITE #: 282219
 148-A OCEAN BOULEVARD
 SOUTHERN SHORES, NC 27949
 (DARE COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
 326 TRYON ROAD
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 www.tepgroup.net
 N.C. LICENSE #P-1403

SEAL:

 June 08, 2018

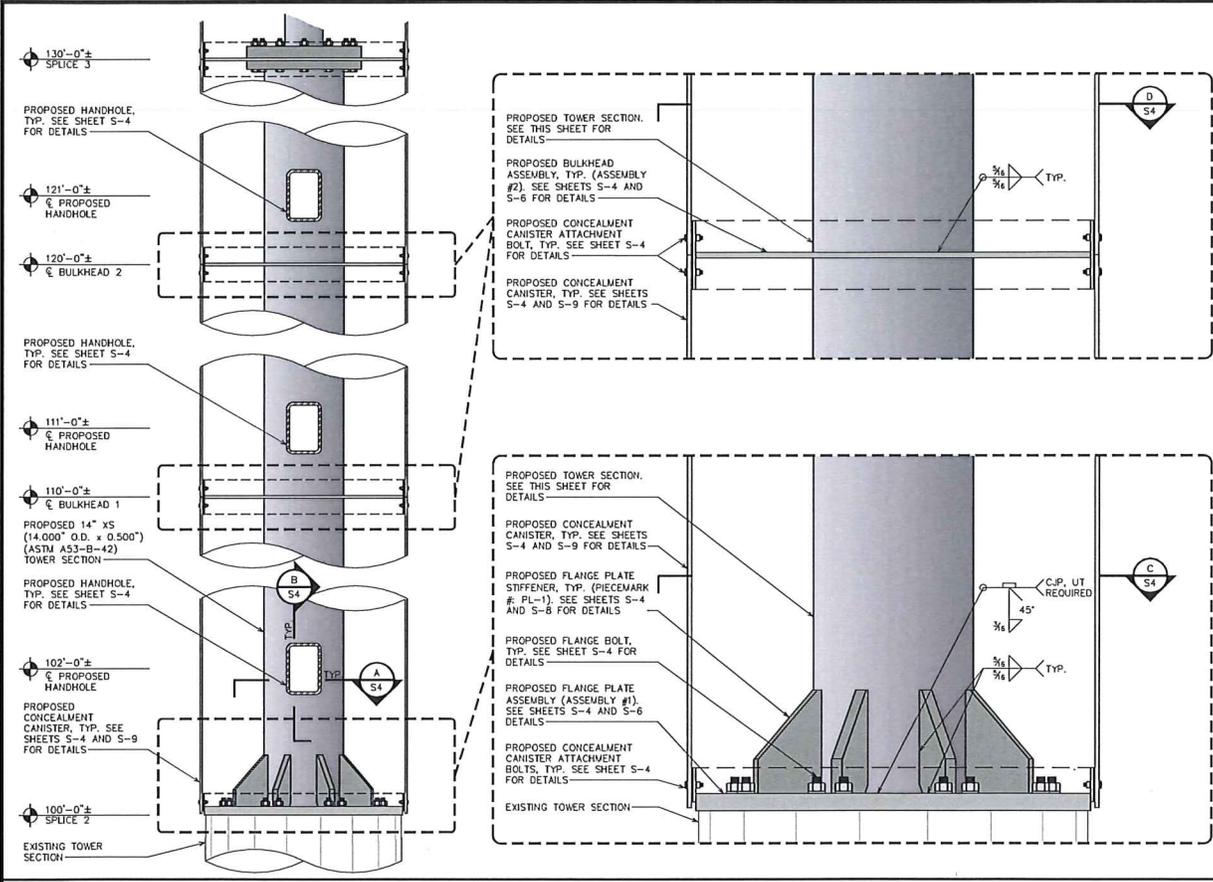
0	06-08-18	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:
DRAWN BY: RTP		CHECKED BY: RJR

SHEET TITLE:
TOWER ELEVATION AND MODIFICATION SCHEDULE

SHEET NUMBER: **S-1** REVISION: **0**
 TEP #: 60448.202443

TOWER ELEVATION
 SCALE: 1" = 20'-0"





PARTIAL ELEVATION
SCALE: 3/8" = 1'-0"

PLANS PREPARED FOR:

AMERICAN TOWER
3500 REGENCY PARKWAY, SUITE 100
CARY, NC 27518
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PROJECT INFORMATION:

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N.C. LICENSE #P-1403

SEAL:

PROFESSIONAL ENGINEER
SEAL
039437
RYAN J. RIMMEL
June 03, 2018

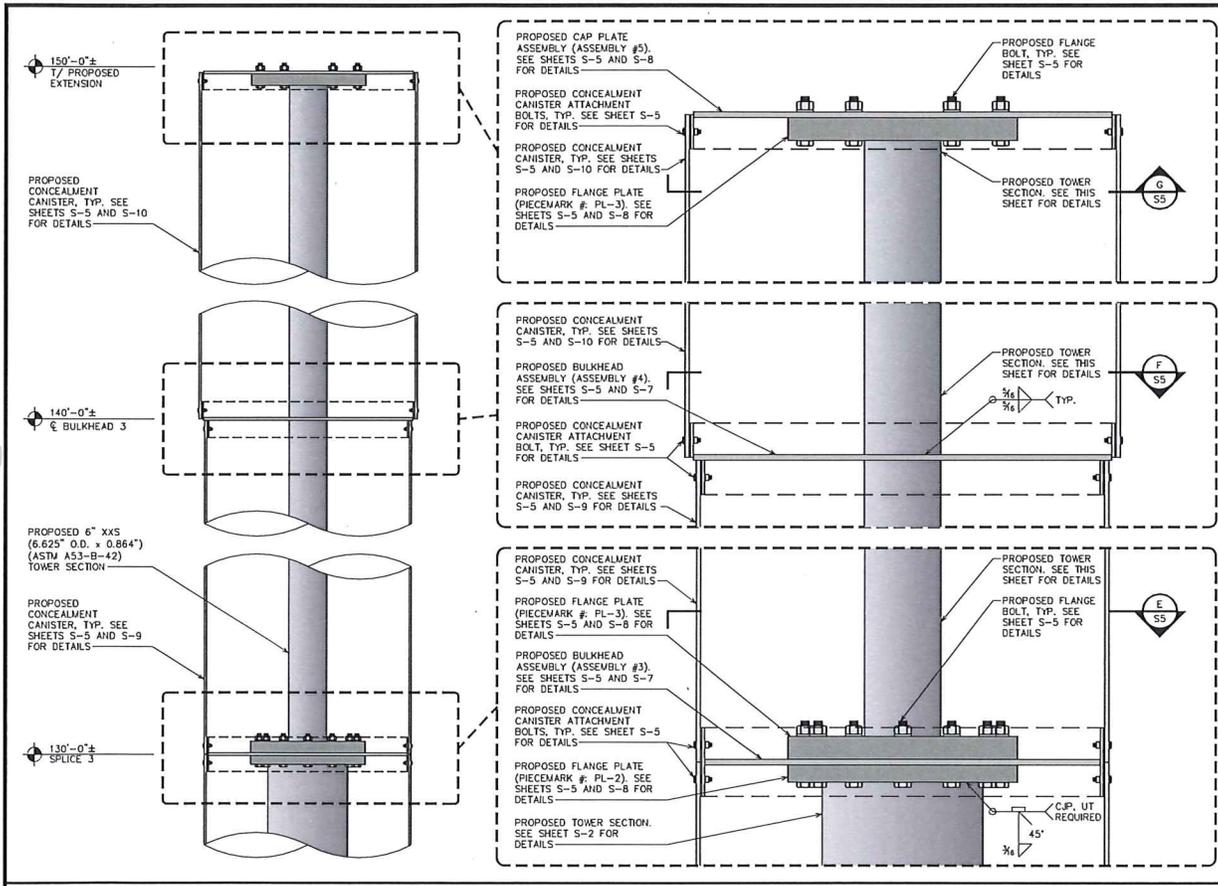
REV	DATE	ISSUED FOR:
0	06-09-18	MODIFICATION DRAWINGS

DRAWN BY: RJP | CHECKED BY: RJR

SHEET TITLE:

TOWER REINFORCEMENT DETAILS I

SHEET NUMBER:	REVISION:
S-2	0
TEP #: G0448.202443	



PARTIAL ELEVATION
SCALE: 3/4" = 1'-0"

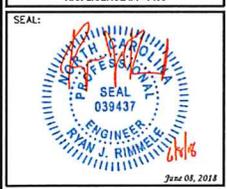


PLANS PREPARED FOR:
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CARY, NC 27518
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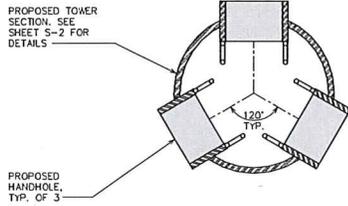
0	06-08-18	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:
DRAWN BY: RTP CHECKED BY: RJR		

SHEET TITLE:
TOWER REINFORCEMENT DETAILS II

SHEET NUMBER: **S-3** REVISION: **0**
TEP #: 60448.202443

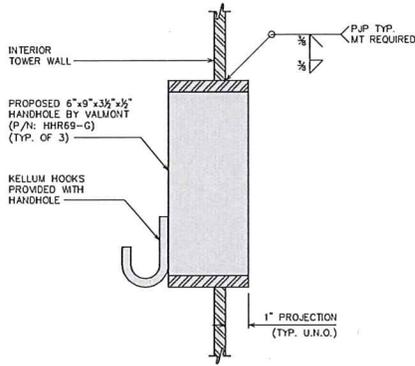
NOTE:

CONFIRM HANDHOLE ORIENTATION WITH THE PROPOSED CARRIER'S ANTENNA ORIENTATION PRIOR TO CONSTRUCTION.



SECTION

SCALE: 1/2" = 1'-0"



SECTION

SCALE: 3" = 1'-0"



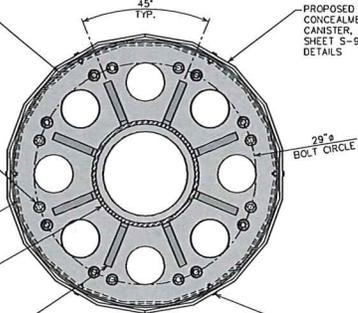
PROPOSED FLANGE PLATE ASSEMBLY (ASSEMBLY #1) SEE SHEET S-6 FOR DETAILS

(16) EXISTING BOLTS TO BE REMOVED AND REPLACED WITH PROPOSED 3/8" ASTM A325-X BOLTS. CONTRACTOR TO FIELD VERIFY LOCATIONS. CONTRACTOR TO REAM BOLT HOLES IN EXISTING FLANGE PLATE TO 1/2". CONTRACTOR TO PRE-TENSION BOLTS. SEE SHEET N-3 FOR DETAILS

EXISTING TOWER SECTION (BELOW)

PROPOSED TOWER SECTION. SEE SHEET S-2 FOR DETAILS

PROPOSED FLANGE PLATE STIFFENER, TYP. (PIECEMARK # PL-1) SEE SHEET S-8 FOR DETAILS



PROPOSED 3/8"-18 STAINLESS STEEL FULL THREAD TAP BOLT WITH WASHER, TYP.

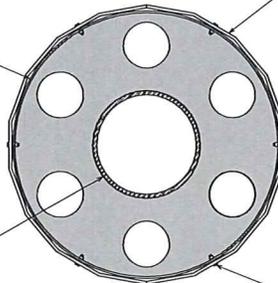
SECTION

SCALE: 1" = 1'-0"



PROPOSED BULKHEAD ASSEMBLY, TYP. (ASSEMBLY #2) SEE SHEET S-6 FOR DETAILS

PROPOSED TOWER SECTION. SEE SHEET S-2 FOR DETAILS



PROPOSED CONCEALMENT CANISTER, TYP. SEE SHEET S-9 FOR DETAILS

PROPOSED 3/8"-18 STAINLESS STEEL FULL THREAD TAP BOLT WITH WASHER, TYP.

SECTION

SCALE: 1" = 1'-0"



PLANS PREPARED FOR:

AMERICAN TOWER
3500 REGENCY PARKWAY, SUITE 100
CARY, NC 27518
OFFICE: (919) 468-5149

PROJECT INFORMATION:

HICKORY NC, NC
SITE #: 282219
148-A OCEAN BOULEVARD
SOUTHERN SHORES, NC 27949
(DARE COUNTY)

PLANS PREPARED BY:

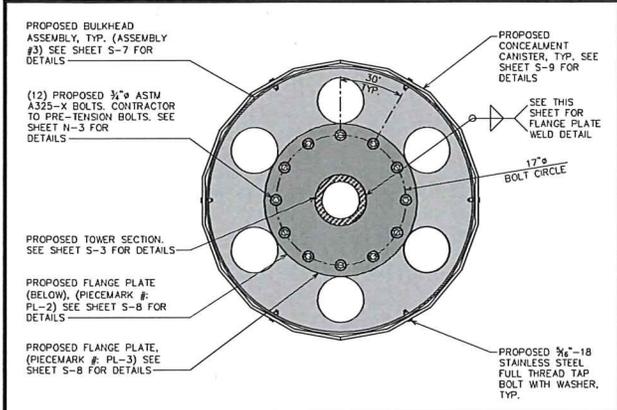
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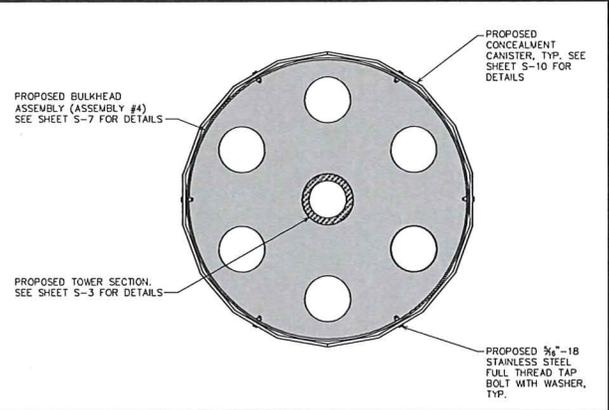
0	06-08-18	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:
DRAWN BY: RTP CHECKED BY: RJR		

SHEET TITLE:
TOWER REINFORCEMENT DETAILS III

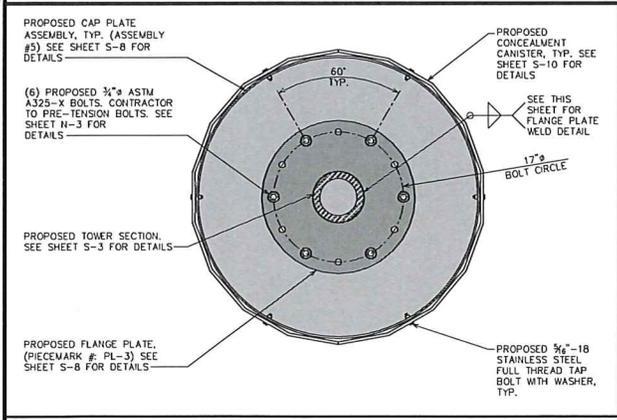
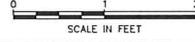
SHEET NUMBER: S-4	REVISION: 0
TEP #: 60448.202443	



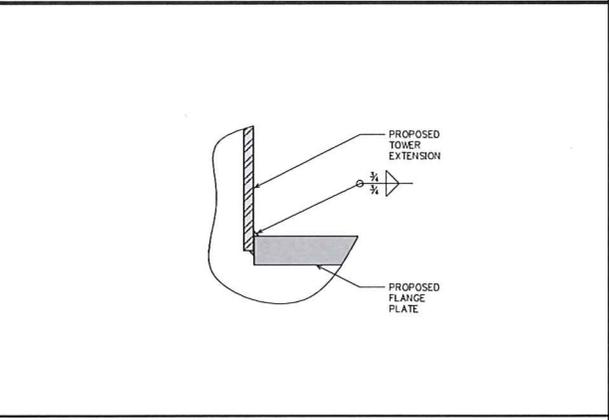
SECTION E
SCALE: 1" = 1'-0"



SECTION F
SCALE: 1" = 1'-0"



SECTION G
SCALE: 1" = 1'-0"



FLANGE PLATE WELD DETAIL
SCALE: N.T.S.

PLANS PREPARED FOR:
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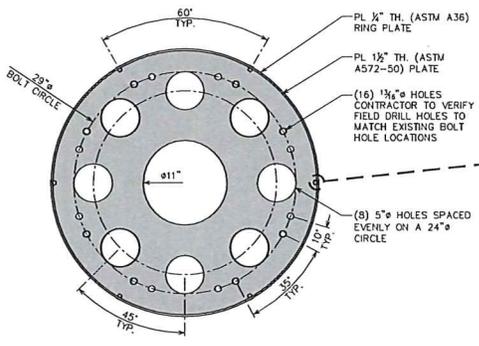
SEAL:

June 03, 2018

0	CE-06-18	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:
DRAWN BY: RTP		CHECKED BY: RJR

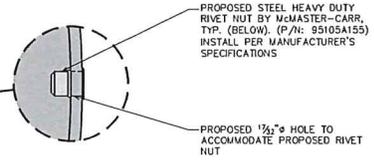
SHEET TITLE:
TOWER REINFORCEMENT DETAILS IV

SHEET NUMBER: **S-5** REVISION: **0**
TEP #: 60448-202443



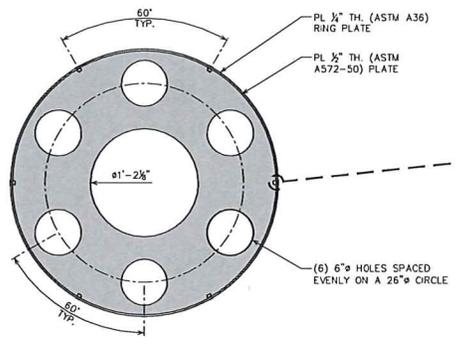
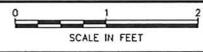
PLAN VIEW

NOTE:
FOR ORDERING PARTS, CONTACT McMASTER-CARR AT: (404) 346-7000



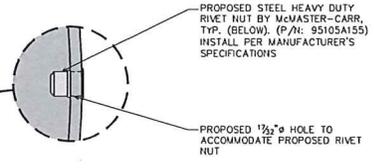
FRONT VIEW

FLANGE PLATE ASSEMBLY (ASSEMBLY #1)
SCALE: 1" = 1'-0"



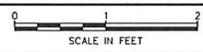
PLAN VIEW

NOTE:
FOR ORDERING PARTS, CONTACT McMASTER-CARR AT: (404) 346-7000



FRONT VIEW

BULKHEAD ASSEMBLY (ASSEMBLY #2) - TYPICAL OF 2
SCALE: 1" = 1'-0"



PLANS PREPARED FOR:

AMERICAN TOWER
3500 REGENCY PARKWAY, SUITE 100
CARY, NC 27518
OFFICE: (919) 466-5149

PROJECT INFORMATION:

HICKORY NC, NC
SITE #: 282219
148-A OCEAN BOULEVARD
SOUTHERN SHORES, NC 27949
(DARE COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (819) 661-6351
www.tepgroup.net
N.C. LICENSE # P-1403

SEAL:

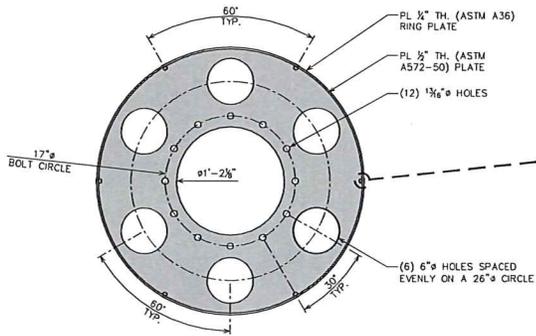
REV	DATE	MODIFICATION DRAWINGS	ISSUED FOR:
0	06-08-18		

DRAWN BY: RTP CHECKED BY: RJR

SHEET TITLE:

TOWER REINFORCEMENT DETAILS V

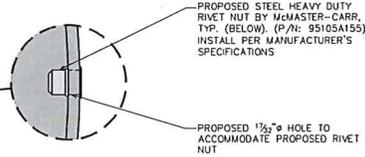
SHEET NUMBER: **S-6** REVISION: 0
TEP #: G0448.202443



PLAN VIEW

NOTE:

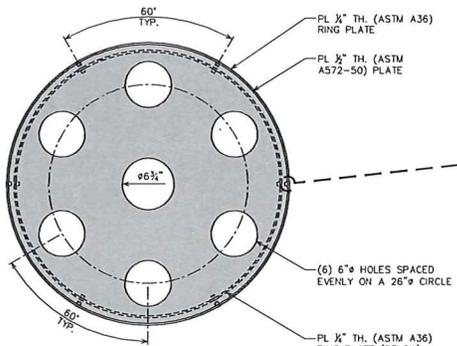
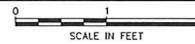
FOR ORDERING PARTS, CONTACT McMASTER-CARR AT: (404) 346-7000



FRONT VIEW

BULKHEAD ASSEMBLY (ASSEMBLY #3)

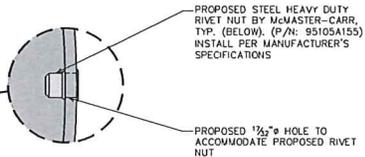
SCALE: 1" = 1'-0"



PLAN VIEW

NOTE:

FOR ORDERING PARTS, CONTACT McMASTER-CARR AT: (404) 346-7000



FRONT VIEW

BULKHEAD ASSEMBLY (ASSEMBLY #4)

SCALE: 1" = 1'-0"



PLANS PREPARED FOR:

AMERICAN TOWER
 3500 REGENCY PARKWAY, SUITE 100
 CARY, NC 27518
 OFFICE: (919) 466-5149

PROJECT INFORMATION:

HICKORY NC, NC
SITE #: 282219
 148-A OCEAN BOULEVARD
 SOUTHERN SHORES, NC 27949
 (DARE COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
 326 TRYON ROAD
 RALEIGH, NC 27603
 OFFICE: (919) 661-6351
 www.tepgroup.net
 N.C. LICENSE # P-1403

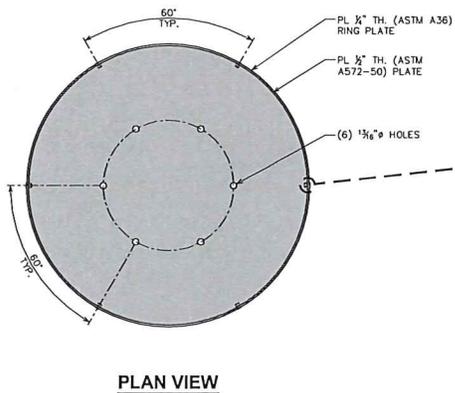
SEAL:

0	06-08-18	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:
DRAWN BY: RJP		CHECKED BY: RJR

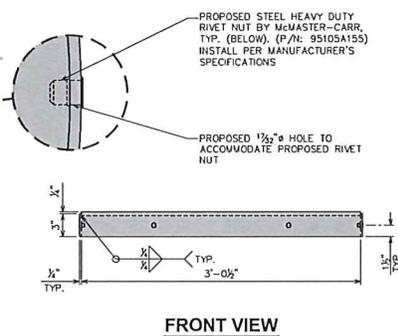
SHEET TITLE:

TOWER REINFORCEMENT DETAILS VI

SHEET NUMBER: **S-7** REVISION: **0**
 TEP #: 60448.202443



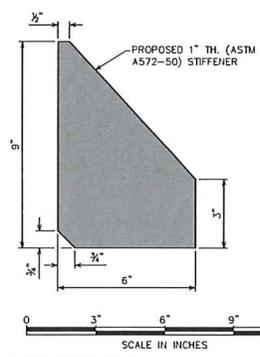
NOTE:
FOR ORDERING PARTS, CONTACT McMASTER-CARR AT: (404) 346-7000



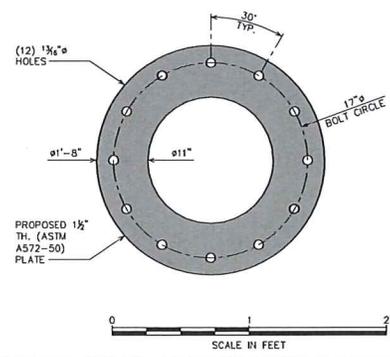
PLAN VIEW

FRONT VIEW

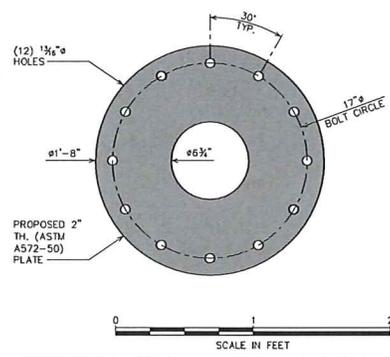
CAP PLATE ASSEMBLY (ASSEMBLY #5)
SCALE: 1" = 1'-0"



PIECEMARK #: PL-1 - TYPICAL OF 8
SCALE: 3" = 1'-0"



PIECEMARK #: PL-2
SCALE: 1 1/2" = 1'-0"

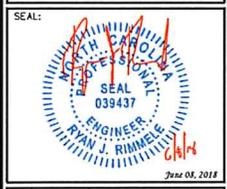


PIECEMARK #: PL-3 - TYPICAL OF 2
SCALE: 1 1/2" = 1'-0"

PLANS PREPARED FOR:
AMERICAN TOWER
3500 REGENCY PARKWAY, SUITE 100
CARY, NC 27518
OFFICE: (919) 466-5149

PROJECT INFORMATION:
HICKORY NC, NC
SITE #: 282219
148-A OCEAN BOULEVARD
SOUTHERN SHORES, NC 27949
(DARE COUNTY)

PLANS PREPARED BY:
TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 681-8351
www.tepgroup.net
N.C. LICENSE #P-1403



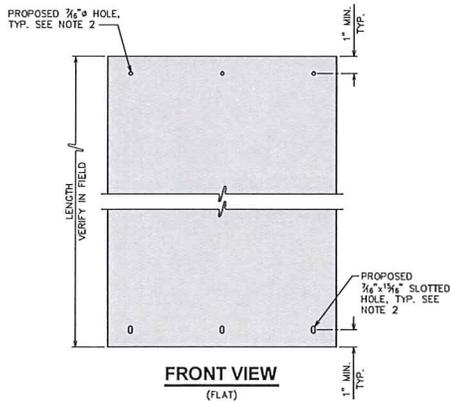
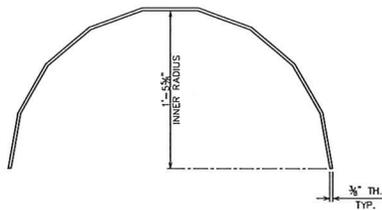
REV	DATE	ISSUED FOR:
0	06-08-18	MODIFICATION DRAWINGS
DRAWN BY: RJP		CHECKED BY: RJR

SHEET TITLE:
TOWER REINFORCEMENT DETAILS VII

SHEET NUMBER: **S-8** REVISION: **0**
TEP#: 60448.202443

NOTE:

1. CONTRACTOR TO ORDER PARTS FROM CURBELL PLASTICS OR AN APPROVED EQUIVALENT. FOR ORDERING PARTS:
 - CONTACT CURBELL PLASTICS AT: (888) 834-7832.
2. CONTRACTOR TO FIELD VERIFY DRILL HOLE LOCATIONS.
3. CONCEALMENT CANISTERS MAY BE PERFORMED.



CONCEALMENT CANISTER DETAILS - TYP. OF 2 PER SECTION

SCALE: N.T.S.

PLANS PREPARED FOR:

AMERICAN TOWER
 3500 REGENCY PARKWAY, SUITE 100
 CARY, NC 27518
 OFFICE: (919) 466-5149

PROJECT INFORMATION:

HICKORY NC, NC
SITE #: 282219
 148-A OCEAN BOULEVARD
 SOUTHERN SHORES, NC 27949
 (DARE COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
 326 TRYON ROAD
 RALEIGH, NC 27603
 OFFICE: (919) 661-6351
 www.tepgroup.net
 N.C. LICENSE #P-1403

SEAL:

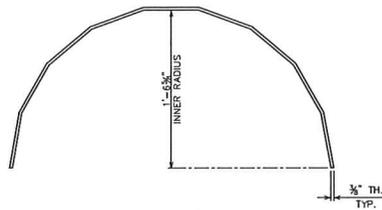
0	CG-08-18	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:
DRAWN BY: RJP		CHECKED BY: RJR

SHEET TITLE:
CONCEALMENT CANISTER DETAILS I

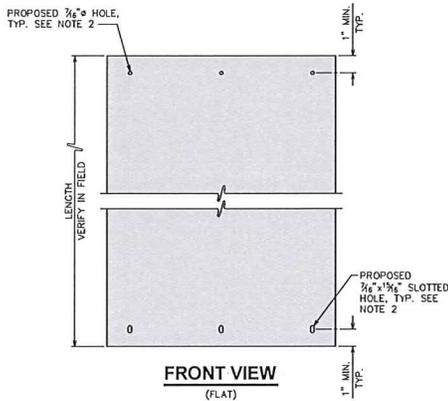
SHEET NUMBER: S-9	REVISION: 0
TEP#: G0448.202443	

NOTE:

1. CONTRACTOR TO ORDER PARTS FROM CURBELL PLASTICS OR AN APPROVED EQUIVALENT. FOR ORDERING PARTS:
- CONTACT CURBELL PLASTICS AT: (888) 834-7832.
2. CONTRACTOR TO FIELD VERIFY DRILL HOLE LOCATIONS.
3. CONCEALMENT CANISTERS MAY BE PERFORMED.



PLAN VIEW
(9-SIDED CANISTER)



FRONT VIEW
(FLAT)

CONCEALMENT CANISTER DETAILS - TYP. OF 2 PER SECTION

SCALE: N.T.S.

PLANS PREPARED FOR:

AMERICAN TOWER
CORPORATION
3500 REGENCY PARKWAY, SUITE 100
CARY, NC 27518
OFFICE: (919) 466-5149

PROJECT INFORMATION:

HICKORY NC, NC
SITE #: 282219
148-A OCEAN BOULEVARD
SOUTHERN SHORES, NC 27949
(DARE COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603
OFFICE: (919) 661-6351
www.tepgroup.net
N.C. LICENSE # P-1403

SEAL:

June 08, 2018

0	06-08-18	MODIFICATION DRAWINGS
REV	DATE	ISSUED FOR:
DRAWN BY: RTP		CHECKED BY: RJR

SHEET TITLE:
CONCEALMENT CANISTER DETAILS II

SHEET NUMBER: S-10	REVISION: 0
TEP#: 60448.202443	



AMERICAN TOWER®
CORPORATION

July 31, 2018

Re: ATC # 282219 Hickory NC, NC – 130 ft. Stealth Canister Monopole w/ Proposed 20 ft. Extension

To Whom It May Concern,

The above noted tower is owned by American Tower Corporation and located in Dare County, NC on 148-A Ocean Boulevard, Southern Shores, NC 27949-3529. This tower has been evaluated with regards to the likelihood of a structural collapse in the event of catastrophic failure.

This tower has been designed and analyzed per the following criteria:

Basic Wind Speed: 135 mph (3-Second Gust, V_{asd})
Basic Wind Speed w/ Ice: 30 mph (3-Second Gust) w/ 0.25" radial ice concurrent
Code: ANSI/TIA-222-G / 2009 IBC / 2012 North Carolina Building Code

TIA-222-G places a minimum factor of safety with respect to wind of 1.78. Also factors of safety with respect to seismic and combinations with wind and ice greatly exceed the minimum 1.78. Due to the numerous safety factors incorporated into the design standard, failure would not be expected to occur at the exact moment the design loads are exceeded.

Statistically almost all failures occur in concurrence with natural disasters such as tornadoes or hurricanes, during which total devastation of the surrounding area would also occur. Due also to the design characteristics and safety factors incorporated into both the material and loading of the tower structure, a catastrophic failure would be highly uncommon.

Based upon review of the structure, in the unlikely event of failure, the expected fall radius would be 150-ft.

If any further questions arise, please contact ATC Engineering at Engineering@americantower.com

Sincerely,

Brendan M Smith, PE
Engineering Manager, Structural



May 28, 2019

Re: ATC # 282219 Hickory NC, NC – 130 ft. Stealth Canister Monopole w/ Proposed 20 ft. Extension

To Whom It May Concern,

The above noted tower is owned by American Tower Corporation and located in Dare County, NC on 148-A Ocean Boulevard, Southern Shores, NC 27949-3529. This tower has been evaluated with regards to the likelihood of a structural collapse in the event of catastrophic failure. The extension modification to the existing structure will be the minimum height needed to meet all carrier's needs. In addition, a separate modification will be completed to meet the specific fall zone radius. This modification will be under ATC Project #12963568. This letter is void if the modifications are not installed.

This tower has been designed and analyzed per the following criteria:

Basic Wind Speed: 135 mph (3-Second Gust, V_{asd})
Basic Wind Speed w/ Ice: 30 mph (3-Second Gust) w/ 0.25" radial ice concurrent
Code: ANSI/TIA-222-G / 2009 IBC / 2012 North Carolina Building Code

TIA-222-G places a minimum factor of safety with respect to wind of 1.78. Also factors of safety with respect to seismic and combinations with wind and ice greatly exceed the minimum 1.78. Due to the numerous safety factors incorporated into the design standard, failure would not be expected to occur at the exact moment the design loads are exceeded.

Statistically almost all failures occur in concurrence with natural disasters such as tornadoes or hurricanes, during which total devastation of the surrounding area would also occur. Due also to the design characteristics and safety factors incorporated into both the material and loading of the tower structure, a catastrophic failure would be highly uncommon.

Based upon review of the structure, in the unlikely event of failure, the expected fall radius would be 50-ft.

If any further questions arise, please contact ATC Engineering at Engineering@americantower.com

Sincerely,



Esha Modi, PE
Engineering Manager, Structural

Authorized by "EOR"
May 29 2019 3:26 PM 