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AGENDA
NATURAL RESOURCES COMMITTEE

Monday, August 10, 2015

2:00 p.m.

Executive Conference Room

Administration Building

Beaufort County Government Robert Smalls Complex

100 Ribaut Road, Beaufort

Committee Members:

Brian Flewelling, Chairman
Alice Howard, Vice Chairman
Gerald Dawson
Steve Fobes
William McBride
Jerry Stewart
Roberts "Tabor" Vaux

Staff Support:

Tony Criscitiello, Planning Director
Ed Hughes, Assessor
Eric Larson, Division Director
Environmental Engineering
Dan Morgan, Division Director
Mapping & Applications

1. CALL TO ORDER – 2:00 P.M.
2. DECISION / PEPPER HALL PLANTATION PROPERTY: COMPREHENSIVE PLAN AMENDMENT AND ZONING MAP AMENDMENT ([backup](#))
3. DISCUSSION / VILLAGES OF OYSTER BLUFF PLANNED UNIT DEVELOPMENT DEVELOPMENT AGREEMENT ([backup](#))
4. QUESTIONS AND ANSWERS / STORMWATER RATE STUDY ([backup](#))
5. STATUS OF OKATIE REGIONAL PARK PROJECT ([backup](#))
6. ADJOURNMENT

2015 Strategic Plan Committee Assignments
Comprehensive Plan Update
Stormwater Management and Rate Analysis





COUNTY COUNCIL OF BEAUFORT COUNTY
BEAUFORT COUNTY PLANNING DIVISION
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TO: Beaufort County Planning Commission
FROM: Anthony Criscitiello, Beaufort County Planning Director
DATE: March 25, 2013
SUBJECT: **Proposed Comprehensive Plan and Zoning Map Amendment for Pepper Hall (Graves Property)**

EXCERPT OF PLANNING COMMISSION RECOMMENDATION from its draft March 4, 2013, meeting minutes:

Mr. Criscitiello noted that Mr. Hicks is a gentleman and it always has been a pleasure to work with Mr. Hicks.

Mr. Criscitiello briefed the Commission on the rezoning request. He supports the staff recommendation and introduced Mr. Robert Merchant, the County Long-range Planner.

Mr. Merchant explained the current and proposed future land use and zoning maps. He compared the difference between the former and the current requests. Land along the Okatie River within 300 feet of the critical line will remain rural zoning and is not part of the current request. The applicant is proposing a development agreement to accompany these map amendments that would lock in the zoning for the duration of the agreement, limit the total ground floor to 700,000 square feet of commercial use, limit individual building footprints to 75,000 square feet, require connectivity and a frontage road, and allow transfer of residential and commercial uses as needed. The current total acreage is 113 acres—65 acres will be zoned commercial regional and the rest will be zoned suburban. Staff recommends denial of the requests because of traffic impacts and water quality concerns of the Okatie River. Even at 50% buildout, the traffic level of service will be E at Highway 278 and Hampton Parkway. The issue is the proposed rezoning would consume 41% of the added capacity on the current widening of Highway 278, further compounding the traffic level of service. Additionally, stormwater runoff from the potential development would add further degradation of the Okatie River. The requests are not supported by the Comprehensive Plan. The Applicant's traffic impact analysis uses the current traffic model that assumed a 4% growth of the area. The County asked the applicant to scale down the growth rate to 2-1/2% annually. The Applicant's statement that there was a 22% drop on Highway 278 is likely due to improvements such as the Bluffton Parkway and traffic lighting that had been taken into account by the County's transportation model. That current reduction probably will not remain when growth picks up. The County approved traffic level is D; increase from this rezoning probably would raised it to Level F. It is difficult to mitigate impacts because of the geography of the site. Connectivity is difficult with the only possibility of a connector road with Berkley Hall. The proposed flyover is not funded; it is an expensive opportunity that is not in the pipeline and is simply being considered at this moment. The County already spent \$140-150 million on road development in Southern Beaufort County. After consulting the County stormwater department, the Okatie River is an impaired waterway with high fecal coliform and closed waterbeds. A study noted a 21-50% reduction to the Okatie headwaters was needed to bring the river to conformance. Runoff from the proposed development will go into the river. Commercial development, although mitigated, will impact the water quality. The County has a commitment policy to preserving the waters through fee simple or development rights purchases. Mr. Merchant noted an error in the map that will be corrected when it goes on to Council. The Okatie Marsh PUD was approved 4 to 5 years ago and has been purchased to preserve the land. The impacts to the river include the current PUDs and developments and road widening. The County is moving to promote mixed-use development and walkable

communities with the proposed development code. Staff believes commercial development is not appropriate.

Applicant's Comments: Mr. Jim Scheider, the applicant's representative, introduced Mr. Milt Rhodes, Ms. Jennifer Bihl, and two of the applicants who were in the audience. Mr. Scheider noted the on-going discussions about the buffer area. He takes issue on Mr. Merchant's presentation. All of the numbers on the projections were from the 2004 model. When they did their traffic count on 2012, it was below. He used actual counts from South Carolina Department of Transportation (SCDOT), not the model counts--that are 40,414 instead of 32,900. The request is for a rezoning. He noted that the Zoning and Development Standards Ordinance (ZDSO) states that the Development Review Team (DRT) can require design modifications. He noted approved projects that were factored into their equation: Willow Run is dead in the water, the Johnson property at Highways 46 and 278 is not as busy but the developer is scrambling to move forward, and the "Harris Tetter" site is for sale. He noted that the Comprehensive Plan proposing 28 acres as park, and his applicant's buffer park was in keeping with the plan. He noted Mr. Dan Ahern, the County's former stormwater manager, stated that "development can be engineered to not cause problems in waterways." Mr. Scheider noted that the site would contribute to impact fees. He noted the taxes paid by the applicants were higher than the property that County purchased across the street. All we are asking for is fair treatment. Using speculative traffic information is detrimental to the applicant. We must meet Level D or scale down the project, when it comes before the DRT. As part of a balancing act, decide squaring the rights of the public with the rights of property owners. The applicants have cut the size of their commercial buildings and have reduced the requested cost for the buffer park. They believe they have tried to meet the public interest and to meet the County ordinances.

Public Comment: None were received.

Commission discussion included:

- Traffic count disparities (Mr. Colin Kinton, the County Traffic and Transportation Engineer, noted that the traffic counts at the 2-1/2% growth rate were agreed upon between he and Ms. Bihl. He noted that she used December 2012 rates which were not peak time. One must account for approved development, whether active or not. The analysis presented was Ms. Bihl's analysis, not the County's analysis. Level of service E was still reached with her analysis--the road will fail. Weekday, instead of weekend timeshare, traffic calculations were used in the analysis. Not all approved development sites were included in the analysis. There are frontage road concerns, including construction costs, timeframe, etc.; however, the County is not planning a frontage road to the west of Berkley Hall. Mr. Milt Rhodes, the applicant's representative, noted that there are access points on the east and the west sides of Pepper Hall, and it has been presumed that access would connect across Highway 278.);
- The impact of suburban zoning behind the Commercial Regional portion of the property--how the public would be affected, the safety of children, etc. (Mr. Rhodes noted there was 65 acres of commercial uses and the Code does contain a mixed-use concept. The property to the west of Graves Road would transit to suburban zoning. Mr. Rhodes noted that the Habersham subdivision could be inspirational as a by-right zoning with a walkable mixed-use community.);
- A buffer between Berkley Hall and Pepper Hall (Mr. Rhodes noted that the Berkley Hall general manger spoke at the subcommittee meeting requesting coordination of activities between both subdivisions.); and
- The 28-acre buffer park.

Public Comment: Mr. Reed Armstrong of the Coastal Conservation League is in full agreement with the Planning staff's assessment which basically concludes that this is far too much for this location. He provided the following in comparison to the requested rezoning of 65 acres with 750,000 square feet of commercial use: Cross Creek Plaza at the intersection of Robert Smalls Parkway and Parris Island Gateway that serves as the main regional shopping center for northern Beaufort County that includes

Belk, Penney's, Best Buy, TJ Maxx, Pets Mart, numerous other stores and restaurants, and a Super Wal-Mart within 61 acres of 500,000 square feet commercial use; Bluffton Gateway Center at the intersection of Highways 278 and 46 is a 65-acre parcel with 225,000 square feet of commercial space that is compatible with the Future Land Use map and the surrounding area; and the Tanger Outlets I and II combined are 500,000 square feet in about two-thirds of the acreage requested for the Graves property. Numerous studies show that impacts to water quality of the adjacent waterways occur when impervious surfaces exceed 10%. Using current data, if the property were developed in the current rural zoning, there would be 10% impervious surfaces. If the proposed builtout (70 of the 140 acres) occurs, there would be 49.7% of impervious surfaces. DHEC's TMDL (Total Maximum Daily Load) Study stated that because of the existing conditions in the area loads near the river should be reduced by 51%. New development will compound the situation. Additionally, soil maps show that the Pepper Hall soils are poor for infiltration and have the potential for high stormwater runoff. He requests denial of the rezoning request.

Commission discussion included:

- the adaptability of the community to past rezoning where traffic was of considerable concern;
- stormwater management being a best educated guess;
- using bio-filtration systems that can be engineered to protect the river;
- coliform bacteria not necessarily a pollutant, but an indicator that there could be pathogenic problems in the waterways;
- the 10% guide meant degradation of streams without mitigation, however, mitigation and filtration must be used to bring the property back to the level of 10% impervious surface;
- the viability of the stormwater ordinance if it is not sufficient to protect the Okatie;
- the zoning of a property with reasonable use;
- the Commission not being obliged to insure a financial reward for the sale of an owner's property;
- offering respect on the detailed work of the applicants' presentation;
- the property being located in a planned growth area and surrounded by commercial developments;
- acknowledging that the plans may be too intense, but consideration should be given to the rezoning request;
- clarifying the mapping error mentioned in the presentation;
- acknowledging the endless traffic debate, however the Commission must determine the reasonableness of the applicants' request if the stormwater can be engineered to protect the river;
- supporting approval of the rezoning request;
- protecting the water rights now for the future;
- concern for the 300-foot buffer that will remain in rural zoning;
- belief that the applicants have presented a good faith effort to correct the issues;
- concern that County Council will tie the river buffer with the rezoning;
- the balancing act of the applicants trying in all good faith to address the issues and the planning staff trying to protect the Okatie and the public;
- the map amendments having development agreements tied to each; and
- a recommendation to add conditions to the motion to accommodate the County and the applicants.

Motion: Mr. Ed Riley made a motion, and Mr. John Thomas seconded the motion, to recommend to County Council to approve the Southern Beaufort County Future Land Use Map Amendment for R603-021-000-007B-0000; R603-021-000-007B-0000; R603-021-000-0195-0000; R603-021-000-0194-0000; R603-021-000-004A-0000; R603-021-000-06A-0000; R600-021-000-0075-0000; R600-021-000-002-0000 (7 parcels totaling 113+/- acres north of U.S. 278 and west of Graves Road) from Community Commercial (approximately 21 acres fronting US 278) and Rural (for remainder of property) to Regional Commercial (approximately 65 acres front US 278) and Neighborhood Mixed-Use (approximately 48 acres at the rear of the properties).

Further discussion included adding conditions regarding stormwater, traffic, and density; clarifying the motion process; adding a zero impact condition to the Okatie River; reducing the number of residential units and commercial square footage; agreeing that the land owner had the right to develop his property; believing that the market and not the zoning will drive the traffic impact; and inserting caveats to include development agreements.

Amended Motion: Mr. Thomas amended the original motion to add the following conditions:

- that the 700,000 square feet of commercial development be a maximum total and not ground square footage;
- that there be a guaranteed protection of the Okatie River; and
- that the buffer area be set aside from development.

Mr. Randolph Stewart asked to add a buffer that exceeded the current ordinance to protect the privacy of the Berkley Hall residents. Mr. Semmler agreed; however, he noted that the Commission should be concentrating on the Future Land Use Map Amendment instead.

Mr. Riley, accepted the amendments offered by Mr. Thomas, asked that the original motion be so amended.

The **motion, as amended, was carried** (FOR: Brown, LeGree, Petit, Riley, Semmler, and Thomas; AGAINST: Chmelik and Stewart; RECUSED: Bihl).

Motion: Mr. Thomas made a motion, and Mr. Petit seconded the motion, to recommend to County Council to approve the Southern Beaufort County Zoning Map Amendment / Rezoning Request for R603-021-000-007B-0000, R603-021-000-007B-0000; R603-021-000-0195-0000; R603-021-000-0194-0000; R603-021-000-004A-0000; R603-021-000-06A-0000; R600-021-000-0075-0000; R600-021-000-002-0000 (7 parcels totaling 113+/- acres north of U.S. 278 and west of Graves Road) from Rural with Transitional Overlay (approximately 33 acres fronting US 278) and Rural (80 acres of the remainder of the properties) to Commercial Regional (approximately 65 acres fronting US 278) and Suburban (approximately 48 acres at the rear of the properties) to add the following conditions:

- that the 700,000 square feet of commercial development be a total, and not, ground square footage;
- that there be a guaranteed protection of the Okatie River; and
- that the buffer area be set aside from development.

No further discussion occurred. The **motion was carried** (FOR: Brown, LeGree, Petit, Riley, Semmler, and Thomas; AGAINST: Chmelik and Stewart; RECUSED: Bihl).

STAFF REPORT:

A. BACKGROUND:

Case No.	ZMA-2012-07
Applicant/Owner:	Robert Graves, John Graves, and Paul Graves
Property Location:	Intersection of U.S. Highway 278 and Graves Road.
District/Map/Parcel:	R603-021-000-007B-0000; R603-021-000-0195-0000; R603-021-000-0194-0000; R603-021-000-004A-0000; R603-021-000-06A-0000; R600-021-000-0075-0000; R600-021-000-002-0000
Property Size:	113 acres

Current Future Land Use Designations:	Community Commercial (approximately 21 acres fronting US 278) and Rural (remainder of property)
Proposed Future Land Use Designations:	Regional Commercial (approximately 65 acres fronting US 278) and Neighborhood Mixed-Use (approximately 48 acres at the rear of the properties)
Current Zoning Districts:	Rural with Transitional Overlay (approximately 33 acres fronting US 278) and Rural (80 acres of the remainder of properties)
Proposed Zoning Districts:	Commercial Regional (approximately 65 acres fronting US 278) and Suburban (approximately 48 acres at the rear of the properties)

B. SUMMARY OF REQUEST: The applicants, Robert Graves, John Graves, and Paul Graves, are proposing to change the future land use designation and to rezone portions of an assemblage of 7 parcels equaling approximately 113 acres located on the north side of US 278 between the Okatie River and Graves Road. The properties are currently zoned Rural with Transitional Overlay on the 33 acres fronting US 278 and Rural for the remainder of the property (please refer to the attached map for a summary of the proposed future land use map amendments and zoning amendments). The applicant believes that the proposed amendment is consistent with the surrounding land uses and growth trends and that the current widening of US 278 from 4-lanes to 6-lanes will accommodate the additional traffic that would potentially result from the rezoning.

In 2001, County Council approved an application to rezone the 37 acres that front US 278 from Rural to Rural with Transitional Overlay. In 2002, County Council approved the upzoning of a 17.5-acre tract directly east of the proposed rezoning from Rural to Commercial Regional.

C. PREVIOUS REZONING REQUEST: On February 6, 2012, the Planning Commission reviewed a proposal (ZMA-2011-17) to rezone 142 acres to Commercial Regional (64 acres) and Suburban (78 acres). This included all of the land within the subject parcels up to the critical line. The Planning Commission had a split vote on the rezoning. The application was denied by the Natural Resources Committee and later County Council largely due to the potential impacts the rezoning would have on water quality and preservation efforts in the Okatie River and potential traffic impacts on US 278.

This application for rezoning is similar to the Graves Rezoning application that the Planning Commission reviewed at its February 6 meeting with the following exceptions:

- Both the future land use designation and the zoning of all lands within the subject parcels that are located within 300 feet of the critical line (Okatie River and marsh) will remain Rural.
- The applicant is proposing to accompany this rezoning application with a Development Agreement with Beaufort County. The development agreement, among other things, is proposed to place restrictions on the total square footage of ground floor commercial to 700,000 and limit the footprint of individual commercial buildings to 75,000 square feet.

D. TRAFFIC IMPACT ANALYSIS: The applicant submitted a Traffic Impact Analysis (TIA) utilizing the County's current Travel Demand Model (2005). The County's current traffic model assumes a 4.7% annual growth rate, which is unrealistic given the slower growth experienced by the region over the last 5 years. Therefore, staff requested that Bihl Engineering run the numbers with a reduced annual growth rate of 2.5%. Even with the reduced growth rate in the model, the intersection of Hampton Parkway and US 278 at only 50% assumed buildout will be at a level of service (LOS) E which is below the County's minimally acceptable standard of D.

1. **TIA Assumptions:** The TIA assumes a buildout scenario of 700,000 square feet of commercial and office development and 480 residential units. These growth assumptions are not based on the maximum development potential of the property with the proposed rezoning, but based on the assumption of adopting a development agreement that would limit ground floor commercial development to a maximum of 700,000 square feet (additional commercial square footage could be provided on 2nd and 3rd floors).
2. **Reduction in Traffic Volume on US 278:** The TIA documents that there has been a 22% drop in traffic volumes on US 278 since 2006. This reduction in volume is likely due to two factors:
 - Improvements to the region's transportation network with the extension of the Bluffton Parkway to SC 170, and the additions of frontage roads along US 278.
 - The economic downturn which has reduced traffic volumes statewide.

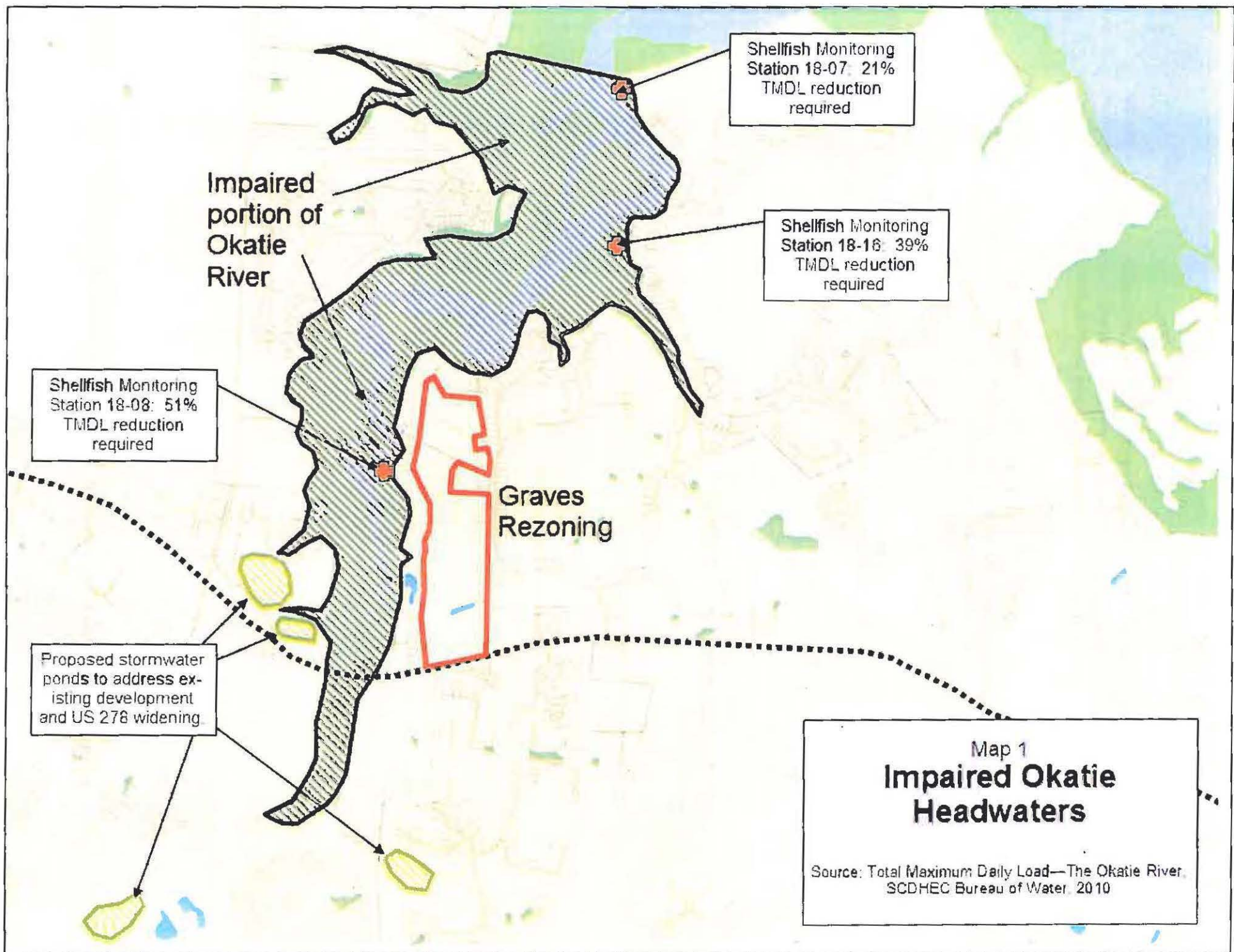
It is important to clarify that the road network improvements mentioned above are already factored into the County's Travel Demand Model which forecasts portions of US 278 failing by 2025. While, the economic downturn may have slowed the rate of development, the potential volume of approved development, permitted through PUDs and existing zoning has not diminished.

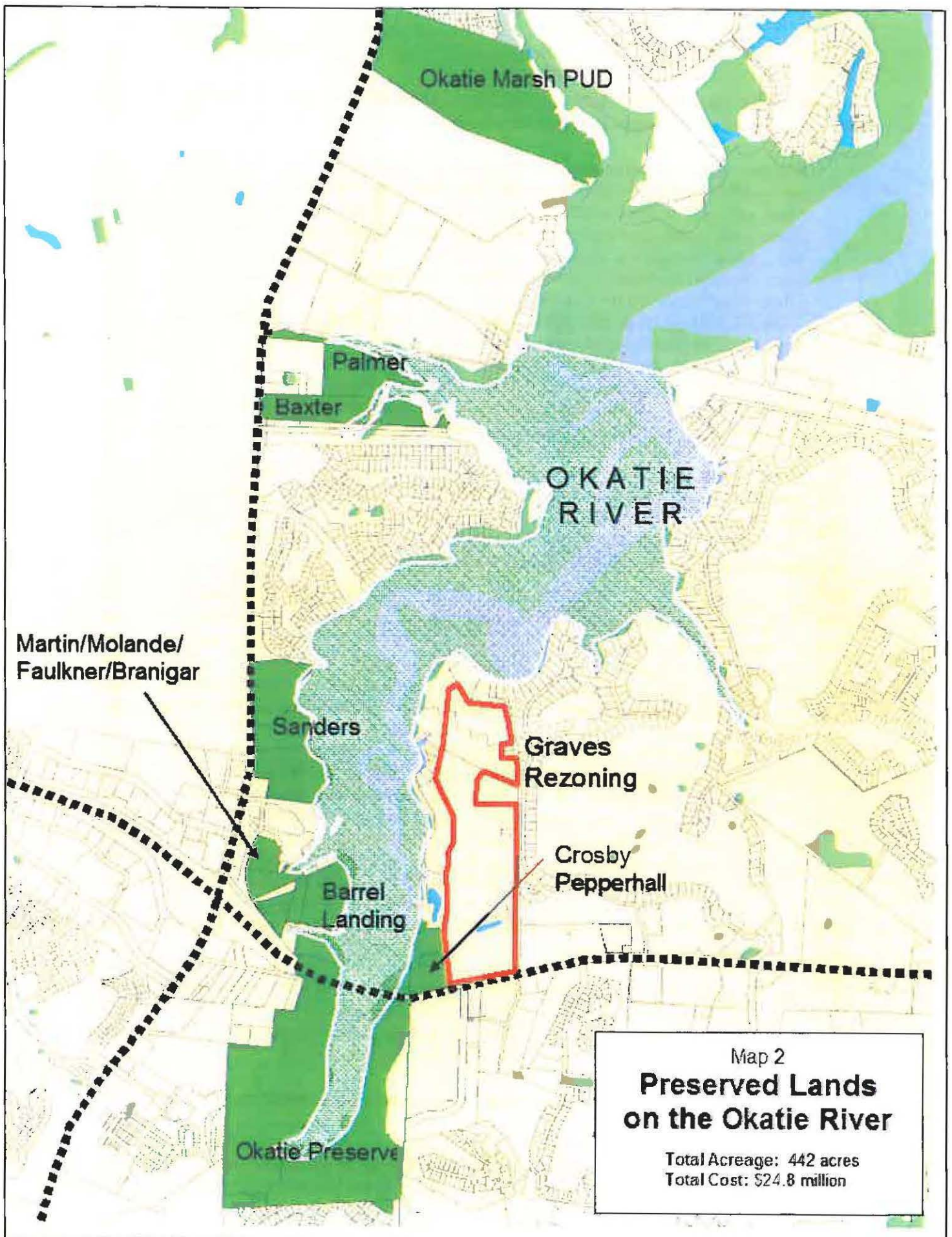
3. **Projected Failure of US 278/Hampton Parkway Intersection:** The TIA projects that the intersection of US 278 and Hampton Parkway will be at a Level of Service (LOS) E for PM peak hours at 50% assumed buildout, which is projected for 2018. It should be noted that while the overall intersection is projected to be at LOS E, specific movements at this intersection will be LOS F, which will result in greater delays and congestion. For example, left turns from US278 entering the site are projected to experience 115 second delays, potentially resulting in the capacity of left turn lanes to be used up. This could result in stopped traffic in through lanes on US 278 and could increase the potential for accidents. These intersection failings are only compounded at 100% assumed buildout.
4. **Projected Development will Consume 41% of Additional Capacity Gained by US 278 Widening :** Beaufort County is in the process of constructing two additional lanes to US 278 between Simmonsville Road and SC 170 to provide additional capacity of 18,000 vehicles per day (vpd) at a cost of approximately \$24 million. This road widening project is being implemented to address projected road deficiencies caused by previously approved development. The development enabled by the Graves rezoning, at 100% assumed buildout, would add 7,453 vpd to US 278 which is 41% of the added capacity gained by the road widening.
5. **Limited Opportunities to Mitigate Traffic Impacts:** The projected traffic impacts of this rezoning are difficult to mitigate due to the geography of the site. The site's location between the Okatie River and Berkeley Hall will necessitate all traffic generated by the rezoning to use US 278 or Hampton Parkway for access. It is highly improbable that any future connections will be made west or north of the site across the Okatie River. The only opportunity to relieve traffic from the Hampton Parkway intersection and adjoining right-in/right-out intersections would be to connect to the traffic signal at Berkeley Hall via a frontage road. Another improvement that could reduce overall traffic volumes on US 278 would be to extend the Bluffton Parkway west to Interstate 95 (which is discussed in the cover memo to the TIA). This project, however, is unfunded and is only beginning to be explored as a future network improvement. The Comprehensive Plan projects this extension to cost \$40 million. The cost will likely be much higher due to the environmental constraints of crossing the New River Swamp.

E. PROJECTED IMPACTS TO WATER QUALITY: The Graves property is located along the headwaters of the Okatie River, which is classified as an impaired waterway by the SCDHEC. Four of the six shellfish monitoring stations located along the river exceed shellfish fecal coliform water quality standards.

1. **Proposed Rezoning would Further Degrade Water Quality:** The potential quantity of development enabled by this rezoning would result in further degradation to the Okatie headwaters, even with the application of Beaufort County's current stormwater regulations. According to SCDHEC, in order to restore water quality in the Okatie headwaters, a 21% to 51% reduction of Total Maximum Daily Loads (TMDLs) is necessary depending on the water quality monitoring station (see Map 1)¹. The application of the County's existing stormwater regulations would still result in an addition of TMDLs. The County's current regulations require development to have 10% "effective imperviousness" for runoff volume control. Effective imperviousness means that even if the actual developed area is 50% impervious, stormwater controls must render the volume of stormwater runoff to the equivalent of a site that is 10% impervious. With 700,000 square feet of commercial buildings and accompanying parking areas spread over 65 acres, there will still be significant increases in TMDLs into the Okatie River which will only be partially mitigated by the existing stormwater regulations and the 300 foot strip of rural land along the river. Greater TMDLs result in a greater volume of freshwater runoff into the Okatie River, which has been shown to be a major contributing factor in raising fecal coliform levels.
2. **The County has Shown Commitment to Improve Water Quality in the Okatie River:** Increasing the development potential of the Graves property to the degree that is being proposed goes counter to prevailing County policies and actions in the Okatie watershed over the last 10 years. Beaufort County has shown its commitment to protecting water quality through its policies and expenditures of public funds. Since 2000, Beaufort County has purchased (through fee simple and development rights) approximately 444 acres of land along the Okatie River at a cost of \$25.7 million for the purpose of reducing the amount of development that would further degrade water quality (see Map 2). The most recent purchase of the 97 acre Okatie Marsh PUD reversed a previous action to upzone the property in 2008, demonstrating the level of interest that the County places on preserving water quality in the river. In addition to land preservation efforts, the County plans to spend \$356,000 to construct 4 stormwater ponds (see Map 1) to address the impacts of existing development and to mitigate the impacts of the widening of US 278.

¹ Source: Total Maximum Daily Load - The Okatie River, SCDHEC Bureau of Water, 2010





F. ANALYSIS OF COMPREHENSIVE PLAN AMENDMENT: Section 106-494 of the ZDSO requires the following considerations when reviewing a proposed amendment to the Comprehensive Plan:

1. **Whether capital investments, population trends, land committed to development, density, use or other conditions have changed that justify the amendment.** The proposed rezoning would only add to the potential for future growth and put more strain on the costly capital investments, mainly road improvements that are being made in southern Beaufort County. There was a period of explosive growth in the greater Bluffton area beginning in the early 1990's and continuing until the recent economic downturn. The rapid growth and its accompanying stress on public infrastructure led the County, the Town of Bluffton and the Town of Hilton Head Island to develop a regional plan that assessed the impact of existing and projected growth on public facilities. The plan forecasted that over the next 20 years, the region could expect to double in population due to the quantity of previously approved PUDs and subdivisions. The plan also projected that the region's road network was ill equipped to handle the projected future population growth. The County responded to these infrastructure deficiencies by investing over \$148 million in public funds to address the impacts of previously approved development.
2. **Whether the proposed amendment is consistent with the comprehensive plan's goals and policies.** The purpose of the Community Commercial and Rural future land use designations for the Graves Property is to discourage further sprawl in Southern Beaufort County and to preserve and protect sensitive natural features, such as the Okatie River headwaters. The proposed rezoning goes counter to both of these objectives.
 - a) Discourage Further Sprawl in Southern Beaufort County: This objective is achieved primarily by limiting the spread of moderate-density auto-centric residential and commercial development. The applicant has argued that the proposed comprehensive plan and zoning amendment would enable and encourage walkable mixed-use development which is supported in the comprehensive plan as a way to counter sprawl. However, Commercial Regional zoning in Beaufort County has primarily enabled "auto-centric" development such as shopping centers, factory outlet malls, and car dealerships. While Commercial Regional zoning does have some tools that could be used to create mixed-use, walkable development, it is a much better at facilitating auto-oriented sprawling development that is not supported in the plan. Additionally, this proposed comprehensive plan amendment would also create a pattern of strip commercial development that is inconsistent with the plan. The comprehensive plan states that commercial uses should focus on key transportation nodes, avoiding strip patterns. Approximately 65 acres of Regional Commercial property would yield on average 700,000 square feet of retail and office space if fully developed. While currently 37 acres on the east side of Graves Road are zoned Commercial Regional, the addition of 65 acres would create a 100 acre regional node less than a mile east of another regional node located at McGarvey's Corner.
 - b) Protect the Okatie River Headwaters: The second goal was to preserve and protect sensitive natural features in rural areas, in this case the headwaters of the Okatie River. Increasing the future land use to Regional Commercial and Neighborhood Mixed-Use would only further add to the degradation of the Okatie River (see Section E above).
3. **Whether the proposed amendment is necessary to respond to state and or/federal legislation.** Not applicable.
4. **Whether the proposed amendment would result in development that is compatible with surrounding land uses.** The Berkeley Hall PUD adjoins this property directly to the east and is

more in character with the development that Rural zoning permits. Berkeley Hall has a total acreage of approximately 1,530 acres and is approved for 712 dwelling units. This gives the PUD a gross density of 1 dwelling unit per 2 acres. The current Rural zoning permits a residential density of 1 dwelling unit per 3 acres. The proposed Suburban zoning allows single-family subdivision with a gross density of 2 dwelling units per acre (four times the density of Berkeley Hall) with the option to increase the density utilizing the Traditional Neighborhood Development and multi-family development options.

5. **Whether and to the extent to which the proposed amendment would affect the capacities of public facilities and services, including roads, utilities, law enforcement, fire, EMS, schools, parks and recreation, solid waste, and drainage facilities.** The applicant has notified and supplied letters from the Beaufort County Sheriff's Department, the Bluffton Fire District, the Beaufort County School District, Beaufort Jasper Water Sewer Authority, Palmetto Electric, and Hargray. In addition, a Traffic Impact Analysis was submitted as part of the application. The applicant argues that the widening of US 278 from 4-lanes to 6-lanes will increase the capacity of the highway to 58,000 vpd (to maintain a level of service D). As mentioned above, this road widening project is being implemented to address projected road deficiencies caused by previously approved development. The development enabled by the Graves rezoning, at 100% assumed buildout, would add 7,453 vpd to US 278 which is 41% of the added capacity gained by the road widening.
6. **Whether, and to the extent to which, the proposed amendment would result in negative impacts to natural resources.** The property is located next to the sensitive headwaters of the Okatie River. Increasing the future land use to Regional Commercial and Neighborhood Mixed-Use would only further add to the degradation of the Okatie River (see Section E above).

G. ANALYSIS: Section 106-492 of the ZDSO states that a Zoning Map Amendment may be approved if the weight of the findings describe and prove the following:

1. **The change is consistent with the County's Comprehensive Plan and the purposes of this Ordinance.** See discussion under Section C.
2. **The change is consistent with the character of the neighborhood.** As stated above, the Berkeley Hall PUD adjoins this property directly to the east and is more in character with the development that Rural zoning permits. Although there are commercial regional land uses to the south and east of this property, the comprehensive plan states that commercial uses should focus on key transportation nodes, avoiding strip patterns. The proposed change to Commercial Regional, the County's most intense commercial zoning district would change the character of the surrounding area. Approximately 65 acres of Commercial Regional property would yield on average 700,000 square feet of retail and office if fully developed. This large concentration of commercial development combined with the commercial uses to the south and east would potentially create a huge regional commercial node less than a mile east of another regional node located at McGarvey's Corner.
3. **The extent to which the proposed zoning is consistent with the zoning and use of nearby properties.** See comments for #2.
4. **The suitability of the property for the uses to which it has been restricted.** The 37 acres of the property fronting US 278 is currently zoned Rural – Transitional Overlay. The application of the Transitional Overlay district recognizes that this site is within a developing area and that it may be suitable for additional uses other than those allowed under the current zoning. The

comprehensive plan designated the front 21 acres of this property Community Commercial. Therefore, a transition of the front 21 acres of this property to Commercial Suburban would be consistent with the Comprehensive Plan.

5. **Allowable uses in the proposed district would not adversely affect nearby property.** The property is currently zoned Rural – Transitional Overlay. A change to Commercial Regional would substantially affect the uses permitted. Commercial Regional areas are described in the ZDSO as areas that contain large commercial uses that serve “the entire county” and include highway service uses that need to be located on major highways. Commercial Regional Districts are not meant to be a strip along arterial or collector roads. Suburban zoning in the rear of the property could potentially be of a scale and intensity inconsistent with Berkeley Hall.
6. **The length of time a property has remained vacant as zoned, where the zoning is different from nearby developed properties.** This property is being utilized for residential and agricultural purposes. The uses and zoning of adjacent properties are consistent with Berkeley Hall.
7. **The current zoning is not roughly proportional to the restrictions imposed upon the landowner in light of the relative gain to the public health, safety and welfare provided by the restrictions.** Except for three residential PUDs and the area immediately surrounding McGarvey’s Corner, the zoning of this property is consistent with the zoning designations of the other properties in the Okatie area.

H. STAFF RECOMMENDATION:

After review of the guidelines set forth in section 106-492 of the ZDSO, the staff recommends denial of this request for the following reasons:

1. The proposed rezoning is projected to result in a LOS E of the intersection of Hampton Parkway and US 278 with failed turning movements during PM peak hours at only 50% assumed buildout in 2018. The failed intersection will be difficult and costly to mitigate due to the geographical constraints of the site.
2. The current widening of US 278 between Simmonsville Road and SC 170 is being implemented to address projected road deficiencies caused by previously approved development. The development enabled by the proposed rezoning would consume 41% of the added capacity created by the road widening and contribute to future failure of US 278 when compounded with existing approved development.
3. Allowing intense commercial and moderate-density residential development would contribute to the further degradation of water quality in the Okatie River, and would be a departure from the County’s historical commitment to restoring water quality in the Okatie headwaters.
4. Proposed rezoning is not supported by the Comprehensive Plan which was adopted in early 2011 by County Council.

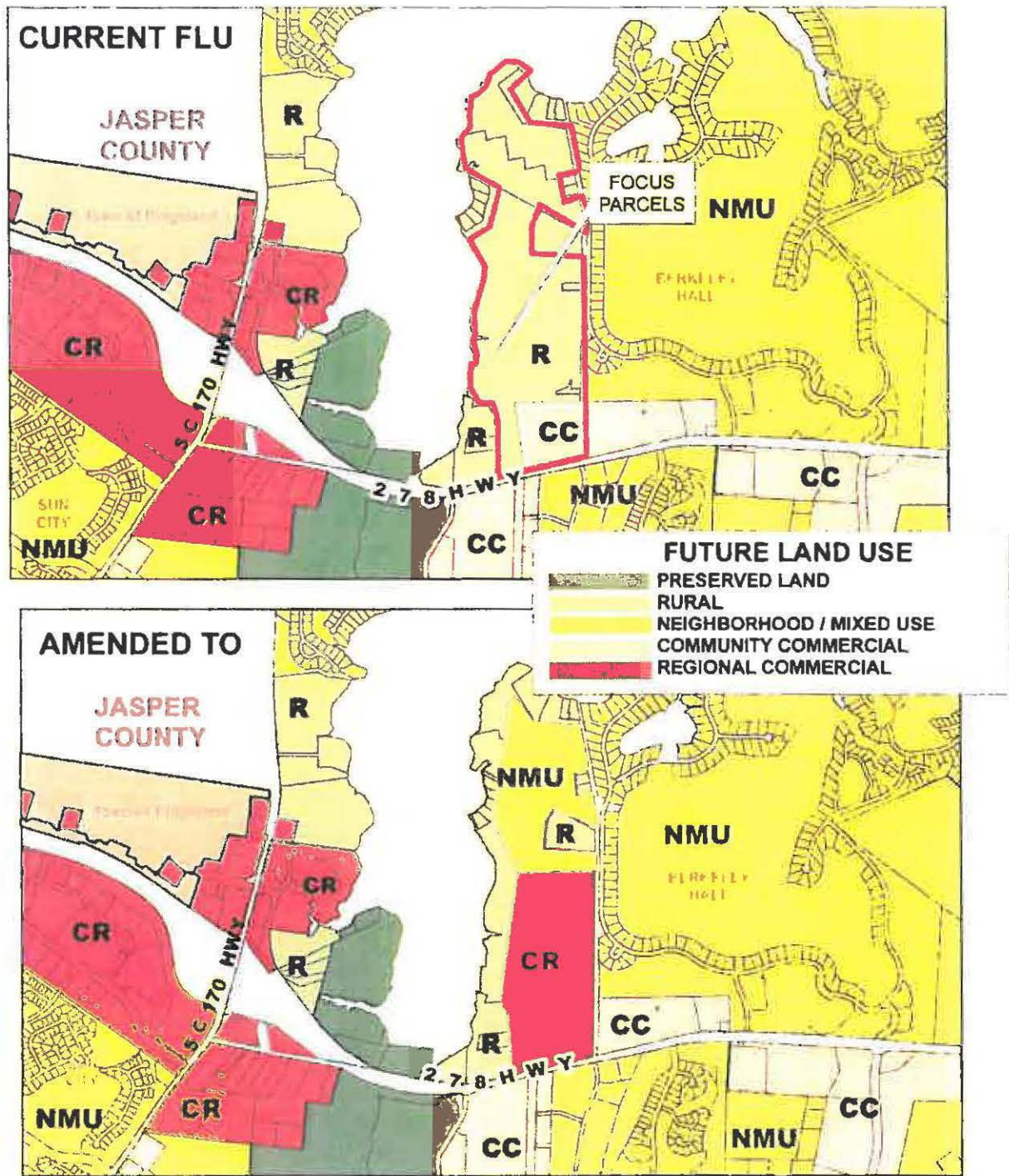
The portion of this property fronting US 278 is currently zoned Rural with Transitional Overlay. The application of the Transitional Overlay district recognizes that this site is within a developing area and that it may be suitable for additional uses other than those allowed under the current zoning. The comprehensive plan designated the front 21 acres of this property Community Commercial. Therefore, a transition of the front 21 acres of this property to Commercial Suburban would be consistent with the Comprehensive Plan and would enable a scale and intensity development that would have far less impacts on traffic and water quality.

I. SOUTHERN SUBCOMMITTEE REVIEW

The Southern Beaufort County Subcommittee of the Planning Commission reviewed the amendment at their December 13, 2012 meeting. Diane Chmelik, Parker Sutler, and Edward Riley were in attendance. The Subcommittee took no action on the proposed rezoning because no Traffic Impact Analysis had been submitted to staff as part of the application.

J. ATTACHMENTS

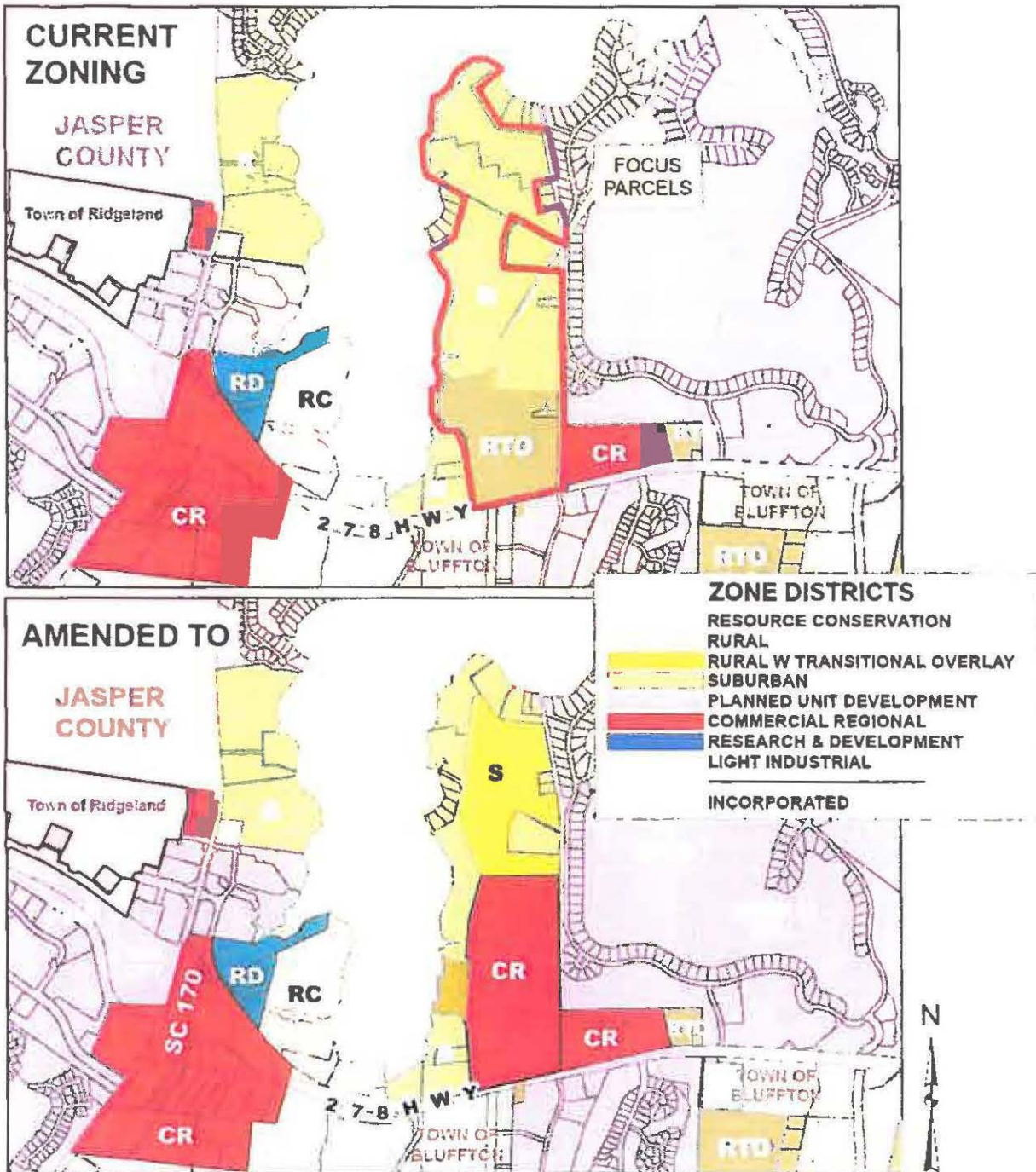
- Maps: Future Land Use and Zoning
- Applications: Future Land Use and Zoning
- List of Abutting Property Owners



FUTURE LAND USE AMENDMENT INVOLVING PARCELS:

11/30/12

R600 021 000 0002 0000; R600 021 000 0075 0000;
R603 021 000 004A 0000; R603 021 000 0194 0000
R603 021 000 0195 0000; R603 021 000 006A 0000;
R603 021 000 007B 0000



REZONING AMENDMENT
INVOLVING PARCELS:

R600 021 000 0002 0000; R600 021 000 0075 0000;
R603 021 000 004A 0000; R603 021 000 0194 0000
R603 021 000 0195 0000; R603 021 000 006A 0000;
R603 021 000 007B 0000

**PROPERTY OWNERS NOTIFIED OF MAP AMENDMENT/REZONING REQUEST for R600-21-2 and -75; R603-21-4A, -6A, -194, and -195
from Rural and Rural-Transitional Overlay to Rural, Suburban, and Commercial Regional (7 parcels, 142.91 acres)**

PIN	Owner1	MailingAdd	City	State	ZIP
R600 22 696	ANSELMO PHILIP SHEPARD DIANE H JT	110 LANCASTER BLVD	BLUFFTON	SC	29909
R600 22 626	BAKER CHARLES E & MARLENE B	47670 PAULSEN SQ	POTOMAC FALLS	VA	20165
R600 22 620	BAKER KENNETH E	5 OAKLAND PLACE	BLUFFTON	SC	29909
R600 21 660	BEAUFORT COUNTY	PO DRAWER 1228	BEAUFORT	SC	29901
R600 22 629	BELL ROBERT H	2669 WALNUT RIDGE RD	AKRON	OH	44333
R600 13 46; R600 22 852	BERKELEY HALL CLUB INC	366 GOOD HOPE RD	BLUFFTON	SC	29909
R600 22 631	BINKS MALCOLM JILLIAN JTROS	59 TURNBRIDGE DR	HILTON HEAD ISLAND	SC	29928
R600 21 24	BRANNAN TERESA GRAVES JOHN	64 BRANNON POINT ROAD	OKATIE	SC	29909
R600 21 71	BRAVES PAUL BISSELL Jr	2725 ST MARYS ST	RALEIGH	NC	27609
R600 22 628	BULLOCK CHRISTOPHER J DIANE S JTRO	78 LANCASTER BLVD	BLUFFTON	SC	29909
R600 22 635	CERVINO WILLIAM L	29975 N PARK BLVD	OLON	OH	44139
R600 22 625	CHERICHELLA ROBERT E HEATHER JTROS	62 YORKSHIRE DR	HHI	SC	29928
R600 22 640	COREY MICHAEL J	PO BOX 1284	WILLIAMS BAY	WI	53191
R600 21 7	CROSBY VERA G	71 PEPPERHALL PLANTATION	BLUFFTON	SC	29909
R600 22 622	CSK MANAGEMENT & TRADING LTD SUITE	208 40 WESTMORE DR	ETOBICOKE	ON	M9V 4C2
R600 22 729	CUNNINGHAM JAMES F MUSSELMAN JOYCE A	345 SANLUIS AVE	LOS ALTOS	CA	94024
R600 22 722	DEBORAH S PATTEN REVOCABLE TRUST	3107 BENNETT POINT RD	QUEENSTOWN	MD	21658
R600 22 633	DUGGAN MARIE LYNN	100 BEL AIR DR	OAKVILLE	ON	L6J 7N1
R600 22 728	EMELITA S HARRINGTON TRUST	56 W FORD AVE	WARWICK	RI	02889
R600 21 658	ENMARK STATIONS INC	2112 RANKIN ST	SAVANNAH	GA	31415
R600 21 8	FAULKNER GORDON K	PO BOX 220	BLUFFTON	SC	29910
R600 22 641	FLOYD DEXTER R DEBBIE H JTROS	4325 RIDGEGATE DR	DULUTH	GA	30097
R600 22 695	FRANK JAMES D MANSFIELD PATRICIA J	332 OAKRIDGE DR	VENETIA	PA	15367
R603 21 5	GAY KIRK MARTIN	PO BOX 765	BLUFFTON	SC	29910
R600 21 73	GRAVES JOHN TAMPLET III BARBARA D	PO BOX 1595	BLUFFTON	SC	29909
R600 21 2B, -25, -32, 75	GRAVES JOHN TAMPLET JR (LIFE ESTATE)	26 MELON HOLE RD	OKATIE	SC	29909
R600 21 3	GRAVES JUDY DEANNE TRUSTEE (JUDY	145 GRAVES RD	BLUFFTON	SC	29909
R600 21 72	GRAVES MICHAEL LLOYD	20542 EMBER LANE	HARRAH	OK	73045
R600 21 2	GRAVES PAUL B Sr	1836 OMNI BLVD	MT PLEASANT	SC	29466
R603 21 195	GRAVES ROBERT L	22 A WIDEWATER RD	HILTON HEAD	SC	29926
R603 21 4A, -194	GRAVES ROBERT L	PO BOX 5818	HILTON HEAD ISLAND	SC	29938-5818
R600 21 2A	GRAVES WILLIAM K LINDA D JTROS	147 GRAVES ROAD	BLUFFTON	SC	29909
R600 22 632	HAWKINS RICHARD J SUSAN JTROS	1 TWIN OAKS CRT	SPARTABURG	SC	29306
R600 22 630	HOLROYDE EVELYN WEST TRUSTEE (EVELYN	82 LANCASTER BLVD	BLUFFTON	SC	29909-3131

**PROPERTY OWNERS NOTIFIED OF MAP AMENDMENT/REZONING REQUEST for R600-21-2 and -75; R603-21-4A, -6A, -194, and -195
from Rural and Rural-Transitional Overlay to Rural, Suburban, and Commercial Regional (7 parcels, 142.91 acres)**

PIN	Owner1	MailingAdd	City	State	ZIP
R600 21 74	HOPSON SUSAN GRAVES	1836 OMNI BLVD	MT PLEASANT	SC	29466
R610 21 18, -18A, -18B	HTP BLUFFTON LLC	701 CRESTDALE RD	MATTHEWS	NC	28105
R600 21 7A, -665	HUDSON VERNA G N/K/A VERNA G CROSBY	7 PEPPER HALL PLANT	BLUFFTON	SC	29910
R600 21 663	ISLAND WEST COMMERCIAL ASSOCIATES LL	PO BOX 2395	BLUFFTON	SC	29910
R600 22 623	JELLO DONALD E SCHNEIDER KATHY L JT	4 OAKLAND PLACE	BLUFFTON	SC	29910
R600 22 694	KELLY MICHAEL T BARBARA D TRUSTEES M	9709 HERON AVE NORTH	WHITEBEAR LAKE	MN	55110
R600 22 732	KULLMAN KENNETH G & ELEANOR AVERILL	10180 KINROSS RD	ROSWELL	GA	30076
R600 22 634	LAMBERT PAUL	1352 WAUKAZOO DR	HOLLAND	MI	49424-2689
R600 22 731	LONG MICHAEL DALE MARGARET PHILIPS	10110 CROOKED CREEK CT	FAIRFAX STATION	VA	23039
R600 22 697	MANN LINDLEY S JR KATHLEEN A JTROS	2584 ABINGTON PIKE	RICHMOND	IN	47373
R600 21 3A	MCKIM JANICE ANNE G	143 GRAVES RD	OKATIE	SC	29909
R600 22 866	MILLER RUSSELL R JACQUELINE L JTROS	36 PERSIMMON ST UNIT 203	BLUFFTON	SC	29910
R600 22 618	MOONEY JOHN J III & V PISULA V PAUL	217 FREDERICK ST	HANOVER	PA	17331
R600 22 726	OEYDT KENNETH E LETA ANTONIA L JT	27 TICE LANE	PERKASIE	PA	18944
R600 22 638	PARRISH PATRICIA A	521 MEADOWOOD	JOLIET	IL	60431
R600 22 724	PAUL ALBIN MATHIAS AND MARY ANN MATH	18633 MAPLE LEAF DR	HUDSON	FL	34667
R600 22 698	PETERS CLAUDIA H	12 SHADOW LANE	CHADDS FORD	PA	19317
R600 22 627	PRANCAN ROLAND T KATHI M JTROS	10 HASTY POINT PLACE	BLUFFTON	SC	29909
R600 22 617	PRESOGNA ANTHONY I BARBARA	68 LANCASTER BLVD	BLUFFTON	SC	29909
R600 21 233	PROGRESSIVE VISION INVESTMENT & TRAD	1740 PINE KNOLL AVE	MASSILLON	OH	44646
R600 22 727	ROBERT A POINTON REVOCABLE TRUST	46 GREENWOOD DR	BLUFFTON	SC	29910
R600 22 636	RUFFNER DENNIS LEE MICHELLE WEBB	2109 CEDAR ELM TERR	WESTLAKE	TX	76262
R600 22 637	SAVOURY TERRI EIKO TRUSTEE SAVOURY F	96 LANCASTER BLVD	BLUFFTON	SC	29909
R600 22 624	SCHOLLINS WILLIAM F & LYNN A	70 LANCASTER BLVD	BLUFFTON	SC	29909
R600 22 730	SMITH PETER O SUSAN R JTROS	16 FERNCLIFF BEACH	ERIE	PA	16505
R600 22 642	SPEAR JAMES T ELAINE K JTROS	844 WILLIAMSBURG DRIVE	NAPERVILLE	IL	60540
R600 22 639	SPEARMAN STEPHEN A & JANE L	1102 KIRKEENAN CIR	MORRISVILLE	NC	27560
R600 21 19	SSSB PROPERTIES LLC	3557 TRASK PKWY	BEAUFORT	SC	29906
R600 22 725	STEVER SAMUEL WILLIAMS MAUREEN JTR	5 GEORGETOWN CIRCLE	NEWTON	PA	18940
R600 22 619	VANADIA STEVEN A LYN F JTROS	8 DOBY RD	mendham	NJ	07545
R600 22 621	VOLBECK JENS & HELLE A	7 OAKLAND PLACE	BLUFFTON	SC	29909
R600 22 721	WATERHOUSE PATRICK SCOTT JUDITH CHAR	8427 E HOMESTEAD CIR	SCOTTSDALE	AZ	85266-1377
R600 22 723	WELCH JOHN K MICHELE M JTROS	1328 SKIPWITH ROAD	MCLEAN	VA	22101

Childs, Barbara

From: Leininger, Shawn [sleininger@townofbluffton.com]
Sent: Thursday, March 07, 2013 6:50 PM
To: Criscitiello, Anthony
Cc: Barrett, Anthony; Orlando, Marc; Hodge, Frank; Childs, Barbara
Subject: Pepperhall (Graves Property) Rezoning
Attachments: Graves_PepperHall_BC_COMMENTS_121312.pdf

Tony,

Thank you for providing a complete application of the Pepperhall (Graves Property) Rezoning as well as a copy of the Beaufort County Planning Commission Staff Report. As noted in the County Staff Report, the Town of Bluffton realizes that the proposed rezoning is not in conformance with the Beaufort County Comprehensive Plan.

The Town of Bluffton has provided comments regarding this application in the past, most recently on December 13, 2012. For your convenience, I have attached this recent correspondence and request the County continue to consider these comments as the application is further reviewed. There are no additional comments to provide at this time.

Again, thank you for the opportunity to review and provide comments on this County application. If you have any questions or I can be of further assistance please let me know.

Sincerely,

Shawn Leininger, AICP
Principal Planner

(843) 706-4522 main
(843) 706-4529 direct
(843) 540-2183 mobile

Town of Bluffton
Department of Growth Management
P O Box 386
20 Bridge Street
Bluffton, South Carolina 29910

www.townofbluffton.sc.gov

Lisa Sulka

Mayor

Oliver Brown

Mayor Pro Tempore

Anthony Barrett

Town Manager



Council Members

Michael Raymond

Ted Huffman

Karen Lavery

Sandra Lunceford

Town Clerk

December 13, 2012

Anthony Criscitiello
Planning Director
Beaufort County
Post Office Drawer 1228
100 Ribault Road Room 115
Beaufort, South Carolina 29901-1228

RE: Graves Property/Pepper Hall Request for Comments

Dear Mr. Criscitiello:

Thank you for the opportunity to review the application submitted to Beaufort County requesting a Comprehensive Plan Amendment and Zoning Ordinance Map Amendment for seven (7) properties comprising approximately 113 acres in southern Beaufort County, collectively referred to as the Graves Property/Pepper Hall. As set forth by Resolution for Joint Review and Coordination between Beaufort County, Jasper County, City of Hardeeville, Town of Hilton Head Island, and the Town of Bluffton, this is a project of regional significance requiring multi-jurisdictional review. Based upon the application materials provided by you to the Town of Bluffton, it is our understanding that the request is to establish Commercial Regional and Suburban Zoning Districts on this property. It is also our understanding from these same materials that approval of the request would authorize the Applicant to potentially develop +/-500 dwelling units and +/- 800,000 square feet of high intensity commercial/ general office space.

Town Staff has reviewed the information provided by Beaufort County and requests the information listed as attachments in the application table of contents be provided for our review. These attachments, which include, among other items, the Threatened and Endangered Species Report, Traffic Impact Assessment, and Development Agreement Summary, are vital to fully understanding the application and providing complete, accurate comments as requested by Beaufort County per the Resolution for Joint Review and Coordination and given the extensive shoreline and floodplain of the site along the impaired Okatie River and direct access to US 278.

In response to past applications that were submitted to the Town of Bluffton regarding these properties, Town Council provided the property owners with

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specific guidance as it relates to the future development of this property. This guidance, as applicable to the Beaufort County request, included, but is not limited to, the following:

1. **Workforce/Affordable Housing and/or a Fee-in-Lieu Program.** Provide, at a minimum, a 10% workforce/affordable housing and/or a Fee-in-Lieu Program.
2. **Highway 278/Hampton Parkway/Pepper Hall Plantation Intersection.** Provide for a 50% pro-rata share of future intersection and signalization improvements including but not limited to the future signalized intersection at Hampton Parkway.
3. **Land Dedication.** Provide for the dedication of public space including but not limited to park and/or site for public use.
4. **Conservation Easement.** Provide for a Conservation Easement with a minimum width of 200 feet along the Okatie River edge.
5. **Real Estate Transfer Fee.** Establish a Graves Tract Real Estate Transfer Fee that can be earmarked and allocated for use to protect, enhance, and maintain open space along the Okatie River.
6. **Master Plan/Density Capacity.** Provide a Master Plan that illustrates the established buildable limits, including but not limited to the conservation easement, open space, non-residential building placement, public site, parking infrastructure, roadway alignment that includes cross-access to eastern properties, etc. This Master Plan shall serve as the site capacity analysis whereby actual residential and non-residential densities are determined.

In addition to providing a complete application for review, Town Staff respectfully requests the items listed above be incorporated.

Again, thank you for the opportunity to review this application. If you have any questions or I can be of further assistance please contact me at (843) 706-4511 or via email at morlando@townofbluffton.com.

Sincerely,



Marc Orlando, AICP
Deputy Town Manager/
Director of Growth Management

cc: Anthony Barrett, Town Manager
Frank Hodge, Assistant Director of Growth Management
Shawn Leininger, AICP, Principal Planner

TOWN OF HILTON HEAD ISLAND

One Town Center Court, Hilton Head Island, S.C. 29928

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Drew A. Laughlin
Mayor

William D. Harkins
Mayor ProTem

Council Members

Wm. Lee Edwards
Marc A. Grant
Kimberly W. Likins
John J. McCann
George W. Williams, Jr.

Stephen G. Riley
Town Manager

December 12, 2012

Mr. Tony Criscitiello
Planning Director
100 Ribault Rd
Beaufort, SC 29901

RE: Graves Property/Pepper Hall Request

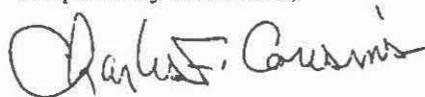
Dear Mr. Criscitiello:

Thank you for submitting a copy of the application materials for the Graves Property/Pepper Hall comprehensive plan amendment and zoning map amendment requests to the Town of Hilton Head Island. In the spirit of the Southern Beaufort County Regional Plan's (SCBRP) implementation strategies Town Staff has taken the opportunity to review the information. Based on this review we have the following concerns:

- There is a significant increase in the density that would be permitted on this property, which would result in a significant impact on roads, natural resources and other public infrastructure. The SBCRP identified a list of roadway projects that would be necessary to achieve an agreed upon level of standard D (LOS D). These improvements were based upon potential build out of this property under the existing zoning classifications. The traffic impact assessment bases its analysis and findings using level of service E as the standard contradicting the goal of achieving LOS D.
- While the Traffic Impact Analysis was not included with the revised application, the implementation of the proposed development will likely have serious impacts to the transportation infrastructure. The remaining capacity in this area to maintain LOS E is 4,678 ADT. **The Level of Service goal for this area is a LOS D.** Any additional development within this section of US 278 will likely result in decreasing level of service below E and require significant transportation infrastructure upgrades.
- This revised application provides better protection of the Okatie River. However, the significant increase in proposed scale and intensity of the proposed development over what is currently allowed may still result in negative impacts related to the Headwaters of the Okatie River.

These comments are provided to for your consideration and review. Again, thank you for the opportunity to provide input. If you or have any questions, please advice.

Respectfully Submitted,



Charles F. Cousins, AICP
Director of Community Development



Memorandum

To: Colin Kinton
Beaufort County Traffic Engineering

From: Jenniter T. Bihl, PE, President
Bihl Engineering, LLC

JB

Date: February 15, 2013

Subject: Additional requested information on the 01/22/13 Pepper Hall traffic study

This memo provides the requested follow-up information on the 01/22/13 Pepper Hall traffic study regarding growth rate, internal capture and daily site traffic.

Growth Rate

Based on discussions with staff, the 2018 and 2023 analysis was run for the following intersections with a 2.5% per year growth rate and with the removal of additional trips added for developments without specific development plans at this time. 2018 and 2023 background and buildout conditions were reviewed.

- US 278 at Buckwalter Parkway
- US 278 at Graves Road
- US 278 at Hampton Parkway

Project trips and distribution were developed as discussed in the 01/22/13 traffic study for this analysis. **Figures 1 – 4** show the resulting 2018 AM, 2018 PM, 2023 AM and 2023 PM peak hour traffic volumes (background, project and total traffic volumes), respectively.

The intersections above were analyzed using the Synchro 8 traffic analysis program to determine the projected level of service and delay.

Table 1 shows the results of this analysis.

Table 1: Level of Service and Delay

	Traffic Control	2018 Background Conditions		2018 Phase 1 Conditions		2023 Background Conditions		2023 Buildout Conditions	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
US 278 at Buckwalter Parkway	S	D (48.0)	C (34.6)	E (57.9)	D (43.8)	F (84.6)	D (52.6)	F (88.8)	E (58.3)
US 278 at Graves Road	U	B (14.6) – SB	C (18.4) – SB	C (15.1) – SB	E (35.0) – SB	C (15.2) – SB	C (20.2) – SB	C (18.6) – SB	F (78.6) – SB
US 278 at Hampton Parkway	S	B (18.3)	C (27.8)	C (33.3)	E (60.5)	C (30.2)	E (58.1)	D (51.2)	F (175.2)

Internal Capture

Internal capture for the site was applied based on Institute of Transportation Engineers (ITE) Handbook standards. These internal capture matrices are attached. The resulting internal capture is shown in Table 1 and Table 2 of the 1/22/13 report.

As noted in the report, internal capture was also applied between the project's commercial area and the Crosland development located across US 278 at the Hampton Parkway intersection. These internal capture trips were applied to the intersection as through trips. This internal capture is included in the attached matrices.

Daily Traffic

Table 2 and Table 3 below show the daily entering and exiting traffic for Phase 1 and Buildout. Internal capture was based on ITE standards and limited to 25% overall between capture within the site and with the Crosland development across the street when applied. Internal capture matrices are attached with the unrestricted internal capture calculation. Daily pass-by for the shopping center was assumed to be 20% daily compared to the 30% calculated rate using ITE equations for the 820 Shopping Center land use for the PM peak hour.

Table 2: Phase 1 Daily Trip Generation

Land Use	Intensity	Daily Total Trips	Entering Trips	Exiting Trips
<u>Proposed Site Traffic</u>				
820 Shopping Center	240 ksf	11,997	5,998	5,998
210 Single Family Residential	120 DU	1,242	621	621
710 General Office	140 ksf	1,695	847	848
230 Condo/Townhome	120 DU	754	377	377
Gross Trips		15,688	7,843	7,844
Internal Capture			811	811
<i>Driveway Volumes</i>			7,032	7,033
<i>Interaction with Crosland Site</i>			1,150	1,150
<i>Passby Trips</i>			1,086	1,157
New Trips			4,796	4,726

Table 3: Buildout Daily Trip Generation

Land Use	Intensity	Daily Total Trips	Entering Trips	Exiting Trips
<u>Proposed Site Traffic</u>				
820 Shopping Center	420 ksf	17,260	8,630	8,630
210 Single Family Residential	240 DU	2,871	1,175	1,175
710 General Office	280 ksf	2,350	1,435	1,436
230 Condo/Townhome	240 DU	1,378	689	689
Gross Trips		23,859	11,929	11,930
Internal Capture			1,458	1,458
<i>Driveway Volumes</i>			10,471	10,472
<i>Interaction with Crosland Site</i>			1,524	1,525
<i>Passby Trips</i>			1,521	1,649
New Trips			7,426	7,298

Based on the trip distribution presented in the report, the US 278 roadway link west of the site (west of Hampton Parkway) has 37% of the entering and exiting new trips assigned to it. For Phase 1 that is 3,523 total trips (2-way) and for buildout that is 5,448 total trips (2-way). The US 278 roadway link east of the site (east of Graves Road) has 38% of the entering and exiting trips assigned to it. For Buildout that is 3,618 total trips (2-way) and for buildout that is 5,595 total trips (2-way).



The assumed capacity for the 6-lane divided US 278 is 58,000 based on the capacity previously established for the County. The development would result in projected use of approximately 6% of the total capacity in Phase 1 and approximately 9% of the total capacity at Buildout. Of the increase of capacity due to the widening of US 278 from 4 lanes to 6 lanes, we expect an increase of 18,000 vehicles daily. The development would result in projected use of approximately 20% of the added capacity in Phase 1 and approximately 31% of the added capacity at Buildout. Note that though link volume to capacity ratio is a level of service metric, on a corridor like US 278 the intersection operations drive the efficiency of the corridor.

VAUX & MARSCHER, P.A.

ATTORNEYS AND COUNSELORS AT LAW

ROBERTS- VAUX
WILLIAM F. MARSCHER, III

POST OFFICE BOX 769 (MAILING)
1251 MAY RIVER ROAD (PHYSICAL)
BLUFFTON, SOUTH CAROLINA 29910
843.757.2888 (OFFICE)
843.757.2889 (FAX)

OF COUNSEL:
JAMES P. SCHEIDER, JR.
MAC DUNAWAY, DC ONLY

ASSOCIATES:
ANTONIA LUCIA, SC & NY
MARK S. BERGLIND
JUSTIN JOHN PRICE
ROBERTS VAUX, JR.

21 JANUARY 2013

JAMES P. SCHEIDER, JR.
jim.scheider@vaux-marscher.com

Anthony J. Criscitiello
Planning Director
Beaufort County Planning Department
Post Office Drawer 1228
Beaufort, South Carolina 29901-1228



Re: Pepper Hall-Amended Rezoning Application-Traffic Impact Analysis

Dear Tony:

Attached for your review and that of your staff, are the original and two copies of the Traffic Impact Analysis (TIA) prepared by the Bihl Engineering firm of Beaufort, South Carolina for the Pepper Hall site.

As set forth in Section 1.0 (Executive Summary) of the TIA, the proposed "phased development" of the Pepper Hall site does not result in any traffic delays until 2018. As of that date, and, assuming that (a) no further traffic corridor improvements are made, and (b) that all previously approved projects are fully constructed, "projected trip traffic" from the Pepper Hall site in the afternoon is projected to create traffic delays at the signalized intersection at U.S. 278 and the Hampton Parkway.

Most interesting in our preparation of the TIA are the 2006-2011 daily traffic volume numbers for U.S. Highway 278 which reflect a reduction in daily traffic volume per day of nine thousand (9,000) cars per day from 2006 to 2011, due in large part to the creation of alternative traffic corridors.

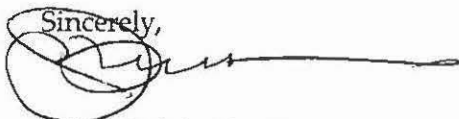
Likewise, as set forth in Section 9.0 (Conclusion) of the Pepper Hall TIA, with the planned development and construction of alternatives routes for U.S. highway #278, specifically

including the extension of Bluffton Parkway to Interstate 95, the projected delays for the Pepper Hall site in 2018 may never materialize.

In addition to the submission of the Pepper Hall TIA enclosed herewith, I offer the following clarifications and confirmations:

1. The Amended Pepper Hall Rezoning application is just that, a "rezoning application" and not a "pending development application." A detailed "traffic study" will of course be required at the time of development.
2. As an additional gesture of good faith and compromise, Robert L. Graves has voluntarily agreed to limit the total ground floor commercial space on his parcel to not more than seven hundred thousand (700,000) square feet.
3. Robert L. Graves has also agreed to impose a size limitation on any commercial building to a ground floor area of not more than seventy five thousand square feet.
4. The applicant has further agreed to memorialize these limitations in a Development Agreement negotiated with Beaufort County concurrently with approval of the amended rezoning request by County Council.

As always, we are most appreciative of your time and courtesy.

Sincerely,


James P. Scheider, Jr.
Of Counsel
Vaux & Marscher, P.A.

cc: Joshua A. Gruber, Esquire

Traffic Impact Analysis



Pepper Hall Rezoning Beaufort County, SC

Prepared for:
Graves Family

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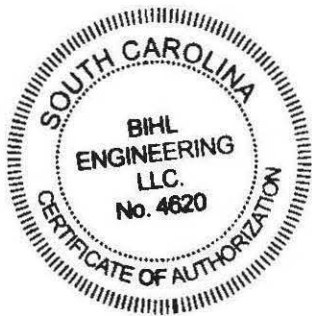
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**Traffic Impact Analysis
Pepper Hall Rezoning
Charleston, SC**

**Prepared for:
Graves Family**

**Prepared by:
Bihl Engineering, LLC
12 Park Square North
Beaufort, SC 29907
(843)637-9187**



January 2013

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1.0 Executive Summary

The proposed Pepper Hall development is located on US 278 between SC 170 and Buckwalter Parkway in Beaufort County, SC. The proposed rezoning application includes a limitation of the total non-residential square footage to 700,000 square feet and 480 residential units. Non-residential includes commercial and office uses and the residential uses include both single family and condominium/townhome uses.

For the purposes of this Traffic Impact Analysis (TIA), the proposed development is assumed to be completed by 2023. A phased development of 350,000 square feet of non-residential area and 240 residential units is assumed to be completed by 2018.

This report presents the trip generation, distribution, and traffic analyses. The following intersections were included in this analysis based on discussions with County staff:

- US 278 Westbound Off-Ramp at SC 170
- US 278 Eastbound Off-Ramp at SC 170
- SC 170 Southbound On-Ramp to US 278 Eastbound
- US 278 at Hampton Parkway
- US 278 at Island West Park/Graves Road
- US 278 at Island West Drive
- US 278 at Buckwalter Parkway/Berkeley Hall
- Bluffton Parkway at Hampton Parkway

The results of the analysis show that in year 2023 there is expected to be increased congestion on US 278 in the background and buildout conditions at the signalized intersections with the committed roadway improvements. However, this assumes a 4.7% per year growth rate along the corridor. Due to the added transportation network facilities and the revision of other project plans relative to the data in the model (which is current as of 2004) the growth rate may or may not be that high in the future.

The main access intersection for the project, US 278 at Hampton Parkway, is projected to operate at elevated levels of service in the future conditions with dual left turn lanes for all approaches. The intersection of US 278 at Buckwalter Parkway also continues to increase in delay in the future, as traffic on US 278 increases. US 278 at Graves Road is also expected to have elevated delay during the 2023 PM peak hour conditions.

The right-in, right-out side street movements operate as expected on a corridor such as US 278 in both the 2018 and 2023 buildout and background conditions.

If the project was phased with partial buildout in 2018, the roadway network would experience elevated delay in the peak hours at the main access point at US 278 and at Buckwalter Parkway at US 278 but more manageable than 2023 conditions, with other intersections operating acceptably.

In summary, this area is expected to experience a large amount of growth in the future and therefore intersections in the area are expected to experience high levels of delay during the peak hours. However, due to the uncertainty of development schedules and the potential revision to the intensity of projects in the area, when and at what level growth will exactly occur is unknown. As these projects return with updated development plans and the new congestion-based model is completed for the County, there will be updated projections of the regional conditions on the updated transportation network in the County. That being said, US 278 will continue to be the main thoroughfare in southern Beaufort County carrying a majority of the traffic volume, but the Bluffton Parkway and the frontage road program (among other transportation network improvements) will add capacity to this area of the County providing some future relief to US 278.

2.0 Introduction

The proposed Pepper Hall development is located on US 278 between SC 170 and Buckwalter Parkway in Beaufort County, SC. The proposed rezoning application includes a limitation of the total non-residential square footage to 700,000 square feet and 480 residential units. Non-residential includes commercial and office uses and the residential uses include both single family and condominium/townhome uses.

For the purposes of this Traffic Impact Analysis (TIA), the proposed development is assumed to be completed by 2023. A phased development of 350,000 square feet of non-residential area and 240 residential units is assumed to be completed by 2018.

3.0 Inventory

3.1 Study Area

Based on discussions with County staff, the study area for the TIA includes the following intersections:

- US 278 Westbound Off-Ramp at SC 170
- US 278 Eastbound Off-Ramp at SC 170

- SC 170 Southbound On-Ramp to US 278 Eastbound
- US 278 at Hampton Parkway
- US 278 at Island West Park/Graves Road
- US 278 at Island West Drive
- US 278 at Buckwalter Parkway/Berkeley Hall
- Bluffton Parkway at Hampton Parkway

Figure 1 shows the site location for the project.

3.2 Existing Conditions

Roadways in the project vicinity include US 278, SC 170, Bluffton Parkway, Hampton Parkway, and Buckwalter Parkway.

US 278 is a four-lane divided roadway that is currently being widened by the South Carolina Department of Transportation (SCDOT) to six lanes with additional access management. The construction speed limit for US 278 is 45 mph. Based on 2011 SCDOT Annual Average Daily Traffic (AADT) counts, there are approximately 32,900 vehicles per day (vpd) in the vicinity of the site.

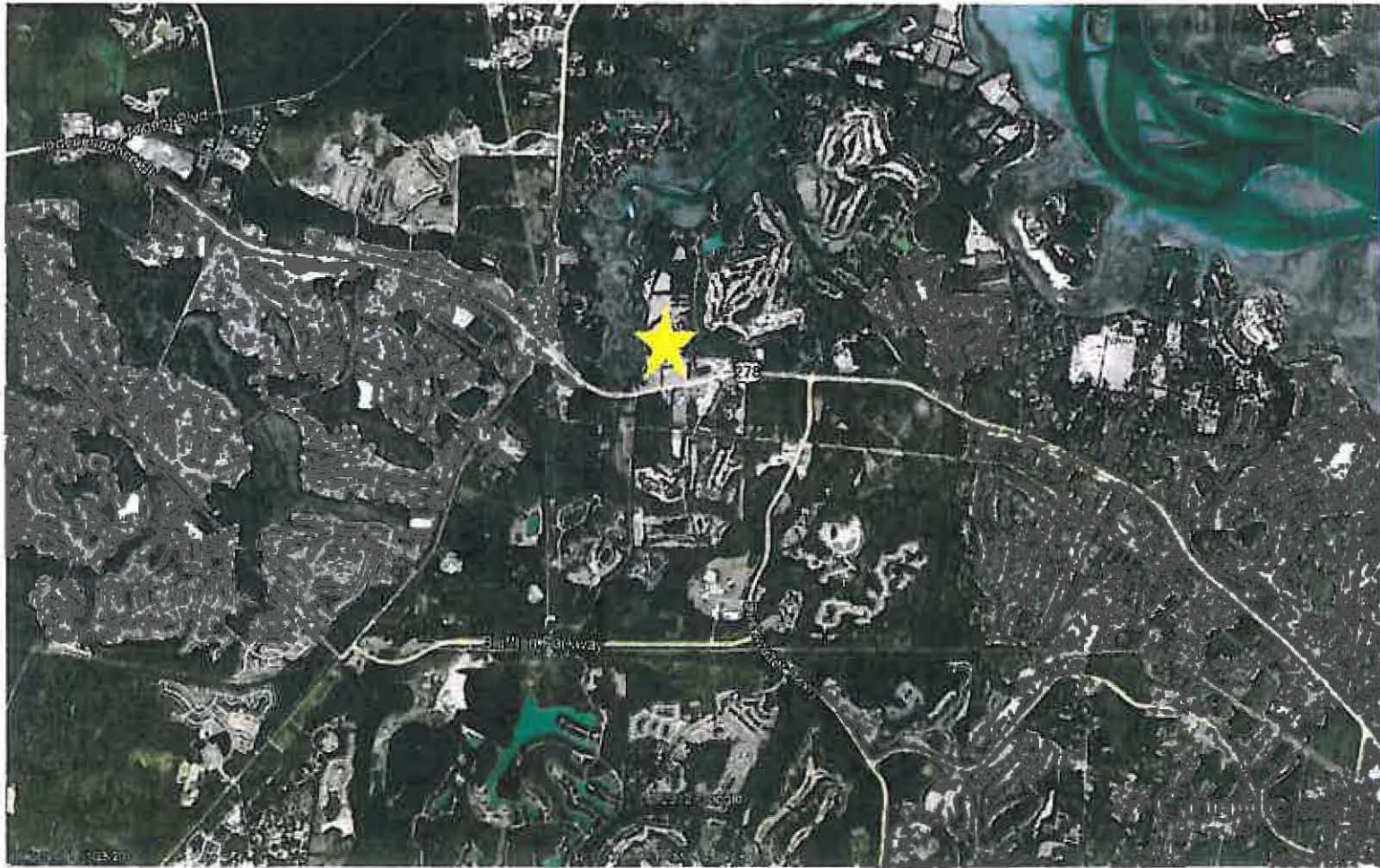
SC 170 is a four-lane divided roadway. SC 170 is a SCDOT roadway with a 45 mph speed limit. SC 170 has a diamond interchange with US 278 with a loop ramp from SC 170 Southbound to US 278 Eastbound.

Bluffton Parkway is a four-lane divided roadway. Bluffton Parkway is a County roadway with a 45 mph speed limit. In 2011, Bluffton Parkway between SC 170 and Buckwalter Parkway had 9,180 vpd.

Hampton Parkway is a two-lane roadway. Hampton Parkway is a County roadway with a 35 mph speed limit.

Buckwalter Parkway is a four-lane divided roadway. Bluffton Parkway is a County roadway with a 45 mph speed limit. In 2011, Buckwalter Parkway between US 278 and Bluffton Parkway had 10,610 vpd.

Figure 2 shows the existing laneage for the study area intersections.



LEGEND



Site Location



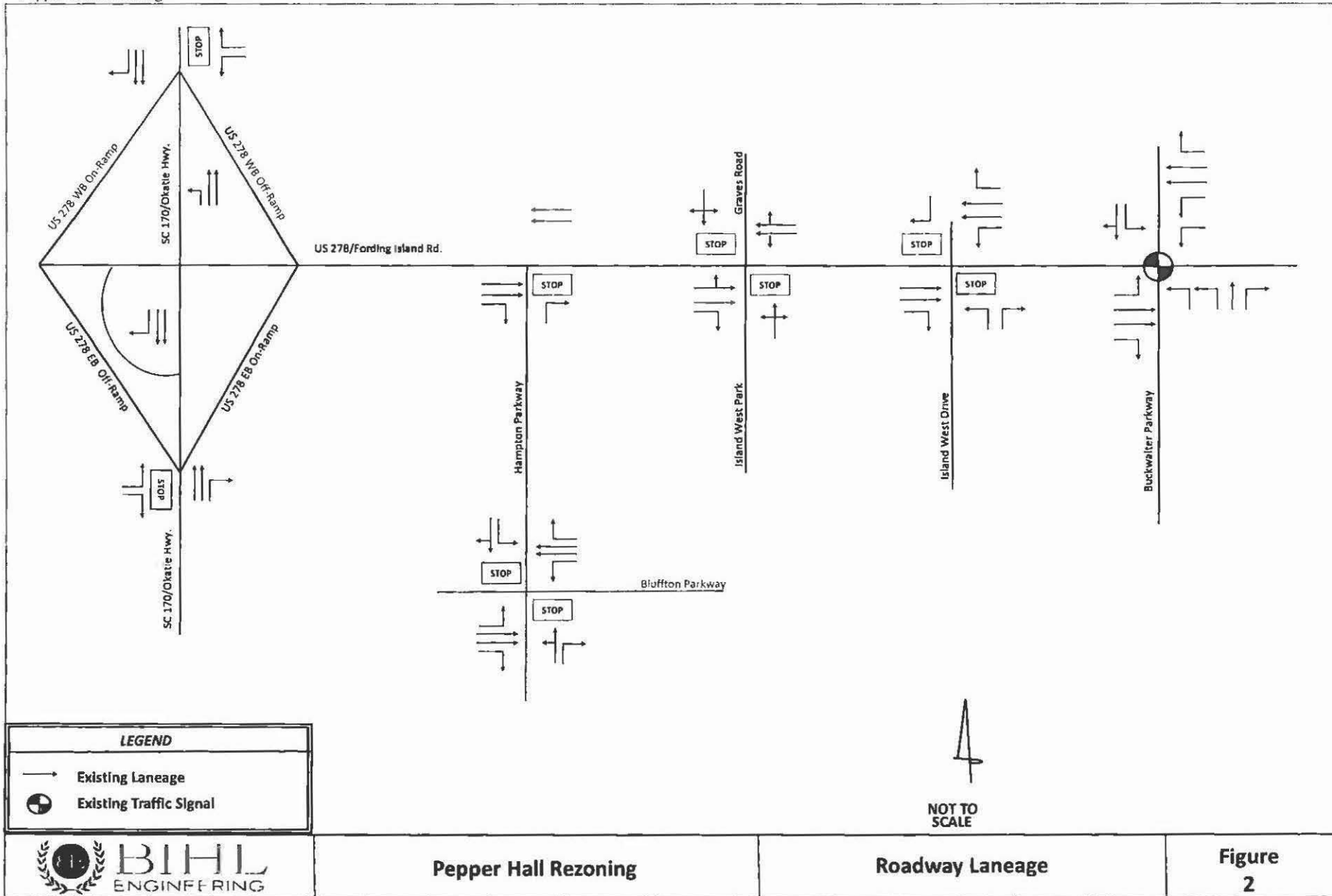
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Pepper Hall Rezoning

Site Location

Figure
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4.0 Traffic Generation

The traffic generation potential of the proposed development was determined using trip generation rates published in Institute of Transportation Engineers (ITE) *Trip Generation* handbook (Institute of Transportation Engineers, Ninth Edition).

Table 1 summarizes the 2018 Phase 1 projected peak hour trips associated with the proposed site for the rezoning application.

Table 2 summarizes the 2023 projected peak hour trips associated with the proposed site for the rezoning application.

Internal capture values reflect the internal capture within the site as outlined in the ITE's *Trip Generation Handbook* as well as internal capture with the adjacent Buckwalter Commons development. The latter trips were assigned to the through movements at the US 278 at Hampton Parkway intersection.

Pass-by trips were calculated as outlined in the ITE's *Trip Generation Handbook*.

Table 1: Phase 1 – Trip Generation										
Land Use		Intensity		Daily Trips	AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out
Proposed Site Traffic										
820	Shopping Center	240	ksf	11,997	266	164	102	1,077	516	561
210	Single Family Residential	120	DU	1,242	94	23	71	124	78	46
710	General Office	140	ksf	1,695	250	220	30	235	39	196
230	Condo/Townhome	120	DU	754	60	10	50	70	46	24
Gross Trips				15,688	610	407	203	1,436	679	827
Internal Capture					161	81	80	464	237	227
Driveway Volumes					449	326	123	972	442	600
Pass-by Trips					35	21	14	294	141	153
New Trips					414	305	109	678	301	447

Table 2: Year 2023 – Trip Generation									
Land Use		Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
<u>Proposed Site Traffic</u>									
820	Shopping Center	420 ksf	17,260	374	231	143	1,567	752	815
210	Single Family Residential	240 DU	2,871	436	383	53	392	66	326
710	General Office	280 ksf	2,350	178	44	134	231	145	86
230	Condo/Townhome	240 DU	1,378	104	17	87	123	82	41
Gross Trips			23,859	988	658	330	2,190	1,045	1,268
Internal Capture				327	171	156	867	402	465
Driveway Volumes				661	487	174	1,323	643	803
Pass-by Trips				42	26	16	362	174	188
New Trips				619	461	158	961	469	615

5.0 Beaufort County Traffic Model

The 2004 Beaufort County traffic model was used to review future total volumes and distribution of the site.

The following adjustments were made to the model socioeconomic data. These changes are land uses for areas that have been entered into Rural and Critical Lands program or areas where there has been an agreed upon reduction in development.

- Zone 74: Remove 20 employees.
- Zone 83: Remove 35 employees
- Zone 84: Remove 40 employees and 83 DU

The following roadway adjustments were added to the model transportation network.

- US 278 – 6-lane divided between McGarvey’s corner and the Hilton Head Bridges
- Bluffton Parkway – configured as approved by County Council (including section 5b between Buckwalter & Buck Island Rd)
- Bluffton Parkway north – divided 4-lane between SC 170 and Buckwalter Parkway
- Bluffton Parkway south – divided 4-lane between Buckwalter Parkway east to US 278
- SC 170 – 6-lane divided between McGarvey’s Corner and SC 46 as defined in the County’s Comp Plan

- Old Miller Road extended to Buckwalter Parkway as a 2-lane collector
- N/S Connector – Added this roadway between US 278 and Bluffton Pkwy 5b
- Add Davis Road Connector
- Add Buckwalter Place Connectors
- Add Pennington Drive
- Add Malphrus/Foreman Hill Connector

Model outputs are included in the **Appendix**.

6.0 Traffic Distribution

The proposed project traffic was assigned to the surrounding roadway network. The directional distribution and assignment were based on knowledge of the area and model output results of the select zone analysis. The select zone results were adjusted to reflect the projected impact of the congested conditions of the network, increasing the percentage of trips on Hampton Parkway. For example, because the model assumes freeflow conditions, traffic was utilizing US 278 and SC 170 in heavy traffic to travel southbound on SC 170 rather than take the underutilized Hampton Parkway and Bluffton Parkway to SC 170.

The following cardinal directional distribution was applied to/from the site.

- 38% to/from west
- 37% to/from east
- 25% to/from south

Project trip assignment is shown in the volume figures in the next section.

7.0 Traffic Volumes

7.1 2012 Existing Traffic

Peak hour intersection turning movement counts were performed in December 2012 from 7 AM to 9 AM and from 4 PM to 6 PM at the following intersections:

- US 278 WB Off-Ramp at SC 170
- US 278 EB Off-Ramp at SC 170
- SC 170 SB On-Ramp at US 278

- US 278 at Hampton Parkway
- US 278 at Island West Park/Graves Road
- US 278 at Island West Drive
- US 278 at Buckwalter Parkway/Berkeley Hall
- Bluffton Parkway at Hampton Parkway

The turning movement count data are included in the **Appendix** and the AM and PM peak hour existing traffic volumes are shown in **Figure 3**.

7.2 Background Traffic

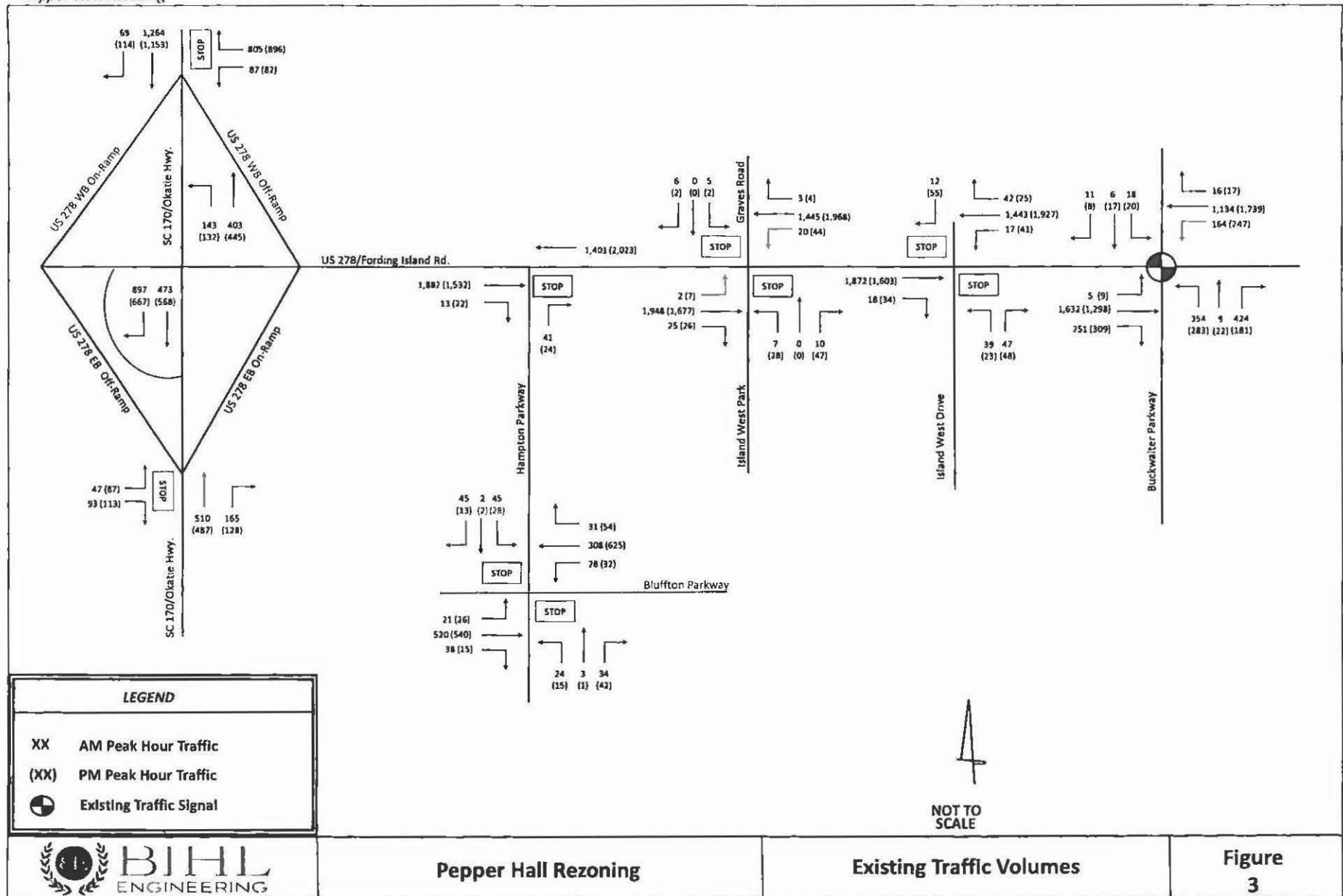
Historic growth is the increase in existing traffic volumes due to usage increases and non-specific growth throughout the area. Historically, based on SCDOT data, traffic has remained relatively consistent with growth occurring over the past year in the area. **Table 3** shows the SCDOT historic traffic volumes on US 278 in the vicinity of the site.

Table 3: Historic Daily Traffic	
Year	SCDOT Annual Average Daily Traffic Volume
2006	41,900
2007	39,200
2008	35,500
2009	35,500
2010	32,900
2011	32,900

The model results show growth in traffic volumes of 4.7% per year.

Though traffic growth has shown to drop over the past years for a variety of reasons such as the completion of Bluffton Parkway and slowing of development in the area, the model incorporates the planned improvements and projects in the County, therefore, the model growth of 4.7% per year was used in the analysis.

Pepper Hall Rezoning



In addition to the model growth, the following approved development traffic was added to the overall growth rate: Buckwalter Commons, Willow Run, Graves Tract (east of this site), and the Enmark site. Due to the age of these studies, the trip assignments were adjusted as follows for the 2023 conditions.

- Buckwalter Commons was paired with this site and internal capture was calculated as these areas will likely interact together.
- Willow Run was adjusted to reflect assignment to the Bluffton Parkway; therefore 40% of the trips were assigned to access the site from the South.
- Graves Tract (east of this site) was reduced to reflect the remaining acreage left to develop.
- The Enmark site had no adjustments.

For the 2018 conditions, these developments were applied at 50% intensity as there are no updated plans for the first three sites at this time.

Figure 4 and **Figure 5** show the 2018 background AM and PM peak hour traffic volumes. **Figure 6** and **Figure 7** show the 2023 background AM and PM peak hour traffic volumes.

7.3 Project Traffic

The AM peak hour and PM peak hour projected project trips were assigned based on the trip distribution discussed in **Section 5**.

7.4 2018 Buildout Traffic

The 2018 total traffic volumes include the 2018 background traffic and the proposed development traffic at buildout. The 2018 AM peak hour and PM peak hour total traffic volumes are shown in **Figure 4** and **Figure 5**, respectively.

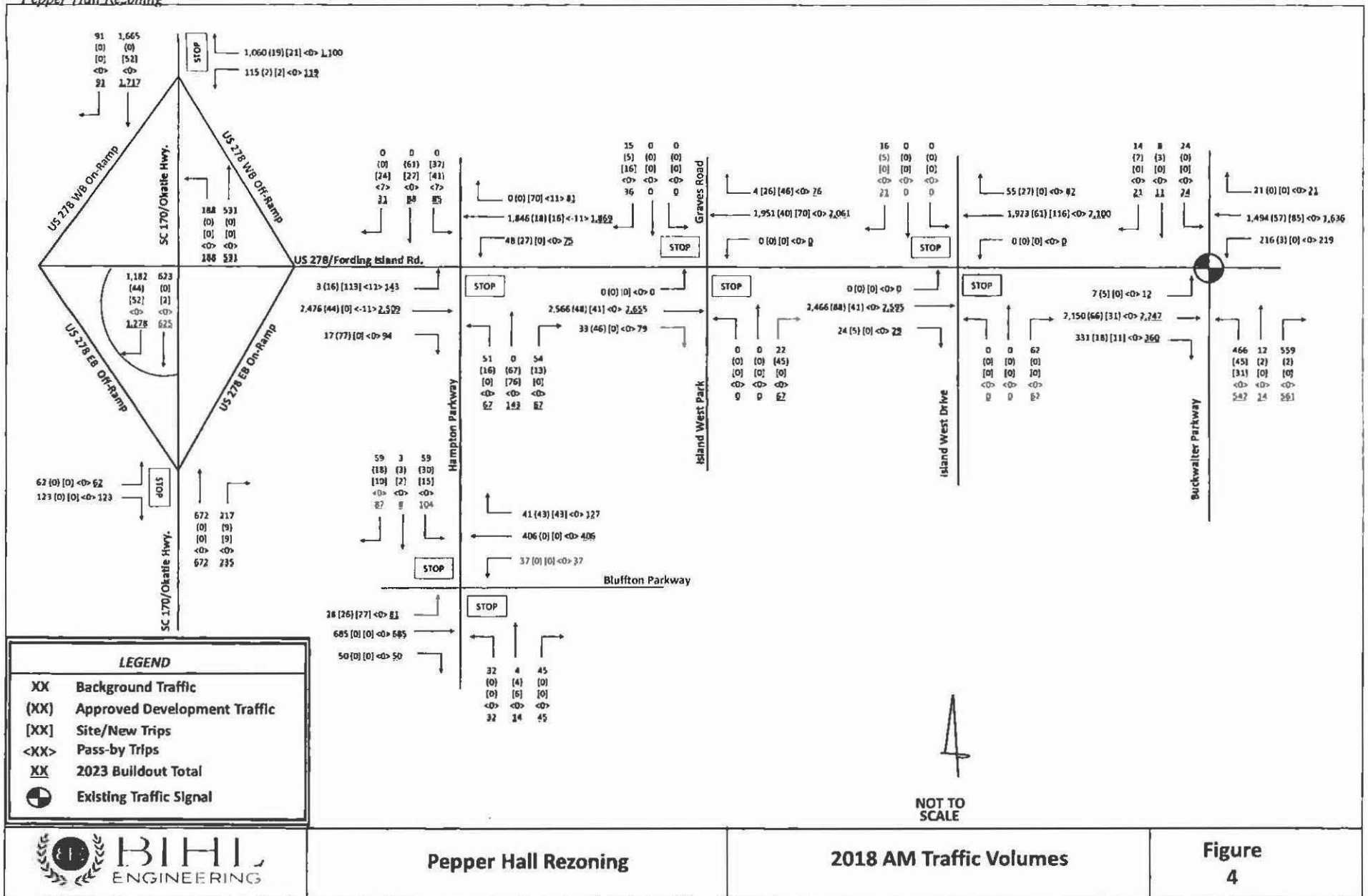
Intersection volume development worksheets are included in the **Appendix**.

7.5 2023 Buildout Traffic

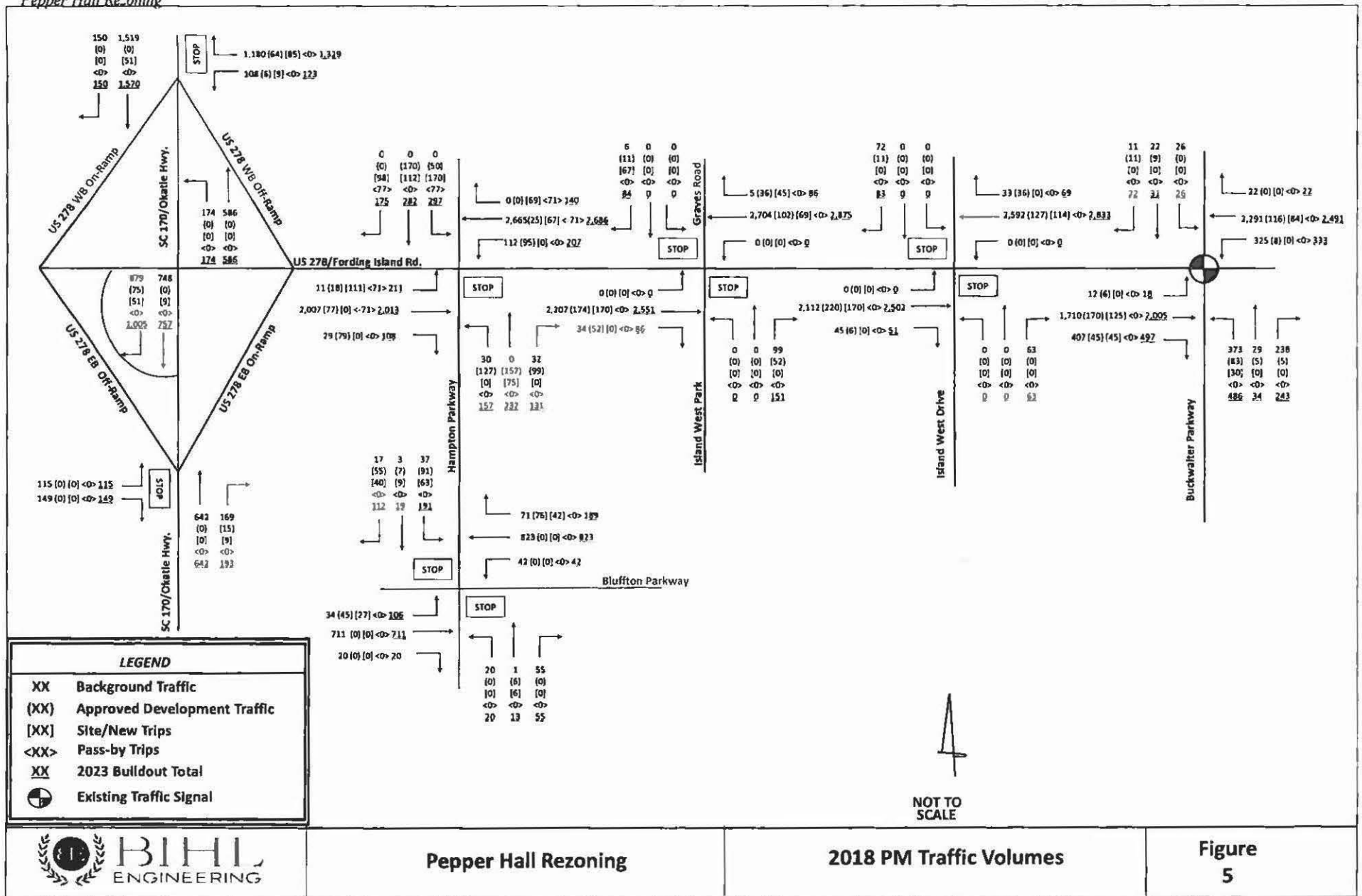
The 2023 total traffic volumes include the 2023 background traffic and the proposed development traffic at buildout. The 2023 AM peak hour and PM peak hour total traffic volumes are shown in **Figure 6** and **Figure 7**, respectively.

Intersection volume development worksheets are included in the **Appendix**.

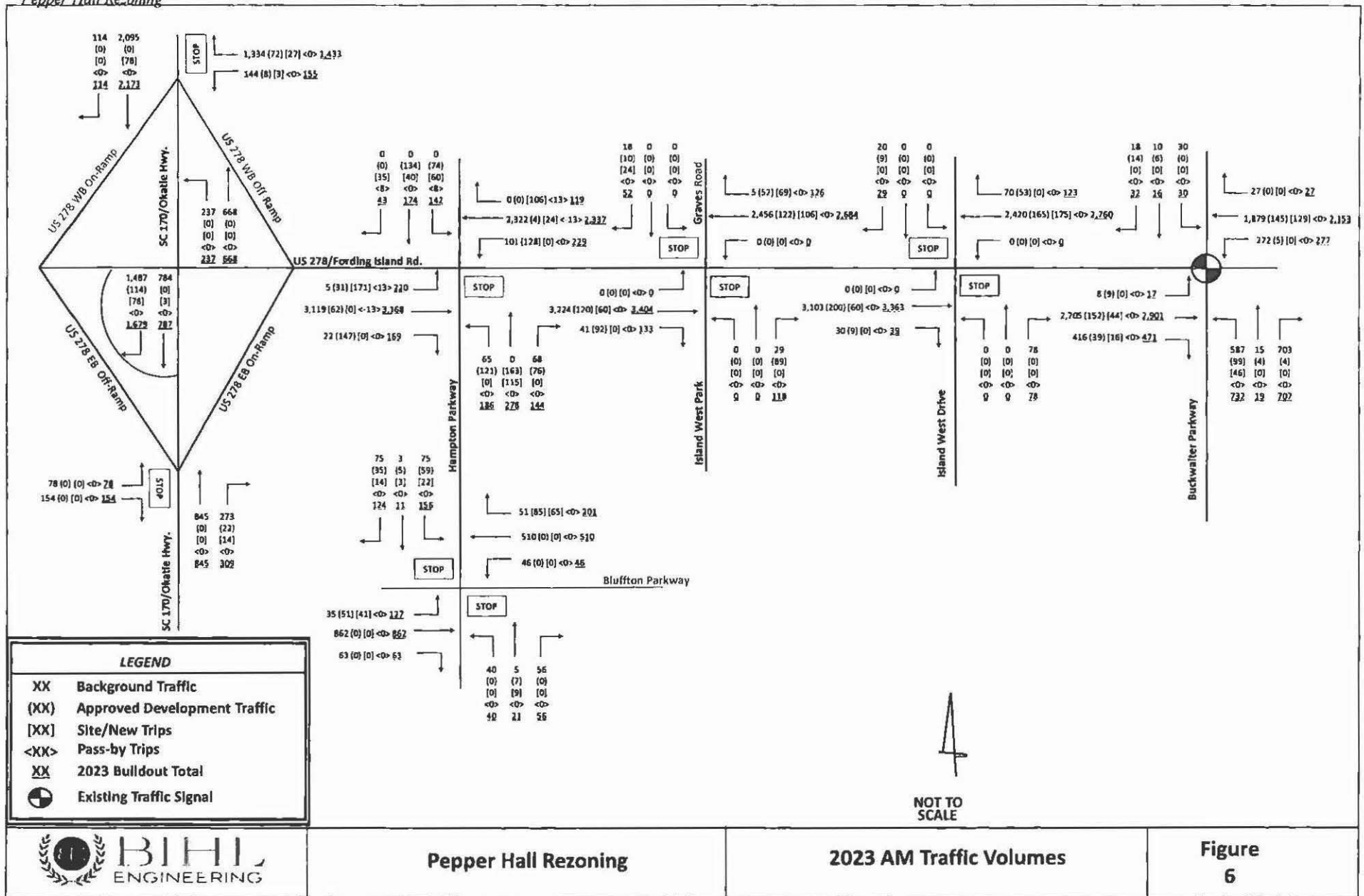
Pepper Hall Rezoning



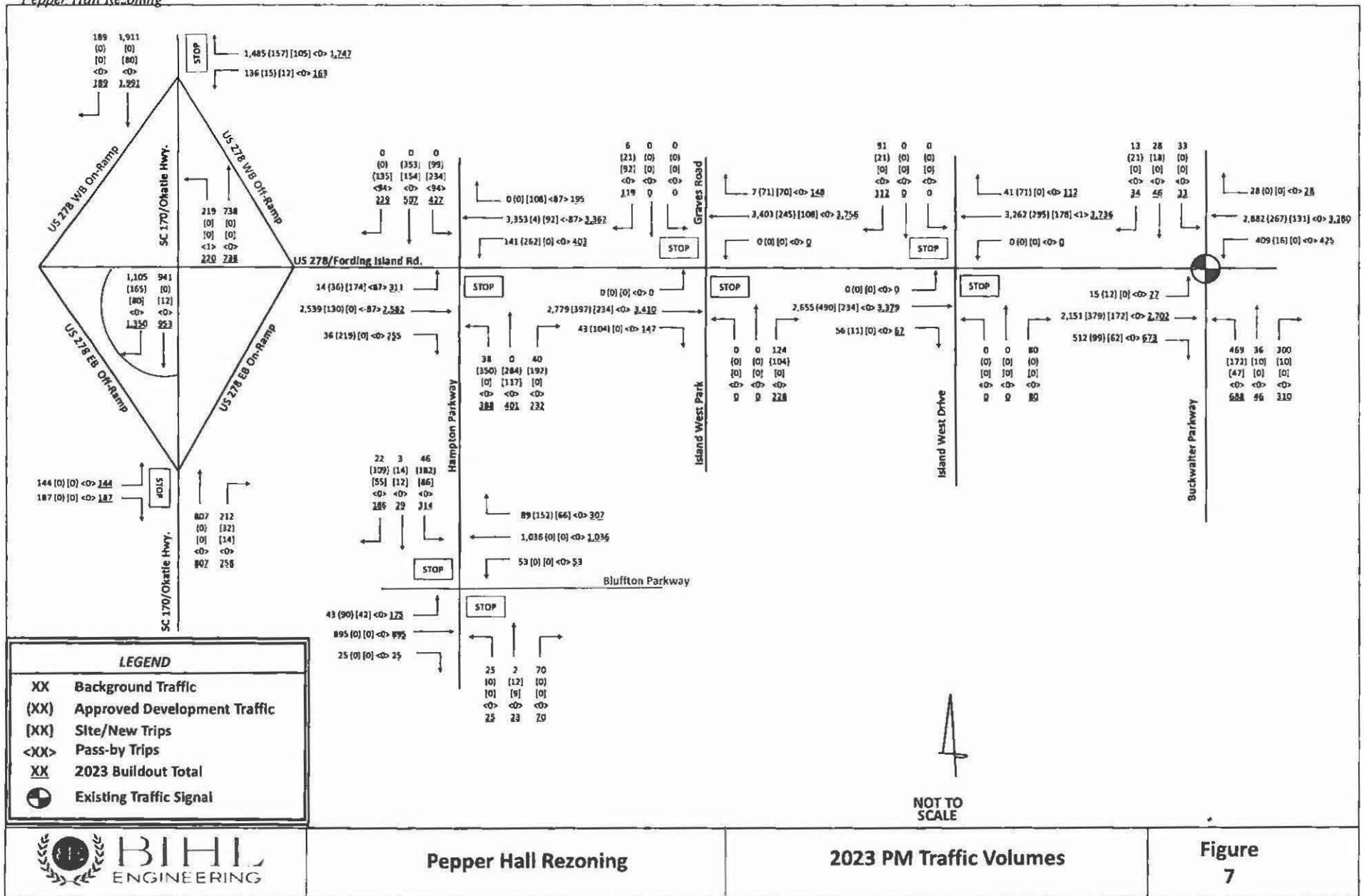
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Pepper Hall Rezoning



Pepper Hall Rezoning



8.0 Capacity Analysis

Capacity analyses were performed for the AM and PM peak hours for the 2012 existing, 2018 background and buildout conditions, and 2023 background and buildout conditions using the Synchro Version 8 software to determine the operating characteristics of the adjacent road network and the potential traffic impacts of the proposed project. The analyses were conducted with methodologies contained in the *2000 Highway Capacity Manual* (TRB Special Report 209, 2000 update).

Capacity of an intersection is the maximum number of vehicles that can pass over a particular road segment or through a particular intersection during a specified time, typically an hour. Level-of-Service (LOS) describes the operating characteristics of an intersection. LOS is defined as a qualitative measure that describes operational conditions and motorist perceptions within a traffic stream. The *Highway Capacity Manual* defines six levels of service, LOS A through LOS F, with A being the best and F being the worst.

LOS for a two-way stop-controlled (TWSC) intersection is determined by the delay of the poorest performing minor approach as LOS is not defined for TWSC intersections as a whole. Capacity analyses were performed for the 2012 existing, 2018 background and buildout conditions, and 2023 background and buildout conditions for the following intersections:

- US 278 Westbound Off-Ramp at SC 170
- US 278 Eastbound Off-Ramp at SC 170
- SC 170 Southbound On-Ramp to US 278 Eastbound
- US 278 at Hampton Parkway
- US 278 at Island West Park/Graves Road
- US 278 at Island West Drive
- US 278 at Buckwalter Parkway/Berkeley Hall
- Bluffton Parkway at Hampton Parkway

Table 4 summarizes the level-of-service (LOS) and control delay (average seconds of delay per vehicle) for the study intersections with 2012 existing, 2018 background and buildout conditions, and 2023 background and buildout conditions for the AM and PM peak hours.

Table 5 shows the results of the ramp operations analysis from SC 170 southbound loop ramp to US 278 eastbound. This analysis was performed using the HCS 2010 software program.

Intersection	Traffic Control ²	Existing Conditions		2018 Background Conditions		2018 Buildout Conditions		2023 Background Conditions		2023 Buildout Conditions	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
US 278 at Hampton Parkway	U/S	C (23.3) - NB	C (18.7) - NB	C (29.7)	D (52.2)	D (37.9)	F (87.0)	F (86.6)	F (211.1)	F (99.5)	F (274.8)
US 278 at Island West Park/Graves Road	U	F (1178.0) - NB	F (*) - NB	C (15.4) - SB	C (21.6) - SB	C (17.5) - SB	F (52.0) - SB	C (21.1) - SB	E (39.7) - SB	D (29.3) - SB	F (400.3) - SB
US 278 at Island West Drive	U	F (4547.9) - NB	F (3252.0) - NB	C (21.7) - NB	D (26.5) - SB	C (22.2) - NB	D (28.6) - SB	E (39.9) - NB	F (81.5) - SB	E (42.0) - NB	F (104.2) - SB
US 278 at Buckwalter Parkway	S	E (77.8)	D (47.7)	F (83.3)	D (48.6)	F (87.1)	D (53.3)	F (168.8)	F (138.6)	F (173.1)	F (159.7)
Hampton Parkway at Bluffton Parkway	U/S	C (20.2) - NB	D (32.0) - SB	B (12.0)	B (17.6)	A (9.4)	B (18.8)	C (25.8)	C (31.9)	C (27.7)	C (33.6)
US 278 WB Off-Ramp at SC 170	U	F (192.3) - WB	F (196.2) - WB	B (16.4)	B (17.2)	B (16.0)	C (20.7)	D (50.1)	F (80.5)	E (66.7)	F (94.5)
SC 170 at US 278 EB Off-Ramp	U	C (15.0) - EB	C (19.4) - EB	C (20.0) - EB	F (50.5) - EB	C (20.1) - EB	F (52.3) - EB	E (42.0) - EB	F (543.8) - EB	E (42.4) - EB	F (566.1) - EB

1. For unsignalized intersections, the level of service of the poorest performing minor approach is reported. LOS A = Level of Service A

2. S = Signalized, U = Unsignalized

3. EB = Eastbound, WB = Westbound, SB = Southbound, NB = Northbound

Table 5:
Weaving Level of Service¹ and density in passenger cars per mile per lane

Intersection	Traffic Control ²	Existing Conditions		2018 Background Conditions		2018 Buildout Conditions		2023 Background Conditions		2023 Buildout Conditions	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
SC 170 SB to US 278 EB	Merge	C (22.7)	B (17.5)	D (31.1)	C (24.6)	D (32.6)	C (26.1)	F (40.0)	D (32.7)	F (42.3)	F (35.1)

The results of the analysis show that currently some of the side street movements on US 278 are experiencing high delay during the peak hours.

The future year analysis shows the implementation of the following roadway network improvements:

- US 278 widened to six lanes in the area of the project and stricter access management applied to existing full access driveways
- Hampton Parkway relocated and signalized at US 278 with the Island West connector constructed
- Signalization of Bluffton Parkway at Hampton Parkway
- Improvements to SC 170 and ramps with US 278
- US 278 Frontage Road from Berkeley Hall to site
- Bluffton Parkway flyover to US 278

As this is a rezoning traffic study, it was assumed these were in place; specific responsibility for these improvements has not been identified or allocated as part of this study.

The analysis shows that there are intersections experiencing delay in the future with and without this project. With a 4.7%/year growth rate, US 278 traffic volumes are expected to double by year 2025, so the current six-laning is projected to operate at LOS F. The addition of the Bluffton Parkway as an alternative route is expected to help lessen the impacts on US 278 although the freeflow methodology of the 2004 model does not completely replicate the expected shift to the Parkway. However, it is expected the US 278 will continue to carry a large percentage of regional traffic in the future.

The main access intersection for the project, US 278 at Hampton Parkway, is projected to operate at elevated levels of service in the future conditions with dual left turn lanes for all approaches. The intersection of US 278 at Buckwalter Parkway continues to deteriorate in the future as well, as US 278 traffic increases.

The right-in, right-out side street movements operate with some delay as expected on a corridor such as US 278. At buildout, US 278 at Graves Road experiences elevated levels of delay during the PM peak hour.

If the project was phased with partial buildout in 2018, the roadway network would experience elevated delay in the peak hour at the main access point at US 278 and at Buckwalter Parkway at US 278, but not as severe as 2023 conditions.

The merge movement from SB SC 170 to EB US 278 begins to experience LOS F conditions between years 2018 and 2023 as traffic volumes are projected to increase.

Capacity analysis and ramp operations analysis reports are included in the **Appendix**.

9.0 Conclusion

The proposed Pepper Hall development is located on US 278 between SC 170 and Buckwalter Parkway in Beaufort County, SC. The proposed rezoning application includes a limitation of the total non-residential square footage to 700,000 square feet and 480 residential units. Non-residential includes commercial and office uses and the residential uses include both single family and condominium/townhome uses.

For the purposes of this Traffic Impact Analysis (TIA), the proposed development is assumed to be completed by 2023. A phased development of 350,000 square feet of non-residential area and 240 residential units is assumed to be completed by 2018.

The results of the analysis show that in year 2023 there is expected to be increased congestion on US 278 in the background and buildout conditions at the signalized intersections with the committed roadway improvements. However, this assumes a 4.7% per year growth rate along the corridor. Due to the added transportation network facilities and the revision of other project plans relative to the data in the model (which is current as of 2004) the growth rate may or may not be that high in the future.

The main access intersection for the project, US 278 at Hampton Parkway, is projected to operate at elevated levels of service in the future conditions with dual left turn lanes for all approaches. The intersection of US 278 at Buckwalter Parkway also continues to increase in delay in the future, as traffic on US 278 increases. US 278 at Graves Road is also expected to have elevated delay during the 2023 PM peak hour conditions.

The right-in, right-out side street movements operate as expected on a corridor such as US 278 in both the 2018 and 2023 buildout and background conditions.

If the project was phased with partial buildout in 2018, the roadway network would experience elevated delay in the peak hours at the main access point at US 278 and at Buckwalter Parkway at US 278 but more manageable than 2023 conditions, with other intersections operating acceptably.

In summary, this area is expected to experience a large amount of growth in the future and therefore intersections in the area are expected to experience high levels of delay during the peak

hours. However, due to the uncertainty of development schedules and the potential revision to the intensity of projects in the area, when and at what level growth will exactly occur is unknown. As these projects return with updated development plans and the new congestion-based model is completed for the County, there will be updated projections of the regional conditions on the updated transportation network in the County. That being said, US 278 will continue to be the main thoroughfare in southern Beaufort County carrying a majority of the traffic volume, but the Bluffton Parkway and the frontage road program (among other transportation network improvements) will add capacity to this area of the County providing some future relief to US 278.

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July 23, 2015

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Anthony Criscitiello
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By email to tonvc@bcgov.net

Josh Gruber
Beaufort County Deputy Administrator
By email to jgruber@bcgov.net

Re: The Village at Oyster Bluff, Lady's Island – Paving of Oyster Factory Road

Gentlemen:

I spoke with all of you last week or earlier this week about our discovery that Oyster Factory Road, was in fact a 50' prescriptive easement claimed by the County, instead of being a County 50' ROW, which is what has been presumed throughout by the County staff and Council, as well as the owner. As I noted in my calls and an earlier e-mail, the PUD requires the developer to pave this road, and that responsibility is not in question. Neither is the timing of the required paving, which is "at such time as thirty percent of the permitted residential units are completed." The issue might be how the prescriptive easement instead of an existing ROW may effect the ability to timely pave and have a dedication of a 50 foot improved ROW made to the County once completed.

What is causing the purchasing developer concern at this discovery is the possibility that at the time the road is required to be paved, the adjacent landowners have failed to grant a formal ROW in the width required for dedication to the County. The County, the owner-developer and purchasing-developer are all involved in this endeavor, since this is the road where there is

Letter to Messrs. Keaveny, Gruber and Criscitiello
Re: The Village at Oyster Bluff
July 23, 2015
Page 2

supposed to be a roundabout built by either the County with funding participation by the developer, or vice-versa, dependent on timing, which that planning and construction also tied to the paving of Oyster Factory Road. It is the intention to immediately start the design work for this road, since there is a side agreement with the owner and purchasing developer to pave most of this road, if not all, prior to the one year anniversary after closing.

We are requesting the County give Bennett McNeal, the owner of the property, and D.R. Horton, the purchaser of the majority of this project, assurances that so long as the owner-developer and purchasing-developer are actively pursuing (with the County's blessing and assistance) the paving of Oyster Factory Road and dedication of the improved 50' ROW to the County, an inability to dedicate the 50' ROW (and potentially pave the road by the required date) will not prevent the purchasing developer from starting and continuing work in Phase II, being the point at which more than thirty percent of the residential units are completed. There is not any request regarding not having to pave the road; the issue is over the ROW width required by the County and coordination with the County with design details. The actual travelled area of the prescriptive easement is wide enough to pave two lanes; it is the additional ROW width that could become the issue.

As noted above, the Sunset Boulevard improvements at the Oyster Factory intersection are to be addressed by the County as part of a County-led effort to achieve traffic calming, with measures at Miller Drive and on Sunset, including the Oyster Factory Road intersection. Coordination will be necessary with the County to proceed with these design and construction efforts at Oyster Factory Road, and we would expect the County effort will be completed in a timely manner. We would also like to believe that we will have resolved the ROW matter in a timely manner. However, we would request the County provide an estoppel letter to confirm that so long as the Owner and Developer are diligently pursuing the paving of Oyster Factory Road and its formal dedication to the County, plans for construction in the Village at Oyster Bluff PUD will continue to be reviewed, permits for construction will not be affected, building permits will continue to be issued, and certificates of occupancy issued when the construction is completed for each unit, irrespective of whether they are in Phase 1 or Phase 2 (being those after thirty percent of the residential units).

We would appreciate your reviewing this request in a timely manner, and sending the estoppel/assurance letter to myself and Thomas L. Harper, legal counsel for D.R. Horton. His address is:

Thomas L. Harper, Jr.
Womble Carlyle Sandridge & Rice, LLP
P.O. Box 999 (29402)
Charleston, SC 29401
Email: THarper@wcsr.com

Letter to Messrs. Keaveny, Gruber and Criscitiello
Re: The Village at Oyster Bluff
July 23, 2015
Page 3

Thank you for your timely consideration. This is the last issue holding up a closing on this property.

Sincerely,



David L. Tedder, Esq., AICP
David L. Tedder, PA
P.O. Box 1282
Beaufort, SC 29901-1282
dave@tedderlawoffice.com
(843) 521-4222
(843) 521-0082 (fax)

BEAUFORT COUNTY ZONING MAP AMENDMENT (LADY'S ISLAND) R200-15-51, -51A, -724, AND -725 (39.03 ACRES, KNOWN AS THE VILLAGE AT OYSTER BLUFF PUD), FROM LADY'S ISLAND COMMUNITY PRESERVATION (LICP) DISTRICT AND LADY'S ISLAND EXPANDED HOME BUSINESS DISTRICT (LIEHB) TO PLANNED UNIT DEVELOPMENT (PUD) WITH CONDITIONS.

BE IT ORDAINED, that County Council of Beaufort County, South Carolina, hereby amends the Zoning Map of Beaufort County, South Carolina. The map is attached hereto and incorporated herein.

1. Approval of this PUD does not constitute endorsement of the proposed right-in/right-out intersection on Sams Point Road. Any additional access on Sams Point Road would need to meet the County's separation standards; be carefully considered during the development permitting process; and, if approved, be accompanied by necessary on-site and off-site mitigation as determined by the Beaufort County Transportation Engineer.
2. As recommended by the Beaufort County Transportation Engineer, the applicant should include traffic calming measures for Sunset Boulevard into the proposed Master Plan to address and minimize vehicle speeds above the posted speed limit.
3. In order to assist with traffic calming on Sunset Boulevard, which has a pre-existing speeding problem as caused by adjacent land development activities, the Land Owner/Developer agrees to fund up to \$30,000 to a County-led effort to implement a solution, which may include a lane alteration on Sunset Boulevard that achieves traffic calming.

The County-led effort also includes measures at Miller Drive and Sunset Boulevard which are not the Land Owners/Developer's responsibility, but which will be studied at the same time as those at Oyster Factory Road for economies of scale and to provide a comprehensive approach to the issues to be addressed.

Such an alteration at Oyster Factory Road will occur within the existing right-of-way and up to ten (10) feet of buffer being provided by the Land Owner/Developer with funding by the Land Owner/Developer to be provided at the same time the asphaltting improvements to Oyster Factory Road are required. If the lane alterations indicated by the County-led study have not already been included in a County construction contract at the time the payment from the Land Owner/Developer is required to pave Oyster Factory Road, and, therefore, provide the funds for the land alterations, the Land Owner/Developer agrees to include the lane alteration construction as part of the Oyster Factory Road paving contract, subject to the overall cap on funding to be provided by the Land Owner/Developer hereinabove.

Conversely, should the County seek to provide the road improvements at Miller Road prior to the required installation of the asphalt pavement for Oyster Factory Road, the County will include the lane alterations at Oyster Factory Road and Sunset Boulevard in a combined contract, and the Land Owner/Developer shall provide the agreed upon funding at the time agreed upon for those to be undertaken as set forth below.

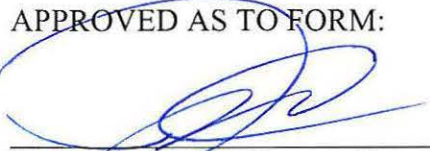
4. In order to address the timing of the paving improvements for Oyster Factory Road, the Land Owner/Developer agrees that such will be constructed at such time as thirty percent (30%) of the permitted residential units are completed.

Adopted this 26th day of January, 2015.

COUNTY COUNCIL OF BEAUFORT COUNTY

By: 
D. Paul Sommerville, Chairman

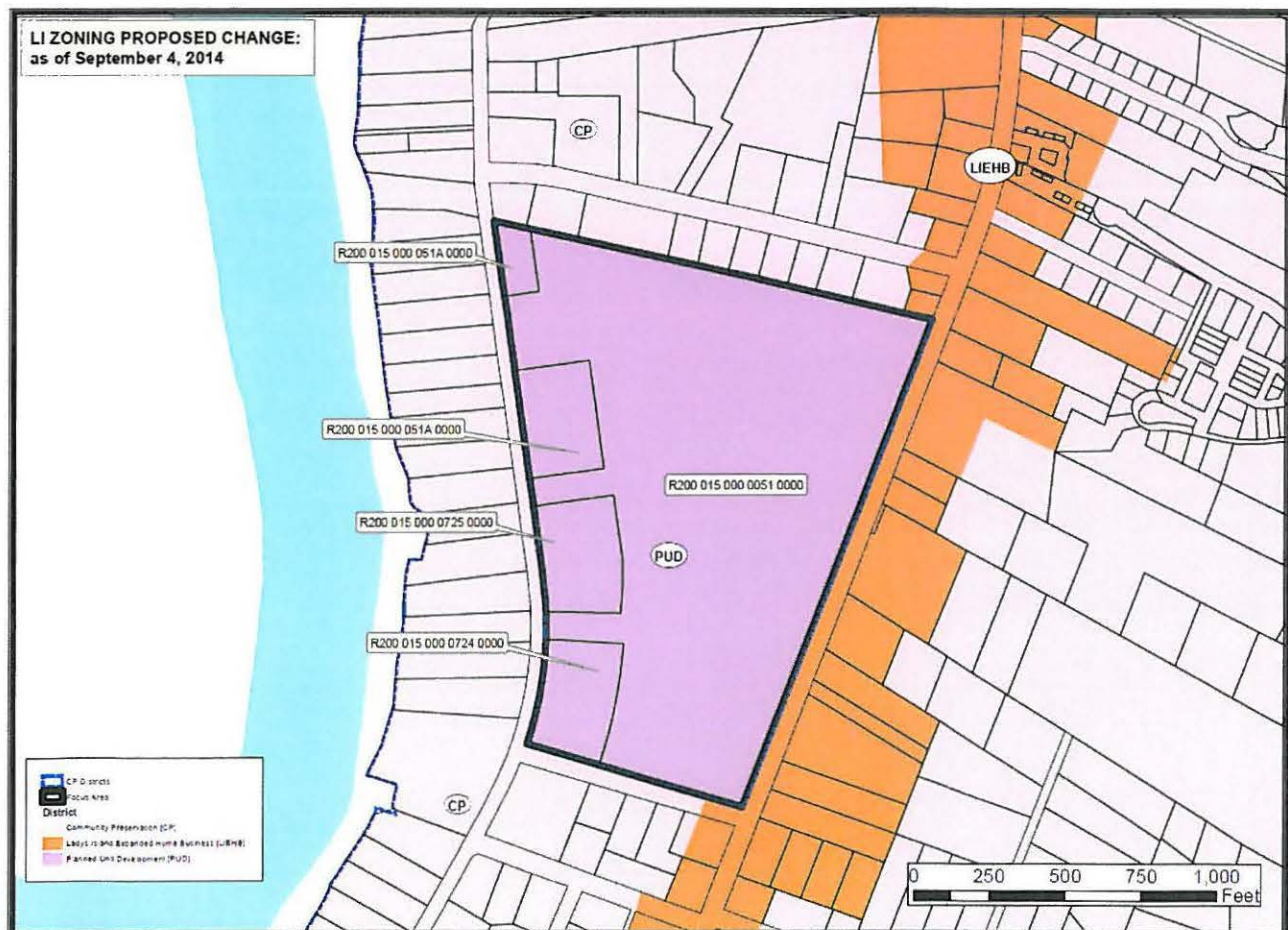
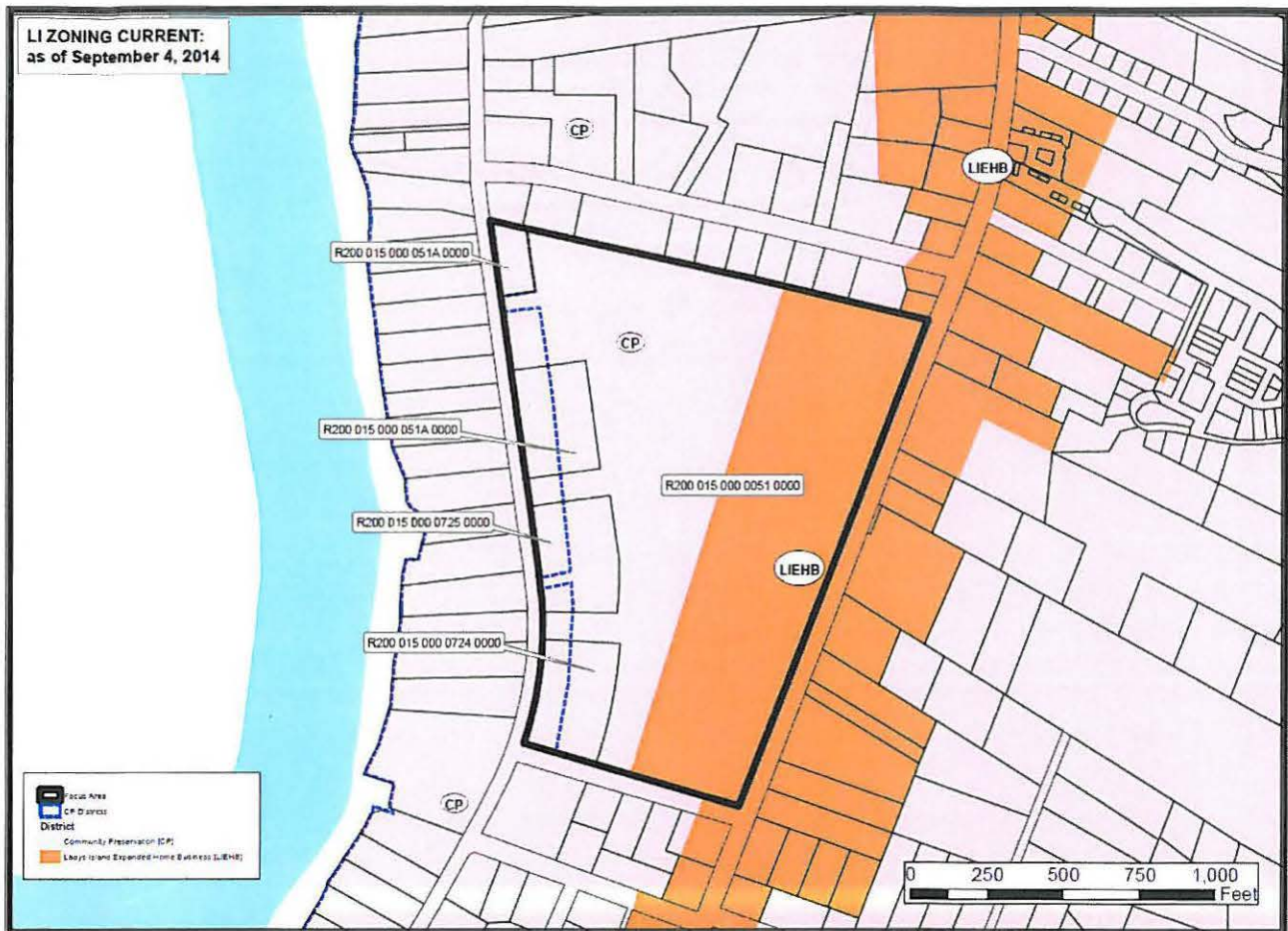
APPROVED AS TO FORM:


Joshua A. Gruber, Deputy County Administrator
Special Counsel

ATTEST:


Suzanne M. Rainey, Clerk to Council

First Reading: December 8, 2014
Second Reading: January 12, 2015
Public Hearing: January 26, 2015
Third and Final Reading: January 26, 2015



The Village at Oyster Bluff, Lady's Island Planned Development District Master Plan Narrative

I. Zoning History, Project Introduction and Overview

The proposed Village at Oyster Bluff on Lady's Island, is a replacement zoning district for the PUD known formerly as The Village at Lady's Island PUD. The proposed Village PUD Master Plan regulatory scheme consists of general narratives, Proposed Layout, Community Standards, Architectural Standards and Projected Land Uses.

The initial PUD was originally approved in 1996 by Beaufort County under the development regulations generally referred to as ordinance 90-3 (as amended) for 200 dwelling units (81 single family and 119 multi-family) and 12 commercial lots at a gross density of approximately 6 density units per acre. At the time the original PUD was approved in 1996, the underlying zoning was Development District (DD), permitting residential development up to 8 units per acre. The property is a +/-39.03 Acre tract of land situated along Sam's Point Road on Lady's Island at the intersection of Oyster Factory Road. The original PUD was designed as a Neo-Traditional community incorporating a mix of housing types and commercial uses. It was a complement to the larger single family home lots created from the holdings along Factory Creek that were the Maggionne Oyster Factory which ceased operations in the early 1980s, and were platted independently of the PUD. The PUD area is the interior area on the other side of Sunset Boulevard that bisected the oyster factory holdings of the Maggionne family.

In December of 2009, a request was made by the applicant to extend the expiration date (December 31, 2010) of the Village PUD. The extension was requested in part because of the 2004 changes to Section 106-7 of the ZDSO that imposed an expiration date on low impact developments, which otherwise would have continued in effect indefinitely, as well as the negative market forces which had developed after the housing/financing crash of 2007-2008, which inhibited construction. A new narrative was prepared addressing the matters required under Section 106-2445 and 2447. Both the original The Village PUD and 2009 new narrative are attached (Exhibit K).

That 2009 submission was not approved, generally because the proposed density in 2009 was considered to be too high by staff and the Lady's Island Community Preservation Committee, and the County was embarking on a revision to its zoning code incorporating form based code principles. The applicant has continued to work with staff and the Lady's Island Community Preservation Committee to achieve a mixed use plan which is not as dense as that proposed in 2009, but also incorporates concepts from the community code being adopted by the County.

The applicant requests an approval for a new Planned Development District, PDD, The Village at Oyster Bluff PDD that is in keeping with the graduated density and commercial mixed use approach originally approved in The Village PUD. This new PDD proposes a total residential density of 2.92 units per acre, a total of 114 single family units (113 units located in the T-3N and 1 unit located in the T-4 HC). (See Table 1) The proposed density is nearly half the density originally approved back in 1996 and nearly a third less than the underlying zoning at the time. Additionally, and in light of the pending new Beaufort County Community Development Code, this proposed submittal draws from development standards from within the County's new Code and also implement standards that are in keeping with current housing market conditions. In other words, this proposed project's development standards will be an amalgam of both the new Beaufort County Community Development Code and modification to those codes that are constructive to market demand. (See Exhibit J)

Table 1

<u>Transect</u>	<u>Acres</u>	<u>Units</u>
<u>Oyster Bluff T-3 Neighborhood</u>	+/-33.54 AC	113 SF
<u>Oyster Bluff T-4 Hamlet Center</u>	+/- 5.49 AC	1 Apartment
<u>Total:</u>	+/-39.03 AC	114
	<u>Total Density:</u>	2.92 Units/AC

II. Existing Conditions

The subject property owner and applicant, McNeal Land Company, submits this application.

The application seeks approval of The Village at Oyster Bluff PDD based on the conditions of the pending Beaufort County Community Development Code, modifications to the New Code, and the matters contained in the application.

The Village at Lady's Island approximately 39.09 acres have been planned based on available information. Aerial photography was used to identify hardwood tree groupings for master planning efforts. Changes may be required based on constraints identified during the development permit process. This parcel is located along Sam's Point Road on Lady's Island at the intersection of Oyster Factory Road. Tree cover consists of a mixture of hardwoods (See Exhibit B). The property drains west towards Factory Creek. Prior to the widening of Sam's Point Road, and in anticipation of the development of this parcel under the original PUD, cooperative drainage easements were developed from Sam's Point Road to other properties owned by McNeal which ultimately discharge into Factory Creek at an outfall provided by McNeal. The attached Exhibits give detailed information regarding the existing conditions of the property. These items include:

A. Boundary & Wetland Surveys

The boundary survey plat (see Exhibit C) of the property contains the following information: 1) Vicinity Map 2) Boundary and Dimensions 3) Existing Easements 4) Existing Roads and Access Points 5) Property Owners of Adjacent Properties 6) Existing Drainage Ways 7) Setbacks and Buffers

B. Wetlands Permit

There are no freshwater wetlands on the property.

C. Topography

See Exhibit C Boundary Plat

D. Conceptual Stormwater Master Plan

See Exhibit D Drainage Master Plan

E. Conceptual Water Distribution Master Plan

See Exhibit E Water Master Plan

F. Conceptual Wastewater Collection Master Plan

See Exhibit F Sewer Master Plan

III. Development Master Plan

The project will be developed in accordance with the proposed Beaufort County Community Code, as modified herein. Access points, wetlands, archeology and storm water methods have been coordinated. The final location of roads, lagoons, open spaces, buildings, parking, active recreational/athletic sites and other elements may vary at the time of Development Permit Applications. The plan demonstrates a potential arrangement of land uses and road corridors. The final layout will vary based on development needs, market conditions and environmental constraints. The property will be accessed from two separate locations on Sam's Point Road, two separate locations on Oyster Factory Road and one location on Sunset Boulevard. The two entrance locations on Sam's Point Road have been coordinated and approved by SCDOT. In response to community concerns, and contrary to the established pattern of development along Sunset Boulevard, the lots along Sunset Boulevard do not take direct access from Sunset Boulevard, but incorporate an interior alley/roadway system that provides limited interconnectivity to that Road across to Sam's Point Road. The Master Plan allows for the development of single family residential, commercial and active recreational areas in accordance with the pending Beaufort County Community Code as modified herein.

Preliminary phasing for the project is illustrated in the attached Phasing Plan (Exhibit G). Location and engineering for each phase will occur as the market demands and budgets apply.

A. Site Design and Development Standards

The project development standards will emulate the proposed Beaufort Community Code Zoning and Development Standards proposed for adoption for T-3 Neighborhood (T3N) and T-4 Hamlet Center (T-4HC) Transects, as modified herein (Exhibit J) and named The Village at Oyster Bluff Modified T3 Neighborhood and The Village at Oyster Bluff T-4 Hamlet Center Standards, respectively. The applicant intends to responsibly exercise the design functions entrusted to the applicant as the private developer under the Village at Oyster Bluff architectural design guidelines imposed by restrictive covenants. In addition, architectural and design standards will meet or exceed Article 5 of the pending Community Code (Dated 02/2014) or as modified herein (Exhibit N). See Exhibit L for an example Conceptual Plan for The Village at Oyster Bluff T-4HC transect.

Standards for parking, lighting, landscaping, signage and streets will meet or exceed the pending Community Code (Dated 02/2014) or as modified herein. The Master Plan will meet or exceed the minimum tree requirements as required by Division 5.11: Resource Protection

Standards of the proposed Community Code.

Site Development within the Village at Oyster Bluff is governed by the Development Standards included as part of this Master Plan approval. Exterior buffers and setbacks are shown on Table 2, and internal setbacks are included in Exhibit J.

Table 2:

Street ROW/Boundary	Oyster Bluff T-3 HN	Oyster Bluff T4-HC
SC HWY 802 (Sam's Pt. Road)	50'	10'
Oyster Factory Road	0'	10'
Sunset Boulevard	15'	N/A
Northern Boundary	0'	N/A

B. Storm Water Management

The Stormwater Management Plan is shown on Exhibit D. The storm water layout is preliminary and subject to change pending final design of the drainage system and approval by OCRM and the Beaufort County Engineering department. The storm water will be filtered through the series of interconnected lagoons or equivalent Best Management Practices (BMP) prior to being released into an existing drainage culvert that was previously installed under Sunset Boulevard to convey storm water run off from this tract and the adjacent area into Factory Creek. Additionally, infiltration techniques will be investigated along with other items such as Littoral Shelves at the time of the final drainage system and development permit.

The proposed storm drainage system will comply with the current

Beaufort County Ordinance, Beaufort County BMP Manual and OCRM regulations and will meet or exceed these requirements. The final storm water design will be submitted along with other final engineering documents at the time of the development permit application.

C. Utility Services

1) Potable Water Distribution

Potable Water will be provided by Beaufort-Jasper Water & Sewer Authority (BJWSA). An existing water main on Sam's Point Road will provide adequate flow to support this project (See letter of availability from BJWSA).

2) Wastewater Collection

Wastewater Collection will be provided by a combination of gravity sewers, pumping station(s), and force main(s) located throughout the site. The wastewater will be collected and pumped to an existing force main located on Sam's Point road where it will be transported to a wastewater facility owned and operated by BJWSA.

3) Electric & Gas Supply and Service

Power will be provided by South Carolina Electric and Gas; however, gas is not currently available to the project.

4) Telecommunication Service

Telecommunication service will be provided by Hargray Communications. Communications. The telecommunications infrastructure will include voice, data, and video facilities. Initial Master Plan approval does not amend any rights provided to a landowner by the Public Service Commission or South Carolina law.

5) Lady's Island St. Helena Fire District

The community is in the Lady's Island St. Helena Fire District jurisdiction. The water supply system will be designed to provide fire flow to adequately serve the site. (See attached letter of service from the Lady's Island St. Helena Fire District)

D. Proposed Roadways

In addition to the internal drives, a system of pedestrian walks and nature trails is planned. The proposed nature trail will be used by property owners for recreation, exercise and ecological education. A conceptual plan of the proposed nature trail and drive network is illustrated on the Master Plan (Exhibit A). The actual layout may differ at the time of development permit submission, based upon actual engineering and future planning, so long as the terms of the Concept Plan are respected and followed.

Roadways and drives will be owned and maintained by The Village at Oyster Bluff property association.

E. Ownership and Maintenance of Common Areas and Utilities

1) Common Areas

Development of the property will be owned and maintained by The Village at Oyster Bluff's property association. All easements, buffers, active recreation/athletic areas, open space, nature trails, etc., will be owned by The Village at Oyster Bluff's property association. This ownership will include the maintenance of facilities, lagoons and drainage on the property.

2) Utilities

Beaufort-Jasper Water & Sewer Authority will own and operate the water and sewer facilities necessary for this project. Electrical Power facilities will be owned and operated by SCE&G, or other provider as approved by the Public Service Commission. In addition any Telecommunication Facilities will be owned and operated by Hargray Communications or other provider.

IV. Vesting Provision

The provisions of this PDD, and all phases of development set forth in the Master Plan, shall be vested against any future changes to Beaufort County law or zoning and development ordinances if Owner shall have achieved Substantial Development. "Substantial Development" shall mean (1) the completion of construction (the receipt of a certificate of occupancy) or construction that is underway (the receipt of applicable building or development permits) of not less than twenty-five percent (25%) of the total Development proposed for the property, as shown and depicted on the Master Plan, or 2, the completion of the drainage and paving of the County owned road known as Oyster Factory Road, by the Owner or Developer. Upon the occurrence of either of these alternative

events, the Property shall be entitled to complete construction of the as of then undeveloped remaining areas of the Property in accordance with the specifications of the Master Plan.

V. Land Use Parcel Delineations and Uses

The property delineates approximately 39.03 Acres. The land uses are labeled on the Master Plan to identify the most likely uses expected under the applicant's current development forecasts. Of the total acres, approximately 5.49 Acres are commercial, approximately 33.54 Acres are residential with +/-10.77 Acres of common open space.

Development of the property will be subject to design guidelines that comply with the development standards of the pending Beaufort County Community Code as modified herein. All environmental standards, including Best Management Practices regarding storm water runoff, will be demonstrated at the time of final design and Development Permit Application. Future development permits will be issued for site specific development on each site upon individual applications for development approval which demonstrate compliance with these applicable use and site standards.

VI. Traffic Impact and Mitigation

The proposed Village at Oyster Bluff development is located north of Oyster Factory Road between Sam's Point Road and Sunset Blvd. in Beaufort, South Carolina. For the Planned Unit Development (PUD) traffic analysis, the project is assumed to include 114 single family homes, a 16 fueling position gas station, 10,000 square feet (sf) of office space, and 29,000 sf of self storage with one apartment over the storage office. Detailed site planning will identify site circulation plan for the development to ensure proper traffic flow and truck access to the proposed land uses.

Development access is planned via two full access driveways on Sam's Point Road, one right-in, right-out driveway on Sam's Point Road and two full access driveways on Oyster Factory Road. Two full access curb cuts exist today on Sam's Point Road for this property, but would need to be upgraded for the design of the new use of the property. Traffic was assigned to the proposed right-in, right-out driveway (Driveway #3) in the analysis, however, this location is subject to South Carolina Department of Transportation (SCDOT) approval as an additional access point for the site along Sam's Point Road. If this location is not granted by SCDOT, it is expected that these trips would access the site via Driveway #2 or Driveway #4 and would increase the traffic demand at those driveways. The spacing of the access points on Oyster Factory Road is subject to Beaufort County approval. An additional access point is being contemplated on Sunset Boulevard. This access point is projected to have limited use from the

residential units. In the analysis, these trips were combined into Driveway #5 trip distribution.

For the purposes of this Traffic Impact Analysis (TIA), proposed development is assumed complete in 2019.

This report presents the trip generation, distribution, traffic analyses, and recommendations for transportation improvements required to meet anticipated traffic demands.

The following intersections were included in this analysis based on the direction of Beaufort County staff:

- Sam's Point Road (US 21) at Sea Island Parkway (US 21 Business)
- Sam's Point Road at Oyster Factory Road
- Oyster Factory Road at Sunset Blvd.
- Project driveways

All intersections currently operate at LOS D or better.

In the 2019 no build conditions, the delay and congestion are projected to increase at study area intersections. Intersection splits were optimized at the intersection of Sam's Point Road at Sea Island Parkway in the 2019 no build conditions but additional roadway improvements were not assumed. The unsignalized study area intersections operate at LOS D or better for both the AM and PM peak hour 2019 no build scenarios. However, Sam's Point Road at Sea Island Parkway operates at LOS E during the AM peak hour and LOS D during the PM peak hour.

The following improvements were assumed in the 2019 build analysis:

- Oyster Factory Road paved from Sunset Boulevard to Sam's Point Road
- Construction of a westbound left-turn lane on Oyster Factory Road from Driveway #4 to Sam's Point Road
- Upgrade of Driveway #1 and Driveway #2 on Sam's Point Road to SCDOT driveway standards each with exclusive left- and right-turn lanes

Sam's Point Road at Sea Island Parkway, Sam's Point Road at Oyster Factory Road, and Sam's Point Road at Driveway #2 are projected to operate with elevated delay during the AM peak hour conditions. Sam's Point Road at Sea Island Parkway is projected to continue to operate at LOS E with an increase in delay of three percent from the 2019 AM peak hour no build conditions. A specific improvement has not been identified at this time for this intersection. It is recommended that the potential for improvements at this intersection be revisited when the final land uses are designed for the site to determine what

improvement or improvements, such as installation of turn lanes are needed for the intersection.

The unsignalized intersections of Sam's Point Road at Oyster Factory Road and Sam's Point Road at Driveway #2 are projected to operate at with elevated delay for side street left-turn operation in the morning. Side street delay at minor approaches on major roadways is not uncommon. Exclusive left-turn lanes are already planned for these movements.

EXHIBIT A

Revised September 26, 2014

PROPERTY ACREAGE SUMMARY

TOTAL ACRES:	+/- 59.03 ACRES
OYSTER BLUFF T-4 HAMLET CENTER ACREAGE:	+/- 5.49 ACRES
OYSTER BLUFF T-3 NEIGHBORHOOD ACREAGE:	+/- 33.54 ACRES
TOTAL OPEN SPACE:	+/- 10.77 ACRES (27.5%)

LOT SUMMARY

45' LOTS* (45' X 110')	30 UNITS
55' LOTS* (55' X 110'/115')	37 UNITS
65' LOTS* (65' X 115')	46 UNITS
Oyster Bluff T-4 Hamlet Center*	1 UNIT

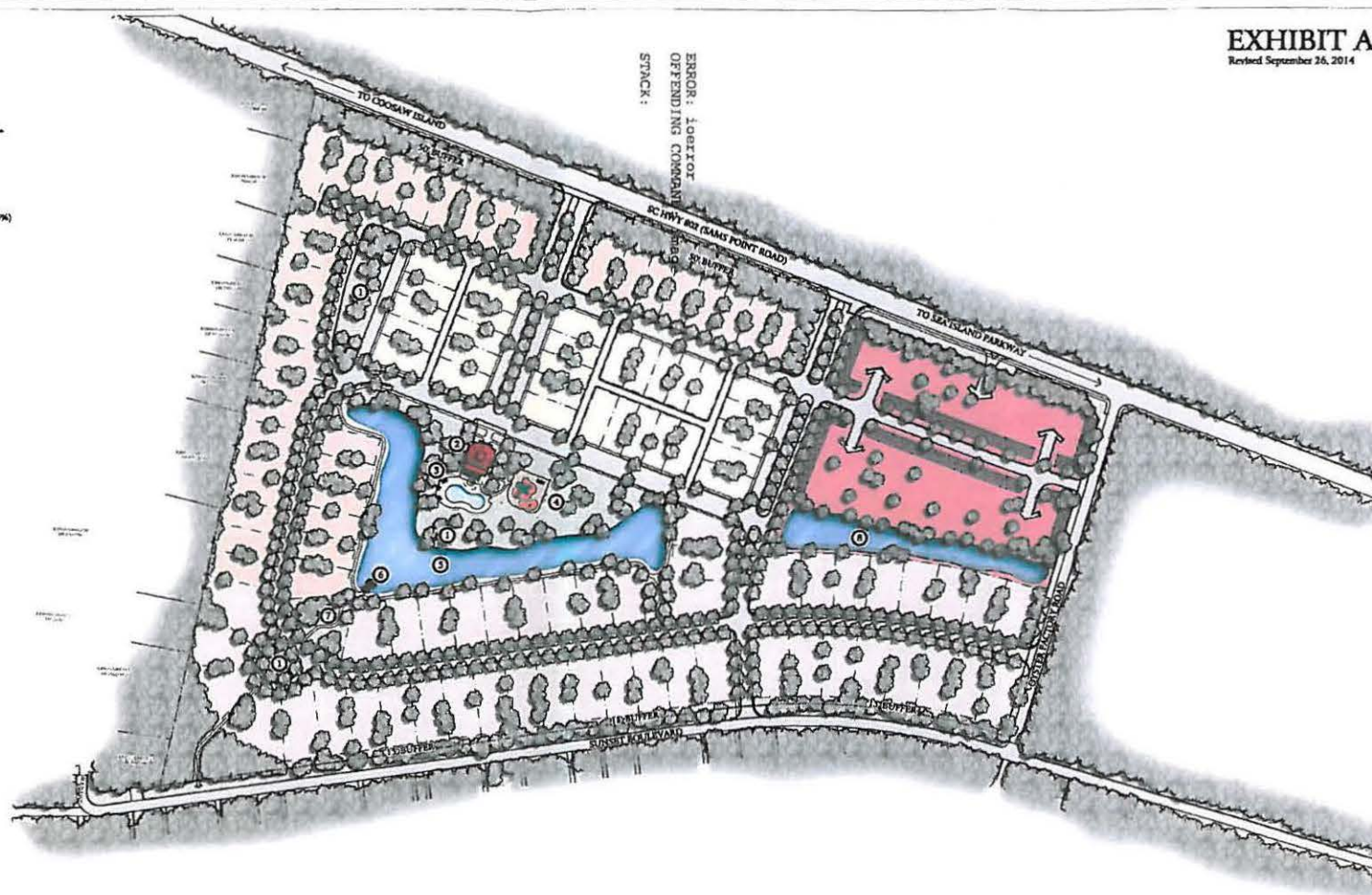
TOTAL UNITS	114 UNITS
DENSITY	2.92 UNITS/ACRE

*Oyster Bluff T-3 Neighborhood (T3N)

Oyster Bluff T-4 Hamlet Center
Main Building "Pavade Zone"

LEGEND

- ① PARK (5.28 TOTAL ACRES)
- ② CLUBHOUSE
- ③ POOL
- ④ PLAYGROUND
- ⑤ LAKE (1.78 TOTAL ACRES)
- ⑥ FISHING GAZEBO
- ⑦ LOOPED FITNESS TRAIL
- ⑧ LAGOON



PREPARED FOR:
McNeal Land Company

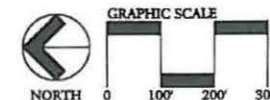
PREPARED BY:
J. K. TILLER ASSOCIATES, INC.



The Village at Oyster Bluff Master Plan

BEAUFORT COUNTY, SOUTH CAROLINA

August 15, 2014



THIS IS A CONCEPTUAL PLAN AND IS SUBJECT TO CHANGE. ALL SURVEY INFORMATION AND SITE BOUNDARIES WERE COMPILED FROM A VARIETY OF UNVERIFIED SOURCES AT VARIOUS TIMES AND AS SUCH ARE OFFERED TO BE USED ONLY AS A GUIDE. ALL PROPERTY LINES, TRACT DIMENSIONS AND NARRATIVE DESCRIPTIONS ARE FOR GRAPHIC REPRESENTATION ONLY, AS AN AID TO SITE LOCATION AND POTENTIAL LAND USE, AND ARE NOT LEGAL REPRESENTATIONS AS TO FUTURE LINES OR LOCATIONS. J. K. TILLER ASSOCIATES, INC. ASSUMES NO LIABILITY FOR ITS ACCURACY OR STATE OF COMPLETION, OR FOR ANY DISCREPANCIES (REQUIRING ACCURACY) WHICH THE USER MAY MAKE BASED ON THIS INFORMATION.

JKT Job Number: 201313-02

**AN ORDINANCE TO AMEND THE STORMWATER MANAGEMENT UTILITY ORDINANCE AS ADOPTED
AUGUST 22, 2005 TO PROVIDE FOR AMENDMENT OF THE RATE STRUCTURE, ADJUST UTILITY RATES,
AND TO MODIFY CERTAIN TERMS TO ACCURATELY REFLECT ADMINISTRATION STRUCTURE**

WHEREAS, Act 283 of 1975, The Home Rule Act, vested Beaufort County Council with the independent authority to control all acts and powers of local governmental authority that are not expressly prohibited by South Carolina law; and

WHEREAS, Chapter 99, Article II, "Stormwater Management Utility" was adopted on August 27, 2001 and was modified by ordinance on August 22, 2005; and

WHEREAS, Stormwater Management Utility was established for the purpose of managing, acquiring, constructing, protecting, operating, maintaining, enhancing, controlling, and regulating the use of stormwater drainage systems in the county;

WHEREAS, to meet the increasing demands on the Stormwater Management Utility in the areas of federally mandated municipal Separate Stormsewer Systems (MS4) permitting, capital project needs, and cost of service of operations and maintenance, as well as an evolving understanding of the impacts of the urban environment on water quality, the Stormwater Management Utility finds it necessary to amend the structure in which rates are determined and adjust the rates charged to the citizens of Beaufort County to meet said demands in a fair and equitable manner; and

WHEREAS, the administrative structure of the Stormwater Management Utility needs to be amended to reflect the organization of the current administration; and

WHEREAS, Beaufort County Council believes to best provide for the health, safety, and welfare of its citizens it is appropriate to amend Chapter 99, Article II of the Beaufort County Code and to provide for additional terms to said Article; and

WHEREAS, text that is underscored shall be added text and text lined through shall be deleted
text; and

NOW, THEREFORE, BE IT ORDAINED BY BEAUFORT COUNTY COUNCIL, that Chapter 99, Article II of the Beaufort County Code is hereby amended and replaced with the following:

Chapter 99 - STORMWATER MANAGEMENT UTILITY

ARTICLE I. - IN GENERAL

Secs. 99-1—99-100. - Reserved.

ARTICLE II. - STORMWATER MANAGEMENT UTILITY

Sec. 99-101. - Findings of fact.

The County Council of Beaufort County, South Carolina, makes the following findings of fact:

- (a) The professional engineering and financial analyses conducted on behalf of and submitted to the county properly assesses and defines the stormwater management problems, needs, goals, program priorities, costs of service, need for interlocal cooperation, and funding opportunities of the county.
- (b) Given the problems, needs, goals, program priorities, costs of service, needs for interlocal cooperation, and funding opportunities identified in the professional engineering and financial analyses submitted to the county, it is appropriate to authorize the establishment of a separate enterprise accounting unit which shall be dedicated specifically to the management, construction, maintenance, protection, control, regulation, use, and enhancement of stormwater systems and programs in Beaufort County in concert with other water resource management programs.
- (c) Stormwater management is applicable and needed throughout the unincorporated portions of Beaufort County, but interlocal cooperation between the county and the incorporated cities and towns within the county is also essential to the efficient provision of stormwater programs, services, systems, and facilities. Intense urban development in some portions of the county has radically altered the natural hydrology of the area and the hydraulics of stormwater systems, with many natural elements having been replaced or augmented by man-made facilities. Other areas of the county remain very rural in character, with natural stormwater systems predominating except along roads where ditches and culverts have been installed. As a result, the specific program, service, system, and facility demands differ from area to area in the county. While the county manages, operates, and improves stormwater programs, services, systems and facilities in the rural as well as urban areas, the need for improved stormwater management is greatest in the urban areas and nearby, including areas within incorporated cities and towns. Therefore, a stormwater utility service area subject to stormwater service fees should encompass, in so far as possible through interlocal agreements, the entirety of Beaufort County and the stormwater management utility service fee rate structure should reflect the amount of impervious area on individual properties and the runoff impact from water quantity and water quality.
- (d) The stormwater needs in Beaufort County include but are not limited to protecting the public health, safety, and welfare. Provision of stormwater management programs, services, systems, and facilities therefore renders and/or results in both service and benefit to individual properties, property owners, citizens, and residents of the county and to properties, property owners, citizens, and residents of the county concurrently in a variety of ways as identified in the professional engineering and financial analyses.
- (e) The service and benefit rendered or resulting from the provision of stormwater management programs, services, systems, and facilities may differ over time depending on many factors and considerations, including but not limited to location, demands and impacts imposed on the stormwater programs, systems, and facilities, and risk exposure. It is not practical to allocate the cost of the county's stormwater management programs, services, systems, and facilities in direct and precise relationship to the services or benefits rendered to or received by individual properties or persons over a brief span of time, but it is both practical and equitable to allocate the cost of stormwater management among properties and persons in proportion to the long-term demands they impose on the county's stormwater programs, services, systems, and facilities which render or result in services and benefits.
- (f) Beaufort County presently owns and operates stormwater management systems and facilities that have been developed, installed, and acquired through various mechanisms over many years. The future usefulness and value of the existing stormwater systems and facilities owned and operated by Beaufort County, and of future additions and improvements thereto, rests on the ability of the county to effectively manage, construct, protect, operate, maintain, control, regulate, use, and enhance the stormwater systems and facilities in the county, in concert with the management of other water resources in the county and in cooperation with the incorporated cities and towns. In order to do so, the county must have adequate and stable funding for its stormwater management program operating and capital investment needs.

- (g) The county council finds, concludes, and determines that a stormwater management utility provides the most practical and appropriate means of properly delivering stormwater management services and benefits throughout the county, and the most equitable means to fund stormwater services in the county through stormwater service fees and other mechanisms as described in the professional engineering and financial analyses prepared for the county.
- (h) The county council finds, concludes, and determines that a schedule of stormwater utility service fees be levied upon and collected from the owners of all lots, parcels of real estate, and buildings that discharge stormwater or subsurface waters, directly or indirectly, to the county stormwater management system and that the proceeds of such charges so derived be used for the stormwater management system.
- (i) The county council finds that adjustments and credits against stormwater utility service fees are an appropriate means to grant properties providing stormwater management program services that would otherwise be provided by the county and will afford Beaufort County cost savings. These reductions will be developed by the Beaufort County engineer Stormwater Manager and will be reviewed on an annual basis to allow for any modifications to practices required by Beaufort County.

The county council finds that both the total gross area and impervious area on each property are the most important factors influencing the cost of stormwater management in Beaufort County and, the runoff impact from water quantity and water quality. In determining the basis for a stormwater management utility fee, the county council finds that it is appropriate to remove the amount of land area on each property that is designated as river or marsh as these areas are vital portions of the county's stormwater management program.

Sec. 99-102. - Establishment of a stormwater management utility and a utility enterprise fund.

There is hereby established within the Public Works Department Environmental Engineering Division of Beaufort County a stormwater management utility for the purpose of conducting the county's stormwater management program. The county administrator shall establish and maintain a stormwater management utility enterprise fund in the county budget and accounting system, which shall be and remain separate from other funds. All revenues of the utility shall be placed into the stormwater management utility enterprise fund and all expenses of the utility shall be paid from the fund, except that other revenues, receipts, and resources not accounted for in the stormwater management utility enterprise fund may be applied to stormwater management programs, services, systems, and facilities as deemed appropriate by the Beaufort County Council. The county administrator may designate within the stormwater management utility enterprise fund such sub-units as necessary for the purpose of accounting for the geographical generation of revenues and allocation of expenditures pursuant to interlocal governmental agreements with the cities and towns of Beaufort County.

Sec. 99-103. - Purpose and responsibility of the utility.

The Beaufort County Stormwater Management Utility is established for the purpose of managing, acquiring, constructing, protecting, operating, maintaining, enhancing, controlling, and regulating the use of stormwater drainage systems in the county. The utility shall, on behalf of the county and the citizens of the county: administer the stormwater management program; perform studies and analyses as required; collect service fees; system development fees, in-lieu of construction fees and other funding as allowed by law, and obtain and administer grants and loans as authorized by the county council; prepare capital improvement plans and designs; perform routine maintenance and remedial repair of the stormwater systems; acquire, construct, and improve stormwater systems; acquire necessary lands, easements, rights-of-way, rights-of-entry and use, and other means of access to properties to perform its duties; regulate the on-site control, conveyance, and discharge of stormwater from properties; obtain federal and state permits required to carry out its purpose; enter into operating agreements with other agencies; allocate funds pursuant to interlocal governmental agreements; educate and inform the public about stormwater management; and perform, without limitation except by law, any stormwater management

functions and activities necessary to ensure the public safety, protect private and public properties and habitat, and enhance the natural environment and waters of the county.

Sec. 99-104. - Limitation of scope of responsibility.

The purpose and responsibility of the stormwater management utility shall be limited by the following legal and practical considerations.

- (a) Beaufort County owns or has legal access for purposes of operation, maintenance, and improvement only to those stormwater systems and facilities which:
 - (1) Are located within public streets, other rights-of-way, and easements;
 - (2) Are subject to easements, rights-of-entry, rights-of-access, rights-of-use, or other permanent provisions for adequate access for operation, maintenance, monitoring, and/or improvement of systems and facilities; or
 - (3) Are located on public lands to which the county has adequate access for operation, maintenance, and/or improvement of systems and facilities.
- (b) Operation, maintenance, and/or improvement of stormwater systems and facilities which are located on private property or public property not owned by Beaufort County and for which there has been no public dedication of such systems and facilities for operation, maintenance, monitoring, and/or improvement of the systems and facilities shall be and remain the legal responsibility of the property owner, except as that responsibility may be otherwise affected by the laws of the State of South Carolina and the United States of America.
- (c) It is the express intent of this article to protect the public health, safety, and welfare of all properties and persons in general, but not to create any special duty or relationship with any individual person or to any specific property within or outside the boundaries of the county. Beaufort County expressly reserves the right to assert all available immunities and defenses in any action seeking to impose monetary damages upon the county, its officers, employees and agents arising out of any alleged failure or breach of duty or relationship as may now exist or hereafter be created.
- (d) To the extent any permit, plan approval, inspection or similar act is required by the county as a condition precedent to any activity or change upon property not owned by the county, pursuant to this or any other regulatory ordinance, regulation, or rule of the county or under federal or state law, the issuance of such permit, plan approval, or inspection shall not be deemed to constitute a warranty, express or implied, nor shall it afford the basis for any action, including any action based on failure to permit or negligent issuance of a permit, seeking the imposition of money damages against the county, its officers, employees, or agents.

Sec. 99-105. - Boundaries and jurisdiction.

The boundaries and jurisdiction of the stormwater management utility shall encompass all those portions of unincorporated Beaufort County, as they may exist from time to time and such additional areas lying inside the corporate limits of those cities and towns in Beaufort County as shall be subject to interlocal agreements for stormwater management as approved by county council and participating municipal councils.

Sec. 99-106. - Definitions.

Unless the context specifically indicates otherwise, the meaning of words and terms used in this article shall be as set forth in S.C. Code § 48-14-20, and 26 S.C. Code Regulation 72-301, mutatis mutandis.

Abatement. Any action deemed necessary by the county or its officers or agents to remedy, correct, control, or eliminate a condition within, associated with, or impacting a stormwater drainage system or the water quality of receiving waters shall be deemed an abatement action.

Adjustments. Adjustments shall mean a change in the amount of a stormwater service fee predicated upon the determination reached by the ~~Beaufort County engineer~~ Stormwater Manager and referenced to the Adjustments and Credit Manual.

Bill Class. Every property falls into one of several bill classes. The bill class determines the fee calculation of that property.

Countywide Infrastructure Operation and Maintenance and Capital Projects. The County maintains some typically larger infrastructure within each of the four municipalities in addition to within the unincorporated area. The rate structure will allocate the costs for the County to maintain just the countywide drainage infrastructure across the entire rate base in all jurisdictions based on infrastructure linear feet per jurisdiction.

Customers of the stormwater management utility. Customers of the stormwater management utility shall be broadly defined to include all persons, properties, and entities served by and/or benefiting, directly and indirectly, from the utility's acquisition, management, construction, improvement, operation, maintenance, extension, and enhancement of the stormwater management programs, services, systems, and facilities in the county, and by its control and regulation of public and private stormwater systems, facilities, and activities related thereto.

Developed land. Developed land shall mean property altered from its natural state by construction or installation of improvements such as buildings, structures, or other impervious surfaces, or by other alteration of the property that results in a meaningful change in the hydrology of the property during and following rainfall events.

Exemption. Exemption shall mean not applying to or removing the application of the stormwater management utility service fee from a property. No permanent exemption shall be granted based on taxable or non-taxable status or economic status of the property owner.

Fixed costs. Costs associated with the public service provided equally to each property owner. These costs include, but are not limited to the following: billing and collections, data management and updating, programming, and customer support.

Gross Area. Gross area is the acreage of a parcel as identified by the Beaufort County Assessor records.

Hydrologic response. The hydrologic response of a property is the manner whereby stormwater collects, remains, infiltrates, and is conveyed from a property. It is dependent on several factors including but not limited to the size and overall intensity of development of each property, its impervious area, shape, topographic, vegetative, and geologic conditions, antecedent moisture conditions, and groundwater conditions and the nature of precipitation events. Extremely large undeveloped properties naturally attenuate but do not eliminate entirely the discharge of stormwater during and following rainfall events.

Jurisdictional Infrastructure Operations, Maintenance and Capital Projects. Each of the five jurisdictions maintains its own stormwater drainage infrastructure and funds those costs from utility revenue. Revenue from this fee component will be returned to the service provider, the individual jurisdiction.

Impervious surfaces. Impervious surfaces shall be a consideration in the determination of the development intensity factor. Impervious surfaces are those areas that prevent or impede the infiltration of stormwater into the soil as it entered in natural conditions prior to development. Common impervious surfaces include, but are not limited to, rooftops, sidewalks, walkways, patio areas, driveways, parking lots, storage areas, compacted gravel and soil surfaces, awnings and other fabric or plastic coverings, and other surfaces that prevent or impede the natural infiltration of stormwater runoff that existed prior to development.

Minimum Charge. A charge that reflects the minimum amount of demand a property will place on the service provider.

MS4 Permit. Each jurisdiction within Beaufort County will be subject to the federally mandated MS4 permit requirements. Compliance requirements include, but are not limited to monitoring, plan review, inspections, outreach and public education.

Nonresidential properties. Properties developed for uses other than permanent residential dwelling units and designated by the assigned land use code in the Beaufort County tax data system.

Other developed lands. Other developed lands shall mean, but not be limited to, mobile home parks, commercial and office buildings, public buildings and structures, industrial and manufacturing buildings, storage buildings and storage areas covered with impervious surfaces, parking lots, parks, recreation properties, public and private schools and universities, research facilities and stations, hospitals and convalescent centers, airports, agricultural uses covered by impervious surfaces, water and wastewater treatment plants, and lands in other uses which alter the hydrology of the property from that which would exist in a natural state. Properties that are used for other than single family residential use shall be deemed other developed lands for the purpose of calculating stormwater service fees.

Residential dwelling classifications. The following categories will identify the appropriate dwelling unit classifications to be utilized in applying the stormwater utility fee structure to the designations contained in the Beaufort County tax data system:

Single-family

Apartments

Townhouses

Condominiums

Mobile Home

~~Mobile home parks~~

~~Mobile home lots~~

~~River areas. River areas shall be those areas of Beaufort County that have been delineated as rivers on the most current digital mapping on file in the Beaufort County Engineering Department. Where applicable, these areas shall be deducted from a property's total land area in determining its stormwater service fee.~~

Stormwater management programs, services, systems and facilities. Stormwater management programs, services, systems and facilities are those administrative, engineering, operational, regulatory, and capital improvement activities and functions performed in the course of managing the stormwater systems of the county, plus all other activities and functions necessary to support the provision of such programs and services. Stormwater management systems and facilities are those natural and man-made channels, swales, ditches, swamps, rivers, streams, creeks, branches, reservoirs, ponds, drainage ways, inlets, catch basins, pipes, head walls, storm sewers, lakes, and other physical works, properties, and improvements which transfer, control, convey or otherwise influence the movement of stormwater runoff and its discharge to and impact upon receiving waters.

Stormwater service fees. Stormwater service fees shall mean the service fee imposed pursuant to this article for the purpose of funding costs related to stormwater programs, services, systems, and facilities. These fees will be calculated based upon the ~~residential category for a parcel and/or the nonresidential parcel's impervious area, and/or the vacant/undeveloped land category. impervious and gross area at an 80/20 allocation; storm water service fee categories; any State agricultural exemptions or caps; an account administrative fee, countywide jurisdiction operation maintenance and capital project fees; and jurisdictional operation, maintenance and capital project fee.~~

~~Stormwater service fee;~~ sSingle-family unit (SFU). The single-family unit shall be defined as the impervious area measurements obtained from a statistically representative sample of all detached single-family structures within Beaufort County. The representative value will be 4,906 square feet.

Stormwater service fee categories. The appropriate categories for determining SFUs will be as follows:

	SFU (SFUs equal)	Calculation
<u>Tier 1</u> Single-family <u>Unit</u> (<=2,521 square feet)	Dwelling units x 0.5	
<u>Tier 2</u> Single-family <u>Unit</u> (2,522 to 7,265 square feet)	Dwelling units x 1	
<u>Tier 3</u> Single-family <u>Unit</u> (>=7,266 square feet)	Dwelling units x 1.5	
<u>Mobile Home</u>	<u>Dwelling units x 0.36</u>	
Apartments	Dwelling units x 0.39	
Townhouses	Dwelling units x 0.60	
Condominiums	Dwelling units x 0.27	
Mobile home parks	Dwelling units x 0.36	
Mobile home lots	Dwelling units x 0.59	
<u>Nonresidential Commercial</u>	Impervious area x 4,906 sq. ft.*	
<u>Residential/nonresidential vacant</u>	<u>Parcel area x SFU corrected factor</u>	

*Commercial billed at a rate of 1 SFU per 4,906 square feet or a portion thereof

~~Vacant/undeveloped land. All parcels containing no impervious area and not being defined as exempt will have the corrected SFUs calculated for the following property classification system (PCS) codes:~~

~~PCS-29~~

~~PCS-33~~

~~PCS-91~~

~~PCS-92~~

~~PCS-99~~

~~PCS-81~~

~~PCS-82~~

~~PCS-83~~

~~PCS-84~~

~~PCS-89~~

~~PCS-74~~

~~PCS-76~~

~~Appropriate residential PCS category~~

~~Variable Costs. An impervious and gross area rate structure that allocates some cost to each of the two variables based on the amount of impervious surface and gross area.~~

Sec. 99-107. - Requirements for on-site stormwater systems: enforcement, methods and inspections.

- (a) All property owners and developers of real property to be developed within the unincorporated portions of Beaufort County shall provide, manage, maintain, and operate on-site stormwater systems and facilities sufficient to collect, convey, detain, control, and discharge stormwater in a safe manner consistent with all county development regulations and the laws of the State of South Carolina and the United States of America, except in cases when the property is located within an incorporated city or town subject to an interlocal governmental agreement with the county for stormwater management and the city or town has regulations that are more stringent than the county, in which case the city's or town's development regulations shall apply. Any failure to meet this obligation shall constitute a nuisance and be subject to an abatement action filed by the county in a court of competent jurisdiction. In the event a public nuisance is found by the court to exist, which the owner fails to properly abate within such reasonable time as allowed by the court, the county may enter upon the property and cause such work as is reasonably necessary to be performed, with the actual cost thereof charged to the owner in the same manner as a stormwater service fee as provided for in this article.
- (b) In the event that the county shall file an action pursuant to subsection 99-107(a), from the date of filing such action the county shall have all rights of judgment and collection through a court of competent jurisdiction as may be perfected by action.
- (c) The county shall have the right, pursuant to the authority of this article, for its designated officers and employees to enter upon private property and public property owned by other than the county, upon reasonable notice to the owner thereof, to inspect the property and conduct surveys and engineering tests thereon in order to assure compliance with any order or judgment entered pursuant to this section.

Sec. 99-108. - General funding policy.

- (a) It shall be the policy of Beaufort County that funding for the stormwater management utility program, services, systems, and facilities shall be equitably derived through methods which have a demonstrable relationship to the varied demands and impacts imposed on the stormwater program, services, systems, and facilities by individual properties or persons and/or the level of service rendered by or resulting from the provision of stormwater programs, systems and facilities. Stormwater service fee rates shall be structured so as to be fair and reasonable, and the resultant service fees shall bear a substantial relationship to the cost of providing services and facilities throughout the county. Similarly situated properties shall be charged similar rentals, rates, fees, or licenses. Service fee rates shall be structured to be consistent in their application and shall be coordinated with the use of any other funding methods employed for stormwater management within the county, whether wholly or partially within the unincorporated portions of the county or within the

cities and towns. Plan review and inspection fees, special fees for services, fees in-lieu of regulatory requirements, impact fees, system development fees, special assessments, general obligation and revenue bonding, and other funding methods and mechanisms available to the county may be used in concert with stormwater service fees and shall be coordinated with such fees in their application to ensure a fair and reasonable service fee rate structure and overall allocation of the cost of services and facilities.

- (b) The cost of stormwater management programs, systems, and facilities subject to stormwater service fees may include operating, capital investment, and non-operating expenses, prudent operational and emergency reserve expenses, and stormwater quality as well as stormwater quantity management programs, needs, and requirements.
- (c) To the extent practicable, adjustments to the stormwater service fees will be calculated by the Beaufort County ~~engineer~~ Stormwater Manager in accordance with the standards and procedures adopted by the ~~engineer's~~ Stormwater Manager's office.
- (d) The stormwater service fee rate may be determined and modified from time to time by the Beaufort County Council so that the total revenue generated by said fees and any other sources of revenues or other resources allocated to stormwater management by the county council to the stormwater management utility shall be sufficient to meet the cost of stormwater management services, systems, and facilities, including, but not limited to, the payment of principle and interest on debt obligations, operating expense, capital outlays, nonoperating expense, provisions for prudent reserves, and other costs as deemed appropriate by the county council.

Beaufort County service fee rate will be based on impervious and gross area at an 80/20 allocation; storm water service fee categories; any State agricultural exemptions or caps; an account administrative fee, countywide jurisdiction operation maintenance and jurisdictional operation, maintenance and capital project fee. The rates are set by the Beaufort County Stormwater Rate Study adopted July 2015.

The gross area charge is calculated in equivalent units as follows:

<u>First 2 acres</u>	<u>\$X per acre</u>
<u>For every acres above 2 acres and up to 10 acres</u>	<u>0.5 x \$X</u>
<u>For every acre above 10 acres, and up to 100 acres</u>	<u>0.4 x \$X</u>
<u>For very acre above 100 acres</u>	<u>0.3 x \$X</u>

Each municipal jurisdiction may have a different fee predicated upon the ~~individual~~ municipal jurisdiction's revenue needs. The ~~following~~ stormwater service fee rates shall ~~apply~~ be adopted by the municipal jurisdictions and may be amended from time to time by the individual governing body.

<u>Jurisdiction</u>	<u>Annual Stormwater Service Fee (\$/SFU/year)</u>
<u>City of Beaufort</u>	<u>\$65.00</u>

Town of Bluffton	-98.00
Town of Hilton Head Island	108.70
Town of Port Royal	-50.00
Unincorporated Beaufort County	-50.00

Sec. 99-109. - Exemptions and credits applicable to stormwater service fees.

Except as provided in this section, no public or private property shall be exempt from stormwater utility service fees. No exemption, credit, offset, or other reduction in stormwater service fees shall be granted based on the age, tax, or economic status, race, or religion of the customer, or other condition unrelated to the stormwater management utility's cost of providing stormwater programs, services, systems, and facilities. A stormwater management utility service fee credit manual shall be prepared by the ~~county engineer~~ Stormwater Manager specifying the design and performance standards of on-site stormwater services, systems, facilities, and activities that qualify for application of a service fee credit, and how such credits shall be calculated.

(a) Credits. The following types of credits against stormwater service fees shall be available:

- (1) Freshwater wetlands. All properties except those classified as detached single-family dwelling units may receive a credit against the stormwater service fee applicable to the property based on granting and dedicating a perpetual conservation easement on those portions of the property that are classified as freshwater wetlands and as detailed in the stormwater management utility service fee credit manual. The conservation easement shall remove that portion of the subject property from any future development. ~~Once this credit has been granted to a particular property, that portion of the property will be treated similar to the river and marsh areas and shall be deducted from the property's total land area in computing its stormwater service fee. This credit shall remain in effect as long as the conditions of the conservation easement are met.~~
- (2) Those properties that apply for consideration of an adjustment shall satisfy the requirements established by the Beaufort County ~~engineer~~ Stormwater Manager and approved reduced stormwater service fee.

(b) Exemptions. The following exemptions from the stormwater service fees shall be allowed:

- (1) Improved public road rights-of-way that have been conveyed to and accepted for maintenance by the state department of transportation and are available for use in common for vehicular transportation by the general public.
- (2) Improved public road rights-of-way that have been conveyed to and accepted for maintenance by Beaufort County and are available for use in common for vehicular transportation by the general public.
- (3) Improved private roadways that are shown as a separate parcel of land on the most current Beaufort County tax maps and are used by more than one property owner to access their property.
- (4) Railroad tracks shall be exempt from stormwater service fees. However, railroad stations, maintenance buildings, or other developed land used for railroad purposes shall not be exempt from stormwater service fees.
- (5) Condominium boat slips shall be exempt from stormwater service fees.

Sec. 99-110. - Stormwater service fee billing, delinquencies and collections.

- (a) Method of billing. A stormwater service fee bill may be attached as a separate line item to the county's property tax billing or may be sent through the United States mail or by alternative means, notifying the customer of the amount of the bill, the date the fee is due (January 15), and the date when past due (March 17 - see Title 12, Section 45-180 of the South Carolina State Code). The stormwater service fee bill may be billed and collected along with other fees, including but not limited to the Beaufort County property tax billing, other Beaufort County utility bills, or assessments as deemed most effective and efficient by the Beaufort County Council. Failure to receive a bill is not justification for non-payment. Regardless of the party to whom the bill is initially directed, the owner of each parcel of land shall be ultimately obligated to pay such fees and any associated fines or penalties, including, but not limited to, interest on delinquent service fees. If a customer is under-billed or if no bill is sent for a particular property, Beaufort County may retroactively bill for a period of up to one-year, but shall not assess penalties for any delinquency during that previous unbilled period.
- (b) Declaration of delinquency. A stormwater service fee shall be declared delinquent if not paid within 60 days of the date of billing or upon the date (March 17) of delinquency of the annual property tax billing if the stormwater service fee is placed upon the annual property tax billing or enclosed with or attached to the annual property tax billing.

Sec. 99-111. - Appeals.

Any customer who believes the provisions of this article have been applied in error may appeal in the following manner and sequence.

- (a) An appeal of a stormwater service fee must be filed in writing with the Beaufort County ~~public works director~~ Stormwater Manager or his/her designee within 30 days of the fee being mailed or delivered to the property owner and stating the reasons for the appeal. In the case of stormwater service fee appeals, the appeal shall include a survey prepared by a registered land surveyor or professional engineer containing information on the impervious surface area and any other feature or conditions that influence the development of the property and its hydrologic response to rainfall events.
- (b) Using information provided by the appellant, the county ~~public works director~~ Stormwater Manager (or his or her designee) shall conduct a technical review of the conditions on the property and respond to the appeal in writing within 30 days. In response to an appeal, the county public works director may adjust the stormwater service fee applicable to the property in conformance with the general purposes and intent of this article.
- (c) A decision of the county ~~public works director~~ Stormwater Manager that is adverse to an appellant may be further appealed to the county administrator or his designee within 30 days of the adverse decision. The appellant, stating the grounds for further appeal, shall deliver notice of the appeal to the county administrator or his designee. The county administrator or his designee shall issue a written decision on the appeal within 30 days. All decisions by the county administrator or his designee shall be served on the customer personally or by registered or certified mail, sent to the billing address of the customer. All decisions of the county administrator or his designee shall be final.
- (d) The appeal process contained in this section shall be a condition precedent to an aggrieved customer seeking judicial relief. Any decisions of the county administrator or his designee may be reviewed upon application for writ of certiorari before a court of competent jurisdiction, filed within 30 days of the date of the service of the decision.

Sec. 99-112. - No suspension of due date.

No provision of this article allowing for an administrative appeal shall be deemed to suspend the due date of the service fee with payment in full. Any adjustment in the service fee for the person pursuing an appeal shall be made by refund of the amount due.

Sec. 99-113. - Enforcement and penalties.

Any person who violates any provision of this article may be subject to a civil penalty of not more than \$1,000.00, or such additional maximum amount as may become authorized by state law, provided the owner or other person deemed to be in violation has been notified of a violation. Notice shall be deemed achieved when sent by regular United States mail to the last known address reflected on the county tax records, or such other address as has been provided by the person to the county. Each day of a continuing violation may be deemed a separate violation. If payment is not received or equitable settlement reached within 30 days after demand for payment is made, a civil action may be filed on behalf of the county in the circuit court to recover the full amount of the penalty. This provision on penalties shall be in addition to and not in lieu of other provisions on penalties, civil or criminal, remedies and enforcement that may otherwise apply.

Sec. 99-114. - Investment and reinvestment of funds and borrowing.

Funds generated for the stormwater management utility from service fees, fees, rentals, rates, bond issues, other borrowing, grants, loans, and other sources shall be utilized only for those purposes for which the utility has been established as specified in this article, including but not limited to: regulation; planning; acquisition of interests in land, including easements; design and construction of facilities; maintenance of the stormwater system; billing and administration; water quantity and water quality management, including monitoring, surveillance, private maintenance inspection, construction inspection; public information and education, and other activities which are reasonably required. Such funds shall be invested and reinvested pursuant to the same procedures and practices established by Title 12, Section 45-70 of the South Carolina State Code for investment and reinvestment of funds. County council may use any form of borrowing authorized by the laws of the State of South Carolina to fund capital acquisitions or expenditures for the stormwater management utility. County council, in its discretion and pursuant to standard budgetary procedures, may supplement such funds with amounts from the general fund.

Sec. 99-115. - ~~Initial study priorities for~~ Responsibilities of the stormwater management utility.

~~During the first three-year period of t~~ The county stormwater management utility, ~~the utility~~ shall perform adequate studies throughout the area served by the utility to determine the following:

- (1) Baseline study of water quality in the receiving waters;
- (2) Identification of pollutants carried by stormwater runoff into the receiving waters;
- (3) Recommended mitigation efforts to address pollutants carried by stormwater runoff into the receiving waters;
- (4) Inventory of the existing drainage system;
- (5) Recommended maintenance practices and standards of the existing drainage system;
- (6) Identification of capital improvements to the system to include construction or installation of appropriate BMPs.
- (7) A five-year spending plan.
- (8) Ensure compliance with the federally mandated MS4 permit requirements
- (9) Efficient utility administration including but not limited to billing, collection, defining rate structures, data management and customer support.

~~The proposed five-year spending plan shall be appropriately revised to reflect this priority and timetable for completion.~~

Sec. 99-116. - Stormwater utility management board.

- (1) Purpose. In compliance with and under authority of Beaufort County Ordinance 2001/23, the Beaufort County Council hereby establishes the stormwater management utility board (hereinafter referred to as the "SWU board") to advise the council as follows:
- (a) To determine appropriate levels of public stormwater management services for residential, commercial, industrial and governmental entities within Beaufort County;
 - (b) To recommend appropriate funding levels for provision of services in the aforementioned sectors;
 - (c) To advise the staff of the stormwater management utility on master planning efforts and cost of service/rate studies; and
 - (d) To support and promote sound stormwater management practices that mitigates non-point source pollution and enhances area drainage within Beaufort County.

Municipal councils are encouraged to organize similar boards to advise them on stormwater management programs and priorities within their boundaries.

In keeping with discussions held during the formation of the stormwater utility, it is anticipated that the municipalities will appoint staff professionals as their representative on the advisory board.

- (2) Stormwater districts. Stormwater districts are hereby established as follows:

District 1 - City of Beaufort

District 2 - Town of Port Royal

District 3 - Town of Hilton Head Island

District 4 - Town of Bluffton

District 5 - Unincorporated Sheldon Township

District 6 - Unincorporated Port Royal Island

District 7 - Unincorporated Lady's Island

District 8 - Unincorporated St. Helena Island Islands East

District 9 - Unincorporated Bluffton Township and Daufuskie Island

- (3) Membership.

- (a) The SWU board is formed in accordance with Beaufort County Ordinance 92-28 and shall consist of a total of seven voting representatives from each of the following districts as noted below:

No. of Reps.	Stormwater District	Area
1	5	Unincorporated Sheldon Township
1	6	Unincorporated Port Royal Island

1	7	Unincorporated Lady's Island
1	8	Unincorporated St. Helena Island Islands East
2	9	Unincorporated Bluffton Township and Daufuskie Island
1	—	"At large"

All members of the SWU board will be appointed by county council and shall be residents of those districts or "at large" members from unincorporated Beaufort County.

- (b) The SWU board shall also consist of one nonvoting (ex officio) representative from the following districts:

Stormwater District	Municipality
1	City of Beaufort
2	Town of Port Royal
3	Town of Hilton Head Island
4	Town of Bluffton

All ex officio members from municipalities shall be appointed by their respective municipal councils for four-year terms.

- (c) All citizen members shall be appointed for a term of four years. The terms shall be staggered with one or two members appointed each year.
- (d) While no other eligibility criteria is established, it is recommended that members possess experience in one or more of the following areas: Stormwater management (drainage and water quality) issues, strategic planning, budget and finance issues or established professional qualifications in engineering, construction, civil engineering, architectural experience, commercial contractor or similar professions.

(4) Officers.

- (a) Officers. Selection of officers and their duties as follows:

1. Chairperson and vice-chair. At an annual organizational meeting, the members of the SWU board shall elect a chairperson and vice-chairperson from among its members. The chair's and vice-chair's terms shall be for one year with eligibility for reelection. The chair shall be in charge of all procedures before the SWU board, may administer oaths, may compel the

attendance of witnesses, and shall take such action as shall be necessary to preserve order and the integrity of all proceedings before the SWU board. In the absence of the chair, the vice-chair shall act as chairperson.

2. Secretary. The county professional staff member shall appoint a secretary for the SWU board. The secretary shall keep minutes of all proceedings. The minutes shall contain a summary of all proceedings before the SWU board, which include the vote of all members upon every question, and its recommendations, resolutions, findings and determinations, and shall be attested to by the secretary. The minutes shall be approved by a majority of the SWU board members voting. In addition, the secretary shall maintain a public record of SWU board meetings, hearings, proceedings, and correspondence.
 3. Staff. The ~~public works director~~ Stormwater Manager shall be the SWU board's professional staff.
- (b) Quorum and voting. Four SWU board members shall constitute a quorum of the SWU board necessary to take action and transact business. All actions shall require a simple majority of the number of SWU board members present.
- (c) Removal from office. The county council, by a simple majority vote, shall terminate the appointment of any member of the SWU board and appoint a new member for the following reasons:
1. Absent from more than one-third of the SWU board meetings per annum, whether excused or unexcused;
 2. Is no longer a resident of the county;
 3. Is convicted of a felony; or
 4. Violated conflict of interest rules according to the county-adopted template ordinance.
- Moreover, a member shall be removed automatically for failing to attend any three consecutive regular meetings.
- (d) Vacancy. Whenever a vacancy occurs on the SWU board, the county council shall appoint a new member within 60 days of the vacancy, subject to the provisions of this section. A new member shall serve out the former member's term.
- (e) Compensation. The SWU board members shall serve without compensation, but may be reimbursed for such travel, mileage and/or per diem expenses as may be authorized by the SWU board-approved budget.
- (5) Responsibilities and duties.
- (a) Review and recommend to the county council for approval, a comprehensive Beaufort County Stormwater Management Master Plan and appropriate utility rate study which is in accordance with the South Carolina Stormwater Management and Sediment Reduction Act; and
 - (b) Review and comment to the county administrator on the annual stormwater management utility enterprise fund budget; and
 - (c) Cooperate with the South Carolina Department of Health and Environmental Control (DHEC), Office of Coastal Resource Management (OCRM), the Oversight Committee of the Special Area Management Plan (SAMP), the Beaufort County Clean Water Task Force as well as other public and private agencies having programs directed toward stormwater management programs; and
 - (d) Review and make recommendations concerning development of a multiyear stormwater management capital improvement project (CIP) plan; and
 - (e) Review and advise on proposed stormwater management plans and procurement procedures; and

- (f) Provide review and recommendations on studies conducted and/or funded by the utility; and
 - (g) Review and advise on actions and programs to comply with regulatory requirements, including permits issued under the State of South Carolina National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Regulated Small Municipal Separate Storm Sewer Systems (MS4).
- (6) Meetings. Meetings of the SWU board shall be held as established by the SWU board on a monthly basis and a calendar will be prepared giving the date, time and location of such meetings. Additionally, meetings may be called by the chairperson or at the request of four SWU board members. The location of all SWU board meetings shall be held in a public building in a place accessible to the public. The following shall apply to the conduct of all meetings:
- (a) Meeting records. The SWU board shall keep a record of meetings, resolutions, findings, and determinations. The SWU board may provide for transcription of such hearings and proceedings, or portions of hearings and proceedings, as may be deemed necessary.
 - (b) Open to public. All meetings and public hearings of the SWU board shall be open to the public.
 - (c) Recommendations or decisions. All recommendations shall be by show of hands of all members present. A tie vote or failure to take action shall constitute a denial recommendation. All recommendations shall be accompanied by a written summary of the action and recommendations.
 - (d) Notice and agenda. The SWU board must give written public notice of regular meetings at the beginning of each calendar year. The SWU board must post regular meeting agendas at the meeting place 24 hours before any meeting. Notices and agenda for call, special or rescheduled meetings must be posted at least 24 hours before such meetings. The SWU board must notify any persons, organizations and news media that request such notification of meetings.

([Ord. No. 2005/33, § 17, 8-22-2005](#); [Ord. No. 2009/21, §§ I—VI, 5-26-2009](#))

Adopted this _____ day of _____, 2015.

COUNTY COUNCIL OF BEAUFORT COUNTY

By: _____
D. Paul Sommerville, Chairman

APPROVED AS TO FORM:

Thomas J. Keaveny, II, County Attorney

ATTEST:

Suzanne M. Rainey, Clerk to Council

First Reading:

Second Reading:

Public Hearing:

Third and Final Reading:

Beaufort County Stormwater Rate Study
Final Report – Beaufort County
July 10, 2015 with edits July 15, 2015

Prepared by Applied Technology & Management

Assistance from Raftelis Financial Consultants



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Executive Summary

Beaufort County, in cooperation with the City of Beaufort, and the Towns of Bluffton, Hilton Head Island, and Port Royal retained Applied Technologies and Management (ATM) and its sub-consultant, Raftelis Financial Consultants to perform a rate study for the five stormwater utilities operated by the respective jurisdictions.

The County is facing a declining rate base driven by annexations, steeply mounting costs for maintaining county-wide drainage infrastructure and complying with new MS4 requirements, and in need of continued capital project construction. The municipalities also face challenges which vary by jurisdiction.

The rate analyses performed in support of this rate study included six options for each jurisdiction. The options vary the rate metrics (impervious area, fixed charges per ratepayer, gross area), vary the way that shared costs are allocated between jurisdictions (by impervious area or by account), accommodate the existing administrative charges paid by each jurisdiction to the County (currently at \$3.18 per SFU), accommodate the existing payments made by municipalities to the County for varying levels of water quality monitoring and public outreach, and accommodate a new charge by the County to each municipality for that municipality's proportionate share of the entire County's drainage infrastructure to be maintained by the County. The detailed description of the six options is as follows:

	<i>Overall Rate Structure</i>	<i>Debt Financing for Some Capital?</i>	<i>Method for Allocating Admin & Reg Costs</i>	<i>Method for Allocating CWI O&M Costs</i>	<i>Simplified Residential Rates</i>	<i>Alternative Cost Sharing Approach</i>
A	Current (Imp Area)	No	SFUs	Optional	Yes	Optional
B	Current (Imp Area)	Yes	SFUs	Optional	Yes	Optional
C	Impervious & Gross Area	No	Per account	Impervious & Gross Area	Yes	Optional
D	Impervious & Gross Area	No	Impervious & Gross Area	Impervious & Gross Area	Yes	Optional
E	Impervious & Gross Area	Yes	Per account	Impervious & Gross Area	Yes	Optional
F	Impervious & Gross Area	Yes	Impervious & Gross Area	Impervious & Gross Area	Yes	Optional

In these evaluations, simplified residential rates means a series of flat rate charges for impervious area (three) similar to how the rate structure works now.

The recommended rate structure option from these evaluations is Option E. In this option jurisdictions can use debt financing for large capital projects, would share administrative costs allocated on a per-account basis, and would be assessed by the County a new County Stormwater Infrastructure (CWI) fee that will be placed on all County tax bills in September of this year. This new fee will assist the County with funding stormwater infrastructure maintenance and repairs with all areas of the County. This new fee was developed using a proportionate share of county-wide infrastructure costs allocated across impervious and gross area within the County, including the municipalities. This option results in the most affordable rates for the County over the coming five years

However, at this time the rate modeling done to date has been less detailed for the municipalities than it has for the County as the County is the only jurisdiction seeking to make rate structure changes immediately while the municipalities expect to not make changes until FY 2016-2017. Additional efforts between the consultants and the municipalities will complete this process over the next few months.

For the County, the existing rates are \$50 per SFU per year. Continuing with the current rate structure and without proportionate share funding from the municipalities for county-wide infrastructure operation and maintenance, these rates would need to escalate over the coming five years to \$120 per SFU per year by FY 2019-2020. This is a 140% increase.

Under the recommended option E, the rate structure will change to one with a fixed charge per account, plus a variable charge for impervious area and another variable charge for gross lot area. For a “tier 2” (average house) residence in the County on a lot smaller than 2 acres, the existing charge is \$50 per SFU per year. Under option E this charge would escalate to \$87 in year by FY 2019-2020. This is a 74% increase. While still large, it is much more reasonable than the “stay the course” option.

The County is responsible for funding 76.4% of all county-wide infrastructure (CWI) operation and maintenance under the CWI allocation used. Under the proposed rate structure, this is \$42.28 of the total \$87.00 annual charge for an average house on a lot smaller than 2 acres. The land areas within the four municipalities are will be assessed the remaining CWI funding, with the charge being based on the amount of existing stormwater infrastructure the County will maintain within each jurisdiction. For this fiscal year their CWI funding on an SFU basis is:

City of Beaufort	\$8.05 per SFU
Town of Port Royal	\$5.03 per SFU
Town of Bluffton	\$26.34 per SFU
Town of Hilton Head Island	\$7.66 per SFU

Background

The Southern Coast of South Carolina has long been a desirable tourist destination and sought after place to live, in no small part due to the natural beauty surrounding the areas waterways. In recent years, Beaufort County has declared its intention to be a regional leader in environmental quality initiatives in order to promote this existing advantage. An important subset of environmental quality, especially in this region, is the effective management of stormwater runoff. Because the County is right on the coast, and is crossed by large water bodies otherwise, the imperative to manage stormwater runoff has immediate implications on water quality in the region, rather than somewhere downstream. Beaufort County and its underlying jurisdictions – the City of Beaufort, the Town of Port Royal, Town of Hilton Head Island, and Town of Bluffton – take this charge seriously, and have over time developed individual and cooperative programs to manage the public safety and water quality concerns related to stormwater runoff.

As these programs have matured over time, they have become more costly, and several jurisdictions now find themselves needing to evaluate their operating costs and investments in any needed capital improvement projects. The jurisdictions are interested in revising rates and exploring other financial tools to support program initiatives, especially capital spending, and have engaged Applied Technology & Management (ATM) and subcontractor Raftelis Financial Consultants (RFC) to conduct a rate structure analysis and rate studies similar to this study that was prepared for the County. This report summarizes the results of ATM's efforts on behalf of the County as work has not been completed for the four municipalities at this time.

Jurisdictional Cooperation

Although historically each jurisdiction has managed stormwater concerns indirectly through individual development standards and environmental ordinances, the group has been working together for many years to manage storm drainage and ensure an improved standard of living for residents of the County. This relationship has become more explicit over time, through the development of inter-governmental agreements and memoranda of understanding, and through a closer working relationship among staff of each local government.

The most outstanding example of cooperation relates to the administration of the five separate utilities. Since 2001, when the utilities went into effect, the County has provided administrative services, including billing, billing data maintenance, and customer service, in exchange for a small portion of the fee revenues for each underlying jurisdiction.

The County has historically been a significant service provider for drainage maintenance activities to each of the underlying jurisdictions, offering a menu of drainage infrastructure cleaning, maintenance, and repair activities at hourly rates. The patchwork nature of the jurisdictional boundaries lends itself to a cooperative approach to these activities whenever possible to maximize efficiencies in equipment and staff time.

Three of the five jurisdictions participating in the regional stormwater utility has recently submitted a notice of intent to be permitted as a municipal separate storm sewer system (MS4) and regulated under a National Pollutant Discharge Elimination System (NPDES) MS4 permit. Permits are anticipated in September 2015. These permits will require strict management of activities that impact the quality of stormwater runoff, such as construction and industrial activities, as well as significant goals of public

education and outreach in order to bolster the general public's ability to and interest in managing stormwater runoff responsibly.

Under the new permits, the jurisdictions will be required to perform maintenance activities on existing stormwater drainage infrastructure (as is done now), monitor water quality at outfalls, inspect facilities and infrastructure, and provide education and outreach to citizens. The costs for these activities can be limited if they are performed in coordination between jurisdictions, either across the entire county or in more geographically distinct regions (such as North of the Broad River).

Utility background

Each of the five jurisdictions has a separate stormwater utility, established by separate ordinance, allowing the jurisdiction to collect revenues dedicated to stormwater management activities. As mentioned above, each jurisdiction cooperates in the administration of the utility by funding a portion of the County staff and material costs, effectively creating a regional utility.

At the inception of the regional utility in 2001, each property was charged a stormwater fee (conveyed on the annual tax bill) based on the size of the property and a runoff factor associated with that type of property. At this time, all five jurisdictions were charging the same rate, such that a similar property in any jurisdiction would pay the same annual fee. By 2005, the County had access to aerial photography that allowed for a more reliable approach to fee calculation. Rather than use tabular property characteristics to develop the fee for an individual property, the fee could be calculated based on one characteristic that was deemed an important cost driver: impervious surface area. Some elements of the previous rate structure remained intact, but for developed properties, the utility replaced their existing rate structure with one based on impervious surface area as measured from aerial photography.

At its core, this is an industry standard approach to calculating stormwater fees. However, the data available to the County in 2005 were already several years out of date and of relatively poor quality (see Figure 1 below). In recent years, the County has been able to obtain much higher quality imagery on an annual basis and has been updating its impervious area measurements, the foundational billing data, as properties change.



Figure 1. Comparison of 2002 and 2015 Aerial Photography

Current Stormwater Utility Structure

Rate Structure

As defined by the ordinances passed in 2005, the jurisdictions share a rate structure, though each is allowed to charge rates necessary to generate the revenue needed within each individual jurisdiction. The current rate structure has three distinct parts: residential properties, nonresidential properties, and vacant lands. Because the stormwater fee is conveyed on the tax bill and the data should be related, every property falls into one of these three categories depending on its classification in the tax system. Generally, the basis for the rate is the amount of runoff a property generates, whether that be the result of impervious area or some other driver.

At the time of the last rate base and rate structure analysis, the median impervious surface area on single family residential properties was 4,906 square feet. This became the base unit (single family unit or SFU) for measuring impervious area on other types of properties as well. For property types within the tax system that have **residential** classifications, each equates to a distinct SFU equivalency factor in three “tiers.” Residential property with 2,521 square feet or less of impervious area is tier 1. Tier 3 is residential property with 7,266 square feet or more of impervious area, and all residential property between these two impervious measures is tier 2. The tier equivalent SFU factor is multiplied by the per SFU rate for encompassing jurisdiction results in the rate. This concept is called simplified residential rates and is recommended in the newly modeled rate structures described in this study. The residential property types and SFU equivalencies are as follows:

Property Type	Equivalent SFUs
<i>Tier 1 Single Family Unit ($\leq 2,521$ square feet)</i>	0.50
<i>Tier 2 Single Family Unit (2,522 to 7,265 square feet)</i>	1.00
<i>Tier 3 Single Family Unit ($\geq 7,266$ square feet)</i>	1.50
<i>Mobile Home</i>	0.36
<i>Apartment</i>	0.39
<i>Townhouse</i>	0.60
<i>Condominium</i>	0.27

Where a single property includes multiple residential units, the equivalent SFU is per unit, such that an apartment complex property with 100 units would be charged for 0.39 (SFUs per unit) times 100 (number of units) times the rate to calculate the final fee.

Nonresidential properties represent the simplest of area of the current rate structure. For every property not classified as residential or vacant in the tax system, the stormwater fee is calculated based on the amount of impervious surface area on that property. This amount, divided by the 4,906 square foot SFU and multiplied by the per SFU rate, results in the final fee. There is no rounding or other manipulation of data.

Finally, **vacant** lands are presumed to have no impervious area, and are therefore not charged on that basis. They do still have an impact on the stormwater system, however, and should be responsible for a portion of the costs. At present, the rate structure allows for 'runoff factors' to be applied to vacant lands, with different factors used depending on a matrix of classification including whether a property is classified as agriculture, forestry, disturbed, or undisturbed.

Business Processes

In addition to the documented rate structure, there exist a number of business processes that have been developed over time to facilitate utility administration. Most of these processes are in line with the current ordinance but some have evolved to address data collection and maintenance difficulties that emerged from the existing rate structure. These include:

- the treatment of golf courses and parks as vacant land when in fact they may have a good deal of impervious area
- treatment of multi-use parcels (such as house and forested area on the same lot) as separate parcels with summed fees
- granting stormwater best management practices credit by overriding a property's fee to 1 SFU

During the course of these studies, the ATM team worked to identify any divergent business processes and compute updated metrics for the affected properties.

Rates

With the same rate structure in place since 2005, each jurisdiction has experienced increased revenue requirements and subsequently higher rates over time. Table 1 is a summary of each jurisdiction's rate history per SFU over time.

Table 1. Stormwater Fee Rates over Time

	2005- 2006	2007	2008	2009	2010	2011	2012- 2014
<i>Beaufort County</i>	\$ 44.43	\$ 44.43	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00
<i>City of Beaufort</i>	\$ 44.43	\$ 44.43	\$ 44.43	\$ 44.43	\$ 105.00	\$ 105.00	\$ 105.00
<i>Town of Port Royal</i>	\$ 44.43	\$ 44.43	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00	\$ 50.00
<i>Town of Bluffton</i>	\$ 49.00	\$ 49.00	\$ 98.00	\$ 98.00	\$ 98.00	\$ 98.00	\$ 98.00
<i>Town of Hilton Head Island</i>	\$ 44.43	\$ 50.76	\$ 50.76	\$ 83.23	\$ 108.70	\$ 108.70	\$ 108.70

Beaufort County Stormwater Program

Beaufort County's stormwater program serves as the backbone for the programs in the other jurisdictions. The County has historically been financially responsible for maintenance and repair on county-wide infrastructure on and off County road rights of way, even within the municipal boundaries of underlying jurisdictions.

More recently, the County has become unable to adequately provide stormwater services throughout the entirety of the unincorporated county with the available funds. That is, maintenance activities in parts of the county, especially those pockets within other jurisdictions, have been neglected in favor of addressing needs that could be met more economically. The City and Towns have not been receiving the stormwater management services they have come to expect from the County, those the County also endeavors to provide, because of funding shortfalls.

The County is in a unique position in that its unincorporated area or its stormwater revenue base, is shrinking due to annexation, while its costs are still increasing. A notable portion of these costs are associated with managing water quality and drainage in rapidly growing regions just outside the underlying jurisdictional boundaries. Historically, some of these areas have been annexed into the adjacent Town or City. The County has continued to provide stormwater services as best possible in these areas but has not been able to keep up with the maintenance and repair needed.

There are a number of capital projects that have been identified by the County for completion in the next several years. While these are currently in unincorporated areas, they are either near to or surrounded by the municipalities such that the benefit is conferred well beyond the unincorporated region.

For these reasons and the new requirements soon to be imposed by the MS4 permit, the County has rapidly increasing costs paired with a declining revenue base. In recognition of this, the County was facing an enormous rate increase. Rather than simply adjust the rates in the unincorporated region, the County initiated a dialog with the City and Towns to discuss the growing county-wide infrastructure operation and maintenance needs. The jurisdictions began exploring a more collaborative and equitable approach to sharing the costs (and receiving the benefits) of these services.

Rate Study Approach

The ATM team was contracted to assist Beaufort County Stormwater (County) with a detailed stormwater utility rate study. For the unincorporated County and each of the four municipalities, the team conducted a full accounting of planned stormwater program costs over the next five years, which are expected to increase driven by the combination of existing operations and maintenance activities, a significant capital project backlog, and emerging NPDES compliance needs. The rate study was performed concurrent with the budgeting process for the fiscal year that began July 1, 2015, and resulted in the development and consideration of a number of rate structure options, described below.

Goals

The primary goal of the rate study was to model financially sufficient scenarios to support the jurisdictions' current and future stormwater programs. This included the following supporting objectives:

1. Determine the current and future (from MS4 compliance, jurisdictional growth, etc.) revenue requirements of each program;
2. Determine the most fair and reasonable way to recover revenues while balancing data maintenance efforts;
3. Facilitate future program visioning; and
4. Account for potential future collaboration and shared costs.

Through numerous meetings, extensive model development and refinement, and collaborative review of the results, the team and the project remained accountable to these goals throughout the process.

Modeling

The primary deliverable from the rate study is a model that was developed to compare and contrast different financial scenarios for each of the jurisdictions. The model balances revenue requirements with funding from the stormwater fee and other possible sources. On the revenue requirements side, for each jurisdiction the ATM team considered existing revenue requirements, future MS4 permit related expenses, and capital needs. Revenue was modeled as the resulting revenue from several different rate structures as well as supplemental resources from bond issuances or other sources. With that basic structure in place, the model was refined to allow for allocation of costs across jurisdictions and rate components (see below for more information) in order to optimize rate equity.

The finalized model will be made available to each jurisdiction for ongoing use as a financial planning tool.

Data update

Much of the impervious area data originally developed for the 2005 rate study was created using low-quality 2002 aerial imagery. With the possible shift in rates and rate structure, it was critical to have improved source data. As a part of the rate study, the ATM team conducted a targeted review update (where needed) of approximately 5,000 parcel polygons within the GIS and across all of the jurisdictions in order to update the rate base.

At the conclusion of the effort, RFC reviewed and updated the impervious features as necessary on a total of 5,937 parcel polygons, deriving the features using the newest available imagery from 2013.

Rate Components

Fixed Costs

Many costs associated with the administration of the utility have little to do with specific characteristics of the land. Rather, they represent a public service to which each property owner (account holder) has equal access. Billing and collections, data management and updating, programming, and customer support may fall within this category. These costs, then, are distributed evenly to each account holder by being allocable to a fixed charge per parcel.

Variable Costs: Impervious Surfaces Area and Gross Parcel Area

Impervious area is the area of land covered by a hard surface through which rainwater cannot pass, such as building footprints and parking lots. The amount of impervious area on a parcel is most directly related to the quantity of stormwater to be handled by the system. For bare soil and vegetated ground cover, some water will infiltrate into the ground—even during heavy rain—rather than run across the surface. For impervious surfaces, on the other hand, water cannot infiltrate into the ground. For that reason, impervious surface causes the peak discharge volume of runoff from a parcel of land to be higher than it would otherwise. Regardless of how the land is managed, runoff tends to gather nutrients and other potential pollutants. Because virtually none of this runoff (and the pollutants it carries) soaks into the ground, runoff from impervious area carries a greater volume of harmful materials toward receiving waterbodies than pervious area.

One unique aspect of the stormwater utilities in these jurisdictions is the wide variety of land use represented within each jurisdiction. Gross area is included as a component of the stormwater fee to capture the costs not solely related to impervious area runoff. As opposed to impervious area, gross land area contributes proportionately more to the nutrients and pollutants that stormwater runoff may pick up and less to the sheer volume of runoff to be managed. As discussed, pervious land can absorb some of the water that falls on it, so it does not contribute as much to runoff. However, pervious land still contributes pesticides, fertilizers, leaves, and other undesirable materials to the runoff that does occur. As such, stormwater costs related to water quality and quantity (most O&M costs) are allocable in some portion to gross land area.

In the costs described below, allocability to impervious area and gross area represents a relationship between a particular cost and the demand for that cost caused by a higher volume of stormwater (including higher levels of pollution) to be managed. An impervious and gross area rate structure allocates some cost to each of the two variables, in this case either allocating 80% or 90% of the variable costs to impervious area, and the remaining costs to gross area. The gross area units would include a declining block, such that large properties have more units of gross area than small properties, but the increase in units of gross area as overall parcel size increase are blunted by the declining block.

Cost Allocability

The proposed rate structures take into account a number of costs that vary by:

- Who provides the service,
- Who receives the service, and
- What drives the cost of the service (the existence of an account, impervious area or gross area)

This section describes the different elements of the jurisdictions' and utility's program costs and how they may be accommodated in the rate structures. The resulting modeled rates for each jurisdiction take into account the distribution of costs across all jurisdictions based on the chosen allocation scheme, and the particular rate base of that jurisdiction.

Jurisdictional Infrastructure O&M

Each of the five jurisdictions maintains its own stormwater drainage infrastructure and funds those costs from utility revenue. These costs are driven by impervious area and gross area in the jurisdiction, which contribute to stormwater runoff and nutrient loading. As such, the impervious and/or gross area component of the fee will include these costs. Revenue from this fee component would be returned to the service provider, the individual jurisdiction.

Jurisdiction Capital Projects

Each of the five jurisdictions has an independent capital plan, and can determine whether bond funding or pay as you go funding (or paying with available unencumbered funds) is appropriate or necessary. Capital financing has been "pay-as-you-go" for most jurisdictions. An alternative is for jurisdictions to borrow money to build capital projects and pay this back over time. This option is described in the definitions as debt.

The cost drivers for capital projects are similar to those for regular O&M, and are allocable to impervious and gross area within a jurisdiction. Debt service (in the case of bond funding) or cash contributions to capital projects are included in the impervious and/or gross area components of a fee. Revenue from this fee component would be returned to the service provider, the individual jurisdiction.

Debt

For some of the jurisdictions, capital needs outpace the funds available through fee revenue. Issuing debt in the form of revenue bonds is a viable alternative to fund these projects, and in some cases may be the most appropriate option. Debt financing is appropriate for large physical assets with long expected lives, generally constructed improvements. Most notable, debt service creates a mechanism for future ratepayers to help fund the infrastructure from which they still benefit. The exceptional environmental quality found in this region is one of the primary reasons people choose to live and work here, and at its most basic, every investment made in capital projects supports that fundamental tenet. Through debt funding of capital projects, ratepayers of the future can pay back into the program that promotes this high quality of life.

Revenue bonding will not affect a jurisdiction's existing covenants or caps. With revenue bonds, the jurisdiction's stormwater utility will be solely responsible for servicing that debt, and there is no risk to the greater entity.

County-wide Infrastructure O&M

The County maintains some larger drainage infrastructure within each of the four municipalities in addition to drainage infrastructure within the unincorporated area. County-wide infrastructure (defined as pipes and open ditches both in and out of rights of way that are owned or maintained by the County) maintenance costs have not been allocated to any ratepayers outside the unincorporated County to date. That is, revenue from fees charged to property owners in the unincorporated County have been funding infrastructure maintenance, repair, and replacement activities throughout all five jurisdictions.

Currently, these activities have been limited in the incorporated areas because funding levels, supported by the unincorporated ratepayers only, are insufficient. The modified rate structure will share the County's costs for County-wide infrastructure maintenance across all the unincorporated and incorporated areas of the County based on linear feet of pipes and open ditches in each jurisdiction.

The cost drivers for operation and maintenance of county infrastructure are very similar to those for the various jurisdictional stormwater infrastructure systems. These costs may be recovered through an impervious and/or gross area fee component, the revenue from which supports County efforts. Revenue from this fee component would be returned to the service provider, the County.

The County's total budgeted County-wide infrastructure operation and maintenance cost is approximately \$3.5 million in FY2015-2016. A detailed analysis of the proportions of this County-wide infrastructure was prepared in 2015 by the County, and was used as the basis for the cost allocations to unincorporated areas of the County and to the municipalities. This inventory was conducted in GIS data layers and was made available to all jurisdictions by the County as part of this study. The analysis shows the proportions to be:

Unincorporated County	76.4%
City of Beaufort	3.4%
Town of Port Royal	1.0%
Town of Bluffton	11.1%
Town of Hilton Head Island	8.1%

Based on this proportional breakdown, the County intends to convey a separate charge (as a new line on the bill, not to be added to or combined with the City/Towns fees), that bills this amount per SFU or IA/GA unit, as the rate structure would require. Final fee amounts are discussed in the Modified Rate Structure section, below.

Utility Administration

The County administers the cooperative utility for each of the five jurisdictions. Currently administrative fees are allocated across the impervious area rate base such that properties with a large number of SFUs of impervious area pay more in administrative fees than those with fewer SFUs.

Costs for this effort may be allocable to either the number of parcels or accounts for which data must be maintained, customer service must be provided, etc. These costs may instead be recovered via a fixed charge component charged to all utility customers. Alternatively, costs could be allocable to the impervious and/or gross area fee component if they are more closely related to the effort of maintaining the geospatial data or researching and addressing detailed questions from large, complex customers. Revenue from this fee component would be returned to the service provider, the County.

MS4 Compliance

The County will be subject to MS4 permit requirements beginning in late 2015. Some program elements are fulfilled by each individual jurisdiction while others are provided cooperatively. Any existing inter-governmental agreements and Memoranda of Understanding (MOU) may need to be revised if an alternate structure is chosen.

Individual Efforts

Other MS4 permit compliance activities may be done separately by each jurisdiction, and provided only to that jurisdiction. These costs are allocable to the impervious and/or gross area fee component and revenue from this fee component would be returned to the service provider, the individual jurisdiction.

Cooperative Efforts

Monitoring

The County currently provides monitoring efforts within the jurisdictions boundaries of the municipalities. This relationship could be expanded to other jurisdictions if desired. These costs would be driven by the number of accounts and would be included in the fixed charge component of the fee, only in the jurisdictions where the County provides this monitoring service. Revenue from this fee component would be returned to the service provider, the County.

Public Education/Outreach

Currently, the jurisdictions participate in a cooperative public education and outreach scheme. Rather than implement separate agreements between each jurisdiction, this cost can be considered a per account cost and included in the fixed charge component of the fee, applicable to everyone in the County. Revenue from this fee component would be returned to the service provider, the County.

Modeled Options

Elements of Six Rate Structure Options

Simplified residential rate: Charge one of a series of flat rates, based on SFUs, to different classes of residential properties. This is how residential rates work in the current rate structure.

Continued application of the agricultural use policy: Properties legally under certain agricultural uses have limits placed on their stormwater fees by state law. The rate structure options will continue to follow this approach.

Updated source data: RFC reviewed and updated as necessary 5,937 parcel polygons with the newest available imagery from 2013. The results of this update were used to model both the modified rate structure options and the current rate structure options, which make use of the newly measured impervious features.

Minimum charge: A minimum charge is a rate structure feature whereby once the amount a property owes in annual stormwater fees is computed it is compared to the minimum charge and if less, the minimum charge is applied to the property. The minimum charge is set to reflect the minimum amount of demand a property can actually place on the jurisdiction providing service. The minimum charge is represented as a fixed fee component and is charged to every property.

Options

- A. Current rate structure with updated source data; current approach for administrative fees based on impervious area units; compliance with current rate ordinance; pay-as-you-go capital financing

- B. Current rate structure with updated source data; current approach for administrative fees based on impervious area units; compliance with current rate ordinance; debt financing for some capital projects
- C. Modified rate structure based on impervious and gross area; continued use of simplified residential rates; continued application of agricultural use policy; County-wide administrative costs allocated to per-account basis; County-wide infrastructure maintenance costs allocated to impervious and gross area based on infrastructure miles per jurisdiction or other intra-jurisdictional allocation model; pay-as-you-go capital financing
- D. Modified rate structure based on impervious and gross area; continued use of simplified residential rates; continued application of agricultural use policy; County-wide administrative costs allocated to impervious and gross area; County-wide infrastructure maintenance costs allocated to impervious and gross area based on infrastructure miles per jurisdiction or other intra-jurisdictional allocation model; pay-as-you-go capital financing
- E. Modified rate structure based on impervious and gross area at 80/20 or 90/10 allocation; continued use of simplified residential rates; continued application of agricultural use policy; County-wide administrative costs allocated to per account basis; County-wide infrastructure maintenance costs allocated to impervious and gross area based on infrastructure miles per jurisdiction or other intra-jurisdictional allocation model; debt for some capital financing
- F. Modified rate structure based on impervious and gross area at 80/20 or 90/10 allocation; continued use of simplified residential rates; continued application of agricultural use policy; County-wide administrative costs allocated to impervious and gross area; County-wide infrastructure maintenance costs allocated to impervious and gross area based on infrastructure miles per jurisdiction or other intra-jurisdictional allocation model; debt for some capital financing

Alternative Cost Sharing Approach

As an alternative to the modeled county-wide infrastructure charge, each underlying jurisdiction can work individually with the County to establish a level of service and cost for providing that service within the jurisdiction. Each jurisdiction is entitled to convey that fee to its customers in any reasonable manner, but must remit the appropriate amount to the County to receive the agreed upon services.

Table 2. Modeled Rate Structure Options

	<i>Overall Rate Structure</i>	<i>Debt Financing for Some Capital?</i>	<i>Method for Allocating Admin & Reg Costs</i>	<i>Method for Allocating CWI O&M Costs</i>	<i>Simplified Residential Rates</i>	<i>Alternative Cost Sharing Approach</i>
A	Current (Imp Area)	No	SFUs	Optional	Yes	Optional
B	Current (Imp Area)	Yes	SFUs	Optional	Yes	Optional
C	Impervious & Gross Area	No	Per account	Impervious & Gross Area	Yes	Optional
D	Impervious & Gross Area	No	Impervious & Gross Area	Impervious & Gross Area	Yes	Optional
E	Impervious & Gross Area	Yes	Per account	Impervious & Gross Area	Yes	Optional
F	Impervious & Gross Area	Yes	Impervious & Gross Area	Impervious & Gross Area	Yes	Optional

Modified Rate Structure

ATM modeled four of the six options based on a modified rate structure design that relies more heavily on measured impervious area data but retains the basic backbone of the existing rate structure.

Fee Structure

The recommended fee includes three components: a fixed component to convey costs allocable by account, and two variable components: one based on gross area and one based on impervious area, to convey the costs that vary by property characteristic. With the exception of those explicitly exempt, every real property (which in some cases does not include land on the ground) has a stormwater fee calculated for it.

Bill Class

Every property falls into one of several bill classes, which determine fee calculation for that property. Residential properties are treated in a similar manner as they are currently, with SFU equivalents to represent the impervious area on each type of residential property. Gross area and fixed fee components are added to this portion of the residential fee. Vacant property is not charged for any impervious area, measured or assumed. It is, however, charged for the gross land area of the parcel and the fixed component of the fee, as described below. Agricultural properties in the County are excluded from any fee changes by State law, and as such represent their own category of properties for which the current fee is carried forward. Exempt parcels are not charged any portion of the fee. Finally, all other properties are considered non-residential, non-vacant properties (herein called “commercial”), which are charged a per unit rate for impervious area, along with a fixed fee and gross area charge.

Rate Structure Design

Impervious Area Units

The existing impervious area unit of 4906 has been retained for maximum equity between residential and commercial bill classes in impervious area charge. Residential properties are charged for impervious area based on the factors existing in the current rates structure. Commercial properties are charged per 4,906 square feet unit, or part thereof, of impervious area. Under the modified rate structure design, 80% of variable costs are funded through gross area charges.

Gross Area Blocks

A gross area fee component is included for all properties that have a real parcel and parcel area found in GIS. The gross area charge is calculated in equivalent units as follows:

- Every property is charged \$X for the first 2 acres of gross area. This means that every property getting a gross area fee is charged at least \$X.
- For every acre above 2 acres, and up to 10 acres, the property is charged $.5 * \$X$ per acre.
- For every acre above 10 acres, and up to 100 acres, the property is charged $.4 * \$X$ per acre.
- For every acre above 100 acres, the property is charged $.3 * \$X$ per acre.

This declining block structure maintains the important rate base of large properties. Under the modified rate structure design, 20% of variable costs are funded through gross area charges.

Exempt Properties and Special Cases

The modified rate structure design mirrors the current rate structure in exempt properties. Roads, railroads, private roads, and boat slip properties are exempt from stormwater fees. As described above, vacant (undeveloped) parcels are not exempt from the entire fee, but are not charged for the impervious area fee component.

Credit

For properties receiving credit for BMPs, that credit can be carried forward in this modified rate structure.

Rate Study Results

ATM developed a spreadsheet-based rate model tool to model the way the individual jurisdiction and County-wide costs impact rates. The comprehensive model can be manipulated to calculate rates for each of the six options described above, as well as allow for manual override of the calculated rates to predict the revenue generation and sufficiency of a particular rate structure and rate choice.

Beaufort County

For the unincorporated County, Option E (see appendix A) results in rates for a fixed charge, an impervious area charge, and a gross area charge. This option would raise the annual charge for an average single family home on a 1 acre lot from the current \$50 per year to \$87 per year and the rate could be held stable for at least five years. All other options for the County result in less favorable rates. The fee charged to an average house on a one acre parcel in Beaufort County under the six options modeled as part of this rate study are as follows:

	Fiscal Year				
	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Option A	\$100	\$100	\$100	\$110	\$120
Option B	\$95	\$95	\$95	\$95	\$95
Option C	\$87	\$99	\$99	\$99	\$101
Option D	\$90	\$100	\$100	\$100	\$107
Option E	\$87	\$87	\$87	\$87	\$87
Option F	\$90	\$90	\$90	\$90	\$92

Therefore, ATM recommends rate structure option E for the County, under which administrative and regulatory compliance charges are allocated on a per account basis, infrastructure O&M costs are allocated based on the impervious and gross area, and two bond sales of \$5,000,000 occur in FY 2017 and FY 2019. Because the underlying jurisdictions are unlikely to adopt a rate structure change in the coming fiscal year, the existing \$3.18 per (paid) SFU administrative charge that has already been negotiated is retained.

The County is responsible for funding 76.4% of all county-wide infrastructure (CWI) operation and maintenance under the CWI allocation method used. Under the proposed rate structure, this is \$42.28 of the total \$87.00 annual charge for an average house on a lot smaller than 2 acres. The properties within the four municipalities are responsible for the remaining CWI funding, with the allocation based on the amount of infrastructure to be maintained that falls within each jurisdictional boundary, as described previously. For the next five fiscal years, the CWI funding within each jurisdiction's boundaries on an SFU or IA/GA basis (depending on the rate structures chosen) are:

Table 3. County-wide Infrastructure Cost Breakdown by Jurisdiction

		FY 2015-2016		FY 2016-2017		FY 2017-2018		FY 2018-2019		FY 2019-2020
CWI Cost Share on SFU Basis										
Unincorporated County	\$	41.75	\$	42.93	\$	43.42	\$	44.80	\$	45.44
City of Beaufort	\$	8.05	\$	8.97	\$	8.92	\$	9.04	\$	9.01
Town of Port Royal	\$	5.03	\$	5.61	\$	5.58	\$	5.65	\$	5.64
Town of Bluffton	\$	26.34	\$	29.38	\$	29.19	\$	29.60	\$	29.50
Town of Hilton Head Island	\$	7.66	\$	8.54	\$	8.49	\$	8.61	\$	8.58
CWI Cost Share on IA/GA Unit Basis										
Unincorporated County										
per IA Unit	\$	37.41	\$	38.48	\$	38.91	\$	40.15	\$	40.72
per GA Unit	\$	4.87	\$	5.03	\$	5.11	\$	5.30	\$	5.40
City of Beaufort										
per IA Unit	\$	6.42	\$	7.16	\$	7.11	\$	7.21	\$	7.19
per GA Unit	\$	2.09	\$	2.34	\$	2.32	\$	2.35	\$	2.35
Town of Port Royal										
per IA Unit	\$	4.06	\$	4.53	\$	4.50	\$	4.56	\$	4.55
per GA Unit	\$	1.01	\$	1.13	\$	1.12	\$	1.14	\$	1.14
Town of Bluffton										
per IA Unit	\$	25.90	\$	28.89	\$	28.71	\$	29.11	\$	29.01
per GA Unit	\$	3.26	\$	3.64	\$	3.62	\$	3.67	\$	3.66
Town of Hilton Head Island										
per IA Unit	\$	6.09	\$	6.79	\$	6.75	\$	6.85	\$	6.82
per GA Unit	\$	1.99	\$	2.22	\$	2.20	\$	2.23	\$	2.23

In the first planning year, several shared costs (those for the regional stormwater master plan, public education and outreach, and water quality monitoring) are funded via inter-governmental agreements with the responsible parties. In this year only, these are represented as separate revenues and the costs are not allocated to the jurisdictions based on SFU or IA/GA unit calculation.

General Impacts of Rate Structure Changes

The recommended rate structure (Option E if capital intensive, Option C if not) incorporates a fixed charge per account (parcel), plus two variable charges: one for impervious area on the parcel and one for gross parcel area. It also continues the practice of using simplified residential rates for residential properties of varying types from single family detached through condominium units. Because the current billing practices for large undeveloped tracts include an impervious area estimation process while the new rates structures do not charge an impervious area fee if there is no impervious area present, the impervious charges may be divergent between the rate structures. However, the introduction of a gross area charge in the new rate structure modeled largely mimics the fee outcomes.

Using three rate metrics (fixed, impervious area, gross area) allows the fee to have components that relate to cost causation most directly and is generally preferred in utility ratemaking. For example, some administrative costs for billing and collections efforts relate much more to the existence of a bill than to the size of the bill. Paying these costs from an impervious area rate shifts costs to large ratepayers while paying these costs from a fixed charge, as recommended, allocates the costs more equally across all ratepayers.

Needed Ordinance Revisions

County

If a new rate structure is adopted, significant revisions to the County's stormwater utility fee ordinance will be needed. While the revisions are outside the ATM team's scope of work, the team has identified the following categories to focus on:

1. The definitions for residential dwelling classifications and nonresidential properties will need to be revised according to the new rate structure, which does not strictly classify properties according to their land use code in the County tax data.
2. In the definitions and general funding policy section, the rate structure and fee calculation description will need to be updated (refer to Rate Structure Design section above).
3. The stormwater service fee rates for other jurisdictions should be removed and replaced with language that says the County will convey the fees for all jurisdictions until each has transitioned to the revised rate structure. The ordinance should state that the same rate structure will apply for all jurisdictions and should describe how the County will maintain stormwater billing data and conduct other administrative tasks. Once a jurisdiction has transitioned to the new rate structure, the jurisdiction should revise its own ordinance on stormwater service fee rates and execution of utility authority.
4. References to findings from the 2005 rate study should be eliminated or updated to reflect the current findings.

5. References to the stormwater utility's responsibilities and how it is managed will need to be revised to take into account the multijurisdictional nature of the utility and any changes to the way funding (especially for county-wide drainage infrastructure) occurs. The revisions can be based on current inter-governmental governmental agreements with the City and Towns.
6. After each jurisdiction transitions to a revised rate structure, the references to inter-governmental agreements on administrative fees in the County ordinance can be replaced with details on the actual fee component.

Ongoing Billing Data Maintenance

Data maintenance processes for stormwater utility fee billing are crucial to enabling accurate and timely reporting and customer service. Parcel data from the five jurisdictions should be integrated and kept as current as possible for use in determining properties that are billable for the stormwater fee. A GIS layer representing impervious surfaces should be updated regularly in response to development, demolition, and recognition of incorrect data. Other County data sources such as building permit applications and changes in improvement values can also be utilized as triggers to begin or update stormwater billing.

The ATM team will provide technical guidance on data maintenance in a separate memorandum that will go into detail on digitization and GIS processes, triggers for new or changed development, and other processes for keeping stormwater billing data current.

Appendix A – Beaufort County Recommended Rates (Options A-F)

Beaufort County Stormwater Rate Study Report

July 17, 2015

Beaufort County
Summary Sheet
Option A

	FY 2015-2016 Current RS	FY 2016-2017 Current RS	FY 2017-2018 Current RS	FY 2018-2019 Current RS	FY 2019-2020 Current RS
Rate Base					
1.00% Accounts	65,314	65,967	66,627	67,293	67,966
-0.50% Billable IA Units	54,388	54,116	53,845	53,576	53,308
-1.00% Billable Equivalent GA Units	104,545	103,500	102,465	101,440	100,426
Costs					
Administration (50250012)	\$ 360,495	\$ 363,725	\$ 368,737	\$ 373,179	\$ 379,546
County Portion: Administration	\$ 183,255	\$ 148,378	\$ 150,699	\$ 152,416	\$ 156,023
Regulatory Compliance (50250013)	\$ 620,242	\$ 687,847	\$ 635,754	\$ 669,218	\$ 695,872
County Portion: Regulatory Compliance	\$ 583,300	\$ 623,693	\$ 574,254	\$ 610,371	\$ 637,025
County-Wide Infrastructure O&M (50250011)	\$ 3,492,833	\$ 3,407,621	\$ 3,428,602	\$ 3,520,449	\$ 3,552,600
County Portion: County-Wide Infrastructure	\$ 2,543,648	\$ 2,602,782	\$ 2,618,807	\$ 2,688,961	\$ 2,713,518
Capital Purchases & Projects	\$ 1,636,609	\$ 2,079,320	\$ 1,662,460	\$ 1,585,000	\$ 3,194,460
Total County Costs (excl. debt service)	\$ 6,110,180	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total County Costs excl. Shared Services Payable by Others (excl. debt service)	\$ 4,946,813	\$ 5,454,173	\$ 5,006,219	\$ 5,036,747	\$ 6,701,026
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Current RS Fee Alternative					
Impervious Area Units	60,927	60,622	60,319	60,017	59,717
Fee	\$ 100.00	\$ 100.00	\$ 100.00	\$ 110.00	\$ 120.00
Countywide Infrastructure Charge	\$ 41.75	\$ 42.93	\$ 43.42	\$ 44.80	\$ 45.44
Override Countywide Infrastructure Charge	\$ -	\$ -	\$ -	\$ -	\$ -
Anticipated Unincorporated County Fee Billings	\$ 6,092,675	\$ 6,062,211	\$ 6,031,900	\$ 6,601,915	\$ 7,166,079
Collection Factor	94%	94%	94%	94%	94%
Revenues					
Anticipated Unincorp County Fee Revenue	\$ 5,727,114	\$ 5,698,479	\$ 5,669,986	\$ 6,205,800	\$ 6,736,114
Anticipated Revenue from other Jurisdictions					
Administrative Fee	\$ 177,240	\$ 215,346	\$ 218,038	\$ 220,764	\$ 223,523
Regulatory Compliance	\$ -	\$ 64,154	\$ 61,500	\$ 58,847	\$ 58,847
Countywide Infrastructure Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -
Current Shared Services IGA for SMP Update	\$ 236,409				
Current Shared Services IGA for WQ Monitoring & PE/PO	\$ 36,942				
Interest	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
Project Cost Shares	\$ 2,771				
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ 434,079	\$ 506,876	\$ (51,158)	\$ (194,686)	\$ 145,379
Total Costs	\$ 6,110,180	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total Revenues	\$ 6,182,976	\$ 5,980,479	\$ 5,952,025	\$ 6,487,911	\$ 7,020,984
Surplus (Deficit)	\$ 72,797	\$ (558,034)	\$ (143,528)	\$ 340,065	\$ (801,494)
FY End Fund Balance	\$ 506,876	\$ (51,158)	\$ (194,686)	\$ 145,379	\$ (656,115)

Beaufort County Stormwater Rate Study Report

July 17, 2015

Beaufort County
Summary Sheet
Option B

	FY 2015-2016 Current RS	FY 2016-2017 Current RS	FY 2017-2018 Current RS	FY 2018-2019 Current RS	FY 2019-2020 Current RS
Rate Base					
1.00% Accounts	65,314	65,967	66,627	67,293	67,966
-0.50% Billable IA Units	54,388	54,116	53,845	53,576	53,308
-1.00% Billable Equivalent GA Units	104,545	103,500	102,465	101,440	100,426
Costs					
Administration (50250012)	\$ 360,495	\$ 363,725	\$ 368,737	\$ 373,179	\$ 379,546
County Portion: Administration	\$ 183,255	\$ 148,378	\$ 150,699	\$ 152,416	\$ 156,023
Regulatory Compliance (50250013)	\$ 620,242	\$ 687,847	\$ 635,754	\$ 669,218	\$ 695,872
County Portion: Regulatory Compliance	\$ 583,300	\$ 623,693	\$ 574,254	\$ 610,371	\$ 637,025
County-Wide Infrastructure O&M (50250011)	\$ 3,492,833	\$ 3,407,621	\$ 3,428,602	\$ 3,520,449	\$ 3,552,600
County Portion: County-Wide Infrastructure	\$ 2,543,648	\$ 2,602,782	\$ 2,618,807	\$ 2,688,961	\$ 2,713,518
Capital Purchases & Projects	\$ 1,636,609	\$ 2,079,320	\$ 1,662,460	\$ 1,585,000	\$ 3,194,460
Total County Costs (excl. debt service)	\$ 6,110,180	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total County Costs excl. Shared Services Payable by Others (excl. debt service)	\$ 4,946,813	\$ 5,454,173	\$ 5,006,219	\$ 5,036,747	\$ 6,701,026
Debt Service					
Annual Debt Service	\$ -	\$ 146,185	\$ 292,371	\$ 438,556	\$ 584,741
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage		8.46	4.23	2.46	1.69
Current RS Fee Alternative					
Impervious Area Units	60,927	60,622	60,319	60,017	59,717
Fee	\$ 95.00	\$ 95.00	\$ 95.00	\$ 95.00	\$ 95.00
Countywide Infrastructure Charge	\$ 41.75	\$ 42.93	\$ 43.42	\$ 44.80	\$ 45.44
Override Countywide Infrastructure Charge	\$ -	\$ -	\$ -	\$ -	\$ -
Anticipated Unincorporated County Fee Billings	\$ 5,788,041	\$ 5,759,101	\$ 5,730,305	\$ 5,701,654	\$ 5,673,146
Collection Factor	94%	94%	94%	94%	94%
Revenues					
Anticipated Unincorp County Fee Revenue	\$ 5,440,759	\$ 5,413,555	\$ 5,386,487	\$ 5,359,555	\$ 5,332,757
Anticipated Revenue from other Jurisdictions					
Administrative Fee	\$ 177,240	\$ 215,346	\$ 218,038	\$ 220,764	\$ 223,523
Regulatory Compliance	\$ -	\$ 64,154	\$ 61,500	\$ 58,847	\$ 58,847
Countywide Infrastructure Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -
Current Shared Services IGA for SMP Update	\$ 236,409				
Current Shared Services IGA for WQ Monitoring & PE/PO	\$ 36,942				
Interest	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
Project Cost Shares	\$ 2,771				
Bond Issuance Proceeds	\$ -	\$ 5,000,000	\$ -	\$ 5,000,000	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ 434,079	\$ 220,520	\$ 4,231,377	\$ 3,511,979	\$ 7,567,243
Total Costs	\$ 6,110,180	\$ 6,684,698	\$ 6,387,923	\$ 6,586,402	\$ 8,407,219
Total Revenues	\$ 5,896,621	\$ 10,695,555	\$ 5,668,526	\$ 10,641,665	\$ 5,617,627
Surplus (Deficit)	\$ (213,559)	\$ 4,010,857	\$ (719,398)	\$ 4,055,264	\$ (2,789,592)
FY End Fund Balance	\$ 220,520	\$ 4,231,377	\$ 3,511,979	\$ 7,567,243	\$ 4,777,650

Beaufort County Stormwater Rate Study Report

July 17, 2015

Beaufort County
Summary Sheet
Option C

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
1.00% Accounts	65,314	65,967	66,627	67,293	67,966
-0.50% Billable IA Units	54,388	54,116	53,845	53,576	53,308
-1.00% Billable Equivalent GA Units	104,545	103,500	102,465	101,440	100,426
Costs					
Administration (50250012)	\$ 360,495	\$ 363,725	\$ 368,737	\$ 373,179	\$ 379,546
County Portion: Administration	\$ 183,255	\$ 148,378	\$ 150,699	\$ 152,416	\$ 156,023
Regulatory Compliance (50250013)	\$ 620,242	\$ 687,847	\$ 635,754	\$ 669,218	\$ 695,872
County Portion: Regulatory Compliance	\$ 583,300	\$ 639,616	\$ 589,928	\$ 625,797	\$ 652,451
County-Wide Infrastructure O&M (50250011)	\$ 3,492,833	\$ 3,407,621	\$ 3,428,602	\$ 3,520,449	\$ 3,552,600
County Portion: County-Wide Infrastructure	\$ 2,543,648	\$ 2,602,782	\$ 2,618,807	\$ 2,688,961	\$ 2,713,518
Capital Purchases & Projects	\$ 1,636,609	\$ 2,079,320	\$ 1,662,460	\$ 1,585,000	\$ 3,194,460
Total County Costs (excl. debt service)	\$ 6,110,180	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total County Costs excl. Shared Services Payable by Others (excl. debt service)	\$ 4,946,813	\$ 5,470,096	\$ 5,021,894	\$ 5,052,173	\$ 6,716,452
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Revised R5 Stormwater Fee					
Fixed Cost per Account, Calc	\$ 11.74	\$ 12.44	\$ 11.66	\$ 12.15	\$ 12.53
Fixed Cost per Account, admin portion:	\$ 2.81	\$ 2.74	\$ 2.80	\$ 2.84	\$ 2.93
Fixed Cost per Account, regulatory compliance portion:	\$ 8.93	\$ 9.70	\$ 8.85	\$ 9.30	\$ 9.60
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	91%	92%	94%	94%	94%
Fixed Cost per Account, Override	\$ 12.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 61.49	\$ 69.22	\$ 63.61	\$ 63.82	\$ 88.67
Variable Costs, IA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, reg compliance portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, CWI portion:	\$ 37.41	\$ 38.48	\$ 38.91	\$ 40.15	\$ 40.72
Variable Costs, IA Unit Fee, Other County costs portion:	\$ 24.07	\$ 30.74	\$ 24.70	\$ 23.67	\$ 47.94
IA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, IA Unit Fee Override	\$ 65.00	\$ 75.00	\$ 75.00	\$ 75.00	\$ 75.00
Variable Costs, GA Unit Fee Calc	\$ 8.00	\$ 9.05	\$ 8.36	\$ 8.43	\$ 11.77
Variable Costs, GA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, reg compliance portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, CWI portion:	\$ 4.87	\$ 5.03	\$ 5.11	\$ 5.30	\$ 5.40
Variable Costs, GA Unit Fee, Other County costs portion:	\$ 3.13	\$ 4.02	\$ 3.24	\$ 3.13	\$ 6.36
GA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, GA Unit Fee Override	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 12.00
Anticipated Unincorp County Fee Billings	\$ 5,364,442	\$ 6,017,238	\$ 5,995,803	\$ 5,974,702	\$ 6,154,736
Revenues					
Anticipated Unincorp County Fee Revenue	\$ 4,881,642	\$ 5,535,859	\$ 5,636,055	\$ 5,616,220	\$ 5,785,452
Anticipated Revenue from other Jurisdictions					
Administrative Fee	\$ 177,240	\$ 215,346	\$ 218,038	\$ 220,764	\$ 223,523
Regulatory Compliance	\$ -	\$ 48,230	\$ 45,825	\$ 43,421	\$ 43,421
Countywide Infrastructure Maintenance	\$ 712,776	\$ 804,840	\$ 809,795	\$ 831,488	\$ 839,082
Current Shared Services IGA for SMP Update	\$ 236,409				
Current Shared Services IGA for WQ Monitoring & PE/PO	\$ 36,942				
Interest	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
Project Cost Shares	\$ 2,771				
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ 434,079	\$ 374,179	\$ 442,442	\$ 1,059,103	\$ 1,625,649
Total Costs	\$ 6,110,180	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total Revenues	\$ 6,050,280	\$ 6,606,775	\$ 6,712,213	\$ 6,714,392	\$ 6,893,978
Surplus (Deficit)	\$ (59,900)	\$ 68,263	\$ 616,661	\$ 566,546	\$ (928,500)
FY End Fund Balance	\$ 374,179	\$ 442,442	\$ 1,059,103	\$ 1,625,649	\$ 697,149

Beaufort County Stormwater Rate Study Report

July 17, 2015

Beaufort County
Summary Sheet
Option D

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
1.00% Accounts	65,314	65,967	66,627	67,293	67,966
-0.50% Billable IA Units	54,388	54,116	53,845	53,576	53,308
-1.00% Billable Equivalent GA Units	104,545	103,500	102,465	101,440	100,426
Costs					
Administration (50250012)	\$ 360,495	\$ 363,725	\$ 368,737	\$ 373,179	\$ 379,546
County Portion: Administration	\$ 183,255	\$ 148,378	\$ 150,699	\$ 152,416	\$ 156,023
Regulatory Compliance (50250013)	\$ 620,242	\$ 687,847	\$ 635,754	\$ 669,218	\$ 695,872
County Portion: Regulatory Compliance	\$ 583,300	\$ 623,693	\$ 574,254	\$ 610,371	\$ 637,025
County-Wide Infrastructure O&M (50250011)	\$ 3,492,833	\$ 3,407,621	\$ 3,428,602	\$ 3,520,449	\$ 3,552,600
County Portion: County-Wide Infrastructure	\$ 2,543,648	\$ 2,602,782	\$ 2,618,807	\$ 2,688,961	\$ 2,713,518
Capital Purchases & Projects	\$ 1,636,609	\$ 2,079,320	\$ 1,662,460	\$ 1,585,000	\$ 3,194,460
Total County Costs (excl. debt service)	\$ 6,110,180	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total County Costs excl. Shared Services Payable by Others (excl. debt service)	\$ 4,946,813	\$ 5,454,173	\$ 5,006,219	\$ 5,036,747	\$ 6,701,026
Debt Service					
Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage					
Revised R5 Stormwater Fee					
Fixed Cost per Account, Calc	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, admin portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, regulatory compliance portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	91%	92%	94%	94%	94%
Fixed Cost per Account, Override	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 72.77	\$ 80.63	\$ 74.38	\$ 75.21	\$ 100.57
Variable Costs, IA Unit Fee, administrative portion:	\$ 2.70	\$ 2.19	\$ 2.24	\$ 2.28	\$ 2.34
Variable Costs, IA Unit Fee, reg compliance portion:	\$ 8.58	\$ 9.22	\$ 8.53	\$ 9.11	\$ 9.56
Variable Costs, IA Unit Fee, CWI portion:	\$ 37.41	\$ 38.48	\$ 38.91	\$ 40.15	\$ 40.72
Variable Costs, IA Unit Fee, Other County costs portion:	\$ 24.07	\$ 30.74	\$ 24.70	\$ 23.67	\$ 47.94
IA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, IA Unit Fee Override	\$ 80.00	\$ 90.00	\$ 90.00	\$ 90.00	\$ 95.00
Variable Costs, GA Unit Fee Calc	\$ 9.47	\$ 10.54	\$ 9.78	\$ 9.94	\$ 13.35
Variable Costs, GA Unit Fee, administrative portion:	\$ 0.35	\$ 0.29	\$ 0.29	\$ 0.30	\$ 0.31
Variable Costs, GA Unit Fee, reg compliance portion:	\$ 1.12	\$ 1.21	\$ 1.12	\$ 1.20	\$ 1.27
Variable Costs, GA Unit Fee, CWI portion:	\$ 4.87	\$ 5.03	\$ 5.11	\$ 5.30	\$ 5.40
Variable Costs, GA Unit Fee, Other County costs portion:	\$ 3.13	\$ 4.02	\$ 3.24	\$ 3.13	\$ 6.36
GA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, GA Unit Fee Override	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 12.00
Anticipated Unincorp County Fee Billings	\$ 5,396,494	\$ 5,905,440	\$ 5,870,700	\$ 5,836,240	\$ 6,269,372
Revenues					
Anticipated Unincorp County Fee Revenue	\$ 4,910,810	\$ 5,433,005	\$ 5,518,458	\$ 5,486,066	\$ 5,893,210
Anticipated Revenue from other Jurisdictions					
Administrative Fee	\$ 177,240	\$ 215,346	\$ 218,038	\$ 220,764	\$ 223,523
Regulatory Compliance	\$ -	\$ 64,154	\$ 61,500	\$ 58,847	\$ 58,847
Countywide Infrastructure Maintenance	\$ 712,776	\$ 804,840	\$ 809,795	\$ 831,488	\$ 839,082
Current Shared Services IGA for SMP Update	\$ 236,409				
Current Shared Services IGA for WQ Monitoring & PE/PO	\$ 36,942				
Interest	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
Project Cost Shares	\$ 2,771				
Bond Issuance Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ 434,079	\$ 403,347	\$ 384,679	\$ 899,417	\$ 1,351,236
Total Costs	\$ 6,110,180	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total Revenues	\$ 6,079,448	\$ 6,519,844	\$ 6,610,291	\$ 6,599,664	\$ 7,017,162
Surplus (Deficit)	\$ (30,732)	\$ (18,668)	\$ 514,739	\$ 451,819	\$ (805,316)
FY End Fund Balance	\$ 403,347	\$ 384,679	\$ 899,417	\$ 1,351,236	\$ 545,920

Beaufort County Stormwater Rate Study Report

July 17, 2015

Beaufort County
Summary Sheet
Option E

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
1.00% Accounts	65,314	65,967	66,627	67,293	67,966
-0.50% Billable IA Units	54,388	54,116	53,845	53,576	53,308
-1.00% Billable Equivalent GA Units	104,545	103,500	102,465	101,440	100,426
Costs					
Administration (50250012)	\$ 360,495	\$ 363,725	\$ 368,737	\$ 373,179	\$ 379,546
County Portion: Administration	\$ 183,255	\$ 148,378	\$ 150,699	\$ 152,416	\$ 156,023
Regulatory Compliance (50250013)	\$ 620,242	\$ 687,847	\$ 635,754	\$ 669,218	\$ 695,872
County Portion: Regulatory Compliance	\$ 583,300	\$ 639,616	\$ 589,928	\$ 625,797	\$ 652,451
County-Wide Infrastructure O&M (50250011)	\$ 3,492,833	\$ 3,407,621	\$ 3,428,602	\$ 3,520,449	\$ 3,552,600
County Portion: County-Wide Infrastructure	\$ 2,543,648	\$ 2,602,782	\$ 2,618,807	\$ 2,688,961	\$ 2,713,518
Capital Purchases & Projects	\$ 1,636,609	\$ 2,079,320	\$ 1,662,460	\$ 1,585,000	\$ 3,194,460
Total County Costs (excl. debt service)	\$ 6,110,180	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total County Costs excl. Shared Services Payable by Others (excl. debt service)	\$ 4,946,813	\$ 5,470,096	\$ 5,021,894	\$ 5,052,173	\$ 6,716,452
Debt Service					
Annual Debt Service	\$ -	\$ 146,185	\$ 292,371	\$ 438,556	\$ 584,741
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage		10.45	5.64	3.47	2.48
Revised R5 Stormwater Fee					
Fixed Cost per Account, Calc	\$ 11.74	\$ 12.44	\$ 11.66	\$ 12.15	\$ 12.53
Fixed Cost per Account, admin portion:	\$ 2.81	\$ 2.74	\$ 2.80	\$ 2.84	\$ 2.93
Fixed Cost per Account, regulatory compliance portion:	\$ 8.93	\$ 9.70	\$ 8.85	\$ 9.30	\$ 9.60
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	91%	92%	94%	94%	94%
Fixed Cost per Account, Override	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00	\$ 12.00
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 61.49	\$ 71.38	\$ 67.96	\$ 70.37	\$ 97.44
Variable Costs, IA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, reg compliance portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Unit Fee, CWI portion:	\$ 37.41	\$ 38.48	\$ 38.91	\$ 40.15	\$ 40.72
Variable Costs, IA Unit Fee, Other County costs portion:	\$ 24.07	\$ 32.90	\$ 29.04	\$ 30.22	\$ 56.71
IA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, IA Unit Fee Override	\$ 65.00	\$ 65.00	\$ 65.00	\$ 65.00	\$ 65.00
Variable Costs, GA Unit Fee Calc	\$ 8.00	\$ 9.34	\$ 8.93	\$ 9.30	\$ 12.94
Variable Costs, GA Unit Fee, administrative portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, reg compliance portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, GA Unit Fee, CWI portion:	\$ 4.87	\$ 5.03	\$ 5.11	\$ 5.30	\$ 5.40
Variable Costs, GA Unit Fee, Other County costs portion:	\$ 3.13	\$ 4.30	\$ 3.82	\$ 3.99	\$ 7.53
GA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, GA Unit Fee Override	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00
Anticipated Unincorp County Fee Billings	\$ 5,364,442	\$ 5,344,144	\$ 5,324,099	\$ 5,304,356	\$ 5,284,872
Revenues					
Anticipated Unincorp County Fee Revenue	\$ 4,881,642	\$ 4,916,612	\$ 5,004,653	\$ 4,986,095	\$ 4,967,780
Anticipated Revenue from other Jurisdictions					
Administrative Fee	\$ 177,240	\$ 215,346	\$ 218,038	\$ 220,764	\$ 223,523
Regulatory Compliance	\$ -	\$ 48,230	\$ 45,825	\$ 43,421	\$ 43,421
Countywide Infrastructure Maintenance	\$ 712,776	\$ 804,840	\$ 809,795	\$ 831,488	\$ 839,082
Current Shared Services IGA for SMP Update	\$ 236,409				
Current Shared Services IGA for WQ Monitoring & PE/PO	\$ 36,942				
Interest	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
Project Cost Shares	\$ 2,771				
Bond Issuance Proceeds	\$ -	\$ 5,000,000	\$ -	\$ 5,000,000	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ 434,079	\$ 374,179	\$ 4,677,010	\$ 4,369,898	\$ 8,867,764
Total Costs	\$ 6,110,180	\$ 6,684,698	\$ 6,387,923	\$ 6,586,402	\$ 8,407,219
Total Revenues	\$ 6,050,280	\$ 10,987,529	\$ 6,080,812	\$ 11,084,267	\$ 6,076,305
Surplus (Deficit)	\$ (59,900)	\$ 4,302,831	\$ (307,112)	\$ 4,497,865	\$ (2,330,914)
FY End Fund Balance	\$ 374,179	\$ 4,677,010	\$ 4,369,898	\$ 8,867,764	\$ 6,536,850

Beaufort County Stormwater Rate Study Report

July 17, 2015

Beaufort County
Summary Sheet
Option F

	FY 2015-2016 Revised RS	FY 2016-2017 Revised RS	FY 2017-2018 Revised RS	FY 2018-2019 Revised RS	FY 2019-2020 Revised RS
Rate Base					
1.00% Accounts	65,314	65,967	66,627	67,293	67,966
-0.50% Billable IA Units	54,388	54,116	53,845	53,576	53,308
-1.00% Billable Equivalent GA Units	104,545	103,500	102,465	101,440	100,426
Costs					
Administration (50250012)	\$ 360,495	\$ 363,725	\$ 368,737	\$ 373,179	\$ 379,546
County Portion: Administration	\$ 183,255	\$ 148,378	\$ 150,699	\$ 152,416	\$ 156,023
Regulatory Compliance (50250013)	\$ 620,242	\$ 687,847	\$ 635,754	\$ 669,218	\$ 695,872
County Portion: Regulatory Compliance	\$ 583,300	\$ 623,693	\$ 574,254	\$ 610,371	\$ 637,025
County-Wide Infrastructure O&M (50250011)	\$ 3,492,833	\$ 3,407,621	\$ 3,428,602	\$ 3,520,449	\$ 3,552,600
County Portion: County-Wide Infrastructure	\$ 2,543,648	\$ 2,602,782	\$ 2,618,807	\$ 2,688,961	\$ 2,713,518
Capital Purchases & Projects	\$ 1,636,609	\$ 2,079,320	\$ 1,662,460	\$ 1,585,000	\$ 3,194,460
Total County Costs (excl. debt service)	\$ 6,110,180	\$ 6,538,513	\$ 6,095,553	\$ 6,147,846	\$ 7,822,478
Total County Costs excl. Shared Services Payable by Others (excl. debt service)	\$ 4,946,813	\$ 5,454,173	\$ 5,006,219	\$ 5,036,747	\$ 6,701,026
Debt Service					
Annual Debt Service	\$ -	\$ 146,185	\$ 292,371	\$ 438,556	\$ 584,741
Coverage Goal	1.30	1.30	1.30	1.30	1.30
Actual Coverage		10.69	5.72	3.50	2.80
Revised R5 Stormwater Fee					
Fixed Cost per Account, Calc	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, admin portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, regulatory compliance portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost per Account, CWI portion:	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost Collection Rate	91%	92%	94%	94%	94%
Fixed Cost per Account, Override	\$ -	\$ -	\$ -	\$ -	\$ -
Variable Costs, IA Proportion	80%	80%	80%	80%	80%
Variable Costs, GA Proportion	20%	20%	20%	20%	20%
Variable Costs, IA Unit Fee Calc	\$ 72.77	\$ 82.80	\$ 78.73	\$ 81.76	\$ 109.34
Variable Costs, IA Unit Fee, administrative portion:	\$ 2.70	\$ 2.19	\$ 2.24	\$ 2.28	\$ 2.34
Variable Costs, IA Unit Fee, reg compliance portion:	\$ 8.58	\$ 9.22	\$ 8.53	\$ 9.11	\$ 9.56
Variable Costs, IA Unit Fee, CWI portion:	\$ 37.41	\$ 38.48	\$ 38.91	\$ 40.15	\$ 40.72
Variable Costs, IA Unit Fee, Other County costs portion:	\$ 24.07	\$ 32.90	\$ 29.04	\$ 30.22	\$ 56.71
IA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, IA Unit Fee Override	\$ 80.00	\$ 80.00	\$ 80.00	\$ 80.00	\$ 80.00
Variable Costs, GA Unit Fee Calc	\$ 9.47	\$ 10.83	\$ 10.35	\$ 10.80	\$ 14.51
Variable Costs, GA Unit Fee, administrative portion:	\$ 0.35	\$ 0.29	\$ 0.29	\$ 0.30	\$ 0.31
Variable Costs, GA Unit Fee, reg compliance portion:	\$ 1.12	\$ 1.21	\$ 1.12	\$ 1.20	\$ 1.27
Variable Costs, GA Unit Fee, CWI portion:	\$ 4.87	\$ 5.03	\$ 5.11	\$ 5.30	\$ 5.40
Variable Costs, GA Unit Fee, Other County costs portion:	\$ 3.13	\$ 4.30	\$ 3.82	\$ 3.99	\$ 7.53
GA Collection Rate	91%	92%	94%	94%	94%
Variable Costs, GA Unit Fee Override	\$ 10.00	\$ 10.00	\$ 10.00	\$ 10.00	\$ 12.00
Anticipated Unincorp County Fee Billings	\$ 5,396,494	\$ 5,364,280	\$ 5,332,250	\$ 5,300,480	\$ 5,469,752
Revenues					
Anticipated Unincorp County Fee Revenue	\$ 4,910,810	\$ 4,935,138	\$ 5,012,315	\$ 4,982,451	\$ 5,141,567
Anticipated Revenue from other Jurisdictions					
Administrative Fee	\$ 177,240	\$ 215,346	\$ 218,038	\$ 220,764	\$ 223,523
Regulatory Compliance	\$ -	\$ 64,154	\$ 61,500	\$ 58,847	\$ 58,847
Countywide Infrastructure Maintenance	\$ 712,776	\$ 804,840	\$ 809,795	\$ 831,488	\$ 839,082
Current Shared Services IGA for SMP Update	\$ 236,409				
Current Shared Services IGA for WQ Monitoring & PE/PO	\$ 36,942				
Interest	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500	\$ 2,500
Project Cost Shares	\$ 2,771				
Bond Issuance Proceeds	\$ -	\$ 5,000,000	\$ -	\$ 5,000,000	\$ -
Fund Balance					
FY Beginning Fund Balance	\$ 434,079	\$ 403,347	\$ 4,740,626	\$ 4,456,851	\$ 8,966,500
Total Costs	\$ 6,110,180	\$ 6,684,698	\$ 6,387,923	\$ 6,586,402	\$ 8,407,219
Total Revenues	\$ 6,079,448	\$ 11,021,977	\$ 6,104,148	\$ 11,096,050	\$ 6,265,519
Surplus (Deficit)	\$ (30,732)	\$ 4,337,279	\$ (283,775)	\$ 4,509,648	\$ (2,141,700)
FY End Fund Balance	\$ 403,347	\$ 4,740,626	\$ 4,456,851	\$ 8,966,500	\$ 6,824,799

MEMORANDUM

TO: Natural Resources Committee

FROM: Tony Criscitiello, Planning Director

SUBJECT : Okatie Regional Park

DATE: August 7, 2015

The attached concept plan is being considered as a possible design concept for the 119.08 acre passive park purchased in 2005 for the Rural and Critical land program. This planning effort is being coordinated with the Town of Bluffton as an intergovernmental planning exercise as part of the Southern Regional Plan. The park is in the Town of Bluffton, and the idea that an Equestrian theme could be introduced into the park plan along with Pedestrian uses is being warmly received by many people in Southern Beaufort County.

