

**TOWN OF HOLDEN BEACH
PLANNING & ZONING BOARD REGULAR MEETING
December 18, 2018, – 4:00 P.M.**

The Planning & Zoning Board of the Town of Holden Beach met for their Regular Meeting on Tuesday, December 18, 2018 at 4:00 p.m. in the Town Hall Public Assembly. Present were Chairperson Vicki Myers; Vice Chairman Mark Fleischhauer; Regular Members Tracey Thomas; Alternate Members Peter Pallas and Greg Shue; Planning Director Tim Evans and Rhonda Wooten.

ROLL CALL

Chairperson Myers called the meeting to order at 4:00 p.m.

Bob Hunter and Woody Tyner were excused members. Alternate Member Pallas was seated as a voting member.

PUBLIC COMMENTS ON AGENDA ITEMS

There were no public comments on agenda items.

APPROVAL OF MINUTES OF NOVEMBER 27, 2018

Vice Chairman Fleischhauer made a motion to approve the minutes. Seconded by Regular Member Thomas and approved by unanimous vote.

DISCUSSION AND POSSIBLE ACTION ON PROPOSED WATER TOWER

Shane Lippard with Right Angle Engineering began working with the Town in 2008. He said they were asked to look at if the Town needs an additional water tower. There are two main numbers that need to be considered with water supply. Division of Water Quality require that you have to provide storage for half of your average daily amount. Your average is at 475,000 gallons during a year and if you take half of that number you are compliant. The fire flow requirements is another item. Brunswick County has a standard for everything off of the island. The Town doesn't have a standard, but the Fire Marshall may have one. In the report that we developed we used the number 2,050 gallons for a two hour duration for the west end of the island. Mr. Lippard also spoke about the 8" pipe coming across the waterway from the county on Seagull Street. Planning Director Evans felt that it was a 10" pipe.

Fire Chief Doug Todd has almost 40 years of experience in fire service.

Chairman Myers read aloud the questions:

BETTER UNDERSTANDING THE NEED

Are there options other than a new water tower to increase water pressure for fire safety at the west end of Holden Beach?

Mr. Lippard stated potentially there are lots of options, but when you do other things it becomes what Brunswick County can supply. A water tower became the most cost effective option.

*What other options other than a new tower were considered? Such as ground level storage tank, increased pumps, etc.

Mr. Lippard stated that a ground water tank would need generators etc., long term elevated water storage would be best.

*Would there be any improvement by replacing the 6" pipe at Seagull Drive with a 12" pipe?

Mr. Lippard answered that he believes the meter is a 6" meter and the pipe is an 8". Chris Clemmons would need to confirm. Going to a larger pipe would improve the flow; he feels that the other side of the water waterway is only an 8" pipe.

Vice Chairman Fleischhauer ask if there was a pressure problem.

Mr. Lippard answered that there is a 12" line running from Sea Gull Street to the west end. When running the fire hydrate at the very end of the road you only get 1,000 per minute and ideally the chief would want 2,000 per minute.

*Regarding Section B1 critical needs.

Is this a NC State requirement, rule of thumb, etc. – "Typically, elevated storage would have the capacity to provide ½ of the tank, volume dedicated to potable water usage and ½ available to fire flow."

Mr. Lippard stated that the state only asks for the minimum to provide their storage. Typically you're providing that amount and fire flow.

* Do we know if other small beach towns like OIB or Sunset Beach meet these requirements?

Mr. Lippard stated that yes they are way ahead of Holden Beach. Ocean Isle has two storage tanks and Oak Island has three. Sunset Beach doesn't have their own system, the county owns theirs. Ocean Isle and Sunset have a million gallons of storage.

* Based upon the Right Angle report, we have been insufficient for the combined water needs for a very long time as our current water tower holds only 300,000 gallons. Does this fact impact our homeowners insurance? Will a second water tower help with our insurance rates?

Mr. Lippard stated that we are compliant with regulations. Fire Chief Todd stated that it is up to the insurance company. Anything below a 6 is good and right now we are a 4. As far as insurance rates go we are good. The water flow calculation does go into the determination. The water system outscores the fire department right now. At this time a new water tower will not help with rates on residential homes 4,500 feet or less, only homes larger because they are considered commercial. Planning Director Evans stated that the grade can't get any better than what we

have now. Chief Todd stated that what it helps is when you need water for a house fire and how soon you can get it out before it spreads.

FIRE FLOW

*** What is actually "required" by NC fire law or NC insurance regulations?**

The fire chief is authorized to reduce the fire-flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

***We have not adopted the NC Fire Code, what are the implications of this?**

Planning Director stated that the appendix table can only be adopted for commercial use.

*** Could we change the building code to require large houses over a certain square footage to install a sprinkler system so the current water tower is adequate? Having a sprinkler system in the home reduces the required fire flow by half.**

Fire Chief Todd stated that no, you cannot discriminate against someone that has constructed a larger home. A town up north got sued and the judge ruled that it had to be for everyone or no one.

*** Tri-Beach Fire Department would like 270,000 gallons. Do your calculations assume all water fire flow is from a tank and none from a waterline? Our current water tower has been empty the past two winters for maintenance and yet we fought structure fires.**

Mr. Lippard stated that in his report they were basing it on no water coming across the waterway. Consider the county system as a backup because they do have interruptions.

Regular Member Greg Shue left the meeting at 5:00 PM.

***Please explain how the NFF was calculated.**

It came from the appendix in the fire code. Planning Director Evans stated that Appendix B only applies to residential construction which is single family residence, or two family dwellings.

***The report provided to DWR indicates there are no pressure problems. Is this in error?**

Mr. Lippard stated that the report Public Works Director Clemmons provides to the state is usage and meter connections. The state has a minimum fire flow requirement and Holden Beach meets this.

***What portion of the reduced pressure at 1365 OBW is due to frictional resistance in the pipe?**

Mr. Lippard stated that you lose a lot of friction obviously because of the length and size of the pipe.

Isn't pressure controlled in part by the county?

Mr. Lippard answered that we are feed by the county.

FUTURE DEMAND

*Where was the number of customers being 3,000 derived from? Our draft 2018 Land Use Plan stats show 2,491 housing units in 2016 – so even if you were rounding up, 2,500 would seem to be a more reasonable number to use. According to tax records there were 2,482 properties with dwellings in 2017.

Mr. Lippard answered that there are 3,000 metered customers. Past seven years were a good growth number, a reasonable idea of what growth would be projected for the future.

Chairman Myers stated that the Land Use Plan was being worked on now.

*Explain how the “Ave Day For Year” figures were calculated.

Mr. Lippard answered when you look at all the projections, it’s looked at two different ways.

*Are we building a second tank for emergency hurricane issues?

Chairman Myers stated that we banned irrigation during Hurricane Matthew. Is it because 1365 OBW would not have pressure for a fire?

Mr. Lippard stated that if you look at July 4th weekend water usage maxed out and if you can’t get water from the county that would be a worse case situation.

*How was the projected total customers over the next 20 years determined? It seems extremely aggressive – if we assume an average of 60 homes (actual was 61 in 2016, 58 in 2017, but only 23 in 2015), we would have 2,730 customers (not 3,149) in 2020. And 3,030 customers (not 3,399) in 2025.

Mr. Lippard said that it comes back to there are house meters and irrigation meters.

*The numbers for 2030 (3,649 customers) and 2036 (3,949 customers) are even more confusing since we only have 3,483 total lots on the island and some of them cannot be built on. How could we have 3,649 customers (or 3,949) if we only have 3,483 lots on the island? Note that the 3,483 properties includes unbuildable lots, 10” strips.

Planning Director Evans stated that this number includes lots that are out in the marsh area. The Town recently refunded money to some of those lots. A great portion of the houses being built are homes that were removed and they are building a new home. Chairperson Myers stated that this number is defiantly is inflated.

Regular Member Thomas asked if the Appendix B fire flow chart does not apply to most of our homes on Holden Beach how is it estimated on how much fire flow we need.

Fire Chief Todd answered that the Department of Insurance has a page that is used to calculate all of the commercial buildings and you can use the same page to calculate residential. The same chart was used to calculate the 8,000 square foot home at the west end. Regular Member Thomas stated that she does not think that a \$2 million water tower should be built for one house that is outrageously large down at the west end. Fire Chief Todd said that all the fire hydrates are

color coded, blue gives 1,500 gallons a minute, green gives 1,000 – 1,500, orange gives 500-1,000, red is less than 500.

Chairman Myers stated that Lockwood Folly doesn't have near the pressure that Holden Beach has. Fire Chief Todd answered yes that is correct. Fire Chief Todd stated that if we have a fire on the side street then they connect to the main road hydrant because the lines down the side street are smaller. Regular Member Thomas asked if a new water tower would help the side streets. Chief Todd stated yes some, but he doesn't know how much.

*The housing and population numbers are not even close to the numbers projected in the current or draft Land Use Plan or the water report. Where did the numbers come from?

SITING QUESTIONS

*Was an off-island location considered? This would allow for lower land acquisitions cost and impact the view-shed less.

Mr. Lippard answered he looked at property that was already owned. One piece on Seagull that would need to be purchased but a house is being constructed now. No offsite was reviewed.

Planning Director Evans ask if the county was recommending another water tower. If they are then I'm going to ask them why I don't have a water tower or a fire hydrant near my home in Ash.

Mr. Lippard said that he thinks Brunswick County would be fully supportive of Holden Beach having a tower, but it isn't any kind of a benefit from a finance standpoint for them.

Planning Director Evans asked on behalf of the citizens of Holden Beach if we buy the water from Brunswick County and if we need a new water tower then why would they not provide it? The people of Holden Beach pay taxes to the county at the same rate that I do and if they needed a water tower on the other side of the waterway then the county would be putting it up. If I live at Holden Beach and I'm paying Town taxes then I receive Town services. If I'm paying county taxes, if we need another water tower why would they not put one up?

Mr. Lippard answered that it is not a tax issue, it's a water and sewer issue. Planning Director Evans said that he pays the same taxes as Holden Beach and don't have any water at his home in Ash. He must have a well for water. Mr. Lippard said maybe approach the county.

*Was sea level rise considered?

Mr. Lippard answered no.

*Has any any subsurface geotechnical studies or reports been done for the different proposed sites? How would potential poor soil conditions affect the cost of the tank?

Mr. Lippard answered that this report is a preliminary report. At this point I did not think a geotech report or environmental assessment should be done. Those would be done at the next

step. There was an item put in the report for foundation for poor soil conditions. The site at Heron Landing is probably the better soil area.

*What is the difference between a "non-standard foundation" in Alternatives 1 & 3 and a "standard foundation" in Alternative 2?

Site 1 (OBW) is in a Conservation Area and does not conform to our adopted CAMA Land Use Plan.

Site 2 (Heron Landing) would require a pipe crossing a tidal creek and appears to be sited in an area that floods during high tides – yet cost estimates call for a "standard foundation".

Site 3 (Seagull) is in an established residential area. Was the decrease in property values considered?

Chairperson Myers stated that from a planning standpoint the Seagull area is not a good area besides a house is being constructed. That it is an industrial within a residential area.

Mr. Lippard wasn't aware of the conservation area in the OBW site. The Heron Landing site would need a directional bore under the creek. He would be open to suggested sites.

*What other sites were considered? Since the needed fire flow is at the far end of OBW was a site in the west end considered, such as the Sewer Pump Station area?

Mr. Lippard answered that the Town does not own that area.

COSTS

*Will a life cycle cost analysis be conducted for the different style tanks to gauge long term capital costs as well as operation and maintenance costs for each tank option?

Mr. Lippard answered that if you decide to go to the next phase of funding then a life cycle cost analysis will be required. Rural development and infrastructure operate on different cycles and would need to be determined.

*Engineering fees seem to be higher than normal USDA-RD curve for typical tank project. What issues involved in this potential project cause this increase?

Mr. Lippard answered that this was placeholder number for engineering cost, surveys, planning, environmental studies etc. There are a lot of numbers that go in this cost. Rural development is usually based on the curve.

*Engineering fees seem to show limited time allocated for inspection. Why is there so much more time on project administration and not more time for on-site inspection?

Mr. Lippard answered that can be tailored at that phase. If the Town decides to have engineering onsite inspections then that would be an increase to that amount. The cost shown now is for periodic inspections. If the Town would elect to have onsite daily inspections the cost would be more. The administrative part is administrating the construction contract.

*Should we consider having an alternate for a used tank when this project is bid?

Mr. Lippard answered that is a consideration, but he is not sure if funding agencies would go that route. They may not want to fund a used piece of equipment. Your water tank here is probably 40 years old and is a long term investment.

GENERAL QUESTIONS

***Can you give us references for your last three elevated storage tank projects?**
Chairperson Myers told Mr. Lippard he could forward that information.

***How did you work with the owners on previous projects in relation to deciding size and type of elevated storage tanks to best suit their long-term needs?**

Mr. Lippard answered that Jerry Pierce is working with us on this and he was the director of Public Utilities in Brunswick County. We work with other communities on preliminary engineering reports. Right Angle Engineering has worked on different projects through the years. Water towers don't come along every day.

***You reference composite tank and spherical tank. Why would we not consider fluted column or multi-column tank? Our existing tank is a multi-column type; why not consider this style of tank?**
Mr. Lippard answered that is still a possibility, but there aren't a lot of those being constructed on the beach because there is more steel involved, more maintenance and corrosion and more to be painted.

***What is the cost differential and the pros and cons of each tank type over the life of the tank?**
Mr. Lippard answered the composite gets you a full life cycle cost because there is less surface to maintain.

***What are your thoughts on conducting an analysis with a hydraulic model to study how the proposed and existing tank would operate during normal and peak flow scenarios? Would this service be provided?**

Mr. Lippard answered at this point hydraulic modeling is not in this scope. The model for Brunswick County is huge. I would probably lean on McKim and Creed for information because they have done a lot of modeling for Brunswick County.

***Do you feel comfortable you will be able to meet the project timeframe? Design milestone? Permitting and bidding milestones?**

Mr. Lippard answered there is a process to get to the point of funding. Once you get there you will have something more solid. Right now it would be harder to pin down.

***What other alternatives were considered such as an extra pump, ground level tank and change in waterline diameter?**

Mr. Lippard answered we have already talked about this. Ground storage takes up more footprint, more ground area. Then you get into pumps and the life cycle isn't as good. You'll need generators.

*What assumptions were made such as no flow from the county on either line?
Chairperson Myers stated this was already answered.

*Is this a water system to cover peak flows on holiday weekends with the assumption that there is a fire on the far west end?
Chairperson Myers answered yes.

*What planning period are you expecting for this tank project? 20 years seems a little short, shouldn't this timeline probably be in the 50-year range?
Mr. Lippard answered for a life cycle 40 years. Looking at flow we look at 25 years.

*Shouldn't emergency storage be considered when sizing the proposed elevated storage tank?
Mr. Lippard answered that this is emergency storage.

Vice Chairman Fleischhauer stated he doesn't think we have much more clarity. He feels it inevitable that it would be needed at some time.

Chairperson Myers thinks that we should go back and sleep on this.

DISCUSSION AND POSSIBLE ACTION ON CARGO ELEVATORS

Vice Chairman Fleischhauer made a motion to forward Planning Director Evan's memo on cargo lifts to the Board of Commissioners.

Regular Member Thomas made a motion to forward Chairman Myers statement with Building Director Evan's memo to the Board of Commissioners. Seconded by Regular Member Pallas. Approved by unanimous vote.

REPORT FROM CITIZENS' ADVISORY COMMITTEE ON PARKING.

Alternate Member Pallas stated that the parking committee discussed and reviewed the task sent to them including investigate potential vacant land that the Town does not own and investigate for potential parking if determined to be necessary. Also, develop a list of Town owned properties that could potentially be used for parking. A motion was made by the parking committee that read it is not necessary to establish additional public or private parking at this time, continue monitoring the effects of new signage and maps that identify parking for awareness of parking and increase enforcement.

Member Pallas stated that the committee felt like the parking is adequate. We really don't have a lot of places for paid parking; we have approximately 200 parking space. Planning Director Evans is supposed to find out if we did need so much free parking. Then that amount would be removed from the 200 spaces and then have an amount left for possible paid parking. This would be a place to start looking at paid parking.

Regular Member Thomas left the meeting at 5:50 p.m.

Planning Director Evans found the drawing for Jordan Boulevard from years ago.

Member Pallas said that they were trying to figure out if the committee needed to meet again since they had determined that additional parking was not needed. Do we need to extend the life of the committee?

Chairperson Myers stated that they were going to have to investigate paid parking because they were asked to again.

Vice Chairman Fleischhauer stated the prior parking committee did not feel that there was a practical need for paid parking.

Member Pallas stated that he had spoken with the mayor of Kure Beach. They only have three parking lots not on the beachfront and thought that they would need more space for this to be profitable.

Planning Director Evans said that he talked to the planners in Wrightsville Beach. They have very little paid parking and it is only seasonal. They use an app and if it's not working then you have to call the police to not get a ticket. Not a good idea, they have IT people to monitor and handle the program.

Vice Chairman Fleischhauer stated that we just had a parking committee, the report was just given to the Board of Commissioners in January, 2018.

Chairperson Myers told Member Pallas that they were going to have to meet again and address the paid parking what Bob said at the last meeting was just reiterating what was done before and the technology has changed. I like what Oak Island is looking at where they scan license plates.

Planning Director Evans said that he wants you to think about that, Oak Island has approximate 100 employees and five or six IT people and we don't have that here. I have done some research also.

Chairperson Myers said that she thinks we should address the tasker and say paid parking sounds fine and do a RFP. She doesn't feel that is appropriate for a citizen advisory committee member to be calling vendors. She feels that this should be a Town function and staff should be talking to the vendors, do a RFP.

Vice Chairman Fleischhauer stated that he thinks that the companies that have done plans for places like Oak Island have not been paid. My guess is they will need \$10,000 or something to issue this report. He doesn't think these company's will do this for free. The Board of Commissioners need to determine if they really want to viably consider having paid parking? Are they just going to keep sending it back to us? Do they think it really is more of a revenue or cost

issue? It gets into an image issue for the beach. It's really more of a Board of Commissioners topic. I think send it back to Board of Commissioners.

Planning Director Evans said that he thinks the company that did Sunset's had answered us saying that they did not think we had enough parking for it to be worth their while. Sunset's is gated, monitored and private. Wrightsville Beach does not charge \$25.00, it's around \$17.50 for all day.

Chairperson Myers thinks that the tasker is asking do you think that paid parking is worth our while. Then say this is our recommendation then send it back to P&Z.

COMMENTS

Chairperson Myers stated that the next meeting is January 22, at 2:00 p.m. It will be a land use meeting reviewing chapter 3.

ADJOURN

Vice Chair Fleischhauer made a motion to adjourn at 6:10 p.m.; seconded by Alternate Member Pallas and approved by unanimous vote.



Rhonda Wooten