

# TOWN OF PALM BEACH

Building and Zoning Department

## MINUTES

BUILDING BOARD OF ADJUSTMENTS AND APPEALS  
2:00 p.m., WEDNESDAY, MAY 30, 1990  
CONFERENCE ROOM, 360 SOUTH COUNTY ROAD, PALM BEACH

- I. Call to Order: The meeting was called to order at 2:00 p.m. by E. Ben Walton, Acting Chairman.

II. Roll Call:

PRESENT: E. Ben Walton, Jr, Acting Chairman  
Ames Bennett, Member  
John C. Cassidy, Member  
Jeffrey W. Smith, Member

ALSO PRESENT: Pam McNierney, Town Attorney Representative  
Robert L. Moore, Director of Planning,  
Zoning and Building  
Harry P. Ackerman, Chief Building Inspector  
John Wandell, Fire Marshal  
Sara Tolley, Palm Beach Daily News

RECORDING SECRETARY: Sandra G. Melvin

Let the record show that John Nora was not in attendance.

III. Approval of Minutes of the May 9, 1990 Meeting.

MOTION BY MR. SMITH TO APPROVE THE MINUTES.

MOTION SECONDED BY MR. SMITH.

MOTION CARRIED UNANIMOUSLY.

Let the Minutes reflect in Item III, the proper spelling of Architect, John Gosman is G-o-s-m-a-n.

- IV. ITEM 1: Appeal of Standard Building Code Section 1302.2.7 (REQUIRING PILINGS FOR STRUCTURES WITHIN 150 FEET LANDWARD OF THE COASTAL CONSTRUCTION CONTROL LINE).  
Owner: Leonard R. Sousa  
Address: 1300 North Ocean Boulevard

Mr. Ackerman explained the property is located within 82 feet of the Coastal Construction Control Line, the elevation of

property that was discussed at the last meeting and very similar. The section of the property was presented, and Mr. Ackerman inquired about a 3 foot soil erosion line. Mr. David E. Voss, P.E., Consulting Engineer, on behalf of Mr. Sousa, stated it was based on past experience on projects. Mr. Ackerman noted it appears the foundation is going in underneath where they assume the soil and erosion line will be. Mr. Bennett wondered if this was with the presumption that the roads will be completely washed out.

Mr. Voss said when projects are located behind a dune line and are not protected by a bulkhead or roadway, Florida DNR in Tallahassee, using their own experts, will give an estimate of the amount of erosion that will occur. Mr. Voss explained, after working on three previous projects that encountered the same problem, he took the distance back from the shoreline and used the same depth of erosion or scour, and he made the assumption it would be very conservative to use 3 feet because there is also protection by a roadway which he felt could be equally eroded and by a bulkhead which would possibly mitigate some of the erosion. So, again, based on past experience, the 3 feet should be a conservative number. Mr. Voss could not give any guarantee because there had not been an occurrence of a 100-year storm in his lifetime, and it is strictly based on his past experience with projects.

Mr. Walton inquired about the sea wall to which Mr. Gene Barbato, General Contractor, presented pictures. Mr. Voss stated the top of the sea wall elevation is approximately 13.5 feet above mean sea level or NGVD. Mr. Barbato believed most sea walls require you to fill them up to the top with sand on the landward side.

Mr. Smith noted the 3 foot erosion line on the plans and wondered why it tapered off? Mr. Voss responded this is typically how it occurs. Mr. Smith inquired about the distance and why it did not occur somewhere else and did not understand the "assumptions". Mr. Voss explained an erosion line occurs when you take the existing grade of the site after the project is finished, and then make some worse-case assumptions on the erosion that will occur. And it tends to be fairly deep right here (indicating on plans) at the bank. It will normally rise, and then will be almost level for quite a long horizontal distance on the projects that he had done that have a calculated erosion line. He indicated he took the 3 foot depth, which seemed to be representative of

some of the other cases that occurred, and drew in where that would occur here. Because of the bulkhead and normal wave action, the 3 foot may not be true just strictly in this area (indicating) due to additional scouring that you get when a wave breaks over a hard surface, the water has to rush back, and that is when the erosion occurs. This is also a fairly conservative line. In this particular case, Ocean Boulevard slopes slightly to the north and Merrain Road slopes downhill, which means that any water that is collected over here (indicating) and wants to run backwards, will first run that way and down into Merrain Road, and not directly across Ocean Boulevard. But this is a typical scouring profile, for instance, if you had a fairly uniformed dune in front of your seaside property. He said he drew it in so that you could visualize where that would occur relative to the bulkhead, the roadway, and the primary structure of the house.

Mr. Bennett questioned if anyone had dug down under the cap and inquired what the bulk of the sea wall is made of? Mr. Barbato guessed it was some kind of concrete panels. Chairman Walton wondered if the sea wall further south was the same elevation? Mr. Smith responded it changes to which Mr. Bennett agreed it varies.

Mr. Smith mentioned he lived north of here for approximately 20 years, and the dune has changed so much that it is almost level with the top of the sea wall, and as you walk south there is still a great difference in the top of the sea wall and the dune. Mr. Smith believed there was a change from the last project to this one, and if the town is going to be enforcing a code for pilings and there would be more in the future, he felt there should be a criteria of where to give relief and where not to give relief, and thought it is something that needs to be studied engineering wise. Discussion continued. Mr. Bennett noted Ocean Boulevard is all built up with only a few vacant lots. Mr. Smith felt a lot of homes are being torn down and being built again. Mr. Bennett indicated they are on foundations, and a lot of faith is put in the roads of the Town of Palm Beach and the sub-grade for that to help protect us, we have a sea wall, and he felt the intent of this law is not to reach over on the other side and try and add something else not really needed, but to try to protect the outer fringes of the "V" Zone which is what this all started with.

MOTION BY MR. BENNETT TO APPROVE THE REQUEST FOR RELIEF FROM SECTION 1302.2.7 OF THE STANDARD BUILDING CODE AS SUBMITTED.

Mr. Smith said since there is a code to enforce, he felt it should be enforced or try to find out when not to enforce it, and believed the code should reflect conditions that are similar or dissimilar. Mr. Bennett said the intent of this is to protect properties, to protect us from ourselves, in properties that don't have any other protection. Chairman Walton inquired about the elevation of the sea wall. Mr. Moore noted this is the key.

Mr. Barbato indicated the foundations here are deeper and heavier than the normal foundation, they are down 5 feet. Mr. Voss agreed, and said soil testing was done on the property and had a report from the soil's engineer who specified there be a minimum of 18 inches of cover over the bottom of the foundation in order to develop the soil pressure that was needed to design the house. Mr. Voss took the 18 inches, added 3 feet of scour depth which is 4 feet 6 inches, and because of the geometry, he set it at 5 feet. Mr. Smith noted this is all clean fill and was not really going down, but filling in. Mr. Voss said he showed the existing natural grade of the lot as it stands right now. And he also had criteria given by their soil's engineer of all the fill that will be brought in, under the effective area of the house, what he calls structural fill, to be trucked in and compacted. That type of procedure, so that even though it is fill, it is still structurally as good as the underlying soils. As a matter of fact, they begin by stripping the existing lot and doing surface compaction on the existing soils as they are in place now, because you usually have to go down 1, or 2, or 3 feet before getting 100 percent soil capacity. If you are going to add fill on top, the first thing to do is compact the existing grade, and then add the structural fill on top. Mr. Smith noted according to scale, there is approximately 10 feet of fill to which Mr. Voss responded, about 9 feet of fill. Mr. Smith commented that was a lot of fill and Mr. Voss agreed. Mr. Barbato indicated that was on the west side. Mr. Voss responded yes, on the deepest part of the house, and at the retaining wall being proposed, there will be approximately 6 feet of fill.

Mr. Moore inquired about the present elevation of the seawall? Mr. Voss said it is approximately 13.5 feet. Mr. Moore stated if the sea wall was being built today, the minimum elevation requirement would be 14.34 feet above mean sea level, and felt it is very close to what the minimum sea wall would be required to have.

Mr. Voss said he drew on the representation, elevation 18.0 and explained that on past projects, the DNR told him, on the East Coast of Florida the maximum surge plus wave height that can be normally expected is 17.8 feet. In order to be conservative, Mr. Voss rounded that off to 18 feet. Mr. Moore noted that is 4 feet above the maximum storm surge, and inquired about the finished elevation of the lot. Mr. Voss said the finished floor will be six-tenths of a foot above the maximum storm surge. But when DNR in Tallahassee enforces minimum finished floor for what they call a major habitable building, which this is a house, you have to maintain the primary structure above that point. Mr. Smith inquired about soil tests, and asked how far down is coral? Mr. Barbato said they did not find coral. Mr. Voss did not believe they ran into any coral. Mr. Barbato noted, not at 20 feet. Mr. Voss stated it was primarily brown fine sand, tan sand, grey fine sand, 15 feet with no base rock. Tan fine, grey fine, abundant shell fragments, fine sand, no cap-rock at 20 feet. Brown, tan, grey, brown clay, no cap-rock at 15 feet. That was on the 3 borings that were taken. Mr. Bennett asked what the starting grade was? Mr. Voss responded approximately plus 9, which is about 7 feet below the crown of the road down to the natural grade, and then went down 15 and 20 feet beyond that. Discussion continued.

Mr. Moore inquired about the finished floor elevation to which Mr. Voss responded 18.6 feet. Mr. Moore noted that is designing to 6 inches above the DNR maximum, to which Mr. Voss indicated yes. Mr. Moore wondered if that was based on the 100 year storm? Mr. Voss stated the elevation 18.6 feet is based on a maximum of 2.5 feet above the crown of the road, taken at the center line of the lot (reviewing plans) since the road slopes slightly, and he came up with 18.6. He was happy with that because, it was his understanding, it met the criteria that was the maximum wave height plus storm surge. It was above 18, so he felt 18.6 complied with the Town of Palm Beach criteria, and the CCC normal criteria for East Coast.

Mr. Moore believed they are designing for the deficiency in the overall height of the sea wall. The town sea wall is a minimum of 14 feet which is taken into consideration with the finished floor level. Mr. Voss indicated if it were not there, that would not change his personal criteria of good engineering practice to design this house in order to meet CCC requirements to make sure the house stands after the 100

year storm has occurred. He accounted for finished floor height, a conservative amount of soil erosion around the building, and assumed a one time occurrence because there is a road and a sea wall. It is not the case where there is a dune and there would be continual erosion over the years, and finally the house is on stilts. Discussion continued. Mr. Voss felt it was a reasonable assumption to just look at meeting the criteria for a one time, 100 year occurrence.

Mr. Moore addressed the board, and believed this was the kind of information that an applicant must bring when they are asking for a code variance. Remembering codes are minimum, they don't choose to go through the code system of establishing the piling in order to secure the home. This applicant has gone to an expert, an engineer who has designed an alternative to what the minimum code requirement would be. It was Mr. Moore's opinion, they had addressed the issue. Mr. Moore took to heart what Mr. Smith said earlier, the board will probably get more of these, but this is the type of thing where an applicant may not choose to go this route, and will raise the house to elevation 18.6 feet. This applicant happens to be fortunate with the contour of the land. Mr. Moore felt this is the kind of information that is valid to bring before the Board. Chairman Walton felt they had gone into it very thoroughly.

Mr. Ackerman said we base the height of the building on the crown of the road, and he is 2 feet above that, so maximum ceiling height he can have in here is 12-1/2 feet. Mr. Smith wondered how to address the road right in front of the building, on the other side. Mr. Moore responded, on two sides you take the mean average between the high and the low. Mr. Smith said we would use the mean average of these two roads and not 16 feet to which Mr. Moore responded yes. There was further discussion.

MOTION SECONDED BY MR. SMITH.

Mr. Bennett wondered where they are going to get the fill? Mr. Barbato said it is coming from ponds and so forth that is excavated west of town. Mr. Bennett questioned the consistency. Mr. Barbato said they would have the engineers analyze it so they could have the proper compaction, and it is suppose to have a little binder in it, and not beach sand. Mr. Bennett believed beach sand is far more compactable than sugar sand brought in unless it has shell or something mixed in to give some bonding to keep it from

slipping and he felt sugar sand is slippery when wet. Mr. Barbato said it will be analyzed before.

MOTION CARRIED UNANIMOUSLY

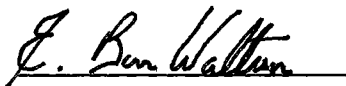
V. Adjournment

MOTION TO ADJOURN BY MR. BENNETT.

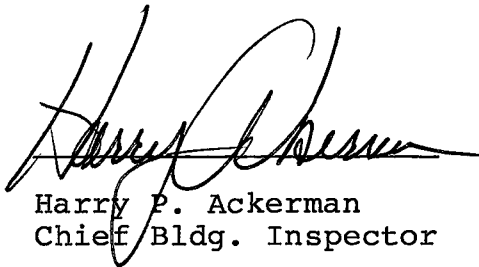
MOTION SECONDED BY MR. CASSIDY.

MOTION CARRIED UNANIMOUSLY.

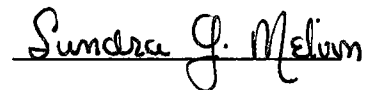
(Whereupon, the Minutes of this Meeting concluded at 2:35 p.m.)



E. Ben Walton,  
Acting Chairman



Harry P. Ackerman  
Chief Bldg. Inspector



Sandra G. Melvin  
Recording Secretary