

**JOINT MEETING  
HILLTOWN TOWNSHIP BOARD OF SUPERVISORS  
AND  
HILLTOWN TOWNSHIP WATER AND SEWER AUTHORITY  
Monday, March 11, 1996  
6:00PM**

The Joint Meeting of the Hilltown Township Board of Supervisors and the Hilltown Township Water and Sewer Authority was called to order by Chairman William H. Bennett Jr. at 6:00PM and opened with the Pledge of Allegiance.

Also present: Kenneth B. Bennington, Vice-Chairman  
Jack C. Fox, Supervisor  
Bruce G. Horrocks, Township Manager  
James Groff, Operations Manager, H.T.W.S.A.  
Scott Tagg, Chairman, H.T.W.S.A.  
Frank Beck, Vice-Chairman, H.T.W.S.A.  
Harry Mauer, H.T.W.S.A.  
Raymond Weidner, H.T.W.S.A.  
John Bender, H.T.W.S.A.  
William Kee, H.T.W.S.A. Engineer

Chairman Bennett announced this was an advertised public meeting in order to discuss the proposed water tank in Hilltown Township. Chairman Bennett requested this meeting because in the past three weeks he has received a number of phone calls and had several conversations concerning the issue. This meeting is not intended to usurp the Planning Commission, who will review this matter at their meeting one week from this evening. This is purely an informational meeting.

Approximately two years ago, Chairman Bennett spoke to Mr. Thomas Wynkoop, the Operations Manager of the Authority at the time, and it was his understanding that this proposal was for a 35 ft. tower containing a tank with capacity for approximately 500,000 gallons of water. There were two possible sites proposed at that time. Chairman Bennett has visited this latest proposed site with Mr. Groff, Operations Manager. The tank is now proposed as a one million gallon tank to be approximately 70 ft. high. Chairman Bennett is a bit confused as to why the height and the capacity of the tank has been upgraded.

**A. HILLTOWN TOWNSHIP WATER AND SEWER AUTHORITY COMMENTS:**

1. Mr. Jim Groff, Operations Manager, explained the Authority is presently in an agreement with Telford Borough Authority, who serves as a municipal interconnect which supplies water for our fire protection and water pressure to the system of the Hilltown Township Water and Sewer Authority. An informal search for a possible storage tank site was conducted by Mr. Wynkoop approximately two years ago, as Chairman Bennett has stated, however no engineering was done at that time. Serious

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engineering studies began upon the sale of the Moyer Farm. Mr. Kee, the Authority's engineer, determined two appropriate sites in terms of elevation, with one being property owned by the Hilltown Fire Company on Rt. 152, and the second site being property owned by the Township, located adjacent to the Civic Park on Rt. 152. Mr. Groff noted the Township-owned property is considered the more desirable location due to the fact that its elevation is 11 ft. higher than that of the fire company property. Also, the site next to the park will not interfere with any residential private property. Once Mr. Kee discussed these sites with the Authority, they met with members of the Hilltown Township Volunteer Fire Company in order to discuss and possibly execute an agreement. No agreement could be reached on either side. Following that meeting, Mr. Kee presented information leading the Authority towards the Township-owned site as opposed to the fire company property. The Authority then discussed the possibility of leasing a portion of the Township-owned property with Mr. Horrocks, and discussed improvements the Authority would be willing to make in return for allowing them to lease that ground. The Authority has offered to connect public water and sewer to the municipal building, resolve the drainage problem at the park, and waive the rental fee, which the Authority paid, for the ground behind the municipal building which presently contains the 129 ft. Comcast tower. The Authority has incurred a great deal of engineering costs with this project, and Mr. Groff is seeking the Board's continued blessing for the Authority to lease the property next to the park.

Mr. Groff explained the Authority has filed a land development plan which has been reviewed by the Township Engineer. Mr. Wynn did not note any difficulties other than a few minor engineering details which will be rectified by the Authority engineer at the appropriate time. Mr. Groff reviewed the project from a zoning standpoint, determining that it is a permitted use, thus relieving the Authority of any zoning issues. Mr. Horrocks presented this plan to the Park and Recreation Board, who had no adverse comment against the use of that property. Mr. Groff and Mr. Kee will be presenting the plan to the Planning Commission on Monday, March 18, 1996.

Mr. Groff advised the specifications for the proposed water storage tank are as follows:

- Diameter - 50 ft.
- Height - 73 ft.
- Color - Dark Blue
- Capacity - 1 Million Gallons

With regard to the 73 ft. height proposal, Mr. Groff explained the water level in the tank will only be 66 ft. high. The remaining 7 ft. is a self-supporting dome which will be placed on top of the

\*The minutes of the April 22, 1996 Supervisor's meeting contains a description and clarification of statements made by Mr. Groff in paragraph one of this page. The claims made by Mr. Groff at the March 11th joint meeting did not take place and the Supervisors have signed no documents, nor have they voted to give the Authority anything in exchange for the \$ 25,000.00 they provided.

6/20/96  
R. Seamed - Twp. Secretary

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tank to protect the potability of the water. The original 35 ft. tank Chairman Bennett spoke of would, in actuality, represent a 42 ft. tank, which would have contained 35 ft. of water and 7 ft. for the self-supporting dome. The reason the Authority is proposing a 73 ft. high tank is because of a pressure requirement determined by the Department of Environmental Protection. D.E.P. requires a minimum pressure of 25 p.s.i. (pounds per square inch) in distribution lines at all times. A 35 ft. high tank creates a 1,044 acre "dead zone." With a tank at an overall height of 42 ft. (or 35 ft. of water for operation), Mr. Groff noted a tank placed on the site would create a dead zone, and explained that no connection could be made in the entire area because it would not provide for D.E.P.'s required 25 p.s.i.. Mr. Groff presented a sketch illustrating his remarks. Nothing inside the area highlighted in yellow on the sketch could be fed by that particular water storage tank. At 66 ft. of operating pressure, there would be a pressure of 28 ft. at the bottom of the tank, thus allowing any connection to be made within the zone. Therefore, any "dead zone" would be alleviated with a taller tank. Mr. Groff advised this proposal would provide water to the Village Center District, which is an area that may experience water shortages and be adversely affected if the quarry proposal is submitted. Further, within that dead zone of a 35 ft. tank, there would be no fire hydrants, thereby eliminating any probability of fire protection in that area.

Additional engineering reasons for a 73 ft. water storage tank include:

- Land for a booster pump station
- Dual pipes in dead zone
- Connection liability (back siphonage)
- Another tank at this site in future
- Additional Dollars:
  - \* Maintenance of dead end pipelines
  - \* Water for flushing
  - \* Electricity to run pumps
  - \* Treatment

If the Authority constructed a 35 ft. water storage tank on this site, Mr. Groff noted a booster pump would also have to be installed to get water in to the "dead zone" area. This would require more piping and additional cost, as well as dual pipes within the dead zone. The Authority would have to run dual lines within the area to create a pressure zone within a gravity pressure zone. Construction of a booster pump on the site would create dead end lines and future problems, such as a connection liability. At a tank height of 35 ft. (42 ft. overall), connection liability would certainly come to the forefront for the Authority. For instance, if the fire company was connected to a hydrant to fight

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a large fire while someone else was watering their lawn, without the booster pump, there would only be 15 lbs. of pressure at the base of the tank. This would cause what is known as "back siphonage," which occurs when a large amount of water is removed simultaneously, thereby lowering the water pressure level. If back siphonage takes place, the Authority is forced to flush the lines and perform lab tests on the water within the system. Both of these measures are very costly.

If a 73 ft. tank is constructed, it would eliminate the necessity of constructing another tank on the site in the future. When installing another system within the gravity fed system, Mr. Groff noted it will require two pipes running side by side down the same roadway. Once the pipes reach the edge of the dead zone, one pipe will continue with gravity to serve customers outside the zone; and the other pipe, which would be connected to the booster station, would dead end effectively ending the pressure zone. Those pipes would have to be flushed and it is very costly to maintain that type of system.

With regard to tank capacity, Mr. Groff explained the Authority's present customers need approximately 200,000 gallons of water per day, and future customer needs (by the year 2010) have been estimated at 300,000 gallons per day. Therefore, the total customer needs by the year 2010 will be approximately 500,000 gallons of water per day. This represents only one aspect of what a proposed water storage tank could do for the Township.

Another issue is fire flow. Mr. Groff utilized statistics from the Insurance Services Office which provides recommended fire flow durations of 25,000 gallons or less for a continuous structure, such as the homes in the Country Roads development. The Insurance Services Office requires that the duration be held for two hours to put out a fire in a structure such as the homes in Country Roads, thus representing 300,000 gallons of water. C.D. Moyer is a wood frame building and is a bit less than 50,000 sq. ft. in area. Statistics show that 4,000 to 12,000 gallons of water per minute must be held for 4 hours, thus creating 960,000 gallons. Mr. Groff has determined that the Country Roads development requires 300,000 gallons of storage; and C.D. Moyer requires 960,000 gallons of storage. Therefore, the total need for the year 1996 would be 1,160,000 gallons and the total need for the year 2010 would be 1,460,000 gallons. Mr. Groff reminded the Board that the new school will be constructed in Silverdale Borough where the sprinkler system will also have to be pressurized and maintained.

Supervisor Fox noted the documents provided from the Insurance Services Office are over 30 years old. Mr. Kee replied the basic insurance charts on gallonage have not changed. Mr. Kee has a more recent American Water Works Association publication with figures

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that show essentially the same thing. Fire flows on various structures have been in place for a great many years.

Concerning the color of the proposed water storage tank, Mr. Groff explained dark blue is the color being proposed. Since the upper layer is where most of the water will come from, the color of the outside of the tank should be such that it will absorb any heat that it can in order to eliminate the possibility of freezing within the tank. Freezing can definitely interfere with operation and with the overall tank structure itself. Also, the Authority would like to maintain the rural character of this community which is why the tank is being proposed as a "silo look." Mr. Groff presented a photograph of the type of tank the Authority is proposing.

The cost involved in this project is approximately \$975,000.00 which would include the purchase of the million gallon tank and the line to the tank. Mr. Groff noted the cost involved for the 0.5 million gallon tank, plus the line to the tank, the booster pump station, and the dual lines would double the price, or approximately \$1,800,000.00.

The Hilltown Authority has discussed this project in great detail, and all agree that the property next to the park is the most ideal location for the following reasons:

- Use of public, not private, property
- Does not interfere with Glider Port
- Does not interfere with land use
- Allows lowest possible tank height

Depending on the elevation, Mr. Groff advised the tank may have to be even higher to be placed at any other location.

Mr. Groff presented a map showing the location of the Glider Port runways and noted that to place the water storage tank on the fire department property, it would be directly in line with a runway.

#### B. SUPERVISOR QUESTIONS AND COMMENTS:

1. Supervisor Fox noted that Mr. Groff stated the property the Authority is interested in is Township land, not park land. Supervisor Fox stated that property is part of the park and the Township owns the park. The entire property is park land.

Supervisor Fox commented Telford's tank is not as high as this proposed tank would be. Mr. Groff replied the Township's site is actually higher than Telford's site, and therefore the Authority pressure reduced it down to equal Telford's pressure on that side. Supervisor Fox did not understand the logic, stating that if the

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Township site is at a higher elevation, then we should have more pressure than Telford, unless they are using a pump. Mr. Kee explained there will be two pressure zones in Hilltown Township, with one reaching from the Mt. Pleasant area down to Well #5. There will be a pressure reducing valve at Well #5 to reduce the pressure to the same height at the Telford tank. The second pressure zone will be from that location to South Perkasio Road. In that zone, Mr. Kee noted the pressure will vary from the present 120 at South Perkasio Road to approximately 40 at Well #5. Mr. Kee explained that with the dead zone area, properties between that and the tank must be in another pressure zone in order to have enough pressure to meet D.E.P. specifications. Mr. Kee agreed that the Authority will be reducing the pressure, however the Board must remember that if a customer is going to be served in the second pressure zone, which is the Mt. Pleasant area, then the required pressure must be there to prevent back siphoning. Supervisor Fox commented if a 1/2 million gallon tank is used, it wouldn't have as much pressure as a million gallon tank because of the weight of the water on top. Mr. Kee replied it all depends on the height of the tank.

Supervisor Fox was also at the Park and Recreation Board meeting where this matter was discussed, and feels that members of that board did not have the opportunity to speak against the proposed water tank. Supervisor Fox noted the Park and Recreation Board were given the option to vote for it, vote against it, or not vote at all. Mr. Horrocks believes the Park and Recreation Board failed to approve any of those three options. Mr. Groff agreed, and stated that means there was no adverse comment from the Park and Recreation Board. Supervisor Fox did not feel that was correct.

Supervisor Fox recalls that Mr. Groff had said the proposed tank, if it were placed on the Township-owned parcel, would not interfere with the Glider Port's runway. Supervisor Fox feels that statement is inaccurate. Supervisor Fox does not believe the Authority's plan is accurate because the plan submitted by the Glider Port during hearings for the Comcast tower was inaccurate. Mr. Groff presented a letter from the Philadelphia Glider Council stating that placing the proposed tank on the Township property will not adversely affect their runways. Supervisor Fox feels the runway locations are incorrect, since he has seen gliders fly over that part of the park when they land. When Mr. Groff spoke to Mr. Fitzpatrick of the Glider Council on the phone, and he was told that 99% of all takeoffs are on another runway into the wind, and 99% of all landings are on another runway that goes directly over the fire department property where the water storage facility had originally been proposed. Mr. Groff reminded the Supervisors that to place the water tank on the fire department property, the tank must be an additional 11 ft. higher.

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Six years ago, Supervisor Fox spoke to Mr. Wynkoop on this subject because he believed a water tank was needed near the village for future pressure to the rest of the Township. At the time, Mr. Wynkoop advised Supervisor Fox that a water tank proposed at approximately 35 ft. could be placed in the woods, back under the trees. Further, Supervisor Fox noted that placing the tank on the property next to the park was a last resort situation, only if it could not be proposed at any other location, according to Mr. Wynkoop. Supervisor Fox stated the Authority did not properly approach the Park and Recreation Board concerning this matter. It was their original intent to construct a parking lot in the area where the water tank is now proposed. Mr. Groff commented the Authority's plan provides for 24 parking spaces. Supervisor Fox is speaking about protocol, stating that the Township has a way of doing things which the Authority has chosen to ignore. Supervisor Fox commented the Authority decided where they wanted to put the water tank, and just went ahead drilling soil borings at the site without any permission. Supervisor Fox stated there is a planning process involved that the Authority did not follow. Mr. Groff feels the Authority is going through the proper channels, however Supervisor Fox disagreed. Mr. Groff advised the property they are proposing the water tank on is a totally separate tax parcel from the park. Supervisor Fox agreed that it is a separate tax parcel, however they are both part of the park area. When the Authority reviewed the plans for the park, Mr. Groff noted the only thing proposed for that particular parcel was a parking lot. The Authority has solved that problem by proposing 24 extra parking spaces beneath the tank, and the drainage problem has been solved as well. The Authority is willing to make improvements and has kept the aesthetic value in mind while planning for the water tank by placing it well back into the trees.

Mr. Scott Tagg, chairman of the Water and Sewer Authority, commented nothing was decided without approval. Mr. Horrocks recommended that the Authority consider this particular site for the water tank, and seemed assured that the Supervisors were in favor of the placement of the tank. Mr. Tagg personally spoke to one Supervisor who assured him that it was permissible to proceed, and on that premise, the Authority decided to move forward with their proposal. Supervisor Fox advised it takes more than one Supervisor to make a decision.

Supervisor Bennington does not mean to be confrontational, however he wished to discuss the history of this matter because he has a great deal of questions. Supervisor Bennington asked who the Authority representatives originally met with from the Hilltown Fire Company. Mr. Groff replied he met with Mr. John Snyder and Mr. George Egly of the Hilltown Fire Company. Supervisor Bennington wished to clarify that the Authority did not meet with the president or the chief of the fire company, and Mr. Groff

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replied that was correct. Mr. Frank Beck, vice-chairman of the Authority, stated he did meet with Mr. Larry Woodward, president of the Hilltown Fire Company, at another time. Mr. Groff had met with the Board of Supervisors after speaking to Mr. Snyder and Mr. Egly, and was directed to speak to the Hilltown Fire Company once again because the Supervisors were concerned that they did not have full opportunity to review the proposal. Mr. Groff then contacted Mr. Woodward at his place of business following the meeting that Mr. Beck and Mr. Weidner had with him, asking Mr. Woodward to provide a proposal of what they were looking for. Mr. Groff then phoned Mr. Woodward again, and was told that the Hilltown Fire Company would not provide a proposal as requested. After engineering data was complete, Mr. Groff noted the fire company site was basically eliminated because of the 11 ft. elevation difference. When the Authority initially approached the fire company, Supervisor Bennington asked if they proposed the 73 ft. tank or the 35 ft. tank. Mr. Beck replied the height of the tank was never discussed, it was merely an informal meeting to discern whether the fire company was interested in placing a water storage tank on their property. No written proposal was ever provided to the Hilltown Fire Company to forward to their membership in order to provide a response to the Authority's proposal. Mr. Groff told the Board of Supervisors that the fire department had refused to provide a proposal for a second time, and the Supervisors then directed the Authority to use the second option, which was the municipal property adjoining the Civic Park. Supervisor Bennington noted the Board's direction was based upon the premise that the fire company had gotten a written proposal and had turned down the Authority based upon that written proposal. In terms of this whole situation, Mr. Groff agreed that it was not handled properly, but asked the Board to remember that the tank would have to be 11 ft. higher, more out in the open, and would be directly in line with the main runway of the Glider Port, if it was placed on the fire company property.

Mr. Woodward explained that he had received a phone call from Mr. Beck on September 16, 1995, making a verbal proposal. In executive session prior to their regular monthly meeting on October 2, 1995, the officers of the fire company discussed Mr. Beck's verbal proposal. Ultimately, the fire company officers recommended that representatives of the Authority prepare a board sanctioned proposal showing exactly what they wanted to do. Mr. Tagg was informed of this decision on October 3, 1995 and no response was received from the Authority concerning this request. Mr. Woodward then received a call from Mr. Groff on December 1, 1995 asking for the fire company's proposal. Mr. Woodward explained that the fire company had previously requested a written proposal from the Authority. Mr. Groff then contacted Mr. Woodward again on December 4, 1995, stating that the Authority needed a proposal from the fire company. On December 26, 1995, the fire company received a letter



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from the Authority advising they had selected an alternate site and asking where they would like their fire hydrant.

Supervisor Bennington asked if the tank the Authority had planned to place on the fire company's property would have been the one million gallon, 75 ft. high tank. Mr. Groff replied the tank would have to be 84 ft. in height to place it on that property in order to serve a gravity system. Therefore, Supervisor Bennington noted, it would be feasible to place that size tank with that capacity on the fire company property. Mr. Groff reminded the Board that there are other issues involved, including increased costs because the site is located further off the road, and there is also the issue of interference with the Glider Port runways. There would be no interference with those runways if the tank was placed on the Township-owned property next to the park.

Supervisor Bennington asked the height of the existing trees on the fire company site. Mr. Devlin believes those trees are approximately 75 ft. to 100 ft. high. If the trees are that high, Supervisor Bennington noted they must also interfere with the Glider Port's runway. Mr. Groff stated the tank was proposed to be placed in the center of the lot on the fire company property, which would actually be in the middle of the Glider Port's runway. There is also a setback problem with placing the tank in that area. Mr. Groff explained there are two separate uses permitted, emergency and municipal, on fire company property; however the Rural Residential requirement calls for 150 ft. width. The fire company only has 200 ft. width. Therefore, the Authority would have to submit a subdivision or a lease requiring 150 ft. frontage for the Authority as well as the fire company, and would have to appear before the Zoning Hearing Board.

Supervisor Bennington asked if the fire company site was the Authority's initial primary location for the water tank. Mr. Groff replied the Authority had considered the Township-owned site as well, but at the time, they were under the impression that the parcel was proposed for something else. Mr. Groff then discussed the matter with Mr. Horrocks, who felt that a compromise could be reached. This site seemed ideal to the Authority because it would allow the tank height to be lowered, it could be hidden in the existing nook of trees, and it would also resolve the issue of interference with the Glider Port runway.

Supervisor Bennington was under the impression that the proposed tank would be smaller with a smaller capacity. Further, Supervisor Bennington stated he worked too long and too hard, along with many other people, to make the park what it is today. Supervisor Bennington is not in favor of placing a water tank of that size so close to the park. Personally, Supervisor Bennington would prefer that the water tank be placed on the fire company property.

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Mr. Groff apologized, agreeing that the proper protocol may not have been followed, however he does not see the point of placing the tank on the fire company property when it will have to be higher, more out in the open, and in direct conflict with the Glider Port runway. Mr. Beck commented the fire company property was an attractive location until complete engineering was done and the elevation difference was determined. Mr. Tagg noted it was also an attractive location until the Township offered consideration of their property next to the park.

Mr. Ray Weidner of the Authority was also involved with negotiations with the fire company. Mr. Weidner stated Mr. Snyder appeared at an Authority meeting to make a presentation, and the Authority was highly interested. Initially, the plan was for a 42 ft. high tower with a half million gallon tank. However no engineering was done at that time and the Authority had no intention of moving forward with this project until the Moyer Farm was sold. When the Moyer Farm sold in October, the Authority authorized Mr. Kee to engineer the site in order to determine what height the tank must be. When Mr. Weidner first viewed the fire company site, he was opposed because he realized it was located at the end of the Glider Port runway and was very concerned about the liability. When engineering was complete, the Authority discovered that the tank would have to be proposed 11 ft. higher, due to elevation constraints, in order to serve the Township properly with one water tank. Further, Mr. Weidner noted a third pressure zone would have to be created, which would require more maintenance and possible mechanical difficulties in the future. Mr. Weidner wished to make it clear that the Authority is not attempting to slight any one, they are just attempting to give as much service as possible for the money spent.

Supervisor Bennington asked the Authority to research another possible location to construct the water storage tank. Mr. Weidner has looked into the possibility of another property in that area, however elevation is the primary factor. Supervisor Fox agrees that a water storage tank is necessary to supply pressure to fire hydrants, however his original understanding of where the tank would be proposed has now changed and therefore, his position has now changed. Supervisor Fox agreed with Supervisor Bennington that the Authority should research another site for the proposed water storage tank.

Mr. Bill Devlin, chief of Hilltown Fire Company, asked if the Authority thoroughly investigated the entire fire company property. Mr. Devlin noted the fire company owns approximately 6 acres of property back into the wooded area, and believes that another site to the rear of the fire house may be feasible which would not interfere with the runway. Mr. Beck advised it would depend on the elevation, and if the elevation dropped at all, the proposed tank

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could possibly be another 20 ft. higher.

Discussion took place concerning elevations, public water connections, and a possible alternate location.

C. ADJOURNMENT: Upon motion by Supervisor Fox, seconded by Supervisor Bennington, and carried unanimously, the joint meeting between the Hilltown Township Board of Supervisors and the Hilltown Township Water and Sewer Authority adjourned at 7:31PM.

Respectfully submitted,



Lynda Seimes

Township Secretary

(\*These minutes were transcribed from tape recordings taken by Mr. Bruce G. Horrocks, Township Manager).