

TOWN COUNCIL SPECIAL MEETING - TUESDAY EVENING - APRIL 6, 2010

PRESENT: Marshall, Cordeiro, Parella, Barboza and Herreshoff

ALSO PRESENT: Denise Asciola, Representing Town Administrator
Kevin Aguiar, BETA Group

The Council met in special session for the purpose of discussion relative to the Tanyard Brook on Tuesday evening, April 6, 2010, in the Town Hall, Council Chambers, beginning at 7:20 o'clock PM, Council Chairman Marshall presiding:

Council Chairman Marshall noted that U. S. Senator Reed will be present in Bristol tomorrow (April 7) at 10:00 o'clock AM in order to review flooding issues.

Council Chairman Marshall also noted that the Tanyard Brook repair was a high priority for the Town.

Mary Gaspar of 24 Garfield Avenue noted that she was told that \$3.5 million was available for the project and that certain permits were needed and that most of these were now in place.

Council Chairman Marshall noted that the outfall under Hope Street was partially blocked due to a cave-in and he was of the opinion that this damage was the responsibility of the State since it occurred within a State highway.

Kevin Aguiar of BETA Group provided a brief overview of the project. He noted that Tanyard Brook flows from the State Street Reservoir to Walker's Cove and encompasses a watershed of approximately 4,500 acres.

Mr. Aguiar described the project under consideration as the replacement of the existing culvert running from Walker's Cove to Garfield Avenue. He further described the existing conditions as a combination of a three to four foot wide stone open culvert that changes to a five foot diameter corrugated pipe.

Mr. Aguiar noted that there are some collapses within the pipe and that the flooding problem in the area is well-documented. He added that water is known to flow out of the sides of the pipe during heavy storms.

Mr. Aguiar explained that the project considers the installation of a new precast concrete culvert measuring four by nine feet. He added that the project requires several permits and that the Coastal Resources Management Council (CRMC) has granted approval

as did the Department of Environmental Management (DEM) for the water quality aspects of the project. He noted that the Town awaits approval from DEM for a wetlands permit.

Mr. Aguiar noted that the Town attempted to submit its application as an "insignificant alteration" and this was not allowed by DEM which rather considers the project to be a "stream relocation" requiring a full-permit.

Mr. Aguiar reported that a primary constraint of the project is the set of gravity lines that feed the water pollution control (sewer) plant.

Mr. Aguiar noted that the installation of the new box culvert should "pick-up some hydraulic capacity" versus the current corrugated pipe. He added that the engineering aspects of this project are "tricky" due to the proximity of these sewer gravity lines.

Mr. Aguiar reported that the most recent storms are considered as five hundred year storms and that the new culvert will have a capacity to handle a ten year storm.

Council Chairman Marshall asked to know if there was sufficient pitch to bring the flow to Mount Hope Bay with Mr. Aguiar responding that this was possible but that permitting would be a "challenge."

Councilwoman Parella expressed concern that the plan is to accommodate only a ten year storm when there appear to be serious floods regularly related to the more significant storms.

Mr. Aguiar responded that the elevations do not allow for the culvert to be made deeper resulting in a need to make a wider one. He noted that the construction area must be a minimum of fifteen feet in width and that this is sometimes difficult due to the location of the buildings in the area; some of which are close together. He noted that proceeding northerly is very limited since the buildings are close together and also that some garages are constructed directly over the existing culvert.

Councilwoman Parella expressed concern that this may be the only attempt to repair this problem and that the Town should "do it right" rather than having to revisit the problem after a short duration.

Mr. Aguiar noted that the ten year storm includes rainfall of 5.4 inches within twenty four hours.

Councilwoman Parella noted that the current problem with Tanyard Brook appears to be related to less severe storms with Mr. Aguiar noting that the current culvert system has an excessive amount of restrictions with it.

Mrs. Gaspar noted that there are some utilities buried beneath the existing culvert with Mr. Aguiar noting that some utilities will have to be relocated including sewer lines.

Councilman Herreshoff asked to know if there was a problem with the grades with Mr. Aguiar explaining that although part of the system includes a five foot corrugated pipe, approximately two feet of this pipe is above the stone culvert lessening its capacity.

Councilman Herreshoff suggested that there might be a second line constructed for the sole purpose of removing flood waters from Hope Street.

A discussion ensued regarding a proposed tide gate at Walker's Cove.

Councilman Herreshoff stated that he did not agree that the proposed plan for Tanyard Brook will resolve the "lake" on Hope Street.

Robert Gaspar informed the Council that he is familiar with public works projects and suggested that a pump should be installed to remove water from the flood area to Walker's Cove.

A discussion ensued regarding the condition of Hope Street during flooding periods with Mr. Aguiar noting that the present culvert/pipe is insufficiently sized to remove the flood water.

Susan Church of 29 Garfield Avenue noted that much of the flood water appears to originate north of Garfield Avenue.

Councilman Herreshoff stated that he was of the opinion that the Town would still have a "horrible problem" on Hope Street after the project is built.

Mr. Aguiar noted that there will remain some problems during periods of extreme high tide.

Councilman Barboza suggested that there might be more than one matter under discussion these being the Hope Street flooding problem and the problem of water flowing through Tanyard Brook.

A discussion ensued regarding the Hope Street "lake" with Councilwoman Parella asking if this might be relieved through the use of a pump.

Mr. Gaspar noted that at "full" high tide there does not appear to be anywhere for the water to go. He added that the water should be held in a containment area and pumped with a "massive diesel" pump.

Mr. Aguiar explained that the pump needed might be larger than the one used at the main sewer pump station. He added that storm water pump stations are "extremely expensive."

Councilman Herreshoff asked to know what the estimated cost would be with Mr. Aguiar explaining that he did not have exact figures but that the cost may be between \$1 million and \$10 million.

Councilman Herreshoff asked to know if Mr. Aguiar could get a more definitive estimate for a pump to relieve the Hope Street flooding.

Councilman Barboza noted that the plan as presented for the Walker's Cove outfall includes a tide gate and also increased capacity within the culvert.

Mr. Aguiar agreed with Councilman Barboza and explained that future plans will address the drainage system further. He noted that the estimates for this Phase I are now at \$3.5 million.

Councilwoman Parella asked to know if the plans for the culvert include reconfiguration of some of its curves with Mr. Aguiar responding affirmatively. He added that the plan calls for minimal sharp bends and that the portion south of Woodlawn Avenue will be straightened.

Mrs. Gaspar asked to know the travel of the drainage from State Street and also asked if this could be rerouted along State Street to the west with Mr. Aguiar noting that this issue was investigated during the study-phase. He explained that the area contains a great amount of ledge and that it will be very expensive to excavate. Mr. Aguiar also noted that the watershed

of the area was found to be enormous as compared to the available storage capacity.

Council Chairman Marshall suggested that the Town should have the optimal proposal and that this should be considered apart from the cost.

Mr. Aguiar noted that the State street options were looked-at during the study phase but the Town directed him toward this current Phase I due to the cost and ability to build the project.

Councilman Cordeiro asked to know if there was a "Phase II" under consideration with Mr. Aguiar responding that the upper streets need relief and that the portion of the Brook near the Public Works building on Mt. Hope Avenue was undersized.

Councilman Cordeiro asked to know if this project (Phase I) was "ready to go" with Mr. Aguiar stating that the Town is waiting for approval from DEM and that everything is favorable thus far. He further noted that the public comment period on the DEM application is in process.

Mr. Aguiar noted that the project will take approximately five months to be completed and that the changes to the sewer line would be the initial step.

Mr. Aguiar added that the construction phase will try to minimize disturbances to the buildings in the path of the Brook since many are older buildings with fieldstone foundations and that these foundations may be susceptible to damage from excavations nearby although the excavations will not be generally deep - at most six feet.

Councilwoman Parella asked if the project would represent a significant improvement with Mr. Aguiar explaining that he anticipates that the project will bring about a "significant upgrade." He noted that the current arrangement of the area handles approximately fifty cubic feet of water per second and the new design will handle three hundred cubic feet per second.

Mr. Aguiar did qualify the project as a "significant improvement" and not a "cure all." He added that there are many limitations to the area that are beyond engineering control and that there are no easements on the private property. He explained, however, that the property owners have been most cooperative.

Mr. Aguiar added that the redevelopment area north of State Street - with runoff mitigation - has been a bonus since it reduces the amount of water flowing into the Brook.

A discussion ensued regarding the fact that the portion of the culvert is designed as an open "U" with Mr. Aguiar responding that this is designed this way in order to protect the spawning ground of some certain fish species.

Councilman Herreshoff expressed concern that the planned tide gate will be ineffective and a waste of money with Mr. Aguiar responding that the hydraulic study determines that the planned tide gate will work.

Councilwoman Parella expressed concern that the tide gate will require maintenance and asked if the plan considers who will maintain the gate with Mr. Aguiar noting that he anticipates that the DPW will maintain this and also that the maintenance should be done annually.

Councilwoman Parella noted that she observed "a mess" in some catch basins along Garfield Avenue with Council Chairman Marshall noting that it would be helpful if property owners help maintain the catch basins and also report any problems with same.

Council Chairman Marshall asked about the potential of a storage component as part of the plan with Mr. Aguiar noting that storage may be problematic in the area due to the presence of wetlands.

Mr. Aguiar also agreed to speak to DOT officials regarding the Hope Street "lake."

Mrs. Gaspar noted that work completed by the Water Authority twenty years ago seemed to create the problem with the Tanyard Brook and that the Brook was not problematic prior to the Water Authority's excavation in Garfield Avenue. Mrs. Gaspar stated that she built her home in 1964 and did not have a problem initially. She added that she believes that the Brook is being undermined due to the Water Authority.

Mr. Aguiar agreed to examine the culvert near the area that Mrs. Gaspar described. He noted that the Water Authority may have "jacked" its line under the culvert.

Ms. Church noted that after the heavy storm, the water began to recede at approximately 9:30 and did so at a pace to wash away part of the brook wall.

Mr. Aguiar noted that the catch basins are tied-in to the culvert near the bottom of same and should be tied-in near the top in order to function properly.

Mr. Aguiar also noted the arrival of Sen. Reed planned for April 7, 2010 at 10:00 AM and informed the Council that he plans to be present for the visit "with permits in hand."

There being no further business, upon a motion by Councilman Barboza, seconded by Councilman Cordeiro and voted unanimously, the Chairman declared this special meeting to be adjourned at 8:45 o'clock PM.

Louis P. Cirillo, CMC
Council Clerk