

**City Council of the City of New Castle
Special Workshop Meeting at Town Hall
201 Delaware Street – New Castle
Tuesday, May 27, 2014 - 6:00 p.m.**

Call to order 6:00 p.m.

Roll Call

Councilperson Megginson (Acting as Chair)

Councilperson Cochran

Council President Ratchford (Absent)

Councilperson Petty 6:05

Councilperson Vannucci

Also present:

Donald A. Reese, Mayor

Janet Carlin, City Treasurer

Daniel Losco, City Solicitor

William Barthel, City Administrator

Jeffrey M. Bross, P.E. Duffield Associates.

Councilperson Megginson, acting as Chair for the meeting, stated that the purpose of this Workshop meeting was a Coastal Protection presentation and workshop by Duffield & Associates.

Mr. Bross made a presentation regarding the Dikes along the Delaware River and took questions from Council and the Audience.

Mr. Bross stated that his company, Duffield Associates was involved in the construction of both the Broad Dike and the Gambacorta Dike that have recently been completed on either end of the City. These Dikes were built to an elevation of 8 1/2 feet. That was based on flood risks determined by the Conservation District.

With the two Dikes on either end of the City at an elevation of 8 1/2 feet Council was concerned that the area between these two Dikes is below that elevation, at about 6 feet. Council commissioned a study to see what could be done to provide that additional protection across the riverfront area.

There are two areas of concern, City owned areas including Battery Park and the old Ferry Terminal, and secondly there are the privately owned properties that abut the Strand. While the City does not have jurisdiction over these properties Council asked Duffield Associates to see what might be done to there.

After Sandy FEMA came out with new flood level determinations, they went up, and in New Castle the 100 Year flood elevation is 9 feet. With wave action that could go up 3 feet. So to be

totally protected from a 100 year floor your protective barrier would have to be 12 feet. 12 Feet is not practical, Duffield's engineers and costal protection people thought an elevation of 9 feet would be a cost effective and logical step. That would protect against the 100 year flood projection. But it also provides more protection than the Dykes. That could mean that if we had a 100 year flood, the new Dykes could be overtopped. Those Dykes were built so they could be raised in the future depending on what happens with sea-level rise.

Mr. Bross explained Duffield's proposal. Beginning on the southern side, they propose building another into Battery Park, and relocating the walking trail on top of it so the walking trail would not be compromised in the event of a 100 year flood. That would be a 9 foot berm, built into the landscape with vegetation, and it would be intended to be walked on.

That Dike would run to Delaware Street, obviously we can't build a Dyke across Delaware Street, so we looked at a removable flood wall, similar to the one in Delaware City. These panels could be put up in case of a flood.

At this point is where the private properties on the Strand. Duffield looked at several options, an earthen berm would not work, a structural wall would be the best option, Duffield has suggested 5 options. It would be ideal if all the property owners could agree on one type.

The costs involved would be approximately \$117-\$118, 000 for the removable flood wall across Delaware Street and the Dyke across the City properties would be between \$680-\$700,000.

This will offer greater protection, but without closing the area off the area of private property are of the strand they will still be exposure to flooding.

Mr. Bross opened up the floor for questions:

Councilperson Cochran asked for a breakdown of the costs, and what the cost range would be for the Strand portion. Mr. Mr. Bross stated that the \$680-\$700,000 was for the City property mostly across Battery Park. The \$117-\$188,000 was for the removable wall, and depending on which option the property owners decided on the cost would run between \$600-\$700 in total costs.

Mrs. Petty asked how much training it took to be able to install the flood wall components and how long they would last. Mr. Bross stated that the wall components are relatively easy to install, and will last with very little if any maintenance.

Councilperson Vannucci asked if the private property owners would have to pay for the portion of the wall across their property. Mr. Bross said that would be at the City's discretion.

City Administrator William Barthel asked if it would be viable to do the Delaware Street portions without the other two components. Mr. Bross stated that it may, there would be some enhanced benefit in lesser storms.

Dorsey Fiske; 26 East Third Street.

Ms. Fiske asked about the feasibility of stackable walls as opposed to solid walls.

Mr. Bross stated that stackable walls take longer to put up, and have a greater opportunity for leakage. In the future is they needed to be made higher that could be done.

Ms. Fiske also asked if this type of removable wall could be used for the private properties.

Mr. Bross stated that it would work, but would probably be cost prohibitive.

Ed Betz, 13 The Strand. Mr. Betz asked about the aesthetics, how will access to the water be affected, we have boaters in the area who use this area to kayak. Also what will the visual impact be, we enjoy looking down at the water and seeing the water fowl at the edge of the water.

Mr. Bross stated that one of the reasons they wants to go with a 9 foot wall was for the aesthetics. Mr. Bross went through some of the options for the types of walls. Access would be accomplished in the same way you might find at the beach, like stairs over the dunes. This would add to the cost per residence.

Gail Seitz 55 The Strand. Ms. Seitz asked if Duffield had a choice of the top one or two options for the private property owners taking into consideration the town, aesthetics and protection.

Mr. Bross stated that first you would want a strong wall. There are precast cement walls that can be made to look like real brick. It would balance cost and aesthetics and protection. It is also the less disruptive to build.

Ms. Alice Jarvis, 15 The Strand. Ms. Jarvis asked what wall the Delaware Street wall would meet and would the existing wall be high enough. Mr. Bross stated that the wall would probably need to be

Ms. Jarvis asked if everyone agreed on a wall, then they could add dirt to level their yard, or not.

If there ends up being a home owner who refuses to get the wall is there some eminent domain that could be implemented.

Mr. Bross stated that would be a City Council issue.

C. J. Seitz 55 The Strand: Mr. Seitz asked if there would be easements for maintenance issues with this wall.

Mr. Bross stated that would be the best idea, but it would have to come from the City Council. They would want to have maintenance and access easements in place. And maybe some provision to force homeowners to maintain.

Mr. Seitz asked how will the old Yacht Basin look in 10 years if we put up a wall.

Mr. Bross stated that the wall is engineered not interfere with the natural shoreline.

The observation was made that the farther away from the water you put a wall the shorter it would have to be, and that the question had been raised if the home owners could install a shorter wall closer to the house.

Mr. Bross said that type of wall might not give enough protection from the wave action that might occur in a storm.

Rod Gillespie - 24 West 4th Street asked if it was possible to just construct the Dike from the Gambacorta Dike to Delaware Street removable wall leaving out the private properties.

Mr. Bross stated that this would give the City more protection, but not at the 100 year flood level.

A question was raised concerning Packet Alley and Alexander Alley. They are streets that go down to the river. Will they be open if this wall is built? Mr. Bross said that one may be a wall and one may be a removable wall. Each will be looked at more closely as the project progresses.

Motion to adjourn and move to Special Council Meeting was made by Councilperson Cochran, and seconded by Councilperson Petty and was passed unanimously

Respectfully Submitted,

**Kim Burgmuller
Council Secretary**