

Watermain Assessment Study and Joint Capital Planning

Preliminary Top Projects (5 Year Outlook)

- **Monroe/Railroad**
 - The City has been working on a large capital project for Monroe and Railroad. This project includes streets, sidewalks, water, sewer and stormwater upgrades. The BPW portion of these two streets projects is roughly \$1.1mm but the City/BPW are working with the University of Delaware to apply for GRIP fundings. The funding would be a 25% matching grant for the stormwater management piece specifically. The project is also set to be staggered year over year with one street being in FY2025 and one in FY2026.

- **Fourth Street (Savannah to Burton)**
 - GMB conducted the watermain assessment study and presented it to the Board back in June of 2023. They identified a lot of “iron” main left in the system especially in the older sections of town. This project would essentially be putting the trunk line in on Fourth Street and tying in all the side streets which include Mulberry, Chestnut, Park, Dupont, Paynter, Dupont, etc. Doing this project will allow for the replacement of the side streets to be done in a more cost-effective manner and also help with planning. We would extend past the ROW with utility improvements while being able to see the interconnection points to rank the replacement of these older mains. We would also incorporate a wastewater and stormwater component to the project to ensure subgrade utilities are replaced or renewed.
 - I suspect this project would be a good proponent for a matching 50/50 planning grant and also SRF funding with possible subsidy. We could incorporate the City Streets into the project/financing and develop a financing agreement with the City for their particular portion of the debt service, should the Board be interested in that option.

- **Manilla Ave**
 - Manilla is a street that is ranked very low on the City’s pavement index. The thought on this project would be a complete rebuild of the street on the City side. The BPW would tackle the water/sewer/stormwater as part of the project. Depending on the design, we could also seek GRIP funding similar to what we’re seeking for the Monroe and Railroad project.

- **Alaska Ave**
 - The City will be rebuilding Alaska Ave ahead of a development project on the corner of Savannah and Cape Henlopen Drive. The BPW has a main sewer line that runs down the current street along with an old cast iron water main. This project would include an upsizing of the sewer main for potential future flows from the Cape Henlopen Drive corridor as well as a replacement of the cast iron water main. Any upsizing or infrastructure necessary for the development will be passed onto the developer. We're also working to coordinate the stormwater piece with DeIDOT as there was a preliminary design done by the department several years ago to address the ponding on Cape Henlopen Drive.

- **Monroe Ave Watermain Lining**
 - This project I look at as a possible PILOT project. This water main stretches from the railroad tracks on Monroe to the other side of Freeman Highway. We looked at potentially replacing this line, however, the cost of having to encase 75% of the total footage due to DRBA and DeIDOT policy drove the cost up along with it being directional drilled for minimal disturbance. The idea of lining this pipe came up as we've never done it on the potable water side and the fact that only 2 houses (both on Monroe) are served off this line. Doing or scoping a project like this may open the doors to other projects where lining makes more sense than full replacement.

Other Projects for Consideration (Long Range Outlook)

- **Pilottown Road - Side Streets**
 - As many of you know, the BPW recently completed a \$4.5mm capital project to install brand new watermain from Shipcarpenters Street to the Devries Monument. As part of that project, we stubbed into each side street including Carey, Harborview, Hoornkill and Rodney Ave. We did this to benchmark ourselves on the condition of each of those side streets so we could plan for future street/utility projects. The pavement condition index has several of these streets up for repair so I suspect that we may start adding in a street or two in 4-6 year timeline.

- **Rodaline Ave**
 - This is a project that follows suite with the City's pavement condition index. The BPW has some older cast iron main that it would look to remove/replace along with addressing the sewer and stormwater, should there be any improvements needed.

- **Fourth Street (Side Streets)**
 - As mentioned above, doing the Fourth Street project from Savannah to Burton would allow the BPW to analyze the conditions of each of the side streets along that corridor. This will help with the planning of future capital project coordination between the BPW and City as several of the streets are within the replacement parameters of the pavement condition index. I would expect these to be paid through general funds. Again, the timing on these would be based on the Fourth Street project and the findings but I would look at individual side street projects starting in 4-5 year timeframe.

- **Third Street**
 - Third Street would be a very similar project to Fourth Street in that we know that it has a lot of older utilities in it. We can also encompass Bradley Lane in this project to bring the utilities to Third Street instead of to Fourth Street. We would probably seek a 50/50 matching planning grant and look at funding opportunities through SRF which may include subsidy. I suspect that we would look at this project in the 5-10 year outlook and having it be a large capital project in coordination with the City.

- **Kings Hwy**
 - Kings Highway is a very old section of infrastructure. With the DeIDOT roundabout project in the works, I think it would behoove us to wait and gain an understanding of that design and the utility coordination from the Freeman/Kings split up to Gills Neck Road. That would guide the discussion/design/planning for the utility project from Freeman/Kings split to Third Street. Again, timing is key on this project and the costs will be very high since we will be working within the State ROW. The timing would be 5-10 year horizon but that is based on coordination efforts with DeIDOT.

- **Cedar Street with Side Streets**
 - I see value in economies of scale related to this MASSIVE project and endeavor, but I also understand construction fatigue. I think this project needs coordination across the entire Cedar corridor as it relates to the City and DeIDOT. As we all know, this area floods frequently and with the amount of time, energy, design and money that the Board would invest in this project, we want to make sure we cover all aspects including water, sewer, stormwater, paving, pedestrian lanes, bike lanes parking, etc. Obviously, the Board's focus is on utilities while the rest lands on the City and DeIDOT. All that said, I think there is merit to having an East Market Street corridor project. This area has some of the oldest and most tuberculated pipes. I think tackling and eliminating that while also having a contractor install valving along Cedar will be an efficient approach. That valving will help isolate areas for replacement when properly located and as we know, the valves in that area have been hit or miss with leaking after exercising. Again, lots of

moving parts so timing may be sporadic with smaller projects like East Market and then sectioning off areas.

- **Cape Henlopen Drive**

- Currently, the Board has 2 mains running parallel down Cape Henlopen Drive with multiple cross ties between them. Both are cast iron mains which show signs of their age. This corridor may be worth exploring the idea of inserting valves and lining vs. complete main replacement since the crosstie(s) already exist. It could save a lot of money and allow us to do the work while SPI Pharma is down over multiple years for maintenance in the fall.

- **New Road (Pilottown to Fourth)**

- This watermain is crucial to the New Road corridor and as was seen when the tie in took place for the new watermain on Pilottown Road, the pipe is aging and undersized. I think the idea here would be to tackle this as a stand-alone project or in conjunction with the looping above. This is a DeIDOT road which means the costs will probably run high (detours, flaggers, etc...) and the work would need to be done in the "off-season".