

**MINUTES OF THE BOARD OF PUBLIC WORKS**  
**Tuesday, November 23, 2021**

The Regular Meeting of the Board of Public Works held on November 23, 2021 at 7:30 a.m. in the City Council Chambers located at 405 Jefferson Street, Washington, Missouri. The following were present/absent:

**MEMBERS:**

Chairman	John Vietmeier	Present
Member	Brad Mitchell	Present
Member	Mike Radetic	Present
Member	Steve Richardson	Present
Ex-officio Member	Steve Strubberg	Present
Ex-officio Member	Vacant	--

**OTHERS:**

Council Representative	Steve Sullentrup	Absent
Council Representative	Mark Wessels	Present
Mayor	Sandy Lucy	Absent
City Administrator	Darren Lamb	Absent
Water/Wastewater Superintendent	Kevin Quaethem	Present
Water/Wastewater Secretary	Beverly Hoyt	Present
Public Works Director	John Nilges	Present
Assistant City Engineer	Andrea Lueken	Absent
Emergency Management Director	Mark Skornia	Absent
Fire Chief	Tim Frankenberg	Absent

**Originals and/or copies of agenda items of the meeting, including recorded votes are available on record in the office of the Public Works Department for one year. Video/DVD and audio tapes are kept only until the minutes have been approved for the meeting. DVD copies of this meeting are distributed to Board Members if requested.**

**Minutes**

A motion made by Mr. Mitchell and seconded by Mr. Radetic to approve the minutes from the regular October 28, 2021 meeting. The motion passed without dissent.

## **Priority Items**

There are no priority items.

## **Wastewater**

Pay request for Coe Equipment – They supplied the CCTV equipment the Board approved at last months' meeting. The equipment was installed in the trailer last week, we ran it yesterday and works great. There are a few new features that we need to get used to but it runs good. We can now get on our wireless network when we pull the trailer into the shop to print our reports. A record of every sewer lateral we put the camera in, we report that to Missouri Department of Natural Resources (DNR), so it is good.

A motion was made by Mr. Mitchell and second by Mr. Richardson for approval of Coe Equipment invoice in the amount of \$41,605.00. All in favor aye, all oppose, none. Move onto Council for payment.

**Sewer Lateral Program** – Prior to the 70's, you take the house sewage and the black water combined with storm water, pumped down to the river. This is how it was back then, late 70's the Clean Water Act required you to disconnect the black water from the storm water. There were projects done in the 70's, early 80's in downtown Washington. The pipes were then disconnected, and re-routed to the treatment plant and then re-routed to the river. Storm water went into the river and black water went to the treatment plant, kind of obvious stuff.

We have run into a couple of issues where we have found some connections. When we find them, we immediately move on to them. The one place that there is still potential of those things are at the home. There was never a push, the sewer laterals are owned by the property owner. It is against City Code to have your down spouts and sump pumps hooked up to your sewer laterals. To inspect those we would need in the house and we cannot, it is impossible to enforce. This is a kind of different way to attack the issue. The idea is to provide an incentive, rather than an enforcement, but an incentive to utilizing the storm water fund there is approximately three (3) plus million in storm water funds that we are actively trying to utilize as we are doing some slip lining with some of the money. What this will do is add on incentive for the homeowner. If they are experiencing a sewer issue. Number One (1) qualifier, you have to be experiencing an issue, it is not a proactive as a reactive situation. I do not think we can afford proactive, so for example if Steve wanted to buy a home and his real estate agent says, hey, you can go the City, there is a program to replace your sewer lateral. Well if he is not experiencing any issue, why get involved, we cannot afford that really. You have to be experiencing an issue that causes infiltration in your sewer lateral. This means roots, a collapsed offset pipe. So, that would be qualifier No. 1.

Qualifier No. Two (2) – Have a plumber with a City Businesses License would have to do a video inspection prior to show the City there is an issue, a basic inspection procedure. You must also rehabilitate or remove and replace the entire lateral from the home to the street. What we see in engineering is most people who cannot afford that, it is about eight (8) to 10 thousand dollars to replace the pipe from the house to the street or to the connection. We see a lot of people doing spot repairs and not the whole thing so five years down the road they have the same situation or they just replace it to the back of the curb line and the street remains. There are risks for the

property owner but does not tackle the problem to fix it and move forward. What this kind of does is take the average cost and say okay if you can pay half the City will pick up essentially the other 40 to 50 percent. It would provide \$4,000.00 is what we are proposing to the City Council. If you are eligible a \$4,000.00 reimbursement to replace your sewer lateral to remove infiltration. In addition to the qualifier, you have to have the City come into your home and do an inspection to ensure that your downspouts and sump pump are disconnected from the sanitary. If they are not you will be required to disconnect it if you want to be a part of the program. If you say, I do not want to do that, so you do not qualify and there are no additional monies there available. If there is a disagreement, for an example, if we determine you are not eligible, they could appeal it to the Board. They could come to the Board and plead their case about why we made the assessment on the property and the Board could override the decision. Like I said this is funded from storm water, and is budgeted this year. We are still working on the checklist, I have modified it a little this week to make it user friendly.

We have an infiltration inflow issue, we are aggressively attacking it in our sewer mains that is why our slip lining project first payment is over \$500,000.00 and will ramp up as the Capital Improvement sales tax comes into play the next coming years. We are solving our problems on our pipes. It is the home that I cannot tackle very effectively without some other mechanism. So, it is trying to solve these infiltration problems at the home. For example, the Lafayette curb and gutter situation we had a couple of years ago, we replaced the storm pipe, we found three-(3) sump pump connection on the sanitary on one block. So when you think about that, when it rains that sump pump is pumping at about (8-10%) capacity of that sewer line on one block.

So if there is something in the home and it does not meet code in an older home. The sump pump is there when I buy the house, every things fine and dandy, is that grandfathered in to the owner. What is the future of a building that has this infiltration that is not code? This is kind of the gray area of the conversation "grandfathered in". You have older buildings, building code stuff not pipe things that do not meet the current building code but they are essentially grandfathered in because you cannot afford to bring everything up to 2015-2021 Code.

Therefore, this is one of those things that we have on the checklist but it does not prevent you from occupying the home. We are trying to find out which homes have this situation to develop some other mechanism. This is an incentive rather than an enforcement. I do not know what it would cost to disconnect the sump pump. There are other issues, some of that downtown. If you cannot disconnect the sump pump from downspouts that drain to the street, then we have a potential icing issue on the street. This is where it is important to get the City involved because if we go to the home or they come to us; we work with you on trying to reduce the risk whether it be infiltration trench or something else. To answer the question, yes, they are essentially grandfathered in; it is not that you cannot occupy the home. We would never not grant occupancy because you have a sump pump connected to the sanitary, we could but it is just not the right thing to do.

You are aware of the problem we encountered in our subdivision. Would this cover that because it started as a root problem? It may have covered, but that was a collapsed connection. That is a gray area, you have PVC pipe, which does not typically have infiltration issues, you have a construction issue that occurred and a failure that occurred, and this would be a very gray issue. This is more on your clay line sewers, your non-gasket type pipes, older infrastructure.

Do we have any idea about how many people will utilize this program in a year? Over the past three years we averaged about 20 sewer lateral replacements, this may be a little on the high end. Keep in mind these are spot repairs to complete replacement.

Complete replacements we are getting about four or five a year. So who is the homeowner, you are going to be making a decision, okay, a spot repair is going to cost \$4,000.00 and still have risks. If they are eligible for the program, it is going to cost \$8,000.00 but I get a 50% back. If it were me, I would.

This is baby steps to taking care of something and if it does become more utilized, and this would be to our benefit, because you are treating the water and you are dealing with infiltration issues all over town. How are we going to make the public aware of this? We are hoping in January in the plumbing world we plan on going to the plumbers and they will drive this. It is in their best interest.

On the eligibility requirements, six and seven seem to be contradictory in away. I am going to let the City in and make sure everything is disconnected, then it says, "Only if you are disconnected". I understand what you are saying now, but there is something about that sequence. Well, the City attorney added number 7. I understand, I just feel it should maybe be before number 6. This can definitely be reworded. The idea is you have to have the inspection done to ensure your downspouts are not connected. If you were already disconnected, you are eligible, if you were not; you have to do the work prior to being eligible. So, you are not eligible if you are not 100% disconnected and then only the work that is related to the sewer. The City is not going to pay you to disconnect your sump pump. We are going to pay you to replace your sewer lateral.

St Louis County and St Charles County have a program like this, I believe Kevin had looked into this many years ago, and essentially you would pay \$1.00 a month and that would basically go to a self-insurance fund so if your sewer lateral were to collapse you would go to the City and they would kick in some money. The problem with this is if you have a newer home, why would you be forced to put into a self-insurance fund where your risk is essentially zero.

I talked with Mark Piontek and since we are not a charter county, we cannot be eligible for something like this. We do get many questions out of St Louis County and St Charles County, people who are looking to move out this way wanting to know if there is a program like this and we have to tell them no there is not. They do get a little upset with us. The law does not allow us to do this, so what this program is, is a way to have something similar, but go about it in a different way. Because the public is actually getting a benefit. The taxpayer is getting a benefit by putting money in a private infrastructure.

This is a good start; we need to take the next step, if the people take advantage of it that is a good, one at a time. Everything ends up in our system and the monies not coming out of your budget.

A motion was made to endorse this program.

A motion made by Mr. Radetic and second by Mr. Richardson. All in favor aye, all oppose none. The motion passed without dissent.

This will apply to only residential customers.

## Water

Insituform pay request. This is the actual first step that Insituform started the televising of lines to verify size, and was completed months ago. I held off on bringing it to the Board last month because the agenda was overloaded. This is all completed and have moved onto the slip lining. I have yet to get a report on the percentage that was done but I would say roughly about 75% is done. They are not here this week but are coming back next week. They are doing a good job, they have had (2) issues, service lateral issues, one they took care of and the other was not a City issue it had roots in the line. We are looking at spending \$540,000.00 this year, partial out of storm water and partial out of wastewater. We took last years' dollar amount, combined with this year, and added some storm water funds to bump it up to that amount.

It is typically \$180,000.00 that we do, so two (2) years combined would make \$360,000.00 and the other from storm water funds. This will ramp up, not this year but in 2023 because we will get Capital Improvement Sales Tax money kicked in as well. We did a real quick project, I am sure we could have all lines slip lined by 2026 or 2027. If we stay as aggressive as we are not.

We will make sure that our next pay request has the total amount of the contract.

When they run the smoke or steam, can you find infiltration in people's laterals that way? No, it is pulling from one manhole to the next manhole; it is actually a sealed pipe. Then they come back and cut out the service laterals, there is no access for that, and smoking or any other kind of testing of service laterals really have to be, you really need to do during the dry months, the ground needs to be dry. If you smoke test now the ground is wet enough to seal up any cracks, you will not see any smoke come out of the ground, we have tried many times in the fall, and spring and winter, it just does not do any good. We get smoke coming out of houses or their downspouts but you will not see it coming out of the ground. This is a complete sealed system and they come back and cut out the service laterals.

A motion was made by Mr. Radetic and second by Mr. Mitchell to pay the invoice for Insituform in the amount of \$49,666.76. All in favor aye, all oppose none. The motion passed without dissent.

Worldwide Industries – We have a bill for Clay Street, they are 90% done. The mixing system is going into Clay Street and like everything else is on back order with an indefinite date on when it will be delivered. We went ahead and the tank is completely painted inside and out, it looks good, they did a good job. Water is in the tank, we have it 70 to 80% full, we are taking a sample today if we get good results from that sample, tomorrow morning we will put it back on line. We will have to take that tank back off line when the mixing system comes in so they can install the mixing system but we have no timeline as to when that will happen.

There is a pipe that sticks out of the ground about 18" and that is where the water comes into the tank and flows in and goes up, you are filling the tank from the bottom up. Because our system is a pressure system, it is an elevated system, 50% of the water up top is never used because our wells are all running so everyone is drinking deep well water. When the system shuts off completely from about one to two, then the tanks will maintain that pressure to a certain point and then wells kick back on. Well, that water that is at top just moves up and down. What the mixing system does is it takes that system from filling to 18" to about 45 feet high and disperses it in a fan pattern, which causes it to mix.

We are constantly mixing the water with the mixer and not letting the tank turn over. Water tanks will turn over just like a pond or lake will. All the water at the bottom is cool and the top gets hot and boils, and will roll over. Washington has always been very lucky; we have great water and great crews that makes sure the water is safe and good. We have never had an issue but other communities that the water has turned over and caused bacterial problems throughout the system. Once Clay Street gets its mixer all three tanks will have a mixing system in them. We added one at Crestview when we did that one, takes water to the top, Crestview is rolling all the time.

We are asking for approval of the partial payment of what they have completed.

A motion made by Mr. Mitchell and second by Mr. Richardson for approval of Worldwide Industries invoice for \$273,505.00. All in favor aye, all oppose none. The motion passed without dissent.

Regional Welding – Trailer for the skidster. This trailer is going to haul the new skidster that the Board approved last month. We held off on this one since the Board was loaded. Regional Welding is the company that builds 98% of all the City's trailers. They are a trailer building company this is why we are using Regional. We did reached out to several other manufacturers, and never received a quote or any information from them. We are asking for permission to move on with Regional.

A motion made by Mr. Mitchell and second by Mr. Radetic to move forward with the purchase of the trailer. All in favor aye, all oppose none. The motion passed without dissent.

### **Old Business**

None. We are transitioning into the winter months.

There is one more thing. We have a water line that feeds the Sand Plant down in the east end of town that is continually breaking. We had two breaks in two weeks, one was a minor hole and the other was a ten-foot split. It is cause by water hammer. We have extra pipe from the Meadow Lake project that we plan on using. We have 450 foot of HDPE pipe left over from the project, so we are going to fuse that together down there and install that in the stretch where we have the breaks and replace the PVC line with the HDPE. HDPE pipe has the tendency to expand a little bit with water hammer so we are hoping this will alleviate the ongoing problem we have down there. It is a good idea to utilize the pipe left over. The crew came up with this idea.

Water Hammer – For people who have it at their homes it is easy to explain. When you turn on a water faucet and you have water flowing out of it and you shut your faucet off. This is an instant stop of water so the water flowing this way would stop and then it reverberates backwards that is why you can hear when you shut it off; you hear a clunk, which is water hammer causing a backwards motion. What happens in our system is, let us use a fire hydrant for example, and let us say there is a firefighter out there and they are fighting a fire and he cranks the hydrant, that shoe at the bottom. When you open it, it pushes the valve down and it closes and pushes the valve up so when it get to a certain point the water pressure itself will close that valve so you do it too fast the same thing will happen. It will hammer up and then it causes the same thing. Pressure

will reverberate back out and if there is a weak spot, you will have a water break. Down there we have a situation where it is just a volume of water being used and then stopping so the water will flow and then the system has it stop and going back out and it is taking its path down to the dead end of the water line causing it to break. We could put in a blow off valve for that but then you have a great big vault you have to maintain all the time. We are hoping the HDPE pipe will help because it can expand and contract a little bit to absorb some of that. The wall of HDPE is about an inch and a quarter thick, nine times thicker than PVC pipe, and is more resilient. We are going to lug everything together so at our connection points we do not have anything that can give there either.

Any other discussion – None.

**Next Scheduled Meeting Date**

The next scheduled meeting date is Tuesday, December 28, 2021.

**Adjourn**

There being no further business the meeting adjourned on a motion by Mr. Richardson and seconded by Mr. Radetic. All in favor aye, those oppose, none. We are adjourned.

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Prepared by: Beverly Hoyt  
Beverly Hoyt  
Water/Wastewater Secretary

Adopted and Approved by the Board of Public Works:

Date: 12/28/2021 Signature: MFWA DDS  
Secretary