

**MINUTES of the
STORMWATER MANAGEMENT COMMITTEE**

**Meeting of: Wednesday, March 28, 2018
Leawood City Hall, Main Conference Room**

COMMITTEE MEMBERS PRESENT:

James Azeltine, CHAIR and Councilmember Ward 4
Debra Filla, Vice Chair and Councilmember Ward 1
Lisa Harrison, Councilmember Ward 3
John Kahl
David Lindley
Curt Talcott
Bill Ramsey

COMMITTEE MEMBERS ABSENT:

Skip Johnson
Mary Larson, Councilmember Ward 2
Carole Lechevin

STAFF PRESENT:

David Ley, P.E., Director of Public Works
Julie Stasi, Administrative Services Manager, Sr.

GUESTS: (by order of sign in sheet)

Avi Mitra, 2007 W 81st Terrace, Leawood, KS 66206
Diana Cannon, 2004 W 81st Street, Leawood, KS 66206
Keith Cannon, 2004 W 81st Street, Leawood, KS 66206
Adam Long, 2008 W 81st Street, Leawood, KS 66206
Mike Maier, 4303 W 126th Street, Leawood, KS 66209
John Martin, 4503 W 126th Street, Leawood, KS 66209
Tom Messenger, 12515 Delmar, Leawood, KS 66209
Jan Elder, 4300 W 126th Street, Leawood, KS 66209
Chuck Connealy, 2015 W 81st Terrace, Leawood, KS 66206
Shana Horseman, 2011 W 81st Terrace, Leawood, KS 66206

Chair Azeltine called the meeting to order at 7:35 AM.

FIRST ITEM OF BUSINESS: Previous Meeting Minutes

ACTION: Lisa Harrison made a Motion to approve the past Minutes of January 31, 2018.

Curt Talcott seconded the Motion to approve Minutes.

All members in attendance were in favor.

Motion passed; Minutes approved.

SECOND ITEM OF BUSINESS: Discuss the creek between 126th Street and 126th Terrace from Roe Avenue to Delmar Street.

David Ley-describes the assignment. The concern that was brought to our attention is the culvert that is under Roe Avenue north of 127th Street. The water is flowing from east to west underneath Roe Avenue and the concern is the volume flowing and needing to push the volume up under Roe Avenue. In February we discussed a couple of options. One would be to actually open up Roe Avenue, excavate it and install a box culvert. That cost would be over \$400,000. The other option would be to look at installing drain walls to improve the entrance on the upstream side; to improve the efficiency of the water flow getting into the culvert. The City hired Olsson and Associates to complete a study for this. Olsson surveyed the area in the past month and have provided us with a model. Olsson modeled the structure with wing walls on the up-stream side and it does reduce the

100 year flood elevation by 1.35 feet. They also looked at four homes that are in the flood plain (it is not a FEMA Flood Plain), but the City's flood plain. By making those improvements we are able to bring three of those homes out of the City's flood plain. One of the homes has a walk out basement, 4405 W 126th Street and that is the lowest adjacent grade of 902.61 and the proposed 100 year would be 902.96. They would still be within the flood plain there so that would be a local issue that they would have to address with a walk out with a sump pump in order to protect themselves.

David Ley-The cost for those improvements would be about \$50,000.00. Olsson also provided a map. Red lines identify the City's flood plain. The yellow dashed lines would be the flood plain with the wing wall improvements. (*Map attached to these Minutes*). We do not meet the minimum numbers required for SMAC eligible. We do have the funding available for this year if we wanted to rebid it with the storm sewer project that is upstream. We could do this work in conjunction with the already scheduled project and that would help in the costs as that is a \$1.8 million project. We will have a contractor right in this area.

Lisa Harrison-What are the odds that we could get some assistance from the Homes Association to chip in \$10,000 for something like this? Is there any precedent for that?

James Azeltine-I believe we have an Ordinance on the books that calls for cost sharing, David? Not that it has ever been used.

Staff -Believes this was once on the books; but has since been removed and is no longer a current Ordinance.

James Azeltine-That might not prevent us from asking.

Lisa Harrison-So the conversation has been had in the past but possibly removed. I only bring it up because we are having a lot of these conversations. There are a lot. This is not a once a year conversation. We are having these conversations every month with a different subdivision with a different creek with different people.

David Ley-This is our box culvert and the watershed does go through probably five subdivisions. There are five different subdivisions that are draining down to this location. This is not a private creek.

John Kahl-Would suggest that if this is a piece of infrastructure that is part of the roadway and we are making an improvement to it as opposed to taking a pipe system and tagging on or running several hundred feet or whatever with boxes and inlets through it. I would suggest that makes it a little different situation too than a lot of these that we deal with. As we are just tacking onto existing infrastructure. We are partially enhancing the existing infrastructure that is already part of the City.

David Lindley-Are there any downstream implications that are going to make something worse?

David Ley-No. This drains right into a FEMA Flood Plain there would be no impacts to that.

Debra Filla-To Lisa's point begins to talk about a Utility Tax, which for stormwater. We have thought of before and probably need to again discuss and that would be a recommendation to the Governing Body a request to have another look at a Utility Tax for stormwater. If they decide they want to have a work session to look at.

James Azeltine-Do we have in this fiscal year the money available in the 1/8 cent sales tax to do this?

David Ley-That is where the funding is coming from the 1/8 cent storm sewer tax.

James Azeltine-Curt, is it worth \$50,000 to get the water level down a foot? Foot and a half?

Curt Talcott-Yes. It's affecting three homes. The cost benefit ratio; that is a bargain.

ACTION: Debra Filla made a Motion to recommend to the Council that the City proceed with wing wall improvements; integrating this feature to the already scheduled Stormwater Management Advisory Council (SMAC) Project.

Lisa Harrison seconded the Motion. All present members were in favor, Motion passed.

John Martin-Resident of 4503 W 126th. Mr. Martin handed out a map of the Patrician Woods area. Mr. Martin pointed out his property where it butts up to the channel. Mr. Martin is having a difficult time conceptualizing the wing wall. Mr. Martin drew in squiggly lines at the back of the wall where the water pools up. The water will not get past the wall, it backs up just due to the overall water pressure coming down. The wall is like a retaining wall keeping the water from exiting through there and it backs into my property and the other properties adjacent to it. Concerns are of the construction and how it will come out. So if you can help me out; audience or anyone with that.

David Ley-The wall that we would build will be the same height as the box culvert and come out at about a 45 degree angle. The wall would start tapering down probably 10 to 15 feet in length. The area behind the wing walls would be filled in behind it up against the existing wall, so if there is water coming down parallel to the wall would be diverted around the wing wall. It would be graded to allow it to flow along the wing wall. When we hire the engineer, it would be Olsson & Associates. They have already surveyed this area. That would be part of their construction plan to have all that detailed out for the contractors to bid on.

John Martin-Has a bald cypress that is a tourist attraction and not normally planted. Mr. Martin anticipates that tree would be gone. He has several very mature trees that are 50 to 60 feet high.

David Ley-Potentially, we could be into those roots. We can plant another tree back in there if we do take one out.

THIRD ITEM OF BUSINESS: Discuss area stormwater concerns of property owners at and near 2007 W 81st Terrace.

David Ley- This area of concern is near 81st & Overbrook Road. The subdivision was constructed in the mid 1960's and there really is only one storm sewer line running through the neighborhood. There is approximately 150 acres that drain down from Prairie Village and about 30 acres between Prairie Village and this storm sewer system that is draining through Leawood. There is a detention pond to the north, but that detention pond is only for that State Line Executive Offices. So that is not regional detention pond; just a local one. Frequently the storm sewer pipe of the detention pond gets overwhelmed and the water overflows the spillway. Water flows south and it knocks down this fence that is between the properties of 2008 and 2004 W 81st Street. The water then floods 2004 and continues down Wenonga in excess of seven inches and then flows down between two houses (2007 and 2011) and then there is a retaining wall there along the open channel. The water is starting to erode, scour down in between these properties and behind the retaining wall.

David Ley- The other concern is since there is a lack of storm sewers, there is approximately 5 acres on the west side of Sagamore that drain down to a low point here at 81st Terrace. Obviously there is no storm sewer in there so it just flows east down 81st Terrace and then it overwhelms the street capacity for any of the storm and then it flows down the driveways between 2015 and 2011

and goes out to the creek and into (I'm assuming Ms. Horseman's house also). Those are the two areas of concern. One is the main trunk line is not of sufficient size. We did a quick calculation and it shows it fills up to capacity at a 22 year storm event and there is no detention up stream. And secondly, there is no storm sewer to the west of the main trunk line. And the residents are experiencing flooding.

Diana Cannon-That water is over two feet tall when it enters our back yard.

Shana Horseman-In our yard, it comes over our five foot fence. We have a wrought iron fence and it is actually bent in half. We keep my house sandbagged at all times. We have been flooded that many times.

Chuck Connealy-and it carries all of our debris from at the top of the hill. It carries all of our debris including our fence, garbage cans, and things all the way down to their yard.

David Ley-In looking at the preliminary calculations this is Avi Mitra's retaining wall in the display; where we are getting erosion. Also this is impacting our intersection of our storm sewer pipe. As the water is cascading overland, it is scouring out around our storm sewer pipe.

James Azeltine-So on the scouring of our infrastructure, what is the potential problem, how bad is that?

David Ley-We would have to go in there and fill in around our structure just to stabilize it and make sure it remains sound.

David Ley-The pond is owned by the Office/Commercial Owner, they are responsible for the maintenance of the pond. The owners are required to do an inspection every two years and provide that to us and show that it has capacity and it has been meeting those requirements. The owners have been providing that. If they do not provide the documentation back to the City we will notify Code Enforcement and handle it through their office.

Diana Cannon-That pond turns black and we have to have our yard sprayed for mosquitoes. They have a tiny-tiny little bubbler in there and it does not keep the water moving. So I would like that to be checked into also.

David Ley-As far as the aeration of the pond that would be a Code Enforcement issue.

James Azeltine-As far as providing us with data every two years.

David Ley-Correct. Every two years we send out a letter to the property owners who own detention ponds and they are required to have a professional engineer certify that the ponds are functioning as designed. They are only required to detain what the flow is from their property. They are not required to detain anyone else's' or from the 150 acres north of them from Prairie Village, they are not required to detain that.

Lisa Harrison-I am wondering if we couldn't use that pond as a fix it for this problem at all. I have a little bit of experience with ponds in my background and know y I've paid a lot of money to have them dredged. Could we go to that land owner and say we need to make this pond bigger so that it holds more water so that less water is coming down to this area also? Is that an easier fix than digging up 7 back yards and putting in a wider creek bed?

Curt Talcott-It could be part of the study but it is very unlikely that there would be enough area there to make it significant difference based on 150 acres of drainage area.

John Kahl-Do we believe this to be eligible for SMAC funding?

David Ley-I ran through the calculations yes and it has 160 points.

There is street flooding and 3 to 4 homes that are flooding that we know of. We have that

documentation. And as I said, we have looked at the existing capacity of the pipe. The pipe is coming in from the north. Just north of the pond, those are 8 x 5 box culverts. So that is about 38 square feet of flow area. This is a 60" RCP (so that is about 18 to 20 square feet of flow area). So the pipe size running through this area is half of what is coming into it. Half of what it should be.

Bill Ramsey-Asked what storm event would have been required in 1960, when the subdivision was built.

David Ley-We do not have the construction plans from back then.

James Azeltine-How many houses would you guess would be involved in a potential SMAC Project?

David Ley- As far as going through their properties? There would be four (4). We would have to work with the Leawood Executive Office for the pond area property, we would need a Temporary Easement from them as we would need an easement for the storm sewer line. There is 2004, 2008 W 81st Street. The pipe would be in the street along Overbrook. Currently we can go to "street view" and follow the existing alignment, we would be taking out large mature trees, so typically we would offset that into the street. Then we would go between 2007 and 2011 W 81st Terrace and then we would need when we get down to the creek we would need to do improvements to tie everything back in together. We would also need to extend this as I was mentioning. There needs to be more storm sewers along to the west going out to Overbrook to collect the water for upstream so we do not have a mad rush of water all over land trying to get into the pipe system at the downstream end.

David Ley-There may be a need, when we look at it further for an area inlet in the back. One issue is there is a driveway at the low point of Sagamore. So the water is coming down their driveway and shooting straight across Sagamore. There may be a need to review and do some street work moving the low point. But then we may need to come back and do an area inlet in order to collect the water in the back yards.

Debra Filla-When you dump it out south of 81st Terrace past 2011 and 2007, where is the water going to go after you increase the pipe size?

David Ley-It will flow southeast down to 83rd Street. The water is flowing that direction now, it just flows over land. And it is coming down as Bill said, it is pretty steep so it is coming down here at a pretty good clip.

Debra Filla-So you would be putting more water underground and then when it comes out there what is going –are you going to have to deal with that velocity of water coming out? At one time in that spot? And how would you do that?

David Ley-That is correct. We would do that with just energy dissipaters inside the creek channel.

Shana Horseman-Is there anything that we are doing? I get water down the streets and then the creek backs up. We have put in-my dad and I have put in a \$15,000 retaining wall behind my house to help (with City approval) to help guide the water. But in this area there is nothing that guides it. It just pools up into my yard. It comes all the way up to my tree house and then we clean it every time. I am all for any improvements because right now we are feeling like it is just-maybe we shouldn't stay there, but. I am worried about putting it all down here and not doing anything to not help the creek run more freely.

Chuck Connealy- Our house is on a hill and it goes downhill to the creek. That fills up. We have a 6 foot wood fence back there and the water comes up probably about 4 feet and fills that whole hole down there with water. It gets up pretty high and because we are up on a hill we are not affected by it. I'm here because of my neighbor and I've seen that and it is a mess. We are at 2015 W 81st Terrace. It comes pretty high up in our yard. I agree with Shana there has got to be something to help the water take that turn.

John Kahl-Rerouting creeks is not generally recommended. There is a reason why those bends are there. If you take them out the creek will potentially react poorly and cause all kinds of other problems. What you are describing is your yard is also the creeks flood plain. It is a natural process that when it rains and the creek floods, it utilizes the floods plain. The yard space and the yard flooding we would not typically do anything about that unless that flooding incorporated flooding in your home.

Chuck Connealy-No it is not getting in my house.

John Kahl-Or other homes. We would like to protect flooding of homes and excessively flooding of roadways but yard flooding is just considered a nuisance flooding and not something that we would typically try to alleviate.

Shana Horseman-There are chunks of concrete; which was poured about 30 years ago. There are fallen trees. I cleaned out the creek behind my house to allow the water to run through. It is all eroded. I agree we cannot reroute the creek but the creek water does not even know where to go it is so eroded.

Bill Ramsey- This is not a small project. The creek is in pretty rough shape.

David Ley-That would be a Code Enforcement issue if there is debris down in there.

Bill Ramsey-There are all kinds of debris and fallen trees. When I went by it my first reaction was there needs to be a lot of clean up on the creek.

John Kahl-This problem should be eligible for SMAC Funding. Then we could get 75% funding.

Curt Talcott-SMAC is changing and it would be too late to get in for anything on this year's projects.

David Ley-The new change is they are doing projects by watersheds.

Curt Talcott-If it is deemed to be a watershed project, there is 100% funding but regular projects are 50%.

John Kahl-What I was going to say is if there is outside funding, it is a big enough project that Leawood is probably not going to take on the entire thing by ourselves. If there are outside monies available, we would try to take advantage of that. The first step to take advantage of that (unless that also has changed) would be to perform a Preliminary Engineering Study and put costing to it so we can try to get it eligible for funding by SMAC. That would a first step in many that we are talking about in terms of how this problem would be addressed. And what kinds of things would be done to fix it would have to be addressed within that preliminary engineering study. Looking at alternatives and different approaches. We certainly can sit here and talk about solutions but that would probably be the result of the Preliminary Engineering Study. Do we want to recommend starting that process?

James Azeltine-Especially in light of the fact that the whole system is about to change in terms of

projects vs watershed. There is no way we could have this queued up in time to be subject to the old rules correct?

David Ley-No. Options, they would still fund the 75% for the Preliminary Engineering Study (PES). So we could proceed forward with that. SMAC is Stormwater Management Advisory Council of Johnson County. There will still be funding available but instead of the 75% we are used to, it is changing to 50% construction and design. The total cost of the PES is probably around \$40,000 to \$50,000.

Debra Filla-So the process remains the same, the funding percentages have changed. That's it.

Curt Talcott-They also have talked about City's no longer bringing projects forward. That the watershed would bring them forward. The City Council would not be able to just say, we want to do this project and go straight to the county SMAC Office. It would have to go to a Watershed which is all the cities in the watershed and they would have to vote to approve to send it forward.

David Ley-They are still working on the process and it will come up later this year as far as the actual process is.

James Azeltine-If we move forward with this, is this something we might want to present at Council after the new rules are in place? So that we are not fighting in the dark?

Debra Filla-There's no reason not to proceed with the study I wouldn't think.

David Ley-That is true we could proceed with the study so that we know the costs and what the other options are.

Debra Filla-So if I were to just clarify with my understanding and switch to the watershed. If the recommendation that we can't keep doing this finger in the dyke thing. We need to step back and figure out where the collective water and collective down low is coming from and where is the best place to fix this right?

Curt Talcott-Somewhat. They are going to give more reward for something that has watershed impact verses a local impact. They are not saying we can't do these but they are saying they are going to fund these at a lower level. They are going to give priority and fund something at a higher level that seems to have a watershed benefit.

John Kahl-So if it affects hundreds of people in a watershed at a higher level than a little stormwater project that is for the benefits of four houses.

David Ley-The other thing they are adding is they are going to review maintenance funding. So there is potential for a metal pipe replacement. We might be able to start getting funding now for that. That is going to be at 50% also.

Debra Filla-Another question interim. We come across the maintenance by talking about the tree. I've had experience from when it's beyond and the tree is not just in the creek but when it requires a backhoe and requires taking out felled trees, that sort of thing. This is a gray area of our stormwater issues. Will it help with that maintenance because this is too big for homeowners to handle? So in the interim clean up that creek? Would that provide any benefit?

David Ley-That would provide benefit but what the City does the property owners are still responsible to get that debris up to the street. The City will remove it from that point.

James Azeltine-We are also in the process of determining City Wide what portions of what creeks are public vs private. And staff is going to be coming back with a report on that.

Debra Filla-To speak of it while the neighbors are all here, the SMAC Funding of us doing this and

then getting the funding, we are three years out right?

David Ley-Yes it would be 2021, before we have funding available.

Shana Horseman-The creek is flooding enough to take down an adult in my back yard. That is my fear. Behind so at the end of where the storm comes out into the creek, it would take out an adult man it gets so high. So anything. And we have children all around this area. If there is anything we can do to get the water flowing. Because it is not just asking my neighbors to clean up their creek area. I agree probably there are neighbors that have thrown too much back there, but there are like 50 year old rooted trees that have fallen and concrete that I was told by the City was put back there by the City to prevent erosion. It was a bad plan, but no homeowner can get back there and remove that. Even through my dad is a general contractor, there was only so much we could remove. Because you need major machinery.

James Azeltine-We had a discussion about going into the creek, not at our last meeting but at the one before that. And the thing is once the City goes in to a creek and does any kind of work, it becomes classified as public infrastructure. We are in the process of doing is trying to figure out what sections of the creeks where we have already been involved and where we are already responsible. And in finding ones that are private, so we are working on that issue for a larger water standpoint.

Shana Horseman-So if there was concrete poured there by the City years ago?

James Azeltine-Well we are in the process of establishing all those facts. So the staff will come back and report to the Council on what they find in that.

Lisa Harrison-With regard to the debris again. And I've had a creek in my back yard and people dump all the yard waste back there in the woods sort of out of sight out of mind. And then it becomes clogging the creek bed. Then the trees fall down and they are expensive to remove but it's your yard. So can we help out by saying April 20 day is going to be a day the trucks are in the neighborhood you get your stuff from the creek. Get some help and volunteers, maybe make it a Home's Association work project or something and get some chain saws out there. Haul this up to the curb and the City will be there with its trucks to haul it away for you? I do feel like everybody wants the City to come in and fix and clean up and drudge and haul. When in fact, this is their property that they need to maintain. Am I not correct in thinking that some of it?

James Azeltine-If the City has ever been in there to do work, once we do that it becomes our responsibility. Then it is the Cities. Up until that point it is private. But in getting back to the matter at hand, do we want to recommend something to the Council so that we can get this in que or on the radar as far as funding?

ACTION: Debra Filla made a Motion to recommend to the Council that a Preliminary Engineering Study (PES) be obtained for the area of discussion and include in the interim any suggestions/solutions to residents that would be helpful with the stormwater situation until such project can be approved.

David Lindley seconded the Motion. All members in attendance were in favor.
Motion passed.

David Lindley-Question about as far as that study, is it typical that you would ask in that study what temporary cleanup what any recommendations, is that something that can or will be a part of that?

David Ley-It would be pretty difficult on the main flooding issue as far as the water coming off from the north to the south. Nothing really that we could really do. As far as the creek we would just send Code Enforcement and have them contact the property owners to clean up their portion of the creek. And that is separate.

James Azeltine-Again we will have another discussion about that at the Council level. Once the staff comes back with a map of all of the creeks and tributaries that area private vs public. That should identify what we need to do and we can talk about how to handle these. Do we want to just go in and issue citations for old trees in their creek that is a problem? We have to dig through all that.

Avi Mitra-One question. You're saying it is maintenance and property owners have to do the maintenance. My understanding is the property line of the creek is the Baptist Church by me. I have a situation where I did go down into the creek and had a tree that flowed down from upstream and I can't lift it. My wall is 12 feet high and I can't lift it up 12 feet. I've looked at chunks that quite honestly won't go downstream and then that creates another problem if I cut it down into chunks, it creates a problem for Shana and Chuck. Years ago I used to live at 8325 Sagamore and you guys did a study and you fixed the water problem there. You fixed part of the problem that came off of State Line. This was when 83rd was widened. The cost at that time was 25 million to do the watershed and if we have to fix this problem. I used to live on the other side of the street and still have neighbors that live over there and we're friends. My back yard flooded back then at 8325 Sagamore and it got into the house, so you could create more coming over there. So it is a watershed problem, but it is not just us. I am selfish, I have kids and the neighbors have kids, but it is looking all the way down. Neighborhoods were built in the 1960's and my house was built in 1965. My other house was built in 1953. So it is a problem that has been around for years. As they started developing State Line Executive Building and all that and widening the street at State Line. We didn't have this problem 25 years ago. It's been in the last 20 years.

Debra Filla-I was going to ask what changed. So you are saying the widening of State Line.

Avi Mitra-The widening of the streets. There was a study done in the mid 1990's; part of the problem is it is coming off of 83rd Terrace and the back yards back there. And David knows this. We contacted David Roberts of staff five years ago and the problem has been around for quite a while. And it is the kids, it's the safety of the kids. As Diane put it. This weekend when it was going to rain I was out trying to find out what is going to happen in my yard. Why am I going to put money into it when I'm going to lose it all in the creek?

Shana Horseman-We've already put money into our side yard and it's already gone. We've only been there a little less than four years. I already paid \$1200 to bring in four dump trucks and fill it back up and as of the rain two days ago, it's gone again.

Debra Filla-So 160 points what is the point system on that?

David Ley-The minimum is 100 in order to get funding. How high is FEMA scoring?

Curt Talcott-250-300 maybe something like that.

Seeing no other items, Chair Azeltine adjourned the meeting at 8:20 AM.

Minutes transcribed by Julie Stasi, Leawood Public Works Department.