

MINUTES OF THE STORMWATER MANAGEMENT COMMITTEE

Meeting of: **Wednesday, August 30, 2017**
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
Carole Lechevin
David Lindley
Curt Talcott

COMMITTEE MEMBERS ABSENT:

Skip Johnson

STAFF PRESENT:

David Ley, P.E., Interim Director of Public Works/City Engineer
Julie Stasi, Admin. Services Manager, Public Works Department

GUESTS:

Mary LeCluyse, 3905 W 122nd Street, Leawood, KS 66209
Paul LeCluyse, 3905 W 122nd Street, Leawood, KS 66209
Julie Cain, Councilmember Ward 4 (and neighbor of site in discussion today)

Chair Azeltine called the meeting to order at 7:30 AM.

Introductions of members, guests and staff. Due to conflicting schedules, Chair Azeltine advised he would re-arrange the order of the meeting's business in order to hear our guests concerns first (New Business) before the continuation of Old Business is discussed.

FIRST ITEM OF BUSINESS: (NEW BUSINESS) Review LeCluyse Property Concerns at 3905 W 122nd Street in Kings Forest Subdivision regarding the Mission Road Street Project.

David Ley gave a description of the Mission Road Project that is scheduled for 2018. The project will receive CARS Funding; total project cost is \$2.2 million. Mission Road Project includes replacing the metal pipe on Mission Road from 119th to 127th Street. We will also remove and replace all the curb, adding some sidewalks from 123rd to 124th Street on the west side, new street lights and then a Mill & Overlay of the pavement. The survey was done a few months ago and staff sent out questionnaires to all the adjacent property owners asking them if they had any drainage issues. This is when this matter was brought to our attention. There is an open channel that drains about 600 acres, that is draining to the west side of Mission Road. At 123rd Street it is in an unimproved open channel creek that flows from 123rd & Mission to Tomahawk Creek Park. The LeCluyse Property is near this and they have brought concerns to our attention.

The LeCluyse's have three (3) concerns:

1. There is a large scour hole at the end of the existing metal pipe that discharges in to the unimproved open channel. The 48" pipe is located on their north property line.
2. Streambank erosion along the east side of the unimproved channel.
3. Their basement has flooded twice in the past 20 years.

David Ley-The LeCluyses really have two problems that are associated with the storm sewer pipe. There is a large scour hole that has occurred over the past several years. The other concern that has been reported to us is that in the heavier storms, water comes off the low point and flows down the rear of the properties. We are seeing undersized pipes, so a couple of their concerns we will be able to address with the Mission Road Project. We are looking at extending the pipe out about ten (10) feet more closer to the creek. We will lower the outflow and build concrete walls either out of block or poured in place with a stone face appearance. That will bring it back up to the existing grade. Again, this section can be addressed with the project.

Carole Lechevin-Asked what size the pipe is. And you are going to increase it to what?

David Ley-The existing pipe size is a 48" dia. We have not sized anything yet we have just looked at the existing pipe size that is undersized and causing the water to overtop Mission Road.

Debra Filla-How deep is the pool of water?

David Ley-It will probably be about the same size as it currently is. The FEMA (Federal Emergency Management Agency) Flood Plain actually starts downstream. In looking at a map of a FEMA Future area, but not currently regulated by FEMA we see where it is in relation to the resident's property. So the LeCluysse does flood and has flooded in the past years which is a concern of theirs. The other concern is the erosion on the stream bank. We have met with property owners over the last twenty years further up stream that have the same type of issues. The LeCluyses also tried to stabilize this bank with rip-rap but it gets washed downstream. As part of the street project, the City will be able to address the flooding that is coming off of Mission Road and address the erosion occurring at the end of the pipe. The LeCluyses are requesting a more extensive project to go thru/along the rear of their property and provide streambank protection/rip-rap.

Julie Cain-Was out yesterday looking at the property and Mrs. LeCluysse was there along with David Ley. The question on the table for today is not are we going to do this project (because we are going to do the project) the question as I understand it, is should we do that additional parts. We are already going to increase the pipe size and naturally we would have improved anyway how much exactly are we talking about for the remainder of the property?

David Ley-Shows the end of the pipe and said as part of the City project, we would stabilize an area (where the scour hole is) and build vertical walls to create a plunge pool and would need to do about 20 feet of stream improvements to protect back from future erosion. Up to an area (pointed to on the map). The question I think the LeCluyses are asking is to extend it and you can kind of see the embankment. There is rip-rap on the property to the south-to extend that to this location.

Mrs. LeCluysse-Correct.

Julie Cain-and as I understand it, that is the question for today and having viewed it yesterday and looking at it first hand, it is my opinion (not that it counts on this Committee, because I am not part of this Committee). But as I understand it from David Ley, to do the additional stone work is an additional \$10,000.00 approximately. To extend it from where the red line is and to the property line and make more of a natural connection to the rip-rap that is already on the property to the south. Having viewed it first hand and knowing they just flooded for the second time last week, it is my unprofessional opinion to endorse that and that is the purpose of my visit here today. Because knowing it is a limited amount (it is about \$10,000.00) for additional rock, it will be additional landscaping and that kind of thing but in my mind is not appreciable enough not to connect it and finish it up.

Debra Filla-when did the rip-rap go in with the other neighbors. Also can we go back and look at the upstream area.

David Ley-Looking at the aerial photos/going back in time. In 2005 seeing a prior photo. Mary, do you know when you did the rip-rap initially?

Mary LeCluyse-We have done it off and on and everytime it is rainy and it washes down the creek. We wait and then we eventually hire someone to come put it back, we do the best we can to keep the bank in place. As recently as the most recent flood a month ago we had someone out to put it back together.

Mr. LeCluyse-Also as you can see in the photos, we have probably lost ten (10) feet of yard over the years.

David Ley-That was the other thing I was going to mention. You can see the distance difference in the photos. In looking at their photos, you see the planter with the cat statue. (measuring at least 6 feet in one spot).

Mrs. LeCluyse-At one time there was a second box but it has long since gone down the creek.

Curt Talcot-Was there yesterday and you can see, the erosion is underneath the planter box now.

David Ley-When the rip-rap gets washed out the stream bank starts eroding. In 2014 it has been reduced to about half the size of what it was 5 years prior to that. In 2016, the southwest corner of the LeCluyse's planter box is starting to get washed out underneath.

Debra Filla-How did the rip-rap south of there get there?

David Ley-From the neighbors. Each property owner has been doing that work. Also the Parks Department did improvements to the trail that is nearby. As you look towards 123rd & Mission. Parks installed large walls and followed the existing stream. And they did some other work-they would have had to have access from another property owner and they did stabilization in a few spots. This was completed by the Parks Department and another area; this work was done in 2015. Every other item out there was done by the individual property owners.

James Azeltine-Do they have to have any special kind of permission to get in there?

David Ley-They do not if they do not disturb the channel bottom. They are pretty much placing rip-rap on the existing embankment. In answering Debra Filla's question, most of the water coming out of the pipe is mostly coming out of Bradford Place. And the water that is going down along the creek is coming from Leawood South, Royse and a little bit of Berkshire. The water is flowing northwest.

David Lindley-So the extra \$10,000.00 is going to solve that? That is still coming down through there.

David Ley-The erosion problem. This is not going to address the flooding of the structure.

Curt Talcott-That would be a project of a mass undertaking. There is very little channel capacity in the creek with the difference in elevations and the top of the bank and their back basement door is only about a foot maybe. That would be a multi-million dollar project to fix the flooding.

David Ley-You would have to do flood benching,

Curt Talcott-It would have to go up to Mission Road and probably all the way down to the Park.

Debra Filla-So is berming something they could do to help?

David Ley-we discussed that yesterday. Around their patio-they flood from their walk out area. There is potential for them to do an impermeable foundation or a berm of some sort and then do a sump pump within the patio area to get the water out that falls in that area, that would help. They are in the Kings Forest subdivision on the west side of Mission Road, three cul-de-sacs plus three more

homes to the south.

Debra Filla-It would be good to speak with the Homes Associations in this area and in Bradford to talk with the residents on what everyone can do to reduce the amount of water coming down. Everything counts.

Lisa Harrison-What is the precedent of our going into 10 to 15 feet deep in people's back yards? I grew up outside of Chicago, IL in a suburb very much like Leawood and our basement flooded about every year. I was a ten year old who was an expert with a wet-vac and a squeegee. And I'm used to creeks, and battery back ups and sump pumps they are a part of my life. So I'm familiar with this sort of problem. I am curious to know when the creek is fully on somebody's property and it is not the back edge of the property as is often the case where a property line goes up to the creek or within 10 feet of the creek. What is the precedent in Leawood with our going in and fixing something that is wholly in somebody's property?

David Ley-We have met with all these property owners and told them the City does not have an easement for this creek and it is all your responsibility as a property owner. And this is similar to north Leawood. The difference here is to construct this pipe, we have are going to have to obtain an easement on the LeCluysse Property. We could not build this pipe without obtaining a Temporary Easement.

Lisa Harrison-That is the lucky part of the problem.

James Azeltine-To answer your question, the history has been unless there are more than a couple of people affected by a stormwater situation, the City does not put out any money on private property because there are hundreds of these problems all over.

Curt Talcott-We have done projects on Dykes Branch where there was multiple houses, and those often become SMAC (Stormwater Management Advisory Council) Projects with Johnson County. If you have multiple homes that flood you can get a pretty good qualification for funding. The City has done several projects.

James Azeltine-Asks David Ley what the size of the project is.

David Ley-The project is \$2.2 million and this is part of that \$2.2 million cost.

Debra Filla-An extra \$10,000.00.

David Ley-The County is reimbursing us \$1.1 million for this work with CARS (County Assisted Road System) Funding.

James Azeltine-That is a pretty insignificant amount in the context of the whole project. If that project were not happening, I might have a problem with us going in and doing this.

Julie Cain-And that is exactly right. The LeCluyses are well aware of this as I have said it many times. Normally we would not touch the rest of this area. The only reason I am encoring it (and then it is up to the Committee) is that we are there anyway and it is neglegable on what we are doing. The equipment will be there anyway. You are exactly right Lisa.

Curt Talcott-And I think the precidence in doing this is that there is public infrastructure at risk at the bottom of this. You could rip-rap that piece there that is 20' and if not that 20' will get washed away down the road. Beyond the storm sewer there is a sanitary sewer manhole that has been totally exposed. There is public infrastructure that to me would be the precedent. The flooding issue unfortunately is an isolate one from the structures standpoint and the risk to public infrastructure and bank stabiliazation would be the precedent in doing it would be the rationale.

Carole Lechevin-This storm event was huge and I see that happening more in the future if we are generally talking about weather patterns. If we do the work and we have these types of storms are we at risk of ruining what we just created or is it we will have to be inundated everytime?

Curt Talcott-We're not going to fix the flooding. This project will not fix flooding. So the velocitys in that part, the additional water is going to be up over and behind that thing. What you are after is and a lot of times it just is a constant with a lesser storm and the velocity is what will change. The rip rap that is out there is too small. It is too small it is going to get carried away.

Carole Lechevin-Has this same exact situation in her back yard. The pipe is failing upstream into her yard. She has rivers flowing on both sides of my house. She does not have the sanitary sewer but it is close to her house and threatening to flood her basement. Hasn't yet, but like you said this is pretty common throughout Leawood. It seems like we need a bigger picture approach.

James Azeltine-I'm glad you brought that up. The big question that needs to be asked is even through it is in the context of one of our own projects, if we do that, are we setting any kind of a precedent? Since it is just one (1) home.

Carole Lechevin-For example where I flood, thirty feet (30') downstream a walnut fell that was at the stream as it is my neighbor to the east, he is having this same scouring occur. The walnut dropped, fell on the power line and we are out of power again. Ninety First Street constantly loses power because of trees dropping on the power lines. And I'm on the list, its just a matter of when. But I have sink holes developing in my yard right now.

James Azeltine-And we are replacing this corrugated pipe everywhere. We will probably have this discussion again in other neighborhoods where we are doing the corrugated pipe and we will be in the neighborhood. Somebody will have a problem and it will only be another \$10,000.00. So we need to look at it in that context.

Debra Filla-To confirm what you are saying, maybe it would be valid to have a Stormwater meeting just to discuss the policy issue of how we are going to go forward with the updates of all of the corrugated pipe replacements. To discuss how we handle that. This is one in point where we do have a sanitary sewer pipe that is there and nobody wants to see that open up.

John Kahl-But we do not own the sanitary. Johnson County Wastewater owns the sanitary sewer line. That is their obligation and responsibility. I'm sympathetic to the problem but think Leawood's policy should be to protect Leawood's infrastructure. I do not know if the sanitary line brings that into consideration.

David Ley-We would have to extend the storm sewer a little better beyond that because we are going to try to protect our stormsewer pipe. Since it is right at the same spot as that sanitary we would not only replace the pipe, we would extend it beyond that sanitary sewer manhole. You can see the pipe is right up against the manhole. We would extend it ten feet closer to the creek to be able to build the wall and protect underneath and around the pipe.

Curt Talcott-The sanitary sewer is going to be protected by the storm pipe already.

John Kahl-Yes. Just wanted to pull out if we were using the sanitar sewer as a justification for doing this and we need to be careful about that in setting a precedent.

Carole Lechevin-So the resident put rip-rap in place over the years and you mentioned that was undersized. Does that –how does that impact? Does it make it worse? Is it a band-aid? Seems like a lot of money thrown at it and if it is not designed right or the right sized rock. They are having

to do it on their own without guidance, maybe they consulted with the engineers. As in my case, if I put some rip-rap back there and just do what I can to hold the line, it seems like I'd be throwing money at it that will not help and may hinder or move the problem elsewhere. It seems like there ought to be guidance. The City ought to have some guidance if you are doing something and it is related to the stream bank.

Lisa Harrison-Will we move the problem north if and when we fix this? Will we create another scour point at the next property to the north?

James Azeltine-I think Debra makes an excellent point, there needs to be a discussion about the larger context of this. Since we are doing so much of this corrugated pipe replacement throughout the City and there will be many of these I imagine.

Debra Filla-To Carole's point, again if we are out there we need guidance. And we have spoken about this before. Stormwater is the Rodney Dangerfield of facilities. You don't want to hear about it and you don't know there is a pipe until something goes wrong and you want it fixed. The bottom line is that the pipe is good. Think about it for when we do streets. We have a contact for getting in there and doing all the aprons and we make that available to the public. When we have a street contractor out doing a road project, the contractor is on site and while they are out there digging everything up and working at the end of one's driveway. If the residents want to do their whole driveway at that time, they can get in touch with the contractor and learn how to work with them on how to do that. So it seems there is some opportunity about how we go about repairing our underground systems. How to landscape, how to do rip-rap or whether something helps so if people are going to try to make an improvement, we could have some guidance. As we are working on the improvements down there, that is the time to find some guidance. People are there and with the equipment, while the sod is gone, that is a great time to be thinking about.

James Azeltine-David, how hard would it be or how good of a job could we do to locate these types of situations throughout the City and in getting some type of a guess as to how many there are?

David Ley-We could tell you how many end sections we have, which would be something we could do. We could queue it on a certain sized pipe, say a 24" diameter pipe or larger and then how many end sections we have. That would give us a general idea of those locations but it not going to address the ones we have such as Caroline's property.

Carole Lechevin-I think it's 12", it's small.

David Ley-We have end sections all along Lee Boulevard. Where we have roadside ditches there will be many.

Curt Talcott-The end sections will mostly get fixed as we go through with our metal pipe replacements. What I am hearing is the issue is bank stabilization for people where their back yard fronts a creek. That is Pandoras Box. You could honestly say anybody who hasn't had a hardscaped stream bank has this. Everybody that backs up to a creek has some part of erosion problem.

David Lindley-Asked about what work had been done so far with the replacing the corrugated pipe.

David Ley-Advised that next year is the first year for the project. There is no history for it.

James Azeltine-Is wondering in terms of the question in trying to get a bigger picture of this, could staff gather the information and have in a subsequent stormwater meeting have a meaningful conversation about this entire context?

David Ley-The streambank erosion would be difficult. That would be a large cost to get the locations. The size of rip-rap or what needs to be installed would be different at each site and that would be very difficult without going out and looking at every site. Very time consuming on staff's part.

Carole Lechevin-Seems to me we should at least know the scope of the problem. If we are looking at everything. You all know.

Curt Talcott-There is about an eight month endeavor to look at that.

Debra Filla-I do not think we have to know the scope to have a meeting to know that this problem is bigger than a bread box but I think it also would be good like you said James to look at our policy.

James Azeltine-So in general how do we handle the portion of this.

Debra Filla-Where you talked about looking at the 90/10 Policy. We can be smart about it and look at it. We are not going to stop the rain. We will not stop Nature from happening, sometimes you have to just evacuate like they are with Hurricane Harvey. But we could look at the tools we have and how to apply them so we have a policy.

James Azeltine-We were able to get that in our goals in our annual goal session to look at that. Maybe have another Committee meeting and discussing that. We could probably spend some time on that and dig into in without knowing where all the places are. I think that makes sense. We have to know how since we are doing all this pipe we need to know how we are going to deal with this because we will run into a lot of these situations.

David Ley-Part of it also is when we do a pipe like this, we will need to get easements from the property owners. We will need a Temporary Easement, it would really be more for negotiating that easement with the property owner. The way we look at it is if we have to go through condemnation to get the Temporary Easement, we are going to pay a minimum of \$6,000.00 to go through a condemnation process.

Curt Talcott-Situations like this it would have to be part of the negotiation to get the easement. In a somewhat simple range of cost to be justified.

David Ley-Whatever easements we need for the project we would limit our scope to within those properties. We would not go beyond that. It would bog down the stormsewer pipe replacement program.

ACTION: Debra Filla - Motioned for the Committee to recommend to approve an additional estimated \$10,000.00 in stream bank stabilization along the west property line as part of the 2018 Mission Road Street Project in exchange for the Temporary Construction Easement from the property owners in order to help in erosion issues.

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

John Kahl-in discussion about a future meeting, if we are going to replace a pipe we need the scope of the project to include enough to fully protect the new structure. And to address any reasonable foreseeable problems that those improvements might cause. Beyond that use any additional work that might benefit property owners and use as a negotiating point in obtaining the easement. But remember what this Committee does is at the direction of the City Council. Ultimately to undertake the process, don't we actually need direction from the City Council? Do we have the authority to take off on that tangent?

James Azeltine-I think so because it is related to this referral. I think so.

Debra Filla-If you want James can make a Council Report.

ACTION: Debra Filla-Motioned for the Committee to have a subsequent meeting to discuss the tools and policy regarding this gray areas associated with our corrugated pipe replacement projects and to invite the City Administrator to attend the discussion.

John Kahl-seconded the motion and added that in the replacement of pipe, the scope needs to fully protect new structures and address any foreseeable problems the new fix might cause.

All present members were in favor. Motion passed.

Chair Azeltine-Said he could bring up by way of a Council Report to ask for permission an assignment for a continued discussion on our Corrugated pipe replacement and policy; however felt that this continued discussion was related to the current assignment to review the concerns on this Mission Road Project (LeCluyse Property) and that it helps in better understanding our policy/direction. Staff will need to poll the Committee on another meeting date.

Lisa Harrison-And in terms the earlier discussion, and to the Engineers in the room, I want to make sure that we are certain than when we fix this issue we are not moving the problem further downstream, creating a problem further down at the next property level. If they have an equally flat yard and they are getting the same amount of raindrops coming down.

David Ley-We will hire an engineer to look at that to look at the streams and make sure we have the right sized rip-rap improvements and the correct alignment, that is part of the project over the next several months. We just surveyed the project and will be starting the design in the next couple of weeks. In review of the map, the FEMA area on the map; this project is not in the FEMA flood zone at all. The blue area on the map; currently the FEMA Flood map started at approximately 600 acres upstream. When they did the mapping again I believe they (the County) went to what they call a future flood plain map and it is 160 acres.

Curt Talcott-Which is a quarter of a square mile; 640 acres is one (1) square mile. It is not accurately labeled either because they call it a .2% chance. FEMA made them go through and call all the Zone X's the same thing throughout the County. That really is a 100 year flood plain beyond the limits of the detail.

John Kahl-The history on that was when the County started doing the restudies of all the watersheds in the County, the State became aware of some errors specifically in the Tomahawk Creek floodstudy. At that point in time John was the Stormwater Engineer at the County and it started out in the City of Overland Park wanting to do a restudy of Tomahawk Creek. The County's Program and all the problems that were listed were not on the main stems anywhere. They were up in these small watersheds, small areas. So in perspective of the County, just restudying the main stems of Tomahawk wasn't going to do a whole lot of good (for the County Program). So in taking it up to a higher level, the 160 acres was a negotiation point where they said okay that sounds reasonable, but then when they came through and tried to get those studies implemented with FEMA, FEMA does not recognize/regulate that high. FEMA cut theirs off and stayed around the square mile mark. They wanted to make it available to people and planners so they designated the area as something else on the map. The FEMA group does not have a category for these City Flood Plain areas.

Curt Talcott-Basically it gets flooded in the same storm that the rest of it gets flooded in but it's called something different. And you are not required to buy flood insurance in those areas, as it is beyond the FEMA Zone. The banks are not required by law to make you purchase it in those smaller areas.

SECOND ITEM OF BUSINESS: Previous Meeting Minutes

ACTION: Lisa Harrison made a Motion to approve the past Minutes of April 26, 2017. David Lindley seconded the Motion to approve. All members in attendance were in favor. Motion passed; Minutes approved.

THIRD ITEM OF BUSINESS: (OLD BUSINESS) Update of BMP Program Items.

Staff gave an update on the BMP Cost Share Program in that four (4) brochures are now created as previously recommended and assigned by the Council to promote the BMP Program. The four brochures are: BMP Cost Share Brochure, Native Plants Brochure, Native Trees Brochure and Rain Barrels Brochure.

Debra Filla loved the new brochures and asked who made them. Now that we have them it feels like the Council is armed with information when we speak to Homes Associations. This is a great tool to use.

David Ley-advised Public Works Staff Julie Stasi, and Michelle Sherry, a Special Projects Engineer, along with the help of a Summer Intern created the brochures.

Lisa Harrison-asked if there was a budget for mailing brochures; especially to people that live along creeks. Maybe to educate them more on options that might ease their stormwater pains.

Julie Stasi-Advised Public Works has a small printing budget of about \$2,000.00; as far as US Mail goes, we just mail what we need to and that is under the General Administration Budget that PW does not see much/unless it is a bulk mailing where it turns into thousands of dollars.

Chair Azeltine-advised we should get these to the Council and post on the web site.

Carole Lechevin and Debra Filla-made a few minor edits; changing "Marigolds" to "Milkweed" and also adding the address to the link "Grow Native in Missouri"; who has an extensive information which differently applies to us.

David Ley- also shared a recent BMP request for a Redbud Tree that was applied for on the BMP Cost Share Program and approved/processed and installed by a resident at 12008 Fairway Road.

Chair Azeltine adjourned the meeting at 8:35 AM.

Minutes transcribed by: Julie Stasi, Administrative Services Manager, Sr.
Leawood Public Works Department