

MINUTES
BOARD OF PUBLIC WORKS MEETING
October 15, 2007
New Berlin City Hall Common Council Chambers
3805 S Casper Drive

Please note: Minutes are unofficial until approved by the Board of Public Works at their next regular scheduled meeting.

Members Present: Mayor Jack Chiovaturo, City Engineer J.P. Walker, Alderman Moore, Alderman Augustine & Alderman Ament.

Staff Present: Ron Schildt, Transportation Engineer, Greg Kessler, Director of Community Development, Tammy Simonson, Transportation Engineer.

Guest: Agi Nikolau, Hickory Hills; Darrell Berry, Bloom Consultants and Ryan Antmann, Ruekert & Mielke.

Alderman Augustine asked if there was anyone out there that would like to speak to the floor and seeing none he called the meeting to order at 8:00 AM.

OLD BUSINESS

ITEM 01-07 Approval of the Minutes from the September 17, 2007 meeting.

Motion by Mayor Chiovaturo.

Alderman Moore 2nd the motion.

Upon voting the motion passed unanimously with Alderman Ament voting present.

ITEM 19-07 Amendment No. 3 to the Development Agreement for Hickory Hills Condominiums (Tabled from September)

JP Walker made the motion to remove this item from the table.

Alderman Moore seconded the motion.

Upon voting the motion to remove from the table passed unanimously.

JP Walker – The requested action is to request the Common Council to approve the request to amend the existing Development Agreement for Hickory Hills Condominiums to allow occupancy permits to be issued to individual condominium units instead of having to wait until all condominium units within a building pass their final building inspection.

Alderman Moore – Why hasn't this been done in the past?

JP Walker – Because the issue never came up before. Staff never looked at the differences between an apartment building and condominium building, where in the apartment buildings all units are the same and in a condominium building, there are different owners, therefore their personnel preferences are different and they might want to special order items for their condominium, which would cause a delay for the condominium owners that are going with the standard items that the builder includes, and want to move in sooner.

Alderman Augustine – How has it been that we haven't allowed this in the past?

JP Walker – This issue has never come up before.

Agi Nikolau – Sometimes people will order special cabinets or counter tops which take longer to make than our standard ones and the standard units will be done first. We have buyers that want to move in, but can't because they have to wait for the special orders to get finished. If everybody takes the standard stuff then we have no problem, we finish it right away.

Alderman Moore – I understand the reasons for but I don't know the reasons why we wanted the whole development to wait.

JP Walker – We are talking building by building not the whole development.

Alderman Moore – Now it would be done unit by unit?

JP Walker – The issue has never come up before, we have never had this request before. I believe it is something that we never anticipated, but I see that it is a potential issue that we need to consider.

Alderman Moore – I still don't understand the reason why we did it building by building in the past.

JP Walker: My understanding when talking to the inspection and planning division, Staff did not distinguish between a condo unit (private ownership) and an apartment building. I think with Staff not making that distinction the issue never came up before.

Alderman Augustine – Will this require extra staff time?

JP Walker – The inspection department has to do each individual unit for any inspection process. I don't see any more time taken for this. The inspectors go out multiple times.

Alderman Moore – Are the charged unit by unit?

JP Walker – Yes there is a regular schedule, the contractors call for an inspection and it's unit by unit and it has always been done that way.

Agi Nikolau – We are charged for each unit.

Mayor Chiovatero – I think this is a good idea as long as all the common areas and the landscaping and sidewalks are completed.

JP Walker – Everything else in the Developer's Agreement will remain the same, nothing changes with common areas or landscaping.

Upon voting the motion passed with Alderman Ament opposing.

ITEM 23-07 Ryerson Road Design Components (Tabled at September meeting)

JP Walker – At last months meeting Matt Yentz and Jon Lindert from Strand & Associates gave a presentation on Ryerson Road. We are waiting for the Water Resource Committee to get back to us with stormwater components, which has been tabled at the committee. I would not be opposed to re-tabling this awaiting action from that committee because the stormwater components are a key point. It remains on the table.

ITEM 27-07 Reallocation of Funds from the Ryerson Road & Lincoln Avenue Design Accounts to the Greenfield Avenue Reconstruction Account (tabled at September meeting)

JP Walker: The requested action is to request the Common Council to approve the transfer of \$50,000 of approved funds from the Ryerson Road Design Account 04251100 63012 C2007 and the transfer of an additional \$50,000 of approved funds from the Lincoln Avenue Design Account 04251100 63014 C2007 to the Greenfield Avenue Reconstruction Account 04251100 63002 C2006 to complete the reconstruction of Greenfield Avenue from 882 feet east of Westwood Road (600 feet east of Baythorn Way in Brookfield) to just east of Johnson Road.

JP Walker made the motion to remove from the table.

Mayor Chiovatero 2nd the motion.

Upon voting the motion to remove from the table passed unanimously.

Mayor Chiovatero – I have had several discussions with the State and they were going to get back to us. I know there is a lot of concern with this. Dwayne Johnson has gotten back to me with some minor things but is still doing research. So at this time I don't have those answers. I kind of understand where everybody stands on this.

Mayor Chiovatero – Made the motion to put this back on the table and if we hear nothing by next month's meeting we totally drop this from the agenda.

Alderman Moore 2nd the motion.

Upon voting the motion passed unanimously.

NEW BUSINESS

ITEM 28-07 Lincoln Avenue Design Components (Discussion Only)

Darrell Berry of Bloom Consultants gave his presentation on the design components for Lincoln Avenue. There were five areas that he covered. 1) Preliminary plans, going over some of the features of the design including the latest update on the storm sewer and storm water management components. 2) The Environmental Document. 3) The public informational meeting #2, which is scheduled for November 6th, 2007. 4) Railroad coordination and 5) the current project schedule.

The storm sewer that has been proposed is as follows:

Calhoun to the railroad crossing – one 42" diameter single pipe in roadway.

At the east end of Lincoln Avenue between Deer Creek & Moorland – one single storm sewer starting at 24" diameter and increasing to 48" diameter.

Middle section – from the railroad crossing to Deer Creek two horizontal elliptical pipes, 45" high by 73" wide and then cover the pipes in the ditches.

There will be bio-retention swales at the far west end of Lincoln Avenue on the north side, a second one east of 170th, on the north side and a third one on the south side of the road up to the railroad tracks. At the east end of the project, it would be just east of Deer Creek on the north side of the road. In the middle section, we would provide a gradual swale off to the side of the road. It would be vegetated and provide some capacity for the storm water management.

Alderman Moore - Why can't we use more bio-retention swales and take a look into the latest designs. If you deepen or widen them and combine them with rain gardens you will be able to keep the runoff down to a minimum.

Darrell Berry – Speaking on behalf of the sub-consultant that we have working with us, those considerations have been taken into account in this design. They have looked to see exactly where they would fit.

Alderman Moore – So you don't believe that we can deepen or widen the bio-retention swales?

Darrell Berry – No, I don't believe that we can. We need to have these size pipes in order to convey the water to Deer Creek. I will ask our sub-consultant to take a look at that again, but I am very confident with their design as proposed now.

Alderman Moore – Why do we need to pave the 8' shoulders?

Darrell Berry – The proposed roadway section is with curb and gutter. We are paving the shoulders.

Alderman Moore- I see a 20' wide traffic lane under your typical finish section and I guess maybe the definition of what I call the shoulder you are calling an 8' wide auxiliary lane.

Darrell Berry – The roadway section is still proposed to be a two-lane roadway to accommodate the traffic and the drainage and the turning movements at the intersecting roads and driveways. The outer portion is sometimes called an auxiliary lane. This would not be striped. You would basically have from the center of the road two 20' wide traffic lanes, one in each direction.

Alderman Moore – Does the City not intend to stripe these?

JP Walker – That's correct. The purpose of the wider lanes is to allow better maneuvering for the semi's and to allowing cueing of semi's waiting to use the loading docks.

Alderman Moore – Basically, this is incorrectly written, you are looking at two 20' travel lanes.

JP Walker – It should state two 20' travel lanes.

Alderman Moore – Do we have that in the rest of the City at all?

JP Walker – That is our typical cross section for our industrial roads. 40' from curb flange to curb flange.

Darrell Berry – This roadway section is the same one that we have been carrying in the design since we started back in June.

Alderman Moore – On Ryerson Road it is recommended to widen just one side of the road. Is this because of additional trucks that need to cue up on Lincoln?

Ron Schildt – When we are talking about Ryerson Road, we are still trying to use the bio-retention swales on all the areas. The problem that we are having is we can't fit the back side of the bio-retention swale inside the existing right-of-way without either purchasing additional land or narrowing the roadway cross section. This is our typical section that is in the Developer's Handbook for what we would use for a typical industrial roadway. The extra lane is for either an auxiliary lane or extra width of a driving lane while the trucks are either strapping or un-strapping their loads while they are getting ready to get into a loading dock, be able to maneuver as they go in or out of a loading dock.

Alderman Moore – That is why I am asking this question, that maybe possibly we could use more bio-retention swales. If there isn't a need for the extra width of the road and what I want to hear is that we need the extra width for the road if that in fact is the case.

Ron Schildt – That's why we came up with our typical section as to what we should use. We can narrow it down a little bit and that is what we are trying to do on Ryerson Road if it's not going to affect the maneuverability of trucks getting into and out of those areas. It would only be possibly making it from 8' wide down to 6' wide for Ryerson Road. That may help but we still may have to get some type of easement for the back slope of the bio-retention swales to work there.

Alderman Moore – So you are saying there is additional space needed for turning on Lincoln Avenue then there is on Ryerson Road?

Ron Schildt – The traffic between the two isn't that much different but there is a recommendation as to what you should use for a width, possibly there would also be a minimum of what you can use. What we are trying to do is take it from our recommended 8' wide extra area outside of the typical traffic lane and narrow it down to what we would consider even a minimum of what would work and that would be the trade-offs then. Narrowing it down slightly and being able to do bio-retention .

Alderman Moore – What about doing that here?

Ron-Schildt – I don't think the width of the roadway is influencing that. It is the amount of water. They need to have that much.

Alderman Moore – Do you mean from upstream or do you mean from the additional impervious surface?

Darrell Berry – On the westerly end of the project a far greater component of storm water is coming from off site.

Alderman Moore – Additional swales or rain gardens would not be able to handle that?

Darrell Berry – No.

Alderman Moore – Do you anticipate a significant number of trucks using the extra width for parking?

Ron Schildt – They wouldn't be parking there technically. The extra room is needed for the trucks to pull off and stop to un-strap their loads as they wait their turn to use the load docks. There aren't that many out there that stop along the side of the road. If there is a truck that has to stop along there the traffic will still be able to get by.

Alderman Moore – If you have trucks along the side of the road, they impinge on the driving lane, and they aren't supposed to park there, why are they?

Ron Schildt – You have a vehicle that is either strapping or un-strapping their load, waiting to get into the loading dock.

Alderman Moore – Do you anticipate that trucks will be in the way while they are cueing up waiting for other trucks needing the extra turning radius.

Ron Schildt – There are very few trucks parking along there using that area. The extra width is mainly for maneuvering of the trucks.

Alderman Moore – Is there any reason why we couldn't mark them as bicycle lanes?

Ron Schildt – If it's a marked lane then technically anybody that's stopped in that lane is blocking a live traffic lane, whether it's a bicycle lane or vehicle lane it's actually a through traffic lane.

Alderman Moore – On Cold Spring Road we have asked the question "Can people park in the bicycle lane?" We have told them yes, is that inappropriate?

Ron Schildt – Technically yes, we have gone over this a number of times. If somebody is having a rummage sale we aren't going to ticket them, if someone is parked there and the police is aware of it they can give them a ticket.

Alderman Moore – Then you would anticipate more of a use of the extra width along Lincoln Avenue then you would along Cold Spring Road?

Ron Schildt - Yes, it's used for maneuvering and getting in and out of loading docks and driveways.

Alderman Ament – What do the little "caution" markings mean on all of these plans?

Darrell Berry – To alert the construction contractor that there is some type of piping or wiring under ground at that point.

Alderman Ament – You said that you are not going to be doing anything to the bridge is that correct? Is there a particular reason why we aren't doing anything with that bridge?

Darrell Berry – Essentially it is about 26' feet clear between the railings that are on the bridge now, so the road would narrow down across the bridge.

Alderman Ament – How did we decide to not even consider the bridges?

JP Walker – It was a Staff decision at the beginning of all three projects to not do anything with the bridges because based on our inspection of the bridges, which is done on a bi-annual basis, the bridges are not in disrepair and it would add substantial cost to each of the projects. The decision was made at the Staff level that any improvements to the bridges would be made (if necessary) to all three bridges at the same time as one storm water project.

Alderman Ament – Are we anticipating doing this in the future?

JP Walker – Not in the near future. The inspection reports are that the bridges are in good repair and have no need for improvements at this time.

Alderman Ament – It can't be expanded without replacing them?

JP Walker – That would be up to a design engineer, I can't answer that.

Alderman Ament – On Moorland Road and Lincoln Avenue, it looks like you are anticipating some widening of the turn lanes if the truck is south bound on Moorland. What about turning right off of Moorland Road onto Lincoln Avenue?

Darrell Berry – That is being widened out also.

Alderman Ament – Is it enough for the trucks entering the Industrial Park?

JP Walker – When the County improved Moorland Road they already took that into consideration. They widened the intersection at that time.

Alderman Ament – The rain water that flows off of the road which is going to have certain amount of contaminants in it, such as anti-freeze, oil and other items, are we just taking that and running that right into Deer Creek?

Darrell Berry – No, the proposal for the middle section of the project where we mentioned we were having trouble getting a trunk line storm sewer to work, the proposal now is to actually to have slots in the curb to allow the drainage to go into these swales so the runoff from the road way will actually get into the swales and that will provide for the treatments of the contaminates.

JP Walker – Another consideration is the inlet filters. In areas where you may have a catch basin within the curb that does not go into the swale, there are inlet filters that take care of the issues you are talking about.

Alderman Ament – Now the gravel shoulder is easily visibly to see as you are driving down the road. Is not marking that going to be a safety problem? Are we still looking at putting a white line at the outside of the 12' lane?

Darrell Berry – At this time we are not proposing to mark off the 12' lane.

Alderman Ament – The Westridge Industrial Park does not have as much residential traffic as does this one. Is there going to be a lot of land acquisition at this time?

Darrell Berry – In the areas of the proposed bio-retention swales as we go from the back slope of the ditches onto the private property it was proposed as follows: “The areas of the bio-retention swales within the right of way for Lincoln Avenue would be credited to the individual property owners whose properties abut the swales in exchange for allowing the City to construct the bio-retention swales partially on private property. The additional green space would be beneficial to the individual property owners when considering an expansion of their businesses.”

Alderman Ament – When you say credited, do you mean to their storm water fee?

JP Walker – It's credited for their open green space, in other words they will have green space all the way out to the back of curb including the right-of-way area in exchange for allowing us to put the bio-retention swales partially on their property.

Alderman Ament – How far into their property are you anticipating these bio-retention swales to go?

Darrell Berry – The bio-retention swale on the west end going on the north east quadrant of Lincoln Avenue and the frontage road is about 10'. The one just to the east of 170th street near 16950 Lincoln Avenue would be about 20' – 25'. South of 170th street maybe about 10'. The fourth bio-retention swale located just to the east of Deer Creek on the north side of the road at 16230 Lincoln Avenue appears to be about 10' – 12' onto private property.

Alderman Ament – Will this affect the setbacks for these properties?

JP Walker – We are not changing any setbacks or right-of-way lines. The only thing that changes is there is potential for businesses to expand and this crediting of additional green space may give them the ability to expand and meet zoning code requirements. This could be a win-win proposition for the businesses. We would be the ones that would be changing something, so they would be grandfathered in.

Alderman Moore – In the area of the bio-retention swales we can save 6½', because you shouldn't have a curb when you have a bio-retention swale.

Darrell Berry – We still have curb at the swales.

Alderman Moore – But that stops the flowage from going down into the swales, does it not?

Darrell Berry – There are two types of swales that are currently proposed on the project, one is the full bio-retention vegetation type deeper swales off the side of the roadway and right now we have four areas that are proposed for those. The second type of the swale is the relatively shallow swale that would be above the enclosed pipes in the existing ditches. These swales would only be a couple of feet deep. It's in the areas between Deer Creek and the railroad that we are proposing to put slots in the curbs to have the flow from the roadway go through these slots across the short terrace area and then into these shallower swales.

Alderman Moore – Why have the curb, if you are going to put slots in?

Darrell Berry – It's for the safety of the roadway to provide a delineation in the roadway to help and direct the flow that comes off of the cross slope of the roadway and get that flow into the shallow swales and it also provides a curbing that would prevent the turfed area or vegetated area from washing back down into the road.

Alderman Moore – I can see where a curb and gutter would stabilize the roadway but it also keeps the water from sheeting which is better. Is it not in relation to the water going into the bio-retention swale rather than it being created in flows and more high volume flows.

Darrell Berry – Yes, the curb without slots would allow water to sheet drain back from the curb and gutter into the roadway and that's part of our design.

Alderman Moore – No, I'm talking about sheeting out from the roadway to the bio-retention swale.

Darrell Berry – If there wasn't any curb there, yes it would sheet drain but you would lose the benefit of the curb for the delineation of the roadway, wheel stop for vehicles, prevention of earthen material washing back into the road, etc.

JP Walker – You are proposing the standard vertical face curb. One of the original conceptual design components was using three foot wide rumble strips. Why are you proposing curb and gutter and not rumble strips? Can't rumble strips serve the same function as a curb in the areas of the bio-retention swales to allow that sheet drainage?

Darrell Berry – They could and again as I mentioned, the base design for this roadway was to have a trunk line storm sewer within the entire length of the road. As the design progressed, it was determined that it just wasn't feasible because of the extremely large sized pipe that would be required to have a trunk sewer in the roadway between the railroad track and Deer Creek. So that's where we came up with the idea of enclosing the ditches. We haven't gone back and take a look at the typical roadway. There is an option now in that area to use rumble strips instead of the curb and gutter. That's something we could take a look at.

Alderman Moore – It seems also that we could save 6½' from the way this is designed and move the bio-retention swales closer to the roads. Also, you talk about the need for all these pipes and if you had additional bio-retention swales throughout the project you could decrease the whole flow within the pipes, could you not?

Darrell Berry – We aren't using the bio-retention swales for conveyance of the flow. They are being used as storage, that's why the vegetation is in there.

Alderman Moore – That is why I'm suggesting the pipe flowage would be less if we had more bio-retention swales.

Darrell Berry – I will take that back and talk to our designers about it.

Alderman Moore – I don't see why we can't have bio-retention swales throughout the project.

Darrell Berry – We looked at locations for them and it's a function of where existing driveways and roadways and certain features of the properties are. We are actually squeezing them in wherever we can.

JP Walker – This same issue will be a discussion point in our discussion on Glendale Drive. They are up against storm water volume issues, probably the same problems as Lincoln Avenue. The volume of storm water that has to convey through the area is more than what can be handled by bio-retention swales, therefore it's being proposed to have a main line storm sewer system and bypass the swales in some areas because of the volume of water could wash the swales out.

Alderman Moore – Due to the fact that you already have piping underneath the bio-retention swales I think it would be a combination system.

Darrell Berry – We can't do that.

Darrell Berry – Item #2 had to do with the Environmental Document and report. The good news is there isn't anything we have to be concerned with in regard to an environmental standpoint on Lincoln Avenue. The construction documents will provide for erosion control measures, we use the WisDOT standard specs for those. For storm water management we talked about the use of bio-retention swales to improve water quality and eliminate some of the suspended solids. Construction stage sound quality is an item we have to look at and that's basically handled by the City's ordinances for when motorized equipment can be used. The only area that raised a little bit of a yellow flag, that 20+ years ago, just west of 162nd Street there was a petroleum spill that we uncovered in our records search. That particular area did appear to be changed. There was no DNR file on that, but it's a notice and we will put a note in the construction documents that there is a small potential for some petroleum contaminated soil to be encountered just west of 162nd Street on the north side of the Lincoln Avenue.

Item #3 mentioned that we have scheduled Public Informational Meeting #2 for this project to be held on Tuesday, November 6th here in the Council chambers beginning at 5:00 PM. I talked to Tammy Simonson this morning and letters and notices will go out today.

Item #4 has to do with the railroad coordination. Earlier this year, we had some correspondence with the railroad company regarding their track crossing. We had requested information from the railroad for what they would do with that crossing and we have not received any information back from the railroad. As this project develops the coordination with the railroad becomes a little bit more critical because we have that 42" diameter storm sewer pipe coming from the west end of the project that needs to go through the railroad crossing before being dispersed out to the pipes in the ditches. Our anticipation is that when the railroad would improve that crossing the storm sewer pipe could be put in with open cut methods at the time the crossing was closed. If we look at another option of going underneath the tracks with a boring and jacking type operation you have to put the pipe at least two to three feet deeper because the railroad requirements for jacking underneath their facilities. The railroad coordination needs to be on going.

Item #5 has to do with the Project Schedule. We are anticipating making a submittal of 60% to 70% completion stage plans. We have to look at a couple questions that were raised today. We are targeting the end of this month for that so we would have good information for the public information meeting. The pre-final plans for this project are scheduled for February of 2008. Final construction documents for April of 2008 where then the plan would sit on the shelf because it's not anticipated to bid the project for construction any sooner than spring of 2010.

JP Walker – The reason we are looking at 2010 is because this is one of the projects that is eligible for STP grants. We don't know yet what the outcome is on that, but this was a third priority. This obviously is a budget discussion item and when it actually gets scheduled will be during budget deliberations. Our hope is that we get the STP grants, if we don't then it falls in line with all the other projects and how we fit them into our CIP budget.

Alderman Moore – How many buildings have downspouts to into the stormwater system?

Darrell Berry – I can't answer that but I'm sure there are some.

Alderman Moore – There is probably a large flow because of large buildings. If we retained more of that water on site we would have less water going into the system. We should try and encourage the businesses not only to disconnect their downspouts from going directly into the storm water system and out on their property but also to create rain gardens to help retain more of that water on their property and go into the sub-soil, and possibly give them a decrease in the storm water fees based upon how much water goes from their property into the system.

JP Walker – It is something that can be considered and must be discussed at the Water Resources Management Committee. We are looking for an opportunity to provide more of a benefit to the business owners. This certainly should be discussed.

Alderman Ament – When I was reading the minutes from the meeting Eric Nitschke said that the majority of the green space in that area is clay and compacted. That it's really not going to be much of a benefit. If that's the case we would have to talk to them about building something like a rain garden. The impression I got from reading the minutes was that if you run that out into their green areas it's going to run off anyway because of the type and compaction of the soil especially when it was built. If we were to go to these people and they decide to do that, we need to look at some way of compensating or reducing storm water fees to businesses or residences for that matter that help the situation that spend the money and the time to positively affect our storm water situation for a lot of reasons. We talked about this several years ago that if a business or residence were to do this there would be some kind of compensation.

Alderman Moore – That is why I brought up the rain gardens and reduced fees situation.

Ron Schildt – That is one of the things we are looking at there, we aren't going to be able to do the bio-retention swales because of some other reasons, but we are looking at doing some of the best management practices off site on those. We actually did send out a letter with our public information meeting asking for those business that would be willing or would like to hear more about that and possibly work with that. We are looking at that as a separate track from the construction project. But we are going to be contacting, I think we had about 10 businesses that were interested, and we are looking at it for a pilot project for the entire industrial park area. We will bring that to the Water Resources Management Committee. If it's removing part of an unused parking lot then that automatically is going to decrease their impervious surface which would affect the rate they pay. But there are other things that they might be able to do also. Such as a rain garden or bio-retention swale that's affecting just the drainage coming off of their property before it even gets into the right-of-way.

JP Walker – If we think back to some of the proposed stormwater components on Calhoun Road we had bio-retention basins and those types of things. One of those basins was to be located on the north side of Lincoln Avenue. That in itself will reduce some of the volume of water that is coming from west of Calhoun Road onto Lincoln Avenue. It won't reduce it a great deal but that type of component or control at Calhoun Road will help with the initial onslaught of water

that is inundating the drainage along Lincoln Avenue. Those are all things related to how we are trying to mesh all these design components together. When you look from the global perspective it does make sense.

After no more discussion the meeting moved on to the next addenda item.

ITEM 29-07 Glendale Drive Design Components (Discussion Only)

Ryan Antmann of Ruekert & Mielke gave his presentation on Glendale Drive.

Ryan Antmann – The first thing I want to point out with Glendale Drive is where it is different then Lincoln Avenue or Ryerson Road. That is the total amount of impervious surface that is going to be added is less then ½ acre. This project is not going to fall within the requirements or jurisdiction of the MMSD Chapter 13, so as a result of that there is no detention or water quality improvements required on Glendale Drive. However in looking at the spirit of the business park as a whole I think it's quite obvious that there is a desire to have improvements to the storm water quality out there.

Alderman Moore – When you started talking about the pipes going from the south to the north of Glendale I immediately thought of all the things that you mentioned. I can't say enough about the positive aspects of what you just said. I noticed that there is just too many parking lots south of Cleveland. I have been concerned about ordinances that require so much parking in the past from the City and if that hasn't taken place, I sure hope that is one thing that we work on. Rain gardens especially designed to allow the water to soak in as quickly as possible, but still retain some water as necessary is a good idea. Controlling the water from upstream is really the solution. I thought about having a discussion with the County on the reconstruction of Cleveland Avenue that we have a great opportunity to slow the flow of storm water from the Cleveland Avenue to the north.

Alderman Ament – When we are talking about these pervious parking lots I would think that there is a certain consideration for weight. I imagine that would be acceptable for cars, but you would not necessarily want that for the semis that are coming and going over that surface. Is that an issue for those or can they be designed for those?

Ryan Antmann – That can be designed into those based on the underlying sub-structure. It would be built similar to a pavement structure, rather than having the closed graded base course that you are used to on a shoulder. You would have an open graded type base course that would allow water to flow through it. You can still get the structural support that you need for those sorts of uses. The concrete blocking itself is on the order of 4 – 5 inches thick which is very similar to the thickness of the asphalt that you would see out there. I'm quite confident you could design those to support those types of uses. I don't think an entire parking area would be appropriate for that sort of a use, but on Glendale Drive we saw a couple areas where there is a lot of parking lots and maybe there are some areas of those parking lot that are not needed or need to be rebuilt and the City was to help them rebuild it to a pervious type of pavement they can still use it and they may see a reduction in their storm water bill.

Alderman Ament – Is that substantially more expensive to build than standard asphalt parking lots.

Ryan Antmann – It would be more expensive but I can't say substantially. Asphalt prices are quite significant now because of fuel prices, but it is certainly something I can check into to get a better idea.

JP Walker – You may recall that we put pervious pavement in the alley way that parallels Greenfield Avenue east of Sunny Slope by Rock Place and Park View Avenue. The costs were similar but where the costs difference comes into play is you need an underdrain system especially in a clay environment. When you add in the underdrain system and the thickness of material that you need for them that's where the cost increase comes into play. It's not so much the difference in the pavement costs, it's the other components.

Alderman Ament – Do you have any feel for the difference in the cost?

JP Walker – That's something we need to research.

Alderman Moore – We have to be careful not to compare directly the cost of asphalt and pervious surface because there are so many other benefits. As an example decreased downstream costs in piping, decreased costs in storm water control, decreased particulates and other contaminates to the system, to our streams, to our lakes, to our ground water. All of this is a general benefit to the public and to our whole environment. We need to look beyond our initial costs.

JP Walker – I echo those sentiments, especially when you take into consideration the mandates that are coming from the WDNR. 20% removal of total suspended solids by the end of the next year and 40% removal by the end of 2013. We all recognize that the Industrial Parks are a primary source of total suspended solids in our waterways and we recognize that the Industrial Parks are the area that we really need to focus on efforts to reduce total suspended solids so anything that

we can do on public and private lands is a benefit to the City as a whole. In that benefit there should be reduced costs in the future.

Alderman Moore – There is also more than one type of pervious surface, there is not only the kind of blocks that you talked about that have the advantage of additional straining of solids by the fact that you can allow grass to grow through it. That is very nice, but there are other types like popcorn style of roadway, where there is space throughout the system to let it drain out. We don't have to focus on just one style.

Ryan Antmann – Looking at the business park as a whole, originally the concept of the plan was to do the bio-retention swales along the length of the road. We have had difficulty getting to that work on Glendale Drive and similar challenges on Lincoln Avenue. It sounds like Ryerson Road is going to get some to work. The best BMP would obviously be a wet detention pond, however there could be some substantial cost acquiring the property to put that in. Comparing that to what we are looking at here with doing a whole bunch of things on private property is going to start to add up in cost also. It might be possible for some of these things to be funded through a storm water grant from WDNR. I know the next application cycle would be April of 2009 and historically they haven't provided those grants to do BMP's on private property. However, in the context of what we are looking at here if you aren't able to do it in the public right-of-way we might be able to make the case that grants might be possible to do some of these private property practices.

After no more discussion the meeting moved on to the next item.

Communication from Greg Kessler regarding Tamara Simonson passing the Principles and Practice of Engineering (PE) exam.

JP Walker – We have a communication from Greg Kessler announcing the success of Tammy Simonson in passing her professional engineering exam. She did it on her first try, which doesn't happen very often. It's an achievement that will stay with you the rest of your life. Congratulations.

Alderman Moore made the motion to adjourn.

JP Walker 2nd the motion.

Upon voting the motion passed unanimously.

The meeting was adjourned at 10:00 AM.