Ekota Dry Pond and Menisa Storm Sewer Upgrades Public Information Session Held March 18, 2015 at Menisa School, 933 Knottwood Road South NW

Presenter: David Yue, Principal, Sameng Inc. Facilitator: Godfrey Huybregts, Marcomm Works

Councillor Mike Nickel was in attendance.

Presentation

The following is a brief summary of the topics covered in the presentation:

- The neighbourhoods of Ekota and Menisa have a flooding history, with many residences flooded in both 2004 and 2012.
- After these flooding events, the City undertook numerous studies of the Mill Woods neighbourhood to determine the cause of flooding and find solution options. Since that time, some of the proposed improvements have been completed such as Satoo Pond.
- The studies have determined that the main flooding mechanisms in Ekota and Menisa were sanitary sewer back-ups (basement floods) and surface flooding due to limited surface drainage in the neighbourhood that affected vehicles and homes.
- The project goal is to reduce the risk of flooding in Ekota and Menisa neighbourhoods.
- The project includes the construction of a dry pond in Father Ivor Daniel Park/St. Clement School yard and the construction of storm sewer relief pipes throughout the Menisa neighbourhood.
- The pond is about 3.3 meter deep to the northwest and 5 meters deep to the southeast of the pond with side slopes ranging between 5H:1V and 4H:1V. It will have two inlet/outlets that will connect to the trunk along Mill Woods Road at two different locations.
- The storm sewer relief pipes with diameters of 1050 mm, 1200 mm and 1500 mm throughout Menisa will connect with the pond along Mill Woods Road.
- Information was shared on the functioning of dry ponds. All dry ponds work in a similar fashion in that they can pond water during rainfall events by providing additional capacity to a surcharged storm sewer system network and then drain the water when the downstream system has capacity.
- The landscape plan for the proposed dry pond was shared. Some features of the plan include a soccer field, a ball diamond, some new paths and an amphitheatre. Examples of other dual-use facilities in the city were shared.
- The landscape plan for the walkway between Menisa Park and Mill Woods Road was presented. A large diameter pipe will be installed through this public utility lot (PUL), requiring the removal and replacement of numerous trees.
- The completion of this project will reduce flood risk in the neighbourhood during the 1:100 year flood event. The reduction in flood risk will come from the reduction of surface ponding and flooding along Mill Woods Road and in trapped low areas throughout the neighbourhood. This will reduce the likelihood of sanitary sewer backups.
- The project is currently nearing the end of the preliminary design. Presently, construction is proposed to occur between 2016 and 2018. A pre-construction open house will be held closer to construction to address any questions and concerns at that point in time.

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- The City home check-up team was on hand to address any questions about the home check-up service which is provided free of charge by the City. Through the service, Drainage staff will inspect private property for drainage issues and provide advice to homeowners about how to further protect their homes from flooding.
- At the end of the presentation, Minnan Liu was invited to address questions related to the double barrel project that is taking place on 23 Avenue and 85 Street in the neighbourhood.
- The public was invited to ask questions on both the Ekota and Menisa project and the double barrel project. (see below for Comments and Feedback). The public was then invited to review presentation boards that were displayed around the room, and to fill out the feedback form.

Question and Answer Period

People who attended the open house were generally positive about the project. The public was grateful to have their neighbourhood considered for flood mitigation work. The key questions/concerns that were fielded from residents and the responses given are summarized below:

Q: You made a point in the presentation that there would still be some additional upgrades required to bring the system throughout the neighbourhood to a 1:100 year service level. Can you explain what additional work would be required?

A: In order for both Ekota and Menisa to be at the City standard of no surface water ponding deeper than 35 centimetres in the current 1:100 year 4-hour storm event some local improvements would be required. These improvements range from altering the grading through sections of roadways or increasing local pipe diameters. Sameng has summarized these local improvements and the City is presently considering them for implementation at a later date.

Q: Will the double barrel project help reduce the flood risk prior to pond construction?

A: Yes, particularly in smaller events, the double barrel will allow more water to leave the neighbourhood faster. However, until the pond is completed, there is still flood risk in the neighbourhood during the 1:100 year storm event.

Q: Can the timeline for project completion be moved up?

A: The initial construction schedule for this project is 2017 to 2018. The City is looking at the possibility to start the construction in 2016 depending on the completion of double barrel project on 23 Avenue and 85 Street. Undertaking the pond excavation at the same time as the ongoing construction of the double barrel project will create further inconvenience and traffic disruption to area residents. We prefer to stage the projects, if possible, in order to eliminate these issues.

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Q: What can homeowners do in the meantime to reduce their risk of flooding?

A: There are numerous ways a homeowner can minimize their risk of flooding. These include, but are not limited to:

- the installation of a backwater valve
- ensuring appropriate lot drainage
- · ensuring timely maintenance of eaves troughs

The home inspection team was on-hand to address further questions and schedule appointments for home check-ups.

Q: There is a local low just to the northwest of the pond along Mill Woods Road. Have you looked at what will happen to this water if these improvements are completed?

A: Yes, this water will be able to enter into the dry pond as well. Though primarily the structure along the northwest side of the pond will act as a pond outlet, it has also been designed so that water can enter the pond at this location. This will alleviate the ponding at this location.

Q: Sometimes the back alley near to my house floods. This water can encroach on private property. Will this project improve that situation?

A: As indicated previously, there are still some areas that will require local improvements to bring them up to City standards. Depending on where you are located, the alley may be one of those areas. At minimum, the project will improve the service level.

Q: There have been flooding issues around Dan Knott Junior High; will this project reduce the flood risk there?

A: As before, there are still some areas that will require local improvements but the trunk that is near to the school is the trunk that the improvements are intercepting. This will relieve the trunk of flow during large storm events and improve the flood service level in that location.

Q: A resident is concerned about safety around the proposed dry pond. Will there be signs to indicate the function?

A: Yes, there will be signs to indicate the function of the pond. Also, the pond will fill relatively slowing, taking approximately 45 minutes to fill. This will allow time for people within the pond to make their way to safety.

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Q: Will 75 Street be torn up?

A: During the project there will be some disturbance along 75 Street for the excavation and placement of large diameter storm pipes. See the question below for street restoration.

Q: Will the whole street be resurfaced?

A: Resurfacing will occur between centre line to curb on the side of the road impacted by the pipe installation.

Q: Will this project help reduce flood risk along 66 Street?

A: Yes, the project will help reduce flood risk along 66 Street by providing trunk relief, but 66 Street was not part of this project so the specific benefits to the area have not been confirmed nor quantified.

Q: Will this project ever be linked to development south of the neighbourhood?

A: (Answer by David Yue of Sameng) No, the project is intended as relief for the two Knottwood neighbourhoods (Ekota and Menisa). Any future development in the area would be required to provide their own adequate stormwater management services.

(Answer addressed by Councillor Nickel) The project will not be linked to any other development. The improvements will be undertaken solely to benefit the residents of Ekota and Menisa. As of now, there is no plan for development in the Transportation Utility Corridor by the Anthony Henday as it is provincial land. Therefore, there are no anticipated changes to the present usage of the space as an off leash dog park. Presently, Mr. Nickel is in communication with the City to have a sound attenuation wall constructed between the Anthony Henday and the neighbourhood – perhaps the material excavated from the pond could be used for this purpose.