

Kim Murphey

From: Paul Davis
Sent: Wednesday, April 30, 2008 9:39 AM
To: Barbara Key; Kim Murphey
Subject: FW: Engineering Standards

From: Tracey Balint
Sent: Tuesday, April 01, 2008 3:30 PM
To: Paul Davis
Cc: Roger Moore
Subject: Engineering Standards

Please find below responses to Greg Hooper's comments / questions:

Tracey A. Balint, P.E.
Project Engineer
City of Rochester Hills

Phone:(248) 841-2504
Fax: (248) 656-4758

From: Greg Hooper
Sent: Sunday, March 30, 2008 10:07 PM
To: Roger Rousse; Paul Davis
Cc: Leanne Scott; CityCouncilMembers
Subject: Engineering Standards

Roger/Paul:

I am providing my comments in advance to assist in the review:

Chapters:

1) Are mylars still being used? This note applies to all sections.

- Yes, we are still using / requiring mylars.

2) Part E & N use "and" not or for thrust blocks and restraining glands.

- We agree that both thrust blocks and restrained glands should be used. The standards will be changed to reflect this.

2) Part M we need to provide General Direction, not leave it open ended for hydrant spacing.

- The hydrant spacing requirements were left open ended per a request from the Fire Department.

2) Part R we need to provide General Direction, not leave it open ended for fire flows.

- The fire flow requirements were left open ended per a request from the Fire Department.

3) Why drop ABS pipe?, why not use both ABS and PVC unless ABS is no longer made.

- Correct, ABS truss pipe is no longer made. Therefore, we are now specifying PVC truss pipe.

3) Part R Double TV inspection of Sanitary ?????

- Sanitary sewer tving is required for preliminary acceptance and for final acceptance. We recently added the second tving inspection per a repair that needs to be made on the NE corner of Crooks / Auburn. We felt that if the sewer line had been video-taped at the two-year reinspection, the damage may have been caught and the developer would be responsible for the repair instead of the City. The City will spend approximately \$50,000 for the repair.

4) page 21 - Floatable Traps - need to discuss.

- The intent is to trap floatable debris, cigarette butts, oil and gas, leaf material. It is preferred to capture the floatable debris closer to the source. This includes the capture of gasoline from leaking car tanks or gas station accidents.

4) page 27 & 30 Fence Materials, I would like the Planning Commission to weigh in on this one.

- These are minimum standards, intended for safety. If planning commission wants to modify the fence for aesthetics during the site plan process they can as long as it does not sacrifice the safety.

4) page 31 why discourage UG detention? We need to be creative with our redevelopment.

- We have had very little experience with underground detention with regard to long-term maintenance and inspection
- Difficulty and cost of cleaning and removal of sediment
- Some sites may not be suitable due to groundwater infiltration (dewatering of the ground water) and due to concern over loss of storage .
- Loss of the ability to infiltrate and evaporate stormwater.

4) Page 32 typo "HS-20" loading

- Correct, it should be 'HS-20' loading. We will make this correction in the final final document.

4) page 38 - This is a huge positive step for the City!!

4) page 40 - TV storm pipe?? I do not see the need, added cost.

- Per Subterranean the cost is about \$0.40 per foot or for all of Manchester Knolls the cost to the developer (ultimately the homeowners) would be about \$3,200.
- The homeowners will own and operate the system per the maintenance agreement; the intent is to have a record of the system and verification prior to turnover to them for maintenance.
- OCDC has added the video inspection requirement to their standards
- Concern that there may have been construction damage that could only be seen through post construction video inspection.

4) page 41 - testing concrete pipe?? The 4 pipe manufacturers all provide certified materials and everyone buys from one of these four. We do not need this.

- This was a carry over from our old standards. We agree, the certification will be sufficient and we will not require testing of the pipe delivered to the site. We will revise this section.

5) part B shouldn't we just say maximum is ADA - 1/12 slope.

- We will add a note to the standards commenting on ADA requirements.

5) part B Why not crushed concrete and crushed asphalt for aggregate base materials?

- We will discuss the use of crushed concrete or crushed asphalt for base material with our testing / materials consultant Schleede Hampton.

5) part B typo 9" not 8" for asphalt.

- Correct, it should 9" for asphalt. We will make this correction in the final document.

8) part B Why not crushed concrete and crushed asphalt for aggregate base materials?

- We will discuss the use of crushed concrete or crushed asphalt for base material with our testing / materials consultant Schleede Hampton.

8) part C slope for ADA or 1/12 for maximum.

- We will add a note to the standards commenting on ADA requirements.

10) part E Crushed concrete and crushed asphalt?.

- We will discuss the use of crushed concrete or crushed asphalt for base material with our testing / materials consultant Schleede Hampton.

Drawings:

WM1 - How do you get birdseye in the casing? I never understood boring a road, installing the carrier pipe and then filling the space. I would just bulkhead the ends and leave the space empty to be able to replace the pipe in the future.

- We feel that the pipe may still shift without filling the voids. We do not like to use grout as the pipe cannot be removed once it has set. A special machine is needed in order to install the birdseye, perhaps a negative?

WM2 - Class II can be compacted in more than 6" layers, Hoepacs can compact up to 3' loose lift.

- We agree. We will state that 95% compaction must be obtained and leave it up to Contractor on how that will be achieved. We will make the revision on the detail sheet.

STM - "existing and new storm to be cleaned and flushed after 90%" We need to discuss this.

- The intent is that when homeowners takeover the system it is clean and in good condition. We do not want to have the homeowner's association responsible for cleanout of sediment left from home construction.

STM - TV storm sewer. I do not agree.

- Commented on above.

Looking at this as a complete package this is a great set of standards.

Greg