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Gwinnett County Development Advisory Committee
Wednesday June 21, 2017 at 12:00 p.m.
Department of Water Resources
Lawrenceville, GA

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June 21, 2017 DAC MEETING MINUTES

COMMITTEE MEMBERS PRESENT

Taylor Anderson
Jennifer DeWeese
Corbitt Woods
Jim Nash
Iva Hoyle

COMMITTEE MEMBERS ABSENT

Greg Cantrell
Jeff Tullis
Bruce Garraway
Mark Richardson
Doug Stacks
Terri Rosamond
Eric Johansen
Michael Johnson
Jay Puckhaber
Walter Rekuc
John McHenry

STAFF PRESENT

Patricia Huguenard, Planning & Development
Susan Owen, Planning & Development
Adena Fullard, Planning & Development
Lauren Tidwell, Planning & Development
Bob Whelchel, Planning & Development
Charles Crowell, Water Resources
Barbara Seal, Water Resources
Steve Leo, Water Resources
Toni Faulk, Water Resources
Michael Williamson, Water Resources
Jeff Holland, Water Resources

GUESTS PRESENT

Ellis Lamme, GSWCD
Travis Owen

STORMWATER TECHNICAL ADVISORY COMMITTEE MEMBERS PRESENT

Taylor Anderson
Pam Little

STORMWATER TECHNICAL ADVISORY COMMITTEE MEMBERS ABSENT

Jeremy Frydrych
Eric Johansen
Mark McCord
Ed Myers
Sandra Reeves
Walter Rekuc
Steve Sappington
Kevin Whigham
Brad Crowe
Eric Simpson
David Leonard

STORMWATER AUTHORITY PRESENT

Randall Davis
Jon Evans
Robert Scott

STORMWATER AUTHORITY ABSENT

Scott Batterton
Richard Edinger
Bonny Putney
Jay Puckhaber

Call to Order

Meeting called to order by Taylor Anderson at 12:07 pm.

1. Determination of a Quorum
Quorum was not present.
2. Action Upon the Minutes from the:
3. Announcements
None
4. Adoption of the Agenda
5. Old Business
Handouts were provided. The Department of Water Resources (DWR) continues the presentation of chapters regarding the rewrite of the Stormwater Systems and Facilities Installation Standards and Specifications (SSFISS) that incorporate the requirements from the Georgia Stormwater Management Manual (GSMM).
 - Steve Leo, Department of Water Resources, gave the presentation on 5.2.8.9 Standard Materials.

- There is no Standard Materials section in the GSMM.
- The table on page 5 added minimum and maximum allowable slopes for each of the materials. Added Note #2 to align with text in 5.2.8.9.2.2.1, clarifying that aluminum alloy pipe requires a paved invert when used in a perennial stream.
- On page 2, Section 5.2.8.9.2 Minimum Pipe and Pipe Coating Requirements and Section 5.2.8.9.2.1 Reinforced Concrete Pipe, Page 3, Section 5.2.8.9.2.4.1, High Density Polyethylene and Page 4, Section 5.2.8.9.2.5 Corrugated Polyethylene – tried to establish consistency between the text and the table with the minimum pipe lengths and fabrication standards, etc.
- Jennifer DeWeese stated in Section 5.2.8.9.2.2 that if the minimum acceptable gage is 14, then do we need the language that says “gage 16 pipe is not permitted?” Steve Leo said no, but it has been stated in the past and just needed clarified. Also, if you go to GDOT Standard 1030-D, Table 1, it states the gage 16 pipe so it is just being clarified.
- On Page 2, Section 5.2.8.9.2, the last sentence, “Unless otherwise stated herein, all pipe joints, for all materials are to be constructed to meet a silt-tight standard as specified in AASHTO PP 63-09 “Pipe Joint Selection for Highway Culvert and Storm Drains.” In the current SSFISS, RCP joints are specified as silt-tight and HDPE talks about silt-tight standards but Corrugated Steel Pipe currently requires a soil-tight standard. This was establishing across the board that silt-tight is the basic one for joints. We also do not want silt entering into pipes as it can contribute to void formation. The only exclusion is the corrugated polyethylene pipes because it is used for perforated underdrains.
- On page 3, Section 5.2.8.9.2.2.4 - this is another reference for silt-tight joints as well as Page 4, Section 5.2.8.9.2.4.3.
- Page 6, “Applicant will provide a one year warranty on the pipe installation” which is consistent with what is done with water and sewer.
- Page 9, “All junction boxes shall extend to the ground surface. Buried junction boxes are prohibited.” Reason for this is it makes it very difficult to find them out in the field and it makes it challenging to meet the EPD inspection mandates.
- Page 9, Section 5.2.8.9.7 Approved Contractors – says DWR shall create and maintain an Approved Storm Sewer Development Contractors List. DWR has not had this in the past but will be consistent with Water and Sewer. Jennifer DeWeese asked how this will be managed and tracked. There will be an application form that the contractors will have to submit with some example projects, it will be reviewed and renewed every four years. DWR will follow the same procedures as Water and Sewer for the application process.
- In Section 5.2.8.9.2.2 Metal Pipe, Taylor Anderson asked if the design velocity exceeds five feet per second is a new standard. Per Steve Leo, they will check on this.
- Charles Crowell will handle the remaining portion of the meeting. The GSMM does not have details per se, but they do have template drawings or guidance drawings which is what most of the handouts are. DWR is not proposing to change these, but apply them because they are part of the GSMM. There are a few details that are in the Unified Development Ordinance that are being edited and are based on requirements to make them consistent with the GSMM requirements.
- A change in thought pertaining to details when the GSMM was updated is that details are often abused. Engineers will take them out of a book, put them on a drawing and never look at them. With a lot of the BMP’s there is no one-size fits all details; and so the current trend nationwide is as LID and GI BMP’s are being rolled out, you will see fewer municipalities that have a standard detail. Reason being is that they have to be custom designed and unfortunately some engineers will not take the time to custom design them. So not having them, you are forcing the designer to design the practice completely. This

is very critical as these BMP's have to be constructed correctly or they will fail quickly.

- Section 5.1.3. – Design Storm Recommendations – changing the 10 year to 25 year design storm for pipe and 25 year to 10 year on inlet design to be consistent with the SSFISS and how things are calculated for current and future conditions for pipe systems.
- Section 5.2.1.2 – Design Criteria – just brought a few things over to be consistent.
- Section 5.2.5.2 – Grate Inlets – design storm changes because the GSMM had a range so changed the values.
- Section 5.2.8.3 – Design Criteria – brought over information from SSFISS and made references to the table where data was added so designers would have a quick reference guide for information instead of having it in two places. Jennifer DeWeese asked if the pipe diameter went from 15” to 18” and Charles Crowell said they are proposing a minimum pipe bedding of 18”. It is much easier to maintain an 18” diameter pipe. Randall Davis also stated that DOT uses 18” piping.
- Removed data tables that were part of example problem because it was hard to follow and caused some confusion because people did not realize the example problem was not a requirement.
- Section 5.3.3.4 – Length and Slope – brought over from the SSFISS that the culverts carrying live streams shall extend to where the crown of the pipe intersects with the roadway slope.
- Section 4.9 – Grass Channel – Most of the BMP's in the GSMM have Minimum Setback Requirements from property lines or structures. Section 4.10 Gravity Separator – made a change to not allow oil-grit separators on residential lots. Also clarified that there must be access from the public ROW for maintenance.
- Section 4.10.5.3 – Physical Specifications – clarified that as part of the plan review submittal that the designer had to put manufacturer information about the unit they are proposing on the plan.
- Section 4.12– Infiltration Practices – made some clarifications on the infiltration practices. There was some inconsistency in the BMP's in the GSMM between the need for a one foot separation above the ground water table and a two foot separation. The SSFISS favors the two foot separation so we changed to the two foot to provide extra space for fluctuation in ground water which makes observation maintenance much easier to make sure it is draining. Brought over some information from the SSFISS about making sure the infiltration systems are not put into service until all construction areas draining to them have stabilized. Jennifer DeWeese is envisioning a large site that you want to be constructed, but you don't utilize it until everything is stabilized. Charles said the challenge is that we cannot prevent everyone from doing something that they should not be doing, but some of these practices have to go in and undercut the materials and bring in other materials and often do that early and then we get sediment because it is a low point and then it clogs up and then they usually do not go back and clean it up properly. Another issue is where the contractor will go in and clean up those areas and then run equipment in there and compact it.
- Section 4.15 – Permeable Pavers – added from the SSFISS that they shall not be constructed over fill soils and added some setback information. Taylor Anderson asked if sand counts as fill for a new select fill and Charles Crowell said it does warrant clarification because you can go in and remove existing native soils and put back a more select material that allows for infiltration in the practices. We are trying to avoid hard compaction (Reference Appendix D.2.1 for Infiltration Testing). Too much infiltration can create global stability issues with the soils and with the modular walls being used today, if the soils get saturated those systems weaken.

- Section 4.16 – Pervious Concrete – changed the drawdown time from five days to three days to be consistent as well as not wanting the water to be sitting in the system for that long period of time. Reduces the chances of having a big storm come in while the water is still standing.
- Section 4.17 – Porous Asphalt – same edits as 4.15 and 4.16. Pam Little asked about failures of porous asphalt in the County and she usually does not recommend it and has there been any thought about putting guidelines on the use of it. Charles said there are some guidelines in the GSMM. It does state that on roadway projects it can be used. Gwinnett DOT is not going to allow this at all in the ROW per Taylor Anderson; however, it can be put in a parking lot. Porous asphalt is typically used on tennis courts, walking trails, and amenity areas where they are not subjected to heavy loads and keeps failures to a minimum. Taylor Anderson suggests double checking with Gwinnett DOT on their standards.
- Details – per Charles, tried to make the details more consistent. There were some inconsistencies in the way that the orifice protection risers were shown with different applications so that was clarified. That was the most significant change of the ones that are Gwinnett standard in the UDO in terms of changes and that is because there has been a historic problem with maintenance of other things that have been seen consistently in the field from during construction and post construction inspections. So practices were tweaked to make them more consistent for truck access and then more maintenance friendly. Adena Fullard had questions about the trash rack, accessibility, and the fact that we do not want people in the structures for safety reasons. The ladder will have to be over the outlet structure. The advantage to the dome trash rack is that you have more open area without the cover on it, and you can have a maintenance person look down into the structure without lifting the cover. Charles said they are trying to get them tucked in closer to the embankments because often times you see them sitting out in the middle of the ponds and when the orifices fail, and the pond fills up with water, then it makes it not accessible. Premanufactured polymer systems fit well on the round structures. Adena Fullard suggested having a few alternatives and to investigate when this would be a practical application rather than completely changing the OCS and then tweaking the cover where we never had a detail showing the location on the manhole and specify in detail that there needs to be an offset manhole. Adena stated that the details are very conflicting. Bob Whelchel stated specifying the materials.

6. New Business

7. Other Business

Adjournment (1:32 pm)