

Water/Sewer Working Group Meeting

Meeting Notes

June 21, 2011

Opening:

A meeting of the Specifications and Details Water/Sewer Working Group was called to order by chair Jim Badowich on June 21, 2011 at 1:35 p.m. in the MAG Agave Room.

1. Participants

Jim Badowich (Avondale), Rita Chihanik (Deeter/Neenah), Craig Sharp (W. C. Scoutten for Buckeye), Gordon Tyus (MAG).

2. Review May Meeting

Gordon Tyus provided notes from the May 17th meeting for members to review.

3. Manhole Spec and Detail Updates

Mr. Badowich began the discussion with an update on the pre-cast manhole bases. Mr. Tyus said they were discussed during the last committee meeting and one concern was making sure the subgrade was well compacted so the bases didn't settle. Mr. Badowich said he also had concerns that sewer pipes needed flexible connections (such as an A-LOC gasket). He also had concerns about using metal in the connections, the ease with which clay pipe can break if the base settles, as well as needing very close tolerances for inverts (of less than 5 hundredths of an inch). Craig Sharp said they have used precast bases in Flagstaff successfully, including such close tolerances. An advantage of the pre-cast bases is the speed of the process, which allows a manhole to be completed all in one day. It does require a change in scheduling to make sure the surveyor is ready when needed. Mr. Sharp said Buckeye is going to specify 8" ABC subgrade for all manholes, and said they are working on developing a detail for a precast base that could be submitted as an additional option for MAG in the future.

Mr. Badowich also proposed making revisions to manhole details 420-1 and 420-2. Some suggested revisions included removing the brick patterns, removing the steps, updating the sealant type note for all joints (and removing the brand name), and showing the location of the grade. He said most cities don't allow steps because they can be unsafe. Craig Sharp agreed noting that deeper manholes could cause a risk of falling. The references to frame and cover details 423, 424 and 425 would need to be updated if the current manhole frame covers case and/or deletion case is approved. Also Mr. Badowich said there should be limits to when these details could be used based on the depth of the manhole, and the size of the pipe. For example, those deeper than 15'-16' feet should be designed, with bases that have reinforced concrete in order to support the extra weight. He also suggested that the details were not appropriate for pipes larger than 24" in diameter. There were also some missing or incorrect dimensions on detail 420-2. Jim Badowich said that he planned to make some revisions to 420-1 and 420-2 to present as a case and get feedback from other committee members. He also noted that 421 and 422 also should be revised for similar reasons and to remove references to brick construction. Additional work was also needed to update the adjustment details for different applications such as when they are in the street, median, sidewalk, etc.

4. Manhole Frames and Covers

Mr. Badowich noted that Scott Zipprich introduced the manhole frame and covers details provided by Rita Chihanik at the previous meeting as MAG case 11-13 at the June committee meeting. He suggested Rita may want to attend upcoming full committee meetings to help answer questions about the revisions.

5. Wet Barrel Fire Hydrant Spec and Detail Update

Craig Sharp passed out new details 360-1 (dry barrel), 360-2 (wet barrel), and 360-3 (installation details) to replace the current MAG detail 360. The wet barrel detail is based on the detail from Avondale, and the dry barrel detail updates the current MAG 360. Mr. Sharp said Scott Zipprich plans to introduce these as a case at the July committee meeting. He also said the pipe between the water valve and hydrant is noted as ductile iron. Mr. Badowich described the advantages and disadvantages of both types. He said the dry barrel hydrants sometimes become difficult to open and can break the linkage down to the valve below grade. He said a check valve now will automatically shut off the water in a wet barrel hydrant if it is hit. Detail 360-3 shows the location of thrust blocks (as currently shown on MAG 360) and adds a pad detail.

6. Update on Specs/Details Being Considered for Removal

Mr. Badowich asked participants their thoughts on removal of the sample forms from the front of the MAG Specs. Mr. Tyus said he suggested adding these to the deletion case at the last full committee meeting since they were out-of-date and not used by MAG jurisdictions. Other members agreed and suggested that leaving them in could raise liability issues. Mr. Tyus did say that just recently he was asked for these forms by the Town of Miami, Arizona. Mr. Badowich noted that sample contracts are available from other sources that would be more appropriate. Rita Chihanik noted that if steps are removed from manholes, you would not need the detail for them (428). The removal of details for brick manhole construction was also discussed.

7. Valve Boxes: Frames, Covers and Adjustments

Rita Chihanik handed out sample details of revisions she worked on for different frames and covers. One detail she helped prepare and sent to Brian Gallimore was an access frame and cover for corrugated pipe, since currently there is no MAG detail. She also handed out alternate frame and cover details for valve boxes that use a thicker, heavier cover that is less prone to pop out. She showed sample details of the new cover, with and without a chain. The group discussed at length changes needed to valve boxes to update them, and add additional options as well as to separate the details for the boxes and covers from the final installation adjustments. There was also discussion about the square reclaimed water covers, plastic covers Phoenix is testing, and possible locking mechanisms. In summary it was determined to make several details - one for each valve box type, and separate details (in the 270s) for the installation adjustments. For example:

- 391-1 Valve Box (Type A) – Similar to the work Ms. Chihanik did on a revised 270, but it would remove adjustment info and have just a basic installation detail similar to the Type A detail on current MAG 391-1. Also could show (or note) cover options such as the current chained type, a heavier cover and maybe locked or plastic options.

- 391-2 Valve Box (Type B) – Same as above – for the Type B on current 391-2. The current 391-2 could become the basis for the new 270 (-1, -2, etc) Valve Adjustment Detail series – along with the adjustment info currently on 391-1 and 270. (This is a separate issue that will need to be worked on in the future.)
- 391-3 Valve Box (Type C) – The type C detail from current 391-1, without the grade adjustment info and with general dimensions based on existing manufacturers. Also the revised detail could add the frame and cover options similar to the two above.
- 391-4 Valve Box (Type D?) – Future details could be created such as for the reclaimed water boxes or others as needed.

Rita Chihanik agreed to update her draft details as noted above. Mr. Tyus agreed to send her existing MAG AutoCAD drawings.

8. Voluntary Case Assignments

Members agreed to continue work on the draft cases discussed.

9. Next Meeting Date

Members agreed to meet again on Tuesday, July 19th at 1:30 at the MAG office. Mr. Tyus said he would try to again reserve the Agave room.