

WATER & SEWER COMMISSION MINUTES
WEDNESDAY, February 10th, 2021
4:00 PM

Water and Sewer Commission President Shanley called the Regular Meeting of the City of Platteville Water and Sewer Commission to order on Wednesday, February 10th at 4:02 pm via Zoom.

W/S Commission members present: Ken Kilian, Isaac Shanley, Mark Meyers, Brian Laufenberg, Barbara Daus, Chris Wilson

W/S Commission members excused/absent: Bill Holder

City Staff present: Public Works Director - Howard Crofoot, Utility Superintendent – Irv Lupee, Administration Director – Nicola Maurer, City Manager – Adam Ruechel, Comptroller – Sheila Horner

City Staff excused:

Public present: Carol Beals

Citizens' Comments –

The Consent Calendar was presented for consideration. **Motion by Daus, second by Laufenberg to approve the Consent Calendar:** January 13, 2021 Minutes, January Financial Report, January Bank Reconciliation and Investments Report, Payment of Bills (1/7/2021 – 2/3/2021), January Water Quality Report. **Motion carried.**

ACTION ITEMS:

Contract 23-21: Aeration Blower replacement – Crofoot reported that we received six bids and Winona Mechanical came in the lowest with \$668,991. MSA recommended that we award the bid to Winona Mechanical. Crofoot also reported that we will also be receiving a grant in the amount of approximately \$6,000 for assistance with this project. **Motion by Wilson second by Kilian to approve the bid submitted by Winona Mechanical for the upgrade. Motion carried.**

ITEMS OF DISCUSSION:

Budget Amendment – Possible increase to budget & borrowing to replace water main on Commerce St. Crofoot reported that this project may cost approximately \$100,000. If we are unable to find the funds in the 2021 budget, it will be presented for the 2022 budget. Crofoot and Mauer stated that they will gather some more information for the next meeting in order to move forward.

Probability of major break of the water main along Pine Street-Oak to Chestnut

Crofoot presented the notes put together and provided by Killian to commission members, these were his responses:

1. A major break occurred after the newly constructed street had just been completed in 2006.
Response: Mr. Kilian is correct. A major water main break occurred on Pine Street shortly after the street reconstruction project in 2006.
2. The newly constructed street was undetermined across Pine Street to the shopping mall parking lot. Some undermining went under the driveway for the property at Pine and Water Streets.
Response: Mr. Kilian is correct. There was significant undermining of pavement due to the water main break. This pavement was replaced when the water line from Water to Oak was replaced.
3. The main break occurred close to the junction of the metal pipe and the PVC near the east corner of Oak Street and the west side of the former Pioneer ford property. The break was cylindrical.
Response: I believe that the break actually occurred a little downhill from the connection to the PVC in Oak St. The break was cylindrical, but unlike most breaks, the pipe was displaced laterally so that the full force of water coming down the hill was undermining the road.

4. The cost of replacing the damaged new concrete was about \$125,000.
Response: I would have to search the records to see what the actual cost of the replacement was. As I recall, it included the new water main between Water and Oak and the concrete repairs. It was not a budgeted project, so the cost was absorbed in the annual operation and maintenance budget.
5. Removal of the initial old concrete was being aided by the use of a heavy metal sledge hammer.
Response: In 2006 the contractor did use a hydraulic hammer on the underlying concrete.
6. The owners of the Roundtree House expressed their concern to the city about the vibrations being received at their historic house and extent of damage.
Response: The residents at Roundtree House complained of vibrations, but no damages were proven, just suspected.
7. Roundtree House is located at the intersection of Roundtree Avenue and Mitchell Avenue. If one measures from the center of the Roundtree House to the site of the watermain break at Oak Street it is found that vibrations also would have occurred west along Pine to almost Fourth Street. Questions: Was the entire distance from Oak to Chestnut smashed? Were the seven breaks encouraged by the smashing? What factor(s) caused the major breaks at Oak Street? Are the underlying materials and placement of the metal pipe similar at the site of the first break and the later six? What factor(s) were used to decide that the metal pipe should not be removed at the time of the initial reconstruction?
Response: They also complained of vibrations from the vibrating compactor used to compact the road base. I disagree with the term "smashed". Factors include the age of pipe, bedding. Could the initial compaction have contributed to the catastrophic break - possibly. Could it be a factor 14 years later – no. More likely frost heave, age and bedding. Factors used in deciding the pipe should not be replaced.
 - a) Was the entire distance from Oak to Chestnut "smashed"? The underlying concrete from Water to Chestnut was broken by a hydraulic hammer to assist with removal. When the new gravel base was installed, the vibratory roller was used the entire length of the project.
 - b) Were the seven breaks encouraged by smashing?
 - c) What factor(s) caused the major break near Oak Street? For both b. and c., the use of the hydraulic hammer may have been a contributing factor in the initial major break. The hammer and vibratory roller are not a factor for breaks after the initial few months and certainly not 14 years later.
 - d) Are the underlying materials and placement of the metal pipe similar at the site of the first break and the later six? Yes. There was little use of bedding materials in and around the pipe at the site of these breaks.
 - e) What factor(s) were used to decide that the metal pipe should not be removed at the time of the initial reconstruction? I had seen a project called Pine Street Water Main replacement in our list of projects. I saw evidence of at least one hydrant that was replaced at that time. I erroneously thought that the line was replaced. I found out later that some 4" water main connections, a few hydrants and some water services were replaced – not the water main. I believed that the line was new enough that it would have been budget foolish to replace.
8. Are there other major streets which still have metal water pipe? For example, how much remains in Hwy 81 from Adams/Chestnut to the city limits? When was this portion last reconstructed? How many breaks have occurred since reconstruction? What factor(s) were used to decide that the metal pipe should not be removed at the time of reconstruction?
Response: Due to limited budgets, we have many major streets that have metal pipes – Business 151, Water St from Bus 151 to Water St, E. Mineral St. from Bus 151 to Broadway, Lancaster St from Adams to City Limits. There have been multiple breaks on

Lancaster St. A couple of them have been in the pavement. Most have been outside the pavement near Mason St.

9. What factor(s) are now used to decide whether metal pipe should be replaced in major streets?

Response: All streets being reconstructed are considered for water main replacement for two reasons:

- a) It is unlikely that the City will be able to budget for street replacement again in less than 100 years.
- b) By the time we do get to replacing a street, the likelihood of a metal pipe being over 40 years old is very high. Metal and plastic pipes have an expected life of 70 – 80 years.

10. What is the probability of a future major water main break along Pine Street-Oak to Chestnut.

Response: The probability is high. It has been 14 years since the reconstruction. It is likely that we will see at least one break per winter along this section. Is it cost effective to repair the break at \$1,000 - \$2,000 per break or is it better to plan and budget for a \$400 – 500,000 project to replace the water main in a single year or over multiple years from Oak to Chestnut?

The commission asked that Lupee compile a comprehensive list of water breaks for a future meeting.

Motion made by Wilson, second by Meyers to adjourn. Motion carried.

Meeting adjourned at 5:14 pm.

Respectfully Submitted,

Sheila Horner
Comptroller