

City of Hilshire Village –Pine Creek Ln Reconstruction

OVERVIEW

The City will be soliciting bids for the Pine Creek Reconstruction Project with construction scheduled to begin in January 2015. This project will replace all the 40+ year old sanitary sewers and water lines, replace the roadway up to Westview Drive. The scope also includes removal and replacement of existing drainage inlets and underground storm sewer pipes.

The City is anticipating advertising for bids in November 2014 and the bid award in December 2014. HDR will present the Bid Tabulation and Letter of Recommendation to award the construction contract to the successful bidder at the Regular Council Meeting in December. We anticipate construction to begin in January 2015 with project duration of about 5 months.

WORKSHOP NOTES

Mayor Shannon Whiting gave introductions for the workshop for Pine Creek Reconstruction project.

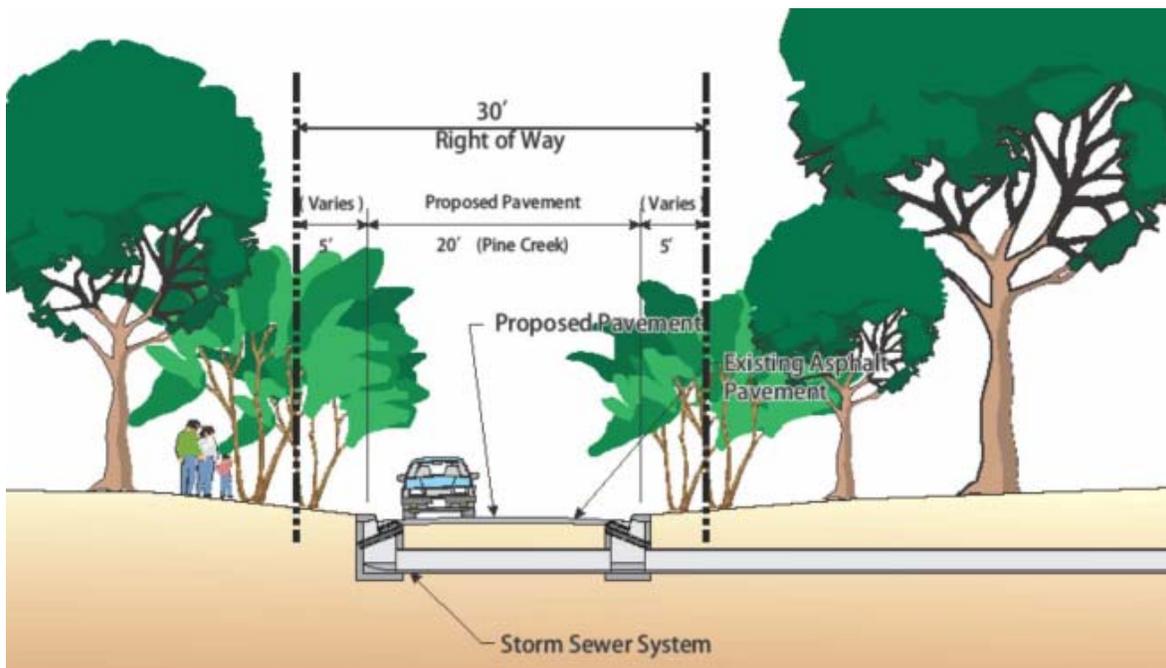
The City Engineer Efrain Him summarized the proposed improvements for Pine Creek. The Pine Creek project has three key components: **paving and drainage improvements, water line replacement and sanitary sewer line rehabilitation.**

Paving and Drainage

- Pine Creek has a 30' Right-of-Way (ROW) with a back lot utility easement between the north lots of Pine Creek and the commercial buildings, and a utility easement along the front of the south lots of Pine Creek. In the back lot utility easement we currently have existing 8-inch sanitary sewer main, power poles and overhead electric lines, 2-inch CenterPoint Energy gas line and 2-inch existing water main. In the south utility easement we have storm water, water and sanitary sewer lines.
- The existing road is currently not in the center of the right-of-way. However, the proposed roadway will not be shifted and will be removed and replaced at the current location.
- Existing driveways will be removed (for pavement base and subgrade preparation) and replaced with the same material up to the ROW, with a few exceptions (4 driveways) where it would have to be extended beyond the ROW due to City's ordinance on the maximum driveway slope requirements. Driveway approaches will be replaced with either standard concrete or asphalt paving, but property owners will have the option to work with the contractor to directly install an approach with a specialty finish (exposed aggregate, stamped or stained concrete, etc.). Any driveways with decorative materials inside the ROW will be considered as private improvement in public right-of-way.
- Items or infrastructure in the City right-of-way (ROW) such as irrigation systems, mailboxes, parking pad sites, landscape structures/timbers will be removed and/or temporarily relocated when possible. Irrigation systems will be cut and capped at the ROW boundary line. Mailboxes in the ROW will be temporarily relocated where feasible. Repairs to irrigation systems, replacement of parking pads, landscape features or any other item in the ROW will be the responsibility of the property owner

- One lane will be open during construction; the residents will have access to driveways during construction either by temporary base material or steel plate will be placed over open pits at the end of the day when construction stops.
- The Contractor will be required to coordinate and discuss with the residents about the proposed improvements prior to the start of construction.
- The existing outfall pipes will remain as they are.

Figure 1 Pine Creek Ln – Typical Roadway section



Water Line Replacement

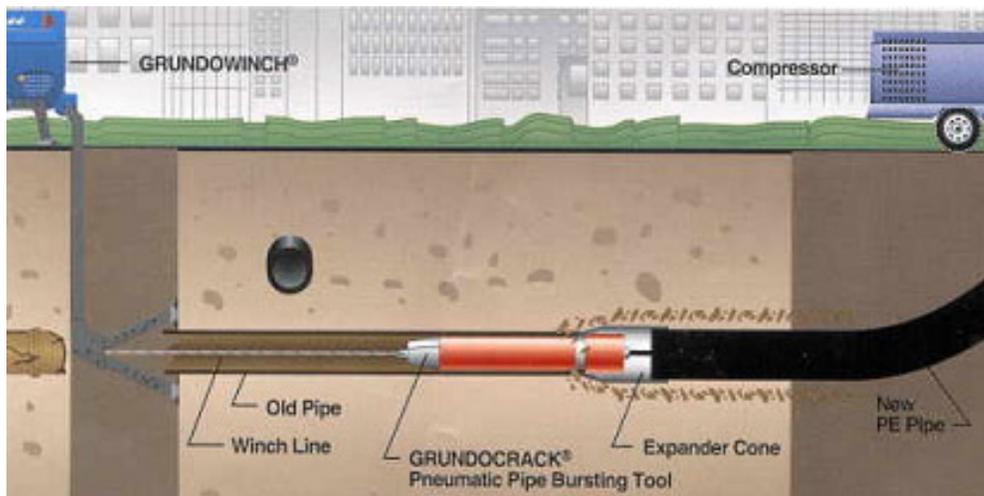
- The City of Houston has agreed for proposed water line interconnection at west of Pine Creek Lane. This new water line interconnection will provide higher water pressure for the residents of Hilshire Village.
- Because the roadways will be rehabilitated, it is a logical step to replace the aged 2-inch cast iron pipe water lines. Water line main pipes will be constructed of 6" PVC material and should enable most residents in the project area to enjoy improved water pressure. However, it is important to note that to receive the full benefit of improved pressure coming through your home's water meter; it may warrant replacing the line from the meter to your home.
- Some house main lines are constructed of cast iron pipe and/or undersized PVC pipe that can constrict the incoming flow into your home, resulting in lower water pressure. Another phenomenon that can adversely affect water pressure is pipe tuberculation, which is a reduction of capacity inside the pipe due to mineral deposits, rust or other build up. An example of this may be viewed at City Hall, where a resident who had part of his house main line replaced, brought a tuberculated section of pipe that has less than a quarter inch of capacity due to rust and other buildup in the pipe.

- Proposed water line main will be constructed with augering method (no open cut excavation), except at locations where there are proposed bends or offsets on the water line.
- Due to space restrictions in the back lot easement (between the commercial strip on Westview Drive and the north lots of Pine Creek Lane), the proposed 6-inch water line main construction will be mostly done with hand excavation. Due to this, all existing bushes, landscaping, plants, etc., in the back lot easement will be removed and will not be replaced. The contractor shall coordinate with property owners regarding temporary relocation of existing fences or air conditioner units in the back lot easement. The proposed 6-inch main in the back lot easements is to serve the existing water meters (both commercial and residential)
- To preserve as many trees as possible, the proposed 6-inch water main along Pine Creek will be placed under the pavement. However, if in the future there is any break in the water line, the pavement will need to be removed and replaced. This will be an additional maintenance cost to the City of Hilshire Village. *Even though the water main is new, due to soil/ weather changes (soil swells during wet weather & shrinks in dry weather) the water main may shift and may cause the PVC line to break/ leak at the joints.*
- The contractor will notify residents affected by service interruptions several days in advance and they should only last four to six hours when the new water line is connected to the existing water line system, and one to two hours while service lines are being transferred from the old water main to new water main.

Sewer Line Replacement

- Like the water supply lines, it is logical to rehabilitate the old sanitary sewer lines in the project area and rebuild the connecting manholes while the roadway is undergoing reconstruction. The pipe bursting method will be applied to replace the lines and fortunately is the least invasive because the process is trenchless. Figure 2 shows a schematic drawing of how a pneumatic pipe bursting tool is pulled through an existing sewer line trailed by the new butt fused pressure rated high density polyethylene (HDPE) piping material. Residents should not experience any service disruptions during this portion of the project.

Figure 2 Pipe Bursting Method Schematic



- Based on the condition of manholes from field investigation and pre-television inspection tapes for

the existing sanitary sewers; the existing manholes will be rehabilitated with cementitious liner or replaced.

Tree Protection

- Several residents were concerned about tree protection and potential tree removals during the project. Urban Forester Craig Koehl will examine each tree that may be affected during the project and will advise on tree protection and preservation measures. Specimens that will require working around will be properly marked and protection boundaries will be placed.
- No new trees will be planted in the ROW.

TIMELINE

The advertising and bid process is as follows:

- Advertising for two consecutive weeks in November, 2014
- Open bids and award contract in December 2014.
- Commence with Construction – early to mid-January with project duration of about 5 months (*weather permitting*)

The construction schedule will be communicated in more detail after it is received from the successful bidder.

QUESTIONS

1. Will the road be shifted in the proposed improvements (since it is not in the center of right of way)?

Response: No, proposed roadway will match existing. There will be no widening or taking any front lawns to widen the street.

2. How long will the construction take?

Response: The construction will take approximately 5 months (*weather permitting*).

3. Will we have asphalt roadway with monolithic curb and gutter or concrete roadway with curbs?

Response: The project is scoped for asphalt roadway with monolithic curb and gutters.

4. Do we need to replace the water meters due to higher pressure?

Response: The City will replace the water meters on an as needed basis. Currently the City is not replacing the water meters.

5. Will you connect the service lines till the house?

Response: All water service lines will be replaced till the water meters. All sanitary sewer services will be replaced till the right-of-way line and a new cleanout will be installed at the right-of-way. The new cleanout will be covered with brass cap and buried with 3-inch of soil for aesthetic purposes. The cleanout in future can be detected with a metal detector.

6. Would it make sense for residents to get existing plumbing replaced?

Response: The property owner can get a plumber to pressurize the plumbing system and test the existing system.

7. What will be the change in water pressure after the new water main is constructed?

Response: We will potentially have a 50% increase in pressure. At the water line interconnection with the City of Houston's 8-inch water line, we anticipate to have 45 psi before water gets into the water meter vault. After water passes through the backflow preventer and some minor losses due to friction, the pressure in the proposed 6-inch main should be about 38 psi. Existing water pressure is somewhere between 20 to 25 psi.

8. What is the expected outage on service connections?

Response: The residents will not have any outages for the sewer lines. For water line, there will be outages for 4 to 6 hours to allow for connection of the new water line to the existing water line system. Also, one to two hours while service lines are being transferred from the old water main to new water main. The Mayor announced/ urged the residents to make sure that their contact information such as (Name, address, phone number & email address) are most current in the City's records.

9. Will the proposed sanitary sewer remain the same place as existing?

Response: Yes.

10. Will the contractor work on Sundays?

Response: The Contractor is expected to work only five working days. However the Contractor may choose to work on Saturday(s) to make up for rain days. The Contractor will not be allowed to work on Sundays or holidays, unless it is an emergency.

11. Is there any incentive for Contractor for early completion of this project?

Response: No.

12. What are the usual work timings for construction?

Response: Between 7:00 AM to 7 PM on Weekdays and 9:00 AM to 6:00 PM on Saturdays.

13. Will there be any inconvenience for driveway access?

Response: Residents may not have complete access to their driveways during the day, but the residents shall have driveway access at the end of each day. Contractor will either put temporary base material or cover with steel plate as required.

14. Will they have the whole south side at once for construction and then do the north side?

Response: No. The contractor will complete the installation of sanitary sewer and water lines. This will only need temporary lane closures for a few hours. However, for pavement construction, the preparation of base and subgrade will require longer lane closures. The street will be constructed in parts to minimize disruption and inconvenience to the residents.

15. Will the pavement be asphalt or concrete?

Response: The project is scoped for asphalt roadway with monolithic curb and gutters. The residents expressed a high interest in having a concrete roadway, instead of an asphalt roadway. City Council will have to review the feasibility of implementing a concrete roadway into the project in lieu of an asphalt roadway. This may be achieved by including the concrete pavement as an alternate bid item.

16. What will be the material of water line?

Response: The water line will be PVC in compliance with AWWA C900 specifications which will withstand 150 psi.

17. How deep is the water line?

Response: The proposed water line will be about 4 to 6 feet deep.

The hard copy of the 60% plans was available during this workshop for the residents to look through the plans. The electronic copy of the plans is not yet available.

Meeting adjourned.

Meeting notes prepared by Harini Arjun and reviewed by Efrain Him.