

**PUBLIC WORKS ENGINEERING DIVISION**

**Inspection Summary**

Permit #: PRPWFR20171420, Public Works Infrastructure Permit - Residential  
CREEKSIDE AT RAINTREE

Address:

This work has been inspected and the inspection results noted below. Please call for re-inspection once all corrective actions have been completed. Do not cover any work until approved.

Inspection Item:

<b>Inspection:</b>	<b>Inspector:</b>	<b>Outcome:</b>	<b>Date:</b>
DEI-Sanitary Sewer Construction Inspection	Brice Lawson	Partial	Thursday, February 08, 2018

Informational

- 1 Brice Lawson 11/16/2017 10:46 AM  
Precision broke an existing 21" I/D sanitary main that is approx. 11' west of the existing 20" PVC force main located at STA. 1+36.30. This was damaged when they were excavating to install the proposed 8" sewer pipe between MH 1-A1 and existing MH 64-003. Barry Parks with LBVSD came on site and confirmed that this damaged DI pipe is an abandoned LBVSD sewer pipe. He said he is ok if the pipe is plugged on each side of the broken area.

Informational

- 2 Brice Lawson 11/17/2017 2:06 PM  
Precision is excavating the sanitary trench between proposed MH 1-A1 and the existing City MH 1-A1. Rock has been encountered in this trench and is being broke up with a stinger attachment.

Informational

- 3 Brice Lawson 11/20/2017 3:15 PM  
Precision has installed the base for MH 1-A1. The 8" SDR 26 sewer main has been installed from MH 1-A1 to the existing City MH 64-003. It appears that full sticks of pipe have been used except at the closure at the MH. The pipe has been bedded in clean rock.

Informational

- 4 Brice Lawson 11/28/2017 11:16 AM  
Precision has installed the base for MH 1-A3. The 8" sanitary main has been installed from MH 1-A2 to MH 1-A3. The service wyes have been installed for lots 6,7,8,9,12 and 13. The pipe is being bedded and covered with clean gravel.

Informational

- 5 Brice Lawson 11/30/2017 3:40 PM

Precision has installed the concrete cradle for the outside drop assembly outside of MH 1-A1. The Stubs and tracer wires have been installed for lots 6, 9, 10, and 11. The flowable fill trench checks have been installed on the stubs for lots 10 and 11. 4" SDR 26 pipe is being used for the stubs. The pipes are being bedded in clean rock.

Informational

6 Brice Lawson 12/01/2017 11:51 AM

Precision is working on the sanitary main between just north of MH 1-A3. The stubs for lots 6,7,8,9 and 12 have been installed. The trench checks for lots 6,8,9,12 and 13 have been installed.

Informational

7 Brice Lawson 12/05/2017 4:26 PM

Precision has installed the 8" sanitary main from MH 1-A3 to the wye at STA. 7+60. The main is being bedded in clean rock. The wye fittings were installed for lots 5, 14,15,16 and 17. The tracer wire and stubs have been installed for lots 14, 15 and 16. The stubs and main trenches from the tie in to existing MH to MH 1-A3 have been partially backfilled. It appears that the trenches are being backfilled and compacted in lifts with a sheepsfoot style compactor. It appears that the trenches are at least 5' wide. There is a testing lab on site taking compaction tests every 50' on the main and on the stub crossings across the road.

Informational

8 Brice Lawson 12/08/2017 11:28 AM

The 8" sanitary main has been installed on line 1-A from STA. 7+60 to MH 1-A4. The base for MH 1-A4 has been installed. The stubs and tracers wires appear to be installed from MH 1-A3 to MH 1-A4. The 8" SDR 26 main has been installed from MH 1-A4 to approx. STA. 3+20 on line 1-B. Some of the wyes and stubs have been installed. Tracer wires are being installed with the stubs. Areas for trench checks have been excavated. It appears that the pipes are being bedded in clean rock. The sanitary main between MH 1-A3 and MH 1-A4 is being backfilled. A sheepsfoot style compactor is being used to compact the soil. The trenches appear to be about 5' wide. KCTE is on site to perform moisture density testing. I let Daniel Bryant with KCTE know that the moisture content for soil backfill of the trenches is +/- 2%.

Informational

9 Brice Lawson 12/11/2017 3:41 PM

The 8" SDR 26 sewer main has been installed from MH 1-A4 to approx. STA. 9+16. The pipe has been bedded in clean rock. The wye fitting, tracer wire and stub have been installed for lot 18.

Informational

10 Brice Lawson 12/12/2017 4:14 PM

Precision has installed the base for MH 1-A5. The 8" sanitary main has been installed from STA. 9+35 to MH 1-A5. The stub wye and tracer wire have been installed for lots 19 and 29. The 8" sanitary main has been installed from MH 1-A5 to approx. STA. 10+65. The wye fitting has been installed for lot 28. The pipe is being bedded in clean rock. KCTE was on site performing moisture/density testing on the sanitary trench backfill.

On 12/11 a SDR 35 wye was installed for lot 19. Precision assured me that the SDR 35 wyes and 45 bend fittings were only installed at lot 19. They removed the wye and installed a SDR 26 wye and removed the rest of the SDR 35 wyes from the site.

Informational

11

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Brice Lawson 12/13/2017 3:09 PM

Precision has installed the 8" SDR 26 sanitary main from approx. STA. 10+65 to the wye fitting at STA. 11+36 on line 1-A. The sewer stubs, wyes and tracer wires have been installed for lots 27, 28, 20 and 21. The rebar cage has been installed for the encasement at STA. 10+47. The rebar cage appeared to be installed in a typical manner. The crew was getting ready to install the concrete. They plan to use a vibrator.

Informational

12

Brice Lawson 12/14/2017 4:38 PM

Precision has installed the 8" sanitary main for line 1-A from STA. 11+36 to MH 1-A6. The 8" sanitary main has been installed from MH 1-A6 to the wye fitting located at STA. 12+93. The stubs have been installed for lots 23, 24 and 26. The trench check has been installed for lot 24. It appeared the pipes are being bedded and covered with clean rock. The sewer main and stub trenches are being backfilled between MH 1-A4 and MH 1-A6. It appears that the fill is being placed in lifts and compacted with a sheepsfoot style compactor. KCTE is on site performing moisture density testing on the backfill.

The crew was getting ready to install MH 1-A7 and the stub for lot 25.

Informational

13

Brice Lawson 12/19/2017 3:31 PM

The sewer stub and tracer wire for lot 25 have been installed. This has been partially backfilled.

The base for MH 1-C1 has been installed on a bed of clean rock. Approx. 75' of 12" SDR 26 sewer main has been installed in clean rock from this manhole towards MH 1-C2. It appears that the pipe is being bedded and covered with clean rock.

Informational

14

Brice Lawson 12/20/2017 3:25 PM

Precision is installing the 12" SDR 26 sewer main pipe between MH 1-C1 and MH 1-C2. It appears that the pipe is being bedded and covered with clean rock. The existing MH 64-001 has been exposed in preparation of the bore to be completed.

Informational

15

Brice Lawson 12/22/2017 2:13 PM

It appears that the 12" PVC sanitary main has been installed from approx. 2+15 to approx. STA. 4+24 on sanitary line 1-C. The existing manhole 62-001 has been core drilled and it appears that the 12" PVC sanitary main has been installed from this manhole to MH 1-C1. It appears that the pipe is being bedded and covered in clean rock. It appears that the gasket has been installed at the core hole. It appears that there is at least 6" between the core hole and the hole for the existing main.

Informational

16 Brice Lawson 01/22/2018 12:41 PM  
Precision worked on Saturday 1/20/18 installing the remainder of the 12" sanitary main between MH 1-C2 and MH 1-C1. This was approx. 20' of main that was connected to MH 1-C2. Bedding rock is covering this section of pipe. It is raining today and there is a stream of water running into the excavated pit for the manhole. The manhole base has only been installed at this time.

Corrective Action Required

17 A main inspection has uncovered the following problems.

Brice Lawson 02/08/2018 5:42 PM

It appears that the end of the sanitary lateral for lot 5 was not installed to the location shown on the plans. Precision extended this lateral.

The end of the lateral for lot 24 has been installed south of the water main. This would require the plumber for the house to excavate below the water main to connect to the lateral. I pointed this out to Precision and they plan to extend the lateral to the north side of the water main.

It does not appear that the end of the lateral for lot 5 has been installed in the correct location. Make proper corrections to the lateral. Precision is aware of this and they plan to extend the lateral to the location shown on the plans.

DEI-Storm - Sewer  
Construction Inspection

Brice Lawson

Partial

Thursday,  
February 08,  
2018

Informational

1 Brice Lawson 12/19/2017 3:55 PM

CI 1-20E and CI 1-20D have been installed on a bed of clean rock. The 15" ADS HDPE storm pipe has been installed between these curb inlets. The pipe has been bedded on clean rock. The inverts, interior and exterior collars have been installed at these curb inlets. Approx. 130' of the 18" ADS HDPE has been installed in the trench but it has not been covered with rock.

Informational

2 Brice Lawson 12/20/2017 3:22 PM

The 130' of 18" HDPE from CI 1-20D towards CI 1-20C has been bedded and covered with clean rock.

Informational

3 Brice Lawson 01/09/2018 11:39 AM

Precision is installing the storm structures and HDPE storm pipe for storm lines 1-10 and 1-11. It appears that the pipes are being installed on a bed of clean rock. The bell ends are facing up hill.

The hdpe pipe has been installed between CI 1-10C and MH 1-10B. The trench width is too

narrow. I informed George of this and he said they plan to dig this trench wider.

Informational

- 4 Tom Chandler 01/25/2018 7:21 AM Installed the remaining 30" HDPE pipe for line 1-10. Installed last section towards MH 1-10B. Did not backfill.

Informational

- 5 Tom Chandler 01/25/2018 4:40 PM Installed 53 ft. of 24" HDPE pipe from MH1-10E to MH 1-10F. Installed MH 1-10F as well. Installed MH 1-10F at station 5+86. Backfilled with rock and will pour collars and inverts on 1/26/2018.

Informational

- 6 Brice Lawson 02/08/2018 5:38 PM  
CI 1-20C has been installed it is 5' by 3'. The remainder of the 18" HDPE storm pipe was installed from the curb inlet to the previously installed pipes. The collars have been installed. The invert has been installed. The CI was installed on a bed of clean rock.

DEI-Water Line - Construction Brice Lawson  
Inspection

Partial

Thursday,  
February 08,  
2018

Informational

- 1 Brice Lawson 01/29/2018 3:10 PM  
The contractor has began installing the 8" PVC water main for water main 1-1 from approx. STA. 1+36 towards the east. The pipe is being bedded in clean rock. The fire hydrant at STA. 1+91.45 has been moved to STA. 1+96.45 due to an existing power line. The hydrant has been set on a concrete block that is approx. 2' by 2'.

Informational

- 2 Brice Lawson 01/30/2018 4:04 PM  
Precision has installed 8" C900 PVC water main on line 1-1 from approx. STA. 2+60 to approx. STA. 3+52. An 8" Tee and 8" Mueller gate valve were installed with the valve on the west side of the tee. The 8" C900 water line has been installed from STA. 5+40 to approx. STA. 6+98.1. The pipe was connected to the tee fitting at STA. 6+98.1. The pipe is being bedded and covered with clean rock. The tracer wire is being taped to the top of the pipe. It is difficult to verify that the water line is being placed as shown on plans as there are very few off set stakes and no F/L elevations for the water main.

Informational

- 3 Brice Lawson 01/31/2018 1:28 PM  
Precision has installed the water main on line 1-2 from STA. 5+40 to STA.4+66.63. The fire hydrant and 6" gate valve have been installed at STA. 4+78.70. The pipe is being bedded in clean rock. The tracer wire is being installed along the top of the pipe. The water main is 4' to 5' below existing grade.

Informational

- 4 Brice Lawson 02/02/2018 11:24 AM  
The water line for line 1-2 has been installed from STA. 3+20 to STA. 1+99. The 8" C900 water pipe is being installed on a bed of clean rock. The tracer wire has been installed above it. The 45 degree bends have been installed and the bolts have been sprayed with

under coating. The fittings have been wrapped with poly wrap and sealed with tape.

It appears that the end of the sanitary service stub for lot 24 does not extend to the north side of the water line. I asked Jake with Precision if they would want to extend this now while they know where the lines are. He is going to check with the developer.

Informational

5 Brice Lawson 02/07/2018 3:07 PM

Precision has installed the 8" PVC water main from the tee fitting at STA. 6+98.91 to approx. STA. 9+89.00. The 8" Mueller 2361 gate valve was installed at STA. 6+98.91 on the south side of the tee fitting. The tee fitting has been installed at STA.7+90.54. The pipe is being bedded in clean rock. The tracer wire is being installed along the top of the pipe. Epoxy splice connectors are being used.

Informational

6 Brice Lawson 02/08/2018 5:21 PM

The 8" C900 water main has been installed from STA. 9+89 to STA. 12+00. This section of water main was installed and backfilled before it was inspected. It appears tracer wire was installed with this pipe. It appears that the marker tape has been installed. This section of water main trench was being backfilled and the soil was being compacted with a sheepsfoot compactor. KC Testing was on site performing compaction testing on the trench backfill. The tester informed me that the test are passing and that the compaction efforts appear to be proper.

The contractor has excavated a trench to install the water main from STA. 12+00 to STA. 14+16.58. I informed the contractor that the trench looks too deep according to the proposed fill on the plans. He checked his grade and confirmed that the trench was excavated too deep. He plans to backfill the trench and get compaction tests performed on the fill. I will be off on vacation the next couple days and Tom Chandler will be covering this project. Tom came out to the site today and I informed him of what is going on with the water main trench. He is aware of this issue.

DEI-Water Line - Thrust  
Restraint

Brice Lawson

Partial

Thursday,  
February 08,  
2018

Informational

1 Brice Lawson 02/08/2018 5:33 PM

The thrust blocks were installed on the 45 degree bends located at STA. 4+66.63, STA. 3+88.14, STA. 3+47.49, STA. 2+97.36 and STA. 2+19.41. WA610-1-4 concrete mix was used for these thrust blocks.

**Comments:**

