LEE'S SUMMIT

# 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: Inspection:		Inspector:	Outcome:	Date:		
DEI-Storm - Sewer Construction Inspection		Brice Lawson	Partial	Tuesday, March 27, 2018		
Informat						
1	pipe has been insta The inverts, interio	0D have been installed Illed between these cur r and exterior collars ha	on a bed of clean rock. The b inlets. The pipe has been ave been installed at these ed in the trench but it has	n bedded on clean rock. curb inlets. Approx.		
Informa	tional					
2	Brice Lawson 12/20 The 130' of 18" HD clean rock.		ds CI 1-20C has been bedo	ded and covered with		
Informa	tional					
3		ng the storm structures	and HDPE storm pipe for s nstalled on a bed of clean			
Informa	narrow. I informed		CI 1-10C and MH 1-10B. T Gaid they plan to dig this tr			
4	Tom Chandler 01/2 Installed last sectio	5/2018 7:21 AM Install n towards MH 1-10B. D	ed the remaining 30" HDP id not backfill.	E pipe for line 1-10.		
	Informational					
5	Tom Chandler 01/2	5/2018 4:40 PM Install	ed 53 ft. of 24" HDPE pipe	from MH1-10E to MH		

220 SE Green Street | Lee's Summit, MO 64063 | 816.969.1200 | 816.969.1201 Fax | cityofLS.net/Development

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.

Corrective Action Required

## 7 Brice Lawson 03/27/2018 1:45 PM

MH 1-10D was originally designed to have a 4" frame. The contractor has recieved a approved change to install a 9" frame.

It appears that the bell has been removed from the underside of the concrete lid. The spigoet has been removed from the top of the manhole wall. It appears that bars have been installed @12" O/C and it appears that epoxy has been applied to the holes. The frame has been installed. The 4" adjustment ring has not been installed. The contractor stated that they would have to remove more of the top of the manhole wall to use the adjustment ring. I asked Dan about this and he is ok with the adjustment not being installed.

It does not appear that the frame has been sealed to the concrete lid. I aske Jake with Precision about this and he is going to check on this.

DEI-Sanitary Sewer - Invert	Brice Lawson	Partial	Tuesday, March 27,
			2018
			2010

#### Informational

1 Tom Chandler 03/13/2018 3:13 PM Contractor ground inverts that needed adjustments. Contractor would like to perform mandrel test tomorrow if possible.

**Corrective Action Required** 

2 Brice Lawson 03/27/2018 2:27 PM

The inverts have been installed in manholes 1-A1, 1-A2, 1-A3, 1-A4, 1-A5, 1-A6 1-B1, 1-C1 and 1-C2. It appears that the contractor used a grinder to grind down high spots in manholes 1-A6, 1-A4, 1-A3 and 1-A2.

Corriections needed: Uncover manhole 1-A7 for inspection.

Make proper corrections to the invert that was installed where the new pipe has been installed in the existing manhole. The invert must be brought up to the spring line of the new pipe and create an invert from the new pipe to the existing invert. The invert should turn to guide the sewage to the existing invert.

Install the inverts at the proper time in the two existing sanitary manholes on sewer line 1-C.

DEI-Sanitary Sewer	Brice Lawson	Partial	Tuesday,
Construction Inspection			March 27,

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.

2018

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 assembley 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

#### 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.

Informational

17 Brice Lawson 02/13/2018 9:41 AM

Danny with Precision had a few questions that he needed answered about the placement of fire hydrants.

Precision is working on installing the outside drop assembly for MH1-C2. The manhole has been core drilled a PSX Direct Drive manhole gasket has been installed to connect the

proposed 12" sanitary main to MH 1-C2.

Corrective Action Required

18 Brice Lawson 02/13/2018 3:27 PM

The sanitary line segments and manholes have been installed for sanitary lines 1-A and 1-B. The contractor has requested to begin sanitary testing soon. I inspected all of the manholes on these two lines. Make the following corrections.

Remove the excess masitic at the horizontal joints in MH 1-B1 and MH 1-A7.

Install the invert for the new 8" pipe that was connected to the existing City MH 64-003. Informational

19 Brice Lawson 02/13/2018 3:40 PM

Precision has installed the 12" SDR 26 sewer pipe from MH 1-C2 to MH 62-003. The PVC SDR 26 outside drop pipe has been installed at MH 1-C2. The pipe was connected to MH 62-003 with a PSX Direct Drive manhole connector. Part of the pipe has been bedded in clear rock. The crew was installing the rebar for the vertical encasement for the outside drop assembly.

# Informational

20 Brice Lawson 02/14/2018 10:28 AM

Precision is installing the vertical concrete encasement for the outside drop assembly for MH 1-C2. WA610-1-4 concrete mix was used. A vibratator was used to consolidate the concrete. It appears that the rebar cage was installed for the encasement.

The inverts was installed for MH1-C1 with this same concrete mix.

Informational

21 Brice Lawson 02/14/2018 3:36 PM

The cone section was installed on MH 1-C1. Mastic was installed between the cone and base. The exterior joint has been wrapped. The 4" adjustment ring has been installed with mastic.

Informational

22 Brice Lawson 02/15/2018 5:23 PM

The concrete pipe cradle has been installed for the sanitary line at MH 1-C2. It appears that the cradle has been installed in compliance with the detail. The rebar has been installed.

Informational

23 Brice Lawson 03/14/2018 3:32 PM

The existing city MH 64-003 has roots growing into that the water dept. plans to remove when they have staff available. There is also debris that has collected on the benches. Josh Roach said they will hopefully get to this soon.

Informational

24 Brice Lawson 03/20/2018 11:15 AM

Precison extended the sanitary service line 14' for lot 24 to extend it past the new water main. It appears that the pipe is being bedded and covered with clean rock.

Informational

25 Brice Lawson 03/27/2018 3:04 PM

The contractor flushed the sanitary lines A and B with water.

DEI-Erosion Sediment Control Brice Lawson (ESC) Inspection		Partial	Tuesday, March 27, 2018			
Resolved 1	ed There are problems with the erosion control devices on your site.					
	Brice Lawson 01/09/2018 11:52 AM Repair/replace the damaged silt fence on the east side of the site. Install larger rock at the construction entrace. Remove all mud and debris that gets tracked onto the street from this site.					
	Partial CorrectionBrice Lawson 01/19/2018 3:0	7 PM				
	A construction entrance has been installed with larger rock.					
	Brice Lawson 03/27/2018 1:16 PM The east perimeter silt fence has been repaired. A mulch berm and straw waddles have been installed in different locations to control erosion.					
Resolved 2	There are problems with the erosion control dev	rices on your site.				
	Jeremy Young 02/13/2018 2:54 PM The ESC devices for the site have not been maintained to workign order. These devices have been covered up and partially removed during the contruction process. Please correct these ESC devices to make sure they are working properly.					
	Brice Lawson 03/27/2018 1:15 PM Silt fence, a mulch berm and straw waddles have	e been installed.				
Resolved 3	Brice Lawson 03/20/2018 11:21 AM The ESC devices appear to be effective. There is Raintree Pkwy.	some rock and mud that is t	racked onto			
	Remove the debris from the road.					
	I spoke to Jake with Precision and he plans to ge	t the rock cleaned up today.				
Correctiv	Brice Lawson 03/27/2018 1:15 PM The debris has been removed.					
4	ve Action Required There are problems with the erosion control dev	vices on your site.				
	220 SE Green Street   Lee's Summit, MO 64063   816.969.1200	816.969.1201 Fax   cityofLS.net/Deve	<u>elopment</u>			

Brice Lawson 03/27/2018 1:17 PM Add inlet protection in front of the curb inlet in the south cul-de-sac.

**Comments:**