LEE'S SUMMIT

# PUBLIC WORKS ENGINEERING DIVISION

# **Inspection Summary**

Permit #: PRPWFR20171746, Public Works Infrastructure Permit - Residential Manor at Stoney Creek 2nd - street, storm, sewer and water

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 Iter Inspection:	n:	Inspector:	Outcome:	Date:
DEI-Storm - Ri	ip Rap	Brice Lawson	Partial	Thursday, March 08, 2018
Informational				
The	e Lawson 03/08/ rip rap below th per corrections.		le-sac has been covered with	ı silt. Make
		rmanent detention basin ha any large voids with smaller s	s not been completely instal stones.	led. Complete
DEI-Storm - O	utlet Structure	Brice Lawson	Passed	Thursday, March 08, 2018
DEI-Grading/Ex Inspection	cavation/Fill	Brice Lawson	Partial	Thursday, March 08, 2018
Informational				
Moi			mitted for the water main tr ne tests passed.	ench backfill
Informational			·	
2 Brice	e Lawson 08/09/	2017 2:45 PM		
•			y sediment basin. They are s e site. I spoke with Jason reg	
220 S	E Green Street   Lee's	Summit, MO 64063   816.969.1200	816.969.1201 Fax   <u>cityofLS.net/Deve</u>	elopment

detention basin and he plans to build it after the cut is made in that location. Informational

3 Brice Lawson 08/17/2017 10:02 AM

Spalding has roughed in the detention basin in the southwest corner of the site. They are performing a fill in the south portion of the site. They have roughed in the temporary sediment basin located on the north edge of the site.

Informational

4 Brice Lawson 08/17/2017 3:45 PM

Spalding began stockpiling large rock and dirt west of the temporary sediment basin.

Informational

5 Brice Lawson 09/01/2017 3:42 PM

Spalding continues to grade outside the ROW. They were grading, filling and compacting the sump areas north of future Merryman Dr.

Informational

6 Brice Lawson 09/05/2017 11:01 AM

Spalding is grading the area north and east of the permanent detention basin. A sheepsfoot compactor is being used on parts of this area.

Redford is removing and hauling excess dirt that is left over after the major grading was completed east of SW Stoney Creek Dr. This grading was performed after sanitary line A and U were installed. The excess dirt is being hauled and stock piled on the west side of the site north of proposed Merryman Dr.

Informational

7 Tom Chandler 09/15/2017 11:11 AM Backfill on sanitary sewer main being placed today. No testing has been done today. If testing lab can make it to site today they will backfill (3) roadway crossings.

# Informational

8 Brice Lawson 11/15/2017 10:30 AM

A crew is using a blade and a scraper and has began final grading and shaping of the proposed road subgrade on Merryman Ln and Amethyst Dr.

Informational

9 Brice Lawson 11/21/2017 11:33 AM

The road subgrade on this project has some areas that appear to be too wet. The contractor has scarified the entire road width on Amethyst north of approx. STA. 2+00 to approx. STA. 3+60. Areas on Merryman are being removed and replaced with soil that appears to be dryer.

Informational

10 Brice Lawson 12/29/2017 10:25 AM

Redford backfilled the existing 12" water main at the tie-in location on Alibaster at County Line Rd. This was done to insulate the water main as the forecasted temperatures appear to be cold.

Informational

11 Brice Lawson 01/31/2018 12:07 PM

Thomas with Redford requested a list of items that need to be done to the grading in order

for the Cert. of Substantial Completion to be issued. I inspected the site this morning and came up with a list to go over with Thomas in a meeting tomorrow.

## Informational

12 Brice Lawson 02/01/2018 1:34 PM

I met with Travie Ruff, Redford Construction and Spalding Excavating on site to discuss the grading. Thomas had requested a list of things that need to be completed in order for a Cert. of Substantial Completion to be issued. I let them know the things that I think need to be done. Travis does not want to improve the grading or stabilize the site east of the temporary cul-de-sac as this site will be developed soon. I will follow up with Dan to discuss.

#### Informational

13 Brice Lawson 03/08/2018 3:42 PM

I inspected the grading of the site. It appears that the site will drain. It appears that the grading of the new subdivision area is according to the plan. It appears that all of the berms and swales have been installed in the new subdivision area. The site has not been stabilized so there is alot of erosion on site that could cause drainage issues.

The area north and east of the temporary detention basin is not graded completely according to the plans. It is rough graded. It appears that it will drain properly. The developer wants to leave as is as they are going to develop this property soon.

DEI-Storm - Sewer Construction Inspection	Brice Lawson	Partial	Thursday, March 08, 2018
Informational			

1 Brice Lawson 03/08/2018 3:58 PM

JB 3-1 is shown on the plans in a sump location and is shown to be open on all sides. It was not installed with weirs on all sides. Please clarify if it is suppose to be open on all sides.

DEI-ADA Inspection	Brice Lawson	Partial	Thursday,
			March 08,
			2018

#### Informational

1 Brice Lawson 03/08/2018 1:57 PM

The ADA and sidewalk at NE corner of Grindstone and County Line Rd has been formed and the rock has been compacted. It appears that the forms have been set to achieve the proper slopes. A 6' section of curb has been replaced in front of the ADA ramp. The curb was doweled with 5/8" dowels at the tie-in to existing curb. The ADA and sidewalk are being poured now and 4K KCMMB concrete mix is being used.

The ADA ramp and sidewalk has been installed at the NE corner of Alabaster and County Line Rd. 4K KCMMB concrete mix was used.

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DEI-Curb New/Replacement Brice Lawson

Passed

Thursday, March 08, 2018

Resolved

1 Curb Construction needs to be completed. Brice Lawson 02/14/2018 11:51 AM

Install a contraction joint in the 15' of curb that was replaced on the north side of Merryman Ln at the tie-in to existing curb. Joints should not be more than 10' apart. RESOLVED

The curb slope is too steep for the midblock ADA located on the south side of Merryman Ln. The slope is greater than 8.33%. Make proper corrections. The curb has been replaced at the ADA. RESOLVED BL

The cross slope of the curb is greater than 2% for the proposed ADA ramp located at the SW corner of Alabaster and Merryman Ln. Make proper corrections. RESOLVED

Some of the curb contraction joints have been hand tooled. The tooled joints are not installed to the proper depth. Make proper corrections to these joints. Brice Lawson 03/06/2018 11:20 AM It appears the the contraction joints have been completed with a saw. RESOLVED

DEI-ADA Inspection	Brice Lawson	Thursday, March 08,
Informational		2018

Informational

1 Brice Lawson 03/08/2018 11:20 AM

I performed a pre-pour inspection of the ADA ramp and sidewalk at the SE corner of Alabaster and County Line Rd. The forms are set and it appears that the proper slopes can be met. The rock has been installed and compacted. The expansion material is in place for the isolation jointsl. The 1/2" epoxy coated bars have been installed at the curb/sidewalk joint. They plan to pour at noon.

DEI-Street - Surface Course	Brice Lawson	Partial	Thursday, March 08, 2018
C			

Informational

1 Brice Lawson 12/04/2017 9:39 AM

Superior Bowen began installing the Type 3 virgin surface course at 8:30am. The base temp was 63 degrees at 8:30am. The temperature of the asphalt behing the paver was 310 degrees at 8:30am and 310 degrees at 9:10am on Amethyst. A tack coat has been placed on the road. Three rollers are being used for compaction. CMTG is on site and they let me know that the compaction tests so far are passing.

Partial Correction

2 Enter Information about Asphalt Placement

Brice Lawson 12/04/2017 4:00 PM

Superior Bowen installed the Type 3 virgin asphalt on the roads at this site. A tack coat of SS-1HP was applied to the base prior to laying the surface. It appeared that at least 2" of surface was being installed.

The north bound lane of SW Grindstone from STA. 0+00 to approx. STA. 2+00 was installed in the rain. The pavement surface was soaked the asphalt was seperating as it was being rolled. Nathan and Dennis with Superior plan to remove and replace the surface asphalt in this lane.

Make proper repairs to the asphalt surface. Brice Lawson 12/06/2017 4:14 PM The surface of the northbound lane of Grindstone was milled and replaced today. RESOLVED

After the surface was installed at STA. 0+00 on Grindstone a rain storm moved in. There was an approx. 30' long puddle of water that collected at the seam where Grindstone ties into SW County Line Rd. Nathan and Dennis with Superior Bowen said that this puddle is due to the existing road slope and that they could not get this puddle to drain by changing the slopes of their work.

Make proper repairs to achieve proper drainage.

# А

Informational

3 Brice Lawson 12/06/2017 11:14 AM

Dennis with Superior Bowen informed me that they are going to mill and replace only the northbound lane of Grindstone. They are not going to mill any of County Line Rd where Matt Schilcht shows on the drawing to get the water to drain properly.

Informational

4 Brice Lawson 12/06/2017 11:27 AM

I called Thomas with Redford to let him know that Superior is on site and they are not going to mill county line per the plan that Engineering SOlutions submitted to fix the drainage issue on Grindstone.

Informational

5 Brice Lawson 12/06/2017 1:26 PM

Superior Bowen has milled the northbound lane of SW Grindstone from County Line Rd to the approx. C/L of Merryman Ln. Tack oil has been applied to the area that has been milled. The asphalt temperature directly behind the paver was 315 degrees. The base temperature was 47 degrees. The surface asphalt has been installed on the northbound lane of Grindstone.

#### Informational

## 6 Brice Lawson 12/13/2017 8:09 AM

The testing report for the compacted asphalt surface using the nuclear gauge has been submitted. It appears that all of the test show the in-place density to be over 96%.

## Resolved

7

## Brice Lawson 02/16/2018 11:36 AM

At the northwest corner of Grindstone and County Line Rd. along the curb return the asphalt surface is rough. The area is about 1' by 10' and is along the curb. I met Dennis with Superior Bowen on site and he plans to put Black Beauty over the rough area to seal up the asphalt.

The black beauty has been installed over the asphalt at this location. RESOLVED BL

DEI-Water Line - Construction Brice Lawson	Partial	Thursday,
Inspection		March 08,
		2018

#### Informational

1 Brice Lawson 11/10/2017 11:30 AM

Redford installed 40' of 8" C900 water main with tracer wire and water line marker tape. The line appeared to be installed at least 42" from current grade. The pipe was bedded in clean rock. This line was installed on water line 1 from approx. STA. 11+48 to approx. STA. 11+88. The line was being backfilled in lifts. The trench was opened up over 48" wide and KC Testing was on site to perform compaction testing.

## Informational

2 Brice Lawson 11/10/2017 2:57 PM

Redford installed 40' of 8" C900 water line on water line 1 from STA 3+25 to STA. 3+65. Tracer wire and bury tape have been installed with this water line.

## Informational

3 Brice Lawson 11/13/2017 11:47 AM

Redford installed the 8" C900 water line with tracer wire for water line 1 from approx. STA. 0+29.17 to STA. 1+39.99. The Tee fitting has been installed at STA. 1+39.99.

## Informational

4 Brice Lawson 11/13/2017 2:46 PM

Redford installed the 8" gate valve on line 2 near STA. 0+00. Approx. 74' of C900 water line has been installed from STA. 0+00 to approx. STA. 0+74. Tracer wire has been installed with this pipe and utility marker tape is being installed in the trench. Two vertical 45 degree bend fittings have been installed with rebar loops around the fittings. The rebar loops have

been installed in a thrust block below the 45 degree fittings. KC Testing is on site to observe compaction testing for the water line. The DI fittings have been wrapped in 12 mil poly wrap and the T bolts have been sprayed with an undercoating.

A thrust block has been installed on the 45 degree bend fitting on line 1 at STA.0+95.15.

MCIB WA610 concrete was used for the thrust blocks.

## Informational

# 5 Brice Lawson 11/14/2017 1:23 PM

Redford installed an 8" Clow gate valve just west of the Tee fitting located at STA. 0+00 on water line 2. A 1' piece of C900 was installed between the valve and the tee fitting. A thrust block has been installed on the tee fitting. A tracer wire has been installed over to the tee fitting.

## Informational

# 6 Brice Lawson 12/08/2017 8:00 AM

Redford has installed the 8" water main for water line 1 from approx. STA. 3+65 to approx. STA. 10+00. The majority of this line has been backfilled. The areas that have not been backfilled show that the pipe is being bedded in clean rock, the tracer wire has been installed and the marker tape is being installed. It appears that the pipe is at least 42" deep. The Tee fittings have been installed for both of the fire hydrant sets on this run of pipe.

It appears that the 8" water main has been installed from approx. STA. 2+10 to approx. STA. 5+13. It appears that the line is being bedded in clean rock, tracer wire has been installed and marker tape has been installed. The majority of this line has been backfilled. A thrustblock has been installed behind the tee fitting at STA. 2+92.5. It appears that the pipe is at least 42" deep at the areas that have not been backfilled.

# Informational

## 7 Brice Lawson 12/08/2017 3:08 PM

The 8" water main for line 1 has been installed from approx. STA. 10+10 and connected on the east side of Grindstone where it was previously installed under grindstone. The Tee fitting and 2 gate valves have been installed on the east and south side of the Tee fitting. A thrust block has been installed behind the tee fitting. The DI fittings appear to be wrapped and the tracer wire has been installed. A thrust block has been installed behind the Tee fitting at STA. 8+36.84 on line 1. A thrust block has been installed behind the tee fitting for the hydrant assembly shown at STA. 4+61.84. When I measured the distance of this tee fitting to the back of the curb on Alibaster, it appeared that the tee fitting is 5' east of where it scales on the plans. I let Darren with Redford know about this and he said that the Tee was installed according to the survey stakes provided.

## Informational

# 8 Brice Lawson 12/11/2017 1:54 PM

The 8" C900 water line #4 has been installed from the 8" valve at STA. 0+00 to approx. STA. 1+06. The pipe appears to be bedded in clean rock. The tracer wire has been installed and it appears that marker tape is being installed 18' to 24" below grade. It appears the the

water line is at least 42" below grade. The existing 12" water main at the proposed tie-in location at 1+39.67 has been exposed. The contractor plans to cover the exposed line with blankets to insulate during the cold weather.

Redford is workin on installing the water line #1 from the 8" gate valve at STA. 1+39.99 towards the west. 3-20 sections of pipe have been installed. The pipe is being bedded in clean rock. It appears that the pipes are at least 42" below grade.

## Informational

9 Brice Lawson 12/12/2017 2:39 PM

The remainder of water line 1 from approx. STA. 2+00 to STA. 3+25 has been installed.

Water line 3 has been installed from STA. 0+00 to approx. STA. 1+25. A temp. blow off has been installed at STA. 1+25. The two gate valves and Tee fitting have been installed at STA. 0+00. The gate valves are installed on the south and west sides of the tee fitting. Tracer wire has been installed. Schedule 40 valve boxes have been installed with the tracer wire running up the outside of the valve box. The existing 12" main has been exposed at the tie-in location on water line 3. Concrete blankets have been installed to insulate during the cold weather.

The existing 12" water main at the tie-in to existing on water line 4 has been covered with mulch to act as insulation during the cold weather.

## Informational

10 Brice Lawson 12/21/2017 9:32 AM

The 8" water water main has been flushed at all of the fire hydrants and at the temporary blow offs that have been installed at the ends of the lines near the proposed tie-in at Alabaster and Merryman. This flush was performed after the hydrostatic test was performed.

## Informational

11 Brice Lawson 12/21/2017 3:11 PM

Redford chlorinated the water lines #1, #2, #3 and #4 to. It appeared that the chlorine level was at a minimum of 25 mg/l at the ends of the lines and at the fir hydrants.

Informational

12 Brice Lawson 12/22/2017 5:01 PM

It appeared that Redford dechlorinated the water main that has been installed at this site. The ends of each line and each fire hydrant have been flushed.

Informational

13 Brice Lawson 12/28/2017 1:29 PM

Redford Construction installed a construction tap on the water line near the west end of Merryman and one near the temporary fire hydrant at the north end of Amethyst.

Informational

14 Brice Lawson 01/09/2018 10:29 AM

The 12" water main was shutdown at Alabaster at approx. 8:15 a.m. Redford Construction installed a 12" Prat butterfly valve, a 12" by 8" tee fitting and a 12" sleeve on the existing 12" water main. The 8" water main was installed from the location where the temporary

blow off was and connected to the 12" by 8" tee fitting. An 8" sleeve was used to connect the two 8" C900 pipes. An 8" Clow valve has been installed on the 8" line on the north side of the tee fitting.

## Informational

15 Brice Lawson 01/09/2018 4:18 PM

Redford installed the 4500 MCIB thrustblock at the 12" by 8" tee fitting that is located on the existing 12" watermain at SW Alabaster Dr. The tracer wire has been installed at this tie-in. It appears that the DI fittings have been wrapped with poly wrap and sealed with tape.

The Water Dept. flushed the 12" water main and put it back in service. They let me know that the chlorine level in the 12" main was 2.02 Mg/L

#### Informational

#### 16

## Brice Lawson 01/10/2018 11:02 AM

The water dept. shutdown the existing 8" water main at the location of the tie-in on the east end of Merryman Dr. The contractor has removed the existing temporary fire hydrant and began installing the tee fitting for the location of the permanent fire hydrant location.

## Informational

## 17 Brice Lawson 01/10/2018 2:28 PM

Redford completed the tie-in to the existing water main at the east end of Merryman. The temporary fire hydrant was moved to the permanent location. A 45 degree bend, an 8" by 6" tee fitting, an 8" sleeve, a 6" by 1' anchor coupling, and a 6" Clow gate valve were installed. The DI fittings have been wrapped in clear poly wrap and sealed with tape. The tracer wire has been installed. The thrust blocks have been installed behind the fire hydrant, at the tee fitting and at the 45 degree bend. The Water Dept. came and put the existing line back in service up to the existing 8" gate valve.

## Informational

18 Brice Lawson 01/11/2018 4:03 PM

The water dept. flushed the remainder of the water main that was closed for the tie-in located at the east end of Merryman Dr. The new water main that has been constructed at this site has been opened up to the existing water system.

**Partial Correction** 

19 Brice Lawson 02/06/2018 3:05 PM

Move the existing FH located in the southwest corner of the site to the oppisite side of the water main as shown in the note on page C.406 of the plans.

Install extension stems on the valve nuts to bring the valve nuts to within 3' of finished grade.

Extension stems have been installed. RESOLVED

It appears that the existing two FH located in the beauty berm along County Line Rd is low. Make proper adjustments to the FH and valve box elevations. Informational

20 Brice Lawson 02/21/2018 7:27 AM

The Water Dept. has performed the bond inspection on the new water main for this site. They said everything checked out good.

DEI-Storm - Sewer	Brice Lawson	Partial	Thursday,
Construction Inspection			March 08,
			2018

**Partial Correction** 

1 Corrections need to be made to the Storm Sewer Brice Lawson 01/18/2018 4:34 PM

Remove excess concrete from the openings of all curb inlets RESOLVED

The 36" storm pipe between FES 6-1 and CI 6-2 appears to be seperated and squashed. Make proper corrections. This may have been damaged during road construction.

CI 6-2 Remove lift cables RESOLVED BL

CI 6-3 Grout the front corners of lid at the inlet frame RESOLVED BL

CI 6-4 Grout the front corners of lid at the inlet frame RESOLVED BL

CI 6-5 Grout the front corners of the lid at the inlet frame RESOLVED BL

FI 3-2 Remove lift cables, grout lid so it does not teeter RESOLVED BL

JB 3-1 Remove paint from the lid RESOLVED BL

FI 3-3 Grout the lid so it does not teeter, grout pipe collars, add a step, remove lift cables, align the concrete lid with the structure RESOLVED BL

FI 3-4 Align the concrete lid with the structure, remove lift cables, grout gap at corners where lid meets the structure, grout collars RESOLVED BL

FI 3-5 Remove lift cables, grout the lid at the corners, align the concrete lid with the structure walls RESOLVED BL

FI 8-1 Align the concrete lid with the structure walls, remove the lift cables and the debris fromt the weir openings RESOLVED BL

FI 5-6 Remove the lift cables, align the concrete lid with the structure, grout corners where lid meets the structure, grout the collar, remove debris from the weir openings RESOLVED BL

FI 5-5 Add a step, grout collars grout corners so the concrete lid does not teeter, remove lift cables align the concrete lid with the structure, remove debris from the weir openings RESOLVED BL

CI 5-4 Replace the damaged step, remove the anchor bolt from the wall, finish grouting the lid, install the invert bench to guide the water thru the turn STEP NOT COMPLETE AS OF 2/27/18 RESOLVED

CI 5-3 Remove the lift cables, replace the cover with the proper cover RESOLVED BL

JB 5-2 Remove paint from the lid, fill the voids and grout collars RESOLVED BL

Outlet Structure Remove lift cables, grout lift holes, align the lid with the structure walls, grout lid to structure joint, add steps, align the top and bottom structure sections RESOLVED BL

CI 4-5 Remove lift cables, add a step, remove debris RESOLVED BL

CI 4-4 Add a step RESOLVED BL

CI 4-3 Remove anchor bolt from the wall RESOLVED BL

FI 2-6 Align the concrete lid with the structure, remove lift cables and grout collar RESOLVED BL

FI 2-5 Grout concrete lid so it does not teeter, align the concrete lid with the structure, grout collar, align steps, remove lift cables RESOLVED BL

FI 2-4 Add steps, remove lift cables, align the concrete lid with the structure RESOLVED BL

FI 2-3 Remove lift cables, grout collars, align the concrete lid with the structure RESOLVED BL

## Informational

2 Brice Lawson 02/27/2018 12:24 PM

Redford informed me that the corrections have been made to the storm structures so far. I re-inspected the storm structures for lines 3, 6, 8 and part of line 5. I will mark off the corrections on the original inspection at a later time.

Resolved

3

Corrections need to be made to the Storm Sewer Brice Lawson 03/06/2018 11:42 AM

> CI 2-1-Remove access HDPE pipe that extends into the CI. fill the lift holes and remove the silt/debris from the invert so it can be inspected. RESOLVED

> Existing FI on storm line 1-Remove the silt and water so it can be inspected. It appears that the concrete invert has been washed out. Make proper corrections. The FI had water in at the time of inspection but it appears that the invert has been installed. RESOLVED

FI 1-1 - Remove the silt from the structure so it can be inspected RESOLVED

Outlet structure - Remove the silt from the outlet structure

DEI-Water Line - Fire Hydrant	Brice Lawson	Partial	Thursday,
			March 08,
			2018

#### **Corrective Action Required**

1 Brice Lawson 03/08/2018 3:53 PM

There are two existing fire hydrants in the berm along county line that appear to be low in relation to the new grading. Make proper corrections.

The existing hydrant in the southwest corner of the site is shown to be relocated on the plans. Make proper corrections.

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**Comments:**