



Lexington-Fayette Urban County Government
DEPARTMENT OF ENVIRONMENTAL QUALITY

Jim Gray
Mayor

Dowell Hoskins-Squier
Commissioner

To: Hillard Newman, P.E., Engineering Section Manager, Division of Engineering
Wallace Rice, Engineering Technician Principal, Division of Engineering
Ron St.Clair, Engineering Bonds Officer, Division of Engineering

From: Chris Begley, Engineering Technician Senior, WWC&CS, Division of Water Quality

Cc: Rodney Chervus, P.E., WWC&CS Manager, Division of Water Quality

Date: August 10, 2011
February 16, 2016
REVIEW DATE: MARCH 17, 2021

RE: New Development 3 Year Re-Inspect
Subdivision: Bluegrass Aspendale
Unit/Phase: Phase 3, Section 1 (Apartments); Infrastructure (Multi-family); The Furlong (Multi-family);
Bridlewood Place (Multi-family); ~~HI Apartments~~

The Division of Water Quality (DWQ) has completed review of the submittals for the project referenced above. We are providing the following list of items, for sanitary sewer systems only, to be completed or corrected prior to Final Inspection. We request that you include these with comments from the Division of Engineering.

Material Reviewed: CCTV performed by LFUCG

Manhole F1 (TB3_892A)

- ❖ The flow channel in this Manhole is not aligned properly and the camera could not enter the pipe
 - ◆ Correct the deficiency, re-CCTV and submit Field Verification and the corresponding Test Results to my attention at DWQ

Manhole A3 (TB3_892)

- ❖ The top step in the manhole is too high.
 - ◆ Correct the deficiency, and submit Field Verification and the corresponding Test Results to my attention at DWQ

Line Segment A6 to A5 (TB3_895 to TB3_894) LINE IS CLEAR, NO FURTHER WORK NEEDED (NFWN)

- ~~❖ At ~168.8' downstream of Manhole A6 (TB3_895) it appears that the line is occluded with mud/debris and the camera cannot pass.~~
- ~~❖ This whole line segment is full of debris and needs jetted (cleaned).
 - ◆ Correct the deficiencies, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Line Segment A4 to A5 (TB3_893 to TB3_894) LINE IS CLEAR, SAGS STILL EXIST

- ❖ This whole line segment is full of debris and needs jetted (cleaned).
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Manhole A5 (TB3_894)

- ❖ Remove top step
 - ◆ Correct the deficiency, submit Field Verification and the corresponding Test Results to my attention at DWQ

Manhole B1 (TB3_895A)

- ❖ The casting is off center
 - ◆ Correct the deficiency, re-vacuum test the Manhole , re-CCTV and submit Field Verification and the corresponding Test Results to my attention at DWQ

Manhole A7 (TB3_896)

- ❖ This Manhole is Buried
 - ◆ Correct the deficiency, re-vacuum test the Manhole , re-CCTV and submit Field Verification and the corresponding Test Results to my attention at DWQ

Manhole A8 (TB3_897)

- ❖ The top step in the manhole is too high.
 - ◆ Correct the deficiency, re-vacuum test the Manhole , re-CCTV and submit Field Verification and the corresponding Test Results to my attention at DWQ

Line Segment A8 to C1 (TB3_897 to TB3_897A) LINE IS CLEAR / REVEALS SAGS AND JOINT PROBLEM

- ❖ This line needs to be cleaned
 - ◆ Correct the deficiency, re-CCTV, and submit Field Verification to my attention at DWQ

Line Segment A9 to A10 (TB3_898 to TB3_899)

- ❖ A storm line is within 18" of this line and it should be Ductile Iron. (Corrected 2-16-2016)
- ❖ ~~This whole line segment is full of debris and needs jetted (cleaned). (Corrected 2-16-2016)~~
 - ◆ ~~Correct the deficiencies, re test the Line Segment, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2-16-2016)~~

Manhole A9 (TB3_898)

- ❖ Remove top step
 - ◆ Correct the deficiencies, submit Test Results, Field Verification, and records to my attention at DWQ

Manhole A10 (TB3_899)

- ❖ Remove top step
 - ◆ Correct the deficiencies, submit Test Results, Field Verification, and records to my attention at DWQ

Line Segment A10 to E1 (TB3_899 to TB3_899A) LINE IS CLEAR, NO FURTHER WORK NEEDED (NFWN)

- ❖ ~~Beginning at ~228.4' upstream of Manhole A10 (TB3_899) and extending to Manhole E1 (TB3_899A) there appears to be a pipe sag. (Corrected 2-16-2016)~~
- ❖ ~~This line segment has debris and needs jetted (cleaned).~~

- ◆ ~~Correct the deficiencies, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Line Segment A10 to D1 (TB3_899 to TB3_900) LINE IS CLEAR, NO FURTHER WORK NEEDED (NFWN)

- ❖ ~~A storm line is within 18" of this line and it should be Ductile Iron. (Corrected 2-16-2016)~~
- ❖ ~~This whole line segment is full of debris and needs jetted (cleaned).~~
 - ◆ ~~Correct the deficiency, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Line Segment D2 to D1 (TB3_900A to TB3_900) LINE IS CLEAR, NO FURTHER WORK NEEDED (NFWN)

- ❖ ~~At ~6.9' downstream from Manhole D2 (TB3_900A) this Line Segment changes from DI to PVC.~~
- ❖ ~~This whole line segment is full of debris and needs jetted (cleaned).~~
- ❖ ~~The tap located at ~8.3' downstream from Manhole D2 (TB3_900A) changes from Ductile Iron to PVC just off the main line.~~
- ❖ ~~This line needs to be cleaned~~
 - ◆ ~~Correct the deficiencies, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Line Segment G1 to A5 (TB3_901 to TB3_894) CLEANING REVEALED MULTIPLE PIPE SAGS

- ❖ ~~A storm line is within 18" of this line and it should be Ductile Iron. (Corrected 2-16-2016)~~
- ❖ ~~This whole line segment is full of debris and needs jetted (cleaned).~~
 - ◆ ~~Correct the deficiencies, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Line Segment G2 to G1 (TB3_902 to TB3_901) CLEANING REVEALED MULTIPLE PIPE SAGS

- ❖ ~~Beginning at ~0.0' downstream of Manhole G2 (TB3_902) and extending to ~2.1' there appears to be a pipe sag. (Corrected 2-16-2016)~~
- ❖ ~~Beginning at ~24.5' downstream of Manhole G2 (TB3_902) and extending to ~42.1' there appears to be a pipe sag. (Corrected 2-16-2016)~~
- ❖ ~~This whole line segment is full of debris and needs jetted (cleaned). (Possible sags)~~
 - ◆ ~~Correct the deficiencies, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

~~Line Segment G3 to G2 (TB3_903 to TB3_902)~~

- ❖ ~~A storm line is within 18" of this line and it should be Ductile Iron. (Corrected 2-16-2016)~~
 - ◆ ~~Correct the deficiency, re-test the Line Segment, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2-16-2016)~~

~~Manhole G4 (TB3_904)~~

- ❖ ~~The steps in this manhole are not in correct alignment. (Corrected 2-16-2016)~~
- ❖ ~~Remove the top step~~
 - ◆ ~~Correct the deficiency, submit Field Verification and the corresponding Test Results to my attention at DWQ~~

Manhole G3 (TB3_903)

- ❖ ~~Remove top step~~
 - ◆ ~~Correct the deficiency, submit Field Verification and the corresponding Test Results to my attention at DWQ~~

Line Segment C2 to J2 (TB3_912 to TB3_904B)

- ❖ Beginning at ~64.3' upstream of Manhole C2 (TB3_912) and extending to Manhole C1 (TB3_904B) there appears to be a pipe sag (**Corrected 2-16-2016**)
 - ◆ ~~Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (**Corrected 2-16-2016**)~~

Manhole J2 (TB3_904B)

- ❖ Remove top step
- ❖ The 8" stub in manhole has back fall (**Corrected 2-16-2016**)
 - ◆ Correct the deficiencies, submit Field Verification and the corresponding Test Results to my attention at DWQ

Line Segment J1 to G4 (TB3_904A to TB3_904) CLEANING REVEALED MULTIPLE PIPE SAGS

- ❖ A storm line is within 18" of this line and it should be Ductile Iron. (**Corrected 2-16-2016**)
- ❖ At ~162.8' downstream of Manhole J1 (TB3_904A) it appears that the line is occluded with PVC pipe/debris and the camera cannot pass.
- ❖ This whole line segment is full of debris and needs jetted (cleaned).
 - ◆ Correct the deficiencies, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Line Segment J1 to J2 (TB3_904A to TB3_904B)

- ❖ Beginning at ~55.0' upstream of Manhole J1 (TB3_904A) and extending to ~61.7' there appears to be a pipe sag. (**Corrected 2-16-2016**)
- ❖ Beginning at ~127.3' upstream of Manhole J1 (TB3_904A) and extending to ~130.8' there appears to be a pipe sag. (**Corrected 2-16-2016**)
- ❖ A storm line is within 18" of this line and it should be Ductile Iron. (**Corrected 2-16-2016**)
 - ◆ ~~Correct the deficiencies, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (**Corrected 2-16-2016**)~~

Manhole G5 (TB3_905)

- ❖ Remove top step
 - ◆ Correct the deficiency, submit Field Verification and the corresponding Test Results to my attention at DWQ

Manhole D1 to A-5 (TB3_920 to TB3_905) LINE IS CLEAR, NO FURTHER WORK NEEDED (NFWN)

- ❖ ~~This line needs to be cleaned (debris) (possible sag)~~
 - ◆ ~~Correct the deficiencies, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Line Segment K1 to D1 (TB3_905A to TB3_920) LINE IS CLEAR, SAGS STILL EXIST

- ❖ Beginning at ~65.2' downstream of Manhole K1 (TB3_905A) and extending to ~75.2' there appears to be pipe sag. (**Corrected 2-16-2016**)
- ❖ At ~98.6' downstream from Manhole K1 (TB3_905A) the pipe is not homed well in the tee on the lateral side and this lateral is 100% blocked with debris. (**Corrected 2-16-2016**)
- ❖ Beginning at ~95.4' downstream of Manhole K1 (TB3_905A) and extending to ~99.5' there appears to be pipe sag. (**Corrected 2-16-2016**)
- ❖ Beginning at ~259.0' downstream of Manhole K1 (TB3_905A) and extending to ~265.9' there appears to be pipe sag. (**Corrected 2-16-2016**)
- ❖ Beginning at ~292.7' downstream of Manhole K1 (TB3_905A) and extending to Manhole D1 (TB3_920) there appears to be pipe sag.
- ❖ ~~This whole line segment is full of debris and needs jetted (cleaned).~~

- ◆ ~~Correct the deficiencies, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Manhole D1 (TB3_920)

- ❖ ~~This Manhole is full of debris.~~
 - ◆ ~~Correct the deficiency, re CCTV and submit Field Verification and the corresponding Test Results to my attention at DWQ~~

Line Segment K1 to K2 (TB3_905A to TB3_905B) **LINE IS CLEAR, NO FURTHER WORK NEEDED (NFWN)**

- ❖ ~~This whole line segment is full of debris and needs jettted (cleaned).~~
 - ◆ ~~Correct the deficiency, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Line Segment G6 to G5 (TB3_906 to TB3_905)

- ❖ ~~This whole line segment is full of debris and needs jettted (cleaned).~~
 - ◆ ~~Correct the deficiency, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2-16-2016)~~

Line Segment G6 to G7 (TB3_906 to TB3_907) **LINE IS CLEAR, SAGS STILL EXIST**

- ❖ Beginning at ~167.8' upstream of Manhole G6 (TB3_906) and extending to ~171.0' there appears to be a pipe sag. (Corrected 2-16-2016)
- ❖ Beginning at ~318.3' upstream of Manhole G6 (TB3_906) and extending to Manhole G7 (TB3_907) (Corrected 2-16-2016)
- ❖ ~~This whole line segment is full of debris and needs jettted (cleaned).~~
- ❖ At ~258.9' upstream from Manhole G6 (TB3_906) the lateral has an exposed gasket.
- ❖ Remove top step (G-7)
 - ◆ Correct the deficiencies, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Manhole D2 (TB3_911)

- ❖ Remove top step
 - ◆ Correct the deficiency, submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Line Segment B1 to B2 (TB3_913 to TB3_914) **EXPOSED GASKET REMAINS**

- ❖ At ~69.7' upstream of B1 (TB3_913) there is an exposed gasket.
 - ◆ Correct the deficiency, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Manhole B4 (TB3_919)

- ❖ ~~The lateral in this manhole is missing sealing.~~
 - ◆ ~~Correct the deficiency, re vacuum test the Manhole, re CCTV and submit Field Verification and the corresponding Test Results to my attention at DWQ (Corrected 2-16-2016)~~

Line Segment B2 to B1 (TB3_917 to TB3_895)

- ❖ Beginning at ~49.4' downstream of Manhole B2 (TB3_917) and extending to ~55.9' there appears to be a pipe sag. (Corrected 2-16-2016)
- ❖ Beginning at ~220.0' downstream of Manhole B2 (TB3_917) and extending to Manhole B1 (TB3_895) there appears to be a pipe sag. (Corrected 2-16-2016)
 - ◆ ~~Correct the deficiencies, re-test the Line Segment, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2-16-2016)~~

Manhole B1 (TB3_895)

- ❖ Remove top step
 - ◆ Correct the deficiency, submit Field Verification and the corresponding Test Results to my attention at DWQ

Line Segment A2 to A1 (TB3_916 to TB3_915)

- ❖ Beginning at ~175.0' upstream of Manhole A1 (TB3_915) and extending to Manhole A2 (TB3_916) there appears to be a pipe sag. (Corrected 2-16-2016)
- ❖ At ~167.3' upstream from Manhole A1 (TB3_915) the lateral is turned down beyond the easement. (Corrected 2-16-2016)
 - ◆ ~~Correct the deficiencies, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2-16-2016)~~

Line Segment A1 to G2 (TB3_915 to TB3_902) DEFORMED PIPE AT TB3_915

- ❖ Beginning at ~140.1' downstream of Manhole A1 (TB3_915) and extending to Manhole G2 (TB3_902) there appears to be a pipe sag.
- ❖ This line segment needs to be cleaned
 - ◆ Correct the deficiency, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Manhole G2 (TB3_902)

- ❖ Remove top step
 - ◆ Correct the deficiency, Field Verification, and submit records to my attention at DWQ

Line Segment between existing manholes, 658 E. Seventh (CR6_181AA to CR6_181A)

- ❖ ~~At ~82.8' downstream of existing Manhole (CR6_181AA) it appears that the line is occluded with mud/debris and the camera cannot pass. Existing Manhole (CR6_181AA) is a brick manhole.~~
- ❖ ~~This whole line segment needs jetted (cleaned). (Corrected 2-16-2016)~~
 - ◆ ~~Correct the deficiencies, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ (Corrected 2-16-2016)~~

Line Segment between existing manholes, 658 E. Seventh (CR6_181B to CR6_181AA) CR6_181B to CR6_238 HAS JOINT PROBLEMS, FRACTURES AND AN OFFSET JOINT

- ❖ At ~2.4' downstream from existing Manhole (CR6_181B) the rubber coupling has dropped and debris is catching on pipe. Dig-up and remove rubber coupling and install a strong/back coupling to prevent coupling from dropping.
 - ◆ Correct the deficiency, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ

Line Segment L2 to M1 (CR6_212 to CR6_212A) LINE IS CLEAR, NO FURTHER WORK NEEDED (NFWN)

- ❖ Beginning at ~35.6' upstream of Manhole L2 (CR6_212) and extending to ~46.1' there appears to be a pipe sag. (Corrected 2-16-2016)
- ❖ Beginning at ~46.1' upstream of Manhole L2 (CR6_212) and extending to ~49.5' there appears to be a pipe sag. (Corrected 2-16-2016)
- ❖ Beginning at ~65.5' upstream of Manhole L2 (CR6_212) and extending to Manhole M1 (CR6_212A) there appears to be a pipe sag. (Corrected 2-16-2016)
- ❖ ~~There is a large amount of grout in the Flow Channel of this Manhole. (Corrected 2-16-2016)~~
- ❖ ~~This whole line segment needs jetted (cleaned).~~
- ❖ ~~Remove top step~~

- ◆ ~~Correct the deficiencies, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Manhole M1 (CR6_212A)

- ❖ Remove top step
 - ◆ Correct the deficiency, submit Field Verification and the corresponding Test Results to my attention at DWQ

Manhole L3 (CR6_213)

- ❖ A grade ring is off center.
- ❖ ~~The steps are not over the downstream flow channel.~~ (Corrected 2-16-2016)
- ❖ ~~The manhole has a flat top.~~ (Corrected 2-16-2016)
- ❖ This manhole has debris.
 - ◆ Correct the deficiencies, and submit Field Verification and the corresponding Test Results to my attention at DWQ

Line Segment L2 to L3 (CR6_212 to CR6_213) LINE IS CLEAR, NO FURTHER WORK NEEDED (NFWN)

- ❖ ~~Beginning at ~37.2' upstream of Manhole L2 (CR6_212) and extending to Manhole L3 (CR6_213) there appears to be a pipe sag.~~ (Corrected 2-16-2016)
- ❖ ~~At ~37.2' upstream from Manhole L2 (CR6_212) the lateral turns down beyond the easement.~~ (Corrected 2-16-2016)
- ❖ ~~This whole line segment needs jetted (cleaned):~~
 - ◆ ~~Correct the deficiencies, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Line Segment L4 to L3 (CR6_214 to CR6_213) LINE IS CLEAR, NO FURTHER WORK NEEDED (NFWN)

- ❖ ~~Beginning at ~0.00' downstream of Manhole L4 (CR6_214) and extending to ~9.7' there appears to be a pipe sag.~~ (Corrected 2-16-2016)
- ❖ ~~At ~10.0' downstream from Manhole L4 (CR6_214) a pipe gasket is exposed.~~ (Corrected 2-16-2016)
- ❖ ~~Beginning at ~45.7' downstream of Manhole L4 (CR6_214) and extending to Manhole L3 (CR6_213) there appears to be a pipe sag.~~ (Corrected 2-16-2016)
- ❖ ~~This line needs cleaned (debris)~~
 - ◆ ~~Correct the deficiencies, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Line Segment L4 to W1 (CR6_214 to CR6_214A) LINE IS CLEAR, NO FURTHER WORK NEEDED (NFWN)

- ❖ ~~At ~64.1' upstream of Manhole L4 (CR6_214) the lateral turns down beyond the easement.~~ (Corrected 2-16-2016)
- ❖ ~~At ~67.0' upstream of Manhole L4 (CR6_214) the lateral turns down beyond the easement.~~ (Corrected 2-16-2016)
- ❖ ~~This whole line segment is full of debris and needs jetted~~
 - ◆ ~~Correct the deficiencies, re CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Manhole W1 (CR6_214A)

- ❖ Remove top step
 - ◆ Correct the deficiencies, and submit Test Results, Field Verification, to my attention at DWQ

Manhole L5 (CR6_215)

- ❖ Remove the top step
 - ◆ Correct the deficiency, and submit Field Verification and the corresponding Test Results to my attention at DWQ

Line Segment L5 to L4 (CR6_215 to CR6_214) LINE IS CLEAR, NO FURTHER WORK NEEDED (NFWN)

- ❖ At ~12.0' downstream of Manhole L5 (CR6_215) the lateral appears to turn down beyond the easement. (Corrected 2-16-2016)
- ❖ ~~This whole line segment is full of debris and needs jetted (cleaned).~~
 - ◆ ~~Correct the deficiencies, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Manhole L6 (CR6_216)

- ❖ ~~This manhole has infiltration stains near the casting.~~
 - ◆ ~~Correct the deficiency, re-vacuum test the Manhole, re-CCTV and submit Field Verification and the corresponding Test Results to my attention at DWQ (Corrected 2-16-2016)~~

Line Segment L6 to L7 (CR6_216 to CR6_217) LINE IS CLEAR, NO FURTHER WORK NEEDED (NFWN)

- ❖ ~~Beginning at ~54.6' upstream of Manhole L6 (CR6_216) and extending to ~59.5' there appears to be a pipe sag. (Corrected 2-16-2016)~~
- ❖ ~~Beginning at ~95.6' upstream of Manhole L6 (CR6_216) and extending to ~101.5' there appears to be a pipe sag. (Corrected 2-16-2016)~~
- ❖ ~~This whole line segment is full of debris and needs jetted (cleaned).~~
 - ◆ ~~Correct the deficiencies, re-test the Line Segment, re-CCTV, and submit Test Results, Field Verification, and CCTV records to my attention at DWQ~~

Manhole L7 (CR6_217)

- ❖ Remove top step
 - ◆ Correct the deficiencies, submit Test Results, Field Verification, and records to my attention at DWQ